

GGC VALVES
SERIES

闸截止系列

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铸钢闸阀

CAST STEEL GATE VALVE



产品简介

Product Introduction

闸阀是一直线运动的阀门，它典型地具有一个垂直于工艺物流的平行闭合元件，即它滑动进入物流层而关闭。闸阀结构的简单化和它大量用于通用和不同温度压力工况，使它成为今天使用的最普通的阀门之一。它是专门为夹带有固体、颗粒和粉末的稀浆及冷冻或真空操作设计的，且易于维护和拆卸。闸阀本质上是防火安全的并经常规定用于防火安全操作。因此被广泛地应用于石油、化工、化肥、油田、电力等行业。

Gate valves are linear valves that typically have a parallel closure element perpendicular to the process flow, that is, it slides into the flow layer and closes. The simplicity of the gate valve's structure and its extensive use for general purpose and varying temperature and pressure conditions make it one of the most common valves in use today. It is specially designed for thin slurry containing solids, particles and powders and for freezing or vacuum operation, and is easy to maintain and disassemble. Gate valves are fire safe in nature and are often prescribed for fire safe operation. Therefore, it is widely used in petroleum, chemical industry, chemical fertilizer, oil field, electric power and other industries.



结构特点

Structural Features

法兰连接铸钢闸阀适用于公称压力PN1.6~25.0MPa，工作温度-29~600°C的石油，化工，火力电站等各种工况的管路上，切断或接通管路介质。

其主要结构特点有:

- 1.产品结构合理、密封可靠、性能优良、造型美观。
- 2.密封面堆焊钴基硬质合金，耐磨，耐蚀，抗擦伤性能好，使用寿命长。
- 3.阀杆经调质及表面氮化处理，有良好的抗腐蚀性及抗擦伤性。
- 4.阀门设有倒密封结构，密封可靠。
- 5.零件材质及法兰、对焊端尺寸可根据实际工况或用户要求合理选配，满足各种工程需要。

Flanged ends cast steel gate valve are used to cut or connect the pipe media under nominal pressure between PN 1.6~25.0MPa working temperatures between -29~600°C, in oil industry, chemical industry, fossil-fired power plants

The main structure features include:

1. Sensible products structure, reliable sealing. Excellent performance and good looking
2. Cobalt base alloy welded sealing surface, which is wearing resistant, erosion proof, abrasion proof and long-lived
3. The surface and the adjusting media of the valve shaft are nitrogenized so that it is erosion and abrasion resistant
4. There is no backward sealing structure in the valve, so the sealing is reliable
5. The material of the filling and the flange size can be chosen and matched according to the applications and the requirements of the user's. That can satisfy all kinds of working requirements.

阀体/阀盖的材料包括碳含量的九个等级，低合金和不锈钢，在特殊的使用中，它们可用合金和不锈钢的其他等级。有许多内件供不同的环境下使用。填料和垫片的选择也为各种环境所具备。

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There's a full range of trim materials to match any service. Optional packing and gasket materials are available for a full range of service conditions.



