



HITACHI SAV 709 STAINLESS STEEL CHAIN



HITACHI SAV 715 STAINLESS STEEL CHAIN



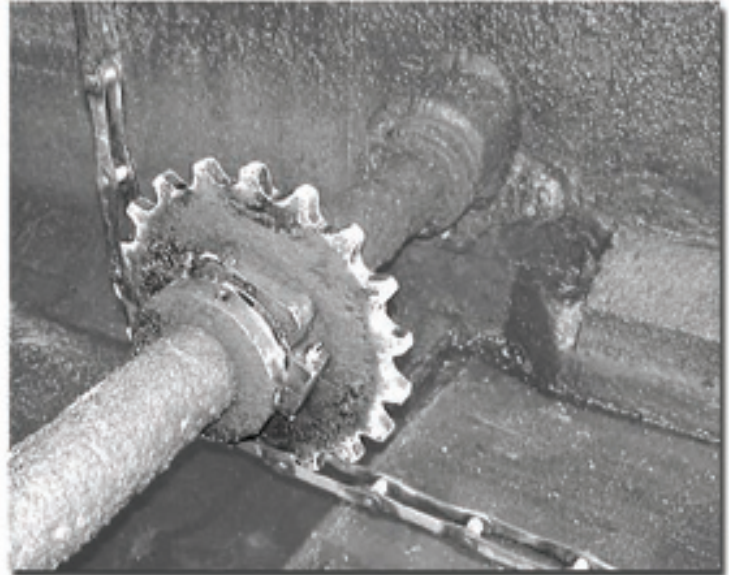
- STAINLESS CHAINS
- NON-METALLIC CHAINS
- FLIGHTS
- SPROCKETS
- WEAR STRIPS
- WEAR SHOES

HITACHI MAXCO, LTD. - KENNEDAW, GA 30152 - 800-241-8809

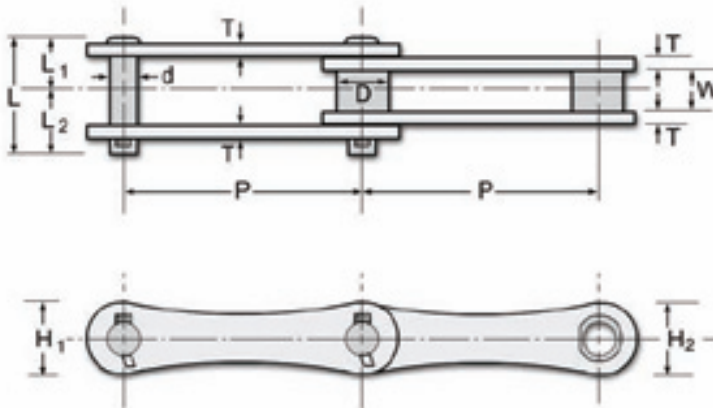
SAV 715 Stainless Steel Chain



- Strong
- Lightweight
- 403 stainless steel



SAV 715 Chain



SAV 715 Chain, the first stainless steel curved sidebar chain equivalent. Lightweight yet with a higher strength to weight ratio than cast chain SAV 715 is fabricated of 403 stainless steel and has been proven superior for high load applications and has readily available several common attachment link designs for Bar Screen and Grit Collector requirements.

The SAV 715 is the result of brilliant design and the application of unique metals technology providing a collector chain of unmatched service life and application potential for a wide range of service requirements. With over 3,000,000 feet of chain in service world wide and a typical service life measured in decades, the SAV 715 is the ideal chain for collector chain service.

Dimensions and Strength of SAV 715 Chain

Chain No.	Pitch P (in.)	Min. Ultimate Strength (lbs.)	Min. Weight (lbs./ft.)	Barrel (min.)		Pin			Side Bars (min.)				
				Outside Dia. D	Width W	Dia. d	Length (in.)			Pin Link (in.)		Bushed Link (in.)	
							L	L ₁	L ₂	H ₁	T		H ₂
SAV 715	6.00	29,000	3.7	1.015	1 3/16	0.569	2 27/32	1 9/32	1 9/16	1.54	.224	1.85	.224



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

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SAV 715 Stainless Steel Chain

SAV 715 Chains are adaptable to a wide range of wastewater applications from rectangular clarifier to grit collection, bar screens, DAF, and API service. The SAV 715 handles the most demanding applications without problem. SAV chains feature a stainless steel "J" cotter for easy assembly of the chains.

Also available from Hitachi Maxco for SAV 715 chain is the Hybrid replaceable tooth sprocket. Hardened stainless steel teeth resists grit and other abrasives, yet the individual tooth sections are easily replaced and can be done with simple tools. The chain does not need to be broken apart to perform the task - less intrusive than having to replace entire sprockets or segments. Assembles with 316 stainless steel hardware.

