Product range PVC-U

Ball valve type 375 metric, BS, ASTM







List of Abbreviations

ASTM American Society for Testing and Materials

BS British Standard

DIN Deutsches Institut für Normung e.V.

EN Europäische Norm

ISO International Standardization Organization

PVC-U Polyvinyl chloride, unplasticized

PE Polyethylene

EPDM Ethylene-Propylene-Rubber FPM Fluororubber, e.g. Viton®

PTFE Polytetrafluoroethylene, e.g. Teflon®

d Pipe outer diameterDN Nominal diameter

PN Nominal pressure at 20 °C, water

kg Weight in kilograms

Registered trademark

The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply.

Dimensions

All dimensions are given in mm.

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The new ball valve type 375

With the Type 375 ball valve, GF Piping Sytems now have a new addition to their existing ball valve range. The ball valve 375 is ideally suited for basic applications encompassing the water processing/treatment sector, as well as other applications involving water.



Features:

- Material PVC-U
- DN10 DN100
- Pressure rates
 DN10 DN50 = PN16
 DN65 DN100 = PN10
- O-Ring Material EPDM / FPM
- Actuator unit not connectable

The ball valve type 375 conforms to the following international standards:

EN ISO 16135 Industrial valves – Ball valves of

thermoplastic materials

ISO 9393 Thermoplastic valves – pressure test

methods and requirements

EN 558 Flanged valve dimensions are

in accordance with EN 558

End connectors:

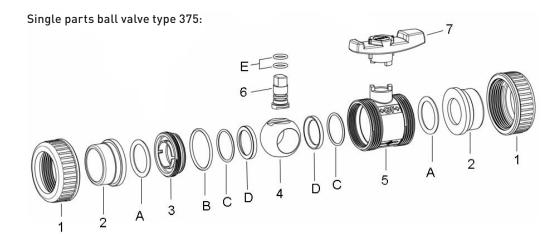
Solvent cement socket	Norm
KOP+	ISO, BS, ASTM, JIS

Threaded socket	Norm
l GF1	ISO / BS (Rp), ASTM (NPT)

Butt fusion spigot PE100 SDR11 long	Norm
+01*	ISO

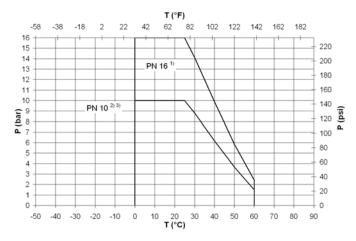
PVC-U Flanges	Norm
	ISO (fixed flange), BS (fixed flange), ASTM (backing flange US modified)

Technical features



- Union nut
- 2 End connector
- Union bushing
- Ball
- Body
- Stem
- Lever
- Face seal
- Body seal Backing seal
- Ball seal
- Stem seal

Max working pressure:



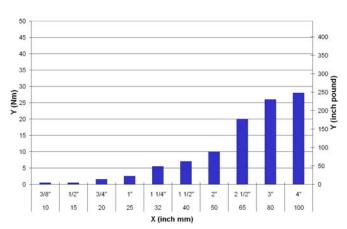
Comments:

The pressure-temperature diagrams are based on a service life of 25 years and apply to water or similar media.

- 1) For nominal dimensions of DN10 DN50, the central body of the ball valve is designed for nominal pressure PN16
- 2) For nominal dimensions of DN65 DN100, the central body of the ball valve is designed for nominal pressure PN10
- 3) Depending on the end connection, at nominal dimensions of DN10 - DN50, the nominal pressure reduces to PN10

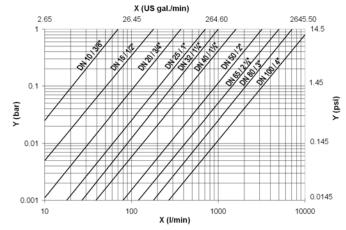
p permissible operating pressure in bar, psi T Temperature in °C, °F

Torque:



X Nominal width DN (mm, inch) Y Torque (Nm, inch pound) Guide values at nominal pressure

Pressure loss:



Medium: Water, 20 °C X flow rate l/min), (US gal./min) Y pressure loss Δp (bar), (psi)

PVC-U metric

Ball valve type 375 PVC-U With solvent cement sockets metric





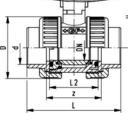
• Basic applications of the water treatment sector as well as other applications involving water.

