

Block cylinders *Application & selection*

Shown: CDB-10162, CDB-70502, CSB-18252



▶ Block cylinders are used for punching, pressing, riveting and bending applications. In general, these cylinders are used for moving, positioning, lifting, opening and closing.

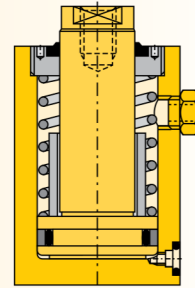
Versatile, all purpose cylinder

- Six clamping capacities enable you to choose the right size for your application
- Variety of strokes, to meet design needs
- Double acting and Single acting (spring return), allows selection of cylinder that best conforms to your hydraulic system
- Oil connection alternatives: cylinders incorporate both manifold mount and plumbed options to meet your fixturing needs
- Compact cylinder design does not require large amounts of space on your fixture
- Integral wiper ring, keeps contaminants out of cylinder to extend life

i Select your block cylinder type:

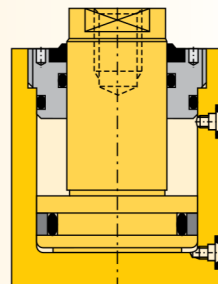
CSB series, Single acting

- Internal threaded plunger
- Manifold O-ring ports
- Black oxide base
- Hard chrome-plated plunger
- BSPP oil port
- Strong return spring
- Filtered vent plug



CDB series, Double acting

- Internal threaded plunger
- Manifold O-ring ports
- Black oxide base
- Hard chrome-plated plunger
- BSPP oil port

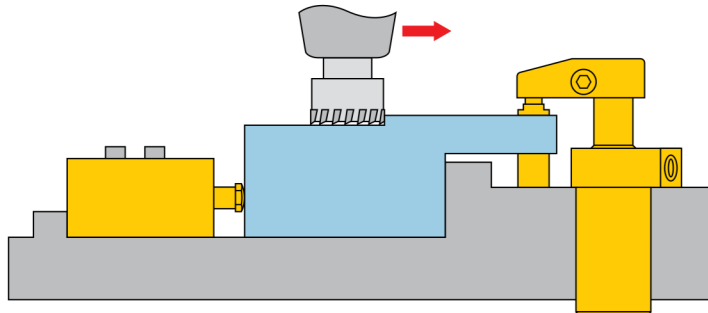


■ The versatile Enerpac block cylinders, fixture mounted for clamping applications.



i Application example

Block cylinder positions workpiece against fixed point with further clamping coming from an Enerpac swing cylinder.



- Force:** 2400-60,850 lbs
- Stroke:** .59-2.20 inch
- Pressure:** 580-5000 psi

- E** Cilindros tipo bloque
- F** Vérins cube
- D** Blockzylinder



Accessory chart

Plunger Thread K	Contact Bolt □ 86 ▶
M6 X 1,0	BS-62
M8 X 1,25	BS-82
M16 X 2,0	BS-16
M20 X 2,5	BS-20
M30 X 3,5	BS-30
M36 X 4,0	BS-36

Product selection

Piston Ø	Rod Ø	Clamping force at 5000 psi		Stroke in	Model number	Cylinder effective area		Cylinder oil capacity		Minimum spring return force	
		push	pull			in ²	in ³	lbs	lbs		
.78	.47	2400	-	.71	CSB-10182	.48	-	.35	-	24	2.6
.98	.63	3800	-	.98	CSB-18252	.76	-	.75	-	35	4.0
1.57	.98	9750	-	.98	CSB-40252	1.95	-	1.92	-	85	5.9
1.97	1.26	15,200	-	.98	CSB-70252	3.04	-	3.00	-	96	9.7
▼ Single acting											
.78	.47	2400	1550	.59	CDB-10162	.48	.31	.31	.20	-	2.0
.78	.47	2400	1550	1.38	CDB-10362	.48	.31	.69	.44	-	2.6
.98	.63	3800	2250	.79	CDB-18202	.76	.45	.60	.35	-	2.9
.98	.63	3800	2250	1.97	CDB-18502	.76	.45	1.50	.90	-	4.0
1.57	.97	9750	4900	.98	CDB-40252	1.95	.98	1.92	.96	-	4.2
1.57	.97	9750	4900	1.97	CDB-40502	1.95	.98	3.83	1.93	-	5.7
1.97	1.26	15,200	9000	.98	CDB-70252	3.04	1.80	3.00	1.77	-	7.1
1.97	1.26	15,200	9000	1.97	CDB-70502	3.04	1.80	5.99	3.54	-	9.5
3.15	1.97	38,900	23,700	.98	CDB-180252	7.80	4.74	7.66	4.67	-	20.5
3.15	1.97	38,900	23,700	1.97	CDB-180502*	7.80	4.74	15.33	9.34	-	25.4
3.93	2.48	60,850	36,650	2.20	CDB-280562*	12.17	7.33	26.83	16.18	-	40.1

* This product is made to order. Please contact Enerpac for delivery information before specifying in your design.

