Universal cylinders - Double acting *Application & selection*

Shown: BRD-2510, BRD-96, BRD-256, BRD-41, BRD-166

Used when high cylinder forces with a powered return stroke is required in a confined area.

Cylinders can push or pull a workpiece into position and the threaded plunger allows adapting standard clevis attachments.

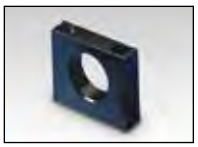
Heavy-duty cylinders

...provide push as well as pull forces

- High pressure design when additional force is required for push or pull applications
- Long strokes in a compact design are well suited for custom toggle style clamping
- Various features for mounting
- Threaded plunger allows a wide range of mounting adapter devices
- Chrome plated plunger provides a long cylinder life

Optional cylinder attachments

For added cylinder flexibility, a selection of interchangeable mountings is available to fit plunger or cylinder threads.



Foot mounting

Mounts onto cylinder collar thread. Retainer nut included. Mounting screws not included.

Flange mounting

Mounts onto cylinder collar thread. Retainer nut included. Mounting screws not included.

Retainer nut

Locking foot or flange mountings. Mounts onto cylinder base or collar threads. Included with foot and flange mountings.

Clevis eye

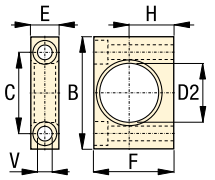
Threads onto plunger or base.

Clamping application using Enerpac BRD cylinders (with clevis eye attachments on both ends) for their high pressure capability and mounting flexibility.

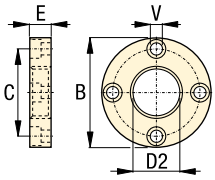
Product selection

Cylinder capacity at 350 bar kN push	kN pull	Stroke mm	Model number	Effective area cm² push	cm² pull	Oil capacity cm³ push	cm³ pull
17,4	7,7	28,2	**BRD-41**	5,10	2,19	14,58	6,55
17,4	7,7	78,9	**BRD-43**	5,10	2,19	40,48	18,03
17,4	7,7	155,2	**BRD-46**	5,10	2,19	79,31	34,41
40,0	21,8	31,6	**BRD-91**	11,42	6,32	32,77	18,03
40,0	21,8	82,3	**BRD-93**	11,42	6,32	90,78	49,16
40,0	21,8	158,0	**BRD-96**	11,42	6,32	178,29	98,32
40,0	21,8	260,2	**BRD-910**	11,42	6,32	293,98	162,23
69,0	36,9	157,2	**BRD-166**	20,32	10,71	322,33	170,42
69,0	36,9	258,8	**BRD-1610**	20,32	10,71	528,64	278,58
109,0	47,8	159,7	**BRD-256**	31,74	13,87	503,57	219,59
109,0	47,8	261,1	**BRD-2510**	31,74	13,87	825,90	360,51

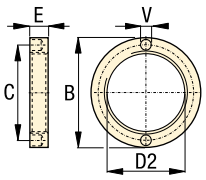
Foot mounting



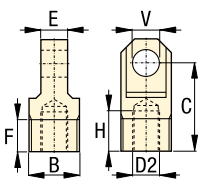
Flange mounting



Retainer nut



Clevis eye



Force: 17,4 - 109 kN

Stroke: 28,2 - 261,1 mm

Pressure: 35 - 700 bar

E Cilindros universales

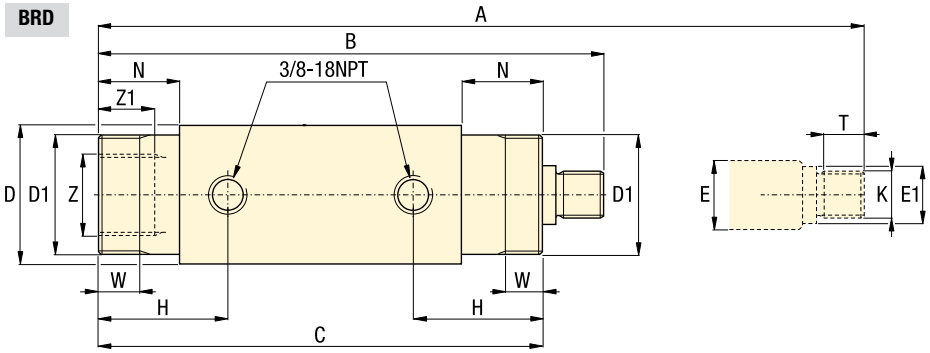
F Vérins universels

D Universelle Linearzylinder

Cylinder attachments in mm [⊳⊕]