Model:

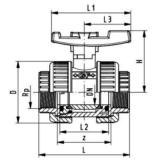
- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546

	Bal	l seal	s PTI	Ē							
਼	Act	uator	unit ı	not co	nnec	table					
	d [mm]	DN [mm]	PN	` •	ilue 1 bar)	EPD Cod			FPM Code	kg	
-	16 20 25 32 40 50 63 75 90	10 15 20 25 32 40 50 65 80	16 16 16 16 16 16 16 10	[l/min]	71 185 350 700 1000 1600 3100 5000 7000	161 161 161 161 161 161 161	375 50 375 50 375 50 375 50 375 50 375 50 375 50 375 50)2)3)4)5)6)7)8	161 375 511 161 375 512 161 375 513 161 375 514 161 375 515 161 375 516 161 375 517 161 375 518 161 375 519 161 375 520	0.130 0.130 0.210 0.310 0.450 0.690 1.200 2.190 3.360 6.060	
									101 010 020	0.000	
	d [mm]	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Z [mm]			
	16 20 25 32	50 50 59 68	53 53 60 67	76 80 91 102	60 60 65 75	42 42 48 54	40 40 45 51	48 48 53 58	3		

110	100	10		11000	101	3/55	IU	101 3/3 320	0.000	
d	D	Н	L	L1	L2	L3	z			
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm	1]		
16 20	50 50	53 53	76 80	60 60	42 42	40 40	l .	8		
25 32 40	59 68 80	60 67 79	91 102 120	65 75 85	48 54 62	45 51 59	5	53 58 58		
50 63	94 115	90 107	140 169	95 110	72 86	70 84	9	78 93		
75	145	129	206	130	110	103	11	-		
90	168	143	242	140	128	120	14	-		
110	210	169	282	160	150	141	16	60		







Ball valve type 375 PVC-U With threaded sockets Rp



Range of use

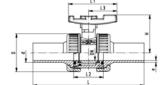
• Basic applications of the water treatment sector as well as other applications involving water.

Model

- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546
- Ball seals PTFE

Rp [inch]	DN [mm]	PN	kv-va (Δp=	alue 1 bar)	EPD Cod			FP Co		kg		
3/8 1/2 3/4 1 1 1/4 1 1/2 2 1/2 3 4	10 15 20 25 32 40 50 65 80 100	10 10 10 10 10 10 10 10 10		71 185 350 700 1000 1600 3100 5000 7000 11000	161 161 161 161 161 161 161	375 52 375 52 375 52 375 52 375 52 375 52 375 52 375 52 375 52	22 23 24 25 26 27 28	16' 16' 16' 16' 16' 16'	1 375 531 1 375 532 1 375 533 1 375 534 1 375 535 1 375 536 1 375 537 1 375 538 1 375 539 1 375 540	0.130 0.130 0.210 0.300 0.450 0.680 1.190 2.150 3.300 5.890		
Rp	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Z [mm]	1				
3/8 1/2 3/4 1 1 1/4	50 50 59 68 80	53 53 60 67 79	76 80 91 102 116	60 60 65 75 85	42 42 48 54 62	40 40 45 51 59	48 48 55 56	8 8 3 8 8				
1 ½ 2	94	90	126 149	95 110	72 86	70 84	9:					





Ball valve type 375 PVC-U With butt fusion spigots long PE 100 SDR11 metric



Range of use

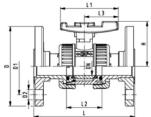
• Basic applications of the water treatment sector as well as other applications involving water.

Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546
- Ball seals PTFE

	Ball seals PTFE Actuator unit not connectable												
• Act	uator	unit	not co	nnec	table								
d	DN	PN	kv-va	alue	EPD			РМ	kg				
[mm]	[mm]		(∆p=	1 bar)	Cod	е	- 0	ode					
			[l/min]										
20	15	16		185	161	375 54	12	61 375 552	0.150				
25	20	16		350	161	375 54		61 375 553	0.210				
32	25	16		700	161	375 54	14 1	61 375 554	0.310				
40	32	16		1000	161	375 54	15 1	61 375 555	0.450				
50	40	16		1600	161	375 54	16 1	61 375 556	1.000				
63	50	16		3100	161	375 54	17	61 375 557	1.260				
75	65	10		5000		375 54	18	61 375 558	2.400				
90	80	10		7000	161	375 54	19 1	61 375 559	3.630				
110	100	10		11000	161	375 55	50 /	61 375 560	6.420				
d	D	Н	L	L1	L2	L3	е						
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
20	95	53	175	60	42	40	1.8						
25	105	60	195	65	48	45	2.3						
32	115	67	247	75	54	51	2.9						
40	140	79	233	85	62	59	3.6						
50	150	90	265	95	72	70	4.5						
63	165	107	278	110	86	84	5.7						
75	185	129	348	130	110	103	6.8						
90	200	143	350	140	128	120	8.2						
110	220	169	412	160	150	141	10.0						





Ball valve type 375 PVC-U With PVC-U fixed flanges serrated metric



Range of use

 Basic applications of the water treatment sector as well as other applications involving water.

Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546
- Ball seals PTFE
- Actuator unit not connectable
- Overall length according to EN 558-1
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

								,		,	 	 	
d [mm]	DN [mm]	PN	kv-va (∆p=	ilue 1 bar)	EPD Cod			PM Code		kg			
20 25 32 40 50 63 75 90 110	15 20 25 32 40 50 65 80 100	16 16 16 16 16 16 10 10		185 350 700 1000 1600 3100 5000 7000	161 161 161 161 161 161	375 56 375 56 375 56 375 56 375 56 375 56 375 56 375 56	53 1 54 1 55 1 56 1 57 1 58 1	61 375 61 375 61 375 61 375 61 375 61 375 61 375	5 573 5 574 5 575 5 576 5 577 5 578 5 579	0.270 0.430 0.620 0.920 1.300 2.100 3.400 4.950 8.290			
d	D	D1	D2	Н	L	L1	L2	L3					
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]					
20 25 32 40 50 63 75 90	95 105 115 140 150 165 185 200 220	65 75 85 100 110 125 145 160 180	14 14 14 18 18 18 18 18	53 60 67 79 90 107 129 143 169	130 150 160 180 200 230 290 310 350	60 65 75 85 95 110 130 140 160	42 48 54 62 72 86 110 128 150	45 51 59 70 84 103 120					

PVC-U Inch BS

Ball valve type 375 PVC-U With solvent cement sockets Inch BS



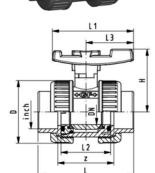


• Basic applications of the water treatment sector as well as other applications involving water.

- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546

Inch	DN [mm]	PN	-	v-value \(\Delta p = 1 \) bar\(\) Code \(\)				FF Cc	PM ode	kg	
3/8 1/2 3/4 1 1 1/4 1 1/2 2	10 15 20 25 32 40 50 65 80 100	16 16 16 16 16 16 16 10 10		71 185 350 700 1000 1600 3100 5000 7000	161 161 161 161 161 161 161	375 60 375 60 375 60 375 60 375 60 375 60 375 60 375 60)2)3)4)5)6)7)8	16 16 16 16 16 16	1 375 611 1 375 612 1 375 613 1 375 614 1 375 615 1 375 616 1 375 617 1 375 518 1 375 619 1 375 620	0.130 0.130 0.210 0.310 0.450 0.690 1.200 2.190 3.360 6.060	
Inch	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	z [mm	1]			
3/8 1/2 3/4 1	50 50 59 68	53 53 60 67	76 80 91 102	60 60 65 75	42 42 48 54	40 40 45 51	4 5	8 8 3 8			