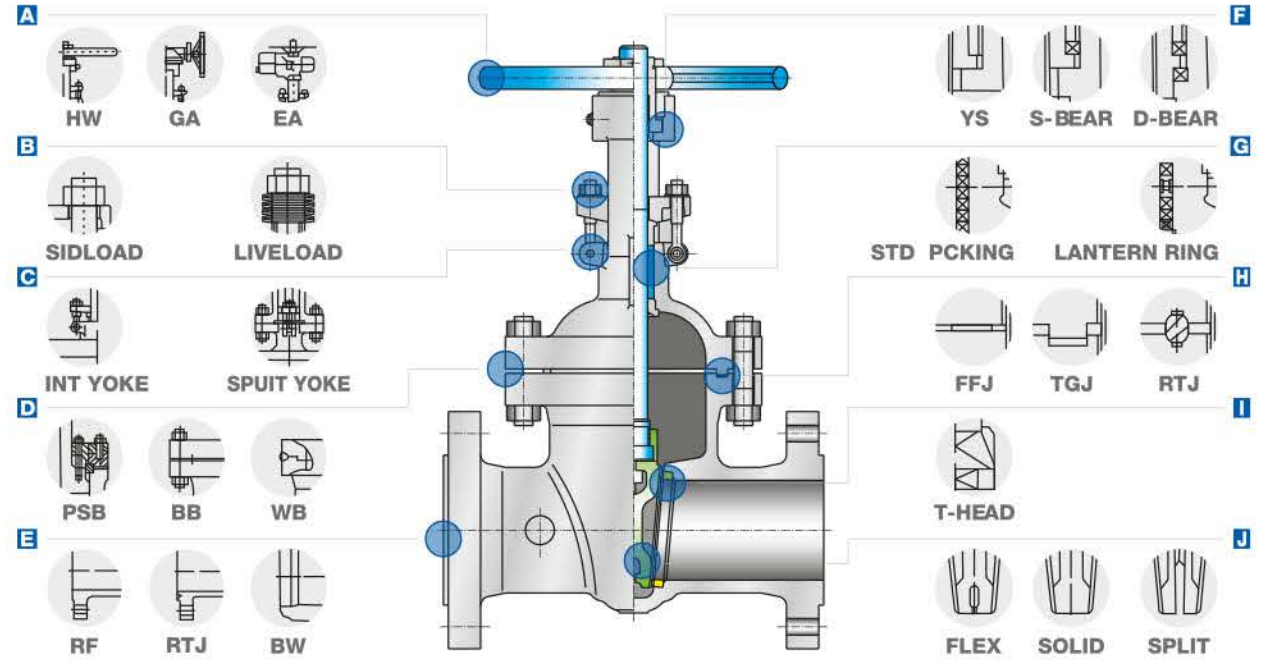
材料范围

Material Range

铸钢闸阀

CAST STEEL GATE VALVE

结构订制 Structure Order



A	操作 Operating	大手轮使得更容易操作，同样也可以用齿轮或电动操作，气动、液动用于更艰难的环境。 Large hand wheels for easy operation. Also available with gear-ring, motor actuators, pneumatic or hydraulic actuators for more difficult services.
B	填料 Live Load Packing	填料在高温高压的变更的情况下，使用很频繁，填料调节环提供连续的填料压盖压力。在负荷期间可以通过增加填料来调节填料压盖的预紧力。 In services requiring frequent cycling or with high pressure/temperature variations, live loading extends the service life between maintenance periods by requiring less frequent packing gland adjustment. Belleville springs are employed to provide constant packing gland stress.
C	明杆支架 OS&Y	外螺纹支架、铸钢闸阀支架在150Lb-8", 300Lb-8" 600Lb-8, 900Lb-4, 以下的为整体阀盖。 Outside Screw and Yoke. Cast steel gate valve yoke. Integral with bonnet for 150Lb-8", 300Lb-8", 600Lb-8", 900Lb-4" & small.
D	螺栓连接 BB	螺栓阀盖，对焊接阀盖，压力自密封阀座在高温高压变更的情况下采用周期的检修服务 Bolted bonnet. Welding bonnet and pressure seal bonnet in services requiring frequent cycling or with high pressure/temperature variations
E	连接方式 End Connections	可采用法兰连接、环连接、对接焊管件 A choice of Flanged, RTJ flanged or Butt welding end for piping flexibility.
F	支架套 Yoke Sleeve	加长的支架套和阀杆提供加长阀杆尺寸大于150Lb-12", 300Lb-10", 600 Lb-6", 900Lb/1500Lb/ 2500Lb-4" 的采用滚动轴承支架 Extra long thread engagement between yoke sleeve and stem provide long thread life. Valves of sizes larger than 150Lb-12" 300Lb-10", 600Lb-6", 900Lb / 1500Lb / 2500Lb-4" are regularly provided with roll bearing yokes
G	隔离环和双填料 Lantern Ring and Double Packing set	隔离环渗漏连接和双填料依临界选择 Lantern ring with leak off fitting connection and double packing stack is optionally available for critical services.
H	阀体 - 阀盖连接 Body-to-Bonnet joint	包边垫用于150磅的阀门，缠绕垫片用于300磅到600磅的阀门，环连接用于900磅或更高的等级 A flat face gasket joint is used in the 150Lb valves. A male and female joint is used in 300Lb to 600Lb valves. Ring joint is used in the body to bonnet connection in 900Lb & higher rated valves.
I	阀杆 Stem	全部的楔式闸阀以“T”型锻造阀杆形式，通过“T”型锻造，在阀杆上，阀板的连接是自身加固形式，这种设计也适用于闸板自动调节，除去双闸板可能造成的干扰因素。 All wedge gate valves are provided with upset forged T-head stems. By forging the T-head, the stem at the stem-wedge connection is strength ended. This design also allows the wedge to self-align, eliminating the possibility of bent stem jamming the wedge.
J	闸板 Body-to-Bonnet joint	完整的操作表面确保闸板自身位于中间，弹性楔式闸阀有单片、双片式闸板，他们的设计每个都是半弹性独立的，适用于实心闸板。双闸板和弹性闸板。 Integral guide rib faces assure self-centering of wedge. Flexible wedge gate valve has a one-piece, twin-disc wedge, which is designed so that each half flexes independently. Available in solid, flex split and HIs designs.

