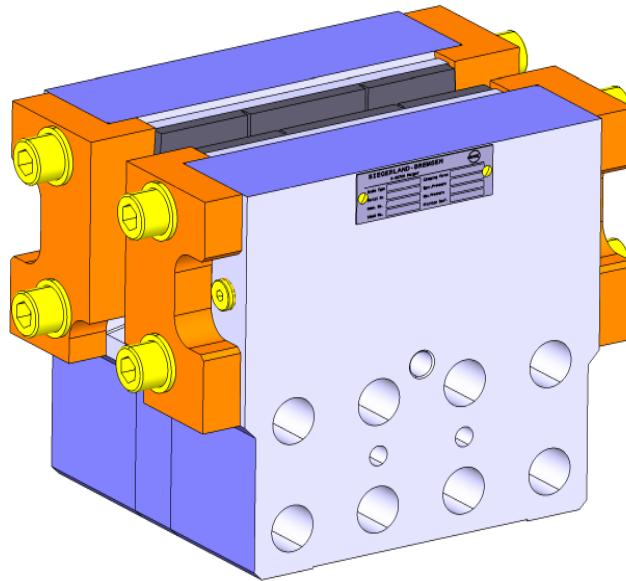


Disc Brake / Yaw Caliper **ABT 75 S + ABT 90 S**



Description:

- The ABT 75/90 S brake is an [Active Brake, Hydraulically Applied](#); braking force produced by variation of hydraulic pressure.
- The ABT 75/90 S brake consists of two independent caliper halves with opposite hydraulic cylinders. ABT brakes are suitable for horizontal and vertical brake discs under any angular displacement.
- The ABT 75/90 S is equipped with removable lining retainer plates and sideways lining retraction springs.

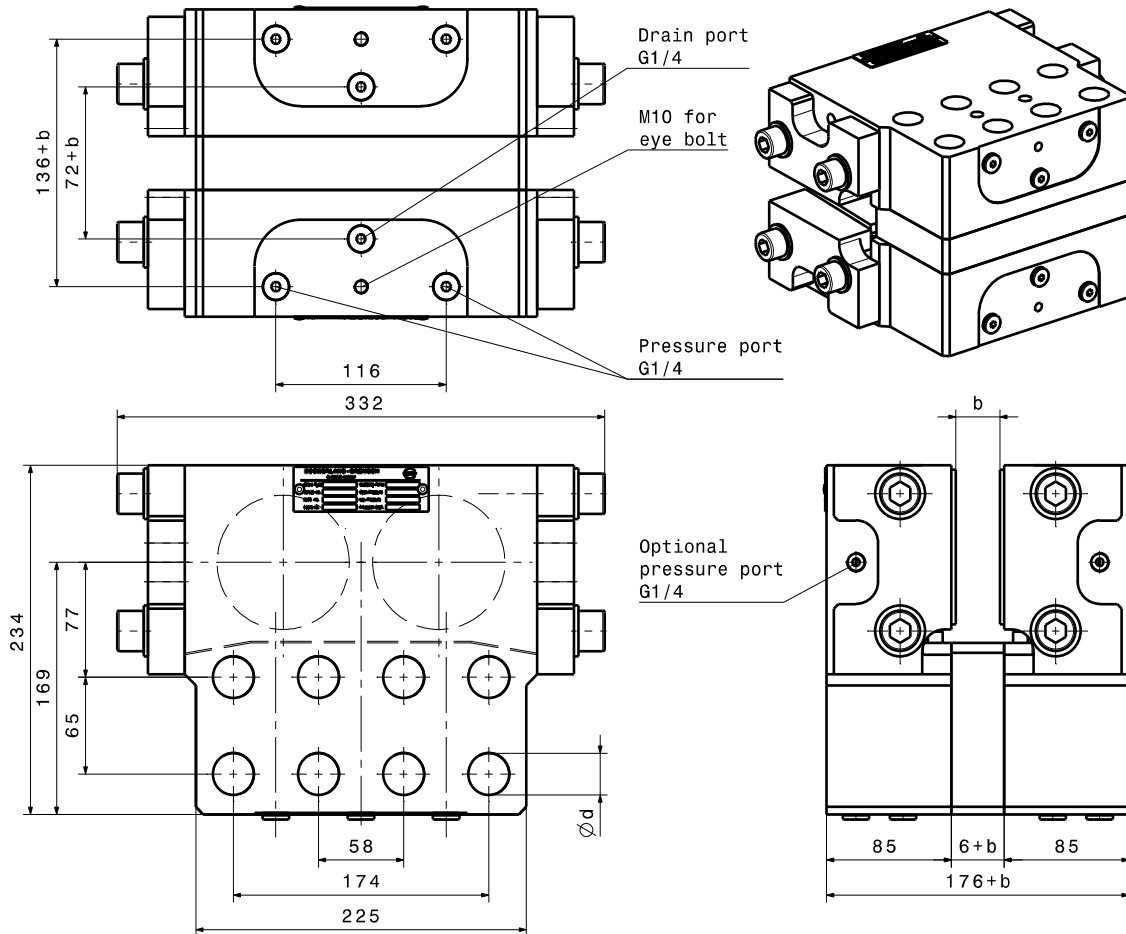
Design Advantage:

- Compact and Robust construction
- Fast response time, fast braking for maximum safety
- Special design to reduce braking noise
- Stainless steel piston
- High performance lining with stable friction coefficient
- Suitable for extreme low temperature application
- Long service life
- Easy maintenance
- Unique removable lining retainer plates provide easy lining replacement

Application:

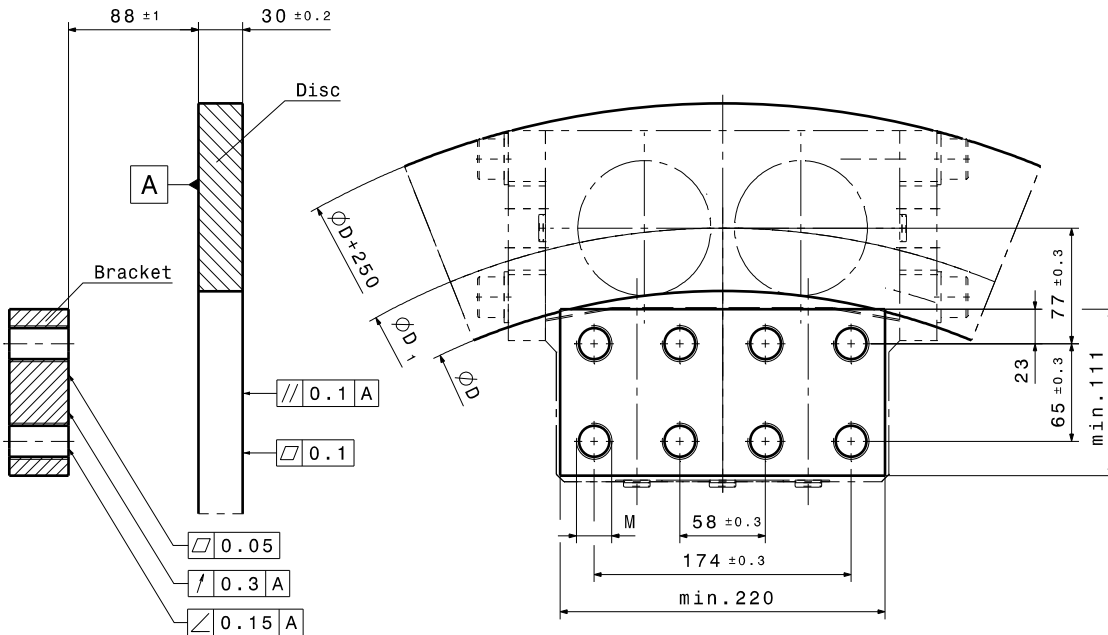
Stopping and/or holding brake for wind turbines

