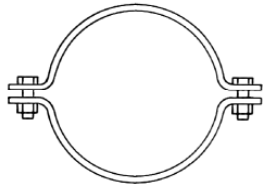
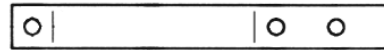
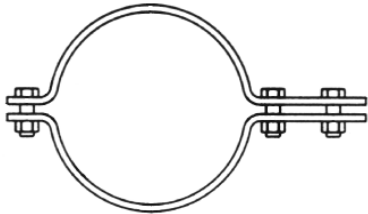


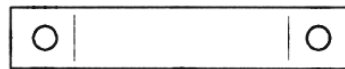
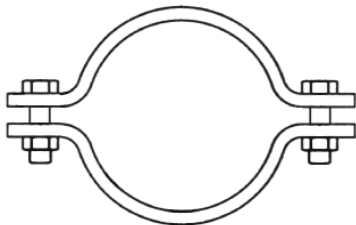
PIPE CLAMPS



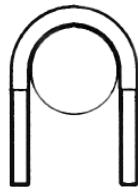
RA



RB

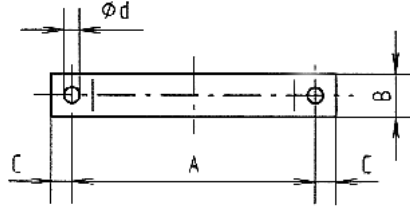
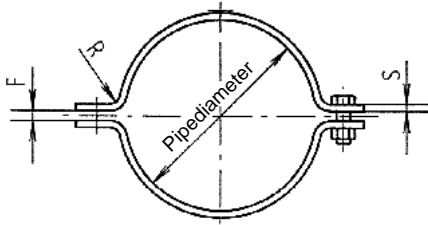


RM



RSB

Pipe Clamps
Type RA
DN 15 - DN 1200

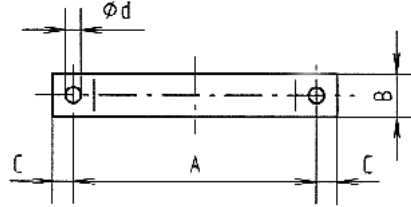
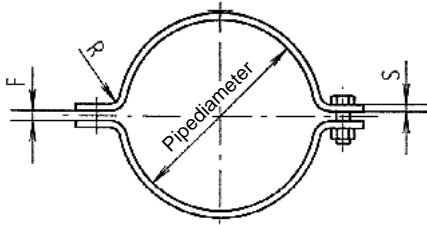


Pipe clamps - Type RA DN 15 - DN 1200

Material	S235JRG2 acc. EN 10025, working temperature up to 300° C (RSt 37-2 DIN 17 100)
Type	- acc. DIN 3567 form A (DN 20 - 500), other sizes based on DIN 3567 - bolts are not included
Surface	black -R, zinc plated -Z or hot-dip galvanized -V

Type	Pipe diameter	B x S	A	C	F	R	ϕd	Load kN 50°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RA-022	21,3	30 x 5	56	15	7	7	11,5	7,2	10 x 30	0,20	0,28
RA-025	25,0	30 x 5	62	15	7	7	11,5	6,7	10 x 30	0,22	0,30
RA-027	26,9	30 x 5	66	15	7	7	11,5	6,3	10 x 30	0,23	0,31
RA-030	30,0	30 x 5	68	15	7	7	11,5	5,9	10 x 30	0,24	0,32
RA-034	33,7	30 x 5	72	15	7	7	11,5	5,2	10 x 30	0,25	0,33
RA-038	38,0	30 x 5	76	15	7	7	11,5	4,9	10 x 30	0,26	0,34
RA-043	42,4	30 x 5	82	15	7	7	11,5	4,4	10 x 30	0,28	0,36
RA-045	44,5	30 x 5	84	15	7	7	11,5	4,4	10 x 30	0,29	0,37
RA-049	48,3	30 x 5	88	15	7	7	11,5	4,1	10 x 30	0,30	0,38
RA-057	57,0	40 x 6	104	18	9	9	14,0	6,7	12 x 35	0,56	0,68
RA-061	60,3	40 x 6	108	18	9	9	14,0	6,4	12 x 35	0,58	0,70
RA-077	76,1	40 x 6	122	18	9	9	14,0	5,7	12 x 35	0,69	0,81
RA-089	88,9	40 x 6	136	18	9	9	14,0	5,0	12 x 35	0,75	0,87
RA-108	108,0	50 x 8	172	24	11	12	18,0	10,0	16 x 45	1,59	1,85
RA-115	114,3	50 x 8	178	24	11	12	18,0	9,5	16 x 45	1,63	1,89
RA-133	133,0	50 x 8	196	24	11	12	18,0	8,8	16 x 45	1,79	20,5
RA-140	139,7	50 x 8	204	24	11	12	18,0	8,3	16 x 45	1,83	2,09
RA-159	159,0	50 x 8	222	24	11	12	18,0	7,7	16 x 45	2,00	2,26
RA-169	168,3	50 x 8	232	24	11	12	18,0	7,2	16 x 45	2,08	2,34
RA-194	193,7	50 x 8	258	24	11	12	18,0	6,4	16 x 45	2,42	2,68
RA-220	219,1	50 x 8	284	24	11	12	18,0	5,7	16 x 45	2,64	2,90
RA-267	267,0	60 x 8	342	30	14	12	23,0	5,5	20 x 50	3,85	4,33
RA-273	273,0	60 x 8	348	30	14	12	23,0	5,4	20 x 50	3,91	4,39
RA-324	323,9	60 x 8	398	30	14	12	23,0	4,7	20 x 50	4,49	4,97
RA-356	355,6	60 x 8	432	30	14	12	23,0	4,4	20 x 50	5,09	5,57
RA-368	368,0	60 x 8	444	30	14	12	23,0	4,4	20 x 50	5,30	5,78
RA-407	406,4	70 x 10	498	36	18	15	27,0	7,1	24 x 60	8,52	9,35
RA-419	419,0	70 x 10	510	36	18	15	27,0	7,0	24 x 60	8,75	9,58
RA-457	457,0	70 x 10	550	36	18	15	27,0	6,5	24 x 60	9,17	10,0
RA-508	508,0	70 x 10	600	36	18	15	27,0	6,0	24 x 60	10,2	11,0
RA-521	521,0	70 x 10	614	36	18	15	27,0	6,0	24 x 60	10,5	11,3
RA-609	610,0	70 x 10	717	36	18	15	27,0	5,9	24 x 60	11,9	12,7
RA-610	610,0	90 x 15	740	45	25	22	33,0	14,6	30 x 100	24,0	25,9
RA-711	711,0	70 x 10	812	36	18	15	27,0	5,3	24 x 60	13,7	14,5
RA-712	711,0	90 x 15	850	45	25	22	33,0	12,7	30 x 100	27,5	29,4
RA-812	813,0	70 x 10	913	36	18	15	27,0	4,2	24 x 60	15,4	16,2
RA-813	813,0	90 x 15	950	45	25	22	33,0	11,9	30 x 100	31,0	32,9
RA-914	914,0	90 x 15	1050	45	25	22	33,0	9,4	30 x 100	34,0	35,9
RA-1016	1016,0	90 x 15	1140	45	25	22	33,0	8,7	30 x 100	37,3	39,2
RA-1220	1220,0	90 x 15	1360	45	25	22	33,0	7,7	30 x 100	49,3	51,2

