

# Active rotor brakes



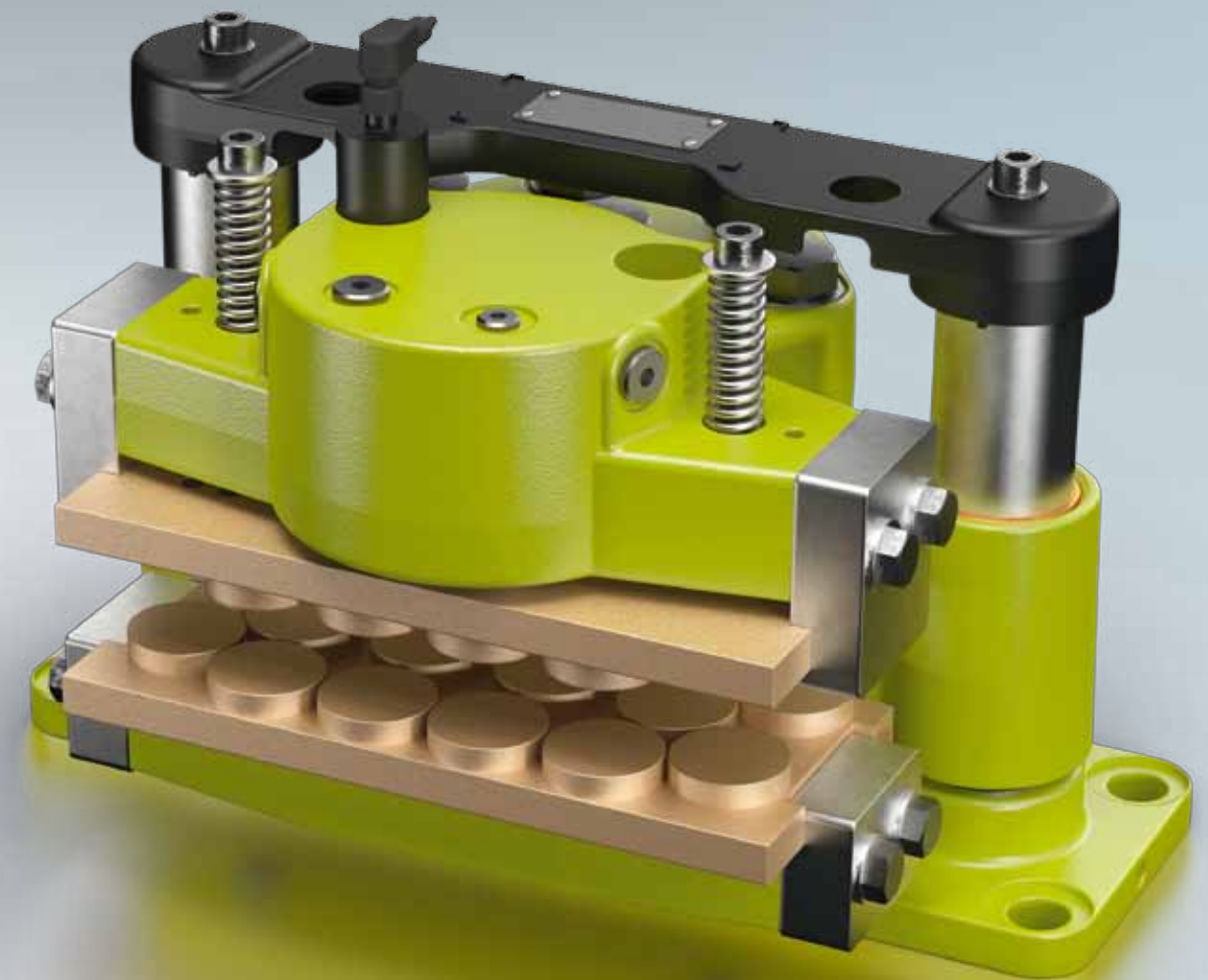
hält



It's always great to see how a technical drawing comes to life. This is as true for very special solutions as it is for absolute standards like the JHS-300.

