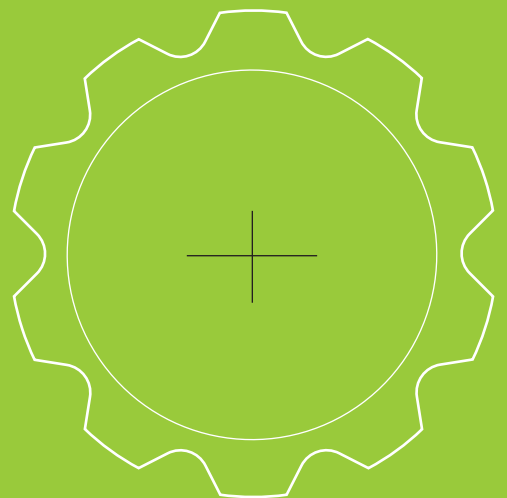
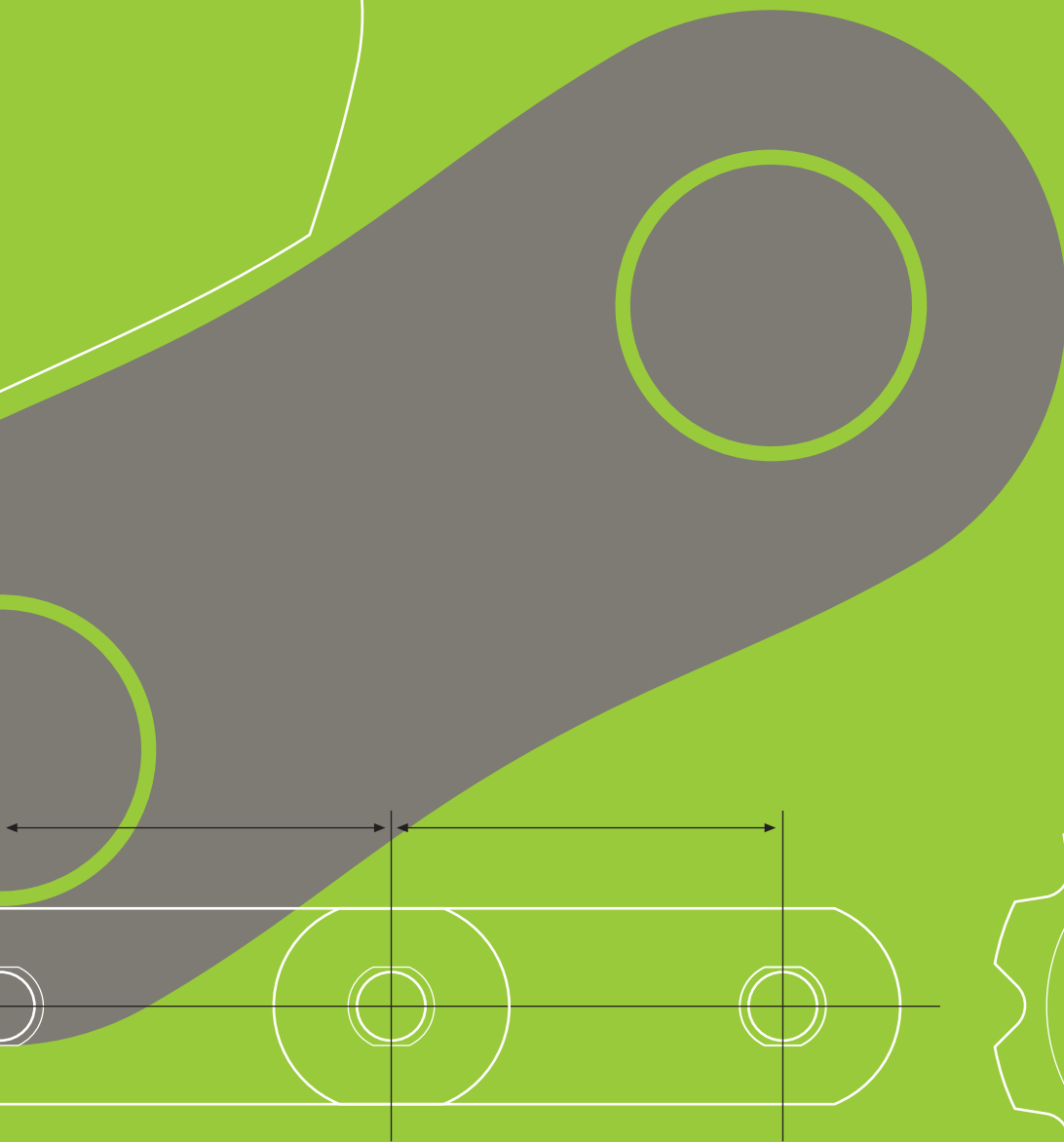


chains and sprockets



Complete overview

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Kurzprofil KettenWulf Gruppe

Business locations



Herkunft und Gegenwart

1925 wurde das Unternehmen KettenWulf im Sauerland, Kückelheim gegründet. Bedingt durch die starke Expansion des Unternehmens in der zweiten Hälfte des 19. Jahrhunderts entwickelte sich die einstige Gelenkketten-Manufaktur zu einem bedeutenden Markenhersteller von Ketten und Kettenrädern.

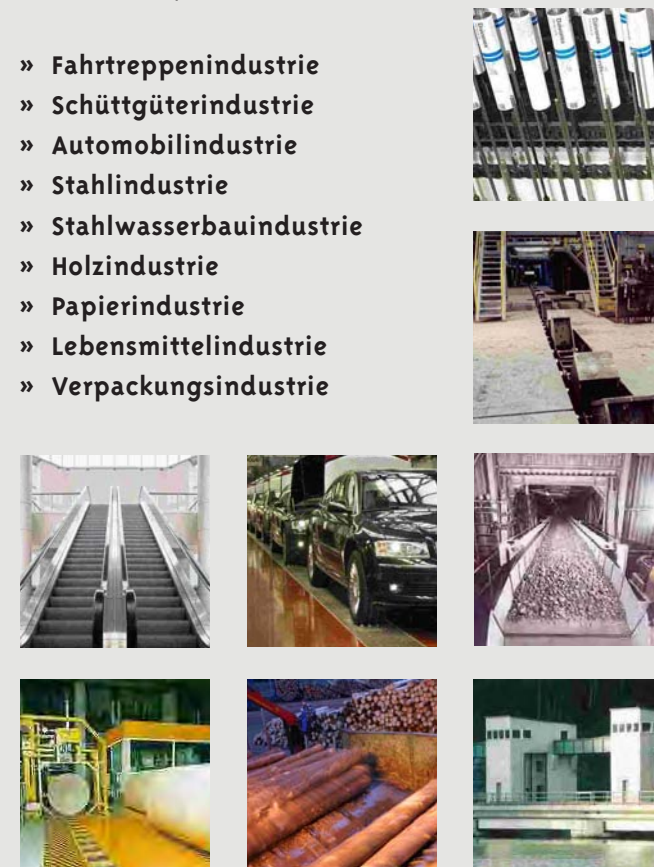
Expansion weltweit: Heute gehört die KettenWulf Gruppe mit 6 Produktionsstandorten in Europa und Asien zu den europaweit größten und führenden Produzenten von Förderketten, Antriebsketten und Kettenrädern. Über 800 Mitarbeiter entwickeln, produzieren und vertreiben auf rund 40.000 qm individuelle Lösungen im Bereich der Förderung und Antriebstechnik rund um den Globus:

- » Deutschland
- » Belgien
- » Frankreich
- » Österreich
- » Tschechien
- » Polen
- » USA
- » Japan
- » China

Industrielle Anwendungen

KettenWulf Förderketten, Antriebsketten und Kettenräder finden weltweit Anwendung in den unterschiedlichsten Industrien, wie zum Beispiel:

- » Fahrtreppenindustrie
- » Schüttgüterindustrie
- » Automobilindustrie
- » Stahlindustrie
- » Stahlwasserbauindustrie
- » Holzindustrie
- » Papierindustrie
- » Lebensmittelindustrie
- » Verpackungsindustrie



KettenWulf
Werk Kückelheim
mit Verwaltung



KettenWulf
Werk Sieperring



Wulf Chain USA



Hangzhou Wulf Chain
China



KettenWulf
export



KettenWulf
Division Ferlacher Förderketten
Austria



KettenWulf
Division Dyna Chains
Belgium

Structural shapes of chains

Articulated chains are all chains which have a hinge made of pins and link plates at specific intervals — the so-called pitch. The main elements of these chains are link plates and hinge sections. The links of the majority of chains are equipped with bushing and, often, with a roller to improve the articulation and reduce the wear on the hinge. These types of chains are called “bush conveyor chains”.

Articulated chains are manufactured from different qualities of material depending on the area of application. This is done to cope as optimally as possible with the strains and environmental influences such as corrosion, heat, dirt etc. The multitude of application areas for articulated chains has led to different structural shapes. A selection of the most popular types of chains are included in this catalogue. Our

main area of manufacturing is special chains, but, of course, we also supply all types of conveyor chains including those with other dimensions. Please send us your request.

Excerpt from our delivery program chains

Conveyor and transport chains in all designs and dimensions for all applications and industries. Tailor-made chains upon request. Standard chains according to DIN and ISO. Galle chains, draw bench chains, block chains, liftchains and articulated gear racks for locks and weir systems. Pinions, bush chains DIN 8164 and standard, roller chains according DIN 8187.



liftchain
hydraulic steelwork industry



slepped chain
escalator industry



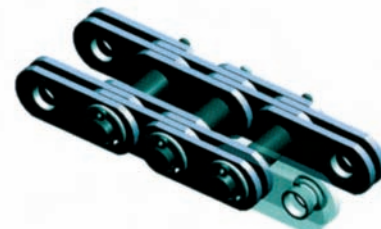
non-back-bending chain
bulk material industry



bridge type chain
bulk material industry



galle chain



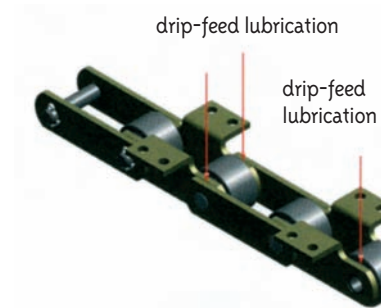
draw bench chain



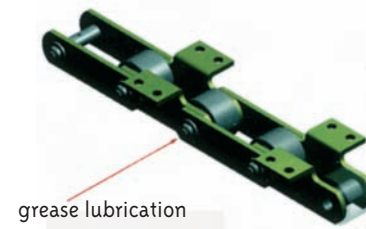
liftchain
for hydraulic steelwork industry



bush chain



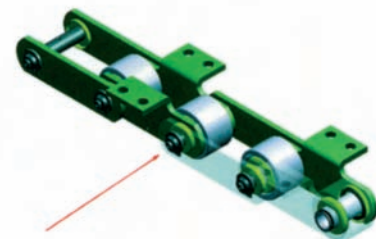
bush conveyor chain
with oil lubrication



bush conveyor chain
with grease lubrication



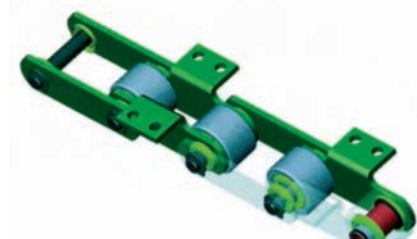
slat conveyor chain
car industry



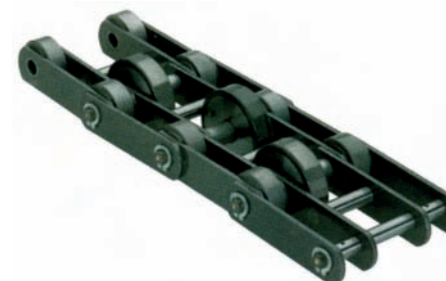
low maintenance bush conveyor chain
with patented sealing for long intervals
between lubrication



bush conveyor chain
non-lubricated



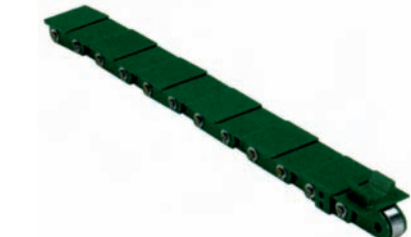
bush conveyor chain
non-lubricated,
with additional sealing



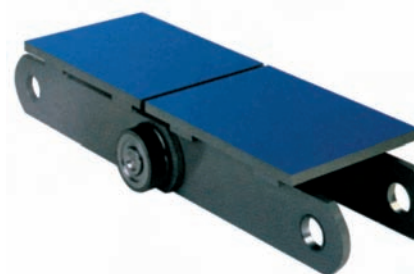
accumulating roller conveyor chain
steel industry



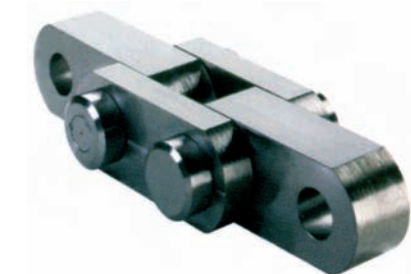
pendulum conveyor chain
car industry



slat chain for skid-transport
car industry

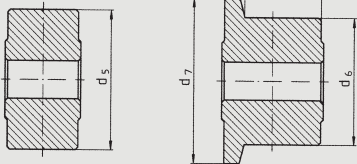
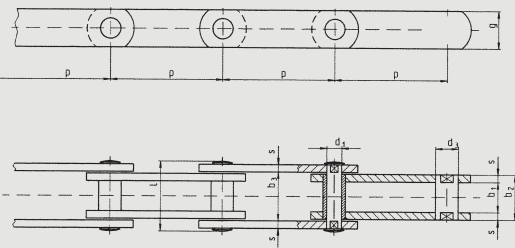