- When ordering please state material -



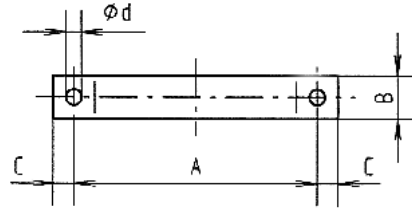
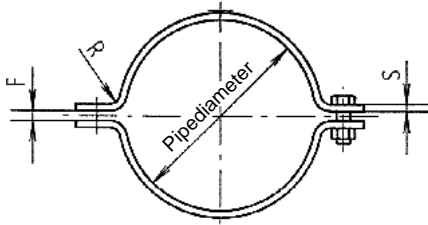
Pipe clamps - Type RA DN 15 - DN 1200

Material	16Mo3 EN 10028-2, workingtemperature up to 450° C
Type	acc. DIN 3567 form A (DN 20 - 500), other sizes based on DIN 3567, incl. bolts
Surface	black -R
Bolts	bolts DIN ISO 4017 in 21CrMoV5-7 and nuts DIN ISO 4032 in 24CrMo5

Type	Pipe diameter	B x S	A	C	F	R	ø d	Load kN 350°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RA-022	21,3	30 x 5	56	15	7	7	11,5	6,3	10 x 40	0,20	0,29
RA-025	25,0	30 x 5	62	15	7	7	11,5	5,7	10 x 40	0,22	0,31
RA-027	26,9	30 x 5	66	15	7	7	11,5	5,2	10 x 40	0,23	0,32
RA-030	30,0	30 x 5	68	15	7	7	11,5	4,8	10 x 40	0,24	0,33
RA-034	33,7	30 x 5	72	15	7	7	11,5	4,5	10 x 40	0,25	0,34
RA-038	38,0	30 x 5	76	15	7	7	11,5	4,1	10 x 40	0,26	0,35
RA-043	42,4	30 x 5	82	15	7	7	11,5	3,8	10 x 40	0,28	0,37
RA-045	44,5	30 x 5	84	15	7	7	11,5	3,8	10 x 40	0,29	0,38
RA-049	48,3	30 x 5	88	15	7	7	11,5	3,4	10 x 40	0,30	0,39
RA-057	57,0	40 x 6	104	18	9	9	14,0	5,7	12 x 50	0,56	0,70
RA-061	60,3	40 x 6	108	18	9	9	14,0	5,4	12 x 50	0,58	0,72
RA-077	76,1	40 x 6	122	18	9	9	14,0	4,8	12 x 50	0,69	0,83
RA-089	88,9	40 x 6	136	18	9	9	14,0	4,3	12 x 50	0,75	0,89
RA-108	108,0	50 x 8	172	24	11	12	18,0	8,6	16 x 60	1,59	1,89
RA-115	114,3	50 x 8	178	24	11	12	18,0	8,3	16 x 60	1,63	1,93
RA-133	133,0	50 x 8	196	24	11	12	18,0	7,4	16 x 60	1,79	2,09
RA-140	139,7	50 x 8	204	24	11	12	18,0	7,0	16 x 60	1,83	2,13
RA-159	159,0	50 x 8	222	24	11	12	18,0	6,5	16 x 60	2,00	2,30
RA-169	168,3	50 x 8	232	24	11	12	18,0	6,1	16 x 60	2,08	2,38
RA-194	193,7	50 x 8	258	24	11	12	18,0	5,4	16 x 60	2,42	2,72
RA-220	219,1	50 x 8	284	24	11	12	18,0	4,8	16 x 60	2,64	2,94
RA-267	267,0	60 x 8	342	30	14	12	23,0	4,7	20 x 70	3,85	4,41
RA-273	273,0	60 x 8	348	30	14	12	23,0	4,5	20 x 70	3,91	4,47
RA-324	323,9	60 x 8	398	30	14	12	23,0	4,1	20 x 70	4,49	5,05
RA-356	355,6	60 x 8	432	30	14	12	23,0	3,8	20 x 70	5,09	5,65
RA-368	368,0	60 x 8	444	30	14	12	23,0	3,6	20 x 70	5,30	5,86
RA-407	406,4	70 x 10	498	36	18	15	27,0	6,1	24 x 100	8,52	9,59
RA-419	419,0	70 x 10	510	36	18	15	27,0	5,9	24 x 100	8,75	9,82
RA-457	457,0	70 x 10	550	36	18	15	27,0	5,6	24 x 100	9,17	10,2
RA-508	508,0	70 x 10	600	36	18	15	27,0	5,2	24 x 100	10,2	11,3
RA-521	521,0	70 x 10	614	36	18	15	27,0	5,0	24 x 100	10,5	11,6
RA-609	610,0	70 x 10	717	36	18	15	27,0	5,0	24 x 100	11,9	13,0
RA-610	610,0	90 x 15	740	45	25	22	33,0	12,4	30 x 100	24,0	25,9
RA-711	711,0	70 x 10	812	36	18	15	27,0	4,5	24 x 100	13,7	14,8
RA-712	711,0	90 x 15	850	45	25	22	33,0	10,8	30 x 100	27,5	29,4
RA-812	813,0	70 x 10	913	36	18	15	27,0	3,5	24 x 100	15,4	16,5
RA-813	813,0	90 x 15	950	45	25	22	33,0	9,9	30 x 100	31,0	32,9
RA-914	914,0	90 x 15	1050	45	25	22	33,0	9,5	30 x 100	34,0	35,9
RA-1016	1016,0	90 x 15	1140	45	25	22	33,0	9,5	30 x 100	37,3	39,2
RA-1220	1220,0	90 x 15	1360	45	25	22	33,0	7,9	30 x 100	49,3	51,2

- When ordering please state material -

**Pipe Clamps
Type RA
DN 15 - DN 1200**

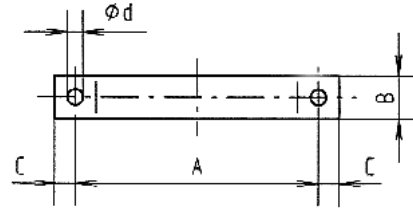
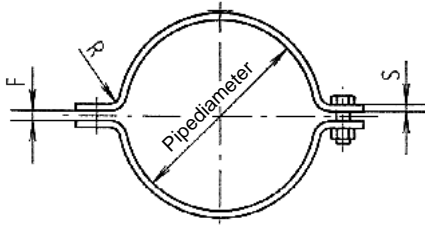


Pipe Clamps - Type RA DN 15 - DN 1200

Material	13CrMo4-5 EN 10028-2, workingtemperature up to 560° C
Type	acc. DIN 3567 form A (DN 20 - 500), other sizes based on DIN 3567, incl. bolts
Surface	black -R
Bolts	bolts DIN ISO 4017 in 21CrMoV5-7 and nuts DIN ISO 4032 in 24CrMo5

