

شركة واجهات للزجاج و الألمنيوم
Wajhat Glass & Aluminum Company



METALS



Architectural
Building-Envelope Experts





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Company Introduction

Wajhat Glass & Aluminium fabricates and extensive range of architectural metal products Aluminium, Steel and Stainless Steel comprising all kinds of custom-designed handrails, including glass infills, as well as cut-and-formed cladding for walls, columns and entrance units, both in the Building Envelope itself and also for a wide variety of uses in Interior Design.

Wajhat's Quality Standards for manufacture and installation are equal to best practice based on current international standards.

Wajhat also produce, in-house, all galvanized mild steel brackets required for the installation of their aluminium curtainwall systems.

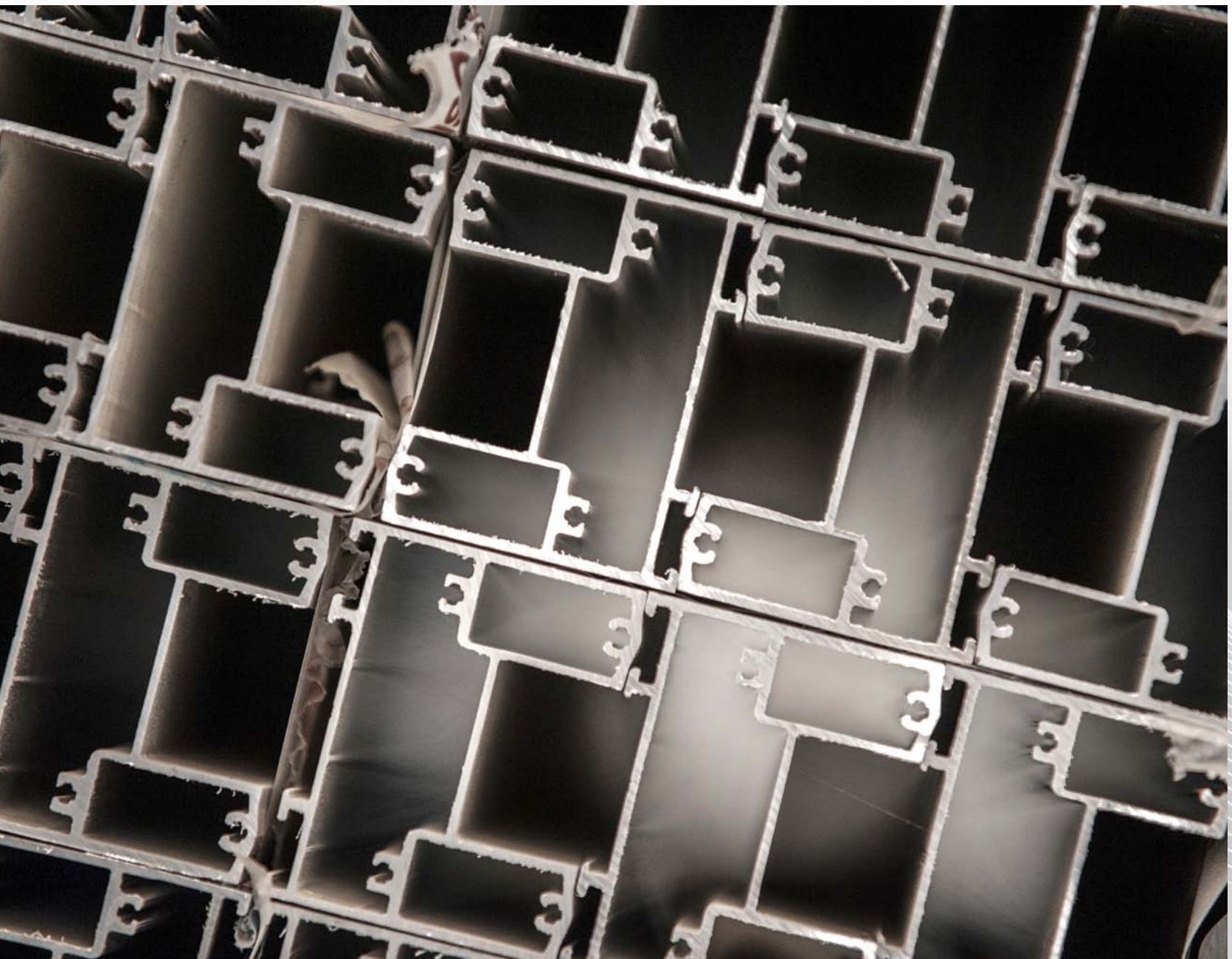
Summary of Raw Materials

Steel

Mild steel is a compound of iron containing a small additive of carbon, smelted in an oxygen-rich atmosphere to enhance its strength and ductility which allow it to be roll-formed, cut, pressed or cast-in-place, into a huge variety of shapes. It is also very easy to weld.

