

## HIGH TONNAGE CYLINDERS, LOAD RETURN

### FEATURES

**CGS** cylinders also have concentric grooves machined into the end of the rod to improve load grip, models above 30 tonne have lifting eyelets for ease of transport.

From 50 tonnes upwards, the cylinders are plunging type and have device which prevents any 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.



### OPTIONS

- **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**.



### OPERATIONAL AREAS

Extremely solid robust cylinders suitable for use in the civil and marine engineering industry for lifting and lowering heavy loads.

The anti corrosive finish makes them particularly suitable for use in harsh environments such as salt water, chemical industry etc.



### ACCESSORIES p. 21

- **Separate ZTT tilt saddle** to help combat possible side loading.

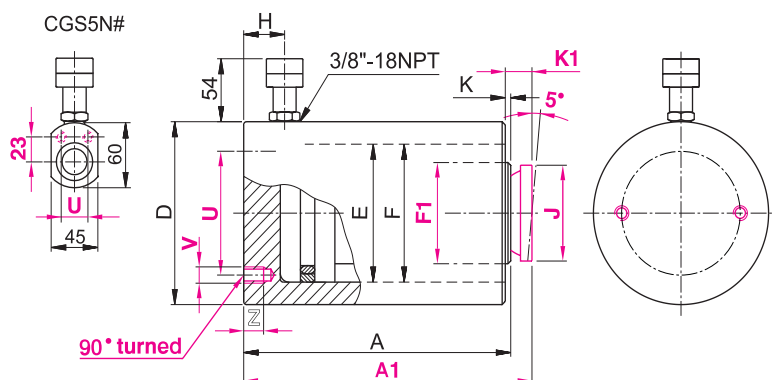
Follow our safety instructions  
see useful pages

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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.

## HIGH TONNAGE CYLINDERS, LOAD RETURN



- Force 5 - 500 t
- Stroke 15 - 300 mm
- Max working pressure 700 bar

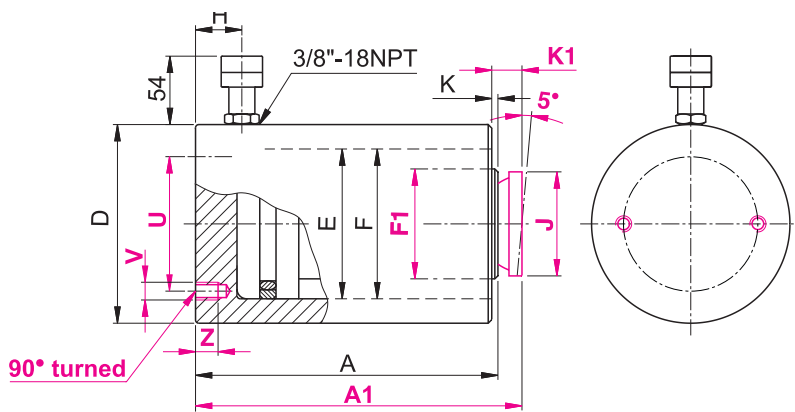
Cylinders with non standard **force** and **stroke** can be supplied upon request

### SELECTION CHART

Pushing force	Stroke	Oil volume	MODEL	Closed height	Closed height with integrated tilt saddle	External Dia.	Piston Dia.	P rod version Dia.	N rod version Dia.	Coupler height	Integrated tilt saddle Dia.	Rod projection	Rod projection with integrated tilt saddle	PCD mounting holes	Mounting holes_Depth	Weight	
				A	A1												D
t* kN	mm	cm <sup>3</sup>		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
5 49,5	15	11	<b>CGS5N15</b>	45													1,0
	50	35	<b>CGS5N50</b>	80	-	60/45	30	-	24	19	-	1	-	30	2xM5 10		1,6
	80	56	<b>CGS5N80</b>	120													2,4
10 111	25	40	<b>CGS10N25</b>	72	75												2,8
	50	80	<b>CGS10N50</b>	97	100	75	45	-	35	19	34	1	4	25	2xM8 8		3,6
20 198	25	71	<b>CGS20N25</b>	75	80												3,7
	50	141	<b>CGS20N50</b>	100	105	88	60	-	45	19	43	1	6	60	2xM10 10		4,7
	100	283	<b>CGS20N100</b>	150	155												6,6
30 309	25	110	<b>CGS30N25</b>	86	90												5,5
	50	221	<b>CGS30N50</b>	111	115	102	75	-	55	19	53	1	5	65	2xM10 13		6,7
	100	442	<b>CGS30N100</b>	161	165												9,1
50 496	50	354	<b>CGS50P50</b>	122	127												11,6
	100	709	<b>CGS50P100</b>	172	177	127	95	95	80	22	68	1	6	95	2xM12 15		15,8
	150	1063	<b>CGS50P150</b>	222	227												20,0
100 929	50	664	<b>CGS100P50</b>	141	148												24,8
	100	1327	<b>CGS100P100</b>	191	198	175	130	130	100	22	88	2	9	130	2xM12 17		32,0
	150	1991	<b>CGS100P150</b>	241	248												39,3
150 1407	25	503	<b>CGS150P25</b>	137	146												36,5
	50	1005	<b>CGS150P50</b>	162	171												41,8
	100	2011	<b>CGS150P100</b>	212	221												52,4
	150	3016	<b>CGS150P150</b>	262	271	213	160	160	120	30	118	3	12	130	4xM12 17		62,9
	200	4021	<b>CGS150P200</b>	312	321												73,4
	250	5026	<b>CGS150P250</b>	362	371												83,9

