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[www.tssa.org](http://www.tssa.org)

July 18, 2024

ROUND ENGINEERING INC  
10 SEGWUN RD  
WATERDOWN ON L8B 0K6

**Workorder Type:** Registration - Fitting(Conventional)  
**Workorder No:** 14375138  
**Your Reference No.:** R-1810  
**Registered to:** ARI-ARMATUREN USA LP

Dear SCOTT ISLIP,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN : 0C25363.5  
Main Design No.: R-1810 Scope of Registration May 30, 2024  
Expiry Date: Jul 18, 2034

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

Registration only covers valves that are in full compliance with ASME B16.34

The stamped copy of the approved registration and the invoice are mailed separately (There will be no hard copies for electronic submissions). Should you have any questions or require further assistance, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail [customerservices@tssa.org](mailto:customerservices@tssa.org). We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Shreyas Madhuranath M.Eng, P.Eng  
Engineer, BPV  
Tel. : +1 416-734-3212  
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Technical Standards and Safety Authority  
 345 Carlingview Drive  
 Toronto, Ontario M9W 6N9  
 www.tssa.org

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below



## STATUTORY DECLARATION Registration of Fittings

I, KEEFE FRENTZ, QUALITY MANAGER  
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of ARI-ARMATUREN  
(Name of Manufacturer)

Located at SEE ATTACHED WORLDWIDE LOCATIONS APPENDIX  
(Plant Address) (Telephone No.) (Fax No.)

do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of ASME B16.34

(Title of recognized North American Standard)

which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with \_\_\_\_\_ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2015 which has been verified by the following authority, TUV

The items covered by this declaration, for which I seek registration, are category C - Triple Offset Butterfly Valves type fittings. In support of this application, the following information and/or test data are attached as follows:  
SCOPE OF CRN REGISTRATION, CATALOG, REPORT

(drawings, calculations, test reports, etc.)

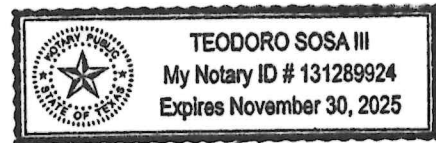
Declared before me at Webster in the State of Texas

the 24th day of June AD 2024.

Commissioner for Oaths:

Teodoro Sosa III  
(Printed name)

[Signature]  
(Signature)



[Signature]  
(Signature of Declarer)

### FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category C.

CRN: \_\_\_\_\_

Registered by: \_\_\_\_\_

Dated: \_\_\_\_\_

Technical Standards and Safety Authority      Boilers and Pressure Vessels Safety Program

REGISTERED

C.R.N.: 0C25363.5

Signed: [Signature]

Date: July 18, 2024.

**NOTE: This registration expires on: Jul 18, 2034**

Registration only covers valves that are in full compliance with ASME B16.34

*\*Information provided in this application is releasable under the Freedom of Information and Privacy Protection Act and may be disclosed upon request.*



**SCOPE OF CRN REGISTRATION**

Product Description	Design Code	Standard Material (Note 4)	ARI-Armaturen Figure	Size Range	End Connection	Pressure Class	ASME B16.34 Table 2 (Note 3)	MAWP at 100°F (Note 1, 2, 3)	Design Report
ARI-ZETRIX® Triple Offset Butterfly Valves	ASME B16.34	Carbon Steel SA216-WCB	32.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 150	1.1	285 psig at 100°F	R-1810 R.0
			35.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 300	1.1	740 psig at 100°F	
		Stainless Steel SA351-CF8M	52.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 150	2.2	275 psig at 100°F	
			55.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 300	2.2	720 psig at 100°F	
		Alloy Steel SA217-WC6	82.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 150	1.9	290 psig at 100°F	
			85.016	NPS 3" thru NPS 48"	Double Flanged	ANSI 300	1.9	750 psig at 100°F	
		Carbon Steel SA216-WCB	32.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 150	1.1	285 psig at 100°F	
			35.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 300	1.1	740 psig at 100°F	
		Stainless Steel SA351-CF8M	52.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 150	2.2	275 psig at 100°F	
			55.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 300	2.2	720 psig at 100°F	
		Alloy Steel SA217-WC6	82.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 150	1.9	290 psig at 100°F	
			85.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 300	1.9	750 psig at 100°F	
		Carbon Steel SA216-WCB	32.019	NPS 3" thru NPS 32"	Butt Weld	ANSI 150	1.1	285 psig at 100°F	
			35.019	NPS 3" thru NPS 32"	Butt Weld	ANSI 300	1.1	740 psig at 100°F	
		Stainless Steel SA351-CF3M	52.019	NPS 3" thru NPS 24"	Butt Weld	ANSI 150	2.2	275 psig at 100°F	
			55.019	NPS 3" thru NPS 24"	Butt Weld	ANSI 300	2.2	720 psig at 100°F	
		Carbon Steel SA216-WCB	37.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 600	1.1	1480 psig at 100°F	



