

# CGS#N / CGS#P

## CYLINDERS / LOAD RETURN STANDARD FOR HIGH TONNAGE

### FEATURES

**CGS** cylinders also have concentric grooves machined into the end of the rod to improve load grip, models above 30 tonnes have lifting eyelets to facilitate their transport and positioning.

From 50 ton upwards, the cylinders are plunging type (**P version**) and have a system which prevents any possible over-stroke. The rod has a coloured zone which becomes visible 10 mm before the end of the piston stroke.

All models can operate with off-centred load up to 8% of their nominal capacity.

### OPERATIONAL AREAS

These hydraulic cylinders are extremely solid and are recommended for the lifting, lowering and sustaining of a heavy load.

They are designed specifically strong in order to be useful in applications which require very heavy loads to be lifted.

The anti-corrosion treatment applied to these cylinders makes them suitable.

### OPTIONS

Stackable following chart at page 24.

- **T version**, cylinder with integrated tilt saddle.
- **F version**, cylinder with base mounting holes for fixing purposes.
- **N version**, (optional starting from 50 t) cylinders with end of stroke ring nut. This version is in compliance with **ANSI B30.1**.

### ACCESSORIES (p. 25)

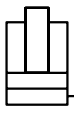
- **ZTT tilt saddle** reduces the effects of any possible off-centred load.



Where **P** version cylinders are being used the operator must always be in a position to observe when the coloured end of stroke section of the rod appears.



It's important to drop the pressure inside the cylinder before disconnecting the quick coupler to avoid problems if re-inserting or lowering the load. In case some pressure persists it is possible to use the apposite tool **KST38** in order to lower the pressure in the couplers.

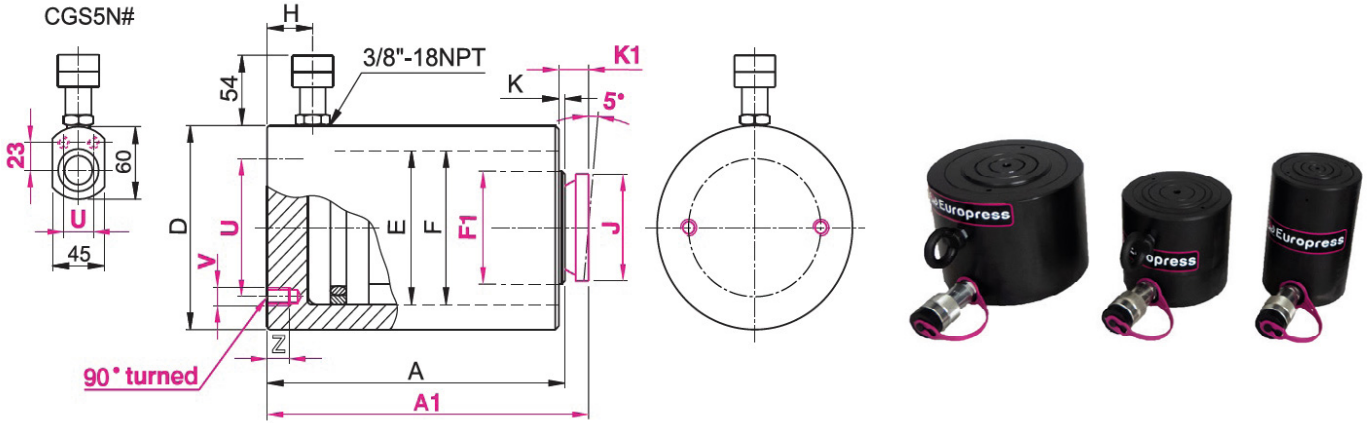


● FORCE	5 - 500 t
● STROKE	15 - 300 mm
● MAX WORKING PRESSURE	700 bar

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## CYLINDERS / LOAD RETURN

### STANDARD FOR HIGH TONNAGE



#### SELECTION CHART

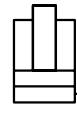
Cylinders with non standard force and stroke can be supplied upon request standard.

