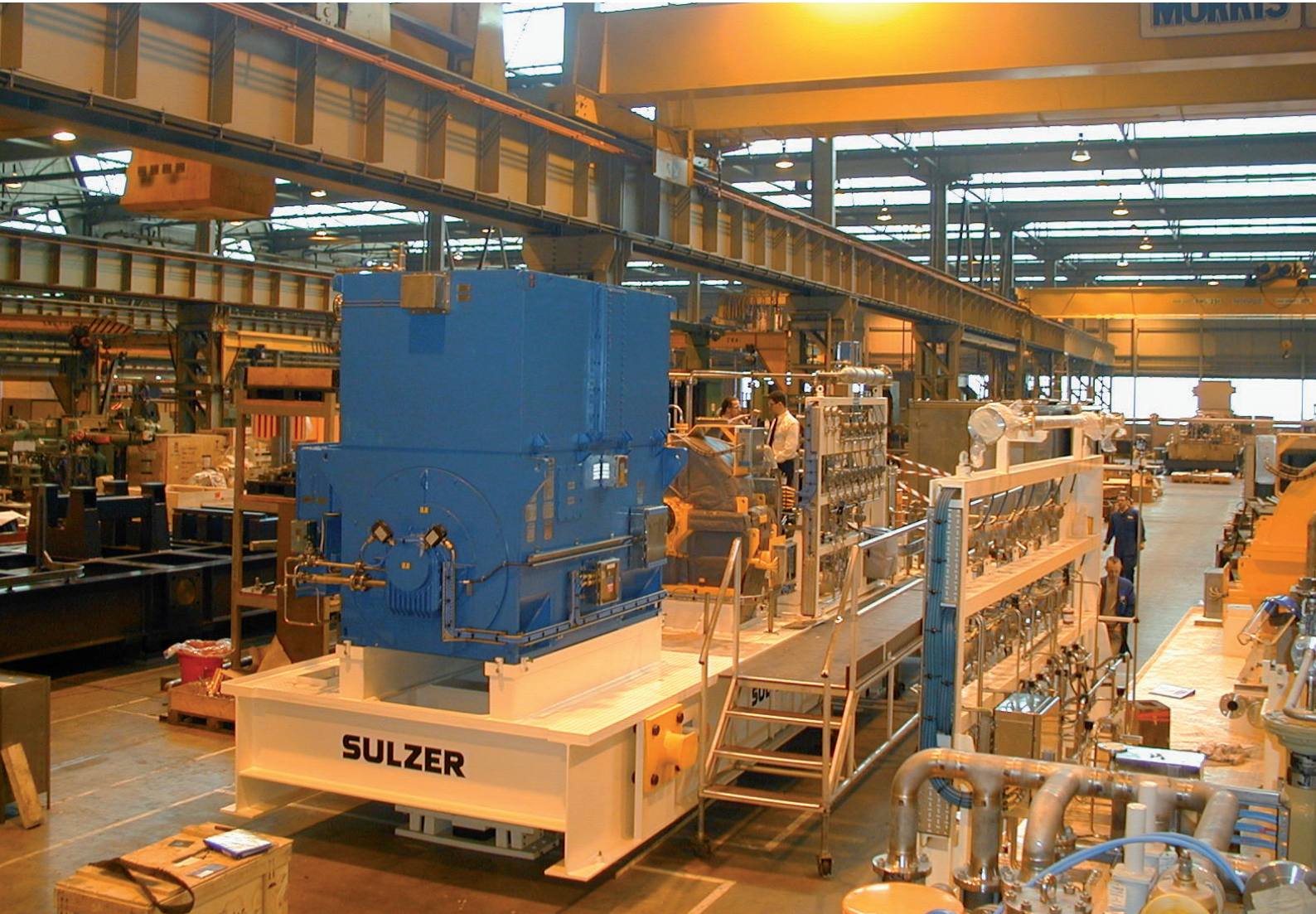


ANDRE

Offshore Anti-Vibration Mounts

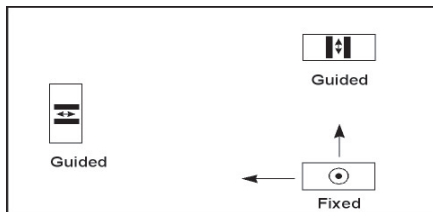


Introduction

Since the early 1970's Andre have utilised their expertise and experience to provide AVM's world-wide to many of the major gas turbine, generator, compressor and pump unit manufacturers for the isolation of structures from potentially damaging machine-borne vibration. Applications cover oil and gas exploration and production platforms, FPSO's, accommodation modules and helidecks. Andre AVMs are custom designed and consist of elastomeric bearing units located under the support skid.

