

▼HDC Hydraulic Cylinders



HDC Series

Rated Pressure : 70MPa(10000PSI)

Rated Capacity : 50-1000T

Stroke Range : 50-2000mm

Oil Outlet Thread : NPT3/8

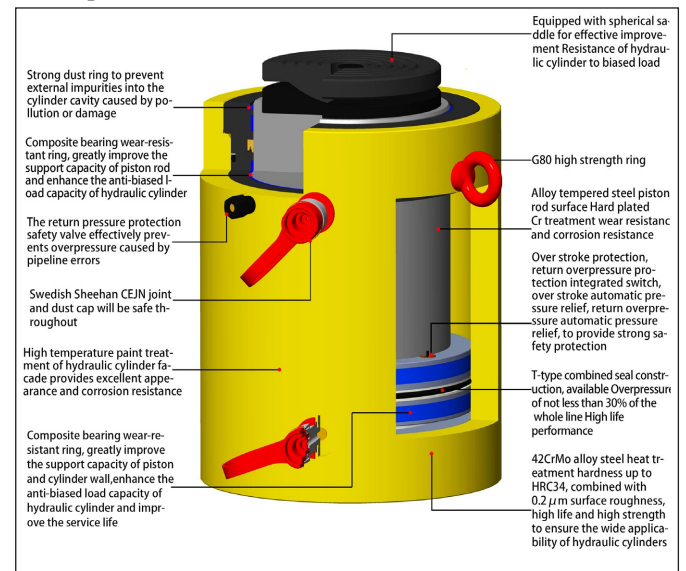
Return Method : Hydraulic Return

Medium: Hydraulic Oil

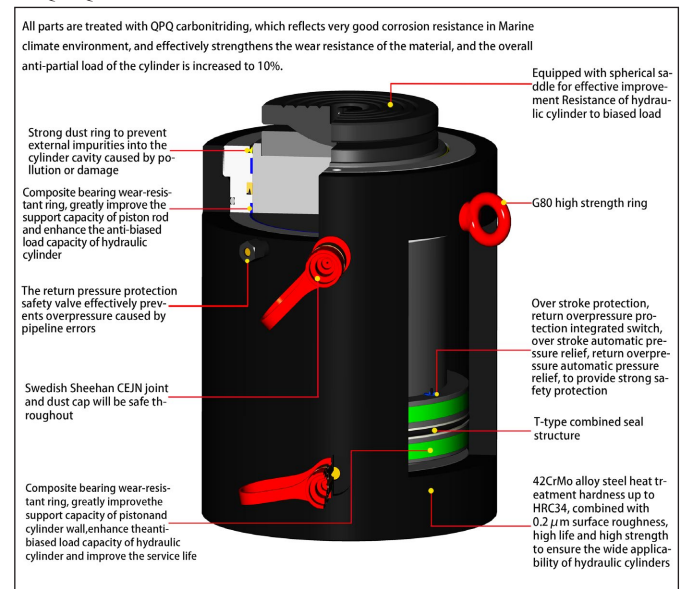
New dual-action hydraulic cylinders

- More compact dimensions, fully optimized outer diameter and body height, greatly reducing installation space requirements
- Supports a full range of tonnages from 50-1000T with flexible customization for strokes from 50mm to 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, optional QPQ carbonitriding process, providing superior corrosion resistance and off-center loading 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

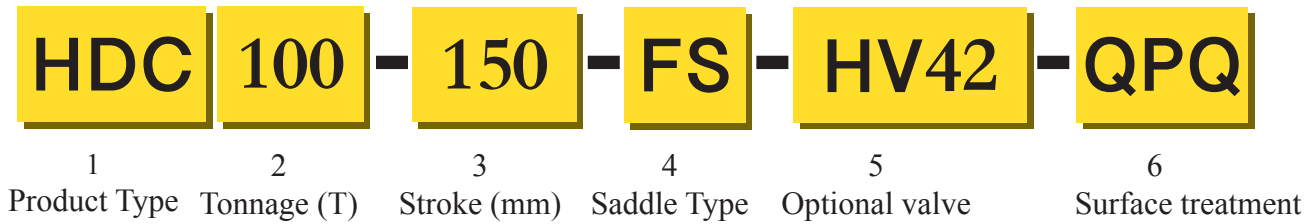


▼QPQ surface treatment



Hydraulic Cylinders

▼ Naming conventions:



1.Product Type

HDC Series

3.Stroke (mm)

Range: 50-2000

5.Optional valve

blank threaded quick coupling
HV42 hydraulically controlled check valve
HV66 one-way throttle valve

2.Tonnage (T)

Range: 50-1000

4.Saddle Type

Blank Spherical Saddle
FS Flat saddle

6. Surface treatment)

Blank cylinder painting, piston plating Cr
All QPQ components are treated with QPQ
carbonitriding

▼ 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.

