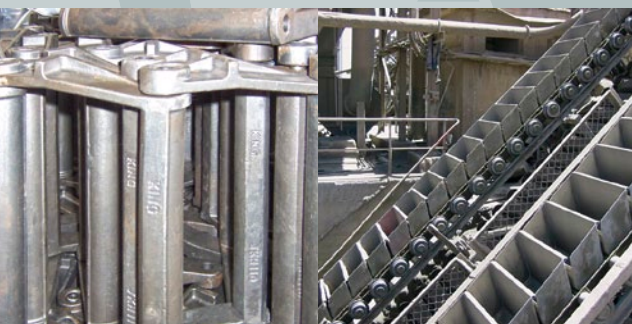




CEMENT INDUSTRY CHAINS

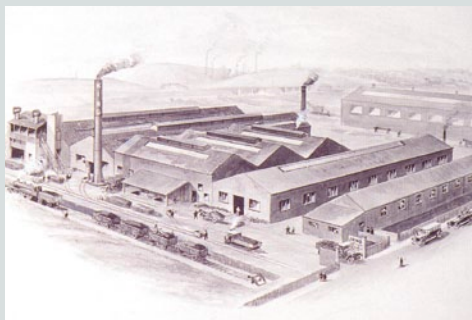


CLIMA+
Linking you to EXCELLENCE since 1926

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.

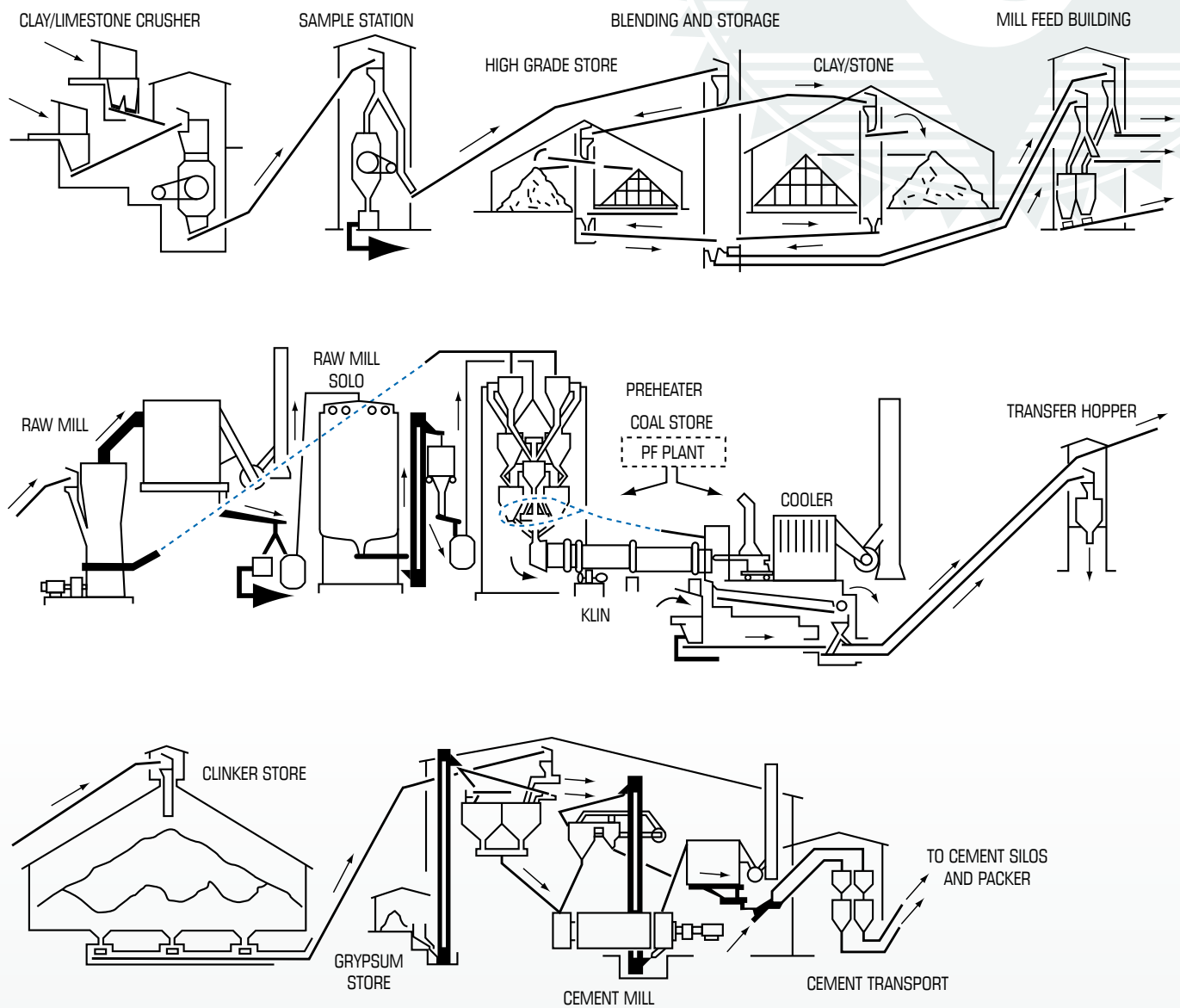
In recent years it has been JOHN KING's strategy to develop the Company into a global business. This has seen the establishment, in addition to the main factory in England, distribution Companies in North and South America, Africa, South East Asia and Central Europe. Our objective is to provide best service in supply of high quality chain and sprockets Worldwide.

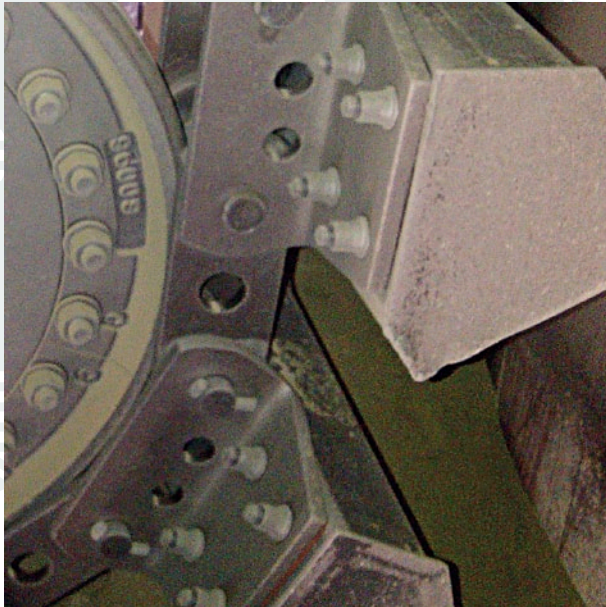
All products are manufactured within the dictates of the Company's quality management according to ISO 9000 establishing consistent and high quality products and ensuring performance reliability and extended service life.

CONTENTS

Typical Process Layout for Cement Production **03** | American Standard without Rollers **04** | American Standard without Rollers with K24 attachment **05** | American Standard without Rollers with K44/443 attachment **05** | American Standard without Rollers with K2 attachment **06** | American Standard without Rollers with K3 attachment **06** | American Standard without Rollers with K35 attachment **07** | Continuous Discharge Double Strand 4000 Series Elevator Chains **08** | Central Chain for High Output Bucket Elevators **09** | King Double Strand Bucket Elevator with Side Mounted Bucket **10** | King Double Strand Bucket Elevator with Side Mounted Bucket with G Attachment **10** | King Deep Bucket San Conveyor PL Series **11** | King Scraper Reclaimer SC Series **12** | King Scraper Reclaimer PH Series **12** | King Pan Conveyor JKP Series **13** | Crusader Heavy Duty Steel Drag Chains (WHX) **14** | European Standard Cast Link Drag Chain (JKD) **15** | American Standard SD type Cast Link Drag Chain (SD) **16** | American Standard S type Cast Link Drag Chain (JKS) **16** | Forged Link Standard Series **17** | Forged Link Double Series **18** | Forged Link Triple Series **19** | High Manganese Wear Rail **19** | Pin styles **20** | Flight attachment options **21**

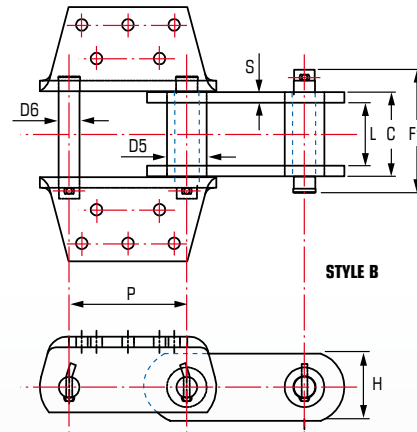
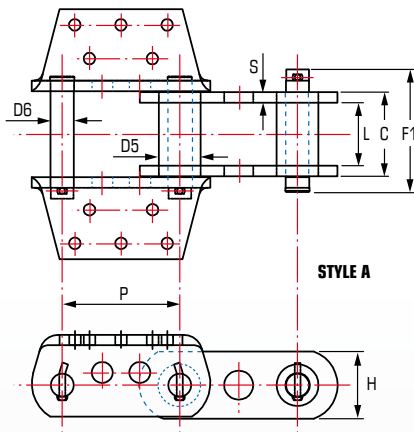
Typical Process Layout for Cement Production





American Standard without Rollers

The smooth and stable flow of material through a process depends on the performance of the conveyor chain installed within the equipment. Bush class chains or steel knuckle chain are of the same construction as roller conveyor chain, but with the roller excluded. This series, with a reduced number of components, has proved to be particularly successful in high duty, high abrasion applications where lubrication is not possible. For many years KING steel bush chains have been proving performance in mill duty centrifugal discharge elevators within the more difficult applications encountered in the Cement Industry.

