

DIVERTER VALVES

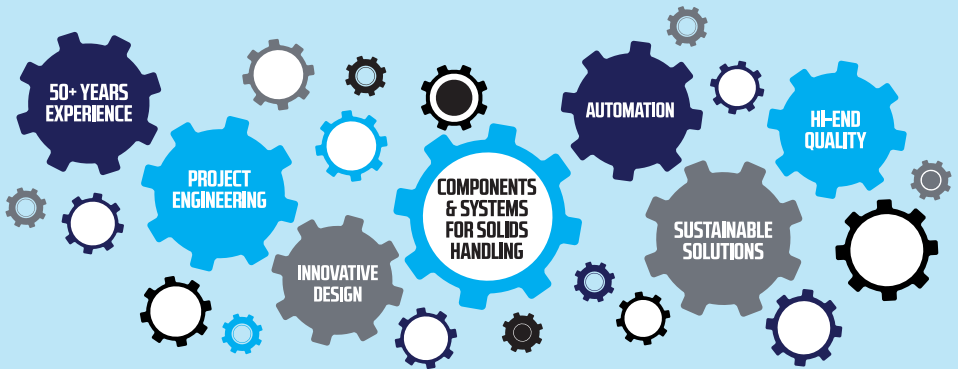
WHO WE ARE

TBMA specializes in the design and supply of components and (pneumatic) conveying systems for the processing of bulk solids goods.

Since our establishment in 1967, we have built up over 50 years of experience in the application of components and systems in the international processing industry. Together with our knowledge of bulk material technology and process engineering, we can adequately advise you on the correct implementation and application of our diverter valves. Moreover, in our own test facility we can verify the proposed technical solution for your product in advance.

Our extensive range of high-quality equipment is suitable for conveying of powders and granules in the food, dairy, animal feed, chemical and mineral industries as well as value-added logistics. From demanding, hygienic to heavy industrial applications and from high-end rotary valves to dust filter applications. We are also happy to use our expertise if you need a special application or an execution out of the ordinary.

Solutions beyond bulk handling



DIVERTER VALVES

The TBMA diverter valves are designed to handle dry materials such as powders, pellets, and granules with minimum degradation in pneumatic conveying and gravitational applications. These diverters are used in food, pet food, chemical, plastics, pharmaceutical and other process industries.

Our diverter range consists of the DTD dual channel and SDTD single channel plug diverters, BTD ball diverters, RD flap diverters and GFD gravity flap diverters. (GFD info on request)



SPECIFICATIONS

DIVERTER VALVES	DTD	SDTD	RD	BTD	GFD
Flange sizes (DN)	50-200	150-300	50-300	65-250	150-300
Application	diverting or converging	diverting only	diverting or converging	diverting or converging	diverting only
Differential pressure	2 barg* 6 barg**	1,5 barg* 6 barg**	1 barg	6 barg	gravity applications
Standard design temperature	80 °C	80 °C	70 °C	150 °C	70 °C
ATEX 2014/34/EU	yes	yes	yes	yes	yes

* static seal ** inflatable seal

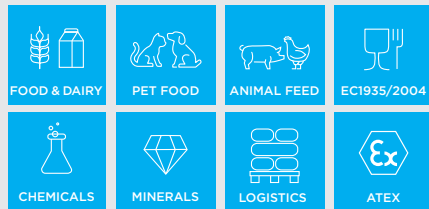
DTD PLUG DIVERTER



The DTD is made of aluminium LM25 grade through a high quality die casting process. All product contact surfaces are lined with 316 stainless steel tubes. The standard seals are FDA approved silicone, which ensures a complete sealing between the body and the plug.

The standard execution diverter with static seals can be used in pressure conveying systems where the pressure is less than 2 barg. When equipped with inflatable seals (optional), the DTD is suitable for systems up to 6 barg. The DTD is supplied as a complete unit with pneumatic actuator and associated components, such as a solenoid valve, solenoid coils, junction box and position sensors.

APPLICATIONS



FEATURES

- Dual channel plug
- Food grade silicone seals
- All product contact surfaces in stainless steel 316
- Aluminium body, plug and end covers
- No external moving parts
- Pressure up to 2 barg with static seals
- Position indicators
- Air cylinder operated
- Easy maintenance
- Minimum product degradation
- Conforming to ATEX 2014/34/EU (optional)

APPLICATIONS

- Suitable for powders, granules and pellets
- For diverting or converging of product flow in conveying line applications

