

## Disc brakes

## Technical data and dimensions

### Caliper SH1

Emergency brake  
Fail to safe  
Spring application  
Hydraulic release  
Linings with wear indicators  
Holding tool for maintenance operation  
Manual wear centering and compensation  
Association with discs thickness: 12,7 (1/2"), 20 and 30mm.  
Protection C5M-M

#### Operating conditions:

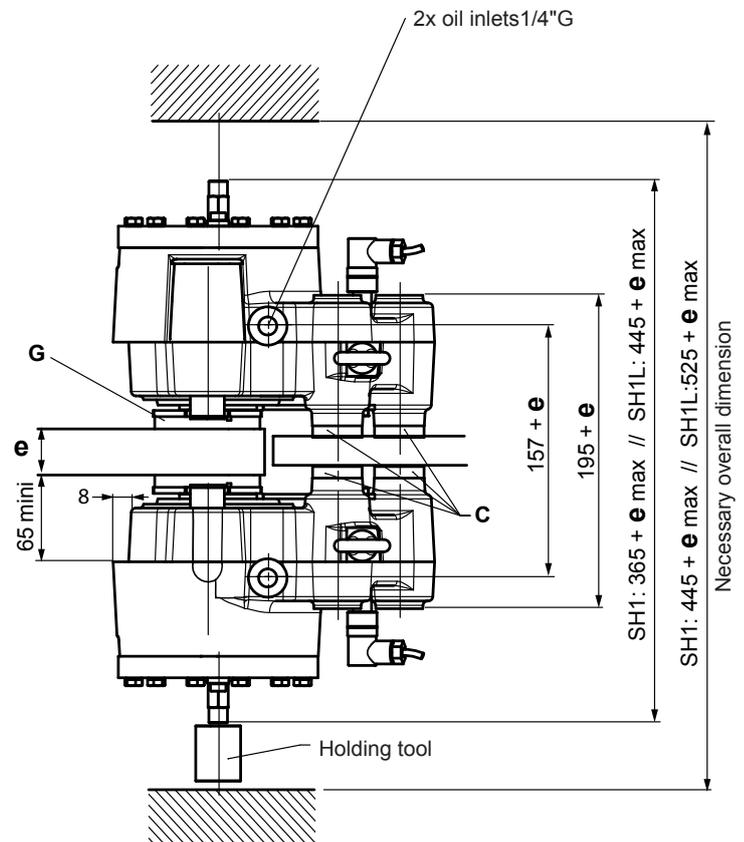
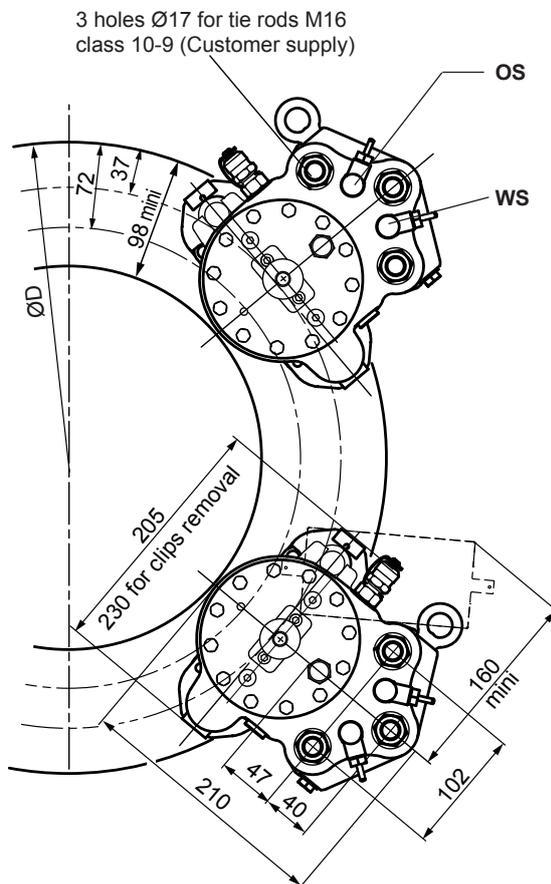
- Ambient temperature:  
Dynamic braking : -30°C to +70°C  
Brake applied (parking): -40°C to +70°C
- Relative humidity: ≤ 70%
- Dust in atmosphere ≥ 65µm
- Other conditions: consult us.

