



**DIVERSIFIED  
PLASTICS, INC.**

# Revolutionizing Water Treatment with Extended Life Plastic Components



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# We fit your Business

Even the smallest, most inexpensive part affects your bottom line because it impacts your manufacturing process, your material costs, your pricing, and your ability to meet your own customers' needs. Choosing the right supplier for custom plastic components can make a big difference in the success and profitability of your company.



At Diversified Plastics, Inc., we've been designing, fabricating and molding plastic parts for a wide range of industrial and OEM applications since 1976. We've become known for our ability to fulfill unique requests, meet urgent time frames, solve difficult applications, and stay within tight budget constraints — all while meeting your standards for quality.

While plastic components are often specified to save money, our clients have come to expect more than value. At Diversified Plastics, we start each project with a question-and-answer phase that ensures we have every piece of information we need. Then we use the best minds and best equipment in the industry to deliver components that meet or exceed your parameters and requirements. We can even combine various processes and materials to create a single part.

With Diversified Plastics, you get more than custom parts that fit your application. You get a manufacturing partner— an experienced supplier who fits your business. Diversified Plastics provides custom plastic components throughout the U.S. and abroad. In addition to serving the wastewater industry, our parts fit a variety of applications and industries including:

- Food Processing
- Packaging
- Forest Products
- Agricultural
- Manufacturing
- Maintenance
- And many more





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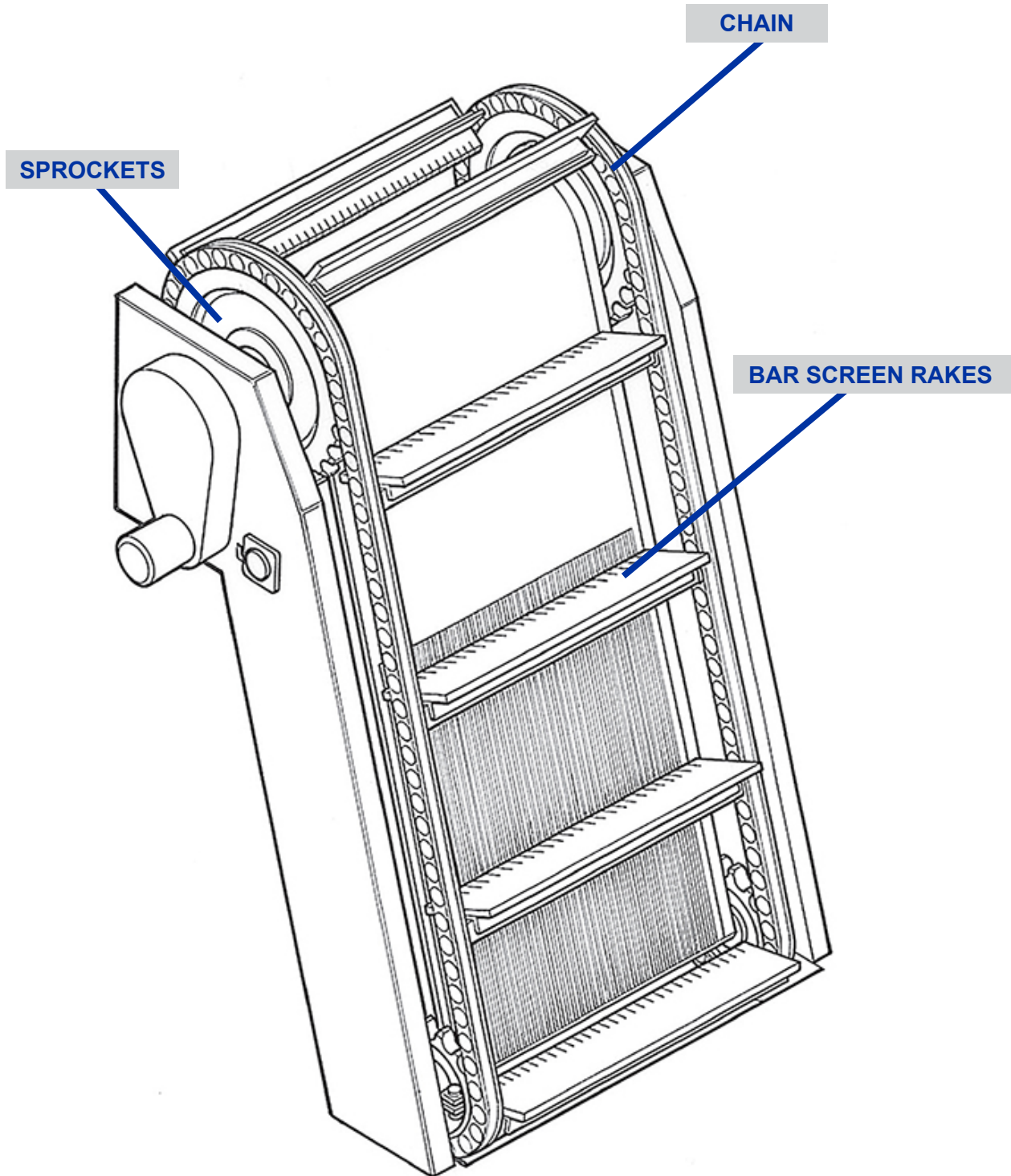
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# Bar Screen Conversion



