

DESIGNED TO YOUR REQUIREMENTS



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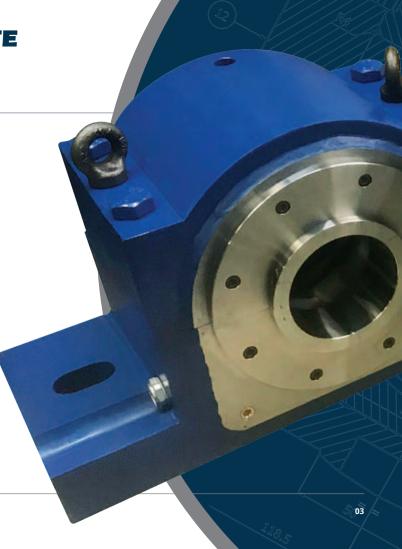
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### SPECIALS AND OBSOLETE TYPES MADE TO ORDER

Steel Housing & Seals for oil lubrication, this unique design prevents oil leakage along the shaft by retaining all the oil inside the housing.

- » Our purpose is to solve your problems related to bearings and bearing housings.
- » Seal arrangements can be completely split
- » Various other seal arrangements can be included in the units' i.e.: Felt, lip, labyrinth, V-ring, O Ring, etc.
- » Mechanical seals can be manufactured from various materials.

Bearing Housings manufactured from Flame-Cut steel plate



#### **SNL RANGE**

» Steel bearing housings

» All sealing arrangements available

SNL Bearing Housings can be machined to suit any bearing size, located or non-located.

These are split Bearing Housings like the SSNT range but are designed for larger and heavier applications.

The feet are solid with 4 hold down bolts to suit any bolt centres required.

This Bearing Housing also has one oil well inside to capture and drain away any excess oil or grease.



#### **SAF RANGE**

» Steel bearing housings

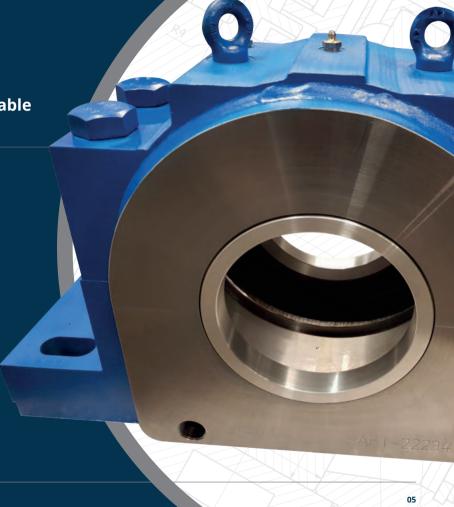
» All sealing arrangements available

SAF bearing housings can be machined to suit Inch dimensions and any bearing size, located or non-located.

These housings enable the incorporated bearings to achieve maximum service life with less need for maintenance. Different housing variants and seal designs are available, making the use of tailored housings virtually unnecessary and enabling costeffective bearing arrangements.

The feet are solid with 4 hold down bolts to suit any bolt centres required.

This Bearing Housing also has two oil wells inside to capture and drain away any excess oil or grease.



## DESIGNED TO YOUR REQUIREMENTS

Arvis were approached by a North American manufacturer of haulage vehicles which are custom engineered for the Mining and Arctic energy industries.

They were interested in a bearing and sealing solution for part of a salt harvesting vehicle which would face a very harsh environment where there would be lots of salt water splash, the most important aspect of the application being the sealing arrangement.

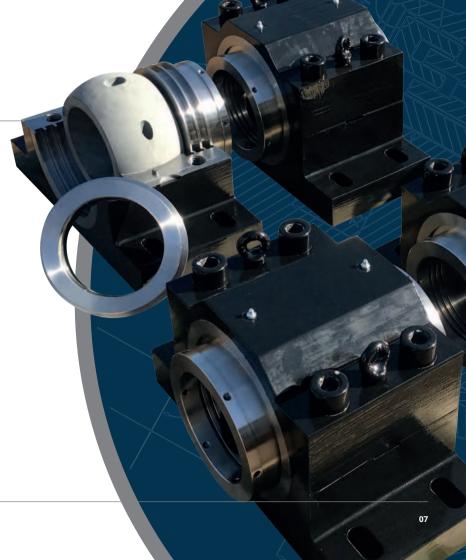
The bearing units to be used are to hold onto a paddle lift and a rotating milling drum that require withstanding heavy shock loads.



Arvis were given the task to design and manufacture a sealing solution especially suited to protect the bearings from such an extreme environment.

Using the latest Autodesk software combined with FEA (Finite Element Analysis) Arvis were able to design a robust unit.

