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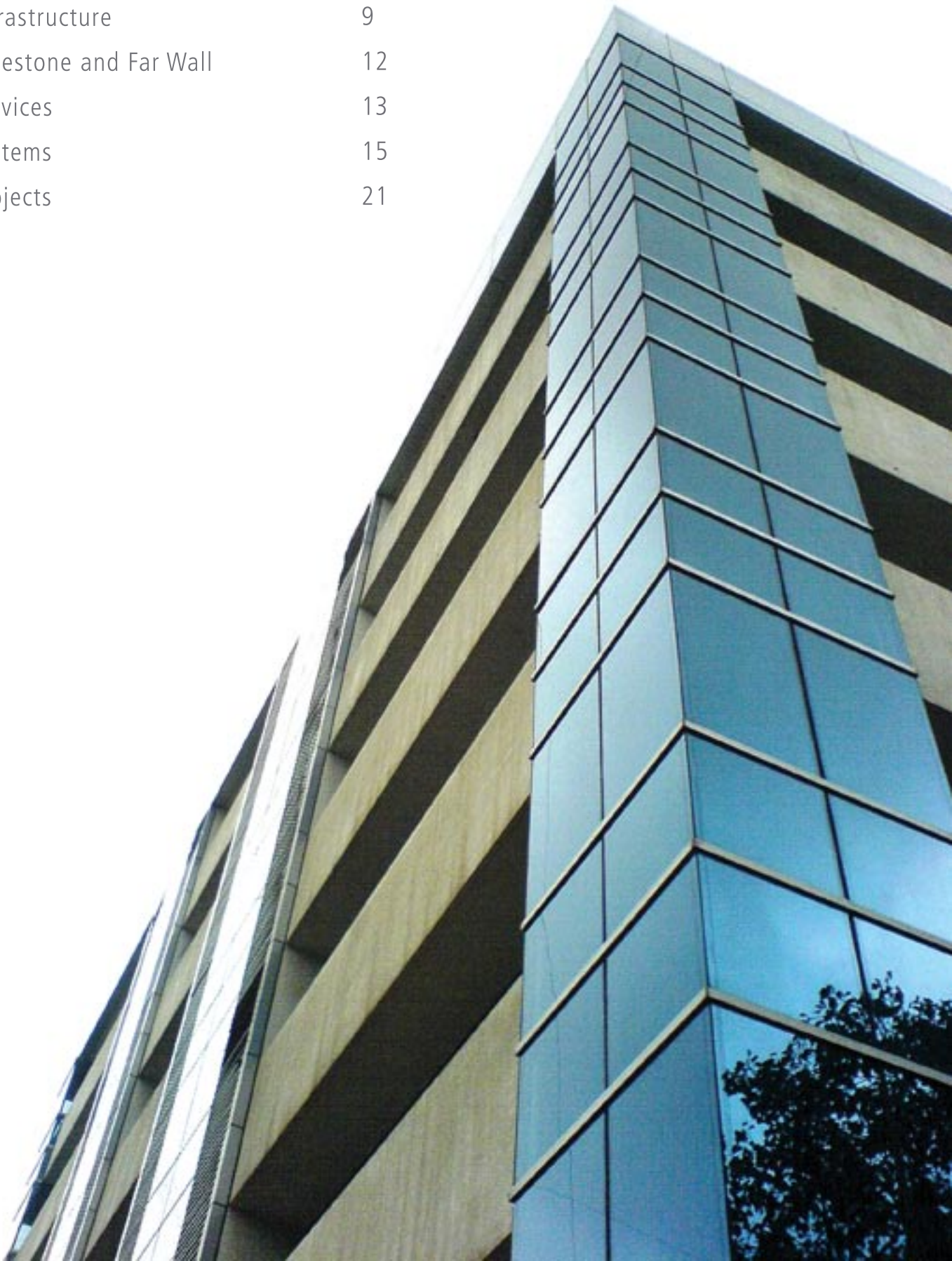
Corporate Profile



MILESTONE
partnering perfection

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The Company

Milestone Aluminium (Pvt.) Ltd. is a Bangalore-based multi-crore company with an annual turnover of 60 crores (INR) within the highly competitive architectural façade industry. Considering the fact that Milestone started off with very modest beginnings in 1989 as a contracting company for aluminium doors and windows, its present status is no mean achievement by any of the market standards today. Having recognized and consistently adapted to the growing needs of the market, Milestone has emerged as a leading producer and supplier of all architectural requirements related to facades, glass, claddings, doors and windows for the construction industry.

