

# Bucket Elevator Chains and Components

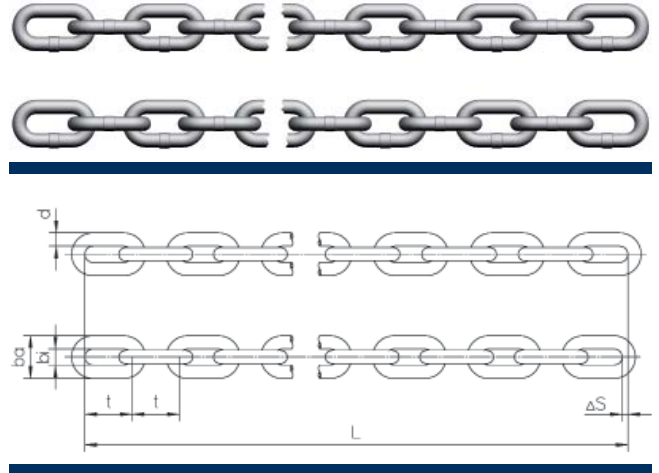
## DS Round steel chains

DS-chains made from MnCr-special alloyed steel for bucket elevators with medium dynamic and static loads. Supplied as matched pairs – for an exact parallel run of the chain links.

DSU-chains for plain chain wheels

DSZ-chains for toothed chain sprockets

Surface finish: polished and waxed



Chain d x t	Chain with bi min.	Chain with ba max.	Weight	Standard length Links	Standard length L*	G40 E10 Proof load	G40 E10 Breaking- load	G40 E14 Proof load	G40 E14 Breaking- load
[mm]	[mm]	[mm]	[kg/m]		[mm]	[kN]	[kN]	[kN]	[kN]
14 x 50	16,3	47	4,10	215	10.750	39	78	32	64
16 x 64	20	55	5,30	167	10.688	50	100	42	84
19 x 75	22	63	7,40	143	10.725	71	142	60	120
22 x 86	26	74	9,90	119	10.234	95	190	80	160
26 x 100	31	87	13,80	83	8.300	128	255	110	220
30 x 120	36	102	18,70	47	5.640	171	342	148	296
34 x 136	39	113	23,80	35	4.760	250	500	190	380

\* Further dimensions and qualities on request.

# Bucket Elevator Chains and Components

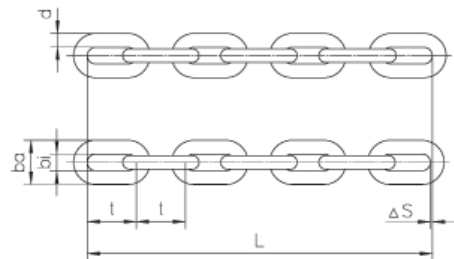
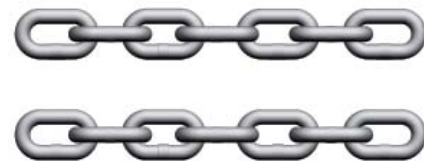
## Chain ends

### acc. to DIN 764 and DIN 766

Chain ends made from Mn-, MnCr- or CrNi-alloyed steel for DIN-bucket elevators with chain shackles.

The chain ends are connected with the next size up pitch chain shackle for friction drive systems.

Surface finish: polished and waxed



#### Dimensions acc. to DIN 764

Chain d x t	Chain width bi min.	Chain width ba max.	Weight	G40 E10 Proof load	G40 E10 Breaking-load	G80 E10 Proof load	G80 E10 Breaking-load	Chain shackle plain <sup>1)</sup>	Chain shackle toothed <sup>1)</sup>
[mm]	[mm]	[mm]	[kg/m]	[kN]	[kN]	[kN]	[kN]	[mm]	[mm]
10 x 35	14	36	2,00	20	40	33	55	45	35
13 x 45	18	47	3,50	31,5	63	55,8	93	56	45
16 x 56	22	58	5,20	50	100	84	140	63	56
18 x 63	24	65	6,50	63	125	107	178	70	63
20 x 70	27	72	8,20	80	160	132	220	80	70
23 x 80	31	83	11,00	100	200	174	290	91	80
26 x 91	35	94	14,00	125	250	223	371	105	91
30 x 105	39	108	19,00	170	340	296	494	126	105
33 x 115	43	119	22,50	200	400	359	599	126	-
36 x 126	47	130	26,50	250	500	427	712	147	126

Further qualities on request.

<sup>1)</sup> Recommended chain shackle acc. to DIN for wheels.

