

Application:

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

Description:

- The ABT 75/90 S-R brake is an **Active Brake, Hydraulically Applied**; braking force produced by variation of hydraulic pressure.
- The ABT 75/90 S-R 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-R is equipped with removable lining retainer plates and sideways lining retraction springs.

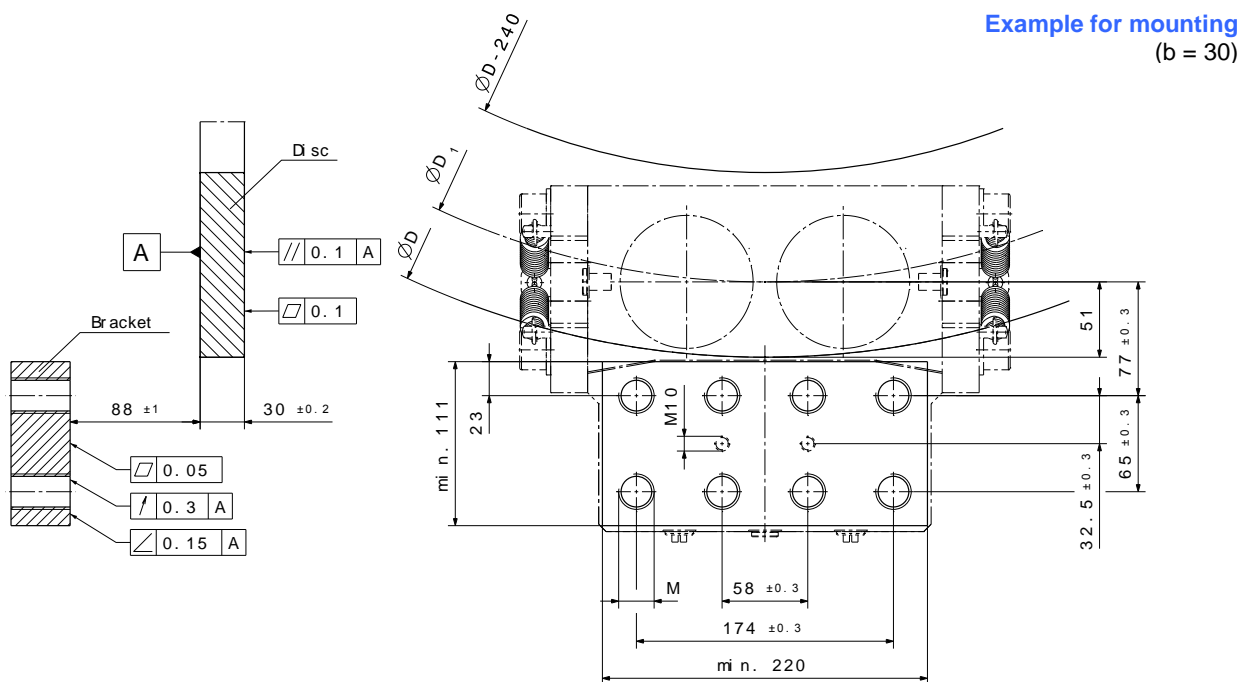
Design Advantage:

- Compact and robust construction
- Fast response time, fast braking for maximum safety
- 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
- Lining retraction springs for guaranteed air gap between lining and disc when brake is open
- Suitable as rotor brake on the slow speed shaft

Alterations reserved

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		ABT 75 S-R	ABT 90 S-R
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 (sinter optional)	
Lining surface	A_L	250 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
Min. disc diameter	$\varnothing D_{min}$	1000 mm	
Disc thickness	b	20 – 70 mm	
Mounting bore	$\varnothing d$	$\varnothing 25$ mm	$\varnothing 28$ mm
Temperature range	T	-40°C to 70°C	
Weight	m	75 kg	
Mounting Bolts	M	M24-12.9	M27-12.9
Fastening Torque ($\mu=0,14$) for mounting bolts	M_b	1200 Nm	1800 Nm



Calculation of Braking Torque

$$D_1 = D - 102$$

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