ROMBO®

RELIABILITY

Aiding motion in every industry

CHAINS FOR GENERAL ENGINEERING

ENGINEERING
CLASS CHAINS

TIDC INDIA

THE COMPLETE CHAIN COMPANY

TIDC India – The complete chain Company

Rombo chains are designed and manufactured by TIDC India, a part of the prestigious Murugappa Group, one of the most trusted and respected business groups in India. A Group that is renowned for its belief in ethical business practices, innovative processes and people development.

Over six decades, TIDC has built chains for virtually every sector of industry. From tiller chains, agricultural chains, leaf chains and conveyor chains to industrial power drive chains, motorcycle drive chains and engine mechanism chains, our expertise is moving men and material across every sphere of life. And today, we possess the capability to meet any requirements in chains, anywhere in the world.

Our Strength : R & D

At TIDC, we owe our success to continuous improvement. Innovating products that suit customer needs better, makes us to constantly improve. Every choice with regards to size, material or method is in direct response to the needs of application engineers in the industries we serve.

TIDC engineers use Auto CAD, Solid works and Finite Element Analysis for cutting edge solution in the design of the chains, and the manufacturing technology process is plotted out with equal care. The resulting products are comprehensively tested at our labs, before they eventually find their way to a Rombo Customer.

A Trusted Brand in Conveyor Chains

The company has enormous strengths in conveyor chains, making chains for various applications in different Industries.

TIDC Means chains with more strength

Strict and complete adherence to consistent quality and regular technology up gradation have ensured Rombo chains exceed all laid down parameters

- High strength – higher breaking load. Rombo chains are tested for higher breaking load values than the international standard, endowing them with extra strength you can count on.

- Tough construction – to withstand shock load conditions common in rugged applications. TIDC has the edge in raw materials, design as well as manufacturing processes that enables us to build chains that are more rugged.

- High tensile strength – certain applications call for chains with better tensile strength, and TIDC works this feature into their products at every stage of production.

- Attachment – regular and made to order attachments are offered based on client needs.

Quality, the TIES THAT Bind Everything

Total Quality Management is a governing principle at TIDC India and we have our own quality system in place called 'TIES' (T.I. Excellence System)

encompassing all aspects of functioning. Beginning with the design phase, purchase and inspection of raw materials, vendor management, work instructions and going on to cover all processes in manufacturing, packing and inspections before delivery.

TIES also provides for stringent procedures when it comes to traceability of products and reviews of customer feedback.

The TIES system functions by nurturing quality as an integral part in the entire value chain, and is now completely internalized by the company.

The Best Certificates are Those that comes from our clients

We are one of the world's few companies to be certified for API 7F specifications by the American petroleum Institute for oil field chains.

Our manufacturing processes right from product design to testing of finished chains conform to ISO 9000:2000 standards and are certified by RWTUV of Germany. Our Motorcycle Engine Mechanism Chain and Fine Blanking Divisions are certified to TS 16949 standards by underwriters Laboratories, USA.

But what gives us the most pride is, the approval and repeat orders that comes to us from our clients all over India & across the world.

Product Leadership

Customers turn to TIDC for products that are designed for high performance, expanded equipment life and enhanced productivity. If you need chains that operate reliably in challenging environments, TIDC is the right source.

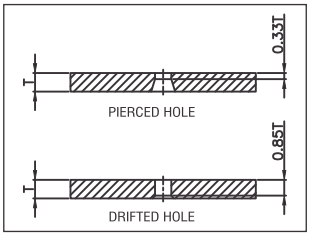
We apply our decades of research, engineering, manufacturing and service knowhow for every application. Because of our own performance advantages, large OEMs turn to TIDC for products and support. This same OEM quality is offered to our after market products. That is why you will find our chains used in every tough applications.

TIDC engineers are committed to understanding your process and solve unique application problems. We work with you to optimize chain performance in the above stated products.

We use this spirit of collaboration to develop customized power transmission solutions.

Great Fatigue and Tensile Strength

The plates in each and every TIDC chain undergo piercing operation to extremely accurate specifications. Followed by Shaving or Drifting to increase bearing area, guaranteeing greater dynamic strength and fatigue life.

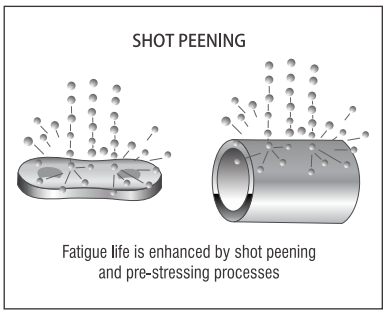


Longer Wear Life

Roundness of the bushes and heat treatment of pins and bushes impact wear life. At TIDC bushes and pins are produced using numerically controlled machines which produces them with greater accuracy.

Heat Treatment

Heat treatment is our core competency at TIDC. Our team has rich experience in heat treatment to maximize strength and life in every chain elements: pins, bushing, rollers and link plates. We deploy our specialist skills in continuous hardening operations for martensitic heat treatment. Under a completely automated atmosphere we work with high, medium and low carbon steels, alloy steels, austenitic and martensitic stainless steels etc. Other treatments we offer based on customer specifications are:



Fatigue life is enhanced by shot peening and pre-stressing processes

Shot peening for Maximum Load Capability/Shot Peening

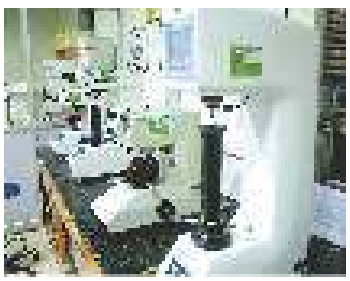
Critical applications call for chains with high working load capability, plates and rollers are shot peened after heat treatment thereby increasing fatigue life. It is done by constantly bombarding the component with hard metal pellets at high speeds.

Corrosion Resistance

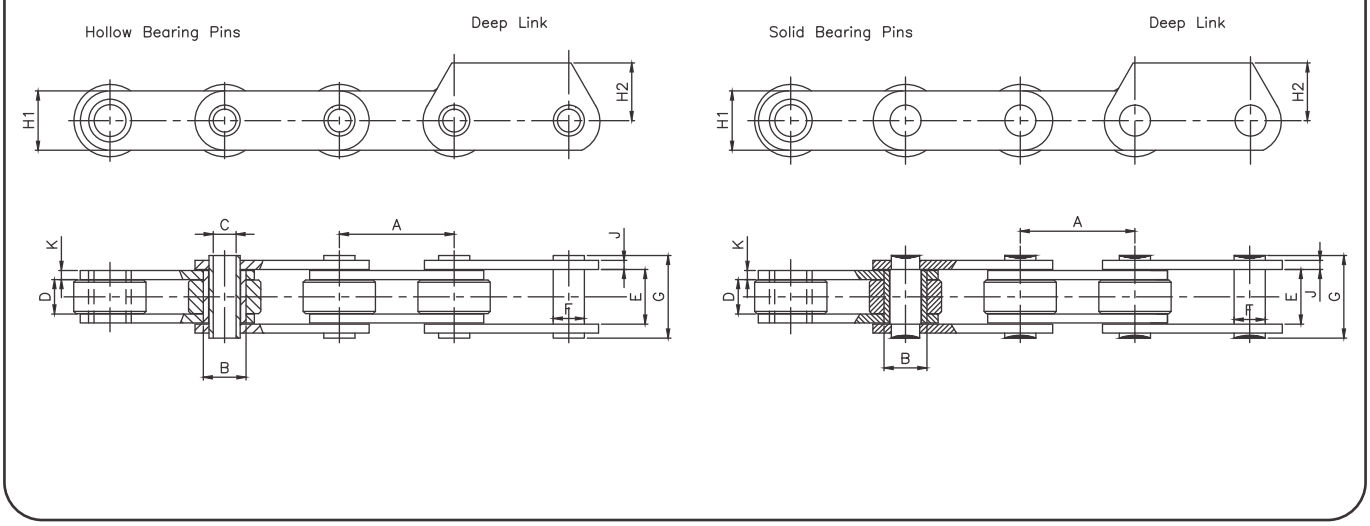
TIDC offers plating options, for corrosion resistance and enhanced product life – chromised pins have been proven to improve performance dramatically.

Testing

TIDC has immense capabilities for testing to validate the quality of their products. Every batch goes through stringent testing protocol, which covers fatigue tests, corrosion tests and much more. TIDC conveyor chains are built to exceed international standards, and this performance level is meticulously tested before the products reach you.



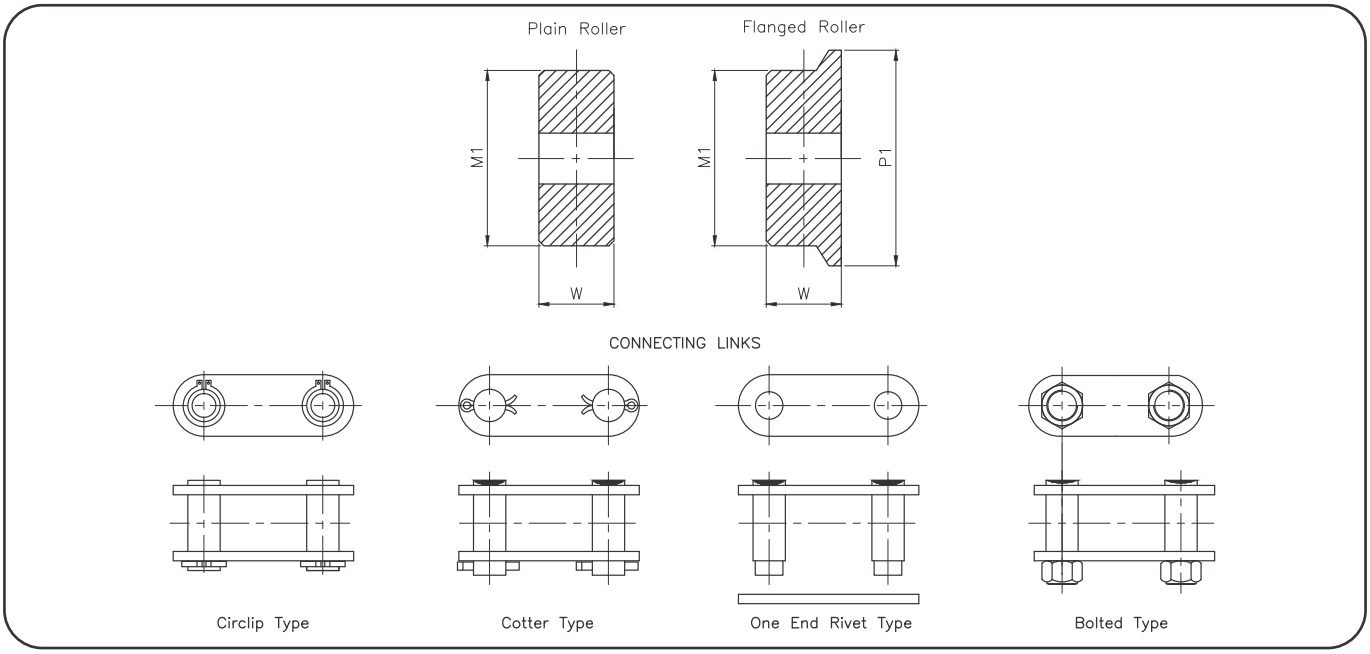
BRITISH STANDARD CONVEYOR CHAINS



Chain Ref	Technical Details (mm)											
Breaking Load	Pitch	Pitch	Bush Dia	Hollow Bearing Pin Bore Dia	WIP	WOP	Pin Dia	Pin Length	Plate height	Height	O/P Thickness	I/P T hickness
Lbf	mm	mm										
MIN	MIN	MAX	MIN	MIN	MIN	MIN	MAX	MAX	MAX			
Hollow Bearing Pin												
	A	A	B	C	D	E	F	G	H1	H2	J	K
4500	38.1	76.2	12.1	6.6	12.7	17.8	9.5	24.6	19.1	-	1.8	2.3
6000	38.1	152.4	18.0	10.1	15.0	25.4	14	36.5	25.4	26.0	3.8	3.8
12000	50.8	228.6	23.6	13.2	19.0	32.5	19	44	38.1	32.0	3.8	5.1
24000	88.9	304.8	33.2	20.1	25.4	43.0	26.9	57	51.0	45.0	5.1	7.1
36000	127.0	457.2	38.1	23.1	38.1	59.0	31.8	79.5	61.0	-	7.6	8.9

