345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

October 14, 2025

ROUND ENGINEERING INC
10 SEGWUN RD
WATERDOWN ON L8B 0K6

Workorder Type: Registration - Fitting(Conventional)
Workorder No: 14741816
Your Reference No.: R-2175B
Registered to: TYLOK INTERNATIONAL INC

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 : 0A17734.5R1
Main Design No.: Scope of CRN Registration (07-Oct-25), Design Report R-2175B Rev 0
Expiry Date: Oct 14, 2035

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

Note: 10-year renewal to exist CRN registration, with updated scope of registered items.

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. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Ruiming You P,ENG
Engineer, BPV
Tel. : +1 416-734-3428
Email : ryou@tssa.org

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

TYLOK FITTINGS & VALVES

STATUTORY DECLARATION
Registration of Fittings

I, Luke DiFranco, Engineer
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Tylok International, Inc.
(Name of Manufacturer)

Located at 26000 Lakeland Boulevard, Euclid, OH, 44132, USA 216-261-7310 216-261-7317
(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 B31.3, B31.1
(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, SCB _____.
The items covered by this declaration, for which I seek registration, are category A - TUBE FITTINGS type fittings. In support of this application, the following information and/or test data are attached as follows:
SCOPE OF CRN REGISTRATION, REPORTS, DRAWINGS, CALCULATIONS
(drawings, calculations, test reports, etc.)

Declared before me at Tylok International **in the** City State **of** Euclid, OH

the 28th **day of** January **AD 20** 25.

NOTARY PUBLIC STATE OF OHIO

ELIZABETH KIRBY
Notary Public, State of Ohio
My Commission Expires
September 8, 2027

Commissioner for Oaths:

Elizabeth Kirby
(Printed name)

Elizabeth Kirby
(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 _____.

CRN: _____

Registered by: _____

Dated: _____

This Document has been digitally signed and approved.
The stamp size has been optimized for 11 x 17 documents.

Technical Standards and Safety Authority — Boilers and Pressure Vessels Safety Program

REGISTERED

C.R.N.: 0A17734.5R1

Signed:

Date: October 14, 2025.

NOTE: This registration expires on: Oct 14, 2035

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

PV0963(04/17)

See registration letter for any terms and conditions for this registration.

October 14, 2025. TSSA

TYLOK INTERNATIONAL, INC.
26000 LAKELAND BOULEVARD,
EUCLID, OH,
44132, USA

SCOPE OF CRN REGISTRATION

Design Report	**R-2175B Rev. 0**				
Product Description	**Tylok CS-LOK Product Families**				
Instrumentation Tube Fittings	SATPF, SATPM, SHBA, SBHFP, SBHMP, SBHU, SBUANF, SCAP, SF PLUG, SFC, SMC, SMC-ORS, SMC-ORT, SPCU, SRATT, SRPC, SRU, STBW, STSW, SU, SUANF, SELU SFE, SME, STBWE, STSWE, STFT, STMT, STTF, STTM, STTT, SCR				
Design Code	**Available Material of Construction**	**Tylok Size**	**Tube Size**	**ASME B31.3 MAWP at 100°F (psig)**	**ASME B31.1 MAWP at 100°F (psig)**
ASME B31.3, ASME B31.1	Stainless Steel ASTM A479-316/316L, ASTM A182-F316/316L	2	1/8"	10900	10900
		3	3/16"	10200	10200
		4	1/4"	10200	10200
		5	5/16"	8000	8000
		6	3/8"	6500	6500
		8	1/2"	6700	6700
		10	5/8"	6000	6000
		12	3/4"	5800	5800
		14	7/8"	4800	4800
		16	1"	4700	4700
	Steel ASTM A105, ASTM A108 Grade 12L14, 1137, 1141, 1045	2	1/8"	10200	8700
		3	3/16"	9600	8200
		4	1/4"	9600	8200
		5	5/16"	7600	6400
		6	3/8"	6200	5300
		8	1/2"	5900	5000
		10	5/8"	5300	4600
		12	3/4"	5100	4300
		14	7/8"	4300	3600
		16	1"	4100	3500
	Brass ASTM B16-C36000, ASTM B283-C37700	2	1/8"	3600	3600
		3	3/16"	3400	3400
		4	1/4"	3500	3500
		5	5/16"	2700	2700
		6	3/8"	2200	2200
		8	1/2"	2100	2100
		10	5/8"	1900	1900
		12	3/4"	1800	1800
		14	7/8"	1500	1500
		16	1"	1500	1500

Note 1: MAWP = Maximum Allowable Working Pressure, MAWT = Maximum Allowable Working Temperature, MDMT = Minimum Design Metal Temperature.

