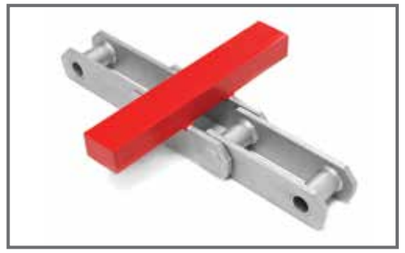
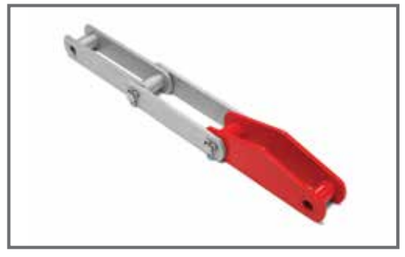
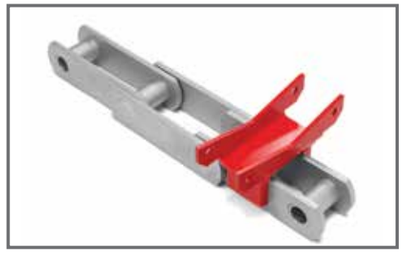
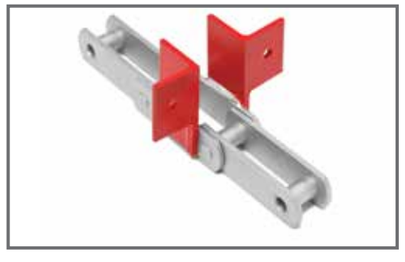
FB Chain

CONVEYOR CHAINS THAT SOLVE PROBLEMS



FB Chain

Find out more by visiting

www.fbchain.com

FB Chain Limited, Works Road, Letchworth Garden City, SG6 1LP, T: +44(0)1462 670844, E: sales@fbchain.com

FB Chain

CONVEYOR CHAIN FOR PROCESS INDUSTRIES

Content

FB Chain - Your partner for chains that solve problems	2
FB Chain a history of chain manufacturing	3
Construction of FB conveyor chain	4
FB products that solve problems	5
FB conveyor chains for fuel conveyance	6
FB scraper chains for chain conveyors	7
FB conveyor chains for transporting ash	8
FB conveyor chains for waste water treatment	9
FB conveyor chains & replacement parts for belt chains	10
FB conveyor chains to DIN/SMS	11
FB hollow pin conveyor chains	12
FB customer drivers	13
FB conveyor chain sprockets	14
FB forged link chains	15
FB sprockets & pulleys for forge link chains	16
FB chain identification chart	17
INNO the materials innovation	18
Scrapers - absolute precision for many applications	19
BS drive roller chain	20
ANSI drive roller chain	21
FB chain guide & attachment profiles	22
FB guiding profiles for roller chain types TI & TID	23

FB Chain - your partner for chains that solve problems

FB chain business has been built on supplying chain products to processing industries in northern Europe.

While we supply a number of equipment manufacturers our core business is optimising existing chain solutions in close collaboration with our maintenance and repair clients across many industry sectors.

Our aim is not only to increase the life of customers chain based equipment, but also to enhance their capacity, by increasing equipment efficiency & productivity along with reducing overall chain purchasing costs resulting from scheduled or unscheduled downtime.

Not every chain application is the same. The type and volume of product being conveyed, chain speed and working environment place many different demands on the chain. FB chains experienced staff have a wide range of options available to them for chains working in arduous applications. We are able to vary the build and make-up of the chain and alter the surface finish should corrosion be an issue. Our experience is that making small changes to a product can have a big impact on the performance of a chain.

FB takes its commitment to industry very seriously supporting technical apprenticeship schemes through its advanced CNC turning and machining centre based at its UK manufacturing division in Letchworth, Hertfordshire.

Our organisation holds certification in ISO9001:2000. FB chain representatives are regular attendees at the esteemed BSI Technical Policy Committee meetings and ensure that the company is always at the forefront of the latest chain manufacturing standards, improving the quality and safety of products and procedures for all concerned.

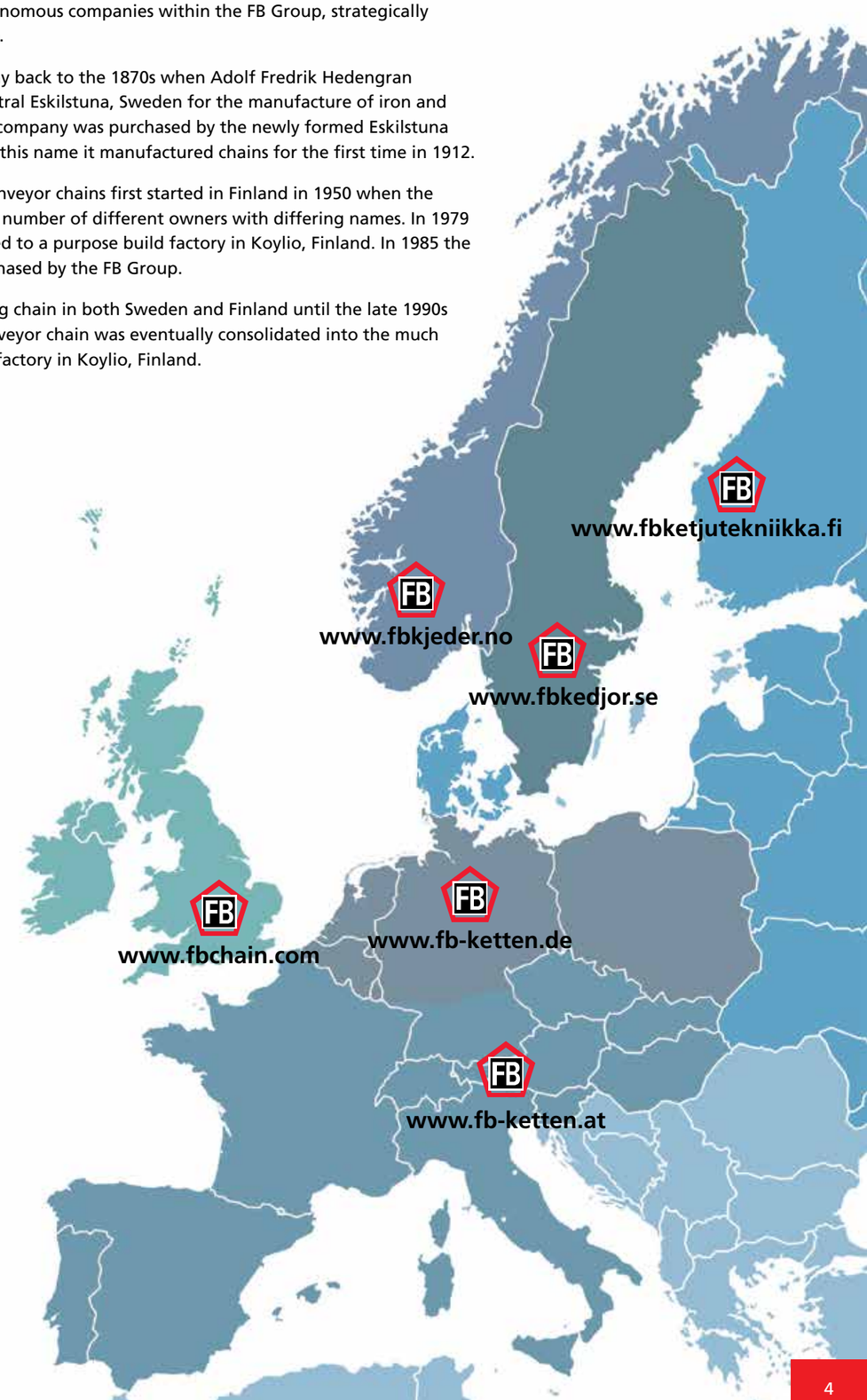
FB Chain a history of chain manufacturing

There are currently six autonomous companies within the FB Group, strategically located throughout Europe.

Our history dates all the way back to the 1870s when Adolf Fredrik Hedengran established a factory in central Eskilstuna, Sweden for the manufacture of iron and steel products. In 1908 the company was purchased by the newly formed Eskilstuna Fabriks AB. Working under this name it manufactured chains for the first time in 1912.

Manufacturing of heavy conveyor chains first started in Finland in 1950 when the company operated under a number of different owners with differing names. In 1979 production in Finland moved to a purpose build factory in Koylio, Finland. In 1985 the factory in Finland was purchased by the FB Group.

FB continued manufacturing chain in both Sweden and Finland until the late 1990s when production of all conveyor chain was eventually consolidated into the much improved and modernised factory in Koylio, Finland.



Pins

FB pins are made from MnCrB-alloy steels. We also provide pins from corrosion and acid resistant steels (for example for wet chipping). We manufacture chains with round riveted or welded pins. If a customer requests it, we also provide pins with a head, locking collar, cotter pins, collets and other fastening methods.

FB pins are induction hardened. When higher breaking strengths are required, the pins can also be tempered. Anti-rotation milling ensures they are absolutely parallel and gives a good press fit. Chains with welded pins are protected against turning.

The FB HT Pin

By welding the pins to the outer plates, stability with shear loads is increased.

Bushes

FB chain bushes are made from seamless tube and secured to minimise turning. We manufacture the bushes from induction hardened and tempered Ck45, hardened Ck15, MnCr alloy steels as well as rust and acid resistant steels.

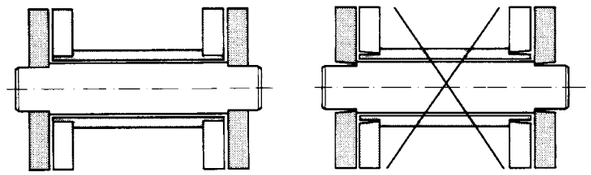
FB chain bushes are mounted either with a tight press fit or welded from the outer side of the inner plate by welding robots.Ck45 bushes are flared to improve the press fit at the ends.