Solid Bearing Pin												
	A	A	B	C	D	E	F	G	H1	H2	J	K
3000	25.4	114.3	8.6	-	11.7	16	5.7	21.8	18.0	16.0	1.8	1.8
7500	38.1	152.4	18.0	-	15.0	25.4	14.0	38.0	25.4	26.0	3.8	3.8
15000	50.8	228.6	23.6	-	19.0	32.5	19.0	46.0	38.1	32.0	3.8	5.1
30000	88.9	304.8	33.2	-	25.4	43.0	26.9	60.0	51.0	45.0	5.1	7.1
45000	127.0	457.2	38.1	-	38.1	59.0	31.8	82.0	61.0	-	7.6	8.9
60000	152.4	457.2	38.1	-	38.1	59.0	23.0	80.0	61.0	-	7.6	8.9
90000	152.4	609.6	38.1	-	38.1	66.3	29.4	94.0	63.5	-	10.0	13.0

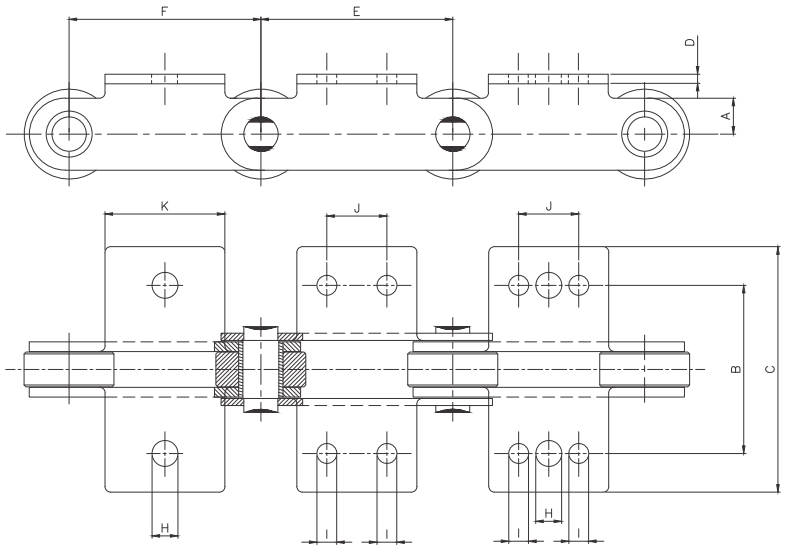
ROLLERS



Rollers		Pitch mm	Tread Dia	Roller Width	Pitch mm	Dia	Tread Dia	Flange Width
Hollow Pin	Solid Pin							
Lbf	Lbf	MIN			MIN			
Standard roller breaking load		Standard Plain			Standard flanged			
-	3000	25.4	12.1	11.4	-	-	-	-
6000	7500	50.8	31.8	14.0	63.5	31.8	41.3	14.0
12000	15000	76.2	47.6	17.8	88.9	47.6	60.3	17.8
24000	30000	101.6	66.7	24.0	114.3	66.7	85.7	24.0
36000	45000	127.0	88.9	36.8	152.4	88.9	114.3	36.8
-	60000	127.0	88.9	36.8	152.4	88.9	114.3	36.8
-	90000	152.4	88.9	36.8	165.1	88.9	114.3	36.8

Large Roller		Plain			Flanged			
-	3000	38.1	25.4	11.4	-	-	-	
4500	-	38.1	25.4	11.4	-	-	-	
36000	45000	203.2	127.0	36.8	228.6	127.0	152.4	36.8
-	60000	203.2	127.0	36.8	228.6	127.0	152.4	36.8
-	90000	203.2	127.0	36.8	228.6	127.0	152.4	36.8

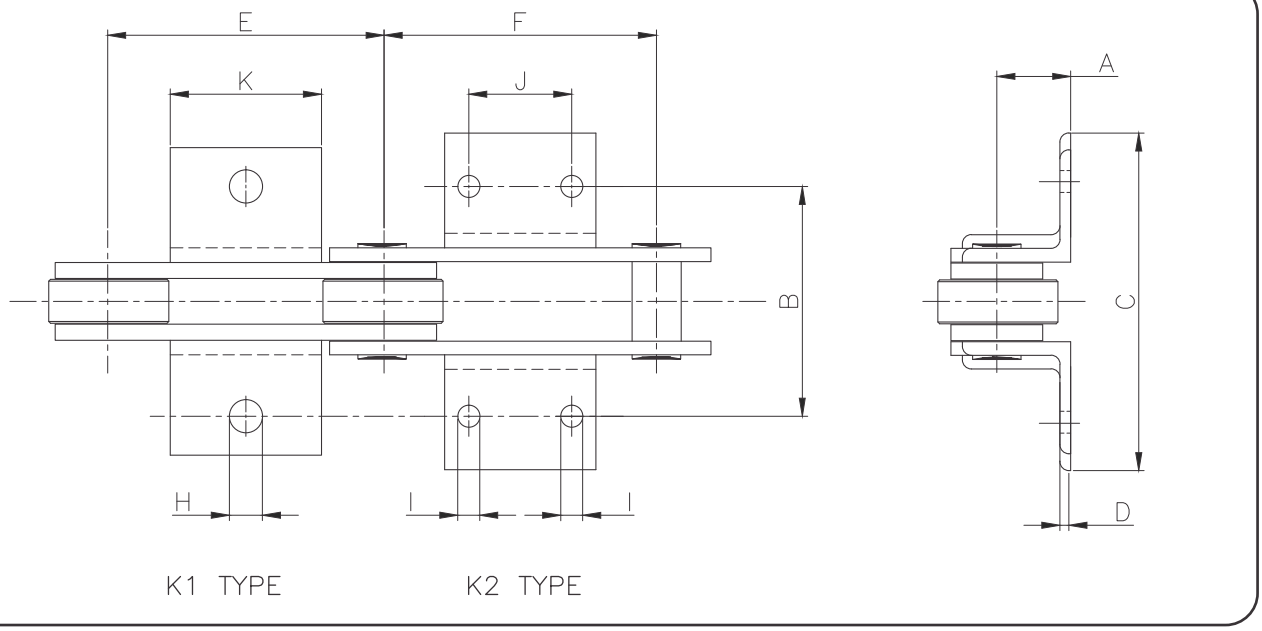
BS K ATTACHMENTS (INTEGRAL)



Type K1 Type K2 Type K3

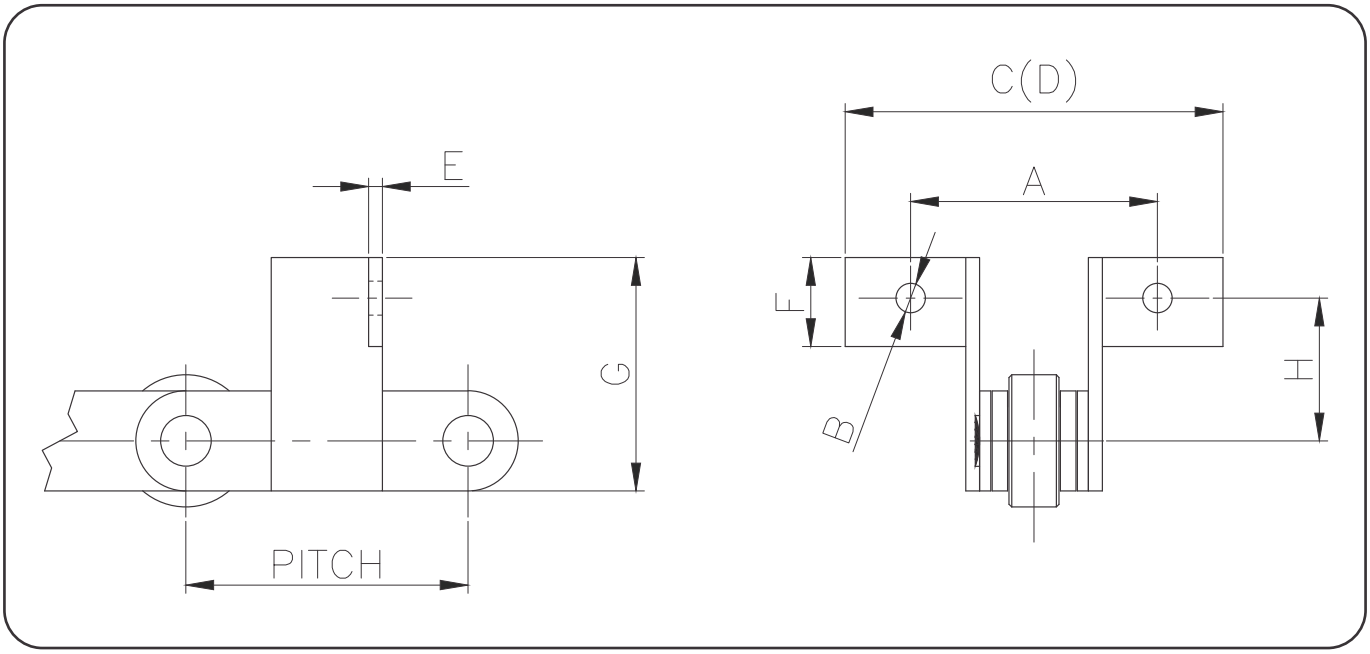
Technical Deatails (mm)											
Breaking Load	Platform Height	Transverse Pitch	Width over Attachment inner/outer	Attachment Thickness	Attachment Type	Attachment Minimum outer Pitch	Attachment Minimum inner Pitch	Centre hole dia	Outer hole dia	Attachment hole pitch	Platform length
Lbf											
Conveyor chain - BS K attachments (integral)											
	A	B	C	D		E	F	H	I	J	K
3000	16.5	44.5	66/70	1.8/1.8	K1	38.1	38.1	9.2	-	-	19.0
					K3	50.8	50.8	9.2	7.4	25.4	44.5
					K3	76.2	76.2	9.2	7.4	25.4	44.5
					K3	101.6	101.6	9.2	7.4	25.4	70.0
6000/7500	19	76.2	106/115	3.8/3.8	K3	76.2	76.2	10.5	9.2	22.2	43.0
					K3	101.6	101.6	10.5	9.2	31.8	63.5
					K3	127	127	10.5	9.2	57.2	89.0
					K3	152.4	152.4	10.5	9.2	57.2	114.5
12000/15000	31.8	89.0	130/136	5.1/3.8	K3	76.2	76.2	13.7	10.5	31.8	63.5
					K3	101.6	101.6	13.7	10.5	31.8	63.5
					K3	152.4	152.4	13.7	10.5	57.2	114.5
24000/30000	38	108	146/157	7.1/5.1	K1	101.6	101.6	15.3	-	-	63.5
					K2	101.6	101.6	-	12.2	31.8	63.5
					K3	152.4	152.4	15.3	12.2	57.2	114.5
36000/45000	50.8	146	198/198	8.9/7.6	K2	152.4	152.4	-	13.7	31.8	74.0
					K2	203.2	203.2	-	13.7	88.9	125.0

BS K ATTACHMENTS (WELDED)



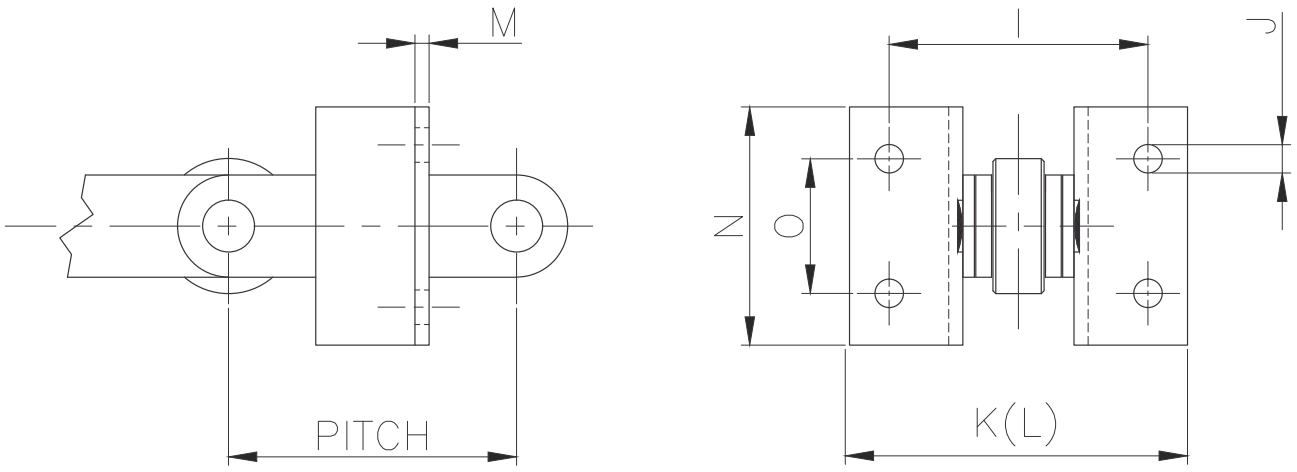
Technical Deatails (mm)											
Breaking Load	Platform Height	Transverse Pitch	Width over Attachment inner/outer	Attachment Thickness	Attachment Type	Attachment Minimum outer Pitch	Attachment Minimum inner Pitch	Centre hole dia	Outer hole dia	Attachment hole pitch	Platform length
Lbf											
Conveyor chain - BS K attachments (welded)											
	A	B	C	D		E	F	H	I	J	K
3000	16.5	44.5	68/72	3.0	K1	38.1	50.8	8.2	-	-	19.0
					K1	50.8	63.5	8.2	-	-	38.0
					K2	50.8	63.5	-	7.4	22.2	38.0
					K2	76.2	76.2	-	7.4	25.4	44.5
6000/7500	19	76.2	106/116	4.0	K1	50.8	63.5	10.6	-	-	19.0
					K1	63.5	76.2	10.6	-	-	28.0
					K1	88.9	101.6	10.6	-	-	56.0
					K2	88.9	101.6	-	9.2	31.8	56.0
					K2	114.3	127.0	-	9.2	57.2	84.0
12000/15000	31.8	88.9	122/133	5	K1	76.2	88.9	13.7	-	-	35.0
					K1	88.9	101.6	13.7	-	-	56.0
					K2	88.9	101.6	-	10.5	31.8	56.0
					K2	114.3	152.4	-	10.5	57.2	84.0
					K2	152.4	177.8	-	10.5	88.9	127
24000/30000	38	108	146/159	6	K1	127.0	127.0	15.3	-	-	56.0
					K2	127.0	127.0	-	12.2	31.8	56.0
					K2	152.4	152.4	-	12.2	57.2	84.0
					K2	177.8	177.8	-	12.2	69.9	108.0
					K2	203.2	203.2	-	12.2	88.9	127.0
					K2	228.6	228.6	-	12.2	133.4	168.0
36000/45000/60000	50.8	146	202/200	8	K1	152.4	152.4	16.9	-	-	70.0
					K2	152.4	152.4	-	13.7	38.1	70.0
					K2	203.2	203.2	-	13.7	76.2	112.0
					K2	228.6	228.6	-	13.7	88.9	152.0
					K2	304.8	304.8	-	13.7	165.1	229.0
90000	57	171.5	229/252	10	K1	228.6	228.6	19.7	-	-	89.0
					K2	228.6	228.6	-	19.7	44.5	89.0
					K2	228.6	228.6	-	19.7	88.9	152.0
					K2	304.8	304.8	-	19.7	165.1	229.0

BS F1 ATTACHMENTS (WELDED)



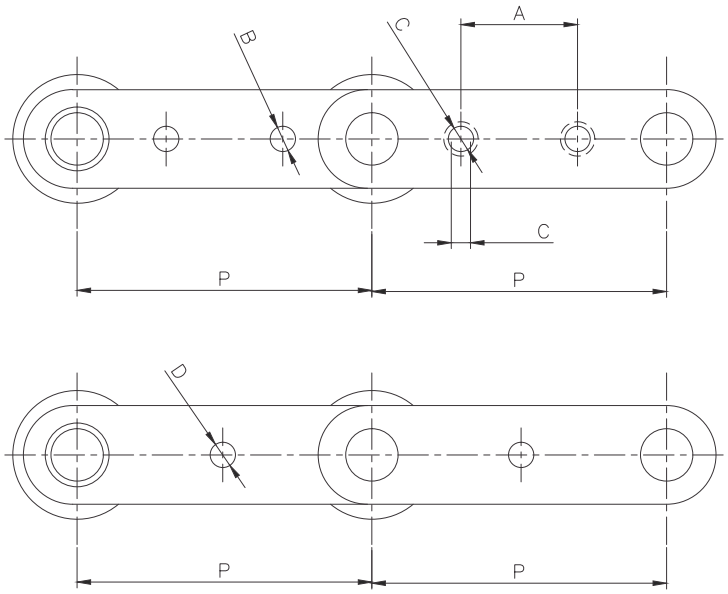
Technical Details (mm)										
Breaking Load	Pitch inner plate	Pitch outer plate	Transverse Pitch	Attachment hole size	Width over Attachment outer plate	Width over Attachment inner plate	Attachment Thickness	Attachment Face height	Total height of attachment	Attachment hole distance from chain centreline
Lbf	MIN	MIN								
Conveyor chain -BS F1 attachments (welded)										
			A	B	C(Max)	D(Max)	E	F	G	H
3000	50.8	38.1	44.5	7.4	72.0	68.0	3.0	19.0	44.5	26.0
6000/7500	69.9	57.2	76.2	9.2	116.0	106.0	4.0	25.4	56.0	32.4
12000/15000	101.6	82.6	88.9	10.5	133.0	122.0	5.0	31.8	84.0	51.4
24000/30000	139.7	114.3	108.0	12.2	159.0	146.0	6.0	44.5	108.0	63.5
36000/45000	165.1	133.4	146.0	13.7	200.0	202.0	8.0	63.5	152.0	90.0
60000	165.1	133.4	146.0	13.7	200.0	202.0	8.0	63.5	152.0	90.0
90000	190.5	152.4	171.5	19.7	252.0	229.0	10.0	63.5	152.0	88.9

BS F2 ATTACHMENTS (WELDED)



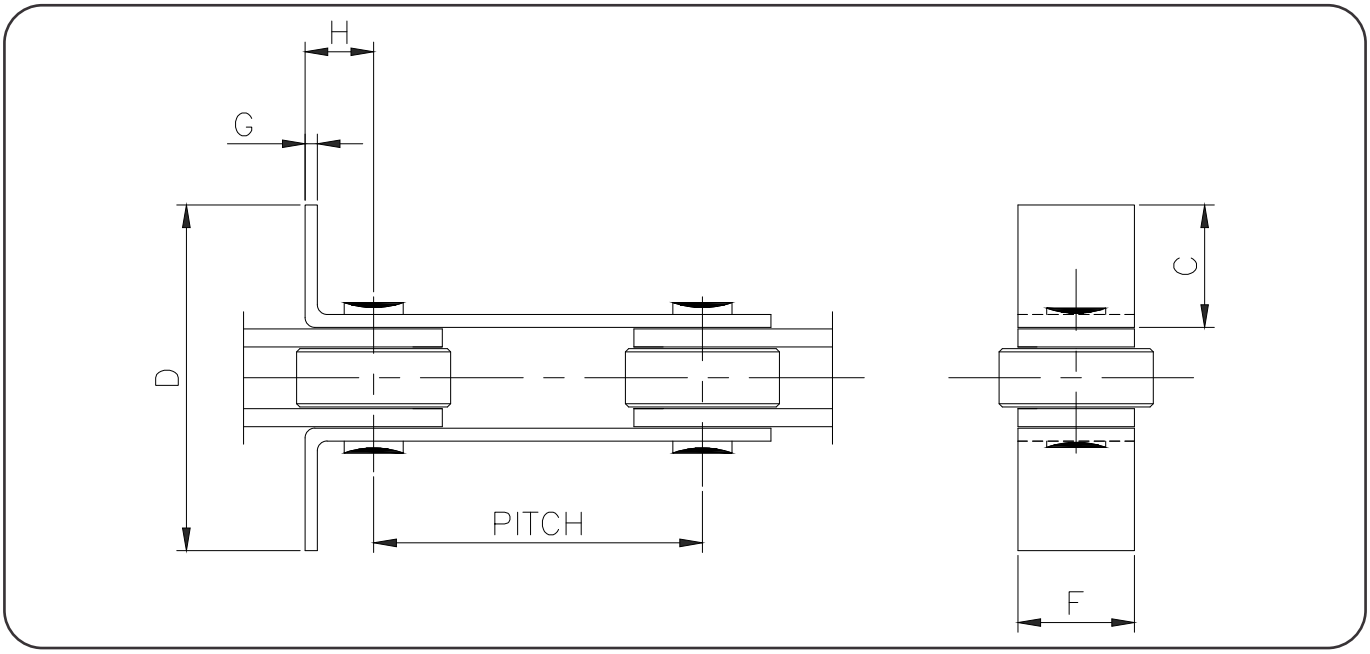
Technical Details (mm)									
	Pitch inner plate	Pitch outer plate	Transverse Pitch	Attachment hole size	Width over Attachment outer plate	Width over Attachment inner plate	Attachment Thickness	Attachment Face height	Pitch of attachment holes
Lbf	MIN	MIN							
Conveyor chain -BS F2 attachments (welded)									
			I	J	K(MAX)	L(MAX)	M	N	O
3000	50.8	38.1	44.	7.4	72.0	68.0	3.0	44.5	25.4
6000/7500	69.9	57.2	76.2	9.2	116.0	106.0	4.0	56.0	31.8
12000/15000	101.6	82.6	88.9	10.5	133.0	122.0	5.0	84.0	57.2
24000/30000	139.7	114.3	108.0	12.2	159.0	146.0	6.0	108.0	69.9
36000/45000	165.1	133.4	146.0	13.7	200.0	202.0	8.0	152.0	88.9
60000	165.1	133.4	146.0	13.7	200.0	202.0	8.0	152.0	88.9
90000	190.5	152.4	171.5	19.7	252.0	229.0	10.0	152.0	88.9