\* 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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### SELECTION CHART

Pushing force	Stroke	Oil volume	MODEL	Closed height	Closed height with integrated tilt saddle	External Dia.	Piston Dia.	P rod version Dia.	N rod version Dia.	Coupler height	Integrated tilt saddle Dia.	Rod projection	Rod projection with integrated tilt saddle	PCD mounting holes	Mounting holes_Depth	Weight
				A	A1	D	E	F	F1	H	J	K	K1	U	V/Z	kg
200 1984	25	709	<b>CGS200P25</b>	151	160											57
	50	1418	<b>CGS200P50</b>	176	185											65
	100	2835	<b>CGS200P100</b>	226	235											81
	150	4253	<b>CGS200P150</b>	276	285	252	190	190	150	32	148	3	12	140	4xM16 20	95
	200	5670	<b>CGS200P200</b>	326	335											111
	250	7088	<b>CGS200P250</b>	376	385											126
	300	8506	<b>CGS200P300</b>	426	435											141
250 2424	25	866	<b>CGS250P25</b>	167	176											79
	50	1732	<b>CGS250P50</b>	192	201											88
	100	3464	<b>CGS250P100</b>	242	251											108
	150	5195	<b>CGS250P150</b>	292	301	280	210	210	170	34	158	3	12	150	4xM16 20	127
	200	6927	<b>CGS250P200</b>	342	351											146
	250	8659	<b>CGS250P250</b>	392	401											166
	300	10391	<b>CGS250P300</b>	442	451											186
300 2908	25	1039	<b>CGS300P25</b>	173	182											96
	50	2077	<b>CGS300P50</b>	198	207											108
	100	4155	<b>CGS300P100</b>	248	257											132
	150	6232	<b>CGS300P150</b>	298	307	305	230	230	190	38	158	3	12	170	4xM16 20	155
	200	8310	<b>CGS300P200</b>	348	357											178
	250	10387	<b>CGS300P250</b>	398	407											202
	300	12464	<b>CGS300P300</b>	448	457											225

\* Nominal value, see kN for the exact force

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### SELECTION CHART

Pushing force t* kN	Stroke mm	Oil volume cm <sup>3</sup>	MODEL	Closed height	Closed height with integrated tilt saddle	External Dia.	Piston Dia.	P rod version Dia.	N rod version Dia.	Coupler height	Integrated tilt saddle Dia.	Rod projection	Rod projection with integrated tilt saddle	PCD mounting holes	Mounting holes_Depth	Weight
				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
350 3436	25	1227	<b>CGS350P25</b>	180	192											119
	50	2454	<b>CGS350P50</b>	205	217											132
	100	4909	<b>CGS350P100</b>	255	267											162
	150	7363	<b>CGS350P150</b>	305	317	332	250	250	210	39	196	3	15	200	4xM16 20	190
	200	9817	<b>CGS350P200</b>	355	367											218
	250	12272	<b>CGS350P250</b>	405	417											247
	300	14726	<b>CGS350P300</b>	455	467											274
400 4008	25	1431	<b>CGS400P25</b>	187	199											142
	50	2863	<b>CGS400P50</b>	212	224											159
	100	5726	<b>CGS400P100</b>	262	274											192
	150	8588	<b>CGS400P150</b>	312	324	356	270	270	230	42	196	3	15	230	4xM16 20	225
	200	11451	<b>CGS400P200</b>	362	374											257
	250	14314	<b>CGS400P250</b>	412	424											290
	300	17177	<b>GS400P300</b>	462	474											323
500 4948	25	1767	<b>GS500P25</b>	195	207											184
	50	3534	<b>CGS500P50</b>	220	232											204
	100	7069	<b>GS500P100</b>	270	282											243
	150	10603	<b>GS500P150</b>	320	332	396	300	300	250	50	196	3	15	250	4xM16 20	284
	200	14137	<b>CGS500P200</b>	370	382											323
	250	17651	<b>GS500P250</b>	420	432											363
	300	21206	<b>CGS500P300</b>	470	482											402

\* Nominal value, see kN for the exact force

### ACCESSORIES: ZTT TILT SADDLES

MODEL	For use with	a	b	j	z	kg
<b>ZTT10</b>	CGS10N ###	16	1	34	M4	0,1
<b>ZTT20</b>	CGS20N ###	18		43	M5	0,2
<b>ZTT30</b>	CGS30N ###	19		53		0,3
<b>ZTT50</b>	CGS50 ###	25	3	68	M8	0,9
<b>ZTT100</b>	CGS100 ###	34		88	M10	1,7
<b>ZTT150</b>	CGS150 ###	45		118		3,4
<b>ZTT200</b>	CGS200 ###	54		148		7,0
<b>ZTT250</b>	CGS250 ###	58		158	M12	9,5
<b>ZTT300</b>	CGS300 ###					11,3
<b>ZTT350</b>	CGS350 ###					18,0
<b>ZTT400</b>	CGS400 ###	71	196	M12	20,7	
<b>ZTT500</b>	CGS500 ###				23,8	

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

### MODEL CODING

CGS	5	N	###	#
Series	Pushing force in tonne	<b>N</b> = With end of stroke nut <b>P</b> = With no end of stroke nut (Plunging)	<b>Stroke</b> in mm	<b>F</b> = with base mounting holes <b>T</b> = with integrated tilt saddle**