The solution would be to incorporate a complex Inboard and outboard labyrinth seal arrangement, a split steel housing and a maintenance free fully split self aligned bearing. The bearing material selected was a special engineering composite which would offer a higher impact resistance enabling it to withstand heavy shock loads. Designed to the customers requirement these units have now been approved and manufactured by Arvis.



### ARVIS® BEARINGS

DU or DX type steel backed bearings are premounted in captive inner members.

Excellent load carrying capacity prevents edge loading thus allowing full use to be made of DU & DX performance. These bearings are a high performance dry-running bearing used where lubrication is impracticable or undesirable & where the operating temperature is between -200 °C & +280 °C.

It will also perform exceptionally well in water, oil & other liquids. A choice of three housing styles, pillow block, two bolt flange & four bolt flange gives versatility for mounting.

Metric sizes from 10mm to 100mm & inch sizes from 0.5" to 4" are offered as standard. Larger sizes are available to order





Plain Bearings can be manufactured to meet the specific requirements of the application.

#### For example:

Wet or dry use – With or without lubricant – Submerged in: Dirty water, Slurry, Chemicals: Acids – Alkalis – High or low temps.

### CASE STUDY

Indorama Corporation is one of Asia's leading chemical holding company now use Arvis fully split self-aligning plain bearings on its furnace ID fan dampers.

The company had been using standard housings and inserts for the past 20 years which caused grease burning issues above 200°C plus pitting on rolling elements and race ways, it was also difficult replacing these units due to the shafts being welded to one common linkage.

Arvis were approached to offer a better practical solution to produce a maintenance friendly split designed bearing. The housings were manufactured from mild steel rather than cast iron which would offer a higher impact resistance enabling it to withstand shock loads. A High temperature material was selected for the damper shaft bearings to maintain its healthy condition. Finally, gland packing was used for a high temperature sealing arrangement, altogether producing a fully split self-aligning plain bearing to withstand higher temperatures and to be maintenance friendly.

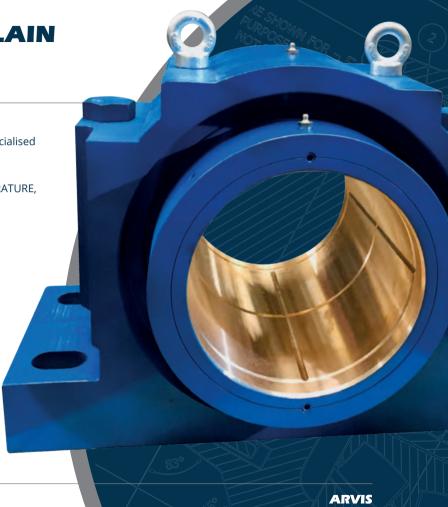
The new design proved so successful that the company has since placed a repeat order with more sizes being tested.

SAPB SELF ALIGNING PLAIN BEARING UNITS

Units have a wide field of application brought about using specialised bushing.

They can be used for many applications such as HIGH TEMPERATURE, CONTACT WITH LIQUIDS, HOSTILE ENVIRONMENTS Etc.

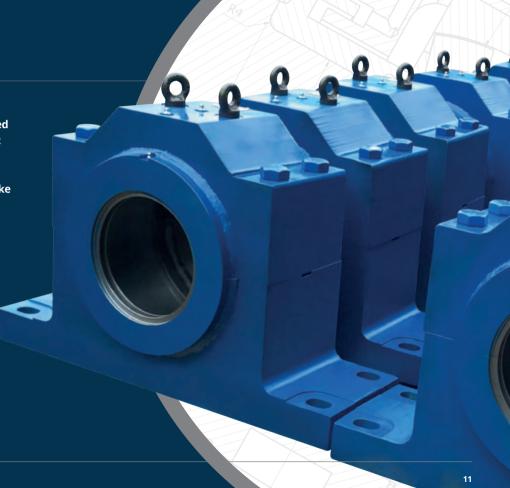
- » Split Cast Iron or steel housing
- » Solid or split bush carrier
- » Infinitely variable range of bore sizes.
- Supplied with any commercially available bush material. (Gunmetal, Phosphor Bronze, Oilite, Orkot, Vesconite, Carbon, Nylon etc.)
- » With or without seals
- » With or without lubrication facility
- » Extreme temperatures



# SPECIAL STEEL HOUSINGS

Special fabricated steel housing supplied to a Sugar Plant (Sugarcane Mill) to suit a 23134K spherical roller bearing with special Additive Manufactured split labyrinth seals for a 150mm shaft to take located and non-located assemblies.

Designed & manufactured by Arvis to the customer requirements.





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