



# ISO-UNI PIPE

PVDF

Pressure pipe



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Pressure pipes for connection system  
by butt or socket welding.

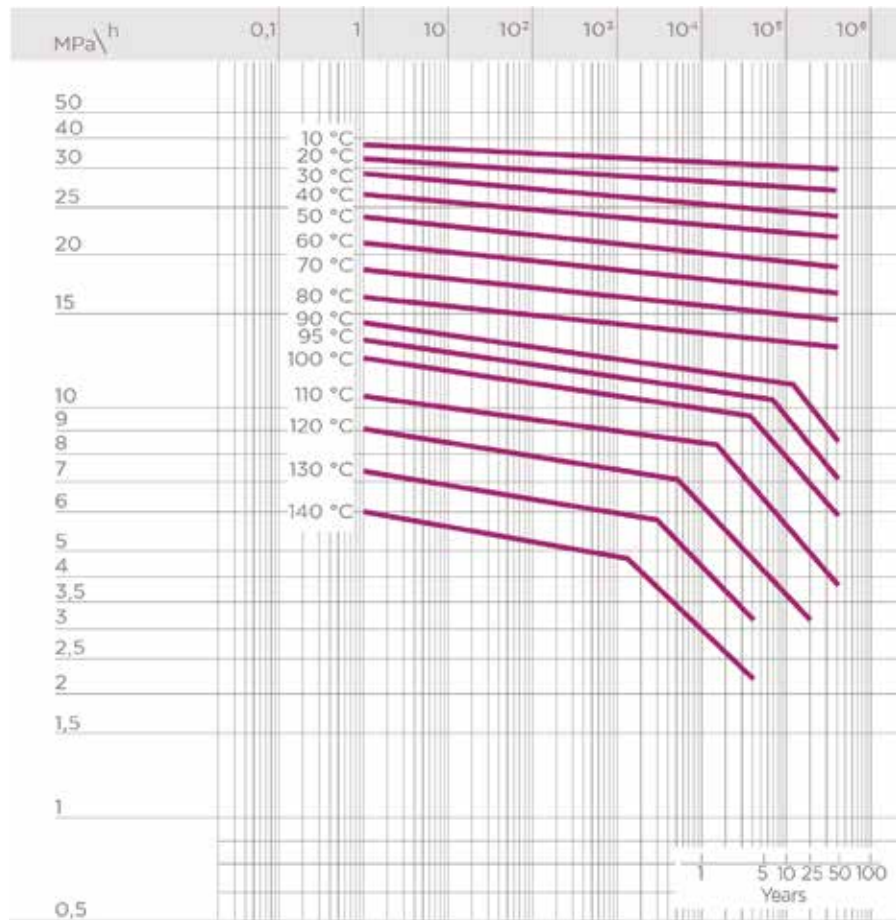
## PRESSURE PIPE

Technical specifications	
<b>Size range</b>	d 16 ÷ d 110 (mm)
<b>Nominal pressure</b>	SDR 21 (PN16) with water at 20° C SDR 33 (PN10) with water at 20° C
<b>Temperature range</b>	-40 °C ÷ 140 °C
<b>Coupling standards</b>	<b>Welding:</b> EN ISO 10931. Can be coupled to pipes according to EN ISO 10931
<b>Reference standards</b>	<b>Construction criteria:</b> EN ISO 10931 <b>Test methods and requirements:</b> EN ISO 10931 <b>Installation criteria:</b> DVS 2201-1, DVS 2207-15, DVS 2208-1
<b>Material</b>	PVDF