#### Dimensions acc. to DIN 766

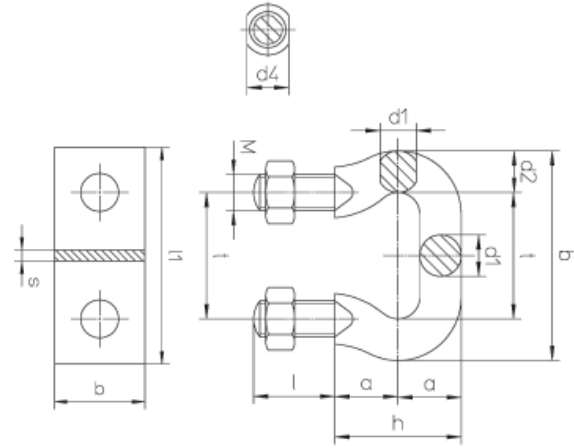
Chain d x t	Chain width bi min.	Chain width ba max.	Weight	G40 E10 Proof-load	G40 E10 Breaking-load	G80 E10 Proof-load	G80 E10 Breaking-load	Chain shackle plain <sup>1)</sup>	Chain shackle toothed <sup>1)</sup>
[mm]	[mm]	[mm]	[kg/m]	[kN]	[kN]	[kN]	[kN]	[mm]	[mm]
10 x 28	12,0	36	2,30	20	40	33	55	45	-
13 x 36	15,6	47	3,80	31,5	63	55,8	93	56	-
16 x 45	19,2	58	5,80	50	100	84	140	63	-
18 x 50	21,6	65	7,30	63	125	107	178	70	-
20 x 56	24,0	72	9,00	80	160	132	220	80	-
23 x 64	27,6	83	12,00	100	200	174	290	91	-
26 x 73	31,2	94	15,00	125	250	223	371	105	-
30 x 84	36,0	108	20,00	170	340	296	494	126	-
33 x 92	39,6	119	25,00	200	400	359	599	126	-
36 x 101	43,2	130	29,00	250	500	427	712	147	-


## Bucket Elevator Chains and Components

### Chain shackles DIN 745

Suitable for connecting chain ends acc. to DIN 764 and DIN 766 and the attachment of the buckets for bucket elevators acc. to DIN 15251. For friction drive systems DIN standard recommends to use the next size up pitch chain shackle; chain shackles should only be used in connection with distance plates; drop forged, thread and collar machined; Material: made from heat treatable steel C45 and CrNi - alloyed steel, shackles C45vi are through hardened up to a strength of approx. 1100 N/mm<sup>2</sup>, the interlink points of contact are inductive hardened, surface hardness min. 600 HV10. Shackles G80E10vi are additional carburized, the interlink points of contact are inductive hardened, surface hardness min. 750 HV10.

Surface finish: oiled



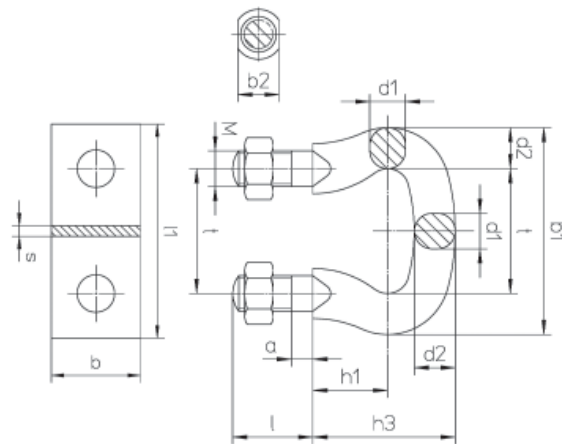
Chain shackles DIN 745	t [mm]	a	b	d1	d2	d4	M	h	l	Weight* [kg/pc.]	Min. breaking load		Distance plate			Weight [kg/pc.]
											C45 vi [kN]	G80 E10 vi **[kN]	l1 [mm]	b [mm]	s [mm]	
	45	20	73	11,5	14	12,5	M 10	40	25	0,15	76	80	75	30	5	0,08
	56	25	92	15	18	16,5	M 12	50	32	0,32	112	125	95	40	6	0,17
	63	30	105	18	21	20	M 16	60	40	0,55	142	150	110	40	6	0,18
	70	34	116	20	23	23	M 20	68	45	0,86	176	200	120	50	6	0,25
	80	37	132	23	26	25	M 20	74	45	1,08	230	250	130	50	6	0,27
	91	43	149	26	29	29	M 24	86	55	1,65	300	315	150	60	8	0,50
	105	50	173	30	34	31	M 24	100	55	2,20	395	425	165	60	8	0,56
	126	59	206	36	40	37	M 30	118	70	3,95	570	600	200	70	10	0,97
	147	68	239	42	46	42	M 30	136	70	5,50	775	850	230	80	12	1,15


## Bucket Elevator Chains and Components

### Chain shackles acc. to DIN 5699

Higher breaking loads in comparison with chain shackles acc. to DIN 745, which ensures the service safety. When replacing chain shackles DIN 745 with chain shackles DIN 5699 in existing bucket elevators with side mounted buckets pay attention that the chain center distance will increase.

Surface finish: oiled



Chain shackles DIN 5699	t [mm]	a	b1	b2	d1	d2	M	h1	h3	l	Weight * [kg/ pc.]	Min. breaking load		Distance plate			Weight [kg/ pc.]
												C45 vi [kN]	G80 E10 vi [kN]	i1 [mm]	b [mm]	s [mm]	
	35	8	59	11	10	12	M10	23	43	25	0,14	50	56	65	30	5	0,07
	45	8	75	13	13	15	M12	28	53	30	0,26	85	95	75	30	5	0,08
	56	10	92	17	16	18	M14	34	64	35	0,34	125	140	95	40	6	0,17
	63	10	105	20	18	21	M16	37	71	40	0,60	160	180	110	40	6	0,21
	70	12	116	23	20	23	M20	42	80	45	0,87	200	224	120	50	6	0,25
	80	12	132	25	23	26	M20	47	89	45	1,12	265	280	130	50	6	0,27
	91	14	149	29	26	29	M24	52	99	55	1,86	335	355	150	60	8	0,56
	105	14	173	31	30	34	M24	60	114	55	2,56	450	500	165	60	8	0,62
	126	18	206	37	36	40	M30	71	134	65	4,40	630	700	200	70	10	0,97
	147	22	241	42	42	47	M36	81	157	75	7,30	850	950	230	80	12	1,73