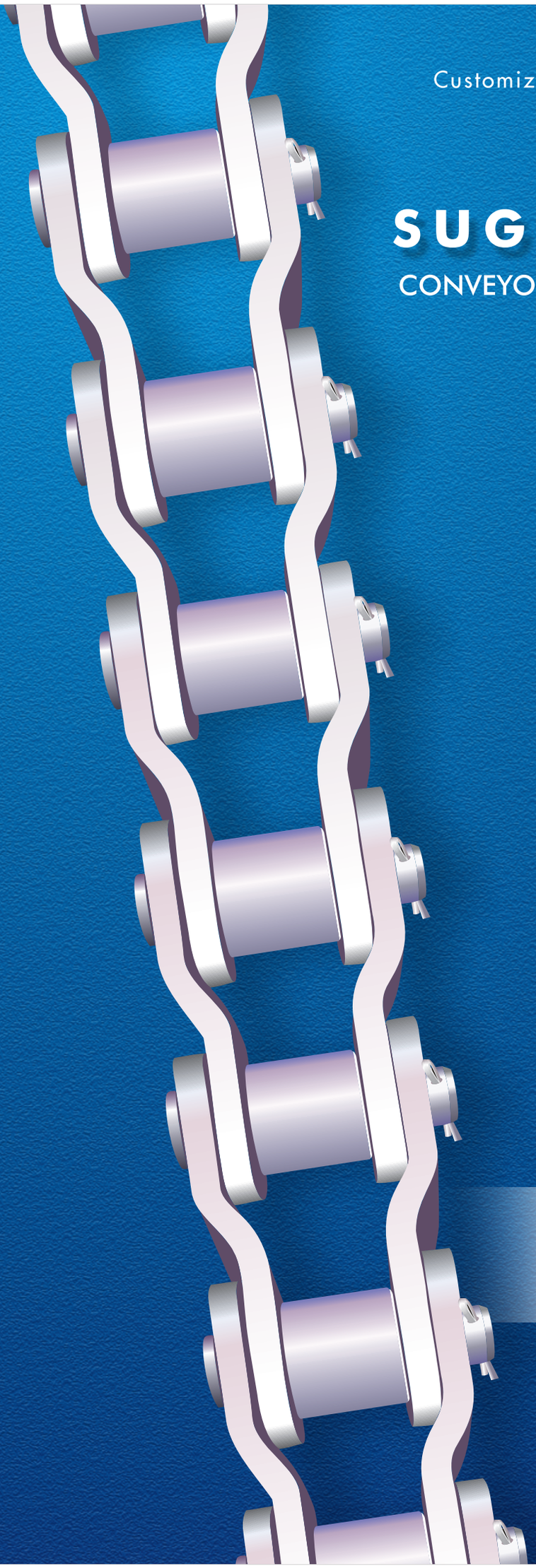
Customized Solution Provider for Industrial Chains

SUGAR INDUSTRY

CONVEYOR, TRANSMISSION CHAINS & SLATS



SWAJIT™

CONVEYOR, TRANSMISSION CHAINS & SLATS

www.swajit.com

marketing@swajit.com

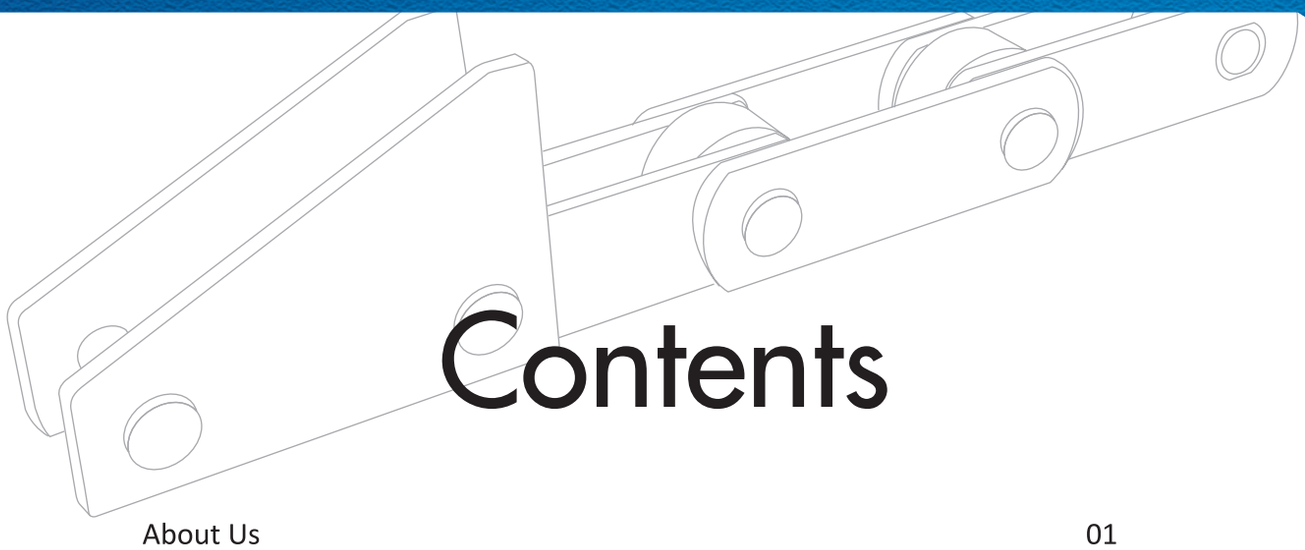
Quality First

Timely Delivery

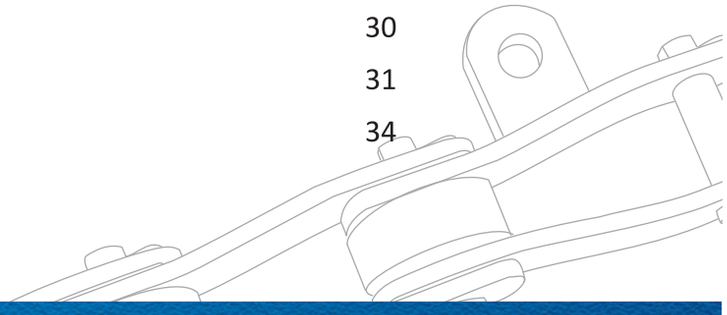
Precise & Perfect

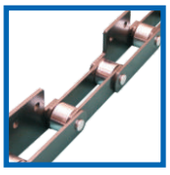
After Sales Service

Exceeding Excellence Forever



Contents





About Us

It is a great pleasure to introduce ourselves, as a leading “Customized Solution Provider for Industrial Chains”. Swajit Engineering Pvt. Ltd is based at Aurangabad (M.S.) , India. Since the inception in 1992; Swajit has emerged in as the leading manufacturer of all type of Roller Chains and any types of Link, Pin and Bush Mechanism for Material Handling Systems.

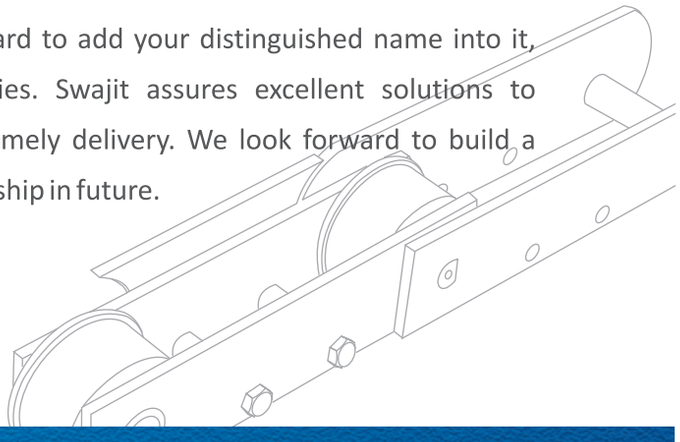
Swajit is equipped with the latest technology comprising ‘state-of-art-plant’ with all Infrastructure facilities & processes, advanced metallurgical laboratory to manufacture all type of Conveyor Chains and Slats of finest quality.

Swajit has a dedicated and technically qualified team of experienced Engineers & Metallurgists for fulfilling precisely the customer’s needs on the continuous basis.

We have developed an expertise to provide a wide range of Conveyor chains and its components for diversified industry segments like Sugar, Cement, Automobile, Steel, Solvent, Boiler & Thermal Power plant, Co-generation, Bakeries, Asphalt, Breweries, Chemical & Fertilizers, Bottling, Food Processing, Agriculture, Heavy Duty Construction Equipments, Mining, Paper and Allied Industries.

Excellent Quality is Swajit’s inherent strength and in a journey of two decades we have strongly emerged as the unchallenged leaders in the ever-growing Indian Market and we are now looking beyond the boundaries to expand our business in the Global Market. We have attained this niche position by creating the best products to fulfill customer expectations, creating everlasting Customer Satisfaction with trust and service to generate repeated orders. We adhere to global business practices and also we are an ISO 9001: 2015 certified company by TUV NORD (Germany).

We have a list of valued clients and look forward to add your distinguished name into it, hence requesting you to solicit your enquiries. Swajit assures excellent solutions to your specified requirements supported by timely delivery. We look forward to build a technically proven & mutually beneficial relationship in future.



LABORATORY

Chemical composition of raw material is verified for the presence of Carbon, Manganese, Silicon, Chromium, Nickel, Molybdenum etc. and mechanical properties are tested in our laboratory. Macro examination of raw material reveals the defects such as Internal Soundness, Porosity & Seams. Microscopic examination is carried out for estimation of non metallic inclusion in the raw material.

The testing of case & core hardness, case depth, case carbon, case as well as core structure and tensile strength of heat treated parts is also carried out.

MACHINE SHOP

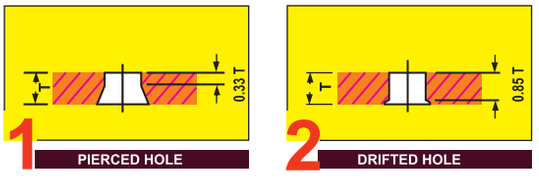
Swajit have separate manufacturing line for Pins, Bushes & Rollers. With the help of precision machines and SPMs, we manufacture Pin, Bush & Rollers in close tolerances with appropriate grinding allowance for perfect assembly.

Each part is subjected to verify a consistent quality control by means of checking all dimensions with proper gauges. Special manufacturing techniques are adopted for continuous improvement in productivity & quality.

PRESS SHOP

Swajit chain links are manufactured with the help of heavy duty precision presses & tools. Blanking, Pre-punching, Shaving, Broaching & one stroke bending is carried out.

The link undergoes pressing operation to provide extremely accurate hole diameter followed by shaving operation, which increases bearing area for better wear resistance & less elongation.



HEAT TREATMENT

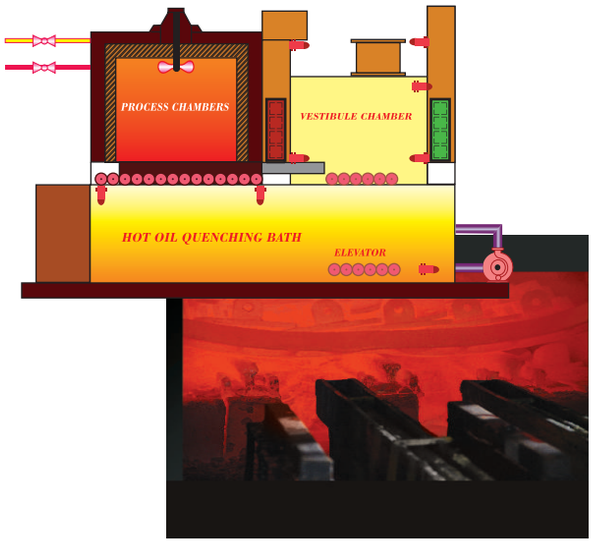
Modern setup is established for the heat treatment of Plain Carbon, Medium Carbon, Alloy Steel & 400 series Martensitic Stainless steel. Swajit chain links are manufactured in hardened & tempered (toughened) condition to get the desired hardness & microstructure, by way of setting the appropriate austenizing temperature, soaking time & sudden quenching with vigorous agitation system to reduce the free ferrite in microstructure. Shot peening of link is carried out to increase the fatigue strength & also to improve the surface finish.

Pins & Bushes are case carburized & hardened in sealed quench gas carburizing furnace with Oxygen probe & Scada system, to get controlled case carbon & case depth by reducing grain boundary oxidation. Then multiple tempering is done to reduce the retained austenite by obtaining fully tempered Martensitic structure. Case carbon is controlled in case carburizing cycle. Swajit Pin & Bush are strong because of specified case & core hardness for better corrosion & wear resistance.

In some applications, where high abrasion resistance is required, pin with medium carbon & alloying elements is used, which is induction hardened to get more armoured case depth.

Rollers are hardened & tempered in controlled atmosphere furnace to get maximum wear resistance & impact stength.

SEALED QUENCH GAS CARBURIZING FURNACE



“Customized Solution Provider for Industrial Chains”

MISSION

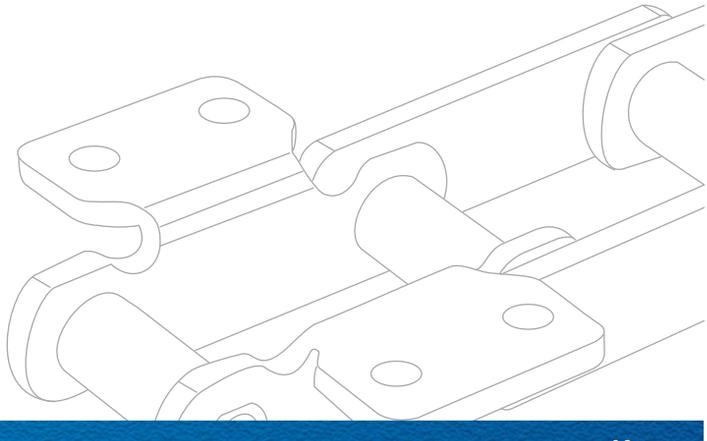
- Providing products as complete solution.
- Establishment as leading brand in global market by providing the best performance.
- Retaining ourselves as the first choice for the established trade.
- Accountability for Human Resources Development, Occupational, Health & Safety.

VISION

- Establishment of brand associated with the quality and consistency in manufacturing all kind of chains in Asia & Europe by 2023.
- Perfect Implementation Of Occupational Health and Safety Management System (OHSAS).
- Improving employee skills, involvement & Quality Of Life (QOL).

VALUES

- Ethical Business Practices.
- Excellent Services.
- Continuous Customer Focus.
- Technology Enhancement.



