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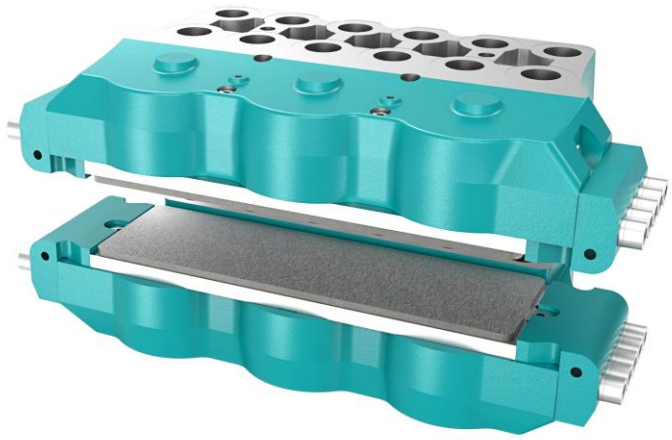
AB-3-120-103 ROTOR BRAKE

Active brakes are a complement to the aerodynamic braking system of the rotor of a wind turbine. Active brakes are hydraulic applied and spring released, meaning that the braking force depends on the hydraulic pressure.

DATASHEET SPECIFICATION

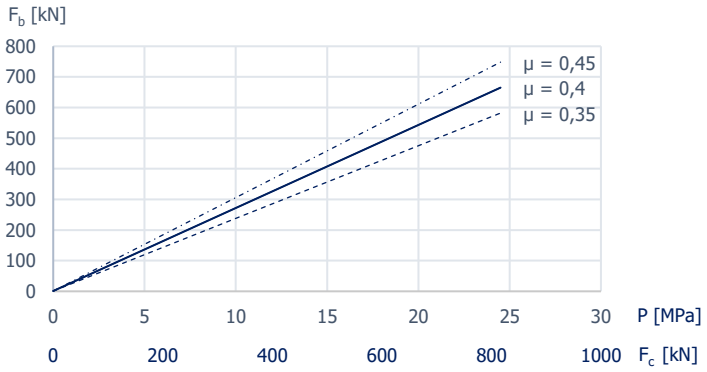
ARTICLE NUMBER	20-1318
MAX. PRESSURE	24,5 MPa
MAX. CLAMPING FORCE	831,3 kN
MAX. BRAKING FORCE	665,0 kN
FRICTION COEFFICIENT μ	0,4 [-]
DISC THICKNESS	20 - 60 mm
WEIGHT	210 kg
BRAKE HOUSE MATERIAL	EN-GJS-500-7
TEMPERATURE RANGE	-40 / +70 °C
PISTON DIAMETER	120 mm
SINGLE PISTON SURFACE AREA	113,1 cm^2
LINING TYPE	Organic TR146
LINING DIMENSIONS	440 x 132 mm
LINING THICKNESS	23 mm
FRICTION MATERIAL THICKNESS	8 mm
MAX. PERMITTED LINING WEAR	6 mm



FEATURES

- Replaceable brake pads, without loosening mounting bolts
- Spring retracted brake pads
- Applicable for several disc thicknesses
- Air gap brake pads according to customer specification
- Grooved brake pads for redirecting fine dust & contamination
- Lifting eyes for good handling and fitting
- Drain ports for oil leakage, preventing pads contamination
- Brake pads with electric wear indicators

BRAKING FORCE GRAPH



CALCULATION LEGENDA

- **F_b** = Braking Force
- **F_c** = Clamping Force
- **μ** = Friction Coefficient
- **M_b** = braking Torque
- **z** = Number of Brakes
- **D_{av}** = Effective Diameter of brake

