

Palm Oil Industry Chains



2B

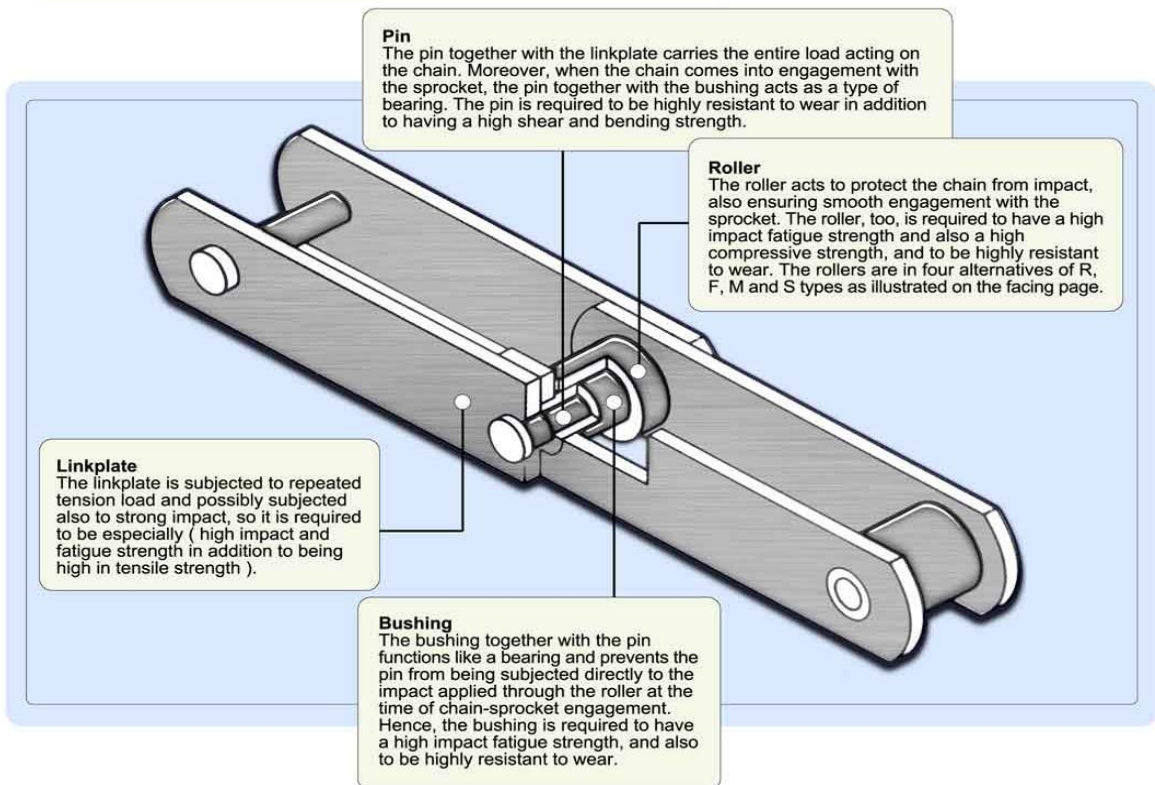
STRONG & SAFE

FSCM CONVEYOR CHAINS ARE REMARKABLY STRONG AND SAFE IN THEIR CAREFUL FACILITIES UNDER STRICTEST QUALITY CONTROL

FSCM CONVEYOR CHAINS ARE UTILIZED IN A WIDE VARIETY OF APPLICATIONS, CONDITIONS, VERY ECONOMICAL THEY ARE ALSO AND SAFE TO OPERATE.

FSCM STANDARD CONVEYOR CHAINS ARE AVAILABLE IN A WIDE RANGE OF APPLICATION WITH HIGH DEGREE WEAR RESISTANCE

CONSTRUCTION



CLASSIFICATION BY TYPES OF CHAINS

HOLLOW BEARING PIN CHAIN

HOLLOW PIN FEATURE OFFERS THE FACILITY FOR FIX ATTACHMENTS :
IN HIGH TEMPERATURE APPLICATION
IN CLEAN AND DRY CONDITIONS

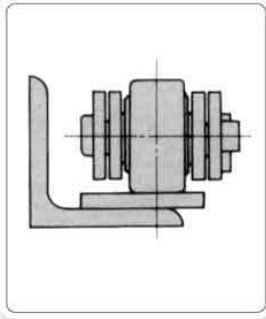
SOLID BEARING PIN CHAIN

RECOMMENDED FOR USE IN HIGH IMPACT LOADING APPLICATIONS :
IN CORROSIVE ENVIRONMENT
IN LONG CONVEYORS

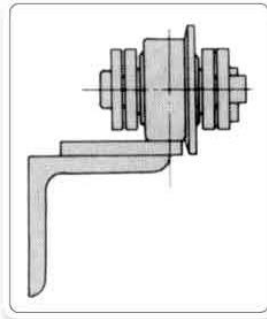
DEEP LINK CHAIN

THIS CHAIN PROVIDES A CONTINUOUS CARRYING EDGE ABOVE THE ROLLER PERIPHERY

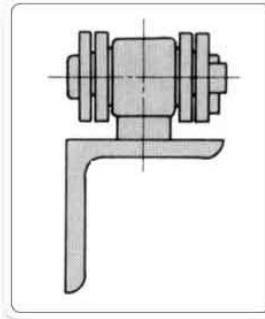
CLASSIFICATION BY TYPES OF ROLLER



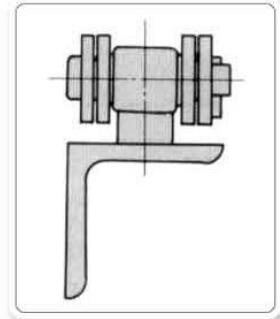
R-ROLLER TYPE



F-ROLLER TYPE



M-ROLLER TYPE



S-ROLLER TYPE

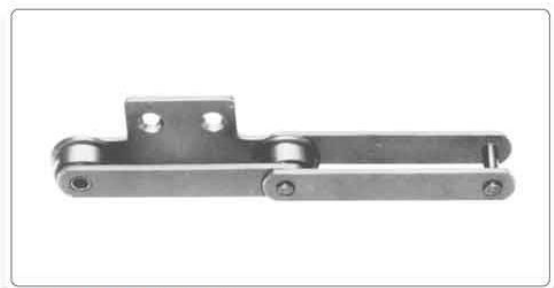
STANDARD ATTACHMENT



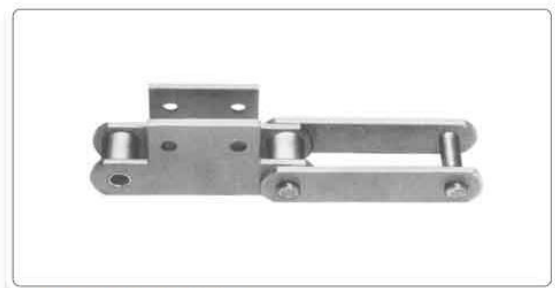
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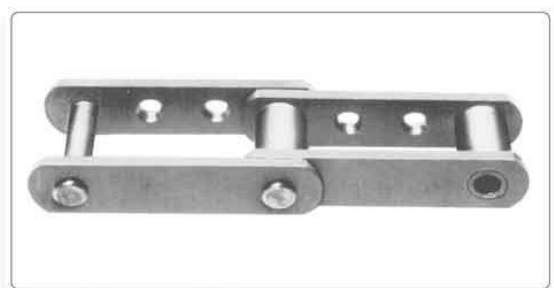
K ATTACHMENT



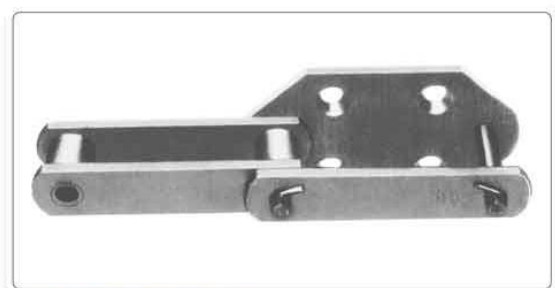
SA ATTACHMENT



SK ATTACHMENT

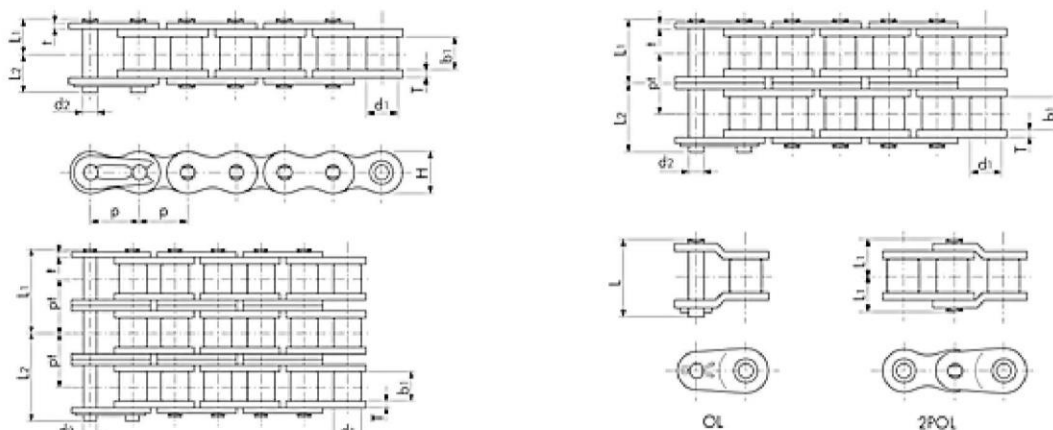


G2 ATTACHMENT



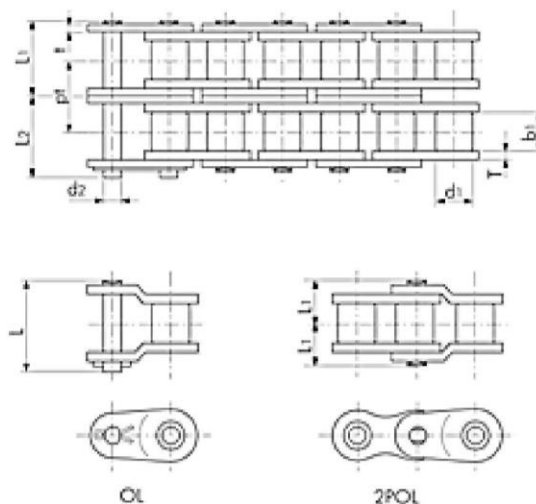
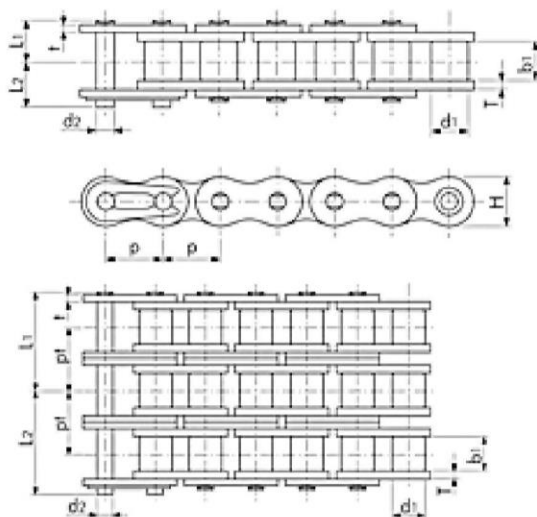
G4 ATTACHMENT

