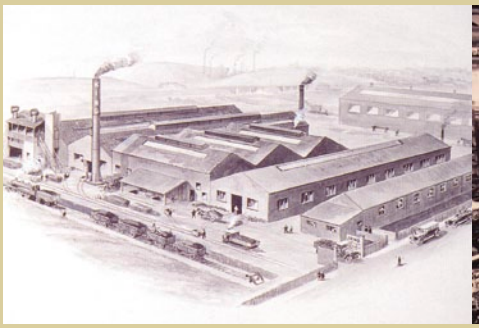
BAKERY INDUSTRY CHAINS




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.

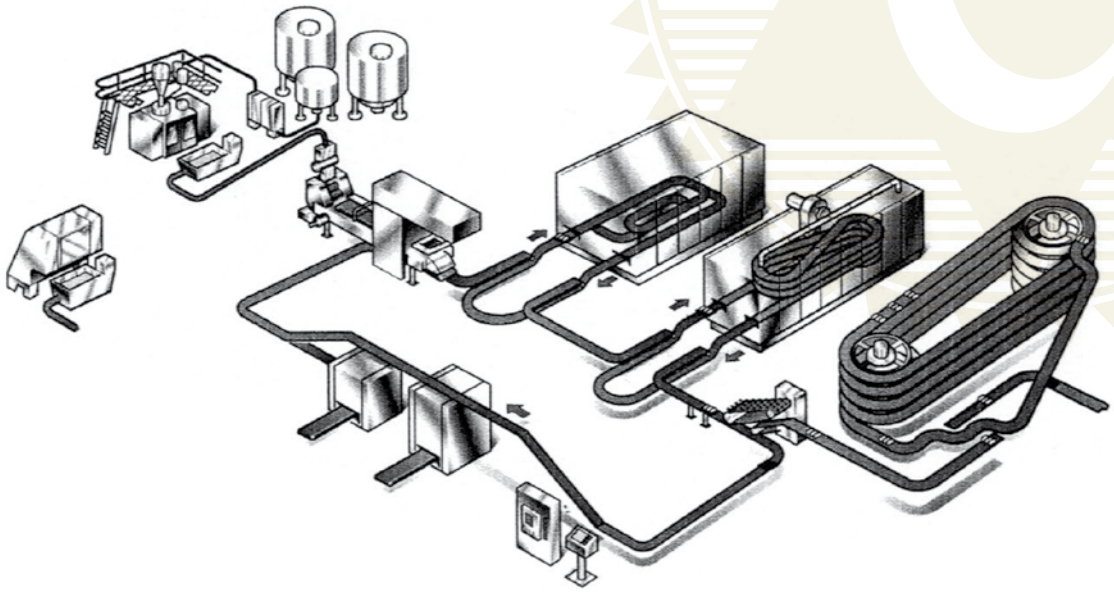
All products are manufactured within the dictates of the Company's quality management according to ISO 9000 establishing consistent and high quality products and ensuring performance reliability and extended service life.

We are pleased to present our Bakery catalogue detailing the most comprehensive range of chains for the industry within the market. We look forward to working with you in the future.

CONTENTS

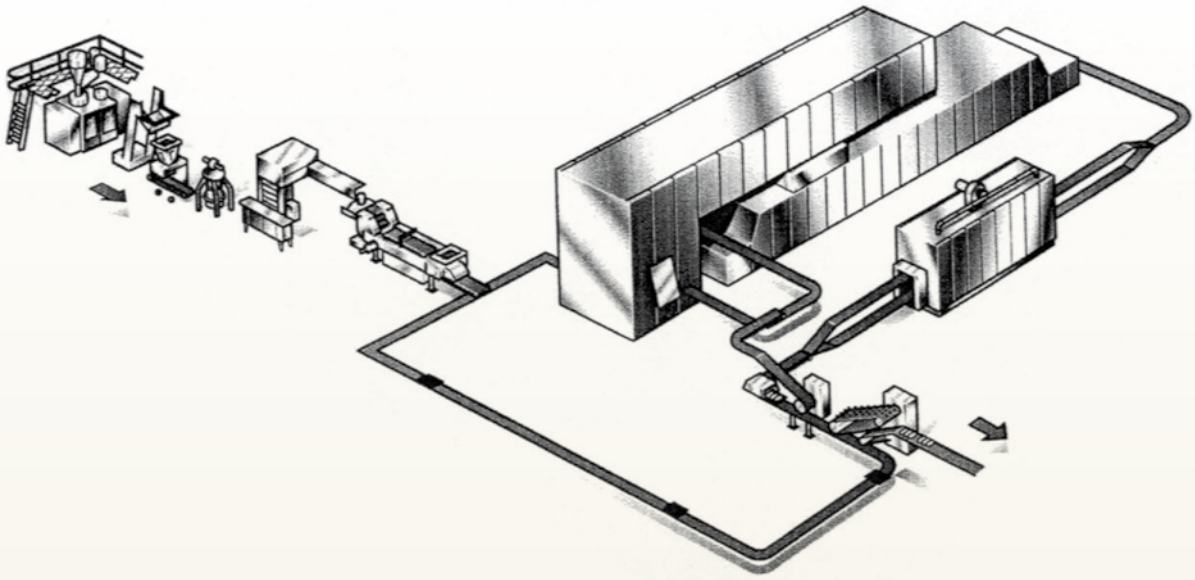
US Style High Speed Baking

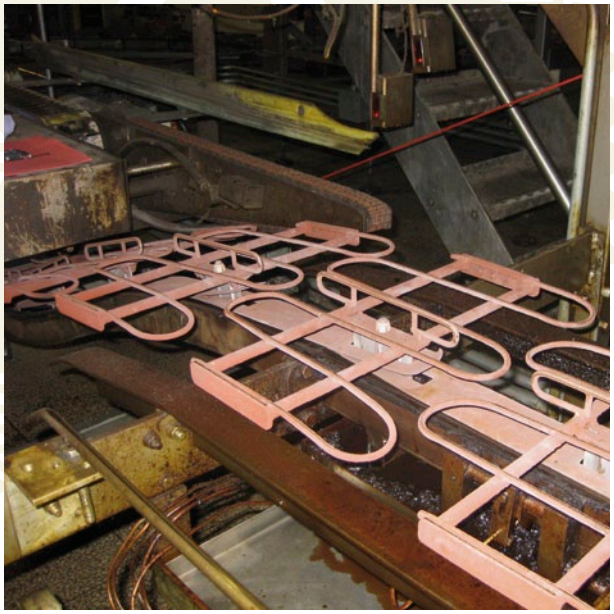
Pages 4-11 highlight the versatile American style proof and bake system used to bake almost all types of products that can be produced in a tin, in a pan or on a frame. This system is now the exclusive choice for burger bun production. John King manufacture all the principal Proofer and Oven chains employed within this system.



