SUGAR INDUSTRY CHAINS
(CANE AND BEET)




Linking you to EXCELLENCE since 1926

JOHN KING

JOHN KING & COMPANY

Climax Works 1930's

Chain Assembly 1960's

New Climax Works 2000's

Company History and Qualifications

The John King Company was established in Leeds, England in 1926. Early success was achieved in the manufacture of mechanical handling equipment for the rapid mechanisation of the coal industry. In these early days conveyor chain was generally of cast link construction. The Company therefore has unrivalled experience in the production of highest quality cast link chains in ductile irons and steel under the "Climax Quality Brand". JOHN KING are undoubtedly the world leaders in this range of conveying chains.

Although cast link chains remain an important part of the JOHN KING programme, the company has progressively expanded the product range to encompass chains of other constructions and manufacturing techniques including Welded steel chains, engineered steel chains, forged fork link chains and Engineering plastic chains. Today JOHN KING offer the widest range of conveyor chains of any manufacturer which makes them unique in being able to offer an infinite number of chain types in a variety of materials and constructions for a multiplicity of industry mechanical handling applications.

In recent years it has been JOHN KING's strategy to develop the Company into a global business. This has seen the establishment, in addition to the United Kingdom, of a chain production plant in the US. John King USA Inc from their plant in East Peoria (IL) are well equipped with the manufacturing equipment for component production and assembly processes for high quality chain production serving North America. To provide best service in export markets the company has warehousing and distribution worldwide and maintain ambitious plans to expand the network further in the future.

All products are manufactured within the dictates of the Company's quality management according to ISO 9000 establishing consistent and high quality products and ensuring performance reliability and extended service life.

The most extensive program of Conveyor and Drive Chains of any manufacturer enables KING CHAIN to satisfy all Sugar Mill chain requirements encountered including Engineering class chains, Roller Conveyor and Steel Bush Class, Welded Steel Chains, Forged and Cast Link Chains. KING have been supplying chains to the Sugar Mills for many years to both original equipment and replacement markets and have gathered a detailed insight into the special demands of the industry.

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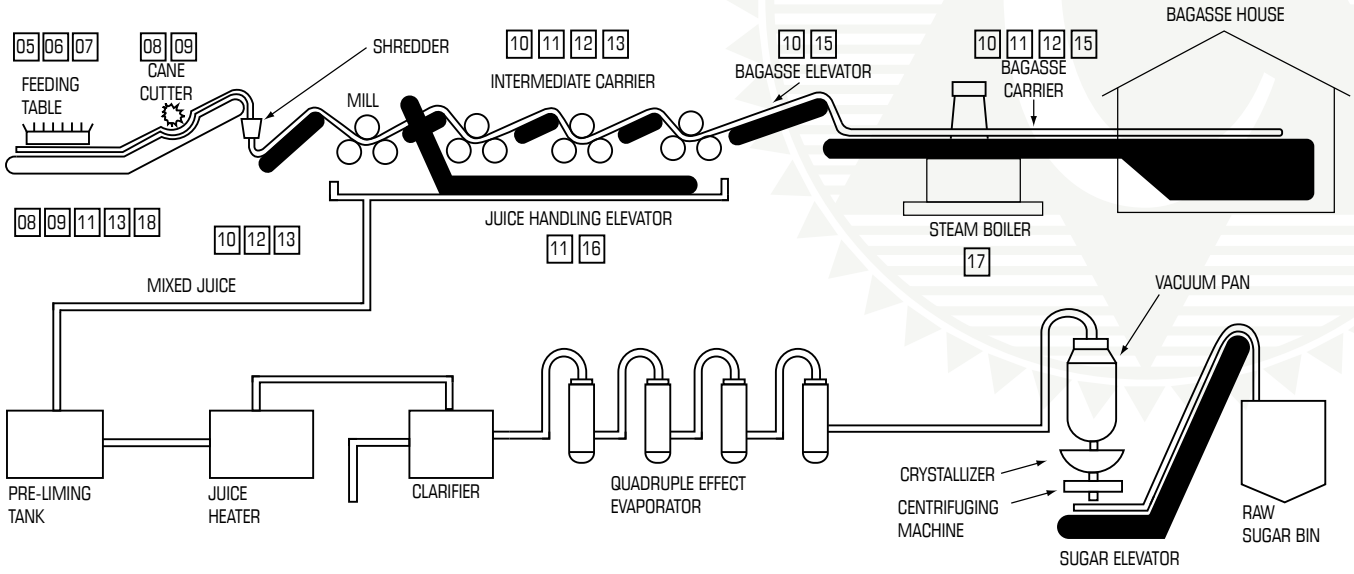
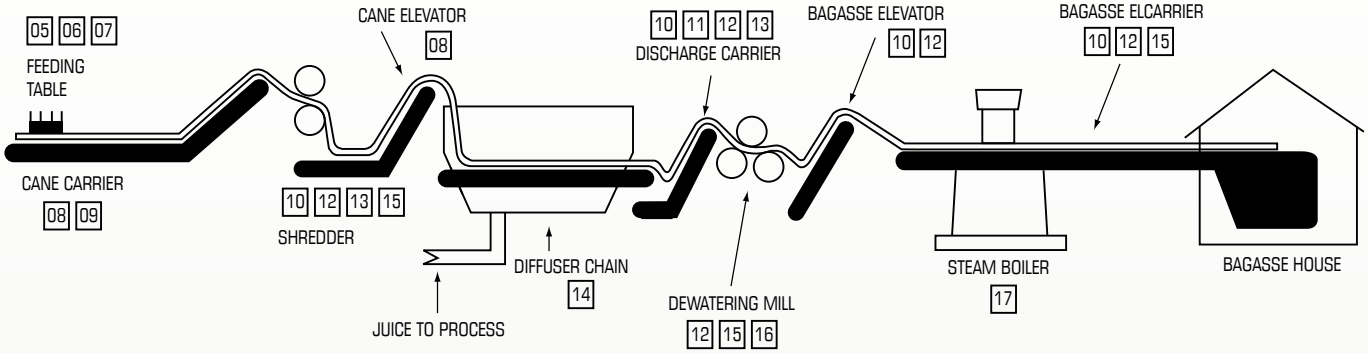
Typical Process Layout for Roll Mill-Type System

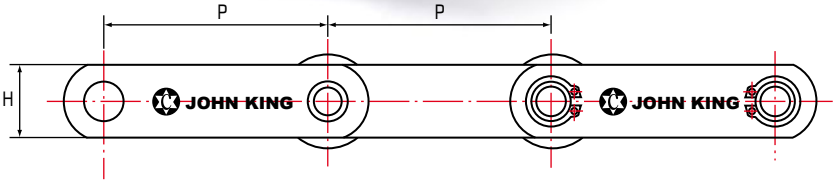


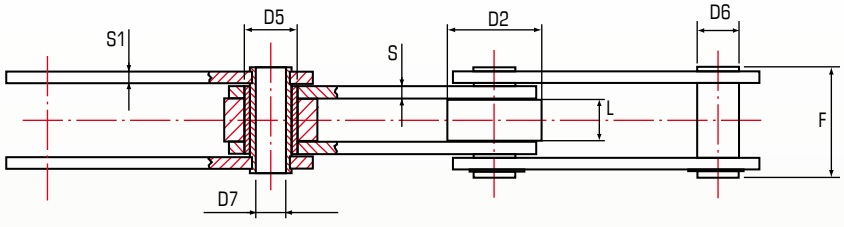
Typical Process Layout for a Diffuser System



Cane Harvester Chains

Climax harvester chains come from the British standard but include heat treated sidebars for 'double strength' and case carborised pins, bushes and rollers for optimum abrasion resistance. Chains are HP series denoting hollow bearing pin to allow cross rods or bolts to be fitted throught the chain strands.





Cane Harvester Chains

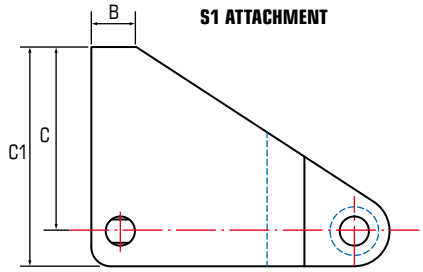
Chain Number		Pitch	Roller Diameter	Bush Diameter	Pin Diameter	Hollow Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness		Overall Width	Breaking Load	Weight
		P	D2	D5	D6	D7	L	H	S	S1	F		
HP27/0508/P	mm	50.80	31.80	18.03	13.97	10.16	15.00	25.00	4.00	4.00	44.00	2,700 kg	4.00 kg/m
	in	2.00	1.25	0.71	0.55	0.40	0.59	0.98	0.16	0.16	1.73	6,000 lb	2.68 lb/ft
HP27/0508/R1.5	mm	50.80	31.80	18.03	13.97	10.16	15.00	25.00	4.00	4.00	44.00	2,700 kg	4.20 kg/m
	in	2.00	1.25	0.71	0.55	0.40	0.59	0.98	0.16	0.16	1.73	6,000 lb	2.86 lb/ft
HP55/0635/P	mm	63.50	47.63	23.62	19.05	13.20	19.05	40.00	5.00	4.00	51.80	5,500 kg	3.80 kg/m
	in	2.50	1.87	0.93	0.75	0.52	0.75	1.57	0.20	0.16	2.01	12,000 lb	2.20 lb/ft

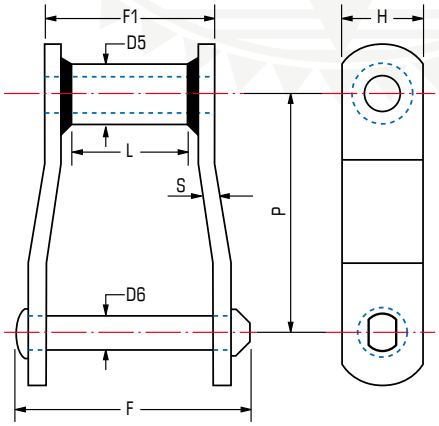
Welded Steel Chains for Feed and Washing Tables

King Welded Steel Chain is exclusively manufactured in the WH fully heat treated specification to ensure maximum performance in high duty sugar mill applications.

Generally employed on feed and washing tables the chain utilises an S1 pusher although other attachments can be employed.

John King uniquely offer an up-rated IBR specification utilising induction hardened pin and bush for best performance.



