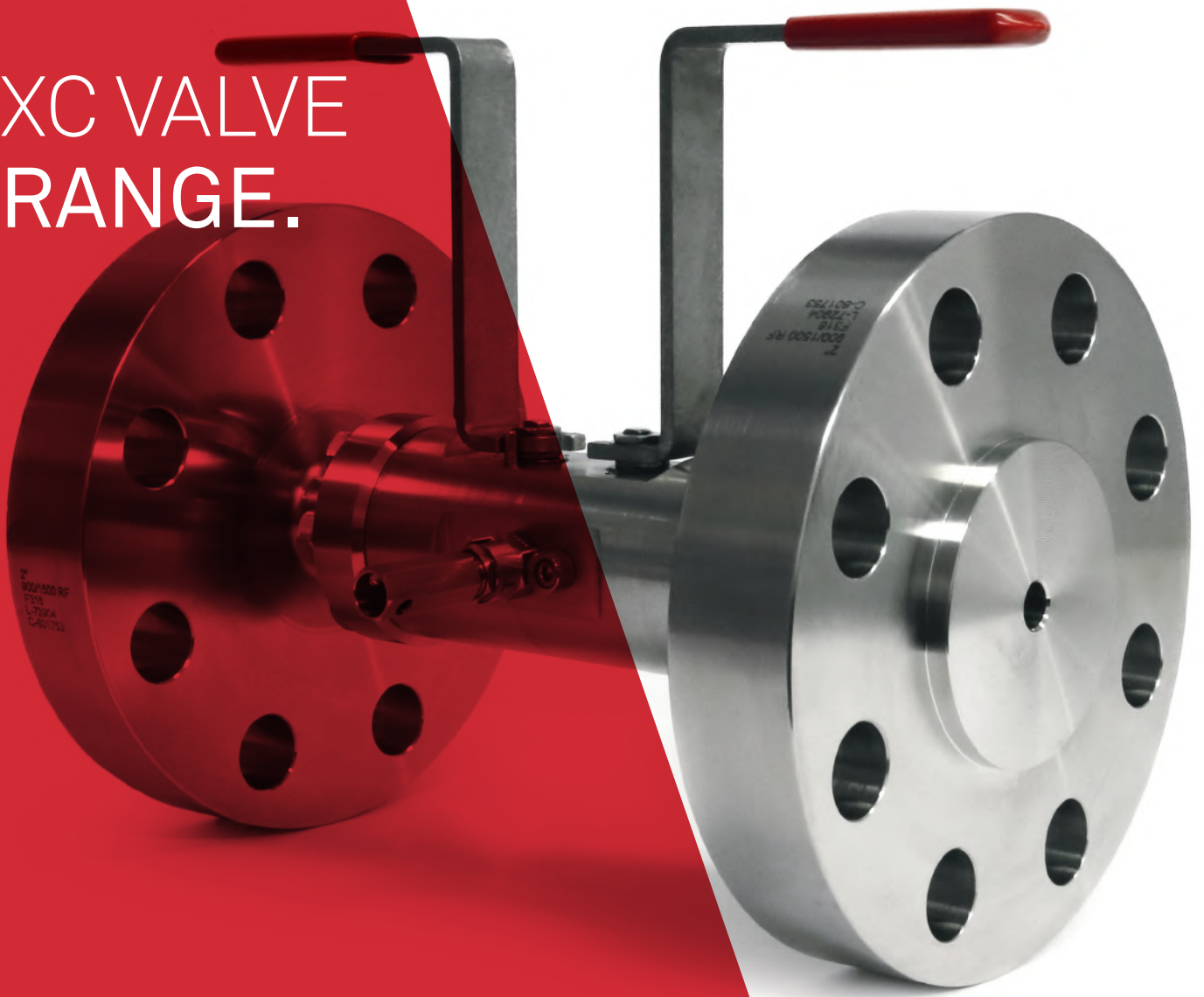


XC VALVE RANGE.



ALCO VALVES DELIVER TRUSTED
SOLUTIONS FOR CRITICAL
APPLICATIONS.





ALCO VALVES GROUP LTD

The Alco Valves Group has been delivering quality, precision and excellence for its customers since 1977. In that time the business has evolved into the choice supplier of technically advanced valve products and solutions for critical applications across the globe.

The Alco Valves Group's extensive range of valves and accessories are precision-made to fit the customer's requirements using advanced machinery and manufacturing processes. Quality assurance is of the utmost importance to Alco and the group holds a number of internationally recognised quality standards certifications and management systems.

The Alco Valves Group now operates in over thirty countries worldwide with office locations in the UK, UAE, Malaysia, Australia and USA. In 2016 the group developed its flagship headquarters in Yorkshire, UK, establishing it as a state-of-the-art production and technology centre. This is where innovation comes to life and products are designed, tested and manufactured using the latest industry-led technology.

This dedication to operational excellence runs throughout the business, from customer service right through to the safety and reliability of products. The Alco Valves Group is committed to continual improvement and infrastructure investment as it aspires to be the most technologically advanced valve provider in the world.

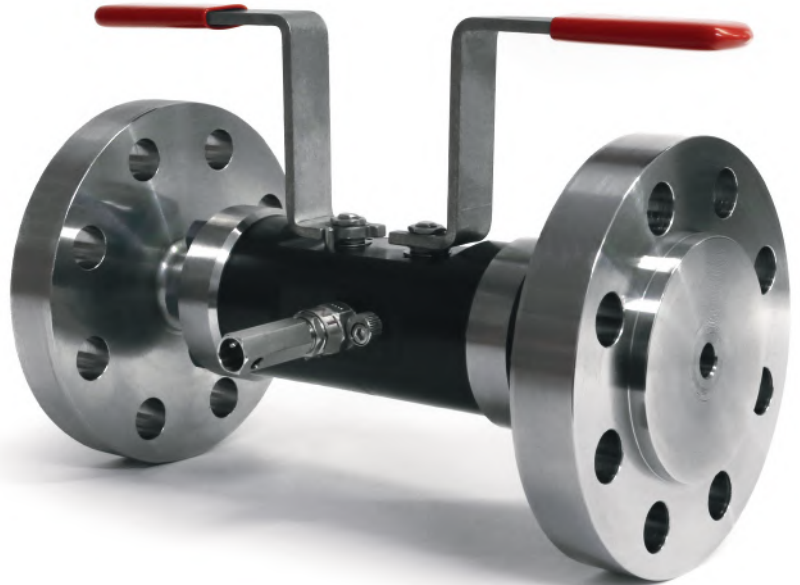
40 YEARS OF
MANUFACTURING
EXCELLENCE

ALCO HI-TEK XC RANGE

PATENT PENDING



XC Stocked Cartridge



XC Finished Construction

High structural integrity valves lock off fluid securely for complex operations, safely and reliably.

