

**DD Series**  
**Double-Acting**  
 Long stroke Cylinder  
 Hydraulic return

Capacity:  
**10-520 ton**

Stroke:  
**57-1219 mm**

Maximum Operating Pressure:  
**700 bar**

**DD Double-Acting Cylinders**

- Double-acting design allows for both pull and push forces.
- Relief valves protect against over pressurizing.
- Collar threads, plunger threads and base mounting holes for easy fixturing. (See chart)
- Hard chrome plated plunger resists wear and corrosion.
- Wiper rings protect the piston and bore from contamination.
- Stop ring for piston blow-out protection.
- Powder coat finish for increased corrosion resistance and antirust.
- DQC-3/8UF coupler and dust cap are included on all models.

※DD series cylinders are perfect for bridge lifting, building reconstruction, shipyard, utility and mining equipment maintenance.  
 ※As need power and precise positioning of heavy loads, DD series are the best solution.



DD-308



DD-506



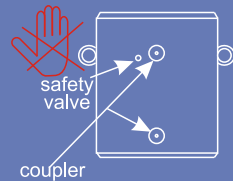
DD-756



**WARNING**

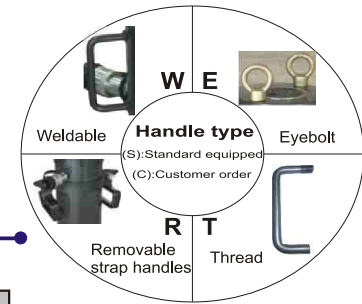
**Don't adjust safety valve pressure!**

Apply to double-acting cylinder  
 DD, DDH, DLRG series  
 Most double-acting cylinder safety valve pressure setting 10000psi(700bar).  
 As surpasses the original factory hypothesis pressure safety valve will spurt oil to protect cylinder.  
 Leaking from safety valve, inspect connection of coupler at first.

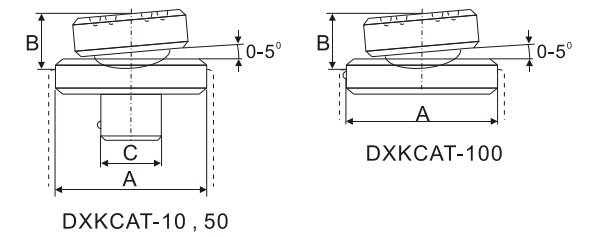


**Pump Selection**

A double-acting cylinder must be powered by a pump with a 4-way valve.



Handle type	Model Number	Cylinder Capacity	Stroke	Max. Cylinder Capacity		Coll. Height	Weight
				push	pull		
(C) (S)		ton(kN)	(mm)	(kN)		A (mm)	(kg)
	DD-1010	10(101)	254	101	33	409	12
	DD-1012		305	101	33	457	14
	DD-308	30(295)	209	295	133	387	18
	DD-3014		368	295	133	549	29
R	DD-506	50(498)	156	498	150	331	30
R	DD-5013		334	498	150	509	52
R	DD-5020		511	498	150	733	68
R	DD-756	75(718)	156	718	220	347	41
R	DD-7513		333	718	220	525	68
R	DD-1006	95(933)	168	933	435	357	61
R	DD-10013		333	933	435	524	93
R	DD-10018		460	933	435	687	117
R	DD-1502	140(1386)	57	1386	668	196	49
R	DD-1506		156	1386	668	385	93
R	DD-15013		333	1386	668	563	124
R	DD-15032		815	1386	668	1116	238
R	DD-2006	200(1995)	152	1995	1017	430	147
R	DD-20013		330	1995	1017	608	199
R	DD-20018		457	1995	1017	765	204
R	DD-20024		610	1995	1017	917	279
R	DD-20036		914	1995	1017	1222	383
R	DD-20048		1219	1995	1017	1527	483
E	DD-3006	325(3201)	153	3201	1703	485	200
E	DD-30012		305	3201	1703	638	312
E	DD-30018		457	3201	1703	790	385
E	DD-30024		609	3201	1703	943	469
E	DD-30036		915	3201	1703	1247	628
E	DD-30048		1219	3201	1703	1552	780
E	DD-4006	440(4292)	152	4292	2297	538	303
E	DD-40012		305	4292	2297	690	399
E	DD-40018		457	4292	2297	843	453
E	DD-40024		610	4292	2297	995	597
E	DD-40036		914	4292	2297	1300	792
E	DD-40048		1219	4292	2297	1605	980
E	DD-5006	520(5108)	153	5108	2838	577	432
E	DD-50012		305	5108	2838	730	589
E	DD-50018		457	5108	2838	882	680
E	DD-50024		609	5108	2838	1035	816
E	DD-50036		915	5108	2838	1339	1002
E	DD-50048		1219	5108	2838	1644	1224