Quality Policy

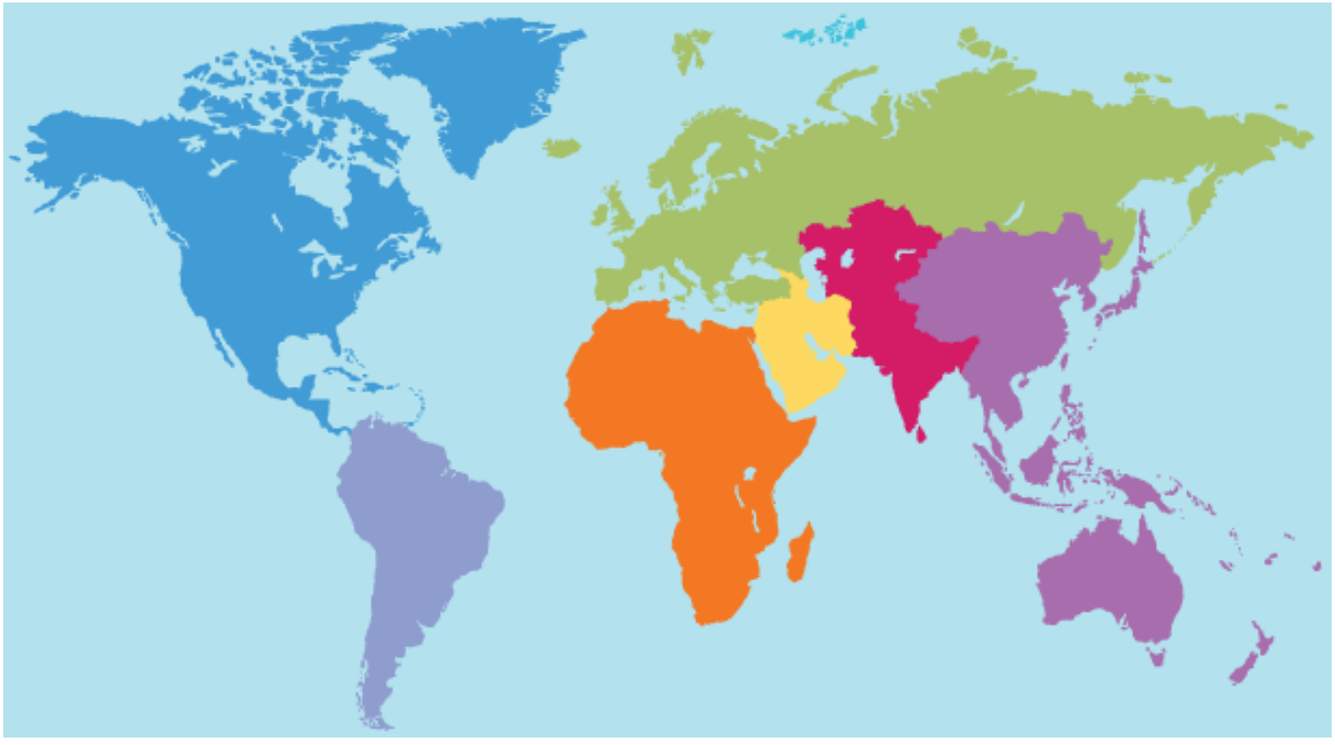
We at SWAJIT,

Encourage innovation in dealing with, Customized Products and timely delivery of cost effective Quality products that meets specific needs of everyone to create everlasting trust and Customer Satisfaction through Continuous service and Support.

We stand for continual improvement with effective implementation of Quality Management System (QMS).

Ajeet Anil Chavan
Managing Director

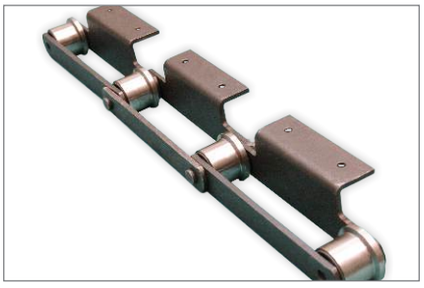
Presence in Overseas Market



Ethiopia, Fiji, Indonesia, Kenya, Philippines, Mauritius, Malaysia, Nepal, Oman, Rwanda, Spain, Sierra Leone, Jamaica, Sudan, Sri Lanka, Saudi Arabia, Tanzania, Uganda, Vietnam, Zambia.

Swajit Product Range

Bagasse Carrier Chain



Conveyor Chain for Assembly Line

Scraper Reclaimer Chain

Extractor Chain for Oil

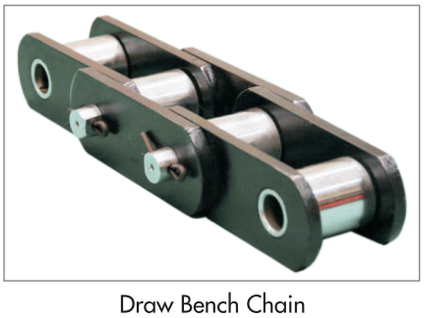
Pan Conveyor Chain

Bucket Elevator Chain

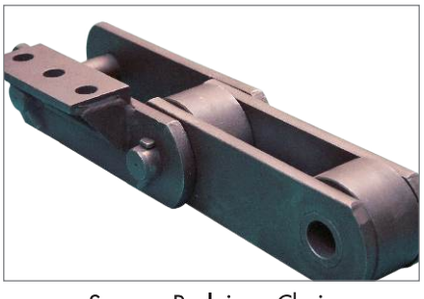
Bucket Elevator Chain

Apron Feeder Chain

Conveyor Chain



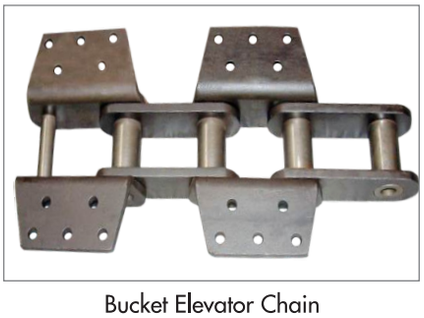
Draw Bench Chain



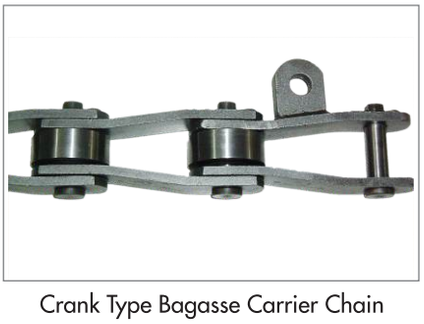
Scraper Reclaimer Chain

Gate Chain

Mandrill Insert Chain

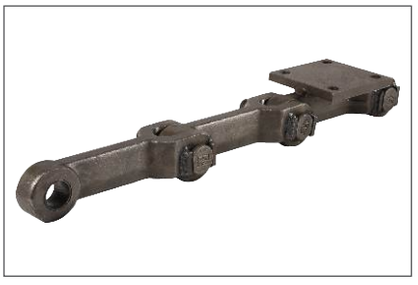


Bucket Elevator Chain

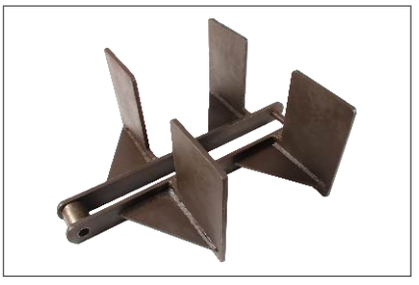


Crank Type Bagasse Carrier Chain

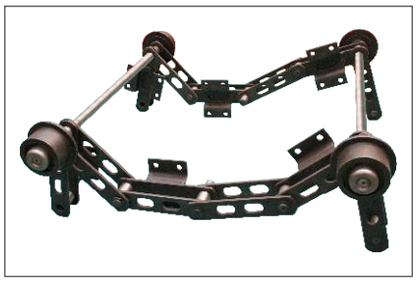
Feeder Table Chain



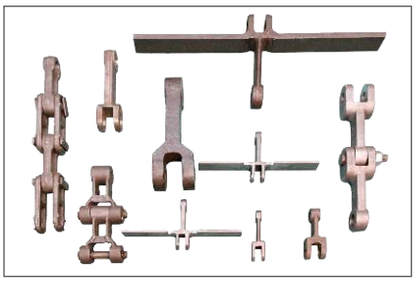
Forged Rake Carrier Chain



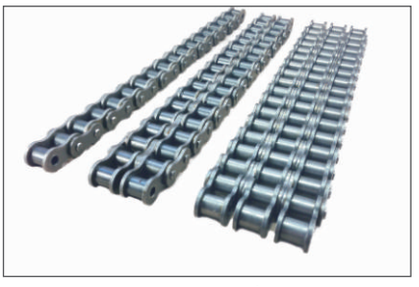
Flow Conveyor Chain



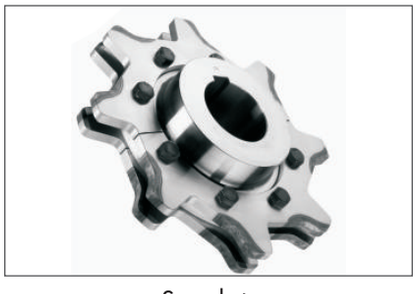
Deep Bucket Chain



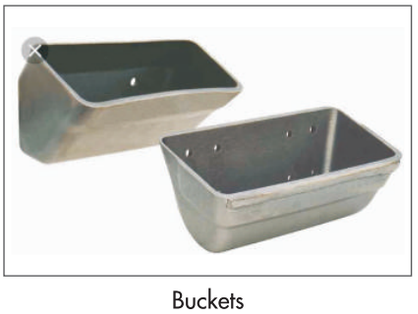
Different Type Of Forging Links



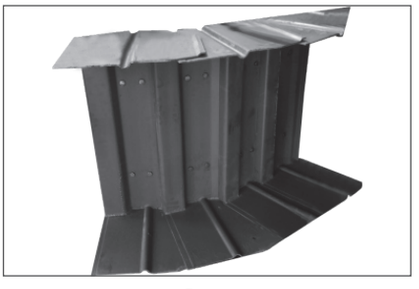
Transmission Chains



Sprockets

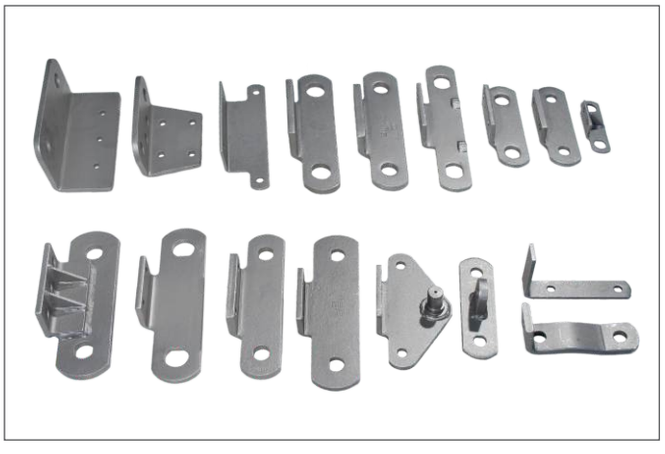


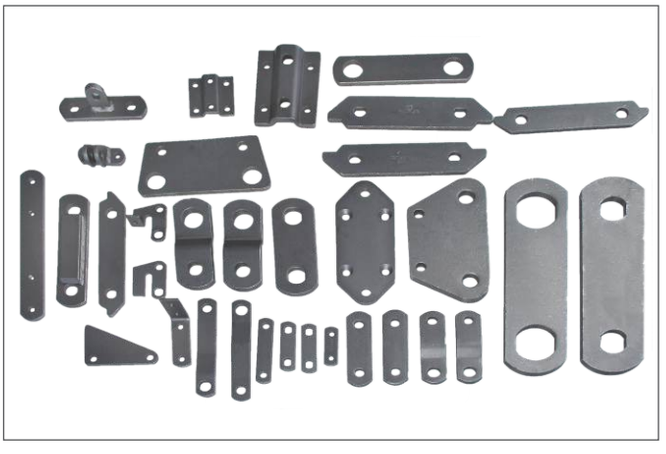
Buckets



Pans

Product Range - Links





Sugar Industry Chains

S-1 Attachment / Feeder Table Chain / Pusher Chain

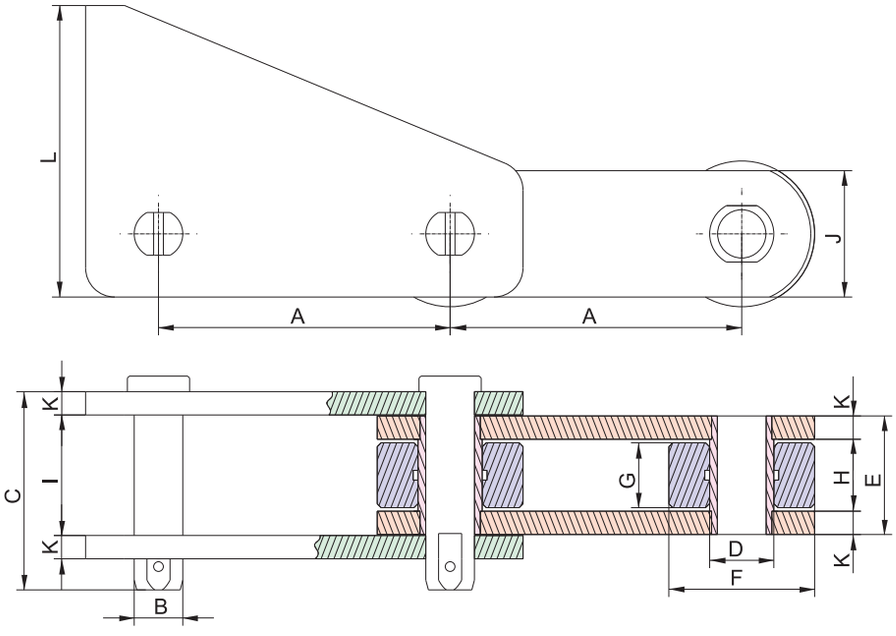
The wide variety of chains are manufactured with Breaking Strength in the range from 20,000 kgf. To 60,000 kgf. These chains are commonly used in Sugar & Steel Industries.

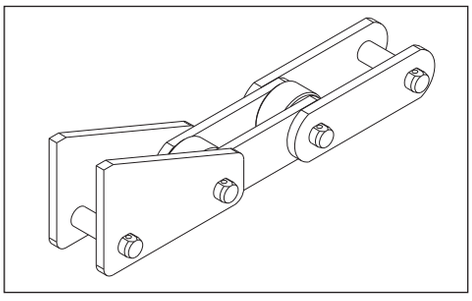
Chain links are made from Carbon Steel. These links are subjected to operations like Blanking, Piercing & Shaving, which are carried out on highly Précised Presses. The links are Hardened & Tempered to avoid linear elongation & further to get better strength, the process followed by shot peening, to improve the fatigue strength.

Pins & Bushes are made from Low Carbon Alloy Steel with precision machining. Case Carburizing, Hardening & Tempering processes are carried out to increase the Wear Resistance & Core Strength. Then ground finishing is done for perfect fitting.

Rollers are made from Medium Carbon Steel & are subjected to Heat Treatment process to improve the wear resistance.

