



SS316 SMS FOOD GRADE CONCENTRIC REDUCER

Sanitary Butt Weld Reducer · SS 316L · SMS 1145

BRAND: SW FLOW CONTROLS

SKU: SW-0096

SIZE 1" TO 4"

SS 316L / SMS 1145



FIG. 1 | SS316 SMS FOOD GRADE CONCENTRIC REDUCER

PRODUCT OVERVIEW

The SWBM SS316 SMS Food Grade Concentric Reducer joins two tube sizes on a common centreline. The taper is formed by cold spinning, giving a smooth continuous bore with no internal step and no welded seam across the transition.

Concentric reducers are the correct choice on vertical lines and on pump suction and delivery where the pipe centreline must be held. On horizontal lines that must drain fully, an eccentric reducer is normally preferred. Both ends are plain for butt welding to SMS tube.

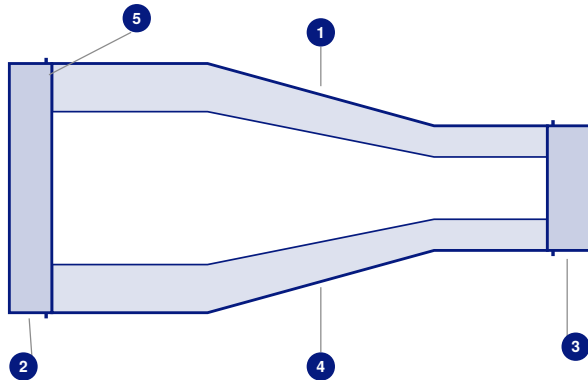
Fitting type	Concentric butt weld reducer
Transition	Cold spun taper
Body material	SS 316L (1.4404)
End connection	Plain, butt weld
Internal finish	Ra ≤ 0.8 µm
Size range	1.1/2" x 1" to 4" x 3"

TECHNICAL SPECIFICATION

Design standard	SMS 1145	Internal finish	Ra ≤ 0.8 µm, mechanically polished
Material, standard	SS 316L (1.4404)	External finish	Satin polished, 180 grit
Material, option	SS 304 (1.4301)	Working pressure	10 bar at 20°C, indicative
Material standard	ASTM A270 / EN 10088-2	Temperature range	-20°C to +150°C
Manufacture	Cold formed, seam welded and drawn	Welding	Orbital or manual TIG, no filler required
End preparation	Plain, for butt welding		



BILL OF MATERIALS



#	COMPONENT	MATERIAL
1	Fitting body (supplied item)	SS 316L (1.4404)
2	Process tube, inlet	SS 316L, ordered separately
3	Process tube, outlet	SS 316L, ordered separately
4	Bore, product contact face	Ra ≤ 0.8 µm polished
5	Butt weld joint	Orbital or manual TIG, filler free

Item 1 only is supplied under this reference. The tube sections and weld joints are shown to illustrate the installed arrangement and are ordered separately. SS 304 is available as an alternative body material on request.

FIG. 2 | CONCENTRIC REDUCER, SECTIONAL ARRANGEMENT

DIMENSIONS AND WEIGHTS

SIZE (LARGE X SMALL)	ØA (MM)	ØB (MM)	WALL T (MM)	L (MM)
1.1/2" x 1"	38.0	25.0	1.25	39
2" x 1"	51.0	25.0	1.25	57
2" x 1.1/2"	51.0	38.0	1.25	39
2.1/2" x 1"	63.5	25.0	1.50	74
2.1/2" x 1.1/2"	63.5	38.0	1.50	57
2.1/2" x 2"	63.5	51.0	1.50	39
3" x 1"	76.1	25.0	1.60	92
3" x 1.1/2"	76.1	38.0	1.60	74
3" x 2"	76.1	51.0	1.60	57
3" x 2.1/2"	76.1	63.5	1.60	39
4" x 2"	104.0	51.0	2.00	95
4" x 2.1/2"	104.0	63.5	2.00	78
4" x 3"	104.0	76.1	2.00	60

L is the length of the taper, face to face, excluding any parallel tangent. Wall thickness shown is that of the large end. Wall thickness follows the SMS schedule: 1.25 mm for DN25 to DN51, 1.50 mm for DN63.5, 1.60 mm for DN76.1 and 2.00 mm for DN104. Dimensions are nominal and are given for guidance only. Mass varies with wall and polish and is not tabulated. Certified drawings for the supplied make are issued on request.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	SW-0096
Size	Large end 1.1/2" to 4", small end 1" to 3"
Material	SS 316L standard. SS 304 on request
Type	Concentric standard. Eccentric on request
Finish	Ra ≤ 0.8 µm internal, 180 grit external
Order example	SW-0096 / 3" x 2" / SS316L / CONCENTRIC

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 CONCENTRIC REDUCER

Ref. SW-0096 | Rev. 01

PRESSURE AND TEMPERATURE

Working pressure, 20°C	10 bar, indicative
Temperature range	-20°C to +150°C
Steam sterilisation	Suitable, subject to system design
CIP chemicals	Caustic and nitric acid cleaners
Vacuum service	Suitable, subject to wall thickness

Pressure and temperature figures are typical for welded SMS tube systems in food service and are given for guidance only. The rating of the finished pipework is governed by the tube wall, the weld quality and the system design, not by the fitting alone. Confirm the duty with SWBM before use 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

- Degrease and clean the tube ends before fitting up
- Align the bore accurately, internal misalignment creates a product trap
- Butt weld with orbital or manual TIG under back purge
- Purge with argon until the weld root is fully oxide free
- Passivate the weld zone after fabrication
- Do not grind the internal bore, this destroys the surface finish

COMPANY

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