

## 20. INSTALACJA PRZEWODOWA

**20.1.** KSZTAŁTKI Z PVC-U

**20.2.** KSZTAŁTKI Z PVC-U PN10

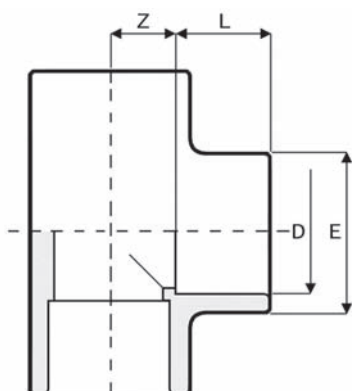
**20.3.** ARMATURA

**20.4.** RURY

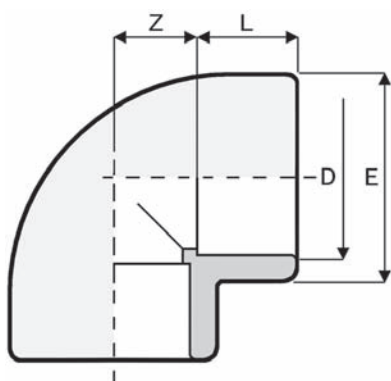
**20.5.** KLEJE I CZYŚCIWA

**20.6.** SYSTEMY RUROCIĄGOWE Z PE I PVC-C



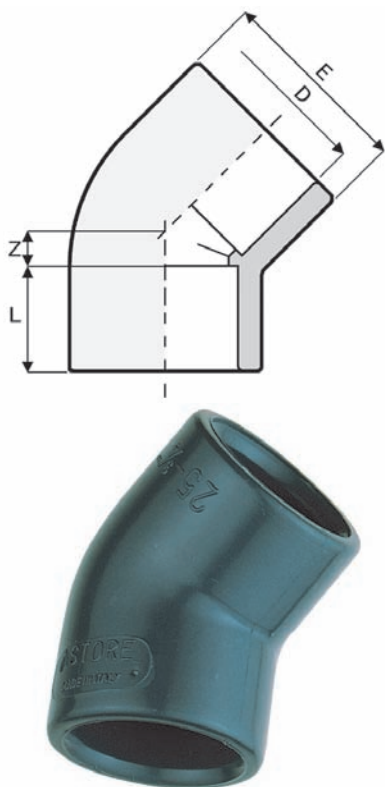
**20.1. KSZTAŁTKI Z PVC-U**
**20.1.1. Trójnik 90°**


<b>D</b>	<b>L</b>	<b>Z</b>	<b>E</b>	<b>Nr kat.</b>
<b>16</b>	14	9	23	<b>1R.TI1.160.00</b>
<b>20</b>	16	11	28	<b>1R.TI1.200.00</b>
<b>25</b>	19	14	34	<b>1R.TI1.250.00</b>
<b>32</b>	22	17	42	<b>1R.TI1.320.00</b>
<b>40</b>	26	21	51	<b>1R.TI1.400.00</b>
<b>50</b>	31	26	61	<b>1R.TI1.500.00</b>
<b>63</b>	38	33	75	<b>1R.TI1.630.00</b>
<b>75</b>	44	39	89	<b>1R.TI1.750.00</b>
<b>90</b>	51	47	106	<b>1R.TI1.900.00</b>
<b>110</b>	61	61	131	<b>1R.TI1.110.00</b>
<b>125</b>	69	66	146	<b>1R.TI1.130.00</b>
<b>140</b>	76	72	163	<b>1R.TI1.150.00</b>
<b>160</b>	86	82	186	<b>1R.TI1.170.00</b>
<b>180</b>	96	94	215	<b>1R.TI1.180.00</b>
<b>200</b>	106	102	230	<b>1R.TI1.210.00</b>
<b>225</b>	119	115	258	<b>1R.TI1.230.00</b>
<b>250</b>	131	128	286	<b>1R.TI1.260.00</b>
<b>280</b>	146	144	319	<b>1R.TI1.280.00</b>
<b>315</b>	164	162	360	<b>1R.TI1.330.00</b>

**20.1.2. Kolano 90°**


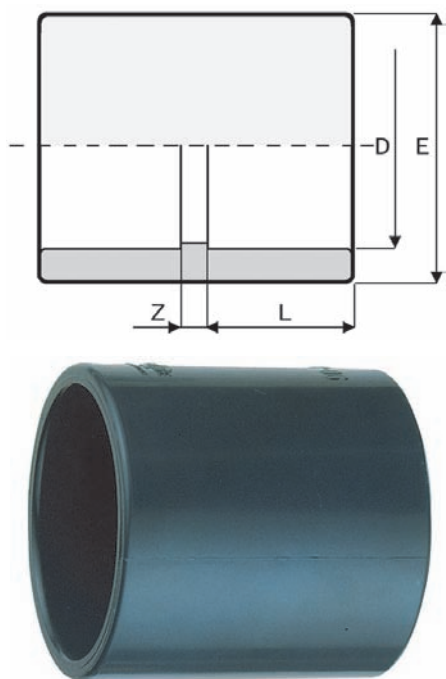
<b>D</b>	<b>L</b>	<b>Z</b>	<b>E</b>	<b>Nr kat.</b>
<b>16</b>	14	9	23	<b>1R.GO1.160.00</b>
<b>20</b>	16	11	28	<b>1R.GO1.200.00</b>
<b>25</b>	19	14	34	<b>1R.GO1.250.00</b>
<b>32</b>	22	17	39	<b>1R.GO1.320.00</b>
<b>40</b>	26	21	51	<b>1R.GO1.400.00</b>
<b>50</b>	31	26	59	<b>1R.GO1.500.00</b>
<b>63</b>	38	33	75	<b>1R.GO1.630.00</b>
<b>75</b>	44	39	89	<b>1R.GO1.750.00</b>
<b>90</b>	51	47	106	<b>1R.GO1.900.00</b>
<b>110</b>	61	57	129	<b>1R.GO1.110.00</b>
<b>125</b>	69	66	146	<b>1R.GO1.130.00</b>
<b>140</b>	76	72	163	<b>1R.GO1.150.00</b>
<b>160</b>	86	82	186	<b>1R.GO1.170.00</b>
<b>180</b>	96	94	215	<b>1R.GO1.180.00</b>
<b>200</b>	106	102	230	<b>1R.GO1.210.00</b>
<b>225</b>	119	115	258	<b>1R.GO1.230.00</b>
<b>250</b>	131	188	287	<b>1R.GO1.260.00</b>
<b>280</b>	147	210	325	<b>1R.GO1.280.00</b>
<b>315</b>	164	236	359	<b>1R.GO1.330.00</b>

### 20.1.3. Kolano 45°



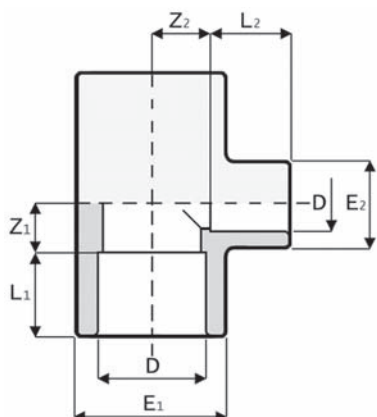
D	L	Z	E	Nr kat.
16	14	5	23	1R.GY1.160.00
20	16	5	28	1R.GY1.200.00
25	19	6	34	1R.GY1.250.00
32	22	8	42	1R.GY1.320.00
40	26	10	51	1R.GY1.400.00
50	31	12	61	1R.GY1.500.00
63	38	14	75	1R.GY1.630.00
75	44	17	89	1R.GY1.750.00
90	51	20	106	1R.GY1.900.00
110	61	24	129	1R.GY1.110.00
125	69	27	145	1R.GY1.130.00
140	76	31	163	1R.GY1.150.00
160	86	35	186	1R.GY1.170.00
200	108	48	230	1R.GY1.210.00
225	121	55	260	1R.GY1.230.00
250	131	58	286	1R.GY1.260.00
280	146	62	320	1R.GY1.280.00
315	164	66	359	1R.GY1.330.00

### 20.1.4. Mufa



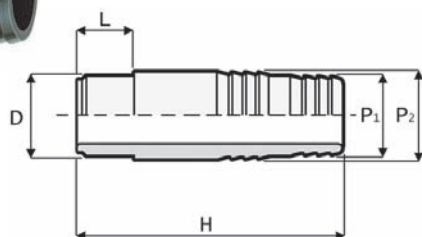
D	L	Z	E	Nr kat.
16	14	3	23	1R.MA1.160.00
20	16	3	28	1R.MA1.200.00
25	19	3	34	1R.MA1.250.00
32	22	3	42	1R.MA1.320.00
40	26	3	51	1R.MA1.400.00
50	31	3	58	1R.MA1.500.00
63	38	3	75	1R.MA1.630.00
75	44	4	89	1R.MA1.750.00
90	51	20	106	1R.MA1.900.00
110	61	5	129	1R.MA1.110.00
125	69	67	145	1R.MA1.130.00
140	76	8	162	1R.MA1.150.00
160	86	8	182	1R.MA1.170.00
200	106	12	231	1R.MA1.210.00
225	119	11	262	1R.MA1.230.00
250	131	10	286	1R.MA1.260.00
280	146	10	320	1R.MA1.280.00
315	164	12	355	1R.MA1.330.00

## 20.1.5. Trójnik redukcyjny



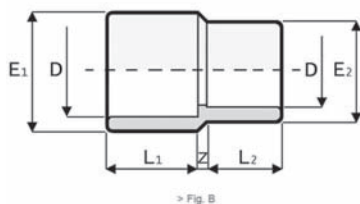
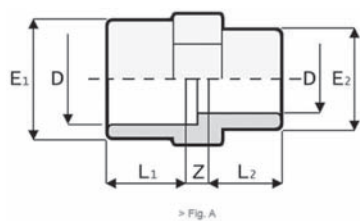
<b>DxD</b>	<b>L1</b>	<b>L2</b>	<b>Z1</b>	<b>Z2</b>	<b>E1</b>	<b>E2</b>	<b>Nr kat.</b>
<b>20x16</b>	16	14	11	11	28	23	<b>1R.TR1.20A.00</b>
<b>25x16</b>	19	14	14	14	34	23	<b>1R.TR1.25A.00</b>
<b>25x20</b>	19	16	14	14	34	28	<b>1R.TR1.25B.00</b>
<b>32x16</b>	22	14	17	17	42	23	<b>1R.TR1.32A.00</b>
<b>32x20</b>	22	16	17	17	42	28	<b>1R.TR1.32B.00</b>
<b>32x25</b>	22	19	17	17	42	34	<b>1R.TR1.32C.00</b>
<b>40x16</b>	26	14	21	21	51	23	<b>1R.TR1.40A.00</b>
<b>40x20</b>	26	16	21	21	51	28	<b>1R.TR1.40B.00</b>
<b>40x25</b>	26	19	21	21	51	34	<b>1R.TR1.40C.00</b>
<b>40x32</b>	26	22	21	21	51	42	<b>1R.TR1.40D.00</b>
<b>50x20</b>	31	16	26	26	61	28	<b>1R.TR1.50B.00</b>
<b>50x25</b>	31	19	26	26	61	34	<b>1R.TR1.50C.00</b>
<b>50x32</b>	31	22	26	26	61	42	<b>1R.TR1.50D.00</b>
<b>50x40</b>	31	26	26	26	61	51	<b>1R.TR1.50E.00</b>
<b>63x20</b>	38	16	33	33	75	28	<b>1R.TR1.63B.00</b>
<b>63x25</b>	38	19	33	33	75	34	<b>1R.TR1.63C.00</b>
<b>63x32</b>	38	22	33	33	75	42	<b>1R.TR1.63D.00</b>
<b>63x40</b>	38	26	33	33	75	51	<b>1R.TR1.63E.00</b>
<b>63x50</b>	38	31	33	33	75	61	<b>1R.TR1.63F.00</b>
<b>75x32</b>	44	22	39	39	89	42	<b>1R.TR1.75D.00</b>
<b>75x40</b>	44	26	39	39	89	51	<b>1R.TR1.75E.00</b>
<b>75x50</b>	44	31	39	39	89	61	<b>1R.TR1.75F.00</b>
<b>75x63</b>	44	38	39	39	89	75	<b>1R.TR1.75G.00</b>
<b>90x40</b>	51	26	47	47	106	51	<b>1R.TR1.90E.00</b>
<b>90x50</b>	51	31	47	47	106	61	<b>1R.TR1.90F.00</b>
<b>90x63</b>	51	38	47	47	106	75	<b>1R.TR1.90G.00</b>
<b>90x75</b>	51	44	47	47	106	89	<b>1R.TR1.90H.00</b>
<b>110x50</b>	61	31	57	57	129	61	<b>1R.TR1.11F.00</b>
<b>110x63</b>	61	38	57	57	129	75	<b>1R.TR1.11G.00</b>
<b>110x75</b>	61	44	57	57	129	89	<b>1R.TR1.11H.00</b>
<b>110x90</b>	61	51	57	57	129	106	<b>1R.TR1.11I.00</b>
<b>160x110</b>	86	61	82	57	187	131	<b>1R.TR1.17L.00</b>

## 20.1.6. Tuleja na wąż



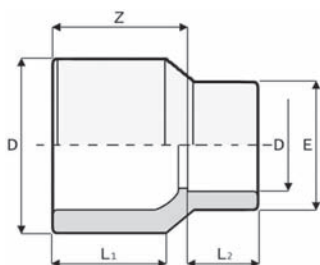
<b>DxP2xP1</b>	<b>L</b>	<b>H</b>	<b>Nr kat.</b>
<b>16x18x16</b>	14	60	<b>1R.PO1.160.00</b>
<b>20x22x20</b>	16	67	<b>1R.PO1.200.00</b>
<b>25x27x25</b>	19	81	<b>1R.PO1.250.00</b>
<b>32x32x30</b>	22	97	<b>1R.PO1.320.00</b>
<b>40x42x40</b>	26	104	<b>1R.PO1.400.00</b>
<b>50x52x50</b>	31	111	<b>1R.PO1.500.00</b>
<b>63x64x60</b>	38	123	<b>1R.PO1.630.00</b>

## 20.1.7. Redukcja długa (mufowa)



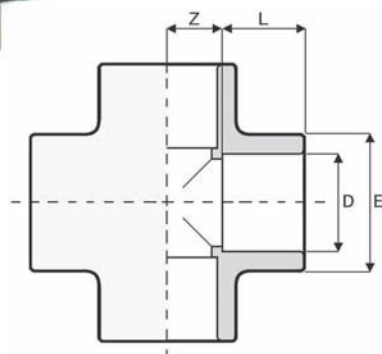
DxD	L1	L2	Z	E1	E2	Fig.	Nr kat.
<b>20x16</b>	16	14	6	28	23	B	<b>1R.MR1.20A.00</b>
<b>25x20</b>	19	16	6	34	28	B	<b>1R.MR1.25B.00</b>
<b>32x25</b>	22	19	6	42	34	B	<b>1R.MR1.32C.00</b>
<b>40x32</b>	26	22	6	51	42	B	<b>1R.MR1.40DS.00</b>
<b>50x40</b>	31	26	6	61	51	B	<b>1R.MR1.50E.00</b>
<b>63x50</b>	38	31	6	75	61	B	<b>1R.MR1.63F.00</b>
<b>75x63</b>	44	38	4	89	75	A	<b>1R.MR1.75G.00</b>
<b>90x75</b>	51	44	5	106	89	A	<b>1R.MR1.90H.00</b>
<b>110x90</b>	61	51	6	129	106	A	<b>1R.MR1.11I.00</b>
<b>125x110</b>	69	61	24	145	129	B	<b>1R.MR1.13L.00</b>
<b>140x110</b>	76	61	25	160	129	B	<b>1R.MR1.15L.00</b>