Optional Tilt Saddle Dimensions (mm)				
Cylinder Model/Cap.	Model No. Type : Tilt	A	B	C
DD-1010 \ 1012	DXKCAT-10	35	20	22
DD- 308 \ 3014	DXKCAT-50	50	21	35
DD- 506 \ 5013 \ 5020 \ 756 \ 7513	DXKCAT-100	71	24	—

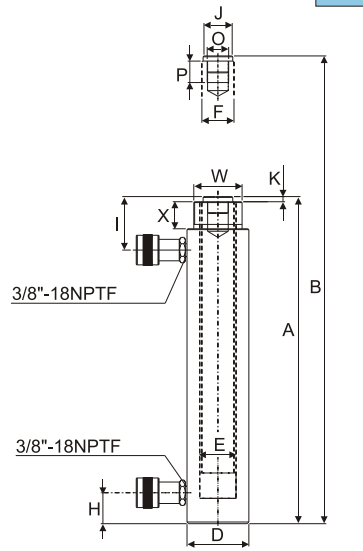
DD -Series up to 75 tons have plunger thread for installation of DXKCAT-Series tilt saddles.

DD-1010 and DD-1012 : N=32mm ; DD-308 and DD-3014 : N=55mm.

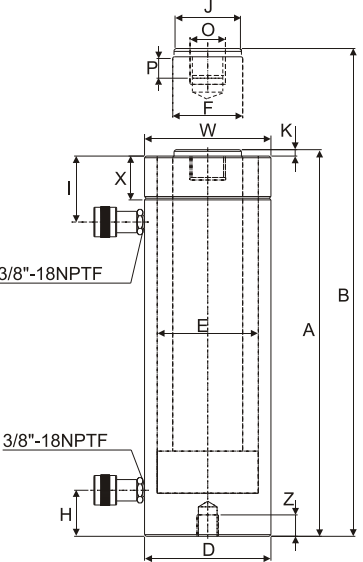
Model Number	Cylinder Capacity ton(kN)	Stroke (mm)	Max. Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Coll. Height A (mm)	Ext. Height B (mm)	Out. Diam. D (mm)	Cyl. Bore Diam. E (mm)	Plngr. Diam. F (mm)	
			push	pull	push	pull	push	pull						
			(kN)		(cm <sup>2</sup> )		(cm <sup>3</sup> )							
DD-1010	10	254	101	33	14.5	4.8	368	122	409	663	73	42.9	34.9	
DD-1012	(101)	305	101	33	14.5	4.8	442	147	457	762	73	42.9	34.9	
DD-308	30	209	295	133	42.1	19.1	879	400	387	596	101	73.2	54.1	
DD-3014	(295)	368	295	133	42.1	19.1	1549	703	549	917	101	73.2	54.1	
DD-506	50 (498)	156	498	150	71.2	21.5	1111	335	331	487	127	95.2	79.5	
DD-5013		334	498	150	71.2	21.5	2378	718	509	843	127	95.2	79.5	
DD-5020		511	498	150	71.2	21.5	3638	1099	733	1244	127	95.2	79.5	
DD-756	75 (718)	156	718	220	102.6	31.4	1601	490	347	503	146	114.3	95.2	
DD-7513		333	718	220	102.6	31.4	3417	1046	525	858	146	114.3	95.2	
DD-1006	95 (933)	168	933	435	133.3	62.2	2238	1045	357	525	177	130.3	95.2	
DD-10013		333	933	435	133.3	62.2	4439	2071	524	857	177	130.3	95.2	
DD-10018		460	933	435	133.3	62.2	6132	2861	687	1147	177	130.3	95.2	
DD-1502	140 (1386)	57	1386	668	198.1	95.4	1129	544	196	253	203	158.8	114.3	
DD-1506		156	1386	668	198.1	95.4	3090	1488	385	541	203	158.8	114.3	
DD-15013		333	1386	668	198.1	95.4	6597	3177	563	897	203	158.8	114.3	
DD-15032		815	1386	668	198.1	95.4	16145	7775	1116	1931	203	158.8	114.3	
DD-2006	200 (1995)	152	1995	1017	285.0	145.3	4332	2209	430	582	247	190.5	133.4	
DD-20013		330	1995	1017	285.0	145.3	9405	4795	608	938	247	190.5	133.4	
DD-20018		457	1995	1017	285.0	145.3	13025	6640	765	1222	247	190.5	133.4	
DD-20024		610	1995	1017	285.0	145.3	17385	8863	917	1527	247	190.5	133.4	
DD-20036		914	1995	1017	285.0	145.3	26049	13280	1222	2136	247	190.5	133.4	
DD-20048		1219	1995	1017	285.0	145.3	34741	17712	1527	2746	247	190.5	133.4	
DD-3006	325 (3201)	153	3201	1703	457.3	243.2	6997	3721	485	638	311	241.3	165.1	
DD-30012		305	3201	1703	457.3	243.2	13947	7418	638	943	311	241.3	165.1	
DD-30018		457	3201	1703	457.3	243.2	20889	11114	790	1247	311	241.3	165.1	
DD-30024		609	3201	1703	457.3	243.2	27850	14811	943	1552	311	241.3	165.1	
DD-30036		915	3201	1703	457.3	243.2	41843	22253	1247	2162	311	241.3	165.1	
DD-30048		1219	3201	1703	457.3	243.2	55745	29646	1552	2771	311	241.3	165.1	
DD-4006		440 (4292)	152	4292	2297	613.1	328.1	9319	4987	538	690	358	279.4	190.5
DD-40012			305	4292	2297	613.1	328.1	18700	10007	690	995	358	279.4	190.5
DD-40018	457		4292	2297	613.1	328.1	28018	14995	843	1300	358	279.4	190.5	
DD-40024	610		4292	2297	613.1	328.1	37400	20014	995	1605	358	279.4	190.5	
DD-40036	914		4292	2297	613.1	328.1	56037	29988	1300	2214	358	279.4	190.5	
DD-40048	1219		4292	2297	613.1	328.1	74737	39996	1605	2824	358	279.4	190.5	
DD-5006	520 (5108)	153	5108	2838	729.7	405.4	11164	6203	577	730	397	304.8	203.2	
DD-50012		305	5108	2838	729.7	405.4	22256	12365	730	1035	397	304.8	203.2	
DD-50018		457	5108	2838	729.7	405.4	33347	18526	882	1339	397	304.8	203.2	
DD-50024		609	5108	2838	729.7	405.4	44440	24689	1035	1644	397	304.8	203.2	
DD-50036		915	5108	2838	729.7	405.4	66768	36973	1339	2254	397	304.8	203.2	
DD-50048		1219	5108	2838	729.7	405.4	88951	49418	1644	2863	397	304.8	203.2	

