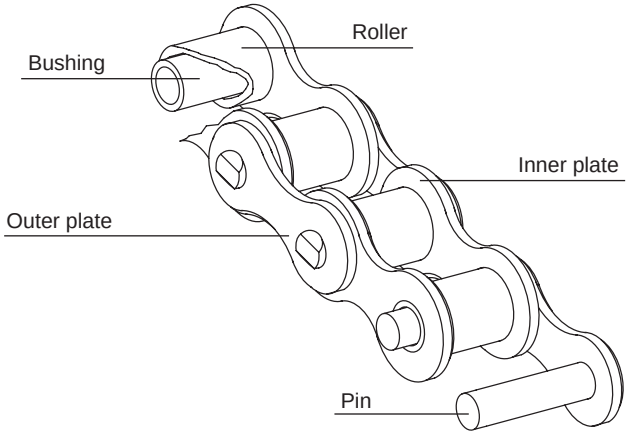
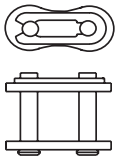
Chain components

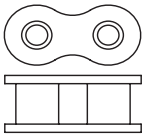
The roller chain is fabricated according to ISO/DIN/BS Standards and it consists of five components:



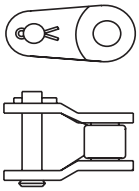
Connecting link with spring clip
Available from 05B to 16B.
The standard closing plate has been designed for sliding assembly on pins. Positioning is provided by a flat steel spring clip with a split end to allow the installation in the pin side slots.



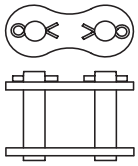
Inner links
Standard links for all roller chain sizes. They are supplied fully assembled. The two bushings are pressed into the single joint plates. The inner links are used for single or multiple chains.



Offset link with one roller
Available for single, double and triple strand chains.
The flat milled surface on one pin end prevents plate rotation



Connecting links with split pin
Available from 20B to 32B.
The closing plate can be pressed or made to slide on the pins. Pressure joints are recommended for heavy duty. Pressure closing plates are standard in multiple chains used in the oil industry.



Chain packages

Length in meters (Standard):

- Box, 5 m
- Rollers, 25, 50 or 100 m

Cut sizes (upon request):

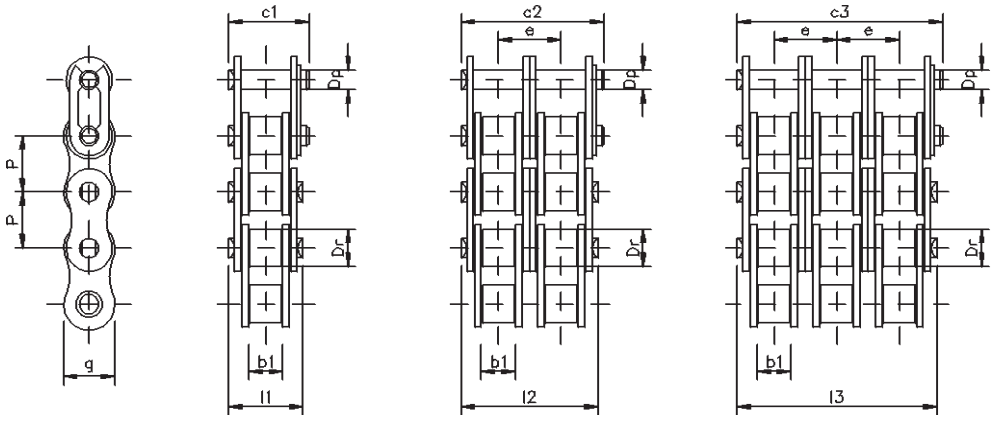
- Open
- Ready to be closed by connecting links
- Closed by connecting links
- Closed by rivets

TRANSMISSION ROLLER CHAIN

Transmission roller chain – British Standard

DIN 8187 ISO/R 606

Available models:
- With flat profile plates (“C”-Type)
- Nickel-plated, Zinc-plated
- Stainless steel AISI 304



ISO Standard		Standard size	Pitch [mm] p	Inner width b1	Roller diameter Dr	Pin diameter Dp	Pin length l1-l2-l3	Pin length G. c1-c2-c3	g max	e	Min. ultimate strength [N]	Weight [kg/m]
SIMPLEX	**04 B1**	6 x 2,8 mm	6,00	2,80	4,00	1,85	7,40	10,30	5,00	-	3.000	0,12
	05 B1	8 x 3 mm	8,00	3,00	5,00	2,31	8,60	11,70	7,10	-	5.000	0,18
	06 B1 *	3/8" x 7/32"	9,53	5,72	6,35	3,28	13,50	16,80	8,20	-	9.000	0,45
	081	1/2" x 1/8"	12,70	3,30	7,75	3,66	10,20	11,70	9,91	-	8.200	0,28
	082	1/2" x 3/32"	12,70	2,38	7,75	3,66	8,20	-	10,10	-	10.000	0,27
	083	1/2" x 3/16"	12,70	4,88	7,75	4,09	12,90	14,40	10,30	-	12.000	0,42
	084	1/2" x 3/16"	12,70	4,88	7,75	4,09	14,80	16,30	11,10	-	16.000	0,59
	08 B1	1/2" x 5/16"	12,70	7,75	8,51	4,45	17,00	20,90	11,80	-	18.000	0,70
	10 B1	5/8" x 3/8"	15,88	9,65	10,16	5,08	19,60	23,70	14,70	-	22.400	0,95
	12 B1	3/4" x 7/16"	19,05	11,68	12,07	5,72	22,70	27,30	16,10	-	29.000	1,25
	16 B1	1" x 17,02 mm	25,40	17,02	15,88	8,28	36,10	41,50	21,00	-	60.000	2,70
	20 B1	1"1/4 x 3/4"	31,75	19,56	19,05	10,19	43,20	49,30	26,40	-	95.000	3,60
	24 B1	1"1/2 x 1"	38,10	25,40	25,40	14,63	53,40	60,00	33,40	-	160.000	6,70
	28 B1	1"3/4 x 1"1/4	44,45	30,99	27,94	15,90	65,10	72,50	37,00	-	200.000	8,30
	32 B1	2" x 1"1/4	50,80	30,99	29,21	17,81	67,40	75,30	42,20	-	250.000	10,50
	40 B1	2"1/2 x 1"1/2	63,50	38,10	39,37	22,89	82,60	92,60	52,90	-	355.000	16,00
	48 B1	3" x 1"3/4	76,20	45,72	48,26	29,24	99,10	109,10	63,80	-	560.000	25,00
DUPLEX	**06 B2 ***	3/8" x 7/32"	9,53	5,72	6,35	3,28	23,80	27,10	8,20	10,24	16.000	0,78
	08 B2	1/2" x 5/16"	12,70	7,75	8,51	4,45	31,00	34,90	11,80	13,92	32.000	1,35
	10 B2	5/8" x 3/8"	15,88	9,65	10,16	5,08	36,20	40,30	14,70	16,59	40.000	1,80
	12 B2	3/4" x 7/16"	19,05	11,68	12,07	5,72	42,20	46,80	16,10	19,46	53.000	2,50
	16 B2	1" x 17,02 mm	25,40	17,02	15,88	8,28	68,00	73,40	21,00	31,88	106.000	5,40
	20 B2	1"1/4 x 3/4"	31,75	19,56	19,05	10,19	79,70	85,80	26,40	36,45	170.000	7,40
	24 B2	1"1/2 x 1"	38,10	25,40	25,40	14,63	101,80	108,40	33,40	48,36	280.000	13,75
	28 B2	1"3/4 x 1"1/4	44,45	30,99	27,94	15,90	124,70	132,10	37,00	59,56	360.000	17,30
	32 B2	2" x 1"1/4	50,80	30,99	29,21	17,81	126,00	133,90	42,20	58,55	450.000	19,00
	40 B2	2"1/2 x 1"1/2	63,50	38,10	39,37	22,89	154,90	164,90	52,90	72,29	630.000	30,00
	48 B2	3" x 1"3/4	76,20	45,72	48,26	29,24	190,00	200,00	63,80	91,21	1.000.000	48,60
TRIPLEX	**06 B3 ***	3/8" x 7/32"	9,53	5,72	6,35	3,28	34,00	37,30	8,20	10,24	23.600	1,18
	08 B3	1/2" x 5/16"	12,70	7,75	8,51	4,45	44,90	47,80	11,80	13,92	47.500	2,00
	10 B3	5/8" x 3/8"	15,88	9,65	10,16	5,08	52,80	56,90	14,70	16,59	60.000	2,80
	12 B3	3/4" x 7/16"	19,05	11,68	12,07	5,72	61,70	66,30	16,10	19,46	80.000	3,80
	16 B3	1" x 17,02 mm	25,40	17,02	15,88	8,28	99,90	105,30	21,00	31,88	160.000	8,20
	20 B3	1"1/4 x 3/4"	31,75	19,56	19,05	10,19	116,00	122,10	26,40	36,45	250.000	11,80
	24 B3	1"1/2 x 1"	38,10	25,40	25,40	14,63	150,00	156,60	33,40	48,36	425.000	21,00
	28 B3	1"3/4 x 1"1/4	44,45	30,99	27,94	15,90	184,30	191,70	37,00	59,56	530.000	25,75
	32 B3	2" x 1"1/4	50,80	30,99	29,21	17,81	184,50	192,40	42,20	58,55	670.000	27,85
	40 B3	2"1/2 x 1"1/2	63,50	38,10	39,37	22,89	227,00	237,00	52,90	72,29	950.000	44,80
	48 B3	3" x 1"3/4	76,20	45,72	48,26	29,24	281,60	291,60	63,80	91,21	1.500.000	72,50

* = Available only with flat profile plates (“C”-Type)

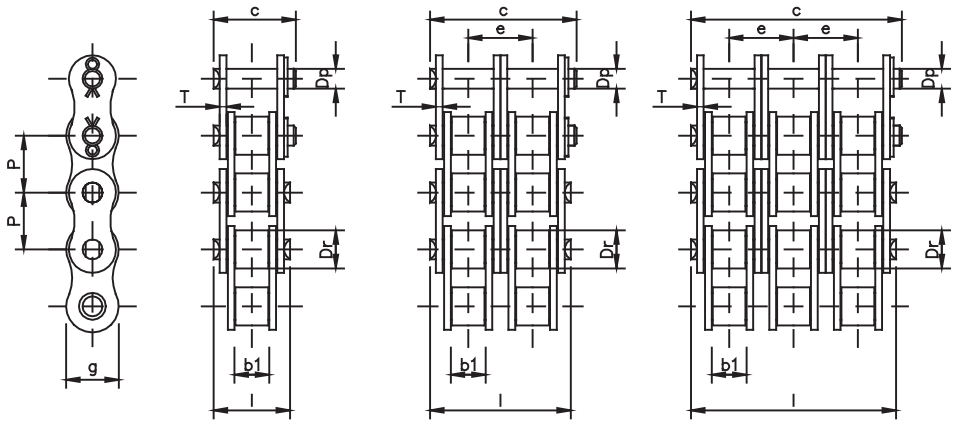
Transmission roller chains - American Standard

ISO R/606 – DIN 8188 - ANSI B29.1

The chains from series ANSI 25 to ANSI 50 are only available in riveted model; from series ANSI 60 onwards they are available also with split pin, upon request.

Available models:
- With flat profile plates (“C”-Type)
- Nickel-plated, Zinc-plated
- Stainless steel AISI 304

All transmission roller chains, both British and American Standards, can be supplied, upon request, with vertical attachments, square attachments, with one or two holes and with projecting pins.



ANSI Standard	Standard size	Pitch [mm] p	Inner width b1	Roller diameter Dr	Pin diameter Dp	Pin length l	Pin length G. c	g max	Plate thickness T	e	Average ultimate strength [N]	Weight [kg/m]
25	1/4" x 1/8"	6,35	3,18	3,30 *	2,29	8,64	9,40		0,76	-	3.892	0,13
25-2	1/4" x 1/8" duplex	6,35	3,18	3,30 *	2,29	14,99	16,00		0,76	6,40	7.784	0,24
25-3	1/4" x 1/8" triplex	6,35	3,18	3,30 *	2,29	21,34	22,35		0,76	6,40	11.677	0,37
35	3/8" x 3/16"	9,53	4,76	5,08*	3,58	12,70	14,22	8,60	1,27	-	9.341	0,31
35-2	3/8" x 3/16" duplex	9,53	4,76	5,08*	3,58	22,86	24,38	8,60	1,27	10,14	18.683	0,67
35-3	3/8" x 3/16" triplex	9,53	4,76	5,08*	3,58	33,27	34,54	8,60	1,27	10,14	28.024	1,01
35-4	3/8" x 3/16" quad.	9,53	4,76	5,08*	3,58	43,18	44,70	8,60	1,27	10,14	37.365	1,35
35-5	3/8" x 3/16" quint.	9,53	4,76	5,08*	3,58	53,59	54,86	8,60	1,27	10,14	46.706	1,70
35-6	3/8" x 3/16" sext.	9,53	4,76	5,08*	3,58	63,75	65,28	8,60	1,27	10,14	56.048	2,04
40	1/2" x 5/16"	12,70	7,94	7,93	3,96	17,02	18,29	11,40	1,52	-	17.792	0,61
40-2	1/2" x 5/16" duplex	12,70	7,94	7,93	3,96	31,50	32,77	11,40	1,52	14,38	35.584	1,19
40-3	1/2" x 5/16" triplex	12,70	7,94	7,93	3,96	45,72	46,99	11,40	1,52	14,38	53.376	1,79
40-4	1/2" x 5/16" quad.	12,70	7,94	7,93	3,96	60,20	61,46	11,40	1,52	14,38	71.168	2,38
40-6	1/2" x 5/16" sext.	12,70	7,94	7,93	3,96	89,15	90,42	11,40	1,52	14,38	106.752	3,60
41	1/2" x 1/4"	12,70	6,35	7,77	3,58	14,48	16,51	9,70	1,27	-	10.675	0,39
50	5/8" x 3/8"	15,88	9,53	10,16	5,08	21,08	22,61	15,00	2,03	-	29.356	1,01
50-2	5/8" x 3/8" duplex	15,88	9,53	10,16	5,08	39,37	40,64	15,00	2,03	18,11	58.713	1,96
50-3	5/8" x 3/8" triplex	15,88	9,53	10,16	5,08	57,40	58,67	15,00	2,03	18,11	88.070	2,95
50-4	5/8" x 3/8" quad.	15,88	9,53	10,16	5,08	75,44	76,96	15,00	2,03	18,11	117.427	3,93
50-5	5/8" x 3/8" quint.	15,88	9,53	10,16	5,08	93,73	95,25	15,00	2,03	18,11	146.784	4,91
50-6	5/8" x 3/8" sext.	15,88	9,53	10,16	5,08	111,76	113,28	15,00	2,03	18,11	176.141	5,89
50-8	5/8" x 3/8" octuple	15,88	9,53	10,16	5,08	148,08	149,61	15,00	2,03	18,11	234.854	7,89
50-10	5/8" x 3/8" tenf.	15,88	9,53	10,16	5,08	184,40	185,93	15,00	2,03	18,11	293.568	9,85
60	3/4" x 1/2"	19,05	12,70	11,91	5,94	26,42	28,19	18,00	2,39	-	37.808	1,47
60-2	3/4" x 1/2" duplex	19,05	12,70	11,91	5,94	49,28	51,05	18,00	2,39	22,78	75.616	2,90
60-3	3/4" x 1/2" triplex	19,05	12,70	11,91	5,94	72,14	73,91	18,00	2,39	22,78	113.424	4,29
60-4	3/4" x 1/2" quad.	19,05	12,70	11,91	5,94	95,00	96,77	18,00	2,39	22,78	151.232	5,80
60-5	3/4" x 1/2" quint.	19,05	12,70	11,91	5,94	117,86	119,63	18,00	2,39	22,78	189.040	7,39
60-6	3/4" x 1/2" sext.	19,05	12,70	11,91	5,94	140,46	142,24	18,00	2,39	22,78	226.848	8,88
60-8	3/4" x 1/2" octuple	19,05	12,70	11,91	5,94	186,18	187,96	18,00	2,39	22,78	302.464	11,81
60-10	3/4" x 1/2" tenf.	19,05	12,70	11,91	5,94	231,65	233,43	18,00	2,39	22,78	378.080	14,76

* = Bushing diameter (chain without roller)