These chains are also manufactured & supplied in heat treated Stainless Steel material.





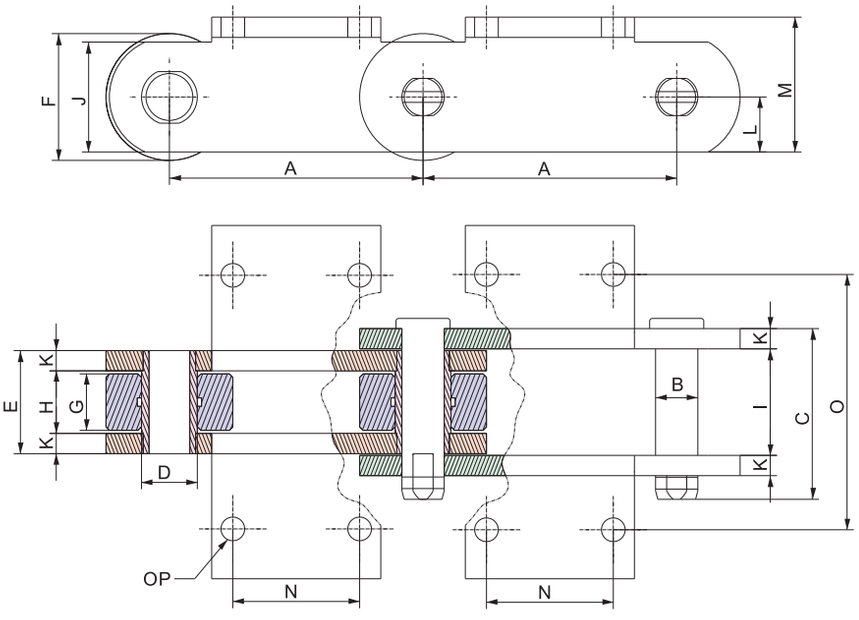
Model No.	Pitch	Load (kgf)		Pin		Bush		Roller				Link Plain		Link Att	
		Proof Load	Breaking Load	Dia	Length	Dia	Length	Dia	Length			Width	Thk	Width	Thk
	A			B	C	D	E	F	G	H	I	J	K	L	M
SWAJIT 1001	150	6,700	20,000	20	77	27	48	60	30	32	49	50	8	125	8
SWAJIT 1002	150	10,000	30,000	23	91	30	57	75	35	37	58	65	10	145	10
SWAJIT 1003	150	13,400	40,000	25	100	33	61	75	35	37	62	65	12	150	12
SWAJIT 1004	150	20,000	60,000	28	110	35	65	75	35	37	66	65	14	150	14

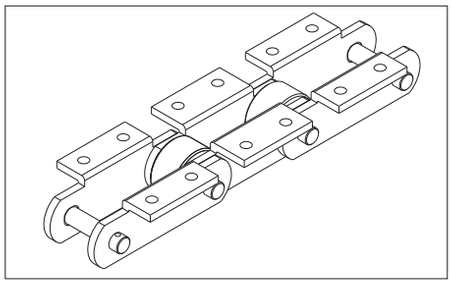
* Alternative Size are also available on request

(All Dimensions are in mm)

K-2 Attachment / Cane Carrier Chain

The wide variety of chains are manufactured with Breaking Strength in the range from 20,000 kgf. To 100,000 kgf. These chains are commonly used in Sugar Industries.
Chain links are made from Carbon Steel. These links are subjected to operations like Blanking, Piercing & Shaving, which are carried out on highly Précised Presses. The links are Hardened & Tempered to avoid linear elongation & further to get better strength, The Process is followed by shot peening, to improve the fatigue strength. Pins & Bushes are made from Low Carbon Alloy Steel with precision machining.
Case Carburizing, Hardening & Tempering processes are carried out to increase the Wear Resistance & Core Strength. Then ground finishing is done for perfect fitting.
Rollers are made from Medium Carbon Steel & are subjected to Heat Treatment process to improve the wear resistance.
These chains are also manufactured & supplied in heat treated Stainless Steel material.





Model No.	Pitch	Load (kgf)		Pin		Bush		Roller				Link				Slat Fitting		
		Proof Load	Breaking Load	Dia	Length	Dia	Length	Dia	Length				Thk		Height			
	A			B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
SWAJIT 1101	150	6,700	20,000	20	78	27	48	60	30	32	49	50	8	25	61	60	120	12
SWAJIT 1102	150	10,000	30,000	23	91	30	57	75	35	37	58	65	10	32.5	78	64	126	14
SWAJIT 1103	150	13,500	40,000	25	101	33	61	75	35	37	62	65	12	32.5	80	60	130	14
SWAJIT 1104	150	13,500	40,000	25	101	33	61	75	35	37	62	65	12	32.5	80	75	150	14
SWAJIT 1105	150	16,700	50,000	28	101	35	61	75	35	37	62	65	12	32.5	80	60	130	14
SWAJIT 1106	150	16,700	50,000	28	101	35	61	75	35	37	62	65	12	32.5	80	75	150	14
SWAJIT 1107	150	20,000	60,000	28	110	36	65	75	35	37	66	65	14	32.5	82	75	150	14
SWAJIT 1108	150	26,700	80,000	30	118	38	69	90	35	37	70	75	16	37.5	94	75	150	14
SWAJIT 1109	200	20,000	60,000	28	101	36	61	90	35	37	62	75	12	37.5	90	75	150	14
SWAJIT 1110	200	25,000	75,000	30	110	38	65	90	35	37	66	75	14	37.5	93	80	170	14
SWAJIT 1111	200	26,700	80,000	32	120	40	69	90	35	37	70	75	16	37.5	94	80	170	18
SWAJIT 1112	200	33,400	100,000	32	120	40	69	90	35	37	70	75	16	37.5	94	100	170	18

*Alternative Sizes are also available on request

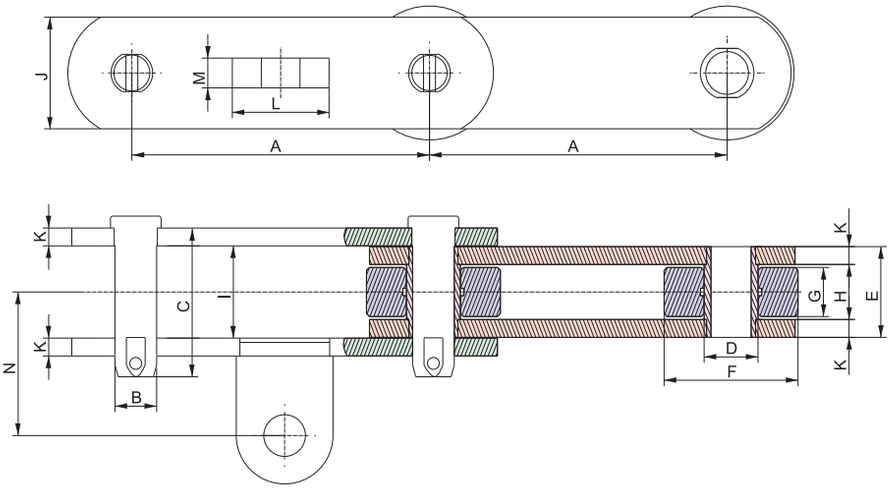
(All Dimensions are in mm)

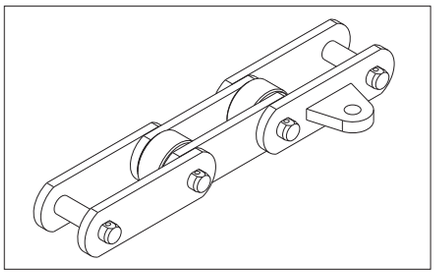
AS2 Attachment / Bagasse Carrier Chain

The wide variety of chains are manufactured with Breaking Strength in the range from 20,000 kgf. To 100,000 kgf. These chains are commonly used in Sugar Industries, to convey or feed Bagasse to either Boiler or to storage point. Chain links are made from Carbon Steel. These links are subjected to operations like Blanking, Piercing & Shaving, which are carried out on highly Precised Presses. The links are Hardened & Tempered to avoid linear elongation & further to get better strength, The Process followed by shot peening, to improve the fatigue strength.
Pins & Bushes are made from Low Carbon Alloy Steel with precision machining. Case Carburizing, Hardening & Tempering processes are carried out to increase the Wear Resistance & Core Strength. Then ground finishing is done for perfect fitting.
Rollers are made from Medium Carbon Steel & are subjected to Heat Treatment process to improve the wear resistance.
These chains are also manufactured & supplied in heat treated Stainless Steel material, with 2C flights as per requirement & normally called as A42 or AS2 Attachment chains.

These chains are also known as

- Return Bagasse Carrier Chain (RBC)
- Main Bagasse Carrier Chain (MBC)
- Bagasse Elevator Chain (BEC)





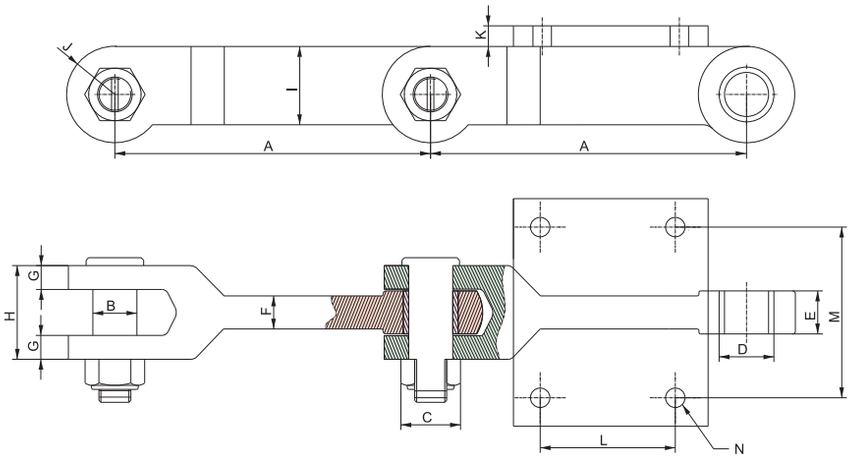
Model No.	Pitch	Load (kgf)		Pin		Bush		Roller				Link Plain		Attachment Link		
		Proof Load	Breaking Load	Dia	Length	Dia	Length	Dia	Length			Width	Thk			
	A			B	C	D	E	F	G	H	I	J	K	L	M	N
SWAJIT 1201	150	6,700	20,000	20	78	27	48	60	30	32	49	50	8	50	10	70
SWAJIT 1202	150	10,000	30,000	23	91	30	57	75	35	37	58	65	10	50	12	75
SWAJIT 1203	150	13,500	40,000	25	101	33	61	75	35	37	62	65	12	65	16	85
SWAJIT 1204	150	16,700	50,000	28	101	35	61	75	35	37	62	65	12	65	20	85
SWAJIT 1205	150	20,000	60,000	28	110	36	65	75	35	37	66	65	14	65	25	95
SWAJIT 1206	150	26,700	80,000	30	118	38	69	90	35	37	70	75	16	65	25	100
SWAJIT 1207	200	20,000	60,000	28	101	36	61	90	35	37	62	75	12	65	20	85
SWAJIT 1208	200	25,000	75,000	30	110	38	65	90	35	37	66	75	14	80	25	95
SWAJIT 1209	200	26,700	80,000	32	120	40	69	90	35	37	70	75	16	80	25	100
SWAJIT 1210	200	33,400	100,000	32	120	40	69	90	35	37	70	75	16	80	25	100

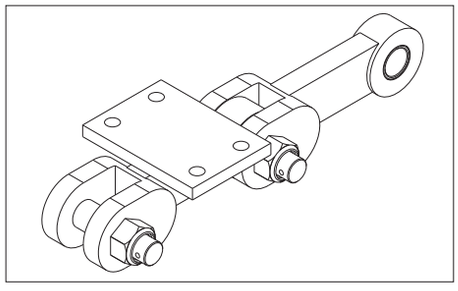
*Alternative Sizes are also available on request

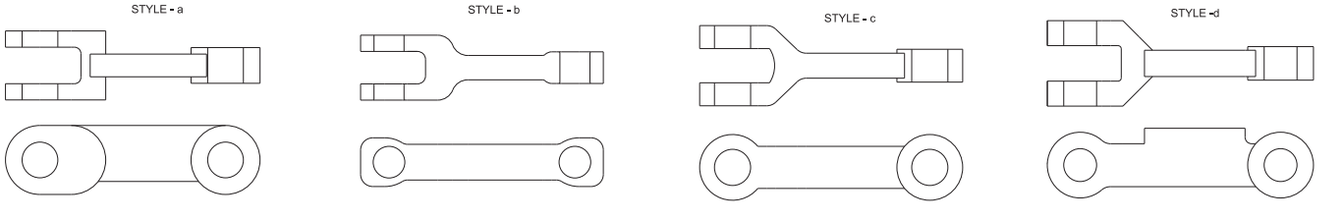
(All Dimensions are in mm)

Forged Rake Elevator / Inter Carrier Chain

The wide variety of chains are manufactured with Breaking Strength in the range from 20,000 kgf. To 130,000 kgf. Chain links are made from Low Carbon & Medium Carbon Forged Steel. These links are subjected to the precision machining at their mating parts to Pin & Bush, duly heat treated to avoid linear elongation & to get better strength. Shot peening is performed to links for improving fatigue strength.
Pin & Bushes are made from Stainless Steel (Austenitic & Martensitic) with precision machining, followed by through Hardening & Tempering in case of Martensitic Stainless-Steel to increase the Wear Resistance & then ground finishing is done for perfect fitting.