Type	Pipe diameter	B x S	A	C	F	R	ø d	Load kN 500°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RA-022	21,3	30 x 5	56	15	7	7	11,5	3,5	10 x 40	0,20	0,29
RA-025	25,0	30 x 5	62	15	7	7	11,5	3,2	10 x 40	0,22	0,31
RA-027	26,9	30 x 5	66	15	7	7	11,5	2,9	10 x 40	0,23	0,32
RA-030	30,0	30 x 5	68	15	7	7	11,5	2,7	10 x 40	0,24	0,33
RA-034	33,7	30 x 5	72	15	7	7	11,5	2,5	10 x 40	0,25	0,34
RA-038	38,0	30 x 5	76	15	7	7	11,5	2,3	10 x 40	0,26	0,35
RA-043	42,4	30 x 5	82	15	7	7	11,5	2,1	10 x 40	0,28	0,37
RA-045	44,5	30 x 5	84	15	7	7	11,5	2,1	10 x 40	0,29	0,38
RA-049	48,3	30 x 5	88	15	7	7	11,5	1,9	10 x 40	0,30	0,39
RA-057	57,0	40 x 6	104	18	9	9	14,0	3,2	12 x 50	0,56	0,70
RA-061	60,3	40 x 6	108	18	9	9	14,0	3,0	12 x 50	0,58	0,72
RA-077	76,1	40 x 6	122	18	9	9	14,0	2,7	12 x 50	0,69	0,83
RA-089	88,9	40 x 6	136	18	9	9	14,0	2,4	12 x 50	0,75	0,89
RA-108	108,0	50 x 8	172	24	11	12	18,0	4,8	16 x 60	1,59	1,89
RA-115	114,3	50 x 8	178	24	11	12	18,0	4,6	16 x 60	1,63	1,93
RA-133	133,0	50 x 8	196	24	11	12	18,0	4,1	16 x 60	1,79	2,09
RA-140	139,7	50 x 8	204	24	11	12	18,0	3,9	16 x 60	1,83	2,13
RA-159	159,0	50 x 8	222	24	11	12	18,0	3,6	16 x 60	2,00	2,30
RA-169	168,3	50 x 8	232	24	11	12	18,0	3,4	16 x 60	2,08	2,38
RA-194	193,7	50 x 8	258	24	11	12	18,0	3,0	16 x 60	2,42	2,72
RA-220	219,1	50 x 8	284	24	11	12	18,0	2,7	16 x 60	2,64	2,94
RA-267	267,0	60 x 8	342	30	14	12	23,0	2,6	20 x 70	3,85	4,41
RA-273	273,0	60 x 8	348	30	14	12	23,0	2,5	20 x 70	3,91	4,47
RA-324	323,9	60 x 8	398	30	14	12	23,0	2,3	20 x 70	4,49	5,05
RA-356	355,6	60 x 8	432	30	14	12	23,0	2,1	20 x 70	5,09	5,65
RA-368	368,0	60 x 8	444	30	14	12	23,0	2,0	20 x 70	5,30	5,86
RA-407	406,4	70 x 10	498	36	18	15	27,0	3,4	24 x 100	8,52	9,59
RA-419	419,0	70 x 10	510	36	18	15	27,0	3,3	24 x 100	8,75	9,82
RA-457	457,0	70 x 10	550	36	18	15	27,0	3,1	24 x 100	9,17	10,2
RA-508	508,0	70 x 10	600	36	18	15	27,0	2,9	24 x 100	10,2	11,3
RA-521	521,0	70 x 10	614	36	18	15	27,0	2,8	24 x 100	10,5	11,6
RA-609	610,0	70 x 10	717	36	18	15	27,0	2,8	24 x 100	11,9	13,0
RA-610	610,0	90 x 15	740	45	25	22	33,0	6,9	30 x 100	24,0	25,9
RA-711	711,0	70 x 10	812	36	18	15	27,0	2,5	24 x 100	13,7	14,8
RA-712	711,0	90 x 15	850	45	25	22	33,0	6,0	30 x 100	27,5	29,4
RA-812	813,0	70 x 10	913	36	18	15	27,0	2,0	24 x 100	15,4	16,5
RA-813	813,0	90 x 15	950	45	25	22	33,0	5,5	30 x 100	31,0	32,9
RA-914	914,0	90 x 15	1050	45	25	22	33,0	4,7	30 x 100	34,0	35,9
RA-1016	1016,0	90 x 15	1140	45	25	22	33,0	4,8	30 x 100	37,3	39,2
RA-1220	1220,0	90 x 15	1360	45	25	22	33,0	3,9	30 x 100	49,3	51,2

- When ordering please state material -

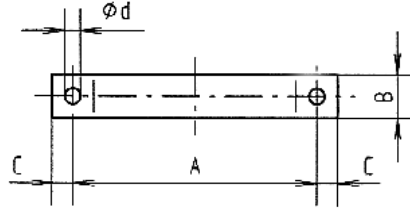
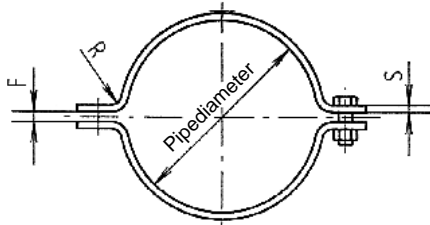


Pipe clamps - Type RA DN 15 - DN 350

Material	1.4541 EN 10088, workingtemperature up to 400° C
Type	acc. DIN 3567 form A, other sizes based on DIN 3567, bolts are not incl.
Surface	none

Type	Pipe diameter	B x S	A	C	F	R	ϕd	Load kN 50°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RA-022	21,3	30 x 5	56	15	7	7	11,5	7,2	10 x 30	0,20	0,28
RA-025	25,0	30 x 5	62	15	7	7	11,5	6,7	10 x 30	0,22	0,30
RA-027	26,9	30 x 5	66	15	7	7	11,5	6,3	10 x 30	0,23	0,31
RA-030	30,0	30 x 5	68	15	7	7	11,5	5,9	10 x 30	0,24	0,32
RA-034	33,7	30 x 5	72	15	7	7	11,5	5,2	10 x 30	0,25	0,33
RA-038	38,0	30 x 5	76	15	7	7	11,5	4,9	10 x 30	0,26	0,34
RA-043	42,4	30 x 5	82	15	7	7	11,5	4,4	10 x 30	0,28	0,36
RA-045	44,5	30 x 5	84	15	7	7	11,5	4,4	10 x 30	0,29	0,37
RA-049	48,3	30 x 5	88	15	7	7	11,5	4,1	10 x 30	0,30	0,38
RA-054	54,0	40 x 6	98	18	9	9	14,0	7,6	12 x 35	0,55	0,67
RA-057	57,0	40 x 6	104	18	9	9	14,0	6,7	12 x 35	0,56	0,68
RA-061	60,3	40 x 6	108	18	9	9	14,0	6,4	12 x 35	0,58	0,70
RA-070	70,0	40 x 6	119	18	9	9	14,0	5,9	12 x 35	0,67	0,79
RA-077	76,1	40 x 6	122	18	9	12	14,0	5,7	12 x 35	0,69	0,81
RA-084	84,0	40 x 6	130	18	9	12	14,0	5,3	12 x 35	0,73	0,85
RA-089	88,9	40 x 6	136	18	9	12	14,0	5,0	12 x 35	0,75	0,87
RA-102	101,6	50 x 8	165	24	9	12	18,0	10,6	16 x 45	1,53	1,75
RA-108	108,0	50 x 8	172	24	11	12	18,0	10,0	16 x 45	1,59	1,85
RA-115	114,3	50 x 8	178	24	11	12	18,0	9,5	16 x 45	1,63	1,89
RA-129	129,0	50 x 8	190	24	11	12	18,0	9,1	16 x 45	1,75	1,97
RA-133	133,0	50 x 8	196	24	11	12	18,0	8,8	16 x 45	1,79	2,05
RA-140	139,7	50 x 8	204	24	11	12	18,0	8,3	16 x 45	1,83	2,09
RA-154	154,0	50 x 8	217	24	11	12	18,0	8,1	16 x 45	1,95	2,17
RA-159	159,0	50 x 8	222	24	11	12	18,0	7,7	16 x 45	2,00	2,26
RA-169	168,3	50 x 8	232	24	11	12	18,0	7,2	16 x 45	2,08	2,34
RA-194	193,7	50 x 8	258	24	11	12	18,0	6,4	16 x 45	2,42	2,68
RA-205	205,0	50 x 8	275	30	11	12	18,0	6,2	16 x 45	2,50	2,72
RA-220	219,1	50 x 8	284	30	11	12	18,0	5,7	16 x 45	2,64	2,90
RA-255	255,0	60 x 8	325	30	11	12	23,0	5,8	20 x 50	3,72	4,18
RA-267	267,0	60 x 8	342	30	14	12	23,0	5,5	20 x 50	3,85	4,33
RA-273	273,0	60 x 8	348	30	14	12	23,0	5,4	20 x 50	3,91	4,39
RA-306	306,0	60 x 8	381	30	14	12	23,0	5,0	20 x 50	4,20	4,66
RA-324	323,9	60 x 8	398	30	14	12	23,0	4,7	20 x 50	4,49	4,97
RA-356	355,6	60 x 8	432	30	14	12	23,0	4,4	20 x 50	5,09	5,57
RA-368	368,0	60 x 8	444	30	14	12	23,0	4,4	20 x 50	5,30	5,78

