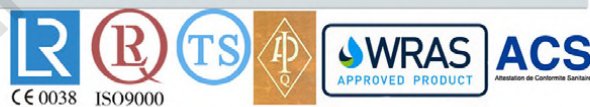




TIANJIN WORLDS VALVE CO.,LTD.

天津沃得斯阀门有限公司

Company Profile



TIANJIN WORLDS VALVE LTD. is located at TIAN JIN BIN HAI where is only 3 kilometers away from Tianjin Xingang Port, TIANJIN WORLDS VALVE LTD. is a specialized manufacture enterprise that focuses producing, installing, sale and service. The main products include Center Line Butterfly Valve, Flanged Butterfly Valve, Metal Butterfly Valve, Check Valve, Gate Valve, Waterpower Control Valve, Microresistance Slow Close Check Valve, Multi-function Pump Control Valve and their series products. Moreover, we can produce control valve and pressure reducing valve that are different materials, pressures, specifications actuation ways. Our products include more than 50 serials and 1200 species, and the annual production output is more than 8.000 metric tons. WORLDS valves have been selling well all over China and exporting to Europe, America and other countries and areas, which are used widely in water supply and drainage, electric power, petrol chemical industry, metallurgy and other trades. Our products are quite creative, good quality, good price and excellent credit, so customers trust our products.

WORLDS has advanced technicians and engineers and has a lot of large and middle machines including 178 sets of manufacturing equipments and 32 sets of performance testing equipments importing from overseas. Our products have original design, exquisite technique, perfect manufacture and complete testing ways. It has passed ISO 9001 international quality system certification of DNV. WORLDS must supply best products and service for all customers.



Certificates And Patents



WORLDS has advanced technicians and engineers and has a lot of large and middle machines including 178 sets of manufacturing equipments and 32 sets of performance testing equipments importing from overseas. Our products have original design, exquisite technique, perfect manufacture and complete testing ways. It has made special equipment license TS, ISO9001 quality system certification and the European Pressure Equipment CE certification, the American Petroleum Institute API certification and a series of international certification authority, over the years, with its first class enterprise management and product quality consistent valve industry. In order to ensure product quality, the company's main production equipment and testing instruments all use well-known brand, all products are in strict accordance with international standards, whether it is production management, and quality assurance system are comprehensive use of international advanced mode.



Measuring And Packaging



Production System

The perfect process not only because of our advanced manufacturing technique equipment and complete tests but also for worlds multi department teams.

The technicians participation make our products be equipped with excellent quality and potential value during they being well manufactured



Introduction of the valve



The sealing of these valves take place between the body and the elastic ring around the disc. These valves have very low torque and are 100% tight shut off with preferred flow direction and can work at higher pressures than concentric valves. The pressure drop with the disc in fully open position is minimum because of the two piece shaft. These valves are self-cleaning, easy to maintain, and easy assembly and disassembly. These valves are used in multiple applications, being particularly suitable for water (drinking water, desalination plants, cooling systems power generation, waste water, etc.).

Features

1. Perfectly machined Stainless steel seat ring with specially designed sealing profile of the rubber ensures continued tight shut off sealing and makes it an ideal choice for flow isolation and shut off duties.
2. The double offset disc design ensures minimal seat wear and provides excellent throttling capabilities.
3. Adjustable mechanical stopper provided on valve body ensures precise closing of the disc without over/under travel.
4. Both drive end and non drive end shafts are fully blowout proof and guided by self lubricated bush bearings.
5. Axial thrust bearing provided on valve ensures precise positioning of the disc and prevents unequal loading of the valve seat, it also enables installation of valve in any orientation of required.
6. Special Shaft sealing arrangement ensures zero fugitive emission and enables field replacement of shaft sealing elements.
7. The seat provided on the disc is fully field replaceable and ensures optimum seating/reseating torque.
8. A choice of seat materials makes the valve suitable for gas or liquid service with a host of applications.

The Basic Information

Model: EBF01-TF01

Sizes: DN100 through DN1800

Pressure Class: PN10 (10 bar) or PN16 (16 bar)

Design : API609 BSEN593 BS5155

Test: API598 ISO5208 EN12266-1

Flange Connection: DIN2501 PN10/16 ,ISO7005-2 PN10/16,

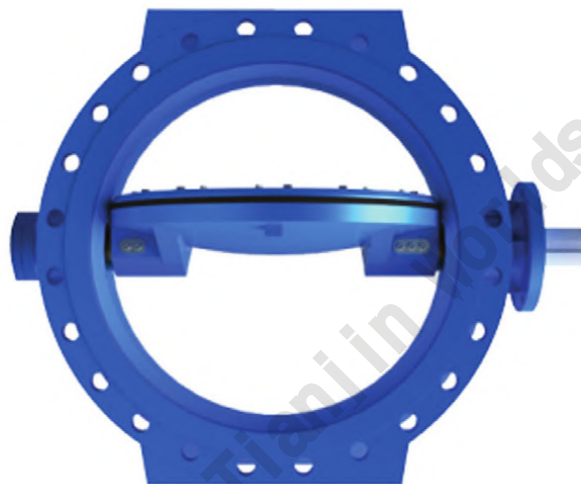
EN1092-2 PN10/16, ANSI B16.5 class 150LB

