

# Brake Caliper HS 165 FHM-405 ... -H

spring activated – hydraulically released



112-1

Features	Code
Brake Caliper	H
Floating caliper	S
Frame size 165	165
Spring activated	F
Hydraulically released	H
Manual adjustment to accommodate friction block wear	M
Max. clamping force 405 kN	405
Thruster mounted right or left available	R L
Mounting to the machine at right angles to the brake disc	H

### Example for ordering

Brake Caliper HS 165 FHM, max. clamping force 405 kN, thruster mounted left, mounting to the machine at right angles to the brake disc:

HS 165 FHM-405 L-H

### Technical Data

Brake disc diameter	Braking torque
mm	Nm
800	95 000
1 000	127 400
1 250	168 000
1 600	224 700
2 000	289 600
3 000	451 700
3 500	532 800
4 000	613 900
Clamping force	405 kN
Oil pressure	min. 230 bar max. 250 bar
Oil volume	max. 70 cm <sup>3</sup>
Thickness of brake disc W	30 mm
Weight	625 kg

The braking torques shown in the table are based on a theoretical friction coefficient of 0,4.

### Working conditions

- Ambient temperature: -20 °C / +60 °C
- Air humidity: <90%

### Monitoring switch

- 240 VAC 1.5 A; 250 VDC 0.1 A
- Cable 5 x 0.75 mm<sup>2</sup>, length 2 m, outer diameter 7.5 mm
- Protection type IP67

### Options

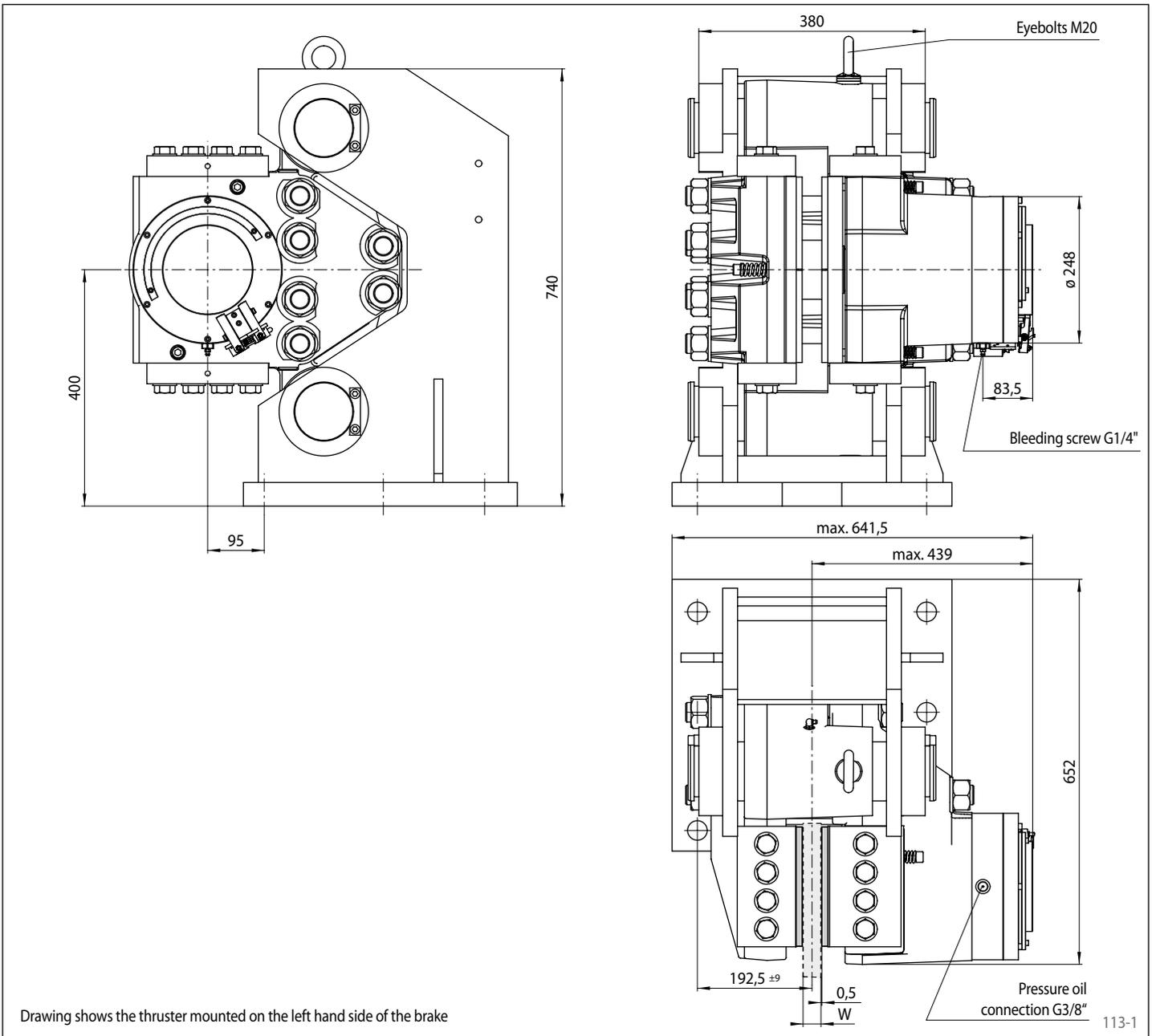
- Integrated Hydraulic Power Unit
- Friction pads with wear indicator cables or sintered friction linings (for high temperatures)
- Corrosion-protected version
- Low temperature version
- Offshore certifications
- ATEX certifications for hazardous areas

