TECNISLID®

- **Wide range of operating temperatures**
- **Compact size**
- **Low friction**

POT BEARINGS

Technical data sheet reference no.: FT En C VI 2 1

FREYSSINET
SUSTAINABLE TECHNOLOGY

DESCRIPTION

The interfaces between industrial structures, pipes, machinery and various accessories and their supports need to be handled with care.
They make a significant contribution to correct plant operation if they are considered from the design stage and often account for a small proportion of the cost of an operation.
For some years Freyssinet has been placing particular focus on the problems of structural support:

- both in the field of public works, with its ranges of "CE" elastomeric and mechanical bearings marketed under the TETRON brand.
- and in industry with its TECNISLID® range designed and built with high-performance materials.

TECNISLID® bearings are designed to operate in conditions specific to industry, i.e. at high and low temperatures. They are used to transmit vertical loads from structures to their foundations and, depending on the type, to allow for rotation, to allow structures to expand freely or to guide and direct structural movements.
Displacement is achieved by a stainless steel plate polished to a mirror finish sliding over a polytetrafluoroethylene (PTFE) disc notched into a piston.
Rotation is permitted by the deformation of an elastomeric disc located in a collar and equipped with an anti-extrusion ring (models 2 and 3).

- If movement is free in all directions, the TECNISLID® bearing is termed "Free-sliding" (models 1GL, 2GL and 3GL).
- If movement is desired in just a single direction, the TECNISLID® bearing, fitted with side stops, is termed "Guided" and takes up the horizontal loads perpendicular to the displacement (model 3GG).
- If movement is to be prevented, the TECNISLID® bearing is termed "Fixed" and takes up the horizontal loads in all directions (model 3FX).

PROTECTION

All of the metal components in the bearings are protected against corrosion by:

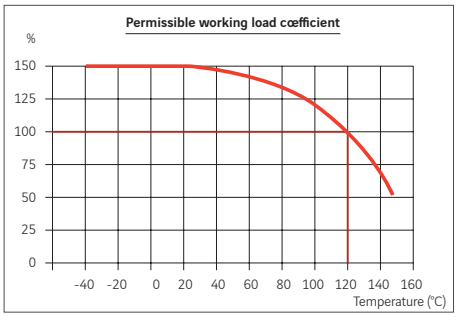
- An ACQPA C4ANV type epoxy resin and polyurethane based protection system or,
- Zinc-aluminium metal spraying + epoxy polyurethane paint system.

These two protection systems comply with EN 1337-9.

Industrial site equipment

TECHNICAL CHARACTERISTICS

Because TECNISLID bearings are used within a very broad temperature range, they are made from high-grade, high-performance materials (PTFE, special rubbers, etc.).
The average stress on the support is 15 N/mm².
The nominal loads shown in the tables apply to a nominal operating temperature of 120°C.
The graph opposite can be used to adjust the permissible vertical load in line with operating temperature.



Operating range from -40°C to +160°C

Models	Selection criteria - Benefits
Tecnislid 1 and 2	• Slides in all directions • Rotation permissible with Tecnislid 2 • Secured by welding • Compact size • Economical
Tecnislid 3	• Slides in all directions: Tecnislid 3GL • Slides in a single direction: Tecnislid 3GG • Fixed: Tecnislid 3FX • Rotation permissible • Adapts to any type of support • Removable • Horizontal loads taken up with Tecnislid 3GG and 3FX

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OPTIONS

- **Dust protection:** TECNISLID® 3GL and 3GG sliding bearings are equipped with wiper seals. However, if the atmosphere is particularly aggressive, reinforced protective devices such as skirts or gaiters are installed.
- **Presetting:** If displacements are asymmetrical, the TECNISLID® 3GL and 3GG bearing sliding plate can be prepositioned relative to the collar in the factory.
- **Horizontal loads:** The permissible horizontal load for TECNISLID® 3GG and 3FX bearings is equal to 20% of the nominal vertical load. Please contact us for horizontal loads in excess of this ratio.
- **High temperature:** If the temperature transmitted to the bearing through contact exceeds 160°C, the top plate will be fitted with an insulating layer. Please contact us.

ASSEMBLY

The bearing must be fitted to a smooth flat supporting surface capable of withstanding the normal and tangential forces applied.
The component being supported must have similar characteristics.
The securing of the bearing to the support and to the component being supported will depend on their nature and the material they are made from (steel, aluminium, cast iron, timber, concrete, stone, etc.).