Note 2: For low temperature operation the products shall conform to the rules of the applicable codes under which they are used.

Note 3: The tube fitting maximum allowable working pressure shown is the tube fitting maximum allowable working pressure at 100°F for fittings with tube end process connections. See **Note 6** for fittings supplied with MNPT of FNPT process connections. See **Note 7** for elevated temperature derating factors to be used when the temperature exceeds 100°F.

SCOPE OF CRN REGISTRATION CONTINUED

Note 4: The tube fitting maximum allowable working pressure may be limited by the strength of the tube material that the fittings are installed on. The pressure ratings shown are for fittings installed on the following tube materials:

ASME B31.3 Code
- Stainless Steel pressure ratings based on Tylok calculated ASTM A213 and ASTM A269 Tube ratings using an ASME B31.3 allowable stress equal to 20,000 psig
- Carbon Steel pressure ratings based on Tylok calculated ASTM A179 Tube ratings using an ASME B31.3 allowable stress equal to 15,700 psig
- Brass pressure ratings based on Tylok calculated ASTM B75 Temper O Tube ratings using an ASME B31.3 allowable stress equal to 6000 psig

ASME B31.1 Code
- Stainless Steel pressure ratings based on Tylok calculated ASTM A213 Tube ratings using an ASME B31.1 allowable stress equal to 20,000 psig
- Carbon Steel pressure ratings based on Tylok calculated ASTM A179 Tube ratings using an ASME B31.1 allowable stress equal to 13,400 psig
- Brass pressure ratings based on Tylok calculated ASTM B75 Temper O Tube ratings using an ASME B31.1 allowable stress equal to 6000 psig

Note 5: The tube fitting maximum allowable working pressure may be limited by the thickness of the tube material that the fittings are installed on. The pressure ratings shown are for fittings installed on the following tube thickness:

Tube Size	Tube Thk. in.
2 (1/8")	0.035
3 (3/16")	0.049
4 (1/4")	0.065
5 (5/16")	0.065
6 (3/8")	0.065
8 (1/2")	0.083
10 (5/8")	0.095
12 (3/4")	0.109
14 (7/8")	0.109
16 (1")	0.120

SCOPE OF CRN REGISTRATION CONTINUED

Note 6: Tube fittings shall be limited to the following maximum allowable working pressures when the fitting is supplied with a MNPT or a FNPT process connection.

MNPT End Maximum Pressure - Temperature Ratings			
Size	**Stainless Steel**	**Carbon Steel**	**Brass**
	MAWP at 100°F, psig	MAWP at 100°F, psig	MAWP at 100°F, psig
2 (1/8")	10100	10100	5000
4 (1/4")	8000	8000	4000
6 (3/8")	7800	7800	3900
8 (1/2")	7700	7700	3800
12 (3/4")	7300	7300	3600
16 (1")	5300	5300	2600

FNPT End Maximum Pressure - Temperature Ratings			
Size	**Stainless Steel**	**Carbon Steel**	**Brass**
	MAWP at 100°F, psig	MAWP at 100°F, psig	MAWP at 100°F, psig
2 (1/8")	6500	6500	3200
4 (1/4")	6600	6600	3300
6 (3/8")	5300	5300	2600
8 (1/2")	4900	4900	2400
12 (3/4")	4600	4600	2300
16 (1")	4400	4400	2200

SCOPE OF CRN REGISTRATION CONTINUED

Note 7: When used at elevated temperatures the following Pressure Derating Factors apply to the tube fittings. The Pressure Deratings Factor for the tube the fittings are installed on is depended on the tube material. It is the responsibility of the end user to determine the tube pressure-temperature ratings as this is depended on the tube material and tube thickness. Reference the Tylok catalog for guidance.

