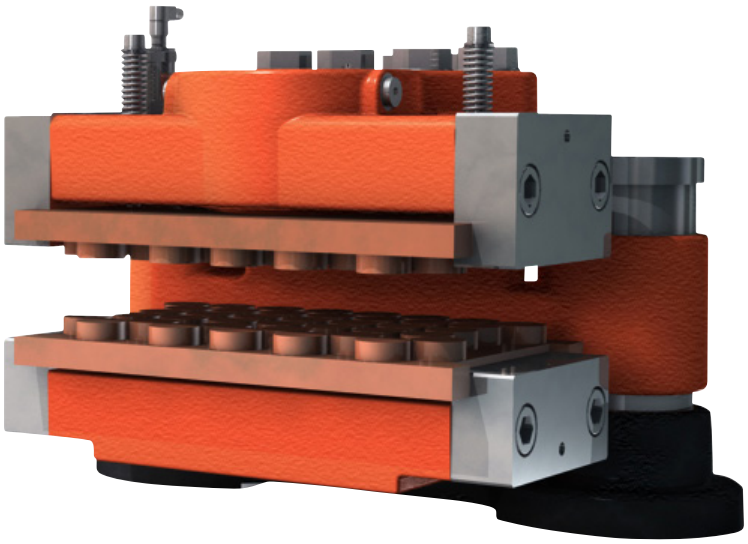
Svendborg Brakes

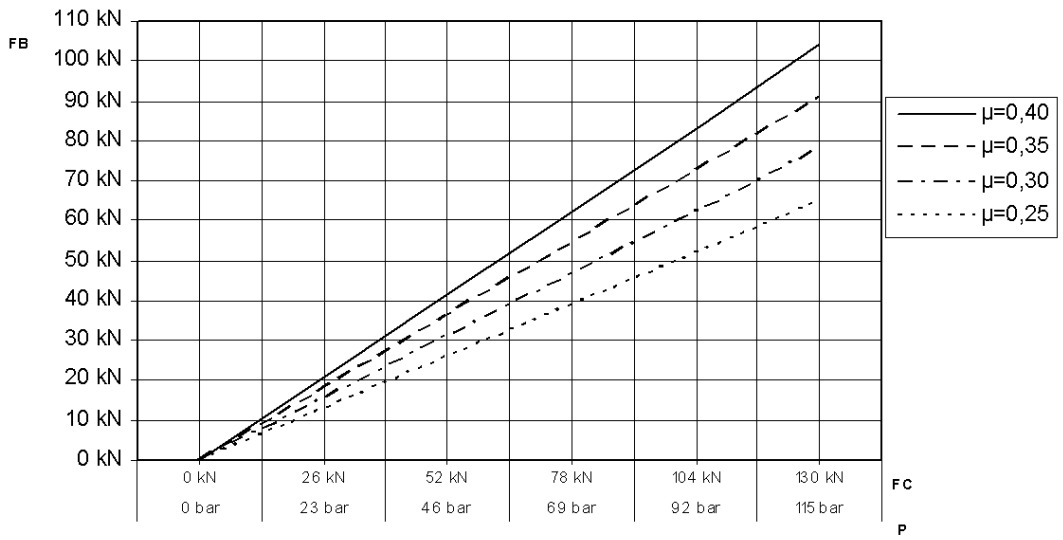
GLOBAL
LEADING
EXPERTS

Disc Brake: BSAK 3000 MONO-action

Name: DEB-0300-043-DA-MAR
Date: 15.05.2009
Revision: A



TECHNICAL DATA AND CALCULATION FUNDAMENTALS



Svendborg Brakes

GLOBAL
LEADING
EXPERTS

Disc Brake: BSAK 3000 MONO-action

Specification

BRAKING TORQUE

The braking torque M_B is calculated from following formula where:
a is the number of brakes acting on the disc
F_B is the braking force according to table above [N] or calculated from formula
D_0 is the brake disc outer diameter [m]
F_C is the clamping force [N]
A [cm²], **P** [bar] and μ see values below
The actual braking torque may vary depending on friction coefficient.

$$M_B = a \cdot F_B \cdot \frac{(D_0 - 0{,}2)}{2} \text{ [Nm]}$$

$$F_B = F_C \cdot 2 \cdot \mu \text{ [N]}$$

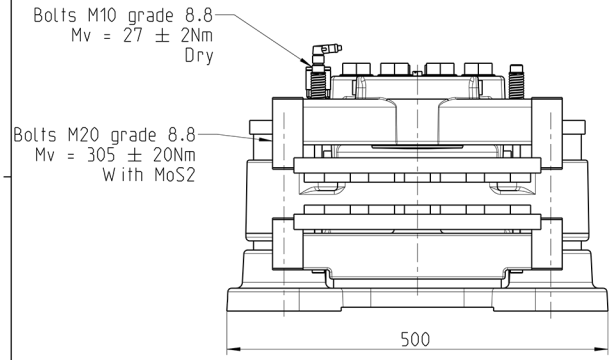
$$F_C = A \cdot P \cdot 10 \text{ [N]}$$