slat conveyor chain
steel industry



block chain
steel industry

Bush conveyor chains acc. to DIN 8165 and DIN 8167



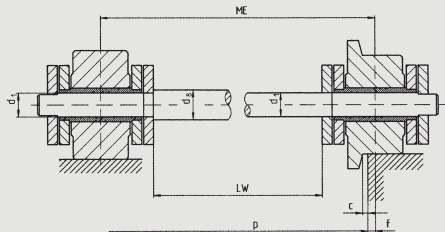
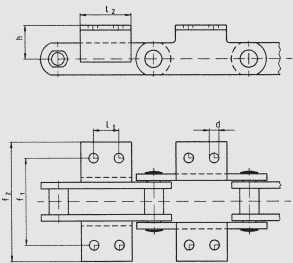
RATINGS OF BUSH CONVEYOR CHAINS acc. to DIN 8165

type of chain	ultimate strength acc. to DIN 8165 [N]		pitch p										inner width		pin Ø	bush Ø	protection roller Ø	supp. roller Ø	flanged roller Ø	tread width	width of link plate	plate thickness	pin length	length of connecting pin	example of double-strand dimensions			
	single strand	double strand	40	63	100	125	-	-	-	-	-	-	b ₁	d ₁	d ₃	d ₄	d ₅	d ₆	d ₇	b ₇	g	s	l _{max}	l _{i max}	Sp	ME	LW	d ₈
FV 40	40000	80000	40	63	100	125	-	-	-	-	-	-	18	10	15	20	32	40	48	12	25	3	37	44	500	506	475	15
FV 63	63000	126000	50	63	100	125	160	200	-	-	-	-	22	12	18	26	40	50	60	15	30	4	46	55	500	507	468	18
FV 90	90000	180000	-	63	100	125	160	200	250	-	-	-	25	14	20	30	48	63	73	18	35	5	53	62	500	509	463	20
FV 112	112000	224000	-	80	100	125	160	200	250	-	-	-	30	16	22	32	55	72	87	21,5	40	6	63	72	500	510	455	22
FV 140	140000	280000	-	80	100	125	160	200	250	315	-	-	35	18	26	36	60	80	95	25	45	6	68	80	500	512	452	26
FV 180	180000	360000	-	-	100	125	160	200	250	315	400	-	45	20	30	42	70	100	120	34	50	8	86	100	500	520	441,5	30
FV250	250000	500000	-	-	100	125	160	200	250	315	400	-	55	26	36	50	80	125	145	40	60	8	98	114	500	529	434	36
FV 315	315000	630000	-	-	-	125	160	200	250	315	400	500	65	30	42	60	90	140	170	48	70	10	117	133	500	529	422	42
FV 400	400000	800000	-	-	-	-	160	200	250	315	400	500	70	32	44	60	100	150	185	52	70	12	131	151	500	533	412	44
FV500	500000	1000000	-	-	-	-	160	200	250	315	400	500	80	36	50	70	110	160	195	57	80	12	141	161	500	535	404	50
FV630	630000	1260000	-	-	-	-	-	200	250	315	400	500	90	42	56	80	120	170	210	62	100	12	153	173	500	535	394	56

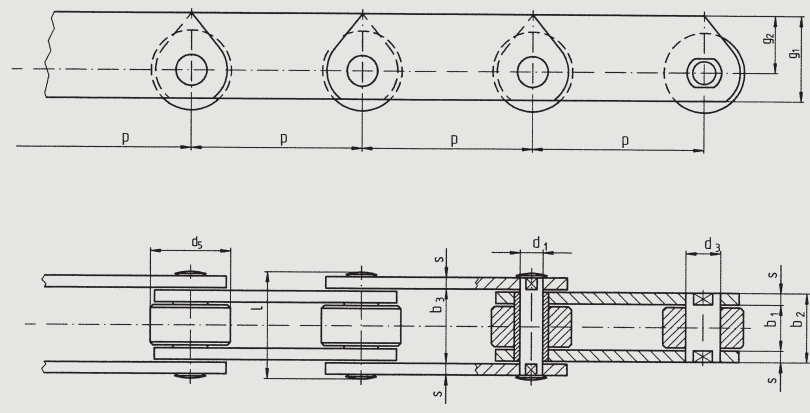
RATINGS OF BUSH CONVEYOR CHAINS acc. to DIN 8167

type of chain	ultimate strength acc. to DIN [N]		pitch p									inner width	pin Ø	bush Ø	protection roller Ø	supp. roller Ø	rim Ø	tread width	width of link plate	plate thickness	pin length	length of connecting pin	example of double-strand dimensions			
	single strand	double strand										b ₁	d ₁	d ₃	d ₄	d ₅ /d ₆		d ₇	b ₇	g	s	l _{max}	l _{1 max}	Sp	ME	LW
M 20	20000	40000	40	50	63	80	100	125	160	16	6	9	12,5	25	30	11	18	2,5	31,5	35	500	506	478,6	7		
M 28	28000	56000	50	63	80	100	125	160	200	18	7	10	15	30	36	12,5	20	3	36	43	500	507	475,4	8,5		
M 40	40000	80000	63	80	100	125	160	200	250	20	8,5	12,5	18	36	42	13,5	25	3,5	40,5	49	500	507	471,4	10		
M 56	56000	112000	63	80	100	125	160	200	250	24	10	15	21	42	50	17	30	4	47	54	500	509	467,2	12		
M 80	80000	160000	80	100	125	160	200	250	315	28	12	18	25	50	60	20	35	5	57	65	500	510	460,2	15		
M 112	112000	224000	80	100	125	160	200	250	315	32	15	21	30	60	70	22	40	6	65	74	500	510	452,0	18		
M 160	160000	320000	100	125	160	200	250	315	400	37	18	25	36	70	85	25,5	50	7	75	86	500	511	444,0	21		
M 224	224000	448000	125	160	200	250	315	400	500	43	21	30	42	85	100	30	60	8	88	100	500	514	437,0	25		
M 315	315000	630000	160	200	250	315	400	500	630	48	25	36	50	100	120	33	70	10	100	114	500	515	423,8	30		
M 450	450000	900000	200	250	315	400	500	630	800	56	30	42	60	120	140	37	80	12	116	136	500	516	408,4	35		
M 630	630000	1260000	250	315	400	500	630	800	1000	66	36	50	70	140	170	45	100	14	140	156	500	522	396,0	42		
M 900	900000	1800000	250	315	400	500	630	800	1000	78	44	60	85	170	210	52	120	16	164	185	500	527	381,0	50		

Dimensions of angles for bush conveyor chains with clip angle



Deep link chains acc. to DIN 8165 and DIN 8167



RATINGS acc. to DIN 8165

type of chain	ultimate strength [N]	pitch p								inner width b_1	pin \varnothing d_1	bush \varnothing d_3	supp. roller \varnothing d_5	width of link plate g_1	width of link plate g_2	plate thickness s	pin length l_{\max}	length of connecting pin $l_{1 \max}$
FVT 40	40 000	40	63	100	-	-	-	-	-	18	10	15	32	35	22	3	37	44
FVT 63	63 000	-	63	100	125	160	-	-	-	22	12	18	40	40	25	4	46	55
FVT 90	90 000	-	63	100	125	160	200	250	-	25	14	20	48	45	27,5	5	53	62
FVT 112	112 000	-	-	100	125	160	200	250	-	30	16	22	55	50	30	6	63	72
FVT 140	140 000	-	-	100	125	160	200	250	315	35	18	26	60	60	37,5	6	68	80
FVT 180	180 000	-	-	-	125	160	200	250	315	400	45	20	70	70	45	8	86	100
FVT 250	250 000	-	-	-	125	160	200	250	315	400	55	26	80	80	50	8	98	114
FVT 315	315 000	-	-	-	-	160	200	250	315	400	65	30	90	90	55	10	117	133
FVT 400	400 000	-	-	-	-	160	200	250	315	400	70	32	100	90	55	12	131	151
FVT 500	500 000	-	-	-	-	160	200	250	315	400	80	36	110	100	60	12	141	161
FVT 630	630 000	-	-	-	-	-	200	250	315	400	90	42	120	120	70	12	153	173

