

FAB-1-75-100 ROTOR BRAKE

Floating active brakes are a complement to the aerodynamic braking system of the rotor of wind turbines. Floating active brakes are hydraulic applied and spring released. A brake operation starts when the active brake half is applied with hydraulic pressure.

DATASHEET SPECIFICATION

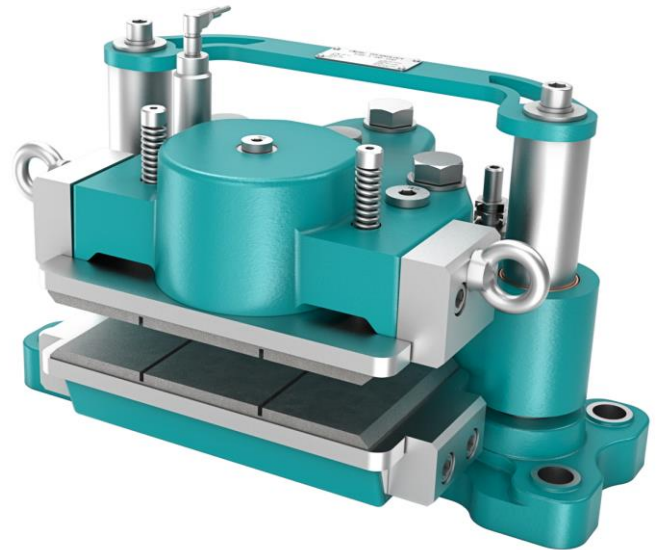
ARTICLE NUMBER	20-1453
MAX. PRESSURE	12,5 MPa
MAX. CLAMPING FORCE	55,3 kN
MAX. BRAKING FORCE	44,2 kN
FRICTION COEFFICIENT μ	0,4 [-]
DISC THICKNESS	30 mm
WEIGHT	75 kg
BRAKE HOUSE MATERIAL	EN-GJS-500-7
TEMPERATURE RANGE	-40 / +70 °C
PISTON DIAMETER	75 mm
SINGLE PISTON SURFACE AREA	44,2 cm ²
LINING TYPE	Organic TR097
LINING DIMENSIONS	228 x 128 mm
LINING THICKNESS	20 mm
FRICTION MATERIAL THICKNESS	10 mm
MAX. PERMITTED LINING WEAR	6 mm

FEATURES

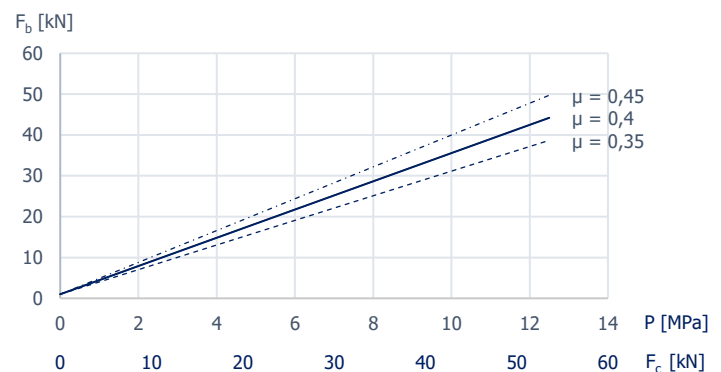
- Self-aligning system
- Replaceable brake pads, without loosening mounting bolts
- Spring retracted brake pads
- Applicable for several disc thicknesses
- Air gap brake pads according to customer specification
- Grooved brake pads for redirecting fine dust & contamination
- Drain ports for oil leakage, preventing pads contamination
- Brake open and pad wear switches

