

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Киргизия (996)312-96-26-47

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Казахстан (772)734-952-31

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Таджикистан (992)427-82-92-69

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

<http://modentic.nt-rt.ru/> || mcb@nt-rt.ru

SPECIAL ALLOY VALVES



Monel
Duplex
SS904L
Alloy 20
Hastelloy
Super Duplex

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ABOUT MODENTIC

OVER 20 YEARS EXPERIENCE ON MANUFACTURING STAINLESS & CARBON STEEL BALL VALVES, MODENTIC IND. CORP HAS BEEN DEVELOPING OUR SPECIAL ALLOY MARKET SINCE 1997. NOW WE ARE ABLE TO PRODUCE A WIDE RANGE OF SPECIAL ALLOY MATERIAL. THOSE VALVES CAN BE APPLIED IN DIFFERENT INDUSTRIES.

WE BELIEVE OUR NEW PRODUCTS WILL BRING OUT A LOT OF BENEFITS TO HELP YOU TO BREAK INTO NEW MARKET IN YOUR COUNTRY.

Special Alloy Applications :

- OFFSHORE
- OIL & GAS
- CHEMICAL / PETROCHEMICAL
- PULP / PAPER FACTORY
- WATER / WASTEWATER
- MARINE

Current Material Range :

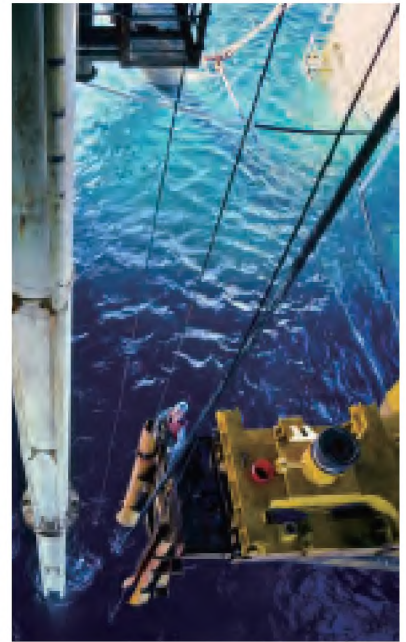
- AUSTENITIC ALLOY
- SUPER AUSTENITIC ALLOY
- NICKEL BASE ALLOY
- DUPLEX ALLOY
- TITANIUM ALLOY



MACHINING PROCESS

MATERIAL GUIDE

Introduce The Characteristic Of Each Material Group



AUSTENITIC ALLOY

Austenitic stainless steels have high ductility, low yield stress and relatively high ultimate tensile strength, when comparing to typical carbon steel.

SUPER AUSTENITIC ALLOY

Super Austenitic stainless steels are widely used in the offshore petrochemical industry, due to its high corrosion resistance characteristics in severe environments.

TITANIUM ALLOY

Due to its unprecedented strength, lightness stable and abundant market and non-corrosion characteristics, titanium has emerged as the metal of choice for aerospace, energy production and transportation, industry and medical, leisure and consumer products, notably golf clubs and bicycle frames. Furthermore, due to its strength and lightness, titanium is currently being tested in the automobile industry, which has found that the use of titanium for connecting rods and moving parts has resulted in significant fuel efficiency.

NICKEL BASE ALLOY

Nickel-Chromium-molybdenum wrought alloy that is considered the most versatile corrosion resistant alloy available. This alloy is resistant to the formation of grain boundary precipitates in weld heat-affected zone, thus making it suitable for most chemical process applications in an welded condition.

DUPLEX ALLOY

Called duplex because of its mixed microstructure with about equal proportions of ferrite and austenite, duplex stainless steels are a family of grades, which range in corrosion performance depending on their alloy content.

ALLOY 20

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

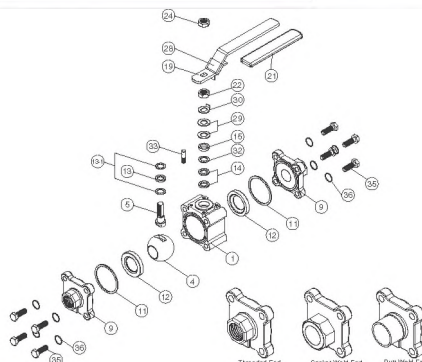


API 607 6th Edition
ISO 10497
Full Bore
ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 Class 600/ API 608
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

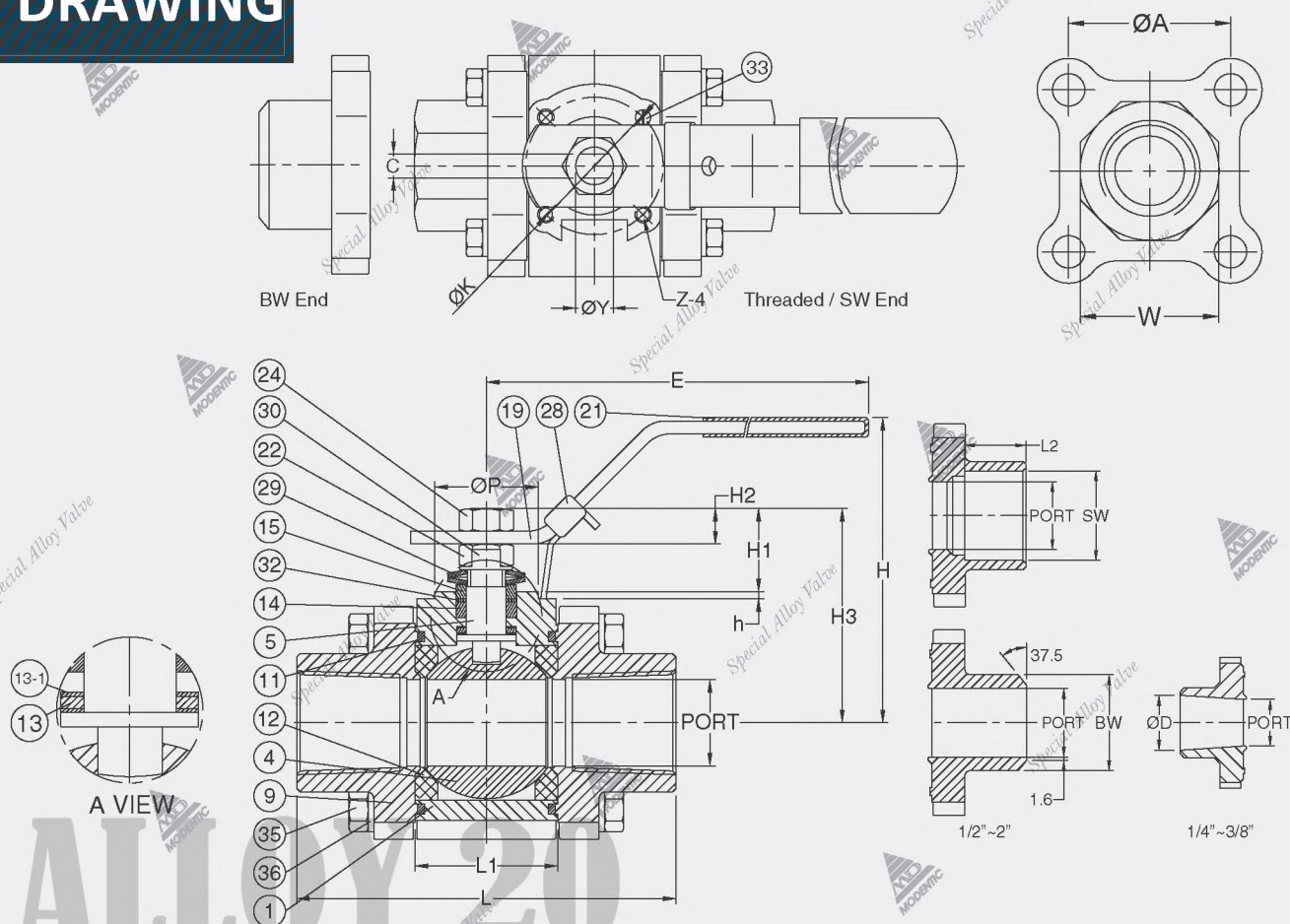
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Type Approval ABS Type Approval
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CN7M
4	BALL	ASTM A351 Gr.CN7M
5	STEM	N08020
9	END CAP	ASTM A351 Gr.CN7M
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304

Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM		
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1		10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6		12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7		-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3		-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9		-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8		-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7		-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3		-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

DUPLEX 2205

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

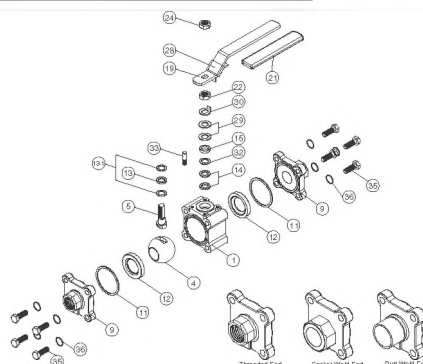


API 607 6th Edition
ISO 10497
Full Bore
ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 Class 600/ API 608
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

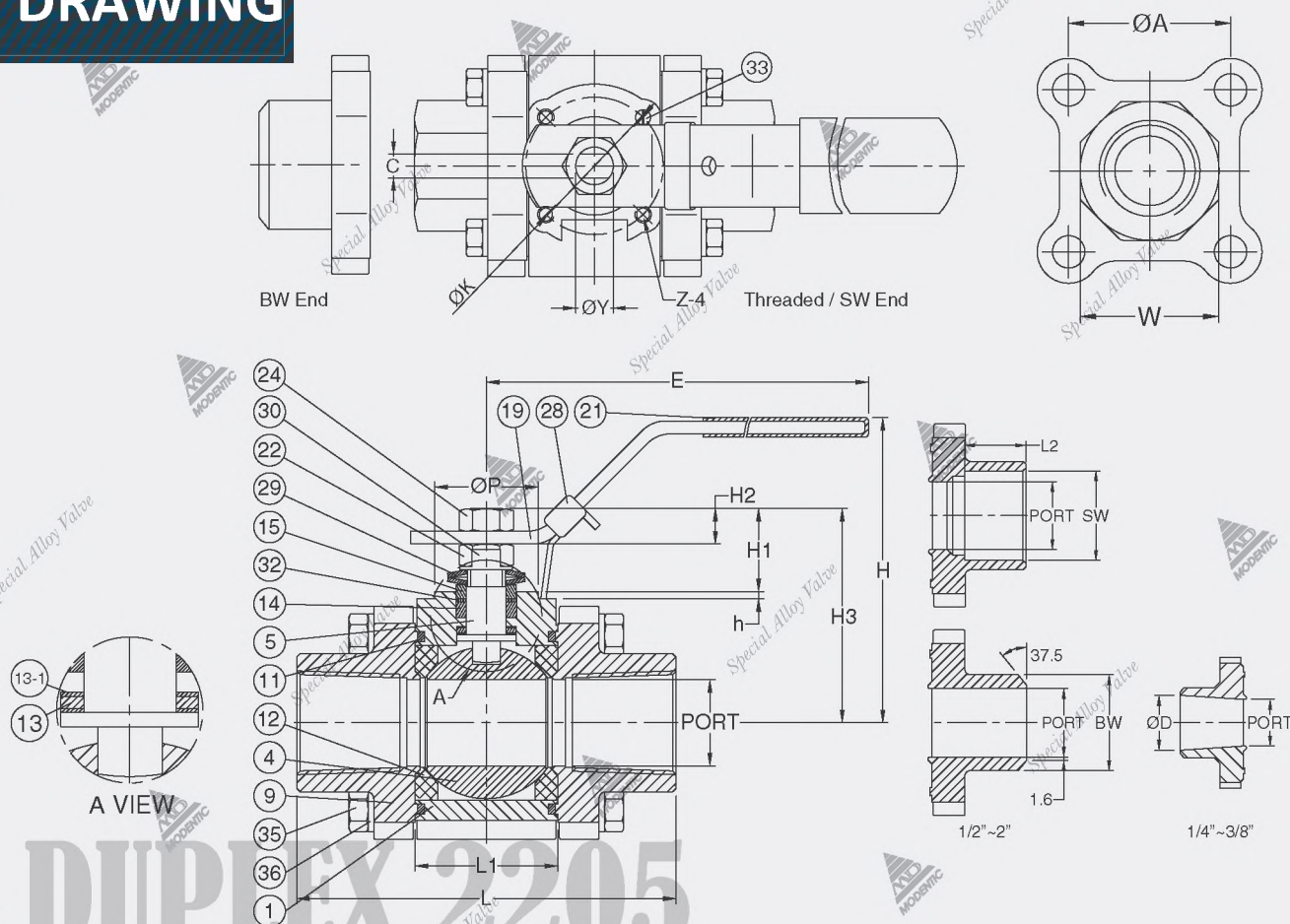
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Type Approval ABS Type Approval
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CD3MN
4	BALL	ASTM A890/995 Gr.CD3MN
5	STEM	S31803
9	END CAP	ASTM A890/995 Gr.CD3MN
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304

Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM		
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1		10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6		12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7		-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3		-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9		-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8		-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7		-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3		-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

HASTELLOY® C276

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

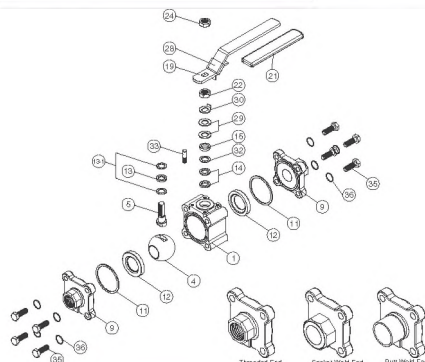


API 607 6th Edition
ISO 10497
Full Bore
ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 Class 600/ API 608
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

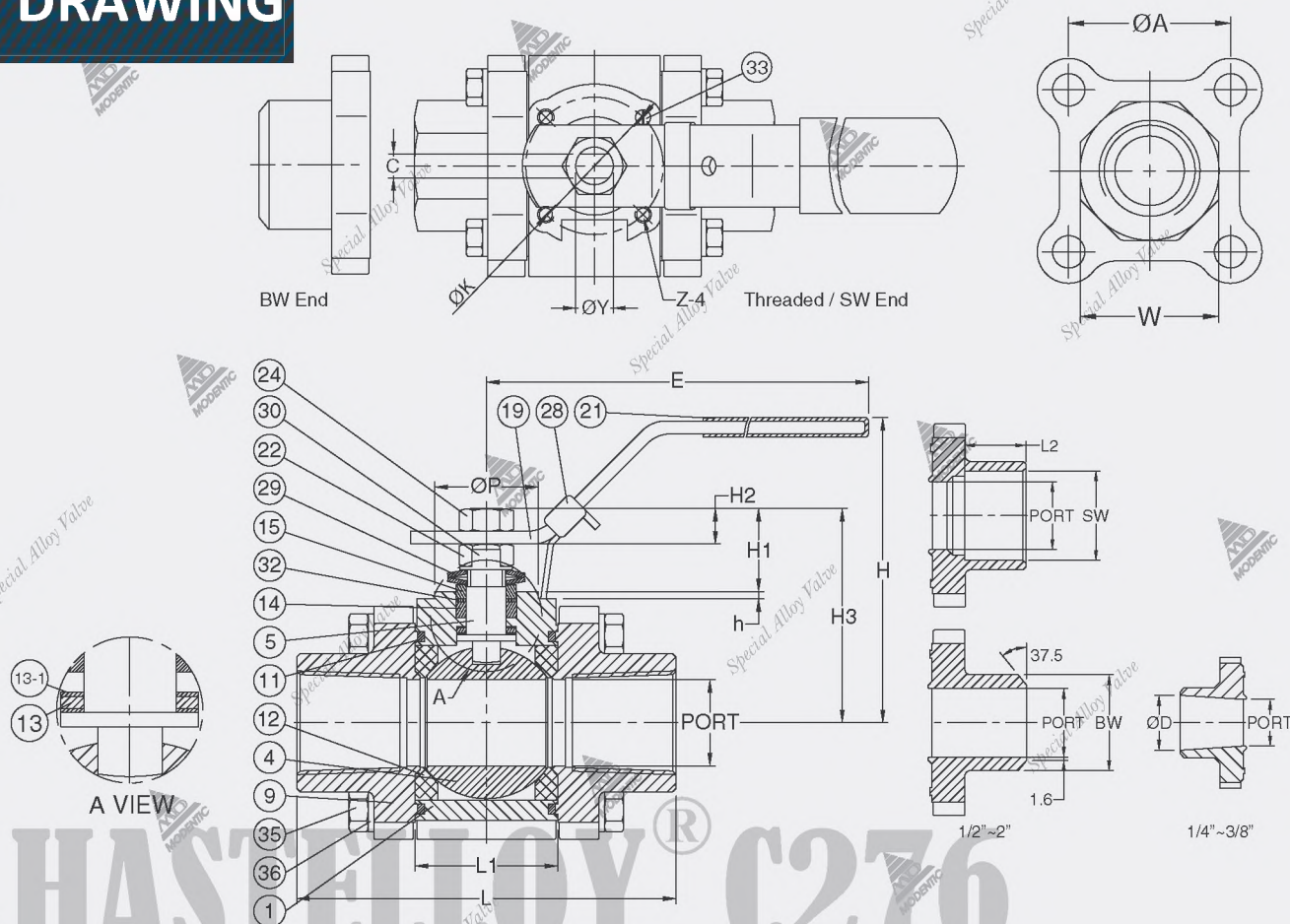
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Type Approval ABS Type Approval
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.CW12MW
4	BALL	ASTM A494 Gr.CW12MW
5	STEM	N10276
9	END CAP	ASTM A494 Gr.CW12MW
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304

Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM		
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1		10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6		12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7		-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3		-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9		-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8		-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7		-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3		-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

MONEL® 400

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

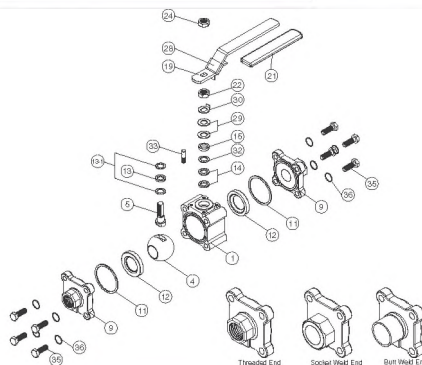


API 607 6th Edition
ISO 10497
Full Bore
ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|--|
| • Design | ASME/ANSI B16.34 Class 600/ API 608 |
| • Threaded End | NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp |
| • Socket | ASME/ANSI B16.11 |
| • Butt Weld End | ASME/ANSI B16.25 |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Type Approval | ABS Type Approval |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

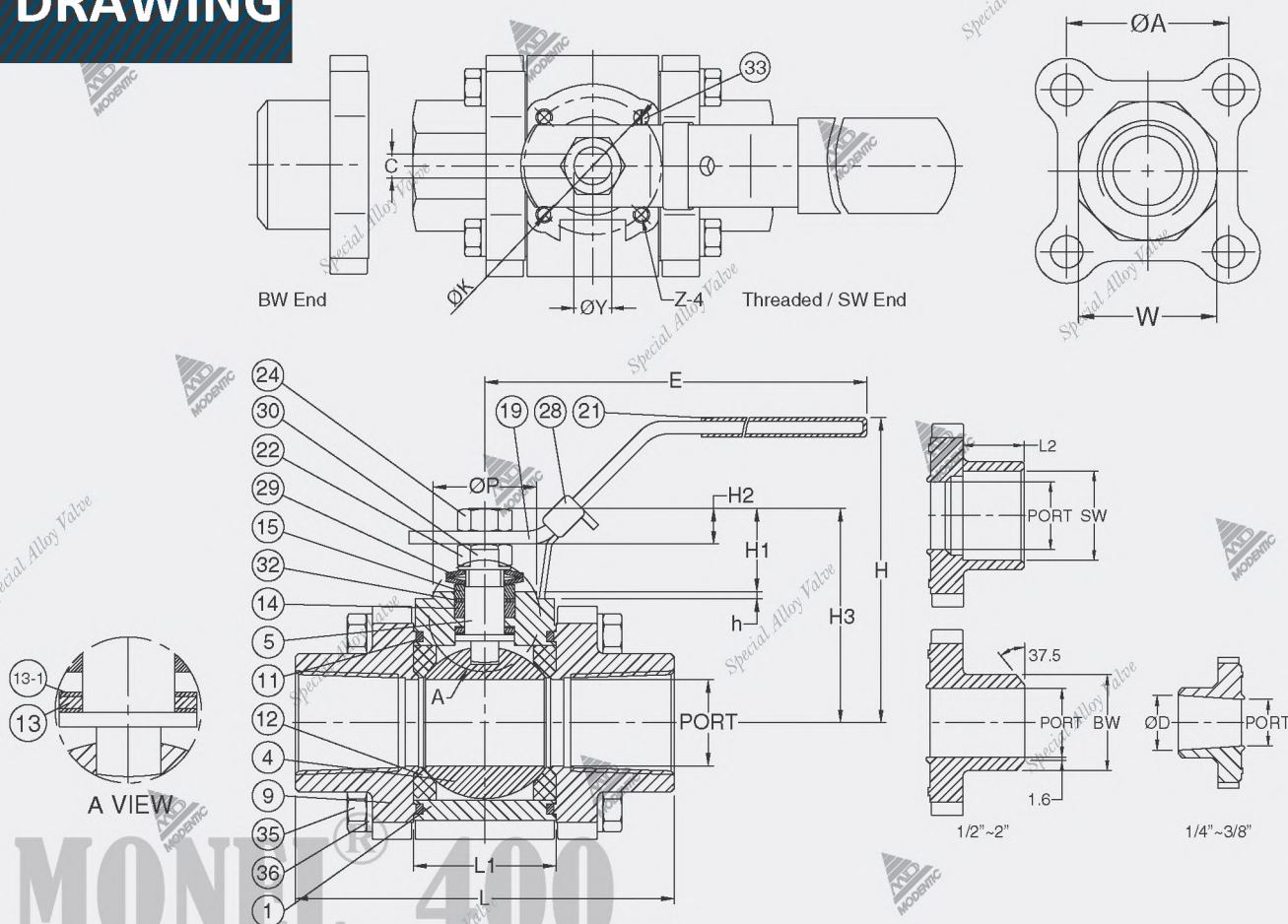
MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.M-35-1
4	BALL	ASTM A494 Gr.M-35-1
5	STEM	N04400
9	END CAP	ASTM A494 Gr.M-35-1
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304



Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1	10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6	12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7	-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3	-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9	-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8	-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7	-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3	-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

SS 904 L

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

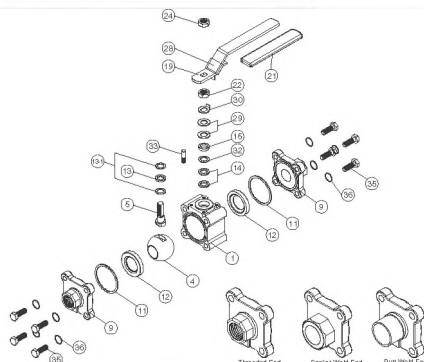


API 607 6th Edition
ISO 10497
Full Bore
ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 Class 600/ API 608
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

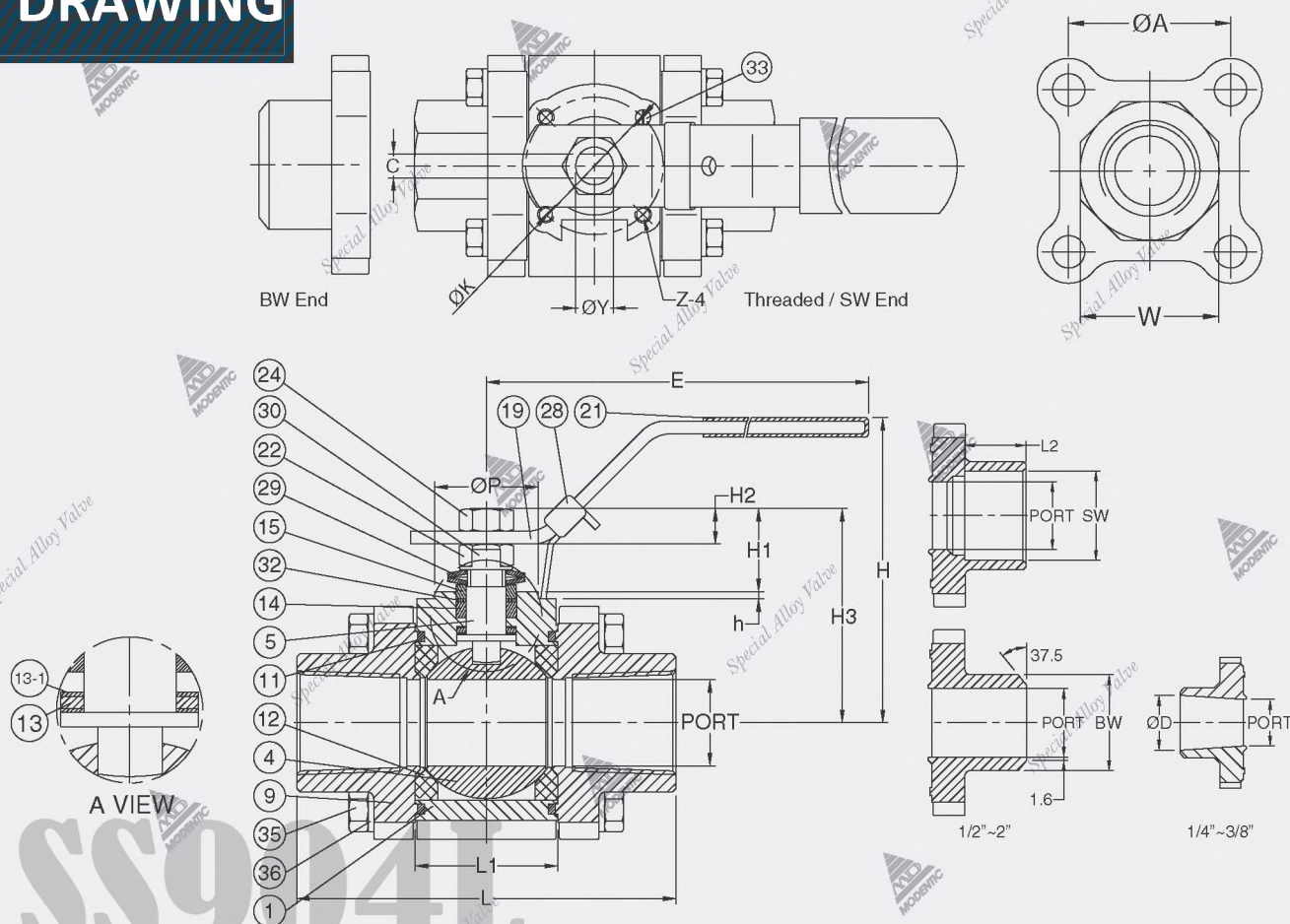
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Type Approval ABS Type Approval
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	SS904L / CASTING
4	BALL	SS904L / CASTING
5	STEM	AISI 904L
9	END CAP	SS904L / CASTING
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304

Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM		
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1		10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6		12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7		-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3		-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9		-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8		-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7		-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3		-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

SUPER DUPLEX 2507

V-255FS

2000/1500 PSI
Three Pieces Ball Valves

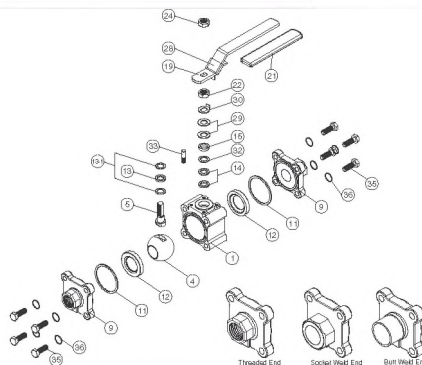


API 607 6th Edition
ISO 10497
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ISO 5211 Mounting
3 Piece Body Design
8 Body Bolts Design
2000 PSI for 1/4" ~ 1"
1500 PSI for 1-1/4" ~ 2"

AVAILABLE MATERIAL

- **ALLOY 20**
- **HASTELLOY® C-276**
- **DUPLEX 2205**
- **DUPLEX 2507**
- **MONEL®**
- **SS904L**

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design with 8 Bolts
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 Class 600/ API 608
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

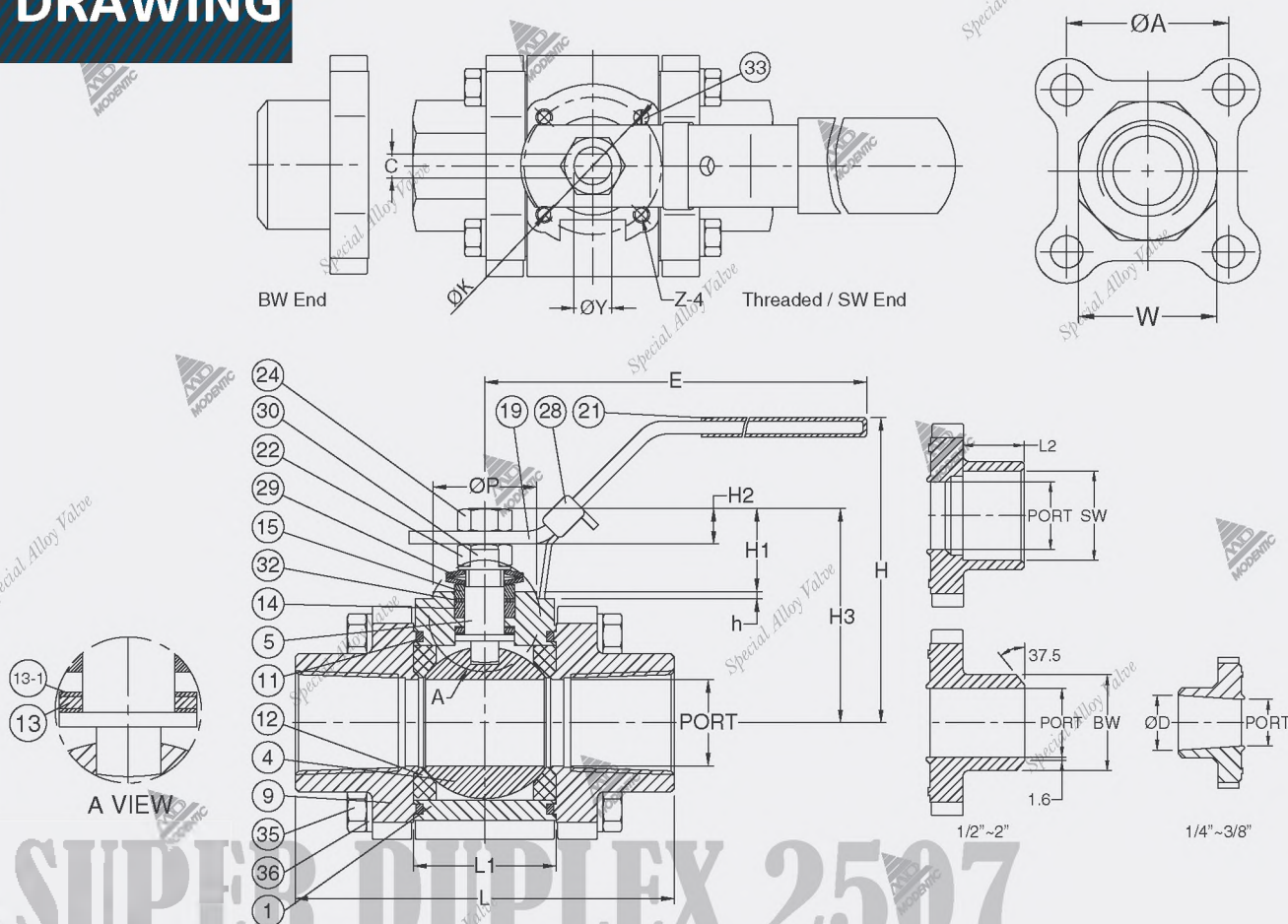
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Type Approval ABS Type Approval
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CE3MN
4	BALL	ASTM A890/995 Gr.CE3MN
5	STEM	S32750
9	END CAP	ASTM A890/995 Gr.CE3MN
11	BODY SEAL	GRAPHITE
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
15	GLAND BUSH	SS304
19	HANDLE	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS301
30	TAB WASHER	SS304
32	PACKING FOLLOWER	RTFE.
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
36	BOLT WASHER	SS304

Three Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : MM
DN8	1/4"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	14.1	10.0	13.7
DN10	3/8"	10.0	64.8	20.5	132.8	63.7	7.5	6.6	37.1	0.5	6.5	9.5	29.4	36/F03	25.1	M5	32.0	10.0	17.6	12.7	17.7
DN15	1/2"	15.0	72.5	24.5	132.8	65.1	17.1	11.1	46.1	2.0	6.5	9.5	30.3	36/F03	25.0	M5	35.0	10.0	21.7	-	21.9
DN20	3/4"	20.0	84.2	31.4	132.8	73.2	18.1	9.1	50.9	2.0	6.5	9.5	36.5	36/F03	25.0	M5	41.3	13.0	27.3	-	27.3
DN25	1"	25.0	105.3	41.3	171.8	83.1	25.4	13.1	61.4	2.0	8.0	11.1	44.5	42/F04	30.0	M5	48.0	13.0	33.9	-	34.7
DN32	1-1/4"	32.0	111.0	48.4	171.8	87.6	26.2	12.6	66.8	2.0	8.0	11.1	54.1	42/F04	30.0	M5	56.2	13.0	42.8	-	42.8
DN40	1-1/2"	38.0	127.3	56.3	204.2	98.4	32.4	14.9	80.0	2.2	9.7	14.2	60.0	50/F05	35.0	M6	63.6	13.0	48.7	-	49.1
DN50	2"	50.0	153.4	72.0	211.0	130.0	28.5	15.5	99.4	1.5	12.0	19.05	76.0	70/F07	55.0	M8	79.2	16.0	61.3	-	60.9

SIZE	PORT	L	L1	E	H	H1	H2	H3	h	C	ØY	W	ØK	ØP	Z	ØA	L2	SW	ØD	BW	UNIT : INCH
DN8	1/4"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.56	0.39	0.54
DN10	3/8"	0.39	2.55	0.81	5.23	2.51	0.30	0.26	1.46	0.02	0.26	0.37	1.16	1.42/F03	0.99	M5	1.26	0.39	0.69	0.50	0.70
DN15	1/2"	0.59	2.85	0.96	5.23	2.56	0.67	0.44	1.81	0.08	0.26	0.37	1.19	1.42/F03	0.98	M5	1.38	0.39	0.85	-	0.86
DN20	3/4"	0.79	3.31	1.24	5.23	2.88	0.71	0.36	2.00	0.08	0.26	0.37	1.44	1.42/F03	0.98	M5	1.63	0.51	1.07	-	1.07
DN25	1"	0.98	4.15	1.63	6.76	3.27	1.00	0.52	2.42	0.08	0.31	0.44	1.75	1.65/F04	1.18	M5	1.89	0.51	1.33	-	1.37
DN32	1-1/4"	1.26	4.37	1.91	6.76	3.45	1.03	0.50	2.63	0.08	0.31	0.44	2.13	1.65/F04	1.18	M5	2.21	0.51	1.69	-	1.69
DN40	1-1/2"	1.50	5.01	2.22	8.04	3.87	1.28	0.59	3.15	0.09	0.38	0.56	2.36	1.97/F05	1.38	M6	2.50	0.51	1.92	-	1.93
DN50	2"	1.97	6.04	2.83	8.31	5.12	1.12	0.61	3.91	0.06	0.47	0.75	2.99	2.76/F07	2.17	M8	3.12	0.63	2.41	-	2.40

ALLOY 20

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



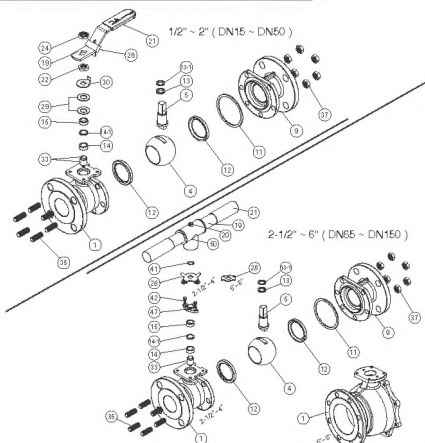
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

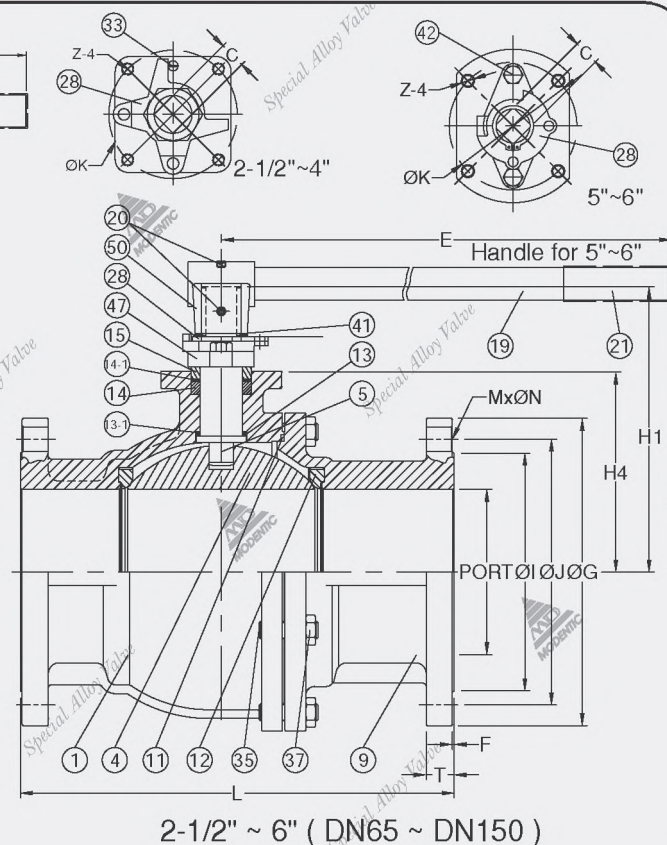
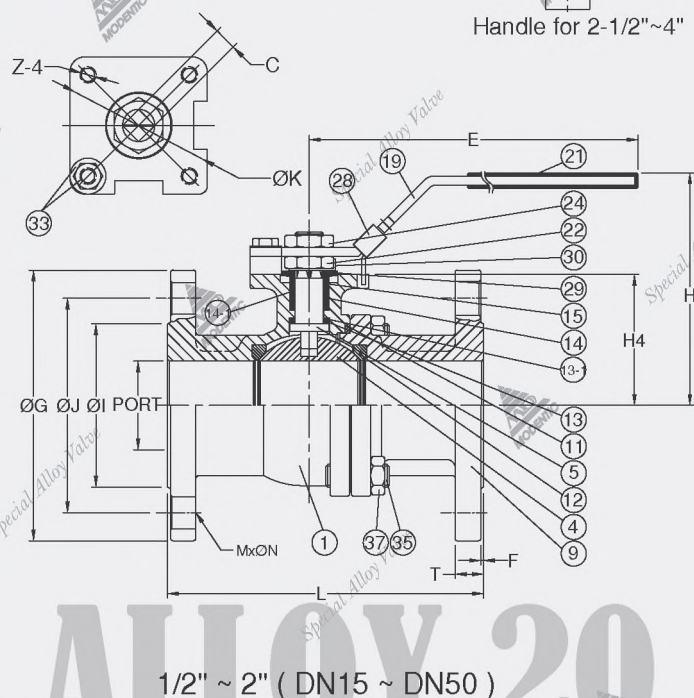
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CN7M
4	BALL	ASTM A351 Gr.CN7M
5	STEM	N08020
9	END CAP	ASTM A351 Gr.CN7M
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	4.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	4.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

DUPLEX 2205

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



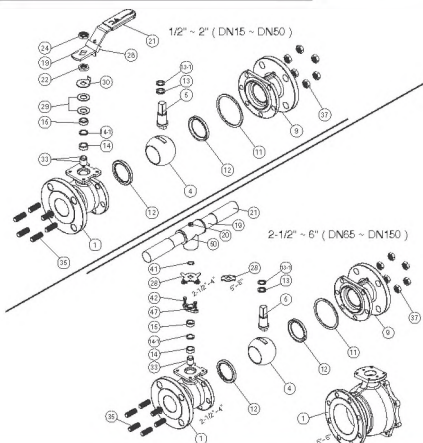
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

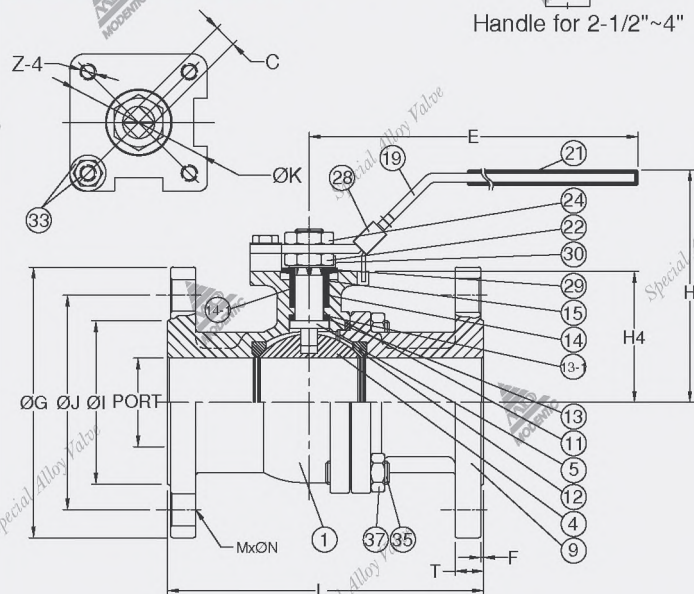
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

