

November 07, 2019

Attention: Mark Abbott
VALVTECHNOLOGIES INC
5904 BINGLE ROAD
HOUSTON, TX 77092

The design submission, tracking number 2019-03082, originally received on May 02, 2019 was surveyed and accepted for registration as follows:

CRN : 0H20176.2

Accepted on: November 07, 2019

Reg Type: NEW DESIGN

Expiry Date: November 07, 2029

Drawing No. : 181667-009-ABSA SHEETS 1-2 Rev 7

Fitting type: VALVE AND BYPASS ASSEMBLY

The registration is conditional on your compliance with the following notes:

- The scope of this registration is an assembly consisting of B16.34 valve and auxiliary (bypass) connections.
- Pressure temperature ratings are as per your drawing 181667-009-ABSA Rev. 7.
- As per your calculations, all piping used in this assembly is of seamless form only.

As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction is ASME B31.3.

- This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.
- This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date.
- Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3303 or fax (780) 437-7787 or e-mail Nikic@absa.ca.

Sincerely,



NIKIC, MILAN, P. Eng.
DOP Cert. No. D00009641

STATUTORY DECLARATION
Registration of Fittings
Single or Multiple Fitting Designs within one Fitting Category

I, Mark Abbott, Director of Engineering
(name of applicant) (position title) (must be in a position of authority)
of ValvTechnologies, Inc
(name of manufacturer)

located at 5904 Bingle Road, Houston, TX 77092
(plant address)

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.



do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (select only one)

☒ comply with the requirements of ASME B31.3 which specifies the dimensions,
(title of recognized North American Standard)

materials of construction, pressure/temperature ratings and identification marking of the fittings, or

☐ are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the
(title of code of construction or other applicable document)

attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

Quality Program Verification and Manufacturing Sites

A copy of the Quality Certificate from each manufacturing site must be included

Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	Bypass, purge & external drain piping systems attached to V1-1, V1-2, V1-3, V1-4 and PSG-1	ISO 9001	Engineering, Manufacturing, et	Jan 22, 2021	DNV GL	5904 Bingle Road, Houston, TX
2.						

In support of this application, the following information, calculations and/or test data are attached:

CRN Bypass piping design document

Drawing # 181667-009-ABSA

Maria Mercado

(Signature of the Declarer)

24-JUL-2019

(Date)

DECLARED before me at 5904 Bingle Road in the State of Texas
(city) (province, territory, or state)

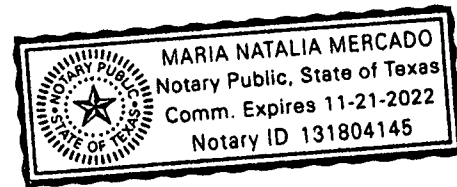
this 24th day of July, 2019
(Month) (Year)

(print) Maria Mercado
(a Commissioner of Oaths or Notary Public)

(sign) *Maria Natalia Mercado*
(a Commissioner of Oaths or Notary Public)

11-21-22

(expiry date (mm/dd/yy))



Commissioner of Oaths / Notary Public in and for: Texas
(province, territory, or state)

For ABSA Office Use Only:

NOTES:

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category H

0H20176.2

CRN:

NOV 07 2019

Registered Date:

NOV 07 2029

Expiry Date:

Signature:

Milan Nikic, P.Eng.

