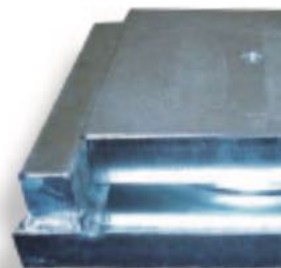
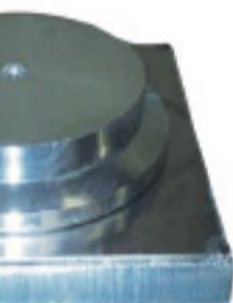


SLIDING -SUPPORT-BEARINGS

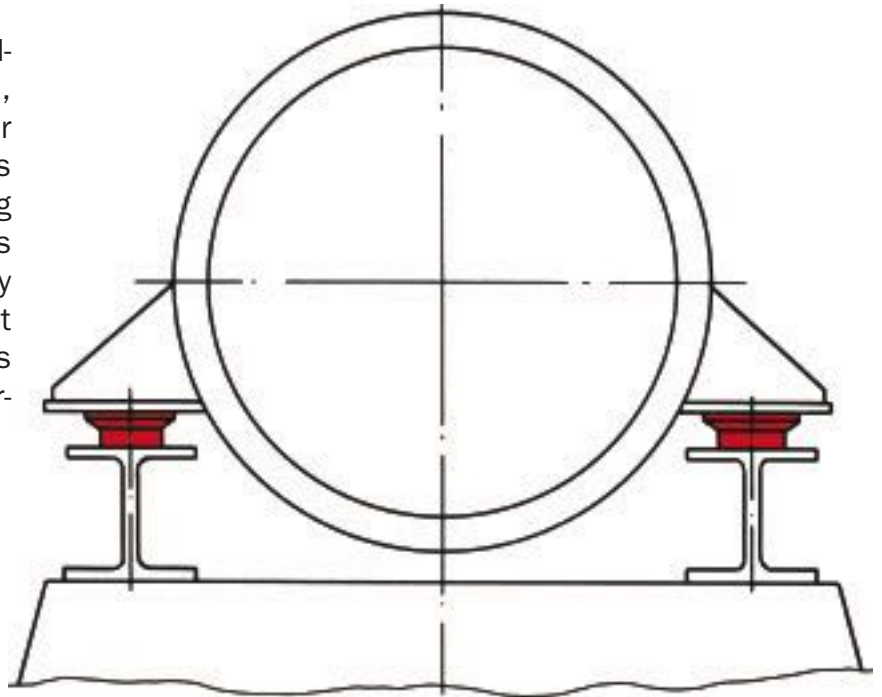


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SLIDING – SUPP

Pipe lines, ducts and reactors for desulfurization and denoxing plants, boilers, heat exchangers, precipitators and other heavy static items of industrial plants are subjected to expansion resulting from changes of temperature in various components. To avoid stress it is necessary to allow this expansion to occur without rigid constraint. Sliding support bearings are generally used as a means of overcoming the problem.



Bearings of this type should have the following properties:

- ✓ Low coefficient of friction.
- ✓ Values of static and kinetic coefficient of friction should be as near to each other as possible.
- ✓ High load carrying capacity.
- ✓ A degree of self alignment to avoid edge loading.
- ✓ Low maintenance – e.g. lubrication free.
- ✓ Sealed bearing surface to prevent ingress of dirt.
- ✓ Corrosion resistance.
- ✓ Long life.
- ✓ Ability to withstand wide range of temperatures.
- ✓ Easily changeable parts in case of wear.

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SUPPORT - BEARINGS

A designer has often to compromise between different factors but we have tried to design our support bearings on the basis of the above starting points. At the same time we have also had in mind that the price must remain on an acceptable level.

A prime feature of our support bearings is the capacity for self alignment during erection. This is particularly important when, it is not economically viable to achieve a high degree of accuracy of alignment or to have machined surfaces.

It is also this capacity for self alignment that avoids edge loading thus minimising wear and permitting longer life.

There are 5 main sizes of the support bearings, namely, for 50 tons, 100 tons, 250 tons, 500 tons and 700 tons load carrying capacity.

The sliding plate is corrosion protected steel with a layer of low friction material. The coefficient of friction is at high loads and low sliding speed normally under 0,05.

A flange at the middle of the bearing plate provides location in the bearing body without the need for an adhesive.

