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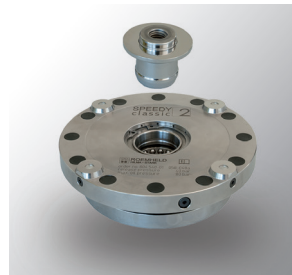
WORKHOLDING ELEMENTS
HYDRAULIC CYLINDERS



WORKHOLDING SYSTEMS
MACHINE VISES



ZERO POINT
CLAMPING SYSTEMS



ASSEMBLY AND
HANDLING SYSTEMS



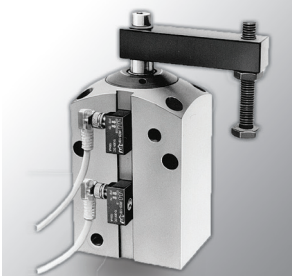
HYDRAULIC POWER UNITS



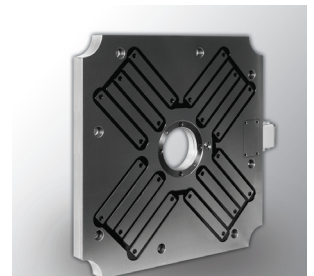
HYDRAULIC COMPONENTS



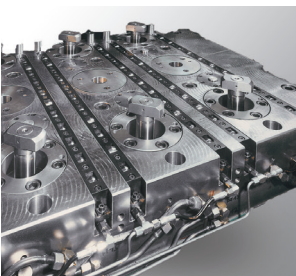
PNEUMATIC ELEMENTS



MAGNETIC CLAMPING
TECHNOLOGY



DIE CLAMPING SYSTEMS



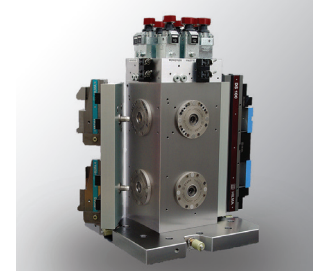
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SERIES

B1.309

Threaded-Body Universal Cylinder

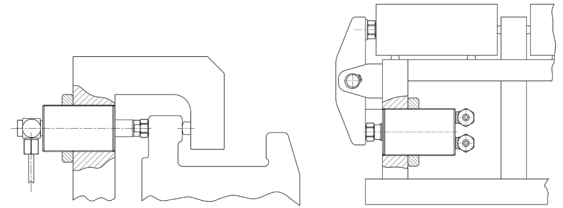
Compact design excellent for punching, pressing, and assembly operations with high forces available. The threaded-body universal cylinders are delivered with the same piston diameters and strokes as the well-proven block cylinders. Hydraulic connection is made at the cylinder bottom by hydraulic tubing or hoses. They can be used as clamping cylinders for workpiece clamping as well as for general motion tasks.



Single-Acting

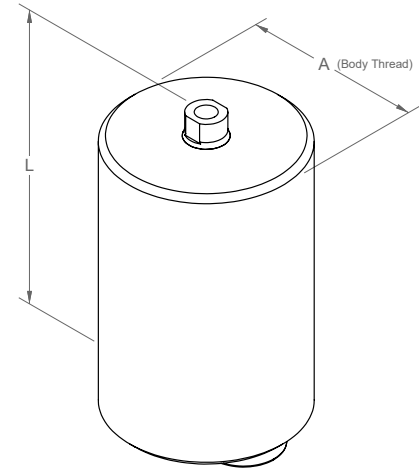
Part Number	Push Force (kN)		Pull Force (kN)		Stroke (mm)	A	L (mm)	Weight (kg)
	100 bar	500 bar	100 bar	500 bar				
CLR-1311-205	2	10	1.2	6.1	8	M40x1.5	72	0.78
CLR-1311-225	2	10	1.2	6.1	20	M40x1.5	107	1.07
CLR-1311-025	2	10	1.2	6.1	20	M45x1.5	110	1.13
CLR-1313-005	4.9	24.5	2.9	14.5	8	M48x1.5	84	0.88
CLR-1313-025	4.9	24.5	2.9	14.5	20	M48x1.5	114	1.28
CLR-1314-105	8	40.2	4.9	24.5	10	M55x1.5	96	1.38
CLR-1314-125	8	40.2	4.9	24.5	20	M55x1.5	121	1.75

Application Example



Double-Acting

Part Number	Push Force (kN)		Pull Force (kN)		Stroke (mm)	A	L (mm)	Weight (mm)
	100 bar	500 bar	100 bar	500 bar				
CLR-1341-305	2	10	1.2	6.1	16	M40x1.5	72	0.77
CLR-1341-365	2	10	1.2	6.1	50	M40x1.5	107	1.04
CLR-1341-395	2	10	1.2	6.1	100	M40x1.5	160	1.59
CLR-1341-105	2	10	1.2	6.1	16	M45x1.5	75	0.66
CLR-1341-165	2	10	1.2	6.1	50	M45x1.5	110	1.1
CLR-1341-195	2	10	1.2	6.1	100	M45x1.5	163	1.68
CLR-1343-105	4.9	24.5	2.9	14.5	20	M48x1.5	84	0.85
CLR-1343-165	4.9	24.5	2.9	14.5	50	M48x1.5	114	1.21
CLR-1343-195	4.9	24.5	2.9	14.5	100	M48x1.5	164	1.81
CLR-1344-105	8	40.2	4.9	24.5	25	M55x1.5	96	1.32
CLR-1344-165	8	40.2	4.9	24.5	50	M55x1.5	121	1.63
CLR-1344-195	8	40.2	4.9	24.5	100	M55x1.5	171	2.38
CLR-1345-105	12.6	62.8	7.7	38.3	25	M65x1.5	99	1.84
CLR-1345-165	12.6	62.8	7.7	38.3	50	M65x1.5	124	2.34
CLR-1345-195	12.6	62.8	7.7	38.3	100	M65x1.5	174	3.35



Accessories

Part Number	Stroke (mm)
CLR-3300-699	Lock Nut M40x1.5
CLR-3300-326	Lock Nut M45x1.5
CLR-3300-324	Lock Nut M48x1.5
CLR-3300-992	Lock Nut M55x1.5
CLR-3301-661	Lock Nut M65x1.5
CLR-3300-673	Lock Nut M75x1.5

Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

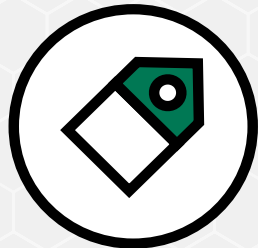
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SERIES

B1.458

Threaded-Body Cylinders

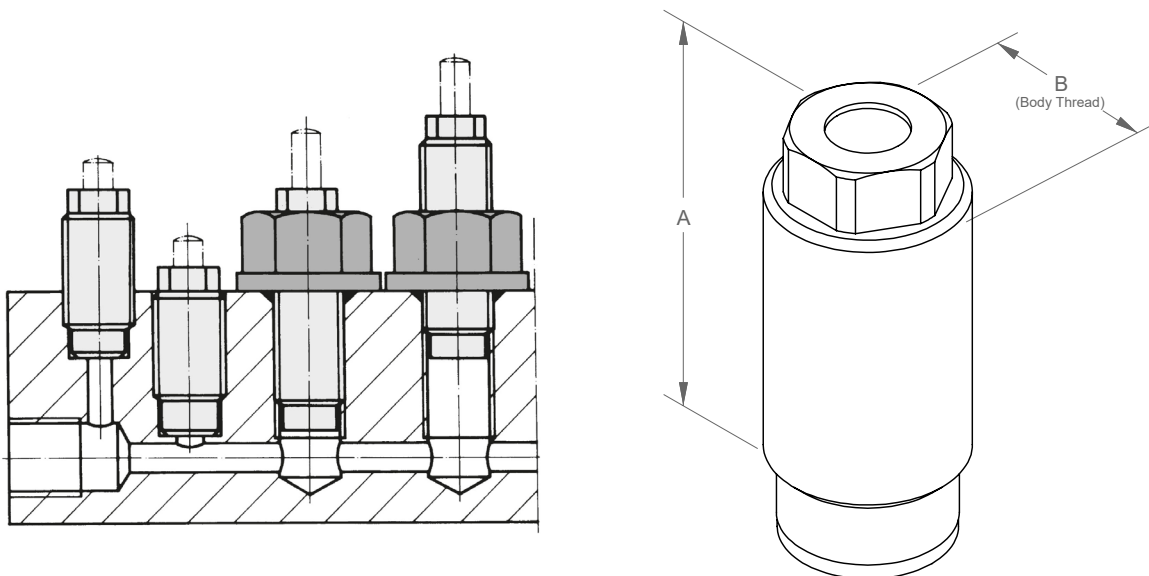
Great for clamping smaller workpieces in multiple clamping fixtures.

