

## Sliding support bearings

### Glidstödlager



Sliding bearings for high temperatur varying

#### Mecmove AB

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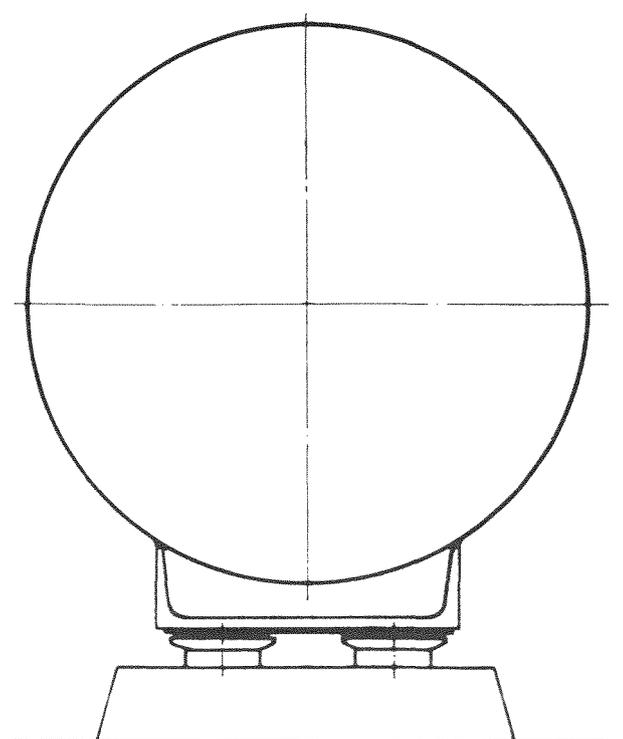
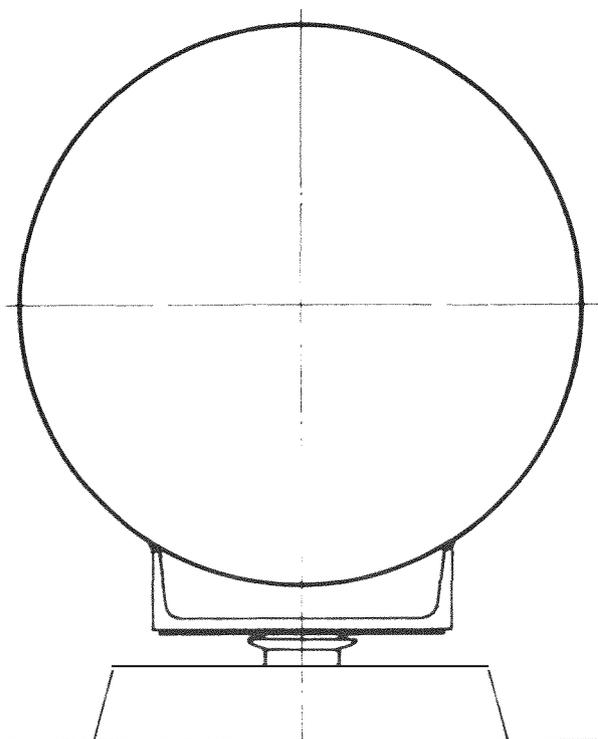