## 20.1.8. Redukcja długa (mufowo-nyplowa)

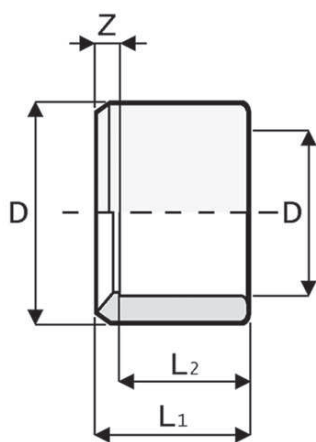


DxD	L1	L2	Z	E	Nr kat.
<b>140x110</b>	76	61	92	129	<b>1R.RL1.15L.00</b>
<b>160x110</b>	86	61	100	129	<b>1R.RL1.17L.00</b>

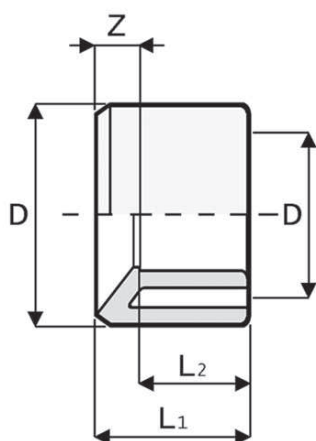
## 20.1.9. Czwórnik



D	L	Z	E	Nr kat.
<b>25</b>	19	14	35	<b>1R.CR1.250.00</b>
<b>32</b>	22	18	43	<b>1R.CR1.320.00</b>
<b>40</b>	26	23	52	<b>1R.CR1.400.00</b>
<b>50</b>	31	27	64	<b>1R.CR1.500.00</b>
<b>63</b>	38	33.5	79	<b>1R.CR1.630.00</b>

**20.1.10. Redukcja krótka**


&gt; Fig. A

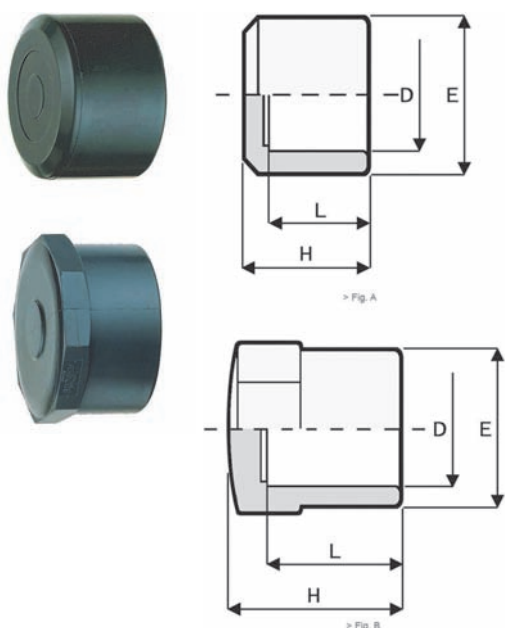


&gt; Fig. B

<b>DxD</b>	<b>L1</b>	<b>L2</b>	<b>Z</b>	<b>Fig.</b>	<b>Nr kat.</b>
<b>20x16</b>	16	14	2	A	<b>1R.RC1.20A.00</b>
<b>25x16</b>	19	14	5	B	<b>1R.RC1.25A.00</b>
<b>25x20</b>	19	16	3	A	<b>1R.RC1.25B.00</b>
<b>32x16</b>	22	14	8	B	<b>1R.RC1.32A.00</b>
<b>32x20</b>	22	16	6	B	<b>1R.RC1.32B.00</b>
<b>32x25</b>	22	19	3	A	<b>1R.RC1.32C.00</b>
<b>40x20</b>	26	16	10	B	<b>1R.RC1.40B.00</b>
<b>40x25</b>	26	19	7	B	<b>1R.RC1.40C.00</b>
<b>40x32</b>	26	22	4	A	<b>1R.RC1.40D.00</b>
<b>50x20</b>	31	16	15	B	<b>1R.RC1.50B.00</b>
<b>50x25</b>	31	19	12	B	<b>1R.RC1.50C.00</b>
<b>50x32</b>	31	22	9	B	<b>1R.RC1.50D.00</b>
<b>50x40</b>	31	26	5	A	<b>1R.RC1.50E.00</b>
<b>63x32</b>	38	22	16	B	<b>1R.RC1.63D.00</b>
<b>63x40</b>	38	26	12	B	<b>1R.RC1.63E.00</b>
<b>63x50</b>	38	31	7	A	<b>1R.RC1.63F.00</b>
<b>75x40</b>	44	26	18	B	<b>1R.RC1.75E.00</b>
<b>75x50</b>	44	31	13	B	<b>1R.RC1.75F.00</b>
<b>75x63</b>	44	38	6	A	<b>1R.RC1.75G.00</b>
<b>90x50</b>	51	31	20	B	<b>1R.RC1.90F.00</b>
<b>90x63</b>	51	38	13	B	<b>1R.RC1.90G.00</b>
<b>90x75</b>	51	44	7	A	<b>1R.RC1.90H.00</b>
<b>110x63</b>	61	38	23	B	<b>1R.RC1.11G.00</b>
<b>110x75</b>	61	44	17	B	<b>1R.RC1.11H.00</b>
<b>110x90</b>	61	51	9	A	<b>1R.RC1.11I.00</b>
<b>125x75</b>	69	44	25	B	<b>1R.RC1.13H.00</b>
<b>125x90</b>	69	51	18	B	<b>1R.RC1.13I.00</b>
<b>125x110</b>	69	61	8	A	<b>1R.RC1.13L.00</b>
<b>140x90</b>	76	51	25	B	<b>1R.RC1.15I.00</b>
<b>140x110</b>	76	61	15	B	<b>1R.RC1.15L.00</b>
<b>140x125</b>	76	69	7	B	<b>1R.RC1.15M.00</b>
<b>160x90</b>	86	51	35	B	<b>1R.RC1.17I.00</b>
<b>160x110</b>	86	61	25	A	<b>1R.RC1.17L.00</b>
<b>160x125</b>	86	69	17	B	<b>1R.RC1.17M.00</b>
<b>160x140</b>	86	76	10	B	<b>1R.RC1.17N.00</b>
<b>200x160</b>	106	86	20	B	<b>1R.RC1.21O.00</b>
<b>225x160</b>	119	86	33	B	<b>1R.RC1.23O.00</b>
<b>225x200</b>	119	106	13	A	<b>1R.RC1.23P.00</b>
<b>250x160</b>	132	86	45	B	<b>1R.RC1.26O.00</b>
<b>250x200</b>	132	106	25	A	<b>1R.RC1.26P.00</b>
<b>250x225</b>	132	119	12	A	<b>1R.RC1.26Q.00</b>
<b>280x225</b>	147	119	27	B	<b>1R.RC1.28Q.00</b>
<b>315x200</b>	165	106	58	B	<b>1R.RC1.33P.00</b>
<b>315x225</b>	165	119	45	B	<b>1R.RC1.33Q.00</b>
<b>315x250</b>	165	131	33	B	<b>1R.RC1.33R.00</b>
<b>315x280</b>	165	146	18	A	<b>1R.RC1.33S.00</b>



### 20.1.11. Korek



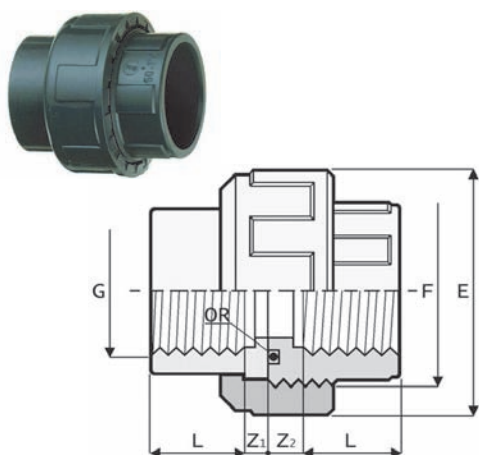
D	L	H	E	Fig.	Nr kat.
16	14	22	23	B	1R.CA1.160.00
20	16	24	28	A	1R.CA1.200.00
25	19	27	34	A	1R.CA1.250.00
32	22	30	42	A	1R.CA1.320.00
40	26	35	51	A	1R.CA1.400.00
50	31	40	61	A	1R.CA1.500.00
63	38	48	75	A	1R.CA1.630.00
75	44	59	89	B	1R.CA1.750.00
90	51	67	106	B	1R.CA1.900.00
110	61	77	129	B	1R.CA1.110.00
125	69	98	145	A	1R.CA1.130.00
140	76	108	162	A	1R.CA1.150.00
160	86	123	182	A	1R.CA1.170.00
225	119	163	260	A	1R.CA1.230.00

### 20.1.12. Łuk 90°



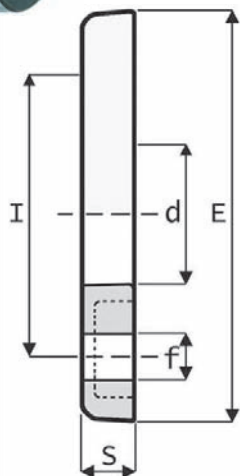
D	L	Z	E	Nr kat.
20	16	40	28	1R.CU1.200.00
25	19	50	36	1R.CU1.250.00
32	22	64	41	1R.CU1.320.00
40	26	80	51	1R.CU1.400.00
50	31	100	65	1R.CU1.500.00
63	38	126	77	1R.CU1.630.00
75	44	150	94	1R.CU1.750.00
90	51	180	113	1R.CU1.900.00
110	61	220	137	1R.CU1.110.00
160	86	207	189	1R.CU1.170.00

### 20.1.13. Dwuzłączka



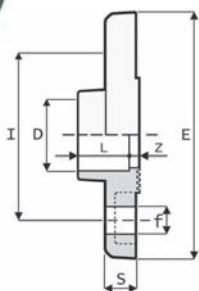
D	L	Z1	Z2	F	E	Nr kat.
16	11	3	10	3/4"	31	1R.BO1.160.00
20	16	3	10	1"	42	1R.BO1.200.00
25	19	3	10	1 1/4"	52	1R.BO1.250.00
32	22	3	10	1 1/2"	59	1R.BO1.320.00
40	26	3	12	2"	72	1R.BO1.400.00
50	31	3	14	2 1/4"	79	1R.BO1.500.00
63	38	3	18	2 3/4"	96	1R.BO1.630.00
75	44	3	18	3 1/2"	120	1R.BO1.750.00
90	51	5	18	4"	135	1R.BO1.900.00
110	61	5	18	5"	163	1R.BO1.110.00

### 20.1.14. Kołnierz luźny



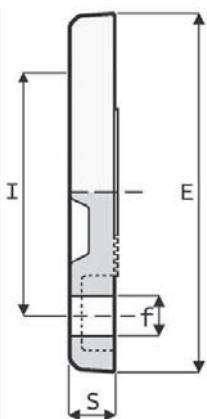
D	DN	d	E	S	I	f	il.	śruba	Nr kat.
20	15	28	95	11	65	14	4	M12x55	1R.FL1.200.00
25	20	34	105	12	75	14	4	M12x60	1R.FL1.250.00
32	25	42	115	14	85	14	4	M12x60	1R.FL1.320.00
40	32	51	140	15	100	18	4	M16x70	1R.FL1.400.00
50	40	62	150	16	110	18	4	M16x75	1R.FL1.500.00
63	50	78	165	18	125	18	4	M16x80	1R.FL1.630.00
75	65	92	185	19	145	18	4	M16x90	1R.FL1.750.00
90	80	110	203	20	160	18	8	M16x90	1R.FL1.900.00
110	100	132	222	22	180	18	8	M16x100	1R.FL1.110.00
125	110	149	230	24	190	18	8	M16x100	1R.FL1.130.00
140	125	167	250	26	210	18	8	M16x110	1R.FL1.150.00
160	150	190	285	28	240	22	8	M20x120	1R.FL1.170.00
200	200	235	341	30	295	22	8/12	M20x120	1R.FL1.210.00
225	200	244	341	30	295	22	8/12	M20x140	1R.FL1.230.00
250	250	281	395	33	350	22	12	M20x140	1R.FL1.260.00
280	250	309	396	35	350	22	12	M20x160	1R.FL1.280.00
315	300	349	465	40	400	22	12	M20x180	1R.FL1.330.00

### 20.1.15. Tuleja kołnierzowa stała



D	DN	L	Z	E	I	f	S	il.	śruba	Nr kat.
20	15	16	4	95	65	14	11	4	M12x55	1R.FF1.200.00
25	20	19	4	105	75	14	12	4	M12x60	1R.FF1.250.00
32	25	22	4	115	85	14	14	4	M12x60	1R.FF1.320.00
40	32	26	4	140	100	18	15	4	M16x70	1R.FF1.400.00
50	40	31	5	150	110	18	16	4	M16x75	1R.FF1.500.00
63	50	38	5	165	125	18	18	4	M16x80	1R.FF1.630.00
75	65	44	6	185	145	18	19	8	M16x90	1R.FF1.750.00
90	80	51	7	200	160	18	20	8	M16x90	1R.FF1.900.00
110	100	61	8	220	180	18	22	8	M16x100	1R.FF1.110.00

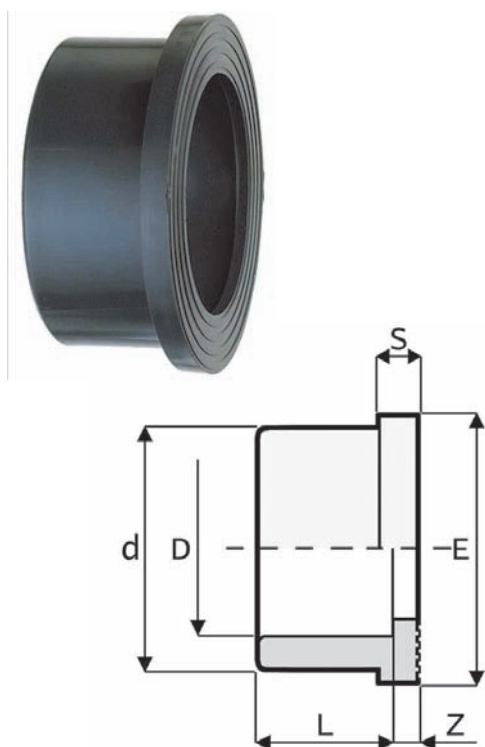
### 20.1.16. Kołnierz ślepy



D	DN	E	S	I	f	il.	śruba	Nr kat.
20	15	95	11	64	14	4	M12x55	1R.FC1.200.00
25	20	105	12	76	14	4	M12x60	1R.FC1.250.00
32	25	115	14	86	14	4	M12x60	1R.FC1.320.00
40	32	141	15	100	18	4	M16x70	1R.FC1.400.00
50	40	150	16	111	18	4	M16x75	1R.FC1.500.00
63	50	165	18	126	18	4	M16x80	1R.FC1.630.00
75	65	185	19	145	18	4	M16x90	1R.FC1.750.00
90	80	200	20	160	18	8	M16x90	1R.FC1.900.00
110	100	220	22	180	18	8	M16x100	1R.FC1.110.00