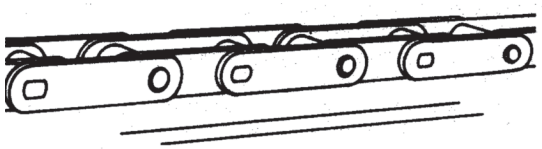
Follows …

ANSI Standard	Standard size	Pitch [mm] p	Inner width b1	Roller diameter Dr	Pin diameter Dp	Pin length l	Pin length G. c	g max	Plate thickness T	e	Average ultimate strength [N]	Weight [kg/m]
80	1" x 5/8"	25,40	15,88	15,88	7,93	33,53	36,58	23,10	3,18	-	64.446	2,57
80-2	1" x 5/8" duplex	25,40	15,88	15,88	7,93	62,74	65,79	23,10	3,18	29,29	128.992	5,04
80-3	1" x 5/8" triplex	25,40	15,88	15,88	7,93	91,95	95,00	23,10	3,18	29,29	193.488	7,47
80-4	1" x 5/8" quadruple	25,40	15,88	15,88	7,93	121,67	124,46	23,10	3,18	29,29	257.984	10,01
80-5	1" x 5/8" quintuple	25,40	15,88	15,88	7,93	150,88	153,92	23,10	3,18	29,29	322.480	12,50
80-6	1" x 5/8" sextuple	25,40	15,88	15,88	7,93	180,34	183,39	23,10	3,18	29,29	386.976	14,98
80-8	1" x 5/8" octuple	25,40	15,88	15,88	7,93	238,76	242,06	23,10	3,18	29,29	515.968	19,95
100	1"1/4 x 3/4"	31,75	19,05	19,05	9,53	40,89	43,94	28,70	3,96	-	106.752	3,73
100-2	1"1/4 x 3/4" duplex	31,75	19,05	19,05	9,53	76,71	79,76	28,70	3,96	35,76	213.504	7,31
100-3	1"1/4 x 3/4" triplex	31,75	19,05	19,05	9,53	112,52	115,82	28,70	3,96	35,76	320.256	11,01
100-4	1"1/4 x 3/4" quadruple	31,75	19,05	19,05	9,53	148,34	151,64	28,70	3,96	35,76	427.008	14,58
100-5	1"1/4 x 3/4" quintuple	31,75	19,05	19,05	9,53	184,15	187,45	28,70	3,96	35,76	533.760	18,15
100-6	1"1/4 x 3/4" sextuple	31,75	19,05	19,05	9,53	219,96	223,01	28,70	3,96	35,76	640.512	21,72
100-8	1"1/4 x 3/4" octuple	31,75	19,05	19,05	9,53	291,59	294,64	28,70	3,96	35,76	854.016	28,87
120	1" 1/2 x 1"	38,10	25,40	22,23	11,10	50,80	54,36	35,10	4,75	-	151.232	5,49
120-2	1" 1/2 x 1" duplex	38,10	25,40	22,23	11,10	96,27	99,82	35,10	4,75	45,44	302.464	10,94
120-3	1" 1/2 x 1" triplex	38,10	25,40	22,23	11,10	141,73	145,29	35,10	4,75	45,44	453.696	16,52
120-4	1" 1/2 x 1" quadruple	38,10	25,40	22,23	11,10	187,45	191,01	35,10	4,75	45,44	604.928	21,87
120-5	1" 1/2 x 1" quintuple	38,10	25,40	22,23	11,10	232,92	236,47	35,10	4,75	45,44	756.160	27,42
120-6	1" 1/2 x 1" sextuple	38,10	25,40	22,23	11,10	278,38	281,94	35,10	4,75	45,44	907.392	32,90
120-8	1" 1/2 x 1" octuple	38,10	25,40	22,23	11,10	369,32	372,87	35,10	4,75	45,44	1.209.856	43,85
120-10	1" 1/2 x 1" tenf.	38,10	25,40	22,23	11,10	460,25	463,80	35,10	4,75	45,44	1.512.320	54,80
140	1" 3/4 x 1"	44,45	25,40	25,40	12,70	54,36	58,67	39,60	5,56	-	204.608	7,44
140-2	1" 3/4 x 1" duplex	44,45	25,40	25,40	12,70	103,38	107,70	39,60	5,56	48,87	409.216	14,36
140-3	1" 3/4 x 1" triplex	44,45	25,40	25,40	12,70	152,40	156,46	39,60	5,56	48,87	613.824	21,28
140-4	1" 3/4 x 1" quadruple	44,45	25,40	25,40	12,70	201,42	205,49	39,60	5,56	48,87	818.432	28,20
140-6	1" 3/4 x 1" sextuple	44,45	25,40	25,40	12,70	299,21	303,28	39,60	5,56	48,87	1.227.648	42,03
160	2" x 1" 1/4	50,80	31,75	28,58	14,28	64,52	69,34	46,00	6,35	-	257.984	9,72
160-2	2" x 1" 1/4 duplex	50,80	31,75	28,58	14,28	123,19	128,02	46,00	6,35	58,55	515.968	19,09
160-3	2" x 1" 1/4 triplex	50,80	31,75	28,58	14,28	181,86	186,69	46,00	6,35	58,55	773.952	28,31
160-4	2" x 1" 1/4 quadruple	50,80	31,75	28,58	14,28	240,54	245,36	46,00	6,35	58,55	1.031.936	38,09
160-6	2" x 1" 1/4 sextuple	50,80	31,75	28,58	14,28	357,89	362,46	46,00	6,35	58,55	1.547.904	56,21
200	2" 1/2 x 1" 1/2	63,50	38,10	39,68	19,84	79,25	87,38	58,70	7,93	-	422.560	15,85
200-2	2" 1/2 x 1" 1/2 duplex	63,50	38,10	39,68	19,84	150,88	159,00	58,70	7,93	71,55	845.120	31,99
200-3	2" 1/2 x 1" 1/2 triplex	63,50	38,10	39,68	19,84	222,50	230,63	58,70	7,93	71,55	1.267.680	48,06
200-4	2" 1/2 x 1" 1/2 quadr.	63,50	38,10	39,68	19,84	294,13	302,26	58,70	7,93	71,55	1.690.240	63,83
200-6	2" 1/2 x 1" 1/2 sextuple	63,50	38,10	39,68	19,84	437,13	445,01	58,70	7,93	71,55	2.525.360	95,97

TRANSPORT CHAINS

Types of transport chains

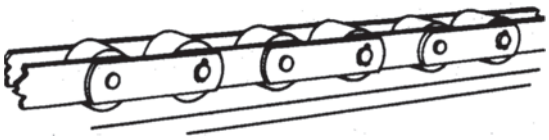
Chains with sliding plates



Advantages:
• Easier to manufacture
• Cheaper solution with same load strength
• More effective in dirty environments

Disadvantages:
• Movement requires more power

Roller Chains



Advantages (due to lower friction):
• Larger distances between centers
• Lower power is required
• Less operating costs

Disadvantages:
• Not suitable in dirty environments because rollers may become blocked

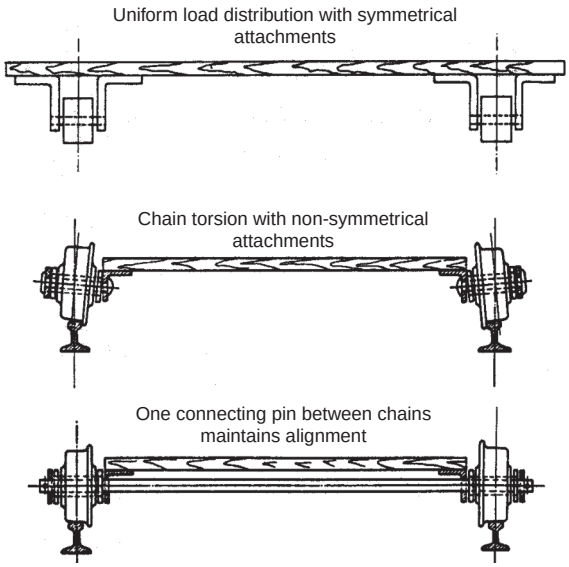
Types of attachments

Transport chains can be equipped with special attachments, such as links with plates, pushers, protruding pins to support or to drag the material.

Two types available:

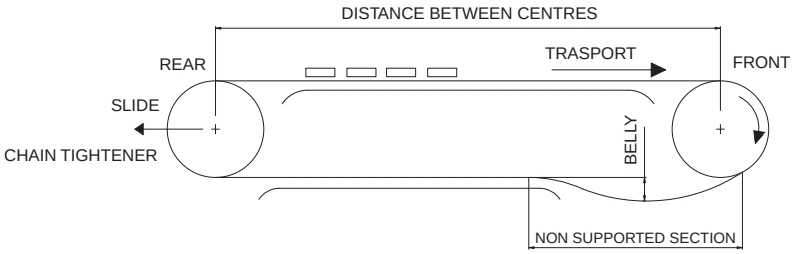
Symmetrical attachments (K o M):
• Uniformly distributed load on the chain
• Good alignment
• Suitable for very heavy loads or for non-symmetrical load distribution

Non- symmetrical attachments (A o M35):
• Non-symmetrical load distribution with possible chain torsion
• Irregular stress distribution and consequent wear of the chain bearing surface (rollers or plates)
• To be used with connecting pins between the two chains to help maintaining correct alignment (see different configurations of figure 2)
• To be used with reduced transporting weight and with short distances between centers of chains



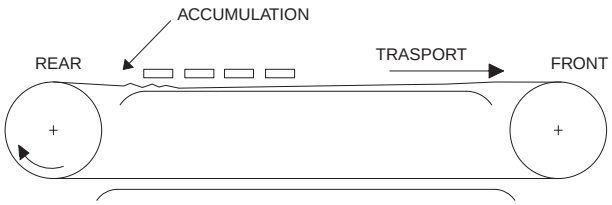
Conveyor chain installation

The best configuration for a chain conveyor is shown in the following diagram:
• Driving sprocket in the front part
• Well supported chain both in the operating and in the reverse section

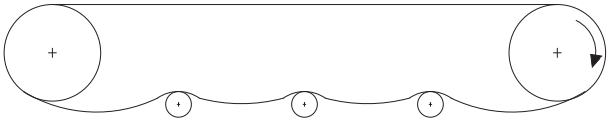


In the driving sprocket exit section there should be a non-supported section, which has two functions:
• it allows the chain to set
• the “belly” weight force keeps the chain in mesh with the driving sprocket

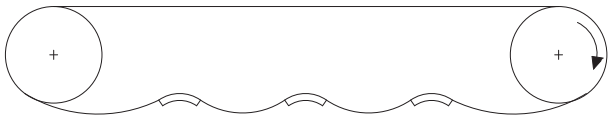
There is no wear between pin and bushing because of the very low tension in the reverse section and the deflection is reduced by the support guides.
It is not advisable to install the driving sprocket in the rear of the conveyor because the chain, which is always under load during the whole distance covered, would suffer abnormal wear. Especially in the area of high pressure, i.e. where the material is loaded, there is a risk of chain accumulation in the driving sprocket area and the chain may consequently fall off.



Use a chain tightening device to adjust the distance between centers and to maintain a correct “belly” but do not overload the chain.
Other installation methods are shown in following figure. These types of supports cause more wear because the chain is supported only in short sections.



REVERSE SECTIOM SUPPORTED BY ROLLERS



CONVEYOR SUPPORTED BY SLIDES

Problems and solutions

The most common problem of conveyors is tripping.
Following table shows some possible causes and solutions of this problem.

Possible cause	Solution
Excessive friction	Clean and lubricate moving parts
Conveyor is too long	Use shorter conveyor sections
Conveyor speed is too low	Increase the speed or the number of teeth of the driving wheel
Speed variations due to polygonal effect	Use driving plate wheels with 12 or more teeth

How to find the right conveyor chain size

1 – Conveyor classification

Conveyors are identified in 6 classes according to the type of chain and the type of movement of the transported material

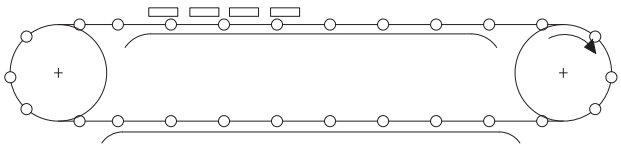
Class	Chain Material	Material
A	Sliding chain	Transported
B	Roller chain	Transported
C	Chain with additional rollers	Transported
D	Sliding chain with fins	Sliding
E	Sliding chain without fins	Sliding
F	Roller chain	Sliding

2 - Total load on the chain

The calculation of the total load acting on the chain depends on the conveyor classification.

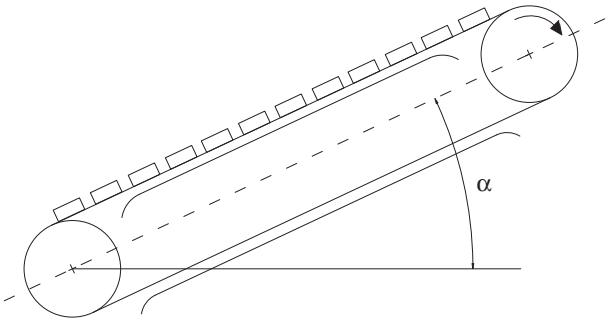
- Transported load with sliding chain or with roller chain (classes A,B,C)

Horizontal conveyor



$$T = g \cdot f_1 \cdot C(2P + P_1) + J \quad [N]$$

Inclined conveyor



$$T = g \cdot C\left[P(2f_1 \cos\alpha + \sin\alpha) + P_1(f_1 \cos\alpha + \sin\alpha)\right] + J\cos\alpha \quad [N]$$

T = Total chain load [N]
g = Acceleration due to gravity = 9.81 m/s^2
f_1 = Coefficient of friction between chain and guide
C = Distance between centers of conveyor [m]
P = Chain weight per meter [kg/m]
P_1 = Weight per meter of the transported material acting on the chains and of their supports (shutters, crosspieces, hinges) [kg/m]
J = Load component given by the transported material [N]
a = Transmission inclination

Calculation of P coefficient

P = Chain linear weight. According to the different types, it can be calculated with the following formulas:

$$P = \frac{\text{Material total weight}}{600} \quad [kg/m] \quad \text{for transported load and roller chains}$$

$$P = \frac{\text{Material total weight}}{200} \quad [kg/m] \quad \text{for load and/or sliding chains}$$

Calculation of coefficient f_1

f_1 = the coefficient of friction between chain and guide varies according to the type of chain (sliding or roller chain).

Type of chain	f_1
Non-lubricated steel guide	0,3 ÷ 0,5
Lubricated steel guide	0,2
Wood	0,5
Polyethylene	0,15 ÷ 0,4

For roller chains the coefficient of friction is calculated according to the following formula, considering that, as a first approximation, you can take a value equal to 0,2 :

$$f_1 = f_r \frac{d_b}{d_r}$$

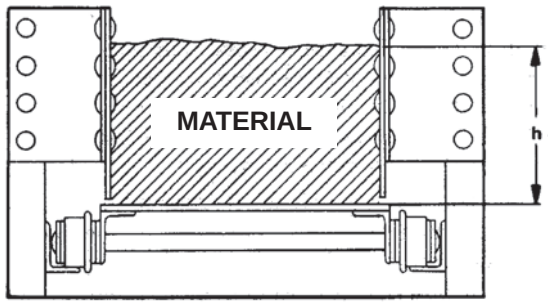
f_r = 0,4 without lubrication
f_r = 0,3 with lubrication
d_b = chain bushing diameter or roller inner diameter [mm]
d_r = roller outer diameter [mm]

Calculation of coefficient J

J = load component of the transported material
With solid materials use the known weight (in N).
With agglomerated materials, use the following formula:

$$J = C \frac{h^2}{f_H}$$

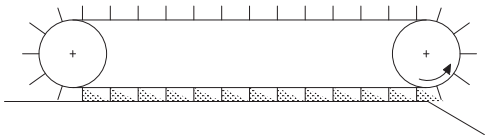
h = height of the transported material [mm]
f_H = characteristic value and table value of the material



Material	f_2	f_H
Aluminium	0,4	1200
Dry coal ash	0,5	1600
Humid coal ash	0,6	2400
Sugar	0,4	8900
Clinker cement	0,7	530
Pieces of anthracite coa	0,4	1100
Coke coal	0,55	1900
Wheat / Cereals	0,4	1000
Gravel	0,45	530
Lime	0,5	1200
Sand	0,6	300

- Sliding load with sliding or roller chain (class D, E, F)

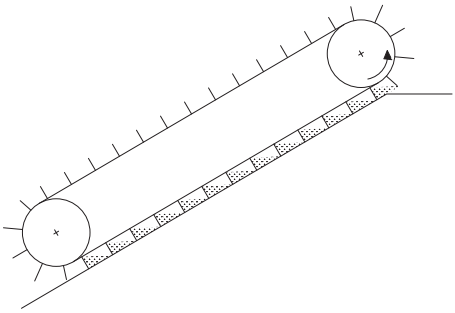
Horizontal conveyor



$$T = 9{,}81C \cdot (2f_1 P + f_2 P_1) + J$$

f_2 = coefficient of friction between material and runways (see table in previous page)

Inclined conveyor



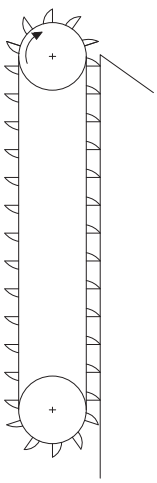
$$T = g \cdot C\left[P\left(2f_1 \cos\alpha + \sin\alpha\right) + P_1\left(f_1 \cos\alpha + \sin\alpha\right)\right] + J\cos\alpha \quad [N]$$

where:

$$P_1 = \frac{Q}{3{,}6\,v}$$

Q = conveyor hourly carrying capacity [t/h]
v = v chain translation speed [m/min]

- Elevator



$$T = 9{,}81C\ (P + P_1)$$

3 – Calculation of design working load

The calculation of the design working load takes into consideration the dynamics of the transported material.
In particular, with the service factor Fs , takes into consideration the load fluctuations, which may increase the static load on the chain.
On the contrary, with the speed factor Fv, takes into consideration the conveyor speed and the number of teeth on the sprocket.

