

Dynasafe® Mecha

affordable, quick and reliable mechanical load limiters

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The Dynasafe® Mecha 3.2, 7 and 12 are robust and affordable mechanical load limiters, installed on a wire rope and designed to manage one or two safety trip points on elevating equipment. It is the simplest and most robust safety equipment for crane and lifting load limitation.

Our Dynasafe® Mecha offers two independent trip point adjustments.

OPERATING PRINCIPLE

The load limiter operates by the movement of a metal body arm within its elastic limits. The deflection of the wire rope exerted by the load limiter produces a force which is proportional to the force exerted on the wire rope when pulled.

The deformation of the load limiter body causes the high precision microswitches integrated into the load limiter to open, giving an “all-or-nothing” signal.

The position of the adjustable pin sets the capacity range. The central “Universal” fixing bracket is adapted to suit wire ropes from 3/16 to 5/8 in. (5 to 16 mm) for the Dynasafe® Mecha 3.2, from 11/16 to 1 1/2 in. (17 to 26 mm) for the Dynasafe® Mecha 7 and from 1 to 1 1/2 in. (27 to 34 mm) for the Dynasafe® Mecha 12.

QUALITY

- Made of anodised aluminium
- IP 67 (Dynasafe® Mecha 3.2), IP 55 (Dynasafe® Mecha 7 and 12)
- Temperature range from -22°F to 175°F (-30°C to 80°C)
- Trip point power: 4 A at 230 VAC
- Repeatability: 1%
- With 6.5 ft. (2 m) cable gland output
- Mechanically adjustable by user
- Automatic reset if wire rope unloaded



APPLICABLE STANDARDS

- Complies with ANSI/ASME HST-4M overload limiting devices

RELIABILITY

- Simple and economical solution for load limitation
- Easy installation on the lifting cable
- Mechanical sensor to detect one or two trip points
- During lifting: limitation of the load and slack rope
- During sideways movement: limitation of the speed according to the load
- During pulling: on a hoist, limitation of the effort
- Capacities: from 400 to 24,000 lb. (200 kg to 12 t) on direct fall
- For 3/16 to 1 1/2 in. (5 to 34 mm) diameter wire rope

APPLICATIONS

- Overhead travelling crane limitation
- Hoist limitation
- Elevator
- Safety and lifting applications

TECHNICAL SPECIFICATIONS

| MODEL | Mecha 3.2 | Mecha 7 | Mecha 12 |
|----------------------------|---|----------------------------------|---------------------------------------|
| Code | 293599 | 38658 | 38668 |
| Wire rope diameter | 3/16-5/8 in. (5-16 mm) | 1 1/16-1 1/2 in. (17-26 mm) | 1-1 1/2 in. (27-34 mm) |
| Capacity on fall | 400-6,400 lb. (200-3,200 kg) | 600-14,000 lb. (300-7,000 kg) | 2,000-24,000 lb. (1,000-12,000 kg) |
| Repeatability | 1% of full scale | | |
| Installation | Directly on the dead end wire rope | | |
| Trip points | 2 | | |
| Contacts | For each threshold: one normally open, one normally closed | | |
| Trip point power | 230 VAC | | |
| Trip point amperage | 4 A | | |
| Connections | 7 cores electrical cable with cable gland | | |
| Tare adjustment | By fine thread screws | | |
| Hysteresis | Between 100 and 600 lb. (50 and 300 kg) depending on the effort. | | |
| IP Protection | IP 67 | IP 55 | |
| Material | Aluminium | | |

Dynasafe® Mecha

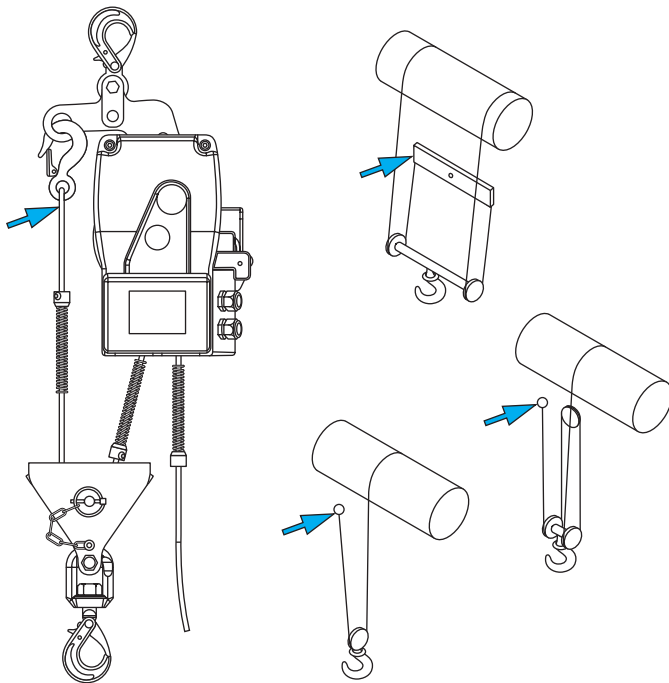
affordable, quick and reliable mechanical load limiters



Selecting the correct Dynasafe® Mecha

HOW TO SELECT THE RIGHT LOAD LIMITER

1. Check that there is a fixed fall (dead end or near a balancing point)
2. Find the total lifting capacity
3. Find the numbers of falls
4. Divide the total lifting capacity by the number of falls
5. Find the wire diameter
6. Check which Dynasafe® is the right load limiter



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EXAMPLE

TOTAL LIFTING CAPACITY
11,000 lb. (5 t)



TOTAL NUMBER OF FALLS
2



EFFORT ON FALL
 $11,000 \text{ lb.} / 2 (5 \text{ t} / 2) =$
5,500 lb. (2.5 t)



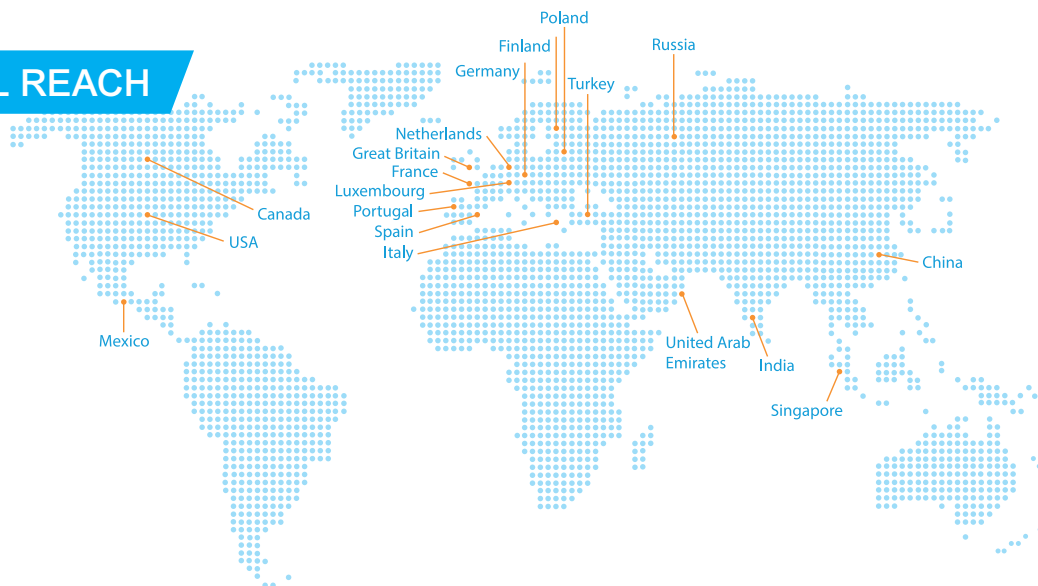
CABLE DIAMETER
35/64 in. (14 mm)



CORRECT MODEL
Dynasafe® Mecha 3.2



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