#### Use:

- The brake should be applied only in case of emergency stop, overspeed or shutdown of electric mains.  
Other use, consult us.
- US2-1, US2-5 for low energy braking ≤ 1 MJ  
Other use, consult us.

#### Options:

- Opening proving switch
- Lining wear proving switch
- All non-standard disc thickness > 12,7mm (1/2")
- Mechanical release tool for caliper opening
- Lining temperature sensor
- SH1L : caliper requiring no manual wear compensation:
  - braking force before lining wear = +10%
  - braking force after lining wear = -10%



#### Electrical data:

Inductive switches of opening and wear

(options):

- 3 wires PNP NO
- 10 to 24 VDC 200mA
- with male connector M12 / 5 positions according to standard IEC61076-2-101 / code A

- C = Spacers according to disc thickness
- G = Linings : Thickness of new lining 8 mm  
Thickness to wear 6 mm  
Each 1mm of wear on each side: manual centering and compensation
- OS = Opening switch (option)
- WS = Lining wear switch (option)
- ØD = Disc diameter = 300 mm minimum
- e = Disc thickness

Dimensions in mm  
Weight = 31 kg

Due to continuous development and improvement, all dimensions and characteristics are subject to change without notice.

Installation and maintenance Leaflet No. M10097-01  
Spare parts No. S10097-01

Safety data sheets US2-1 No. FDS00015-01  
US2-5 No. FDS00020-01

06/01/15

1/2

**T10097-01-D**

## Disc brakes

## Technical data and dimensions

### Caliper SH1

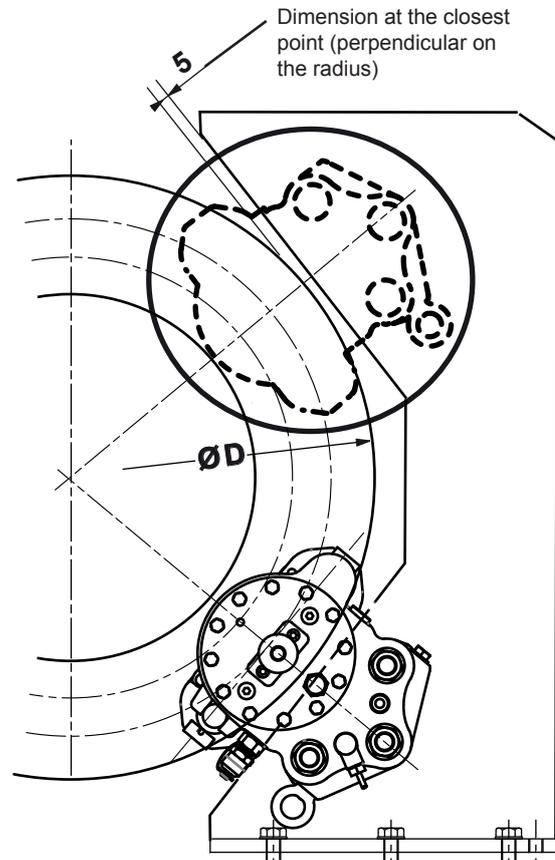
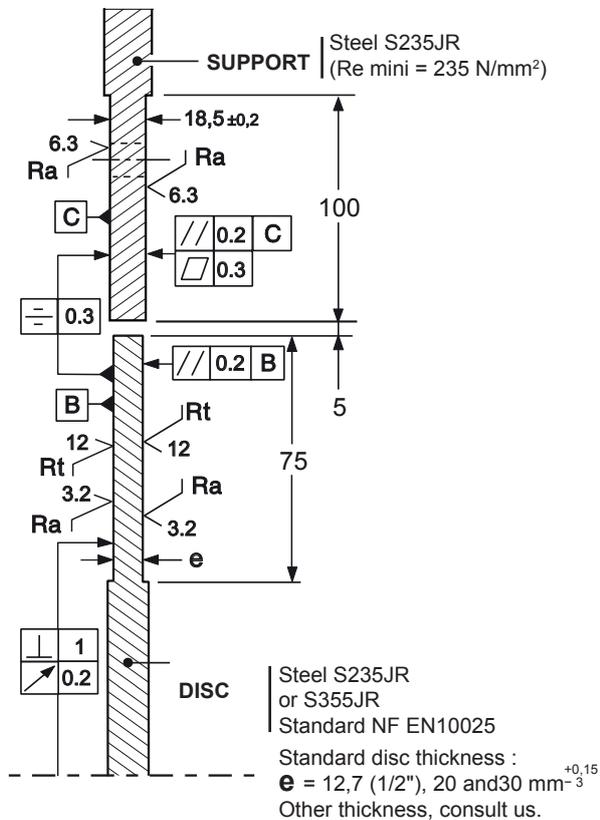
Torque and effort values are subject to a variation of  $\pm 10\%$  - Closing time at nominal torque  $\leq 0.3s$

