

## UNI-LOK CORPORATION

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**Tier: 2 - PDA Issued**

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**Product:** Valve, with tube fitting

**Model:** Union (UU), Male Connector (UMC) & Needle Valve (VN53U)

**Intended Service:**

For Hydraulic Fluids & Instrument Control

### Description:

1. Union/Male Connector ;

1) Material : Body/Nut - ASTM A479 316/ ASTM A479 316

2) Size : 1/2"

2. Needle Valve ;

1) Material : Body/ Stem/Packing - ASTM A182 F 316/ ASTM A276/ PTFE

2) Size : 1/2"

### Rating:

1. Union/Male Connector;

1) 1/2" : 3,500PSI (241 Bar) at 100 °F(38 °C)

2. Needle Valve;

1) 1/2" : 5,000PSI (340 Bar) at 100 °F(38 °C), -65 °F to 450 °F(-53 to 232 °C)

### Service Restriction:

Unit Certification is not required for this product. 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 tapered pipe threads are not to be used for toxic and corrosive fluid services and for all services of temperatures exceeding 495 °C (923 °F). They may be used for Classes I and II piping subject to limitations as follows;

a) 20A and below : Max Pressure Permitted 1,500 Psi

b) 20A thru 25A : Max Pressure Permitted 1,200 Psi

c) 25A thru 50A : Max Pressure Permitted 600 Psi

d) 50A thru 80A : Max Pressure Permitted 400 Psi

e) Above 80A : Not Permitted for Class I & II. They may be used for Class III piping without limitation.

2. The taper-thread joints up to 80 mm (3 in.) nominal diameter may be used for hydraulic oil system without pressure limitation for connection to equipment only, such as pumps, valves, cylinders, accumulators, gauges and hoses. When such fittings are used solely to join sections of pipe, they are to be in accordance with above item No. 1. However, hydraulic systems for the following services are to comply with above item No. 1 in all respects:

a) Steering gear hydraulic systems

b) Controllable pitch propeller hydraulic systems

c) Hydraulic systems associated with propulsion or propulsion control

3. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

4. All valves are to bear permanent identification, such as the manufacturer's name or trademark, standard of compliance, material identify, pressure rating, etc. as required by the standard of compliance and at which the manufacturer guarantees the valve to meet the requirements of the standards. 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 in accordance with 4-6-2/5.11.4 and 4-6-1/7.1.4 of the Steel Vessels Rules 2017.

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**Notes/Drawing/Documentation:**

Prototype test has been carried out by the Korea Testing &amp; Research Institute.

1. Test Report No.:TBK-000538 dated 24 September 2015 (1/2" Union / Male Connector)
2. Test Report No.:TAA-026319 dated 02 December 2016 (1/2" Needle Valve)
3. Test Report No.:TAA-003791 dated 14 February 2017 (1/2" Needle Valve)

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate 17-BK1611918-PDA, dated 15/Mar/2017 remains valid until 14/Mar/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**STANDARDS****ABS Rules:**

2017 Steel Vessel Rules 1-1-4/7.7, 4-6-1/7.1.4, 4-6-2/5.5.5(a), 4-6-2/5.5.5(b), ), 4-6-2/5.9, 4-6-2/5.11.4, 4-6-2/5.15, 4-6-2/5.17

**National:**

NA

**International:**

ASTM A1387-99(2005)

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA