



**JOHN KING**

Conveyor Chains & Sprockets Worldwide

# Cereals Processing and Feed Milling Chains.



## Material Processing Solutions Since 1926.

Rev26.02.2024  
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**Get in Touch With Us**

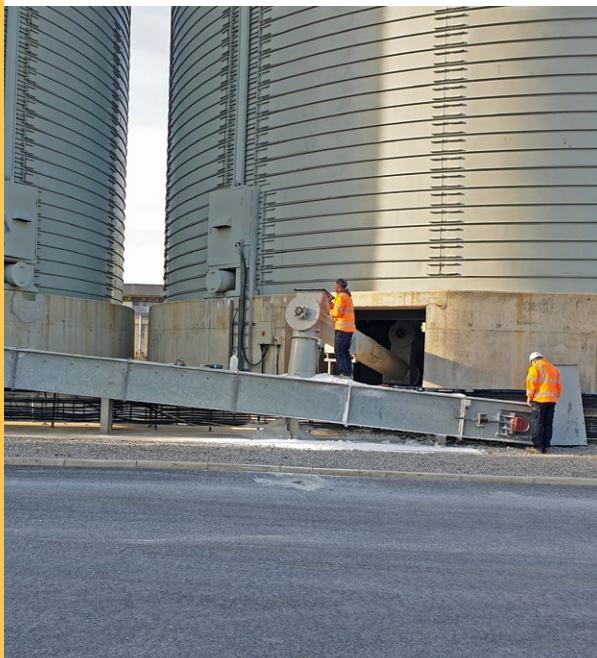
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ENGLAND

**or Call Us by Phone**

**+44 1977 681 910**

# From Survey to Drawing to Production to Installation Your integrated supply partner.

The special considerations in maintaining plant and equipment in the food production environment are well understood. There is an ongoing requirement to ensure cleanliness, avoid contamination and respect the special demands of working in hygiene critical environments. John King Chains group capabilities and expertise are uniquely equipped to serve the industry with a full spectrum of essential off and onsite engineering services ensuring customers equipment is in the best condition to maintain essential processes.



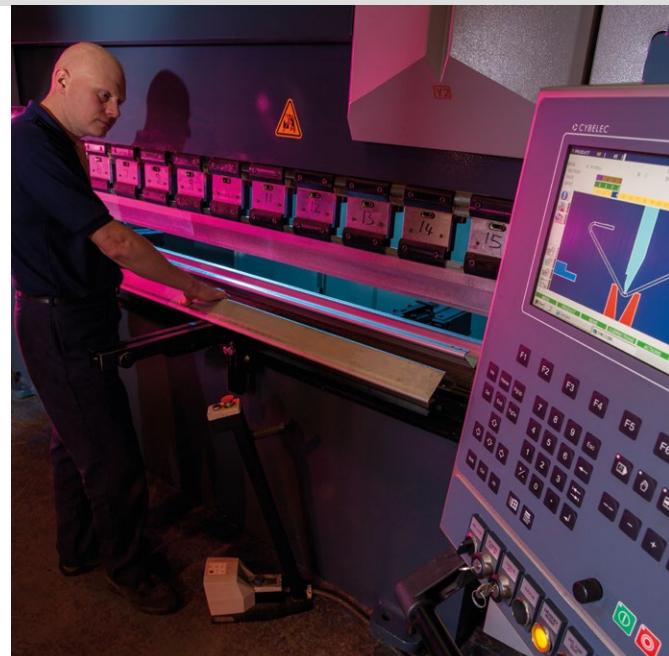
## Inspection, Survey and Consultation.

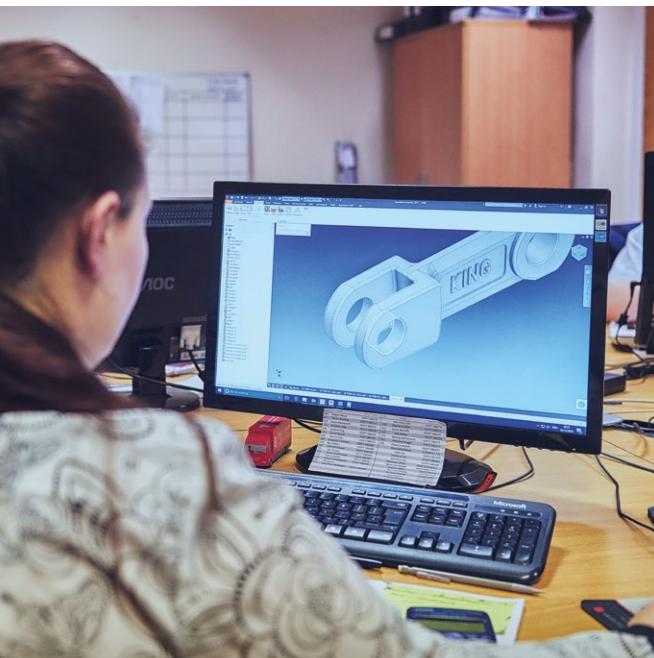
As part of the supply package, qualified engineers will come to site and inspect items of plant and equipment to establish and report on the condition. Subsequent consultation generally includes means for improvement such as: materials employed, design, construction, implementation, additional operation and maintenance advice.



## Industry Leading Steel Processors.

With decades of in-house experience in metal processing and fabrication, we use the latest technology and techniques to deliver quality, bespoke solutions for our clients. From laser cutting to punching, bending and welding our skilled team will deliver a high-quality solution that is both on time and within budget.





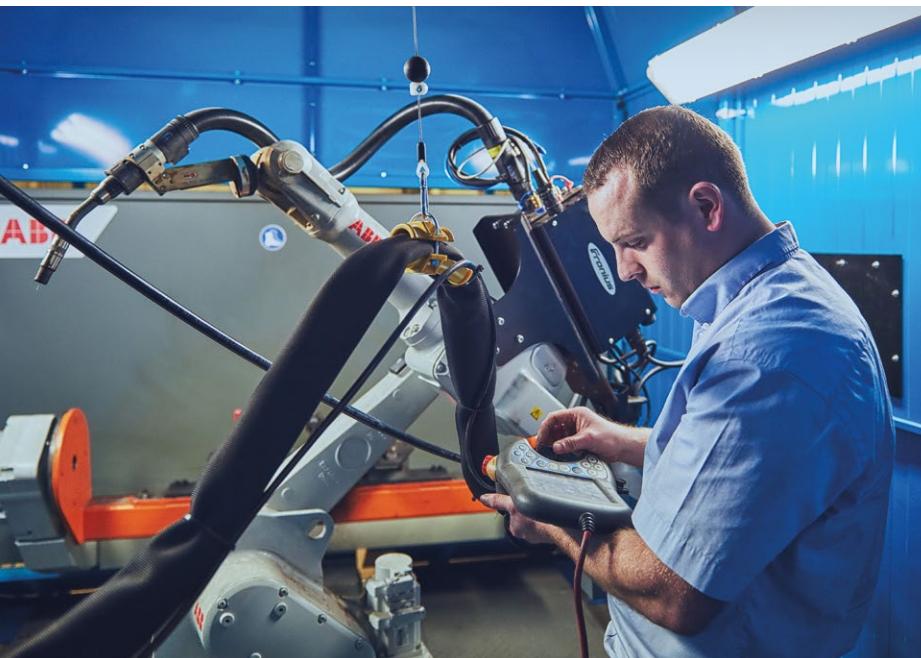
## Design and Drawing Service.

Design and technical drawing are part of our service. We create the technical drawing directly from our site survey or work with you to create a complete design brief to meet your fabrication needs. We will support you in developing and improving the plant and equipment.



## Fully Integrated Installation.

Our site service team, comprising experienced mechanical fitters and fabricators will install all types of mechanical handling equipment, metal fabrications and equipment at your premises in the agreed timescale with a high degree of competence while operating under strict safety protocols.



# The Undisputed Kings of Laser Profiling and Fabrication.



## FROM SURVEY TO DRAWING TO PRODUCTION – THE ONE-STOP SHOP

**John King Laser** was established in 2007 primarily to service the mechanical handling division. It was well understood that the available capacity surpassed that of in-house requirements and the business model from the outset was to sell laser-cut, formed and fabricated parts to a wide variety of customers, producing a wide range of machinery and equipment.

More recently, John King Laser has been able to support the groups' site service division, where bespoke fabrications have been required.

The laser division has remained autonomous from the start while critically benefitting as part of the Group structure in investing in new technology to give the division a distinct advantage in product efficiency and quality. The recent installation of the latest and probably best laser capacity in the country is a testament to this.

