



Certificate Number 20-4324741
 Effective Date 17-June-2020
 Expiration Date 21-June-2025
 ABS Port Office Cleveland
 Website www.my-ssp-usa.com/

CERTIFICATE OF
Manufacturing Assessment

This is to certify that the Undersigned evaluated the manufacturing quality procedures of

SSP

located at

8250 Boyle Parkway, Twinsburg, Ohio 44087

The quality monitoring systems during production were verified to reflect the specific surveys, required by the ABS Rules, Guides, the associated Specifications and Standards for the manufacture of

Piping System, Fittings and Valves

This manufacturer presented a sample or specimen of the product, representative of the "type" approved for the purpose of verifying that the "type" has been manufactured in conformance with the Manufacturer's Product Design Assessment(s).

This Certificate is manufacturer and location specific and is subject to annual audits. Consult the ABS Type Approval website to confirm the continued validity of this certificate and the status of products.

The ABS Office issuing the certificate is to be kept updated with changes to the production methods, quality control systems, products and models and any changes made.



Scott M. Tozzi

Scott M. Tozzi, Surveyor

Annual Endorsement

First

Second

Third

Fourth

[Signature]
 Surveyor

[Signature]

[Signature]

[Signature]

4801855 03 JUN 2021

5323962 13 JUN 2022

5920841 29 JUN 2023

6480919 27 JUN 2024

WO and Date

NOTE: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

21-2102711-PDA
09-Apr-2021
08-Apr-2026
Rio de Janeiro Engineering -
Machinery

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

SSP

located at

**8250 BOYLE PARKWAY, , TWINSBURG, OH, United States, 44087-
2200**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Piping System, Fittings and Valves
Model: SSP FloLok Valves, Quick Couplings and Filters product families
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 08/Apr/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping
John Vincent Ulep
for Yongjin Lee, Engineer/Consultant

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SSP

8250 BOYLE PARKWAY

TWINSBURG OH

United States 44087-2200

Telephone: 330-425-4250/235

Fax: 330-425-8106

Email: customer.inquiries@myssp.com

Web: www.myssp.com

Tier: 3 - Type Approved, unit certification not required

Product: Piping System, Fittings and Valves
Model: SSP FloLok Valves, Quick Couplings and Filters product families
Endorsements:

Intended Service:

Valves, Quick Couplings and Filters for Marine and Offshore tube / pipe systems: Hydraulic, Pneumatic and Instrumentation Applications.

Description:

Products:	Series:
Needle Valves	LN - Body: 316 SS - End Connections: 1/8 to 1 in. TF, NPT, BSPT, SAE, SW
Needle Valves	100, 600 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF
Metering Valves	500 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, NPT, BSPT
Ball Valves	300 - Body: 316 SS, Brass - End Connections: 1/8 to 3/4 in. TF, NPT
Ball Valves	EB - Body: 316 SS, Brass - End Connections: 1/16 to 3/4 in. TF, NPT, BSPT
Ball Valves	FB - Body: 316 SS - End Connections: 1/4 to 1 in. TF, NPT, BSPT, ORFS
Ball Valves	TB - Body: 316 SS - End Connections: 1/8 to 1/2 in. TF, FNPT, BSPT, SAE
Rising Plug Valves	LP - Body: 316 SS - End Connections: 1/4, 1/2, 3/4 in. inlet; 1/4 & 1/2 in outlet NPT
Rotary Plug Valves	PV - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, NPT, BSPT
Ball Check Valves	4000 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, NPT, BSPT
Poppet Check Valves	CH - Body: 316 SS - End Connections: 1/8 to 1 in. TF, NPT, BSPT
Purge Valves	4900 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, TS, NPT, BSP, SAE
Bleed Valves	BV - Body: 316 SS - End Connections: 1/8 to 1/2 in. Male NPT and BSPT
Toggle Valves	200 - Body: 316 SS, Brass - End Connections: 1/8 to 3/8 in.
Relief Valves	RL3, RL4, RH3, RH4 - Body: 316 SS - End Connections: > Sizes: 1/4 & 1/2 in. TF
Tee Filters	3000 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, NPT
Inline Filters	3100 - Body: 316 SS, Brass - End Connections: 1/8 to 1/2 in. TF, NPT
Quick Couplings	QF - Body: 316 SS, Brass - End Connections: 1/4 to 1 in. TF, NPT, BSPT, BSPP

Rating:

Please see attached file for all models ratings.

Service Restriction:

1. Unit Certification is not required for this product.
2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
3. Brass valves, fittings and filters are not to be used in oil systems.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Where indicated as 'permanent' in 4-6-1/7.1.4 TABLE 2, the piping component is to bear permanent identification, such as manufacturer's name or trademark, standard of compliance, material identity, pressure rating, etc., as required by the standard of compliance or the manufacturer's specification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the component, and are to serve as a permanent means of identification of the component throughout its service life.