FB HTH Construction

The fully automated robotic welding on several production lines guarantees the consistent high quality of FB HTH chain. By welding the pins with the outer plates and the bushes with the inner plates, we achieve optimum stability and an Increase in breaking strength of at least 30% as well as considerably higher working safety, particularly in applications with sudden shear or shock loads.

Rollers

FB seamless rollers are made of induction hardened Ck45, hardened Ck15, MnCr alloy steels or rust and acid resistant steels.



High durability through precision punching and optimal press fit.

Plates

We believe that selecting the correct material is so important for high quality conveyor chain that we regularly manufacture our chain using 3 different side plate materials. By doing so we can ensure that the resultant conveyor chains will provide optimum performance matched to the required application.

The exact position of the plate holes is achieved through precision punching. Combined with a tight press fit with the pins and bushes, this guarantees an even and lasting contact over the entire plate width. The result is a highly durable chain. Key to our selection of materials is their weldability.

FB400 - Standard

Similar to St52-3 and S355J2G3 with higher yield strength.
Very good for welding.

FB600

Similar to Boron steel 27MnB5.
Same material as the pins in FB-conveyor chains.
Good for welding.
Through hardening to 1050-1200 N/mm2.
Unrivalled breaking strength.

FB800

This side plate material is often used in applications where there is greater wear on side plates or where extra strength is required.

Construction of FB forged link chains

Specially hardened components

- Longer service life with low additional cost
- Special materials for bolts and attachments
- Tailored to the specific application, for example - stainless bolts pressed-in bearings made from spring steel or stainless steel

Variations

- Single strand, double strand
- Screwed or welded scrapers
- Bolts with head or smooth
- Secured with bushes or collar, split, U pins, hollow pin

FB chain sprockets

Milled teeth - no flame cutting - clean contours - optimal engagement of the chain.

Optional split design

Full construction without joints for precise installation.

Optional induction hardened tooth flanks

Consistent hardness values for longevity.

FB sprockets for forged link chains

Replaceable gear segments

From C45, 42CrMo4, hardened or Hardox 400/450/500.

Optimised tooth form

Closer engagement for smooth operation and long life.

CNC machining of the tooth flanks

Low surface pressure for maximum durability.

FB chain pulleys

Profiled flanged grooves

For smooth running.

Induction hardened outer diameter

Consistent high surface hardness for longevity.

Individual flanged wheel designs

For optimal management.

FB wear strips

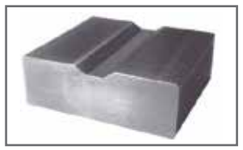
X120Mn12 manganese steel (1.3401)

Long service life.

Optional bolted and drilled varieties

High flexibility and shorter conversion times. Standard dimensions:

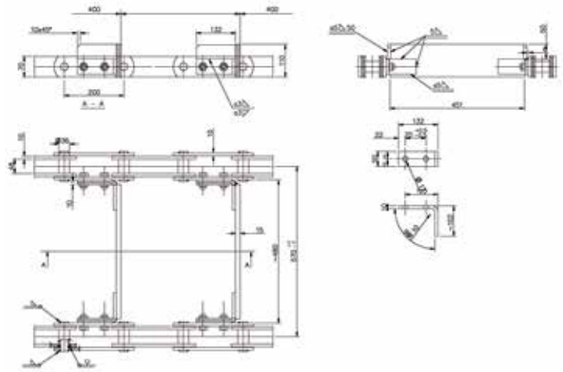
50x10, 50x12, 60x10, 60x12, 70x10, 70x20 mm
Other dimensions on request.



FB conveyor chains are constructed using selected materials to suit industry applications such as:

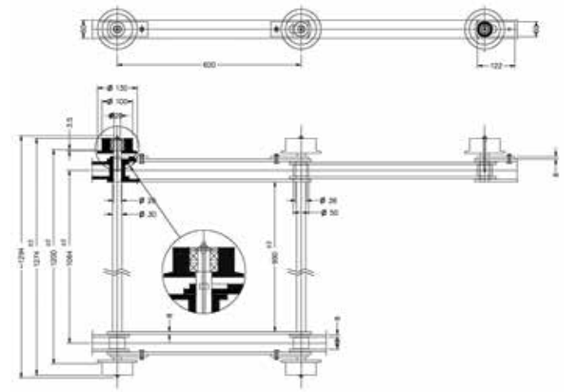
- biomass
- waste to energy
- coal
- recycling
- scrap
- building materials
- organic matter

Available with stainless steel HT pins and HTH bushes for longevity and to avoid crevice corrosion and eroded components, resulting in an increased breaking strength of up to 30% for greater operational safety.



Conveyor chain with stock pile scrapers

Alloy steels with special heat treatment allowing high loads when conveying highly abrasive material, reduced wear, longer life and high operational safety.

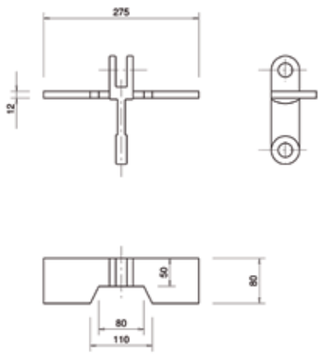


Forged link chains

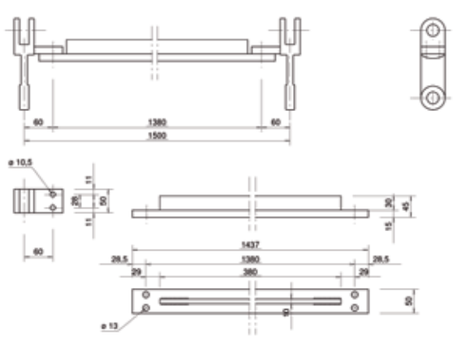
Available from tempered steels for every conveying application. Whether in high temperatures or high humidity.

FB provides the right solution.

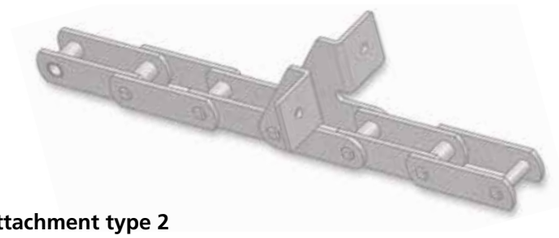
Single strand conveying

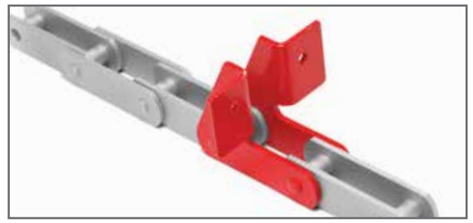


Double strand conveying

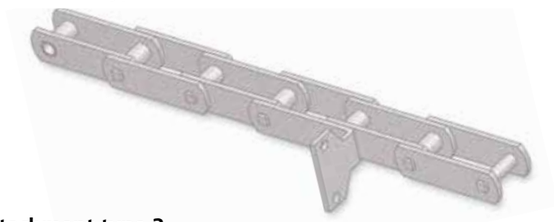


Attachment type 1

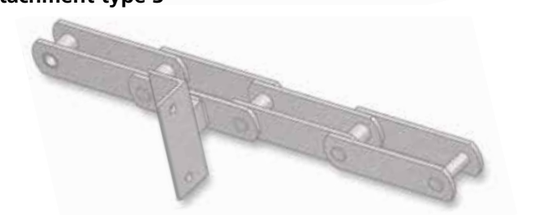


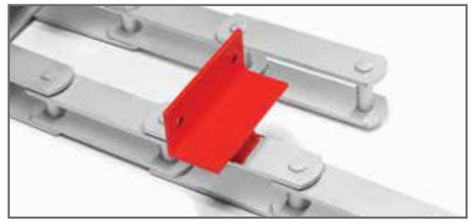


Attachment type 2

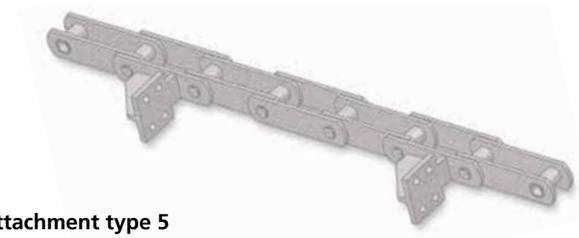


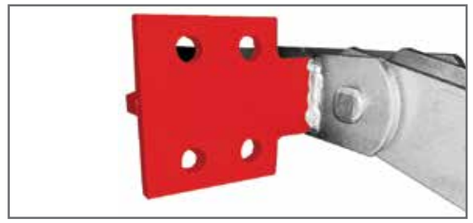
Attachment type 3



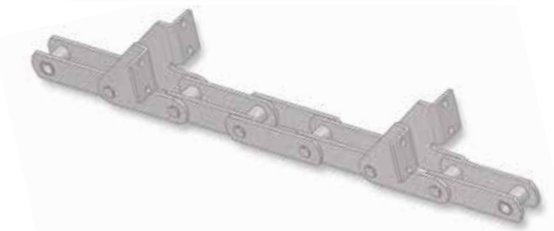


Attachment type 4





Attachment type 5



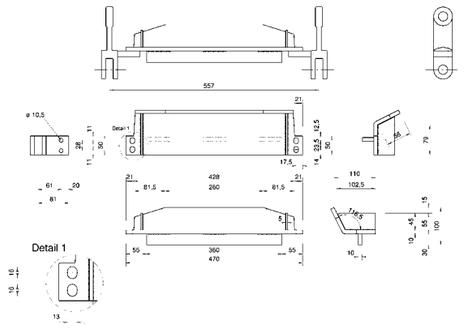
FB Scraper Chains

All measurements in mm	Pitch p mm	Inner Width b1 mm	Pin Dia d1 mm	Bush Dia d2 mm	Sideplate h x w	Illustration Nr.	Breaking Load kN min
FV90A100T/F11x600	100	25	14	20	40x6	1	140
M112A100T/F11x600	100	32	15	21	40x6	1	140
M112A100T/F2x600	100	32	15	21	40x6	2	140
FV140A125T/T4x500	125	35	18	26	45x6	4	160
FV140A125T/F22x500	125	35	18	26	45x6	5	160
FV180A125/T4x500	125	45	20	20	50x8	4	205
M160A160FB/F2x640	160	37	18	25	50x7	2/3	185
FV180A160/T4x640	160	45	20	30	50x8	4	205
M224A160/T4x640	160	43	21	30	60x8	4	250

Other versions on request.