_	4	100	10		11000	161	375 61	75 610		375 620	6.060	
	Inch	D	Н	L	L1	L2	L3	z				
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm	ո]			
	3/8 1/2	50 50	53 53	76 80	60 60	42 42	40 40	1	18 18			
	3/ ₄	59 68	60 67	91	65 75	48 54	45 51	5	3			
	1 1/4	80	79	120	85	62	59		88			
	1 ½ 2	94 115 145	90 107 129	140 169 206	95 110 130	72 86 110	70 84 103	9 11	- 1			
	3 4	168 210	143 169	242 282	140 160	128 150	120 141	14 16	- 1			



PVC-U ASTM/ANSI

Ball valve type 375 PVC-U With solvent cement sockets Inch ASTM **Inclusive 2 threaded valve ends NPT**



Range of use

• Basic applications of the water treatment sector as well as other applications involving water.

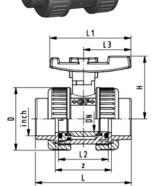
Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are not compatible with type 546
- Ball seals PTFE

4

- Actuator unit not connectable

• Thre	eaded	d valv	e end	ls are	only	enclo	sec	d f	or DN10/15	5-50	
Inch	DN [mm]	PN	kv-va (Δp=	alue 1 bar)	EPD Cod				PM ode	kg	
% ½ ¼ 1 1 ¼ 1 ½ 2 2 ½ 3 4	10 15 20 25 32 40 50 65 80 100	16 16 16 16 16 16 16 10 10		71 185 350 700 1000 1600 3100 5000 7000	161 161 161 161 161 161 161	375 00 375 00 375 00 375 00 375 00 375 00 375 00 375 00	02 03 04 05 06 07 08	10 10 10 10 10 10 10	61 375 016 61 375 017 61 375 018 61 375 019 61 375 020 61 375 021 61 375 022 61 375 023 61 375 024 61 375 025	0.130 0.130 0.210 0.310 0.450 0.690 1.200 2.190 3.360 6.060	
Inch	D	Н	L	L1	L2	L3	z				
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
3/8 1/2 3/4 1 1 1/4 1 1/2	50 50 59 68 80 94	53 53 60 67 79 90	76 80 91 102 120 140	60 60 65 75 85 95	42 42 48 54 62 72	40 40 45 51 59 70	5 5 6	8 8 3 8 8 8			
2 1/2	115 145	107 129	169 206	110 130	86 110	84 103		3			



Valve ends ball valve type 375



Valve end 375 PVC-U With solvent cement socket metric



Available from 2nd quarter 2007

	L 1
D -	
	→

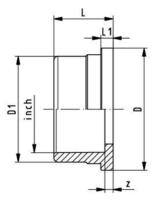
d	DN	PN	Code	D	D1	L	L1	z
[mm]	[mm]			[mm]	[mm]	[mm]	[mm]	[mm]
16	10	16	161 375 901	35	26	18	5	4
20	15	16	161 375 902	35	29	18	5	2
25	20	16	161 375 903	43	35	21	5	2
32	25	16	161 375 904	51	43	24	6	2
40	32	16	161 375 905	60	52	29	6	3
50	40	16	161 375 906	72	62	34	7	3
63	50	16	161 375 907	89	76	41	7	3
75	65	10	161 375 908	115	90	47	8	3
90	80	10	161 375 909	133	106	56	10	5
110	100	10	161 375 910	166	130	66	12	5



Valve end 375 PVC-U With solvent cement socket BS



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Inch	PN	Code	D	D1	L	L1	z	
			[mm]	[mm]	[mm]	[mm]	[mm]	
3/8	16	161 375 911	35	26	18	5	4	
1/2	16	161 375 912	35	29	18	5	2	
3/4	16	161 375 913	43	35	21	5	2	
1	16	161 375 914	51	43	24	6	2	
1 1/4	16	161 375 915	60	52	29	6	2	
1 ½	16	161 375 916	72	62	34	7	3	
2	16	161 375 917	89	76	41	7	3	
	10	161 375 908	115	90	47	8		
3	10	161 375 919	133	106	56	10	5	
4	10	161 375 920	166	131	66	12	5	



