



**SABEA HOLLOWCORE W.L.L**

# **PRE-QUALIFICATION DOCUMENT**

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)  
[www.aac.com.qa](http://www.aac.com.qa)

# CONTENTS

<b>1</b>	COMPANY PROFILE
<b>2</b>	ORGANIZATION CHART
<b>3</b>	CV OF KEY PERSONNEL
<b>4</b>	LEGAL DOCUMENTS
<b>5</b>	ISO CERTIFICATES
<b>6</b>	EQUIPMENT CALIBRATION CERTIFICATES
<b>7</b>	COMPANY QUALITY PLAN & QC PROCEDURES
<b>8</b>	PRODUCT LIST & CATALOGUE
<b>9</b>	PREVIOUS APPROVALS
<b>10</b>	SUMMARY OF CURRENT & RECENT PROJECTS
<b>11</b>	COMPANY HEALTH & SAFETY MANUALS



**SABEA HOLLOWCORE W.L.L**

# **1. COMPANY PROFILE**

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)  
[www.aac.com.qa](http://www.aac.com.qa)





SABEA HOLLOW CORE AND PRECAST



## Table of Contents

<b>Sabea Overview</b>	<b>3</b>
<b>Chairman's Message</b>	<b>4</b>
<b>President's Message</b>	<b>4</b>
<b>General Manager Message</b>	<b>5</b>
<b>Sabea Organization Chart</b>	<b>6</b>
<b>About Sabea</b>	<b>7</b>
<b>Vision, Mission &amp; Values</b>	<b>8</b>
<b>Sabea Hollow core &amp; Precast</b>	<b>9</b>
<b>Health and Safety at Concrete Industries Complex</b>	<b>10</b>
<b>Reserch and Development at Sabea</b>	<b>11</b>
<b>Get to know Us</b>	<b>12</b>
<b>Why use Precast Concrete</b>	<b>13</b>
<b>Other advantages include</b>	<b>14</b>
<b>Factory and Machinery</b>	<b>15</b>
<b>Range of Products</b>	<b>16</b>

## Sabea Overview

SABEA is a leading company based in Qatar, specializing in the design, manufacturing, and installation of precast concrete products. Since our establishment in 2015, we have been dedicated to delivering exceptional solutions to our clients.

Located in the heart of Qatar's Industrial Area, we have strategically positioned ourselves to serve the construction industry with high-quality precast concrete products. With a robust production capacity of approximately 5000 m3 per month, we have the capability to meet the demands of both small and large-scale projects.

At SABEA, we take pride in our commitment to excellence. Our team of skilled professionals brings expertise and craftsmanship to every project, ensuring precision and durability in our products. From custom designs to standardized solutions, we offer a wide range of precast concrete products to meet the diverse needs of our clients.

We understand the importance of timely project completion, and our streamlined manufacturing processes enable us to deliver products on schedule without compromising on quality. Our dedication to efficiency and innovation has earned us a reputation for reliability and customer satisfaction.

As a responsible company, we prioritize sustainable practices and adhere to strict quality and safety standards. We strive to minimize our environmental impact and contribute to the development of sustainable infrastructure in Qatar and beyond.

Our team is comprised of highly skilled professionals who bring their expertise, passion, and creativity to every project. We leverage the latest technologies and industry best practices to deliver superior results that drive success for our clients. Where we tailor our approach to meet the unique needs of each client, ensuring optimal outcomes.

## Chairman's Message

The skill, talent and commitment of our team has been a crucial factor in our success and growth. Our employees are our most important assets and we continuously invest in their professional growth. Work-related training is ongoing and we award educational scholarships to high performers. The professional needs and personal welfare of our employees are important to us. By maximizing both, we are able to meet and exceed the expectations of our clients. A happy employee leads to a happy customer leads to repeat business.

SABEA has among the lowest staff turnover ratios in the industry, and over 50% of our business is from clients who have worked with us in the past. We also recognize our responsibility to the community and the country that has given so much to us. We have grown with the DOHA, QATAR and are grateful for the opportunities that have come our way. The leadership of His Highness Sheikh Tamim Bin Hamad Al Thani, Amir of QATAR, is an inspiration for all of us. He has taught us that anything is possible if one is ready to work hard and work smart. I hope that SABEA's successful journey will be the spark that ignites the imagination of young entrepreneurs in DOHA, QATAR. A great city and a great country are being built. Seize the moment and the opportunity, and excel in whatever you choose to do.

**Mohammed Rashid Al Maadeed**

Chairman

## President Message

As Qatar entered the new millennium, it set its ambitions higher. In the space of a decade, the country was transformed, from a regional trading to a major global business and leisure hub. The construction boom from 2010 onwards has created a country that has caught the imagination of the world. It is in this period that we also changed as a company. The country created opportunities that eventually gave us scale; the country's ambition to be nothing less than world-class pushed us to stay focused on quality; an open and welcoming market meant that we acquired the skills and knowhow to compete with the world's best.

We are now one of the few construction companies in the region that can offer complete contracting solutions. Through our subsidiaries, we have the full range of construction capabilities. This gives us unparalleled control on our destiny and allows us to deliver the highest standards of quality and service to our clients. We place the highest emphasis on health, safety and environment (HSE) and this is reflected in the accreditations we have and our HSE track record, which are second to none. I attribute our overall success to three factors - firstly the support provided by our shareholders; secondly SABEA's ethical and quality-orientated dealings with clients and suppliers and thirdly, the exemplary dedication and efforts put in by our truly professional and committed workforce.

**Abdullah Al Maadeed**

President



## General Manager Message

As an institution built from the ground up, it is always my firm belief that we maintain exemplary partnership with our clientele because of three specific points. First, is that we keep our integrity intact. We do as we say without over promising and we deliver results in a highly specialized manner that is tailor-fit for each of our customers. Second, is that we never settle for mediocrity, we are always on the quest for innovations suited to our brand in which we believe is how we manage to stay as one of the top Concrete Solutions companies in the DOHA, QATAR. Lastly, we strive to keep a standard. We invest in yielding quality output in which every customer deserves to have.

We have been utilizing and leveraging solid business strategies to provide QATAR with safe, environmentally sustainable and high-quality concrete solutions that help shape the country's construction landscape.

We will continue to keep up our commitment to providing high quality concrete solutions as well as collaborating with key industry partners in shaping the nation for the years to come.

**Mohammad Daoudi**

General Manager



## About Sabea

With years of experience in providing "Total Concrete Solutions" we have become one of the top players in this field. With the help of well thought-through strategies for projects, and in order to provide even more solutions for a future worth living for people, enterprises, cities and regions, SABEA is now a complex of 3 concrete product manufacturers, namely Sabea Ready Mix, Sabea Hollowcore & Precast Panels and Sabea Block, each of which is specialized in manufacturing a specific set of specialized concrete products. SABEA is also a proud affiliate of AL Ali Engineering for Contracting WLL.

The concentration and coordination of these strengths, competences and know-how have one ultimate goal, which is to offer client benefit. It proves to be an integral part of our company's philosophy and motivation. Projects in Qatar, in all their multifaceted Ness, always take center stage and SABEA serves as an all-in-one solution for all concrete needs of the country.



# Vision, Mission & Values

## Vision

At SABEA, we aim to be the most value-creating, most specialized and advanced Total Concrete Solutions provider in QATAR with an emphasis on exceptional quality control, up-to-date technology and practices, and most importantly integrity in all aspects of the project, whilst keeping the interest of our employees and clients at heart.

## Mission

To be the leader in the market by efficiently and effectively providing a full range of the highest quality concrete products, services and solutions at competitive prices focusing on our clients' needs and continuously enhancing our products and services through safe, sustainable and innovative manufacturing practices.





# Sabea Hollow core & Precast

## People

Through supportive, approachable leaders and colleagues, our employees' well-being has always been prioritized. This includes but not limited to maintaining a safe and secure workplace for all employees. At SABEA, we all share the same principles and have the willingness and ability to embrace the SABEA values.

## Dependability

We make sure to always live up to our word and fulfilling our commitments and promises to our clients. When a project is completed, we want to be remembered as a trusted partner that delivered the promised results.

## Customer Happiness

At SABEA we aim to always achieve Customer Happiness by performing consistently and delivering value-added services to our customers with the highest level of quality. We strive to not only meet our commitments and client expectations but to exceed them on every level and deliver exceptional value.

## Health & Safety

We are committed to protecting the safety and health of our employees, our partners, our clients and the people of the communities in which we operate.

## Quality

With efficient logistics and engineering power we guarantee on-schedule, top-quality and world class benchmarkable executions of your projects.

## Integrity

We conduct our business in accordance with the highest standards of professional behavior and ethics as well as demonstrate a culture of transparency and honesty.

## Innovation

At SABEA, we put forward solutions to identify, develop and deploy leading edge technology, employee development programs and process improvement tools.

## Environmental Stewardship

We strive to instill environmental awareness into our work culture as well as strive to provide solutions and offer products that are not harmful to the environment and preserve the earth's natural resources both for today and for generations to come.

## Health and Safety at Concrete Industries Complex

When it comes to the construction industry, safety is a critical part of the everyday work environment. At SABEA we need to stay attentive at all times, and we are always dedicated to providing the means to help establish a strong safety culture and maintain a safe work environment. The HSE Department at SABEA, strategically placed under SABEA Technical, focuses on developing and implementing progressive health and safety standards that will control risk, prevent accidents and ensure safety for all in the construction process.



## Research and Development at Sabea

With innovation and progress at heart, SABEA possesses an ultramodern R&D department that is responsible for the development of innovative concrete products and methods whilst continuously improving existing ones according to internationally approved standards as well as the requirements of the construction industry. Furthermore, SABEA is active in sharing views and exchanging technological know-how with their clients and suppliers. Before SABEA products reach the market, they are subjected to continuous, comprehensive and meticulous controls made by the company's Quality Control Department in order to guarantee their accordance to the ISO 9001.





## Get to Know Us

Sabea Hollowcore & Precast Panels is one of the leading precast concrete companies in the QATAR, where we deliver "Total Precast Solutions" from design & value engineering to manufacture, logistics and installation of precast cement products.

Established in 2015, Sabea Hollowcore & Precast Panels pioneered the market with high quality precast elements such as: Insulated Sandwich Walls (load & non-load bearing), Solid/ Internal Walls (load & non-load bearing), Cladding Walls (exposed aggregates, grey and pigmented finishes), Pre-stressed Hollow Core Slabs covering spans up to 20m, Precast & Pre-stressed Beams & Columns, Boundary Walls & Footings, GRC, etc.





## Why use Precast Concrete?

There are numerous reasons as to why Precast Concrete is beneficial. They are strong, efficient and easy to install. Used for thousands of years, precast concrete has stood the test of time while evolving to become even more versatile. Some advantages are:

- Durability - Studies have shown that precast concrete can provide a service life of more than 100 years, reducing maintenance and operating costs.
- Safety - Precast concrete is non-combustible with built-in fire-resistant capability. It creates a safe envelope that helps protect people, equipment and the building itself.
- Easy Installation - Precast concrete products save time-they arrive at your job site ready to install.
- Quality – Sabea's Precast concrete is produced in an environment that is under stringent quality control.



## Other advantages include:

- Off-site manufacturing means stricter quality and safety control, therefore resulting in better quality and more durable products
- Faster construction time
- Less formwork, site clutter, propping and temporary works, which in turn leads to better site management, lower costs and increased safety
- Long spans especially for prestressed beams.
- High loading capacity
- Less weather dependency
- Can be entirely environment friendly





## Factory and Machinery

Located in Doha, spanning over 100,000 sq.ft., the ultramodern production facility utilizes the most advanced precast manufacturing technology in partnership with various European brands such as Elematic (Finland), Imer (Italy) and ABUS (Germany), with a capacity to execute approx. 1200 m<sup>2</sup> of Hollow Core Slabs and 200 m<sup>3</sup> of precast elements per day.

Sabea owns a modern fleet of more than 30 trucks and 15 mobile and static cranes allow **it** to erect, transport precast concrete parts on time to their operation areas. **All** fleet and machinery at Sabea are renowned for highest of quality, advanced technology and reliability. With the help of stringent quality control, Sabea ensures that all machinery and fleet are up to date with the current market.



## Range of Products

With its technical know-how, high standards of product quality Sabea is one of QATAR's leading manufacturers of precast products:

Columns and Beams

Wall Panels

Staircases

Hollow Core Slabs

Boundary Walls

## Why Us

Sabea management is committed to providing the highest quality of products and service to its clients. The company has invested in the most advanced in-house testing and quality control facility and quality assurance technologies staffed by highly trained employees who genuinely care about every single block they produce. Sabea's products are approved by Many Projects among Qatar, relevant to Public Work Department, Kahrama, Qatar Armed Force, The Privet Engineering Office, and many other clients and international consultants in the region.





# 2. ORGANIZATION CHART

---

**SABEA HOLLOWCORE W.L.L.,**

**For Concrete Panels and Hollow core**

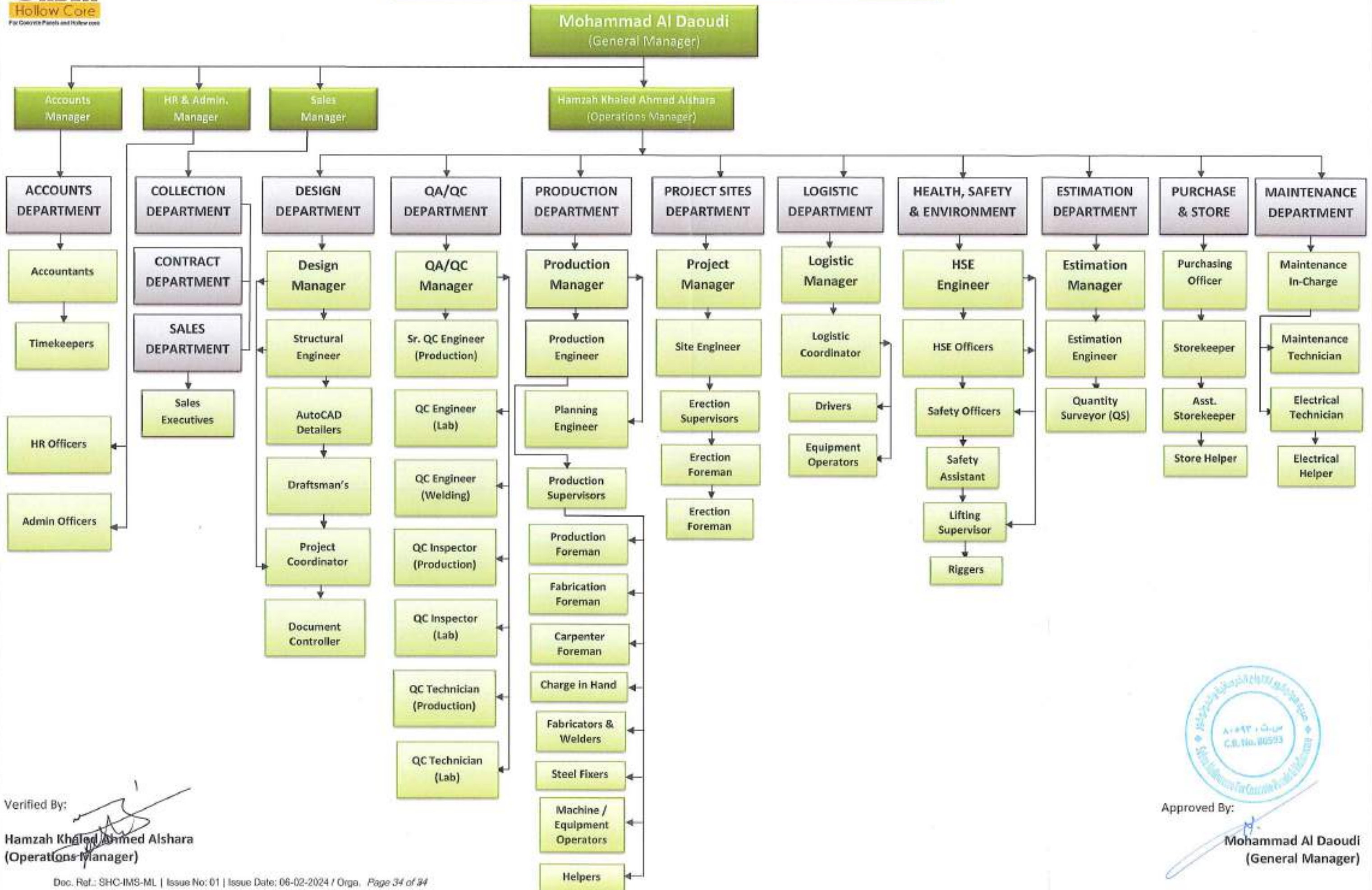
Landline: +974 44922452

Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)

[www.aac.com.qa](http://www.aac.com.qa)



## ORGANIZATION CHART



Verified By:

**Hamzah Khaled Ahmed Alshara**  
(Operations Manager)



Approved By:


**Mohammad Al Daoudi**  
(General Manager)

# 3. CV OF KEY PERSONS

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)  
[www.aac.com.qa](http://www.aac.com.qa)

	DOCUMENT REFERENCE:	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	<b>CV OF KEY PERSONNEL</b>

Name of Personnel : Hamzah Khaled Ahmed Alshara  
 Present Position : Factory Manager  
 Education : Master of Business Administration / Civil Engineering  
 Years of Experience : 13 Years


### Job References and Experiences

Sept, 2018 - Present : Factory Manager, Sabea Hollowcore and Precast (Qatar).  
 July, 2015 - Sept, 2018 : Production Engineer, Sabea Hollowcore and Precast (Qatar).  
 May, 2014 – July, 2015 : Production Engineer, Khalid Cement Industrial Complex (Qatar).  
 July, 2012 – May, 2014 : Technical Precast Engineer, Acteco General Contracting (UAE).  
 Jan, 2012 – June, 2012 : Structural Engineer, Asas Engineering Bureau (Jordan).

### Key Qualifications & Responsibilities:

- Oversee the daily operations of the precast concrete plant to ensure production efficiency and quality.
- Develop and implement operational strategies, plans, and procedures to meet production targets.
- Monitor and optimize production processes, equipment utilization, and resource allocation.
- Ensure all products meet or exceed established quality standards and customer specifications.
- Implement and maintain rigorous quality control systems and procedures.
- Conduct regular inspections and audits to identify and rectify any quality issues.
- Lead, mentor, and develop the operations team, including hiring, training, and performance management.
- Foster a culture of teamwork, accountability, and continuous improvement.
- Ensure compliance with all safety policies and procedures, promoting a safe working environment.
- Identify opportunities for process enhancements and implement best practices to improve operational efficiency.
- Apply lean manufacturing principles and continuous improvement techniques to streamline operations and reduce waste.
- Stay abreast of industry trends and advancements in precast concrete technology to maintain a competitive edge.
- Prepare and manage operational budgets, ensuring cost-effective utilization of resources.
- Analyze financial performance and implement strategies to improve profitability.
- Conduct cost-benefit analyses and make data-driven decisions to optimize operations.
- Collaborate with project managers, engineers, and other stakeholders to ensure seamless project execution.
- Coordinate production schedules and manage logistics to meet project timelines and client requirements.
- Communicate project status, challenges, and solutions to relevant stakeholders.
- Ensure compliance with all relevant health, safety, and environmental regulations.
- Develop and enforce safety protocols and procedures to minimize risks and prevent accidents.
- Conduct regular safety training and drills for the operations team.
- Maintain strong relationships with clients, addressing any concerns or issues promptly and professionally.
- Ensure customer satisfaction with product quality, delivery schedules, and overall service.
- Gather and analyze customer feedback to identify areas for improvement.



	DOCUMENT REFERENCE:	SABEA HOLLOWCORE W.L.L P.O. Box 82614, Doha,Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	

## PREQUALIFICATION DOCUMENTS


### CV OF KEY PERSONNEL

#### Professional Qualifications & Certifications:

- Master of Business Administration (MBA) – Finance Majority, University of Leicester, Leicester, United Kingdom 2017 – 2020.
- Bachelor degree in Civil Engineering, Jordan University of Science and Technology (JUST), Irbid, Jordan 2007 - 2012.
- General secondary school certificate, ministry of education, Jordan 2006-2007.
- Management and Quality Control Personnel Certification – PCI, Precast/ Prestressed Concrete Institute, USA.
  1. Certified PCI - Level I (PCI School, Las Vegas/ Nevada, USA) Certification No: 14626
  2. Certified PCI – Level II (PCI School, Las Vegas/ Nevada, USA) Certification No: 14627
  3. Certified PCI – Level III (PCI School, Chicago /Illinois, USA) Certification No: 15852
- Concrete Field-testing Technician – ACI - Grade I. (ACTS with American Concrete Institute supervision, at Doha, Qatar, 2019).
- Bridge Analysis and Design. (The Consultative Center for Science & Technology, at Jordan University of Science and Technology - 18 Training Hours).

#### Contact Details:

- Mobile: +974-30302723
- Email: hshara@aae.com.qa

	DOCUMENT REFERENCE:	SABEA HOLLOWCORE W.L.L P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	

## PREQUALIFICATION DOCUMENTS

### CV OF KEY PERSONNEL

Name of Personnel : Eslam Said Serour Ahmed  
 Present Position : Credit Control Manager  
 Education : Bachelor degree of Commerce and Accounting  
 Years of Experience : 13 Years

#### Job References and Experiences

May, 2015 - Present : Credit Control Manager , Ali Engineering - Sabea Hollowcore and Precast (Qatar).  
 April, 2013 – April, 2015 : Credit Controller , Khalid Cement (Qatar).  
 Nov, 2012- Mar, 2013 : Collection and Credit Supervisor , Al- Ghanim Industries ( Kuwait)  
 Nov, 2011- Sep, 2012 : Accountant , Middle East Electrical Engineering Systems ( Egypt)

#### Key Qualifications & Responsibilities:


- Managing a turnover of 360 million per year.
- Checking customer's credit ratings with banks.
- Deciding whether or not to offer the credit.
- Setting up the terms and conditions of the loan.
- Dealing with internal queries about payments.
- Ensuring customers pay on time.
- Negotiating re-payment plans.
- Prepare aging report for the management.
- Reconciliation with customers.
- Checking the delivered invoices.
- Generate statement of account.
- Developing the relation with all financial managers.

#### Professional Qualifications & Certifications:

- Bachelor degree of Commerce and Accounting

#### Contact Details:

- Mobile: +974-30187693
- Email: eslam7788@gmail.com

	DOCUMENT REFERENCE:	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha,Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	<b>CV OF KEY PERSONNEL</b>

Name of Personnel : Vinayan V Puthukkudy  
 Present Position : QA/QC Manager  
 Education : MSc in Advanced Concrete Technology with distinction from Queen's University Belfast (QUB) 2015.  
 Years of Experience : 20 Years

#### Job References and Experiences

July, 2012 - Present : Sabea Hollowcore and Precast / Sabea Ready-mix (Qatar).  
 May, 2010 - May, 2012 : Al seal Ready-mix Doha, ( Qatar).  
 May, 2009 - May , 2010 : Al Jasra Ready-mix Doha, ( Qatar).  
 Dec,2007 – April, 2009 : Strength Ready-mix, Ajman (UAE) .  
 2004 – 2007 : Shanfari Ready-mix & Crushers LLC. Oman (2004-2007).

#### Key Qualifications & Responsibilities:

- Over all control of technical and R & D department of ready-mix, Hollow core & precast, factories.
- Mix -design and cost optimization of high-performance concrete mixes; both in situ-and precast.
- Work in close co-ordination with consultants and contractors to suggest and develop alternative solutions which are sustainable as well as cost effective.
- Raw material sourcing and approval based on their performance and cost effectiveness.


#### Professional Qualifications & Certifications:

- MSc in Advanced Concrete Technology with distinction from Queen's University Belfast (QUB) 2015.

#### Contact Details:

- Mobile: +974-33011710
- Email: vinay@aae.com.qa



	DOCUMENT REFERENCE:	SABEA HOLLOWCORE W.L.L P.O. Box 82614, Doha,Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	

## PREQUALIFICATION DOCUMENTS

### CV OF KEY PERSONNEL

Name of Personnel : Mohammad Kharabshesh  
 Present Position : Chief Accountant  
 Education : Bsc in Accounting Information System  
 Years of Experience : 11 Years

#### Job References and Experiences

Jan, 2014 - Present : Chief Accountant, Sabea Hollowcore and Precast (Qatar).

Mar, 2013 - Nov 2013 : Junior Auditor, Future Office and Accounting (Jordan).

#### Key Qualifications & Responsibilities:


- Ensure accuracy of balance sheet and income statement by managing timely period end closing.
- Support in preparation of management accounting reporting cash flow, profit & loss statement and breakeven point.
- Ensure a well-documented bridge between accounting records in ERP system and statutory reporting.
- Secure local records retention and timely archiving of accounting documents in line with legislation.
- Support in preparation of IFRS reporting and related bridge between statutory reporting.
- Support in information preparation for board of directors.

#### Professional Qualifications & Certifications:

- Bsc in Accounting Information System.

#### Contact Details:

- Mobile: +974-33374429
- Email: Mohad.kh.mk@gmail.com

	DOCUMENT REFERENCE:	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	<b>CV OF KEY PERSONNEL</b>

Name of Personnel : **Shirajudheen P K**  
 Present Position : Sales Executive  
 Education : Currently Pursuing Masters of Business Administration (MBA)  
 Years of Experience : 06 Years

#### Job References and Experiences

Oct 2023 – present : **Sales Executive, SABEA HOLLOWCORE W.L.L**  
 Nov 2019 – Oct 2023 : Sales Executive, SMEET Precast W.L.L - Qatar  
 Oct 2018 – Nov 2019 : Procurement Coordinator, Al Alia Trading & Contracting L.L.C - Qatar  
 Apr 2017 – Jun 2018 : Marketing Executive, Platinum Act Pvt. Ltd. - India

#### Key Qualifications & Responsibilities:

- Proactively responding to RFQs received from clients, promptly acknowledging their inquiries, and providing timely and accurate information.
- Developing and executing sales plans with a strong emphasis on understanding and catering to customer needs, ensuring that our precast products align precisely with their requirements.
- Prioritizing personalized interactions with potential customers through various channels, including cold calling, networking, and referrals, to better understand their specific needs and expectations.
- Conducting in-depth market research to identify evolving industry trends, potential business opportunities, and to stay ahead of competitors.
- Nurturing and fostering enduring relationships with our valued clients, regularly seeking feedback, and addressing any concerns to ensure their satisfaction throughout the project lifecycle.
- Presenting and demonstrating our precast products with a customer-centric approach, effectively highlighting their features, benefits, and unique value propositions to address individual client requirements.
- Collaborating seamlessly with the design and engineering teams to develop tailor-made precast solutions or Value Engineering, fully aligned with client specifications.
- Working closely with internal teams, including production, engineering, and project management, to streamline delivery processes and ensure customer satisfaction.
- Crafting comprehensive and well-structured sales proposals, skilfully negotiating terms and conditions, and closing sales deals promptly to provide our clients with a seamless experience.
- Providing regular and transparent reports and updates on sales activities, pipeline progress, and adherence to targets to both the General Manager and Operations Manager to facilitate informed decision-making.
- Actively participating in industry conferences, trade shows, and events to continuously expand product knowledge and develop a robust professional network, ultimately benefiting our clients.
- Staying vigilant about industry developments, competitor activities, and market trends to proactively identify potential risks and opportunities for our clients, while adapting our approach accordingly.
- Ensuring strict compliance with contractual obligations, including regular reviews and necessary revisions to existing contracts, to maintain the highest level of integrity and transparency in our business dealings.

#### Professional Qualifications & Certifications:


Master of Business Administration (MBA) - Liverpool Business School  
 Bachelor Of Commerce (BCOM) – University Of Calicut

#### Certificates:

- Anti-Money Laundering, Counter Terrorism Financing and Know Your Counterparty (AML, CTF and KYC) Training
- Global Master Certificate in Integrated Supply Chain Management - Michigan State University
- Post Graduate Certificate in Product Management - Duke Corporate Education

#### Contact Details:

- Mobile: +974 5204 9328
- Email: shirajudheen@aae.com.qa

	<b>DOCUMENT REFERENCE:</b>  <b>PREQUALIFICATION DOCUMENTS</b>	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	<b>DOCUMENT TITLE :</b>  <b>CV OF KEY PERSONNEL</b>	

Name of Personnel : MOHAMMED SHABEER ARAYANGOTTIL

Present Position : STRUCTURAL ENGINEER

Education : MASTER OF TECHNOLOGY (Struct Engg)

Years of Experience :14 Years

#### Job References and Experiences

August 2015 to Present : Structural Engineer, **SABEA Hollowcore**

April 2010 to July 2015 : Structural Engineer, **Khalid Cement Industries Complex**

#### Key Qualifications & Responsibilities:

- Study the client architectural and structural drawings to form precast scheme.
- Prepare and submit the precast structures analysis and design calculation reports to consultant or client to obtain the approval complying the Architectural requirements.
- Manage, supervise and coordinate all design activities in the Design department.
- Co-ordinate with the factory manager for the sequence and issuing of drawings during the progress of production.
- Interact with consultants and main contractor for structural related issues
- Attending progress review meeting with Client, Consultant, Main Contractor and Sub-contractors.
- Identify and resolve structural related problems at construction sites
- Prepare structural engineering plans and specifications, sketches, and other supporting data for new projects.
- Checking the Structural drawings for submission to client for approval.
- Checking Mould and reinforcement drawings prior to issue for fabrication to factory.


#### Professional Qualifications & Certifications:

- Bachelor of Engineering-Civil
- Certified STAAD Pro professional

#### Contact Details:

- Mobile: +974-33919780
- Email: mshabeer@aae.com.qa



	DOCUMENT REFERENCE:	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha,Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	<b>PREQUALIFICATION DOCUMENTS</b>  <b>CV OF KEY PERSONNEL</b>

Name of Personnel : Khaled Nael Hamed  
 Present Position : Project Co-ordinator  
 Education : Chemical Engineering  
 Years of Experience : 15 Years

#### Job References and Experiences

October, 2019 - Present : Project Co-ordinator, Sabea Hollow core and Precast (Qatar).  
 October, 2016 – October, 2019 : Production Manager, Siporex Factory (Qatar).  
 July, 2009 – August, 2016 : Shift Engineer, Khlouse for galvanizing and coating steel (Jordan).

#### Key Qualifications & Responsibilities:


- Supervise subcontractors.
- Co-Ordinate Logistics with the main contractor for Deliveries.
- Liaises with other trades site managers and external staff.
- Ensure that all work is completed to the spec of the drawing provided and to a high standard.
- Liasing with Construction and Project Management, Quantity Surveyor and other required personnel with up to date site progress.
- Ensure deadlines are met.

#### Professional Qualifications & Certifications:

- (2003-2008) Jordan University of Science & Technology (**JUST**), Faculty of Engineering, B.Sc. Degree **Major of Chemical Engineering** -High School- Scientific Stream.

#### Contact Details:

- Mobile: +974-3129 3222
- Email: [shc\\_coordinator@aae.com.qa](mailto:shc_coordinator@aae.com.qa)

	<b>DOCUMENT REFERENCE:</b>  <b>PREQUALIFICATION DOCUMENTS</b>	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	<b>DOCUMENT TITLE :</b>  <b>CV OF KEY PERSONNEL</b>	

Name of Personnel : Mohannad Abdullah Diabat  
Present Position : Production Engineer  
Education : Civil Engineering  
Years of Experience : 5 Years

#### Job References and Experiences

November, 2020 - Present : Production Engineer, Sabea Hollow core and Precast (Qatar).  
April, 2019 – October, 2020 : Site Engineer, Bin Ojan Group for trading and contracting (Qatar).

#### Key Qualifications & Responsibilities:


- Planning production and delivery schedules, material ordering, manpower and machinery arrangement.
- Raising purchase requisition for production material requirements and ensuring that materials are properly stored in the factory.
- Carrying out trial mixes, maintaining and updating design mixes.
- Managing the teams of supervisors, Foremen and workers in order to ensure production progress and the delivery of precast elements.
- Coordinating between Planning team, Quality Control team, technical team and Material Procurement to ensure smooth production.
- Management and coordination of pre-production and production activities including planning, scheduling, testing and QA/QC to achieve targeted production elements.
- Providing technical support to production team including providing technical proposals and solutions.
- Providing in-process and final product inspections to ensure compliance to requirements and specifications.

#### Professional Qualifications & Certifications:

- UPDA / MMUP certificate in Qatar.

#### Contact Details:

- Mobile: +974 66136225
- Email: mdiabat@aae.com.qa

	DOCUMENT REFERENCE:	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	DOCUMENT TITLE :	<b>CV OF KEY PERSONNEL</b>

Name of Personnel : JOSEPHKUTTY PY  
 Present Position : PRODUCTION ENGINEER  
 Education : BACHELOR OF CIVIL ENGINEERING  
 Years of Experience : 11

#### **Job References and Experiences**

**September 2018 - Present : Production engineer, Sabea Hollow core and precast (QATAR)**

**September 2017 – August 2018 : Production engineer, Concrete technology (UAE)**

**June 2013 – June 2017 : Production engineer, AL Rashid abetong (KSA)**

#### **Key Qualifications & Responsibilities:**

Supervising the production process in the precast plant, including the mixing, casting, curing, and finishing of concrete products.

Ensuring efficient use of resources, including labour, materials, and equipment, to optimize production

Coordinating with project managers, construction teams, and suppliers to ensure smooth project execution and delivery of precast components.

Communicating effectively with stakeholders to address any issues or changes in project requirements.

Providing technical support and guidance to production staff on concrete mix designs, mold preparation, and curing processes

Maintaining accurate records of production activities, quality control checks, and inventory levels.


Preparing and presenting reports on production performance, quality metrics, and project Progress to management.

#### **Professional Qualifications & Certifications:**

**Bachelor of Civil Engineering from St. Peters College of engineering  
From 2008 - 2012**

#### **Contact Details:**

- Mobile: +97450628333
- Email: pyjosephkutty13@gmail.com

	<b>DOCUMENT REFERENCE:</b>  <b>PREQUALIFICATION DOCUMENTS</b>	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	<b>DOCUMENT TITLE :</b>  <b>CV OF KEY PERSONNEL</b>	

Name of Personnel : Faras P.P  
Present Position : QC Engineer  
Education : B-tech Civil Engineering  
Years of Experience : 10 Years

#### **Job References and Experiences**

Jan, 2019 - Present : Qc Engineer, Sabea Hollow core and Precast (Qatar).  
July, 2013 – Aug, 2017 : Qc Engineer, Al Rashid Abe tong Pvt ltd (KSA).

#### **Key Qualifications & Responsibilities:**

- Develop, implement, and maintain quality control plans and procedures.
- Establish and enforce quality standards and specifications for raw materials, processes, and finished products.
- Conduct regular inspections of reinforcement, production processes, and finished products to ensure compliance with quality standards.
- Maintain accurate records of inspections, tests, and quality control activities.
- Prepare detailed reports on quality performance, highlighting any issues and recommending corrective actions.
- Work closely with production, design, and engineering teams to address quality issues and implement improvements.
- Liaise with suppliers and contractors to ensure the quality of incoming materials and services.
- Prepare Submittal Document like Material Submittal, Method Statement & Pre-qualification for submitting clients or main contractors.


#### **Professional Qualifications & Certifications:**

**Bachelor of Technology in Civil engineering - 2008 to 2012**

#### **Contact Details:**

- Mobile: +974 30681078
- Email: shc-qc@aae.com.qa



	<b>DOCUMENT REFERENCE:</b>  <b>PREQUALIFICATION DOCUMENTS</b>	<b>SABEA HOLLOWCORE W.L.L</b> P.O. Box 82614, Doha, Qatar T: (+974) 4492 2452 F: (+974) 4443 8576 E: sales@aae.com.qa
	<b>DOCUMENT TITLE :</b>  <b>CV OF KEY PERSONNEL</b>	

Name of Personnel : JITH MOHANAN

Present Position : Precast Detailer

Education : Diploma in Draughts man form Nation Council of Vocational Training

Years of Experience : 17 years' experience in precast drawing and coordination.


### Job References and Experiences

- Precast drawings and coordination
- Coordination with Production team and Site team
- Rebar detailing and Preparing Bar bending schedule.

February 2021 - Present	:	Precast Detailer, Sabea Hollowcore and precast (Qatar)
March 2016 – January 2021	:	Design Supervisor, United Precast concrete (Qatar)
October 2014 – January 2016	:	Design Detailer, Eastern pretech Sdn Bhd (NSL Group Malaysia)
September 2012 – October 2014	:	Design Detailer, Redx Industries (Bahrain)
November 2006 – July 2012	:	Draughtsman, Khalid Cement Industries Complex (Qatar)

### Key Qualifications & Responsibilities:

- Preparing all kind of reinforcement detailed drawings and bar bending schedule for the projects (Using International standards codes according to structural design)
- Preparing design presentations, working drawings of full precast building system such as basic and shop drawings (Architectural, Structural), specification preparation and submission for client's approval.
- In corporate all the comments from the clients as well as municipality regulations
- Preparing detailed shop drawings of individual elements for approval and production.
- Issuing all production and erection drawings as per production and erection schedule.
- Coordinate with all department (project management, production and erection) to address any issue relate to drawings approval/production.
- Reporting to operation manager and structural engineers.
- Maintain drawing schedule for all ongoing projects and as built drawings.
- Maintaining the records as per the ISO regulations.

	<p>DOCUMENT REFERENCE:</p> <p><b>PREQUALIFICATION DOCUMENTS</b></p>	<p><b>SABEA HOLLOWCORE W.L.L</b>  P.O. Box 82614, Doha, Qatar  T: (+974) 4492 2452  F: (+974) 4443 8576  E: sales@aae.com.qa</p>
	<p>DOCUMENT TITLE :</p> <p><b>CV OF KEY PERSONNEL</b></p>	

### **Professional Qualifications & Certifications:**

Diploma in Civil Draughtsman from National Council of Vocational Training.  
From 2000-2002

### **Contact Details:**

- Mobile: +974 33825529
- Email: pjith@aae.com.qa

# 4. LEGAL DOCUMENTS

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)  
[www.sae.com.qa](http://www.sae.com.qa)



2022/01/30

No 1 of 1

تاريخ الطباعة:

صفحة رقم:



وزارة التجارة والصناعة  
Ministry of Commerce and Industry

Registration and Commercial  
Licenses Department

إدارة التسجيل  
والتراخيص التجارية

## رخصة تجارية



رقم الرخصة: 148605  
الأسم التجاري: صيه هولوكور للالواح الخرسانية والهولوكور  
نوع المنشأة التجارية: شركة  
السمة التجارية: صيه هولوكور للالواح الخرسانية والهولوكور  
تاريخ اصدار الرخصة: 2018/02/28  
تاريخ انتهاء الرخصة: 2025/02/21  
رقم السجل التجاري: 80593

### بيانات المدير المسؤول :

اسم المدير المسؤول: محمد فتحي الداوودي  
رقم الإثبات: 26740000008

جنسية المدير المسؤول: الاردن

### نموذج ختم المنشأة التجارية :

تصنيف الموقع: تجاري  
نوع الموقع: مكتب تجاري  
المنطقة: 18 اسلطة  
الشارع: جبر بن محمد  
رقم الشارع: 109  
عقار رقم: 13  
رقم الدور/ الوحدة: على راشد حجب العلي المعاضيد  
اسم مالك العقار: دائمة  
نوع الرخصة: وصف العنوان :

### الأنشطة التجارية :

رقم النشاط	إسم النشاط	رقم النشاط	إسم النشاط
4752811	التجارة في الخرسانة الجاهزة		





وزارة التجارة والصناعة  
Ministry of Commerce and Industry

Registration and Commercial  
Licenses Department

إدارة التسجيل  
والتراخيص التجارية

مستخرج بعض بيانات السجل التجاري

تاريخ الطباعة: 2021/02/03



رقم السجل التجاري:	80593	رقم التسجيل الضريبي:	5000203570
الأسم التجاري:	صيه هولوكور للالواح الخرسانية والهولوكور	السمة التجارية:	صيه هولوكور للالواح الخرسانية والهولوكور
تاريخ انشاء السجل:	23/02/2016	تاريخ انتهاء السجل:	20/02/2025
الشكل القانوني:	شركة ذات مسئولية محدودة	راس المال:	300000
حالة السجل:	نشط	جنسية المنشأة:	قطر
عدد الفروع:	0		

معلومات الاتصال

أرقام الاتصال:

صندوق البريد:

الشركاء

الأسم	رقم الإثبات	رقم السجل	الجنسية	النسبة	الحالة
محمد راشد حجب العلي المعاضيد	25663400586		قطر	70	نشط
علي محمد راشد العلي المعاضيد	28863402553		قطر	30	نشط

المدراء (المخولون بالتوقيع)



Page 1 of 2  
رقم السجل : 80593



تشهد غرفة تجارة و صناعة قطر بان المنشأة المذكورة اعلاه سجلت لدينا

Qatar Chamber certifies that the above mentioned establishment has been registered



وزارة التجارة والصناعة  
Ministry of Commerce and Industry

إدارة التسجيل  
والتراخيص التجارية

Registration and Commercial  
Licenses Department

مستخرج بعض بيانات السجل التجاري

الصفة (الصلاحية)	الجنسية	رقم السجل	رقم الإثبات	الأسم
صلاحيات كاملة ومطلقة - مدير	قطر		28863402553	على محمد راشد العلى المعاضيد
صلاحيات كاملة ومطلقة - مدير	قطر		25663400586	محمد راشد حجبى العلى المعاضيد

الأنشطة التجارية

إسم النشاط	الرقم
التجارة في الخرسانة الجاهزة	4752811

إسم النشاط	الرقم
انتاج ألواح خرسانية وهولوكور	2395401



Page 2 of 2  
رقم السجل : 80593



تشهد غرفة تجارة و صناعة قطر بان المنشأة المذكورة اعلاه سجلت لدينا

Qatar Chamber certifies that the above mentioned establishment has been registered





بطاقة قيد المنشأة Establishment Card	
Est. ID	17-1578-51 رقم قيد المنشأة
اسم المنشأة : صبيبه هولوكور للالواح الخرسانية والهولوكور	
Est. Name :	
Sector : COMMERCIAL	القطاع : تجاري
First Issue :	2018-03-07 تاريخ اول اصدار :
Expiry Date :	2028-01-11 تاريخ الصلاحية :
مدير عام الإدارة العامة للجوازات	
292801/14 85372	* 1 7 1 5 7 8 5 1 *

المفوضين Authorizers		رقم الوثيقة
التوقيع	الاسم	
	محمد راشد حجي العلي المعاضيد MOHD RASHID AL-MAADEED	25663400586
	علي محمد راشد العلي المعاضيد ALI AL-MAADEED	28863402553
	عبدالله محمد راشد العلي المعاضيد ABDULLA AL-MAADEED	29463404476
	ثامر محمد راشد العلي المعاضيد THAMER AL-MAADEED	29563405259
Cards 1 / 1 عدد البطاقات		التعليمات
Instruction		من على من يجد هذه البطاقة ان يقوم بتسليمها الى اي مركز تشرطة
Whoever finds this card should deliver it to any police station.		



10/08/2020

ضريبة  
Dhareeba  
tax portal



## بطاقة ضريبة - TAX CARD

The General Tax Authority of Qatar certifies that the entity is registered as per the following details:

تشهد الهيئة العامة للضرائب في دولة قطر أن  
الجهة أدناه مسجلة حسب البيانات التالية:

TIN Number	5000203570	رقم التعريف الضريبي
Taxpayer Name:	صبيه هولوكور للالواح الخرسانية والهولوكو Sbyh Hwlwkwr Llalwah Al-khrsanyh Walhwl	إسم المكلّف:
Commercial Registration Number	80593	رقم السجل التجاري القطري
Address [Headquarter]:	Zone: 18 المنطقة: 18 Building: المبنى: Street: شارع: جبر بن محمد Qatar - قطر	العنوان (المركز الرئيسي):
Main Activity:	2395401 إنتاج ألواح خرسانية وهولوكور 2395401-Producing concrete panels and holocor	النشاط الرئيسي:
Legal Form:	شركة ذات مسؤولية محدودة Limited Liability Company	الشكل القانوني:
Activity Commencement Date:	23/02/2016	تاريخ بدء النشاط:
Number of Branches:	0	عدد الفروع:
Registered taxes :		الضرائب المسجلة :
Income Tax	REGISTERED - 23/02/2016 - مسجل	الضريبة على الدخل

الهيئة العامة للضرائب  
GENERAL TAX AUTHORITY



هذه الوثيقة مستخرجة من النظام الآلي و ليس من الضروري التوقيع عليها

This is a system generated document and does not require to be signed.

QATAR CHAMBER OF COMMERCE & INDUSTRY

Tel : 4455 9111 | Fax: 4466 1693 - 4466 1697

P. O. Box : 402 | Doha - Qatar

E-mail: info@qcci.org | www.qatarchamber.com



غرفة قطر  
QATAR CHAMBER

غرفة تجارة وصناعة قطر

هاتف : ٤٤٥٥ ٩١١١ فاكس : ٤٤٦٦ ١٦٩٣ - ٤٤٦٦ ١٦٩٧

ص.ب : ٤٠٢ ، الدوحة ، قطر

بريد الكتروني : info@qcci.org | www.qatarchamber.com

# شهادة عضوية MEMBERSHIP CERTIFICATE

2023

**Qatar Chamber Of Commerce & Industry certify that**

**SABEA HOLLOWCORE FOR CONCRETE PANELS & HOLLOWCORE**

**is a member of QCCI under Membership No 01/54865 and has ( 1 ) branches**



Date: 10/05/2023



**Management**

Note : This certificate is valid until: 20/02/2025

\* Any alterations , overwriting or amendments to this certificate shall annul it.

\* Please see important notices on the back side





**SABEA HOLLOWCORE W.L.L**

# **5. ISO CERTIFICATES**

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)  
[www.sae.com.qa](http://www.sae.com.qa)

# CERTIFICATE



This is to Certify that the Management System of

## SABEA HOLLOW CORE FOR CONCRETE PANELS AND HOLLOW CORE

BUILDING NO: 21, ZONE NO: 92, STREET  
NO:708, MESAIEED, DOHA-QATAR

has been found to conform to the Quality Management System standard:

### ISO 9001:2015

This certificate is valid for the following scope of operations:

MANUFACTURING AND SUPPLY OF HOLLOW CORE SLABS, PRECAST BOUNDARY WALL  
PANELS INCLUDING FOOTINGS, COLUMN AND BEAMS, INSULATED / SOLID WALLING  
PANELS, ROAD AND VEHICLE, TAXES AND DOHA BARRIERS, WHEEL STOPPERS,  
STAIRCASES, BLEACHERS, MANHOLES, SOAK AWAY, ROUTE MARKERS, LINK BOXES,  
CABLE TIE, CAR PARK STRUCTURE SYSTEM, KERBSTONES AND CONCRETE TILES.

:: Certificate No :: QA56582A

Date of initial registration

29 February 2024

Date of this Certificate

29 February 2024

Surv. audit on or before / Certificate expiry

28 February 2025

Recertification Due

28 February 2027

This Certificate remains valid subject to satisfactory surveillance audits.



Director

For verification and updated information concerning the present certificate visit to [http://staunchlyservices.com/search\\_certified\\_client.php](http://staunchlyservices.com/search_certified_client.php)  
This Certificate is the property of Staunchly Management & System Services Limited and shall be returned immediately when demanded

#### STAUNCHLY MANAGEMENT AND SYSTEM SERVICES LIMITED

International Office: Labyrinth Business Centre, 43 Middle Hill Gate,  
Stockport Great Manchester, England-SK1 3DG  
Phone: +44-7404829667

(Company Registered in England with Company Number 11488683)

Corporate Office: 303, U-60, 3rd Floor Shakarpur, Delhi-110019, India  
Phone: +91-6389519394

Web: :- [www.staunchlyservices.com](http://www.staunchlyservices.com)

E-mail :- [info@staunchlyservices.com](mailto:info@staunchlyservices.com)





# CERTIFICATE



This is to Certify that the Management System of

## SABEA HOLLOW CORE FOR CONCRETE PANELS AND HOLLOW CORE

BUILDING NO: 21, ZONE NO: 92, STREET  
NO:708, MESAIEED, DOHA-QATAR

has been found to conform to the Environmental Management System standard:

### ISO 14001:2015

This certificate is valid for the following scope of operations:

MANUFACTURING AND SUPPLY OF HOLLOW CORE SLABS, PRECAST BOUNDARY WALL  
PANELS INCLUDING FOOTINGS, COLUMN AND BEAMS, INSULATED / SOLID WALLING  
PANELS, ROAD AND VEHICLE, TAXES AND DOHA BARRIERS, WHEEL STOPPERS,  
STAIRCASES, BLEACHERS, MANHOLES, SOAK AWAY, ROUTE MARKERS, LINK BOXES,  
CABLE TIE, CAR PARK STRUCTURE SYSTEM, KERBSTONES AND CONCRETE TILES.

:: Certificate No :: QA56582B

<u>Date of initial registration</u>	<u>Date of this Certificate</u>	<u>Surv. audit on or before / Certificate expiry</u>	<u>Recertification Due</u>
29 February 2024	29 February 2024	28 February 2025	28 February 2027

This Certificate remains valid subject to satisfactory surveillance audits.



Director

For verification and updated information concerning the present certificate visit to [http://staunchlyservices.com/search\\_certified\\_client.php](http://staunchlyservices.com/search_certified_client.php)  
This Certificate is the property of Staunchly Management & System Services Limited and shall be returned immediately when demanded

#### STAUNCHLY MANAGEMENT AND SYSTEM SERVICES LIMITED

International Office: Labyrinth Business Centre, 43 Middle Hill Gate,  
Stockport Great Manchester, England-SK1 3DG  
Phone: +44-7404829667

(Company Registered in England with Company Number 11488683)

Corporate Office: 303, U-60, 3rd Floor Shakarpur, Delhi-110019, India  
Phone: +91-6389519394

Web :- [www.staunchlyservices.com](http://www.staunchlyservices.com)

E-mail :- [info@staunchlyservices.com](mailto:info@staunchlyservices.com)





# CERTIFICATE



This is to Certify that the Management System of

## SABEA HOLLOW CORE FOR CONCRETE PANELS AND HOLLOW CORE

BUILDING NO: 21, ZONE NO: 92, STREET  
NO:708, MESAIEED, DOHA-QATAR

has been found to conform to the Occupational Health & Safety Management System standard:

### ISO 45001:2018

This certificate is valid for the following scope of operations:

MANUFACTURING AND SUPPLY OF HOLLOW CORE SLABS, PRECAST BOUNDARY WALL  
PANELS INCLUDING FOOTINGS, COLUMN AND BEAMS, INSULATED / SOLID WALLING  
PANELS, ROAD AND VEHICLE, TAXES AND DOHA BARRIERS, WHEEL STOPPERS,  
STAIRCASES, BLEACHERS, MANHOLES, SOAK AWAY, ROUTE MARKERS, LINK BOXES,  
CABLE TIE, CAR PARK STRUCTURE SYSTEM, KERBSTONES AND CONCRETE TILES.

*:: Certificate No :: QA56582C-1*

<u>Date of initial registration</u>	<u>Date of this Certificate</u>	<u>Surv. audit on or before / Certificate expiry</u>	<u>Recertification Due</u>
29 February 2024	29 February 2024	28 February 2025	28 February 2027

This Certificate remains valid subject to satisfactory surveillance audits.



*Director*

For verification and updated information concerning the present certificate visit to [http://staunchlyservices.com/search\\_certified\\_client.php](http://staunchlyservices.com/search_certified_client.php)  
This Certificate is the property of Staunchly Management & System Services Limited and shall be returned immediately when demanded

#### STAUNCHLY MANAGEMENT AND SYSTEM SERVICES LIMITED

International Office: Labyrinth Business Centre, 43 Middle Hill Gate,  
Stockport Great Manchester, England-SK1 3DG  
Phone: +44-7404823667

(Company Registered in England with Company Number 11488683)

Corporate Office: 303, U-60, 3rd Floor Shakarpur, Delhi-110019, India  
Phone: +91-6389519394

Web: :- [www.staunchlyservices.com](http://www.staunchlyservices.com)

E-mail :- [info@staunchlyservices.com](mailto:info@staunchlyservices.com)





# **6. CALIBRATION CERTIFICATES**

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)  
[www.aac.com.qa](http://www.aac.com.qa)

Certificate No : 1480 15712 G-25  
Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : AGGREGATE  
CAPACITY : 8,000kg x 10kg  
SERIAL NUMBER : 15030076

TEST RESULTS

TEST LOAD INDICATED

APPLIED-kg LOAD-kg ERROR %

0	0	0.00
200	200	0.00
400	400	0.00
600	600	0.00
800	800	0.00
1000	1000	0.00

Aggregate + test weights

1080	1000	2080	0.00
1520	1000	2520	0.00
2510	1000	3510	0.00
4480	1000	5480	0.00
5610	1000	6610	0.00
6920	1000	7920	0.00

DETAIL OF EQUIPMENT  
USED FOR CALIBRATION  
TRACEABILITY

REPORT NO

TEST LOAD USED

VALIDATION OF METHODS

Standard test weights tested and Verified by Qatar General Organization for  
Standardization State of Qatar

: Qatar General Organization for Standardization State of Qatar

: CAL-24-05-(0056-to-0061)

: 1000kg

: Standard Test Weights + Cumulative Test

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of  
the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY



Mohamed Azam  
Calibration Technician



APPROVED BY



Shashikant Chhatbar  
Calibration Engineer





Certificate No : 1480 15712 C-25

Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD S000  
SCALE : CEMENT  
CAPACITY : 2000kg x 2kg  
SERIAL NUMBER : 15030076

TEST RESULTS

TEST LOAD INDICATED

APPLIED-kg LOAD-kg ERROR %

0	0	0.00
100	100	0.00
200	200	0.00
300	300	0.00
400	400	0.00
500	500	0.00

Cement+Test weights			
106	500	606	0.00
308	500	808	0.00
702	500	1202	0.00
1014	500	1514	0.00
1484	500	1986	0.10

DETAIL OF EQUIPMENT : Standard test weights tested and Verified by Qatar General Organization for  
USED FOR CALIBRATION : Standardization State of Qatar  
TRACEABILITY : Qatar General Organization for Standardization State of Qatar  
REPORT NO : CAL-24-05-(0056-to-0061)  
TEST LOAD USED : 500kg  
VALIDATION OF METHODS : Standard Test Weights + Cumulative Test

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of  
the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY



Mohamed Azam  
Calibration Technician



APPROVED BY



Shashikant Chhatbar  
Calibration Engineer



Certificate No : 1480 15712 W-25

Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : WATER  
CAPACITY : 1200kg x 1kg  
SERIAL NUMBER : 15030076

**TEST RESULTS**

**TEST LOAD INDICATED**

APPLIED-kg	LOAD-kg	ERROR %
0	0	0.00
100	100	0.00
200	200	0.00
300	300	0.00
360	360	0.00
400	400	0.00

Water+Test weights			
112	400	512	0.00
408	400	808	0.00
615	400	1015	0.00
775	400	1176	0.09

DETAIL OF EQUIPMENT USED FOR CALIBRATION : Standard test weights tested and Verified by Qatar General Organization for Standardization State of Qatar  
TRACEABILITY : Qatar General Organization for Standardization State of Qatar  
REPORT NO : CAL-24-05-(0056-to-0061)  
TEST LOAD USED : 400kg  
VALIDATION OF METHODS : Standard Test Weights + Cumulative Test

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY



Mohamed Azam  
Calibration Technician



APPROVED BY



Shashikant Chhatbar  
Calibration Engineer





Certificate No : 1480 15712 A-25

Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : ADMIXTURE  
CAPACITY : 100kg x 0.1kg  
SERIAL NUMBER : 15030076

**TEST RESULTS**

**TEST LOAD INDICATED**

APPLIED-kg	LOAD-kg	ERROR %
0.0	0.0	0.00
1.0	1.0	0.00
2.0	2.0	0.00
4.0	4.0	0.00
6.0	6.0	0.00
8.0	8.0	0.00
10.0	10.0	0.00
15.0	15.0	0.00
20.0	20.0	0.00
25.0	25.0	0.00
30.0	30.0	0.00

**DETAIL OF EQUIPMENT  
USED FOR CALIBRATION**

**TRACEABILITY**

**REPORT NO**

**TEST LOAD USED**

**VALIDATION OF METHODS**

Standard test weights tested and Verified by Qatar General Organization for  
Standardization State of Qatar

Qatar General Organization for Standardization State of Qatar

: CAL-24-05-(0056-to-0061)

: 30kg

: Standard Test Weights

**REMARKS** : The Scale was found to give the above readings at the time of calibration and the accuracy of  
the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

**TESTED & CALIBRATED BY**



Mohamed Azam  
Calibration Technician



**APPROVED BY**

  
Shashikant Chhatbar  
Calibration Engineer



Certificate No : 1480 15712 C-25  
Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : CEMENT+GGBS  
CAPACITY : 2000kg x 2kg  
SERIAL NUMBER : 15030076

TEST RESULTS

TEST LOAD APPLIED-kg	INDICATED LOAD-kg	ERROR %
0	0	0.00
100	100	0.00
200	200	0.00
300	300	0.00
400	400	0.00
500	500	0.00
Cement+Test weights		
106	500	606 0.00
308	500	808 0.00
702	500	1202 0.00
1014	500	1514 0.00
1484	500	1986 0.10

DETAIL OF EQUIPMENT USED FOR CALIBRATION : Standard test weights tested and Verified by Qatar General Organization for Standardization State of Qatar  
TRACEABILITY : Qatar General Organization for Standardization State of Qatar  
REPORT NO : CAL-24-05-(0056-to-0061)  
TEST LOAD USED : 500kg  
VALIDATION OF METHODS : Standard Test Weights + Cumulative Test

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY



Mohamed Azam  
Calibration Technician



APPROVED BY



Shashikant Chhatbar  
Calibration Engineer





Certificate No : 1480 15712 I-25

Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : ICE  
CAPACITY : 500kg x 1kg  
SERIAL NUMBER : 15030076


**TEST RESULTS**

TEST LOAD APPLIED-kg	INDICATED LOAD-kg	ERROR %
0	0	0.00
20	20	0.00
40	40	0.00
80	80	0.00
100	100	0.00
140	140	0.00
180	180	0.00
200	200	0.00
240	240	0.00
280	280	0.00
300	300	0.00

DETAIL OF EQUIPMENT USED FOR CALIBRATION : Standard test weights tested and Verified by Qatar General Organization for Standardization State of Qatar  
TRACEABILITY : Qatar General Organization for Standardization State of Qatar  
REPORT NO : CAL-24-05-(0056-to-0061)  
TEST LOAD USED : 300kg  
VALIDATION OF METHODS : Standard Test Weights

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY

  
Mohamed Azam  
Calibration Technician



APPROVED BY

  
Shashikant Chhatbar  
Calibration Engineer



Certificate No : 1480 15712 S-25

Issue Date : 3-Feb-2025

Due Date : 3-Mar-2025

CUSTOMER : SABEA HOLLOW CORE & PRECAST FACTORY  
ADDRESS : P.O BOX: 9106  
DOHA-QATAR  
LOCATION : MESAIEED

PLANT NAME : IMER  
PLANT TYPE VI : CONCRETE BATCHING  
PLANT MODEL : ORU DAY MD 5000  
SCALE : MICRO SILICA  
CAPACITY : 700kg x 1kg  
SERIAL NUMBER : 15030076

TEST RESULTS

TEST LOAD APPLIED-kg	INDICATED LOAD-kg	ERROR %
0	0	0.00
40	40	0.00
80	80	0.00
120	120	0.00
200	200	0.00
240	240	0.00
280	280	0.00
300	300	0.00
340	340	0.00
380	380	0.00
400	401	0.25

DETAIL OF EQUIPMENT  
USED FOR CALIBRATION

TRACEABILITY

REPORT NO

TEST LOAD USED

VALIDATION OF METHODS

Standard test weights tested and Verified by Qatar General Organization for  
Standardization State of Qatar  
: Qatar General Organization for Standardization State of Qatar  
: CAL-24-05-(0056-to-0061)  
: 400kg  
: Standard Test Weights

REMARKS : The Scale was found to give the above readings at the time of calibration and the accuracy of  
the Scale reading complies with the requirements of QCS 2014, ISO / IEC 17025 specifications.

TESTED & CALIBRATED BY



Mohamed Azam  
Calibration Technician



APPROVED BY



Shashikant Chhatbar  
Calibration Engineer





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024165/M&V/01	Issue Date	22/10/2024
Date of Calibration	22/10/2024	Due Date of Calibration	21/10/2025

Contract Review Form No.	C2024165		
Calibrated For	SABEA HOLLOWCORE P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	22/10/2024		
Condition of Instrument on Receipt	Working	Calibrated at	On Site
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Weighing Scale	Serial No.	8334410238
Make	Ohaus	Model/Type	R31P30
Location	Mesaleed	Department	Production
Reference Used	OIML R76-1	SOP No.	CEW/SOP/M&V/01

Range	Least Count/Resolution	Deviation Limit
30000g	1g	±2g

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Weight Box set (1kg to 20kg)	Giropes, M1	QGOS, CAL-24-05-(0056-to-0061)	01 to 50	01/05/2025
Weight Box set (1g to 2kg)	Giropes, 260057	VCS,VCS2024-6511	2012926	07/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be compiled as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CB-ME-0011

Certificate No.	C2024165/M&V/01	Issue Date	22/10/2024
Date of Calibration	22/10/2024	Due Date of Calibration	21/10/2025

Discipline: Mass & Volume

Group: Weight Balance

Measurement Result

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(g)	(g)	(g)	(g)	(PASS/FAIL)
0	0	0.00	2.00	PASS
1000	1000	0.00	2.00	PASS
2000	2000	0.00	2.00	PASS
5000	5000	0.00	2.00	PASS
8000	8000	0.00	2.00	PASS
10000	10000	0.00	2.00	PASS
15000	15000	0.00	2.00	PASS
20000	20000	0.00	2.00	PASS
25000	25000	0.00	2.00	PASS
30000	30000	0.00	2.00	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accredited to ISO 9001:2015



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024165/P/01	Issue Date	22/10/2024
Date of Calibration	22/10/2024	Due Date of Calibration	21/10/2025

Service Request Form No.	C2024165		
Calibrated For	SABEA HOLLOWCORE P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	22/10/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Air Meter	Serial No.	AGM/AM/04
Make	Gilson	Model/Type	17401
Location	Mesaieed	Department	Production
Reference Used	DKD-R6-1	SOP No.	CEW/SOP/P/01

Range	Least Count/Resolution	Deviation Limit
20 psi	--	1%

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Pressure Calibrator	Nagman, MPC-P+60	MSCS,2324/0327/01-02	MPC2007P0153	26/03/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.



