

Enclosed Spring Mountings

Type ES - Enclosed Spring and ECS - Enclosed Captive Spring Mounting



Design Features

- Nitrile rubber (oil resistant) lower spring housing eliminates the possibility of metallic continuity and ensures excellent acoustic performance. Steel reinforced on ECS range.
- Full enclosed captive assembly protects the spring and controls transient motion.
- All steel components are zinc plated.
- Nominal 15, 20, 25 & 50 mm deflection colour coded helical steel springs to BS1726 Class B, laterally stable with 50% overload capacity.
- Simple single screw height adjustment.
- 6 mm thick ribbed rubber seating pads available for ES25 and ECS ranges.
- Colour coded labels for easy identification.
- Stainless Steel variants available.

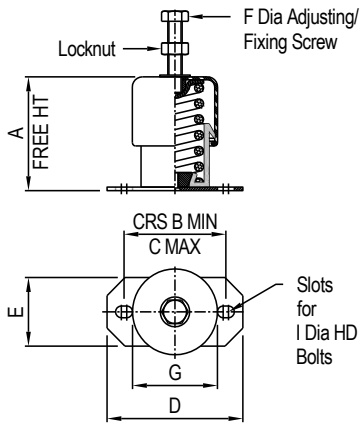
Typical Applications

- Axial and Centrifugal Fans
- Air Handling Units
- Chillers and Cooling Towers
- Rotary and Multi-Cylinder Compressors
- Diesel Generating Sets (ECS only)
- Mechanical Test Rigs
- Isolation of Sensitive Equipment

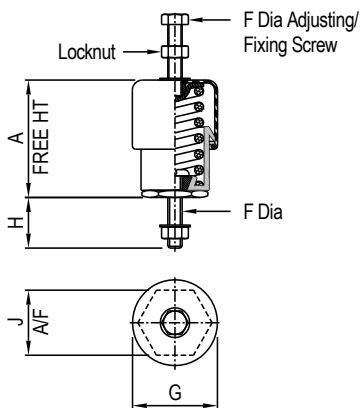
A unique range of mountings designed primarily for building services applications where the control of low frequency vibration and noise emanating from mechanical plant is of paramount importance.

The benefits of a combined rubber and steel housing for the spring have helped establish the ES and ECS mountings as industry standards accepted by specifiers, equipment manufacturers and mechanical services installers alike.

