



Understanding the nature of metal...



ALAYBEYOĞLU



SHOTBLASTING and PRIMER PAINTING GROUP

There are two shotblasting and painting lines in our factory. These are as follows:

1- This is usually suitable for Profiles, Ship Profiles, welded Pieces and various manufactured pieces and its entrance dimensions to shotblasting section is 3.100 x 1.450 mm.

This machine throws shots at the incoming pieces from different directions by a total of 16 turbines located in an angle of 360°. The materials put onto the 22 meter long roller conveyor at the entrance of this fully-automatic line passes respectively through the shotblasting machine, brushing and air blowing sections, enters the cabin of painter robot where it is primed accordingly with the data the operator enters. This is a two-component and rapid air-drying paint and the material is packaged upon exiting from the priming unit. The rate of the mentioned line can be adjusted between 0,6 - 1,5 meters / min. In case a shotblasting of SA 2 ½ quality and primer painting of 18 - 20 µ thickness is required, capacity of the line is 250 tons / 24 hours.

2- This is usually suitable for shotblasting Sheets, Profiles and Ship Profiles, and its entrance dimensions to shotblasting section is 4.100 x 225 / 450 mm.

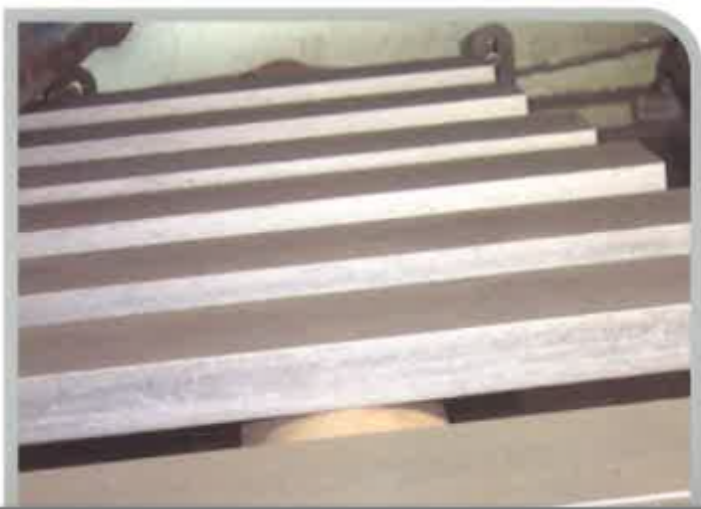
This machine throws shots at the incoming pieces by a total of 8 turbines located on upper and lower side. This PLC-controlled, fully-automatic line provides taking inside the materials from the open stock area in the facility yard by the cross feeding conveyor.



Forwarded to the roller conveyor which is installed with an angle of 90° to the cross feeding conveyor, the materials pass first through the pre-heating unit, shotblasting machine, brushing and air blowing sections, then enter the cabin of painter robot where it is primed accordingly with the data the operator enters. Painted material enters the drying tunnel and following its exit can be stored in a closed area or carried by the cross conveyor to the yard and be stored on an open area upon decision of the operator.

The outward placed ones of the upper and lower turbines of the shotblasting machine on this line, provide that the hotspots, turning automatically to the direction of the sheet's width according to the sensors checking the width at the entrance, hit directly to the sheet. This situation furnishes shotblasting quality, efficiency, and saving the energy and consumables. The rate of the mentioned line can be adjusted between 1,0 - 3,0 meters / min. In case a shotblasting of SA 2 ½ quality and primer painting of 18 - 20 µ thickness is required, capacity of the line is 600 tons / 24 hours.

Both lines can make surface cleansing of SA 1, SA 2, SA 2 ½, SA 3 quality in convenience with the Swiss Standard SIS (ISO 8501-1; 1998) norms. The applicable primer thicknesses are between 13 - 25 µ.



COLD and PLASMA CUTTING GROUP

Cutting operation in our factory is performed in two main areas. These are:

- A) Cold cutting operation
- B) Plasma cutting operation

The equipments and general information on both operations are listed below:

A) Cold cutting operation

1. NC-controlled hydraulic shears;
Cutting length 3.150 mm, cutting thickness 4 mm,
2. NC-controlled hydraulic shears;
Cutting length 3.150 mm, cutting thickness 15 mm, with adjustable blades,
3. NC-controlled hydraulic shears;
Cutting length 6.050 mm, cutting thickness 15 mm, with adjustable blades.

B) Plasma cutting operation

1. CNC-controlled plasma unit;
 - ESAB Suprarex 4.500 model,
 - Net cutting scan area 3.200 mm x 16.500 mm,
 - HT 2000 (200 A) Power unit,
 - Plasma and Oxypropane flame cutting heads. Cutting upto thickness of 20 mm with plasma and 200 mm with oxypropane,
 - With powder marking unit,
 - With special gas console to cut stainless steel and aluminium.
2. CNC-controlled plasma unit;
 - ESAB Suprarex 5.500 model,
 - Net cutting scan area 4200 mm x 26.000 mm,
 - HT 4400 (400 A) Power unit,
 - Plasma and Oxypropane flame cutting heads. Cutting upto thickness of 24 mm with plasma and 200 mm with oxypropane,
 - With powder marking unit,
 - With special gas console to cut stainless steel and aluminium.