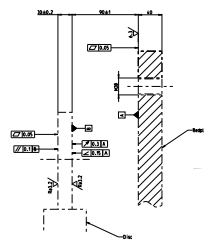
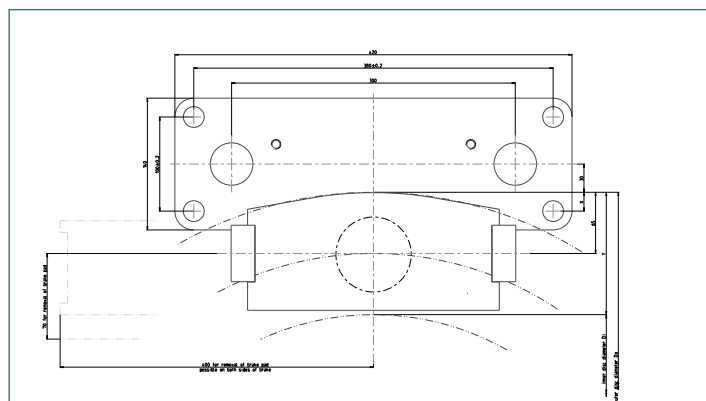
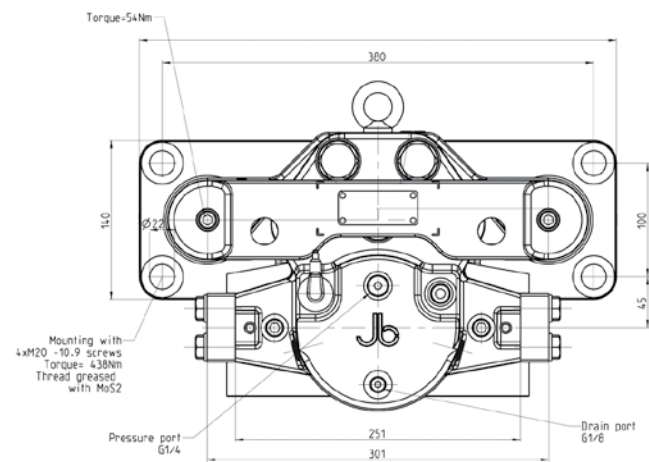
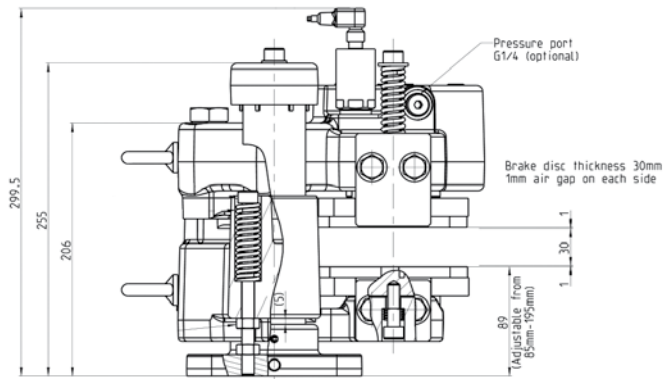
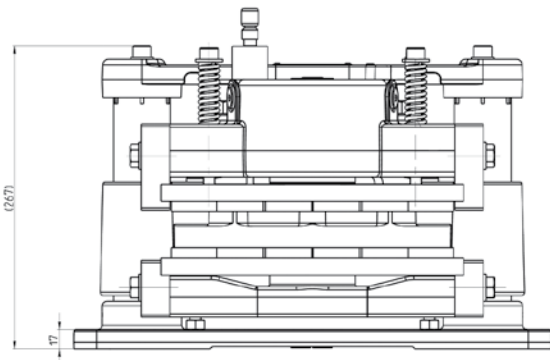
Julia Straub, Engineering

## JHS-300

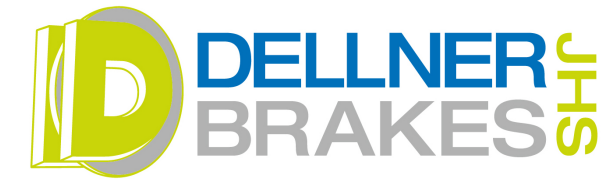


- Brake hydraulically applied; working temperature range down to -40 °C
- Large brake pad area, lower brake disc temperature, long life time on the brake pads
- Small airgap between brake pad and disc, short response time, fast braking
- Easy mounting, using 4 x M20 only, reduced installation costs
- Drain ports for hydraulic oil leakage, prevents oil on brake disc, high safety
- Few moving parts, easy maintenance, reduces maintenance costs
- Sinter brake pad, suitable for high speed or high torque braking occasions
- Removable brake pad holders, easy to exchange brake pad, low maintenance cost
- Apply to damp, dust and corrosive working environment

