

# WABO<sup>®</sup>DEC P

## Pot bearings

### DESCRIPTION

**WABO DEC P** bearings consist of a steel baseplate housing a ring into which a rubber disc is fitted. The former ring is closed above a steel pressure plate engaging with a slight clearance into the circular baseplate recess. Rubber is retained in all directions and, behaving as an incompressible liquid, affords rotations on all axes.

To allow for sliding, the pressure disc is faced on top with a variable value (for EN 1337, AASHTO) of thickness partly recessed PTFE layer. The disc is also placed in contact with a steel plate lined with stainless steel high-mirror-finished-sheet. On guide bearings guide bars restricts the movement in one direction and resists horizontal forces perpendicular to the direction of translations. High-grade anticorrosion treatments and dust proofing gaskets adequately protect sliding surfaces.

### USES

**WABO DEC P** steel/PTFE bearings, of the elastomer-based retained disc type are used as structural bearings for bridges since they are designed to support large vertical loads whilst on occasions resist horizontal loading and accommodate movement in a variety of directions. These bearings are supplied in three types: fixed, PF (Fig.1), guided, PG (Fig.2) and free-sliding, PM (Fig.3).

### ADVANTAGES

- High resistance to horizontal stress
- High resistance to dynamic loads
- High durability
- Reduced maintenance

### PACKAGING

**WABO DEC P** bearings are supplied complete with identification plate bearing main data such as: date, type, bearing capacity and service displacement range.

transit plates to be removed after placement ensure product protection during shipment.

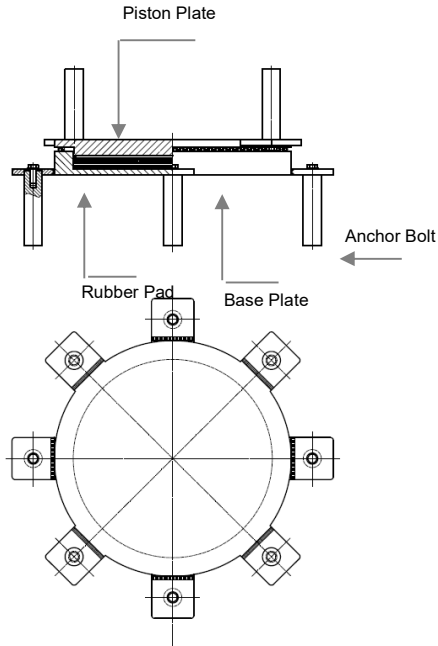
### Product data

EN 10025 - S3 or higher grade steel is used.

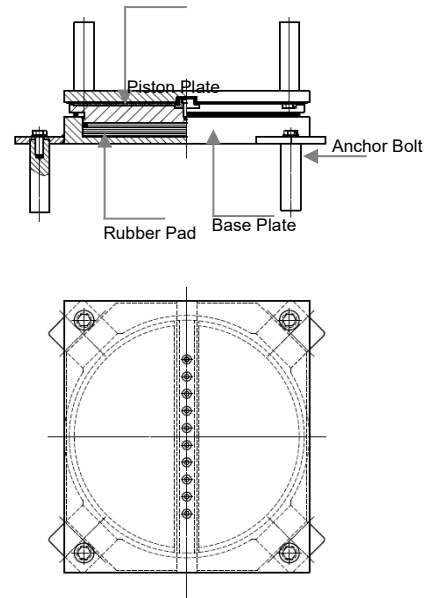
Stainless steel type X5CrNiMo17-12-2, conforming to the requirements of EN 10088-2, with polished surface which roughness does not exceed 0.1 mm.

The raw material for PTFE is pure polytetrafluoroethylene free sintered without regenerated or filler materials meeting with the requirements of EN 1337. For the mechanical and physical properties, the reference is EN 1337-2 – Table 5

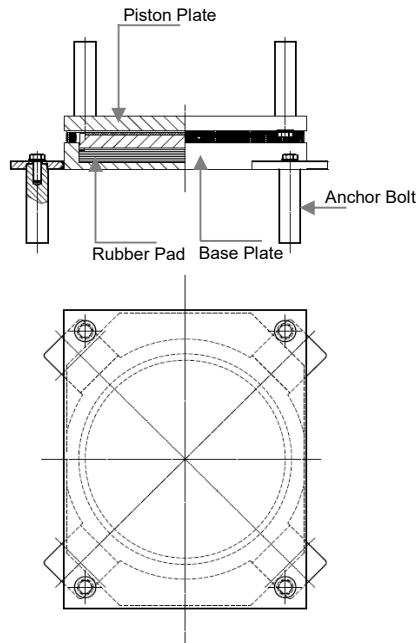
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**FIXED BEARING (WABODEC PF)**



**GUIDED BEARING (WABODEC PG)**



**FREE SLIDING BEARING (WABODEC PM)**

The lubricant is a special lubricating grease based on silicone oil and it is accordance with the requirements of EN 1337-2, clause 5.8.

Anticorrosion treatment:

- Corrosion protection is Category "C5-M" (EN ISO 12944-2)
- Durability "H" (EN ISO 12944-1)

The elastomeric material used for the elastomeric pad consists of polyisoprene (NR) or polychloroprene (CR) in accordance with ISO 6446. Physical and mechanical properties ref. EN 1337-3 Table 1.

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Upon request, bearings produced with different materials and/or anticorrosion protection can be supplied. Bearings complying with different standards such as AASHTO, BS EN 1337, etc. can also be supplied. The anchoring system can be modified according to specific project installation requirements as well.

## INSTALLATION

**WABO DEC P** bearings must be correctly positioned for optimum operation and long service life. The area of contact between concrete and bearing surface shall be dimensioned to an average pressure below 150 kg/cm<sup>2</sup>, under maximum vertical load conditions; in case of higher values, provision must be made to reinforce the concrete.

Mode of fixing bearings to the structure depends on the given load conditions. It can be carried out by epoxy resin bonding, in which case with knurled-finish surfaces; or by means of anchors to be buried into concrete, making provision for steel counterplates – if any. Fixing to steel structures shall be solely made by means of screws.

This operation provides for the following main steps:

- Plynth to be cast up to an elevation some centimeter less than the elevation provided for housing the bearing systems; if anchors are to be used for fixing, bore the applicable holes in the required diameter, or allow full pockets prior to casting plynth;
- Positioning of bearings making use of adequate wedges;
- Fixing of bearings by epoxy resin injection.

Guided and free-sliding bearings must be pre-set in order to allow for any elongations and shortenings expected to take place in the

structure. Presetting is performed prior to bearing locking by means of the special plates.

Misalignment – if any – shall be eliminated fitting adequate levelling layers onto pre-cast beams, or placing a resin prism between bearing and superstructure, or alternatively making use of steel wedge in adequate size.

## STORAGE

When bearings are not directly installed upon supply they shall be stored in an adequate place, raised from the ground, and in such way as to be protected from shock, dust, humidity and direct sun rays.

## HEALTH AND SAFETY

Appropriate health and safety advice can be found in the Material Safety Data Sheets.

Users are advised to wear gloves and eye protection when installing **WABO DEC P** bearings.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

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