Calculate according to following formulas:

$T_P = T \cdot F_s \cdot F_T \cdot F_v$ [N] for single chain conveyors

$T_P = T \cdot F_s \cdot F_T \cdot F_v \frac{1,2}{\text{n. chains}}$ [N] for multiple chain conveyors

With multiple chains, an additional safety factor should be considered for overloads due to non-homogeneous distribution of material, if any. This factor may drop to 1 with double chains and not heavy operating conditions.

Type of load	Operating conditions		Sevice Factor F_s	
	Start / stop under load	Overload %	8-10 working hours /day	10- 24 working hours /day
Uniform	than 5 per day	Less than 5%	1,0	1,2
Moderate peak load	5 to 2 per hour	5% to 20%	1,2	1,4
High peak load	2 to 10 per hour	20% to 40%	1,5	1,8

Temperature	Operating conditions	F_T
	Up to 100° C	1,0
	100° C to 180° C	1,1
	180° C to 260° C	1,2
	over 260°	Contact our technical support department

Speed factor F_v						
No. of teeth	Chain speed [m/min]					
	15	**30**	**45**	**60**	**90**	**120**
6	1,4	2,0	2,9	4,4	-	-
7	1,1	1,4	1,8	2,3	4,0	-
8	1,0	1,3	1,5	1,8	2,5	3,6
9	1,0	1,2	1,4	1,6	2,0	2,6
10	0,9	1,1	1,2	1,4	1,7	2,0
11	0,9	1,0	1,2	1,3	1,5	1,8
12	0,9	1,0	1,1	1,2	1,4	1,6
14	0,8	0,9	1,0	1,1	1,3	1,4
16	0,8	0,9	1,0	1,0	1,2	1,3
18	0,8	0,9	0,9	1,0	1,1	1,3
20	0,8	0,9	0,9	1,0	1,1	1,2
24	0,8	0,8	0,9	0,9	1,0	1,2

4 – How to choose a chain

After having defined the design working load, choose the suitable chain by comparing the design load, multiplied by a safety factor, with its ultimate strength.

$R_T = T_P \cdot k$

R_T = chain ultimate strength [N]
k = safety factor

As a rule, consider a value equal to 8, because a stress of traction equal to 60% of the chain ultimate strength would result in permanent chain deformation. In case of heavier operating conditions, use higher values.

5 –Check the size

The selected chain size can be verified by considering the exact chain weight.
In case of concentrated loads it is also necessary to check the specific pressure between rollers and bushings and between bushings and pins by using the following formulas:

Specific pressure on the pin = $\frac{T_p}{L_p \cdot d_p}$

T_P = effective traction force on the chain [kg]
L_p = bushing length [mm]
d_p = bushing length [mm]

Contact materials		Spec. press. max [kg/mm²]
Bushing	Pin	
Casehardened steel	Casehardened steel	2,50
Casehardened steel	Hardened and tempered steel	2,10
Cast iron	Casehardened steel	1,75
Stainless steel	Stainless steel	1,20
Bronze	Casehardened steel	1,00

Specific pressure on the roller = $\frac{P_r}{L \cdot D_r}$

P_r = load on each roller [kg]
L = roller hole length [mm]
D_r = roller hole diameter [mm]

Contact materials		Spec. press. max [kg/mm²]
Roller	Bushing	
Casehardened steel	Casehardened steel	1,00
Hardened and tempered steel	Casehardened steel	1,00
Cast iron	Casehardened steel	0,70
Stainless steel	Stainless steel	0,40
Bronze	Casehardened steel	0,60
Polyethylene	Casehardened steel	0,10
Cast iron	Bronze	0,28

6 – Requested shaft power

$$W = \frac{T D_p \omega}{2} \text{ [Watt]}$$

T = total traction force of all chains [N]

D_p = driving sprocket pitch diameter = $\frac{\text{Chain Pitch}}{\sin\left(\frac{180°}{Z}\right)}$ [m]

Z = No. of teeth of driving sprocket
ω = No. of teeth of driving sprocket = n · 0,1047 [rpm]

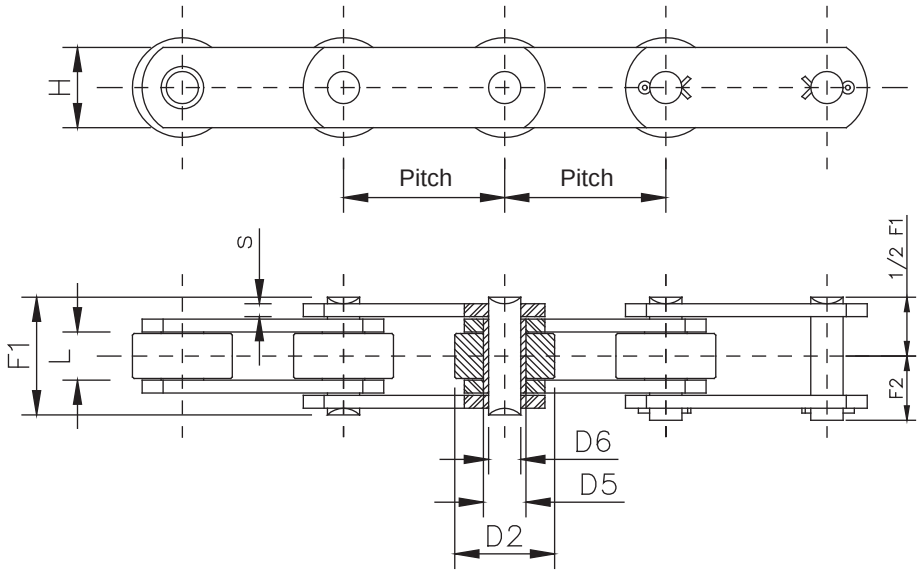
The theoretical power value should be corrected according to the mechanical performance of the rotating components (motors, reduction gears, transmission chains, etc.)

Non-standard metric pitch chains with solid pins

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

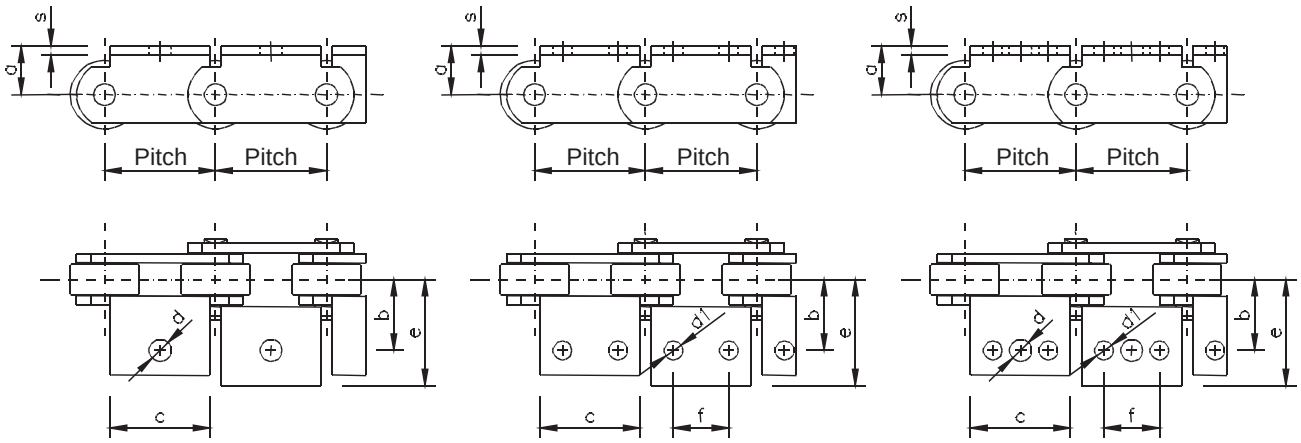
Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets on request.



Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Bushing diameter D5	Pin diameter D6	Plate heght H	Plate thickness s	Pin length F1	Pin length g. F2	Ultimate strength [N]	Chain weight [kg/m]
103	50	11,5	25	8,4	5,7	15	2	24,0	14,6	16.000	1,4
200	50	11,5	25	8,4	5,7	15	3	28,0	16,5	18.000	1,7
202	69	11,5	25	8,4	5,7	15	3	28,0	16,5	18.000	1,5
203	75	11,5	25	8,4	5,7	20	3	28,0	16,5	18.000	1,7
205	50	11,5	25	8,4	5,7	18	2,5	26,0	16	18.000	1,7
205SS	50	11,5	25	8,4	5,7	18	2,5	26,0	16	18.000	1,7
206	50	11,5	25	11,0	8	20	3	28,0	17	22.000	1,9
206SS	50	11,5	25	11,0	8	20	3	28,0	17	22.000	1,9
206R	50	11,5	25	11,0	8	20	3	28,0	17	45.000	1,9
400	50	15	31	13,2	10	23	3	33,0	19,5	35.000	3,0
400SS	50	15	31	13,2	10	23	3	33,0	19,5	30.000	3,0
402	100	15	31	13,2	10	23	3	33,0	19,5	35.000	2,3
500	50	15	31	13,2	10	25	4	36,0	21	45.000	3,9
500R	50	15	31	13,2	10	25	4	36,0	21	75.000	3,9
501	75	15	31	13,2	10	25	4	36,0	21	45.000	3,2
502	100	15	31	13,2	10	25	4	36,0	21	45.000	2,7
5021432	100	15	31	13,2	10	25	4	36,0	21	75.000	2,7
503	125	15	31	13,2	10	25	4	36,0	21	45.000	2,5
504	150	15	31	13,2	10	25	4	36,0	21	45.000	2,4
701	75	22	40	17,0	12	35	4	43,0	25	75.000	5,9
703	100	22	40	17,0	12	35	4	43,0	25	75.000	4,9
704	125	22	40	17,0	12	35	4	43,0	25	75.000	4,4
705	150	22	40	17,0	12	35	4	43,0	25	75.000	4,0
W1743	100	24	40	17,0	12	35	4	45,0	26	75.000	6,3

Attachments for non-standard metric pitch chains with solid pins



Chain N°	Pitch [mm] p	Fin folding a	Hole distance b	Fin width c	Hole diameter d	Hole diameter d1	Max. dimensions e	Holes inter. f	Plate Thickness s	No. of holes	Attach. weight [kg/m]
103	50	25	21	41	6,5	-	32	-	2	1	0,023
200	50	25	24	41	6,5	-	34	-	3	1	0,035
202	69	27	24	66	6,5	-	34	-	3	1	0,050
203	75	27	33	46	6,5	-	46	-	3	1	0,055
205	50	24	22	46	6,5	-	36	-	2,5	1	0,035
205B	50	14	32	46	6,5	-	45	-	2,5	1	0,035
205SS	50	24	22	46	6,5	-	36	-	2,5	1	0,035
206	50	24	23	40	6,5	-	38	-	3	1	0,035
206R	50	24	23	40	6,5	-	38	-	3	1	0,035
400	50	35	31	60	10	8,5	48,5	25	3	1	0,080
400B	50	16,5	31	60	10	8,5	48,5	25	3	1 or 2	0,050
400SS	50	35	31	60	10	8,5	48,5	25	3	1 or 2	0,080
400SA* **	50	28	31	30	10	-	46	-	3	1	0,035
400SB	50	16,5	42	30	10	-	57	-	3	1	0,035
402	100	35	31	70	10	9	46	35	3	3	0,085
500	50	35	32	45	10	8,5	48,5	25	4	1 or 2	0,070
500B	50	22	45	45	10	8,5	61,5	25	4	1 or 2	0,070
500H	50	17,5	34	60	10	9	50	30	4	1 or 2	0,070
501	75	30	29	60	10	9	44,5	30	4	3	0,080
502	100	35	32	70	10	9	48,5	35	4	3	0,100
5021432	100	1,5**	30	60	9	6,5	46	40	4	3	0,100
503	125	35	32	70	10	9	56	35	4	3*	0,160
504	150	35	32	70	10	9	56	35	4	1 or 2*	0,250
701	75	26	38	50	10	9	66,5	25	4	1 or 2	0,100
703	100	40	38	70	10	9	54,5	35	4	3	0,140
703B	100	26	38	70	10	9	68,5	35	4	3	0,120
704	125	26	40	100	10	9	62,5	70	4	3	0,150
705	150	26	40	75	10	9	56,5	50	4	1 or 2	0,180
W1743	100	26	38,5	70	16,5	-	73	35	4	1	0,120

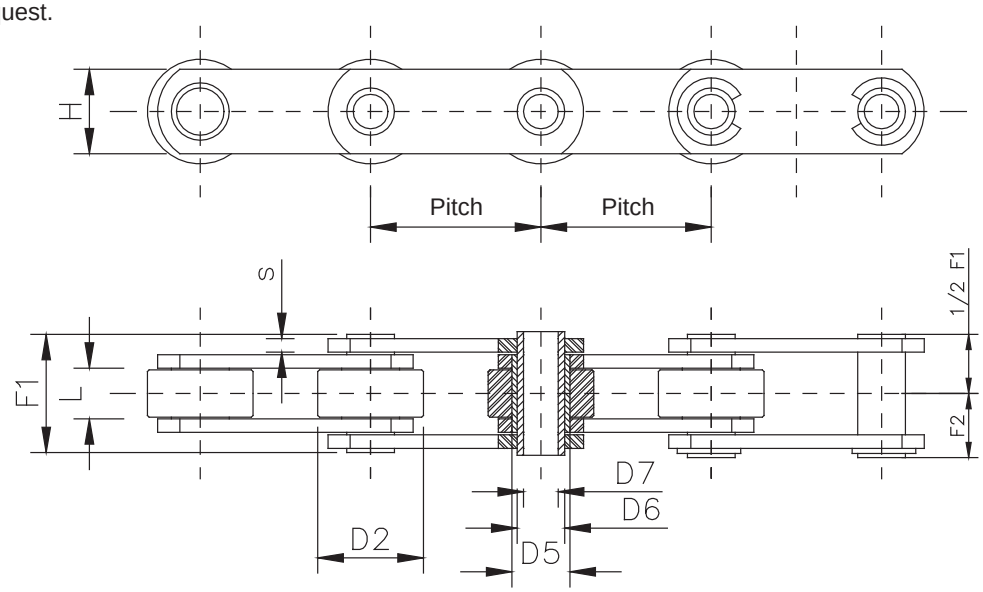
*** = Available also in stainless steel (SS)
** = Attachment folded in chain center line
* = Welded attachment

Non-standard metric pitch chains with hollow pins

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- chains with bushing without roller
- plate wheels on request

Available surface treatments:
- Zinc plating
- Nickel plating

Plate wheels on request.

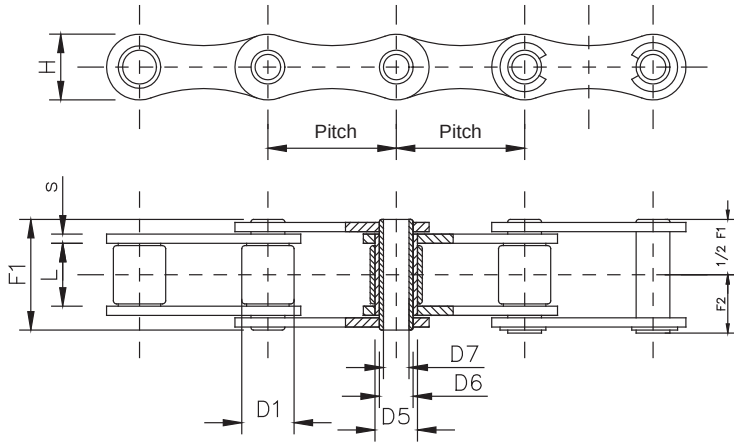


Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Bushing diameter D5	Pin diameter D6	Pin diameter f. D7	Plate height H	Plate thickness s	Pin length F1	Pin length g. F2	Ultimate strength [N]	Chain weight [kg/m]
250	50	11,5	25	11	9	6,2	20	2,5	25	14	30.000	1,8
250R	50	11,5	25	11	9	6,2	20	2,5	25	14	38.000	1,8
250SS	50	11,5	25	11	9	6,2	20	2,5	25	14	30.000	1,8
250Z	50	11,5	25	11	9	6,2	20	2,5	25	14	30.000	1,8
400C*	50	15	31	17	14	10,2	25	3	31	17	35.000	3
500C	50	15	31	17	14	10,2	25	4	35	18,5	40.000	3,6
500CR	50	15	31	17	14	10,2	25	4	35	18,5	65.000	3,6
500CSS	50	15	31	17	14	10,2	25	4	35	20	40.000	3,6
501C	75	15	31	17	14	10,2	25	4	35	18,5	40.000	3,1
501CSS	75	15	31	17	14	10,2	25	4	35	20	40.000	3,1
502C	100	15	31	17	14	10,2	25	4	35	18,5	40.000	2,6
502CSS	100	15	31	17	14	10,2	25	4	35	20	40.000	2,6
503C	125	15	31	17	14	10,2	25	4	35	18,5	40.000	2,4
503CSS	125	15	31	17	14	10,2	25	4	35	20	40.000	2,4
504C	150	15	31	17	14	10,2	25	4	35	18,5	40.000	2,3
701C	75	22	40	23	18	12,2	35	4	45	23,5	60.000	4,6
703C	100	22	40	23	18	12,2	35	4	45	23,5	60.000	4,4
703CR	100	22	40	23	18	12,2	35	4	45	23,5	75.000	4,4
704C	125	22	40	23	18	12,2	35	4	45	23,5	60.000	4,2
704CR	125	22	40	23	18	12,2	35	4	45	23,5	75.000	4,2
705C	150	22	40	23	18	12,2	35	4	45	23,5	60.000	4
705CR	150	22	40	23	18	12,2	35	4	45	23,5	75.000	4

* Profiled plates (straight plates also available)

Hollow pin chains – Profiled plates

Sprockets upon request.