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



BRAKING FORCE GRAPH



BRAKE FORCE CALCULATION

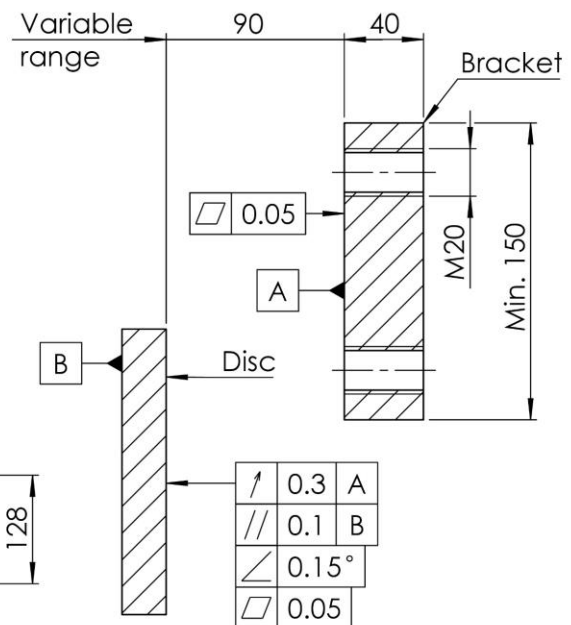
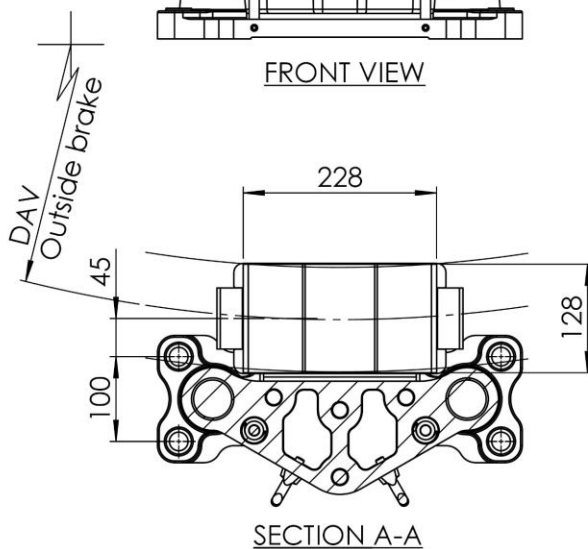
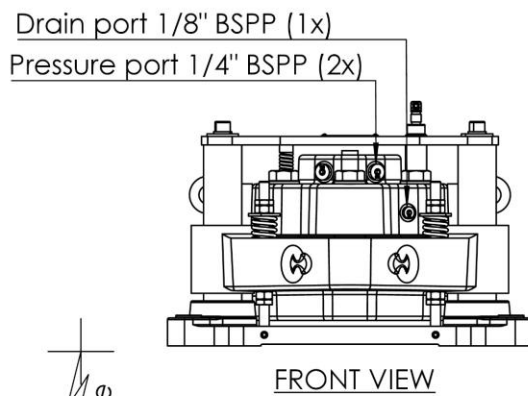
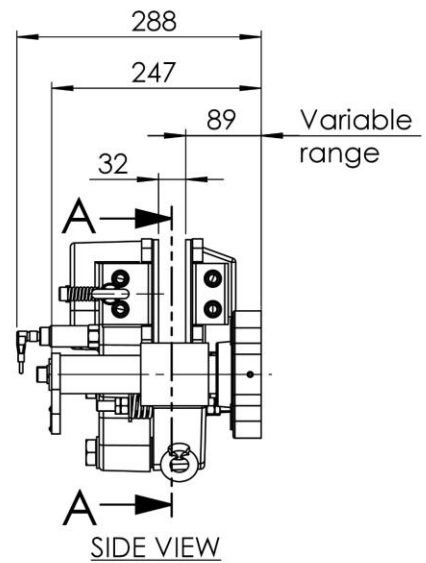
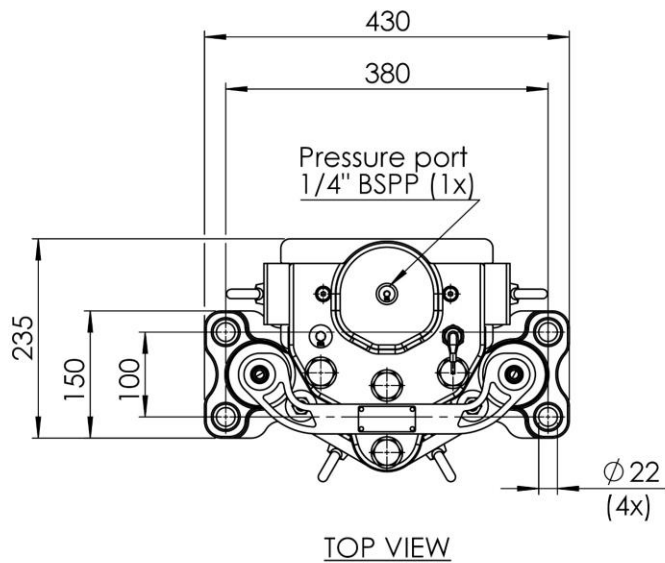
$$F_b = 2 \cdot F_c \cdot \mu^*$$

$$F_c = A \cdot P \cdot 10 \text{ [N]}$$

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

*External factors have not been taken into consideration

GENERAL ARRANGEMENTS



Mounting specification

Trebu reserves the rights to modification without prior notification