- When ordering please state material -

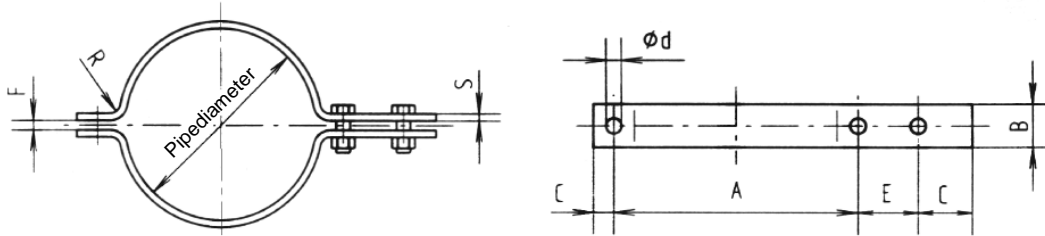


Pipe clamps - Type RA DN 15 - DN 350

Material	1.4571 EN 10088, working temperature up to 400° C
Type	acc. DIN 3567 form A, other sizes based on DIN 3567, incl. bolts
Surface	none
Bolts	bolts DIN ISO 4017 – A4, nuts DIN ISO 4032 – A4

Type	Pipe diameter	B x S	A	C	F	R	ø d	Load kN 50°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RA-022	21,3	30 x 5	56	15	7	7	11,5	7,9	10 x 30	0,20	0,28
RA-025	25,0	30 x 5	62	15	7	7	11,5	7,3	10 x 30	0,22	0,30
RA-027	26,9	30 x 5	66	15	7	7	11,5	6,9	10 x 30	0,23	0,31
RA-030	30,0	30 x 5	68	15	7	7	11,5	6,4	10 x 30	0,24	0,32
RA-034	33,7	30 x 5	72	15	7	7	11,5	5,7	10 x 30	0,25	0,33
RA-038	38,0	30 x 5	76	15	7	7	11,5	5,4	10 x 30	0,26	0,34
RA-043	42,4	30 x 5	82	15	7	7	11,5	4,8	10 x 30	0,28	0,36
RA-045	44,5	30 x 5	84	15	7	7	11,5	4,8	10 x 30	0,29	0,37
RA-049	48,3	30 x 5	88	15	7	7	11,5	4,5	10 x 30	0,30	0,38
RA-054	54,0	40 x 6	98	18	9	9	14,0	8,3	12 x 35	0,55	0,67
RA-057	57,0	40 x 6	104	18	9	9	14,0	7,3	12 x 35	0,56	0,68
RA-061	60,3	40 x 6	108	18	9	9	14,0	7,0	12 x 35	0,58	0,70
RA-070	70,0	40 x 6	119	18	9	9	14,0	6,5	12 x 35	0,67	0,79
RA-077	76,1	40 x 6	122	18	9	12	14,0	6,2	12 x 35	0,69	0,81
RA-084	84,0	40 x 6	130	18	9	12	14,0	5,8	12 x 35	0,73	0,85
RA-089	88,9	40 x 6	136	18	9	12	14,0	5,5	12 x 35	0,75	0,87
RA-102	101,6	50 x 8	165	24	9	12	18,0	11,5	16 x 45	1,53	1,75
RA-108	108,0	50 x 8	172	24	11	12	18,0	10,9	16 x 45	1,59	1,85
RA-115	114,3	50 x 8	178	24	11	12	18,0	10,4	16 x 45	1,63	1,89
RA-129	129,0	50 x 8	190	24	11	12	18,0	9,9	16 x 45	1,75	1,97
RA-133	133,0	50 x 8	196	24	11	12	18,0	9,6	16 x 45	1,79	2,05
RA-140	139,7	50 x 8	204	24	11	12	18,0	9,1	16 x 45	1,83	2,09
RA-154	154,0	50 x 8	217	24	11	12	18,0	8,8	16 x 45	1,95	2,17
RA-159	159,0	50 x 8	222	24	11	12	18,0	8,4	16 x 45	2,00	2,26
RA-169	168,3	50 x 8	232	24	11	12	18,0	7,9	16 x 45	2,08	2,34
RA-194	193,7	50 x 8	258	24	11	12	18,0	7,0	16 x 45	2,42	2,68
RA-205	205,0	50 x 8	275	30	11	12	18,0	6,7	16 x 45	2,50	2,72
RA-220	219,1	50 x 8	284	30	11	12	18,0	6,2	16 x 45	2,64	2,90
RA-255	255,0	60 x 8	325	30	11	12	23,0	6,3	20 x 50	3,72	4,18
RA-267	267,0	60 x 8	342	30	14	12	23,0	6,0	20 x 50	3,85	4,33
RA-273	273,0	60 x 8	348	30	14	12	23,0	5,9	20 x 50	3,91	4,39
RA-306	306,0	60 x 8	381	30	14	12	23,0	5,4	20 x 50	4,20	4,66
RA-324	323,9	60 x 8	398	30	14	12	23,0	5,1	20 x 50	4,49	4,97
RA-356	355,6	60 x 8	432	30	14	12	23,0	4,8	20 x 50	5,09	5,57
RA-368	368,0	60 x 8	444	30	14	12	23,0	4,8	20 x 50	5,30	5,78

- When ordering please state material -



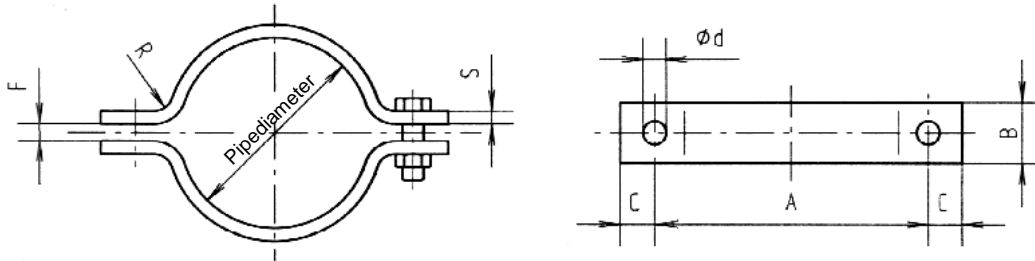
Pipe clamps - Type RB DN 15 - DN 800

Material	S235JRG2 acc. EN 10025, workingtemperature up to 300° C	(RSt 37-2 DIN 17 100)
Type	acc. DIN 3567 form B (DN 20 - 500), other sizes based on DIN 3567	
Surface	black -R, hot-dip galvanized -V	

