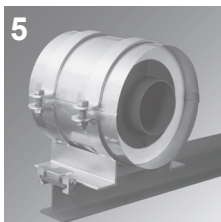
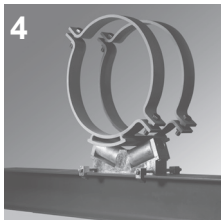
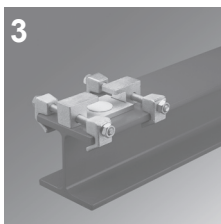
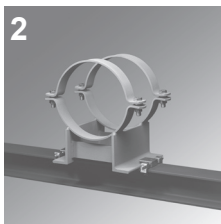
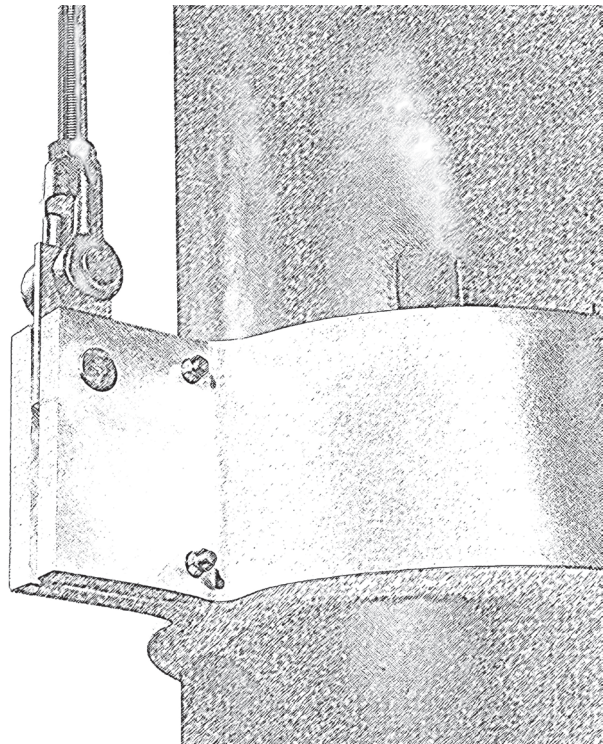


Bernecker
Rohrbefestigungstechnik GmbH



Pipe Clips
and Supplies

Catalogue 1
english



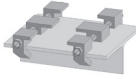
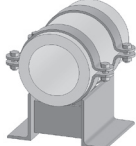
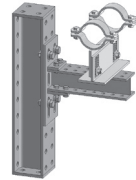
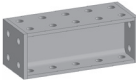
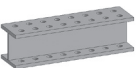
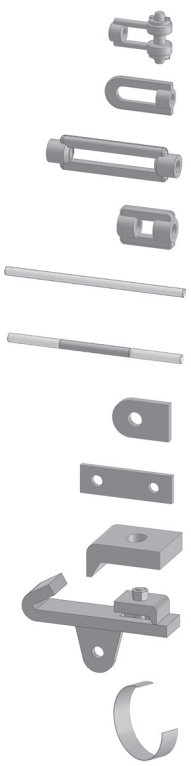
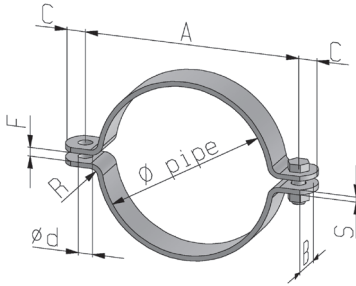
Overview	catalogue no.
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	Clamp systems
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	ModularSteel 120
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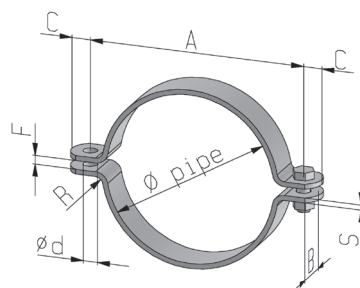


Pipe Clips Type RA

DN 15 - DN 1200

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	to DIN 3567 Form A (DN 20 - 500), other sizes based on DIN 3567, plain, some with rounded ends, choosing longer screws will effect screw locking, Bolts and nuts to DIN ISO 4017/ 4032 - 8.8 / 8 hot-dip galvanized (DIN EN ISO 898)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 50° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	11,5	10 x 40	7,2	RA-022-R	0,20	RA-022-R-8FL	0,29
25,0	30 x 5	62	15	7	10	11,5	10 x 40	6,7	RA-025-R	0,22	RA-025-R-8FL	0,31
26,9	30 x 5	66	15	7	10	11,5	10 x 40	6,3	RA-027-R	0,23	RA-027-R-8FL	0,32
30,0	30 x 5	68	15	7	10	11,5	10 x 40	5,9	RA-030-R	0,24	RA-030-R-8FL	0,33
33,7	30 x 5	72	15	7	10	11,5	10 x 40	5,2	RA-034-R	0,25	RA-034-R-8FL	0,34
38,0	30 x 5	76	15	7	10	11,5	10 x 40	4,9	RA-038-R	0,26	RA-038-R-8FL	0,35
42,4	30 x 5	82	15	7	10	11,5	10 x 40	4,4	RA-043-R	0,28	RA-043-R-8FL	0,37
44,5	30 x 5	84	15	7	10	11,5	10 x 40	4,4	RA-045-R	0,29	RA-045-R-8FL	0,38
48,3	30 x 5	88	15	7	10	11,5	10 x 40	4,1	RA-049-R	0,30	RA-049-R-8FL	0,39
57,0	40 x 6	104	18	9	12	14,0	12 x 50	6,7	RA-057-R	0,56	RA-057-R-8FL	0,70
60,3	40 x 6	108	18	9	12	14,0	12 x 50	6,4	RA-061-R	0,58	RA-061-R-8FL	0,72
76,1	40 x 6	122	18	9	12	14,0	12 x 50	5,7	RA-077-R	0,69	RA-077-R-8FL	0,83
88,9	40 x 6	136	18	9	12	14,0	12 x 50	5,0	RA-089-R	0,75	RA-089-R-8FL	0,89
108,0	50 x 8	172	24	11	16	18,0	16 x 65	10,0	RA-108-R	1,59	RA-108-R-8FL	1,90
114,3	50 x 8	178	24	11	16	18,0	16 x 65	9,5	RA-115-R	1,63	RA-115-R-8FL	1,94
133,0	50 x 8	196	24	11	16	18,0	16 x 65	8,8	RA-133-R	1,79	RA-133-R-8FL	2,10
139,7	50 x 8	204	24	11	16	18,0	16 x 65	8,3	RA-140-R	1,83	RA-140-R-8FL	2,14
159,0	50 x 8	222	24	11	16	18,0	16 x 65	7,7	RA-159-R	2,00	RA-159-R-8FL	2,31
168,3	50 x 8	232	24	11	16	18,0	16 x 65	7,2	RA-169-R	2,08	RA-169-R-8FL	2,39
193,7	50 x 8	258	24	11	16	18,0	16 x 65	6,4	RA-194-R	2,42	RA-194-R-8FL	2,73
219,1	50 x 8	284	24	11	16	18,0	16 x 65	5,7	RA-220-R	2,64	RA-220-R-8FL	2,95
267,0	60 x 8	342	30	14	16	23,0	20 x 70	5,5	RA-267-R	3,85	RA-267-R-8FL	4,41
273,0	60 x 8	348	30	14	16	23,0	20 x 70	5,4	RA-273-R	3,91	RA-273-R-8FL	4,47
323,9	60 x 8	398	30	14	16	23,0	20 x 70	4,7	RA-324-R	4,49	RA-324-R-8FL	5,05
355,6	60 x 8	432	30	14	16	23,0	20 x 70	4,4	RA-356-R	5,09	RA-356-R-8FL	5,65
368,0	60 x 8	444	30	14	16	23,0	20 x 70	4,4	RA-368-R	5,30	RA-368-R-8FL	5,86
406,4	70 x 10	498	36	18	20	27,0	24 x 90	7,1	RA-407-R	8,52	RA-407-R-8FL	9,53
419,0	70 x 10	510	36	18	20	27,0	24 x 90	7,0	RA-419-R	8,75	RA-419-R-8FL	9,76
457,0	70 x 10	550	36	18	20	27,0	24 x 90	6,5	RA-457-R	9,17	RA-457-R-8FL	10,2
508,0	70 x 10	600	36	18	20	27,0	24 x 90	6,0	RA-508-R	10,2	RA-508-R-8FL	11,2
521,0	70 x 10	614	36	18	20	27,0	24 x 90	6,0	RA-521-R	10,5	RA-521-R-8FL	11,5
610,0	70 x 10	717	36	18	20	27,0	24 x 90	5,9	RA-609-R	11,9	RA-609-R-8FL	12,9
610,0	90 x 15	740	45	25	30	33,0	30 x 120	14,6	RA-610-R	24,0	RA-610-R-8FL	26,1
711,0	70 x 10	812	36	18	20	27,0	24 x 90	5,3	RA-711-R	13,7	RA-711-R-8FL	14,7
711,0	90 x 15	850	45	25	30	33,0	30 x 120	12,7	RA-712-R	27,5	RA-712-R-8FL	29,6
813,0	70 x 10	913	36	18	20	27,0	24 x 90	4,2	RA-812-R	15,4	RA-812-R-8FL	16,4
813,0	90 x 15	950	45	25	30	33,0	30 x 120	11,9	RA-813-R	31,0	RA-813-R-8FL	33,1
914,0	90 x 15	1050	45	25	30	33,0	30 x 120	9,4	RA-914-R	34,0	RA-914-R-8FL	36,1
1016,0	90 x 15	1140	45	25	30	33,0	30 x 120	8,7	RA-1016-R	37,3	RA-1016-R-8FL	39,4
1220,0	90 x 15	1360	45	25	30	33,0	30 x 120	7,7	RA-1220-R	49,3	RA-1220-R-8FL	51,4