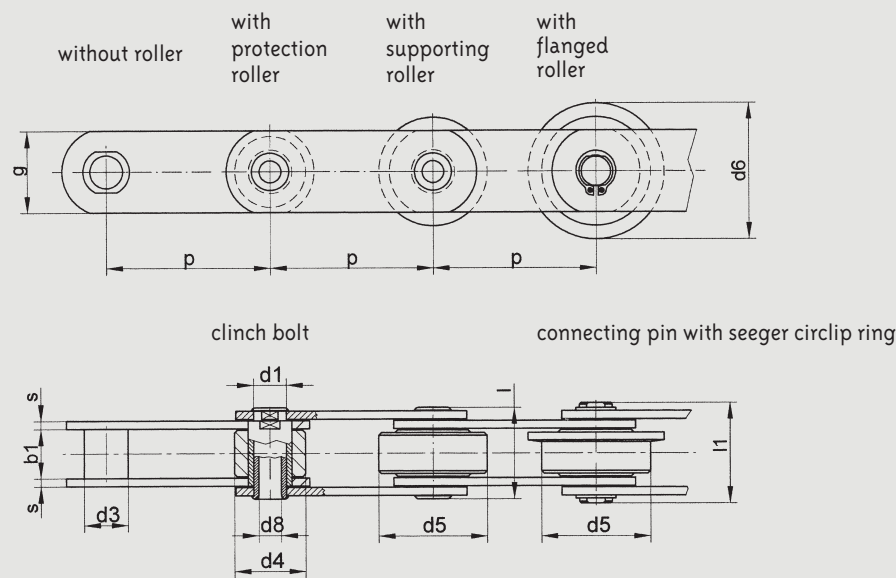
Further dimensions according to customer's need possible.

RATINGS acc. to DIN 8167

type of chain	ultimate strength [N]	pitch p								inner width b_1	pin \varnothing d_1	bush \varnothing d_3	supp. roller \varnothing d_5	width of link plate g_1	width of link plate g_2	plate thickness s	pin length l_{\max}	length of connecting pin $l_{1 \max}$
MT 20	20 000	40	50	63	80	100	125	160	16	6	9	25	25	16	2,5	31,5	35	
MT 28	28 000	50	63	80	100	125	160	200	18	7	10	30	30	20	3	36	43	
MT 40	40 000	63	80	100	125	160	200	250	20	8,5	12,5	36	35	22,5	3,5	40,5	49	
MT 56	56 000	63	80	100	125	160	200	250	24	10	15	42	45	30	4	47	54	
MT 80	80 000	80	100	125	160	200	250	315	28	12	18	50	50	32,5	5	57	65	
MT 112	112 000	80	100	125	160	200	250	315	32	15	21	60	60	40	6	65	74	
MT 160	160 000	100	125	160	200	250	315	400	37	18	25	70	70	45	7	75	86	
MT 224	224 000	125	160	200	250	315	400	500	43	21	30	85	90	60	8	88	100	
MT 315	315 000	160	200	250	315	400	500	630	48	25	36	100	100	65	10	100	114	
MT 450	450 000	200	250	315	400	500	630	800	56	30	42	120	120	80	12	116	136	
MT 630	630 000	250	315	400	500	630	800	1000	66	36	50	140	140	90	14	140	156	
MT 900	900 000	250	315	400	500	630	800	1000	78	44	60	170	180	120	16	164	185	

Further dimensions according to customer's need possible.

Hollow bearing pin chains (hollow pin chains) formerly acc. to DIN 8165 and DIN 8168



RATINGS formerly acc. to DIN 8165

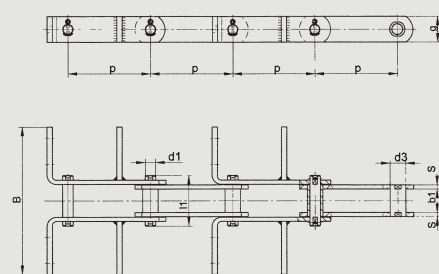
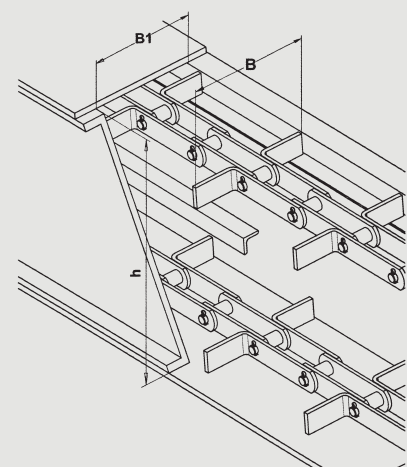
ultimate strength [N]	pitch p					inner width b ₁	hollow pin Ø d ₁	bush Ø d ₃	protection roller Ø d ₄	supporting roller Ø d ₅ acc. to		rim Ø d ₆ acc. to		hollow pin bore d ₈	width of link plate g		plate thickness s	pin length l _{max}	length of con- necting pin l _{1 max}
										DIN	works norm	DIN	works norm		inner	outer			
40 000	63	80	100	125	160	22	12	18	26	50	40	63	50	8	30	30	4	41	43
49 000	63	80	100	125	160	25	14	20	30	63	48	78	60	10	35	35	5	51	53
90 000	80	100	125	160	200	35	18	26	36	80	60	100	75	12	45	45	6	66	68
100 000	100	125	160	200	250	45	20	30	42	100	70	125	85	14	50	50	8	84	87
170 000	100	125	160	200	250	55	26	36	50	125	80	155	100	18	60	60	8	96	100
250 000	125	160	200	250	315	65	30	42	60	140	90	175	110	20	70	60	10	115	120
315 000	160	200	250	315	400	80	36	50	70	160	110	200	140	26	80	70	12	138	145
440 000	200	250	315	400	500	100	42	60	80	180	130	220	160	30	100	90	12	160	168
600 000	250	315	400	500	1000	125	50	70	90	200	150	240	180	36	120	100	15	195	205
900 000	250	315	400	500	1000	150	60	80	100	224	170	274	210	42	150	130	15	222	234