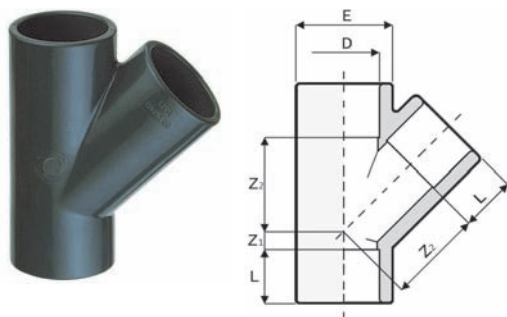


### 20.1.17. Tuleja kołnierzowa



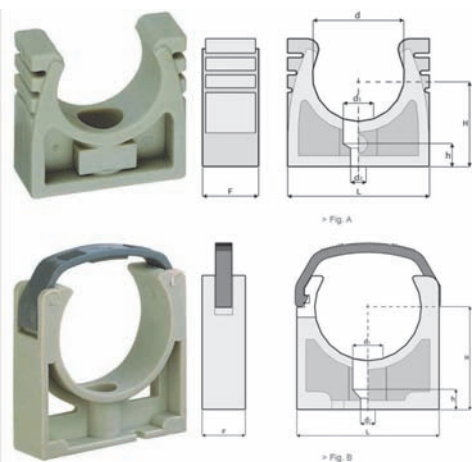
D	L	Z	d	S	E	Nr kat.
20	16	3	27	6	34	1R.QR1.200.00
25	19	3	33	7	41	1R.QR1.250.00
32	22	3	41	7	50	1R.QR1.320.00
40	26	3	50	8	61	1R.QR1.400.00
50	31	3	61	8	73	1R.QR1.500.00
63	38	3	76	9	90	1R.QR1.630.00
75	44	3	90	10	106	1R.QR1.750.00
90	51	5	108	11	125	1R.QR1.900.00
110	61	4	131	12	150	1R.QR1.110.00
125	69	5	147	13	168	1R.QR1.130.00
140	76	5	165	14	188	1R.QR1.150.00
160	86	5	188	16	212	1R.QR1.170.00
200	106	7	232	16	254	1R.QR1.210.00
225	119	7	248	16	274	1R.QR1.230.00
250	131	9	274	20	308	1R.QR1.260.00
280	147	14.5	307	32	327	1R.QR1.280.00
315	165	16	346	32	377	1R.QR1.330.00

### 20.1.18. Trójnik 45°

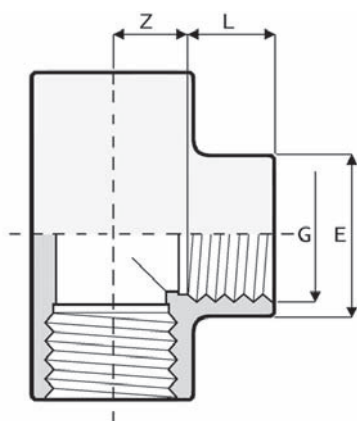


D	L	Z1	Z2	E	Nr kat.
20	16	7	30	27	1R.TY1.200.00
25	19	7	35	33	1R.TY1.250.00
32	22	9	44	41	1R.TY1.320.00
40	26	11	55	50	1R.TY1.400.00
50	31	12	68	63	1R.TY1.500.00
63	38	15	85	78	1R.TY1.630.00

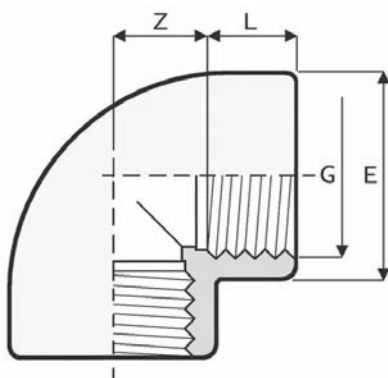
### 20.1.19. Uchwyt PP



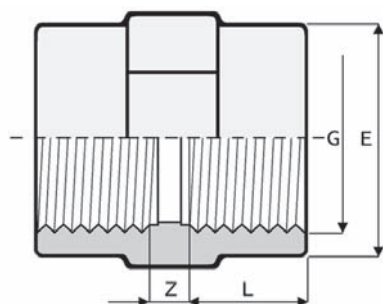
D	H	L	d2	d1	h	f	Fig.	Nr kat.
16	23	28	5.5	10.5	7.5	16	A	1R.ST1.160.00
20	25	33	5.5	10.5	7.5	16	A	1R.ST1.200.00
25	27.5	38	5.5	10.5	7.5	16	A	1R.ST1.250.00
32	31	48	5.5	10.5	7.5	16	A	1R.ST1.320.00
40	41.5	54	5.5	10.5	7.5	20	B	1R.ST1.400.00
50	46.5	64.5	7	14	9	23	B	1R.ST1.500.00
63	56	80	7	14	9	25	B	1R.ST1.630.00
75	63.6	94	9	17	10.5	27.5	B	1R.ST1.750.00
90	72	115	9	17	13.5	30	B	1R.ST1.900.00
110	84	139	9	17	14	30	B	1R.ST1.110.00

**20.1.20. Trójnik GW 90°**


<b>G</b>	<b>L</b>	<b>Z</b>	<b>E</b>	<b>Nr kat.</b>
<b>3/8"</b>	11.4	11.6	23	<b>1R.TI1.160.00</b>
<b>1/2"</b>	15	13	28	<b>1R.TI1.200.00</b>
<b>3/4"</b>	16.3	16.7	35	<b>1R.TI1.250.00</b>
<b>1"</b>	19.1	19.9	43	<b>1R.TI1.320.00</b>
<b>1 1/4"</b>	21.4	25.6	51	<b>1R.TI1.400.00</b>
<b>1 1/2"</b>	21.4	35.6	61	<b>1R.TI1.500.00</b>
<b>2"</b>	25.7	45.3	75	<b>1R.TI1.630.00</b>
<b>2 1/2"</b>	30.2	52.8	89	<b>1R.TI1.750.00</b>
<b>3"</b>	33.3	64.7	106	<b>1R.TI1.900.00</b>
<b>4"</b>	39.3	78.7	129	<b>1R.TI1.110.00</b>

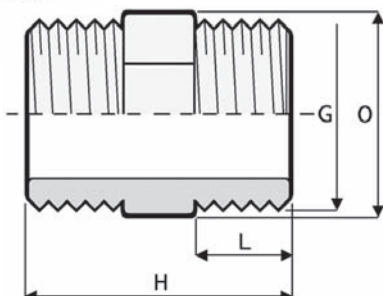
**20.1.21. Kolano GW 90°**


<b>G</b>	<b>L</b>	<b>Z</b>	<b>E</b>	<b>Nr kat.</b>
<b>3/8"</b>	11.4	11.6	23	<b>1R.GO2.160.00</b>
<b>1/2"</b>	15	13	28	<b>1R.GO2.200.00</b>
<b>3/4"</b>	16.3	16.7	35	<b>1R.GO2.250.00</b>
<b>1"</b>	19.1	19.9	43	<b>1R.GO2.320.00</b>
<b>1 1/4"</b>	21.4	25.6	51	<b>1R.GO2.400.00</b>
<b>1 1/2"</b>	21.4	35.6	61	<b>1R.GO2.500.00</b>
<b>2"</b>	25.7	45.3	76	<b>1R.GO2.630.00</b>
<b>2 1/2"</b>	30.2	52.8	89	<b>1R.GO2.750.00</b>
<b>3"</b>	33.3	64.7	106	<b>1R.GO2.900.00</b>
<b>4"</b>	39.3	78.7	129	<b>1R.GO2.110.00</b>

**20.1.22. Mufa GW**


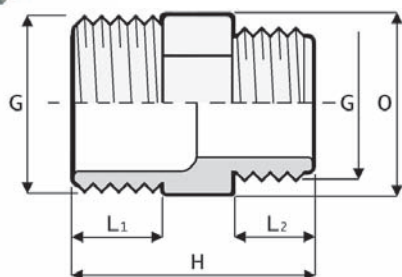
<b>G</b>	<b>L</b>	<b>Z</b>	<b>E</b>	<b>Nr kat.</b>
<b>3/8"</b>	11.4	8	23.5	<b>1R.MA2.160.00</b>
<b>1/2"</b>	15	7	28.5	<b>1R.MA2.200.00</b>
<b>3/4"</b>	16.3	8.5	35	<b>1R.MA2.250.00</b>
<b>1"</b>	19.1	9	43	<b>1R.MA2.320.00</b>
<b>1 1/4"</b>	21.4	11	50	<b>1R.MA2.400.00</b>
<b>1 1/2"</b>	21.4	17.5	61	<b>1R.MA2.500.00</b>
<b>2"</b>	25.7	19.5	76	<b>1R.MA2.630.00</b>
<b>2 1/2"</b>	30.2	9	89	<b>1R.MA2.750.00</b>
<b>3"</b>	33.3	10	103	<b>1R.MA2.900.00</b>
<b>4"</b>	39.3	11	130	<b>1R.MA2.110.00</b>

### 20.1.23. Nypel GW



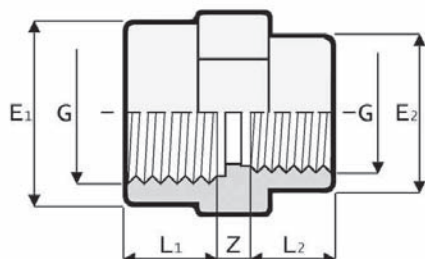
G	L	H	O	Nr kat.
3/8"	11.4	33	22	<b>1R.NI2.160.00</b>
1/2"	15	42	24	<b>1R.NI2.200.00</b>
3/4"	16.3	44	30	<b>1R.NI2.250.00</b>
1"	19.1	50	36	<b>1R.NI2.320.00</b>
1 1/4"	21.4	58	46	<b>1R.NI2.400.00</b>
1 1/2"	21.4	58	50	<b>1R.NI2.500.00</b>
2"	25.7	66	65	<b>1R.NI2.630.00</b>
2 1/2"	30.2	78	80	<b>1R.NI2.750.00</b>
3"	33.3	85	95	<b>1R.NI2.900.00</b>
4"	39.3	96	120	<b>1R.NI2.110.00</b>

### 20.1.24. Redukcja GZ

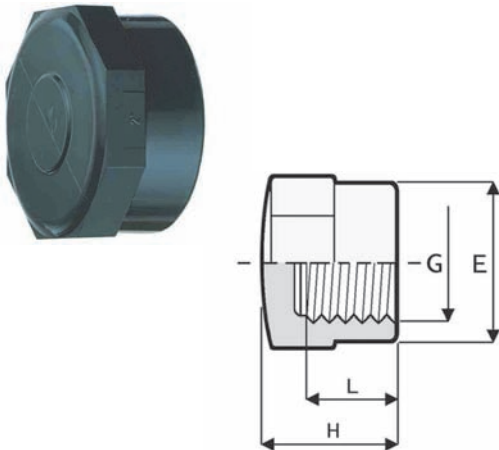


G	L1	L2	H	O	Nr kat.
1/2"x3/8"	15	11.4	38	24	<b>1R.NR2.20A.00</b>
3/4"x1/2"	16.3	15	43	30	<b>1R.NR2.25B.00</b>
1"x3/4"	19.1	16.3	47	36	<b>1R.NR2.32C.00</b>
1 1/4"x1"	21.4	19.1	56	46	<b>1R.NR2.40D.00</b>
1 1/2"x1 1/4"	21.4	21.4	58	50	<b>1R.NR2.50E.00</b>
2"x1 1/2"	25.7	21.4	62	65	<b>1R.NR2.63F.00</b>
2 1/2"x2"	30.2	25.7	72	80	<b>1R.NR2.75G.00</b>
3"x2 1/2"	33.3	30.2	82	95	<b>1R.NR2.90H.00</b>
4"x3"	39.3	33.3	90	120	<b>1R.NR2.111.00</b>

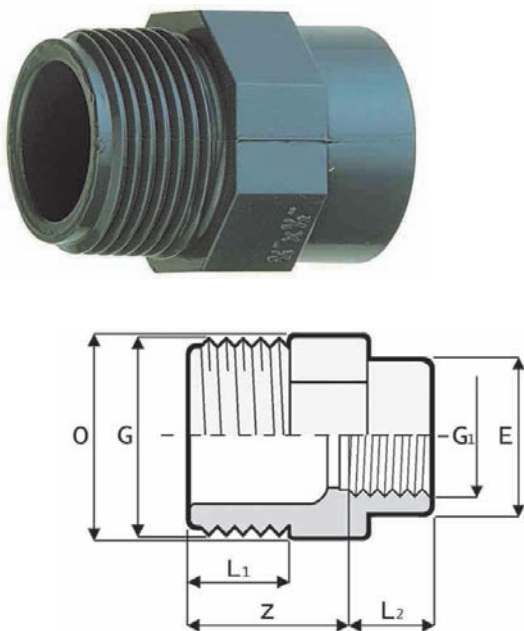
### 20.1.25. Redukcja GW



G	L1	L2	Z	E1	E2	Nr kat.
1/2"x3/8"	15	11.4	6	28	23	<b>1R.MR2.20A.00</b>
3/4"x1/2"	16.3	15	7	34	28	<b>1R.MR2.25B.00</b>
1"x3/4"	19.1	16.3	7	42	34	<b>1R.MR2.32C.00</b>
1 1/4"x1"	21.4	19.1	8	51	42	<b>1R.MR2.40D.00</b>
1 1/2"x1 1/4"	21.4	21.4	8	58	51	<b>1R.MR2.50E.00</b>
2"x1 1/2"	25.7	21.4	8	72	58	<b>1R.MR2.63F.00</b>
2 1/2"x2"	30.2	25.7	8	89	72	<b>1R.MR2.75G.00</b>
3"x2 1/2"	33.3	30.2	9	103	89	<b>1R.MR2.90H.00</b>
4"x3"	39.3	33.3	10	130	103	<b>1R.MR2.111.00</b>