BS ATTACHMENT HOLES IN LINK PLATES



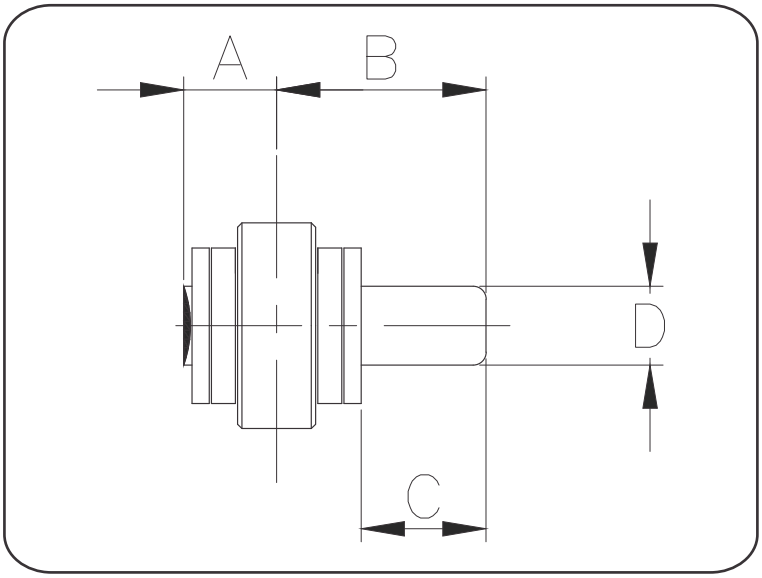
Technical Details (mm)								
Breaking Load	Pitch Bush chain	Pitch small roller	Pitch large roller	Hole diameter	Pitch	Attachment hole pitch	Hole diameter	Cone diameter
Lbf	MIN	MIN	MIN	MIN				
One hole					Two holes			
3000	50.8	50.8	76.2	6.65	-	-	-	-
6000	-	95.3	-	9.9	95.6	38.1	8.3	14.7
7500	-	95.3	-	9.9	127.0	63.5	8.3	14.7
12000/15000	-	-	133.5	13.1	101.6	25.4	9.9	17.8
					108.0	34.9	9.9	17.8
					139.7	60.3	9.9	17.8
					177.8	101.6	9.9	17.8
24000/30000	-	-	190.5	19.4	127.0	34.9	9.9	17.8
					152.4	60.3	9.9	17.8
					171.5	82.6	9.9	17.8
					190.5	101.6	9.9	17.8
					228.6	139.7	9.9	17.8
36000/45000	241.3	241.3	317.5	22.6	152.4	44.5	11.5	20.8
					190.5	82.6	11.5	20.8
					228.6	114.3	11.5	20.8
					304.8	190.5	11.5	20.8
60000	241.3	241.3	317.5	22.6	152.4	44.5	11.5	20.8
					190.5	82.6	11.5	20.8
					228.6	114.3	11.5	20.8
					304.8	190.5	11.5	20.8
90000	279.4	279.4	330.2	29	177.8	50.8	16.7	30.5
					228.6	108	16.7	30.5
					304.8	184.2	16.7	30.5

BS L ATTACHMENTS (INTEGRAL)



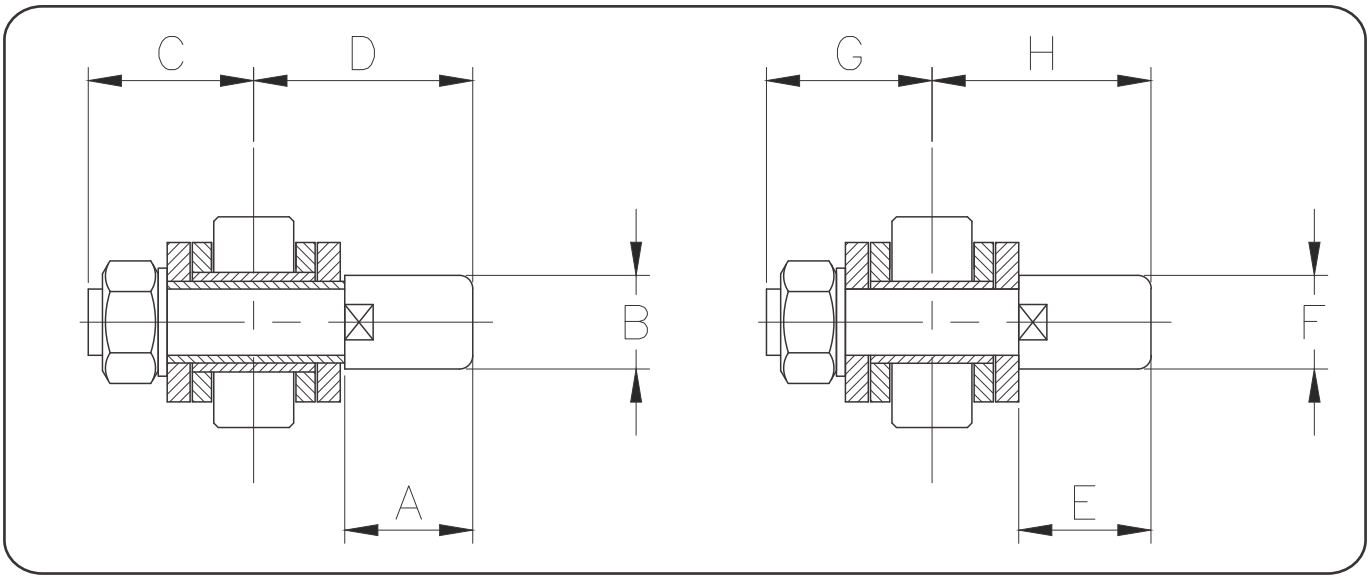
Technical Deatails (mm)									
Breaking Load	Type	Transverse Pitch	Pitch of Attachment holes	Attachment Face length	Width over Attachment outer	Attachment hole diameter	Total height of attachment	Attachment Thickness	Distance of pitch point to Attachment Face
Lbf									
Conveyor chain -BS L attachments (integral)									
		A	B	C	D	E	F	G	H
3000	L0	-	-	28.7	74.2	-	18.0	1.8	16.0
	L0	-	-	41.4	99.6	-	18.0	1.8	16.0
	L0	-	-	54.1	125.0	-	18.0	1.8	16.0
	L0	-	-	66.8	150.4	-	18.0	1.8	16.0
	L1	41.4	-	25.4	67.6	7.4	18.0	1.8	16.0
	L2	41.4	19.0	41.4	100.0	7.4	18.0	1.8	16.0
6000/7500	L0	-	-	48.3	123.5	-	25.4	3.8	19.0
	L0	-	-	61.0	148.90	-	25.4	3.8	19.0
	L0	-	-	86.4	199.7	-	25.4	3.8	19.0
	L0	-	-	111.8	250.5	-	25.4	3.8	19.0
	L0	-	-	137.2	301.3	-	25.4	3.8	19.0
	L1	58.9	-	31.8	107.0	9.2	25.4	3.8	19.0
	L2	58.9	21.6	48.3	123.0	9.2	25.4	3.8	19.0
12000/15000	L0	-	-	44.5	122.0	-	38.1	3.8	25.4
	L0	-	-	57.2	147.4	-	38.1	3.8	25.4
	L0	-	-	82.6	198.2	-	38.1	3.8	25.4
	L0	-	-	108.0	249.0	-	38.1	3.8	25.4
	L0	-	-	133.4	299.8	-	38.1	3.8	25.4
	L1	73.4	-	36.8	106.8	10.5	38.1	3.8	25.4
	L2	73.4	24	57.2	148.6	10.5	38.1	3.8	25.4
24000/30000	L0	-	-	128.5	300.0	-	51.0	5.1	35.0
36000/45000	L0	-	-	135.2	330.0	-	61.0	7.6	42.0
60000	L0	-	-	135.2	330.0	-	61.0	7.6	42.0

BS EXTENDED BEARING PINS



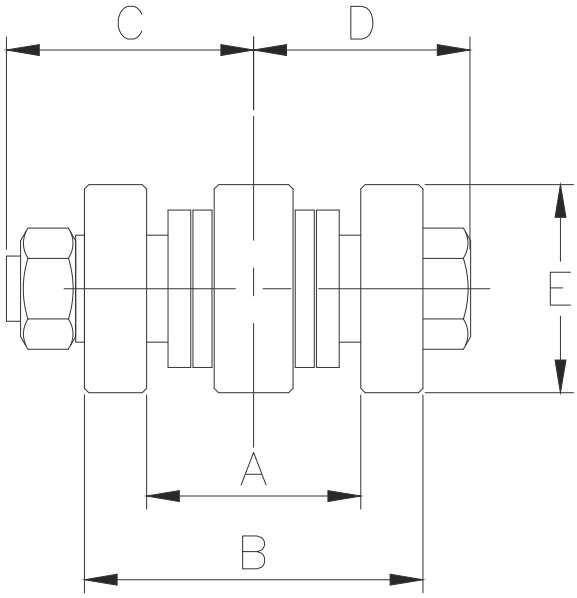
Technical Details (mm)				
Breaking Load	Centre Distance to rivet End	Centre Distance to Pin End	Extension length	Extension diameter
Lbf	MIN	MIN		
BS Extended bearing pins				
	A	B	C	D
3000	11.0	35.0	25.4	11.0
7500	19.0	55.0	38.0	16.0
15000	23.0	65.0	44.5	22.2
30000	30.0	84.0	57.2	28.6
45000	41.2	107.2	70.0	35.0
60000	40.0	107.2	70.0	35.0
90000	47.0	113.3	70.0	38.0

BS SPIGOT PINS



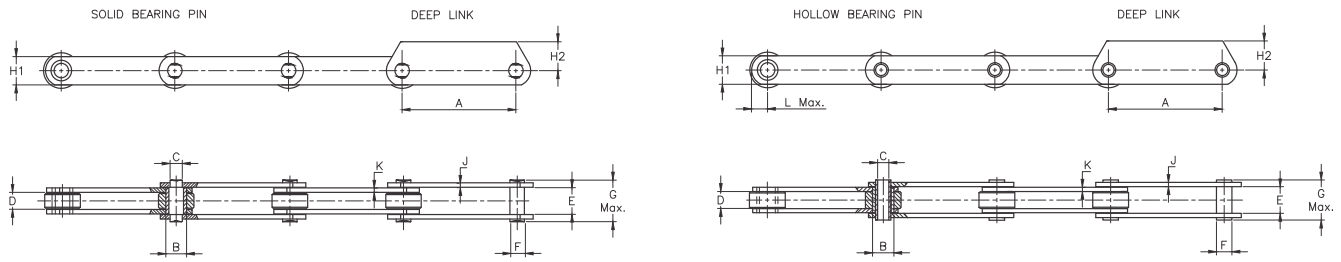
Technical Details (mm)								
Breaking Load	Extended Length	Extension Diameter	Centre Distance to nut End	Centre Distance to pin End	Extended Length	Extension Diameter	Centre Distance to nut End	Centre Distance to pin End
Lbf								
Spigot pins through hollow pin type 1					Spigot pins mid pitch on outer link type 2			
	A	B	C	D	E	F	G	H
3000	-	-	-	-	25.4	11.0	17	35.0
6000	38.1	16	31	57	38.1	16.0	29.2	56.0
7500	-	-	-	-	38.1	16.0	29.2	56.0
12000	44.5	19	36.3	66.3	44.5	19.0	34.3	64.8
15000	-	-	-	-	44.5	19.0	34.3	64.8
24000	57.2	28.6	48	85.3	57.2	28.6	45.7	83.8
30000	-	-	-	-	57.2	28.6	45.7	83.8
36000	70	31.8	61	109	70.0	31.8	58.5	107.0
45000	-	-	-	-	70.0	31.8	58.5	107.0
60000	-	-	-	-	70.0	31.8	58.5	107.0
90000	-	-	-	-	70.0	38.0	71	113.0