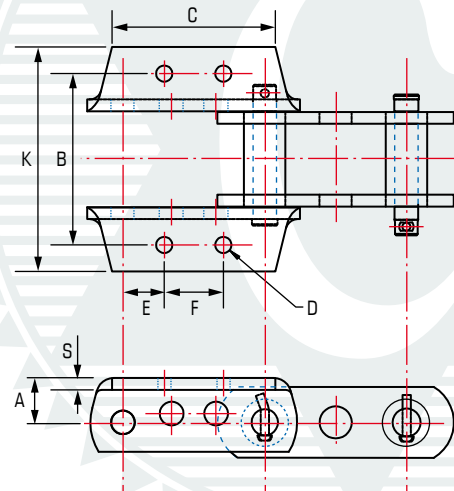


American Standard – Engineered Steel – without Rollers B29-12

Chain Number	Pitch inches	Style	F1	L	S	Sidebars		Pins		Bushings			Sprocket Number
						H	Heat Treat	D6 inches	Heat Treat	C	D5	Heat Treat	
						inches				inches			
JKB102B	4.00		4.37	2.13	0.38	1.50	TH	0.63	CARB	2.89	1.00		102B
JKB111	4.76		4.97	2.63	0.38	2.00	TH	0.75	SIH	3.39	1.44		111
JKB110	6.00		4.37	2.13	0.38	1.50	TH	0.63	CIH	2.89	1.25		110
JKB856	6.00	B	6.44	3.00	0.50	2.50	TH	1.00	CIH	4.00	1.75	CARB	856
JKB956	6.00	A	6.44	3.00	0.50	3.00	TH	1.00	CIH	4.00	1.75	CARB	856
JKB857	6.00	B	6.44	3.00	0.50	3.25	TH	1.00	CIH	4.00	1.75	CARB	856
JKB958	6.00	A	6.44	3.00	0.56	3.25	TH	1.13	CIH	4.13	2.00	CARB	958
JKB859	6.00	B	7.74	3.75	0.62	4.00	TH	1.25	CIH	5.00	2.38	CARB	859
JKB864	7.00	B	7.74	3.75	0.62	4.00	TH	1.25	CIH	5.00	2.38	CARB	864
JKB984	7.00	A	7.74	3.75	0.62	4.00	TH	1.38	CIH	5.00	2.50	CARB	984
JKB1084	7.00	C	8.60	4.43	0.75	4.50	TH	1.62	CIH	6.00	2.85	CARB	1084

TH: Thru-hardened CIH: Circumferential Induction Hardened after thru-hardening CARB: Carburized SIH: Selectively Induction Hardened

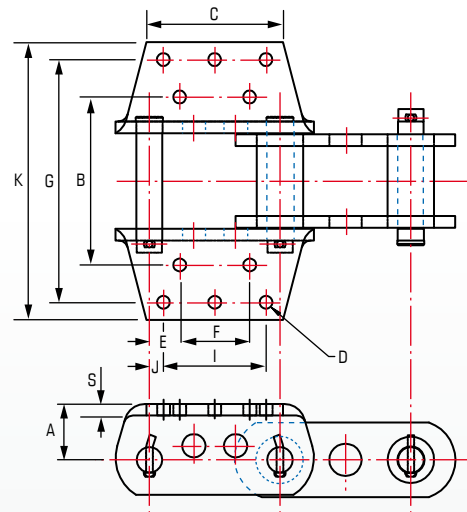
American Standard without Rollers with K24 attachment



American Standard without Rollers with K24 attachment

Chain Number	B	E	A	D	F	K	C	S	Weight
	inches								lbs/ft
JKB856	7.25	1.75	1.88	0.69	2.50	9.38	6.91	0.50	27.5
JKB956	7.25	1.75	1.88	0.69	2.50	9.38	6.91	0.50	29

American Standard without Rollers with K44/443 attachment

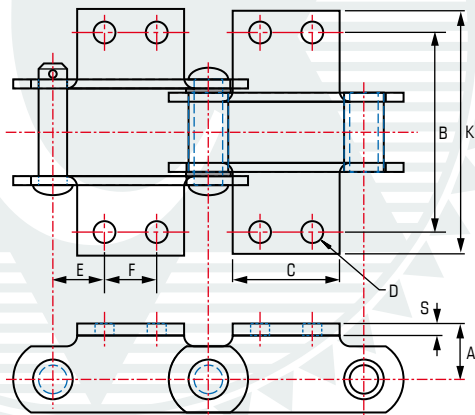


American Standard without Rollers with K44/443 attachment

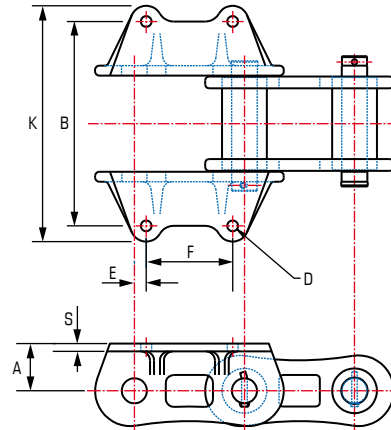
Chain Number	Attachment Style	B	E	A	D	F	K	G	C	J	I	T	Weight
		inches											lbs/ft
JKB857	K44	7.00	1.25	2.50	0.56	3.50	14.00	12.00	5.50	1.25	3.50	0.50	38
JKB859		9.00	1.62	3.00	0.69	2.75	15.00	13.00	5.92	0.75	4.50	0.62	59
JKB958		7.00	1.25	2.50	0.56	3.50	13.68	12.00	5.75	1.25	3.50	0.50	40
JKB864	K443	9.00	1.62	3.00	0.69	3.75	15.00	13.00	7.00	0.75	5.50	0.62	55
JKB984		9.00	1.62	3.00	0.69	3.75	14.88	13.00	7.32	0.75	5.50	0.62	58

Cement Industry Chains

American Standard without Rollers with K2 attachment



STYLE I

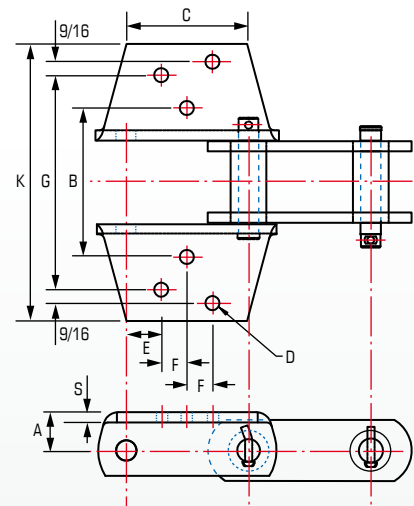


STYLE II

American Standard without Rollers with K2 attachment

Chain Number	Style	B	E	A	D	F	K	C	S	Weight
		inches								
JKB102B	I	5.32	1.13	1.00	0.41	1.75	6.76	2.85	0.38	9.0
JKB110	I	5.32	2.13	1.00	0.41	1.75	7.07	2.88	0.38	8.6
JKB1084	II	13.00	0.75	3.00	0.69	5.50	15.00	—	0.50	51.5

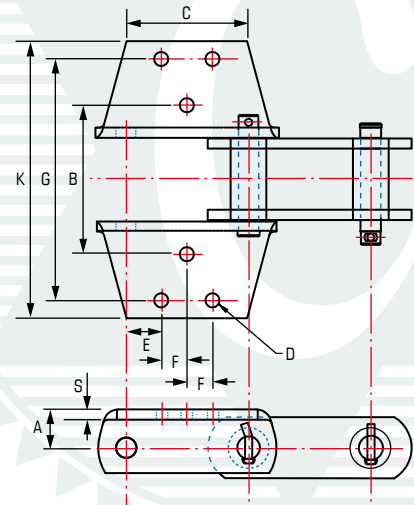
American Standard without Rollers with K3 attachment



American Standard without Rollers with K3 attachment

Chain Number	B	E	A	D	F	K	G	C	S	Weight
	inches									
JKB856	6.56	1.63	1.88	0.50	1.38	13.56	10.94	4.25	0.50	26.9

American Standard without Rollers with K35 attachment



American Standard without Rollers with K35 attachment

Chain Number	B	E	A	D	F	K	G	C	S	Weight
	inches									
JKB856	7.25	1.75	1.88	0.69	1.25	13.50	11.75	5.88	0.50	26.9

Key features of a World class product.