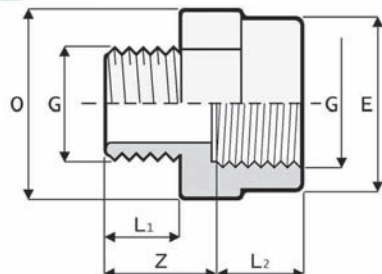
**20.1.26. Korek GW**


<b>G</b>	<b>L</b>	<b>H</b>	<b>E</b>	<b>Nr kat.</b>
<b>3/8"</b>	11.4	22	23	<b>1R.CA2.160.00</b>
<b>1/2"</b>	15	24	28	<b>1R.CA2.200.00</b>
<b>3/4"</b>	16.3	27	34	<b>1R.CA2.250.00</b>
<b>1"</b>	19.1	30	42	<b>1R.CA2.320.00</b>
<b>1 1/4"</b>	21.4	35	51	<b>1R.CA2.400.00</b>
<b>1 1/2"</b>	21.4	40	61	<b>1R.CA2.500.00</b>
<b>2"</b>	25.7	48	75	<b>1R.CA2.630.00</b>
<b>2 1/2"</b>	30.2	50	89	<b>1R.CA2.750.00</b>
<b>3"</b>	33.3	53	103	<b>1R.CA2.900.00</b>
<b>4"</b>	39.3	59	130	<b>1R.CA2.110.00</b>

**20.1.27. Redukcja GZ x GW**


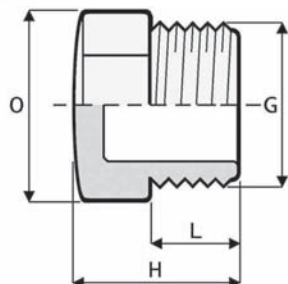
<b>GxG1</b>	<b>L1</b>	<b>L2</b>	<b>Z</b>	<b>E</b>	<b>O</b>	<b>Nr kat.</b>
<b>1/2"x3/8"</b>	15	11.4	24	23	24	<b>1R.RI2.20A.00</b>
<b>3/4"x3/8"</b>	16.3	11.4	25	23	30	<b>1R.RI2.25A.00</b>
<b>3/4"x1/2"</b>	16.3	15	26	28	30	<b>1R.RI2.25B.00</b>
<b>1"x3/8"</b>	19.1	11.4	28	23	36	<b>1R.RI2.32A.00</b>
<b>1"x1/2"</b>	19.1	15	29	28	36	<b>1R.RI2.32B.00</b>
<b>1"x3/4"</b>	19.1	16.3	30	34	36	<b>1R.RI2.32C.00</b>
<b>1 1/4"x1/2"</b>	21.4	15	33	28	46	<b>1R.RI2.40B.00</b>
<b>1 1/4"x3/4"</b>	21.4	16.3	33	34	46	<b>1R.RI2.40C.00</b>
<b>1 1/4"x1"</b>	21.4	19.1	33	42	46	<b>1R.RI2.40D.00</b>
<b>1 1/2"x3/4"</b>	21.4	16.3	34	34	50	<b>1R.RI2.50C.00</b>
<b>1 1/2"x1"</b>	21.4	19.1	34	42	50	<b>1R.RI2.50D.00</b>
<b>1 1/2"x1 1/4"</b>	21.4	21.4	34	51	55	<b>1R.RI2.50E.00</b>
<b>2"x1"</b>	25.7	19.1	37	42	65	<b>1R.RI2.63D.00</b>
<b>2"x1 1/4"</b>	25.7	21.4	37	51	65	<b>1R.RI2.63E.00</b>
<b>2"x1 1/2"</b>	25.7	21.4	37	58	65	<b>1R.RI2.63F.00</b>
<b>2 1/2"x1 1/4"</b>	30.2	21.4	43	51	80	<b>1R.RI2.75E.00</b>
<b>2 1/2"x1 1/2"</b>	30.2	21.4	43	58	80	<b>1R.RI2.75F.00</b>
<b>2 1/2"x2"</b>	30.2	25.7	43	72	80	<b>1R.RI2.75G.00</b>
<b>3"x1 1/2"</b>	33.3	21.4	47	58	95	<b>1R.RI2.90F.00</b>
<b>3"x2"</b>	33.3	25.7	47	72	95	<b>1R.RI2.90G.00</b>
<b>3"x2 1/2"</b>	33.3	30.2	47	89	95	<b>1R.RI2.90H.00</b>
<b>4"x2"</b>	39.3	25.7	53	72	120	<b>1R.RI2.11G.00</b>
<b>4"x2 1/2"</b>	39.3	30.2	53	89	120	<b>1R.RI2.11H.00</b>
<b>4"x3"</b>	39.3	33.3	53	103	120	<b>1R.RI2.11I.00</b>

## 20.1.28. Kształtka przejściowa GZ x GW



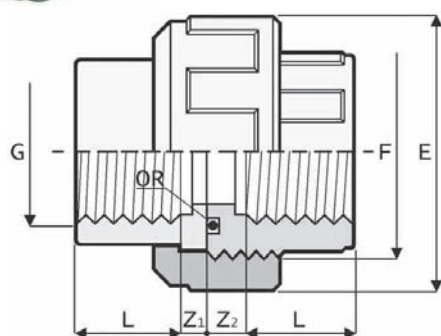
GxG	L1	L2	Z	O	E	Nr kat.
<b>3/8"x1/2"</b>	11.4	15.0	22	30	28	<b>1R.MG2.16B.00</b>
<b>1/2"x3/4"</b>	15.0	16.3	24	36	34	<b>1R.MG2.20C.00</b>
<b>3/4"x1"</b>	16.3	19.1	26	46	42	<b>1R.MG2.25D.00</b>
<b>1"x1 1/4"</b>	19.1	21.4	30	55	51	<b>1R.MG2.32E.00</b>
<b>1 1/4"x1 1/2"</b>	21.4	21.4	33	60	58	<b>1R.MG2.40F.00</b>
<b>1 1/2"x2"</b>	21.4	25.7	34	75	72	<b>1R.MG2.50G.00</b>
<b>2"x2 1/2"</b>	25.7	30.2	38	90	89	<b>1R.MG2.63H.00</b>
<b>2 1/2"x3"</b>	30.2	33.3	44	105	103	<b>1R.MG2.75I.00</b>
<b>3"x4"</b>	33.3	39.3	48	130	130	<b>1R.MG2.90L.00</b>

## 20.1.29. Korek GZ



G	L	H	O	Nr kat.
<b>3/8"</b>	11.4	24	22	<b>1R.TA2.160.00</b>
<b>1/2"</b>	15.0	29	24	<b>1R.TA2.200.00</b>
<b>3/4"</b>	16.3	30	30	<b>1R.TA2.250.00</b>
<b>1"</b>	19.1	33	36	<b>1R.TA2.320.00</b>
<b>1 1/4"</b>	21.4	39	46	<b>1R.TA2.400.00</b>
<b>1 1/2"</b>	21.4	39	50	<b>1R.TA2.500.00</b>
<b>2"</b>	25.7	43	65	<b>1R.TA2.630.00</b>
<b>2 1/2"</b>	30.2	51	80	<b>1R.TA2.750.00</b>
<b>3"</b>	33.3	55	95	<b>1R.TA2.900.00</b>
<b>4"</b>	39.3	61	120	<b>1R.TA2.110.00</b>

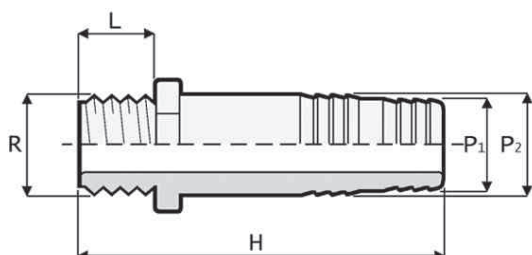
## 20.1.30. Dwuzłączka GW



G	L	Z1	Z2	F	E	Nr kat.
<b>3/8"</b>	11.4	5.6	13.6	3/4"	34	<b>1R.BO2.160.00</b>
<b>1/2"</b>	15.0	4.0	11.0	1"	42	<b>1R.BO2.200.00</b>
<b>3/4"</b>	16.3	5.7	12.7	1 1/4"	52	<b>1R.BO2.250.00</b>
<b>1"</b>	19.1	5.9	12.9	1 1/2"	59	<b>1R.BO2.320.00</b>
<b>1 1/4"</b>	21.4	7.6	16.6	2"	72	<b>1R.BO2.400.00</b>
<b>1 1/2"</b>	21.4	12.6	23.6	2 1/4"	79	<b>1R.BO2.500.00</b>
<b>2"</b>	25.7	15.3	30.3	2 3/4"	96	<b>1R.BO2.630.00</b>
<b>2 1/2"</b>	30.2	17.8	32.8	3 1/2"	120	<b>1R.BO2.750.00L</b>
<b>3"</b>	33.3	25.7	36.7	4"	135	<b>1R.BO2.900.00L</b>
<b>4"</b>	39.3	27.7	40.7	5"	163	<b>1R.BO2.110.00L</b>

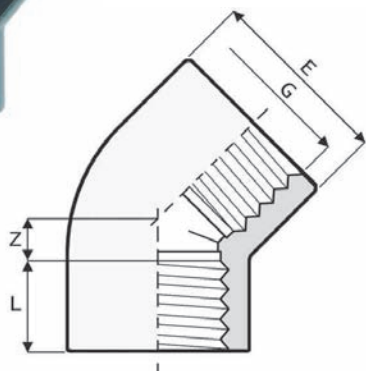


### 20.1.31. Tuleja na wąż GZ



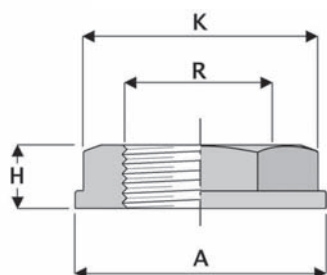
RxP1xP2	L	H	Nr kat.
<b>3/8"x16x18</b>	11.4	58	<b>1R.PO2.160.00</b>
<b>1/2"x20x22</b>	15.0	66	<b>1R.PO2.200.00</b>
<b>3/4"x25x27</b>	16.3	81	<b>1R.PO2.250.00</b>
<b>1"x30x32</b>	19.1	97	<b>1R.PO2.320.00</b>
<b>1 1/4"x40x42</b>	21.4	104	<b>1R.PO2.400.00</b>
<b>1 1/2"x50x52</b>	21.4	111	<b>1R.PO2.500.00</b>
<b>2"x60x64</b>	25.7	123	<b>1R.PO2.630.00</b>

### 20.1.32. Kolano 45° GW



G	L	Z	E	Nr kat.
<b>1/2"</b>	15.0	12.0	28	<b>1R.GY2.200.00</b>
<b>3/4"</b>	16.3	16.7	34	<b>1R.GY2.250.00</b>
<b>1"</b>	19.1	19.9	42	<b>1R.GY2.320.00</b>
<b>1 1/4"</b>	21.4	25.6	51	<b>1R.GY2.400.00</b>
<b>1 1/2"</b>	21.4	35.6	61	<b>1R.GY2.500.00</b>
<b>2"</b>	25.7	45.3	75	<b>1R.GY2.630.00</b>
<b>2 1/2"</b>	30.2	52.8	89	<b>1R.GY2.750.00</b>
<b>3"</b>	33.3	64.7	106	<b>1R.GY2.900.00</b>
<b>4"</b>	39.3	78.7	129	<b>1R.GY2.110.00</b>

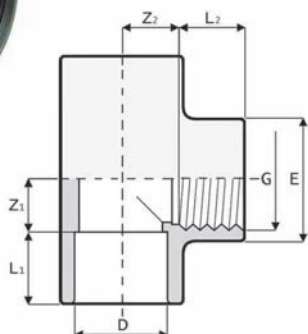
### 20.1.33. Nakrętka kontruująca GW



R	A	K	H	Nr kat.
<b>1/2"</b>	38	28	13.0	<b>1R.NU2.200.00</b>
<b>3/4"</b>	44	33	13.5	<b>1R.NU2.250.00</b>
<b>1"</b>	58	46	16.0	<b>1R.NU2.320.00</b>
<b>1 1/4"</b>	62	50	18.0	<b>1R.NU2.400.00</b>
<b>1 1/2"</b>	76	60	19.0	<b>1R.NU2.500.00</b>
<b>2"</b>	92	79	20.8	<b>1R.NU2.630.00</b>

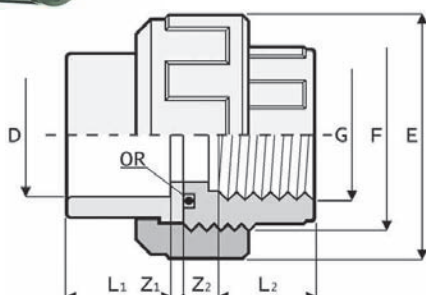


### 20.1.34. Trójnik d x GW 90°



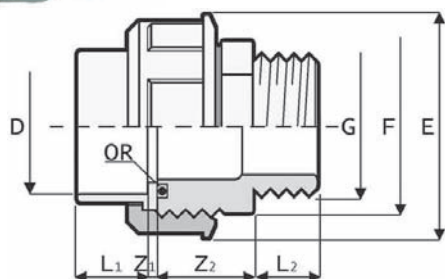
DxG	L1	L2	Z1	Z2	E	Nr kat.
16x3/8"	14	11.4	9	11.6	23	1R.TI3.16A.00
20x1/2"	16	15	12	13	28	1R.TI3.20B.00
25x3/4"	19	16.3	15	17	35	1R.TI3.25C.00
32x1"	22	19.1	18	21	43	1R.TI3.32D.00
40x1 1/4"	26	21.4	21	25.6	51	1R.TI3.40E.00
50x1 1/2"	31	21.4	26	35.6	61	1R.TI3.50F.00
63x2"	38	25.7	33	45.3	75	1R.TI3.63G.00
75x2 1/2"	44	30.2	39	52.8	89	1R.TI3.75H.00
90x3"	51	33.3	47	64.7	106	1R.TI3.90I.00
110x4"	61	39.3	57	78.7	129	1R.TI3.11L.00

### 20.1.35. Dwuzłączka d x GW

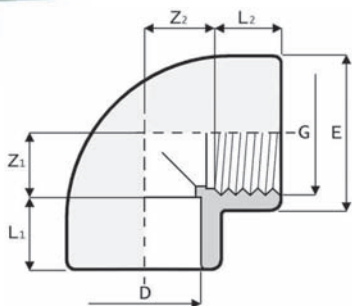


DxG	L1	L2	Z1	Z2	F	E	Nr kat.
16x3/8"	14	11.4	3	13.6	3/4"	34	1R.BO3.16A.00
20x1/2"	16	15.0	3	11.0	1"	42	1R.BO3.20B.00
25x3/4"	19	16.3	3	12.7	1 1/4"	52	1R.BO3.25C.00
32x1"	22	19.1	3	12.9	1 1/2"	59	1R.BO3.32D.00
40x1 1/4"	26	21.4	3	16.6	2"	72	1R.BO3.40E.00
50x1 1/2"	31	21.4	3	23.6	2 1/4"	79	1R.BO3.50F.00
63x2"	38	25.7	3	30.3	2 3/4"	96	1R.BO3.63G.00
75x2 1/2"	45	30.2	3	32.8	3 1/2"	120	1R.BO3.75H.00L
90x3"	53	33.3	5	36.7	4"	135	1R.BO3.90I.00L
110x4"	61	39.3	5	40.7	5"	163	1R.BO3.11L.00L