| Designation   | Caliper                   |                 | SH1-5                  |           | SH1-4     |           | SH1-3     |           | SH1-2              |           | SH1-1     |           |  |  |
|---|---------------------------|-----------------|------------------------|-----------|-----------|-----------|-----------|-----------|--------------------|-----------|-----------|-----------|--|--|
|   | Lining                    |                 | US2-1                  | US2-5     | US2-1     | US2-5     | US2-1     | US2-5     | US2-1              | US2-5     | US2-1     | US2-5     |  |  |
| Braking force BF for air gap disc/lining of 2x1mm   | Dynamic                   | N               | 11 000                 | 9 600     | 8 000     | 7 000     | 6 000     | 5 300     | 4 000              | 3 500     | 2 000     | 1 800     |  |  |
|   | Static                    | N               | 9 700                  | 8 700     | 7 100     | 6 300     | 5 300     | 4 800     | 3 500              | 3 200     | 1 800     | 1 600     |  |  |
| Linear speed of the disc  |                           | m/s             | $\leq 10$              | $\leq 30$ | $\leq 10$ | $\leq 30$ | $\leq 10$ | $\leq 30$ | $\leq 10$          | $\leq 30$ | $\leq 10$ | $\leq 30$ |  |  |
| Dynamic braking torque BT (m.N) for 1 caliper and disc $\varnothing D$ (mm) / $300 \leq D \leq 1000$ mm |                           | N.m             | BT = BF (D/2000-0,037) |           |           |           |           |           |                    |           |           |           |  |  |
| Regulation pressure   | Minimum                   | bar             | 90                     |           | 70        |           | 50        |           | 50                 |           | 50        |           |  |  |
|   | Maximum                   | bar             | 110                    |           | 90        |           | 70        |           | 70                 |           | 70        |           |  |  |
| Setting pressure limit valve of hydraulic unit  |                           | bar             | 130                    |           | 110       |           | 90        |           | 90                 |           | 90        |           |  |  |
| Total volume of oil displaced for air gap disc/lining of:   | 2 x 1mm (nominal opening) | cm <sup>3</sup> |                        |           |           |           |           |           | 5 cm <sup>3</sup>  |           |           |           |  |  |
|   | 2 x 2mm (wear+opening)    | cm <sup>3</sup> |                        |           |           |           |           |           | 9 cm <sup>3</sup>  |           |           |           |  |  |
|   | 2 x 7mm SH1L (wear+open.) | cm <sup>3</sup> |                        |           |           |           |           |           | 30 cm <sup>3</sup> |           |           |           |  |  |

▲ For higher speed, consult us.

\* US2-1: disc temperature during one braking  $\leq 150^{\circ}\text{C}$   
 US2-5: disc temperature during one braking  $\leq 350^{\circ}\text{C}$

#### Disc and support :



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2/2

**T10097-01-D**