

#### **Description:**

- The ABT 120 G brake is an Active Brake, Hydraulically Applied; braking force produced by variation of hydraulic pressure.
- The ABT 120 G 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.

#### **Design Advantage:**

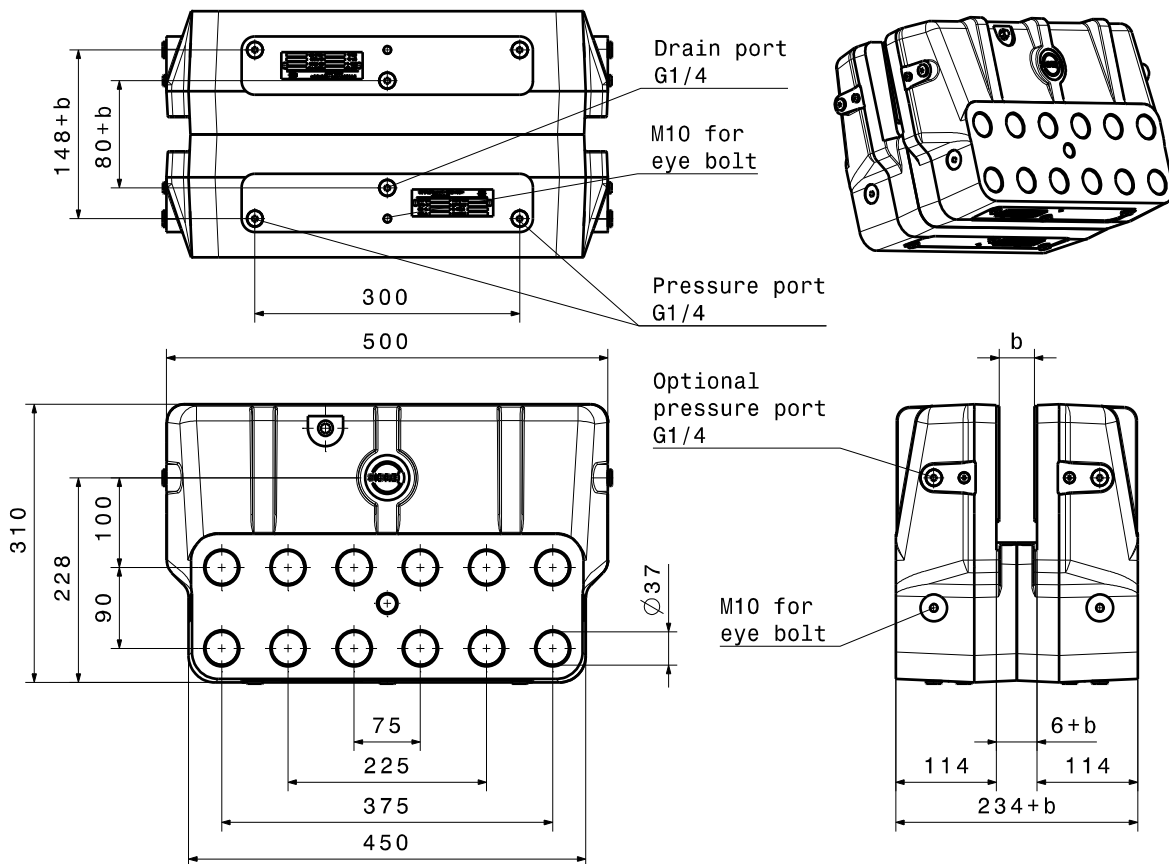
- Compact and robust construction
- Fast response time, fast braking for maximum safety
- Special design to reduce braking noise
- Stainless steel piston
- High performance lining with stable friction coefficient
- Suitable for low temperature application
- Long service life
- Easy maintenance