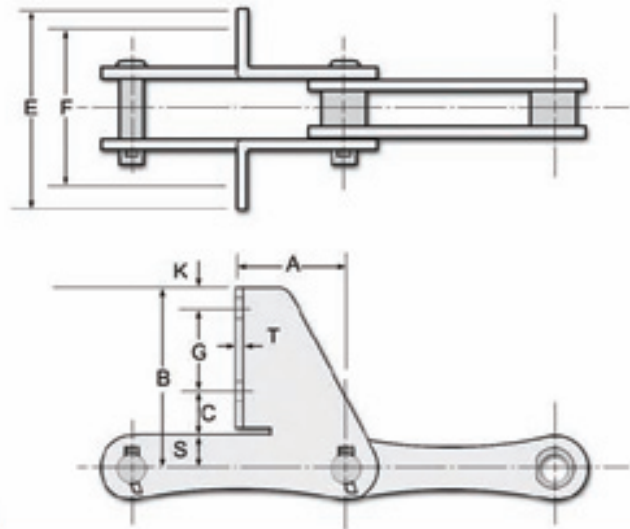


SAV 715 Hybrid Sprocket



Replaceable Individual Teeth
Hardened 410 Stainless
Steel or Non-metallic Hub

SAV 715 "F" Style Attachment Link



Dimensions of SAV Stainless Steel Chain (F Attachment)

Attachment Part No.	Dimension										Attachment Nominal Weight (lbs./ea.)
	A	B	C	E	F	G	K	S	T	Ø	
F-226/715	3	6 ⁷ / ₆₄	1 ¹ / ₂	5 ¹ / ₂	3 ³ / ₄	2 ⁵ / ₈	1 ³ / ₃₂	57/ ₆₄	15/ ₆₄	7/ ₁₆	4.5
F-228/715	3	7 ⁷ / ₈	1 ³¹ / ₆₄	5 ¹ / ₂	3 ³ / ₄	4 ¹ / ₂	1	57/ ₆₄	15/ ₆₄	7/ ₁₆	5.4

also available with AM116, AD174, D-22, K2, A2, and A-C attachments.

SAV 709 Stainless Steel Chain

SAV 709 chain was designed as an economical Stainless steel chain alternative to non-metallic and cast chain for rectangular clarifier usage. Maintaining the same materials and design as SAV 715, the primary difference between the two chains is the SAV 709 chains ability to run on standard 720 series sprockets. The chain can be used with fiberglass or wooden flights. No special modifications to the existing system or tank layout is required.

403 Stainless Steel

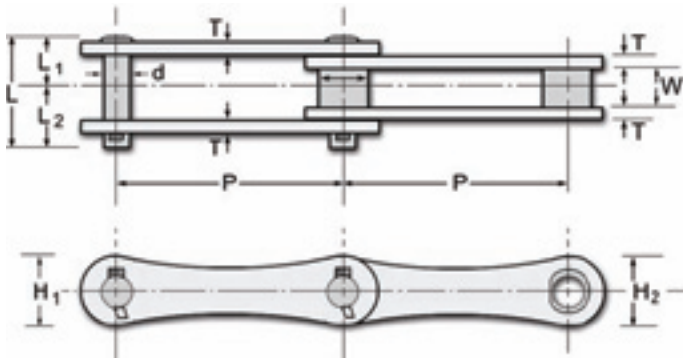
**Direct Interchange with
720 Non-Metallic and Cast Chains**

Lightweight (2.2 Lbs)

High Strength (19,000 Lbs)

"J" Cotter Assembly

SAV 709 Chain



Technical Specifications of SAV 709 Chain

Chain No.	Pitch P (in.)	Average Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel		Pin			Side Bars				
				Outside Dia. D	Width W	Dia. d	Length (in.)			Pin Link		Bushed Link	
							L	L ₁	L ₂	H ₁	T	H ₂	T
SAV 709	5.844	19,000	2.2	0.882	1 ¹⁷ / ₆₄	0.453	2 ³⁷ / ₆₄	1 ¹¹ / ₆₄	1 ¹³ / ₃₂	1 ⁷ / ₃₂	3 ¹ / ₁₆	1 ²⁹ / ₆₄	3 ¹ / ₁₆



SAV 709 Key Features

Average Ultimate Strength of 19,000 lbs. makes the SAV 709 comparable to even high strength composite chains. The 403 stainless steel material has over 28 years of proven experience in wastewater treatment chain applications. Special manufacturing processes provide a chain with unmatched resistance to abrasion and corrosion resulting in extended service life. The light weight offers ease of installation and requires very little maintenance. SAV 709 can be used with non-metallic, steel, or cast iron sprockets.



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

SAV 709 Stainless Steel Chain

SAV 709 chain with standard F-226 or F-228 attachment links provides a strong solution for difficult collector operations. Pictured here is SAV 709 with Hitachi Maxco's HMAX Extreme Duty FRP Flights. The tank width is over 36 ft and handles primary sludge. The plant elected to replace mechanical traveling bridge units (visible in background) and discovered that the superior strength and capability of the SAV 709 made it the ideal choice. Typical clarifier design is limited at around 30 ft. width with plastic chain, which would have necessitated the costly prospect of creating two clarifiers out of the original one. SAV 709 and the HMAX flights allowed the plant to retain the original layout saving the plant from a significant expense.



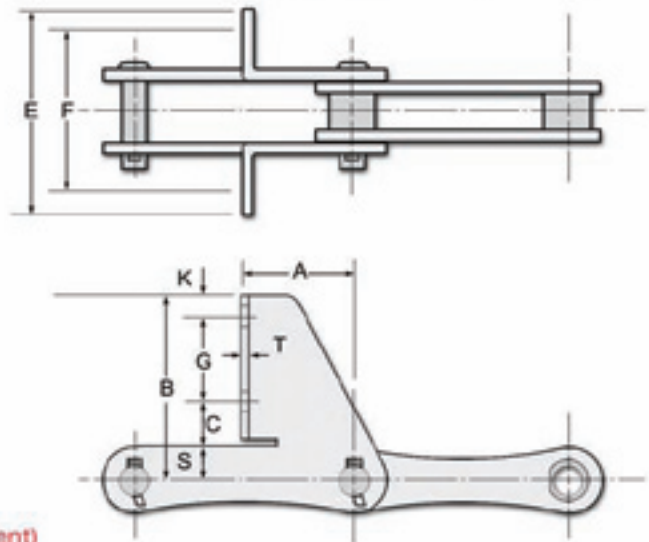
36 ft wide Clarifier - SAV 709 Chain with HMAX Extreme Duty Flights