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美标 API

设计规范 Design Specifications

设计标准 Design standards	结构长度 Structure length	法兰连接尺寸 Flange connection size	试验与检验 Test and inspection
API 600, API 6D	ASME B 16.10	ASME B 16.5	API 598

注：系列阀门连接法兰尺寸可根据用户要求设计制造。
Notes:The sizes of serial valve connecting flange can be designed according to customers' requirements

产品规格 Products specification

压力等级 Pressure rate	驱动方式 & 结构形式 Operation type & structue type	连接形式 Connecting type	公称通径 Nominl size
150	手动、栓盖结构 Hand-operated & Bolted bonnet construction	法兰连接 Flanged ends	2" ~ 60"
300			2" ~ 56"
600			2" ~ 48"
900			2" ~ 36"
150	电动、齿轮传动、栓盖结构 Electric of Gear operation & Bolted bonnet construction	法兰连接 Flanged ends	14" ~ 48"
300			14" ~ 48"
600			6" ~ 48"
900			3" ~ 16"
1500	手动、压力密封结构 Hand-operated & Pressure seal construction	法兰连接 Flanged ends	3" ~ 16"
900			2" ~ 36"
1500			2" ~ 30"
2500			2" ~ 24"
900	手动、压力密封结构 Hand-operated & Pressure seal construction	对焊连接 Butt welding ends	2" ~ 36"
1500			2" ~ 30"
2500			2" ~ 24"
900	电动、齿轮传动、压力密封结构 Electric or Gear operation & Pressure seal canstuction	法兰连接 Flanged ends	3" ~ 20"
1500			3" ~ 20"
2500			6" ~ 8"
900	电动、齿轮传动、压力密封结构 Electric or Gear operation & Pressure seal canstuction	对焊连接 Butt welding ends	3" ~ 20"
1500			3" ~ 20"
2500			6" ~ 8"

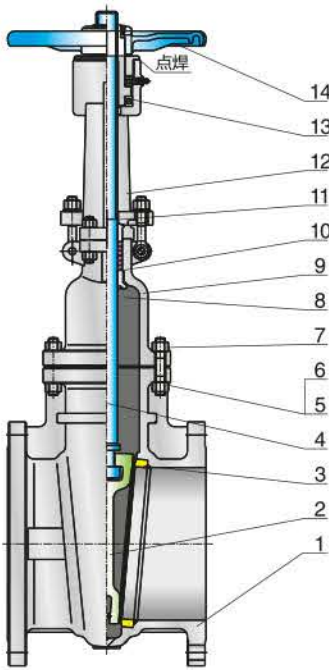
技术性能规范 Technical Specification

压力等级 Pressure rate	壳体试验压力(MPa) Shell test pressure	密封试验压力(MPa) Sealing test pressure	温度 Temperature	适用介质 Suitable medium
150	3.0	2.2	≤600℃	水、油、气 Water oil & gas
300	7.5	5.5		
600	15	11		
900	22.5	16.5		
1500	38.3	28.1		
2500	63.83	46.81		

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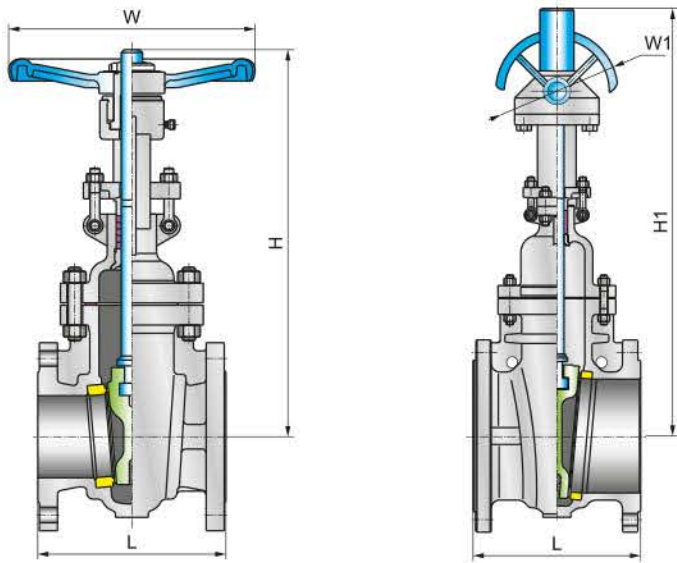