RATINGS acc. to DIN 8168

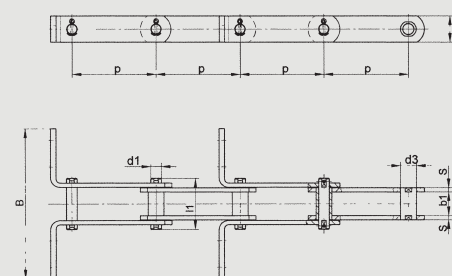
type of chain	ultimate strength [N]	pitch p						inner width b_1	hollow pin \varnothing d_1	bush \varnothing d_3	protection roller \varnothing d_4	supporting roller \varnothing d_5	rim \varnothing d_6	hollow pin bore d_7	width of link plate g	plate thickness s	pin length l_{\max}	length of connecting pin $l_{1 \max}$
MC 28	28 000	63	80	100	125	160	20	13	17,5	25	36	42	42	8,2	25	3,5	40	42
MC 56	56 000	80	100	125	160	200	24	15,5	21	30	50	60	60	10,2	35	4	46	48
MC 112	112 000	100	125	160	200	250	32	22	29	42	70	85	85	14,3	50	6	65	68
MC 224	224 000	125	160	200	250	315	43	31	41	60	100	120	120	20,3	70	8	85	88

Executions of single-strand through conveyor chains

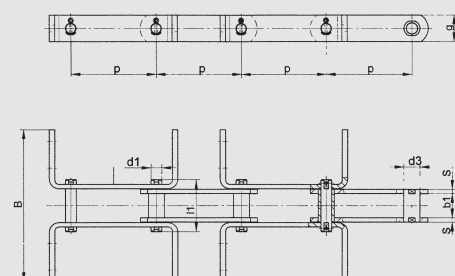
DIN 8165 and DIN 8167 applicable for these types of chains. (see page 8)
Other dimensions are available on request.
The different structural shapes are shown hereafter.
Dimensions B, ME, and RA are at customer's specification.



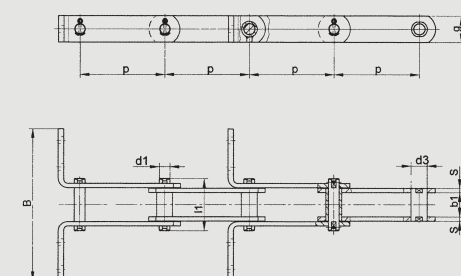
type C
through conveyor chain with bent and welded scrapers



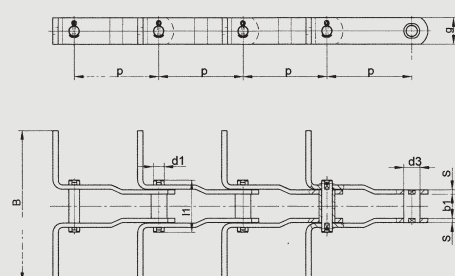
type A (L-form)



type D (U-form)
through conveyor chain with double bent scrapers

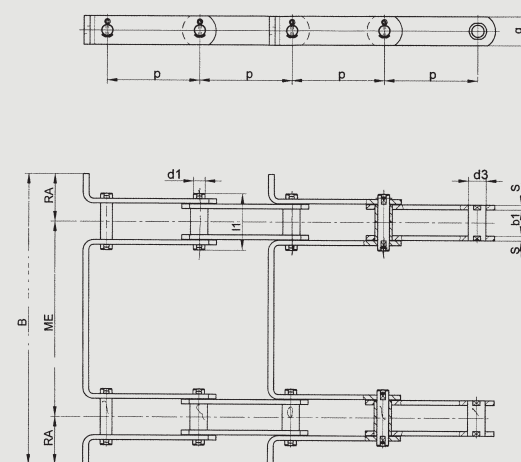


type B (L-form)
execution of through conveyor chain with welded rakers and mounting holes. Distance and dimensions of mounting holes according customer's need.

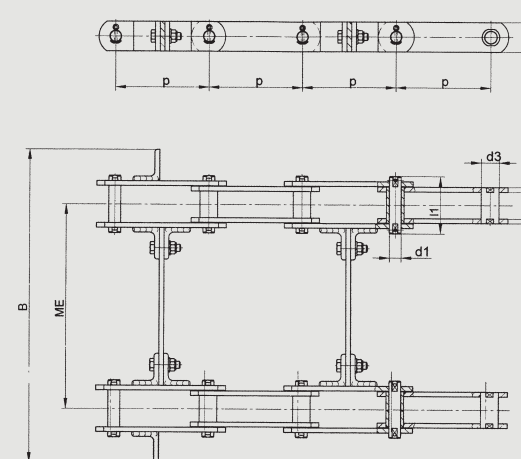


type E
through conveyor chain with cranked link plates and bent scrapers

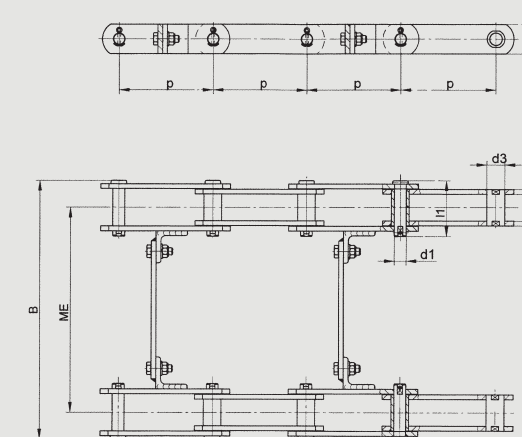
Executions of double strand through conveyor chains



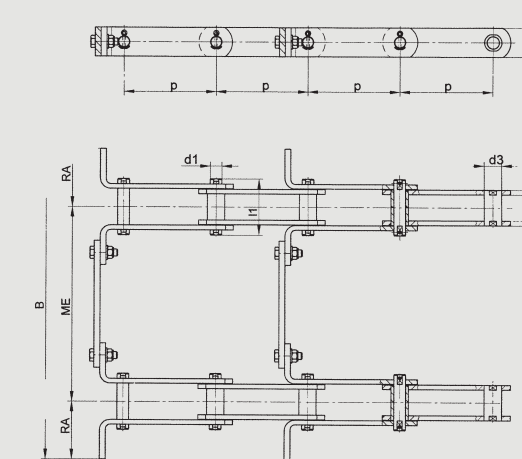
type F
double-strand through conveyor chain with bent scrapers



type G
double-strand through conveyor chain with welded clip angles, scrapers screwed down with backlash



type H
double-strand through conveyor chain with welded angles and screwed down scrapers



type I
double-strand through conveyor chain with screwed down scrapers

Calculation of conveyor chains

Calculation of through conveyor chains

greatest chain pull F_K

$F_K = F_u + F_s + F_{dyn}$ [N]

The total pull of a chain results from F_u , F_s , F_{dyn} .

peripheral force F_u

$F_u = \frac{P}{v}$ [N]