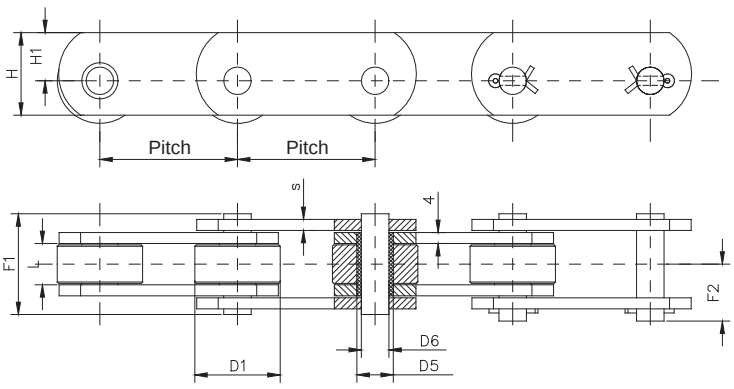
Chain N°	Pitch [mm] p	Inner width L	Roller diameter D1	Bushing diameter D5	Pin diameter D6	Pin diameter f. D7	Plate height H	Plate thickness s	Pin length F1	Pin length g. F2	Ultimate strength [N]	Chain weight [kg/m]
260	41,75	20,5	17	13,8	11,0	8,3	22,0	3	36,0	22,7	27.000	1,5
260SS	41,75	20,5	17	13,8	11,0	8,3	22,0	3	36,0	22,7	13.500	1,5
260R	41,75	20,5	17	13,8	11,0	8,3	25,0	3	36,0	22,7	35.000	1,9
260RB	41,75	20,5	17	13,8	11,0	8,3	25,0	3	36,0	22,7	50.000	1,9
261	50	10,0	30	16,0	11,5	8,2	25,5	3	26,5	14,5	60.000	2,2
262	50,8	10,0	30	16,0	11,5	8,2	25,5	3	26,5	14,5	60.000	2,1
262Z	50,8	10,0	30	16,0	11,5	8,2	25,5	3	26,5	14,5	60.000	2,1
262SS	50,8	10,0	30	16,0	11,5	8,2	25,5	3	26,5	14,5	32.000	2,1
W3865AR	60	10,0	30	16,0	11,5	8,2	26,0	3	26,5	14,5	60.000	1,5
W3604R	63	10,0	30	16,0	11,5	8,2	26,0	3	26,5	14,5	60.000	2,3
263	100	10,0	30	16,0	11,5	8,2	25,5	3	26,5	14,5	60.000	1,5

Non-standard metric pitch chains with eccentric rollers

Available models:
- Nylon rollers
- Delrin rollers

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.



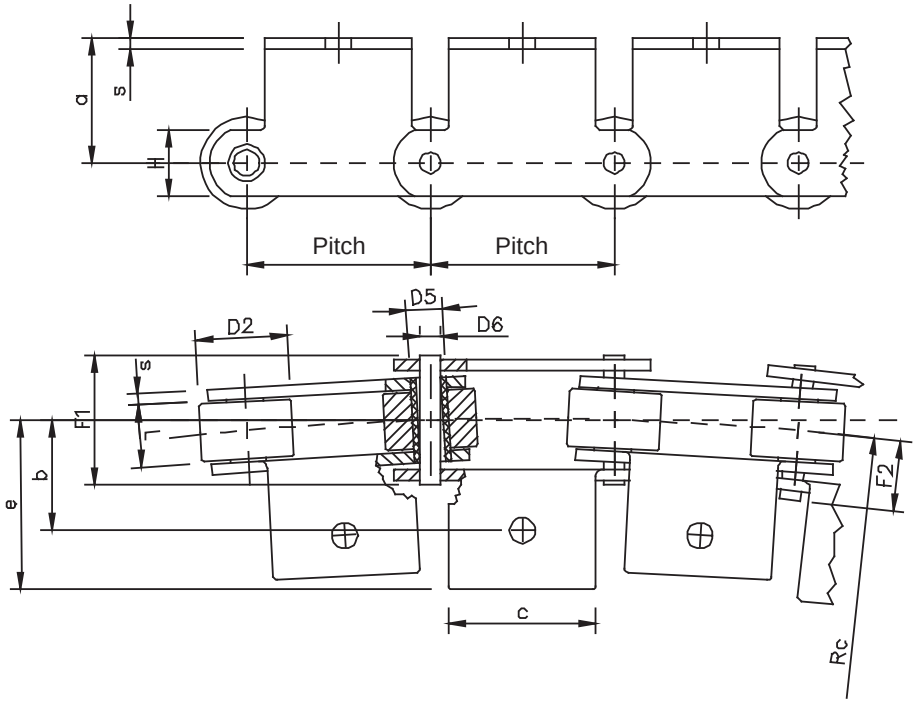
Chain N°	Pitch [mm] p	Inner width L	Roller diameter D1	Bushing diameter D5	Pin diameter D6	Plate height H	Plate eccentr. H1	Plate thickness s	Pin length F1	Pin length g. F2	Ultimate strength [N]	Chain weight [kg/m]
350	50	11,5	18	8,4	5,7	17,5	10	2,5	25,5	15,5	18.000	1,25
351	50	11,5	25	8,4	5,7	25	16,5	2	24	15	16.000	2
352	50	15	31	13,2	10	30	17,5	4	36	21	45.000	4,5
353	75	15	31	13,2	10	30	17,5	4	36	21	45.000	3,8
354	100	15	31	13,2	10	30	17,5	4	36	21	45.000	3,5

Curved conveyor chains

Available models:
• stainless steel
• nylon or Delrin rollers

Surface treatments:
• Zinc plating

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Bushing diameter D5	Pin diameter D6	Plate height H	Plate thickness s	Pin length F1	Pin length g. F2	Curve radius Rc	Ultimate strength [N]	Chain weight [kg/m]
C50	50	17	25	10	5,9	18	3	35	20	900	20.000	2,4
1947	50	17	25	11	7	20	3	33,5	19	900	30.000	2,4
C65	65	17	25	10	5,9	18	3	35	20	1200	20.000	2

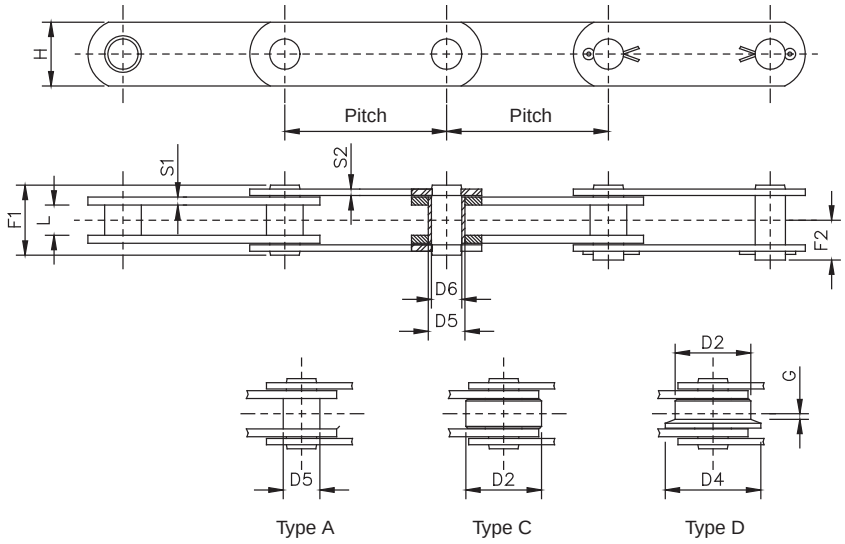
Chain N°	Pitch [mm] p	Pin folding a	Hole distance b	Fin width c	Hole diameter d	Max. size e	Plate Thickness s	Attach. weight [kg]
C50	50	34	29	40	7	45	3	0,045
1947*	50	24	-	40	-	54	3	0,045
C65	65	34	29	50	7	43	3	0,055

* = Attachment without holes

Conveyor chains BS 4116 in inch pitch with solid pins

Following types are available:
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

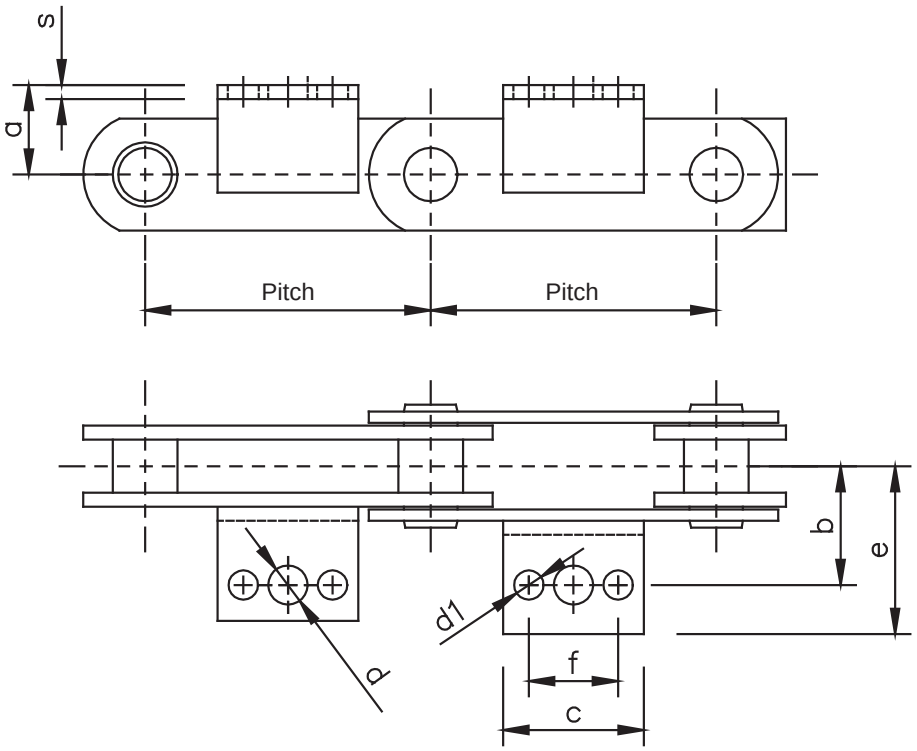


Type A Type C Type D

Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Flange diameter D4	Flange dist. G	Bushing diameter D5	Pin diameter D6	Plate Height H	Plate thickness S1	Outer pl. thickn. S2	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]
N40	50,8	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N40	63,5	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N40	76,2	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N40	101,6	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N40	127	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N40	152,4	15	31,75	40	2,5	17	14	25	4	4	37	22	40.000	50.000
N100	76,2	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N100	88,9	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N100	101,6	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N100	127	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N100	152,4	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N100	203,2	19	47,50	60	3,5	23	19	40	5	4	45	28	100.000	130.000
N160	101,6	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	127	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	152,4	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	177,8	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	203,2	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	228,6	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N160	254	26	66,70	82	3,5	33	26,9	50	7	5	58	34,5	160.000	200.000
N300	152,4	38	88,90	114	8,5	38	32	60	10	8	84	52	300.000	380.000
N300	177,8	38	88,90	114	8,5	38	32	60	10	8	84	52	300.000	380.000
N300	203,2	38	88,90	114	8,5	38	32	60	10	8	84	52	300.000	380.000
N300	254	38	88,90	114	8,5	38	32	60	10	8	84	52	300.000	380.000
N300	304,8	38	88,90	114	8,5	38	32	60	10	8	84	52	300.000	380.000

* = Ultimate strength with hardened and tempered plates

Attachments for BS 4116 conveyor chains



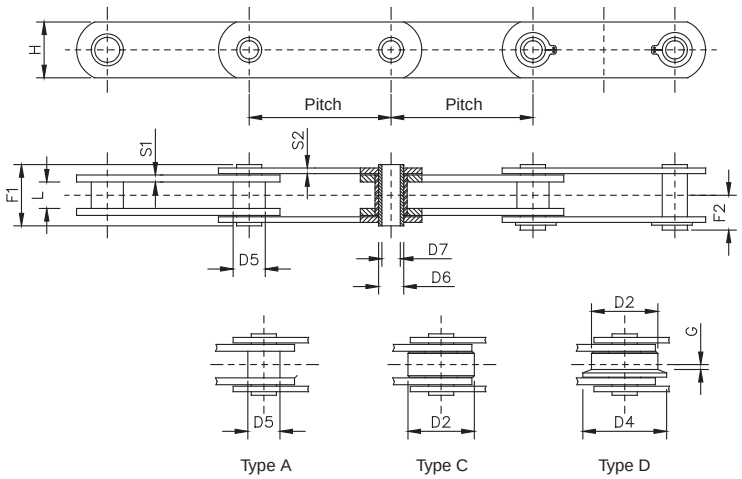
Chain N°	Pitch [mm] p	Fin folding a	Hole distance b	Fin width c	Hole diameter d	Hole diam. d1	max size e	Hole inter. f	No. holes	Ang.	Chain weight [kg/m] type A	type C	type D	Attach. weight [kg]
N40	50,8	19	38,1	45	10,7	-	64,5	-	1	Folded	3	4,2	4,4	0,1
N40	63,5	19	38,1	43	10,7	9,3	56	22,2	2	40x25x4	2,8	3,8	3,9	0,1
N40	76,2	19	38,1	43	10,7	9,3	68	22,2	3	Folded	2,5	3,3	3,4	0,1
N40	101,6	19	38,1	64	10,7	9,3	55	31,8	3	Folded	2,3	2,9	3	0,1
N40	127,0	19	38,1	84	10,7	9,3	56	57,2	3	40x25x4	2,1	2,6	2,7	0,2
N40	152,4	19	38,1	84	10,7	9,3	56	57,2	3	40x25x4	1,9	2,4	2,5	0,2
N100	76,2	32	44,5	30	14	-	65	-	1	45x5	4,9	7,7	8,2	0,1
N100	88,9	32	44,5	30	14	-	65	-	1	45x5	4,7	7,1	7,5	0,1
N100	101,6	32	44,5	64	14	10,5	65	31,8	3	Folded	4,6	6,5	7	0,1
N100	127,0	32	44,5	84	14	10,5	65	57,2	2	45x5	4,3	5,6	6,2	0,3
N100	152,4	32	44,5	114,5	14	10,5	65	57,2	3	Folded	4,1	5,2	5,7	0,3
N100	203,2	32	44,5	110	14	10,5	65	80	2	45x5	3,8	4,6	5	0,4
N160	101,6	38	54	35	15,5	-	77	-	1	50x6	8,8	13,7	14,9	0,2
N160	127,0	38	54	56	15,5	12,3	77	31,7	2	50x6	8	11,8	12,8	0,3
N160	152,4	38	54	84	15,5	12,3	77	57,2	2	50x6	7,5	10,8	11,5	0,4
N160	177,8	38	54	84	15,5	12,3	77	57,2	2	50x6	7	9,8	10,5	0,4
N160	203,2	38	54	130	15,5	12,3	77	100	2	50x6	6,7	9,2	9,7	0,6
N160	228,6	38	54	150	15,5	12,3	77	100	2	50x6	6	8,9	9,1	0,7
N160	254,0	38	54	170	15,5	12,3	77	135	2	50x6	5,6	7,6	8	0,7
N300	152,4	51	73	70	17	14	100	38,1	2	60x8	14,7	24,3	26	0,5
N300	177,8	51	73	70	17	14	100	38,1	2	60x8	13,7	22	23,5	0,5
N300	203,2	51	73	100	17	14	100	76,2	2	60x8	13,1	20,5	21,6	0,7
N300	254,0	51	73	152,4	17	14	100	90	2	60x8	12,2	18	19	0,9
N300	304,8	51	73	225	17	14	100	190	2	60x8	11,6	16,5	17,5	1,6

Conveyor chains BS 4116 in inch pitch with hollow pins

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Flange diameter D4	Flange dist. G	Bushing diameter D5	Pin diameter D6	Pin f. diam. D7	Plate Height H	Plate thickness S1	Outer pl. thickn. S2	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]
NC21	38,1	12,7	25.4	-	-	11	9	6,5	18	2,5	2,5	26	14,5	21.000	-
NC21	50,8	12,7	25.4	-	-	11	9	6,5	18	2,5	2,5	26	14,5	21.000	-
NC21	63,5	12,7	25.4	-	-	11	9	6,5	18	2,5	2,5	26	14,5	21.000	-
NC21	76,2	12,7	25.4	-	-	11	9	6,5	18	2,5	2,5	26	14,5	21.000	-
NC40	50,8	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	63,5	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	76,2	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	88,9	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	101,6	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	127	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC40	152,4	15	31,8	40	2,5	17	14	10,2	25	4	4	36,4	19,5	40.000	50.000
NC60	76,2	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	88,9	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	101,6	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	127	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	152,4	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	177,8	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC60	203,2	19	47,5	60	3,5	23	19	13,2	40	5	4	45	23,5	60.000	120.000
NC150	101,6	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	127	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	152,4	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	177,8	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	203,2	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	228,6	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC150	254	26	66,7	82	4	33	26,9	20,2	50	7	5	58	31,5	150.000	190.000
NC300	152,4	38	88,9	114	8,5	38	32	22,5	60	10	8	83	43,5	300.000	380.000
NC300	177,8	38	88,9	114	8,5	38	32	22,5	60	10	8	83	43,5	300.000	380.000
NC300	203,2	38	88,9	114	8,5	38	32	22,5	60	10	8	83	43,5	300.000	380.000
NC300	254	38	88,9	114	8,5	38	32	22,5	60	10	8	83	43,5	300.000	380.000
NC300	304,8	38	88,9	114	8,5	38	32	22,5	60	10	8	83	43,5	300.000	380.000