# TECHNICAL DATA

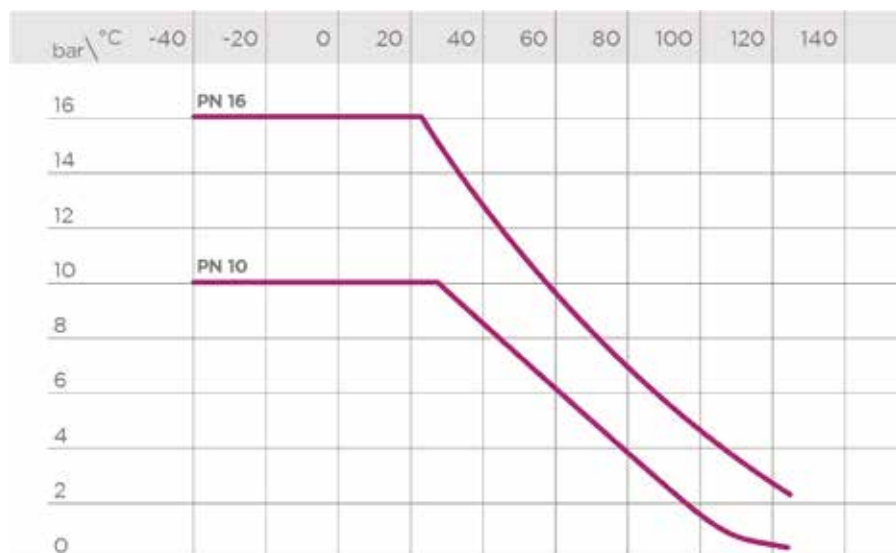
## REGRESSION CURVES FOR PIPES IN PVDF

Regression coefficients according to ISO 10931 for MRS (minimum) = 25 N/mm<sup>2</sup> (MPa)



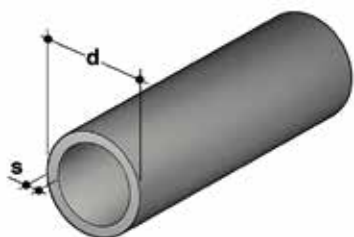
## PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids for which the material is classified as CHEMICALLY RESISTANT (life expectancy 25 years). In other cases, a reduction of the nominal pressure PN is required.



The information in this leaflet is provided in good faith. No liability will be accepted concerning technical data that is not directly covered by recognised international standards. FIP reserves the right to carry out any modification. Products must be installed and maintained by qualified personnel.

# DIMENSIONS

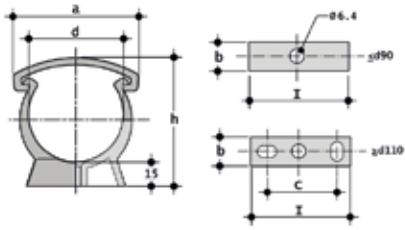


## PRESSURE PIPE

Pressure pipe in PVDF according to ISO 10931, translucent white, standard length 5m

d	DN	S (mm)	kg/m	PN16 code SDR 21 - S10
16	10	1,9	0,137	PIPEF21016
20	15	1,9	0,21	PIPEF21020
25	20	1,9	0,269	PIPEF21025
32	25	2,4	0,435	PIPEF21032
40	32	2,4	0,553	PIPEF21040
50	40	3	0,825	PIPEF21050
63	50	3	1,09	PIPEF21063
75	65	3,6	1,55	PIPEF21075
90	80	4,3	2,22	PIPEF21090
110	100	5,3	3,33	PIPEF21110

d	DN	S (mm)	kg/m	PN10 code SDR 33 - S16
63	50	2,5	0,93	PIPEF33063
75	65	2,5	1,11	PIPEF33075
90	80	2,8	1,48	PIPEF33090
110	100	3,4	2,20	PIPEF33110



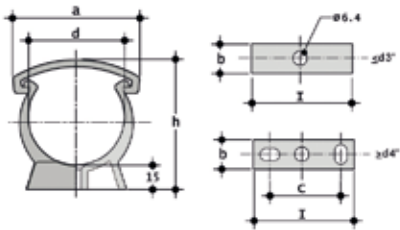
## ZIKM

Pipe clip for ISO-DIN pipes in PP\*

d	a	b	C	h	l	Code
16	26	18	-	33	16	ZIKM016
20	33	14	-	38	20	ZIKM020
25	41	14	-	44	25	ZIKM025
32	49	15	-	51	32	ZIKM032
40	58	16	-	60	40	ZIKM040
50	68	17	-	71	60	ZIKM050
63	83	18	-	84	63	ZIKM063
75	96	19	-	97	75	ZIKM075
90	113	20	-	113	90	ZIKM090
110	139	23	40	134	125	ZIKM110
125	158	25	60	151	140	ZIKM125
140	177	27	70	167	155	ZIKM140
160	210	30	90	190	180	ZIKM160
180	237	33	100	211	200	ZIKM180

\*for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)