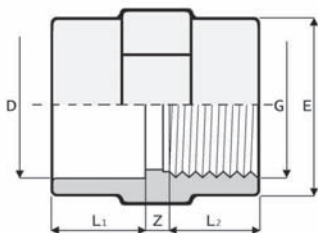
### 20.1.36. Dwuzłączka d x GZ



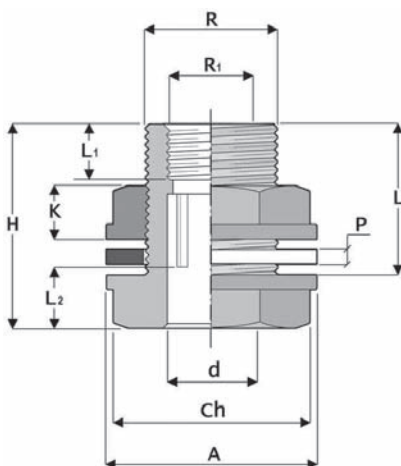
DxG	L1	L2	Z1	Z2	F	E	Nr kat.
50x1 1/2"	31	28	3	41	2 1/4"	79	1R.BM3.50F.00
50x2"	31	28	3	41	2 1/4"	79	1R.BM3.50G.00
63x2"	38	28	3	43	2 3/4"	96	1R.BM3.63G.00

**20.1.37. Kolano d x GW 90°**


<b>DxG</b>	<b>L1</b>	<b>L2</b>	<b>Z1</b>	<b>Z2</b>	<b>E</b>	<b>Nr kat.</b>
<b>16x3/8"</b>	14	11.4	9	11.6	23	<b>1R.GO3.16A.00</b>
<b>20x1/2"</b>	16	15	11	12	28	<b>1R.GO3.20B.00</b>
<b>25x3/4"</b>	19	16.3	14	17	35	<b>1R.GO3.25C.00</b>
<b>32x1"</b>	22	19.1	18	20.5	43	<b>1R.GO3.32D.00</b>
<b>40x1 1/4"</b>	26	21.4	21	25.6	51	<b>1R.GO3.40E.00</b>
<b>50x1 1/2"</b>	31	21.4	26	35.6	61	<b>1R.GO3.50F.00</b>
<b>63x2"</b>	38	25.7	33	46	76	<b>1R.GO3.63G.00</b>
<b>75x2 1/2"</b>	44	30.2	39	52.8	89	<b>1R.GO3.75H.00</b>
<b>90x3"</b>	51	33.3	47	64.7	106	<b>1R.GO3.90I.00</b>
<b>110x4"</b>	61	39.3	57	78.7	129	<b>1R.GO3.11L.00</b>

**20.1.38. Mufa d x GW**


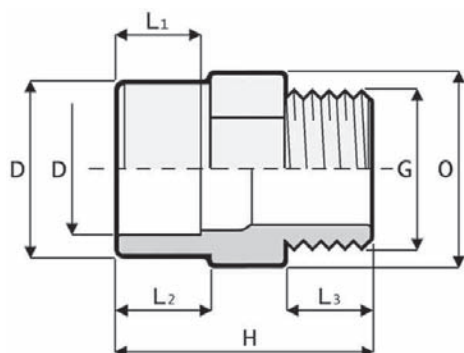
<b>DxG</b>	<b>L1</b>	<b>L2</b>	<b>Z1</b>	<b>Z2</b>	<b>Nr kat.</b>
<b>16x3/8"</b>	14	11.4	5.5	23.5	<b>1R.MA3.16A.00</b>
<b>20x1/2"</b>	16	15.0	4	28.5	<b>1R.MA3.20B.00</b>
<b>25x3/4"</b>	19	16.3	5	35	<b>1R.MA3.25C.00</b>
<b>32x1"</b>	22	19.1	6	43	<b>1R.MA3.32D.00</b>
<b>40x1 1/4"</b>	26	21.4	5	50	<b>1R.MA3.40E.00</b>
<b>50x1 1/2"</b>	31	21.4	8	61	<b>1R.MA3.50F.00</b>
<b>63x2"</b>	38	25.7	7.5	76	<b>1R.MA3.63G.00</b>
<b>75x2 1/2"</b>	44	30.2	8	89	<b>1R.MA3.75H.00</b>
<b>90x3"</b>	51	33.3	9	106	<b>1R.MA3.90I.00</b>
<b>110x4"</b>	61	39.3	10	129	<b>1R.MA3.11L.00</b>

**20.1.39. Złączka zbiornikowa GZ x GW x d**


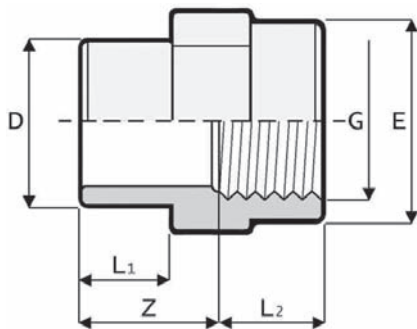
<b>RxdxR1</b>	<b>A</b>	<b>Ch</b>	<b>L</b>	<b>L1</b>	<b>L2</b>	<b>H</b>	<b>P</b>	<b>K</b>	<b>Nr kat.</b>
<b>3/4"x16x1/2"</b>	44	33	47	15.0	14	60.5	3	13.5	<b>1R.AS3.16B.00</b>
<b>1"x20x3/4"</b>	58	46	49	16.3	16	65	3	16.0	<b>1R.AS3.20C.00</b>
<b>1 1/4"x25x1"</b>	62	50	52	19.1	19	70	3	18.0	<b>1R.AS3.25D.00</b>
<b>1 1/2"x32x1"</b>	76	60	54	19.1	22	73	3	19.0	<b>1R.AS3.32D.00</b>
<b>2"x40x1 1/2"</b>	92	79	60	21.4	26	81	3	20.8	<b>1R.AS3.40F.00</b>



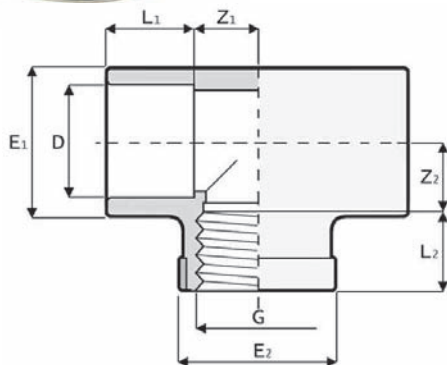
## 20.1.40. Kształtka przejściowa d x GZ



<b>DxG</b>	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>H</b>	<b>O</b>	<b>Nr kat.</b>
<b>12x16x3/8"</b>	12	14	11.4	34.5	20.4	<b>1R.AM3.12A.00</b>
<b>16x20x3/8"</b>	14	16	11.4	40	24	<b>1R.AM3.16A.00</b>
<b>16x20x1/2"</b>	14	16	15.0	43	24	<b>1R.AM3.16B.00</b>
<b>20x25x3/8"</b>	16	19	11.4	43	30	<b>1R.AM3.20A.00</b>
<b>20x25x1/2"</b>	16	19	15.0	46	30	<b>1R.AM3.20B.00</b>
<b>20x25x3/4"</b>	16	19	16.3	47	30	<b>1R.AM3.20C.00</b>
<b>25x32x1/2"</b>	19	22	15.0	49	36	<b>1R.AM3.25B.00</b>
<b>25x32x3/4"</b>	19	22	16.3	50	36	<b>1R.AM3.25C.00</b>
<b>25x32x1"</b>	19	22	19.1	53	36	<b>1R.AM3.25D.00</b>
<b>32x40x3/4"</b>	22	26	16.3	54	46	<b>1R.AM3.32C.00</b>
<b>32x40x1"</b>	22	26	19.1	57	46	<b>1R.AM3.32D.00</b>
<b>32x40x1 1/4"</b>	22	26	21.4	60	46	<b>1R.AM3.32E.00</b>
<b>40x50x1"</b>	26	31	19.1	64	55	<b>1R.AM3.40D.00</b>
<b>40x50x1 1/4"</b>	26	31	21.4	67	55	<b>1R.AM3.40E.00</b>
<b>40x50 1 1/2"</b>	26	31	21.4	67	55	<b>1R.AM3.40F.00</b>
<b>50x63x1 1/4"</b>	31	38	21.4	74	65	<b>1R.AM3.50E.00</b>
<b>50x63x1 1/2"</b>	31	38	21.4	74	65	<b>1R.AM3.50F.00</b>
<b>50x63x2"</b>	31	38	25.7	78	65	<b>1R.AM3.50G.00</b>
<b>63x75x1 1/2"</b>	38	44	21.4	80	80	<b>1R.AM3.63F.00</b>
<b>63x75x2"</b>	38	44	25.7	84	80	<b>1R.AM3.63G.00</b>
<b>63x75x2 1/2"</b>	38	44	30.2	91	80	<b>1R.AM3.63H.00</b>
<b>75x90x2"</b>	44	51	25.7	94	95	<b>1R.AM3.75G.00</b>
<b>75x90x2 1/2"</b>	44	51	30.2	99	95	<b>1R.AM3.75H.00</b>
<b>75x90x3"</b>	44	51	33.3	102	95	<b>1R.AM3.75I.00</b>
<b>90x110x2"</b>	51	61	25.7	110	115	<b>1R.AM3.90G.00</b>
<b>90x110x2 1/2"</b>	51	61	30.2	110	115	<b>1R.AM3.90H.00</b>
<b>90x110x3"</b>	51	61	33.3	113	115	<b>1R.AM3.90I.00</b>
<b>90x110x4"</b>	51	61	39.3	118	115	<b>1R.AM3.90L.00</b>
<b>110x125x3"</b>	61	66	33.3	115	130	<b>1R.AM3.11I.00</b>
<b>110x125x4"</b>	61	66	39.3	120	130	<b>1R.AM3.11L.00</b>

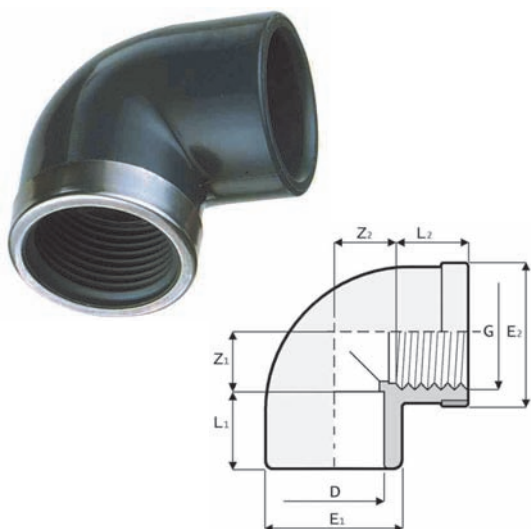
**20.1.41. Kształtka przejściowa d x GW**


<b>DxG</b>	<b>L1</b>	<b>L2</b>	<b>E</b>	<b>Z</b>	<b>Nr kat.</b>
<b>16x3/8"</b>	14	11.4	23	22	<b>1R.AF3.16A.00</b>
<b>20x1/2"</b>	14	15.0	28	22	<b>1R.AF3.20B.00</b>
<b>20x3/4"</b>	16	15.0	28	26	<b>1R.AF3.20C.00</b>
<b>25x1/2"</b>	16	16.3	34	26	<b>1R.AF3.25B.00</b>
<b>25x3/4"</b>	16	19.0	28	29	<b>1R.AF3.25C.00</b>
<b>25x1"</b>	19	16.3	34	29	<b>1R.AF3.25D.00</b>
<b>32x3/4"</b>	19	19.1	42	29	<b>1R.AF3.32C.00</b>
<b>32x1"</b>	19	22.0	34	32	<b>1R.AF3.32D.00</b>
<b>40x1"</b>	22	19.1	42	33	<b>1R.AF3.40D.00</b>
<b>40x1 1/4"</b>	22	19.1	42	37	<b>1R.AF3.40E.00</b>
<b>50x1 1/4"</b>	26	21.4	51	37	<b>1R.AF3.50E.00</b>
<b>50x1 1/2"</b>	31	21.4	51	42	<b>1R.AF3.50F.00</b>
<b>50x2"</b>	31	21.4	58	42	<b>1R.AF3.50G.00</b>
<b>63x1 1/2"</b>	31	25.7	72	42	<b>1R.AF3.63F.00</b>
<b>63x2"</b>	38	25.7	72	50	<b>1R.AF3.63G.00</b>
<b>75x2"</b>	38	44.0	75	61	<b>1R.AF3.75G.00</b>
<b>75x2 1/2"</b>	44	30.2	89	59	<b>1R.AF3.75H.00</b>
<b>75x3"</b>	44	33.3	103	59	<b>1R.AF3.75I.00</b>
<b>90x2 1/2"</b>	44	51.0	89	68	<b>1R.AF3.90H.00</b>
<b>90x3"</b>	51	33.3	103	67	<b>1R.AF3.90I.00</b>
<b>90x4"</b>	51	39.3	130	67	<b>1R.AF3.90L.00</b>
<b>110x3"</b>	51	61.0	106	82	<b>1R.AF3.11I.00</b>
<b>110x4"</b>	61	39.3	130	77	<b>1R.AF3.11L.00</b>

**20.1.42. Trójnik d x GW 90° (pierścień wzmacniający)**


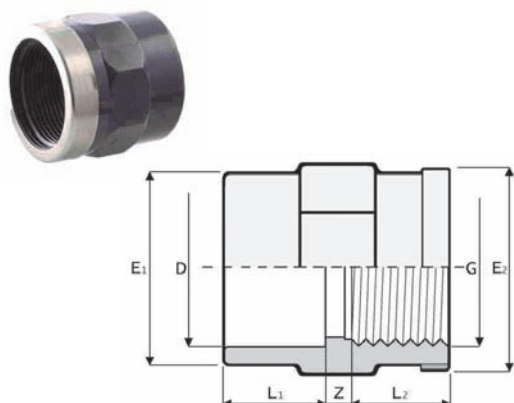
<b>DxG</b>	<b>L1</b>	<b>L2</b>	<b>Z1</b>	<b>Z2</b>	<b>E1</b>	<b>E2</b>	<b>Nr kat.</b>
<b>16x3/8"</b>	14	11.4	9	11.6	23	25	<b>1R.TM3.16A.00</b>
<b>20x1/2"</b>	16	15	11	12.0	28	30	<b>1R.TM3.20B.00</b>
<b>25x3/4"</b>	19	16.3	14	16.7	34	35	<b>1R.TM3.25C.00</b>
<b>32x1"</b>	22	19.1	17	19.9	42	45	<b>1R.TM3.32D.00</b>
<b>40x1 1/4"</b>	26	21.4	21	25.6	51	55	<b>1R.TM3.40E.00</b>
<b>50x1 1/2"</b>	31	21.4	26	35.6	61	65	<b>1R.TM3.50F.00</b>
<b>63x2"</b>	38	25.7	33	45.3	75	78	<b>1R.TM3.63G.00</b>

### 20.1.43. Kolano d x GW 90° (pierścień wzmacniający)



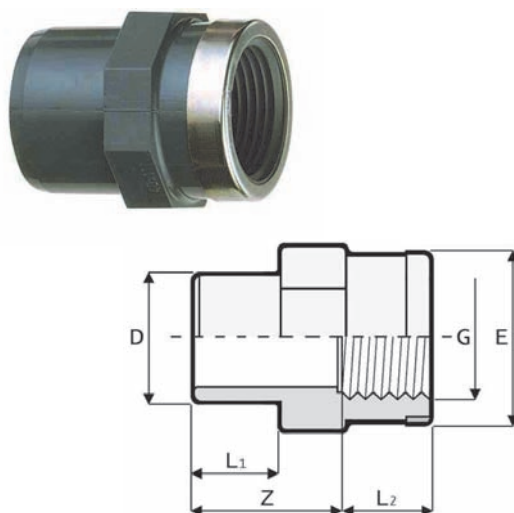
DxG	L1	L2	Z1	Z2	E1	E2	Nr kat.
16x3/8"	14	11.4	9	11.6	23	25	1R.GM3.16A.00
20x1/2"	16	15.0	11	12.0	28	30	1R.GM3.20B.00
25x3/4"	19	16.3	14	16.7	34	35	1R.GM3.25C.00
32x1"	22	19.1	17	19.9	42	45	1R.GM3.32D.00
40x1 1/4"	26	21.4	21	25.6	51	55	1R.GM3.40E.00
50x1 1/2"	31	21.4	26	35.6	61	65	1R.GM3.50F.00
63x2"	38	25.7	33	45.3	75	78	1R.GM3.63G.00

### 20.1.44. Mufa d x GW (pierścień wzmacniający)



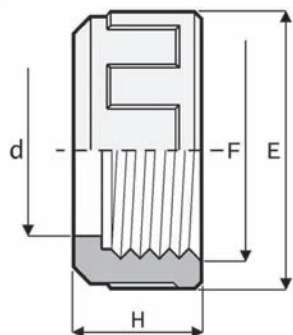
DxG	L1	L2	E1	E2	Z	Nr kat.
16x3/8"	14	11.4	23.5	24.5	5.5	1R.MM3.16A.00
20x1/2"	16	15.0	28.5	29.5	4	1R.MM3.20B.00
25x3/4"	19	16.3	35	36	5	1R.MM3.25C.00
32x1"	22	19.1	43	44	6	1R.MM3.32D.00
40x1 1/4"	26	21.4	50	51	5	1R.MM3.40E.00
50x1 1/2"	31	21.4	61	62	8	1R.MM3.50F.00
63x2"	38	25.7	76	77	7.5	1R.MM3.63G.00

### 20.1.45. Kształtka przejściowa d x GW (pierścień wzmacniający)

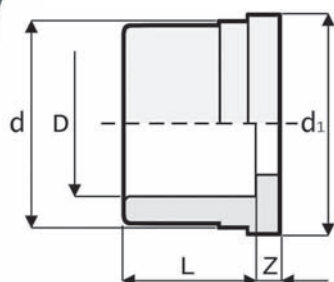


DxG	L1	L2	E	Z	Nr kat.
20x1/2"	16	15	30	26	1R.RM3.20B.00
25x1/2"	16	19	30	29	1R.RM3.25B.00
25x3/4"	19	16.3	35	29	1R.RM3.25C.00
32x3/4"	19	22	35	32	1R.RM3.32C.00
32x1"	22	19.1	45	33	1R.RM3.32D.00
40x1"	22	20.6	45	37	1R.RM3.40D.00
40x1 1/4"	26	21.4	55	37	1R.RM3.40E.00
50x1 1/2"	31	21.4	65	42	1R.RM3.50F.00
50x2"	31	25.7	78	42	1R.RM3.50G.00
63x2"	38	25.7	78	50	1R.RM3.63G.00

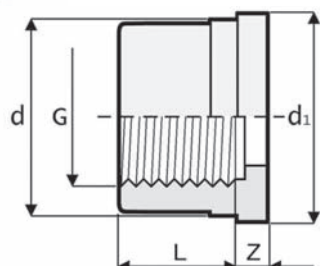


**20.1.46. Nakrętka do B01, B02 i B03**


<b>D</b>	<b>d</b>	<b>H</b>	<b>F</b>	<b>E</b>	<b>Nr kat.</b>
<b>16</b>	22.0	23	3/4"	34	<b>1R.BG1.160.00</b>
<b>20</b>	27.6	23	1"	42	<b>1R.BG1.200.00</b>
<b>25</b>	36.1	25	1 1/4"	52	<b>1R.BG1.250.00</b>
<b>32</b>	41.6	27	1 1/2"	59	<b>1R.BG1.320.00</b>
<b>40</b>	53.1	30	2"	72	<b>1R.BG1.400.00</b>
<b>50</b>	59.1	34	2 1/4"	79	<b>1R.BG1.500.00</b>
<b>63</b>	74.1	38	2 3/4"	96	<b>1R.BG1.630.00</b>
<b>75</b>	92.7	45	3 1/2"	120	<b>1R.BG1.750.00L</b>
<b>90</b>	105.5	52	4"	135	<b>1R.BG1.900.00L</b>
<b>110</b>	129.5	59	5"	163	<b>1R.BG1.110.00L</b>

**20.1.47. Luźny koniec do B01 i B03**


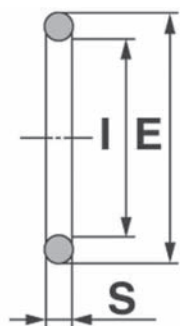
<b>D</b>	<b>L</b>	<b>Z</b>	<b>d</b>	<b>d1</b>	<b>Nr kat.</b>
<b>16</b>	14	3	22.0	24.0	<b>1R.BL1.160.00</b>
<b>20</b>	16	3	27.5	30.1	<b>1R.BL1.200.00</b>
<b>25</b>	19	3	36.0	38.8	<b>1R.BL1.250.00</b>
<b>32</b>	22	3	41.5	44.7	<b>1R.BL1.320.00</b>
<b>40</b>	26	3	53.0	56.5	<b>1R.BL1.400.00</b>
<b>50</b>	31	3	59.0	62.6	<b>1R.BL1.500.00</b>
<b>63</b>	38	3	74.0	78.4	<b>1R.BL1.630.00</b>
<b>75</b>	44	3	92.5	97.0	<b>1R.BL1.750.00</b>
<b>90</b>	51	5	104.8	110.0	<b>1R.BL1.900.00</b>
<b>110</b>	61	5	128.8	135.5	<b>1R.BL1.110.00</b>

**20.1.48. Luźny koniec do B02**


<b>G</b>	<b>L</b>	<b>Z</b>	<b>d</b>	<b>d1</b>	<b>Nr kat.</b>
<b>3/8"</b>	11.4	5.6	22.0	24.0	<b>1R.BL2.160.00</b>
<b>1/2"</b>	15.0	4.0	27.5	30.1	<b>1R.BL2.200.00</b>
<b>3/4"</b>	16.3	5.7	36.0	38.8	<b>1R.BL2.250.00</b>
<b>1"</b>	19.1	5.9	41.5	44.7	<b>1R.BL2.320.00</b>
<b>1 1/4"</b>	21.4	7.6	53.0	56.5	<b>1R.BL2.400.00</b>
<b>1 1/2"</b>	21.4	12.6	59.0	62.6	<b>1R.BL2.500.00</b>
<b>2"</b>	25.7	15.3	74.0	78.4	<b>1R.BL2.630.00</b>
<b>2 1/2"</b>	30.2	17.8	90.5	97.0	<b>1R.BL2.750.00</b>
<b>3"</b>	33.3	25.7	104.8	110.0	<b>1R.BL2.900.00</b>
<b>4"</b>	39.3	27.7	128.8	135.5	<b>1R.BL2.110.00</b>

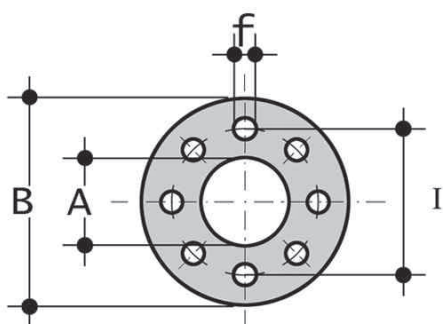


### 20.1.49. O-RING do B01, B02 i B03

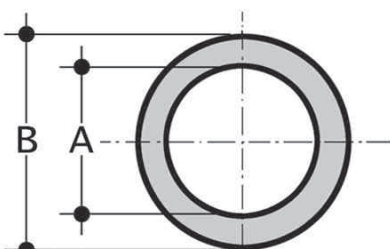


D	I	E	S	Nr kat.
<b>16</b>	23.4	28.7	2.6	<b>1R.GBO.160.00</b>
<b>20</b>	20.2	27.2	3.5	<b>1R.GBO.200.00</b>
<b>25</b>	28.2	35.2	3.5	<b>1R.GBO.250.00</b>
<b>32</b>	32.9	39.9	3.5	<b>1R.GBO.320.00</b>
<b>40</b>	40.6	51.2	5.3	<b>1R.GBO.400.00</b>
<b>50</b>	47.0	57.6	5.3	<b>1R.GBO.500.00</b>
<b>63</b>	60.4	71.0	5.3	<b>1R.GBO.630.00</b>
<b>75</b>	75.6	86.2	5.3	<b>1R.GBO.750.00L</b>
<b>90</b>	91.4	102.0	5.3	<b>1R.GBO.900.00L</b>
<b>110</b>	113.7	124.3	5.3	<b>1R.GBO.110.00L</b>

### 20.1.50. Uszczelka płaska do QR1



> Fig. Y




> Fig. X


D	A	B	I	Sp	f	Fig.	Nr kat.
<b>20</b>	20	32	-	2	-	X	<b>1R.GQP.200.00</b>
<b>25</b>	25	39	-	2	-	X	<b>1R.GQP.250.00</b>
<b>32</b>	32	48	-	2	-	X	<b>1R.GQP.320.00</b>
<b>40</b>	40	59	-	2	-	X	<b>1R.GQP.400.00</b>
<b>50</b>	50	71	-	2	-	X	<b>1R.GQP.500.00</b>
<b>63</b>	63	88	-	2	-	X	<b>1R.GQP.630.00</b>
<b>75</b>	75	104	-	2	-	X	<b>1R.GQP.750.00</b>
<b>90</b>	90	123	-	2	-	X	<b>1R.GQP.900.00</b>
<b>110</b>	110	148	-	3	-	X	<b>1R.GQP.110.00</b>
<b>125</b>	125	167	-	3	-	X	<b>1R.GQP.130.00</b>
<b>140</b>	140	186	-	3	-	X	<b>1R.GQP.150.00</b>
<b>160</b>	160	211	-	3	-	X	<b>1R.GQP.170.00</b>
<b>200</b>	197	267	-	3	-	X	<b>1R.GQP.210.00</b>
<b>225</b>	220	270	-	3	-	X	<b>1R.GQP.230.00</b>
<b>250</b>	250	305	-	4	-	X	<b>1R.GQP.260.00</b>
<b>280</b>	265	395	350	4	12 $\emptyset$ 22	Y	<b>1R.GQP.280.00</b>
<b>315</b>	290	462	400	4	12 $\emptyset$ 22	Y	<b>1R.GQP.330.00</b>

**20.2. KSZTAŁTKI Z PVC-U PN10**

	Typ elementu	Nr kat.
	Kolano 90° PVC-U PN10 d50	<b>133105</b>
	Kolano 90° PVC-U PN10 d63	<b>133106</b>
	Kolano 90° PVC-U PN10 d75	<b>133107</b>
	Kolano 90° PVC-U PN10 d90	<b>133108</b>
	Kolano 90° PVC-U PN10 d110	<b>133109</b>
	Kolano 90° PVC-U PN10 d125	<b>133110</b>
	Kolano 90° PVC-U PN10 d140	<b>133111</b>
	Kolano 90° PVC-U PN10 d160	<b>133112</b>
	Kolano 90° PVC-U PN10 d225	<b>133113</b>
	Kolano 45° PVC-U PN10 d50	<b>133205</b>
	Kolano 45° PVC-U PN10 d63	<b>133206</b>
	Kolano 45° PVC-U PN10 d75	<b>133207</b>
	Kolano 45° PVC-U PN10 d90	<b>133208</b>
	Kolano 45° PVC-U PN10 d110	<b>133209</b>
	Kolano 45° PVC-U PN10 d125	<b>133210</b>
	Kolano 45° PVC-U PN10 d140	<b>133211</b>
	Kolano 45° PVC-U PN10 d160	<b>133212</b>
	Kolano 45° PVC-U PN10 d225	<b>133213</b>
	Trójnik 90° PVC-U PN10 d50	<b>133305</b>
	Trójnik 90° PVC-U PN10 d63	<b>133306</b>
	Trójnik 90° PVC-U PN10 d75	<b>133307</b>
	Trójnik 90° PVC-U PN10 d90	<b>133308</b>
	Trójnik 90° PVC-U PN10 d110	<b>133309</b>
	Trójnik 90° PVC-U PN10 d125	<b>133310</b>
	Trójnik 90° PVC-U PN10 d140	<b>133311</b>
	Trójnik 90° PVC-U PN10 d160	<b>133312</b>
	Trójnik 90° PVC-U PN10 d225	<b>133313</b>
	Mufa PVC-U PN10 d50	<b>133305</b>
	Mufa PVC-U PN10 d63	<b>133306</b>
	Mufa PVC-U PN10 d75	<b>133307</b>
	Mufa PVC-U PN10 d90	<b>133308</b>
	Mufa PVC-U PN10 d110	<b>133309</b>
	Mufa PVC-U PN10 d125	<b>133310</b>
	Mufa PVC-U PN10 d140	<b>133311</b>
	Mufa PVC-U PN10 d160	<b>133312</b>
	Mufa PVC-U PN10 d225	<b>133313</b>

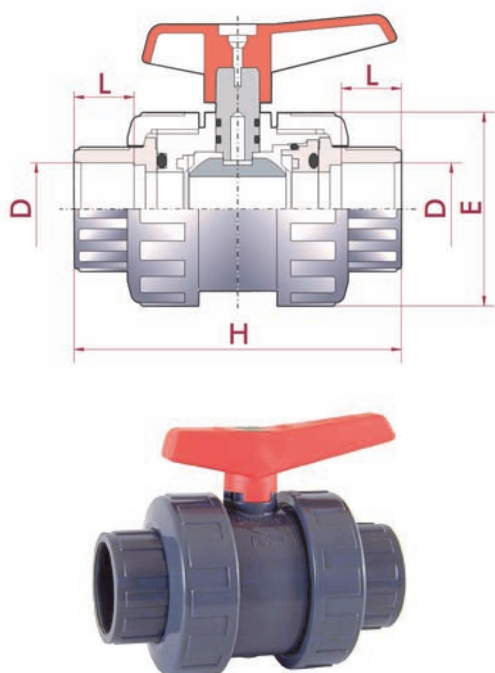
## 20.2. KSZTAŁTKI Z PVC-U PN10

	Typ elementu	Nr kat.
	Tuleja kołnierzowa PVC-U PN10 d50	<b>133905</b>
	Tuleja kołnierzowa PVC-U PN10 d63	<b>133906</b>
	Tuleja kołnierzowa PVC-U PN10 d75	<b>133907</b>
	Tuleja kołnierzowa PVC-U PN10 d90	<b>133908</b>
	Tuleja kołnierzowa PVC-U PN10 d110	<b>133909</b>
	Tuleja kołnierzowa PVC-U PN10 d125	<b>133910</b>
	Tuleja kołnierzowa PVC-U PN10 d140	<b>133911</b>
	Tuleja kołnierzowa PVC-U PN10 d160	<b>133912</b>
	Tuleja kołnierzowa PVC-U PN10 d225	<b>133913</b>