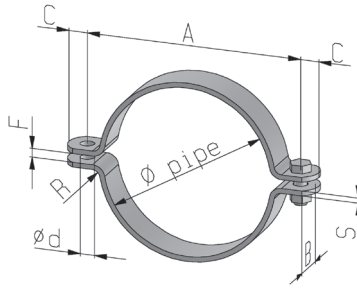


Pipe Clips Type RA

DN 15 - DN 1200

Material:	16Mo3 EN 10028-2 , for temperatures up to 450° C
Finish:	to DIN 3567 Form A (DN 20 - 500), other sizes based on DIN 3567, plain, some with rounded ends, choosing longer screws will effect screw locking, Bolts and nuts to DIN ISO 4017 / 4032 high temperature GA / G (DIN EN 10269)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 350° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	11,5	10 x 40	6,3	RA-022-M	0,20	RA-022-M-GAL	0,29
25,0	30 x 5	62	15	7	10	11,5	10 x 40	5,7	RA-025-M	0,22	RA-025-M-GAL	0,31
26,9	30 x 5	66	15	7	10	11,5	10 x 40	5,2	RA-027-M	0,23	RA-027-M-GAL	0,32
30,0	30 x 5	68	15	7	10	11,5	10 x 40	4,8	RA-030-M	0,24	RA-030-M-GAL	0,33
33,7	30 x 5	72	15	7	10	11,5	10 x 40	4,5	RA-034-M	0,25	RA-034-M-GAL	0,34
38,0	30 x 5	76	15	7	10	11,5	10 x 40	4,1	RA-038-M	0,26	RA-038-M-GAL	0,35
42,4	30 x 5	82	15	7	10	11,5	10 x 40	3,8	RA-043-M	0,28	RA-043-M-GAL	0,37
44,5	30 x 5	84	15	7	10	11,5	10 x 40	3,8	RA-045-M	0,29	RA-045-M-GAL	0,38
48,3	30 x 5	88	15	7	10	11,5	10 x 40	3,4	RA-049-M	0,30	RA-049-M-GAL	0,39
57,0	40 x 6	104	18	9	12	14,0	12 x 50	5,7	RA-057-M	0,56	RA-057-M-GAL	0,70
60,3	40 x 6	108	18	9	12	14,0	12 x 50	5,4	RA-061-M	0,58	RA-061-M-GAL	0,72
76,1	40 x 6	122	18	9	12	14,0	12 x 50	4,8	RA-077-M	0,69	RA-077-M-GAL	0,83
88,9	40 x 6	136	18	9	12	14,0	12 x 50	4,3	RA-089-M	0,75	RA-089-M-GAL	0,89
108,0	50 x 8	172	24	11	16	18,0	16 x 65	8,6	RA-108-M	1,59	RA-108-M-GAL	1,90
114,3	50 x 8	178	24	11	16	18,0	16 x 65	8,3	RA-115-M	1,63	RA-115-M-GAL	1,94
133,0	50 x 8	196	24	11	16	18,0	16 x 65	7,4	RA-133-M	1,79	RA-133-M-GAL	2,10
139,7	50 x 8	204	24	11	16	18,0	16 x 65	7,0	RA-140-M	1,83	RA-140-M-GAL	2,14
159,0	50 x 8	222	24	11	16	18,0	16 x 65	6,5	RA-159-M	2,00	RA-159-M-GAL	2,31
168,3	50 x 8	232	24	11	16	18,0	16 x 65	6,1	RA-169-M	2,08	RA-169-M-GAL	2,39
193,7	50 x 8	258	24	11	16	18,0	16 x 65	5,4	RA-194-M	2,42	RA-194-M-GAL	2,73
219,1	50 x 8	284	24	11	16	18,0	16 x 65	4,8	RA-220-M	2,64	RA-220-M-GAL	2,95
267,0	60 x 8	342	30	14	16	23,0	20 x 70	4,7	RA-267-M	3,85	RA-267-M-GAL	4,41
273,0	60 x 8	348	30	14	16	23,0	20 x 70	4,5	RA-273-M	3,91	RA-273-M-GAL	4,47
323,9	60 x 8	398	30	14	16	23,0	20 x 70	4,1	RA-324-M	4,49	RA-324-M-GAL	5,05
355,6	60 x 8	432	30	14	16	23,0	20 x 70	3,8	RA-356-M	5,09	RA-356-M-GAL	5,65
368,0	60 x 8	444	30	14	16	23,0	20 x 70	3,6	RA-368-M	5,30	RA-368-M-GAL	5,86
406,4	70 x 10	498	36	18	20	27,0	24 x 90	6,1	RA-407-M	8,52	RA-407-M-GAL	9,53
419,0	70 x 10	510	36	18	20	27,0	24 x 90	5,9	RA-419-M	8,75	RA-419-M-GAL	9,76
457,0	70 x 10	550	36	18	20	27,0	24 x 90	5,6	RA-457-M	9,17	RA-457-M-GAL	10,2
508,0	70 x 10	600	36	18	20	27,0	24 x 90	5,2	RA-508-M	10,2	RA-508-M-GAL	11,2
521,0	70 x 10	614	36	18	20	27,0	24 x 90	5,0	RA-521-M	10,5	RA-521-M-GAL	11,5
610,0	70 x 10	717	36	18	20	27,0	24 x 90	5,0	RA-609-M	11,9	RA-609-M-GAL	12,9
610,0	90 x 15	740	45	25	30	33,0	30 x 120	12,4	RA-610-M	24,0	RA-610-M-GAL	26,1
711,0	70 x 10	812	36	18	20	27,0	24 x 90	4,5	RA-711-M	13,7	RA-711-M-GAL	14,7
711,0	90 x 15	850	45	25	30	33,0	30 x 120	10,8	RA-712-M	27,5	RA-712-M-GAL	29,6
813,0	70 x 10	913	36	18	20	27,0	24 x 90	3,5	RA-812-M	15,4	RA-812-M-GAL	16,4
813,0	90 x 15	950	45	25	30	33,0	30 x 120	9,9	RA-813-M	31,0	RA-813-M-GAL	33,1
914,0	90 x 15	1050	45	25	30	33,0	30 x 120	9,5	RA-914-M	34,0	RA-914-M-GAL	36,1
1016,0	90 x 15	1140	45	25	30	33,0	30 x 120	9,5	RA-1016-M	37,3	RA-1016-M-GAL	39,4
1220,0	90 x 15	1360	45	25	30	33,0	30 x 120	7,9	RA-1220-M	49,3	RA-1220-M-GAL	51,4

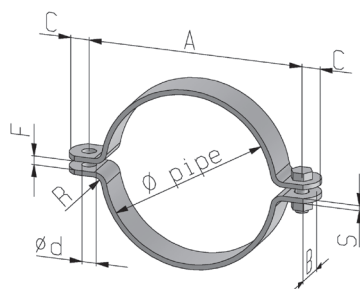


Pipe Clips Type RA

DN 15 - DN 1200

Material:	13CrMo4-5 EN 10028-2 , for temperatures up to 560° C
Finish:	to DIN 3567 Form A (DN 20 - 500), other sizes based on DIN 3567, plain, some with rounded ends, choosing longer screws will effect screw locking,
	Bolts and nuts to DIN ISO 4017 / 4032 high temperature GA / KG (DIN 267-13)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 500° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	11,5	10 x 40	3,5	RA-022-C	0,20	RA-022-C-GAL	0,29
25,0	30 x 5	62	15	7	10	11,5	10 x 40	3,2	RA-025-C	0,22	RA-025-C-GAL	0,31
26,9	30 x 5	66	15	7	10	11,5	10 x 40	2,9	RA-027-C	0,23	RA-027-C-GAL	0,32
30,0	30 x 5	68	15	7	10	11,5	10 x 40	2,7	RA-030-C	0,24	RA-030-C-GAL	0,33
33,7	30 x 5	72	15	7	10	11,5	10 x 40	2,5	RA-034-C	0,25	RA-034-C-GAL	0,34
38,0	30 x 5	76	15	7	10	11,5	10 x 40	2,3	RA-038-C	0,26	RA-038-C-GAL	0,35
42,4	30 x 5	82	15	7	10	11,5	10 x 40	2,1	RA-043-C	0,28	RA-043-C-GAL	0,37
44,5	30 x 5	84	15	7	10	11,5	10 x 40	2,1	RA-045-C	0,29	RA-045-C-GAL	0,38
48,3	30 x 5	88	15	7	10	11,5	10 x 40	1,9	RA-049-C	0,30	RA-049-C-GAL	0,39
57,0	40 x 6	104	18	9	12	14,0	12 x 50	3,2	RA-057-C	0,56	RA-057-C-GAL	0,70
60,3	40 x 6	108	18	9	12	14,0	12 x 50	3,0	RA-061-C	0,58	RA-061-C-GAL	0,72
76,1	40 x 6	122	18	9	12	14,0	12 x 50	2,7	RA-077-C	0,69	RA-077-C-GAL	0,83
88,9	40 x 6	136	18	9	12	14,0	12 x 50	2,4	RA-089-C	0,75	RA-089-C-GAL	0,89
108,0	50 x 8	172	24	11	16	18,0	16 x 65	4,8	RA-108-C	1,59	RA-108-C-GAL	1,90
114,3	50 x 8	178	24	11	16	18,0	16 x 65	4,6	RA-115-C	1,63	RA-115-C-GAL	1,94
133,0	50 x 8	196	24	11	16	18,0	16 x 65	4,1	RA-133-C	1,79	RA-133-C-GAL	2,10
139,7	50 x 8	204	24	11	16	18,0	16 x 65	3,9	RA-140-C	1,83	RA-140-C-GAL	2,14
159,0	50 x 8	222	24	11	16	18,0	16 x 65	3,6	RA-159-C	2,00	RA-159-C-GAL	2,31
168,3	50 x 8	232	24	11	16	18,0	16 x 65	3,4	RA-169-C	2,08	RA-169-C-GAL	2,39
193,7	50 x 8	258	24	11	16	18,0	16 x 65	3,0	RA-194-C	2,42	RA-194-C-GAL	2,73
219,1	50 x 8	284	24	11	16	18,0	16 x 65	2,7	RA-220-C	2,64	RA-220-C-GAL	2,95
267,0	60 x 8	342	30	14	16	23,0	20 x 70	2,6	RA-267-C	3,85	RA-267-C-GAL	4,41
273,0	60 x 8	348	30	14	16	23,0	20 x 70	2,5	RA-273-C	3,91	RA-273-C-GAL	4,47
323,9	60 x 8	398	30	14	16	23,0	20 x 70	2,3	RA-324-C	4,49	RA-324-C-GAL	5,05
355,6	60 x 8	432	30	14	16	23,0	20 x 70	2,1	RA-356-C	5,09	RA-356-C-GAL	5,65
368,0	60 x 8	444	30	14	16	23,0	20 x 70	2,0	RA-368-C	5,30	RA-368-C-GAL	5,86
406,4	70 x 10	498	36	18	20	27,0	24 x 90	3,4	RA-407-C	8,52	RA-407-C-GAL	9,53
419,0	70 x 10	510	36	18	20	27,0	24 x 90	3,3	RA-419-C	8,75	RA-419-C-GAL	9,76
457,0	70 x 10	550	36	18	20	27,0	24 x 90	3,1	RA-457-C	9,17	RA-457-C-GAL	10,2
508,0	70 x 10	600	36	18	20	27,0	24 x 90	2,9	RA-508-C	10,2	RA-508-C-GAL	11,2
521,0	70 x 10	614	36	18	20	27,0	24 x 90	2,8	RA-521-C	10,5	RA-521-C-GAL	11,5
610,0	70 x 10	717	36	18	20	27,0	24 x 90	2,8	RA-609-C	11,9	RA-609-C-GAL	12,9
610,0	90 x 15	740	45	25	30	33,0	30 x 120	6,9	RA-610-C	24,0	RA-610-C-GAL	26,1
711,0	70 x 10	812	36	18	20	27,0	24 x 90	2,5	RA-711-C	13,7	RA-711-C-GAL	14,7
711,0	90 x 15	850	45	25	30	33,0	30 x 120	6,0	RA-712-C	27,5	RA-712-C-GAL	29,6
813,0	70 x 10	913	36	18	20	27,0	24 x 90	2,0	RA-812-C	15,4	RA-812-C-GAL	16,4
813,0	90 x 15	950	45	25	30	33,0	30 x 120	5,5	RA-813-C	31,0	RA-813-C-GAL	33,1
914,0	90 x 15	1050	45	25	30	33,0	30 x 120	4,7	RA-914-C	34,0	RA-914-C-GAL	36,1
1016,0	90 x 15	1140	45	25	30	33,0	30 x 120	4,8	RA-1016-C	37,3	RA-1016-C-GAL	39,4
1220,0	90 x 15	1360	45	25	30	33,0	30 x 120	3,9	RA-1220-C	49,3	RA-1220-C-GAL	51,4



Pipe Clips Type RA

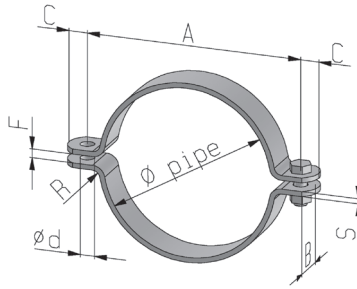
DN 15 - DN 350

Material:	1.4541 EN 10088-3 , for temperatures up to 400° C
Finish:	to DIN 3567 Form A, intermediate sizes based on DIN 3567, pickled, plain, some with rounded ends, choosing longer screws will effect screw locking,
	Bolts and nuts to DIN ISO 4017 / 4032 A4 (ISO 3506-2)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 50° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	11,5	10 x 40	7,2	RA-022-B	0,20	RA-022-B-A4L	0,29
25,0	30 x 5	62	15	7	10	11,5	10 x 40	6,7	RA-025-B	0,22	RA-025-B-A4L	0,31
26,9	30 x 5	66	15	7	10	11,5	10 x 40	6,3	RA-027-B	0,23	RA-027-B-A4L	0,32
30,0	30 x 5	68	15	7	10	11,5	10 x 40	5,9	RA-030-B	0,24	RA-030-B-A4L	0,33
33,7	30 x 5	72	15	7	10	11,5	10 x 40	5,2	RA-034-B	0,25	RA-034-B-A4L	0,34
38,0	30 x 5	76	15	7	10	11,5	10 x 40	4,9	RA-038-B	0,26	RA-038-B-A4L	0,35
42,4	30 x 5	82	15	7	10	11,5	10 x 40	4,4	RA-043-B	0,28	RA-043-B-A4L	0,37
44,5	30 x 5	84	15	7	10	11,5	10 x 40	4,4	RA-045-B	0,29	RA-045-B-A4L	0,38
48,3	30 x 5	88	15	7	10	11,5	10 x 40	4,1	RA-049-B	0,30	RA-049-B-A4L	0,39
54,0	40 x 6	98	18	9	12	14,0	12 x 50	7,6	RA-054-B	0,55	RA-054-B-A4L	0,69
57,0	40 x 6	104	18	9	12	14,0	12 x 50	6,7	RA-057-B	0,56	RA-057-B-A4L	0,70
60,3	40 x 6	108	18	9	12	14,0	12 x 50	6,4	RA-061-B	0,58	RA-061-B-A4L	0,72
70,0	40 x 6	119	18	9	12	14,0	12 x 50	5,9	RA-070-B	0,67	RA-070-B-A4L	0,81
76,1	40 x 6	122	18	9	12	14,0	12 x 50	5,7	RA-077-B	0,69	RA-077-B-A4L	0,83
84,0	40 x 6	130	18	9	12	14,0	12 x 50	5,3	RA-084-B	0,73	RA-084-B-A4L	0,87
88,9	40 x 6	136	18	9	12	14,0	12 x 50	5,0	RA-089-B	0,75	RA-089-B-A4L	0,89
101,6	50 x 8	165	24	11	16	18,0	16 x 65	10,6	RA-102-B	1,53	RA-102-B-A4L	1,80
108,0	50 x 8	172	24	11	16	18,0	16 x 65	10,0	RA-108-B	1,59	RA-108-B-A4L	1,90
114,3	50 x 8	178	24	11	16	18,0	16 x 65	9,5	RA-115-B	1,63	RA-115-B-A4L	1,94
129,0	50 x 8	190	24	11	16	18,0	16 x 65	9,1	RA-129-B	1,75	RA-129-B-A4L	2,02
133,0	50 x 8	196	24	11	16	18,0	16 x 65	8,8	RA-133-B	1,79	RA-133-B-A4L	2,10
139,7	50 x 8	204	24	11	16	18,0	16 x 65	8,3	RA-140-B	1,83	RA-140-B-A4L	2,14
154,0	50 x 8	217	24	11	16	18,0	16 x 65	8,1	RA-154-B	1,95	RA-154-B-A4L	2,22
159,0	50 x 8	222	24	11	16	18,0	16 x 65	7,7	RA-159-B	2,00	RA-159-B-A4L	2,31
168,3	50 x 8	232	24	11	16	18,0	16 x 65	7,2	RA-169-B	2,08	RA-169-B-A4L	2,39
193,7	50 x 8	258	24	11	16	18,0	16 x 65	6,4	RA-194-B	2,42	RA-194-B-A4L	2,73
205,0	50 x 8	275	24	11	16	18,0	16 x 65	6,2	RA-205-B	2,50	RA-205-B-A4L	2,77
219,1	50 x 8	284	24	11	16	18,0	16 x 65	5,7	RA-220-B	2,64	RA-220-B-A4L	2,95
255,0	60 x 8	325	30	14	16	23,0	20 x 70	5,8	RA-255-B	3,72	RA-255-B-A4L	4,26
267,0	60 x 8	342	30	14	16	23,0	20 x 70	5,5	RA-267-B	3,85	RA-267-B-A4L	4,41
273,0	60 x 8	348	30	14	16	23,0	20 x 70	5,4	RA-273-B	3,91	RA-273-B-A4L	4,47
306,0	60 x 8	381	30	14	16	23,0	20 x 70	5,0	RA-306-B	4,20	RA-306-B-A4L	4,74
323,9	60 x 8	398	30	14	16	23,0	20 x 70	4,7	RA-324-B	4,49	RA-324-B-A4L	5,05
355,6	60 x 8	432	30	14	16	23,0	20 x 70	4,4	RA-356-B	5,09	RA-356-B-A4L	5,65
368,0	60 x 8	444	30	14	16	23,0	20 x 70	4,4	RA-368-B	5,30	RA-368-B-A4L	5,86