## Manufacturing Capabilities.

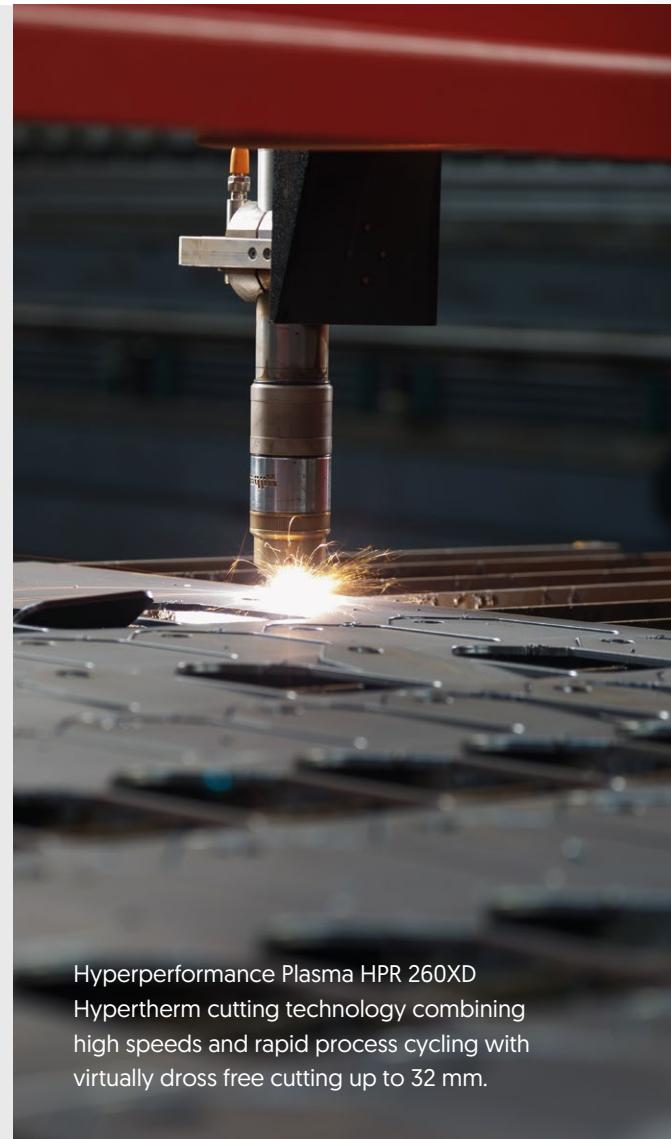
The 2020s business is a lean enterprise working from a modern manufacturing facility employing the best production techniques including fiber laser technology, plasma for thicker material sections, CNC machining and robotics. Group structure provides the internal resources to implement production management systems that ensure the highest quality, consistent and competitive products produced in a safe environment. All manufacturing is conducted within the dictates of ISO 9001 to the latest 2015 standard to ensure quality objectives are monitored and maintained.

### LASER CUTTING CAPABILITIES

- Mild and carbon steel up to 25 mm.
- Stainless steel up to 15 mm.
- Aluminium up to 12 mm.

### FLAME CUTTING AND PLASMA CUTTING CAPABILITIES

- Machine bed size of 4 m x 2.5 m.
- Flame cutting up to 110 mm.
- Plasma cutting up to 30 mm.



Hyperperformance Plasma HPR 260XD  
Hypertherm cutting technology combining high speeds and rapid process cycling with virtually dross free cutting up to 32 mm.



Trulaser 3040 Fibre laser with increased 4000 x 2000 bed size including integrated lift master and plate storage tower for unrivalled efficiency in parts production.



## Press Technology.

In support of our impressive range of flatbed processing capabilities, we operate CNC Synchro press brake machines capable of pressing parts with capacities up to and including 220 tons and 4000 mm in length. With smaller machines with 2000 mm gap and 100 mm stroke for smaller parts in higher volume production.



## Welding and Fabrication.

Our welding and fabrication capacity includes a high level of skill in both internal and external projects. This enables John King's laser and fabrication division to offer an all-encompassing manufacturing service. The site service division will thereafter take charge of the installation as required.

Ash hopper during fabrication as a direct replacement to an existing unit.



Replacement conveyor sections reproduced on a like for like basis.



A new precipitator dust conveyor during manufacture and prior to entering the paint shop.



Chute sections to make up a full arrangement ready for site service installation.



# Site Services

## The Complete Supply Package.



### Bulk handling experts you can rely on.

The John King Site Service Division employs a highly skilled team of engineers solely dedicated to the **service and maintenance of bulk material handling equipment**, which includes – installing, servicing and maintaining all aspects of mechanical handling equipment and related plant and machinery.

The market demands **high-quality chains** and **expert installation**. John King Chains uniquely **offers both**. Make the most of it.

- **Secure optimum equipment reliability** through **best-quality chains** and **conveyor component** spares.
- Take advantage of **the quickest deliveries of conveyor spares** of any manufacturer in the market.
- Let **the conveyor specialist** look after your equipment to ensure **optimum performance** and **service life**.
- Allow us to highlight technical improvements **to enhance the performance of your existing equipment**.
- Enter into **a professional partnership** to develop a service strategy tailored to your needs.





## Site Services Scope of Supply.

- **Inspection and maintenance** of all mechanical handling equipment by specialist engineers
- **Troubleshooting** and problem-solving within mechanical handling equipment.
- **Supply of high-quality conveyor chains** and related conveyor spares.
- **Specialist in the supply of heat resistant components.**
- **In-house laboratory** for material and heat treatment analysis with full metallurgical support.
- **Manufacture and installation of all types of fabrications** from pre-hardened plate, stainless steels or standard materials.
- **Replacement of sections or complete conveyors and elevators** including manufacture and installation.
- **Design and construction of complete bulk handling equipment** including installation service.
- **Repair and maintenance** of all related plant and equipment.



## Safety at Work.

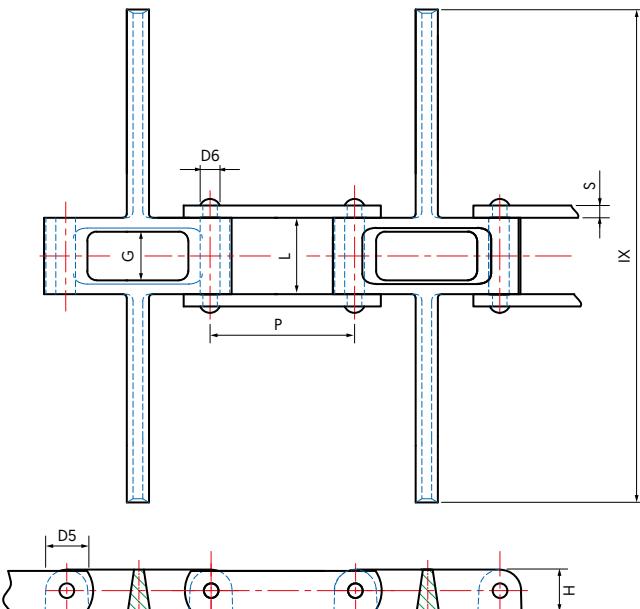
We are committed to providing and maintaining a healthy and safe environment for all employees and protecting the safety of contractors, customers, visitors and all other persons affected by our operations.

This is achieved by assessing all significant risks, designing safe work systems and eliminating hazards where reasonably practicable. **This is encapsulated within the company HSE policy and enshrined in the everyday culture of our business.**

# Cast Combination Trough Scraper Chains.



John King have been the principal producer of cast combination chains for many years. This includes the flighted version typically employed in grain conveyors with a cast integral flight. Their experience is essential in material selection which combines strength and wear resistance as well as ductility. An additional version is available on C664 and C762 where an injection moulded plastic flight is riveted to the outer link. For corrosion resistance chains can be produced with stainless steel pins, a typical example being green malt conveying.



## Cast Combination Trough Scraper Chains

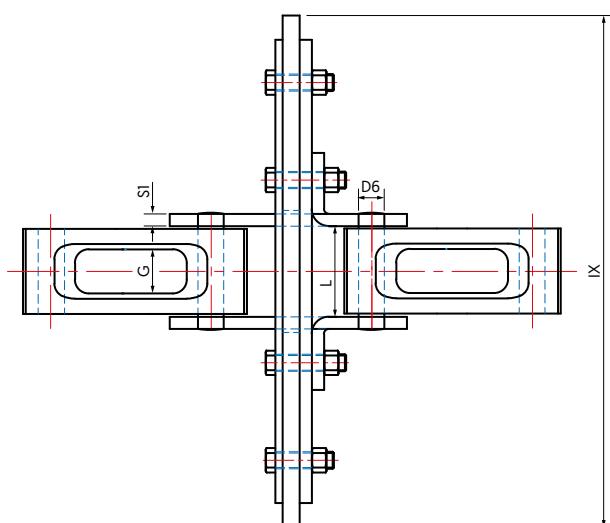
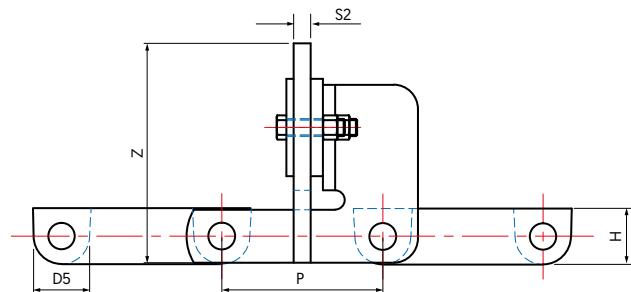
Chain Number	Pitch	Barrel	Pin	Between Sidebar	Gearing	Sidebars		Overall Width	Working Load	Average Weight
		Outside Diameter	Diameter			Thickness	Height			
		P	D5	D6	L	G	S	H	IX	
mm										
<a href="#">C586/T2X5</a>	58.6	17	8	32	20	5	16	124	6,000	2.89
<a href="#">C586/T2X8</a>	58.6	17	8	32	20	5	16	200	6,000	3.37
<a href="#">C586/T4X8</a>	58.6	17	8	32	20	5	16	200	6,000	2.87
<a href="#">C664/T2X8</a>	66.4	23	11	37	25	5	20	200	12,000	5.24
<a href="#">C664/P2X8 *</a>	66.4	23	8	37	20	5	16	200	12,000	3.89
<a href="#">C664/T2X9</a>	66.4	23	11	37	25	5	20	220	12,000	5.90
<a href="#">C762/T2X12</a>	76.2	32	14	43	26	6	30	290	24,000	10.86
<a href="#">C762/P2X12 *</a>	76.2	32	14	43	26	6	30	290	24,000	7.86
<a href="#">C762/T2X15</a>	76.2	32	14	55	35	6	30	370	24,000	11.80

NR – Noise Reduction feature with deep link plate.  
\* P – Molded engineering plastic flight riveted to outer link in place of cast flight. Available on C664 and C762.

