

# DT1 - DT2 - DT3 - DT5 - DT8

Threaded diaphragm seals



#### **Main Features**

- Wide range of threated process connections
- Internal welded diaphragm Lower part exchangeable
- Option : exotic materials for
  - wetted parts
- Option : with cleaning ring

#### **Applications**

- Oil & Gas / Chemical
- Water & Waste water
- Energy

- Transportation & Logistics
- Machinery

#### Technical Data

This universal chemical seals with threaded process connection are used to protect pressure gauges from high temperatures, aggressive, crystalizing or corrosive fluids.

Chemical seals can be mounted to mechanical pressure gauges, switches or transmitters directly or with a flexible capillary.

The filling fluid of the measuring system has to be choosen compatible to the application.

A wide choice of materials for the wetted parts allow the user to adapt the seal to many different applications and process fluids.

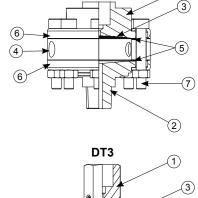
The lower part of the product family DT can be exchanged very easy without new calibration of the filled system.

This allows the user to adapt the system to different process connections.

Upper parts alone are supplied with screws and gasket.

0 160 mbar to 0 1000 bar (see ordering details)
Stainless steel 1.4404 (AISI 316L) Stainless steel 1.4435 (AISI 316L) Option: exotic materials or coatings (see ordering details)
With 1 flushing port 1/8 NPT female Only DT1, DT2, DT3
DT1, DT2, DT3 : PTFE (max. 200°C) DT5 : stainless steel 1.4404 (max. 200°C) DT8 : graphite (max. 400°C)

#### **Materials**



DT2

(6)	2	7
Д	DT3 1	3
4	2	<b>5</b>

	N°	DT1	DT2	DT5	DT8	
Upper part	1			1.4404 (316L)		
Lower part	2			1.4404 (316L) 1)		
Diaphragm	3					
Cleaning ring	4	1.4404 (316L) <sup>1)</sup>			-	-
Gaskets	5	PTFE PTFE		PTFE	1.4404	Graphite
Fixing flanges 3)	6	1.4301	(304) 2)	-	Carbon steel	1.4404 (316L)
Bolts/Nuts	7		1.4301 (304) 2)		Carbon steel	1.4404 (316L)

<sup>1)</sup> Others materials see ordering details on page 3

<sup>2) 1.4404 (316</sup>L) with option 1999

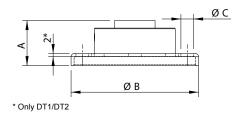
<sup>3)</sup> Stamped parts for DT1 and DT2, turned parts for DT5 and DT8

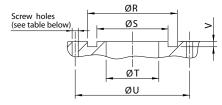
# Bourdon Baumer Group

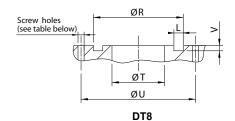
# Dimensions - Types of mounting

#### **Upper part**

# **Dimensions of counter flange**



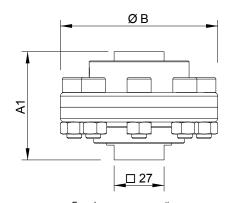


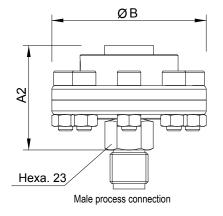


DT1/DT2/DT3/DT5
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	ØB	A	ØС	Weight kg	ØR	Ø S 0 / -0.1	L	V	Ø T 0 / -0.2	Ø U ±0.1	Screws	Gaskets
DT1	85	38	10.5	0.460	50.1 -0.05 / +	0 46	-	0.6 -0 / +0.1	45	65	8 x M10	49.8 x 45.8 x 1 (PTFE)
DT2	85	30	8.5	0.500	59.1 -0.05 / +	55	-	0.6 -0 / +0.1	54	70	8 x M8	58.8 x 54.8 x 1 (PTFE)
DT3	120	43	5.5	0.660	101.1 -0 / +0.2	96	-	0.6 -0 / +0.1	94	110	16 x M5	101 x 97 x 1 (PTFE)
DT5	85	43	10.5	0.800	40.1 -0.05 / +	36	-	0.8 -0 / +0.1	35	65	8 x M10	40 x 36 x 1 (1.4404)
DT8	85	43	10.5	0.790	50.5 -0 / +0.0	5 -	2.25 -0 / +0.05	2.5 -0.1 / +0	45	65	8 x M10	50.5 x 46 x 3.3 (graphite)