Notes: Other dimensions on request.

The same applies to S235JR, 16Mo3 and 13CrMo4-5.



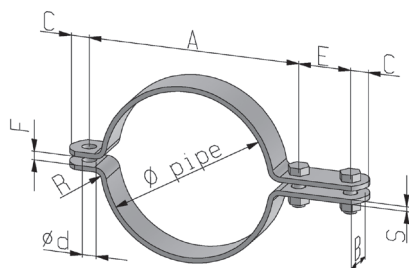
Pipe Clips Type RA

DN 15 - DN 350

Material:	1.4571 EN 10088-3 , for temperatures up to 400° C
Finish:	to DIN 3567 Form A, intermediate sizes based on DIN 3567, pickled, plain, some with rounded ends, choosing longer screws will effect screw locking, Bolts and nuts to DIN ISO 4017 / 4032 A4 (ISO 3506-2)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 50° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	11,5	10 x 40	7,9	RA-022-V	0,20	RA-022-V-A4L	0,29
25,0	30 x 5	62	15	7	10	11,5	10 x 40	7,3	RA-025-V	0,22	RA-025-V-A4L	0,31
26,9	30 x 5	66	15	7	10	11,5	10 x 40	6,9	RA-027-V	0,23	RA-027-V-A4L	0,32
30,0	30 x 5	68	15	7	10	11,5	10 x 40	6,4	RA-030-V	0,24	RA-030-V-A4L	0,33
33,7	30 x 5	72	15	7	10	11,5	10 x 40	5,7	RA-034-V	0,25	RA-034-V-A4L	0,34
38,0	30 x 5	76	15	7	10	11,5	10 x 40	5,4	RA-038-V	0,26	RA-038-V-A4L	0,35
42,4	30 x 5	82	15	7	10	11,5	10 x 40	4,8	RA-043-V	0,28	RA-043-V-A4L	0,37
44,5	30 x 5	84	15	7	10	11,5	10 x 40	4,8	RA-045-V	0,29	RA-045-V-A4L	0,38
48,3	30 x 5	88	15	7	10	11,5	10 x 40	4,5	RA-049-V	0,30	RA-049-V-A4L	0,39
54,0	40 x 6	98	18	9	12	14,0	12 x 50	8,3	RA-054-V	0,55	RA-054-V-A4L	0,69
57,0	40 x 6	104	18	9	12	14,0	12 x 50	7,3	RA-057-V	0,56	RA-057-V-A4L	0,70
60,3	40 x 6	108	18	9	12	14,0	12 x 50	7,0	RA-061-V	0,58	RA-061-V-A4L	0,72
70,0	40 x 6	119	18	9	12	14,0	12 x 50	6,5	RA-070-V	0,67	RA-070-V-A4L	0,81
76,1	40 x 6	122	18	9	12	14,0	12 x 50	6,2	RA-077-V	0,69	RA-077-V-A4L	0,83
84,0	40 x 6	130	18	9	12	14,0	12 x 50	5,8	RA-084-V	0,73	RA-084-V-A4L	0,87
88,9	40 x 6	136	18	9	12	14,0	12 x 50	5,5	RA-089-V	0,75	RA-089-V-A4L	0,89
101,6	50 x 8	165	24	11	16	18,0	16 x 65	11,5	RA-102-V	1,53	RA-102-V-A4L	1,80
108,0	50 x 8	172	24	11	16	18,0	16 x 65	10,9	RA-108-V	1,59	RA-108-V-A4L	1,90
114,3	50 x 8	178	24	11	16	18,0	16 x 65	10,4	RA-115-V	1,63	RA-115-V-A4L	1,94
129,0	50 x 8	190	24	11	16	18,0	16 x 65	9,9	RA-129-V	1,75	RA-129-V-A4L	2,02
133,0	50 x 8	196	24	11	16	18,0	16 x 65	9,6	RA-133-V	1,79	RA-133-V-A4L	2,10
139,7	50 x 8	204	24	11	16	18,0	16 x 65	9,1	RA-140-V	1,83	RA-140-V-A4L	2,14
154,0	50 x 8	217	24	11	16	18,0	16 x 65	8,8	RA-154-V	1,95	RA-154-V-A4L	2,22
159,0	50 x 8	222	24	11	16	18,0	16 x 65	8,4	RA-159-V	2,00	RA-159-V-A4L	2,31
168,3	50 x 8	232	24	11	16	18,0	16 x 65	7,9	RA-169-V	2,08	RA-169-V-A4L	2,39
193,7	50 x 8	258	24	11	16	18,0	16 x 65	7,0	RA-194-V	2,42	RA-194-V-A4L	2,73
205,0	50 x 8	275	24	11	16	18,0	16 x 65	6,7	RA-205-V	2,50	RA-205-V-A4L	2,77
219,1	50 x 8	284	24	11	16	18,0	16 x 65	6,2	RA-220-V	2,64	RA-220-V-A4L	2,95
255,0	60 x 8	325	30	14	16	23,0	20 x 70	6,3	RA-255-V	3,72	RA-255-V-A4L	4,26
267,0	60 x 8	342	30	14	16	23,0	20 x 70	6,0	RA-267-V	3,85	RA-267-V-A4L	4,41
273,0	60 x 8	348	30	14	16	23,0	20 x 70	5,9	RA-273-V	3,91	RA-273-V-A4L	4,47
306,0	60 x 8	381	30	14	16	23,0	20 x 70	5,4	RA-306-V	4,20	RA-306-V-A4L	4,74
323,9	60 x 8	398	30	14	16	23,0	20 x 70	5,1	RA-324-V	4,49	RA-324-V-A4L	5,05
355,6	60 x 8	432	30	14	16	23,0	20 x 70	4,8	RA-356-V	5,09	RA-356-V-A4L	5,65
368,0	60 x 8	444	30	14	16	23,0	20 x 70	4,8	RA-368-V	5,30	RA-368-V-A4L	5,86

Notes: Other dimensions on request



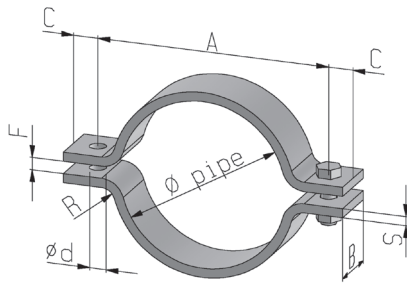
Pipe Clips Type RB

DN 15 - DN 800

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	to DIN 3567 Form B (DN 20 - 500), other sizes based on DIN 3567, plain, some with rounded ends, choosing longer screws will effect screw locking,
	Bolts and nuts to ISO 4017/ 4032 - 8.8 / 8 hot-dip galvanized (DIN EN ISO 898)

Ø pipe	B x S	A	C	F	R	E	d	bolt size „long“	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
21,3	30 x 5	56	15	7	10	46	11,5	10 x 40	RB-022-R	0,30	RB-022-R-4FL	0,44
25,0	30 x 5	62	15	7	10	46	11,5	10 x 40	RB-025-R	0,32	RB-025-R-4FL	0,46
26,9	30 x 5	66	15	7	10	46	11,5	10 x 40	RB-027-R	0,33	RB-027-R-4FL	0,47
30,0	30 x 5	68	15	7	10	46	11,5	10 x 40	RB-030-R	0,34	RB-030-R-4FL	0,48
33,7	30 x 5	72	15	7	10	46	11,5	10 x 40	RB-034-R	0,35	RB-034-R-4FL	0,49
38,0	30 x 5	76	15	7	10	46	11,5	10 x 40	RB-038-R	0,37	RB-038-R-4FL	0,51
42,4	30 x 5	82	15	7	10	46	11,5	10 x 40	RB-043-R	0,38	RB-043-R-4FL	0,52
44,5	30 x 5	84	15	7	10	46	11,5	10 x 40	RB-045-R	0,39	RB-045-R-4FL	0,53
48,3	30 x 5	88	15	7	10	46	11,5	10 x 40	RB-049-R	0,41	RB-049-R-4FL	0,55
57,0	40 x 6	104	18	9	12	54	14,0	12 x 50	RB-057-R	0,77	RB-057-R-4FL	0,98
60,3	40 x 6	108	18	9	12	54	14,0	12 x 50	RB-061-R	0,78	RB-061-R-4FL	0,99
76,1	40 x 6	122	18	9	12	54	14,0	12 x 50	RB-077-R	0,86	RB-077-R-4FL	1,07
88,9	40 x 6	136	18	9	12	54	14,0	12 x 50	RB-089-R	0,95	RB-089-R-4FL	1,16
108,0	50 x 8	172	24	11	16	70	18,0	16 x 65	RB-108-R	2,03	RB-108-R-4FL	2,50
114,3	50 x 8	178	24	11	16	70	18,0	16 x 65	RB-115-R	2,07	RB-115-R-4FL	2,54
133,0	50 x 8	196	24	11	16	70	18,0	16 x 65	RB-133-R	2,20	RB-133-R-4FL	2,67
139,7	50 x 8	204	24	11	16	70	18,0	16 x 65	RB-140-R	2,26	RB-140-R-4FL	2,73
159,0	50 x 8	222	24	11	16	70	18,0	16 x 65	RB-159-R	2,40	RB-159-R-4FL	2,87
168,3	50 x 8	232	24	11	16	70	18,0	16 x 65	RB-169-R	2,52	RB-169-R-4FL	2,99
193,7	50 x 8	258	24	11	16	70	18,0	16 x 65	RB-194-R	2,82	RB-194-R-4FL	3,29
219,1	50 x 8	284	24	11	16	70	18,0	16 x 65	RB-220-R	3,09	RB-220-R-4FL	3,56
267,0	60 x 8	342	30	14	16	86	23,0	20 x 70	RB-267-R	4,45	RB-267-R-4FL	5,29
273,0	60 x 8	348	30	14	16	86	23,0	20 x 70	RB-273-R	4,52	RB-273-R-4FL	5,36
323,9	60 x 8	398	30	14	16	86	23,0	20 x 70	RB-324-R	5,11	RB-324-R-4FL	5,95
355,6	60 x 8	432	30	14	16	86	23,0	20 x 70	RB-356-R	5,72	RB-356-R-4FL	6,56
368,0	60 x 8	444	30	14	16	86	23,0	20 x 70	RB-368-R	6,00	RB-368-R-4FL	6,84
406,4	70 x 10	498	36	18	20	104	27,0	24 x 90	RB-407-R	9,63	RB-407-R-4FL	11,2
419,0	70 x 10	510	36	18	20	104	27,0	24 x 90	RB-419-R	9,80	RB-419-R-4FL	11,3
457,0	70 x 10	550	36	18	20	104	27,0	24 x 90	RB-457-R	10,7	RB-457-R-4FL	12,2
508,0	70 x 10	600	36	18	20	104	27,0	24 x 90	RB-508-R	11,4	RB-508-R-4FL	12,9
521,0	70 x 10	614	36	18	20	104	27,0	24 x 90	RB-521-R	11,6	RB-521-R-4FL	13,1
559,0	90 x 15	690	45	25	30	104	33,0	30 x 120	RB-559-R	23,5	RB-559-R-4FL	26,7
610,0	90 x 15	740	45	25	30	104	33,0	30 x 120	RB-610-R	25,5	RB-610-R-4FL	28,7
711,0	90 x 15	850	45	25	30	104	33,0	30 x 120	RB-711-R	28,0	RB-711-R-4FL	31,2
813,0	90 x 15	950	45	25	30	104	33,0	30 x 120	RB-813-R	32,5	RB-813-R-4FL	35,7

Notes: Other dimensions on request.