DESIGN



PRODUCTION



INSTALLATION



MAINTENANCE

The first design department at Milestone was established in the early 1990s and, thus, the latest in window and curtain-wall design was brought within the company's growing range of services. Through this significant step towards cutting-edge technology, the company planned to bring the much sought-after aspects of quality and variety into the south Indian market. By 1997, this sustained endeavour to upgrade and improve upon its products and services eventually moved Milestone into the 'private limited' companies category. Today, clients are offered nothing short of end-to-end integrated services ranging from design and production to installation and maintenance. In fact, the company's expansion has been based on carefully planned restructuring in order to ensure that all services continue to be offered seamlessly to its growing list of renowned clientele.



Milestone provides for the best customized solutions for architectural façade requirements in glass and metal. In this process, it offers its clients the finest in structural analysis, and extrusion panel designs that are made to suit any architect's idea of aesthetic and innovative design. The degree of complexity involved notwithstanding, the company has, time and again, proved its ability to translate the architect's idea into tangible and time-tested reality.





Mission

Milestone's mission is to design and build innovative architectural envelopes in collaboration with the leading architects, through the application of high technology solutions. By means of constant research and development of new design and construction systems and technologies, as well as the use of innovative materials, the company objective is to guarantee and constantly improve the quality of its architectural claddings to ensure the top quality performance of its buildings. The company aims to offer positive solutions answering to the needs of its customers.

Core Philosophy

"We are here to constantly strive to improvise our products, processes, execution methods and our team by partnering with our clients, consultants and our associates to achieve in time greater results in building world class facades."

- Javed Anwar (MD, Milestone)

Partnering Perfection

As the company motto – 'partnering perfection' - goes, Milestone embraces a philosophy whereby it sees its key asset in being able to partner or to associate with any enterprise geared towards perfecting the task at hand. More than just completing a designated project, or task, well in time, the company seeks to build a lasting relationship with its clients.

The management at Milestone firmly believes that this relationship is built not by merely touching on specific requirements of the clients, but by actually going out of the way at times to look into - and to solve - any non specific requirements as well.

Working Together with Our Clients

Another key feature at Milestone is the company's diligence in improvisation, or value-addition, with regard to client requirements. Such measures ensure for it a win-win situation where both the client and the company achieve the stated goals of their association and in a way that they also look forward to working with each other in the future.

Busy Bees

The work etiquette at Milestone is quite bee-like even as the company logo will have one believe. Whether it be at the R&D division, the corporate office or at the production units, the job premises at the company are usually humming with activity. The company name – Milestone – in itself projects an obsession with work deadlines and stages that have to be completed to effect a smooth progression towards fulfilling the project requirements. The company keeps the requirements of the end user constantly in view as a matter of policy.

Infrastructure

Milestone has its own production plants in Bangalore, equipped with the most modern and advanced equipment, including computer aided design and manufacturing systems, and conveyor lines. The production facilities are primarily oriented towards the execution of large scale projects which necessitate both a high level of organization and production. The production factories of Milestone have teams of technicians that constantly follow all phases of design and production programming, including the computerized control of work cycles to assure high quality products.

Finished and semi-finished products undergo rigorous lab tests and constant checks to guarantee elevated standards of quality. Granted these facilities, Milestone's infrastructure rivals the best in the country as the company consciously upgrades its technology and processes to keep pace with trends in the national and international market. The company's factories are equipped with state-of-the-art machinery which gives it an edge in the fast-growing industry and allows it to deliver the very best to its clients.



Design Division

The latest version of AutoCAD is used for drawings. Logikal CAD which is German based software is used to get automatic cutting list, for a particular frame that is to be made as per the AutoCAD design. This software is also used to record the data in a floppy/ CD and the same can be used as instruction to the CNC machine, where data is converted into instruction and machining is done automatically. There is Optimizer Software, which is used for glass and ACP optimization. All these facilities are available in Design department because of which the efficiency is high.

Our design team is capable of giving alternate options and solutions where the architect's design concept would be kept same and under the required structural stability analysis, cost reduction can be done by providing suitable glass and ACP panels with better vision area.

Production Centers

Milestone's production units have an integrated system of design centers, production shop floors, panel cladding and glass division. Equipped with state-of-the-art machinery and managed by skilled workers, the company's clients are thus assured of innovative products and services that adhere to international standards, and at competitive prices. The production center at Peenya, Bangalore, involves two factory units, the larger - called Unit I – occupying a total space of one and a half acres in all. This production unit is a four-storeyed complex complete with several divisions for the logical allocation of mass assembly, machining and production work being carried out at Milestone.

The smaller production unit – called Unit II – is essentially a back-up center for Unit I. All steel structural work involving Mild Steel (MS) and Galvanized Iron (GI) fabrication which are directly related to supporting the overall execution of given projects is conveniently carried out in Unit II. Over the years, these key production units have gone a long way towards making Milestone more self-reliant in its role as a process industry where basic raw materials like glass, aluminium etc. are still procured from outside.