Pins manufactured from a high alloy steel to BS970 709M40 (AISI 4140) initially hardened and tempered to average 40Hrc in the core to give this tension component high tensile strength and toughness. Thereafter the pin is selectively induction hardened to create an armour plating to 58-62Hrc at typically 10% of the diameter.

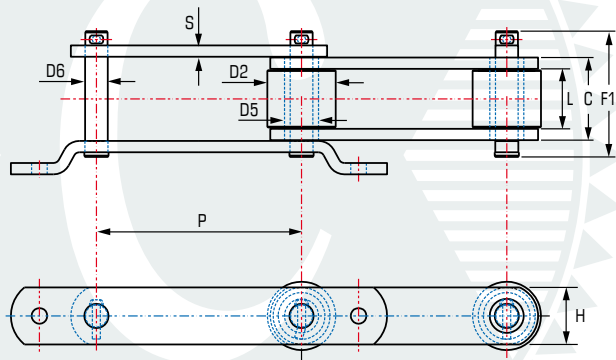
Bushings are produced from a high alloy carburising steel to BS970 817M40 (AISI 5120) subject to deep case carburising on all wearing surfaces both internal and external. An extended exposure to the carbon rich atmosphere of the furnace ensures that the best combination of high hardness (58-62Hrc) and maximised case depth is achieved.

Sidebars are uniquely uprated from traditionally carbon steels to alloy steel to BS970 530M40 (AISI 5140) These are supplied in a hardened and tempered condition average 40Hrc to offer increased tensile strength as compared to alternatives.

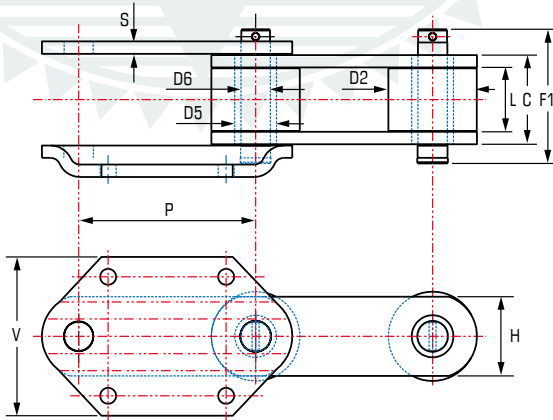
Although of fundamental importance Quality is not exclusively about materials and heat treatment. Controlled high interference fits are employed in relation to pins and bushings and relative side plates. By pre-stressing the sidebar pitch holes the fatigue life of the chain is extended.

The chains are produced within the dictates of the Company's management quality system ISO9000 to ensure a high and consistent quality standard.

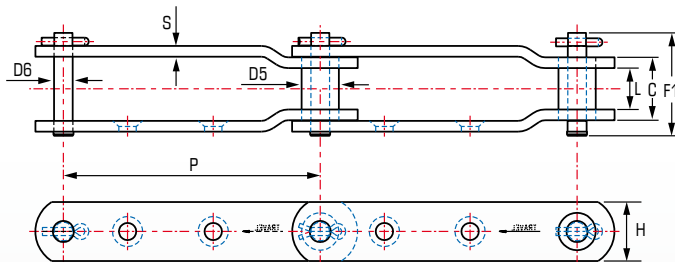
Cement Industry Chains



G5 ATTACHMENT STYLE



G6 ATTACHMENT STYLE



C2 ATTACHMENT STYLE



Continuous Discharge Double Strand 4000 Series Elevator Chains

JKR4000 series chain.

4000 9" pitch series roller chains duplicate the high performance specifications employed in the 4200 series chains. The chains are style A straight sidebar style with buckets fixed every second link on the outer. The pitch is reduced to 9" which allows for higher speeds and therefore increased capacities. The G5 and G6 attachments fix the buckets between the strands necessitating pre-calibration.

JKR4200 series chain.

4200 series roller chains are specifically designed for twin strand operation. These 12" pitch style C crank link chains utilise one pitch per bucket. The chain is produced to a materials and heat treatment specification which is specific to high duty and abrasive environments. Buckets are side mounted with fixed C2 attachments. This necessitates accuracy in matching of the strands as a final manufacturing requirement.

Continuous Discharge Double Strand 4000 Series Elevator Chains

Chain Number		Pitch	F1	L	S	Sidebars		Heat Treat	Pins		Rollers		Bushings			Rated Working Load
						H	V		D6	Heat Treat	D2	Heat Treat	C	D5	Heat Treat	
JKR4251-C2	in	12.00	4.63	1.94	0.50	2.00	—	TH	0.88	CH	1.75	CH	2.94	1.25	CH	9,000 lb
	mm	305.00	118.00	49.20	12.70	50.80	—		22.40		44.50		74.70	31.80		4,000 kg
JKR4004-G5	in	9.00	5.69	2.63	0.50	2.50	—	TH	1.00	CIH	3.00	CH	3.63	1.50	CH	12,700 lb
	mm	229.00	145.00	66.80	12.70	63.50	—		25.40		78.20		92.20	38.10		5,700 kg
JKR4065-G5	in	9.00	6.16	3.06	0.63	3.50	—	TH	1.25	CIH	4.25	CH	4.31	2.00	CH	18,900 lb
	mm	229.00	156.00	77.70	16.00	88.90	—		31.80		108.00		109.00	50.80		8,500 kg
JKR4037-G6	in	9.00	6.79	3.25	0.62	4.00	8.00	TH	1.50	CIH	4.50	CH	3.25	2.12	CH	29,500 lb
	mm	229.00	172.50	82.55	17.75	101.60	203.20		38.10		114.30		82.55	53.85		13,300 kg

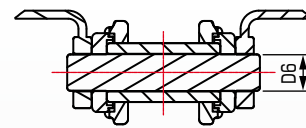
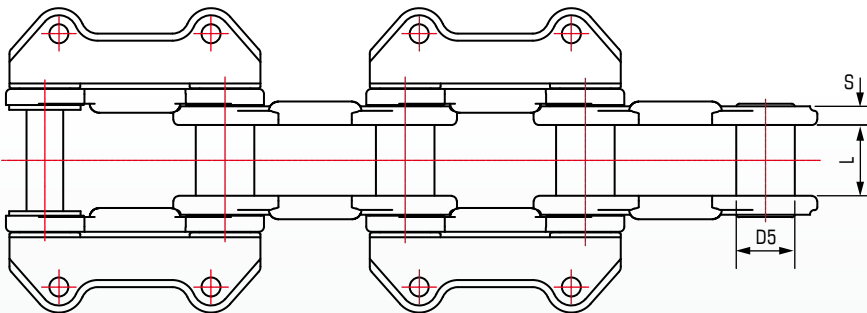
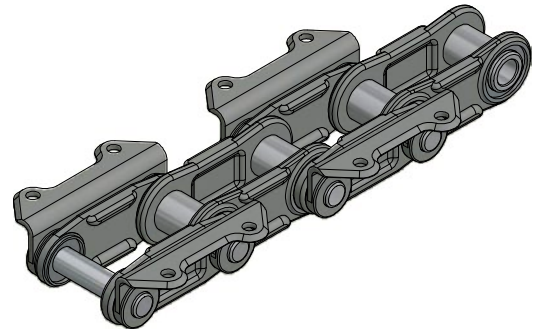
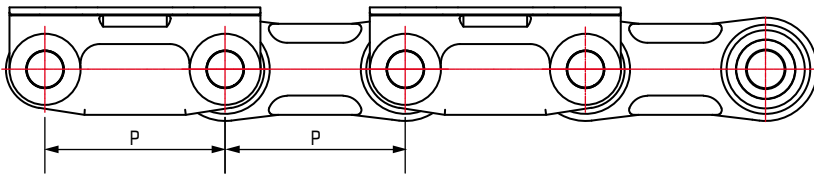
TH: Thru-hardened CIH: Circumferential Induction Hardened after thru-hardening CH: Carburized



Central Chain for High Output Bucket Elevators

The New Generation central strand high duty elevator chain has proven performance in the most demanding elevator applications. The construction is simple and assembly or shortening of chain lengths can be achieved with comparative ease. The K style attachment links are mounted on the outer link pin retention sleeves and made common with the bucket fixings.

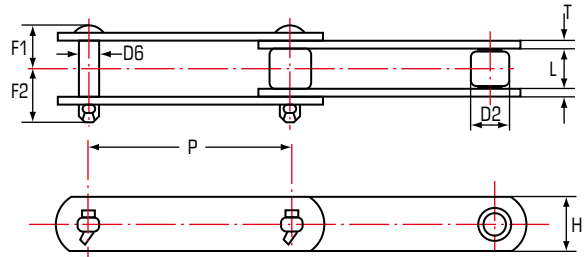
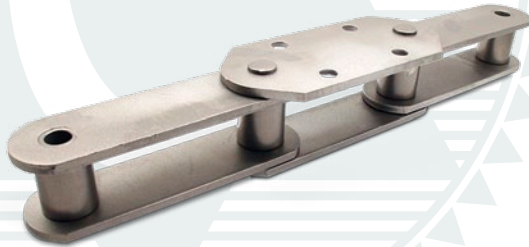
The secret of success is the employment of optimum materials and heat treatments and the incorporation of a free rotating pin which allows wear to take place on the full diameter. This reduces the wear rate, pitch extension and therefore extends service life.



