TETRON CD® JACKING BEARINGS

- Connection device
- Settlement compensation
- Reaction balancing
- Easy to use

POT BEARINGS

Technical data sheet reference no.: FT En C V 4 4

FREYSSINET
SUSTAINABLE TECHNOLOGY

DESCRIPTION

It is usual to use high-capacity hydraulic jacks to adjust the position of decks after construction or quite simply to balance the vertical load distribution between two bearings on the same pier. The jacks must be taken to the pier head, where the lack of available space is often an obstacle to deploying them easily, and subsequently removed at the end of the operation.

Freyssinet has developed an alternative and simpler system using permanent TETRON CD® pot bearings as adjusting jacks.

The principle consists of converting standard pot bearings into hydraulic jacks by equipping them with one or more injectors connected to a high-pressure pump.

This pump injects silicone gum under the elastomeric disc in the bearing and this gum, driven by the injection pressure, goes on to displace the pot bearing piston as for a hydraulic jack.

This function does not affect the basic structural support functions in any way.

TETRON CD® pot bearings incorporating this system are designed and manufactured in accordance with European Standard EN 1337-5.

GUM TYPES

Two types of silicone gum are available:

- One air-curing;
- One non-curing.

The first is used where the jacking is final and once-only. In this case the silicone gum injected will cure on contact with air slowly enough for it to be injected without any time constraints. Once cured, this gum has the same properties as the elastomeric disc in the bearing.
Non-curing gum will preferably be used when several successive jacking operations are specified, if "dejacking" is envisaged or simply to cancel out any resistance to rotation of the pot bearings.

AREA OF APPLICATION

From 100 kN to 5,000 kN (or even beyond) for operating temperature between -25°C and +50°C.

TETRON CD® jacking bearings

TECHNICAL CHARACTERISTICS

Gum is injected at a pressure of approximately 400 bar. TETRON jacking bearings are equipped with a PTFE-carbon composite seal (in accordance with EN 1337-5) in order to ensure that the pot is perfectly sealed.
All models in the TETRON pot bearing range can be equipped with the "jacking" option, with jacking heights of up to 50 mm.

TETRON CD® jacking bearings

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EQUIPMENT

Depending on the size of the bearings to be injected, either a portable jack + manual pump unit at the bearings or a pump/jack unit powered by a compressor on the ground will be used.
In either case the operating pressures are higher than the actual injection pressures and flows are fully under control.

APPLICATIONS

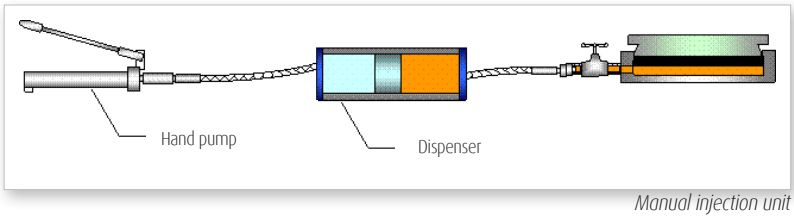
The area of application of TETRON jacking bearings is very wide:

- Structural work
- Buildings
- Civil engineering structures

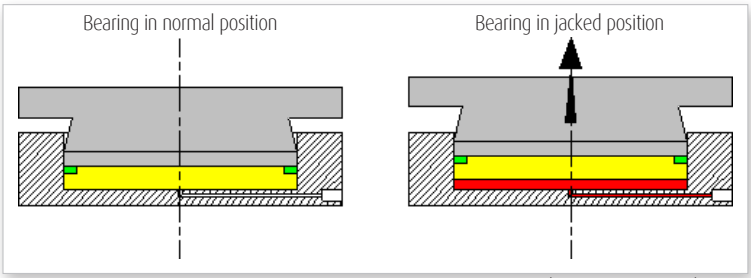
QUALITY

The entire design and manufacturing process is covered by ISO 9001/2000 quality certification.

High pressure injector



Manual injection unit



Jacking a TETRON CD® bearing

Detail of channels machined in the pot

Jacking a structure

PRODUCTION AND DISTRIBUTION

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