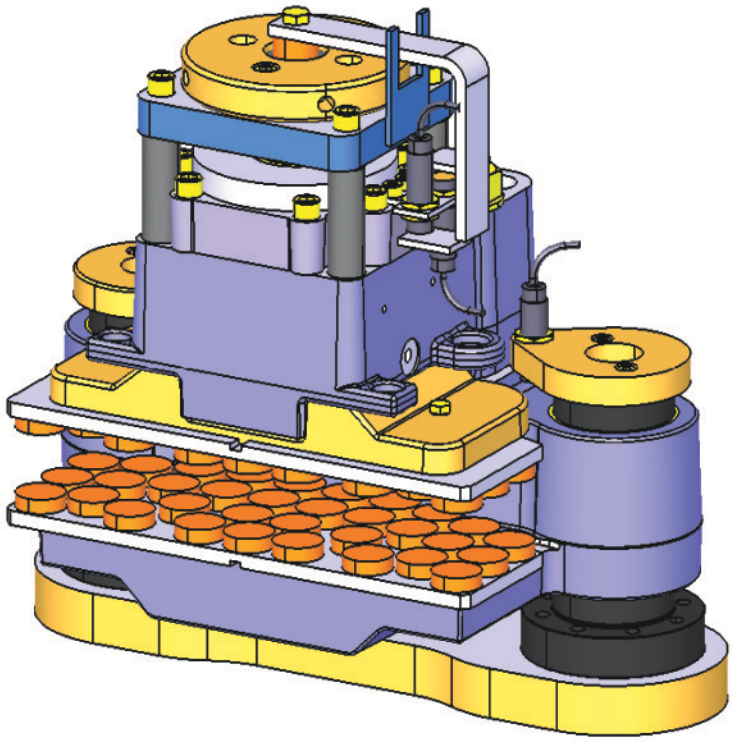


Description:

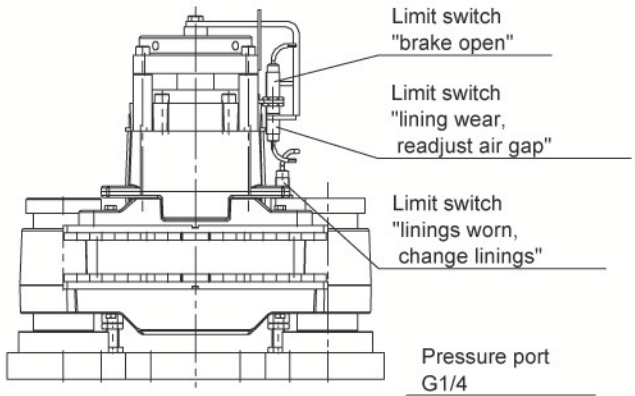
- The FSB 101-107 FC brake is a Fail Safe Brake, Spring Applied, Hydraulic Released, braking force adjustable by variation of air gap and by variation of spring package.
- The FSB 101-107-FC brake is designed as a floating calliper.
  FSB 101-107-FC brakes are suitable for horizontal and vertical brake discs under any angular displacement.

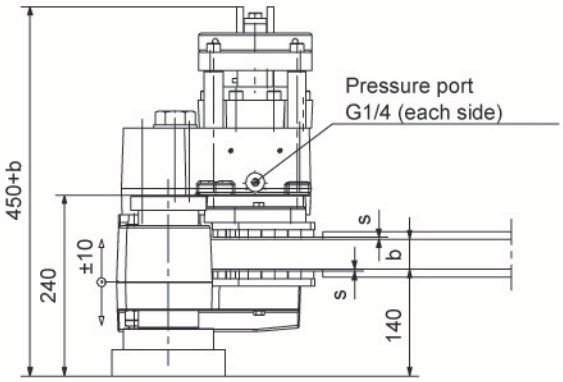
Design Advantage:

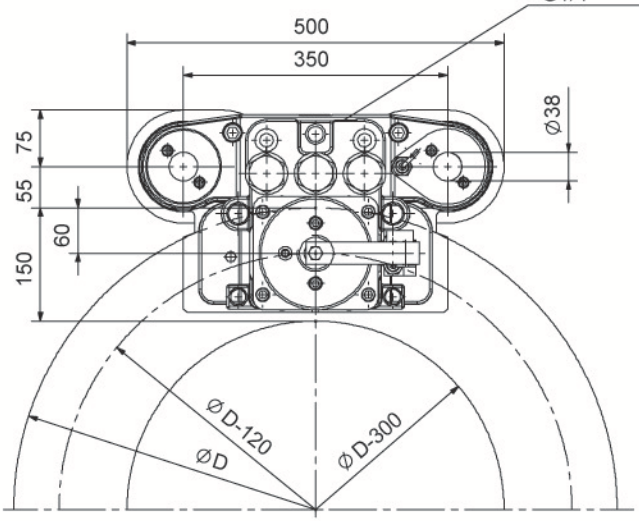
- Compact and robust construction
- Fast response time, fast braking for maximum safety
- Stainless steel piston
- Sinter linings for high speed/high energy application
- Retraction springs ensure air gap between lining and disc, when brake is open
- Optimized lining pressure distribution by innovative force transmission
- Optimized isolation of lateral forces
- Minimized risk of leakage
- Suitable for low temperature application
- Long life time
- Easy maintenance