Valve end 375 PVC-U With solvent cement socket ASTM



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			-	l -	L1	-	
5	inch	g				-	
				_		z	1

Inch	PN	Code	D	D1	L	L1	z
			[mm]	[mm]	[mm]	[mm]	[mm]
3/8	16	161 375 427	35	26	23	5	4
1/2	16	161 375 428	35	29	25	5	2
3/4	16	161 375 429	43	35	28	5	2
1	16	161 375 430	51	43	31	6	2
1 1/4	16	161 375 431	60	53	34	6	2
1 ½	16	161 375 432	72	62	38	7	3
2	16		89	76	41	7	3
2 ½	10		114	90	48	8	3
3	10	161 375 435	133	106	57	10	8
4	10	161 375 436	165	130	66	12	5

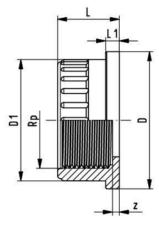


Valve end 375 PVC-U With threaded socket Rp



Model:

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U



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Rp	PN	Code	D	D1	L	L1	z
[inch]			[mm]	[mm]	[mm]	[mm]	[mm]
3/8	10	161 375 921	35	26	18	5	7
1/2	10	161 375 922	33	30	18	5	3
3/4	10	161 375 923	43	36	21	5	5
1	10	161 375 924	51	44	24	6	5
1 1/4	10	161 375 925	60	53	27	6	6
1 ½	10	161 375 926	72	63	27	7	6
2	10	161 375 927	89	77	31	7	5
2 ½	10	161 375 928	115	90	36	8	6
3	10	161 375 929	133	106	41	10	8
4	10	161 375 930	166	130	47	12	8

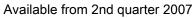


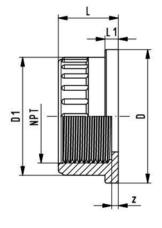
Valve end 375 PVC-U With threaded socket NPT



Model:

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U





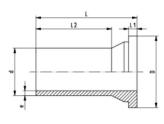
NPT	PN	Code	D	D1	L	L1	z
[inch]			[mm]	[mm]	[mm]	[mm]	[mm]
3/8	10	161 375 437	35	26	18	5	5
1/2	10	161 375 438	35	30	24	5	6
3⁄4 1	10 10	161 375 439 161 375 440	43	36 44	21 24	5 6	5 5
1 1/4	10	161 375 441	60	53	27	6	6
1 ½	10	161 375 442	72	64	27	7	6
2	10	161 375 443	89	77	31	7	5



Valve end 375 PVC-U With butt fusion spigot long SDR11 metric



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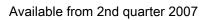


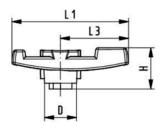
d	PN	Code	D	е	L	L1	L2
[mm]			[mm]	[mm]	[mm]	[mm]	[mm]
20	16	161 375 932	36	3.5	67	6	45
25	16	161 375 933	44	3.5	74	6	50
32	16	161 375 934	52	3.5	97	7	72
40	16	161 375 935	61	4.0	86	7	63
50	16	161 375 936	73	5.0	97	8	72
63	16	161 375 937	90	6.2	96	9	75
75	16	161 375 938	116	7.0	119	10	88
90	16	161 375 939	134	9.0	112	12	82
110	16	161 375 940	168	10.0	131	15	96

Spare parts

Handle to type 375 PVC-U Standard handle, orange







d-d	DN-DN	Code	L1	L3	Н	D
[mm]	[mm]		[mm]	[mm]	[mm]	[mm]
16 - 20	10 - 15	161 490 900	67	40	27	19
- 25	- 20		77	45	28	22
- 32	- 25	161 490 902	87	51	32	25
- 40	- 32	161 490 903	102	59	36	28
- 50	- 40	161 490 904	119	70	40	32
- 63	- 50	161 490 905	146	84	45	37
- 75	- 65	161 490 906	179	103	52	41
- 90	- 80	161 490 907	209	120	57	44
- 110	- 100	161 490 908	250	141	61	48