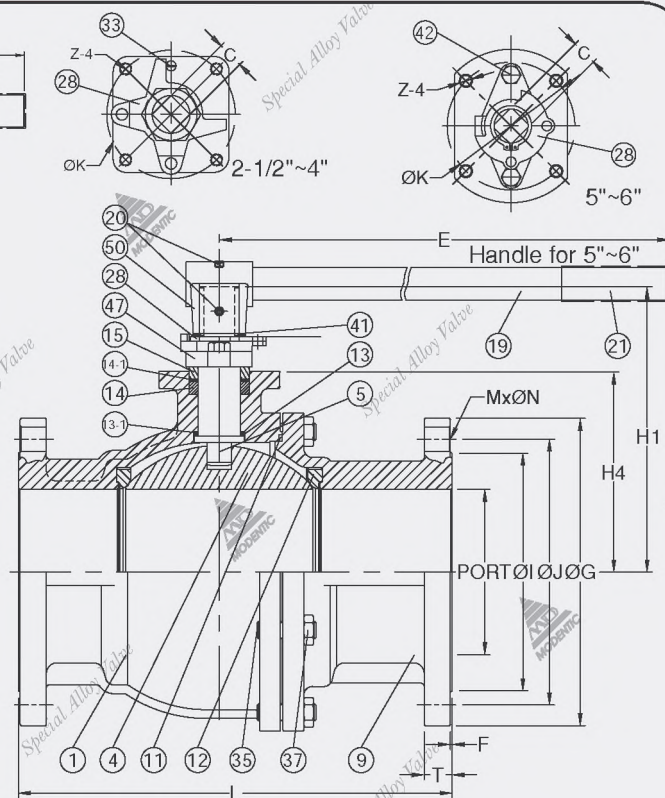
NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CD3MN
4	BALL	ASTM A890/995 Gr.CD3MN
5	STEM	S31803
9	END CAP	ASTM A890/995 Gr.CD3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



1/2" ~ 2" (DN15 ~ DN50)



2-1/2" ~ 6" (DN65 ~ DN150)

DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	6.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	7.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



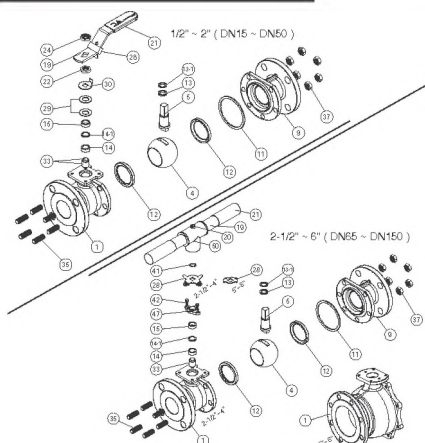
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

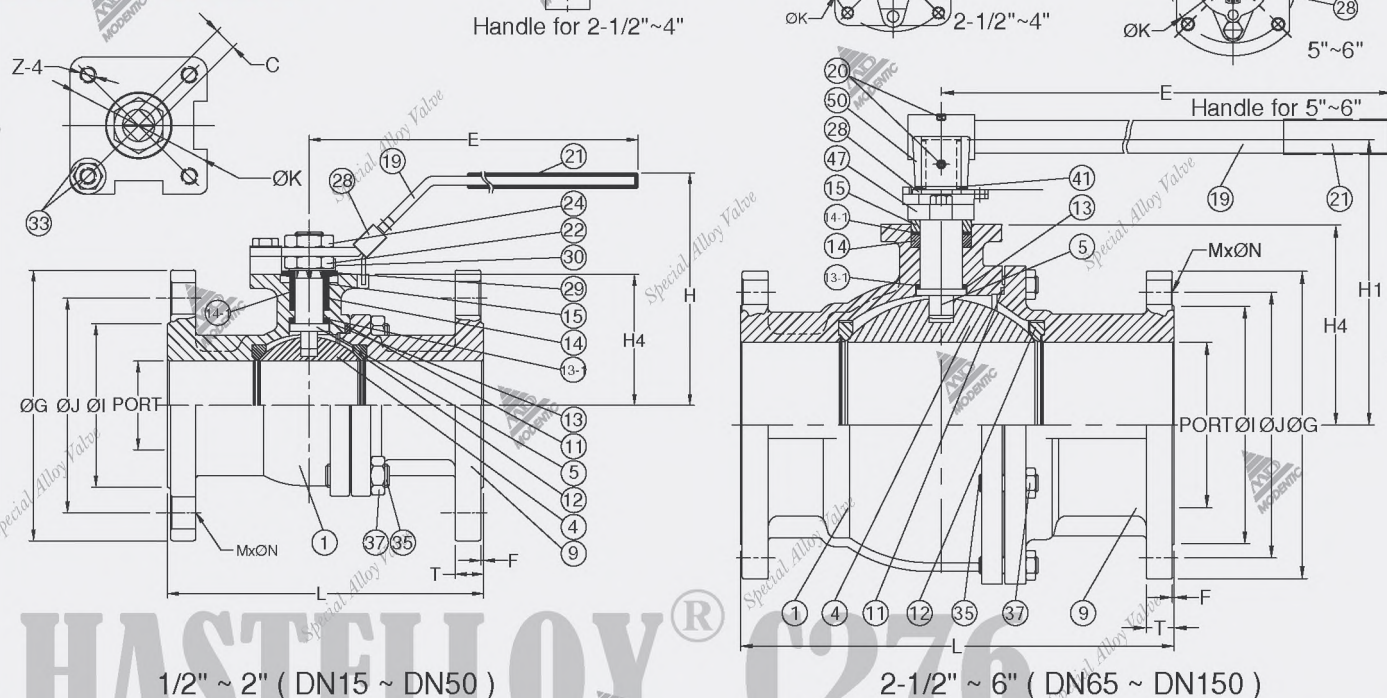
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.CW12MW
4	BALL	ASTM A494 Gr.CW12MW
5	STEM	N10276
9	END CAP	ASTM A494 Gr.CW12MW
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM	
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P	
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P	
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P	
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P	
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P	
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P	
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P	
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P	
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P	
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P	
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P	
DN200	8"	COMING SOON			COMING SOON			COMING SOON			COMING SOON			COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH	
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04		M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04		M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05		M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05		M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07		M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07		M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10		M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10		M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10		M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	4.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12		M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	4.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12		M12x1.75P
DN200	8"	COMING SOON			COMING SOON			COMING SOON			COMING SOON			COMING SOON			

MONEL[®] 400

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



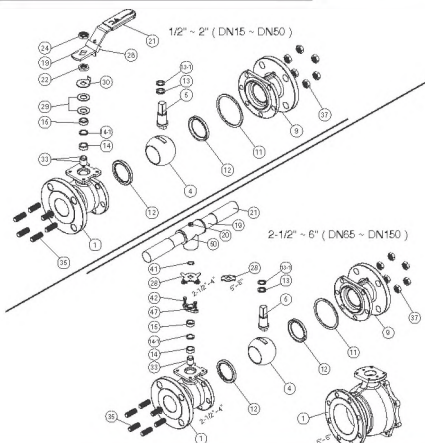
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY[®] C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL[®]
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

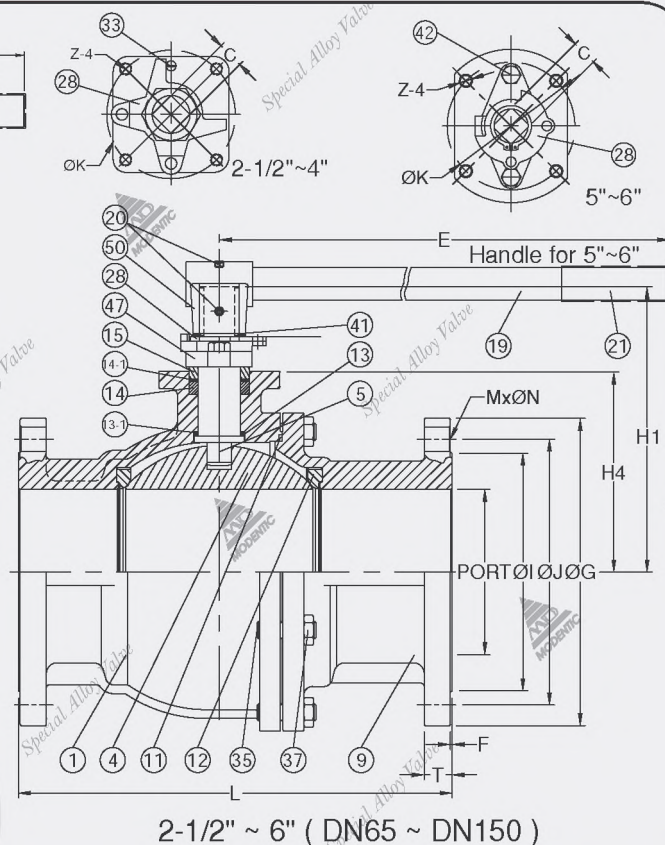
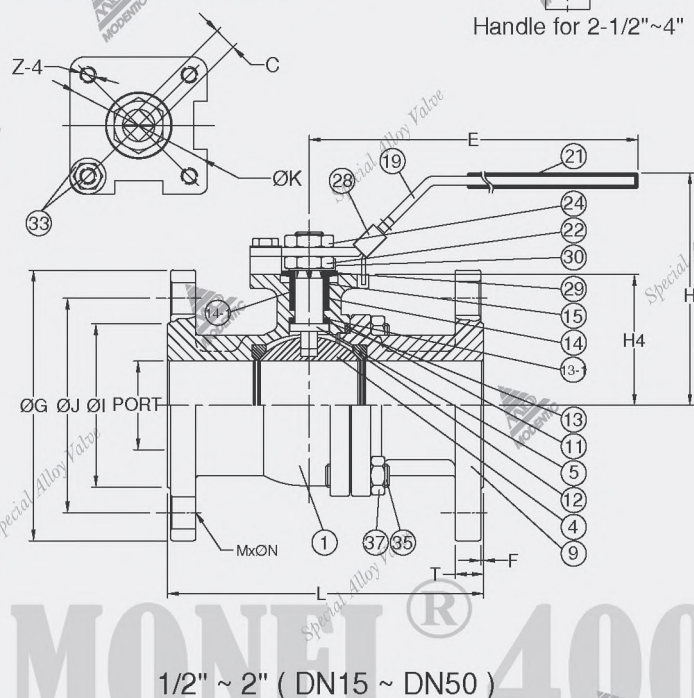
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.M-35-1
4	BALL	ASTM A494 Gr.M-35-1
5	STEM	N04400
9	END CAP	ASTM A494 Gr.M-35-1
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	4.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	4.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

SS 904 L

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



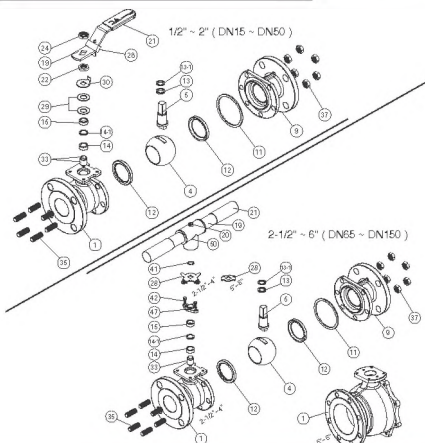
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

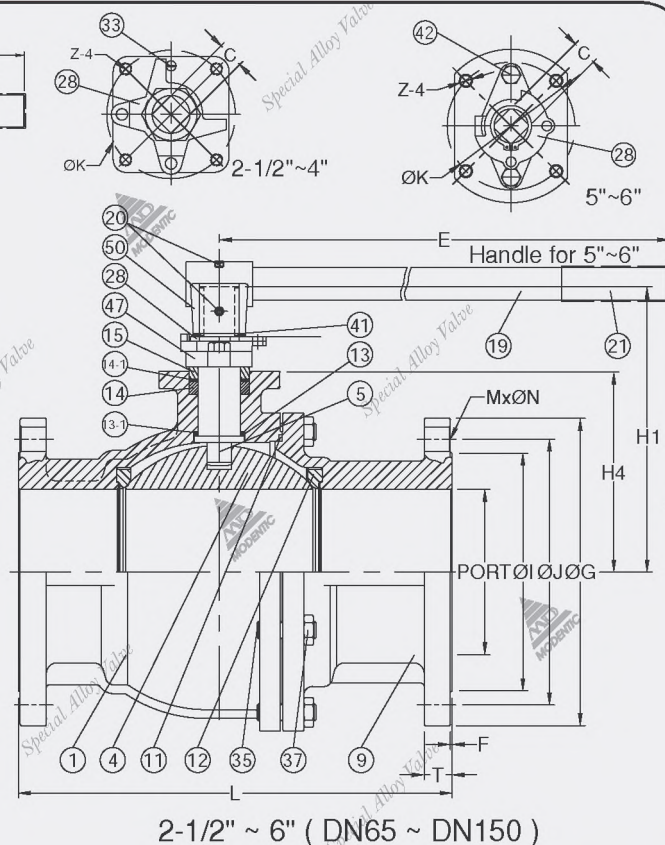
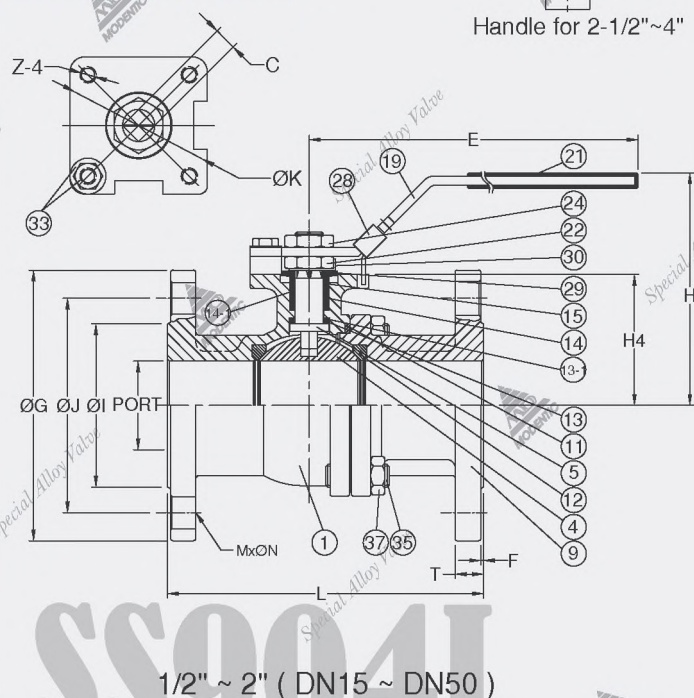
MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	SS904L / CASTING
4	BALL	SS904L / CASTING
5	STEM	AISI 904L
9	END CAP	SS904L / CASTING
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8



Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	4.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	4.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12	M12x1.75P
DN200	8"	COMING SOON			COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON	

MD-32

ANSI Class 150
2-PC Flanged Ball Valves



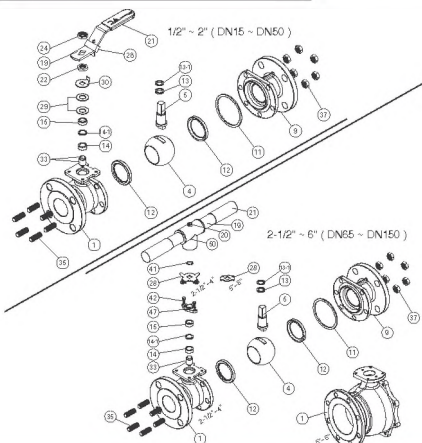
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

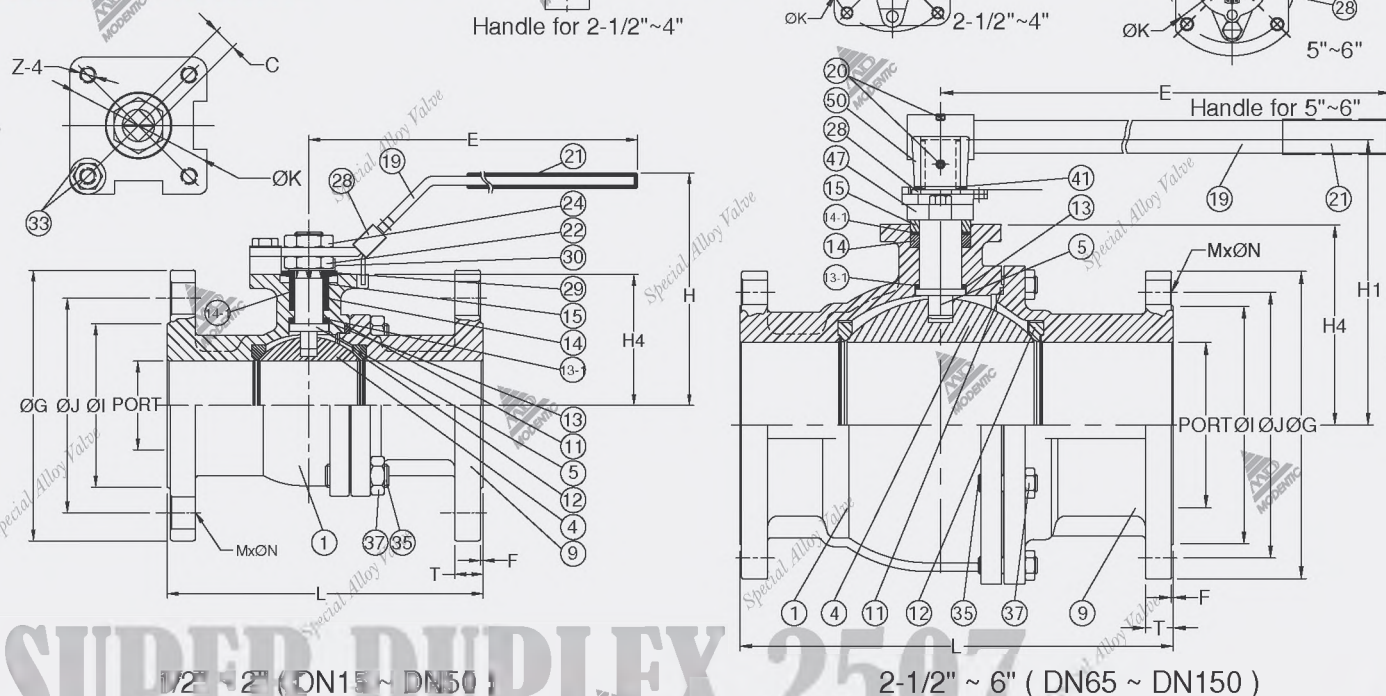
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CE3MN
4	BALL	ASTM A890/995 Gr.CE3MN
5	STEM	S32750
9	END CAP	ASTM A890/995 Gr.CE3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM	
DN15	1/2"	15.0	108	132	80.0	-	38.5	9	90.0	60.5	35.0	11.6	2.0	4xØ16	42/F04	M5x0.8P	
DN20	3/4"	20.0	117	132	84.5	-	42.5	9	98.6	70.0	43.0	13.2	2.0	4xØ16	42/F04	M5x0.8P	
DN25	1"	25.0	127	166	102.0	-	52.0	11	108.0	79.2	51.0	14.7	2.0	4xØ16	50/F05	M6x1.0P	
DN32	1-1/4"	32.0	140	166	105.0	-	56.0	11	117.5	88.9	63.5	16.6	2.0	4xØ16	50/F05	M6x1.0P	
DN40	1-1/2"	38.0	165	203	125.0	-	65.25	14	127.0	98.6	73.2	17.9	2.0	4xØ16	70/F07	M8x1.25P	
DN50	2"	50.0	178	203	132.0	-	73.75	14	152.5	120.7	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P	
DN65	2-1/2"	64.0	190	300	-	178.0	92.5	17	180.0	139.7	105.0	22.7	2.0	4xØ19	102/F10	M10x1.5P	
DN80	3"	76.0	203	300	-	188.0	101.65	17	190.0	152.4	127.0	24.3	2.0	4xØ19	102/F10	M10x1.5P	
DN100	4"	100.0	229	450	-	202.0	119.0	17	228.6	190.5	157.2	23.9	1.6	8xØ19	102/F10	M10x1.5P	
DN125	5"	125.0	356	450	-	232.4	163.0	27	254.0	216.0	186.0	24.4	2.0	8xØ22.3	125/F12	M12x1.75P	
DN150	6"	150.0	394	800	-	251.9	182.5	27	279.4	241.3	216.0	25.4	1.6	8xØ22.3	125/F12	M12x1.75P	
DN200	8"	COMING SOON			COMING SOON			COMING SOON			COMING SOON			COMING SOON		COMING SOON	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH	
DN15	1/2"	0.59	4.25	5.20	3.15	-	1.52	0.35	3.54	2.38	1.38	0.46	0.08	4xØ0.63	1.65/F04		M5x0.8P
DN20	3/4"	0.79	4.61	5.20	3.33	-	1.67	0.35	3.88	2.76	1.69	0.52	0.08	4xØ0.63	1.65/F04		M5x0.8P
DN25	1"	0.98	5.00	6.54	4.02	-	2.05	0.43	4.25	3.12	2.01	0.58	0.08	4xØ0.63	1.97/F05		M6x1.0P
DN32	1-1/4"	1.26	5.51	6.54	4.13	-	2.20	0.43	4.63	3.50	2.50	0.65	0.08	4xØ0.63	1.97/F05		M6x1.0P
DN40	1-1/2"	1.50	6.50	7.99	4.92	-	2.57	0.55	5.00	3.88	2.88	0.70	0.08	4xØ0.63	2.76/F07		M8x1.25P
DN50	2"	1.97	7.01	7.99	5.20	-	2.90	0.55	6.00	4.75	3.62	0.75	0.06	4xØ0.75	2.76/F07		M8x1.25P
DN65	2-1/2"	2.52	7.48	11.81	-	7.01	3.64	0.67	7.09	5.50	4.13	0.89	0.08	4xØ0.75	4.02/F10		M10x1.5P
DN80	3"	2.99	7.99	11.81	-	7.40	4.00	0.67	7.48	6.00	5.00	0.96	0.08	4xØ0.75	4.02/F10		M10x1.5P
DN100	4"	3.94	9.02	17.72	-	7.95	4.69	0.67	9.00	7.50	6.19	0.94	0.06	8xØ0.75	4.02/F10		M10x1.5P
DN125	5"	4.92	14.02	17.72	-	9.15	4.42	1.06	10.00	8.50	7.32	0.96	0.08	8xØ0.88	4.92/F12		M12x1.75P
DN150	6"	5.91	15.51	31.50	-	9.92	4.19	1.06	11.00	9.50	8.50	1.00	0.06	8xØ0.88	4.92/F12		M12x1.75P
DN200	8"	COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON		COMING SOON			