Baking European Style

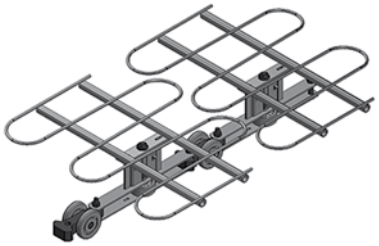
Pages 12-15 illustrate a variety of chains employed in European tunnel style baking system. This is not exhaustive and John King technical and commercial departments are available to assist with any additional styles and constructions required.

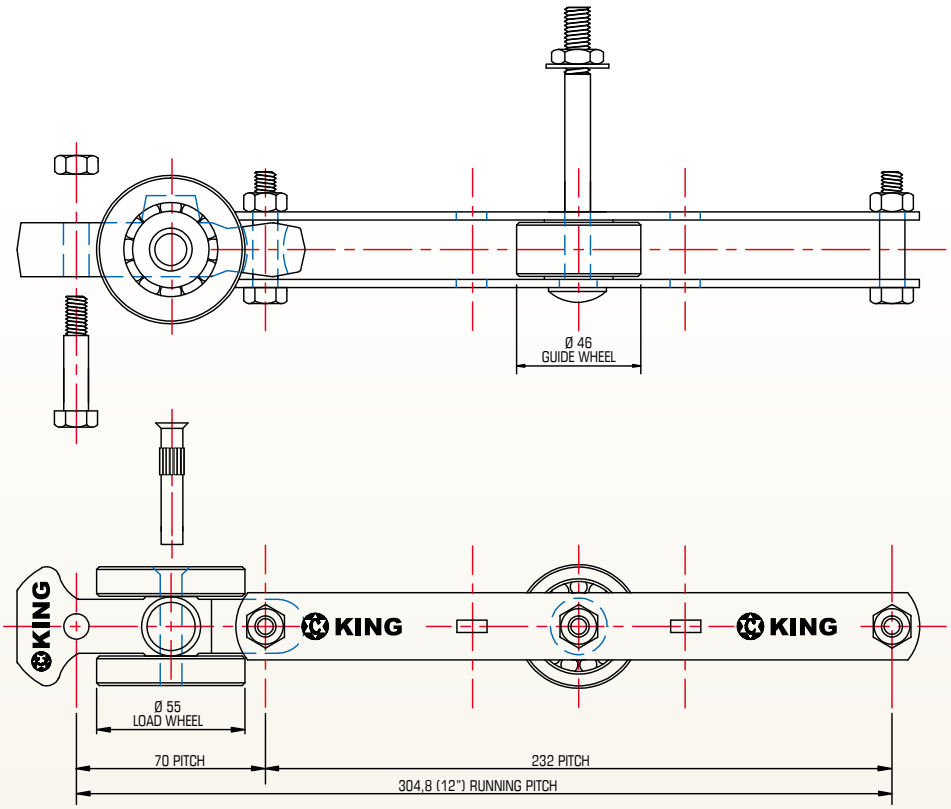




JKD 1269

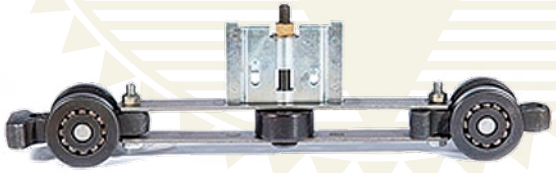
The 'Original' style chain matches existing dimensions and material standards found in Proofer and Oven Systems producing high volume production of Bread and Rolls. Plated Proofer Chain and Hi-Temperature Oven Chain are 100% interchangeable with existing chains and used in Single, Double and Figure 8 layouts.

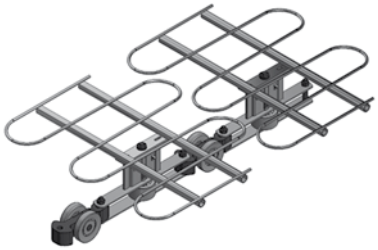


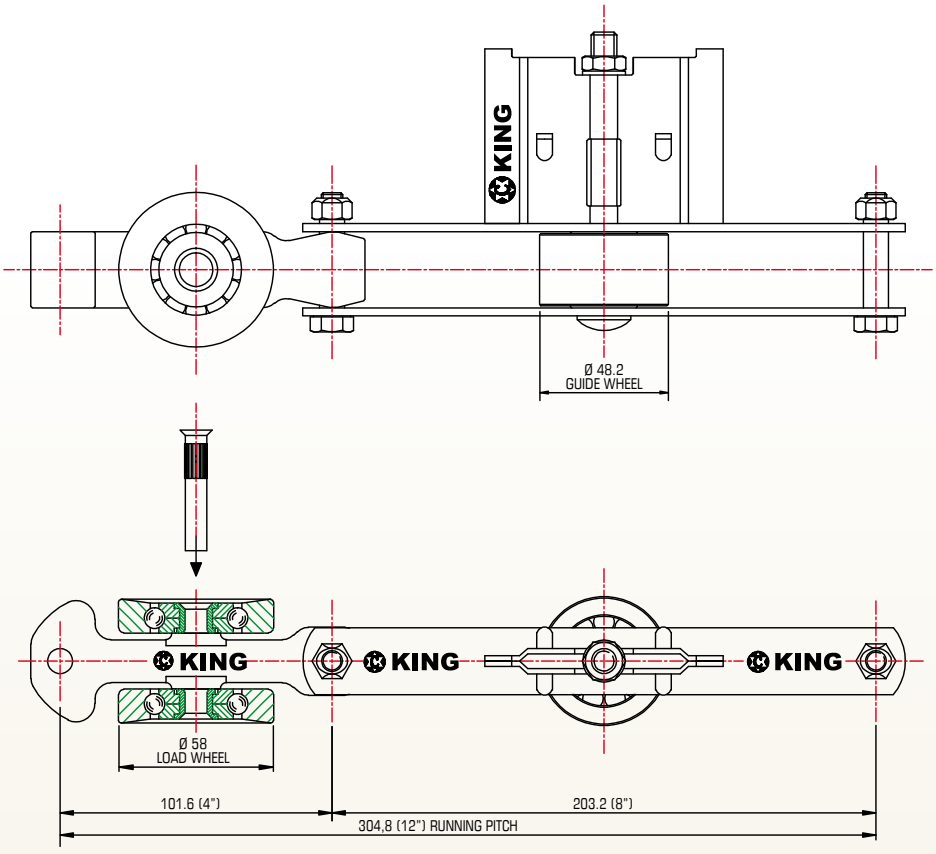


JKD 3478

The 'New Generation' (New Gen) chains offer an uprated design on the 'Original' and are 100% interchangeable with existing chains found in Proofer and Oven Systems. Increased production output and a greater reliability while in use enhances chain life, available as a Plated Proofer chain or Hi-Temperate Oven Chain meeting all system requirements.