P = power [W]
v = chain drive speed [m/s]

support tension F_s

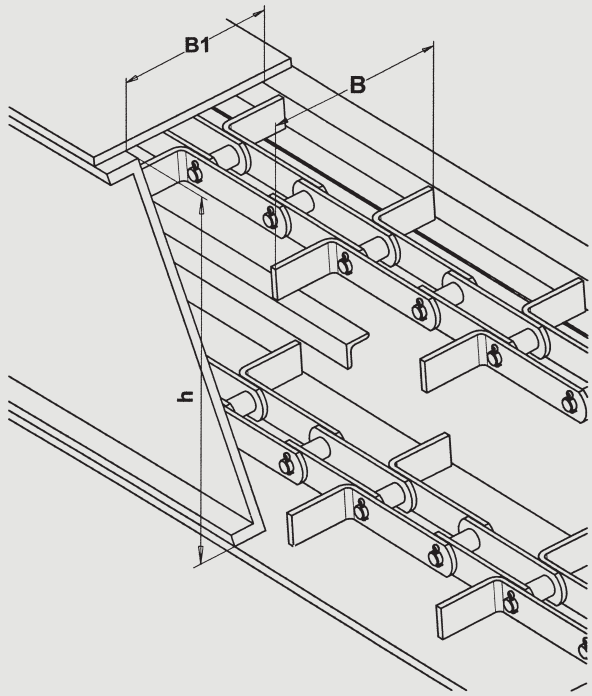
$F_s = \frac{q \cdot a \cdot 100}{8 \cdot f_{rel}} \cdot g$ [N] $f_{rel} = \frac{f}{a} \cdot 100$ [%]

a = centre distance [m]
q = weight per meter [kg/m]
f = greatest sag [m]
 f_{rel} = relative sag [%]
g = 9,81 [m/s²], acceleration due to gravity

dynamic chain pull F_{dyn}

$F_{dyn} = \frac{\omega^2 \cdot p}{2000} \cdot (2 \cdot a \cdot q + G_f \cdot l)$ [N]

a = centre distance [m]
p = pitch [mm]
 ω = angular velocity [s⁻¹]
q = weight per meter [kg/m]
 G_f = conveyor weight [kg/m]
l = burdened length of conveyor chain [m]



peripheral force: horizontal conveying

$F_u = 1,1(2 \cdot a \cdot q \cdot \mu_k + l \cdot G_f \cdot \mu_f) \cdot g$ [N]

peripheral force: slope conveyance

$F_u = 1,1[a \cdot q(2 \cdot \mu_k \cdot \cos \alpha + \sin \alpha) + l \cdot G_f(\mu_f \cdot \cos \alpha + \sin \alpha)] \cdot g$ [N]

conveyor weight G_f

$G_f = B_1 \cdot h \cdot z_1 \cdot z_2 \cdot \gamma$ [$\frac{kg}{m}$] oder $G_f = \frac{Q}{3,6 \cdot v}$ [$\frac{kg}{m}$]

B_1 = through width [mm]
 h = through height [mm]
 z_2 = correction value for the fall short of the material to be conveyed compared with the chain
 z_2 = 0,8-0,9 lumpy material to be conveyed
 z_2 = 0,6-0,9 granular material to be conveyed
 z_2 = 0,4-0,8 dusty material to be conveyed
 z_1 = 0,95 deficiency value for the reduction of the bale cubic capacity by the parts of the chain
 γ = bulk material density [kg/m³]
Q = conveyance capacity [t/h]
v = chain drive speed [m/s]
a = centre distance [m]
q = weight per meter [kg/m]
l = burdened length of the conveyor chain [m]
 G_f = conveyor weight [kg/m]
 α = angle of slope [°]
 μ_k = chain frictional factor
 μ_f = material correction value

material correction value μ_f :
 μ_f = 0,7 sand-steel through
 μ_f = 0,8 coke-steel through
 μ_f = 0,32 grain-steel through

The greater values relate to horizontal, the smaller ones to vertical conveyance.

PERIPHAL FORCE F_u

chain without rollers, horizontal conveying

$F_u = 1,1 \cdot \mu_k(2 \cdot a \cdot q + l \cdot G_f) \cdot g$ [N]

chain without rollers, ascending conveyance

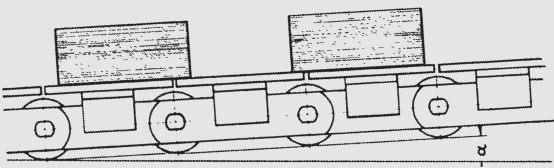
$F_u = 1,1[a \cdot q(2 \cdot \mu_k \cdot \cos \alpha + \sin \alpha) + l \cdot G_f(\mu_k \cdot \cos \alpha + \sin \alpha)] \cdot g$ [N]

chain with rollers, horizontal conveying

$F_u = 1,1(2 \cdot a \cdot q + l \cdot G_f) \cdot \frac{f_k}{R} + \frac{r}{R} \cdot \mu_z \cdot g$ [N]

chain with rollers, ascending conveyance

$F_u = 1,1 \{ a \cdot q [2 \frac{f_k}{R} + \frac{r}{R} \cdot \mu_z \cdot \cos \alpha + \sin \alpha] + l \cdot G_f [\frac{f_k}{R} + \frac{r}{R} \cdot \mu_z \cdot \cos \alpha + \sin \alpha] \} \cdot g$ [N]



a = centre distance [m]
q = weight per meter [kg/m]
l = burdened length of conveyor chain [m]
 G_f = conveyor weight [kg/m]
 μ_k = chain frictional factor
 f_k = 0,005 mm; lever arm of the rolling friction for steel on steel and gray cast iron on steel
R = roller radius [mm]
r = bush radius [mm]
 μ_z = roller frictional factor
g = 9,81 [m/s²], acceleration due to gravity
 α = lead angle [°]

chain frictional factor μ_k :

μ_k = 0,33; dry friction (chain-steel through)
 μ_k = 0,25; greased (chain-steel through)
 μ_k = 0,12; support-/rollers with plain bearing

running frictional factor μ_z :

μ_z = 0,1-0,3 (dry friction, plain bearing)
 μ_z = 0,01-0,1 (mixed friction, plain bearing)
 μ_z = 0,005-0,01 (fluid friction, plain bearing)
 μ_z = 0,0015-0,015 (rolling bearing)

LIST OF VALUES

bulk material	density γ in kg/m³	max. angle slope δ in °	discharge angle	
			rest β in ° =	motion β dyn in ° =
ash and slag	700	18	50	25
lignite	700	15 – 20	50	35
iron glance	3200	18 – 20	50	35
minerals (Cu-Pb)	2400	18 – 20	40	30
light minerals	2040	15 – 18	35	25
oat, barley	620	14	35	25
graphite	2050	15 – 18	35	25
calcinated lime	500	15 – 18	50	15
dry lime	1200	15 – 20	35	15
potatoes	700	12	25	15
gravel	1470	18 – 20	45	30
coke	490	15 – 18	50	30
conveyor coal	830	17 – 20	45	20
sorted coal	900	15	40	20
clay, loam	1800	15 – 20	45	25
flour	910	12 – 15	55	35
marl	2150	15 – 18	45	30
mortar	1700	12 – 15	45	20
corn, rye, rice	735	15	35	15
sand	1800	12 – 15	45	20
sawdust (wood)	210	20 – 30	40	0
wheat	790	15	35	25
cement	1470	10 – 12	50	35

Structural shapes of sprockets

We supply the corresponding sprockets with all of our chains. The sprockets are milled on CNC machines with standard or tailor-made teeth systems. The shape of the tooth can be optimised and adapted to your individual requirements.