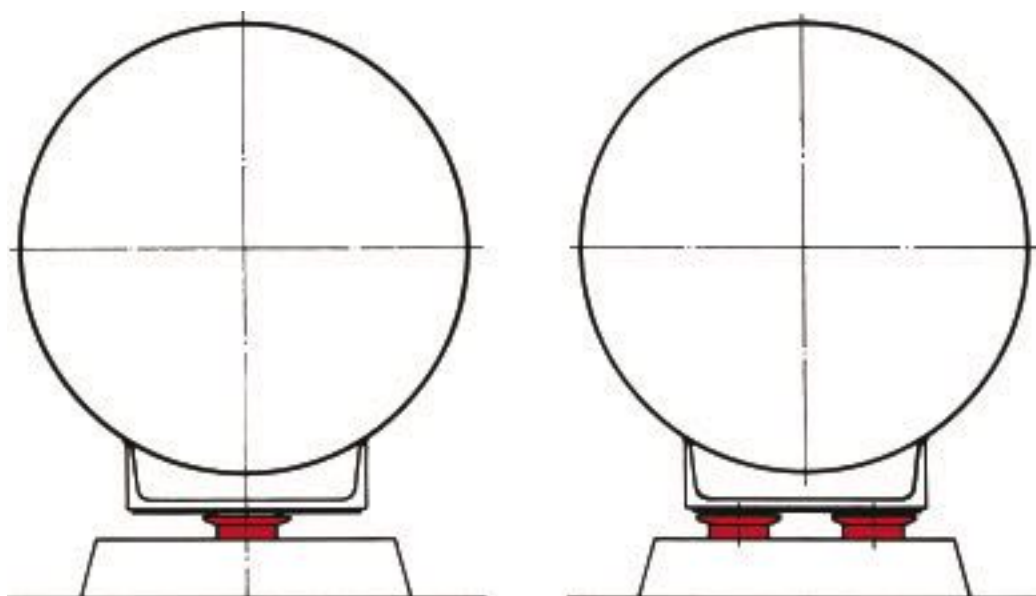
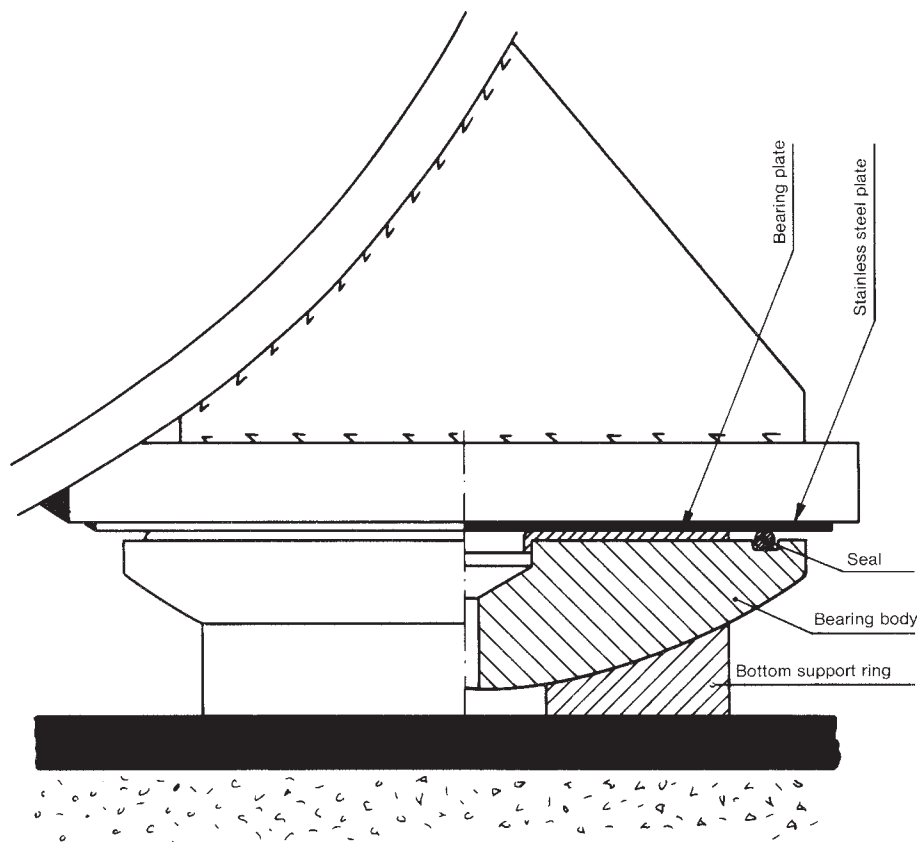
The seal is located in a groove in the bearing body which encircles the bearing plate and prevents movement of the seal. Seals can be supplied for bearing temperatures of 120° , 200° or 250° C.

The bearing body is made from high tensile steel, has a spherical base and all steel parts are zinc plated to prevent corrosion.