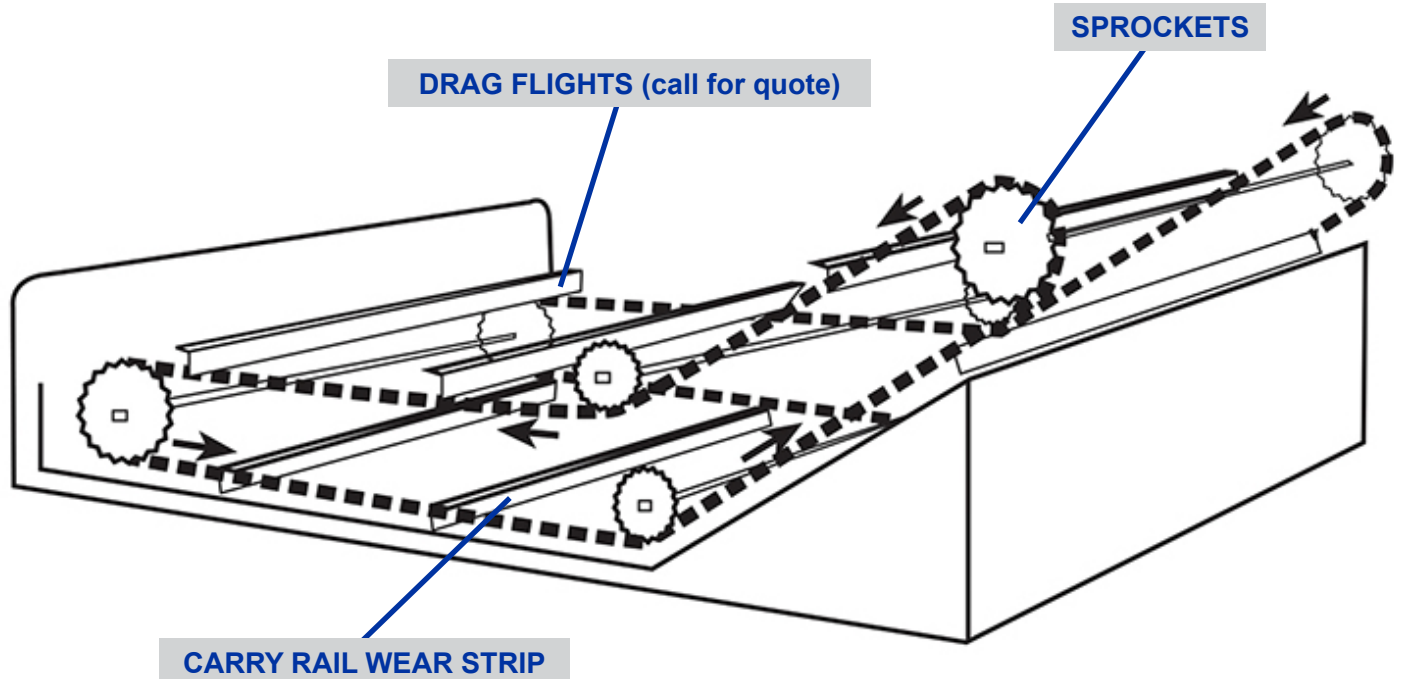
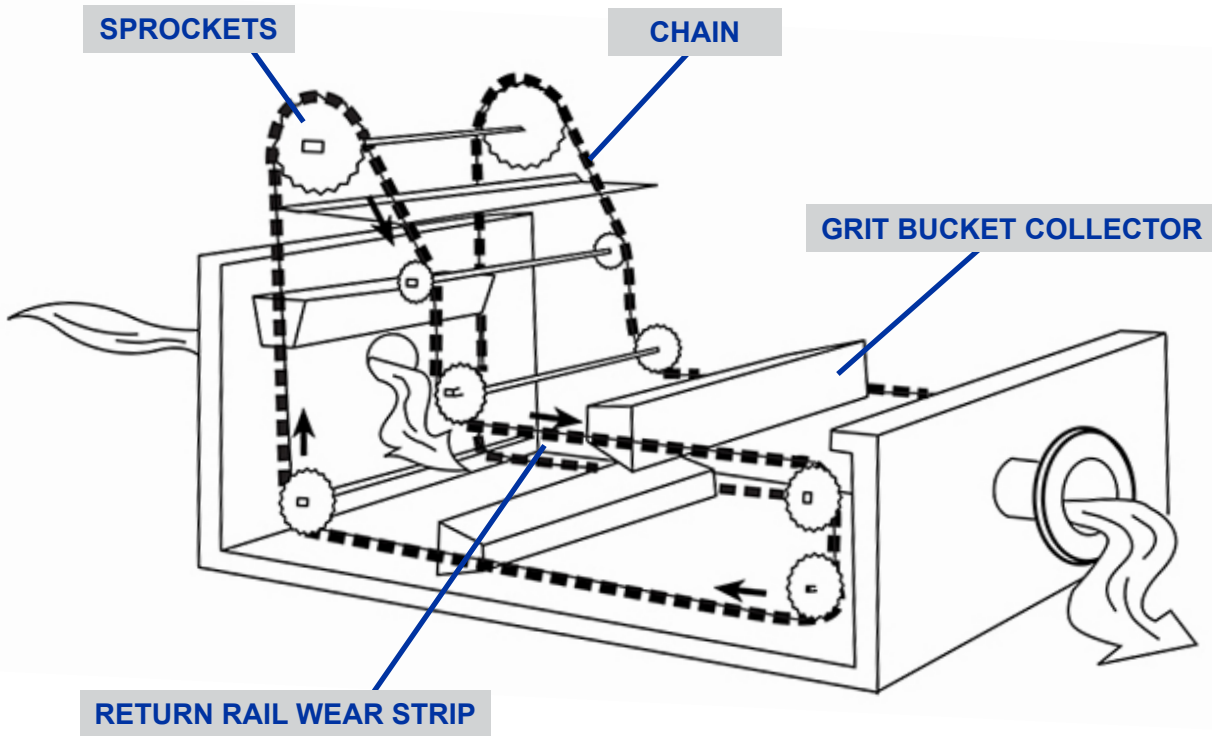