# Combination Elevator Chains.

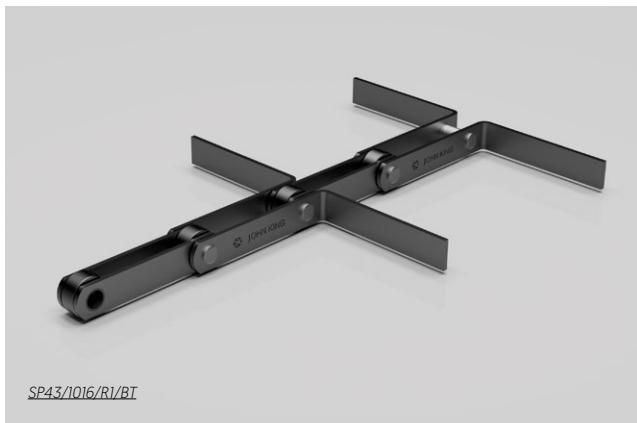


For grain elevators where the product is transported from the horizontal up a "swan neck" this is commonly seen to employ the cast combination chain with an F attachment. To the attachment a wiper blade is fixed which acts as the conveying medium. Three standards are typical as OEM replacements, but a variety of widths can be produced if so required.

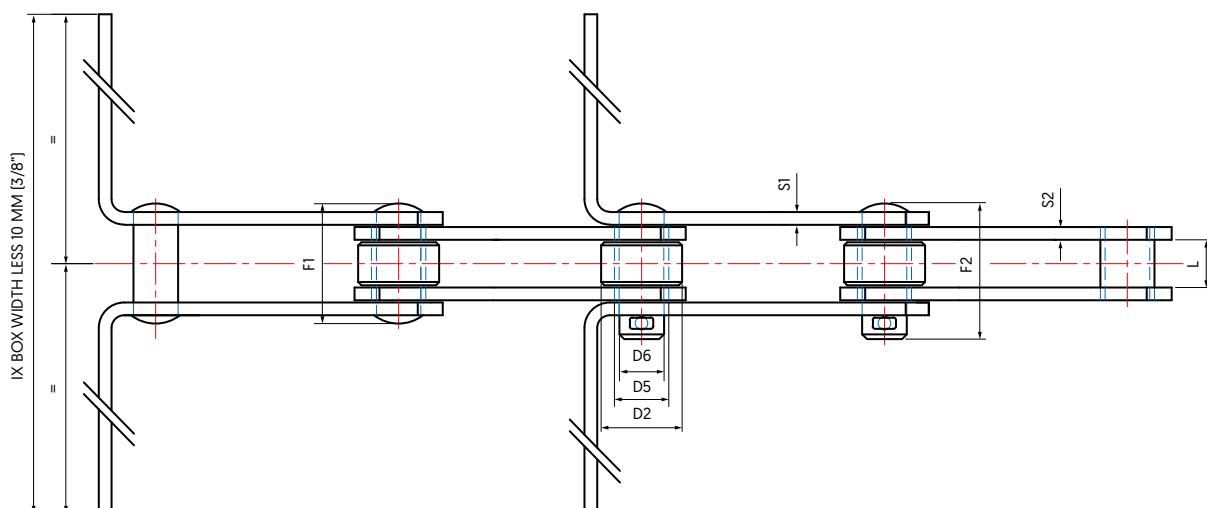
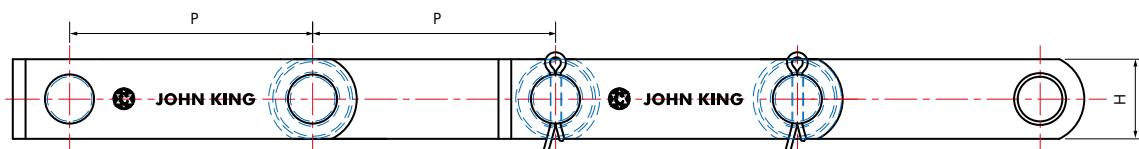


Chain Number	Pitch	Combination Elevator Chains										
		Barrel	Pin	Between Sidebars	Gearing	Sidebars			Overall Width	Overall Flight Height	Breaking Load	Average Weight
						S1	S2	H				
	P	D5	D6	L	G	mm			IX	Z	lbs	kg/m
<b>C664/F4X190</b>	66.4	23	11	37	25	5	8	20	190	90	12,000	6.98
<b>C664/F4X210</b>	66.4	23	11	37	25	5	8	20	210	90	12,000	7.12
<b>C762/F4X280</b>	76.2	32	14	43	30	6	10	30	280	115	24,000	12.8

# Flush Roller Box Scraper Chains.



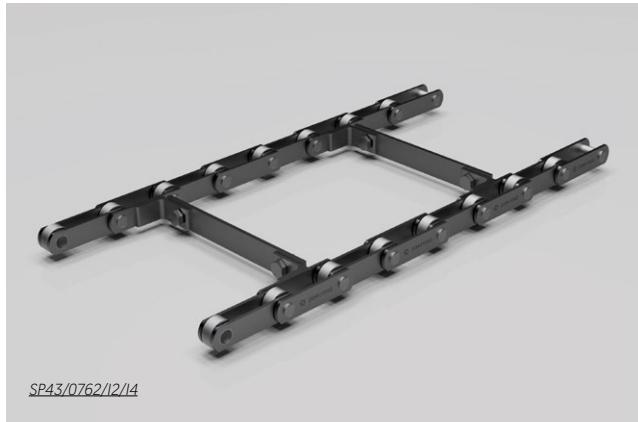
This series conforms to the British standard BS 4116 in all areas apart from D roller diameter. In this case the chain employs a flush style roller which is equivalent in diameter to the link plates height. This flush roller is not therefore a carrier style but will allow for improved sprocket gearing action as compared to a bush style chain. Flights are normally BT style being bent integral, but WT the welded version are also an option. OEM standards follow fixed IX dimensions being the overall flight width. Other options are available on request.



\* Heat treated sidebars – double strength.  
\*\* Flight width IX to suit customer requirements.

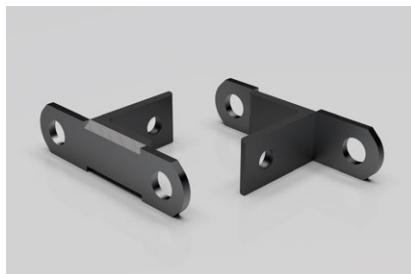
Chain Number	Pitch	Rollers		Bushings		Pins Outside Diameter	Over-All Pin & Cotter	Between Sidebar	Sidebars		Overall Width	Breaking Load		Average Weight
		D2	D5	D6	F1				L	S1	S2			
	mm											kN	kN*	kg/m
	SP43/0762/R1/BT	76.2	25.4	17	14	37	42	15	4	4	25	TBA**	43	70
SP43/1016/R1/BT	101.6	25.4	17	14	37	42	15	4	4	25	TBA**	43	70	TBA
SP75/1016/R1.5/BT	101.6	38.1	23.6	19	43	50	19	5	4	40	TBA**	75	125	TBA
SP75/1524/R1.5/BT	152.4	38.1	23.6	19	43	50	19	5	4	40	TBA**	75	125	TBA

# Twin Trace Roller Chains.

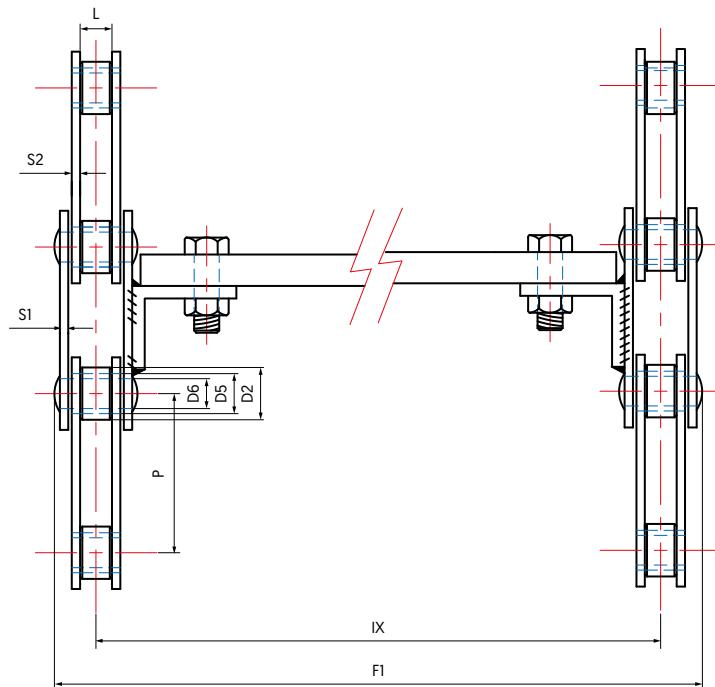


This format is a popular choice in milling applications. Chains conform to British standard BS 4116 and operating in twin strand format with strands made common with a flight bar bolted to a welded angle iron L style attachment. Often described as shrouded chain it is encapsulated within a channel form as part of the conveyor panel profile and as such is separated from the material. Clearly the UTS is double that of single strand. The real advantage is an open discharge area which is beneficial for sticky materials and reduction in carry over.