ANSI B 16.47 Series A class 150LB, ANSI B 16.1

MSS SP44 class150LB AWWA C207

TOP Flange: ISO5211

Face To Face: EN558-1 series14 ,ISO5752 Series 14



Material & Actuation Options

Body Material: Ductile iron ASTM A536 Gr. 65-45-12 standard, exceeds DIN-GGG-40

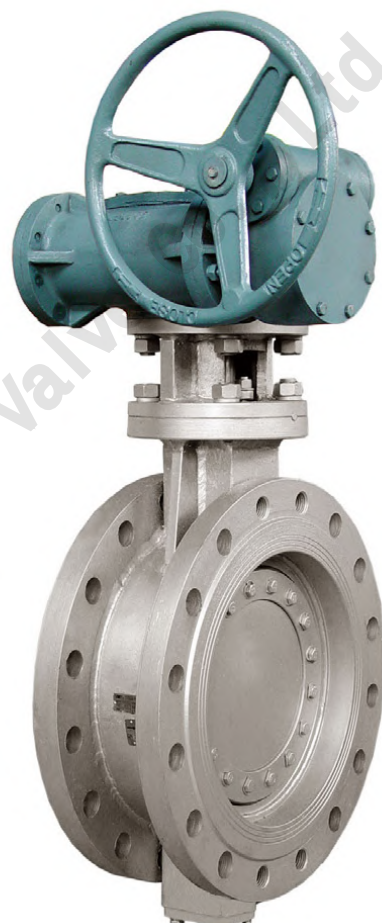
Rubber Seat: Rubber seat mechanically retained in disc by means of a specially engineered ductile seat retaining ring and stainless

Disc Material: Ductile iron ASTM A536 Gr. 65-45-12 standard, exceeds DIN-GGG-40

Shaft: Stainless Steel Bronze

Actuation Options:

- Gear with handwheel (Standard)
- Hydraulic Actuation
- Pneumatic Actuation
- Electric Actuation



Butterfly Valve, Sizes DN100 through DN1800

PN10 or PN16 Rated Pressure



Valve Shafts

Valve shafts shall be dry (isolated from line media) and shall be of stainless steel AISI 420. Both ends of the valve dry shaft are to be designed with O-rings on sealing sleeves.

Coating

All surfaces of the valve interior shall be clean, dry and free from grease before painting. The valve surfaces except for the disc edge, rubber seat and finished portions shall be evenly coated with epoxy coating approved for drinking water applications. Valve sizes up to DN1200 shall be fusion bonded epoxy.

Testing

Hydrostatic and seat leakage tests shall be conducted in strict accordance with BS EN 12261-1.

Manual Actuators

Manual actuators shall be self-locking type and shall be designed to hold the valve in any intermediate position between fully open and fully closed without creeping or fluttering. Actuators shall be equipped with mechanical stop-limiting devices to prevent over travel of the disc in the open and closed positions. Actuators shall be fully enclosed and designed to produce the specified torque with a maximum rim pull of 80 lb. on the handwheel. Actuator components shall withstand an input of 300 Ft. Lbs. at extreme operator position without damage.

General

Butterfly valves shall be manufactured in accordance with BS EN 593. The manufacturer shall have produced butterfly valves for a minimum of five years. All valves shall be Pratt ISO-DE Flanged Butterfly Valves and comply with the following details.

Valve Bodies

Valve bodies shall be constructed of ASTM A536 Gr.65-45-12 ductile iron which exceeds DIN-GGG-40 and BS-2789 Grade 420 requirements. Flanged valves shall be raised faced and drilled in accordance with EN-558-1/ISO 5752/BS EN 1092.

Valve Seats

Rubber seats shall be EPDM rubber, of one piece molded construction and mechanically attached to the valve disc by means of seat retaining ring or segments and 304 Stainless Steel nylon lock screws.