Notes/Drawing/Documentation:

Drawing No. SSP ABS Approvals Listing, Revision: -,

Technical Report No. ILETR111130-002, Rev. -. Total Pages: 13, 100, 400, 500, 600 Series Needle, Metering, Lower Packing Valve

Technical Report No. ILETR111130-001, Rev. -, Total Pages: 13, 300 Series Ball Valve

Technical Report No. ILETR111130-003, Revision: 0, Total Pages: 13, 3100 Series Inline Filter Valve

Technical Report No. ILETR111130-004, Revision: 0, Total Pages: 13, 4000 Series Check Valve

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Technical Report No. ILDTR110721, Revision: 0, Pages: 15, BV Bleed Valve

Technical Report No. ILDTR111221-001, Revision: -, Total Pages: 20, CH Series Check Valve

Technical Report No. ILDTR150519, Revision: A, Total Pages: 20, FB Series Ball Valve

Technical Report No. ILDTR150603, Revision: A, Total Pages: 20, LN Series Needle Valve

Technical Report No. ILETR-111130-005, Revision: 0, Total Pages: 13, PV Series Medium Pressure Rotary Plug

Technical Report No. ILDTR110711, Revision: 0, Total Pages: 28, QF Series Quick Connect High Pressure

Couplings

Technical Report No. ILETR110929, Revision: 0, Total Pages: 78, FloLok Valves & SSP Valves TA Luft

Certification

Technical Report No. ILDTR180515, Revision: C, Total Pages: 19, SSP R Series Relief Valve

Certificate No.: DS1107484, TA LUFT/VDI 2440:2002 ATTESTATION_TUV SUD America

Set of Drawings 001-072, Valves Construction Drawings

Dimensional Calculation: P-001-13B-100- Valves, ANSI ASME B 31.3 Code Pressure Rating 160419

Document: SSP Valves - WEB listing by PN 141111

Document: ABS Terms and Conditions - with signature - SSP Instrumentation Valves 150422

ISO 17025 Lab (2016)

Terms of Validity:

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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

The Rules for Conditions of Classification, 2021 Marine Vessel Rules 1-1-4/7.7, 1-1-A3,1-1-A4, which covers the following:

2021 Rules for Building and Classing Marine Vessels: 4-6-1/7.5.2, Table 2, 4-6-2/5.9, 5.11, 5.13 & 5.15.

The Rules for Conditions of Classification, Offshore Units and Structures, 2021 Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Rules for Building and Classing Mobile Offshore Units: 4-2-2/1.3, 9, 11, 13 & 17, and 4-2-5/1.3 & 3.9.

National:

NA

International:

ASME B31.1-2020, Power Piping

ASME B31.3-2018, Process Piping

ISO 15500-2:2016, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 2: Performance and general test methods

ISO 15500-3:2020, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 3: Check valve

ISO 15500-4:2020, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 4: Manual valve

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Government:

NA

EUMED:

NA

OTHERS:

TA LUFT/VDI 2440:2002 for the following tests: Helium Leak Test under vacuum; Helium Leak Test under pressure; High/Low Temperature Helium Leak Test under pressure; Hydrostatic Hold Test; and Burst Test. (by TÜD SÜD America)



CERTIFICATE NUMBER 23-2435566-PDA
EFFECTIVE DATE 16-Aug-2023
EXPIRY DATE 15-Aug-2028
ABS TECHNICAL OFFICE Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

SSP

located at

**8250 BOYLE PARKWAY, , TWINSBURG, OH, United States, 44087-
2200**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Instrumentation Tube Fittings
Model: 1. Duolok
2. Unilok
3. Griplok
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 15/Aug/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

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American Bureau Of Shipping


Jingdong Sheng, Sr. Managing Principal Engineer

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Tier: 3 - Type Approved, unit certification not required

Product: Instrumentation Tube Fittings**Model:**
1. Duolok
2. Unilok
3. Griplik**Endorsements:****Intended Service:**

Marine & Offshore Applications - Hydraulic/Pneumatic Instrumentation Fittings & Tubing.

Description:

1. Tube to Male Pipe
2. Tube to Female Pipe
3. Tube to Tube Union
4. Tube Stub Connectors/Adapters
5. Tube to Weld, Tube to 37° Flare (AN)
6. Tube to O-Ring Seal
7. Tube to Straight Thread
8. Cap & Plug Component.

*See Manufacturers Catalogue for Tube Fitting Selection Guide Listing.

Rating:

Tube Sizes

Duolok 1/16" - 2", 3mm - 25mm;

Unilok 1/16" - 1";

Griplik 1/16" - 1"

*See attached "pdf" for Duolok, Unilok & Griplik Selection Guide for Maximum Allowable Working Pressure, Temperature Ratings, etc.

