

▼HDC Double - Acting High-Tonnage Cylinders



Rated Pressure : 70MPa

Capacity : 50-1000T

Stroke Range : 50-2000mm

Oil Drain Thread : NPT3/8

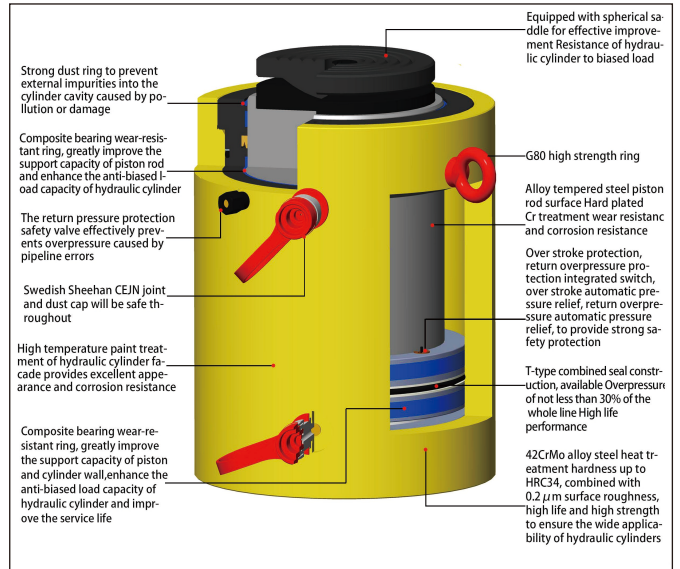
Return Method : Hydraulic Return

Medium : Hydraulic Oil

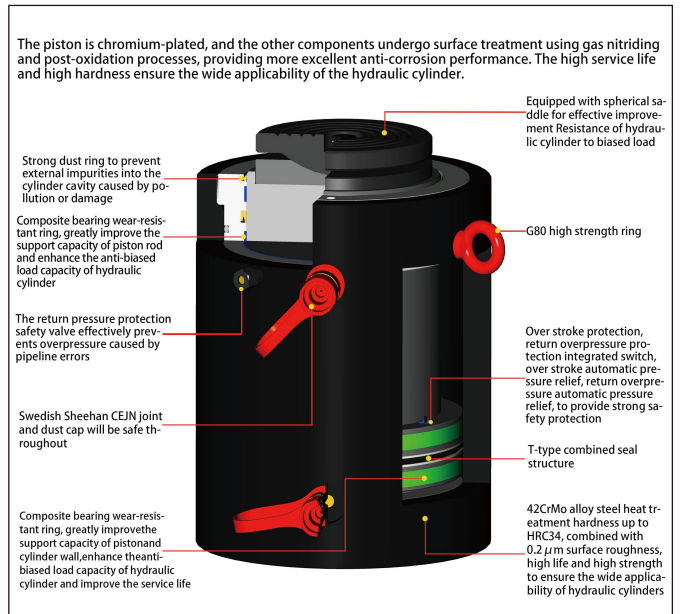
New dual-action hydraulic cylinders

- More compact dimensions, fully optimized outer diameter and body height, greatly reducing installation space requirements
- The full range of 50-1000T tonnages supports flexible customization of Fe_3O_4 with a stroke of 50mm-2000mm
- Innovative structural design, with all series using composite material reinforced bearings, 42CrMo alloy quenched and tempered steel, and T-shaped combination seals, significantly enhancing the service life and resistance to off-center loading of the cylinders
- Quality assurance, each hydraulic cylinder undergoes comprehensive inspection before leaving the factory, full stroke dynamic load holding tests, and traceable paper inspection reports are shipped with the cylinders
- Advanced features, including built-in over-travel protection switches, return pressure control safety valves, and return overpressure protection safety valves, to prevent failures or safety hazards due to over-travel use, overpressure use, or incorrect oil line connections
- High-temperature paint spraying process, with optional gas nitriding and post-oxidation processes, providing superior anti-corrosion performance and anti-eccentric load performance
- Equipped with CEJN quick-thread connectors and dust caps
- Faster production cycles: data-based standard parts and raw material safety stock management, hydraulic cylinders shipping within 7-14 days

▼Lacquered surface treatment



▼QPQ surface treatment



▼ Naming conventions:



1 Product Type 2 Tonnage (T) 3 Stroke (mm) 4 Saddle Type 5 Optional valve 6 Surface treatment

1. Product Type

HDC Series

2. Tonnage (T)

Range: 50-1000

3. Stroke (mm)

Range: 50-2000

4. Saddle Type

Blank Spherical Saddle
FS Flat saddle

5. Optional valve

blank threaded quick coupling
V42 hydraulically controlled check valve
V66 one-way throttle valve

6. Surface treatment

Blank Cylinder painting, piston plating Cr
NAC The piston is chromium-plated, and the remaining components undergo gas nitriding and post-oxidation.