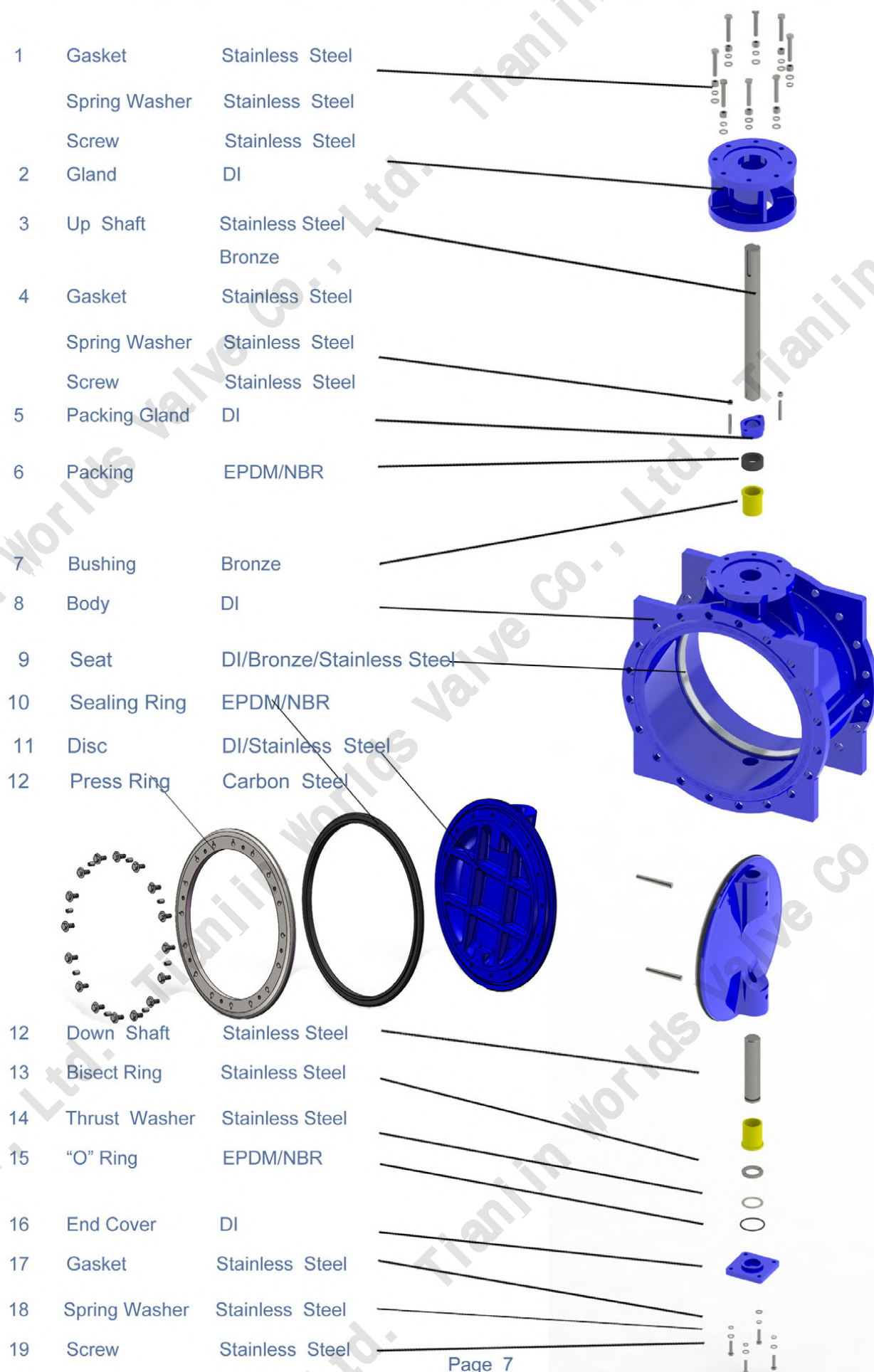
Valve Bearings

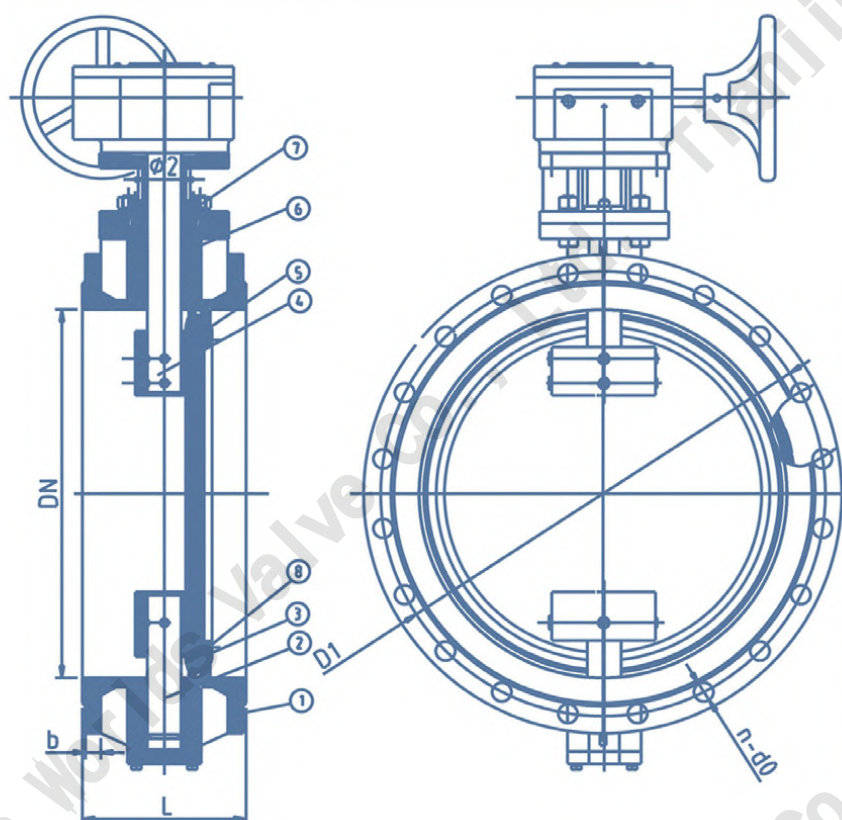
Valve bearings shall be of a self-lubricating, nonmetallic material to effectively isolate the disc-shaft assembly from the valve body.

Valve Disc

Valve disc shall be constructed of ASTM A536 Gr.65-45-12 ductile iron which exceeds DIN-GGG-40 and BS-2789 Grade 420 requirements. The disc shall be designed to afford minimal pressure drop and line turbulence.

Discs shall be retained by stainless steel dry pins which extend through the shaft in blind holes to withstand the specified line pressure up to valve rating and the torque required to operate the valve. Disc stops located in the flow stream are not allowed.