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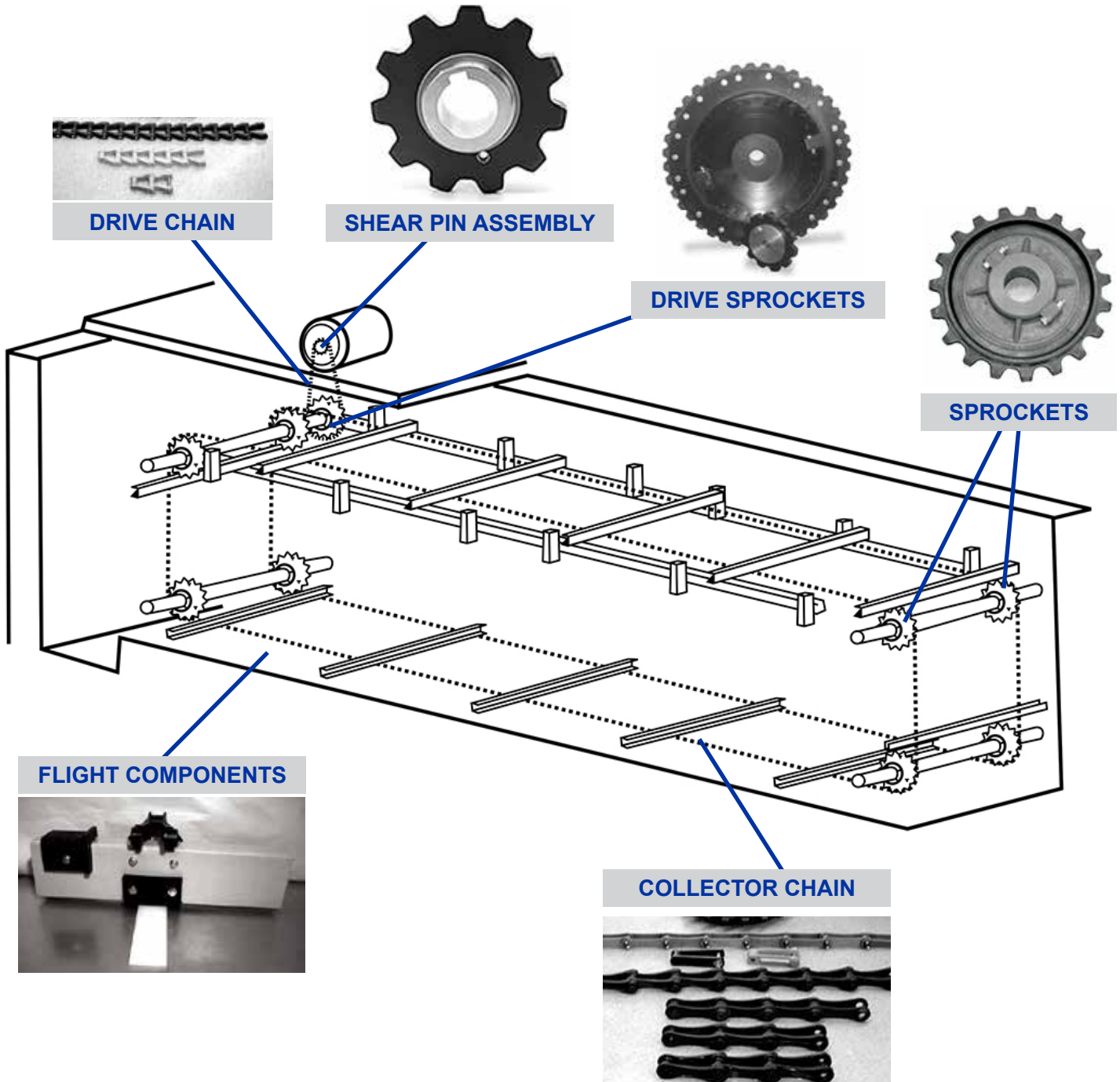
# Grit Collector Conversion