Model No.	Pitch	Load (kgf)		Pin		Bush		Link					Rake Attachment Plate			
		Proof Load	Breaking Load	Dia	Nut Size	Dia	Length									
	A			B	C	D	E	F	G	H	I	J	K	L	M	N
SWAJIT 1301	101.6	3,400	10,000	16	M-12	22	20	15	8.5	38	26	20	10		90	17
SWAJIT 1302	101.6	5,000	15,000	18	M-16	23	25	20	14	55	28	20	10		90	17
SWAJIT 1303	150	15,000	45,000	28	M-24	34	32	20	14	61	50	30	16		100	18
SWAJIT 1304	200	13,500	40,000	26	M-24	32	28	19	13	55	46	32	12	60	80	18
SWAJIT 1305	229	20,000	60,000	32	M-30	40	33	28	18	71	57	35	16	70	110	18
SWAJIT 1306	229	23,500	70,000	32	M-30	40	34	28	20	76	65	40	16	70	120	18
SWAJIT 1307	229	26,700	80,000	34	M-30	42	40	30	22	86	68	40	16	50	145	20
SWAJIT 1308	229	33,400	100,000	35	M-30	44	40	32	24	90	65	42.5	20	70	150	20
SWAJIT 1309	300	26,700	80,000	36	M-30	44	40	32	22	86	65	42.5	25	100	108	18
SWAJIT 1310	300	30,000	90,000	36	M-30	44	44	32	25	95	62	45	20	112	120	22
SWAJIT 1311	300	33,400	100,000	45	M-39	57	50	35	30	112	64	50	20	125	125	18
SWAJIT 1312	300	40,000	120,000	45	M-36	52	50	38	35	122	64	50	20	70	100	22
SWAJIT 1313	300	43,400	130,000	45	M-42	55	51	40	38	130	65	50	20	112	108	22
SWAJIT 1314	300	43,400	130,000	45	M-42	55	51	40	38	130	65	50	20	112	108	22

*Alternative Sizes are also available on request

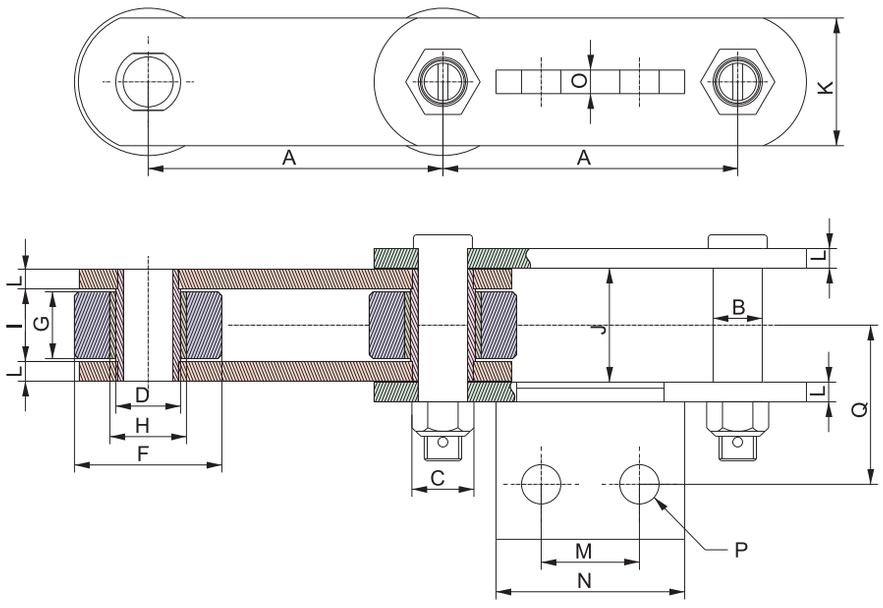
(All Dimensions are in mm)

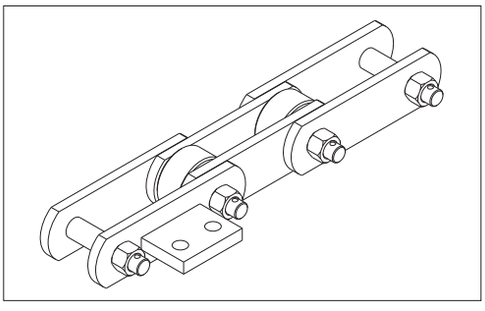
Rake Carrier Chain (fabricated)

The wide variety of chains are manufactured with Breaking Strength in the range from 20,000 kgf. To 80,000 kgf. Chain links are made from Low Carbon & Medium Carbon Steel. These links are subjected to the precision machining with their mating parts to Pin & Bush duly heat treated to avoid linear elongation & to get better strength. Shot peening is performed for links to improve fatigue strength.

Pins & Bushes are made from Stainless Steel (Austenitic & Martensitic) with precision machining, followed by through Hardening & Tempering in case of Martensitic Stainless-Steel to increase the Wear Resistance & then ground finishing is done for perfect fitting.

Rollers are made from Medium Carbon Steel duly Heat Treated then fitted with Hardened & Tempered Liner Bush of Martensitic Stainless Steel to avoid Corrosion & to increase Wear Resistance.





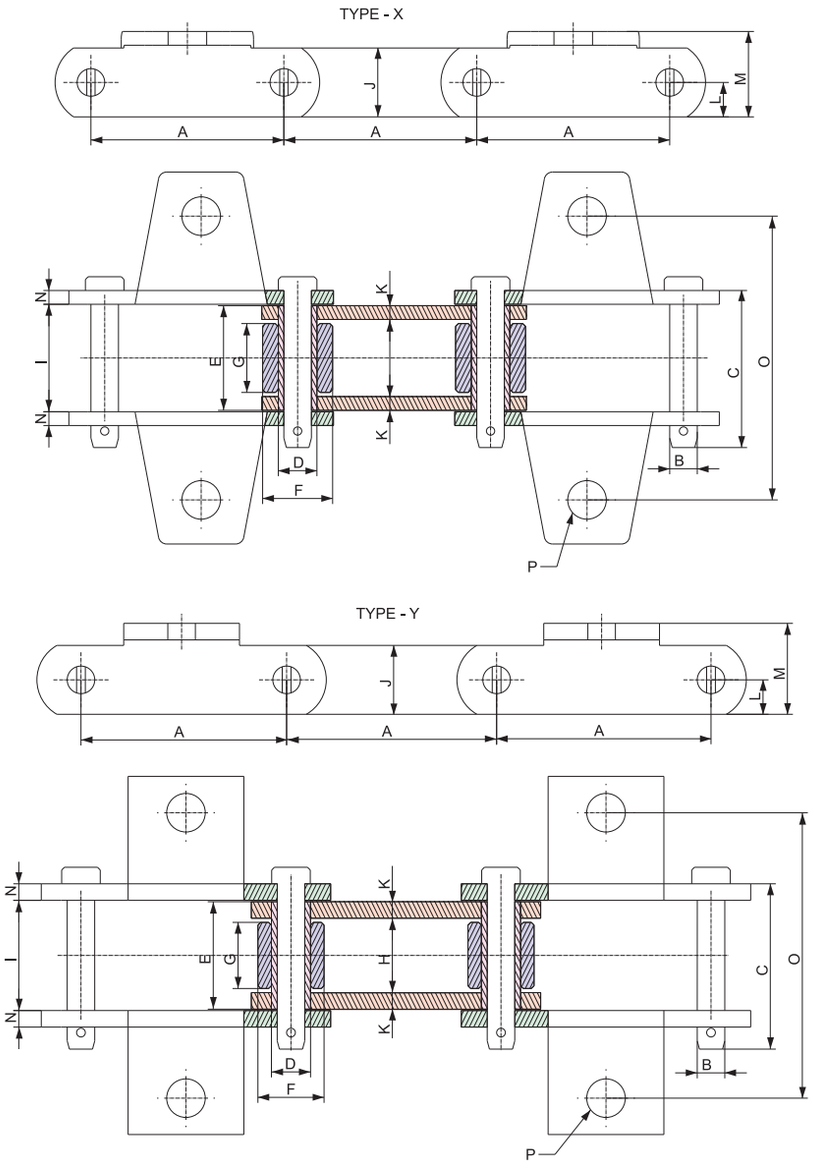
Model No.	Pitch	Load (kgf)		Pin		Bush		Roller		Liner Bush				Link		Rake att plate				
		Proof Load	Breaking Load	Dia	Nut Size	Dia	Length	Dia	Length	Dia	Length			Width	Thk					
	A			B	C	D	E	F	G	H	G	I	J	K	L	M	N	O	P	Q
SWAJIT 1401	150	13,500	40,000	25	M-20	33	61	75	35	40	35	37	62	65	12	50	90	16	18	85
SWAJIT 1402	150	20,000	60,000	28	M-24	36	65	76	35	44	35	37	66	65	14	50	90	16	18	85

*Alternative Sizes are also available on request

(All Dimensions are in mm)

Sugar Bag Stacker Chain

These type of chains are used in Stacking of Sugar Bags. Different type of pitch is maintained as per stacker construction. These chains are robust in design because of its working under high speed comparatively.



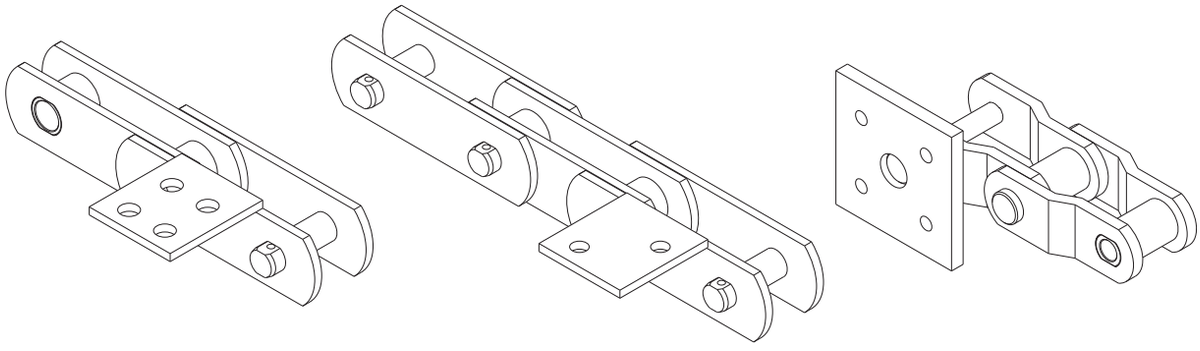
Model No.	Type	Pitch	Load (kgf)		Pin		Bush		Roller					Link					
			Proof Load	Breaking Load	Dia	Length	Dia	Length	Dia	Length			Width	Thk		Height	Thk		
		A			B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
SWAJIT 1601	X	66.5	3,400	10,000	10	61	14	39	24	28	29	40	25	5	12.5	31	5	100	11
SWAJIT 1602	X	70	3,400	10,000	10	61	14	39	24	28	29	40	25	5	12.5	31	5	100	11
SWAJIT 1603	Y	75	3,400	10,000	10	61	14	39	24	28	29	40	25	5	12.5	36	5	100	11
SWAJIT 1604	Y	76.2	3,400	10,000	10	61	14	39	24	28	29	40	25	5	12.5	36	5	100	11

*Alternative Sizes are also available on request

(All Dimensions are in mm)

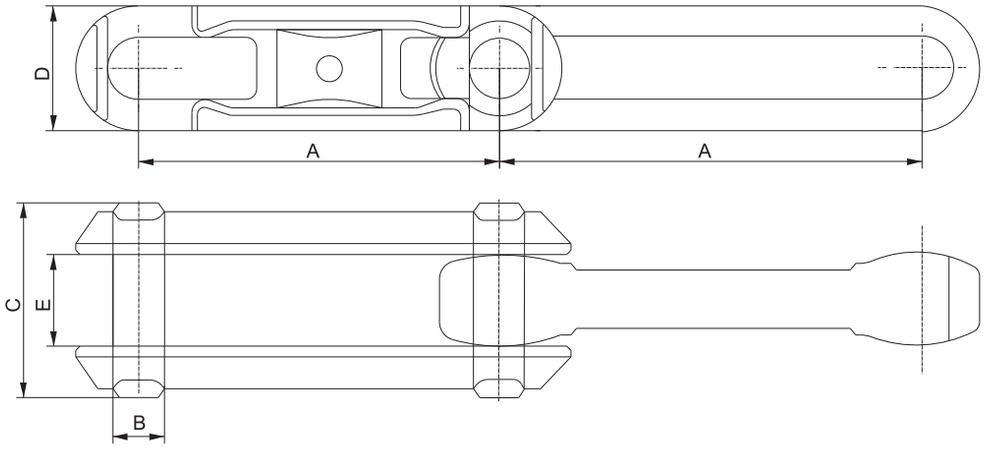
Sugar Elevator Chain

These type of chains are used for elevating Sugar to Storage system before packing. These chains are available with different types of Attachments as per Customer's requirement.



Drop Forged Chain

In Sugar Industries, Drop Forged Chains are mainly used for Cane Feeding Application in Cane Washing Section. The Construction of these chains are in such a way that no tool is required for Assembly & Dismantle. Hence, it is very simple to make assembly & dismantling work at site. Also, the new sliding surface can be used by changing the position of the link after wearing the original surface. Positive locking action is provided in side links with the forged pins having a double 'T' Head on both sides. Similar to side links, warm out surface of the pin can be rotated in 180 degree to use the unworn side of pin in contact with the side bar & centre link.
Thus flexibility, without disturbing original pitch, the effective life of chain is increased.

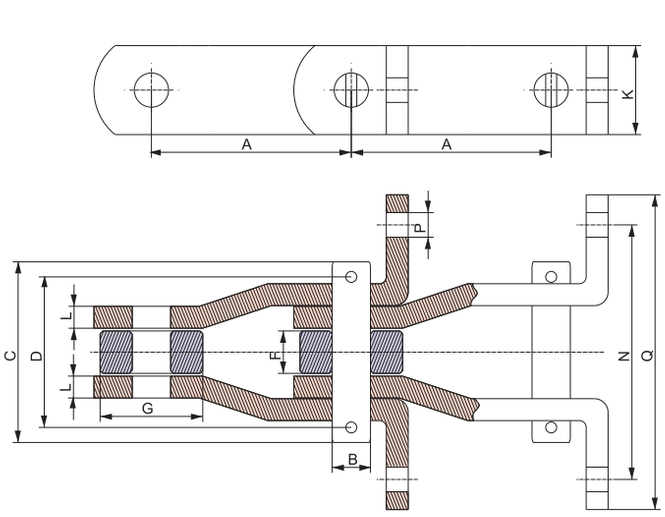


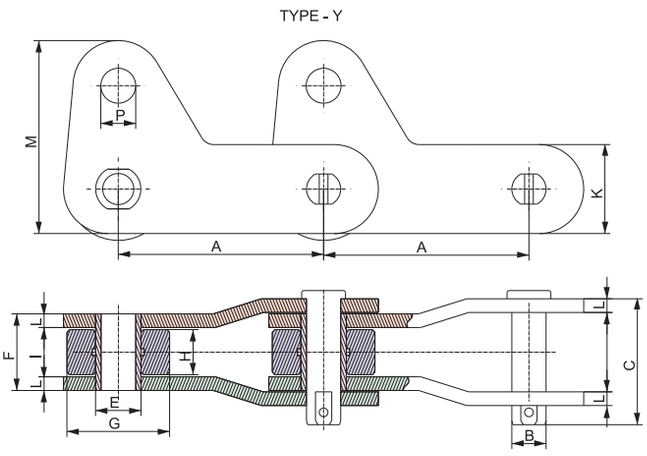
Model No.	Pitch	Load (kgf)		Pin			
		Proof Load	Breaking Load	Dia	Length		
	A			B	C	D	E
SWAJIT 0348	76.2	8,000	24,000	12.7	46.99	26.92	19.05
SWAJIT 0458	102.38	16,000	48,000	15.87	57.91	34.92	25.65
SWAJIT 0678	153.18	28,333	85,000	22.22	79.5	50.8	32.76
SWAJIT 0698	153.18	45,333	136,000	28.44	95.25	68.32	39.37

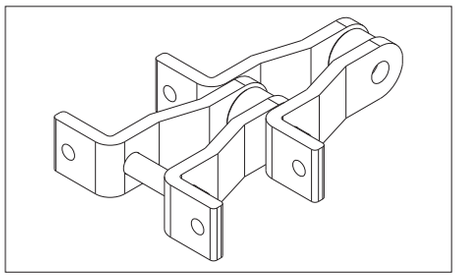
(All Dimensions are in mm)

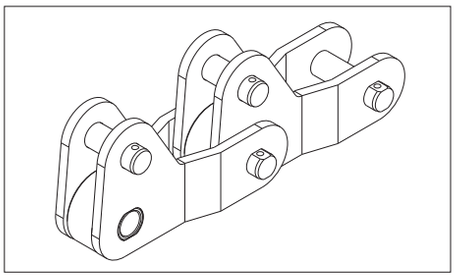
Travelling Grate Chain

These type of chains are used in Power Plants & Co-Generation Power Plants in Sugar Industries. This chain is suitable in abrasive, higher temperature & dusty conditions.
Precised alignment of chain and sprocket with proper tolerance is maintained by precision manufacturing processes.
Maximum chain strength & wear resistance is achieved by selection of appropriate raw material. We are exercising the strict control on procurement of raw material, as per specifications & adopting the modern heat treatment in-house processes. With the result that, the components coming contact with sprocket are able to withstand the sprocket tooth impact.
Chain links are made from Medium Carbon / Alloy Steel. These links are subjected to operations like Blanking & fine boaring, which are carried out on highly precision machines. The link hole size & finishing is controlled to suit adequate clearance / interference fit. Further links are hardened & tempered to avoid linear elongation & to get better strength. followed by shot peening process to improve the fatigue strength.
Special Alloy Steel is used for Pins & Bushes with adequate heat treatment. Optimum case depth is achieved to provide maximum wear resistance & core strength.









