

CRYOGENIC TRIPLE OFFSET BUTTERFLY VALVES

- For LNG, LEG, LPG, Air separation, and Liquid hydrogen cryogenic applications



Complete Solutions for Industrial Valves

As a global leader in valve manufacturing, Neway (SSE:603699) is dedicated to the production, research, and development of industrial valves. Neway is committed to providing complete valve solutions to all industries through advanced engineering and innovation.

Neway's product line includes Ball, Butterfly, Gate, Globe, Check, Nuclear, Control, Subsea, and Safety valves. Neway's high quality standards and innovative abilities are recognized by many global end users and EPCs. Neway valves are utilized in a wide range of industries and various working conditions such as Onshore Exploration and Production, Refining, Chemical/Petrochemical, Pipeline, LNG, Offshore, Power, and Renewable/Green Energy applications.

Facilities & Service

Neway has developed a sophisticated multi-plant management system which includes a single valve manufacturing facility, an API 6A valve manufacturing plant, three foundries, one forging plant, and three R&D centers. Neway's largest manufacturing plant was expanded in 2013, and now covers 35,000 square meters.

Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) plays a critical role in the Research & Development of our products. Neway uses SAP to control the traceability and status for all products during the manufacturing process.

In order to ensure the safety and reliability of our products, Neway uses the most advanced fire-safe, cryogenic, high pressure, and fugitive emission test equipment to meet the latest industry requirements.

As part of our global strategy to provide a superior customer service experience, Neway has established overseas subsidiaries in the USA, Netherlands, Italy, Singapore, Dubai, and Nigeria and over 80 agents and distributors worldwide.

Quality Assurance

Neway is dedicated to the pursuit of "Zero Defects". Neway maintains a quality management system that encompasses the entire manufacturing operation from order entry to final inspection. Through our continuous efforts for innovation, Neway products have successfully achieved industry certifications such as ISO 9001, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals .



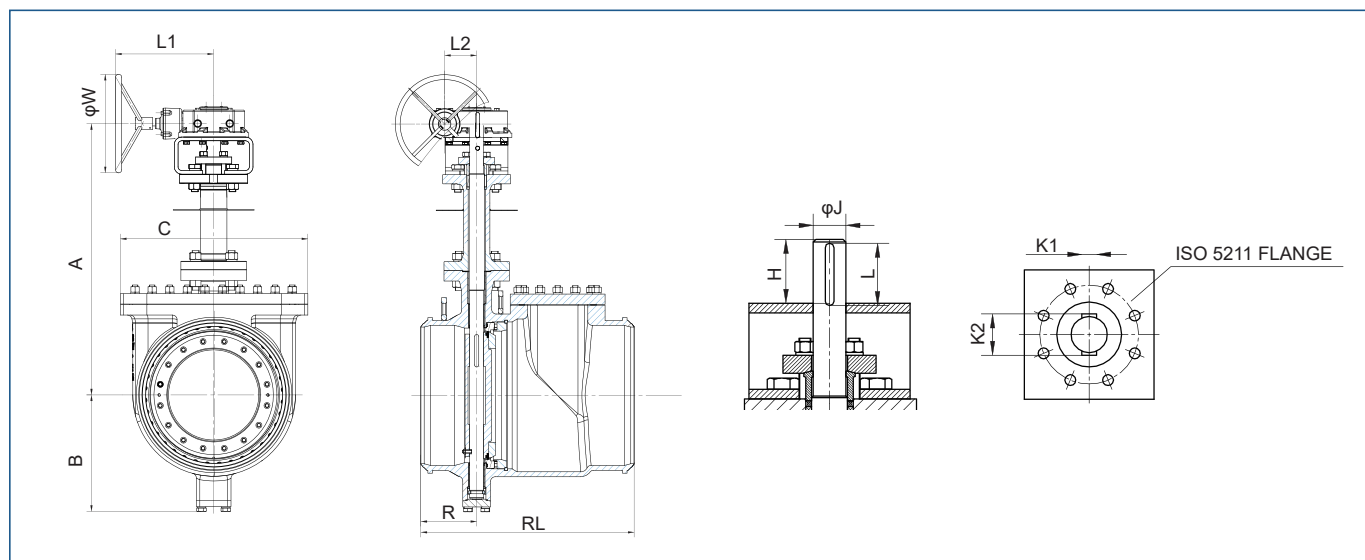
Cryogenic Triple Offset Butterfly Valve

High performance butterfly valve for cryogenic services

- Neway's Cryogenic Triple Offset Butterfly valves are designed for tight shut off and throttling service. The design eliminates concentrated wear points on the sealing ring and highly extends the valve service life.
- Standard body patterns include Flanged and Butt weld ends, while Wafer and Lug types are available upon request.
- Butt weld end type valves have an extended body to prevent heat conduction to the sealing area during welding activities. A flanged cover on top of the valve body enables the inspection, maintenance, and replacement of all inner parts and disc without the need to disassemble the valve or to cut the pipe.
- Neway Triple Offset Butterfly Valves can be manufactured with a laminated sealing ring or solid metal sealing ring. Both available options ensure an optimal seal within the full temperature and pressure range. Neway Butterfly Valves are bi-directional and Fire Safe qualified to API 607.
- The bonnet is an extended design (SPEC 77/200, BS 6364, ISO28921, MSS SP-134, GB/T 24925) to ensure that the stem packing area does not freeze while the fluid temperatures reach down to -196°C .
- The valve can be installed with the stem in any orientation.
- Neway offers the valves standard with an ISO 5211 for automation.