Roller Chain ANSI, ASME Series



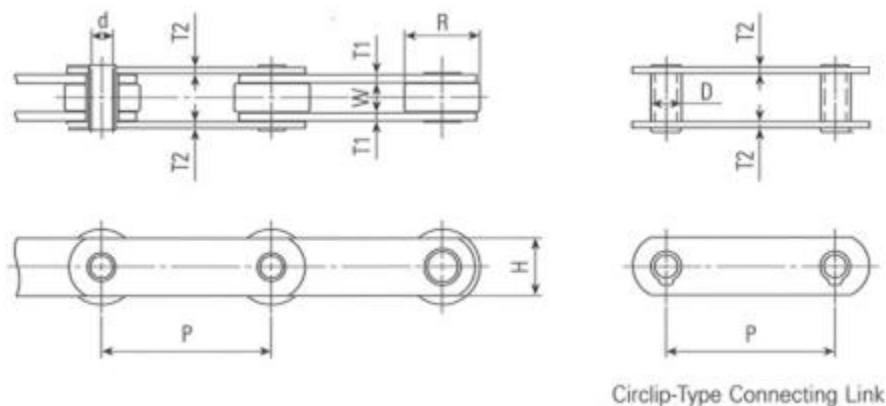
CHAIN NO.	PITCH	ROLLER DIAMETER	INNER WIDTH	PIN				LINK PLATE		TRANSVERSE PITCH	MIN. TENSILE STRENGTH	APPROX. MASS	
	P	D1	B1	DIAMETER	LENGTH	LENGTH	LENGTH	THICKNESS	HEIGHT				
SINGLE STRAND													
25-1	6.35	1/4"	3.3	3.18	2.31	3.8	4.5	-	0.74	5.84	-	3.6	0.14
35-1	9.525	3/8"	5.08	4.78	3.59	5.85	6.85	13.5	1.25	9	-	8.7	0.33
41-1	12.7	1/2"	7.77	6.38	3.59	6.75	7.95	15.1	1.25	9.8	-	7.4	0.41
40-1	12.7	1/2"	7.92	7.95	3.97	8.25	9.95	17.9	1.5	12	-	15.2	0.64
50-1	15.875	5/8"	10.16	9.53	5.09	10.3	11.9	22.5	2	15	-	24	1.04
60-1	19.05	3/4"	11.91	12.7	5.96	12.85	14.75	28.2	2.4	18.1	-	34.2	1.53
80-1	25.4	1"	15.88	15.88	7.94	16.25	19.25	36.6	3.2	24.1	-	61.2	2.66
100-1	31.75	1 1/4"	19.05	19.05	9.54	19.75	22.85	43.7	4	30.1	-	95.4	3.99
120-1	38.1	1 1/2"	22.23	25.4	11.11	24.9	28.9	55	4.8	36.2	-	137.1	5.93
140-1	44.45	1 3/4"	25.4	25.4	12.71	26.9	31.7	59.5	5.6	42.2	-	185.9	7.49
160-1	50.8	2"	28.58	31.75	14.29	31.85	36.85	70.2	6.4	48.2	-	244.6	10.1
180-1	57.15	2 1/4"	35.71	35.72	17.46	35.65	42.45	80.6	7.15	54.2	-	308.2	13.45
200-1	63.5	2 1/2"	39.68	38.1	19.85	39	44.8	87.3	8	60.3	-	381.7	16.49
240-1	76.2	3"	47.63	47.63	23.81	47.9	55.5	106.7	9.5	72.4	-	550.4	24.5
DOUBLE STRAND													
25-2	6.35	1/4"	3.3	3.18	2.31	6.95	7.75	-	0.74	5.84	6.4	7.2	0.27
35-2	9.525	3/8"	5.08	4.78	3.59	10.9	11.9	24.5	1.25	9	10.1	17.4	0.69
40-2	12.7	1/2"	7.92	7.95	3.97	15.45	17.15	33.5	1.5	12	14.4	30.4	1.27
50-2	15.875	5/8"	10.16	9.53	5.09	19.35	21.15	41.8	2	15	18.1	48	2.07
