



SS316 SMS FOOD GRADE UNION, BUTT WELD

Three Piece Sanitary Union · SS 316L · SMS 1145

BRAND: SW FLOW CONTROLS

SKU: SW-0095

SIZE 1" TO 4"

SS 316L / SMS 1145



FIG. 1 | SS316 SMS FOOD GRADE UNION, BUTT WELD

PRODUCT OVERVIEW

The SWBM SS316 SMS Food Grade Union is a three piece demountable joint for hygienic process pipework. It comprises a welding male part, a welding liner and a round slotted nut, sealed by an elastomer ring seated in a machined groove.

The seal sits flush with the tube bore, so the assembled joint presents a smooth continuous surface with no ledge or crevice. The union allows sections of pipework, valves, pumps and instruments to be removed for inspection without cutting the line. The round nut is tightened with a hook wrench.

Fitting type	Three piece demountable union
Components	Male part, liner, round nut, seal
Body material	SS 316L (1.4404)
End connection	Plain, butt weld both ends
Seal	EPDM standard, silicone or FKM to order
Size range	1" to 4" (DN25 to DN104)

TECHNICAL SPECIFICATION

Design standard	SMS 1145	Internal finish	Ra ≤ 0.8 µm, mechanically polished
Male and liner material	SS 316L (1.4404)	External finish	Satin polished
Nut material	SS 304 (1.4301)	Working pressure, DN25 to DN38	40 bar at 20°C
Nut pattern	Round, six slot	Working pressure, DN51 to DN76	25 bar at 20°C
Manufacture	Forged and CNC machined	Working pressure, DN104	16 bar at 20°C
End preparation	Plain, for butt welding		



PRODUCT DATA SHEET

SS316 SMS FOOD GRADE UNION, BUTT WELD

Ref. SW-0095 | Rev. 01

BILL OF MATERIALS

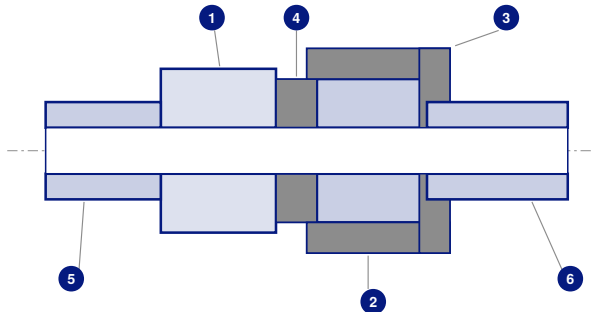


FIG. 2 | UNION ASSEMBLY, SECTIONAL ARRANGEMENT

#	COMPONENT	MATERIAL
1	Welding male part	SS 316L (1.4404)
2	Welding liner	SS 316L (1.4404)
3	Round nut, six slot	SS 304 (1.4301)
4	Seal ring	EPDM, silicone or FKM
5	Process tube, male side	SS 316L, ordered separately
6	Process tube, liner side	SS 316L, ordered separately

Items 1 to 4 make up the supplied union set. Items 5 and 6 are shown to illustrate the installed arrangement and are ordered separately. Blank end caps and hook wrenches are available on request.

DIMENSIONS AND WEIGHTS

SIZE	DN	ØA BORE (MM)	ØB TUBE OD (MM)	THREAD	NUT ØC (MM)	MALE L (MM)	LINER L (MM)
1"	25	22.5	25.0	RD40 x 1/6	51	19	15.5
1.1/2"	38	35.5	38.0	RD60 x 1/6	74	23	16.0
2"	51	48.5	51.0	RD70 x 1/6	84	23	17.0
2.1/2"	63.5	60.5	63.5	RD85 x 1/6	100	27	17.0
3"	76.1	72.9	76.1	RD98 x 1/6	114	27	19.0
4"	104	100.0	104.0	RD125 x 1/4	138	30	19.0

ØA is the bore, ØB is the tube outside diameter, ØC is the outside diameter of the round nut. Male L and liner L are the weld end lengths. Threads are to the SMS round thread pattern. Dimensions are nominal and are given for guidance only. Mass is not tabulated. Certified drawings for the supplied make are issued on request.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	SW-0095
Size	1", 1.1/2", 2", 2.1/2", 3", 4"
Material	SS 316L standard. SS 304 on request
Seal	EPDM standard. Silicone or FKM on request
Supply	Complete set, or male, liner, nut and seal separately
Order example	SW-0095 / 2" / SS316L / EPDM / SET

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, project quantities and certification requirements.



PRODUCT DATA SHEET

SS316 SMS FOOD GRADE UNION, BUTT WELD

Ref. SW-0095 | Rev. 01

PRESSURE AND TEMPERATURE

Working pressure, DN25 to DN38	40 bar at 20°C
Working pressure, DN51 to DN76	25 bar at 20°C
Working pressure, DN104	16 bar at 20°C
Temperature range, EPDM seal	-40°C to +140°C
Temperature range, FKM seal	-20°C to +200°C

Pressure ratings apply to the fully forged union at ambient temperature and are reduced at elevated temperature. The temperature limit of the assembled joint is set by the seal compound, not by the stainless steel. Confirm the duty with SWBM before use on steam or outside the ranges above.

TYPICAL APPLICATIONS

- Dairy processing and milk reception lines
- Brewing, beverage and juice plant
- Pharmaceutical and biotech process piping
- Edible oil and food ingredient transfer
- CIP and SIP circuits
- Hygienic water and process utility lines

COMPLIANCE AND QUALITY

- Dimensioned to the SMS 1145 sanitary standard
- Austenitic stainless steel, EN 10088-2 / ASTM A270
- Crevice free bore, no internal ledges or dead legs
- Mechanically polished internal surface for CIP cleanability
- Material test certificate EN 10204 3.1 on request
- Suitable for steam sterilisation and CIP / SIP regimes
- Batch traceable to heat number on request

INSTALLATION AND OPERATION

- Weld the male part and liner to the tube before assembling the joint
- Remove the seal before welding, heat will destroy the elastomer
- Back purge the weld root with argon and passivate afterwards
- Seat the seal squarely in the groove so that it is flush with the bore
- Tighten the round nut with a hook wrench, do not over tighten
- Inspect the seal at every strip down and replace if set or swollen

COMPANY

Sunel Wala Building Materials
Trading Co. LLC (SWBM)
Dubai, United Arab Emirates

SALES ENQUIRIES

info@swbm-fittings.com
Tel: +971 4 238 5652
Mobile / WhatsApp: +971 50 748 1772

ONLINE

www.swbm-fittings.com
Brand: SW Flow Controls

The information in this data sheet is provided in good faith and is believed to be accurate at the date of issue. Dimensions, weights and ratings are nominal and may vary with the manufacturer and production batch. It remains the responsibility of the purchaser to confirm that the product is suitable for the intended service conditions. Sunel Wala Building Materials Trading Co. LLC reserves the right to amend specifications without prior notice. This document does not form part of any contract of sale.