

## Intelligent hydraulics combined with multi-technology expertise

As a leading provider in the field of industrial hydraulics, Rexroth takes a top position with its components, systems and extensive know-how and expertise regarding applications and engineering.

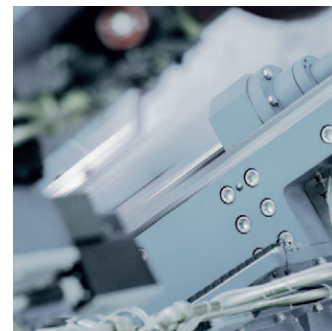
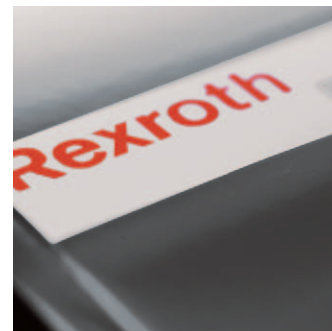
From its hydraulics range, which is the widest in the world, Rexroth offers standard products, application-related systems and customer-specific special solutions of high quality.

Using highly advanced microelectronics, Rexroth has rendered hydraulics even more capable. The products can be easily integrated in state-of-the-art machinery concepts and are extremely powerful and energy efficient. As a supplier of all technologies, Rexroth always provides the perfect application-specific drive solution.

Rexroth is the ideal development partner for highly efficient machinery and production equipment – from the initial contact to commissioning and throughout the entire life cycle.

Worldwide operational teams assume all project planning tasks for your machines and systems until they are ready for start of production or turnkey delivery if desired.

Using the multi-technology expertise and drive and control technology of Rexroth, you will become more competitive than ever.



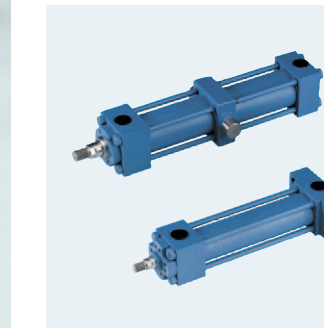
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Subject to alterations!

## Mill type and tie rod cylinders

Product overview

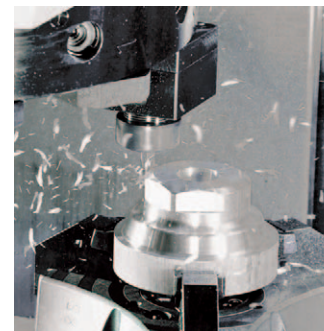
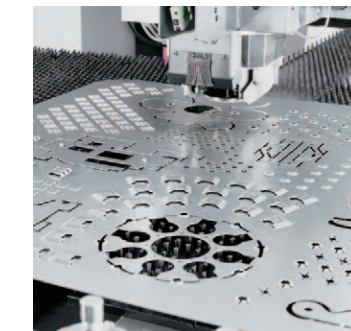


The data and properties specified in this brochure only serve to provide a general overview of the "Mill type and tie rod cylinders" product range of Bosch Rexroth AG.

The overview does not include all technical data and variants and does not replace a technical data sheet. Detailed information on the individual cylinders can be found in the corresponding data sheets.

No statements concerning a certain condition or suitability for a certain application can be derived from our information.

The information given does not release the user from the obligation of own judgment and verification.



# Rexroth cylinder technology

## Mill type

Due to their robust set-up, mill type hydraulic cylinders are reliable drive elements and particularly suitable for use under extreme working conditions. General mechanical engineering, rolling mills and smelting works, presses, cranes, steel construction for hydraulic engineering or shipbuilding are typical fields of application. The Rexroth mill type cylinder range comprises both, screwed and welded cylinders. Welded cylinders distinguish themselves by their short, compact design. They have been tested and examined for up to 2 million load cycles.

## Tie rod design

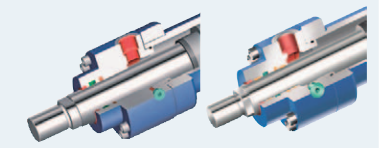
The cylinders developed according to the tie rod principle are primarily used in the machine tool industry and in production equipment of the automobile industry. Due to their little installation dimensions, tie rod cylinders – similar to welded mill type cylinders – can be used in very limited installation spaces.

## Engineering to order (ETO)

All Rexroth cylinders can be adjusted to your special requirements and needs thanks to our established "Engineering to order" process. Contact us!

