

CaseX

Steel Roller Rings and Steel Insulators

GENERAL INFORMATION

Often it is not possible to lay pipes in open ditches. For example, for rail or road crossings it is first necessary to drive casings underground. By using PSI steel insulators or roller rings, the carrier pipe can be inserted into the casing sleeve safely and efficiently.

Steel roller rings or steel insulator ...

- ... facilitate pipe installation by reducing friction between the carrier pipe and the casing,
- ... provide support for the carrier pipe,
- ... act as spacers between pipe and casing pipes and can thus be placed in concentric or eccentric positions
- ... ensure electrical isolation of both pipes, since the skid material can be made out of plastic.

Steel insulators or steel roller rings

Strong steel constructions are preferred over plastic insulators in the following cases:

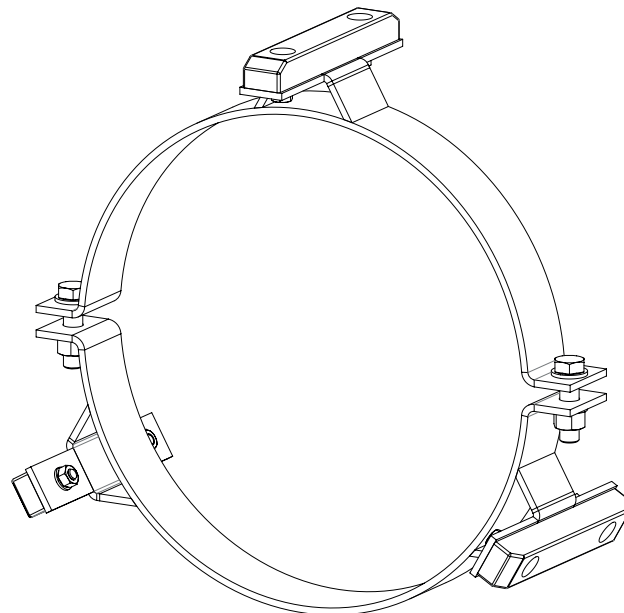
- High medium temperatures
- High pressure in large pipe diameters (load-bearing capacity!)
- Wide or narrow difference in diameter between casing and carrier pipe
- Long distances
- Rough casing pipe surfaces

Typical steel insulator assembly

Each ring consists of two halves which are clamped together by hexagonal nuts and bolts. The ring halves are manufactured individually.

Note

Performance data and technical information provided here in is intended for guideline purposes only. Suitability of product configurations for specific applications should be determined by the end-user.



Application example



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TECHNICAL DATA

Material

Ring halves and skids are made of steel. The surfaces are available without corrosion protection (black), or bitumen coated, plastic coated, hot-galvanized or in stainless steel (S304 (V2A)/S316 (V4A)).

Wheels made of polyamide, steel or stainless steel. Sliding parts made of PP, steel, brass etc. bolts made of galvanized, high-strength steel or stainless steel.

Varying skid heights on both, the upper and the lower ring halves allow for any media pipe position inside the casing. With long distances we recommend using guiding rails in order to avoid pipe rotation during installation (torsion protection).

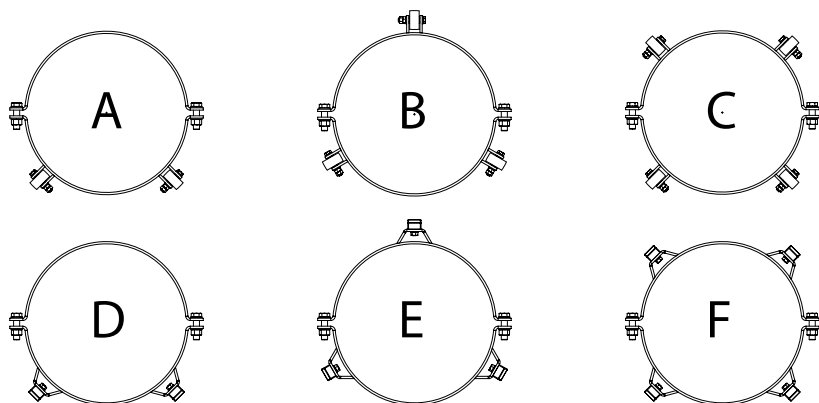
Subject to technical changes.