Type	Pipe diameter	B x S	A	C	F	R	E	ø d	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RB-022	21,3	30 x 5	56	15	7	7	46	11,5	10 x 30	0,30	0,41
RB-025	25,0	30 x 5	62	15	7	7	46	11,5	10 x 30	0,32	0,43
RB-027	26,9	30 x 5	66	15	7	7	46	11,5	10 x 30	0,33	0,44
RB-030	30,0	30 x 5	68	15	7	7	46	11,5	10 x 30	0,34	0,45
RB-034	33,7	30 x 5	72	15	7	7	46	11,5	10 x 30	0,35	0,46
RB-038	38,0	30 x 5	76	15	7	7	46	11,5	10 x 30	0,37	0,48
RB-043	42,4	30 x 5	82	15	7	7	46	11,5	10 x 30	0,38	0,49
RB-045	44,5	30 x 5	84	15	7	7	46	11,5	10 x 30	0,39	0,50
RB-049	48,3	30 x 5	88	15	7	7	46	11,5	10 x 30	0,41	0,52
RB-057	57,0	40 x 6	104	18	9	9	54	14,0	12 x 35	0,77	0,95
RB-061	60,3	40 x 6	108	18	9	9	54	14,0	12 x 35	0,78	0,96
RB-077	76,1	40 x 6	122	18	9	9	54	14,0	12 x 35	0,86	1,04
RB-089	88,9	40 x 6	136	18	9	9	54	14,0	12 x 35	0,95	1,13
RB-108	108,0	50 x 8	172	24	11	12	70	18,0	16 x 45	2,03	2,42
RB-115	114,3	50 x 8	178	24	11	12	70	18,0	16 x 45	2,07	2,46
RB-133	133,0	50 x 8	196	24	11	12	70	18,0	16 x 45	2,20	2,59
RB-140	139,7	50 x 8	204	24	11	12	70	18,0	16 x 45	2,26	2,65
RB-159	159,0	50 x 8	222	24	11	12	70	18,0	16 x 45	2,40	2,79
RB-169	168,3	50 x 8	232	24	11	12	70	18,0	16 x 45	2,52	2,91
RB-194	193,7	50 x 8	258	24	11	12	70	18,0	16 x 45	2,82	3,21
RB-220	219,1	50 x 8	284	24	11	12	70	18,0	16 x 45	3,09	3,48
RB-267	267,0	60 x 8	342	30	14	12	86	23,0	20 x 50	4,45	5,17
RB-273	273,0	60 x 8	348	30	14	12	86	23,0	20 x 50	4,52	5,24
RB-324	323,9	60 x 8	398	30	14	12	86	23,0	20 x 50	5,11	5,83
RB-356	355,6	60 x 8	432	30	14	12	86	23,0	20 x 50	5,72	6,44
RB-368	368,0	60 x 8	444	30	14	12	86	23,0	20 x 50	6,00	6,72
RB-407	406,4	70 x 10	498	36	18	15	104	27,0	24 x 60	9,63	10,9
RB-419	419,0	70 x 10	510	36	18	15	104	27,0	24 x 60	9,80	11,0
RB-457	457,0	70 x 10	550	36	18	15	104	27,0	24 x 60	10,65	11,9
RB-508	508,0	70 x 10	600	36	18	15	104	27,0	24 x 60	11,4	12,6
RB-521	521,0	70 x 10	614	36	18	15	104	27,0	24 x 60	11,6	12,8
RB-559	559,0	90 x 15	690	45	25	22	104	33,0	30 x 100	23,5	26,4
RB-610	610,0	90 x 15	740	45	25	22	104	33,0	30 x 100	25,5	28,4
RB-711	711,0	90 x 15	850	45	25	22	104	33,0	30 x 100	28,0	30,9
RB-813	813,0	90 x 15	950	45	25	22	104	33,0	30 x 100	32,5	35,4

- When ordering please state material -

**Pipe Clamps
Type RM
DN 50 - DN 1200**

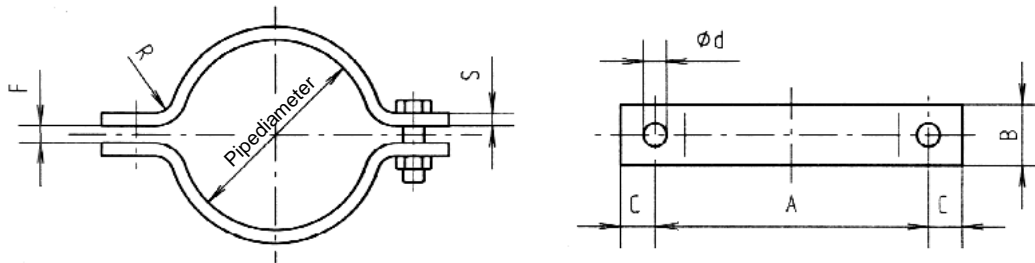


Pipe clamps - Type RM DN 50 - DN 1200

Material	S235JRG2 acc. EN 10025, working temperature up to 300° C (RSt 37-2 DIN 17 100)
Type	acc. DIN 3567 form A (DN 20-500), other sizes based on DIN 3567
Surface	black -R, hot-dip galvanized -V

Type	Pipe diameter	B x S	A	C	F	R	ø d	Load kN 50°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RM-057	57,0	40 x 8	110	25	12	12	18,0	12,8	16 x 60	0,85	1,15
RM-061	60,3	40 x 8	120	25	12	12	18,0	11,5	16 x 60	0,90	1,20
RM-077	76,1	40 x 8	140	25	12	12	18,0	9,4	16 x 60	1,00	1,30
RM-089	88,9	40 x 8	150	25	12	12	18,0	8,6	16 x 60	1,20	1,50
RM-108	108,0	50 x 10	180	35	15	15	23,0	16,2	20 x 60	2,30	2,82
RM-115	114,3	50 x 10	190	35	15	15	23,0	14,6	20 x 60	2,40	2,92
RM-133	133,0	60 x 10	210	35	15	15	23,0	16,2	20 x 60	3,00	3,52
RM-140	139,7	60 x 10	220	35	15	15	23,0	15,1	20 x 60	3,20	3,72
RM-159	159,0	60 x 10	240	35	15	15	23,0	13,6	20 x 60	3,50	4,02
RM-169	168,3	70 x 10	250	35	15	15	23,0	15,1	20 x 60	4,20	4,72
RM-194	193,7	70 x 15	300	40	20	22	27,0	28,6	24 x 80	7,50	8,45
RM-220	219,1	70 x 15	320	40	20	22	27,0	28,1	24 x 80	8,0	8,95
RM-267	267,0	80 x 15	370	40	20	22	27,0	27,8	24 x 80	10,5	11,5
RM-273	273,0	90 x 15	380	40	20	22	27,0	29,8	24 x 80	12,0	13,0
RM-324	323,9	90 x 15	430	40	20	22	27,0	26,5	24 x 80	14,0	15,0
RM-356	355,6	100 x 15	470	40	20	22	27,0	26,3	24 x 80	16,5	17,5
RM-368	368,0	100 x 15	480	40	20	22	27,0	26,1	24 x 80	17,0	18,0
RM-407	406,4	130 x 20	550	50	25	30	33,0	53,5	30 x 100	33,5	35,4
RM-419	419,0	140 x 20	570	50	25	30	33,0	53,8	30 x 100	37,0	38,9
RM-457	457,0	140 x 20	600	50	25	30	33,0	53,0	30 x 100	40,0	41,9
RM-508	508,0	150 x 20	660	50	25	30	33,0	50,4	30 x 100	46,5	48,4
RM-521	521,0	150 x 20	680	50	25	30	33,0	44,4	30 x 100	47,5	49,4
RM-610	610,0	150 x 20	760	50	25	30	33,0	41,8	30 x 100	55,2	57,1
RM-711	711,0	150 x 20	860	50	25	30	33,0	38,2	30 x 100	62,9	64,8
RM-813	813,0	150 x 20	960	50	25	30	33,0	35,3	30 x 100	70,6	72,5
RM-914	914,0	150 x 20	1060	50	25	30	33,0	28,4	30 x 100	78,3	80,2
RM-1016	1016,0	150 x 20	1160	50	25	30	33,0	25,9	30 x 100	86,0	87,9
RM-1220	1220,0	150 x 20	1370	50	25	30	33,0	23,4	30 x 100	101,0	102,9