ALLOY 20

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



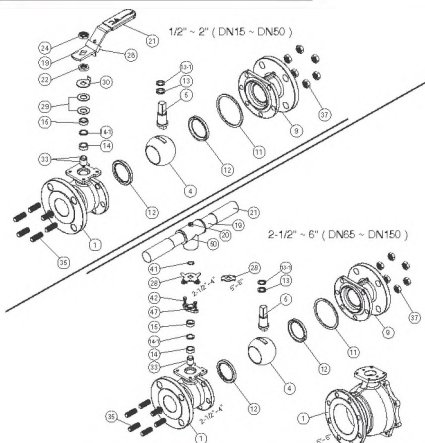
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

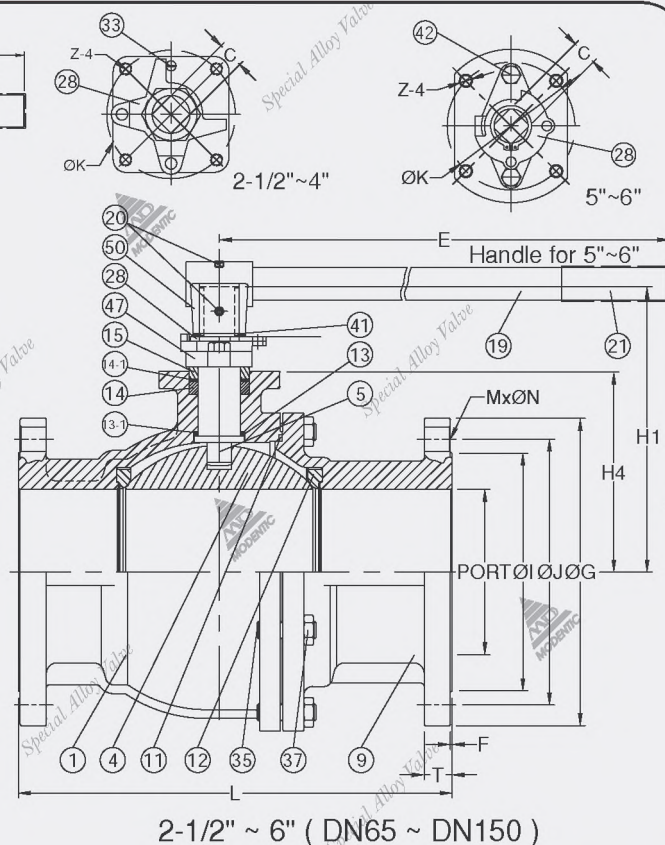
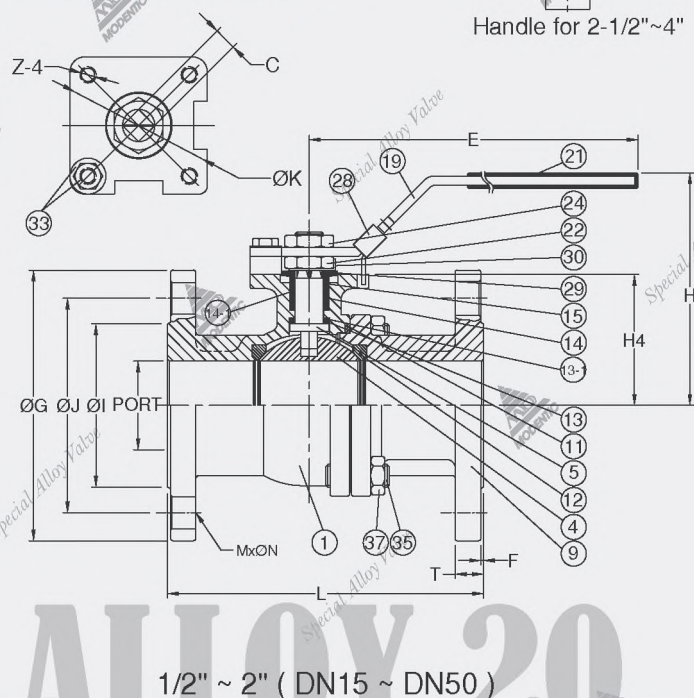
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CN7M
4	BALL	ASTM A351 Gr.CN7M
5	STEM	N08020
9	END CAP	ASTM A351 Gr.CN7M
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	127.0	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P

DUPLEX 2205

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



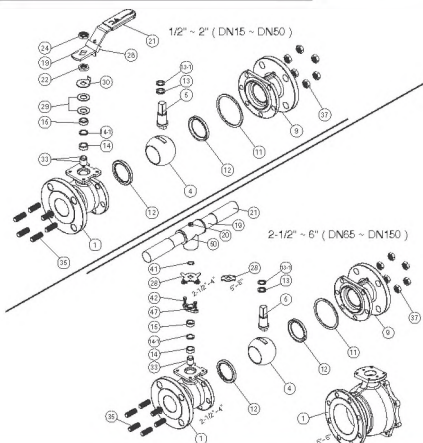
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

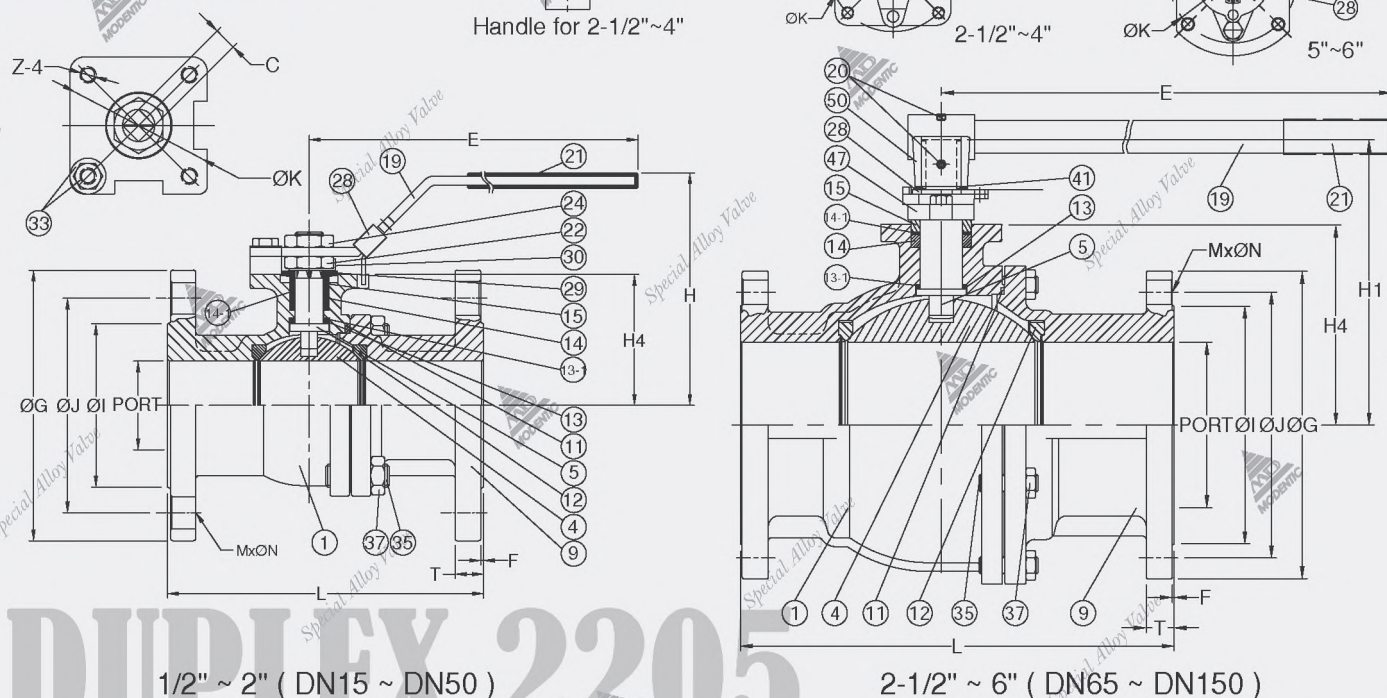
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CD3MN
4	BALL	ASTM A890/995 Gr.CD3MN
5	STEM	S31803
9	END CAP	ASTM A890/995 Gr.CD3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	127.0	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



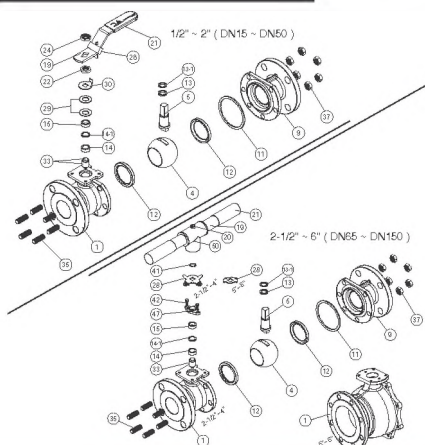
CRN
CERTIFIED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

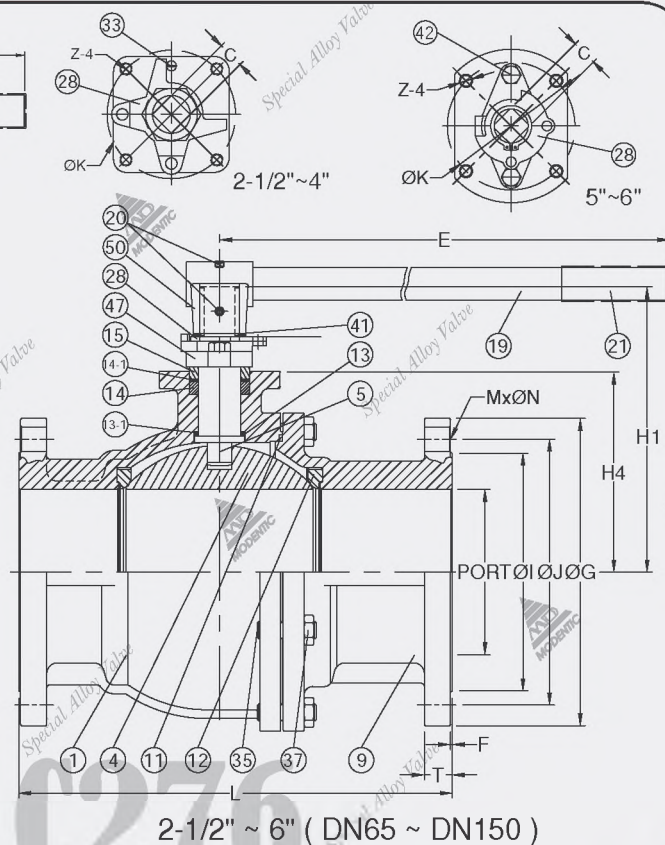
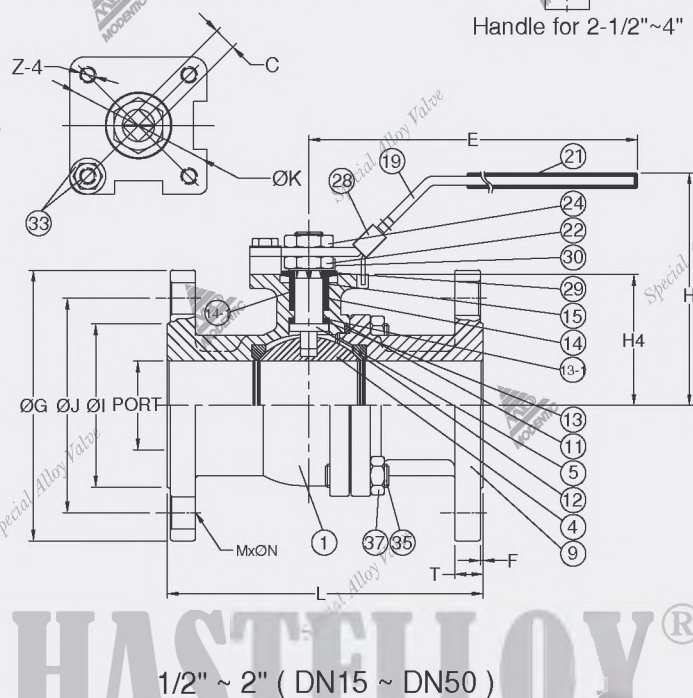
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.CW12MW
4	BALL	ASTM A494 Gr.CW12MW
5	STEM	N10276
9	END CAP	ASTM A494 Gr.CW12MW
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	127.0	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P

MONEL[®] 400

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



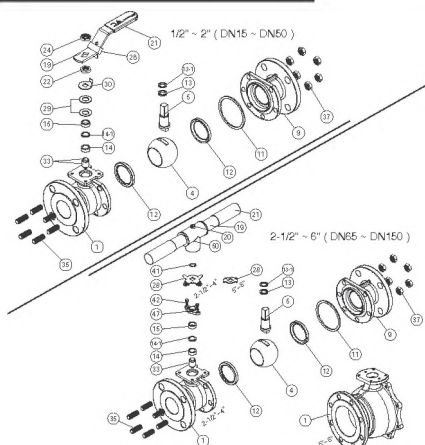
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY[®] C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL[®]
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

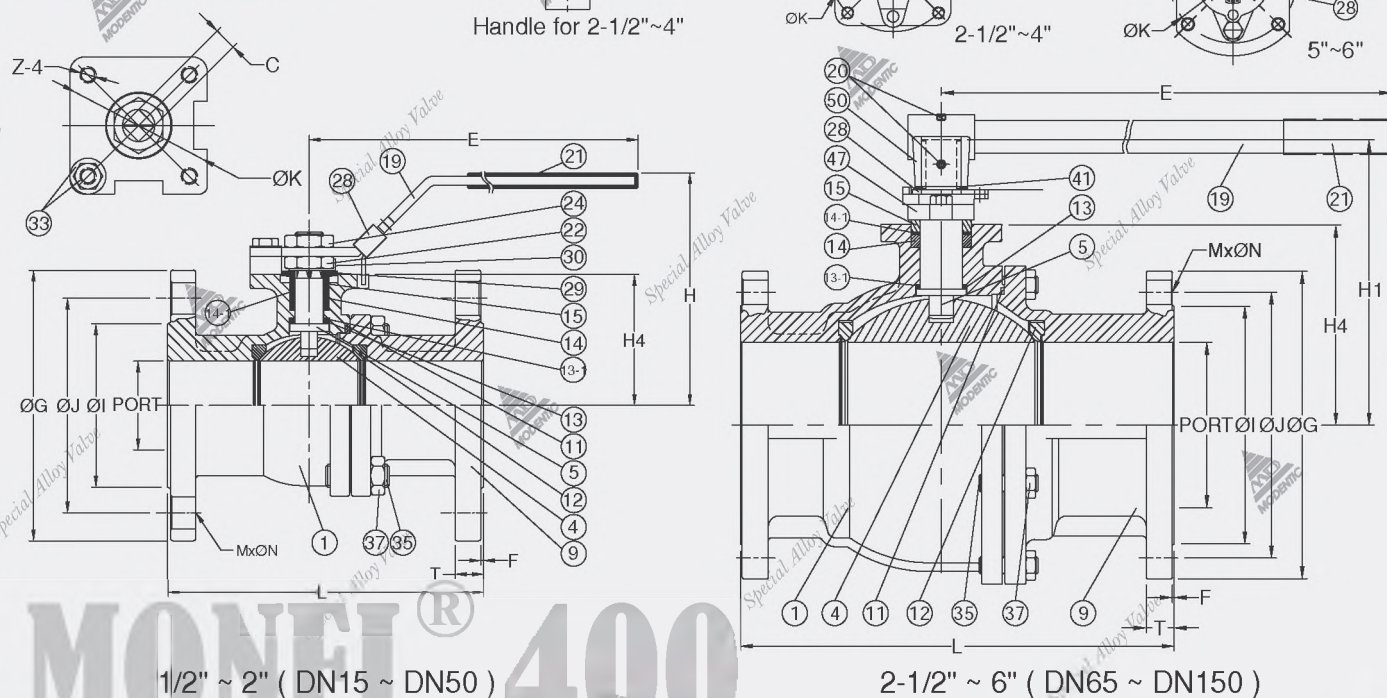
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.M-35-1
4	BALL	ASTM A494 Gr.M-35-1
5	STEM	N04400
9	END CAP	ASTM A494 Gr.M-35-1
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	127.0	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P

SS 904 L

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



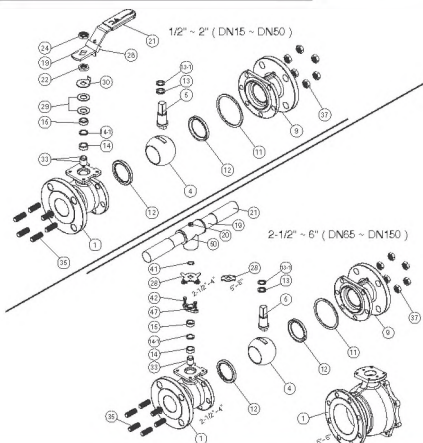
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