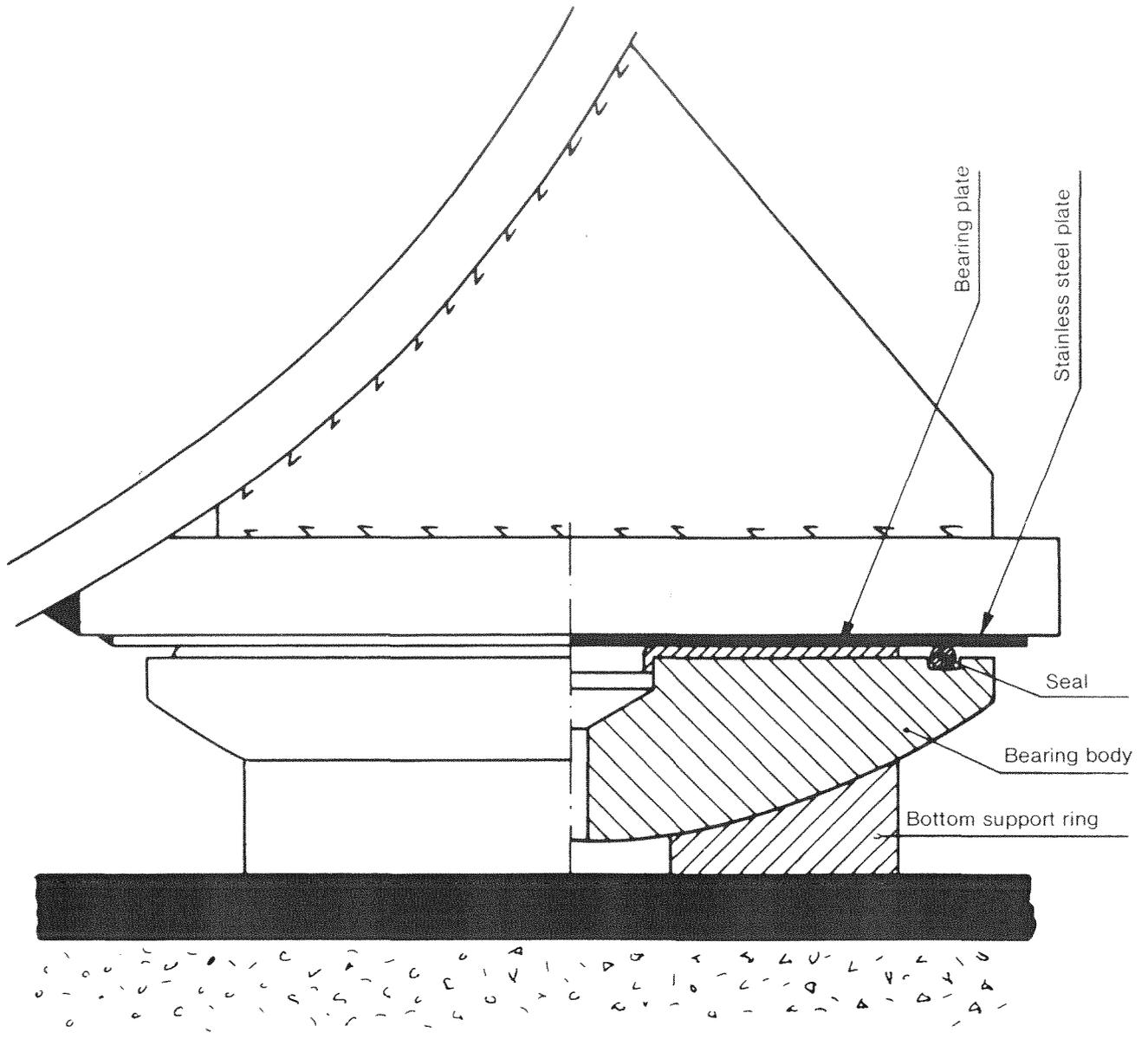
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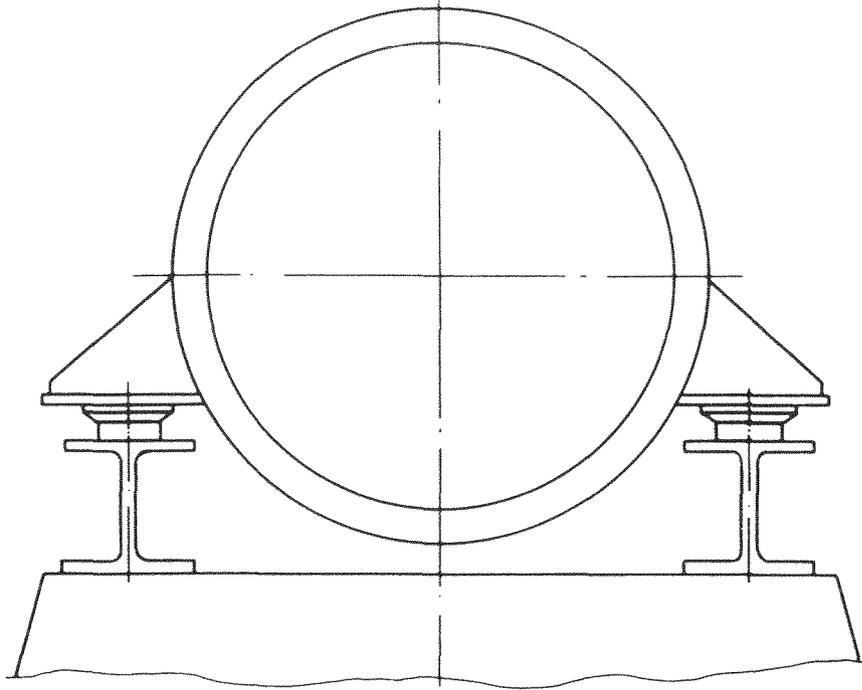
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# SLIDING – SUPPORT – BEARINGS