- When ordering please state material -



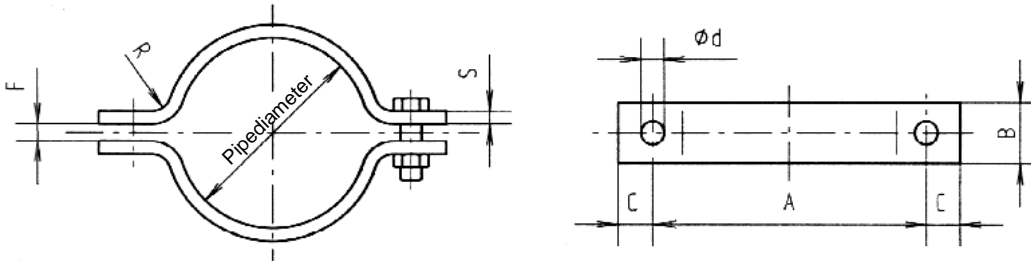
Pipe clamps - Type RM DN 50 - DN 1200

Material	16Mo3 acc. EN 10028-2, workingtemperature up to 450°
Type	incl. bolts
Surface	black -R
Bolts	bolts DIN ISO 4017 in 21CrMoV5-7 and nuts DIN ISO 4032 in 24CrMo5

Type	Pipe diameter	B x S	A	C	F	R	ø d	Load kN 350°C	Bolt-dimension	Weight in kg	
										ex. bolts	incl. bolts
RM-057	57,0	40 x 8	110	25	12	12	18,0	10,9	16 x 60	0,85	1,15
RM-061	60,3	40 x 8	120	25	12	12	18,0	9,8	16 x 60	0,90	1,20
RM-077	76,1	40 x 8	140	25	12	12	18,0	8,0	16 x 60	1,00	1,30
RM-089	88,9	40 x 8	150	25	12	12	18,0	7,3	16 x 60	1,20	1,50
RM-108	108,0	50 x 10	180	35	15	15	23,0	13,8	20 x 70	2,30	2,86
RM-115	114,3	50 x 10	190	35	15	15	23,0	12,6	20 x 70	2,40	2,96
RM-133	133,0	60 x 10	210	35	15	15	23,0	13,7	20 x 70	3,00	3,56
RM-140	139,7	60 x 10	220	35	15	15	23,0	12,8	20 x 70	3,20	3,76
RM-159	159,0	60 x 10	240	35	15	15	23,0	11,5	20 x 70	3,50	4,06
RM-169	168,3	70 x 10	250	35	15	15	23,0	12,8	20 x 70	4,20	4,76
RM-194	193,7	70 x 15	300	40	20	22	27,0	24,7	24 x 100	7,50	8,57
RM-220	219,1	70 x 15	320	40	20	22	27,0	24,1	24 x 100	8,0	9,07
RM-267	267,0	80 x 15	370	40	20	22	27,0	23,6	24 x 100	10,5	11,5
RM-273	273,0	90 x 15	380	40	20	22	27,0	25,4	24 x 100	12,0	13,1
RM-324	323,9	90 x 15	430	40	20	22	27,0	22,5	24 x 100	14,0	15,1
RM-356	355,6	100 x 15	470	40	20	22	27,0	22,3	24 x 100	16,5	17,6
RM-368	368,0	100 x 15	480	40	20	22	27,0	22,1	24 x 100	17,0	18,1
RM-407	406,4	130 x 20	550	50	25	30	33,0	45,4	30 x 120	33,5	35,5
RM-419	419,0	140 x 20	570	50	25	30	33,0	45,6	30 x 120	37,0	39,1
RM-457	457,0	140 x 20	600	50	25	30	33,0	40,0	30 x 120	40,0	42,1
RM-508	508,0	150 x 20	660	50	25	30	33,0	42,9	30 x 120	46,5	48,6
RM-521	521,0	150 x 20	680	50	25	30	33,0	35,0	30 x 120	47,5	49,6
RM-610	610,0	150 x 20	760	50	25	30	33,0	33,0	30 x 120	55,2	57,3
RM-711	711,0	150 x 20	860	50	25	30	33,0	30,2	30 x 120	62,9	65,0
RM-813	813,0	150 x 20	960	50	25	30	33,0	27,8	30 x 120	70,6	72,7
RM-914	914,0	150 x 20	1060	50	25	30	33,0	28,9	30 x 120	78,3	80,4
RM-1016	1016,0	150 x 20	1160	50	25	30	33,0	26,3	30 x 120	86,0	88,1
RM-1220	1220,0	150 x 20	1370	50	25	30	33,0	23,7	30 x 120	101,0	103,1

- When ordering please state material -

**Pipe Clamps
Type RM
DN 50 - DN 1200**

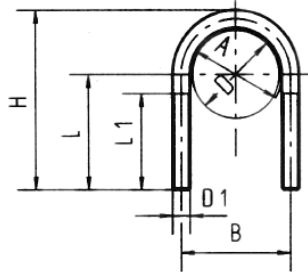


Pipe clamps - Type RM DN 50 - DN 1200

Material	13CrMo4-5 acc. EN 10028-2, workingtemperatur up to 560° C
Type	incl. bolts
Surface	black -R
Bolts	bolts DIN ISO 4017 in 21CrMoV5-7 and nuts DIN ISO 4032 in 24CrMo5