The minimum cylinder spacing from center-to-center is only 15 mm. Sealing is made with the supplied sealing ring in the threaded hole.



Part Number	Clamp Force (kN)		Stroke (mm)	A (mm)	B (mm)	Weight (g)
	100 bar	500 bar				
CLR-1458-001	0.5	2.5	5	27	M12x1.5	16
CLR-1458-002	0.5	2.5	10	40	M12x1.5	24

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.461

Threaded-Body Cylinders

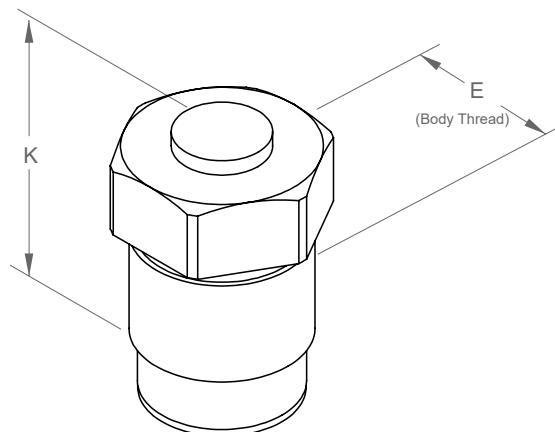
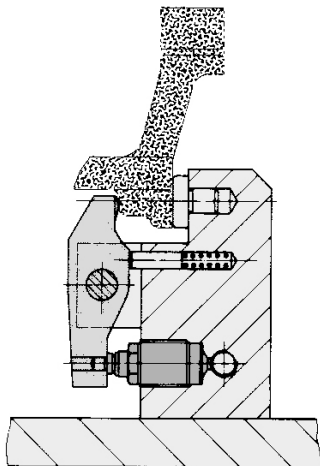
Versatile push clamps that provide considerable force in a small size.

These can be threaded directly into tapped holes in the fixture down to the hex-section of the cylinder body. Spacings between cylinders can be minimized when cylinders are arranged in a row, since the oil is fed through drilled passages in the fixture.



Part Number	Push Force (kN)		Stroke (mm)	K Height (mm)	E (mm)	Weight (kg)
	100 bar	500 bar				
CLR-1460-100	1.1	5.7	10	38	M22x1.5	0.08
CLR-1460-101	1.1	5.7	10	45	M22x1.5	0.08
CLR-1460-110	1.1	5.7	10	45.5	M22x1.5	0.08
CLR-1461-100	2.0	10.1	12	46.5	M26x1.5	0.15
CLR-1461-101	2.0	10.1	12	52.5	M26x1.5	0.15
CLR-1461-110	2.0	10.1	12	54	M26x1.5	0.15
CLR-1462-100	3.1	15.7	15	56	M30x1.5	0.22
CLR-1462-101	3.1	15.7	15	65.5	M30x1.5	0.22
CLR-1462-110	3.1	15.7	15	69.5	M30x1.5	0.22

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.5091

Block Cylinders

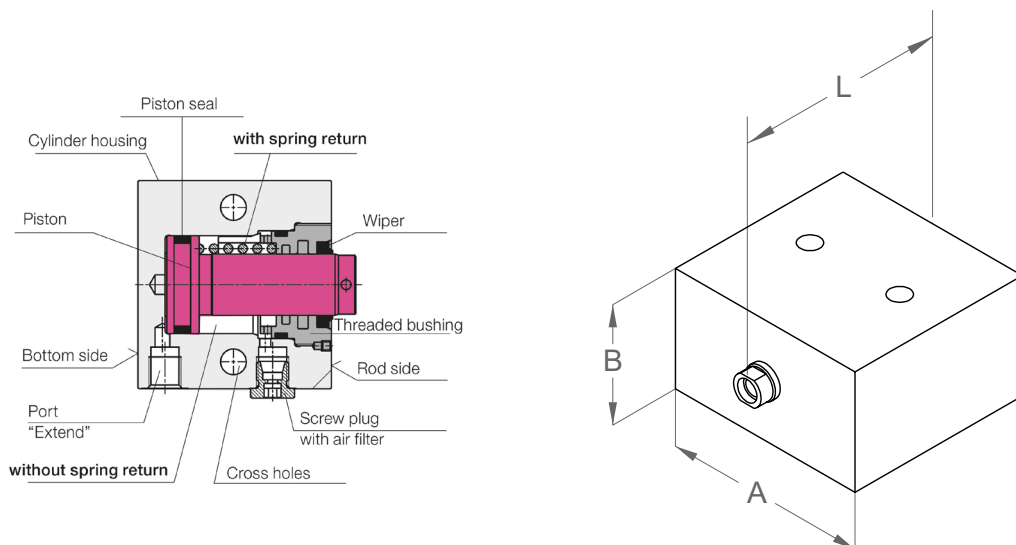


Compact single-acting design with many applications: positioning, moving, clamping, closing, supporting, locking, lifting, riveting or pushing. Used for all hydraulically-operated linear movements that do not require a retraction force or where the piston is retracted by an external force. Easy to mount on flat surfaces, horizontally or vertically. *Note: Version K, manifold mount by o-ring seals.*

Single-Acting

Part Number	Push Force (kN)		Stroke (mm)	A (mm)	B (mm)	L (mm)	Weight (kg)
	100 bar	500 bar					
CLR-1511-000K	2	10	8	60	35	62	0.8
CLR-1511-005	2	10	8	60	35	62	0.8
CLR-1513-000K	4.9	24.5	8	65	45	71	1.2
CLR-1513-005	4.9	24.5	8	65	45	71	1.2
CLR-1514-100K	8	40.2	10	75	55	85	2
CLR-1514-105	8	40.2	10	75	55	85	2
CLR-1515-000K	12.6	62.8	10	85	63	89	2.76
CLR-1515-005	12.6	62.8	10	85	63	89	2.76
CLR-1516-000K	19.5	98.5	12	100	75	100	4.5

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.5094

Block Cylinders

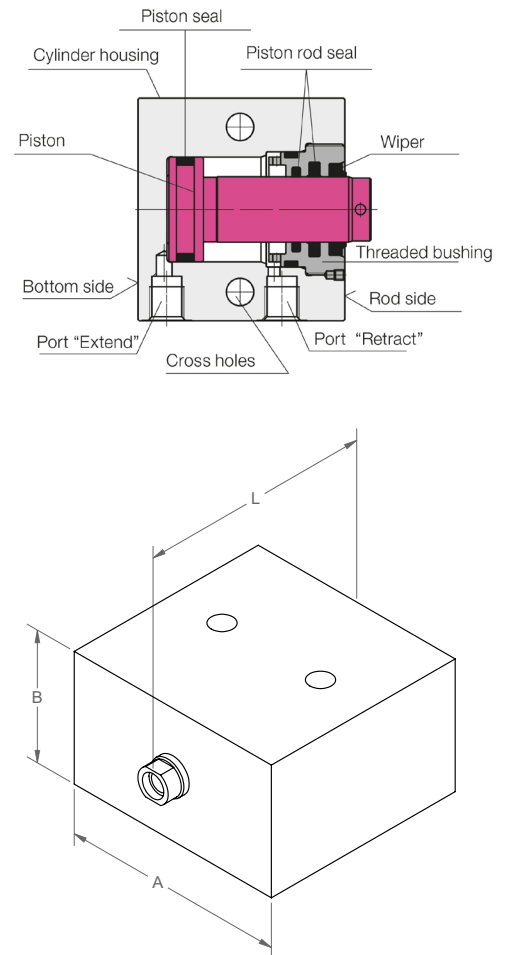
Compact double-acting design with many applications: positioning, moving, clamping, closing, supporting, locking, bending, riveting, punching, opening & closing, lifting & lowering, pushing & pulling. The double-acting function gives the most reliable process and repeatability, along with high force generation in both axial directions. *Note: Versions K & L are manifold mount by o-ring seals.*