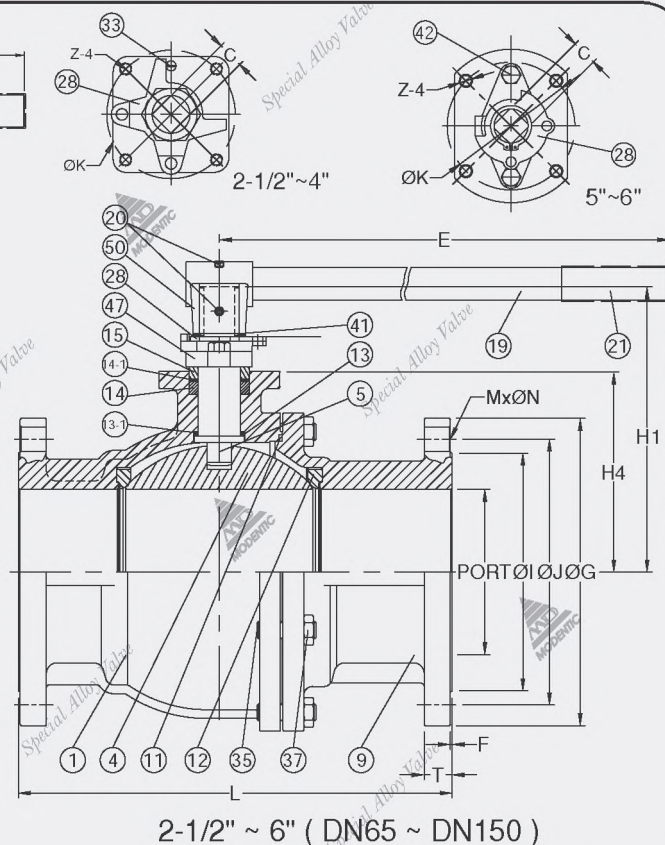
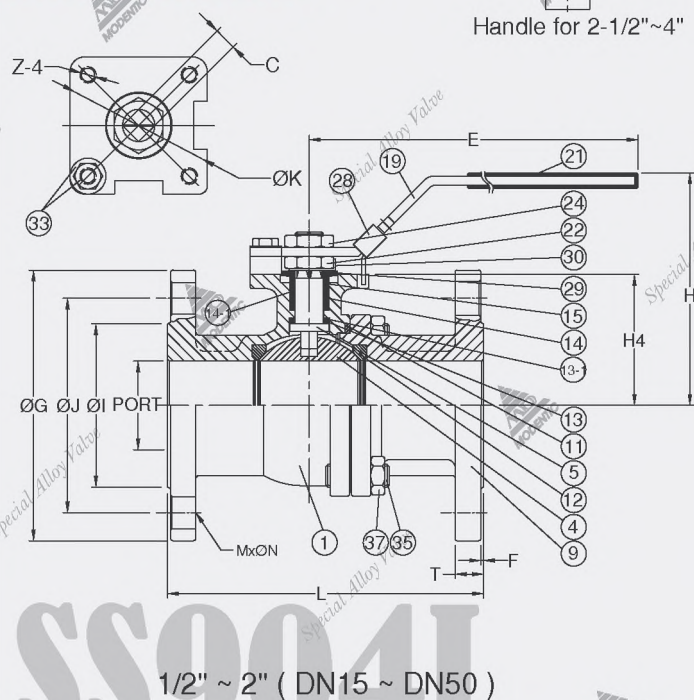
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	SS904L / CASTING
4	BALL	SS904L / CASTING
5	STEM	AISI 904L
9	END CAP	SS904L / CASTING
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	127.0	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P

MD-32

ANSI Class 300
2-PC Flanged Ball Valves



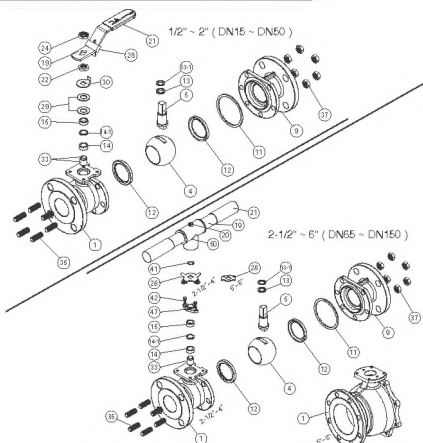
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- Design ASME/ANSI B16.34 / API 608
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

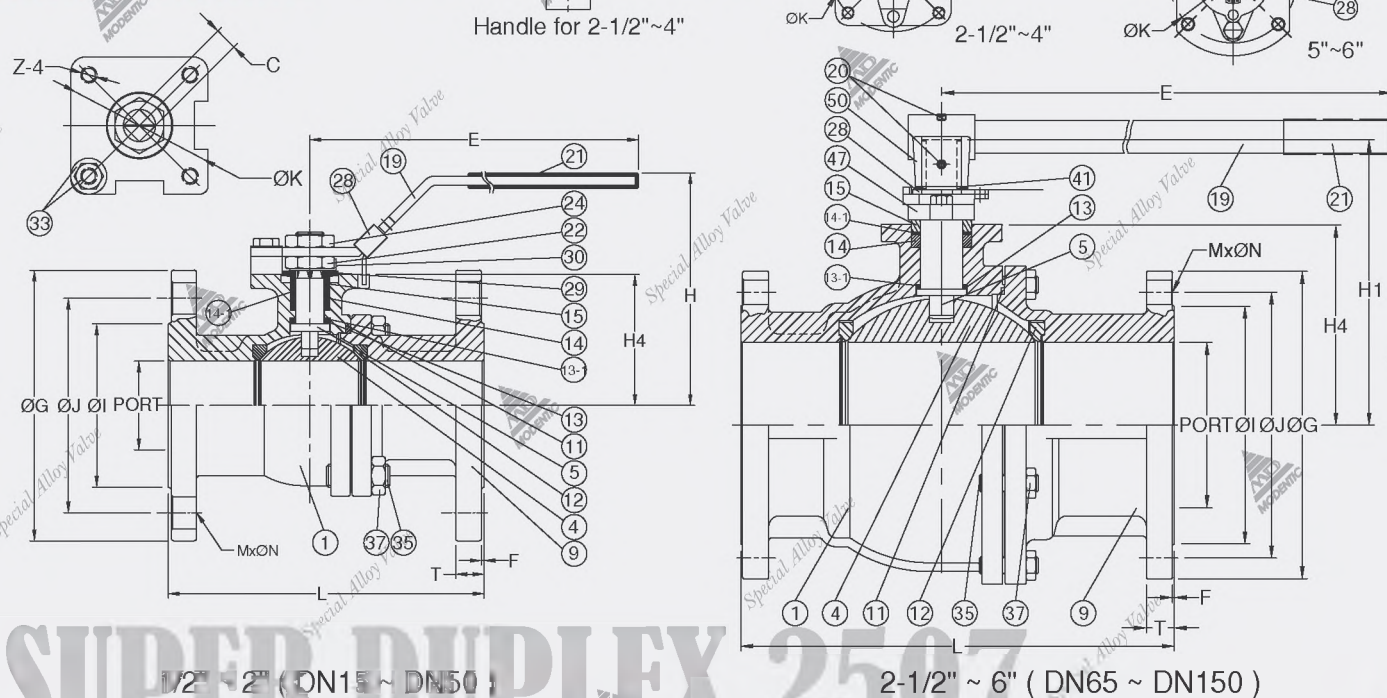
- Fire Safe API 607 6th Edition / ISO 10497 Certified
- Fugitive Emission TA-LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CE3MN
4	BALL	ASTM A890/995 Gr.CE3MN
5	STEM	S32750
9	END CAP	ASTM A890/995 Gr.CE3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	GRAPHITE
13-1	THRUST WASHER	RTFE.(15%G.F.)
14	STEM PACKING	GRAPHITE
14-1	STEM PACKING	RTFE.(15%G.F.)
15	GLAND	SS304
19	HANDLE	STEEL
20	SET SCREW (for 2-1/2" ~ 6" only)	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN SET	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 6" only)	SS304
42	GLAND BOLT (for 2-1/2" ~ 6" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 6" only)	ASTM A351 Gr.CF8

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : MM	
DN15	1/2"	15.0	140.0	132	80.0	-	38.5	9	95.0	66.6	35.1	12.7	2.0	4xØ16	42/F04	M5x0.8P	
DN20	3/4"	20.0	152.5	132	84.5	-	42.5	9	117.4	82.6	43.0	14.3	2.0	4xØ19	42/F04	M5x0.8P	
DN25	1"	25.0	165.0	166	102.0	-	52.0	11	124.0	89.0	50.8	15.9	2.0	4xØ19	50/F05	M6x1.0P	
DN32	1-1/4"	32.0	178.0	166	105.0	-	56.0	11	133.4	98.6	63.5	17.5	2.0	4xØ19	50/F05	M6x1.0P	
DN40	1-1/2"	38.0	190.0	198	125.0	-	65.25	14	155.5	114.3	73.2	19.1	2.0	4xØ22.3	70/F07	M8x1.25P	
DN50	2"	50.0	216.0	198	132.0	-	73.75	14	165.1	122.9	92.0	20.7	2.0	8xØ19	70/F07	M8x1.25P	
DN65	2-1/2"	64.0	241.0	300	-	178.0	92.5	17	190.5	149.4	104.7	23.8	2.0	8xØ22.3	102/F10	M10x1.5P	
DN80	3"	76.0	283.0	300	-	188.0	101.65	17	209.6	168.1	127.0	27.0	2.0	8xØ22.3	102/F10	M10x1.5P	
DN100	4"	100.0	305.0	450	-	205.1	119.0	17	254.0	200.2	157.2	30.2	2.0	8xØ22.3	102/F10	M10x1.5P	
DN125	5"	125.0	381.0	450	-	239.0	163.0	27	279.4	235.0	186.0	33.4	2.0	8xØ22.3	125/F12	M12x1.75P	
DN150	6"	150.0	403.0	800	-	258.5	182.5	27	317.5	269.8	216.0	35.0	2.0	12xØ22.3	125/F12	M12x1.75P	

SIZE	PORT	L	E	H	H1	H4	C	ØG	ØJ	ØI	T	F	MxØN	ØK	Z	UNIT : INCH	
DN15	1/2"	0.59	5.51	5.20	3.15	-	1.52	0.35	3.74	2.62	1.38	0.50	0.08	4xØ0.63	1.65/F04	M5x0.8P	
DN20	3/4"	0.79	6.00	5.20	3.33	-	1.67	0.35	4.62	3.25	1.69	0.56	0.08	4xØ0.75	1.65/F04	M5x0.8P	
DN25	1"	0.98	6.50	6.54	4.02	-	2.05	0.43	4.88	3.50	2.00	0.63	0.08	4xØ0.75	1.97/F05	M6x1.0P	
DN32	1-1/4"	1.26	7.01	6.54	4.13	-	2.20	0.43	5.25	3.88	2.50	0.69	0.08	4xØ0.75	1.97/F05	M6x1.0P	
DN40	1-1/2"	1.50	7.48	7.80	4.92	-	2.57	0.55	6.12	4.50	2.88	0.75	0.08	4xØ0.88	2.76/F07	M8x1.25P	
DN50	2"	1.97	8.50	7.80	5.20	-	2.90	0.55	6.50	5.00	3.62	0.81	0.08	8xØ0.75	2.76/F07	M8x1.25P	
DN65	2-1/2"	2.52	9.49	11.81	-	7.01	3.64	0.67	7.50	5.88	4.12	0.94	0.08	8xØ0.88	4.02/F10	M10x1.5P	
DN80	3"	2.99	11.14	11.81	-	7.40	4.00	0.67	8.25	6.62	5.00	1.06	0.08	8xØ0.88	4.02/F10	M10x1.5P	
DN100	4"	3.94	12.01	17.72	-	8.07	4.69	0.67	10.00	7.88	6.19	1.19	0.08	8xØ0.88	4.02/F10	M10x1.5P	
DN125	5"	4.92	15.00	17.72	-	9.41	6.42	1.06	11.00	9.25	7.32	1.31	0.08	8xØ0.88	4.92/F12	M12x1.75P	
DN150	6"	5.91	15.87	31.50	-	10.18	7.19	1.06	12.50	10.62	8.50	1.38	0.08	12xØ0.88	4.92/F12	M12x1.75P	

ALLOY 20

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



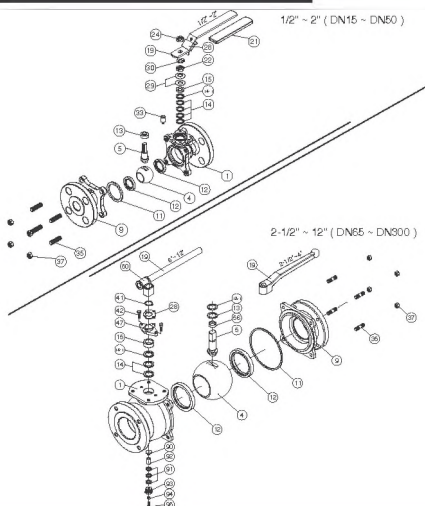
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

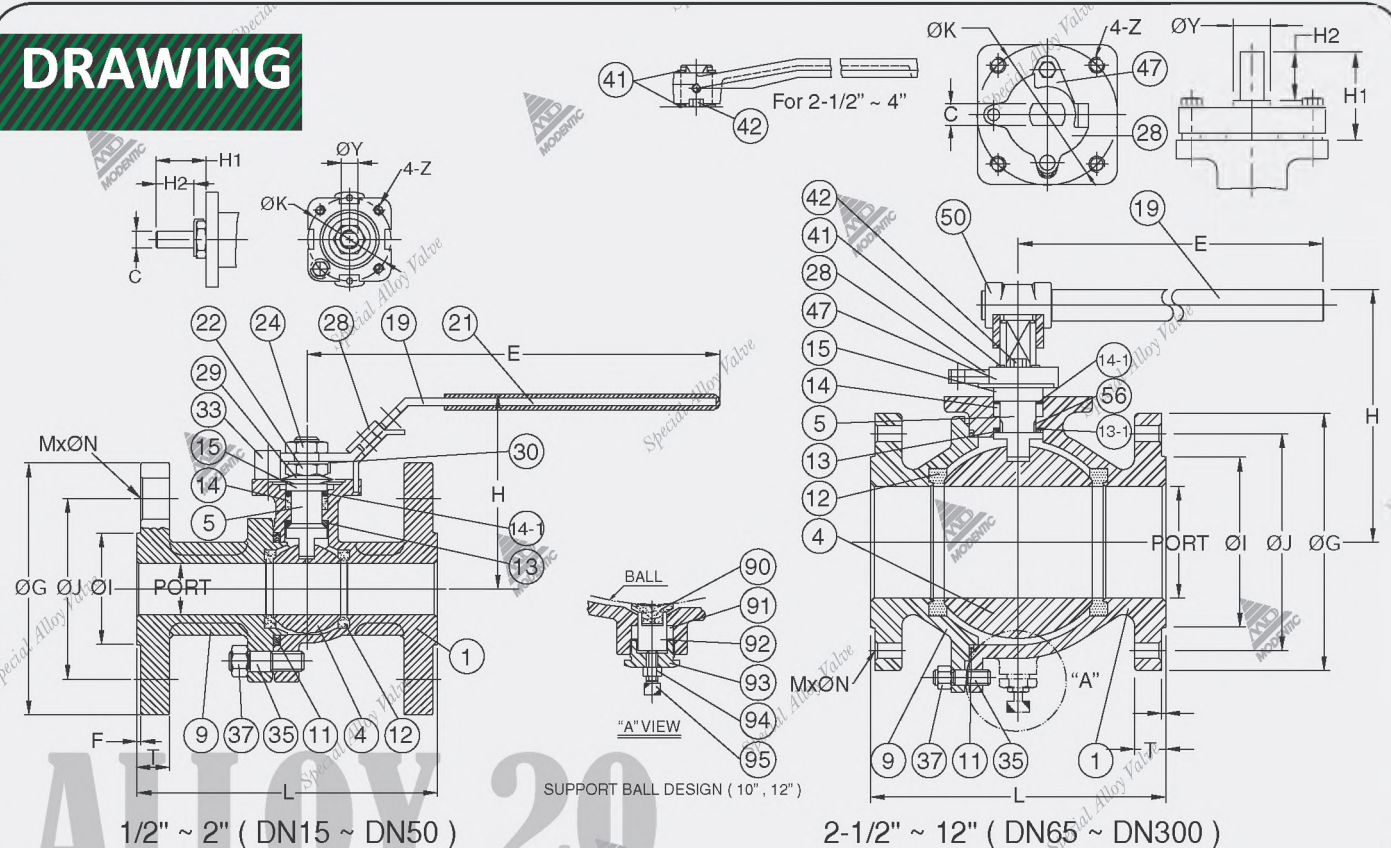
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CN7M
4	BALL	ASTM A351 Gr.CN7M
5	STEM	N08020
9	END CAP	ASTM A351 Gr.CN7M
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N08020
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	200	87	19	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

DUPLEX 2205

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



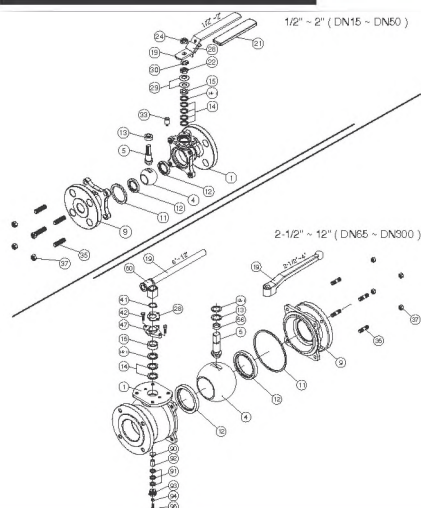
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

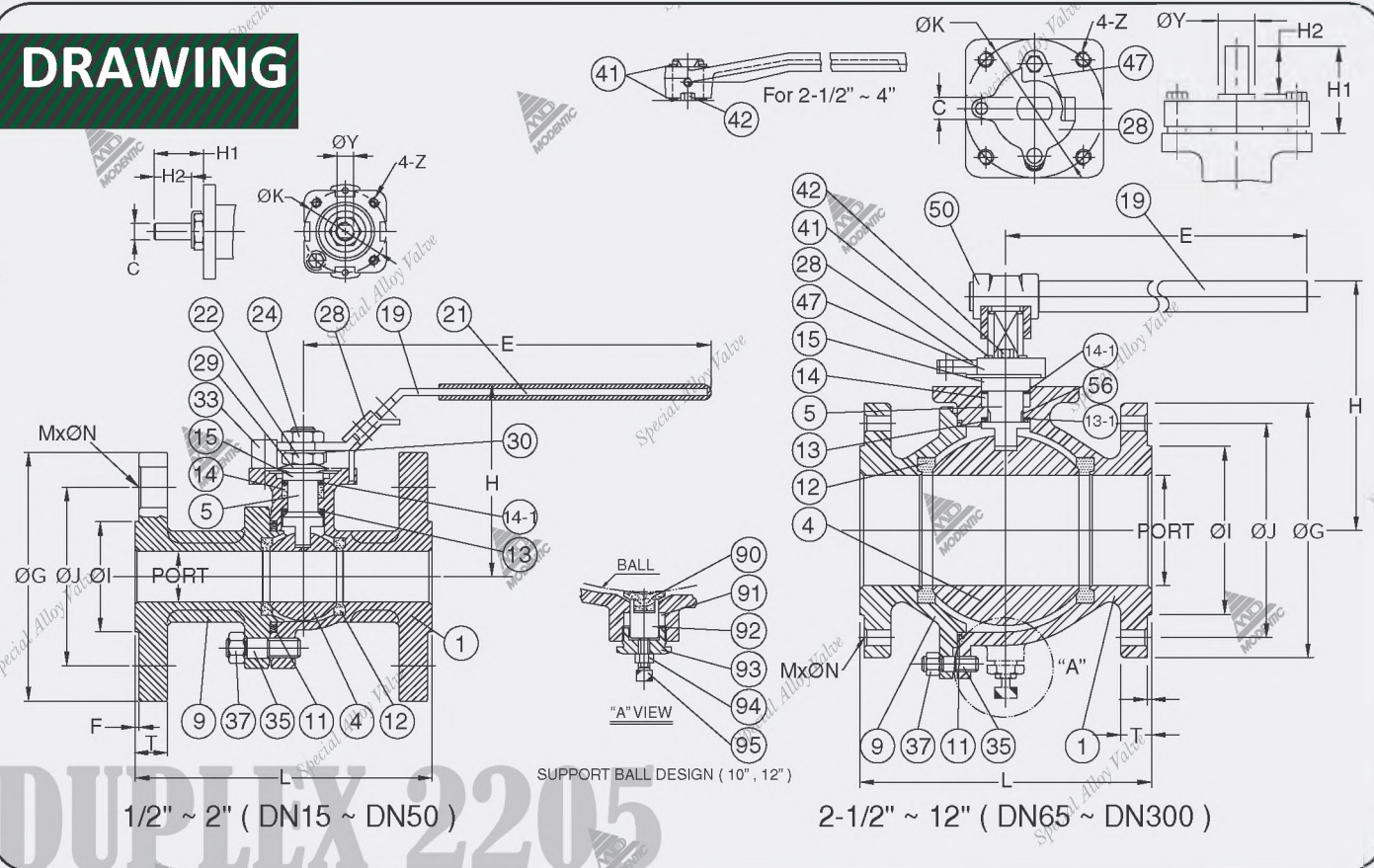
- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CD3MN
4	BALL	ASTM A890/995 Gr.CD3MN
5	STEM	S31803
9	END CAP	ASTM A890/995 Gr.CD3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	S31803
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	200	87	19	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



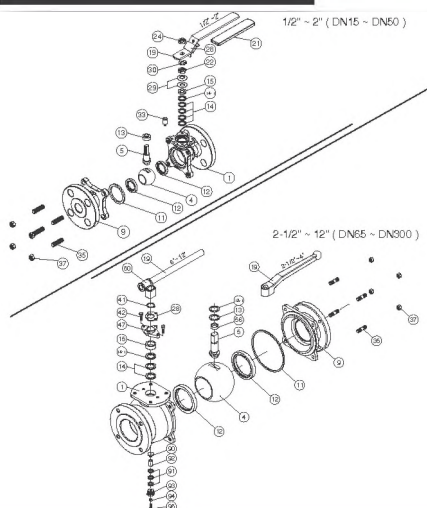
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

