



Flanged chemical seals Series D820-824-825

Chemicals seals with built-in flange
 Flange facing and diaphragm of the same material (D824, D825)
 Process temperature from -60 to +400°C



D820 DN > 25 mm

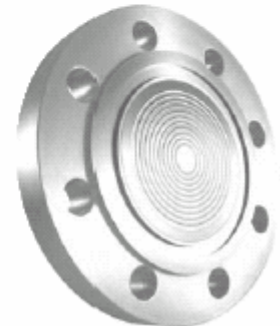


D820 DN ≤ 25 mm

Designed for the process, chemical, petrochemical, petroleum, power, waste treatment industries, etc.
 Used when the process to be measured requires an interface protecting the measuring device from the fluid to be measured (viscosity, corrosion, contamination, temperature, etc.).



D824



D825

D820 models DN less than or equal to 25

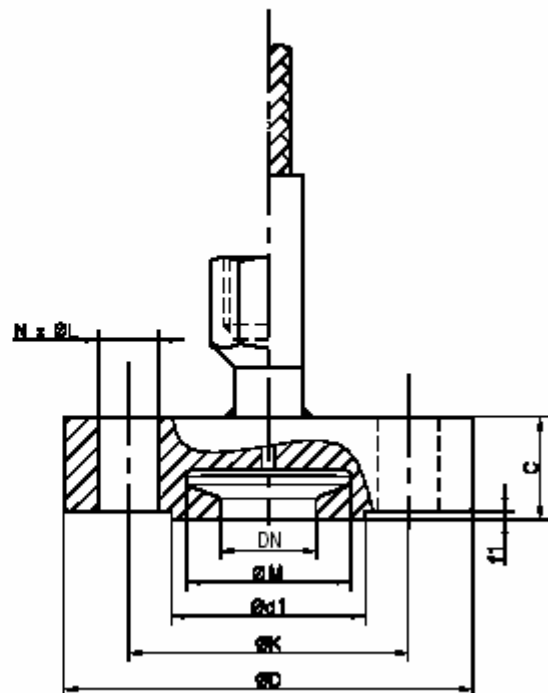
Chemicals seals with built-in flange, raised face

ANSI		ISO and DIN		Min. M.R. in bar (20°C)	ø M in mm
Class	DN	PN	DN		
		10/16	15	0..6	38
		to 20		0..4	45
		25/40	25	0..1	54
150	1/2"			0..10	32
	3/4"			0..4	45
	1"			0..1,6	50

DN: nominal diameter. PN: Nominal pressure in bar
 Min. M.R.: Minimum measuring range in bar for ø 100 mm pressure gauge.

Maximum pressure according to PN of the flange and the standardised pressure-temperature relation of the flange.

For lower measuring ranges, use series D425/D435



Specifications

Flange	Stainless steel 1.4404 (AISI 316L) Face RF.
Diaphragm (ø M) Option	Stainless steel 1.4435 (AISI 316L). Wetted parts: hastelloy C.276 (2.4819)
Connection Connection hose option	Female thread G 1/2 Standard length = 2 m; female G 1/2 connection Maximum length = 12 m



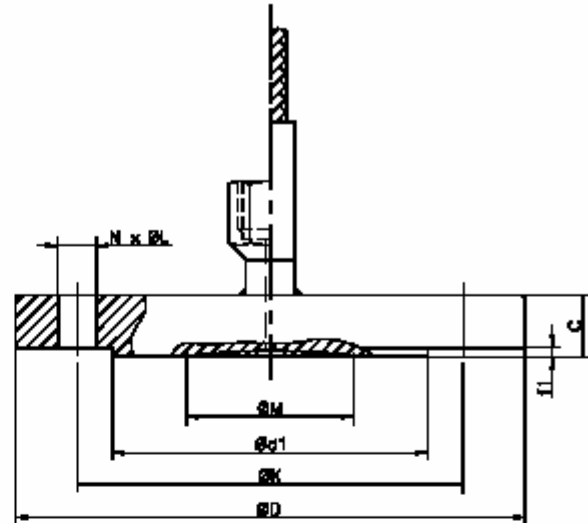
D820 models DN greater than 25

Chemical seal with built-in flange, Raised face

DN	ANSI	ISO	DIN	Min. M.R. in bar		Ø M
	Class	PN	PN	Vacuum and pressure	Pressure	
32 / 1"1/4	15...2500	10...420	10...400	-1...9	0...6	38
40 / 1"1/2	15...2500	10...420	10...400	-1...5	0...4	45
50 / 2"	150...2500	10...420	10...400	-1...3	0...0,6	54
65 / 2"1/2	150...900	10...150	10...160	-1...3	0...0,6	54
80 / 3"	150...1500	10...250	10...250	-1...0	0...0,16 Relative P Absolute P	89
100 / 4"	150...900	10...150	10...160	-1...0	0...0,16 Relative P Absolute P	95

DN: nominal diameter. PN: Nominal pressure in bar
Min. M.R.: Minimum measuring range in bar for ø 100 mm pressure gauge.

Maximum pressure according to PN of the flange and the standardised pressure-temperature relation of the flange.



Specifications

Flange Options	Stainless steel 1.4404 (AISI 316L) RF face Other flanges (as per standard JIS, RTJ face, recess, etc.)	Connection Connection capillary option	Female thread G1/2 Standard length = 2 m; female G 1/2 connection Maximum length = 12 m
Diaphragm (ø M) Options	Stainless steel 1.4435 (AISI 316L) Hastelloy B2 (2.4617) ; Hastelloy C.276 (2.4819) Hastelloy C4 (2.4610) ; Uranus B6 (1.4539)	Diaphragm coating and Flange facing (ø d1)	PTFE thickness 0.02 mm Halar thickness 0.2 mm Gold thickness 15 µm

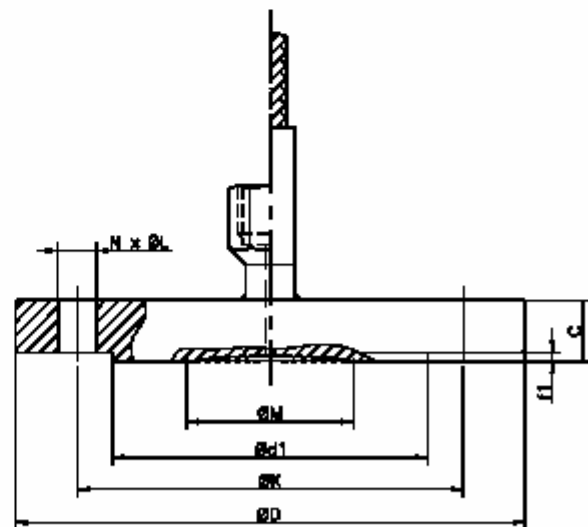
D824 Models

Chemical seal with built-in flange, Raised face
Flange facing and diaphragm made of tantalum or hastelloy

DN	ANSI	ISO	DIN	Min. M.R. in bar		Ø M
	Class	PN	PN	Vacuum and pressure	Pressure	
50 / 2"	150...2500	10...420	10...400	-1...3	0...0,6	54
80 / 3"	150...1500	10...250	10...250	-1...0	0...0,16 Relative P Absolute P	89
100 / 4"	150...900	10...150	10...160	-1...0	0...0,16 Relative P Absolute P	95

DN: nominal diameter. PN: Nominal pressure in bar
Min. M.R.: Minimum measuring range in bar for ø 100 mm pressure gauge.

Maximum pressure according to PN of the flange and the standardised pressure-temperature relation of the flange.



Specifications

Flange	Stainless steel 1.4404 (AISI 316L) RF face	Connection Connection capillary option	Female thread G1/2 Standard length = 2 m; female G 1/2 connection Maximum length = 12 m
Flange facing and diaphragm (ø d1)	Hastelloy B2 (2.4617) ; Hastelloy C276 (2.4819) ; Hastelloy C4 (2.4610) ; Tantalum	Max. fluid temperature Option	Hastelloy = 250°C ; Tantalum = 100°C Max = 400°C



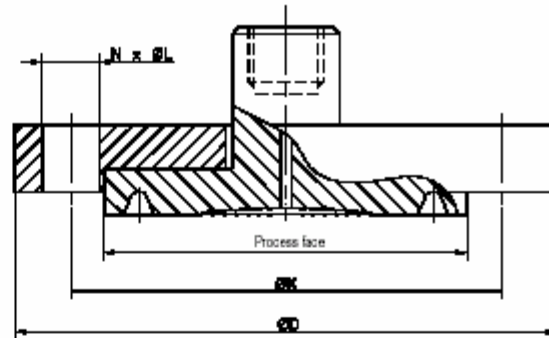
D825 models

Built-in flanged seal, process face made of special materials
(Constructed on request, contact us)

DN	ANSI	ISO	DIN
	Class	PN	PN
50 / 2"	150...2500	10...420	10...400
80 / 3"	150...1500	10...250	10...250
100 / 4"	150...900	10...150	10...160

DN: nominal diameter. PN: Nominal pressure in bar

Maximum pressure according to PN of the flange and the standardised pressure-temperature relation of the flange.

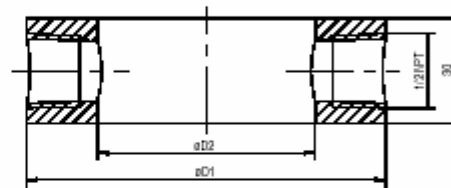


Specifications

Face in contact with the fluid to be measured (diaphragm and flange facing) Hastelloy B2 (2.4617) ; Hastelloy C276 (2.4819) All types of face
Hastelloy C4 (2.4610); Titanium; Uranus B6 (1.4539)
Monel 400 (2.4360); Nickel (2.4066)

Cleaning ring for mounting between flanges

DN	ANSI	ISO	D1	D2	code
	Class	PN			
2"	150...2500		92	62	53102-01
3"	150...2500		127	92	53102-02
4"	150...2500		157	92	53102-03
50		16...400	102	62	53102-04
80		16...400	138	92	53102-05
100		16...400	162	92	53102-06



Specifications

Material Stainless steel 1.4404 (AISI 316L) Options Other types of face (RTJ) (contact us)
Options Other materials (contact us) Plug 1/2 NPT (code 27446-03-00)

Diaphragm material

Code	Material	D820 DN ≤ 25	D820 DN > 25	D824	D825
SS	Stainless steel (1.4404)	X	X		
Ur	Uranus B6 (1.4539)		X		X
Ni	Nickel (2.4066)		X		X
HB	Hastelloy B2 (2.4617)		X	X	X
HC	Hastelloy C276 (2.4819)	X	X	X	X
HD	Hastelloy C4 (2.4610)		X	X	X
Ta	Tantalum			X	
Ti	Titanium				X
Mo	Monel 400 (2.4360)				X
Option D824 High Temperature 400°C					
HBT	Hastelloy B2 (2.4617)			X	
HCT	Hastelloy C276 (2.4819)			X	
HDT	Hastelloy C4 (2.4610)			X	
TaT	Tantalum			X	

Chemical seal filling liquid

Code	Type of liquid
LRS0	No filling
LRS1	-15...150°C Standard liquid, FDA approved
LRS2	-60...150°C Low temperature liquid
LRS4	-15...150°C Liquid for oxygen and chlorinated products: Pmax. 150 bar at 20°C
LRS8	0...300°C Vacuum and absolute pressure
LRS9	-40...400°C High temperature liquid



Standardised flange dimensions

ISO or ANSI B16-5 FLANGES										
DN	PN	class	Ø D	C	Ø K	Ø L	N	fl	Ø d1	
15	10/40		95	24	65	14	4	2	45	
	1/2"	20	150	89	24	60.3	15.8	4	1.6	34.9
20	10/40		105	26	75	14	4	2	58	
	3/4"	20	150	99	26	69.8	15.8	4	1.6	42.9
25	10/40		115	26	85	14	4	2	68	
	1"	20	150	108	26	79.4	15.8	4	1.6	50.8
32	1 1/4"	10/16		140	18	100	18	4	2	78
		20	150	117	15.9	88.9	15.8	4	1.6	63.5
		25/40		140	18	100	18	4	2	78
		50	300	133	19	98.4	19	4	1.6	63.5
40	1 1/2"	10/40		150	18	110	18	4	3	88
		20	150	127	17.5	98.4	15.8	4	1.6	73
		50	300	156	20.6	114.3	22.2	4	1.6	73
		100	600	156	28.8	114.3	22.2	4	6.4	73
	150/250	900/1500	178	38.2	123.8	28.5	4	6.4	73	
50	2"	10/16		165	18	125	18	4	3	102
		20	150	152	19.1	120.6	19	4	1.6	92.1
		25/40		165	20	125	18	4	3	102
		50	300	165	22.4	127	19	8	1.6	92.1
		100	600	165	31.8	127	19	8	6.4	92.1
		150/250	900/1500	216	44.5	165.1	25.4	8	6.4	92.1
	420	2500	235	50.8	171.5	28.5	8	6.4	92.1	
80	3"	10/16		200	20	160	18	8	3	138
		20	150	190	23.9	152.4	19	4	1.6	127
		25/40		200	24	160	18	8	3	138
		50	300	210	28.4	168.3	22.2	8	1.6	127
		100	600	210	38.2	168.3	22.2	8	6.4	127
		150	900	241	44.5	190.5	25.4	8	6.4	127
	250	1500	267	54.2	203.2	31.8	8	6.4	127	
100	4"	10/16		220	22	180	18	8	3	158
		20	150	229	23.9	190.5	19	8	1.6	157.2
		25/40		235	26	190	22	8	3	162
		50	300	254	31.8	200	22.2	8	1.6	157.2
		100	600	273	44.5	215.9	25.4	8	6.4	157.2
	150	900	292	50.9	235	31.8	8	6.4	157.2	

FLANGES as per DIN 2501									
DN	PN	Ø D	C	Ø K	Ø L	N	fl	Ø d1	
15	10/40	95	24	65	14	4	2	45	
20	10/40	105	26	75	14	4	2	58	
25	10/40	115	26	85	14	4	2	68	
40	10/40	150	18	110	18	4	3	88	
	63/100	170	26	125	22	4	3	88	
	160	170	28	125	22	4	3	88	
	250	185	34	135	26	4	3	88	
50	10/40	165	18	125	18	4	3	102	
	63	180	26	135	22	4	3	102	
	100	195	28	145	26	4	3	102	
	160	195	30	145	26	4	3	102	
	250	200	38	150	26	8	3	102	
80	10/16	200	20	160	18	8	3	138	
	25/40	200	24	160	18	8	3	138	
	63	215	28	170	22	8	3	138	
	100	230	32	180	26	8	3	138	
	160	230	36	180	26	8	3	138	
	250	255	46	200	30	8	3	138	
100	10/16	220	20	180	18	8	3	158	
	25/40	235	24	190	22	8	3	162	
	63	250	30	200	26	8	3	162	
	100	265	36	210	30	8	3	162	
	160	265	40	210	30	8	3	162	



Face definition table for chemical seals D820 DN > 25 and D825

ISO / ANSI Flanges		
ISO PN 6-10-16-25 and 40	ISO PN 20 and 50 ANSI Class 150/300	ISO PN 100-150-250-420 ANSI Class 600/900/1500/2500
<p>Codes</p> <p>A </p> <p>Flat Face FF</p> <p>B </p> <p>Raised Face RF</p> <p>C </p> <p>Male tongue</p> <p>D </p> <p>Female groove</p> <p>E </p> <p>Male spigot</p> <p>F </p> <p>Female spigot</p>	<p>Codes</p> <p>B1 </p> <p>Raised Face (RF de 1,6)</p> <p>C1 C2 </p> <p>large small Male tongue</p> <p>D1 D2 </p> <p>large small Female groove</p> <p>E1 E2 </p> <p>large small Male spigot</p> <p>F1 F2 </p> <p>large small Female spigot</p> <p>J </p> <p>Ring joint face (RTJ)</p>	<p>Codes</p> <p>B2 </p> <p>Raised Face (RF de 6,4)</p> <p>C1 C2 </p> <p>large small Male tongue</p> <p>D1 D2 </p> <p>large small Female groove</p> <p>E1 E2 </p> <p>large small Male spigot</p> <p>F1 F2 </p> <p>large small Female spigot</p> <p>J </p> <p>Ring joint face (RTJ)</p>

DIN Flanges	
Shape E	Standard (DIN 2527)
Shape N	Double female recess (DIN 2512)
Shape F	Double male recess (DIN 2512)
Shape V13	(DIN 2513)
Shape R13	(DIN 2513)

Flange finish

Code	Finish	Standard
0	Standard machining as per NFE 29203	ISO / ANSI
1	Stock Finish	ANSI
2	Spiral Serrated	ANSI
3	Concentric Serrated	ANSI
4	Smooth Finish	ANSI
5	Cold Water Finish	ANSI



Definition of chemical seals - D820 / D824 / D825

Model									
D820									
D824									
D825									
Mounting									
Direct		01							
With capillary		02							
Female connection on measuring device side									
G 1/2			F001						
G 1/4			F002						
1/2 NPT			F003						
1/4 NPT			F004						
Flange standard									
ISO as per NFE 29.203				ISO					
ANSI as per ANSI B16.5				ANSI					
DIN as per DIN 2501				DIN					
Flange PN									
ANSI class 150				CL 150					
ANSI class 300				CL 300					
ANSI class 600				CL 600					
ANSI class 900				CL 900					
ANSI class 1500				CL 1500					
ANSI class 2500				CL 2500					
ISO/DIN PN 10				PN 10					
ISO/DIN PN 16				PN 16					
ISO PN 20				PN 20					
ISO/DIN PN 25				PN 25					
ISO/DIN PN 40				PN 40					
ISO PN 50				PN 50					
DIN PN 64				PN 64					
ISO/DIN PN 100				PN 100					
ISO PN 150				PN 150					
DIN PN 160				PN 160					
ISO/DIN PN 250				PN 250					
DIN PN 320				PN 320					
DIN PN 400				PN 400					
ISO PN 420				PN 420					
Flange DN									
3/8" ; 1/2" ; 3/4" ; 1" ; 1 1/4" ; 1 1/2" ; 2" ; 2 1/2" ; 3" ; 4"				DN					
10 ; 15 ; 20 ; 25 ; 32 ; 40 ; 50 ; 65 ; 80 ; 100 mm									
Type of flange face									
As per table on page 5									
Flange finish									
As per table on page 5									
Diaphragm material									
As per table on page 3									
Flange facing material									
No coating							0		
PTFE 0.02 mm for D820 DN >25 and D825							1		
Halar 0.2 mm for D820 DN >25 and D825							3		
Gold 15 µm for D820 DN >25 and D825							4		
Chemical seal filling liquid									
As per table on page 3									
Capillary length									
Length from 1 m (code 01) to 12 m (code 12)									
Type of capillary extension									
Stainless steel protected (standard)								A	
Stainless steel protected + PVC (on request)								B	
Stainless steel reinforced (on request)								C	
Flange material option									
To be specified if material is other than stainless steel 1.4404									