## John King's relieved plate



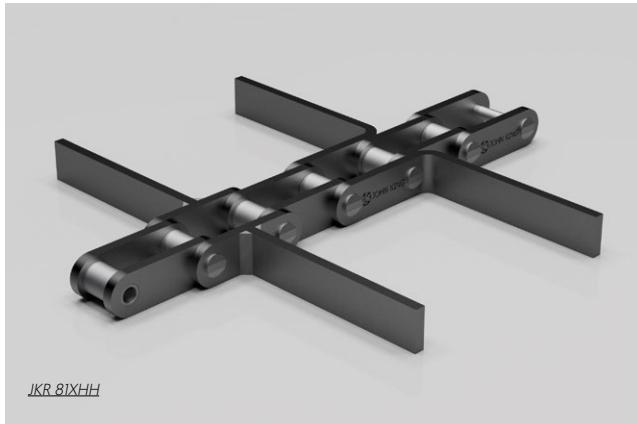
John King's unique relieved plate allows for maximum integrity flush weld with minimum weld projection beyond the angle. This ensures flatness and ensures the weld is not exposed to wear and premature failure.



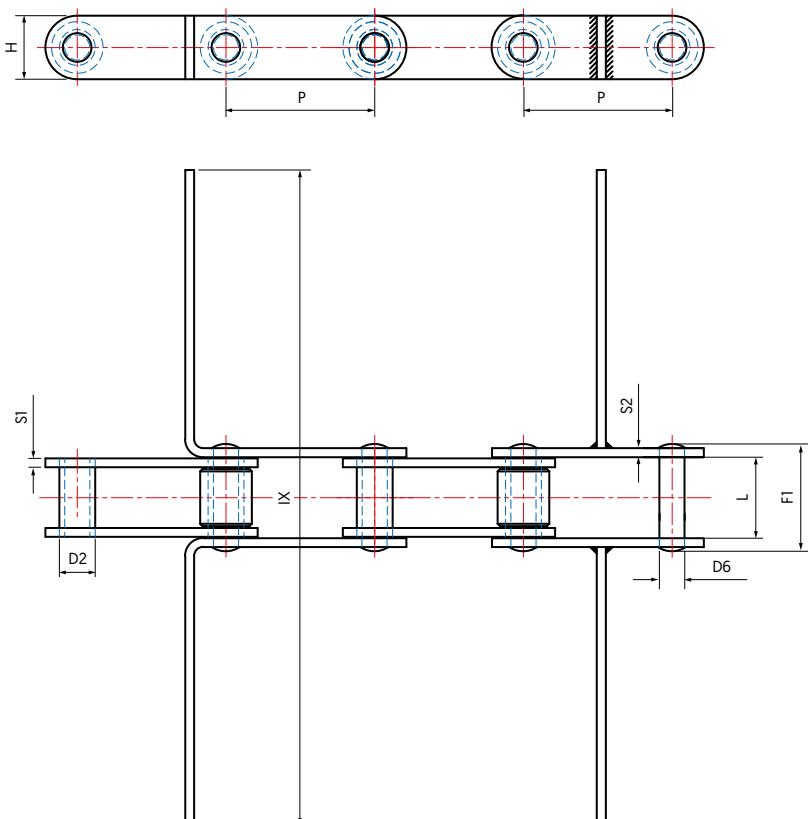
Chain Number	Pitch	Twin Trace Roller Chains										Breaking Load Per Strand	Average Weight		
		Rollers		Bushings		Pins		Overall Width		Between Sidebar	Sidebars				
		Outside Diameter		Diameter							Thickness				
	P	D2	D5	D6	IX	F1	L	S1	S2	H			kg/m		
SP43/0762/12/14	76.2	31.75	17	14	TBA**	IX + 37	15	4	4	25	43	70	TBA*		
SP43/1016/12/14	101.6	31.75	17	14	TBA**	IX + 37	15	4	4	25	43	70	TBA*		
SP75/0762/12/14	76.2	47.6	23.6	19	TBA**	IX + 43	19	5	4	40	75	125	TBA*		
SP75/1016/12/14	101.6	47.6	23.6	19	TBA**	IX + 43	19	5	4	40	75	125	TBA*		
SP135/1016/12/14	101.6	66.7	33	26.9	TBA**	IX + 56	25.4	7	5	50	135	200	TBA*		
SP135/1524/12/14	152.4	66.7	33	26.9	TBA**	IX + 56	25.4	7	5	50	135	200	TBA*		

\* Weight per metre based on dimension IX therefore to be advised.  
 \*\* Flight every outer link. **I4** Flight every second outer link.  
**I2** Flight width IX to suit customer requirements.

# 81X Chains 'The Grain Chain'



Worldwide the most common running gear encountered is the American Series Roller Chain 81X. This we therefore describe as the GRAIN CHAIN. It is always 2.609" pitch (66.27 mm). As operational duty has increased with it has the demand for a heavy duty version. This has been achieved by increasing the height and thickness of the side plates, although maintaining the same gearing details. Where necessary therefore the heavier versions can be used to upgrade existing equipment. Flights are normally WT the welded version, but John King uniquely offer BT style being bent integral produced to customer standards.



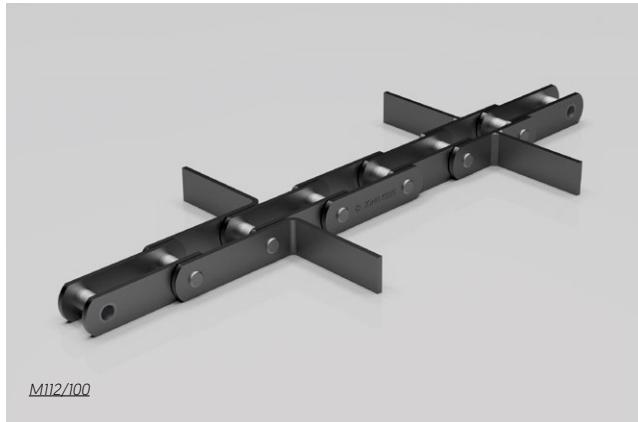
## 81X Chains 'The Grain Chain'

Chain Number	Pitch	Rollers	Pin	Over-All Pin	Between Sidebar	Sidebar			Overall Width	Tensile Strength		
		Outside Diameter	Diameter			Thickness		Height				
			P	D2	F1	L	S1	S2	H	IX		
											kN	
JKR 81X	66.27	23	11.11	47.2		27		4	4	28.58	TBA*	111
JKR 81XH	66.27	23	11.11	58.2		27		7.94	5.56	31.75	TBA*	176
JKR 81XHH	66.27	23	11.11	63.5		27		7.94	7.94	31.75	TBA*	186

\* Flight width IX to suit customer requirements, Flight Options. **WT** denotes flight welded to side plate mid pitch, **BT** denotes flight bent integral with linkplate.

M SERIES DIN 8167

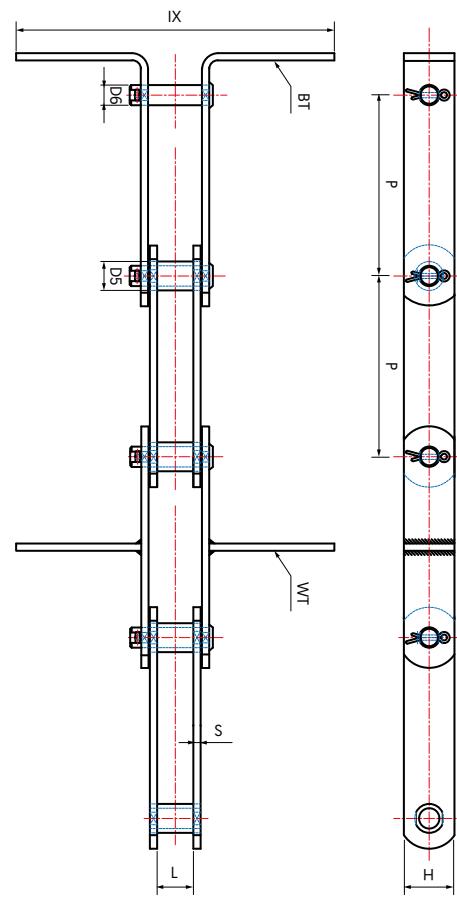
# Metric Trough Scraper Chains.



Throughout Europe metric standard chain is used in trough conveyors for grain transport. M series according to DIN 8167 is the most typical of the two main ranges that are predominant. The chains are exactly as the standard but in bush form without roller. The flights are normally BT style being bent integral and these are normally produced to customer preference, but WT the welded version allows for quick supply from stock plain chain. As these chains are produced in larger volumes they generally prove to be an economic option.

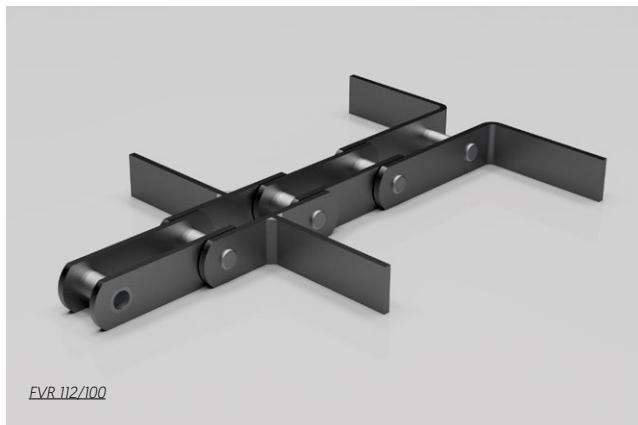
Metric Conveyor Chains ISO 1977, DIN 8167 (M Series)											
Chain Number	Pitch	Bushings		Pins		Between Sidebar	Sidebars		Overall Width	Breaking Load	
		D5	D6	Diameter	L		S	H		DIN standard	John King**
	mm										kN
<b>M56</b>	63	15	10		24	4	30	TBA*	56	85	
<b>M56</b>	80	15	10		24	4	30	TBA*	56	85	
<b>M56</b>	100	15	10		24	4	30	TBA*	56	85	
<b>M56</b>	125	15	10		24	4	30	TBA*	56	85	
<b>M56</b>	160	15	10		24	4	30	TBA*	56	85	
<b>M80</b>	80	18	12		28	5	35	TBA*	80	125	
<b>M80</b>	100	18	12		28	5	35	TBA*	80	125	
<b>M80</b>	125	18	12		28	5	35	TBA*	80	125	
<b>M80</b>	160	18	12		28	5	35	TBA*	80	125	
<b>M80</b>	200	18	12		28	5	35	TBA*	80	125	
<b>M112</b>	80	21	15		32	6	40	TBA*	112	175	
<b>M112</b>	100	21	15		32	6	40	TBA*	112	175	
<b>M112</b>	125	21	15		32	6	40	TBA*	112	175	
<b>M112</b>	160	21	15		32	6	40	TBA*	112	175	
<b>M112</b>	200	21	15		32	6	40	TBA*	112	175	
<b>M160</b>	100	25	18		37	7	50	TBA*	160	260	
<b>M160</b>	125	25	18		37	7	50	TBA*	160	260	
<b>M160</b>	160	25	18		37	7	50	TBA*	160	260	
<b>M160</b>	200	25	18		37	7	50	TBA*	160	260	
<b>M160</b>	250	25	18		37	7	50	TBA*	160	260	
<b>M224</b>	125	30	21		43	8	60	TBA*	224	340	
<b>M224</b>	160	30	21		43	8	60	TBA*	224	340	
<b>M224</b>	200	30	21		43	8	60	TBA*	224	340	
<b>M224</b>	250	30	21		43	8	60	TBA*	224	340	
<b>M224</b>	315	30	21		43	8	60	TBA*	224	340	
<b>M315</b>	160	36	25		48	10	70	TBA*	315	520	
<b>M315</b>	200	36	25		48	10	70	TBA*	315	520	
<b>M315</b>	250	36	25		48	10	70	TBA*	315	520	
<b>M315</b>	315	36	25		48	10	70	TBA*	315	520	
<b>M315</b>	400	36	25		48	10	70	TBA*	315	520	

Chains can be supplied riveted or cottered on both sides.  
 Flight Options: **WT** denotes flight welded to side plate mid pitch, **BT** denotes flight bent integral with linkplate.  
 \* Flight width IX to suit customer requirements. \*\* Breaking Load to side plate mid pitch.



FV SERIES DIN 8165

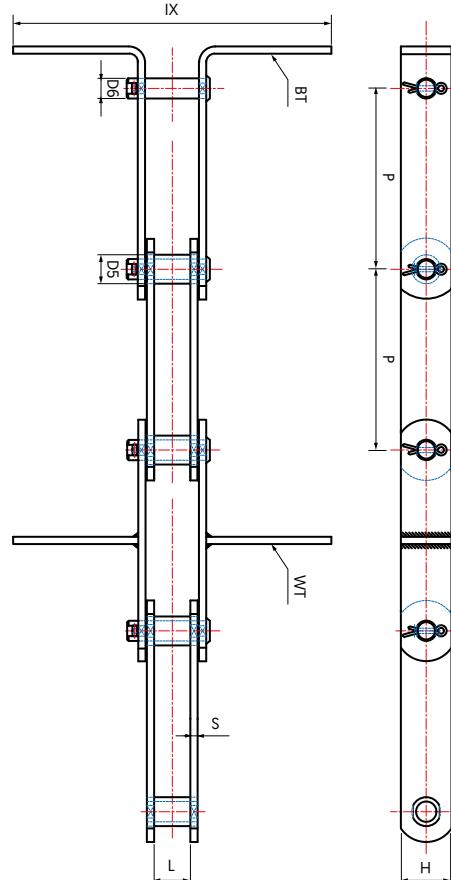
# Metric Trough Scraper Chains.



As with M series, FV chains are predominant. FV chains conform to DIN 8165 and as with M series are a good commercial option. The reference can be easily followed with prefix denoting the breaking strength in kilo newtons and the suffix being the pitch. The flights are normally BT style being bent integral and these are normally produced at widths to suit customer preference. WT the welded version allows for quick supply from stock plain chain.

Chain Number	Pitch	Bushings		Pins	Between Sidebars	Sidebars		Overall Width	Breaking Load	
		Diameter	Diameter			Thickness	Height		DIN standard	John King**
	mm									
	P	D5	D6		L	S	H	IX	kN	
<b>FV40</b>	40	15	10		18	3	25	TBA*	40	47
<b>FV40</b>	63	15	10		18	3	25	TBA*	40	47
<b>FV40</b>	80	15	10		18	3	25	TBA*	40	47
<b>FV40</b>	100	15	10		18	3	25	TBA*	40	47
<b>FV63</b>	63	18	12		22	4	30	TBA*	64	75
<b>FV63</b>	80	18	12		22	4	30	TBA*	64	75
<b>FV63</b>	100	18	12		22	4	30	TBA*	64	75
<b>FV63</b>	125	18	12		22	4	30	TBA*	64	75
<b>FV63</b>	160	18	12		22	4	30	TBA*	64	75
<b>FV90</b>	80	20	14		25	5	35	TBA*	100	115
<b>FV90</b>	100	20	14		25	5	35	TBA*	100	115
<b>FV90</b>	125	20	14		25	5	35	TBA*	100	115
<b>FV90</b>	160	20	14		25	5	35	TBA*	100	115
<b>FV90</b>	200	20	14		25	5	35	TBA*	100	115
<b>FV112</b>	100	22	16		30	6	40	TBA*	120	170
<b>FV112</b>	125	22	16		30	6	40	TBA*	120	170
<b>FV112</b>	160	22	16		30	6	40	TBA*	120	170
<b>FV112</b>	200	22	16		30	6	40	TBA*	120	170
<b>FV112</b>	250	22	16		30	6	40	TBA*	120	170
<b>FV140</b>	100	26	18		35	6	45	TBA*	145	180
<b>FV140</b>	125	26	18		35	6	45	TBA*	145	180
<b>FV140</b>	160	26	18		35	6	45	TBA*	145	180
<b>FV140</b>	200	26	18		35	6	45	TBA*	145	180
<b>FV140</b>	250	26	18		35	6	45	TBA*	145	180
<b>FV180</b>	125	30	20		45	8	50	TBA*	190	250
<b>FV180</b>	160	30	20		45	8	50	TBA*	190	250
<b>FV180</b>	200	30	20		45	8	50	TBA*	190	250
<b>FV180</b>	250	30	20		45	8	50	TBA*	190	250
<b>FV250</b>	125	36	26		55	8	60	TBA*	275	300
<b>FV250</b>	160	36	26		55	8	60	TBA*	275	300
<b>FV250</b>	200	36	26		55	8	60	TBA*	275	300
<b>FV250</b>	250	36	26		55	8	60	TBA*	275	300
<b>FV315</b>	160	42	30		65	10	70	TBA*	370	480
<b>FV315</b>	200	42	30		65	10	70	TBA*	370	480
<b>FV315</b>	250	42	30		65	10	70	TBA*	370	480
<b>FV315</b>	315	42	30		65	10	70	TBA*	370	480

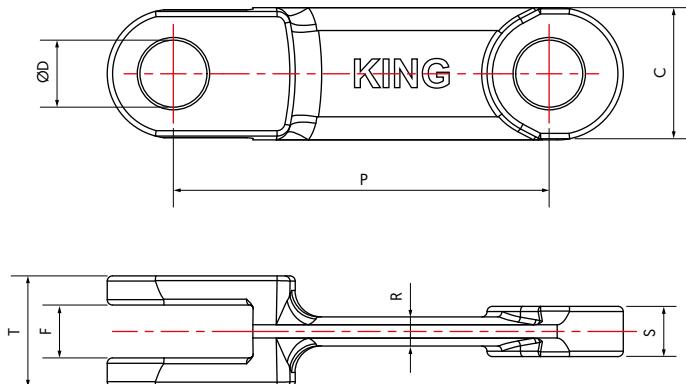
Chains can be supplied riveted or cottered on both sides.  
 \* Flight width IX to suit customer requirements. \*\* Breaking Load with linkplate.