Generally, the sprockets are manufactured with milled teeth outlines. Our heat-treated, high quality sprockets come in a variety of designs and materials and have the additional option of hardened teeth.

Excerpt from our delivery program sprockets



sprocket
standard design



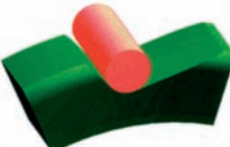
tooth shape
conventional design



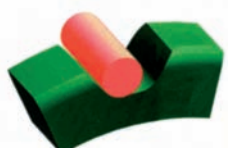
tooth shape with enlarged groove angle
and additional mud groove



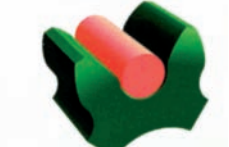
tooth shape with enlarged
groove angle



saw tooth shape



tooth shape with enlarged gap



pinion tooth shape



sprocket
with patented noise reduction



sprocket
with detachable tooth rim



split type sprocket



sprocket
with detachable root segments



pinion sprocket



sprocket
with saw toothing



sprocket
split type sprocket



sprocket
with detachable tooth rim



sprocket
with detachable root segments



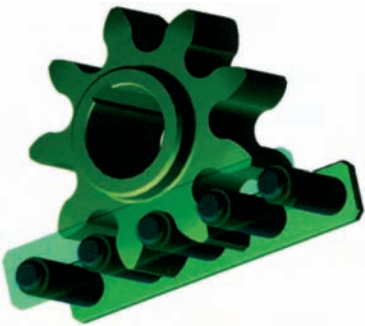
shear pin sprocket



forged link chain sprocket



split type sprocket
for forged link chain



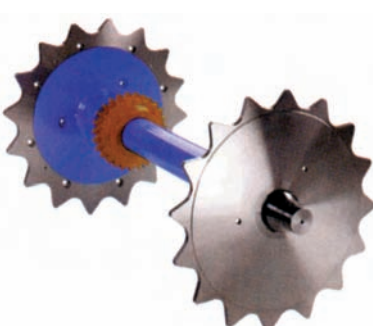
pinion sprocket



forged sprocket



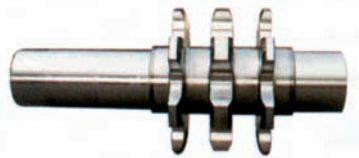
sprocket
with patented noise reduction



driving tooth wheel system

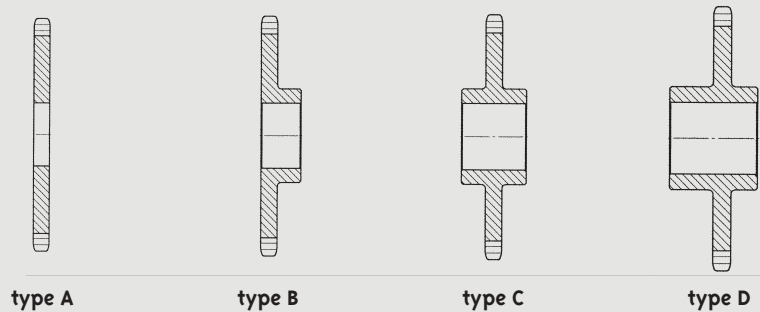


pinion with sprocket

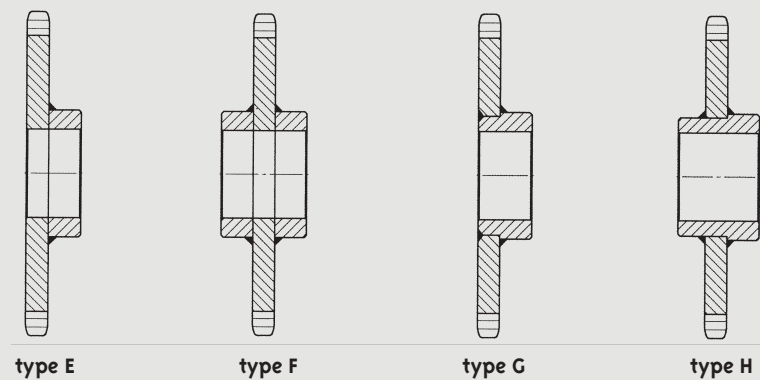


pinion shaft

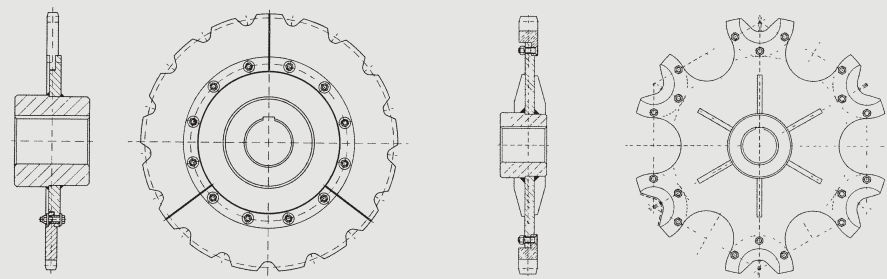
Execution types of sprockets for conveyor chains



sprockets cut from the solid



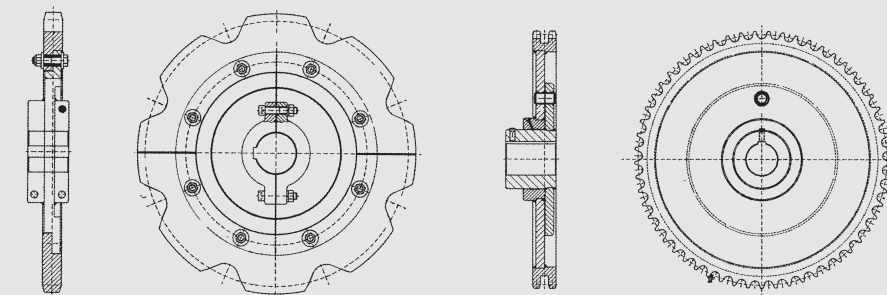
sprockets in welded execution



sprocket with flange hub and detachable three-piece toothed quadrants

sprocket with detachable root segments

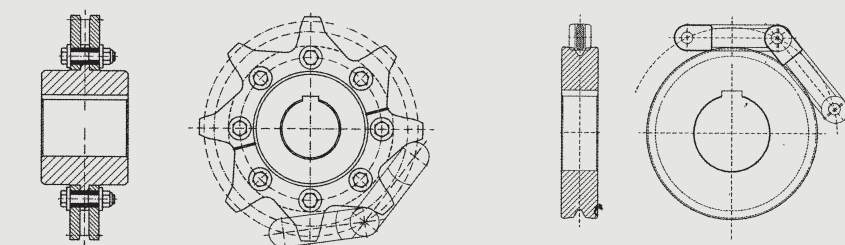
sprockets with detachable toothed quadrants and root segments