60-2	19.05	3/4"	11.91	12.7	5.96	24.25	26.25	52.6	2.4	18.1	22.8	68.4	3.04
80-2	25.4	1"	15.88	15.88	7.94	30.9	33.9	67.5	3.2	24.1	29.3	122.4	5.27
100-2	31.75	1 1/4"	19.05	19.05	9.54	37.7	40.8	81.5	4	30.1	35.8	190.8	7.85
120-2	38.1	1 1/2"	22.23	25.4	11.11	47.6	51.6	103.2	4.8	36.2	45.4	274.2	11.7
140-2	44.45	1 3/4"	25.4	25.4	12.71	51.35	56.15	112.3	5.6	42.2	48.9	371.8	14.83
160-2	50.8	2"	28.58	31.75	14.29	61.15	66.15	132.2	6.4	48.2	58.5	489.2	20.04
180-2	57.15	2 1/4"	35.71	35.72	17.46	68.75	75.35	151.1	7.15	54.2	65.8	616.4	26.52
200-2	63.5	2 1/2"	39.68	38.1	19.85	74.85	80.65	161.2	8	60.3	71.6	763.4	32.63
240-2	76.2	3"	47.63	47.63	23.81	91.9	99.4	198.4	9.5	72.4	87.8	1100.8	48.1
TRIPLE STRAND													
25-3	6.35	1/4"	3.3	3.18	2.31	10.15	10.95	-	0.74	5.84	6.4	10.8	0.42
35-3	9.525	3/8"	5.08	4.78	3.59	16	16.9	34.6	1.25	9	10.1	26.1	1.05
40-3	12.7	1/2"	7.92	7.95	3.97	22.65	24.15	47.9	1.5	12	14.4	45.6	1.9
50-3	15.875	5/8"	10.16	9.53	5.09	28.4	30.2	59.9	2	15	18.1	72	3.09
60-3	19.05	3/4"	11.91	12.7	5.96	35.65	38.15	75.5	2.4	18.1	22.8	102.6	4.54
80-3	25.4	1"	15.88	15.88	7.94	45.6	48.5	96.9	3.2	24.1	29.3	183.6	7.89
100-3	31.75	1 1/4"	19.05	19.05	9.54	55.65	58.75	117.3	4	30.1	35.8	286.2	11.77
120-3	38.1	1 1/2"	22.23	25.4	11.11	70.4	74.4	148.6	4.8	36.2	45.4	411.3	17.53
140-3	44.45	1 3/4"	25.4	25.4	12.71	75.85	80.75	161.3	5.6	42.2	48.9	557.7	22.2
160-3	50.8	2"	28.58	31.75	14.29	90.45	95.45	190.7	6.4	48.2	58.5	733.8	30.02
180-3	57.15	2 1/4"	35.71	35.72	17.46	101.7	108.5	216.9	7.15	54.2	65.8	924.6	38.22
200-3	63.5	2 1/2"	39.68	38.1	19.85	110.75	116.45	233	8	60.3	71.6	1145.1	49.02