Closer view - 36 ft wide Clarifier with SAV 709 Chain

- * Strong - Lightweight
- * Versatile in Application
- * Cost Effective Solution

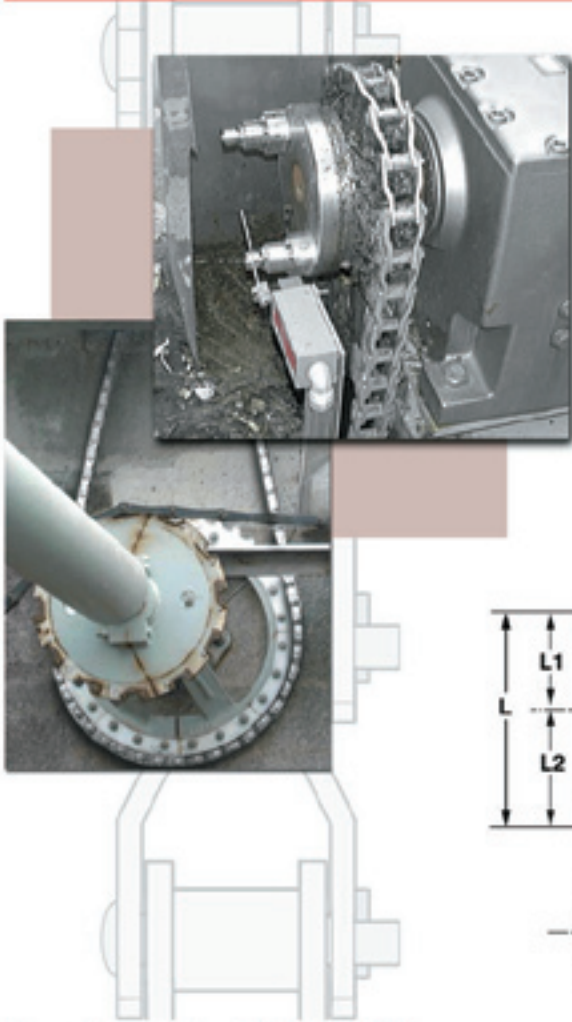
SAV 709 "F" Style Attachment Link



Dimensions of SAV 709 Stainless Steel Chain (F Attachment)

Attachment Part No.	Dimension										Attachment Nominal Weight (lbs./ea.)
	A	B	C	E	F	G	K	S	T	∅	
F-226/709	2.913	6 1/2	1 41/64	5 1/2	3 3/4	2 0/8	1 10/64	1	3/16	7/16	3.9
F-228/709	2.913	8 17/64	1 41/64	5 1/2	3 3/4	4 1/2	1 1/8	1	3/16	7/16	4.5

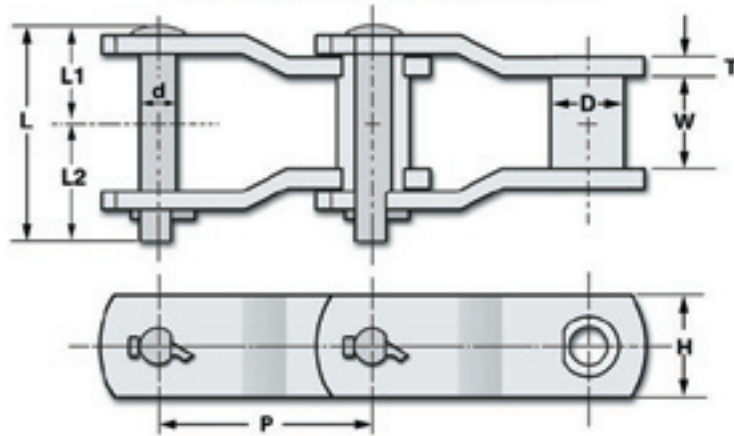
HB 78 Stainless Steel Drive Chain



HB 78 Stainless Steel Drive Chain is the premier pintle drive chain for harsh demanding applications. Ideal for wastewater treatment applications. Made from 403 stainless steel, the chain is extremely strong, yet highly corrosion resistant. Consider the advantages of HB 78 Chain:

- * Directly interchangeable with all Series 78 chains.
- * Runs on Cast, Non-metallic or Stainless tooth series 78 sprockets.
- * Minimal elongation = less tension adjustment.
- * J-cotter pin for easy chain link removal.
- * Available from Inventory.

HB 78 Stainless Drive Chain



Dimensions and Strength of HB 78 Chain

Chain No.	Pitch P (in.)	Working Load (lbs.)	Average Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel		Pin			Side Bar		
					Outside Dia. D (in.)	Width W (in.)	Outside Dia. d	Length (in.)			Height H (in.)	Thickness T (in.)
								L	L ₁	L ₂		
HB 78	2.609	3,300	24,000	3.9	7/8	1 1/8	7/16	2 5/8	1 3/16	1 7/16	1 1/4	15/64