Our XC Range features seats manufactured from PEEK thermoplastic to provide a dependable lifespan in the toughest services. Available with a multitude of construction materials and precision engineered connections the XC Range is manufactured from the following Western European sourced materials;

Available Construction

A182 F316/F316L

A182 F51

A350 LF2 CL1

Ball Valve Trim

A479 UNS S31803
(Duplex)

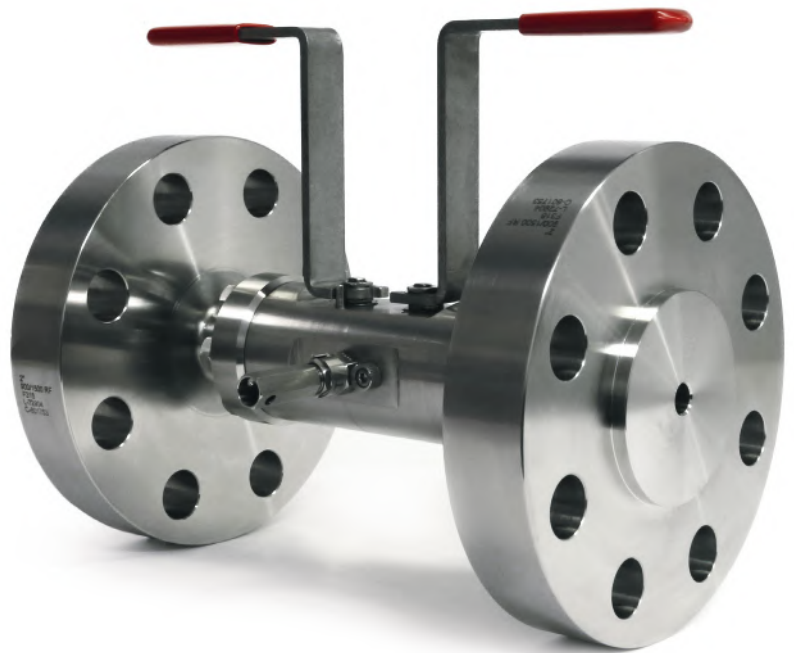
Available Bolting[†]

A320 GrL7M/A194 Gr7M

A193 GrB8MCL2/A194 Gr8MA



XC Stocked Cartridge



XC Finished Construction

Component Features

Designed and manufactured in accordance with ASME standards

† Available with process flanges to suit any specific requirement

Manufactured and tested before the point of order placement

Pressure ratings from Class 150 to Class 2500

Anti-static to ATEX requirements and cavity relieved as standard

Compact design for cost efficiency and weight

Service temperatures from -46°C to 200°C

Features 2 high performance floating pattern ball valves and a venting needle valve c/w NPT female vent

10% NDT batch sampled as standard

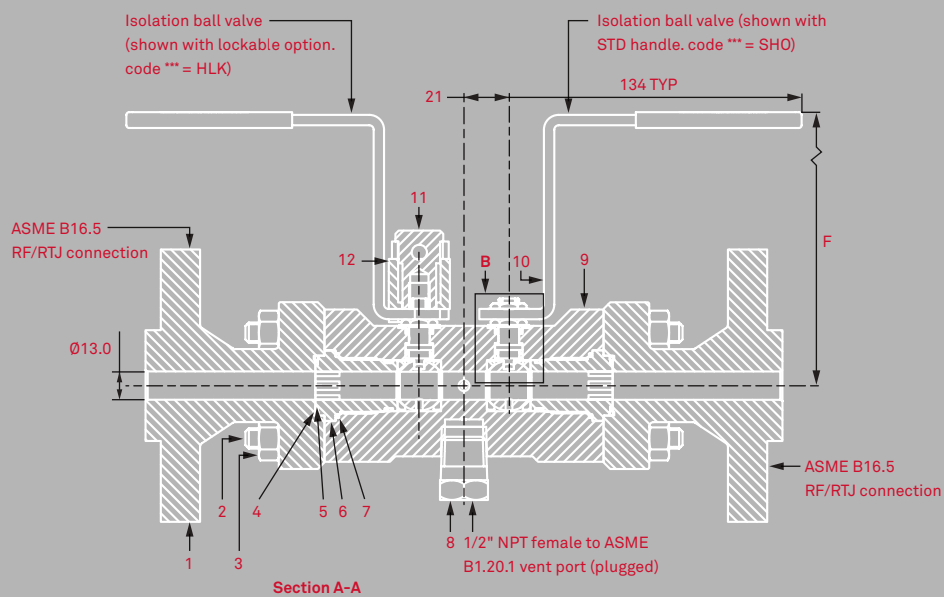
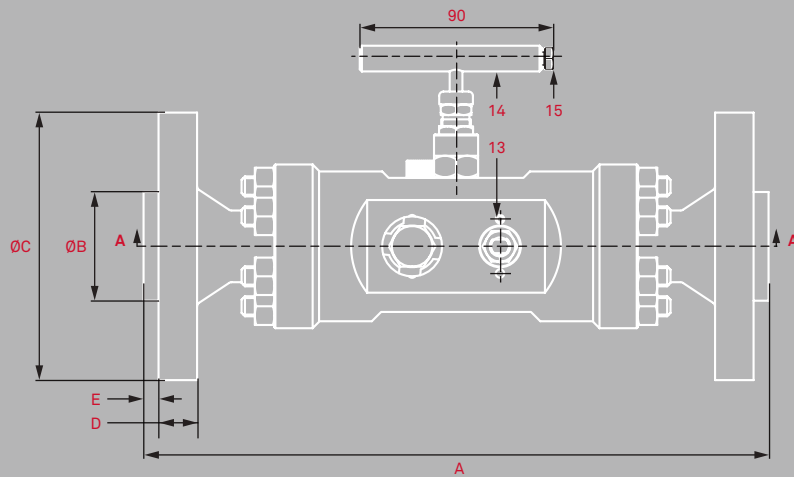


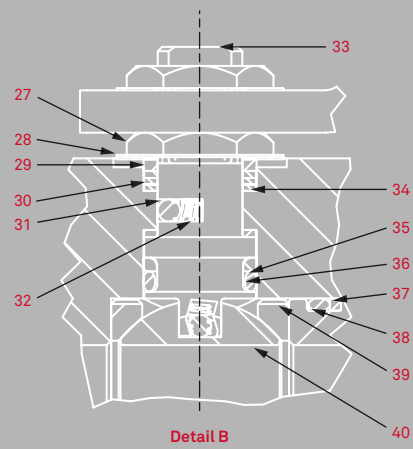
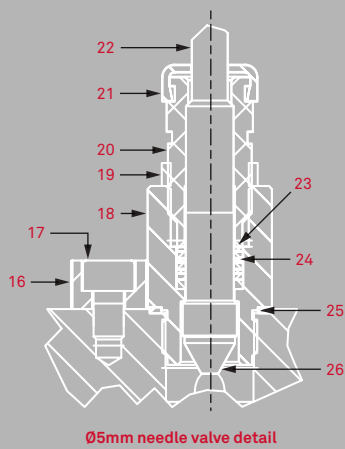
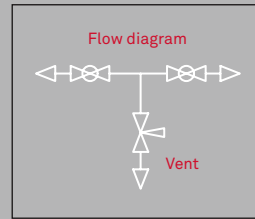
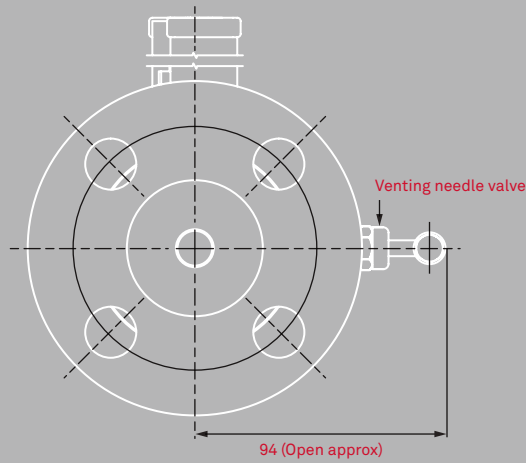
† Includes: ASME RT J & RF | API RT J | Hub Ends | Threaded Ends | Butt/Socket Weld End.