Seal set 375 PVC-U

Model:

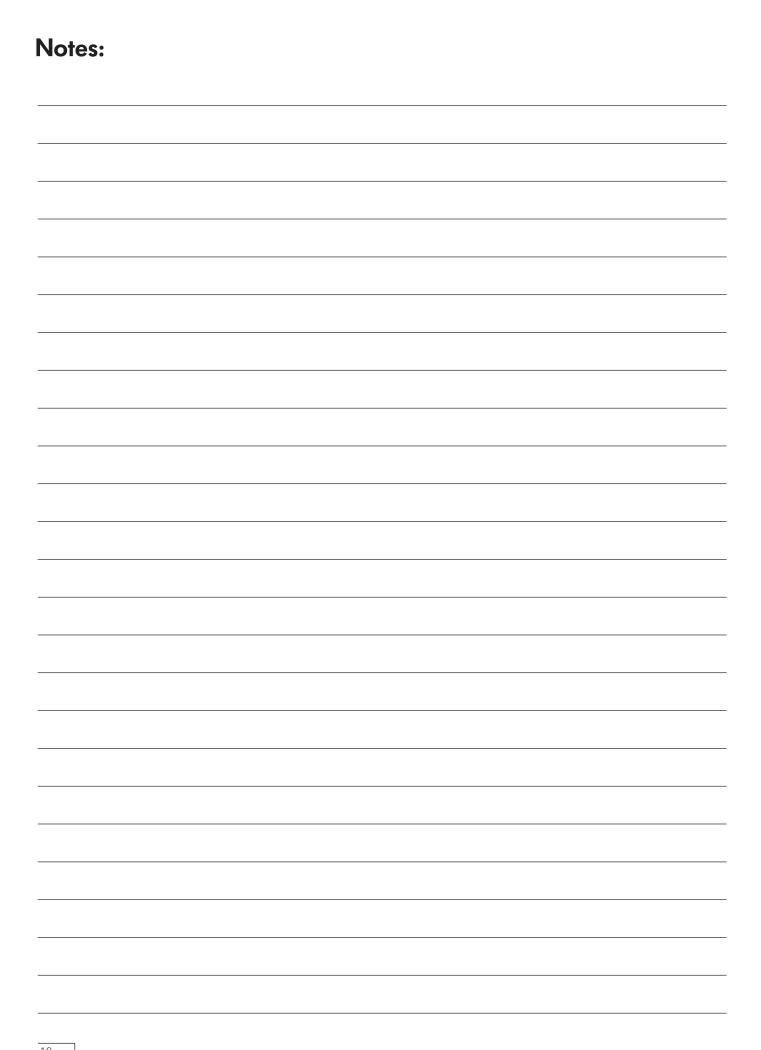
• Consisting of ball seals PTFE and o-rings

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d [mm]	DN [mm]	EPDM Code	FPM Code
16	10	161 375 402	161 375 417
20	15		161 375 417
25	20	161 375 404	161 375 419
32	25	161 375 405	161 375 420
40	32	161 375 406	161 375 421
50	40	161 375 407	161 375 422
63	50	161 375 408	161 375 423
63	65		161 375 424
90	80	161 375 410	161 375 425
110	100	161 375 411	161 375 426

Notes:			

Notes:	
	_



General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

- These General Conditions shall apply to all Products supplied by Georg Fischer to the Purchaser
- They shall also apply to all future business even when no express reference is made to them Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

TendersTenders shall only be binding if they contain a specifically stated period for acceptance.

- Georg Fischer's product range is subject to change.

 The confirmation of order shall govern the scope and execution of the contract.

- Technical documents such as drawings, descriptions, illustrations and data on dimensions performance and weight as well as the reference to standards are for information purposes only ev are not warranted characteristics and are subject to change
- They are not wan interest and extensives and are subject to change.

 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

Confidentiality, Protection of Personal Data

- Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and

- **Local Laws and Regulations, Export Controls**The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to
- relevant safety regulations and approval procedures.
 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

- Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms of the ICC, latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and importlicences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

- The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues
- The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still out-standing provided that the Products already delivered are not rendered unusable as a result.

