Indian Standard IS 206:2010 – Tee and Strap Hinges – Specification (Fifth Revision)

A hinge is a mechanical device that connects two objects and allows one to move relative to the other. Hinges are often made of metal and are used on doors, windows, and lids. Hinges allow one object to swing open and closed while remaining attached to another object.

What are Tee Hinges?

Tee hinges, are renowned for their strength and stability and are characterized by a distinctive T-shaped design with one long leaf, allowing them to evenly distribute the weight of a door or gate. These are built to withstand heavy loads and high levels of stress making them ideal for applications on large doors or gates.

Key features of tee hinges:

Long arm design: It features one long leaf that runs along the length of the door or gate, providing greater stability and weight distribution
Heavy-duty capacity: Due to their design, tee hinges can support heavier loads than standard hinges, making them suitable for large and heavy doors. With their high load-bearing capacity, tee hinges can support even the heaviest of gates without bending, buckling, sagging or misalignment
Durable materials: Often constructed from materials like stainless steel, brass or wrought iron, to resist rust, corrosion or wear in outdoor environments, ensuring a long lifespan for your gate

The Strength of Tee Hinges

1. Heavy-duty construction
2. Load-bearing capacity
3. Security features

What are Strap Hinges

Strap hinges are a specific type of hinge known for their long and narrow design, resembling a strap or band. These hinges comprise of two flat metal plates that are joined together by a pivotal pin or rod, allowing rotational movement. Strap hinges come in various sizes, materials, and finishes, making them suitable for a wide range of applications

Benefits of Strap Hinges

Strap hinges offer several benefits, making them a popular choice for various applications across industries. A few of the advantages of these hinges include:

Sturdiness: Strap hinges are renowned for their durability and ability to support heavy doors and gates. These hinges are typically manufactured from robust materials like stainless steel or heavy-duty iron
Versatility: They can be used indoors and outdoors, on doors, gates, cabinets, and more
Security: Heavy-duty strap hinges are known for offering enhanced security for doors and gates
Smooth Operation: Strap hinges that are meticulously crafted offer smooth and quiet operation, guaranteeing ease of use
Aesthetics: Strap hinges are designed for both practical and aesthetic purposes. Many strap hinges come in a range of styles, finishes and decorative designs, adding a touch of style to their functionality

What the standard says?

Clause 4 of this standard says that Tee and Strap Hinges should be manufactured from either Mild Steel sheet conforming to Grade 0 of IS 1079 or from Mild Steel Wire conforming to *Min* ¼ H of IS 280.

IS 1079 grade steel is highly formable, making it suitable for bending, drawing, and stamping and has moderate corrosion resistance, performing adequately in environments where severe corrosion is not a concern. This grade of steel offers great strength, even though it is light in weight.

Mild Steel wires as per Condition Min ¼ H of IS 280 has got a tensile strength of 450 MPs (Min), which provides durability, strength, sturdiness and load – bearing capacity to the hinges manufactured from it. The material is also having satisfactory ductility properties which helps in formation and shaping of the hinges without fracture or breakage.

Tee or strap hinges manufactured from any of the materials stated above, will ensure the desired performance requirements of the hinges.

This apart, the standard lays down seven and four different types of Tee and Strap Hinges respectively at clause 3 of the standard. Anyone can choose from the varieties of the hinges provided therein as per the required size and designation of the hinges, depending on the intended use.