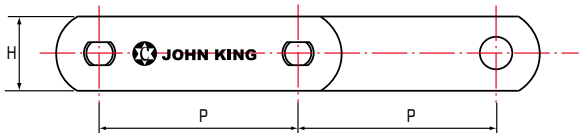


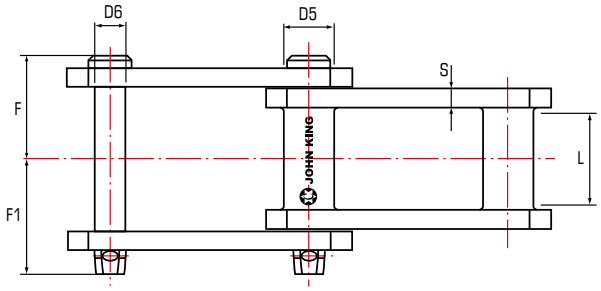
Welded Steel Chains for Feed and Washing Tables

Chain Number		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Thickness	Sidebar Height	Overall Width	Bearing Width	S1 Attachment Dimensions			Working Load	Breaking Load	Weight
		P	D5	D6	L	S	H	F	F1	B	C	C1			
WH78R	mm	66.30	22.20	12.70	25.40	6.40	31.80	78.20	50.80	12.70	88.90	101.60	1,350 kg	15,000 kg	5.70 kg/m
	in	2.61	0.88	0.50	1.00	0.25	1.25	3.00	2.00	0.50	3.50	4.00	3,000 lb	33,000 lb	3.80 lb/ft
WH82R	mm	78.10	27.00	14.30	34.90	6.40	31.80	84.10	57.20	12.70	85.60	101.60	2,000 kg	16,400 kg	6.00 kg/m
	in	3.08	1.06	0.56	1.38	0.25	1.25	3.31	2.25	0.50	3.37	4.00	4,400 lb	36,000 lb	4.00 lb/ft
WH124R	mm	101.60	31.80	19.10	38.10	9.50	88.10	108.00	74.40	24.50	95.30	114.30	3,350 kg	26,000 kg	11.70 kg/m
	in	4.00	1.25	0.75	1.50	0.38	1.50	4.25	2.81	1.00	3.75	4.50	7,350 lb	57,000 lb	8.50 lb/ft
WH124XDR	mm	103.20	41.10	25.40	41.10	12.70	50.80	120.60	76.20	25.40	95.30	120.70	4,773 kg	45,455 kg	21.90 kg/m
	in	4.06	1.62	1.00	1.62	0.50	2.00	4.75	3.00	1.00	3.75	4.75	10,500 lb	100,000 lb	14.70 lb/ft
WH111R	mm	120.90	31.80	19.10	47.60	9.50	88.10	104.80	122.20	25.40	107.90	127.00	3,800 kg	27,000 kg	14.20 kg/m
	in	4.76	1.25	0.75	1.88	0.38	1.50	4.81	4.81	1.00	4.25	5.00	8,850 lb	60,000 lb	9.50 lb/ft
WH106R	mm	152.40	31.80	19.10	38.10	9.50	88.10	108.00	71.40	25.40	95.30	114.30	3,350 kg	27,000 kg	10.40 kg/m
	in	6.00	1.25	0.75	1.50	0.38	1.50	4.25	2.81	1.00	3.75	4.50	7,350 lb	60,000 lb	7.00 lb/ft
WH110R	mm	152.40	31.70	19.05	47.70	9.65	31.70	117.30	76.20	25.40	95.30	114.30	3,580 kg	31,360 kg	10.70 kg/m
	in	6.00	1.25	0.75	1.88	0.38	1.25	4.62	3.00	1.00	3.75	4.50	7,875 lb	69,000 lb	7.20 lb/ft
WH106XHDR	mm	153.60	41.10	25.40	41.10	12.70	50.80	123.90	76.20	25.40	95.30	120.70	4,770 kg	52,270 kg	17.60 kg/m
	in	6.05	1.62	1.00	1.62	0.50	2.00	4.88	3.00	1.00	3.75	4.75	10,500 lb	111,000 lb	11.80 lb/ft
WH132R	mm	153.70	44.50	25.40	73.00	12.70	50.80	158.80	112.30	25.40	127.00	152.40	6,800 kg	55,400 kg	21.20 kg/m
	in	6.05	1.75	1.00	2.88	0.50	2.00	6.25	4.42	1.00	5.00	6.00	15,000 lb	122,000 lb	14.20 lb/ft
WH150R	mm	153.67	41.10	25.40	76.20	12.70	63.50	158.70	111.20	29.50	133.40	165.10	6,950 kg	52,700 kg	25.10 kg/m
	in	6.05	1.62	1.00	3.00	0.50	2.50	6.25	4.38	1.16	5.25	6.50	15,300 lb	116,000 lb	16.80 lb/ft
WH155R	mm	153.67	41.10	28.40	73.20	12.70	63.50	158.70	111.20	38.10	133.40	165.10	8,270 kg	68,640 kg	29.40 kg/m
	in	6.05	1.62	1.12	2.88	0.50	2.50	6.25	4.38	1.50	5.25	6.50	18,200 lb	151,000 lb	19.70 lb/ft
WH150XHDR	mm	153.67	41.10	28.40	76.20	15.70	63.50	171.40	117.30	25.40	139.30	171.40	8,270 kg	73,182 kg	29.40 kg/m
	in	6.05	1.62	1.12	3.00	0.62	2.50	6.75	4.62	1.00	5.50	6.75	18,200 lb	161,000 lb	19.70 lb/ft

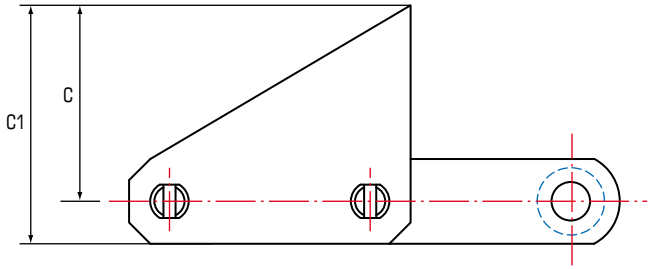
Combination Chains for Feed and Washing Tables

This series employs a cast block with steel sidebars. Blocks are available in King JK/WR1 grade or stainless steel to special order. The one piece construction of the block makes the combination chain an ideal choice to counter impact and abrasion.





S1 ATTACHMENT

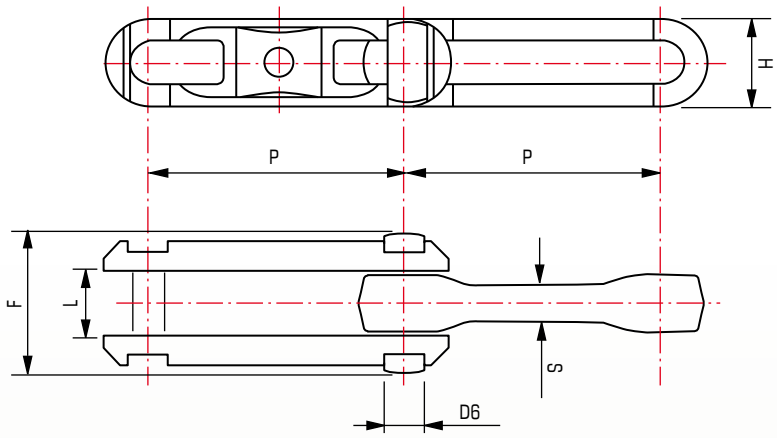


Combination Chains for Feed and Washing Tables

Chain Number		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	Overall Width	Bearing Width	S1 Attachment Dimensions		Breaking Load	Weight
		P	D5	D6	L	H	S	F	F1	C	C1		
C188	mm	66.27	22.22	12.70	23.88	28.70	6.00	31.75	41.90	-	-	6,400 kg	5.22 kg/m
	in	2.61	0.88	0.50	0.94	1.13	0.25	1.25	1.63	-	-	14,000 lb	3.50 lb/ft
C131	mm	78.10	31.75	15.90	28.60	38.10	9.50	49.20	42.90	82.55	101.60	11,900 kg	10.00 kg/m
	in	3.08	1.25	0.63	1.13	1.50	0.38	1.94	1.69	3.25	4.00	24,000 lb	6.70 lb/ft
C102	mm	101.60	25.40	15.90	47.60	38.10	9.50	57.20	54.00	95.25	114.30	11,900 kg	11.15 kg/m
	in	4.00	1.00	0.63	1.88	1.50	0.38	2.25	2.13	3.75	4.50	24,000 lb	7.48 lb/ft
C111	mm	121.90	36.58	19.10	54.00	44.50	9.50	66.70	60.30	111.25	133.35	16,400 kg	13.87 kg/m
	in	4.76	1.44	0.75	2.13	1.75	0.38	2.63	2.38	4.28	5.25	36,000 lb	9.30 lb/ft
C110	mm	152.40	31.75	15.90	47.60	38.10	9.50	55.60	52.40	107.95	127.50	11,900 kg	8.79 kg/m
	in	6.00	1.25	0.63	1.88	1.50	0.38	2.19	2.06	4.25	5.00	24,000 lb	5.90 lb/ft
C132	mm	153.90	43.69	25.40	79.40	50.80	12.70	82.60	81.00	127.00	152.40	22,700 kg	19.52 kg/m
	in	6.06	1.72	1.00	3.13	2.00	0.50	3.25	3.19	5.00	6.00	50,000 lb	13.09 lb/ft
C132	mm	153.90	43.69	25.40	79.40	50.80	12.70	82.60	81.00	203.20	228.60	22,700 kg	19.52 kg/m
	in	6.06	1.72	1.00	3.13	2.00	0.50	3.25	3.19	8.00	9.00	50,000 lb	13.09 lb/ft
C132	mm	153.90	43.69	25.40	79.40	50.80	12.70	82.60	81.00	254.00	279.40	22,700 kg	19.52 kg/m
	in	6.06	1.72	1.00	3.13	2.00	0.50	3.25	3.19	10.00	11.00	50,000 lb	13.09 lb/ft

Drop Forged Chains for Feed and Washing Tables

This chain of robust and simple construction makes it most suitable in cane infeed conveyors. The chain can be turned to provide new sliding surfaces and pin rotated 180 degrees allowing unworn diameter to contact with inner link, thus increasing the effective life of the chain. Normally components are from heat treated high alloy steel and sold under the John King MAXITUFF brand.

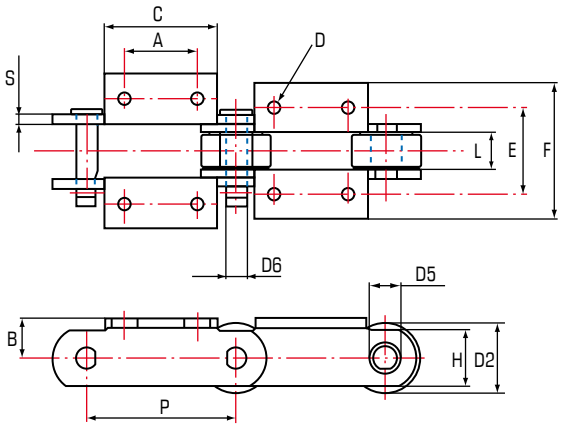


Drop Forged Chains for Feed and Washing Tables

Chain Number		Pitch	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	Overall Width	Breaking Load	Weight
		P	D6	L	H	S	F		
X348	mm	76.60	12.70	19.10	27.00	12.70	44.50	10,100 kg	3.28 kg/m
	in	3.02	0.50	0.75	1.06	0.50	1.75	24,000 lb	2.20 lb/ft
X458	mm	102.40	15.90	26.20	34.90	15.90	57.20	21,800 kg	4.80 kg/m
	in	4.03	0.63	1.03	1.38	0.63	2.25	48,000 lb	3.21 lb/ft
X678	mm	153.20	22.20	33.30	50.10	22.20	76.20	42,000 kg	9.98 kg/m
	in	6.03	0.88	1.31	2.00	0.88	3.00	92,400 lb	6.69 lb/ft
698	mm	153.20	22.20	39.70	68.30	25.40	95.30	60,000 kg	17.00 kg/m
	in	6.03	0.88	1.56	2.69	1.00	3.75	130,000 lb	11.40 lb/ft
998	mm	229.40	28.60	39.70	68.30	98.40	95.30	60,000 kg	13.40 kg/m
	in	9.03	1.13	1.56	2.69	3.88	3.75	130,000 lb	8.99 lb/ft

Main Cane and Auxilliary Carrier Chains

King cane carrier chains are fabricated engineering class chains designed to meet the most demanding service requirements in sugar mills. Experience allows King to select optimum materials and heat treatment conditions to maximise reliability and service life. "Climax" calibration during manufacture ensures accurate matching of strands for duplex or triplex operation.