HDC Series Typical Models and Product Diagrams

HDC200-150	HDC200-300-V42	HDC200-150-FS-V66	HDC100-250	HDC400-150-NAC	HDC400-150-V66-NAC

▼ Four-bit servo synchronization system



▼ 1000T ton fully automatic test system

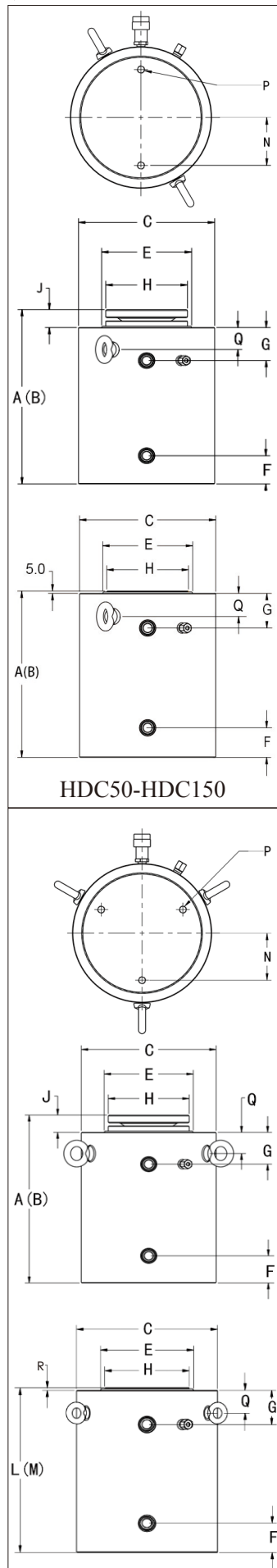


1000T ton fully automatic test system

- Fully automatic for hydraulic cylinders to perform no-load, medium pressure, and rated pressure full stroke dynamic load testing and full stroke holding pressure testing. After passing the tests, inspection reports can be printed.
- Each hydraulic cylinder has a traceable factory code.

Hydraulic Cylinders

▼ Type specification sheet:



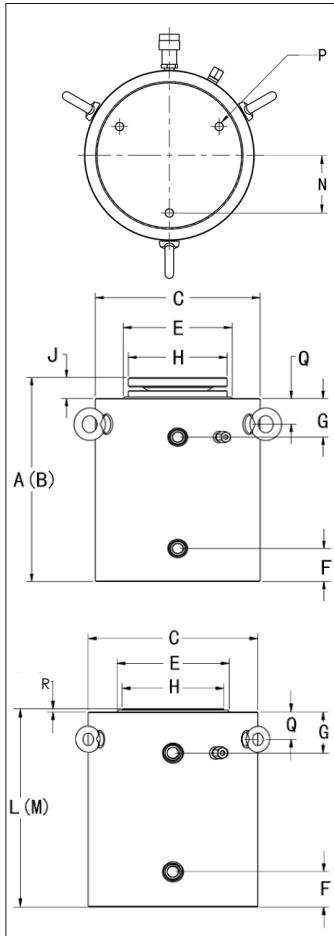
HDC50-HDC150

Note: HDC200-HDC500, R=5.0;
HDC800 and HDC1000, R=7.0.