DD-1010 and DD-1012 : N=32mm ; DD-308 and DD-3014 : N=55mm

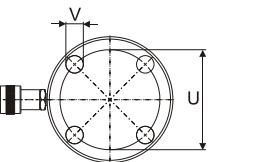
Base to Adv. Port H (mm)	Top to Return Port I (mm)	Saddle Diam. J (mm)	Saddle Protr. fr. Plngr. K (mm)	Plunger Internal Thread O (in)	Plunger Thread Length P (mm)	Base Mounting Holes			Collar Thread W (in)	Collar Thread Length X (mm)	Weight (kg)
						Bolt Circle Diam. U (mm)	Thread V (in)	Thread Depth Z (mm)			
36	57	35	6	1"-8	25	—	—	—	2 1/4"-14	26	12
36	57	35	6	1"-8	25	—	—	—	2 1/4"-14	26	14
57	81	50	10	1 1/2"-16	25	—	—	—	3 5/16"-12	49	18
57	81	50	10	1 1/2"-16	25	—	—	—	3 5/16"-12	49	29
28	76	71	2	1"-12	25	—	—	—	5"-12	50	30
28	76	71	2	1"-12	25	—	—	—	5"-12	50	52
57	76	71	2	1"-12	25	76	1/2"-13	25	5"-12	50	68
30	76	71	6	1"-12	38	—	—	—	5 3/4"-12	38	41
30	81	71	6	1"-12	38	—	—	—	5 3/4"-12	38	68
38	71	76	3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	61
38	71	76	3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	93
41	92	76	3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	117
22	66	93	19	—	—	—	—	—	—	—	49
49	84	114	19	3 3/8"-16	35	158	3/4"-16	28	8"-12	60	93
49	84	114	19	3 3/8"-16	35	158	3/4"-16	28	8"-12	60	124
76	88	114	19	3 3/8"-16	35	—	—	—	8"-12	60	238
57	96	133	22	—	—	127	1"-8	25	—	—	147
57	96	133	22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	199
85	101	133	22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	204
85	101	133	22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	279
85	101	133	22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	383
85	101	133	22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	483
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	200
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	312
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	385
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	469
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	628
88	114	165	28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	780
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	303
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	399
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	453
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	597
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	792
108	133	190	28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	980
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	432
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	589
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	680
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	816
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	1002
120	152	203	28	3 1/4"-12	108	203	1 3/4"-5	54	15 5/8"-8	79	1224



DD-1010 to DD-3014 models

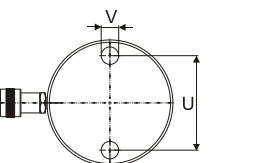


DD-506 to DD-50048 models



DD-1006 to DD-30048 models

No mounting hole on DD-506 / 5013 / 5020 / 756 / 7513 / 1502 / 15032



DD-4006 to DD-50048 models