Central Chain for High Output Bucket Elevators

Chain Number	Pitch	Pins Diameter	Bushings Outside Dia.	Between Sidebars	Sidebars Thickness	Average Ultimate Strength
	P	D6	D5	L	S	
			mm			Kg
JKE 1778 110	177.8	40	58	70	18.5	112,000
JKE 180 200	180	50	80	106	20	204,000
JKE 180 150	180	40	66	100	22	153,000
JKE 200 80	180	38	55	85	15	81,600

King Double Strand Bucket Elevator with Side Mounted Bucket

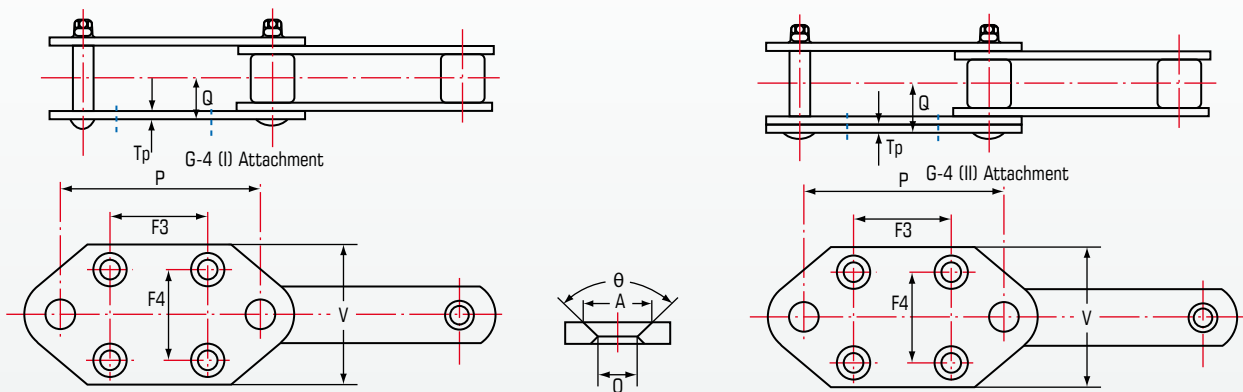


King Double Strand Bucket Elevator with Side Mounted Bucket

Chain Number	Pitch	D2	D6	L	H	T	F1	F2	Average Ultimate Strength
	P								
	mm								kg
JKR26200	200	50.8	22.2	57.2	63.5	9.5	56	61	57,500
JKR26250	250	50.8	22.2	57.2	63.5	9.5	56	61	57,500
JKR26300	300	50.8	22.2	57.2	63.5	9.5	68.5	61	57,500
JKR36250	350	57.2	25.4	66.7	76.2	12.7	69	78	88,500
JKR36300	300	57.2	25.4	66.7	76.2	12.7	81	78	88,500
JKR36350	350	57.2	25.4	66.7	76.2	12.7	81	78	88,500
JKR60300	300	70	35.0	77	90	12.7	88	84	106,000
JKR60350	350	70	35.0	77	90	12.7	88	84	106,000
JKR60400	400	70	35.0	77	90	12.7	88	84	106,000
JKR90350	350	85	42.0	88	110	16	101.5	95.5	166,000
JKR90400	400	85	42.0	88	110	16	101.5	95.5	166,000
JKR120400	400	100	50.0	100	130	19	119.5	108	225,000

G Attachment

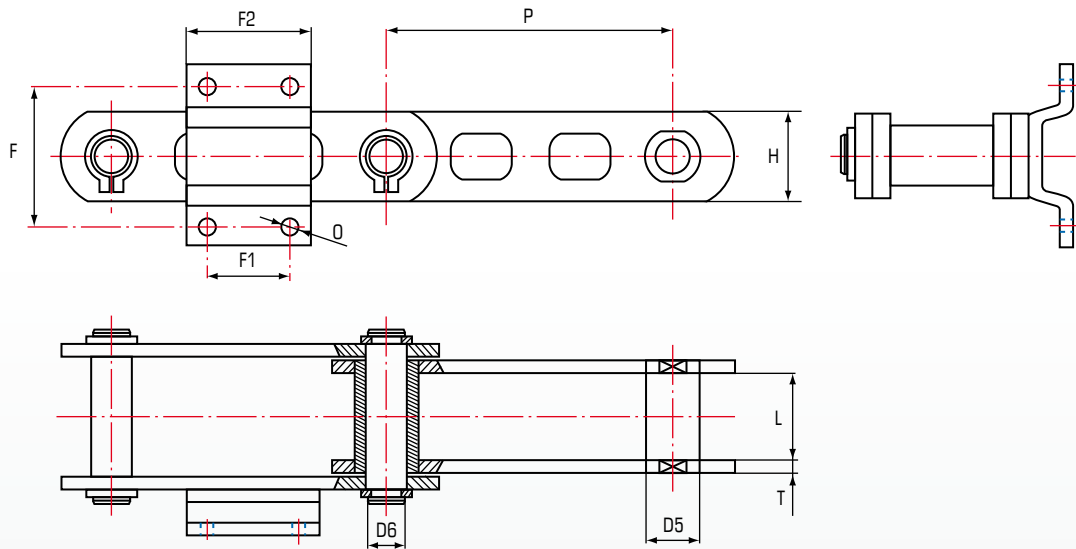
For Double Strand Elevators Kings propose their JKR series with fixed G attachments for side mounting on the buckets.



King Double Strand Bucket Elevator with Side Mounted Bucket with G Attachment

Chain Number	Pitch	V	F3	F4	Tp	Q	A	O	Bolt Diameter
	P								
	mm								
JKR26200-A	200	120	100	80	9.5	48	26	15	M12
JKR26200-B	200	120	100	80	9.5	48	26	15	M14
JKR26250-A	250	150	140	100	9.5	48	26	15	M12
JKR26250-B	250	150	140	100	9.5	48	32	19	M16
JKR26300-A	300	150	180	100	9.5	48	26	15	M12
JKR26300-B	300	200	170	140	12	60	38	24	M20
JKR36250-A	250	150	140	100	12.7	60	32	19	M16
JKR36250-B	250	150	140	100	12.7	60	32	19	M16
JKR36300-A	300	150	180	100	12.7	60	32	19	M16
JKR36300-B	300	200	170	140	12	72	38	24	M20
JKR60300-B	300	200	170	140	12	77	38	24	M20
JKR36350-B	350	240	200	170	12	72	40	28	M24
JKR60350-B	350	240	200	170	12	77	40	28	M24
JKR60400-B	400	280	230	200	16	81	50	35	M30
JKR90350-B	350	240	200	170	12	89.5	40	28	M24
JKR90400-B	400	280	230	200	16	93.5	50	35	M30
JKR120400-B	400	280	230	200	16	105.5	50	35	M30

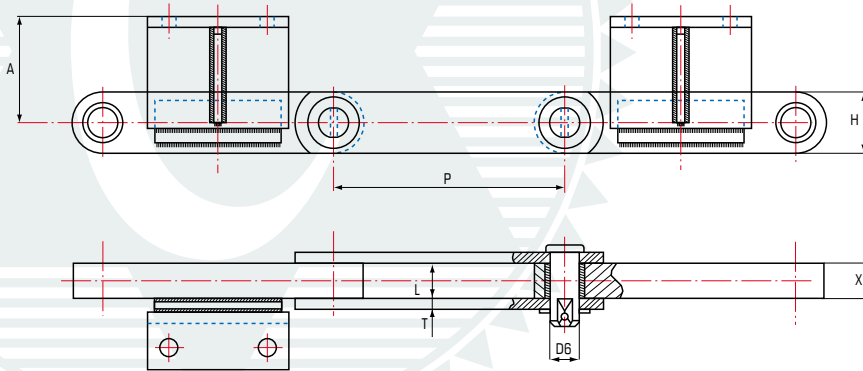
King Deep Bucket San Conveyor PL Series



King Deep Bucket San Conveyor PL Series

Chain Number	Pitch P	L	O	D5	D6	F	F1	F2	H	T	Flanged Roller	Axle Diameter	Average Ultimate Strength
	mm												kg
PL200200	200	45	14	32	22	110	60	100	50	8	50	22-28	250
PL250320	250	65	18	45	32	150	80	120	70	10	60	32-40	400
PL250480	250	67	18	50	35	150	80	120	80	12	70	35-45	630

