Aliaxis
UTILITIES & INDUSTRY

FIP

ISO-UNI PIPE
PP-H

Pressure pipe

PIPE
ISO-UNI

Pressure pipes for connection system by butt or socket welding.

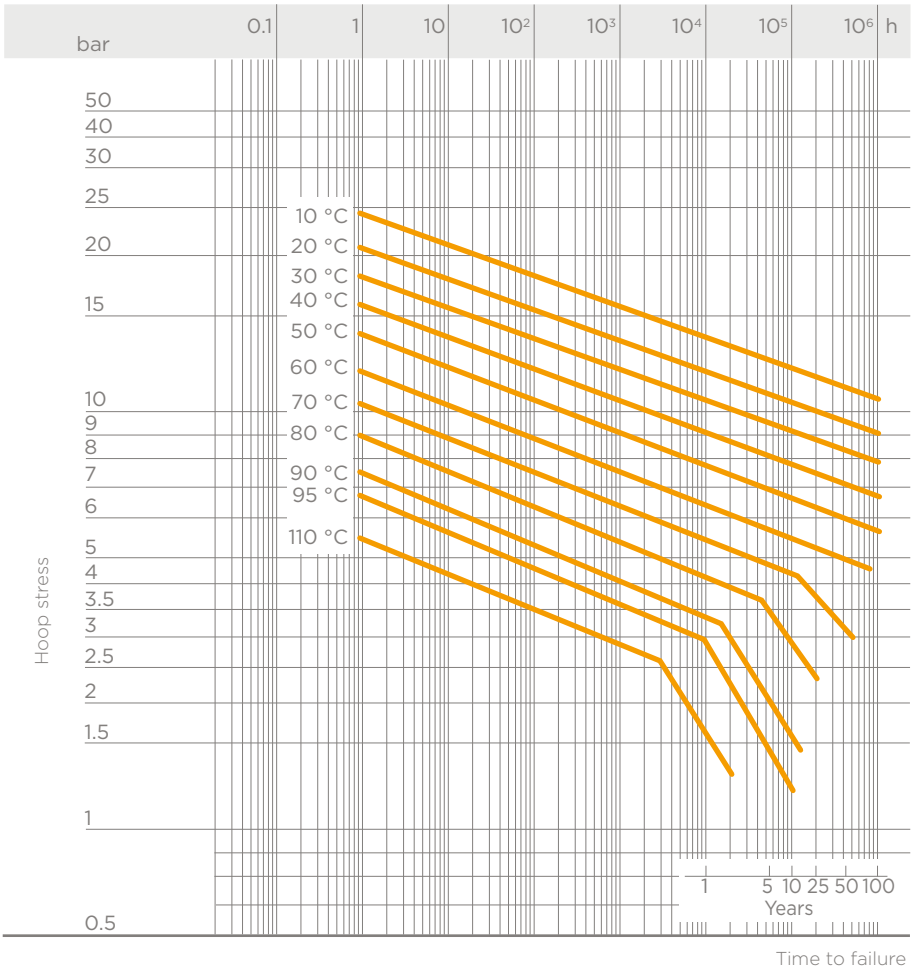
PRESSURE PIPE

Technical specifications	
Size range	d 20 ÷ d 400 (mm)
Nominal pressure	SDR 17, 6 (PN6) with water at 20 °C SDR 11 (PN10) with water at 20 °C
Temperature range	0 °C ÷ 100 °C
Coupling standards	**Welding:** EN ISO 15494. Can be coupled to pipes according to EN ISO 15494
Reference standards	**Construction criteria:** EN ISO 15494
	Test methods and requirements: EN ISO 15494
	Installation criteria: DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318, UNI 11397
Material	PP-H

TECHNICAL DATA

REGRESSION CURVES FOR PIPES IN PP-H

Regression coefficients in accordance with standards DIN and EN ISO for MRS = 10 N/mm2



PRESSURE VARIATION ACCORDING TO TEMPERATURE

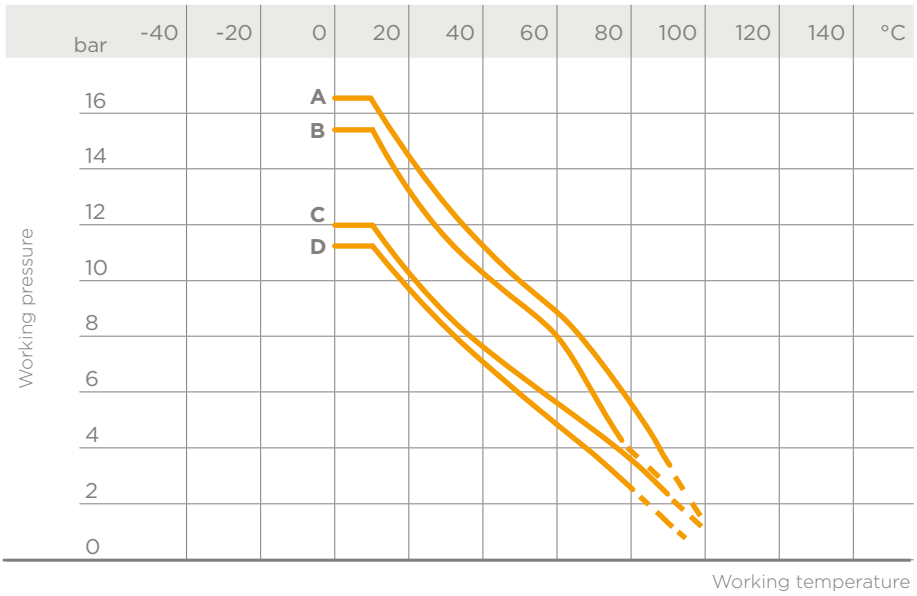
For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required.

A = SDR 11 ISO-S5 - 5 years

B = SDR 11 ISO-S5 - 25 years

C = SDR 17.6 ISO-S8.3 - 5 years

D = SDR 17.6 ISO-S8.3 - 25 years



PRESSURE VARIATION ACCORDING TO TEMPERATURE

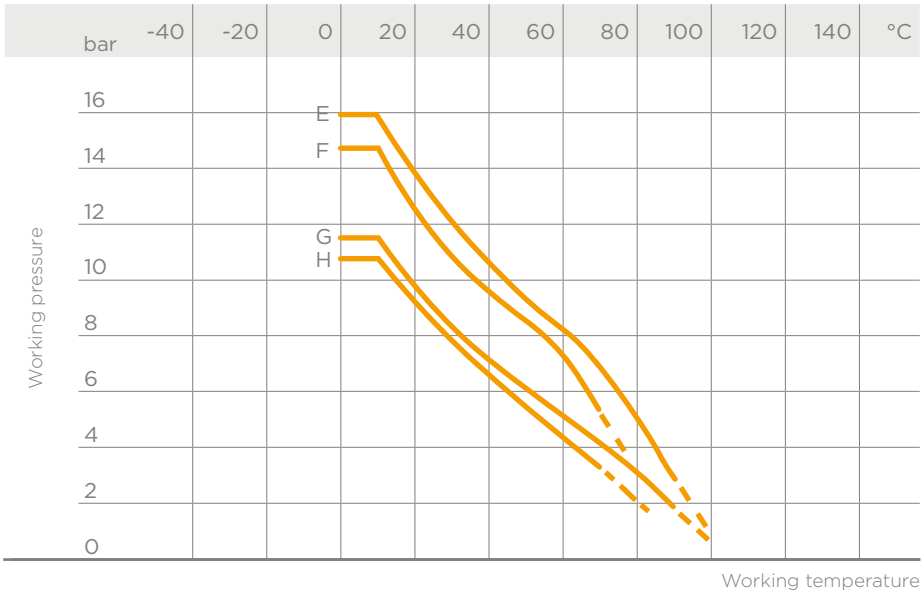
For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required.

E = SDR 11 ISO-S5 - 10 years

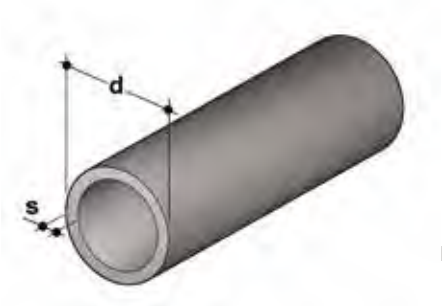
F = SDR 11 ISO-S5 - 50 years

G = SDR 17.6 ISO-S8.3 - 10 years

H = SDR 17.6 ISO-S8.3 - 50 years



DIMENSIONS

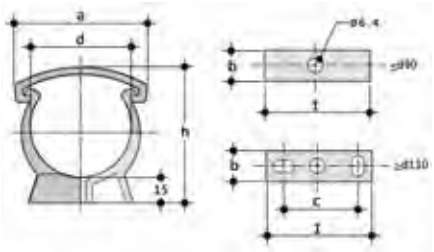


Pressure pipe

PP-H pressure pipe according to DIN 8077/8078, Beige - RAL 7032, standard length 5m

d	DN	S mm	kg/m	PN6 Code SDR 17.6 - S 8.3
32	25	1.9	0.17	PIPEM17032
40	32	2.3	0.27	PIPEM17040
50	40	2.9	0.42	PIPEM17050
63	50	3.6	0.66	PIPEM17063
75	65	4.3	0.94	PIPEM17075
90	80	5.1	1.33	PIPEM17090
110	100	6.3	1.99	PIPEM17110
125	100	7.1	2.55	PIPEM17125
140	125	8.0	3.20	PIPEM17140
160	150	9.1	4.17	PIPEM17160
180	150	10.2	5.25	PIPEM17180
200	200	11.4	6.50	PIPEM17200
225	200	12.8	8.19	PIPEM17225
250	250	14.2	10.10	PIPEM17250
280	250	15.9	12.60	PIPEM17280
315	300	17.9	16.00	PIPEM17315
355	350	20.1	20.30	PIPEM17355
400	400	22.7	25.70	PIPEM17400

d	DN	S mm	kg/m	PN10 Code SDR 11 - S 5
20	15	1.9	0.11	PIPEM11020
25	20	2.3	0.16	PIPEM11025
32	25	2.9	0.26	PIPEM11032
40	32	3.7	0.41	PIPEM11040
50	40	4.6	0.64	PIPEM11050
63	50	5.8	1.01	PIPEM11063
75	65	6.8	1.41	PIPEM11075
90	80	8.2	2.03	PIPEM11090
110	100	10.0	3.01	PIPEM11110
125	100	11.4	3.91	PIPEM11125
140	125	12.8	4.87	PIPEM11140
160	150	14.6	6.38	PIPEM11160
180	150	16.4	8.07	PIPEM11180
200	200	18.2	10.00	PIPEM11200
225	200	20.5	12.60	PIPEM11225
250	250	22.7	15.50	PIPEM11250
280	250	25.4	19.40	PIPEM11280
315	300	28.6	24.60	PIPEM11315
355	350	32.2	31.20	PIPEM11355
400	400	36.3	40.00	PIPEM11400

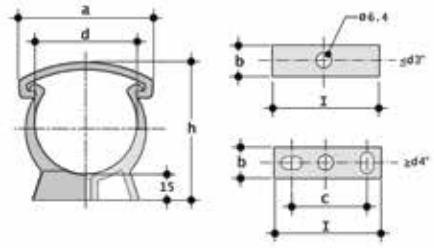


ZIKM

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

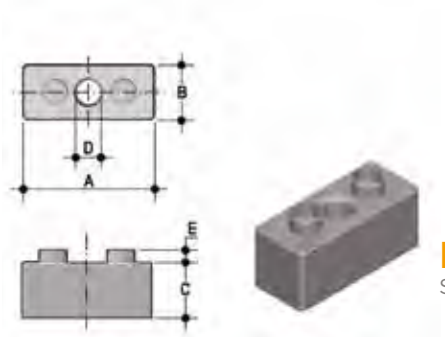


ZAKM

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

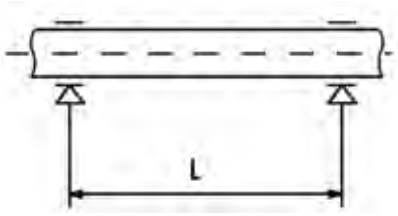
Spacers in PP for ZIKM pipe clips*

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 PP-H pipes conveying liquids of density 1 g/cm³ (water and other fluids of equal intensity)

For pipes of SDR 11 / S 5 / PN 10:

d mm	distance L in mm at different wall temperatures*						
	≤ 20° C	30° C	40° C	50° C	60° C	70° C	80° C
16	650	625	600	575	550	525	500
20	700	675	650	625	600	575	550
25	800	775	750	725	700	675	650
32	950	925	900	875	850	800	750
40	1100	1075	1050	1000	950	925	875
50	1250	1225	1200	1150	1100	1050	1000
63	1450	1425	1400	1350	1300	1250	1200
75	1550	1500	1450	1400	1350	1300	1250
90	1650	1600	1550	1500	1450	1400	1350
110	1850	1800	1750	1700	1600	1500	1400
125	2000	1950	1900	1800	1700	1600	1500
140	2100	2050	2000	1900	1800	1700	1600
160	2250	2200	2100	2000	1900	1800	1700
180	2350	2300	2200	2100	2000	1900	1800
200	2500	2400	2300	2200	2100	2000	1900
225	2650	2550	2450	2350	2250	2150	2000
250	2800	2700	2600	2500	2400	2300	2150
280	2950	2850	2750	2650	2550	2450	2300
315	3150	3050	2950	2850	2700	2600	2450
355	3350	3250	3150	3000	2850	2750	2600
400	3550	3450	3350	3200	3050	2900	2750

* The distance L can be increased by 30% in case of vertical installation of the pipe

For different SDR values, multiply the data in the table by the following factors:
0.91 for SDR 17 and SDR 17.6

Supporting PP-H pipes conveying liquids of density other than 1 g/cm³.

If the liquid being conveyed has a density other than 1 g/cm³, the distance L must be multiplied by the factors in the table

Fluid density in g/cm³	Support factor
1.25	0.96
1.50	0.92
1.75	0.88
2.00	0.94
< 0.01	1.30 for SDR11 1.47 for SDR17.6