DESIGN

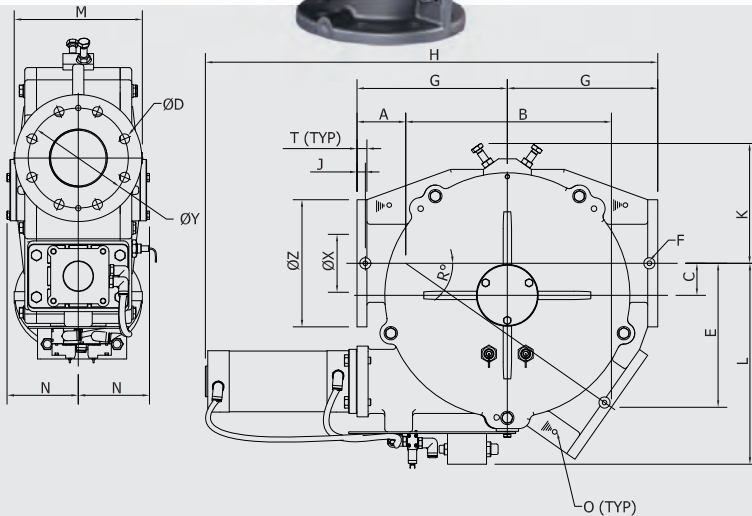
- Sizes (7) from 50 to 200 mm
- DIN / ANSI / JIS drilling patterns
- Operating temperature 80 °C (max)

OPTIONS

- Thicker stainless steel liner
- Wear resistant pipe liners
- High temperature version
- Dynamic (inflatable) seals up to 6 barg
- Polyurethane seals (static seal version only)



DTD with dual channel plug



Type DTD	DIN				ANSI																
	ØX	ØY	ØD	ØZ	ØY	ØD	A	B	C	E	F	G	H	J	K	L	M	N	O	T	R°
50	50	125	4xØ18	165	120.6	4xØ19	90	270	35	175	M10x20	205	620	12.5	170	270	170	110	M10	16	33.5
65	65	145	4xØ18	185	139.7	4xØ19	85	275	42.5	205	M10x20	215	680	12.5	180	290	190	115	M10	16	36.7
80	80	160	8xØ18	200	152.4	8xØ19	110	320	48.5	240	M10x20	255	770	15	195	325	205	125	M10	18	36.6
100	100	180	8xØ18	228	190.5	8xØ19	90	370	57.5	260	M10x20	270	815	15	225	360	230	130	M10	18	35
125	125	210	8xØ18	250	215.9	8xØ22.2	115	450	70	320	M12x20	335	990	17.5	265	430	255	150	M12	20	35.5
150	150	240	8xØ22	285	241.3	8xØ22.2	120	510	82.5	370	M12x20	375	1060	20	295	480	290	165	M12	20	35.8
200	200	295	8xØ22	343	298.4	8xØ22.2	135	710	115	495	M12x20	500	1295	25	380	620	350	200	M12	25	34.8

All dimensions are in mm. Technical modifications are possible.

SDTD PLUG DIVERTER

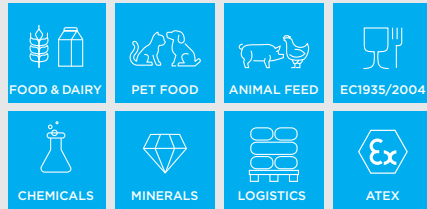


The SDTD is made of aluminium LM25 grade through a high quality die casting process. All product contact surfaces are lined with 316 stainless steel tubes. The standard seals are FDA approved silicone, which ensures a complete sealing between the body and the plug.

The standard execution diverter with static seals can be used in pressure conveying systems where the pressure is less than 1,5 barg. When equipped with inflatable seals (optional), the SDTD is suitable for systems up to 6 barg.

The SDTD is supplied as a complete unit with pneumatic actuator and associated components, such as a solenoid valve, solenoid coils, junction box and position sensors.

APPLICATIONS



FEATURES

- Single channel plug
- Food grade silicone seals
- All product contact surfaces in stainless steel 316
- Aluminium body, plug and end covers
- No external moving parts
- Pressure up to 1,5 barg with static seals
- Position indicators
- Pneumatic actuator operated
- Easy maintenance
- Minimum product degradation
- Conforming to ATEX 2014/34/EU (optional)

APPLICATIONS

- Suitable for powders, granules and pellets
- For diverting of product flow in conveying line applications

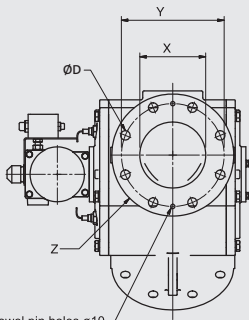
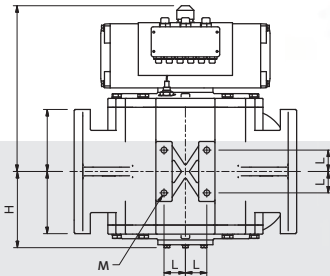
DESIGN