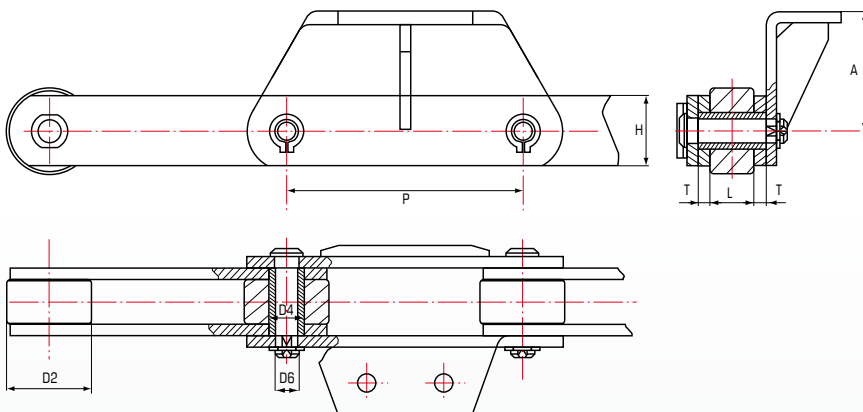
King Scraper Reclaimer SC Series



King Scraper Reclaimer SC Series

Chain Number	Pitch	L	D6	A	H	X	T	Average Ultimate Strength
	P							kg
SC250620	250	41	36	125	70	40	12	550
SC315850	315	51	42	135	80	50	15	800

King Scraper Reclaimer PH Series



King Scraper Reclaimer PH Series

Chain Number	Pitch	L	D6	D4	D2	H	T	A	Average Ultimate Strength
	P								kg
PH2501000	250	58	42	50	130	100	15	135	1250
PH3151100	315	60	36	54	130	100	15	-	1050
PH4001100	400	70	36	54	130	100	15	-	1050

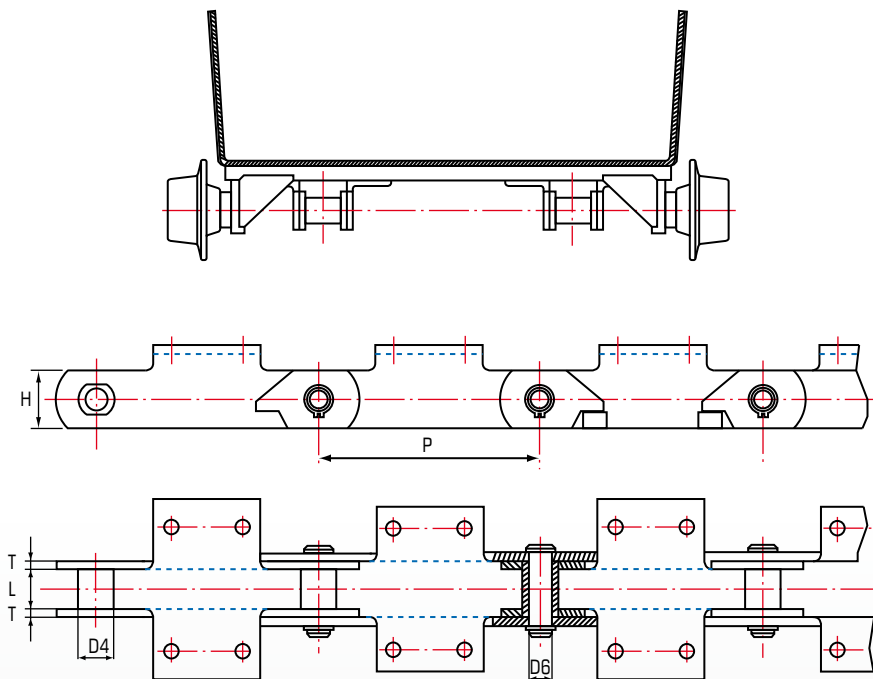
SC and PH elevator chains are typical standards employed in portal reclaimers. The purpose is to draw material from stockpiles in a controlled manner. The chains operate in double strand format made common with a plough. Typical materials conveyed include such as Limestone, Shale and Coal.



King Pan Conveyor JKP Series

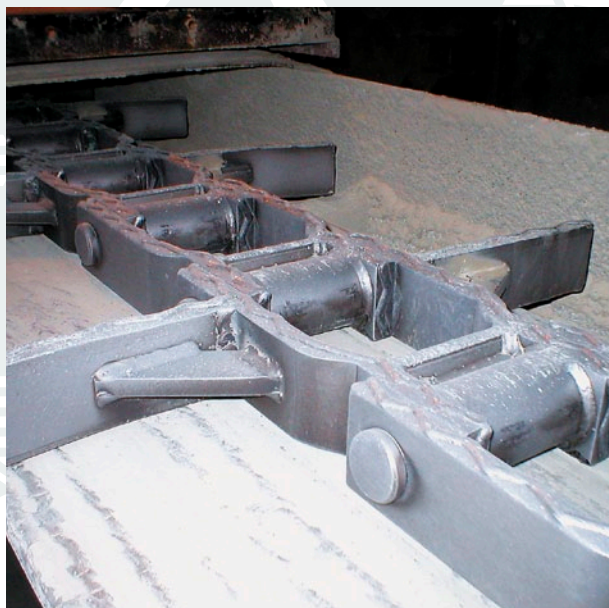


A typical means of transporting clinker is with a pan or bucket. The POL Series featured on page 9 shows a G style attachment for side mounted deep bucket location and the AM Series with K style for underside fixing to the pan. For the former it is typical to see guide rollers mounted on the chain pin or axle whilst for the latter the guide roller is generally a separate unit fixed to the pan. Clearly the chain is not directly exposed to the material which offers advantage. All types of chains within this category can be manufactured.



King Pan Conveyor JKP Series

Chain Number	Pitch P	Average Ultimate Strength kN	L	D4	D6	H	T
	mm						
JKP200150	200	140	35	26	18	45	6
JKP250250	250	250	40	32	20	60	8
JKP250350	250	315	45	36	25	65	10
JKP250400	250	350	45	40	26	70	10
JKP250450	250	350	50	42	30	70	10
JKP250500	250	630	60	44	30	80	10
JKP250650	250	800	60	44	30	80	12
JKP250850	250	600	60	54	36	90	12
JKP315	315	1500	65	44	30	90	12



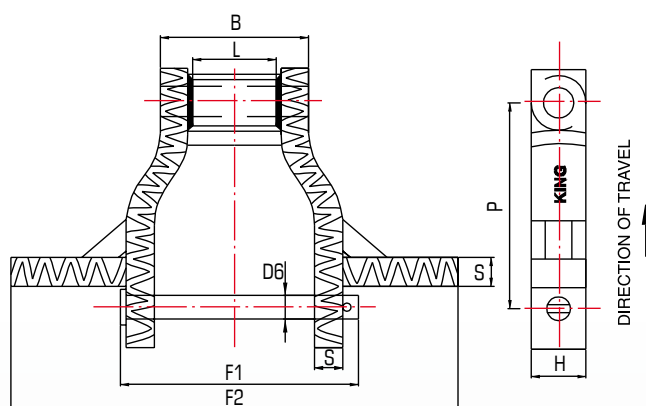
Crusader Heavy Duty Steel Drag Chains (WHX)

This welded steel option can be considered in place of cast S series drags and is ideal where conditions of high abrasion and heat prevail.

Fabricated construction with material options in flat and round section for each component allows the construction of CRUSADER to have greater consistency and integrity.

The crusader series employs optimum materials and heat treatment conditions to ensure good resistance to shock loading and extended service life. Square edged wing and link plate section creates increased conveying efficiency and transport of a deeper bed of material.

Hard face welding on all sliding and wear surfaces is standard. A typical weld surface of 60 HRC and with heavy weld bead gives CRUSADER excellent sliding wear resistance in cold and hot clinker applications.



Crusader Heavy Duty Welded Steel Drag Chains

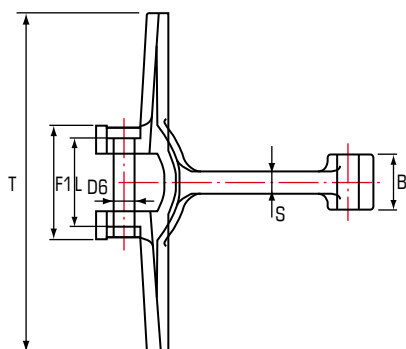
Chain Number	Pitch	Average Ultimate Strength	Average Weight	Over-All Pin & Cotter	Width Over-All	Between Sidebars	Sidebars		Rivets Diameter	Length of Bearing
	P			F1	F2*	L	Thickness	Height	D6	B
	inches	lbs	lbs/ft				inches			
WHX5157	6.05	175,000	25.31	6.94	8 to 14	2.75	0.63	2.50	1.13	4.63
WHX6067	9.00	225,000	30.43	8.19	10 to 26	3.63	0.75	2.50	1.25	5.50
WHX5121	9.00	275,000	40.47	9.75	10 to 30	3.63	1.13	2.50	1.25	6.31
WHX6121	9.00	275,000	40.47	9.75	10 to 30	3.63	1.13	2.50	1.25	6.31

* In increments of 2".

