

## Chemical seal type U - cell type with extension cell-type with extension

The chemical seals protect the pressure gauge from the intrusion of the measuring medium. They are used when measuring the pressure of solidifying, crystallising, aggressive or hot substances.

The chemical seals type U are designed for pressure measurements where a pre-set diaphragm is required, e.g. when measuring very viscous substances or in extended throats passing through insulation.

The tubes can be either flange mounted or sandwich mounted.

### Dimensional standard

- according to **EN 1092-1/B** (rough sealing area)
- according to **ANSI B 16.5 / RF** (rough sealing area)

### Special requirements:

- Other designs according to EN 1092-1 / x (tongue, groove)
- Other designs to ANSI B 16.5 / x (tongue, groove)

### Material

- Diaphragm: stainless steel SS 316L / 1.4435, other material on request
- Body: stainless steel SS 316L / 1.4404)

### Working temperature

- Medium: -20 ... +400 °C (according to design)
- Ambient -20 ... +60°C
- other conditions on request

### Assembly with measuring instrument

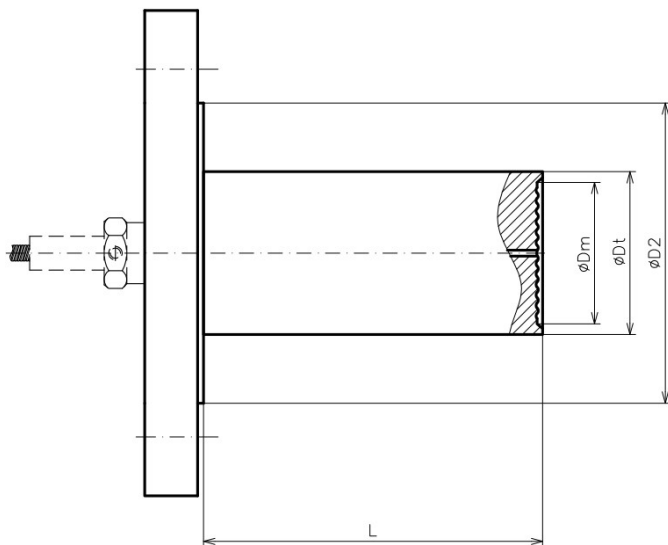
The most common assembly of the separator, either with a manometer or with a transmitter, is:

- direct connection (threaded),
- with an extended neck
- with cooler (finned, capillary)
- with capillary line (straight or angled connection)