# 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 successful in both drag and enmasse handling.



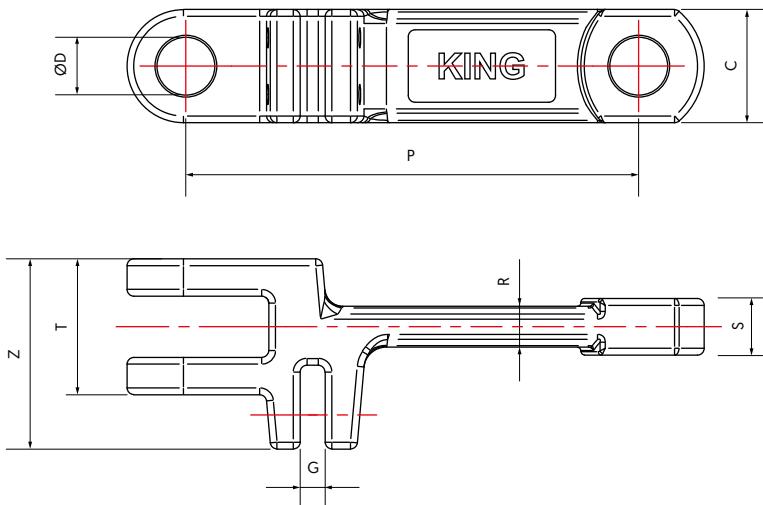
Chain Number	P	T	C	S	F	R	Bolt Hole Diameter	Breaking Loads			Weight
								D	TN*	CN*	
								kN			
<b>JKF 10160</b>	101.6	24	36	8	10	6	14	110	120	210	3.50
<b>JKF 10160R</b>	101.6	30	36	13	14	9	14	180	195	330	4.80
<b>JKF 12514</b>	125	30	36	13	14	10	16	163	175	290	4.40
<b>JKF 14214</b>	142	30	40	13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

Attachment hole positions and sizes can be varied to meet customer requirements.

# 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.



Attachment hole positions and sizes can be varied to meet customer requirements.

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

# Forged conveyor chain.

King manufacture an unrivalled range of high quality forged chains. The standard is for an alloy steel forging and pin case hardened for wear resistance. Specifications can be varied dependent on the operating environment.

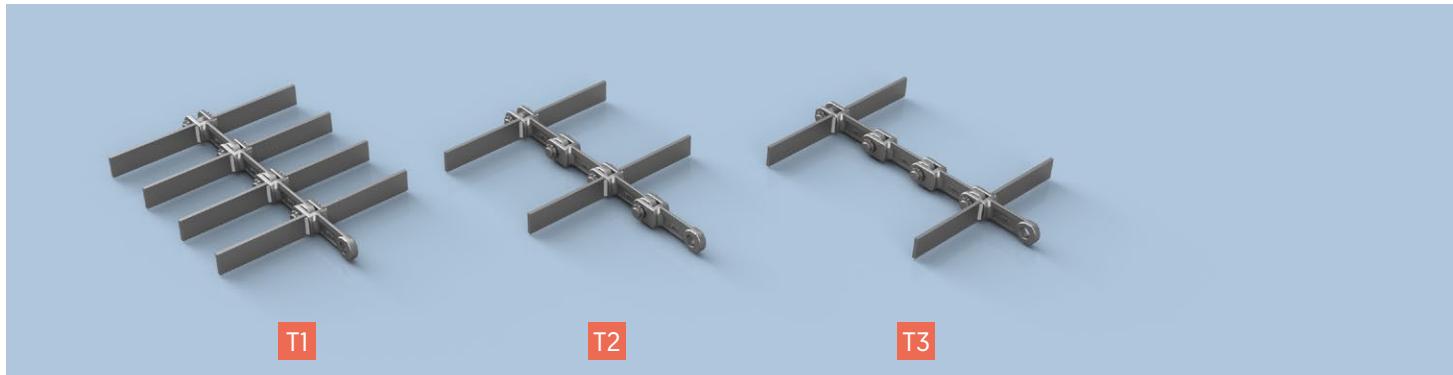
Drop forged chain links							
Material reference	JK Reference	Material No		Standard Hardening	JK Heat Treatment Designation	Standard hardening value	Standard hardening depth
		DIN	AISI				
<b>STANDARD QUALITIES</b>							
20CrMnTn	TN	1.8401	A29/A29M	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
18MnCrB5	BN	1.7168	—	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
20MnCr5	MN	1.7147	5120	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
21NiCrMo4	CN	1.6523	8620H	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
C45	C	1.0503	1045	HARDENING AND TEMPERING	TH	800-900 N/mm <sup>2</sup>	
42CrMo4	CD	1.7225	4140	HARDENING AND TEMPERING	TH	1100-1300 N/mm <sup>2</sup>	
<b>CORROSION AND ACID RESISTANT MATERIAL</b>							
X5CrNi 18-10 [V 2 A]	SS304	1.4301	304				
X6CrNiMoTi 17-12 2 [V 4 A]	SS316	1.4571	316				
X46Cr13	SS 420	1.4034	420	HARDENING AND TEMPERING	TH	50-52 HRC	
<b>HEAT – RESISTANT MATERIAL</b>							
X10CrAlSi7	JK HK	1.4713		HEAT RESISTANCE IN AIR			
X15CrNiSi 20-12	JK HH	1.4828	309	800° C MAX		420-620 N/mm <sup>2</sup>	
				1000°C MAX		500-750 N/mm <sup>2</sup>	
Chain pins							
Material reference	JK Reference	Material No		Standard Hardening	JK Heat Treatment Designation	Standard hardening value	Standard hardening depth
		DIN	AISI				
<b>STANDARD QUALITIES</b>							
16MnCr5	590M17	1.7131	5115	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
15NiCr13	633M13	1.5752	3310	CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
18CrNi8		1.592		CASE HARDENING	CH	58-62 HRC	0.8-1.0 mm
C45	080M46	1.0503	1045	INDUCTION HARDENING	IH	52-56 HRC	1.5-2.0 mm
				HARDENING AND TEMPERING	TH	45-50 HRC	
42CrMo4	708M40	1.7225	4140	INDUCTION HARDENING	IH	56-60 HRC	1.5-2.0 mm
				HARDENING AND TEMPERING	TH	56-60HRC	
<b>CORROSION AND ACID RESISTANT MATERIAL</b>							
X46Cr13	420S29	1.4034	420	HARDENING AND TEMPERING	TH	50-52 HRC	
X105CrMo17	440S49	1.4125	440	HARDENING AND TEMPERING	TH	50-55 HRC	
Circlips							
Material reference	JK Reference	Material No		Standard Hardening	JK Heat Treatment Designation	Standard hardening value	Standard hardening depth
		DIN	AISI				
<b>STANDARD QUALITIES</b>							
DD12	P12	1.0398	621				
Ferritic – Cromweld 3Cr12	SS410	1.4003	410				
Austenitic	SS304	1.4301	303				

Flights are robotically welded in one of three manufacturing facilities in the UK, Poland and the USA. The integrity of the welding is fundamental to best performance.

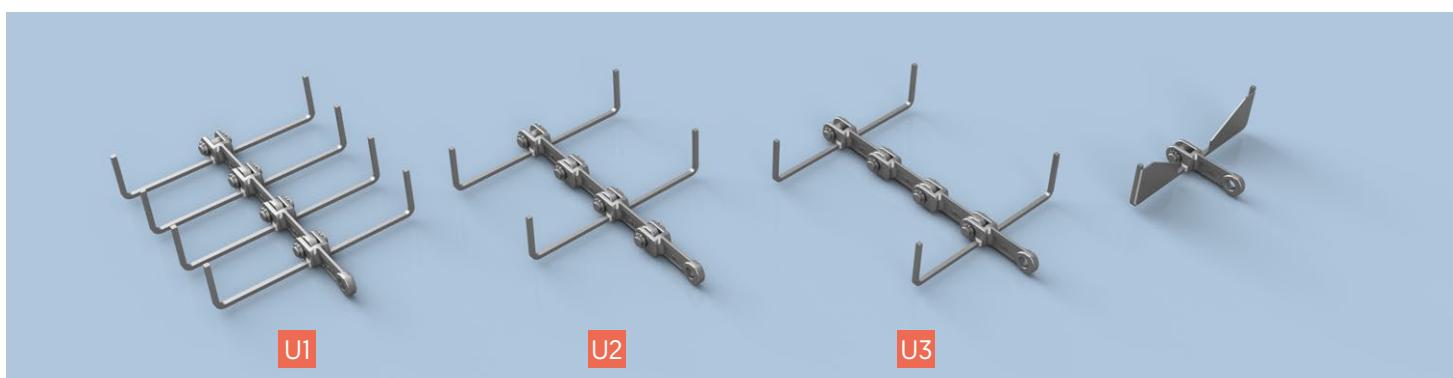
The configuration will vary dependent on the style of machine.