BS OUTBOARD ROLLERS



Technical Details (mm)						
Breaking Load	Distance Between Outboard Rollers	Distance Over Outboard Rollers	Centre Disatance to Nut End	Centre Disatance to Bolt End	Roller Diameter	Roller Load Per Pitch Point
Lbf	MIN	MIN				
BS Outboard Rollers						
	A	B	C	D	E	
6000	44.45	75	55.6	46.5	33.3	165
12000	50.8	88.9	68.5	57	50.8	290
24000	66	118	86.6	75.7	69.9	545
38000	94	171.5	113.5	106	92.1	725

ISO STANDARD CHAIN

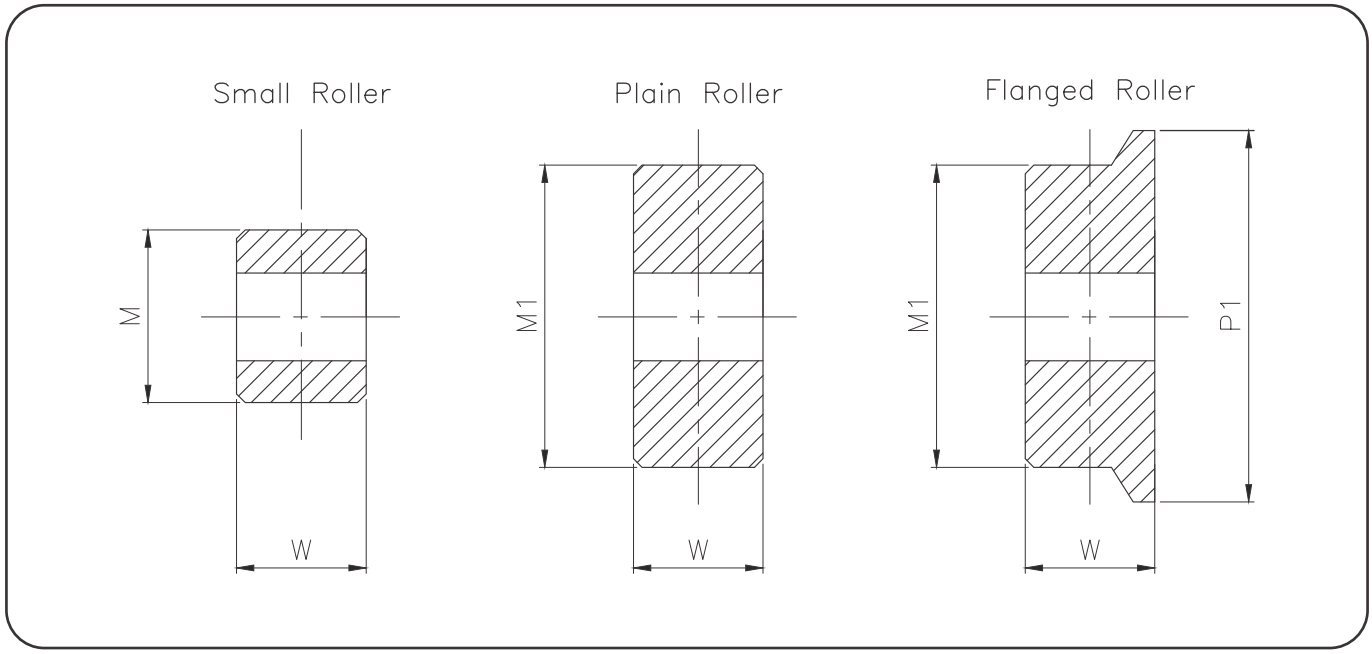


Technical Details (mm)													
Chain No	Breaking Load (newtons)	Pitch	Pitch	Bush Dia	Hollow Bearing Pin Bore Dia	Inside Width Inner	Inside Width Outer	Pin Dia	Pin Length	Plate Height	Plate Height	Plate Width Outer	Plate Inner Outer
	MIN	MIN	MAX	MAX	MIN	MIN	MIN	MAX	MAX		MAX		
Hollow Bearing pin													
		A	A	B	C	D	E	F	G	H1	H2	J	K
MC56	56000	80	250	21.0	10.2	24.0	33.7	15.5	46.5	35.0	32.5	4.0	4.0
Mc112	112000	100	315	29.0	14.3	32.0	45.7	22.0	63.0	50.0	45.0	6.0	6.0
Mc224	224000	160	500	41.0	20.3	43.0	60.8	31.0	83.0	70.0	65.0	8.0	8.0

Solid Bearing Pin													
		A	A	B	C	D	E	F	G	H1	H2	J	K
M40	40000	63	250	12.5	-	20.0	28.3	8.5	41.0	25.0	22.5	3.5	3.5
M56	56000	63	250	15.0	-	24.0	33.3	10.0	47.0	30.0	30.0	4.0	4.0
M80	80000	80	315	18.0	-	28.0	39.4	12.0	54.6	35.0	32.5	5.0	5.0
M112	112000	80	400	21.0	-	32.0	45.5	15.0	60.6	40.0	40.0	5.0	6.0
M160	160000	100	500	25.0	-	37.0	52.5	18.0	72.6	50.0	45.0	6.0	7.0
M224	224000	125	630	30.0	-	43.0	60.6	21.0	84.0	60.0	60.0	6.0	8.0
M315	315000	160	630	36.0	-	48.0	70.7	25.0	97.0	70.0	65.0	8.0	10.0
M450	450000	200	800	42.0	-	56.0	82.8	30.0	114.0	80.0	80.0	10.0	12.0
M630	630000	250	1000	50.0	-	66.0	97.0	36.0	133.0	100.0	90.0	14.0	14.0
M900	900000	250	1000	60.0	-	78.0	113.0	44.0	153.0	120.0	120.0	16.0	16.0

CONVEYOR CHAIN

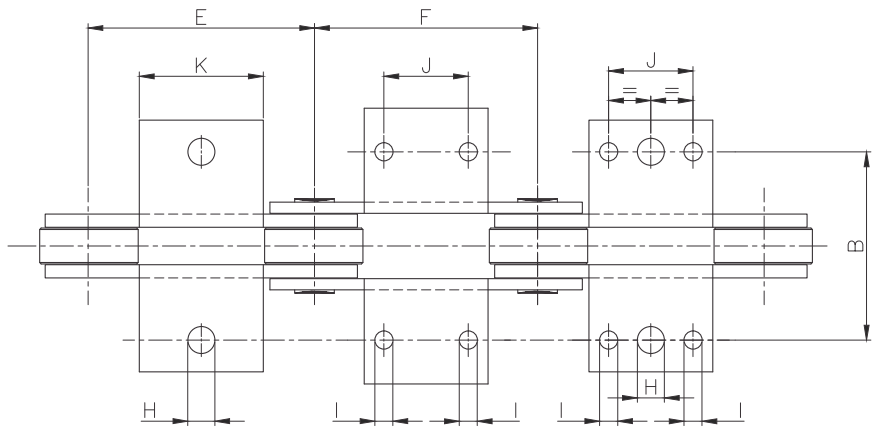
ISO ROLLERS

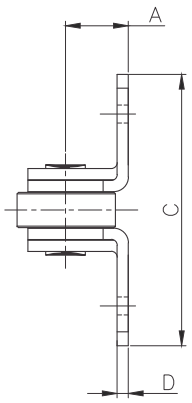


Chain Ref	Technical Details (mm)							
Chain No	Breaking Load (Newtons)	Small Tread Dia	Roller Width	Plain Tread Dia	Roller Width	Flanged Tread Dia	Flange Dia	Roller Width
Hollow Bearing Pin Rollers								
		M	W	M1	W	M1	P	W
MC56	56000	30.0	23.0	50.0	23.0	50.0	60.0	23.0
MC112	112000	42.0	31.0	70.0	31.0	70.0	85.0	31.0
Mc224	224000	60.0	42.0	100.0	42.0	100.0	120.0	42.0

Solid Bearing Pin Rollers								
		M	W	M1	W	M1	P	W
M40	40000	18.0	19.0	36.0	19.0	36.0	42.0	19.0
M56	56000	21.0	23.0	42.0	23.0	42.0	50.0	23.0
M80	80000	25.0	27.0	50.0	27.0	50.0	60.0	27.0
M112	112000	30.0	31.0	60.0	31.0	60.0	70.0	31.0
M160	160000	36.0	36.0	70.0	36.0	70.0	85.0	36.0
M224	224000	42.0	42.0	85.0	42.0	85.0	100.0	42.0
M315	315000	50.0	47.0	100.0	47.0	100.0	120.0	47.0
M450	450000	60.0	55.0	120.0	55.0	120.0	140.0	55.0
M630	630000	70.0	65.0	140.0	65.0	140.0	170.0	65.0
M900	900000	85.0	76.0	170.0	76.0	170.0	210.0	76.0

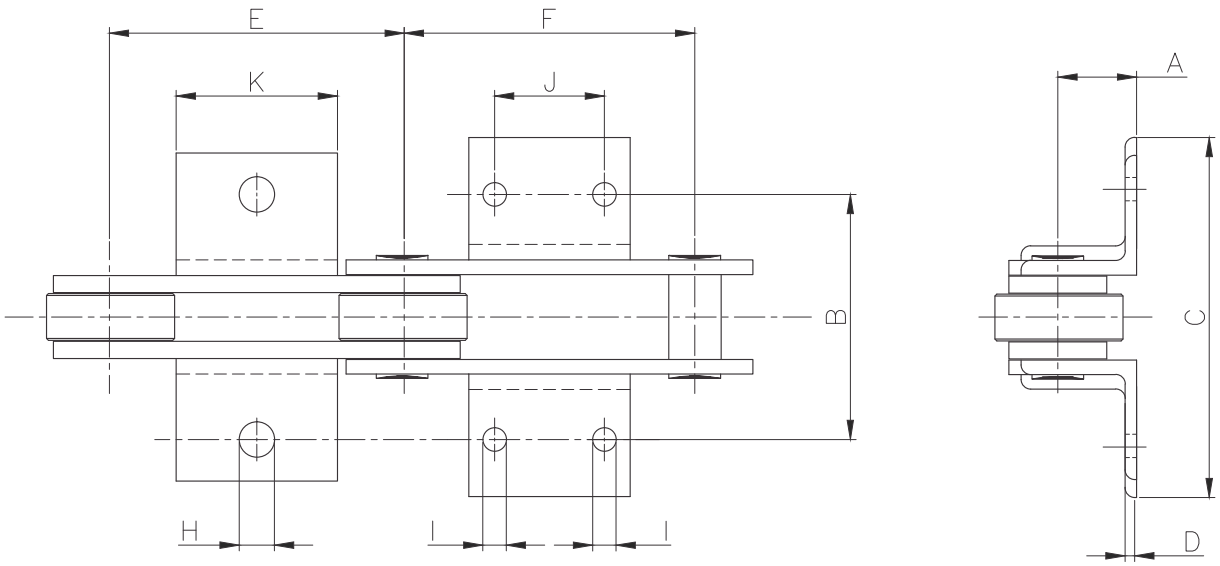
ISO K ATTACHMENTS (WELDED)
SOLID PIN CHAIN