Both production units at Milestone have the latest machineries for mass production of typical panels and which provides for high volumes. Crane facility in the factory is provided for lifting of heavy panels. For atypical jobs, copy milling machines are used to get the shape of the required profile. For ACP fabrication, automatic panel saw for composite panel tray making, facilitates the production of over 200 panel trays in a day. Glass stacking, glass curing racks and movement trolleys constitute other production facilities available with Milestone.

The company also maintains separate stores, where a minimum weekly stock is always kept ready in order to avoid any delays in project completion. In transporting products to site locations, the company provides for separate dispatch teams suitably equipped with their own fleet of vehicles for safe and reliable shifting operations.



Research & Development

As a major player in the curtain walling industry, Milestone develops advanced facade systems. R&D at Milestone is carried out not only for each job or tender but also in a systematic manner looking at all the aspects of an envelope design: structural, thermal, acoustic, day-lighting, energy, comfort. This research is executed by means of advanced modelling tools and/ or full scale test mock-ups. Mock-up tests undertaken by Milestone - which include the sustainability of proposed architectural envelopes under wind-load, wind-tunnel and seismic conditions - are carried out in world class testing centers.

Thus, facades developed at Milestone are modern in terms of acoustics, insulation, energy efficiency and UV filtration. R&D activity does not take place only at the research centers. It is also stimulated by studies carried out in collaboration with well-known architects during the design and engineering phases and the performance tests related to acquired contracts. In research and application of innovative eco-compatible technologies, Milestone collaborates with important national institutions, thus allowing for a constant information flow and sharing of experiences.

Facade Testing

The testing department related to Milestone conducts tests required for accessing the performance of Curtain Walling, Cladding, Windows and Door systems. The Management of Milestone is committed to good professional practice and ensures the quality of its testing to achieve customer satisfaction. The performance testing is carried out as per the requirements of the customer using the methods prescribed in the latest ASTM, BS and AAMA Standards.

All personnel concerned with testing within the laboratory are familiarized with the quality of documentation and implementation of the policies and procedures in their work. The testing department complies with ISO 17025 standards and NABL CRITERIA at all times to ensure the quality of testing. In testing, the company will encourage active participation of all employees in quality planning and continuous improvement efforts to meet all quality, service and cost objectives. The various performance tests carried out include:

- Laboratory Testing
- Air Infiltration Test - ASTM E 283
- Water Penetration Test (Static) - ASTM E 331
- Water Penetration Test (Dynamic) - AAMA 501.1
- Structural Test (Wind load serviceability) - ASTM E 330
- Seismic Racking Test (Floor Displacement) –AAMA 501.4
- Structural Proof Load Test (150%) - ASTM E 330
- Seismic Proof Test (150-200%) - ASTM 501.4
- Structural Test for Window Washer Tie Back.



Prior to production the mockup testing is called for. The mockup drawings are reviewed and approved to ensure that all typical system details are covered for the test. Before testing, the mockup is checked in installed condition to confirm that the same is in line with the approved drawing. After the successful completion of the mockup test the necessary design changes will be called for and revision of the design changes will be reviewed by the company before the clearance is given for commencement of production.

Milestone and Far Wall System(Italy)

In less than 20 years Milestone has become a leading competitor in the engineering, manufacturing and installation of architectural envelopes, and internal partitions in India. Milestone Aluminium (P) Ltd. is listed among the key players in the industry today. The latest important steps in the company's history is Milestone's healthy association with Far Wall System (Italy), a well-established multi-national company that deals with fixtures and facades on a global scale. A conglomerate of three companies - Ferro Alluminio Divisione Accessori, Ferro Alluminio SRL and Alprogetti SRL - Far Wall provides finished products, accessories, licenses and technical know-how for all facade-related requirements. Milestone's association with a company of this stature has ensured that its clients in India avail world-class technology in using Milestone's products and services. Moreover, working on plans laid out by Far Wall System, Milestone completed one of its more recent, but most important, projects in Bangalore – the ITPL building façade. Associating with Fire Wall System on this project offered the company its first opportunity for exposure in the field of unitized glazed facades for buildings characterized by great vertical heights.