# Flight attachment options to Forged Chains.

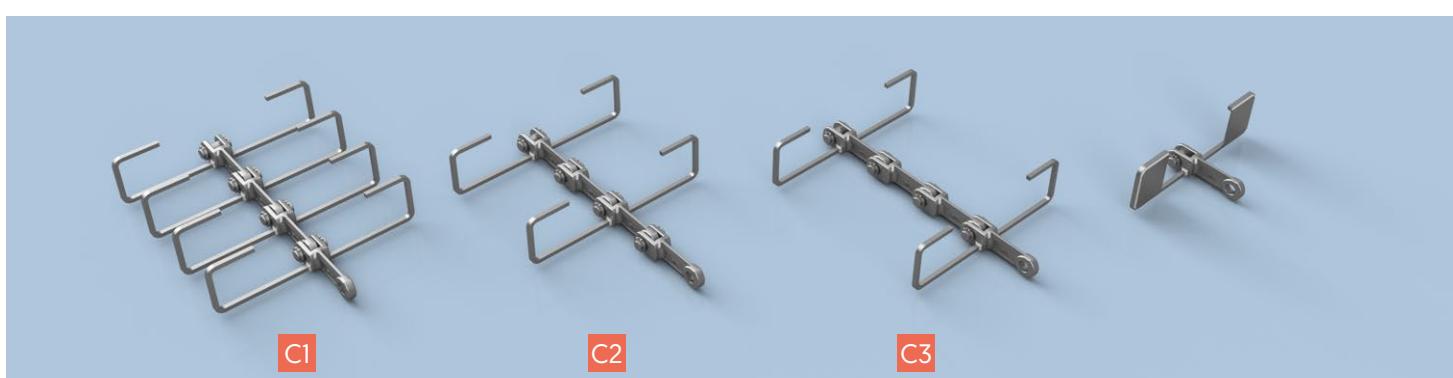
## T Type Attachments for Horizontal and Slightly Inclined Conveying



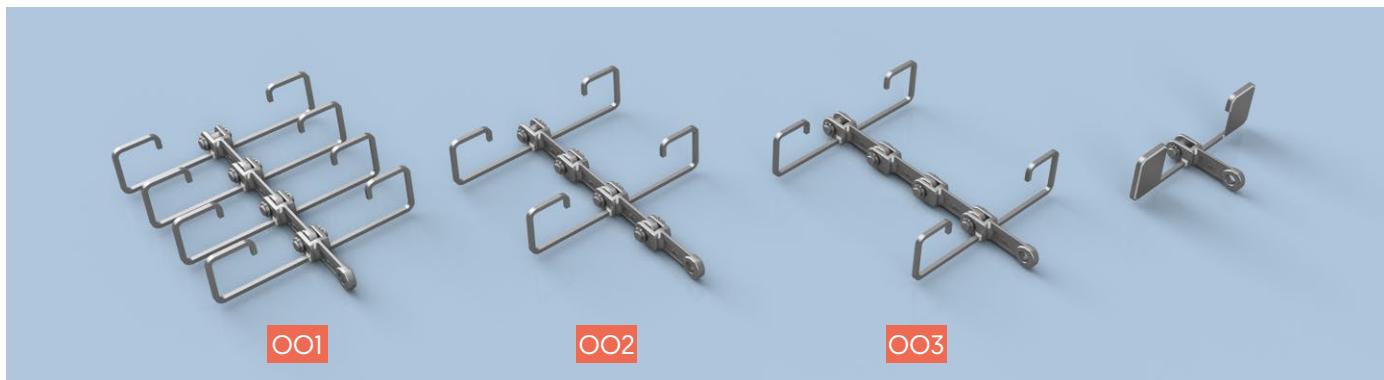
## U Type Attachments for Horizontal and Inclined Conveying (with or without blanking plate)



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



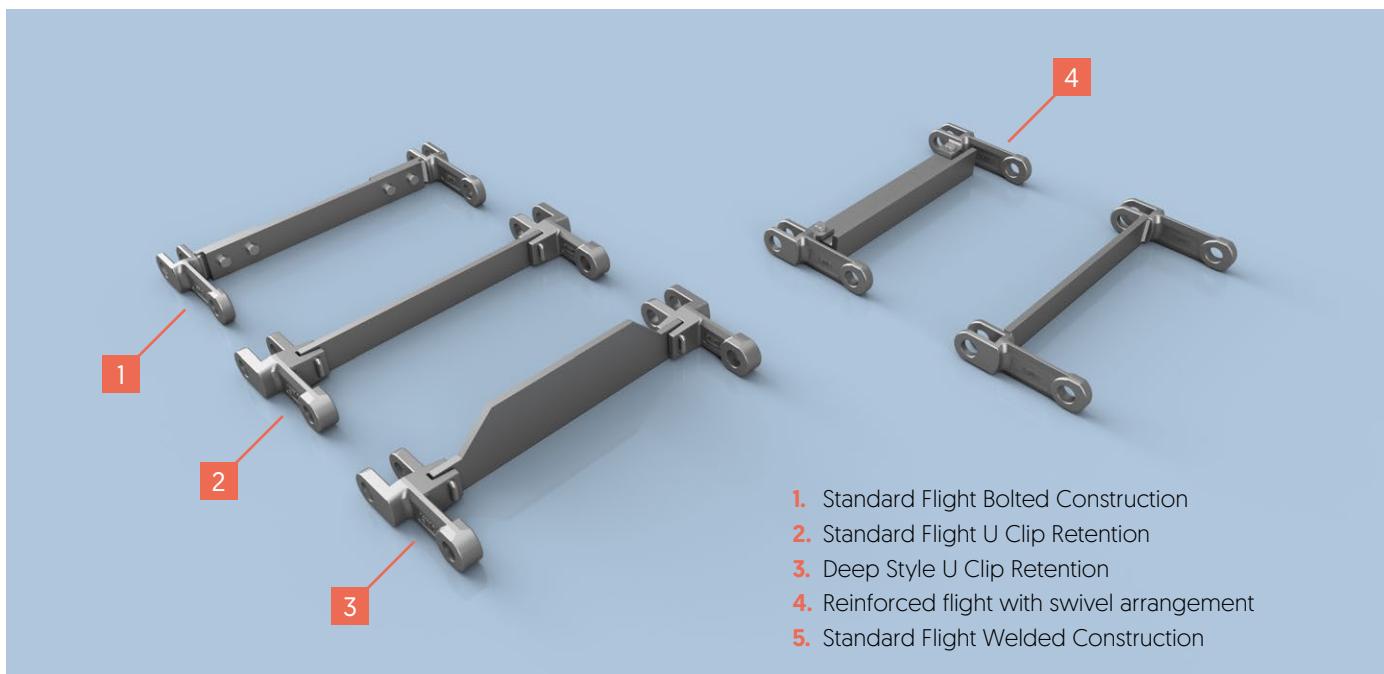
## OO Type Attachments for Horizontal and Inclined Conveying (with or without blanking plate)



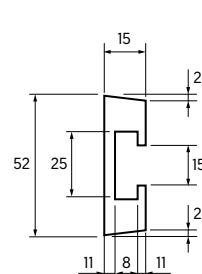
## CO Type Attachments for Horizontal and Inclined Conveying (with or without blanking plate)



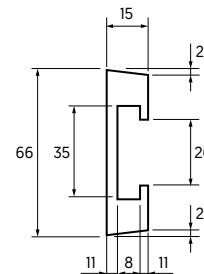
## Double Series Flight Options I Format



# Plastic Sleeves for Standard Forged Chains



**10160  
10160R**

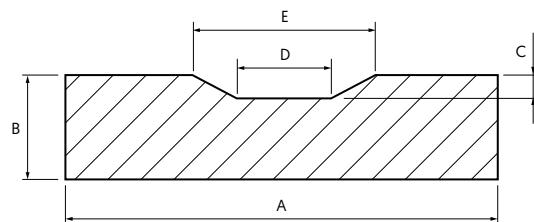
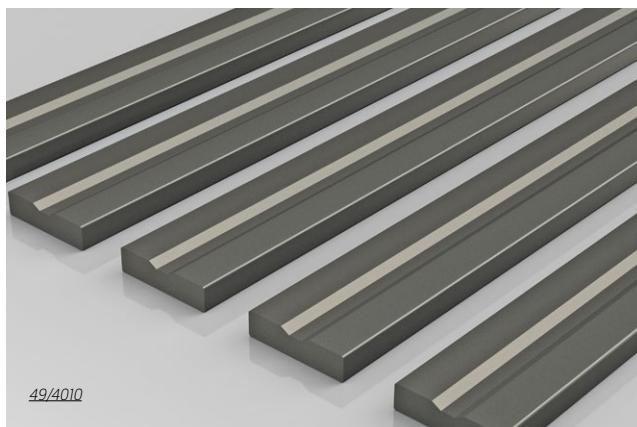


**14218  
14226**

All measurements in mm.