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.*

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

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 2 main sizes for the support bearings, namely for 50 and 100 tons load carrying capacity.

The sliding plate is corrosion protected steel with a 0,7 mm thick 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.

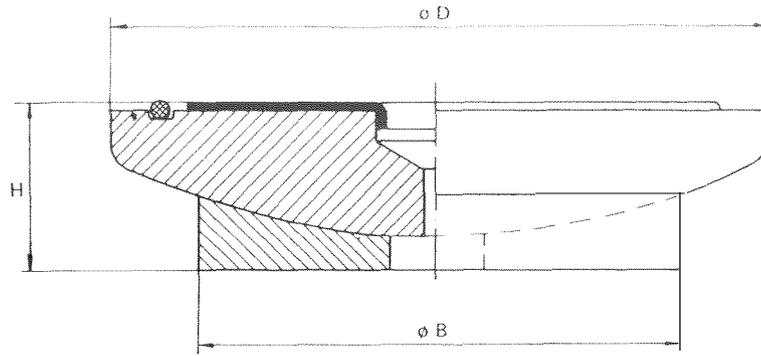
The seal is located in a groove in the bearing body which encircles the bearing plate and prevents movement of the seal. Seals can be supplied for bearing temperatures of 120°, 200° or 250° C.

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

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.

**FREE**

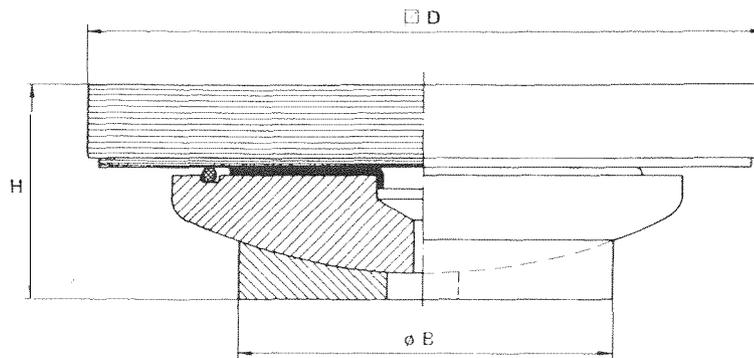


Load tons	Type	D mm	B mm	H mm
50	T- 50-N	135	100	35
100	T-100-N	175	150	41

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.