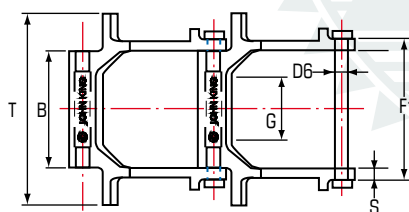
Note: Breaking loads based on standard specification. For elevated temperatures this specification may change and with it the breaking load. Please consult John King technical. The types illustrated are typical but many other versions which are variations on those illustrated are available

European Standard Cast Link Drag Chain (JKD)

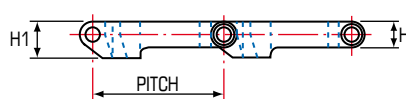
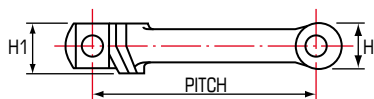
John King's tradition is in manufacture of Cast Link Chains in irons and steels. This was the chain construction originally employed in the John King product in the early days of the business and although other standards have become predominant remains an important part of the programme in the present day production. For further information on material options visit the website Material specifications 18.6 Cast Link Chains – John King irons and steels.



JKT STYLE



JKD STYLE



European Standard Cast Link Drag Chain (JKD)

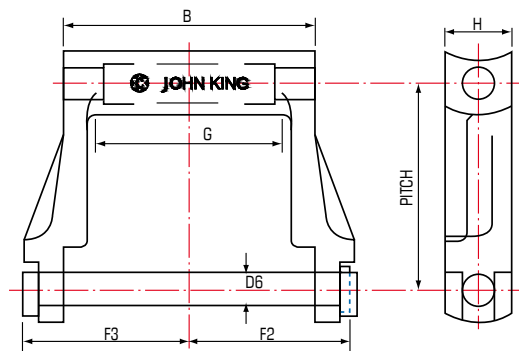
Chain Number	Style	Pitch	Average Ultimate Strength	Approximate Average Weight	Width	Width over flight	Bearing Length	Sidebars		Overall Height	Pins Dia.	Gearing width			
		P			F1	T		B	Thickness				Height	S	H
		mm			kN	kg/m		mm							
JKT150/40/T125	T	150	250	13.2	86	125	40	15	40	50	18	64			
JKT200/50/T200	T	200	250	13.3	100	200	49	20	40	44	18	76			
JKT200/50/T300	T	200	250	18.3	100	300	49	20	40	44	18	76			
JKT225/50/T250	T	225	550	35.8	122	250	50	25	60	60	25	87			
JKD200/180/T250	D	200	250	22.0	222	250	180	15	40	55	19	96			
JKD200/180/T300	D	200	250	23.5	222	300	180	20	40	55	18	96			
JKD200/180/T315	D	200	250	26.5	225	315	180	16	40	53	18	106			
JKD200/180/T600	D	200	250	37.0	232	600	180	15	40	55	19	110			
JKD200/220/T450	D	200	550	51.0	285	450	220	20	50	60	25	154			
JKD200/220/T500	D	203.2	550	59.0	290	504	222	21	48	61	25.4	163			
JKD200/285/T650	D	203.2	750	82.0	375	650	285	26	60	80	30	410			
JKD200/200/T350	D	215	550	30.0	254	345	196	18	42	42	25	123			
JKD203.2/180/T302	D	203.2	275	24.5	222	302	180	20	40	52	20	127			
JKD203.2/222/T504	D	203.2	550	59.0	290	504	222	31	48	61	25.4	163			
JKD203.2/285/T500	D	203.2	620	72.5	375	500	285	40	60	80	30	163			
JKD203.2/285/T600	D	203.2	620	78.0	375	600	285	40	60	80	30	163			
JKD215/200/T302	D	215	550	32.0	254	345	200	18	42	–	25	125			
JKD230/220/T320	D	230	700	36.0	320	320	216	30	60	60	28	156			
JKD230/220/T450	D	230	400	44.5	290	450	220	32.5	50	60	25	165			
JKD250/230/T450	D	250	1250	78.0	312	450	228	22	90	90	36	152			
JKD270/380/T650	D	271	1500	146.5	506	650	380	37	90	105	50	290			
JKD280/180/T300	D	280	250	20.0	215	300	180	15	40	55	20	110			
JKD300/380/T450	D	300	1200	120	465	450	380	40	70	85	35	310			
JKD300/380/T600	D	300	1200	135	465	600	380	40	70	85	35	310			
JKD400/580/T800	D	400	1400	145	690	800	580	55	105	135	45	578			



Proof testing of cast chains is carried out as a matter of routine to ensure total product integrity.



American Standard SD type Cast Link Drag Chain (SD)

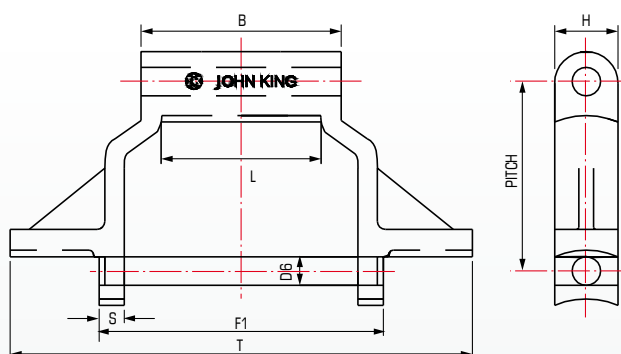


American Standard SD type Cast Link Drag Chain (SD)

Chain Number	Pitch	Average Ultimate Strength	Working Load	Average Weight Per Foot	End Pin to C/L	Head Pin to C/L	Bearing Length	Sidebars	Pins	Gearing Width		
	P				F2	F3		B	Height		Diameter	
									H		D6	G
									inches		lbs	
SD21	9.00	182.30	23.400	46.80	8.31	8.06	12.44	3.50	1.25	9.50		
SD23	9.00	172.80	23.400	41.80	6.00	6.00	8.44	2.50	1.25	5.75		
SD27	9.00	160.50	20.100	30.70	5.06	4.81	6.87	2.50	1.13	4.25		
SD28	9.00	139.40	17.600	26	8.13	8.00	12.81	2.13	0.88	10.13		
SD29	9.00	139.40	17.600	20.80	6.13	6.00	8.81	2.13	0.88	6.75		

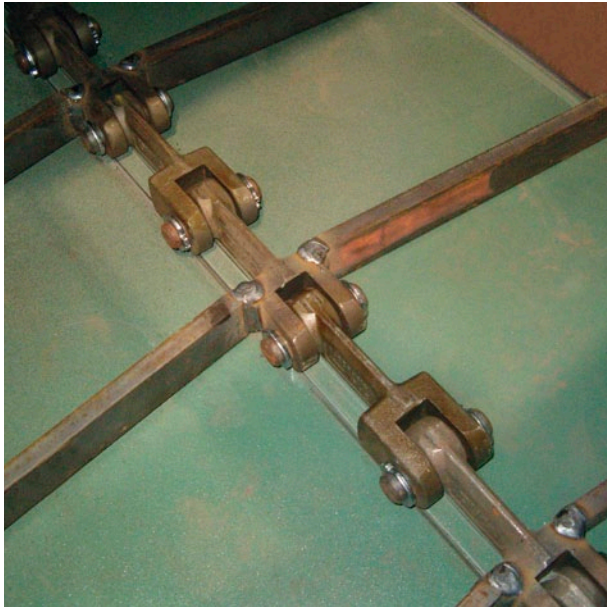


American Standard S type Cast Link Drag Chain (JKS)



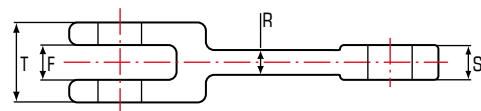
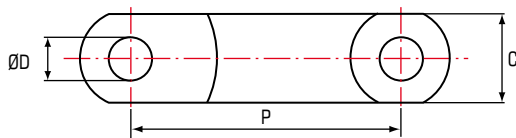
American Standard S type Cast Link Drag Chain (JKS)

Chain Number	Pitch	Average Ultimate Strength	Working Load	Average Weight Per Foot	Width	Overall Flight	Bearing Length	Sidebars		Pins	Gearing Width
	P				F1	T	B	Thickness	Height	Diameter	
								S	H	D6	
								inches	inches		
JKS5157	6.06	144.60	18,200	25.31	6.81	8.14	4.63	0.63	2.50	1.13	2.25
JKS5121	9.00	218.45	27,600	40.47	9.75	10.30	6.31	1.13	2.50	1.25	3.63
JKS6121	9.00	218.45	27,600	40.47	9.75	10.31	6.31	1.13	2.50	1.25	3.63
JKS6067	9.00	178.80	24,320	29.43	8.50	10.26	5.56	1.13	2.50	1.25	3.63



Forged Link Standard Series

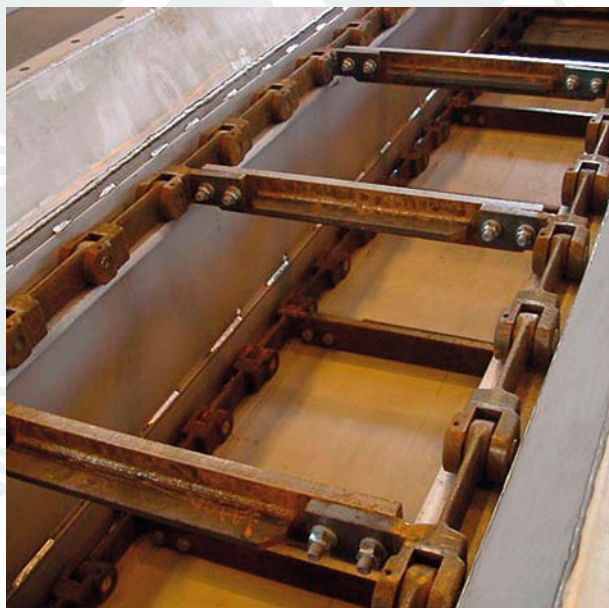
This series represents the leading product within the John King programme. Forged fork link chain has proven to be one of the most reliable conveying mediums offering a combination of versatility, strength and abrasion resistance. These chains, originally of European origin, are now established worldwide. With a wide variety of materials, heat treatments and flight formats the chain is proven in both drag and enmasse handling.