(See sketch on the next page)

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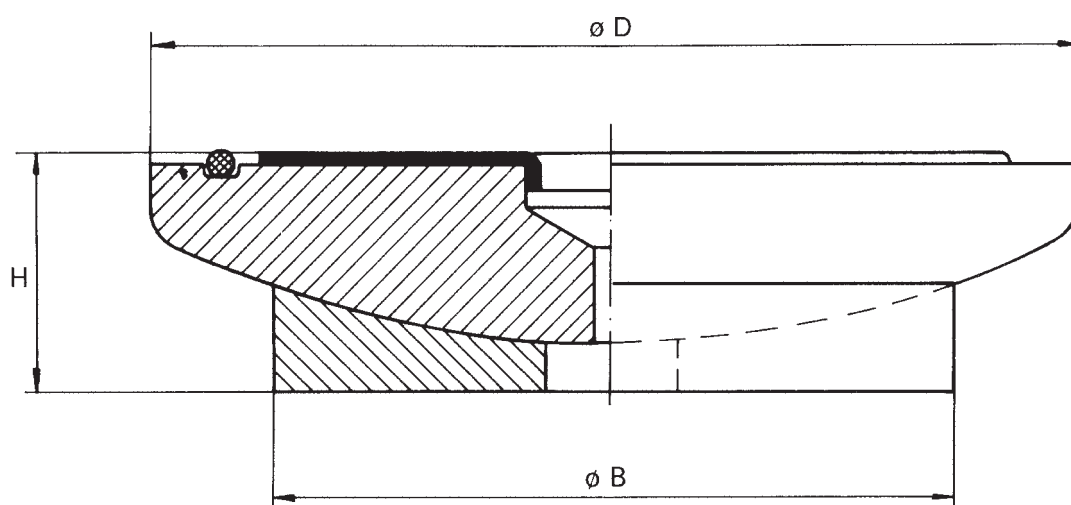
SLIDING – SUPP



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PORT - BEARINGS

For these **BEARINGS WITHOUT A TOP PLATE**, we can supply a mating surface which is a stainless steel plate, 2 mm thick and polished on one side. The polished side is protected by a plastic film. The mating plate must be fixed to a rigid steel plate in the construction carried by the bearing.

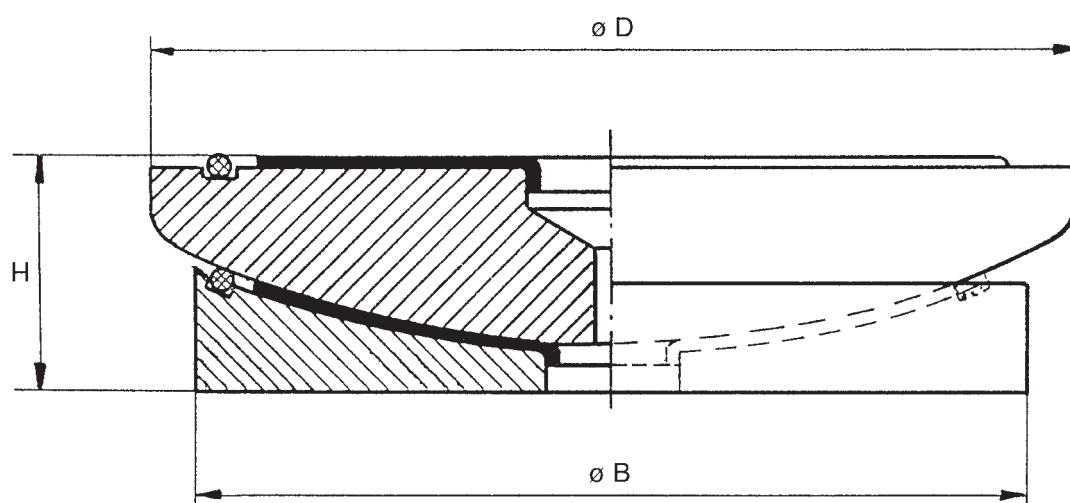


Load tons	Type	D mm	B mm	H mm
50	T- 50-N	135	100	35
100	T-100-N	175	150	41
250	T-250-N	240	200	55
500	T-500-N	290	240	61
700	T-700-N	350	300	70

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SLIDING – SUPP

Normally after the erection there are no movements between the spherical surfaces. There are however sometimes designs where one can get such movements at a certain frequency. In such cases we can supply our bearings with a sliding plate also between the spherical surfaces.