**Flight Material:** Extruded UHMW Polyethylene.

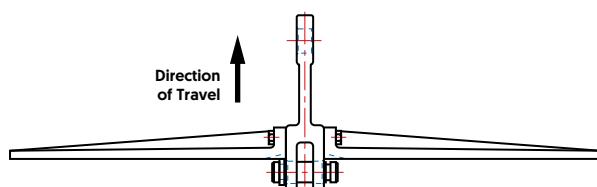
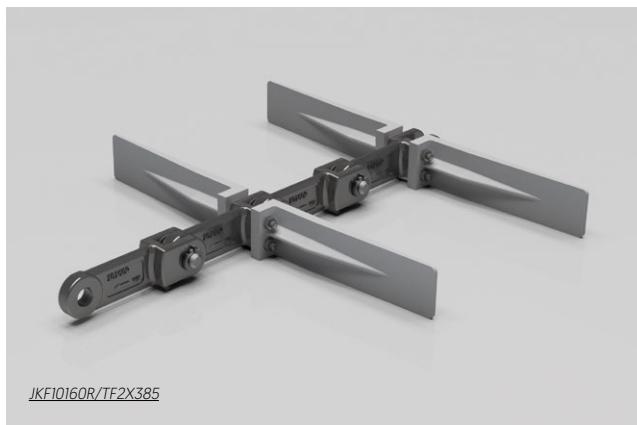
## High Manganese Wear Rail



**High Manganese Wear Rail**

John King References	A	B	C	D	E	Weight kg/m
	mm					
<b>49/40X10</b>	40.0	10.0	2.0	5.0	12.0	3.01
<b>49/50X10</b>	50.0	10.0	2.0	5.0	12.0	3.82
<b>49/60X10</b>	60.0	10.0	2.5	6.0	16.0	4.45
<b>49/60X12</b>	60.0	12.0	2.5	6.0	16.0	5.50
<b>49/60X20</b>	60.0	20.0	3.0	6.0	16.0	9.15

## Engineering Plastic Flight - TUFFLEX® with Unique Mounting Arrangement (Patent Pending)

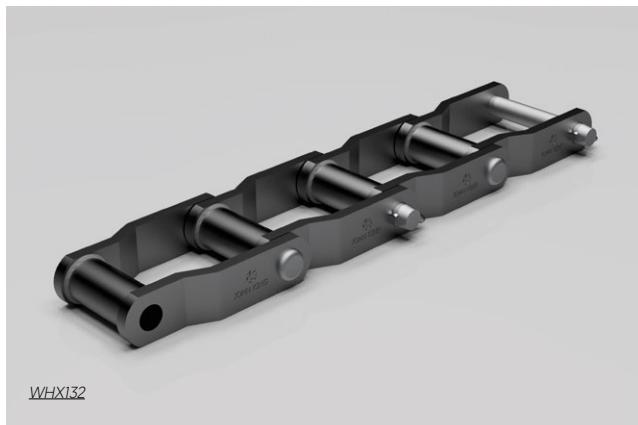


**Engineering Plastic Flight – TUFFLEX®**

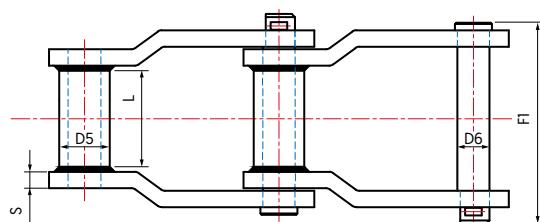
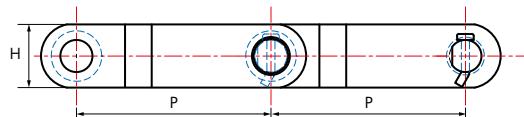
Flight number	Max. Width	
	inches	mm
<b>10160R</b>	15.50	395
<b>14218</b>	29	740
<b>14226</b>	30	760

**Flight Material:** High Impact Resistant Engineering Plastic [For options refer to our technicians].

# Offset Sidebar Welded Steel Chains.

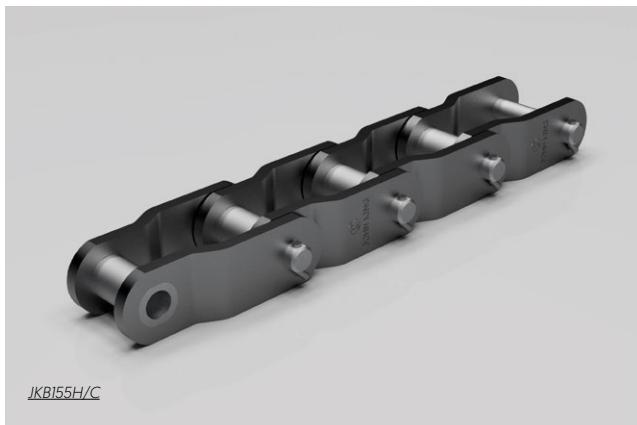


JOHN KING Welded Steel Chains have become a preferred choice in many high duty grain handling applications. The series employs an offset side plate, a bush circumferentially welded to the side plate with a pin subject to heavy interderence fit of normally cottered construction. The side bar crank profile includes a "long landing" to allow maximum area for welding. The standard KING chain has heat treated parts, including an induction hardened pin and bush for optimum performance in high duty applications. The chain is generally utilised with polyethylene flights of various forms bolted to steel backing plates which in turn are welded to the chain.

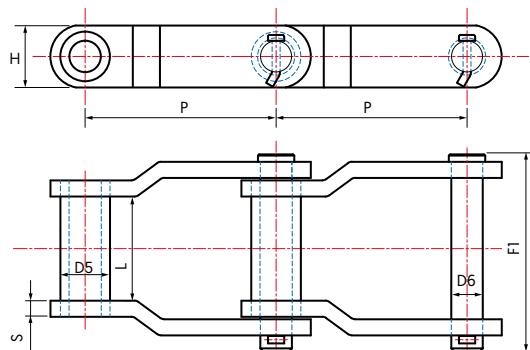


Offset Sidebar Welded Steel Chains											
Chain Number	Pitch	Bushings	Rivets	Over-All Pin & Cotter	Between Sidebar	Length of Bearing	Sidebars		Breaking Load	Average Weight	
		Outside Diameter	Diameter				Thickness	Height			
		P	D5	D6		F1		L	B	S	H
WHX78/C	2.609	0.84	0.50	3.00	1.00	2.00	0.25	1.25	33,000	4.30	
WHX82/C	3.075	1.00	0.56	3.38	1.13	2.25	0.25	1.25	36,000	4.70	
WHX124/C	4.000	1.25	0.75	4.25	1.50	2.75	0.38	1.50	57,000	7.80	
WHX111/C	4.760	1.25	0.75	4.81	1.75	3.38	0.38	1.75	60,000	8.60	
WHX110/C	6.000	1.25	0.75	4.00	1.88	3.00	0.38	1.50	50,500	7.00	
WHX106/C	6.000	1.25	0.75	4.25	1.50	2.75	0.38	1.50	60,000	6.20	
WHX132/C	6.050	1.75	1.00	6.38	2.75	4.41	0.50	2.00	122,000	14.10	
WHX150/C	6.050	1.75	1.00	6.50	2.75	4.41	0.50	2.50	122,000	16.30	
WHX155/C	6.050	1.75	1.13	6.41	2.75	4.44	0.56	2.50	175,000	19.00	
WHX157/C	6.050	1.75	1.13	6.75	2.75	4.63	0.63	2.50	175,000	20.00	
WHX159/C	6.125	2.00	1.25	6.75	2.75	4.63	0.63	3.00	210,000	26.00	
WHX200/C	6.125	2.00	1.25	6.75	2.75	4.63	0.63	2.50	190,000	22.10	

# Offset Sidebar Heavy Duty Bush Chains.



This series has developed in the US grain industry as an alternative to Welded steel chain in high capacity grain handling equipment. The chain construction is as KING JKB style with a pressed bush and pin. The link plates maintain the crank link form. There are five main standards within the series which loosely follow the Welded steel range. Other varieties can be offered [request details of John King works standard MX series chains]. The flight formats will be as welded steel chain [P.21] with polyethylene flights in various forms bolted to steel backing plates which in turn are welded to the chain.



## Offset Sidebar Heavy Duty Bush Chains

Note: Specifications based on standard material and heat treatment.  
Options of austenitic stainless steel plates and hardening stainless materials for pin and bushes available on request.

Chain Number	Pitch	Bushings		Over-All Pin & Cotter	Between Sidebar	Sidebars		Breaking Load	Average Weight
		Outside Diameter	Pins Diameter			Thickness	Height		
		P	D5	D6	F1	L	S		
inches									
<b>JKB82H/C</b>	3.00	1.125	0.56	2.94	1.19	0.313	1.50	41,000	6.20
<b>JKB124H/C</b>	4.00	1.125	0.63	4.00	1.94	0.38	2.00	60,000	9.50
<b>JKB106H/C</b>	6.00	1.125	0.63	4.00	1.94	0.38	2.00	60,000	9.50
<b>JKB132H/C</b>	6.00	1.50	0.875	4.80	2.125	0.50	2.50	105,000	13.80
<b>JKB155H/C</b>	6.00	1.75	1.13	5.56	2.50	0.56	3.00	148,000	20.00



## 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 auxiliary 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: 2021-06-23

Effective Date: 2021-07-25  
Expiry Date: 2024-07-24

Page: 1 of 1



...making excellence a habit™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.  
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Printed copies can be validated at [www.bsigroup.com/ClientDirectory](#)

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 9PP, Tel: +44 345 000 9000.  
BSI Assurance UK Limited, registered in England under number 7605321 at 309 Chiswick High Road, London W4 4AL, UK.  
A Member of the BSI Group of Companies.



Change of use for redundant silos in Rosario, Argentina.  
The grain processing capital of the world.



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