XC Ø13 DBB Valve Manifold

Qualifications

- Fire safe to ISO 10497
- Fugitive emission tight ball valve design
- Class A tight to the CO2 level between -29°C > 40°C at pressure of 431 bar (6250 psi) and below
- Class B tight to the CO1 level between -46°C > 100°C at pressure of 431 bar (6250 psi) and below
- API 6A PR2 qualified ball valve design at class 2500
- Endurance tested to 1200 operational cycles at class 2500 in accordance with API 6A criteria
- Ball valves type Approval Tested in accordance with SPE 77-300 at class 2500 + class 600 between +150°C and -29°C





Components Key

Item No.	Description	Material	Quantity
1	BOLT ON FLANGE	#	2
2	STUD	*	12
3	HEX NUT	*	12
4	BODY SEAL	GRAPHITE	2
5	O-RING	ENDURA V91A	2
6	BODY INSERT	A479 UNS S31803	2
7	BODY SEAL	GRAPHITE	2
8	1/2" N.PT BLANK PLUG	†	1
9	BODY	#	1
10	VALVE HANDLE (3)	UNS S31600	2
11	LOCKING PIN	UNS S31600	1
12	LOCKING COLLAR	UNS S31600	1
13	STOP PIN	UNS S31600	2
14	EXTENDED "T" HANDLE	UNS S31600	1
15	HEX CAP SCREW	A4 ST/ST	1
16	LOCKING CAM	UNS S31600	1
17	SHC SCREW	A4 ST/ST	1
18	BONNET HOUSING	‡	1
19	GLAND LOCKNUT	UNS S31600	1
20	GLAND ADJUSTER	UNS S31600	1

Item No.	Description	Material	Quantity
21	DUST CAP	PVC	1
22	NEEDLE STEM	A479 UNS S31803	1
23	PACKING WASHER	RTFE	2
24	GLAND PACKING	GRAPHITE	3
25	BONNET SEAL	UNS S31600	1
26	NEEDLE VALVE TIP	A479 UNS S31803	1
27	3/8" UNF HALF NUT	A4 ST/ST	3
28	BELLEVILLE WASHER	ST/ST	5
29	SPACER	UNS S31600	2
30	ANTI-EXTRUSION RING	PEEK	4
31	2.5mm BALL	B446 UNS N06625	4
32	ANTI-STATIC SPRING	INCONEL X750	4
33	STEM	A479 UNS S31803	2
34	FIRE SAFE SEAL	GRAPHITE	4
35	BACK-UP RING	PEEK	2
36	O-RING	ENDURA V91A	2
37	BACK-UP RING	PEEK	2
38	O-RING	ENDURA V91A	2
39	SEAT	PEEK	4
40	BALL	A890-CD3MN	2

= BODY/FLANGE MATERIAL (S = F316, L = LF2, U = F51)
 * = BOLTING MATERIAL (S & U = B8M/8MA L = L7M/7M)

† = 1/2" VENT PLUG MATERIAL (S & L = A479 UNS S31600, U = A479 UNS S31803)
 ‡ = BONNET HOUSING MATERIAL (S & L = A479 UNS S31600, U = A479 UNS S31803)

ALCO XC Ø13mm Bore

TABLE 1

RF/RTJ Flange x Flange/NPT

Flange size (in)	Class rating	Part No.	A - RF	A - RTJ	A 1/2" NPT - RF	A 1/2" NPT - RTJ	ØB - RF	ØB - RTJ	ØC	D	E - RF	E - RTJ	F	Nominal Mass (kg)
1/2"	150	XC-13#-04AR‡04AR‡-B*-***	270	N/A	265	N/A	34.9	N/A	90	10.1	2.0	N/A	90	7
1/2"	300	XC-13#-04BR‡04BR‡-B*-***	276	282	268	271	34.9	51.1	95	13.2	2.0	5.5	90	8
1/2"	600	XC-13#-04CR‡04CR‡-B*-***	288	286	274	273	34.9	51.1	95	14.8	7.0	5.5	90	8
1/2"	900/1500	XC-13#-04ER‡04ER‡-B*-***	322	320	291	290	34.9	60.6	120	22.8	7.0	6.4	125	10
1/2"	2500	XC-13#-04FR‡04FR‡-B*-***	324	322	292	291	34.9	65.1	135	30.7	7.0	6.4	125	13
3/4"	150	XC-13#-06AR‡06AR‡-B*-***	272	N/A	266	N/A	42.9	N/A	100	11.7	2.0	N/A	90	8
3/4"	300	XC-13#-06BR‡06BR‡-B*-***	288	296	274	278	42.9	63.6	115	14.8	2.0	6.4	125	9
3/4"	600	XC-13#-06CR‡06CR‡-B*-***	300	298	280	279	42.9	63.6	115	16.4	7.0	6.4	125	9
3/4"	900/1500	XC-13#-06ER‡06ER‡-B*-***	324	322	292	291	42.9	66.6	130	25.9	7.0	6.4	125	11
3/4"	2500	XC-13#-06FR‡06FR‡-B*-***	328	326	294	293	42.9	73.1	140	32.3	7.0	6.4	125	14
1"	150	XC-13#-08AR‡08AR‡-B*-***	276	284	268	272	50.8	63.6	110	13.2	2.0	6.4	125	8
1"	300	XC-13#-08BR‡08BR‡-B*-***	278	286	269	273	50.8	70.1	125	16.4	2.0	6.4	125	9
1"	600	XC-13#-08CR‡08CR‡-B*-***	292	290	276	275	50.8	70.1	125	18.0	7.0	6.4	125	10
1"	900/1500	XC-13#-08ER‡08ER‡-B*-***	324	322	292	291	50.8	71.6	150	29.1	7.0	6.4	125	14
1"	2500	XC-13#-08FR‡08FR‡-B*-***	336	336	298	298	50.8	82.6	160	35.5	7.0	6.4	125	17
1 1/2"	150	XC-13#-12AR‡12AR‡-B*-***	272	280	266	270	73.0	82.6	125	16.4	2.0	6.4	125	9
1 1/2"	300	XC-13#-12BR‡12BR‡-B*-***	292	300	276	280	73.0	90.6	155	19.6	2.0	6.4	125	12
1 1/2"	600	XC-13#-12CR‡12CR‡-B*-***	308	306	284	283	73.0	90.6	155	22.8	7.0	6.4	125	13
1 1/2"	900/1500	XC-13#-12ER‡12ER‡-B*-***	336	334	298	297	73.0	92.1	180	32.3	7.0	6.4	125	19
1 1/2"	2500	XC-13#-12FR‡12FR‡-B*-***	340	342	300	301	73.0	114.1	205	45.0	7.0	7.9	160	28
2"	150	XC-13#-16AR‡16AR‡-B*-***	272	280	266	270	92.1	102.1	150	18.0	2.0	6.4	125	11
2"	300	XC-13#-16BR‡16BR‡-B*-***	278	290	269	275	92.1	108.1	165	21.2	2.0	7.9	125	13
2"	600	XC-13#-16CR‡16CR‡-B*-***	298	300	279	280	92.1	108.1	165	25.9	7.0	7.9	125	15
2"	900/1500	XC-13#-16ER‡16ER‡-B*-***	322	324	291	292	92.1	124.1	215	38.6	7.0	7.9	160	27
2"	2500	XC-13#-16FR‡16FR‡-B*-***	348	350	304	305	92.1	133.1	235	51.4	7.0	7.9	160	38

Configuration Metric / mm

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)

* = BOLTING MATERIAL (2FC=L7M, 8ST=B8M)

‡ = FLANGE TYPE (F=RF, J=RTJ)

*** = HANDLE OPTIONS (SHO=STANDARD, HLK=HANDLE LOCKABLE)

TABLE 2

Flange x NPT

XC-13#-04AR‡##02-B*-***
XC-13#-04BR‡##02-B*-***

NPT CONFIGURATIONS

*PLEASE NOTE: PART CODES VARY
DEPENDING ON THE CONFIGURATION
OF THE VALVE. AS SHOWN TO THE LEFT.