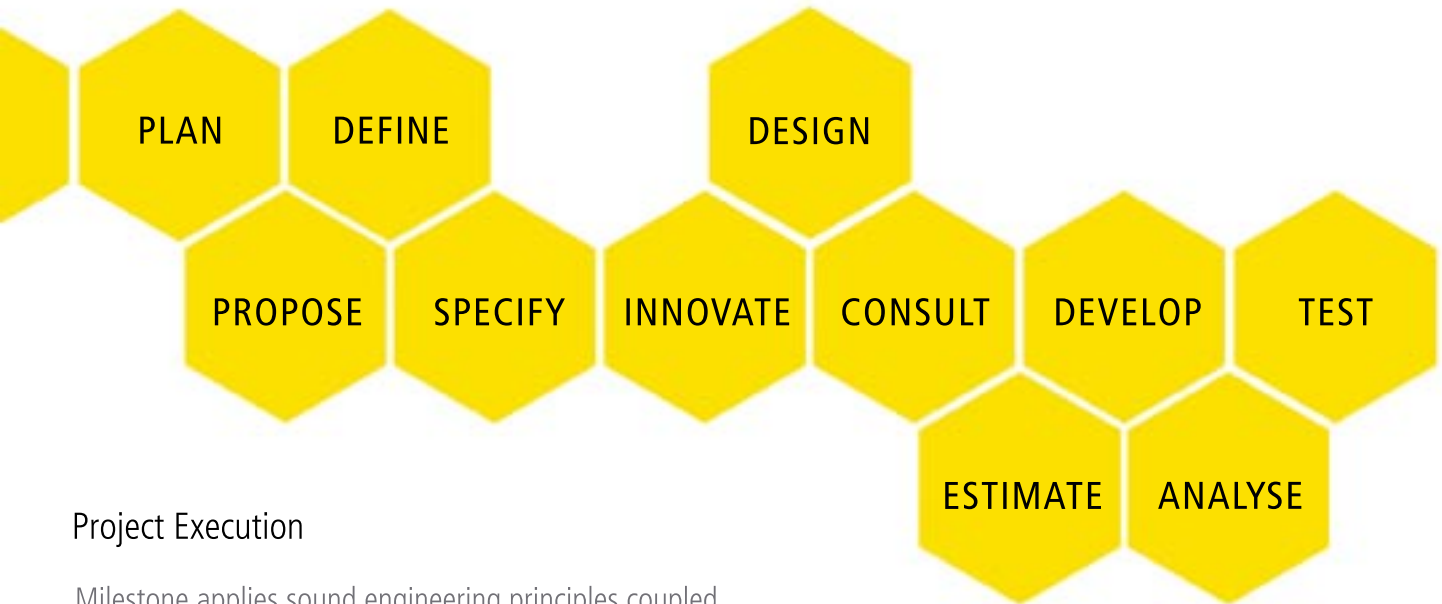
Services

Pre-Construction

The initial stage of a project is the compilation and submittal of a technical and commercial proposal in response to a tender. Once the project is awarded, Milestone's design engineers and project managers work in close coordination with the architects, PMCs and end-users to fully understand the design intent and functionality of the system. Full scale drawings are then developed, keeping in mind the budget of the customer.

Installation

Milestone's product installation requirements are met by installation teams which, with adequate construction site experience, are capable of efficiently installing every kind of curtain-wall and external cladding. The installation operations are executed generally with the use of specialized equipment like cranes and gondolas without the use of external scaffolding. This enhances the speed and accuracy of installation while ensuring worker-safety.