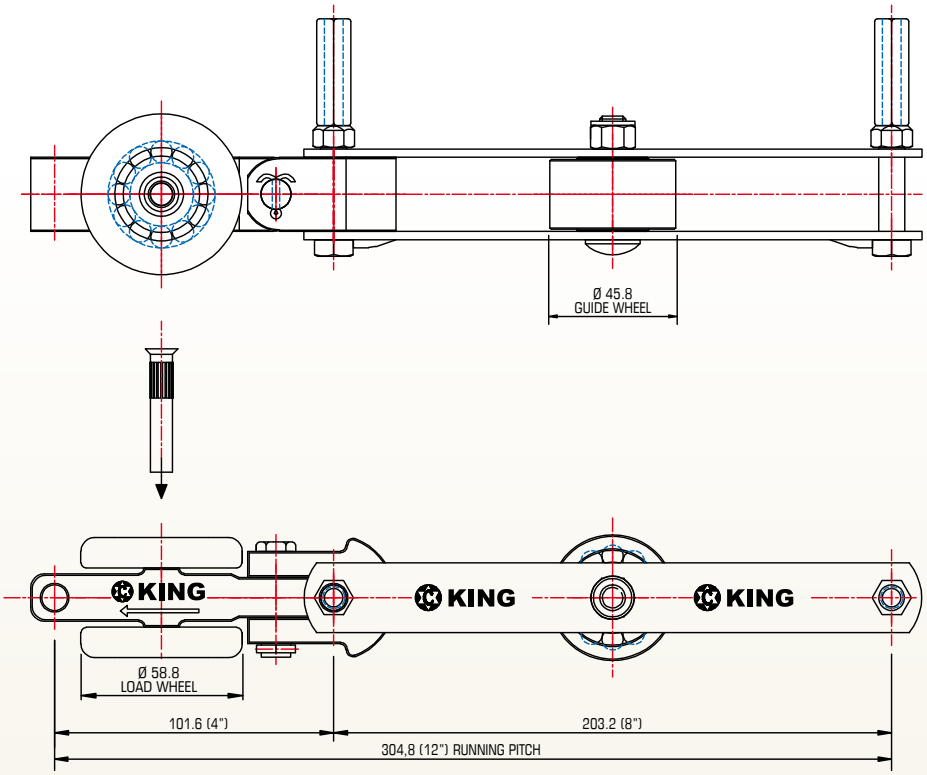






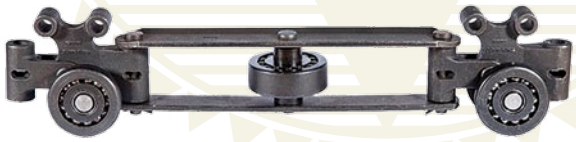
JKD 3995

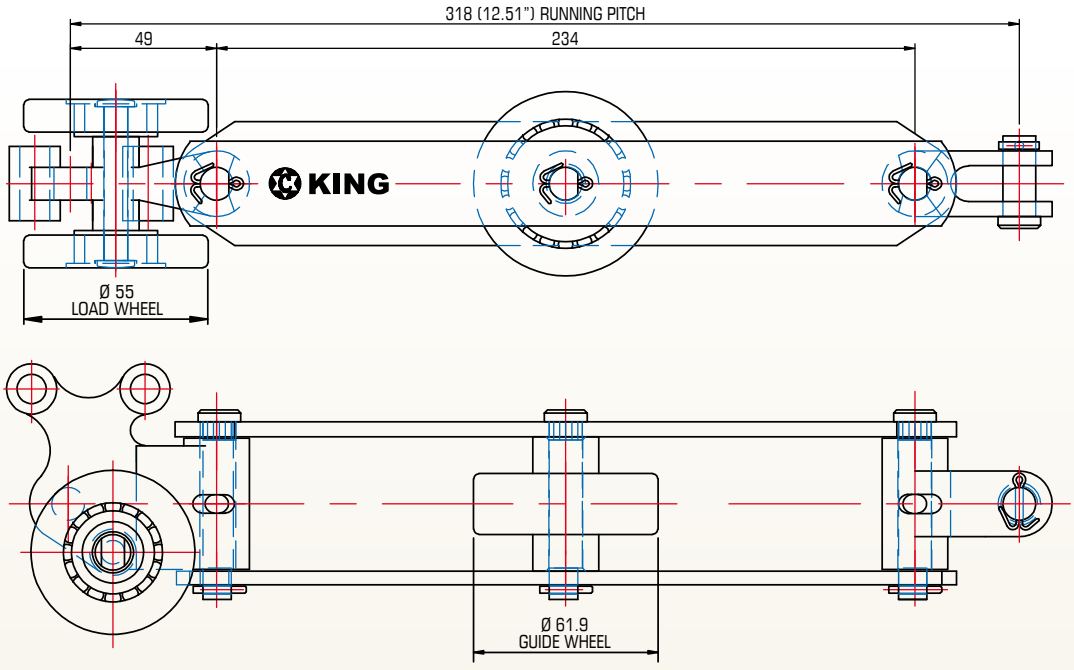
This 'Double Knuckle' Proofer and Oven Chain offers greater flexible plant layout in the production of high volume output on Bread and Roll Systems. Supplied as a Plated Proofer Chain or Hi-Temperature Oven Chain. Grids are mounted onto two vertical column posts giving greater rigidity in use and provide the end user with an overall improved product.

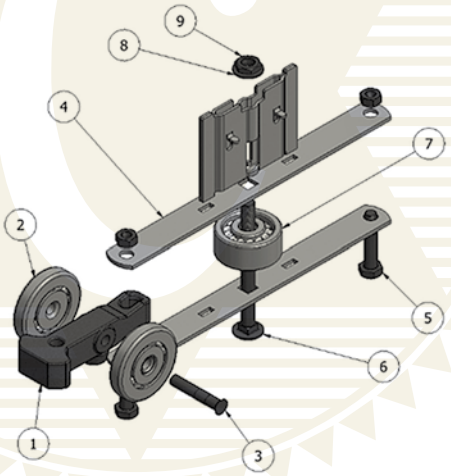


JKD 4619

A 'Double Knuckle' Chain with several unique features including larger diameter Load and Guide wheel bearings together with Grids being directly mounted to the main load wheel casting. Supplied as a Plated Proofer Chain or Hi-Temperature Oven Chain. Dimensional and Material specifications match or exceed existing standards and are fully interchangeable within the production system.