#### **Application:**

**Stopping and/or holding brake for wind turbines**

Alterations reserved

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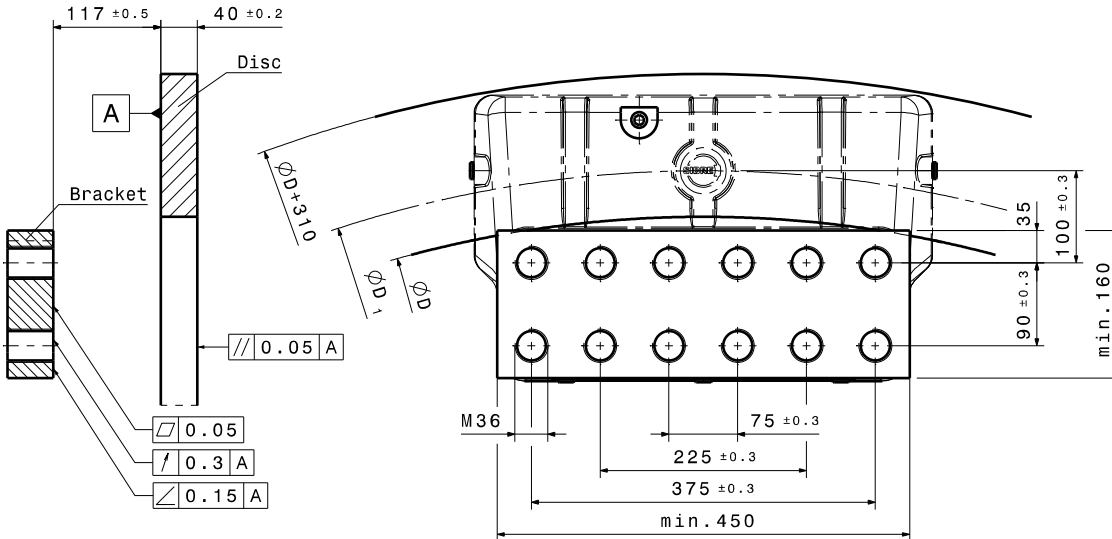


		<b>ABT 120 G</b>
Piston diameter	$\varnothing d_p$	120 mm
Piston area each side	$A_p$	33929 mm <sup>2</sup>
Operating pressure	$p$	160 bar
Max. plant pressure	$p_{max}$	180 bar
Oil volume per 1 mm stroke	$V_{oil}$	68 cm <sup>3</sup>
Lining type		organic
Lining surface	$A_L$	522 cm <sup>2</sup>
Max. lining wear	$s_L$	7 mm
Nominal friction static	$\mu$	0.4
Max. braking force ( $\mu = 0.4$ )	$F_{Br max}$	434 000 N
Disc thickness	$b$	40 – 60 mm
Min. disc diameter	$D$	2000 mm
Temperature range (for lower temperatures please contact us)	$T$	-20 °C to 70 °C
Weight	$m$	195 kg

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## Example for inside mounting (b = 40)



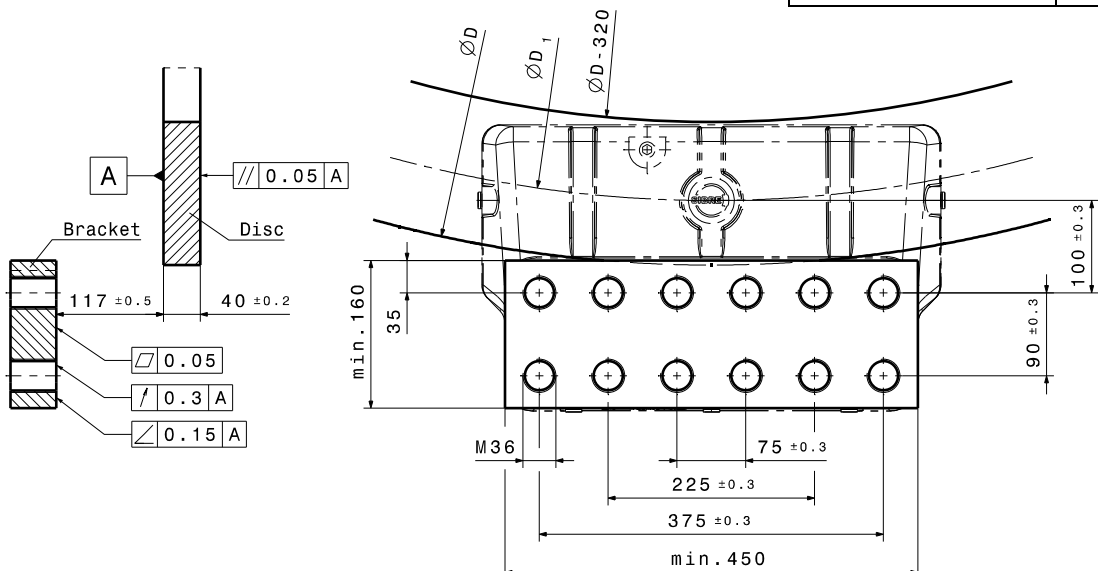
ØD	ØD1
2500	2600
2700	2804
3000	3106
3300	3408
3600	3710
3900	4012
4200	4314
≥ 4500	D+116

### 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 120 G
Mounting bolts M	M36-10.9
Torque (MoS2 greased)	2560 Nm

## Example for outside mounting (b = 40)



	ABT 120 G
Mounting bolts M	M36-10.9
Torque (MoS2 greased)	2560 Nm

### Calculation of Braking Torque

$$D_1 = D - 136$$

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot A_P \cdot p \cdot \mu \cdot \frac{D_1}{2} = 2 \cdot A_P \cdot p \cdot \mu \cdot \left( \frac{D}{2} - 68 \right)$$

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