In its raw form, mild steel corrodes easily on exposure to atmosphere and to water. It therefore has to be protected by heavy coats of priming paint (usually red lead), enamel paint, polyester powder coating systems and by galvanizing. Modern carbon steel is available in a range of strengths, which are graded according to well-established international standards.

In the Building Envelope Industry, carbon steel is used mainly to provide the brackets for attachment of curtainwall grids to the underlying building structure.



Stainless Steel

Stainless Steel is an alloy of carbon steel with various exotic metals to enhance its corrosion-resistance, strength and resistance to high temperatures. Stainless steel can be machined by a variety of processes to provide superb appearance without need for painting.

Stainless Steel is graded by International Standards, and the selection of a specific grade will depend on the environment for the proposed use of the metal. Typically, Stainless Steel is an alloy which contains at least one, sometimes several, of the following metals including nickel, chromium, manganese, vanadium, molybdenum, and tungsten depending on the required application. Nevertheless, sub-standard alloys are available in the market, with potential for early corrosion, and Wajhat Aluminium takes extreme care to ensure that fully certified metal is used in their range of architectural metal products.

The ability of Stainless Steel to resist corrosion and staining, its immense strength, its low maintenance, attractive appearance and relatively low cost have made it an indispensable material in modern architectural design. Over 150 grades of stainless steel are available to meet a multitude of end-uses. It is a highly versatile and reliable material that can be milled, rolled, drawn, coiled and formed into tubes for any architectural application.

For installation-works, due to the potential anodic corrosive reaction which can take place between normal mild-steel and aluminium, Wajhat Aluminium uses only high grade stainless steel and galvanized steel fixings in all installation works involving both aluminium and stainless steel.



Summary of Raw Materials

Aluminum

Aluminium is known for its combination of light weight and strength and is used widely in all forms of construction, especially in the Building Envelope.

Aluminium is derived from Bauxite, a mined material, which is refined to an intermediate state as Alumina which is finally smelted and refined to produce pure aluminium metal.

Aluminium, being a ductile metal, can be shaped by the process of extrusion which entails the pressing of large billets of aluminium through water-cooled dies to produce an infinity of shapes with remarkable accuracy and close tolerance.

The entire Building Envelope Industry depends on aluminium extrusions which can be used in a multitude of forms to create aluminium facades and windows, even for the tallest of high rise buildings.

In its "Raw " form, aluminium is supplied as "Mill Finish " which is liable to oxidize over a period of time. Furthermore, Mill-Finish aluminium has a poor appearance and can be used for components which are permanently concealed. To create a durable, non-oxidizing finish suitable for most architectural applications, the mill-finish aluminium must be either anodized or painted with a PPC (Polyester Powder Coat) paint system.



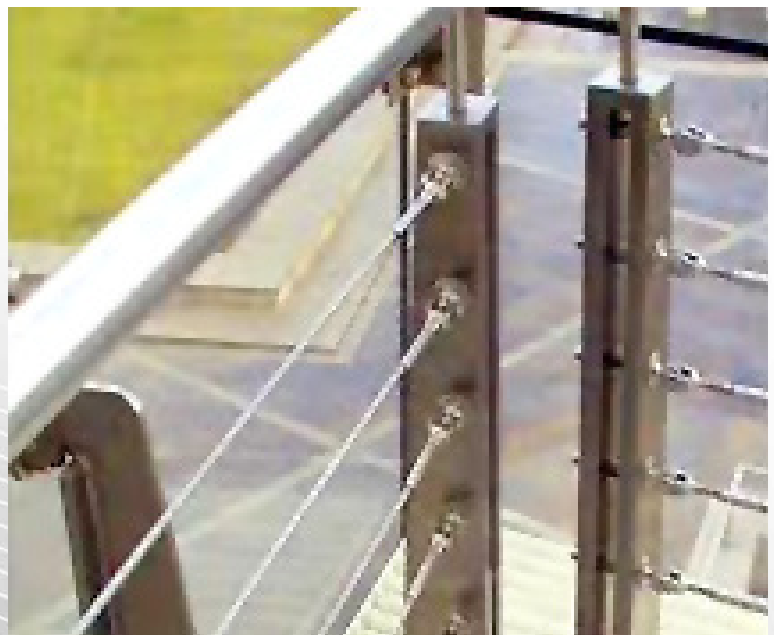


Metal Working

Wajhat Aluminium Factory is equipped with a comprehensive range of equipment for the cutting, drilling, forming, folding and welding of metal components required in the construction of Curtainwalls, Window & Doors and Architectural Metalwork.

Conventional cutting, notching and drilling are carried out by means of most modern CNC machinery which combines accuracy with very high productivity. Forming, folding and polishing are likewise highly mechanised to ensure, once again, accuracy and consistent high quality finish and appearance.