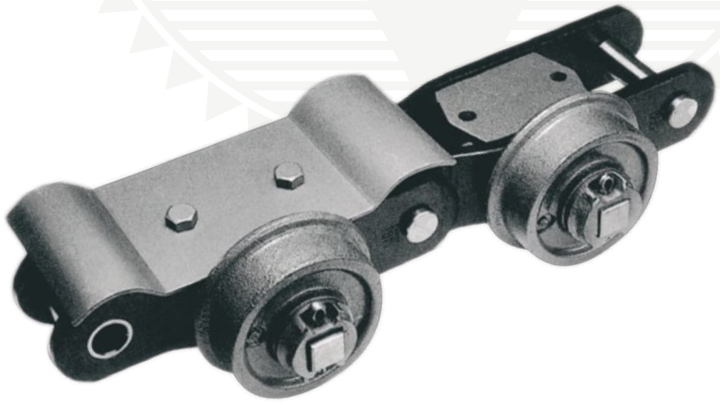
Main Cane and Auxilliary Carrier Conveyors

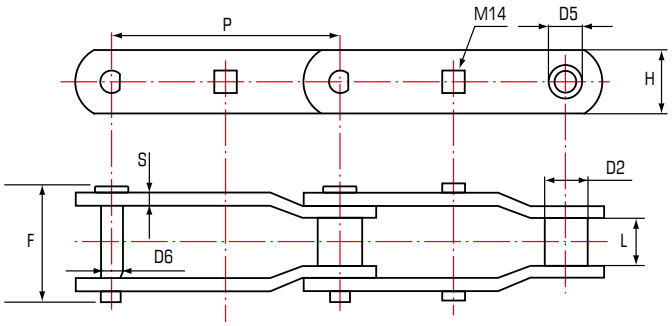
Chain Number		Pitch	Roller Diameter	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	K2 Attachment Dimensions					Bolt Diameter	Working Load	Breaking Load	Weight
		P	D2	D5	D6	L	H	S	A	B	C	E	F	D			
JKR0904	mm	101.60	50.80	25.40	17.50	50.80	44.50	7.90	59.95	31.75	101.66	88.90	104.90	10.00	2,200 kg	18,200 kg	13.75 kg/m
	in	4.00	2.00	1.00	0.69	2.00	1.75	0.31	2.36	1.25	4.00	3.50	4.13	0.38	4,850 lb	40,000 lb	9.22 lb/ft
JKR2124	mm	152.40	69.85	28.70	19.05	38.90	50.80	9.70	76.20	41.14	114.30	111.30	142.70	12.80	2,750 kg	28,636 kg	17.60 kg/m
	in	6.00	2.75	1.13	0.75	0.53	2.00	0.38	3.00	1.62	4.50	4.38	5.62	0.50	6,050 lb	63,000 lb	11.80 lb/ft
JKR09060	mm	152.40	69.85	28.70	19.10	38.10	50.80	9.70	76.20	111.30	114.30	111.30	171.45	-	2,900 kg	27,200 kg	23.80 kg/m
	in	6.00	2.75	1.13	0.75	1.50	2.00	0.38	3.00	1.63	4.50	4.38	6.75	-	6,350 lb	60,000 lb	15.96 lb/ft
JKR2129	mm	228.60	82.50	33.02	19.05	37.10	57.20	9.50	101.60	44.95	152.40	146.00	208.70	15.24	3,300 kg	30,000 kg	29.65 kg/m
	in	9.00	3.25	1.30	0.75	1.46	2.25	0.38	4.00	1.77	6.00	5.75	8.22	0.60	7,275 lb	66,000 lb	19.89 lb/ft
JKR2315	mm	228.60	76.20	38.10	22.40	43.00	63.50	9.50	139.70	44.95	177.80	152.40	211.00	13.97	3,500 kg	32,000 kg	25.36 kg/m
	in	9.00	3.00	1.50	0.88	1.69	2.50	0.38	5.50	1.77	7.00	6.00	8.31	0.55	7,700 lb	70,400 lb	17.00 lb/ft
JKR09061	mm	152.40	69.85	28.70	19.10	38.10	57.20	9.70	76.20	41.40	114.30	111.30	165.10	12.70	2,900 kg	38,600 kg	25.60 kg/m
	in	6.00	2.75	1.13	0.75	1.50	2.25	0.38	3.00	1.63	4.50	4.38	6.50	0.50	6,350 lb	85,000 lb	17.70 lb/ft
JKR2178	mm	152.40	69.85	31.08	22.40	38.90	57.15	9.65	76.20	41.14	114.30	111.30	142.70	12.70	3,227 kg	38,650 kg	22.80 kg/m
	in	6.00	2.75	1.25	0.88	1.50	2.25	0.38	3.00	1.62	4.50	4.38	5.62	0.50	7,000 lb	85,000 lb	15.30 lb/ft
JKR2800	mm	203.20	88.90	38.10	25.40	45.97	69.85	12.70	82.50	55.37	127.00	131.50	183.40	15.74	4,454 kg	42,727 kg	39.10 kg/m
	in	8.00	3.50	1.50	1.00	1.81	2.75	0.50	3.25	2.18	5.00	5.18	7.22	0.62	9,800 lb	94,000 lb	26.20 lb/ft
JKR2198	mm	152.40	69.85	33.02	22.40	38.10	57.15	12.70	76.20	41.14	114.60	111.30	152.40	12.70	3,480 kg	45,460 kg	27.10 kg/m
	in	6.00	2.75	1.30	0.88	1.50	2.25	0.50	3.00	1.62	4.50	4.38	6.00	0.50	8,300 lb	100,000 lb	18.21 lb/ft
JKR1796	mm	152.40	69.85	38.10	22.40	38.10	57.20	9.70	76.20	41.40	114.30	111.30	165.10	12.70	3,480 kg	45,460 kg	25.00 kg/m
	in	6.00	2.75	1.50	0.87	1.50	2.25	0.38	3.00	1.63	4.50	4.38	6.50	0.50	8,300 lb	100,000 lb	16.77 lb/ft
JKR2801	mm	203.10	88.90	38.10	25.40	66.30	69.85	9.70	82.60	60.50	146.10	152.40	187.55	16.00	5,409 kg	50,900 kg	44.70 kg/m
	in	8.00	3.50	1.50	1.00	2.61	2.75	0.38	3.25	2.38	5.75	6.00	7.38	0.62	11,900 lb	112,000 kg	30.00 lb/ft
JKR09063	mm	152.40	76.20	31.80	23.90	38.10	63.50	9.70	76.20	44.50	114.30	111.30	153.90	12.70	3,800 kg	63,500 kg	18.70 lb/mt
	in	6.00	3.00	1.25	0.94	1.50	2.50	0.38	3.00	1.75	4.50	4.38	6.06	0.50	8,300 lb	140,000 lb	20.20 kg/ft
JKR2804	mm	203.20	108.00	47.63	38.10	92.50	88.90	12.70	82.60	69.90	146.10	193.50	237.20	16.00	11,045 kg	68,200 kg	70.10 kg/m
	in	8.00	4.25	1.88	1.50	3.64	3.50	0.50	3.25	2.75	5.75	7.62	9.34	0.62	24,300 lb	150,000 lb	47.00 lb/ft
JKR9066	mm	152.40	76.20	38.10	26.90	63.50	60.50	12.70	76.20	42.90	114.30	136.70	187.55	12.70	4,230 kg	72,700 kg	40.70 kg/m
	in	6.00	3.00	1.50	1.06	2.50	2.38	0.50	3.00	1.69	4.50	5.38	7.38	0.50	9,300 lb	160,000 lb	27.30 lb/ft
JKR9065	mm	152.40	76.20	38.10	26.90	38.10	60.50	12.70	76.20	42.90	114.30	111.30	165.10	12.70	4,230 kg	72,700 kg	40.70 kg/m
	in	6.00	3.00	1.50	1.06	1.50	2.38	0.50	3.00	1.69	4.50	4.38	6.50	0.50	9,300 lb	160,000 lb	27.30 lb/ft

Roller Diameter D2 can be changed to suit customer requirements.
All STR style with K2 attachment.
JKR2315 – K3 attachment.

Cobra style Chain for Main Cane and Auxilliary Carrier Chains

This most advanced design has obviated some of the traditional problems associated with the operation of cane carriers. Of robust construction, the "Cobra" style chain with outboard rollers offers the best impact resistance, load bearing capacity, ease of maintenance and extended service life. All components in addition to chain are available in this series including outboard rollers, pan support brackets, axles and slats.





Cobra style Chain for Main Cane and Auxilliary Carrier Conveyors

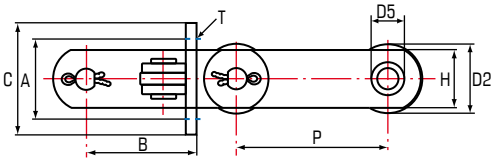
Chain Number		Pitch	Roller Diameter	Bush Diameter	Pin Diameter	Between Sidebars	Sidebars Height	Sidebars Thickness	Overall width	Square Hole	Working Load	Breaking Load	Weight
		P	D2	D5	D6	L	H	S	F	M14			
JKR2397 M14	mm	304.80	44.45	31.75	22.40	55.60	63.50	9.52	119.85	19.05	4,200 kg	40,900 kg	14.16 kg/m
	in	12.00	1.75	1.25	0.88	2.18	2.50	0.38	4.71	0.75	9,420 lb	90,000 lb	9.79 lb/ft
JKR2358 M14	mm	228.60	44.60	31.75	22.40	49.30	63.50	12.70	123.95	25.40	4,091 kg	45,455 kg	15.20 kg/m
	in	9.00	1.75	1.25	0.88	1.94	2.50	0.50	4.88	1.00	14,000 lb	100,000 lb	10.20 lb/ft
JKR1706 M14	mm	304.80	57.20	38.10	25.40	76.20	63.50	12.70	148.30	25.40	6,364 kg	45,455 kg	6.00 kg/m
	In	12.00	2.25	1.50	1.00	3.00	2.50	0.50	5.84	1.00	14,000 lb	100,000 lb	4.02 lb/ft
JKR2614 M14	mm	304.80	63.50	44.45	31.75	69.85	88.90	15.70	160.50	31.80	7,955 kg	61,364 kg	11.00 kg/m
	in	12.00	2.50	1.75	1.25	2.75	3.50	0.62	6.31	1.25	17,000 lb	135,000 lb	73.70 lb/ft
JKR1227 M14	mm	304.80	79.38	47.63	38.10	70.60	101.60	15.70	161.50	31.80	10,091 kg	100,000 kg	12.00 kg/m
	in	12.00	3.12	1.88	1.50	2.78	4.00	0.62	6.35	1.25	14,000 lb	220,000 lb	8.04 lb/ft
JKR2630 M14	mm	304.80	63.50	47.63	34.90	69.85	88.90	15.70	148.30	31.80	9,500 kg	135,000 kg	35.16 kg/m
	in	12.00	2.50	1.88	1.37	2.75	3.50	0.62	5.84	1.25	35,000 lb	300,000 lb	23.58 lb/ft
JKR1223 M14	mm	304.80	88.90	47.63	38.10	104.60	101.60	15.70	195.58	31.80	15,909 kg	136,364 kg	45.80 kg/m
	in	12.00	3.50	1.88	1.50	4.12	4.00	0.62	7.70	1.25	35,000 lb	300,000 lb	30.71 lb/ft
JKR2778 M14	mm	304.80	63.50	47.63	34.90	101.60	101.60	15.70	161.93	31.80	8,750 kg	147,700 kg	38.20 kg/m
	in	12.00	2.50	1.88	1.37	4.00	4.00	0.62	6.37	1.25	19,250 lb	325,000 lb	25.62 lb/ft
JKR2648 M14	mm	304.80	82.55	55.62	41.28	92.08	101.60	19.05	197.60	31.80	13,454 kg	159,090 kg	53.52 kg/m
	in	12.00	3.25	2.19	1.62	3.62	4.00	0.75	7.78	1.25	30,000 kg	350,000 lb	35.90 lb/ft