\*\*resale product



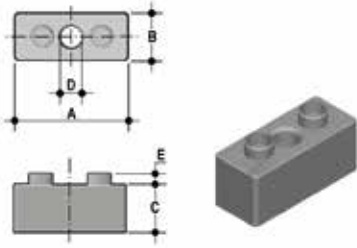
## ZAKM

Pipe clip for ASTM pipes in PP\*

d	a	b	C	h	l	Code
**3/8"	26	13	-	34	16	ZAKM038
**1/2"	33	14	-	39	20	ZAKM012
**3/4"	41	14	-	45	25	ZAKM034
**1"	49	15	-	52	32	ZAKM100
**1 1/4"	58	16	-	61	40	ZAKM114
**1 1/2"	68	17	-	67	50	ZAKM112
**2"	83	18	-	80	63	ZAKM200
**2 1/2"	96	19	-	96	75	ZAKM212
**3"	118	20	-	110	90	ZAKM300
**4"	140	25	60	135	140	ZAKM400
**6"	197	30	90	196	180	ZAKM600

\*for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)

\*\*resale product



## DSM

Distance plates in PP for ZIKM pipe clips\*

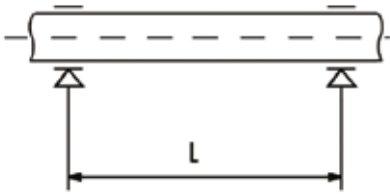
d	A	B	C	D	E	Pack	Master	Code
32	33	16	14	8	4	20	120	DSM032
40	41	17	17	8	4	10	80	DSM040
50	51	18	17	8	4	10	50	DSM050
63	64	19	22,5	8	4	10	40	DSM063
75	76	20	34,5	8	4	10	40	DSM075

\*for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)

\*\*resale product

# INSTALLATION

## POSITIONING OF ZIKM AND ZAKM PIPE CLIPS



The installation of thermoplastic pipe systems requires the use of support clips to prevent flexing and the resulting mechanical stresses. The distance between the clips depends on the pipe material, SDR, surface temperature and the density of the conveyed fluid. Before installing the clips, check the distances reported in the table below, as provided for by guidelines DVS 2210-01 for water pipes.

### Supporting PVDF pipes conveying liquids of density 1 g/cm<sup>3</sup> (water and other fluids of equal intensity).

For pipes of SDR 33 / S 16 / PN 10 and SDR 21 / S 10 / PN 16:

d mm	< 20° C	30° C	40° C	50° C	60° C	70° C	80° C	100° C	120° C	140° C
16	725	700	650	600	575	550	500	450	400	300
20	850	800	750	750	700	650	600	500	450	400
25	950	900	850	800	750	700	675	600	500	450
32	1100	1050	1000	950	900	850	800	700	600	500
40	1200	1150	1100	1050	1000	950	900	750	650	550
50	1400	1350	1300	1200	1150	1100	1000	900	750	600

For pipes of SDR 33 / S 16 / PN 10:

d mm	< 20° C	30° C	40° C	50° C	60° C	70° C	80° C	100° C	120° C	140° C
63	1400	1350	1300	1250	1200	1150	1100	950	800	650
75	1500	1450	1400	1350	1300	1250	1200	1050	850	700
90	1600	1550	1500	1450	1400	1350	1300	1100	950	850
110	1800	1750	1700	1650	1550	1500	1450	1250	1100	950
125	1900	1850	1800	1700	1650	1600	1500	1350	1200	1000
140	2000	1950	1900	1800	1750	1700	1600	1450	1250	1050
160	2150	2100	2050	1950	1850	1800	1700	1550	1350	1150
180	2300	2200	2150	2050	1950	1900	1800	1600	1400	1200
200	2400	2350	2250	2150	2100	2000	1900	1700	1500	1300
225	2550	2500	2400	2300	2200	2100	2000	1800	1600	1400
250	2650	2600	2500	2400	2300	2200	2100	1900	1700	1500
280	2850	2750	2650	2550	2450	2350	2250	2000	1800	1600
315	3000	2950	2850	2750	2600	2500	2400	2150	1900	1650
355	3200	3100	3000	2850	2750	2650	2500	2250	2000	1750
400	3400	3300	3200	3050	2950	2800	2650	2400	2100	1800

For different SDR values, multiply the data in the table by the following factors:

1.08 for SDR21 / S10 / PN16 size range d63 - d400

1.12 for SDR17 / S8 / PN20 entire size range

### Supporting PVDF pipes conveying liquids of density other than 1 g/cm<sup>3</sup>.

If the liquid being conveyed has a density other than 1 g/cm<sup>3</sup>, the distance L must be multiplied by the factors in the table.

Fluid density in g/cm	Support factor
1,25	0,96
1,50	0,92
1,75	0,88
2,00	0,84
< 0,01	1,48 for SDR33 / S16 / PN10 1,36 for SDR21 / S16 / PN16 1,31 for SDR17 / S8 / PN20