

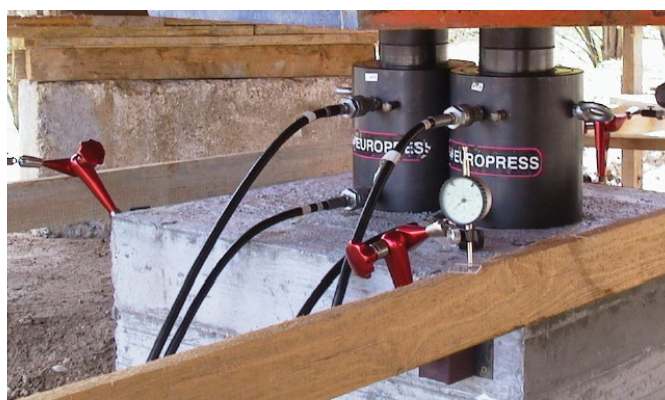
STANDARD CYLINDERS OIL RETURN FOR HIGH TONNAGE IN STEEL

FEATURES

Solidly designed, the rod end has concentric grooves to improve load grip. Every model is equipped with lifting eyes and anti-corrosive nitride treatment which makes them suitable to be used in harsh environments. A safety valve connected to the return chamber prevents any overpressure. The end of stroke nut has a wiper to prevent the entrance of dirt. They can operate with off-centred loads up to 8% of their nominal capacity.

OPERATIONAL AREAS

They are extremely solid hydraulic cylinders highly recommended for lifting, holding and lowering operations. They are ideally built for applications in civil and marine engineering and in the construction industry.



ACCESSORIES (p. 64)

- **Separate ZTT tilt saddle** reduces the effects of possible off-centred loads.



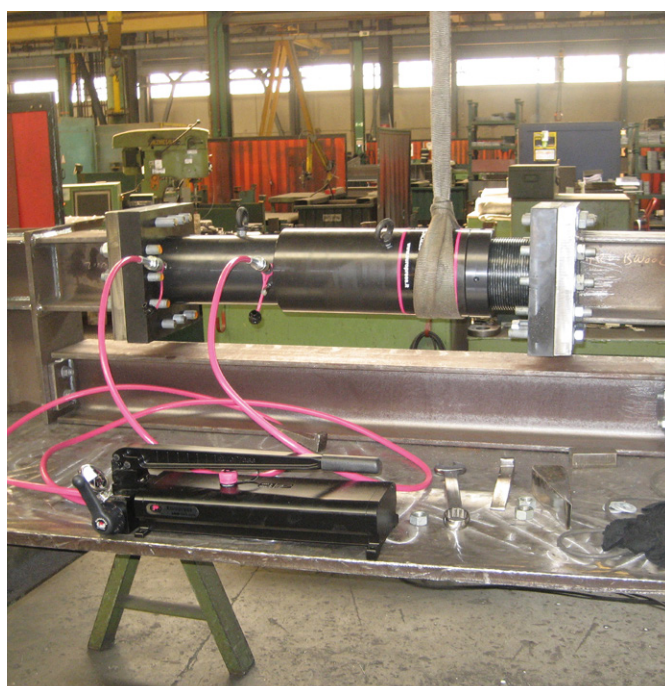
To ensure positive load holding we recommend installing the **VRP38** pilot check valve or the **VRB38** counterbalance valve between the pump and cylinder.



Where repetitive working cycles are needed or for use in presses, we recommend cylinders from the **COI** range.

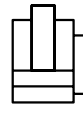
OPTIONS

- **T version**, cylinder with integrated tilt saddle.
- **F version**, cylinder with base mounting holes for fixing purposes.

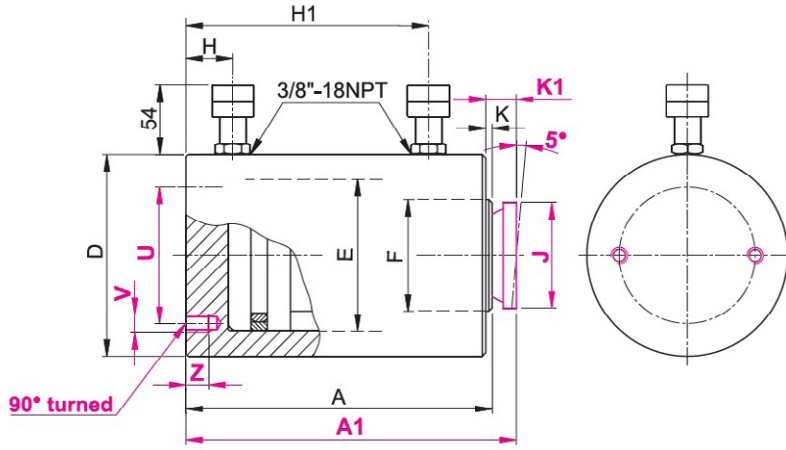


COS

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● FORCE	50 - 300 t
● STROKE	25 - 300 mm
● MAX WORKING PRESSURE	700 bar

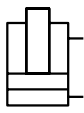


SELECTION CHART

Cylinders with non standard force and stroke can be supplied upon request.