Block cylinders *Application & selection*

Shown: CDB-10162, -70502, CSB-18252



CDB, CSB series

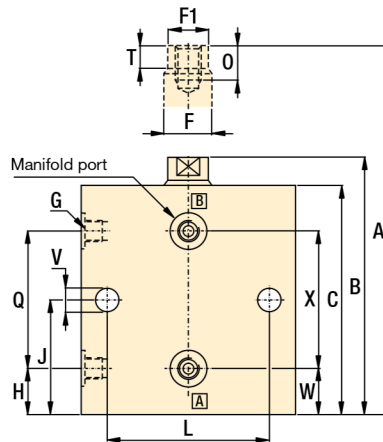
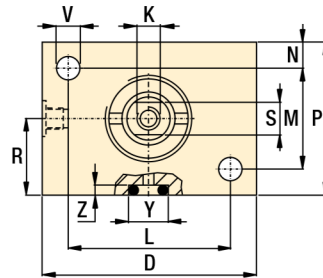
These compact block cylinders are easily mounted in horizontal or vertical position for a range of special tooling applications.

They can be used for positioning, clamping, pushing, pressing or punching operations. The plunger has an internal thread to accommodate accessories such as contact bolts.

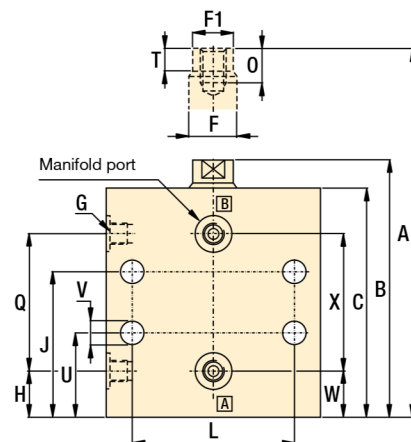
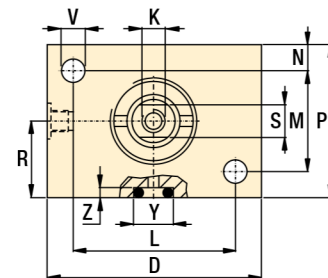
Block cylinder used for punching applications.



CDB-10162, -18202, -40252, -70252, -180252



All other models



Dimensions in inches [mm]

Model number	A	B	C	D	F	F1	G	H	J	K	L	M
					ø	ø				ø		
▼ Single acting												
CSB-10182	3.94	3.23	2.91	2.36	.47	.43	G1/8"	.47	1.75	M6 x 1,0	1.77	.98
CSB-18252	4.92	3.94	3.62	2.56	.63	.59	G1/8"	.47	2.24	M8 x 1,25	1.97	1.18
CSB-40252	5.13	4.15	3.66	3.15	.98	.94	G1/8"	.39	2.26	M16 x 2,0	2.36	1.38
CSB-70252	5.63	4.65	4.09	3.94	1.26	1.22	G1/4"	.54	2.52	M20 x 2,5	3.15	1.77
▼ Double acting												
CDB-10162	3.03	2.44	2.15	2.36	.47	.43	G1/8"	.47	.96	M6 x 1,0	1.77	.98
CDB-10362	4.61	3.23	2.93	2.36	.47	.43	G1/8"	.47	1.75	M6 x 1,0	1.77	.98
CDB-18202	3.54	2.76	2.44	2.56	.63	.59	G1/8"	.47	1.06	M8 x 1,25	1.97	1.18
CDB-18502	5.91	3.94	3.62	2.56	.63	.59	G1/8"	.47	2.24	M8 x 1,25	1.97	1.18
CDB-40252	4.13	3.15	2.68	3.15	.97	.94	G1/8"	.37	1.26	M16 x 2,0	2.36	1.38
CDB-40502	6.11	4.15	3.67	3.15	.97	.94	G1/8"	.39	2.26	M16 x 2,0	2.36	1.38
CDB-70252	4.53	3.54	2.99	3.94	1.26	1.22	G1/4"	.53	1.42	M20 x 2,5	3.15	1.77
CDB-70502	6.61	4.65	4.09	3.94	1.26	1.22	G1/4"	.54	2.52	M20 x 2,5	3.15	1.77
CDB-180252	5.16	4.17	3.50	5.51	1.97	1.93	G1/4"	.59	1.63	M30 X 3,5	4.33	3.15
CDB-180502*	7.28	5.31	4.65	5.51	1.97	1.93	G1/4"	.47	2.78	M30 x 3,5	4.33	3.15
CDB-280562*	8.19	5.98	5.22	6.69	2.48	2.44	G1/4"	.70	3.05	M36 x 4,0	5.31	3.54