# JHS-300



Do	Y	Di	X
500 ≤ Do < 1500	130	Do - Y	20
1500 ≤ Do < 1600	126	Do - Y	18
1600 ≤ Do < 2000	120	Do - Y	15
2000 ≤ Do < 4000	110	Do - Y	10



## TYPE JHS-300

Contact force $F_A$ (max)	55 kN
Operating pressure $p$ (max)	125 bar
Piston area	44 cm <sup>2</sup>
Volume at 1 mm stroke	4,4 cm <sup>3</sup>
Min. working temperature	-40 °C
Weight	70 kg
Pressure connection port	G1/4
Drain connection port	G1/8

## BRAKE PAD

Pad area (organic)	290 cm <sup>2</sup>
Pad area (sintered)	200 cm <sup>2</sup>
Brake pad width	126 mm
Max. wear of each pad	7 mm

## Floating range on axles

towards mounting surface	5 mm
away from mounting surface	10 mm
Theor. friction coefficient	0,4 $\mu$

## BRAKE DISC

Min. brake disc $\phi d2$	500 mm
Max. outer coupling diameter	40 mm
Disc thickness (standard)	20-40 mm

## BRAKING TORQUE

Braking torque formula:

$$F_A = p \times 0,442$$

$$F_B = F_A \times 2 \times \mu$$

$$M_B = a \times F_B \times D_B / 2$$

$F_A$  = Contact force [kN]

$p$  = Operating pressure [bar]

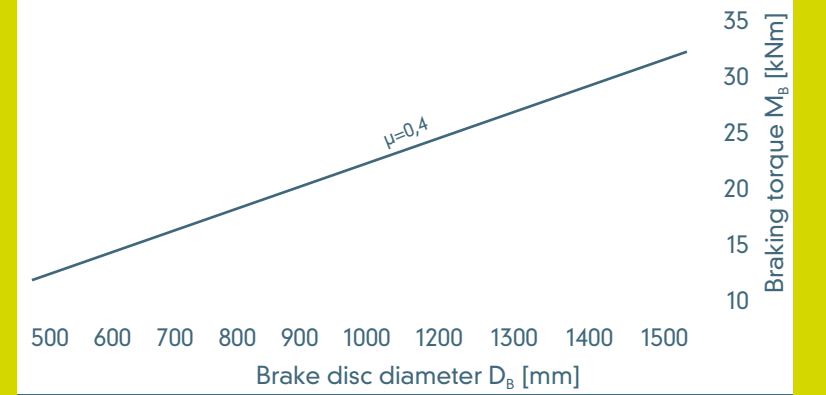
$F_B$  = Nominal braking force [kN]

$M_B$  = Braking torque [kNm]

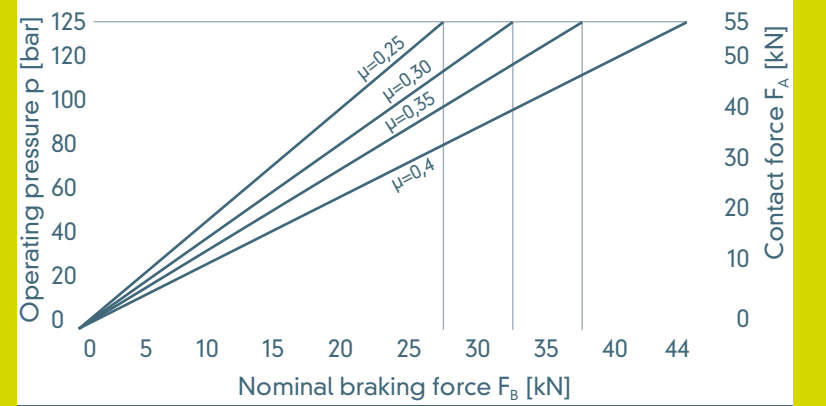
$a$  = Number of calipers acting on the disc

$D_B$  = Brake disc diameter [m]

## BRAKING TORQUE



## CLAMPING FORCE



## OPTIONS

- Hydraulic power unit
- Brake pad with different material
- Brake pad wear and on/off indicator
- Temperature sensor