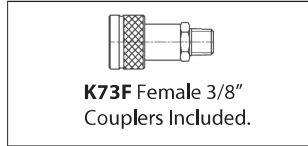
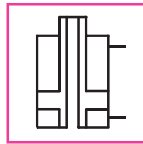


# Double-Acting, Oil Return, Hollow Piston Cylinders

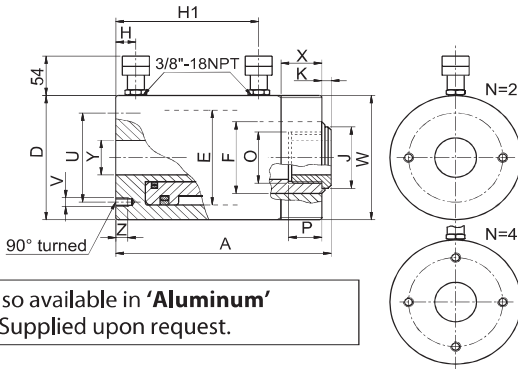
## COF Series



Capacity:  
**30 - 200 tonnes**

Stroke:  
**75 - 250 mm**

Maximum Operating Pressure:  
**700 bar (10,000 psi)**



Also available in 'Aluminum'  
– Supplied upon request.

Safety relief valve prevents damage in case of over-pressurisation in the retract chamber.

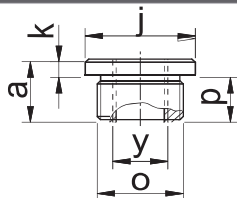
- Hollow Piston design permits both pull & push forces.
- Operate in any directional position.
- Collar threads & base mounting holes for model 30 to 100 tonnes provides easy fixturing.
- Smooth hollow bore saddle screwed to rod bore to prevent any risk of rod deformation. Optional threaded saddle (ZTE) available for 30 & 60 tonnes models.
- Wiper seal prevents dirt penetration & extends cylinder life.
- Nitride-treated to resist wear, provides excellent corrosion resistance & protect the bore centre.
- Double-acting operation for fast retraction.
- A bar or cable can be inserted through the hollow saddle for both pull & push operations.
- Suitable for pulling, tensioning, mounting & extracting pulleys, bearing, bushings and heat exchanger pipes etc.

### SELECTION CHART

Force (PUSH)	Force (PULL)	Stroke	Effective Area (PUSH)	Effective Area (PULL)	Oil Volume (PUSH)	Oil Volume (PULL)	MODEL	Closed Height	Outside Dia.	Bore Dia.	Piston Rod Dia.	Couplers Height		Hollow Saddle Dia.	Rod Protrusion	Rod Internal Thread	Rod Thread Depth	PCD Mounting Holes	Base Mounting Holes/ Holes Depth	Collar Thread	Collar Thread Length	Centre Hole Dia.	Weight		
												H	H1											J	K
Tonnes (kN)		mm	cm <sup>2</sup>	cm <sup>2</sup>	cm <sup>3</sup>	cm <sup>3</sup>		A	D	E	F	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
30 (334)	18 (176)	100	47,71	25,14	477	251	COF30N100	196					152											13	
		150	47,71	25,14	716	377	COF30N150	246	115	90	70	21	202	57,5	2	M48x1,5	32	65	2xM10 12	M115x2	20	34		16	
		250	47,71	25,14	1193	628	COF30N250	346					302												21
60 (590)	31 (309)	75	84,29	44,14	632	331	COF60N75	186					134												26
		100	84,29	44,14	842	442	COF60N100	211					159												28
		150	84,29	44,14	1264	663	COF60N150	261	165	125	100	26	209	81,5	2	M72x1,5	40	90	4xM10 16	M165x4	25	54,5		34	
		250	84,29	44,14	2106	1104	COF60N250	361					309												46
100 (947)	58 (568)	75	135,29	81,14	1015	608	COF100N75	214					155												47
		150	135,29	81,14	2029	1216	COF100N150	289	215	165	130	36	230	117,5	4	M102x1,5	55	130	4xM12 15	M215x4	35	80,5		61	
		250	135,29	81,14	3382	2027	COF100N250	389					330												79
150 (1435)	76 (748)	200	205	106,86	4100	2136	COF150N200	349	247	190	150	36	284	127,5	4	M112x2	60	-	-	-	-	-	80,5	100	
200 (1979)	94 (924)	200	282,71	132	5655	2639	COF200N200	380	305	230	190	37	305	167,5	5	M135x2	70	-	-	-	-	-	103	160	

Nominal value shown in 'Tonnes', see kN for the exact force @700bar.

### ACCESSORIES: ZTE THREADED SADDLES



MODEL	For use with	a	k	j	p	y	o	kg
ZTE30	COF30N # # #	39	7	57,5	32	1 1/4" – 7 UNC	M48x1,5	0,32
ZTE60	COF60N # # #	47	7	81,5	40	1 5/8" – 5 1/2 UNS	M72x1,5	0,85