SPROCKETS



NON-METALLIC CHAINS

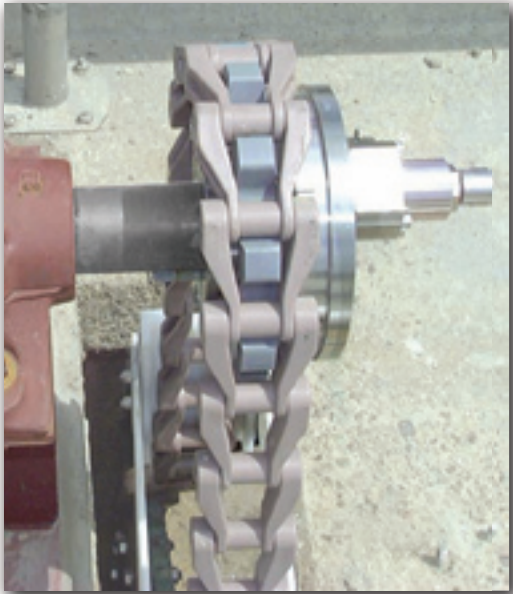


STAINLESS CHAINS



FIBERGLASS FLIGHTS

NH 78 Non-Metallic Drive Chain

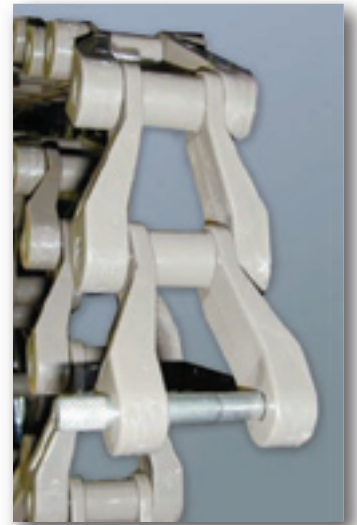
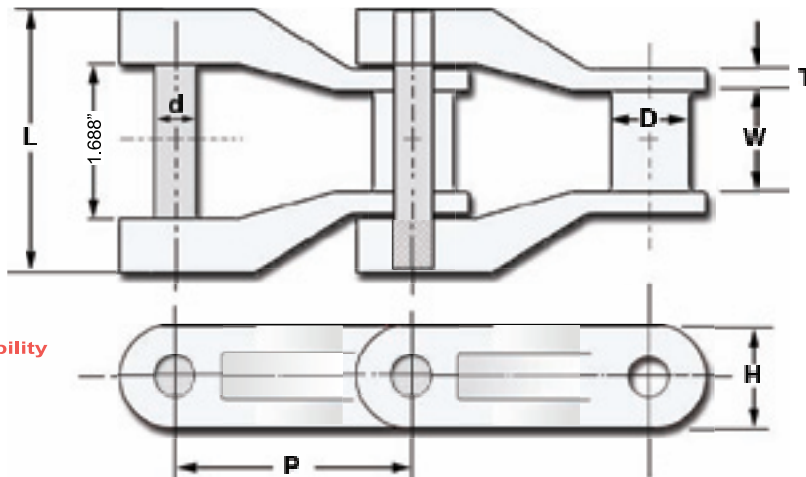


NH 78 Non-Metallic Chain is a strong, yet light weight alternative to metallic or cast drive chains. Directly interchangeable with 78 series chains, the NH 78 chain can be used with cast, plastic, or stainless steel sprockets* for clarifier drives or drag conveyor applications. Featuring a stainless steel knurled pin, the NH 78 easily assembles without the need for cotters, locking pins, or clips. The unfilled Acetal link is highly wear resistant and does not corrode or rust, natural lubricity eliminates the need for oilers or lube lines. Minimal wear means less maintenance. Extremely versatile NH 78 chain is an economical alternative to standard drive chains.

* 78 style sprockets with a maximum face width of .727"

NH 78 Non-Metallic Drive Chain

- Knurled Pin**
- Natural Lubricity**
- Strong, Light Weight**
- Stainless Pin**
- No Cotters, Clips**
- 2.609" Pitch**
- Direct Interchangeability**
- UV Inhibited**



Chain Specifications

Chain Dimensions Are Given In Inches

Chain No.	Pitch P	Working Load (lbs.)	Minimum Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel		Pin			Link Unfilled Acetal Resin	Side Bars Height H
					Outside Dia. D	Width W	Dia. d	Length L	Material		
NH 78	2.609	1,750	4,000	1.41	.875	1.062	.438	2.906	18-8 CrNi Steel		1.125

Subject to Change Without Notice



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

NM720S Non-Metallic Chain



Hitachi Maxco NM720S Collector Chain

- ◆ **Acetal Link - Reinforced Nylon Pin**
- ◆ **Positive Locking Pin**
- ◆ **High Strength**
- ◆ **Excellent UV Resistance**



6" Pitch NM720S Collector Chain operates with any 720S sprocket. Ideal replacement for Cast Chain, interchangeable with both plastic and cast chain. Reuse existing sprockets, flights and components.



F-226 & F-228 Attachment Links available

Hitachi Maxco's latest generation of non-metallic 6" pitch collector chain features extremely high strength and significant advantages in durability for better service life and a broader range of application capability including DAF, API, and Grit collector service. Directly interchangeable with any 720 type chain, the NM720S is ideal for retro-fit or rehab of existing clarifiers*.

* non-metallic 720 chains are not interlaceable. Hitachi NM720S is interchangeable (fits your existing flights, sprockets, etc.) with other 720S.

5,500 Lbs. Min UTS

1.6 Lbs. per ft.

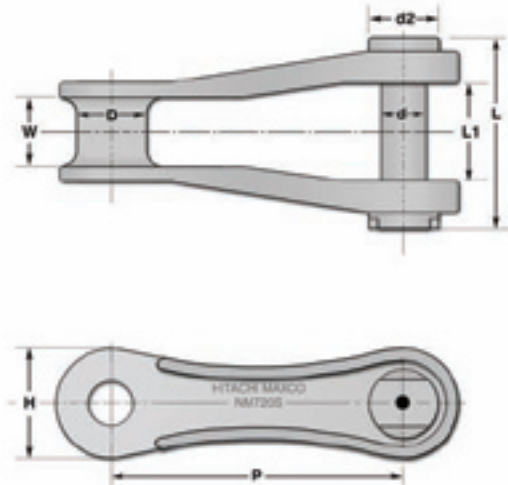
Snap Tight Pin - No Clips!