CALCULATION FUNDAMENTALS

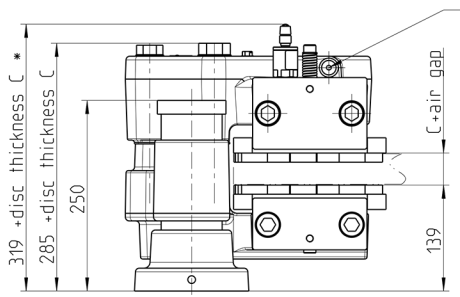
	MONO-ACTION
Weight of caliper without bracket:	Approx. 160 kg
Pad width:	200 mm
Pad area: (organic)	59,600 mm² (*)
Max. wear of pad: (organic)	5 mm (*) "(=23 mm thick)"
Pad area: (sinter)	36,000 mm² (*)
Max. wear of pad: (sinter)	5 mm (*) "(=23 mm thick)"
Nominal coefficient of friction:	μ = 0.4
Total piston area - each caliper half:	A=113.1 cm²
Total piston area - each caliper:	113.1 cm²
Volume for each caliper at 1 mm stroke:	11.31 cm³
Volume for each caliper at 3 mm stroke:	33.9 cm³
Actuating time (guide value for calculation):	0.3 sec
Pressure connection/port:	1/4" BSP
Max. operating pressure:	11.5 MPa
Operating temperature range - general	from -20°C to +70°C
Operating temperature range - wind turbine	from -40°C to +60°C

(For temperatures outside this range contact Svendborg Brakes)

(*) On each brake pad.



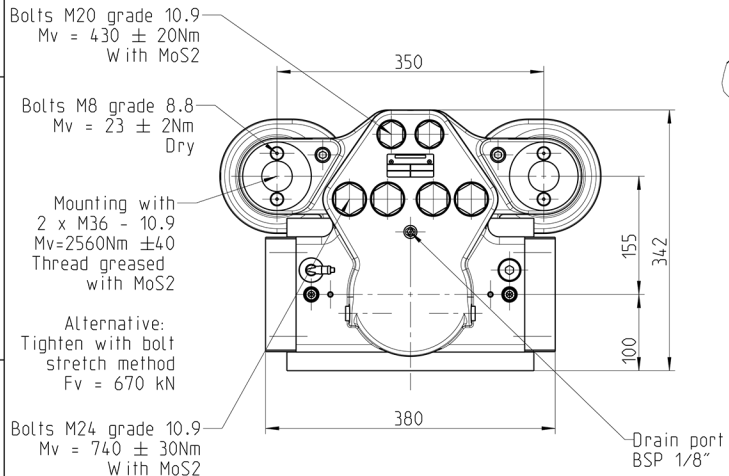
* +25mm min. needed for mounting/dismounting of indicator

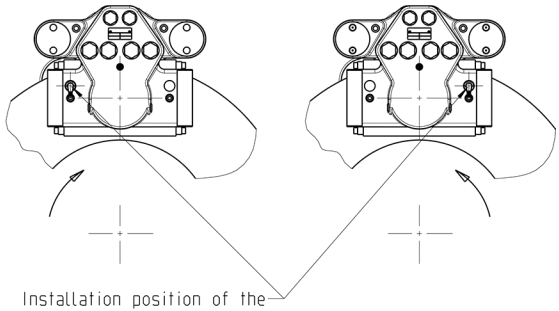


B

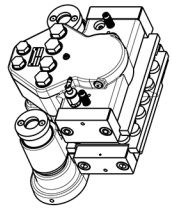
C = brake disc thickness
No. 590-0217-840 C=40mm
No. 590-0217-830 C=30mm

140±1 mm to brakedisc





Installation position of the indicator depends on the direction of disk rotation



1:10

Piston area = 11310 mm²
Max. pressure = 115 bar

Mounting data, see drawing: 490-1639

Tolerances for corner radii, angles, chamfers and threads according to: DS/EN 22768 - m	✓ Indicates Ra in µm	All dimensions in mm	Accep. for prod. by
Drawn by FRH Date: 19.04.2006	Description: BSAK 3000-MSXXS-100		Drw+Design checked by
			Revision B
SVENDBORG BRAKES	Drawing No. 590-0217-8XX		Scale 1:5 (A3) Sheet 1 of 1

Rev.A 93396 JUW 15.03.2007
Rev. B 94866 Tis 15.07.2010

FU IBERICA TRANSMISION DE POTENCIA

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