Double-Acting

Part Number	Push Force (kN)		Pull Force (kN)		Stroke (mm)	A	B	L (mm)	Weight (kg)
	100 bar	500 bar	100 bar	500 bar					
CLR-1541-100K	2.0	10	1.2	6.1	16	60	35	62	0.9
CLR-1541-105	2.0	10	1.2	6.1	16	60	35	62	0.9
CLR-1541-160L	2.0	10	1.2	6.1	50	60	35	97	1.4
CLR-1541-165	2.0	10	1.2	6.1	50	60	35	97	1.4
CLR-1543-100K	4.9	24.5	2.9	14.5	20	65	45	71	1.4
CLR-1543-105	4.9	24.5	2.9	14.5	20	65	45	71	1.4
CLR-1543-160L	4.9	24.5	2.9	14.5	50	65	45	101	2.0
CLR-1543-165	4.9	24.5	2.9	14.5	50	65	45	101	2.0
CLR-1544-100K	8.0	40.2	4.9	24.5	25	75	55	85	2.2
CLR-1544-105	8.0	40.2	4.9	24.5	25	75	55	85	2.2
CLR-1544-160L	8.0	40.2	4.9	24.5	50	75	55	110	2.7
CLR-1544-165	8.0	40.2	4.9	24.5	50	75	55	110	2.7
CLR-1545-100K	12.6	62.8	7.7	38.3	25	85	63	89	2.9
CLR-1545-105	12.6	62.8	7.7	38.3	25	85	63	89	2.9
CLR-1545-160L	12.6	62.8	7.7	38.3	50	85	63	114	3.6
CLR-1545-165	12.6	62.8	7.7	38.3	50	85	63	114	3.6
CLR-1546-100K	19.5	98.5	11.6	57.9	25	100	75	100	4.8
CLR-1546-105	19.5	98.5	11.6	57.9	25	100	75	100	4.8
CLR-1546-160L	19.5	98.5	11.6	57.9	50	100	75	125	6.0
CLR-1546-165	19.5	98.5	11.6	57.9	50	100	75	125	6.0

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES B1.570

Pull-Type Cylinders

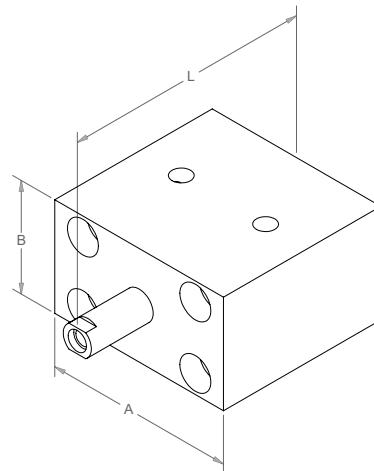
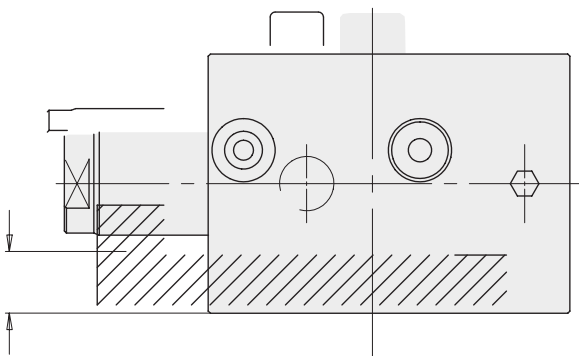
Pull-clamp version of our popular Block Cylinders series. This series was expanded by a single-acting variant with return spring. The piston rod is extended in the off-position.



Single-Acting

Part Number	Pull Force (kN)		Stroke (mm)	A (mm)	B (mm)	L (mm)	Weight (kg)
	100 bar	500 bar					
CLR-1571-105	1.1	6.0	8.0	60	35	78	0.8
CLR-1573-105	2.7	14.3	8.0	65	45	91	1.2
CLR-1574-105	4.6	24.2	10.0	75	55	110	1.8
CLR-1575-105	7.3	37.9	10.0	85	63	114	2.6
CLR-1576-105	11.0	57.3	12.0	100	75	125	3.8

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.7441

Hollow-Piston Cylinders

These clamps, also known as “hydraulic nuts”, automate the tightening and clamping of bolts and threaded rods. The pistons of this cylinder range are provided with a through hole and internal thread. In connection with a standard tie rod and C-washer combination a variety of applications are possible. For CLR-1756-XXX, the flange is an accessory.



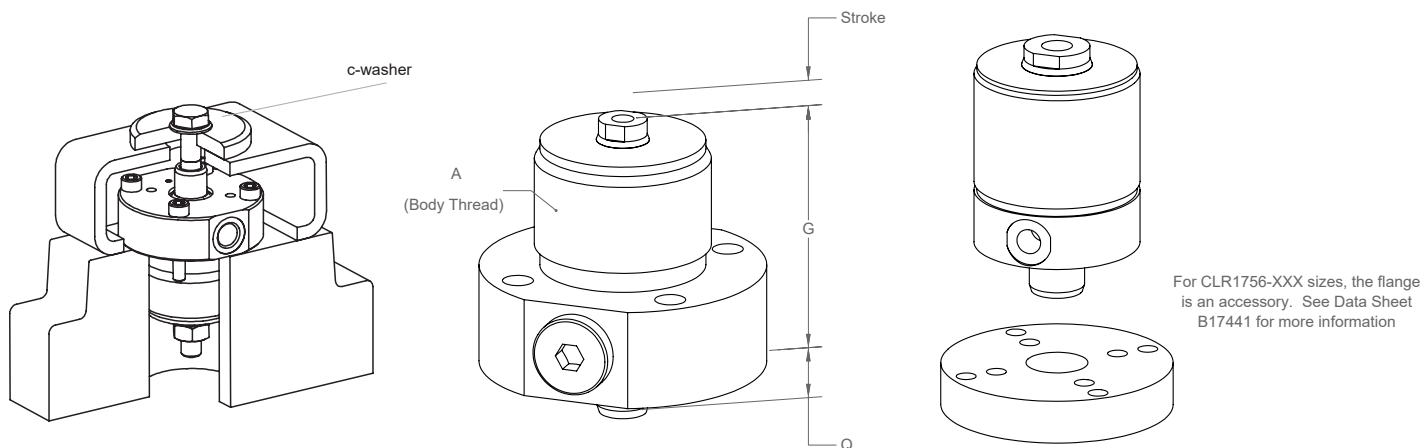
Single-Acting

Part Number	Push Force (kN)		Pull Force (kN)		Stroke (mm)	A (mm)	G (mm)	Q (mm)	Weight (kg)
	Spring Force only		100 bar	500 bar					
CLR-1752-004	0.09		2.0	10	6	M40x1.5	58	12	0.8
CLR-1754-004	0.2		6.0	30	8	M48x1.5	68	14	1.1
CLR-1755-004	0.27		9.4	47	10	M60x1.5	80	19	1.8
CLR-1756-004	0.38		14.7	73.6	12	M75x1.5	94	23	2.5

Double-Acting

Part Number	Push Force (kN)		Pull Force (kN)		Stroke (mm)	A (mm)	G (mm)	Q (mm)	Weight (kg)
	100 bar	500 bar	100 bar	500 bar					
CLR-1752-023	2.0	10	2.0	10	10	M40x1.5	58	12	0.8
CLR-1754-023	4.8	24	6.0	30	12	M48x1.5	68	14	1.1
CLR-1755-023	7.6	38	9.4	47	16	M60x1.5	80	19	1.8
CLR-1756-023	11.9	57.9	14.7	73.6	20	M75x1.5	94	23	2.5

Application Example



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SERIES

B1.8251

Hinge Clamps



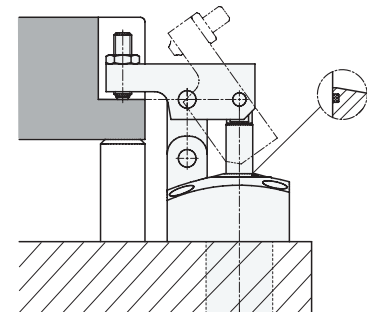
The most robust hinge clamp on the market. A great low-cost hydraulic clamping element with many installation and connecting possibilities. If the clamping lever is completely retracted, unimpeded loading and unloading of the fixture can be effected. Clamp, Clamping Levers, Contact Bolts and Lock Nuts all sold separately.