- Sizes (4) from 150 to 300 mm
- DIN / ANSI / JIS drilling patterns
- Operating temperature 80 °C (max)

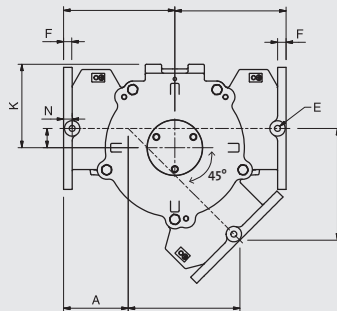
OPTIONS

- Thicker stainless steel liner
- Wear resistant pipe liners
- High temperature version
- Dynamic (inflatable) seals up to 6 barg

SDTD with single channel plug



2 Dowel pin holes $\phi 10$ for perfect alignment



Type SDTD	DIN			ANSI			A	B	C	E	F	G	H	J	K	L	M	N	P
	ØX	ØY	ØD	ØZ	ØY	ØD													
150	150	240	8xØ22	285	241.3	8xØ22,2	151	261	45	M16x24	20	260	180	390	195	50	M16x24	20	145
200	200	295	8xØ22	343	343	8xØ22,2	155	315	60	M16x24	25	300	205	445	240	50	M16x24	25	175
250	250	350	12xØ22	406	406	12xØ25,4	156	384	80	M16x24	25	350	235	500	300	70	M16x24	25	205
300	300	Drawing and dimensions are available on request																	

All dimensions are in mm. Technical modifications are possible.

RD TWO-WAY FLAP DIVERTER



The RD two-way flap diverter valves are suitable for transporting (mildly) abrasive, smooth-running powders or granules. These diverters are specially designed for diverting from 1 to 2 transport lines or vice versa with minimal pressure loss and good sealing properties.

Type RD diverters are suitable for simple two-way routing in pneumatic transport systems with an operating pressure up to 1 barg. Control can be done either manually, with a pneumatic cylinder assembly or with a pneumatic actuator assembly. The diverter valves are equipped with limit switches for indicating the open/closed position.



FEATURES

- Compact design
- Small divert angle -22,5°
- Low pressure loss due to smooth line transition
- Operating pressure up to 1 barg
- Dust tight up to 1 barg
- Easy disassembly and maintenance
- In cast iron, stainless steel and aluminium
- ATEX 2014/34/EU certified (optional)

APPLICATIONS

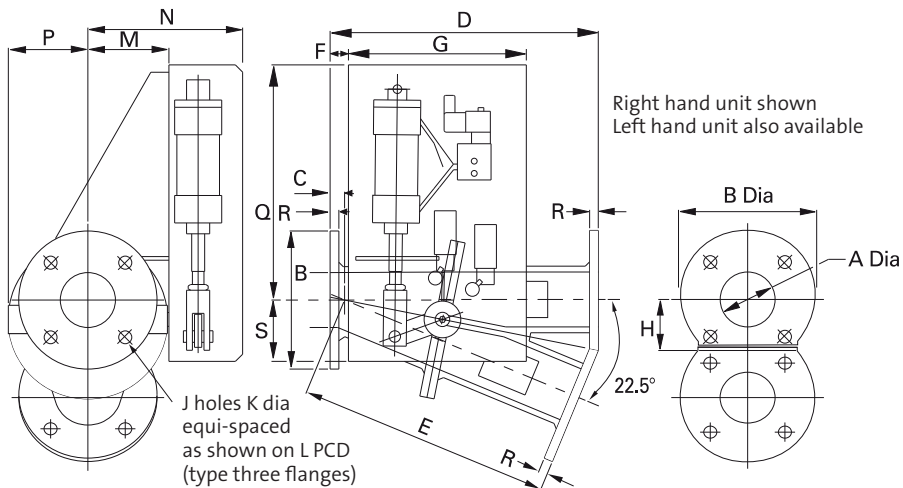
- Suitable for powders, granules and pellets
- For diverting or converging of product flow in conveying line applications

DESIGN

- Sizes (9) from 50 to 300 mm
- DIN / ANSI / JIS drilling patterns
- Operating temperature 70 °C (max)

OPTIONS

- Flanged or spigotted connections



APPLICATIONS



Type RD	ØA	ØB	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
50	50	152	20	310	290	0	250	58	4	18	114	92	194	90	328	10	82
65	63.5	178	20	350	330	5	246	65	4	18	127	102	204	100	329	10	81
80	76	191	20	371	351	25	246	71	4	18	146	112	214	110	325	12	85
100	102	229	30	444	414	53	286	82	4	18	178	142	244	140	391	12	114
125	127	254	30	634	604	102	286	120	8	18	210	162	264	160	381	14	124
150	160	280	35	759	724	120	286	130	8	18	235	182	284	180	379	16	126
200	204	343	35	902	867	148	276	157	8	18	292	222	324	223	411	16	131
250	264	406	35	1058	1023	239	316	196	8	22	356	282	442	285	433	20	177
300	305	483	72	1313	1241	246	366	242	12	22	406	302	462	300	532	25	203

All dimensions are in mm. Technical modifications are possible.