NM 720S Non-Metallic Chain

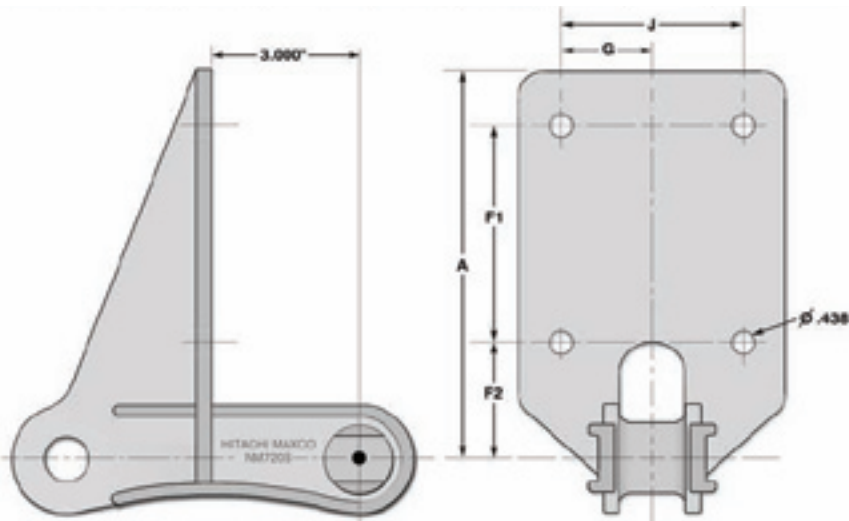
Technical Details



NM 720S Collector Chain



Chain No.	Pitch P (in.)	Minimum Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel		Pin			Link	Side Bar	
				Outside Dia. D (in.)	Width W (in.)	Outside Dia. d	Material	Length L (in.)	Material	Height H (in.)	Inside Width L1 (in.)
NM720S	6.000	5,500	1.6	1.438	1.375	.932	Glass Filled Nylon	3.892	Unfilled Acetal	2.250	2.016



Flight Attachments

NM 720S Chain is available with F-226 and F-228 Attachments. The Acetal resin resists breaking under torsional loading due to its lack of brittle characteristics, a common problem with Polyester or Glass Filled Chains. The flight attachments are also capable of handling high service loads and are ideal for use with the HMAX Standard, Hi-Strength, Extreme Duty FRP and HMAX Aluminum flights.

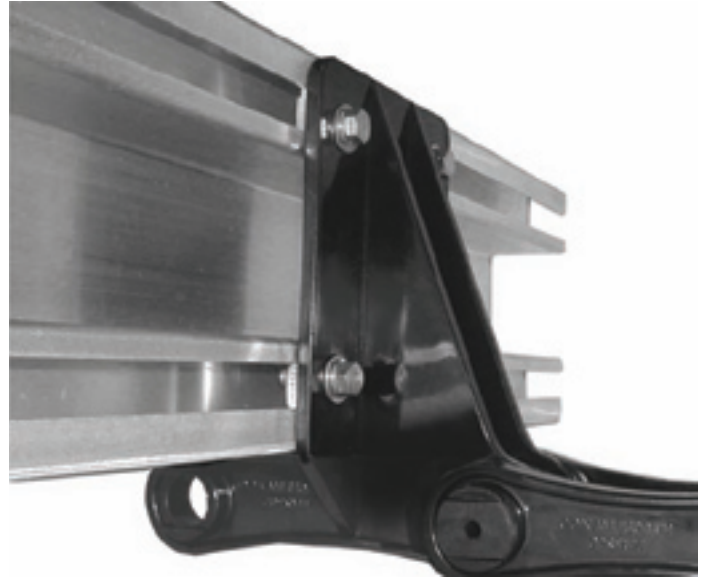
Flight Attachment Size	Height A (in.)	Dimension F1 (in.)	Dimension F2 (in.)	Dimension J (in.)	Dimension G (in.)
F-228	8.000	4.500	2.375	3.750	1.875
F-226	6.125	2.625	2.375	3.750	1.875

EPG 1203

Aluminum Flights

Introduced in 1993, Aluminum flights have proven to be the best cost effective alternative to FRP or wooden flights to date. Made of 6063 T-5 aluminum, the HMAX Aluminum flight is highly resistant to corrosion in use, and does not require special sealants, surface preparation or treatments. The HMAX Aluminum flight features a patented unique attachment method to the chain which eliminates drilling or notching the flight boards. Key to its design is the use of slotted facings which allows the flight attachments to be mounted and aligned to the Aluminum flights without the need for drilling the flights. Wear shoes are also mounted in the same fashion. Environmentally friendly, Aluminum flights are recyclable so that instead of having to pay to have FRP or wooden flights hauled away, the HMAX Aluminum flight has scrap value!

AVAILABLE IN 8" STANDARD FLIGHT SIZE ONLY.