(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

Table 1 Scope of Fitting Designs**

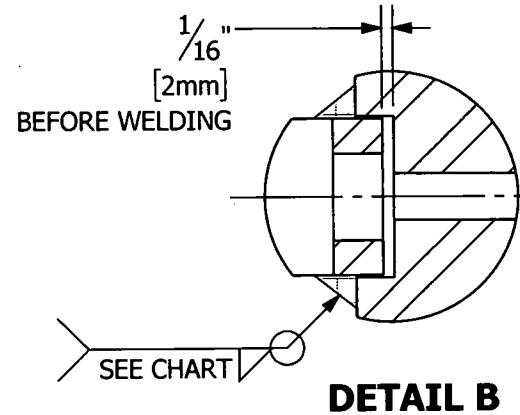
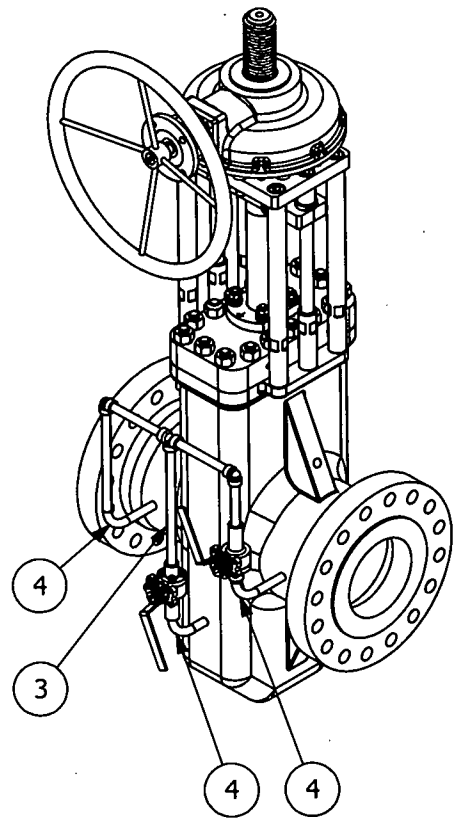
Item #	Primary Pressure Bearing / Retaining Component	Material of Construction	Port Connections and Size Range	MDMT	Rated Pressure		Pressure Class(es) / Schedule(s)	Design Code(s) of Construction	Reference Catalogue (pages) or Drawing(s)
					At Ambient Temperature	At Maximum Temperature			