Pipe Clips Type RM

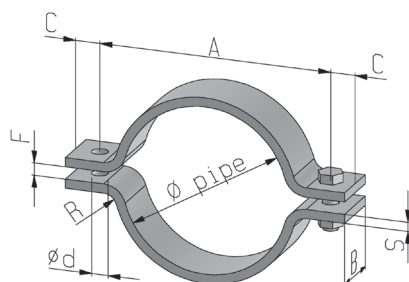
For higher load

DN 50 - DN 1200

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	plain, choosing longer screws will effect screw locking, Bolts and nuts to DIN ISO 4017/ 4032 - 8.8 / 8 hot-dip galvanized (DIN EN ISO 898)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 50° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
57,0	40 x 8	110	25	12	16	18,0	16 x 65	12,8	RM-057-R	0,85	RM-057-R-8FL	1,16
60,3	40 x 8	120	25	12	16	18,0	16 x 65	11,5	RM-061-R	0,90	RM-061-R-8FL	1,21
76,1	40 x 8	140	25	12	16	18,0	16 x 65	9,4	RM-077-R	1,00	RM-077-R-8FL	1,31
88,9	40 x 8	150	25	12	16	18,0	16 x 65	8,6	RM-089-R	1,20	RM-089-R-8FL	1,51
108,0	50 x 10	180	35	15	20	23,0	20 x 70	16,2	RM-108-R	2,30	RM-108-R-8FL	2,86
114,3	50 x 10	190	35	15	20	23,0	20 x 70	14,6	RM-115-R	2,40	RM-115-R-8FL	2,96
133,0	60 x 10	210	35	15	20	23,0	20 x 70	16,2	RM-133-R	3,00	RM-133-R-8FL	3,56
139,7	60 x 10	220	35	15	20	23,0	20 x 70	15,1	RM-140-R	3,20	RM-140-R-8FL	3,76
159,0	60 x 10	240	35	15	20	23,0	20 x 70	13,6	RM-159-R	3,50	RM-159-R-8FL	4,06
168,3	70 x 10	250	35	15	20	23,0	20 x 70	15,1	RM-169-R	4,20	RM-169-R-8FL	4,76
193,7	70 x 15	300	40	20	30	27,0	24 x 90	28,6	RM-194-R	7,50	RM-194-R-8FL	8,51
219,1	70 x 15	320	40	20	30	27,0	24 x 90	28,1	RM-220-R	8,00	RM-220-R-8FL	9,01
267,0	80 x 15	370	40	20	30	27,0	24 x 90	27,8	RM-267-R	10,5	RM-267-R-8FL	11,5
273,0	90 x 15	380	40	20	30	27,0	24 x 90	29,8	RM-273-R	12,0	RM-273-R-8FL	13,0
323,9	90 x 15	430	40	20	30	27,0	24 x 90	26,5	RM-324-R	14,0	RM-324-R-8FL	15,0
355,6	100 x 15	470	40	20	30	27,0	24 x 90	26,3	RM-356-R	16,5	RM-356-R-8FL	17,5
368,0	100 x 15	480	40	20	30	27,0	24 x 90	26,1	RM-368-R	17,0	RM-368-R-8FL	18,0
406,4	130 x 20	550	50	25	40	33,0	30 x 120	53,5	RM-407-R	33,5	RM-407-R-8FL	35,6
419,0	140 x 20	570	50	25	40	33,0	30 x 120	53,8	RM-419-R	37,0	RM-419-R-8FL	39,1
457,0	140 x 20	600	50	25	40	33,0	30 x 120	53,0	RM-457-R	40,0	RM-457-R-8FL	42,1
508,0	150 x 20	660	50	25	40	33,0	30 x 120	50,4	RM-508-R	46,5	RM-508-R-8FL	48,6
521,0	150 x 20	680	50	25	40	33,0	30 x 120	44,4	RM-521-R	47,5	RM-521-R-8FL	49,6
610,0	150 x 20	760	50	25	40	33,0	30 x 120	41,8	RM-610-R	55,2	RM-610-R-8FL	57,3
711,0	150 x 20	860	50	25	40	33,0	30 x 120	38,2	RM-711-R	62,9	RM-711-R-8FL	65,0
813,0	150 x 20	960	50	25	40	33,0	30 x 120	35,3	RM-813-R	70,6	RM-813-R-8FL	72,7
914,0	150 x 20	1060	50	25	40	33,0	30 x 120	28,4	RM-914-R	78,3	RM-914-R-8FL	80,4
1016,0	150 x 20	1160	50	25	40	33,0	30 x 120	25,9	RM-1016-R	86,0	RM-1016-R-8FL	88,1
1220,0	150 x 20	1370	50	25	40	33,0	30 x 120	23,4	RM-1220-R	101,0	RM-1220-R-8FL	103,1

Notes: Other dimensions on request.



Pipe Clips Type RM

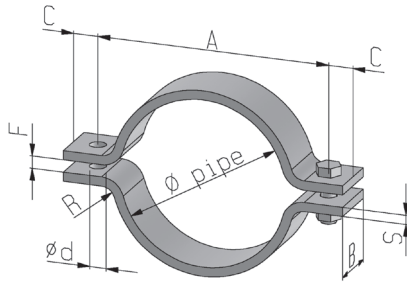
For higher load

DN 50 - DN 1200

Material:	16Mo3 DIN EN 10028-2, for temperatures up to 450°C
Finish:	plain, choosing longer screws will effect screw locking, Bolts and nuts to ISO 4017 / 4032 GA / KG high temperature (DIN 267-13)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 350° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
57,0	40 x 8	110	25	12	16	18,0	16 x 65	10,9	RM-057-M	0,85	RM-057-M-GAL	1,16
60,3	40 x 8	120	25	12	16	18,0	16 x 65	9,8	RM-061-M	0,90	RM-061-M-GAL	1,21
76,1	40 x 8	140	25	12	16	18,0	16 x 65	8,0	RM-077-M	1,00	RM-077-M-GAL	1,31
88,9	40 x 8	150	25	12	16	18,0	16 x 65	7,3	RM-089-M	1,20	RM-089-M-GAL	1,51
108,0	50 x 10	180	35	15	20	23,0	20 x 70	13,8	RM-108-M	2,30	RM-108-M-GAL	2,86
114,3	50 x 10	190	35	15	20	23,0	20 x 70	12,6	RM-115-M	2,40	RM-115-M-GAL	2,96
133,0	60 x 10	210	35	15	20	23,0	20 x 70	13,7	RM-133-M	3,00	RM-133-M-GAL	3,56
139,7	60 x 10	220	35	15	20	23,0	20 x 70	12,8	RM-140-M	3,20	RM-140-M-GAL	3,76
159,0	60 x 10	240	35	15	20	23,0	20 x 70	11,5	RM-159-M	3,50	RM-159-M-GAL	4,06
168,3	70 x 10	250	35	15	20	23,0	20 x 70	12,8	RM-169-M	4,20	RM-169-M-GAL	4,76
193,7	70 x 15	300	40	20	30	27,0	24 x 90	24,7	RM-194-M	7,50	RM-194-M-GAL	8,51
219,1	70 x 15	320	40	20	30	27,0	24 x 90	24,1	RM-220-M	8,00	RM-220-M-GAL	9,01
267,0	80 x 15	370	40	20	30	27,0	24 x 90	23,6	RM-267-M	10,5	RM-267-M-GAL	11,5
273,0	90 x 15	380	40	20	30	27,0	24 x 90	25,4	RM-273-M	12,0	RM-273-M-GAL	13,0
323,9	90 x 15	430	40	20	30	27,0	24 x 90	22,5	RM-324-M	14,0	RM-324-M-GAL	15,0
355,6	100 x 15	470	40	20	30	27,0	24 x 90	22,3	RM-356-M	16,5	RM-356-M-GAL	17,5
368,0	100 x 15	480	40	20	30	27,0	24 x 90	22,1	RM-368-M	17,0	RM-368-M-GAL	18,0
406,4	130 x 20	550	50	25	40	33,0	30 x 120	45,4	RM-407-M	33,5	RM-407-M-GAL	35,6
419,0	140 x 20	570	50	25	40	33,0	30 x 120	45,6	RM-419-M	37,0	RM-419-M-GAL	39,1
457,0	140 x 20	600	50	25	40	33,0	30 x 120	40,0	RM-457-M	40,0	RM-457-M-GAL	42,1
508,0	150 x 20	660	50	25	40	33,0	30 x 120	42,9	RM-508-M	46,5	RM-508-M-GAL	48,6
521,0	150 x 20	680	50	25	40	33,0	30 x 120	35,0	RM-521-M	47,5	RM-521-M-GAL	49,6
610,0	150 x 20	760	50	25	40	33,0	30 x 120	33,0	RM-610-M	55,2	RM-610-M-GAL	57,3
711,0	150 x 20	860	50	25	40	33,0	30 x 120	30,2	RM-711-M	62,9	RM-711-M-GAL	65,0
813,0	150 x 20	960	50	25	40	33,0	30 x 120	27,8	RM-813-M	70,6	RM-813-M-GAL	72,7
914,0	150 x 20	1060	50	25	40	33,0	30 x 120	28,9	RM-914-M	78,3	RM-914-M-GAL	80,4
1016,0	150 x 20	1160	50	25	40	33,0	30 x 120	26,3	RM-1016-M	86,0	RM-1016-M-GAL	88,1
1220,0	150 x 20	1370	50	25	40	33,0	30 x 120	23,7	RM-1220-M	101,0	RM-1220-M-GAL	103,1

Notes: Other dimensions on request.



Pipe Clips Type RM

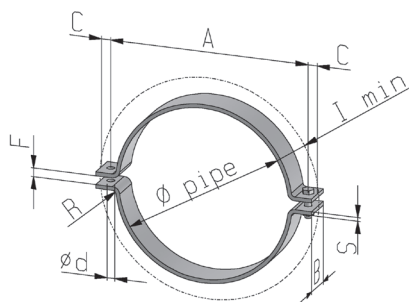
For higher load

DN 50 - DN 1200

Material:	13CrMo4-5 DIN EN 10028-2, for temperatures up to 560°C
Finish:	plain, choosing longer screws will effect screw locking, Bolts and nuts to DIN ISO 4017 / 4032 GA / KG high temperature (DIN 267-13)

Ø pipe	B x S	A	C	F	R	d	bolt size „long“	hanging load [kN] 500° C	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with long bolts and nuts	weight incl. bolts [kg]
57,0	40 x 8	110	25	12	16	18,0	16 x 65	9,3	RM-057-C	0,85	RM-057-C-GAL	1,16
60,3	40 x 8	120	25	12	16	18,0	16 x 65	8,3	RM-061-C	0,90	RM-061-C-GAL	1,21
76,1	40 x 8	140	25	12	16	18,0	16 x 65	6,8	RM-077-C	1,00	RM-077-C-GAL	1,31
88,9	40 x 8	150	25	12	16	18,0	16 x 65	6,2	RM-089-C	1,20	RM-089-C-GAL	1,51
108,0	50 x 10	180	35	15	20	23,0	20 x 70	7,7	RM-108-C	2,30	RM-108-C-GAL	2,86
114,3	50 x 10	190	35	15	20	23,0	20 x 70	7,0	RM-115-C	2,40	RM-115-C-GAL	2,96
133,0	60 x 10	210	35	15	20	23,0	20 x 70	7,6	RM-133-C	3,00	RM-133-C-GAL	3,56
139,7	60 x 10	220	35	15	20	23,0	20 x 70	7,1	RM-140-C	3,20	RM-140-C-GAL	3,76
159,0	60 x 10	240	35	15	20	23,0	20 x 70	6,4	RM-159-C	3,50	RM-159-C-GAL	4,06
168,3	70 x 10	250	35	15	20	23,0	20 x 70	7,1	RM-169-C	4,20	RM-169-C-GAL	4,76
193,7	70 x 15	300	40	20	30	27,0	24 x 90	13,7	RM-194-C	7,50	RM-194-C-GAL	8,51
219,1	70 x 15	320	40	20	30	27,0	24 x 90	13,4	RM-220-C	8,00	RM-220-C-GAL	9,01
267,0	80 x 15	370	40	20	30	27,0	24 x 90	13,1	RM-267-C	10,5	RM-267-C-GAL	11,5
273,0	90 x 15	380	40	20	30	27,0	24 x 90	14,1	RM-273-C	12,0	RM-273-C-GAL	13,0
323,9	90 x 15	430	40	20	30	27,0	24 x 90	12,5	RM-324-C	14,0	RM-324-C-GAL	15,0
355,6	100 x 15	470	40	20	30	27,0	24 x 90	12,4	RM-356-C	16,5	RM-356-C-GAL	17,5
368,0	100 x 15	480	40	20	30	27,0	24 x 90	12,3	RM-368-C	17,0	RM-368-C-GAL	18,0
406,4	130 x 20	550	50	25	40	33,0	30 x 120	25,2	RM-407-C	33,5	RM-407-C-GAL	35,6
419,0	140 x 20	570	50	25	40	33,0	30 x 120	25,3	RM-419-C	37,0	RM-419-C-GAL	39,1
457,0	140 x 20	600	50	25	40	33,0	30 x 120	25,0	RM-457-C	40,0	RM-457-C-GAL	42,1
508,0	150 x 20	660	50	25	40	33,0	30 x 120	23,8	RM-508-C	46,5	RM-508-C-GAL	48,6
521,0	150 x 20	680	50	25	40	33,0	30 x 120	19,4	RM-521-C	47,5	RM-521-C-GAL	49,6
610,0	150 x 20	760	50	25	40	33,0	30 x 120	18,3	RM-610-C	55,2	RM-610-C-GAL	57,3
711,0	150 x 20	860	50	25	40	33,0	30 x 120	16,7	RM-711-C	62,9	RM-711-C-GAL	65,0
813,0	150 x 20	960	50	25	40	33,0	30 x 120	15,5	RM-813-C	70,6	RM-813-C-GAL	72,7
914,0	150 x 20	1060	50	25	40	33,0	30 x 120	14,4	RM-914-C	78,3	RM-914-C-GAL	80,4
1016,0	150 x 20	1160	50	25	40	33,0	30 x 120	13,1	RM-1016-C	86,0	RM-1016-C-GAL	88,1
1220,0	150 x 20	1370	50	25	40	33,0	30 x 120	11,8	RM-1220-C	101,0	RM-1220-C-GAL	103,1

Notes: Other dimensions on request.