Model No.	Type	Pitch	Load (kgf)		Pin			Bush		Roller				Link					
			Proof Load	Breaking Load	Dia	Length	Split Pin C/C	Dia	Length	Dia	Length			Width	Thk	Height			
		A			B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
SWAJIT 1501	X	146	13,500	40,000	24.65	136	114			57	32			65	16		186	230	18
SWAJIT 1502	Y	150	13,500	40,000	25	94		33	56	75	35	36	58	65	10	140			25

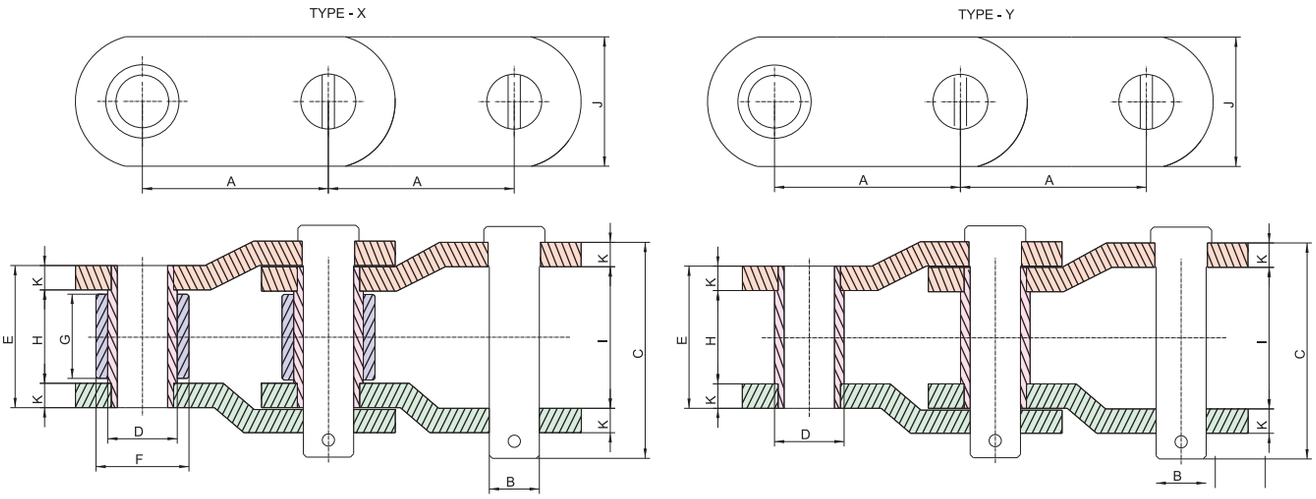
*Alternative Sizes are also available on request

(All Dimensions are in mm)

Drive Chain

Précised alignment of chain with sprocket is maintained by precision manufacturing processes. Maximum chain strength & wear resistance is achieved by selection of appropriate raw material. We are exercising the strict control on procurement of genuine raw material as per specifications & adopting modern heat treatment “in-house” processes. As a result the components are able to withstand the sprocket tooth impact. Chain links are made from Medium Carbon / Alloy Steel. These links are subjected to operations like Blanking & fine boaring, which are carried out on highly precision machines. The link hole size & finishing is controlled to suit adequate interference fit.

Further links are hardened & tempered to avoid linear elongation & also to get better impact strength followed by shot peening process to improve the fatigue strength. Special Alloy Steel is used for Pins with Volume Hardened & Tempered to get the maximum core strength & followed by Induction Hardening to achieve armored case depth for maximum wear resistance. Special Alloy Steel is used for Bushes with adequate heat treatment. Optimum case depth is achieved to provide maximum wear resistance & core strength by Case Carburizing. Medium Carbon Steel is used for Rollers with appropriate Heat Treatment.



Model No.	Type	Pitch	Load (kgf)		Pin		Bush		Roller				Link	
			Proof Load	Breaking Load	Dia	Length	Dia	Length	Dia	Length			Width	Thk
		A			B	C	D	E	F	G	H	I	J	K
SWAJIT 5001	Y	78.1	3,800	11,260	14.3	70	31	44.4			31.8	45.4	31.8	6.3
SWAJIT 5002	Y	101.6	6,400	19200	19	91	36.6	59.6			41.4	60.6	38.1	9.1
SWAJIT 5003	X	152.4	58,700	176,000	38.1	174	56	115	76.2	76.2	77	119	101.6	19
SWAJIT 5004	Y	153.7	11,700	35000	25.4	141	44.4	101.6			76.2	102.6	50.8	12.7

* Alternative Size are also available on request

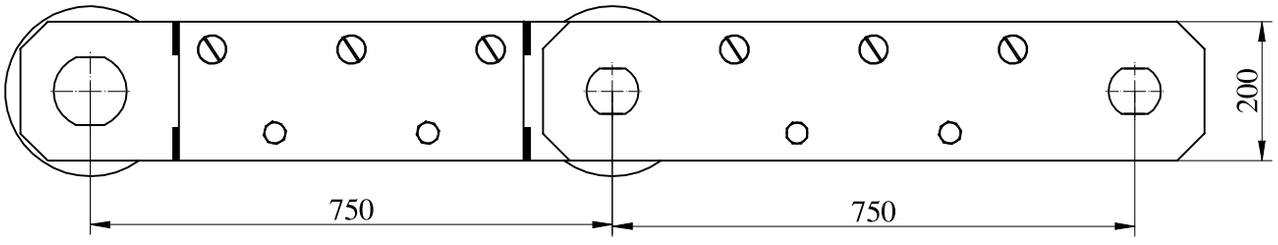
(All Dimensions are in mm)

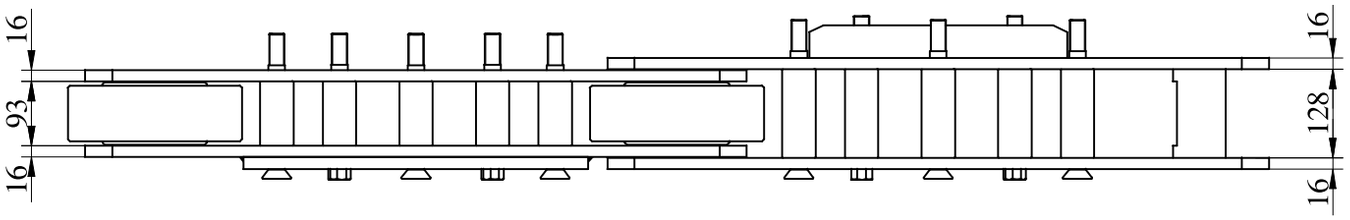
Diffuser Chain

Due to the corrosive nature of the application the chains have been manufactured and treated to be corrosion resistant as possible.

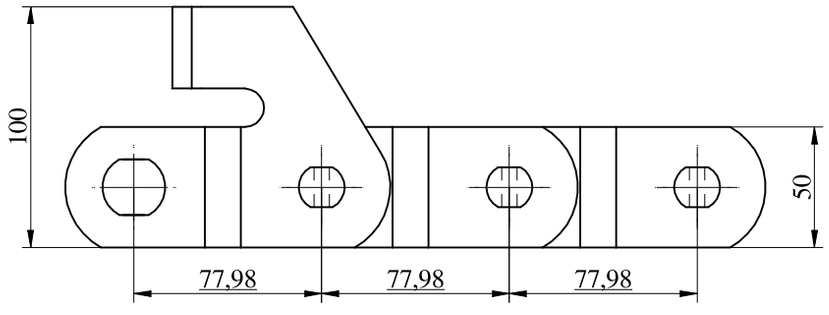
The chains run in matched pairs and use a multi levelled slatted system to move and separate the juice along the diffuser. Solid inner plate links reduce the areas for corrosion to occur and the solid Alloy Steel pins prove to be a very versatile material for dealing with this job.

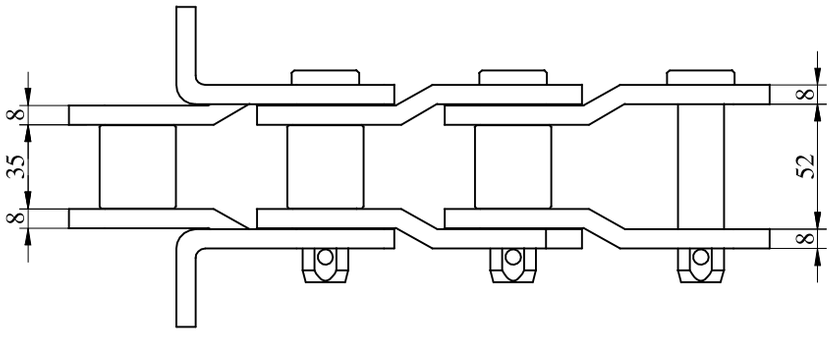
The chain comes available in a variety of sizes depending on your specific Sugar mill requirement.

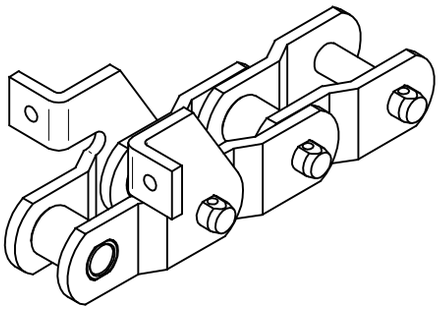




Cush - Cush Chain



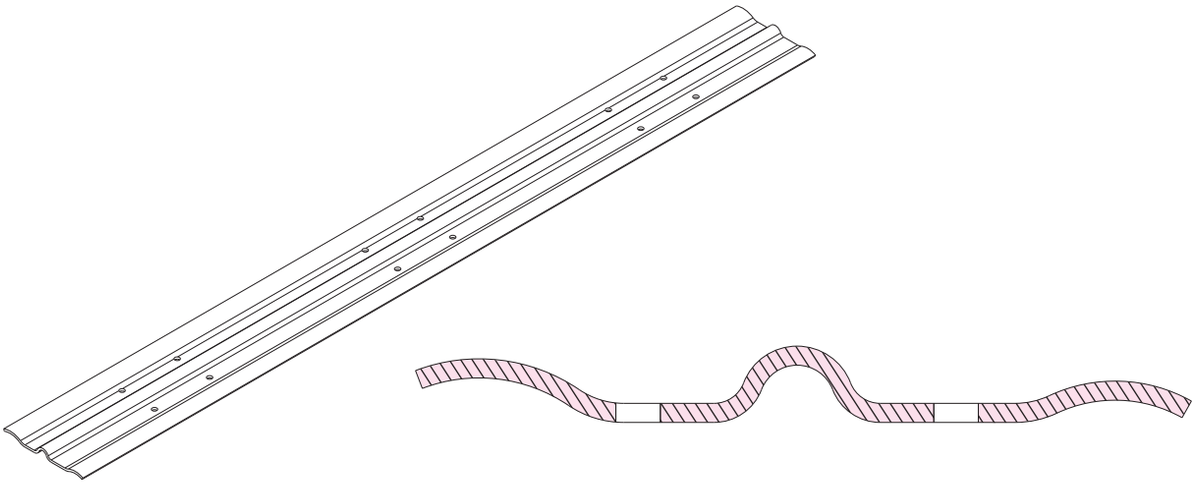


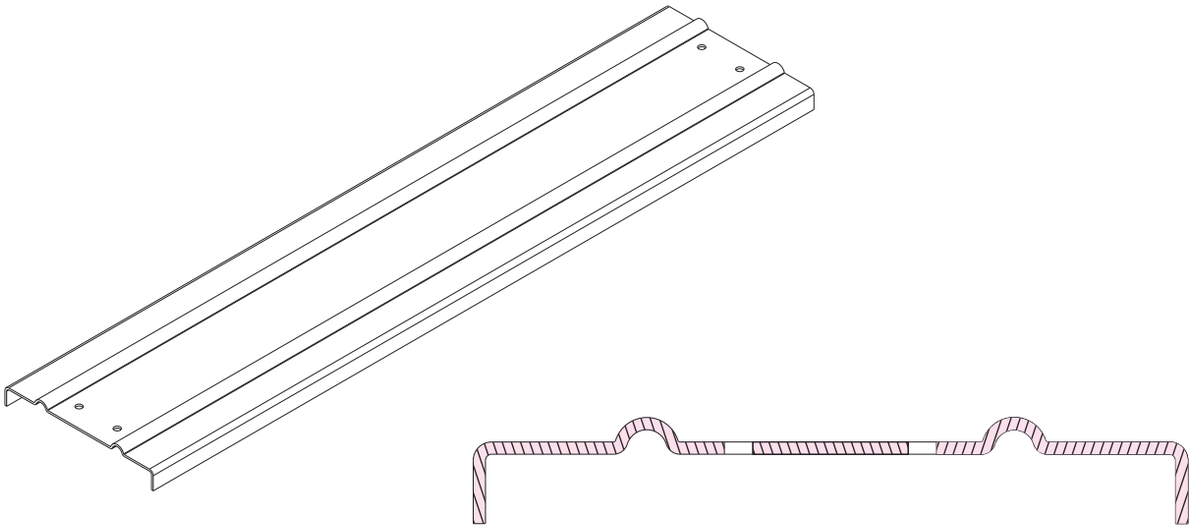


Slats

We are having specialized facilities for manufacturing the quality slats required for Cane Carrier, Inter Carrier, Bagasse Carrier & all other special applications.
Our slat profiles are accurately formed for proper overlapping on 600 ton capacity heavy duty hydraulic presses.
Slats are interchangeable & easily replaceable.
Slat holes are precisely punched to suite chain attachments.
Capacity to press 3mm to 8mm thk. Mild Steel plate on hydraulic press-brake in one stroke, gives uniform shape in overall length.

