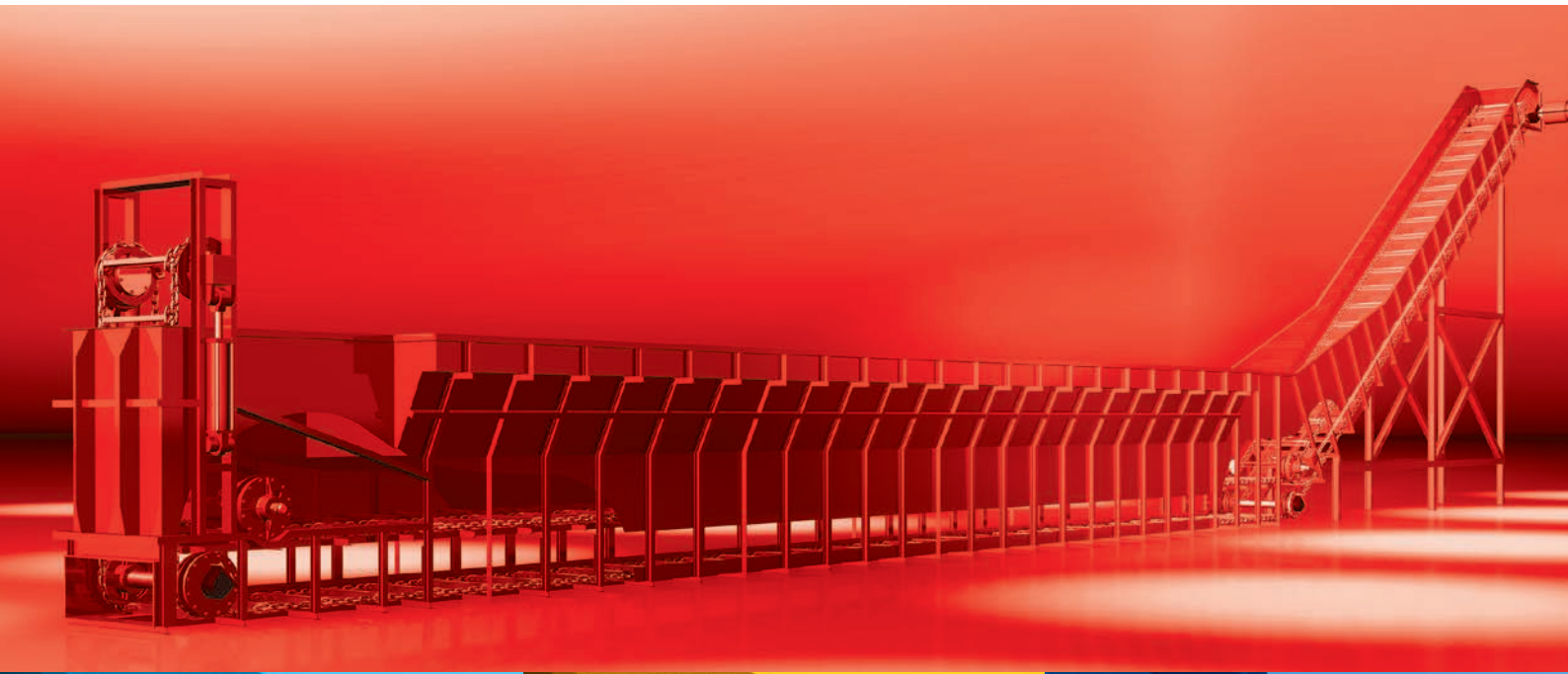
HEKO®

HEKO components type TS and SMO
for Deasher



HEKO Ketten GmbH

Management and production in Wickede

Production in Fröndenberg

Production in Sprockhövel

The Company

HEKO manufacture:

- Round link chains with high resistance to wear
- Shackles for attaching scrapers and other components
- Chain wheels
- Central chains
- Heat resistance chain for rotary and other kilns
- Forge link chains
- Bushed chains

HEKO is one of the world's leading producers of chains and other wear resistant parts for the bulk handling industry. Innovation and high quality standards have been quintessential to our family business for over 100 years. Three locations in the state of North Rhine Westphalia, Germany with a production area of approximately 40.000 m^2, provide for the manufacture of a large variety of chains, chain wheels, chain accessories and unit assembly for conveyors.

HEKO are the market leaders for heat resistant kiln chains as well as being one of the leading manufacturers of hardened round link chains. The extensive know-how in hardening techniques and up-to-date heat treatment technology is also offered as a separate service.

We supply the world wide bulk solids handling industry in all areas of operation. HEKO not only supplies the cement and lime industry but also has an extensive market share in waste incineration, coal fired power stations, wood and other types of bio-fuel power stations, ore and mineral preparation, fertilizer manufacture, gypsum manufacture and concrete plants.

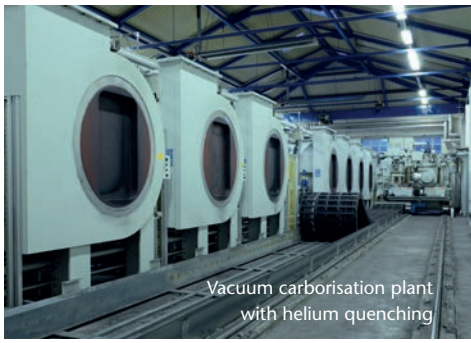
HEKO has a sales organisation in India and a sales office in China and has agents in over 50 countries. The efficiency of HEKO's chains is confirmed daily in over 80 countries around the world.

All HEKO employees fully accept their responsibility for the quality of their work. HEKO's quality management is actively pursued by all and HEKO is certified to ISO 9001. HEKO also hold the environmental certificates to ISO 14001, health and safety certificates to OHSAS 18001, custom certificate AEO-F and LBA certificate.

HEKO – Your partner for conveying

Chain welding machine

Chain calibration


Vacuum carborisation plant
with helium quenching

Universal lathe with CNC control

Chain manufacture

HEKO's chains are manufactured using the most up-to-date welding machines. Maganese, Chrome-Nickle and fine grained Chrome-Nickle-Molybdenium alloy steel are used in the chain manufacture. The chains are case hardened in modern, computer controlled heat treatment facilities.

Important characteristics of HEKO chains are:

- Heat treatments selected to suit the requirement of the application
- High long term dynamic strength
- Close length tolerance of matched chain pairs
- Long chain strands to suit clients requirements

Machining

HEKO have for many years manufactured chains and chain wheels to different dimensions and arrangements. The many variations virtually make every chain or chain wheel unique. HEKO's flexible manufacturing facilities enable easy adoption of customer's requirements for a particular order.

Modern CNC machining centres and automated lathes are utilised for machining of chain wheels, rollers of all types and shafts.

Heat treatment

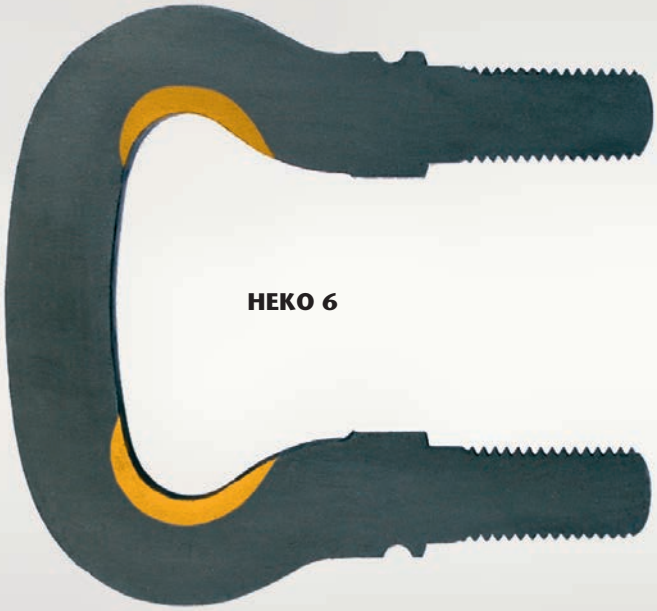
Heat treatment, considered the key technology in the manufacture of conveyor components, has been given a prominent place in HEKO since the 1930s. Different technologies are applied to achieved optimum wear resistance for particular requirements and material characteristics:

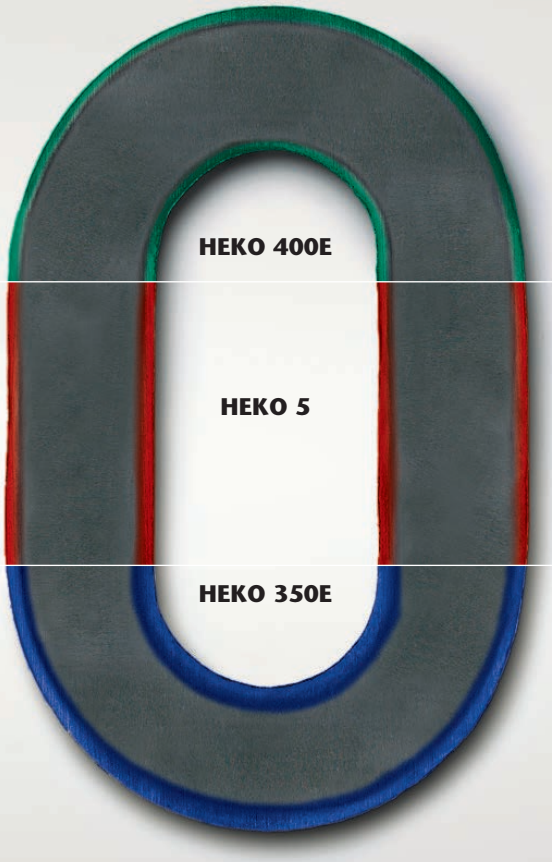
- Case hardening
- Induction hardening
- Tempered and quenched
- Nitriding

HEKO's use of vacuum chamber ovens with helium quenching is the leading technology for the manufacture of chain. The bespoke heat treatment facilities enable charges of up to 750 kg. Through such heat treatment HEKO's chain and accessories achieve special product characteristics:

- Highly wear resistant hardened case with a min. surface hardness of 800 HV
- High long term strength
- High breaking load due to fine-grained, tough core
- Excellent dimensional accuracy

Overview of case hardening depth of HEKO's qualities





Technical characteristics for round link chain and attachments

HEKO's chains have benefited for decades from a special hardening technology which has since undergone further developments by HEKO. High wear resistance is nowadays achieved by the most up-to-date technology. Vacuum chamber ovens with helium quenching produces high quality case hardened product and is considered to be the technological leader for the manufacture of chains.

Technological characteristics of HEKO chain qualities

	case hardened qualities CrNi-steels/CrNiMo steels		
	HEKO 400E	**HEKO 5**	**HEKO 350E**
proof stress N/mm²	240	150	210
breaking stress N/mm²	400 1)	370 6)	350 1)
surface hardness min. Inside lin HV1	800	800	800
case hardening depth d+/-0.01d after etching	0,09	0,10	0,14 2)
case hardening depth d min. CHD 550 5)	0,05	0,06 3)	0,09 4)

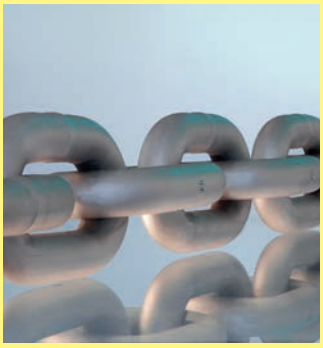
1) 10 % tolerance
2) 30 mm Ø = 0,12 d, 36-42 mm Ø = 0,11 d
3) ≥ 30 mm Ø = 0,05 d
4) 30 mm Ø = 0,08 d, 36-42 mm Ø = 0,07 d
5) CHD = case hardening depth
6) ≥ 30 mm Ø = 20 % tolerance

HEKO's TS shackles match the material grade and hardening depths of the respective chain quality. Different induction and case hardening methods are available to meet the required wear resistance.