- NO FILLER BLOCKS
- NO DRILLING OR NOTCHING REQUIRED
- EASIEST FLIGHT TO INSTALL
- EXTREMELY STRONG, LIGHTWEIGHT (2.6 LBS PER FT)
- IDEAL FOR HEAVY DUTY SLUDGE LOADS, SNAIL SHELLS, HIGH GRIT LEVELS
- EXTRA LONG LENGTH AVAILABLE (UP TO 40 FT)

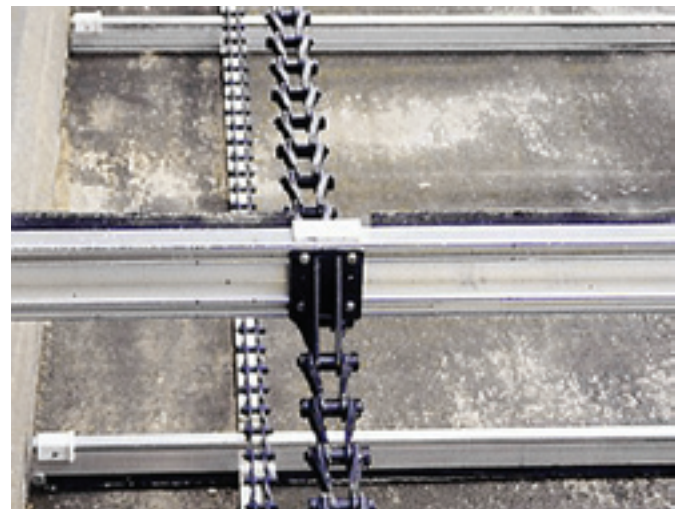


HMAX Aluminum Flights can be used with Non-Metallic, Stainless Steel, and Malleable Chains*

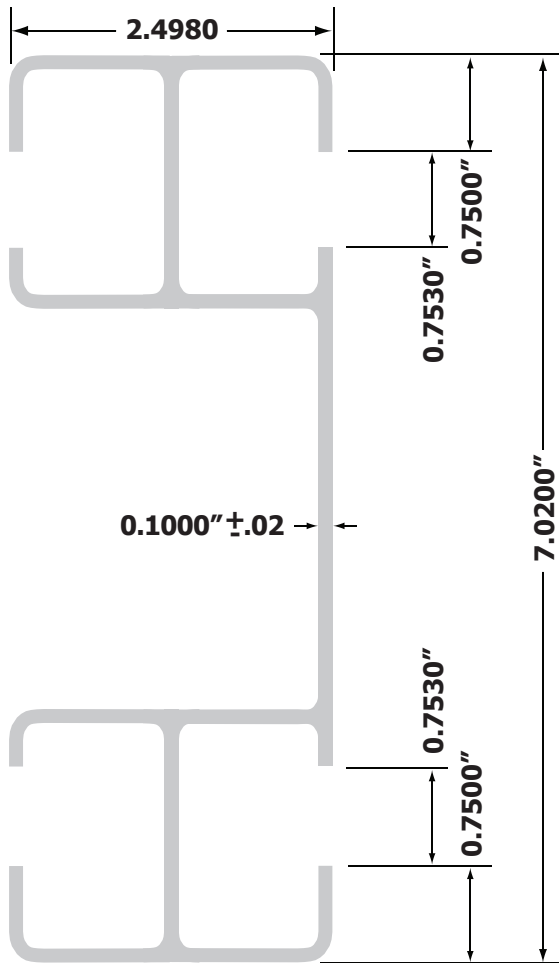
*metallic chains require additional uhmw insulator plate.

AVAILABLE OPTIONS

- NEOPRENE SQUEEGEE / WIPER BLADE
- POWDERED METAL COATING - CHEMICAL DUTY



Aluminium Flights



Area:	2.0478
Perimeter:	40.0294
Bounding Box:	X: -1.4486 - 1.0494 Y: -3.5100 - 3.5100
Centroid:	X: 0.0000 Y: 0.0000
Moment of Inertia:	X: 12.6099
Product of Inertia:	Y: 1.4097 XY: 0.0000
Radii of Gyration:	X: 2.4815 Y: 0.08297

Principal moments and X-Y directions around Centroid:

I: 1.4097 along (0.0000 1.0000)
J: 12.6099 along (-1.000 0.0000)

HMAX 8 Aluminum Flight

Part Number	Product	Material	Weight (lbs./ft.)	Height (in.)	Depth (in.)	Maximum Length (ft.)
HMAX AL-8	ALUMINUM FLIGHT	T5 - 6063 ALUMINUM	2.36	7.02	2.498	40



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

Cast Nylon Stub Shafts



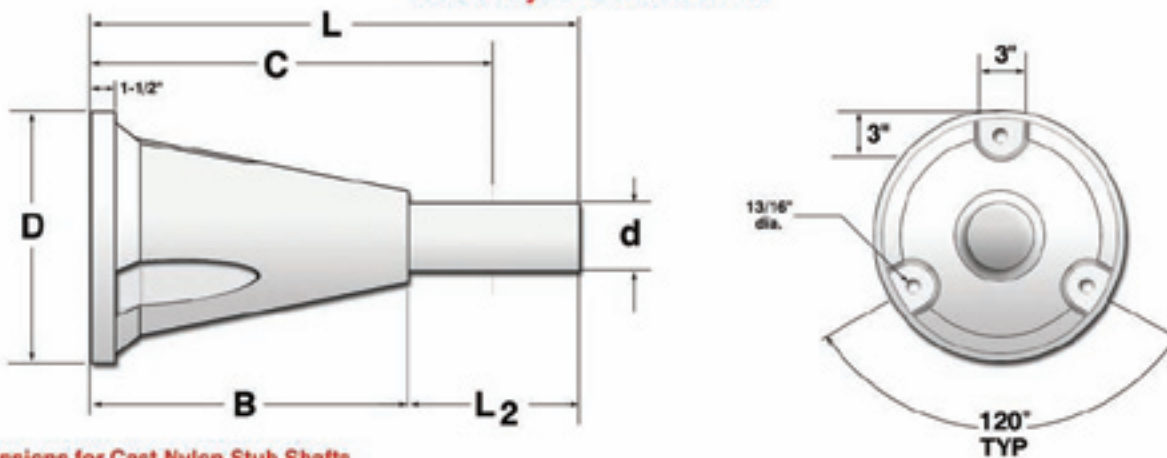
Use with HMAX Static Sleeve Assemblies
 Available in 24", 18" and 12" projection sizes
 Reduces System Drag, Extends Component Life
 Standard Component of the HMAX Non-Metallic System
 Replaces Steel Idler Shafts, Metallic Wall Bearings