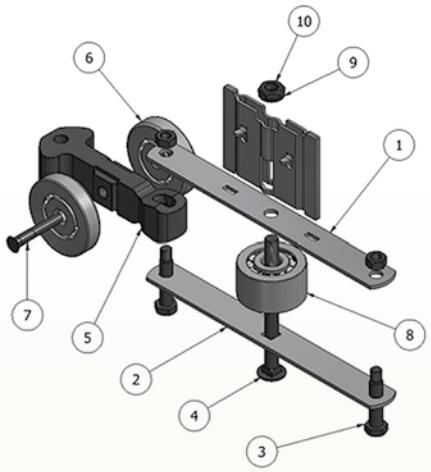




JKD 1269

JKD 1269		
Item	Item Code	Description
1	31/D1269/**-A	Cast Knuckle
2	43/D1269/**-C	Load Wheel
3	27/D1269/**-L	Rivet Pin
4	30/D1269/**-E	Link Plate
5	26/D1269/**-G	Small Bolt
6	26/D1269/**-I	Long Bolt
7	43/D1269/**-D	Guide Wheel
8	20/D1269/**-K	Washer
9	24/D1269/**-J	Half Nut

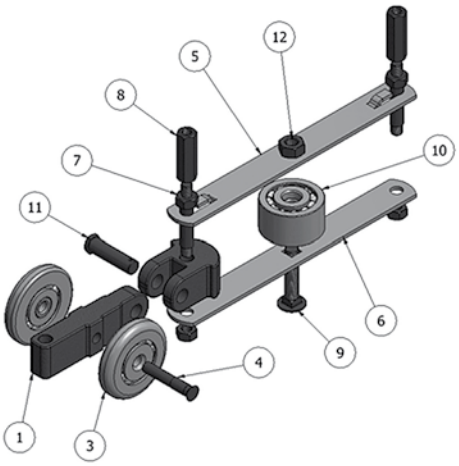
**Insert Code LO For Lanham Oven
or
LP For Lanham Proofer



JKD 3478

JKD 3478		
Item	Item Code	Description
1	30/D3478/***-E	Top Link Plate
2	30/D3478/***-F	Bottom Link Plate
3	26/D3478/***-G	Small Bolt
4	26/D3478/***-I	Long Bolt
5	31/D3478/***-A	Cast Knuckle
6	43/D3478/***-C	Load Wheel
7	27/D3478/***-L	Rivet Pin
8	43/D3478/***-D	Guide Wheel
9	20/D3478/***-K	Washer
10	24/D3478/***-J	Half Nut

***Insert Code LNO For Lanham New Gen Oven
or
LNP For Lanham New Gen Proofer



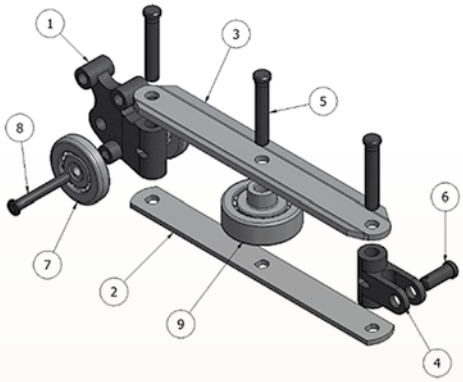
JKD 3995

JKD 3995

Item	Item Code	Description
1	31/D3995/***-A	Cast Knuckle
2	31/D3995/***-B	Cast Knuckle Swivel
3	43/D3995/***-C	Load Wheel
4	27/D3995/***-L	Rivet Pin
5	30/D3995/***-E	Top Link Plate
6	30/D3995/***-F	Bottom Link Plate
7	26/D3995/***-G	Small Bolt
8	23/D3995/***-Q	Long Hex Column Nut
9	26/D3995/***-I	True Bolt
10	43/D3995/***-D	Guide Wheel
11	26/D3995/***-M	Knuckle Connecting Pin
12	24/D3995/***-J	Nut