Calibrated by  
Jubair Ahamed  
Calibration Engineer





Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: 0049-2021

Certificate No.	C2024165/P/01	Issue Date	22/10/2024
Date of Calibration	22/10/2024	Due Date of Calibration	21/10/2025

Discipline: Mechanical

Group: Pressure and Vacuum

Measurement Result

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(psi)	(psi)	(psi)	(psi)	(PASS/FAIL)
0	0.0	0.00	0.00	PASS
2	2.0	0.00	0.02	PASS
5	5.0	0.00	0.05	PASS
10	10.0	0.00	0.10	PASS
15	15.0	0.00	0.15	PASS
20	20.0	0.00	0.20	PASS

\*UUC: UNIT UNDER CALIBRATION

P. 102

Calibrated by  
Jubair Ahamed  
Calibration Engineer



h

Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No.: 08-M-2000



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024178/M/01	Issue Date	07/11/2024
Date of Calibration	07/11/2024	Due Date of Calibration	06/11/2025
Service Request Form No.	C2024178		
Calibrated For	SABEA HOLLOWCORE P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	07/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Vernier Caliper	Serial No.	K7120220701462
Make	Clarke	Model/Type	VC6C
Location	Mesaleed	Department	Technical
Reference Used	IS 3651	SOP No.	CEW/SOP/M/01

Range	Least Count/Resolution	Deviation Limit
0 to 150 mm	0.02 mm	± 0.04 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Muhammed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024172/M/01	Issue Date	04/11/2024
Date of Calibration	04/11/2024	Due Date of Calibration	03/11/2025

Service Request Form No.	C2024172		
Calibrated For	SABEA HOLLOWCORE P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	04/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Vernier Caliper	Serial No.	VC-01
Make	Berent	Model/Type	BT 4055
Location	Mesaieed	Department	Technical
Reference Used	IS 3651	SOP No.	CEW/SOP/M/01

Range	Least Count/Resolution	Deviation Limit
0 to 150 mm	0.02 mm	± 0.04 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Muhammed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/01	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025
Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/25
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
25 mm	--	± 0.76 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no-2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/01	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical


Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	( $\pm$ ) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
25	25.065	25.060	-0.060	0.760	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/02	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/8
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
12.5 mm	—	± 0.39 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/02	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
12.5	12.522	12.519	-0.019	0.390	PASS

\*UUC: UNIT UNDER CALIBRATION



to Saib  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

Sh  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/03	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/1
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
2.5 mm	--	± 0.08 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Certificate No.	C2024202/M/03	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
2.5	2.509	2.508	-0.008	0.095	PASS

\*UUC: UNIT UNDER CALIBRATION



Sadeh  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

h  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/04	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/31
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
31.5 mm	--	± 0.95 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be compiled as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/04	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
31.5	31.609	31.596	-0.096	0.950	PASS

\*UUC: UNIT UNDER CALIBRATION



by Sudhakar  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

by Shashikant Chhatbar  
Approved by  
Shashikant Chhatbar  
Quality Manager

—End of Certificate—



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/05	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/3
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
4 mm	—	± 0.13 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)


Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



  
Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/05	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
4	4.005	4.003	-0.003	0.130	PASS

\*UUC: UNIT UNDER CALIBRATION



6. Sedib  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

h  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No.: 03-40-0000



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/06	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box 9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/4
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
5 mm	—	± 0.16 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Certificate No.	C2024202/M/06	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
5	5.009	5.008	-0.008	0.160	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Mohamed Khalid  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager

—End of Certificate—



Accreditation No.: CB-49-088



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/07	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/6
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
8 mm	—	± 0.25 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

to Sadi

Calibrated by  
Mohamed Khalid  
Calibration Engineer



h

Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/07	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result


Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
8	8.013	8.011	-0.011	0.250	PASS

\*UUC: UNIT UNDER CALIBRATION

  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

  
Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No: CB-45-2024

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/08	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/50
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
50 mm	—	± 1.49 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no. 2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be compiled as required by department of legal metrology/regulatory bodies etc.

for Sadik  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



h  
Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/08	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical


Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
50	50.113	50.109	-0.109	1.490	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No.: CB-MQ-2009



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/09	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/40
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
40 mm	—	± 1.2 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Certificate No.	C2024202/M/09	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
40	40.087	40.081	-0.081	1.200	PASS

\*UUC: UNIT UNDER CALIBRATION



for Sedat

Calibrated by  
Mohamed Khalid  
Calibration Engineer

Sh

Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/10	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box 9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/7
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
10 mm	--	± 0.31 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)


Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

1. All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
2. The Measured Values Mentioned are average of 5 readings.
3. Measured readings have been mentioned.
4. Refer Page no.:2 for Calibration Measurement Results.

Notes

1. This Certificate refers only to the particular item calibrated at site/laboratory.
2. This Calibration results reported are valid at the time of and under stated conditions of measurement.
3. Any correction in this certificate invalidates this certificate.
4. This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
5. Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



  
Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CD-440-2024



Certificate No.	C2024202/M/10	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical


Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
10	10.019	10.016	-0.016	0.310	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/11	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/10
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
20 mm	---	± 0.61 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no. :2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/11	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical


Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
20	20.025	20.022	-0.022	0.610	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/12	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/2
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
3.15 mm	--	± 0.1 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Certificate No.	C2024202/M/12	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
3.15	3.161	3.159	-0.009	0.100	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Mohamed Khalid  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/13	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/5
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
6.3 mm	—	± 0.2 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/13	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
6.3	6.312	6.311	-0.011	0.200	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No.: CB-ME-0033

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/14	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025
Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Grid Sieve	Serial No.	A263/9
Make	Tecnotest	Model/Type	Grid Type
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
16 mm	--	± 0.49 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



  
Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: 02-02-0116



Certificate No.	C2024202/M/14	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
16	16.032	16.029	-0.029	0.490	PASS

\*UUC: UNIT UNDER CALIBRATION

by Saidh

Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

by Shashikant Chhatbar

Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No. CB-402-2024



Certificate No.	C2024178/M/01	Issue Date	07/11/2024
Date of Calibration	07/11/2024	Due Date of Calibration	06/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Inside Scale

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
0.00	0.000	0.00	0.04	PASS
10.00	10.000	0.00	0.04	PASS
50.00	50.000	0.00	0.04	PASS
100.00	100.000	0.00	0.04	PASS
150.00	150.000	0.00	0.04	PASS

Outside Scale

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
0.00	0.000	0.00	0.04	PASS
10.00	10.000	0.00	0.04	PASS
50.00	50.000	0.00	0.04	PASS
100.00	100.000	0.00	0.04	PASS
150.00	150.000	0.00	0.04	PASS

Depth Scale

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
150.00	150.000	0.00	0.04	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Muhammed Khalid  
Calibration Engineer



End of Certificate

Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No: 4348-0119



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/15	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	12050848
Make	Glenammer	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
2 mm	—	± 0.07 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CB-MQ-2004

Certificate No.	C2024202/M/15	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
2	2.006	2.005	-0.005	0.070	PASS

\*UUC: UNIT UNDER CALIBRATION

for Sadeh

Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

Sh

Approved by  
Shashikant Chhatbar  
Quality Manager





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/16	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	12110856
Make	Glenammer	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
250 µm	---	± 12 µm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Certificate No.	C2024202/M/16	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) ( $\mu\text{m}$ )	Maximum Aperture Size (X) ( $\mu\text{m}$ )	Average Aperture Size (Y) ( $\mu\text{m}$ )	Deviation (w-Y) ( $\mu\text{m}$ )	( $\pm$ ) Deviation Limit ( $\mu\text{m}$ )	Calibration Result (PASS/FAIL)
250	250.097	250.095	-0.095	12.000	PASS

\*UUC: UNIT UNDER CALIBRATION



Sulib  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

h  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----





CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/17	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025
Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	12050851
Make	Glenammer	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
1 mm	—	± 0.03 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be compiled as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/17	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
1	1.004	1.003	-0.003	0.030	PASS

\*UUC: UNIT UNDER CALIBRATION

for Saudi

Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

h

Approved by  
Shashikant Chhatbar  
Quality Manager



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/18	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box 9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	16053384
Make	Glenammer	Model/Type	Stainless steel
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
4 mm	—	± 0.13 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/18	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
4	4.010	4.009	-0.009	0.130	PASS

\*UUC: UNIT UNDER CALIBRATION



By 

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No.: 08-001-0118

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/19	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	12040432
Make	Glenammer	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
31.5 mm	---	± 0.95 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no. 2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/19	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w) (mm)	Maximum Aperture Size (X) (mm)	Average Aperture Size (Y) (mm)	Deviation (w-Y) (mm)	(±) Deviation Limit (mm)	Calibration Result (PASS/FAIL)
31.5	31.588	31.586	-0.086	0.950	PASS

\*UUC: UNIT UNDER CALIBRATION



S. Khalid  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

Shashikant Chhatbar  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/20	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	0442696
Make	Impact	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
63 µm	--	± 3.7 µm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

1. All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
2. The Measured Values Mentioned are average of 5 readings.
3. Measured readings have been mentioned.
4. Refer Page no.:2 for Calibration Measurement Results.

Notes

1. This Certificate refers only to the particular item calibrated at site/laboratory.
2. This Calibration results reported are valid at the time of and under stated conditions of measurement.
3. Any correction in this certificate invalidates this certificate.
4. This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
5. Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be compiled as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/20	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(μm)	(μm)	(μm)	(μm)	(μm)	(PASS/FAIL)
63	63.028	63.023	-0.023	3.700	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Mohamed Khalid  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/21	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	0212382
Make	Impact	Model/Type	Stainless steel
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
6.3 mm	—	± 0.2 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/21	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical


Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
6.3	6.310	6.310	-0.010	0.200	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

—End of Certificate—



CALIBRATION CERTIFICATE

Page 01 of 02

Page 3 of 3

Certificate No.	C2024202/M/22	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025
Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	0116338
Make	Impact	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
10 mm	—	± 0.31 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/22	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
10	10.025	10.022	-0.022	0.310	PASS

\*UUC: UNIT UNDER CALIBRATION

*Sadi*

Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

*Shashikant*

Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CB-ME-2828

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/23	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	14/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	Lab	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	0116993
Make	Impact	Model/Type	Stainless steel
Location	Mesaieed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
20 mm	--	± 0.61 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024202/M/23	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025


Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
20	20.034	20.031	-0.031	0.610	PASS

\*UUC: UNIT UNDER CALIBRATION

  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No: CA-002-2018

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/M/24	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Service Request Form No.	C2024202		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	14/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Test Sieve	Serial No.	0236431
Make	Impact	Model/Type	Stainless steel
Location	Mesaleed	Department	Technical
Reference Used	BS 410/ISO 3310 Part 1	SOP No.	CEW/SOP/M/05

Range	Least Count/Resolution	Deviation Limit
14 mm	—	± 0.43 mm

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Laser Distance Meter	KALEI, LDM-40	TISSCO,5523631031292374	TN24782	10/10/2025
Digital Caliper	GROZ, EDC/12	TISSCO,5523631030297453	C2104120023	26/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: 02483-2018



Certificate No.	C2024202/M/24	Issue Date	14/11/2024
Date of Calibration	14/11/2024	Due Date of Calibration	13/11/2025

Discipline: Mechanical

Group: Dimension

Measurement Result

Nominal Aperture Size (w)	Maximum Aperture Size (X)	Average Aperture Size (Y)	Deviation (w-Y)	(±) Deviation Limit	Calibration Result
(mm)	(mm)	(mm)	(mm)	(mm)	(PASS/FAIL)
14	14.023	14.022	-0.022	0.430	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Mohamed Khalid  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager

—End of Certificate—



Accreditation No: 0508-2018

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024202/T/01	Issue Date	13/11/2024
Date of Calibration	13/11/2024	Due Date of Calibration	12/11/2025

Service Request Form No.	C2024202			
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar			
Date of Receipt of Instrument	13/11/2024			
Condition of Instrument on Receipt	Working	Calibrated at	On Site	
Environmental Conditions	Temperature	24±4 °C	Relative Humidity	50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Drying Oven	Serial No.	15A103
Make	Genlab	Model/Type	SDO/225/GDIG
Location	Industrial Area	Department	Technical
Reference Used	DKD-R5-3	SOP No.	CEW/SOP/T/02

Range	Least Count/Resolution	Deviation Limit
Ambient to 120°C	1°C	± 5°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
RTD Sensor	ASP, PT-100	2324/0329/01-01	620816	27/03/2025
Temperature Calibrator	Nagman, METCAL 650	2324/0329/01-02	MT 2012 T0600	28/03/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CE-019-2024



Certificate No.	C2024202/T/01	Issue Date	13/11/2024
Date of Calibration	13/11/2024	Due Date of Calibration	12/11/2025

Discipline: Thermal


Group: Temperature

Measurement Result

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
40	40.05	-0.05	5.00	PASS
60	60.08	-0.08	5.00	PASS
70	70.12	-0.12	5.00	PASS
80	80.16	-0.16	5.00	PASS
90	90.19	-0.19	5.00	PASS
100	100.22	-0.22	5.00	PASS
120	120.29	-0.29	5.00	PASS

\*UUC: UNIT UNDER CALIBRATION



  
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024186/T/05	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Contract Review Form No.	C2024186		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	09/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Digital Thermometer	Serial No.	B24337966
Make	ETI LTD.	Model/Type	Folding Type
Location	Mesaieed	Department	Technical
Reference Used	DKD-R 5-3	SOP No.	CEW/SOP/T/02

Range	Least Count/Resolution	Deviation Limit
-50 to 250°C	0.1°C	± 1°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
RTD Sensor	ASP, PT-100	2324/0328/01-01	620816	27/03/2025
Temperature Calibrator	Nagman, METCAL 40(SPL)	2324/0329/01-01	LT 2101 T0684	28/03/2025
Temperature Calibrator	Nagman, METCAL 650	2324/0329/01-02	MT 2012 T0600	28/03/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.

Calibrated by  
Jubair Ahamed  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024186/T/05	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Discipline: Thermal

Group: Temperature

Measurement Result

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
-10.2	-10.00	-0.20	1.00	PASS
49.9	50.00	-0.10	1.00	PASS
100.0	100.01	-0.01	1.00	PASS
150.1	150.00	0.10	1.00	PASS
240.4	240.00	0.40	1.00	PASS

\*UUC: UNIT UNDER CALIBRATION



Calibrated by  
Jubair Ahamed  
Calibration Engineer



—End of Certificate—

Approved by  
Shashikant Chhatbar  
Quality Manager



CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024186/T/04	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025
Service Request Form No.	C2024186		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	09/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Indoor/Outdoor Thermometer	Serial No.	12214
Make	Extech	Model/Type	401014
Location	Mesaieed	Department	Technical
Reference Used	DKD-R 5-3	SOP No.	CEW/SOP/T/04

Range	Least Count/Resolution	Deviation Limit
Indoor Temperature:-10 to 60°C Outdoor Temperature:-50 to 70°C	0.1°C	± 1°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Wireless Datalogger	TESTO, 174H	MMCL, C2408149.05	83481888	20/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no. 2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology, regulatory bodies etc.



Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CB-001-2018



Certificate No.	C2024186/T/04	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Discipline: Thermal

Group: Temperature & Humidity

Measurement Result

Indoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.3	18.0	0.3	1.00	PASS
23.3	23.0	0.3	1.00	PASS
28.4	28.0	0.4	1.00	PASS

Outdoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.1	18.0	0.1	1.00	PASS
23.2	23.0	0.2	1.00	PASS
28.3	28.0	0.3	1.00	PASS

\*UUC: UNIT UNDER CALIBRATION



for S. S. S.  
Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----

Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No.: CB-45-1818

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024186/T/03	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Service Request Form No.	C2024186		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	09/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Indoor/Outdoor Thermometer	Serial No.	12213
Make	Extech	Model/Type	401014
Location	Mesaieed	Department	Technical
Reference Used	DKD-R 5-3	SOP No.	CEW/SOP/T/04

Range	Least Count/Resolution	Deviation Limit
Indoor Temperature:-10 to 60°C Outdoor Temperature:-50 to 70°C	0.1°C	± 1°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Wireless Datalogger	TESTO, 174H	MMCL, C2408149.05	83481888	20/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology,regulatory bodies etc.

Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024186/T/03	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Discipline: Thermal

Group: Temperature & Humidity

Measurement Result


Indoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.2	18.0	0.2	1.00	PASS
23.1	23.0	0.1	1.00	PASS
28.0	28.0	0.0	1.00	PASS

Outdoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.2	18.0	0.2	1.00	PASS
23.2	23.0	0.2	1.00	PASS
28.1	28.0	0.1	1.00	PASS

\*UUC: UNIT UNDER CALIBRATION

for 

Calibrated by  
Mohamed Khalid  
Calibration Engineer



-----End of Certificate-----



Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No. - CR-05-2100

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024186/T/02	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Service Request Form No.	C2024186		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	09/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity
			50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Indoor/Outdoor Thermometer	Serial No.	12212
Make	Extech	Model/Type	401014
Location	Mesaieed	Department	Technical
Reference Used	DKD-R 5-3	SOP No.	CEW/SOP/T/04

Range	Least Count/Resolution	Deviation Limit
Indoor Temperature:-10 to 60°C Outdoor Temperature:-50 to 70°C	0.1°C	± 1°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Wireless Datalogger	TESTO, 174H	MMCL, C2408149.05	83481888	20/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading,additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.



Calibrated by  
Mohamed Khalid  
Calibration Engineer



Approved by  
Shashikant Chhatbar  
Quality Manager





Certificate No.	C2024186/T/02	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Discipline: Thermal

Group: Temperature & Humidity

Measurement Result

Indoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.1	18.0	0.1	1.00	PASS
23.2	23.0	0.2	1.00	PASS
28.2	28.0	0.2	1.00	PASS

Outdoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.2	18.0	0.2	1.00	PASS
23.3	23.0	0.3	1.00	PASS
28.3	28.0	0.3	1.00	PASS

\*UUC: UNIT UNDER CALIBRATION

For 

Calibrated by  
Mohamed Khalid  
Calibration Engineer





Approved by  
Shashikant Chhatbar  
Quality Manager



-----End of Certificate-----

CALIBRATION CERTIFICATE

Page 01 of 02

Certificate No.	C2024186/T/01	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025
Service Request Form No.	C2024186		
Calibrated For	SABEA HOLLOWCORE & PRECAST FACTORY P.O Box:9106 Doha-Qatar		
Date of Receipt of Instrument	09/11/2024		
Condition of Instrument on Receipt	Working	Calibrated at	Lab
Environmental Conditions	Temperature	24±4 °C	Relative Humidity 50±20 %RH

Details of Unit Under Calibration (UUC)

Instrument	Indoor/Outdoor Thermometer	Serial No.	12211
Make	Extech	Model/Type	401014
Location	Mesaieed	Department	Technical
Reference Used	DKD-R 5-3	SOP No.	CEW/SOP/T/04

Range	Least Count/Resolution	Deviation Limit
Indoor Temperature:-10 to 60°C Outdoor Temperature:-50 to 70°C	0.1°C	± 1°C

Details of Standard(s) Used for Calibration (Traceable to National and International Standards)

Description	Make and Model	Traceability(Certificate No.)	Serial No./ID No.	Valid Upto
Wireless Datalogger	TESTO, 174H	MMCL, C2408149.05	83481888	20/08/2025

Remarks

- All the reference/working standards involved in the calibration of the Equipment/Instrument are traceable to the international system of units (SI) through unbroken chain of calibration and/or to units of measurement realized at National physical Laboratory or other recognized national metrological institute.
- The Measured Values Mentioned are average of 5 readings.
- Measured readings have been mentioned.
- Refer Page no.:2 for Calibration Measurement Results.

Notes

- This Certificate refers only to the particular item calibrated at site/laboratory.
- This Calibration results reported are valid at the time of and under stated conditions of measurement.
- Any correction in this certificate invalidates this certificate.
- This Certificate shall not be reproduced except, in full without the written Approval from CEW Laboratory.
- Calibration of UUC done by any accredited laboratories is meant for scientific and industrial purpose only. However if used for commercial trading, additional recognition/approval shall be complied as required by department of legal metrology/regulatory bodies etc.



Calibrated by  
Mohamed Khalid  
Calibration Engineer

Approved by  
Shashikant Chhatbar  
Quality Manager



Accreditation No: 02-05-0402



Certificate No.	C2024186/T/01	Issue Date	09/11/2024
Date of Calibration	09/11/2024	Due Date of Calibration	08/11/2025

Discipline: Thermal

Group: Temperature & Humidity

Measurement Result

Indoor Temperature


Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.2	18.0	0.2	1.00	PASS
23.1	23.0	0.1	1.00	PASS
27.9	28.0	-0.1	1.00	PASS

Outdoor Temperature

Reading On UUC (Mean)	Reading on Standard (Mean)	Deviation	(±) Deviation Limit	Calibration Result
(°C)	(°C)	(°C)	(°C)	(PASS/FAIL)
18.2	18.0	0.2	1.00	PASS
23.1	23.0	0.1	1.00	PASS
27.9	28.0	-0.1	1.00	PASS

\*UUC: UNIT UNDER CALIBRATION



For   
Calibrated by  
Mohamed Khalid  
Calibration Engineer

  
Approved by  
Shashikant Chhatbar  
Quality Manager

-----End of Certificate-----



Accreditation No: CB-MSC-0011

# **7.COMPANY QUALITY PLAN & QC PROCEDURES**

---

**SABEA HOLLOWCORE W.L.L.,**

**For Concrete Panels and Hollow core**

Landline: +974 44922452

Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)

[www.sae.com.qa](http://www.sae.com.qa)



## TABLE OF CONTENTS

A. PURPOSE .....	3
B. SCOPE .....	3
C. EXCLUSIONS .....	3
D. TERMS & DEFINITIONS .....	3
E. ROLES & RESPONSIBILITIES .....	3
F. LIST OF INTERESTED PARTIES .....	5
G. PROCEDURES .....	6
H. REFERENCES.....	16
I. APPENDICES.....	16

## A. PURPOSE

The purpose of this procedure is to ensure and maintain acceptable standard for the raw materials, batched concrete, processes, finished precast elements and installation at the project sites.

## B. SCOPE

This quality control plan shall apply to all raw materials, batched concrete, finished precast elements and associated processes and services that the company provides.

## C. EXCLUSIONS

Testing of raw materials not available in SABEA Concrete Laboratory shall be done with the Third-Party Testing Laboratory.

## D. TERMS & DEFINITIONS

<b>SABEA</b>	Sabea Hollowcore and Precast W.L.L.
<b>QC</b>	Quality Control
<b>Concrete</b>	Is a mixture (mix) of cementitious materials, coarse and fine aggregate, and water, with or without admixtures, which develops its properties by cement hydration.
<b>Raw Materials</b>	The basic material from which a product is made.
<b>ITP</b>	Inspection & Test Plan
<b>HCS</b>	Hollow Core Slab

## E. ROLES & RESPONSIBILITIES

DESIGNATION	ROLES & RESPONSIBILITIES
<b>Operations Manager</b>	Responsible for the overall implementation of this procedure.
<b>QA/QC In-Charge</b>	Responsible for the implementation and upkeep of this procedure and ensuring the information within is disseminated to all QA/QC and Production personnel.
<b>QA/QC Engineer</b>	<ul style="list-style-type: none"> <li>Advisor on matters relating to the quality of the work within the manufacturing plant.</li> <li>He supervises the quality control work and ensures that the Quality Control Inspector has provided documentation for each work carried out.</li> <li>Implementation of company's quality control and assurance program.</li> <li>Submission of relevant technical information and documentations to clients or its representative.</li> <li>To ensure that agreed and approved standards, criteria, specifications, etc. are adhered to throughout the plant.</li> <li>Research and development of materials, methods and techniques to ensure that the company is up to date with the latest advances in concrete technology.</li> </ul>



# QUALITY PLAN FOR PRECAST

Doc. No.:	<b>SABEA-IMS-QC-PRO-01</b>
Issue Date:	01-03-2017
Revision:	00

	<ul style="list-style-type: none"> <li>• Inspection of incoming steel deliveries to ensure that there is no excessive rust, any mill scale, or other damage, and also ensure that labels of steel consignments corresponds with the relevant and submitted mill certificate.</li> <li>• Documents receiving inspection of raw materials using the form <b>SABEA-IMS- QC-FRM-20</b>.</li> <li>• Others, as directed by QA/QC In-Charge.</li> </ul>
<b>Quality Control Inspector</b>	<ul style="list-style-type: none"> <li>• To carry out and document inspections indicating that the following stages of production have been correctly carried out.</li> <li>• Moulds and formworks are correctly fabricated and set up within the allowable tolerances.</li> <li>• Reinforcements have been bent, placed and secured in accordance with the latest revision and approved drawings.</li> <li>• All cast in items and/or inserts are correctly placed and attached.</li> <li>• Pre-stressing tendons have been correctly tensioned, and that the particular stressing records are maintained.</li> <li>• Concrete has been handled, placed, and consolidated in accordance with the approved methods.</li> <li>• Finishing works are carried out to the highest practical standard.</li> <li>• Proper and safe methods of stripping, handling, storing and transport of elements are practiced.</li> <li>• Repair to damaged elements are carried out in accordance with the approved materials and methods.</li> <li>• That all elements are in the highest standard of quality before they will be delivered to their respective sites.</li> </ul>
<b>Laboratory In-Charge</b>	<ul style="list-style-type: none"> <li>• Material Engineer is reporting to the QA/QC In-Charge</li> <li>• Ensure the sampling of concrete materials is carried out in accordance with the recommended and accepted sampling procedures.</li> <li>• Ensure that the concrete materials deliveries are stockpiled according to their respective sizes and source in the correct manner.</li> <li>• Documentations, filing and maintenance of laboratory files and test results.</li> <li>• Ensure by inspections and/or tests that all raw materials or proprietary products to be incorporated in the works are in accordance with the agreed specifications, and ensure that the test records and documents are kept.</li> <li>• To arrange for independent testing of materials or products as required.</li> <li>• Preparation and formulation of concrete design mixes and the quality control of the same.</li> <li>• Responsible for the efficient and effective running of the QC Laboratory and the delegation of its staff to production lines that require inspection, sampling and testing.</li> <li>• Use the form <b>SABEA-IMS-QC-FRM-19</b> for inspection of raw material storage conditions, inspection of expiration dates, etc.</li> </ul>
<b>Concrete Laboratory Technician</b>	<ul style="list-style-type: none"> <li>• Concrete Laboratory Technician is reporting to the Laboratory In-Charge.</li> <li>• To perform field laboratory test on freshly mixed concrete as called for by the project specifications.</li> <li>• Inspection of all aggregate deliveries prior to tipping and unloading.</li> <li>• To ensure proper performance of sampling, handling and testing of concrete.</li> <li>• Aids in the quality control of concrete.</li> </ul>

	<ul style="list-style-type: none"> <li>To ensure accuracy in the identification of good quality concrete and substandard concrete by means of tests.</li> <li>To ensure that proper concrete test records are filed, kept and maintained for reference.</li> <li>Preparation of materials for laboratory trial mixes.</li> <li>To perform the required physical tests on freshly mixed concrete and hardened concrete as follows: <ul style="list-style-type: none"> <li>Standard test method for evaluating the temperature of concrete.</li> <li>Standard practice for sampling freshly mixed concrete.</li> <li>Standard test method for taking and measuring slump of concrete.</li> <li>Standard test method for fresh concrete density.</li> <li>Standard practice for making and curing of concrete test specimens in the field and laboratory.</li> <li>Standard test method for compression test of concrete specimen.</li> </ul> </li> <li>Coordination between batching plant and production line.</li> <li>To conduct physical testing of concrete materials as follows: <ul style="list-style-type: none"> <li>Standard practice for sampling aggregates.</li> <li>Standard practice for reducing aggregate samples to testing size.</li> <li>Standard test method for evaluating material finer than 75 µm by washing.</li> <li>Standard test method for sieve analysis of fine and coarse aggregates.</li> <li>Standard test method for specific gravity and absorption of fine and coarse aggregates.</li> <li>Standard test method for moisture determination of aggregates.</li> </ul> </li> </ul>
--	--

## F. LIST OF INTERESTED PARTIES

SN	Interested Parties	Internal or External	Reason for Interest
1	Consultant	External	Inspecting & approving the product.
2	Client	External	To receive quality products as per requirement.
3	Contractor	External	Delivery of quality product to Client.
4	Third Party Laboratory Testing	External	Ensure that all materials tested comply the standard specifications.
5	Production Team	Internal	Manufacturing of products.
6	Logistics In-Charge	Internal	Delivering the products to client.
7	Qatar Construction Specifications (QCS) 2014	External	Standard specifications implemented in Qatar.
8	Storekeeper	Internal	Procurement of materials.
9	Batch Plant Operator	Internal	Production of concrete.
10	Production Engineer/Supervisor	Internal	Ensure that materials and products are tested and inspected as per the ITPs.



## G. PROCEDURES

### G.1. Inspection and Testing of Concrete Raw Materials

Detailed procedures for each inspection are outlined in SABEA-IMS-QC-PRO-02 and detailed procedure for testing done at the QA/QC laboratory are outlined in **SABEA-IMS-QC-WI-01 to SABEA-IMS-QC-WI-13**.

### G.2. Inspection and Testing of Batched Concrete

- G.2.1. All quality control testing of materials used in concrete batching must follow the tests described in **Table No. 1 – ITP – In House Laboratory and Third-Party Laboratory**. This table also shows the tests that must be done on freshly batched concrete and hardened concrete.
- G.2.2. Detailed procedures for each test conducted at the QA/QC laboratory and for each inspection are outlined in **SABEA-IMS-QC-WI-01 to SABEA-IMS-QC-WI-13** and **SABEA-IMS-QC-PRO-04** respectively.

### G.3. Pre-Stressed Precast Hollow Core Slabs Production

- G.3.1. Table describes the steps where quality control inspections are being carried out.
- G.3.2. **Table No. 2 – ITP for Prestressed Precast Hollow Core Slabs** summarize the Inspection and Test Plan for the production of pre-stressed precast elements.
- G.3.3. Detailed procedures for each test and for each inspection are outlined in the Work Instructions and Quality Procedures.


### G.4. Precast Concrete Production

- G.4.1. Table describes the steps where quality control inspections are being carried out.
- G.4.2. **Table No. 3 – ITP for Precast Concrete Elements** summarizes the Inspection and Test Plan for the production of reinforced precast concrete elements.
- G.4.3. Detailed procedures for each test and for each inspection are outlined in the Work Instructions and Quality Procedures.

### G.5. Prestressed / Precast Concrete Elements Erection


- G.5.1. Table describes the steps where quality control inspections are being carried out.
- G.5.2. **Table No. 4 – ITP for Erection of Precast Concrete Elements** summarizes the Inspection and Test Plan for the erection of precast concrete elements.
- G.5.3. **Table No. 5 – ITP for Erection of Prestressed Precast Hollow Core Slabs** summarizes the Inspection and Test Plan for the erection of prestressed precast hollow core slabs.
- G.5.4. Detailed procedures for each test and for each inspection are outlined in the Work Instructions and Quality Procedures.

**TABLE NO. 7**

		PRECAST FACTORY L.L.C QATAR							
ITP- IN HOUSE LABORATORY AND THIRD PARTY LABORATORY									
Material	Test Description	Ref. Standard	Acceptance Limit		Testing Frequency			Reference Specification	Remarks
			Coarse	Fine	Initial Acceptance	In-House	3rd Party		
Aggregate	Grading	BS/EN 933-1	Standard		Source Certificates	weekly	3 Months	QCS 2014 S-5, P-2, T-2.1	Client Representative can witness in house / independent Lab sampling/ Testing. Test report will updated as per the requirement of client
	Material Finer than 0.063 mm	BS/EN 933-1	2 % max	3 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Partial Density for normal weight concrete	BS/EN 1097-6	2.0 min	2.0 min	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Absorption	BS/EN 1097-6/ASTM C 127:12	2.0 % max	2.3 % max	Source Certificates	weekly	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Moisture content of aggregates	BS/EN	-	-	Source Certificates	Daily 2 times	-	QCS 2014 S-5 P-2 T2.1	
	Flakiness Index	BS/EN 933-3	35 % max	-	Source Certificates	weekly	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Crushed Rock value	BS/EN 933-1	2 % max	7 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Fine Quality (a)-Sand Equivalent ( % )	BS/EN 933-8	-	7 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	(b)-Methylene Blue adsorption value3 (0/2mm)	BS/EN 933-9	-	1.0 (g/kg) max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Clay Lumps & Friable Particles	ASTM C142	2 % max	2 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Lightweight Pice	ASTM C123	0.5 % max	0.5 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Organic Impurities for Fine Aggregate	ASTM C40	-	Colour Standard not darker than plate No. 3	Source Certificates	-	6 Months	QCS 2014 S-5, P-2, T-2.1	
	Shell Content	BS/EN 933-7	3 % max	3 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Acid-Soluble Chlorides: Prestressed Concrete	BS/EN 1744-5	0.01 % max	0.01 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Acid-Soluble Sulphate	BS/EN 1744-1	0.3 % max	0.4 % max	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Soundness By magnesium sulphate	BS/EN 1367-2	15 % max	15 % max	Source Certificates	-	1 Test / Year	QCS 2014 S-5, P-2, T-2.1	
	Los Angeles Abrasion	BS/EN 1097-2	30 % max	-	Source Certificates	-	3 Months	QCS 2014 S-5, P-2, T-2.1	
	Potential Reactivity	BS 206-1 BS 8500-2	Innocuous / Not reactive		Source Certificates	-	6 Months	QCS 2014 S-5, P-2, T-2.1	
	PH Value	BS 6068-2.50	6.5-9.0 mg/L max		-	-	3 Months	QCS 2014 S-5, P-4, T-4.2	
Water	Sulphate Content	EN 196-2	2000 mg/L max		-	-	3 Months	QCS 2014 S-5, P-4, T-4.2	Client Representative can witness in house / independent Lab sampling/ Testing. Test report will updated as per the requirement of client
	Chloride Content	BS 6068-1.37 (ISO 9297)	500 mg/L max		-	-	3 Months	QCS 2014 S-5, P-4, T-4.2	
	Total Dissolved Ions	BS 1377 : Part 3	1000 mg/L max		-	-	3 Months	QCS 2014 S-5, P-4, T-4.2	
Concrete	Mix Design	-	As per Client Spec		-	Every Source	-	-	
	Slump	BSEN-12350	As per Client Spec		-	Per batch / project (wet concrete)	-	-	
	Air Content	ASTM C 232	As per Client Spec		-	1 per trial mix /As required	-	-	
	Temp.	BSEN-12350	As per Client Spec		-	Per batch / project (wet concrete)	-	-	
	Density	-	>2400 kg/m3		-	-	As required	-	
	Concrete Cube Strength	ASTM C 39 or BS 1881 P:116	-		-	Daily/Project 1-Day,3day, 7-Days & 28-Days	As required	-	
	Physical Test	ASTM C 150	As Specified in Related Std. / Mill Certificates		Mill Certificate	-	3 Months / Test	QCS 2014 S-5, P-3, CL-3.4	
Cement	Chemical Test	ASTM C 150	-		-	-	3 Months / Test	QCS 2014 S-5, P-3, CL-3.4	
	Tensile & Yield Strength	ASTM A82 & BS 4449	Yield 500 N/mm2 (min)		Mill Certificate	-	1 Test / 100 Ton or 3 months	-	
Steel	Elongation	BS 4449	12 % min		-	-	-	-	
	Reduction of Area	ASTM A81	25 % min		-	-	-	-	



**TABLE NO. 2**



SABEA PRECAST FACTORY QATAR L.L.C.

ITP – PRODUCTION OF PRESTRESSED PRECAST HOLLOW CORE SLABS

SN	DESCRIPTION OF ACTIVITY	CONTROL PROCEDURE/ SPEC. / CODES/ STANDARD	FREQUENCY	ACCEPTANCE CRITERIA	RESPONSIBLE PERSON	* INSPECTION & TEST CODE (R, S, W, H)					RECORDS TO BE GENERATED
						SABEA	CONTRACTOR	CONSULTANT	CLIENT	THIRD PARTY	
1. DOCUMENTATION											
1.1	Submission and approval of shop drawing	<ul style="list-style-type: none"> <li>* Approved structural calculation &amp; Shop drawings</li> <li>* KM Project Specifications, Appendix A, Section 2 Civil &amp; Structural Specification 2.1.1.3</li> <li>* Approved Method statements</li> <li>* KM Project Specifications, Appendix A, Section 2 Civil &amp; Structural Specification 2.1.1.3</li> </ul>	Prior to start of work	Approved Shop drawings	DO, QC, PO						Submittal Logs
1.2	Submission & approval of Method Statement for Production of precast hollow core slabs	<ul style="list-style-type: none"> <li>* Approved Method statements</li> <li>* KM Project Specifications, Appendix A, Section 2 Civil &amp; Structural Specification 2.1.1.3</li> </ul>	Prior to start of work	Approved Method of statement	PO, QC						Submittal logs
1.3	Mix Design submittal	<ul style="list-style-type: none"> <li>* Approved Mix design: QCS 2014 Sec 5 Part 6</li> <li>* KM Project Specifications, Appendix A, Section 2 Civil &amp; Structural Specification 2.1.1.3</li> </ul>	Prior to start of work	1. Test results Minimum compressive strength @ 28 days	PO, QC						Mix Design Submittal, 3 <sup>rd</sup> party reports
1.4	Submission and approval of materials for Production	<ul style="list-style-type: none"> <li>* Review of documents as per QCS 2014 sec.5 parts, 2, 3, 5, 6 &amp; 11</li> <li>* KM Project Specifications, Appendix A, Section 2 Civil &amp; Structural Specification 2.1.1.3</li> </ul>	Prior to start of work	Approved materials, test results of materials, 3 <sup>rd</sup> party results	PO, QC						Submittal logs

Legend: R- Review; S- Surveillance inspection; W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consultant/Client, H- Hold Point, raising of Inspection Request is mandatory

2. PRODUCTION AND CASTING OF PRECAST HOLLOW CORE SLABS											
2.1	Pre-stressing bed cleaning and preparation	Approved MS for production, (QCS 2014 sec5 part 10)	Each casting	*As per approved Production MS, Visual	PD, QC, DD						Approved Method Statement Logs
2.2	Laying of PC strand and application of pre-stressing force	Shop drawings / Contract specs, QCS 2014 Sec5 part 18.2	Each casting	*Visual inspection of strands quality, quantity, size & location. *Conformance to required elongation as per approved shop drawings	PD, QC, DD						Shop Drawings / UPF-IMS-QC-FRM-02 Pre-stressing HCS checklist
2.3	Concreting	Approved Mix design: QCS 2014 Sec.5 Part 6	Each casting	*Visual, slump test, temperature as per MS production *contract specification	PD, QC						Mix Design / Materials submittal /SABEA-IMS-QC-FRM-02-/ UPF-IMS-QC-FRM-30 / 3 <sup>rd</sup> party
2.4	Compressive Concrete Strength Production	Testing as per BS 1881 BS EN 12390	Each casting	Test results (min. 60m³ per sample to be taken)	QC						Mix Design / Materials submittal /SABEA-IMS-QC-FRM-30 Concrete Test Report /3 <sup>rd</sup> party
2.5	Curing	Approved MS for production, (QCS 2014 sec5 part 10)	Each casted element	*As per approved Production MS, *Pre- storage and curing time is minimum 7days	PD, QC						IMS-QC-FRM-02/ QC Inspection sheet
2.6	Element markings	Approved Production Method of statements	Each casted element	Approved shop drawing	PD, QC						IMS-QC-FRM-02/ QC Inspection sheet
2.7	Stripping and De-tensioning of HCS	Approved Production Method of statements	Each casted bed	* Cubes early test result *MS production / Shop drawing	PD, QC						-IMS-QC-FRM-30 Concrete test reports
2.8	Handling & Storage of Pre-cast hollow core	Approved Production Method of statements / Shop Drawings	Each casted element	*contract spec *Method of statement for prod *Shop drawings	PD, QC						IMS-QC-FRM-04 Inspection sheet
2.9	Final inspection & release for delivery	Approved Production Method of statements / Shop Drawings	Each casted element	*contract spec *Method of statement for prod *Shop drawings	PD, QC						IMS-QC-FRM-04 Inspection sheet

**Legend:** R- Review; S- Surveillance inspection; W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consultant/Client, H- Hold Point, raising of Inspection Request is mandatory.



**SABEA PRECAST FACTORY QATAR L.L.C.**  
**ITP – PRODUCTION OF PRECAST CONCRETE ELEMENTS**

SN	DESCRIPTION OF ACTIVITY	CONTROL PROCEDURE/ SPECIFICATION/ CODES/STANDARD	FREQUENCY	ACCEPTANCE CRITERIA	RESPONSIBLE PERSON	* INSPECTION & TEST CODE (R, S,W, H)					RECORDS TO BE GENERATED
						SABEA	CONTRACTOR	CONSULTANT	CLIENT	THIRD PARTY	
1.	DOCUMENTATION										
1.1	Submission and approval of shop drawing	<ul style="list-style-type: none"><li>Approved structural calculation &amp; Shop drawings.</li><li>Project Specifications</li></ul>	Prior to start of work	Approved Shop drawings	DD, QC, PD						Submittal Logs
1.2	Submission & approval of Method Statement for Production of precast Boundary Wall	Approved Method statements Project Specifications,	Prior to start of work	Approved Method of statement	PD, QC						Submittal logs
1.3	Mix Design submittal	Approved Mix design: QCS 2014 Sec.5 Part 6 Project Specifications,	Prior to start of work	1.Test results Minimum compressive strength @ 28 days	PD, QC						Mix design Submittal, 3 <sup>rd</sup> party reports
1.4	Submission and approval of materials for Production	<ul style="list-style-type: none"><li>Review of documents as per QCS 2014 Sec.5 parts,2, 3, 5, 6 &amp; 11</li><li>Project Specifications</li></ul>	Prior to start of work	Approved materials, test results of materials, 3 <sup>rd</sup> party results	PD, QC						Submittal logs
2.	PRODUCTION AND CASTING OF PRECAST ELEMENTS										
2.1	Mould Inspection	Shop drawings / Contract specs QCS2014 Sec5 part10	Each casting	Measurement in comparison with reference value as per Shop Drawings	PD, QC, DD						Approved Method Statement Logs SABEA-IMS-QC-FRM-01 Inspection sheet

**Legend:** R- Review; S- Surveillance inspection; W- Witness , raising of Inspection Request is not mandatory which shall be at the discretion of consultant/ KM, H- Hold Point , raising of Inspection Request is mandatory.

**QUALITY PLAN FOR PRECAST**

TABLE NO. 3

Doc. No.	SABEA-IMS-QC-PRO-01
Issue Date:	01-03-2017
Revision:	00

**SABEA PRECAST FACTORY QATAR L.L.C.**  
**ITP – PRODUCTION OF PRECAST CONCRETE ELEMENTS**

2.2	Reinforcement Cages	Shop drawings / Contract specs, QCS 2014 Sec5 part 11	Each casting	Measurement in comparison with reference value as per Shop Drawings	PD, QC, DD						Shop Drawings / SABEA-IMS-QC-FRM-01 Inspection sheet
2.3	Embedded Items	Shop drawings / Contract specs	Each casting	Measurement in comparison with reference value as per Shop Drawings	PD, QC, DD						Shop Drawings / SABEA-IMS-QC-FRM-01 Inspection sheet
2.4	Concreting	Approved Mix design: QCS 2014 Sec.5 Part 6	Each casting	*Visual, slump test ,temperature as per MS production *contract specification	PD, QC						Mix Design / Materials submittal / SAB-IMS-QC-FRM-01 Inspection sheet/ 3 <sup>rd</sup> party N/A
2.5	Compressive Concrete Strength Production	Testing as per BS 1881 BS EN 12390	Prior to start of work	Test results (min. 30m <sup>3</sup> per sample to be taken)	QC						Mix Design / Materials submittal / -IMS-QC-FRM-30 Concrete Test Report /3 <sup>rd</sup> party N/A
2.6	Curing	Approved MS for production, (QCS 2014 sec5 part 10)	Each casted elements	*As per approved Production MS, *Pre storage and curing time is minimum 7days	PD, QC						MS -QC-FRM-01 Inspection sheet
2.7	Element markings	Approved Production Method Statements	Each casted elements	Approved shop drawing	PD, QC						MS -QC-FRM-02 Inspection sheet
2.8	Finishing	Approved Production Method Statements	Each casted elements	*Visual check *MS production / Shop drawing *contract specification	PD, QC						MS -QC-FRM-04 Final Inspection sheet
2.9	Handling & Storage of Pre-cast elements	Approved Production Method Statements / Shop Drawings	Each casted elements	*contract spec *Method of statement for prod *Shop drawings	PD, QC						-IMS -QC-FRM-02 Final Inspection sheet
2.10	Final inspection & release for delivery	Approved Production Method Statements / Shop Drawings	Each casted elements	*contract spec *Method of statement for prod *Shop drawings	PD, QC						-IMS -QC-FRM-02 Final Inspection sheet

**Legend:** R- Review; S- Surveillance inspection; W- Witness , raising of Inspection Request is not mandatory which shall be at the discretion of consultant/ KM, H- Hold Point , raising of Inspection Request is mandatory.

**QUALITY PLAN FOR PRECAST**

Doc No	SAB-IMS-QC-FRM-01
Issue Date	01-03-2017
Revision	00



TABLE NO. 4

SABEA PRECAST FACTORY QATAR L.L.C.										
ITP – ERECTION OF PRECAST CONCRETE ELEMENTS										
SN	DESCRIPTION OF ACTIVITY	CONTROL PROCEDURE/ SPEC. / CODES / STANDARD	FREQUENCY	ACCEPTANCE CRITERIA	RESPONSIBLE PERSON	* INSPECTION & TEST CODE (R, S, W, H)				RECORDS TO BE GENERATED
						SABEA	CONTRACTOR	CONSULTANT	CLIENT	
1. APPROVALS										
1.1	Layout Drawings & Connection details drawings of Precast Elements	Approved Shop Drawings, MS & ITP, QCS 2014 sec1 p7	Before Starting	Approved Installation Drawings and approved shop drawings	DD, PD, QC					Submittal logs / Approved Lay out drawings
1.2	Material Submittal	*MS & ITP and QCS 2014 Sec1 P7 Specifications, Appendix A, Section 2 Civil & Structural Specification 2.1.1.3	Before Starting	Test Reports & Certificate of Origin	PD, QC					Submittal Logs
1.3	Method Statement, ITP & Risk Assessment	*QCS 2014 Sec1, Part 7 Project Specifications, Appendix A, Section 2 Civil & Structural Specification 2.1.1.3	Before Starting	Approval MS for Erection Project specification	PD, QC					MS erection Submittal Logs
2. MATERIALS										
2.1	Approved Materials/Supplier	Material approval, DO's, test reports, mill certificates	Prior start	All materials requirements and test results must be as per project specification, Approved materials submittal	PD, QC, DD					Submittal Logs
2.2	Materials Handling & Storage	QCS 2014 Sec 1 Part 9, MS for erection & Project specification	Every delivery	As per MS and materials submittals, project specification and QCS	PD, QCCE, DD					Delivery Notes, materials approval log
3.0 PRE- ERECTION										

Legend: R- Review; S- Surveillance inspection; W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consultant/ Client, H- Hold Point, raising of Inspection Request is mandatory.

SABEA PRECAST FACTORY QATAR L.L.C.										
ITP – ERECTION OF PRECAST CONCRETE ELEMENTS										
3.1	Check availability of tools, equipment and necessary accessories including the temporary props for erection.	Updated calibration certificate, updated equipment and operation documents, construction mock-up, approved mock-up, approved sample	Prior to start of work	Project specs, Shop Drawings, MS & ITP	QCE, EE					RFI/MRI Logs
3.2	Check elements type received and erection sequence	Approved Precast Elements & Approved Installation drawings	Prior to start of work for each location	Project specs, Approved Shop Drawings & MS	EE, QC					Installation Checklist
3.3	Check accuracy of setting out for the reference and datum level	Project specs, Approved Shop Drawings & MS	Prior to start of work for each location	Survey setting out & Approved Installation / shop drawings	Surveyor, EE, QC					Survey Reports
4.0 INSTALLATION / ERECTION										
4.1	Check hoisting condition and position of precast elements	Project specs, Approved Shop Drawings & MS	Prior to start of work for each location	Approved Shop drawings & MS	EE, QC, Surveyor					Installation Checklist
4.2	Check on the alignment, vertically and level of precast elements	Approved Shop drawings & MS, Lifting plan	Each installation	Approved shop drawings & MS	EE, QC, Surveyor					Survey Reports
4.3	Application of grout for joints and connection / Installation	Project specs, Approved Shop Drawings, QCS 2010 sec13, p2 & Approved MS for erection	Each location for grouting	Approved shop drawings & MS Erection	QC, EE					Inspecting & Testing agency Reports, Surveyor Reports CRFI
5.0 FINAL INSPECTION										
5.1	Check for any Defect on finished surface & As Built Survey Reports	QCS 2010 SEC 5 P16, Project specification, Approved MS	Each Erected element	Approved RFI, Approved Materials & Installations, Approved Test & Approved As Built Survey Reports	QC, EE					Installation Checklist

Legend: R- Review, S- Surveillance inspection, W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consultant/ Client, H- Hold Point, raising of Inspection Request is mandatory.



TABLE NO. 5

SABEA PRECAST FACTORY QATAR L.L.C.										
ITP – ERECTION OF PRESTRESSED PRECAST HOLLOW CORE SLABS										
SN	DESCRIPTION OF ACTIVITY	CONTROL PROCEDURE/ SPEC. / CODES/ STANDARD	FREQUENCY	ACCEPTANCE CRITERIA	RESPONSIBLE PERSON	* INSPECTION & TEST CODE (R, S, W, H)				RECORDS TO BE GENERATED
						CONTRACTOR	CONSULTANT	CLIENT	THIRD PARTY	
1. APPROVALS										
1.1	Layout Drawings & as built drawings of Precast hollow core	Approved Shop Drawings, MS & ITP, QCS 2014 sec1 p7	Before Starting	Approved installation Drawings and approved shop drawings	Design Engr., Prod Engr., QC Engr.					Submittal logs / Approved Lay out drawings
1.2	Material Submittal	*MS & ITP and QCS 2014 Sec1 P7 *KM Project Specifications, Appendix A, Section 2 Civil & Structural Specification 2.1.1.3	Before Starting	Test Reports & Certificate of Origin	Prod. Engr., QC Engr.					Approved materials submittal log
1.3	Method Statement, ITP & Risk Assessment	*QCS 2014 Sec1, Part7 *KM Project Specifications, Appendix A, Section 2 Civil & Structural Specification 2.1.1.3	Before Starting	Approval MS for Erection Project specification	Prod. Engr., QC Engr.					Approved MS erection Submittal Logs
2. MATERIALS										
2.1	Approved Materials/Supplier	Material approval, test reports, mill certificates	Prior start	All materials requirements and test results must be as per project specification, Approved materials submittal	Prod. Engr., QC Engr.					Submittal Logs
2.2	Materials Handling & Storage	QCS 2014 Sec 1 Part 9, MS for erection & Project specification	Every delivery	As per MS and materials submittals, project specification and QCS	Erection Engr., QC Engr.					Delivery Notes, materials approval log

Legend: R- Review; S- Surveillance Inspection; W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consultant/Client, H- Hold Point, raising of Inspection Request is mandatory.

## SABEA PRECAST FACTORY QATAR L.L.C.

### ITP – ERECTION OF PRESTRESSED PRECAST HOLLOW CORE SLABS



PRE-ERECTION										
3.0	Check availability of tools, equipment and necessary accessories	Updated calibration certificate, updated operation documents, construction mock-up	Prior to start of work	Project specs, Shop Drawings, MS & ITP	QC Engr., Erection Engr.					Calibration certificates
3.1	Check elements type received and erection sequence	Approved Precast Elements & Approved installation drawings	Prior to start of work for each location	Project specs, Approved shop Drawings & MS	Erection Engr., QC					Installation Checklist
3.2	Check accuracy of setting out for the reference and datum level	Project specs, Approved Shop Drawings & MS	Prior to start of work for each location	Survey setting out & Approved installation / shop drawings	Surveyor, Erection Engr., QC					Survey Reports
INSTALLATION / ERECTION										
4.0	Check hoisting condition and position of precast Hollow core	Project specs, Approved Shop Drawings & MS	Prior to start of work for each location	Approved shop drawings & MS	Erection Engr., QC, Surveyor					Installation Checklist
4.1	Check on the alignment, and level of precast hollow core	Approved Shop drawings & MS, Lifting plan	Each installation	Approved shop drawings & MS	Erection Engr., QC, Surveyor					Survey Reports
FINAL INSPECTION										
5.0	Check for any Defect on finished surface & As Built Survey Reports	QCS 2014 SEC 5 P16, Project Specification, Approved MS	Each Erected element	Approved IR, Approved Materials Approved As Built & Survey Reports	QC, Erection Engr.					IR logs and QC Checklist

**Legend:** R- Review, S- Surveillance inspection, W- Witness, raising of Inspection Request is not mandatory which shall be at the discretion of consulting/Client, H- Hold Point, raising of Inspection Request is mandatory.



## H. REFERENCES

- Procedure for Inspection of Raw Materials (**SABEA-IMS-QC-PRO-02**)
- Procedure for Inspection of Concrete (**SABEA-IMS-QC-PRO-04**)
- Procedure for Factory Quality Control (**SABEA-IMS-QC-PRO-03**)
- Work Instructions for Testing of Concrete Materials and Batched Concrete (**SABEA-IMS-QC-WI-01 to SABEA-IMS-QC-WI-13**)

## I. APPENDICES

SN	DESCRIPTION	DOCUMENT NO.
1	Plant Inspection Checklist	SABEA-IMS-QC-FRM-19
2	Material Receiving Inspection	SABEA-IMS-QC-FRM-20



**FARAS P.P**  
( QC ENGINEER)




**HAMZA KHALED ALSHARA**  
( FACTORY MANAGER )

# **8. PRODUCT LIST & CATALOGUE**

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)  
[www.sae.com.qa](http://www.sae.com.qa)



<b>1 GENERAL.....</b>	<b>5</b>	<b>5.3 RECTANGULAR BEAMS.....</b>	<b>24</b>		
1.1 PREFABRICATION, WHEN AND WHY.....	5	5.3.1 Performance curves			
1.2 STANDARDS AND TECHNICAL GUIDELINES.....	6	R beams.....	25		
1.3 CONCRETE QUALITY.....	6	5.3.2 Connections .....	25		
1.4 FIRE RESISTANCE.....	7	<b>5.4 L BEAMS &amp; INVERTED T BEAMS.....</b>	<b>26</b>		
1.5 PERFORMANCE CURVES.....	7	5.4.1 Performance curves			
1.6 NOTATIONS.....	7	L beams and inverted			
		T beams.....	27		
		5.4.2 Beam width.....	28		
		5.4.3 Connections .....	28		
<b>2 FRAME STRUCTURES....</b>	<b>8</b>	<b>5.5 SI BEAMS</b>	<b>29</b>		
2.1 LOW-RISE UTILITY BUILDINGS...	8	5.5.1 Characteristics.....	29		
2.1.1 Single-storey buildings.....	8	5.5.2 Connections.....	29		
2.1.2 Low-rise buildings with intermediate floors.....	10	5.5.3 Performance curves			
2.1.3 Horizontal stability	10	SI beams.....	30		
2.2 MULTI-STOREY BUILDINGS.....	11	5.5.4 Weight of the SI beams	30		
2.2.1 Stability.....	11	<b>5.6 I BEAMS.....</b>	<b>31</b>		
2.2.2 Diaphragm action.....	12	5.6.1 Characteristics.....	31		
2.2.3 Modular design.....	12	5.6.2 Connections.....	31		
		5.6.3 Performance curves			
		I beams.....	32		
		5.6.4 Weight of the I beams.....	32		
<b>3 COLUMNS.....</b>	<b>13</b>			<b>7 RESIDENTIAL BUILDINGS.....</b>	<b>43</b>
3.1 CHARACTERISTICS.....	13			7.1 ARCHITECTURAL FREEDOM....	43
3.1.1 Rectangular columns	13	<b>6 HOLLOW-CORE SLABS.....</b>	<b>33</b>	7.2 STRUCTURAL SYSTEMS.....	44
3.1.2 Round columns.....	13	6.1 STANDARD PROFILES.....	33		
3.2 CORBELS.....	14	6.1.1 Extruded hollow-core slab profiles.....	33	7.3 FOUNDATION ..... UNITS.....	45
3.3 PERFORMANCE CURVES.....	15	6.1.2 Slipformed hollow-core slab profiles.....	33	7.4 STAIRS	45
3.4 CONNECTIONS.....	16			7.5 BALCONIES ..... AND TERRACES...	46
3.5 TOLERANCES.....	17	6.2 CHARACTERISTICS.....	34	7.6 SOLID WALL	46
3.6 BETEMI COLUMNS.....	18	6.3 PERFORMANCE CURVES OF HOLLOW-CORE SLABS.....	35	7.6.1 Characteristics.....	46
3.6.1 System.....	18	6.4 STRUCTURAL TOPPING.....	36	7.6.2 Connections.....	47
3.6.2 Applications	18	6.5 PRECAMBER.....	37	7.7 ACOTEC PARTITION WALLS....	47
3.6.3 Connections.....	18	6.6 DIAPHRAGM ACTION	37	7.7.1 Installation.....	47
		6.7 CONCENTRATED LOADING.....	38	7.7.2 Applications.....	47
		6.8 OPENINGS.....	38		
		6.9 CONNECTIONS.....	39		
		6.9.1 Bearing length	39	<b>8 PANELS.....</b>	<b>48</b>
		6.9.2 Support connections.....	39	8.1 SANDWICH PANELS.....	48
		6.9.3 Connections at longitudinal joints.....	40	8.2 CLADDING PANELS.....	49
<b>4 POCKET FOUNDATIONS.....</b>	<b>19</b>	6.10 MATCH PLATES	40	8.3 SPECIAL ARCHITECTURAL ELEMENTS	49
		6.11 PRODUCTION TOLERANCES...	40	8.4 DETAILS AND CONNECTIONS...	49
		6.12 HANDLING AND TRANSPORT...	41		
		6.13 ERECTION.....	42	<b>9 RAILWAY PRODUCTS.50</b>	
<b>5 BEAMS.....</b>	<b>20</b>			9.1 RAILWAY SLEEPERS.....	50
5.1 GENERAL.....	20				
5.1.1 Types.....	20			<b>10 Sample Pictures ....</b>	<b>51</b>
5.1.2 Supports.....	21			<b>11 Machines &amp; Equipment ....</b>	<b>59</b>
5.1.3 Inserts	21				
5.1.4 Lifting and temporary storage.....	21				
5.1.5 Production tolerances.....	21				
5.2 PURLINS.....	22				
5.2.1 Performance curves					
RP purlins.....	23				
5.2.2 Connections.....	23				





# 1. GENERAL

## 1.1 PREFABRICATION: WHEN AND WHY

To prefabricate - to precast - concrete components for various purposes is not a new method. On the contrary, it has been used since the beginning of the twentieth century.

Prefabrication technology has continually been refined and developed since then. Compared with traditional construction methods or other building materials, prefabrication, as a construction method, and concrete, as a material, have a number of positive features.

### **It is an industrialized way of construction, with the inherent advantages of:**

- High capacity - enabling the realization of massive projects
- Factory-made products mean consistent high quality
- Shorter construction time - less than half of

### **When to use precast concrete**

Most buildings are suitable for construction in precast concrete. Buildings with an orthogonal plan are, of course, ideal for precasting because they exhibit a

conventional cast in-situ construction

- Independent of adverse weather conditions
- Quality surveillance system.

### **It offers the customer the performance to full-fill all requirements:**

- Opportunities for good architecture
- Fire resistant material
- Healthy buildings
- Reduced energy consumption through the ability to store heat in the concrete mass
- Environmentally friendly way of building, with optimum use of materials, recycling of waste products, less noise and when to dust, etc.
- Cost-effective solutions.

degree of regularity and repetition in their structural grid, spans, member size, etc. Irregular ground layouts are, on many occasions, equally suitable for precasting. Modern precast concrete buildings can be designed safely and economically with a variety of plans and with considerable variation in treatment of the elevations to heights up to twenty floors and more. With the introduction of high-strength concrete, already currently used in the industry, the sizes of load-bearing columns can be reduced to less than half of the section needed in conventional concrete structures.

Precast concrete offers considerable scope for improving structural efficiency. Longer spans and shallower construction depths can be obtained by using prestressed concrete for beams and floors. For industrial and commercial halls, roof spans can be up to 40 m and even more. For parking garages, precast concrete enables occupiers to put more cars on the same construction space because of the large span possibilities and slender column sections. In office buildings, the modern trend is to create large open spaces, which can be split with partitions. This not only offers flexibility in the building but also extends its life because of the easier adaptability. In this way, the building retains its commercial value over a longer period.



*Long line casting beds.*

## 1.2 STANDARDS AND TECHNICAL GUIDELINES

The calculation of the indicative performance curves given in this overview are based on the following European Standards and Technical Guidelines:

- BS 8110: 1985 Structural use of concrete part 1, Part 2, & Part 3.
- ACI-318-14: Building Code requirements for structural concrete.
- PCI Design Hand Book: Precast and Prestressed concrete 7<sup>th</sup> Edition.
- PCI: Manual for the design of Hollowcore slab.
- FIP Commission on Prefabrication, "FIP Recommendations Precast Prestressed hollow-core Floors", Thomas Telford Ltd, London 1988
- FIP Commission on Prefabrication, "Planning and design handbook on precast building structures", - SETO Ltd, London 1994
- fib Commission on Prefabrication, Guide to good practice "Special design recommendations for precast prestressed hollow-core floors", fib bulletin

## 1.3 CONCRETE QUALITY

The concrete is usually made with normal aggregates and grey Portland cement. For façade units, special aggregates and white Portland cement with color pigments may be used. Depending on the application of the products, the following concrete strength classes are used:

- Characteristic strength C 40 (Characteristic cylinder strength  $f_{ck} = 40$  MPa, cube strength  $f_{ck} = 50$  MPa, according to Eurocode 2): Prestressed beams, columns, TT slabs, prestressed hollow-core units
- Characteristic strength C 35 (Cylinder strength 35 MPa, cube strength 45 MPa): Products in reinforced concrete.