Technical characteristics of HEKO's TS shackles, SMO scraper attachments and HF/HR chain locks

	contact surface hardened quality		case hardened
	MnCr-steel	CrMo-steel	
	HEKO 5S	**HEKO 6**	**HEKO 6S**
proof stress N/mm²	–	240	240
breaking stress N/mm²	–	400	400
surface hardness min. Inside lin HV1	700	600	800 4)
case hardening depth d min after etching	0,07 1)	0,14 1)	0,09
case hardening depth d min CHD 2) Rht 3) 550 HV 1	0,04	0,09	0,05

1) Tolerance d-0,01d
2) CHD = case hardening depth
3) Rht = effective hardening depth
4) 10 % tolerance



HEKO round link chains

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HEKO shackles type TS

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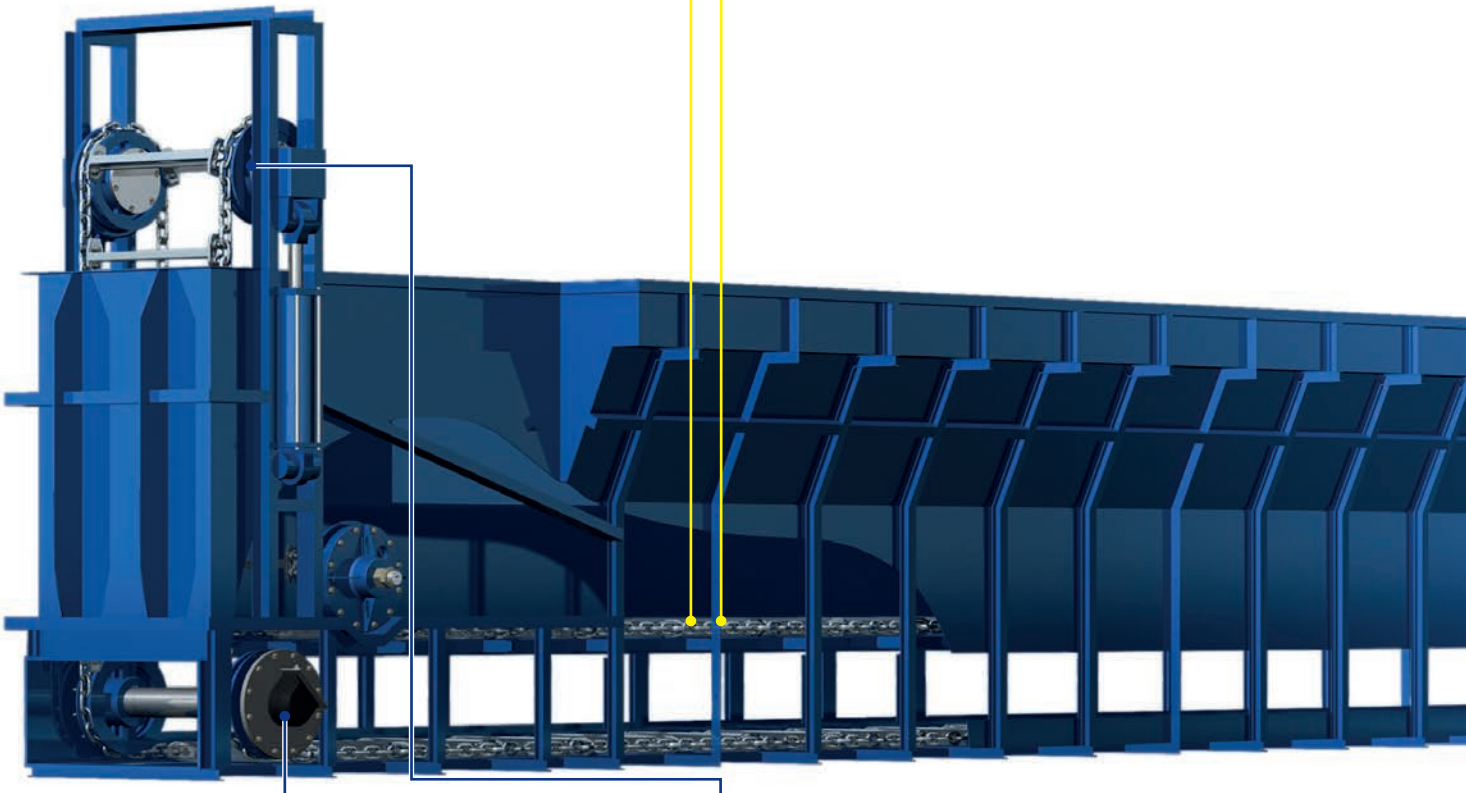

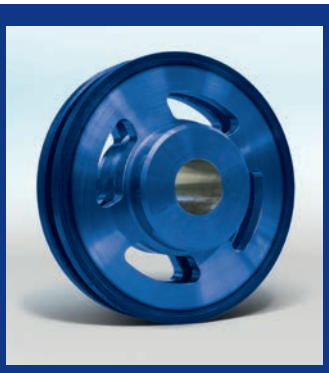

HEKO chain wheels type VUE

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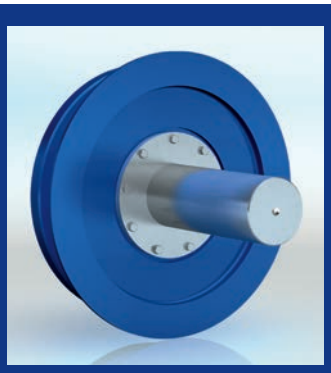

HEKO chain wheels type VUE I

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HEKO chain wheels type GIA

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HEKO chain wheels type GIA 3

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HEKO chain wheels type UWE

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HEKO shackles TS

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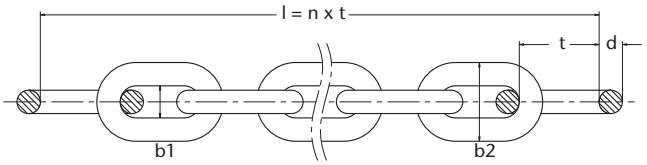
HEKO round link chain

HEKO shackle type TS

Dimension and technical characteristics of HEKO round link chains



Round link chains to DIN 764

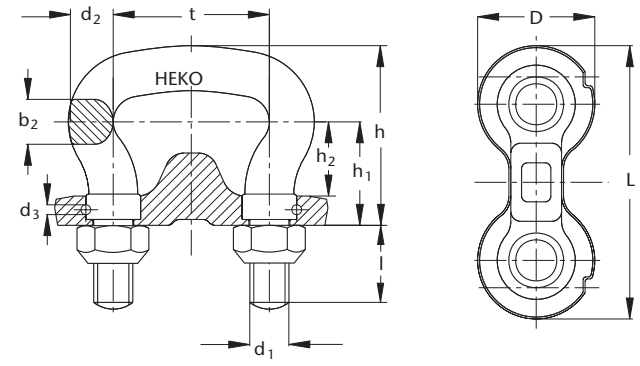
- Breaking load to suit application
- Surface hardness min. 800 HV
- Number of chain links selected to suit
- High long term dynamic strength
- Pairs in equal length

Dimension and qualities of HEKO chains to suit type TS shackles

dimensions in mm							
nominal thickness x pitch d x t/mm	DIN chain	weight kg/m	b1 inside width min.	b2 outside width max.	**HEKO 400E** MBK (kN)	**HEKO 5** MBK (kN)	**HEKO 350E** MBK (kN)
20 x 70	764	8,2	27	72	251	232	220
23 x 80	764	11,0	31	83	332	307	290
26 x 91	764	14,0	35	94	425	392	371
30 x 105	764	19,0	39	108	565	523	494
36 x 126	764	26,5	47	130	814	753	712
39 x 136	764	31,0	51	140	956	884	836
42 x 147	764	36,0	55	151	1108	1025	970

MBK = min. breaking load, d = diameter, t = pitch. Additional qualities and dimensions on request. Correct meshing can only be achieved through matching all components.
Tolerance of chain length pairs < 1mm

HEKO shackle type TS



HEKO shackle Type TS

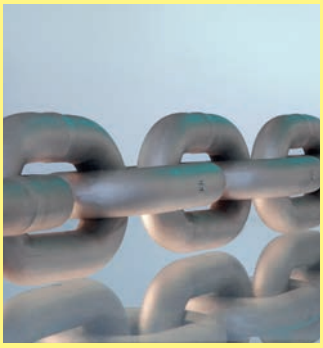
HEKO shackle type TS

- Pre-assembled chain and shackles are available
- Longest service life and reliability through use of secure TS distance plate
- Avoiding transmission of chain force to attachment
- Horizontal use with pocket toothed wheels
- Securing attachment with scraper with self-locking nuts to DIN 980V or nuts secured by special safety washers.

Dimensions and qualities of HEKO's shackles type TS

pitch t/mm	corresponding chain diameter x pitch /DIN	weight kg each complete	dimension in mm										HEKO contact surface hardened quality
			b_2	d_2	d_3	d_1	h	h_1	h_2	D	L	l	**HEKO 6** MBK (kN)
70	20 x 70 / 764	1,45	20	20	5	M 20	83	48	34	55	120	37	280
80	23 x 80 / 764	1,85	23	23	5	M 20	92	53	38	60	130	37	360
91	26 x 91 / 764	2,70	26	26	6	M 24	104	60	43	70	155	42	450
105	30 x 105 / 764	3,90	30	30	6	M 24	118	68	50	80	165	42	630
126	36 x 126 / 764	6,10	35	35	8	M 30	139	81	59	85	200	66	860
136	39 x 136 / 764	7,60	39	38	8	M 36	152	88	65	90	220	79	955
147	42 x 147 / 764	9,00	40	40	8	M 36	162	93	70	95	230	79	1160

MBK = min. breaking load



HEKO round link chains

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HEKO Plug-In attachment type SMO

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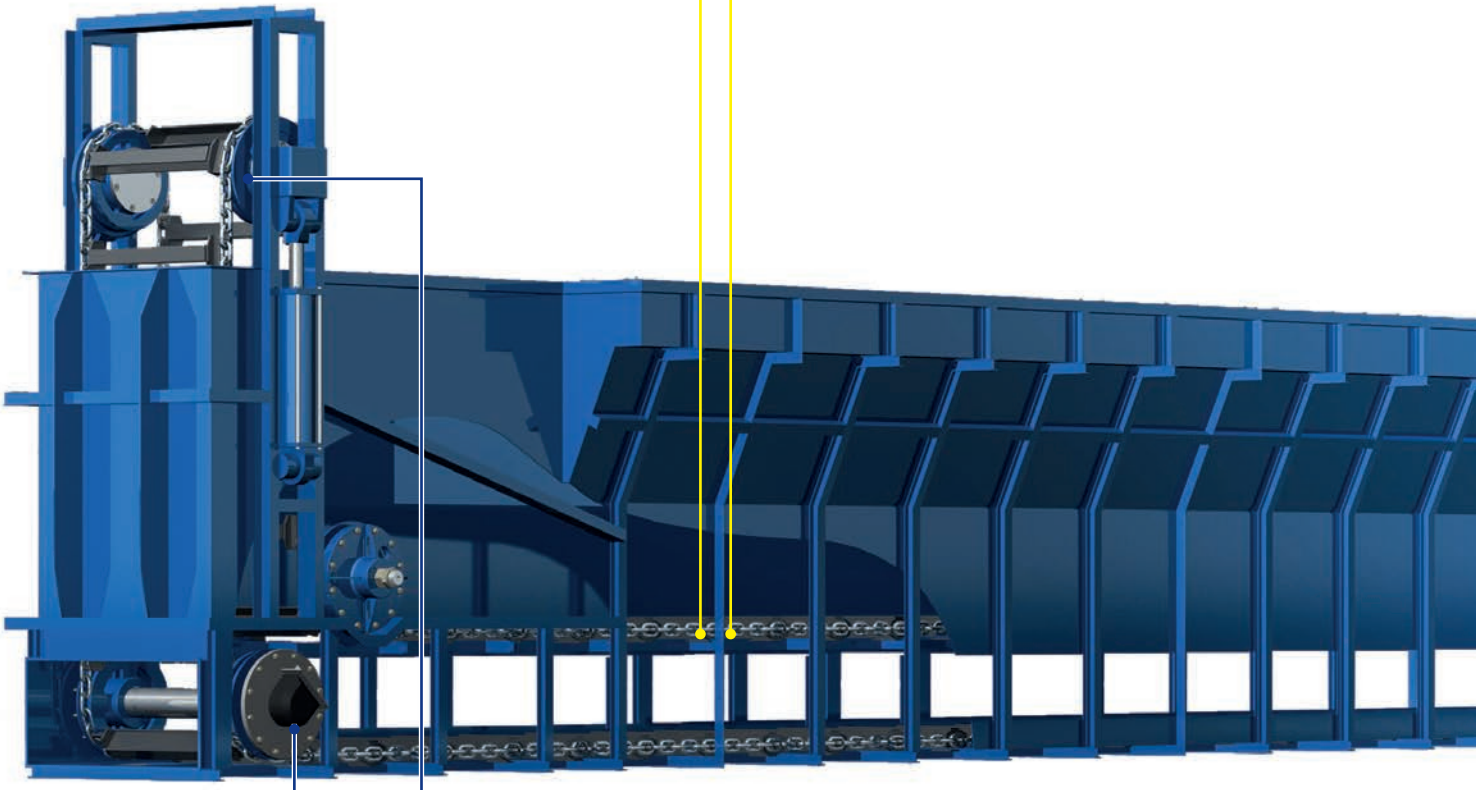

HEKO chain wheels type VUE

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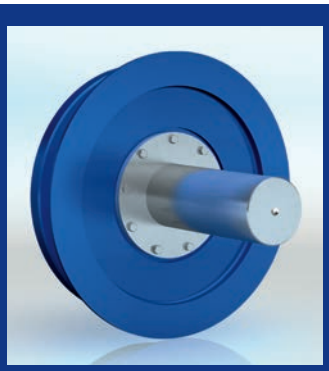

HEKO chain wheels type VUE I

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HEKO chain wheels type GIA-3

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HEKO chain wheels type RIS

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HEKO chain wheels type UWE

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HEKO Shackles SMO

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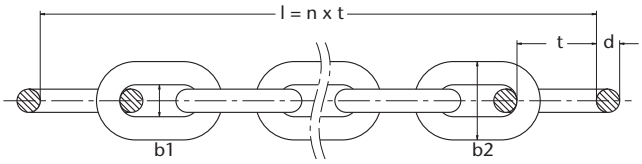
HEKO round link chain

HEKO chain locks type HF

Dimension and technical characteristics of HEKO round link chains



HEKO round link chains according to Works Standard

- Breaking load to suit application
- Surface hardness min. 800 HV
- strand length up to 750 kg
- number of chain links to suit
- High long term dynamic strength
- Pairs in equal length

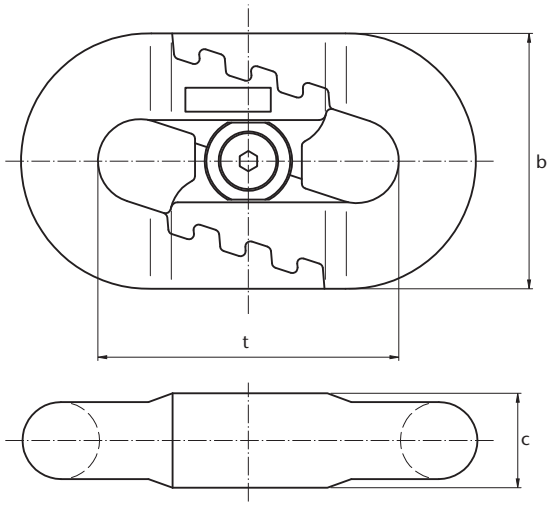
Dimensions and qualities of HEKO chains to match attachments type SMO

dimensions in mm

nominal thickness x pitch d x t/mm	DIN chain	weight kg/m	b1 inside width min.	b2 outside width max.	HEKO 400 E MBK (kN)	HEKO 5 MBK (kN)	HEKO 350 E MBK (kN)
19 x 75	WN	7,6	22	63	227	210	198
22 x 86	WN	9,8	26	74	304	281	266
25 x 95	WN	12,4	34	89	393	363	344
26 x 92	WN	13,7	30	85	425	392	371
26 x 100	WN	13,5	31	87	425	392	371
30 x 108	WN	18,0	34	97	565	523	494
30 x 120	WN	17,8	36	102	565	523	494
34 x 126	WN	26,0	38	109	726	672	635
34 x 136	WN	23,8	39	113	726	672	635
36 x 126	764	26,5	47	130	814	753	712
38 x 144	WN	30,0	44	127	907	839	794

MBK = Min. Breaking load, d = diameter, t = pitch. Additional qualities and dimensions on request. Correct meshing can only be achieved through matching all components.

HEKO chain locks type HF/HR



HEKO chain Locks type HF

HEKO chain locks type HF

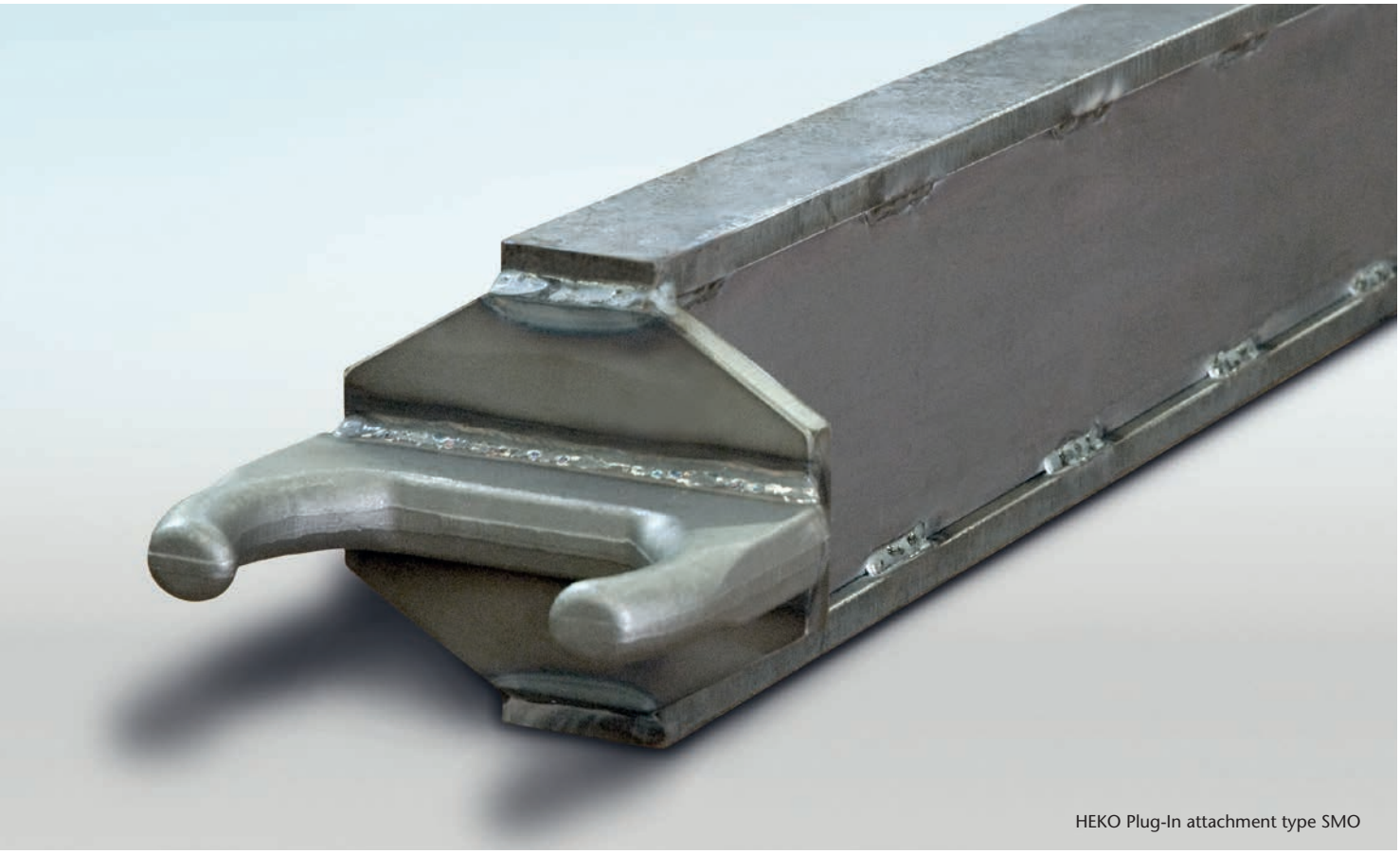
- Suitable for long chain strands
- Characteristics and dimensions to suit chain
- Easy to fit
- Can only be used installed vertically

HEKO chain locks type HF/HR

matching chain nominal thickness x pitch d x t (mm)	dimensions in mm height b	width c	weight kg/each	type
19 x 75	64,5	20,5	0,8	HR*
22 x 86	74,0	27,0	1,9	HF
25 x 95	89,0	29,0	2,2	HF
26 x 92	87,0	29,5	2,2	HF
26 x 100	87,0	29,5	2,4	HF
30 x 108	100,0	36,0	2,9	HF
30 x 120	105,0	36,0	3,2	HF
34 x 126	117,0	40,0	4,5	HF
34 x 136	117,0	40,0	4,5	HF
36 x 126	117,0	40,0	4,5	HF
38 x 144	133,0	45,0	5,2	HF

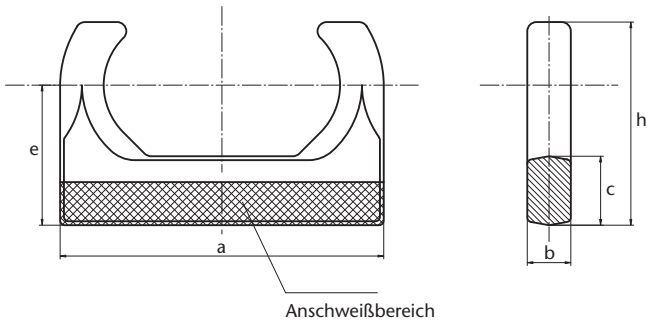
* HR = space saving design, dimension to our drawings

Plug-In attachment type SMO



HEKO Plug-In attachment type SMO

Plug-In attachment type SMO



HEKO Plug-In attachment type SMO

Plug-In attachment type SMO

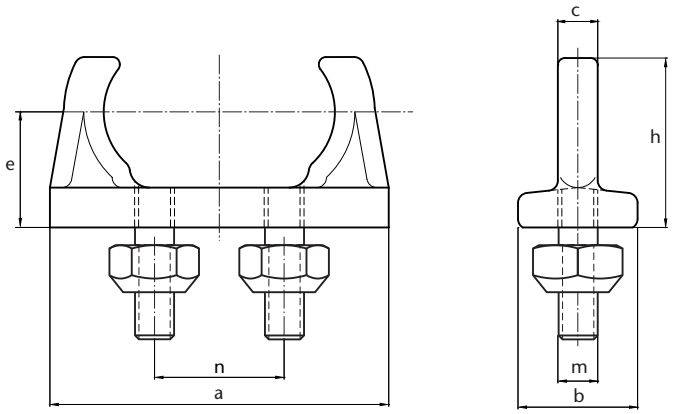
- fast connection to endless chain strand
- variable scraper centres possible
- reversing direction possible
- long service life for tough duties
- fitting to chain without tension
- 2- link connection provides good support
- no transmission of chain tension to scraper
- case hardened
- weldable
- welding rod material MAG, DIN8559/SG3
  E: DIN 1913E 5154 B10 or similar

HEKO Plug-In attachment type SMO, forged without head plate

plug-In attachment type	corresponding chain nominal Thickness x Pitch, d x t/mm	dimensions in mm a	b	c	e	h	weight kg/each
SMO	19 x 75	156	21	36	69	100	1,2
SMO	22 x 86	182	25	40	80	115	2,0
SMO	26 x 100	214	30	45	92	135	3,3
SMO	30 x 108	240	35	55	110	160	5,0
SMO	30 x 120	252	35	55	110	160	5,3
SMO	34 x 136	282	38	60	122	177	7,2
SMO	38 x 144	318	43	68	118	180	9,5

Further diminsions and qualities on request

Plug-In attachment type SMG



HEKO Plug-In attachment type SMG

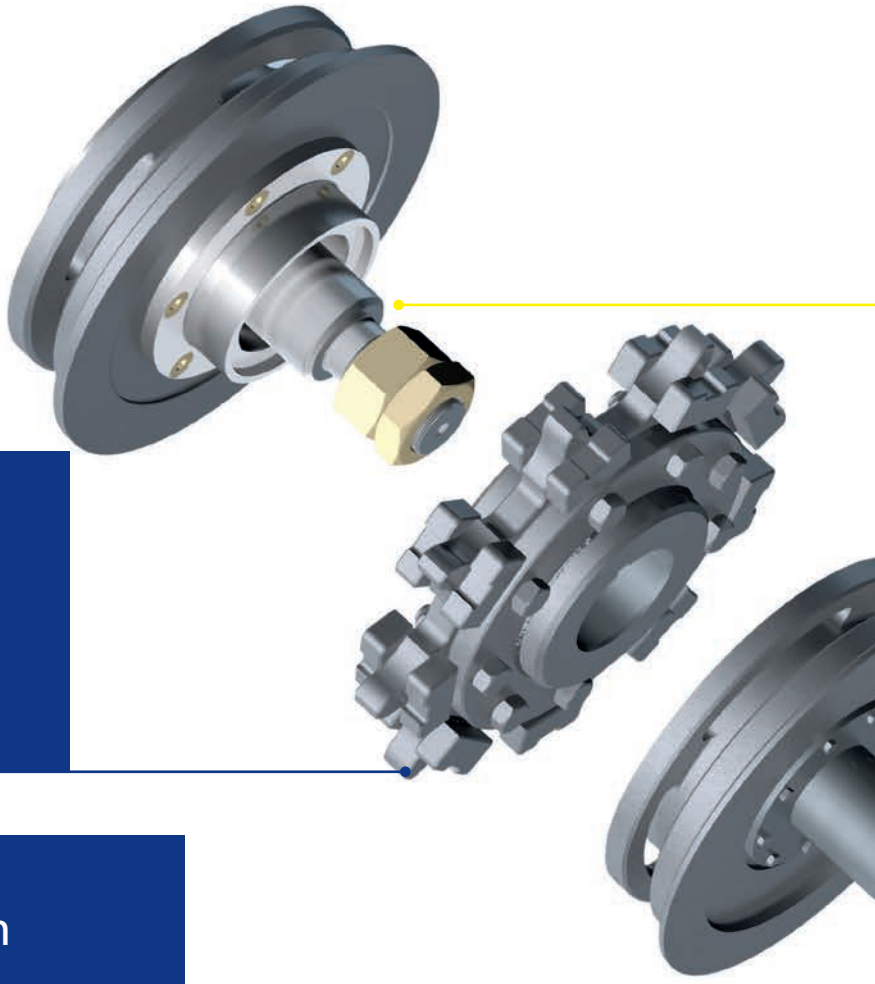
Plug-In attachment type SMG

- fast connection to endless chain strand
- variable scraper centres possible
- reversing direction possible
- long service life for tough duties
- fitting to chain without tension
- 2-link connection provides good support
- no transmission of chain tension to scraper
- case hardened
- Attachments bolted to scraper
- damaged scrapers can easily be removed and attachment re-used

HEKO Plug-In attachment type SMG

Plug-In attachment type	corresponding chain nominal thickness x pitch d x t/mm	dimensions in mm a	b	c	e	h	m	n	weight kg/each
SMG	19 x 75	175	60	21	58	90	M20	65	2,0
SMG	22 x 86	200	70	25	68	106	M20	71	3,0
SMG	26 x 100	235	80	30	72	116	M20	85	4,5
SMG	30 x 120	280	90	35	85	136	M24	98	6,7
SMG	34 x 136	320	100	38	98	155	M27	110	10,0

Further diminsions and qualities on request



HEKO chain wheel with projecting teeth type GIA

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HEKO chain wheels with projecting teeth type GIA-3

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HEKO chain wheels with projecting teeth type RIS

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HEKO chain wheels with pocket teeth type RTS

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HEKO toothless chain wheels type UWE

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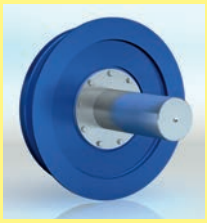
HEKO toothless chain wheels type VUE I



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HEKO toothless chain wheels type GUE/VUE

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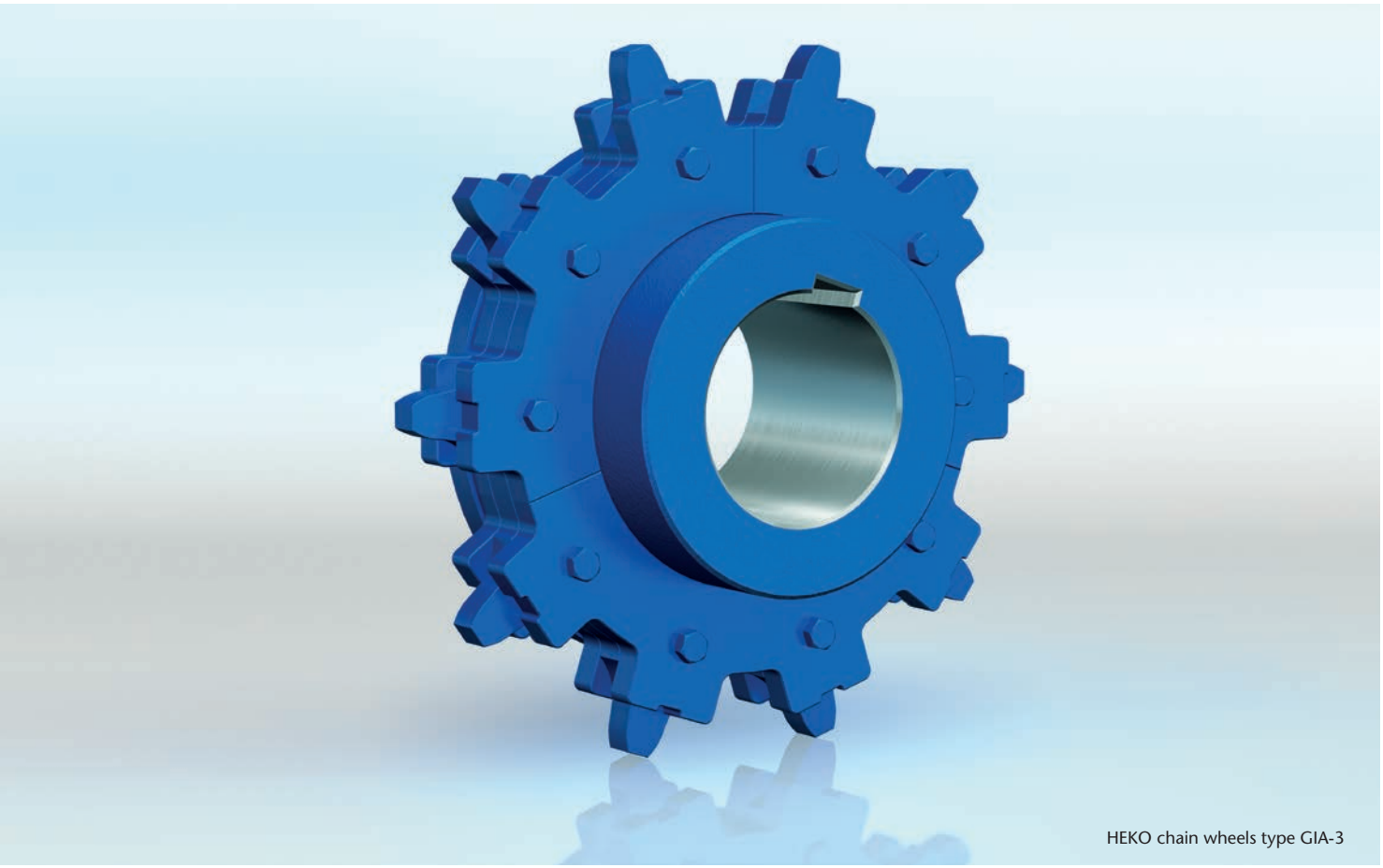


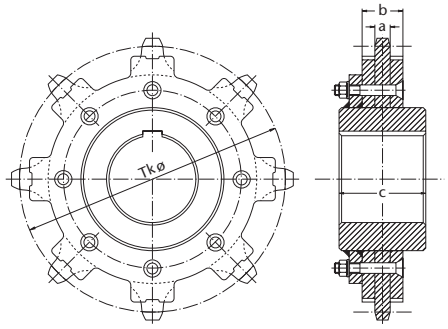
HEKO chain wheels type GIA-3

HEKO chain wheels type GIA

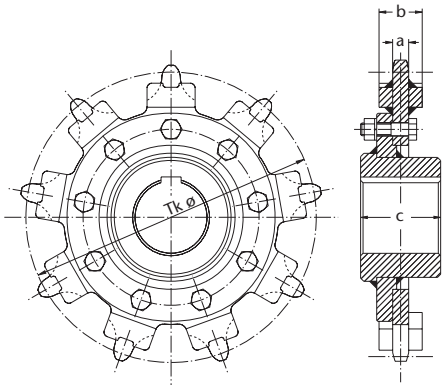
HEKO chain wheels with projecting teeth, steel, with replaceable rim type GIA-3 and GIA

HEKO chain wheels type GIA-3 and GIA

- Suitable for heavy duties
- Long service life through wear resistant hardened chain contact surfaces
- Bore and hub length according to customer
- Suitable for chains to DIN 764 and Works Standards
- Use with chain shackles, attachments SMO and some special solutions
- Reduced maintenance cost through use of replaceable toothed rims



HEKO chain wheel type GIA-3, projecting teeth, replaceable toothed rim

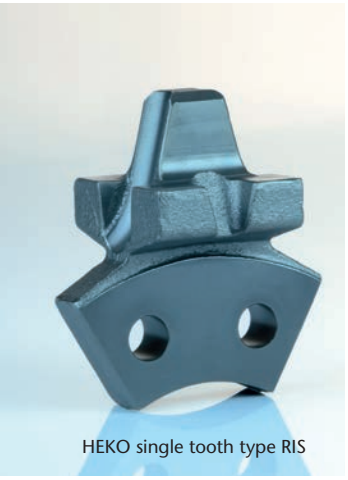


HEKO chain wheel type GIA-3, projecting teeth, replaceable toothed rim with welded horizontal chain support

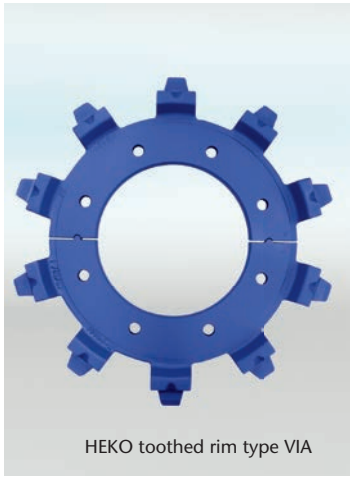
HEKO Chain wheels with projecting teeth, with replaceable rim type GIA-3 and GIA

PCD mm, Tkø	corresponding chain nominal tickness x Pitch, d x t/mm	DIN	number of teeth	dimensions in mm a	b	c	weight kg/each ca. GIA-3	GIA
384	19 x 75	WN	8	20	60	140	51	32
432	19 x 75	WN	9	20	60	140	70	42
479	19 x 75	WN	10	20	60	140	90	52
574	19 x 75	WN	12	20	60	140	125	77
315	20 x 70	764	7	23	63	140	29	22
359	20 x 70	764	8	23	63	140	48	29
403	20 x 70	764	9	23	63	140	60	36
447	20 x 70	764	10	23	63	140	72	43
386	22 x 86	WN	7	25	71	140	54	41
441	22 x 86	WN	8	25	71	140	68	48
495	22 x 86	WN	9	25	71	140	100	52
550	22 x 86	WN	10	25	71	140	127	55
410	23 x 80	764	8	27	73	160	65	51
461	23 x 80	764	9	27	73	160	80	72
511	23 x 80	764	10	27	73	160	95	85
466	26 x 91	764	8	30	80	160	100	75
524	26 x 91	764	9	30	80	160	128	80
582	26 x 91	764	10	30	80	160	146	90
513	26 x 100	WN	8	30	80	160	130	120
576	26 x 100	WN	9	30	80	160	155	135
538	30 x 105	764	8	35	95	200	142	120
605	30 x 105	764	9	35	95	200	182	140
615	30 x 120	WN	8	35	95	200	208	160
691	30 x 120	WN	9	35	95	200	280	190
646	34 x 126	WN	8	35	105	200	220	175
726	34 x 126	WN	9	35	105	200	295	200
697	34 x 136	WN	8	35	105	200	292	190
783	34 x 136	WN	9	35	105	200	380	220
646	36 x 126	764	8	40	110	220	255	190
726	36 x 126	764	9	40	110	220	310	220
738	38 x 144	WN	8	40	110	220	320	–
829	38 x 144	WN	9	40	110	220	370	–
697	39 x 136	764	8	45	115	220	300	–
783	39 x 136	764	9	45	115	220	395	–
753	42 x 147	764	8	50	120	220	430	–
847	42 x 147	764	9	50	120	220	450	–

Further dimensions and qualities on request, WN = Works Standard



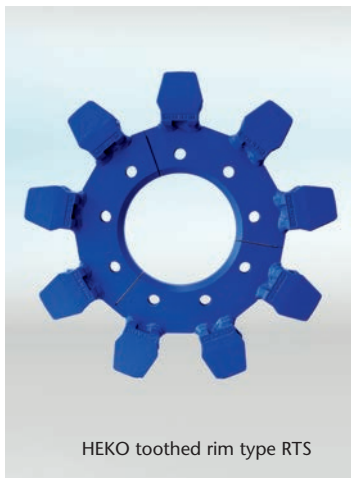
HEKO single tooth type RIS



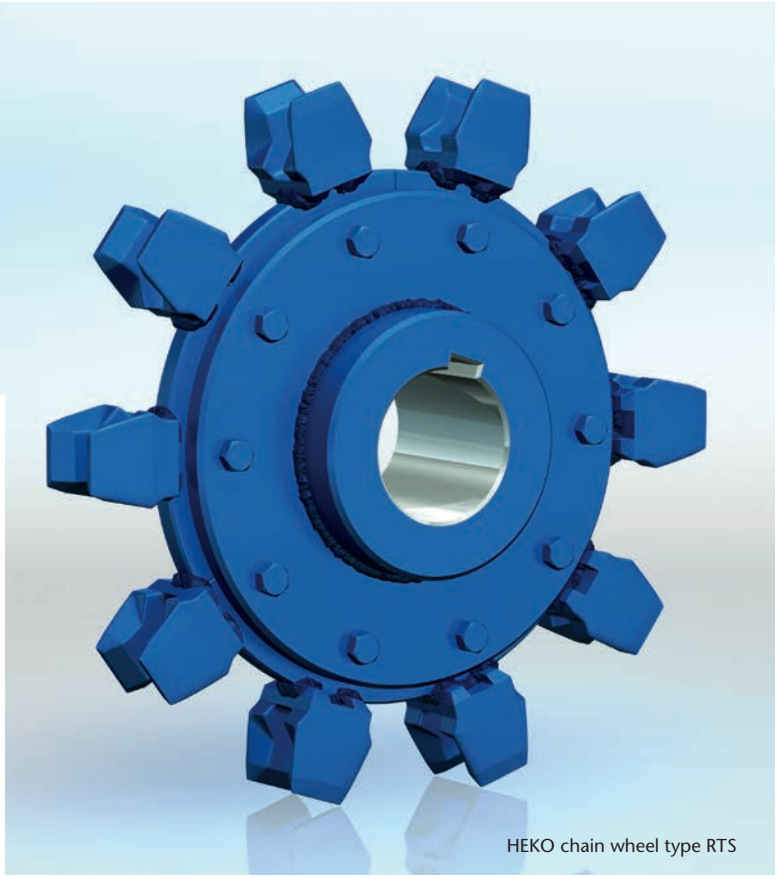
HEKO toothed rim type VIA

HEKO chain wheel type RIS

HEKO single tooth type RTS



HEKO toothed rim type RTS

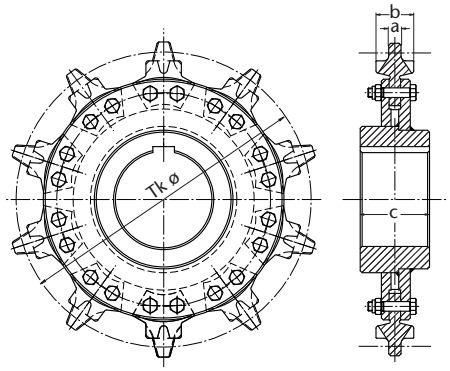


HEKO chain wheel type RTS

HEKO chain wheels, projecting teeth, replaceable rim type RIS/VIA

HEKO chain wheels type RIS/VIA

- Suitable for high duty drives
- Long service life through use of wear resistant hardened chain contact surfaces
- Replaceable, wear resistant individual teeth or toothed rims
- Adjustable to correct for chain wear
- Can be manufactured to suit existing hubs
- Can be supplied as complete assembly



HEKO chain wheels, projecting teeth, replaceable rim type RIS/VIA

HEKO chain wheels, projecting teeth, replaceable rim type RIS/VIA

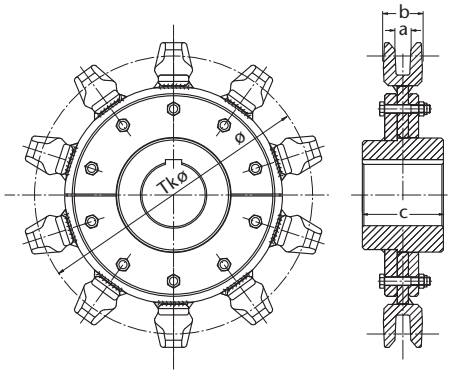
PCD	corresponding chain nominal thickness x Pitch, d x t/mm	DIN	number of teeth	dimensions in mm			weight kg/each
mm, Tkø				a	b	c	ca.
615	30 x 120	WN	8	32	98	200	190
691	30 x 120	WN	9	32	98	200	210
767	30 x 120	WN	10	32	98	200	290
697	34 x 136	WN	8	40	110	220	220
783	34 x 136	WN	9	40	110	220	260
869	34 x 136	WN	10	40	110	220	300

Further dimensions and qualities on request, WN = Works Standard

HEKO chain wheels, pocket teeth, replaceable rim type RTS

HEKO chain wheels type RTS

- Suitable for high duty drives
- Long service life through use of wear resistant hardened chain contact surfaces
- Replaceable, wear resistant toothed rims
- Adjustable to correct for chain wear
- Can be manufactured to suit existing hubs



HEKO chain wheels, pocket teeth, replaceable rim type RIS/VIA

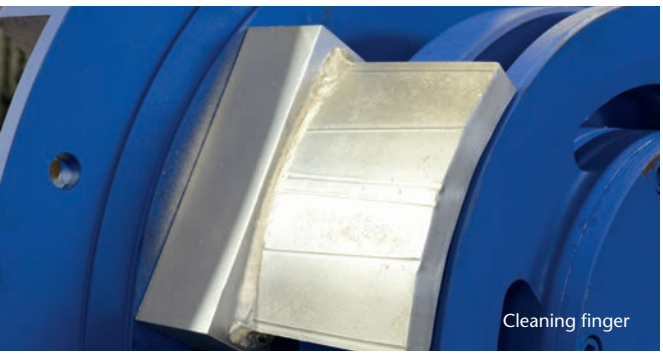
HEKO chain wheels, pocket teeth, replaceable rim type RTS

PCD	corresponding chain nominal thickness x Pitch, d x t/mm	DIN	number of teeth	dimensions in mm			Weight kg/each
mm, Tkø				a	b	c	ca.
441	22 x 86	WN	8	27	77	140	55
495	22 x 86	WN	9	27	77	140	72
550	22 x 86	WN	10	27	77	140	80
472	26 x 92	WN	8	33	85	160	85
530	26 x 92	WN	9	33	85	160	90
588	26 x 92	WN	10	33	85	160	110
554	30 x 108	WN	8	40	117	180	140
622	30 x 108	WN	9	40	117	180	170
690	30 x 108	WN	10	40	117	180	210
646	34 x 126	WN	8	44	120	220	205
726	34 x 126	WN	9	44	120	220	230
805	34 x 126	WN	10	44	120	220	260
697	34 x 136	WN	8	44	122	220	220
783	34 x 136	WN	9	44	122	220	245
869	34 x 136	WN	10	44	122	220	280