Service Restriction:

1. Unit Certification is not required for this product.
2. Not to be used if fittings are required to be approved fire resistant in accordance with Marine Vessels Rules 4-6-2/Table 10
3. To be used in compliance with Marine Vessels Rules 4-6-2/5.5.5
4. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. For your ready reference find here the link to SSP online resources, <http://www.myssp.com> then select 'Product Information' for Catalogs and other Literature.

Notes/Drawing/Documentation:

Previous PDA 18-HS1775300-PDA Document List

Dwg. No. GRIPIK, Title: TUBE FITTINGS (BOOK) Rev. -, Sheet: 1

Dwg. No. UNILOK, Title: UNILOK TUBE FITTINGS (BOOK) Rev. -, Sheet: 1

Dwg. No. TRUFIT HOSE, Title: HOSE ASSEMBLIES CONNECTORS ADAPTERS AND ACCESORIES(BOOK) Rev. -, Sheet: 1

Dwg. No. TRUFIT, Title: PIPE WELD AND ADAPTER FITTINGS (BOOK) Rev. -, Sheet: 1

Dwg. No. M SWM SWMP SWPP, Title: DRAWINGS Rev. -, Sheet: 1

Dwg. No. INSTRUMENTATION, Title: INSTRUMENTATION FITTINGS ANSI ASME Rev. -, Sheet: 1

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Dwg. No. INDUSTRIAL, Title: INDUSTRIAL FITTING ANSI ASME B 31.3 CODE RATINGS Rev. -, Sheet: 1
Dwg. No. FORMULAS, Title: FORMULAS Rev. -, Sheet: 1
Dwg. No. FLOLOK, Title: FLOLOK VALVES Rev. -, Sheet: 1
Dwg. No. DUOLOK, Title: DUOLOK TUBE FITTINGS Rev. -, Sheet: 1
Dwg. No. CODE CALCS, Title: FITTINGS AND DIMENSIONS AND PRESSURE RATINGS Rev. -, Sheet: 1
Dwg. No. CATALOG, Title: SSP PRODUCT CATALOG AND DESIGN HANDBOOK Rev. -, Sheet: 1
Dwg. No. 9 ILLUS, Title: FITTING AND ILLUSTRATIONS Rev. -, Sheet: 1
Dwg. No. 8 THDS, Title: LIST OF THREADS USED ON INDUSTRIAL FITTINGS Rev. -, Sheet: 1
Dwg. No. 7 NPT DIMS, Title: NPT PIPE THREAD DIMENSIONS Rev. -, Sheet: 1
Dwg. No. 5 FORGING, Title: TABLE DATA SOURCE REST 035-03 Rev. -, Sheet: 1
Dwg. No. 30 CONST, Title: CONVERSION FACTOR FROM MM TO IN Rev. -, Sheet: 1
Dwg. No. 3 TRUFIT, Title: INDUSTRIAL FITTING RATINGS AND BASIC Rev. -, Sheet: 1
Dwg. No. 29 WPB-S-TB, Title: WPB WPS WTB WTS SOCKET WELD (PIPE AND TUBE) AND BUTT WELD ENDS Rev. -, Sheet: 1
Dwg. No. 22 SWJP--PRINTED, Title: WWJP AN SAE 37 FLARED PIN SWIVEL FITTING NASA KC 137 Rev. -, Sheet: 1
Dwg. No. 18 P, Title: P FITTING END Rev. -, Sheet: 1
Dwg. No. 17 OM-SC, Title: OMS OSC FITTING END DIMENSIONAL ANALYSIS Rev. -, Sheet: 1
Dwg. No. 15 KU, Title: KONCENTRIC UNION FITTING END Rev. -, Sheet: 1
Dwg. No. 14 J, Title: SAE 37 FLARED END Rev. -, Sheet: 1
Dwg. No. 13 GF, Title: FIGURE 1 SAE J1926/ 1 PORT Rev. -, Sheet: 1
Dwg. No. 12 GB-GBA, Title: CONFORM TO SAE J 1453 Rev. -, Sheet: 1
Dwg. No. 11 G-GA, Title: DIMENSION CONFORM TO SAE J 1453 FIGS 9,11, TABLE 6 Rev. -, Sheet: 1
Dwg. No. 10 MTL, Title: MATERIALS AND MECHANICAL PROPERTIES Rev. -, Sheet: 1

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STANDARDS

ABS Rules:

2023 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3,1-1-A4, which covers the following:
2023 Rules for Building and Classing Marine Vessels: 4-6-2/5.9, 4-6-2/5.15, 4-6-2/5.17;

2023 Rules for Conditions of Classification, Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2023 Rules for Building and Classing Mobile Offshore Units:4-2-1/11.13, 4-2-2/1.3, 4-2-2/11, 4-2-2/13, 4-2-2/17, 4-2-5/1.3

National:

2022 ANSI/ASME B31.1, B31.3

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International:

NA

Government:

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EUMED:

NA

OTHERS:

NA