Clamps

Part Number	Max Clamping force (kN) with Standard Clamp Lever	A (mm)	B (mm)	D1 (mm)	F1 (mm)	G2 (mm)	H (mm)	Weight (kg)
CLR-1825-130	3.8	55	55	23.5	32	29.8	64	1.0
CLR-1825-230	9.7	70	70	33	43	41.8	92.5	2.3
CLR-1825-330	14.4	85	85	37	44.5	51.8	113	3.8
CLR-1825-430	21.5	100	100	43.5	52.5	64.8	128	6.1

Standard Levers

Part Number	Clamp Size	B2 (mm)	D1 (mm)	D2 (mm)	Q2 (mm)	Q3 (mm)	Q4 (mm)	Weight (kg)
CLR-3548-510	1	15	23.5	29	12.5	25	M8	0.2
CLR-3548-556	2	20	33	39.5	20	40	M12	0.5
CLR-3548-587	3	25	37	49	25	50	M16	0.9
CLR-3548-1035	4	30	43.5	60.5	28	55	M16	1.4

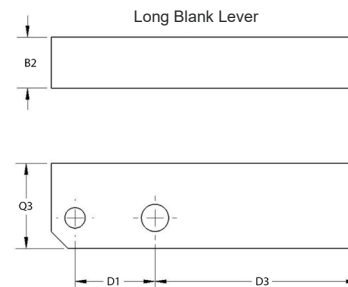
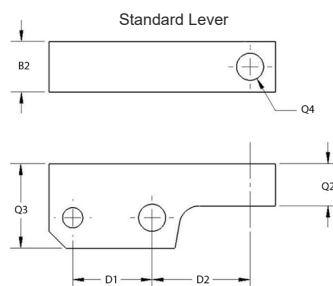
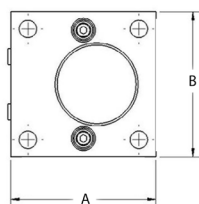
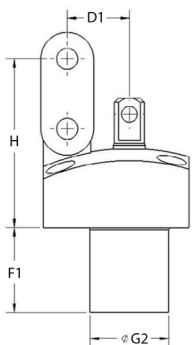


Long Blank Levers

Part Number	Clamp Size	B2 (mm)	D1 (mm)	D3 (mm)	Q3 (mm)	Weight (kg)
CLR-3548-511	1	15	23.5	59.5	25	0.2
CLR-3548-557	2	20	33	81.5	40	0.5
CLR-3548-588	3	25	37	98	50	0.9
CLR-3548-1036	4	30	43.5	114	55	1.4

Accessories

Clamp Size	Contact Bolt	Lock Nut
1	CLR-3614-298	CLR-3300-111
2	CLR-3614-310	CLR-3300-113
3	CLR-3614-315	CLR-3300-114
4	CLR-3614-315	CLR-3300-114



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SERIES B1.828

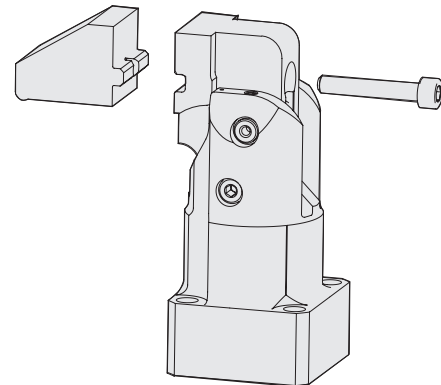
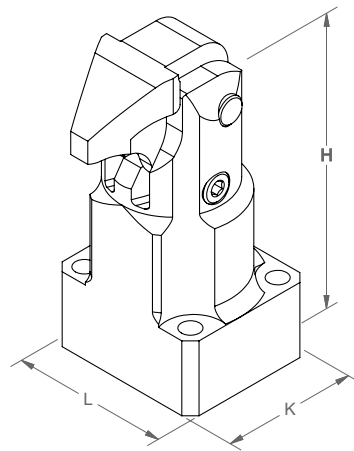
Compact Clamp

These clamps are extremely compact with a small footprint. The clamp has a unique double-acting pull-type cylinder where part of the linear stroke is used to swing the clamping lever over the workpiece, and the remaining stroke lowers the lever downward onto the workpiece without side load.



Part Number	Lever Type	Clamp Force (kN)	Stroke (mm)	H (mm)	K (mm)	L (mm)	Weight (kg)
		250 bar					
CLR-1801-210	Short	3.2	5	74.8	34.5	40	0.46
CLR-1801-230	Long	TBD	5	74.8	34.5	40	0.74
CLR-1801-250	Universal	TBD	5	74.8	34.5	40	0.46
CLR-1802-210	Short	4.5	5	80.8	41.5	45	0.69
CLR-1802-230	Long	TBD	5	80.8	41.5	45	1.05
CLR-1802-250	Universal	TBD	5	80.8	41.5	45	0.73
CLR-1803-210	Short	7.5	7	95.4	52	58	1.29
CLR-1803-230	Long	TBD	7	95.4	52	58	1.77
CLR-1803-250	Universal	TBD	7	95.4	52	58	1.27
CLR-1804-210	Short	11.5	8.5	98.6	54	59	1.42
CLR-1804-230	Long	TBD	8.5	98.6	54	59	1.93
CLR-1804-250	Universal	TBD	8.5	98.6	54	59	1.44

Application Example



NEW Universal Lever

Make and mount custom levers on the compact clamp using the universal lever with integrated swing mechanism.

Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.8291

Flat Lever Clamps

Robust zero play linkage with integrated position monitoring. The flat lever clamp is a compact hydraulic clamping element for fixtures with oil supply through drilled channels. The flat clamping lever allows machining of surfaces that are only a few millimeters above the integrated position monitoring.

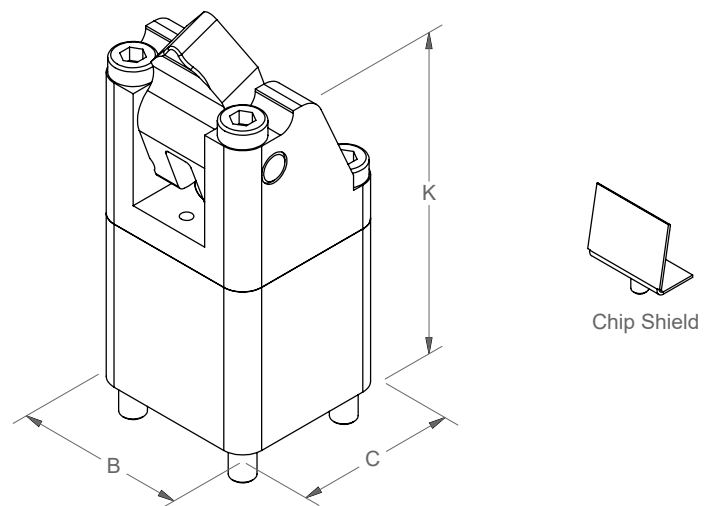
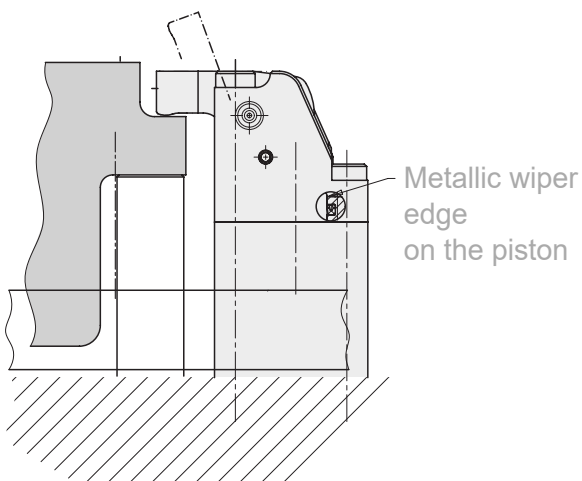


Part Number	Size	Clamp Force (kN)	Clamping Height (mm)	B (mm)	C (mm)	K (mm)	Weight (kg)
		120 bar					
CLR-1829-513D18	1	2.96	55.3 - 58.0	35	33	66	0.45
CLR-1829-523D24	2	4.27	66.9 - 70.5	42	42	82	0.87
CLR-1829-533D28	3	7.41	79.1 - 83.4	53	54	99	1.7
CLR-1829-543D33	4	9.75	88.7 - 9.08	66	63	114	2.88

Accessories

Part Number	Description
CLR-0353-81404	Chip Shield for Size 1
CLR-0353-81405	Chip Shield for Size 2
CLR-0353-81406	Chip Shield for Size 3
CLR-0353-81407	Chip Shield for Size 4

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

Industry Leading 2 YEAR WARRANTY

GUARANTEE OF QUALITY

ROEMHELD North America (Seller) components are carefully designed, manufactured, inspected, and individually tested prior to shipment. In the unlikely case you find a defect in materials or workmanship within 2 years after the original sale of the component, we will promptly repair or replace the component, in accordance with our Limited Warranty below. Our liability is limited to replacement or repair of the component and this warranty does not apply to altered, misused or misapplied products or to any defect caused by neglect, carelessness or abuse of the component.