主要零部件材质 Materials of Main Parts

序号 NO	零件名称 Part name	材质 Material
1	阀体 Body	ASTM 352 LCB ASTM A995 4A, 5A, 6A ASTM A494 CW-6MC ASTM A494 CU5MCUC ASTM A494 M35-1
2	闸板 Wedge	ASTM A216-WCB ASTM A217-WC6, WC9, C5 ASTM A351-CF8, CF8M, CF3, CF3M
3	阀座 Seat	ASTM A105 ASTM A182-F11, F22, F5,F304, F316, F304L, F316L
4	阀杆 Stem	ASTM A182 Gr.F6a ASTM A182 F22 ASTM A182-F304, F316 , F321, F304L, F316L
5	双头螺柱 Stud	ASTM A193-B7,A320-B8,A193-B8M
6	六角螺母 Nut	ASTM A194-2H, A194-8, A194-8M
7	垫片 Gasket	柔性石墨+不锈钢 Graphite & stainless steel
8	上密封座 Back seat	ASTM A182 Gr.F6a ASTM A182 F22 ASTM A182-F304, F316, F321, F304L, F316L
9	阀盖 Bonnet	ASTM A216-WCB ASTM A217-WC6 , WC9, C5 ASTM A351-CF8, CF8M, CF3, CF3M
10	填料 Packing	柔性石墨 Graphite
11	填料压套 Gland cover	ASTM A182 Gr.F6a ASTM CHl A182-F304, F316, F321, F304L, F316
12	填料压盖 Gland flange	ASTM A216-WCB ASTM A351-CF8, CF8M, CF3, CF3M
13	阀杆螺母 Yoke nut	铜合金 Copper alloy
14	手轮 Hand wheel	ASTM A47-32510

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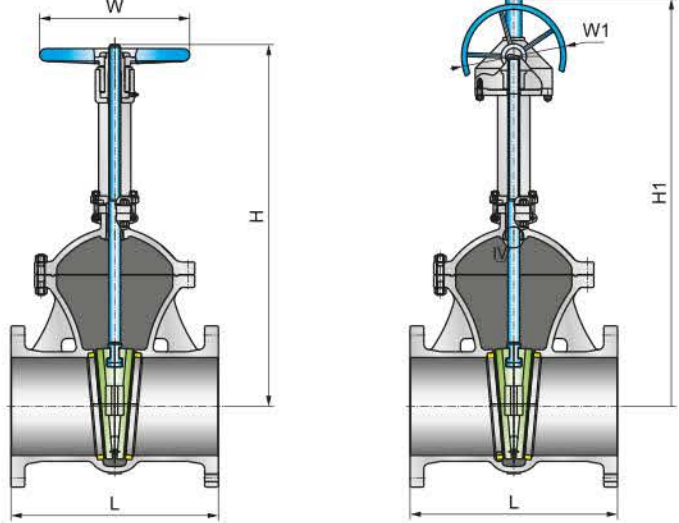
主要外形尺寸 Main External Dimensions

口径 Size	手动 Hand operated				齿动 Gear operated				
	L	H	W	重量 Weight	L	H1	W1	锥齿轮装置 Gear actuator	重量 Weight
Z(5)40(I)H(W.Y)-150Lb (C.P.R.L.I.S.H.V)									
2	178	360	200	20	-	-	-	-	-
2-1/2	190	410	200	30	-	-	-	-	-
3	203	440	250	36	-	-	-	-	-
4	229	500	250	53	-	-	-	-	-
5	254	580	300	71	-	-	-	-	-
6	267	660	300	85	-	-	-	-	-
8	292	775	350	136	-	-	-	-	-
10	330	925	400	220	-	-	-	-	-
12	356	1100	450	323	-	-	-	-	-
14	381	1295	500	387	381	1651	310	BA-0	415
16	406	1435	600	553	406	1879	460	BA-1	600
18	432	1626	650	660	432	2184	460	BA-1	700
20	457	1829	650	810	457	2431	610	BA-2	880
24	508	2175	700	1250	508	2873	610	BA-2	1320
26	558	2235	750	1500	558	3086	610	BA-2	1580
28	610	2310	750	1931	610	3327	610	BA-2	2050
30	610	2695	800	2380	610	3606	610	BAA-3	2565
32	-	-	-	-	660	3708	610	BAA-3	-
36	-	-	-	-	711	3924	610	BAA-3	-

