



**Technical Description**

- Pipe coupling for foods and chemistry according to DIN 11851, colloquially also called "dairy thread" consists of male threaded part-liner – round slotted nut- D shaped seal ring.
- The seal must be inserted correctly into the seal sitting of the male coupling before connection.
- The conical female coupling is then pushed onto the male threaded coupling. The two are secured by sliding the nut across the conical head of the female coupling and onto the thread of the male coupling.
- The flanged seal enables easy assembly and prevents any displacement by vacuum or pressure.
- Threaded food couplings complying with DIN 11851 have a rounded thread complying with DIN 405/1 which ensures that DIN 11851 compliant food couplings are easy to connect by hand or using a wrench.

**Industries**



**Working Pressure**

Up to 1 1/2" – 40 Bar  
2" to 4" - 25 Bar

**DIN 11851 Parts**

- |                           |                          |
|---------------------------|--------------------------|
| 1. Male threaded part     | 3.. A D-shaped seal ring |
| 2. A conical shaped liner | 4. A round (slotted) nut |

**Key Features**

- Electro-polished external surface for improved hygiene
- Additional wrench surface to prevent twisting of the hose when fitting one half of the coupling to the other half
- Extra-long head for easy assembly and disassembly + marking heat number + size
- Low RA-value of inner surface up to  $\leq 1.6\mu\text{m}$
- Easy assembly of rubber protection ring
- Standard NBR seal conforming FDA directive and ADI-free



**Working Temperature**

(-30° C) / -22° F up to 120°C / 248° F

**Application**

For Pharmacy, Beer, Food, Petroleum, Dairy, Beverage, Biotech, Cosmetics etc.

**Sanitary Gaskets**

(O-ring) are used to seal joints between two separate parts in the process system. General materials like PTFE, Buna-N(NBR), Silicone, Viton (FPM) and EPDM can meet different request of different mediums.

**Food and Beverages Hose**

- Brewery hose – White Chlorobutyl Hose Assembly
- Food Transfer hose – White UHMW Transfer Hose Assembly
- Milk Transfer Hose – White NR or NBR hose assembly
- CIP Hose – Cleaning in Process Hose Assembly

CAD Diagram			Male				Liner				Round Slotted Nut				Standard D Seal			Inner Lip Seal		
Product Code	inches	mm	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	A	B	C
1	25	RD 52 X 1/6"	24	26	29	44	24	26	26	22	63	36	RD 52 X 1/6"	21	40	30	5	40	22	5
1.5	40	RD 65 X 1/6"	36.7	38	33	56	37	38	26	78	49	RD 65 X 1/6"	21	52	42	5	52	35	5	
2	50	RD78 X 1/6"	49.4	51	35	68	49	51	28	92	62	RD 78 X 1/6"	22	64	54	5	64	48	5	
2.5	65	RD 95 X 1/6"	62.1	64	40	86	62	64	32	112	80	RD 95 X 1/6"	25	81	71	5	81	60	5	
3	75	RD 110 X 1/4"	74.8	76	45	100	75	76	37	127	94	RD 110 X 1/4"	29	95	85	5	95	73	5	
4	100	RD 130 X 1/4"	99.8	102	54	121	100	102	44	138	115	RD 130 X 1/4"	31	114	104	6	114	98	6	

Medium Pressure



**Technical Description**

- **SMS unions** (Swedish Manufacturing Standard - SMS 1145) are a hygienic fitting that features a captive seal design to provide a smooth, crevice-free internal bore.
- They consist of a round slotted nut, weld liner and weld male with an L style seal available in a range of material types.
- The seal must be inserted correctly into the seal sitting of the male coupling before connection. The conical female coupling is then pushed onto the male threaded coupling.
- The two are secured by sliding the nut across the conical head of the female coupling and onto the thread of the male coupling.
- There is always a small crevice between the face of the male spigot and the liner. Therefore, it facilitates the removal of sections of pipe work without the need of to disturb adjacent sections.

**Working Pressure**

16 Bar to 40 Bar  
@ 20°C - Depends on size

**SMS 1145 Parts**

- |               |              |
|---------------|--------------|
| 1. Weld Male  | 2. Round Nut |
| 3. Weld Liner | 4. Seal      |
- KFI SMS Unions are normally made by casting and forged materials.

**Industries**



**Key Features**

- Electro-polished surface for improved hygiene
- Additional wrench surface to prevent twisting of the hose when fitting one half of the coupling to the other half
- Extra-long head for easy assembly and disassembly + marking heat number + size
- Low RA-value of inner surface of  $\leq 1.6\text{MM}$
- Hose shank for assembly with safety clamps and swage ferrules
- Easy assembly of rubber protection ring
- Standard EDPM seal, conforming FDA directive



**Working Temperature**

(-30° C) / -22° F up to 120°C / 248° F

**Application**

For the Food and Beverage, Pharmaceutical and Chemical industries.