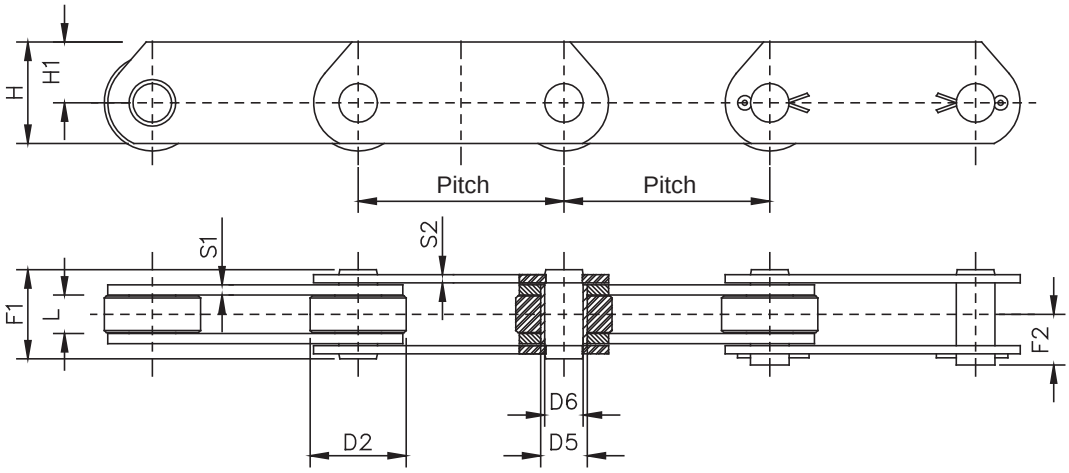
* = Ultimate strength with hardened and tempered plates

Conveyor chains BS 4116 in inch pitch with eccentric rollers

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Bushing diameter D5	Pin diameter D6	Plate Height H	Plate Height H1	Plate thickness S1	Outer pl. thickn. S2	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]	Chain weight [kg/m]
NE40	50,8	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	5,6
NE40	63,5	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	5,1
NE40	76,2	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	4,4
NE40	88,9	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	4,1
NE40	101,6	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	3,9
NE40	127	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	3,6
NE40	152,4	15	31,75	17	14	40	27	4	4	37	22	40.000	60.000	3,3
NE100	76,2	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	9,2
NE100	88,9	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	8,5
NE100	101,6	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	7,8
NE100	127	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	6,9
NE100	152,4	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	6,4
NE100	177,8	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	6
NE100	203,2	19	47,5	23	19	50	30	5	4	45	28	100.000	160.000	5,7
NE160	101,6	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	17,6
NE160	127	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	15,4
NE160	152,4	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	13,9
NE160	177,8	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	12,9
NE160	203,2	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	12,1
NE160	228,6	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	11,5
NE160	254	26	66,7	33	26,9	70	45	7	5	58	34,5	160.000	240.000	11
NE300	152,4	38	88,9	38	32	90	60	10	8	84	52	300.000	420.000	32,2
NE300	177,8	38	88,9	38	32	90	60	10	8	84	52	300.000	420.000	29,4
NE300	203,2	38	88,9	38	32	90	60	10	8	84	52	300.000	420.000	27,3
NE300	254	38	88,9	38	32	90	60	10	8	84	52	300.000	420.000	24,4
NE300	304,8	38	88,9	38	32	90	60	10	8	84	52	300.000	420.000	22,5

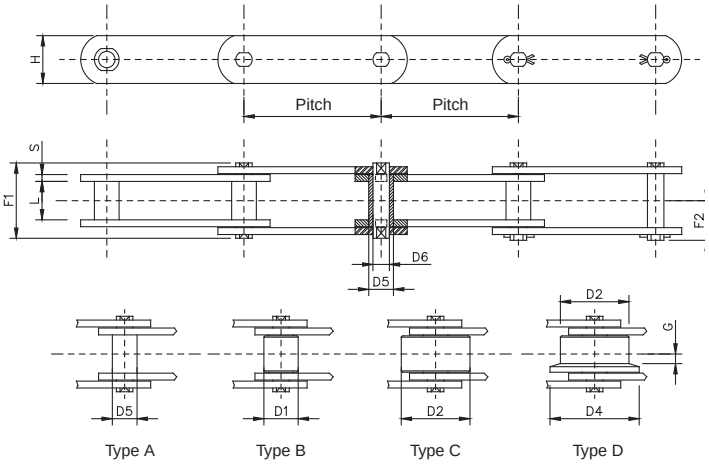
* = Ultimate strength with hardened and tempered plates

Conveyor chains British Standard ISO 1977 - DIN 8167 with solid pins

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.

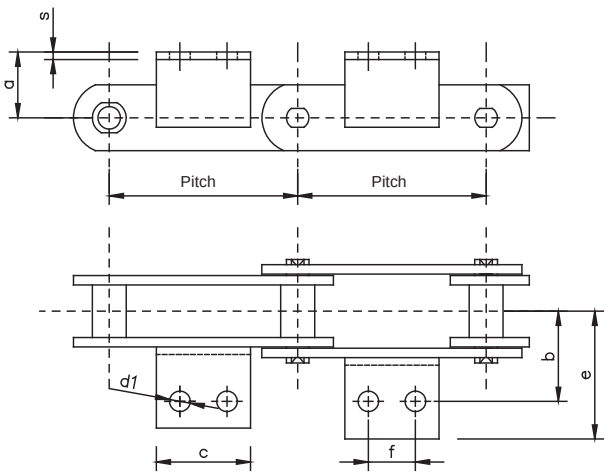


Chain N°	Pitch [mm] p	Inner width L	Roller diameter D1	Roller diameter D2	Flange diameter D4	Flange distance G	Bushing diameter D5	Pin diameter D6	Plate height H	Plate Thickness s	Pin length F1	Conn. link length F2	Ultimate strength [N]	Ultimate strength [N*]
M20	40	16	12,5	25	32	3,5	9	6	18	2,5	33	19	20.000	32.000
M20	50	16	12,5	25	32	3,5	9	6	18	2,5	33	19	20.000	32.000
M20	63	16	12,5	25	32	3,5	9	6	18	2,5	33	19	20.000	32.000
M20	80	16	12,5	25	32	3,5	9	6	18	2,5	33	19	20.000	32.000
M28	50	18	15	30	36	4	10	7	20	3	36	20,5	28.000	42.000
M28	63	18	15	30	36	4	10	7	20	3	36	20,5	28.000	42.000
M28	80	18	15	30	36	4	10	7	20	3	36	20,5	28.000	42.000
M28	100	18	15	30	36	4	10	7	20	3	36	20,5	28.000	42.000
M40	63	20	18	36	45	4,5	11	8	25	4	40,5	24	40.000	60.000
M40	80	20	18	36	45	4,5	11	8	25	4	40,5	24	40.000	60.000
M40	100	20	18	36	45	4,5	11	8	25	4	40,5	24	40.000	60.000
M40	125	20	18	36	45	4,5	11	8	25	4	40,5	24	40.000	60.000
M56	63	24	21	42	50	7	15	10	30	4	45	26	56.000	85.000
M56	80	24	21	42	50	7	15	10	30	4	45	26	56.000	85.000
M56	100	24	21	42	50	7	15	10	30	4	45	26	56.000	85.000
M56	125	24	21	42	50	7	15	10	30	4	45	26	56.000	85.000
M56	160	24	21	42	50	7	15	10	30	4	45	26	56.000	85.000
M80	80	28	25	50	60	7	18	12	35	5	54,5	30,5	80.000	125.000
M80	100	28	25	50	60	7	18	12	35	5	54,5	30,5	80.000	125.000
M80	125	28	25	50	60	7	18	12	35	5	54,5	30,5	80.000	125.000
M80	160	28	25	50	60	7	18	12	35	5	54,5	30,5	80.000	125.000
M80	200	28	25	50	60	7	18	12	35	5	54,5	30,5	80.000	125.000
M112	80	32	30	60	75	7,5	21	15	40	6	63	36	112.000	175.000
M112	100	32	30	60	75	7,5	21	15	40	6	63	36	112.000	175.000
M112	125	32	30	60	75	7,5	21	15	40	6	63	36	112.000	175.000
M112	160	32	30	60	75	7,5	21	15	40	6	63	36	112.000	175.000
M112	200	32	30	60	75	7,5	21	15	40	6	63	36	112.000	175.000
M160	100	37	36	70	90	8,5	25	18	50	7	72	41,5	160.000	260.000
M160	125	37	36	70	90	8,5	25	18	50	7	72	41,5	160.000	260.000
M160	160	37	36	70	90	8,5	25	18	50	7	72	41,5	160.000	260.000
M160	200	37	36	70	90	8,5	25	18	50	7	72	41,5	160.000	260.000
M160	250	37	36	70	90	8,5	25	18	50	7	72	41,5	160.000	260.000
M224	125	43	42	85	105	10	30	21	60	8	84	47	224.000	340.000
M224	160	43	42	85	105	10	30	21	60	8	84	47	224.000	340.000
M224	200	43	42	85	105	10	30	21	60	8	84	47	224.000	340.000
M224	250	43	42	85	105	10	30	21	60	8	84	47	224.000	340.000
M224	315	43	42	85	105	10	30	21	60	8	84	47	224.000	340.000
M315	160	48	50	100	124	10,5	36	25	70	10	97	55	315.000	520.000
M315	200	48	50	100	124	10,5	36	25	70	10	97	55	315.000	520.000
M315	250	48	50	100	124	10,5	36	25	70	10	97	55	315.000	520.000
M315	315	48	50	100	124	10,5	36	25	70	10	97	55	315.000	520.000
M315	400	48	50	100	124	10,5	36	25	70	10	97	55	315.000	520.000
M450	200	56	60	120	149	11,5	42	30	80	12	114	67	450.000	700.000
M450	250	56	60	120	149	11,5	42	30	80	12	114	67	450.000	700.000
M450	315	56	60	120	149	11,5	42	30	80	12	114	67	450.000	700.000
M450	400	56	60	120	149	11,5	42	30	80	12	114	67	450.000	700.000

* = Ultimate strength with hardened and tempered plates

Attachments for conveyor chains British Standard ISO 1977 - DIN 8167

All attachments for conveyor chains according to British Standard (ISO 1977) can be delivered with one hole.



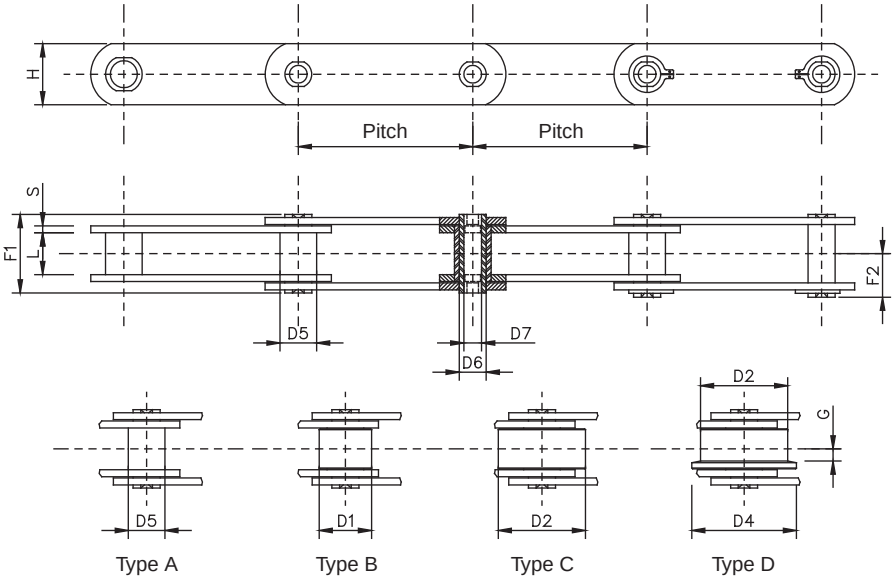
Chain N°	Pitch [mm] p	Fin folding a	Hole distance b	Fin width c	Holes diameter d1	Max. size e	Hole inter. f	No. of holes	Ang.	Chain weight [kg/m] Type A	Type B	Type C	Type D	Attach. weight [kg]
M20	40	16	27	14	6,6	40	-	1	Piegato	1,1	1,3	2,4	2,5	0,02
M20	50	16	27	14	6,6	40	-	1	Piegato	1,01	1,3	2	2,1	0,02
M20	63	16	27	35	6,6	40	20	2	25x3	0,99	1,2	1,8	1,9	0,04
M20	80	16	27	50	6,6	40	35	2	25x3	0,9	1,1	1,6	1,6	0,06
M28	50	20	32	20	9	47	-	1	20x3	1,6	1,9	3,3	3,4	0,02
M28	63	20	32	20	9	47	-	1	30x3	1,5	1,7	2,8	2,9	0,02
M28	80	20	32	45	9	47	25	2	30x3	1,4	1,6	2,5	2,6	0,05
M28	100	20	32	60	9	47	40	2	30x3	1,3	1,5	2,1	2,2	0,08
M40	63	25	35	31	9	50	-	1	30x4	2,25	2,6	4,4	4,6	0,04
M40	80	25	35	45	9	50	20	2	30x4	2	2,7	3,7	3,9	0,07
M40	100	25	35	60	9	50	40	2	30x4	1,9	2,1	3,2	3,4	0,1
M40	125	25	35	85	9	50	65	2	30x4	1,8	2	2,9	3	0,15
M56	63	30	44	22	11	61	-	1	40x4	3,4	3,9	6,8	7,2	0,05
M56	80	30	44	30	11	61	-	1	40x4	3	3,4	5,7	6	0,07
M56	100	30	44	50	11	61	25	2	40x4	2,8	3,1	5	5,2	0,12
M56	125	30	44	75	11	61	50	2	40x4	2,6	2,9	4,4	4,5	0,18
M56	160	30	44	110	11	61	85	2	40x4	2,54	2,7	3,9	4,1	0,27
M80	80	35	48	30	11	65	-	1	40x4	4,7	5,4	9,2	9,4	0,07
M80	100	35	48	50	11	65	25	2	40x4	4,3	4,8	7,9	8	0,12
M80	125	35	48	75	11	65	50	2	40x4	4	4,4	6,9	7	0,18
M80	160	35	48	110	11	65	85	2	40x4	3,7	4	6	6,1	0,27
M80	200	35	48	150	11	65	125	2	40x4	3,5	3,8	5,3	5,4	0,36
M112	80	40	55	28	14	80	-	1	50x6	6,8	8	14	14,7	0,13
M112	100	40	55	40	14	80	-	1	50x6	6,2	7,2	12	12,5	0,18
M112	125	40	55	65	14	80	35	2	50x6	5,7	6,5	10,4	10,8	0,3
M112	160	40	55	95	14	80	65	2	50x6	5,3	5,9	9	9,3	0,44
M112	200	40	55	130	14	80	100	2	50x6	5	5,5	7,9	8,2	0,59
M160	100	45	62	30	14	85	-	1	50x6	9,7	11,2	18,9	20,2	0,13
M160	125	45	62	50	14	85	25	2	50x6	8,9	10	16,3	18,1	0,23
M160	160	45	62	80	14	85	50	2	50x6	8,2	9,1	14	15,4	0,37
M160	200	45	62	115	14	85	85	2	50x6	7,6	8,4	12,2	13,4	0,53
M160	250	45	62	175	14	85	145	2	50x6	7,3	7,9	11	12	0,8
M224	125	55	70	35	18	100	-	1	60x8	13	14,8	25,8	26,6	0,3
M224	160	55	70	60	18	100	-	1	60x8	12	13,4	22	22,7	0,43
M224	200	55	70	100	18	100	65	2	60x8	11	12,1	19	19,5	0,71
M224	250	55	70	160	18	100	125	2	60x8	10,3	11,2	16,7	17,1	1,13
M224	315	55	70	230	18	100	190	2	60x8	9,8	10,5	14,9	15,2	1,6
M315	160	65	80	35	18	115	-	1	70x9	18,3	20,4	33,3	34,6	0,32
M315	200	65	80	85	18	115	50	2	70x9	16,7	18,4	28,7	29,7	0,66
M315	250	65	80	140	18	115	100	2	70x9	15,6	17	25,2	26	1,1
M315	315	65	80	190	18	115	155	2	70x9	14,6	15,7	22,3	22,9	1,46
M315	400	65	80	205	18	115	155	2	70x9	13,9	14,8	20	20,5	1,46
M450	200	75	90	50	18	125	-	1	70x9	24	27	40,5	47	0,33
M450	250	75	90	125	18	125	85	2	70x9	22	24,9	39,5	41	1
M450	315	75	90	195	18	125	155	2	70x9	21	23	34,5	36	1,6
M450	400	75	90	280	18	125	240	2	70x9	19,6	21,2	30,5	31,4	2,3

Conveyor chains British Standard ISO 1977 - DIN 8167 with hollow

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Roller diameter D1	Roller diameter D2	Flange diameter D4	Flange dist. G	Bushing diameter D5	Pin diameter D6	Pin Diam. D7	Plate height H	Plate thickness S	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]
MC28	50	20	25	36	45	4,5	17	13	8,2	25	3	36	20,5	28.000	40.000
MC28	63	20	25	36	45	4,5	17	13	8,2	25	3	36	20,5	28.000	40.000
MC28	80	20	25	36	45	4,5	17	13	8,2	25	3	36	20,5	28.000	40.000
MC28	100	20	25	36	45	4,5	17	13	8,2	25	3	36	20,5	28.000	40.000
MC28	125	20	25	36	45	4,5	17	13	8,2	25	3	36	20,5	28.000	40.000
MC56	63	24	30	50	60	7	21	15,5	10,2	35	4	45	25	56.000	90.000
MC56	80	24	30	50	60	7	21	15,5	10,2	35	4	45	25	56.000	90.000
MC56	100	24	30	50	60	7	21	15,5	10,2	35	4	45	25	56.000	90.000
MC56	125	24	30	50	60	7	21	15,5	10,2	35	4	45	25	56.000	90.000
MC56	160	24	30	50	60	7	21	15,5	10,2	35	4	45	25	56.000	90.000
MC112	80	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC112	100	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC112	125	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC112	160	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC112	200	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC112	250	32	42	70	85	8,5	29	22	14,3	50	6	62,5	33	112.000	180.000
MC224	125	43	60	100	120	10,5	42	30	20,3	70	8	83	44	224.000	350.000
MC224	160	43	60	100	120	10,5	42	30	20,3	70	8	83	44	224.000	350.000
MC224	200	43	60	100	120	10,5	42	30	20,3	70	8	83	44	224.000	350.000
MC224	250	43	60	100	120	10,5	42	30	20,3	70	8	83	44	224.000	350.000
MC224	315	43	60	100	120	10,5	42	30	20,3	70	8	83	44	224.000	350.000

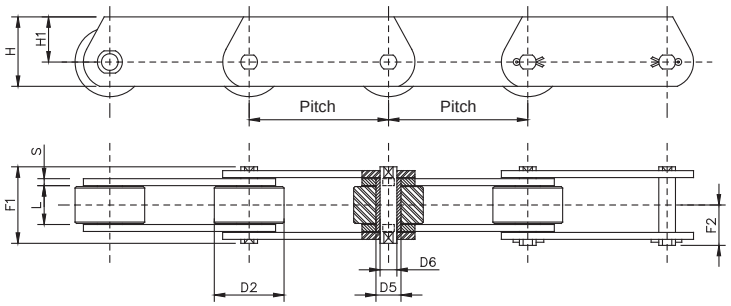
* = Ultimate strength with hardened and tempered plates

Conveyor chains British Standard ISO 1977 - DIN 8167 with eccentric rollers

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.

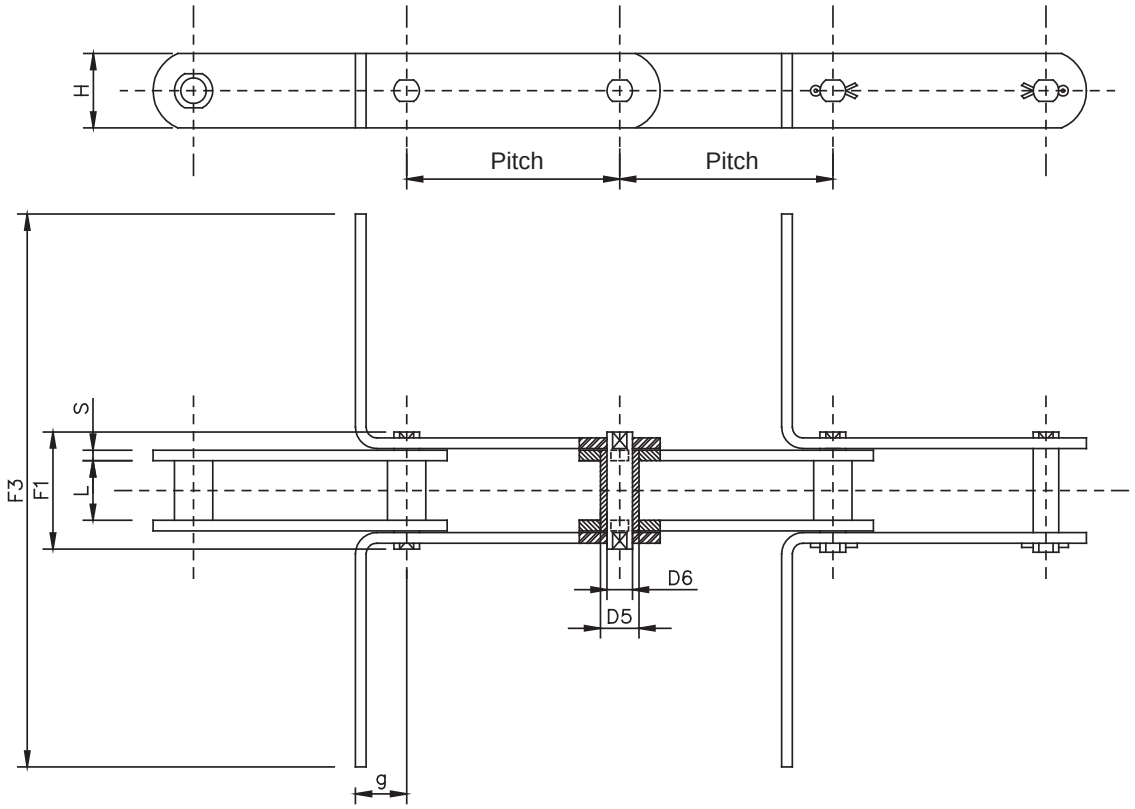


Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Bushing diameter D5	Pin diameter D6	Plate height H	Height H1	Plate thickness S	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]	Chain weight [kg/m]
ME20	40	16	25	9	6	25	16	2,5	33	19	20.000	32.000	3
ME20	50	16	25	9	6	25	16	2,5	33	19	20.000	32.000	2,6
ME20	63	16	25	9	6	25	16	2,5	33	19	20.000	32.000	2,3
ME20	80	16	25	9	6	25	16	2,5	33	19	20.000	32.000	2
ME28	50	18	30	10	7	30	20	3	36	20,5	28.000	42.000	4,1
ME28	63	18	30	10	7	30	20	3	36	20,5	28.000	42.000	3,5
ME28	80	18	30	10	7	30	20	3	36	20,5	28.000	42.000	3,1
ME28	100	18	30	10	7	30	20	3	36	20,5	28.000	42.000	2,8
ME40	63	20	36	11	8	35	22,5	4	40,5	24	40.000	60.000	5,5
ME40	80	20	36	11	8	35	22,5	4	40,5	24	40.000	60.000	4,8
ME40	100	20	36	11	8	35	22,5	4	40,5	24	40.000	60.000	4,2
ME40	125	20	36	11	8	35	22,5	4	40,5	24	40.000	60.000	3,7
ME56	63	24	42	15	10	45	30	4	45	26	56.000	85.000	8,3
ME56	80	24	42	15	10	45	30	4	45	26	56.000	85.000	7
ME56	100	24	42	15	10	45	30	4	45	26	56.000	85.000	6,1
ME56	125	24	42	15	10	45	30	4	45	26	56.000	85.000	5,4
ME80	80	28	50	18	12	50	32,5	5	54,5	30,5	80.000	125.000	11
ME80	100	28	50	18	12	50	32,5	5	54,5	30,5	80.000	125.000	9,5
ME80	125	28	50	18	12	50	32,5	5	54,5	30,5	80.000	125.000	8,5
ME80	160	28	50	18	12	50	32,5	5	54,5	30,5	80.000	125.000	7,2
ME80	200	28	50	18	12	50	32,5	5	54,5	30,5	80.000	125.000	6
ME112	80	32	60	21	15	60	40	6	63	36	112.000	175.000	17
ME112	100	32	60	21	15	60	40	6	63	36	112.000	175.000	14,5
ME112	125	32	60	21	15	60	40	6	63	36	112.000	175.000	13
ME112	160	32	60	21	15	60	40	6	63	36	112.000	175.000	11
ME112	200	32	60	21	15	60	40	6	63	36	112.000	175.000	10
ME160	100	37	70	25	18	70	45	7	72	41,5	160.000	260.000	21,5
ME160	125	37	70	25	18	70	45	7	72	41,5	160.000	260.000	19
ME160	160	37	70	25	18	70	45	7	72	41,5	160.000	260.000	17
ME160	200	37	70	25	18	70	45	7	72	41,5	160.000	260.000	15
ME160	250	37	70	25	18	70	45	7	72	41,5	160.000	260.000	13,5
ME224	125	43	85	30	21	90	60	8	84	47	224.000	340.000	32,5
ME224	160	43	85	30	21	90	60	8	84	47	224.000	340.000	27,5
ME224	200	43	85	30	21	90	60	8	84	47	224.000	340.000	23
ME224	250	43	85	30	21	90	60	8	84	47	224.000	340.000	21
ME224	315	43	85	30	21	90	60	8	84	47	224.000	340.000	19
ME315	160	48	100	36	25	100	65	10	97	55	315.000	520.000	43
ME315	200	48	100	36	25	100	65	10	97	55	315.000	520.000	37
ME315	250	48	100	36	25	100	65	10	97	55	315.000	520.000	32
ME315	315	48	100	36	25	100	65	10	97	55	315.000	520.000	28,6
ME315	400	48	100	36	25	100	65	10	97	55	315.000	520.000	25,5
ME450	200	56	120	42	30	120	80	12	114	67	450.000	700.000	47
ME450	250	56	120	42	30	120	80	12	114	67	450.000	700.000	47
ME450	315	56	120	42	30	120	80	12	114	67	450.000	700.000	47
ME450	400	56	120	42	30	120	80	12	114	67	450.000	700.000	47

* = Ultimate strength with hardened and tempered plates

Conveyor chains British Standard ISO 1977 - DIN 8167 with scraping plates

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Bushing diameter D5	Pin diameter D6	Plate height H	Plate thickness S	Folding g	Scraping pl. width F3	Ultimate strength [N]	Chain weight [kg/m]*
MR56	100	24	15	10	30	4	20	**	56.000	2,8
MR56	125	24	15	10	30	4	20	**	56.000	2,6
MR80	100	28	18	12	35	5	25	**	80.000	4,3
MR80	125	28	18	12	35	5	25	**	80.000	4
MR80	160	28	18	12	35	5	25	**	80.000	3,7
MR112	100	32	21	15	40	6	35	**	112.000	6,2
MR112	125	32	21	15	40	6	35	**	112.000	5,7
MR112	160	32	21	15	40	6	35	**	112.000	5,3
MR160	100	37	25	18	50	7	40	**	160.000	9,7
MR160	125	37	25	18	50	7	40	**	160.000	8,9
MR160	160	37	25	18	50	7	40	**	160.000	8,2
MR224	125	43	30	21	60	8	44	**	224.000	13
MR224	160	43	30	21	60	8	44	**	224.000	12
MR224	200	43	30	21	60	8	44	**	224.000	11
MR315	160	48	36	25	70	10	50	**	315.000	18,3
MR315	200	48	36	25	70	10	50	**	315.000	16,7
MR315	250	48	36	25	70	10	50	**	315.000	15,6

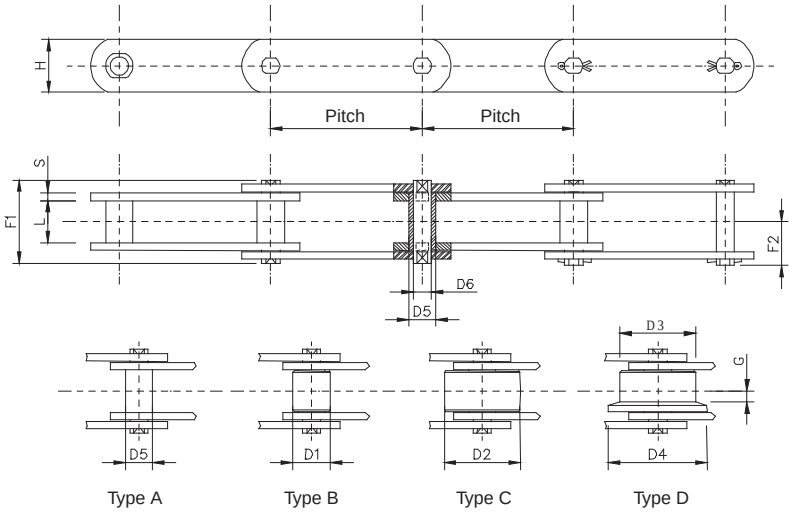
** = Free sizes
* = Without scraping plates

Conveyor chains Standard DIN 8165 with solid pins

Following types are available:
- stainless steel attachments (SS code)
- nylon rollers
- Delrin rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.

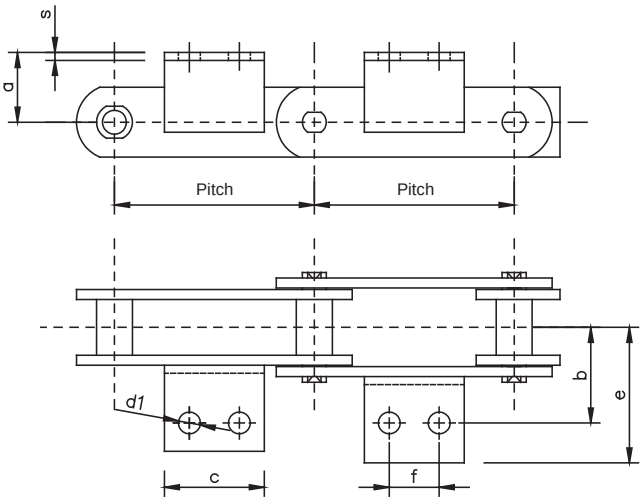


Type A Type B Type C Type D

Chain N°	Pitch [mm] p	Inner width L	Roller diam. D1	Roller diam. D2	Roller diam. D3	Flange diam. D4	Flange diam. G	Bushing diam. D5	Pin diam. D6	Plate height H	Plate thickness S	Pin length F1	Conn. Link length F2	Ultimate strength [N]	[N*]
FV40	50	18	20	32	40	50	4	15	10	25	3	36	21	42.000	47.000
FV40	63	18	20	32	40	50	4	15	10	25	3	36	21	42.000	47.000
FV40	80	18	20	32	40	50	4	15	10	25	3	36	21	42.000	47.000
FV40	100	18	20	32	40	50	4	15	10	25	3	36	21	42.000	47.000
FV40	125	18	20	32	40	50	4	15	10	25	3	36	21	42.000	47.000
FV63	63	22	26	40	50	63	5	18	12	30	4	45	26	64.000	75.000
FV63	80	22	26	40	50	63	5	18	12	30	4	45	26	64.000	75.000
FV63	100	22	26	40	50	63	5	18	12	30	4	45	26	64.000	75.000
FV63	125	22	26	40	50	63	5	18	12	30	4	45	26	64.000	75.000
FV63	160	22	26	40	50	63	5	18	12	30	4	45	26	64.000	75.000
FV90	63	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	80	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	100	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	125	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	160	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	200	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV90	250	25	30	48	63	78	6,5	20	14	35	5	53	30	100.000	115.000
FV112	100	30	32	55	72	90	7,5	22	16	40	6	62	35	120.000	170.000
FV112	125	30	32	55	72	90	7,5	22	16	40	6	62	35	120.000	170.000
FV112	160	30	32	55	72	90	7,5	22	16	40	6	62	35	120.000	170.000
FV112	200	30	32	55	72	90	7,5	22	16	40	6	62	35	120.000	170.000
FV112	250	30	32	55	72	90	7,5	22	16	40	6	62	35	120.000	170.000
FV140	100	35	36	60	80	100	9	26	18	45	6	67	38	145.000	180.000
FV140	125	35	36	60	80	100	9	26	18	45	6	67	38	145.000	180.000
FV140	160	35	36	60	80	100	9	26	18	45	6	67	38	145.000	180.000
FV140	200	35	36	60	80	100	9	26	18	45	6	67	38	145.000	180.000
FV140	250	35	36	60	80	100	9	26	18	45	6	67	38	145.000	180.000
FV180	125	45	42	70	100	125	13	30	20	50	8	86	49	190.000	250.000
FV180	160	45	42	70	100	125	13	30	20	50	8	86	49	190.000	250.000
FV180	200	45	42	70	100	125	13	30	20	50	8	86	49	190.000	250.000
FV180	250	45	42	70	100	125	13	30	20	50	8	86	49	190.000	250.000
FV180	315	45	42	70	100	125	13	30	20	50	8	86	49	190.000	250.000
FV250	160	55	50	80	125	155	15	36	26	60	8	97	55	275.000	300.000
FV250	200	55	50	80	125	155	15	36	26	60	8	97	55	275.000	300.000
FV250	250	55	50	80	125	155	15	36	26	60	8	97	55	275.000	300.000
FV250	315	55	50	80	125	155	15	36	26	60	8	97	55	275.000	300.000

* = Ultimate strength with hardened and tempered plates

Attachments for conveyor chains Standard DIN 8165



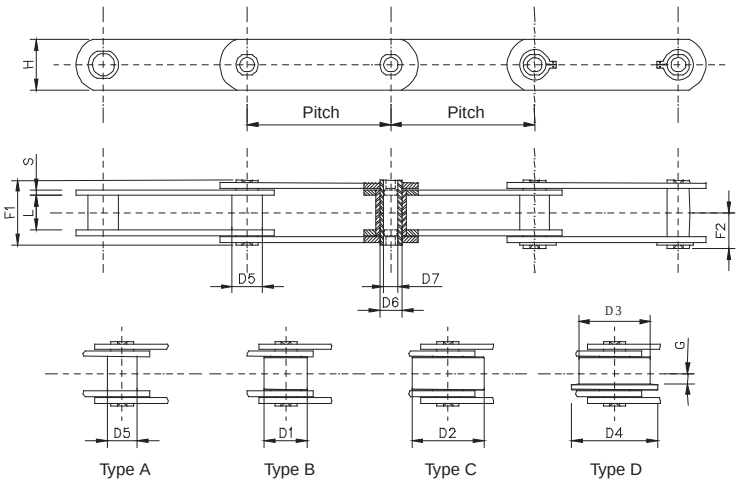
Chain N°	Pitch [mm] p	Fin folding a	Hole distance b	Fin width c	Hole diam. d1	Max. size e	Hole inter. f	No. of holes	Ang.	Chain weight [kg/m] Type A	Type B	Type C	Type D	Attach weight [kg]
FV40	50	20	25	45	6,5	64	-	1	Folded	2,4	2,9	4	5,6	0,05
FV40	63	20	25	31	6,5	40,5	-	1	Folded	2	2,4	3,3	4,5	0,04
FV40	80	20	25	45	6,5	40,5	25	2	25x3	1,9	2,2	3	3,9	0,05
FV40	100	20	25	50	6,5	40,5	30	2	25x3	1,7	2	2,6	3,3	0,06
FV40	125	20	25	60	6,5	40,5	30	2	25x3	1,6	1,9	2,3	3	0,07
FV63	63	30	34	40	8,4	50	-	1	30x4	3,8	4,5	6,4	8,9	0,06
FV63	80	30	34	45	8,4	50	25	2	30x4	3,2	3,8	5,3	7,2	0,1
FV63	100	30	34	50	8,4	50	30	2	30x4	3	3,5	4,7	6,2	0,11
FV63	125	30	34	60	8,4	50	40	2	30x4	2,7	3	4	5,3	0,14
FV63	160	30	34	70	8,4	50	50	2	30x4	2,4	2,7	3,5	4,4	0,17
FV90	63	35	40	30	8,4	64	-	1	40x4	5,6	6,8	10	14,7	0,07
FV90	80	35	40	45	8,4	64	25	2	40x4	5,1	6	8,6	12,3	0,11
FV90	100	35	40	50	8,4	64	30	2	40x4	4,5	5,3	7,3	10,3	0,13
FV90	125	35	40	60	8,4	64	40	2	40x4	4,2	4,8	6,5	8,8	0,16
FV90	160	35	40	70	8,4	64	50	2	40x4	4	4,5	5,8	7,6	0,2
FV90	200	35	40	80	8,4	64	60	2	40x4	3,5	3,8	4,8	5,8	0,24
FV90	250	35	40	85	8,4	64	65	2	40x4	3,4	3,7	4,6	5,4	0,21
FV112	100	40	50	50	11	70	30	2	40x6	6,7	7,7	11,2	18,8	0,2
FV112	125	40	50	65	11	70	40	2	40x6	6	6,8	9,6	15,7	0,27
FV112	160	40	50	75	11	70	50	2	40x6	5,5	6,1	8,3	13	0,31
FV112	200	40	50	90	11	70	65	2	40x6	5,2	5,7	7,5	11,3	0,4
FV112	250	40	50	105	11	70	80	2	40x6	4,9	5,3	6,7	9,8	0,5
FV140	100	45	50	55	11	81	30	2	50x6	8,2	9,5	14,3	21,4	0,23
FV140	125	45	50	65	11	81	40	2	50x6	7,4	8,5	12,3	18	0,3
FV140	160	45	50	75	11	81	50	2	50x6	6,7	7,5	10,5	14,9	0,36
FV140	200	45	50	90	11	81	65	2	50x6	6	6,7	9	12,8	0,45
FV140	250	45	50	105	11	81	80	2	50x6	5,8	6,3	8,3	11	0,54
FV180	125	45	64	63	13	91	35	2	50x7	10,5	12,4	18,9	31,3	0,32
FV180	160	45	64	80	13	91	50	2	50x7	10,2	11,7	16,7	26,5	0,41
FV180	200	45	64	95	13	91	65	2	50x7	9,6	10,8	14,8	25,9	0,52
FV180	250	45	64	110	13	91	80	2	50x7	8,9	9,8	13	19,3	0,62
FV180	315	45	64	130	13	91	100	2	50x7	8,3	9	11,6	16,6	0,72
FV250	160	55	69	80	14	106	50	2	60x8	13,4	16,4	23,8	45,9	0,57
FV250	200	55	69	95	14	106	65	2	60x8	12,3	14,7	20,6	38,3	0,71
FV250	250	55	69	110	14	106	80	2	60x8	11,3	13,3	17,9	32,1	0,85
FV250	315	55	69	130	14	106	100	2	60x8	10,5	12	15,8	27	1

Conveyor chains Standard DIN 8165 with hollow pins

Following types are available:
- nylon rollers
- pre-loaded
- pre-selected

Available surface treatments:
- Zinc plating
- Nickel plating

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Roller diam. D1	Roller diam. D2	Roller diam. D3	Flange diam. D4	Flange dist. G	Bushing diam. D5	Pin diam. D6	Pin diam. D7	Plate height H	Plate thickn. S	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]
FVC63	63	22	26	40	50	63	5	18	12	8	30	4	45	28	46.000	75.000
FVC63	80	22	26	40	50	63	5	18	12	8	30	4	45	28	46.000	75.000
FVC63	100	22	26	40	50	63	5	18	12	8	30	4	45	28	46.000	75.000
FVC63	125	22	26	40	50	63	5	18	12	8	30	4	45	28	46.000	75.000
FVC63	160	22	26	40	50	63	5	18	12	8	30	4	45	28	46.000	75.000
FVC90	63	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	80	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	100	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	125	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	160	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	200	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC90	250	25	30	48	63	78	6,5	20	14	10	35	5	53	30	73.000	90.000
FVC112	100	30	32	55	72	90	7,5	22	16	11	40	6	62	32	90.000	130.000
FVC112	125	30	32	55	72	90	7,5	22	16	11	40	6	62	32	90.000	130.000
FVC112	160	30	32	55	72	90	7,5	22	16	11	40	6	62	32	90.000	130.000
FVC112	200	30	32	55	72	90	7,5	22	16	11	40	6	62	32	90.000	130.000
FVC112	250	30	32	55	72	90	7,5	22	16	11	40	6	62	32	90.000	130.000
FVC140	100	35	36	60	80	100	9	26	18	12	45	6	67	35	110.000	170.000
FVC140	125	35	36	60	80	100	9	26	18	12	45	6	67	35	110.000	170.000
FVC140	160	35	36	60	80	100	9	26	18	12	45	6	67	35	110.000	170.000
FVC140	200	35	36	60	80	100	9	26	18	12	45	6	67	35	110.000	170.000
FVC140	250	35	36	60	80	100	9	26	18	12	45	6	67	35	110.000	170.000
FVC180	125	45	42	70	100	125	13	30	20	14	50	8	86	45	145.000	190.000
FVC180	160	45	42	70	100	125	13	30	20	14	50	8	86	45	145.000	190.000
FVC180	200	45	42	70	100	125	13	30	20	14	50	8	86	45	145.000	190.000
FVC180	250	45	42	70	100	125	13	30	20	14	50	8	86	45	145.000	190.000
FVC180	315	45	42	70	100	125	13	30	20	14	50	8	86	45	145.000	190.000
FVC250	160	55	50	80	125	155	15	36	26	18	60	8	97	55	215.000	300.000
FVC250	200	55	50	80	125	155	15	36	26	18	60	8	97	55	215.000	300.000
FVC250	250	55	50	80	125	155	15	36	26	18	60	8	97	55	215.000	300.000
FVC250	315	55	50	80	125	155	15	36	26	18	60	8	97	55	215.000	300.000

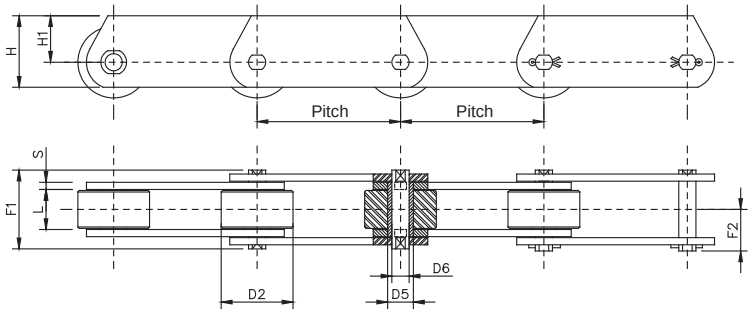
* = Ultimate strength with hardened and tempered plates

Conveyor chains Standard DIN 8165 with eccentric rollers

ollowing types are available:
• nylon rollers
• pre-loaded
• pre-selected

Available surface treatments:
• Zinc plating
• Nickel plating

Sprockets upon request.

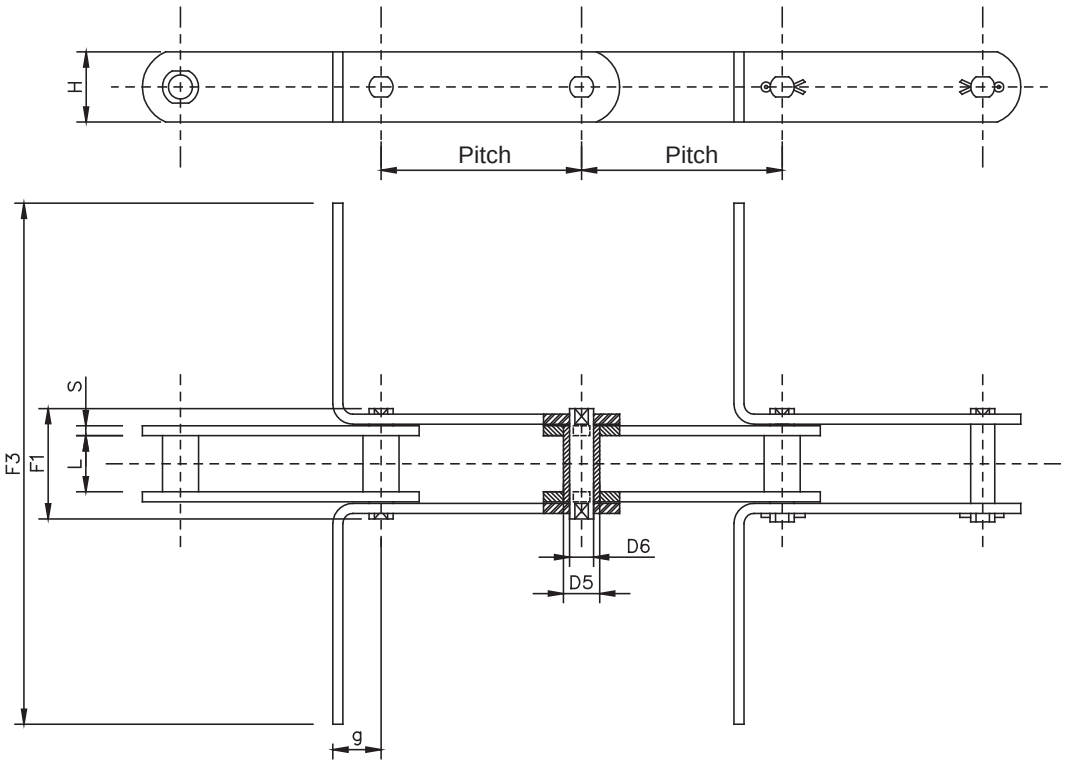


Chain N°	Pitch [mm] p	Inner width L	Roller diameter D2	Roller diameter D5	Pin diameter D6	Plate height H	Height H1	Plate thickness S	Pin length F1	Pin length g. F2	Ultimate strength [N]	Ultimate strength [N*]	Chain weight [kg/m]
FVT40	50	18	32	15	10	35	22,5	3	36	21	42.000	47.000	5,0
FVT40	63	18	32	15	10	35	22,5	3	36	21	42.000	47.000	4,3
FVT40	80	18	32	15	10	35	22,5	3	36	21	42.000	47.000	3,8
FVT40	100	18	32	15	10	35	22,5	3	36	21	42.000	47.000	3,4
FVT40	125	18	32	15	10	35	22,5	3	36	21	42.000	47.000	3,0
FVT63	63	22	40	18	12	40	25	4	45	26	64.000	75.000	7,5
FVT63	80	22	40	18	12	40	25	4	45	26	64.000	75.000	6,5
FVT63	100	22	40	18	12	40	25	4	45	26	64.000	75.000	5,7
FVT63	125	22	40	18	12	40	25	4	45	26	64.000	75.000	5,1
FVT63	160	22	40	18	12	40	25	4	45	26	64.000	75.000	4,5
FVT90	63	25	48	20	14	45	27,5	5	53	30	100.000	115.000	11,7
FVT90	80	25	48	20	14	45	27,5	5	53	30	100.000	115.000	10,0
FVT90	100	25	48	20	14	45	27,5	5	53	30	100.000	115.000	8,7
FVT90	125	25	48	20	14	45	27,5	5	53	30	100.000	115.000	7,7
FVT90	160	25	48	20	14	45	27,5	5	53	30	100.000	115.000	6,8
FVT90	200	25	48	20	14	45	27,5	5	53	30	100.000	115.000	5,8
FVT90	250	25	48	20	14	45	27,5	5	53	30	100.000	115.000	5,4
FVT112	100	30	55	22	16	50	30	6	62	35	120.000	170.000	12,7
FVT112	125	30	55	22	16	50	30	6	62	35	120.000	170.000	11,7
FVT112	160	30	55	22	16	50	30	6	62	35	120.000	170.000	9,7
FVT112	200	30	55	22	16	50	30	6	62	35	120.000	170.000	8,7
FVT112	250	30	55	22	16	50	30	6	62	35	120.000	170.000	8
FVT140	100	35	60	25	18	60	37,5	6	67	38	145.000	180.000	16,8
FVT140	125	35	60	25	18	60	37,5	6	67	38	145.000	180.000	14,6
FVT140	160	35	60	25	18	60	37,5	6	67	38	145.000	180.000	12,6
FVT140	200	35	60	25	18	60	37,5	6	67	38	145.000	180.000	11,3
FVT140	250	35	60	25	18	60	37,5	6	67	38	145.000	180.000	10,1
FVT180	125	45	70	30	20	70	45	8	86	49	190.000	250.000	24,2
FVT180	160	45	70	30	20	70	45	8	86	49	190.000	250.000	20,8
FVT180	200	45	70	30	20	70	45	8	86	49	190.000	250.000	18,4
FVT180	250	45	70	30	20	70	45	8	86	49	190.000	250.000	16,5
FVT180	315	45	70	30	20	70	45	8	86	49	190.000	250.000	14,9
FVT250	160	55	80	36	26	80	50	8	97	55	275.000	300.000	28,2
FVT250	200	55	80	36	26	80	50	8	97	55	275.000	300.000	24,5
FVT250	250	55	80	36	26	80	50	8	97	55	275.000	300.000	21,7
FVT250	315	55	80	36	26	80	50	8	97	55	275.000	300.000	19,3

* = Ultimate strength with hardened and tempered plates

Conveyor chains Standard DIN 8165 with scraping plates

Sprockets upon request.