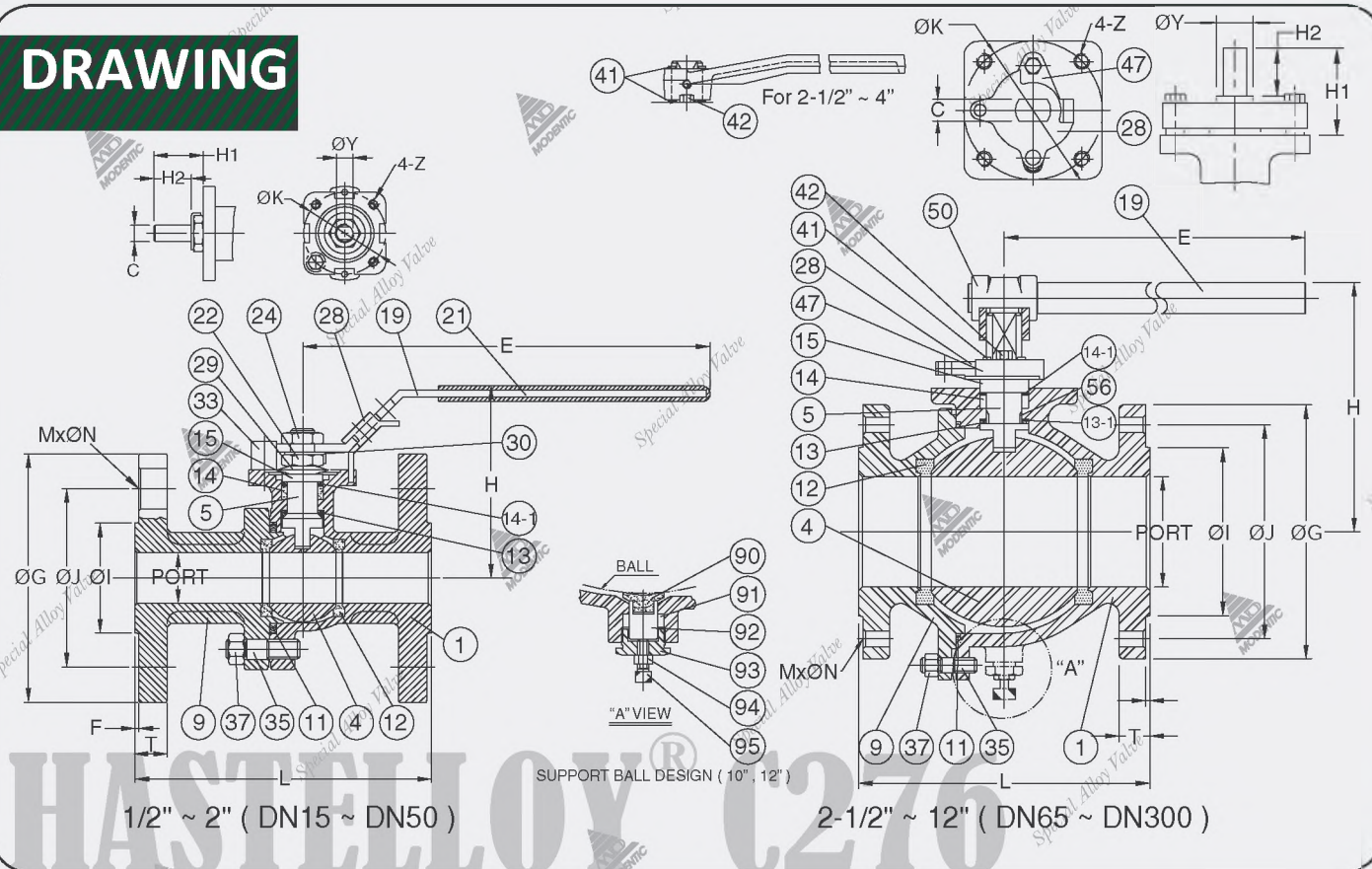
- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.CW12MW
4	BALL	ASTM A494 Gr.CW12MW
5	STEM	N10276
9	END CAP	ASTM A494 Gr.CW12MW
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N10276
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	E	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	200	87	19	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	E	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

MONEL® 400

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



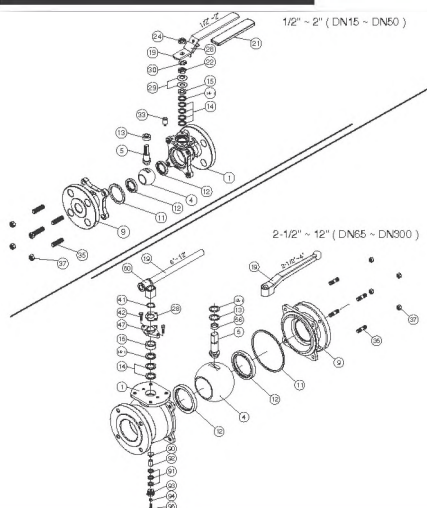
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

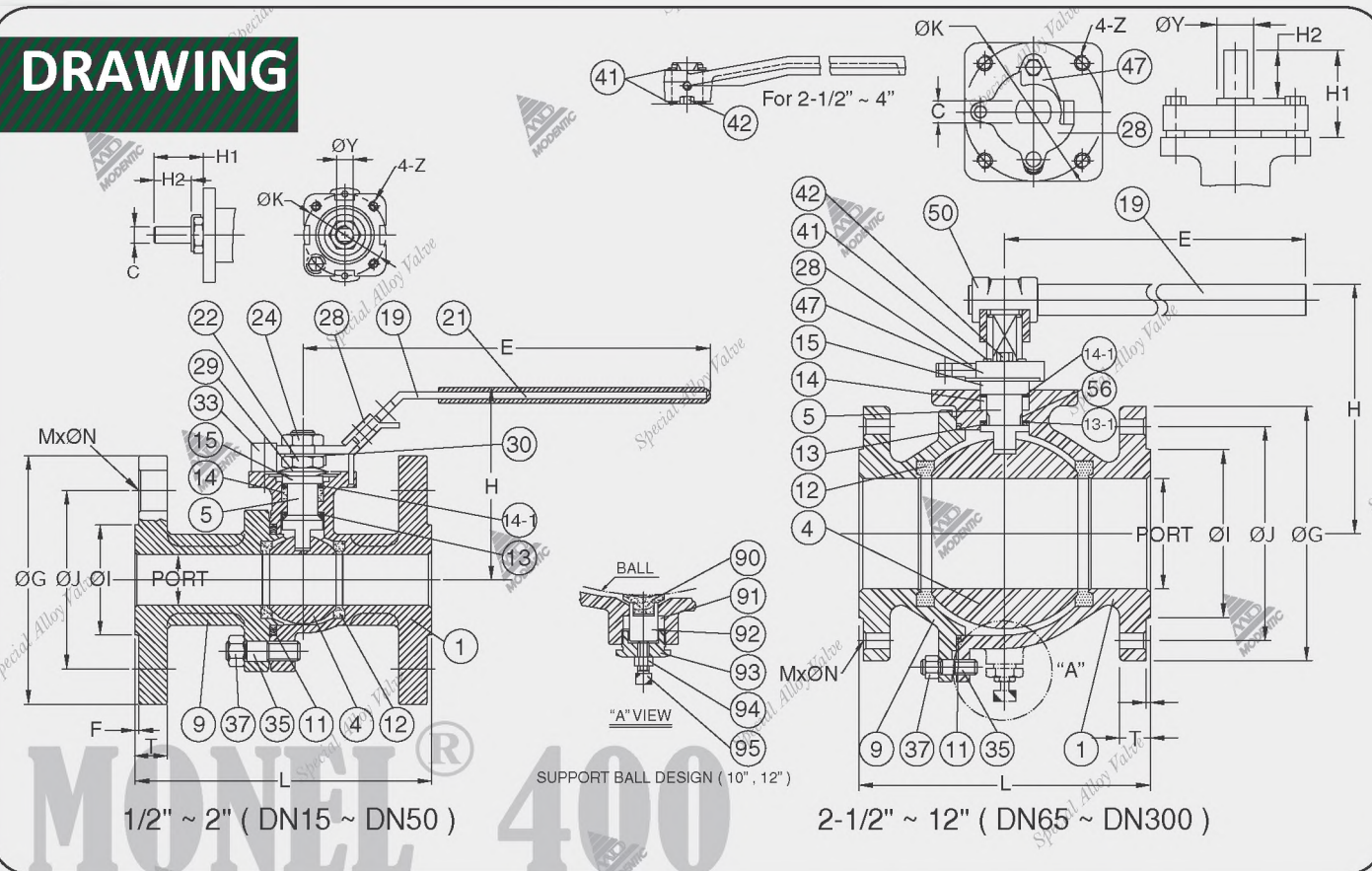
- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.M-35-1
4	BALL	ASTM A494 Gr.M-35-1
5	STEM	N04400
9	END CAP	ASTM A494 Gr.M-35-1
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N04400
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

	SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	
	DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
	DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
	DN25	1"	25.0	127	200	87	15	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
	DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
	DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
	DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
	DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
	DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
	DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
	DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
	DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
	DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
	DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

UNIT : MM

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

UNIT : INCH

SS 904 L

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



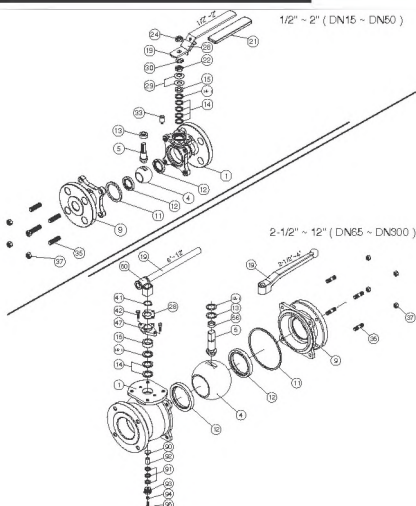
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

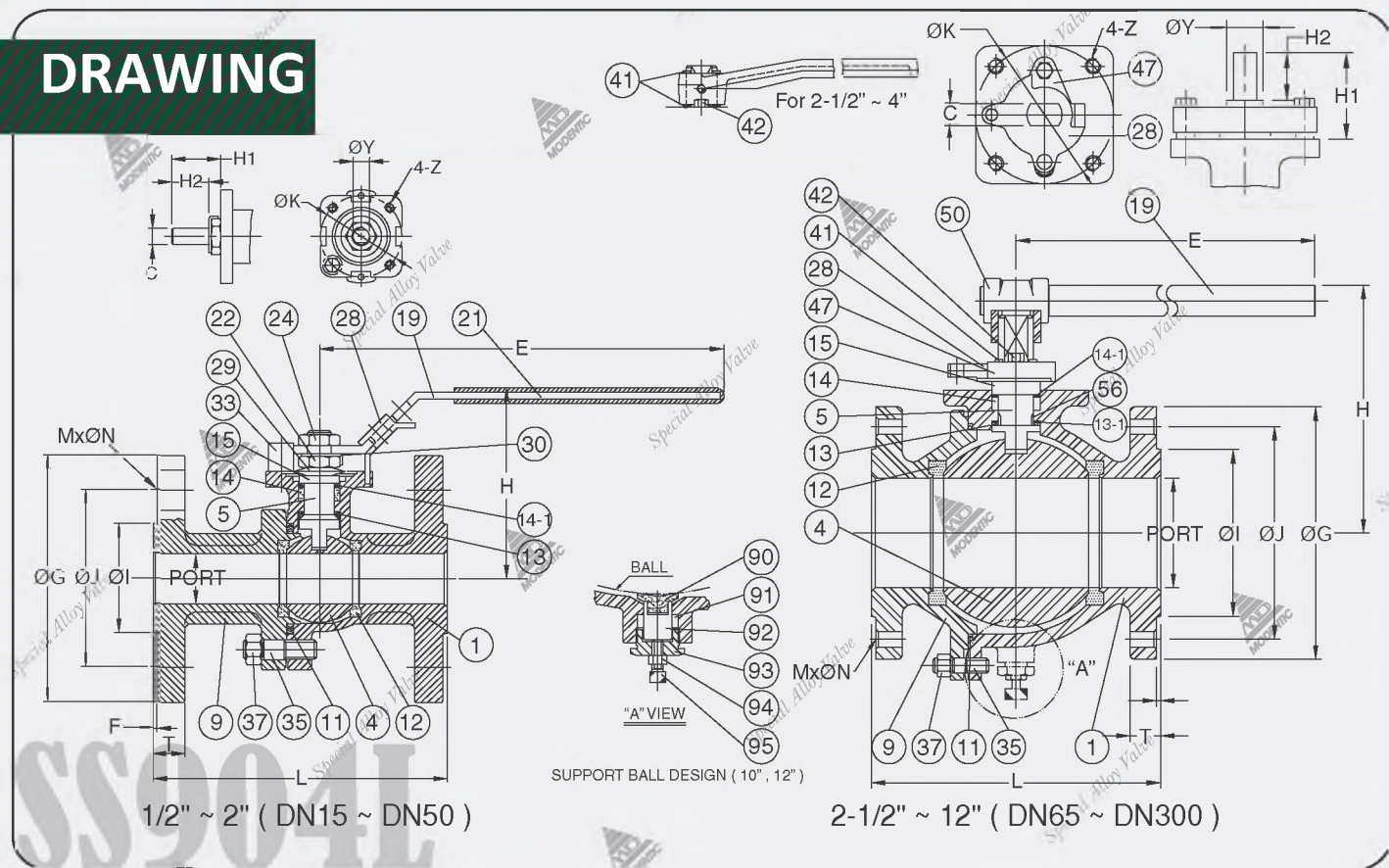
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	SS904L / CASTING
4	BALL	SS904L / CASTING
5	STEM	AISI 904L
9	END CAP	SS904L / CASTING
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	AISI 904L
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	200	87	19	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

SUPER DUPLEX 2507

MD-82

ANSI Class 150
2-PC Flanged Ball Valves



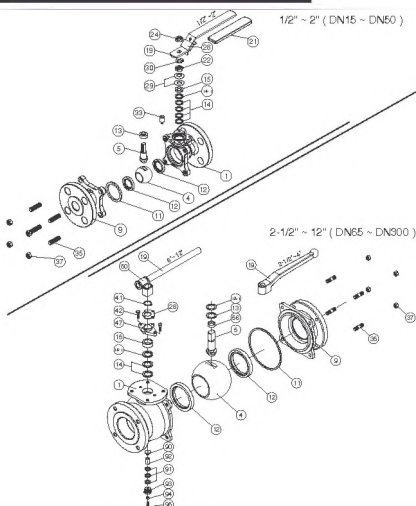
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 150 |
| • Flange Dimension | ASME/ANSI B16.5 Class 150 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

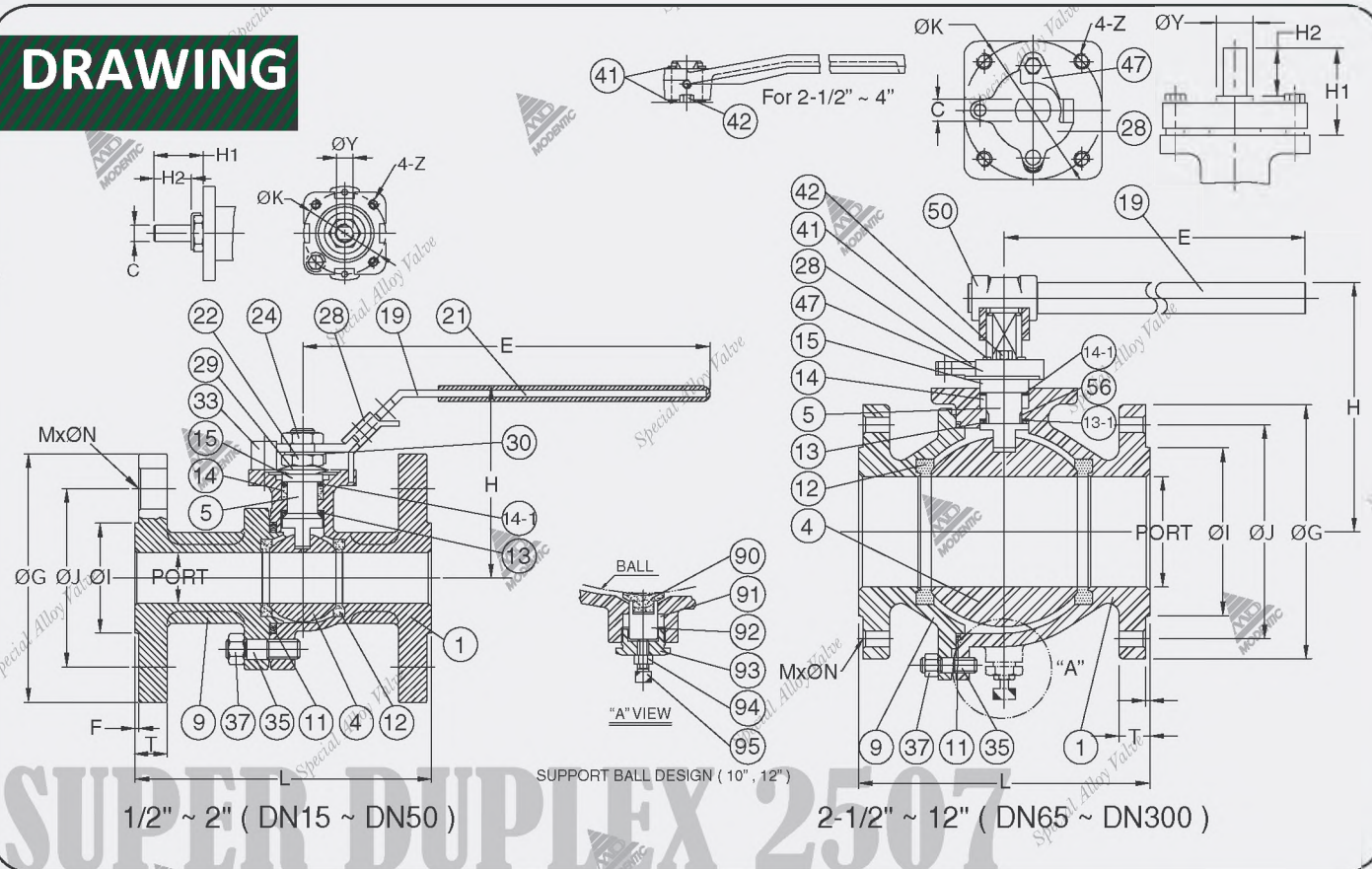
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CE3MN
4	BALL	ASTM A890/995 Gr.CE3MN
5	STEM	S32750
9	END CAP	ASTM A890/995 Gr.CE3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	S32750
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	108	165	66	14	8.0	6.35	9.3	89.0	60.5	35.0	11.2	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	117	165	74	14	8.0	6.35	9.3	98.0	70.0	43.0	12.7	1.6	4xØ16	42/F04	M5x0.8P
DN25	1"	25.0	127	200	87	19	11.0	8.0	10.9	108.0	79.5	51.0	14.3	1.6	4xØ16	50/F05	M6x1.0P
DN32	1-1/4"	32.0	140	200	92	19	11.0	8.0	10.9	117.5	88.9	64.0	15.9	1.6	4xØ16	50/F05	M6x1.0P
DN40	1-1/2"	38.0	165	250	105	23	14.0	9.5	15.7	127.0	98.5	73.0	17.5	1.6	4xØ16	70/F07	M8x1.25P
DN50	2"	50.0	178	265	115	23	14.0	9.5	15.7	152.0	120.5	92.0	19.1	1.6	4xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	190	390	165	78	44.5	17.0	28.0	178.0	139.5	105.0	22.3	1.6	4xØ19	102/F10	M10x1.5P
DN80	3"	76.0	203	390	166	78	44.5	17.0	28.0	190.0	152.5	127.0	23.9	1.6	4xØ19	102/F10	M10x1.5P
DN100	4"	101.5	229	390	183	78	44.5	17.0	28.0	229.0	190.5	157.0	23.9	1.6	8xØ19	102/F10	M10x1.5P
DN150	6"	152.0	394	650	285	91	42.0	26.0	43.5	279.0	241.3	216.0	25.4	1.6	8xØ22	125/F12	M12x1.75P
DN200	8"	200.0	457	950	294	91	42.0	26.0	43.5	343.0	298.5	270.0	28.6	1.6	8xØ22	125/F12	M12x1.75P
DN250	10"	250.0	533	1100	372	98	54.0	35.0	50.0	406.0	362.0	324.0	30.2	1.6	12xØ25	140/F14	M16x2.0P
DN300	12"	300.0	610	1100	413	98	54.0	35.0	50.0	483.0	432.0	381.0	31.8	1.6	12xØ25	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	0.37	3.50	2.38	1.38	0.44	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	0.37	3.86	2.76	1.69	0.50	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	0.43	4.25	3.13	2.01	0.56	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	5.51	7.87	3.62	0.75	0.43	0.31	0.43	4.63	3.50	2.52	0.63	0.06	4xØ0.63	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.91	0.55	0.37	0.62	5.00	3.88	2.87	0.69	0.06	4xØ0.63	2.76/F07	M8x1.25P
DN50	2"	1.97	7.01	10.43	4.53	0.91	0.55	0.37	0.62	5.98	4.74	3.62	0.75	0.06	4xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	7.48	15.35	6.50	3.07	1.75	0.67	1.10	7.01	5.49	4.13	0.88	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN80	3"	2.99	7.99	15.35	6.54	3.07	1.75	0.67	1.10	7.48	6.00	5.00	0.94	0.06	4xØ0.75	4.02/F10	M10x1.5P
DN100	4"	4.00	9.02	15.35	7.20	3.07	1.75	0.67	1.10	9.02	7.50	6.18	0.94	0.06	8xØ0.75	4.02/F10	M10x1.5P
DN150	6"	5.98	15.51	25.59	11.22	3.58	1.65	1.02	1.71	10.98	9.51	8.50	1.00	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	17.99	37.40	11.57	3.58	1.65	1.02	1.71	13.50	11.75	10.63	1.13	0.06	8xØ0.87	4.92/F12	M12x1.75P
DN250	10"	9.84	20.98	43.31	14.65	3.86	2.13	1.38	1.97	15.98	14.25	12.76	1.19	0.06	12xØ0.98	5.51/F14	M16x2.0P
DN300	12"	11.81	24.02	43.31	16.26	3.86	2.13	1.38	1.97	19.02	17.01	15.00	1.25	0.06	12xØ0.98	5.51/F14	M16x2.0P