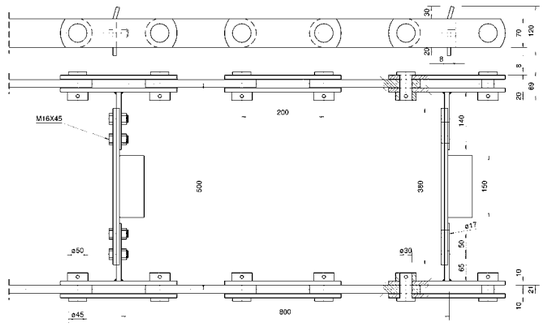
Drop-forged link chains

Special alloy steels ensure long life and a high operational reliability.



Block link chains

Made from high quality quenched and tempered steels for long service life. Split sprockets for short conversion times. Hardened teeth for optimised uptime.



Slat conveyors with forged link chains and bushes

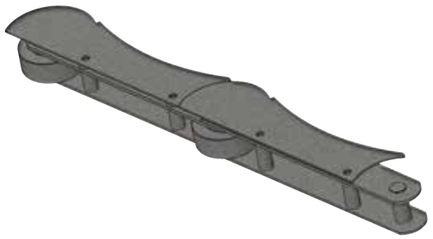
Slats available curved or welded with straight or bent side plates.

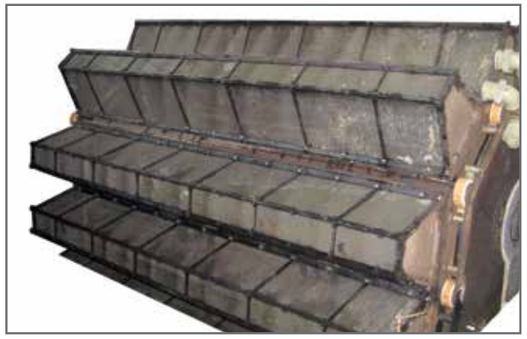
Highly wear resistant chain components with bearing rollers, ready to assemble.

Also available with external bearing rollers.

Conveyor chains for floating sludge scrapers

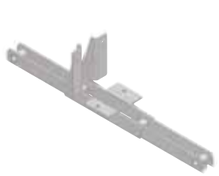
From standard materials. Alternatively, sewage sludge scraper with chrome galvanised or stainless components.

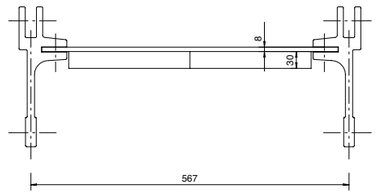


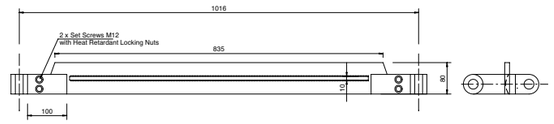


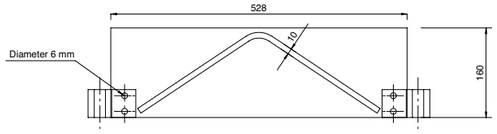
FB-Conveyor chain for (waste) water treatment

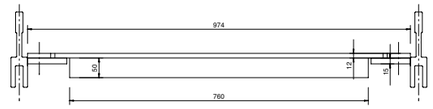
Conveyor chain for sewage-scraper with standard materials, alternate sewage-scraper with chromate, zinked or stainless steel components.







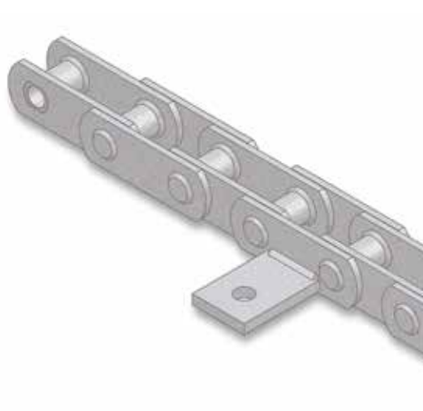


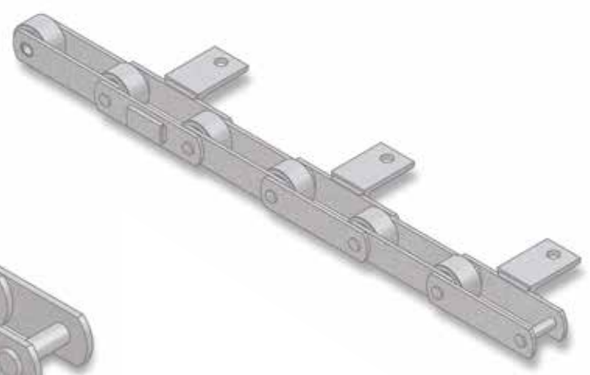


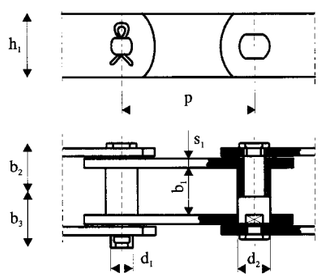
Conveyor chains, trusses, U-profiles, C-profiles, conveyor belts in standard, oil resistant or acid resistant varieties according to the individual application.

Chain belt, ready assembled with painted or galvanised surfaces. Available in both standard and custom designs.

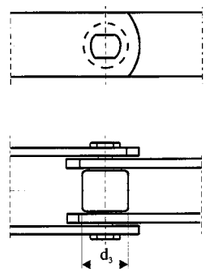
The maintenance-friendly structure of the chain belts allows the operator to carry out quick repairs in case of stoppages. As well as the high quality materials, FB conveyor chains offer chain belts with a high degree of operational safety and maximum uptime.



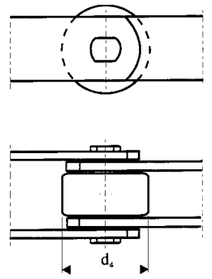




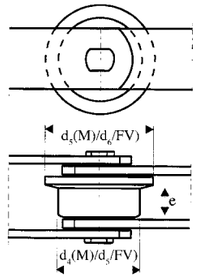
Type A Without Rollers



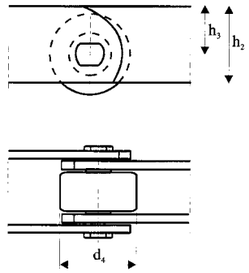
Type B With Small Rollers



Type B With Large Rollers



Type D With Flanged Rollers



Type E Deep Link Chain

DIN8167, M-Series

DIN-Nr. ISO No.	Breaking Load **kN** min.	Allowed Load **N**	Pitch mm	Inner Width **b_1** mm	Pin **d_1** mm	Bush **d_2** mm	Roller Type B **d_3** mm	Roller Type C **d_4** mm	Roller Type D **d_5** mm	Roller Type D **e** mm	**b_2** mm	**b_3** mm	Sideplates **s/s_1** mm	Sideplates **h_1** mm	Sideplates **h_2** mm	Sideplates **h_3** mm
M 40	40	5.700	63 80 100 125	20	8,5	12,5	18	36	42	13,5	21	24	4	25	35	22,5
M 56	56	8.000	63 80 100 125	24	10	15	21	42	50	17	24	27	4	30	45	25
M 80	80	11.400	80 100 125 160	28	12	18	25	50	60	20	29	33	5	35	50	32,5
M112	112	16.000	80 100 125 160	32	15	21	30	60	70	22	33	38	6	40	60	40
M160	160	22.800	100 125 160 200	37	18	25	36	70	85	25,5	38	43	7	50	70	45
M224	224	32.000	100125 160 200	43	21	30	42	85	100	30	44	49	8	60	90	60
M315	315	45.000	160 200 250 315	48	25	36	50	100	120	33	51	58	10	70	100	65
M450	450	64.000	200 250 315 400	56	30	42	60	120	140	37	60	66	12	80	120	80
M630	630	90.000	250 315 400 500	66	36	50	70	140	170	45	69	78	14	100		
M900	900	128.000	250 315 400 500	78	44	60	85	170	210	52	79	89	16	120		

DIN8165, FV-Series

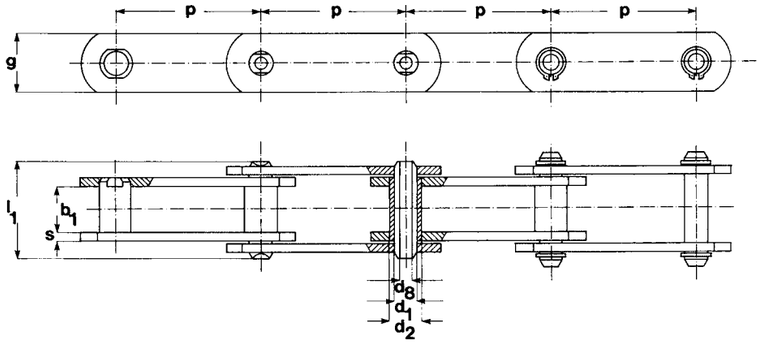
DIN-Nr. ISO No.	Breaking Load **kN** min.	Allowed Load **N**	Pitch mm	Inner Width **b_1** mm	Pin **d_1** mm	Bush **d_2** mm	Roller Type B **d_3** mm	Roller Type C **d_4** mm	Roller Type D **d_5** mm	Roller Type D **e** mm	**b_2** mm	**b_3** mm	Sideplates **s/s_1** mm	Sideplates **h_1** mm	Sideplates **h_2** mm	Sideplates **h_3** mm
(FV 40)	40	6.700	40 50 63 80 100	18	10	15	20	32	40	48	18,5	22	**4**	**25**	35	22
FV 40	40	6.700	40 50 63 80 100	18	10	15	20	32	40	48	18,5	22	3	26	35	22
FV 63	63	10.500	63 80 100 125	22	12	18	26	40	50	60	23	27,5	4	30	40	25
FV 90	90	15.000	63 80 100 125	25	14	20	30	48	63	73	26,5	31	5	35	45	27,5
FV112	112	18.700	63 80 100 125 160	30	16	22	32	55	72	87	31,5	36	6	40	50	30
FV140	140	23.400	100 125 160 200	35	18	26	36	60	80	95	34	40	6	45	60	37,5
FV180	180	30.000	100 125 160 200	45	20	30	42	70	100	120	43	50	8	50	70	45
FV250	250	41.700	125 160 200 250	55	26	36	50	80	125	145	49	57	8	60	80	50
FV315	315	52.500	160 200 250 315	65	30	42	60	90	140	170	58,5	66,5	10	70	90	55
FV400	400	66.700	160 200 250 315	70	32	44	60	100	150	185	65,5	75,5	12	70	90	55
FV500	500	83.400	160 200 250 315	80	36	50	70	110	160	195	70,5	80,5	12	80	100	60
FV630	630	105.000	200 250 315 400	90	42	56	80	120	170	210	76,5	86,5	12	100	120	70

Other dimensions upon request.

