

Connected Hydraulics STRONG. SMART. EFFICIENT.

Connected Hydraulics will leverage the power and intelligence of Bosch Rexroth’s advanced hydraulics technology to break through limits and set new benchmarks for performance, functionality and lifetime.



Hydraulics to go

Have you ever been excited about your new furniture until you have seen the construction manual ...? We know that feeling! With our plug & produce modules engineers no longer have to puzzle all the components for a hydraulic system together. You just define the task and select off-the-shelf modules with perfectly matching components. All the variants are in the software. **Simplify Your Design!**



Start-up with turbo speed

Starting-up hydraulic systems is so easy and fast when you have the right friends. Our software wizards and assistants guide users step by step through the commissioning process and digital twins allow the virtual commissioning of machines. They prevent human faults and they even suggest the right parameters and save your time. That ’s how to **Streamline Your Installation!**



Check-ups included

Forget measuring equipment or screw drivers. Connected hydraulics is on the way to a self diagnostic technology including regular check-ups. Software takes care for highest availability. Sensors deliver all operating states and our Predictive Analytics offer recognition of wear and tell maintenance staff exactly when and what to do to prevent downtime. We take care that hydraulics reliably stands by you to **Minimize Your Downtime!**



Intelligent and sustainable force

Whenever high forces are needed hydraulics is the most efficient, compact and robust technology. We have fused this force with digital intelligence to optimize your production and make it more flexible. Our energy on demand concepts make your application energy efficient and help to reduce CO2 emissions. **Maximize Your Productivity!**

Bosch Rexroth AG
Industrial Hydraulics
Zum Eisengießer 1
97816 Lohr, Germany
Tel.: +49(0)9352/18-0
my.support@boschrexroth.com
www.boschrexroth.com

For your local contact, please refer to:
www.boschrexroth.com/contact

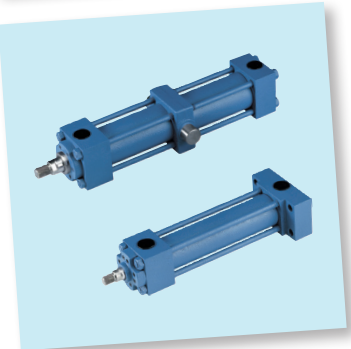
Document no.: RE 08063
Material no.: R999000408
Version no.: 2023-11
© Bosch Rexroth AG 2023
Subject to alterations!

rexroth
A Bosch Company

Mill type and tie rod cylinders



Product overview



rexroth
A Bosch Company

Company Portrait

As one of the world’s leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size.

The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.



As a leading provider in the field of hydraulic cylinders, Rexroth gives you solutions for every application. From mill type to tie rod cylinders, our hydraulic cylinders are developed in order to withstand the toughest conditions.

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.

Tie rod design

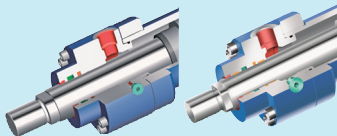
The cylinders developed according to the tie rod principle are primarily used in the machine tool industry and in production equipment of the automobile industry. Due to their little installation dimensions, tie rod cylinders – similar to welded mill type cylinders – can be used in very limited installation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

Engineering to order (ETO)

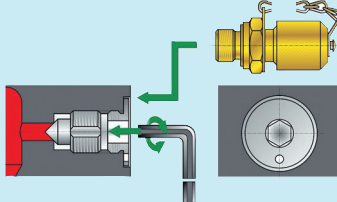
All Rexroth cylinders can be adjusted to your special requirements and needs thanks to our established „Engineering to order“ process. Contact us!

Available as standard (extract):

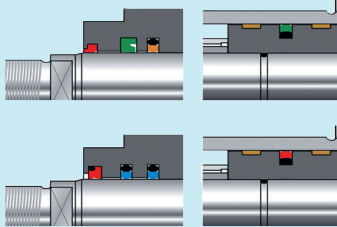
High accuracy and precision thanks to direct guide in the head or by means of guide belts



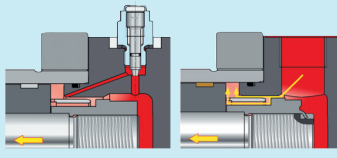
Use of the safety bleeding port as measuring point by means of measuring coupling



The correct standardized seal system for all industry-specific applications

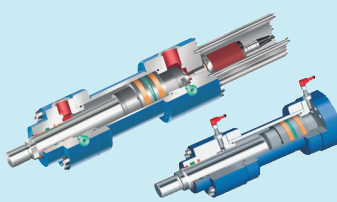


Safety in the end positions due to self-adjusting or adjustable end position cushioning

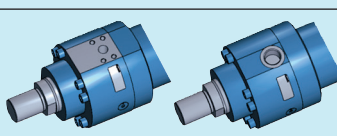


Sensor technology

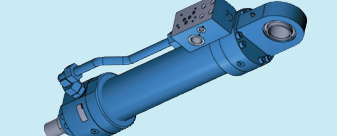
- Determination of position over the entire stroke length by means of integrated position measurement systems with analog or digital output signals
- End position monitoring by means of inductive proximity switches



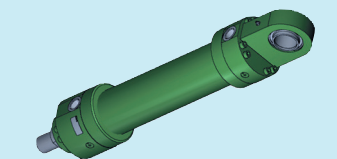
Line connection as pipe thread (inch or metric) and as flange connection. Selectable porting pattern