Cylinder capacity at 350 bar kN	Cylinder capacity at 700 bar kN	D2	Model number	B	C	E	F	H	V	kg
▼ **Foot mounting with retainer nut**										
17,4	34,8	42,1	**BAD-141**	80,0	58,0	20,0	57,0	31,8	10,5	0,4
40,0	80,0	56,1	**BAD-171**	105,0	78,0	25,0	82,5	44,5	13,5	1,2
69,0	138,0	70,1	**BAD-181**	127,0	95,2	35,0	100,0	52,4	20,0	2,9
109,0	218,0	85,1	**BAD-191**	159,0	117,5	45,0	125,0	63,5	26,5	4,5
▼ **Flange mounting with retainer nut**										
17,4	34,8	42,1	**BAD-142**	98,4	78,6	19,0	–	–	11,0	1,0
40,0	80,0	56,1	**BAD-172**	120,5	98,4	25,4	–	–	11,0	2,1
69,0	138,0	70,1	**BAD-182**	143,0	115,9	35,0	–	–	14,0	3,8
109,0	218,0	85,1	**BAD-192**	165,0	135,7	44,5	–	–	17,0	6,0
▼ **Retainer nut**										
17,4	34,8	M42 x 1,5	**BAD-143**	57,0	49,5	9,5	–	–	6,3	0,1
40,0	80,0	M56 x 2	**BAD-173**	75,0	63,5	12,7	–	–	6,7	0,3
69,0	138,0	M70 x 2	**BAD-183**	92,0	79,4	19,0	–	–	6,7	0,6
109,0	218,0	M85 x 2	**BAD-193**	108,0	95,2	25,4	–	–	6,7	0,8
▼ **Clevis eye**										
17,4	34,8	M16 x 1,5	**BAD-150**	M30 x 1,5	52,4	15,9	19,1	23,8	16,0	0,2
40,0	80,0	M22 x 1,5	**BAD-151**	M42 x 1,5	57,1	25,4	25,4	23,8	20,0	0,6
69,0	138,0	M30 x 1,5	**BAD-152**	M56 x 2	77,8	31,9	25,4	26,9	25,0	1,3
109,0	218,0	M42 x 1,5	**BAD-153**	M70 x 2	77,8	38,2	25,4	30,2	32,0	2,1

BRD



Options

Cylinder accessories 86

Important

Be certain that the mounting devices can handle forces in the push and pull direction.

BRD series cylinders are designed for a maximum operating pressure of 700 bar.

When applying 700 bar cylinder capacities double as well.

Product dimensions in mm [⊳⊕]

Model number	A	B	C	D	D1	E	E1	H	K	N	T	W	Z	Z1	kg
BRD-41	213,7	185,5	162,3	50,8	M42 x 1,5	19,0	17,5	47,0	M16 x 1,5	29,0	19,3	11,0	M30 x 1,5	12,0	2,2
BRD-43	315,3	236,4	213,0	50,8	M42 x 1,5	19,0	17,5	47,0	M16 x 1,5	29,0	19,3	11,0	M30 x 1,5	12,0	2,9
BRD-46	467,7	312,5	289,3	50,8	M42 x 1,5	19,0	17,5	47,0	M16 x 1,5	29,0	19,3	11,0	M30 x 1,5	12,0	4,1
BRD-91	253,4	221,8	198,4	63,5	M56 x 2	25,4	23,9	57,7	M22 x 1,5	38,1	19,4	14,2	M42 x 1,5	14,8	4,1
BRD-93	355,0	272,7	249,2	63,5	M56 x 2	25,4	23,9	57,7	M22 x 1,5	38,1	19,4	14,2	M42 x 1,5	14,8	5,0
BRD-96	506,9	348,9	325,4	63,5	M56 x 2	25,4	23,9	57,7	M22 x 1,5	38,1	19,4	14,2	M42 x 1,5	14,8	6,3
BRD-910	710,6	450,4	427,0	63,5	M56 x 2	25,4	23,9	57,7	M22 x 1,5	38,1	19,4	14,2	M42 x 1,5	14,8	8,6
BRD-166	547,2	390,0	358,8	76,2	M70 x 2	34,9	32,0	73,7	M30 x 1,5	53,8	25,4	22,4	M56 x 2	26,2	10,0
BRD-1610	750,4	491,6	358,8	76,2	M70 x 2	34,9	32,0	73,7	M30 x 1,5	53,8	25,4	22,4	M56 x 2	26,2	13,2
BRD-256	583,7	424,0	397,0	95,0	M85 x 2	47,6	45,0	89,0	M42 x 1,5	70,0	22,3	28,5	M70 x 2	25,2	16,3
BRD-2510	786,2	525,1	397,0	95,0	M85 x 2	47,6	45,0	89,0	M42 x 1,5	70,0	22,3	28,5	M70 x 2	25,2	20,9