	Kołnierz PVC-U PN10 d50	<b>1331005</b>
	Kołnierz PVC-U PN10 d63	<b>1331006</b>
	Kołnierz PVC-U PN10 d75	<b>1331007</b>
	Kołnierz PVC-U PN10 d90	<b>1331008</b>
	Kołnierz PVC-U PN10 d110	<b>1331009</b>
	Kołnierz PVC-U PN10 d125	<b>1331010</b>
	Kołnierz PVC-U PN10 d140	<b>1331011</b>
	Kołnierz PVC-U PN10 d160	<b>1331012</b>
	Kołnierz PVC-U PN10 d225	<b>1331013</b>

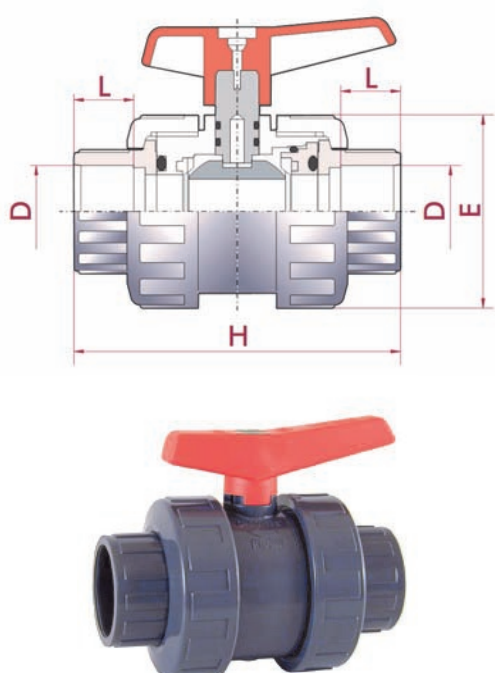
## 20.3. ARMATURA

### 20.3.1. Zawór kulowy UP.60.SF5 - HDPE/EPDM



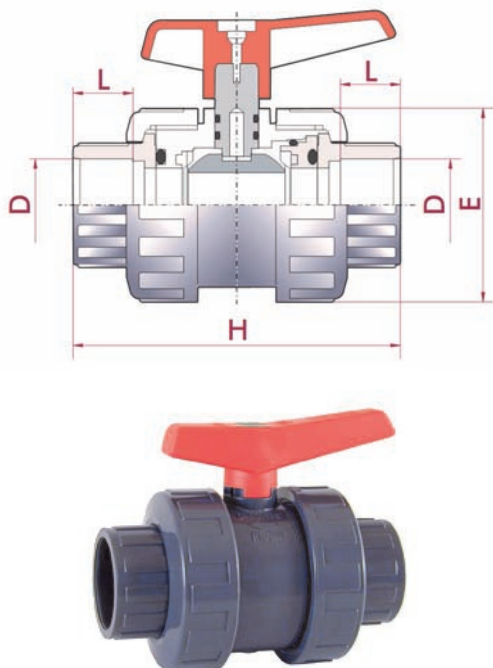
D	PN	L	H	E	Nr kat.
<b>16</b>	16	14	84	52	<b>05352</b>
<b>20</b>	16	16	84	52	<b>02453</b>
<b>25</b>	16	19	108	62	<b>02454</b>
<b>32</b>	16	22	124	70	<b>02455</b>
<b>40</b>	16	26	142	84	<b>02456</b>
<b>50</b>	16	31	167	104	<b>02457</b>
<b>63</b>	16	38	198	120	<b>02458</b>
<b>75</b>	10	44	232	148	<b>02459</b>
<b>90</b>	10	51	269	179	<b>02460</b>
<b>110</b>	10	61	275	179	<b>02461</b>
<b>110</b>	10	63	359	228	<b>22797</b>
<b>125</b>	10	70	359	228	<b>23084</b>

### 20.3.2. Zawór kulowy UP.61.SF6 - TEFLON®/EPDM



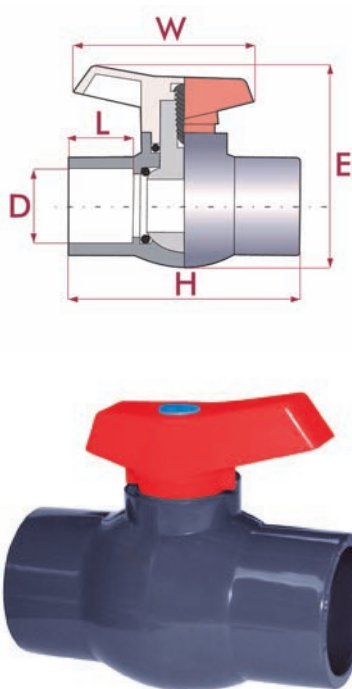
D	PN	L	H	E	Nr kat.
<b>16</b>	16	14	84	52	<b>05355</b>
<b>20</b>	16	16	84	52	<b>02470</b>
<b>25</b>	16	19	108	62	<b>02471</b>
<b>32</b>	16	22	124	70	<b>02472</b>
<b>40</b>	16	26	142	84	<b>02473</b>
<b>50</b>	16	31	167	104	<b>02474</b>
<b>63</b>	16	38	198	120	<b>02475</b>
<b>75</b>	10	44	232	148	<b>02476</b>
<b>90</b>	10	51	269	179	<b>02477</b>
<b>110</b>	10	61	275	179	<b>05356</b>
<b>110</b>	10	63	359	228	<b>22065</b>

### 20.3.3. Zawór kulowy UP.61.SF7 - TEFLON<sup>®</sup>/VITON<sup>®</sup>

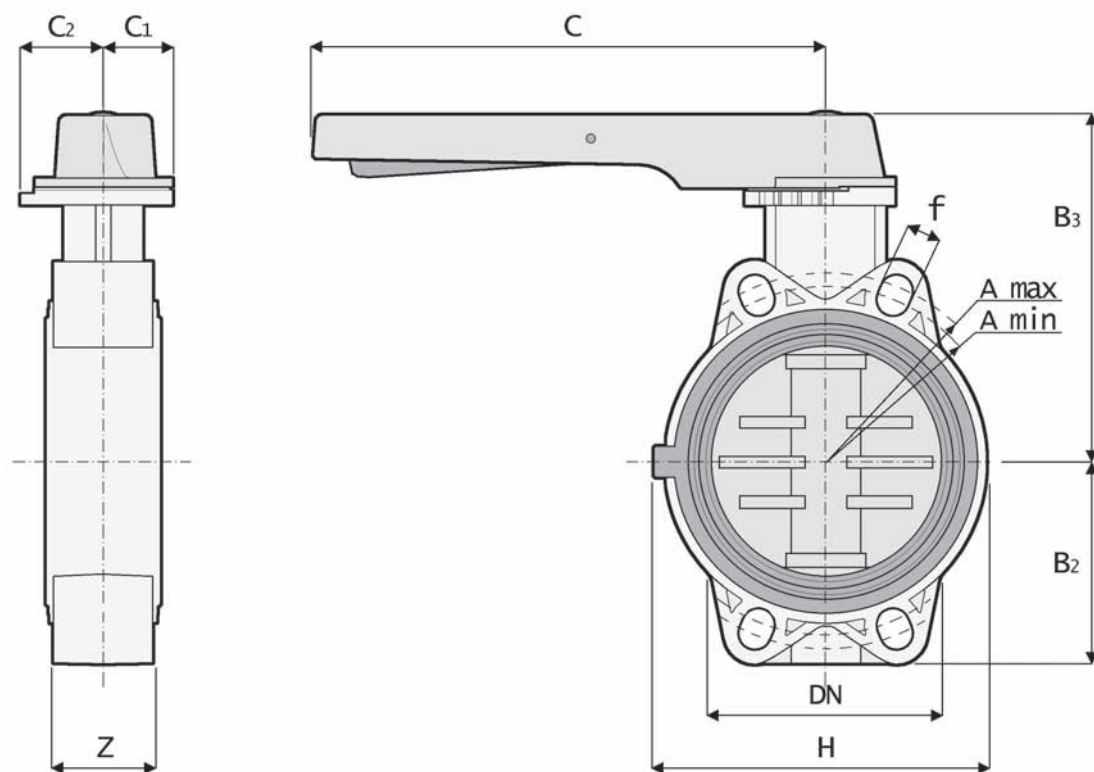


D	PN	L	H	E	Nr kat.
<b>16</b>	16	14	84	52	<b>05359</b>
<b>20</b>	16	16	84	52	<b>02486</b>
<b>25</b>	16	19	108	62	<b>02487</b>
<b>32</b>	16	22	124	70	<b>02488</b>
<b>40</b>	16	26	142	84	<b>02489</b>
<b>50</b>	16	31	167	104	<b>02490</b>
<b>63</b>	16	38	198	120	<b>02491</b>
<b>75</b>	10	44	232	148	<b>02492</b>
<b>90</b>	10	51	269	179	<b>02493</b>
<b>110</b>	10	61	275	179	<b>02494</b>
<b>110</b>	10	63	359	228	<b>02495</b>

### 20.3.4. Zawór kulowy UP.78.SF5 - EPDM



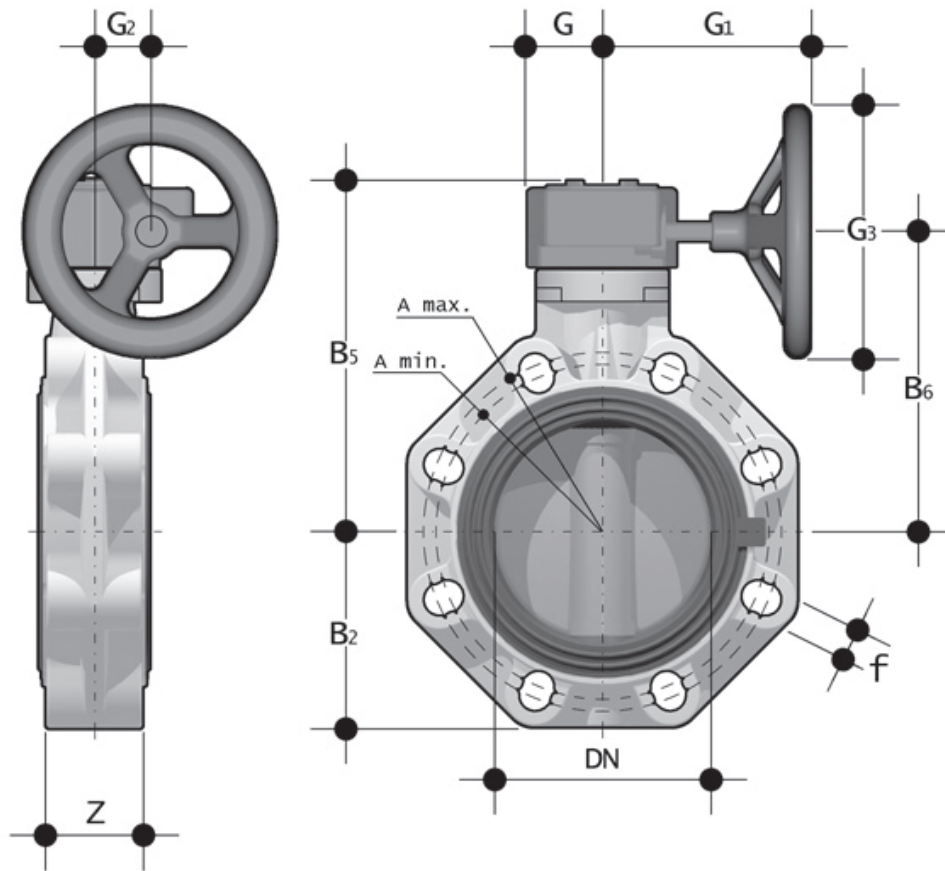
D	PN	L	H	E	W	Nr kat.
<b>16</b>	10	18	68	42	51	<b>28953</b>
<b>20</b>	10	22	77	52	58	<b>28954</b>
<b>25</b>	10	25	90	57	70	<b>28955</b>
<b>32</b>	10	30	107	73	82	<b>28956</b>
<b>40</b>	10	32	121	77	90	<b>28957</b>
<b>50</b>	10	34	130	80	101	<b>28958</b>
<b>63</b>	10	38	147	88	130	<b>28959</b>

**20.3.5. Zawór klapowy 1V800 - EPDM**


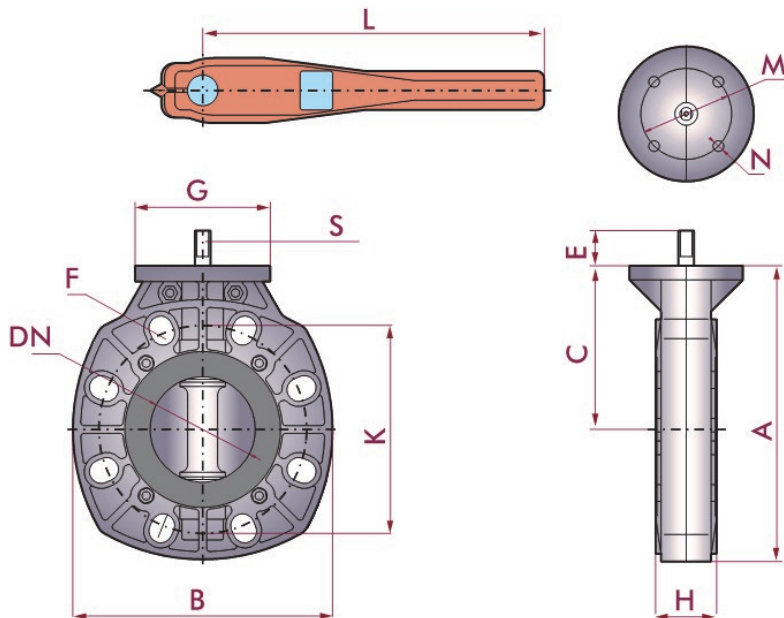
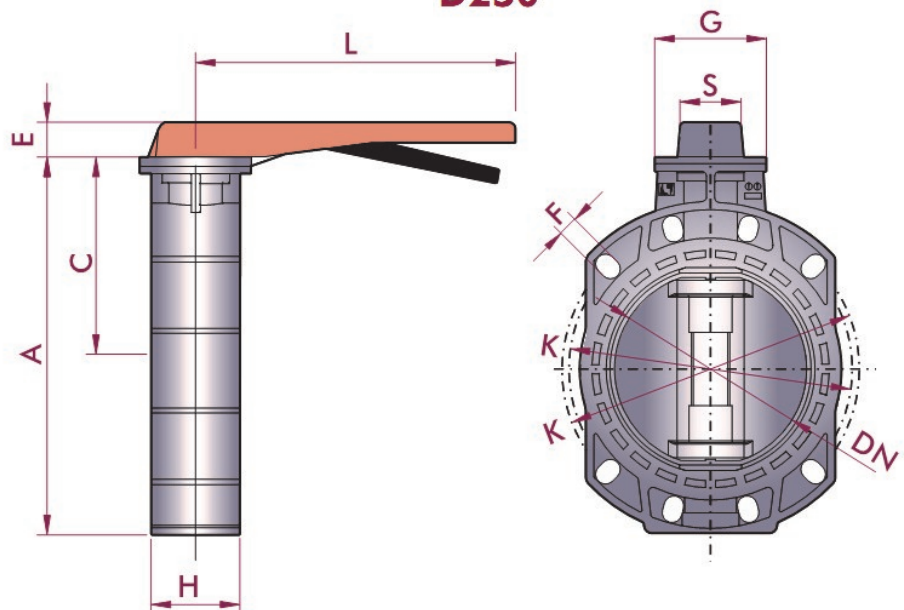
<b>D</b>	<b>B2</b>	<b>B3</b>	<b>C</b>	<b>C1</b>	<b>C2</b>	<b>H</b>	<b>Z</b>	<b>Amin</b>	<b>Amax</b>	<b>F</b>	<b>otw.</b>	<b>Nr kat.</b>
<b>50</b>	60	136	175	45	42	132	33	93	109	19	4	<b>1V.800.500.00W</b>
<b>63</b>	70	143	175	45	42	147	43	108	124	19	4	<b>1V.800.630.W</b>
<b>75</b>	80	168	175	45	45	165	46	128	144	19	4	<b>1V.800.750.00W</b>
<b>90</b>	90	182	250	45	45	130	49	145	159	19	4	<b>1V.800.900.00W</b>
<b>110</b>	105	196	250	45	45	150	56	165	190	19	4	<b>1V.800.110.00W</b>
<b>140</b>	121	215	335	45	45	185	64	204	215	23	4	<b>1V.800.150.00W</b>
<b>160</b>	132	229	335	45	45	210	70	230	242	23	4	<b>1V.800.170.00W</b>
<b>225</b>	161	309	425	65	82	325	71	280	298	23	8	<b>1V.800.230.00</b>