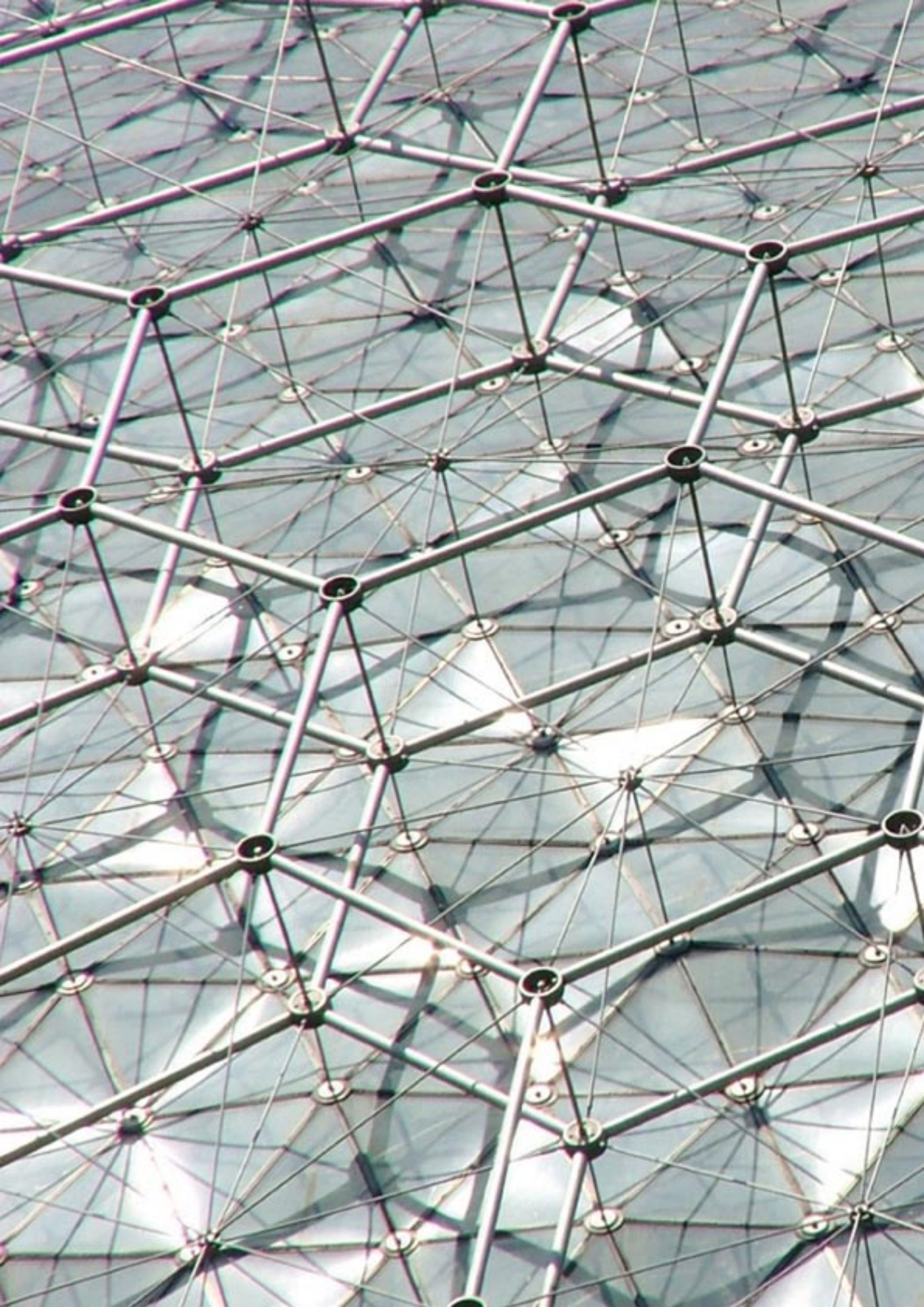


Project Execution

Milestone applies sound engineering principles coupled with meticulous planning and supervision to ensure that projects are delivered in time and within budget. Production units at Milestone are equipped with modern and advanced equipment, including computer aided design and manufacturing systems, and conveyor lines. They are primarily oriented towards the execution of large scale projects which necessitate both a high level of organization and production. Prior to full-scale production, prototypes of all critical features of the building are developed and approved. Performance testing is carried out as per the requirements of the customer using the methods prescribed in the latest ASTM, BS and AAMA Standards. All activities of design, manufacture, dispatch and installation are coordinated through the use of planning software.

Post Construction

Although organized and contractual after-sales support is still to become a reality at Milestone, the company does not turn down customer requests for maintaining installations completed by the company. Even in offering such unofficial after-sales service the company workers, who attend these calls more as a matter of courtesy than of protocol, are capable of performing alterations and replacements of facade units and of internal components.