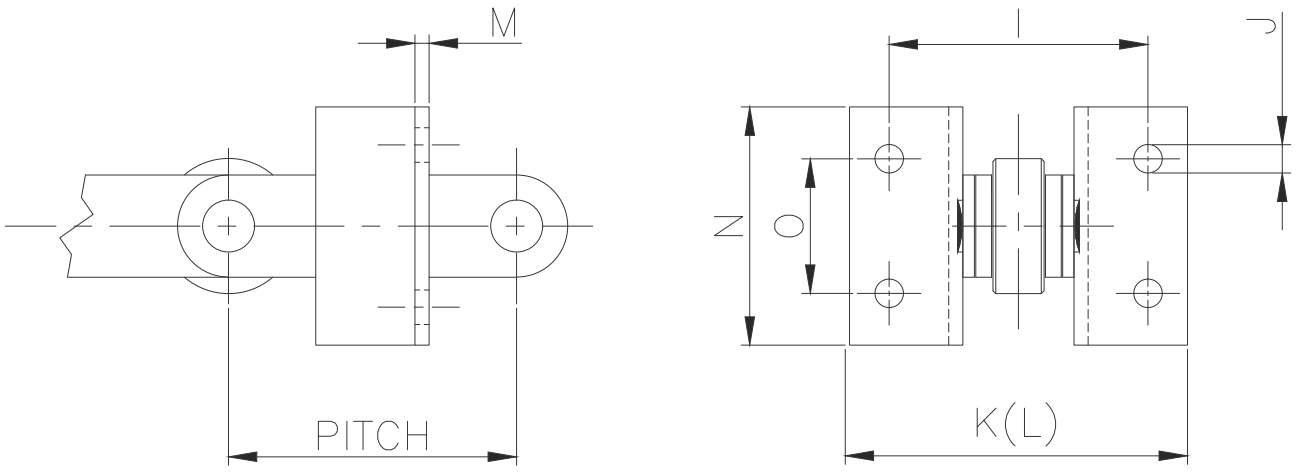
Chain Ref		Technical Deatails (mm)										
Chain No	Breaking Load (Newtons)	Platform Height	Transverse Pitch	Width over Attachment Inner/Outer	Attachment Thickness Inner/Outer	Attachment Type	Attachment Minimum Outer Pitch	Attachment Minimum Inner Pitch	Centre Hole Dia	Outer Hole Dia	Hole Pitch	Platform Length
				MAX								
Solid Bearing Pin												
		A	B	C	D		E	F	H	I	J	K
M40	4000	25	70	101/110	3.5	K1	63	63	9.0	-	-	20
						K2	80	80	-	9	20	40
						K3	100	100	9.0	9	40	60
						K3	125	125	9.0	9	65	85
M56	56000	30	88	116/126	5.0	K1	63.0	63.0	11.0	-	-	25.0
						K2	100.0	100.0	-	11.0	25.0	50.0
						K3	125.0	125.0	11.0	11.0	50.0	75.0
						K3	160.0	160.0	11.0	11.0	85.0	110.0
M80	80000	35	96	132/135	5.0	K1	80.0	80.0	11.0	-	-	25.0
						K3	125.0	125.0	11.0	11.0	50.0	75.0
						K3	160.0	160.0	11.0	11.0	85.0	110.0
						K3	200.0	200.0	11.0	11.0	125.0	150.0
M112	112000	40	110	150/164	6.0	K1	80.0	80.0	14.0	-	-	30.0
						K2	125.0	125.0	-	14.0	35.0	65.0
						K3	160.0	160.0	14.0	14.0	65.0	95.0
						K3	200.0	200.0	14.0	14.0	100.0	130.0
M160	160000	45	124	178/193	6.0	K1	100.0	100.0	14.0	-	-	30.0
						K2	160.0	160.0	-	14.0	50.0	80.0
						K3	200.0	200.0	14.0	14.0	85.0	115.0
						K3	250.0	250.0	14.0	14.0	145.0	175.0
M224	224000	55	140	206/224	8.0	K1	100.0	125.0	18.0	-	-	40.0
						K2	160.0	200.0	-	18.0	65.0	105.0
						K3	200.0	250.0	18.0	18.0	125.0	165.0
						K3	250.0	315.0	18.0	18.0	190.0	230.0
M315	315000	65	160	216/240	10.0	K1	160.0	160.0	18.0	-	-	35.0
						K2	200.0	200.0	-	18.0	50.0	85.0
						K2	250.0	250.0	-	18.0	100.0	135.0
						K2	315.0	315.0	-	18.0	155.0	190.0
M450	450000	75	180	228/255	10.0	K1	200.0	200.0	18.0	-	-	40.0
						K2	250.0	250.0	-	18.0	85.0	125.0
						K2	315.0	315.0	-	18.0	155.0	195.0
						K2	400.0	400.0	-	18.0	240.0	280.0
M630	630000	90	230	302/333	12.0	K1	250.0	250.0	24	-	-	50.0
						K2	315.0	315.0	-	24.0	100.0	150.0
						K2	400.0	400.0	-	24.0	190.0	240.0
						K2	500.0	500.0	-	24.0	300.0	350.0
M900	900000	110	280	358/393	15.0	K1	250.0	250.0	30	-	-	60.0
						K2	315.0	315.0	-	30.0	65.0	125.0
						K2	400.0	400.0	-	30.0	155.0	215.0
						K2	500.0	500.0	-	30.0	240.0	300.0

ISO K ATTACHMENTS (WELDED)
HOLLOW PIN TYPE CHAIN



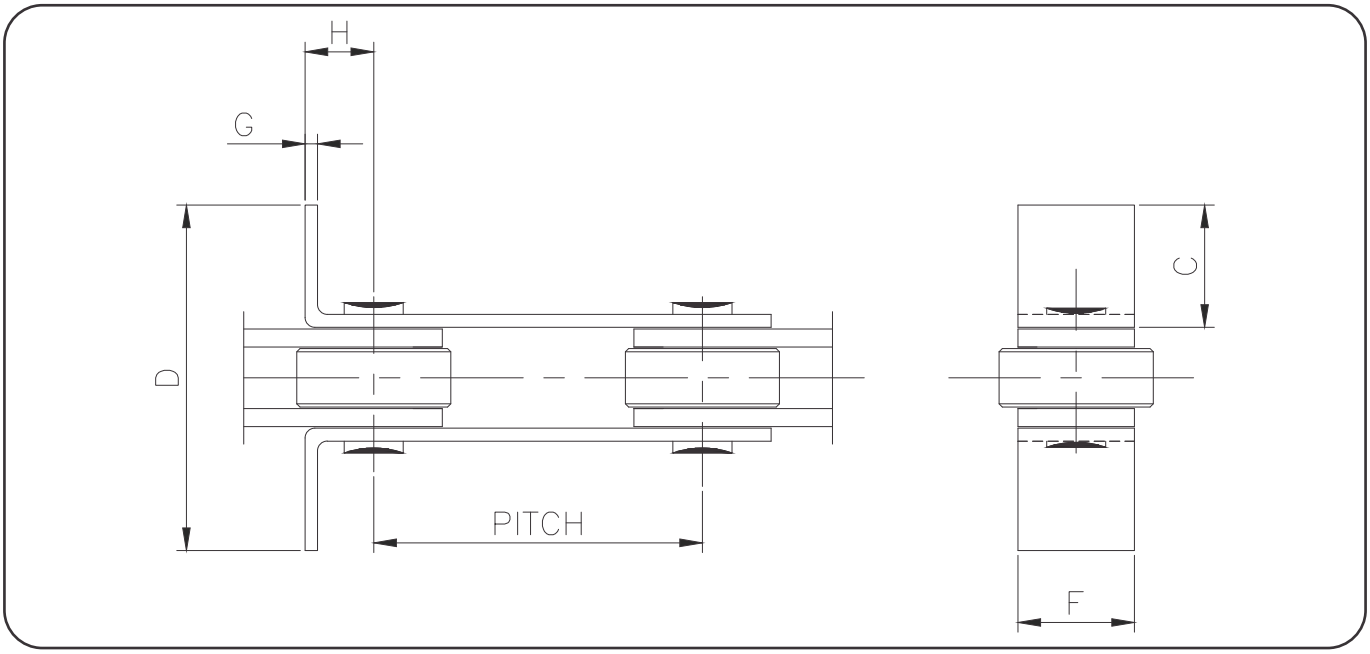
Chain Ref	Technical Details (mm)										
Chain No	Breaking Load (Newtons)	Platform Height	Transverse Pitch	Width over Attachment inner/outer	Attachment Thickness inner/outer	Attachment Type	Attachment Minimum outer Pitch	Attachment Minimum inner Pitch	Centre Hole Dia	Hole Pitch	Platform Length
				MAX							
Hollow Bearing Pin											
		A	B	C(MAX)	D		E	F	I	J	K
MC56	56000	35	88	126/137	5	K2	125	125	11	50	75
						K2	160	160	11	85	110
						K2	200	200	11	125	150
MC112	112000	45	110	171/186	6	K2	160	160	14	50	80
						K2	200	200	14	85	115
						K2	250	250	14	145	175
MC224	224000	65	140	206/220	8	K2	200	200	18	50	85
						K2	250	250	18	100	135
						K2	315	315	18	155	190

ISO F ATTACHMENTS (WELDED)



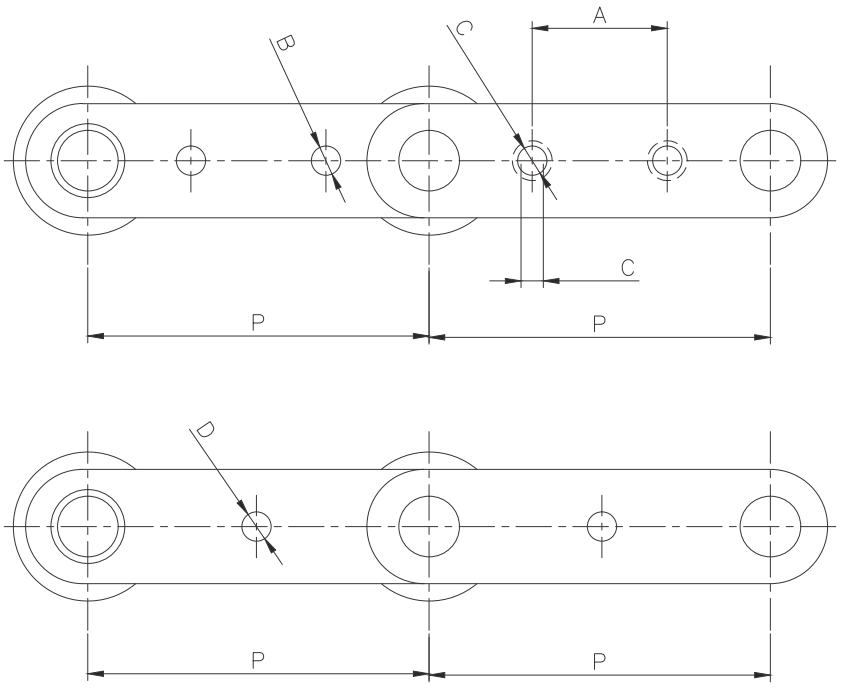
Chain Ref	Technical Details (mm)									
Chain No	Breaking Load (Newtons)	Minimum Pitch Inner Plate	Minimum Pitch Outer Plate	Transverse Pitch	Attachment Hole Size	Width Over Att. Outer Plate	Width Over Att. Inner Plate	Attachment Thickness	Attachment Face Height	Pitch of Attachment
ISO F Attachments (welded)										
				I	J	K	L	M	N	O
M40	40000	80.0	80.0	70.0	9.0	110.0	101.0	3.5	40.0	20.0
M56	56000	100.0	100.0	88.0	11.0	126.0	116.0	5.0	50.0	25.0
MC56	56000	100.0	100.0	88.0	11.0	137.0	126.0	5.0	75.0	50.0
M80	80000	100.0	100.0	96.0	11.0	135.0	132.0	5.0	75.0	50.0
M112	112000	125.0	125.0	110.0	14.0	164.0	150.0	6.0	65.0	35.0
MC112	112000	125.0	125.0	110.0	14.0	186.0	171.0	6.0	80.0	50.0
M160	160000	125.0	125.0	124.0	14.0	193.0	178.0	6.0	80.0	50.0
M224	224000	160.0	160.0	140.0	18.0	224.0	206.0	8.0	105.0	65.0
Mc224	244000	200.0	200.0	140.0	18.0	220.0	206.0	8.0	85.0	50.0
M315	315000	200.0	200.0	160.0	18.0	240.0	216.0	10.0	85.0	50.0
M450	450000	200.0	200.0	180.0	18.0	255.0	228.0	10.0	125.0	85.0
M630	630000	250.0	250.0	230.0	24.0	333.0	302.0	12.0	150.0	100.0
M900	900000	315.0	315.0	280.0	30.0	393.0	358.0	15.0	125.0	65.0