Roller Chain BS, DIN Series



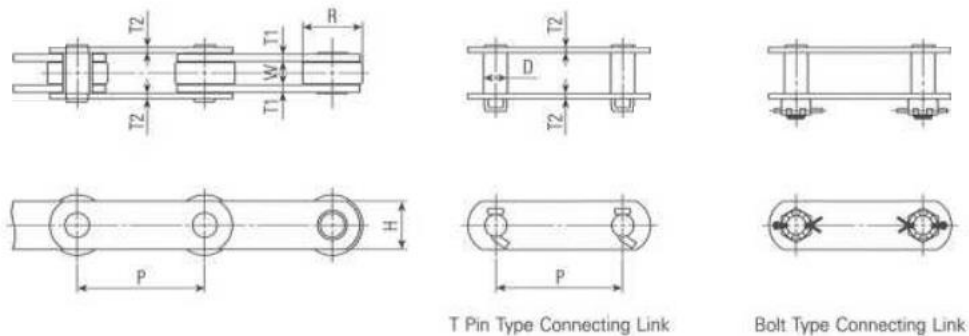
CHAIN NO.	PITCH		ROLLER DIAMETER	INNER WIDTH	PIN				LINK PLATE			TRANSVERSE PITCH	MIN. TENSILE STRENGTH	APPROX. MASS
	P	D1			D2	L1	L2	L	THICKNESS	T	H (MAX.)			
SINGLE STRAND														
05B-1	8	0.315"	5	3	2.3	3.8	4.7	-	0.75	0.75	7.1	-	4.4	0.18
06B-1	9.525	3/8"	6.35	5.72	3.27	6.1	7.7	14.2	1.3	1	8.2	-	8.9	0.39
08B-1	12.7	1/2"	8.51	7.75	4.45	8.4	10	18.4	1.6	1.6	12	-	17.8	0.7
10B-1	15.875	5/8"	10.16	9.65	5.08	9.55	11.25	21.1	1.5	1.5	14.7	-	22.2	0.95
12B-1	19.05	3/4"	12.07	11.68	5.72	11.1	13	24.8	1.8	1.8	16.1	-	28.9	1.25
16B-1	25.4	1"	15.88	17.02	8.28	17.75	19.95	38.9	4	3.2	21	-	60	2.7
20B-1	31.75	1 1/4"	19.05	19.56	10.19	19.9	23.1	46.95	4.4	3.4	26	-	95	3.85
24B-1	38.1	1 1/2"	25.4	25.4	14.63	26.65	31.85	62	6	5.6	33.4	-	160	7.45
28B-1	44.45	1 3/4"	27.94	30.99	15.9	32.45	37.45	74.5	7.5	6.3	36.4	-	200	9.45
32B-1	50.8	2"	29.21	30.99	17.81	32.1	37.7	73.5	7	6.3	42.2	-	250	10.25
40B-1	63.5	2 1/2"	39.37	38.1	22.89	39.25	45.05	88.85	8.5	8	52.9	-	355	16.35
48B-1	76.2	3"	48.26	45.72	29.23	49.3	58.8	117.7	12.1	10	63.8	-	560	25
DOUBLE STRAND														
05B-2	8	0.315"	5	3	2.3	6.65	7.52	-	0.75	0.75	7.1	5.64	7.8	0.35
06B-2	9.525	3/8"	6.35	5.72	3.27	11.43	12.57	-	1.3	1	8.2	10.24	16.9	0.75
08B-2	12.7	1/2"	8.51	7.75	4.45	15.3	16.9	33.6	1.6	1.6	12	13.92	31.1	1.35
10B-2	15.875	5/8"	10.16	9.65	5.08	17.85	19.55	39.4	1.5	1.5	14.7	16.59	44.5	1.85
12B-2	19.05	3/4"	12.07	11.68	5.72	20.85	22.75	46.3	1.8	1.8	16.1	19.46	57.8	2.5
16B-2	25.4	1"	15.88	17.02	8.28	33.55	35.75	73.8	4	3.2	21	31.88	106	5.4
20B-2	31.75	1 1/4"	19.05	19.56	10.19	38.25	41.45	84.85	4.4	3.4	26	36.45	170	7.65
24B-2	38.1	1 1/2"	25.4	25.4	14.63	50.8	56	112.95	6	5.6	33.4	48.36	280	14.65
28B-2	44.45	1 3/4"	27.94	30.99	15.9	62.15	67.15	136.85	7.5	6.3	36.4	59.56	360	18.8
32B-2	50.8	2"	29.21	30.99	17.81	61.25	66.85	135.25	7	6.3	42.2	58.55	450	21.1
40B-2	63.5	2 1/2"	39.37	38.1	22.89	75.4	81.2	163.55	8.5	8	52.9	72.29	630	32
48B-2	76.2	3"	48.26	45.72	29.23	95	104.4	209	12.1	10	63.8	91.21	1000	50
TRIPLE STRAND														
05B-3	8	0.315"	5	3	2.3	9.45	10.34	-	0.75	0.75	7.1	5.64	11.1	0.53
06B-3	9.525	3/8"	6.35	5.72	3.27	16.9	17.5	-	1.3	1	8.2	10.24	24.9	1.11
08B-3	12.7	1/2"	8.51	7.75	4.45	22.25	23.85	47.6	1.6	1.6	12	13.92	44.5	2
10B-3	15.875	5/8"	10.16	9.65	5.08	26.15	27.85	56.1	1.5	1.5	14.7	16.59	66.6	2.8
12B-3	19.05	3/4"	12.07	11.68	5.72	30.6	32.5	66	1.8	1.8	16.1	19.46	86.7	3.8
16B-3	25.4	1"	15.88	17.02	8.28	49.5	51.7	105.9	4	3.2	21	31.88	160	8
20B-3	31.75	1 1/4"	19.05	19.56	10.19	56.5	59.7	121.35	4.4	3.4	26	36.45	250	11.45
24B-3	38.1	1 1/2"	25.4	25.4	14.63	75.1	80.2	161.35	6	5.6	33.4	48.36	425	21.75
28B-3	44.45	1 3/4"	27.94	30.99	15.9	91.95	96.95	196.45	7.5	6.3	36.4	59.56	530	28.2
32B-3	50.8	2"	29.21	30.99	17.81	90.5	96.1	193.8	7	6.3	42.2	58.55	670	29.9
40B-3	63.5	2 1/2"	39.37	38.1	22.89	111.5	117.3	235.85	8.5	8	52.9	72.29	950	47.75
48B-3	76.2	3"	48.26	45.72	29.23	140.6	150	300.2	12.1	10	63.8	91.21	1500	75