Stainless Steel: ASTM A479-316/316L, ASTM A182-F316/316L

Temperature (°F)	Derating Factor
100	1.000
200	1.000
300	1.000
400	0.965
500	0.895
600	0.850
650	0.830
700	0.815
750	0.805
800	0.795
850	0.785
900	0.775
950	0.770
1000	0.765

Example:
Part # SS-2-SMC-2 constructed from stainless steel has a pressure rating at 100°F equal to 10,100 psig. To determine the fitting pressure ratings at 500°F locate the Derating Factor for stainless steel from the charts. This factor is determined to be 0.895. Therefore, the pressure rating of Part # SS-2-SMC-2 at 500°F is equal to 10,100 x 0.895 = 9040 psig.

Brass: ASTM B16-C36000, ASTM B283-C37700

Temperature (°F)	Derating Factor
100	1.000
150	0.940
200	0.900
250	0.870
300	0.830
350	0.750
400	0.200

Steel: ASTM A105, ASTM A108 Grade 12L14, 1137, 1141, 1045

Temperature (°F)	Derating Factor
100	1.000
200	1.000
250	1.000

Note 8: When used under the ASME B31.1 code ASTM B283-C37700 is limited to 200°F maximum.

Note 9: See Attached ISO certificate for applicable manufacturing locations.

SCB
SYSTEMS CERTIFICATION BODY
AN IAPMO COMPANY

QUALITY MANAGEMENT SYSTEM CERTIFICATE

This certifies that the quality system of

Tylok International, Inc.

26000 Lakeland Boulevard, Euclid, OH 44132, USA

is registered by IAPMO SCB in recognition of a
Quality Management System, which fulfills the requirements of

ISO 9001:2015

Scope of Registration

Design and manufacture fittings, valves, and other fluid system components related to tube, pipe, and hose for domestic and global partners.

Certificate No: 1117996

Certificate Decision/Re-Issue Date:	06/04/2024
Certificate Issue Date:	07/02/2024
Certificate Expiry:	07/01/2027
Site Structure:	Multiple Sites

SHIRLEY DEWI, SR. VICE PRESIDENT OF
MANAGEMENT SYSTEM REGISTRATION SERVICES

909.230.5526 | WWW.IAPMOSCB.ORG
5001 E. PHILADELPHIA ST, ONTARIO, CA 91761-2816

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17021-1
MANAGEMENT SYSTEMS CERTIFICATION BODY

CERTIFIED BY
SCB
ISO 9001

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Appendix to Certificate No: 1117996

Includes Facilities Located At (Multiple Sites):

Central Function: Tylok International, Inc.
26000 Lakeland Boulevard, Euclid, OH 44132, USA
Scope of Registration: *Company headquarters with management responsibility and authority for the Quality Management System, administration, strategic planning, strategic sourcing, continual improvement, communication processes, resource allocation, and training & development. Support activities at this location include quoting & ordering, customer & technical servicing, procuring, scheduling, designing, and product support engineering for Tylok products.*

Site #1: Tylok International, Inc.
26260 Lakeland Boulevard, Euclid, OH, 44132 USA
Scope of Registration: *The primary activities at this location include component manufacturing of Tylok products.*

Site #2: Tylok International, Inc.
1055 East 260th Street, Euclid, OH, 44132 USA
Scope of Registration: *Storage of yard equipment.*

Site #3: Tylok International, Inc.
1061 East 260th Street, Euclid, OH, 44132 USA
Scope of Registration: *The primary activities at this location include receiving, assembling, stocking, and distributing Tylok products.*

Site #4: Tylok International, Inc.
1071-1081 East 260th Street, Euclid, OH, 44132 USA
Scope of Registration: *The primary activities at this location include component manufacturing of Tylok products.*

Certificate Decision/Re-Issue Date:	06/04/2024
Certificate Issue Date:	07/02/2024
Certificate Expiry:	07/01/2027
Site Structure:	Multiple Sites