ISO L ATTACHMENTS



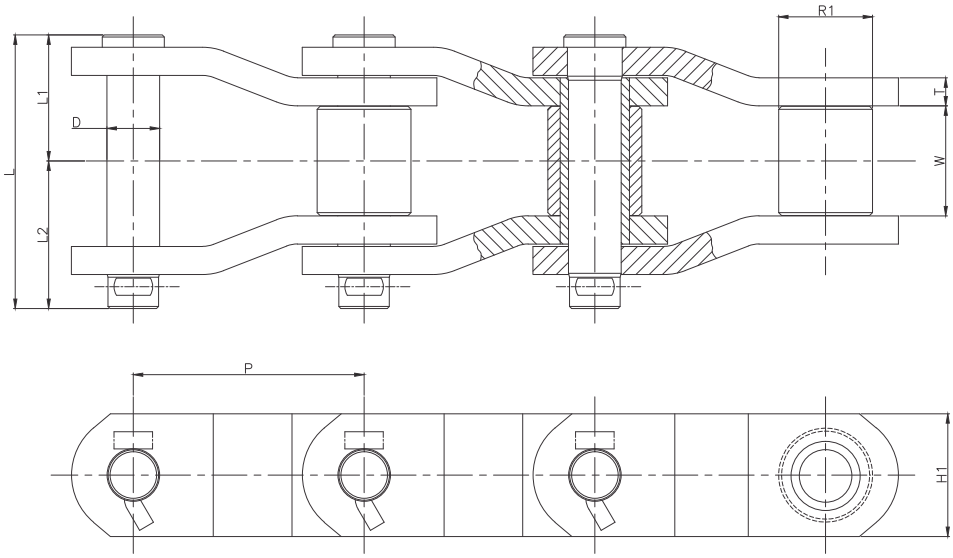
Chain Ref	Technical Details (mm)						
Chain No	Breaking Load (Newtons) Lbf	Type	Attachment Face Length	Width Over Attachment Outer	Total height of Attachment	Attachment Thickness	Distance of Pitch point to Attachmnet face
ISO L Attachments (Integral)							
			C	D	F	G	H
M40	40000	L0	75.85	180.0	25.0	3.5	30.0
M56	56000	L0	98.35	230.0	30.0	4.0	30.0
M80	80000	L0	95.30	230.0	35.0	5.0	30.0
M112	11200	L0	104.75	255.0	40.0	6.0	30.0
M160	160000	L0	113.75	280.0	50.0	7.0	35.0
M224	224000	L0	134.70	330.0	60.0	8.0	40.0
M315	315000	L0	154.65	380.0	70.0	10.0	50.0
M450	450000	L0	173.60	430.0	80.0	12.0	60.0
M630	630000	L0	168.50	430.0	100.0	14.0	70.0

ISO ATTACHMENT HOLES IN LINK PLATES



Chain Ref	Technical Details (mm)			Technical Details (mm)		
Chain No	Breaking Load	Pitch Bush Chain	Pitch Hole Diameter	Pitch	Attachment Hole	Hole Diameter
		MIN		MIN		
One hole				Two holes		
		P	D	P	A	B
M40	40000	100.0	11.0	160.0	63.0	9.0
M56	56000	100.0	11.0	160.0	63.0	11.0
MC56	56000	100.0	11.0	160.0	80.0	11.0
M80	80000	100.0	15.0	200.0	80.0	11.0
M112	112000	125.0	15.0	200.0	80.0	14.0
MC112	112000	125.0	15.0	200.0	100.0	14.0
M160	160000	160.0	21.0	250.0	100.0	14.0
M224	224000	160.0	21.0	250.0	100.0	18.0
MC224	224000	160.0	21.0	315.0	125.0	18.0
M315	315000	200.0	25.0	315.0	125.0	18.0
M450	450000	200.0	30.0	315.0	125.0	18.0
M630	630000	250.0	36.0	400.0	160.0	24.0
M900	900000	315.0	45.0	500.0	200.0	30.0

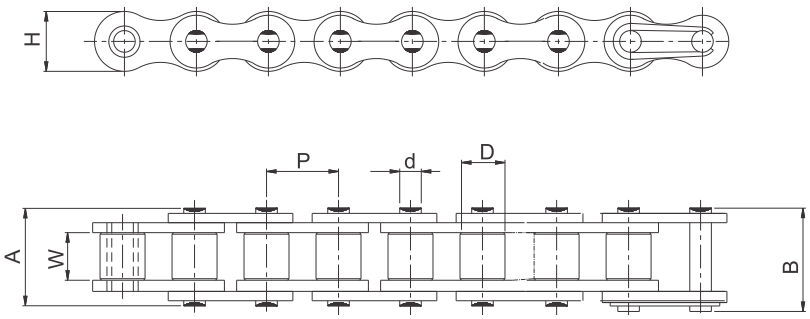
HEAVY DUTY OFFSET SIDE BAR CHAINS



Chain No.	Pitch P	Roller Dia R1	WIP W	Plate Height H1	Plate Thickness T	Average Breaking Load KGF	Minimum Breaking Load KGF	Pin Diameter D1	Pin Length L	L1	L2
DO 3140	44.45	25.40	25.40	43.20	5.6	24000	20400	12.15	62.6	28.55	34.05
DO 3160	50.80	28.58	31.75	49.20	6.4	30600	26010	13.73	72.3	33.40	38.90
DO 1613AK	50.80	28.58	31.50	42.90	8.1	31750	26987.5	15.06	78.0	36.20	41.80
DO 3180	57.15	35.72	36.40	54.00	7.2	36300	30855	17.46	81.0	37.30	43.70
DO 25H	63.50	31.75	38.10	41.50	9.5	39700	33745	15.88	92.5	43.05	49.45
DO 1625	63.50	39.69	38.90	60.30	8.0	43000	36550	19.80	89.7	41.40	48.30
DO 588	66.27	22.23	28.60	28.60	6.4	14700	12495	11.11	67.0	32.00	35.00
DO 568	77.90	41.28	40.10	54.00	9.5	52400	44540	19.05	97.0	45.05	51.95
DO 568-T	77.90	41.28	40.10	54.00	9.5	50000	42500	19.05	97.0	45.05	51.95
DO 3	78.11	31.75	38.10	38.00	8.0	27700	23545	15.88	86.5	40.05	46.45
DO 3H	78.11	31.75	38.10	41.50	9.5	39700	33745	15.88	92.5	43.05	49.45
DO 3125	79.38	41.28	41.20	54.00	9.5	52000	44200	20.32	99.5	45.90	53.60
DO 1616	88.90	44.45	38.60	54.00	12.7	63500	53975	22.23	111.7	51.60	60.10
DO 3924T	99.21	57.15	38.40	82.60	14.3	118000	100300	30.16	121.0	56.85	64.15
DO 5	103.20	44.45	38.60	54.00	12.7	63500	53975	22.23	111.7	51.60	60.10
DO 4	103.20	44.45	49.10	54.00	12.7	63500	53975	22.23	122.2	56.85	65.35
DO 4HF	103.20	44.45	49.20	59.00	16.0	80300	68255	22.23	135.7	63.60	72.10
DO 4HF-T	103.20	44.45	49.20	59.00	16.0	69000	58650	22.23	135.7	63.60	72.10
DO 1245	103.45	45.24	49.20	60.00	14.5	84600	71910	23.80	130.0	60.25	69.75
DO 1245T	103.45	45.24	49.20	60.00	14.5	77000	65450	23.80	130.0	60.25	69.75
DO 1343	103.89	47.63	49.20	70.00	14.5	105000	89250	25.40	132.0	62.25	69.75
DO 1343T	103.89	47.63	49.20	70.00	14.5	86500	73525	25.40	132.0	62.25	69.75
DO 1345	103.89	50.80	49.20	70.00	14.5	105000	89250	25.40	132.0	62.25	69.75
DO 1345T	103.89	50.80	49.20	70.00	14.5	86500	73525	25.40	132.0	62.25	69.75
DO 0635	114.30	57.15	52.40	76.00	14.5	113000	96050	27.90	135.5	64.25	71.25
DO 1634A	127.00	63.50	58.70	76.00	14.5	109000	92650	28.63	141.5	67.40	74.10
DO 1602AA	127.00	63.50	70.00	90.00	16.0	156000	132600	31.75	161.2	77.05	84.15
DO 6042	152.40	76.20	76.30	101.60	19.0	207000	175950	38.10	184.0	86.70	97.30

STANDARD ROLLER CHAINS

EUROPEAN SERIES



ISO 606/BS 228/DIN 8187

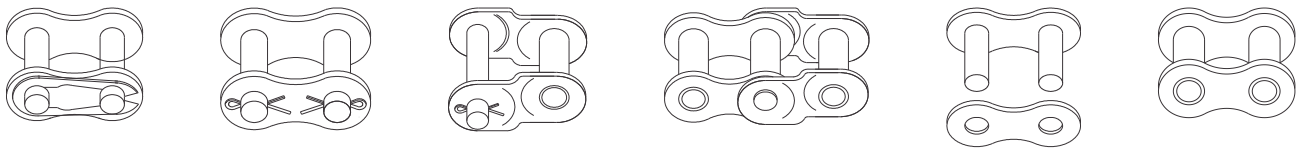
The European series of roller chains are designed for use in mechanical power transmission systems.