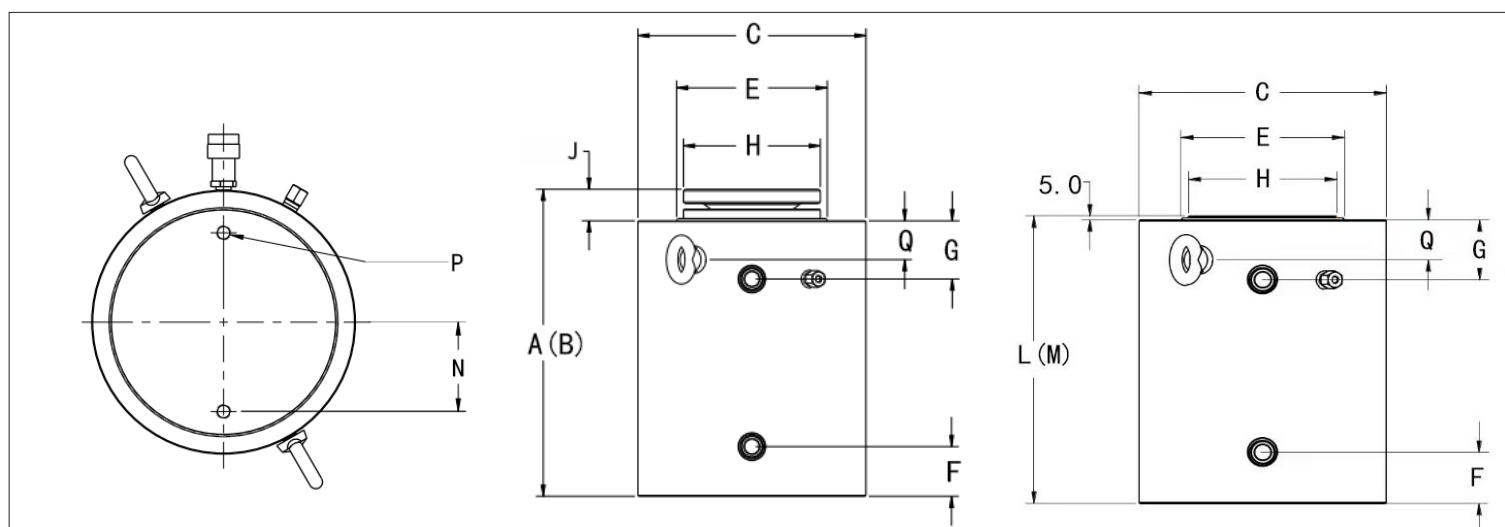
- Each hydraulic cylinder has a traceable factory code.