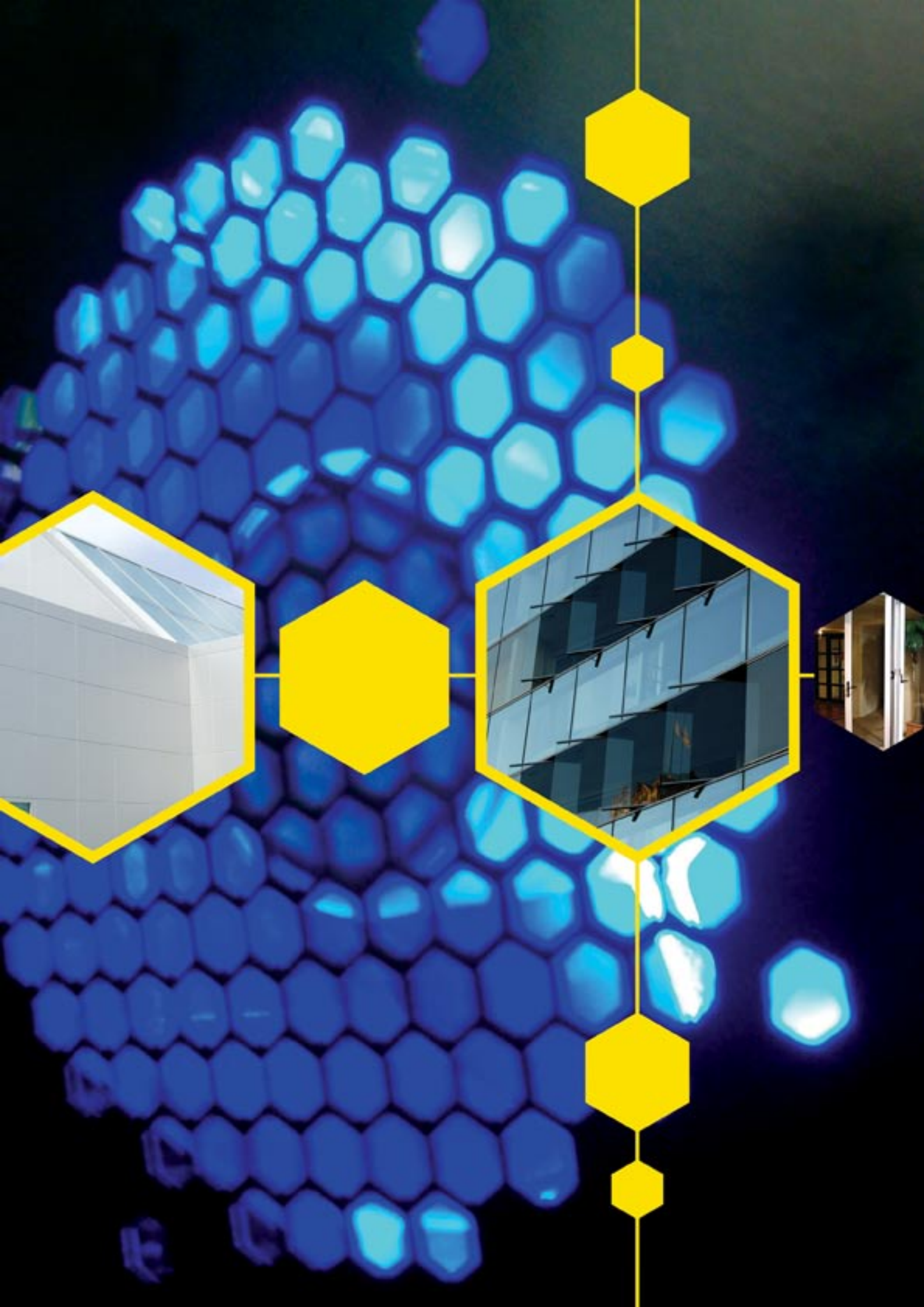


Systems

A building envelope consists of panels or sheets of glass, stone or metal of any shape that once assembled on or around to the building's structure, enclose the living spaces providing internal comfort and the final aesthetical qualities. The architectural envelope quality is fundamental for building's performances such as energy savings, light penetration, thermal comfort and weather barrier.

While Milestone collaborates together with leading research institutions and national standards organizations, it specializes in high specification building facade projects, undertaking design, production and installation of advanced glass and metal products.





Glazing Systems

Structural Glazing

Milestone provides solutions for facades of different shapes and sizes. We offer two types of structural glazing:

Fully-unitized glazing system:

Here, the glazed panels are fixed to the mainframe structure at the production floor. This whole unit is then dispatched to the site where they are lifted with cranes and installed directly without further alterations using fasteners.

Project Application: ITPL

Semi-unitized glazing system:

The outer frame is first fabricated and dispatched to the site where it is mounted using fasteners. The glazed panels are then mechanically fastened on to the mainframe structure at site.

Project Application: Satyam, Wipro and others



The glazing facade comprises of a pre-fabricated unit with outer frame and mullions to form the grid of the glazing system. This unit is designed to support the dead and live loads transferred from the frame units themselves. Structural silicons and sub frames, pre-glazed and pre-cured at the factory, can be incorporated into the grid system using the pressure bolting method. The two-part structural silicon is applied under controlled conditions to ensure a highly durable and reliable bond.