Note: Popular sizes illustrated. Full programme available.

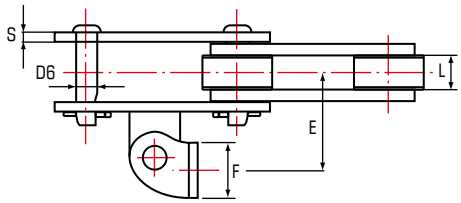
Intermediate Carrier and Bagasse Transport Roller Conveyor Chains

King intermediate carrier chains operate in the most corrosive conditions brought about by continous operation in raw sugar juice. As a consequence chains employ corrosion resistant materials. The swivel attachments allows for self allignment of the strands during operation compensating for any mismatch.

ROLLER CONVEYOR WITH AS2 ATTACHMENTS



STYLE A



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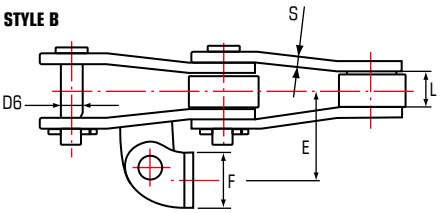

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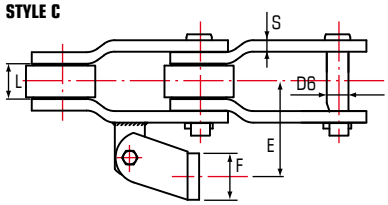
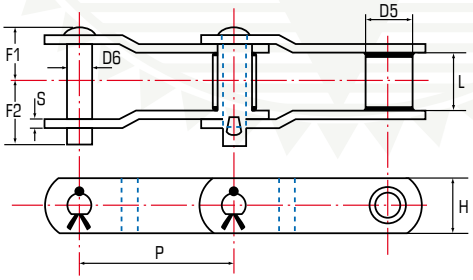


Intermediate Carrier and Bagasse Transport Roller Conveyor Chains

Chain Number	Style		Pitch	Roller Diameter	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	AS2 Attachment Dimensions					Bolt Diameter	Working Load	Breaking Load	Weight
			P	D2	D5	D6	L	H	S	A	B	C	E	F	D			
JKR0904	A/B	mm	101.60	50.80	25.40	17.53	31.00	44.50	7.87	82.30	79.50	107.95	77.72	45.50	9.65	2,200 kg	18,200 kg	12.10 kg/m
		in	4.00	2.00	1.00	0.69	1.22	1.75	0.31	3.24	3.13	4.25	3.06	1.75	0.38	4,850 lb	40,000 lb	8.11 lb/ft
JKR09060	A/B	mm	152.40	69.85	28.70	19.05	38.10	50.80	9.65	82.55	111.25	114.30	88.90	50.80	12.70	2,900 kg	27,200 kg	16.70 kg/m
		in	6.00	2.75	1.13	0.75	1.50	2.00	0.38	3.25	4.38	4.50	3.50	2.00	0.50	6,350 lb	60,000 lb	11.20 lb/ft
JKR2184	B	mm	152.40	76.20	31.75	22.35	35.05	50.80	9.65	88.90	142.75	127.00	91.95	50.80	12.70	3,000 kg	36,600 kg	18.50 kg/m
		in	6.00	3.00	1.25	0.88	1.38	2.00	0.38	3.50	5.62	5.00	3.62	2.00	0.50	6,500 lb	85,000 lb	12.41 lb/ft
JKR09061	A/B	mm	152.40	69.85	28.70	19.10	38.10	57.50	9.65	82.55	111.25	114.30	88.90	50.80	12.70	2,900 kg	38,600 kg	18.50 kg/m
		in	6.00	2.75	1.13	0.75	1.50	2.25	0.38	3.25	4.38	4.50	3.50	2.00	0.50	6,350 lb	85,000 lb	12.41 lb/ft
JKR9184	C	mm	152.40	76.20	31.80	23.90	38.90	63.50	12.70	88.90	142.75	127.00	104.60	50.80	12.70	3800 kg	45,400 kg	26.20 kg/m
		in	6.00	3.00	1.25	0.94	1.53	2.50	0.50	3.50	5.62	5.00	4.12	2.00	0.50	8300 lb	100,000 lb	17.57 lb/ft
JKR9185	C	mm	152.40	88.90	31.80	23.90	38.90	63.50	12.70	88.90	142.75	127.00	104.60	50.80	12.70	3800 kg	45,400 kg	30.70 kg/m
		in	6.00	3.50	1.25	0.94	1.53	2.50	0.50	3.50	5.62	5.00	4.12	2.00	0.50	8300 lb	100,000 lb	20.59 lb/ft
JKR1796	A/B	mm	152.40	69.85	31.80	22.35	38.10	57.15	9.65	82.55	111.25	114.30	88.90	50.80	12.70	3,800 kg	45,400 kg	25.18 kg/m
		in	6.00	2.75	1.25	0.88	1.50	2.25	0.38	3.25	4.38	4.50	3.50	2.00	0.50	8,300 lb	100,00 lb	16.88 lb/ft
JKR09063	A/B	mm	152.40	76.20	31.80	23.89	38.10	60.45	10.40	88.90	142.75	127.00	104.65	50.80	12.70	3,800 kg	63,500 kg	28.95 kg/m
		in	6.00	3.00	1.25	0.94	1.50	2.38	0.41	3.50	5.62	5.00	4.12	2.00	0.50	8,300 lb	140,000 lb	19.42 lb/ft
JKR2198	A/B	mm	152.40	69.85	31.80	22.35	38.10	57.15	12.70	88.90	142.75	127.00	98.55	50.80	12.70	3,800 kg	45,400 kg	26.50 kg/m
		in	6.00	2.75	1.25	0.88	1.50	2.25	0.50	3.50	5.62	5.00	3.88	2.00	0.50	8,300 lb	100,000 lb	17.77 lb/ft
JKR2113	B	mm	102.62	50.80	25.40	17.53	33.27	50.80	7.87	69.85	141.22	120.65	85.85	50.80	12.70	2,100 kg	11,800 kg	12.70 kg/m
		in	4.04	2.00	1.00	0.69	1.31	2.00	0.31	2.75	5.56	4.75	3.38	2.00	0.50	4,685 lb	26,000 lb	8.52 lb/ft
JKR9065	A	mm	152.40	76.20	38.10	26.92	38.10	60.45	12.70	84.07	111.25	114.30	91.69	50.80	12.70	4,200 kg	72,700 kg	29.00 kg/m
		in	6.00	3.00	1.50	1.06	1.50	2.38	0.50	3.31	4.38	4.50	3.61	2.00	0.50	9,275 lb	160,000 lb	19.45 lb/ft
JKR2178A	B	mm	152.40	69.85	31.80	22.23	38.10	57.15	9.65	88.90	142.75	127.00	104.65	50.80	12.70	3,800 kg	45,400 kg	19.20 kg/m
		in	6.00	2.75	1.25	0.88	1.50	2.25	0.38	3.50	5.62	5.00	4.12	2.00	0.50	8,300 lb	100,000 lb	12.88 lb/ft

Crank Link Steel Bush Series for Intercarriers

The JKB series was developed for Megasse and Bagasse handling within cane sugar processing. The chain is generally employed, but not exclusively, with F style attachment to allow a flight bar to be mounted across the chains. The flight bar will incorporate a wear shoe so the chain does not come into contact directly with wear strips or conveyor deck. The chain is purely the haulage member and it does not therefore have a need for a carrier roller. The simplified bush construction with standard or stainless round parts has proven to offer extended and economic performance.

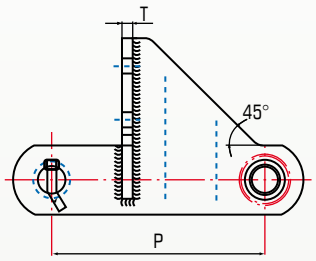


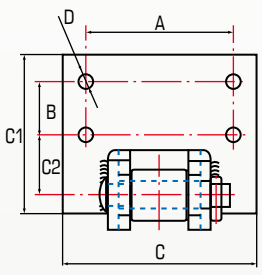
Crank Link Steel Bush Series for Intercarriers

Chain Number	Chain Standard		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	Over Pin		Working Load	Breaking Load	Weight
			P	D5	D6	L	H	S	F1	F2			
JKB160	BOP	mm	160.00	48.00	25.40	56.00	57.30	9.50	56.00	66.00	3,100 kg	34,600 kg	17.50 kg/m
		in	6.30	1.89	1.00	2.20	2.25	0.37	2.20	2.56	6,850 lb	76,120 lb	11.74 lb/ft
JKB160A	BOP	mm	160.00	48.00	25.40	56.00	63.50	9.50	56.00	66.00	4,730 kg	45,500 kg	19.20 kg/m
		in	6.30	1.89	1.00	2.20	2.50	0.37	2.20	2.56	10,400 lb	100,000 lb	12.88 lb/ft
JKB200	BOP	mm	200.00	48.00	25.40	56.00	57.20	9.50	56.00	66.00	3,100 kg	34,600 kg	15.50 kg/m
		in	7.87	1.89	1.00	2.20	2.25	0.37	2.20	2.56	6,850 lb	76,120 lb	10.39 lb/ft
JKB200A	BOP	mm	200.00	48.00	25.40	56.00	63.50	9.50	56.00	66.00	4,730 kg	45,500 kg	17.40 kg/m
		in	7.87	1.89	1.00	2.20	2.50	0.37	2.20	2.56	10,400 lb	100,000 lb	11.67 lb/ft
JKB37291J	Donelly	mm	152.40	50.80	25.40	50.00	76.20	12.70	55.90	67.10	4,730 kg	45,500 kg	24.60 kg/m
		in	6.00	2.00	1.00	1.96	3.00	0.50	2.20	2.64	10,400 lb	100,000 lb	16.50 lb/ft
JKB6050*	Donelly	mm	153.70	49.00	25.40	50.00	76.20	12.70	55.90	67.10	4,730 kg	45,500 kg	24.60 kg/m
		in	6.05	1.93	1.00	1.96	3.00	0.50	2.20	2.64	10,400 lb	100,000 lb	16.50 lb/ft
JKB37291SJ	Donelly	mm	152.40	50.80	25.40	50.00	76.20	12.70	62.20	73.40	4,730 kg	45,500 kg	24.60 kg/m
		in	6.00	2.00	1.00	1.96	3.00	0.50	2.44	2.88	10,400 lb	100,000 lb	16.50 lb/ft
JKB2084HD	Donelly	mm	125.40	76.20	23.80	66.80	63.50	12.70	73.90	64.30	5,420 kg	45,500 kg	30.70 kg/m
		in	6.00	3.00	0.94	2.63	2.50	0.50	2.91	2.53	11,920 lb	100,000 lb	20.50 lb/ft