Cylinder Capacity ton (kN)	Model	Stroke (mm)	Maximum load capacity (kN)		The effective area of the cylinder (cm ²)		Hydraulic oil capacity (cm ³)		Body height A (with spherical saddle) (mm)	Reach height B (with spherical saddle) (mm)	Outside Dia C (mm)
			push	pull	push	pull	push	pull			
50 (550)	HDC50-50	50	550	280	78.6	40.0	393	200	176	226	130
	HDC50-100	100	550	280	78.6	40.0	786	400	226	326	130
	HDC50-150	150	550	280	78.6	40.0	1179	600	276	426	130
	HDC50-200	200	550	280	78.6	40.0	1571	800	326	526	130
	HDC50-250	250	550	280	78.6	40.0	1964	1000	376	626	130
	HDC50-300	300	550	280	78.6	40.0	2357	1200	426	726	130
	HDC50-350	350	550	280	78.6	40.0	2750	1400	476	826	130
	HDC50-500	500	550	280	78.6	40.0	3929	2000	626	1126	130
	HDC50-2000	2000	550	280	78.6	40.0	15714	8000	2126	4126	130
100 (1002)	HDC100-50	50	1002	506	143.1	72.3	716	361	191	241	165
	HDC100-100	100	1002	506	143.1	72.3	1431	723	241	341	165
	HDC100-150	150	1002	506	143.1	72.3	2147	1084	291	441	165
	HDC100-200	200	1002	506	143.1	72.3	2863	1446	341	541	165
	HDC100-250	250	1002	506	143.1	72.3	3579	1807	391	641	165
	HDC100-300	300	1002	506	143.1	72.3	4294	2169	441	741	165
	HDC100-350	350	1002	506	143.1	72.3	5010	2530	491	841	165
	HDC100-500	500	1002	506	143.1	72.3	7157	3614	641	1141	165
	HDC100-2000	2000	1002	506	143.1	72.3	28629	14457	2141	4141	165
150 (1497)	HDC150-50	50	1497	770	213.9	110.0	1069	550	207	257	215
	HDC150-100	100	1497	770	213.9	110.0	2139	1100	257	357	215
	HDC150-150	150	1497	770	213.9	110.0	3208	1650	307	457	215
	HDC150-200	200	1497	770	213.9	110.0	4277	2200	357	557	215
	HDC150-250	250	1497	770	213.9	110.0	5346	2750	407	657	215
	HDC150-300	300	1497	770	213.9	110.0	6416	3300	457	757	215
	HDC150-350	350	1497	770	213.9	110.0	7485	3850	507	857	215
	HDC150-500	500	1497	770	213.9	110.0	10693	5500	657	1157	215
	HDC150-2000	2000	1497	770	213.9	110.0	42771	22000	2157	4157	215
200 (1985)	HDC200-50	50	1985	983	283.6	140.4	1418	702	231	281	230
	HDC200-100	100	1985	983	283.6	140.4	2836	1404	281	381	230
	HDC200-150	150	1985	983	283.6	140.4	4254	2106	331	481	230
	HDC200-200	200	1985	983	283.6	140.4	5671	2809	381	581	230
	HDC200-250	250	1985	983	283.6	140.4	7089	3511	431	681	230
	HDC200-300	300	1985	983	283.6	140.4	8507	4213	481	781	230
	HDC200-350	350	1985	983	283.6	140.4	9925	4915	531	881	230
	HDC200-500	500	1985	983	283.6	140.4	14179	7021	681	1181	230
	HDC200-2000	2000	1985	983	283.6	140.4	56714	28086	2181	4181	230
300 (3167)	HDC300-50	50	3167	1076	452.4	153.7	2262	769	296	346	295
	HDC300-100	100	3167	1076	452.4	153.7	4524	1537	346	446	295
	HDC300-150	150	3167	1076	452.4	153.7	6786	2306	396	546	295
	HDC300-200	200	3167	1076	452.4	153.7	9049	3074	446	646	295
	HDC300-250	250	3167	1076	452.4	153.7	11311	3843	496	746	295
	HDC300-300	300	3167	1076	452.4	153.7	13573	4611	546	846	295
	HDC300-350	350	3167	1076	452.4	153.7	15835	5380	596	946	295
	HDC300-500	500	3167	1076	452.4	153.7	22621	7686	746	1246	295
	HDC300-2000	2000	3167	1076	452.4	153.7	90486	30743	2246	4246	295