Table 2 Additional Scope Information

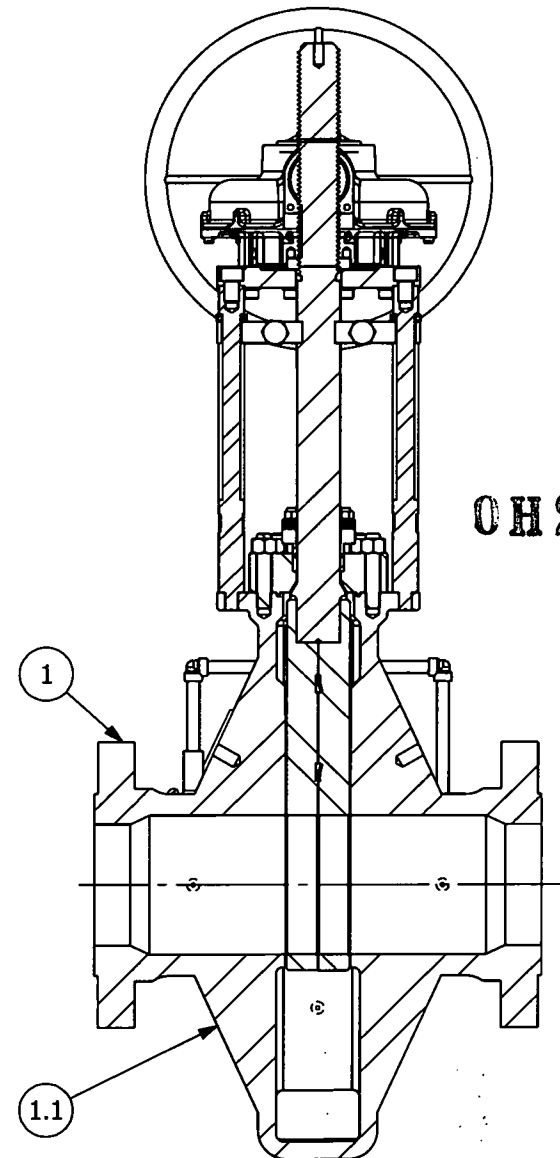
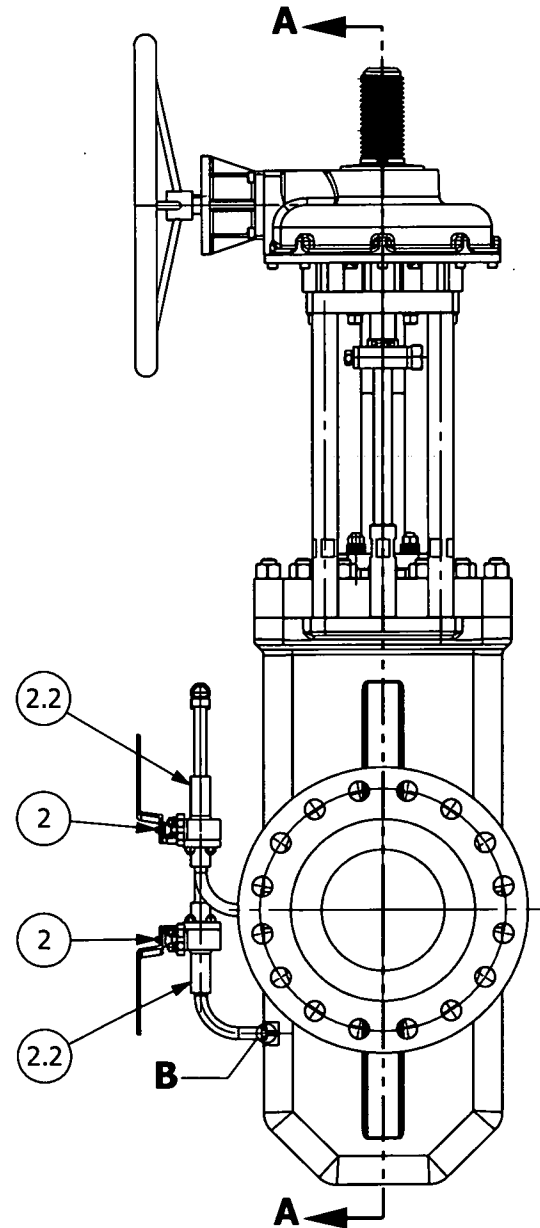
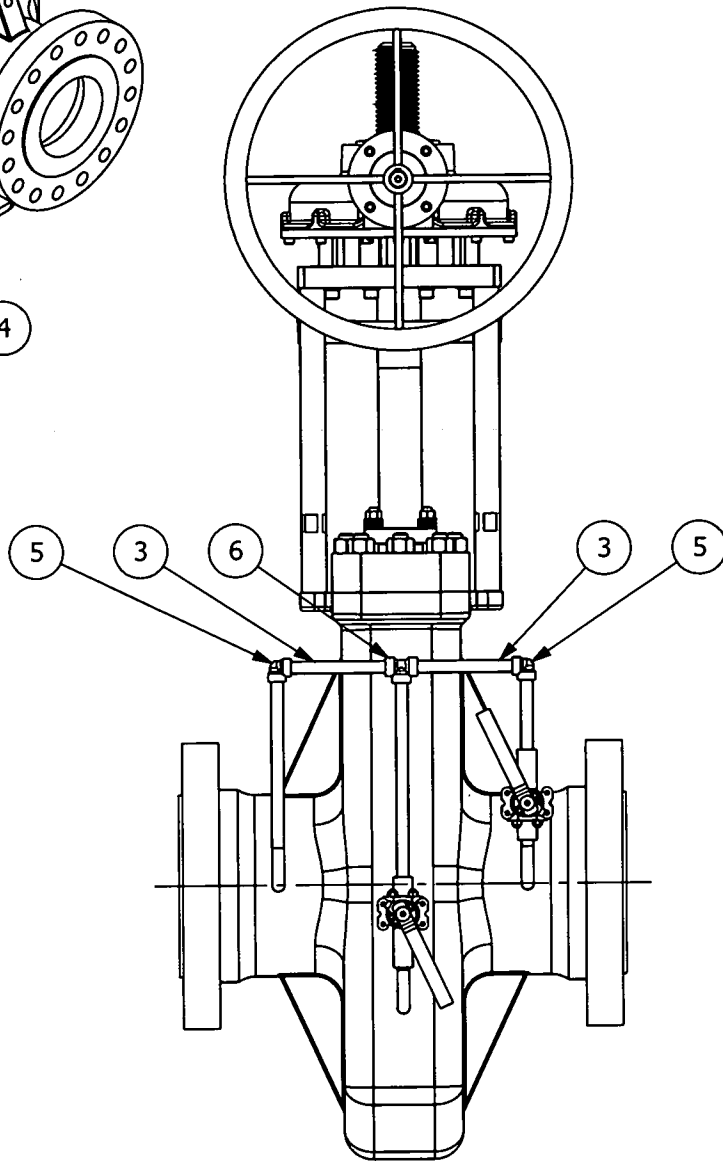
List/Attach Additional Detail and References (Product Configurations, Options, Illustrations, etc.)
Example:
Series X Options