### Available as standard (extract):

High accuracy and precision thanks to direct guide in the head or by means of guide belts



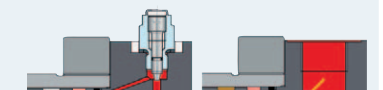
Use of the safety bleeding port as measuring point by means of measuring coupling



The correct standardized seal system for all industry-specific applications

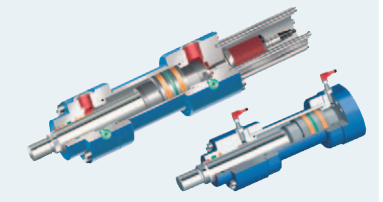


Safety in the end positions due to self-adjusting or adjustable end position cushioning

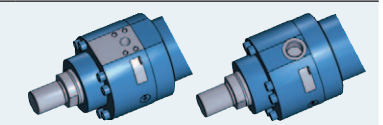


### Sensor technology

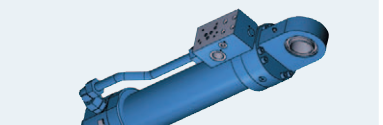
- Determination of position over the entire stroke length by means of integrated position measurement systems with analog or digital output signals
- End position monitoring by means of inductive proximity switches



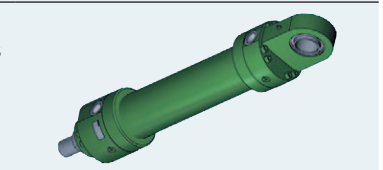
Line connection as pipe thread (inch or metric) and as flange connection. Selectable porting pattern



Compact cylinder unit thanks to attached subplates for high-response, directional and check valves (type SV/SL)



Different paintings according to defined preservation classes



Mill type cylinders			
Series	CDL2	CDH1, CGH1, CSH1	CDH3, CGH3, CSH3
<b>Standards</b>	Rexroth standard	Rexroth standard	Rexroth standard
<b>Data sheet</b>	17326	17332	17338
<b>Nominal pressure</b> in bar (MPa)	160 (16), 250 (25)	250 (25)	350 (35)
<b>Types of mounting</b>	4	6	6
<b>Piston diameter</b> in mm	25 ... 200	40 ... 320	40 ... 320
<b>Maximum stroke length</b> in mm	3000	6000	6000
<b>Guides</b>	Directly in the cylinder head	Directly in the cylinder head/guide rings	Directly in the cylinder head/guide rings
<b>End position cushioning</b>	-	Self-adjusting; adjustable	Self-adjusting; adjustable
<b>Safety bleeding device</b>	-	Safety bleeding device	Safety bleeding device
<b>Determination of position</b>	-	Magnetostrictive	Magnetostrictive
<b>End position control</b>	-	Inductive proximity switches	Inductive proximity switches
<b>Attachment parts</b>	Swivel head, bearing block	Swivel head, plain clevis	Swivel head, plain clevis

Mill type cylinders			
Series	CDM1, CGM1, CSM1	CDH2, CGH2, CSH2	Tie rod cylinders CDT3, CGT3, CST3
<b>Standards</b>	ISO 6020-1	ISO 6022	ISO 6020-2
<b>Data sheet</b>	17329	17335	17049
<b>Nominal pressure</b> in bar (MPa)	160 (16)	250 (25)	160 (16)
<b>Types of mounting</b>	9	6	13
<b>Piston diameter</b> in mm	25 ... 200	40 ... 320	25 ... 200
<b>Maximum stroke length</b> in mm	3000	6000	2700
<b>Guides</b>	Directly in the cylinder head/guide rings	Directly in the cylinder head/guide rings	Guide sleeve in the cylinder head/guide rings
<b>End position cushioning</b>	Self-adjusting; adjustable	Self-adjusting; adjustable	Self-adjusting; adjustable
<b>Safety bleeding device</b>	Safety bleeding device	Safety bleeding device	Safety bleeding device
<b>Determination of position</b>	Magnetostrictive	Magnetostrictive	Magnetostrictive
<b>End position control</b>	Inductive proximity switches	Inductive proximity switches	Inductive proximity switches
<b>Attachment parts</b>	Swivel head, fork clevis, bearing block	Swivel head, fork clevis, bearing block	Swivel head, bearing block

- Series CD...: Cylinders with piston rod on one side (differential cylinders)
- Series CG...: Cylinders with piston rod on both sides (double-acting cylinders)
- Series CS...: Cylinders with position measurement system

# Online configurable cylinder range in the ICS (Interactive Catalog System)

With the ICS, your standard cylinder is only a few mouse clicks away. Fast and comfortable selection from the current hydraulic cylinder range. This is possible using the type code, your individual requirements or for a replacement product. Or you use the technical approach and configure your cylinder by specifying forces, stroke length and installation position. Kinking length calculation is also integrated.

The configuration result includes e.g. the automated provisioning of 2D and 3D CAD models (for all popular CAD systems) and the related complete technical documentation (current data sheet, suitable accessories, ...).

Using our eShop, you can comfortably place your order with us from the ICS and call the current status at any time.



**Our simple, comfortable operation and user guidance will directly lead you to your standard product.**  
[www.boschrexroth.com/ics](http://www.boschrexroth.com/ics)

### Entry, input via:

- Type code
- Replacement product
- Technology

### Output (e.g. 3D data):