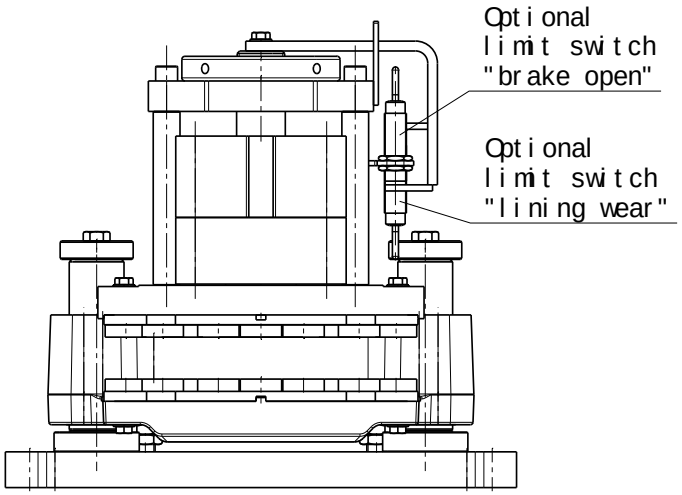

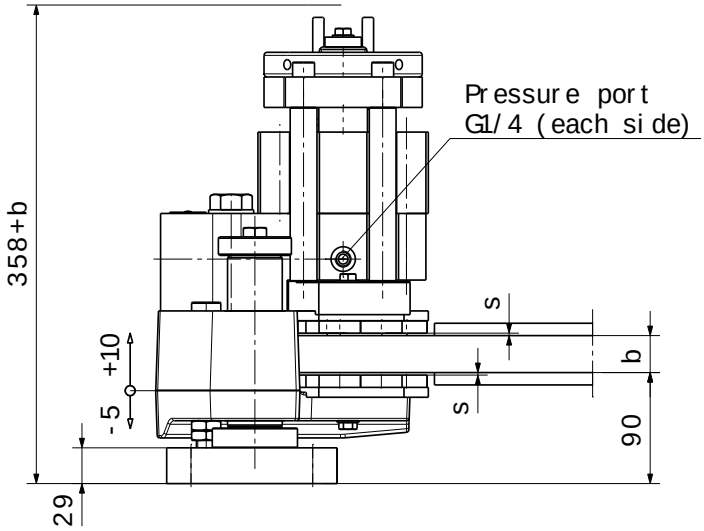

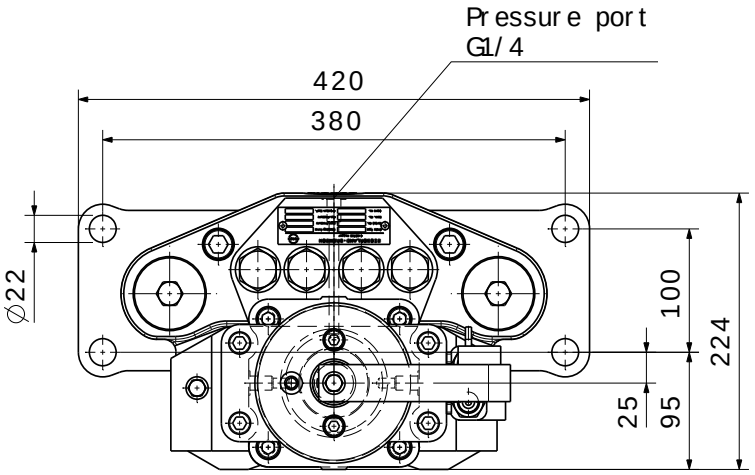

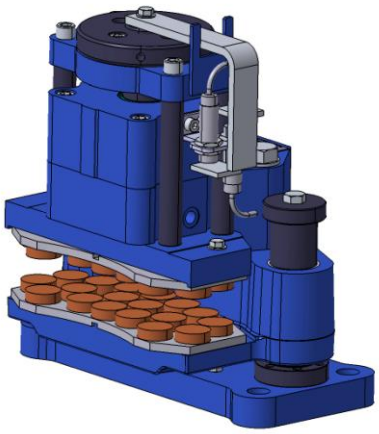

Application:

- **Stopping and/or holding brake for rotors of wind turbines**

Description:

- The FSB 75 FC brake is a Fail Safe Brake, Spring Applied, Hydraulically Released; braking force adjustable by variation of air gap and by variation of spring package
- The FSB 75 FC brake is designed as a floating caliper
- FSB 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 applications
- Long service life
- Easy maintenance

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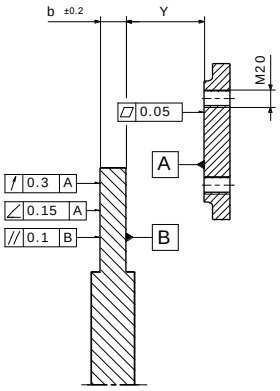
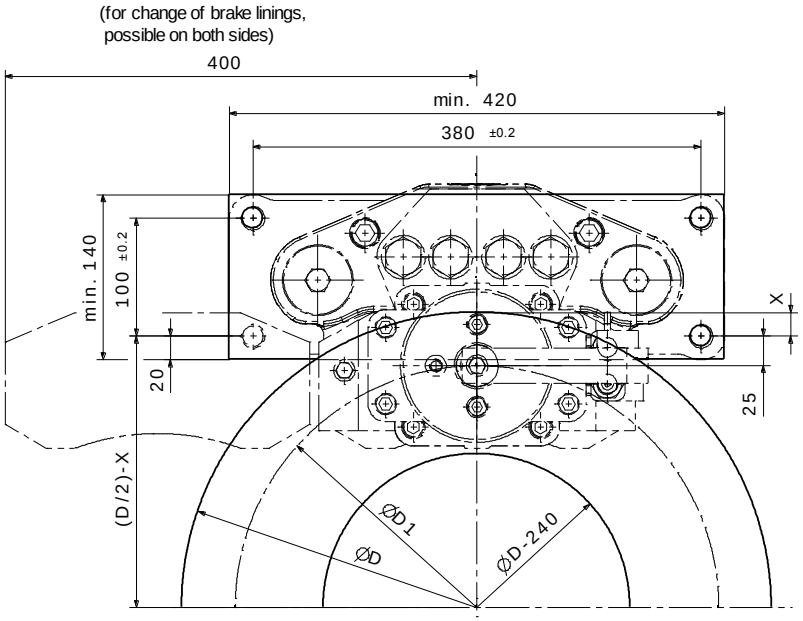
		FSB 75-FC
Piston area	A_P	50,3 cm²
Oil volume per 1 mm stroke	V_{Oil}	5,0 cm³
Adjustable air gap (each side)	s	0,75 – 1,5 mm
Lining type		sinter
Lining surface	A_L	163 cm²
Max. lining wear	s_L	8 mm
Nominal friction coefficient	μ	0.4
Disc thickness	b	20 – 40 mm
Min. disc diameter	$\varnothing D_{min}$	500 mm
Max. disc diameter	$\varnothing D_{max}$	4000 mm
Floating range on guidance pins	r	-5 / +10 mm
Temperature range (for lower temperatures please contact us)	T	-20°C to 70°C
Weight	m	85 kg

Example for mounting
Y = 90 +10/-5





Calculation of Braking Torque

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot Fc \cdot \mu \cdot \frac{D_1}{2} = Fc \cdot \mu \cdot D1$$

ØD	ØD1	X
500 ≤ ØD < 1500	ØD1 = ØD – 90	20
1500 ≤ ØD < 1600	ØD1 = ØD – 86	18
1600 ≤ ØD < 2000	ØD1 = ØD – 80	15
2000 ≤ ØD < 4000	ØD1 = ØD – 70	10

Clamping Force F_C [kN]	**75-1**	**75-2**	**75-3**	**75-4**	**75-5**	**75-6**
F_C (s = 0,75 mm)	18,1	21,6	24,6	29,1	42,8	48,6
F_C (s = 1,00 mm)	17,9	20,7	23,9	27,6	41,0	47,3
F_C (s = 1,25 mm)	17,7	19,9	23,1	26,1	39,1	46,0
F_C (s = 1,50 mm)	17,6	19,0	22,4	24,6	37,0	44,4
F_C (brake released)	21,0	26,0	30,0	37,0	56,0	61,0
Release pressure p [bar]	45	55	65	80	120	135
Max. operating pressure p_{max} [bar]	85	85	110	110	150	175