

November 2021

Spence Type Drain Union Assembly

Introduction

This installation sheet covers the installation and replacement parts of Type DUA drain union assembly.

Product Description

Type DUA, Drain Union Assembly is an engineered continuous flow device. Consists of an inlet gasket, an orifice plate, an outlet gasket, an inlet housing, an outlet housing and a housing nut, see Figure 1.

A complete assembly consisting of Y-strainer with required perforated basket, 4 in. nipple and drain union assembly is available upon request as a drain union module.

Specifications

Maximum Temperature
850°F / 454°C

Maximum Pressure
3000 psig / 207 bar

Installation



WARNING

Personal injury, property damage, equipment damage or leakage due to escaping steam or bursting of pressure containing parts may result if this equipment is over pressured or is installed where service conditions could exceed the limits given in the specifications or where conditions exceed any ratings of the adjacent piping or piping connections. To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation, or standard) to prevent service conditions from exceeding those limits.

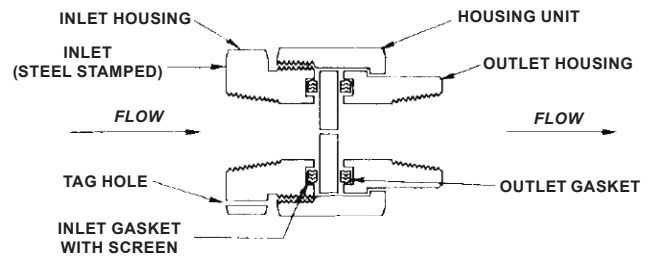


Figure 1. Type DUA Drain Union Assembly

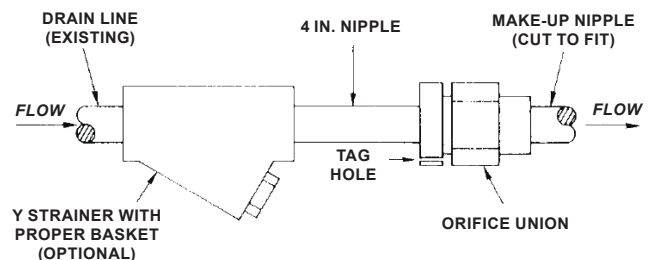


Figure 2. Typical Drain Union Assembly Installation

The installation procedure for Type DUA is similar to the installation procedure for any standard pipe union, with the following exceptions:

1. A Y-strainer upstream of Type DUA may be required.
2. Include a 0.25 in. / 6.35 mm thickness of the orifice plate when calculating the make-up nipple length.
3. Install Type DUA with the flow in the proper direction.
4. Carefully assemble the internal parts of Type DUA such as inlet gasket with screen, drilled orifice plate and outlet gasket.
5. Apply thread lubricant to the external threads of Type DUA to have proper sealing force.
6. Properly tighten Type DUA to ensure a leak-proof seal. Tighten to a minimum torque as indicated in Table 1.
7. Retighten the Type DUA after it reaches full temperature.

Type DUA

Installation of Socket Weld Unions

Whenever welding is performed adjacent to the drain union assembly, follow the steps below to avoid destruction of the gaskets by heat and/or arcing of the union surfaces.

1. Remove both gaskets from the drain union assembly.
2. Wrench-tighten drain union assembly with the orifice plate in position.
3. Place grounding clamp as close as possible to the point of the weld.
4. Allow drain union assembly to cool before installing the gaskets.
5. Always use new gasket when making up the union.

Table 1. Minimum Torque

UNION SIZE		TORQUE	
In.	mm	Ft-lbf	N•m
1/2	12.7	100	135.6
3/4	19.1	120	162.7
1	25.4	120	162.7

Replacement Parts Available

Two types of replacement parts kits are available for Type DUA.

1. Type SUG kit consists of 10 replacement gaskets (enough for 5 units).
2. Type DUR kit consists of 2 replacement gaskets and inlet screen.

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