The RPU (Rietschoten Power Unit)

Hydraulic pressure generator





Functional description RPU (Rietschoten Power Unit)

The RPU is a hydraulic pressure generator, which can be used with all hydraulically operated as well as spring-operated, hydraulically opening brakes of our portfolio.

In contrast to classical hydraulic power units, the RPU contains comparatively few hydraulic components and requires no external motor control.

- Electric voltage: 400 VAC / 500 VAC
- Electrical power: 250 500 Watt
- Installation position: vertical, horizontal
- Mounting: base, site
- manual pressure generation possible
- max. pressure: 160 bar
- Duty cycle: 100% operation, 720 cycles / h
- Environmental temperatures: -20 °C +40 °C
- Brake response time: approx. 0,2 Sek.
- Brake release time: max. 0,6 Sek.
- protection category IP 55
- Ensure easy access to manual override (drive operation: manual load lowering)



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Markets: Marine, Cranes / Hoists, Steel Industry, Offshore, Mining, Renewable Energy, Cable and Wire, Power Stations, Amusement Rides

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Read more about the EBS-Series

www.elepantbrakes.com or scan QR-code



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Your Contact

safety in the heavy industry: reliable, robust and corrosion-protecte

EBS-Series

spring applied, hydraulically released

Dual-spring version of the EBS-Series braking force 15 - 400 kN

Mono-spring (floating) version of the EBS-Series braking force 15 - 370 kN



EBS 001

- Braking force: 15 30 kN
- Release pressure: 72 154 bar
- for brake disk $\phi \ge 500$ mm
- Mass: 46 kg



EBS 002

- Braking force: 31 50 kN
- Release pressure: 90 134 bar
- for brake disk $\phi \ge 500$ mm
- Mass: 76 kg



EBS 004

- Braking force: 53 104 kN
- Release pressure: 86 150 bar
- for brake disk $\phi \ge 800$ mm
- Mass: 190 kg



EBS 001 FL

- Braking force: 15 30 kN
- Release pressure: 72 200 bar
- for brake disk $\phi \ge 500$ mm
- Mass: 40 kg



EBS 002 FL

- Braking force: 29 47 kN
- Release pressure: 91 135 bar
- for brake disk $\phi \ge 500$ mm
- Mass: 80 kg
- Mass: 80 kg



EBS 006

- Braking force: 85 210 kN
- Release pressure: 72 154 bar
- for brake disk $\phi \ge 1200$ mm
- Mass: 495 kg



EBS 008

- Braking force: 200 400 kN
- Release pressure: 105 200 bar
- for brake disk $\phi \ge 1500$ mm
- Mass: 735 kg



EBS 006 FL

- Braking force: 80 180 kN
- Release pressure: 68 165 bar
- for brake disk $\phi \ge 1200$ mm
- Mass: 470 kg





EBS stands for: Elephant Brakes Safety

The modular type EBS-Series have a reliable, robust and corrosion-protected design. Important aspects include durability, low maintenance and the virtually wear-free disc springs.

All brakes of the EBS-Series...

- develop braking forces between 15 and 400 kN.
- are equipped with different brake spring packages, whose preload can be varied using washers, which can even be retrofitted on site
 - \rightarrow This enables a very fine gradation of the braking force of each brake.
 - Opening, adjusting and wear control systems are optionally available.
- have a "park-off function" making it possible to relax the spring package to a depressurized state when the brake is fully open.
 - the assembly of the brakes and maintenance and repair work can be carried out considerably easier.
- have the hydraulics arranged at the rear of the brake.
 - > allows access to all relevant seals without having to unscrew the brake from the supporting structure.
- have all hydraulic seals as far away as possible from the brake disc and are therefore protected from any heat build-up due to highly dynamic braking.
 - In addition, the hydraulic part is not only completely interchangeable, but is also rotatable, so that the standard bleed screw can always be positioned upwards for a horizontal shaft.
- have fully sealed joints so that neither dirt nor contaminants can penetrate the brakes from outside.
 - This is particularly useful for outdoor or offshore applications.
- have brake pads with mining approval as standard.

The mono-spring version EBS FL (Floating)...

- develops braking forces between 15 and 370 kN.
- is often used for applications with insufficient installation space for a two-module brake construction or where budget restrictions are paramount.
- is designed so that no significant moments are transferred to the supporting structure.
- is usable with different brake disc thicknesses by arranging a spacer plate between the spring module and floating caliper module.
- has a device for air gap allignment to prevent the floating caliper module from being in contact with the brake disc when the brake is released.

Typical applications for this spring-applied, hydraulically released brake calliper include cranes, lifting equipment and conveying systems. These systems have a wide range of use as holding brakes and emergency brakes that are locked by the spring when in a passive state. Examples of application are safety brakes in heavy industry, conveyor systems, all types of hoisting, and obviously in general mechanical engineering.

7 kN - 135 bar 00 mm





EBS 004 FL

• Mass: 185 kg



EBS 008 FL

- Braking force: 180 370 kN
- Release pressure: 105 200 bar
- for brake disk $\phi \ge 1500$ mm
- Mass: 815 kg