Hollow Pin Chain



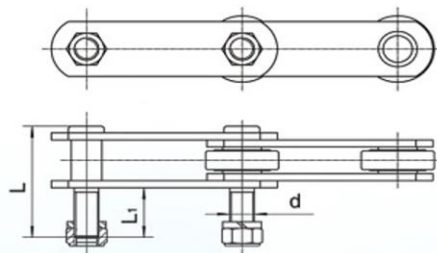
Chain Type	Chain Equivalent	Average Tensile Strength	Pitch	Roller Diameter	Inner Width	Hollow Pin Bore Dia.	Pin Dia.	Inner Plate Thickness	Outer Plate Thickness	Plate Height
		lbf	P mm	R mm	W mm	d mm	D mm	T1 mm	T2 mm	H mm
FH-09101 R	4 x 18.000 HP	18,000	101.6	47.6	19.1	13.2	19.1	6.3	5.1	38.1
FH-16152 R	6 x 36.000 HP	36,000	152.4	66.7	25.4	19.4	27	7.1	5.1	50.8
FH-22152 R	6 x 50.000 HP	50,000	152.4	88.9	38.1	23.1	31.8	9.5	8	61

Solid Pin Chain



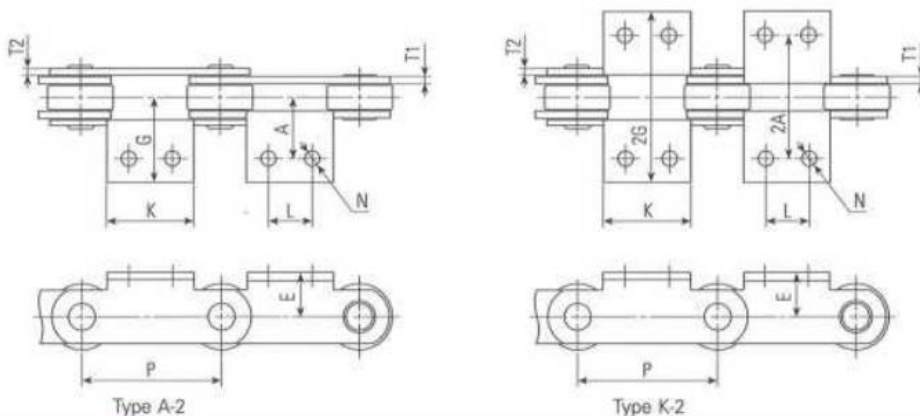
Chain Type	Chain Equivalent	Average Tensile Strength	Pitch	Roller Diameter	Inner Width	Pin Dia.	Inner Plate Thickness	Outer Plate Thickness	Plate Height
		lbf	P mm	R mm	W mm	D mm	T1 mm	T2 mm	H mm
F -09101 R	4 x 20.000	20,000	101.6	47.6	19.1	19.1	6.3	5.1	38.1
F -16152 R	6 X 36.000	36,000	152.4	66.7	25.4	26.9	7.1	5.1	50.8
F -29152 R	6 X 65.000	65,000	152.5	66.7	25.4	26.9	7.1	5.1	54
F -29152H R	6 X 65.000H	65,000	152.5	66.7	25.4	26.9	8	7.1	54
F -45203 R	8 X 100.000	100,000	203.2	88.9	40.5	29.8	9.5	8	65

Solid Extended Pin



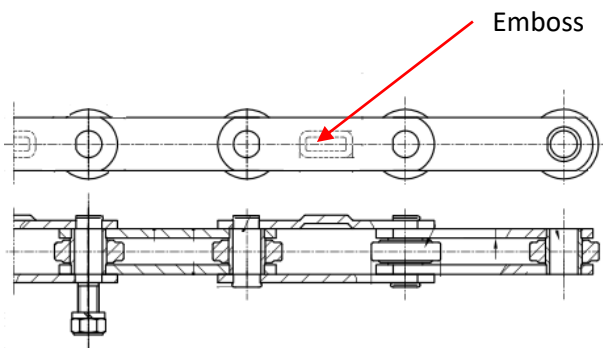
Chain Type	Chain Equivalent	L	L1	d
		mm	mm	mm
FH-09101 R	4 x 18.000 HP	98.6	50	M18
F -09101 R	4 x 20.000	98.6	50	M18
F -16152 R	6 X 36.000	106.5	50	M18
FH-16152 R	6 X 65.000 HP	106.5	50	M18
F -29152 R	6 X 65.000H	106.5	50	M24
F -29152H R	8 X 100.000	114.1	50	M24
F -45203 R	8 X 100.000	155.3	50	M24

Standard Attachment



Chain Type	Chain Equivalent	P	T1	T2	K	N	L	A	E	G
		mm	mm	mm	mm	mm	mm	mm	mm	mm
F -18101 R	4 x 18.000	101.6	6.3	5.1	63.5	10.7	31.8	44.5	31.8	61.7
F -16152 R	6 X 36.000	152.4	7.1	5.1	106.7	12.3	57.2	54	38.1	73
F -29152 R	6 X 65.000	152.5	7.1	5.1	106.7	12.3	57.2	54	38.1	73
F -29152H R	6 X 65.000H	152.5	8	7.1	106.7	12.3	57.2	54	38.1	73

Optional Feature (Embossed Plate)



Emboss



Product Test (Breaking Load Test)



B2TKS

**BADAN PENGKAJIAN DAN PENERAPAN TEKNOLOGI
BALAI BESAR TEKNOLOGI KEKUATAN STRUKTUR**
KAWASAN PUSPIPEX Gd. 220 CISAJUK - TANGERANG 15314
Telp. (021) 7560563/7560930, Fax. (021) 7560903

**LAPORAN
REPORT**

**UJI TARIK STATIS
INDUSTRIAL CHAIN**
6 x 36000 Hollow
6 x 65000 Solid

PT. FSCM MFG INDONESIA
JL. PULOGADUNG NO.30 KAWASAN INDUSTRI PULOGADUNG
JAKARTA TIMUR 13930

Nomor : 2019/B2TKS/1002
Tanggal : 24 April 2019



Dikerjakan oleh
Prepared by
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Date
23/4/19

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Approved by
Ogi Ivano, M.Eng.
Ogi Ivano, M.Eng.