*Alternative sizes are also available on request.





Transmission Chains

Transmission Chain

These chains are available in ready stock types Simplex, Duplex & Triplex with the variations of pitch 1/4" to 3.5" as per ISO 606 / BS 228 / DIN 8187 - 88.
Considering the highly precised requirement of application, material selection, manufacturing process is designed & developed in such a way that it is known as unique in this segment of manufacturing.

Press Forged Link

Links are manufactured from press forging (for 3" & 3.5") which has added advantage of Grain flow to have built in strength of link due to well uniform distributed grain structure. It has thicker waist which has better Load bearing properties. Links are further coined to maintain the link flatness & precisely machined on VMC to maintain holes dimension with high degree of accuracy for extra service life.
Chain life increase as the quality of links hole is maintained.

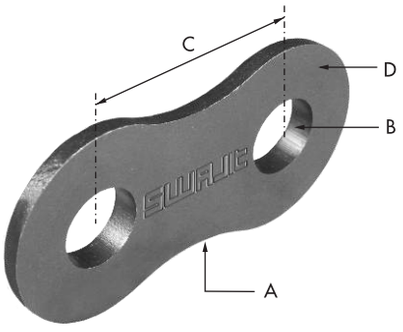
Link heat treatment is done in control atmosphere where the distortion is controlled so precisely. Links shot peening is done to improve impact strength & fatigue resistance there by.

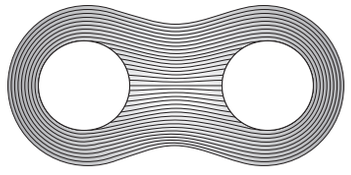
A - Link made of Press Forging

B - Precise Machining of Hole

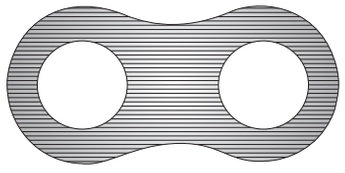
C - Precise Control of Pitch

D - Shot Peened





Metallurgical Metal Flow - Swajit Make



Metallurgical Metal Flow - Other Manufacturer

Step Pin

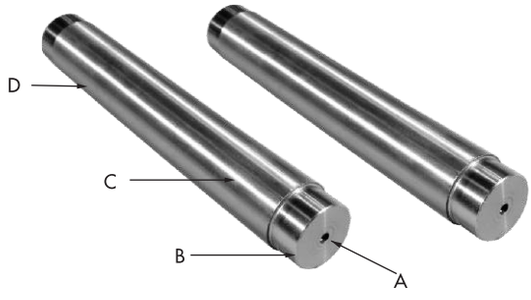
Pins are first volume hardened tempered to increase core hardness & then Armored hardening is done to increase wear resistance by inducing low current with high voltage. Fine Surface finish is maintained to avoid friction with bush ID. Pin ends are kept soft for riveting after fixing into outer links.

A - Tough core

B - Soft End

C - Super fine Surface finish

D - Shot Peened



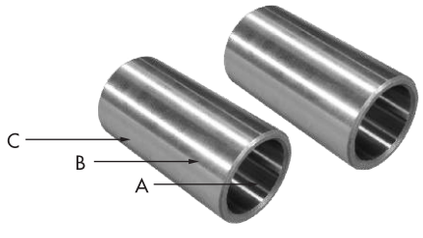
Seamless Bush

Bushes are made up of seamless tube instead of round bars to increase the fatigue strength and shock resistance. Bushes are heat treated in controlled atmosphere furnaces where the distortion is controlled precisely in turn which gives the consistent results in terms of core, surface hardness, case depth & micro structure. Outer diameter of bush is ground with super surface finish & precise size control is exercised to have an interference fit with inner link holes.

A - Bush from Seamless tube

B - Heat treated in ultramodern Heat treatment furnaces

C - With Hardened, Tempered & Carburized properties



Seamless Roller

Rollers are also made from seamless tubes & heat treated to improve the fatigue resistance and shock resistance.

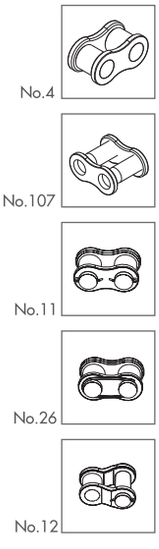
A - Rollers from seamless tube

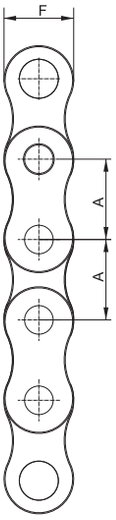
B - Clean Ends

C - Hardened and tempered to achieve excellent shock resistance properties

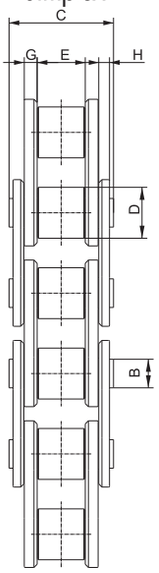
Swajit Model Number	DIN / ISO No.	Pitch Inch	Pitch mm	Pin Dia Max	Pin Length Max	Roller Dia Max	Inside Width Min	Plate Width Max	Plate Thk. Inner Max	Plate Thk. Outer Max	Trans Pitch Nom	ISO606 Tensile Strength Min	Weight Kg/m	No 4	No 107	No 11	No 26	No 12
		A	A	B	C	D	E	F	G	H	J	N						
S I M P L E X																		
SWAJIT 04B-1	04B-1	0.23	6.00	1.85	-	4.00	2.80	5.00	-	-	-	3,000	0.12	*	*	*	*	*
SWAJIT 05B-1	05B-1	0.31	8.00	2.31	-	5.00	3.00	7.10	-	-	-	5,000	0.18	*	*	*	*	*
SWAJIT 06B-1	06B-1	0.375	9.52	3.28	-	6.35	5.72	8.20	-	-	-	9,000	0.40	*	*	*	*	*
SWAJIT 08B-1	08B-1	0.50	12.70	4.45	-	8.51	7.75	11.80	-	-	-	18,000	0.68	*	*	*	*	*
SWAJIT 10B-1	10B-1	0.625	15.875	5.08	-	10.16	9.65	14.70	-	-	-	22400	0.91	*	*	*	*	*
SWAJIT 12B-1	12B-1	0.75	19.05	5.72	-	12.07	11.68	16.10	-	-	-	29000	1.12	*	*	*	*	*
SWAJIT 16B-1	16B-1	1.00	25.40	8.27	-	15.88	17.02	21.00	-	-	-	60000	2.59	*	*	*	*	*
SWAJIT 20B-1	20B-1	1.25	31.75	10.19	-	19.05	19.56	26.40	-	-	-	95000	3.60	*	*	*	*	*
SWAJIT 24B-1	24B-1	1.50	38.10	14.63	-	25.40	25.40	33.40	-	-	-	160000	6.85	*	*	*	*	*
SWAJIT 28B-1	28B-1	1.76	44.45	15.90	-	27.94	30.99	37.00	-	-	-	200000	8.56	*	*	*	*	*
SWAJIT 32B-1	32B-1	2.00	50.80	17.81	63.40	29.21	30.99	42.29	7.11	6.35	-	250,000	9.49	*	*	*	*	*
SWAJIT 40B-1	40B-1	2.50	63.50	22.89	78.20	39.37	39.30	52.96	8.13	8.13	-	355,000	15.53	*	*	*	*	*
SWAJIT 48B-1	48B-1	3.00	76.20	29.20	99.00	48.26	45.72	66.04	12.20	10.20	-	560,000	24.45	*	*	*	*	*
SWAJIT 56B-1	56B1	3.50	88.90	34.30	114.60	53.98	53.34	80.52	13.72	12.70	-	778,435	35.20	*	*	*	*	*
D U P L E X																		
SWAJIT 05B-2	05B-2	0.31	8.00	2.31	-	5.00	3.00	7.10	-	-	5.64	7,800	0.32	*	*	*	*	*
SWAJIT 06B-2	06B-2	0.38	9.52	3.28	-	6.35	5.27	8.20	-	-	10.24	16,900	0.76	*	*	*	*	*
SWAJIT 08B-2	08B-2	0.50	12.70	4.45	-	8.51	7.75	11.80	-	-	13.92	32,000	1.31	*	*	*	*	*
SWAJIT 10B-2	10B-2	0.63	15.88	5.08	-	10.16	9.65	14.70	-	-	16.59	44,500	1.79	*	*	*	*	*
SWAJIT 12B-2	12B-2	0.75	19.05	5.72	-	12.07	11.68	16.10	-	-	19.46	57,800	2.22	*	*	*	*	*
SWAJIT 16B-2	16B-2	1.00	25.40	8.27	-	15.88	17.02	21.00	-	-	31.88	106,000	5.03	*	*	*	*	*
SWAJIT 20B-2	20B-2	1.25	31.75	10.19	-	19.05	19.56	26.40	-	-	36.45	170,000	7.33	*	*	*	*	*
SWAJIT 24B-2	24B-2	1.50	38.10	14.63	-	25.40	25.40	33.40	-	-	48.36	280,000	13.50	*	*	*	*	*
SWAJIT 28B-2	28B-2	1.75	44.45	15.90	-	27.94	30.99	37.00	-	-	59.56	360,000	16.96	*	*	*	*	*
SWAJIT 32B-2	32B-2	2.00	50.80	17.81	126.00	29.21	30.99	42.29	7.11	6.35	58.55	450,000	20.10	*	*	*	*	*
SWAJIT 40B-2	40B-2	2.50	63.50	22.89	155.00	39.37	39.30	52.96	8.13	8.13	72.29	630,000	32.80	*	*	*	*	*
SWAJIT 48B-2	48B-2	3.00	76.20	29.20	190.00	48.26	45.72	66.04	12.20	10.20	91.21	1,000,000	51.00	*	*	*	*	*
SWAJIT 56B-2	56B-2	3.50	88.90	34.30	221.20	53.98	53.34	80.52	12.45	13.72	106.60	1,557,000	69.70	*	*	*	*	*
T R I P L E X																		
SWAJIT 05B-3	05B-3	0.314	8.00	2.31	-	2.31	3.00	7.10	-	-	5.64	11100	0.50	*	*	*	*	*
SWAJIT 06B-3	06B-3	0.375	9.52	3.28	-	3.28	5.72	8.20	-	-	10.24	24900	1.12	*	*	*	*	*
SWAJIT 08B-3	08B-3	0.50	12.70	4.45	-	4.45	7.75	11.80	-	-	13.92	47500	1.94	*	*	*	*	*
SWAJIT 10B-3	10B-3	0.625	15.875	5.08	-	5.08	9.65	14.70	-	-	16.59	66700	2.68	*	*	*	*	*
SWAJIT 12B-3	12B-3	0.75	19.05	5.72	-	5.72	11.68	16.10	-	-	19.46	86700	3.32	*	*	*	*	*
SWAJIT 16B-3	16B-3	1.00	25.40	8.28	-	8.27	17.02	21.00	-	-	31.88	160000	7.65	*	*	*	*	*
SWAJIT 20B-3	20B-3	1.25	31.75	10.19	-	10.19	19.56	26.40	-	-	36.45	250000	10.96	*	*	*	*	*
SWAJIT 24B-3	24B-3	1.50	38.10	14.63	-	14.63	25.40	33.40	-	-	48.36	425000	20.20	*	*	*	*	*
SWAJIT 28B-3	28B-3	1.75	44.45	15.90	-	15.90	30.99	37.00	-	-	59.56	530000	25.38	*	*	*	*	*
SWAJIT 32B-3	32B-3	2.00	50.80	17.81	184.50	29.21	30.99	42.29	7.11	6.35	58.55	670,000	30.00	*	*	*	*	*
SWAJIT 40B-3	40B-3	2.50	63.50	22.90	227.00	39.37	38.10	52.96	8.64	8.13	72.29	950,000	48.90	*	*	*	*	*
SWAJIT 48B-3	48B-3	3.00	76.20	29.24	281.60	48.26	45.72	66.04	12.19	10.16	91.21	1,500,000	76.20	*	*	*	*	*

(All Dimensions are in mm)