**20.3.5. Zawór klapowy 1V800 - EPDM**



D	B2	B5	B6	G	G1	G2	G3	Z	Amin	Amax	F	otw.	Nr kat.
<b>280</b>	210	317	281	88	236	76	250	114	335	362	25	12	<b>1V.800.280.00</b>
<b>315</b>	245	374	338	88	236	76	250	114	390	432	29	12	<b>1V.800.330.00</b>

**20.3.6. Zawór klapowy UP.80.Z3 i UP.80.I4 - wymiary**
**D63 - D225**

**D250**


D	A	B	C	E	F	G	H	K	L	M	N	S	otw.
<b>63-75</b>	192	165	110	27	18	104	48	125/145	228	70	9	10	4
<b>90</b>	227	200	126	27	18	104	53	160/169	263	70	9	12	8
<b>110</b>	271	229	156	30	18	104	60	180/190	263	70	9	16	8
<b>125-140</b>	297	250	172	30	18	104	66	190/210	350	70	9	20	8
<b>160</b>	327	285	185	30	22	104	72	240	350	70	9	20	8
<b>200-225</b>	400	340	230	30	22	136	73	270/295	390	102	11	26	8
<b>250</b>	450	319	250	37	24	136	108	345/362	390	102	11	22	12

### 20.3.6.1. Zawór klapowy UP.80.Z3 - EPDM/Zinc

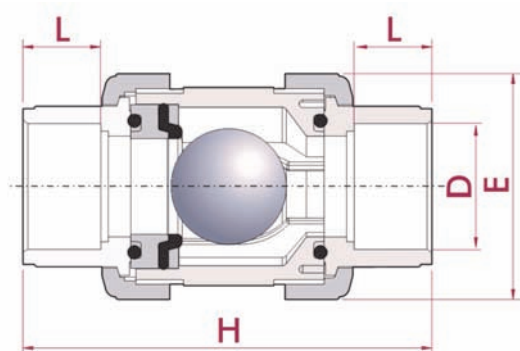


D	PN	Nr kat.
<b>63-75</b>	10	02581
<b>90</b>	10	02582
<b>110</b>	10	02583
<b>125-140</b>	10	02585
<b>160</b>	6	02586
<b>200-225</b>	6	02587
<b>250</b>	6	15846

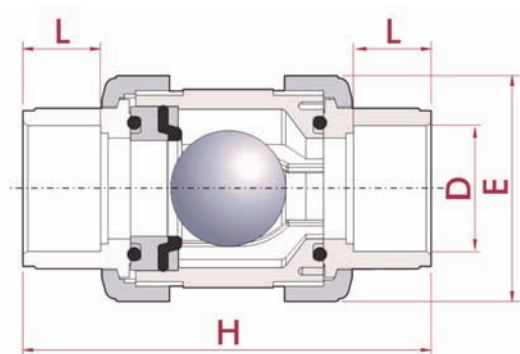
### 20.3.6.2. Zawór klapowy UP.80.I4 - VITON®/Stainless Steel



D	PN	Nr kat.
<b>63-75</b>	10	16713
<b>90</b>	10	16714
<b>110</b>	10	16715
<b>125-140</b>	10	16716
<b>160</b>	6	16717
<b>200-225</b>	6	16718
<b>250</b>	6	22426

**20.3.7. Zawór zwrotny kulowy UP-B.67.SF1 - EPDM**


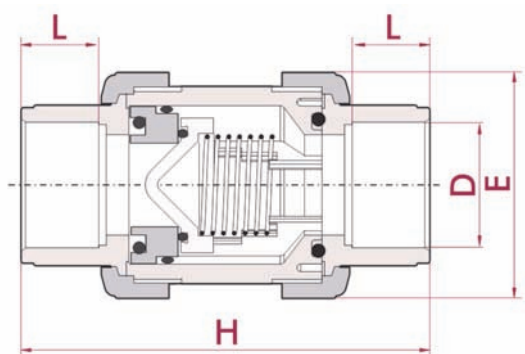
D	PN	H	L	E	Nr kat.
<b>20</b>	16	84	16	52	<b>22078</b>
<b>25</b>	16	108	19	62	<b>22079</b>
<b>32</b>	16	119	22	70	<b>22080</b>
<b>40</b>	16	142	26	84	<b>22174</b>
<b>50</b>	16	162	31	94	<b>25697</b>
<b>63</b>	16	192	38	117	<b>25698</b>
<b>75</b>	10	232	44	148	<b>22175</b>
<b>90</b>	10	269	51	179	<b>22176</b>
<b>110</b>	10	269	51	179	<b>22177</b>


**20.3.8. Zawór zwrotny kulowy UP-B.67.SF4 - VITON®**


D	PN	H	L	E	Nr kat.
<b>20</b>	16	84	16	52	<b>22090</b>
<b>25</b>	16	108	19	62	<b>22091</b>
<b>32</b>	16	119	22	70	<b>22092</b>
<b>40</b>	16	142	26	84	<b>22239</b>
<b>50</b>	16	162	31	94	<b>25701</b>
<b>63</b>	16	192	38	117	<b>25702</b>
<b>75</b>	10	232	44	148	<b>22240</b>
<b>90</b>	10	269	51	179	<b>22241</b>
<b>110</b>	10	269	51	179	<b>22242</b>



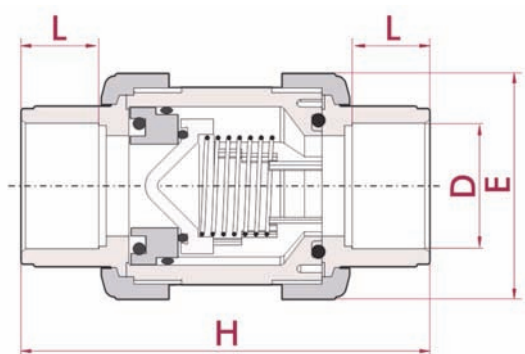
### 20.3.9. Zawór zwrotny stożkowy UP-S.67.SF1 - EPDM



D	PN	H	L	E	Nr kat.
<b>16</b>	16	84	16	52	<b>09010</b>
<b>20</b>	16	84	16	52	<b>09011</b>
<b>25</b>	16	108	19	62	<b>09012</b>
<b>32</b>	16	119	22	70	<b>09013</b>
<b>40</b>	16	142	26	84	<b>09014</b>
<b>50</b>	16	162	31	94	<b>09015</b>
<b>63</b>	16	192	38	117	<b>09016</b>
<b>75</b>	10	232	44	148	<b>09017</b>
<b>90</b>	10	269	51	179	<b>09018</b>
<b>110</b>	10	279	61	179	<b>09019</b>



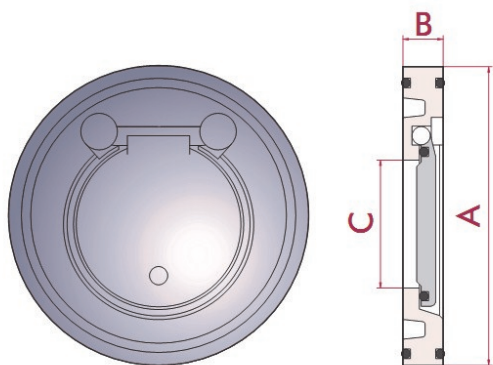
### 20.3.10. Zawór zwrotny stożkowy UP-S.67.SF4 - VITON®



D	PN	H	L	E	Nr kat.
<b>16</b>	16	84	16	52	<b>18751</b>
<b>20</b>	16	84	16	52	<b>18752</b>
<b>25</b>	16	108	19	62	<b>18753</b>
<b>32</b>	16	119	22	70	<b>18754</b>
<b>40</b>	16	142	26	84	<b>18755</b>
<b>50</b>	16	162	31	94	<b>18756</b>
<b>63</b>	16	192	38	117	<b>18757</b>
<b>75</b>	10	232	44	148	<b>18758</b>
<b>90</b>	10	269	51	179	<b>18759</b>
<b>110</b>	10	279	61	179	<b>18760</b>





**20.3.11. Kłapa zwrotna UP.65 - EPDM (Viton® na zamówienie)**


<b>D</b>	<b>PN</b>	<b>H</b>	<b>L</b>	<b>E</b>	<b>Nr kat.</b>
<b>63</b>	10	109	20	32	<b>37055</b>
<b>75</b>	10	129	20	40	<b>08984</b>
<b>90</b>	10	144	20	52	<b>08985</b>
<b>110</b>	10	164	22	70	<b>08986</b>
<b>125</b>	10	170	25	83	<b>09040</b>
<b>140</b>	10	195	23	92	<b>08987</b>
<b>160</b>	6	220	25	112	<b>08988</b>
<b>200</b>	6	247	28	139	<b>09041</b>
<b>225</b>	6	275	35	150	<b>08989</b>
<b>250</b>	6	328	40	162	<b>37956</b>
<b>280</b>	6	330	40	189	<b>41865</b>
<b>315</b>	6	380	45	226	<b>37057</b>

## 20.4. RURY

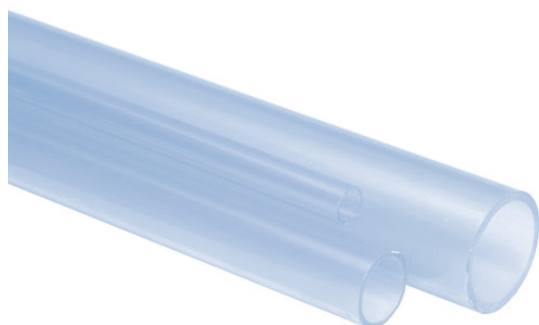
### 20.4.1. RURY PVC-U




	Typ elementu	Nr kat.
	Rura PVC-U PN16, d16 x 1,2	<b>81.016.F.0000</b>
	Rura PVC-U PN16, d20 x 1,5	<b>81.020.F.0000</b>
	Rura PVC-U PN10, d25 x 1,5	<b>81.025.E.0000</b>
	Rura PVC-U PN10, d32 x 1,6	<b>RKG10032</b>
	Rura PVC-U PN10, d40 x 1,9	<b>RKG10040</b>
	Rura PVC-U PN10, d50 x 2,4	<b>RKG10050</b>
	Rura PVC-U PN10, d63 x 3,0	<b>RKG10063</b>
	Rura PVC-U PN10, d75 x 3,6	<b>RKG10075</b>
	Rura PVC-U PN10, d90 x 4,3	<b>RKG10090</b>
	Rura PVC-U PN10, d110 x 4,2	<b>RKG10110</b>
	Rura PVC-U PN10, d125 x 4,8	<b>RKG10125</b>
	Rura PVC-U PN10, d140 x 5,4	<b>RKG10140</b>
	Rura PVC-U PN10, d160 x 6,2	<b>RKG10160</b>
	Rura PVC-U PN10, d200 x 7,7	<b>RKG10200</b>
	Rura PVC-U PN10, d225 x 8,6	<b>RKG10225</b>
	Rura PVC-U PN10, d250 x 9,6	<b>RKG10250</b>
	Rura PVC-U PN10, d280 x 10,7	<b>RKG10280</b>
	Rura PVC-U PN10, d315 x 12,1	<b>RKG10315</b>
	Rura PVC-U PN10, d400 x 15,3	<b>RKG10400</b>


### 20.4.2. Rury PVC-U TRANSPARENTNE

	Rura DEKADUR-G d 25 x 1,5 PN 10	<b>46.025.E.0000</b>
	Rura DEKADUR-G d 32 x 1,8 PN 10	<b>46.032.E.0000</b>
	Rura DEKADUR-G d 40 x 2,0 PN 10	<b>46.040.E.0000</b>
	Rura DEKADUR-G d 50 x 2,4 PN 10	<b>46.050.E.0000</b>
	Rura DEKADUR-G d 63 x 3,0 PN 10	<b>46.063.E.0000</b>
	Rura DEKADUR-G d 75 x 3,6 PN 10	<b>46.075.E.0000</b>
	Rura DEKADUR-G d 90 x 4,3 PN 10	<b>46.090.E.0000</b>
	Rura DEKADUR-G d 110 x 5,3 PN 10	<b>46.110.E.0000</b>



**20.5. KLEJE I CZYŚCIWA**

	Typ elementu	Nr kat.
	Klej TANGIT PVC-U 1,0kg	799.298.003
	Klej TANGIT PVC-U 0,5kg	799.298.002

	Czyściwo TANGIT PVC-U 1,0 l	799.298.010
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## 20.6. SYSTEMY RUROCIĄGOWE Z PE I PVC-C

Ponadto posiadamy w swoim asortymencie systemy rurociągowy z **PE-HD100**:

- rury SDR17 i SDR11
- kształtki elektrooporowe
- kształtki wtryskowe
- kształtki segmentowe
- zgrzewarki doczołowe i elektrooporowe

, a także z **PVC-C**:

- rury PN10, PN16 i PN25
- kształtki
- armatura
- kleje i czyściwa.

Szczegółowe informacje dostępne w dziale handlowym.



**NOTATKI:**

Klasifikasi	Klasifikasi