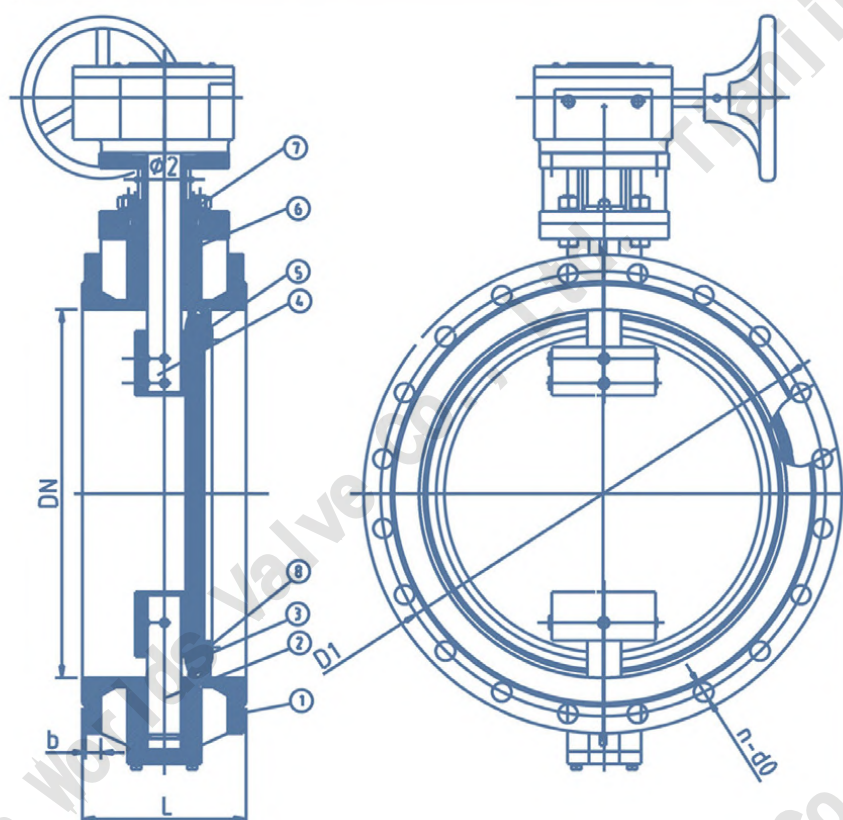
Main Spare Part Material Quality (DN50-DN1800)


Drawing(100-300)


8	Sealing ring	NBR/EPDM	
7	Gland	GGG40	
6	O-ring	NBR	
5	Press ring	DI	
4	Upper shaft	2Cr13	
3	Disc	GGG40	
2	Lower shaft	2Cr13	
1	Body	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:10bar	SHELL	SEAL
	HYDROSTATIC	15bar	11bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN10	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN10

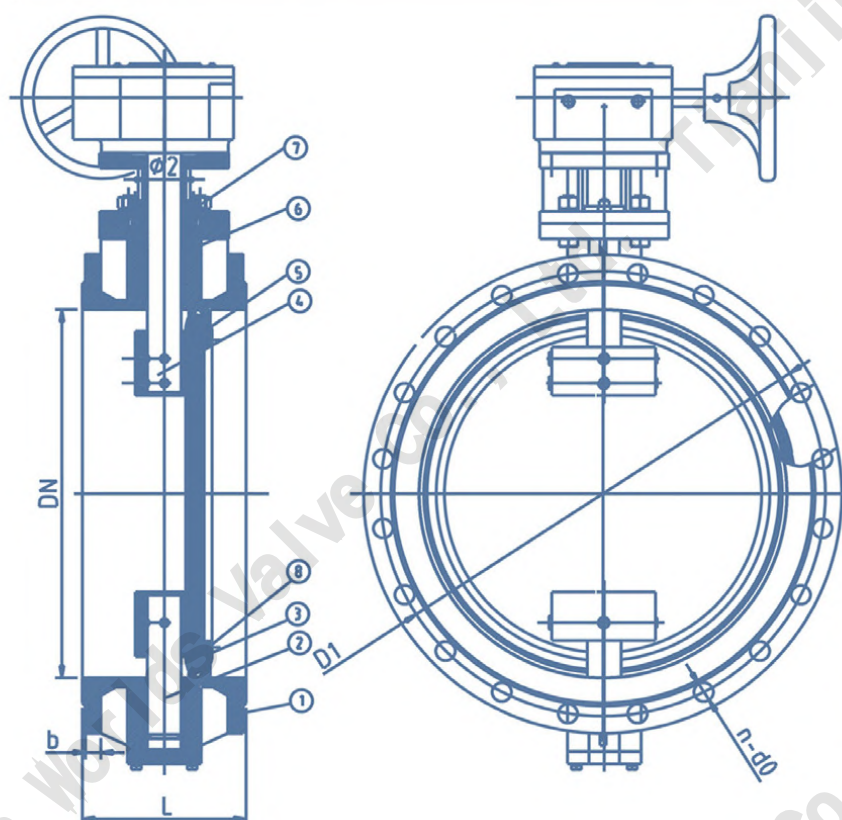
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	φ2	J	Ratio
DN100	180	8-19	19	190	F07	70	4-10	45	16	5	24:1
DN150	240	8-23	19	210	F07	70	4-10	45	20	6	24:1
DN200	295	8-23	20	230	F10	102	4-12	45	25	8	50:1
DN250	350	12-23	22	250	F10	102	4-12	45	30	8	50:1
DN300	400	12-23	25	270	F14	140	4-18	45	34	10	532:1

Drawing(100-300)


8	Sealing ring	NBR/EPDM	
7	Gland	GGG40	
6	O-ring	NBR	
5	Press ring	DI	
4	Upper shaft	2Cr13	
3	Disc	GGG40	
2	Lower shaft	2Cr13	
1	Body	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:16bar	SHELL	SEAL
	HYDROSTATIC	24bar	17.6bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN16	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN16