Type	Pipe diameter	B x S	A	C	F	R	ϕd	Load kN 500°C	Bolt- dimension	Weight in kg	
										ex. bolts	incl. bolts
RM-057	57,0	40 x 8	110	25	12	12	18,0	9,3	16 x 60	0,85	1,15
RM-061	60,3	40 x 8	120	25	12	12	18,0	8,3	16 x 60	0,90	1,20
RM-077	76,1	40 x 8	140	25	12	12	18,0	6,8	16 x 60	1,00	1,30
RM-089	88,9	40 x 8	150	25	12	12	18,0	6,2	16 x 60	1,20	1,50
RM-108	108,0	50 x 10	180	35	15	15	23,0	7,7	20 x 70	2,30	2,86
RM-115	114,3	50 x 10	190	35	15	15	23,0	7,0	20 x 70	2,40	2,96
RM-133	133,0	60 x 10	210	35	15	15	23,0	7,6	20 x 70	3,00	3,56
RM-140	139,7	60 x 10	220	35	15	15	23,0	7,1	20 x 70	3,20	3,76
RM-159	159,0	60 x 10	240	35	15	15	23,0	6,4	20 x 70	3,50	4,06
RM-169	168,3	70 x 10	250	35	15	15	23,0	7,1	20 x 70	4,20	4,76
RM-194	193,7	70 x 15	300	40	20	22	27,0	13,7	24 x 100	7,50	8,57
RM-220	219,1	70 x 15	320	40	20	22	27,0	13,4	24 x 100	8,00	9,07
RM-267	267,0	80 x 15	370	40	20	22	27,0	13,1	24 x 100	10,5	11,6
RM-273	273,0	90 x 15	380	40	20	22	27,0	14,1	24 x 100	12,0	13,1
RM-324	323,9	90 x 15	430	40	20	22	27,0	12,5	24 x 100	14,0	15,1
RM-356	355,6	100 x 15	470	40	20	22	27,0	12,4	24 x 100	16,5	17,6
RM-368	368,0	100 x 15	480	40	20	22	27,0	12,3	24 x 100	17,0	18,1
RM-407	406,4	130 x 20	550	50	25	30	33,0	25,2	30 x 120	33,5	35,6
RM-419	419,0	140 x 20	570	50	25	30	33,0	25,3	30 x 120	37,0	39,1
RM-457	457,0	140 x 20	600	50	25	30	33,0	25,0	30 x 120	40,0	42,1
RM-508	508,0	150 x 20	660	50	25	30	33,0	23,8	30 x 120	46,5	48,6
RM-521	521,0	150 x 20	680	50	25	30	33,0	18,4	30 x 120	47,5	49,6
RM-610	610,0	150 x 20	760	50	25	30	33,0	18,3	30 x 120	55,2	57,3
RM-711	711,0	150 x 20	860	50	25	30	33,0	16,7	30 x 120	62,9	65,0
RM-813	813,0	150 x 20	960	50	25	30	33,0	15,5	30 x 120	70,6	72,7
RM-914	914,0	150 x 20	1060	50	25	30	33,0	14,4	30 x 120	78,3	80,4
RM-1016	1016,0	150 x 20	1160	50	25	30	33,0	13,1	30 x 120	86,0	88,1
RM-1220	1220,0	150 x 20	1370	50	25	30	33,0	11,8	30 x 120	101,0	103,1

- When ordering please state material -



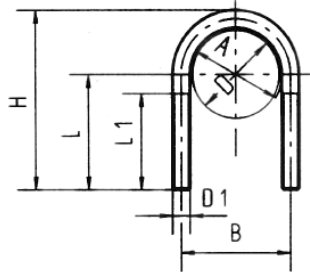
U-bolts - Type RSB DN 15 - DN 600

Material	S235JRC acc. EN 10028-2, working temperature up to 300° C
Type	acc. DIN 3570 form A (DN20-500), other sizes based on DIN 3570, rolled thread
Surface	zinc plated -Z , hot-dip galvanized -V
Nuts	not incl.

Type	For pipe O/D	Nominal pipe size	A	B	L	H	Bolt-dimension	Weight in kg	
								ex. bolts	incl. bolts
RSB-015	21,3	15	23	33	44	65	M 10 x 40	0,06	0,11
RSB-020	25,0 - 26,9	20	30	40	45	70	M 10 x 40	0,07	0,12
RSB-025	30,0 - 33,7	25	38	48	47	76	M 10 x 40	0,08	0,13
RSB-032	38,0 - 42,4	32	46	56	53	86	M 10 x 50	0,09	0,14
RSB-040	44,5 - 48,3	40	52	62	56	92	M 10 x 50	0,10	0,15
RSB-050	57,0 - 60,3	50	64	76	65	107	M 12 x 50	0,17	0,24
RSB-065	70,0 - 76,1	65	82	94	72	125	M 12 x 50	0,20	0,27
RSB-080	84,0 - 88,9	80	94	106	79	138	M 12 x 50	0,23	0,30
RSB-100	101,6 - 114,3	100	120	136	95	171	M 16 x 60	0,54	0,67
RSB-125	133,0 - 139,7	125	148	164	101	191	M 16 x 60	0,61	0,74
RSB-150	159,0 - 168,3	150	176	192	113	217	M 16 x 60	0,70	0,83
RSB-175	193,7	175	202	218	138	249	M 16 x 60	0,80	0,93
RSB-200	205,0 - 219,1	200	228	248	149	283	M 20 x 70	1,40	1,66
RSB-250	267,0 - 273,0	250	282	302	173	334	M 20 x 70	1,68	1,94
RSB-300	306,0 - 323,9	300	332	352	199	385	M 20 x 70	1,94	2,20
RSB-350	355,6 - 368,0	350	378	402	222	435	M 24 x 70	3,11	3,55
RSB-400	406,4 - 419,0	400	428	452	149	487	M 24 x 70	3,50	3,94
RSB-450	457,0	450	476	500	280	542	M 24 x 70	3,84	4,28
RSB-500	508,0 - 521,0	500	530	554	300	585	M 24 x 70	4,26	4,70
RSB-600	609,0	600	628	652	362	700	M 24 x 70	5,01	5,45

- When ordering please state material -

**U-Bolts
Type RSB
DN 15 - DN 600**



U-bolts - Type RSB DN 15 - DN 600

Material	1.4571 acc. EN 10088, working temperature up to 400° C
Type	acc. DIN 3570 form A (DN20-500), other sizes based on DIN 3570, rolled thread
Surface	none
Nuts	not incl.

Type	For pipe O/D	Nominal pipe size	A	B	L	H	Bolt-dimension	Weight in kg	
								ex. bolts	incl. bolts
RSB-015	21,3	15	23	33	44	65	M 10 x 40	0,06	0,11
RSB-020	25,0 - 26,9	20	30	40	45	70	M 10 x 40	0,07	0,12
RSB-025	30,0 - 33,7	25	38	48	47	76	M 10 x 40	0,08	0,13
RSB-032	38,0 - 42,4	32	46	56	53	86	M 10 x 50	0,09	0,14
RSB-040	44,5 - 48,3	40	52	62	56	92	M 10 x 50	0,10	0,15
RSB-050	57,0 - 60,3	50	64	76	65	107	M 12 x 50	0,17	0,24
RSB-065	70,0 - 76,1	65	82	94	72	125	M 12 x 50	0,20	0,27
RSB-080	84,0 - 88,9	80	94	106	79	138	M 12 x 50	0,23	0,30
RSB-100	101,6 - 114,3	100	120	136	95	171	M 16 x 60	0,54	0,67
RSB-125	133,0 - 139,7	125	148	164	101	191	M 16 x 60	0,61	0,74
RSB-150	159,0 - 168,3	150	176	192	113	217	M 16 x 60	0,70	0,83
RSB-175	193,7	175	202	218	138	249	M 16 x 60	0,80	0,93
RSB-200	205,0 - 219,1	200	228	248	149	283	M 20 x 70	1,40	1,66
RSB-250	267,0 - 273,0	250	282	302	173	334	M 20 x 70	1,68	1,94
RSB-300	306,0 - 323,9	300	332	352	199	385	M 20 x 70	1,94	2,20
RSB-350	355,6 - 368,0	350	378	402	222	435	M 24 x 70	3,11	3,55
RSB-400	406,4 - 419,0	400	428	452	149	487	M 24 x 70	3,50	3,94
RSB-450	457,0	450	476	500	280	542	M 24 x 70	3,84	4,28
RSB-500	508,0 - 521,0	500	530	554	300	585	M 24 x 70	4,26	4,70
RSB-600	609,0	600	628	652	362	700	M 24 x 70	5,01	5,45

- When ordering please state material -

Corrosion protection and surface finishes

The pipe supports can be supplied to your specified surface treatments with the following finishes: Sandblast, oil-treated, primed, varnished pickled, hot-dip galvanized or zinc plated.

Heat treatment

If desired the components of heat resisting material can be heat-treated e.g. stress-free annealing, normalizing or hardening of high temperature materials. On request, a heat treatment certificate is made when the heat treatment has been carried out.

Prefabrication service

All the components are available as desired ready for installation with a complete specification. The prefabricated components can be installed at once and make an easy and timesaving assembly.