Chain N°	Pitch [mm] p	Inner width L	Bushing diameter D5	Pin diameter D6	Plate height H	Plate thickness S	Folding g	Scraping pl. width F3**	Ultimate strength [N]	Chain weight [kg/m]*
FV40	80	18	15	10	25	3	20	**	42.000	1,90
FV40	100	18	15	10	25	3	20	**	42.000	1,70
FV40	125	18	15	10	25	3	20	**	42.000	1,60
FV63	100	22	18	12	30	4	25	**	64.000	3,00
FV63	125	22	18	12	30	4	25	**	64.000	2,70
FV63	160	22	18	12	30	4	25	**	64.000	2,40
FV90	100	25	20	14	35	5	30	**	100.000	4,50
FV90	125	25	20	14	35	5	30	**	100.000	4,20
FV90	160	25	20	14	35	5	30	**	100.000	4,00
FV112	100	30	22	16	40	6	35	**	120.000	6,70
FV112	125	30	22	16	40	6	35	**	120.000	6,00
FV112	160	30	22	16	40	6	35	**	120.000	5,50
FV140	125	35	26	18	45	6	38	**	145.000	7,40
FV140	160	35	26	18	45	6	38	**	145.000	6,70
FV140	200	35	26	18	45	6	38	**	145.000	6,00
FV180	125	45	30	20	50	8	44	**	190.000	10,50
FV180	160	45	30	20	50	8	44	**	190.000	10,20
FV180	200	45	30	20	50	8	44	**	190.000	9,60
FV250	160	55	36	26	60	8	50	**	275.000	13,40
FV250	200	55	36	26	60	8	50	**	275.000	12,30
FV250	250	55	36	26	60	8	50	**	275.000	11,30

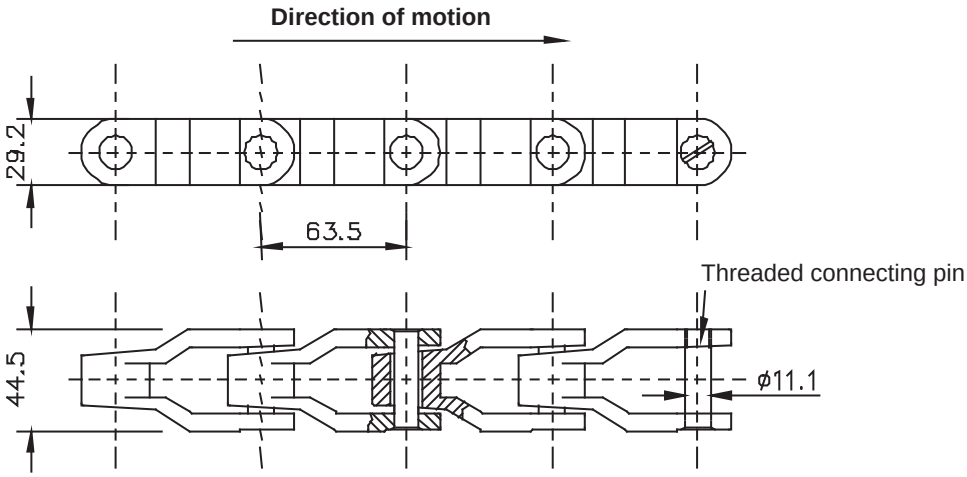
** = Free sizes
* = Without scraping plates

Malleable cast iron chains for case conveyors

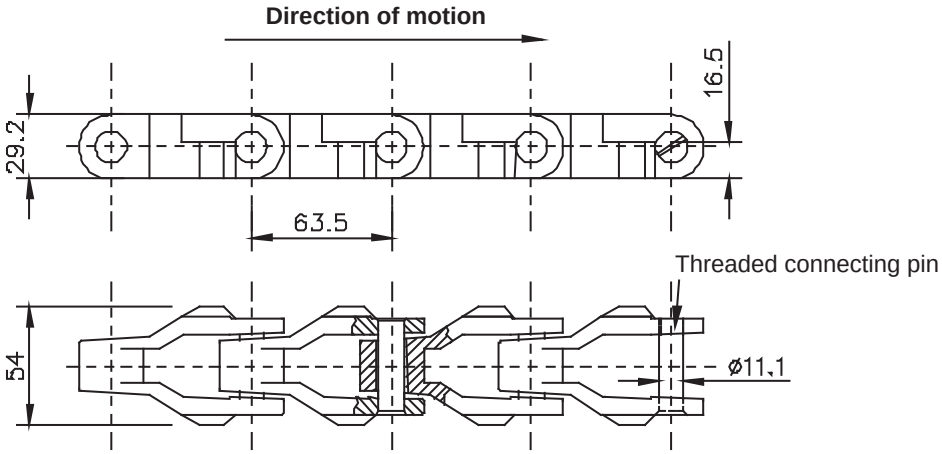
This type of chain is used in medium corrosive environments to slide concentrated loads, mainly in the bottling industry to transport boxes or cases..
It is generally provided with profile rail guides and it can be used on curved conveyors.
It is made of cast iron with non-treated steel pins and it has following characteristics:
• riveted pin inside the plates
• large sliding surface
• curve radius minimum: 500 mm

Available models:
• draft and driving plate wheels of cast iron or acetal resin
• links of acetal resin or polypropylene with very low coefficient of friction

CC600



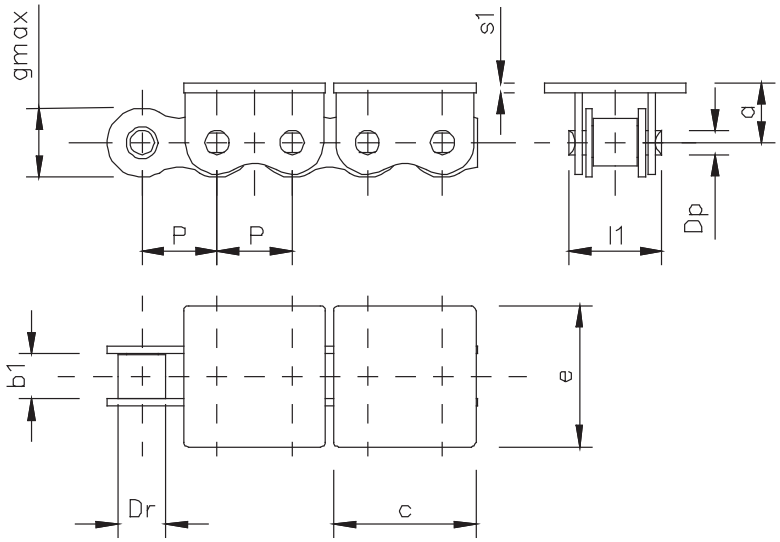
CC600D



Chain type	Pitch [mm] p	Ultimate strength [N]	Operating load [N]	Curve radius [mm]	Chain weight [kg/m]
CC600	63,5	71.200	4.700	500	4,8
CC600D	63,5	71.200	4.700	500	5,5

Conveyor chains for bricks and tiles

Sprockets can also be delivered upon request.

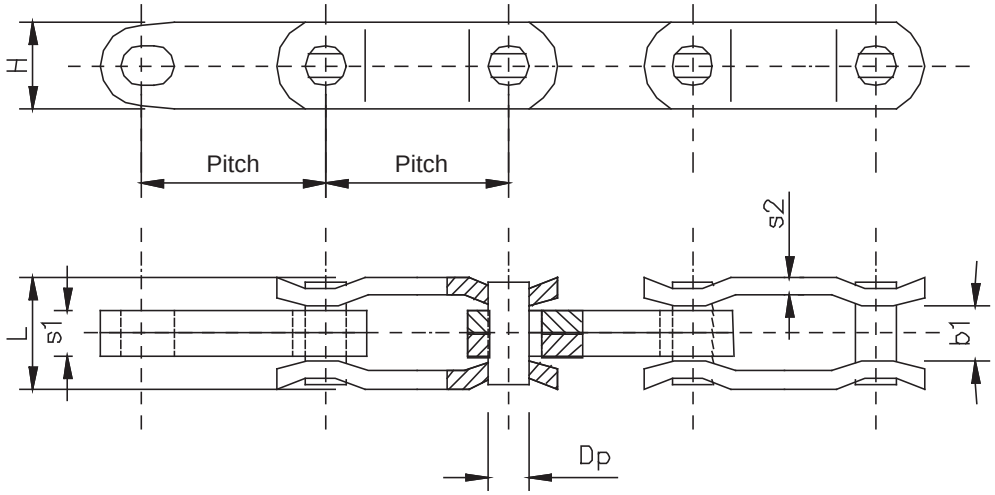


Chain N°	Pitch [mm] p	Inner width b1	Roller diameter Dr	Pin diameter Dp	gmax	Pin length l1	Cap height a	Cap surface c x e	Cap thickness s1	Ultimate strength min. [N]
TA 10 B	15,88	9,65	10,16	7,01	14,70	18,80	12,70	30 x 30	2,00	18.000
TB 85	20,00	16,00	12,00*	8,00	18,50	36,00	15,50	36 x 85	4,00	20.000

* = Bushing diameter

Conveyor steel chains for cases

Sprockets can also be delivered upon request.



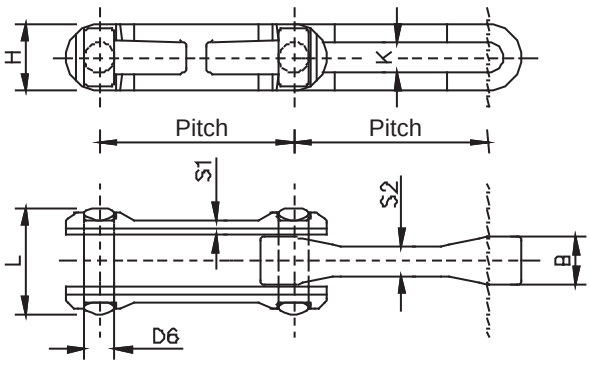
Chain N°	Pitch [mm] p	Inner width b1	Pin diameter Dp	Plate height H	Plate thickness int. s1	Out plate thickness s2	Max. size L	Curve radius min.	Ultimate strength min. [N]	Chain weight [kg/m]
6285	62,85	18,00	14,00	30,00	16,00	6,00	38,00	400,00	130.000	5,1

Pressed steel chains for overhead conveyors

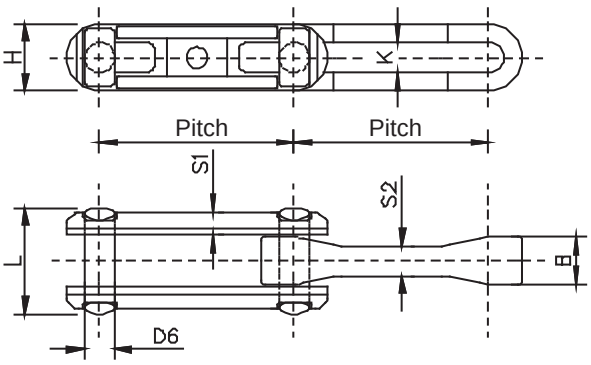
Removable links links

This type of chains consists of forged and treated steel elements and, in comparison to their weight, they have a very high ultimate strength.
The design allows simple manual assembly and disassembly.
They are used in overhead conveyors because these joints allow application on different levels.
They can be used in long distance conveyors, ground conveyors, heavy industry conveyors (foundries, steelmills, mines).
Standard chains are used in the vast majority of cases.
The X-type chains, on the contrary, are used for overhead conveyors combined with test and repair trolleys.
The symmetrical pins can be rotated of 180°, when they are worn out, to extend chain life.
All chain elements are made of hardened and tempered carbon steel or hardened and tempered allow steel to obtain the maximum ultimate strength and higher wear resistance.
Different attachments are available, which allow the application on overhead conveyors with trolleys.

STANDARD



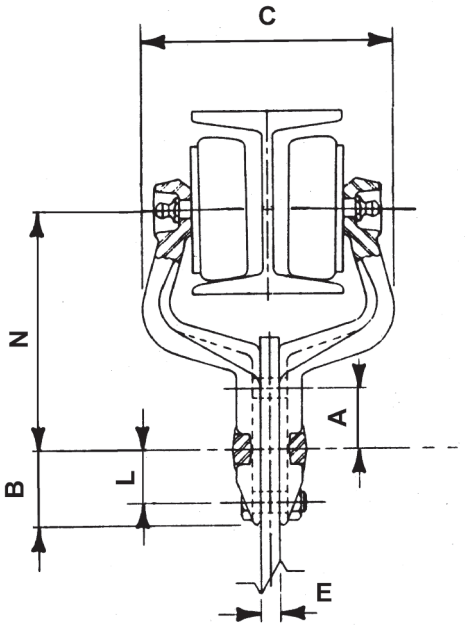
X Type

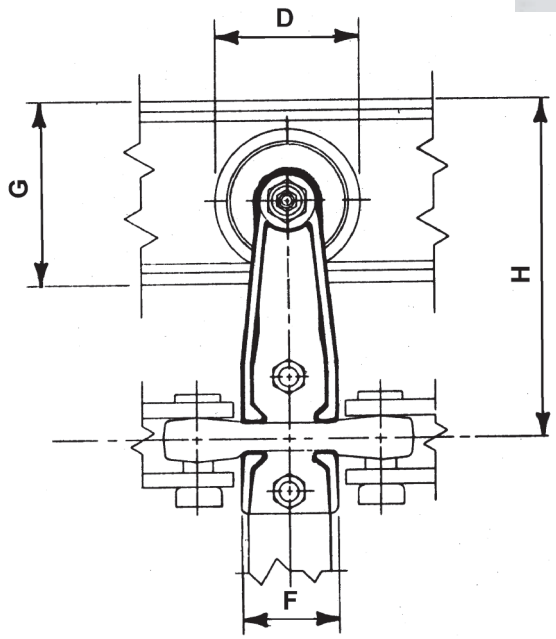


Chain N°	Pitch [mm] p	Pin diameter D6	Inner plate thickness B	Pin length L	Plate height H	Outer plate thickness S1	Inner plate thickness S2	Inner plate width K	Chain weight [kg/m]	Ultimate strength [N]
348	76,2	12,70	19,1	44,5	26,9	6,8	12,7	13,5	3,3	109.000
X 348	76,2	12,70	19,1	44,5	26,9	10,4	12,7	13,5	3,3	109.000
458	102,4	15,88	25,9	55,6	35,1	7,9	16,0	17,5	4,6	220.000
X 458	102,4	15,88	25,9	55,6	35,1	11,9	16,0	17,5	4,8	220.000
468	102,4	19,05	41,4	84,1	47,8	10,4	28,7	22,4	11,2	320.000
678	153,2	22,23	33,0	77,0	50,8	12,7	20,6	25,4	9,7	390.000
X 678	153,2	22,23	33,0	77,0	50,8	18,3	20,6	25,4	10,0	390.000

Trolleys of pressed steel for chains

Available:
- two-axis trolleys for heavy loads
- hangers
- special attachments





Chain N°	Pitch [mm] p	Distance from girder to chain centre H	Base chain distance B	Trolley size C	Roller diam. D	Hanger thickn. E	Girder height G	Chain distance Upper bolt A	Chain distance Lower bolt L	Chain distance Roller N	Bracket width F	Trolley weight [kg]	Max. carrying capacity [kg]
348	76,2	143,5	35,0	108,0	60,0	6,0	80	22,0	22,0	100	40	2,5	140
		165					100						
X 348	76,2	143,5	35,0	108,0	60,0	6,0	80	22,0	22,0	135	40	2,5	140
		165					100						
458	102,4	211	35,0	136,0	80,0	9,0	120	41,0	21,0	135	54	4,5	200
		230,2					140						
X 458	102,4	211	35,0	136,0	80,0	9,0	120	41,0	21,0	135	54	4,5	200
		230,2					140						
468	102,4	211	35,0	136,0	80,0	9,0	120	41,0	21,0	135	54	4,5	200
		230,2					140						
678	153,2	264	43,0	172,0	124,0	13,0	160	42,0	29,0	168	85	9,0	450
		283					180						
X 678	153,2	264	43,0	172,0	124,0	13,0	160	42,0	29,0	168	85	9,0	450
		283					180						

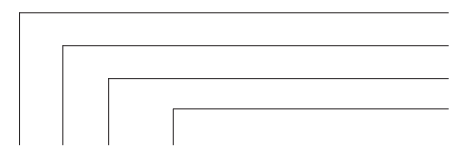
SIT chain drive designations

Plate Wheels

Plate Wheel
S = single; D = double; T = triple
Code ISO (08 = Pitch 1/2" ; B = British Standard; 1 = single)
Number of teeth "Z" (3 digits)

QC S 08B1 - 025

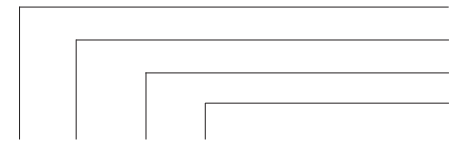
Sprockets



Sprocket
S = single; D = double; T = triple
Code ISO (08 = Pitch 1/2" ; B = British Standard; 1 = single)
Number of teeth "Z" (3 digits)

QP S 08B1 - 025

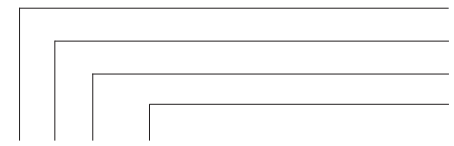
Hardened sprockets with finished bore, keyway and two set screw



Hardened single sprocket with finished bore, keyway and two set screws
Code ISO (08 = Pitch 1/2" ; B = British Standard; 1 = single)
Number of teeth "Z" (3 digits)
Bore diameter in mm

QPF 08B1 - 025 F28

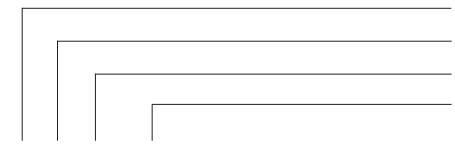
Chains



K = chain ES; KQ = quality chain; KQZ = high quality chain
R = per meter (entire coils or smaller quantities); "gap" = sold per meter in standard packages (5 m)
S = single; D = double; T = triple
Code ISO (08 = Pitch 1/2" ; B = British Standard; 1 = single)

K R S 08B1

Connecting link and offset link



K = chain ES; KQ = quality chain; KQZ = high quality chain
G = connecting link; F = offset link
S = single; D = double; T = triple
Code ISO (08 = Pitch 1/2" ; B = British Standard; 1 = single)

K G S 08B1