Hydraulic Cylinders

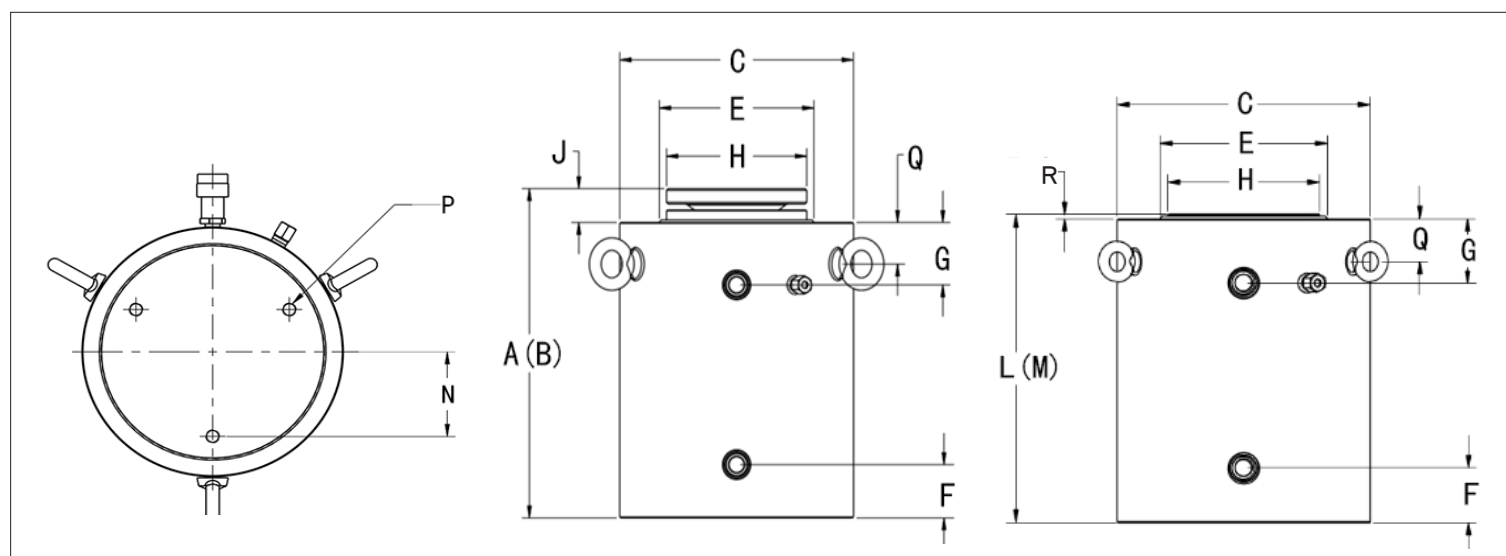
Typical models and product diagrams of the HDC series

HDC200-150	HDC200-300-HV42	HDC200-150-FS-HV66	HDC100-250	HDC400-150-QPQ	HDC400-150-HV66-QPQ
					

▼ HDC dimensions drawing:



HDC50-HDC150



HDC200-HDC1000

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

Hydraulic Cylinders

▼ Type specification sheet:

Cylinder Capacity ton (kN)	Model number	Stroke (mm)	Maximum load capacity of the cylinder (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)	Cylinder bore D (mm)	Piston rod diameter E (mm)	The height of the oil inlet from the bottom F (mm)	weight (kg)
			push	pull	push	pull	push	pull							
50 (550)	HDC50-50	50	550	280	78.6	40.0	393	200	176	226	130	100	70	40	15
	HDC50-100	100	550	280	78.6	40.0	786	400	226	326	130	100	70	40	19
	HDC50-150	150	550	280	78.6	40.0	1179	600	276	426	130	100	70	40	22
	HDC50-200	200	550	280	78.6	40.0	1571	800	326	526	130	100	70	40	26
	HDC50-250	250	550	280	78.6	40.0	1964	1000	376	626	130	100	70	40	30
	HDC50-300	300	550	280	78.6	40.0	2357	1200	426	726	130	100	70	40	33
	HDC50-350	350	550	280	78.6	40.0	2750	1400	476	826	130	100	70	40	37
	HDC50-500	500	550	280	78.6	40.0	3929	2000	626	1126	130	100	70	40	48
100 (1002)	HDC50-2000	2000	550	280	78.6	40.0	15714	8000	2126	4126	130	100	70	40	157
	HDC100-50	50	1002	506	143.1	72.3	716	361	191	241	165	135	95	43	26
	HDC100-100	100	1002	506	143.1	72.3	1431	723	241	341	165	135	95	43	32
	HDC100-150	150	1002	506	143.1	72.3	2147	1084	291	441	165	135	95	43	37
	HDC100-200	200	1002	506	143.1	72.3	2863	1446	341	541	165	135	95	43	43
	HDC100-250	250	1002	506	143.1	72.3	3579	1807	391	641	165	135	95	43	48
	HDC100-300	300	1002	506	143.1	72.3	4294	2169	441	741	165	135	95	43	54
	HDC100-350	350	1002	506	143.1	72.3	5010	2530	491	841	165	135	95	43	59
150 (1497)	HDC100-500	500	1002	506	143.1	72.3	7157	3614	641	1141	165	135	95	43	76
	HDC100-2000	2000	1002	506	143.1	72.3	28629	14457	2141	4141	165	135	95	43	242
	HDC150-50	50	1497	770	213.9	110.0	1069	550	207	257	215	165	115	47	48
	HDC150-100	100	1497	770	213.9	110.0	2139	1100	257	357	215	165	115	47	58
	HDC150-150	150	1497	770	213.9	110.0	3208	1650	307	457	215	165	115	47	68
	HDC150-200	200	1497	770	213.9	110.0	4277	2200	357	557	215	165	115	47	78
	HDC150-250	250	1497	770	213.9	110.0	5346	2750	407	657	215	165	115	47	88
	HDC150-300	300	1497	770	213.9	110.0	6416	3300	457	757	215	165	115	47	98
200 (1985)	HDC150-350	350	1497	770	213.9	110.0	7485	3850	507	857	215	165	115	47	107
	HDC150-500	500	1497	770	213.9	110.0	10693	5500	657	1157	215	165	115	47	137
	HDC150-2000	2000	1497	770	213.9	110.0	42771	22000	2157	4157	215	165	115	47	434
	HDC200-50	50	1985	983	283.6	140.4	1418	702	231	281	230	190	135	51	60
	HDC200-100	100	1985	983	283.6	140.4	2836	1404	281	381	230	190	135	51	71
	HDC200-150	150	1985	983	283.6	140.4	4254	2106	331	481	230	190	135	51	82
	HDC200-200	200	1985	983	283.6	140.4	5671	2809	381	581	230	190	135	51	92
	HDC200-250	250	1985	983	283.6	140.4	7089	3511	431	681	230	190	135	51	103
300 (3167)	HDC200-300	300	1985	983	283.6	140.4	8507	4213	481	781	230	190	135	51	114
	HDC200-350	350	1985	983	283.6	140.4	9925	4915	531	881	230	190	135	51	125
	HDC200-500	500	1985	983	283.6	140.4	14179	7021	681	1181	230	190	135	51	157