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# Rectangular Sludge Collector



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# Sprockets





## Officially speaking, the wheel has been reinvented.

Wastewater treatment is vital for municipalities and manufacturers worldwide, and many of these entities are facing the end of equipment life cycles. They are refurbishing entire systems, which employ heavy cast iron or expensive machined sprockets. These facilities can have hundreds or even thousands of sprockets in operation. The high cost of refurbishment has them looking for ways to meet specifications while trimming budgets.

That search ends with MultiFab sprockets from Diversified Plastics, Inc. MultiFab is a proprietary technology that enables us to create solid plastic industrial sprockets of most any size from multiple materials using multiple processes—including machining, casting and injection molding. MultiFab has several advantages.

**Superior Performance:** We can use the best materials and processes to optimize the performance of each sprocket component. So a sprocket bore can be made of high-strength plastic for torque, while the teeth are a highly abrasion resistant UHMW for superior wear.

**Lower Weight:** MultiFab sprockets are lighter than cast iron and even other plastic sprockets, while still meeting or exceeding specifications. This reduces the costs and the carbon footprint associated with manufacturing and shipping these large, bulky parts.

**Better Wholesale Price:** Our approach to multi-stage injection molding reduces the need for machining and cuts waste—decreasing material cost. Fewer hours of machining also keeps labor costs in line. The result is a lower wholesale price, leaving more margin room for distributors.

**Customization:** Our process enables us to fabricate to exacting specifications, using just one material and process or as many as three, depending on the application.