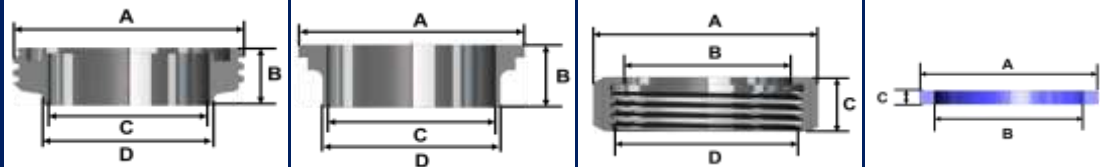
**Finish:**

OD & ID: Semi bright.  
Connections: Welding ends  
Thread: Round type  
Food couplings complying with DIN and SMS are not inter changeable, (Refer the comparison table)

**FITTINGS SPECIFICATIONS**

- Processing: Forging Machined by CNC
- Internal 20 Ra (0.51 $\mu\text{m}$ )
- Connection are Weld or expanding
- Size Range: OD.25 through OD.101.6
- Materials: 1.4301(304), 1.4404(316L)

**CAD Diagram**








Product Code	inches	mm	SMS Male				SMS Weld				SMS Nut				Seal		
			A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
1	25	25	15	22	40	36	8	22	25	51	32	20	34	32	25	6	
1.5	40	38	20	35	60	55	9	35	38	74	48	25	54	48	38	6	
2	50	51	20	48	70	65	9	48	51	84	61	26	64	61	51	6	
2.5	65	64	24	60	85	80	9	60	64	100	74	30	79	74	63	6	
3	75	76	24	73	98	93	10	73	76	114	87	32	92	86	76	6	
4	100	102	35	97	132	127	12	97	102	154	117	45	124	114	101	6	

BODY SIZE  
**1" TO 4"**

**DAIRY FITTINGS**  
DIN VS SMS Coupling

High Pressure

Particulars	DIN 11851	SMS 1145	DIN	SMS
Female Coupling	Conical Face	Flat Face		
Male Coupling	Deep Seal	Turned-up Seal		
Seal	U - Shaped Seal	Square Seal		
Male and Female thread	Rounded thread complying with DIN 405/1	Rounded thread complying with DIN 405/1		
Max. working pressure	40 Bar / 580 psi	6 Bar / 87 psi		

High Pressure



**Technical Description**

- **IDF unions** (International Dairy Federation) are smooth bore hygienic fitting with a crevice free design.
- They are manufactured in accordance with ISO 2853 and BS 4825 part 4 and consist of a nut, weld liner and weld male with a 'T style' seal available in various materials.
- The IDF screw coupling is described in the ISO 2853 and is also known as the IDF or ISS coupling.
- This is the only screw coupling with a trapezium shaped thread. There is another specification which describes the IDF coupling: the BS 4825-4.
- There are small differences between these norms, that is why you cannot always use them together (parts are not exchangeable).

**Industries**

**Working Pressure**

16 Bar at ambient temperature

- IDF Parts**
- Hexagonal nut
  - Welding male
  - Welding liner and Gasket

- Key Features**
- The SMS Aseptic fitting is a patented modified version of the SMS standard union, designed to accept an 'L' section joint ring and give a true crevice free bore.
  - On assembly, the nut is tightened until metal to metal contact is made between the outer rim of the liner and male part.
  - This gives a present compression on the seal, eliminating the possibility of overtightening and prolonging joint life.
  - The liners are of the long type with a shoulder which is dimensioned and tolerance to locate inside the nut to give perfect concentric alignment on assembly.



**Working Temperature**

(-30° C) / -22° F up to 120°C / 248° F

**Application**

IDF union is particularly suitable for applications where CIP permanent pipelines are

- Finish**
- Internal surface: <0.8um
  - Seam surface: <1.6um
  - External: <1.0um
  - Polished: Mirror polished, Sub light, Matte polished, 180G, 240G, 400G, Acid pickling

- FITTINGS SPECIFICATIONS**
- Size Range: 1-4inches, DN10-DN150
  - Materials: 1.4301(304), 1.4404(316L)
  - Processing: Forging Machined by CNC Internal 20 Ra (0.51µm)
  - Connection are Weld, Clamp, Threaded or Flanged

CAD Diagram			MALE				WELD LINER				IDF HEX NUT				IDF Seals		
			A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
Product Code	inches	mm															
	1	25	37	22	22	25	26	22	22	34	46	31	30	34	33	7	23
	1.5	40	51	22	35	38	38	35	22	48	60	44	30	48	46	7	36
	2	50	64	22	48	51	51	48	22	61	75	57	30	61	60	7	49
	2.5	65	77	22	60	64	64	60	22	74	90	71	30	75	73	7	61
	3	75	91	22	73	76	76	73	22	88	105	83	30	88	87	7	74
	4	100	126	30	97	102	102	97	30	121	133	112	35	122	119	10	99