*STR – Straight side bar

F Style attachment

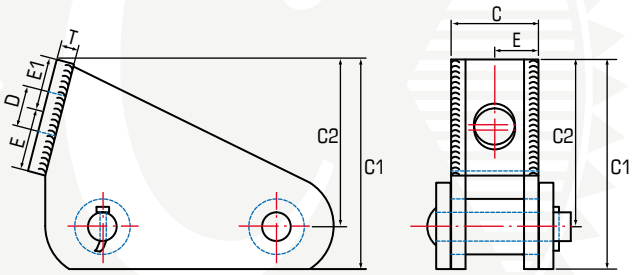




F Style attachment

Chain Number		C1	C2	A	C	B	D	T
JKB160A	mm	136.00	59.00	108.00	148.00	50.00	14.00	16.00
	in	5.35	2.32	4.25	5.82	1.96	0.55	0.62
JKB160	mm	136.00	59.00	108.00	148.00	50.00	14.00	16.00
	in	5.35	2.32	4.25	5.82	1.96	0.55	0.62
JKB200A	mm	136.00	59.00	108.00	148.00	50.00	14.00	16.00
	in	5.35	2.32	4.25	5.82	1.96	0.55	0.62
JKD200	mm	136.00	59.00	108.00	148.00	50.00	14.00	16.00
	in	5.35	2.32	4.25	5.82	1.96	0.55	0.62

RF10 Style attachment

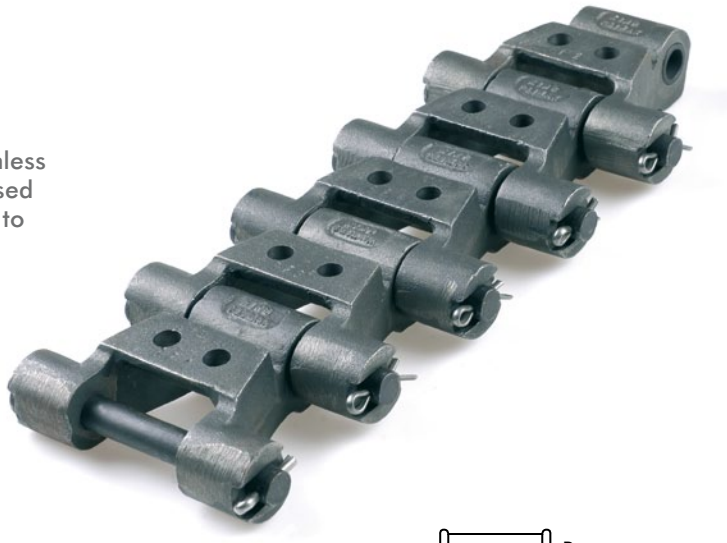


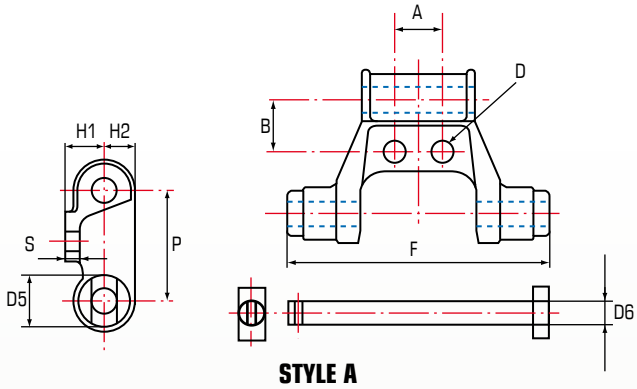
RF10 Style attachment

Chain Number		C1	C2	C	E	E1	D	T
JKB37291	mm	18.40	146.30	93.70	57.20	44.50	35.80	12.70
	in	7.26	5.76	3.69	2.25	1.75	1.41	0.50
JKB37291 J	mm	184.40	146.30	106.40	57.20	44.50	35.80	12.70
	in	7.26	5.76	4.19	2.25	1.75	1.41	0.50
JKB6050	mm	185.20	147.80	76,96	54.10	47.50	36.10	15.70
	in	7.29	5.82	3.03	2.13	1.87	1.42	0.62
JKB2084HD	mm	194.60	162.80	133.40	67.20	50.80	38.10	12.70
	in	7.66	6.41	5.25	2.25	2.00	1.50	0.50

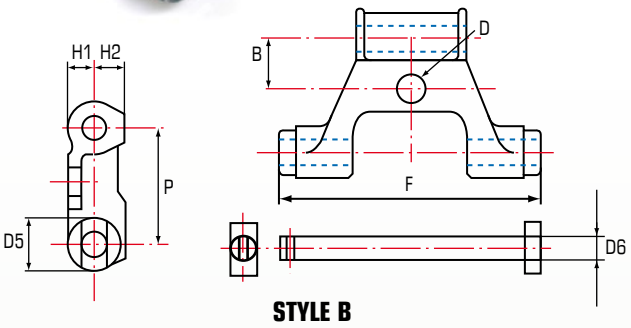
Cast Link Chains for Intercarriers and Sugar Mill applications

Kings greatest strength lies in the extensive metallurgical experience notably in chains of cast construction. This series is available in standard JK/WRI or wider variety of materials enhanced through alloy addition finally to full austenitic stainless steel. Where the pintle class chains include a pressed bushing this allows for a combination of materials to maximise suitability and economy.





STYLE A



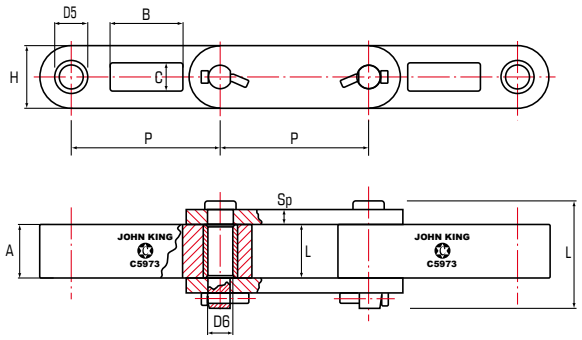
STYLE B

Cast Link Chains for Intercarriers and Sugar Mill applications

Chain Number		Style	Pitch	Bush Diameter	Pin Diameter	Sidebar Thickness	Over Pin	Bolt Diameter	A	B	H1	H2	Working Load	Breaking Load
			P	D5	D6	S	F	D						
JK5174E4	mm	A	59.94	28.58	12.70	7.87	139.70	9.52	25.40	41.28	19.05	15.88	1,500 kg	10,200 kg
	in		2.36	1.13	0.50	0.31	5.50	0.38	1.00	1.63	0.75	0.63	3,300 lb	22,500 lb
JK901E41/E44	mm	B	79.98	35.27	15.88	9.65	139.70	12.70	27.69	44.45	23.80	18.29	4,200 kg	11,360 kg
	in		3.15	1.31	0.63	0.38	5.50	0.50	1.09	1.75	0.72	0.94	4,150 lb	25,000 lb
JK902E41/E44	mm	B	79.98	33.27	15.88	9.65	141.22	9.52	-	37.08	23.80	18.29	4,200 kg	11,360 kg
	in		3.15	1.31	0.63	0.38	5.56	0.38	-	1.46	0.72	0.94	4,150 lb	25,000 lb
JK907E51	mm	B	80.52	33.27	15.88	9.65	141.22	9.52	-	37.60	23.80	18.29	4,200 kg	11,360 kg
	in		3.17	1.31	0.63	0.38	5.56	0.38	-	1.48	0.72	0.94	4,150 lb	25,000 lb

Intermediate Carrier Chains Block and Bar Style

This new generation Intermediate Carrier Chain is a 'roller less' block link chain of robust and simple construction. Pin and bush from heat-treated Martensitic stainless steel, side plates from carbon steel, cast block link secondary heat treated JK/HT1. This austempered ductile iron offers optimum mechanical properties and strength weight ratio exhibiting work hardening qualities.



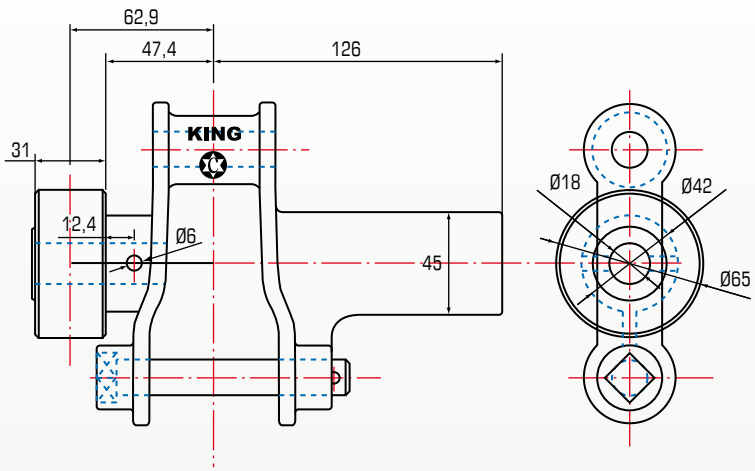
Intermediate carrier chain special C5973

Intermediate Carrier Chains Block and Bar Style

Chain Number		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	Over Pin	A	B	C	Working Load	Breaking Load
		P	D5	D6	L	H	S	F					
BL09060	mm	152.40	28.70	19.05	48.00	50.80	10.00	85.00	39.00	75.00	28.00	2,000 kg	27,200 kg
	in	6.00	1.13	0.75	1.50	2.00	0.38	3.35	1.50	2.95	1.10	4,400 lb	60,000 lb
BL1796	mm	152.40	31.75	22.10	50.80	60.00	10.00	95.80	49.50	75.00	28.00	2,550 kg	45,500 kg
	in	6.00	1.25	0.87	2.00	2.25	0.38	3.77	1.95	2.95	1.10	5,600 lb	100,000 lb
BL09063	mm	152.40	31.75	23.88	55.00	60.00	10.00	100.00	54.00	75.00	28.00	3,300 kg	63,600 kg
	in	600.00	1.25	0.97	2.18	2.38	0.41	3.93	2.83	2.95	1.10	7,200 lb	140,000 lb
BL5973	mm	152.40	34.50	25.40	55.00	65.00	15.00	110.00	54.00	75.00	28.00	3,300 kg	63,600 kg
	in	600.00	1.36	1.00	2.18	2.50	0.59	4.35	2.17	2.95	1.10	7,200 lb	140,000 lb

100B Link with Special attachment to be used as left and right hand strands

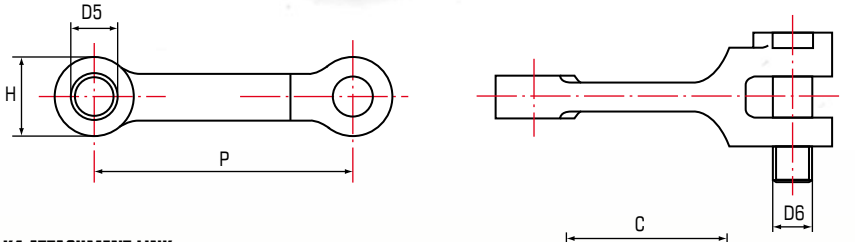
This non standard chain is a variation on Din 654 and associated with one European original equipment manufacturer. The chain link is produced in an uprated cast steel offering enhanced mechanical properties over the original malleable iron specification where strength and wear performance were insubstantial. The version utilises handed attachments with outboard carrier rollers.