** For additional alternatives of Table 1, refer to Form AB-41a, Guide for Completing Form AB-41

0H20176.2



SIZE	SCH	MIN. FILLET WELD
1/2 & 3/4	STD/80/160	1/4
1/2 & 3/4	XXS	3/8
1 & 2	STD/80	1/4
1	160	5/16
1	XXS	7/16
2	160	3/8
2	XXS	1/2



0H20176.2

NOTES:

- 1- VALVE DESIGN: ASME B16.34
DRAIN/BYPASS SYSTEM DESIGN: ASME B31.3
- 2- VALVE AND DRAIN/BYPASS:
MAWP: AS DEFINE ON SHEET 2 PER ASME B16.34 GROUP MATERIAL P/T
TEST PRESSURE: AS DEFINE ON SHEET 2 PER ASME B16.34 GROUP MATERIAL P/T
- 3- CORROSION ALLOWANCE: ZERO
- 4- SOCKET WELDS: PER DETAIL B
- 5- WELD NDE: VISUAL EXAMINATION PERFORMED BY QUALIFIED INSPECTOR

7	ADD MAX TEMP RANGE FOR GROUP 1.10, 1.15 AND 2.2	N/A	<small>THIS DRAWING AND THE INFORMATION CONTAINED WITHIN IS CONSIDERED TO BE CONFIDENTIAL AND THE SOLE PROPERTY OF VALVTECHNOLOGIES. THE CONTENTS OF THIS DRAWING MAY NOT BE REPRODUCED OR DISCLOSED VERBALLY OR OTHERWISE OUTSIDE THE HOLDERS OFFICE WITHOUT THE WRITTEN APPROVAL OF VALVTECHNOLOGIES. QUOTATION DRAWINGS ARE FOR GENERAL REFERENCE ONLY. PRODUCT CONFIGURATION TO BE FINALIZED UPON RECEIPT OF ORDER. ACTUATOR ORIENTATION IS FOR ILLUSTRATION PURPOSES ONLY. ACCESSORIES MAY NOT BE INCLUDED IN DRAWING.</small> REVISED BY: 10/28/2019 N. NGUYEN APPROVED BY: 10/28/2019	WEIGHT	SIZE	SHEET	VALVTECHNOLOGIES 5904 BINGLE ROAD, HOUSTON TEXAS 77092 WWW.VALV.COM TITLE: P6C1-RF-XX-B100-002CP-P02 10" 600# RF, 9.75" BORE, SCH. 160 WITH IB10, ISOTECH VALVE 181667-009-ABSA
6	UPDATED SHEET 2 PIPE SCH.	N/A		GENERAL ASSEMBLY	8	1 OF 2	
5	REVISED DWG PER REQUEST AND ADDED SHEET 2	N/A		DIMENSIONS ARE IN INCH (MM) UNLESS OTHERWISE SPECIFIED.			
4	REVISED NOTES: 1, 2, AND 5. ALSO CLARIFIED HIGH PRESSURE END	N/A		REFERENCE DIMENSIONS ARE DEPICTED BY () SYMBOL			
REV.	DESCRIPTION	ECN					

