



CARBON STEEL UNIT



Carbon steel unit

Since 1965 Tecnofondi has been producing **dished heads** for tanks, reservoirs and boilers. In the course of time the company has developed 2 different units that separately produce dished heads in carbon steel and stainless steel.

The **carbon steel unit** is located in the historical company headquarters and it consists of a 5500m² plant that, thanks to the continuous investments, is now equipped with avant-garde installations for the production of dished heads and the storage of raw material coils, flattened sheet and end products on sale.

In this unit materials are manufactured through two production methods: either through the **pressing process** or through **dishing and the flanging process** that guarantee a wide range of end products with a diameter from 320 to 5000 mm and a thickness from 1,2 to 32 mm.

The press forming: system and production

The press forming allows to produce dished heads through the use of standard moulds installed on hydraulic presses; starting from metal disks, in a single dishing operation, press formed heads with the edges requested are obtained.

Tecnofondi is equipped with a wide range of moulds - either with normal, torispherical or elliptical profile - that are assembled on 6 presses with a power between 400 and 1500 tons and with a completely automatic or semiautomatic handling.

Normally working on its own moulds, the company is available to use installations supplied by the customers or to produce customized moulds providing its consulting both for the moulds fabrication and for the product manufacturing.

The rolling system

This new system enables producing heads through the following phases:

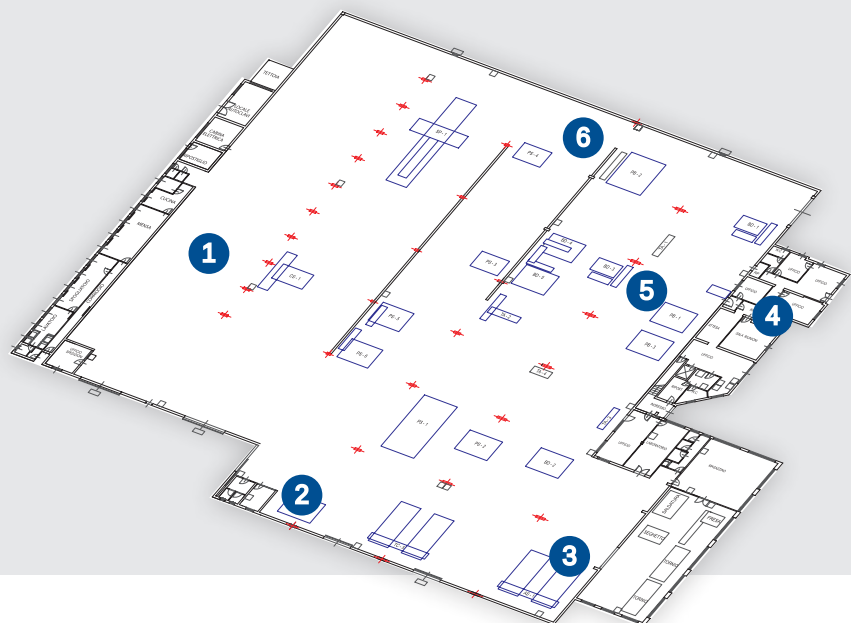
- disk cutting through circular shearing machine or plasma cutting.
- disk dishing through hydraulic presses equipped with a mechanical hand to obtain a spherical cap.
- cap flanging through a flanging

machine to get end products with customized diameters and profiles.

Inside the production range, Tecnofondi is able to supply all the profiles and the diameters requested up to a thickness of 320 mm and up to a diameter of 500 mm.

Auxiliary to the main departments, 3 well equipped areas are here operative:

- The **tooling department** for the maintenance of moulds and installations
- The **welding area** to get non-standard square plates
- The **plasma cutting** for the trimming of thick edges.





1 - Warehouse dished heads

600 tons of dished heads are available with a diameter from 320 mm up to 3000 mm with edge type D and type E (torispherical).

In the company's technical catalogue all the dimensions available are listed.



2 - Plasma cutting

Vertical plasma cutting line for steel plates up to a thick of 50mm and longitudinal cutting for the trimming and bevelling of thick edges.

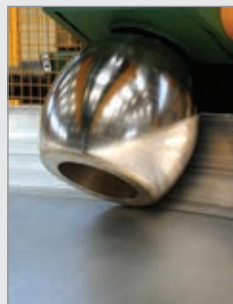


3 - Welding line

This line is fitted with a sliding bench with submerged arc to weld metal sheets up to a thickness of 12 mm and an electric bench with a grinding belt for the weld grinding.



4 - Offices



5 - Rolling department

- 2 circular shearing machines to obtain disks up to 5500 mm diameter and thickness up to 8 mm.

- 3 flanging machines 10 and 15 mm, 1 flanging machine 24 mm, 1 flanging machine 32 mm.

- A wide range of rolls is available to obtain dished heads with a radius up to the smallest dimension of 10 mm.

- 3 forming presses with a power of 600 tons and a working area of 5500 mm are equipped with a manipulator to lift caps up to 45 quintals.

- 1 shearing automatic circular machine for the entire manufacturing process of disks without operator.



6 - Press forming department

Pressing of heads up to a thickness of 7 mm and up to a diameter of 1800 with a wide range of moulds either with normal or semi-elliptical edge.

- 1 pressing line (press with a power of 600 tons) equipped with loading and unloading system.

- 1 press, power 800 tons.

- 1 press, power 1500 tons.

- 2 presses, power 600 tons.

- 1 press, power 400 tons.



Coils and sheets unit

A plant of 3800 sqm contains the centre for storage and coils processing equipped with a plant for the decoiling, a coils warehouse and a cut sheets warehouse.



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