BRAKE FORCE CALCULATION

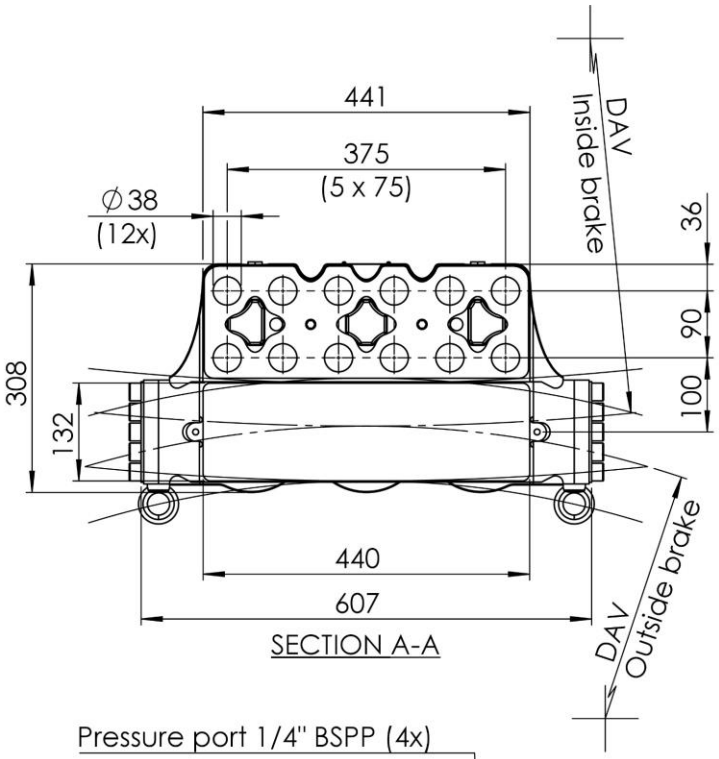
$$F_b = 2 \cdot F_C \cdot \mu^*$$

$$F_c = A \cdot P \cdot 10\ [N]$$

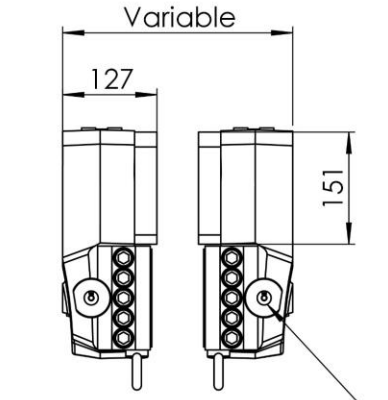
$$M_b = z \cdot F_b \cdot \frac{D_{av}}{2}$$

*External factors have not been taken into consideration

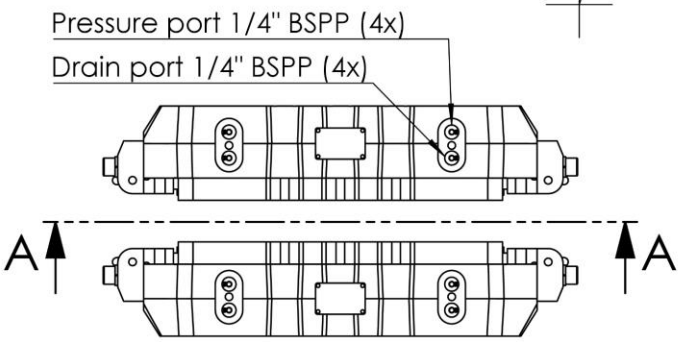
GENERAL ARRANGEMENTS



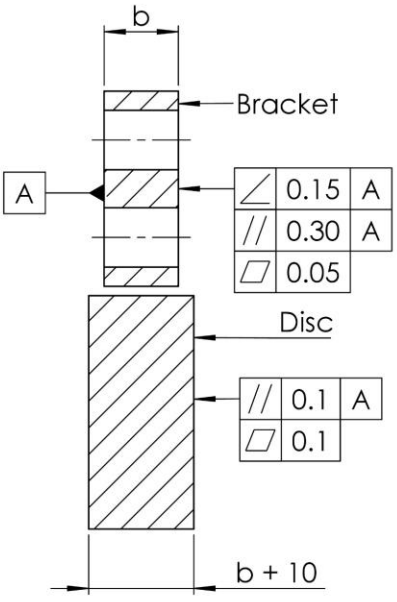
SECTION A-A



SIDE VIEW



FRONT VIEW



Mounting specification