SMS1698 Rollers hardened upon request

DIN-Nr. ISO No.	Breaking Load **kN** min.	Allowed Load **N**	Pitch mm	Inner Width b_1 mm	Pin d_1 mm	Bush d_2 mm	Roller Type B d_3 mm	2 x b_2	b_3 mm	Sideplates h_1 mm	h_2 mm	h_3 mm	s_1 mm	Outer Plates **s** mm normal	heavy
3,5	35	5.800	50 63 80 100	18	10	15	32	49	22	25	35	22,5	4	4	6
5,5	55	9.160	50 63 80 100	22	12	18	40	54	27,5	30	40	25	5	4	6
8,5	85	14.100	63 80 100 150	25	14	20	50	65	31	35	50	32,5	6	5	8
12,5	125	20.800	10 0 150 200	35	18	26	60	81	36	40	60	40	8	6	8
18	180	30.000	100 150 200 250	45	20	30	70	96	40	50	78	45	8	6	10
24	240	40.000	100 150 200 250	55	26	36	80	116	50	60	80	50	10	8	12
30	300	50.000	150 200 250	65	30	42	90	128	57	70	90	55	10	8	12
40	400	66.600	150 200 250	80	36	50	110	148	66,5	80	110	70	10	12	12
65	650	108.300	150 200 250	80	36	50	110	158	75,5	90	120	75	12	15	15

FB hollow pin conveyor chains



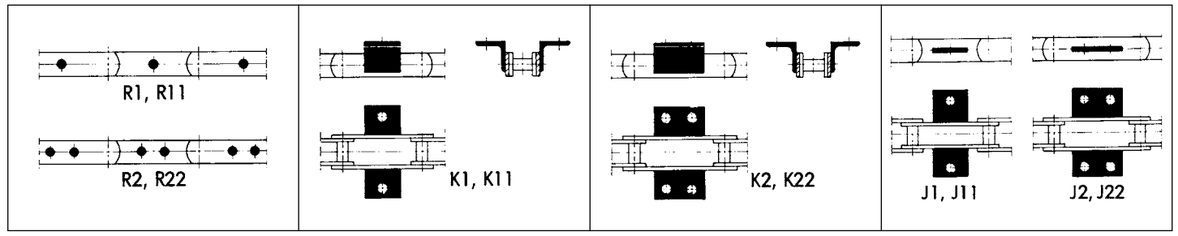
DIN8168, ISO 1977, M-Series

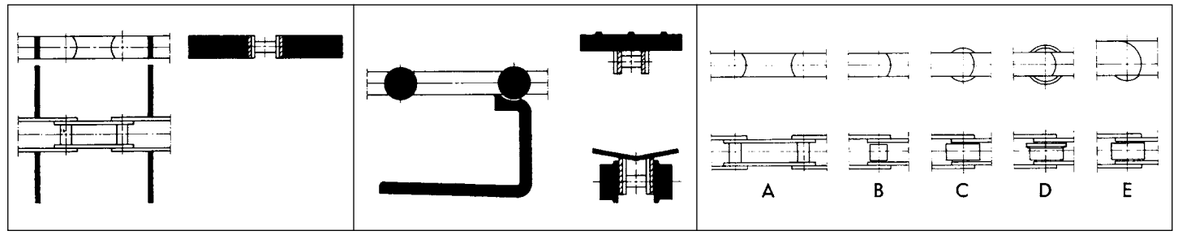
DIN-Nr. ISO No.	Breaking Load **kN** min.	Allowed Load **N**	Pitch mm	Inner Width b_1 mm	Pin d_8 / d_1 mm	Bush d_2 mm	Roller Type B d_3 mm	Roller Type C d_4 mm	Roller Type D d_4 /d_5 mm	**l1**	Sideplates **s** mm	**g** mm	h_2 mm	h_3 mm
(MC28)	28	4.000	63 80 100 125 160	20	8,5/12,5	18	25	36	36/45	42	4	25	35	22,5
MC28	28	4.000	6380 100 125 160	20	8,2/13	17,5	25	36	36/45	40	3,5	25	35	22,5
(MC56)	56	8.000	80 100 125 160 200 250	22	10,1/15	21	30	50	50/60	49	5	35	50	32,5
MC56	56	8.000	80 100 125 160 200 250	24	10,2/15,5	21	30	50	50/60	47	4	35	50	32,5
(MC112)	112	16.000	80 100 125 160 200 250	30	14,1/20	30	42	70	70/85	66	7	50	70	45
MC112	112	16.000	100 125 160 200 250 315	32	14,3/22	29	42	70	70/85	64	6	50	70	45
(MC224)	224	32.000	125 160 200 250 315	40	20,2/30	42	60	100	100/120	86	10	70	100	65
MC224	224	32.000	125 160 200 250 315	43	20,3/31	41	60	100	100/120	83	8	70	100	65

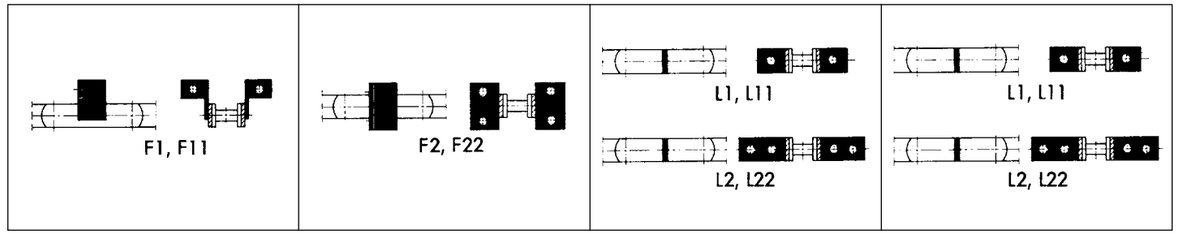
DIN8165, FV-Series

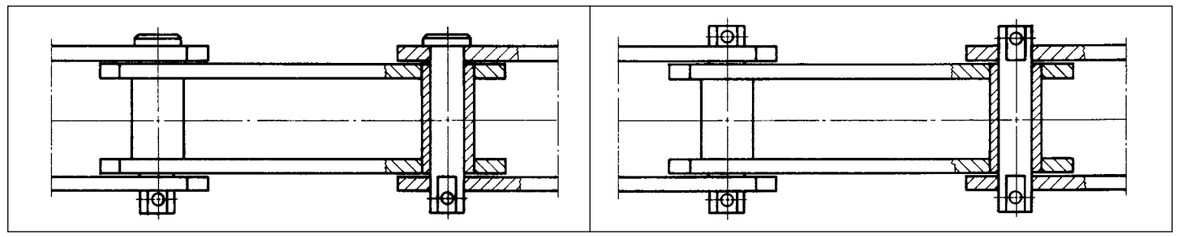
DIN-Nr. ISO No.	Breaking Load **kN** min.	Allowed Load **N**	Pitch mm	Inner Width b_1 mm	Pin d_8 / d_1 mm	Bush d_2 mm	Roller Type B d_3 mm	Roller Type C d_4 mm	Roller Type D d_4 /d_5 mm	**l1**	Sideplates **s** mm	**g** mm	h_2 mm	h_3 mm
FVC63	46 / 75*	10.500	63 80 100 125 160	22	8,2/12	18	26	40	50/60	46	4	30	40	25
FVC90	73 / 90*	15.000	63 80 100 125 160 200 250	25	10,2/14	20,0	30	48	63/78	53	5	35	45	27,5
FVC112	90 / 132*	18.700	100 125 160 200 250	30	11,2/16	22	32	55	72/87	63	6	40	50	30
FVC140	110 / 170*	23.400	100 125 160 200 250	35	12,2/18	26	36	60	80/95	68	6	45	60	37,5
FVC180	145 / 190*	30.000	125 160 200 250 315	45	14,2/20	30	42	70	100/120	68	8	50	70	45
FVC250	215 / 300*	41.700	160 200 250 315	55	18,2/26	36	50	80	125/145	98	8	60	80	50

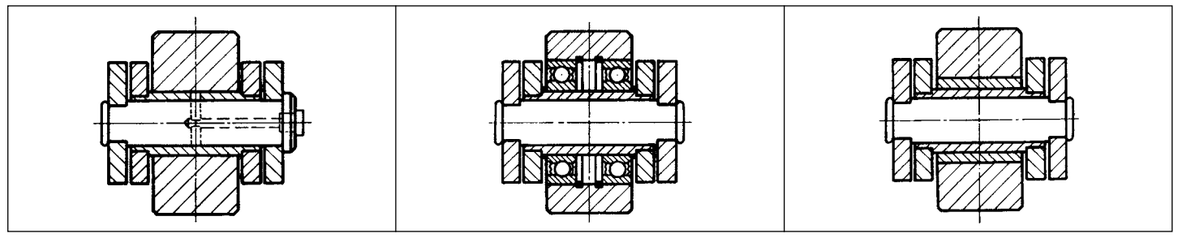
Other dimensions upon request.



