INSTALLATION INSTRUCTIONS - RIGID AND BENT PIPES



Safety recommendations

Witzenmann rigid and bent pipes are quality products. They are safe in use and have long service life if suitable design data with regard to proper installation is provided by the customer. Here we can only mention a few aspects that should be considered before placing an order. Some examples of these aspects are described below.

Design

Rigid and bent pipes are produced on the basis of data provided by the customer. If a drawing is not available or the data provided by the customer is insufficient, pipes are produced in accordance with the (bending and welding) standards of Witzenmann Benelux.

Our rigid and bent pipes are designed to enable fast installation and are essentially maintenance-free.

Temperature effects

Temperature has an effect on the pressure strength of rigid and bent pipes. Suitable reduction factors must be applied when calculating allowable pressures.

Materials, corrosion and insulation

The suitability and selection of the materials used to produce the pipes must be checked using chemical resistance tables in the specialized literature. Special cleaning processes or special instructions for degreasing, descaling, end sealing, etc. must be agreed on before the order is placed.

Insulation materials that may cause rust of the metallic pipe may not be used.

Pipe bending tolerances

We maintain following tolerances for bent and rigid pipes in accordance with the bending standards of Witzenmann Benelux: WI BEN Standard 01

- Length
- Radius
- Angle
- Wall thickness
- Out of round
- Surface roughness

Welding tolerances

Unless otherwise stated, we maintain Class C as specified in the NEN ISO 5817 welding standard.

Surface treatment

Possible surface treatments include nickel plating, bichromating, hot-dip galvanising and electrolytic galvanising. Unless otherwise indicated, rigid and bent pips are supplied untreated.

Pipe bursting or breaking

Metal pipes can burst or break as a consequence of vibration, metal fatigue, overload due to excessive pressure or temperature, or due to poor or improper installation.

Installation instructions

Use and installation

The installation of rigid and bent pipes is first and foremost determined by the design and/or drawing. During installation, you must ensure that all piping is connected free of torsion. Any pipe that is torn or damaged may not be used. Repairs must be carried out by the manufacturer.

Installation of made-to-measure pipe Pipe installation with bolts and nuts

Rigid and bent pipes with oval, round or square flanges must always be connected evenly, with the bolts fitted loosely at both ends of the pipe before being tightened. Our rigid and bent pipes are normally not supplied with matching gaskets. Suitable gaskets must be provided by the customer.

Pipe installation by soldering or welding

The pipes must be protected against weld spatter and/or flux during welding or soldering. Excess flux must be removed. Suitable measures must be taken to protect solder joints against excessive temperatures and peeling.

Pipe installation with clampable pipe ends

If the rigid or bent pipes have grooves made to specific standard dimensions, the corresponding coupling must be used to connect the pipe.

Other connection methods

If the rigid or bent pipes are fitted with standard couplings, suitable mating couplings must be used to connect the pipes.

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