更多规格请致电我公司 More specifications, please contact our company

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美标 API



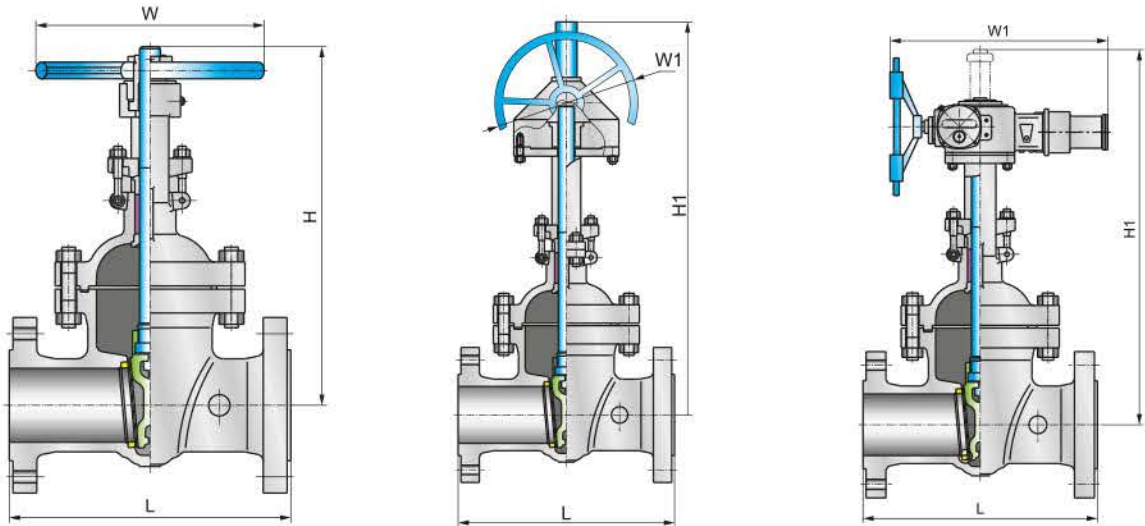
主要外形尺寸 Main External Dimensions

口径 Size	手动 Hand operated				齿动 Gear operated				
	L	H	W	重量 Weight	L	H1	W1	锥齿轮装置 Gear actuator	重量 Weight
Z(5)40(I)H(W.Y)-300Lb (C.P.R.L.I.S.H.V)									
2	216	380	200	30	-	-	-	-	-
2-1/2	241	410	250	39	-	-	-	-	-
3	283	450	250	55	-	-	-	-	-
4	305	530	300	83	-	-	-	-	-
5	381	700	300	92	-	-	-	-	-
6	403	730	350	137	-	-	-	-	-
8	419	820	400	240	-	-	-	-	-
10	457	1010	450	329	-	-	-	-	-
12	502	1130	500	530	-	-	-	-	-
14	762	1489	600	699	762	1790	460	BA-1	820
16	838	1580	650	1010	838	1968	460	BA-1	1130
18	914	2017	700	1205	914	2273	610	BA-2	1320
20	991	2228	700	1720	991	2482	610	BA-2	1850
24	1143	2650	750	2800	1143	3054	610	BA-2	2950
26	-	-	-	-	1245	3219	610	BA-2	-
28	-	-	-	-	1346	3378	610	BAA-3	-
30	-	-	-	-	1397	3530	610	BAA-3	3786

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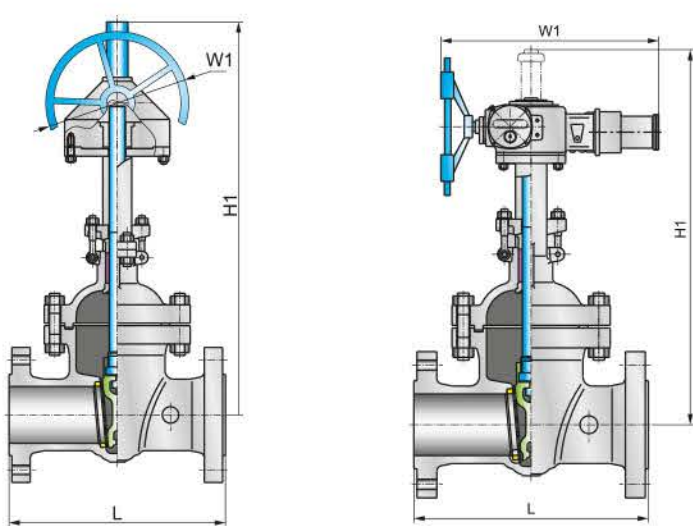
主要外形尺寸 Main External Dimensions