Forged Link Standard Series

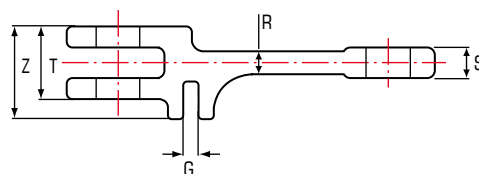
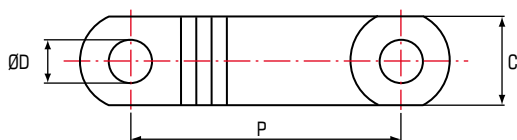
Chain Number	P	T	C	S	F	R	Bolt Hole Diameter D	Breaking Loads			Weight kg/m
								TN*	CN*	CD*	
								kN			
JKF 10160	101.6	24	36	8	10	6	14	110	120	210	3.50
JKF 10160R	101.6	30	36	13	14	9	14	180	195	330	4.80
JKF 12514	125	30	36	13	14	10	16	163	175	290	4.40
JKF 14214	142	30	40	13	14	9	18	180	195	330	4.90
JKF 14218	142	42	50	19	20	11	25	290	320	550	9.40
JKF 14222	142	54	50	25	27	16	25	370	400	655	12.20
JKF 14226	142	62	50	28	30	15	25	440	470	790	13.60
JKF 16018	160	46	46	22	24	15	22	320	342	560	9.30
JKF 16025	160	50	53	23	25	13	25	370	400	655	10.80
JKF 20025	200	60	50	25	27	18	25	380	410	670	11.30
JKF 20028	200	66	60	30	32	20	30	500	540	900	16.70
JKF 21640	216	64	72	26	28	20	35	585	630	1035	20.10
JKF 22040	220	64	72	26	28	20	35	585	630	1035	20.30
JKF 22050	220	58	75	28	30	25	32	710	760	1260	19.10
JKF 22060	220	71	75	31	33	21	35	735	790	1300	22.90
JKF 25040	250	70	75	32	34	18	32	735	860	1430	18.80
JKF 26035	260	65	75	31	33	20	32	840	900	1480	19.80
JKF 26040	260	70	75	31	33	20	32	840	900	1480	21.00
JKF 26045	260	78	75	35	37	20	32	930	1000	1650	21.80

* For further information on TN, CN and CD materials refer page 10.



Forged Link Double Series

For double strand assemblies John King have a range of links following the standard format but with a forged "double clevis" into which a scraper can be mounted. The flight blade can be retained by either a U bolt or standard fasteners. The chain allows for some built in clearance between strands which obviates any potential problems that may be associated with mismatch. Double strand allows for improved discharge particularly relevant in conveying sticky materials.

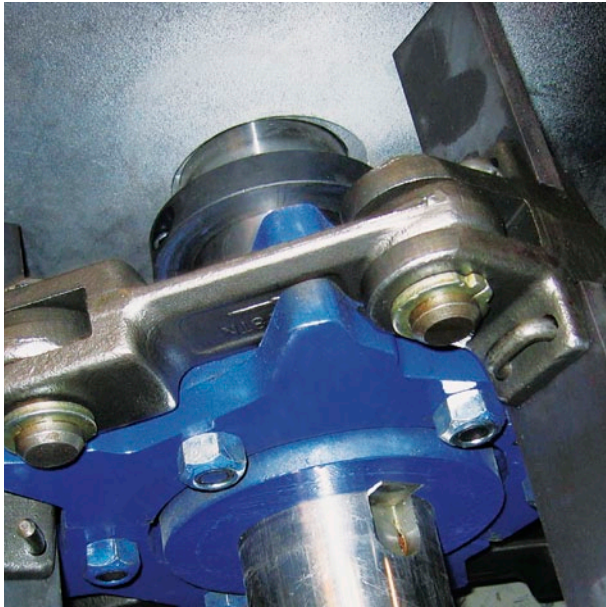


Forged Link Double Series

Chain Number	P	T	C	S	Z	G	Bolt Hole Diameter	Breaking Loads			Weight
							D	TN*	CN*	CD*	
	mm							kN			kg/m
JKF 142182	142	42	50	19	70	13	25	290	320	550	11.80
JKF 142262	142	62	50	28	87	13	25	440	470	790	16.70
JKF 160252	160	50	53	23	82	13	25	370	400	655	13.60
JKF 175402	175	72	60	30	95	16	30	540	580	955	20.30
JKF 200252	200	60	50	25	81	12	25	380	410	670	13.00
JKF 200402	200	70	60	30	95	13	30	540	580	955	19.30
JKF 250252	250	60	50	25	81	12	25	380	410	670	12.00
JKF 250402	250	70	60	30	95	13	30	540	580	955	17.70
JKF 250602	250	100	70	45	140	21	35	975	1050	1720	35.20

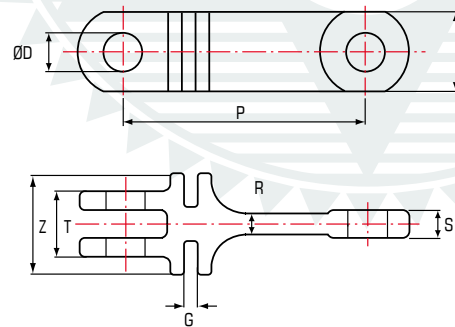
Attachment hole positions and sizes can be varied to meet customer requirements. Dimensions in metric measure.

* For further information on TN, CN and CD materials refer page 10.



Forged Link Triple Series

Where extra wide flights are required the John King triple link is available allowing, in conjunction with the double on perimeters, three chain strands up to 3100 mm overall. In addition the "Double slot" allows for a versatile means of flight retention for both steel & plastic options. Retention can be either U clips or standard fasteners.



Forged Link Triple Series

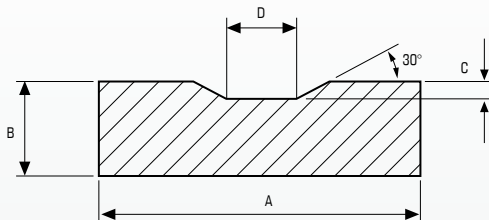
Chain Number	P	T	C	S	Z	G	Bolt Hole Diameter D	Breaking Loads			Weight kg/m
								TN*	CN*	CD*	
								kN			
JKF 142183	142	42	50	19	92	13	25	290	320	550	14.20
JKF 142263	142	62	50	28	112.3	13	25	440	470	790	19.80

Attachment hole positions and sizes can be varied to meet customer requirements. Dimensions in metric measure.

* For further information on TN, CN and CD materials refer page 10.

High Manganese Wear Rail

The standard recommendation for forged chain wear rail is manganese steel, an austenitic structure, offering unique work hardening properties. In its rolled condition it offers a hardness value of 200-220 Bnh increasing up to 600 Bnh if the optimum conditions prevail.

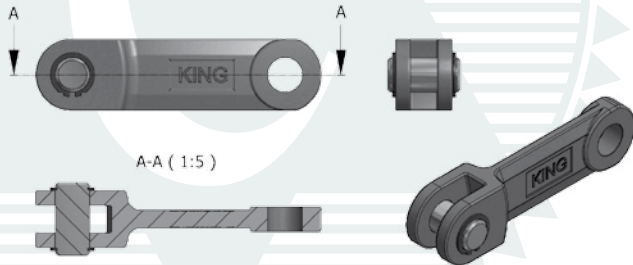


Material	DIN	Hardness	Standard Length
120mn12	1.3401	200-220 Bnh	3000mm -0/+5

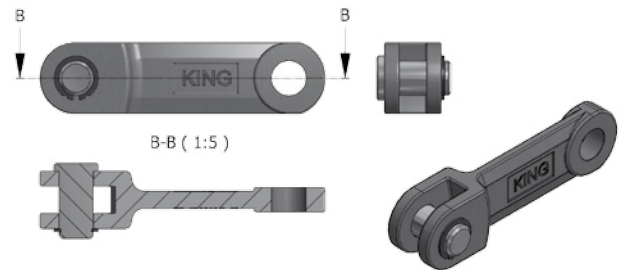
	A	B	C	D
	mm			
49/2510	25.0	10.0	2.0	5.0
49/4010	40.0	10.0	2.0	5.0
49/5010	50.0	10.0	2.0	5.0
49/6012	60.0	12.0	3.0	6.0
49/6020	60.0	20.0	3.0	6.0