LIMITED WARRANTY

Seller warrants that the product described herein will be free from defects in material and workmanship. If any failure to conform to this warranty be found within 2 years after the original sale of the component, from the date of sale by Seller, and Seller is given immediate notification thereof, Seller, upon being satisfied of the existence of such nonconformity, will, at Seller's option, correct the same by replacement of the defective product or making suitable repairs. If Seller is unable to correct such nonconformity by replacement of the product or making suitable repairs, whether due to the nature of such nonconformity, the use of the product, or for any other reason, Seller will refund to you the price set forth herein, or where appropriate, the unit price for such number or quantity of products as shall have such nonconformity which Seller is unable to correct, upon Seller's receipt of the nonconforming product f.o.b. its plant; provided, however, no product shall be returned to Seller without its express written consent; and provided further that such receipt of any nonconforming product will not be required where it is no longer possible for you to return the same to Seller. In no event shall Seller be liable to you, either directly or by way of contribution or indemnity, for direct, special, incidental or consequential damages such as, but not limited to, property damage, loss of profit, damages based on loss of use of the product, or damages for cover, whether the claim for any such damages be based on warranty, express or implied, contract, tort, or otherwise.

This warranty is non-transferable and may only be enforced by the purchaser of the product from Seller. THE FOREGOING IS SELLER'S SOLE WARRANTY WITH RESPECT TO THE PRODUCT. SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

SERIES

B1.849

Compact Swing Clamps

Single Acting Threaded-body Version

Extremely small, economical clamps suitable for many applications.

Clockwise and counterclockwise versions are available with swing angles of 90°, 60°, and 45°. The 0° version can be used as push and pull-type cylinder with anti-rotation piston. Standard 90° versions can easily be converted to 90° CW, 90° CCW, or 0°.



Bottom Flange Type

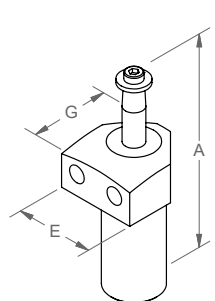
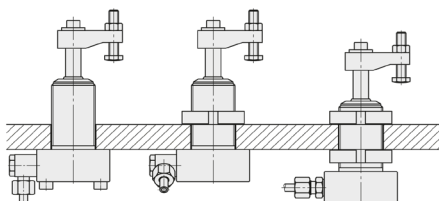
Part Number	Body Type	Swing Direction	Oil Connection	Pull Force (kN)	Stroke (mm)		A (mm)	E (mm)	G (mm)	Weight (kg)
				350 bar	Swing	Clamp				
CLR-1849-011	Bottom Flange	Clockwise	Fittings	2.55	10	6	108.5	35	50	0.42
CLR-1849-021	Bottom Flange	Counter Clockwise	Fittings	2.55	10	6	108.5	35	50	0.42
CLR-1849-022	Bottom Flange	Clockwise	O-Ring	2.55	10	6	108.5	35	50	0.42
CLR-1849-012	Bottom Flange	Counter Clockwise	O-Ring	2.55	10	6	108.5	35	50	0.42

Top Flange Type

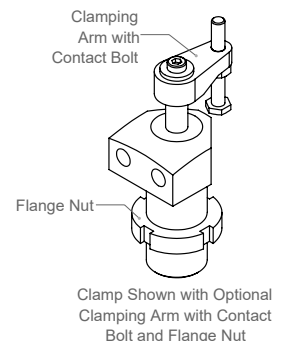
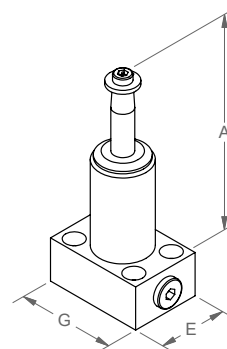
Part Number	Body Type	Swing Direction	Oil Connection	Pull Force (kN)	Stroke (mm)		A (mm)	E (mm)	G (mm)	Weight (kg)
				350 bar	Swing	Clamp				
CLR-1849-013	Top Flange	Clockwise	Fittings	2.55	10	6	108.5	40	40	0.35
CLR-1849-023	Top Flange	Counter Clockwise	Fittings	2.55	10	6	108.5	40	40	0.35
CLR-1849-014	Top Flange	Clockwise	O-Ring	2.55	10	6	108.5	40	40	0.42
CLR-1849-024	Top Flange	Counter Clockwise	O-Ring	2.55	10	6	108.5	40	40	0.42

Accessories

Part Number	Description
CLR-0354-057	Clamping Arm with Contact Bolt
CLR-0354-082	Double Clamping Arm
CLR-3548-900	Clamping Arm, Blank
CLR-3527-076	Flange Nut M27x1.5



Clamps and Accessories Sold Separately



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.8491

Compact Swing Clamps

Double Acting

Hydraulic swing clamps are used for clamping of workpieces when it is essential to keep the clamping area free of straps and clamping components for unrestricted workpiece loading and unloading.



Bottom Flange Type

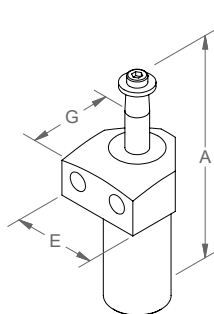
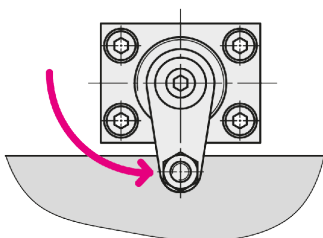
Part Number	Body Type	Swing Direction	Oil Connection	Pull Force (kN)	Stroke (mm)		A (mm)	E (mm)	G (mm)	Weight (kg)
				350 bar	Swing	Clamp				
CLR-1850-111	Bottom Flange	Clockwise	Fittings	2.63	8	8	108.5	35	50	0.42
CLR-1850-121	Bottom Flange	Counter Clockwise	Fittings	2.63	8	8	108.5	35	50	0.42
CLR-1850-112	Bottom Flange	Clockwise	O-Ring	2.63	8	8	108.5	35	50	0.42
CLR-1850-122	Bottom Flange	Counter Clockwise	O-Ring	2.63	8	8	108.5	35	50	0.42

Top Flange Type

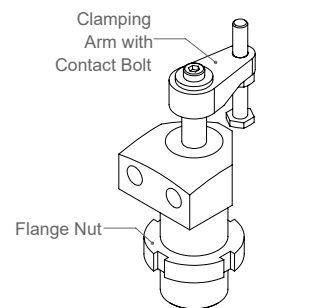
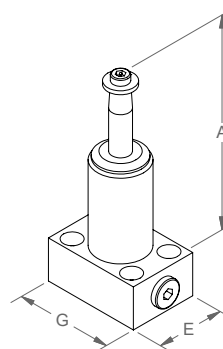
Part Number	Body Type	Swing Direction	Oil Connection	Pull Force (kN)	Stroke (mm)		A (mm)	E (mm)	G (mm)	Weight (kg)
				350 bar	Swing	Clamp				
CLR-1850-113	Top Flange	Clockwise	Fittings	2.63	8	8	108.5	40	40	0.35
CLR-1850-123	Top Flange	Counter Clockwise	Fittings	2.63	8	8	108.5	40	40	0.35
CLR-1850-114	Top Flange	Clockwise	O-Ring	2.63	8	8	108.5	40	40	0.42
CLR-1850-124	Top Flange	Counter Clockwise	O-Ring	2.63	8	8	108.5	40	40	0.42

Accessories

Part Number	Description
CLR-0354-057	Clamping Arm with Contact Bolt
CLR-0354-082	Double Clamping Arm
CLR-3548-900	Clamping Arm, Blank
CLR-3527-076	Flange Nut M27x1.5



Clamps and Accessories Sold Separately



Clamp Shown with Optional Clamping arm with Contact Bolt and Flange Nut

Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES B1.853

Swing Clamps with Robust Swing Mechanism

Up to 86% more clamping force than competition with same length arms.

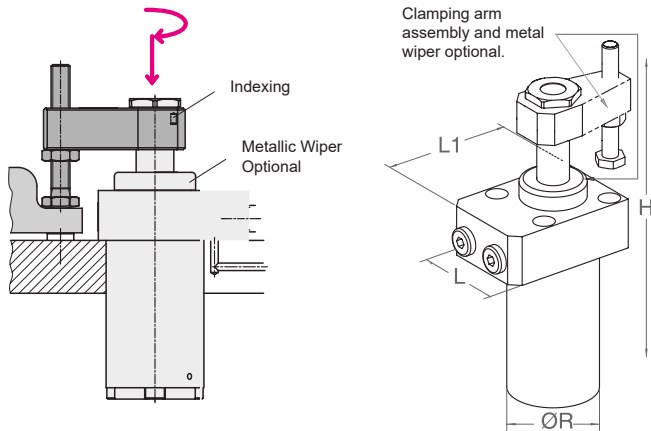
These top-flange robust swing clamps are ideal when you have the need for speed and long, heavy custom arms. An integral flow-control orifice allows using high-flow-rate power sources without separate flow restrictors. Available in five sizes and with position monitoring. Double acting only.



Top Flange Type

Part Number	Swing Direction	Pull Force (kN)	Stroke (mm)		H (mm)	L (mm)	L1 (mm)	ØR (mm)	Weight (kg)
		350 bar	Swing	Clamp					
CLR-1843-A090-L23D	Counter Clockwise	7.5	11	12	162.3	50	70	45	1.7
CLR-1843-A090-R23D	Clockwise	7.5	11	12	162.3	50	70	45	1.7
CLR-1844-A090-L24D	Counter Clockwise	10.5	12	12	175.8	62	81	52	2.3
CLR-1844-A090-R24D	Clockwise	10.5	12	12	175.8	62	81	52	2.3
CLR-1845-A090-L30D	Counter Clockwise	18.4	15	15	204.8	75	95	60	3.9
CLR-1845-A090-R30D	Clockwise	18.4	15	15	204.8	75	95	60	3.9

Application Example



Accessories shown on page 20.

Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES B1.854

Swing Clamps with Robust Swing Mechanism

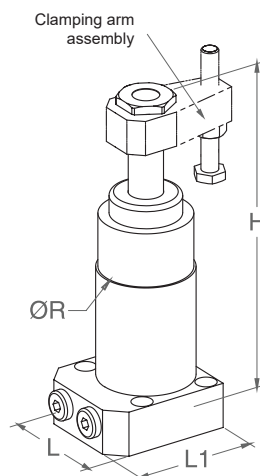
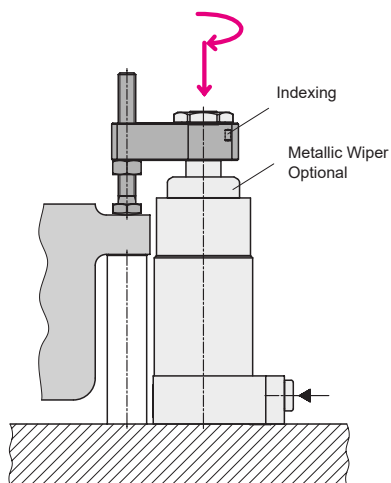
These bottom-flange robust swing clamps are ideal when you have the need for speed and long, heavy custom arms. An integral flow-control orifice allows using high-flow-rate power sources without separate flow restrictors. Available in four sizes and with position monitoring. Double acting only.



Bottom Flange Type

Part Number	Swing Direction	Pull Force (kN)		Stroke (mm)		H (mm)	L (mm)	L1 (mm)	ØR (mm)	Weight (kg)
		350 bar	Swing	Clamp						
CLR-1843-L090-L23	Counter Clockwise	7.5	11	12	162.3	55	60	45	1.7	
CLR-1843-L090-R23	Clockwise	7.5	11	12	162.3	55	60	45	1.7	
CLR-1844-L090-L24	Counter Clockwise	10.5	12	12	175.8	63	66	52	2.3	
CLR-1844-L090-R24	Clockwise	10.5	12	12	175.8	63	66	52	2.3	
CLR-1845-L090-L30	Counter Clockwise	18.4	15	15	204.8	77	75	60	3.4	
CLR-1845-L090-R30	Clockwise	18.4	15	15	204.8	77	75	60	3.4	

Application Example

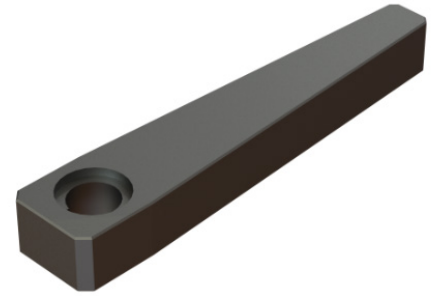


Accessories shown on page 20.

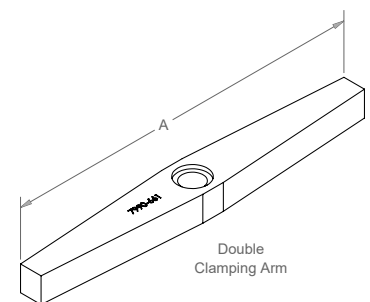
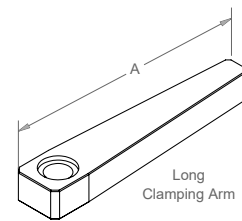
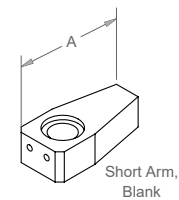
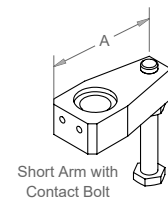
Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

ACCESSORIES FOR B1.853 + B1.854

Clamping arms, protective wipers and stroke limiting bushings for our Robust Swing clamps



Part Number	Description	Clamp Size	A (mm)
CLR-0354-152	Clamping Arm Short, with Contact Bolt	1843	58
CLR-0354-153	Clamping Arm Short, with Contact Bolt	1844	75
CLR-0354-154	Clamping Arm Short, with Contact Bolt	1845	93
CLR-3548-660	Clamping Arm, Short, Blank	1843	58
CLR-3548-661	Clamping Arm, Short, Blank	1844	75
CLR-3548-803	Clamping Arm, Short, Blank	1845	93
CLR-3548-4063	Clamping Arm, Long, Blank	1843	139
CLR-3548-4064	Clamping Arm, Long, Blank	1844	193
CLR-3548-4065	Clamping Arm, Long, Blank	1845	224
CLR-7990-661	Double Clamping Arm	1843	220
CLR-7990-662	Double Clamping Arm	1844	272
CLR-7990-663	Double Clamping Arm	1845	278
CLR-0341-104	Metal Wiper	1843	--
CLR-0341-107	Metal Wiper	1844	--
CLR-0341-105	Metal Wiper	1845	--
CLR-3420-398	30° swing limiting bushing	1843	--
CLR-3420-397	45° swing limiting bushing	1843	--
CLR-3420-399	60° swing limiting bushing	1843	--
CLR-3420-447	30° swing limiting bushing	1844	--
CLR-3420-449	45° swing limiting bushing	1844	--
CLR-3420-452	60° swing limiting bushing	1844	--
CLR-3420-465	30° swing limiting bushing	1845	--
CLR-3420-468	45° swing limiting bushing	1845	--
CLR-3420-471	60° swing limiting bushing	1845	--



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SERIES

B1.9401

Threaded-Body Work Support

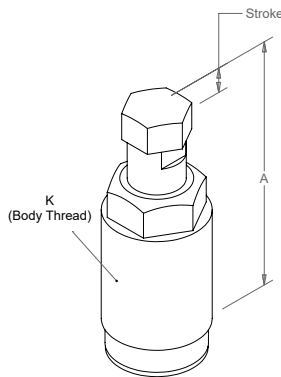
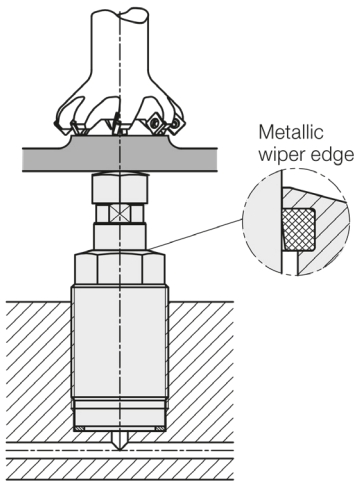
Vent-less Design

Hydraulic work supports are used to provide a self-adjusting rest for the workpiece during the machining operations. They compensate for workpiece surface irregularities, also vibration and deflection under machining loads.

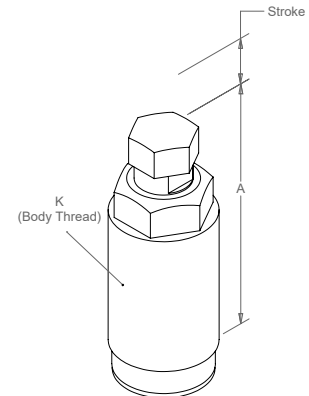


Part Number	Contact Type	Load Force (kN)	Stroke (mm)	A (mm)	K (mm)	Weight (kg)
		500 bar				
CLR-1940-002	Spring Advanced	6.5	8	80.5	M30x1.5	0.3
CLR-1940-012	Spring Advanced	9.5	8	90.5	M30x1.5	0.3
CLR-1942-002	Hydraulic Advanced, Short Stroke	6.5	8	72.5	M30x1.5	0.3
CLR-1942-007	Hydraulic Advanced, Long Stroke	6.5	15	79.5	M30x1.5	0.3
CLR-1942-012	Hydraulic Advanced, Short Stroke	9.5	8	82.5	M30x1.5	0.3
CLR-1942-017	Hydraulic Advanced, Long Stroke	9.5	15	89.5	M30x1.5	0.3

Application Example



Spring Advanced Work Supports are extended while depressurized. The plunger is compressed under load and then locks when pressurized.