SINGLE STRAND

Intl. Ref No.	ROMBO Chain No.	Pitch (P)	Width between Inner Plates (W) (Min)	Rollar Dia (D) (Max)	Bearing Pin Dia (D) (Max)	Plate Height (H) (Max)	Width over Bearing Pin (A) (Max)	Width over Joint Fasteners (B) Max	Projected bearing Area Sq.cm	Avg. Weight Per Meter (Kg)	Tensile Strength (KN) (Min)	Tensile Strength (KN) (Avg)	Spares Availability
04B -1	D04B 01	6.00	2.80	4.00	1.85	5.00	7.40	10.30	0.08	0.12	3.00	3.33	A,B,C,D
05B -1	D05B 01	8.00	3.00	5.00	2.31	7.10	8.60	11.70	0.11	0.18	5.00	5.90	A,B,C,D
06B -1*	D061 01	9.525	5.72	6.35	3.28	8.20	13.50	16.80	0.28	0.40	9.00	10.70	A,B,C,D
08B -1	D083 01	12.70	7.75	8.51	4.45	11.80	17.00	20.90	0.50	0.68	18.00	21.10	A,B,C,D
10B -1	D101 01	15.875	9.65	10.16	5.08	14.70	19.60	23.70	0.67	0.91	22.40	27.45	A,B,C,D
12B -1	D102 01	19.05	11.68	12.07	5.72	16.10	22.70	27.30	0.88	1.12	29.00	32.35	A,B,C,D
16B -1	D160 01	25.40	17.02	15.88	8.27	21.00	36.10	41.50	2.07	2.59	60.00	70.60	A,B,C,D
20B -1	D200 01	31.75	19.56	19.05	10.19	26.40	43.20	49.30	2.91	3.60	95.00	109.85	A,B,C,D
24B -1	D240 01	38.10	25.40	25.40	14.63	33.40	53.40	60.00	5.49	6.85	160.00	179.00	B,C,D
28B -1	D280 01	44.45	30.99	27.94	15.90	37.00	65.10	72.50	7.26	8.56	200.00	226.00	B,C,D
32B -1	D320 01	50.80	30.99	29.21	17.81	42.20	67.40	75.30	8.05	9.49	250.00	272.80	B,C,D
40B -1	D400 01	63.50	38.10	39.37	22.89	52.90	82.60	92.60	12.61	15.53	355.00	390.50	B,C,D
48B -1	D480 01	76.20	45.72	48.26	29.24	63.80	99.10	109.10	20.40	24.45	560.00	602.00	B,C,D

* Straight Side Plates

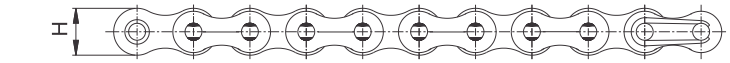
A B C D E F

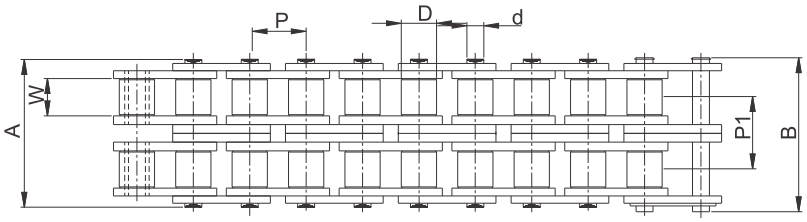


Note : Spares E & F are available for all models

STANDARD ROLLER CHAINS

EUROPEAN SERIES





ISO 606/BS 228/DIN 8187

DOUBLE STRAND

Intl. Ref. No.	ROMBO Chain No.	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Bearing Pin Dia (d) (Max)	Plate Height (H) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transv-erse Pitch (P1)	Projected Bearing Area Sq.cm	Avg. Weight Per Metre (Kg)	Tensile Strength (KN) (Min)	Tensile Strength (KN) (Avg.)	Spares Availa-bility
05B-2	D05B 02	8.00	3.00	5.00	2.31	7.10	14.30	17.40	5.64	0.22	0.32	7.80	8.55	A,B,C,D
06B-2*	D061 02	9.525	5.72	6.35	3.28	8.20	23.80	27.10	10.24	0.56	0.76	16.90	19.25	A,B,C,D
08B-2	D083 02	12.70	7.75	8.51	4.45	11.80	31.00	34.90	13.92	1.00	1.31	32.00	38.05	A,B,C,D
10B-2	D101 02	15.875	9.65	10.16	5.08	14.70	36.20	40.30	16.59	1.34	1.79	44.50	57.30	A,B,C,D
12B-2	D120 02	19.05	11.68	12.07	5.72	16.10	42.20	46.80	19.46	1.76	2.22	57.80	65.70	A,B,C,D
16B-2	D160 02	25.40	17.02	15.88	8.27	21.00	68.00	73.40	31.88	4.14	5.03	106.00	137.55	A,B,C,D
20B-2	D200 02	31.75	19.56	19.05	10.19	26.40	79.00	85.10	36.45	5.82	7.33	170.00	210.00	A,B,C,D
24B-2	D240 02	38.10	25.40	25.40	14.63	33.40	101.00	107.60	48.36	10.98	13.50	280.00	322.50	B,C,D
28B-2	D280 02	44.45	30.99	27.94	15.90	37.00	124.00	131.40	59.56	14.52	16.96	360.00	412.60	B,C,D
32B-2	D320 02	50.80	30.99	29.21	17.81	42.20	126.00	133.90	58.55	16.10	18.74	450.00	510.80	B,C,D
40B-2	D400 02	63.50	38.10	39.37	22.89	52.90	154.00	164.00	72.29	25.23	30.72	630.00	708.10	B,C,D
48B-2	D480 02	76.20	45.72	48.26	29.24	63.80	190.00	200.00	91.21	40.81	48.54	1000.00	1100.00	B,C,D

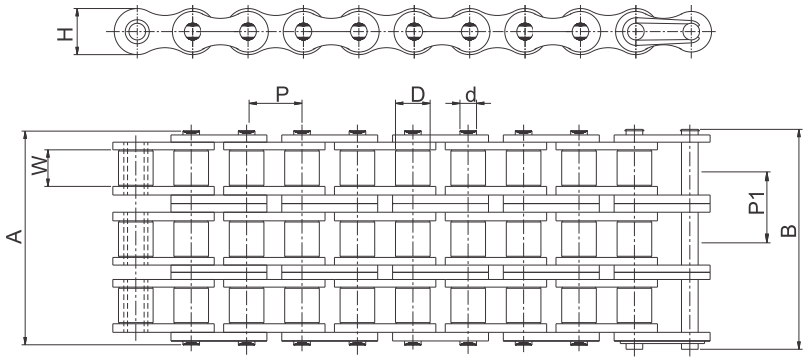
* Straight Side Plates

Note : Spares E & F are available for all models

ISO 606/BS 228/DIN 8187

STANDARD ROLLER CHAINS

EUROPEAN SERIES



TRIPLE STRAND

Intl. Ref No.	ROMBO Chain No.	Pitch (P)	Width between Inner Plates (W) (Min)	Rollar Dia (D) (Max)	Bearing Pin Dia (D) (Max)	Plate Height (H) (Max)	Width over Bearing Pin (A) (Max)	Width over Joint Fasteners (B) Max	Trans verse Pitch (P1)	Projected bearing Area Sq.cm	Avg. Weight Per Meter (Kg)	Tensile Strength (KN) (Min)	Tensile Strength (KN) (Avg)	Spares Availability
05B-3	D05B 03	8.00	3.00	5.00	2.31	7.10	19.90	23.00	5.64	0.33	0.50	11.10	12.20	A,B,C,D
06B-3*	D061 03	9.525	5.72	6.35	3.28	8.20	34.00	37.30	10.24	0.84	1.12	24.90	27.70	A,B,C,D
08B-3*	D083 03	12.70	7.75	8.51	4.45	11.80	44.90	48.80	13.92	1.50	1.94	47.50	56.00	A,B,C,D
10B-3	D101 03	15.875	9.65	10.16	5.08	14.70	52.80	56.90	16.59	2.01	2.68	66.70	83.35	A,B,C,D
12B-3	D120 03	19.05	11.68	12.07	5.72	16.10	61.70	66.30	19.46	2.64	3.32	86.70	101.55	A,B,C,D
16B-3	D160 03	25.40	17.02	15.88	8.27	21.00	99.90	105.30	31.88	6.21	7.65	160.00	202.80	A,B,C,D
20B-3	D200 03	31.75	19.56	19.05	10.19	26.40	116.00	122.10	36.45	8.73	10.96	250.00	306.55	A,B,C,D
24B-3	D240 03	38.10	25.40	25.40	14.63	33.40	15000	156.60	48.36	16.47	20.20	425.00	490.60	B,C,D
28B-3	D280 03	44.45	30.99	27.94	15.90	37.00	184.00	191.40	59.56	21.78	25.38	530.00	625.95	B,C,D
32B-3	D320 03	50.80	30.99	29.21	17.81	42.20	184.00	191.90	58.55	24.15	28.04	670.00	775.00	B,C,D
40B-3	D400 03	63.50	38.10	39.37	22.89	52.90	227.00	237.00	72.29	37.85	45.97	950.00	1088.90	B,C,D
40B-3	D480 03	76.20	45.72	48.26	29.24	63.80	281.00	291.00	91.21	61.22	72.67	1500.00	1648.10	B,C,D

* Straight Side Plates

Note : Spares E & F are available for all models

CERTIFICATE TÜV NORD

Management system as per
ISO 14001 : 2004

In accordance with TÜA NORD CERT procedures, it is hereby certified that

TIDC INDIA
(UNIT OF TUBE INVESTMENT OF INDIA LIMITED)
Survey No. 264, 268/1, 268/2A, 268/2B, 269/1 & 2,
CTH Road, Ambattur, Chennai- 600 053,
Tamilnadu, India

INDIA murugappa

applies a management system in line with the above standard for the following scope

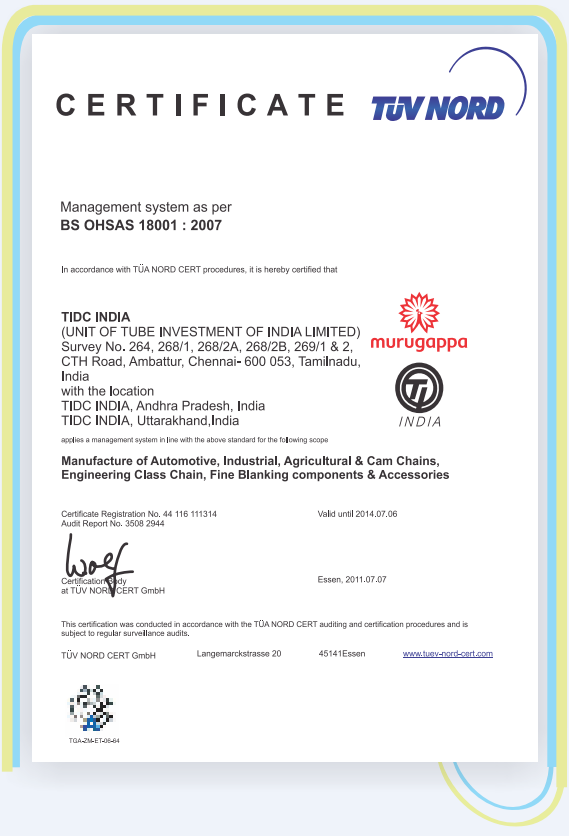
Manufacture of Automotive, Industrial, Agricultural & Cam Chains, Engineering Class Chain, Fine Blanking components & Accessories

Certificate Registration No. 44 104 114274 -E3
Audit Report No. 2.5-1490/1999
Valid until 17.07.2014

Certification Body
at TÜV NORD CERT GmbH
Mumbai, 18.07.2011

This certification was conducted in accordance with the TÜA NORD CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV NORD CERT GmbH Langemarckstrasse 20 45141Essen www.tuev-nord-cert.com

TGA-ZM-07-06-00



CERTIFICATE TÜV NORD

Management system as per
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Survey No. 264, 268/1, 268/2A, 268/2B, 269/1 & 2,
CTH Road, Ambattur, Chennai- 600 053, Tamilnadu, India
with the location
TIDC INDIA, Andhra Pradesh, India
TIDC INDIA, Uttarakhand,India

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INDIA

applies a management system in line with the above standard for the following scope

Manufacture of Automotive, Industrial, Agricultural & Cam Chains, Engineering Class Chain, Fine Blanking components & Accessories

Certificate Registration No. 44 116 111314
Audit Report No. 3508 2944
Valid until 2014.07.06

Certification Body
at TÜV NORD CERT GmbH
Essen, 2011.07.07

This certification was conducted in accordance with the TÜA NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstrasse 20 45141Essen www.tuev-nord-cert.com

TGA-ZM-ET-08-04

CERTIFICATE TÜV NORD

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- All information contained in this catalogue is subject to change after publication.
- While all reasonable care has been taken in compiling the information contained in this catalogue, no responsibility is accepted for printing errors.

Edition / 2013

INDIA

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