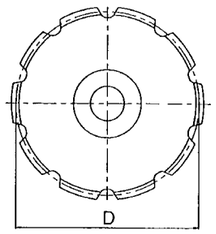




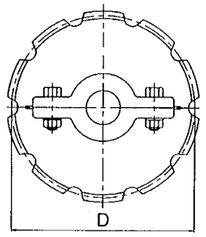




Standard Tooth Gap

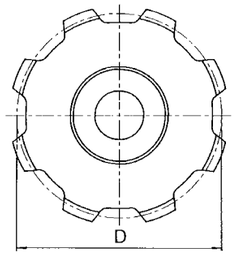


Solid wheel
N

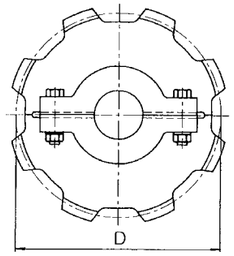


Split wheel
NN

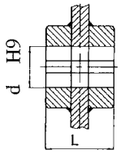
Extended Tooth Gap



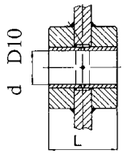
Solid wheel
YN



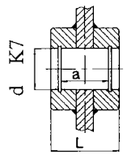
Split wheel
XN



N 1
NN 1
Keyway



N 2
Self lubricating
bush



N 4
Ball bearing

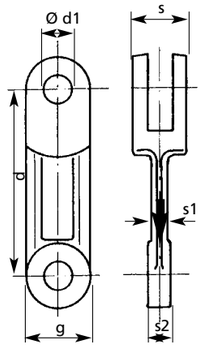
Pitch Circle Diameter:

P z	40	50	63	80	100	125	160	200	250	315	400	500
6	80,00	100,00	126,00	160,00	200,00	250,00	320,00	400,00	500,00	630,00	800,00	1000,00
7	92,19	115,24	145,20	184,38	230,48	288,10	368,76	460,96	576,20	726,01	921,92	1152,40
8	104,52	130,65	164,62	209,04	261,31	326,63	418,09	522,62	653,27	823,12	1045,24	1306,55
9	116,95	146,19	184,19	233,90	292,38	365,47	467,80	584,76	730,95	920,99	1169,52	1461,90
10	129,44	161,80	203,87	258,88	323,61	404,51	517,77	647,22	809,02	1019,37	1294,37	1618,05
11	141,98	177,47	223,61	283,96	354,95	443,68	567,92	709,90	887,37	1118,09	1419,80	
12	154,54	193,18	243,41	309,09	386,37	482,96	618,19	772,74	965,92	1217,06	1545,48	
13	167,14	208,93	263,25	334,28	417,86	522,32	668,57	835,72	1044,65	1316,25	1671,44	
14	179,76	224,70	283,12	359,52	449,40	561,75	719,04	898,80	1123,50	1415,61		
15	192,38	240,48	303,01	384,77	480,97	601,21	769,55	961,94	1202,42	1515,05		
16	205,03	256,29	322,92	410,06	512,58	640,72	820,12	1025,16	1281,45	1614,62		
17	217,68	272,11	342,85	435,37	544,22	680,27	870,75	1088,44	1360,55	1714,29		
18	230,35	287,94	362,80	460,70	575,88	719,85	921,40	1151,76	1439,70			
19	243,02	303,77	382,75	486,04	607,55	759,43	972,08	1215,10	1518,87			
20	255,70	319,62	402,72	511,40	639,25	799,06	1022,80	1278,50	1598,12			
21	268,38	335,47	422,69	536,76	670,95	838,68	1073,52	1341,90	1677,37			
22	281,06	351,33	442,68	562,13	702,67	878,33	1124,27	1405,34				
23	293,75	367,19	462,66	587,51	734,39	917,98	1175,02	1486,78				
24	306,45	383,06	482,66	612,90	766,13	957,66	1225,80	1532,26				
25	319,14	398,93	502,65	638,29	797,87	997,33	1276,59	1595,74				
26	331,84	414,81	522,66	663,69	829,62	1037,02	1327,39	1659,24				
27	344,55	430,69	542,66	689,10	861,38	1076,72	1378,20	1722,76				
28	357,25	446,57	562,67	714,51	893,14	1116,42	1492,02					
29	369,96	462,45	582,69	739,92	924,91	1156,13	1479,85					
30	382,67	478,34	602,70	765,34	956,68	1195,85	1530,68					

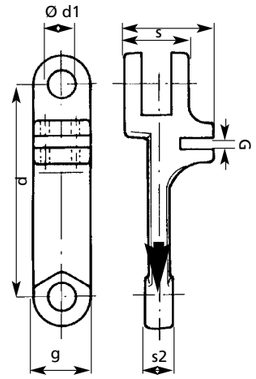
		p	s	s1	s2	g	G	d1	Breaking Load (kN) min.				
Chain	Style	mm	mm	mm	mm	mm	mm	mm	20MnCr5e	18NiCrMo5e	C40V	42CrMo4V	kg/m
R100101	A	101,60	24	6	8	36		14	90	95	100	130	3,85
R100102	A	101,60	30	8	12	36		14	120	130	150	200	5,25
R200101	A	102,00	25	6	8	36		14	75	85	90	120	3,95
R100103	A	142,00	24	6	8	47		20	110	120	145	200	4,50
R100104	A	142,00	42	11	19	50		25	270	280	50	440	10,40
R100105	A	142,00	62	15	28	50		25	370	400	500	600	14,90
R200102	A	142,00	56	18	25	50		25	310	350	400	480	12,50
R100106	A	150,00	24	6	8	50		20	110	120	145	200	5,00
R100107	A	150,00	42	12	15,5	47		25	230	250	300	340	10,00
R100108	A	160,00	50	12	23	50		25	300	320	400	520	10,50
R200103	A	160,00	42	12	20	45		20	260	275	320	380	11,00
R200104	F	160,00	72	15	22	45		22	270				14,50
R300175	D	175,00	72	22	30	60	11	30	500	550	600	710	15,00
R100109	A	200,00	66	17	32	60		28	530	580	650	750	16,30
R200105	A	200,00	54	15	25,5	50		25	310	350	40	480	12,80
R200106	D	200,00	52	18	25	50	13	25	300	340	330	460	11,50
R200107	D	200,00	58	17	25	50	11,5	25	310	350	450	550	13,00
R200108	D	200,00	70	20	30	60	13	30	500	550	600	750	19,40
R300216	A	216,00	64	20	26	73		35	480	500	630	700	20,00
R200109	F	220,00	96	20	28	66		32	530	568	650	750	23,00
R100110	A	250,00	70	20	31	75		34	600	650	750	1.000	24,00
R200110	A	250,00	66	18	33	60		28	530	580	650	750	14,00
R200111	D	250,00	70	20	30	60	13	30	500	550	600	700	16,00
R200112	E	250,00	86	20	43	80		40	850	880	950	1.100	39,00
R100111	A	260,00	70	21	31	75		34	600	650	750	1.000	21,65

Theoretically calculated breaking strength
Tested breaking strength
Chain available, but new tools required

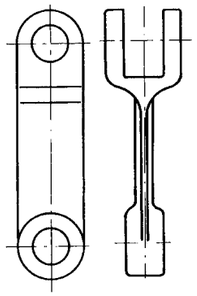
Other materials and dimensions on request.



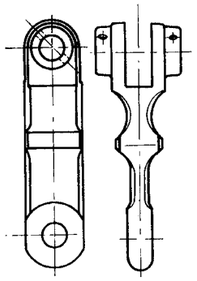
Style A



Style D

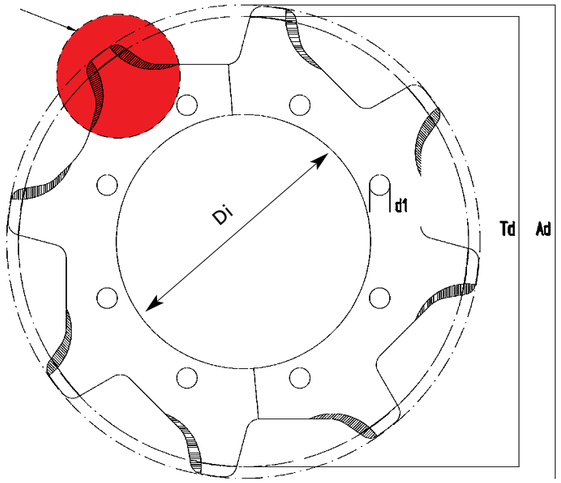


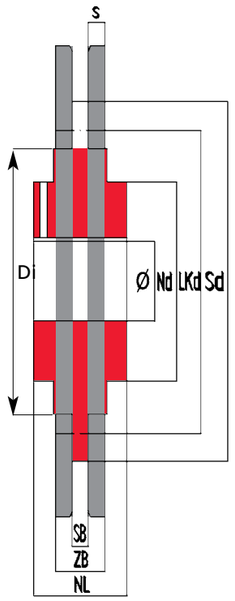
Style E



Style F

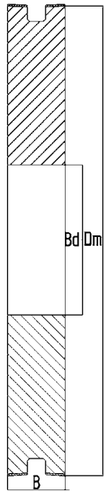
Symmetric teeth on demand





Teeth No.	Ad	Td	R100104			R100105			sd	d1	Screws	ca
	mm	mm	ZB (mm)	SB (mm)	s (mm)	ZB (mm)	SB (mm)	s (mm)	mm	mm		kg/St
6	304	284,00	46	16	15	64	24	20	192	17	6 x M16	22
7	344	327,31	46	16	15	64	24	20	233	17	7 x M16	33
8	390	371,06	46	16	15	64	24	20	280	17	8 x M16	47
9	434	415,18	46	16	15	64	24	20	330	17	9 x M16	68
10	474	459,52	46	16	15	64	24	20	368	17	10 x M16	82
11	534	504,02	46	16	15	64	24	20	420	17	11 x M16	101
12	564	548,64	46	16	15	64	24	20	466	17	12 x M16	130
13	615	593,37	46	16	15	64	24	20	512	17	13 x M16	176
14	660	638,15	46	16	15	64	24	20	558	17	14 x M16	220
15	702	682,87	46	16	15	64	24	20	603	17	15 x M16	251
16	750	727,90	46	16	15	64	24	20	650	17	16 x M16	349