Cylinder bore diameter D (mm)	Piston rod diameter E(mm)	Height from oil inlet to bottom F (mm)	The height of the return port from the top G (mm)	Standard saddle diameter H (mm)	Protruding height of spherical saddle J (mm)	Piston rod top hole depth K (mm)	Body height (with flat saddle)L (mm)	Reach height M (with flat saddle)	The distance between the bottom mounting hole and the central axis is N (mm)	Height of the ring from the top Q (mm)	Eyebolt hole and bottom mounting hole thread P	Weight (kg)	Model
100	70	40	42	50	19	10	162	212	40	40	M8	15	HDC50-50
100	70	40	42	50	19	10	212	312	40	40	M8	19	HDC50-100
100	70	40	42	50	19	10	262	412	40	40	M8	22	HDC50-150
100	70	40	42	50	19	10	312	512	40	40	M8	26	HDC50-200
100	70	40	42	50	19	10	362	612	40	40	M8	30	HDC50-250
100	70	40	42	50	19	10	412	712	40	40	M8	33	HDC50-300
100	70	40	42	50	19	10	462	812	40	40	M8	37	HDC50-350
100	70	40	42	50	19	10	612	1112	40	40	M8	48	HDC50-500
100	70	40	42	50	19	10	2112	4112	40	40	M8	157	HDC50-2000
135	95	43	44	75	20	10	176	226	55	40	M8	26	HDC100-50
135	95	43	44	75	20	10	226	326	55	40	M8	32	HDC100-100
135	95	43	44	75	20	10	276	426	55	40	M8	37	HDC100-150
135	95	43	44	75	20	10	326	526	55	40	M8	43	HDC100-200
135	95	43	44	75	20	10	376	626	55	40	M8	48	HDC100-250
135	95	43	44	75	20	10	426	726	55	40	M8	54	HDC100-300
135	95	43	44	75	20	10	476	826	55	40	M8	59	HDC100-350
135	95	43	44	75	20	10	626	1126	55	40	M8	76	HDC100-500
135	95	43	44	75	20	10	2126	4126	55	40	M8	242	HDC100-2000
165	115	47	48	94	25	10	187	237	65	40	M8	48	HDC150-50
165	115	47	48	94	25	10	237	337	65	40	M8	58	HDC150-100
165	115	47	48	94	25	10	287	437	65	40	M8	68	HDC150-150
165	115	47	48	94	25	10	337	537	65	40	M8	78	HDC150-200
165	115	47	48	94	25	10	387	637	65	40	M8	88	HDC150-250
165	115	47	48	94	25	10	437	737	65	40	M8	98	HDC150-300
165	115	47	48	94	25	10	487	837	65	40	M8	107	HDC150-350
165	115	47	48	94	25	10	637	1137	65	40	M8	137	HDC150-500
165	115	47	48	94	25	10	2137	4137	65	40	M8	434	HDC150-2000
190	135	51	54	113	32	10	204	254	82.5	40	M10	60	HDC200-50
190	135	51	54	113	32	10	254	354	82.5	40	M10	71	HDC200-100
190	135	51	54	113	32	10	304	454	82.5	40	M10	82	HDC200-150
190	135	51	54	113	32	10	354	554	82.5	40	M10	92	HDC200-200
190	135	51	54	113	32	10	404	654	82.5	40	M10	103	HDC200-250
190	135	51	54	113	32	10	454	754	82.5	40	M10	114	HDC200-300
190	135	51	54	113	32	10	504	854	82.5	40	M10	125	HDC200-350
190	135	51	54	113	32	10	654	1154	82.5	40	M10	157	HDC200-500
190	135	51	54	113	32	10	2154	4154	82.5	40	M10	479	HDC200-2000
240	195	64	75	177	41	12	260	310	100	50	M10	135	HDC300-50
240	195	64	75	177	41	12	310	410	100	50	M10	156	HDC300-100
240	195	64	75	177	41	12	360	510	100	50	M10	177	HDC300-150
240	195	64	75	177	41	12	410	610	100	50	M10	197	HDC300-200
240	195	64	75	177	41	12	460	710	100	50	M10	218	HDC300-250
240	195	64	75	177	41	12	510	810	100	50	M10	239	HDC300-300
240	195	64	75	177	41	12	560	910	100	50	M10	260	HDC300-350
240	195	64	75	177	41	12	710	1210	100	50	M10	322	HDC300-500
240	195	64	75	177	41	12	2210	4210	100	50	M10	944	HDC300-2000

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Note: HDC200-HDC500, R=5.0;
HDC800 and HDC1000, R=7.0.