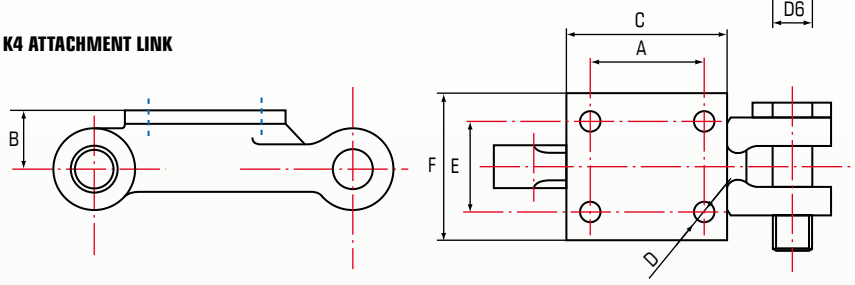
Intercarrier – Special Types

Kings unique ability to produce bespoke chains convering the whole spectrum of construction, material and manufacturing processes allows the company to offer direct replacements to non-standard chains. This series is a good demonstration of this where the link is produced as a high carbon steel casting with alloy steel heat treated liner bush and bolted construction. In this process there is always the opportunity to introduce improvements for improved performance and cost effectiveness. Where requested this series can be offered as a forging complete with welded K4 top plate.

PLAIN LINK



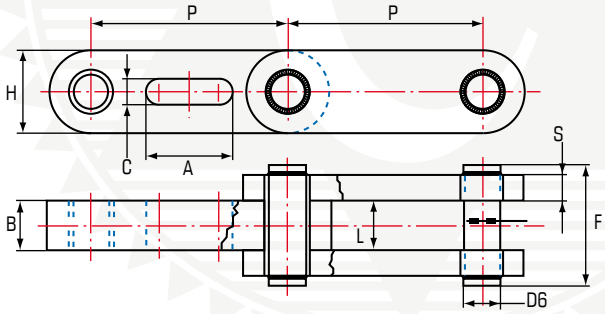
K4 ATTACHMENT LINK

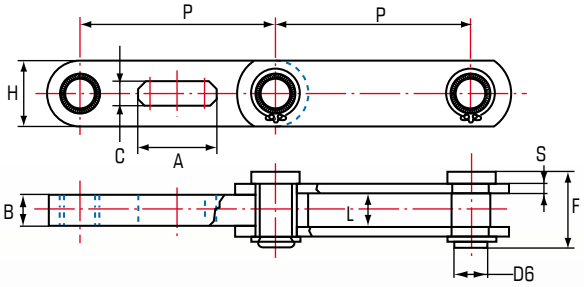


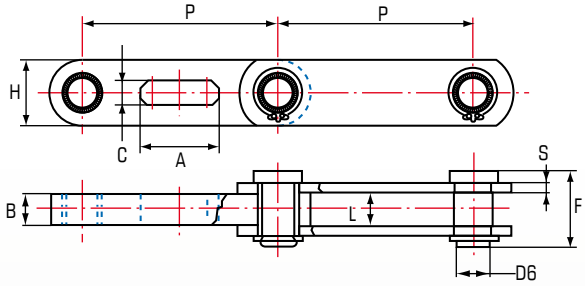
Intercarrier – Special Types

Chain Number		Pitch	Bush Diameter	Pin Diameter	H	K4 Attachment Dimensions					Bolt Diameter	Breaking Strength
		P	D5	D6		A	B	C	E	F	D	
JK229	mm	228.60	35.05	41.40	69.85	101.60	50.08	139.70	79.38	130.18	16.00	60,000 kg
	in	9.00	1.38	1.63	2.75	4.00	2.00	5.50	3.13	5.13	0.63	132,000 lb
JK305	mm	304.80	45.45	57.15	101.60	107.95	74.62	187.45	92.08	127.00	16.00	88,200 kg
	in	12.00	1.75	2.25	4.00	4.25	2.94	7.38	3.63	5.00	0.63	194,000 lb

Diffuser Chains – Block and Bar Construction

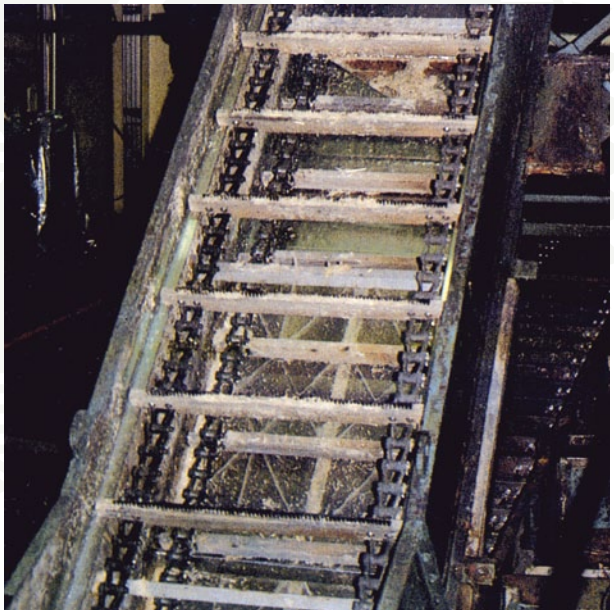






Diffuser Chains – Block and Bar Construction

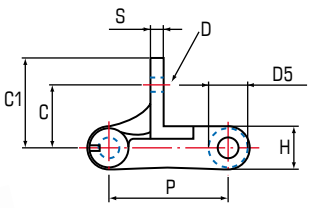
Chain Number		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	A	B	C	Over Pin	Breaking Strength
		P	D5	D6	L	H	S				F	
BL4309/T1	mm	250.00	56.00	47.00	62.00	80.00	20.00	111.00	60.00	35.00	150.00	175,000 kg
	in	9.84	2.20	1.85	2.44	3.15	0.75	4.37	2.36	1.38	5.90	385,000 lb
BL4309/T2	mm	250.00	51.00	42.00	43.00	80.00	12.00	111.00	40.00	35.00	100.00	64,240 kg
	in	9.84	2.00	1.65	1.69	3.15	0.50	4.37	1.57	1.38	3.94	141,323 lb
BL4600	mm	250.00	58.00	49.00	66.00	110.00	47.00	111.00	60.00	35.00	30.00	224,300 kg
	in	9.84	2.28	1.93	2.60	4.33	1.85	4.37	2.36	1.38	1.18	493,460 lb
BL4961	mm	300.00	71.90	60.00	68.00	130.00	31.00	125.00	60.00	25.00	157.50	345,000 kg
	in	11.80	2.83	2.36	2.68	5.12	1.22	4.92	2.36	1.00	6.20	759,000 lb
BL5032	mm	443.60	127.80	50.80	74.60	127.80	37.30	101.60	123.80	31.80	181.00	338,000 kg
	in	17.50	5.00	2.00	2.94	5.00	1.47	4.00	4.87	1.25	7.13	743,600 lb

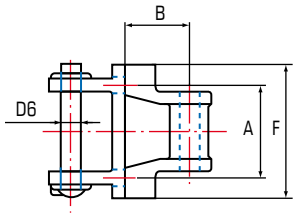


Juice Strainer and Trash Conveyor Chains

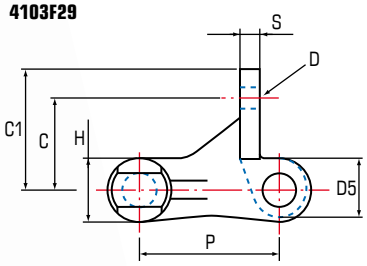
Cast pintle chains have been the traditional selection for juice strainers and trash elevators. Engineered steel chains have also been developed as a direct alternative. (E.g. 4103 F29 and E2103) to allow for higher mechanical characteristic and enhanced corrosion resistance. In addition Kings plastic division offer non-metallic alternatives that have proven performance in similar applications.

