



Industrial solutions

Open Restrained Spring Mountings

Types ORS25 & ORS50 - 2 & 4 Spring Variants



The ORS mounting has been designed specifically for applications where transmission of low frequency machinery vibration to a building structure must be reduced to avoid physical damage or annoyance to the occupants.

It is a low frequency mounting specifically designed to limit vertical movement on equipment such as cooling towers and chillers. This could otherwise be excessive due to the low stiffness springs required to provide isolation of low frequency vibration.

Applications located at roof level can be successfully mounted on ORS units as any movement caused by high wind loads will be limited. Equipment which contains large volumes of liquid will benefit from installation on ORS mountings because during "draining down" upward movement is restricted thus avoiding damage to pipework and electrical connections.

Design Features

- High strength all steel construction epoxy powder coated finish with B.Z.P fixings as standard.
- Optional Stainless steel fixings available.
- Colour coded helical steel springs to BS1726 Class B with nominal deflections of 25 mm and 50 mm and up to 50% overload capacity.
- Vertical and lateral restraints have rubber inserts to avoid metallic contact and adequate radial clearance ensures isolation efficiency is not impaired.
- Springs located and seated on rubber washers to reduce high frequency transmission.
- Working height and vertical limiting stops are fully adjustable.
- 6 mm thick ribbed rubber seating pad supplied as standard.

Typical Applications

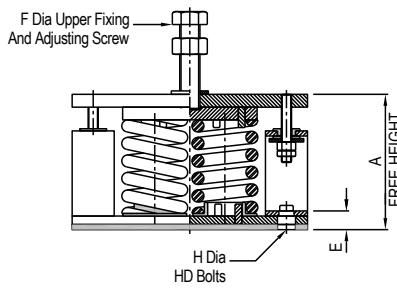
- Cooling Towers
- Chillers
- Large Fans
- Air Handling Units



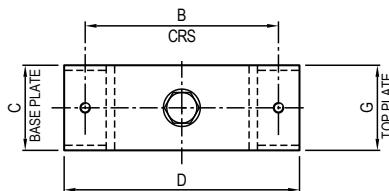
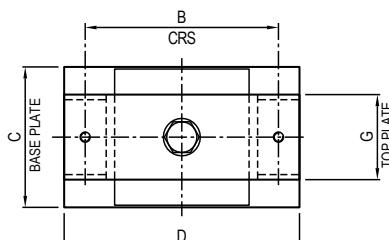
Excellence in Anti Vibration Technology Since 1914

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TYPE ORS25 & ORS50

TYPE ORS MOUNTINGS - SIZE ORS25/2 SPRINGS & ORS25/4 SPRINGS

| PART No. | COLOUR CODE | RATED LOAD (kg) | DEFLECTION AT RATED LOAD (mm) | DIMENSIONS (mm) | | | | | | | | MAX WT (kg) |
|--------------|-------------|-----------------|-------------------------------|-----------------|---|---|---|---|---|---|---|-------------|
| | | | | A | B | C | D | E | F | G | H | |
| ORS25/2/200 | YELLOW | 200 | 25 | | | | | | | | | |
| ORS25/2/400 | RED | 400 | 25 | | | | | | | | | |
| ORS25/2/600 | PURPLE | 600 | 25 | | | | | | | | | |
| ORS25/2/800 | GREY | 800 | 25 | | | | | | | | | |
| ORS25/2/1000 | ORANGE | 1000 | 25 | | | | | | | | | |
| ORS25/2/1200 | BROWN | 1200 | 25 | | | | | | | | | |
| ORS25/2/1600 | BLACK | 1600 | 25 | | | | | | | | | |
| ORS25/2/2000 | BLUE | 2000 | 25 | | | | | | | | | |
| ORS25/4/400 | YELLOW | 400 | 25 | | | | | | | | | |
| ORS25/4/800 | RED | 800 | 25 | | | | | | | | | |
| ORS25/4/1200 | PURPLE | 1200 | 25 | | | | | | | | | |
| ORS25/4/1600 | GREY | 1600 | 25 | | | | | | | | | |
| ORS25/4/2000 | ORANGE | 2000 | 25 | | | | | | | | | |
| ORS25/4/2400 | BROWN | 2400 | 25 | | | | | | | | | |
| ORS25/4/3200 | BLACK | 3200 | 25 | | | | | | | | | |
| ORS25/4/4000 | BLUE | 4000 | 25 | | | | | | | | | |

TYPE ORS25/2 & ORS50/2
2 SPRING VARIANT

TYPE ORS25/4 & ORS50/4
4 SPRING VARIANT

Stainless Steel Fixings

This option is available across the entire range.

When ordering the Pt. No. should be suffixed with /S for Stainless Steel Fixings
e.g. ORS25/4/800/S.

Spring Deflection

Spring stiffness is linear over its working range therefore the actual deflection for a given load can be calculated as follows:-

$$\text{Actual Deflection (mm)} = \frac{\text{Actual Load (kg)} \times \text{Rated Deflection (mm)}}{\text{Rated Load (kg)}}$$

For full instructions please refer to our data sheet DS025.

For more detailed information and technical assistance please contact our Technical Department.

In the interests of continual development, the Company reserve the right to make modifications to these details without notice.

TYPE ORS MOUNTINGS - SIZE ORS50/2 SPRINGS & ORS50/4 SPRINGS

| PART No. | COLOUR CODE | RATED LOAD (kg) | DEFLECTION AT RATED LOAD (mm) | DIMENSIONS (mm) | | | | | | | | MAX WT (kg) |
|--------------|-------------|-----------------|-------------------------------|-----------------|---|---|---|---|---|---|---|-------------|
| | | | | A | B | C | D | E | F | G | H | |
| ORS50/2/200 | YELLOW | 200 | 50 | | | | | | | | | |
| ORS50/2/400 | GREEN | 400 | 50 | | | | | | | | | |
| ORS50/2/600 | BLUE | 600 | 50 | | | | | | | | | |
| ORS50/2/800 | WHITE | 800 | 50 | | | | | | | | | |
| ORS50/2/1000 | RED/BLACK | 1000 | 50 | | | | | | | | | |
| ORS50/4/400 | YELLOW | 400 | 50 | | | | | | | | | |
| ORS50/4/800 | GREEN | 800 | 50 | | | | | | | | | |
| ORS50/4/1200 | BLUE | 1200 | 50 | | | | | | | | | |
| ORS50/4/1600 | WHITE | 1600 | 50 | | | | | | | | | |
| ORS50/4/2000 | RED/BLACK | 2000 | 50 | | | | | | | | | |

ISOLATION EFFICIENCY AT TYPICAL MACHINE SPEEDS

| MACHINE SPEEDS (rpm) | EFFICIENCY % | |
|----------------------|--------------|-------------|
| | 25 mm DEFL. | 50 mm DEFL. |
| 300 | 34.0 | 75.2 |
| 500 | 83.3 | 92.3 |
| 750 | 93.2 | 96.7 |
| 1000 | 96.3 | 98.2 |
| 1200 | 97.4 | 98.7 |
| 1500 | 98.4 | 99.2 |

The above figures are theoretical values only based on the vertical natural frequency of the sprung system assuming infinitely stiff structural supports.

The effects of high frequency spring coil resonances on low frequency performance are also ignored.



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