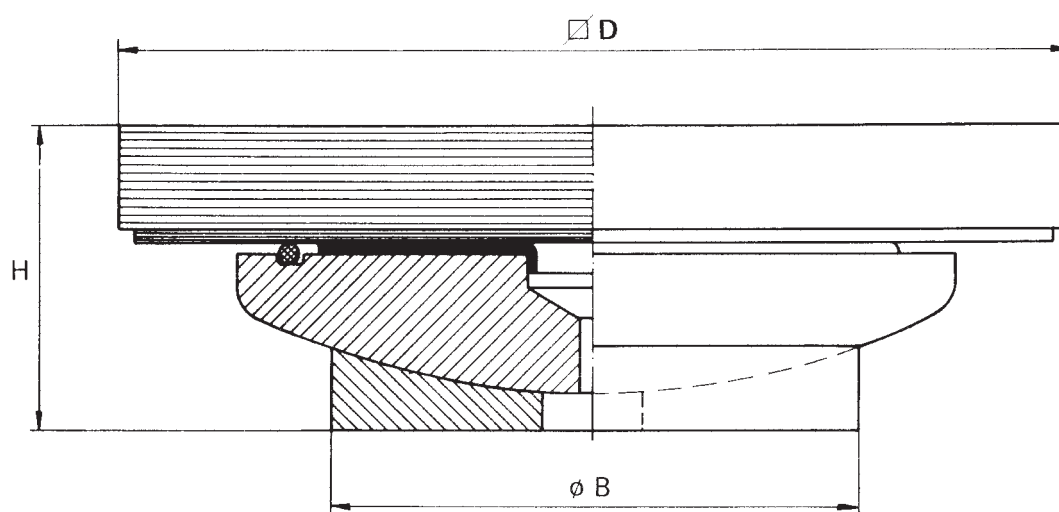


Load tons	Type	D mm	B mm	H mm
50	T- 50-N-D	135	125	35
100	T-100-N-D	175	170	41
250	T-250-N-D	240	225	55
500	T-500-N-D	290	280	61
700	T-700-N-D	350	330	70

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PORT - BEARINGS

These **FREE BEARINGS** have a top plate that is rigid and a total bearing height the same as the corresponding guided bearings. We can supply other sizes of top plates to give the bearings shorter or longer travel.

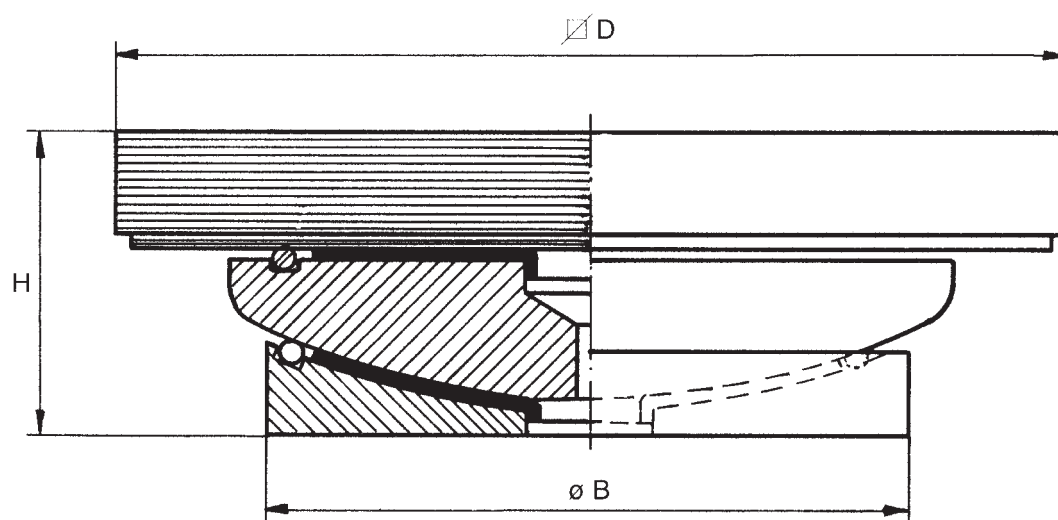


Load vertical tons	Type	D mm	B mm	H mm	Travel max mm +/-
50	T- 50-F	180	100	57	25
100	T-100-F	240	150	70	35
250	T-250-F-25	300	200	77	40
250	T-250-F-50	300	200	92	40
500	T-500-F	400	240	98	50
700	T-700-F	460	300	112	60

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SLIDING – SUPP

The same bearing as on page 7 but with an additional spherical sliding plate.