Special units, for example columns or beams, can be made in high strength concrete, grade C80 (Cylinder

strength 80 MPa, cube strength 95 MPa). The application may be indicated to limit the weight or the construction depth of the units.

The elements are designed for an exposure class corresponding to moderate exposed environmental conditions Design for more severe exposure classes – like, for example, in swimming pools – is possible.



*Shear test on hollow-core slab.*



*Workability test fresh concrete.*



## 1.4 FIRE RESISTANCE

Precast building structures in reinforced and prestressed concrete normally assume a fire resistance of 60 to 120 minutes and more. For industrial buildings, the normal required fire resistance of 30 to 60 minutes is met by all types of precast components without any special measure. For other types of buildings, a fire resistance of

90 to 120 minutes is obtained by increasing the concrete cover on the reinforcement. The above fire ratings are based on the requirements set forth in Eurocode 2, Part 1-2 "Structural fire resistance" and confirmed by a large number of fire tests on precast concrete units in fire laboratories all over Europe.

## 1.5 PERFORMANCE CURVES

The performance curves in this guide give indicative values for the maximum admissible applicable permanent and variable load versus span. They can be used for marketing and preliminary dimensioning of the precast members, but not for the final design.

They are calculated according to the requirements of the Eurocodes. The self-weight of the components has already been taken into account. The curves are calculated for a proportioning of 50% permanent and 50% variable loading. Please contact our technical staff for other load combinations. Detailed calculations are carried out for each project at the design stage.

The indicated performances correspond with the maximum allowable prestressing force per unit. For the final design, the exact prestressing force is determined for the given loading condition, and will not always correspond with the maximum possible prestressing.

Checks for adaptations of existing constructions at a later stage should always refer to the final design documents and drawings. The industry will advise on request

## 1.6 NOTATIONS

a	support length
b	total width cross section
$b_w$	web width
d	camber
h	height cross-section
$\ell$	partial length
u	warping
qk	characteristic variable loading
fck	characteristic compressive cylinder strength of concrete at 28 days
$\bar{\sigma}_{cd}$	design compressive stress in the concrete
$\sigma$	allowable stress
C	strength class of concrete (expressed as cylinder strength of concrete at 28 days)
H	horizontal force.
L	length precast unit
$M_d$	design value of bending moment
$M_u$	ultimate bending moment
N	axial force
$N_d$	design value of axial force
$N_u$	ultimate axial force
R	standard fire resistant.



Hall for prefabrication of hollow-core slab.

## 2. FRAME AND SKELETAL STRUCTURES

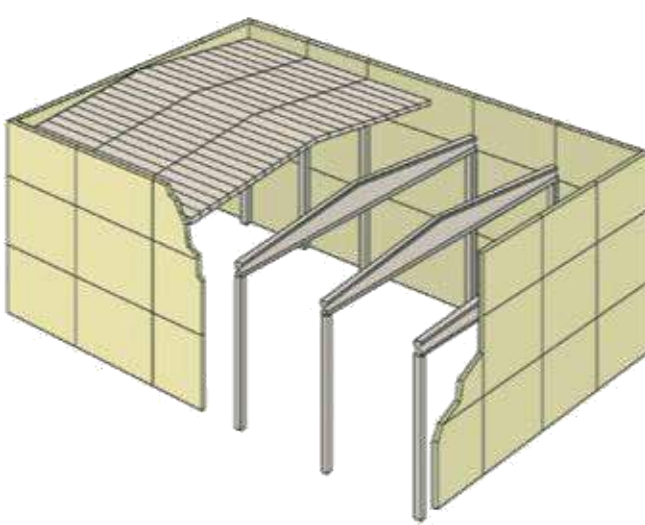
### 2.1 LOW-RISE UTILITY BUILDINGS

#### 2.1.1 Single-story buildings

Normally, the skeleton of a single-story industrial building is composed of a series of basic portal frames.

Each frame comprises two columns with moment-fixed connections at the foundations and a pin-jointed roof beam. The latter can be with either a sloped pane or a straight profile. The building is normally stabilized

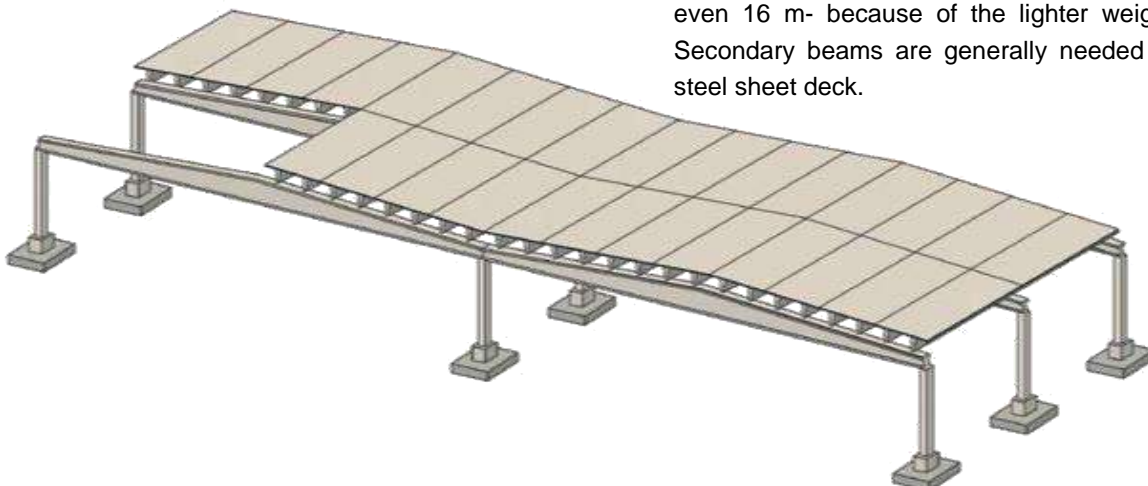
by the cantilever action of the columns. The horizontal load action on the gable walls can be distributed to all columns by the diaphragm action of the roof. The distance between the portal frames is governed by the span of the roof and the façade construction.



*Industrial hall during construction.*

Skeletal structural systems are very suitable for buildings which need a high degree of flexibility, because of the possibility of using large spans and achieving open spaces without internal walls. This is very important in industrial buildings, shopping halls, parking structures and sporting facilities, and also in large office buildings.

The roof can be made with prestressed hollow-core slabs or with light TT-units or steel sheet deck. The distance between the portal frames is governed by the span of the roof and façade construction - normally between 6 and 9 m for hollow-core roof slabs and from 9 to 12 m for light TT-roof units. When steel sheet deck is used, the distance between the portal frames can be larger - up to 12 m and even 16 m- because of the lighter weight of the roof. Secondary beams are generally needed to support the steel sheet deck.



*Building structure with sloped I beams roof slabs.*



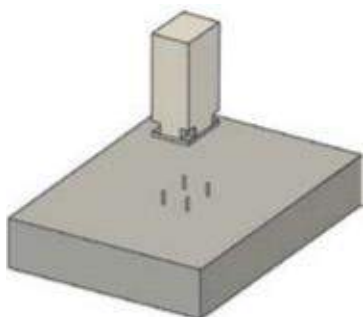
## 2.1.2 Low-rise buildings with intermediate floors

In buildings basically constructed as single-story structures, it may be necessary to insert intermediate floors in some parts or in the whole building. This is commonly achieved by adding a partly separate beam/column assembly to carry the intermediate floor slabs.

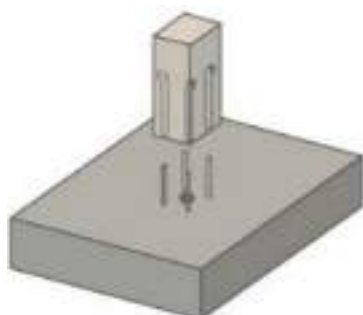
The loads on the floors are generally much larger than on the roof. Consequently, the spans will normally be shorter. Span A - as indicated in the figure to the right - will normally be between 6 m and 18 m, depending upon the live loads and the type of floor slab selected. A good module for span B is 7.20 m to 9.60 m.



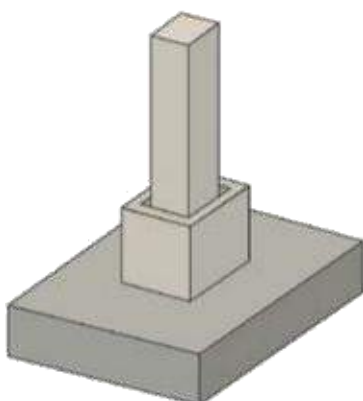
## 2.1.3 Horizontal stability



*Bolted connection*



*Projecting reinforcement*



*Pocket foundation*

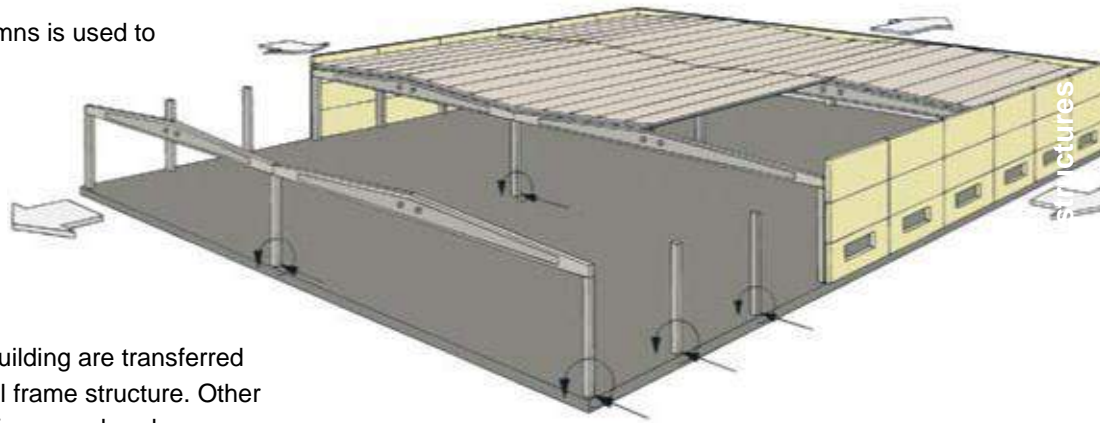
Low-rise skeleton structures are normally stabilized through the cantilever action of the columns. The precast columns are fixed into the foundations with moment-resisting connections. This is easily achievable in good ground or with pile foundations. There are three basic solutions: bolted connections, projecting reinforcement and pockets. In the bolted connection, the column baseplate is fixed to the foundation bars with nuts. With projecting reinforcement, projecting bars from the foundation or from the column are fixed into grouted openings in the columns or in the foundation respectively. In the case of pockets, the column is fixed into the pocket with grout or concrete.



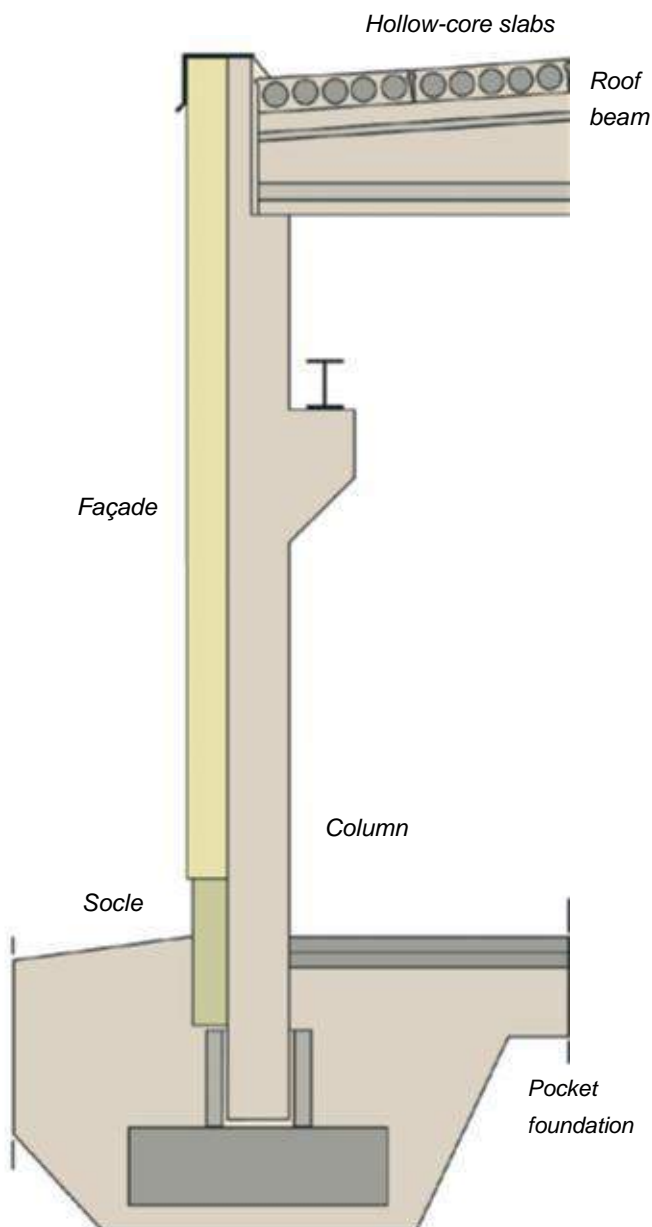
*Precast frame for papermill.*

The cantilever action of the columns is used to stabilize low-rise buildings with beam-column systems, up to about three floor levels. The columns are normally continuous for the full height of the structure.

Horizontal forces acting on the building are transferred through the façade to the internal frame structure. Other horizontal actions - for example from overhead cranes - are taken up directly by the columns. It is important to spread the acting forces over all the columns in the building to avoid different cross-sections.



*Actions and resulting moments/forces on a portal frame structure.*



### Horizontal stiffness

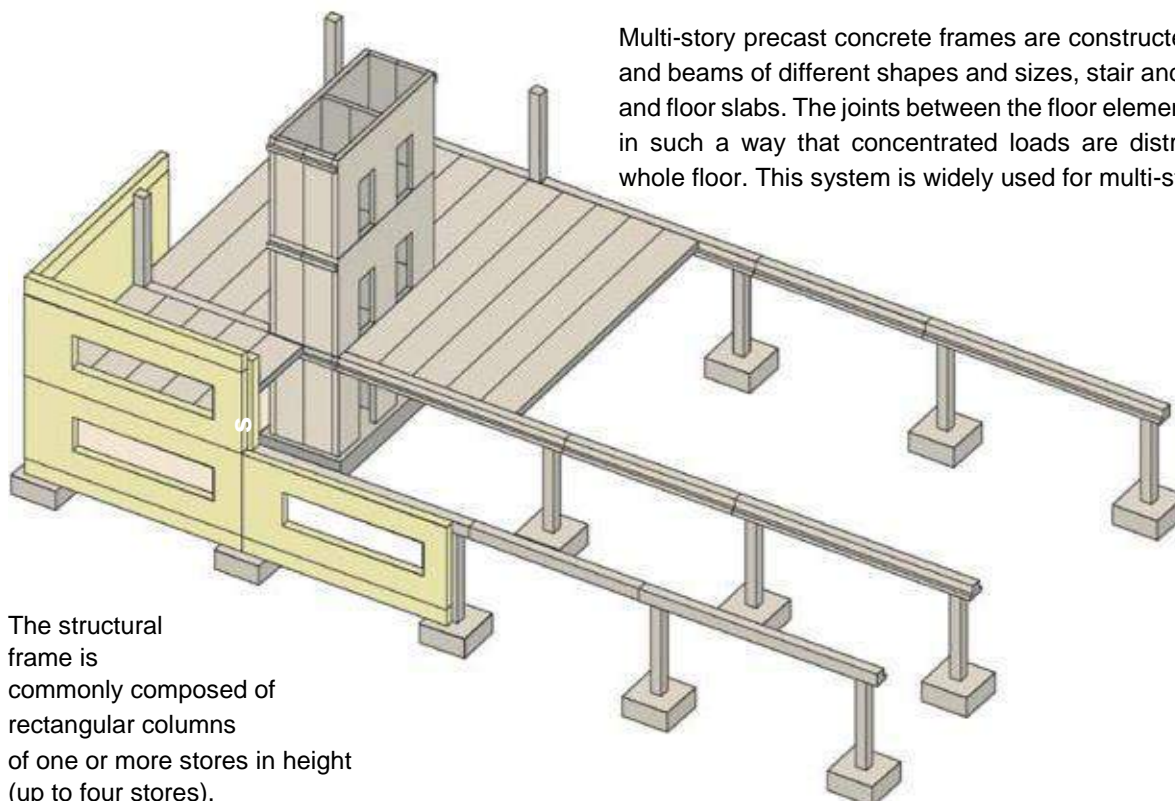
Horizontal forces parallel to the beams are distributed directly through the beams of the same row, whereas forces in the transverse direction are transferred through the in-plane action of the roof. For buildings with high slender columns, the horizontal stiffness of the structure can be secured by diagonal bracing between the columns of the external bays with the help of steel rods, angles or concrete beams.

### Expansion joints

The design and detailing of frame structures takes into account the dimensional dilatations due to temperature changes, shrinkage and creep. Expansion joints are chosen in conjunction with the length and the cross-section of the columns. Generally, the distance between expansion joints is not larger than 60 m. They are realized either by using double columns or special bearing pads.



## 2.2 MULTI-STOREY BUILDINGS



Multi-storey precast concrete frames are constructed with columns and beams of different shapes and sizes, stair and elevator shafts and floor slabs. The joints between the floor elements are executed in such a way that concentrated loads are distributed over the whole floor. This system is widely used for multi-storey buildings.

The structural frame is commonly composed of rectangular columns of one or more stores in height (up to four stores).

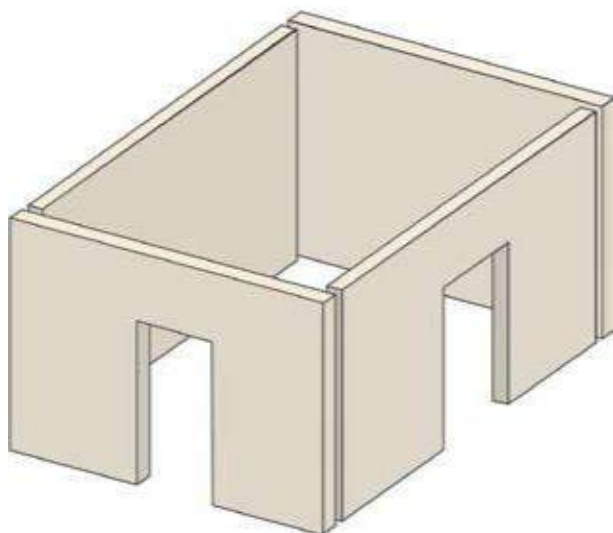
The beams are normally rectangular, L-shaped or inverted T beams.

They are single span or cantilever beams, simply supported and pin-connected to the columns. Hollow-core floor slabs are by far the most common type of floor slabs in this type of structure.

### 2.2.1 Stability

For buildings up to three or four stores, horizontal stability may be provided by the cantilever action of the columns. They are normally continuous for the full height of the structure. However, for multi-storey skeleton structures, braced systems are the most effective solution,

irrespective of the number of stores. The horizontal stiffness is provided by staircases, elevator shafts and shear walls. In this way, connection details and the design and construction of foundations are greatly simplified. Central cores can be cast in-situ or precast.



*Example of precast central core.*

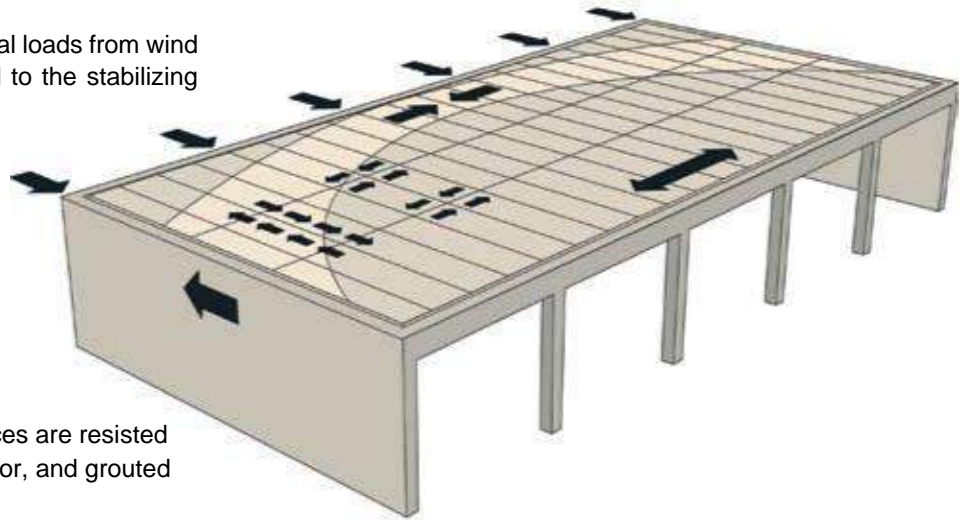


*Building with central core and hidden beam-column connections.*

### 2.2.2 Diaphragm action

In precast multi-story buildings, horizontal loads from wind or other actions are usually transmitted to the stabilizing elements by the diaphragm action of the roofs and floors. The precast concrete floors or roofs are designed to function as deep horizontal beams. The structural central core, shear wall or other stabilizing components act as supports for these analogous beams with the lateral loads being transmitted to them.

The tensile, compressive and shear forces are resisted by peripheral tie reinforcement of the floor, and grouted longitudinal joints.



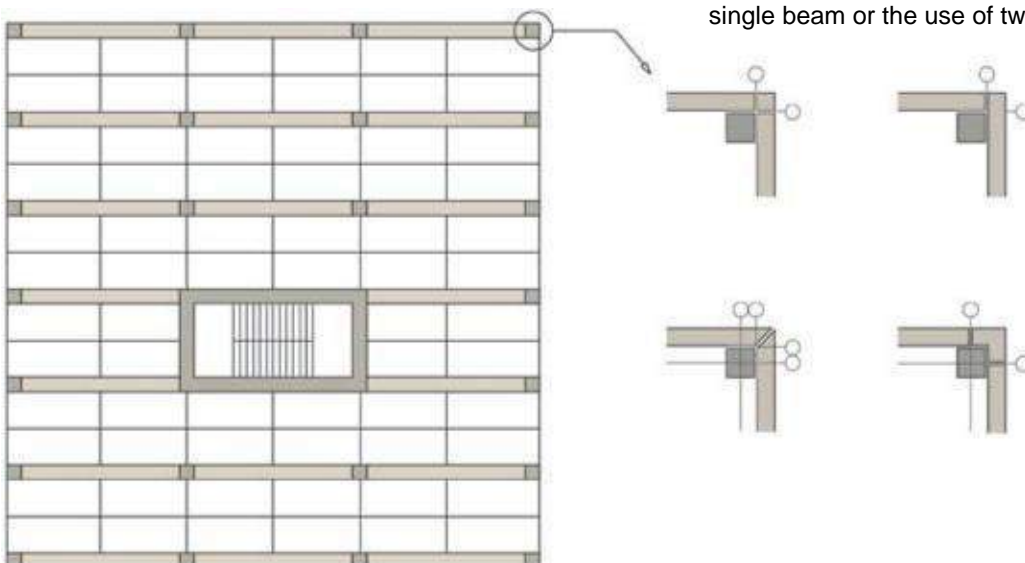
### 2.2.3 Modular design

Modulation is an important economic factor in the design and construction of precast buildings, both for the structural parts and the finishing. The use of modular planning is not a limitation on the freedom of planning as it is only a tool to achieve systematic work and economy and to simplify connections and detailing.

Precast concrete floors are extremely versatile and can accommodate almost any arrangement of support walls or beams. There are, however, certain guidelines on the proportioning of a building in plan which can be usefully employed to simplify the construction. The

width of the precast floor units is modulated on 1200 and 2400 mm. When planning a building it is advisable to modulate dimensions to suit the element widths. In a simple structure, all the floor elements should preferably span in the same direction, simplifying the layout and, in the case of prestressed elements, limiting the number of camber clashes within a bay.

When exact modulation is not possible, it may be necessary to produce a special unit cast to a smaller width or cut to the desired width from a standard module. Changes in floor level across a building can also be readily accommodated, for example by split-level bearings on a single beam or the use of twinned



beams at different levels. When a building tapers in plan, the precast units are produced with non-square ends. The angle should not be more than 45°. At the apex of a tapered floor area, it may be appropriate to cover this area with in-situ concrete when the span falls below 2 m.

*Example of modulated floor layout and location of component.*



### 3. COLUMNS

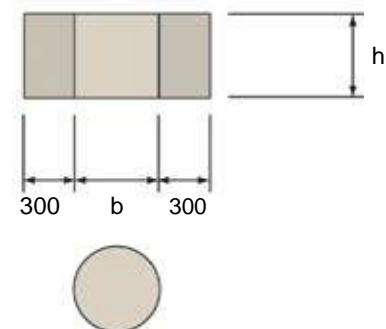
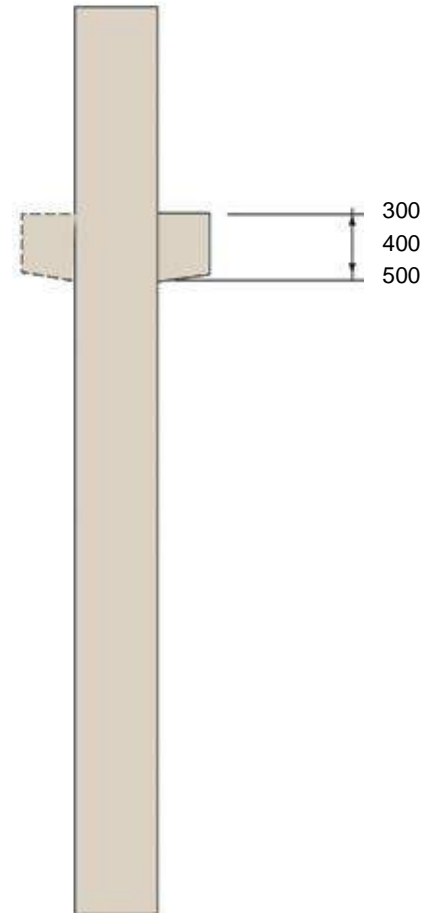
Precast columns are manufactured in a variety of sizes, shapes and lengths. The concrete surface is smooth and the edges are chamfered. Columns generally require a minimum cross-sectional dimension of 300 x 300 mm, not only for reasons of manipulation but also to accommodate the column-beam connections. The 300 mm dimension provides a two-hour fire resistance, making it suitable for a wide range of buildings.

Columns with a maximum length of 20 m to 24 m can be manufactured and erected in one piece, i.e., without splicing, although a common practice is to work also with single-story columns.

#### 3.1 CHARACTERISTICS

##### 3.1.1 Rectangular columns

Profile	h	b	Weight
	mm	mm	kN/m
300/300	300	300	2.20
300/400	300	400	2.94
400/400	400	400	3.92
400/500	400	500	4.90
500/500	500	500	6.12
500/600	500	600	7.35
600/600	600	600	8.82



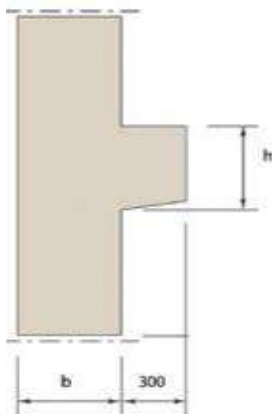
##### 3.1.2 Round columns



Profile round columns	Diameter	Weight
	mm	kN/m
300	300	1.73
400	400	3.08
500	500	4.81
600	600	6.92

## 3.2 CORBELS

Precast columns may be provided with single or multiple corbels to support floor or roof beams, girders for overhead cranes, etc. The corbels are either completely under the beam or within the overall depth of it. This may occur, for example, where it is unacceptable for



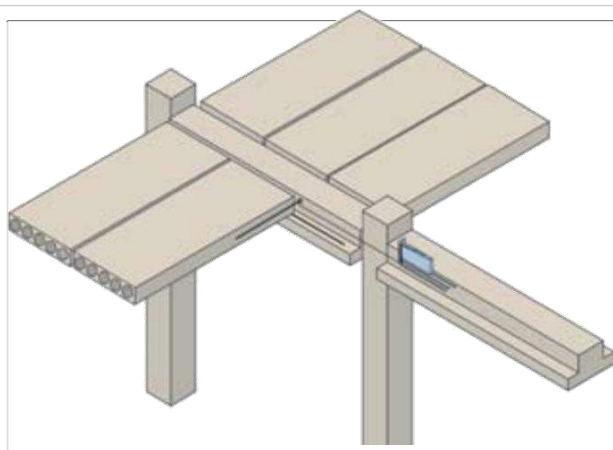
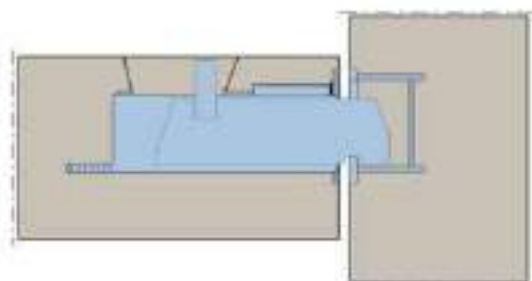
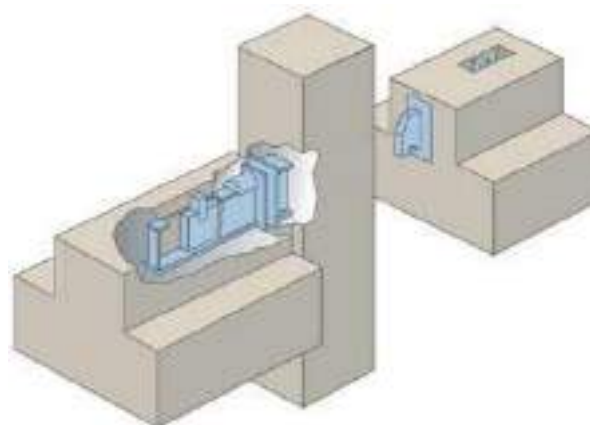
### Hidden corbels

The BSF system consists of a hidden steel insert in the beam-to-column connection, enabling a beam support without underlying corbel. A sliding plate fits into a rectangular slot in the beam. A notch at the end of the plate fits over a lip at the bottom of a steel box cast into the column. The system can be used for both rectangular and round columns. The types of corbels and corresponding bearing capacities are given in the table.

Plate type height/ thickness	Allowable load in kN	Minimum beam dimensions mm	
		Height	Width
150/20	200	200	400
200/20	300	200	500
200/30	450	300	500
200/40	600	400	600
200/50	700	400	700
250/50	950	400	900

the connection to project below ceilings or into service zones. Standard dimensions for normal corbels are given in the table. The indicated values for the allowable support load "N" are characteristic values without partial safety margins.

h \ b	300	400	500
300	105 kN	145 kN	185 kN
400	145 kN	205 kN	260 kN
500	140 kN	265 kN	335 kN



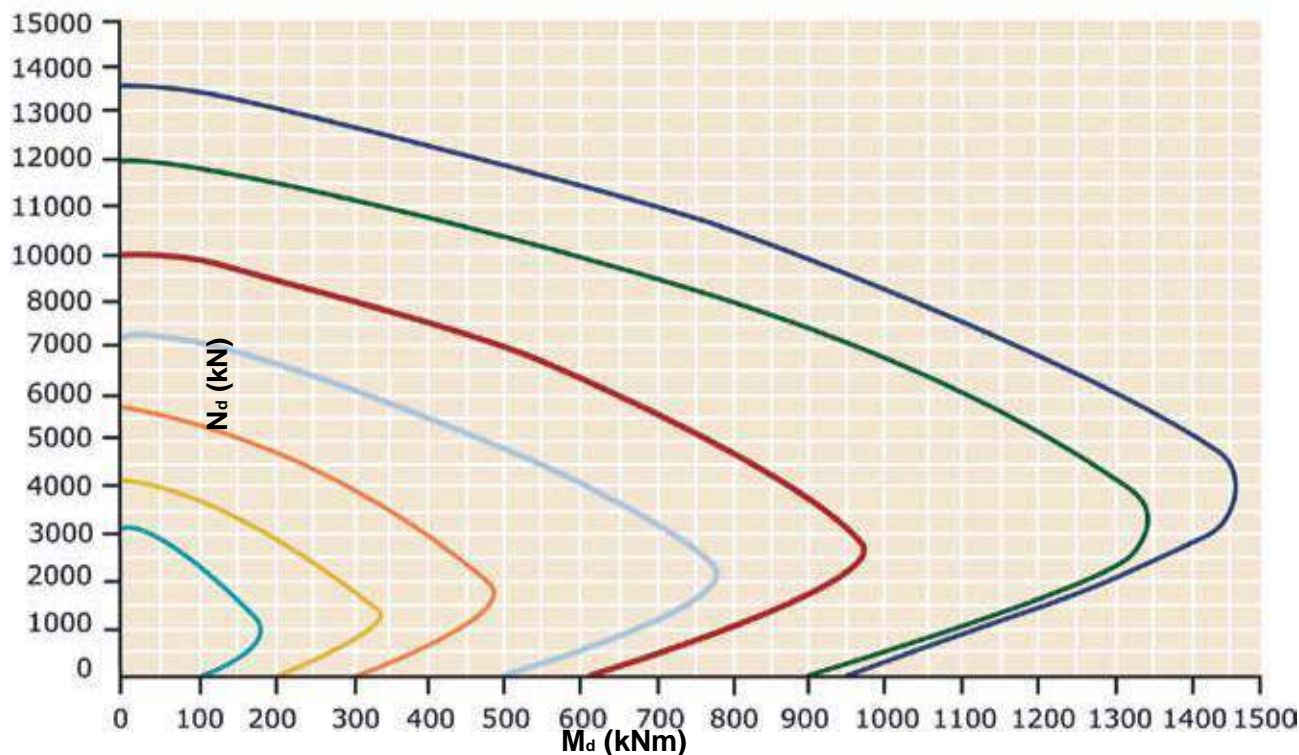
BSF application



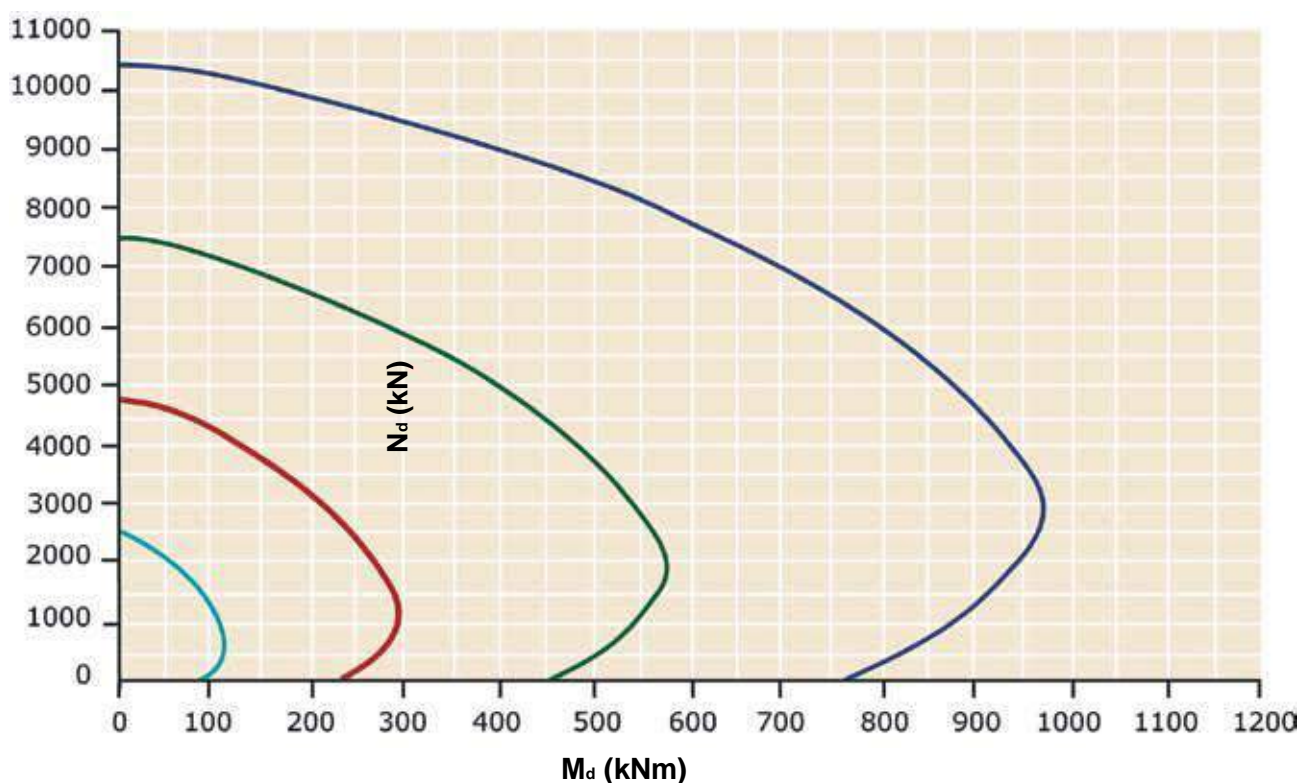
### 3.3 PERFORMANCE CURVES

The following figures give the performance curves of columns under axial loading combined with bending moments. The calculations are made for modulated cross-sections, from 3Mx3M (300x300 mm<sup>2</sup>) to 6Mx6M for rectangular columns and Ø3M to Ø6M for round

columns. The indicated values for  $N_d$  and  $M_d$  are design values at ultimate limit state, which means that the permanent and variable actions are multiplied by the appropriate safety margins.



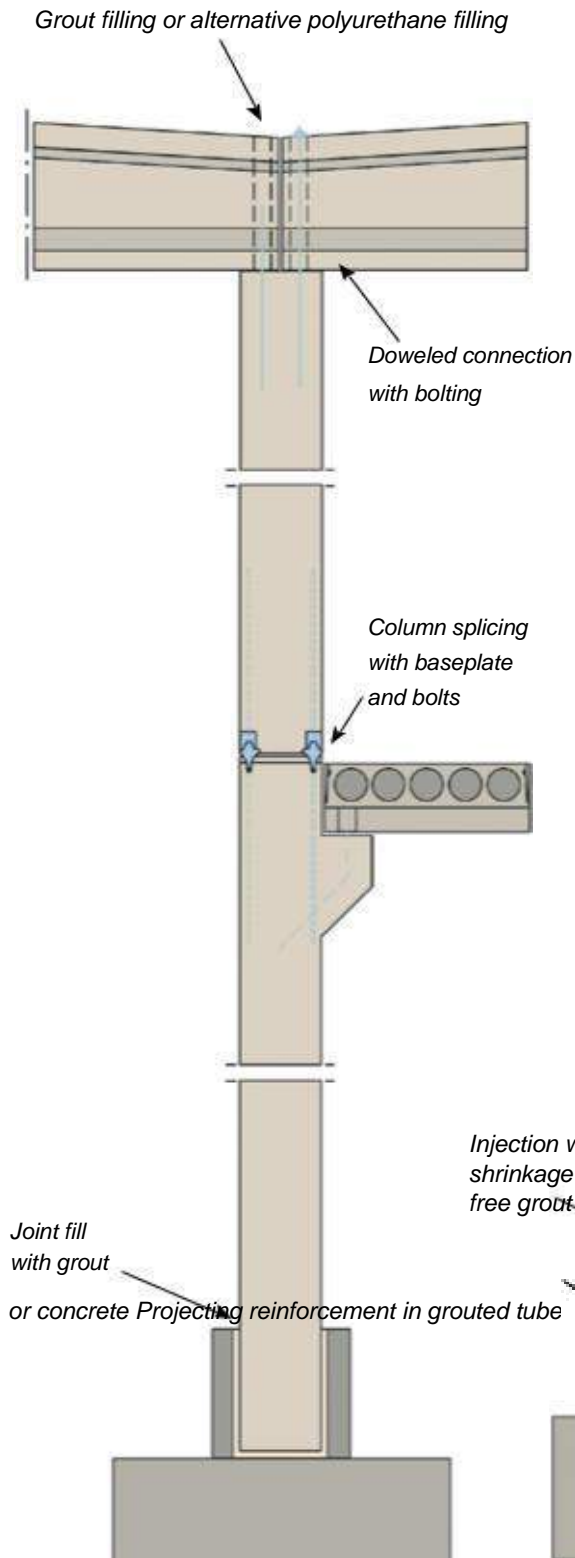
Performance curves for rectangular columns.



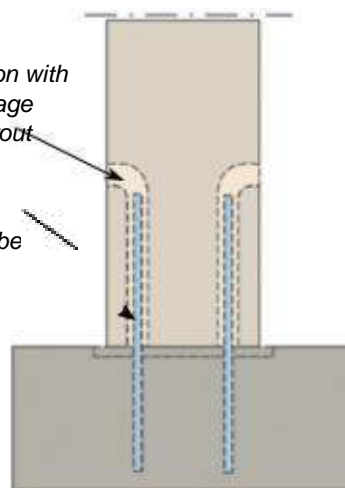
Performance curves for round columns.

### 3.4 CONNECTIONS

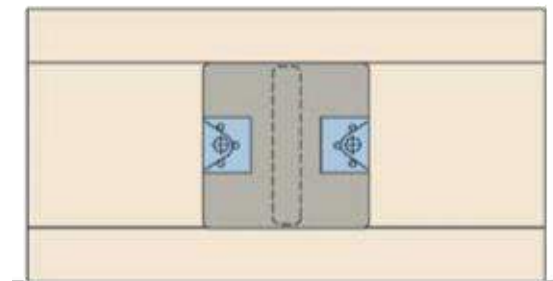
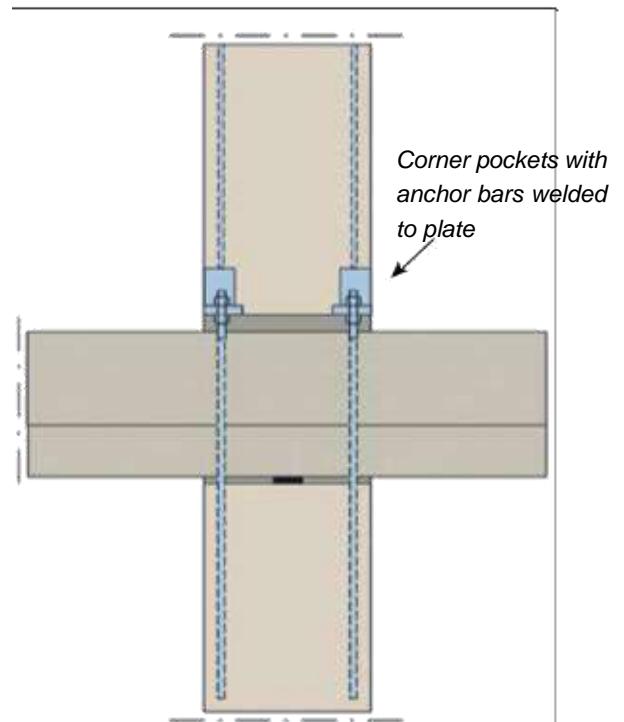
Precast columns are fixed to the foundations with pockets, projecting reinforcing bars or holding down bolts. The first solution is mainly used for foundations on good soil; the second and third in the case of foundation piles.



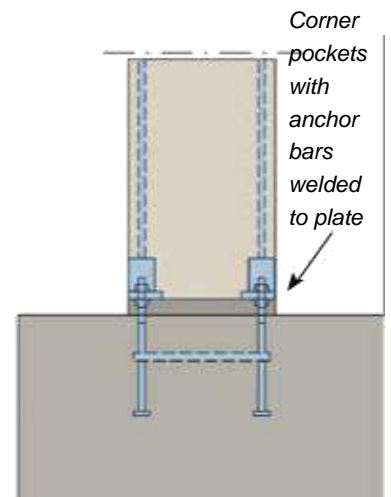
Foundation pocket



Grouted connection



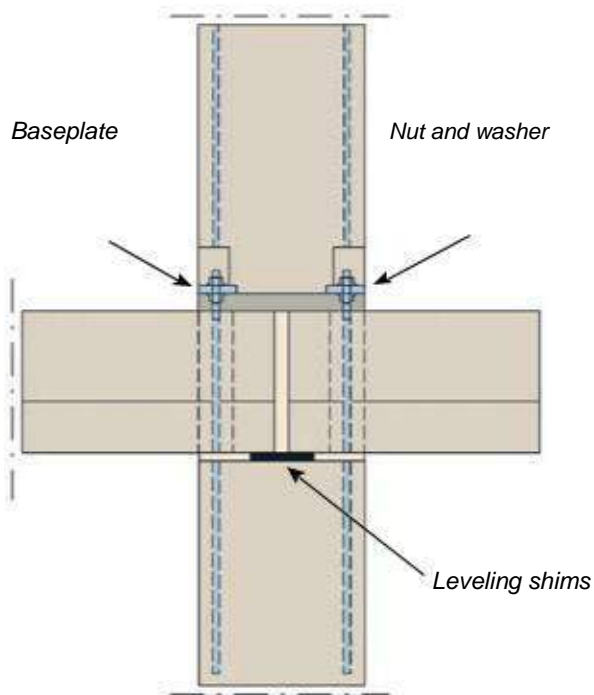
Bolted connection through continuous beam



Bolted connection with baseplate

### Column-to-column splices

Column-to-column splices are made either by bolting mechanical connectors anchored in the separate precast components or by the continuity of the reinforcement through a grouted joint.



## 3.5 TOLERANCES

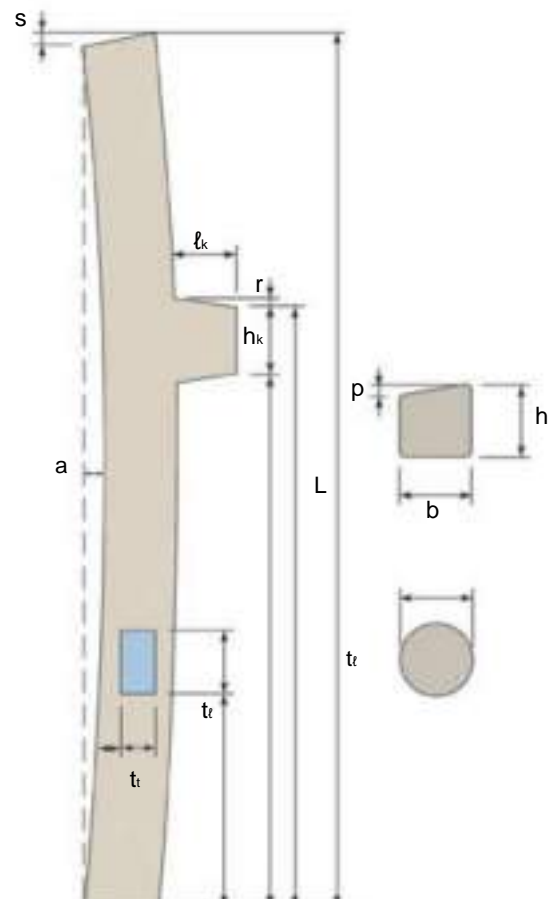
1. Length (L):  $\pm 10 \text{ mm or } L/1000$  <sup>1)</sup>
2. Cross-section (b, h, d):  $\pm 10 \text{ mm}$
3. Curvature (a):  $\pm 10 \text{ mm or } L/750$  <sup>1)</sup>
4. Orthogonality cross-section (p):  $\pm 5 \text{ mm}$
5. Orthogonality end face (s):  $\pm 5 \text{ mm}$
6. Position corbel ( $\ell_k$ ):  $\pm 8 \text{ mm}$
7. Dimensions corbel ( $\ell_k$ ,  $b_k$ ,  $h_k$ ):  $\pm 8 \text{ mm}$
8. Orthogonality corbel face (r):  $\pm 5 \text{ mm}$
9. Position inserts (t): longitudinal:  $\pm 15 \text{ mm}$

transversal:  $\pm 10 \text{ mm}$

depth:  $\pm 5 \text{ mm}$

10. Position holes, voids:  $\pm 20 \text{ mm}$

<sup>1)</sup> Whichever is the larger



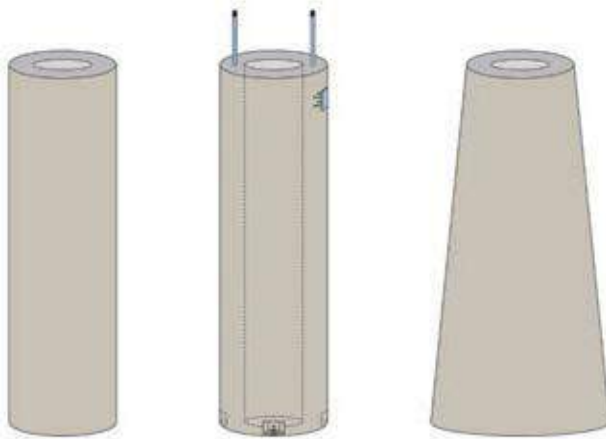


## 3.6 BETEMI COLUMNS

### 3.6.1 System

Betemi circular columns are produced automatically by a shotcreting technique. The surface can be in grey troweled concrete or polished. It is possible to produce a variety of surface textures by using colored concrete and different types of aggregates.

Load-bearing or decorative columns are the main applications. The columns are generally one story high. Their maximum height is 4 m and the maximum diameter 1.2 m. Also, conical shapes can be produced.



*Balcony-supporting decorative columns.*



### 3.6.2 Applications

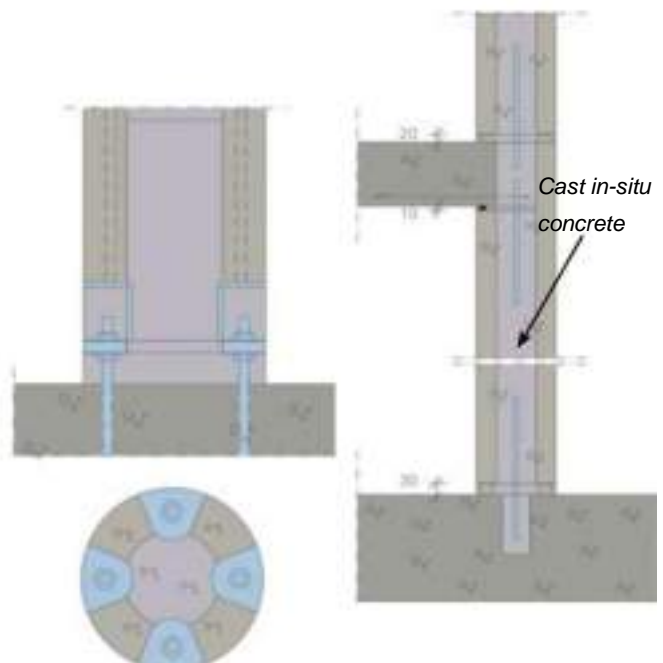


*Load-bearing columns*

### 3.6.3 Connections

Connections are easy to make in Betemi columns. Two methods can be applied:

- Steel pocket cast into the column for bolted connections
- Protruding bars anchored in the column core with cast in-situ concrete.

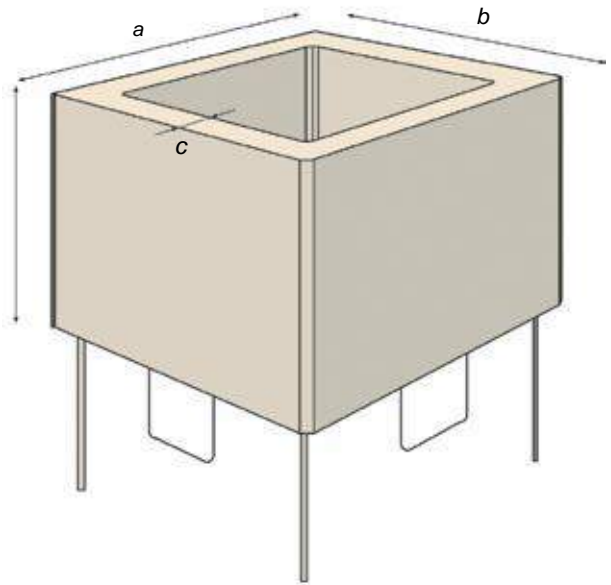


*Column reinforcement welded to steel corners*

## 4. POCKET FOUNDATIONS

Precast pocket foundations realize the site-work faster and cheaper. Indeed, site-cast pockets need rather complex molding and reinforcement, and the working conditions are more unfavorable. The industry has developed a series of pocket foundations for different column sizes.

The precast pocket foundations may only be used in conditions of firm and level ground. The pockets are positioned by means of leveling bolts. The baseplate is cast on site. The whole unit can also be precast.

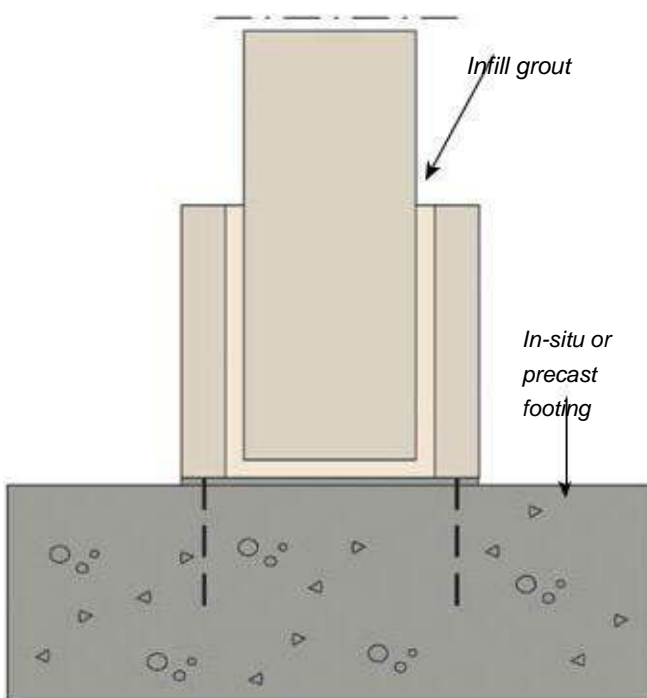


### Characteristics

a	b	c	h	Max. column section
mm	mm	mm	mm	
700	700	150	550	300/300
800	700	150	700	300/400
800	800	150	700	400/400
1000	900	200	850	400/500
1000	1000	200	850	500/500
1100	1000	200	1000	500/600
1100	1100	200	1000	600/600



Foundation pockets at the stockyard.



Precast columns during erection.

## 5. BEAMS

### 5.1 GENERAL

#### 5.1.1 Types

Overview of the types of prestressed beams for different applications



**Purlins:** trapezoidal secondary roof beams



**R beams:** rectangular roof or floor beams for moderate spans



**RF beams:** rectangular floor beams for composite action with floor slabs



**RT beams:** inverted T beams for floors of middle to large spans



**RL beams:** L beams for edge floors



**I beams:** for roofs and large floor-beam spans



**SI beams:** roof beams with sloped pans for large spans

The cross-section of the beams is standardized. The prestressing force and the beam length is adapted to each specific project. The units are provided with details

and inserts for connections and other specific purposes - for example, for fixings, openings, etc.



### 5.1.2 Supports

Large precast elements are normally supported on elastomeric supporting pads in neoprene rubber to ensure a good distribution of the stresses over the contact area. The effective bearing length is determined by the ultimate bearing stress in both the abutting components and the bearing pad, plus allowances for tolerances and spalling risk at the edges.

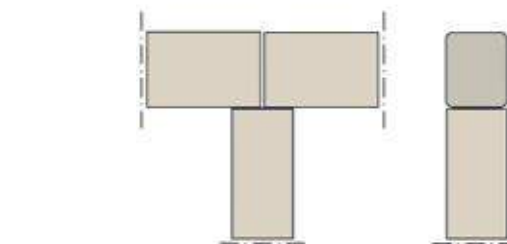
The maximum allowable stress on neoprene pads in the serviceability limit state is normally:

- For non-reinforced elastomeric pads:  $s = 6 \text{ N/mm}^2$
- For reinforced elastomeric pads:  $s = 12 \text{ N/mm}^2$

### 5.1.3 Inserts

Inserts are details embedded in a precast unit for the purpose of fixings, connections to other components, etc. There are many types of inserts, including:

- Projecting bars
- Anchor rails
- Threaded dowels or bolts



The pads should be placed at some distance from the support edge as load transfer at the edge may result in damage. The pad should allow for beam deflection so that direct contact between the beam and the support edge is avoided.

- Steel plates, profiles and steel angles
- Rolled channel
- Openings, etc.

The possible location and load capacity of inserts depend on several parameters.

### 5.1.4 Lifting and temporary storage

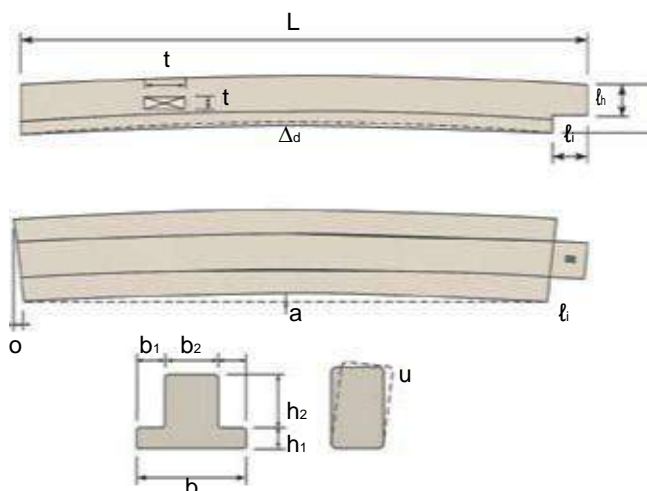
Lifting points are chosen to minimize deflections. The lifting angle for the slings should not be less than  $60^\circ$  without spreader beam and  $30^\circ$  with spreader beam.

Intermediate storage should preferably be on the normal

support points. Temporary bracing of slender roof beams may be necessary until the secondary beams or roof slabs are erected and fixed.

### 5.1.5 Production tolerances

1. Length (L):  $\pm 15 \text{ mm}$  or  $L/1000$  <sup>1)</sup>
2. Cross-section (h,b):  $\pm 10 \text{ mm}$
3. Side camber (a):  $\pm 10 \text{ mm}$  or  $L/500$  <sup>1)</sup>
4. Warping (u):  $10 \text{ mm}$  or  $L/1000$  <sup>1)</sup>
5. Verticality end face (v):  $\pm 10 \text{ mm}$
6. Cantilever end ( $\ell_h, \ell_i$ ):  $\pm 10 \text{ mm}$
7. Orthogonality end face:  $5 \text{ mm}$
8. Camber ( $\Delta_d$ ):  $\pm 10 \text{ mm}$  or  $L/500$  <sup>1)</sup>
9. Position inserts: (t)
  - longitudinal:  $\pm 15 \text{ mm}$
  - transversal:  $\pm 10 \text{ mm}$
  - depth:  $\pm 5 \text{ mm}$
10. Position holes, voids (t):  $\pm 20 \text{ mm}$

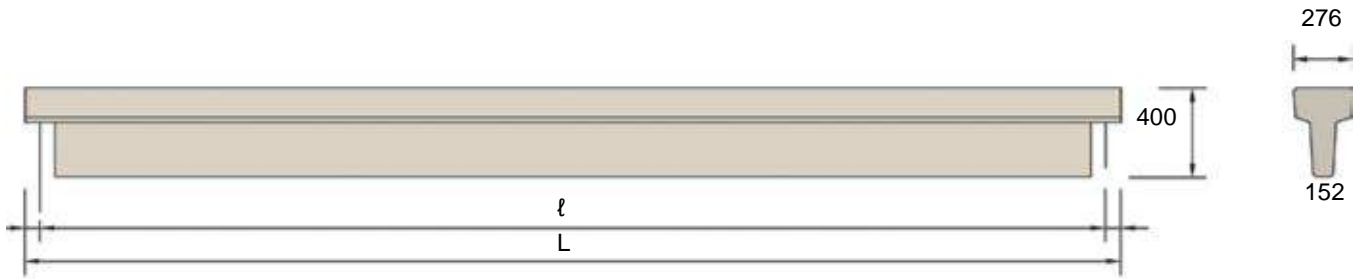


<sup>1)</sup> whichever is the larger

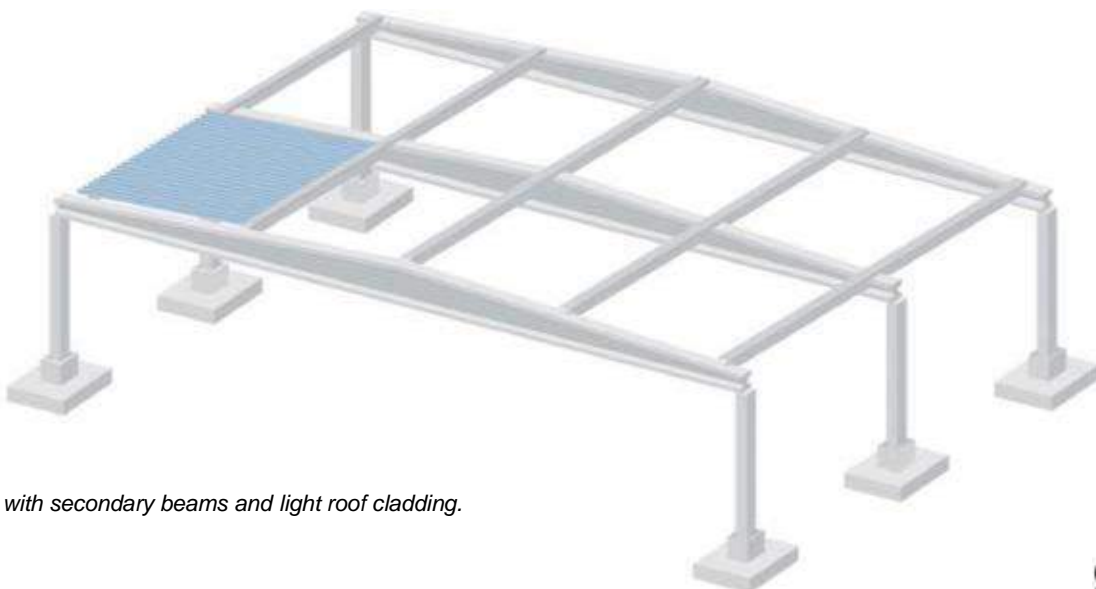
## 5.2 PURLINS

Purlins are used as secondary beams for roof structures with light roof cladding. The distance between the portal frames is maximum 12 to 16 m. The units are in

prestressed concrete. The fire resistance is normally 60 minutes. The standard cross-section is shown in the figure below.