PULLING FORCE t* kN	PULLING FORCE t* kN	STROKE mm	PUSHING EFFECTIVE AREA cm ²	PULLING EFFECTIVE AREA cm ²	PUSHING OIL VOLUME cm ³	PULLING OIL VOLUME cm ³	MODEL	CLOSED HEIGHT A mm	CLOSED HEIGHT WITH INTEGRATED TILT SADDLE A1 mm	Ø EXTERNAL D mm	Ø PISTON E mm	Ø ROD F mm	COUPLERS HEIGHT H mm	H1 mm	Ø INTEGRATED TILT SADDLE J mm	ROD PROJECTION K mm	ROD PROJECTION WITH INTEGRATED TILT SADDLE K1 mm	PCD MOUNTING HOLES U mm	MOUNTING HOLES DEPTH V / Z mm	WEIGHT kg
50 496	15 144	50	70.1	20.6	354	103	COS50N50	149	154	127	95	80	20	104	68	1	6	95	2xM12 15	14
		100			709	206	COS50N100	199	204					154						18
		150			1063	309	COS50N150	249	254					204						22
100 929	38 379	50	132.7	54.1	664	271	COS100N50	171	178	175	130	100	28	124	88	2	9	130	2xM12 17	30
		100			1327	542	COS100N100	221	228					174						38
		150			1991	813	COS100N150	271	278					224						45
		200			2655	1084	COS100N200	321	328					274						52
150 1407	62 616	25	201	88	503	220	COS150N25	167	176	213	160	120	30	106	118	3	12	130	4xM12 17	45
		50			1005	440	COS150N50	192	201					131						50
		100			2011	880	COS150N100	242	251					181						61
		150			3016	1319	COS150N150	292	301					231						71
		200			4021	1759	COS150N200	342	351					281						82
		250			5027	2199	COS150N250	392	401					331						93

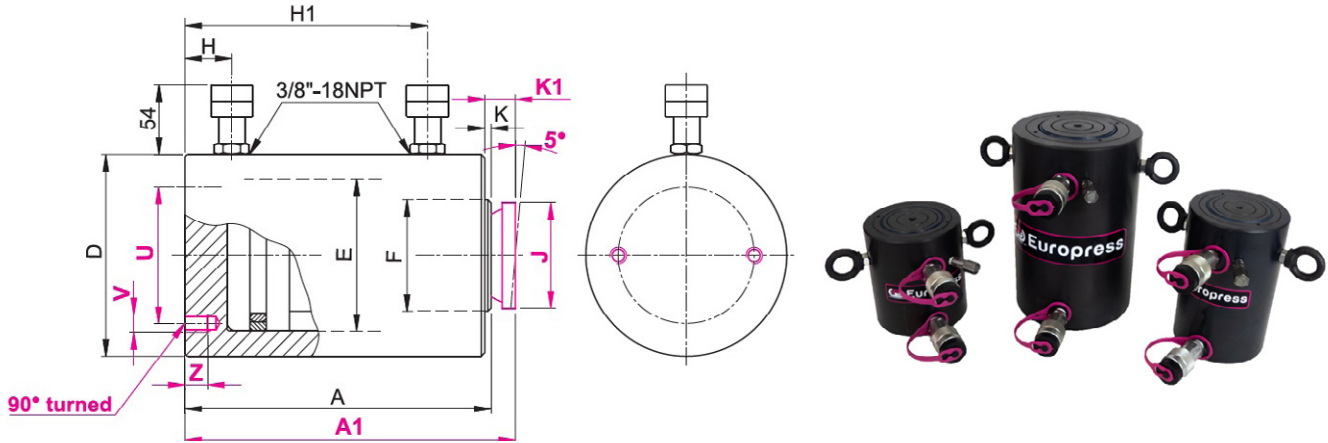
* Nominal value, see kN for the exact force.