**FREE**

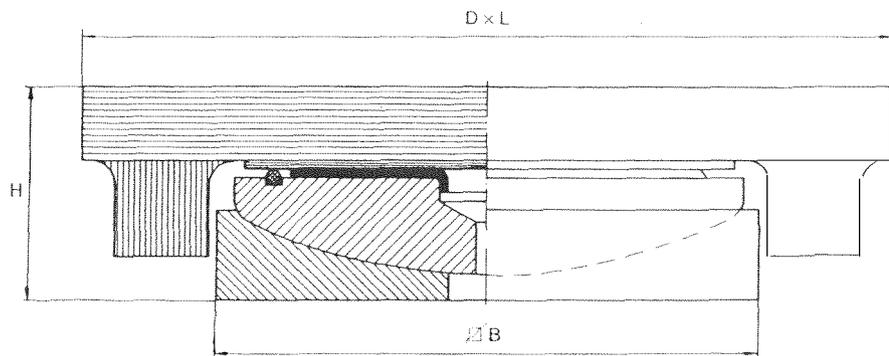


Load vertical tons	Type	D mm	B mm	H mm	Travel max mm +/-
50	T- 50-F	180	100	57	25
100	T-100-F	240	150	70	35

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.

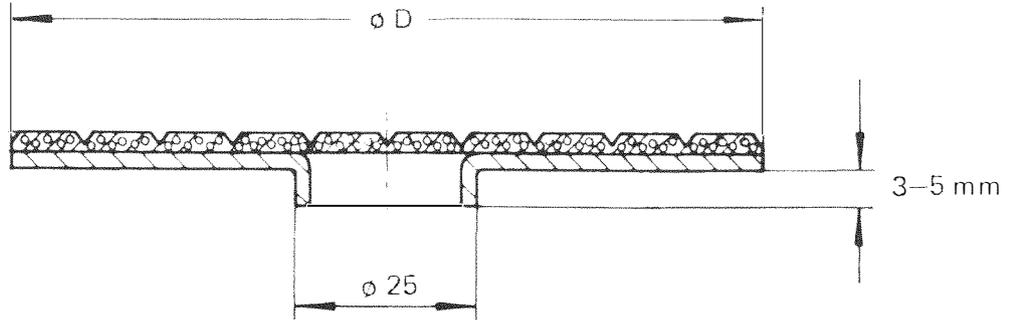
**GUIDED**



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

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/cm<sup>2</sup>. The dynamic load carrying capacity depends on the sliding and other important factors which normally apply to plain bearings.