Wajhat Aluminium has established Teams of skilled personnel at every work-station throughout the entire Factory to ensure that machinery is correctly calibrated and maintained in order to maintain consistent high standards.







WajhatAluminium Factory provides a variety of metal-finishing to ensure long-term protection against corrosion and surface damage in service.

Hot-Dip Galvanizing

Mild steel components, primarily fixing brackets and accessories for installation of curtainwall grids, are hot-dip galvanized in liquid zinc, a durable maintenance-free process for total protection at moderate cost.

Anodizing

Aluminium components ,produced initially in “mill-finish” condition, are anodized to increase corrosion resistance and also to increase surface hardness. In addition, anodizing gives greatly enhanced appearance and is a superb, high quality finish for a multitude of architectural applications, including windows, doors and curtainwalls. Anodized aluminium is an exceedingly durable finish in all climatic conditions and has excellent resistance to environments of considerable dust and sand abrasion.

Polyester Powder Coating (PPC)

PPC is a painting process by which a dry polymer powder (thermosetting or thermoplastic) is applied to a metal component by means of electrostatic attraction. The PPC coating is then cured in an oven to allow it to melt and flow to form a plastic skin which, on cooling, develops a very hard finish, tougher than conventional paint. PPC is a durable and cost-effective finish for all fenestration applications and is available in a huge range of colours. PPC has become the dominant finish for exterior aluminium components and is widely used by WajhatAluminium.

In terms of Metals Selection, Metals Specification, Metals Processingand Metals Finishing, Wajhat Aluminium can adequately demonstrate compliance at the highest level of capacity and competence, and are well established to handle the most complexof designs in the entire field of architectural metal works.

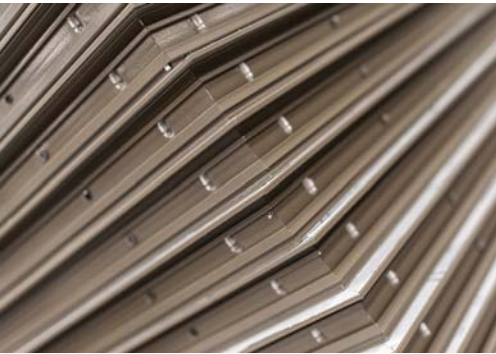
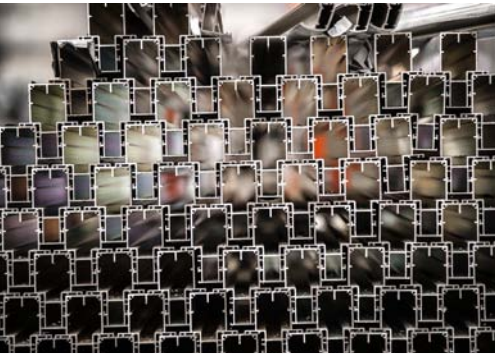
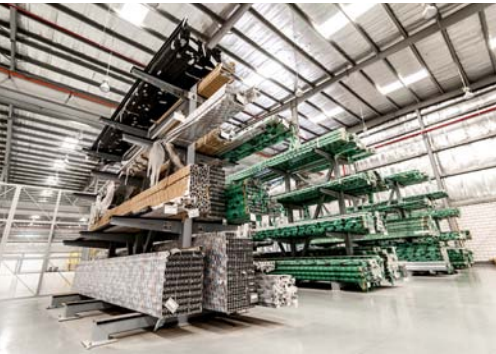
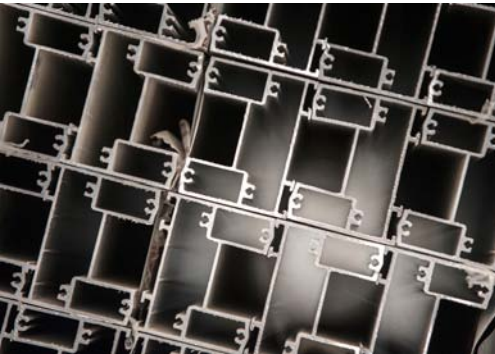


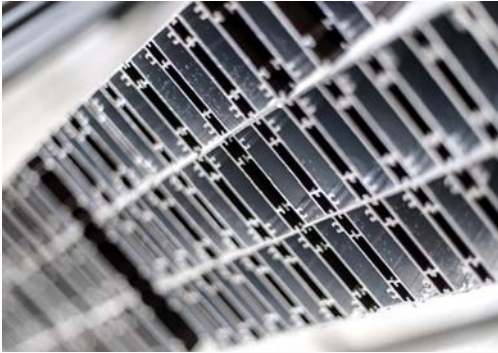
Metal Finishing





Metals Photo Gallery





Metals Photo Gallery



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