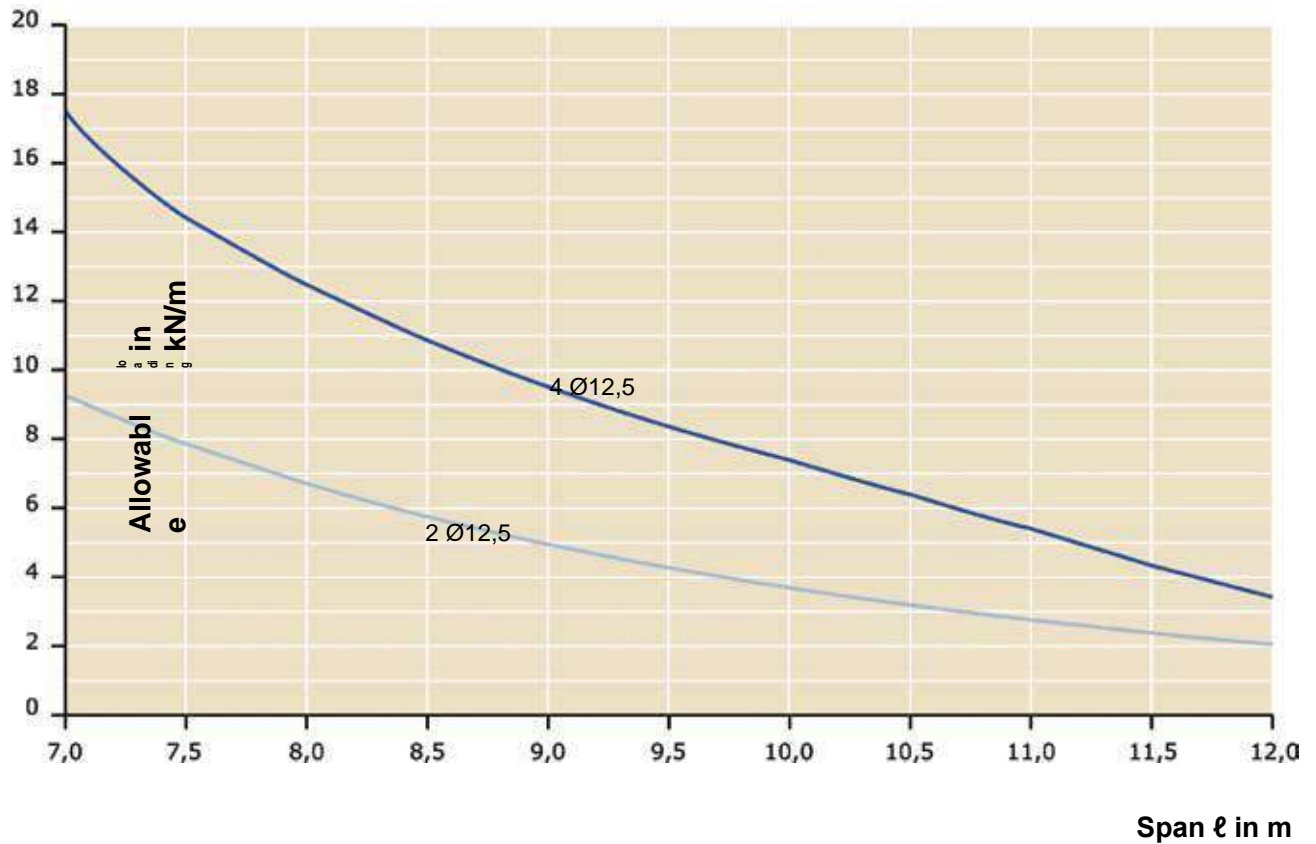


Purlins are mainly used in industrial storage buildings where light roof coverings such as steel sheet decking, corrugated slabs, cellular concrete slabs, etc. are used. The span of these elements is generally limited to about 3 to 5 m and secondary prestressed beams are needed to bridge the distance between the portal frames. The latter can be at larger distances, up to 12 and even 16 m. In this way large open halls can be constructed in an economical way.



*Portal frame with secondary beams and light roof cladding.*

### 5.2.1 Performance curves RP purlins

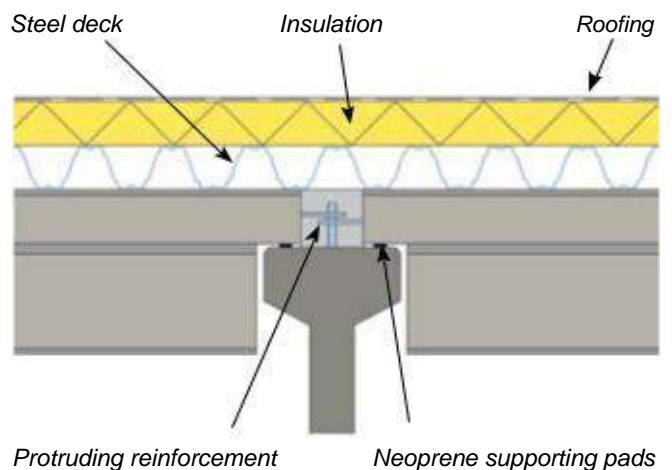
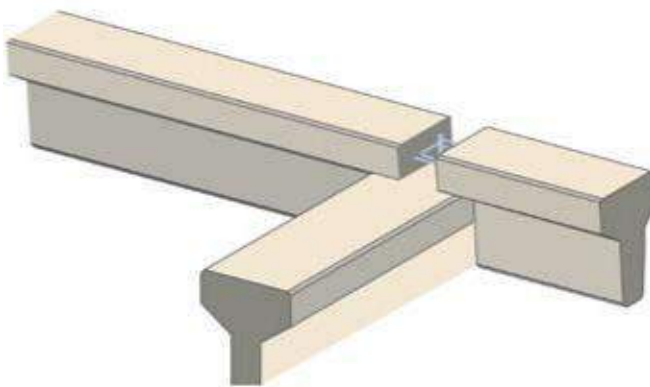


The allowable loading is the sum of the weight of the roof cladding and the variable load (snow and life load), excluding the self-weight of the purlin

### 5.2.2 Connections

The elements are connected to the supporting beam with protruding bars and cast in-situ concrete.

For light roof structures where diaphragm action cannot be achieved by the roof structure itself, the distribution of horizontal forces on the gable walls, over the external and internal columns, can be secured by diagonal bracing between the beams of the external bays, with the help of steel rods or angles.

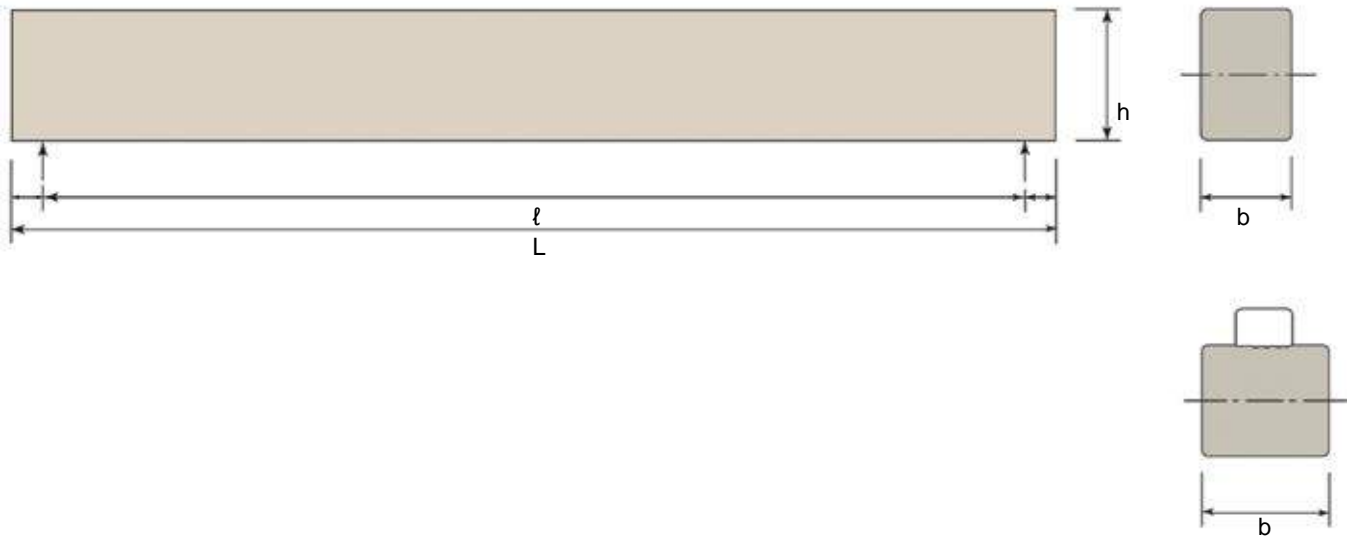




## 5.3 RECTANGULAR BEAMS

Rectangular beams are mainly used for roof structures, and also for floors with composite action. They are usually in prestressed concrete, although classical

reinforced concrete is possible. Standard sections are shown in the table below.



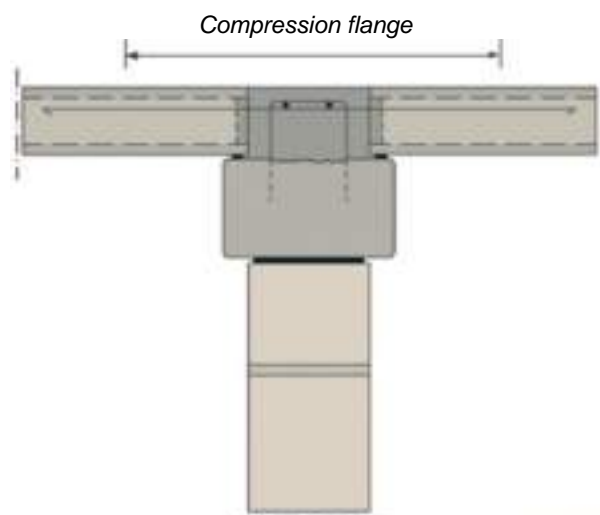
### Standard profiles and weight per m length

b mm \ h mm	300	400	500	600
h mm	kN/m	kN/m	kN/m	kN/m
400	2.94			
500	3.67	4.90		
550	4.04	5.39	6.74	
600	4.41	5.88	10.55	
650	4.78	6.37	7.96	9.56
700	5.14	6.86	8.58	10.29
800	5.88	7.84	9.80	11.76
900		8.82	11.03	13.23
1000			12.25	14.70

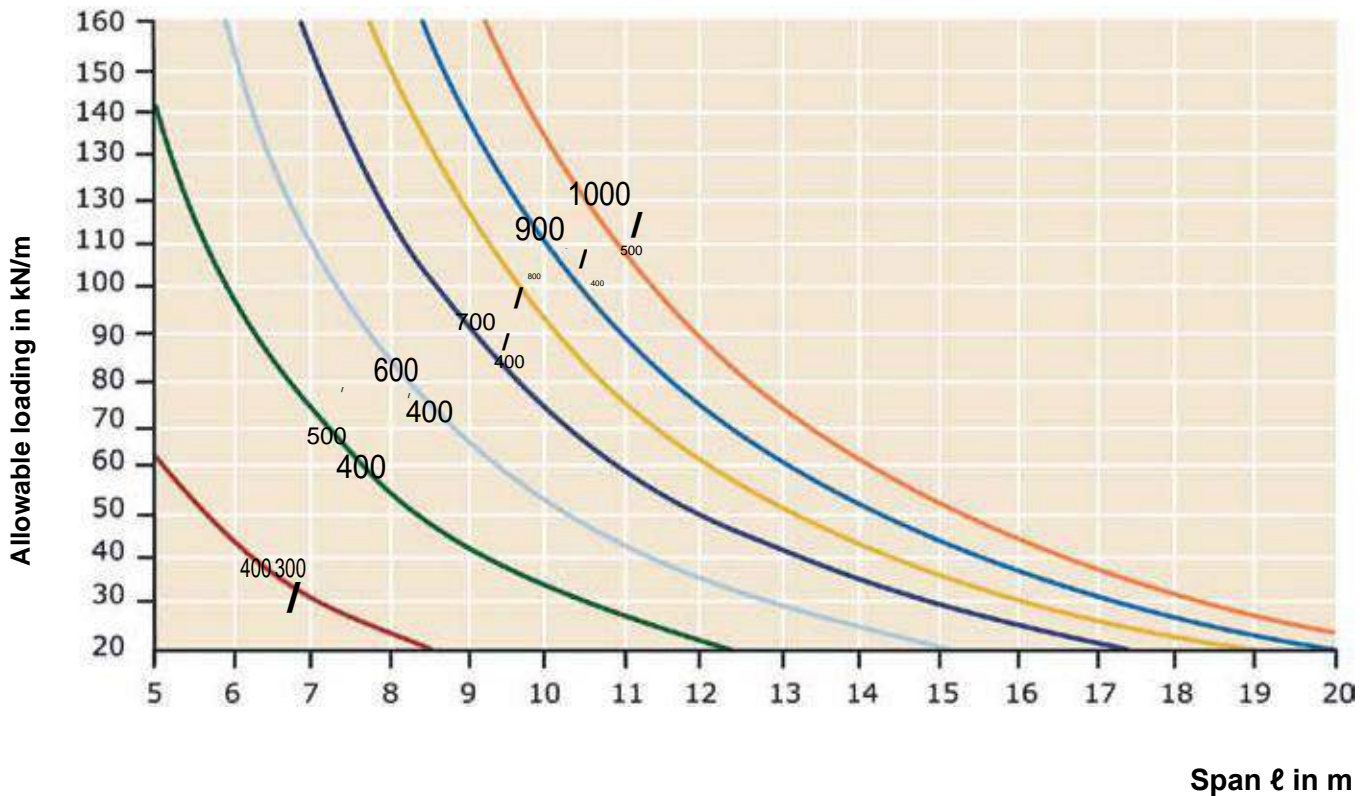


### Composite floor beams

R beams may be designed composite with the floor to enhance the flexural and shear capacity, fire resistance and stiffness. The main advantage of a composite beam structure is that it permits less structural depth for a given load-bearing capacity. The breadth of the compression flange can be increased to the maximum permitted value, as in monolithic construction. For composite action with hollow-core floors, the collaborating section is through the unfilled hollow-core. This comprises only the top and bottom flanges of the slab. Detailed information about the load-bearing capacity is available from the technical department.



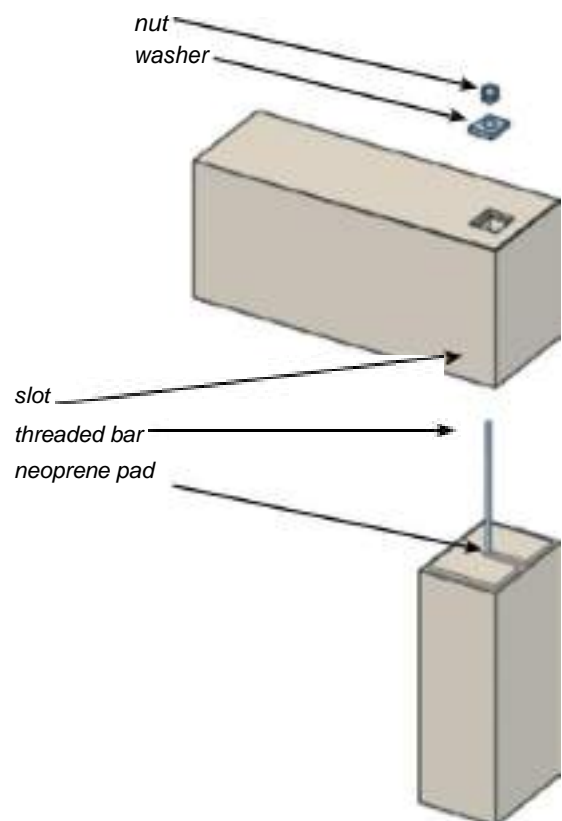
### 5.3.1 Performance curves R beams



The allowable loading is the sum of the permanent and variable loads acting on the beam, excluding the self-weight of the unit. For example, the allowable loading of a beam supporting a floor, should be calculated as the

sum of the self-weight and the permanent and imposed loading of the floor, without partial safety margins, and without the self-weight of the beam.

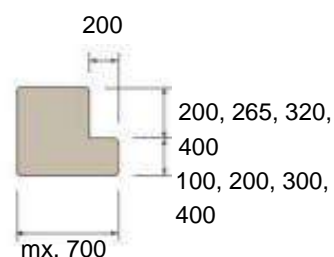
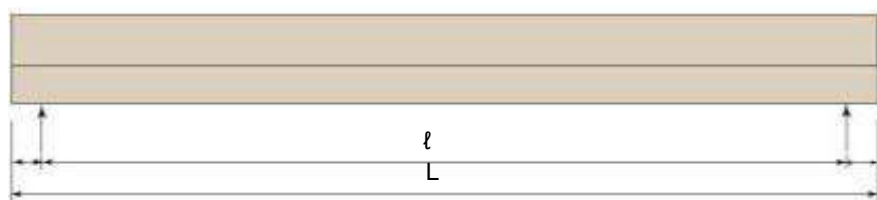
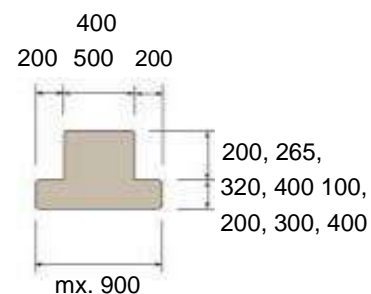
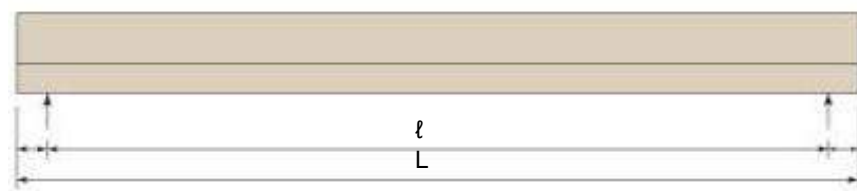
### 5.3.2 Connections



## 5.4 L beams & Inverted T beams

L beams and inverted T beams are typical floor beams because of the reduced overall structural depth. The beams are in prestressed or reinforced concrete.

Standard industry's cross-sections are shown in the table below. The boot width is governed by the adequate floor slab bearing distance.

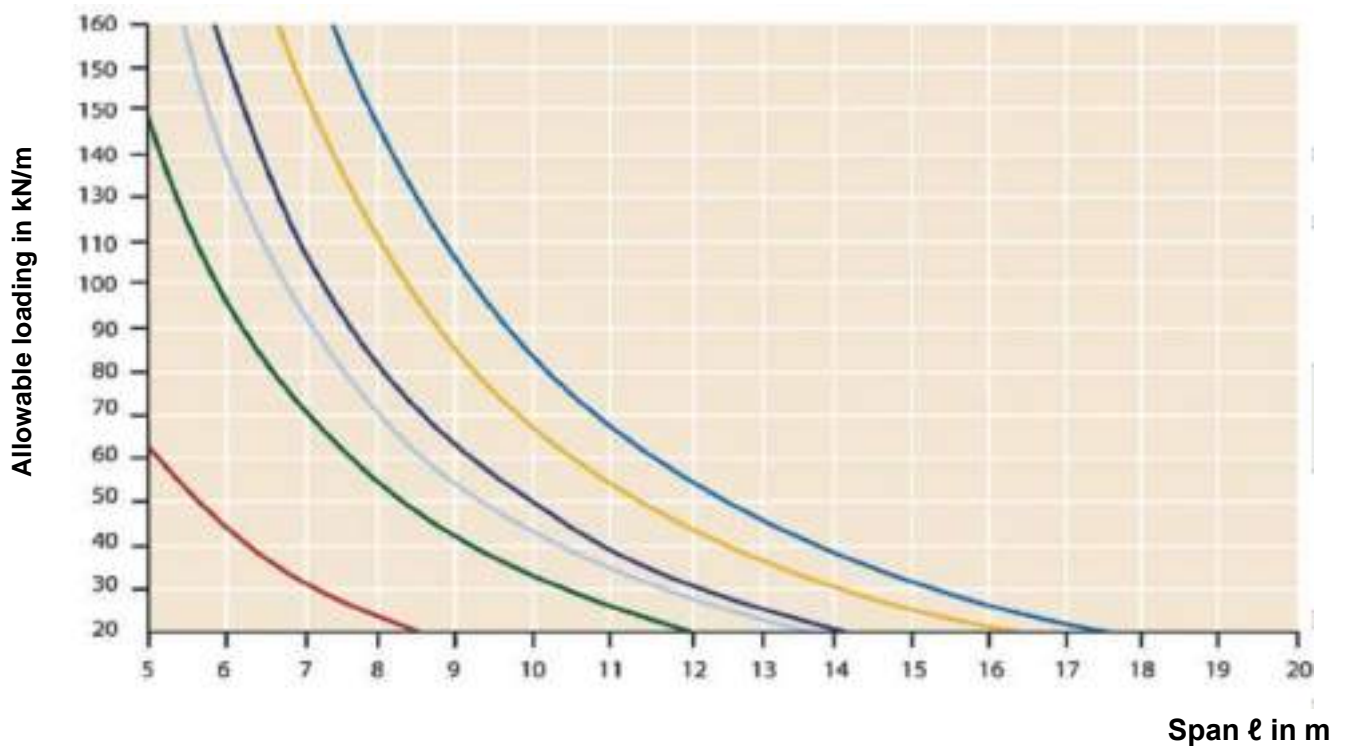


Changes in floor level may be accommodated by either an L beam or by building up one side of an inverted T beam, as shown in the figure. If the change of floor level exceeds about 750 mm, a better solution is to use two L beams back-to-back and separated by a small gap for easier site fixing.



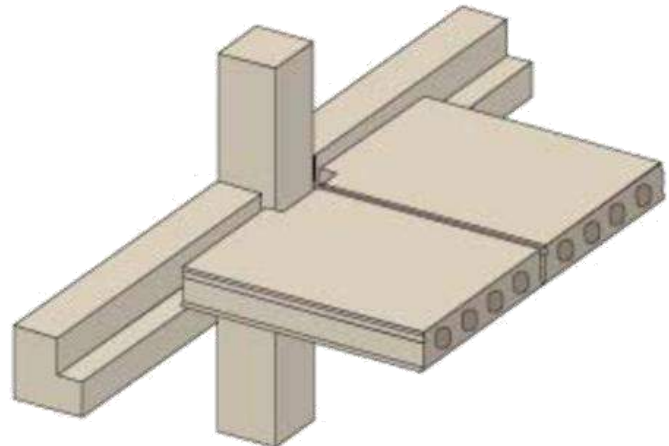
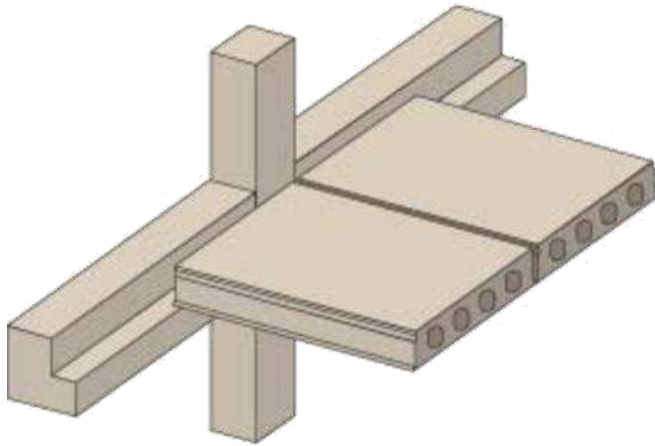


#### 5.4.1 Performance curves L beams & inverted T beams



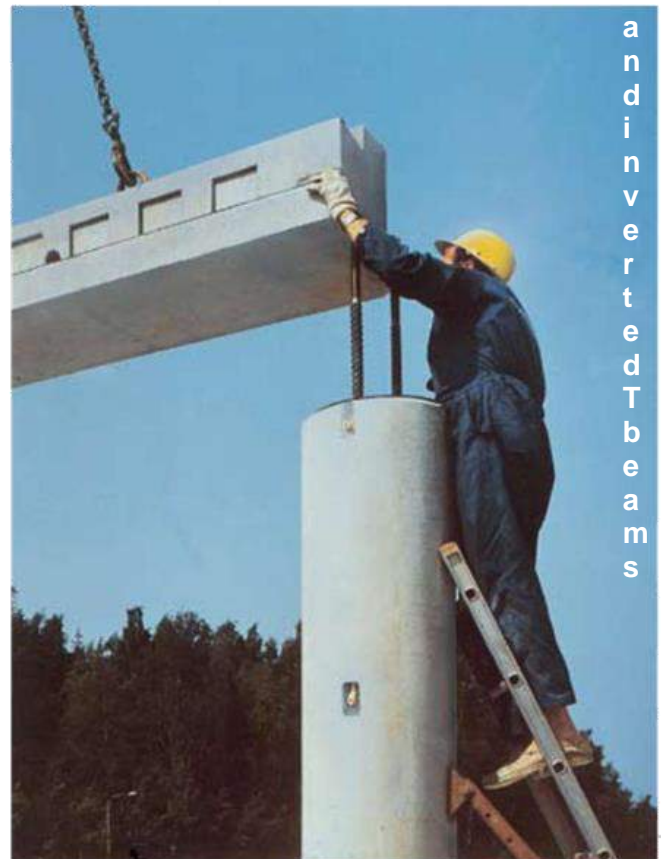
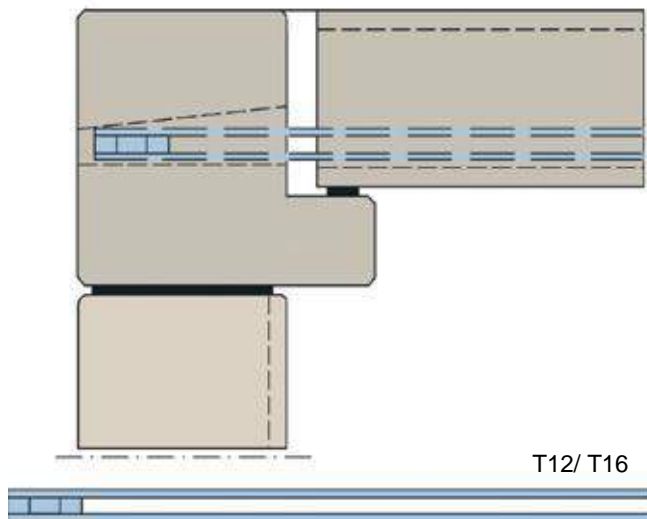
### 5.4.2 Beam width

The width of L beams and inverted T beams may be confined within the width of the column or may project forward to the column. The latter solution allows the floor units to remain plain edged.



### 5.4.3 Connections

The tie reinforcement between the beam and the floor is made with double bars anchored in slots in the flange of the beams.

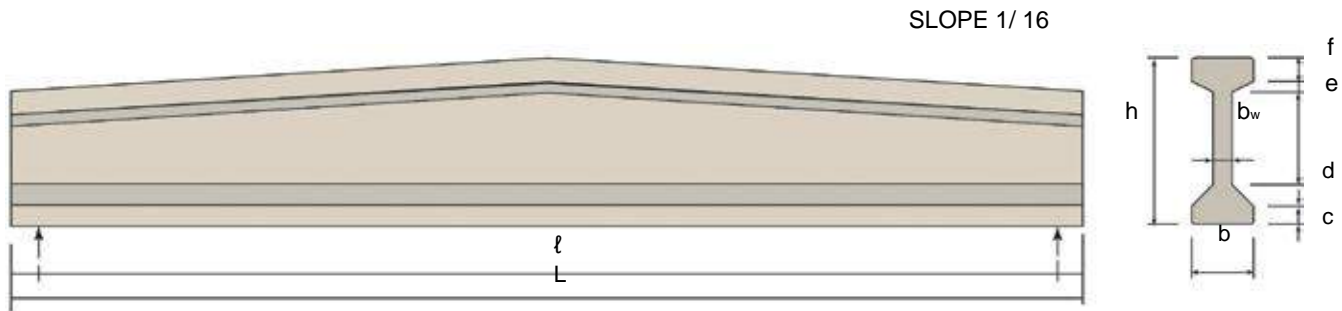


a  
n  
d  
i  
n  
v  
e  
r  
t  
e  
d  
T  
b  
e  
a  
m  
s

## 5.5 SI Beams

SI beams with variable height are particularly suited for roofs with large column free spans – for example, in industrial halls. The I-shaped cross section is typical for prestressed beams. The slope of the top face is 1:16.

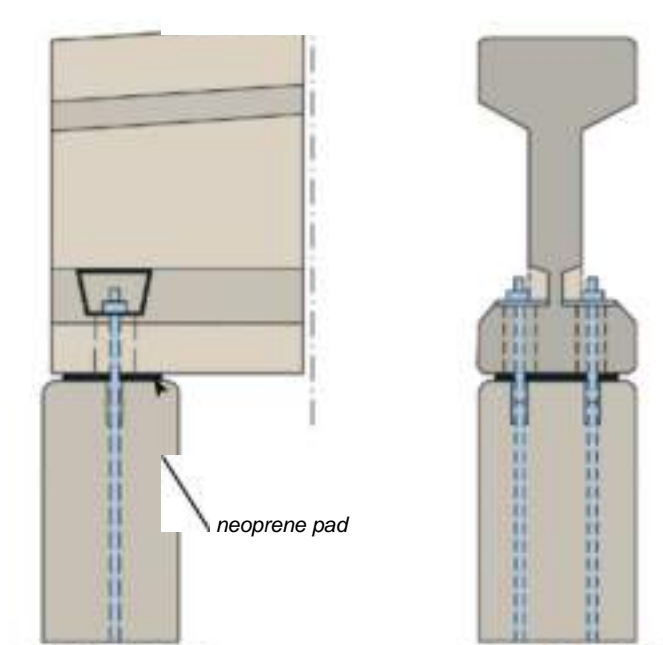
According to Eurocodes, the SI beam types have a fire resistance up to 120 minutes. Standard cross-sections are shown in the table below.



### 5.5.1 Characteristics

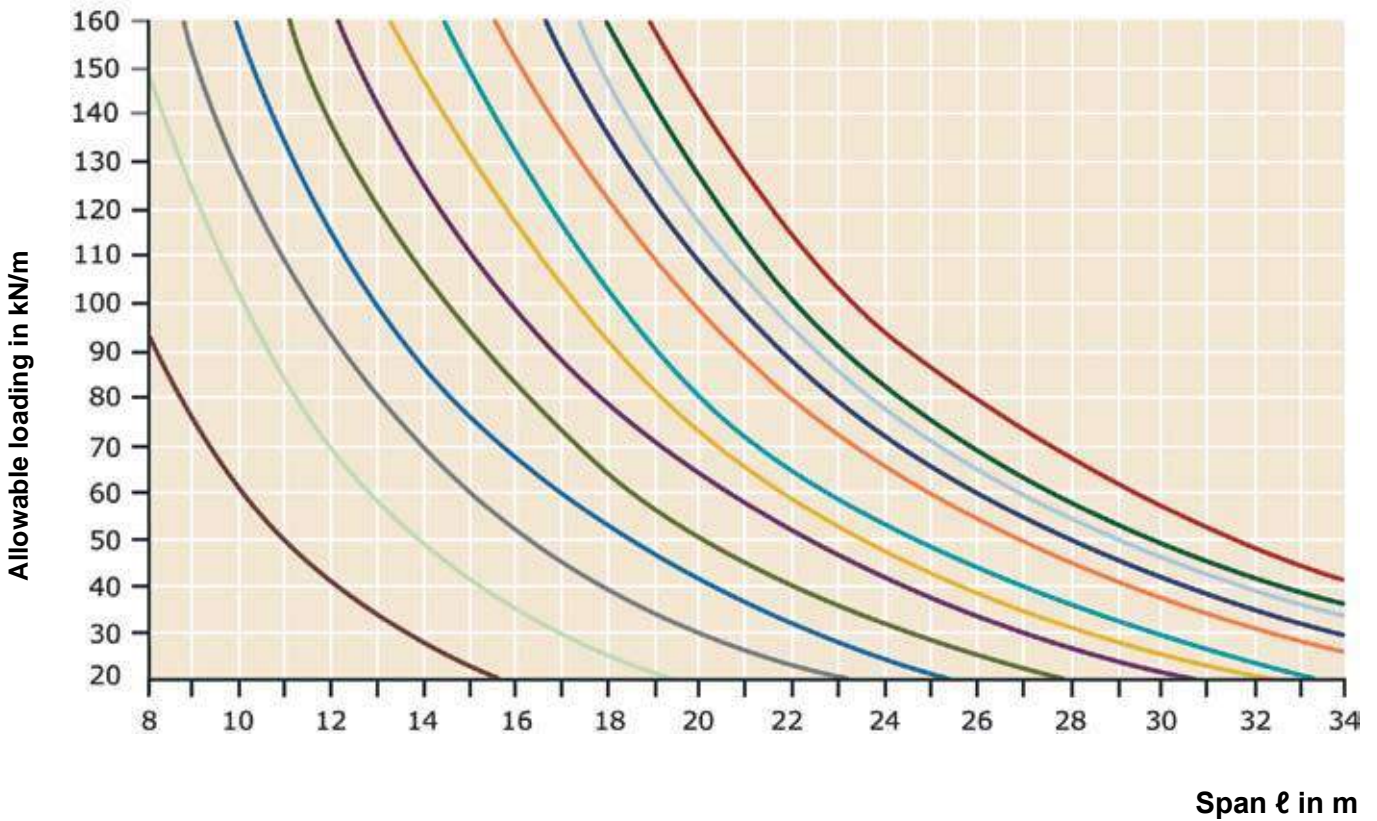
Profile	h	b	c	d	e	f	b <sub>w</sub>	L <sub>min</sub>	L <sub>max</sub>
SI 900/500	900	500	150	190	95	150	120	6000	12000
SI 1050/500	1050	500	150	190	95	150	120	6000	12000
SI 1200/500	1200	500	150	190	95	150	120	8000	16000
SI 1350/500	1350	500	150	190	95	150	120	10000	20000
SI 1500/500	1500	500	150	190	95	150	120	12000	25000
SI 1650/500	1650	500	150	190	95	150	120	14000	28000
SI 1800/500	1800	500	150	190	95	150	120	15000	30000
SI 1950/500	1950	500	150	190	95	150	120	16000	32000

### 5.5.2 Connections



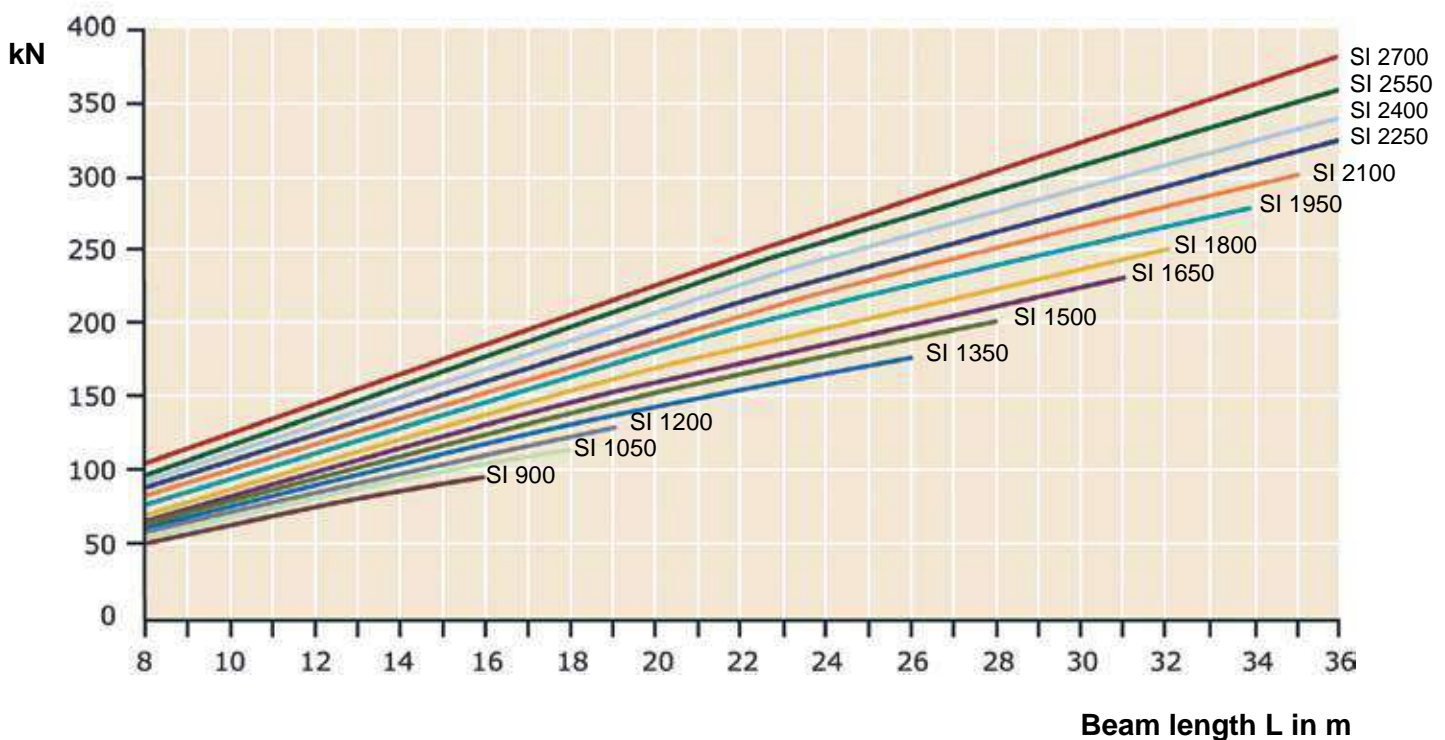


### 5.5.3 Performance curves SI beams



The allowable loading is the sum of the permanent and variable loads acting on the beam, excluding the self-weight of the unit.

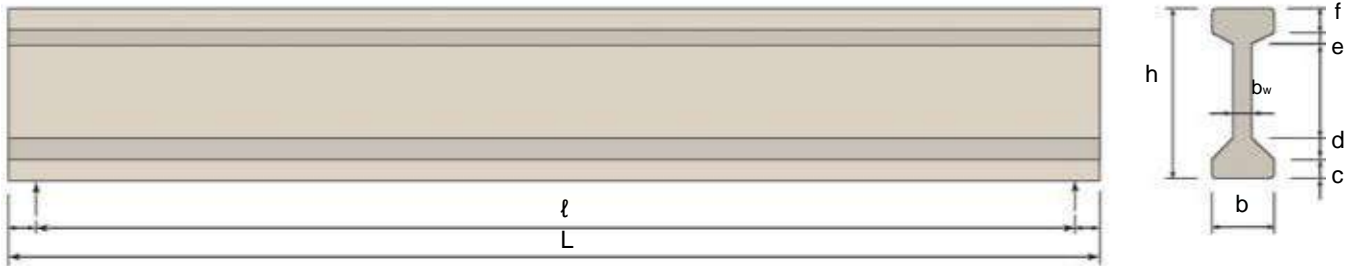
### 5.5.4 Weight of the SI beams



## 5.6 I Beams

I beams are used for flat and sloped roof structures and for floor beams with heavy loading and large spans. The

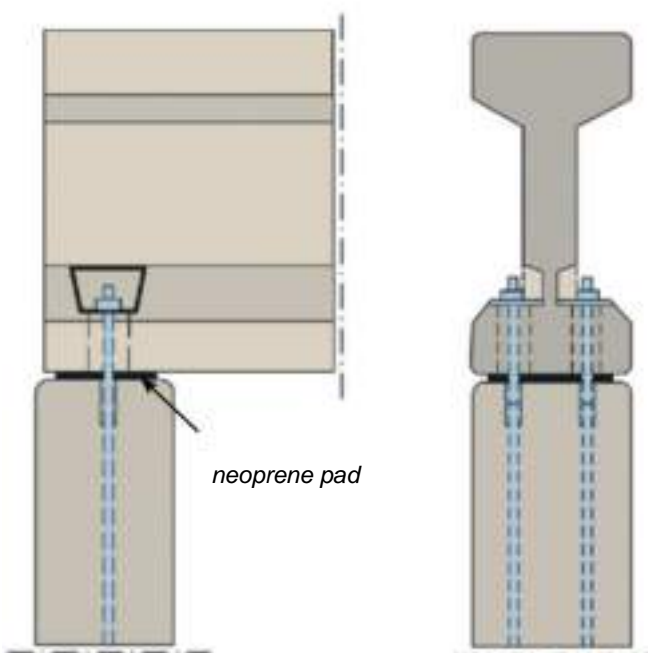
beams are in prestressed concrete and the fire resistance is, according to Eurocodes, up to 120 minutes.



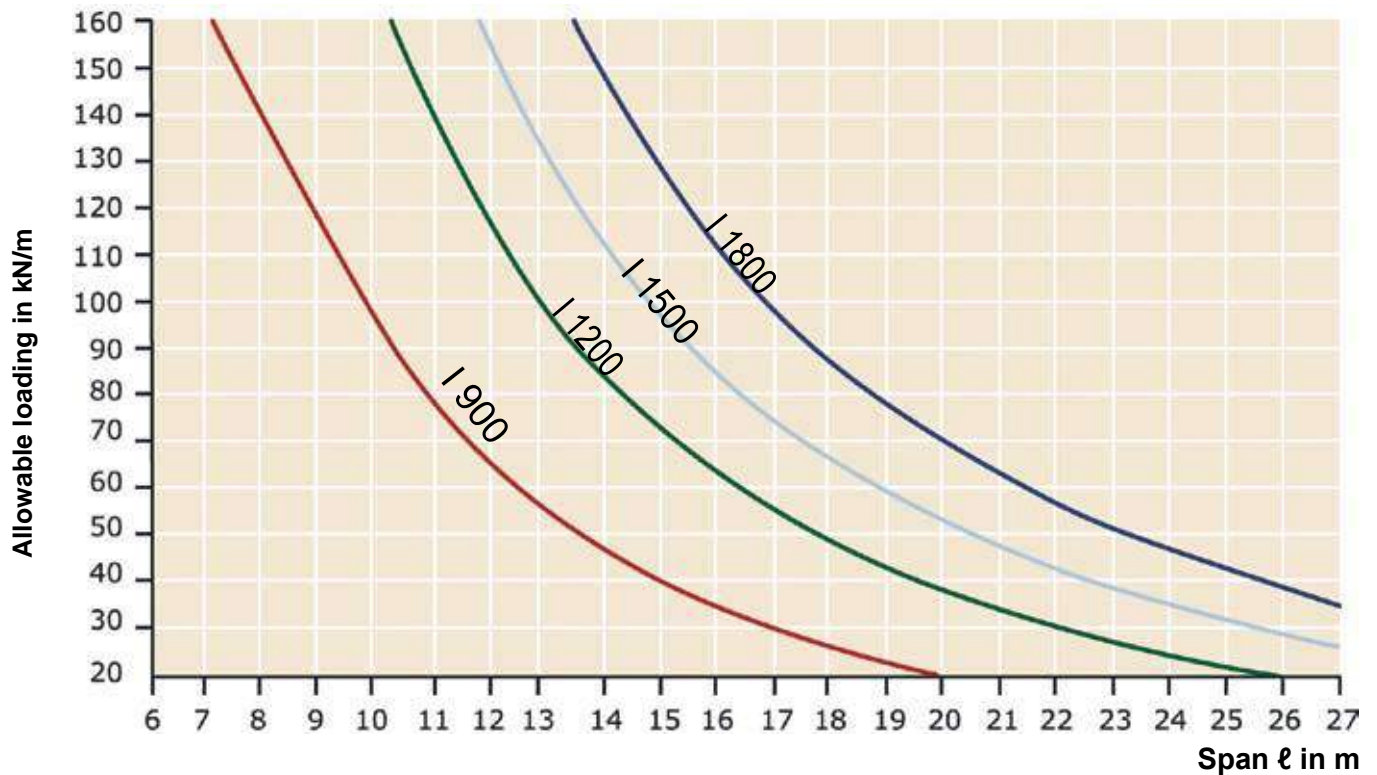
### 5.6.1 Characteristics

Profile	h	b	c	d	e	f	b <sub>w</sub>
I 900/500	900	500	150	190	95	150	120
I 1200/500	1200	500	150	190	95	150	120
I 1500/500	1500	500	150	190	95	150	120
I 1800/500	1800	500	150	190	95	150	120

### 5.6.2 Connections

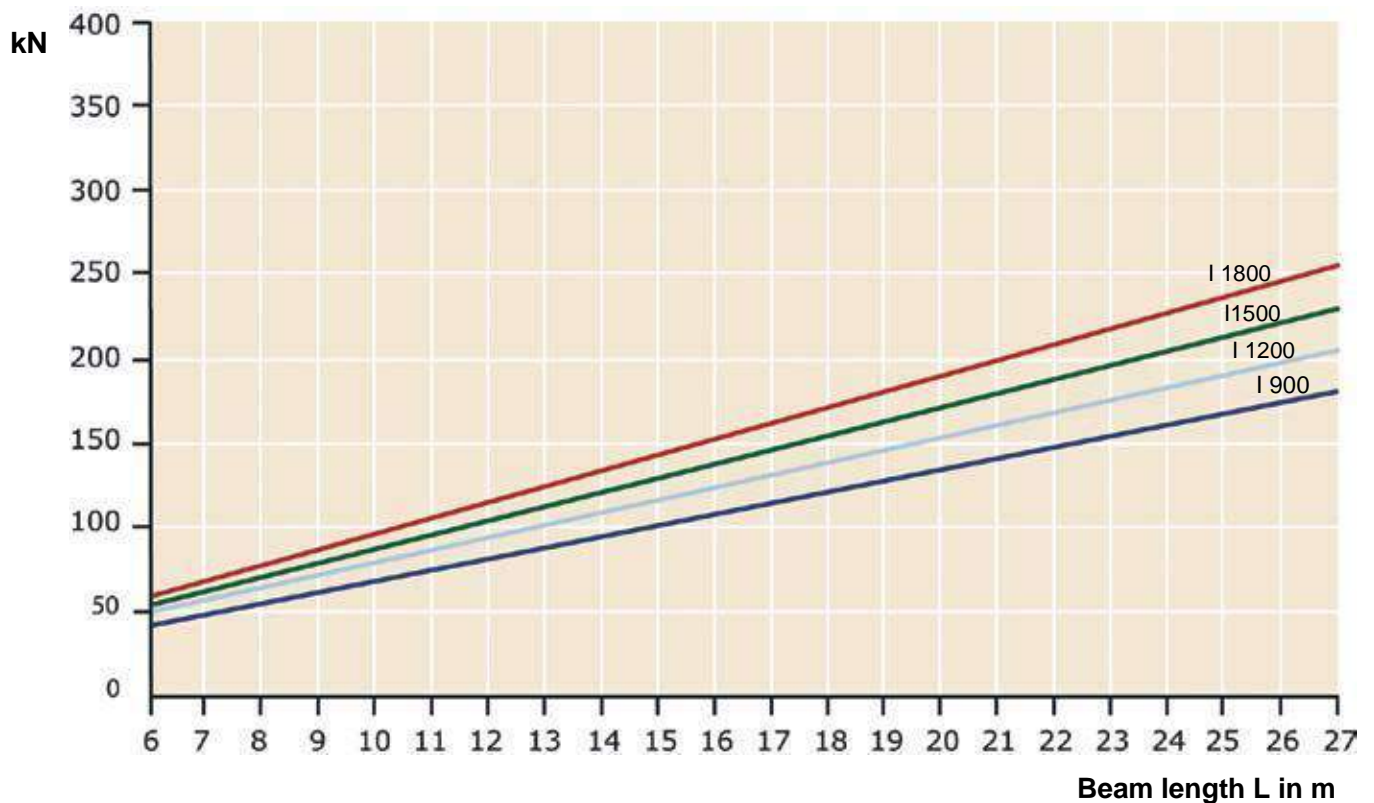


### 5.6.3 Performance curves I beams



The allowable loading is the sum of the permanent and variable loads acting on the beam, excluding the self-weight of the unit.

### 5.6.4 Weight of the I beams





## 6. Hollow-core slabs

Prestressed hollow-core slabs are the most widely used type of precast flooring. This success is due to the highly efficient design and production methods, choice of unit

depth and capacity, smooth underside and structural efficiency.

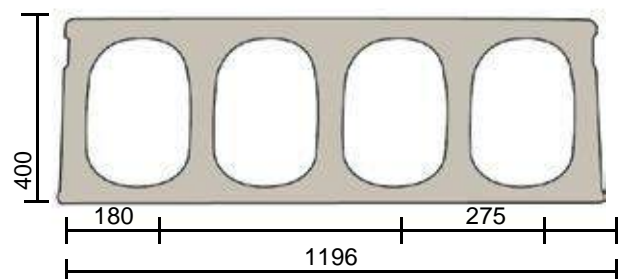
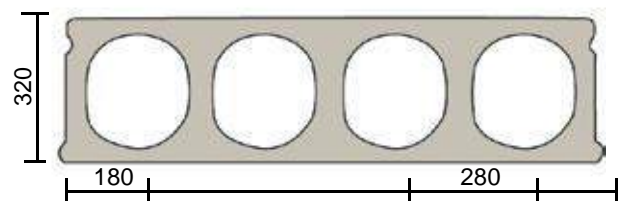
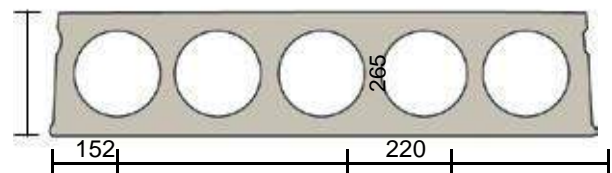
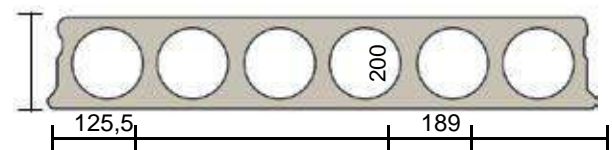
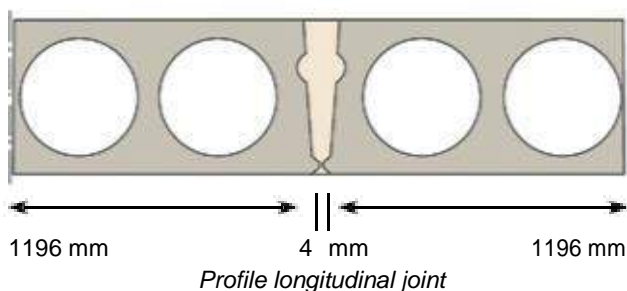
### 6.1 Standard profiles

#### 6.1.1 Extruded hollow-core slab profiles

The nominal width of the units is 1200 mm, inclusive of the longitudinal joint. The various cross-sections are given alongside. The edges of the slabs are profiled to ensure an adequate transfer of horizontal and vertical shear between adjacent units. The standard profiles have a fire resistance of 60 to 120 minutes. The latter is obtained by raising the level of the tendons.

The hollow-core slabs are manufactured on long-line beds. The units may be manufactured with a thermal insulation layer on the under-side – for example, for floors at ground level.

The slabs are cut to length using a circular saw. A square end is standard but skew or cranked ends, which are necessary in a non-rectangular framing plan, may be specified. Longitudinal cutting is possible for match plates.



#### 6.1.2 Slip formed hollow-core slab profiles

The nominal width of the units is 1200 mm, inclusive of the longitudinal joint. The various cross-sections are given alongside. The edges of the slabs are profiled to ensure an adequate transfer of horizontal and vertical

shear between adjacent units. The standard profiles have a fire resistance of 60 to 120 minutes. The latter is obtained by raising the level of the tendons.

The hollow-core slabs are manufactured on long-line beds. The units may be manufactured with a thermal insulation layer on the underside - for example, for floors at ground level.

The slabs are cut to length using a circular saw. A square end is standard but skew or cranked ends, which are necessary in a non-rectangular framing plan, may be specified. Longitudinal cutting is possible for match plates.

## 6.2 Characteristics

### Extruded hollow-core slabs

Profile	h (mm)	b (mm)	Weight (joints filled) kN/m <sup>2</sup>	Joint filling ℓ/m <sup>2</sup> (*)
HC-200	200	1196	2,60	7,0
HC-265	265	1196	3,80	10,0
HC-320	320	1196	4,10	12,0
HC-400	400	1196	4,65	17,0

(\*) quantity of grout needed to fill the longitudinal joints of a floor of a given surface area



## Slip formed hollow-core slabs

Profile	h (mm)	b (mm)	Weight (joints filled) kN/m <sup>2</sup>	Joint filling ℓ/m <sup>2</sup> (*)
HC-150	150	1196	2,57	4,7
HC-185	180	1196	3,87	5,9
HC-200	200	1196	3,18	6,8
HC-250	250	1196	3,85	8,9
HC-300	300	1196	4,55	10,4
HC-400	400	1196	5,24	14,7

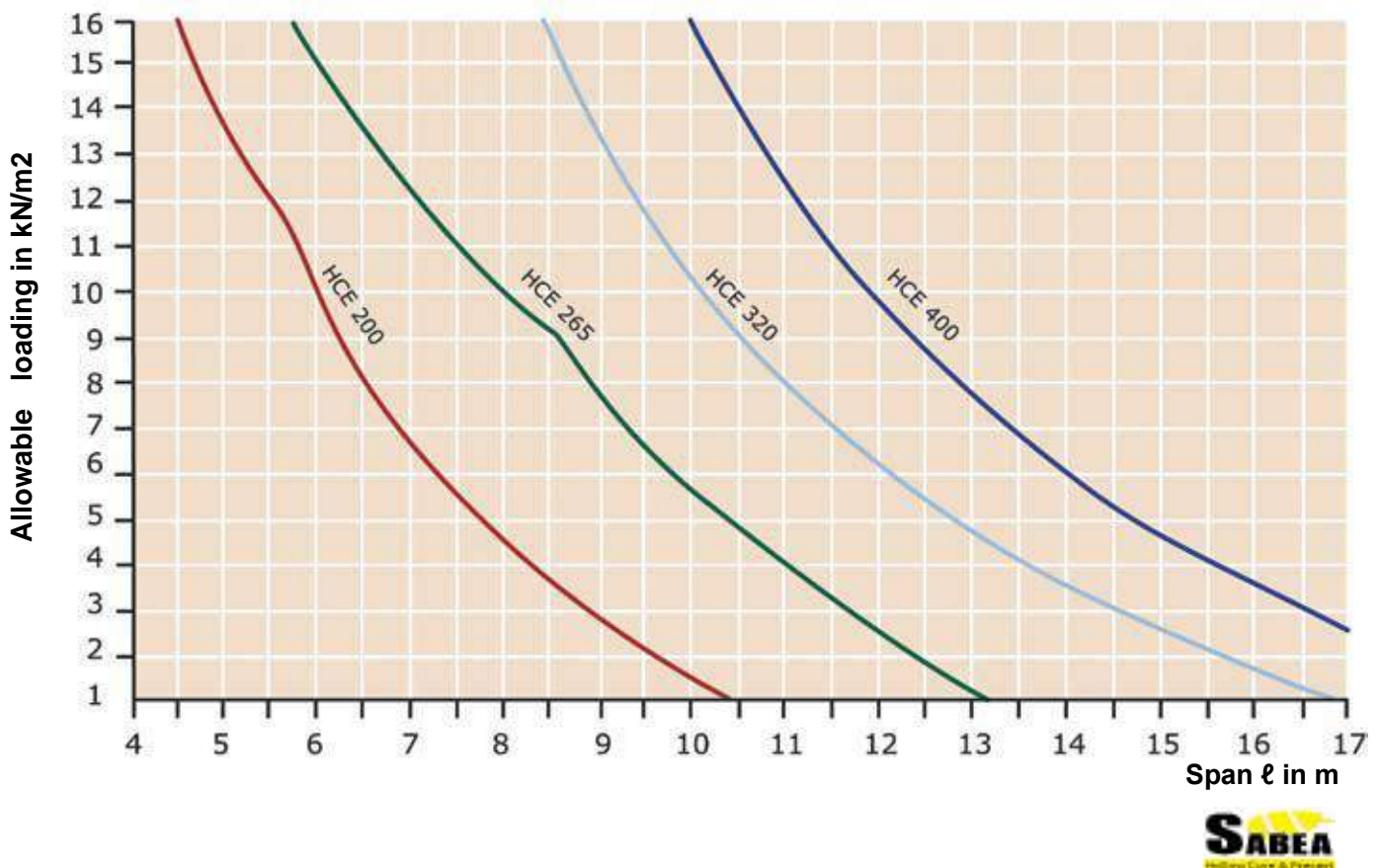
(\*) quantity of grout needed to fill the longitudinal joints of a floor of a given surface area



## 6.3 Performance curves of hollow-core slabs

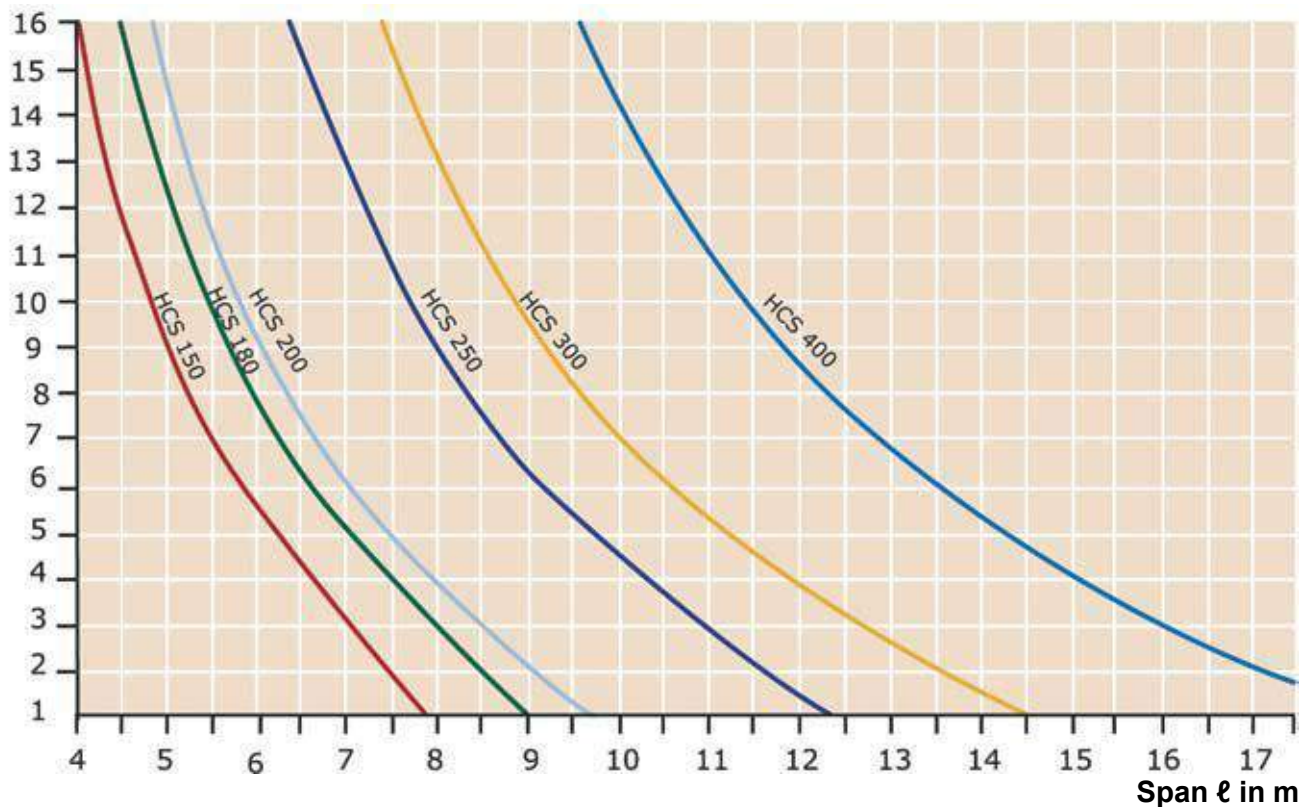
The curves give the load-bearing capacity with a limitation of the deflection under variable loading to 1/800 of the span.

### Extruded hollow-core slabs





### Slipformed hollow-core slabs



## 6.4 Structural topping

Hollow-core floors are normally used without structural topping. However, in the case of seismic action, frequent changes of load or important point loads, a topping may

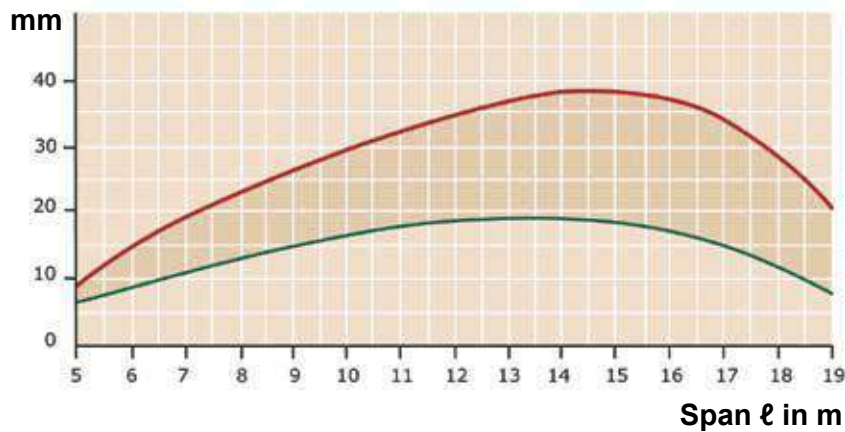
be indicated. The thickness should be at least 40 mm, concrete quality C 30.