	HDC200-2000	2000	1985	983	283.6	140.4	56714	28086	2181	4181	230	190	135	51	479
	HDC300-50	50	3167	1076	452.4	153.7	2262	769	296	346	295	240	195	64	135
	HDC300-100	100	3167	1076	452.4	153.7	4524	1537	346	446	295	240	195	64	156
	HDC300-150	150	3167	1076	452.4	153.7	6786	2306	396	546	295	240	195	64	177
	HDC300-200	200	3167	1076	452.4	153.7	9049	3074	446	646	295	240	195	64	197
400 (4008)	HDC300-250	250	3167	1076	452.4	153.7	11311	3843	496	746	295	240	195	64	218
	HDC300-300	300	3167	1076	452.4	153.7	13573	4611	546	846	295	240	195	64	239
	HDC300-350	350	3167	1076	452.4	153.7	15835	5380	596	946	295	240	195	64	260
	HDC300-500	500	3167	1076	452.4	153.7	22621	7686	746	1246	295	240	195	64	322
	HDC300-2000	2000	3167	1076	452.4	153.7	90486	30743	2246	4246	295	240	195	64	944
	HDC400-50	50	4008	1467	572.6	209.6	2863	1048	355	405	347	270	215	74	223
	HDC400-100	100	4008	1467	572.6	209.6	5726	2096	405	505	347	270	215	74	252
	HDC400-150	150	4008	1467	572.6	209.6	8589	3144	455	605	347	270	215	74	281
500 (4948)	HDC400-200	200	4008	1467	572.6	209.6	11451	4191	505	705	347	270	215	74	309
	HDC400-250	250	4008	1467	572.6	209.6	14314	5239	555	805	347	270	215	74	338
	HDC400-300	300	4008	1467	572.6	209.6	17177	6287	605	905	347	270	215	74	367
	HDC400-350	350	4008	1467	572.6	209.6	20040	7335	655	1005	347	270	215	74	396
	HDC400-500	500	4008	1467	572.6	209.6	28629	10479	805	1305	347	270	215	74	482
	HDC400-2000	2000	4008	1467	572.6	209.6	114514	41914	2305	4305	347	270	215	74	1346
	HDC500-50	50	4948	1648	706.9	235.4	3534	1177	405	455	372	300	245	85	298
	HDC500-100	100	4948	1648	706.9	235.4	7069	2354	455	555	372	300	245	85	331
800 (7939)	HDC500-150	150	4948	1648	706.9	235.4	10603	3531	505	655	372	300	245	85	365
	HDC500-200	200	4948	1648	706.9	235.4	14137	4709	555	755	372	300	245	85	398
	HDC500-250	250	4948	1648	706.9	235.4	17671	5886	605	855	372	300	245	85	431
	HDC500-300	300	4948	1648	706.9	235.4	21206	7063	655	955	372	300	245	85	464
	HDC500-350	350	4948	1648	706.9	235.4	24740	8240	705	1055	372	300	245	85	498
	HDC500-500	500	4948	1648	706.9	235.4	35343	11771	855	1355	372	300	245	85	597
	HDC500-2000	2000	4948	1648	706.9	235.4	141371	47086	2355	4355	372	300	245	85	1595
	HDC800-50	50	7939	2484	1134.1	354.9	5671	1774	480	530	475	380	315	98	572
1000 (9698)	HDC800-100	100	7939	2484	1134.1	354.9	11341	3549	530	630	475	380	315	98	627
	HDC800-150	150	7939	2484	1134.1	354.9	17012	5323	580	730	475	380	315	98	683
	HDC800-200	200	7939	2484	1134.1	354.9	22683	7097	630	830	475	380	315	98	738
	HDC800-250	250	7939	2484	1134.1	354.9	28354	8871	680	930	475	380	315	98	794
	HDC800-300	300	7939	2484	1134.1	354.9	34024	10646	730	1030	475	380	315	98	849
	HDC800-350	350	7939	2484	1134.1	354.9	39695	12420	780	1130	475	380	315	98	905
	HDC800-500	500	7939	2484	1134.1	354.9	56707	17743	930	1430	475	380	315	98	1071
	HDC800-2000	2000	7939	2484	1134.1	354.9	226829	70971	2430	4430	475	380	315	98	273