Valve Dimensions – Butt-weld End (side entry)

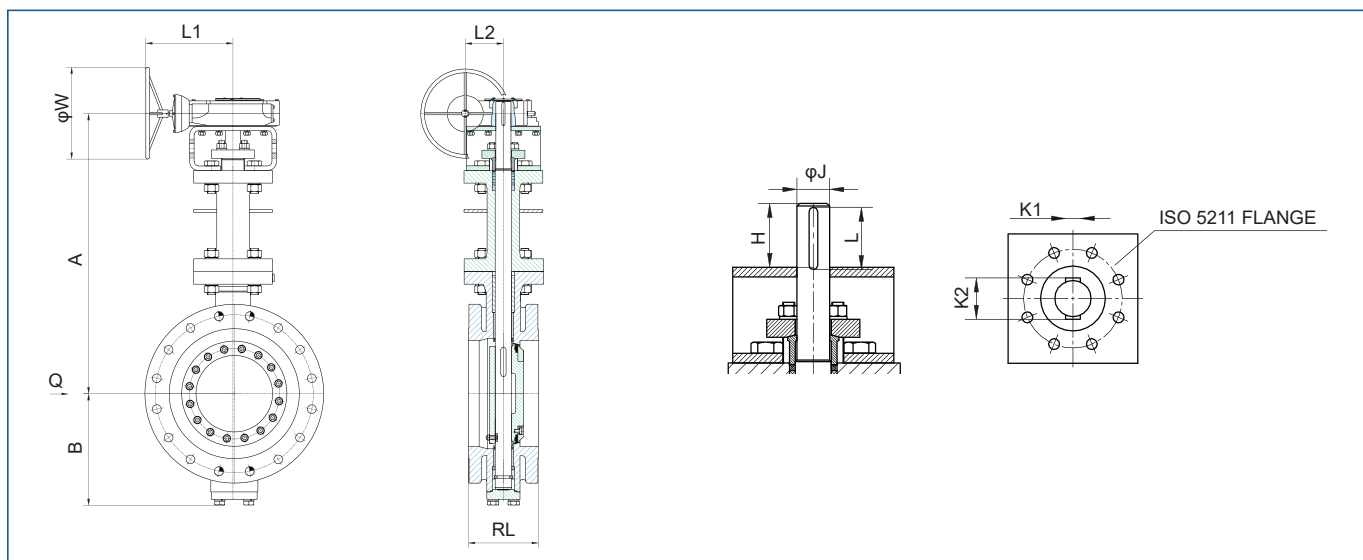


ANSI Class 150

Size	6	8	10	12	14	16	18	20	24	30	36	40	42
A	660	680	790	820	950	991	1085	1110	1175	1741	1605	1755	1775
B	185	216	246	276	309	364	387	419	503	602	670	751	771
C	312	354	452	492	533	575	658	701	735	993	1143	1271	1327
R	90	100	88	109	120	130	136	147	160	175.5	188	203	206.5
RL	395	410	455	480	530	555	590	625	680	792	864	907	927
W	300	600	600	600	600	600	600	600	600	600	800	800	800
L1	282	305	305	346	346	346	398	398	410	620	650	705	705
L2	71	86	86	104.5	104.5	104.5	130	130	140	246.4	246.5	279	279
J	26	28	32	35	40	45	50	55	60	95	105	115	115
H	52	65.5	57.5	65.5	85.5	83.5	105	104.5	114.5	157.5	153	159	159
L	50	56	56	63	80	80	100	110	110	160	160	160	160
K1	8	8	10	10	12	14	14	16	18	25	28	32	32
K2	32	34	38	41	46	52	57	63	68	105	117	129	129
ISO 5211	F12	F14	F14	F14	F16	F16	F25	F25	F25	F35	F40	F40	F40