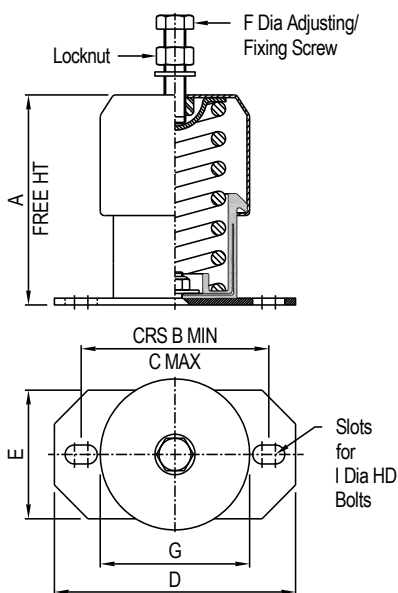
TYPE ES



TYPE ESB



TYPE ECS



TYPE ES, ESB, ES25, ECS25 & ECS50 MOUNTINGS

| 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 | I | J | | | | |
| ES20/10 | PURPLE | 10 | 20 | | | | | | | | | | | | | | |
| ES20/15 | YELLOW | 15 | 20 | | | | | | | | | | | | | | |
| ES20/20 | GREY | 20 | 20 | 63 | 54 | 60 | 76 | 38 | M8 | 48 | - | M6 | - | | | | 0.25 |
| ES20/40 | GREEN | 40 | 20 | | | | | | | | | | | | | | |
| ES20/70 | RED | 70 | 20 | | | | | | | | | | | | | | |
| ES15/100 | BLUE | 100 | 15 | | | | | | | | | | | | | | |
| ESB20/10 | PURPLE | 10 | 20 | | | | | | | | | | | | | | |
| ESB20/15 | YELLOW | 15 | 20 | | | | | | | | | | | | | | |
| ESB20/20 | GREY | 20 | 20 | 65 | - | - | - | - | M8 | 48 | 26 | - | 36 | | | | 0.25 |
| ESB20/40 | GREEN | 40 | 20 | | | | | | | | | | | | | | |
| ESB20/70 | RED | 70 | 20 | | | | | | | | | | | | | | |
| ESB15/100 | BLUE | 100 | 15 | | | | | | | | | | | | | | |
| ES25/30 | YELLOW | 30 | 25 | | | | | | | | | | | | | | |
| ES25/60 | GREEN | 60 | 30 | | | | | | | | | | | | | | |
| ES25/100 | BLUE | 100 | 25 | 88 | 85 | 90 | 110 | 70 | M10 | 78 | - | M8 | - | | | | 1.0 |
| ES25/160 | WHITE | 160 | 25 | | | | | | | | | | | | | | |
| ES25/250 | RED | 250 | 25 | | | | | | | | | | | | | | |
| ECS25/100 | WHITE/YELLOW | 100 | 25 | | | | | | | | | | | | | | |
| ECS25/200 | WHITE/RED | 200 | 25 | | | | | | | | | | | | | | |
| ECS25/300 | WHITE/PURPLE | 300 | 25 | | | | | | | | | | | | | | |
| ECS25/400 | WHITE/GREY | 400 | 25 | | | | | | | | | | | | | | |
| ECS25/500 | WHITE/ORANGE | 500 | 25 | | | | | | | | | | | | | | |
| ECS25/600 | WHITE/BROWN | 600 | 25 | 127 | 130 | 150 | 180 | 95 | M16 | 111 | - | M12 | - | | | | 3.0 |
| ECS25/700 | WHITE/BLACK* | 700 | 25 | | | | | | | | | | | | | | |
| ECS25/800 | WHITE/GOLD | 800 | 25 | | | | | | | | | | | | | | |
| ECS25/1000 | WHITE/1000 | 1000 | 25 | | | | | | | | | | | | | | |
| ECS25/1200 | WHITE/1200* | 1200 | 25 | | | | | | | | | | | | | | |
| ECS25/1400 | WHITE/1400* | 1400 | 25 | | | | | | | | | | | | | | |
| ECS50/100 | BLACK/YELLOW | 100 | 50 | | | | | | | | | | | | | | |
| ECS50/200 | BLACK/GREEN | 200 | 50 | | | | | | | | | | | | | | |
| ECS50/300 | BLACK/BLUE | 300 | 50 | 155 | 130 | 150 | 180 | 95 | M16 | 111 | - | M12 | - | | | | 2.8 |
| ECS50/400 | BLACK/WHITE | 400 | 50 | | | | | | | | | | | | | | |
| ECS50/500 | BLACK/RED | 500 | 50 | | | | | | | | | | | | | | |

* Internal nested spring.

ISOLATION EFFICIENCY AT TYPICAL MACHINE SPEEDS

| MACHINE SPEEDS (rpm) | EFFICIENCY % | | |
|----------------------|--------------|-------------|-------------|
| | 15 mm DEFL. | 25 mm DEFL. | 50 mm DEFL. |
| 300 | DO NOT USE | 34.0 | 75.2 |
| 500 | 68.7 | 83.3 | 92.3 |
| 750 | 88.1 | 93.2 | 96.7 |
| 1000 | 93.7 | 96.3 | 98.2 |
| 1200 | 95.7 | 97.4 | 98.7 |
| 1500 | 97.3 | 98.4 | 99.2 |
| 1750 | 98.0 | 98.8 | 99.4 |
| 2000 | 98.5 | 99.1 | 99.5 |

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.

Seating Pads

Ribbed rubber seating pads can now be fitted as standard, suffix Pt. No. /B e.g. ES25/100/B.

Stainless Steel

This option is available across the entire range for external and other hostile environments.

When ordering the Pt. No. should be suffixed with /S for Stainless Steel or if fitted with a seating pad /SB e.g. ECS25/500/S or ECS25/500/SB.

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 DS029.

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.



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