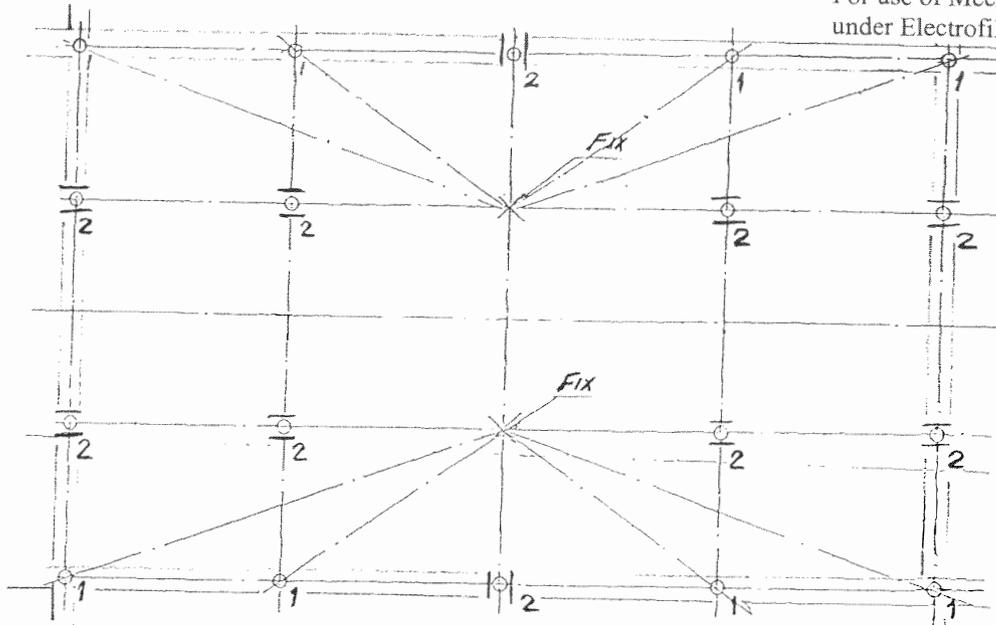


Load tons	Type	D mm
50	P- 50-U	100
100	P-100-U	140

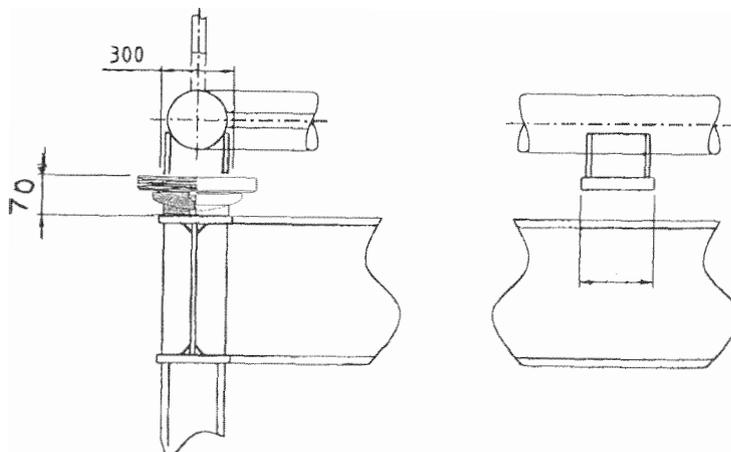
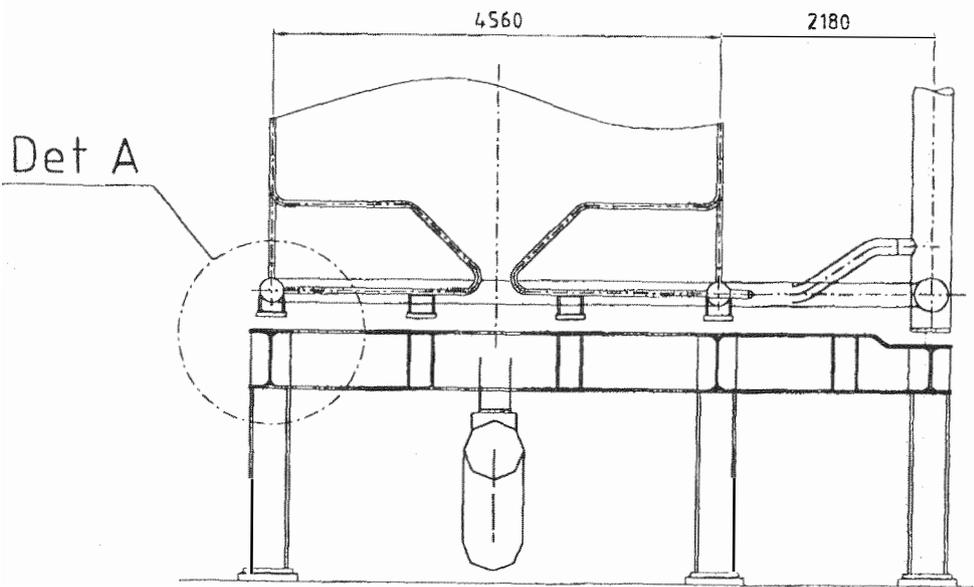
# General use and mounting