PUSHING FORCE	STROKE	EFFECTIVE AREA	OIL VOLUME	MODEL	CLOSED HEIGHT	CLOSED HEIGHT INTEGRATED TILT SADDLE	Ø EXTERNAL	Ø PISTON	Ø P ROD VERSION	Ø N ROD VERSION	COUPLER HEIGHT	Ø INTEGRATED TILT SADDLE	ROD PROJECTION	ROD PROJECTION INTEGRATED TILT SADDLE	PCD MOUNTING HOLES	MOUNTING HOLES DEPTH	WEIGHT
					A	A1											
t* kN	mm	cm <sup>2</sup>	cm <sup>3</sup>		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
5 49,5	15	7.1	11	CGS5N15	45	-	60/45	30	-	24	19	-	1	-	30	2xM5 10	1
	50		35	CGS5N50	80	1.6											
	80		56	CGS5N80	120	2.4											
10 111	25	15.9	40	CGS10N25	72	75	75	45	-	35	19	34	1	4	25	2xM8 8	2.8
	50		80	CGS10N50	97	100											3.6
20 198	25	28.3	71	CGS20N25	75	80	88	60	-	45	19	43	1	6	60	2xM10 10	3.7
	50		141	CGS20N50	100	105											4.7
	100		283	CGS20N100	150	155											6.6
30 309	25	44.1	110	CGS30N25	86	90	102	75	-	55	19	53	1	5	65	2xM10 13	5.5
	50		221	CGS30N50	111	115											6.7
	100		442	CGS30N100	161	165											9.1
50 496	50	70.9	354	CGS50P50	122	127	127	95	95	80	22	68	1	6	95	2xM12 15	12
	100		709	CGS50P100	172	177											17
	150		1063	CGS50P150	222	227											22
100 929	50	132.7	664	CGS100P50	141	148	175	130	130	100	22	88	2	9	130	2xM12 17	27
	100		1327	CGS100P100	191	198											36
	150		1991	CGS100P150	241	248											46
150 1407	25	201	503	CGS150P25	137	146	213	160	160	120	30	118	3	12	130	4xM12 17	38
	50		1005	CGS150P50	162	171											45
	100		2011	CGS150P100	212	221											59
	150		3016	CGS150P150	262	271											73
	200		4021	CGS150P200	312	321											87
	250		5026	CGS150P250	362	371											101

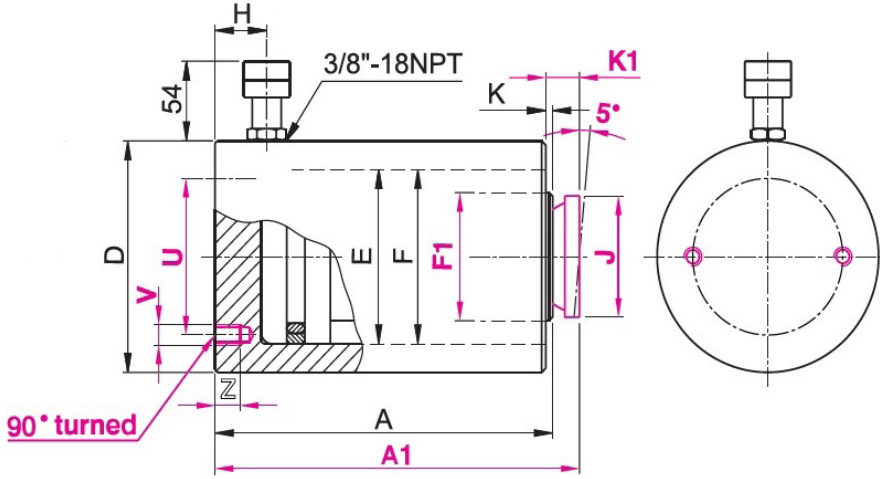
\* Nominal value, see kN for the exact force.

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● FORCE	30 - 500 t
● STROKE	25 - 300 mm
● MAX WORKING PRESSURE	700 bar