- **TECNISLID® 1 and 2:** the sliding plates and collars are secured by welding.
  However, sliding plates can be provided with holes for bolt fixing upon request. Please contact us.
- **TECNISLID® 3:** the upper plates and collars have holes for use with bolts, threaded rods and studs with or without sealing bushings.
  Class 8.8 bolts are specified for securing model 3 bearings.

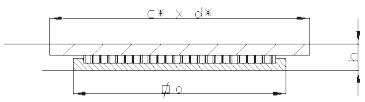
APPLICATIONS

- pipes
- chemical reactors
- furnaces
- exchangers, autoclaves
- bridge cranes
- tanks and reservoirs
- metal structures
- walkways and small structures
- machine tools
- boilers
- chimneys and antennas
- etc.

QUALITY

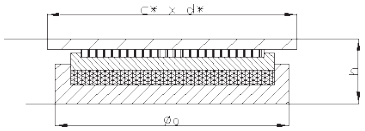
The entire design and manufacturing process is covered by ISO 9001/2000 quality certification.

Free-sliding bearing TECNISLID 1



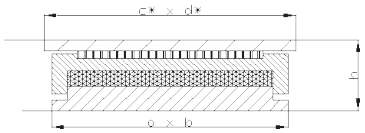
Type	Vertical load kN	Main dimensions mm			
		a	c*	d*	h
1GL1	12.5	50	75	75	11
1GL3	30	60	90	90	11
1GL12	125	100	130	130	11
1GL25	250	140	170	170	11

Free-sliding bearing TECNISLID 2



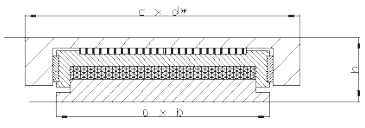
Type	Vertical load kN	Permissible rotation rad 10^{-3}	Main dimensions mm			
			a	c*	d*	h
2GL3	30	40	70	90	90	38
2GL12	125	33	110	130	130	38
2GL25	250	23	150	170	170	38
2GL50	500	23	200	220	220	38

Free-sliding bearing TECNISLID 3GL



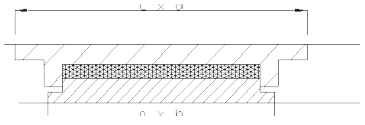
Type	Vertical load kN	Permissible rotation rad 10^{-3}	Main dimensions mm		
			a x b	c* x d*	h
3GL25	250	23	152 x 230	210 x 190	67
3GL50	500	23	202 x 280	260 x 230	67
3GL75	750	23	242 x 360	300 x 280	85
3GL100	1,000	23	272 x 390	330 x 310	85
3GL125	1,250	23	302 x 420	360 x 340	85

Free-sliding bearing TECNISLID 3GG



Type	Vertical load kN		Permissible rotation rad 10^{-3}	Main dimensions mm		
	V_{max}	H_{max}		a x b	c x d*	h
3GG25	250	50	23	152 x 230	230 x 190	67
3GG50	500	100	23	202 x 280	280 x 230	67
3GG75	750	150	23	242 x 360	360 x 280	85
3GG100	1,000	200	23	272 x 390	390 x 310	85
3GG125	1,250	250	23	302 x 420	420 x 340	85

Free-sliding bearing TECNISLID 3FX



Type	Vertical load kN		Permissible rotation rad 10^{-3}	Main dimensions mm		
	V_{max}	H_{max}		a x b	c x d*	h
3FX25	250	50	23	152 x 230	230 x 152	67
3FX50	500	100	23	202 x 280	280 x 202	67
3FX75	750	150	23	242 x 360	360 x 242	85
3FX100	1,000	200	23	272 x 390	390 x 372	85
3FX125	1,250	250	23	302 x 420	420 x 302	85

The dimensions specified in these tables are provided for information only. Freyssinet reserves the right to amend them.

PRODUCTION AND DISTRIBUTION

FPC
Zone d'activité du Monay
Saint Eusèbe – BP18
71210 Montchanin
Tel.: +33 (0)3 85 73 69 00
Fax: +33 (0)3 85 73 69 01

SALES MANAGER
Pierre Rogez
Tel.: + 33 (0)3 85 73 69 27
pierre.rogez@freyssinet.com

TECHNICAL CONTACT
Philippe Salmon
Product Development Division
Technical Department
Tel.: + 33 (0)1 46 01 85 59
philippe.salmon@freyssinet.com

LOCAL SALES CONTACT