Hydraulic Advanced Work Supports are retracted while depressurized. The plunger extends and then locks when pressurized.

Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.9405

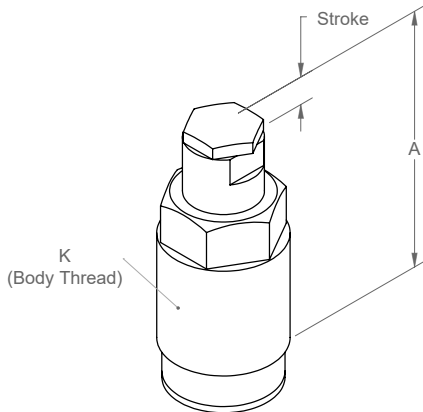
Threaded-Body Work Support Vent-less Design

Smallest hydraulic work support available anywhere. Hydraulic work supports are used to provide a self-adjusting rest for the workpiece during the machining operations. They compensate for workpiece surface irregularities, and also for vibration and deflection under machining loads.

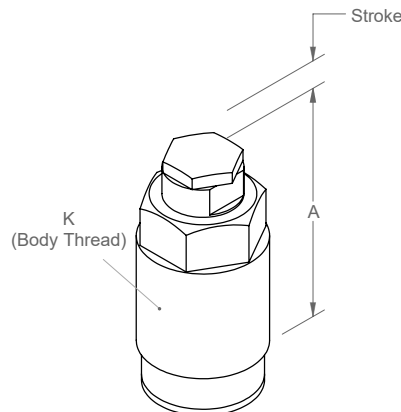


Part Number	Contact Type	Load Force (kN)	Stroke (mm)	A (mm)	K (mm)	Weight (kg)
		500 bar				
CLR-1940-900	Spring Advanced	4	6.5	61	M26x1.5	0.2
CLR-1942-900	Hydraulic Advanced, Short Stroke	4	6.5	54.5	M26x1.5	0.2
CLR-1942-925	Hydraulic Advanced, Long Stroke	4	15	63	M26x1.5	0.2

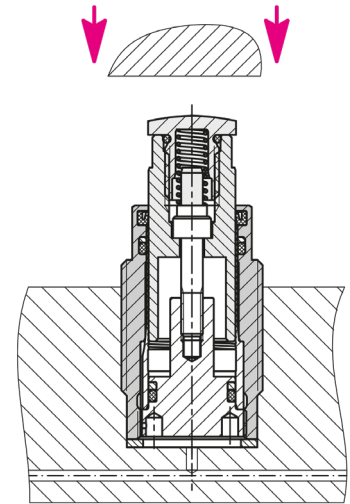
Application Example



Spring advanced work supports are extended while depressurized. The plunger is compressed under load and then locks when pressurized.



Hydraulic advanced work supports are retracted while depressurized. The plunger extends and locks when pressurized.



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

B1.943

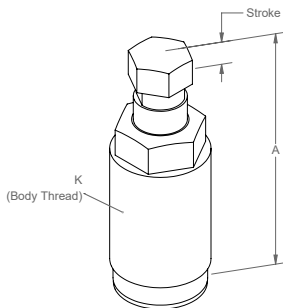
Threaded-Body Work Supports

Vented Design for Maximum Life

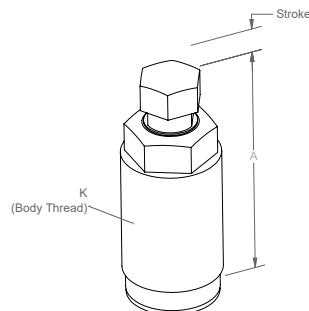
Space-saving low-height installation. Hydraulic work supports are used to provide a self-adjusting rest for workpieces and avoid their vibration and deflection under machining loads. The threaded-body design allows for space-saving and direct installation into the fixture body. Hydraulic oil supply and venting are made via drilled channels.



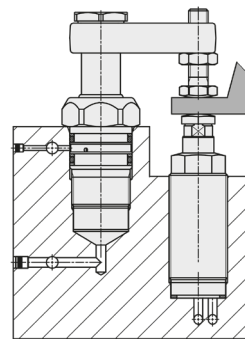
Part Number	Contact Type	Load Force (kN)	Stroke (mm)	A (mm)	K (mm)	Weight (kg)
		500 bar				
CLR-1940-300	Spring Advanced	6.5	8	83.5	M30x1.5	0.32
CLR-1940-400	Spring Advanced	15	10	96	M36x1.5	0.55
CLR-1940-501	Spring Advanced	23.5	10	100	M48x1.5	1.0
CLR-1942-300	Hydraulic Advanced	6.5	8	75.5	M30x1.5	0.32
CLR-1942-305	Hydraulic Advanced	6.5	15	82.5	M30x1.5	0.35
CLR-1942-400	Hydraulic Advanced	15	10	86	M36x1.5	0.55
CLR-1942-501	Hydraulic Advanced	23.5	10	90	M48x1.5	1.0



Spring advanced work supports are extended while depressurized. The plunger is compressed under load and then locks when pressurized.

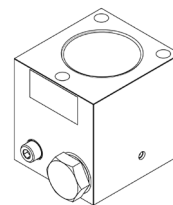


Hydraulic Advanced work supports are retracted while depressurized. The plunger extends and locks when pressurized.



Accessories

Part Number	Description
CLR-0346-815	Mounting body for 194X-3XX, g1/4, 500 bar
CLR-0346-816	Mounting body for 194X-4XX, g1/4, 500 bar
CLR-0346-817	Mounting body for 194X-5XX, g1/4, 500 bar
CLR-0346-818	Mounting body for 194X-6XX, g1/4, 500 bar



Mounting Body allows for use of standard fittings on the side, or o-ring connection on the bottom using drilled channels.

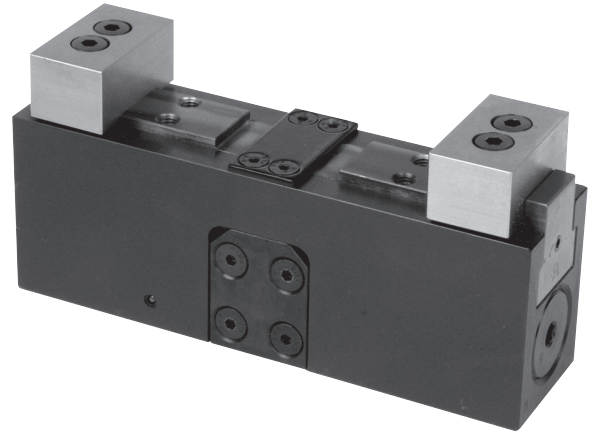
Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

SERIES

14.120

Fixture Clamp, Concentric Clamping

Slim, solid vise body with high-rigidity and complete protection against dirt and chips especially suitable for automated series production. The self-centering fixture clamps are used for machining of dimensionally stable workpieces in single or multiple clamping fixtures. Their compact design allows for arrangement in very tight spaces. Repetitive accuracy of clamping ± 0.02 mm

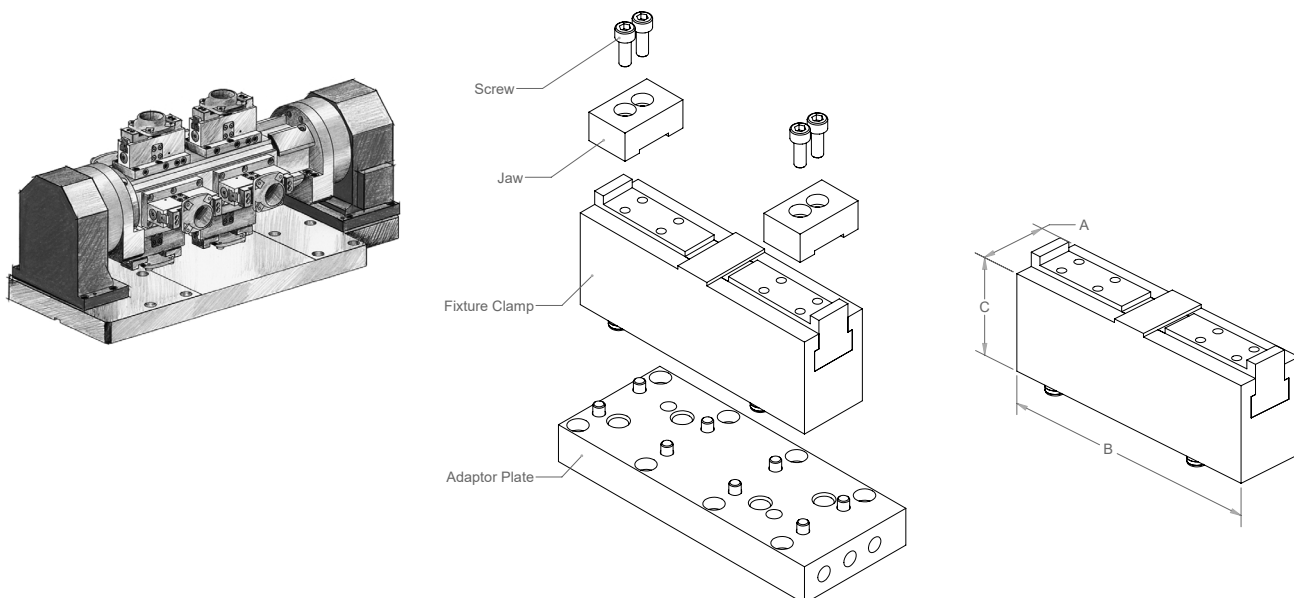


Part Number	Clamping Force per Jaw (kN)	Stroke per Jaw (mm)	A Jaw Width (mm)	B Length (mm)	C Height (mm)	Weight (kg)
	250 bar					
CLR-4413-051	6.5	5	40	155	55	2.4
CLR-4413-151	9.0	8	65	200	65	6.0