### Notes

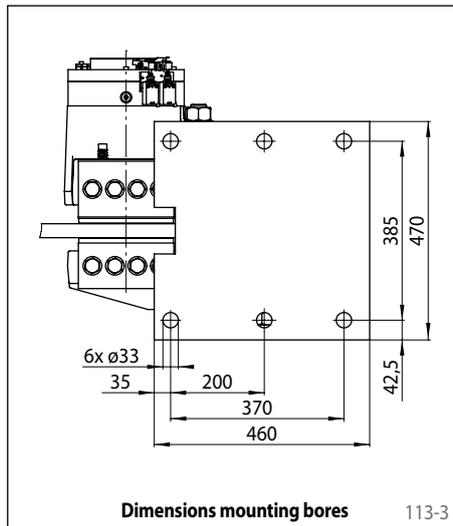
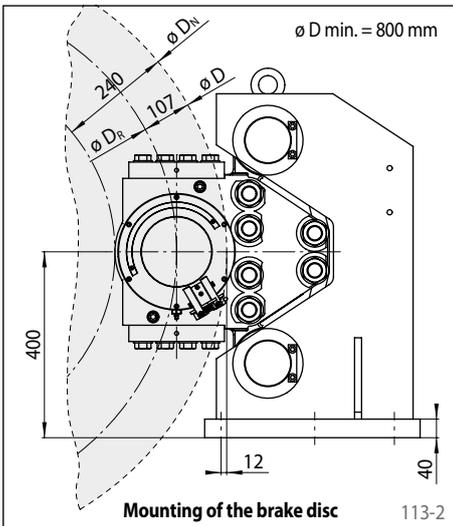
- Eyebolts included
- Fastening: 6 screws M30, class 8.8 with tightening torque 1 200 Nm ±10% μ 0.15 (not supplied)

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## Mounting



## Calculation of the friction diameter

$$D_R = D - 214 \text{ mm}$$

## Calculation of the hub diameter

$$D_N = D - 480 \text{ mm}$$

## Calculation of the braking torque

$$M_B = F_K \cdot D_R \cdot \mu$$

## Formula symbols

$D$  = Outer diameter brake disc [mm]

$D_N$  = Hub diameter [mm]

$D_R$  = Friction diameter [mm]

$F_K$  = Clamping force [N]

$M_B$  = Braking torque [Nm]

$\mu$  = Friction coefficient