= NPT SIZE (03=3/8", 04=1/2", 06=3/4", 08=1")

TABLE 3

Size	RF	RTJ
3/8"	-26	-26
3/4"	+6	+6
1"	+16	+16

IN ORDER TO OBTAIN OVERALL LENGTH VALUES (A) FOR 3/8", 3/4" AND 1" NPT CONNECTIONS, THE VALUES IN TABLE 3 NEED TO BE ADDED OR SUBTRACTED FROM THE OVERALL LENGTH (A). FOR EXAMPLE, TO CALCULATE THE OVERALL LENGTH FOR AN RF FLANGE x 3/8" FEMALE NPT WE SUBTRACT 26 FROM THE 1/2" NPT - RF VALUES IN TABLE 1.

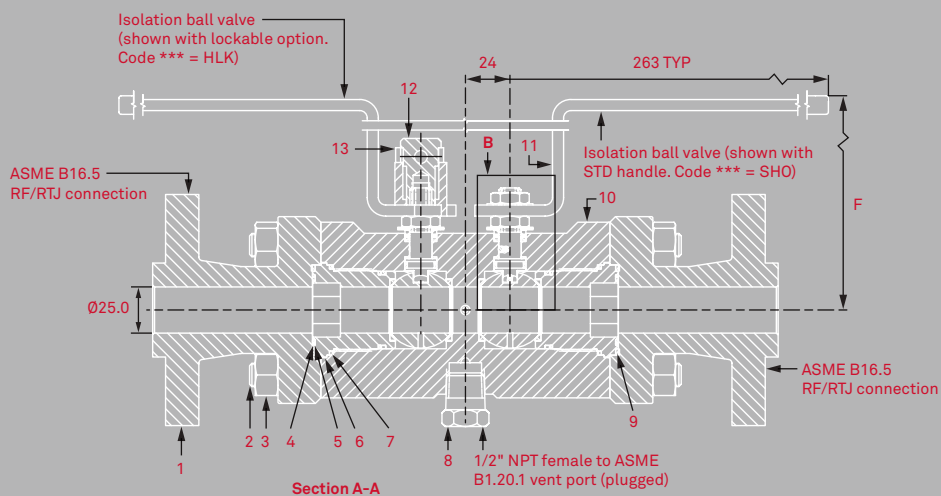
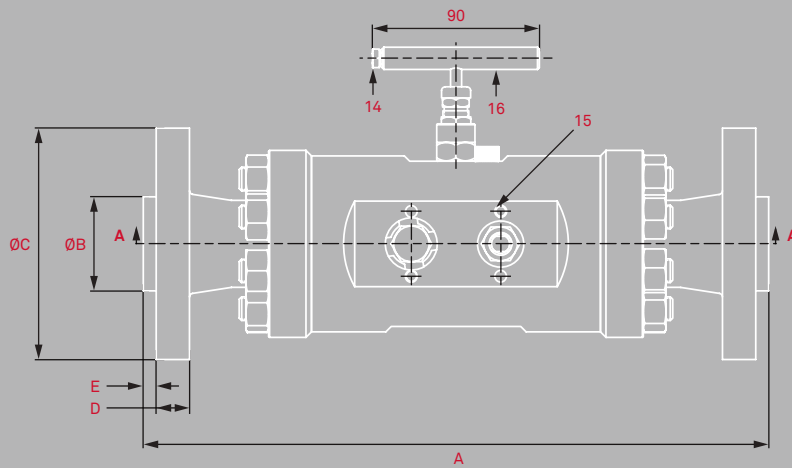
XC Construction

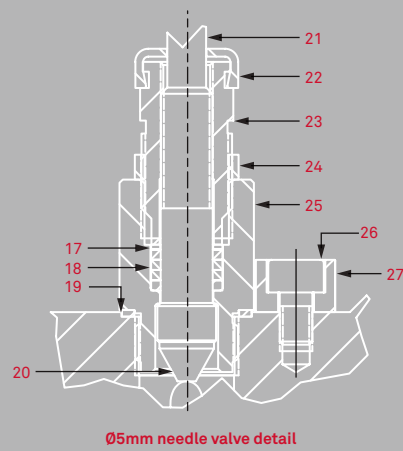
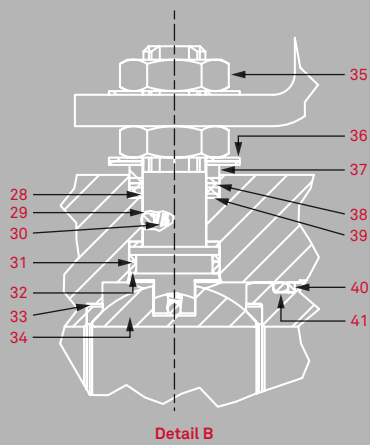
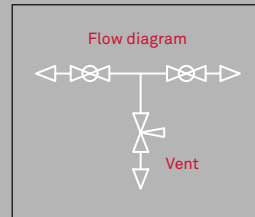
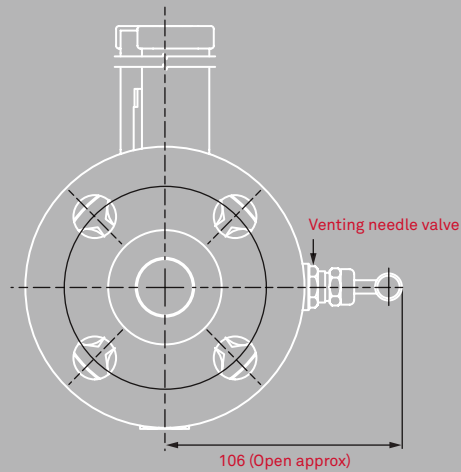


XC Ø19 & Ø25 DBB Valve Manifold

Qualifications

- Fire safe to ISO 10497
- Fugitive emission tight ball valve design
- Class A tight to the CO2 level between -29°C > 40°C at pressure of 431 bar (6250 psi) and below
- Class B tight to the CO1 level between -46°C > 100°C at pressure of 431 bar (6250 psi) and below
- API 6A PR2 qualified ball valve design at class 2500
- Endurance tested to 1200 operational cycles at class 2500 in accordance with API 6A criteria
- Type Approval Tested in accordance with SPE 77-300 at class 2500 + class 600 between +150°C and -29°C





Item No.	Description	Material	Quantity
1	BOLT ON FLANGE	#	2
2	STUD	*	12 - 16
3	HEX NUT	*	12 - 16
4	O-RING	ENDURA V91A	2
5	BACK-UP RING	PEEK	2
6	BODY INSERT	A479 UNS S31803	2
7	BODY SEAL	GRAPHITE	2
8	1/2" N.PT BLANK PLUG	†	1
9	BODY SEAL	GRAPHITE	2
10	BODY	#	1
11	VALVE HANDLE (2)	UNS S31600	2
12	LOCKING PIN	UNS S31600	1
13	LOCKING COLLAR	UNS S31600	1
14	HEX CAP SCREW	A4 ST/ST	1
15	STOP PIN	UNS S31600	2
16	EXTENDED "T" HANDLE	UNS S31600	1
17	PACKING WASHER	RTFE	2
18	GLAND PACKING	GRAPHITE	3
19	BONNET SEAL	UNS S31600	1
20	NEEDLE VALVE TIP	A479 UNS S31803	1
21	NEEDLE STEM	A479 UNS S31803	1

Item No.	Description	Material	Quantity
22	DUST CAP	PVC	1
23	GLAND ADJUSTER	UNS S31600	1
24	GLAND LOCKNUT	UNS S31600	1
25	BONNET HOUSING	‡	1
26	SHC SCREW	A4 ST/ST	1
27	LOCKING CAM	UNS S31600	1
28	STEM	A479 UNS S31803	2
29	2.5mm BALL	B446 UNS N06625	4
30	ANTI-STATIC SPRING	INCONEL X750	4
31	BACK-UP RING	PEEK	2
32	O-RING	ENDURA V91A	2
33	SEAT	PEEK	4
34	BALL	B446 UNS N06625	2
35	HEX NUT	A4 ST/ST	3
36	BELLEVILLE WASHER	ST/ST	5
37	SPACER	UNS S31600	2
38	ANTI-EXTRUSION RING	PEEK	4
39	GLAND PACKING	GRAPHITE	4
40	BACK-UP RING	PEEK	2
41	O-RING	ENDURA V91A	2