Depending on thickness of sheets, cutting tolerances in cold-cutting units is $\pm 0,5 - 1,0$ mm, in plasma-cutting units is $\pm 0,1 - 0,2$ mm.



FORMING GROUP

Forming operation in our factory is performed in two main areas. These are:

- A) Sheet forming operation
- B) Profile bending operation

The equipments and general information on both operations are listed below:

A) Sheet forming operation

1. NC-controlled hydraulic press brake;
Bending length 4.100 mm, bending capacity 300 Tons.
2. NC-controlled hydraulic press brake;
Bending length 2.750 mm, bending capacity 200 Tons.
3. CNC-controlled hydraulic press brake;
 - Bending length $6.100 \times 2 = 12.200$ mm,
 - Tandem operating feature,
 - Bending capacity $450 \times 2 = 900$ Tons.
4. CNC-controlled hydraulic press brake;
 - Bending length $8.100 \times 2 = 16.200$ mm,
 - Tandem operating feature,
 - Bending capacity $1.200 \times 2 = 2.400$ Tons.

CNC-controlled hydraulic press brakes, except other sectors are used in shipbuilding industry for bending outer and inner shell, omega and zet forming with full-length bending of corrugates and bending applications of superstructure.

B) Profile bending operation

1. PLC-controlled profile bending unit;
 - PULLMAX SBRP - 400 model,
 - Net bending capacity 400 Tons, the ability to bend two 400 size bulbs.
2. Eccentric press unit;
 - Capacity 400 Tons,
 - Tray dimensions 750 x 1.250 mm,
 - With pneumatic clutching and pneumatic braking systems.

Bending unit within the group of profile bending is a model especially developed for Ship Profile bending and has the force to bend two 400 size bulbs together. The press can give the "S" form to the profile without pulling it out from the machinery. The eccentric press within the system is for opening scallop on ship profiles and flat bars.

Cutting dies have been designed accordingly.





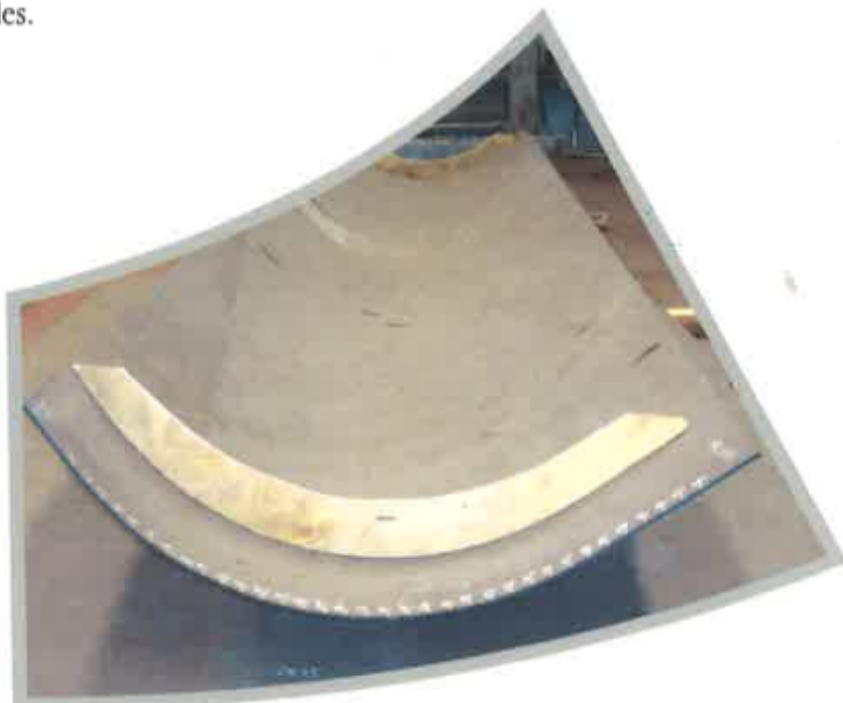
Established in 1982, having improved itself and business within the time since, our company has started rendering service on a total of 11.000 m² closed production area within the 22.000 m² open area, 5.000 m² open storage area with cranes and 2.000 m² office area with its new and modern machinery as of 2006.

Specialized on shotblasting and primer painting, cold and plasma cutting and the sheets and profiles forming with its present and newly installed units, our company has started rendering service to:

- Shipbuilding and ship overhaul industry,
- Construction sector,
- Machinery manufacturers,
- Automotive industry.

Alaybeyoğlu Manufacturing Industry is benefiting from its own BV-certified welding procedures and BV-certified welders in its welded pieces manufacturing and in the business of shipyards and shipbuilding, like all other corporations, executing its activities of cutting, bending, pre-manufacturing and ship section and block manufacturing within the framework of IACS rules.

Alaybeyoğlu has won recognition in business of pre-manufacturing and ship block manufacturing in parallel with the recently developing shipbuilding industry's demands in our country and the ISO 9001 quality assurance certificate it has received from BVQI inspection company as of November 2003 is a deed of its seriousness and understanding of quality in this matter.





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