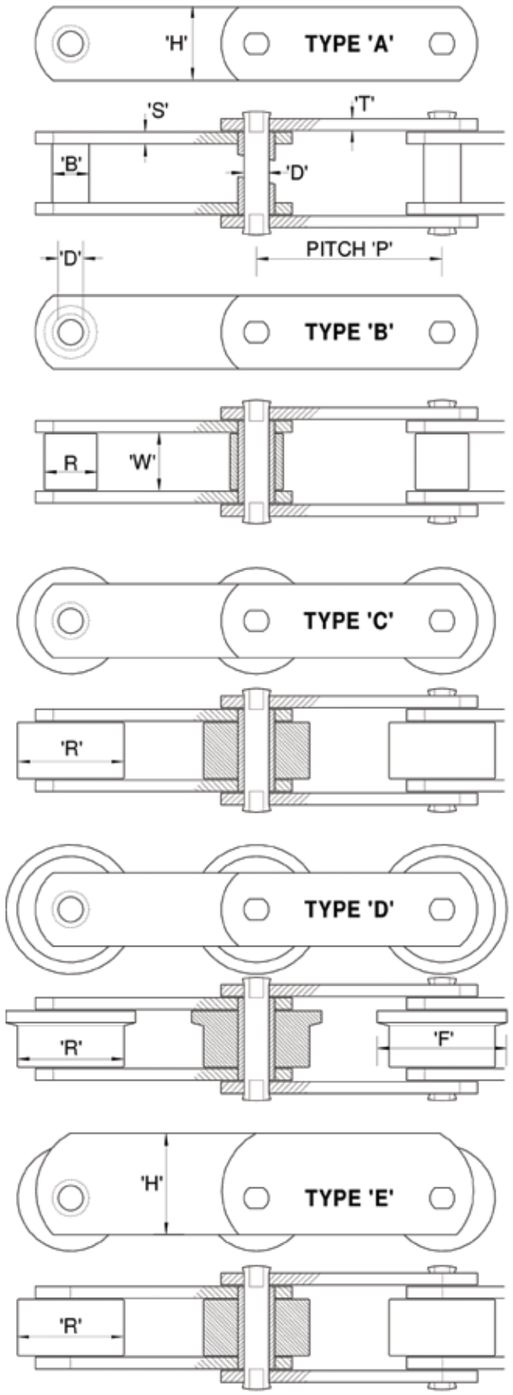
56HRC Eht 2-3mm



Number of Teeth	Chain Pulleys Dia mm	B (mm) R100104	B (mm) R100105	ca. kg/St
6	235	50	70	15
7	280	50	70	23
8	320	50	70	29
9	365	50	70	41
10	410	50	70	50
11	450	50	70	68
12	500	50	70	84
13	540	50	70	88
14	590	50	70	100
15	630	50	70	126
16	680	50	70	151

When ordering conveyor chain the following information will greatly assist in ensuring correct chain identification:-

Make of machine	
Application	
Chain Type - ‘A’ - ‘B’ - ‘C’ - ‘D’ - ‘E’	
Welded or Riveted Pin‘C’ - ‘D’ - ‘E’	
Chain Pitch ‘P’Pin‘C’ - ‘D’ - ‘E’	
Pin Diameter / Hole Diameter ‘D’‘D’ - ‘E’	
Bush Diameter ‘B’	
Roller Diameter ‘R’	
Flange Diameter ‘F’	
Plate Height ‘H’	
Inner Plate Thickness ‘S’	
Outer Plate Thickness ‘T’‘S’	
Inside Width ‘W’‘T’‘S’	
Provide details of any attachments required either below or on seperate sketch	



Company: .....

Contact: .....

Branch: .....

Tel: .....

Fax: .....

E-Mail: .....

FB Chain Ltd, Jubilee Road, Letchworth Garden City, SG6 1NE, T: +44(0)1462 670844, F: +44(0)1462 480745, E: cc@fbchain.com

- High strength
- High stability
- Wear resistant and durable
- Over 60% weight saving in comparison with steel constructions
- Reduction of crash-related downtime
- Increased operational safety
- No damage to the chain from deformed scrapers
- Breaking point in case of overload
- Ready to install
- Available in 3 quality/strength levels 1000 tough
  - inno 500
  - inno 1000
  - inno 1000 zäh
- Easy disposal
- No bending
- Snap when overloaded

No lasting deformations with INNO scrapers!

Technical Data		inno 100	inno 500	inno 1000	inno 1000 zäh
Gross density kg/cm³					
DIN 53479		um 750 kg/m³	um 1.350 kg/m³	um 1.350 kg/m³	um 1.350 kg/m³
Flexural strength N/mm²	∥ Layering	65 N/mm²	165 N/mm²	160 N/mm²	160 N/mm²
DIN 53452	⊥ Layering	75 N/mm²	180 N/mm²	190 N/mm²	190 N/mm²
Impact strength kJ/m²	∥ Layering	-	25 kJ/m²	20 kJ/m²	20 kJ/m²
DIN 53453	⊥ Layering	-	50 kJ/m²	30 kJ/m²	40 kJ/m²
Notched impact strength kJ/m²	∥ Layering	-	20 kJ/m²	10 kJ/m²	14 kJ/m²
DIN 53453	⊥ Layering	-	50 kJ/m²	-	-
Tensile strength N/mm²	∥ Layering	65 N/mm²	125 N/mm²	120 N/mm²	120 N/mm²
Compressive strength N/mm²	∥ Layering	43 N/mm²	135 N/mm²	150 N/mm²	130 N/mm²
DIN 53454	⊥ Layering	35 N/mm²	270 N/mm²	260 N/mm²	240 N/mm²
Indentation strength N/mm²	⊥ Layering	-	140 N/mm²	200 N/mm²	150 N/mm²
Split load N	⊥ Layering	-	3.000 N	4.600 N	3.600 N
Shear strength N/mm²	∥ Layering	-	10 N/mm²	15 N/mm²	10 N/mm²
	⊥ Layering	-	60 N/mm²	-	-
Elasticity N/mm²					
DIN 53457 flexibility	⊥ Layering	8.200 N/mm²	17.000 N/mm²	16.000 N/mm²	17.000 N/mm²
DIN 53457 pressure	⊥ Layering	7.400 N/mm²	2.600 N/mm²	-	-
	∥ Layering	5.600 N/mm²	6.000 N/mm²	14.000 N/mm²	14.000 N/mm²
Kinetic coefficient of friction μG					
Against bright-rolled stainless steel	⊥ Layering	-	0,2 - 0,3	0,18	0,18
Water absorption as a % after 24hrs water addition (test specimen 50x50x30) DIN 53495					
		26%	3,50%	2,50%	3,80%

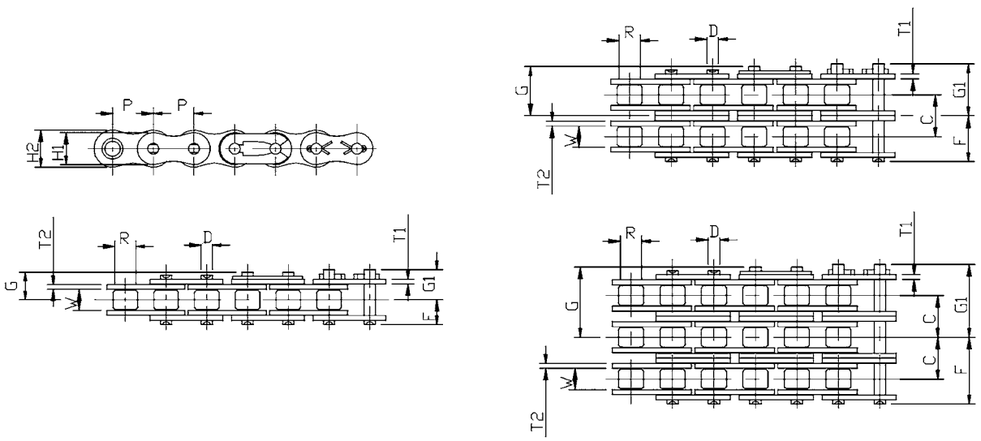
∥ Layering = parallel layering ⊥ Layering = perpendicular layering

We are also able to produce Inno scrapers according to your individual requirements. Speak to us!

Examples where steel scrapers have failed to break!

Superior Quality

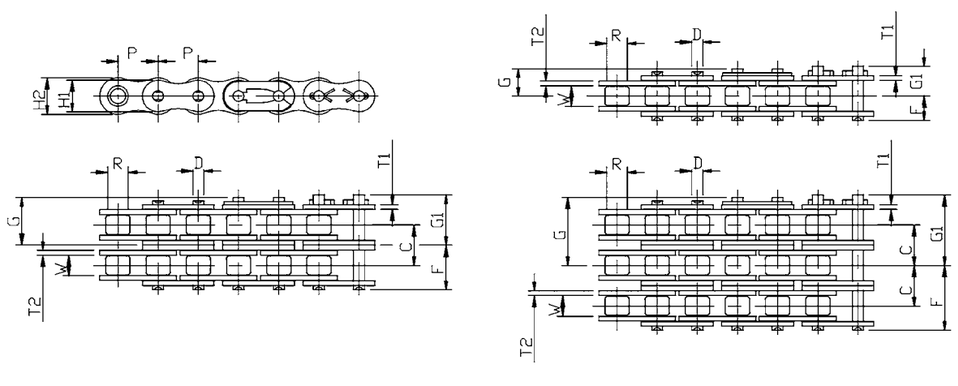
- High quality materials
- Seamless bush & rollers
- Manufactured using the latest manufacturing procedures
- Available in sizes from 3/8" to 3.5"- simplex/duplex/triplex boxed, reels or cut to specific lengths
- Corrosion Protective series available – just ask for more details