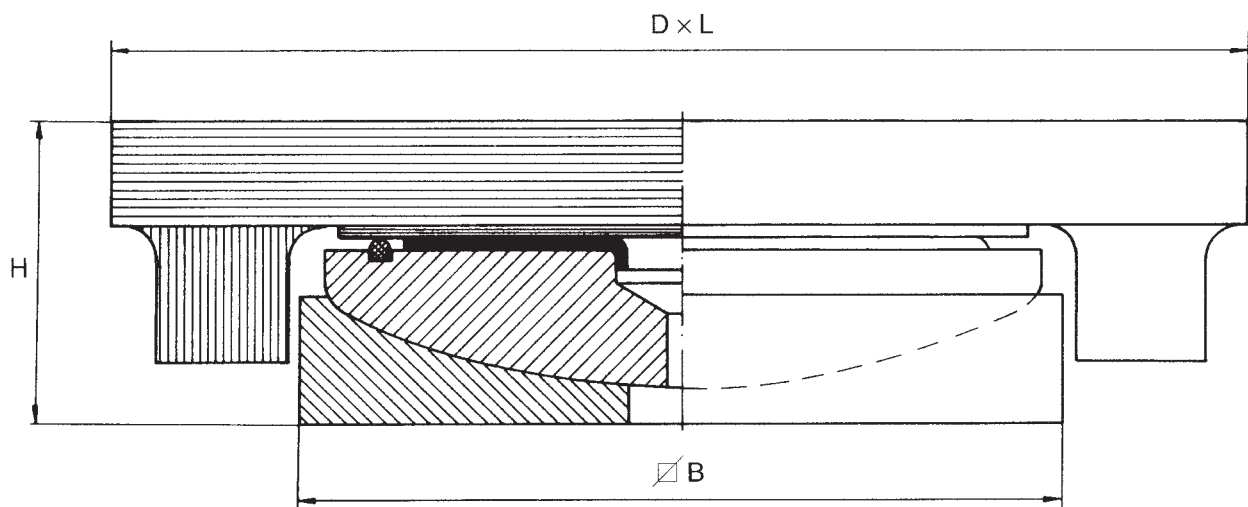


Load vertical tons	Type	D mm	B mm	H mm	Travel max mm +/-
50	T- 50-F-D	180	125	57	25
100	T-100-F-D	240	170	70	35
250	T-250-F-25-D	300	225	77	40
250	T-250-F-D	300	225	92	40
500	T-500-F-D	400	280	98	50
700	T-700-F-D	460	330	112	60

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PORT - BEARINGS

These **GUIDED BEARINGS** have a top plate that is rigid and a total bearing height the same as the corresponding free bearing. We can supply other sizes of top plates for shorter or longer travel of the bearings.

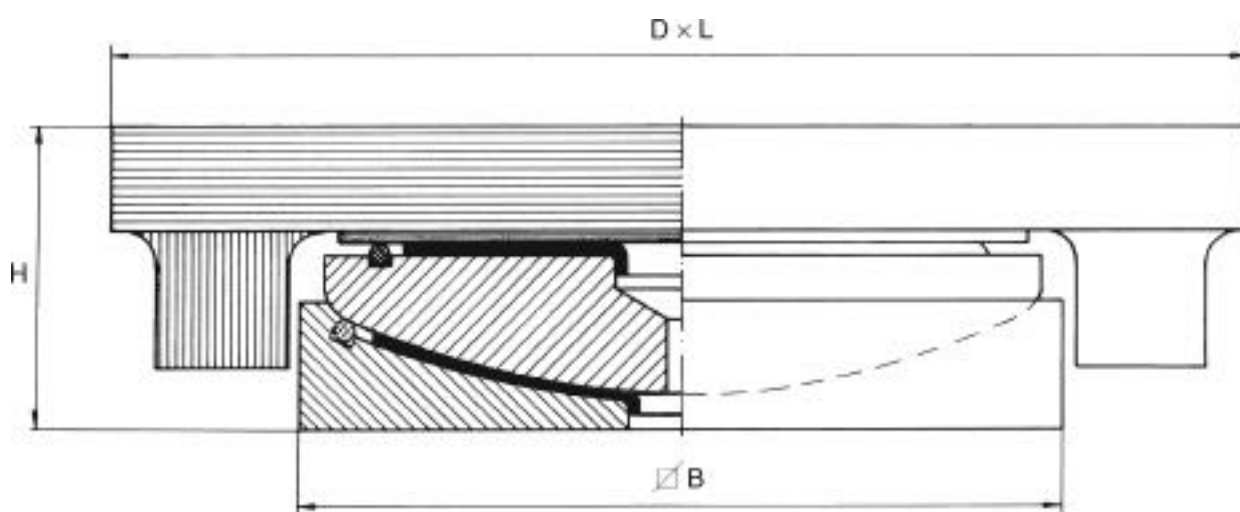


Load vertical/ Horizontal tons	Type	D mm	B mm	H mm	L mm	Travel max mm +/-
50/15	T- 50/15-S	215	145	57	180	25
100/25	T-100/25-S	275	185	70	240	35
250/25	T-250/25-S	340	255	77	320	40
250/50	T-250/50-S	360	255	92	320	40
500/50	T-500/50-S	400	305	98	400	50
700/50	T-700/50-S	475	370	112	440	60

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SLIDING – SUPP

The same bearing as on page 9 but with an additional spherical sliding plate.



