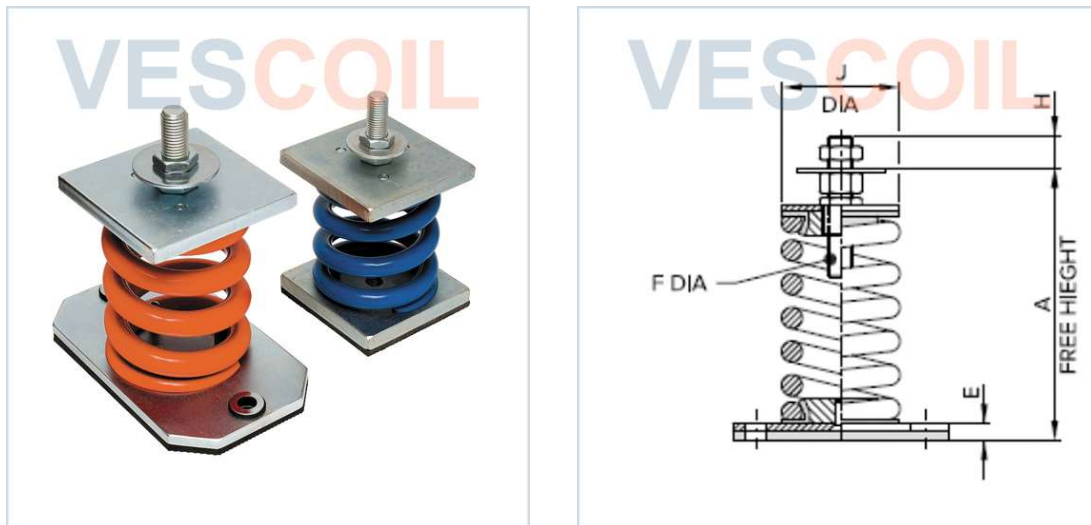


Open Spring Mountings

Fig. 9411 | OPEN SPRING MOUNTINGS - TYPE OS50, OS60, OS75 & OS100



DOCUMENTATION

Originally designed for use with Type IPF Inertia Pouring Frames, the OS Mountings are now widely used to isolate vibration from every conceivable type of rotating and reciprocating machine. Where control of transient motion is required Open Spring Mountings can be used in conjunction with our Viscous Dampers Type SFD. For applications requiring bolting down, the rubber seating pad and grommets ensure that there is no direct metal path between the machine and the seating, thus enhancing the high frequency noise isolation.

DESIGN FEATURES

- Nominal 50, 60, 75 & 100 mm deflection colour coded helical steel springs to BS1726 Class B with 50% overload capacity and O/D equal to at least 85% of working height.
- Can be bolted to supporting structure or free standing on 6 mm thick ribbed rubber pad (fitted as standard)
- Fully height adjustable (OS25).
- All steel components are zinc plated.
- No snubbing gives maximum efficiency.

TYPICAL APPLICATIONS

- Axial and Centrifugal Fans
- Air Handling Units
- Low Level Pipework.
- With Inertia Bases type IPF for Pumps, Generating Sets and Compressors etc.

ISOLATION EFFICIENCY AT TYPICAL MACHINE SPEEDS

| MACHINE SPEEDS (rpm) | EFFICIENCY % | | | |
|----------------------|--------------|-------------|-------------|--------------|
| | 50 mm DEFL. | 60 mm DEFL. | 75 mm DEFL. | 100 mm DEFL. |
| 300 | 75.2 | 80.2 | 84.7 | 89.0 |
| 500 | 92.3 | 93.7 | 95.0 | 96.3 |
| 750 | 96.7 | 97.3 | 97.8 | 98.4 |
| 1000 | 98.2 | 98.5 | 98.8 | 99.1 |
| 1200 | 98.7 | 99.0 | 99.2 | 99.4 |
| 1500 | 99.2 | 99.3 | 99.5 | 99.6 |
| 1750 | 99.4 | 99.5 | 99.6 | 99.7 |
| 2000 | 99.5 | 99.6 | 99.7 | 99.8 |

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.

SPRING DEFLECTION

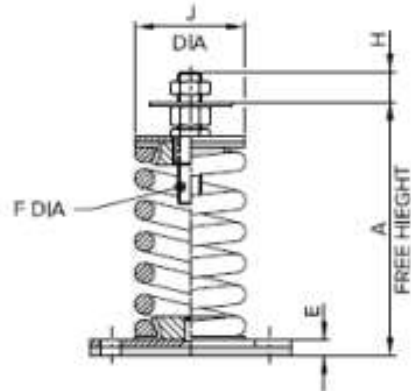
Spring stiffness is linear over its working range therefore the actual deflection for a given load can be calculated as follows:

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

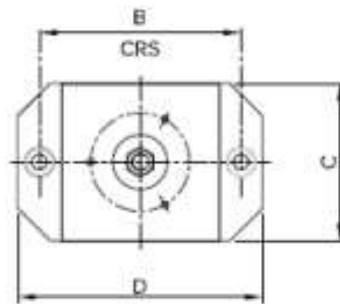
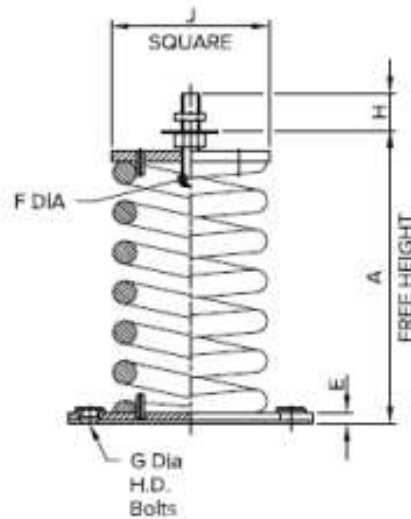
TYPE OS MOUNTINGS - SIZES OS50, OS60, OS75 & OS100