Chain No. DIN	PxW	Pitch P (mm)	Width W (mm)	Roller Dia R (mm)	Sideplates				Pin				Transverse Pitch C (mm)	Average Ultimate Strength		Approx Weight kg/m
					Height		Thickness		Dia	Lengths						
					H1 (mm)	H2 (mm)	T1 (mm)	T2 (mm)	D (mm)	F (mm)	G (mm)	G1 (mm)		DIN (N)	FB (N)	
06B-1	3/8x7/32"	9,525	5,72	6,35	8,10	8,10	1,00	1,25	3,28	6,10	7,40	-	-	9.000	10.301	0,39
06B-2	3/8x7/32"	9,525	5,72	6,35	8,10	8,10	1,00	1,25	3,28	11,20	12,30	-	10,24	16.900	18.639	0,74
06B-3	3/8x7/32"	9,525	5,72	6,35	8,10	8,10	1,00	1,25	3,28	16,30	17,40	17,80	10,24	24.900	26.487	1,09
08B-1	1/2x5/16"	12,7	7,75	8,51	10,20	11,80	1,50	1,50	4,44	8,20	9,50	-	-	18.000	18.933	0,65
08B-2	1/2x5/16"	12,7	7,75	8,51	10,20	11,80	1,50	1,50	4,44	15,30	16,70	-	13,92	32.000	35.316	1,30
08B-3	1/2x5/16"	12,7	7,75	8,51	10,20	11,80	1,50	1,50	4,44	22,20	23,50	23,80	13,92	47.500	52.974	1,92
10B-1	5/8x3/8"	15,875	9,65	10,16	13,00	14,60	1,65	1,65	5,06	9,60	11,10	-	-	22.400	26.487	0,92
10B-2	5/8x3/8"	15,875	9,65	10,16	13,00	14,60	1,65	1,65	5,06	17,90	19,4	-	6,59	44.500	51.012	1,68
10B-3	5/8x3/8"	15,875	9,65	10,16	13,00	14,60	1,65	1,65	5,06	26,20	27,5	28,20	16,59	66.700	77.009	2,62
12B-1	3/4x7/16"	19,05	11,68	12,07	16,00	16,00	1,80	1,80	5,72	11,10	12,6	-	-	29.000	33.354	1,24
12B-2	3/4x7/16"	19,05	11,68	12,07	16,00	16,00	1,80	1,80	5,72	20,80	22,4	-	19,46	57.800	66.708	2,28
12B-3	3/4x7/16"	19,05	11,68	12,07	16,00	16,00	1,80	1,80	5,72	30,60	31,9	32,50	19,46	86.700	100.062	3,55
16B-1	1"x17,02 mm	25,40	17,02	15,88	20,80	20,80	3,20	4,00	8,27	17,70	19,25	20,20	-	60.000	78.480	2,65
16B-2	1"x17,02 mm	25,40	17,02	15,88	20,80	20,80	3,20	4,00	8,27	33,64	35,16	36,16	31,88	106.000	151.000	5,25
16B-3	1"x17,02 mm	25,40	17,02	15,88	20,80	20,80	3,20	4,00	8,27	49,58	51,12	52,12	31,88	160.000	235.440	7,86
20B-1	1 1/4x3/4"	31,75	19,56	19,05	26,00	26,00	3,50	4,40	10,18	20,50	-	23,50	-	95.000	117.720	3,85
20B-2	1 1/4x3/4"	31,75	19,56	19,05	26,00	26,00	3,50	4,40	10,18	38,73	-	41,72	36,45	170.000	235.440	7,65
20B-3	1 1/4x3/4"	31,75	19,56	19,05	26,00	26,00	3,50	4,40	10,18	56,95	-	59,95	36,45	250.000	353.160	11,45
24B-1	1 1/2x1"	38,10	25,40	25,40	33,00	33,00	5,20	6,00	14,62	26,65	-	32,35	-	160.000	176.580	7,60
24B-2	1 1/2x1"	38,10	25,40	25,40	33,00	33,00	5,20	6,00	14,62	50,83	-	56,53	48,36	280.000	343.350	14,80
24B-3	1 1/2x1"	38,10	25,40	25,40	33,00	33,00	5,20	6,00	14,62	75,00	-	80,72	48,36	425.000	515.025	21,90
28B-1	1 3/4x 1 1/4"	44,45	31,00	27,94	37,00	37,00	6,40	7,40	15,90	32,48	-	37,97	-	200.000	206.010	9,05
28B-2	1 3/4x 1 1/4"	44,45	31,00	27,94	37,00	37,00	6,40	7,40	15,90	62,26	-	67,75	59,56	360.000	402.210	17,12
28B-3	1 3/4x 1 1/4"	44,45	31,00	27,94	37,00	37,00	6,40	7,40	15,90	92,04	-	97,53	59,56	530.000	588.600	25,61
32B-1	2x 1 1/4"	50,80	31,00	29,21	42,00	42,00	6,40	7,10	17,81	32,68	-	38,17	-	250.000	259.965	10,63
32B-2	2x 1 1/4"	50,80	31,00	29,21	42,00	42,00	6,40	7,10	17,81	61,95	-	67,45	58,55	450.000	495.405	20,85
32B-3	2x 1 1/4"	50,80	31,00	29,21	42,00	42,00	6,40	7,10	17,81	91,23	-	96,72	58,55	670.000	745.560	31,57
40B-1	2 1/2x1 1/2"	63,50	38,10	39,37	52,90	52,90	8,00	8,00	22,89	40,20	-	47,30	-	355.000	388.476	16,25
40B-2	2 1/2x1 1/2"	63,50	38,10	39,37	52,90	52,90	8,00	8,00	22,89	76,35	-	83,45	72,29	630.000	745.560	31,86
40B-3	2 1/2x1 1/2"	63,50	38,10	39,37	52,90	52,90	8,00	8,00	22,89	112,50	-	119,60	72,29	950.000	1.098.720	48,14
48B-1	3x1 3/4"	76,20	45,72	48,26	63,50	63,50	9,90	11,80	29,24	49,40	-	56,50	-	560.000	610.182	25,05
48B-2	3x1 3/4"	76,20	45,72	48,26	63,50	63,50	9,90	11,80	29,24	95,00	-	102,10	91,21	1.000.000	1.157.580	49,83
48B-3	3x1 3/4"	76,20	45,72	48,26	63,50	63,50	9,90	11,80	29,24	140,60	-	147,70	91,21	1.500.000	1.736.370	75,07
56B-1	3 1/2"x53,34 mm	88,90	53,34	53,98	77,85	77,85	13,00	15,00	34,32	117,00	-	137,00	-	850.000	850.000	35,78
56B-2	3 1/2"x53,34 mm	88,90	53,34	53,98	77,85	77,85	13,00	15,00	34,32	223,00	-	243,60	106,60	1.600.000	1.600.000	70,00
56B-3	3 1/2"x53,34 mm	88,90	53,34	53,98	77,85	77,85	13,00	15,00	34,32	330,50	-	350,20	106,60	2.240.000	2.240.000	105,00

Extensive Product Line Up

- High quality materials
- Available in sizes ½" to 3" - simplex/duplex/triplex
- Heavy duty series available
- Straight side plate versions – ½" to 1¼"
- Double pitch versions with std/oversize roller available
- Corrosion Protective series – just ask for more details