BTD BALL DIVERTER



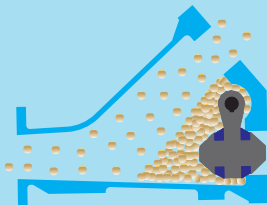
The BTD can be used for both diverting and converging. When used for diverting, the wear surface is provided for by the product itself (most common application). For converging, the diverter has been notably strengthened at the internal product impact area.

The positive pressure pushes the ball and seal firmly into its seating. The rugged construction ensures that the higher the positive pressure, the tighter the seal. Due to the easy maintenance design of the diverter, the seals can be replaced by removing the two side covers with the valve in place.



FEATURES

- Body made from ductile cast iron
- Removable wear bushes on outlet
- Grease lubricated shaft seals
- Seals replaceable without dismantling the valve from the conveying line
- Pressure up to 6 barg
- Pneumatic actuator operated
- Easy maintenance
- Minimum product degradation
- Conforming to ATEX 2014/34/EU (optional)



APPLICATIONS

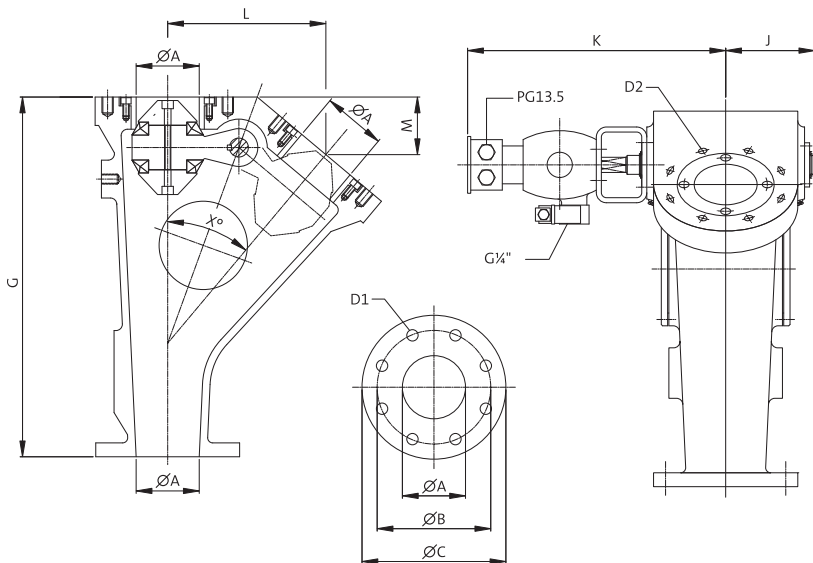
- Designed to handle (extremely) abrasive products
- Suitable for powders and pellets
- For diverting of converging in heavy applications
- Suitable for systems with high pressures and temperatures

DESIGN

- Sizes from 65 up to 250 mm
- DIN / ANSI drilling patterns
- Operating temperature 150 °C (max)

OPTIONS

- High temperature version



FOOD & DAIRY	PET FOOD	ANIMAL FEED	EC1935/2004
CHEMICALS	MINERALS	LOGISTICS	ATEX

Type BTD	PN10				ANSI 150 lbs				G	J	K	L	M	X°	weight
	ØA	ØB	ØD1	ØC	ØB	ØD1	ØD2								
65	65	145	4x Ø18	185	139.7	4x Ø19	4x M16x25	550	130	395	228	61	30°	68 kg	
80	80	160	8x Ø18	200	152.4	4x Ø19	*x M16x25	500	135	400	232	84	40°	77 kg	
100	100	180	8x Ø18	228.6	190.5	8x Ø19	8x M16x25	570	145	425	250	91	40°	100 kg	
125	125	210	8x Ø18	255	215.9	8x Ø22,2	8x M16x35	700	165	470	305	111	40°	155 kg	
150	150	240	8x Ø22	285	241.3	8x Ø22,2	8x M20x35	780	175	480	347	126	40°	208 kg	
200	200	295	8x Ø22	340	298.4	8x Ø22,2	8x M20x35	810	200	515	418	152	40°	300 kg	
250	250	350	12x Ø22	407	361.9	12x Ø25,4	12x M20x35	850	260	630	437	159	40°	450 kg	

* 8 holes for PN10, 4 holes for ANSI 150lbs | All dimensions are in mm. Technical modifications are possible

COMPONENTS

SYSTEMS

PROJECTS

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