## 6.5 Precamber

Prestressed concrete units are subjected to precamber, depending on the magnitude and centroid of the prestressing force, modulus of rigidity of the cross section and length of the unit. The graph below gives an indication of the minimum and maximum expected average deflection of non-loaded elements after 1 month.

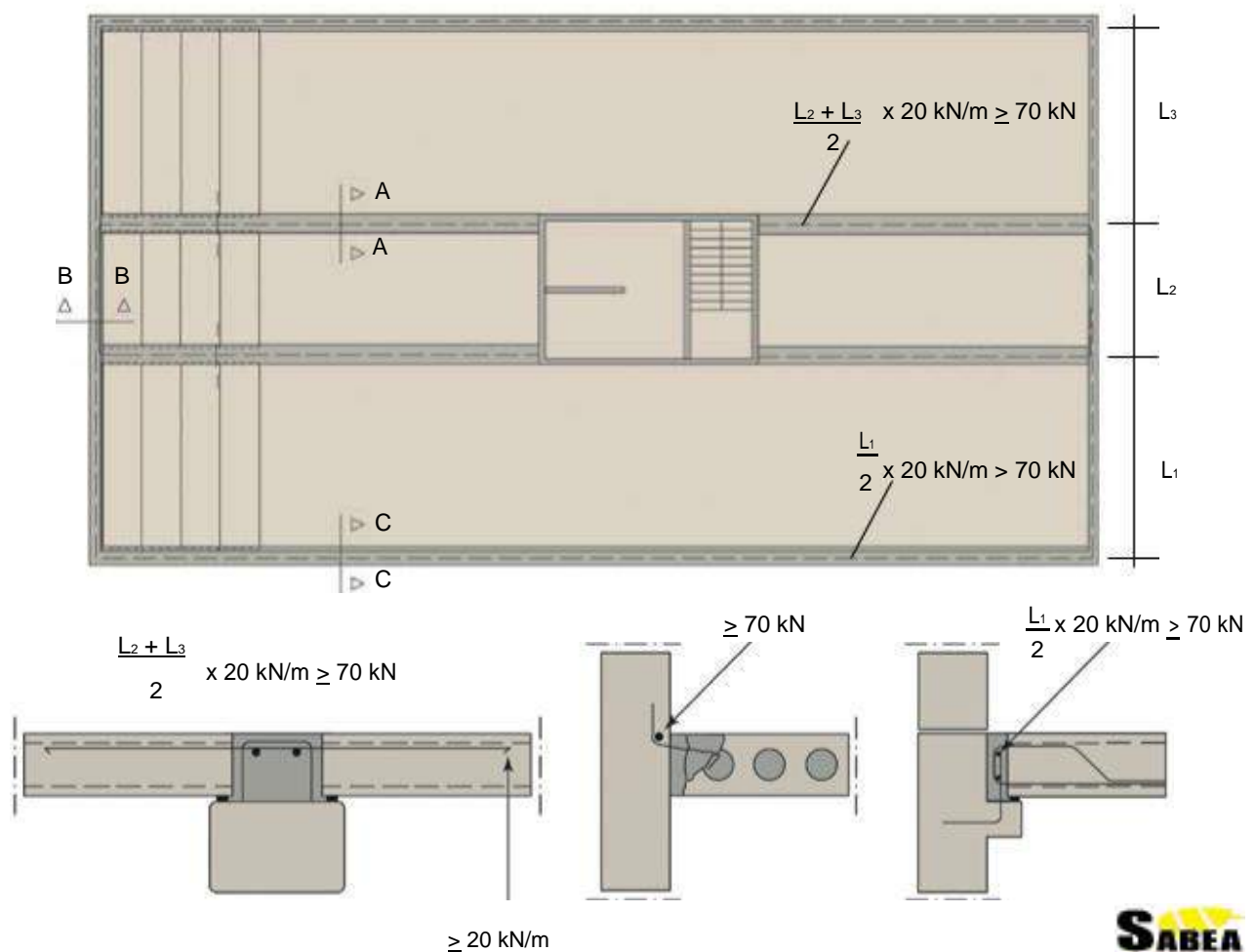
of storage. Possible tolerances are given in clause 6.11. The design should take account of the precamber in determining the thickness of the topping and screeds and the final levels after finishing - for example, for door thresholds, etc.



## 6.6 Diaphragm action

The diaphragm action of hollow-core floors is realized through a good joint design. The peripheral reinforcement plays a determinant role, not only to cope with the tensile forces of the diaphragm action but also to prevent the

relative horizontal displacement of the hollow-core units, so that the longitudinal joints can take up shear forces. The positioning and minimum proportioning of ties, required by Eurocode 2, is shown in the figure below.



## 6.7 Concentrated loading

Floors composed of prestressed hollow-core elements behave almost as monolithic floors for transverse distribution of line or point loads. The loads are transmitted through the profiled longitudinal joints. The

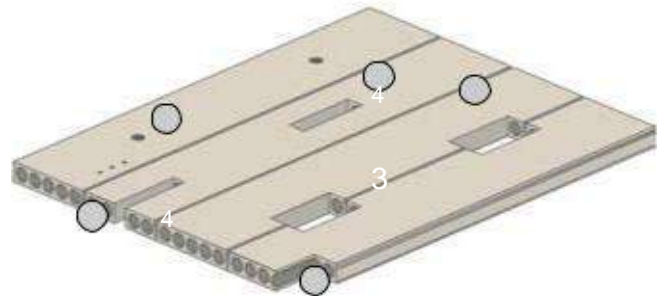
transversal distribution should be calculated according to the prescriptions of BS 8110 & ACI-318-14 Standard.

## 6.8 Openings

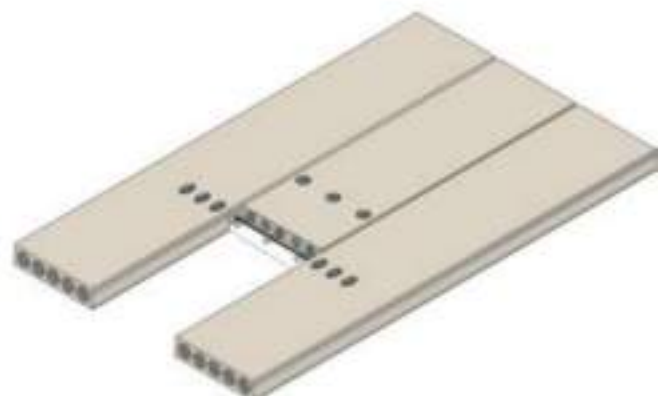
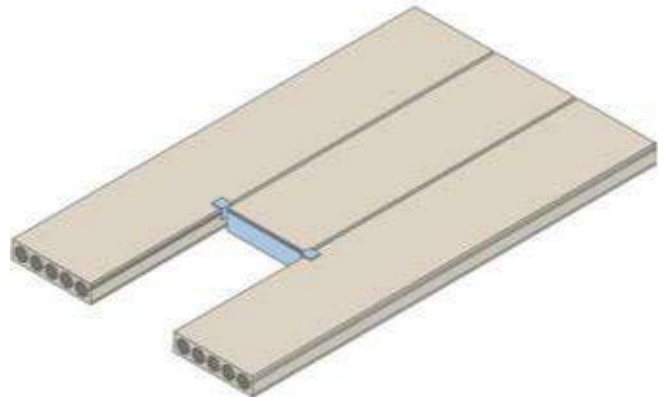
Holes in hollow-core floors are made as indicated in the figure. The dimensions are limited to the values given in the table. Small holes may be formed at the center of the longitudinal voids. The maximum size is limited

to the width of the void. Holes are normally made in the fresh concrete during the production process. The edges of the openings are rough. The possible dimensions for openings are given in the table.

$\ell / b$	HC 180 - 300	HC 400
■ Corner (1)	600/400	600/300
■ Front (2)	600/400	600/200
■ Edges (3)	1000/400	1000/300
■ Center (4)		
- round holes	Core minus 20mm	Ø 135
- square openings	1000/400	1000/200



Larger voids which are wider than the width of the precast units are 'trimmed' using transverse supports such as steel angles or concrete beams.



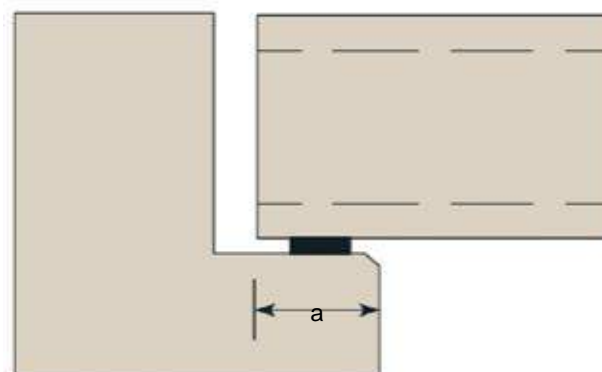


## 6.9 Connections

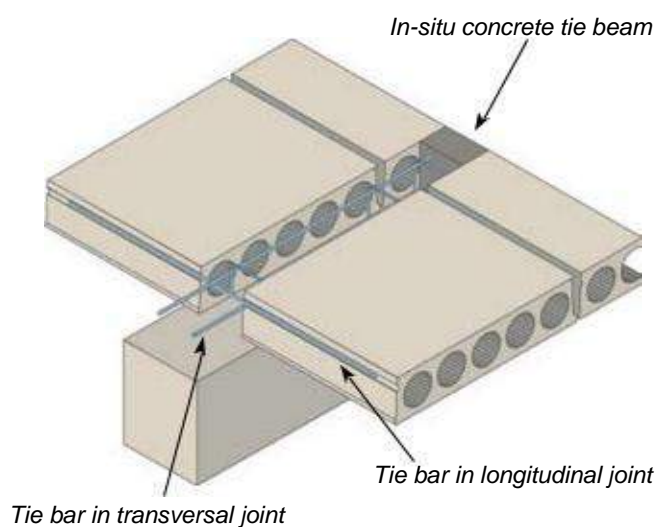
### 6.9.1 Bearing length

The nominal bearing length of simply supported hollow-core floor units is given in the table. Neoprene strips ensure a uniform bearing.

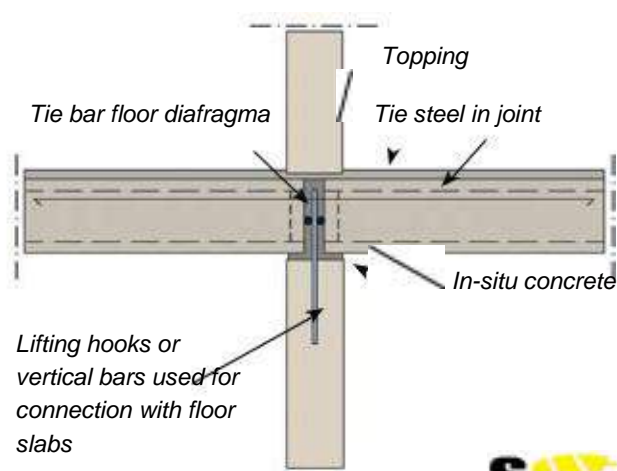
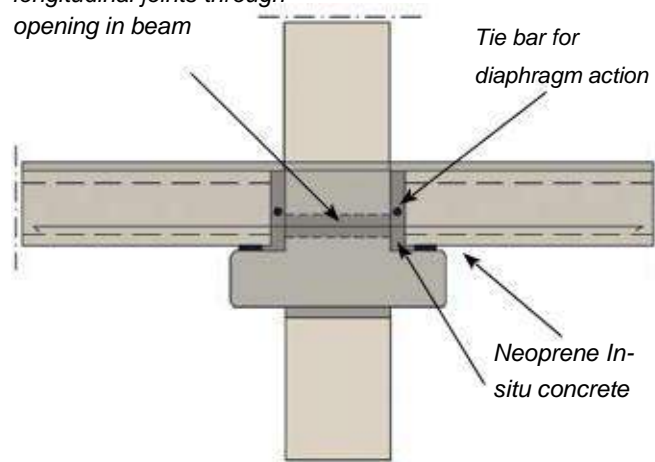
Supporting material	Slab thickness	Support length <i>a</i>	
		Nominal length	Minimum effective length
<b>Concrete or steel</b>	≤ 265 mm	70 mm	50 mm
	≥ 300 mm	100 mm	80 mm
<b>Brick masonry</b>	≤ 265 mm	100 mm	80 mm
	≥ 300 mm	120 mm	100 mm



### 6.9.2 Support connections

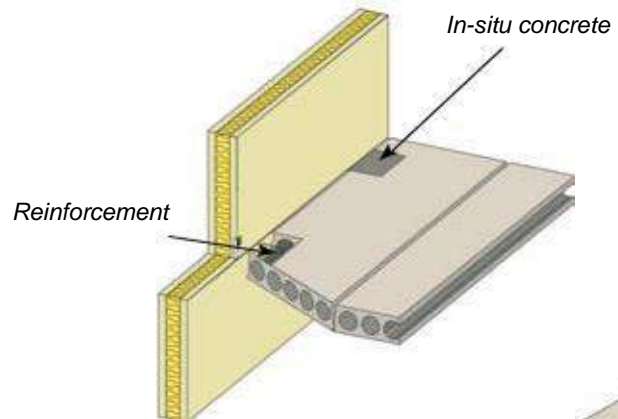


*Tie bar placed in longitudinal joints through opening in beam*



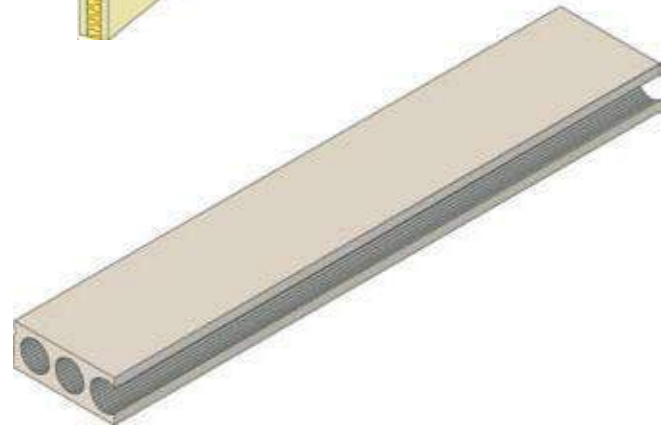
### 6.9.3 Connections at longitudinal joints

These are provided between the edges of the hollow-core floor units and beams or walls running parallel with the floor. Their main function is to transfer horizontal shear, generated in the floor plate by diaphragm action.



### 6.10 Match plates

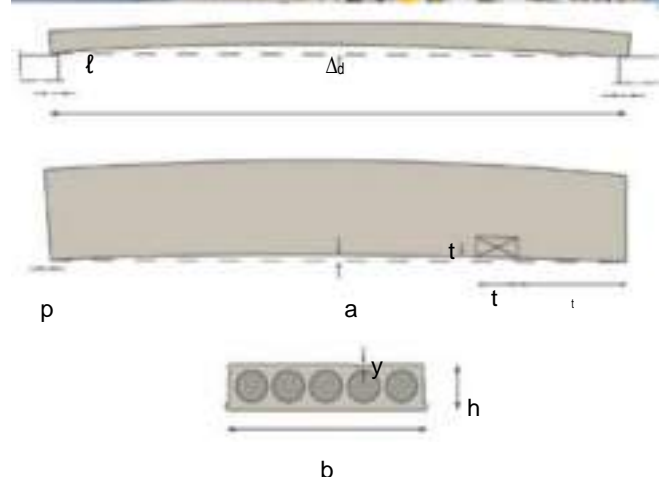
Non-standard plates with a width less than 1200 mm are cut in the green concrete during the casting of the line. The place of the longitudinal cut should correspond to the location of a longitudinal void. Edges cut in fresh concrete are rough. If a straight edge is needed, the slabs are sawed after hardening.



### 6.11 PRODUCTION TOLERANCES

1. Length (L):  $\pm 15 \text{ mm}$  or  $L/1000$  <sup>1)</sup>
2. Thickness (h):  $\pm 5 \text{ mm}$  or  $h/40$  <sup>1)</sup>
3. Width (b): whole slab  $+ 0 - 6 \text{ mm}$   
narrow slab:  $\pm 15 \text{ mm}$
4. Orthogonality end face (p):  $\pm 10 \text{ mm}$
5. Camber before erection ( $\Delta d$ ) <sup>2)</sup>:  $\pm 6 \text{ mm}$  or  $L/1000$  <sup>1)</sup>
6. Warping:  $\pm 10 \text{ mm}$  or  $L/1000$
7. Flatness (y) <sup>3)</sup>:  $10 \text{ mm}$  under a lath of  $500 \text{ mm}$
8. Steel inserts, installed in the factory (t):  $\pm 20 \text{ mm}$
9. Holes and recesses (t):  
cut in fresh concrete:  $\pm 50 \text{ mm}$   
cut in hardened concrete:  $\pm 15 \text{ mm}$

- 1) *Whichever is the larger*
- 2) *Deviated from the calculated deflection (Including precamber and calculated deflection under loading circumstances)*
- 3) *Valid for slabs  $h \leq 300 \text{ mm}$*

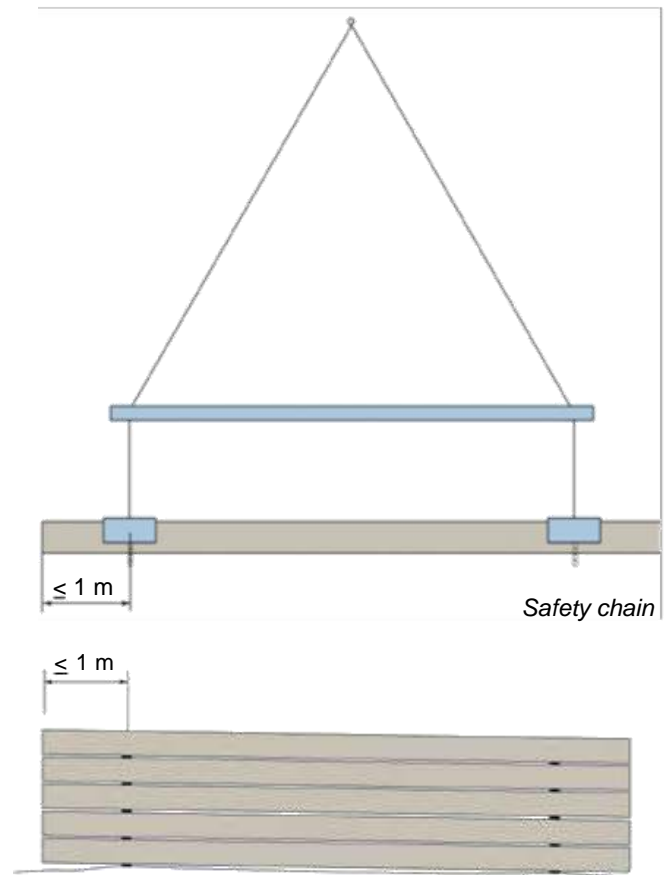


## 6.12 Handling and transport

Handling, loading and storage arrangements on delivery should be such that the hollow-core slabs are not subjected to forces and stresses which have not been catered to in the design. The units should have semi-soft (e.g., wood) bearers placed at the slab ends. Where they are stacked one above the other, the bearers should align over each other.

When stacking units on the ground on site, the guidelines will be similar to the above. The ground should be firm and the bearers horizontal, such that no differential settlement may take place and cause spurious forces and stresses in the components. During handling, provisions shall be taken to ensure safe manipulation, for example safety chains under the slab.

Hollow-core slabs are hoisted with specially designed clamps hanging on a steel spreader beam. The use of a sling alone is strictly forbidden.



Hollow-core slabs



## 6.13 Erection

The erection of the hollow-core floor slabs should be done according to the instructions of the design engineer. If needed, the industry can second him to supervise the construction methods. The industry will supply written statements of the principles of site erection, methods of making structural joints and materials specification on request.

### Joint infill and concrete screeds

The longitudinal joints between the floor units should be filled using concrete grade C25 to C30, containing an 8 mm maximum size aggregate. The floor units should be moistened prior to placement of in-situ concrete. The joints should be filled carefully since they fulfill a structural function both in the transversal load distribution and the horizontal floor diaphragm action.

When a structural screed is to be used, it is advisable to fill the longitudinal joints immediately prior to the casting of the screed.

The workability should give a slump between 50 and 100 mm. The wet concrete should be spread evenly over the floor area as quickly as possible.

Mechanical vibrating beams are used to compact the concrete.

### Drainage holes

Drainage holes are drilled into the voids at the slab ends to evacuate any rainwater that might penetrate during site erection. After erection, the contractor should check that the holes are open.

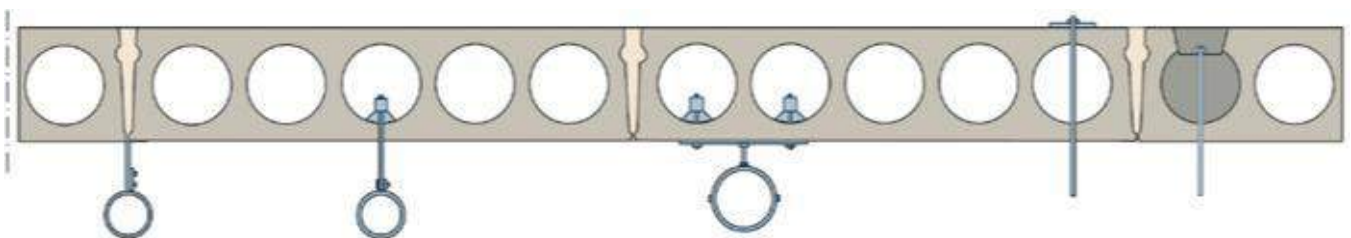
The screed may be power floated or rough tamped in the usual manner, depending on the type of floor finish. The topping screed should contain a shrinkage reinforcement mesh.



### Fixings

There are several ways of fixing hanging loads to the hollow-core floor - for example, special sockets drilled into the voids, anchors placed into the longitudinal

joints, etc. The industry will supply detailed information on request.



## 7. Residential buildings

Residential buildings constitute an important activity. A construction system has been developed for single family houses, low-rise and high-rise apartment buildings. The total structure includes complete outer walls, inner walls, hollow-core flooring, stairway towers and stairs, roof and balconies.

### 7.1 Architectural freedom

The design of the building is not fixed by rigid concrete elements and almost every building can be adapted to the requirements of the builder or architect. There is no contradiction between architectural elegance and variety on the one hand and increased efficiency on the other. The days are gone when industrialization meant large numbers of identical units; on the contrary, an efficient production process can be combined with skilled workmanship, which permits an architectural design without extra costs.

By using the hollow-core concrete elements with spans of up to 12 m extending across the house, we can obtain floors with very large and unobstructed areas. In other words, a house with the greatest possible range of uses as well as the longest possible service life. These open areas and the opportunities to easily modify the interior layout can be utilized in several ways. In new production, future residents can also be given opportunities to influence the design of their apartments. From a longer perspective, the house can easily be adapted to different situations with different demands. Large rooms can be converted into small ones, and vice versa. An apartment could be converted into, for example, a day-care center, or the whole building, or parts of it, could be converted into offices.



The recently developed jointless façade is composed of internal panels of grey concrete, carrying the hollow-core floors, and an in-situ external skin of a special decorative concrete mix, reinforced with synthetic fabric. The thermal insulation is either placed on site, or incorporated to the precast panel.

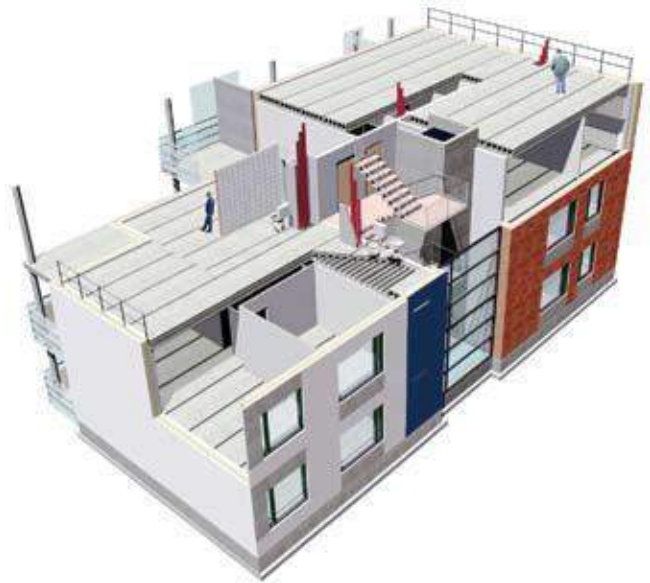




## 7.2 Structural systems

Within the industry, systems for housing and apartment buildings are normally designed as wall-frame structures. The walls support the vertical loads from the floors and the upper structure. They can also perform only as separating walls. Central stair cases and lift shafts are constructed with precast walls

As a variant, the vertical structure of the buildings can also be made with skeletal frames and infill walls.



*Load-bearing cross-wall system with hollow-core floors spanning over 10 to 12 m.*

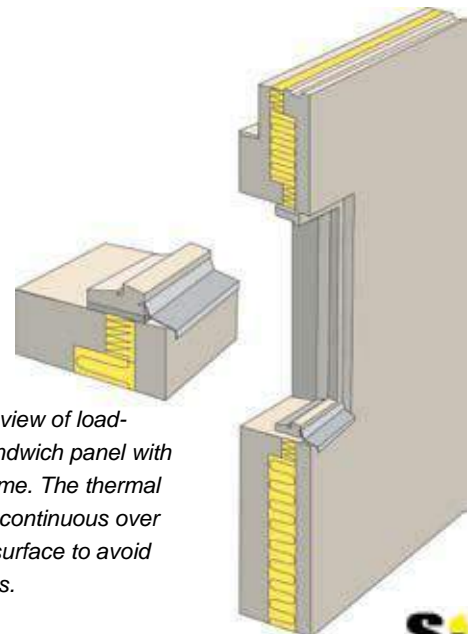


*Layout of apartment building with load bearing façades and internal load-bearing cross-walls.*



Floors are usually made of hollow-core elements. The latest tendency is to span the floors over the full width of the apartment. In this way one obtains not only more flexibility for the internal lay-out, but also the possibility to modify it later without major costs.

The façades are normally sandwich panels. The inner leaf of the units may be load-bearing. A variant solution is to precast only the inner leaf of the façade and to clad it on site with brick masonry or any other added finishing.

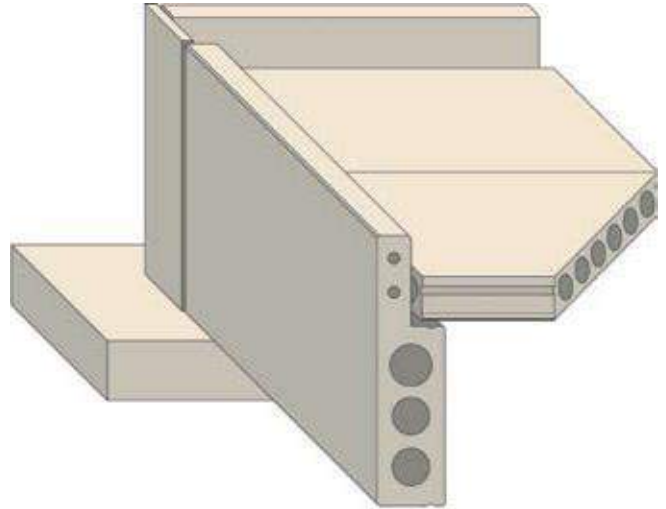


*Schematic view of load-bearing sandwich panel with window frame. The thermal isolation is continuous over the whole surface to avoid cold bridges.*



## 7.3 Foundation units

Special solutions for ground floors with supports have been developed. They can be used for completely precast houses but also for the footing of wooden cottages.



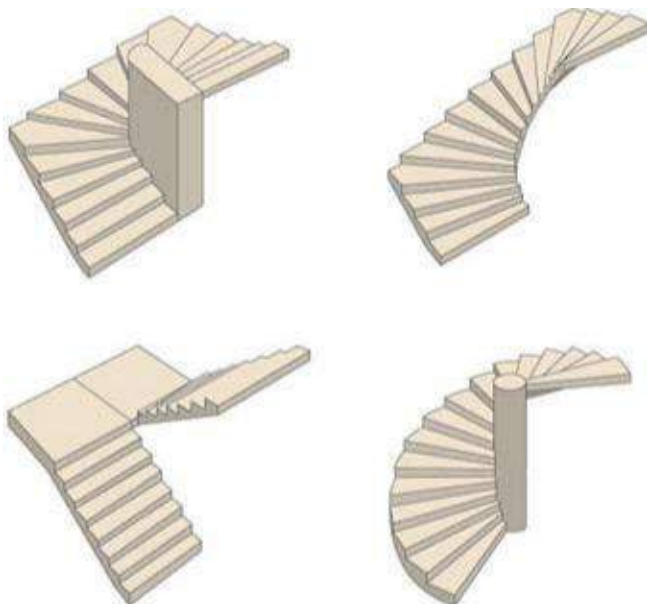
## 7.4 Stairs

Precast concrete stairs are very interesting products for domestic and other type of buildings because of the quality of finishing and the cost efficiency. Various types of precast stairs are available, ranging from individual steps to straight or helicoidal monobloc units.

The first category comprises straight stair units. They are made out of both individual precast flights and

landings or combined flight and landings. In the latter solution there may be differential levels at floors and half-landings, necessitating a finishing screed or other solution.

The second category comprises monobloc staircases. They can be used either in the stairwells or individually between the different stores.



*Examples of monobloc stair units.*



*Polished precast spiral stair.*

## 7.5 Balconies and terraces

Balconies in apartment buildings are usually made with special architectural units fixed to the building structure or floor slab, or supported by external columns. To avoid

cold bridges, a thermal insulation is placed between the balcony and the inner floor.



*Cantilevering balconies with intermediate thermal insulation.*



*Terraces supported on Betemi columns.*

## 7.6 solid walls

Precast walls are mainly used in apartment buildings, houses, hotels and similar structures. The bearing walls are generally used in combination with hollow-core floors. Other applications are partition walls and elevator and stairwell shafts. Generally, the larger the wall units are, the more economical the project is and the better the site productivity. Of course, limitations can be imposed by the capacity of the site craneage and transport limitations.

Precast walls are manufactured on long table or battery molds. The molded side is smooth as cast, the top face leveled and floated. Painting or wallpapering is possible after thin plastering. Technical ducts and inserts for electricity are incorporated prior to casting.

### 7.6.1 Characteristics

Dimensions wall units: maximum length:	14 m
maximum height:	3.50 m
thickness:	200 mm

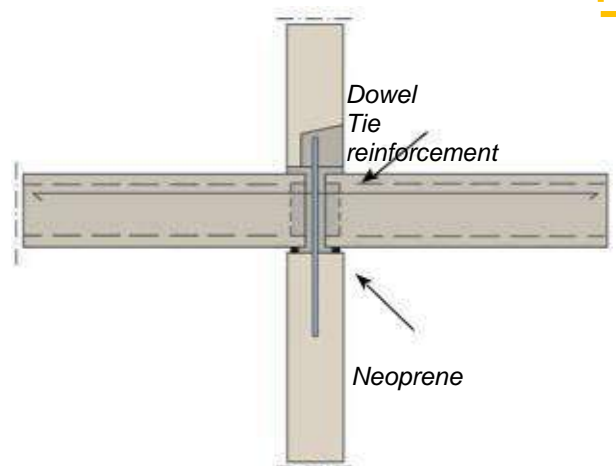
Fire resistance: 180 minutes



### 7.6.2 Connections

Vertical wall-to-wall connections are generally designed to transmit shear forces. The vertical joint faces of the panels are profiled. Horizontal joints between walls and floors are either with direct floor support on the walls for medium-rise buildings or with floors supported on corbels, for high rise buildings. It is advisable to concentrate the tie reinforcement in the horizontal joint between the units.

*F  
l  
o  
o  
r  
p  
o  
r  
t  
o  
w  
a  
l  
l*





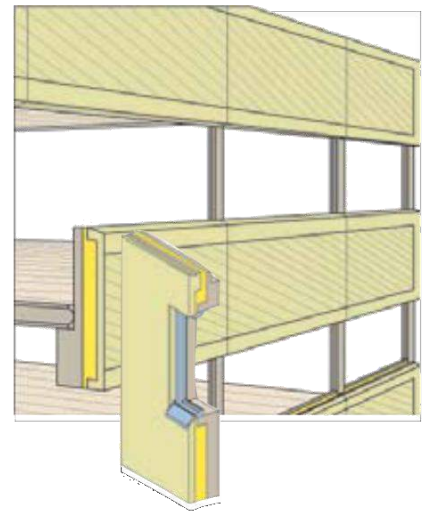
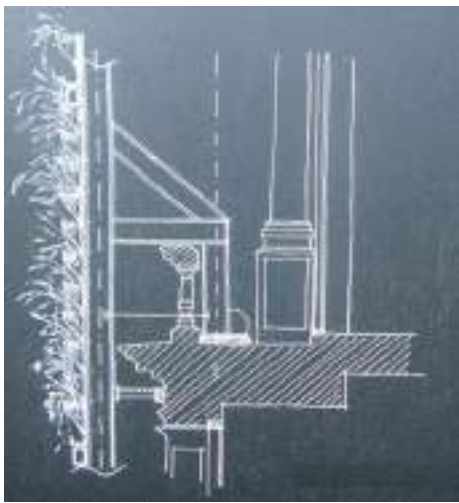
## 8 Panels

The industry specializes in the production of façade elements in architectural concrete. There are two concepts: sandwich panels and cladding units. The units are generally one story high and the normal standard widths are 2.40 m, 3.00 m and 3.60 m.

The term “architectural concrete” refers to precast units which are intended to contribute to the architectural effect of the façade through finish, shape, color, texture and quality of fabrication. Precast concrete offers an extremely wide range of visual appearances. Although the basic structural material is concrete, the finished elements do

not always need to have the appearance of concrete.

Buildings clad in precast architectural cladding can give the impression of being constructed in brickwork, polished marble or granite. Alternatively, if the architect wishes to maintain the appearance of concrete, the elements can be produced in a vast range of self-finishes - an array of profiles and textures which bring out the natural beauty of the aggregates from which the elements are made. As a matter of course, such finishing requires a high level of technology and workmanship.



### 8.1 Sandwich panels

Sandwich panels consist of two concrete leaves with an insulation layer in between. The external leaf is generally in architectural concrete. The internal leaf is in gray concrete and may be designed as load-bearing or self-bearing. Load-bearing means that it is supporting the floors and the structure above. Self-bearing means that it is only supporting the self-weight of the façade.



The industry has developed a new façade panel with an air void between the outer cladding and the insulation, enabling the evaporation of any seeping water or condensation that has penetrated.

## 8.2 Cladding panels

Simple cladding panels fulfill only an enclosing and decorative function in the façade. The single skin units are used for the facing of walls, columns, spandrel panels, etc. The units can be fixed either separately to the structure or they can be self-bearing. In principle, the architectural design of cladding panels is completely free. In the design process early involvement can affect considerable time and cost savings in the contract.



## 8.3 Special architectural element

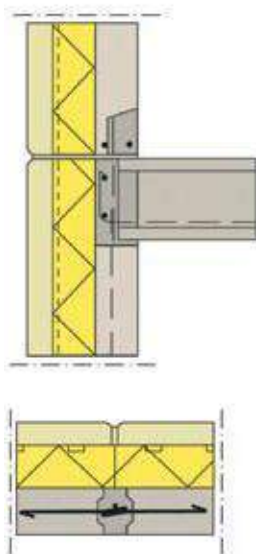
Architectural concrete is perfectly suited for complicated geometric shapes and forms which would prove prohibitively expensive in traditional methods of construction. Similarly, other features normally requiring the use of site skills become practical from an economic as well as from a construction standpoint. This is the case with, for example, window surrounds, carved columns, cornices, pediments, etc. Skillful and economical manufacture gives all of the quality associated with natural materials at a fraction of the cost.



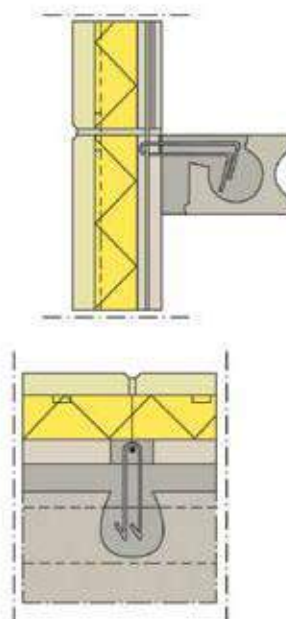
## 8.4 Details and connections

The industry has developed standard details for connections between façade elements, façades and

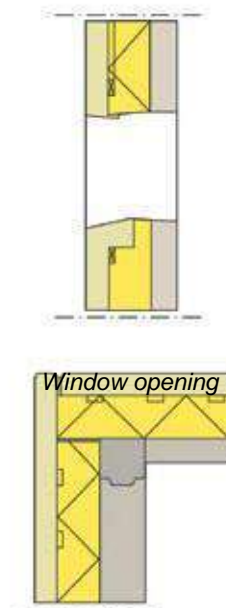
floors, solutions for corners, etc. Some details are shown below and more information is available from the



*Connection between the floor and the façade.*



*Connection with side wall*



*Corner solution*



## 9 Railway products

The industry has a long tradition in railway products. The assortment varies from railway sleepers and foundation

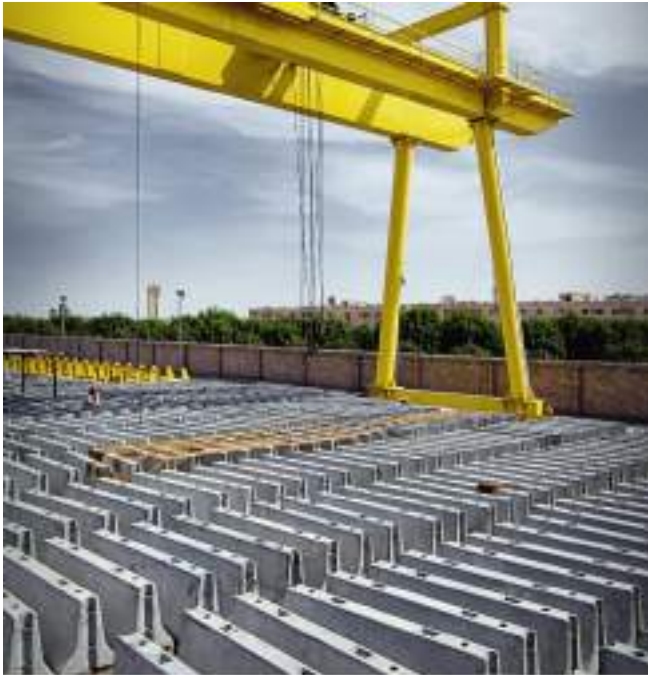
systems for railway poles to slab track railway crossings and slabs for railway platforms.





## 10 Sample of pictures

51



























## 11. Machines and Equipment's

- ABUS Overhead crane 10ton – 6Nos
- ABUS Overhead Double Hoist 10ton – 2Nos
- Lifting beams - 5Nos.
- Lifting clamps – 7Nos

### Elematic Hollow core plant

- Concrete shuttle – Elematic (E9-2800).
- Concrete distributor/crane – (P7-6)
- Wagon – Elematic (E9-1200W)
- Two full set of 150mm nozzle unit's with its body kit.
- Two full set of 200mm nozzle unit's with its body kit.
- Full set of 160mm nozzle unit's with its body kit.
- Full set of 265mm nozzle unit's with its body kit.
- Full set of 320mm nozzle unit's with its body kit.
- Full set of 400mm nozzle unit's with its body kit.
- Full set of 500mm nozzle unit's with its body kit.
- Automatic cleaner and bed prepare machine (P7-1200p)
- Two saw cutting machines (Diamond disk Dia. from 600 – 1500mm)
- Saw S5-400
- Saw P7-500

### PAUL Equipment's

- Two jack machines – pre-stressing (P-300), PAUL.

### VITOPLEX Boilers

- Two water boilers VITOPLEX 200 with its pipes connections and its control panel – mandatory controller (E9-8mc).

### BATCHING PLANT

- Batching plant MC150.

### HOLLOW CORE BEDS

- Size casting beds, 150m long with standards 1.2m width-Edge(E9-1200b)
- 12 Beds abutments two of each casting bed.

### HEAVY EQUIPMENTS

- Trailer head – 15 units
- Flat bed – 10 units
- Low bed – 3 units
- A-frame – 6 units.
- Boom truck – 2 units
- Mobile cranes – 5 units
- Tata Bus – 3 units
- Mini Bus – 3 Units
- Pick up – 3 Units
- Fork lift – 3 units
- Shovel – 2 units

### Man Power

- More than 300.





# 9. PREVIOUS APPROVALS

---

**SABEA HOLLOWCORE W.L.L.,**  
**For Concrete Panels and Hollow core**

Landline: +974 44922452  
Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)  
[www.sae.com.qa](http://www.sae.com.qa)



External Transmittal  
ONSHORE ENGINEERING DEPARTMENT - DUKHAN PROJECTS

Project No : 4399

Contract No : GC22101600

Contract Title : EPIC for Wells Hook-up 2022-2026

Transmittal No :

PND/GC22101600/EXT/TN/05975

Company : GALFAR AL MISNAD Engg & Cont.

F.a.o : Salahudheen K. P.

10 Approved (Re-submission Not Required)

#	Document No.	Rev	Your Ref	Description	Code	Due Date
1	4399-1-MS-0028	2	GC22101600/PND/TN/05927	MATERIAL SUBMITTAL FOR CONCRETE MIX DESIGN	10	

Condition :

Remarks :

Document Controller	Nominated Deputy	QP Representative	Date
Tel : 40136702 Francis John Sisante	Tel : 40135724 Abdul Majid A. Hwidi	Tel : Jassim Ibrahim Khalil Al .	02/02/2025

1. THIS TRANSMITTAL IS SYSTEM GENERATED AND SIGNED-OFF ELECTRONICALLY HENCE WET-INK SIGNATURE IS NOT REQUIRED.  
2. REFER TO ATTACHED COMMENT SHEET AND MARKUP ATTACHMENTS (IF ANY) AND PLEASE CONFIRM THE RECEIPT OF THIS TRANSMITTAL IN

Receiver's Signature Over Printed Name

Designation

Date



External Transmittal  
OPERATIONS ENGINEERING - DUKHAN

Project No : 4458	Transmittal No : OED/GC22105400/EXT/0307
Contract No : GC22105400	
Contract Title : EPIC for Various Pipeline MOC's in DUKHAN	

Company : Petrocon ECC W.L.L

F.a.o : Prem Kumar

1 Approved - May Proceed

#	Document No.	Rev	Your Ref	Description	Code	Due Date
1	4458-DGEN-1-15-0005	0	4458-TN-0369	MATERIAL SUBMITTAL FOR PRECAST FOUNDATION (M/S SABEA HOLLOWCORE)	1	31/01/2024

Condition :

Remarks :

Document Controller	Nominated Deputy	QP Representative	Date
Tel : 40141605 Kollaparambil Sreedharan Balar	Tel : Prithwik Karuppali	Tel : Rashid Salem Rashid Abu	24/01/2024

If applicable, please resubmit documents before due date  
Please sign a copy of this transmittal and return by mail as acknowledgement of receipt

Receiver's Signature Over Printed Name

Designation

Date





External Transmittal  
INFRASTRUCTURE & CIVIL PROJECTS-MESAIEED

Project No : 4248

Contract No : GC20101200

Contract Title : EPIC FOR GROUNDWATER DRAINAGE SYSTEM IN MESAIEED - PHASE 2

Transmittal No :

PID/GC20101200/EXT/TN/2364

Company : Al Balagh Trading & Contracting Co.

F.a.o : Rohan Ravindra Ranadive

10 Approved (Re-submission Not Required)

#	Document No.	Rev	Your Ref	Description	Code	Due Date
1	4248-4-MS-0004	1	GC20101200/PID/TN/2444	MATERIAL SUBMITTAL FOR PRECAST FIBER OPTIC CABLE ROUTE MARKER	10	

Condition :

Remarks :

Document Controller	Nominated Deputy	QP Representative	Date
Tel : 40132734 Salim Dalvi	Tel : 40135823 David A. Burness	Tel : Khalid Mohd Kaldari	28/12/2023

1. THIS TRANSMITTAL IS SYSTEM GENERATED AND SIGNED-OFF ELECTRONICALLY HENCE WET-INK SIGNATURE IS NOT REQUIRED.  
2. REFER TO ATTACHED COMMENT SHEET AND MARKUP ATTACHMENTS, IF ANY AND PLEASE CONFIRM THE RECEIPT OF THIS TRANSMITTAL IN THE SYTEM.

Receiver's Signature Over Printed Name

Designation

Date



External Transmittal  
OPERATIONS ENGINEERING - DUKHAN

Project No : 4458	Transmittal No : OED/GC22105400/EXT/0306
Contract No : GC22105400	
Contract Title : EPIC for Various Pipeline MOC's in DUKHAN	

Company : Petrocon ECC W.L.L

F.a.o : Prem Kumar

1 Approved - May Proceed

#	Document No.	Rev	Your Ref	Description	Code	Due Date
1	4458-DGEN-0-17-0005	0	4458-TN-0368	PRE-QUALIFICATION DOCUMENT FOR PRECAST CONCRETE STRUCTURES (M/S SABEA PRECAST)	1	31/01/2024

Condition :

Remarks :

Document Controller	Nominated Deputy	QP Representative	Date
Tel : 40141605 Kollaparambil Sreedharan Balar	Tel : Prithwik Karuppali	Tel : Rashid Salem Rashid Abu	24/01/2024

If applicable, please resubmit documents before due date  
Please sign a copy of this transmittal and return by mail as acknowledgement of receipt

Receiver's Signature Over Printed Name

Designation

Date

## Material Submittal Form

**PROJECT DETAILS:**

PROJECT NAME : Design, Build Testing & Commissioning Mini Sports Complex Project at Lusail Palace  
 PROJECT NUMBER :  
 CLIENT / OWNER : LUSAIL HOSPITALITY AND SERVICES  
 DESIGNER : CEG INTERNATIONAL  
 CONSULTANT : UNII ENGINEERING CONSULTANCY  
 CONTRACTOR : STADIA QATAR TRADING AND SPORT PROJECTS W.L.L.

MS No: MS-SQ-CIV-UNII-0001

Rev No : 00

Date : 28/01/2025

 Discipline ☒ Civil ☐ Architecture ☐ Mechanical ☐ Electrical ☐ Others

**Material Detail**
**List of Enclosure**

Item Description : Service Building Precast Substructure &amp; Superstructure Elements with Roof Hollow core

 Specs. Ref.  
 BOQ. Ref.  
 Dwg. Ref.

Material Specified : Service Building Precast Substructure &amp; Superstructure Elements with Roof Hollow core

Material Proposed

Manufacturer / Local Supplier

SABEA HOLLOW CORE

Reason for Alternative

N/A

Remarks

- ☒ Vendor's Technical Literature
- ☒ Compliance Statement.
- ☒ Sustainability Compliance.
- ☒ Previous Test Results.
- ☒ Copy of the Related Specs.
- ☒ Samples with Sample Tag.
- ☒ List of Previous Projects Done.
- ☒ Others

 Approved copy of prequalification of the supplier/manufacturer  
 Origin of the material

We certify that the material submitted herewith has been reviewed in details and in accordance with the Contract Drawing and Specifications except as otherwise stated here above.

**Contractor Signature:**

Discipline Engineer:

QA/ QC

HSE

ARCH

MEP

CIV

STR

Project Manager:

SALEH JOHAR

Received By

Date

**Consultant**
☐

A - Approved

☒

B - Approved with Comment

☐

C - Revise and Resubmit

☐

D - Rejected

☐

E - Information Required/Resubmit

Comments: Refer the comments in attached DRS

Reviewed By &amp; Signature:

Ahmet Zengin

Approved By &amp; Signature:

MBR

Received By (The Contractor)

Date

29/01/25

Note: Engineer's approval is for conformance with information given and design concept expressed in Contract Documents. Approval does not authorize changes to Contract Documents. Engineer's approval does not relieve the Contractor from his contractual obligation to ensure conformance to the Contract Documents/Specifications. Any deviations, to the Specifications/Contract Documents found subsequent to Engineer's approval are to be corrected by the Employer/Engineer at no extra Cost/Time

**Distribution:**



**SUBMITTAL FOR APPROVAL OF SUBCONTRACTOR / SUPPLIER**

Project Name:	Construction of Qatar Academy - Sidra	Submittal No:	CS2024-01-AAE-SAS-CI-0009
Contract Ref.:	BP 2023 C 009 G	Rev. No.:	02
Client:	Public Works Authority	Date:	29/04/2024
Supervision Consultant:	EGEC	Copies:	(2) sets of hard copy + (1) soft copy
Designer:	CEG	From:	AAE
Contractor:	Al Ali Engineering Co	To:	EGEC

To: SUPERVISION CONSULTANT

We request your approval on the following Subcontractor:

**SUBCONTRACTOR/SUPPLIER NAME: SABEA HOLLOWCORE**

Company Line of Work: Manufacturing & Installation of Precast Concrete

Non Category on AVL  
Vendor ☐ Non-Vendor ☒

Specification : QCS 2014 Section 17  
Telephone / Fax : 44430559  
BOQ Ref. No. : BQ/02/9  
Address : PO Box: 9106, Industrial Area, Doha, Qatar.  
Country of Origin : Qatar  
Contact Name : Mr. Faras  
Number : 30981078  
Email : shc-qc@aes.com.qa

Vendor List  
Document No.:



FOR THE CONTRACTOR: (Signature & Seal)

*[Signature]*

*[Signature]*

Engr. Riyadh Sharif Sabah  
Project Director

Date: 29-April-2024

CONSULTANT COMMENT(S):

*Refer to attached CRS*

Submittal Status: ☐ A- Approved As Submitted\* ☒ B- Approved as Noted\* ☐ C- Revise /Resubmit  
☐ D-Disapproved-Resubmit ☐ E-Receipt acknowledged

The company representative returns hereby this submittal for approval of subcontractor by the engineer. Approval by the engineer shall not relieve the contractor of its obligation and liabilities under the contract or constitute authorization of any change to contract documents and therefore, shall not imply any recognition whatsoever additional time or cost to the contract.

FOR SUPERVISION CONSULTANT

QA/QC Engineer

Signature:

Date:

Discipline Engineer

Signature:

Date:

Project Manager

Signature:

Date:

Receiving by Contractor

Name:

Signature:

Date:

**Comments Resolution Sheet**

Contract No.	C/2024/13	EGEC Project Code	
Contract Title	<b>Construction of Qatar Academy - Sidra</b>		
		Date	<b>May 4, 2024</b>
Document No.	CS2024-01-EGEC-SAS-CIV-0009	Document Revision	<b>01</b>
Document Title	Pre-Qualification for SABEA HOLLOWCORE		

Item	EGEC's Comments	AAE Response
1	Approval subject to Full technical submittals, design & shop drawings, method statement, installation & lifting plans.	
2	Approval subject to Valid certificates/documents, QA/QC documents, and test reports.	

4/05/2024

**EGEC**  
 Project: Construction of Sidra Academy







## SUBCONTRACTOR'S APPROVAL - (PRQ)

Project Name:	DESIGN & BUILD OF AL MASLUBA FARM		
Contractor	AL ALI ENGINEERING CO	Rev.	0
Submission Ref.	MASLUBA-CV&ST-PQD-003	Date	9-Apr-2024

### 1. SUB-CONTRACTOR'S PARTICULARS

Company Name : SABEA HOLLOW CORE

Company type of works : Supply of Hollow Core, Pre-Cast Concrete and Concrete Panels

Address / Contact details : Industrial Area, Mesaieed, Doha-Qatar

Tel (+974) 4492 2452 / Fax (+974) 4443 8576

Email: hollowcore@aaa.com.qa; sales@aaa.com.qa

The following prequalifying documents are enclosed :

- ☒ Commercial Registration
 ☒ Summary of Experience
 ☒ Company Equipment
 ☐ Company Disposition Form
 ☒ Present Works
 ☒ Company Staff
 ☒ Company Profile & Pre-qualification Document

### 2. SUB-CONTRACT WORKS SUBMITTED FOR

Scope of Works: Supply of Hollow Core, Pre-Cast Concrete and Concrete Panels

QCS Specification Ref. : QCS 2014

Project Specification Ref. :

Ashghal Approved Vendor : YES ☐ NO ☒

Name / Designation: Ahmed Abdulazeem Sayed Signature:  Date: 9-Apr-2024

### 3. Consultant Review Comments:

Refer to the comments in the attached reply sheet. (A4 page)

*Healy*  
18/4/2024

### APPROVAL STATUS



- Status A - Approved ☐
- Status B - Approved with comments ☒
- Status C - Revise and Resubmit within 14 days ☐
- Status D - Rejected ☐
- Status E - Additional Information Required ☐

### Receiving Stamp:



### CONSULTANT PROJECT MANAGER

Name: Signature: Date:

Submittal Reply Sheet	SUBMITTAL TRADE	SUBMITTAL REF. NO.	REVIEW CYCLE	SUBMITTAL DATE
	CV & ST	MASLUBA-CV&ST-PQD-003	0	09-04-2024
CONTRACT TITLE:	Design and build of Al Masluba Farm			
FROM (Supervision Consultant):	Arab Consulting Engineers (ACE)			
TO (Contractor):	Al Ali Engineering Company W.L.L.			
Submittal Description:	Pre -qualification for M/s SABEA Hollow Core			
ACE Received (Stamped) date	15-04-2024			
CONSULTANT TO ENTER ACTION CODE AND REMARKS AND RETURN TO CONTRACTOR:				
<input type="checkbox"/> Approved <input checked="" type="checkbox"/> <b>Approved as Noted</b> <input type="checkbox"/> Revise & Resubmit <input type="checkbox"/> Not Approved / Rejected				
<input type="checkbox"/> Further Info. Request (E) <input type="checkbox"/> For Information (F) <input type="checkbox"/> Conditional Approval <input type="checkbox"/> For Records				
<p>M/s SABEA Hollow Core is approved as a supplier for Precast boundary wall panels, columns and footing subject to fulfil/comply with the following comments:</p> <ol style="list-style-type: none"> <li>1. Sub-contractor to comply with the IFC drawings issued by the approved Design Consultant.</li> <li>2. Any Detailed Design Drawings/ Structural Calculation reports required for the precast structural elements shall be reviewed &amp; accredited by the approved design Consultant prior to submission to the supervision consultant for final review and approval.</li> <li>3. Source of wet concrete (Concrete Batching Plant) should be specified.</li> <li>4. Concrete Design Mix shall be submitted for review and approval (based on the approved design Calculation report).</li> <li>5. Metod Statement along with ITP should be submitted for review and approval.</li> <li>6. The contractor should comply with QCS 2014 requirements.</li> <li>7. It is the contractor responsibility to demonstrate and apply his health and safety plan to the concrete supplier as per the approved method statement and HSE plan.</li> <li>8. This approval will not relieve the contractor from his obligations to safely and accurately accomplish all contractual works in accordance to the project specs and QCS 2014.</li> <li>9. The approval of the pre-qualification of Precast concrete supplier "M/S SABEA Hollow Core" doesn't relieve the contractor from his contractual obligations and commitments for the delivery of high-quality Precast Concrete product.</li> </ol>				
Supervision Consultant's Signature:	Eng. Ahmed Almalky		Date:	18-04-2024
Project Manager (ACE) Signature:	Eng. Ahmed Hendam		Date:	18-04-2024









Submittals Comments Sheet

DAR Ref no.	ISF-ZP-CP02-DAR-AAE-TRN-23-0006	Issue Date	19-Dec-2023
Document Type:	PRE-QUALIFICATION		
Contractor Ref no:	ISF-ZP-CP02-AAE-DAR-TRN-23-0008	Received Date	17-Dec-2023
ISF Ref no:		Received Date	
Discipline:	CIVIL		

No	Document No.	Rev	Document Title	Final Action Code
1	ISF-ZP-CP02-PQ-CIV-0002	0	PQ - Wall Panels, Columns, Beams, Footings Hollow core Slabs (SABEA Hollow Core)	B

Technical Comments:


- Source of wet concrete should be specified.
- Design mix shall be submitted based on approved design Report.
- Method statement with ITP shall be submitted.
- Precast elements shall be store in shaded place with proper curing.
- Curing methods should be mentioned.
- Any observed defects in precast cast elements shall be reported to Supervision Consultant in detail with propose method of rectification before any corrective action.

Ahmed Asran  
DAR

21-Dec-2023  
Date



Form No.0029

Pre-Qualification Document		SUBMITTAL TRADE	SUBMITTAL PACKAGE	SUBMITTAL REFERENCE	REVIEW CYCLE	SUBMITTAL DATE
		CIV	CIVIL	AWQAF-AAE-ACE-PQD-CIV-017	00	06-Nov-2023
CONTRACT TITLE:	Construction, Completion & Maintenance of Commercial & Offices Building In Abu Hamour - Project Awqaf (866)					CONTRACT REF:
FROM (Contractor):	M/s Al Ali Engineering Co.					
TO (Supervision Consultant):	M/s Arab Consulting Engineering Moharram- Bakhoum					
SUBMITTAL TYPE						QUANTITY
<input type="checkbox"/> Shop Drawings <input type="checkbox"/> Coordination Drawings <input type="checkbox"/> Product Data <input type="checkbox"/> Construction Photographs						2 Hard Copies & 1 Cd
<input type="checkbox"/> Samples <input checked="" type="checkbox"/> Pre-Qualification <input type="checkbox"/> Design Data <input type="checkbox"/> Test Reports						
<input type="checkbox"/> Certificates <input type="checkbox"/> Manufacturer's Instructions <input type="checkbox"/> Manufacturer's Field Reports <input type="checkbox"/> Other						
ITEM DESCRIPTION				REMARKS		
Submittal of Pre-Qualification Document: <b>M/s SABEA HOLLOW CORE &amp; PRECAST</b> Scope of work: Supplier of Concrete Precast Elements (Soakaway, Wheel Stopper & Manhole)						
<input checked="" type="checkbox"/> Review and Approval <input type="checkbox"/> Resubmitted for Review and Approval <input type="checkbox"/> For Information						
Contractor's Signature: Engr. Mohammed Affia				Date: 06 Nov 2023		
COPIES TO: <input type="checkbox"/>				<input type="checkbox"/> File		
ENCLOSURES TO: <input type="checkbox"/>				<input type="checkbox"/>		
CONSULTANT TO ENTER ACTION CODE AND REMARKS AND RETURN TO CONTRACTOR:						
<input type="checkbox"/> General <input type="checkbox"/> Architect <input type="checkbox"/> Structure <input type="checkbox"/> Mechanical <input type="checkbox"/> Plumbing <input type="checkbox"/> Electrical <input type="checkbox"/> Landscape <input type="checkbox"/> Others						
<input type="checkbox"/> Approved (A) <input checked="" type="checkbox"/> Approved as Noted (B) <input type="checkbox"/> Revise and Resubmit (C) <input type="checkbox"/> Not Approved (D)						
Remarks:						
Contractor should follow the project specification and spec 3.2014						
Supervision Consultant's Signature:  Date:						
COPIES TO: <input type="checkbox"/> PM Management <input type="checkbox"/> Contractor <input type="checkbox"/> Consultant <input type="checkbox"/> Client <input type="checkbox"/> File						
ENCLOSURES TO: <input type="checkbox"/>						

Note: Allow for at least fourteen working days for review.

Form: Submittal

H/4





# AL ALI ENGINEERING W.L.L.

DISTRIBUTION	ACTION	INFO
HEAD OFFICE		
GENERAL MANAGER		
PROJECTS DIRECTOR		
PROJECT MANAGER		
CONSTRUCTION DEPT.	✓	
MEP DEPT.	✓	
TECHNICAL DEPT.	✓	
PLANING DEPT.		
LANDSCAPE DEPT.		
QA/QC DEPT.	✓	
CONTRACTS, Q.S. DEPT.		
ACCOUNTS DEPT.		
ID DEPT.		
FINISHING DEPT.		
INTERFACING MANAGER		
HSE DEPT.		
SECURITY DEPT.		
SURVEY DEPT.		
PROJ. COORDINATOR		
PROCUREMENT DEPT.		
HR DEPT.		
LOGISTIC DEPT.		
STORES DEPT.		
DOCUMENT CONTROLLER		
FILE		

## SUB-CONTRACTOR SUBMISSION (تقديم مقاول باطن)

PROJECT TITLE (اسم المشروع): <b>BU-THAILA FARM STABLES</b>		LOCATION (الموقع): <b>UMM SALAL MUNICIPALITY</b>		DATE (التاريخ): <b>10-JAN-2024</b>
Project no: <b>SKS-751</b>	CLIENT (المالك): <b>HH AMIR'S PRIVATE AFFAIRS OFFICE</b>	SUBMITTAL NO (رقم المقدم): <b>751-BTF-UCC-GBCT-SEC-PQ-ST-024</b>		REV (مراجعة): <b>00</b>
<input type="checkbox"/> ARCH (معماري)	<input checked="" type="checkbox"/> STRUCTURAL (إنشائي)	<input type="checkbox"/> PLUMBING (سباكة)	<input type="checkbox"/> AIRCONDITIONING (مكيفات)	
<input type="checkbox"/> ELECTRICAL (كهرباء)	<input type="checkbox"/> FIRE FIGHTING (مكافحة الحريق)	<input type="checkbox"/> DRAINAGE (الصرف)	<input type="checkbox"/> OTHERS (اخرى)	

## SUB-CONTRACTOR DATA (بيانات مقاول باطن)

1. SUB-CONTRACTOR NAME (اسم المقاول الباطن): <b>SABEA QATAR W.L.L</b>		TEL. (تليفون):
2. KIND OF WORK IN PROJECT (نوع العمل في المشروع): <b>CONCRETE PRECAST</b>	5. EXP. YEARS OF COMPANY (عدد سنوات الخبرة):	
3. GRADE OF COMPANY (درجة الشركة):	6. LIST OF PROJECT (قائمة بالمشاريع):	
SUPPORTING INFORMATIONS (المعلومات الداعمة):		CONTRACTOR SIGNATURE & SEAL: (توقيع وختم المقاول)
SUB CONTRACTOR PROFILE (التعريف بالمقاول الباطن):		  
OTHER (اخرى):		
<b>Tech. Manager</b> Feras Tello <b>Const. Manager</b> Ganesan Masilamani <b>Project Manager</b> Mohamed Elkhoully		

OWNER COMMENTS (تعليقات المالك)

OWNER SIGNATURE (توقيع المالك)

CONSULTANT'S COMMENTS (تعليقات الاستشاري):

*No objection To work with the*

*Sabea Qatar w.l.l*

*Subject Submittal Material submitted*



APPROVED (موافق) <input type="checkbox"/>	APPROVED WITH COMMENTS (موافق مع تعليقات) <input checked="" type="checkbox"/>	REVISE & RESUBMIT (مراجعة واعادة ارسال) <input type="checkbox"/>	REJECTED (مرفوض) <input type="checkbox"/>
SIGNATURE (التوقيع):		DATE (التاريخ):	

The Submission shall be made 14 days in advance for approval. (مبيت الرد على المقدم في مدة لا تزيد عن 14 يوم للإعتدال)







## GENERAL SUBMITTAL

Project:	J056 - TIPW	Employer:	BAE Systems
Engineer:	WSP International	Architect:	WSP International
Cost Consultant:		Contractor:	Domopan Qatar W.L.L


Discipline:	Time Mgt	Cost Mgt	Resource Mgt	Communication	Authority	Others	Submittal Ref:	TIPW-DQ-WSP-PQ-C-0003	REV.	0
Location:	QTI - AL UD&ID PERIMETER WALL AND GUARDHOUSE						Date:	14. May. 2023		

## List of Submitted Items:


Item	Description	No of Copies	Remarks
1	Pre-Qualification for M/s Sabea Hollow Core - Supply and Installation of Precast boundary wall and Guard house	1	
Ref. Spec (s):		Ref. Dwg (s):	

## Compliance Statement:

The Contractor hereby confirms that the submitted items have been reviewed in detail and are correct and in strict conformance with the Contract Documents.