split type sprocket

sprocket with shear pin

split type sprockets and sprockets with shear pin



sprocket with detachable two-piece toothed quadrants

plain deflection sheave with switch opening for wrought clevis strap chains

sprockets and deflection sheaves for wrought clevis strap chain

Quality management

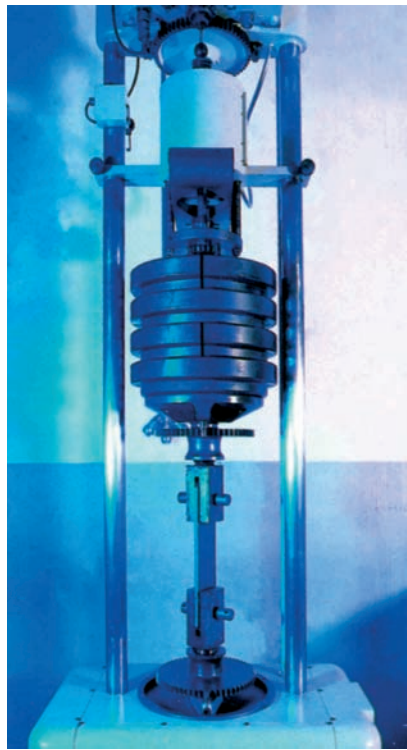
Our quality management is based on the guidelines of DIN/ISO. So we secure the security standard demanded by our customers.



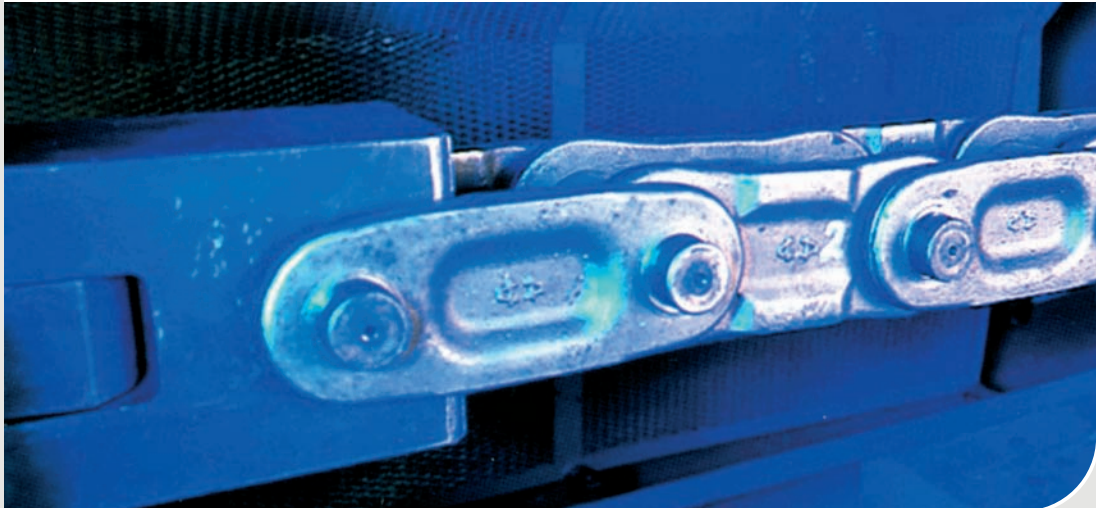
roller type dynamometer

high frequency pulsometer

As we only process flawless material, all raw material is carefully checked when it enters the factory. Along with material testing, all prefabricated parts and finished products are subject to on-going quality control. For example, hardness tests are carried out on hardened components.



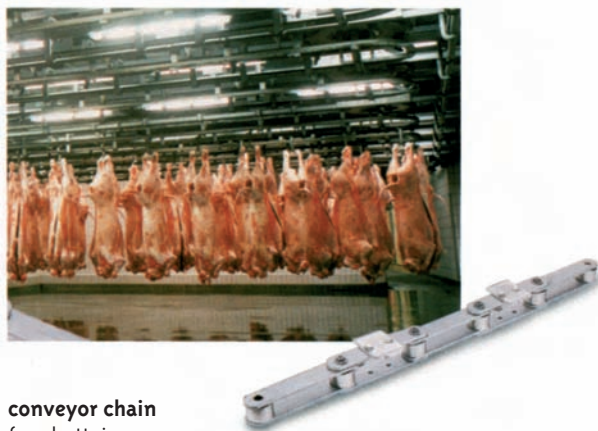
tension test till 3000 kN



Applications



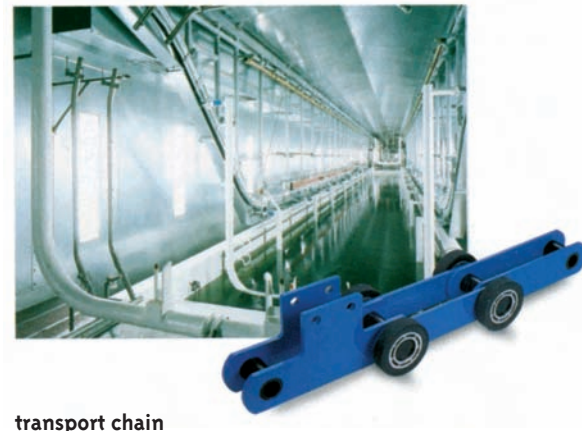
precision chain
for escalators



conveyor chain
for abattoir



bush conveyor chain
for bridge reclaimer



transport chain
for pendulum conveyor



bush conveyor chain
for bottle washing machine



lifting chain
for weir

Innovation – progress

the development of low-maintenance and non-lubricated chain designs

The demand for low-maintenance and non-lubricated chain designs is steadily increasing. Economical and environmental view points are the decisive factors behind the increasing demand.

Using low-maintenance and non-lubricated chains results in enormous reduction in costs with regard to maintenance and repair.

As no or little relubrication is required, lubrication costs virtually disappear. However, low-maintenance and non-lubricated chains are not suitable for all applications. We have carried out numerous tests to determine which applications are suitable for these type of chains. The aim of these tests was to develop techniques for reducing the wear and tear on the links of conveyor chains without relubricating. We have determined that two basic techniques are possible:

- the application of a coating which reduces wear and tear on the link
- equipping the links with special sliding bearings

low-maintenance chains

We have developed a special patent sealing for use with abrasive or corroding media. The sealing consists of a labyrinth-sealing combined with an abradant sealing. This type of sealing prevents dirt and moisture from penetrating. This is necessary for the lubrication in the chain link to remain intact over a long period of time. The product life of the chain increases considerably when the chain is relubricated less often.

chains not requiring relubrication

Depending on the operating conditions, it is sometimes possible to use chains which do not require any relubrication. This is possible through the use of special, application-specific sliding bearings and/or a special coating on the chain link. In addition to this, link sealing will also be used for some applications.

sprockets with noise dampening systems

The chains running through the sprockets create noises that can be disturbing in a factory or plant. We have developed a special patented noise dampening system to reduce these noises.

The dampers cause the sprocket to be fed smoothly into the tooth space rather than thudding against the tooth space.

As a result, the noise is reduced to such an extent that it can scarcely be heard amidst the other noises in the factory. Our noise dampening system helps to improve the general working conditions.



sprocket
with patented noise reduction



non-lubricated bush conveyor chain
with additional patented sealing

Directions



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