Chain No. DIN	PxW	Pitch P (mm)	Width W (mm)	Roller Dia R (mm)	Sideplates				Pin				Transverse Pitch C (mm)	Average Ultimate Strength		Approx Weight kg/m
					Height		Thickness		Dia	Lengths						
					H1 (mm)	H2 (mm)	T1 (mm)	T2 (mm)	D (mm)	F (mm)	G (mm)	G1 (mm)		DIN (N)	FB (N)	
40-1	1/2x5/16"	12,7	7,95	7,92	10,20	11,80	1,50	1,50	3,96	8,20	9,35	10,00	-	14.100	18.149	0,63
40-2	1/2x5/16"	12,7	7,95	7,92	10,20	11,80	1,50	1,50	3,96	15,30	17,00	17,60	14,40	28.200	36.297	1,19
40-3	1/2x5/16"	12,7	7,95	7,92	10,20	11,80	1,50	1,50	3,96	22,65	23,80	24,55	14,40	42.300	54.446	1,77
50-1	5/8x3/8"	15,875	9,53	10,16	13,00	14,80	2,00	2,00	5,06	10,10	11,65	12,60	-	22.200	30.411	1,01
50-2	5/8x3/8"	15,875	9,53	10,16	13,00	14,80	2,00	2,00	5,06	19,20	20,70	21,10	18,10	44.400	60.822	2,04
50-3	5/8x3/8"	15,875	9,53	10,16	13,00	14,80	2,00	2,00	5,06	28,30	29,65	30,20	18,10	66.600	91.233	3,05
60-1	3/4x1/2"	19,05	12,70	11,91	15,50	17,50	2,40	2,40	5,95	12,50	14,15	15,40	- 31.800	43.164	1,44	
60-2	3/4x1/2"	19,05	12,70	11,91	15,50	17,50	2,40	2,40	5,95	24,00	25,50	26,90	22,80	63.600	86.328	3,03
60-3	3/4x1/2"	19,05	12,70	11,91	15,50	17,50	2,40	2,40	5,95	35,35	36,95	37,65	22,80	95.400	129.492	4,50
80-1	1x5/8"	25,40	15,88	15,88	20,40	23,90	3,10	3,10	7,94	16,10	17,75	18,80	-	56.700	76.518	2,40
80-2	1x5/8"	25,40	15,88	15,88	20,40	23,90	3,10	3,10	7,94	30,60	32,20	33,60	29,30	113.400	153.036	5,26
80-3	1x5/8"	25,40	15,88	15,88	20,40	23,90	3,10	3,10	7,94	45,30	47,00	48,00	29,30	170.100	229.554	7,80
100-1	1 1/4x3/4"	31,75	19,05	19,05	24,80	30,10	3,90	3,90	9,52	20,10	-	23,10	-	88.500	115.758	3,74
100-2	1 1/4x3/4"	31,75	19,05	19,05	24,80	30,10	3,90	3,90	9,52	38,00	-	41,00	35,80	177.000	231.516	7,51
100-3	1 1/4x3/4"	31,75	19,05	19,05	24,80	30,10	3,90	3,90	9,52	55,90	-	58,90	35,80	265.500	347.274	11,20
120-1	1 1/2x1"	38,10	25,40	22,23	30,00	35,00	4,70	4,70	11,10	25,20	-	28,60	-	127.000	152.055	6,18
120-2	1 1/2x1"	38,10	25,40	22,23	30,00	35,00	4,70	4,70	11,10	47,90	-	51,30	45,40	254.000	304.110	12,25
120-3	1 1/2x1"	38,10	25,40	22,23	30,00	35,00	4,70	4,70	11,10	70,60	-	74,00	45,40	381.000	456.165	18,30
140-1	1 3/4x1"	44,45	25,40	25,40	36,20	42,00	5,60	5,60	12,70	27,30	-	31,50	-	172.400	210.915	7,49
140-2	1 3/4x1"	44,45	25,40	25,40	36,20	42,00	5,60	5,60	12,70	51,75	-	55,75	48,90	344.800	421.830	14,83
140-3	1 3/4x1"	44,45	25,40	25,40	36,20	42,00	5,60	5,60	12,70	76,20	-	80,40	48,90	571.200	632.745	22,20
160-1	2x 1 1/4"	50,80	31,75	28,58	41,40	48,00	6,40	6,40	14,28	32,55	-	37,25	-	226.800	269.775	10,10
160-2	2x 1 1/4"	50,80	31,75	28,58	41,40	48,00	6,40	6,40	14,28	61,80	-	66,50	58,50	453.600	539.550	20,04
160-3	2x 1 1/4"	50,80	31,75	28,58	41,40	48,00	6,40	6,40	14,28	91,05	-	95,75	58,50	680.400	809.325	30,02
200-1	2 1/2x1 1/2"	63,50	38,10	39,68	51,80	60,10	8,00	8,00	19,84	39,75	-	47,10	-	353.800	451.260	16,50
200-2	2 1/2x1 1/2"	63,50	38,10	39,68	51,80	60,10	8,00	8,00	19,84	75,55	-	82,85	71,60	707.600	902.520	32,70
200-3	2 1/2x1 1/2"	63,50	38,10	39,68	51,80	60,10	8,00	8,00	19,84	111,35	-	118,65	71,60	1.061.400	1.353.780	49,05
240-1	3x1 7/8"	76,20	47,63	47,60	62,40	72,20	9,50	9,50	23,80	47,70	-	54,80	-	510.300	671.985	24,20
240-2	3x1 7/8"	76,20	47,63	47,60	62,40	72,20	9,50	9,50	23,80	91,60	-	98,70	87,80	1.020.600	1.343.970	47,80
240-3	3x1 7/8"	76,20	47,63	47,60	62,40	72,20	9,50	9,50	23,80	135,50	-	142,60	87,80	1.530.900	2.015.955	71,10

Extensive Product Line Up

FB chain manufacture and supply chain guide profiles or any special attachment profile for any of the popular BS & ANSI series roller & conveyor chains whatever industry or application you are in. Using sheet, block or extruded rod material in a variety of colours we can manufacture to suit your particular industry requirements, including food grade materials, just ask.

ISO-LEN® 1000 has proven itself a great success for several years in the beverage and packaging industries. Due to the very low coefficient of sliding friction, the wear to machinery parts is reduced to a minimum.

ISO-LEN® 1000 outstanding qualities are:

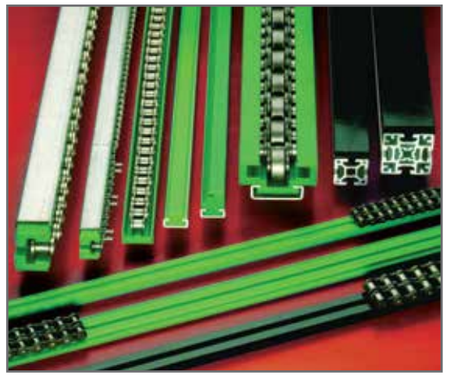
- High abrasion resistance
- Low friction coefficient
- Self-lubrication
- Impact-proof

Due to these properties our ISO-LEN® 1000 products are used for technical applications where specific high-performance plastics are needed.

Machine components are often exposed to acid conditions or water and detergents. Please ask for details about chemical resistance of our products.

ISO-LEN® 1000 is used in the manufacture of star conveyors, guide rollers and deflector rollers for bottling, as well as cleaning or labelling machines, bearing boxes, sliding rails, rubbing strips, screw-conveyors, chain guides, and adjusters due to the following qualities:

- Good mechanical properties
- Vibration and noise reducing
- Acid and chemical-proof
- Non porous
- Environmentally friendly
- Effectively resistant to stress-cracking



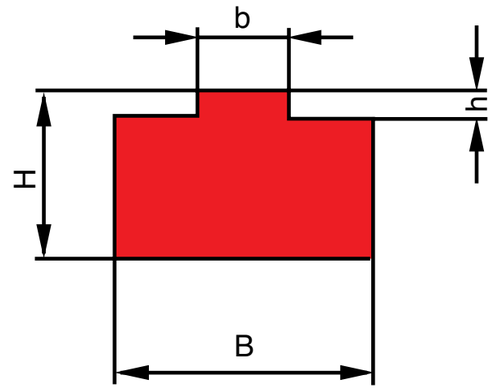
ISO-LEN® 500 for the food-industry and many other industries.

A high-grade plastic for use in fisheries, at dairies, slaughterhouses, and industrial catering applications to name just a few. ISO-LEN® 500 plastic meets all European regulations for food packing as well as the Food and Drug Administration (FDA) in the USA. Our standard colours are: natural, brown and black. Other colours are available on request.

Guiding Profile Type TI

Chain guide for roller chains made of ISO-LEN® 1000 green (virgin) or ISO-LEN® 1000 green(reg.)

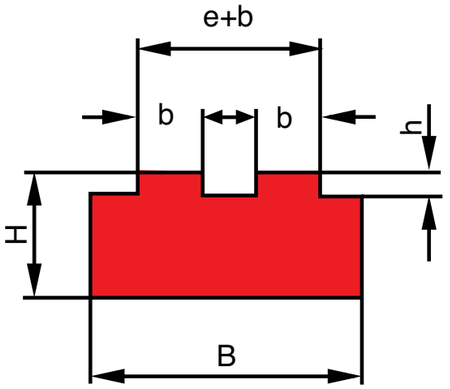
Type	DIN /ISO	Chain dimension	Standard dimension in mm				Weight kg/m
			B	H	b	h	
21510	06 B-1	3/8 x 7/32"	15	10	5,4	1,5	0,130
52010	08 B-1	1/2 x 5/16"	20	10	7,4	2,2	0,175
62015	08 B-1	1/2 x 5/16"	20	15	7,4	2,2	0,260
72020	08 B-1	1/2 x 5/16"	20	20	7,4	2,2	0,340
82030	08 B-1	1/2 x 5/16"	20	30	7,4	2,2	0,550
102010	10 B-1	5/8 x 3/8"	20	10	9,3	2,6	0,160
112015	10 B-1	5/8 x 3/8"	20	15	9,3	2,6	0,250
122020	10 B-1	5/8 x 3/8"	20	20	9,3	2,6	0,355
132030	10 B-1	5/8 x 3/8"	20	30	9,3	2,6	0,550
142510	12 B-1	3/4 x 7/16"	25	10	11,3	2,4	0,200
152515	12 B-1	3/4 x 7/16"	25	15	11,3	2,4	0,320
162520	12 B-1	3/4 x 7/16"	25	20	11,3	2,4	0,430
172530	12 B-1	3/4 x 7/16"	25	30	11,3	2,4	0,690
184015	16 B-1	1" x 17 mm	40	15	16,0	3,5	0,450
194020	16 B-1	1" x 17 mm	40	20	16,0	3,5	0,675
204030	16 B-1	1" x 17 mm	40	30	16,0	3,5	1,050
214515	20 B-1	1 1/4 x 3/4"	45	15	18,0	4,2	0,545
226015	24 B-1	1 1/2 x 1"	60	15	24,0	5,5	0,680
237520	28 B-1	1 3/4" x 31 mm	75	20	30,0	6,8	1,150
248020	32 B-1	2" x 31 mm	80	20	30,0	7,7	1,165
Standard length 2000 mm ..... Specials on request!							



Guiding Profile Type TID

Chain guide for roller chains made of ISO-LEN® 1000 green (virgin) or ISO-LEN® 1000 green (reg.)

Type	DIN /ISO	Chain dimension	Standard dimension in mm					Weight kg/m
			B	H	b	h	e+b	
12510	06 B-2	3/8 x 7/32"	25	10	5,4	1,5	15,6	0,220
23510	08 B-2	1/2 x 5/16"	35	10	7,4	2,2	21,2	0,295
33515	08 B-2	1/2 x 5/16"	35	15	7,4	2,2	21,2	0,460
43520	08 B-2	1/2 x 5/16"	35	20	7,4	2,2	21,2	0,630
53530	08 B-2	1/2 x 5/16"	35	30	7,4	2,2	21,2	1,000
64010	10 B-2	5/8 x 3/8"	40	10	9,3	2,6	25,7	0,320
74510	12 B-2	3/4 x 7/16"	45	10	11,3	2,4	30,7	0,380
84815	16 B-2	1" x 17 mm	48	15	16,0	3,5	48,0	0,600
95515	20 B-2	1 1/4 x 3/4"	55	15	18,0	4,2	55,0	0,670
107220	24 B-2	1 1/2 x 1"	72	20	24,0	5,5	72,0	1,400
Standard length 2000 mm ..... Specials on request!								



Many other guide profiles are available on request. If you have a particular application in mind then just give our customer service staff a call and they will be happy to discuss your requirements in more detail on: 01462 670844

In accordance with our policy to constantly improve our products, the information given in this catalogue can be subject to change without notice. For further assistance please consult our technical department. ©2013 FB Chain Ltd