



# Torispherical Head

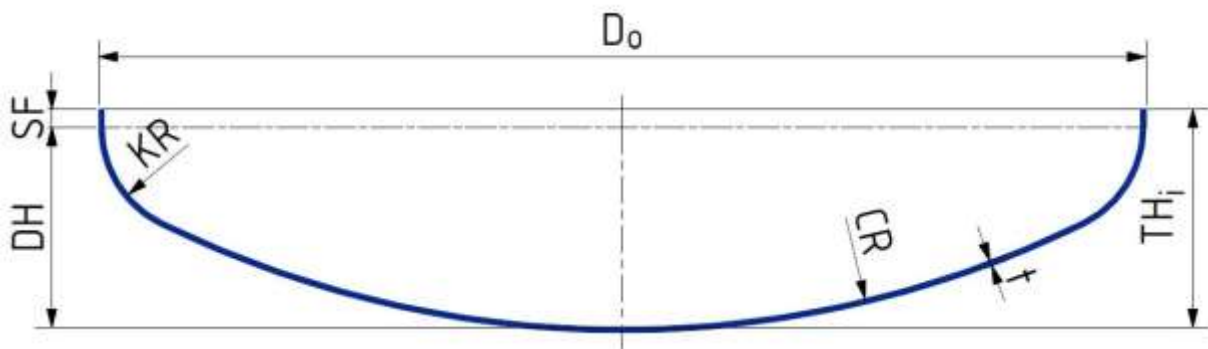
Torispherical head is a type of vessel head consisting of a dish with a toroidal section (spherical cap centered on the vessel) joined to a cylindrical section.



Torispherical head (or flanged and dished head), These heads have a dish with a fixed radius ( $r_1$ ), the size of which depends on the type of torispherical head. The transition between the cylinder and the dish is called the knuckle. The knuckle has a toroidal shape.

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Vessel dished ends are mostly used in storage or pressure vessels in industry. These ends, which in upright vessels are the bottom and the top, use less space than a hemisphere (which is the ideal form for pressure containments) while requiring only a slightly thicker wall.



## Material

- Carbon steel tank ends/caps, flat dished head: SA516 GR60N, GR70N
- Stainless steel ellipsoidal dished end, elliptical tank head: SA240 304, 316
- Titanium alloy pressure vessel ends: SB256 GR1, GR2, GR5



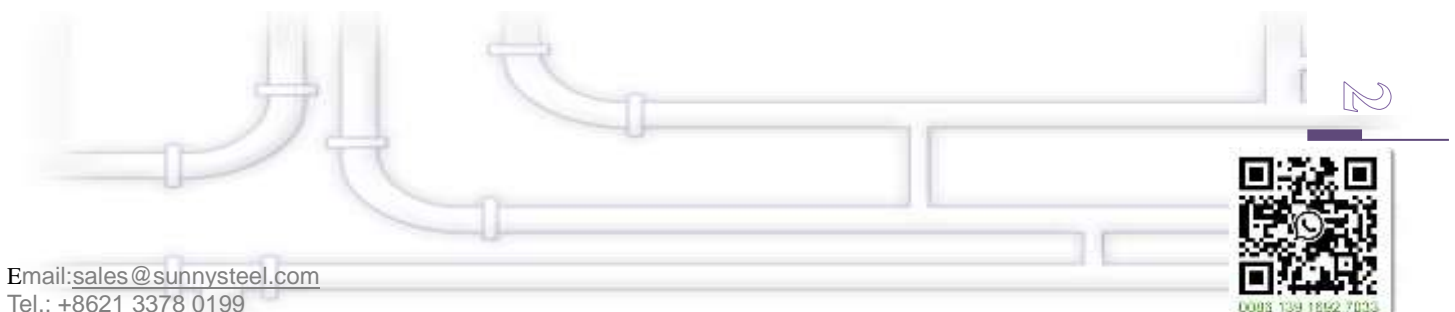
## Usage of Torispherical head

Torispherical head are commonly used in the design and construction of tanks and pressure vessels that operate under high pressure conditions.

### **Some common applications of elliptical heads include:**

- **Pressure vessels:** Torispherical head are frequently used as end closures for pressure vessels such as boilers, reactors, and distillation columns. These vessels are used in industries such as oil and gas, chemical processing, and power generation.
- **Tanks:** Torispherical head can be used in the construction of storage tanks for liquids or gases such as water, fuel, and natural gas. They provide a smooth transition between the tank body and the tank head.
- **Heat exchangers:** Torispherical head can also be used in the construction of heat exchangers such as shell-and-tube heat exchangers, which are used in a wide range of industries including food processing, pharmaceuticals, and HVAC.

Torispherical head are widely used in various industries where pressure vessels, tanks, or heat exchangers are required to operate at high pressures and temperatures. The specific application, size, material, and thickness of an elliptical head depend on the requirements and design standards of the project.







**Note:** Mill test certificates will be issued according to EN10204.3 3.1 or 3.2

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