Cylinder Capacity ton (kN)	Model	Stroke (mm)	Maximum load capacity (kN)		The effective area of the cylinder (cm ²)		Hydraulic oil capacity (cm ³)		Body height A (with spherical saddle) (mm)	Reach height B (with spherical saddle) (mm)	Outside Dia C (mm)
			push	pull	push	pull	push	pull			
400 (4008)	HDC400-50	50	4008	1467	572.6	209.6	2863	1048	355	405	347
	HDC400-100	100	4008	1467	572.6	209.6	5726	2096	405	505	347
	HDC400-150	150	4008	1467	572.6	209.6	8589	3144	455	605	347
	HDC400-200	200	4008	1467	572.6	209.6	11451	4191	505	705	347
	HDC400-250	250	4008	1467	572.6	209.6	14314	5239	555	805	347
	HDC400-300	300	4008	1467	572.6	209.6	17177	6287	605	905	347
	HDC400-350	350	4008	1467	572.6	209.6	20040	7335	655	1005	347
	HDC400-500	500	4008	1467	572.6	209.6	28629	10479	805	1305	347
	HDC400-2000	2000	4008	1467	572.6	209.6	114514	41914	2305	4305	347
500 (4948)	HDC500-50	50	4948	1648	706.9	235.4	3534	1177	405	455	372
	HDC500-100	100	4948	1648	706.9	235.4	7069	2354	455	555	372
	HDC500-150	150	4948	1648	706.9	235.4	10603	3531	505	655	372
	HDC500-200	200	4948	1648	706.9	235.4	14137	4709	555	755	372
	HDC500-250	250	4948	1648	706.9	235.4	17671	5886	605	855	372
	HDC500-300	300	4948	1648	706.9	235.4	21206	7063	655	955	372
	HDC500-350	350	4948	1648	706.9	235.4	24740	8240	705	1055	372
	HDC500-500	500	4948	1648	706.9	235.4	35343	11771	855	1355	372
	HDC500-2000	2000	4948	1648	706.9	235.4	141371	47086	2355	4355	372
600 (5987)	HDC600-50	50	5987	2687	855.3	383.9	4277	1920	421	471	419
	HDC600-100	100	5987	2687	855.3	383.9	8553	3839	471	571	419
	HDC600-150	150	5987	2687	855.3	383.9	12830	5759	521	671	419
	HDC600-200	200	5987	2687	855.3	383.9	17106	7678	571	771	419
	HDC600-250	250	5987	2687	855.3	383.9	21383	9598	621	871	419
	HDC600-300	300	5987	2687	855.3	383.9	25659	11517	671	971	419
	HDC600-350	350	5987	2687	855.3	383.9	29936	13437	721	1071	419
	HDC600-500	500	5987	2687	855.3	383.9	42765	19195	871	1371	419
HDC600-2000	2000	5987	2687	855.3	383.9	171060	76780	2371	4371	419	
800 (7939)	HDC800-50	50	7939	2484	1134.1	354.9	5671	1774	480	530	475
	HDC800-100	100	7939	2484	1134.1	354.9	11341	3549	530	630	475
	HDC800-150	150	7939	2484	1134.1	354.9	17012	5323	580	730	475
	HDC800-200	200	7939	2484	1134.1	354.9	22683	7097	630	830	475
	HDC800-250	250	7939	2484	1134.1	354.9	28354	8871	680	930	475
	HDC800-300	300	7939	2484	1134.1	354.9	34024	10646	730	1030	475
	HDC800-350	350	7939	2484	1134.1	354.9	39695	12420	780	1130	475
	HDC800-500	500	7939	2484	1134.1	354.9	56707	17743	930	1430	475
	HDC800-2000	2000	7939	2484	1134.1	354.9	226829	70971	2430	4430	475
1000 (9698)	HDC1000-50	50	9698	3343	1385.4	477.6	6927	2388	553	603	525
	HDC1000-100	100	9698	3343	1385.4	477.6	13854	4776	603	703	525
	HDC1000-150	150	9698	3343	1385.4	477.6	20781	7164	653	803	525
	HDC1000-200	200	9698	3343	1385.4	477.6	27709	9551	703	903	525
	HDC1000-250	250	9698	3343	1385.4	477.6	34636	11939	753	1003	525
	HDC1000-300	300	9698	3343	1385.4	477.6	41563	14327	803	1103	525
	HDC1000-350	350	9698	3343	1385.4	477.6	48490	16715	853	1203	525
	HDC1000-500	500	9698	3343	1385.4	477.6	69271	23879	1003	1503	525
	HDC1000-2000	2000	9698	3343	1385.4	477.6	277086	95514	2503	4503	525