**MultiFab Technology delivers a superior part while reducing cost at every stage—procurement, delivery and maintenance. It has, in the case of wastewater sprockets, reinvented the wheel.**

### MultiFab Creates a Super Sprocket

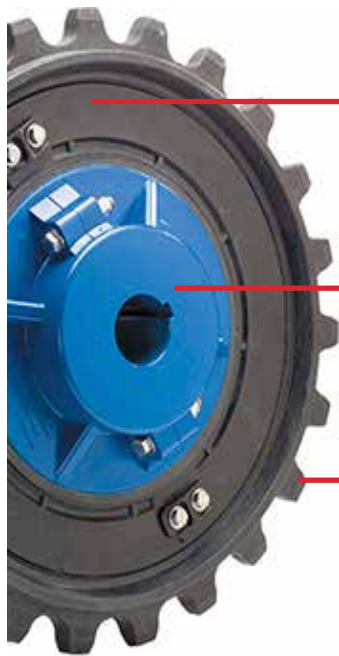
- Improved Wear
- Greater Tensile Strength
- Core Durability
- Five-Year EverWear Warranty
- Better Distributor Margins





## Anatomy of a MultiFab Sprocket

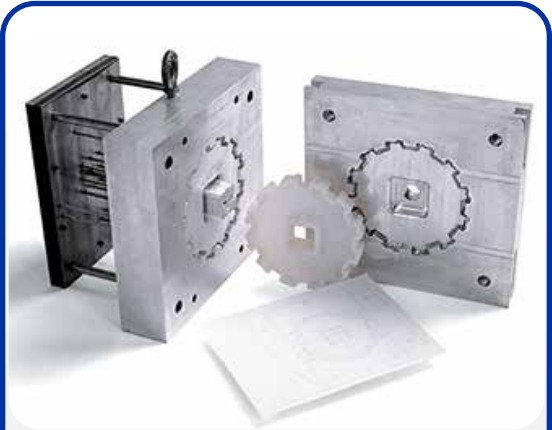
MultiFab is a custom process that combines up to three fabrication methods and a multitude of materials to meet specifications and deliver a superior wastewater sprocket.



**Intermediate plate and hub** is injection molded from high-strength plastic, reducing material waste and maximizing torsion and load bearing strength.

**Center bore and keyway** is machined or molded from high-strength nylon, urethane or glass-filled copolymer to ensure a superior lock to the drive shaft and long keyway life.

**Teeth section** is injection molded from a highly abrasion-resistant resin, such as UHMW or urethane, ensuring years of performance and reduced maintenance costs.



With our proprietary injection molding process, we can create sprockets in stages and fuse them into a solid part or combine injection-molded components with machined or cast components.

## Our Capabilities

- Engineering and drafting
- Consultation and prototype testing
- Tool and Die design and fabrication
- Injection molding, machining and casting

### 23-Tooth Drive Sprocket Sample Comparison

In this chart, you can see that our sample MultiFab 720 Sprocket manufactured with multiple polymers delivers the best combination of strength and abrasion resistance, compared to single material sprockets. All are 23-tooth drive sprockets with 3-15/16" bore, keyway and chain saver rim.

Property	DPI MultiFab	Nylon 6/6 Molded	70D Polyurethane Molded	Repro UHMW Machined
Stratic Chain Load, Measuring Chain Line Pulls	7,200 lbs	7,900 lbs	6,500 lbs	3,300 lbs
Teeth Abrasion Resistance (Sand Slurry test measuring % material loss)	2.80%	8.80%	11.60%	2.80%
Sprocket Weight (lbs)	21 lbs	28 lbs	31 lbs	23 lbs
Sprocket Cost (%)	100%	115%	130%	135%

For comparison use only, not intended for design engineering. Some values shown are averages and/or extrapolations and are not to be construed as final, technical specifications.