## EXAMPLE 1

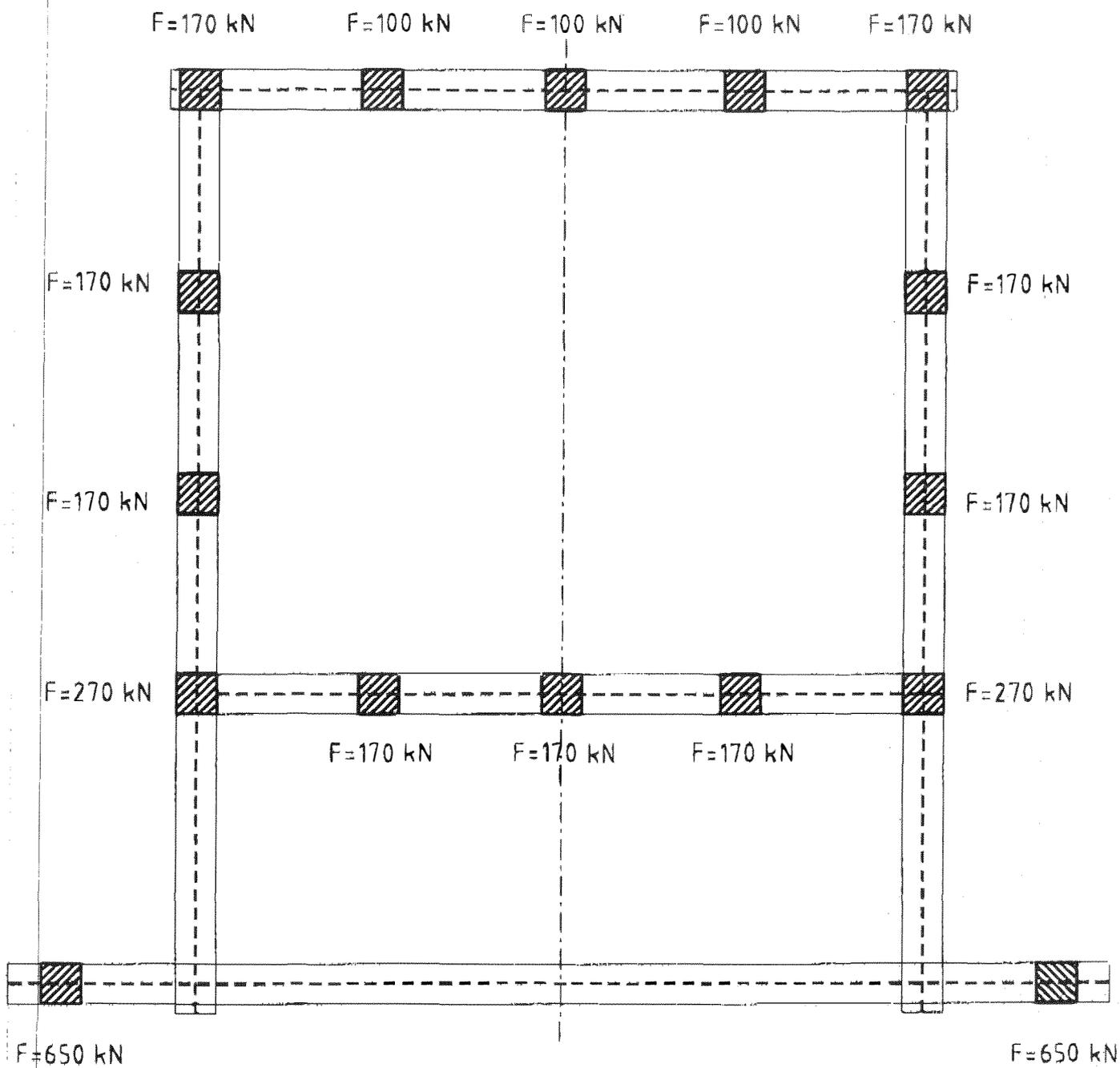
For use of MecMove Support bearings under Electrofilter for Steamservice, Fin



1= Free support bearing  
2= Guided support bearing



Det A



# LOADS