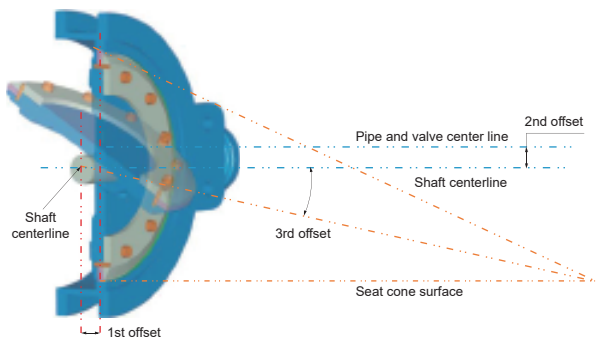


Valve Dimensions – Flanged End

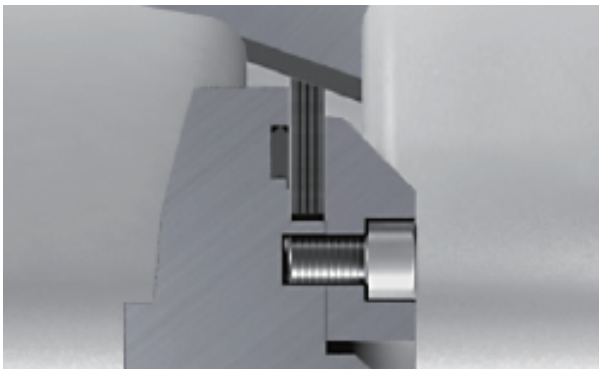


ANSI Class 150

Size	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48
A	670	690	800	825	960	1010	1085	1115	1180	1380	1480	1495	1525	1950	1660	1860
B	185	220	250	280	310	370	390	425	500	560	630	630	675	715	770	910
RL	140	152	165	178	190	216	222	229	267	292	318	318	330	410	410	470
W	300	600	600	600	600	600	600	600	600	800	600	600	600	800	800	800
L1	282	305	305	346	346	348	398	398	480	471	511	511	511	650	705	790
L2	71	86	86	104.5	104.5	53	130	130	182	209	256	256	256	247	280	343
J	26	28	32	35	40	45	50	55	60	85	95	95	105	115	115	135
H	52	64.5	57.5	65.5	85.5	78.5	105	104.5	107.5	156.5	160	161.5	156	154	159	168.5
L	50	56	56	63	80	80	100	110	110	160	160	160	160	160	160	190
K1	8	8	10	10	12	14	14	16	18	22	25	25	28	32	32	36
K2	32	34	38	41	46	52	57	63	68	95	105	105	117	129	129	151
ISO 5211	F12	F14	F14	F14	F16	F16	F25	F25	F25	F35	F35	F35	F35	F40	F40	F48



- ▶ Offset Description.
- ▶ 1st Offset: The purpose of this offset is to provide a continuous seat path.
- ▶ 2nd Offset: The offset permits the seal to separate could use term "pull away" from the seat during the valve's opening process.
- ▶ 3rd offset: The offset eliminates contact between the seat and seal surfaces throughout the 90° operation.



- ▶ Interchangeable Seal Ring
- ▶ Laminated Seal Ring and Solid Metal Seal Ring Options.
- ▶ Anti-blowout Stem Design
- ▶ Fire Safe Design
- ▶ Fugitive Emission Design
- ▶ Live loaded Packing Options Available



Specifications & materials

Design Standard	API609B, ASME B16.34, ISO 28921, BS6364, MSS-SP-134
Inspection & Testing	API598, ISO 28921, BS6364
Temperature Range	-196°C ~ +300°C
Size Range	3" ~ 48" (DN80 ~ DN1200)
Pressure Rating	Class 150, 300, 600
Body Material	ASTM A351 CF8M, CF3M, stellited
Disc Material	ASTM A351 CF8M
Shaft Material	ASTM A479 XM-19
Shaft Seal	Graphite packing
Seal Ring Material	B865 N05500 + Graphite, B637 UNS N07718 etc.
End Connection	Wafer, Lug, Double Flange, BW
Operation	Gear, Electric, Pneumatic

Qualification

Classified and certified by the major classification societies: CCS, BV, ABS, RS, DNV,

LR etc.

Project References

Overseas

NEW EUROPEAN PDH KALLO PROJECT

BONNY ISLAND TRAIN 7

MALAYSIA SARAWAK METHANOL

FILLING FACILITY OF LNG ISO TANK PROJECT

ORBIT LNG

LONGEVITY PROJECT- ISOLATION VALVES SUPPLY FOR TRAIN 3

EPC OF CO2 EXPORT FACILITIES AT QG SOUTH; MG PROJECT REF ::

TOBOLSK 02,RUSSIA

LNG CANADA PROJECT

POLAND POLIMERY POLICE PDH/PP PROJECT

RAPID PACKAGE 29-C4 INA PROJECT

ENTERPRISE PDH II

ORPIC LIWA PLASTICS

NITROGEN BUSINESS CONTINUITY PLAN

KGHM2 PROJECT

BORSODCHEM HYCO IV

China Domestic

1.5 MILLION TONS/YEAR ETHYLENE PROJECT, HENGLI 20 MILLION TONS REFINING AND CHEMICAL INTEGRATION PROJECT

TIANJIN LNG PHASE II PROJECT

3.2 MILLION TONS/YEAR LIGHT HYDROCARBON COMPREHENSIVE PROCESSING AND UTILIZATION PROJECT

WANHUA YANTAI INDUSTRIAL PARK PROJECT

LIGHT HYDROCARBON STORAGE PROJECT

YANGLING LNG PROJECT

SINOPEC QINGDAO LNG

HARBIN LNG PROJECT

ZHOUSHAN LNG FILLING STATION PROJECT

GUANGXI LNG STORAGE PROJECT



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