Further dimensions and qualities on request, WN = Works Standard

HEKO support and snub wheel type UWE with mounting flange

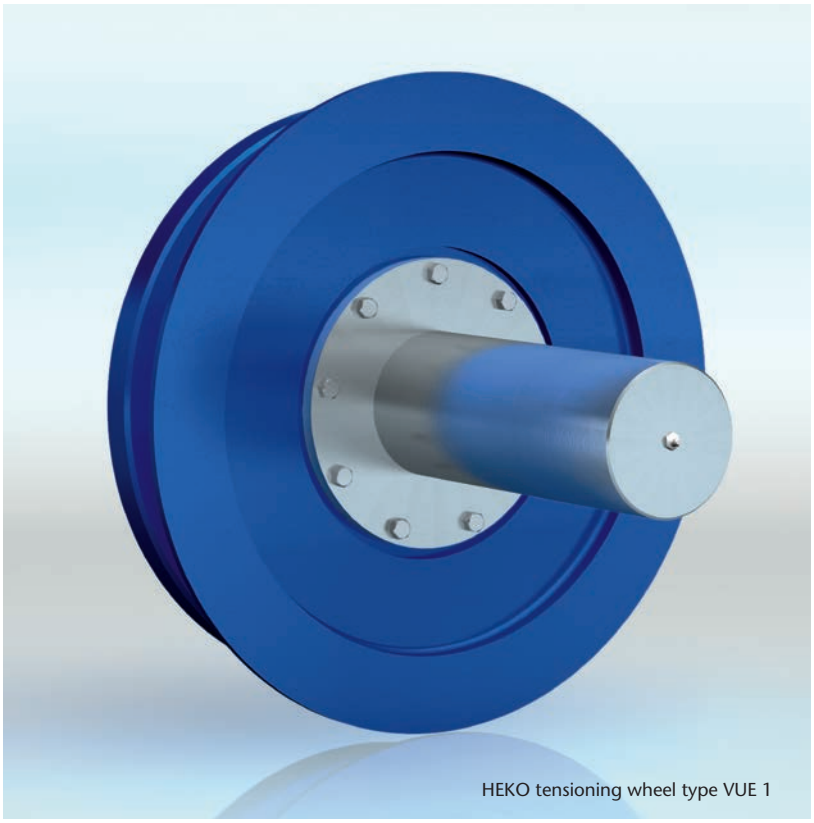
Rotation monitor



Cleaning finger

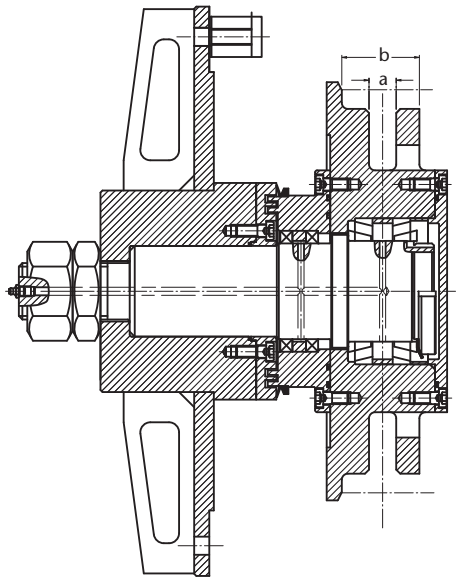
HEKO support and snub wheel type UWE without mounting flange

HEKO component details of support and snub wheel type UWE with mounting flange



HEKO tensioning wheel type VUE 1

HEKO support and snub wheel type UWE



HEKO support and snub wheel type UWE

HEKO support and snub wheel type UWE with mounting flange

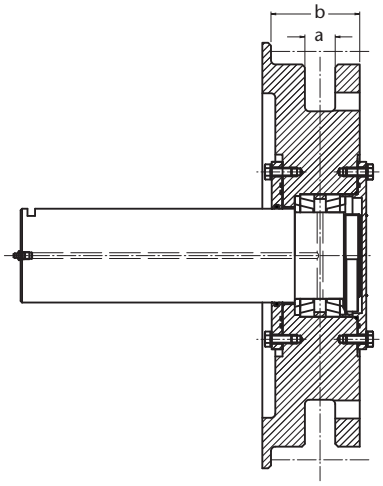
- Fitted inside wet deashers
- Sealing system for submerged wheels
- Fitted from outside deasher
- Optional rotation monitor
- Suitable for all chain dimensions
- For shackles or HEKO TS and SMO
- With or without mounting flange
- Hardened rim surface for long service life
- Optional cleaning finger to clean grove
- Optimised sealing system

Dimensions for HEKO standard support wheels type UWE, welded steel construction or one piece turned construction

PCD	corresponding chain nominal thickness	dimensions in mm		weight kg/each
mm, Tkø	d/mm	a	b	without flange
400	19	24	83	100
400	22	27	92	112
400	26	32	107	112
566	30	36	113	150
560	34	42	127	185
566	36	42	136	195
650	42	50	155	240
511	30	36	113	130

Further dimensions and qualities on request

HEKO tensioning wheel type VUE I



HEKO tensioning wheel type VUE I

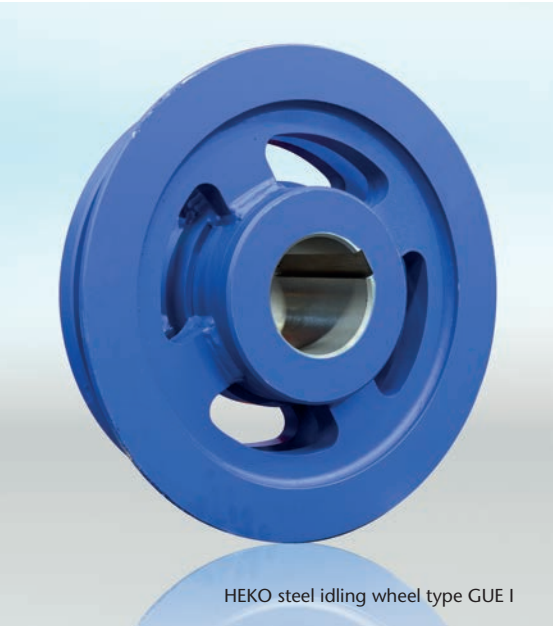
HEKO tensioning wheel type VUE I

- Used for tensioning units
- With sealing system and shaft
- For all chain sizes
- For HEKO TS and SMO
- Hardened rim surface for long service life

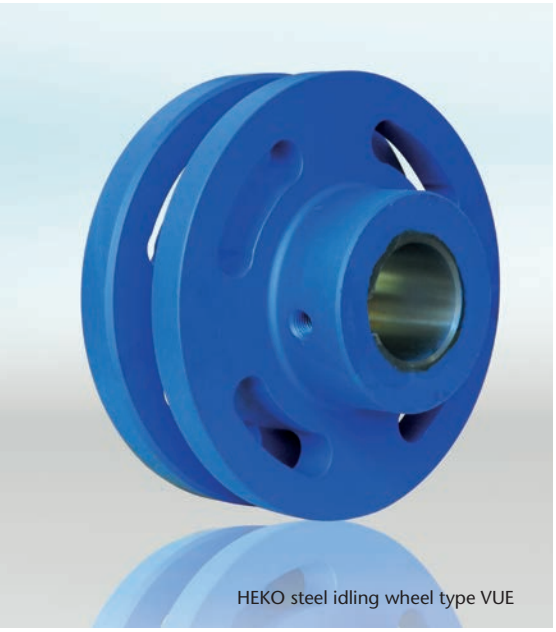
Dimensions for HEKO standard support wheels type VUE I, welded steel construction or one piece turned construction

PCD	corresponding chain nominal thickness	dimensions in mm		weight
mm, Tkø	d/mm	a	b	kg/each
400	19	24	83	100
400	22	27	92	112
400	26	32	107	112
538	30	36	113	150
538	34	42	127	185
566	36	42	136	195
566	42	50	155	240
566	30	36	113	130

Further dimensions and qualities on request



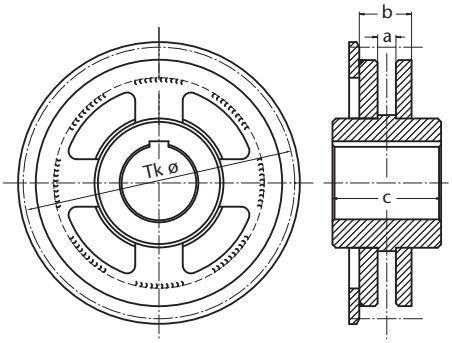
HEKO steel idling wheel type GUE I



HEKO steel idling wheel type VUE

HEKO steel idling wheel type VUE

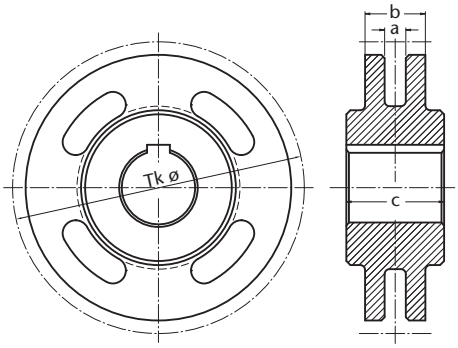
HEKO steel idling wheels, type GUE and VUE



HEKO steel chain wheels, toothless, type GUE I

HEKO steel idling wheels, type GUE and VUE

- Suitable for changing chain direction
- Large cleaning openings
- Supplied with or without outside guide disc
- For all chain dimensions
- Small wheels turned from one piece (VUE)
- otherwise welded construction (GUE)
- Suitable for HEKO system TS and SMO and some bespoke attachments
- Rim surface hardened for long service life