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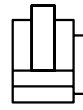
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								A mm	A1 mm				H mm	H1 mm						
200 1984	76 748	25	283.4	106.9	709	267	COS200N25	181	190	252	190	150	32	117	148	3	12	140	4xM16 20	69
		50			1418	534	COS200N50	206	215					142						76
		100			2835	1068	COS200N100	256	265					192						92
		150			4253	1602	COS200N150	306	315					242						107
		200			5671	2136	COS200N200	356	365					292						123
		250			7088	2670	COS200N250	406	415					342						138
		300			8506	3204	COS200N300	456	465					392						153
250 2424	85 835	25	346.3	119.3	866	298	COS250N25	197	206	280	210	170	34	128	158	3	12	150	4xM16 20	92
		50			1732	597	COS250N50	222	231					153						102
		100			3464	1194	COS250N100	272	281					203						122
		150			5195	1791	COS250N150	322	331					253						141
		200			6927	2388	COS250N200	372	381					303						161
		250			8659	2985	COS250N250	422	431					353						180
		300			10391	3581	COS250N300	472	481					403						200
300 2908	94 923	25	415.4	131.9	1039	330	COS300N25	203	212	305	230	190	38	130	158	3	12	170	4xM16 20	113
		50			2077	660	COS300N50	228	237					155						125
		100			4155	1319	COS300N100	278	287					205						148
		150			6232	1979	COS300N150	328	337					255						172
		200			8310	2639	COS300N200	378	387					305						195
		250			10387	3299	COS300N250	428	437					355						219
		300			12464	3958	COS300N300	478	487					405						242

* Nominal value, see kN for the exact force.

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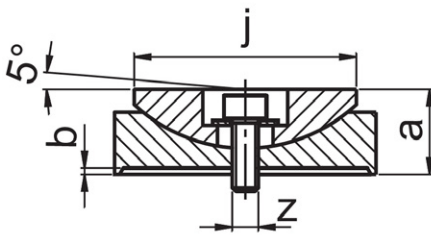
HYDRAULIC CYLINDERS

SELECTION CHART

PULLING FORCE t* kN	PULLING FORCE t* kN	STROKE mm	PUSHING EFFECTIVE AREA cm ²	PULLING EFFECTIVE AREA cm ²	PUSHING OIL VOLUME cm ³	PULLING OIL VOLUME cm ³	MODEL	CLOSED HEIGHT	CLOSED HEIGHT WITH INTEGRATED TILT SADDLE	Ø EXTERNAL D	Ø PISTON E	Ø ROD F	COUPLERS HEIGHT		Ø INTEGRATED TILT SADDLE J	ROD PROJECTION K	ROD PROJECTION WITH INTEGRATED TILT SADDLE K1	PCD MOUNTING HOLES U	MOUNTING HOLES DEPTH V / Z	WEIGHT kg
								A	A1				H	H1						
350 3436	103 1011	25	490.1	144.4	1227	361	COS350N25	210	222	332	250	210	39	132	196	3	15	200	4xM16 20	138
		50			2454	723	COS350N50	235	247					157						153
		100			4909	1445	COS350N100	285	297					207						183
		150			7363	2168	COS350N150	335	347					257						213
		200			9817	2890	COS350N200	385	397					307						242
		250			12272	3613	COS350N250	435	447					357						272
		300			14726	4335	COS350N300	485	497					407						302
400 4008	112 1099	25	572.6	157	1431	393	COS400N25	217	229	356	270	230	42	135	196	3	15	230	4xM16 20	165
		50			2863	785	COS400N50	242	254					160						182
		100			5726	1571	COS400N100	292	304					210						215
		150			8588	2356	COS400N150	342	354					260						248
		200			11451	3142	COS400N200	392	404					310						281
		250			14314	3927	COS400N250	442	454					360						313
		300			17177	4712	COS400N300	492	504					410						346
500 4948	154 1512	25	706.9	216	1767	540	COS500N25	225	237	396	300	250	50	140	196	3	15	250	4xM16 20	212
		50			3534	1080	COS500N50	250	262					165						232
		100			7069	2160	COS500N100	300	312					215						271
		150			10603	3240	COS500N150	350	362					265						312
		200			14137	4320	COS500N200	400	412					315						352
		250			17671	5400	COS500N250	450	462					365						391
		300			21206	6480	COS500N300	500	512					415						431

* Nominal value, see kN for the exact force.

ACCESSORIES ZTT TILT SADDLE



MODEL	For use with	a	b	j	z	kg
ZTT50	COS50N # # #	25	1	68	M8	0.9
ZTT100	COS100N # # #	34	2	88		1.7
ZTT150	COS150N # # #	45	3	118	M10	3.4
ZTT200	COS200N # # #	54		148		7
ZTT250	COS250N # # #	58		158		9.5
ZTT300	COS300N # # #		11.3			
ZTT350	COS350N # # #	71		196	M12	18
ZTT400	COS400N # # #					20.7
ZTT500	COS500N # # #					23.8

MODEL CODING

COS	50	N	###	#
Series	Pushing Force in t	N = standard	Stroke in mm	F = with base mounting holes T = with integrated tilt saddle **

** Cylinders with a force below 100 tonne can be supplied subject to a minimum production batch.