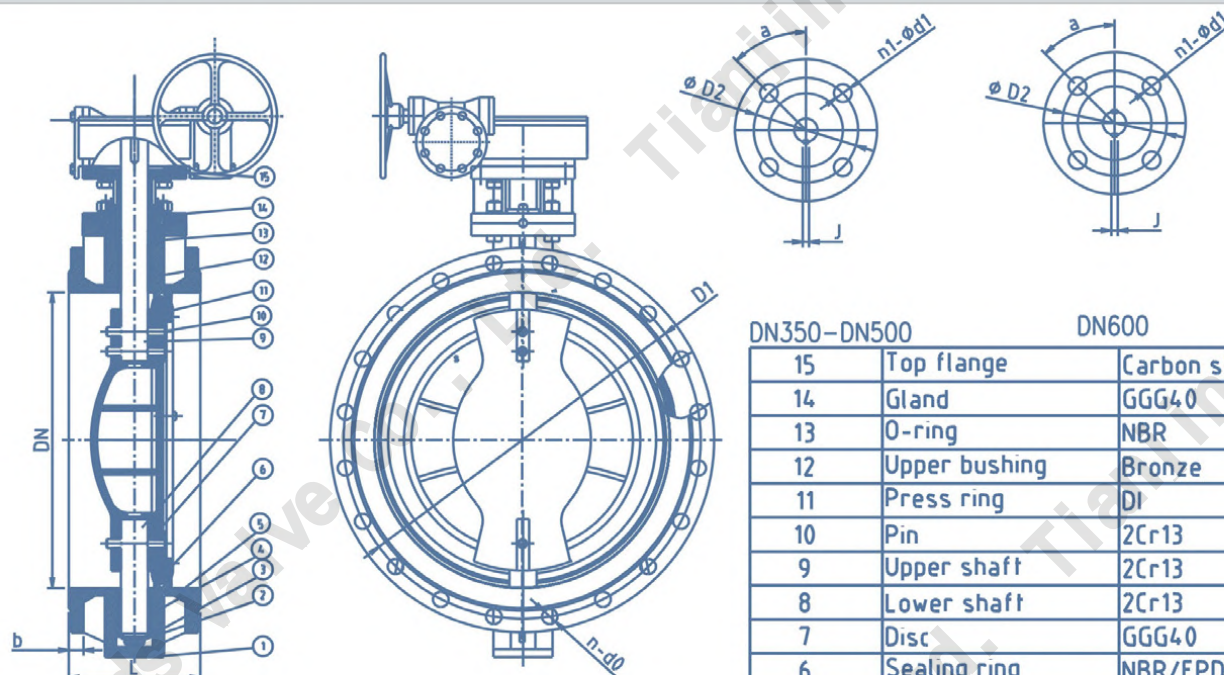
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	φ2	J	Ratio
DN100	180	8-19	19	190	F07	70	4-10	45	16	5	24:1
DN150	240	8-23	19	210	F07	70	4-10	45	20	6	24:1
DN200	295	12-23	20	230	F10	102	4-12	45	25	8	50:1
DN250	355	12-28	22	250	F10	102	4-12	45	30	8	50:1
DN300	410	12-28	25	270	F14	140	4-18	45	34	10	532:1

Drawing(100-300)


8	Sealing ring	NBR/EPDM	
7	Gland	GGG40	
6	O-ring	NBR	
5	Press ring	DI	
4	Upper shaft	2Cr13	
3	Disc	GGG40	
2	Lower shaft	2Cr13	
1	Body	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP 25bar	SHELL	SEAL
	HYDROSTATIC	37.5bar	27.5bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN25	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN25

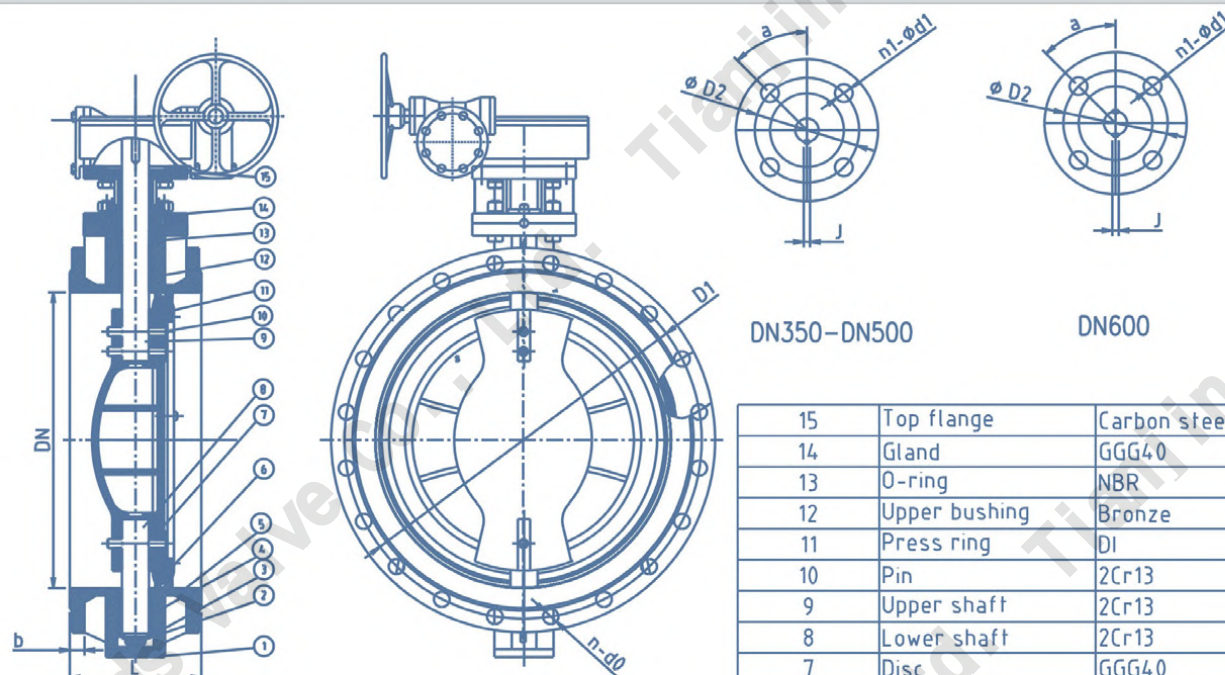
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	φ2	H1	J	Ratio
DN100	190	8-23	19	190	F07	70	4-10	45	16	45	5	24:1
DN150	250	8-28	20	210	F07	70	4-10	45	20	45	6	24:1
DN200	310	12-28	22	230	F10	102	4-12	45	25	50	8	50:1
DN250	370	12-31	24.5	250	F10	102	4-12	45	30	50	8	50:1
DN300	430	16-31	27.5	270	F14	140	4-18	45	34	60	10	532:1