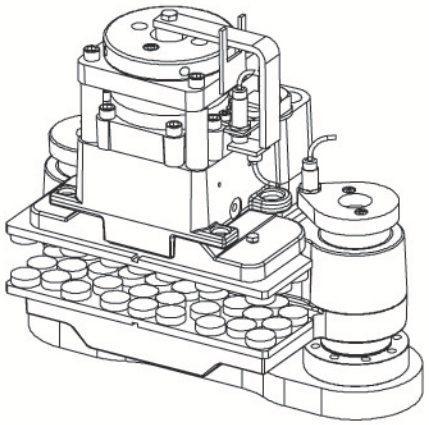
Application:

Stopping and / or Holding brake for Wind Power Generator



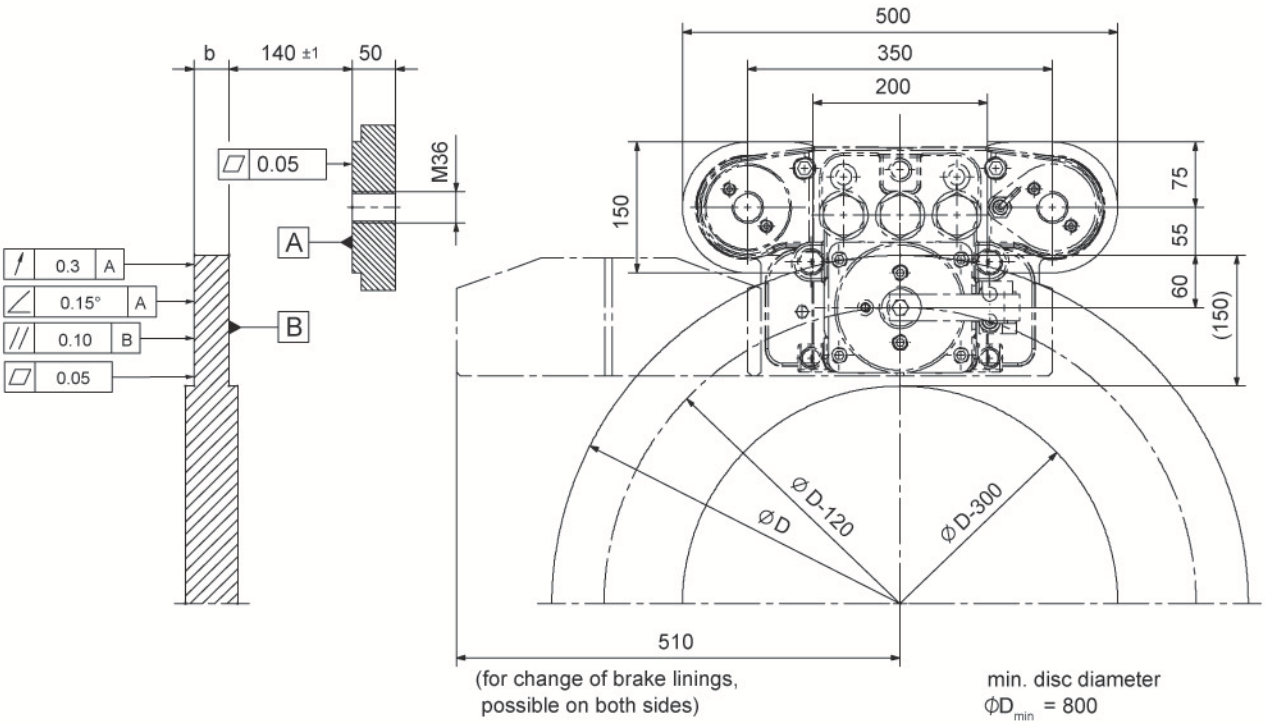






Piston area	A_P	113 cm²
Oil volume per 1 mm stroke	V_{Oil}	11,3 cm³
Adjustable air gap	s	0,5 – 2,0 mm
Lining type		sinter
Lining surface	A_L	300 cm²
Max. lining wear	s_L	8 mm
Nominal friction coefficient	μ	0,4
Disc thickness	b	20 - 50 mm
Minimum disc diameter	$\varnothing D_{min}$	800 mm
Floating range on guidance pins	r	± 10 mm
Temperature range (for lower temperatures please contact us)	T	-20°C to 70°C
Weight (complete)	m	150 kg

Mounting



Calculation of Braking Torque

Clamping Force F_C	FSB 101 FC	FSB 102 FC	FSB 103 FC	FSB 104 FC	FSB 105 FC	FSB 106 FC	FSB 107 FC
F_C (s = 0,5 mm)	29,0 kN	45,1 kN	55,4 kN	74,1 kN	83,2 kN	110,0 kN	140,0 kN
F_C (s = 1,0 mm)	28,0 kN	43,7 kN	52,2 kN	68,7 kN	77,0 kN	98,0 kN	115,0 kN
F_C (s = 1,5 mm)	27,0 kN	41,3 kN	48,8 kN	62,7 kN	74,4 kN	88,0 kN	94,0 kN
F_C (s = 2,0 mm)	26,0 kN	40,3 kN	44,8 kN	58,7 kN	69,3 kN	73,0 kN	67,0 kN
F_C (brake released)	32 kN	50 kN	62 kN	84 kN	98,5 kN	150 kN	189 kN
Release pressure p	35 bar	50 bar	60 bar	80 bar	95 bar	145 bar	175 bar
Max. operating pressure p_{max}	110 bar	110 bar	110 bar	110 bar	150 bar	175 bar	205 bar

$$M_{Br} = F_{Br} \cdot \frac{D-120}{2} = 2 \cdot F_C \cdot \mu \cdot \frac{D-120}{2} = F_C \cdot \mu \cdot (D-120)$$