Initiator	QA/QC Manager	Project Manager
		
Name, Signature & Date	Name, Signature & Date	Name, Signature & Date

## REVIEWER'S COMMENTS

WSP (SUI/MEP/HSE) A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	ARCHITECTS A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>
Refer to Attached CRS for Comments	
 Name, Signature and date: Renato Jazareno May 15, 2023 Comments Sheet Attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name, Signature and date Comments Sheet Attached? Yes <input type="checkbox"/> No <input type="checkbox"/>
ENGINEER/ EMPLOYER'S REPRESENTATIVE A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	

Name &amp; Signature: Mr Essam El Maslout



Date: 16-05-2023

Note: The Engineer's / Consultants approval shall not in any way relieve the Contractor of his obligation under the Contract. The Contractor shall be solely responsible for the compliance and the correctness of the submitted Documents as per the required Contract Conditions and Contract Clauses.

## DOCUMENT SUBMITTAL

SUBMITTAL NO.: BP2021-CD265-DGC-PRQ-CL-0021

DATE: 09/05/2023

PROJECT NAME: DESIGN AND BUILD OF REHABILITATION AND RENOVATION OF JAWAAN SCHOOL

PROJECT NO.: C 2022/04

CONSULTANT: Engineering Consultants Group

CONTRACTOR: Doha Group Trading & Contracting

DISCIPLINE: ☒ ARCH. ☒ CIV. ☐ STRU. ☐ ELE. ☐ MECH. ☐ Hydraulic ☐ OTHER

### SUBMITTAL TYPE

☒ Technical Submittals ☐ Method Statement ☐ Reports ☒ Prequalification of subcontractor  
☐ PDP / ITP ☐ Schedule ☐ Supplier Approval ☐ Test Reports  
☐ O&M Manual ☐ Certificates ☐ Others



### TRANSMITTED FOR

☒ Approval ☒ Review & Comments ☐ Information/Records ☐ As Requested

### METHOD OF TRANSMISSION

☒ Hand ☐ Email ☐ Mail ☐ Upload via FTP

SI	DESCRIPTION	Document Ref. No. Specs/BOQ Reference	Rev. No.	Format		No. of Copies	Remarks
				Hard	Soft		
1	Prequalification for M/s Sabca Harrow Core for Supply of Precast Suakaway Ring	BP2021-CD265-DGC-PRQ-CL-0021	00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	01	

 <b>CONTRACTOR</b> QA/QC Engineer		 <b>Project Manager</b>	 <b>CONSULTANT</b> Received By	Date & Time
--	--	---	---	-------------



### Consultant Comments:

Refer to comments in attached DRC

Action Code: ☐ A=Approved ☒ B=Approved as Noted ☐ C=Revise & Resubmit ☐ D=Rejected

Discipline Engineer:

Date: 14/5/2023

 <b>CONSULTANT</b> B: APPROVED AS NOTED 14/5/2023 Project Manager		 <b>CONTRACTOR</b> 14 MAY 2023 Received By	Date
--	--	---	------

**DOCUMENT REVIEW COMMENTS (DRC)**

Project Name: Design and Build of Rehabilitation and Renovation of Jawaan School.	Project No.: BA 2021 S 027 S
---	------------------------------

Submittal Reference: BP2021-C026S-DGC-PRQ-CL-0021 Rev.0	Revision: 0	Date:09-05-2023
Submittal Title: Prequalification of M/s Sabea Hollow Core for supply of Precast Soak away Ring		
Discipline: <input type="checkbox"/> Architectural <input checked="" type="checkbox"/> CIV. <input type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> HVAC <input type="checkbox"/> Landscape <input type="checkbox"/> ID <input type="checkbox"/> Others (Specify here)		

Overall Submittal Review Status:	(B)	A = Approved (Work May Proceed) B = Approved as Noted (Work May Proceed subject to incorporation of changes indicated) R = Revise & Resubmit (Work Shall Not Proceed) D = Rejected N = Noted
----------------------------------	-----	--

Initial review comments & responses are to remain within the system to keep a full review history within the same DRC number. "Review Status" states on "Status A or B".

By Reviewer (Consultant/Client)				By Originator (Contractor / Sub-Contractor)		Reviewer Response
SL#	Comment.	Rev.	Reviewer Comments	Contractor Response	Reference of Compliance	Status {Open/Closed}
1	Material submittal	0	Shall be submitted, Material submittal shall include concrete mix design required in project specification and design drawings.			open
2	QA/QC and laboratory staff		C.V is Missing and shall be provided			open
3	Conformity Certificate	0	Contractor to attach Conformity Certificate for required mix design			open



4	General	0	ALL LIABILITY IS ON THE CONTRACTOR	
---	---------	---	------------------------------------	--

**Reviewed By:** Name: Ayman Farag

Designation: ST.Eng

Signature & Date:

**Responded By:** Name:

Designation:

Signature & Date:



# REQUEST FOR PRE-QUALIFICATION APPROVAL

Ref. No: GWC-AWLPP2P1-AAE-CIV-PRQ-0004 R1

Date: 07<sup>th</sup> April 2022

PROJECT:	Construction, Completion and Maintenance of GWC Al-Wukair Logistic Park – Phase II (Package 1)
CLIENT:	GULF WAREHOUSING COMPANY (GWC)
CONTRACTOR:	AL ALI ENGINEERING CO.

TRADE	<input checked="" type="checkbox"/> CIVIL <input type="checkbox"/> ARCHITECTURAL <input type="checkbox"/> MECHANICAL <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> EXTERNAL
STATUS	NEW SUBMITTAL <input type="checkbox"/> REVISED SUBMITTAL <input checked="" type="checkbox"/>

PRE-QUALIFICATION SUBMITTED: M/s SABEA HOLLOW CORE

Specification Ref:	BOQ Ref:	Standard Applicable	Drawing Ref:	Company Authorized
QCS 2014	N/A	QCS 2014		
PQD-Company Name	Scope of Works			
M/s SABEA HOLLOW CORE			Concrete Panels, Hollow Core and Infrastructure Precast elements	
Authority Approvals	Remarks if Alternative	Name of Contact Person	E-mail of Contact Person	Country of Origin
			sales@aae.com.qa / hollowcore@aae.com.qa	QATAR

Contractor and Subcontractors signature and stamp

Eng. Yaser Khalifa- Project Manager.

ENCLOSURES: .....

QDC Comments and Status

- See attached comments sheet.

Client Comments:

☐ Approved ☒ Approved as Noted ☐ Revise & Resubmit ☐ Not Approved  
☐ Additional Information ☐ For Information ☐ Others.....

Signature Date:

Architect/ Civil Engineer  
Name:

Project Manager

Client Rep.

Note: Allow for at least seven working days for review.

Consultant Received

Client Received

Consultant Received

Contractor Received



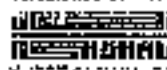
0084

QDVC		DEVELOPMENT OF DOHA AIR BASE		QDVC	
<b>DOCUMENT SUBMITTAL SHEET</b>				Submission No: DDAB-QDVC-PRO SUB-2021-10132	
				Date: 30-Nov-21	
<b>QDVC</b> Director: VIGNERAS Project Director P.O. Box- 19389 15th Floor, The Gate Mall Tower 4 Doha Area Tel: 44530539 / 44530507		<b>CICO</b> Manager: CRITILIAN Project Manager CICO - P.O. Box- 152 Doha, State of Qatar		<b>QECE</b> QATAR ARMED FORCES The Engineer Command: Qatar Emiss Corps of Engineers P.O. Box: 9575 Salaya Doha, State of Qatar	
				<b>Approval Flow</b> QDVC → SS → CICO → SS → QECE → FA	
<b>DOCUMENT DETAIL</b> <input type="checkbox"/> Inspection and Test Plan (ITP) <input type="checkbox"/> Material Approval Request (MAR) <input type="checkbox"/> Minutes of Meeting (MoM) <input type="checkbox"/> Work Method Statement (WMS) <input checked="" type="checkbox"/> Prequalification Approval Request (PQL) <input type="checkbox"/> Other					
ARC <input type="checkbox"/> STR <input type="checkbox"/> MEC <input type="checkbox"/> CIV <input checked="" type="checkbox"/> ELE <input type="checkbox"/> UH <input type="checkbox"/>					
S. No	DOCUMENT NUMBER	REV	TITLE / DESCRIPTION	ISSUED FOR	Size
				CICO    QECE	FR, HC    E
1	C-110-01-X-CIV-PQI-4550-CON-823739	A1	Scope of Works: Supply & Installation of Precast Boundary Wall Panel	FR    FA	A4
Abbreviations: FA= For Approval, FR= For Review, HI= For Information Only HC = Hard Copy, E = Electronic Copy					
Name: Al AIN ZERBE		Date: 30 Nov-21		Signature: [Signature]	
<b>CICO Supervision Engineer:</b> Receipt Name:    Receipt Date:    Signature:					
For Review <input type="checkbox"/> Reviewed with No Comments <input type="checkbox"/> Revise and Resubmit <input type="checkbox"/> Reviewed with Comments			For Approval <input type="checkbox"/> Approved <input type="checkbox"/> Revise and Resubmit <input checked="" type="checkbox"/> Approved with Comments		
Comments: Please refer to CICO comment review sheet ref no. C-110-01-X-CIV-CRS-4450-CIC-006721-VI					
Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO    No Page					
Site Engr (initial/sign)		Sr Engr (initial/sign)		Project Manager (initial/sign)	
16.12.21					
<b>QECE Engineer's:</b> Receipt Name:    Receipt Date:    Signature:					
<input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved with comments <input type="checkbox"/> Rejected			Comments: Refer to the attached comments sheet. *This approval only for Prequalification. *Close all comments by 19.1.2022.		
Site Engr (initial/sign)    Project Coordinator (initial/sign)    Date: 19.1.2022					
<b>QDVC Final Reception:</b> Receipt Name:    Receipt Date:    Signature:					





# THE CONTRACTOR / SUPPLIER SUBMITTAL FORM



CONSULTANT

CONTRACT NO.

Project Name  
Doha Qatari

Project Name:	DESIGN AND BUILD FOR AL ASMAKH AREA 01	Date:	28-Nov-20
Project Details:	PWA/STC/401/00/2020 (LOA)	Record Ref. #	AAE-DCQ-PRO-CV-002
Client:	PWA (ASHGHAF)	Client's Proj. No.	BP 2020 C 043 G
Contractor:	AL ALI ENGINEERING CO. W.L.L.	Contract No.	
Attachment:	<input type="checkbox"/> Tender Documents <input type="checkbox"/> Submittal <input type="checkbox"/> Request for Information <input type="checkbox"/> Other	Client Engineer:	Yasser Alia
DISCIPLINE:	<input type="checkbox"/> Civil <input type="checkbox"/> Structural <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical <input type="checkbox"/> Other	Revision:	01
Manufacturer / Supplier:	SARFA HOLLOW CORE	Location:	Doha, Qatar
		Address:	
		Tel. No / Mob. No.	

## Attachments

No	DOC NO	TITLE	REV. NO.	STATUS
1	NA	SARFA HOLLOW CORE Pre-Qualification Documents	1	

## Contractor's Signature & Stamp:

Technical Manager

F / Engr. Riyadh Shant  
Project Director

## Received By Consultant

Date & Time

- A - Approved ☒
- B - Approved As Noted ☐
- C - Rejected & Resubmit ☐
- D - Rejected / Not Ready ☐

## Consultant's Comments:

Pre-qualification Documents for Sarfa  
Hollow Core is Approved for plant No. 324

28/11/2020

Y. Alia 28/11/20

Reviewed By & Signature: (Project Architect)

Approved By & Signature: (Project Manager)

## Client's Comments:

Received By Contractor

The Engineer Signature:

Date:

Distribution:

☐ Client

☐ Engineer

☐ Consultant

This form is to be used for describing the review comments related to Contractor post contract award submittals of pre-qualification and material submittals that can lead to one of the following outcomes:

C: Revise and Resubmit

D = Rejected

NPP0050-QBC-CTV-MA-00966\_1 (QBC Response)

**NPP/ND50: Hollow Core Slabs for STP**

Supplier: Salses Hollow Corp.

.....

ARC ☐ CIV ☒ ELE ☐ MEC ☐ HVAC ☐ ID ☐

THE ☐ UNIT ☐ COM ☐ RD ☐ CIV ☐ Others ☐

\_\_\_\_\_ , \_\_\_\_\_

H : Interviewed as noted

Fathy Ibrahim, Ashraf El Kinedawy

Date: 27 Jun 2021

Howard Graham

Prigadler Abdulla Faruk: Al-Kutbi

Date:

Project Director: George A. Al Hall

Date:

The Engineer, Mr or General: Essa Al. Al Kutabsi

Date: \_\_\_\_\_

1. 9254-G3-GE SPC 7019 2C
2. NPP005C GBC-PQ-00545\_0\_C5AC\_A
3. QCS 2014 accrlo: 5


**MEMBERSHIP LIST FOR THE YEAR 2009**

PROJECT: CONSTRUCTION OF ADDITIONAL FACILITIES FOR COMMUNITY COLLEGE OF QATAR		EMPLOYER:   قطر تستحق الأفضل Qatar Deserves The Best	N° DS : AMA-J132-PRQ-CI-019 Rev 0
CONTRACTOR: 	CONSULTANT: 	RECEIVED  	
DOCUMENT SUBMITTAL			

Type of Submittal:				
Document <input checked="" type="checkbox"/>	Sketch/Drawing <input type="checkbox"/>	Test Result <input type="checkbox"/>	Other <input checked="" type="checkbox"/>	
Other (Specify):		Prequalification of subcontractor		

Subject:	Prequalification of M/S Sabea Hollow Core
----------	---

Description of Document Submitted:	
Prequalification of M/S SABEA HOLLOW CORE	
Scope : Supply & Install Precast Boundary Wall	
<p><u>AAN for Prequalification of M/s Sabea Hollow Core.</u></p>	
Contractor's Representative: Mohammad Khair	Date: 04-Jun-2020

COMMENTS:			
<p>ERGAS - STRUCTURAL 13.06.2020</p> <p>1. PRIOR TO FABRICATION &amp; DELIVERY OF PRECAST BOUNDARY WALL ELEMENTS, SUBMIT FOR REVIEW &amp; APPROVAL THE FOLLOWING:</p> <p>1. OVERALL LAYOUT &amp; DETAILS OF THE PRECAST BOUNDARY WALL FOR THE WORK - SHOP DRAWING &amp; DETAILS OF BOUNDARY WALL (PRECAST TYPE) SHOWING THE SIZES &amp; DISTANCES OF FOOTINGS/COLUMNS RELATIVE TO THE LATEST APPROVED SITE DEVELOPMENT IFC DWG (ARCHITECTURAL)</p> <p>2. DESIGN CALCULATION OF THE PRECAST BOUNDARY WALL ELEMENTS RELATIVE TO THE COLUMN/FOOTING DISTANCES.</p> <p>3. SIZES &amp; REINFORCEMENT OF THE PRECAST BOUNDARY WALL ELEMENTS AT PER IFC STRUCTURAL DETAIL OF TYPICAL BOUNDARY WALL.</p>			
Status:	A: Approved <input type="checkbox"/>	AAN: Approved As Noted <input checked="" type="checkbox"/>	CA: Conditional Approval <input type="checkbox"/>
	RR: Revise & Resubmit <input type="checkbox"/>	R: Rejected <input type="checkbox"/>	NFD: Need Further Detail <input type="checkbox"/> N: Noted <input type="checkbox"/>
Engineer:		Date: 	
Approval shall not relieve the Contractor of his liabilities under the Contract or constitute authorization of any change to the Contract Documents			



14\* December, 2020  
Our ref: ATPS/MB/LTR/OUT/026/20

M/s. SABEA HOLLOW CORE  
P.O Box: 9106, Doha, Qatar  
Tel.: +974 44922452 Fax: +974 44438576  
Email: [sales@aao.com.qa](mailto:sales@aao.com.qa)

Attention : Engr. Mohammad Fa Al Daoudi – General Manager  
Project : PROPOSED ADMIN. BLDG. (G+1) AND BUILDING MATERIALS WAREHOUSE (G+1) AT AL WAKRA LOGISTICS PARK-QATAR  
Main Contractor : M/s. Arabian Technical Petroleum Services (ATPS)  
Client : M/S AL JABOR TRADING.  
Subject : Reviewed PQD /Materials submittals from Consultant

Dear Sir,

In reference to the above mentioned subject, please find enclosed herewith Reviewed PQD /Material submittals from Consultant.

This is for your kind information and further action.

Yours faithfully,  
M/s. Arabian Technical Petroleum Services

  
  
Mohammed Balaawi  
General Manager

Cc: Mr. Ghassan Abulail - BDM  
Cc: Mr. Justus Kaiser – Engineering Manager

Encl: As above.



## PRE QUALIFICATION FORM



Date	03.12.2020	Submittal No : ATPS-PQP-ST-014- R0
Project Name	PROPOSED ADMIN. BLDG. (G+1) AND BUILDING MATERIALS WAREHOUSE (G+1) AT AL WAKRA LOGISTICS PARK-QATAR	
Project No.	0058	
Client	M/S. AL JABOR TRADING.	

P.O Box - 9106 Industrial Area st.41, Doha, Qatar Telephone: +974 44922452 Fax: +974 44438576	Contact Person: <b>Mr. Justus Kaiser</b> (Engineering Manager) Mobile: 70352834
--	---

Supplier/ Vendor/ Manufacturer/ Sub-Contractor Scope of Work: **For HOLLOW CORE SLAB**  
 PREQUALIFICATION SUBMITTAL FOR M/S SABEA HOLLOW CORE

### Project Reference

☐ Specs \_\_\_\_\_
 ☐ BOQ \_\_\_\_\_

For the Contractor

**Mr. Justus Kaiser (Engineering Manager)**

Name, Signature



Date

### Consultant Response:

(1) Approved ☒      (2) Approved As Noted ☒      (3) Revise & Resubmit ☐  
 (4) Rejected ☐      (5) Others ☐

Remarks

*\* No objection for mentioned subContractor*

*[Signature]*

Name, Signature

Date

Customer / Engineering Dept. Comments:

Action Code:

Remarks

<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Revise & Resubmit <input type="checkbox"/> Rejected <input type="checkbox"/> Others	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Revise & Resubmit <input type="checkbox"/> Rejected <input type="checkbox"/> Others
Date: <i>12.12.2020</i>	

Signature



File:

WI-PST-11-03  
07-Nov-2018

RECEIVED

ATPS-PQP-ST-014-R00  
Page 1 / 1

*05 DEC 2020*  
*GRA 8.55*

18<sup>th</sup> November, 2019  
Our ref: ATPS/MB/LTR/OUT/001/19

**M/s. SABEA HOLLOW CORE**  
P.O Box: 9106, Doha, Qatar  
Tel.: +974 44922452 Fax: +974 44438576  
Email: [sales@saa.com.qa](mailto:sales@saa.com.qa)

Attention : Engr. Mohammad Fa Al Daoudi – General Manager

Project : BOUNDARY WALL FOR GULF GLASS FACTORY @ NEW INDUSTRIAL AREA

Main Contractor : M/s. Arabian Technical Petroleum Services (ATPS)

Client : M/S GULF GLASS FACTORY

Subject : Reviewed Prequalification Document from Consultant

Dear Sir,

In reference to the above mentioned subject, please find enclosed herewith Reviewed Prequalification Documents from the Consultant.

Pregualification Document

ATPS-PQD-ST-001	Prequalification Document for (M/s SABEA Hollow Core co.) for Precast Boundary Wall	Code-A
-----------------	---	--------

This is for your information and further action.

Thanking you,

Yours faithfully,  
M/s. Arabian Technical Petroleum Services

**Mohammed Balaawi**  
General Manager

Cc: Gangadhar.G.R.- Sr. Project Manager  
Encl: As above





## DOCUMENT TRANSMITTAL

☐ Civil 
 ☐ Mechanical 
 ☐ Electrical 
 ☒ General

PROJECT NAME : BOUNDARY WALL FOR GULF GLASS FACTORY@ NEW INDUSTRIAL AREA  
 CONTRACTOR : Arabian Technical Petroleum Services (ATPS) No. ATPS-QMC-PQD-ST-001 Rev 00  
 NO. OF COPIES : 2 Hard copies + 1 CD to UDC, & 1 Hard Copy + 1 CD to QIMC Date: 17.11.2019

WE ARE SENDING HERewith THE DOCUMENT LISTED BELOW.

S. No.	Document No.	Rev	Document Title	Type +	Action Code *
1	ATPS-PQD-ST-001	0	Prequalification Document for (M/s SABEA Hobor case co.) For Precast Boundary Wall.	OT	
					

CONTRACTOR NAME & SIGNATURE: GANGADHAR, G.R. ( SR PROJECT MANAGER)

RECEIVED BY:

\* RED to enter ACTION CODE and REMARKS

UDC \* RED'S REMARKS :  
 \* Approved

Ibrahim Hassan

Corrections or comments made relative to submittals during this review does not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design-concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for conforming and correlating all quantities and dimensions, including estimation process and techniques of construction coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

RED OPERATIONS MANAGER :

Date :

RECEIVED BY CONTRACTOR :

Date :

* TYPE: R: Reports C: Certificates OT: Others D: Drawings M: Material T: Technical	* ACTION CODE: A: Approved B: Approved W/Comments C: Not Approved D: Noted
--	--

RECEIVED BY:  
  
 DATE: 17/11/19

10.08 AM

# G+1+M HYPERMARKET - LULU AIN KHALID PROJECT DOCUMENT TRANSMITTAL

Transmittal No.	GBCT-2019-AKP-PDT-02	Date :	03 September 2019	
To: Sabea Hollow Core  Kindly find attached Approved Submittal.		The attached documents are Transmitted to you for: <input checked="" type="checkbox"/> Information <input checked="" type="checkbox"/> Action <input type="checkbox"/> Review <input type="checkbox"/> Construction <input type="checkbox"/> Rejected  Drawings Type: (In case of Transmitted documents are BOARD) <input type="checkbox"/> Contract Drawings <input type="checkbox"/> Shop Drawings <input type="checkbox"/> Redesign Drawings <input type="checkbox"/> Sketch <input checked="" type="checkbox"/> Others (specify)		
Sr. No.	Document Submittal Reference No.	Document Title	Rev	Status/Remarks
1	GBCT-2019-AKP-PQF-001	Pre-Qualification for Sabea (Precast and Hollow Core Slab)	0	A
2	GBCT-2019-AKP-MAR-STR-001	Material Submittal for Precast Boundary Wall	0	A

Please acknowledge receipt of the documents listed above by signing, and returning this sheet to the originator. Should any of the above items be a revision to that already received, it is your responsibility to ensure that the earlier edition is removed from circulation.

Name: Eng. Redwan Alabbas Signed: [Signature] Date: 03- September 2019

Please return acknowledgement to the Document Control Section, I acknowledge receipt of the document(s) indicated above.

Name: Mohammad Shabees Signed: [Signature] Date: 03/09/19





Project Name:  
**PROPOSED G+1-M  
HYPERMARKET**



Consultant

**PRE-QUALIFICATION FORM**

MAR NO. : GBCT-2019-AKP-PQF-001 Rev. 06 Date: 20-Aug-2019 Discipline: Structural

**Material Detail**

Item Description	Pre-Qualification for Sabea (Precast and Hollow Core Slab Supplier and Erector for Boundary Wall)	<b>List of Enclosures</b> (Tick the Related Box) <input checked="" type="checkbox"/> Vendor's Technical <input type="checkbox"/> Test Results <input type="checkbox"/> Compliance Statement <input checked="" type="checkbox"/> Data Specification <input type="checkbox"/> Samples <input checked="" type="checkbox"/> List of Previous Projects Docs <input checked="" type="checkbox"/> Others (Specification)
Spec/BOQ Desc.		
Manufacturer Specified	Sabea Hollowcore (for Concrete Panels and Hollowcore)	
Material Proposed	Precast Boundary Wall	
Manufacturer / Local	Sabea Hollowcore	
Reason for Alternatives		
Remarks	For Your Review & Approval	

**Golden Bay Contracting and Trading**

Construction/Project Manager:	Site/Project Engineer:	For MEP Engineers:
(Signature over Printed Name)	(Signature over Printed Name)	(Signature over Printed Name)
Date: 21/08/2019	Date: 22/8/19	Date: 21-08-2019

**(FOR CONSULTANT USE)**

Action:

☒ A - Approved    ☐ B - Approved With Comments    ☐ C - Revise and Resubmit    ☐ D - Rejected

Comments:

Consultant:

(Signature over Printed Name)

Date: 31/08/2019

Received By:

(Signature over Printed Name)

Date:

Golden Bay Contracting and Trading  
Tarek Alkhatib



GBCT-MATERIAL APPROVAL-RAAP-2017





KEO	International Consultants
Project:	Car Park 2, SA 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
Rev:	1
Drawn:	1
Checked:	1
Approved:	1
Project Manager:	1
Project Engineer:	1
Project Designer:	1
Project Checker:	1
Project Approver:	1
Project Coordinator:	1
Project Supervisor:	1
Project Assistant:	1
Project Clerk:	1
Project Secretary:	1
Project Receptionist:	1
Project Cleaner:	1
Project Gardener:	1
Project Security Guard:	1
Project Driver:	1
Project Porter:	1
Project Janitor:	1
Project Cook:	1
Project Baker:	1
Project Chef:	1
Project Waiter:	1
Project Barman:	1
Project Receptionist:	1
Project Secretary:	1
Project Clerk:	1
Project Assistant:	1
Project Supervisor:	1
Project Coordinator:	1
Project Designer:	1
Project Checker:	1
Project Approver:	1
Project Engineer:	1
Project Manager:	1



## SITE TRANSMITTAL of Pre-Qualification

TRANSMITTAL NO: 1095-AAE-CV-TRM-0534

REV: 1

To: KEO International Consultants

PROJECT	CLIENT	OWNER	CONTRACTOR
AL BIDNA PARK	CML	PRIVATISATION OFFICE	AL AL BIDNA PARK & CENTRALISED HILL

WE ARE SENDING HERWITH THE PRE-QUALIFICATION LISTED BELOW  
FOR YOUR REVIEW.

ITEM NO.	DOC. NO.	GENERAL DESCRIPTION AND REVISION DETAILS	TYPE (i)	COPIES	ACTION CODE (ii)
1	1095-AAE-CV-PRO-0063_01	PRE-QUALIFICATION FOR SASEA (PRECAST HOLLOW CORE SLAB SUPPLIER & DIRECTOR FOR CAR PARK 1)	PRQ	1	B

We certify that the items submitted herewith have been reviewed in detail and are in strict conformance with the Contract Drawings and Specifications except as otherwise stated.

CONTRACTOR: Eng. AHMED YOUSSEF

RECEIVED BY KEO:

DATE: 4-Oct-15

DATE:



### KEO'S REMARKS:

PLEASE REFER TO ATTACHED COMMENT SHEET.

Any objections or comments made relative to submittals during this review does not relieve the contractor from compliance with the requirements of his Contract, drawings and specifications. This review is only in respect of general conformance with the design intent of the project and general compliance with the information given in the Contract documents. The contractor remains responsible, among other things, for the design of the project or such parts of the project he has design responsibility for (if design forms part of the Contract), for confirming and controlling all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner, all in accordance with the Contract.

Karim Soliman  
Project Manager  
PM, KEO International

KEO CM / RE

DATE:

04 OCT 2015

- (i) TYPE: SD: Shop Drawings  
SA: Sample  
GT: Guarantee  
MD: Manufacturer's Data  
CT: Certificates  
OE: Others

### (ii) ACTION CODE:

- A: No objection  
B: No objection subject to incorporation of all comments as noted  
C: Rejected, to be resubmitted



## SHOP DRAWING SUBMITTAL (SDS) – P193

Project Name	NATIONAL SERVICE ACADEMY TRAINING CAMP – P193 (B-106-02)	Doc. No: ABE/P193/PH4/CST/SD/STR0002
Client	QATAR ARMED FORCES	Rev. 00
Supervision Consultant	DIWAN AL EMARA	Date: 9 <sup>th</sup> September 2018
Contractor	AL BANDARY ENGINEERING	Copies: 3 Hard Copy + Soft Copy

To: QECE ENGINEERING REPRESENTATIVE

We enclosed herewith the drawings for APPROVAL

DISCIPLINE	Structural
Description/Area of Application	Covered Stage (PH-4) – PC Bleacher

**Remarks:** We certify that these drawings have been coordinated and prepared in strict conformity with the Contract Documents Specifications.  
(See attached list of drawings)

3 Sets Hard Copy and 1 Soft Copy Attached (As Per The List Attached).

For The Contractor:

Name: Hani Abou Elezz  
Area Manager

Signature:



SUPERVISION CONSULTANT 'S COMMENTS:

submit P.C. details drawings is acceptable.  
No objection For Proceed the Same.

ACTION CODE

☐ A-Approved as Submitted ☒ B- Approved as Noted ☐ C-Revise & Resubmit ☐ D- Rejected

To: The Contractor

We return herewith drawings marked with comments which the action code identified in each drawing. The approval shall not release the Contractor of its obligations and liabilities under the Contract or constitute authorization of any change to Contract Documents, and therefore, shall not imply any recognition whatsoever of additional time or cost to the Contract.

For: The Supervision Consultant

Project Manager

Date: 11/sep/18

CLIENT COMMENTS:



CLIENT ENGINEERS: .....

PROJECT COORDINATOR: .....



## DOCUMENT SUBMITTAL

Project <sup>1</sup> : CONSTRUCTION OF NEW STORAGE BUILDING FOR CHEMICALS, BATTERY AND GAS STORAGE -KAHRAMAA		Contract no. <sup>2</sup> : LTC/1813/2022	
From <sup>3</sup>	Mr. Imran Jalees	To <sup>4</sup>	Eng. Majed Laih H A Alshammari
Company	NCTES	KAHRAMAA	Acting Head - Building Projects & General Facilities (TWB)
Submittal No. <sup>5</sup>	LTC1813-NCT-C-QFN-23-053	Submitted For: <sup>8</sup>	Approval <input checked="" type="checkbox"/>
Revision No. <sup>6</sup>	REV 00		Information <input type="checkbox"/>
Date: <sup>7</sup>	13/12/2023		As Requested <input type="checkbox"/>

Discipline:<sup>9</sup> ☐ Architectural ☒ Civil ☐ Structural ☐ Electrical ☐ Mechanical ☐ Instrumentation ☐ General

Type of submittal<sup>10</sup>

<input type="checkbox"/> Design drawing (DWG)	<input type="checkbox"/> Inspection & test plan (ITP)	<input type="checkbox"/> Reports; progress, quality, FAT... (RPT)
<input type="checkbox"/> Issue for construction drawings (IFC)	<input type="checkbox"/> *Materials (MAT)	<input type="checkbox"/> Test result/certificates (TRC)
<input type="checkbox"/> Shop drawing (SHD)	<input type="checkbox"/> Method statement (MST)	<input type="checkbox"/> Tender documents (TDR)
<input type="checkbox"/> As-Built drawings (ABD)	<input type="checkbox"/> Organization chart/CV (OCV)	<input type="checkbox"/> HSE plan/report (HSE)
<input type="checkbox"/> Sketch (SKT)	<input checked="" type="checkbox"/> Pre-qualification (QFN)	<input type="checkbox"/> Operation & Maintenance Manual (OMM)
<input type="checkbox"/> Data sheet (DTS)	<input type="checkbox"/> Program & schedule (PGS)	<input type="checkbox"/> Procedures/Forms/Checklist (FRC)
<input type="checkbox"/> Design calculation (DEC)	<input type="checkbox"/> Project quality plan (PQP)	<input type="checkbox"/> Other (OTH)

Submittal description:<sup>11</sup> \* For materials: Include Materials description, Brand name, Item code, Manufacturer & supplier with the address.

Prequalification document of M/s Sabea Hollow Core for precast Manhole, soak away, Road Gully & Holding Tank.

Ref. KM Specification/QCS/BOQ/Drawing/Codes<sup>12</sup> BOQ

Location/ use<sup>13</sup> BUILDING FOR CHEMICALS, BATTERY AND GAS STORAGE

Declaration<sup>14</sup>: This is to certify that this submission has been verified and found in compliance with the contract requirements.

Prepared by: Al Sami

QA/QC Reviewed by: Mark

Approved by: Dineshan

Consultant's Comments<sup>15</sup>

Reviewed by: Name/ Signature: Date:

Approved by: Name/ Signature: Date:

Comments By KAHRAMAA<sup>16</sup>

Design required in specification for required mix design

Attach conformity certificate for required mix design

All liability on contractor to comply contract requirements.

☐ A - APPROVED ☒ B - APPROVED WITH COMMENTS ☐ C - REVISE & RESUBMIT ☐ D - REJECTED ☐ N - NOTED

Verified by: Asif Kamel

Reviewed by: Asif Kamel

1<sup>st</sup> Approval by:

Final Approval by:

Sig.: Date: 21/12

Sig.: Date: 21/12

Sig.: Date: 24/12/23

Section: TWB

Section: TWB

Section: TWB

Dept./ Section: TWB

The approval given by KM/Consultant does not relieve the contractor of any of his contractual obligations.

Acknowledged by (put stamps here from left towards right in sequence of date of receipt)

17 Receipt 1	Receipt 2 13 DEC 2023	Receipt 3	Receipt 4
-----------------	--------------------------	-----------	-----------



 <b>الميرة</b> <b>Al Meera</b>	<b>Project Name :</b> Al Meera Hypermarket and Mixed-Use Development at Maysoun <b>Project No :</b> 1487/22	<b>Form No :</b> PD7-F14 Rev. 01 / Oct. 2022
	<b>Client :</b> Al Meera Consumer Goods Co.	<b>Project Manager :</b>  N/A
<b>Contractor :</b>  شركة البناء Bldg & Contracting		

## DOCUMENT SUBMITTAL FORM

<b>Submittal Type :</b> <input type="checkbox"/> - Design Calculations <input type="checkbox"/> - PUP / Procedures / Plan <input type="checkbox"/> - Method Statement/TIP/CKL <input type="checkbox"/> - Schedule / Programmes <input checked="" type="checkbox"/> - Prequalification	<input type="checkbox"/> - Reports <input type="checkbox"/> - Mock-up/Prototype <input type="checkbox"/> - Certificates <input type="checkbox"/> - O&M Manuals <input type="checkbox"/> - Others	<b>Submittal No. :</b> 1487-22-BLD-AAE-PQB-CE-PC-00016 <b>Rev. :</b> 0 <b>Submittal Date :</b> 31-Oct-23 <b>Expected Response Date :</b> <b>No. of Sets :</b> a.) Handcopy 1 Size: A4 b.) E-copy 4 Type: PDF
--	--	--

**Description :**

☒ - Civil / Structural ☐ - Mechanical ☐ - Electrical ☐ - Architect / Interior Design ☐ - Others

**Description of Documents :**

Pre- Qualification for M/s SABEA FLOWCORE (Prestar / Pre-Stressed Elements)

**Submitted for :**

☒ - Review and Approval ☐ - Re-Submitted for Review & Approval ☐ - For Information & Records

<b>Prepared by :</b>  SYED NASRULLAH	<b>Reviewed by : (Contractor Proj. Coordinator or QA/QC)</b>  MOHAMED ABDELRAHMAN	<b>Prepared by / Submitted by (Contractor Proj. Coordinator)</b>  MOHAMED ABRAHIM AHMED AGHJELMASH
---	--	---

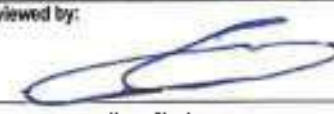
**COMMENTS BY THE CONSULTANT**

(Use Form No. PD7-F14 Rev. 01/ Oct. 2022 for Comments and Approval - OFF. & HANDWRITING REQUIRED)

**Refer comments on the attached CRF for compliance.**

**Submittal Status :**

☐ **A = Approved** (Resubmission not Required)  
☒ **B = Approved with Comments** (Incorporate comments and / or submit - work may proceed subject to incorporation of comments)  
☐ **C = Not Approved** - (Incorporate comments and resubmit - work shall not proceed)  
☐ **D = Rejected** (Document cannot be resubmitted)  
☐ **E = Accepted for Information Only**  
☐ **K = Cancellation/Withdrawal Accepted** - (Applicable only to documents first requested for cancellation or withdrawal)

<b>Reviewed by :</b>  Name / Signature AEB RE or Sr. Engineer Date	<b>Approved by :</b>  Name / Signature AEB - PM Date	<b>Client Rep. Endorsement (when required) :</b>  Name / Signature Designation Date
---	---	--

**Note :** Approval or comments made by this submittal does not release the Contractor from their Contractual obligations. The responsibility is to review the general conformity and compliance of the submittal to the contract and specification requirements.

  
**الميرة**  
**Al Meera**

**RECEIVED**

05 NOV 2023


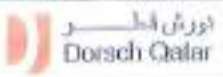


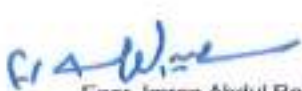

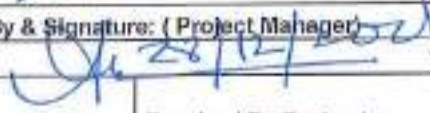

**ASSET & PROPERTY MANAGEMENT PROJECTS**

By: 

 O - FTR

FORM NO.3-QC-25.0		CLIENT	CONSULTANT	CONTRACTOR
<b>SUB-CONTRACTOR / SUPPLIER SUBMITTAL FORM</b>			 <b>دورش قطر</b> Dorsch Qatar	 <b>Al Ali Engineering</b> Al Ali Engineering
Project Name:	DESIGN AND BUILD FOR AL ASMAKH AREA 01	Date:	25-Nov-23	
Project Details:	PWA/GTC/101/09/2020 (LOA)	Record Ref. #	AAE-DCQ-PRQ-CV-002	
Client:	PWA (ASHGHAL)	Clients Proj. No.	BP 2020 C 043 G	
Contractor	AL ALI ENGINEERING CO. W.L.L.	Contract No.		
Attachment	<input type="checkbox"/> Chamber of Commerce <input type="checkbox"/> Qatar License <input type="checkbox"/> Other Licenses	Client Engineer	Khaled Al Khamis	
	<input type="checkbox"/> Municipal License <input checked="" type="checkbox"/> Pre-Qualification <input checked="" type="checkbox"/> Other	Revision	03	
DISCIPLINE	<input checked="" type="checkbox"/> Civil <input type="checkbox"/> Architectural <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Other	Location	Doha, Qatar	
Manufacturer / Supplier:	SABEA HOLLOW CORE	Address		
		Tel. No / Mob. No.		
<b>Attachments:</b>				
No:	DOC. NO.	TITLE	REV. NO.	STATUS
1	N/A	PRE-QUALIFICATION FOR SABEA HOLLOW CORE FOR PRECAST & ERECTION AT AL ASMAKH SITE	3	
<div style="display: flex; justify-content: space-between;"> <div> <p><b>Contractor's Signature &amp; Stamp:</b></p> <p> <b>Ahmed El Goghary</b> QA/QC Manager</p> <p> <b>Engr. Imran Abdul Rasheed</b> Site Manager</p> </div> <div> <p> <b>Engr. Hassan El Sahli</b> Project Director</p> </div> </div>				
<p><b>Consultant's Comments:</b></p> <p>- Accepted -</p>			<p>Received By Consultant</p> <p><b>26 NOV 2023</b> <b>9:13 AM</b></p> <p>Date &amp; Time</p>	
			<p>A - Approved <input checked="" type="checkbox"/></p> <p>B - Approved As Noted <input type="checkbox"/></p> <p>C - Revise &amp; Resubmit <input type="checkbox"/></p> <p>D - Rejected / Not Req'd <input type="checkbox"/></p>	
<p><b>Reviewed By &amp; Signature: ( Project Architect)</b></p> <p> <b>28/11/2023</b></p>				
<p><b>Approved By &amp; Signature: ( Project Manager)</b></p> <p> <b>28.11.2023</b></p>				
<p><b>Client's Comments:</b></p>			<p>Received By Contractor</p> <p><b>28 NOV 2023</b></p> <p>Date</p>	
<p><b>The Engineer Signature:</b></p>				
<p>Distribution: <input type="checkbox"/> Client <input type="checkbox"/> Engineer <input type="checkbox"/> Contractor</p>				



FORM NO.3-QC-25.0		CLIENT	CONSULTANT	CONTRACTOR	
<b>SUB-CONTRACTOR / SUPPLIER SUBMITTAL FORM</b>					
Project Name:	DESIGN AND BUILD FOR AL ASMAKH AREA 01	Date	21-Dec-21		
Project Details:	PWA/GTC/101/09/2020 (LOA)	Record Ref. #	AAE-DCQ-PRQ-CV-002		
Client:	PWA (ASHGHAL)	Clients Proj. No.	BP 2020 C 043 G		
Contractor	AL ALI ENGINEERING CO. W.L.L.	Contract No.			
Attachment	<input type="checkbox"/> Chamber of Commerce	<input type="checkbox"/> Qatar License	<input type="checkbox"/> Other Licenses	Client Engineer	
	<input type="checkbox"/> Harkyat License	<input checked="" type="checkbox"/> Pre-Qualification	<input checked="" type="checkbox"/> Other	Revision	
DISCIPLINE	<input checked="" type="checkbox"/> Civil	<input type="checkbox"/> Architectural	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Other
Manufacturer / Supplier:	SABEA HOLLOW CORE	Address	Doha, Qatar		
		Tel. No / Mob. No.			
Attachments:					
No.	DOC. NO.	TITLE	REV. NO.	STATUS	
1	N/A	PRE-QUALIFICATION FOR SABEA HOLLOW CORE FOR PRECAST & ERECTION AT AL ASMAKH SITE	2		
Contractor's Signature & Stamp:					
					
QA/QC Manager		Site Manager			
Consultant's Comments:			Received By Consultant:		
Refer to the attached review comment sheet.			Date & Time		
			A - Approved <input type="checkbox"/>		
			B - Approved As Noted <input checked="" type="checkbox"/>		
			C - Revise & Resubmit <input type="checkbox"/>		
			D - Rejected / Not Rec'd <input type="checkbox"/>		
<p><i>28/12/2021</i></p> <p><b>OHAS!:- SUB-CONTRACTOR SHOULD COMPLY MAIN CONTRACTOR INSTRUCTION AND PROCEDURES ACCORDING MAIN CONTRACTOR OH&amp;S PLAN. APPLICABLE RULE &amp; REGULATION.</b></p> <p><i>28/12/2021</i></p>					
Reviewed By & Signature: (Project Architect)		Approved By & Signature: (Project Manager)			
					
Client's Comments:		Received By Contractor			
					
The Engineer Signature:		Date			
Distribution: <input type="checkbox"/> Client <input type="checkbox"/> Engineer <input type="checkbox"/> Contractor					



## GENERAL SUBMITTAL

Project:	J056 - TIPW	Employer:	BAE Systems
Engineer:	WSP International	Architect:	WSP International
Cost Consultant:		Contractor:	Domopan Qatar W.L.L


Discipline:	Time Mgt	Cost Mgt	Resource Mgt	Communication	Authority	Others	Submittal Ref:	TIPW-DQ-WSP-PQ-C-0003	REV.	0
Location:	QTI - AL UD&ID PERIMETER WALL AND GUARDHOUSE						Date:	14. May. 2023		

## List of Submitted Items:


Item	Description	No of Copies	Remarks
1	Pre-Qualification for M/s Sabea Hollow Core - Supply and Installation of Precast boundary wall and Guard house	1	
Ref. Spec (s):		Ref. Dwg (s):	

## Compliance Statement:

The Contractor hereby confirms that the submitted items have been reviewed in detail and are correct and in strict conformance with the Contract Documents.

Initiator	QA/QC Manager	Project Manager
 14/05/23		
Name, Signature & Date	Name, Signature & Date	Name, Signature & Date

## REVIEWER'S COMMENTS

WSP (SUI/MEP/HSE) A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	ARCHITECTS A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>
Refer to Attached CRS for Comments	
 Name, Signature and date: Renato Jazareno May 15, 2023 Comments Sheet Attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	       Name, Signature and date Comments Sheet Attached? Yes <input type="checkbox"/> No <input type="checkbox"/>
ENGINEER/ EMPLOYER'S REPRESENTATIVE A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	

Name &amp; Signature: Mr Essam El Maslout



Date: 16-05-2023

Note: The Engineer's / Consultants approval shall not in any way relieve the Contractor of his obligation under the Contract. The Contractor shall be solely responsible for the compliance and the correctness of the submitted Documents as per the required Contract Conditions and Contract Clauses.

## DOCUMENT SUBMITTAL

SUBMITTAL NO.: BP2021-CD265-DGC-PRQ-CL-0021

DATE: 09/05/2023

PROJECT NAME: DESIGN AND BUILD OF REHABILITATION AND RENOVATION OF JAWAAN SCHOOL

PROJECT NO.: C 2022/04

CONSULTANT: Engineering Consultants Group

CONTRACTOR: Doha Group Trading & Contracting

DISCIPLINE: ☒ ARCH. ☒ CIV. ☐ STRU. ☐ ELE. ☐ MECH. ☐ Hydraulic ☐ OTHER

### SUBMITTAL TYPE

☐ Technical Submittals ☐ Method Statement ☐ Reports ☐ Prequalification of subcontractor  
☐ PDP / ITP ☐ Schedule ☐ Supplier Approval ☐ Test Reports  
☐ O&M Manual ☐ Certificates ☐ Others



### TRANSMITTED FOR

☒ Approval ☒ Review & Comments ☐ Information/Records ☐ As Requested

### METHOD OF TRANSMISSION

☒ Hand ☐ Email ☐ Mail ☐ Upload via FTP

SI	DESCRIPTION	Document Ref. No. Specs/BOQ Reference	Rev. No.	Format		No. of Copies	Remarks
				Hard	Soft		
1	Prequalification for M/s Sabca Harrow Core for Supply of Precast Suakaway Ring	BP2021-CD265-DGC-PRQ-CL-0021	00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	01	

 <b>QA/QC Engineer</b>		 <b>Project Manager</b>		 <b>Received By</b>		<b>Date &amp; Time</b>	
--	--	---	--	---	--	------------------------	--



### Consultant Comments:

Refer to comments in attached DRC

Action Code: ☐ A=Approved ☒ B=Approved as Noted ☐ C=Revise & Resubmit ☐ D=Rejected

Discipline Engineer:

Date: 14/5/2023

 <b>CONSULTANT</b> <b>B: APPROVED AS NOTED</b> <b>14/5/2023</b> <b>Project Manager</b>		 <b>CONTRACTOR</b> <b>14 MAY 2023</b> <b>Received By</b>		<b>Date</b>	
---	--	---	--	-------------	--

**DOCUMENT REVIEW COMMENTS (DRC)**

Project Name: Design and Build of Rehabilitation and Renovation of Jawaan School.	Project No.: BA 2021 S 027 S
---	------------------------------

Submittal Reference: BP2021-C026S-DGC-PRQ-CL-0021 Rev.0	Revision: 0	Date:09-05-2023
Submittal Title: Prequalification of M/s Sabea Hollow Core for supply of Precast Soak away Ring		
Discipline: <input type="checkbox"/> Architectural <input checked="" type="checkbox"/> CIV. <input type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> HVAC <input type="checkbox"/> Landscape <input type="checkbox"/> ID <input type="checkbox"/> Others (Specify here)		

Overall Submittal Review Status:	(B)	A = Approved (Work May Proceed) B = Approved as Noted (Work May Proceed subject to incorporation of changes indicated) R = Revise & Resubmit (Work Shall Not Proceed) D = Rejected N = Noted
----------------------------------	-----	--

Initial review comments & responses are to remain within the system to keep a full review history within the same DRC number. "Review Status" states on "Status A or B".

By Reviewer (Consultant/Client)				By Originator (Contractor / Sub-Contractor)		Reviewer Response
SL#	Comment.	Rev.	Reviewer Comments	Contractor Response	Reference of Compliance	Status (Open/Closed)
1	Material submittal	0	Shall be submitted, Material submittal shall include concrete mix design required in project specification and design drawings.			open
2	QA/QC and laboratory staff		C.V is Missing and shall be provided			open
3	Conformity Certificate	0	Contractor to attach Conformity Certificate for required mix design			open



4	General	0	ALL LIABILITY IS ON THE CONTRACTOR	
---	---------	---	------------------------------------	--

**Reviewed By:** Name: Ayman Farag

Designation: ST.Eng

Signature & Date:

**Responded By:** Name:

Designation:

Signature & Date:



# REQUEST FOR PRE-QUALIFICATION APPROVAL

Ref. No: GWC-AWLPP2P1-AAE-CIV-PRQ-0004 R1

Date: 07<sup>th</sup> April 2022

PROJECT:	Construction, Completion and Maintenance of GWC Al-Wukair Logistic Park – Phase II (Package 1)
CLIENT:	GULF WAREHOUSING COMPANY (GWC)
CONTRACTOR:	AL ALI ENGINEERING CO.

TRADE	<input checked="" type="checkbox"/> CIVIL <input type="checkbox"/> ARCHITECTURAL <input type="checkbox"/> MECHANICAL <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> EXTERNAL
STATUS	NEW SUBMITTAL <input type="checkbox"/> REVISED SUBMITTAL <input checked="" type="checkbox"/>

PRE-QUALIFICATION SUBMITTED: M/s SABEA HOLLOW CORE

Specification Ref:	BOQ Ref:	Standard Applicable	Drawing Ref:	Company Authorized
QCS 2014	N/A	QCS 2014		
PQD-Company Name	Scope of Works			
M/s SABEA HOLLOW CORE			Concrete Panels, Hollow Core and Infrastructure Precast elements	
Authority Approvals	Remarks if Alternative	Name of Contact Person	E-mail of Contact Person	Country of Origin
			sales@aae.com.qa / hollowcore@aae.com.qa	QATAR

Contractor and Subcontractors signature and stamp

Eng. Yaser Khalifa- Project Manager.

ENCLOSURES: .....

QDC Comments and Status

- See attached comments sheet.

Client Comments:

☐ Approved ☒ Approved as Noted ☐ Revise & Resubmit ☐ Not Approved  
☐ Additional Information ☐ For Information ☐ Others.....

Signature Date:

Architect/ Civil Engineer  
Name:

Project Manager

Client Rep.

Note: Allow for at least seven working days for review.

Consultant Received

Client Received


Consultant Received

Contractor Received




Qatar Design Consortium Distribution		
DEPT.	ACTION	INFO
PM		
RE		
ARCH.		
CIVIL	✓	
MECH.		
ELEC.		
Q.S.		
PE		
SO		
PMO		
FILE		
Remarks: Review		


0084



**DEVELOPMENT OF DOHA AIR BASE**

قطر في بي سي





---

**DOCUMENT SUBMITTAL SHEET**

**Submission No:** DDAB-QDVC-PRO SUB-2021-10132

**Date:** 30-Nov-21

---

**QDVC**  
**Director:** VIGNERAS  
**Project Director:**  
**QDVC P.O. Box:** 19389  
**15th Floor, The Gate Mall Tower 4**  
**Doha Area**  
**Tel:** 44530539 / 44530507

**CICO**  
**Manager:** CRITILIAN  
**Project Manager:**  
**CICO P.O. Box:** 152  
**Doha State of Qatar**

**QECE**  
**QATAR ARMED FORCES**  
**Engineer:**  
**Commander:** Qatar Emiss Corps of Engineers  
**P.O. Box:** 9575  
**Salya Doha, State of Qatar**

**Approval Flow**

```

graph LR
    QDVC -- SS --> CICO
    CICO -- SS --> QECE
    QECE -- FA --> QDVC
    
```

---

**DOCUMENT DETAIL**

☐ Inspection and Test Plan (ITP)

☐ Work Method Statement (WMS)

☐ Material Approval Request (MAR)

☒ Prequalification Approval Request (PQL)

☐ Minutes of Meeting (MoM)

☐ Other

ARC ☐

STR ☐

MEC ☐

CIV ☒

ELE ☐

UPL ☐

S. No	DOCUMENT NUMBER	REV	TITLE / DESCRIPTION	ISSUED FOR		Size	ER, HC	E
				CICO	QECE			
1	C-110-01-X-CIV-PQI-4550-CON-823739	A1	Scope of Works: Supply & Installation of Precast Boundary Wall Panel	FR	FA	A4		

**Abbreviations:** FA= For Approval, FR= For Review, HI= For Information Only

HC = Hard Copy, E = Electronic Copy

Name: **AI AIN ZERBE**

Date: **30 Nov-21**

Signature: 

**CICO Supervision Engineer:**

Receipt Name

Receipt Date

Signature

**For Review**

☐ Reviewed with No Comments

☐ Reviewed with Comments

**For Approval**

☐ Approved

☒ Approved with Comments

**Comments:** Please refer to CICO comment review sheet ref no. C-110-01-X-CIV-CRS-4450-CIC-006721-VI

**Attachment:** ☒ Yes ☐ NO ☐ No Page

Site Engr (initials/Sign)

Sr Engr (initials/Sign) 

Project Manager (initials/Sign) 

16.12.21

**QECE Engineer's:**

Receipt Name

Receipt Date

Signature

☐ Approved

☒ Approved with comments

☐ Rejected

**Comments:** Refer to the attached comments sheet

\* This Approval only for Prequalification

\* Close all comments by consultant

**Attachment:** ☐ Yes ☒ NO ☐ No Page

Site Engr (initials/Sign)

Project Coordinator (initials/Sign) 

Commander (initials/Sign)  Date: **19.1.2022**

**QDVC Final Reception:**

Receipt Name

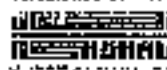
Receipt Date

Signature





# THE CONTRACTOR / SUPPLIER SUBMITTAL FORM



CONSULTANT

CONTRACT NO.

Project Name  
Doha Qatari

Project Name:	DESIGN AND BUILD FOR AL ASMAKH AREA 01	Date:	28-Nov-20
Project Details:	PWA/STC/401/00/2020 (LOA)	Record Ref. #	AAE-DCQ-PRO-CV-002
Client:	PWA (ASHGHAF)	Client's Proj. No.	BP 2020 C 043 G
Contractor:	AL ALI ENGINEERING CO. W.L.L.	Contract No.	
Attachment:	<input type="checkbox"/> Tender Documents <input type="checkbox"/> Submittal <input type="checkbox"/> Request for Information <input type="checkbox"/> Other	Client Engineer:	Yasser Alia
DISCIPLINE:	<input type="checkbox"/> Civil <input type="checkbox"/> Structural <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical <input type="checkbox"/> Other	Revision:	01
Manufacturer / Supplier:	SARFA HOLLOW CORE	Location:	Doha, Qatar
		Address:	
		Tel. No / Mob. No.	

## Attachments

No	DOC NO	TITLE	REV. NO.	STATUS
1	N/A	SARFA HOLLOW CORE Pre-Qualification Documents	1	

## Contractor's Signature & Stamp:

Technical Manager

F / Engr. Riyedh Shant  
Project Director

## Received By Consultant

Date & Time

## Consultant's Comments:

Pre-qualification Documents for Sarfa  
Hollow Core is Approved for plant No. 324

28/11/2020

Y. Alia 28/11/20

- A - Approved ☒
- B - Approved As Noted ☐
- C - Reuse & Resubmit ☐
- D - Rejected / Not Ready ☐

Reviewed By & Signature: (Project Architect)

Approved By & Signature: (Project Manager)

## Client's Comments:

Received By Contractor

The Engineer Signature:

Date:

Distribution:

☐ Client

☐ Engineer

☐ Consultant

This form is to be used for describing the review comments related to Contractor post contract award submittals of pre-qualification and material submittals that can lead to one of the following outcomes:

C: Revise and Resubmit

D = Rejected

## Contractor submittal Ref.:

NPP0050-QBC-CTV-MA-00966\_1 (QBC Response)

**Submitted Title:**

**NPP/ND50: Hollow Core Slabs for STP**

Manufacturer: Saluda Hollow Core

Supplier: Salses Hollow Core

Discipline/Trade

ARC ☐ CIV ☒ ELE ☐ MEC ☐ HVAC ☐ ID ☐  
THI ☐ WWT ☐ COM ☐ RD ☐ CIV ☐ Others ☐

Date of Submission:

Review Status:

H : Interviewed as noted

Review Status Issued By:

Fathy Ibrahim, Ashraf El Kinedary

Response Date: 27 Jun 2021

Quality Check  
(prior to CSRC sign off) by CSM:

Howard Graham

DATE 27 Jun 2021

Approval/Acceptance by QENF

Prigadler Abdulla Faruk: Al-Kutbi

Date:

**Approval/Acceptance by OECG**

Project Director: George A. A. Hall

**Data:**

Approval/Acceptance by QECF

The Engineer, Mr or General: Essa Al. Al Kutabsi

**Date:**

**Specification Reference:**

1. 9254-G3-GE SPC 7019 2C
2. NPP005C GBC-PQ-00545\_0\_C5AC\_A
3. QCS 2014 accrlo: 5


No	Related to Section / Chapter / etc.	Comments (PMC)	Originator (Dept. & Initials)	Contractor's Response to PMC Comments	Review Status PMC
1.	Pre-qualifications	QDC to acknowledge compliance with the relevant PQS ref. NPP0050-QDC PQ-00945 0 B and to seek for a status code A	PMC-CMT FI	Noted.	B
2	methodology of review	<p>27-Jun-2021</p> <p>The contractor acknowledgment is imperative</p> <p>The contractor to include the reference design drawings which have been used in generating the submitted MAS and the proposed PCS since the STP is a design and build contract.</p> <p>PMC will not be able to verify the provider system in absence of the validated design drawings.</p> <p>27-Jun-2021</p> <p>The provided design drawings and reports which have been prepared by the manufacturer of Hollow Core Slab shall not be considered unless the approved 3rd party design company "QDC" will validate and provide their official approval, in</p>	PMC-CMT FI	<p>Noted.</p> <p>Our structural engineer will submit all types of drawings</p> <p>Noted</p>	<p>B</p> <p>C</p> <p>D</p>

PROJECT: CONSTRUCTION OF ADDITIONAL FACILITIES FOR COMMUNITY COLLEGE OF QATAR		EMPLOYER:   قطر تستحق الأفضل Qatar Deserves The Best	N° DS : AMA-J132-PRQ-CI-019 Rev 0
CONTRACTOR: 	CONSULTANT: 	RECEIVED  	
DOCUMENT SUBMITTAL			

Type of Submittal:				
Document <input checked="" type="checkbox"/>	Sketch/Drawing <input type="checkbox"/>	Test Result <input type="checkbox"/>	Other <input checked="" type="checkbox"/>	
Other (Specify):		Prequalification of subcontractor		

Subject:	Prequalification of M/S Sabea Hollow Core
----------	---

Description of Document Submitted:	
Prequalification of M/S SABEA HOLLOW CORE	
Scope : Supply & Install Precast Boundary Wall	
<p><u>AAN for Prequalification of M/s Sabea Hollow Core.</u></p>	
Contractor's Representative: Mohammad Khair	Date: 04-Jun-2020

COMMENTS:			
<p>ERGAS - STRUCTURAL 13.06.2020</p> <p>1. PRIOR TO FABRICATION &amp; DELIVERY OF PRECAST BOUNDARY WALL ELEMENTS, SUBMIT FOR REVIEW &amp; APPROVAL THE FOLLOWING:</p> <p>1. OVERALL LAYOUT &amp; DETAILS OF THE PRECAST BOUNDARY WALL FOR THE WORK - SHOP DRAWING &amp; DETAILS OF BOUNDARY WALL (PRECAST TYPE) SHOWING THE SIZES &amp; DISTANCES OF FOOTINGS/COLUMNS RELATIVE TO THE LATEST APPROVED SITE DEVELOPMENT IFC DWG (ARCHITECTURAL)</p> <p>2. DESIGN CALCULATION OF THE PRECAST BOUNDARY WALL ELEMENTS RELATIVE TO THE COLUMN/FOOTING DISTANCES.</p> <p>3. SIZES &amp; REINFORCEMENT OF THE PRECAST BOUNDARY WALL ELEMENTS AT PER IFC STRUCTURAL DETAIL OF TYPICAL BOUNDARY WALL.</p>			
Status:	A: Approved <input type="checkbox"/>	AAN: Approved As Noted <input checked="" type="checkbox"/>	CA: Conditional Approval <input type="checkbox"/>
	RR: Revise & Resubmit <input type="checkbox"/>	R: Rejected <input type="checkbox"/>	NFD: Need Further Detail <input type="checkbox"/> N: Noted <input type="checkbox"/>
Engineer:		Date: 	
Approval shall not relieve the Contractor of his liabilities under the Contract or constitute authorization of any change to the Contract Documents			



14\* December, 2020  
Our ref: ATPS/MB/LTR/OUT/026/20

M/s. SABEA HOLLOW CORE  
P.O Box: 9106, Doha, Qatar  
Tel.: +974 44922452 Fax: +974 44438576  
Email: [sales@aao.com.qa](mailto:sales@aao.com.qa)

Attention : Engr. Mohammad Fa Al Daoudi – General Manager  
Project : PROPOSED ADMIN. BLDG. (G+1) AND BUILDING MATERIALS WAREHOUSE (G+1) AT AL WAKRA LOGISTICS PARK-QATAR  
Main Contractor : M/s. Arabian Technical Petroleum Services (ATPS)  
Client : M/S AL JABOR TRADING.  
Subject : Reviewed PQD /Materials submittals from Consultant

Dear Sir,

In reference to the above mentioned subject, please find enclosed herewith Reviewed PQD /Material submittals from Consultant.