Load vertical/ Horizontal tons	Type	D mm	B mm	H mm	L mm	Travel max mm +/-
50/15	T- 50/15-S-D	215	145	57	180	25
100/25	T-100/25-S-D	275	185	70	240	35
250/25	T-250/25-S-D	340	255	77	320	40
250/50	T-250/50-S-D	360	255	92	320	40
500/50	T-500/50-S-D	400	305	98	400	50
700/50	T-700/50-S-D	475	370	112	440	60

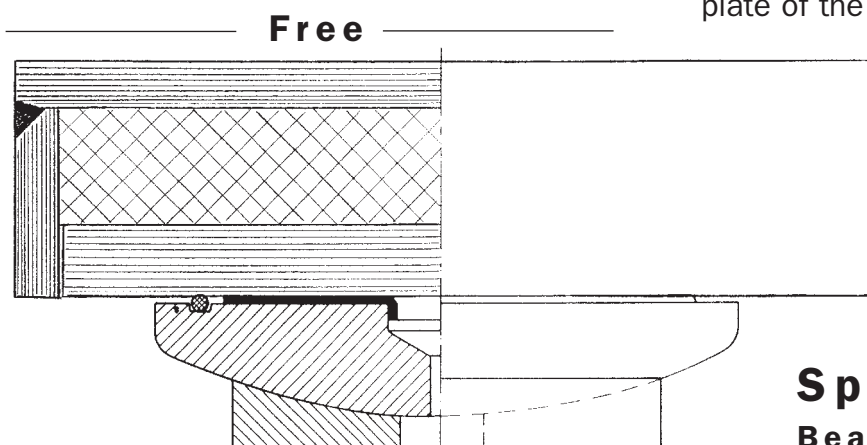
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Special Bearings

Bearings for high temperatures

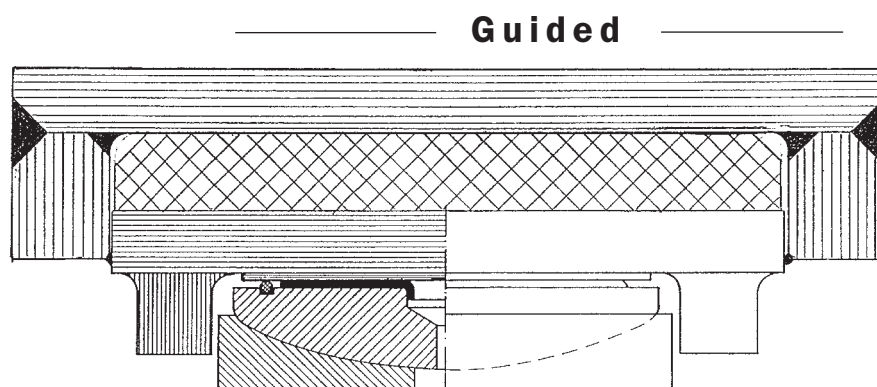
The Viton seals can withstand a temperature of 200° C, compound seals 250° C and the sliding plate some 300° C. If the temperature on the top plate of the bearing is expected to be considerably

higher we can supply our bearings with insulation material. We have supplied such bearings for as high temperatures as 600° C.



