

# FLEXIBLE CONNECTION

FOR PHARMACEUTICAL PLANTS

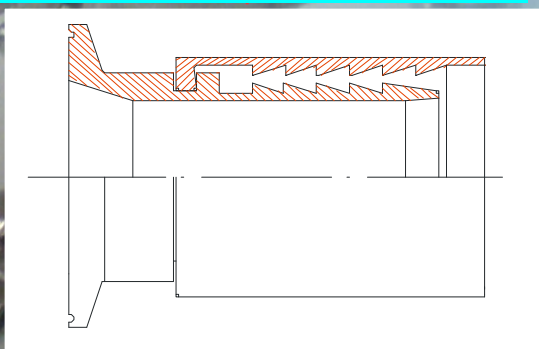
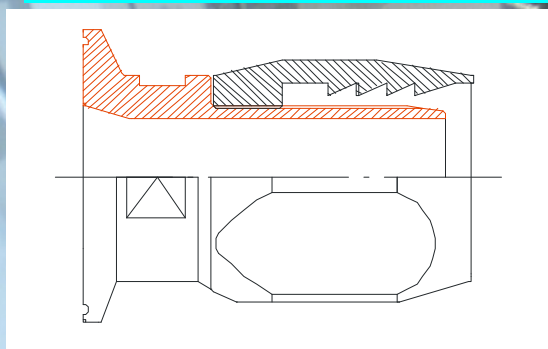
## RECOVERABLE FITTING



## PRESSED FITTING



## for INDUSTRIAL SILICON OR RUBBER HOSES



The PRESSED HOSE FITTINGS for rubber hoses and / or silicone are a SANITARY solution that offers features not guaranteed and held by traditional solutions.

The absence of discontinuity between inner pipe and fitting prevents the deposit of substances causing bacteria traps during the operation time of the plant, helping to keep the conduit clean. The tightening along the entire outer surface of the sleeve, guarantees best pressure resistance, and the particular shape of the connector prevents the extraction of the tube.

REUSABLE CONNECTION can be reused during the phases of plant maintenance and replacement of worn out pipes, reducing the operating costs of such activities.

All fittings connection type are manufactured according to

TC BS 4825

ISO 2852

TC DIN 32676

DIN 11851

to fit all commons pharma/chemical/food plants. Please ask us if you need special connection type

ALL CONNECTIONS ARE machined from solid round or exagonal BARS

A316L/AISI304L BARS WITH CERTIFICATE AND MARKING OF HEAT NUMBER

PRESSED AND RECOVERABLE FITTINGS ARE POLISHED TO OBTAIN INNER

ROUGHNESS  $\leq 0.5$  MICRON.

**DAM RACCORDI S.R.L.**

PURE FLOW EQUIPMENT

**DAM raccordi s.r.l.**

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PHARMA PLANTS

Brochure tecnica

Flexible Connection

Technical data sheet

Produzione raccordi, valvole e componenti in ACCIAIO INOX per impianti industriali

## FLEXIBLE CONNECTION FOR PHARMACEUTICAL PLANTS

The tubes we use to make flexible connections are made with high quality materials and are depending on the type, assembled mandrel plated on blood or obtained by extrusion. The types of the materials forming the substrate allows us to cover a wide range of applications in various fields for the transport of fluids of pharmaceutical plants, steam, food substances (milk, fruit juice, oil, wine, beer, spirits fine), aggressive chemicals.

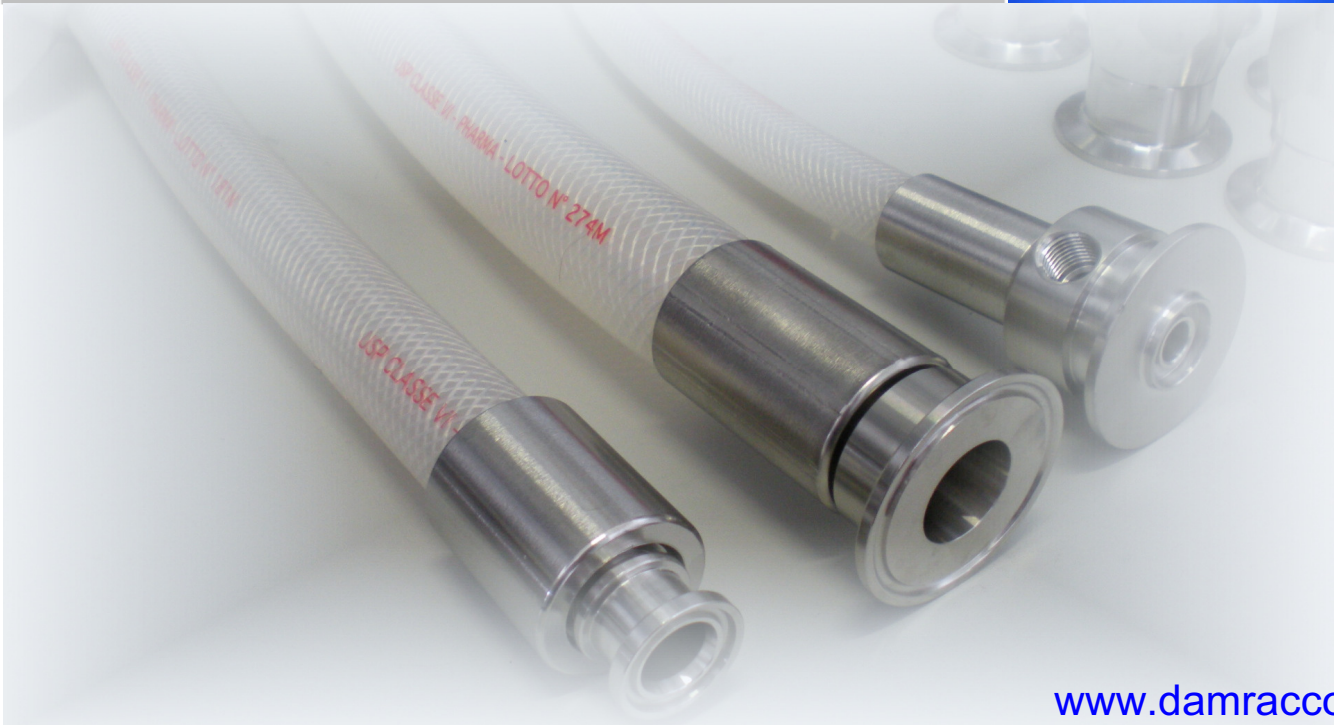
The hoses are certified:

FDA CFR 21 PART 177.2600,  
USP XXXII class VI  
European Pharmacopoeia 3.1.9 Ed. VII 2011,  
ISO 10993 Sections 5,10,11:2009,

### Braided HOSE SILICONE FOR PHARMACEUTICAL APPLICATIONS

The tube with textile insert combines the characteristics of the silicone to greater resistance to pressure. CATALYTIC VERSION is AVAILABLE IN PLATINUM cert. **USP Class VI**

ID (mm)	Wall thickness (mm)	OD (mm)	Working pressure (bar)	Minimum Bursting Pressure (bar)	Weight (g/m)	Vacuum resistance (bar)	Bending radius (mm)
±0,50	±0,50				±5%		
3,00	2,50	8,00	23,33	70	55	N/A	30
4,00	2,50	9,00	21,67	65	65	N/A	35
5,00	3,00	11,00	20,67	62	95	N/A	40
6,35	2,83	12,00	18,67	56	105	N/A	45
7,93	3,54	15,00	15,33	46	160	N/A	55
9,52	3,74	17,00	14,00	42	190	N/A	70
12,70	4,65	22,00	11,33	34	300	N/A	85
15,87	4,57	25,00	10,00	30	370	N/A	95
19,05	5,98	31,00	7,33	22	570	N/A	135
22,20	4,55	31,30	6,67	20	610	N/A	141
25,40	6,30	38,00	6,00	18	740	N/A	160
31,75	7,13	46,00	5,00	15	1020	N/A	200



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## FLEXIBLE CONNECTION FOR PHARMACEUTICAL PLANTS

### SILICONE Braided HOSE DOUBLE STEEL SPIRAL FOR PHARMACEUTICAL APPLICATIONS

Combines the characteristics of the poliester insert version, the presence of a **double steel spiral** at a short pitch, which allows to fit vacuum applications or to use pipe in particular conditions with bends.

FDA CFR 21 PART 177.2600,  
USP XXXII class VI  
European Pharmacopoeia 3.1.9 Ed. VII 2011,  
ISO 10993 Sections 5,10,11:2009,



ID (mm)	Wall thickness (mm) +1-0,5	OD (mm)	Working pressure (bar)	Minimum Bursting Pressure (bar)	Weight (g/m) ±5%	Vacuum resistance (bar)	Bending radius (mm)
6	6,5	19	21,09	63	44	0,91	43
8	6,5	21	19,35	58	128	0,91	46
9	6,5	22	18,63	56	170	0,91	47
10	6,5	23	17,99	54	212	0,91	49
13	6,5	26	16,40	49	338	0,91	54
15	6,5	28	15,53	47	422	0,91	58
16	6,5	29	15,14	45	464	0,91	59
18	6,5	31	14,43	43	548	0,91	63
19	6,5	32	14,10	42	590	0,91	66
20	6,5	33	13,79	41	632	0,91	68
22	6,5	35	13,21	40	716	0,91	72
25	6,5	38	12,44	37	842	0,91	80
28	6,5	41	11,75	35	968	0,91	88
30	6,5	43	11,33	34	1052	0,91	94
32	6,5	45	10,94	33	1136	0,91	100
34	6,5	47	10,57	32	1220	0,91	107
35	6,5	48	10,39	31	1262	0,91	110
38	7	52	9,90	30	1388	0,91	121
40	7	54	9,58	29	1472	0,91	129
42	7	56	9,29	28	1556	0,91	138
43	7	57	9,15	27	1598	0,91	143
44	7	58	9,01	27	1640	0,91	147
45	7	59	8,87	27	1682	0,91	152
48	7	62	8,48	25	1808	0,91	168
50	7	64	8,23	25	1892	0,91	179
51	7	65	8,11	24	1934	0,91	185
52	7	66	7,99	24	1976	0,91	191
53	7	67	7,88	24	2018	0,91	197
55	7	69	7,65	23	2102	0,91	210
57	7	71	7,44	22	2186	0,91	224
60	7	74	7,12	21	2312	0,91	247
62	7	76	6,93	21	2396	0,91	264
63	7	77	6,83	20	2438	0,91	273
65	7	79	6,64	20	2522	0,91	291
68	7	82	6,36	19	2648	0,91	293
70	7	84	6,19	19	2732	0,91	295
75	7	89	5,77	17	2942	0,91	315
78	7	90	5,69	17	2984	0,91	318
80	7	94	5,38	16	3152	0,91	331
83	7	97	5,16	15	3278	0,91	338
85	7	99	5,01	15	3362	0,91	342
87	7	101	4,87	15	3446	0,91	345
90	7	104	4,66	14	3572	0,91	349
95	7	109	4,34	13	3782	0,91	368
100	7	114	4,03	12	3992	0,91	423
102	7	116	3,91	12	4076	0,91	431



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# FLEXIBLE CONNECTION

FOR FOOD PLANTS

WITH CERTIFICATE NUMBER .



AND MARKING OF HEAT



PRESSED AND RECOVER-

## APPLICATION

- Premium quality milk and dairy hose for light suction and delivery of oily and fatty foodstuffs.

## CONSTRUCTION

### TUBE:

- NBR-based rubber, light colour, smooth, odourless and tasteless, mirror-like.
- Complying with FDA standards, with BgVV recommendations and requirements of the German food legislation, and with M.D. 21/03/73 and following amendments.
- RAL registration for food quality.
- Suitable for all commercial cleaning and disinfection products used in the food industry.

### REINFORCEMENT:

- Plies of synthetic cord.

### COVER:

- CR-based rubber, blue, smooth, abrasion, ozone, weather and animal/vegetable fat resistant, cloth finish.

## APPLICAZIONI

- Tubo per impieghi gravosi adatto al passaggio di prodotti alimentari grassi ed oleosi.
- Normalmente impiegato negli oleifici, nei caseifici, nelle latterie e nelle industrie alimentari in genere.

## COSTRUZIONE

### SOTTOSTRATO:

- Gomma base NBR, chiara, inodore e insapore, speculare, liscio.
- Omologato BgVV, rispondente al DM 21.03.73 e successive modifiche e al F.D.A.
- Registrazione RAL di qualità alimentare.
- Per la resistenza ai normali processi di sanificazione vedere indicazioni in questo catalogo.

### RINFORZI:

- Tessili sintetici.

### COPERTURA:

- Gomma base CR, blu, antibrasiva e resistente agli agenti atmosferici ed ai grassi di origine animale e vegetale, liscia (impronta tela).

INTERNAL DIAMETER (mm)	WALL THICKNESS (mm)	BENDING RADIUS (mm)	WORKING PRESSURE (bar)	VACUUM mm.Hg	THEORICAL WEIGHT (Kg/m)	LENGTH MAX (m)
13	5	80	10	600	0,35	40
19	5	120	10	500	0,47	40
25	6	150	10	500	0,77	40
32	8	200	10	600	1,42	40
35	9	210	10	600	1,77	40
38	9	230	10	600	1,93	40
40	10	240	10	600	2,40	40
45	10	270	10	600	2,69	40
50	10	300	10	500	2,79	40
52	11	310	10	500	3,19	40
60	12	420	10	500	3,89	40
65	12	460	10	400	4,16	40
70	14	500	10	400	5,35	40
75	15	530	10	400	5,95	40
80	15	560	10	400	6,18	40
100	16	700	10	400	8,16	40

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# FLEXIBLE CONNECTION

FOR CHEMICAL PLANTS

No source of ignition... exceeding the norm ( $R < 10^5 \Omega$ )

## APPLICAZIONI

- Tubo multiuso per mandata e aspirazione di una vasta gamma di prodotti chimici aggressivi.
- Struttura flessibile e leggera progettata per applicazioni che richiedono raggi di curvatura ridotti e particolare maneggevolezza.
- Esecuzione secondo la normativa EN 12115.

## COSTRUZIONE

### SOTTOSTRATO:

- UPE (Polietilene ad altissimo peso molecolare), antistatico ( $R < 10^5 \Omega$ ). Nero, liscio.
- Resistenza: secondo la Tabella delle Resistenze Chimiche MTG.

### RINFORZI:

- Inserzioni tessili sintetiche, ad alta resistenza.
- Spirale in acciaio incorporata.
- Cavetti di rame inseriti.

### COPERTURA:

- Gomma EPDM nera, antistatica ( $R < 10^5 \Omega$ ), resistente all'abrasione, all'ozono e agli agenti atmosferici, semiondulata, impronta tela.

## APPLICATION

- Universal suction and delivery hose capable of handling a wide spectrum of corrosive chemicals.
- Flexible and lightweight structure designed for applications where reduced bending radii and ease of handling are requested.
- Meets the standards EN 12115.

## CONSTRUCTION

### TUBE:

- UPE (ultra High Molecular Weight Polyethylene), black, smooth, antistatic ( $R < 10^5 \Omega$ ).
- Resistance: according to the MTG Chemical Resistance Chart.

### REINFORCEMENT:

- Plies of high strength synthetic cord.
- Embedded steel helix wires.
- Built-in copper wires.

### COVER:

- EPDM rubber, black, semi-corrugated, antistatic ( $R < 10^5 \Omega$ ), resistant to abrasion, ozone and weather, cloth finish.

## DISSIPAZIONE DELL'ELETTRICITÀ STATICA

- Simbolo di identificazione: -  $\Omega$  - Resistenza  $\leq 10^5 \Omega$ .

## TEMPERATURE

- Da  $-35^\circ\text{C}$  a  $+100^\circ\text{C}$ .
- Resistenza al vapore fino a  $+130^\circ\text{C}$  per un tempo massimo di 30 minuti.

## FATTORE DI SICUREZZA

- $\geq 4$  volte la pressione di esercizio.

## DISSIPATION OF STATIC ELECTRICITY

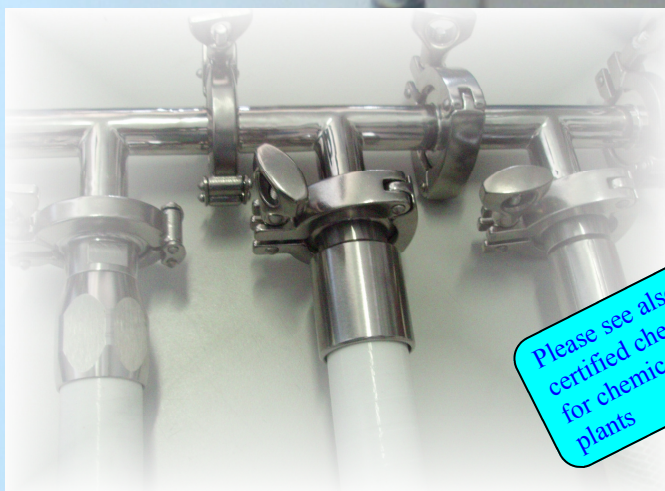
- Identification symbol: -  $\Omega$  - Resistance  $\leq 10^5 \Omega$ .

## TEMPERATURE RANGE

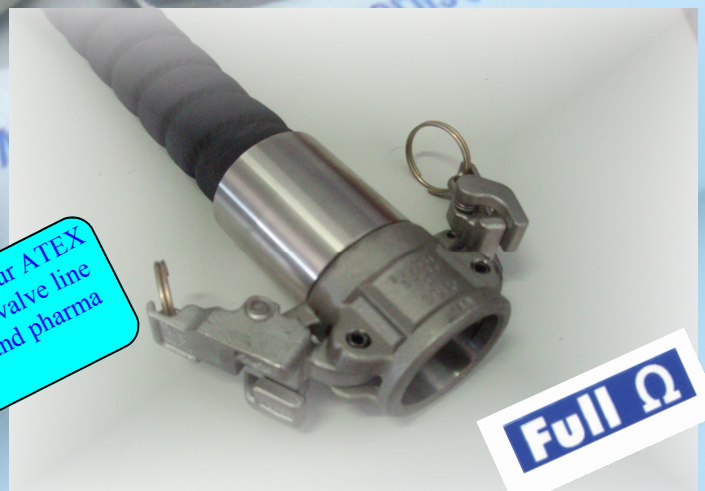
- From  $-35^\circ\text{C}$  up to  $+100^\circ\text{C}$ .
- Resistant to steam up to  $+130^\circ\text{C}$  for a maximum time of 30 minutes.

## SAFETY FACTOR

- $\geq 4$  times working pressure.



Please see also our ATEX certified check valve line for chemical and pharma plants



Full  $\Omega$

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**DAM RACCORDI S.R.L.**  
PURE FLOW EQUIPMENT

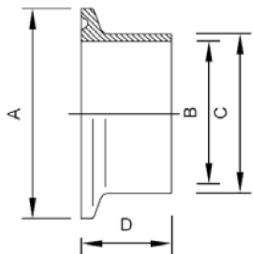
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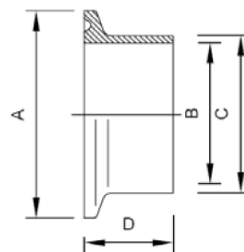
available connection standards for PHARMA

## BS 4825



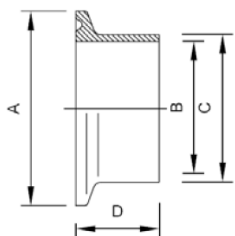
Size	A	B	C	D
1/2"	25.3	9.5	12.70	28.6
3/4"	25.3	15.8	19.05	28.6
1"	50.5	22.2	25.65	28.6
1.1/2"	50.5	34.9	38.35	28.6
2"	64.0	47.6	51.05	28.6
2.1/2"	77.5	60.3	63.75	28.6
3"	91.0	73.0	76.45	28.6
4"	119.0	97.6	101.85	28.6
5"	144.0	125.0	129.0	28.6
6"	167.0	150.0	154.0	28.6
8"	217.0	200.0	204.0	28.6
10"	268.0	250.0	254.0	28.6
12"	319.0	300.0	304.0	28.6

## DIN 32676 Standard Ferrules, Series 1



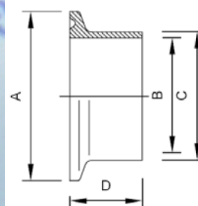
Size	A	B	C	D
DN10	34.0	10.0	12.0	18.0
DN15	34.0	16.0	18.0	18.0
DN20	34.0	20.0	22.0	18.0
DN25	50.5	26.0	28.0	21.5
DN32	50.5	32.0	34.0	21.5
DN40	50.5	38.0	40.0	21.5
DN50	64.0	50.0	52.0	21.5
DN65	91.0	66.0	70.0	28.0
DN80	106.0	81.0	85.0	28.0
DN100	119.0	100.0	104.0	28.0

## Clamp Ferrule, ISO 1127



Size	A	B	C	D
8	25.3	10.3	13.5	21.5
10	25.3	14.0	17.2	21.5
15	50.5	18.1	21.3	21.5
20	50.5	23.7	26.9	21.5
25	50.5	29.7	33.7	21.5
32	64.0	38.4	42.4	21.5
40	64.0	44.3	48.3	21.5
50	77.5	56.3	60.3	21.5
65	91.0	72.1	76.1	21.5
80	106.0	84.9	88.9	21.5
100	130.0	110.3	114.3	28.0
125	155.0	135.7	139.7	28.0
150	183.0	163.1	168.3	28.0
200	233.5	213.9	219.1	28.0
250	287.0	267.8	273.0	28.0
300	338.0	318.7	323.9	28.0

## Clamp Ferrule, ISO 2037



Size	A	B	C	D
25.0	50.5	22.6	25.0	21.5
25.0	50.5	21.8	25.0	21.5
33.7	50.5	31.3	33.7	21.5
33.7	50.5	30.5	33.7	21.5
38.0	50.5	35.6	38.0	21.5
38.0	50.5	34.8	38.0	21.5
40.0	50.5	37.6	40.0	21.5
40.0	50.5	36.8	40.0	21.5
51.0	64.0	48.6	51.0	21.5
51.0	64.0	47.8	51.0	21.5
63.5	77.5	60.3	63.5	21.5
70.0	91.0	66.8	70.0	21.5
76.1	91.0	72.9	76.1	21.5
88.9	106.0	84.9	88.9	21.5
101.6	119.0	97.6	101.6	21.5
114.3	130.0	110.3	114.3	28.0
139.7	155.0	135.7	139.7	28.0
168.3	183.0	163.1	168.3	28.0
219.1	233.5	213.9	219.1	28.0
273.0	286.1	167.8	273.0	28.0
323.9	338.5	318.7	323.9	28.0