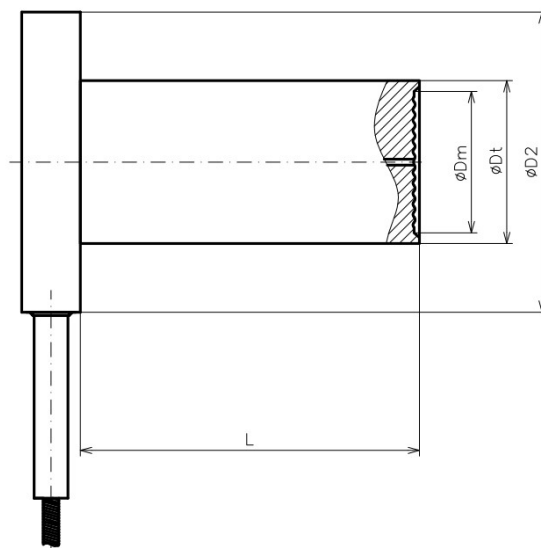


**Chemical seal type U - cell type with extension - table of dimensions**  
(based on flange standards)

**Flange with tube**

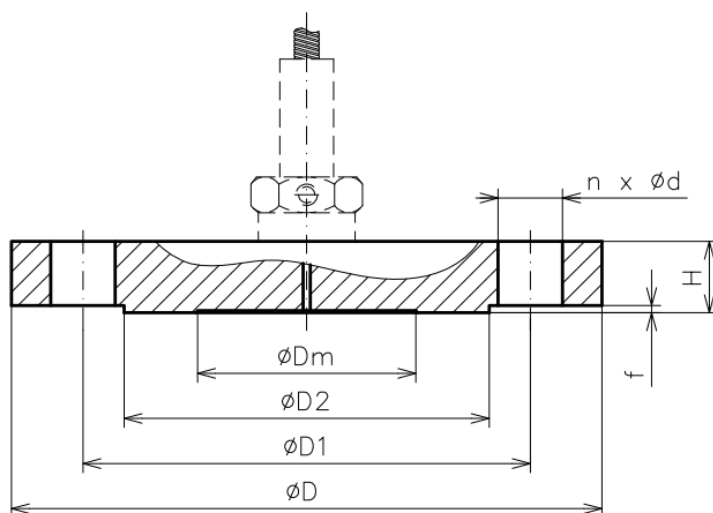


**Sandwich with tube**



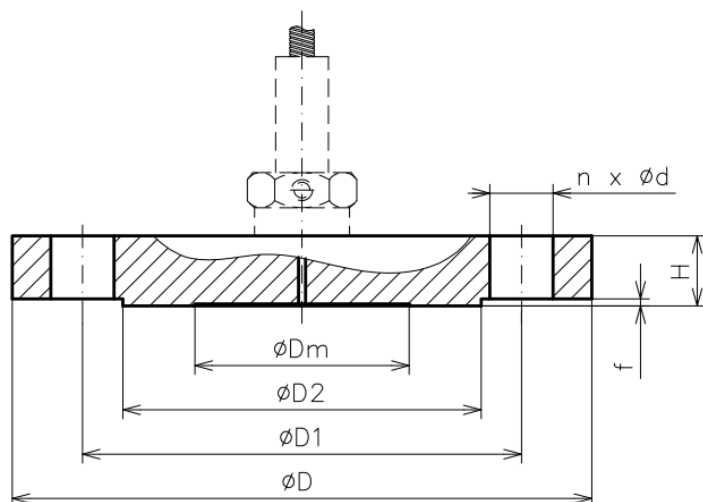
EN 1092-1 / B Size		ANSI B 16,5 / RF Size		Dimensions (mm)				
DN	PN	DN [inch]	PN [class]	øDm	øD2	øDt	L Typical lenght	L Max
50	10 – 40			48	102	50	50 / 100 / 150	300
80	10 – 40			48	138	50	50 / 100 / 150	300
80	10 – 40			61,5	138	65	50 / 100 / 150 / 200 / 300	500
80	10 – 40			72	138	76	50 / 100 / 150 / 200 / 300	500
100	10 – 16			61,5	158	65	50 / 100 / 150 / 200 / 300	500
100	10 – 16			72	158	76	50 / 100 / 150 / 200 / 300	500
100	10 – 16			89	158	94	50 / 100 / 150 / 200 / 300	500
100	25 - 40			61,5	168	65	50 / 100 / 150 / 200 / 300	500
100	25 - 40			72	168	76	50 / 100 / 150 / 200 / 300	500
100	25 - 40			89	168	94	50 / 100 / 150 / 200 / 300	500
		2"	150 – 300	45	92	48,3	50 / 100 / 150	300
		3"	150 – 300	48,3	127	48,3	50 / 100 / 150	300
		3"	150 – 300	61,5	127	65	50 / 100 / 150 / 200 / 300	500
		3"	150 – 300	72	127	76	50 / 100 / 150 / 200 / 300	500
		4"	150 – 300	61,5	158	65	50 / 100 / 150 / 200 / 300	500
		4"	150 – 300	72	158	76	50 / 100 / 150 / 200 / 300	500
		4"	150 – 300	89	158	94	50 / 100 / 150 / 200 / 300	500