Components Key

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
 * = BOLTING MATERIAL (S & U =B8M/8MA L =L7M/7M)

† = 1/2" VENT PLUG MATERIAL (S & L =A479 UNS S31600, U=A479 UNS S31803)
 ‡ = BONNET HOUSING MATERIAL (S & L =A479 UNS S31600, U=A479 UNS S31803)

ALCO XC Ø19mm Bore

TABLE 1
RF/RTJ Flange x Flange/NPT

Flange size (in)	Class rating	Part No.	A - RF	A - RTJ	A 3/4" NPT - RF	A 3/4" NPT - RTJ	ØB - RF	ØB - RTJ	ØC	D	E - RF	E - RTJ	F	Nominal Mass (kg)
3/4"	150	XC-19#-06AR‡06AR‡-B*-***	291	N/A	293	N/A	42.9	N/A	100	11.7	2.0	N/A	97	10
3/4"	300	XC-19#-06BR‡06BR‡-B*-***	305	315	300	305	42.9	63.6	115	14.8	2.0	6.4	97	11
3/4"	600	XC-19#-06CR‡06CR‡-B*-***	319	317	307	306	42.9	63.6	115	16.4	7.0	6.4	97	12
3/4"	900/1500	XC-19#-06ER‡06ER‡-B*-***	347	345	321	320	42.9	66.6	130	25.9	7.0	6.4	132	14
3/4"	2500	XC-19#-06FR‡06FR‡-B*-***	349	349	322	322	42.9	73.1	140	32.3	7.0	6.4	132	16
1"	150	XC-19#-08AR‡08AR‡-B*-***	295	303	295	299	50.8	63.6	110	13.2	2.0	6.4	97	11
1"	300	XC-19#-08BR‡08BR‡-B*-***	309	317	302	306	50.8	70.1	125	16.4	2.0	6.4	132	12
1"	600	XC-19#-08CR‡08CR‡-B*-***	321	321	308	308	50.8	70.1	125	18.0	7.0	6.4	132	13
1"	900/1500	XC-19#-08ER‡08ER‡-B*-***	355	353	325	324	50.8	71.6	150	29.1	7.0	6.4	132	17
1"	2500	XC-19#-08FR‡08FR‡-B*-***	357	357	326	326	50.8	82.6	160	35.5	7.0	6.4	132	20
1 1/2"	150	XC-19#-12AR‡12AR‡-B*-***	291	299	293	297	73.0	82.6	125	16.4	2.0	6.4	132	12
1 1/2"	300	XC-19#-12BR‡12BR‡-B*-***	309	317	302	306	73.0	90.6	155	19.6	2.0	6.4	132	15
1 1/2"	600	XC-19#-12CR‡12CR‡-B*-***	319	319	307	307	73.0	90.6	155	22.8	7.0	6.4	132	16
1 1/2"	900/1500	XC-19#-12ER‡12ER‡-B*-***	351	351	323	323	73.0	92.1	180	32.3	7.0	6.4	132	22
1 1/2"	2500	XC-19#-12FR‡12FR‡-B*-***	369	371	332	333	73.0	114.1	205	45.0	7.0	7.9	167	31
2"	150	XC-19#-16AR‡16AR‡-B*-***	287	297	291	296	92.1	102.1	150	18.0	2.0	6.4	132	14
2"	300	XC-19#-16BR‡16BR‡-B*-***	295	307	295	301	92.1	108.1	165	21.2	2.0	7.9	132	16
2"	600	XC-19#-16CR‡16CR‡-B*-***	315	317	305	306	92.1	108.1	165	25.9	7.0	7.9	132	18
2"	900/1500	XC-19#-16ER‡16ER‡-B*-***	345	347	320	321	92.1	124.1	215	38.6	7.0	7.9	167	29
2"	2500	XC-19#-16FR‡16FR‡-B*-***	363	365	329	330	92.1	133.1	235	51.4	7.0	7.9	167	41

Configuration Metric / mm

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
* = BOLTING MATERIAL (2FC=L7M, 8ST=B8M)

‡ = FLANGE TYPE (F=RF, J=RTJ)
*** = HANDLE OPTIONS (SHO=STANDARD, HLK=HANDLE LOCKABLE)

TABLE 2

Flange x NPT	NPT CONFIGURATIONS
XC-19#-06AR‡##02-B*-***	*PLEASE NOTE: PART CODES VARY
XC-19#-06BR‡##02-B*-***	DEPENDING ON THE CONFIGURATION OF THE VALVE. AS SHOWN TO THE LEFT.

= NPT SIZE (04= 1/2", 06=3/4", 08=1", 10= 1 1/4")

TABLE 3

Size	RF	RTJ
1/4"	-21	-21
1"	+10	+10
1 1/4"	+19	+19

IN ORDER TO OBTAIN OVERALL LENGTH VALUES (A) FOR 1" AND 1 1/4" NPT CONNECTIONS, THE VALUES IN **TABLE 3** NEED TO BE ADDED OR SUBTRACTED FROM THE OVERALL LENGTH (A). FOR EXAMPLE, TO CALCULATE THE OVERALL LENGTH FOR AN **RF FLANGE x 1" FEMALE NPT** WE ADD 10 TO THE 3/4" NPT - RF VALUES IN **TABLE 1**.

ALCO XC Ø25mm Bore

TABLE 1
RF/RTJ Flange x Flange/NPT

Flange size (in)	Class rating	Part No.	A - RF	A - RTJ	A 1" NPT - RF	A 1" NPT - RTJ	ØB - RF	ØB - RTJ	ØC	D	E - RF	E - RTJ	F	Nominal Mass (kg)
1"	150	XC-25#-08AR‡08AR‡-B*-***	310	320	316	321	50.8	63.6	110	13.2	2.0	6.4	97	14
1"	300	XC-25#-08BR‡08BR‡-B*-***	326	334	324	328	50.8	70.1	125	16.4	2.0	6.4	147	16
1"	600	XC-25#-08CR‡08CR‡-B*-***	338	338	330	330	50.8	70.1	125	18.0	7.0	6.4	147	16
1"	900/1500	XC-25#-08ER‡08ER‡-B*-***	370	370	345	346	50.8	71.6	150	29.1	7.0	6.4	147	20
1"	2500	XC-25#-08FR‡08FR‡-B*-***	382	380	352	351	50.8	82.6	160	35.5	7.0	6.4	147	23
1 1/2"	150	XC-25#-12AR‡12AR‡-B*-***	318	326	320	324	73.0	82.6	125	16.4	2.0	6.4	147	16
1 1/2"	300	XC-25#-12BR‡12BR‡-B*-***	326	334	324	328	73.0	90.6	155	19.6	2.0	6.4	147	18
1 1/2"	600	XC-25#-12CR‡12CR‡-B*-***	340	340	331	331	73.0	90.6	155	22.8	7.0	6.4	147	20
1 1/2"	900/1500	XC-25#-12ER‡12ER‡-B*-***	372	370	347	346	73.0	92.1	180	32.3	7.0	6.4	147	25
1 1/2"	2500	XC-25#-12FR‡12FR‡-B*-***	394	396	358	359	73.0	114.1	205	45.0	7.0	7.9	147	34
2"	150	XC-25#-16AR‡16AR‡-B*-***	314	322	326	330	92.1	102.1	150	18.0	2.0	6.4	147	17
2"	300	XC-25#-16BR‡16BR‡-B*-***	320	332	321	335	92.1	108.1	165	21.2	2.0	7.9	147	19
2"	600	XC-25#-16CR‡16CR‡-B*-***	340	342	339	340	92.1	108.1	165	25.9	7.0	7.9	147	21
2"	900/1500	XC-25#-16ER‡16ER‡-B*-***	368	370	353	354	92.1	124.1	215	38.6	7.0	7.9	147	33
2"	2500	XC-25#-16FR‡16FR‡-B*-***	394	396	366	367	92.1	133.1	235	51.4	7.0	7.9	197	44