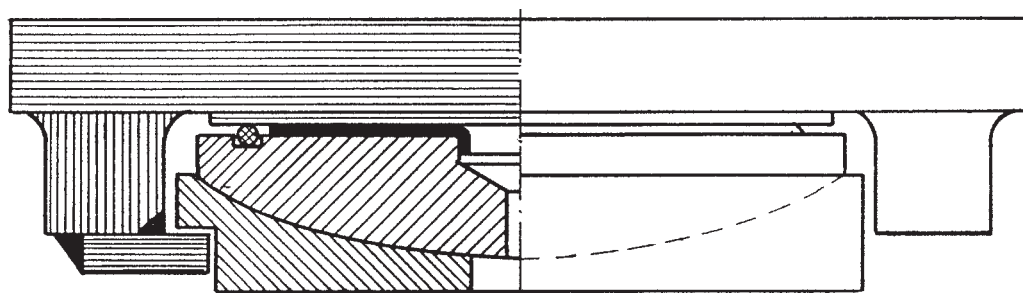
Special Bearings

Bearings for high temperatures



Special Bearings

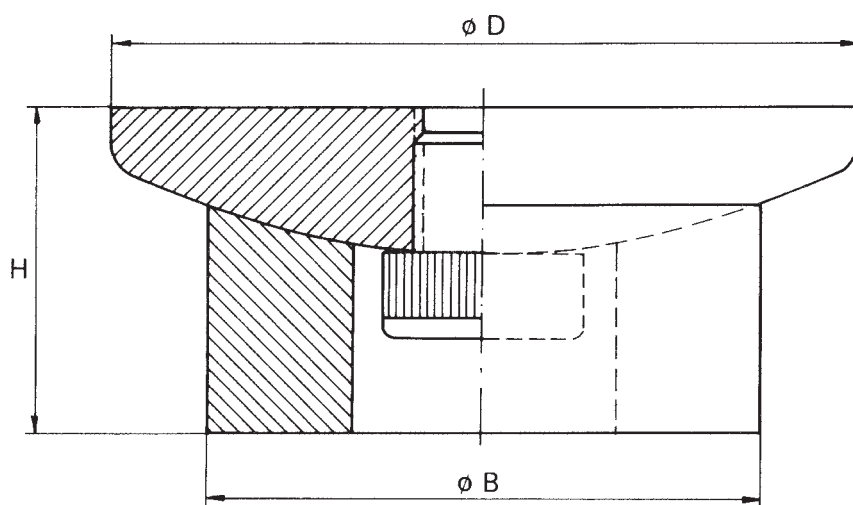
Bearings with liftup security device



In some pipe lines and ducts there is a risk that the pipe will lift up the top plate of the bearing and thus expose or even move the sliding plate and the seal. To avoid this risk we can supply our bearings with this security device.

SLIDING – SUPP

These **FIX-BEARINGS** have the same total bearing height as the heavier range of free and guided bearings. After the installation, when the bearing has catered for the misalignment, the two bearing parts should be welded together.



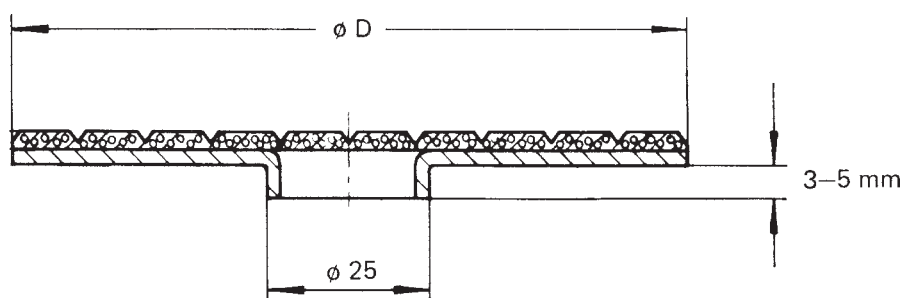
Type	D mm	B mm	H mm
FIX- 50	135	100	57
FIX-100	175	150	70
FIX-250-25	240	200	77
FIX-250-50	240	200	92
FIX-500	290	240	98
FIX-700	350	300	112

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PORT - BEARINGS

For simple applications, or where there is no need for self alignment, the bearing plates only may be used. They are very simple to fix to a carrier. All that is required for is a hole $\varnothing 25$ mm to be drilled and the bearing plate inserted. Generally no adhesive is required. The coefficient of friction is, as mentioned before, about 0,05 provided that a good mating surface is used.

The stationary load carrying capacity of the plates is 1500 kp/cm².
The dynamic load carrying capacity depends on the sliding and other important factors which normally apply to plain bearings.



Load tons	Type	D mm
50	P- 50-U	100
100	P-100-U	140
250	P-250-U	200
500	P-500-U	260
700	P-500-U	300

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ASSEMBLING INSTRUCTION

KONTIMA *Sliding Support Bearings* are delivered separately packed in thick shrink plastic foil.

The transparent plastic foil allows checking to be done by the customer on arrival, without unpacking the bearings.

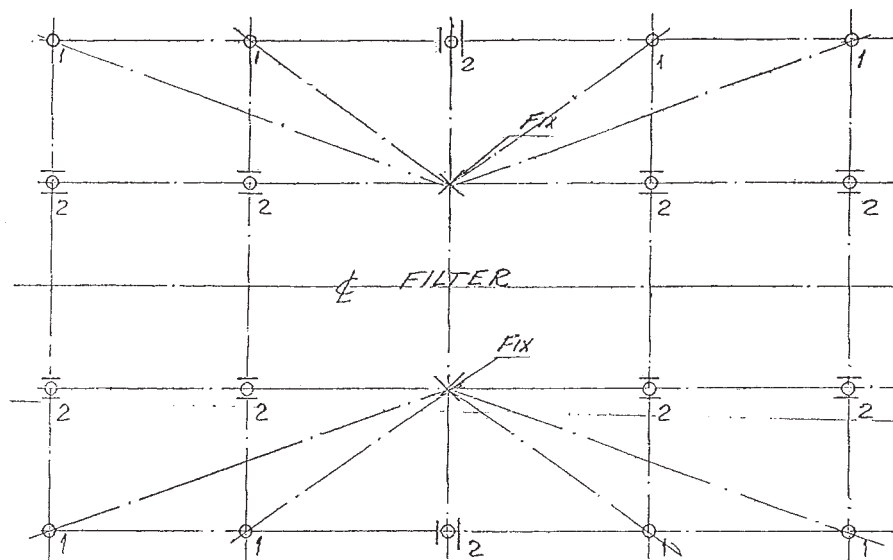
Since these bearings are vital components, they should stay enclosed in the plastic wrapping till just before being mounted onto the steel construction.