**SCOPE OF CRN REGISTRATION CONTINUED**

Product Description	Design Code	Standard Material (Note 4)	ARI-Armaturen Figure	Size Range	End Connection	Pressure Class	ASME B16.34 Table 2 (Note 3)	MAWP at 100°F (Note 1, 2, 3)	Design Report
ARI-ZETRIX® Triple Offset Butterfly Valves	ASME B16.34	Stainless Steel SA351-CF8M	57.018	NPS 3" thru NPS 24"	Threaded Flange	ANSI 600	2.2	1440 psig at 100°F	R-1810 R.0
		Carbon Steel SA216-WCB	37.019	NPS 3" thru NPS 24"	Butt Weld	ANSI 600	1.1	1480 psig at 100°F	

**Note 1:** MAWP = Maximum Allowable Working Pressure.

**Note 2:** The pressure-temperature ratings shown are the maximum CRN pressure-temperature ratings. In all cases the MAWP may be limited by the seat or seal material or other considerations. Please consult ARI-Armaturen literature.

**Note 3:** Pressure-temperature ratings above 100°F are in accordance with applicable ASME B16.34 Table 2 ratings.

**Note 4:** Other ASME B16.34 materials may be supplied. When this is the case the pressure-temperature ratings of the valves are to be in accordance with the applicable ASME B16.34 Table 2 ratings.

**Note 5:** Per ASME B16.34 para. 2.3.2. the pressure rating for service at any temperature below -20F shall be no greater than the ASME B16.34 ratings for -20°F. Products that are to operate at low temperatures shall conform to the rules of the applicable codes under which they are used.

**Note 6:** Pressure-Temperature Ratings of butt-weld end valves may be limited by the butt-weld end pressure rating. Butt-weld end pressure ratings shall be calculated in accordance with the rules of the applicable codes under which they are used.

**Note 7:** See attached Worldwide Locations Appendix.



**WORLDWIDE LOCATIONS APPENDIX – PAGE 1 OF 1**

**ARI-ARMATUREN LOCATIONS  
& CERTIFYING AUTHORITIES**

**(rev. May 13, 2024)**

**ARI-Armaturen Albert Richter GmbH & Co. KG**

Mergelheide 56-60  
33758 Schlob Holte-Stukenbrock  
Germany

**ISO 9001 Certified by TUV**

**ARI-Armaturen Albert Richter GmbH & Co. KG**

Am Eisenwerk 10  
34576 Homberg (Efze)  
Germany

**ISO 9001 Certified by TUV**

**ARI-Armaturenwerk Halle GmbH**

Turmstrabe 118  
06110 Halle (Saale)  
Germany

**ISO 9001 Certified by TUV**

**ARI-Armaturen Albert Richter GmbH & Co. KG**

c/o ARI-Armaturen A/S  
Strevelinsvej 16  
7000 Fredericia  
Denmark

**ISO 9001 Certified by TUV**

**ARI-Armaturen GmbH**

Lichtblaustrabe 10A  
1220 Wien  
Austria

**ISO 9001 Certified by TUV**

**ARI-Armaturen USA, LP**

125 Megellan Circle  
Webster, TX  
77598, USA

**ISO 9001 Certified by TUV**

**THIS IS PART OF CRN**

**0C25363.5**

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety  
Program