BODY MATERIAL: ASME B16.34 GROUP 1.1				
PIPE MATERIAL: ASTM A106 Gr. B				
FITTING MATERIAL: ASTM A105				
MDMT: -20F				
SIZE:	1/2	3/4	1	2
PRESSURE RATING:	Class 150 / 300 / 600			
PIPE SCH - STRAIGHT:	STD	STD	STD	STD
PIPE SCH - BENT:	STD	STD	STD	STD
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO FULL P-T RATING OF ASME GROUP 1.1 MATERIAL.			
PRESSURE RATING:	Class 900			
PIPE SCH - STRAIGHT:	STD	STD	STD	80
PIPE SCH - BENT:	STD	STD	STD	80
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO FULL P-T RATING OF ASME GROUP 1.1 MATERIAL.			
PRESSURE RATING:	Class 1500			
PIPE SCH - STRAIGHT:	80	80	80	160
PIPE SCH - BENT:	80	80	80	160
FITTING RATING:	#3000	#3000	#3000	#6000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO FULL P-T RATING OF ASME GROUP 1.1 MATERIAL.			
PRESSURE RATING:	Class 2500			
PIPE SCH - STRAIGHT:	160	XXS	XXS	XXS
PIPE SCH - BENT:	160	XXS	XXS	N/A
FITTING RATING:	#6000	#9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO FULL P-T RATING OF ASME GROUP 1.1 MATERIAL.			

BODY MATERIAL: ASME B16.34 GROUP 2.2				
PIPE MATERIAL: ASTM A312 TP316/TP316H				
FITTING MATERIAL: ASTM A182 F316/F316H				
MDMT: -20F				
SIZE:	1/2	3/4	1	2
PRESSURE RATING:	Class 150 / 300 / 600			
PIPE SCH - STRAIGHT:	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F
PIPE SCH - BENT:	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 2.2 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 900			
PIPE SCH - STRAIGHT:	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F
PIPE SCH - BENT:	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	STD ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 2.2 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 1500			
PIPE SCH - STRAIGHT:	80 ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F	160 ≤ 1,000F N/A ≥ 1,001F
PIPE SCH - BENT:	80 ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F	80 ≤ 1,000F N/A ≥ 1,001F	160 ≤ 1,000F N/A ≥ 1,001F
FITTING RATING:	#3000	#3000	#3000	#6000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 2.2 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 2500			
PIPE SCH - STRAIGHT:	160 ≤ 1,000F N/A ≥ 1,001F	XXS ≤ 1,000F N/A ≥ 1,001F	XXS ≤ 1,000F N/A ≥ 1,001F	XXS N/A ≥ 1,001F
PIPE SCH - BENT:	160 ≤ 1,000F N/A ≥ 1,001F	XXS ≤ 1,000F N/A ≥ 1,001F	XXS ≤ 1,000F N/A ≥ 1,001F	N/A
FITTING RATING:	#6000	#9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 2.2 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			

BODY MATERIAL: ASME B16.34 GROUP 1.10				
PIPE MATERIAL: ASTM A106 Gr. B				
FITTING MATERIAL: ASTM A105				
MDMT: -20F				
SIZE:	1/2	3/4	1	2
PRESSURE RATING:	Class 150			
PIPE SCH - STRAIGHT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 300			
PIPE SCH - STRAIGHT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F
FITTING RATING:	#3000	#3000	#3000	#6000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 600			
PIPE SCH - STRAIGHT:	160 ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	160 ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,050F N/A ≥ 1,051F
FITTING RATING:	#6000	#6000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 900			
PIPE SCH - STRAIGHT:	160 ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,000F N/A ≥ 1,001F
PIPE SCH - BENT:	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 900F N/A ≥ 901F
FITTING RATING:	SCH 160: #6000 SCH XXS: #9000	#6000 #9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 1500			
PIPE SCH - STRAIGHT:	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,050F N/A ≥ 1,051F	XXS ≤ 850F N/A ≥ 851F
PIPE SCH - BENT:	XXS ≤ 1,000F N/A ≥ 1,011F	XXS ≤ 900F N/A ≥ 901F	XXS ≤ 900F N/A ≥ 901F	XXS ≤ 800F N/A ≥ 801F
FITTING RATING:	#9000	#9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 2500			
PIPE SCH - STRAIGHT:	XXS ≤ 900F N/A ≥ 901F	XXS ≤ 850F N/A ≥ 851F	XXS ≤ 850F N/A ≥ 851F	XXS ≤ 750F N/A ≥ 751F
PIPE SCH - BENT:	XXS ≤ 850F N/A ≥ 851F	XXS ≤ 800F N/A ≥ 801F	XXS ≤ 800F N/A ≥ 801F	N/A
FITTING RATING:	#9000	#9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.10 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			