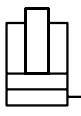
## SELECTION CHART

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

PUSHING FORCE	STROKE	EFFECTIVE AREA	OIL VOLUME	MODEL	CLOSED HEIGHT		Ø EXTERNAL	Ø PISTON	Ø P ROD VERSION	Ø N ROD VERSION	COUPLER HEIGHT	Ø INTEGRATED TILT SADDLE	ROD PROJECTION	ROD PROJECTION WITH INTEGRATED TILT SADDLE	PCD MOUNTING HOLES	MOUNTING HOLES DEPTH	WEIGHT
					A	A1											
t* kN	mm	cm <sup>2</sup>	cm <sup>3</sup>		A mm	A1 mm	D mm	E mm	F mm	F1 mm	H mm	J mm	K mm	K1 mm	U mm	V / Z mm	kg
200 1984	25	283.4	709	CGS200P25	151	160	252	190	190	150	32	148	3	12	140	4xM16 20	59
	50		1418	CGS200P50	176	185											69
	100		2835	CGS200P100	226	235											88
	150		4253	CGS200P150	276	285											108
	200		5670	CGS200P200	326	335											127
	250		7088	CGS200P250	376	385											147
	300		8506	CGS200P300	426	435											167
250 2424	25	346.3	866	CGS250P25	167	176	280	210	210	170	34	158	3	12	150	4xM16 20	81
	50		1732	CGS250P50	192	201											93
	100		3464	CGS250P100	242	251											117
	150		5195	CGS250P150	292	301											141
	200		6927	CGS250P200	342	351											165
	250		8659	CGS250P250	392	401											189
	300		10391	CGS250P300	442	451											213
300 2908	25	415.4	1039	CGS300P25	173	182	305	230	230	190	38	158	3	12	170	4xM16 20	99
	50		2077	CGS300P50	198	207											113
	100		4155	CGS300P100	248	257											142
	150		6232	CGS300P150	298	307											171
	200		8310	CGS300P200	348	357											199
	250		10387	CGS300P250	398	407											228
	300		12464	CGS300P300	448	457											257

\* Nominal value, see kN for the exact force.





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● STROKE	15 - 300 mm
● MAX WORKING PRESSURE	700 bar

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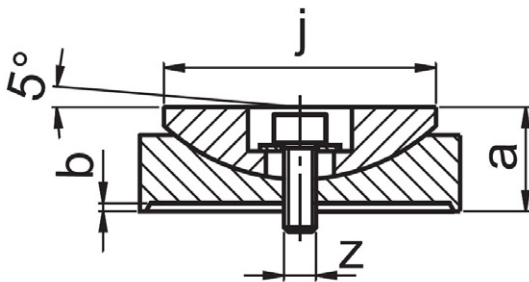
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## SELECTION CHART

PUSHING FORCE t* kN	STROKE mm	EFFECTIVE AREA cm <sup>2</sup>	OIL VOLUME cm <sup>3</sup>	MODEL	CLOSED HEIGHT	CLOSED HEIGHT WITH INTEGRATED TILT SADDLE	Ø EXTERNAL D mm	Ø PISTON E mm	Ø ROD VERSION P F mm	Ø ROD VERSION N F1 mm	COUPLER HEIGHT H 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
					A mm	A1 mm											
350 3436	25	490.9	1227	CGS350P25	180	192	332	250	250	210	39	196	3	15	200	4xM16 20	122
	50		2454	CGS350P50	205	217											139
	100		4909	CGS350P100	255	267											173
	150		7363	CGS350P150	305	317											207
	200		9817	CGS300P200	355	367											241
	250		12272	CGS350P250	405	417											275
	300		14726	CGS350P300	455	467											309
400 4008	25	572.6	1431	CGS400P25	187	199	356	270	270	230	42	196	3	15	230	4xM16 20	146
	50		2863	CGS400P50	212	224											165
	100		5726	CGS400P100	262	274											204
	150		8588	CGS400P150	312	324											244
	200		11451	CGS400P200	362	374											283
	250		14314	CGS400P250	412	424											322
	300		17177	CGS400P300	462	474											361
500 4948	25	706.9	1767	CGS500P25	195	207	396	300	300	250	50	196	3	15	250	4xM16 20	188
	50		3534	CGS500P50	220	232											212
	100		7069	CGS500P100	270	282											261
	150		10603	CGS500P150	320	332											309
	200		14137	CGS500P200	370	382											357
	250		17651	CGS500P250	420	432											406
	300		21206	CGS500P300	470	482											454

\* Nominal value, see kN for the exact force.

## ACCESSORIES ZTT TILT SADDLES



MODEL	For use with	a	b	j	z	kg
ZTT10	CGS10N ###	16	1	34	M4	0.1
ZTT20	CGS20N ###	18		43	M5	0.2
ZTT30	CGS30N ###	19		53		0.3
ZTT50	CGS50 ###	25	2	68	M8	0.9
ZTT100	CGS100 ###	34		88		1.7
ZTT150	CGS150 ###	45		3	118	M10
ZTT200	CGS200 ###	54	3	148	7	
ZTT250	CGS250 ###	58		158	9.5	
ZTT300	CGS300 ###			11.3		
ZTT350	CGS350 ###	71	3	196	M12	18
ZTT400	CGS400 ###					20.7
ZTT500	CGS500 ###					23.8

## MODEL CODING

CGS	5	N	###	#
Series	Pushing force in t	N = with end of stroke nut P = with no end of stroke nut (plunging)	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.