***Insert Code BTO For Bake-Tech Oven
or
BTP For Bake-Tech Proofer

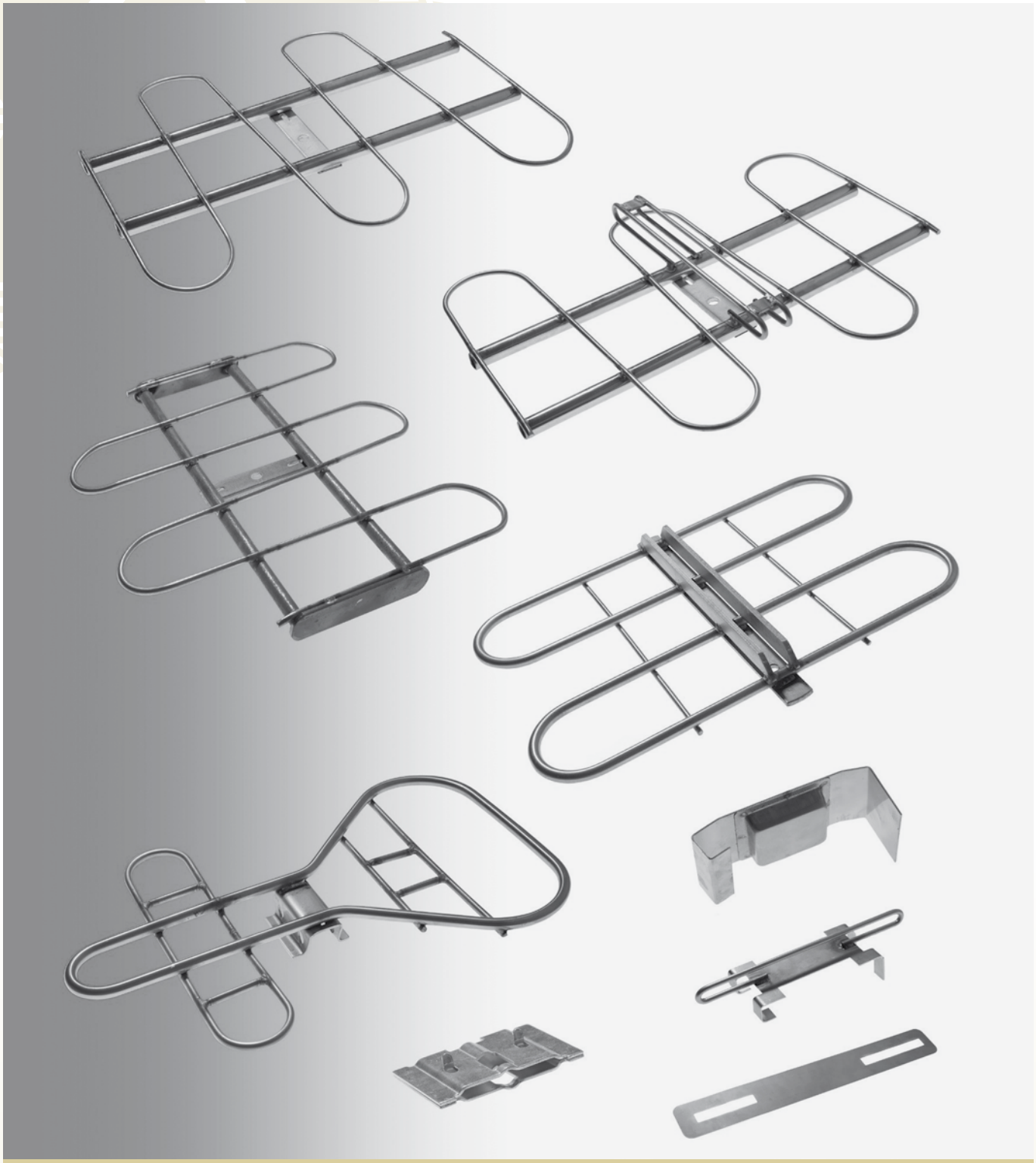
JKD 4619



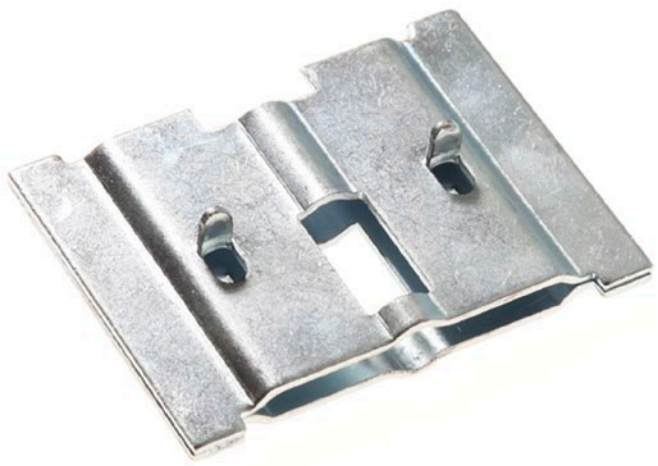
JKD 4619

Item	Item Code	Description
1	31/D4619/**-A	Cast Knuckle
2	30/D4619/**-F	Bottom Link Plate
3	30/D4619/**-E	Top Link Plate
4	31/D4619/**-B	Cast Knuckle Swivel
5	26/D4619/**-I	Long Connecting Pin
6	26/D4619/***-G	Short Connecting Pin
7	43/D4619/**-C	Load Wheel
8	27/D4619/**-L	Rivet Pin
9	43/D4619/**-D	Guide Wheel

**Insert Code SO For Stewart Oven
or
SP For Stewart Proofer



GRIDS AND COMPONENT PARTS MANUFACTURED TO ORIGINAL STANDARD AND CUSTOMER SPECIFICATION TO SUIT ALL SERIES



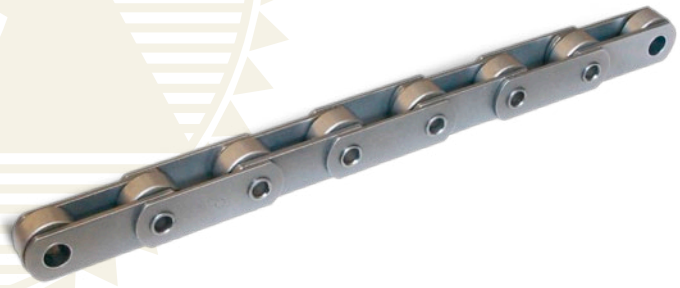
Pendants for Lanham

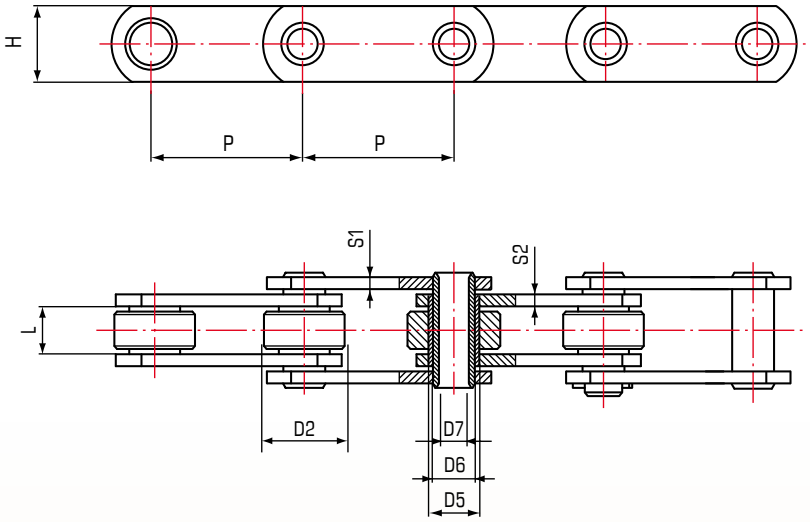
Pendants for Lanham	
Item Code	Description
72/D2414/SS	Stainless Steel – Short 63 mm Pendant
72/D2414/ZP	Zinc Plated – Short 63 mm Pendant
72/D3296/SS	Stainless Steel – Tall 68 mm Pendant
72/D3296/ZP	Zinc Plated – Tall 68 mm Pendant