Tanggal
Date
24/4/2019

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**UJI TARIK STATIS
INDUSTRIAL CHAIN**
PT. FSCM MFG INDONESIA

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Number




(Benda uji 3) (Benda uji 4)

Gambar 3: Set Up Uji Tarik Statis Industrial Chain tipe 6 x 65000 Solid

VI. HASIL PENGUJIAN

Hasil uji tarik statis industrila chain disajikan pada tabel 1, gambar 4, gambar 5, gambar 6 dan gambar 7 berikut ini :

Tabel 1: Hasil Uji Tarik Statis.

No	Benda Uji	Gaya Maksimum		Langkah mesin (mm)	Keterangan
		(kN)	(lb)		
1	Industrial Chain 6 x 36000 Hollow	257,50	57888,29	27	Rusak di Outer Link Plate
2	Industrial Chain 6 x 36000 Hollow	270,00	60698,40	30,05	Rusak di Inner Link Plate
3	Industrial Chain 6 x 65000 Solid	320,00	71938,85	27	Rusak di Outer Link Plate
4	Industrial Chain 6 x 65000 Solid	322,50	72500,87	35	Rusak di Outer Link Plate

Keterangan : 1 kN = 101,971621 kgf

Dikerjakan oleh
Prepared by
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**BADAN PENGKAJIAN DAN PENERAPAN TEKNOLOGI
BALAI BESAR TEKNOLOGI KEKUATAN STRUKTUR**
KAWASAN PUSPIPEX Gd. 220 SETU - TANGERANG SELATAN 15314
Telp. (021) 7560563/7560930, Fax. (021) 7560903

**LAPORAN
REPORT**

**UJI TARIK STATIS
RANTAI INDUSTRI**
PT. FSCM MANUFACTURING INDONESIA
Jl. Pulogadung No. 30 Kawasan Industri Pulogadung
Jakarta - Indonesia

Nomor : 2019/B2TKS/1809
Tanggal : 8 Agustus 2019



Dikerjakan oleh
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8/2019

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**UJI TARIK STATIS
RANTAI INDUSTRI**
PT. FSCM MANUFACTURING INDONESIA

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Nomor 19.1809/7/LUJ
Number

6. HASIL PENGUJIAN

Hasil pengujian ditampilkan pada Tabel 2, dan grafik beban tarik vs langkah mesin disajikan pada Gambar 3 sampai dengan Gambar 4.

Tabel 2. Hasil Pengujian Tarik Statis Rantai Industri.

No.	Benda Uji	Beban Tarik Aktual Maksimum (kN)	Langkah Mesin Maksimum (mm)	Keterangan
1.	Rantai Industri chain 8x100000 Spesimen 1	485	47	Benda uji mengalami kerusakan pada inner plate akibat gaya tarik maksimum (Gambar 8).
2.	Rantai Industri chain 8x100000 Spesimen 2	470	41	Benda uji mengalami kerusakan pada inner plate, akibat gaya tarik maksimum (Gambar 9).
Rata Rata		477.5	44	

Keterangan : 1 kN = 101,971621 kgf

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How To Define Chain Type

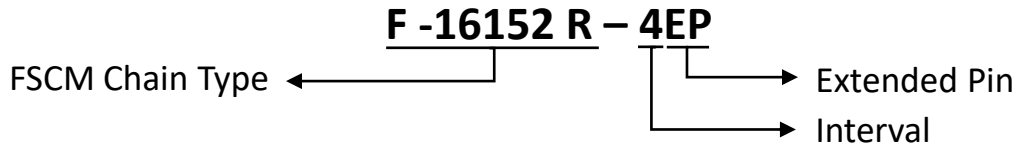
Extended Pin Chain (EP)

Example 1

Chain Pitch 6 inch (152.4 mm)

Average Tensile Strength 36,000 lbf

Extended Pin Every every 4 links



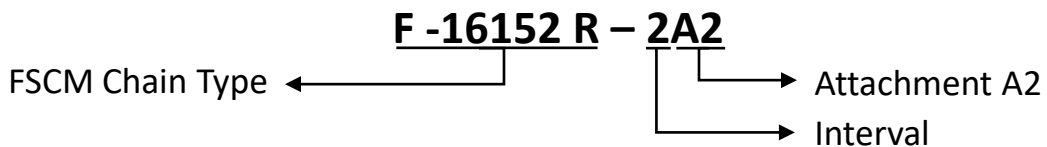
Standard Attachment Chain (attachment A2 or K2)

Example 2

Chain Pitch 6 inch (152.4 mm)

Average Tensile Strength 36,000 lbf

Attachment A2 Every every 2 links



Example 3

Chain Pitch 6 inch (152.4 mm)

Average Tensile Strength 36,000 lbf

Attachment K2 Every every 2 links



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