This is for your kind information and further action.

Yours faithfully,  
M/s. Arabian Technical Petroleum Services

  
  
Mohammed Balaawi  
General Manager

Cc: Mr. Ghassan Abulail - BDM  
Cc: Mr. Justus Kaiser – Engineering Manager

Encl: As above.



## PRE QUALIFICATION FORM



Date	03.12.2020	Submittal No : ATPS-PQP-ST-014- R0
Project Name	PROPOSED ADMIN. BLDG. (G+1) AND BUILDING MATERIALS WAREHOUSE (G+1) AT AL WAKRA LOGISTICS PARK-QATAR	
Project No.	0058	
Client	M/S. AL JABOR TRADING.	

P.O Box - 9106  
Industrial Area st.41, Doha, Qatar  
Telephone: +974 44922452  
Fax: +974 44438576

Contact Person: **Mr. Justus Kaiser**  
(Engineering Manager)

Mobile: 70352834

Supplier/ Vendor/ Manufacturer/ Sub-Contractor Scope of Work: **For HOLLOW CORE SLAB**  
PREQUALIFICATION SUBMITTAL FOR M/S SABEA HOLLOW CORE

### Project Reference

☐ Specs \_\_\_\_\_ ☐ BOQ \_\_\_\_\_

For the Contractor

**Mr. Justus Kaiser (Engineering Manager)**

Name, Signature



Date

### Consultant Response:

(1) Approved ☒ (2) Approved As Noted ☒ (3) Revise & Resubmit ☐

(4) Rejected ☐ (5) Others ☐

Remarks

*\* No objection for mentioned subContractor*

Name, Signature

Customer / Engineering Dept. Comments:

Action Code:

Remarks

Signature

File:

WI-PST-11-03  
07-Nov-2018



RECEIVED

ATPS-PQP-ST-014-R00  
Page 1 / 1

05 DEC 2020  
JRA 8.55

18<sup>th</sup> November, 2019  
Our ref: ATPS/MB/LTR/OUT/001/19

**M/s. SABEA HOLLOW CORE**  
P.O Box: 9106, Doha, Qatar  
Tel.: +974 44922452 Fax: +974 44438576  
Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)

Attention : Engr. Mohammad Fa Al Daoudi – General Manager

Project : BOUNDARY WALL FOR GULF GLASS FACTORY @ NEW INDUSTRIAL AREA

Main Contractor : M/s. Arabian Technical Petroleum Services (ATPS)

Client : M/S GULF GLASS FACTORY

Subject : Reviewed Prequalification Document from Consultant

Dear Sir,

In reference to the above mentioned subject, please find enclosed herewith Reviewed Prequalification Documents from the Consultant.

Pregualification Document

ATPS-PQD-ST-001	Prequalification Document for (M/s SABEA Hollow Core co.) for Precast Boundary Wall	Code-A
-----------------	---	--------

This is for your information and further action.

Thanking you,

Yours faithfully,  
M/s. Arabian Technical Petroleum Services

**Mohammed Balaawi**  
General Manager

Cc: Gangadhar.G.R.- Sr. Project Manager  
Encl: As above



10.08 AM

# G+1+M HYPERMARKET - LULU AIN KHALID PROJECT DOCUMENT TRANSMITTAL

Transmittal No.	GBCT-2019-AKP-PDT-02	Date :	03 September 2019	
To: Sabea Hollow Core   Kindly find attached Approved Submittal.		The attached documents are Transmitted to you for: <input checked="" type="checkbox"/> Information <input checked="" type="checkbox"/> Action <input type="checkbox"/> Review <input type="checkbox"/> Construction <input type="checkbox"/> Rejected  Drawings Type: (In case of Transmitted documents are BOARD) <input type="checkbox"/> Contract Drawings <input type="checkbox"/> Shop Drawings <input type="checkbox"/> Redesign Drawings <input type="checkbox"/> Sketch <input checked="" type="checkbox"/> Others (specify)		
Sr. No.	Document Submittal Reference No.	Document Title	Rev	Status/Remarks
1	GBCT-2019-AKP-PQF-001	Pre-Qualification for Sabea (Precast and Hollow Core Slab)	0	A
2	GBCT-2019-AKP-MAR-STR-001	Material Submittal for Precast Boundary Wall	0	A

Please acknowledge receipt of the documents listed above by signing, and returning this sheet to the originator. Should any of the above items be a revision to that already received, it is your responsibility to ensure that the earlier edition is removed from circulation.

Name: Eng. Redwan Alabbas Signed: [Signature] Date: 03- September 2019

Please return acknowledgement to the Document Control Section, I acknowledge receipt of the document(s) indicated above.

Name: Mohammed Shabees Signed: [Signature] Date: 03/09/19





Project Name:  
**PROPOSED G+1-M  
HYPERMARKET**



Consultant

**PRE-QUALIFICATION FORM**

MAR NO. : GBCT-2019-AKP-PQF-001 Rev. 06 Date: 20-Aug-2019 Discipline: Structural

**Material Detail**

Item Description	Pre-Qualification for Sabea (Precast and Hollow Core Slab Supplier and Erector for Boundary Wall)	<b>List of Enclosures</b> (Tick the Related Box) <input checked="" type="checkbox"/> Vendor's Technical <input type="checkbox"/> Test Results <input type="checkbox"/> Compliance Statement <input checked="" type="checkbox"/> Data Specification <input type="checkbox"/> Samples <input checked="" type="checkbox"/> List of Previous Projects Docs <input checked="" type="checkbox"/> Others (Specification)
Spec/BOQ Desc.		
Manufacturer Specified	Sabea Hollowcore (for Concrete Panels and Hollowcore)	
Material Proposed	Precast Boundary Wall	
Manufacturer / Local	Sabea Hollowcore	
Reason for Alternatives		
Remarks	For Your Review & Approval	

**Golden Bay Contracting and Trading**

Construction/Project Manager:	Site/Project Engineer:	For MEP Engineers:
(Signature over Printed Name)	(Signature over Printed Name)	(Signature over Printed Name)
Date: 21/08/2019	Date: 22/8/19	Date: 21-08-2019

**(FOR CONSULTANT USE)**

Action:

☒ A - Approved    ☐ B - Approved With Comments    ☐ C - Revise and Resubmit    ☐ D - Rejected

Comments:

Consultant:

(Signature over Printed Name)

Date: 31/08/2019

Received By:

(Signature over Printed Name)

Date:

Golden Bay Contracting and Trading  
Ibrahim Alkhatib



GBCT-MATERIAL APPROVAL-RAAP-2017



## REV: 1

<b>PROJECT</b>	<b>UNIVERSITY</b>	<b>CITY</b>	<b>CONTRACTOR</b>
AL INDIA PARK	CPL	PRINCIPAL ENGINEERING OFFICE	AL AL BUILDINGS & CONTRACTORS LLC

ITEM NO.	DOC. NO.	GENERAL DESCRIPTION AND REVISION DETAILS	TYPE (I)	COPIES	ACTION CODE (U)
1	1095-AAF-CV-PRO-0043.01	PRE-QUALIFICATION FOR SABA (PRECAST HOLLOW CORE SLAB SUPPLIER & ERECTOR FOR CAR PARK 1)	PRO	1	B

DATE \_\_\_\_\_

PLEASE REFER TO ATTACHED COMMENT SHEET

A: No objection  
 B: No objection subject to incorporation of all comments as noted  
 C: Rejected, to be resubmitted



## SHOP DRAWING SUBMITTAL (SDS) – P193

Project Name	NATIONAL SERVICE ACADEMY TRAINING CAMP – P193 (B-106-02)	Doc. No: ABE/P193/PH4/CST/SD/STR0002
Client	QATAR ARMED FORCES	Rev. 00
Supervision Consultant	DIWAN AL EMARA	Date: 9 <sup>th</sup> September 2018
Contractor	AL BANDARY ENGINEERING	Copies: 3 Hard Copy + Soft Copy

To: QECE ENGINEERING REPRESENTATIVE

We enclosed herewith the drawings for APPROVAL

DISCIPLINE	Structural
Description/Area of Application	Covered Stage (PH-4) – PC Bleacher

**Remarks:** We certify that these drawings have been coordinated and prepared in strict conformity with the Contract Documents Specifications.  
(See attached list of drawings)

3 Sets Hard Copy and 1 Soft Copy Attached (As Per The List Attached).

For The Contractor:

Name: Hani Abou Elezz  
Area Manager

Signature:



SUPERVISION CONSULTANT 'S COMMENTS:

submit P.C. details drawings is acceptable.  
No objection For Proceed the Same.

ACTION CODE

☐ A-Approved as Submitted ☒ B- Approved as Noted ☐ C-Revise & Resubmit ☐ D- Rejected

To: The Contractor

We return herewith drawings marked with comments which the action code identified in each drawing. The approval shall not release the Contractor of its obligations and liabilities under the Contract or constitute authorization of any change to Contract Documents, and therefore, shall not imply any recognition whatsoever of additional time or cost to the Contract.

For: The Supervision Consultant

Project Manager

Date: 11/sep/18

CLIENT COMMENTS:



CLIENT ENGINEERS: .....

PROJECT COORDINATOR: .....

*Handwritten signature*

# **10.SUMMARY OF CURRENT & RECENT PROJECTS**

---

**SABEA HOLLOWCORE W.L.L.,**

**For Concrete Panels and Hollow core**

Landline: +974 44922452

Email: [sales@aac.com.qa](mailto:sales@aac.com.qa)

[www.aac.com.qa](http://www.aac.com.qa)





## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
1	AL ALI ENGINEERING	QATAR ACADEMY SIDRA	ON GOING
2	PETALS INTERNATIONAL TRADING AND CONTRACTING WLL	EPIC FOR WELLS HOOK - UP 2022-2026	ON GOING
3	GULF ASIA CONTRACTING W.L.L	PSM 005 GENERAL WORKS FOR UTILITIES AREA IN CONNECTION WITH NORTH FIELD SOUTH ONSHORE PROJECT	ON GOING
4	PETROCON ECC WLL	EPIC FOR VARIOUS PIPELINES MOC'S IN DUKHAN	ON GOING
5	AL ANDALOSEYA FOR CONTRACTING AND IMPORTING	MINI SPORT COMPLEX AT LUSAIL	ON GOING
6	ZEAL-IT TRADING & CONTRACTING	GC2310490000-REPLACEMENT /REALIGNMENT OF PIPE SUPPORTS & SAND CLEARANCE ON CALL-OFF BASIS IN DUKHAN FIELDS	ON GOING
7	GULF ASIA CONTRACTING W.L.L	RLPP POLYETHYLENE PLANT - TCM (RLPP-2)	ON GOING
8	AL ALI ENGINEERING	MOI POLICE COLLEGE COMPLEX	ON GOING
9	AL ALI ENGINEERING	DEVELOPMENT OF BUILDING AND INFRASTRUCTURE (ISF-ZP-CP-02)	COMPLETED
10	AL MUFTAH CONTRACTING CO WLL	SAND REMOVAL,SUPPORT REPLACEMENT & RE-POSITION AT DUKHAN	COMPLETED
11	AYAAN ASH SHARQ	MOSQUE AT RAWDAT AL HAMAMA	COMPLETED
12	AL ALI ENGINEERING	ISF- DESIGN & CONSTRUCTION OF ZAKREET CAMP " DEVELOPMENT OF BUILDINGS AND INFRASTRUCTURE"	COMPLETED
13	ATPS	AL ALAF FACTORY RENOVATION & REFURBISHMENT WORKS	COMPLETED
14	AL MUFTAH GROUP	GC2310490000-REPLACEMENT /REALIGNMENT OF PIPE SUPPORTS & SAND CLEARANCE ON CALL-OFF BASIS IN DUKHAN FIELDS	COMPLETED
15	RAMACO TRADING & CONTRACTING CO.W.L.L	DESIGN& BUILD OF MAJLIS AT UMM SLAL ALI FARM	COMPLETED
16	WATER CARE TRADING	HCS COVER FOR STORE BUILDING AT GHARIA	COMPLETED
17	MAHA AL KAHLEJ	PROPOSED MOSQUE AT RAWDAT ARAS	COMPLETED
18	MAKKAH INTEGRATING CONT.CO.W.L.L	PROPOSED VILLA( TAMIR VILLA)	COMPLETED
19	LIVE MJK REAL ESTATE	HCS FOR SWIMMING POOL COVER	COMPLETED
20	QATAR HIGH SPEED GROUP	NORAH JASSIM AL-DARWISH MOSQUE AT LUSAIL -NRV-CIV/07A( MINISTRY OF AWQAF & ISLAMIC AFFAIRS)	COMPLETED
21	TRANSCO	PROPOSED (G+2+STAIR ROOM RESIDENTIAL BUILDING AT BIRKAT AL AWAMER (2NOS)	COMPLETED
22	QATAR ARMED FORCES/ CONTRACO	DEVELOPMENT OF DOHA AIR BASE	COMPLETED
23	US ARMY CORPS & ENGINEERS/ MIDMAC CONTRACTING CO WLL	SHIELD 5 PROGRAM, STATE OF QATAR-1 & 4A- PAVILION BUILDING	COMPLETED
24	QATAR ARMED FORCES/UCC	SHOOTING RANGE-ABC CAMP AT SHAHANIYA	COMPLETED
25	QATAR ARMED FORCES/ AL BANDARY ENGG	BOUNDARY WALL FOR NATIONAL SERVICE ACADEMY TRAINING CAMP AT AL MAZROUH	COMPLETED
26	QATAR ARMED FORCE	DEVELOPMENT OF DOHA AIR BASE	COMPLETED
27	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	BOUNDARY WALL FOR TRAINING CAMP AT MADINA LOWA JASSIM	COMPLETED
28	QATAR ARMED FORCES/ AL BANDARY ENGG	PRECAST BLEACHER FOR NATIONAL SERVICE ACADEMY TRAINING CAMP AT AL MAZROUH	COMPLETED
29	QATAR ARMED FORCES/ AL SEAL CONTR &TRADING	ARMS& AMMUNITION STORES FOR MILITARY POLICE AND COMBINED SPECIAL FORCES-SAILIYA	COMPLETED
30	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	MANHOLES FOR TRAINING CAMP AT MADINA LOWA JASSIM	COMPLETED
31	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	AL ZAEEM AIR ACADEMY AT AL UDEID	COMPLETED



## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
32	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	BOUNDARY FOR AL SHAMAL PROJECT (FACTORY PART)	COMPLETED
33	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	AL SHAMAL PROJECT ZONE-3	COMPLETED
34	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	PRECAST BOUNDARY WALL FOR NAVAL ACADEMY	COMPLETED
35	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	POLE FOUNDATION FOR AL SHAMAL PROJECT (FACTORY PART)	COMPLETED
36	QATAR ARMED FORCES/ AL SEAL CONTR & TRADING	CONSTRUCTION OF ADMINISTRATION BUILDING FOR DOHA JOINT RESCUE COORDINATION-UMMGARN	COMPLETED
37	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	BLEACHER FOR OVERED ARENA & STAGE NATIONAL SERVICE ACADEMY TRAINING CAMP AT AL MAZROUH	COMPLETED
38	QATAR ARMED FORCES/ AL BANDARY ENGINEERING	BLEACHER FOR TRAINING CAMP-MEN NATIONAL SERVICE ACADEMY AT AL MAZROUH	COMPLETED
39	QATAR ARMED FORCES/TAYOUNEH	NEW CAMP FOR TARIQ BIN ZIYADH BASE	COMPLETED
40	QATAR ARMED FORCES/ COMMITMENT TRAD	QAF ACCOMODATIONS AT AL RAYYAN	COMPLETED
41	QATAR ARMED FORCES/ AL ALSAAD GENERAL CONTRACTING W.L.L	QAF GYM & CLINIC AT AL RAYYAN	COMPLETED
42	AL ALI ENGINEERING	PROPOSED SABEA PRECAST & HOLLOWCORE FACTORY AT MESAIED	ON GOING
43	GWC	GWC WARE HOUSE BUILDINGS AT AL WUKAIR LOGISTICS PARK	COMPLETED
44	TRADE AND BUILD	PRECAST BOUNDARY WALL MINISTRY OF MUNICIPALITY	ON GOING
45	PRIVATE ENG OFFICE	BUILD & DESIGN AMIRI GUARD IN LUSAIL	COMPLETED
46	AMANA	INFRASTRUCTURE MANHOLES FOR BOUTIQUE WARE HOUSE PROJECT	COMPLETED
47	LIGHTNING ELECTRO MECHANICAL	KAHRAMAA ELECTRICAL & WATER SERVICE CABINETS	COMPLETED
48	VENTURE GULF	PRECAST BLOCKS	COMPLETED
49	QBS CONSTRUCTION	DESIGN & BUILD OF PHASE ONE OF PERMANENT LOCATION OF DARB AL SAAI	COMPLETED
50	DOZER GLOBAL-UBTJV	WESTERN TAXIWAY AND STAND DEVELOPMENT WORKS-HAMAD INTERNATIONAL AIRPORT WORKS	COMPLETED
51	AL BANDARY ENGINEERING	P212- AL RAWDAH & ACADEMY PROJECT	COMPLETED
52	AL AJAJ LIMITED COMPANY	CONSTRUCTION OF EXTENSION AND RENOVATION WORKS FOR NCC	COMPLETED
53	UCC	DESIGN, CONSTRUCTION, COMPLETION & MAINTENANCE OF AL WAKRA FAMILIES HOUSING	COMPLETED
54	BRICKSTONE TRADING	SATELLITE MONITORING CENTER	COMPLETED
55	CDC CONTRACTING	DESERT RETREAT AT FUWAIRIT & RAS ABROUQ	COMPLETED
56	CDC CONTRACTING	DESERT RETREAT AT FUWAIRIT & RAS ABROUQ	COMPLETED
57	CDC CONTRACTING	DESERT RETREAT AT FUWAIRIT & RAS ABROUQ	COMPLETED
58	CDC CONTRACTING	DESERT RETREAT AT FUWAIRIT & RAS ABROUQ	COMPLETED
59	CDC CONTRACTING	DESERT RETREAT AT FUWAIRIT & RAS ABROUQ	COMPLETED
60	AL ALI ENGINEERING	CPC-07E-DEVELOPMENT OF ISF CAMP AT DUHAIL	COMPLETED
61	ASHGAL/AL MUNTASSER	NAJMA COMPLEX	COMPLETED
62	GHAZWAN	SUN SHADE BASE	COMPLETED
63	STROM CONSTRUCTION	KAHRAMAA ELECTRICAL & WATER SERVICE CABINETS	COMPLETED
64	AL ALI ENGINEERING	FUEL TANK COVER	COMPLETED
65	AL JASR TRADING	INDUSTRIAL BOUNDARY WALL	COMPLETED
66	SABEA READY MIX	COUNTER WEIGHT	COMPLETED

## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
67	AL ALI ENGINEERING	COUNTER WEIGHT	COMPLETED
68	ULTRACRETE	JERSY BARRIER	COMPLETED
69	SARF TRADING	PRECAST BOUNDARY WALL	COMPLETED
70	AL ALFIYA	PREACAT SOAKWAY	COMPLETED
71	CRC DORRA	PRECAST SOAKWAY RING	COMPLETED
72	AL ALI ENGINEERING	DEVELOPMENT OF UMMSALLA MOHAMMAD PROTECTED AREA	COMPLETED
73	AL ALI ENGINEERING/PEO	SALWA RESORT BUILDINGS & INFRASTRUTURE WORKS PACKAGES 2& 3	COMPLETED
74	AL BANDARY ENGINEERING	IBIS & ADAGIO HOTEL	COMPLETED
75	AL BANDARY ENGINEERING	BAHRI VILLAS (B+G+1+P) AT PEARL QATAR	COMPLETED
76	AL ALI ENGINEERING	BLEACHER FOR GO KART, SALWA RESORT & DAHAB MOUNTAIN PROJECT	COMPLETED
77	STORM QATAR	DESIGN & CONSTRUCT NEW ORBITAL HIGHWAY TRUCH ROUTE	COMPLETED
78	QATAR ARMED FORCES/ AL SEAL CONTR &TRADING	SHOOTING RANGE FOR ARMS& AMMUNITION STORES FOR MILITARY POLICE AND COMBINED SPECIAL FORCES-SALIYA	COMPLETED
79	PEO	BOUNDARY WALL PANEL FOR BEACH PALACE- DIWAN AMIRI	COMPLETED
80	CONSTRUCTION ENGINEERING	INDUSTRIAL BOUDARY WALL	COMPLETED
81	AL SAFWA TRADING	EGYBEL QATAR ALUMINIUM & GLASS FACTORY	COMPLETED
82	AL MUNTASSER	SUPPLY AND INSTALL PRECAST BOUNDARYWALL	COMPLETED
83	ARTBETON CONTRACTING	MINISTRY OF MUNICIPALITY AND ENVIRONEMENT	COMPLETED
84	PENTAGRAM DESIGN	PRECAST WALL PANEL BEACH PRIVATE VILLA-DIWAN AMIRI	COMPLETED
85	SYSTEM DOHA TRAING & CONTRACTING	PRECAST WALL FOR VILLA - ALI DARWISH	COMPLETED
86	PEO	PRECAST BOUNDARYWALL EXTENSION BEACH PALACE	COMPLETED
87	AL SEAL TRADING	CAR WORKSHOP+SHOWROOM BUILDING+OFFICE BUILDING	COMPLETED
88	AL ALI ENGINEERING	AMRI DEWAN WESTERN BOUNDARYWALL AL BADDA	COMPLETED
89	AL SAFWA TRADING	METAL WORKSHOP	COMPLETED
90	PEO	PRECAST MOSQUE DIWAN AMIRI	COMPLETED
91	ICG	PROPOSED WAREHOUSE & LABOUR ACCOMODATION	COMPLETED
92	HANI AL HAJI ENGINEERING	IV4 ROOF	COMPLETED
93	GENERIC ENGINEERING	DESING & BUILD OF AL BUSAIR CAMO NEW GATE & BOUNDARYWALL	COMPLETED
94	URBACON TRADING	SAFETY BARRIER	COMPLETED
95	MAKKAH INTERGRATING	PRECAST BOUNDARYWALL	COMPLETED
96	AHMAD MANSUR	PRECAST BOUNDARYWALL	COMPLETED
97	AMANA QATAR TRADING	PROPOSED WAREHOUSE & LABOUR ACCOMODATION	COMPLETED
98	SABEA READYMIX	AGEEREGATE BIN FOR ABO GLALIA CONCRETE PLANT	COMPLETED
99	AL ALI ENGINEERING	PRECAST BOUNDARYWALL FOR AMIRI GUARD	COMPLETED
100	AL ALI ENGINEERING	PRECAST BOUNDARYWALL FOR AMIRI GUARD	COMPLETED
101	GOLDEN BAY CONTRACTING	PRECAT BOUNDARYWALL	COMPLETED
102	AL HEMAIDI	HOLLOWCORE SLABS FOR VILLA	COMPLETED
103	RED ROAD	HOLLOWCORE SLABS	COMPLETED
104	AL FADA	HOLLOWCORE SLABS FOR VILLA	COMPLETED
105	FOURSCO/NASSER GHANIM	HOLLOWCORE SLABS FOR ACCOMODATION	COMPLETED
106	RED ROAD	HOLLOWCORE SLABS	COMPLETED
107	DOHA DEVELOPMENT CO	HOLLOWCORE SLABS	COMPLETED
108	TAFUQ	HOLLOWCORE SLABS FOR ACCOMODATION	COMPLETED
109	DEAD SEA	HOLLOWCORE SLABS FOR MAJILIS ROOF	COMPLETED
110	AL ALI ENGINEERING	HOLLOWCORE SLABS FOR PUMP ROOM	COMPLETED
111	AL AWAAD UBDC	HOLLOWCORE SLABS	COMPLETED
112	SAWAD AL WATAN TRAD	HOLLOWCORE SLABS	COMPLETED
113	QATAR MEGA BUILDING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
114	FUTURE VISION	HOLLOWCORE SLABS	COMPLETED
115	IRFAN COMPANY	HOLLOWCORE FOR VILLA	COMPLETED





## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
116	GREEN APPLE	HOLLOWCORE SLABS FOR MAJILIS ROOF	COMPLETED
117	NARM TRADING	HOLLOWCORE SLABS	COMPLETED
118	AL IKTHIYAR	HOLLOWCORE SLABS FOR VILLA	COMPLETED
119	INTERNATIONL CNETER	HOLLOWCORE SLABS MAJILIS ROOF	COMPLETED
120	AL SAFWA TRADING	HOLLOWCORE SLABS FOR TANK COVER	COMPLETED
121	KHALIFA BIN NASSER	HOLLOWCORE SLABS ACCOMODATION	COMPLETED
122	QATAR NATIONAL ALUMINIUM	HOLLOWCORE SLABS MAJILIS	COMPLETED
123	AL JALAHMA	HOLLOWCORE SLABS FOR VILLA	COMPLETED
124	AL TAFUQ	HOLLOWCORE SLABS FOR VILLA	COMPLETED
125	AL ALI ENGINEERING	HOLLOWCORE SLABS FOR ACCOMODATION	COMPLETED
126	BIN THANI	HOLLOWCORE SLABS FOR VILLA	COMPLETED
127	OBAIDA/INFRA TRADING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
128	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
129	SABEA READYMIX	BOUNDARYWALL HOLLOWCORE	COMPLETED
130	AL FADLA	HOLLOWCORE SLABS FOR VILLA	COMPLETED
131	BUILDERS QATAR	HOLLOWCORE SLABS FOR VILLA	COMPLETED
132	FUTURE VISION	HOLLOWCORE SLABS	COMPLETED
133	ARABIAN ENGINEERING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
134	BAKSHISHA	HOLLOWCORE SLABS FOR VILLA	COMPLETED
135	AL ALI CAR PARK	ALIBIDDA CARPARK FOR HOLLOWCORE	COMPLETED
136	AL ALI ENGINEERING	KARANA VILLA PROJECT	COMPLETED
137	AL FADHALA	VILLA	COMPLETED
138	ABDELRAHMAN	VILLA	COMPLETED
139	QATAR MEGA BUILDING	VILLA	COMPLETED
140	AL ALI VILLA PROJECT	SALWA RESORT PROJECT	COMPLETED
141	FUTURE VISION	N/A	COMPLETED
142	AL SAAD CONTR.	ACCOMADATION	COMPLETED
143	FUTURE VISION	N/A	COMPLETED
144	AMJAD	VILLA	COMPLETED
145	Bplus CONSTRUCTION	VILLA	COMPLETED
146	AL ALI - ABU RASHID	MAJILIS ROOF	COMPLETED
147	CLEAR SPAN	STORE ROOF	COMPLETED
148	AL ETMAD GROUP	VILLA	COMPLETED
149	STROM CONSTRUCTIONS	STORE ROOF	COMPLETED
150	AL MANA TRADNING	VILLA	COMPLETED
151	SEG	GUARD ROOM	COMPLETED
152	IDEAL	VILLA	COMPLETED
153	JASR TRADING	ACCOMADATION	COMPLETED
154	SAAMI	HOLLOWCORE SLABS FOR VILLA	COMPLETED
155	AL ASALAH	MAJILIS ROOF	COMPLETED
156	ELITE	VILLA	COMPLETED
157	AL FADALA	VILLA	COMPLETED
158	AL SAFWA	HOLLOWCORE SLABS FOR MAJILIS	COMPLETED
159	CDCT	STORE ROOF	COMPLETED
160	JASR TRADING AND CONTRA	HCS FOR SCHOOL	COMPLETED
161	FUTURE VISION	HOLLOWCORE SLABS FOR MAJILIS	COMPLETED
162	HIFONG TRADING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
163	CAPITALY ENTERPRISE	HOLLOWCORE SLABS FOR MAJILIS	COMPLETED
164	ULTRACRETE	HOLLOWCORE SLABS FOR VILLA	COMPLETED
165	SATCO International	VILLA	COMPLETED
166	AL ABDULLA AL HUMAIDI	VILLA	COMPLETED
167	NASSER SHAWANI	VILLA	COMPLETED
168	Man Enterprise Qatar	CARPARK	COMPLETED



## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
169	INVESTMENT CONSTRUCTIO	HOLLOWCORE SLABS FOR MAJLIS	COMPLETED
170	AL RAED PROJECTS TRAD & CONTR	VILLA	COMPLETED
171	AL IKHTYAAR CONTRACTING	VILLA	COMPLETED
172	FORCECO TRADING & CONT	LABOUR ACCOMADATION	COMPLETED
173	AMICCO TRADING & CONTR	HOLLOWCORE SLABS FOR MAJLIS	COMPLETED
174	JASR TRADING AND CONTRA	LABOUR ACCOMADATION	COMPLETED
175	AL SAAD GENERAL CONTRA	TANK COVER	COMPLETED
176	CONDOR BUILDING	HOLLOWCORE SLABS FOR STORE ROOF	COMPLETED
177	QATAR INTERNATIONAL BUILDING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
178	ENGINEERING CO. W.L.L	HOLLOWCORE SLABS LABOUR CAMP	COMPLETED
179	MANFALLOUT TRADING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
180	CDCT	HOLLOWCORE SLABS FOR SOTRE FIRST FLOOR	COMPLETED
181	ACCACIA	HOLLOWCORE SLABS FOR MOSQUE ROOF	COMPLETED
182	CONSTRUCTION TECHNOLOGY TRADING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
183	BIN OJAN	HOLLOWCORE SLABS FOR VILLA	COMPLETED
184	SAEED AL KUWARI	HOLLOWCORE SLABS FOR MAJILIS ROOF	COMPLETED
185	QATAR INTERNATIONAL PRECAST	HOLLOWCORE SLABS FOR MOSQUE ROOF	COMPLETED
186	QATAR INERNATIONAL BUILDING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
187	ALBAWABA CONTRACTING	MOSQUE ROOF	COMPLETED
188	AL ALFIYAH CONTRACTING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
189	ENGINEERING CO. W.L.L	HOLLOWCORE SLABS FOR LABOUR CAMP	COMPLETED
190	QATARI CANADIAN ENERGY	HOLLWCORE SLABS	COMPLETED
191	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
192	QATAR INTERNATIONL BUILDING	HOLLOWCORE SLABS FOR VILLA	COMPLETED
193	MOHAMED ADULHADI	HOLLOWCORE SLABS FOR VILLA	COMPLETED
194	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
195	AL SAADANY TRADING	HOLLOWCORE SLABS FOR ROOF	COMPLETED
196	GREEN APPLE	HOLLOWCORE SLABS FOR MOSQUE	COMPLETED
197	MATAR BUMATAR	ST NO-08	COMPLETED
198	ALPHA GULF	AL QUATAIFIYA	COMPLETED
199	ULTRACRETE	BW	COMPLETED
200	FUTURE VISION	HOLLOWCORE SLABS	COMPLETED
201	NAZMUL AHMED	VILLA	COMPLETED
202	KCIC	VILLA	COMPLETED
203	CONDOUR	ROOF	COMPLETED
204	DEAD SEA	SCHOOL	COMPLETED
205	AL SAFWA	WATER TANK	COMPLETED
206	KAHRAMAN ENGINEERING	VILLA	COMPLETED
207	QATARI ENG TRAD&CONTR	MASJID	COMPLETED
208	BIN OJAN	MUITHER	COMPLETED
209	INVESTMENT CONSTR.	HOLLOWCORE SLABS	COMPLETED
210	QCON	HOLLOWCORE SLABS	COMPLETED
211	FORSCO TRAD&CONTR	ROOF	COMPLETED
212	QATAR HIGH SPEED	SCHOOL-THEMAID	COMPLETED
213	ACCACIA INTERNATIONAL	UMMSALAL ALI	COMPLETED
214	FORESCO	#STR 38	COMPLETED
215	ASH EEFMENT	HOLLOWCORE SLABS	COMPLETED
216	FORESCO	STREET 25	COMPLETED
217	QATAR INTERNATIONAL	ALKHOR	COMPLETED
218	AL BANDARY ENGINEERING	HOLLOWCORE SLABS	COMPLETED
219	CDCT	SAILIYA CAMP	COMPLETED
220	FORESCO	AL RAYYAN	COMPLETED

## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
221	AL SAFWA TRADING	VILLAGIO	COMPLETED
222	AL ALFIA	MOSQUE	COMPLETED
223	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
224	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
225	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
226	AL ALI ENGINEERING	ST. 43	COMPLETED
227	METALEX	NIA	COMPLETED
228	SALEM JABIR	SAILIYA	COMPLETED
229	ALI ABDULLA AL HEMAIDI	AL KHOR	COMPLETED
230	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
231	FORCECO	SAILIYA	COMPLETED
232	FORCECO	DUHAIL	COMPLETED
233	GULF BUILDING	AIN KHALID	COMPLETED
234	ARABIAN PENINSULA CONST	HOLLOWCORE SLABS	COMPLETED
235	GULF BEACH	DUHAIL	COMPLETED
236	AL SULTAN GROUP	HOLLOWCORE SLABS	COMPLETED
237	BURHAN TRADING	AL NASIRIYA	COMPLETED
238	GULF LAB	SLAWA ROAD	COMPLETED
239	AL BORYAN AL MARSOS	UMM BAB	COMPLETED
240	AL SAKIR TRADING	EX FACTORY	COMPLETED
241	FUTURE VISION	HOLLOWCORE SLABS	COMPLETED
242	AL RAHAA (AL AUTAYF)	AIN KHALID	COMPLETED
243	OTTAWA	HOLLOWCORE SLABS	COMPLETED
244	AL RAHAA (AL AUTAYF)	UMM SALAL ALI	COMPLETED
245	AL SAADANY TRAD&CONTR	NEW SAILIYA	COMPLETED
246	AL SAFWA	HOLLOWCORE SLABS	COMPLETED
247	BIN OUJAN	BANI HAJIR	COMPLETED
248	AL RABIYA`	BANI HAJIR	COMPLETED
249	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
250	SATURN INTERNATIONAL TRADING & CONTRACTING COMPAY	HCS Masjid DM5 Roof at Al Zubara	COMPLETED
251	EL BIN ALI COMPANY	AL RAYYAN	COMPLETED
252	CRC DORRA GROUP	HOLLOWCORE SLABS	COMPLETED
253	AL ALI	MASJID-MUITHER	COMPLETED
254	QATAR INTERNATIONAL BLDNG	UMM KAREN	COMPLETED
255	AL ALI ENGINEERING	Mechanical Room 8-DAHAB MOUNTAIN	COMPLETED
256	CDCT	SHAHANIYA	COMPLETED
257	ULTRACRETE	ASTON FCT-SUBSTN	COMPLETED
258	AL ALI ENG. (ABU RASID)	MUAITHER	COMPLETED
259	ULTRACRETE	ESHAAR	COMPLETED
260	AL ALI ENGI.	ST.01	COMPLETED
261	AL SAFWA	200 THK. (1 SLAB)	COMPLETED
262	DEAD SEA	HOLLOWCORE SLABS	COMPLETED
263	JABR AL NAIMI	AL JUMAILIA	COMPLETED
264	ULTRACRETE	SON VILLA	COMPLETED
265	DESERT LINE	TANK COVER	COMPLETED
266	SHAJI	SHAHANIYA	COMPLETED
267	GILF BEACH	DAFNA	COMPLETED
268	ULTRACRETE	WATER TANK	COMPLETED
269	BURHAN TRADING	MUAITHER	COMPLETED
270	NARM TRADING	EX FACTORY	COMPLETED
271	ALI AL OBAIDLY	AIN KHALID	COMPLETED
272	AL SAFWA	VILLAGIO	COMPLETED





## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
273	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
274	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
275	AL IKTHIYAR	BOSEDRA-RAYYAN	COMPLETED
276	ULTRACRETE (ESHAAR)	HOLLOWCORE SLABS	COMPLETED
277	SAQR TRAD & CONTR	HOLLOWCORE SLABS	COMPLETED
278	AL ALI ENGINEERING	PUMP ROOM	COMPLETED
279	ULTRACRETE (ESHAAR)	HOLLOWCORE SLABS	COMPLETED
280	ULTRACRETE (ESHAAR)	HOLLOWCORE SLABS	COMPLETED
281	ULTRACRETE (ESHAAR-Son Villa)	HOLLOWCORE SLABS	COMPLETED
282	AL ALI ENGINEERING	ST.51	COMPLETED
283	AL RAEDA	DUHAIL	COMPLETED
284	AL BANDARY ENGINEERING	UMMSALAL - DM-5	COMPLETED
285	AL RAEDA	UMMBAB	COMPLETED
286	IRONMOUNT TRADING	WOQUD PROJECT	COMPLETED
287	AL HASSAN	AL SHAKHAMA	COMPLETED
288	RED ROAD	HOLLOWCORE SLABS	COMPLETED
289	ULTRACRETE (ESHAAR)	HOLLOWCORE SLABS	COMPLETED
290	MAIS QATAR	INDST.AREA	COMPLETED
291	CONSTRUCTION TECHNOLOGY	WAJBA EXTENSION	COMPLETED
292	AL HUDA	ROOF	COMPLETED
293	QATAR INTERNATIONAL BLDNG	SAILIYA	COMPLETED
294	SAIED	UMSALAL ALI	COMPLETED
295	ULTRACRETE (BW PANEL)	HOLLOWCORE SLABS	COMPLETED
296	MAASA KHALID CEMENT(TANKCVR)	HOLLOWCORE SLABS	COMPLETED
297	QIP	MOSQUE-AINKHALID	COMPLETED
298	ULTRACRETE(ISHAR-WAREHOUSE)	HOLLOWCORE SLABS	COMPLETED
299	EXTRA TRADING & CONTRACTING	OUT MAJILIS	COMPLETED
300	GULF BEACH	SWIMMING POOL	COMPLETED
301	AL ALI ENGINEERING	150mm Thickness for Shk. Abu Rashid Villa at Umm Bab	COMPLETED
302	AKASIA TRADING Co.	AL DAAYEN	COMPLETED
303	ULTRACRETE(Mr.AHMED MANSOUR)	HOLLOWCORE SLABS	COMPLETED
304	AL ALI ENGINEERING	ACCOMODATION AT ST.38	COMPLETED
305	ABDULLAH SALEH S.M EIDA	HOLLOWCORE SLABS	COMPLETED
306	GULF CONCRETE PRODUCTS	HOLLOWCORE SLABS	COMPLETED
307	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
308	KHALIFA KHALIFA	HCS FOR VILLA AT AIN KHALED	COMPLETED
309	ULTRACRETE	EX FACTORY	COMPLETED
310	ABDUL AZIZ AL EMADI	4400mm HCS for Majlis at Al Shahnaya	COMPLETED
311	GULF CONCRETE PRODUCTS		COMPLETED
312	FORESCO	MAJILIS	COMPLETED
313	AL BANDARY ENGINEERING	Proposed Store Building at Al Mirqab Doha Souq	COMPLETED
314	CDCT	WOQUD PROJECT	COMPLETED
315	AL BANDARY ENGINEERING	HOLLOWCORE SLABS	COMPLETED
316	AL ALFIA (MOSQUE)	THUMAMA	COMPLETED
317	GULF BEACH	HOLLOWCORE SLABS	COMPLETED
318	AL ALI	MOMEN MAKKAH-TANK COVER	COMPLETED
319	AL BRAKAA DESIGN	OUT HOUSE	COMPLETED
320	AL HASBA	MOSQUE	COMPLETED
321	AL HUDA	ROOF @ UMMBAB	COMPLETED
322	ABDUL RAHMAN SAMOOR	HOLLOWCORE SLABS	COMPLETED
323	AL ALFIA (MOSQUE)	KARTHIYATH	COMPLETED
324	SOFCON	BANI HAJIR	COMPLETED



## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
325	RU'YU FOR BLDNG DEVELOPMENT	SUBSTATION	COMPLETED
326	AL BAVABA (MOSQUE)	UMM SALAL ALI	COMPLETED
327	ULTRACRETE	HOLLOWCORE SLABS	COMPLETED
328	AL ALI ENGINEERING	500MM hcs-ABU RASHID FARM - mukaynis	COMPLETED
329	ULTRACRETE	150mm-Ex-Factory	COMPLETED
330	AL BANDARY ENGINEERING	Doha 150mm 42m2-LPG Tank Cover	COMPLETED
331	ULTRACRETE	200MM - 00353	COMPLETED
332	ULTRACRETE	40N	COMPLETED
333	ULTRACRETE	265mm	COMPLETED
334	Al Safwa	P21701 Manufacture Marble factory- Cover for Fire Water Tank 320mm HCS	COMPLETED
335	Al Ali engineering	265mm Thickness for Well cover at Zekret 265mm 97m2 QTN00354	COMPLETED
336	Amaer Teba Trading contracting	HC for Bani Hajir Majlis	COMPLETED
337	Al Ali engineering	Salwa Resort Vaccum Plant	COMPLETED
338	Al Ali engineering	Al Shabeeb Villa 200	COMPLETED
339	CDCT	Wooqod Thumama	COMPLETED
340	Al Ali engineering	Street 46 150 and 200	COMPLETED
341	ULTRACRETE	150 and 265mm 1121-UC 4404-Ex-Factory	COMPLETED
342	Al Safwa	P21702 Manufacture- Cover for Fire Water Tank 320mm HCS for Qatar Stainless Steel factory	COMPLETED
343	CDCT	WOQOD FUEL STATION AT LUSAIL CITY FOX HILLS	COMPLETED
344	ULTRACRETE	40N OPC-Ex-Factory	COMPLETED
345	al ali engineering	Abu Tailah Farm	COMPLETED
346	AL BANDARY ENGINEERING	Lowa Jassim 160mm HCS for replacement of Broken	COMPLETED
347	cdct	3 nos substation	COMPLETED
348	Al Ali Engineering	Private Majlis Shamal 200 and 265mm HCS	COMPLETED
349	Energy Technical	new salata 265mm 135m2	COMPLETED
350	Al Sadanny	HCS 265mm Majlis at Ain Khalid	COMPLETED
351	Al Ali Engineering	HCS 200mm for salwa resort Chlorine water tank cover	COMPLETED
352	CDCT	HCS 265 Water Tank at al thumama	COMPLETED
353	SABEA READYMIX	Al Shamal Ready Mix Plant	COMPLETED
354	Sofcon	320 63lm at Hilal Majlis	COMPLETED
355	Al Ali Engineering	320 water tank st 25	COMPLETED
356	ULTRACRETE	200mm HCS 192m2 - exfactory	COMPLETED
357	SUKHPAL SINGH BACHAN SINGH	150 Ex-Factory 41m2	COMPLETED
358	Al Ali Engineering	Apartment rood building Alsaad 200mm approx 90	COMPLETED
359	Gulf Walls System Green Apple	HCS for Shiekh Khalifa Villa at Al Rayyan Murikh	COMPLETED
360	Al Muharam	Majlis	COMPLETED
361	Al Muharam	Labour Accomodation	COMPLETED
362	Arabilla	HCS for Construction of Restroom at Tchnical Training Center for Maintenece at Arms and Ammunition Army Camp at Sailiyah	COMPLETED
363	CONSTRUCTION DEVOLPMENT CONTARCTING & TRADING (CDCT)- 2	265mm HCS - WATER TANK FOR WOQOD FUEL STATION AT AL FROOSH	COMPLETED
364	AL BANDARY ENGINEERING	PG Storage Tank Cover at P190 Lowa Jassim	COMPLETED
365	Bu Saeed Trading & Contracting	hcs villa at al khore first floor HCS150 403m2 Labour Accomodation at Al Khore	COMPLETED
366	Condor	ISF Petrol Station	COMPLETED
367	al safwa	International Carpentry Factory	COMPLETED
368	al safwa	HC Cover for Fire Water Tank 200mm P21704 FAN AL KHASHAB - Industrial Area	COMPLETED
369	Gulf Walls System Green Apple	HCS for Shiekh Khalifa Villa at Al Rayyan Murikh Roof Part 2	COMPLETED
370	Al Gharabi	Majlis at al Rayyan 320HCS 214m2	COMPLETED



## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
371	Al Raha Trading	Majlis at ain Khalid 150 41 200 66 265 101	COMPLETED
372	Al Alfiya	Majlis 265mm	COMPLETED
373	AL ISHTIRAQ CONSTRCTION & CONTRACTING LTD	HCS for Proposed commercial &Office Building at Rawdat al Khail	COMPLETED
374	ULTRACRETE	150mm thickness HCS Al Marmani Partition-Ex-Factory	COMPLETED
375	ULTRACRETE	150 200 265mm HC Slab Thickness for substation and restroom - Ex-Factory	COMPLETED
376	ULTRACRETE	Shiekh Hamad Khaled Villa Complex G+1+Penthouse 265mm thickness	COMPLETED
377	Al Saadany	Majlis at Wukair	COMPLETED
378	Al Ikhtiyaar	HCS for Modification of Commercial Building at Al Rayyan	COMPLETED
379	G LITER	Hollowcore Slab for Majlis at Doha	COMPLETED
380	Hamad Al Kaabi	Villa HCS 200mm Thickness 81m2-Al Shamal Road Bridge Left	COMPLETED
381	Al Zohra Trading	HCS for Majlis Roof-Sailiyah	COMPLETED
382	Hoor Elgnan Trading	Hollowcore Slab 150mm for Majilis at Alkhilal	COMPLETED
383	CDCT	Hollowcore Slab 150mm S0038 Costruction of Underground Tank	COMPLETED
384	AL ALI ENGINEERING	ST.37 Industrial Area Food Material Store Labour Accomodation	COMPLETED
385	Salijnz Contracting	Hollowcore Slabs 320 mm for Majilis @ Al Zubara	COMPLETED
386	WORLD FRUIT CENTER	HCS for Labour Accomodation and Office Building -Al Mazroah	COMPLETED
387	Ultracrete	Group 1 water tank	COMPLETED
388	Falcon Trading	Majlis Roof at Bani Hajer 200mm 60m	COMPLETED
389	Al Arqoob Trading	Outhouse at bani hajer 200mm 125m	COMPLETED
390	Al Safwa	HCS for P21802 Egybel Aluminium and Glass Factory at NIA	COMPLETED
391	Makkah Intergrating Cont.Co.W.L.L	HCS FOR Underground Water Tank Cover	COMPLETED
392	Al Ali Engineering	150mm thick (SHK.ABU RASHID VILLA @ UMM BAB)-Kitchen, Store & Maid Room	COMPLETED
393	Artbetton	265mm HCS Majlis at Umm Salal EX-FACTORY	COMPLETED
394	Artbetton	200mm HCS Majlis at Muaither EX-FACTORY 72m2	COMPLETED
395	DEAD SEA	Villa 3 and Villa 4 at Al Rayyan 150mm = 188	COMPLETED
396	Ultracrete	400mm Ex Fctory	COMPLETED
397	A A Trading & Contracting Co. W.L.L.	HCS FOR EXTENSION OF PALACE ST HAZEM HAZEM AL MARKHIYAH	COMPLETED
398	Ultracrete	265 / 150 Ex-Factory Majlis Villa at Al Mamoura-Ex-Factory	COMPLETED
399	Al Ali Engineering	HCS for Shk. Abu Rashid Villa (Outhouse) at Umm Bab	COMPLETED
400	AL ALI ENGINEERING	HC for Labour Accomodation at Street 47 P066	COMPLETED
401	Artbetton	320 Thickness Stable Building at Jumailiya	COMPLETED
402	Artbetton	AB-008 Project 160mm -Ex-Factory	COMPLETED
403	DEAD SEA	Villa C at Al Rayyan 200mm 113	COMPLETED
404	Assembly Trading & Contracting -	HCS 150mm - Precast for villa pent house roof -at Al Ma'amora	COMPLETED
405	MOHAMMED DALWAR	Store Project - STREET 36	COMPLETED
406	Makka Trading	HCS For Villa Extension at Doha	COMPLETED
407	Al Itqan	Industrial Area Street 52	COMPLETED
408	Al Ali Engineering	Um Bab	COMPLETED
409	DEAD SEA	Hollow Core Slab for Villa A3 extention at Al Rayyan	COMPLETED
410	Artbetton	AB004 Project 160mm 500m2 18m2 20m2-Ex-Factory	COMPLETED
411	AL BORAQ CONSTRUCTION & RECONSTRUCTION	150 HCS	COMPLETED
412	DIL BAHADUR	150mm 15m2 plus trailer charge	COMPLETED
413	HASSAN MASHAL	HOLLOWCORE SLABS	COMPLETED
414	Artbetton	WATER TANK COVER	COMPLETED
415	SUKHPAL SINGH BACHAN SINGH	HOLLOWCORE SLABS	COMPLETED
416	Al Shehaar	Al Khore 150 thick	COMPLETED





## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
417	Al Ali Engineering	Hollowcore Slab for Traditional Building Restoration at Soaq Al Khor	COMPLETED
418	ARTBETON	Hollowcore Slab for Mosque at Al Khor Al Shamal Road Exit 40	COMPLETED
419	ARTBETON	HCS for Swimming Pool at Rawdat Al Hamam	COMPLETED
420	Al Ali Engineering	Strom Water Tank at Al Khor	COMPLETED
421	Al Seal	HCS Umm Guarn for Admin Bldg for Join rescue coordination	COMPLETED
422	Naser Bin Khalifa International	HCS for Majlis at Bani hajir	COMPLETED
423	Al Ali Engineering	Diwan Amiri for Masjid at Al Dafna	COMPLETED
424	Al Ikthyaar	HCS 150mm for Factory Building at New Industrial Area	COMPLETED
425	Artbeton	Guardroom AB0011	COMPLETED
426	Al Maski Trading	modification of guarage at Industrial Area 150mm thickness	COMPLETED
427	CONSTRUCTION ENGINEERING COMPANY	HCS Construction Of Majlis at Muaithier	COMPLETED
428	ULTRACRETE	160MM HCS PANEL- Ex-Factory	COMPLETED
429	AL SAADANY TRADING & CONTRACTING	HCS 150mm for Villa at Abu Sidra	COMPLETED
430	CONSTRUCTION DEVOLPMENT CONTARCTING & TRADING	150mm HCS WOQOD Fuel Station Extension North University at Wadi Al Banat Area P0073	COMPLETED
431	ALPHA GULF for construction & Development W.L.L.	Majlis Wakra -- Supply and Installation of HC Roof Slab	COMPLETED
432	ARTBETON	HCS FOR MAJLIS AT AL KHEESA NEAR IKEA	COMPLETED
433	Maghdeem Contracting & Trading -	HCS for Swimming Pool Roof at Al Khartiyath	COMPLETED
434	Ali Al Dosary	G+1+P Villa AT ENAZA	COMPLETED
435	ARTBETON	Roof MAJILIS AT KHARTHIYATH Ex-Factory	COMPLETED
436	DVAC	Mezzanine floor for Factory at New Industrial 200HC	COMPLETED
437	Al Bahara	HOLLOWCORE SLABS	COMPLETED
438	ARTBETON	Substation at Mekanis Ex-Factory	COMPLETED
439	Obied Ali Obied Rashed	Majlis at Al Wajba,Rayyan	COMPLETED
440	AL ALI ENGINEERING	Shk.Abu Rashid Majilis at Umm Bab	COMPLETED
441	SAAD AL KUWARI	OUT HOUSE AL SHAMAL EXT 83	COMPLETED
442	AL ALI ENGINEERING	p010 maintanance of garage 33	COMPLETED
443	KAWSARMIAH	Mauithar Ex-Factory	COMPLETED
444	AL HUDA	Sailiya	COMPLETED
445	AL ALI ENGINEERING	WATER TANK @ UMBAB EX FACTORY	COMPLETED
446	AL ALI ENGINEERING	RAWDATAL RASHEED	COMPLETED
447	AL ALI ENGINEERING	CAR SHOW ROOM PROJECT ACCOMODATION BUILDING- AL KHOR	COMPLETED
448	AL KHAYYAT CONTRACTING & TRADING	Hollowcore Slab 150 mm LPG Tank- Panorama Project.	COMPLETED
449	ISLAND SEA - EX FACTORY	HOLLOWCORE SLABS	COMPLETED
450	AL ALI ENGINEERING	MAJILIS at alkhor near souq	COMPLETED
451	ARTBETON	HOLLOWCORE SLABS	COMPLETED
452	MUSTAFA AL DEEB	HOLLOWCORE SLABS	COMPLETED
453	ARTBETON	HOLLOWCORE SLABS	COMPLETED
454	Saturn International Trading and Contracting Company	HCS for Work Shop Mezzanine Floor	COMPLETED
455	AL DABLAN TRADING & CONTRACTING	Precast Hollow Core Slab for Majlis at Sailiyah Project	COMPLETED
456	Athkar Trading and Contracting	HOLLOWCORE SLABS	COMPLETED
457	Amjad Al Arab	Hollowcore Slabs for Vehicle Workshop Offices Showroom and Accomodation for Berkat Al Awamer	COMPLETED
458	ARTBETON	320mm HCS for AB019 Project	COMPLETED
459	ARTBETON	200 hc	COMPLETED
460	AL RAEDA PROJECTS TRADING & CONT CO.	150mm HCS for Proposed two Storey Villa at Umm Salal Ali	COMPLETED
461	SOFTCON	Hollow core Slab 320 for Majilis at Luaib	COMPLETED

## MAJOR-RECENT/ONGOING PROJECT LIST

SL NO	CLIENT/CONTRACTOR	PROJECT NAME	STATUS
462	Al Hajri	Hollow core Slab 150 villa and penthouse- dukhan	COMPLETED
463	ADVANCE TECH TRADING	Hollowcore slabs 320mm thickness - sailiya	COMPLETED
464	ARTBETON	Hollowcore slabs 150mm majilis at binhajir- EX-FACTORY	COMPLETED
465	ARTBETON	Abu Hamour	COMPLETED
466	DEADSEA	HCS for Extension of Villa C and B at Al-Murekh	COMPLETED
467	RIHAN CONTRACTING	Hollowcore slabs Majilis at Umsalal ali.	COMPLETED
468	FALCON TRADING	Supply and Installation Hollow core Slab Proposed G+1+P Villa, Kitchen Block & Out Majilis at Al Kharthiyath	COMPLETED
469	Jasr Trading	HC Accomodation for Rayyan Water	COMPLETED
470	SHAMA EL TRADING / SHULAH COMPANY	Labour Accomodation Industrail area st.30	COMPLETED
471	AHMAD OTHMAN	Hollowcore slab at Rayyan	COMPLETED
472	AHMED MOHAMMED AL MOHANNADI	HCS OUT SIDE KITCHEN AT AL KHOR	COMPLETED
473	ULTRACRETE	HOLLOWCORE 265MM- EX-FACTORY	COMPLETED
474	KHALID AL SHAMARI	HOLLOWCORE SLAB 3 VILLA	COMPLETED
475	ABDULLAH AL MASHAFI	HOLLOWCORE 200MM AT MAUITHER	COMPLETED
476	LAMA TRADING	HOLLOWCORE AT AL RUWAIS	COMPLETED
477	AL ALI ENGINEERING	AMIRI GUARD PROJECT AT LUSAIL PROJECT	COMPLETED
478	MAKKAH INTEGRATION	PRINTING STORE FOR AL DAR	COMPLETED
479	Mr. JASSIM	HCS - MAJLIS @ UMMKARAN	COMPLETED
480	FALCON	HCS - VILLA AT UMMSALAL ALI	COMPLETED
481	AL ALI ENGINEERING	HCS - WALK WAY	COMPLETED
482	AL ALI ENGINEERING	HCS -COMMERCIAL BLDNG@ALKHOR	COMPLETED
483	MAKKAH INTEGRATION	HCS - FOOD STORE & SHOWROOM	COMPLETED
484	AL ALI ENGINEERING	HCS - ACCOMMODATION AT ST 38	COMPLETED
485	MODERN TOWN	HCS - SAILIYA	COMPLETED
486	AL ALSAAD GENERAL CONTR. W.L.L	HCS - QATAR ARMED FORCE PROJECT AT AL RAYYAN	COMPLETED
487	AL SEAL	HCS - GAS TANK	COMPLETED
488	Mr. JASSIM	HCS -MAJLIS AT DUHAIL	COMPLETED
489	MASS CREATE	HCS - VILLA @KHARTIYATH	COMPLETED
490	CEC	HCS -COMMERCIAL BLDNG	COMPLETED
491	AL ALSAAD GENERAL CONTR. W.L.L	HCS - QATAR ARMED FORCE PROJECT AT AL RAYYAN	COMPLETED
492	AL ALI ENGINEERING	HCS -MAJLIS @ALKHOR	COMPLETED
493	MIDMAC CONTR.	HCS -MASJID	COMPLETED
494	AMJAD AL ARAB	HCS - ACCOMMODATION	COMPLETED
495	AL FADALA	HCS - STORE AT INDUSTRIAL AREA	COMPLETED
496	AL ALI ENGINEERING	HCS - ACCOMMODATION AT ST 28	COMPLETED
497	AL JAHALMA TRAD	MAJLIS AT UMM SALAL	COMPLETED
498	ARABILLA TRADING	MOSQUE AT ABUHAMOUR	COMPLETED
499	CRAFTERS TRADING & CONTRACTING	MASJID AT AL RAYYAN	COMPLETED
500	ATPS	IMC PROJECT	COMPLETED
501	DANA AL KHALEEJ	MOSQUE AT GARAFFA	COMPLETED
502	AIROKEN ALMAMARY	HANGER AT ALGHOR	COMPLETED
503	SPACE EDGE- QHSP	IMAM HOUSE &MASJID AT LUSAIL	COMPLETED
504	MESOPOTAMIA for Genrl Contr	MOSQUE AT ABU HAMOUR	COMPLETED

# **11. COMPANY HEALTH & SAFETY MANUALS**

---

**SABEA HOLLOWCORE W.L.L.,**

**For Concrete Panels and Hollow core**

Landline: +974 44922452

Email: [sales@sae.com.qa](mailto:sales@sae.com.qa)

[www.sae.com.qa](http://www.sae.com.qa)



	<b>HEALTH AND SAFETY PLAN</b>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date: 01.03.2017
		Rev No 00

## Sabea Precast Factory Qatar

### Health and Safety Plan

REV NO	REV DATE	REASON FOR CHANGE	BRIEF DESCRIPTION OF THE CHANGES	EFFECTIVE DATE OF IMPLEMENTATION
00	01.03.2017	-	FIRST RELEASE	01.10.2017

	<h1>HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

## Table of Contents

1. SITE LOCATION DETAILS	3
2. SABEA SAFETY PLAN STRUCTURE	3
3. QUALITY, HEALTH, SAFETY & ENVIRONMENTAL POLICY	4
4. WORKPLACE HEALTH, SAFETY & ENVIRONMENT OFFICER	5
5. WORKPLACE HEALTH, SAFETY & ENVIRONMENT COMMITTEE HEAD	5
6. HEALTH, SAFETY & ENVIRONMENT COMMITTEE ORGANIZATION CHART	5
7. HEALTH, SAFETY & ENVIRONMENT COMMITTEE ROLES & RESPONSIBILITY	5
8. SAFETY HAZARDS AND CONTROLS	7
9. ENSURING PROPOSED CONTROL MEASURES ARE USED	12
10. HAZARD & RISK CONTROL MEASURES AND SAFETY REVIEW	12
11. SITE SAFETY RULES	13
12. DISCIPLINARY ACTION	13
13. EMERGENCY RESPONSE PLAN	14
14. INSPECTION OF EMERGENCY AND FIRST AID PROVISION	18
15. PROTECTION OF NON-WORKERS	19
16. SAFETY SIGNAGE	19
17. FIRE EXTINGUISHER CHART	22
18. RECORDS	22
	23

	<h1 style="text-align: center;">HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

## 1. SITE LOCATION DETAILS

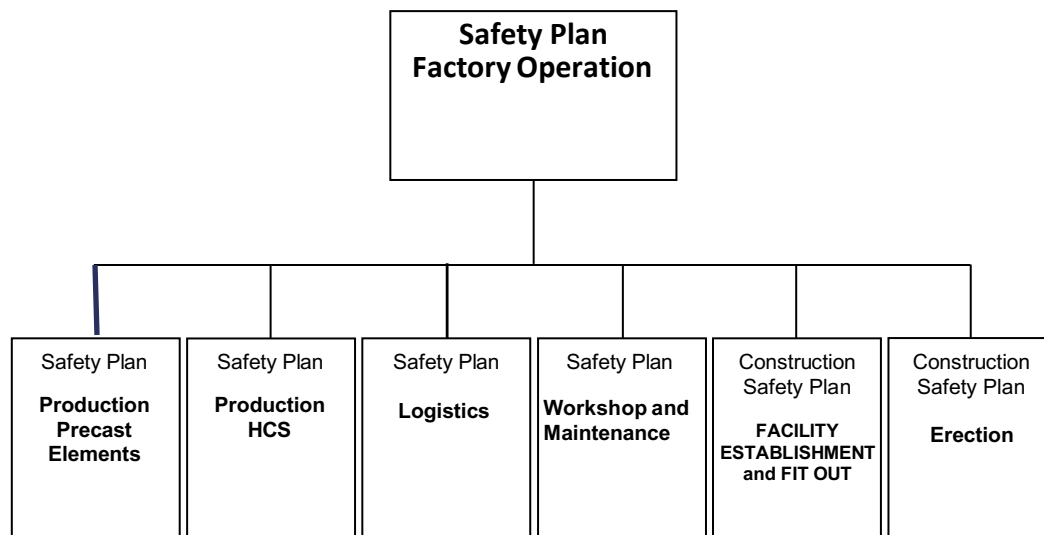
The Precast Facility site of the SABEA Hollow core Factory is located at the Industrial Area of Mesaieed. When operational, this facility will fabricate approximately 4,000 m<sup>3</sup> of precast concrete elements to be used for the construction market of Qatar.