Pipe Clips Type RD

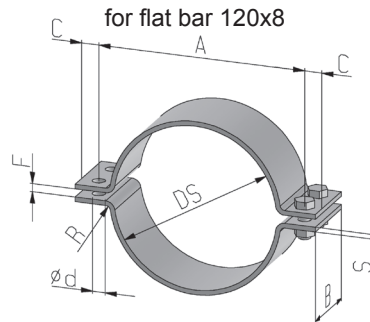
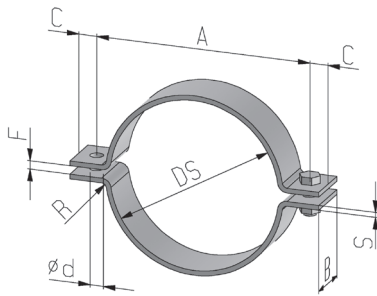
For piping with thin isolation

DN 15 - DN 400

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	plain, choosing longer screws will effect screw locking,
	Bolts and nuts to DIN ISO 4017/ 4032 - 8.8 / 8 hot-dip galvanized (DIN EN ISO 898)

[illegible]

Notes: Other dimensions on request.



Pipe Clips Type GFK1

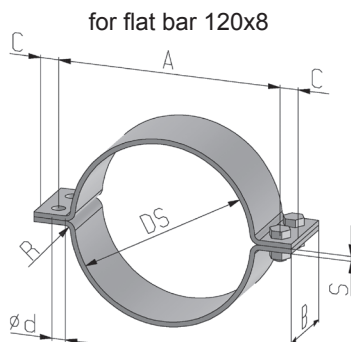
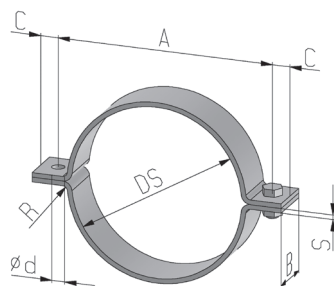
For nonmetallic piping

DN 25 - DN 300

Material:	S235JR DIN EN 10025-2
Finish:	The pipe clamp is to use with a rubber inlay of 5 mm thickness (see page 24 - 26).
	The tube is fixed in the pipe clamps. „For anchor“
	GRP pipes acc. Publisher policy

Pipe clamp inner diameter	Pipe outer diameter	B x S	A	C	F	R	d	bolt size	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with bolts and nuts	weight incl. bolts [kg]
41	31	80 x 6	85	18	7	6	13,5	M12 x 40	GFK1-041-R	1,01	GFK1-041-R-8Z	1,13
45	35	80 x 6	90	18	7	6	13,5	M12 x 40	GFK1-045-R	1,06	GFK1-045-R-8Z	1,18
48	38	80 x 6	93	18	7	6	13,5	M12 x 40	GFK1-048-R	1,09	GFK1-048-R-8Z	1,21
52	42	80 x 6	97	18	7	6	13,5	M12 x 40	GFK1-052-R	1,14	GFK1-052-R-8Z	1,26
56	46	80 x 6	102	18	7	6	13,5	M12 x 40	GFK1-056-R	1,19	GFK1-056-R-8Z	1,31
60	50	80 x 6	105	18	7	6	13,5	M12 x 40	GFK1-060-R	1,22	GFK1-060-R-8Z	1,34
67	57	80 x 6	113	18	7	6	13,5	M12 x 40	GFK1-067-R	1,31	GFK1-067-R-8Z	1,43
70	60	80 x 6	116	18	9	6	13,5	M12 x 40	GFK1-070-R	1,34	GFK1-070-R-8Z	1,46
81	71	80 x 6	128	18	9	6	13,5	M12 x 40	GFK1-081-R	1,47	GFK1-081-R-8Z	1,59
86	76	80 x 6	133	18	9	6	13,5	M12 x 40	GFK1-086-R	1,53	GFK1-086-R-8Z	1,65
91	81	80 x 6	138	18	9	6	13,5	M12 x 40	GFK1-091-R	1,59	GFK1-091-R-8Z	1,71
97	87	80 x 6	144	18	9	6	13,5	M12 x 40	GFK1-097-R	1,65	GFK1-097-R-8Z	1,77
100	90	80 x 6	147	18	9	6	13,5	M12 x 40	GFK1-100-R	1,68	GFK1-100-R-8Z	1,80
106	96	80 x 6	153	18	9	6	13,5	M12 x 40	GFK1-106-R	1,76	GFK1-106-R-8Z	1,88
119	109	80 x 6	167	18	9	6	13,5	M12 x 40	GFK1-119-R	1,91	GFK1-119-R-8Z	2,03
121	111	80 x 6	169	18	11	6	13,5	M12 x 40	GFK1-121-R	1,93	GFK1-121-R-8Z	2,05
126	116	80 x 6	174	18	11	6	13,5	M12 x 40	GFK1-126-R	1,99	GFK1-126-R-8Z	2,11
145	135	80 x 6	193	18	11	6	13,5	M12 x 40	GFK1-145-R	2,22	GFK1-145-R-8Z	2,34
148	138	80 x 6	196	18	11	6	13,5	M12 x 40	GFK1-148-R	2,25	GFK1-148-R-8Z	2,37
153	143	80 x 6	202	18	11	6	13,5	M12 x 40	GFK1-153-R	2,31	GFK1-153-R-8Z	2,43
170	160	120 x 8	237	24	14	8	17,5	M16 x 50	GFK1-170-R	5,41	GFK1-170-R-8Z	5,93
175	165	120 x 8	242	24	14	8	17,5	M16 x 50	GFK1-175-R	5,53	GFK1-175-R-8Z	6,05
181	171	120 x 8	248	24	14	8	17,5	M16 x 50	GFK1-181-R	5,67	GFK1-181-R-8Z	6,19
219	209	120 x 8	287	24	14	8	17,5	M16 x 50	GFK1-219-R	6,58	GFK1-219-R-8Z	7,10
223	213	120 x 8	291	24	14	8	17,5	M16 x 50	GFK1-223-R	6,67	GFK1-223-R-8Z	7,19
229	219	120 x 8	297	24	14	8	17,5	M16 x 50	GFK1-229-R	6,81	GFK1-229-R-8Z	7,33
238	228	120 x 8	306	24	14	8	17,5	M16 x 50	GFK1-238-R	7,03	GFK1-238-R-8Z	7,55
269	259	80 x 8	343	30	14	8	22,0	M20 x 55	GFK1-269-R	5,35	GFK1-269-R-8Z	5,83
275	265	80 x 8	350	30	14	8	22,0	M20 x 55	GFK1-275-R	5,44	GFK1-275-R-8Z	5,92
283	273	80 x 8	358	30	14	8	22,0	M20 x 55	GFK1-283-R	5,57	GFK1-283-R-8Z	6,05
294	284	80 x 8	369	30	14	8	22,0	M20 x 55	GFK1-294-R	5,74	GFK1-294-R-8Z	6,22
321	311	80 x 8	396	30	14	8	22,0	M20 x 55	GFK1-321-R	6,17	GFK1-321-R-8Z	6,65
328	318	80 x 8	403	30	14	8	22,0	M20 x 55	GFK1-328-R	6,28	GFK1-328-R-8Z	6,76
337	327	80 x 8	412	30	14	8	22,0	M20 x 55	GFK1-337-R	6,42	GFK1-337-R-8Z	6,90
350	340	80 x 8	425	30	14	8	22,0	M20 x 55	GFK1-350-R	6,63	GFK1-350-R-8Z	7,11

Notes: Other dimensions on request.



Pipe Clips Type GFK2

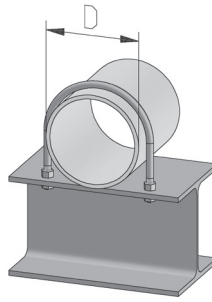
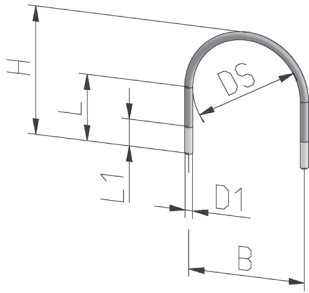
For nonmetallic piping

DN 25 - DN 300

Material:	S235JR DIN EN 10025-2
Finish:	The pipe clamp is to use with a HDPE-inlay, see page 25
	The tube slides in the pipe clamp. „For anchor“
	GRP pipes acc. Publisher policy

Pipe clamp inner diameter	Pipe outer diameter	B x S	A	C	F	R	d	bolt size	Article no. Clips without bolts and nuts	weight [kg]	Article no. Clips with bolts and nuts	weight incl. bolts [kg]
40	31	80 x 6	85	18	0	6	13,5	M12 x 40	GFK2-040-R	1,01	GFK2-040-R-8Z	1,13
44	35	80 x 6	90	18	0	6	13,5	M12 x 40	GFK2-044-R	1,06	GFK2-044-R-8Z	1,18
47	38	80 x 6	93	18	0	6	13,5	M12 x 40	GFK2-047-R	1,09	GFK2-047-R-8Z	1,21
51	42	80 x 6	97	18	0	6	13,5	M12 x 40	GFK2-051-R	1,14	GFK2-051-R-8Z	1,26
55	46	80 x 6	102	18	0	6	13,5	M12 x 40	GFK2-055-R	1,19	GFK2-055-R-8Z	1,31
60	50	80 x 6	105	18	0	6	13,5	M12 x 40	GFK2-060-R	1,22	GFK2-060-R-8Z	1,34
66	57	80 x 6	113	18	0	6	13,5	M12 x 40	GFK2-066-R	1,31	GFK2-066-R-8Z	1,43
69	60	80 x 6	116	18	0	6	13,5	M12 x 40	GFK2-069-R	1,34	GFK2-069-R-8Z	1,46
80	71	80 x 6	128	18	0	6	13,5	M12 x 40	GFK2-080-R	1,47	GFK2-080-R-8Z	1,59
85	76	80 x 6	133	18	0	6	13,5	M12 x 40	GFK2-085-R	1,53	GFK2-085-R-8Z	1,65
90	81	80 x 6	138	18	0	6	13,5	M12 x 40	GFK2-090-R	1,59	GFK2-090-R-8Z	1,71
96	87	80 x 6	144	18	0	6	13,5	M12 x 40	GFK2-096-R	1,65	GFK2-096-R-8Z	1,77
99	90	80 x 6	147	18	0	6	13,5	M12 x 40	GFK2-099-R	1,68	GFK2-099-R-8Z	1,80
105	96	80 x 6	153	18	0	6	13,5	M12 x 40	GFK2-105-R	1,76	GFK2-105-R-8Z	1,88
118	109	80 x 6	167	18	0	6	13,5	M12 x 40	GFK2-118-R	1,91	GFK2-118-R-8Z	2,03
120	111	80 x 6	169	18	0	6	13,5	M12 x 40	GFK2-120-R	1,93	GFK2-120-R-8Z	2,05
125	116	80 x 6	174	18	0	6	13,5	M12 x 40	GFK2-125-R	1,99	GFK2-125-R-8Z	2,11
144	135	80 x 6	193	18	0	6	13,5	M12 x 40	GFK2-144-R	2,22	GFK2-144-R-8Z	2,34
147	138	80 x 6	196	18	0	6	13,5	M12 x 40	GFK2-147-R	2,25	GFK2-147-R-8Z	2,37
152	143	80 x 6	202	18	0	6	13,5	M12 x 40	GFK2-152-R	2,31	GFK2-152-R-8Z	2,43
169	160	120 x 8	237	24	0	8	17,5	M16 x 50	GFK2-169-R	5,41	GFK2-169-R-8Z	5,93
174	165	120 x 8	242	24	0	8	17,5	M16 x 50	GFK2-174-R	5,53	GFK2-174-R-8Z	6,05
180	171	120 x 8	248	24	0	8	17,5	M16 x 50	GFK2-180-R	5,67	GFK2-180-R-8Z	6,19
219	209	120 x 8	287	24	0	8	17,5	M16 x 50	GFK2-219-R	6,58	GFK2-219-R-8Z	7,10
223	213	120 x 8	291	24	0	8	17,5	M16 x 50	GFK2-223-R	6,67	GFK2-223-R-8Z	7,19
229	219	120 x 8	297	24	0	8	17,5	M16 x 50	GFK2-229-R	6,81	GFK2-229-R-8Z	7,33
238	228	120 x 8	306	24	0	8	17,5	M16 x 50	GFK2-238-R	7,03	GFK2-238-R-8Z	7,55
269	259	80 x 8	343	30	0	8	22,0	M20 x 55	GFK2-269-R	5,35	GFK2-269-R-8Z	5,83
275	265	80 x 8	350	30	0	8	22,0	M20 x 55	GFK2-275-R	5,44	GFK2-275-R-8Z	5,92
283	273	80 x 8	358	30	0	8	22,0	M20 x 55	GFK2-283-R	5,57	GFK2-283-R-8Z	6,05
294	284	80 x 8	369	30	0	8	22,0	M20 x 55	GFK2-294-R	5,74	GFK2-294-R-8Z	6,22
321	311	80 x 8	396	30	0	8	22,0	M20 x 55	GFK2-321-R	6,17	GFK2-321-R-8Z	6,65
328	318	80 x 8	403	30	0	8	22,0	M20 x 55	GFK2-328-R	6,28	GFK2-328-R-8Z	6,76
337	327	80 x 8	412	30	0	8	22,0	M20 x 55	GFK2-337-R	6,42	GFK2-337-R-8Z	6,90
350	340	80 x 8	425	30	0	8	22,0	M20 x 55	GFK2-350-R	6,63	GFK2-350-R-8Z	7,11