HEKO steel idling wheels type VUE

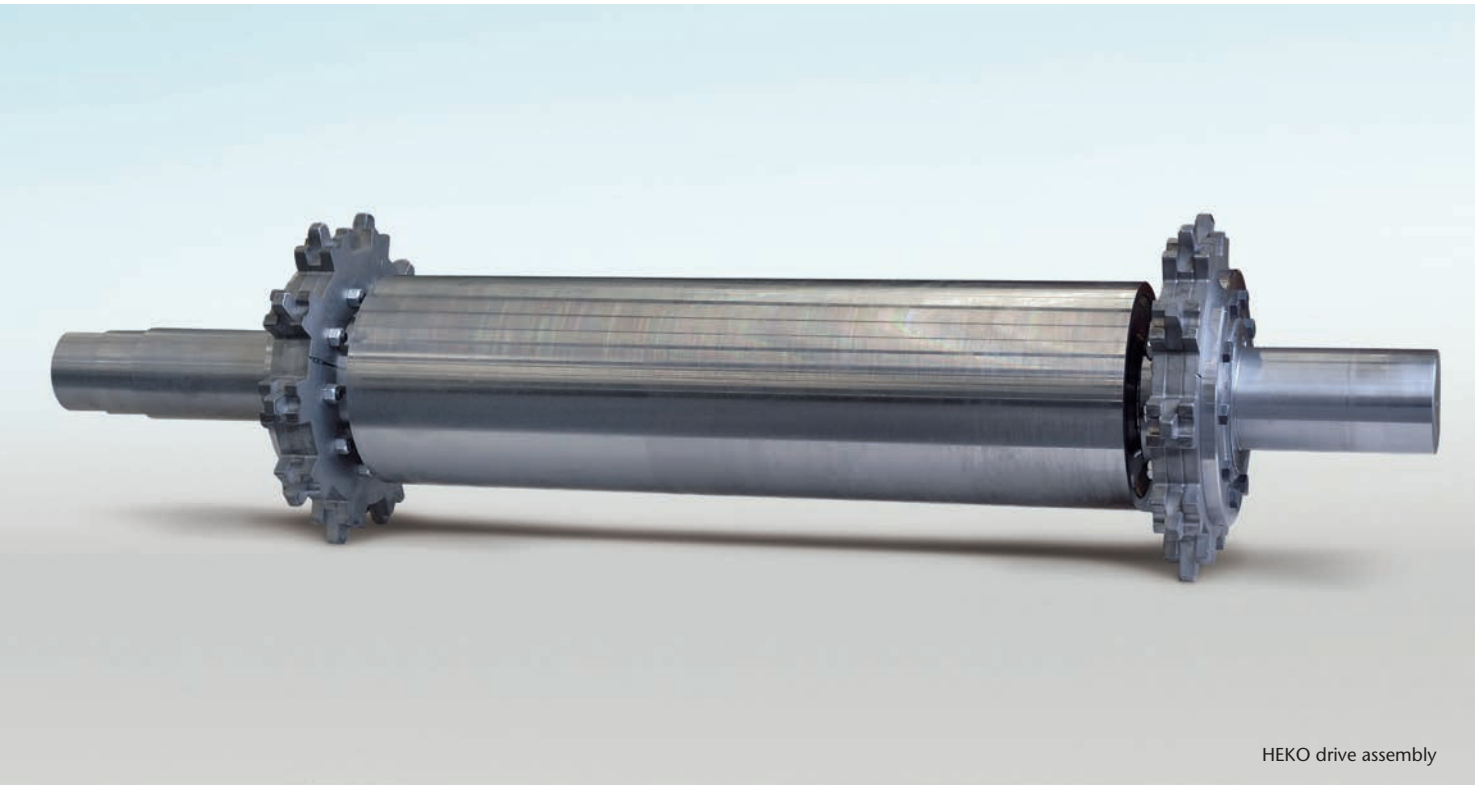
HEKO steel idling wheels type GUE and VUE

PCD	corresponding chain nominal thickness	dimensions in mm			weight kg/each
mm, Tkø	d/mm	a	b	c	ca.
400	19	24	64	140	54
400	22	27	73	140	57
400	26	32	82	160	60
522	26	32	82	160	80
522	30	36	96	200	100
526	34	42	112	200	160
522	36	42	112	220	165
650	42	50	130	220	200

Further diminsions and qualities on request

Attachments welded to chain

HEKO cuboide attachments type VK



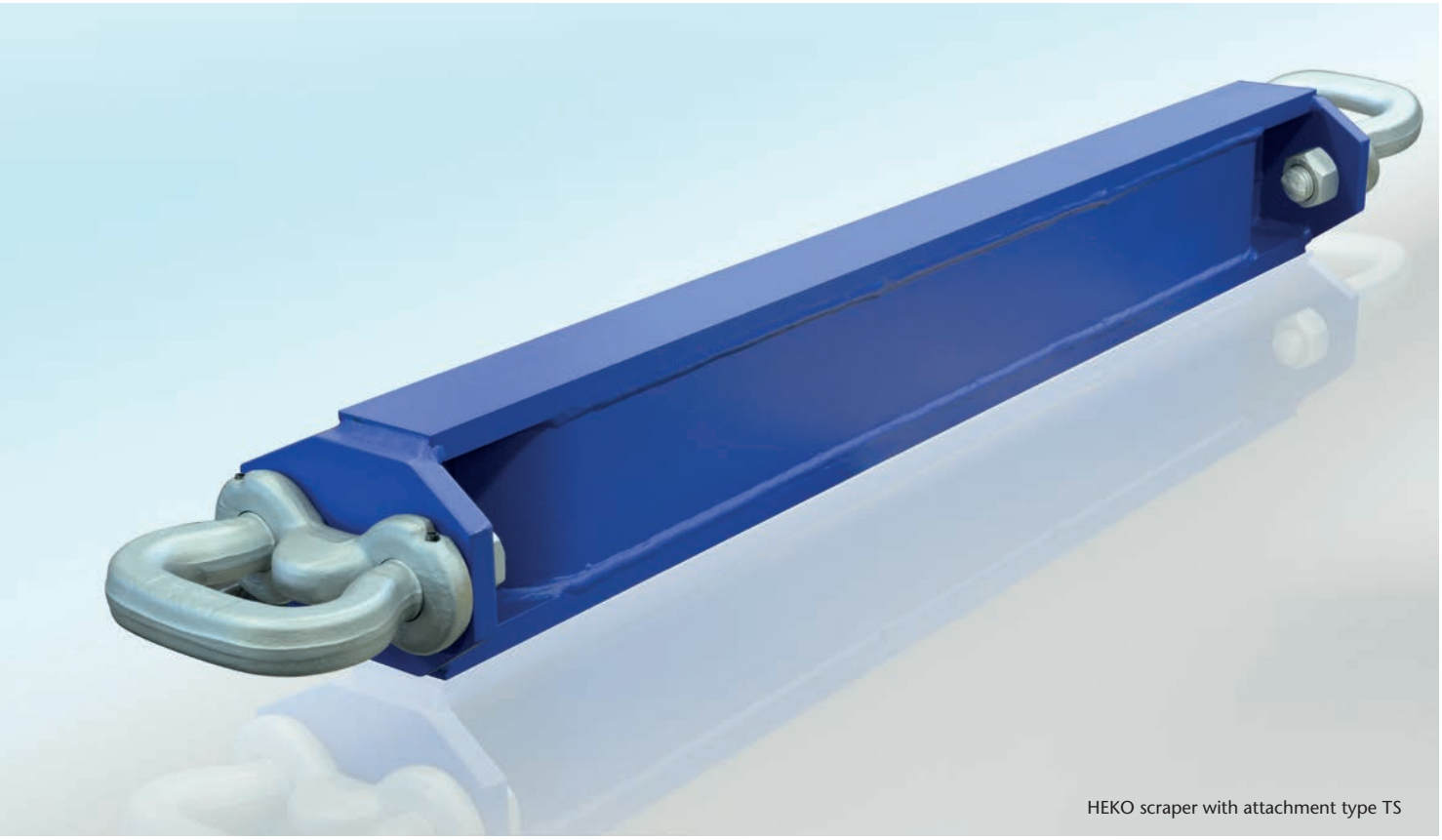
HEKO drive assembly

HEKO special shackle type SP with wear protection

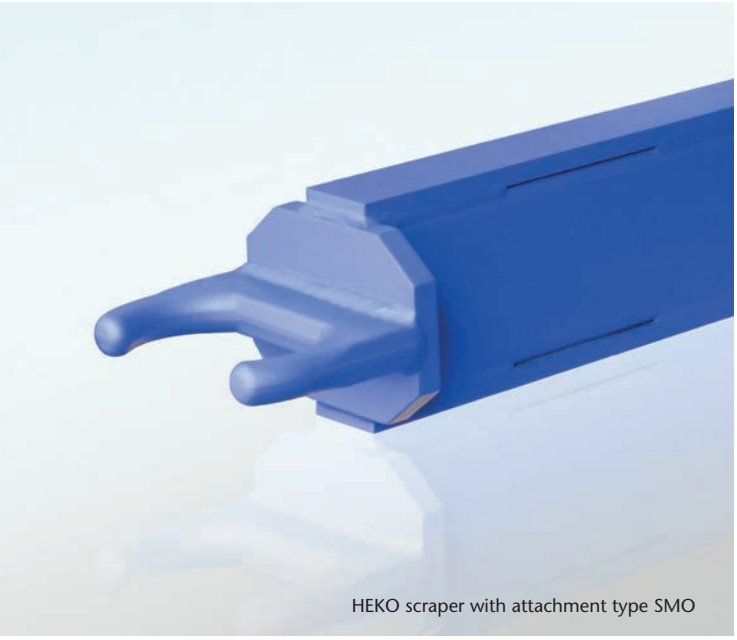
HEKO special shackle type SP

HEKO chain wheel type GTA

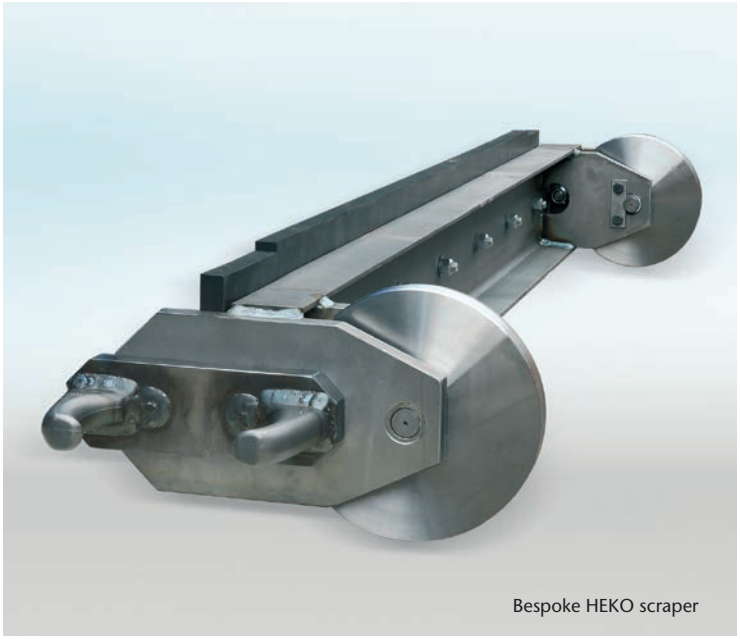
HEKO attachment type SMG with straight pin



HEKO scraper with attachment type TS

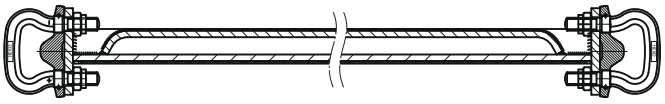


HEKO scraper with attachment type SMO

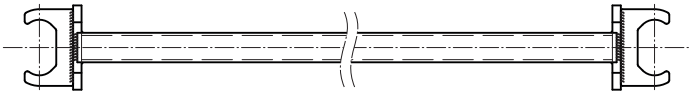


Bespoke HEKO scraper

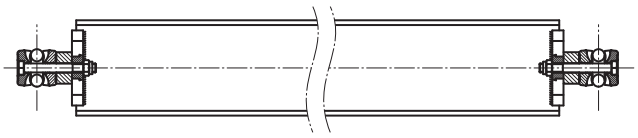
HEKO scraper



HEKO scraper assembly with TS



HEKO scraper assembly with SMO

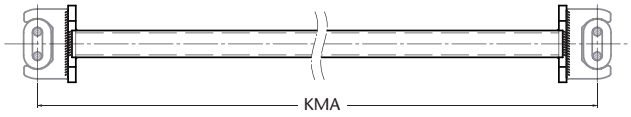


HEKO bespoke scraper assembly

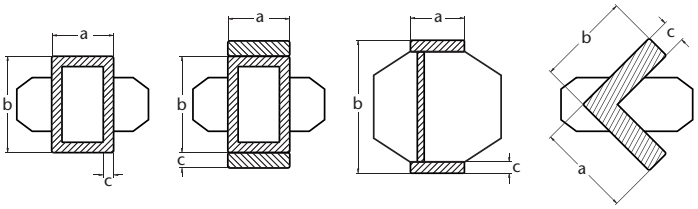
HEKO scraper

- Scrapers can be manufactured to suit client's requirements
- Depending on application scrapers can also be manufactured re-enforced
- Wear strips from HARDOX
- Box construction can also be supplied
- Scraper width up to 3000 mm
- Sacreficial anodes can be fitted for corrosive applications
- Furnished in different material qualities