Application examples



Examples for Combinations



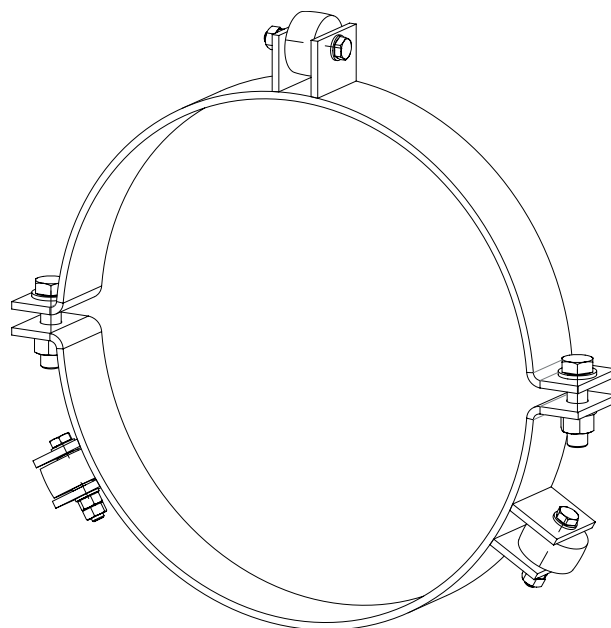
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TECHNICAL DATA

Steel roller rings for single or multiple pipes

The ring consists of two halves which are held together by bolts. The welded skids hold rolls which have the same purpose as the sliding skids of the casing spacers.

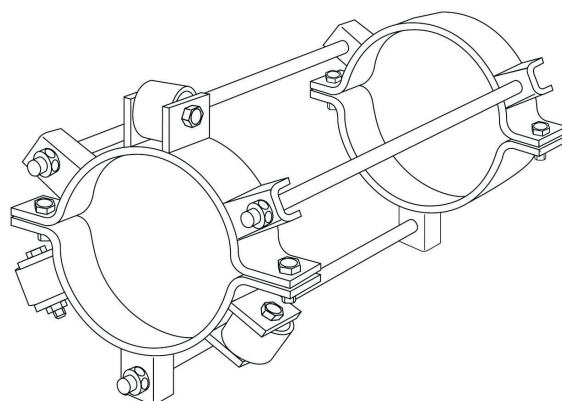
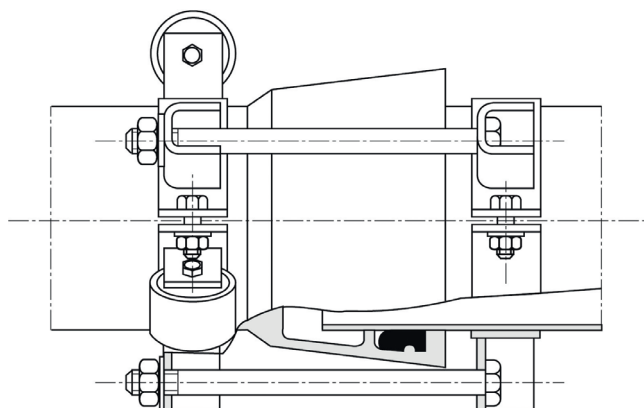


Roller ring with holding clamp for socket joints.

To ensure that socket joints remain tight, we can offer a tie bar system which consists of a roller ring fixed to one side of the socket and a clamping ring to the other side. The two are joined by tie bars.

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TECHNICAL DATA

Multiple clamping

PSI steel constructions are customized to suit customer requirements.

Execution

Customized. We will be pleased to assist you in selecting a suitable type.

Important ordering information

Please provide following information along with your enquiry/order:

- Insertion length
- Outer diameter of pipe
- Socket outer diameter
- Weight of carrier pipe
- Casing pipe inner diameter
- Sketch of carrier pipe position
- Type of media
- Type of connection between carrier pipe segments
- Length of individual carrier pipe segments
- Information if uplift protection is required
- Information if rotation protection is required

or ask for the PSI inquiry form “Steel Roller Rings / Steel Insulators”

Prices upon request.

Subject to technical changes.

Application examples



INDIVIDUAL STEEL SOLUTIONS

Large pipe-in-pipe projects like street, river or rail track crossings demand for higher material properties which exceed the ones plastic casing spacers can offer.

Examples:

- Multiple pipes in exact defined position
- Long distances
- Permanent pipe-movement
- High temperature
- Heavy weight
- Integrated tensile protection
- Hanging construction
- Rollers for rough casing pipe surfaces

PSI also offers customized solutions made of steel.
Use our experience!



Example