Notes: Other dimensions on request.



U-Bolts Type RSB

DN 15 - DN 600

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	to DIN 3570 zinc electro plated, rolled thread
	Nuts to DIN ISO 4032 - 8 (DIN EN ISO 898), loose

Material:	A4 DIN EN 10028-7 , for temperatures up to 400° C
Finish:	to DIN 3570 Form A (DN 20 - 500), other sizes based on DIN 3570
	rolled / cut thread, no surface treatment,
	Nuts to DIN ISO 4032 - A4 (ISO 3506-2), loose

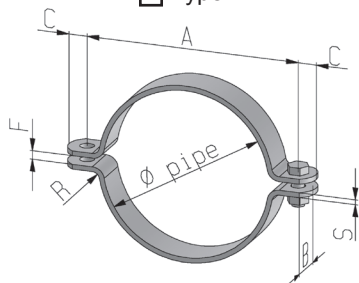
[illegible]

Notes: U-Bolts with nuts, unmounted.
Other dimensions on request.

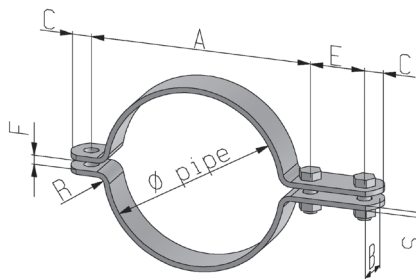
Inquiry / Order sheet

Fax +49 2332 7003-44

☐ Type RA
☐ Type RM

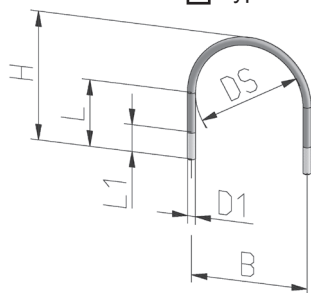


☐ Type RB



Type	Pipe ϕ	A	B	C	F	E	R	s	bolt size	Material	Surface	Quantity

☐ Type RSB



Type	Pipe ϕ	DS	B	D1	H	L	L1		with nuts	Material	Surface	Quantity

Client no.:

Name:

Projekt:

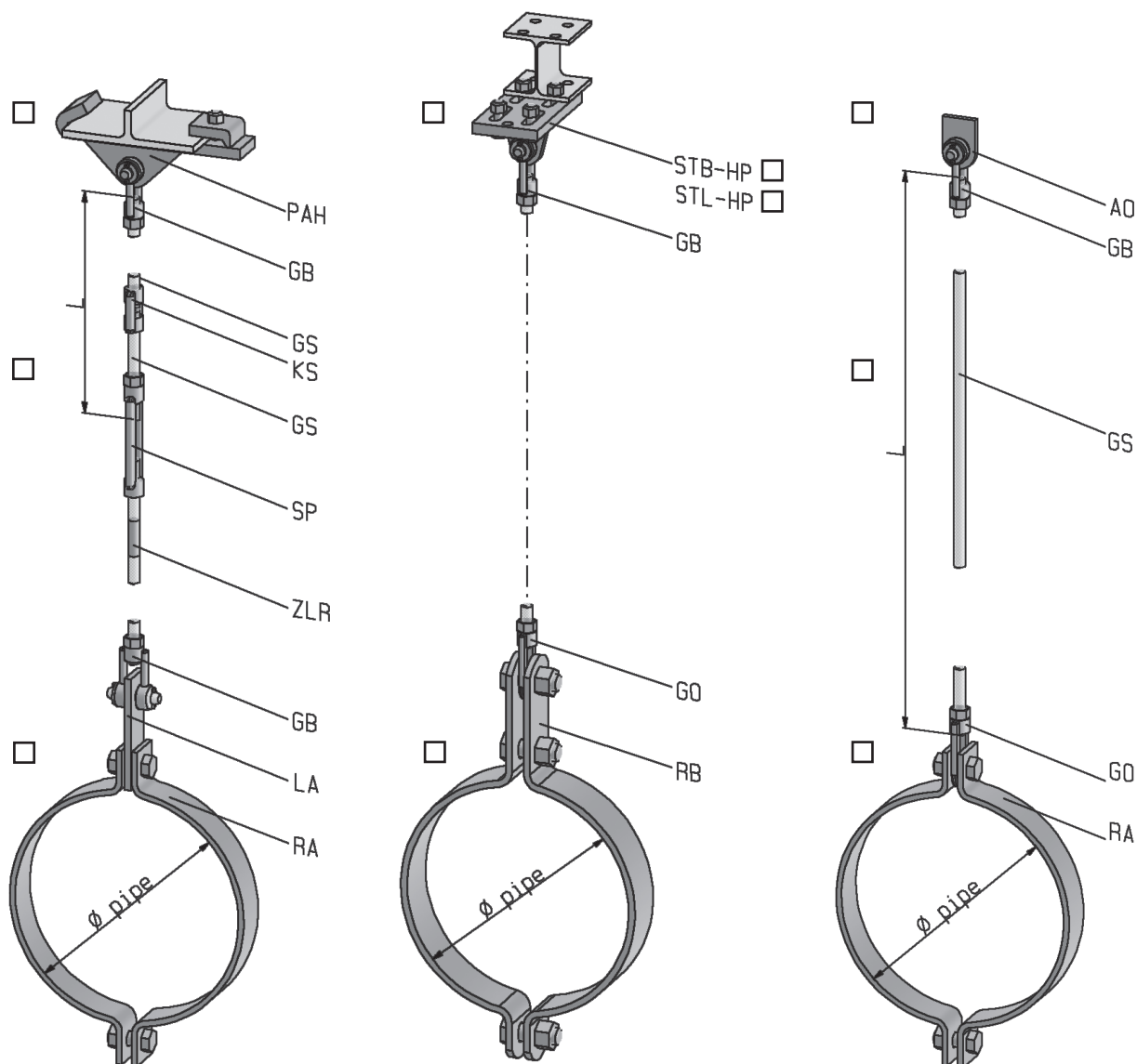
Date:

Company stamp / Signature:

Inquiry / Order sheet

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Hangers: Options



GS	L=
Thread	M
Ø pipe	Ø

Loads

The maximum load of pipe hangers is determined by the load capacity of the weakest link in the hanger assembly. (VGB-R 510-L). This is usually the threaded items, with other components often being capable of supporting several times the load of these parts. The following loads can be assumed for pipe hangers:

M12 - 4,7 kN
M16 - 8,8 kN
M20 - 13,8 kN

M24 - 19,9 kN
M30 - 31,6 kN
M36 - 46,0 kN

Client no.:

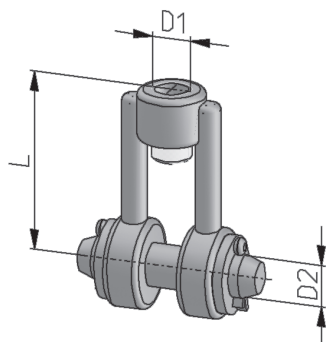
Name:

Projekt:

Date:

Company stamp / Signature:

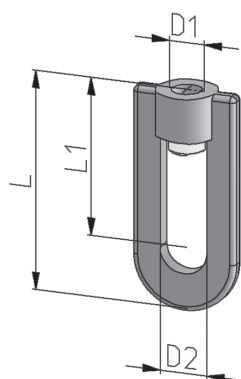
Shackles Type GB



Material:	P250GH (1.0460) DIN 10222-2
Finish:	forged, zinc electro plated
	complete with pin, split pins and washers

Article no.	D1	D2	L		load chain [kN]	weight [kg]
GB-010-Q-Z	M10	10	50		-	0,10
GB-012-Q-Z	M12	12	70		4,7	0,20
GB-016-Q-Z	M16	16	80		8,8	0,40
GB-020-Q-Z	M20	20	90		13,8	1,00
GB-024-Q-Z	M24	24	110		19,9	1,60
GB-030-Q-Z	M30	34	130		31,6	2,70
GB-036-Q-Z	M36	40	150		46,0	4,40

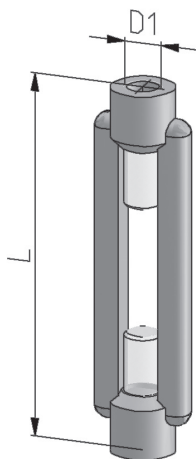
Thread eyes Type GO



Material:	P250GH (1.0460) DIN 10222-2
Finish:	forged, zinc electro plated

Article no.	D1	D2	L	L1		load chain [kN]	weight [kg]
GO-010-Q-Z	M10	13	55	40		-	0,05
GO-012-Q-Z	M12	17	79	60		4,7	0,10
GO-016-Q-Z	M16	25	101	75		8,8	0,20
GO-020-Q-Z	M20	29	125	90		13,8	0,40
GO-024-Q-Z	M24	35	154	110		19,9	0,80
GO-030-Q-Z	M30	42	181	127		31,6	1,20
GO-036-Q-Z	M36	47	202	140		46,0	2,00

Turnbuckles Type SP

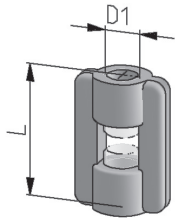


Material:	S235JR DIN 10025-2
Finish:	forged, zinc electro plated
	to DIN 1480

Article no.	D1	L		load chain [kN]	weight [kg]
SP-010-R-Z	M10	125		-	0,15
SP-012-R-Z	M12	125		4,7	0,20
SP-016-R-Z	M16	170		8,8	0,40
SP-020-R-Z	M20	200		13,8	0,70
SP-024-R-Z	M24	255		19,9	1,20
SP-030-R-Z	M30	255		31,6	1,80
SP-036-R-Z	M36	295		46,0	3,00

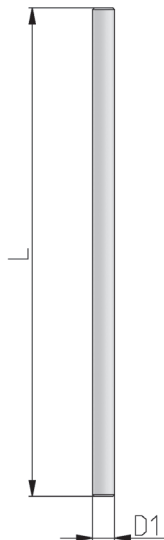
Notes: Standard design in galvanized.
Also available in hot dip galvanized.