Retention of Title

- The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.

 Should the Purchaser resell Products to which title is reserved, in the ordinary course of busi-
- Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.

 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall
- re-assign the above proceeds to Purchaser at his request.

- The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
- if Georg Fischer are not supplied in time with the information necessary for the execution of the
- contract or if subsequent changes causing delays are made by the Purchaser.

 if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the $total\ or\ partial\ destruction\ of\ plant\ and\ equipment\ or\ the\ breakdown\ of\ essential\ facilities,\ serious\ disruptions\ in\ transport\ facilities,\ e.g.\ impassable\ roads.$ Should the effect of force majeure exceed a period of six months, either party may cancel the

 - Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer's right to recover
- all sums due in respect of consignments delivered and costs incurred to date. if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the greed securities.
- If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one month which equally is not met.

 The Purchaser shall then be entitled to the remedies provided at law, it being however understood
 - that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delaved delivery
- Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- be entitled to dispose of the Products.

 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to liquidated damages in the amount of 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved. Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage.

If the Products are provided with additional packing over and above the standard packing, such

Passing of Risk

- The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works [EXWORKS, Incoterms ICC, latest version], even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Eischer
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

Carriage and Insurance

- Unless agreed otherwise, the Purchaser shall bear the cost of carriage
- The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.
- In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him. 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the
- delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the Products.

Inspection, Notification of Defects and Damages

- The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within 7 working days after discovery, in any event within the agreed warranty period.

 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage
- claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts

- 15.1 At the written request of the Purchaser, Georg Fischer undertake to repair or replace at their discretion, as quickly as possible and free of charge all Products supplied which demonstrab suffer from faulty design, materials or workman-ship or from faulty operating or installation
- In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via www.piping.georgfischer.com.

 Replaced parts shall become property of Georg Fischer.

 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the
- Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship 15.3 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if also a second attempt to repair or replace the Products has failed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.

 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty
- or any other obligation of Georg Fischer after the expiration of twelve [12] months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
 - Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object as well as, in case of negligence, all other direct damages caused by the defective Product (damage to property and injury to or death of persons) up to CHF 1000 000 per
 - the statute of limitations for warranty or damage claims contrary to Section 15.6 will be 5 vears from the date of installation.

All cases of breach of contract and the relevant consequences as well as all rights and claims on the part of the customer, irrespective on what ground they are based, are exhaustively covered by these general conditions of supply. In particular, any claims not expressly mentioned for damages, reduction of price, termination of or withdrawal from the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit and other direct or indirect or consequential damage. This exclusion of liability, however, does not apply to unlawful intent or gross negligence on the part of Georg Fischer and in case of strict liability under applicable product liability stat-utes, but does apply to unlawful intent or gross negligence of persons employed or appointed by Georg Fischer to perform any of its obligations.

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

Place of Performance and Jurisdiction

- Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.
- Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.

 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

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The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply

Adding Quality to People's Lives

Australia

George Fischer Pty Ltd Unit 1, 100 Belmore Road Riverwood NSW 2210 Australia Phone +61(0)2/9502 8000 australia.ps@georgfischer.com www.georgefischer.com.au

Austria

Georg Fischer Rohrleitungssysteme GmbH 3130 Herzogenburg Phone +43(0)2782/856 43-0 austria.ps@georgfischer.com www.georgfischer.at

Belgium/Luxembourg

Georg Fischer NV/SA 1070 Bruxelles/Brüssel Phone +32[0]2/556 40 20 be.ps@georgfischer.com www.georgfischer.be

Brazil

George Fischer Ltda 04795-100 São Paulo Phone +55(0)11/5687 1311 br.ps@georgfischer.com

China

Georg Fischer Piping Systems Ltd Shanghai Pudong, Shanghai 201319 Phone +86(0)21/58 13 33 33 china.ps@georgfischer.com www.cn.piping.georgfischer.com

Denmark/Iceland

Georg Fischer A/S 2630 Taastrup Phone +45 (0)70 22 19 75 info.dk.ps@georgfischer.com www.georgfischer.dk