Drawing(350-600)

DN350-DN500
DN600

15	Top flange	Carbon steel	
14	Gland	GGG40	
13	O-ring	NBR	
12	Upper bushing	Bronze	
11	Press ring	DI	
10	Pin	2Cr13	
9	Upper shaft	2Cr13	
8	Lower shaft	2Cr13	
7	Disc	GGG40	
6	Sealing ring	NBR/EPDM	
5	Body	GGG40	
4	Lower bushing	Bronze	
3	Bisect ring	2Cr13	
2	Thrust Washer	Stainless Steel	
1	Lower cover	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:10bar	SHELL	SEAL
	HYDROSTATIC	15bar	11bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN10	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN10

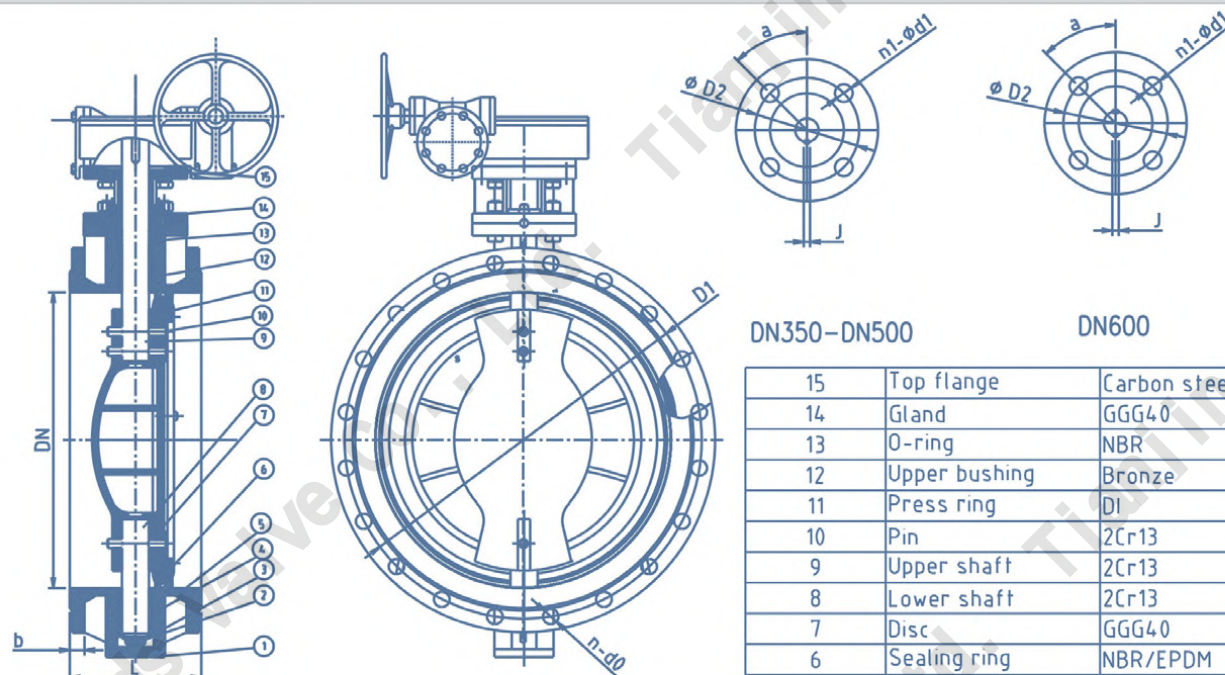
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	ø2	J	Ratio
DN350	460	16-23	25	290	F14	140	4-18	45	40	12	532:1
DN400	515	16-28	25	310	F14	140	4-18	45	45	14	532:1
DN450	565	20-28	26	330	F14	140	4-18	45	45	14	532:1
DN500	620	20-28	27	350	F16	165	4-22	45	52	16	640:1
DN600	725	20-31	30	390	F16	165	4-22	45	55	16	640:1

Drawing(350-600)


15	Top flange	Carbon steel	
14	Gland	GGG40	
13	O-ring	NBR	
12	Upper bushing	Bronze	
11	Press ring	DI	
10	Pin	2Cr13	
9	Upper shaft	2Cr13	
8	Lower shaft	2Cr13	
7	Disc	GGG40	
6	Sealing ring	NBR/EPDM	
5	Body	GGG40	
4	Lower bushing	Bronze	
3	Bisect ring	2Cr13	
2	Thrust Washer	Stainless Steel	
1	Lower cover	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:16bar	SHELL	SEAL
	HYDROSTATIC	24bar	17.6bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN16	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN16