Glazing Systems

Canopy Glazing

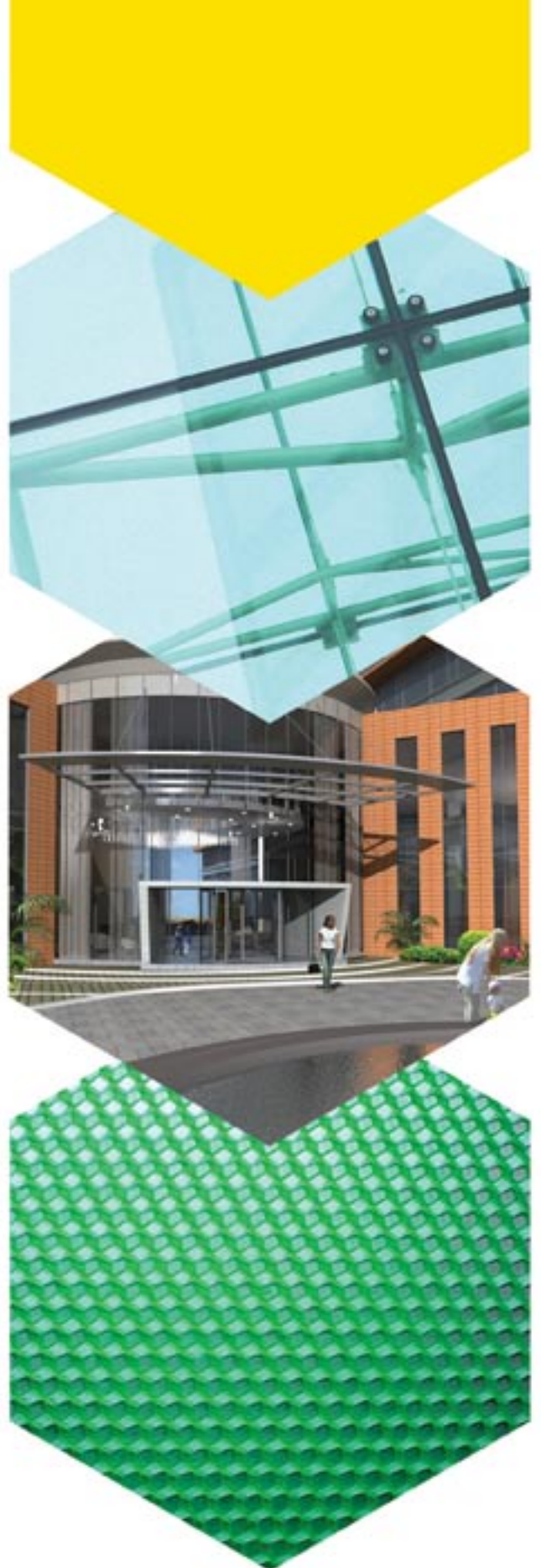
Here the glass is constructed on to external frames made of stainless steel or MS frame clad with Aluminium Composite Panel. The glass is held on firmly using Spider Fittings and Guy Wires.

Shop-front Glazing

The glass facades are constructed on the external face of a building to offer optimum vision. The glass is held by U channels at the top and bottom, and sealant is applied in the glass to glass joints. This type of glazing is usually used for shop windows on the ground floor as it allows a clear view of the display. The surrounding structure can absorb thermal expansion and seismic movements. The U channel can be replaced by patch fittings, if desired. Frameless glazing offers vision without obstruction and is a low maintenance and highly durable option.

Spider Glazing

Frameless glazing offers unobstructed vision. It is a highly durable option that requires low maintenance. The glass panels are directly fitted on to the opening with the help of spider, patch or other fittings. These are designed to maximize stability and flexibility to suit different site conditions, as well as ease of installation and aesthetic appeal. This allows for the glass facades to be constructed onto the external face of a building thereby creating an illusion of space. The unique support systems employed through the usage of glass fins or high tensile steel rods, offers aesthetic, flexible facade design allowing minimum profile and vast glass area for optimal finish. This technology facilitates the transfer of wind load to surrounding structures and the absorption of thermal expansion and seismic movements too. The glass panels are held together by stainless steel spiders, hence the name, spider glazing.



Cladding Systems

Aluminium Composite Panel (ACP) Cladding

Composite Panel Cladding for intricate designs enhances appearance. It is fabricated into the trays and mounted onto the outer frame, which is in alignment with the glass. The Aluminium Composite Panel, fabricated to the required shape and size, is fixed on the wall (in case of wall claddings) using tubular profiles; or to the outer frame of structural glazing with fastening materials and hardware in line and level.



Tile Cladding

A build-up with the ventilated, insulated hanging clay tile facade makes it possible to create a construction physically and technically optimum wall. The tiles are secured to an aluminium substructure using fasteners (fixing clips) made from aluminium. All materials used are UV resistant, non-fading, resistant to frost, corrosion, salt water & other aggressive substances. This results in a long life and high cost-effectiveness of the tile facade. The clay tile facade is equally as well suited for residential buildings, office and administration buildings, public buildings as well as the refurbishment of old ones. With concrete slab structures, the facade allows the old building substance to dry out and thus prevents further corrosion.

Windows & Doors

Fixed/ Operable Sliding Windows and Doors

Fixed/ Operable windows are light, strong and durable. Each unit is constructed with hollow, tubular aluminium profiles extruded with the finest alloys and include quality hardware like corner connector, reversible pressure plug, hinges, double protected hollow EPDM rubber gasket barriers, imported locks and handles. Windows and doors meet international standards in terms of structural stability, performance, operations, maintenance etc. They are available in both powder-coated and anodized finish. Standard sliding windows are two or three track.

In addition Milestone has developed a patented design of a multiple shutter sliding mechanism that optimizes structural stability, air and water tightness and smooth sliding which requires almost no maintenance.

Automatic Door

In the overall work break-up at Milestone, façade or architectural envelopes would take the lion's share of 80% of the total work done, while the remaining 20% constitute the production of louvers, windows and canopies.