Couplers Type KS



Material:	S235JR	EN 10025-2
Finish:	forged, zinc electro plated	

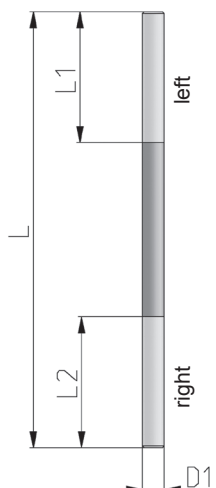
Article no.	D1	L		load chain [kN]	weight [kg]
KS-010-R-Z	M10	45		-	0,10
KS-012-R-Z	M12	45		4,7	0,10
KS-016-R-Z	M16	60		8,8	0,20
KS-020-R-Z	M20	75		13,8	0,50
KS-024-R-Z	M24	90		19,9	0,70
KS-030-R-Z	M30	105		31,6	1,20
KS-036-R-Z	M36	120		46,0	1,60



Thread rods Type GS with right hand thread

Material:	S235JR	EN 10025-2
Finish:	Thread DIN 13, rolled zinc electro plated or hot-dip galvanized	

Article no. zinc electro plated	Article no. hot-dip galvanized	D1	L			load chain [kN]	weight [kg]
GS-010x1000-R-Z	GS-010x1000-R-F	M10	1000			-	0,50
GS-012x1000-R-Z	GS-012x1000-R-F	M12	1000			4,7	0,71
GS-016x1000-R-Z	GS-016x1000-R-F	M16	1000			8,8	1,52
GS-020x1000-R-Z	GS-020x1000-R-F	M20	1000			13,8	2,05
GS-024x1000-R-Z	GS-024x1000-R-F	M24	1000			19,9	2,99
GS-030x1000-R-Z	GS-030x1000-R-F	M30	1000			31,6	4,73
GS-036x1000-R-Z	GS-036x1000-R-F	M36	1000			46,0	8,00



Tie rods Type ZLR with left and right hand thread

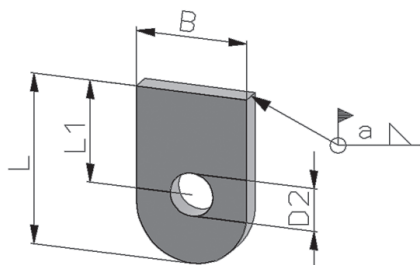
Material:	S235JR	EN 10025-2
Finish:	Thread DIN 13, rolled zinc electro plated or hot-dip galvanized	

Article no. zinc electro plated	Article no. hot-dip galvanized	D1	L	L1	L2	load chain [kN]	weight [kg]
ZLR-010x1000-R-Z	ZLR-010x0300-R-F	M10	250	80	80	-	0,14
ZLR-012x1000-R-Z	ZLR-012x0300-R-F	M12	300	80	80	4,7	0,27
ZLR-016x1000-R-Z	ZLR-016x0350-R-F	M16	350	100	100	8,8	0,55
ZLR-020x1000-R-Z	ZLR-020x0400-R-F	M20	400	120	120	13,8	0,99
ZLR-024x1000-R-Z	ZLR-024x0450-R-F	M24	450	140	140	19,9	1,60
ZLR-030x1000-R-Z	ZLR-030x0500-R-F	M30	500	160	160	31,6	2,77
ZLR-036x1000-R-Z	ZLR-036x0500-R-F	M36	500	180	180	46,0	4,00

Notes: Threaded rod type GS also available in L= 2000 and L = 3000.

Welding eyes Type AO

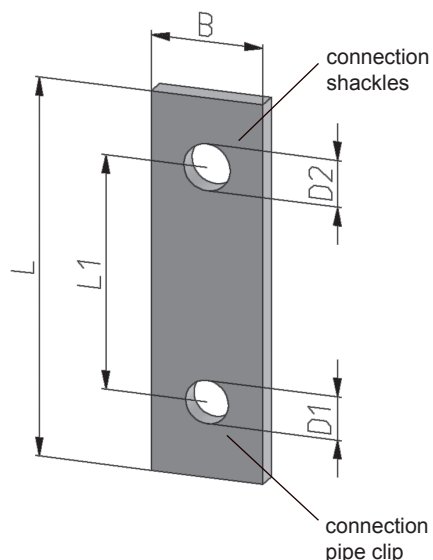
The welds were calculated on a basis of a permissible stress of 75 N/mm² in load case H.



Material:	S235JR	EN 10025-2
Finish:	plain, stamped / drilled	

Article no.	B	D2	L	L1		load chain [kN]	weight [kg]
AO-030-R	30	11	56	40		-	0,10
AO-040-R	40	13	67	45		4,7	0,20
AO-050-R	50	17	78	50		8,8	0,30
AO-060-R	60	23	92	55		13,8	0,60
AO-070-R	70	26	100	60		19,9	0,90
AO-080-R	80	36	120	70		31,6	1,40
AO-100-R	100	43	145	80		46,0	2,40

Straps Type LA

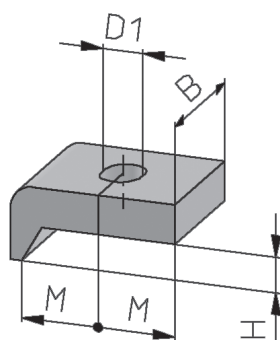


Material:	S235JR	EN 10025-2
Finish:	hot-dip galvanized, stamped / drilled	

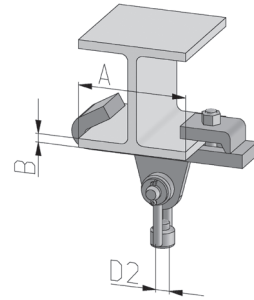
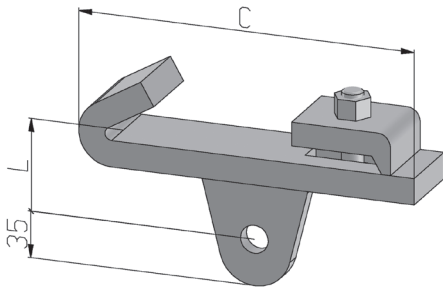
Article no.	B	D2	D1	L	L1		load chain [kN]	weight [kg]
LA-044-R-F	30	11	11	73	40		-	0,11
LA-046-R-F	40	13	11	87	50		4,7	0,16
LA-048-R-F	40	17	13	123	75		8,8	0,31
LA-050-R-F	50	21	17	163	100		13,8	0,64
LA-060-R-F	60	21	21	202	125		19,9	1,14
LA-070-R-F	70	26	25	240	150		31,6	1,98
LA-090-R-F	90	36	31	270	170		31,6	2,86
LA-130-R-F	130	43	31	300	190		46,0	5,90

Clampplates Type KP

Material:	S235JR	EN 10025-2
Finish:	hot-dip galvanized, similar to former DIN 3568	



Article no.	B	D1	H	M		weight [kg]
KP-50*07-R-F	50	14	7	23		0,22
KP-50*09-R-F	50	14	9	23		0,23
KP-60*10-R-F	60	18	10	35		0,57
KP-60*12-R-F	60	18	12	35		0,58
KP-60*14-R-F	60	18	14	35		0,59
KP-60*16-R-F	60	18	16	35		0,60
KP-60*18-R-F	60	18	18	35		0,61
KP-60*20-R-F	60	18	20	35		0,63
KP-70*14-R-F	70	23	14	45		1,05
KP-70*16-R-F	70	23	16	45		1,06
KP-70*18-R-F	70	23	18	45		1,07
KP-70*20-R-F	70	23	20	45		1,08
KP-70*22-R-F	70	23	22	45		1,10

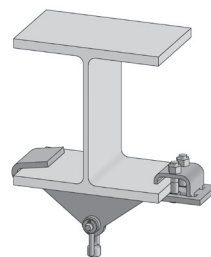
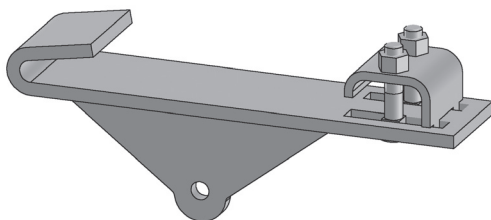


Beam Hangers Type PAH Standard range

Material:	S235JR DIN EN 10025-2, for temperatures up to 300°C
Finish:	hot-dip galvanized, complete with clamp plate and hot-dip galvanized bolt, required preload on clamping plate: M16 - 80 Nm

Article no.	beam dimensions		threaded lug D2	L	C		loads [kN]	weight [kg]
	width A	thickness B						
PAH-120/12-R-F	100 - 120	8 - 11	M12	65	215		4,7	3,50
PAH-120/16-R-F	100 - 120	8 - 11	M16	65	215		8,8	3,45
PAH-120/20-R-F	100 - 120	8 - 11	M20	65	215		13,8	3,40
PAH-160/12-R-F	130 - 160	8 - 13	M12	65	250		4,7	4,10
PAH-160/16-R-F	130 - 160	8 - 13	M16	65	250		8,8	4,05
PAH-160/20-R-F	130 - 160	8 - 13	M20	65	250		13,8	4,00
PAH-200/12-R-F	170 - 200	10 - 16	M12	65	290		4,7	4,40
PAH-200/16-R-F	170 - 200	10 - 16	M16	65	290		8,8	4,35
PAH-200/20-R-F	170 - 200	10 - 16	M20	65	290		13,8	4,30
PAH-240/12-R-F	210 - 240	11 - 19	M12	65	340		4,7	5,20
PAH-240/16-R-F	210 - 240	11 - 19	M16	65	340		8,8	5,15
PAH-240/20-R-F	210 - 240	11 - 19	M20	65	340		13,8	5,10
PAH-300/12-R-F	260 - 300	12 - 19	M12	65	400		4,7	5,85
PAH-300/16-R-F	260 - 300	12 - 19	M16	65	400		8,8	5,80
PAH-300/20-R-F	260 - 300	12 - 19	M20	65	400		13,8	5,75

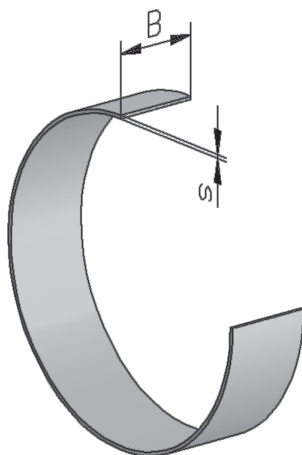
Other sizes available on request as a special type!



Ordering example: PAH-240/16-R-F

- Hot-dip galvanized
- Material: S235JR
- M16 lug thread with a load of 8,8 kN
- Clamping range 210 - 240 mm
- Beam hanger Type PAH Standard range

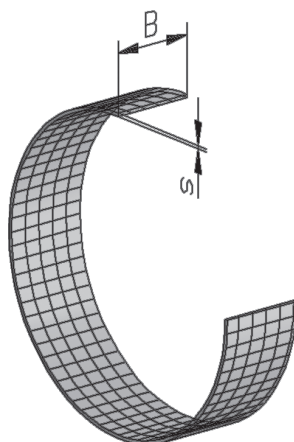
Rubber inlay



Material:	EPDM-rubber, black
Characteristics:	Hardness 55-65°Shore A
	good ozone and UV resistance *

Article no.	width B [mm]	thickness s [mm]		working temperature ** [°C]
S-s x 030-EPDM	30	2 / 3 / 5		(-30) -+110
S-s x 040-EPDM	40	2 / 3 / 5		(-30) -+110
S-s x 050-EPDM	50	2 / 3 / 5		(-30) -+110
S-s x 060-EPDM	60	2 / 3 / 5		(-30) -+110
S-s x 070-EPDM	70	2 / 3 / 5		(-30) -+110
S-s x 080-EPDM	80	2 / 3 / 5		(-30) -+110
S-s x 120-EPDM	120	2 / 3 / 5		(-30) -+110

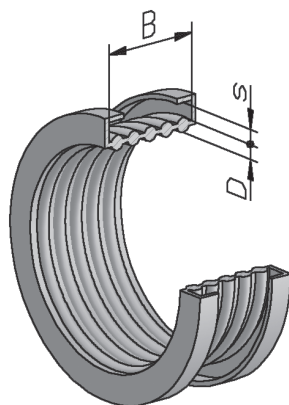
Fibre ribbon



Material:	Glass fabric tape
Characteristics:	good temperature stability*

Article no.	width B [mm]	thickness s [mm]		working temperature ** [°C]
S-s x 030-GLAS	30	2 / 3		(-10) -+550
S-s x 040-GLAS	40	2 / 3		(-10) -+550
S-s x 050-GLAS	50	2 / 3		(-10) -+550
S-s x 060-GLAS	60	2 / 3		(-10) -+550
S-s x 070-GLAS	70	2 / 3		(-10) -+550
S-s x 080-GLAS	80	2 / 3		(-10) -+550
S-s x 120-GLAS	120	2 / 3		(-10) -+550

Rubber inlay for acoustic insulation



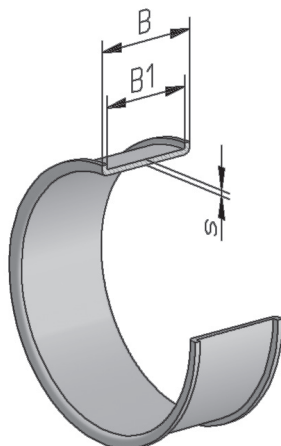
Material:	ELAS-Gummi, black
Characteristics:	Hardness ~55°Shore A
	Seawater, oil and ozone resistance, halogen free *

Article no.	width B [mm]	thickness s [mm]	roller-Ø D [mm]		working temperature ** [°C]
STA-03 x 020-ELAS	20	3	6		(-30) -+110
STA-04 x 030-ELAS	30	4	6		(-30) -+110
STA-05 x 040-ELAS	40	5	6		(-30) -+110
STA-06 x 040-ELAS	40	6	6		(-30) -+110
STA-08 x 050-ELAS	50	8	6		(-30) -+110
STA-10 x 060-ELAS	60	10	6		(-30) -+110
STA-12 x 080-ELAS	80	12	6		(-30) -+110

* Notes: For details, please request the product specific data sheets.