Pin styles

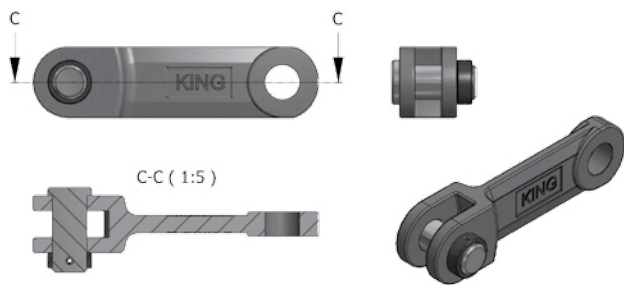
Type 22 – Standard double circlip



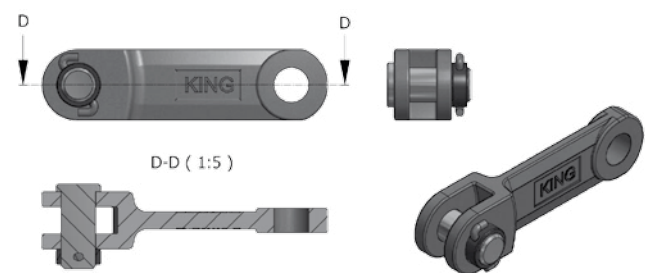
Type HD/22 – Headed pin with standard circlip



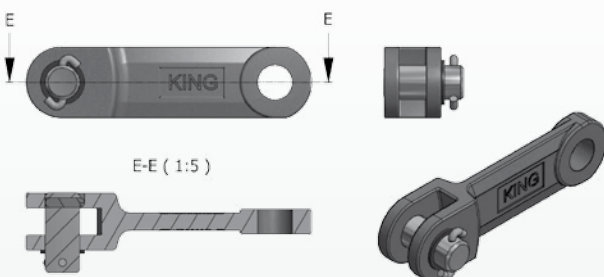
Type HD/45/28RP – Headed pin with collar and roll pin retention



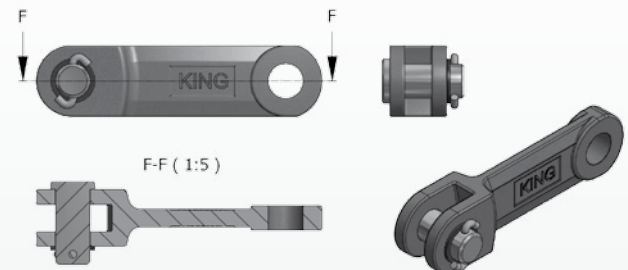
Type HD/45/28S – Headed pin with collar and S cotter retention



Type SN/28S – Antirotation snub pin washer and S cotter retention



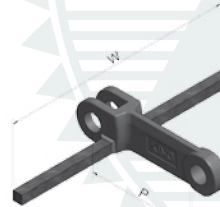
Type HD/28S – Headed pin with washer and S cotter retention



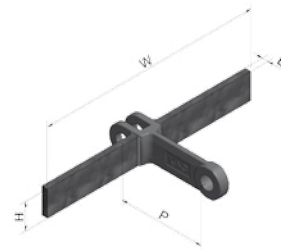
Note: Where S cotters are employed split cotters can be used as an alternative.

Flight attachment options

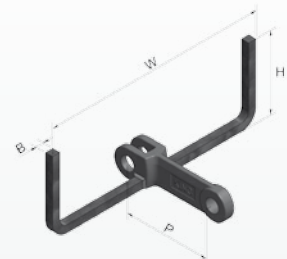
B Type Flight Attachments for Horizontal Conveying



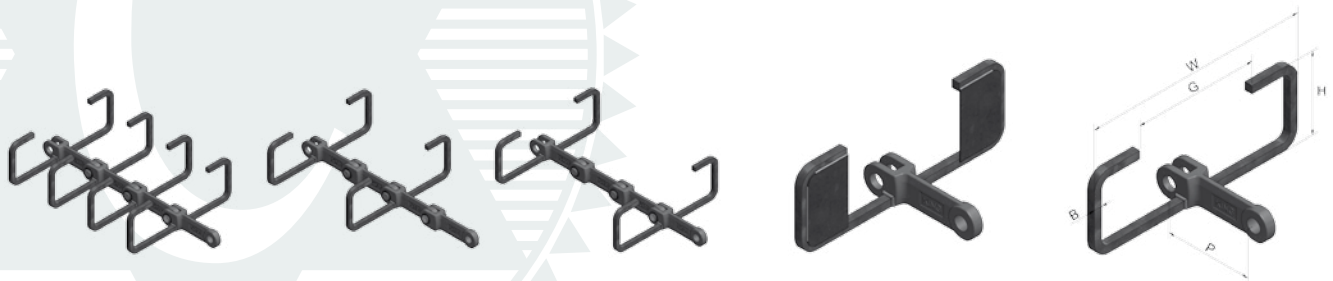
T Type Attachments for Horizontal and Slightly Inclined Conveying



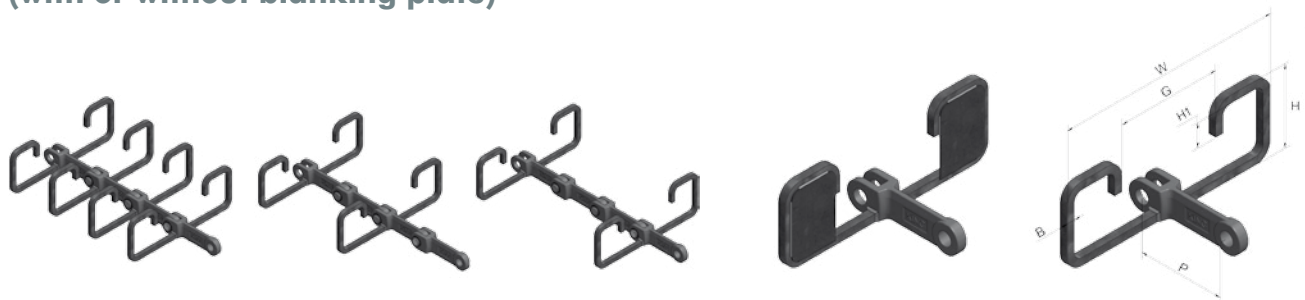
U Type Attachments for Horizontal and Inclined Conveying (with or without blanking plate)



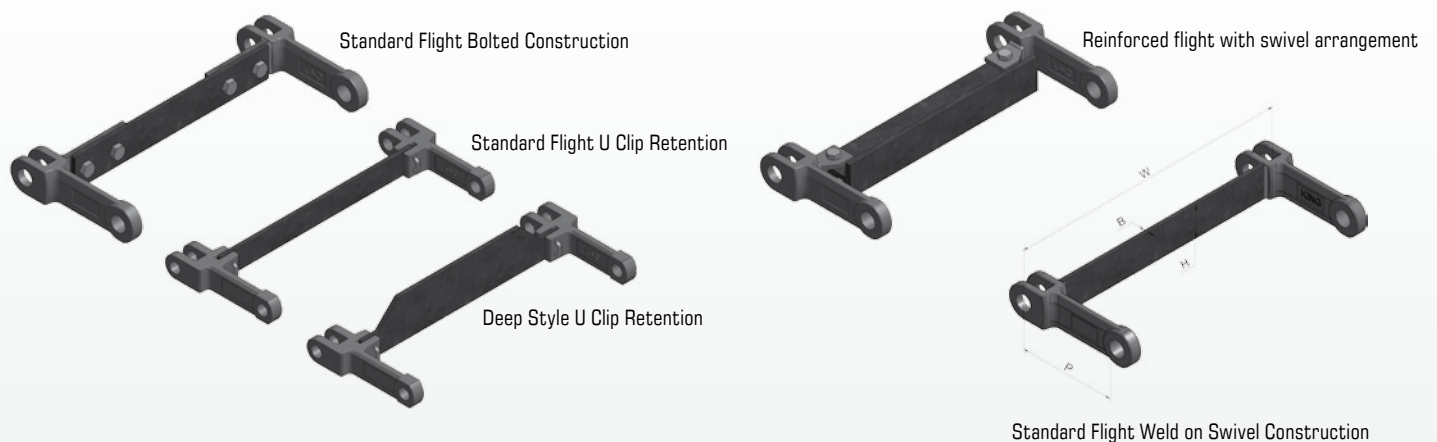
C Type Attachments for Horizontal, Inclined and Vertical Conveying (with or without blanking plate)



OO Type Attachments for Horizontal and Inclined Conveying (with or without blanking plate)



Double Series Flight Options I Format





By Royal Charter

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

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

Holds Certificate Number:

FM 77342

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 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:

Andrew Launn, EMEA Systems Certification Director

Original Registration Date: 2003-11-15

Latest Revision Date: 2018-06-29

Effective Date: 2018-07-25

Expiry Date: 2021-07-24

Page: 1 of 1



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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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