ALLOY 20

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



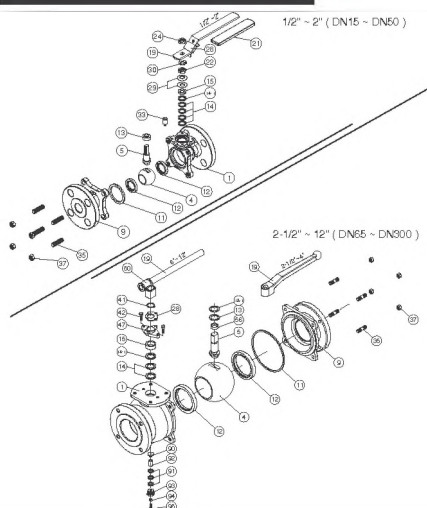
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

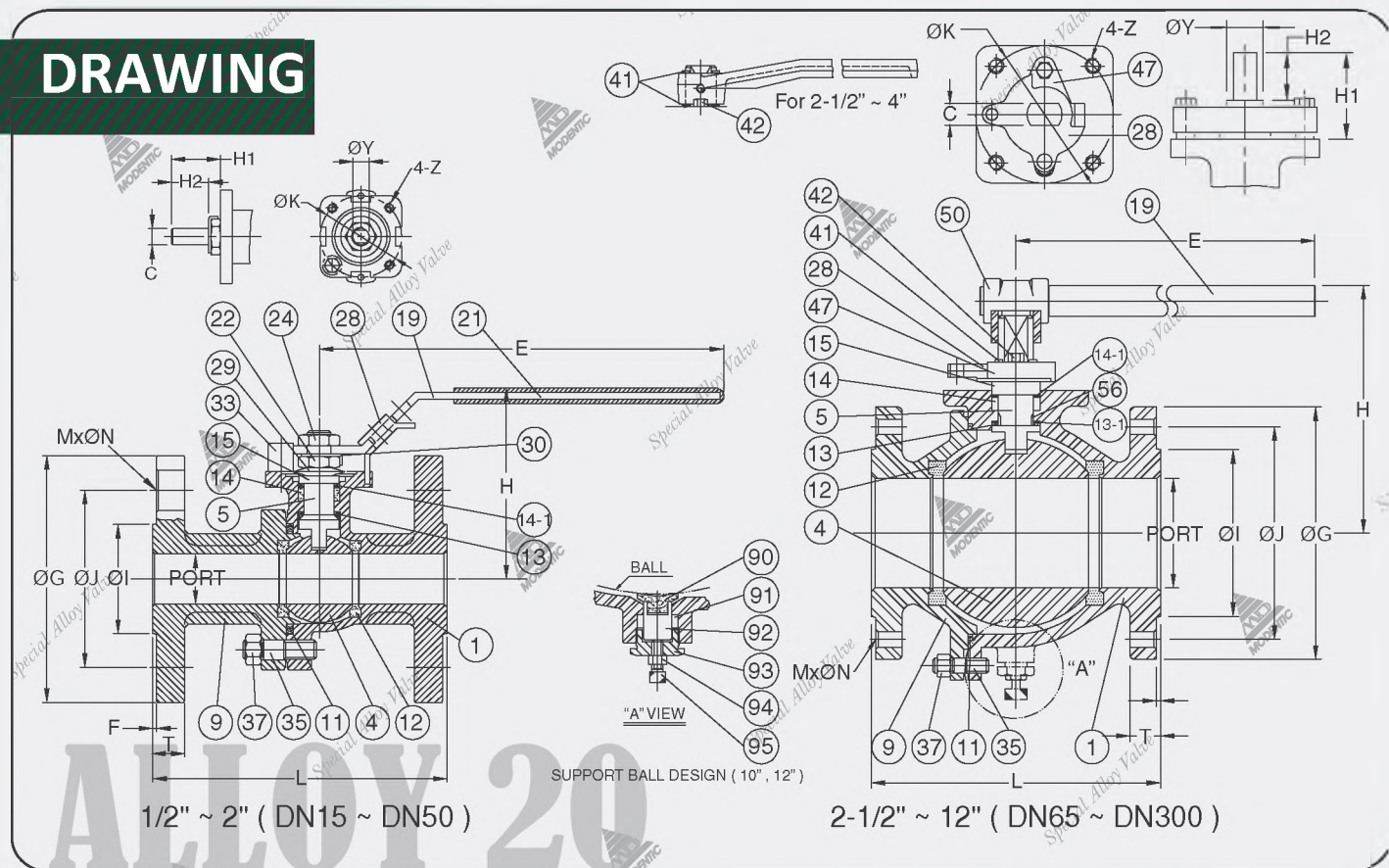
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CN7M
4	BALL	ASTM A351 Gr.CN7M
5	STEM	N08020
9	END CAP	ASTM A351 Gr.CN7M
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N08020
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P

DUPLEX 2205

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



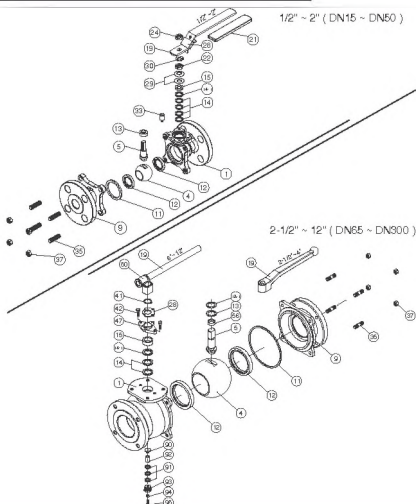
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

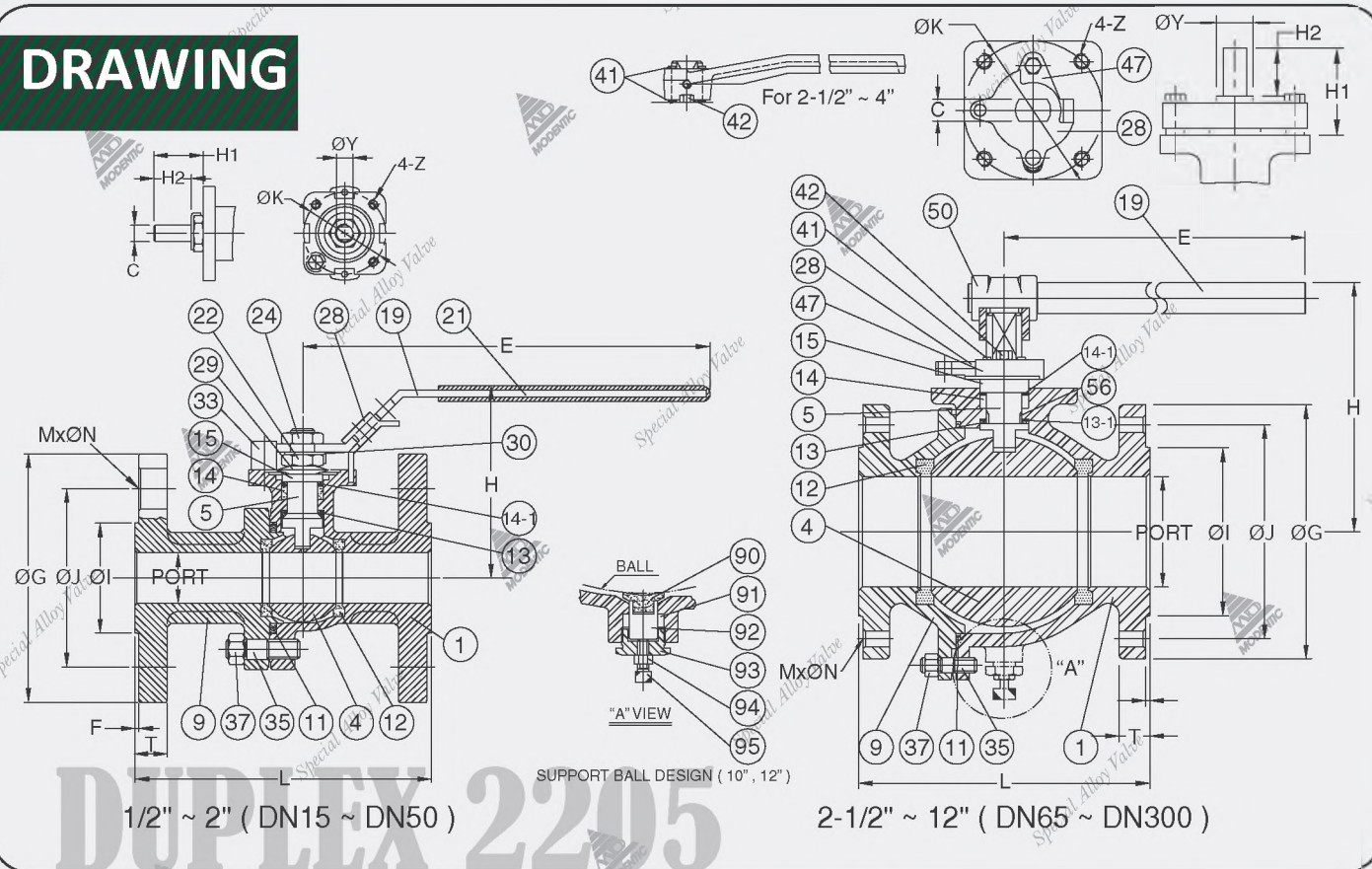
- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CD3MN
4	BALL	ASTM A890/995 Gr.CD3MN
5	STEM	S31803
9	END CAP	ASTM A890/995 Gr.CD3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	S31803
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



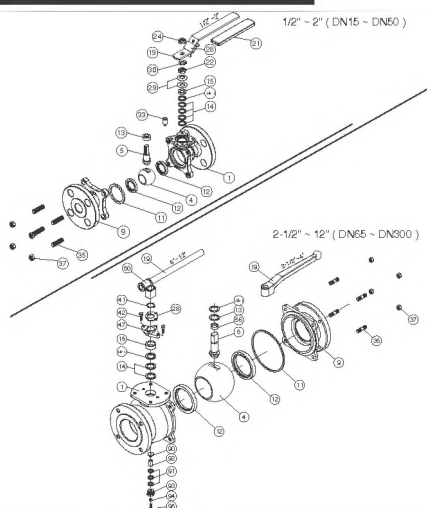
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

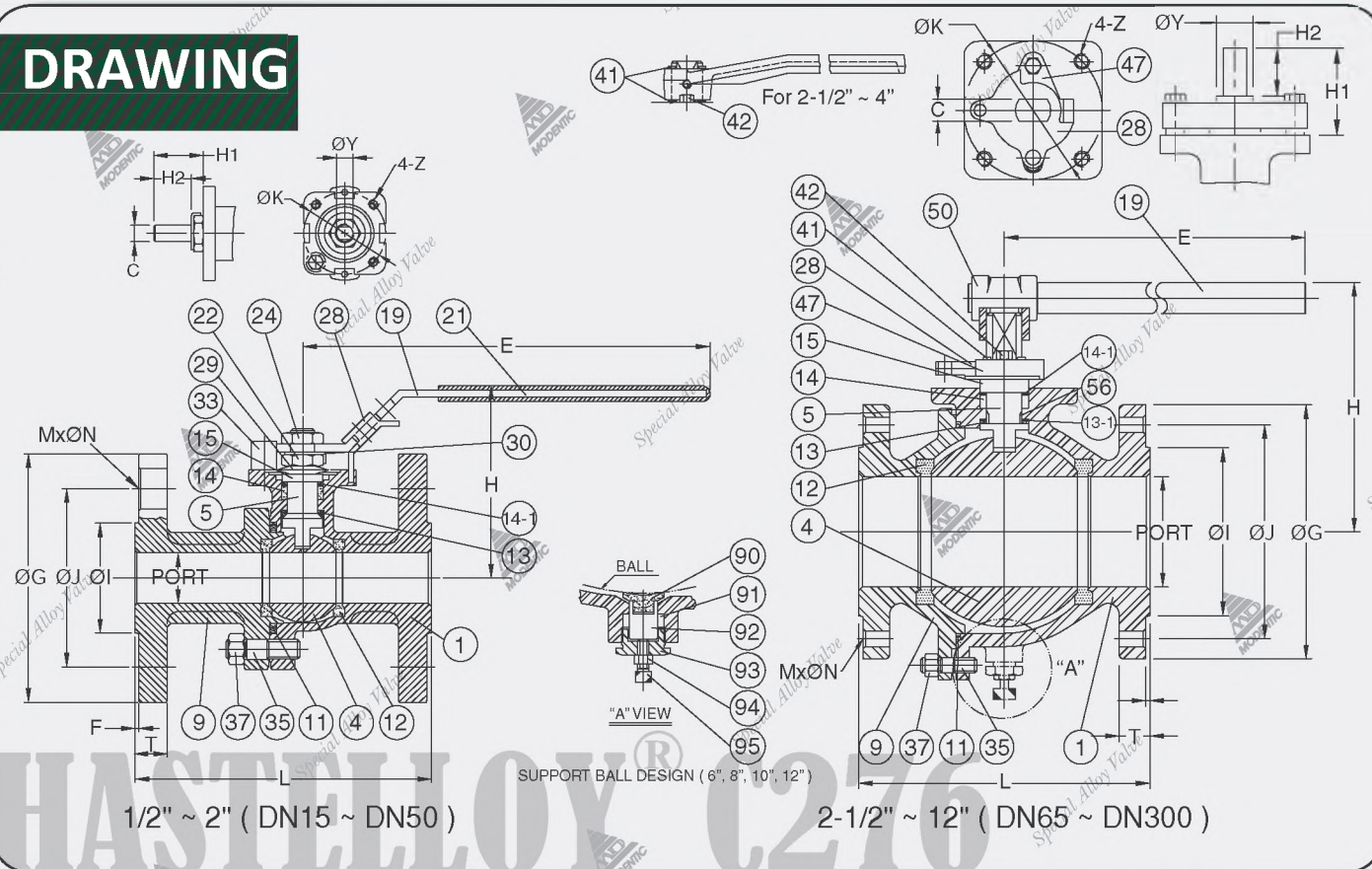
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.CW12MW
4	BALL	ASTM A494 Gr.CW12MW
5	STEM	N10276
9	END CAP	ASTM A494 Gr.CW12MW
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N10276
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P

MONEL[®] 400

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



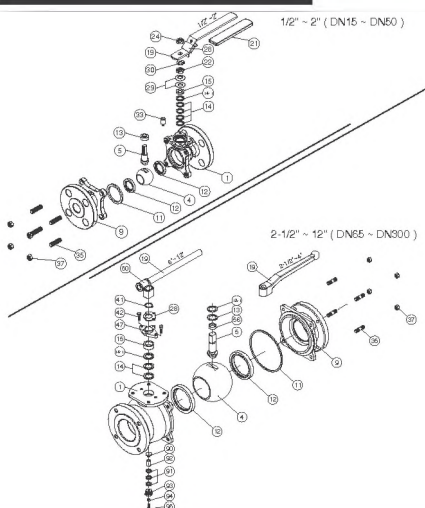
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY[®] C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL[®]
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

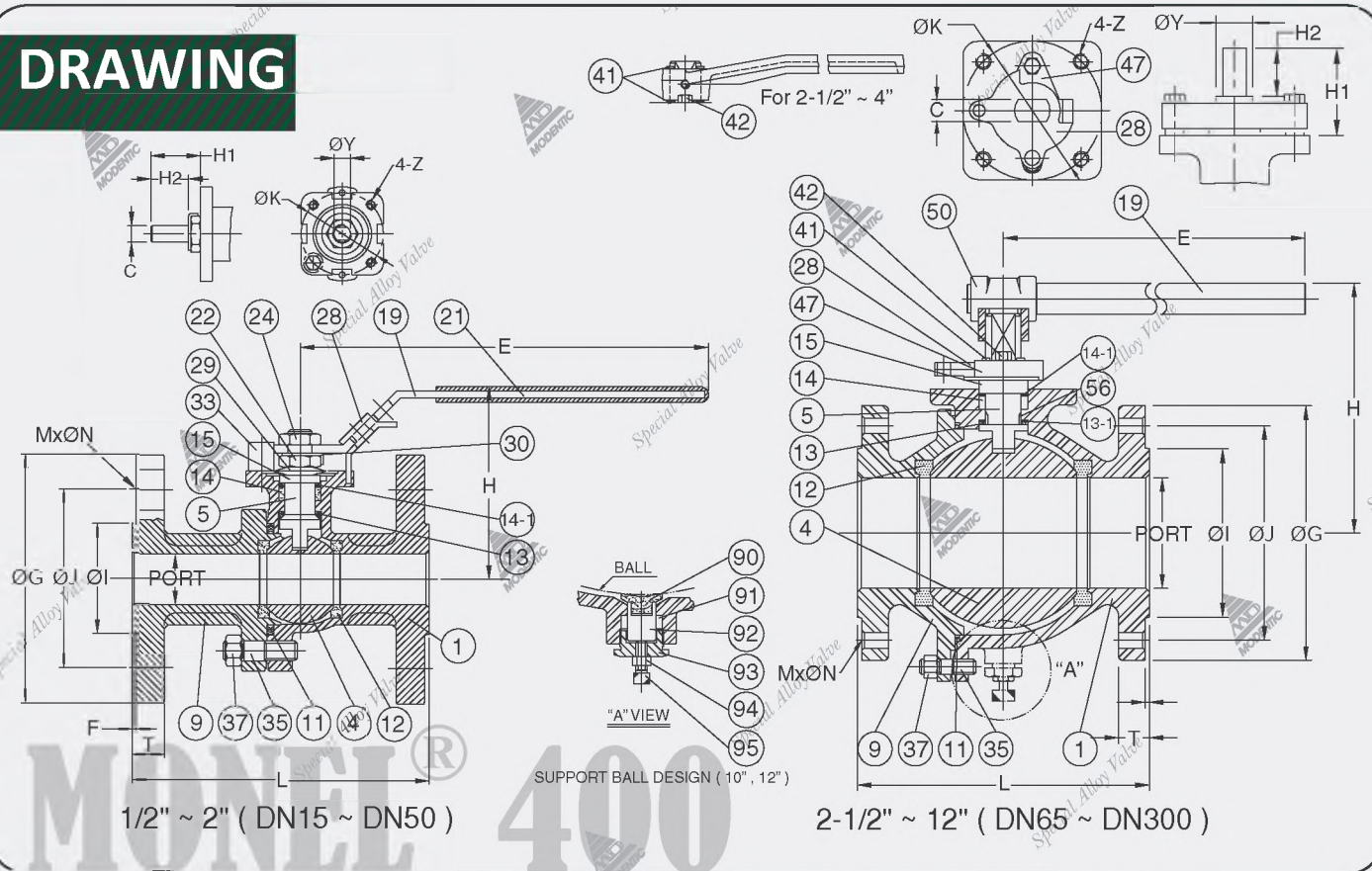
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A494 Gr.M-35-1
4	BALL	ASTM A494 Gr.M-35-1
5	STEM	N04400
9	END CAP	ASTM A494 Gr.M-35-1
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	N04400
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P