## Flange EN 1092-1 / B - dimension table



ANSI B 16,5 / RF										
	Size		Dimensions (mm)							Number of holes
	DN [inch]	PN [class]	$\varnothing D_m$	$\varnothing D$	H	$\varnothing d$	$\varnothing D_1$	f	$\varnothing D_2$	n
P15	15	6	23	80	12	11	55	2	40	4
	15	10/40	23	95	14	14	65	2	47	4
	20	6	28	90	14	11	65	2	50	4
	20	10/40	28	105	16	14	75	2	58	4
P25	25	6	34	100	14	11	75	2	60	4
	25	10/40	34	115	16	14	85	2	68	4
P32	32	6	38	120	14	14	90	2	70	4
	32	10/40	38	140	16	18	100	2	78	4
P40	40	6	48	130	16	14	100	2	80	4
	40	10/40	48	150	18	18	110	3	88	4
	40	63/100	48	170	26	22	125	3	88	4
	40	160	48	170	28	22	125	3	88	4
P50	40	250	48	185	34	26	135	3	88	4
	50	6	60	140	16	14	110	3	90	4
	50	10/40	60	165	20	18	125	3	102	4
	50	63	60	180	26	22	135	3	102	4
	50	100	60	195	28	26	145	3	102	4
P65	50	160	60	195	30	26	145	3	102	4
	50	250	60	200	38	26	150	3	102	8
	65	6	78	160	16	14	130	3	110	4
	65	10/16	78	185	20	18	145	3	122	4
	65	25/40	78	185	22	18	145	3	122	8
P80	65	63	78	205	26	22	160	3	122	8
	65	100	78	220	30	26	170	3	122	8
	80	6	89	190	18	18	150	3	128	4
	80	10/16	89	200	20	18	160	3	138	8
	80	25/40	89	200	24	18	160	3	138	8
	80	63	89	215	28	22	170	3	138	8
P100	80	100	89	230	32	26	180	3	138	8
	80	160	89	230	36	26	180	3	138	8
	80	250	89	255	46	30	200	3	138	8
	100	6	89	210	18	18	170	3	148	4
	100	10/16	89	220	20	18	180	3	158	8
	100	25/40	89	235	24	22	190	3	162	8
	100	63	89	250	30	26	200	3	162	8
	100	100	89	265	36	30	210	3	162	8
P150	100	160	89	265	40	30	210	3	162	8
	100	250	89	300	54	33	235	3	162	8

## Flange ANSI B 16.5 B / RF - Dimension Table



ANSI B 16,5 / RF										
	Size		Dimensions (mm)							Number of holes
	DN [inch]	PN [class]	ØDm	ØD	H	ød	ØD1	f	ØD2	n
	½	150	18	95	13	16	60.5	1,6	35	4
	½	300	18	95	16	16	66.5	1,6	35	4
	¾	150	23	100	15	16	70	1,6	43	4
	¾	300	23	120	17,5	20	82.5	1,6	43	4
	1	150	28	110	16	16	79.5	1,6	51	4
	1	300	28	125	19	20	89	1,6	51	4
	1 ½	150	42	130	19	16	98.5	1,6	73	4
	1 ½	300	42	155	22	22	114.5	1,6	73	4
	1 ½	600	42	155	29.5	22	114.5	6,4	73	4
	1 ½	1500	42	180	39	30	124	6,4	73	4
	1 ½	2500	42	205	51.5	33	146	6,4	73	4
	2	150	60	150	21	20	120.5	1,6	92	4
	2	300	60	165	24	20	127	1,6	92	8
	2	600	60	165	32	20	127	6,4	92	8
	2	1500	60	215	45	26	165	6,4	92	8
	2	2500	60	235	57.5	30	171.5	6,4	92	8
	3	150	89	190	26	20	152.5	1,6	127	4
	3	300	89	210	30	22	168.5	1,6	127	8
	3	600	89	210	38.5	22	168.5	6,4	127	8
	3	900	89	240	45	26	190.5	6,4	127	8
	3	1500	89	270	54.3	33	203	6,4	127	8
	3	2500	89	305	73	36	228.5	6,4	127	8
	4	150	89	230	26	20	190.5	1,6	158	8
	4	300	89	255	33,5	22	200	1,6	158	8
	4	400	89	255	41.5	26	200	6,4	158	8
	4	600	89	275	45	26	216	6,4	158	8
	4	900	89	295	51	32	235	6,4	158	8
	4	1500	89	310	60.5	36	241.5	6,4	158	8
	4	2500	89	355	83	42	273	6,4	158	8