### Upper part + lower part

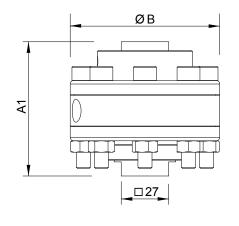


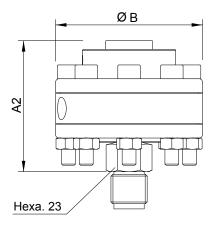


	<b>A</b> 1	A2	ØВ	Weight kg
DT1	67	66	85	1.20
DT2	59	58	85	1.10
DT3	73	64	120	1.40
DT5	72	73	85	1.75
DT8	72	73	85	1.70

Female process connection

# Upper part + cleaning ring + lower part





	<b>A</b> 1	A2	ØВ	Weight kg
DT1	82	81	85	1.60
DT2	77	76	85	1.60
DT3	88	78	120	1.90

Female process connection

Male process connection

					_			
# a d a l			2			•		
<u>Model</u>		P. max						
For low pressure		25 bar	DT3					
For normal pressure		40 bar	DT2					
For medium high pressure		60 bar	DT1					
For high pressure		00 bar	DT8					
For very high pressure	060 bar 10	00 bar	DT5					
<u>Jpper part material</u>								
Stainless steel 1.4404 (316L)			2					
nstrument connection				•				
G½ female				L				
G¼ female 2)				H				
½ NPT female				N				
1/4 NPT female 2)				8				
Diaphragm material								
Stainless steel 316L (1.4435)					2			
Jranus B6 (1.4539)					3			
Hastelloy B (2.4617)					5			
lastelloy C276 (2.4819)					6			
antalum 3)					7			
Monel 400 (2.4360)					9			
Diaphragm coating								
No coating					0			
PTFE 20 µm 4)					1			
PTFE 250 µm adhesive liner <sup>5) 6)</sup>					2			
HALAR 200 µm					4			
Gold 15 µm					7			
Cleaning ring material 7)					•			
Without cleaning ring						0		
Stainless steel 316L (1.4404)						3		
Uranus B6 (1.4539)						5		
Hastelloy B (2.4617) Hastelloy C276 (2.4819)						6		
Monel 400 (2.4360)						9		
ower part material								
•							_	
Without lower part							0	
Stainless steel 316L (1.4404)							2	
Uranus B6 (1.4539)							3	
Hastelloy B (2.4617) Hastelloy C276 (2.4819)							5	
Monel 400 (2.4360)							6	
PVC	max. 10 bar/40°C						C	
PVDF	max. 10 bar/40 C						D	
PPH	max. 10 bar/80 C						E	
PTFE	max. 10 bar/80°C						F	
	111ax. 10 bai/00 0						i .	
Process connection								
Without lower part	C1/							0
Male thread	G½ 1/ NDT 8\							3
	½ NPT <sup>8)</sup>							6
	G¾ <sup>9)</sup> G¼ <sup>2)</sup>							J
	1/4 NPT <sup>2) 8)</sup>							5
								ິນ
Female thread	G½ 8)							L
	½ NPT <sup>8)</sup>							N
	G½ 2) 8)							Н
Ower part coating 10)	1/4 NPT <sup>2) 8)</sup>							8
_ower part coating 10)								
No coating								
PTFE 20 µm								
PTFE 2 mm	max. 10 bar/100°C							
HALAR 200 µm								

 $^{7)}\mbox{Cleaning rings}$  only available for models DT1, DT2 and DT3

8) Not available with coating on the lower part

<sup>10)</sup> No lower part coating available with cleaning ring

9) Max. 800 bar

<sup>2)</sup> Max. 600 bar

between -20 and +70°C. For other conditions, the minimum pressu-

<sup>3)</sup> No diaphragm coatings on Tantalum diaphragm available

<sup>4)</sup> Thin anti-sticking coating, limited corrosion resistance <sup>5)</sup> Not for vaccum and compound pressure ranges

re ranges may be different. Please contact Baumer