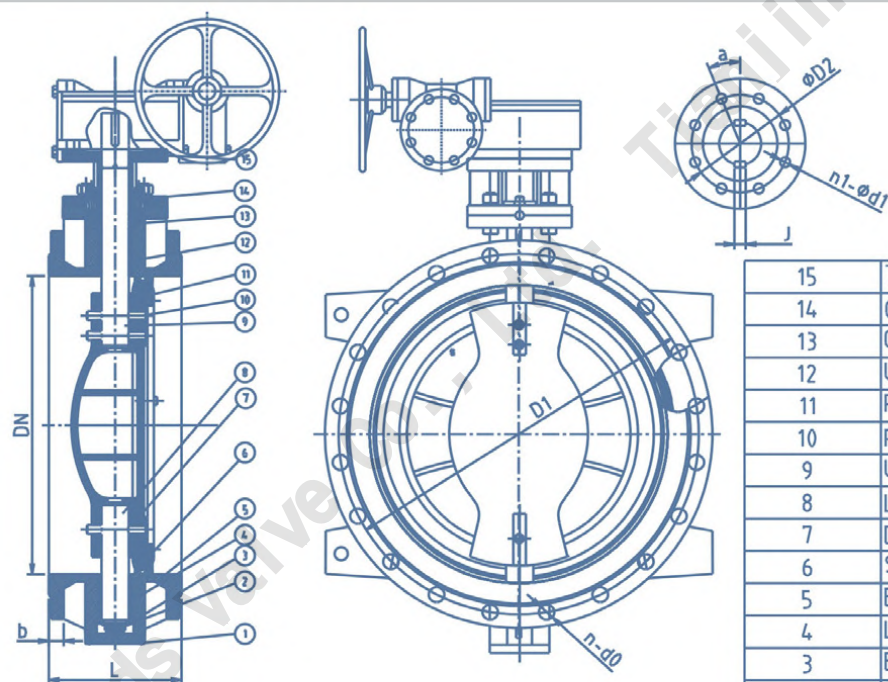
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	Ø2	J	Ratio
DN350	470	16-28	27	290	F14	140	4-18	45	40	12	532:1
DN400	525	16-31	28	310	F14	140	4-18	45	45	14	532:1
DN450	585	20-31	30	330	F14	140	4-18	45	45	14	532:1
DN500	650	20-34	32	350	F16	165	4-22	45	52	16	640:1
DN600	770	20-37	36	390	F16	165	4-22	45	55	16	640:1

Drawing(350-600)

DN350-DN500
DN600

15	Top flange	Carbon steel	
14	Gland	GGG40	
13	O-ring	NBR	
12	Upper bushing	Bronze	
11	Press ring	DI	
10	Pin	2Cr13	
9	Upper shaft	2Cr13	
8	Lower shaft	2Cr13	
7	Disc	GGG40	
6	Sealing ring	NBR/EPDM	
5	Body	GGG40	
4	Lower bushing	Bronze	
3	Bisect ring	2Cr13	
2	Thrust Washer	Stainless Steel	
1	Lower cover	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:25bar	SHELL	SEAL
	HYDROSTATIC	37.5bar	27.5bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN25	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN25

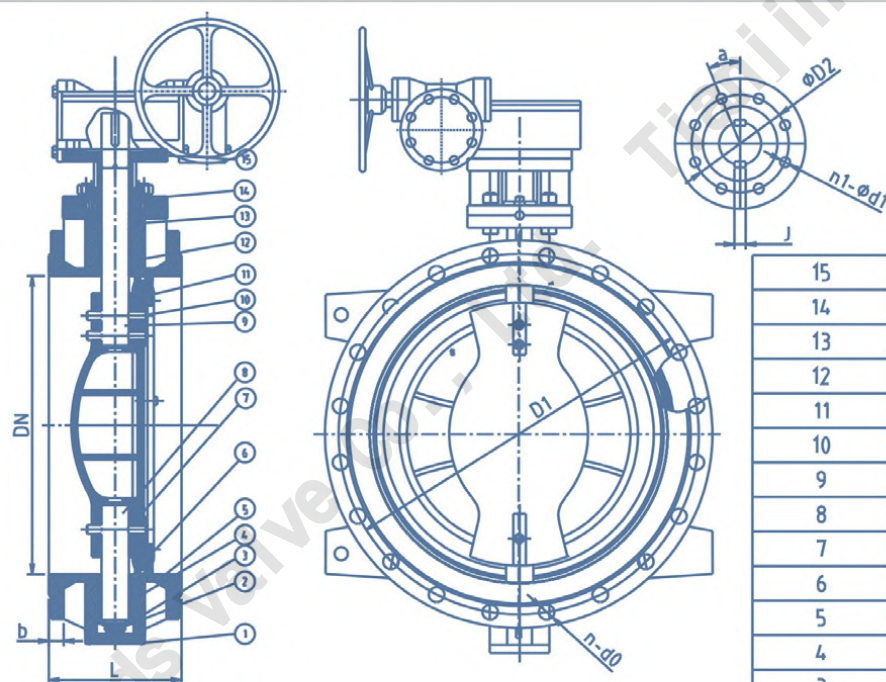
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	Ø2	J	Ratio
DN350	490	16-34	30	290	F14	140	4-18	45	40	12	532:1
DN400	550	16-37	32	310	F14	140	4-18	45	45	14	532:1
DN450	600	20-37	34.5	330	F14	140	4-18	45	45	14	532:1
DN500	660	20-37	36.5	350	F16	165	4-22	45	52	16	640:1
DN600	770	20-41	42	390	F16	165	4-22	45	55	16	640:1

Drawing(700-1200)


15	Top flange	Carbon steel	
14	Gland	GGG40	
13	O-ring	NBR	
12	Upper bushing	Bronze	
11	Press ring	DI	
10	Pin	2Cr13	
9	Upper shaft	2Cr13	
8	Lower shaft	2Cr13	
7	Disc	GGG40	
6	Sealing ring	NBR/EPDM	
5	Body	GGG40	
4	Lower bushing	Bronze	
3	Bisect ring	2Cr13	
2	Thrust Washer	Stainless Steel	
1	Lower cover	GGG40	
NO.	NAME	MATERIAL	
TEST PRESSURE	CWP:10bar	SHELL	SEAL
	HYDROSTATIC	15bar	11bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN10	
	FACE TOFACE	EN 558-1 SERIES14	