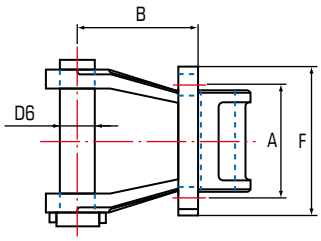
488F2



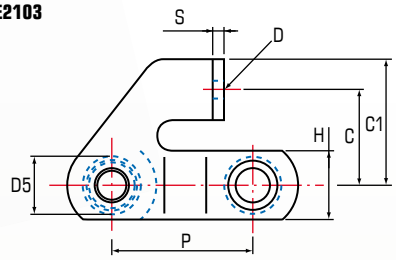


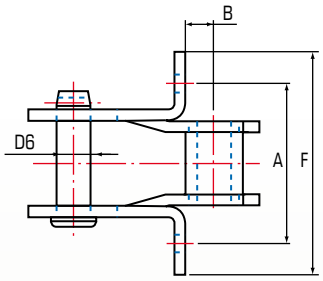
4103F29





E2103



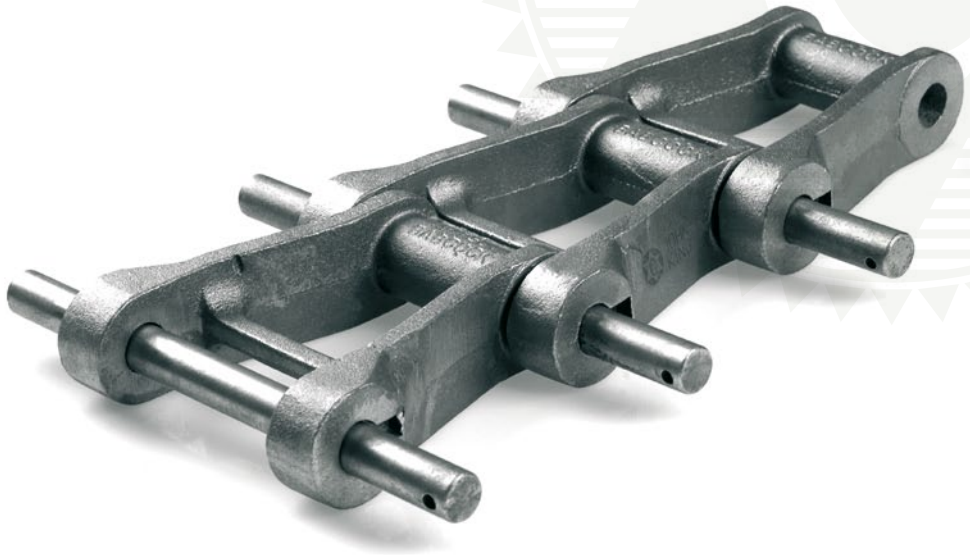


Juice Strainer and Trash Conveyor Chains

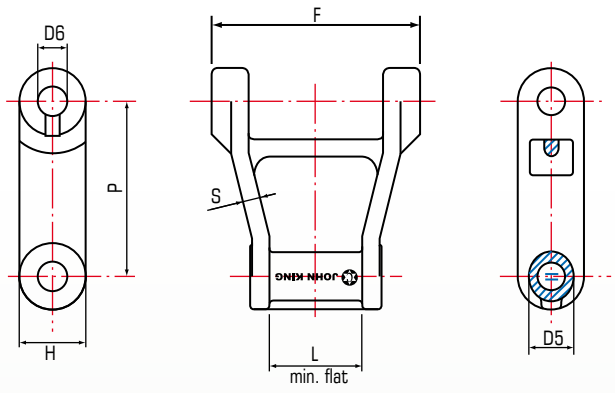
Chain Number		Pitch	Bush Diameter	Pin Diameter		Sidebar Height	Sidebar Thickness	A	B	C	C1	F	Bolt Diameter	Breaking Load	Breaking Strength	Weight	
		P	D5	D6		H	S						D			Plain	F2/29
				dia.	length												
JKC488F2	mm	66.30	22.40	11.20	77.70	25.40	8.00	51.60	36.10	35.10	50.80	73.90	7.90	820 kg	5,000 kg	5.20 kg/m	9.20 kg/m
	in	2.61	0.88	0.44	3.06	1.00	0.31	2.03	1.42	1.38	2.00	2.94	0.31	1,800 lb	11,000 lb	3.49 lb/ft	6.18 lb/ft
JKC4103F29	mm	78.00	31.80	19.00	92.20	38.10	11.00	62.00	67.10	50.80	67.10	83.30	12.70	1,600 kg	10,000 kg	9.20 kg/m	13.10 kg/m
	in	3.07	1.25	0.75	3.63	1.50	0.44	2.44	2.64	2.02	2.64	3.00	0.50	3,500 lb	22,000 lb	6.18 lb/ft	8.80 lb/ft
JKC4103F30	mm	78.00	31.80	19.00	92.20	38.10	11.00	62.00	62.00	50.80	67.10	83.30	12.70	1,600 kg	10,000 kg	9.20 kg/m	13.10 kg/m
	in	3.07	1.25	0.75	3.63	1.50	0.44	2.44	2.44	2.02	2.64	3.00	0.50	3,500 lb	22,000 lb	6.18 lb/ft	8.80 lb/ft
E2103	mm	78.00	31.80	19.00	79.50	38.10	6.40	88.90	16.00	53.10	69.90	124.00	10.00	2,200 kg	13,100 kg	8.80 kg/m	13.90 kg/m
	in	3.07	1.25	0.75	3.13	1.50	0.25	3.50	0.63	2.09	2.75	4.88	0.40	4,900 lb	40,000 lb	5.91 lb/ft	9.34 lb/ft

Boiler Moving Grate Chains

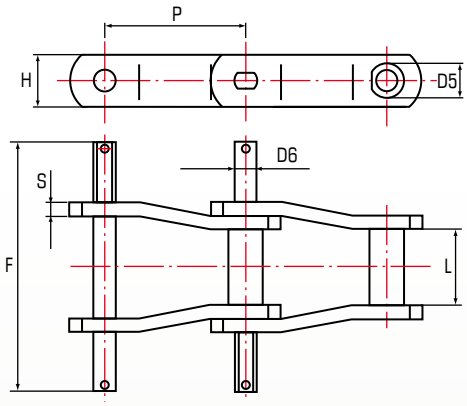
Kings cast chain tradition has allowed them to apply expertise in the development of improved materials for moving grate applications. This hostile environment demands a material that can perform at elevated temperatures and conditions of high abrasion. In addition to the running gear, the related grate castings are also available. Engineered steel versions are also available such as the Thompson moving grate or stoker chains.



Babcock style D472



Thompson style JK5063, JK5109

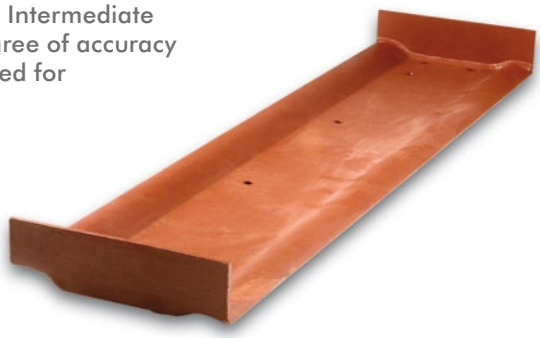


Boiler Moving Grate Chains

Chain Number		Pitch	Bush Diameter	Pin Diameter	Between Sidebars	Sidebar Height	Sidebar Thickness	Over Pin	Breaking Load
		P	D5	D6	L	H	S	F	
D472	mm	101.00	25.40	15.88	50.80	38.10	10.00	119.00	n/s
	in	3.98	1.00	0.63	2.00	1.50	0.38	4.69	n/s
JK5063	mm	101.60	25.40	15.70	54.10	38.10	10.00	179.30	22,700 kg
	in	4.00	1.00	0.63	2.13	1.50	0.38	7.06	50,000 lb
JK5109	mm	101.60	25.40	15.70	55.60	38.10	10.00	178.60	30,500 kg
	in	4.00	1.00	0.63	2.19	1.50	0.38	7.03	67,000 lb

Boiler Grate Chains

King plate conveyor slats are manufactured for Main, Auxiliary and Intermediate Carrier chains. Using a progressive die-forming process a high degree of accuracy can be maintained to ensure consistency. The slats can be galvanised for increased resistance to the corrosive action of sugar cane acids.



Direction of Travel

For Cane Carriers

Style JKA

Style JKAA

Style JKAB

Style JKAC

Style JKAD

Direction of Travel

For Intermediate Carriers

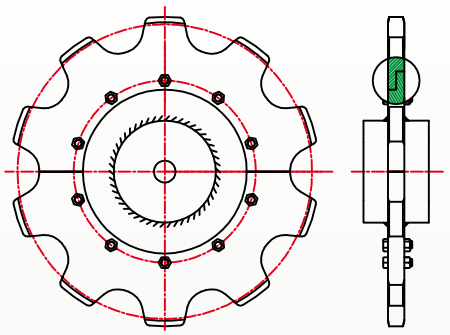
Style JKB

Style JKBB

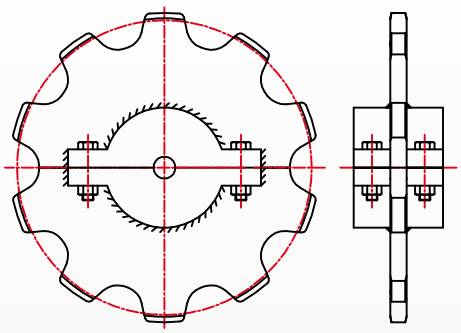
Style JKBC

Climax Sprockets

King operate a dedicated in house sprocket manufacturing division where chain sprockets are produced using latest technology. These are available in cast or fabricated form. Options of segmental or split construction allow for easy and cost effective replacement.