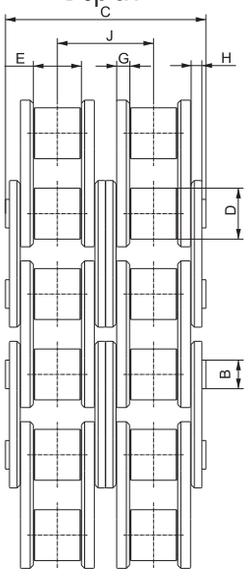




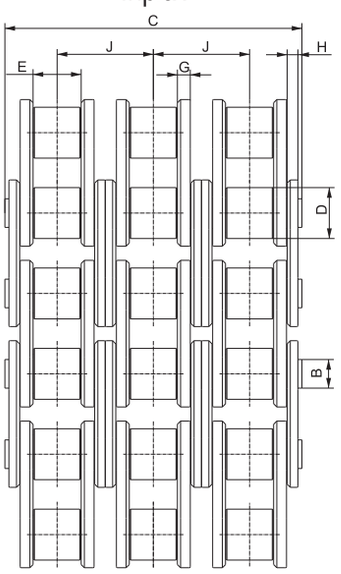
Simplex



Duplex



Triplex



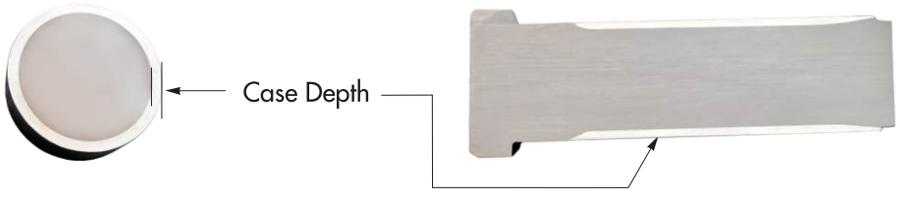
Material Specifications

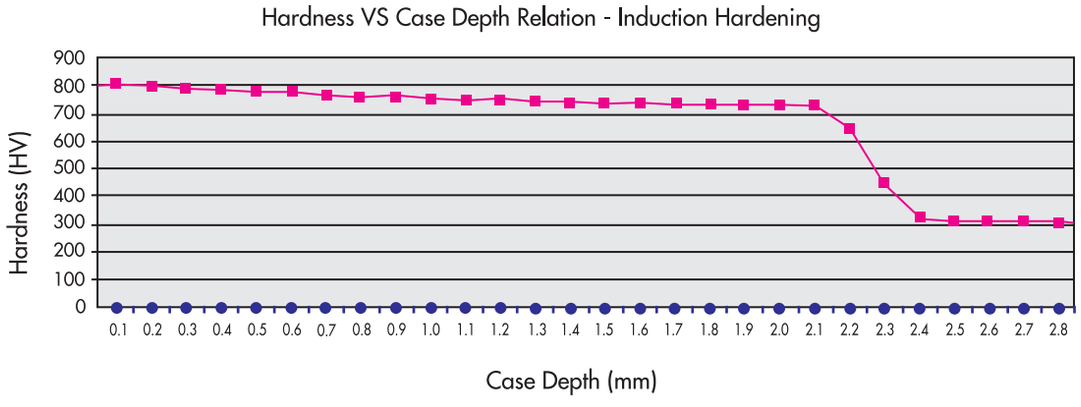
Sr. No.	Grade	Rang	% C	% Mn	% Si	% S	% P	% Ni	% Cr	% Mo	% V	Rolled Hardness in BHN
Plain Carbon Steel												
1	IS2062(MS)	Min	.....	.....	.....	.....	.....	.....	.....	.....		125
		Max	0.25	.....	.....	0.05	0.055	.....	.....	.....	.....	160
2	EN8	Min	0.35	0.60	0.05	.....	.....	.....	.....	.....	.....	160
		Max	0.45	1.00	0.35	0.06	0.060	~	.....	.....	.....	210
3	C-45	Min	0.40	0.60	0.50	.....	.....	.....	.....	.....	.....	210
		Max	0.50	0.90	0.35	0.055	0.055	.....	.....	.....	.....	180
4	EN9	Min	0.50	0.50	0.05	.....	.....	.....	.....	.....	.....	180
		Max	0.60	0.80	0.35	0.06	0.060	.....	.....	.....	.....	210
Alloy Steel												
5	SAE8620	Min	0.18	0.70	0.15	.....	.....	0.40	0.40	0.15		160
		Max	0.23	0.90	0.30	0.040	0.035	0.70	0.60	0.25	.....	210
6	16Ni3Cr2	Min	0.12	0.60	0.15	0.035	0.035	0.60	0.40	.....		160
		Max	0.20	1.00	0.35	.....	.....	1.00	0.80	.....	.....	210
7	15CrNi6	Min	0.12	0.40	0.15	.....	.....	1.40	1.40	.....	.....	160
		Max	0.17	0.60	0.40	0.035	0.035	1.70	1.70	.....	.....	210
8	SCM420	Min	0.18	0.60	0.15	.....	"	.....	0.90	0.15	.....	170
		Max	0.23	0.85	0.35	0.030	0.030	.....	1.20	0.30	"	230
9	16MnCr5	Min	0.14	1.00	0.15	.....	.....	.....	0.80	.....		160
		Max	0.19	1.30	0.40	0.035	0.035	.....	1.10	.....	.....	210
10	20MnCr5	Min	0.17	1.10	0.15	.....	.....	~	1.00	.....		160
		Max	0.22	1.40	0.40	0.035	0.035	"	1.30	.....	.....	210
11	EN353	Min	0.14	0.50	~	.....	.....	1.00	0.75	0.08	.....	160
		Max	0.20	1.00	0.35	0.050	0.050	1.50	1.25	0.15	.....	210
12	EN-36B	Min	0.12	0.30	0.10	.....	.....	3.00	0.60	.....	.....	180
		Max	0.18	0.60	0.35	0.050	0.050	3.75	1.10	.....		230
13	EN19	Min	0.35	0.50	0.10	.....	.....	.....	0.90	0.20	.....	160
		Max	0.45	0.80	0.35	0.05	0.05	.....	1.50	0.40	.....	210
14	EN24	Min	0.35	0.45	0.10	.....	.....	1.30	0.90	0.20	.....	170
		Max	0.45	0.70	0.35	0.05	0.05	1.80	1.40	0.35	.....	240
14	SAE- 01 (OHNS)	Min	0.85	1.00	0.20	.....	.....	.....	0.40	%W0.4	"	180
		Max	0.95	1.30	0.40	.....	.....	.....	0.60	%W 0.6	0.20	240
15	SAE-D3 (WPS)	Min	2.00	0.24	0.25	.....	.....	.....	11.00	.....	.....	180
		Max	2.30	0.45	0.45	.....	.....	.....	13.00	0.80	%W0.75	240
16	41Cr4	Min	0.38	0.50	0.15	.....	.....	.....	0.90	.....	.....	*
		Max	0.45	0.80	0.40	0.035	0.035	.....	1.20	.....	.....	187
Martensitic Stainless Steel												
17	SS410	Min	.....	.....	.....	.....	.....	.....	11.50	.....	.....	
		Max	0.15	1.00	1.00	0.03	0.04	.....	13.50	.....	.....	170
18	SS420	Min	0.15	.....	.....	.....	.....	.....	12.00	.....	.....	
		Max	0.20	1.00	1.00	0.03	0.04	.....	14.00	.....	.....	170
19	SS431	Min	.....	.....	.....	.....	.....	1.25	15.00	.....	.....	170
		Max	0.20	1.00	1.00	0.03	0.04	2.50	17.00	.....	.....	170
Austenitic Stainless Steel												
20	SS304	Min	.....	.....	"	.....	.....	8.000	18.00	.....	.....	
		Max	0.08	2.00	1.00	0.03	0.045	10.50	20.00	.....	.....	170
21	SS310	Min	.....	.....	.....	.....	.....	19.00	24.00	.....	.....	
		Max	0.25	2.00	1.50	0.03	0.045	22.00	26.00	.....	.....	170
22	SS316	Min	.....	.....	"	.....	.....	10.00	16.00	2.00	.....	
		Max	0.08	2.00	1.00	0.03	0.045	14.00	18.00	3.00	.....	170

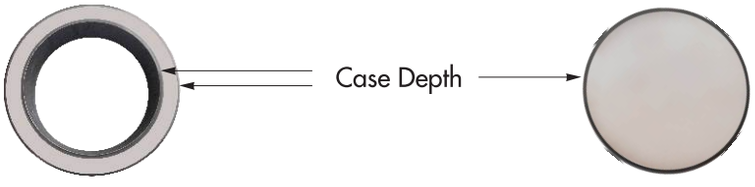
Hardness / Tensile Strength									Hardness / Tensile Strength								
ROCKWELL			VICKER	SHORE	BRINELL 3000 KG LOAD, 10 MM BALL		TENSILE STRENGTH		ROCKWELL			VICKER	SHORE	BRINELL 3000 KG LOAD, 10 MM BALL		TENSILE STRENGTH	
HRC (50kg Diamond)	HRA (60kg Diamond)	HRB 100 kg 1/16 Ball	HARDNESS	HARDNESS	HARDNESS	INDENTATION DIA(MM)	MPA	KGF / MM	HRC (50kg Diamond)	HRA (60kg Diamond)	HRB 100 kg 1/16 Ball	HARDNESS	HARDNESS	HARDNESS	INDENTATION DIA(MM)	MPA	KGF / MM
68		85.6	940	97					39	69.9		382	52	362	3.20	1220	124
67		85.0	900	95					38	69.4		372	51	353	3.24	1180	120
66		84.5	865	92					37	68.9		363	50	344	3.28	1160	118
65		83.9	832	91					36	68.4	109.0	354	49	336	3.33	1120	114
64		83.4	800	88					35	67.9	108.5	345	48	327	3.37	1080	110
63		82.8	772	87					34	67.4	108.0	336	47	319	3.41	1060	108
62		82.3	746	85					33	66.8	107.5	327	46	311	3.45	1030	105
61		81.8	720	83					32	66.3	107.0	318	44	301	3.50	1000	102
60		81.2	697	81					31	65.8	106.0	310	43	294	3.55	980	100
59		80.7	674	80					30	65.3	105.5	302	42	286	3.59	950	97
58		80.1	653	78					29	64.7	104.5	294	41	279	3.64	930	95
57		79.6	633	76					28	64.3	104.0	296	41	272	3.69	910	93
56		79.0	613	75					27	63.8	103.0	279	40	264	3.73	880	90
55		78.5	595	74			2080	212	26	63.3	102.5	272	38	258	3.77	860	88
54		78.0	577	72			2010	205	25	62.8	101.5	266	38	253	3.81	840	86
53		77.4	560	71			1950	199	24	62.4	101.0	260	37	247	3.86	820	84
52		76.8	544	69	500	2.74	1880	192	23	62.0	100.0	254	36	243	3.88	800	82
51		76.3	528	68	487	2.77	1820	186	22	61.5	99.0	248	35	237	3.93	780	80
50		75.9	513	67	475	2.81	1760	179	21	61.0	98.5	243	35	231	3.98	770	79
49		75.2	498	66	464	2.84	1700	173	20	60.5	97.8	238	34	226	4.02	760	77
48		74.7	484	64	451	2.88	1640	167	18		96.7	230	33	219	4.08	740	75
47		74.1	471	63	442	2.91	1580	161	16		95.5	222	32	212	4.15	710	72
46		73.6	458	62	432	2.94	1530	156	14		93.9	213	31	203	4.23	680	69
45		73.1	446	60	421	2.98	1480	151	12		92.3	204	29	194	4.33	650	66
44		72.5	434	58	409	3.02	1430	146	10		90.7	196	28	187	4.40	620	63
43		72.0	423	57	400	3.05	1380	141	8		89.5	188	27	179	4.50	600	61
42		71.5	412	56	390	3.09	1330	136	6		87.1	180	26	171	4.59	580	59
41		70.9	402	55	381	3.13	1290	132	4		85.5	173	25	165	4.67	550	56
40		70.4	392	54	371	3.17	1250	127	2		83.5	166	24	158	4.76	530	54
									0		81.7	150	24	152	4.85	520	53

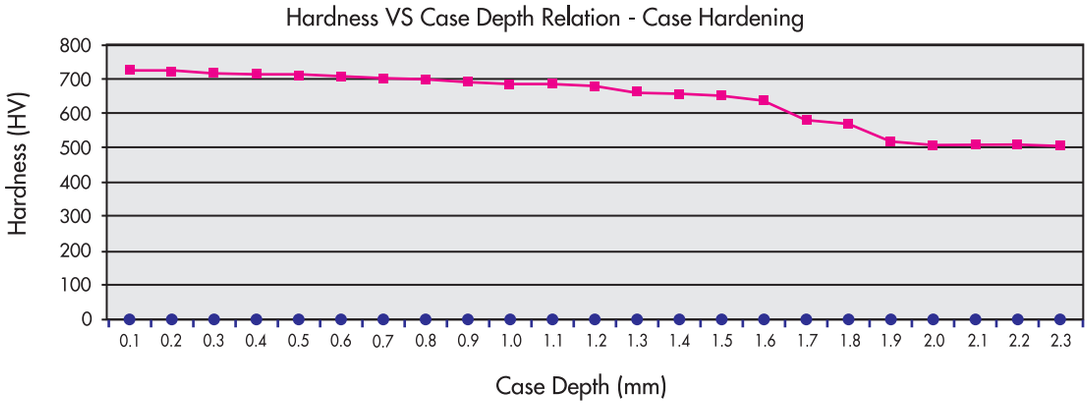
State of Art Case And Induction Hardening For Pin & Bush

Increases wear resistance especially in Effective area

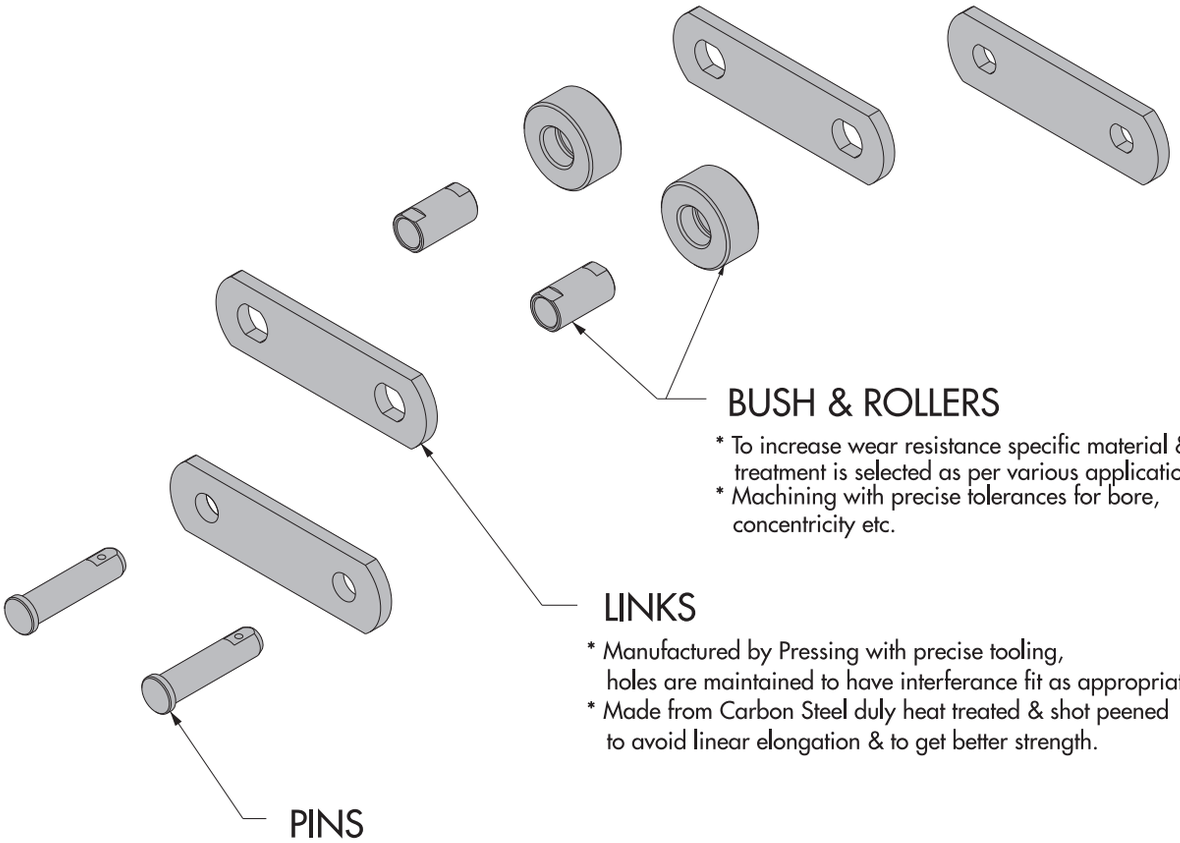








Construction of SWAJIT Conveyor Chains



BUSH & ROLLERS

* To increase wear resistance specific material & heat treatment is selected as per various applications.
* Machining with precise tolerances for bore, concentricity etc.

LINKS

* Manufactured by Pressing with precise tooling, holes are maintained to have interferance fit as appropriate.
* Made from Carbon Steel duly heat treated & shot peened to avoid linear elongation & to get better strength.