Required data for preparing a quotation



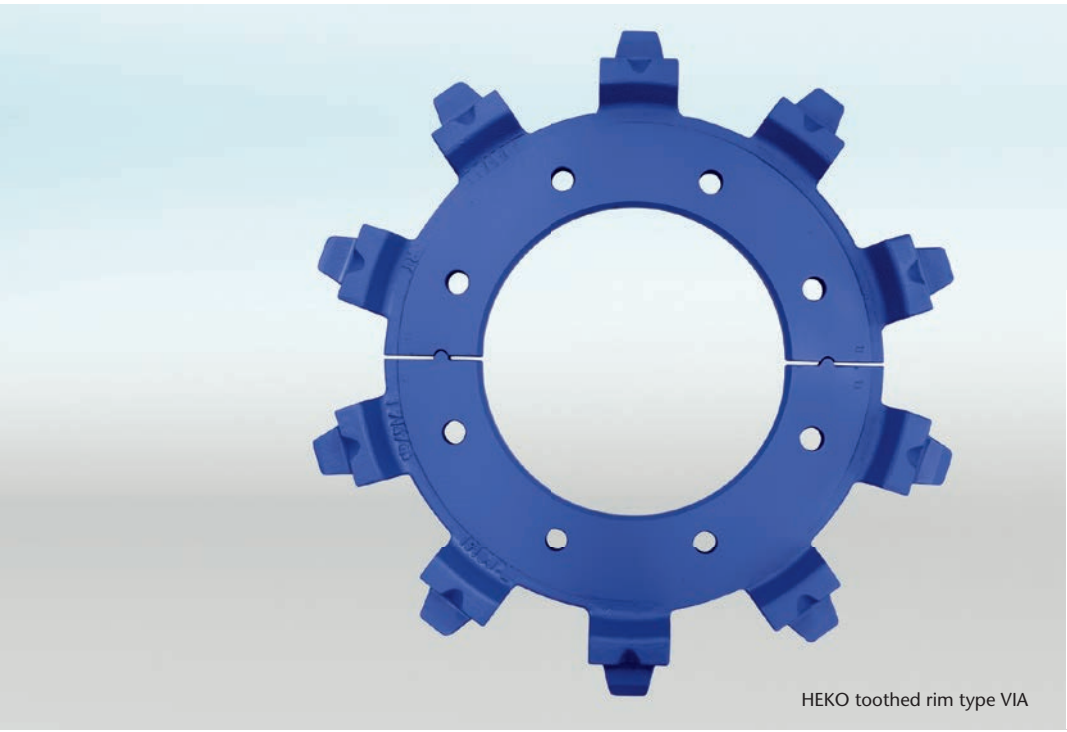
Profile type



Scraper dimensions

corresponding chain nominal thickness x pitch d x t (mm)	scraper attachment type			dimensions in mm				profile type				
	TS	SMO	bespoke solution	KMA	a	b	c	1	2	3	4	bespoke solution

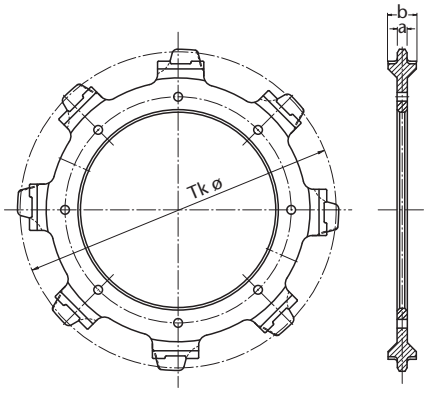
KMA = chain centres, dimensioned drawings are required for bespoke designs



HEKO toothed rim type VIA

HEKO chain Lock special execution

Coal feeder



HEKO toothed rim type VIA

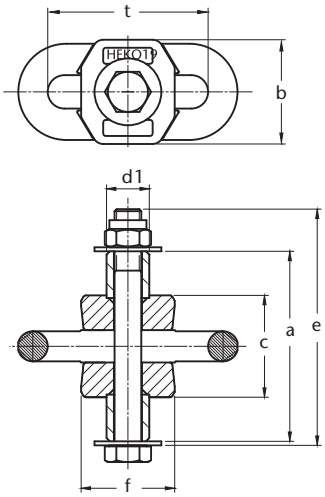
HEKO coal feeder

- Scrapers and other components can be manufactured to suit client requirements
- Suitable chain wheels can be supplied solid or with replaceable parts
- Different chain locks can by supplied
- Compact cleaning scrapers can be supplied for small chain pitches
- Many different attachments for scrapers are available

Dimensions and qualities

dimensions in mm							
nominal thickness x pitch d x t /mm	DIN chain	weight kg/m	b1 inside width min.	b2 outside width max.	**HEKO 400 E** MBK (kN)	**HEKO 5** MBK (kN)	**HEKO 350 E** MBK (kN)
14 x 50	WN	4,1	16,3	47,0	123	114	108
14 x 64	WN	3,7	16,3	47,0	123	114	108
16 x 64	WN	5,1	20,0	55,0	160	148	140
19 x 120	WN	6,3	23,0	64,5	227	210	198

Other dimensions and qualities on request, WN = works standard; MBK = Min. breaking load

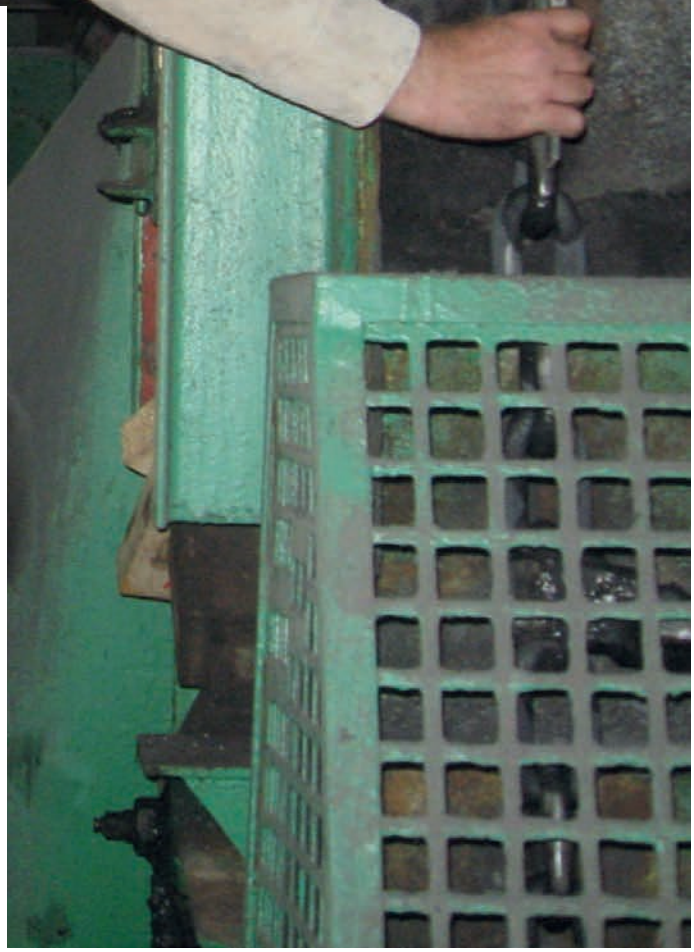


HEKO chain lock type HV

HEKO chain locks

corresponding chain nominal thickness x Pitch d x t (mm)	dimensions in mm b	c	f	a	d1	e	weight kg/each	type
14 x 50	47	15					0,25	HR
14 x 64	47	15					0,30	HR
16 x 64	56	17,5					0,50	HR
19 x 120	70	67	61	133	ø 32	160	2,50	HV

Dimension to suit HEKO drawings, HR = space saving arrangement; HV = cuboide arrangement



Deasher maintenance

Regular inspection and maintenance of wet desashers ensures that the chain system achieves its optimum service life.

Chain Tension:
Generally, chain tension should be kept at minimum, which will vary from plant to plant. This can be established by viewing the idling wheel in the lower trough inside the horizontal section. The idling wheel and chain should just be in contact, sufficient to turn the idling wheel. Chain tension can be adjusted by the tensioning unit. Once the tension travel has been used up, the chain must be shortened. If the product is not conveyed symetrically additional, one sided wear will result. This may sometimes be adjusted by increasing the tension on the shorter chain. If this is not successfull, exchanging a chain length on the right with one on the left may correct the overall chain length. However, the best solution is to correct the flow of ash and centralise it into the centre of the deasher, which may not always be achievable.

Shortening :
Both chains should be shortened at the same position, right and left. With endless chains, open the chain locks and remove 2, 4, or 6 links, ideally with a side cutter to avoid softening adjacent chain links. If an oxy-acetylene cutter or similar has to be used, ensure that none of the chain links still left in service are not heated above 150 °C as this will damage the chain. Once shortened refit the chain locks to both chains.

Water flushing of chain:
Most wet deashers are fitted with water flushing of the chains, just in front of the drive chain wheels. Regular checks should be carried out to ensure that ash is effectively removed from the chain before it reaches the drive wheels to minimise both chain and tooth wear. Clean, fresh water should be used for flushing to minimise corrosion.

Conveying speed:
The speed of the scraper should be adjusted to suit the ash conveying rate. The best speed should be that the product just spills over the scraper at the end of the dewatering section (coming out of the water bath). Excessive speed not only reduces dewatering but also increases wear.

Chain wear:
As the chain runs through an abrasive material, wear is quite normal. Chains should be removed once their service life has been reached, e. g., once the minimum breaking load is reached. This point is reached for chain quality 400E when the chain pitch has increased by 5 % and with chain quality 350E by 7 %. At this wear level the breaking load is hardly affected as the hardened case has very little influence on the breaking load, it only provides resistance to wear.
Meshing problem often occur by chain wear in excess of 2 %. If this becomes a problem, it can be corrected by fitting replaceable rims with teeth to suit the adjusted pitch or, by adjustable teeth, if fitted.

Submerged Idling wheels:
HEKO's submerged idling wheels incorporate an extensive sealing system to protect bearings against the ingress of water and ash. Regular re-greasing is essential to protect the seals. Both the type and quantity of grease can be obtained from the OEM's operating and maintenance manuel.

HEKO idling wheels should be re-greased with approx. 80 gr of grease every 14 days

Idling wheels can be fitted with rotation monitors. Those without should be regularly checked manually. If the wheels no longer rotate freely they should be replaced or repaired immediately to prevent damage to the chains.

Scrapers:
Damaged, distorted scrapers must be replaced, otherwise damage will result in misalignment, causing damage to the chain wheels and other internal components.

HEKO is represented through agents and business partners in over 50 countries around the world.

Made in Germany

5/2014, HEKO System TS and System SMO – COMPONENTS FOR DEASHER 1.0 This publication is the property of HEKO who retain all rights and amendments.

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