The total area occupies approximately 28,500 m<sup>2</sup> and will comprise:

- Concrete batching plant and aggregate storage
- Production shed for various types of precast elements
- Production shed for HCS
- Steel reinforcement assembly facility
- Carpentry and fitter workshop
- Stockyard
- Office

The office address for the Union Precast Factory is Gabbro Area, Mesaieed Industrial City (P.O. Box. 1362, Doha, Qatar).

## 2. SABEA SAFETY PLAN STRUCTURE







Ref. No: SABEA/HSE/PO/02-R3

DATE: 01/05/2021

## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

### POLICY

SABEA HOLLOWCORE (SHC) is committed to achieve accident-free work place by encouraging its employees to adopt the best Safety practices among the industries to maintain an accident free and Healthy work environment.

To achieve the accident free and Healthy work environment, the Management adopts the following HE Management programs across the organization to excel in Health & Safety performance of the Organization.

- Provide visible and active leadership in regard to Health & Safety.
- Enhance the Safety awareness among the work force by imparting the Training to all.
- Identify, Control and monitor the hazards at work site during the course of project.
- Identify expected emergencies that may likely to occur during execution of project and get prepared with resources to tackle the expected emergency.
- Line Management is empowered to take all preventive measures to maintain the injury and ill health free work environment during the projects.
- Comply with all relevant legal and other requirements pertaining to Health & Safety.
- This policy is communicated to all levels of the employees, subcontractors, temporary employees, vendor, customer, visitors and subject to continual improvement during the course of time.
- The management of SABEA HOLLOWCORE is committed to implement maintain and continually improve an effective OH&S Management System in line with ISO 45001: 2018 International standards requirements.

HAMZAH KHALED AHMED ALSHARA

MANAGER (FACTORY)

SABEA HOLLOWCORE

- Tel. No.: +974 4478 6952 / 4492 2452 - PO. Box 9106 Gate No. 64 Street 39 INDUSTRIAL AREA Email ID: sales@aac.com.qa

#### 4. WORKPLACE HEALTH, SAFETY & ENVIRONMENT OFFICER

A Workplace Health, Safety & Environment Officer for Union Precast Factory is:

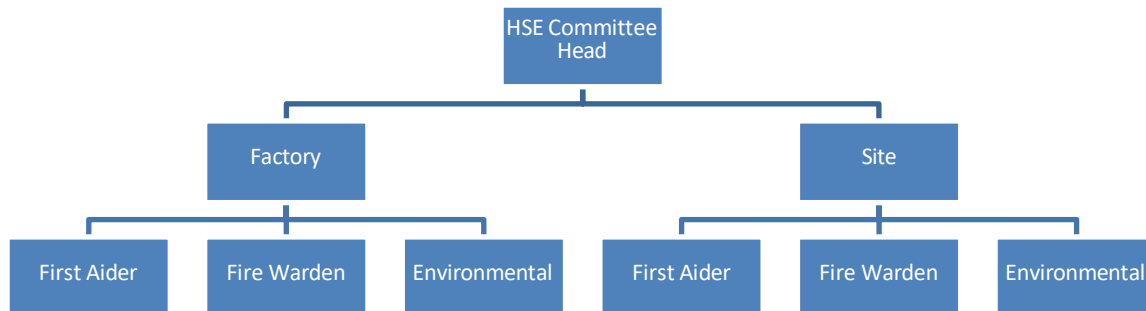
SL	CONTACT PERSON	DESIGNATION	CONTACT NUMBER
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625

#### 5. WORKPLACE HEALTH, SAFETY & ENVIRONMENT COMMITTEE HEAD

A Workplace Health and Safety Committee established for the precast facility and the HSE Committee Head as follows:

SL	CONTACT PERSON	DESIGNATION	CONTACT NUMBER
01	ENG. HAMAZAH KHALID ALSHARA	OPERATIONS MANAGER	30302723

#### 6. HEALTH, SAFETY & ENVIRONMENT COMMITTEE ORGANIZATION CHART



#### 7. HEALTH, SAFETY & ENVIRONMENT COMMITTEE ROLES & RESPONSIBILITY

**HSE Committee Head / HSE Manager**

- Ensure resources are provided to prepare, implement and review the HSE Plan.
- Approve the HSE Plan and any amendments to the HSE Plan.

	<h1 style="text-align: center;">HEALTH AND SAFETY PLAN</h1>		Doc. No. : SABEA-IMS-HSE-PLN-01
			Issue Date : 01.03.2017
			Rev No 00

- Approve reports of environmental issues and non-conformances to the Client in the regular reporting structure and when an issue arises.
- Control and monitor actions required by the HSE Plan.
- Ensure documented procedures are followed, and records kept on site, including waste disposal records.
- Take immediate action to fix/prevent continuation of an environmental incident.
- Ensure that recommendations from incident investigations are implemented
- Ensure any complaints or incidents are passed onto the Client within 24 hours of receiving the report.
- Liaise with the Project Manager's Environmental Representative to ensure variations to the scope or timing of the work that may impact on the environment are discussed and be point of contact for all environmental issues and reporting.

#### **HSE Officer**

- Conduct environmental site training (toolbox talks) and inductions.
- Ensure materials being used on the site are environmentally friendly and safe.
- Follow-up on corrective actions from environmental incidents investigations, inspections, audits and complaints, to ensure satisfactory completion.
- Conduct audits & inspections as required by the HSE Plan at work sites.
- Ensure the environmental safeguards and management measures in this HSE Plan are being implemented across the contract site.
- Communicate instructions or information (from the HSE Plan or the HSE Committee Member) to staff on site.
- Liaise with the HSE Committee Head to ensure variations to the scope or timing of the work that may impact on the environment are discussed, and be point of contact for all environmental issues and reporting.

#### **Emergency Preparedness and Response Team Member**

- Execute the Emergency Preparedness & Response Procedure in cases of emergency situation such as: In case of Fire, Earthquake, Oil & Chemical Spills, accidental releases of hazardous waste and explosion.
- Recommend corrective and preventive measures to the Safety Officer to improve the Emergency Preparedness and Response Procedure.

#### **Environment Resources Conservation Program Team Member**

- Attend weekly/monthly HSE tool box meeting & mock drill.
- Develop, recommend and implement water, fuel, paper & power savings program that set targets for lower consumption.
- Monthly monitoring the consumption of water, fuel, paper & power and analyse the trends of consumption.
- Recommend corrective and preventive measures to the HSE Committee Head & HSE Officer to minimize the resources consumption.

#### **First Aider**

- Attend weekly/monthly HSE tool box meeting & mock drill.
- As a first aider you are expected to respond to first aid emergencies within the limits of your training.



	<h1>HEALTH AND SAFETY PLAN</h1>		Doc. No. : SABEA-IMS-HSE-PLN-01
			Issue Date : 01.03.2017
			Rev No 00

- Render appropriate first aid and CPR until transportation of casualty to further medical care, if necessary.
- Be aware of the location of the nearest first aid box, its contents and the ensuring that the contents are replenished when necessary.
- Report incidents and actions taken on an Incident Report Form (IP14-IRF-01) and submit the same to the HSE Officer.

## Workers

- Attend weekly tool box meeting.
- Follow requirements as directed by the Site Foreman.
- Report any potential environmental incidents and complaints to the Site Foreman, including spilt oil, excess waste, excessive dust generation, dirty water running off the site.
- Report any potential environmental incidents or complaints to the Site Foreman, including spilt oil, excess waste, excessive dust generation, dirty water running off the site

## 8. SAFETY HAZARDS AND CONTROLS

The following safety process detail how construction safety risks will be managed in the Union Precast Factory:

- Hazard Identification – Risk Assessment (SABEA-IMS-HSE-FRM-01A)
- Job Safety Analysis (SABEA-IMS-HSE-FRM-17)

The day-to-day control of production safety risks will be undertaken via preparation, implementation and ongoing review of Job Safety Analysis JSA. Registered JSA will be used to control these documents and will be made readily available onsite.

JSA will be prepared specifically for each operation related task in the factory. JSA will be used as a safe work-planning tool and will also detail:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• JSA date, number and revision</li> <li>• Employer responsible for doing the work</li> <li>• Description of the work to be done</li> <li>• Step-by-step sequence of the work</li> <li>• Potential hazards associated with each work step</li> <li>• Provision to assess risk to safety</li> <li>• Safety and emergency controls to be implemented</li> <li>• Person responsible for supervising / controlling work</li> </ul> | <ul style="list-style-type: none"> <li>• Means for reviewing effectiveness of the safety controls</li> <li>• Reference to relevant safety legislation, codes or standards</li> <li>• Names and qualifications of persons supervising the work</li> <li>• Specific safety requirements e.g., “Hot work Permit”</li> <li>• Plant, equipment and power tools to be used</li> <li>• Training required to undertake the work</li> </ul> |
|---|--|

- Persons responsible for implementing safety controls
- ✓ The following table details key construction safety hazards associated with the precast facility site.
- ✓ This table will be subject to ongoing periodic review.
- Plant, equipment and work area safety inspections
- Name and signature of those employees involved in the work

Hazard	Associated Risk	Controls
Work at Height	<ul style="list-style-type: none"> <li>• Work at height during building / roof erection</li> <li>• Serious injury from falls</li> <li>• Crane operations / lifting loads / panels</li> </ul>	<ul style="list-style-type: none"> <li>• All elevating work platforms to subject to prestart inspection and appropriate for erection work</li> <li>• Fall protection measures to be used during erection work, installation of roofing panels in accordance with the WPH&amp;S regulations i.e. use of the following: <ul style="list-style-type: none"> <li>- Edge protection</li> <li>- Travel restraint system</li> <li>- Fall arresting platform</li> <li>- Fall-arrest harness system</li> <li>- Industrial safety net</li> <li>- other effective measures as appropriate</li> </ul> </li> <li>• Site induction training to address work at height requirements and associated safety controls</li> </ul>
Falling Objects	<ul style="list-style-type: none"> <li>• Serious injury from being struck by falling objects</li> <li>• Overhead workers (during structure erection)</li> <li>• Tools/ components not contained</li> </ul>	<ul style="list-style-type: none"> <li>• Induction training to address potential overhead hazards and associated safety controls such</li> <li>• All cranes subject to prestart inspection</li> <li>• All crane operations subject to review as part of associated JSA.</li> <li>• Inspections, hazard identification and correct procedures implemented e.g. exclusion zones implemented and being enforced</li> <li>• Ensure compliance with relevant JSA.</li> </ul>

## HEALTH AND SAFETY PLAN

Doc. No. : SABEA-IMS-HSE-PLN-01

Issue Date : 01.03.2017

Rev No 00

Power lines	<ul style="list-style-type: none"> <li>Electrocution / severe burns from contact with electrical cables</li> </ul>	<ul style="list-style-type: none"> <li>Installation of pelican strips, tiger tails or other highlighting material to be fixed to overhead cables</li> <li>Ensure compliance with relevant JSA.</li> <li>Induction training to address electrical cable hazards and associated safety controls such as use of signage and spotters</li> </ul>
Cleaning Batch Plant, Grinding, Drilling	<ul style="list-style-type: none"> <li>Asphyxiation if trenches/pits inundated with toxic fume or gas</li> <li>Engulfment</li> <li>Respiratory illness from dust inhalation</li> <li>Noise induced hearing loss from rock hammering without protection</li> </ul>	<ul style="list-style-type: none"> <li>All work areas to be adequately ventilated</li> <li>Work areas having potentially inadequate ventilation to be tested accordingly</li> <li>Induction training to safe excavation and associated safety controls e.g. – benching, shoring</li> <li>Ensure compliance with relevant JSA.</li> <li>Noise sampling to be undertaken to identify noise levels and possible noise attenuation or protection solutions</li> </ul>
Mobile Plant	<ul style="list-style-type: none"> <li>Serious injury from being struck by mobile plant</li> <li>Serious injury from being reversed over by mobile plan</li> </ul>	<ul style="list-style-type: none"> <li>Ensure compliance with SABEA Logistics work procedure</li> <li>Induction training to address all identified or potential traffic hazards and associated safety controls such as stop/go personnel, barricaded areas, signage, Hi-visibility PPE</li> <li>Signage to be erected outlining the safety requirements of the precast facility site (Required PPE; Visitors to report to Site office; Danger – Construction Site).</li> <li>Visitors to be escorted around site by an inducted person</li> <li>Machinery etc to slowly approach the footpath when exiting the site</li> <li>Ensure compliance with relevant JSA.</li> </ul>



Plant and Equipment	<ul style="list-style-type: none"> <li>• Serious injury from contact with Plant, equipment and/or machinery</li> <li>• Non-compliant plant, equipment or machinery</li> <li>• Visitors to site</li> <li>• Noise</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Plant, Equipment and Machinery procedure</li> <li>• Site Specific Induction training to address all identified or potential hazards and associated safety controls such as statutory compliance checks of plant, equipment and machinery.</li> <li>• All subcontractor plant, machinery or equipment to be assessed to ensure site safety compliance.</li> <li>• Only trained, competent and authorized personnel to operate machinery.</li> <li>• All electrical equipment to be tested and tagged.</li> <li>• All plant, equipment and machinery to be guarded where required.</li> <li>• Signage to be erected outlining the safety requirements of the precast facility site (Required PPE; Visitors to report to Site office; Danger – Construction Site).</li> <li>• Visitors to be escorted around site by an inducted person</li> <li>• Machinery etc to slowly approach the footpath when exiting the site</li> <li>• Ensure compliance with relevant JSA/WMSs</li> </ul>
Hazardous Substances	<ul style="list-style-type: none"> <li>• Exposure to potentially carcinogenic substances</li> <li>• Serious illness to respiratory or nervous system</li> <li>• Serious eye injury</li> <li>• Serious injury / illness to skin</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Hazardous Substances and Chemical work procedures</li> <li>• Induction training to address hazardous substance or chemical hazards &amp; associated safety controls such as correct usage in accordance with MSDSs, PPE etc.</li> <li>• Subcontractors to complete site notification form for any hazardous substance or dangerous goods being brought to site.</li> <li>• Ensure compliance with relevant JSA/WMSs</li> </ul>

## HEALTH AND SAFETY PLAN

Doc. No. : SABEA-IMS-HSE-PLN-01

Issue Date : 01.03.2017

Rev No 00

Manual Handling	<ul style="list-style-type: none"> <li>• Sprains and strains</li> <li>• Serious lower back injury</li> <li>• Musculoskeletal disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Manual Handling work procedures</li> <li>• Induction training to address manual handling hazards and associated safety controls such as mechanical lifting, team lifts, correct lifting techniques etc.</li> <li>• Ensure compliance with relevant JSA</li> </ul>
Exposure to Inclement Weather (Sun, Electrical storms, Ultraviolet (UV) Radiation	<ul style="list-style-type: none"> <li>• Skin cancer / melanoma</li> <li>• Heat Stress</li> <li>• Potential lightning strikes</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA site rules and regulations</li> <li>• Induction training to address working in inclement weather and the safety controls such as long sleeved shirts, trousers, Safety helmets with brims, 30+ sunscreen; Adequate fluid intake (4-6lts/day), shelter during electrical storms etc.</li> <li>• Ensure compliance with relevant JSA.</li> </ul>
Confined Spaces	<ul style="list-style-type: none"> <li>• Asphyxiation from exposure to toxic fume, gas or lack of oxygen</li> <li>• Engulfment (e.g. – trenches)</li> <li>• Explosions</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Confined Space work procedure</li> <li>• Induction training to address all confined space hazards and associated safety controls such as use of spotters, signage, communication, atmospheric testing etc.</li> <li>• Ensure compliance with relevant JSA.</li> </ul>
Housekeeping	<ul style="list-style-type: none"> <li>• Moderate to serious injury from tripping over or falling from lower levels</li> <li>• Slips, trips and falls</li> <li>• Fire hazard</li> <li>• Vermin</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Housekeeping procedure</li> <li>• Induction training to address all housekeeping requirements and housekeeping safety controls e.g. – Keep work areas clean and clear of debris</li> <li>• Ensure compliance with relevant JSA.</li> </ul>
Drug and Alcohol / Fatigue	<ul style="list-style-type: none"> <li>• Drug/Alcohol/fatigue affected workers</li> <li>• Potential for incident/accident to affected worker or others</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure compliance with SABEA Drug &amp; Alcohol procedures</li> <li>• Induction training to address Drug/Alcohol/Fatigue hazards and associated site safety controls such as random drug and alcohol testing.</li> <li>• Ensure compliance with relevant JSA.</li> </ul>

Atmospheric Contaminants	<ul style="list-style-type: none"> <li>Potential respiratory problems</li> <li>Community complaints</li> </ul>	<ul style="list-style-type: none"> <li>Ensure compliance with SABEA Environmental and Workplace Disease and Illness procedures</li> <li>Induction training to address specific site atmospheric hazards and controls such as watering, RPE (Dust mask).</li> <li>Ensure compliance with relevant JSA.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>Noise induced hearing damage / loss due to exposure to elevated noise levels.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure compliance with SABEA PPE procedures</li> <li>Induction training to address PPE requirements and site specific hazards e.g. – Specific areas or machinery/plant.</li> <li>Ensure compliance with relevant JSA.</li> </ul>

## 9. ENSURING PROPOSED CONTROL MEASURES ARE USED

**SABEA will ensure JSA are prepared for work undertaken and will:**

- Provide and maintain safe and healthy work environments
- See that adequate supervision is provided for direct and subcontracted works
- Provide and maintain safe plant and equipment
- Ensure the safe use, handling, storage and transport of substances
- Ensure JSA are complied with by relevant direct and subcontractor employees
- Providing adequate information, instruction and training

## 10. HAZARD & RISK CONTROL MEASURES AND SAFETY REVIEW

**Hazard Identification – Risk Assessment & Environmental Impact Assessment Procedure (SABEA-IMS-HSE-PRO- 01)** will be implemented to manage the ongoing review of work practices on the project not exceeding 6 months.

**This procedure details the process for the following types of safety reviews:**

- The need to determine the effectiveness and adequacy of existing risk controls.
- The need to respond to new hazards.
- The need to respond to changes within the organization,
- The need to respond to feedback from incident investigation, monitoring, emergency situations or results of emergency drills, changes in legislation, emerging occupational health issues.
- Changing diversity in the workforce including contractors.
- Proposed changes as a result of corrective and preventive actions.



	<h1>HEALTH AND SAFETY PLAN</h1>		Doc. No. : SABEA-IMS-HSE-PLN-01
			Issue Date : 01.03.2017
			Rev No 00

Incident review meeting will be held within 24 hours of any incidents and an Incident Reporting & Investigation Report (SABEA-IMS-HSE-FRM-07) required for all medical treatment injuries to personnel and MR takes the decision whether to investigate the incident reported. If the decision is to investigate, MR constitutes an investigation team to investigate & analyse the incident/accident. The investigation team includes minimum 3 personnel including representative from workers at the site of incident, HSE officer and OHS representative/workers representative. Investigation team being in the process of investigation within 24 hours from the time of event. Respective Manager/section in-charge can be included in the incident investigation for technical inputs.

## 11. SITE SAFETY RULES

- All personnel to carry a copy of Project ID Card or Stickers.
- Hazards or safety problems must be fixed immediately.
- Employees directly involved or having knowledge of an incident informs his/her immediate superior who then records the details of the event in the Incident Reporting (SABEA-IMS-HSE-FRM- 06) and submits the same to the HSE Officer.
- All personnel to use the toilet facilities provided.
- Unless operators have a full, clear and un-obstructed view, reversing plant/vehicles must have a spotter
- No work at height (> 2 metres) without fall protection (handrails, scaffold, safety harness, etc.)
- Seat belts must be worn in vehicles/machinery if provided
- Visitors – Must be accompanied by an inducted person at all times
- Store oxy; acetylene cylinders upright and secure
- JSA must be undertaken and signed off by all personnel involved, PRIOR to any job task being conducted on the site.
- PPE shall be worn as instructed and in accordance with site mandatory signage.
- The use of mobile phones on site is restricted; this includes no use of phones when operating plant and equipment or when in an area of potential risk, e.g. adjacent to road or construction traffic, work at height etc.
- No alcohol or drugs are allowed on site.

## 12. DISCIPLINARY ACTION

### All employees (staff and wage personnel)

While positive reinforcement of good safety culture is imperative across the project, the following process is required to effectively manage those individuals who do not support the SABEA approach to safety.

In incidents where our safety policy, instructions or procedures have been breached, we will in the first instance:

- discuss the matter with you to ensure you have a clear understanding of the breach and what you need to do to remedy the situation. We will also issue you with a verbal warning.

	<h1 style="text-align: center;">HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

**For a second breach we will:**

- Again, consult with you regarding the breach and remedial actions before issuing you with a written warning.

**For a third breach:**

- You will not be permitted to work in the factory again.

In cases of serious or willful breaches of safety the incident will be reported to the Factory Manager and you will be immediately instructed to leave and not return to the Factory.

Please note the procedure described above does not relieve you of any obligations required in your contract of employment.

### 13. EMERGENCY RESPONSE PLAN

**Emergency Response Plan (SABEA-IMS-HSE-FRM-11)** is prepared for the identified environmental and occupational health and safety related emergencies.

**ERP No. 01**

Emergency to be handled: In case of Fire

Responsibility for implementation of this ERP: HSE Committee Head /HSE Officer

Sl #	Response actions
1.	Pull the nearest fire alarm box in location (if available). Use any method to communicate to fellow workers/staff and trained fire fighters in the location
2.	Do not panic, Stop work immediately. Switch off all machines/Equipment.
3.	Close all valves and close all operations. Operate all safety vales if any
4.	If Inside building, shut all windows and shut all door behind after make sure that no one left in the room/shops.
5.	Leave the work site and gather in the designated assembly area
6.	OHS representatives & fire fighters to cross check the evacuation
7.	Move containers/cylinders from fire area if it is safe to do so. Damaged contained should not be handled by non-experts
8.	Wait there until the head count is finished. Do not return to the site unless told to do so by management.
9.	If there is a minor Fire/smoke then wear the breathing apparatus and use appropriate Fire extinguishers to arrest the fire.
10.	Try using the available fire extinguishers if it is safe to do so
11.	Use extinguishing agent suitable for type of surrounding fire (dry chemical or CO2). Use water vapor or for big fire

12.	If acetylene is supporting the fire, the flow should be stopped, Identify the source of the fire and shut off. Shut off electrical supplies & equipment and other mechanical and hot equipment. Use carbon dioxide extinguishers for acetylene fire.		
13.	Communicate to the civil defense and other external agencies by using the specified contact numbers (999) if fire seems beyond the control		
14.	If fire seems uncontrollable, DO NOT attempt to fight the fire. Use extinguishers only for personal safety.		
Sl. #	Action/activities	Responsibility	Supporting Equipment's
1.	Initiate alarms, provide warning	Any staff	Fire alarms
2.	Shut down Equipment	Operators	
3.	Use of Extinguishers	Trained staff (Fire Warden)	Fire extinguishers
4.	Communicating ext. agencies	HSE Committee Head / HSE Officer	Telecom

## ERP No.02

Emergency to be handled: **In case of Electric Shock**

Responsibility for implementation of this ERP: **HSE Committee Head /HSE Officer.**

Sl #	Response actions		
1	Do not touch a person who is in contact with an electric source.		
2	Switch off the electric breaker or mains to cut the supply of electricity.		
3	Move the person away from the equipment or electric source with the use of a non-conductive material (piece of wood, books, paper rolls or anything that is not metallic).		
4	If the person is still in shock, cover the person with a towel or blanket and sprinkle cold water on his/her face		
5	Immediately get in touch with any company First Aider.		
6	Call (999) for ambulance/emergency medical personnel if needed, and then assess the situation.		
7	Initiate Basic Life Support/CPR and continue, if deemed necessary, and to sustain life, until the arrival of emergency personnel.		
8	Do not move the individual unless absolutely necessary to protect life.		
Sl. #	Action/activities	Responsibility	Supporting Equipment's
1.	Providing first aid	Trained first aider	First aid kit
2.	External communication	HSE Committee Head / HSE Officer	Telecom



	<h1>HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

## ERP No. 03

Emergency to be handled: **In case of Medical Emergency (involving burns, injury, illness)**

Responsibility for implementation of this ERP: **HSE Committee Head /HSE Officer**

Sl #	Response actions		
1	If the injury/illness is life-threatening, CALL 999 first and then contact the available First Aider		
2	Do not move the individual unless absolutely necessary to protect life.		
3	Initiate Basic Life Support/CPR and continue, if deemed necessary, and to sustain life, until the arrival of emergency personnel.		
4	Communication must cover information like State the type of medical emergency, location of the victim(s)		
5	Stay on the phone until the 999 operator tells you to hang up		
6	Stay at the location of the emergency until the Emergency Medical Service arrives on the scene.		
Sl. #	Action/activities	Responsibility	Supporting Equipment's
1	Communication for external help	HSE Committee Head/ HSE Officer	Telecom
2	Initiating basic life support	Trained first aider	First aid Box

## ERP No. 04

Emergency to be handled: **In case of Heat Stress**

Responsibility for implementation of this ERP: **HSE Committee Head /HSE Officer**

Sl #	Response actions
	<b>HEAT CRAMP SYMPTOMS</b> ( <i>Painful spasms, usually in leg and abdominal muscles. Heavy sweating</i> )
1	Get the victim out to a cooler location. Lightly stretch and gently massage affected muscles to relieve spasm.
2	Give sips of up to a half glass of cool water every 15 minutes. Do not give liquids with caffeine or alcohol.
3	If nauseous, discontinue liquids.
	<b>HEAT EXHAUSTION SYMPTOMS:</b> <i>Heavy sweating and skin may be cool, pale or flushed. Weak pulse. Normal body temperature is possible but temperature will likely rise. Fainting or dizziness, nausea or vomiting, exhaustion and headaches are possible.</i>
1	Get victim to lie down in a cool place. Loosen or remove clothing. Apply cool, wet cloths. Fan or move victim to air-conditioned place.
2	Give sips of water if victim is conscious. Be sure water is consumed slowly. Give half glass of cool water every 15 minutes.

3	If nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention (ERP 03).		
	<i>HEAT STROKE SYMPTOMS: High body temperature (105+ F). Hot, red, dry skin. Rapid, weak pulse and rapid, shallow breathing. Possible unconsciousness. Victim will likely not sweat unless victim was sweating from recent strenuous activity.</i>		
1	Call 999 to get the victim to a hospital IMMEDIATELY. Delay can be fatal.		
2	Move victim to a cooler environment. Remove clothing.		
3	Try a cool bath, sponging or wet sheet to reduce body temperature.		
4	Watch for breathing problems. Use extreme caution. Use fans and air conditioners.		
Sl. #	Action/activities	Responsibility	Supporting Equipment's
1	External communications	HSE Committee Head & HSE Officer	Telecom
2	First aid	Trained first aiders	First aid box

## ERP No. 5

Emergency to be handled: In case of Oil/chemical spill

Responsibility for implementation of this ERP: HSE Committee Head /HSE Officer

Sl #	Response actions		
1.	Eliminate potential spark sources from the site, if any in case of oil spill		
2.	If possible and safe to do, identify and shut down/close source of the discharge to stop the flow		
3.	Cap the leak by using standard leak fixing tools.		
4.	Use suitable patch plug if the leak is from a crack from storage or transfer lines		
5.	In case if required, inform the matter civil defense by calling 999		
6.	Contain the discharge with trenches or sandbags		
7.	Based on the severity of the incident, management shall request assistance from a cleanup contractor or other response organization as necessary.		
8.	Contaminated sand/granules shall not be disposed of as general waste but shall be handled in accordance with the hazardous waste disposal procedure by approved contractors.		
Sl. #	Action/activities	Responsibility	Supporting Equipment's
1.	Response actions	EPRT Member	Leak fixing/patch plugs, sand bags, shovels
2.	External / Internal communication	HSE Committee Head & HSE Officer	Telecom

	<h1 style="text-align: center;">HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

## Evacuation

In the event of an emergency all persons are to assemble at the designated muster points of the site.

## Medical Emergency

In a medical emergency, dial 999 or, Ambulance 999 and provide the following details:

- Your name
- Site address or incident, Gabbro Area, Mesaieed
- Type of emergency (e.g., Fire, accident)
- Type of injuries
- Approximate number of casualties
- Any relevant site hazards or hazardous substances involved

## Notes:

- Let the operator hang up first;
- Escort must be sent to gate to meet emergency services

## 14. INSPECTION OF EMERGENCY AND FIRST AID PROVISION

Any person sustaining an injury onsite must seek first aid treatment and complete a Work Injury Register Record Form.

- a. Inspection of Emergency and First Aid Provisions
- b. Evacuation sirens, emergency communication and other emergency equipment will be subject to periodic testing once installed.
- c. Firefighting equipment will subject to regular safety inspections undertaken by SABEA Safety Department. Firefighting equipment will also be subject to 6 monthly inspections by an authorized firefighting equipment contractor who will re-stamp equipment tags accordingly.
- d. First aid equipment and supplies will be subject to regular inspection by SABEA Safety Department.
- e. The nominated first aider and SABEA Safety Department will be responsible for ensuring adequate first aid supplies are maintained.

## First Aiders

The site is equipped with a First Aid Room. If any person requires first aid assistance, then notify your supervisor or the site First Aiders below.

SL	NAME	DESIGNATION	CONTACT #:
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625



	<h1 style="text-align: center;">HEALTH AND SAFETY PLAN</h1>	Doc. No. : SABEA-IMS-HSE-PLN-01
		Issue Date : 01.03.2017
		Rev No 00

## Fire Wardens

The company provides well trained Fire Wardens on Factory and Project Sites to avoid harm to the workers and damage to properties if fire occurs.

## Fire Fighting Equipment

Hose reels can be found in Production sheds and Office block.

There are a number of portable extinguishers located throughout the Site. On site, Dry Chemical Extinguishers (DCP) will be located on all mobile plant.

The main office contains a number of DCP and Carbon Dioxide (CO<sub>2</sub>) extinguishers.

SL	NAME	DESIGNATION	CONTACT #:
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625

## 15. PROTECTION OF NON-WORKERS


A boundary wall will be installed around the entire site. All site access gates will be secured and locked when the site is not operational.







Appropriate safety signage will be also installed for the protection of site employees and members of the public with regard to any traffic or construction related hazards.





Provision will be made to ensure the safe entry and exit of construction plant and vehicles by the Guard when required.

## 16. SAFETY SIGNAGE

The Factory will have (but not be limited to) the following safety signage:

List of Signage		
Item No.	Descriptions	Signage
1	Danger Site Entrance	

2	Danger High Voltage	
3	Walk ways	
4	Danger Overhead Crane	
5	Caution – Forklift Traffic	
6	Danger High Voltage	
7	No Forklift	

8	No Unauthorized entry	
9	Fire Exit	
10	FE – For use on any fire	
11	<b>Site Safety Sign</b> <ul style="list-style-type: none"> <li>• Construction work progress</li> <li>• Mask Required</li> <li>• Unauthorized entry on this site is strictly forbidden</li> </ul>	



## 17. FIRE EXTINGUISHER CHART

Type	Old Code	BS EN 3 Colour Code	Fire Class
Water	Signal Red	Signal Red	A
Foam	Cream	Signal Red with a cream panel above the operating instructions	A B
Dry Powder	French Blue	Red with a Blue panel above the operating instructions	A, B, C
Carbon Dioxide	Black	Red with a Black panel above the operating instructions	A(limited) B
Halon	Emerald Green	No longer produced - illegal in the UK	A
Wet Chemical	Not in use	Red with a Canary Yellow panel above the operating instructions	A,F
Special Powders	French Blue	Red with a Blue panel above the operating instructions	D

## 18. RECORDS

All records relevant to above HSE Plan shall be kept by the Safety Officer in the Factory/Site office for the duration and achievement of project. To be filed, archived and kept for a period of 6 years.

# Sabea Hollow core factory Qatar

## Environmental Management Plan

### Factory Operation

ACTIVITY	ROLE / NAME	DATE	SIGNATURE
Preparation	HSE OFFICER	01.03.2017	
Review	MR/MA	20.09.2017	
Approved	OPERATIONS MANAGER	30.09.2017	

#### REVISION HISTORY

REV NO	REV DATE	REASON FOR CHANGE	BRIEF DESCRIPTION OF THE CHANGES	EFFECTIVE DATE OF IMPLEMENTATION
00	01.03.2017	-	FIRST RELEASE	01.10.2017

## ABBREVIATIONS

EMP	Environmental Management Plant
PPE	Personal Protective Equipment
MR	Management Representative
HSE	Health, Safety & Environment
JSA	Job Safety Analysis
HCS	Hallow Core Section
MIC	Mesaieed Industrial City
MOE	Ministry of Environment
MSDS	Material Safety Data Sheet
DCE	Dry Chemical Extinguisher
UV	Ultra Violet
EWMS	Environmental Work Method Statement
EHS	Environmental Health and Safety



## Table of Contents

<b>1. INTRODUCTION.....</b>	<b>4</b>
<b>2. SITE LOCATION DETAILS.....</b>	<b>4</b>
<b>3. ENVIRONMENTAL ASPECTS AND IMPACTS.....</b>	<b>4</b>
<b>4. ENVIRONMENTAL MEASURES.....</b>	<b>5</b>
<b>5. QUALITY, HEALTH, SAFETY &amp; ENVIRONMENTAL POLICY .....</b>	<b>9</b>
<b>6. ROLES AND RESPONSIBILITIES .....</b>	<b>10</b>
<b>7. ENVIRONMENTAL MONITORING PROGRAM .....</b>	<b>11</b>
<b>8. ENVIRONMENTAL INCIDENT REPORTING AND EMERGENCY RESPONSE.....</b>	<b>12</b>
<b>9. TRAINING AND ENVIRONMENTAL AWARENESS .....</b>	<b>16</b>
<b>10. AUDITING .....</b>	<b>17</b>
<b>11. RESPONSE TO NON-CONFORMANCE .....</b>	<b>17</b>

## 1. INTRODUCTION

This Environmental Plan was prepared by Sabea Hollow core factory - Qatar in compliance with the Mesaieed Industrial City (MIC) requirements in the issuance of Environmental Permit for the Ministry of Environment (MOE).

Sabea Hollow core factory Qatar is a certified ISO 14001:2004 Standard. Our environmental policy is in line with the policies of the forming entities and in full compliance with ISO 14001:2004 standard series requirements. The proposed procedures are audited either internally or by independent internationally recognized auditors.

The Environmental Management Plan (EMP) for Sabea Hollow core factory - Qatar (SHC) identifies the principles, approach, procedures and methods that will be used to control and minimize the environmental and social impacts of all production and operational activities associated with the project.

## 2. SITE LOCATION DETAILS

The Precast Facility site of the Union Precast Factory is located at Gabbro Area, at the Industrial Area of Mesaieed. When operational, this facility will fabricate approximately 4,000 m3 of precast concrete elements to be used for the construction market of Qatar.

The total area occupies approximately 28,500 m2 and will comprise:

- Concrete batching plant and aggregate storage
- Production shed for various types of precast elements
- Production shed for HCS
- Steel reinforcement assembly facility
- Carpentry and fitter workshop
- Stockyard
- Office

The office address for the Sabea Hollow core factory is Mesaieed Industrial City (P.O. Box 1362, Doha, Qatar).

## 3. ENVIRONMENTAL ASPECTS AND IMPACTS

IMPACT AGENT	ISSUE	IMPACT
Production/Fabrication, grinding, drilling, clearing & crane lifting	<ul style="list-style-type: none"> <li>• Noise Creation</li> <li>• Dust Creation</li> <li>• Domestic waste (garbage, debris, human waste, etc.)</li> <li>• Clearing</li> </ul>	<ul style="list-style-type: none"> <li>• Impact to neighboring facilities.</li> <li>• Decreased air quality can impact construction workers, local villagers and surrounding environment</li> <li>• Impact to ecosystems (water, soils, vegetation, etc.).</li> <li>• Dust and debris created during transportation of materials; abandonment of borrow pits.</li> <li>• Gas emissions and particulate matter decrease air quality</li> </ul>

	<ul style="list-style-type: none"> <li>Vehicle and equipment use</li> </ul>	
Site excavation, erection, levelling & crane lifting	<ul style="list-style-type: none"> <li>Noise Creation</li> <li>Dust Creation</li> <li>Road Traffic</li> <li>Accidents and unplanned events</li> <li>Domestic waste (garbage, debris, human waste, etc.)</li> <li>Site clearing</li> <li>Vehicle and equipment use</li> </ul>	<ul style="list-style-type: none"> <li>Impact to local villagers, &amp; neighbouring facilities.</li> <li>Decreased air quality can impact construction workers, local villagers and surrounding environment.</li> <li>Dust creation; increased road traffic; noise and vibration.</li> <li>Increased risk to personal health and safety during erection activities.</li> <li>Impact to ecosystems (water, soils, vegetation, etc.).</li> <li>Dust and debris created during transportation of materials; abandonment of borrow pits.</li> <li>Gas emissions and particulate matter decrease air quality.</li> </ul>
Office works	<ul style="list-style-type: none"> <li>Increased demand on usage of resources (e.g. paper, cleaning agents, etc.)</li> <li>Domestic waste (garbage, debris, human waste, etc.)</li> <li>Electricity and water consumption</li> </ul>	<ul style="list-style-type: none"> <li>Increased waste materials; impact to environment.</li> <li>Impact to ecosystems; increased waste materials.</li> <li>Increased water &amp; energy consumption.</li> </ul>

## 4. ENVIRONMENTAL MEASURES

### 4.1. WASTE MANAGEMENT MEASURES

The below Waste Management Measures shall be implemented at the factory and project sites.

- Identify opportunities for “cut and fill” operations within the factory/project site, to reduce excess materials being disposed of at landfill.
- Purchase materials in the exact quantity required for the production and erection, to minimize unused leftovers.
- Purchase materials that have the least amount of packaging, to minimize packaging thrown out.
- Reuse materials where possible.



- Confine all activities, equipment and waste storage to the allocated site boundary.
- Separate production and erection waste on site into separate streams to facilitate recycling of metals, concrete, recyclable plastics, paper/ cardboard, earth and rock, timber, liquid waste, hazardous waste, litter and food scraps.
- Place waste disposal containers in a designated area for the different waste streams and remove from site when the container is full.
- Place litter bins with lids at all locations where food is consumed or litter is produced (e.g., plastic wrapping, bags) and empty the bins daily to a central container that is removed from site when it is full.
- Provide plastic liners in waste bins near canteen, mess or kitchen areas.
- Cover and/or surround by a screen mesh fence all temporary waste stored on-site to prevent it being wind-blown across the site and into waterways and adjacent property.
- Collect waste from the site every time there is one full load of waste generated for removal.
- Dispose of all waste to appropriately licensed waste disposal or recycling facilities.
- Rinse, store and dispose of empty pesticide containers in accordance with the relevant EWMS and MSDS;
- Transport and recycle or dispose of environmentally hazardous waste materials in accordance with EHS guidelines.
- Do not dump waste on land not within a registered landfill area.
- Waste storage records: record the location of waste stockpiles on site layout plans to assist decommissioning soil contamination investigation (e.g., including location of bins, type of waste).
- Waste disposal records: maintain records of all waste removed from the site (eg including Receipts from the landfill/waste facility, date, vehicle registration and contractor, type of waste, destination, and transport contractor).

## 4.2. AIR QUALITY MANAGEMENT MEASURES

- Maintain all equipment, machinery and vehicles in good working condition at all times to ensure safe operation, with minimal emissions and smoky exhausts. This applies to buses used for transporting laborer's to site, as well as earthmoving equipment and other vehicles.
- The continuous operational internal combustion engines such as electrical generators must be operated by low sulfur fuel only. The engines have to be checked regularly to meet the emission requirements. The exhaust fumes must be discharged at elevated level to reduce the emission concentration at ground level. The HSE Officer must check regularly the workplace air quality in the vicinity of that equipment.
- Water dirt roads and unsealed work areas as required reducing dust emission.
- An adequate water supply must be available for dust suppression.
- Minimize dust generation from storage and mixing of bulk landscaping raw materials but reducing wetting stockpiles as needed, and reducing the drop height of the machinery buckets to the ground/stockpile (i.e., operator awareness);

- Cover truck loads with a sheet or tarpaulin to stop dust.
- Ensure trucks carrying soil, waste, landscaping raw materials or the like are not filled closer than 0.3 meters of the top of the truck's tray walls.
- Reduce vehicle speeds to 20km/hr on dirt roads, to minimize dust.
- Cover all stockpiles / store within designated bays to stop dust being blown from the stockpiles.
- Do not burn waste on the site.
- Carry out painting, abrasive blasting, metal cutting, grinding or welding within an enclosed and ventilated area with a ground sheet or sealed surface, wherever possible, to limit overspray or the discharge of volatile substances, fumes and dust/grit suspension into the open air.
- Store diesel, oil, paint, thinners and other chemicals being used on the site in minimum quantities and store in a manner that prevents any odors and potential contamination/safety risks as per the relevant MSDS.

#### **4.3. GROUND & SURFACE WATER QUALITY MANAGEMENT MEASURES**

- Septic wastewater can only be discharged into the sewer system or should be collected and transferred into the Wastewater Treatment Plant of Doha.
- Do not pump or drain water containing suspended materials, dangerous waste or volatile materials, such as mineral spirits, oil or paint thinner into the storm water drains, sewers.
- Store diesel, oil, paint, thinners and other chemicals being used on the site in minimum quantities and store in a manner that prevents any potential water contamination/safety risks as per the relevant MSDS.
- All refueling on site will be done in accordance with an EWMS.
- Install and maintain toilets and washing facilities as a priority, so that workers always have convenient access to correctly plumbed ablutions.
- Undertake post-operation cleaning of all machines and heavy equipment such as concrete mixers, truck washing, etc. within a specified washing area that is paved to prevent groundwater, surface water or soil contamination.
- Construct temporary toilet facilities on a concrete slab, which is designed to drain to the septic tank. Inspect all plumbing on a daily basis and maintain as required to prevent leakage.
- Remove septic waste at an adequate frequency, daily, if necessary, to prevent overflow leakage of material from septic tanks.
- Drain all liquid sanitary facilities to a centralized and containerized collection system (septic tanks) that is inspected by the HSE Officer to ensure that all tanks are free of cracks and damage.

#### **4.4. NOISE MANAGEMENT MEASURES**

The noise and vibration emission is one of the most troubling environmental impacts on the residents, since the human sensing organs can detect it without any technical aid. Due to this fact it is essential to apply all the technical measures to reduce the noise and vibration emission and reducing the impact on the protected surfaces. The HSE Officer shall regularly checks the noise emission sources and intervenes when any non-conformity is identified.

- Provide noise attenuation screens around generators or other heavy plant, if working adjacent to residential or other sensitive receivers.
- Limit working hours to local/client agreements
- Maintain all equipment, machinery and vehicles in good working condition at all times to ensure minimal operational noise.
- Fit all equipment, machinery and vehicles with mufflers to reduce operational noise.
- Unnecessary idling, revving or inappropriate use of equipment is prohibited.

#### **4.5. TRAFFIC MANAGEMENT MEASURES**

- Schedule deliveries to the site so that the disruption to traffic is minimized (e.g., early morning or out of peak hours).
- Provide information on the routes to all drivers.

#### **4.6. OFFICE MANAGEMENT MEASURES**

- All personnel must use all the resources effectively & efficiently to minimize waste and energy consumption.
- All personnel are encouraged to implement responsible procurement.
- As much as possible, all personnel must use recycled products.
- Purchase products and materials that are efficient to minimize energy, water and resource use.
- Implement a simple housekeeping measure in the workplace that will produce cost savings and energy savings to benefit the environment.
- Reduce impact of printing and photocopying that will also reduce the use of paper.
- Turn off computers, lights, air conditioning units, office machines & equipment when not in use.
- When printing, don't use full color unless necessary. Lighter copies use less toner and that means less cost for you and less toxins on the paper when it eventually gets recycled.
- Use energy efficient bulbs instead of standard light bulbs.
- Turn off machines or equipment when not in use.
- Throw all garbage/waste in the trash bins.
- Hazards or safety problems must be fixed immediately.



- All personnel to use the toilet facilities provided.
- All personnel are encouraged to keep their workplace clean and orderly.

## 5. QUALITY, HEALTH, SAFETY & ENVIRONMENTAL POLICY



Ref. No: SABEA/HSE/PO/02-R3

DATE: 01/05/2021

### OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

#### POLICY

SABEA HOLLOWCORE (SHC) is committed to achieve accident-free work place by encouraging its employees to adopt the best Safety practices among the industries to maintain an accident free and Healthy work environment.

To achieve the accident free and Healthy work environment, the Management adopts the following HSE Management programs across the organization to excel in Health & Safety performance of the Organization.

- Provide visible and active leadership in regard to Health & Safety.
- Enhance the Safety awareness among the work force by imparting the Training to all.
- Identify, Control and monitor the hazards at work site during the course of project.
- Identify expected emergencies that may likely to occur during execution of project and get prepared with resources to tackle the expected emergency.
- Line Management is empowered to take all preventive measures to maintain the injury and ill health free work environment during the projects.
- Comply with all relevant legal and other requirements pertaining to Health & Safety.
- This policy is communicated to all levels of the employees, subcontractors, temporary employees, vendor, customer, visitors and subject to continual improvement during the course of time.
- The management of SABEA HOLLOWCORE is committed to implement maintain and continually improve an effective OH&S Management System in line with ISO 45001: 2018 International standards requirements.

HAMZAH KHALED AHMED ALSHARA

MANAGER (FACTORY)

SABEA HOLLOWCORE

- Tel. No.: \*974 4478 6952 / 4492 2452 - P.O. Box 3106 Gate No. 64 Street 39 INDUSTRIAL AREA Email ID: sales@soc.com.qa

## 6. ROLES AND RESPONSIBILITIES

This section describes the organizational structure and responsibilities for implementation of the EMP.

- WORKPLACE HEALTH, SAFETY & ENVIRONMENT OFFICER

*A Workplace Health, Safety & Environment Officer for Sabea Hollow core Factory is:*

SL	CONTACT PERSON	DESIGNATION	CONTACT NUMBER
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625

- WORKPLACE HEALTH, SAFETY & ENVIRONMENT COMMITTEE

*A Workplace Health, Safety and Environment Committee will be established for the Precast facility and is structured as follows:*

SL	CONTACT PERSON	DESIGNATION	CONTACT NUMBER
01	ENG. MOHAMMAD HAMZA ALSHARA	OPERATIONS MANAGER	30302729

The following table outlines environmental responsibilities of various positions within the Project Team. The position titles are intended to be generic terms to reflect generalized project roles.

TITLE	RESPONSINILITY
Operations Manager	<ul style="list-style-type: none"> <li>Approve the EMP and any amendments to the EMP.</li> <li>Ensure compliance with regulatory and corporate requirements that apply to the project or activity.</li> <li>Approve reports of environmental issues and non-conformances to the Client in the regular reporting.</li> <li>Ensure that environmental issues related to the project or activities have been considered in the planning process to minimize environmental risks and impacts. Ensure sufficient resources are provided to prepare, implement and review the EMP.</li> <li>Control and monitor actions required by EMP.</li> <li>Ensure that recommendations from incident investigations are implemented.</li> <li>Ensure documented procedures are followed, and records kept on site, including waste disposal records.</li> <li>Ensure any complaints or incidents are passed onto the Client within 24 hours of receiving the report.</li> <li>Fulfil all environmental and social conditions associated with project approvals.</li> </ul>
HSE Manager	<ul style="list-style-type: none"> <li>Prepare, review and update the CEMP.</li> <li>Liaise with the Environmental Representative to ensure variations</li> </ul>

	<ul style="list-style-type: none"> <li>to the scope or timing of the work that may impact on the environment are discussed, and be point of contact for all environmental issues and reporting.</li> <li>Conduct environmental site training (toolbox talks) and inductions</li> <li>Follow-up on corrective actions from environmental incidents investigations, inspections, audits and complaints, to ensure satisfactory completion.</li> <li>Conduct audits &amp; inspections as required by the EMP at work sites.</li> <li>Develop, promote and foster a shared sense of responsibility for environmental and social performance of the project.</li> <li>Provide feedback for continual improvement in environmental performance.</li> </ul>
Project Manager	<ul style="list-style-type: none"> <li>Report all environmental issues to the Environmental Manager and Operations Manager.</li> <li>Take immediate action to fix/prevent continuation of an environmental incident.</li> <li>Ensure the environmental safeguards and management measures in this EMP are being implemented across the contract site</li> <li>Report all environmental incidents and complaints to the Site Safety Team and Environmental Manager.</li> <li>Communicate instructions or information (from the EMP or the HSE Officer) to staff on site.</li> </ul>
Production Head	<ul style="list-style-type: none"> <li>Ensure materials being used on the site are environmentally friendly and safe.</li> <li>Promote environmental awareness and understanding among workers through training, identification of roles and responsibilities towards environmental and social management and linking project performance to overall environmental performance.</li> </ul>
HSE Officer	<ul style="list-style-type: none"> <li>Assist in the implementation of health, safety and environment plan.</li> <li>Ensure that site, production area and workers conditions are monitored in accordance with the QHSE Plan.</li> <li>Ensure safety, cleanliness and orderliness in the workplace.</li> </ul>
QA/QC Officer	<ul style="list-style-type: none"> <li>Ensure that materials used are safe and environment friendly.</li> <li>Ensure that proper procedure/method in the production and deliveries are implemented.</li> </ul>
Batch Plant Operator	<ul style="list-style-type: none"> <li>Ensure that materials used are properly used and disposed.</li> <li>Ensure proper handling of cement mixers &amp; batching plant.</li> </ul>
Office Staff	<ul style="list-style-type: none"> <li>Ensure that resources (e.g. paper, toners, etc.) used are properly used and disposed.</li> </ul>
Workers	<ul style="list-style-type: none"> <li>Follow requirements as directed by the Site Foreman.</li> <li>Report any potential environmental incidents and complaints to the Site Foreman, including spilt oil, excess waste, excessive dust generation, dirty water running off the site.</li> </ul>

## 7. ENVIRONMENTAL MONITORING PROGRAM

Continued site monitoring of production and erection practices and workers activities shall be carried out by supervisory staff (e.g., Foreman, Site Engineer, etc.) and HSE Officer.



Daily documented environmental inspections will be carried out by the HSE Officer to monitor compliance with EMP and any relevant environmental requirements and must be kept on file. Inspection template attached.

Corrective actions must be recommended, with responsible person and timeframes for completion of action assigned where situations exist that may give rise to environmental incidents, or where non-conformance exists. HSE Officer must follow-up completion of actions.

## **8. ENVIRONMENTAL INCIDENT REPORTING AND EMERGENCY RESPONSE**

### **8.1. ENVIRONMENTAL INCIDENT AND COMPLAINT MANAGEMENT**

Environmental incidents are unplanned events or conditions at the factory or at project site that detrimentally impact the soil, surface water, groundwater, air quality or ambient noise in a manner that violates any environmental procedures, EMP, project guidelines, regulations, laws that client and contractor are subject to.

Environmental incidents also relate to management of materials being delivered to the site, or transport of materials and waste from the site/factory. These incidents can cause damage to natural environment and to human health.

Some of the environment incidents are:

- Spillage or leakage of diesel or chemicals from drums, tanks, etc.
- spillage of paint, cleaning and maintenance supplies
- incorrectly disposed chemicals
- drainage malfunction
- fire causing emissions to air and fire water run off
- emergency situations arising from contracted building works
- site flooding
- refrigerant release
- building collapse
- sewerage release
- uncontrolled waste dumping
- excessive dust generation caused by work practices
- noise nuisance
- soil contamination
- storm damage
- overflowing septic tanks

Complaints are reports of alleged negative changes to environmental conditions received from external parties (e.g., the public, neighbors, regulators, etc.).

### **8.2. INCIDENT RESPONSE AND REPORTING**

Emergency preparedness, risk assessment and contingency planning minimize risk to the environment.

Emergency preparedness is the interface between accidents, human life, health and the environment.

We have developed an Environmental Incident Reporting System (EIRS) that helps us check whether our control procedures are working effectively.

Our key objective is to prevent pollution and appropriately manage environmental risks from accidents, incidents and emergencies.

Our main target is to achieve zero significant environmental incidents, zero environmental complaints and zero fines from environmental regulations on an on-going basis.

#### **8.2.1. INCIDENT RESPONSE**

All staff/workers have the responsibility to report environmental incidents and report them to the management.

All environmental incidents and complaints must be immediately reported to the Foreman. The Foreman must immediately report the incident/complaint to the Site Engineer and HSE Officer. Should there be a need for an immediate action, practically, the person who discovers an incident must take immediate action to prevent continuation of the incident.

Emergency and incident response procedure will be prominently displayed at site offices and copies will be issued to Foreman, Supervisors and Managers. Copies must be kept within every site vehicle.

The Site Engineer in coordination with HSE Officer shall be responsible for taking immediate action to mitigate or prevent the continuation of the incident/complaint. This may require assistance of security personnel, waste management contractors, police, fire and rescue, etc.

The Site Engineer must report the incident/complaint to the Operations Manager within 24 hours of the incident. An Incident Report (IR) Form must be completed by the Site Engineer or HSE Officer for every incident.

#### **8.2.2. INCIDENT & COMPLAINT INVESTIGATION, CORRECTIVE ACTIONS AND FOLLOW-UP**

All incidents must be investigated to identify the basic cause, contributing factors, corrective/preventive actions, and person responsible and acceptable timeframes for completion of actions.

The HSE Officer is responsible for investigating the incident/complaint, identifying the appropriate actions, ensuring the actions are completed, and documenting the all aspects of the incident/complaint reporting, investigation and follow-up.

Where an incident has resulted in soil and/or groundwater contamination, the corrective action must include remediation. Remediation will be undertaken at first signs of contamination, and will be undertaken in accordance with Doha Municipality guidelines.

The HSE Officer must maintain a register of incidents and complaints.

The HSE Officer must submit to the Operations Manager a monthly report summarizing incidents and completion of corrective actions.

### 8.2.3. INCIDENT PREPAREDNESS AND RESPONSE PROCEDURE

Environmental incidents will be managed in accordance with the environmental incident response procedure, except where they relate to liquid chemical, wastewater or fuel spills, in which case they will be managed according to Fuel and Liquid Chemical Spill Response.

A laminated copy of Fuel and Chemical Spill Response must be kept within spill clean-up response kit.

A Material Safety Data Sheets (MSDS) must be kept in an area easily accessible and close to the stored chemicals they relate to. A duplicate copy must also be kept within the site office.

**Emergency Response Plan in case of Fire, Electric Shock, Medical Emergency, and Heat Stress & Oil Spill** are prepared for the identified environmental and occupational health and safety related emergencies.

#### Evacuation

In the event of an emergency all personnel are to assemble at the designated muster points of the site.

#### Medical Emergency

In the case of a medical emergency, dial 999 for ambulance service and provide the following details:

- Your name
- Site address or incident Location – Plot 38, Gabbro Area, Mesaieed
- Type of emergency (e.g., Fire, accident)
- Type of injuries
- Approximate number of casualties
- Any relevant site hazards or hazardous substances involved

#### Notes:

- Let the operator hang up first;
- Escort must be sent to gate to meet emergency services

### 8.2.4. INSPECTION OF EMERGENCY AND FIRST AID PROVISION

Any person sustaining an injury onsite must seek first aid treatment and complete a Work Injury Register Record Form.

- a. Inspection of Emergency and First Aid Provisions.
- b. Evacuation sirens, emergency communication and other emergency equipment will be subject to periodic testing once installed.



- c. Firefighting equipment will subject to regular safety inspections undertaken by UPF Safety Department. Firefighting equipment will also be subject to 6 monthly inspections by an authorized firefighting equipment contractor who will re-stamp equipment tags accordingly.
- d. First aid equipment and supplies will be subject to regular inspection by UPF Safety Department.
- e. The nominated first aider and SABEA HOLLOWCORE Safety Department will be responsible for ensuring adequate first aid supplies are maintained

## First Aiders

The site is equipped with a First Aid Room. If any person requires first aid assistance, then notify your supervisor or the site First Aiders below.

SL	NAME	DESIGNATION	CONTACT #:
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625

## Fire Wardens

The company provides well trained Fire Wardens on Factory and Project Sites to avoid harm to the workers and damage to properties if fire occurs.

## Fire Fighting Equipment

Hose reels can be found in Production sheds and office block. There are a number of portable extinguishers located throughout the site. On site, Dry Chemical Extinguishers (DCE) will be located on all mobile plant. The main office contains a number of DCE and Carbon Dioxide (CO<sub>2</sub>) extinguishers.

SL	NAME	DESIGNATION	CONTACT #:
01	SHAKEEL AHMAD	SAFETY OFFICER	31621625

## Protection of Non-Workers

A boundary wall is installed around the entire site. All site access gates will be secured and locked when the site is not operational.

Appropriate safety signage will be also installed for the protection of site employees and members of the public with regard to any traffic or construction related hazards.

Provision will be made to ensure the safe entry and exit of construction plant and vehicles by the Guard when required.

## **9. TRAINING AND ENVIRONMENTAL AWARENESS**

### **9.1. INDUCTION**

All personnel working at the factory and on project site must receive an environmental induction within five (5) working days after commencement of work. The induction covers the following topic:

- Description of Site's Environment - air, surface water, ground water, soil, noise, flora and fauna;
- The importance of responsible environmental management during production, erection and day-to-day operational activities;
- Environmental responsibilities of all individuals;
- EMP requirements focusing on the relevant roles and responsibilities;
- Environmental incident response and reporting procedures;
- Waste management procedures; and
- Energy, water and resources saving procedures.

### **9.2. TOOLBOX TRAININGS**

Regular briefings on environmental matters shall be given to all production & erection staff (including labor workforce). This is incorporated with "toolbox" discussion. Topics addressed during such briefing includes:

- Incident response procedures;
- Use of spill prevention and clean-up kits;
- Preventing soil contamination;
- Correct vehicle refuelling practices;
- Waste management practices;
- Energy, water and resources saving practices;
- Proper housekeeping practices;
- Changes to the EMP, if any.

### **9.3. MANAGEMENT TRAINING**

Environmental and management staff shall attend any relevant environmental training course such as environmental awareness training, introduction to the environmental guidelines, and other such sessions offered.

Records of training will be kept as per Section 9.4.

### **9.4. TRAINING RECORDS**

An Attendance Form must be provided and signed by attendees for all environmental trainings. The Attendance Form shall include: attendees' name, position, employee number, company, signature, date of training, and training topic.

The original Attendance Form must be kept on file by the HSE Officer. An Environmental Attendance Training Register shall also be updated and monitored.

## 10. AUDITING

The management will conduct audits of its compliance with all record keeping requirements,

Environmental systems and procedures contained within this EMP. These audits will be carried out once a year, providing the EMP is being implemented satisfactorily. The objective of these audits is to confirm that all incidents and non-conformances are being managed correctly, procedures are being followed, and actions are completed.

All audit documentation will be maintained on file and will be made available upon request.

Inspection criteria will include, but not be limited to, conformance with the measures and procedures outlined in the EMP.

Typical aspects that may be inspected or audited include compounds, waste storage areas, production and erection activities, vehicle maintenance, record keeping and management systems, labour camps and vehicles used to transport labourers to site.

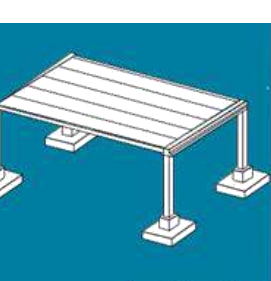
The HSE Officer will be available to accompany an inspection/audit party on all planned and unplanned inspections and audits. If the HSE Officer is unavailable, the Site Engineer or Foreman will accompany the external auditing party. Operations Manager may directly instruct staff to undertake immediate corrective action for non-conforming conditions/practices.

## 11. RESPONSE TO NON-CONFORMANCE

Non-conformances may be reported as a result of inspection, audits, and incidents. All non-conformances raised will have corresponding corrective actions, with a deadline for completion nominated. Completion of corrective action which will be overseen by either the Foreman or Site Engineer and will be approved / closed out by the HSE Officer or Operations Manager.

The deadline for completion of action will depend on the significance of the issue. All incidents will be investigated. The investigations will identify preventative actions. Unsatisfactory or late completion of required actions will be reported to the Factory Manager.

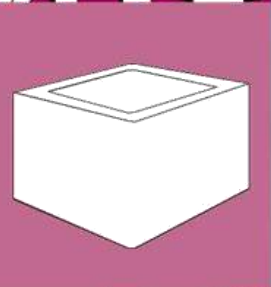




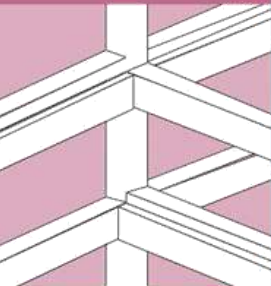
1.  
Frame structures



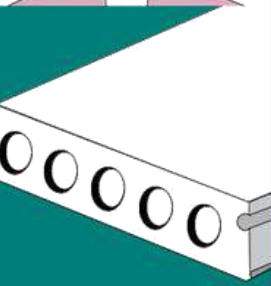
Columns



Pocket foundations



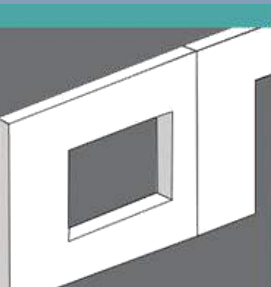
Beams



Hollow-core slabs



Residential buildings



Panels

Emails:

[hollowcore@aae.com.qa](mailto:hollowcore@aae.com.qa)

[sales@aae.com.qa](mailto:sales@aae.com.qa)

Tel: +974 4492 2452

Fax: +974 4443 8576