Lug Chains for all Series

LUG DRIVE CHAINS MANUFACTURED TO ORIGINAL STANDARD AND CUSTOMER SPECIFICATIONS

Proofer Chains Hollow Pin

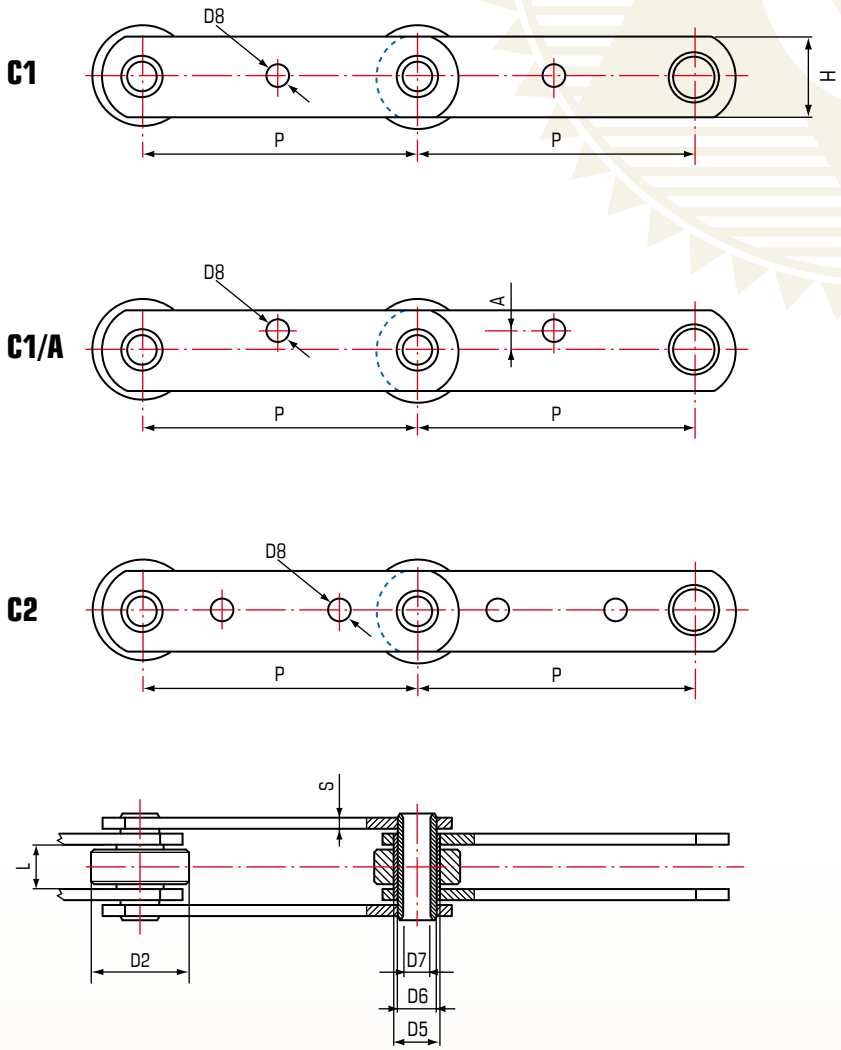




Proofer Chains Hollow Pin

Chain Number	P	Breaking Load		Average Weight	Rollers	Bushings	Between Sidebars	Sidebars			Hollow Pins	
						Outside Diameter		Thickness		Height	Diameter	
					D2	D5	L	S1	S2	H	D6	D7
	mm	kN	kN*	kg/m	mm							
HP55/100/P	100	55	110	9.5	47.5	23	24	5	5	40	19	11
HP110/1524/R3/P	152.4	110	300	10.38	66.7	33	26	7	5	50	26.9	20.2
HP110/1778/P	177.8	110	300	9	76.2	33	26	7	5	50	26.9	20.2
HP110/2032/P	203.2	110	300	8.5	66.7	33	26	7	5	50	26.9	20.2
HP110/2032/R3/P	203.2	110	300	9.2	76.2	33	26	7	5	50	26.9	20.2
HP160/1270/P	127	160	320	20.8	88.9	38	38	10	8	60	32	22.5
HP160/1524/P	152.4	160	320	22.1	88.9	38	38	10	8	60	32	22.5
HP160/2032/P	203.2	160	320	18.6	88.9	38	38	10	8	60	32	22.5
HP160/2032/R5/P	203.2	160	320	21.6	88.9	38	38	10	8	60	32	22.5

Oven Chains – Hollow Pins

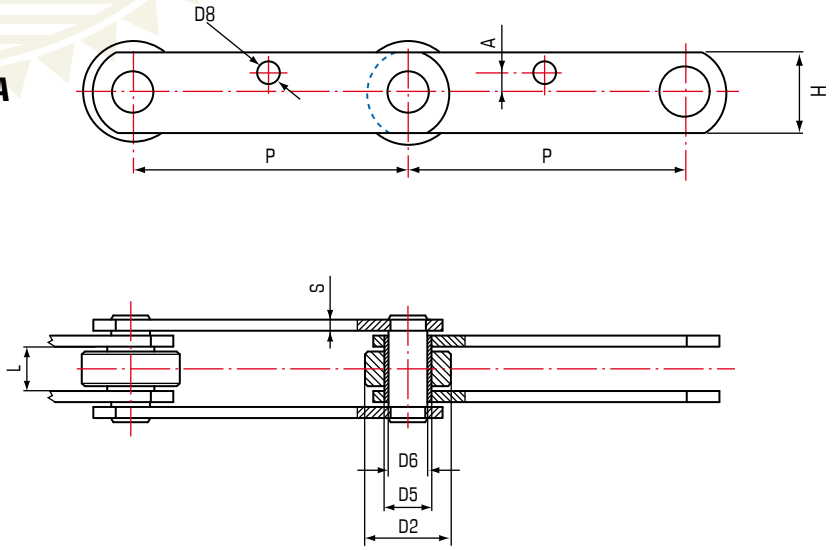


Oven Chains – Hollow Pins

Chain Number	P	Breaking Load		Average Weight	Rollers		Bushings	Between Sidebars	Sidebars		Hollow Pins		D8	A
					D2	Flange thickness	Outside Diameter		Thickness	Height	Diameter			
							D5	L	S	H	D6	D7		
	mm	kN	kN*	kg/m	mm									
HP110/1524/C1X1/P	152.4	110	300	9.8	66.7	9	33	26	7	50	26.9	20.2	19.4	–
HP160/1524/C1/AX1/P	152.4	160	320	22.1	88.9	10.5	38	38	10	60	32	22.5	22.6	12.7
HP160/1178/C1/AX1/P	177.8	160	320	18.6	88.9	10.5	38	38	10	60	32	22.5	22.6	12

Oven Chains – Solid Pin Straight Sidebar

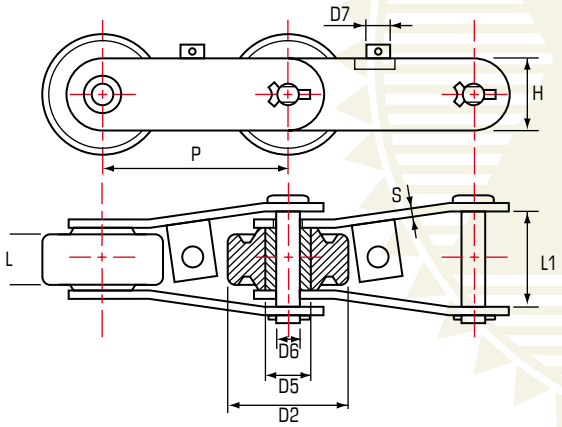
C1/A



Oven Chains – Solid Pin Straight Side Bars

Chain Number	P	Breaking Load		Rollers	Bushings	Between Sidebars	Sidebars		Pins	C1/A	A
					Outside Diameter		Thickness	Height	Diameter		
				D2	D5	L	S	H	D6	D8	
	mm	kN	kN*	mm							
SP300/2286/C1/AX1/P	228,6	300	420	120,7	57,2	65	8	70	25,4	13,1 (60°)	14,3
SP300/2286/C1/AX1/P	228,6	300	420	120,7	57,2	65	8	70	25,4	14,12 (90°)	14,3

Oven Chains – Solid Pin Cranked Sidebar

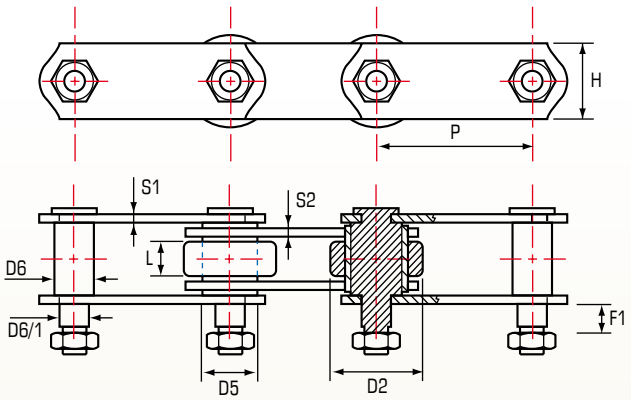


Oven Chains – Solid Pin Cranked Side Bars

Chain Number	P	Breaking Load	Rollers	Bushings	Between Sidebars		Sidebars		Pins	Attachment
			Dia.	Outside Diameter			Thickness	Height	Diameter	
			D2	D5	L	L1	S	H	D6	D7
	mm	kN	mm							
SP200/1524/B/A5X/P	152.4	200	120.7	38.1	44.4	90	8	70	31.8	19.05
SP200/1778/B/A5X/P	177.8	200	120.7	38.1	44.4	90	8	70	31.8	19.05
SP200/2286/B/A5X/P	228.6	200	120.7	38.1	44.4	90	8	70	31.8	19.05

Note: A5 attachement to be left & right hand. Chain supplied in matched strands.