Outline Dimensions PN10

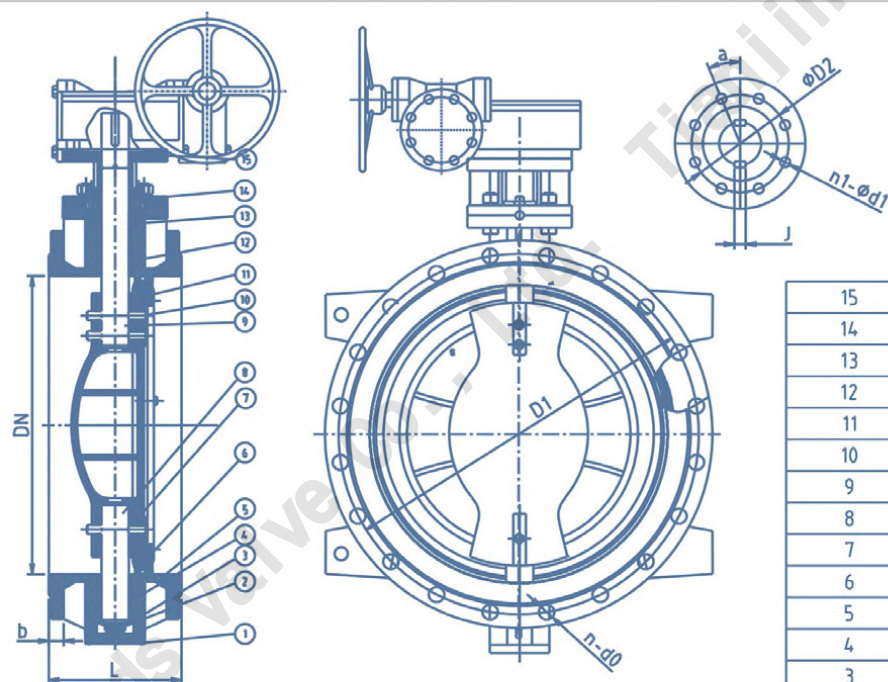
Size	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	Ø2	J	Ratio
DN700	840	24-31	33	430	F25	254	8-18	22.5	65	18	704:1
DN800	950	24-34	35	470	F25	254	8-18	22.5	70	20	848:1
DN900	1050	28-34	38	410	F25	254	8-18	22.5	80	22	848:1
DN1000	1160	28-37	40	550	F25	254	8-18	22.5	92	25	848:1
DN1200	1380	32-41	45	630	F30	298	8-22	22.5	100	28	1072:1

Drawing(700-1200)


15	Top flange	Carbon steel	1
14	Gland	GGG40	1
13	O-ring	NBR	4
12	Upper bushing	Bronze	1
11	Press ring	DI	1
10	Pin	2Cr13	3
9	Upper shaft	2Cr13	1
8	Lower shaft	2Cr13	1
7	Disc	GGG40	1
6	Sealing ring	NBR/EPDM	1
5	Body	GGG40	1
4	Lower bushing	Bronze	1
3	Bisect ring	2Cr13	1
2	Thrust Washer	Stainless Steel	1
1	Lower cover	GGG40	1
NO.	NAME	MATERIAL	QTY
TEST PRESSURE	CWP:16bar	SHELL	SEAL
	HYDROSTATIC	24bar	17.6bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN16	
	FACE TOFACE	EN 558-1 Series 14	

Outline Dimensions PN16

DN	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	Ø2	J	Ratio
700	840	24-37	40	430	F25	254	8-18	22.5	65	18	704:1
800	950	24-41	43	470	F25	254	8-18	22.5	70	20	848:1
900	1050	28-41	47	510	F25	254	8-18	22.5	80	22	848:1
1000	1170	28-44	50	550	F25	254	8-18	22.5	92	25	848:1
1200	1390	32-50	57	630	F30	298	8-22	22.5	100	28	1072:1

Drawing(700-1200)


15	Top flange	Carbon steel	1
14	Gland	GGG40	1
13	O-ring	NBR	4
12	Upper bushing	Bronze	1
11	Press ring	DI	1
10	Pin	2Cr13	3
9	Upper shaft	2Cr13	1
8	Lower shaft	2Cr13	1
7	Disc	GGG40	1
6	Sealing ring	NBR/EPDM	1
5	Body	GGG40	1
4	Lower bushing	Bronze	1
3	Bisect ring	2Cr13	1
2	Thrust Washer	Stainless Steel	1
1	Lower cover	GGG40	1
NO	NAME	MATERIAL	QTY
TEST PRESSURE	CWP:25bar	SHELL	SEAL
	HYDROSTATIC	37.5bar	27.5bar
	AIR		
STANDARD	DESIGN	EN 593	
	INSPECTION&TEST	EN 12266-1	
	END STANDARD	EN 1092-2 PN25	
	FACE TOFACE	EN 558-1 Series 14	

Outline Dimensions PN25

DN	D1	n-d0	b	L	ISO5211	D2	n1-d1	a	Ø2	J	Ratio
700	875	24-44	46.5	430	F25	254	8-18	22.5	65	18	704:1
800	990	24-50	51	470	F25	254	8-18	22.5	70	20	848:1
900	1090	28-50	55.5	510	F25	254	8-18	22.5	80	22	848:1
1000	1210	28-57	60	550	F25	254	8-18	22.5	92	25	848:1
1200	1420	32-57	69	630	F30	298	8-22	22.5	100	28	1072:1



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