Cast Nylon Stub Shafts eliminates steel idler shafting by replacing the metallic wall bearings and heavy steel shafts with high strength Cast Nylon Stub Shafts. Key to the stub shaft is its unique design, a one piece casting, integral strength and extended durability. Unlike steel shafts with metallic wall bearings, the Cast Nylon Stub Shaft does not require lubrication and are highly resistant to deflection under load and UV inhibited to insure a long trouble free life. Stub shafts allow for easy adjustment and very low maintenance. Designed for use with HMAX Static Sleeve Assemblies (sold separately) the Stub Shaft installs without the use of cranes or heavy lift devices. Key features are:

- Reduces System drag - extends life of components
- No Grease Lines / No Lubrication
- In use for over 20 years - tanks up to 300 feet long!
- Ideal for retrofit

Contact Hitachi Maxco, Environmental Products Group for additional details, call 800-241-8209

Cast Nylon Stub Shaft



Dimensions for Cast Nylon Stub Shafts

Size	Part Number	Material	Base Plate Dia. D	Overall Length L	Well to Centerline Sprocket C	Base Length B	Spindle Length L ₂	Spindle Dia. d
24"	HSTD733	Cast Nylon	15"	29-1/4"	24"	19"	10-1/4"	4"
18"	HSTD737	"	15"	25-1/4"	18" - 20"	13"	12-1/4"	"
12"	HSTD736	"	11-1/2"	17-1/4"	12"	7"	10-1/4"	"

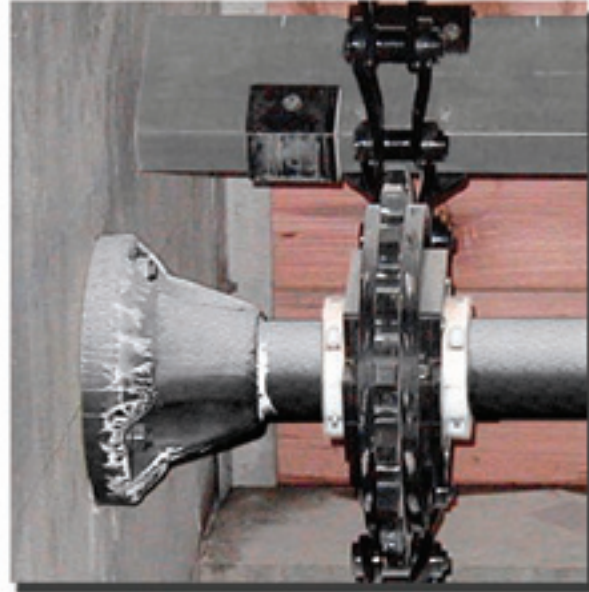
HMAX Sleeve Bearing

Static Sleeve Bearings eliminate high drag wall bearings where solid shafting turns inside wall bearings. Typical wall bearings and shafting have high drag due to the build up of corrosion causing resistance to the rotation of the shaft turning in the bearings. This requires substantially higher horsepower to simply articulate the system. Static Sleeve Bearings are corrosion free, made of UHMW-PE, a highly wear resistant material with natural lubricity: low friction = less energy = less wear. The Static Sleeve Bearings are ideal for use with Non-Metallic sprockets and are a featured component of the HMAX Cast Nylon Stub Shaft assembly.

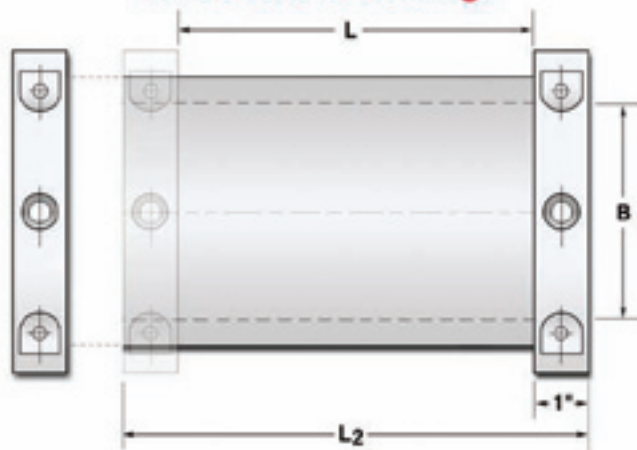


"Cast Nylon Spkt" Sleeve Bearing is used with the HMAX Cast Nylon Sprocket. Having a generous LTB* the larger bearing surface provides a greater overall distribution of loading, decreasing wear. It also has a removable set-collar for use with solid bore Stub Shaft Cast Nylon Sprockets.