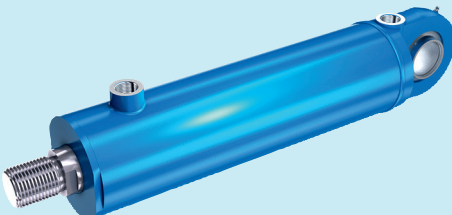
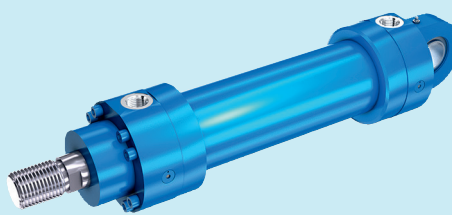
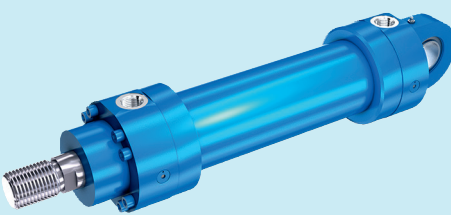


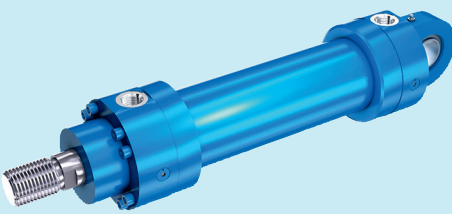
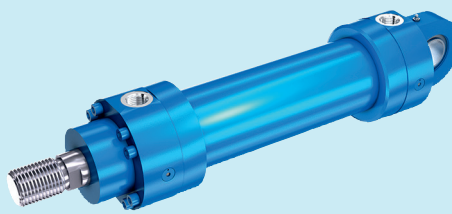
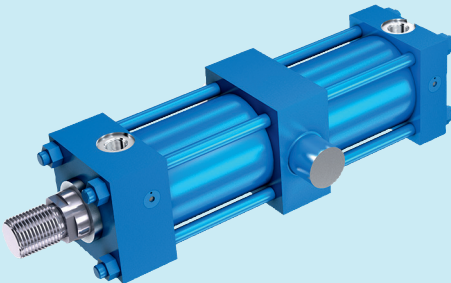
Compact cylinder unit thanks to attached subplates for high-response, directional and check valves (type SV/SL)



Different paintings according to defined preservation classes



	Mill type cylinders		
Series	CDL2	CDH1, CGH1, CSH1	CDH3, CGH3, CSH3
			
Standards	Rexroth standard	Rexroth standard	Rexroth standard
Data sheet	17327	17332	17338
Nominal pressure in bar (MPa)	160 (16), 250 (25)	250 (25)	350 (35)
Types of mounting	4	6	6
Piston diameter in mm	25 ... 200	40 ... 320	40 ... 320
Maximum stroke length in mm	3000	6000	6000
Guides	Directly in the cylinder head	Directly in the cylinder head/guide rings	Directly in the cylinder head/guide rings
End position cushioning	–	Self-adjusting; adjustable	Self-adjusting; adjustable
Safety bleeding device	–	Safety bleeding device	Safety bleeding device
Determination of position	–	Magnetostrictive	Magnetostrictive
End position control	–	Inductive proximity switches	Inductive proximity switches
Attachment parts	Swivel head, bearing block	Swivel head, plain clevis	Swivel head, plain clevis

	Mill type cylinders		Tie rod cylinders
Series	CDM1, CGM1, CSM1	CDH2, CGH2, CSH2	CDT3, CGT3, CST3
			
Standards	ISO 6020-1	ISO 6022	ISO 6020-2
Data sheet	17341 (CDM1); 17342 (CGM1); 17343 (CSM1)	17335	17051 (CDT3); 17052 (CGT3); 17053 (CST3)
Nominal pressure in bar (MPa)	160 (16)	250 (25)	160 (16)
Types of mounting	9	6	13
Piston diameter in mm	25 ... 200	40 ... 320	25 ... 200
Maximum stroke length in mm	3000	6000	2700
Guides	Directly in the cylinder head/guide rings	Directly in the cylinder head/guide rings	Guide sleeve in the cylinder head/guide rings
End position cushioning	Self-adjusting; adjustable	Self-adjusting; adjustable	Self-adjusting; adjustable
Safety bleeding device	Safety bleeding device	Safety bleeding device	Safety bleeding device
Determination of position	Magnetostrictive	Magnetostrictive	Magnetostrictive
End position control	Inductive proximity switches	Inductive proximity switches	Inductive proximity switches
Attachment parts	Swivel head, fork clevis, bearing block	Swivel head, fork clevis, bearing block	Swivel head, bearing bloc

- Series CD...: Differential cylinder with piston rod on one side
- Series CG...: Double-acting cylinder with piston rod on both sides
- Series CS...: Differential cylinder with position measurement system

Hydraulic cylinder configurator

With our configurators, 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 3D CAD models (for all popular CAD systems) and the related complete technical documentation (current data sheet, suitable accessories, ...).



Our simple, comfortable operation and user guidance will directly lead you to your standard product.

► Mill type cylinders:
www.boschrexroth.com/mill-type-cylinder

► Tie rod cylinders:
www.boschrexroth.com/tie-rod-cylinder