PINS

* Precisely machined to have appropriate clearance fit with Bush ID
* Selection of material & heat treatment to suit specific application.

More frequent inspections and check points

- Wear on sprocket's teeth and wear on link plates it appeared that means sprockets or shafts are not properly aligned. Do not depend on wear sign alone for judging shaft and sprocket alignment, since misalignment may be detected before wear become apparent. Hence the proper alignment is very much necessary to avoid any major breakdown.
- The working faces of sprocket teeth should have a bright and polished appearance. The Scratches to grooves or change in tooth shape indicates some trouble i.e. the rollers may not be rotating due to inadequate lubrication.
- The gradual elongation above 3 % in total chain length, indicates that the chain will soon jump the sprockets. A certain increase in slack may be due to in improper lubrication, heavy shock loads or continuous over load or axle displacement or displacement of take-ups.
- Compressed air cleaning is necessary to maintain the cleanliness, to avoid the jamming in chain parts which may occure due to accumulations of dirt, foreign particle and bagasse.
- Do not use a new link as replacement in a chain, which has already been elongated by wear. Also do not use the new chain on worn out sprockets because this will reduce the chain life considerably.
- Before disassembling the chain, lubricate it with oil & run the carrier in Idle condition for 8-10 hours, so that chain parts become free, facilitating in easy disassembly.
- After dismantling the pin, bush, rollers from Carrier Chain, the same should have to be subjected to "Sand Blasting" operation to have proper cleaning.
- Simply rematching of chain components and parts to get the assembled chain is very Dangerous.
- Never go for Electroplating of heat treated chains, as it causes the hydrogen embrittlement fracture.
- Never weld the heat treated chains, as heat effect can reduce strength causing the chain to break.
- Prior to get the use of blow chart or other heat source to hest and cut the chain ,be sure to remove all components of either side of heat treated area that may be affected by heat.

Lubrication

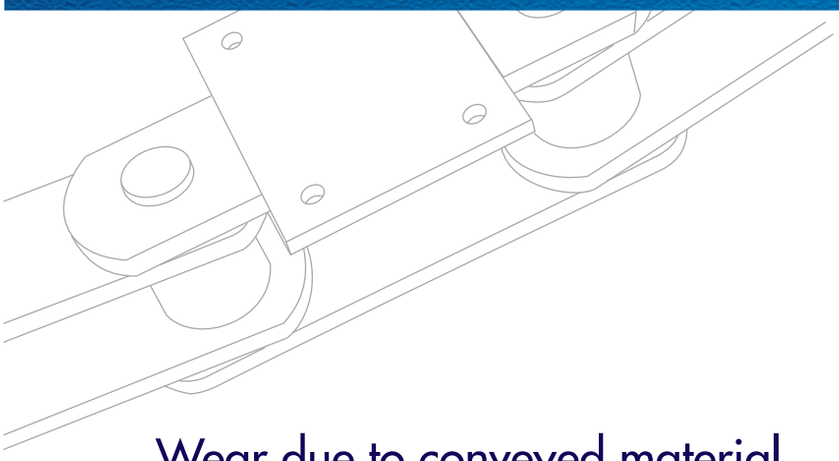
- Selection of proper lubrication method & applying lubricant is necessary for prolongation of the life of chain
- Method of lubrication should be adopted depending upon the chain speed. Mineral oil SAE 40 to 60 is recommended.
- Lubricants such as Oil or Grease should always be applied between inner & outer link plates and side facing of the chain wheel/sprockets during working.
- Frequently check the viscosity & quality of the lubricant, in order to reduce the wear characteristics of conveyor chain

Mechanical Wear

Under the reasonable conditions and normal atmosphere, the mechanical wear causes, the bearing surface of conveyor chain to shine brightly, hence the proper lubrication assures further enhanced life.

Wear due to Corrosion

Conveyor chains used in applications where acidic and alkaline chemicals are present will be subjected to corrosive as well as mechanical wear .To protect against chemical corrosion accompanying mechanical wear, the stainless steel is recommended.



Wear due to conveyed material

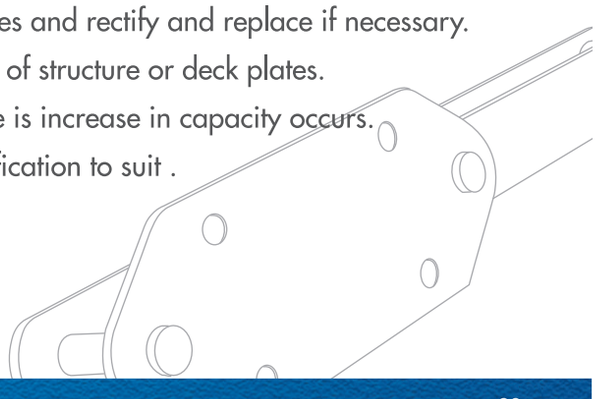
Material conveyed by chain also have an important factor .Wearing of the chain due to reciprocal friction between material and chain can be eliminated by preventing material from falling on the chain. to enhance extra protection the chain should have higher wear resistance specifications.

Note:

Avoid steam and hot water for cleaning the chain because it will cause delubricating the chain assembly, resulting in increased corrosion and wear of the chain parts and reduction of the chain life drastically.

Carrier Chain Check points

- Alignment of sprocket, shaft, with carrier in linear and perpendicular direction.
- Sprocket & teeth condition i.e. Machined or Not Machined.
- Hardness of sprocket teeth as well as the wear & tear of teeth.
- Material feeding position should be Central feeding & not side feeding.
- Chain elongation (whether removed any link)
- Whether Chain has elongated on one side.
- Lubrication and cleaning procedure.
- Before disassembling the Chain, lubricate with oil & run carrier in Idle Condition for 8-10 hours. So, that chain parts become free, facilitating in easy disassembly.
- Chain twist due to alignment problem caused by uneven wear and tension.
  Chain cleanliness.
- Loose chain components and chain attachments.
- Check that chain pin heads are not fouling any side plates.
- Check that material is evenly loaded across conveyor.
- Remove trash or material ingress from chain where possible.
- In case of slat and Apron conveyor, check for distorted or loose slates and rectify and replace if necessary.
- For Scraper conveyors, check that scrapers are not fouling any side of structure or deck plates.
- Ensure that, the chain used in the application is suitable, when there is increase in capacity occurs.
- Any change in the chains particular application ,may require modification to suit .
- Lubrication applied for Pin and Bushes if required.

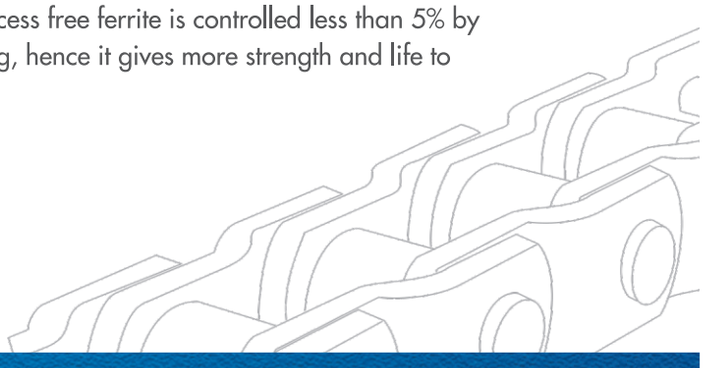


Problem Identification & Corrective Action

Problem	Potential cause	Solution
Chain rises off from sprocket	• Excess chain slack. • Excess wear at the bases of sprocket teeth. • Excess chain extension. • Foreign material stuck to the bases of sprocket teeth.	• Adjust the amount of slack. • Replace the sprocket. • Replace the chain. • Remove the foreign material from the bases of the teeth.
Chain separates poorly from the sprocket.	• Sprocket misalignment. • Excess chain slack. • Excess wear at the bases of sprocket teeth.	• Adjust alignment. • Adjust the amount of slack. • Replace the sprocket.
Wear to sides of link plats and sprockets	• Sprocket misalignment.	• Adjust alignment.
Poor chain flexure	• Inadequate oiling. • Foreign materials between pins and bushes. • Corrosion between and bushes. • Sprockets misalignment.	• Lubricate properly. • Wash the chain to remove foreign materials, and then oil it. • Replace with an environment resistant chain series. • Adjust alignment.
Abnormal noise	• Chain is too taut or too loose. • Inadequate oiling. • Excess wear of sprockets and chain. • Contact with the chain case. • Damaged bearings. • Sprocket misalignment.	• Adjust slack. • Lubricate properly. • Replace chain and sprockets. • Eliminate contact with the case. • Replace the bearings. • Adjust Alignment.
Chain vibration.	• Excess chin slack. • Excess load variation. • Excess chain speed leading to pulsation. • Chain flexes poorly at some points. • Sprocket wear.	• Adjust slack. • Reduce load variation or replace chain. • Use guide stoppers to stop chain swaying. • Remove the affected points. • Replace the sprockets.
Damage to pins, bushes, rollers. Deformation of link plate holes	• Inadequate oiling. • jammed foreign bodies. • Corroded components. • Use with greater than allowable load. • Abnormal load action.	• Lubricate properly. • Remove foreign bodies. • Replace with an environment resistant chain series. • Review chain and sprocket selections. • Eliminate the abnormal load. and review chain and sprocket selections.
Overall corrosion Corrosive Wear	• Corrosion due to moisture. Acid or alkali.	• Replace with an environment resistant chain series.

The Salient features of SWAJIT Chains

- SWAJIT is an ISO 9001-2015 Certified Company.
- SWAJIT has all infrastructure required for manufacturing of quality chains under one roof i.e. metallurgical laboratory, press shop and state-of-art Heat Treatment facility.
- SWAJIT has achieved higher capacity breaking loads in optimum designs by using special quality Steels, proper metallurgical parameters and state of the art Heat treatment procedures. This results in reduced dead weight of chains, costly inventory and saving in lot of valuable energy.
- SWAJIT chains are manufactured with optimum hardness levels of all parts to reduce wear, tear and elongation of chains.
- Raw material is procured from reputed steel mills which confirms to International metallurgical standards.
- SWAJIT stands at par in quality with International chain manufacturer i.e Ewart, Rexnord, Jaffery, Renold, Hitachi.
- SWAJIT is regular supplier to all reputed factories in India and clients are very much satisfied with the performance of the chains.
- SWAJIT chains have given extra ordinary performance in all the critical operations where other brand chains have failed.
- SWAJIT Pins, Bushes and Rollers are strong because of specified case and core hardness .Case carbon is controlled in carburizing cycle for controlling retained austenite in microstructure with latest technology Further multiple tempering is carried out to reduce remaining retained austenite.
- SWAJIT uses induction hardened pins which are having more case depth than carburized steel which gives more abrasion resistance than the case hardened process. Induction hardening increases fatigue life of components are directly related to case depth and also get more wear resistance than carburized steel. In induction case depth is maintained between 1.5 mm to 4 mm.
- 100% grinding for pin and bushes for better fitment. Link fitting and final chain assembly on hydraulic presses hence less initial elongation.
- Link shaving, broaching and drifting give more bearing area, more contact surface and less elongation.
- SWAJIT links are hardened and toughened. In toughening process free ferrite is controlled less than 5% by keeping proper austenising temperature and sudden quenching, hence it gives more strength and life to chain than any other chains.



Infrastructure & Advance Manufacturing Facilities

Computer Numerical Controlled Circular Saw

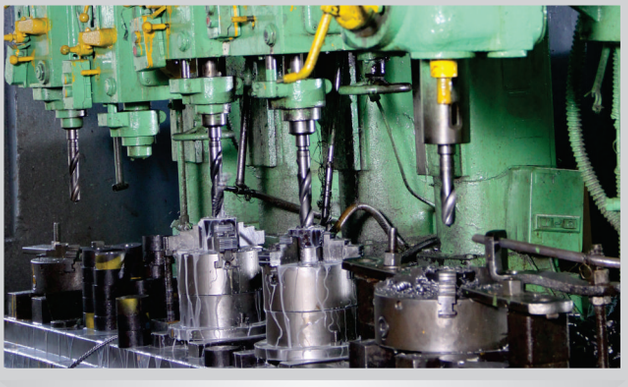
CNC Turning Centre

SPM Bush Milling

VMC

Screw Type Forging Press

SPM Facilities



Gang Drilling Centre

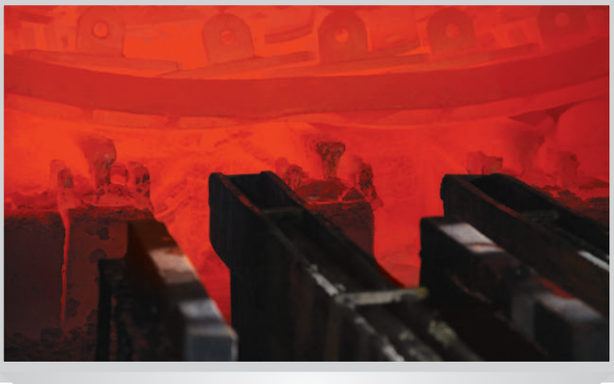
Infrastructure & Advance Manufacturing Facilities

Heavy Duty Press Shop

Pneumatic Control Press - Cap. 150 T to 600 T.

Pillar Die Set

Induction Heating Furnace



Link Hardening & Tempering Facilities

Sealed Quench Gas Carburizing Furnace

Induction Hardening

SPM - Forged Link Boring

Chain Assembly Line

Shot Peening

Shearing Machine

Hydraulic Press Brake - Cap. 600 T.

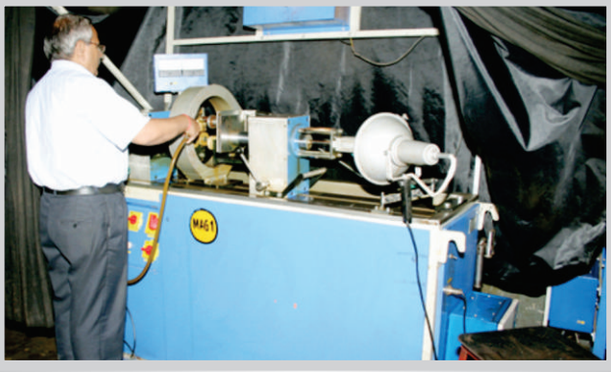
Testing Facilities

Link Layout Inspection

Ultrasonic Testing of Raw Material

Micro hardness Tester

Ultimate Tensile Testing Machine



Magna flux Crack Detection Machine

Digital Hardness Tester

Strengthen the power for smooth action.....

TM

SWAJIT

CONVEYOR, TRANSMISSION CHAINS & SLATS

Swajit Engineering (P) Ltd.

Sector K-9, M.I.D.C., Waluj, Aurangabad - 431 136. (MS) India.
Tel : +91-240-2554531, 2555031 Fax : +91-240-2555032
E-mail : marketing@swajit.com, ppc@swajit.com
Website : www.swajit.com

TUV INDIA
ISO 9001 Certified

Design & Print: Creativeart: 9049 26 3105