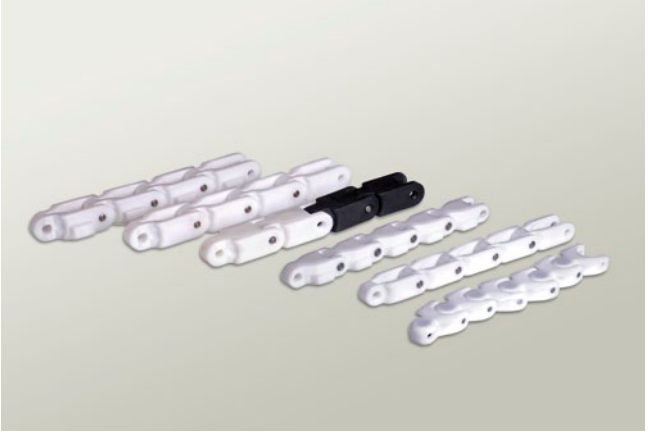
Roller Chain Extended Pins (Straight Sidebar)



Roller Chain Extended Pins (Straight Sidebars)

Chain Number	P	Breaking Load	Rollers	Bushings	Between Sidebars	Sidebars			Pins		F1	Thread
			Dia.	Outside Diameter		Thickness		Height	Diameter			
			D2	D5	L	S1	S2	H	D6	D6/1		
	mm	kN	mm									
SP200/1524/D5X/P	152.4	200	88.9	38.1	39	8	8	60	31.8	30	15.5	M24
SP200/1778/D5X/P	177.8	300	88.9	38.1	39	10	10	60	23	22	16.4	M24

Acetal Case Chains



Link Materials

Standard links are moulded from quality acetal engineering plastic offering optimum mechanical properties in materials handling.

The material offers a unique combination of properties, high tensile strength, excellent dynamic fatigue strength, unique resilience and practical impact strength with a low co-efficiency of friction. (0.15 against metals compared to 0.8 for steel/steel).

In operation Chains are quiet, rugged and virtually maintenance free (no need for lubrication) light in weight and low on energy requirements. They offer maximum hygiene advantage and good chemical resistance with minimal moisture absorption. The material exhibits excellent resistance to wear.

Recommended temperature range: -40°C to +90°C (-40°F to +194°F).

Engineering Plastics are offered in 5 standards

PM – Acetal copolymer with self lubricating components. Colour: White, grey & blue.

LF – Acetal copolymer with improved self-lubricating quality. Colour: Brown.

SLF – Acetal copolymer with self lubricating additives to obtain the lowest possible friction resistance. Colour: Green.

HP – Homopolymer offering approximately 20% increase in tensile strength & hardness over standard acetal with equivalent elongation for optimum performance in more arduous applications.

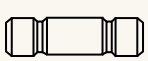
PP – Polypropylene a thermoplastic material with low density and good properties when high chemical resistance is required. The material has a very high material toughness and can resist steam sterilisation. Recommended temperature range +1°C to +104°C (+33°F to +219°F).

In addition special grades can also be employed including glass reinforced polypropylene and polyurethane and in addition antistatic materials, but special considerations relating to application and production batches are necessary.

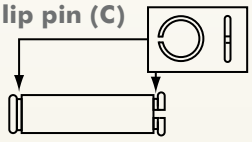
Pin Material

Standard pin material employed is from austenitic stainless steel grade AISI 304. (18/8 Cr Ni) offering a high degree of corrosion resistance and high hardness strength. Ferritics stainless steel can be offered if metal detection is necessary or indeed standard steels with electrolytic zinc plating.

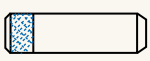
Snap in pin (S)



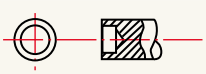
Circlip pin (C)



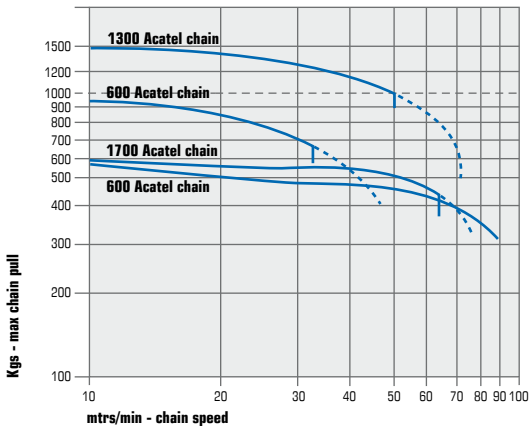
Knurled pin (K)



Rivet pin (R)



Heavy Duty Chains



To calculate chain pull for conveyors with bends use the following table

PM600 and PM1300 chain

Turn Angle degrees	30	45	90	180
Tf	1.2	1.4	1.5	2.0

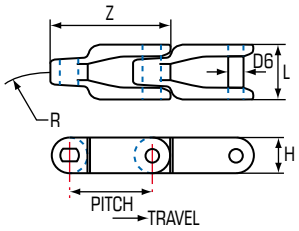
Multiply Tf by no. of bends in conveyor length.
Curves should be as far away from head shaft as possible.

When using 1700 chains with turnwheels, calculate as for straight conveyor and multiply result by 1.12n when n= no. of turns.

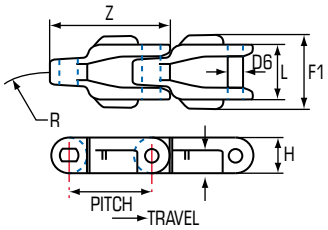
600 Series

The popular 600 series chains are normally employed in transportation of crates & cartons.