口径 Size	手动 Hand operated				齿动 Gear operated					电动 Electric			
	L1/L2	H	W	重量 Weight	L1/L2	H1	W1	锥齿轮装置 Gear actuator	重量 Weight	L1/L2	H2	转矩 Torque(NM)	重量 Weight
Z(5.9)40(I)H(W.Y)-600Lb (C.P.R.L.I.S.H.V)													
2	292/295	425	250	42	-	-	-	-	-	292/295	550	200	112
2-1/2	330/333	485	300	58	-	-	-	-	-	330/333	600	200	135
3	356/359	510	300	85	-	-	-	-	-	356/359	660	300	194
4	432/435	610	400	131	-	-	-	-	-	432/435	780	300	223
5	508/601	700	450	182	-	-	-	-	-	508/601	850	400	296
6	559/562	820	500	253	559/562	840	310	BA-0	285	559/562	990	600	385
8	660/664	920	600	413	660/664	930	310	BA-0	440	660/664	1130	900	541
10	787/791	1080	600	620	787/791	1105	460	BA-1	674	787/791	1360	1200	816
12	838/841	1220	650	784	834/841	1220	460	BA-1	840	838/841	1520	1800	1090
14	889/892	1473	700	1288	889/892	1380	610	BA-2	1350	889/892	1730	2500	1560
16	991/994	1651	800	1700	991/994	1435	610	BA-2	1790	991/994	1840	3500	1950
18	1092/1095	1727	800	2140	1092/1095	1915	610	BA-2	2230	1092/1095	2370	5000	2390
20	1194/1200	2019	800	2450	1194/1200	2095	610	BAA-3	2540	1194/1200	2600	8000	2580
24	-	-	-	-	1397/1406	2155	610	BAA-3	4080	1397/1406	3160	12000	4190

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主要外形尺寸 Main External Dimensions

口径 Size	手动 Hand operated				齿动 Gear operated					电动 Electric			
	L1/L2	H	W	重量 Weight	L1/L2	H1	W1	锥齿轮装置 Gear actuator	重量 Weight	L1/L2	H2	转矩 Torque(NM)	重量 Weight
Z(5.9)40(I) H (W.Y)-900Lb (C.P.R.L.I.S.H.V)													
2	368/371	540	300	90	-	-	-	-	-	-	-	-	-
2-1/2	419/422	555	350	110	-	-	-	-	-	-	-	-	-
3	381/384	625	350	123	-	-	-	-	-	381/384	910	300	300
4	457/460	730	400	148	-	-	-	-	-	457/460	1020	450	325
6	610/613	860	600	410	610/613	895	460	BA-1	440	610/613	1060	900	570
8	737/740	930	600	650	737/740	1070	460	BA-1	720	737/740	1150	1200	885
10	838/841	1090	650	1090	838/841	1290	610	BA-2	1140	838/841	1320	1800	1300
12	965/968	1245	700	1625	965/968	1540	610	BA-2	1720	965/968	1580	2500	1870
14	-	-	-	-	1029/1038	1620	610	BAA-3	2400	1029/1038	1660	3500	2370
16	-	-	-	-	1130/1140	1730	610	BAA-3	2740	1130/1140	1780	5000	3010
Z(5.9) 40 (I) H (W.Y)-1500Lb (C.P.R.L.I.S.H.V)													
3	-	-	-	-	-	-	-	-	-	470/473	960	450	335
4	-	-	-	-	-	-	-	-	-	546/549	1040	450	445
5	-	-	-	-	705/711	1250	460	BA-1	640	705/711	1250	1800	785
6	-	-	-	-	832/841	1600	460	BA-1	990	832/841	1600	1800	1140
8	-	-	-	-	-	-	-	-	-	991/1000	1860	1800	1790
10	-	-	-	-	-	-	-	-	-	1130/1146	2150	2500	2810
12	-	-	-	-	-	-	-	-	-	1257/1276	2380	8000	4190
14	-	-	-	-	-	-	-	-	-	1384/1407	2580	12000	4970

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