Milestone is also active in the design, production and installation of internal walls for shops and offices. The company's design and engineering capabilities combined with its high production flexibility allows it to pursue both standardized and customized projects including the finishing of the internal space in which the walls or partitions are installed, from the flooring through to the light fittings. The activity of the industrial doors derives from a production diversification conceived within the company.



Our Projects

Support from its esteemed clientele and their confidence in the company keeps those behind Milestone busy, and business positively booming. It is also a reflection of the company's commitment to perform and passion to deliver products and services of the highest quality. Milestone's work in high profile projects like those in ITPL and Electronic City, among others, is ample proof of its capabilities.







Project Name :
Architect :
Builder :
Consultant :



Project Name :
Architect :
Builder :
Consultant :



Project Name :
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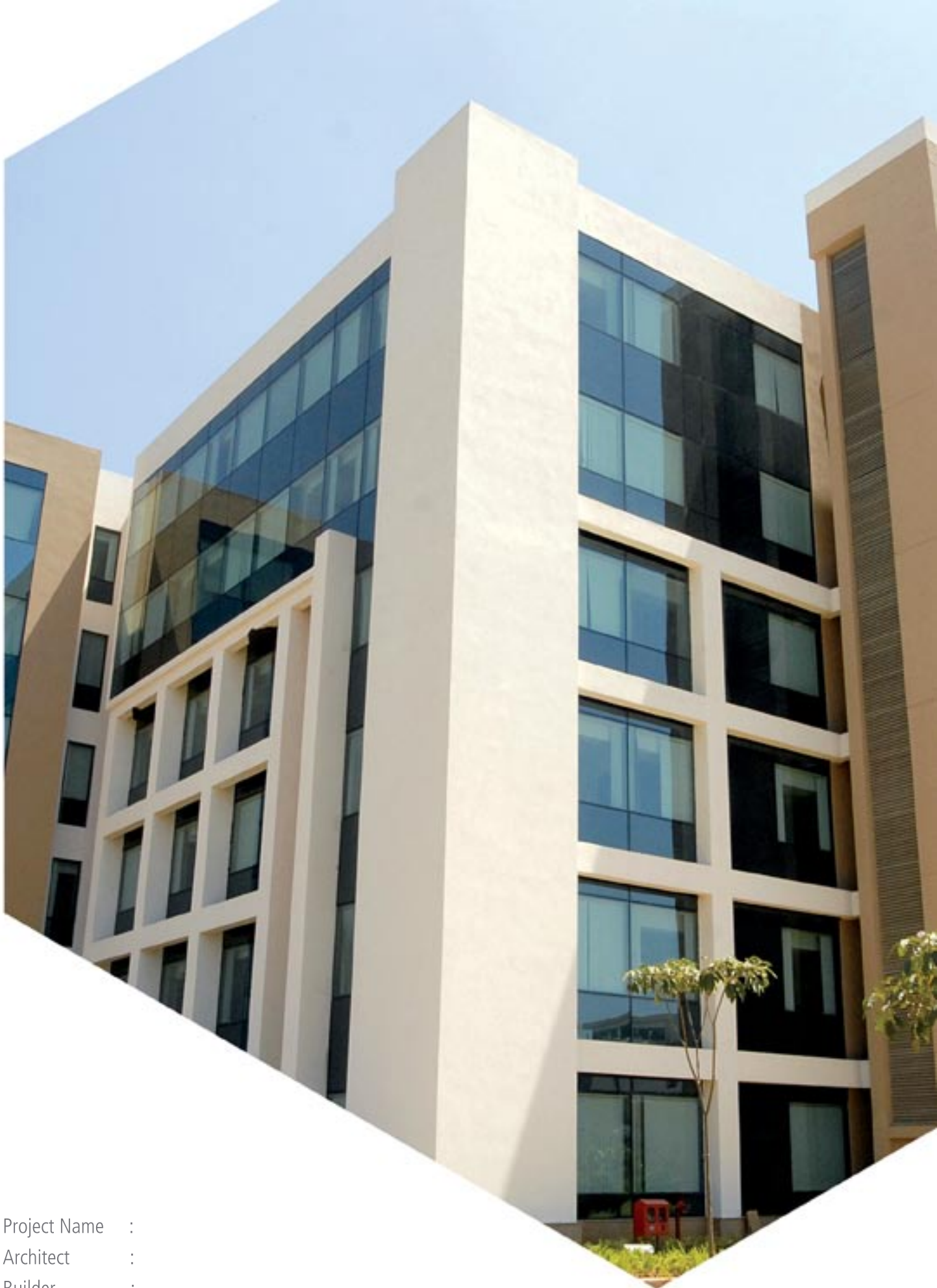
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