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PURE FLOW EQUIPMENT

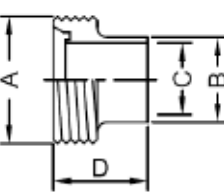
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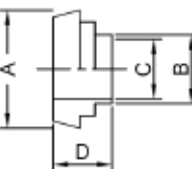
# FLEXIBLE CONNECTION

available connection standards for FOOD and CHEMICAL

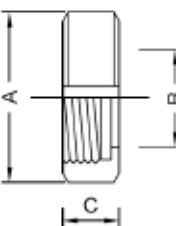
## DIN 11851 connection

DIN 11851 Male Part - Welding, 316	Size	A	B	C	D
	1"	52	25.4	22.2	29
	1.1/4"	58	32.0	29.2	32
	1.1/2"	65	38.1	34.9	33
	2"	78	50.8	47.6	35
	2.1/2"	95	63.5	60.3	40
	3"/DN 75	104	76.2	73.0	40
	3"/DN 80	110	76.2	73.0	45
	4"	130	101.6	97.6	54

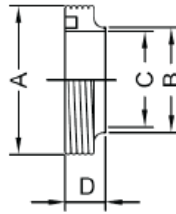
  

DIN 11851 Liner - Welding, 316	Size	A	B	C	D
	1"	44	25.4	22.2	22
	1.1/4"	50	32.0	29.2	25
	1.1/2"	56	38.1	34.9	26
	2"	69	50.8	47.6	28
	2.1/2"	86	63.5	60.3	32
	3"/DN 75	93	76.2	73.0	32
	3"/DN 80	100	76.2	73.0	37
	4"	121	101.6	97.6	44

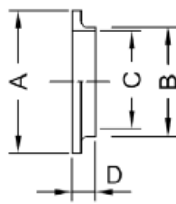
  

DIN 11851 Nut - Slotted, 304	Size	A	B	C	D
	1"	63	36	21	
	1.1/4"	70	42	21	
	1.1/2"	78	49	21	
	2"	92	62	22	
	2.1/2"	112	80	25	
	3"/DN 75	120	86.5	26	
	3"/DN 80	127	94	29	
	4"	148	115	31	

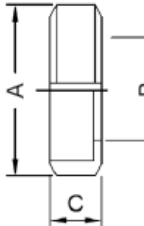
## SMS connection

SMS Male Part - Welding, 316	Size	A	B	C	D
	1"	40	25.4	22.2	19
	1.1/2"	60	38.1	34.9	23
	2"	70	50.8	47.6	23
	2.1/2"	85	63.5	60.3	27
	3"	98	76.2	73.0	27
	4"	132	101.6	97.6	30

SMS Liner - Welding, 316	Size	A	B	C	D
	1"	35.5	25.4	22.2	15.5
	1.1/2"	55	38.1	34.9	16.0
	2"	65	50.8	47.6	17.0
	2.1/2"	80	63.5	60.3	17.0
	3"	93	76.2	73.0	19.0
	4"	127	101.6	97.6	19.0

SMS Nut Slotted, 304	Size	A	B	C	D
	1"	51	32	19	
	1.1/2"	74	48	23	
	2"	84	60.5	24	
	2.1/2"	100	74	30	
	3"	114	87	30	
	4"	138	113	31	

**CAMLOK**  
connection for  
**CHEMICAL** and  
**STEAM**  
application





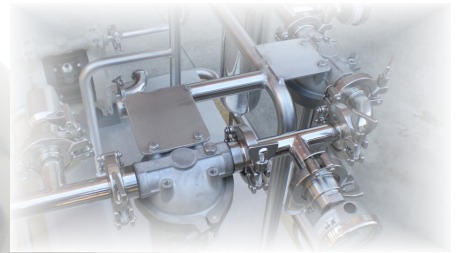
[www.damraccordi.it](http://www.damraccordi.it)

Brochure tecnica

Flexible Connection

Technical data sheet

Produzione raccordi, valvole e componenti in ACCIAIO INOX per impianti industriali



**DAM RACCORDI S.R.L.**  
PURE FLOW EQUIPMENT

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