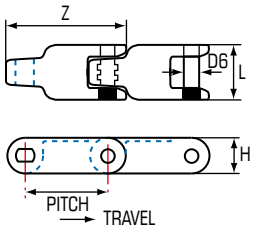
PM600 Standard open style



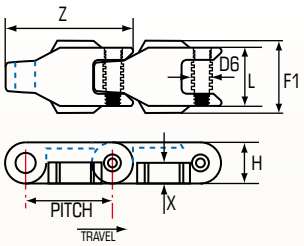
PM600D Standard open style with hold down lug



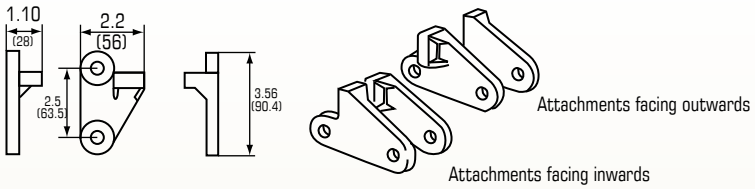
JK600 Closed top series



JK600D Closed top series with hold down lug



PM600F Standard open style with pusher attachment



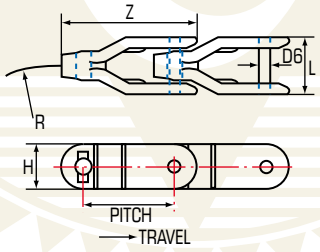
Acetal Case Chains 600 Series

Chain Number	Pitch		Pin Diameter		Avail-able Pin Type	Overall Length		Chain Width		Overall Width		Height		Lug Height		Minimum Radius Turn		Chain weight	UTS	Max Load
	P		D6			Z		L		F1		H		X		R				
	inches	mm	inches	mm		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	kg/m	kg	
PM600	2.5	63.5	7/16	11	S.C.R	3.55	90.2	1.69	42.9	N/A	N/A	1.12	28.45	N/A	N/A	30	762	1.37	1540	840
PM600D	2.5	63.5	7/16	11	S.C.R	3.55	90.2	1.69	42.9	2.12	53.85	1.12	28.45	0.67	17.02	30	762	1.44	1540	840
JK600	2.5	63.5	7/16	11	K	3.55	90.2	1.69	42.9	N/A	N/A	1.12	28.45	N/A	N/A	30	762	1.39	1540	840
JK600D	2.5	63.5	7/16	11	K	3.55	90.2	1.69	42.9	2.12	53.85	1.12	28.45	0.56	14.2	30	762	1.45	1540	840
CC600	2.5	63.5	7/16	11	R	3.63	92.2	1.69	42.9	N/A	N/A	1.12	28.45	N/A	N/A	21	533	4.95	5670	680
CC600D	2.5	63.5	7/16	11	R	3.63	92.2	1.69	42.9	2.12	53.85	1.12	28.45	0.56	14.2	21	533	5.50	5670	680

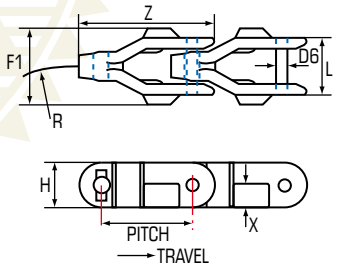
1400 Series

The heavy duty 1400 series with its heavier construction and increased wearing surfaces is particularly suitable for increased duty such as handling steel crates, kegs, gas cylinders, pallets and many other industrial applications.

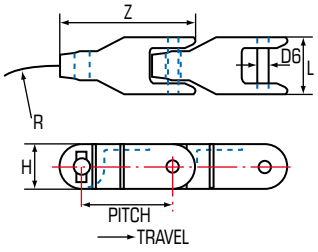
PM1400 Standard open style



PM1400D Standard open style with hold down lug



JK1400 Closed top series



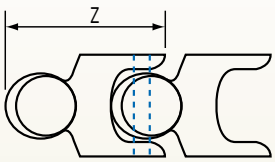
Acetal Case Chains 1300 Series

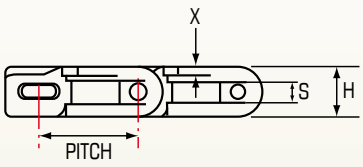
Chain Number	Pitch		Pin Diameter		Available Pin Type	Overall Length		Chain Width		Overall Width		Height		Lug Height		Minimum Radius Turn		Chain weight	UTS	Max load
	P		D6			Z		L		F1		H		X		R				
	inches	mm	inches	mm		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	kg/m	kg	
PM1400	3.25	82.55	7/16	11	S.C.R	4.65	118.1	2.0	50.8	N/A	N/A	1.50	38.1	N/A	N/A	26	660	2.08	2265	1200
PM1400D	3.25	82.55	7/16	11	S.C.R	4.65	118.1	2.0	50.8	2.625	66.68	1.50	38.1	0.75	19.05	26	660	2.27	2265	1200
JK1400	3.25	82.55	7/16	11	S.C.R	4.65	118.1	2.0	50.8	N/A	N/A	1.50	38.1	N/A	N/A	26	660	2.20	2265	1200

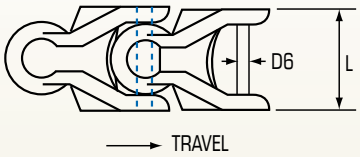
Pin types available: S=Snap fit, C=Circlip, R=Rivet

1700 Series

This is the most versatile chain in the series being able to flex in several directions. PM1700 can be employed on very small bends with turn discs, which makes construction of very compact conveyors possible.







Acetal Case Chains 1700 Series

Chain Type	Pitch		Pin Diameter		Available Pin Type	Overall Length		Hight		Lug Height		Side Groove Depth		Min Turn Radius		Chain weight	UTS	Max Load
			D6			L		H		X		S						
	inches	mm	inches	mm		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	kg/m	kg	
PM1700	1.968	50	5/16	7.94	K	3.16	80.26	0.944	24	0.125	3.20	0.44	11.18	5.5	140	1.30	600	360

Pin types available: K=Knurled

bsi.

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

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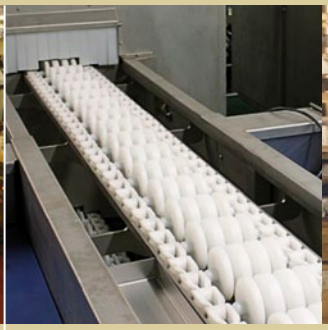
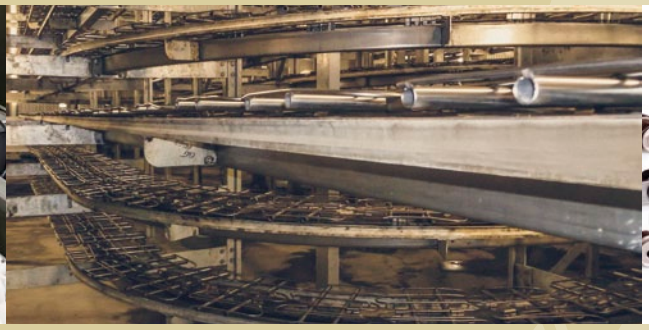
JOHN KING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