Configuration Metric / mm

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
* = BOLTING MATERIAL (2FC=L7M, 8ST=B8M)

‡ = FLANGE TYPE (F=RF, J=RTJ)
*** = HANDLE OPTIONS (SHO=STANDARD, HLK=HANDLE LOCKABLE)

TABLE 2

Flange x NPT	NPT CONFIGURATIONS
XC-25#-08AR‡##02-B*-***	*PLEASE NOTE: PART CODES VARY
XC-25#-08BR‡##02-B*-***	DEPENDING ON THE CONFIGURATION OF THE VALVE. AS SHOWN TO THE LEFT.

= NPT SIZE (06=3/4", 08=1", 10=1 1/4", 12=1 1/2")

TABLE 3

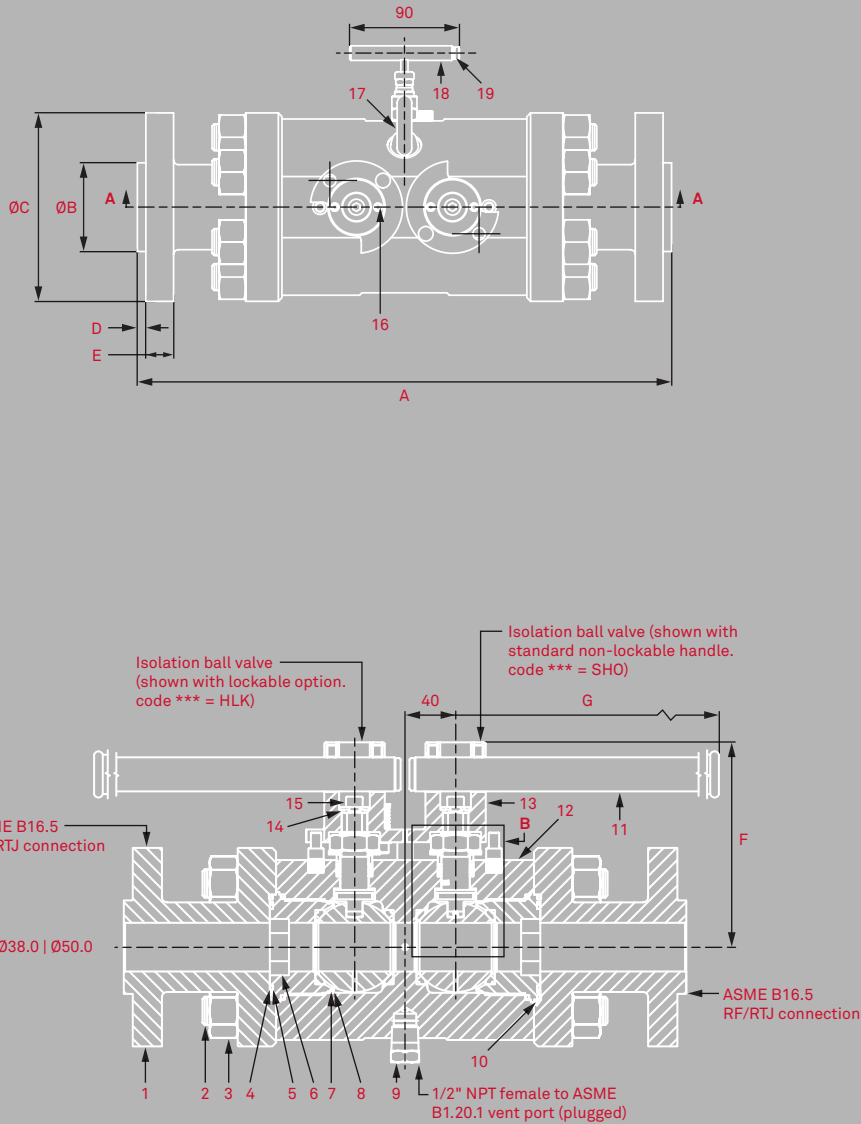
Size	RF	RTJ
3/4"	-39	-39
1 1/4"	+8	+8
1 1/2"	+18	+18

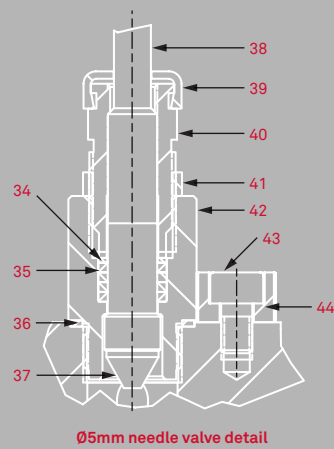
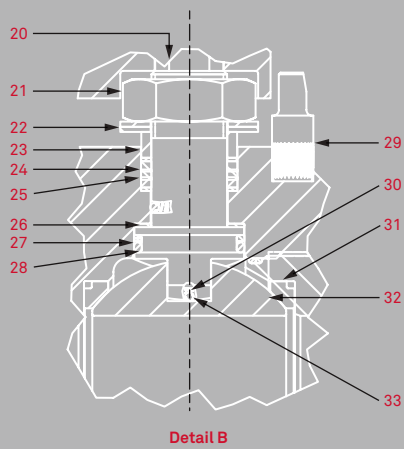
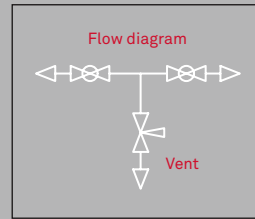
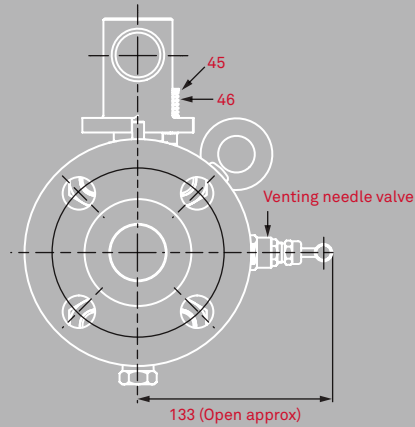
IN ORDER TO OBTAIN OVERALL LENGTH VALUES (A) FOR 1 1/4" AND 1 1/2" NPT CONNECTIONS, THE VALUES IN **TABLE 3** NEED TO BE ADDED OR SUBTRACTED FROM THE OVERALL LENGTH (A). FOR EXAMPLE, TO CALCULATE THE OVERALL LENGTH FOR AN **RF FLANGE x 1 1/4" FEMALE NPT** WE ADD 8 TO THE 1" NPT - RF VALUES IN **TABLE 1**.