Expert advice

As we are very experienced in pipeline accessories we are able to help with the settlement of large orders and we are at your service for professional advice.

Loads

The loads given in the catalogue have been calculated according to current engineering regulations and have been verified in tests. They are given as guideline figures only and are not necessarily applicable in specific cases.

The hanger systems have the following load value:

M 12	-	4,7 kN
M 16	-	8,8 kN
M 20	-	13,8 kN
M 24	-	19,9 kN
M 30	-	31,6 kN
M 36	-	46,0 kN

The load value in our catalogue has been calculated acct. the current set of engineering regulations and confirmed by tests.

Acceptance / certificates

On request we can supply our pipe support products with acceptance test certificates to DIN 50049 3.1B or with factory certificates to DIN 50049 2.2. If necessary the test can be carried out by TÜV or other testing companies.

Security

Bernecker has a certified quality safety system DIN ISO 9002 and a quality security handbook (QSH). This will guarantee that the specifications and requests are observed.

Norms

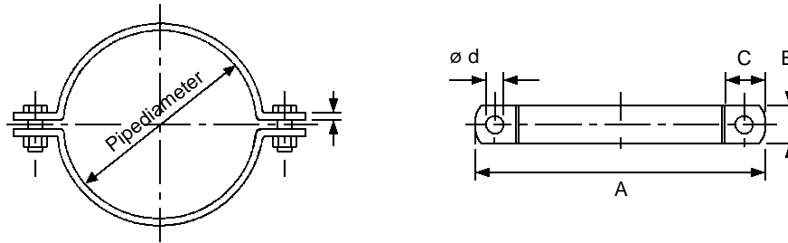
QS	-	DIN ISO 9002
TÜV	-	ADW-0
DVS	-	DIN 18 800 part 7 (welding)
TÜV	-	Unit approval KWU

Conversion in the catalogue for the applied load value at other temperatures.

(Loads should only be converted for the same material, never from one to another)

Material	Nr.	DIN	20°/50°	100°	150°	200°	250°	300°	350°	400°	450°	500°	520°	540°	560°
S235JRG2 RSt 37-2	1.0038	EN 10038 EN 17100	1,00	0,80	0,74	0,69	0,62	0,52							
16Mo3	1.5415	17 155	1,55	1,47	1,43	1,38	1,27	1,11	1,00	0,94	0,88				
13CrMo4-5	1.7335	17 155	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
X10CrNiTi 18 10	1.4541	17 440	1,00	0,93	0,88	0,83	0,77	0,72	0,68	0,66					
X10CrNiMoTi 18 10	1.4571	17 440	1,00	0,90	0,86	0,81	0,76	0,70	0,68	0,66					

**Stainless Pipe Clamps
Type GEA
DN 12 - DN**

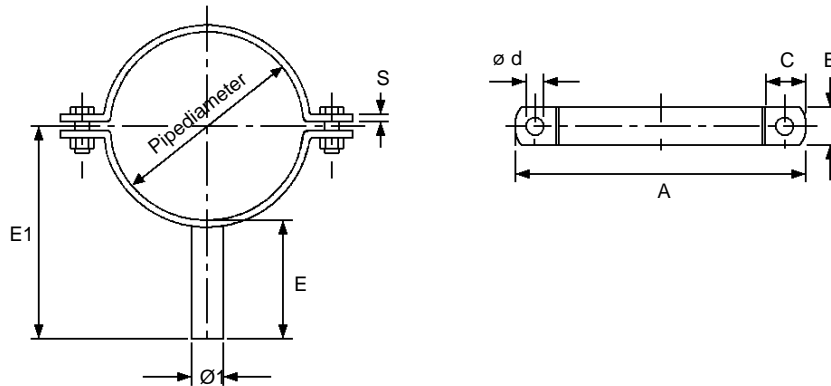


Pipe clamps - Type GEA DN 12 - DN 154

Material	A304L
Type	acc. DIN, ISO, BSi and SMS, bolts with self-closing nuts
Surface	stainless

Pipe diameter	B x S mm	A mm	C mm	ø d mm	Bolt-dimension
12,0	30 x 2,5	62	25	10	M8 x 20
17,0	30 x 2,5	68	25	10	M8 x 20
19,0	30 x 2,5	68	25	10	M8 x 20
21,3	30 x 2,5	72	25	10	M8 x 20
25,0	30 x 2,5	76	25	10	M8 x 20
28,0	30 x 2,5	79	25	10	M8 x 20
32,0	30 x 2,5	83	25	10	M8 x 20
33,7	30 x 2,5	85	25	10	M8 x 20
35,0	30 x 2,5	85	25	10	M8 x 20
38,0	30 x 2,5	90	25	10	M8 x 20
40,0	30 x 2,5	92	25	10	M8 x 20
50,8	30 x 2,5	103	25	10	M8 x 20
52,0	30 x 2,5	103	25	10	M8 x 20
63,5	30 x 2,5	116	25	10	M8 x 20
70,0	30 x 2,5	122	25	10	M8 x 20
76,0	30 x 2,5	128	25	10	M8 x 20
85,0	30 x 2,5	137	25	10	M8 x 20
101,0	30 x 2,5	154	25	10	M8 x 20
104,0	30 x 2,5	154	25	10	M8 x 20
129,0	30 x 2,5	182	25	10	M8 x 20
154,0	30 x 2,5	207	25	10	M8 x 20

Stainless Pipe Clamps with handle
Type GEA
DN 12 - DN 154



Pipe clamps - Type GEA DN 12 - DN 154

Material	A304L
Type	acc. DIN, ISO, BSi and SMS, bolts with self-closing nuts
Surface	stainless

Pipe diameter	B x S mm	A mm	C mm	ø d mm	Bolt-dimension	E mm	E1 mm	Ø1 mm
12,0	30 x 2,5	62	25	10	M8 x 20	75	81,0	8
17,0	30 x 2,5	68	25	10	M8 x 20	75	83,5	8
19,0	30 x 2,5	68	25	10	M8 x 20	75	84,5	8
21,3	30 x 2,5	72	25	10	M8 x 20	75	85,65	8
25,0	30 x 2,5	76	25	10	M8 x 20	75	87,5	21,3
28,0	30 x 2,5	79	25	10	M8 x 20	75	89,0	21,3
32,0	30 x 2,5	83	25	10	M8 x 20	75	91,0	21,3
33,7	30 x 2,5	85	25	10	M8 x 20	75	91,85	21,3
35,0	30 x 2,5	85	25	10	M8 x 20	75	92,5	21,3
38,0	30 x 2,5	90	25	10	M8 x 20	75	94,0	21,3
40,0	30 x 2,5	92	25	10	M8 x 20	75	95,0	21,3
50,8	30 x 2,5	103	25	10	M8 x 20	75	100,4	21,3
52,0	30 x 2,5	103	25	10	M8 x 20	75	101,0	21,3
63,5	30 x 2,5	116	25	10	M8 x 20	75	106,75	21,3
70,0	30 x 2,5	122	25	10	M8 x 20	75	110,0	21,3
76,0	30 x 2,5	128	25	10	M8 x 20	75	113,0	21,3
85,0	30 x 2,5	137	25	10	M8 x 20	75	117,5	21,3
101,0	30 x 2,5	154	25	10	M8 x 20	75	125,8	21,3
104,0	30 x 2,5	154	25	10	M8 x 20	75	127,0	21,3
129,0	30 x 2,5	182	25	10	M8 x 20	75	139,5	21,3
154,0	30 x 2,5	207	25	10	M8 x 20	75	152,0	21,3