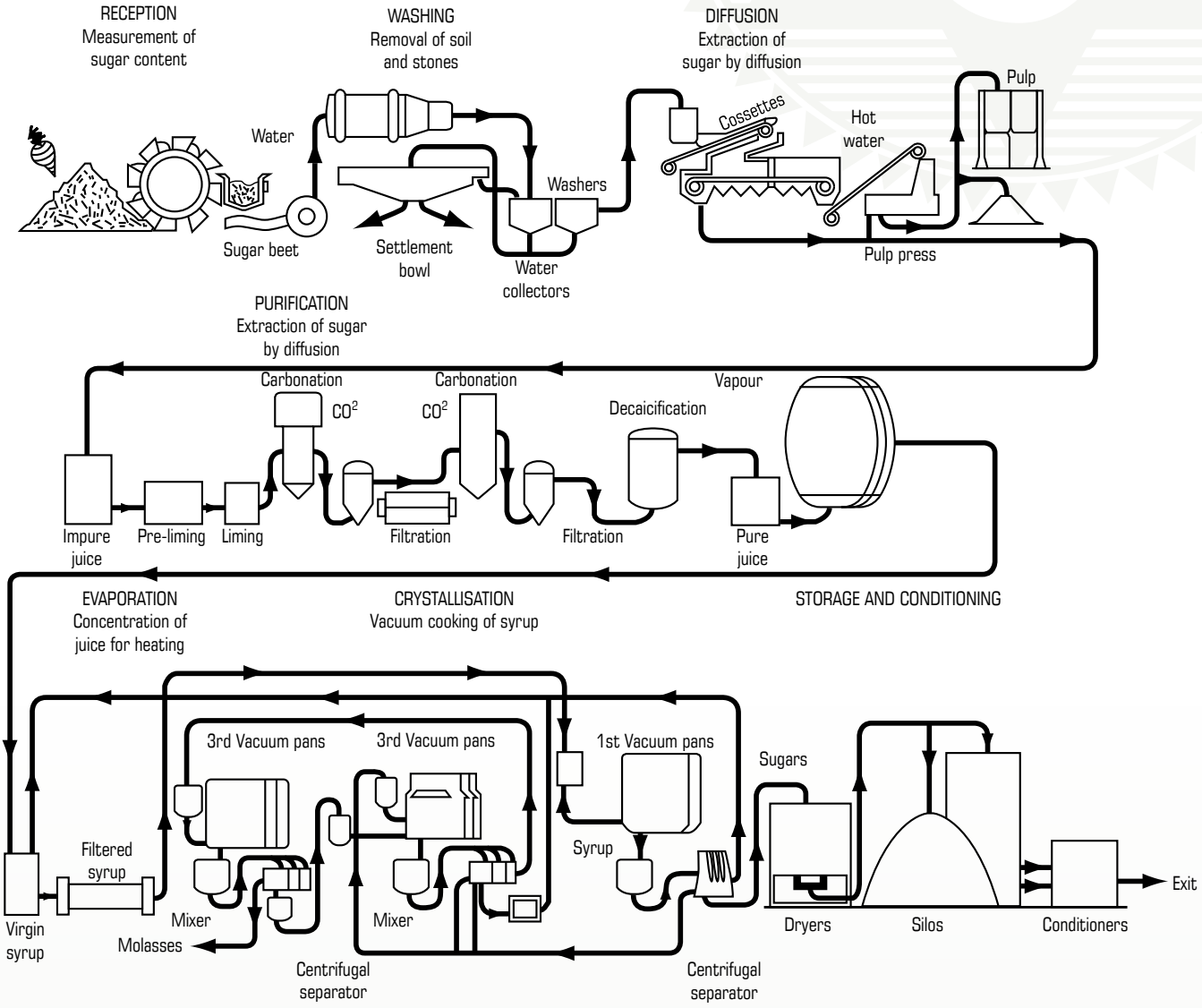


SEGMENTAL CONSTRUCTION SPROCKET



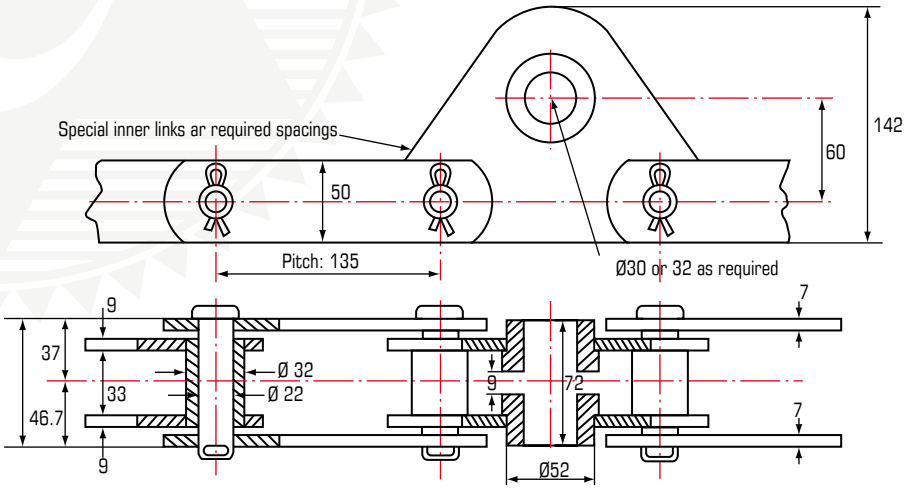
SPLIT CONSTRUCTION SPROCKET

Typical Layout in Sugar Beet Diffuser Process



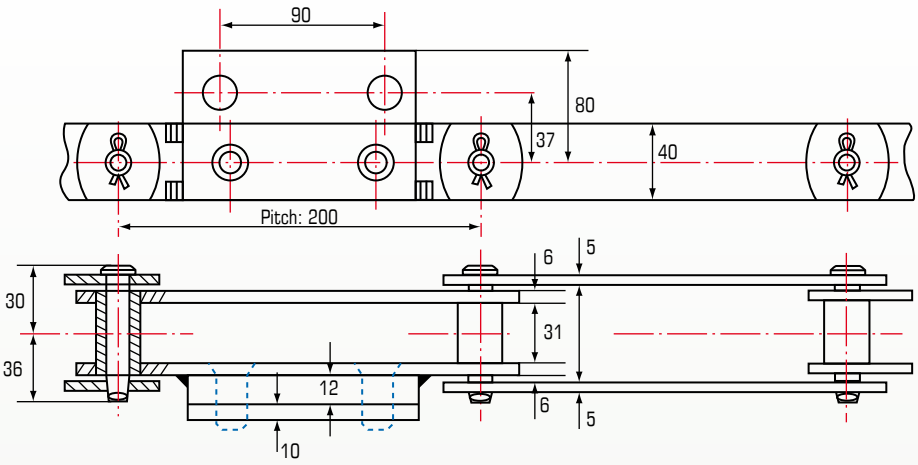
Trash Catcher

Washing Area: Within the washer a water flume carries away debris washed from the sugar beet. The chain fitted with rakes, removes the trash from the water.



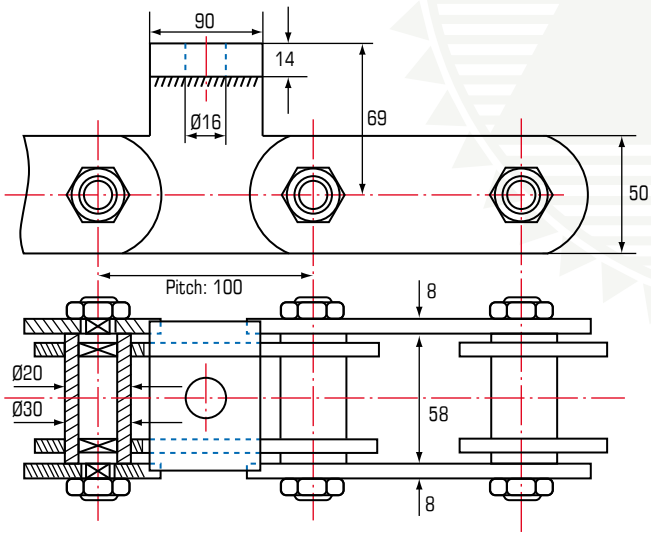
Hydro Trash Catcher

Washing area: This chain is used to convey the beet through a washer.



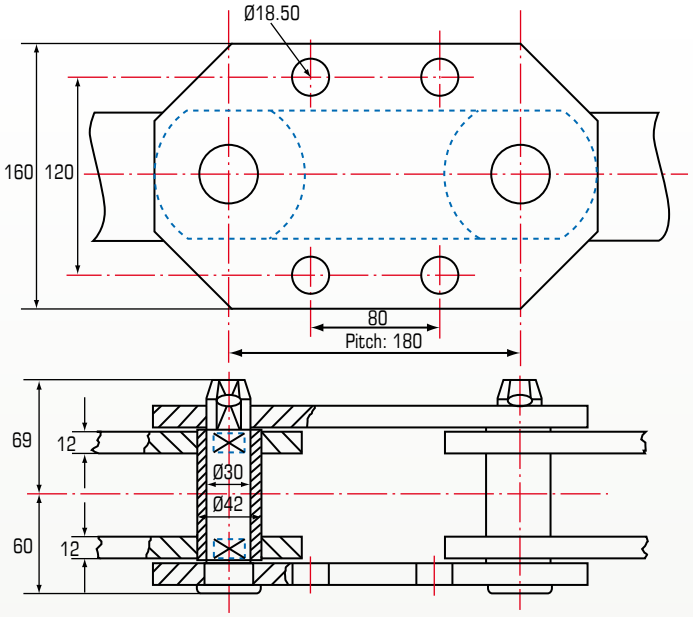
Feed Conveyor

Diffusion area: This chain carries beet pulp to the drying kilns.



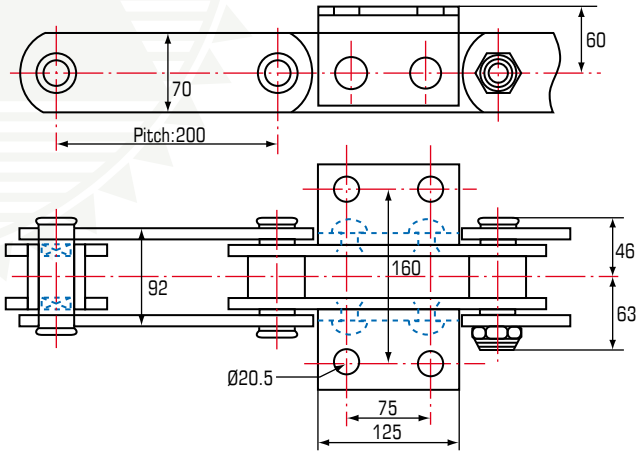
Stone Trap

Washing area: The chains operating in double strand are employed to carry away stones removed during the washing of the sugar beet.



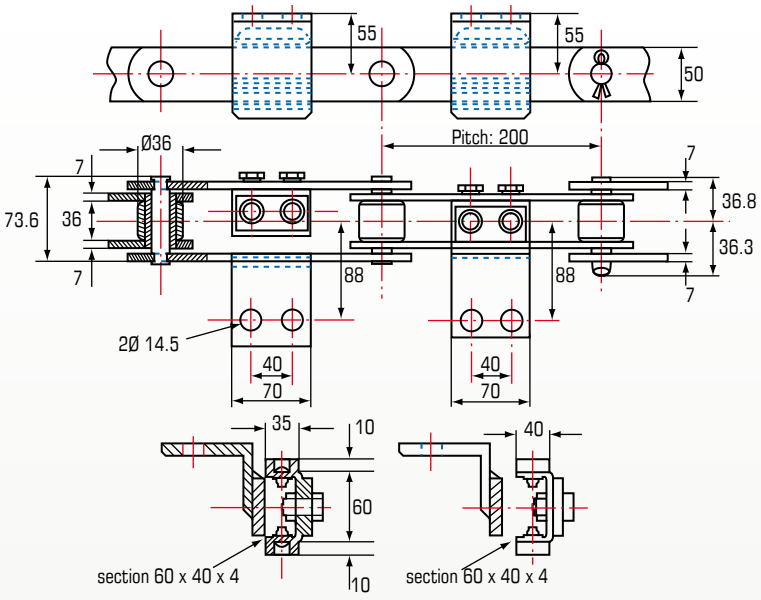
Cossette Conveyor

Diffuser area: These chains are fitted with rakes and run in inclined conveyors, scraping the beet pulp to the scalding tub.



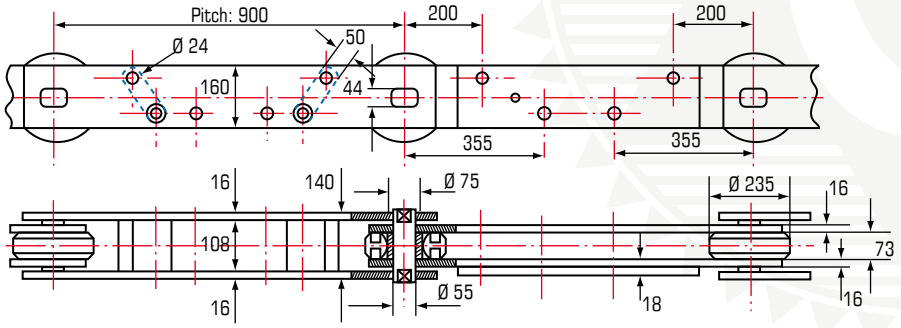
Scalding Tub

Diffuser area: These Chains operating in twin strand format are employed to transport spent beet pulp to the next part of the process. The spent beet pulp is used in the production of animal feed.



Sugar Beet Diffuser

Diffuser area: Used on a continuous sugar beet diffuser. Two chains run in parrallel conected by perforated steel slats forming a continuous apron.



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that:

John King Chains Ltd
New Climax Works
Lancaster Way
Sherburn in Elmet
Leeds
LS25 6NS
United Kingdom

Holds Certificate No: **FM 77342**
and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:

The manufacture, procurement and supply of conveying chains, sprockets and ancillary components including engineered steel, cast link, forged link and Acetal chains including related processes of machining, laser profiling, forming and general fabrication

For and on behalf of BSI:

Gary Fenton, Global Assurance Director

Originally registered: **15/11/2003** Latest Issue: **25/05/2012** Expiry Date: **24/07/2015**

Page: 1 of 1

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