Disc Brake / Yaw Caliper ABT 75 S + ABT 90 S



		ABT 75 S	ABT 90 S
Piston diameter	$\varnothing d_p$	75 mm	90 mm
Piston area each side	A_p	8835 mm ²	12723 mm ²
Operating pressure	p	160 bar	
Max. plant pressure	p_{max}	180 bar	
Oil volume per 1 mm stroke	V_{Oil}	18 cm ³	26 cm ³
Lining type		organic	
Lining surface	A_L	206 cm ²	
Max. lining wear	s_L	7 mm	
Nominal friction static	μ	0.4	
Max. braking force	$F_{Br max}$	113 000 N	162 000 N
Disc thickness	b	20 – 70 mm	
Mounting boreholes	$\varnothing d$	$\varnothing 25$ mm	$\varnothing 28$ mm
Temperature range (for lower temperatures please contact us)	T	-40 °C to 70 °C	
Weight	m	75 kg	

Example for inside mounting (b = 30)



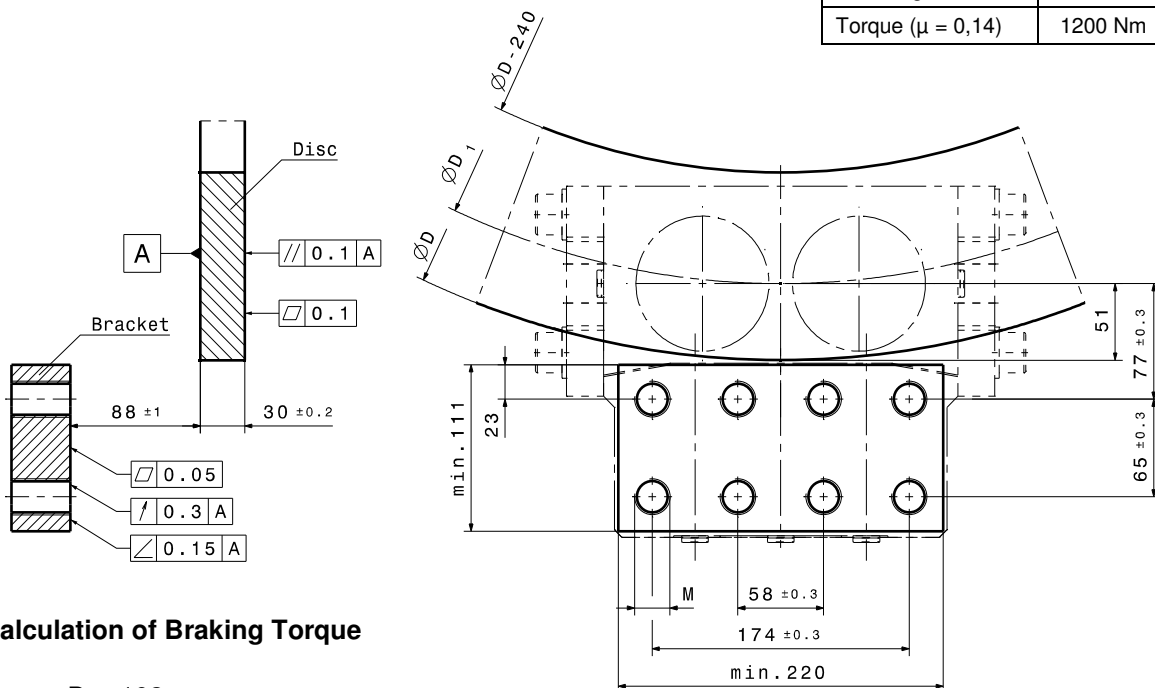
ØD	ØD1
900	984
1000	1087
1200	1290
1400	1493
1600	1695
1800	1897
2000	2099
>2000	D+100

Calculation of Braking Torque

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot A_p \cdot p \cdot \mu \cdot \frac{D_1}{2} = A_p \cdot p \cdot \mu \cdot D_1$$

	ABT 75 S	ABT 90 S
Mounting bolts M	M24-12.9	M27-12.9
Torque ($\mu = 0,14$)	1200 Nm	1800 Nm

Example for outside mounting (b = 30)



	ABT 75 S	ABT 90 S
Mounting bolts M	M24-12.9	M27-12.9
Torque ($\mu = 0,14$)	1200 Nm	1800 Nm

Calculation of Braking Torque

$$D_1 = D - 102$$

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot A_p \cdot p \cdot \mu \cdot \frac{D_1}{2} = 2 \cdot A_p \cdot p \cdot \mu \cdot \left(\frac{D}{2} - 51 \right)$$