BODY MATERIAL: ASME B16.34 GROUP 1.15				
PIPE MATERIAL: ASTM A335 P91				
FITTING MATERIAL: ASTM A182 P91				
MDMT: -20F				
SIZE:	1/2	3/4	1	2
PRESSURE RATING:	Class 150 / 300 / 600			
PIPE SCH - STRAIGHT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.15 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 900			
PIPE SCH - STRAIGHT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	STD ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F
FITTING RATING:	#3000	#3000	#3000	#3000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.15 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 1500			
PIPE SCH - STRAIGHT:	80 ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	80 ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F	80 ≤ 1,100F N/A ≥ 1,101F	160 ≤ 1,100F N/A ≥ 1,101F
FITTING RATING:	#3000	#3000	#3000	#6000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.15 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			
PRESSURE RATING:	Class 2500			
PIPE SCH - STRAIGHT:	160 ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F
PIPE SCH - BENT:	160 ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	XXS ≤ 1,100F N/A ≥ 1,101F	N/A
FITTING RATING:	#6000	#9000	#9000	#9000
NOTE:	BYPASS, PURGE OR DRAIN SYSTEMS RATED TO P-T RATING OF ASME GROUP 1.15 MATERIAL WITH RESTRICTIONS SHOWN IN CHART ABOVE.			

ASCA

SAFETY CODES ACT - PROVINCE OF ALBERTA

REGISTRATION OF FITTINGS

0H20176.2

REGISTRATION NO.

DWG. NO. or CAT. NO. 181667-009-ABSA

TYPE OF FITTINGS VALVE AND BYPASS ASSEMBLY

NOV 07 2019

INITIALS HILAN NIKIC, P.Eng.

Date

THIRD ANGLE PROJECTION

THIS DRAWING AND THE INFORMATION CONTAINED WITHIN IS CONSIDERED TO BE CONFIDENTIAL AND THE SOLE PROPERTY OF VALVTECHNOLOGIES. THE CONTENTS OF THIS DRAWING MAY NOT BE REPRODUCED OR DISCLOSED VERBALLY OR OTHERWISE OUTSIDE THE HOLDER'S OFFICE WITHOUT THE WRITTEN APPROVAL OF VALVTECHNOLOGIES.

CORNER RADI FRACTIONAL TOL. = X = .030 .XXX = CONCENTRICITY ANGULAR = SURFACE TEXTURE MIN. INTERNAL FILLETS

.03 MAX ± 1/64" ± .000 ± .015 ± .005 .010 T.T.R. ± 1/2° 125 RMS .015

WEIGHT LBS

SCALE 1:13

DIMENSIONS ARE IN INCHES REMOVE BURRS AND BREAK EDGES UNLESS OTHERWISE SPECIFIED

SHEET 2 OF 2

SIZE B

9504 BINGLE ROAD, HOUSTON TEXAS 77092 WWW.VALV.COM

P6C1-RF-XX-B100-002CP-P02 10" 600# RF, 9.75" BORE, SCH. 160 WITH IB10, ISOTECH VALVE

181667-009-ABSA

REV. 7