Accessories

Part Number	For Clamp	Description
CLR-0441-305	4413-051	Adapter plate to use fittings
CLR-0441-315	4413-151	Adapter plate to use fittings
CLR-3548-070	4413-051	Jaw for 40mm (one jaw)
CLR-3548-080	4413-151	Jaw for 65mm (one jaw)
CLR-3301-107	4413-051	M6x16 Screw (2 needed per jaw)
CLR-3300-625	4413-151	M8x25 Screw (2 needed per jaw)

Application Example



Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

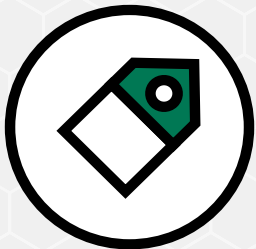
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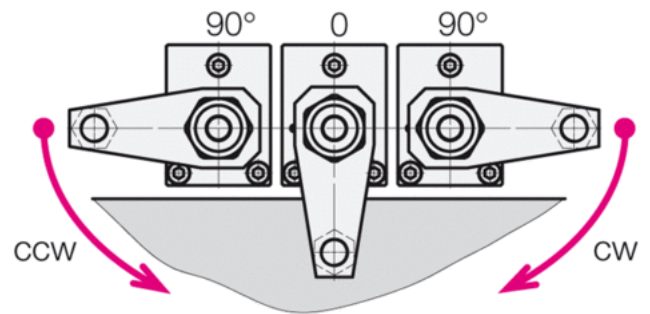
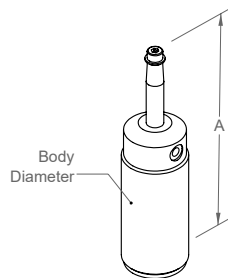
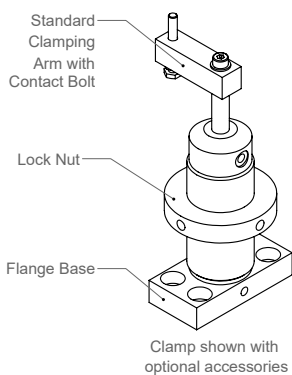
Pneumatic Swing Clamp

Automate with confidence while keeping the clamping area free of straps and clamping components for unrestricted workpiece loading and unloading. Pneumatic swing clamps are ideally suited for applications like fixturing, testing, welding and assembly. The installed magnetic piston allows monitoring of clamping and unclamping position. *Clamp, clamping arms, flange base, and lock nuts all sold separately.*



Part Number	Swing Direction	Piston Diameter (mm)	Pull Force (N)		Stroke (mm)		A (mm)	Body Diameter (mm)	Weight (kg)
			4 bar	6 bar	Swing	Clamp			
CLR-1873-305	Clockwise	20	105.5	158.3	7.5	7	114.3	M30x1.5	0.2
CLR-1873-405	Counter Clockwise	20	105.5	158.3	7.5	7	114.3	M30x1.5	0.2
CLR-1874-303	Clockwise	32	276.4	414.6	9.5	9	133.1	M40x1.5	0.3
CLR-1874-403	Counter Clockwise	32	276.4	414.6	9.5	9	133.1	M40x1.5	0.3
CLR-1875-303	Clockwise	40	422.2	633.3	17	15	182.6	M50x1.5	0.7
CLR-1875-403	Counter Clockwise	40	422.2	633.3	17	15	182.6	M50x1.5	0.7
CLR-1876-303	Clockwise	50	659.7	989.6	18	15	198.5	M60x1.5	0.9
CLR-1876-403	Counter Clockwise	50	659.7	989.6	18	15	198.5	M60x1.5	0.9
CLR-1877-303	Clockwise	63	1050.5	1575.8	23	18	240.5	M80x1.5	2.1
CLR-1877-403	Counter Clockwise	63	1050.5	1575.8	23	18	240.5	M80x1.5	2.1

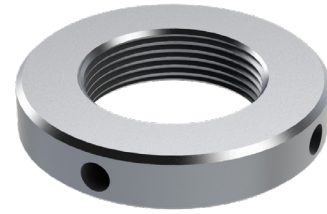
Application Example



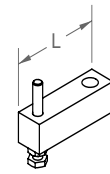
Subject to modifications, for all engineering and technical data please see data sheets at roemheld.com

ACCESSORIES FOR J7.201

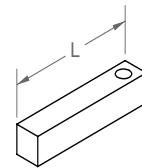
Clamping arms, mounting flanges, and locking rings for pneumatic swing clamps.



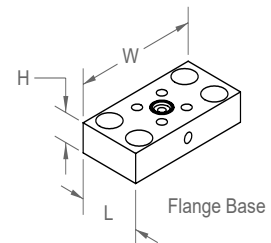
Part Number	Description	L (mm)	W (mm)	H (mm)
CLR-0187-324	Clamping arm with contact bolt for 1873-305/-405	42		
CLR-0187-424	Clamping arm with contact bolt for 1874-303/-403	52		
CLR-0187-524	Clamping arm with contact bolt for 1875-303/-403	70		
CLR-0187-624	Clamping arm with contact bolt for 1876-303/-403	82		
CLR-0187-724	Clamping arm with contact bolt for 1877-303/-403	104		
CLR-3548-355	Long clamping arm for 1873-305/-405	62		
CLR-3548-356	Long clamping arm for 1874-303/-403	72		
CLR-3548-357	Long clamping arm for 1875-303/-403	95		
CLR-3548-353	Long clamping arm for 1876-303/-403	116		
CLR-3548-358	Long clamping arm for 1877-303/-403	143		
CLR-3829-119	Electronic magnetic sensor	--		
CLR-3829-099	Connecting cable with right angle plug	5 meters		
CLR-0345-403	Flange base for 1873-305/-405	30	60	12
CLR-0345-404	Flange base for 1874-303/-403	38	65	16
CLR-0345-405	Flange base for 1875-303/-403	50	80	22
CLR-0345-406	Flange base for 1876-303/-403	58	85	22
CLR-0345-407	Flange base for 1877-303/-403	75	110	25
CLR-3527-071	Lock nut, M30x1.5 for 1873-305/405	50	--	10
CLR-3527-040	Lock nut, M40x1.5 for 1874-303/403	62	--	12
CLR-3527-041	Lock nut, M50x1.5 for 1875-303/403	75	--	13
CLR-3527-042	Lock nut, M60x1.5 for 1876-303/403	90	--	13
CLR-3527-043	Lock nut, M80x1.5 for 1877-303/403	115	--	16
CLR-3829-132	1873X05 Hose clamp for electronic magnetic sensor			
CLR-3829-133	1874X03 Hose clamp for electronic magnetic sensor			
CLR-3829-120	1875X03 Hose clamp for electronic magnetic sensor			
CLR-3829-134	1876X03 Hose clamp for electronic magnetic sensor			
CLR-3829-135	1877X03 Hose clamp for electronic magnetic sensor			



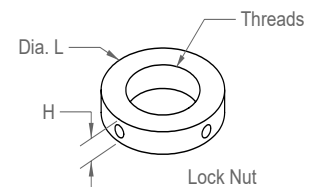
Standard Arm with Contact Bolt and Jam Nut



Long Clamping Arm

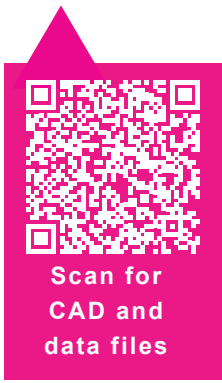


Flange Base



Lock Nut

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