Principally, the mounting is done in the following way:
The bottom support ring/plate is welded on to the underlaying steel construction.

Depending on the actual sliding distance – sliding direction the top plate of the bearing is positioned.

Thereafter the steel construction above is lowered on to the bearing and the top plate of the bearing welded all around against the foot of the construction.

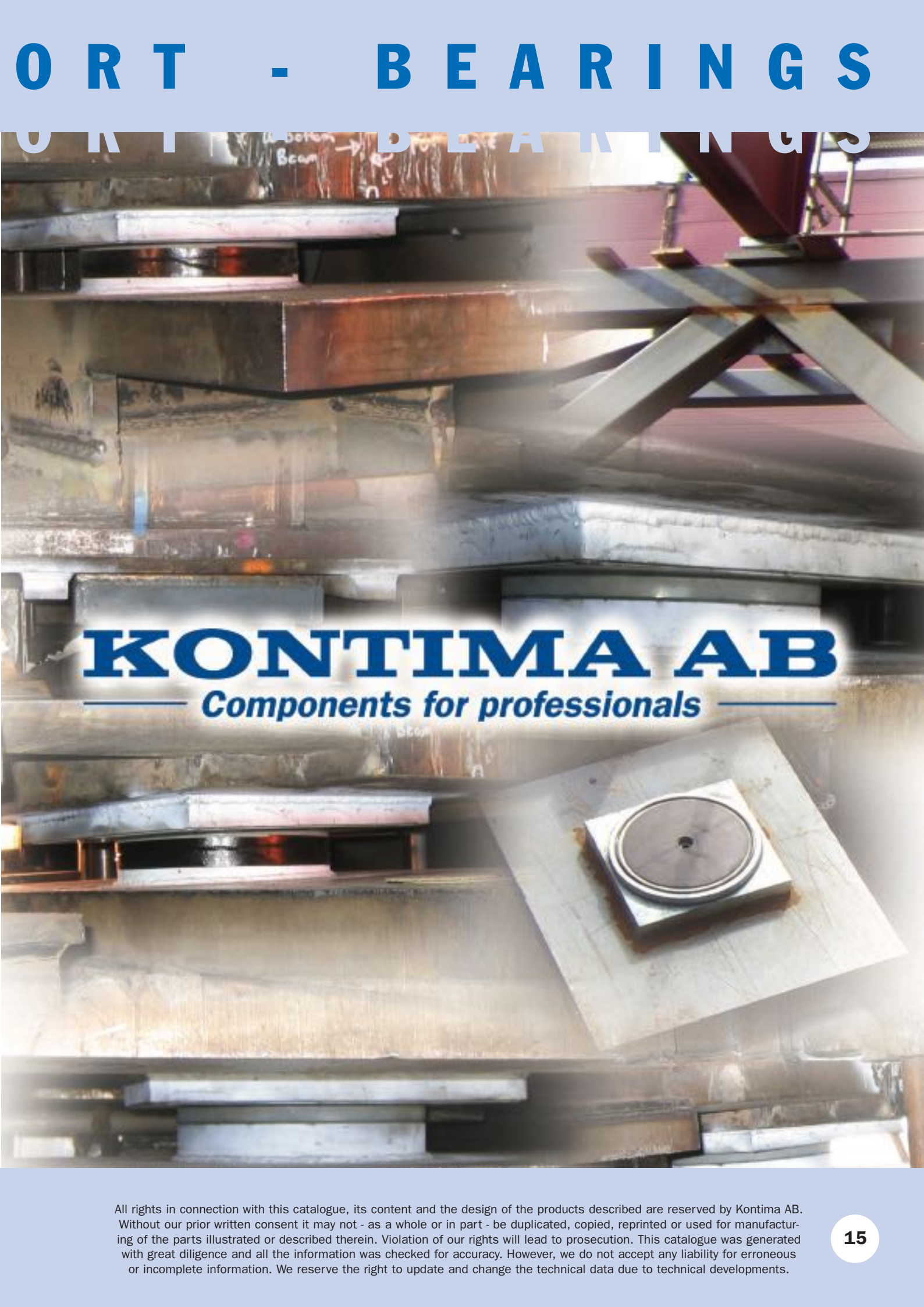
This is the usual method for mounting Kontima bearings. There are of course other possible methods depending on a number of factors.



Lay out for Kontima bearings.

- 1 = Free sliding bearings.
- 2 = Guided sliding bearings.

PORT - BEARINGS



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Vårt sortiment

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