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# Molded 700 series Sprockets

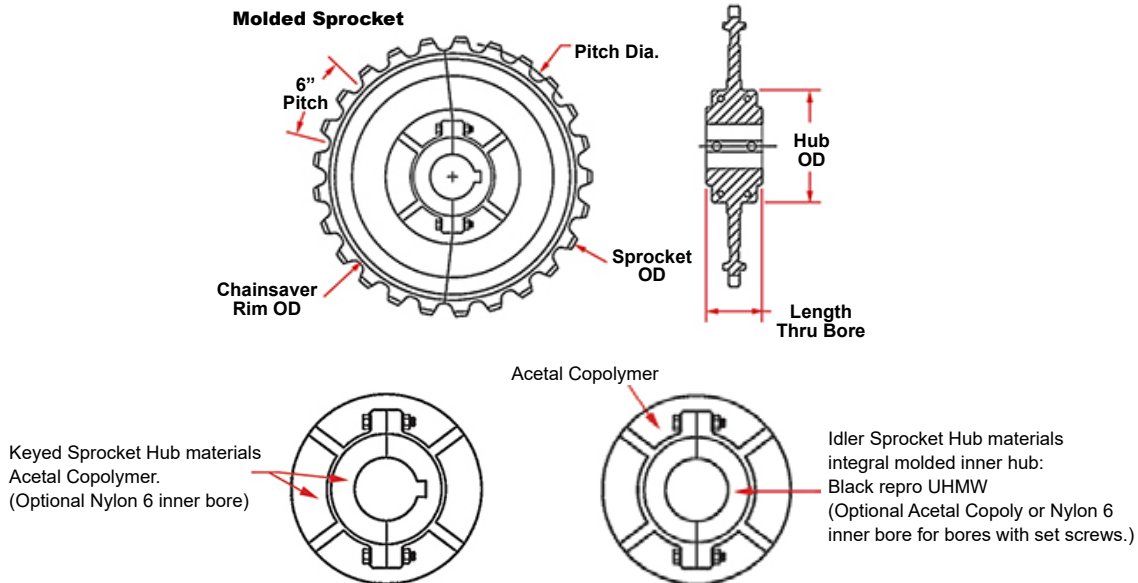
Diversified Plastics' molded 700 Series split sprockets are available in either chainsaver or non-chainsaver styles. Sprockets can be ordered with straight bore, bore with keyway and set screw, or bored to run on static sleeve bushings. Our 700 series molded sprockets are available in UHMW-PE, polyurethane, and glass-filled co-polymer.

Our unique ability to combine more than one material in a single sprocket allows us to utilize the desirable characteristics of each of the engineered plastics to maximize service life. All of our sprockets are corrosion resistant, abrasion resistant, and as little as 1/6th the weight of their metal counterparts.



720 SPLIT CHAINSAVER SPROCKETS, CHAIN PITCH: 6.000", STD MAT'L: BLK REPRO UHMW RIM/COPOLYMER HUB									
CATALOG #	# TEETH	PITCH DIA.	LTB	HUB DIA	STANDARD CHAINSAVER RIM OD	SPRKT OD	MIN BORE	MAX KEYED BORE	MAX IDLER BORE
DPWT72017T-M	17	16.59	4/6	10	14.07	17.44	1.938	5.75	5.75
DPWT72019T-M	19	18.45	4/6	10	16.06	19.30	1.938	5.75	5.75
DPWT72023T-M	23	22.21	4/6	10	20.00	23.03	1.938	5.75	5.75
DPWT72025T-M	25	24.10	4/6	10	22.03	24.92	1.938	5.75	5.75

## With Chainsaver Rim



700 / 715 / 713 SPLIT CHAINSAVER SPROCKETS, CHAIN PITCH: 6.000", STD MAT'L: BLK REPRO UHMW RIM/COPOLYMER HUB									
CATALOG #	# TEETH	PITCH DIA.	LTB	HUB DIA	STANDARD CHAINSAVER RIM OD	SPRKT OD	MIN BORE	MAX KEYED BORE	MAX IDLER BORE
DPWT70017T-M	17	16.59	6	10	13.950	17.618	1.938	5.75	5.75
DPWT70023T-M	23	22.21	6	10	19.980	23.240	1.938	5.75	5.75



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# Custom 720 Sprockets

Diversified Plastics can manufacture 720 Series sprockets to meet your custom needs. Special length through bore, hub diameter or material requests can be accommodated. By providing the information detailed below to Alro Plastics we can ensure proper fit, form, and function for your custom needs.

