

Industrial Brakes

Stromag SH1

Hydraulic Disc Brakes



The most compact emergency brake of our SH range

This emergency brake is the smallest and most compact of our SH range, it can be associated with disc diameter from 300 to 1000 mm and is adapted to handling equipments such as cranes, conveyors or winches in steel industry, mining and quarries, mass transport, port and offshore applications.

Robust construction and simplicity of operation bring to this caliper a high reliability. It allows an easy mounting and maintenance, and insures maximum efficiency in the most severe environmental conditions.

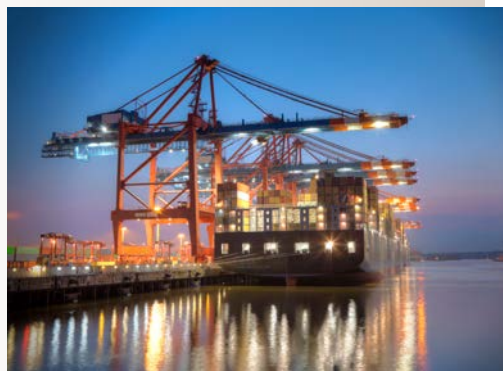
The modular design of the SH1 caliper enables standardisation on multiple installations : availability in a large range of torque and association with different types of lining pads according to the application.

Applications

- Tower Cranes
- Mining and Steel
- Port Applications
- Offshore Winches
- Mass Transport

Benefits include

- Fail-safe braking - hydraulic release
- Symmetrical, compact and lightweight design
- Direct acting caliper / few components
- Designed for 200,000 cycles
- Pads fastening by clips : easy and quick replacement
- Strain absorbing system with column
- Low force loss per additional air gap millimeter
- Low temperature materials and marine protection
- Options: indicators of opening, lining wear and temperature



TECHNICAL DATA / DIMENSIONS

Revision number: T10097-01-G Revision date: 12.01.2016

Caliper SH1

- Fail safe braking
- Spring application / Hydraulic release
- Holding tool for maintenance operation
- Lining wear detectors
- Manual wear centering & compensation
- Ass. discs th. : 12,7, 15, 20 & 30 mm
- Protection C5-M M

Working conditions:

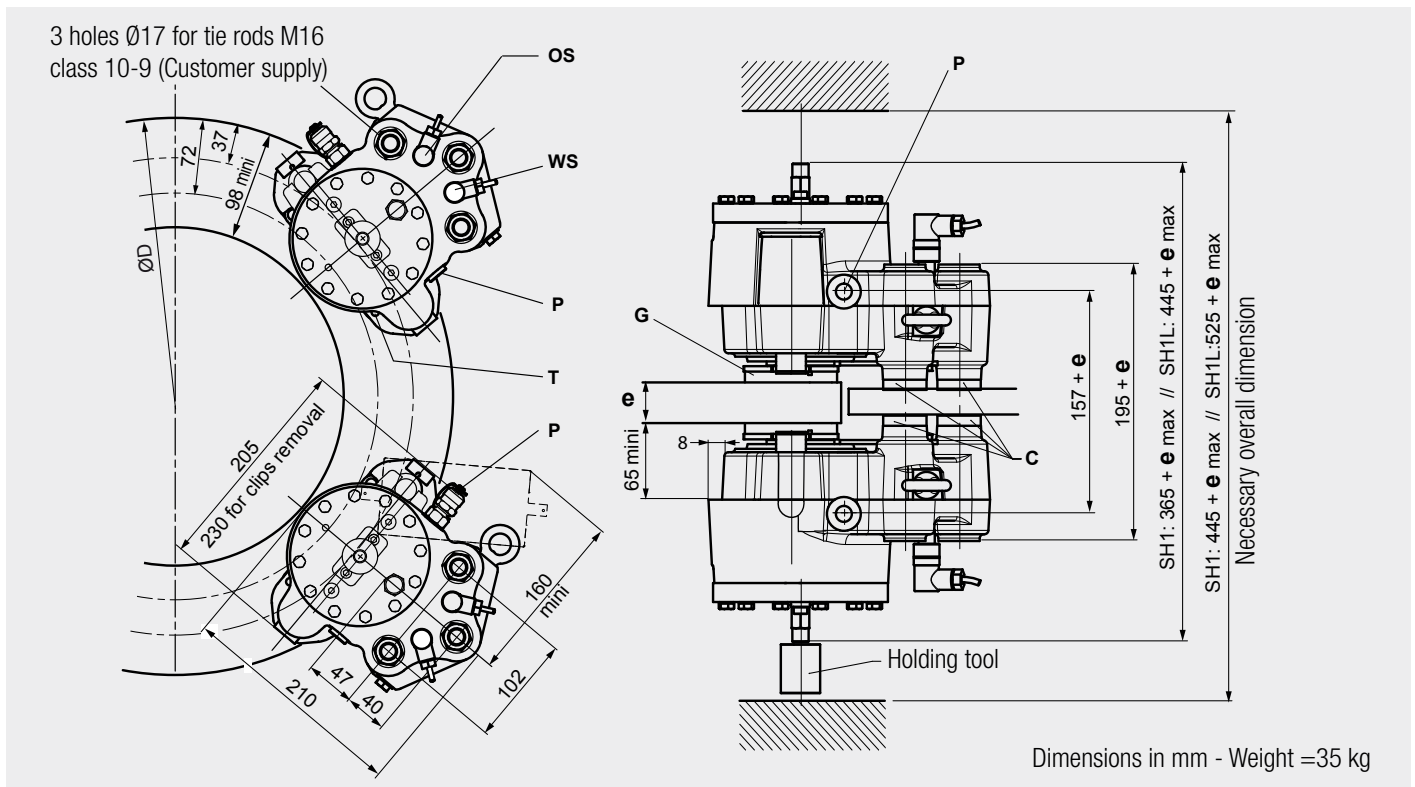
- Ambient temperature:
Dynamic braking : -30°C to +70°C
Brake applied (parking): -40°C to +70°C
- Relative humidity \leq 70%
- Dust in atmosphere \geq 65 μ m

Use:

- The brake should be applied only in case of emergency stop, overspeed or shutdown of electric mains. Other use, consult us.

Options:

- Opening proving switch OS
- Lining wear proving switch WS
- All non-standard disc th. > 12,7mm (1/2")
- Lining temperature sensor T
- **SH1L** : caliper requiring no manual wear compensation :
braking force before wear = +10% maxi
braking force after wear = -10% mini



Designation	Caliper		SH1-5	
	Lining		ES3-7	US2-1
Braking force BF for air gap disc/ lining of 2x1mm	Dynamic	N	11,000	11,000
	Static	N	9,900	9,680
Linear speed of the disc		m/s	\leq 50	\leq 10
Dynamic braking torque BT (m.N) for 1 caliper and disc $\varnothing D$ (mm)/ $300 \leq D \leq 1000$ mm		Nm	BT = BF (D/2,000-0.037)	
Regulation pressure	Minimum	bar	150	
	Maximum	bar	170	
Setting pressure limit valve of hydraulic unit		bar	190	
Total volume of oil displaced for air gap/lining of	2 x 1 mm (nominal opening)	cm ³	5	
	2 x 3 mm (wear+opening)	cm ³	13	
	2 x 7mm SH1L (wear+opening)	cm ³	29	

- C** = Spacers according to disc thickness
- G** = Linings : Thickness of new lining 8 mm
Thickness to wear 6 mm
Each 2 mm of wear on each side: manual centering and compensation
- OS** = Opening switch (option)
- WS** = Lining wear switch (option)
- T** = PT100 sensors (option)
- ØD** = Disc diameter = 300 mm minimum
- e** = Disc thickness

Electrical data:

Inductive switches of opening and wear (options)

3 wires PNP NO - 12 to 24 VDC 200 mA
with connector M12 - 5 positions - according to standard IEC61076-02-101 /code A