XC Ø38 & Ø50 DBB Valve Manifold

Qualifications

- Fire safe to ISO 10497
- Fugitive emission tight ball valve design
- Class A tight to the CO2 level between -29°C > 40°C at pressure of 431 bar (6250 psi) and below
- Class B tight to the CO1 level between -46°C > 100°C at pressure of 431 bar (6250 psi) and below
- API 6A PR2 qualified ball valve design at class 2500
- Endurance tested to 1200 operational cycles at class 2500 in accordance with API 6A criteria
- Type Approval Tested in accordance with SPE 77-300 at class 2500 + class 600 between +150°C and -29°C





Components Key

Item No.	Description	Material	Quantity
1	BOLT ON FLANGE	#	2
2	STUD	*	12 - 16
3	NUT	*	12 - 16
4	O-RING	ENDURA V91A	2
5	BACK-UP RING	PEEK	2
6	SEAT RETAINER	A479 UNS S31803	2
7	BACK-UP RING	PEEK	2
8	O-RING	ENDURA V91A	2
9	1/2" N.PT BLANK PLUG	†	1
10	BODY SEAL	GRAPHITE	4
11	TB2 HANDLE	UNS S31600	2
12	VALVE BODY	#	1
13	HANDLE BOSS	UNS S31600	2
14	HANDLE WASHER	UNS S31600	2
15	SHC SCREW	A4 ST/ST	2
16	SET SCREW	A4 ST/ST	4
17	LIFTING EYE	A4 ST/ST	1
18	EXTENDED "T" HANDLE	UNS S31600	1
19	HEX CAP SCREW	A4 ST/ST	1
20	STEM	A479 UNS S31803	2
21	HEX NUT	A4 ST/ST	2
22	BELLEVILLE WASHER	ST/ST	4
23	SPACER	A4 ST/ST	2

Item No.	Description	Material	Quantity
24	ANTI-EXTRUSION RING	PEEK	4
25	STEM SEAL	GRAPHITE	6
26	THRUST WASHER	PEEK	2
27	BACK-UP RING	PEEK	2
28	O-RING	ENDURA V91A	2
29	STOP PIN	UNS S31600	2
30	ANTI-STATIC SPRING	INCONEL X750	4
31	SEAT	PEEK	4
32	BALL	A479 UNS S31803	2
33	2.5mm BALL	B446 UNS N06625	4
34	PACKING WASHER	RTFE	2
35	GLAND PACKING	GRAPHITE	3
36	BONNET SEAL	UNS S31600	1
37	NEEDLE VALVE TIP	A479 UNS S31803	1
38	NEEDLE STEM	A479 UNS S31803	1
39	DUST CAP	PVC	1
40	GLAND ADJUSTER	UNS S31600	1
41	GLAND LOCKNUT	UNS S31600	1
42	BONNET HOUSING	‡	1
43	SHC SCREW	A4 ST/ST	1
44	LOCKING CAM	UNS S31600	1
45	LOCKING PIN	UNS S31600	2
46	LOCKING PIN SPRING	UNS S31600	2

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
 * = BOLTING MATERIAL (S & U = B8M/8MA L = L7M/7M)

† = 1/2" VENT PLUG MATERIAL (S & L = A479 UNS S31600, U = A479 UNS S31803)
 ‡ = BONNET HOUSING MATERIAL (S & L = A479 UNS S31600, U = A479 UNS S31803)

ALCO XC Ø38mm Bore

TABLE 1

RF/RTJ Flange x Flange/NPT

Flange size (in)	Class rating	Part No.	A - RF	A - RTJ	A 1 1/2" NPT - RF	A 1 1/2" NPT - RTJ	ØB - RF	ØB - RTJ	ØC	D	E - RF	E - RTJ	F	G	Nominal Mass (kg)
1 1/2"	150	XC-38#-12AR‡12AR‡-B*-***	402	410	417	421	73.0	82.6	125	16.4	2.0	6.4	160	300	43
1 1/2"	300	XC-38#-12BR‡12BR‡-B*-***	424	434	428	433	73.0	90.6	155	19.6	2.0	6.4	160	300	46
1 1/2"	600	XC-38#-12CR‡12CR‡-B*-***	440	440	436	436	73.0	90.6	155	22.8	7.0	6.4	160	300	47
1 1/2"	900/1500	XC-38#-12ER‡12ER‡-B*-***	476	474	454	453	73.0	92.1	180	32.3	7.0	6.4	190	500	53
1 1/2"	2500	XC-38#-12FR‡12FR‡-B*-***	510	512	471	472	73.0	114.1	205	45.0	7.0	6.4	190	500	64
2"	150	XC-38#-16AR‡16AR‡-B*-***	418	426	425	429	92.1	102.1	150	18.0	2.0	6.4	160	300	45
2"	300	XC-38#-16BR‡16BR‡-B*-***	424	436	428	434	92.1	108.1	165	21.2	2.0	7.9	160	300	47
2"	600	XC-38#-16CR‡16CR‡-B*-***	444	446	438	439	92.1	108.1	165	25.9	7.0	7.9	160	300	49
2"	900/1500	XC-38#-16ER‡16ER‡-B*-***	472	472	452	452	92.1	124.1	215	38.6	7.0	7.9	190	500	62
2"	2500	XC-38#-16FR‡16FR‡-B*-***	502	504	467	468	92.1	133.1	235	51.4	7.0	7.9	230	500	74
3"	150	XC-38#-24AR‡24AR‡-B*-***	428	436	430	434	127.0	133.1	190	22.8	2.0	6.4	190	300	52
3"	300	XC-38#-24BR‡24BR‡-B*-***	438	450	435	441	127.0	146.1	210	27.5	2.0	7.9	190	300	56
3"	600	XC-38#-24CR‡24CR‡-B*-***	458	460	445	446	127.0	146.1	210	32.3	7.0	7.9	190	300	59
3"	900	XC-38#-24DR‡24DR‡-B*-***	470	472	451	452	127.0	156.1	240	38.6	7.0	7.9	230	500	69
3"	1500	XC-38#-24ER‡24ER‡-B*-***	490	492	461	462	127.0	168.1	265	48.2	7.0	7.9	230	500	82
3"	2500	XC-38#-24FR‡24FR‡-B*-***	534	538	483	485	127.0	168.1	305	67.2	7.0	9.5	230	500	114

Configuration Metric / mm

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
 * = BOLTING MATERIAL (2FC=L7M, 8ST=B8M)

‡ = FLANGE TYPE (F=RF, J=RTJ)
 *** = HANDLE OPTIONS (SHO=STANDARD, HLK=HANDLE LOCKABLE)

TABLE 2

Flange x NPT

XC-38#-12AR‡##02-B*-***
 XC-38#-12BR‡##02-B*-***

NPT CONFIGURATIONS

*PLEASE NOTE: PART CODES VARY
 DEPENDING ON THE CONFIGURATION
 OF THE VALVE. AS SHOWN TO THE LEFT.

= NPT SIZE (08=1", 10=1 1/4", 12=1 1/2", 16=2")

TABLE 3

Size	RF	RTJ
1"	-53	-53
1 1/4"	-53	-53
2"	+15	+15

IN ORDER TO OBTAIN OVERALL LENGTH VALUES (A) FOR 2" NPT CONNECTIONS, THE VALUES IN TABLE 3 NEED TO BE ADDED OR SUBTRACTED FROM THE OVERALL LENGTH (A). FOR EXAMPLE, TO CALCULATE THE OVERALL LENGTH FOR AN **RF FLANGE x 2" FEMALE NPT** WE ADD 15MM TO THE 1 1/2" NPT - RF VALUES IN TABLE 1.