France

Georg Fischer SAS Bâtiment Le Rabelais Paris Nord 2 22 Avenue des Nations BP 88026 Villepinte 95932 Roissy Charles de Gaulle Cedex Phone +33[0]1 41 84 68 84 fr.ps@georgfischer.com www.georgefischer.fr

Germany Georg Fischer GmbH 73095 Albershausen Phone +49(0)7161/302-0 info.de.ps@georgfischer.com www.vgd.georgfischer.de

Georg Fischer Piping Systems Ltd 400 076 Mumbai Phone +91 224007 2001 in.ps@georgfischer.com www.georgfischer.in

Georg Fischer S.p.A. 20063 Cernusco S/N (MI) Phone +3902/921 861 it.ps@georgfischer.com

Japan

Geora Fischer Ltd 556-0011 Osaka, Phone +81(0)6/6635 2691 jp.ps@georgfischer.com www.georgfischer.jp

Georg Fischer Piping Systems #902 Ace Techno-Tower III 197-48, Guro-dong, Guro-gu Seoul 152-050 Korea Phone +82 2 851 3861/3862 +82 2 851 3844 kor.ps@georgfischer.com

Georg Fischer (M) Sdn. Bhd. 47500 Subang Jaya Phone +60 (0)3-8024 7879 conne.kong@georgefischer.com.my

George Fischer Piping Systems Dubai, United Arab Emirates Phone +971 4 289 41 20 gfdubai@emirates.net.ae www.piping.georgfischer.com

Netherlands

8161 PA Epe Phone +31(0)578/678 222 nl.ps@georgfischer.com www.georgfischer.nl

Geora Fischer AS 1351 Rud Phone +47(0)67 18 29 00 no.ps@georgfischer.com www.georgfischer.no

Poland

Georg Fischer Sp. z o.o. 02-226 Warszawa Phone +48(0)22/313 10 50 poland.ps@georgfischer.com www.georgfischer.pl

Romania

Georg Fischer Piping Systems Ltd 020257 Bucharest - Sector 2 Phone +40(0)21/230 53 80 ro.ps@georgfischer.com

Russia

Georg Fischer Piping Systems Office 14a, 3 Entrance, 9 Floor Business Center Parus ^t Tverskaya-Yamskaya Street, 23 Moscow 125047 Tel. +7 495 258 60 80 ru.ps@georgfischer.com

Singapore

George Fischer Pte Ltd 528 872 Singapore Phone +65(0)67 47 06 11 sgp.ps@georgfischer.com www.georgefischer.com.sg

Spain/Portugal

Georg Fischer S.A. 28046 Madrid Phone +34(0)91/781 98 90 es.ps@georgfischer.com www.georgfischer.es

Sweden/Finland

Georg Fischer AB 12523 Älvsjö-Stockholm Phone +46(0)8/506 775 00 info.se.ps@georgfischer.com

Switzerland

Georg Fischer Rohrleitungssysteme (Schweiz) AG 8201 Schaffhausen Phone +41(0)52 631 30 26 ch.ps@georgfischer.com www.piping.georgfischer.ch

Taiwan

Georg Fischer Piping Systems 2F, No. 88, Hsing Te Road San Chung City Taipei Hsien, Taiwan (R.O.C.) Phone +886 2 8512 2822 +886 2 8512 2823

United Kingdom/Ireland

George Fischer Sales Limited Coventry, CV2 2ST Phone +44[0]2476 535 535 uk.ps@georgfischer.com www.georgefischer.co.uk

USA/Canada/Latin America/Caribbean

George Fischer Inc. Tustin, CA 92780-7258 Phone +1(714) 731 88 00 Toll Free 800/854 40 90 us.ps@georgfischer.com www.us.piping.georgefischer.com

Georg Fischer Piping Systems (Switzerland) Ltd. 8201 Schaffhausen Phone +41 (0)52-631 30 26 +41 (0)52-631 28 93 export.ps@aeorafischer.com www.piping.georgfischer.ch