AVM Layout

Three of four mounting points are used to accommodate rotational and flexural movements and to suppress vibration transmitted by the driven machinery. The diagram below shows a typical three point mounting system.



This fixing system allows differential movement between the skid and deck in any direction, whilst still resisting shear and tensile loads.

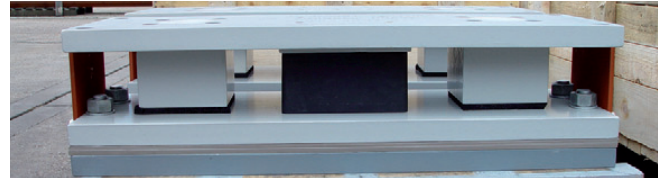
Design Features

- **Natural frequency of the isolated skid:** Typically within the following band ranges: 10-12Hz, 12-15Hz, 15-20Hz. Lower frequency can be supplied if required.
- **Vertical loads:** Up to 10MN and up to 1MN in tension
- **Horizontal loads:** Up to 1MN under normal operation. Overload up to 2MN during storm, transport or seismic.
- **Rotation:** 0.01 radians about any horizontal plane.
- **Fixing:** AVM's can be supplied with or without holes for fixing bolts, with a deck fixing plate and shim pack.
- **Maintenance:** The elastomeric components are maintenance free for life.
- **Operating Temperature Range:** -20° C to +50° C
- **Design life:** In excess of 25 years
- **Fire Resistance:** In the event of exposure to a fire the outer rubber surfaces of the bearing would char forming a protective barrier. Even in a severe fire Andre will not fail catastrophically but take on further settlement whilst supporting the skid.

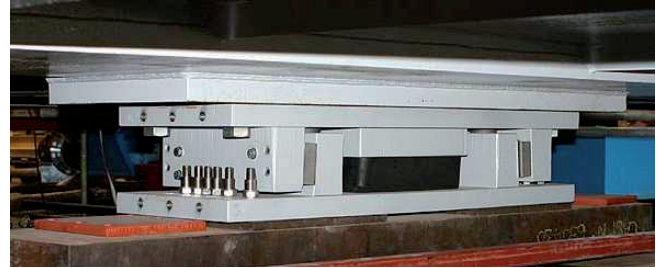
Four-Point Mounted Skid by Courtesy of Sulzer UK



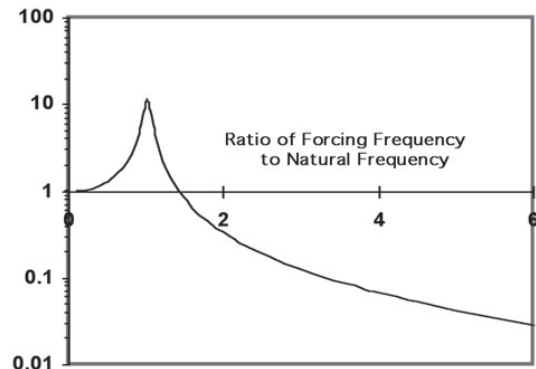
Typical Fixed AVM



Typical Guided AVM



Transmissibility Plot For Vibration isolation Bearings Fabricated from ANDRE Natural Rubber Formulation Ref. 26-466



TRELLEBORG
ENGINEERED SYSTEMS

Trelleborg Bakker BV
Verlengde Kerkweg 15
2985 AZ Ridderkerk

PO Box 4007 GA
2980 GA Ridderkerk
The Netherlands

T: +31 180 49 55 55
F: +31 180 43 30 80
bakker@trelleborg.com
www.trelleborg.com/bakker