| PART No. | COLOUR CODE | RATED LOAD (kg) | DEFLECTION AT RATED LOAD (mm) | DIMENSIONS (mm) | | | | | | | | WT MAX (kg) | |
|------------|----------------|-----------------|-------------------------------|-----------------|-----|-----|-----|----|-----|-----|----|-------------|-----|
| | | | | A | B | C | D | E | F | G | H | | J |
| OS50/100 | YELLOW | 100 | 50 | 180 | 110 | 90 | 140 | 11 | M16 | M12 | 24 | 76 | 2.3 |
| OS50/200 | GREEN | 200 | 50 | | | | | | | | | | |
| OS50/300 | BLUE | 300 | 50 | | | | | | | | | | |
| OS50/400 | WHITE | 400 | 50 | | | | | | | | | | |
| OS50/500 | RED/BLACK | 500 | 50 | | | | | | | | | | |
| OS50/510 | BLACK / PURPLE | 510 | 51 | 235 | 210 | 150 | 250 | 16 | M20 | M16 | 42 | 150 | 11 |
| OS50/760 | BLACK / GREY | 760 | 51 | | | | | | | | | | |
| OS50/1000 | BLACK / ORANGE | 1000 | 50 | | | | | | | | | | |
| OS50/1300 | BLACK / BROWN | 1300 | 53 | | | | | | | | | | |
| OS50/1400 | BLACK / WHITE | 1400 | 50 | 265 | 210 | 150 | 250 | 16 | M20 | M16 | 42 | 150 | 13 |
| OS50/1600 | BLACK / BLUE | 1600 | 50 | | | | | | | | | | |
| OS50/2000 | BLACK / GREEN | 2000 | 50 | 265 | 280 | 220 | 340 | 16 | M24 | M16 | 52 | 220 | 29 |
| OS50/2500 | BLACK / YELLOW | 2500 | 50 | | | | | | | | | | |
| OS50/3000 | BLACK / RED | 3000 | 50 | | | | | | | | | | |
| OS50/3200 | BLACK / PURPLE | 3200 | 50 | | | | | | | | | | |
| OS60/200 | GREEN | 200 | 60 | 241 | 210 | 150 | 250 | 16 | M20 | M16 | 42 | 130 | 9.2 |
| OS60/300 | BLUE | 300 | 60 | | | | | | | | | | |
| OS60/400 | WHITE | 400 | 60 | | | | | | | | | | |
| OS60/500 | RED | 500 | 60 | | | | | | | | | | |
| OS60/600 | PURPLE | 600 | 60 | | | | | | | | | | |
| OS60/700 | GREY | 700 | 60 | | | | | | | | | | |
| OS60/800 | ORANGE | 800 | 60 | | | | | | | | | | |
| OS60/1000 | BROWN | 1000 | 60 | | | | | | | | | | |
| OS75/800 | GREY / BLUE | 800 | 75 | | | | | | | | | | |
| OS75/1000 | GREY / WHITE | 1000 | 75 | | | | | | | | | | |
| OS75/1200 | GREY / RED | 1200 | 75 | | | | | | | | | | |
| OS75/1400 | GREY / PURPLE | 1400 | 75 | | | | | | | | | | |
| OS75/1600 | GREY / ORANGE | 1600 | 75 | | | | | | | | | | |
| OS75/2000 | GREY / BROWN | 2000 | 75 | 365 | 280 | 220 | 340 | 16 | M24 | M16 | 52 | 220 | 37 |
| OS75/2500 | RED | 2500 | 75 | | | | | | | | | | |
| OS75/3200 | GREY / BLACK | 3200 | 75 | | | | | | | | | | |
| OS75/3500 | BLACK | 3500 | 75 | | | | | | | | | | |
| OS100/300 | BLACK | 300 | 100 | 320 | 280 | 220 | 340 | 16 | M24 | M16 | 52 | 220 | 19 |
| OS100/400 | YELLOW | 400 | 100 | | | | | | | | | | |
| OS100/600 | WHITE/BLACK | 600 | 100 | 355 | 280 | 220 | 340 | 16 | M24 | M16 | 52 | 220 | 26 |
| OS100/800 | BLUE | 800 | 100 | | | | | | | | | | |
| OS100/1000 | WHITE | 1000 | 100 | | | | | | | | | | |
| OS100/1200 | RED | 1200 | 100 | | | | | | | | | | |
| OS100/1400 | PURPLE | 1400 | 100 | | | | | | | | | | |
| OS100/1600 | GREY | 1600 | 100 | | | | | | | | | | |
| OS100/2000 | ORANGE | 2000 | 100 | | | | | | | | | | |
| OS100/2500 | BROWN | 2500 | 100 | 415 | 280 | 220 | 340 | 16 | M24 | M16 | 52 | 220 | 47 |
| OS100/3200 | BLACK | 3200 | 100 | | | | | | | | | | |

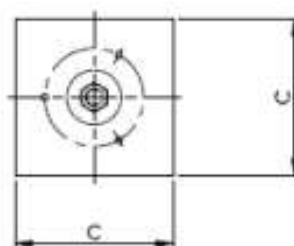
OS50/100 - OS50/500



STANDARD (WITH BASE PLATE)



FREE STANDING VERSION (add /FS)



APPLICATION NOTES

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.