SS 904 L

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



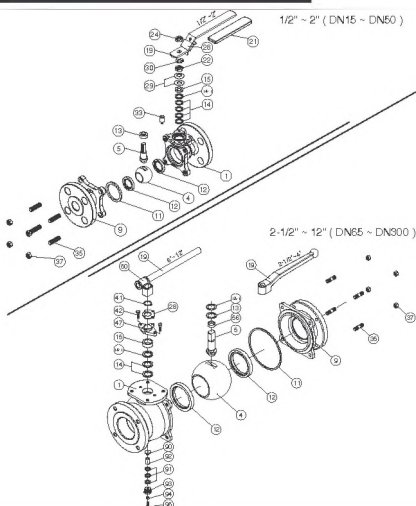
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

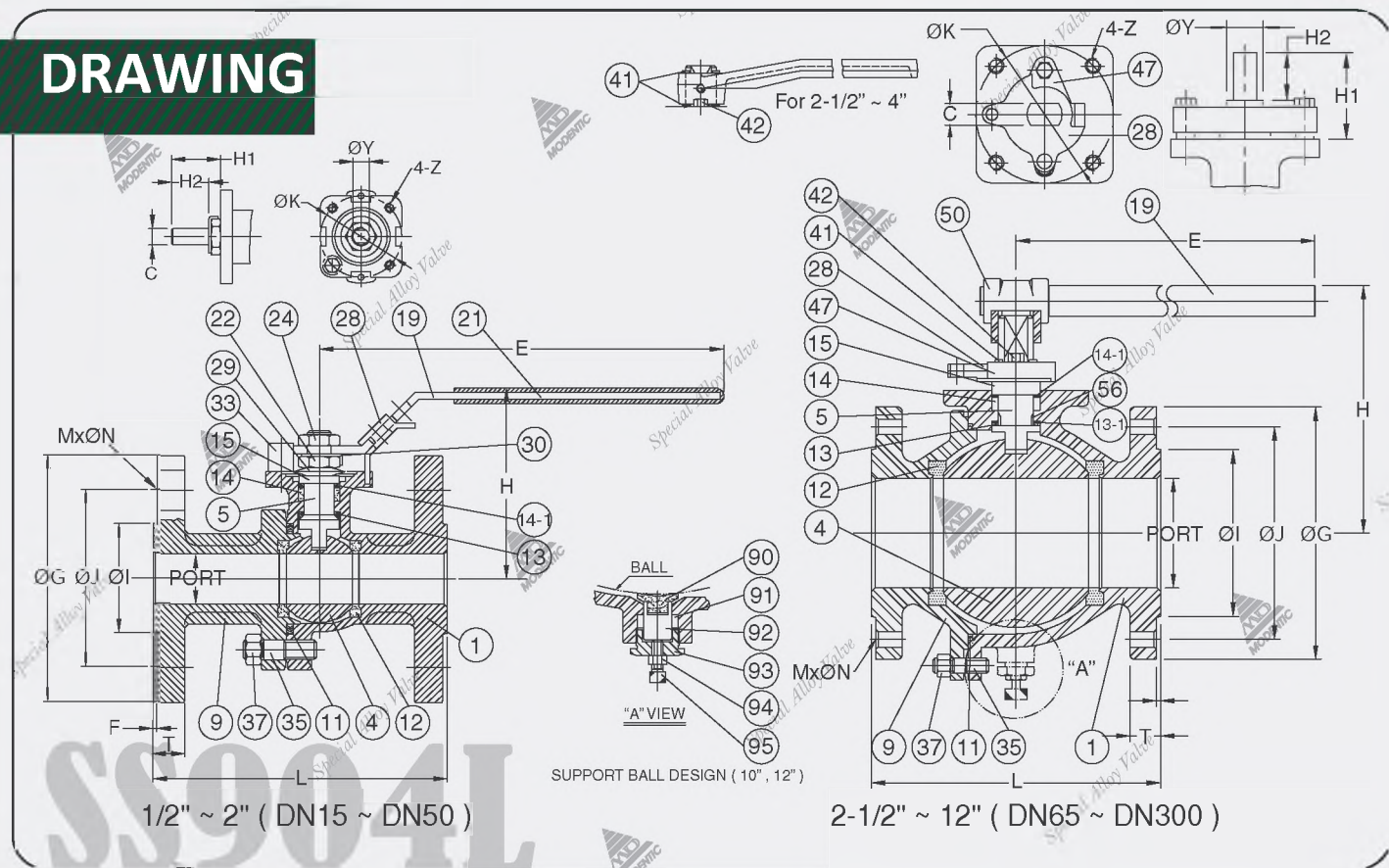
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|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	SS904L / CASTING
4	BALL	SS904L / CASTING
5	STEM	AISI 904L
9	END CAP	SS904L / CASTING
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	AISI 904L
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P

SUPER DUPLEX 2507

MD-82

ANSI Class 300
2-PC Flanged Ball Valves



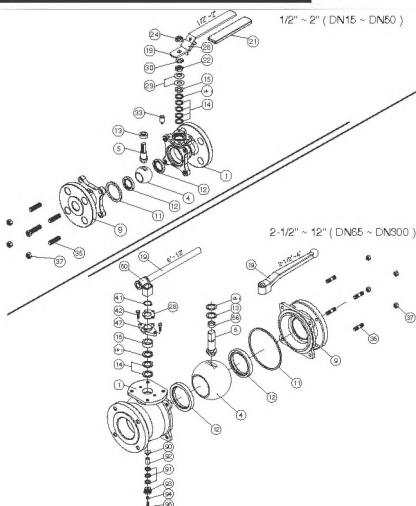
CRN
CERTIFICATED

API 607 6th Edition
ISO 10497
Fugitive Emission
Full Bore
ISO 5211 Mounting
2 Piece Body Design

AVAILABLE MATERIAL

- ALLOY 20
- HASTELLOY® C-276
- DUPLEX 2205
- DUPLEX 2507
- MONEL®
- SS904L

EXPLOSION DRAWING



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Other Super Alloy materials for highly corrosive medium are available upon request

STANDARD

- | | |
|--------------------|------------------------------|
| • Design | ASME/ANSI B16.34 / API 608 |
| • Mounting Flange | ISO 5211 |
| • Face to Face | ASME/ANSI B16.10 Class 300 |
| • Flange Dimension | ASME/ANSI B16.5 Class 300 RF |
| • Material | ASTM |
| • Pressure Testing | API 598 |

CERTIFICATE

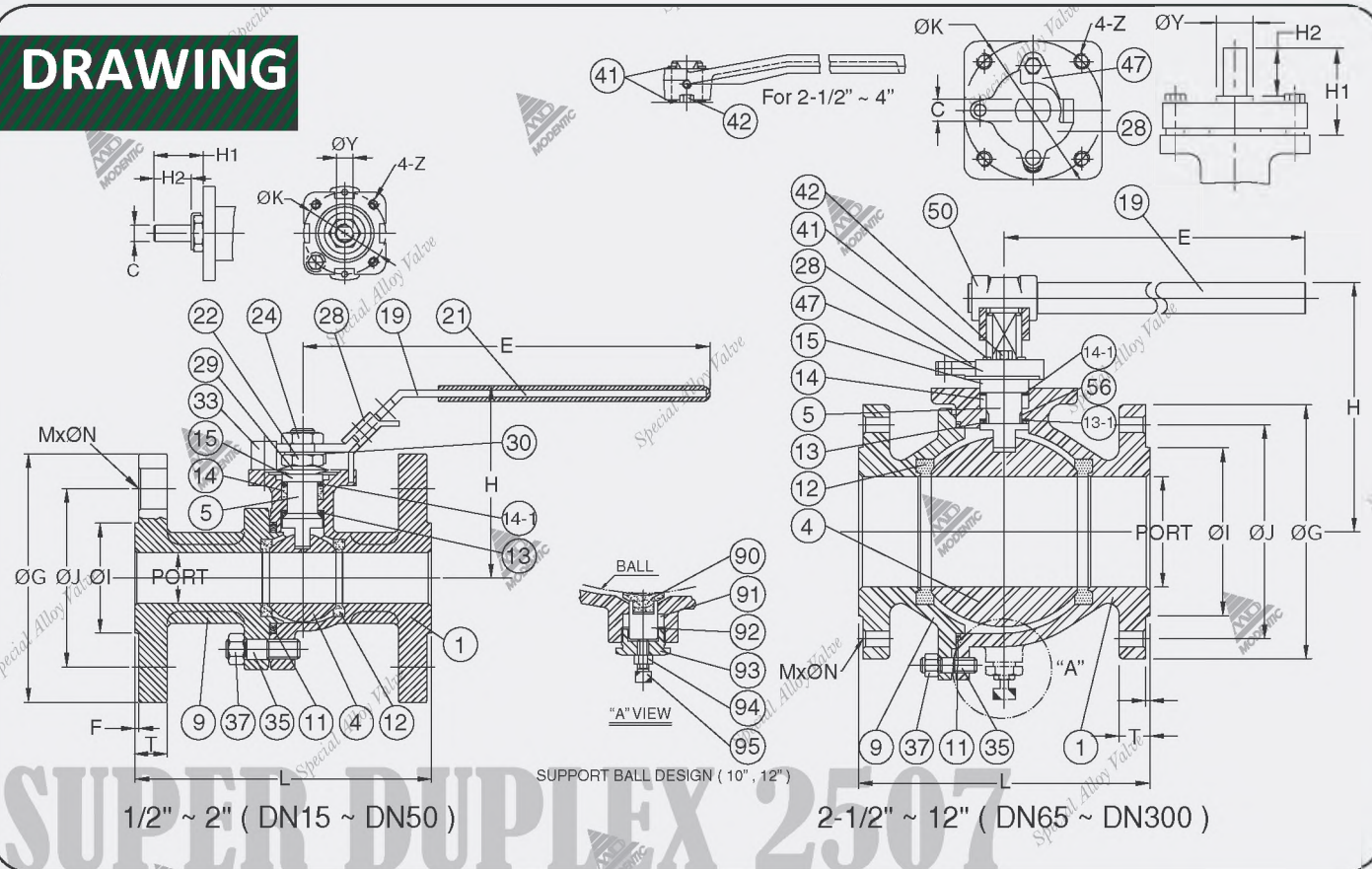
- | | |
|------------------------|---|
| • Fire Safe | API 607 6 th Edition / ISO 10497 Certified |
| • Fugitive Emission | TA-LUFT |
| • Quality Assurance | ISO 9001 |
| • Material Certificate | EN 10204-3.1 MTR |
| • CE Approval | PED 97/23/EC Module H |
| • Canadian Certificate | CRN |

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A890/995 Gr.CE3MN
4	BALL	ASTM A890/995 Gr.CE3MN
5	STEM	S32750
9	END CAP	ASTM A890/995 Gr.CE3MN
11	BODY SEAL	GRAPHITE+SS316 (SPIRAL WOUND)
12	SEAT	RTFE.(15%G.F.)
13	THRUST WASHER	PTFE.
13-1	THRUST WASHER (for 2-1/2" ~ 12" only)	PTFE.
14	STEM PACKING	PTFE.
14-1	STEM PACKING	PTFE.
15	GLAND	SS304
19	HANDLE	SS304(1/2"~2")、FCD45(2-1/2"~4")、SC15(5"~12")
21	HANDLE COVER	PLASTIC
22	STEM NUT (for 1/2" ~ 2" only)	SS304
24	HANDLE NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 2" only)	SS301
30	TAB WASHER (for 1/2" ~ 2" only)	SS304
33	STOP PIN (for 1/2" ~ 2" only)	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
41	SNAP RING (for 2-1/2" ~ 12" only)	NICKEL PLATED CARBON STEEL
42	GLAND BOLT (for 2-1/2" ~ 12" only)	SS304
47	GLAND FLANGE (for 2-1/2" ~ 12" only)	ASTM A351 Gr.CF8
50	HANDLE ADAPTER (for 2-1/2" ~ 12" only)	ASTM A216 Gr.WCB
56	STEM BEARING (for 2-1/2" ~ 12" only)	PTFE.
90	PIN SEAT (for 10" ~ 12" only)	RTFE.
91	PIN PACKING (for 10" ~ 12" only)	RTFE.
92	SUPPORT PIN (for 10" ~ 12" only)	S32750
93	SUPPORT NUT (for 10" ~ 12" only)	SS304
94	SET NUT (for 10" ~ 12" only)	SS304
95	TUNING SCREW (for 10" ~ 12" only)	SS304

Two Pieces Special Alloy Ball Valves

DRAWING



DIMENSION

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : MM
DN15	1/2"	15.0	140	165	66	14	8.0	6.35	9.3	95	66.5	35.0	14.3	1.6	4xØ16	42/F04	M5x0.8P
DN20	3/4"	20.0	152	165	74	14	8.0	6.35	9.3	117	82.5	43.0	15.9	1.6	4xØ19	42/F04	M5x0.8P
DN25	1"	25.0	165	200	87	19	11.0	8.0	10.9	124	89.0	51.0	17.5	1.6	4xØ19	50/F05	M6x1.0P
DN32	1-1/4"	32.0	178	200	92	19	11.0	8.0	10.9	133	98.5	64.0	19.1	1.6	4xØ19	50/F05	M6x1.0P
DN40	1-1/2"	38.0	190	250	105	23	14.0	9.5	15.7	156	114.5	73.0	20.7	1.6	4xØ22	70/F07	M8x1.25P
DN50	2"	50.0	216	265	115	23	14.0	9.5	15.7	165	127.0	92.0	22.3	1.6	8xØ19	70/F07	M8x1.25P
DN65	2-1/2"	65.0	241	390	158	78	44.5	17.0	28.0	190	149.0	105.0	25.4	1.6	8xØ22	102/F10	M10x1.5P
DN80	3"	80.0	283	390	166	78	44.5	17.0	28.0	210	168.0	127.0	28.6	1.6	8xØ22	102/F10	M10x1.5P
DN100	4"	100.0	305	390	183	78	44.5	17.0	28.0	254	200.0	157.0	31.8	1.6	8xØ22	102/F10	M10x1.5P
DN150	6"	150.0	403	650	285	91	42.0	26.0	43.5	318	270.0	216.0	36.6	1.6	12xØ22	125/F12	M12x1.75P
DN200	8"	200.0	502	950	323	91	42.0	26.0	43.5	381	330.0	270.0	41.3	1.6	12xØ25	125/F12	M12x1.75P
DN250	10"	250.0	568	1100	368	98	54.0	35.0	55.0	444	387.5	324.0	47.7	1.6	16xØ29	140/F14	M16x2.0P
DN300	12"	300.0	648	1100	408	98	54.0	35.0	55.0	521	451.0	381.0	50.8	1.6	16xØ32	140/F14	M16x2.0P

SIZE	PORT	L	E	H	H1	H2	C	ØY	ØG	ØJ	ØI	I	F	MxØN	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	5.51	6.50	2.60	0.55	0.31	0.25	0.37	3.74	2.62	1.38	0.56	0.06	4xØ0.63	1.65/F04	M5x0.8P
DN20	3/4"	0.79	5.98	6.50	2.91	0.55	0.31	0.25	0.37	4.61	3.25	1.69	0.63	0.06	4xØ0.75	1.65/F04	M5x0.8P
DN25	1"	0.98	6.50	7.87	3.43	0.75	0.43	0.31	0.43	4.88	3.50	2.01	0.69	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN32	1-1/4"	1.26	7.01	7.87	3.62	0.75	0.43	0.31	0.43	5.24	3.88	2.52	0.75	0.06	4xØ0.75	1.97/F05	M6x1.0P
DN40	1-1/2"	1.50	7.48	9.84	4.13	0.91	0.55	0.37	0.62	6.14	4.51	2.87	0.81	0.06	4xØ0.87	2.76/F07	M8x1.25P
DN50	2"	1.97	8.50	10.43	4.53	0.91	0.55	0.37	0.62	6.50	5.00	3.62	0.88	0.06	8xØ0.75	2.76/F07	M8x1.25P
DN65	2-1/2"	2.56	9.49	15.35	6.22	3.07	1.75	0.67	1.10	7.48	5.87	4.13	1.00	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN80	3"	3.15	11.14	15.35	6.54	3.07	1.75	0.67	1.10	8.27	6.61	5.00	1.13	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN100	4"	3.94	12.01	15.35	7.20	3.07	1.75	0.67	1.10	10.00	7.87	6.18	1.25	0.06	8xØ0.87	4.02/F10	M10x1.5P
DN150	6"	5.91	15.87	25.59	11.22	3.58	1.65	1.02	1.71	12.52	10.63	8.50	1.44	0.06	12xØ0.87	4.92/F12	M12x1.75P
DN200	8"	7.87	19.76	37.40	12.72	3.58	1.65	1.02	1.71	15.00	12.99	10.63	1.63	0.06	12xØ0.98	4.92/F12	M12x1.75P
DN250	10"	9.84	22.36	43.31	14.49	3.86	2.13	1.38	2.17	17.48	15.26	12.76	1.88	0.06	16xØ1.14	5.51/F14	M16x2.0P
DN300	12"	11.81	25.51	43.31	16.06	3.86	2.13	1.38	2.17	20.51	17.76	15.00	2.00	0.06	16xØ1.26	5.51/F14	M16x2.0P



SPECIAL ALLOY MATERIAL LIST

MODENTIC www.modentic.com.tw

ALLOY 20 / HASTELLOY C276 / DUPLEX 2205 / SUPER DUPLEX 2507 / MONEL 400 / SS904L

Other Alloy Materials can be offered upon request

Material Chart

Material Code	Elements Content (%)	Casting		
		ASTM	DIN	UNS
Austenitic Stainless Steel				
General				
SS304	19Cr-9Ni	CF8	1.4308	J92600
SS304L	19Cr-9Ni-C<0.03%	CF3	1.4306	J92500
SS347	19Cr-10Ni-Nb	CF8C	1.4552	J92710
Specific				
SS316	19Cr-10Ni-2.5Mo	CF8M	1.4408	J92900
SS316L	19Cr-10Ni-2.5Mo-C<0.03%	CF3M	1.4404	J92800
SS317	19Cr-11Ni-3.5Mo	CG8M	1.4437	J93000
SS317L	19Cr-11Ni-3.5Mo-C<0.03%	CG3M	1.4438	J92999
Super Austenitic Stainless Steel				
904L	21Cr-25Ni-4.5Mo-1.5Cu-N	-	1.4539	-
254 SMO	20Cr-18Ni-6.5Mo-Cu-N	A351 CK3MCuN	1.4547	J93254
Highly Corrosion-Resistant Alloy				
Austenitic Stainless Steel (Iron base)				
Alloy 20	29Ni-20Cr-3.5Cu-2.5Mo	A351 CN7M	2.4660	J95150
Ni-Mo Alloy				
Hastelloy B	28Mo-5Fe-V	A494 N-12MV	2.4882	N30012
Hastelloy B2	28Mo-1Fe	A494 N-7M	2.4617	N30007
Ni-Cr-Mo Alloy				
Hastelloy C276	16Cr-17Mo-6Fe-4W-V	A494 CW12MW	2.4686	N30002
Hastelloy C22	21Cr-13.5Mo-4Fe-3W	A494 CX2MW	2.4602	N26022
Ni-Cu Alloy				
Monel 400	65Ni-32Cu	A494 M-35-1	2.4365	N24135
Nickel				
Nickel CZ100	97Ni	A494 CZ-100	2.4066	N02100
Titanium				
Grade 2	99Ti	B367 C2		
Grade 5	6Al-4V	B367 C5		
High Temperature Alloy (Nickel base)				
Inconel 600	15Cr-8Fe	A494 CY-40	2.4816	N06040
Inconel 625	22Cr-9Mo-3.5Nb-2.5Fe	A494 CW6MC	2.4856	N26625
Duplex Stainless Steel				
1A	25Cr-5Ni-2Mo-3Cu	A890/A995 Gr.CD4MCu	1.4517	J93370
1B	25Cr-5Ni-2Mo-3Cu-N	A890/A995 Gr.CD4MCuN		J93372
2A	24Cr-10Ni-3.5Mo-N	A890/A995 Gr.CE8MN		J93345
2205/4A	22Cr-5Ni-3Mo-N	A890/A995 Gr.CD3MN	1.4470	J92205
Super Duplex Stainless Steel				
2507/5A	25Cr-7Ni-4Mo-N	A890/A995 Gr.CE3MN	1.4469	J93404
Z100/6A	25Cr-7Ni-3.5Mo-Cu-N-W	A890/A995 Gr.CD3MWCuN	1.4471	J93380
329	25Cr-4Ni-Mo		1.4460	

SPECIAL ALLOY VALVES

PRODUCTS RANGE

- METAL SEATED BALL VALVE
- HIGH PRESSURE BALL VALVE
- API 607 FIRE SAFE APPROVED

BALL VALVE

- FUGITIVE EMISSION APPROVED

BALL VALVE

- HIGH PURITY BALL VALVE
- AUTOMATION VALVE

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