HEKO GROUP
CONVEYOR SOLUTIONS

HEKO chain shackles
Type TS

Technological characteristics for chain shackles

HEKO chain shackles are exactly matched to the selected chain execution. This applies to the material quality and hardening depth. For high wear requirements, it is possible to choose between several inductive or case hardened chain executions. The chains can be supplied as single parts or, depending on the execution, also as pre-assembled endless chain strand with mounted TS, TS-N or TS-L chain shackle.

The TS type is recommended for buckets with side wall attachment. The forged distance plate incorporates additional support on the chain wheel and prevents sideward dumping. Both toothed and toothless wheels can be used with the TS-Shackle.

HEKO chain shackle type TS

HEKO chain shackle type TS-N

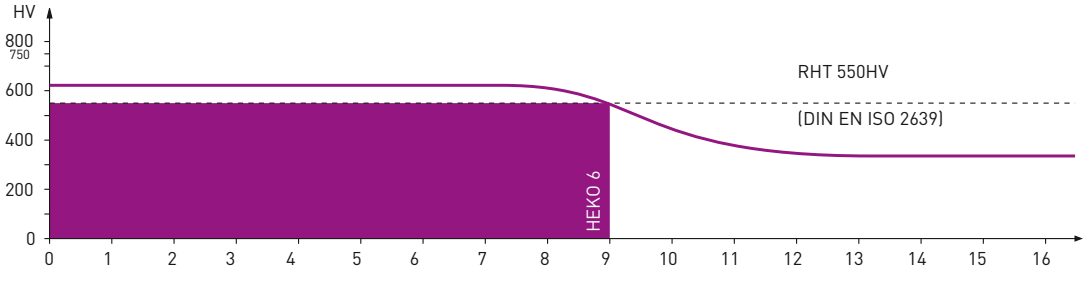
HEKO chain shackle type TS-L

Chrome-Molybdenum-Steel for chain shackles

	CrMo-Stahl
	HEKO 6
Proof stress N/mm²	240
Breaking stress N/mm²	400
Contact surface hardness min. joint HV 1	600
Hardening depth d min. after etching	0.14 1)
Hardening depth d min. $Rht_{2)}$ 550 HV 1	0.09

1) tolerance d-0,01d 2) Rht = hardening depth

- **Supplied also as pre-assembled endless chain strands**
- **Longest lifetime and reliability due to secured distance plate**
- **No transmission of chain load to the bucket**
- **Horizontal use with inside toothed sprockets**
- **Vertical use with pocket-toothed sprockets**
- **Securing the attachments with nuts according to DIN 980V or nuts in conjunction with**
- **special lock washers**



Hardening depth in % of diameter from surface

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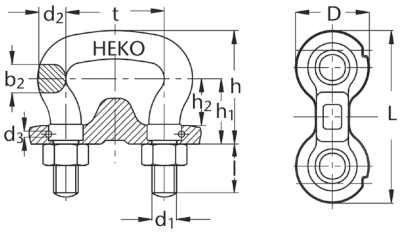
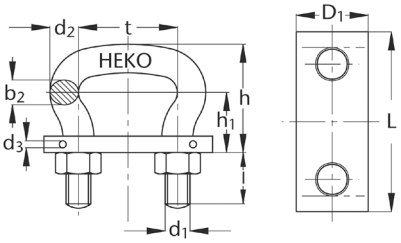
HEKO chain shackles Typ TS, Typ TS-N and Typ TS-L

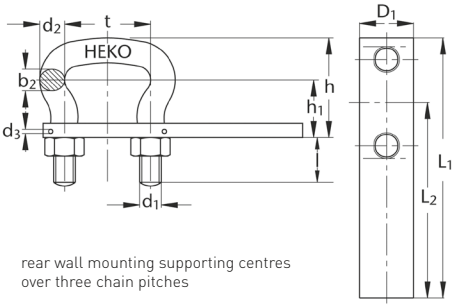
- Closed component due to secured distance plate
- Higher loading capacity
- Larger contact area and for this reason less wear
- Exchangeable with shackle to DIN 5699
- No transmission of chain load to the bucket
- Shoulder of shackle not subjected to cyclic bending moments
- Supplied also pre-assembled as endless chain strands
- Compatible with chain dimensions to DIN 764/766



side wall mounting



rear wall mounting



rear wall mounting supporting centres over three chain pitches

pitch	to suit chain	DIN	weight complete		chain shackle dimensions								plate dimensions					HEKO qualities hardened contact areas (0,14 x d)
(mm)	(mm)		TS/TS-N	TS-L	(mm)								(mm)					HEKO 6
t	d		(kg/each)		b_2	d_2	d_3	d_1	h	h_1	h_2	l	D	D_1	L	L_1	L_2	MBK (kN)
45	13	764/766	0.53	0.86	14	14	5	M12	64.5	40.5	28	26	37	30	75	150	112.5	106
56	16	764/766	0.70	1.20	16	16	5	M14	68	40	28	28	45	40	95	190	142.5	160
63	16	764	1.00	1.60	18	18	5	M16	74	43	30	34	50	50	110	210	155.0	220
	18	764/766																
70	18	764	1.45	2.20	20	20	5	M20	83	48	34	37	55	50	120	235	175.0	280
	20	764/766																
80	20	764	1.85	3.10	23	23	5	M20	92	53	38	37	60	50	130	265	170.0	360
	23	764/766																
91	23	764	2.70	4.30	26	26	6	M24	104	60	43	42	70	60	155	300	222.5	450
	26	764/766																
105	26	764	3.90	6.20	30	30	6	M24	118	68	50	42	80	60	165	345	262.5	630
	30	764/766																
126	30	764	6.10	9.70	35	35	8	M30	139	81	59	66	85	70	200	415	315.0	860
	36	764/766																
136	36	764	7.60	11.60	39	38	8	M36	152	88	65	79	90	80	220	450	340.0	955
	39	764/766																
147	39	764/766	9.00	13.60	40	40	8	M36	162	93	70	79	95	80	230	480	365.0	1160
	42	764/766																

MBK = min. breaking load, t = pitch, d= diameter. When employing toothed chain wheels chain pitch and shackle pitch must be the same.
When employing toothless chain wheels the pitch of shackles can be one size larger than chain pitch.