Hydraulic Cylinders

Cylinder Capacity ton (kN)	Model number	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)
50 (550)	HDC50-50	42	50	19	10	162	212	40	40	M8	15
	HDC50-100	42	50	19	10	212	312	40	40	M8	19
	HDC50-150	42	50	19	10	262	412	40	40	M8	22
	HDC50-200	42	50	19	10	312	512	40	40	M8	26
	HDC50-250	42	50	19	10	362	612	40	40	M8	30
	HDC50-300	42	50	19	10	412	712	40	40	M8	33
	HDC50-350	42	50	19	10	462	812	40	40	M8	37
	HDC50-500	42	50	19	10	612	1112	40	40	M8	48
100 (1002)	HDC50-2000	42	50	19	10	2112	4112	40	40	M8	157
	HDC100-50	44	75	20	10	176	226	55	40	M8	26
	HDC100-100	44	75	20	10	226	326	55	40		32
	HDC100-150	44	75	20	10	276	426	55	40	M8	37
	HDC100-200	44	75	20	10	326	526	55	40	M8	43
	HDC100-250	44	75	20	10	376	626	55	40	M8	48
	HDC100-300	44	75	20	10	426	726	55	40	M8	54
	HDC100-350	44	75	20	10	476	826	55	40	M8	59
150 (1497)	HDC100-500	44	75	20	10	626	1126	55	40	M8	76
	HDC100-2000	44	75	20	10	2126	4126	55	40	M8	242
	HDC150-50	48	94	25	10	187	237	65	40	M8	48
	HDC150-100	48	94	25	10	237	337	65	40	M8	58
	HDC150-150	48	94	25	10	287	437	65	40	M8	68
	HDC150-200	48	94	25	10	337	537	65	40	M8	78
	HDC150-250	48	94	25	10	387	637	65	40	M8	88
	HDC150-300	48	94	25	10	437	737	65	40	M8	98
200 (1985)	HDC150-350	48	94	25	10	487	837	65	40	M8	107
	HDC150-500	48	94	25	10	637	1137	65	40	M8	137
	HDC150-2000	48	94	25	10	2137	4137	65	40	M8	434
	HDC200-50	54	113	32	10	204	254	82.5	40	M10	60
	HDC200-100	54	113	32	10	254	354	82.5	40	M10	71
	HDC200-150	54	113	32	10	304	454	82.5	40	M10	82
	HDC200-200	54	113	32	10	354	554	82.5	40	M10	92
	HDC200-250	54	113	32	10	404	654	82.5	40	M10	103
300 (3167)	HDC200-300	54	113	32	10	454	754	82.5	40	M10	114
	HDC200-350	54	113	32	10	504	854	82.5	40	M10	125
	HDC200-500	54	113	32	10	654	1154	82.5	40	M10	157
	HDC200-2000	54	113	32	10	2154	4154	82.5	40	M10	479
	HDC300-50	75	177	41	12	260	310	100	50	M10	135
	HDC300-100	75	177	41	12	310	410	100	50	M10	156
	HDC300-150	75	177	41	12	360	510	100	50	M10	177
	HDC300-200	75	177	41	12	410	610	100	50	M10	197
400 (4008)	HDC300-250	75	177	41	12	460	710	100	50	M10	218
	HDC300-300	75	177	41	12	510	810	100	50	M10	239
	HDC300-350	75	177	41	12	560	910	100	50	M10	260
	HDC300-500	75	177	41	12	710	1210	100	50	M10	322
	HDC300-2000	75	177	41	12	2210	4210	100	50	M10	944
	HDC400-50	90	196	55	12	305	355	115	60	M14	223
	HDC400-100	90	196	55	12	355	455	115	60	M14	252
	HDC400-150	90	196	55	12	405	555	115	60	M14	281
500 (4948)	HDC400-200	90	196	55	12	455	655	115	60	M14	309
	HDC400-250	90	196	55	12	505	755	115	60	M14	338
	HDC400-300	90	196	55	12	555	855	115	60	M14	367
	HDC400-350	90	196	55	12	605	955	115	60	M14	396
	HDC400-500	90	196	55	12	755	1255	115	60	M14	482
	HDC400-2000	90	196	55	12	2255	4255	115	60	M14	1346
	HDC500-50	110	228	60	14	350	400	125	80	M14	298
	HDC500-100	110	228	60	14	400	500	125	80	M14	331
800 (7939)	HDC500-150	110	228	60	14	450	600	125	80	M14	365
	HDC500-200	110	228	60	14	500	700	125	80	M14	398
	HDC500-250	110	228	60	14	550	800	125	80	M14	431
	HDC500-300	110	228	60	14	600	900	125	80	M14	464
	HDC500-350	110	228	60	14	650	1000	125	80	M14	498
	HDC500-500	110	228	60	14	800	1300	125	80	M14	597
	HDC500-2000	110	228	60	14	2300	4300	125	80	M14	1595
	HDC800-50	130	297	80	18	407	457	165	80	M20	572
1000 (9698)	HDC800-100	130	297	80	18	457	557	165	80	M20	627
	HDC800-150	130	297	80	18	507	657	165	80	M20	683
	HDC800-200	130	297	80	18	557	757	165	80	M20	738
	HDC800-250	130	297	80	18	607	857	165	80	M20	794
	HDC800-300	130	297	80	18	657	957	165	80	M20	849
	HDC800-350	130	297	80	18	707	1057	165	80	M20	905
	HDC800-500	130	297	80	18	857	1357	165	80	M20	1071
	HDC800-2000	130	297	80	18	2357	4357	165	80	M20	2736
1000 (9698)	HDC1000-50	149	323	98	20	462	512	180	90	M20	802
	HDC1000-100	149	323	98	20	512	612	180	90	M20	868
	HDC1000-150	149	323	98	20	562	712	180	90	M20	934
	HDC1000-200	149	323	98	20	612	812	180	90	M20	1000
	HDC1000-250	149	323	98	20	662	912	180	90	M20	1066
	HDC1000-300	149	323	98	20	712	1012	180	90	M20	1132
	HDC1000-350	149	323	98	20	762	1112	180	90	M20	1198
	HDC1000-500	149	323	98	20	912	1412	180	90	M20	1396
	HDC1000-2000	149	323	98	20	2412	4412	180	90	M20	3376