* Length-Thru-Bore (L2)



HMAX Sleeve Bearings



Dimensions and Materials of Sleeve Bearings

Description	Material	Bore B	Face Width L	LTB (Length-Thru-Bore) L ₂	Hardware	Bearing Thickness
Standard Duty	UHMW-PE	1-15/16" - 5-1/4"	4"	6"	316 SS	1/4"
Cast Nylon Spkt	UHMW-PE	1-15/16" - 5-1/4"	6.63"	8-5/8"	316 SS	7/16"

Standard Duty Sleeves are split construction with integral set-collars both ends.

Cast Nylon Spkt Sleeves are split construction with removable set-collar one end, integral opposite end.

Specifications Subject to Change Without Notice



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

SAV 715 Comparison Guide

The term "stainless steel chain" when used to describe collector chain is somewhat of a misnomer these days. Developed by Hitachi, the fabricated stainless steel chain SAV 715 became and remains the standard of the industry for over 20 years. Competition has responded by developing products supposedly identical to the SAV chain. To date, none of these products offer the quality or proven experience of the SAV stainless steel chain.

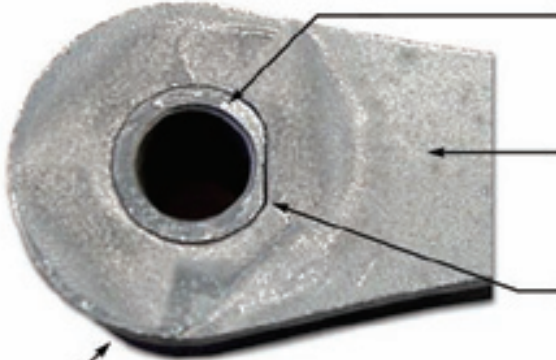
Despite claims of equivalency, today not a single competitor 715 chain has the background, proven experience or product capability as Hitachi SAV 715. With over 20 years unmatched experience worldwide the strong product preference by major and minor municipalities alike, is for SAV 715 chain, a proven product with over 3,000,000 feet installed worldwide.



Competitive 715

SAV 715

Los Angeles County
 Installed 1986
 20 ft x 300 ft Primary
 Links removed to date: 2
 Material Loss (pin): .007"
 Condition: Excellent



Hitachi SAV 715

THICKER BUSHING - LARGER DIAMETER, SUPERIOR INTERFERENCE FIT

403 STAINLESS STEEL, ANNEALED VS. HEAT-TREATED (LESS CORROSION)

QUALITY WORKMANSHIP, CLOSER TOLERANCES BETTER FIT AND ASSEMBLY

FULLY ROUNDED ENDS, NO FLATS TO DAMAGE CHAIN SAVER RIM SPROCKETS

COMPETITIVE PRODUCTS ARE RELATIVELY NEW TO THE MARKETPLACE. THEIR EXISTENCE IS ONLY BASED ON PRICE POINT. HITACHI SAV CHAINS WERE ORIGINALLY DEVELOPED AROUND THE KEY TENET OF "HARMONY" - BETWEEN EACH INDIVIDUAL COMPONENT IN CONJUNCTION WITH THE OTHER. THIS IS WHY SAV HAS BEEN MOST SUCCESSFUL AS ITS CORE CONCEPT WAS TO PROVIDE THE BEST MATERIALS, QUALITY DESIGN AND WORKMANSHIP AT AN ECONOMICAL PRICE.

Hitachi SAV 715 sidebars are blanked from stainless steel plate. The high-tonnage presses make for extremely accurate and clean cuts, without creating fissures in the sidebar that allow corrosion to set-in. Chains that are clipped or sheared typically have a high number of fissures, which allows corrosion to manifest in short time. The sidebars, during the clip, are deformed on the edge (see image).



Hitachi SAV 715



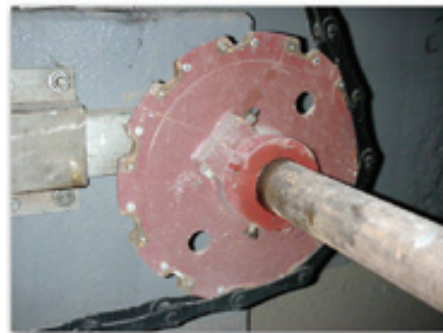
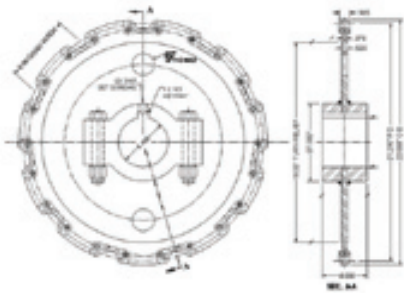
Competitive 715

SAV Hybrid Segmented Sprocket



SAV Hybrid Sprockets feature a hardened stainless steel tooth segment attached to a steel plate sprocket hub. Unlike typical segmented tooth sprockets where entire sections of the sprockets are disassembled, each individual tooth segment is replaced, making installation and replacement easy to perform with minimal effort. Precision shaped, each segment is formed and checked for accuracy within extremely close tolerances.

SAV Hybrid Sprockets are available in standard sprocket sizes for drive and idler locations. Exceptionally economical, the SAV Hybrid sprocket is the smart choice for use with SAV stainless chain. Non-Metallic plate sprocket hubs are available for idler shaft locations with sleeve bearing hubs for added low friction enhancement of your collector system.



Specifications Subject to Change Without Notice



SPROCKETS



NON-METALLIC CHAINS



STAINLESS CHAINS



FIBERGLASS FLIGHTS

SALES AND ENGINEERING
Unit 1, 45 Inspiration Drive
Wangara WA 6065

WORKSHOP AND DISTRIBUTION
22 Beneficial Way
Wangara WA 6065

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