PLANISTEEL SOLID MS

Composition

Flat solid metal gaskets type Planisteel Solid MS are generally manufactured from metals such as **copper, aluminium, stainless steel, nickel, titanium or special alloys**, selected according to the operating conditions. All industrial metals are available.

Characteristics

The structure of flat solid metal gaskets type Planisteel Solid MS is simple and consists of a flat metal ring with a smooth surface, designed to be compressed between two flanges. The operating principle is based on the controlled plastic deformation of the metal, which allows the gasket to adapt to the micro-irregularities of the flange surfaces and create a tight barrier against fluid leakage.
Despite their excellent performance, these gaskets also present some limitations because they require:

- **high bolt loads** to achieve sufficient deformation
- **very precise and smooth flange surfaces**
- **careful installation**, because metal has a lower ability to compensate for defects compared to soft gaskets.

Applications

This type of gasket is mainly used in severe operating conditions, for example:

- **petrochemical plants and refineries**
- **high-pressure and high-temperature systems**
- **nuclear and aerospace facilities**
- **process lines handling aggressive fluids**

The main advantages of flat solid metal gaskets include:

- **high mechanical strength**
- **excellent thermal stability**
- **corrosion resistance** (depending on the alloy used)
- **absence of non-metallic materials**, useful in very aggressive or high-temperature environments

Tech Data

PLANISTEEL SOLID MS

MATERIAL	m	y (psi)
Soft Aluminium	4,00	8800
Soft copper or brass	4,75	13000
Iron or soft steel	5,50	18000
Monel or 4%-6% Chrome	6,00	21800
Stainless steel and nickel-base alloys	6,50	26000

* PLANISTEEL SOLID MS gaskets are available in all metals. Sealing factors m & y according to ASME VIII Boiler and Pressure Vessel Code



Planisteel Solid MS

Flat solid metal gaskets are sealing devices used in flanged connections where high resistance to pressure, temperature and chemical agents is required.

Unlike soft or semi-metallic gaskets, these gaskets are entirely made of solid metal and do not contain any filler materials or coatings.

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