** Notes: The operating temperature, based on the plastic Paperback Saechtling, refer to the optimal application and can have a negative impact of environmental influences on the total life.

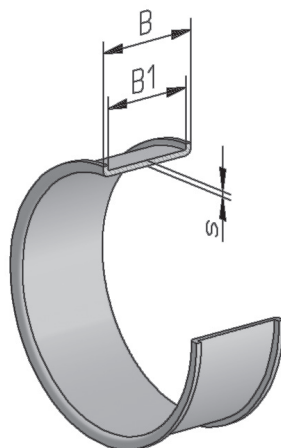
Rubber inlay



Material:	NBR, black
Characteristics:	Hardness 65°Shore A ± 10° Shore A
	Oil, ozone and sea water resistance *

Article no.	width B [mm]	width B1 [mm]	thickness s [mm]		working temperature ** [°C]
U-02 x 042-EPDM	42	30	2		(-20) -+70
U-02 x 052-EPDM	52	40	2		(-20) -+70
U-02 x 062-EPDM	62	50	2		(-20) -+70
U-02 x 072-EPDM	72	60	2		(-20) -+70
U-02 x 082-EPDM	82	70	2		(-20) -+70

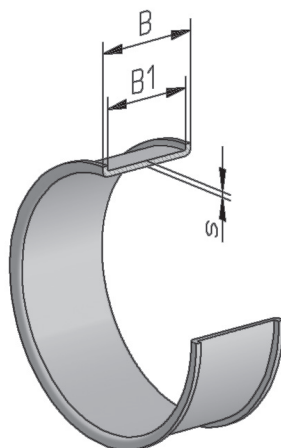
Rubber inlay



Material:	EPDM-rubber, black
Characteristics:	Hardness 55-65°Shore A
	good ozone and UV resistance *

Article no.	width B [mm]	width B1 [mm]	thickness s [mm]		working temperature ** [°C]
U-05 x 082-EPDM	82	72	5		(-30) -+100
U-05 x 092-EPDM	92	82	5		(-30) -+100
U-05 x 112-EPDM	112	102	5		(-30) -+100
U-05 x 132-EPDM	132	122	5		(-30) -+100
U-05 x 152-EPDM	152	142	5		(-30) -+100
U-05 x 172-EPDM	172	162	5		(-30) -+100
U-05 x 212-EPDM	212	202	5		(-30) -+100

Plastic core



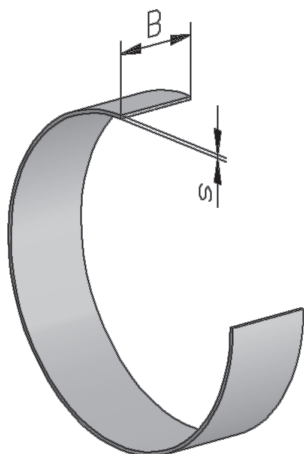
Material:	PE-HD, black
Characteristics:	Hardness ~64°Shore D
	Oil and gasoline resistance, induced resistance to ozone *

Article no.	width B [mm]	width B1 [mm]	thickness s [mm]		working temperature ** [°C]
U-02 x 044-PE	44	32	2		(-30) -+50
U-02 x 054-PE	54	42	2		(-30) -+50
U-02 x 064-PE	64	52	2		(-30) -+50
U-02 x 094-PE	94	82	2		(-30) -+50
U-02 x 114-PE	114	102	2		(-30) -+50
U-02 x 134-PE	134	122	2		(-30) -+50
U-02 x 154-PE	154	142	2		(-30) -+50
U-02 x 174-PE	174	162	2		(-30) -+50
U-02 x 212-PE	212	200	2		(-30) -+50

* Notes: For details, please request the product specific data sheets.

** Notes: The operating temperature, based on the plastic Paperback Saechtling, refer to the optimal application and can have a negative impact of environmental influences on the total life.

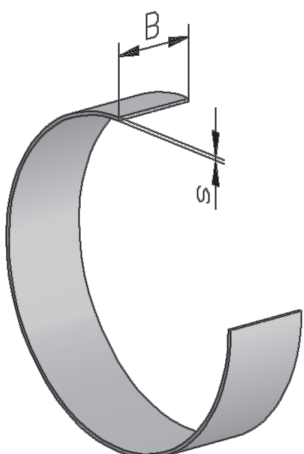
Plastic inlay



Material:	PTFE, white
Characteristics:	Hardness 50-60°Shore D
	good ozone, oil, gasoline, acid and base resistance *

Article no.	width B [mm]	thickness s [mm]		working temperature ** [°C]
S-s x 030-PTFE	30	0,5 / 1		(-35) -+80
S-s x 040-PTFE	40	0,5 / 1		(-35) -+80
S-s x 050-PTFE	50	0,5 / 1		(-35) -+80
S-s x 060-PTFE	60	0,5 / 1		(-35) -+80
S-s x 070-PTFE	70	0,5 / 1		(-35) -+80
S-s x 090-PTFE	90	0,5 / 1		(-35) -+80
S-s x 120-PTFE	120	0,5 / 1		(-35) -+80

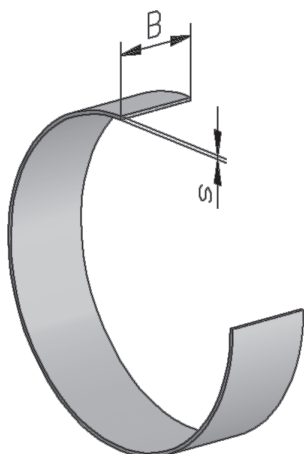
Inlay



Material:	Klingsil ®, AFM34 ® or contrastable, grey / green
Characteristics:	good temperature stability,
	good gasoline and oil resistance *

Article no.	width B [mm]	thickness s [mm]		working temperature ** [°C]
S-s x 030-KLINGERSIL	30	2 / 3		(-50) -+250
S-s x 040-KLINGERSIL	40	2 / 3		(-50) -+250
S-s x 050-KLINGERSIL	50	2 / 3		(-50) -+250
S-s x 060-KLINGERSIL	60	2 / 3		(-50) -+250
S-s x 070-KLINGERSIL	70	2 / 3		(-50) -+250
S-s x 090-KLINGERSIL	90	2 / 3		(-50) -+250
S-s x 120-KLINGERSIL	120	2 / 3		(-50) -+250

Silicone inlay



Material:	Silikon VMQ, red
Characteristics:	Hardness 55-65°Shore A
	good ozone and UV resistance *

Article no.	width B [mm]	thickness s [mm]		dry working temperature ** [°C]
S-s x 030-SILIKON	30	2 / 3 / 5		(-60) -+230
S-s x 040-SILIKON	40	2 / 3 / 5		(-60) -+230
S-s x 050-SILIKON	50	2 / 3 / 5		(-60) -+230
S-s x 060-SILIKON	60	2 / 3 / 5		(-60) -+230
S-s x 070-SILIKON	70	2 / 3 / 5		(-60) -+230
S-s x 090-SILIKON	90	2 / 3 / 5		(-60) -+230
S-s x 120-SILIKON	120	2 / 3 / 5		(-60) -+230

* Notes: For details, please request the product specific data sheets.

** Notes: The operating temperature, based on the plastic Paperback Saechtling, refer to the optimal application and can have a negative impact of environmental influences on the total life.

Delivery services / Technical information (Status 12/2017)

Expert advice

With our many years of experience as suppliers to the pipeline and plant construction industries we are well placed to assist you with expert advice on the design and detail for projects including. We can provide tailor made solutions for specific problems and applications.

Loads

The calculation loads mentioned in this document were made with statically models under certain conditions and parameters.

All possible care is taken: compliance and applicable technical regulations and applicable standards, guarantees are given against the loads for the static cases shown in the catalog, these are approximate values. Liabilities for the particular application cannot be derived. Any unauthorized variations or changes would invalidate any warranty and guarantee on our part.

Materials

The materials and characteristics are in accordance to the corresponding standards and should be used as a minimum requirement. For the characteristics and quality, Bernecker will only accept warranty in combination with an inspection certificate 3.1

Special design

For your individual requirements we also offer special pipe supports. Either as a variant production through the use of other:

- materials (e.g. P265GH, P275NL1)
- coatings (e.g. Duplex)
- diameter (e.g. RA-102-R)
- lengths (e.g. GLY-200/324L500-RB3)
- heights (e.g. GLY-175/324-RB3)

or according to your specifications routines or static specification.

General tolerances

The general tolerances are for lengths, angles, shape and location in accordance with ISO 2768-cL and 13920-1-CG.

SI units (metric)

The physical quantities are stated in SI units as follows:

- Dimensions in **mm**
- Loads in **kN**
- Temperatures at **80°C**
- Weights in **kg**,

if not stated otherwise.

Heat treatment

We can hot form and heat treat components to order, e.g. **stress-free annealing, normalizing or hardening** of high temperature materials. On request we supply a diagram of the heat treatment and temperature curve of the heat treated components supplied.

Corrosion protection and surface finishes

Components

- The corrosion protection of in accordance to DIN EN ISO 12944.
- Hot-dip galvanized is standard to DIN EN ISO 1461 or ASTM 123.
- Prepare acc. to ISO 8501-3-P1 (Edges broken and burr-free)
- According to your needs and specifications we can also provide our component parts with the following surface treatment:
Blasting (acc. to 8501-1 SA2 1/2), pickling, oiling, basic coating, painting or galvanic surface treatment.

Complement

- Hot dip galvanized screwing acc. to DIN EN ISO 10684 (tZn)
- Galvanized screwing acc. to ISO4042 (A2A or superior)
- The coatings tZn and A2A are chrome(IV)-free.

Prefabrication service

Supplied complete to site

As a specialist manufacturer in the field of pipe supports we can fabricate all supports and ancillaries for you ready to install, complete with labeling, to order.

Pre-assembled components with hard stamped article-name can optimize the assembling process and allow time savings on site; however, it is an additional service.

Acceptance / Certificates

On request we can supply our pipe support products to **DIN EN 10204** with

- **acceptance test certificates 3.1**
- **certificate of compliance 2.2 / 2.1**

We can arrange for acceptance tests (NDT, etc.) to be carried out by the TÜV or other inspectorate on our premises if required. Inspections by our customers can be arranged at any time.

Our Safety is your Guarantee

We operate in a quality assurance system that is certified to DIN ISO 9001. This is your guarantee that we will turn your specifications and requirements into a fully functional and reliable system that is right for the job.

Registrations

- **DIN ISO 9001:2008**
(Quality management)
- **AD 2000 W-0** (Certification according to pressure equipment directive)
- **DIN EN 1090-1**
(Requirements for conformity assessment of structural components)
- **DIN EN ISO 3834-2**
(Comprehensive quality)

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For any typographical errors, product changes due to technical developments and changing model no liability is accepted. In addition, all components must be used according to purposes.

Our general terms and conditions apply.

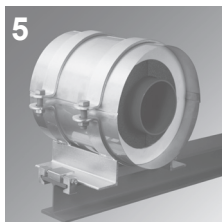
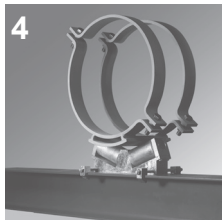
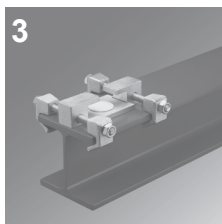
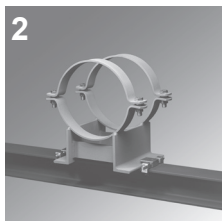
Regular screwing AD 2000 / VGB R 510 L		
Material	Strength i.a.w. DIN 267-13	Temp.
	bolt / nut	
S235JR	8.8 / 8	≤ 300 °C
S355J2+N	8.8 / 8	≤ 300 °C
P265GH	KG / KG	≤ 450 °C
16Mo3	KG / KG	≤ 500 °C
13CrMo4-5	GA / GA	≤ 530 °C
10CrMo9-10	GA / GA	≤ 580 °C
X6CrNiTi 18 10	A4 / A4	≤ 580 °C
X6CrNiMoTi 17-12-2	A4 / A4	≤ 580 °C

Conversion factors for the loads given in the catalogue at other temperatures (Loads should only be converted for the same material, never from one material to another)															
Material	No.	Standard	20° / 50°	100°	150°	200°	250°	300°	350°	400°	450°	500°	520°	540°	560°
S235JR	1.0038	EN 10025-2	1,00	0,80	0,74	0,69	0,62	0,52							
16Mo3	1.5415	EN 10028-2	1,55	1,47	1,43	1,38	1,27	1,11	1,00	0,94	0,88				
13CrMo4-5	1.7335	EN 10028-2	1,77	1,70	1,65	1,60	1,48	1,36	1,25	1,19	1,14	1,00	0,67	0,41	0,27
10CrMo9-10	1.7380	EN 10028-2	1,42	1,39	1,35	1,32	1,26	1,21	1,16	1,11	1,05	1,00	0,77	0,56	0,38
X6CrNiTi 18 10	1.4541	DIN 17440	1,00	0,93	0,88	0,83	0,77	0,72	0,68	0,66					
X6CrNiMoTi 17-12-2	1.4571	DIN 17440	1,00	0,90	0,86	0,81	0,76	0,70	0,68	0,66					



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Pipe Clips
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