Cylinder bore diameter D (mm)	Piston rod diameter E(mm)	Height from oil inlet to bottom F (mm)	The height of the return port from the top G (mm)	Standard saddle diameter H (mm)	Protruding height of spherical saddle J (mm)	Piston rod top hole depth K (mm)	Body height (with flat saddle)L (mm)	Reach height M (with flat saddle)	The distance between the bottom mounting hole and the central axis is N (mm)	Height of the ring from the top Q (mm)	Eyebolt hole and bottom mounting hole thread P	Weight (kg)	Model
270	215	74	90	196	55	12	305	355	115	60	M14	223	HDC400-50
270	215	74	90	196	55	12	355	455	115	60	M14	252	HDC400-100
270	215	74	90	196	55	12	405	555	115	60	M14	281	HDC400-150
270	215	74	90	196	55	12	455	655	115	60	M14	309	HDC400-200
270	215	74	90	196	55	12	505	755	115	60	M14	338	HDC400-250
270	215	74	90	196	55	12	555	855	115	60	M14	367	HDC400-300
270	215	74	90	196	55	12	605	955	115	60	M14	396	HDC400-350
270	215	74	90	196	55	12	755	1255	115	60	M14	482	HDC400-500
270	215	74	90	196	55	12	2255	4255	115	60	M14	1346	HDC400-2000
300	245	85	110	228	60	14	350	400	125	80	M14	298	HDC500-50
300	245	85	110	228	60	14	400	500	125	80	M14	331	HDC500-100
300	245	85	110	228	60	14	450	600	125	80	M14	365	HDC500-150
300	245	85	110	228	60	14	500	700	125	80	M14	398	HDC500-200
300	245	85	110	228	60	14	550	800	125	80	M14	431	HDC500-250
300	245	85	110	228	60	14	600	900	125	80	M14	464	HDC500-300
300	245	85	110	228	60	14	650	1000	125	80	M14	498	HDC500-350
300	245	85	110	228	60	14	800	1300	125	80	M14	597	HDC500-500
300	245	85	110	228	60	14	2300	4300	125	80	M14	1595	HDC500-2000
330	245	90	115	228	60	14	366	416	137.5	80	M14	387	HDC600-50
330	245	90	115	228	60	14	416	516	137.5	80	M14	426	HDC600-100
330	245	90	115	228	60	14	466	616	137.5	80	M14	465	HDC600-150
330	245	90	115	228	60	14	516	716	137.5	80	M14	504	HDC600-200
330	245	90	115	228	60	14	566	816	137.5	80	M14	543	HDC600-250
330	245	90	115	228	60	14	616	916	137.5	80	M14	582	HDC600-300
330	245	90	115	228	60	14	666	1016	137.5	80	M14	620	HDC600-350
330	245	90	115	228	60	14	816	1316	137.5	80	M14	737	HDC600-500
330	245	90	115	228	60	14	2316	4316	137.5	80	M14	1904	HDC600-2000
380	315	98	130	297	80	18	407	457	165	80	M20	572	HDC800-50
380	315	98	130	297	80	18	457	557	165	80	M20	627	HDC800-100
380	315	98	130	297	80	18	507	657	165	80	M20	683	HDC800-150
380	315	98	130	297	80	18	557	757	165	80	M20	738	HDC800-200
380	315	98	130	297	80	18	607	857	165	80	M20	794	HDC800-250
380	315	98	130	297	80	18	657	957	165	80	M20	849	HDC800-300
380	315	98	130	297	80	18	707	1057	165	80	M20	905	HDC800-350
380	315	98	130	297	80	18	857	1357	165	80	M20	1071	HDC800-500
380	315	98	130	297	80	18	2357	4357	165	80	M20	2736	HDC800-2000
420	340	110	149	323	98	20	462	512	180	90	M20	802	HDC1000-50
420	340	110	149	323	98	20	512	612	180	90	M20	868	HDC1000-100
420	340	110	149	323	98	20	562	712	180	90	M20	934	HDC1000-150
420	340	110	149	323	98	20	612	812	180	90	M20	1000	HDC1000-200
420	340	110	149	323	98	20	662	912	180	90	M20	1066	HDC1000-250
420	340	110	149	323	98	20	712	1012	180	90	M20	1132	HDC1000-300
420	340	110	149	323	98	20	762	1112	180	90	M20	1198	HDC1000-350
420	340	110	149	323	98	20	912	1412	180	90	M20	1396	HDC1000-500
420	340	110	149	323	98	20	2412	4412	180	90	M20	3376	HDC1000-2000