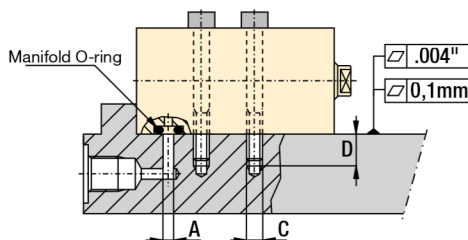
* This product is made to order. Please contact Enerpac for delivery information before specifying in your design.

i Installation instructions

When operating above 2000 psi in applications as shown in the figure below, provide cylinder back-up using a support to eliminate shear loads on the mounting bolts.

Manifold mounting

When hydraulic connections are made through the standard integrated O-ring ports as shown in figure, the sealing surface must have a roughness of 63 micro-inches.



Single-acting cylinders

If the risk of machining coolants or debris being entering via the breather vent (port B) exists, it is recommended that this port be connected to a clean, remote termination point.

A Installation dimensions in inches [$\nabla \oplus$]

Clamping capacity	Oil channel diameter	Mounting thread	Min. thread length	Torque (bolt type 12.9 DIN 912)	Manifold O-ring ¹⁾	
					Inside Ø x thickness	ARP No.
lbs	A	mm C	D	Ft.lbs		
2400	.20	M6	.43	13	.31 x .06	568-011
3800	.20	M8	.51	30	.31 x .06	568-011
9750	.20	M10	.63	63	.31 x .06	568-011
15,200	.20	M12	.75	107	.31 x .06	568-011
38,900	.31	M16	.94	260	.38 x .09	568-110
60,850	.31	M20	1.10	498	.38 x .09	568-110

¹⁾ Manifold O-rings included

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Model number
	mín.													
														Single acting ▼
	.30	.39	1.57	1.77	.79	.35	.22	.96	.27	.47	1.77	.44	.05	CSB-10182
	.30	.49	1.77	2.36	.89	.51	.24	1.06	.35	.47	2.36	.44	.05	CSB-18252
	.39	.98	2.17	2.46	1.08	.87	.37	1.07	.42	.39	2.46	.44	.05	CSB-40252
	.41	1.18	2.60	2.63	1.30	1.06	.43	1.15	.49	.60	2.57	.44	.05	CSB-70252
														Double acting ▼
	.30	.39	1.57	.98	.79	.35	.22	-	.27	.47	.98	.44	.05	CDB-10162
	.30	.39	1.57	1.77	.79	.35	.22	.96	.27	.47	1.77	.44	.05	CDB-10362
	.30	.49	1.77	1.18	.89	.51	.24	-	.35	.47	1.18	.44	.05	CDB-18202
	.30	.49	1.77	2.36	.89	.51	.24	1.06	.35	.47	2.36	.44	.05	CDB-18502
	.39	.98	2.17	1.48	1.08	.87	.37	-	.42	.37	1.48	.44	.05	CDB-40252
	.39	.98	2.17	2.46	1.08	.87	.37	1.07	.42	.39	2.46	.44	.05	CDB-40502
	.41	1.18	2.60	1.54	1.30	1.06	.43	-	.49	.49	1.57	.44	.05	CDB-70252
	.41	1.18	2.60	2.63	1.30	1.06	.43	1.15	.49	.60	2.57	.44	.05	CDB-70502
	.59	1.77	4.33	1.79	2.17	1.61	.57	-	.67	.61	1.77	.56	.07	CDB-180252
	.59	1.77	4.33	3.05	2.17	1.61	.57	1.20	.67	.77	2.76	.56	.07	CDB-180502*
	.69	1.97	4.92	3.16	2.46	1.97	.67	1.48	.83	.71	3.15	.56	.07	CDB-280562*

* This product is made to order. Please contact Enerpac for delivery information before specifying in your design.

Force: 2400-60,850 lbs

Stroke: .59-2.20 inch

Pressure: 580-5000 psi


- E** Cilindros tipo bloque
- F** Vérins cube
- D** Blockzylinder





! Important


Linear cylinder support is required at operating pressures above 2000 psi. Follow the instructions on this page.

Options

Contact bolts  86 ▶

Fittings  194 ▶

Pressure gauges  190 ▶

High pressure filters  193 ▶

Linear cylinders
Power sources
Valves
Pallet components
System components
Yellow pages