ALCO XC Ø50mm Bore

TABLE 1

RF/RTJ Flange x Flange/NPT

Flange size (in)	Class rating	Part No.	A - RF	A - RTJ	A 2" NPT - RF	A 2" NPT - RTJ	ØB - RF	ØB - RTJ	ØC	D	E - RF	E - RTJ	F	G	Nominal Mass (kg)
2"	150	XC-50#-16AR‡16AR‡-B*-***	459	467	475	479	92.1	102.1	150	18.0	2.0	6.4	170	300	63
2"	300	XC-50#-16BR‡16BR‡-B*-***	471	483	481	487	92.1	108.1	165	21.2	2.0	7.9	170	300	65
2"	600	XC-50#-16CR‡16CR‡-B*-***	491	493	491	492	92.1	108.1	165	25.9	7.0	7.9	170	300	66
2"	900/1500	XC-50#-16ER‡16ER‡-B*-***	533	535	512	513	92.1	124.1	215	38.6	7.0	7.9	200	500	80
2"	2500	XC-50#-16FR‡16FR‡-B*-***	565	567	528	529	92.1	133.1	235	51.4	7.0	7.9	200	500	91
3"	150	XC-50#-24AR‡24AR‡-B*-***	477	485	484	488	127.0	133.1	190	22.8	2.0	6.4	170	300	69
3"	300	XC-50#-24BR‡24BR‡-B*-***	493	505	492	498	127.0	146.1	210	27.5	2.0	7.9	200	300	74
3"	600	XC-50#-24CR‡24CR‡-B*-***	513	515	502	503	127.0	146.1	210	32.3	7.0	7.9	200	300	77
3"	900	XC-50#-24DR‡24DR‡-B*-***	533	535	512	513	127.0	156.1	240	38.6	7.0	7.9	200	500	87
3"	1500	XC-50#-16ER‡16ER‡-B*-***	559	561	525	526	127.0	168.1	265	48.2	7.0	7.9	240	500	101
3"	2500	XC-50#-16FR‡16FR‡-B*-***	601	607	546	549	127.0	168.1	305	67.2	7.0	9.5	240	500	133
4"	150	XC-50#-32AR‡32AR‡-B*-***	477	487	484	489	157.2	171.1	230	22.8	2.0	6.4	200	300	75
4"	300	XC-50#-32BR‡32BR‡-B*-***	499	511	495	501	157.2	175.1	255	30.7	2.0	7.9	200	300	85
4"	600	XC-50#-32CR‡32CR‡-B*-***	525	527	508	509	157.2	175.1	275	38.6	7.0	7.9	240	300	97
4"	900	XC-50#-32DR‡32DR‡-B*-***	545	547	518	519	157.2	181.1	290	45.0	7.0	7.9	240	500	107
4"	1500	XC-50#-32ER‡32ER‡-B*-***	573	575	532	533	157.2	194.1	310	54.5	7.0	7.9	240	500	124
4"	2500	XC-50#-32FR‡32FR‡-B*-***	621	629	556	560	157.2	203.1	355	76.7	7.0	11.1	240	500	172

Configuration Metric / mm

= BODY/FLANGE MATERIAL (S=F316, L=LF2, U=F51)
 * = BOLTING MATERIAL (2FC=L7M, 8ST=B8M)

‡ = FLANGE TYPE (F=RF, J=RTJ)
 *** = HANDLE OPTIONS (SHO=STANDARD, HLK=HANDLE LOCKABLE)

TABLE 2

Flange x NPT

XC-50#-16AR‡##02-B*-***
 XC-50#-16BR‡##02-B*-***

NPT CONFIGURATIONS

*PLEASE NOTE: PART CODES VARY
 DEPENDING ON THE CONFIGURATION
 OF THE VALVE. AS SHOWN TO THE LEFT.

= NPT SIZE (10=1 1/4", 12=1 1/2", 16=2", 20=2 1/2")

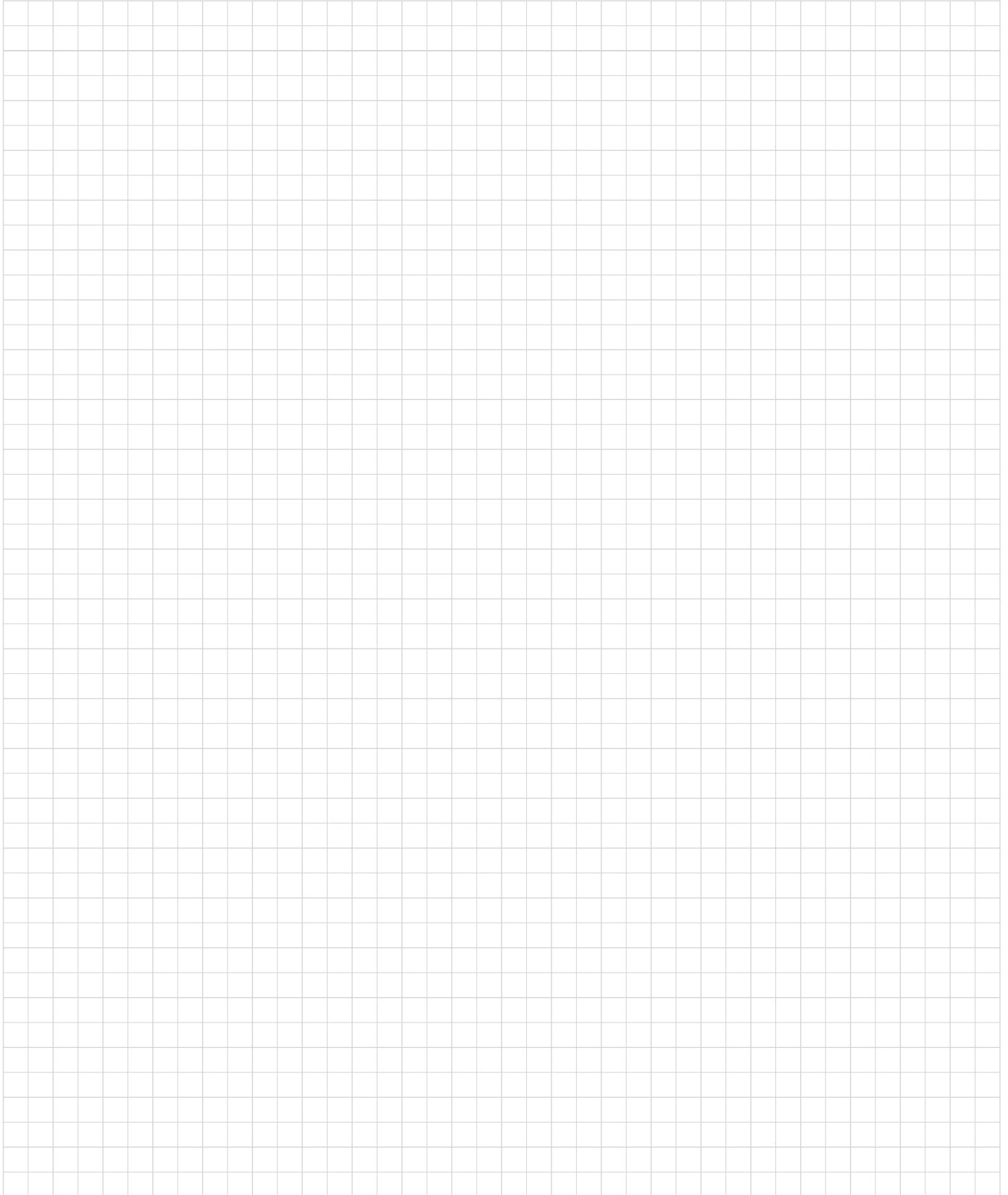
TABLE 3

Size	RF	RTJ
1 1/4"	-56	-56
1 1/2"	-56	-56
2 1/2"	+12	+12

IN ORDER TO OBTAIN OVERALL LENGTH VALUES (A) FOR 2" AND 2 1/2" NPT CONNECTIONS, THE VALUES IN TABLE 3 NEED TO BE ADDED OR SUBTRACTED FROM THE OVERALL LENGTH (A). FOR EXAMPLE, TO CALCULATE THE OVERALL LENGTH FOR AN RF FLANGE x 2 1/2" FEMALE NPT WE ADD 12 TO THE 2" NPT - RF VALUES IN TABLE 1.

NOTES

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