### REPLACEMENT SPROCKET DATA

CURRENT TYPE OF CHAIN \_\_\_\_\_

PROPOSED TYPE OF CHAIN \_\_\_\_\_

CHAIN PITCH \_\_\_\_\_

NUMBER OF TEETH \_\_\_\_\_

PITCH DIA \_\_\_\_\_

CHAINSAVER RIM YES OR NO \_\_\_\_\_

(IF YES)

CHAINSAVER RIM OD \_\_\_\_\_

SHAFT SIZE \_\_\_\_\_

BORE STYLE:

(2) SET SCREWS \_\_\_\_\_

IDLER BORE \_\_\_\_\_

KEYWAY & (2) SET SCREWS \_\_\_\_\_

SIZE OF KEYWAY \_\_\_\_\_

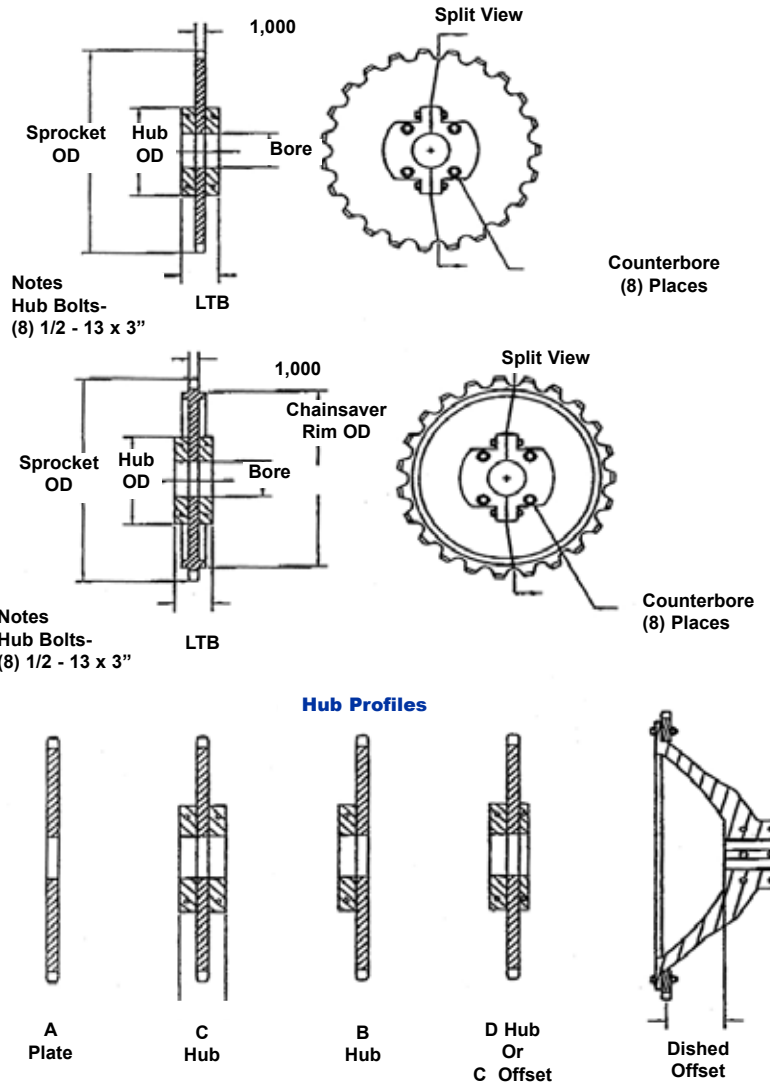
(IF NON-STANDARD) \_\_\_\_\_

LENGTH THRU BORE \_\_\_\_\_

HUB STYLE \_\_\_\_\_

DOES SPROCKET REQUIRE A STATIC SLEEVE \_\_\_\_\_

BUSHING? \_\_\_\_\_



### Standard Keyways and Setscrews

DIAMETER OF SHAFT	KEYWAY		DIAMETER OF SETSCREW
	WIDTH	DEPTH	
1/2 — 9/16	1/8	1/16	1/4
5/8 — 7/8	3/16	3/32	1/4
15/16 — 1-1/4	1/4	1/8	5/16
1-5/16 — 1-3/8	3/16	3/32	5/16
1-7/16 — 1-3/4	3/8	3/16	3/8
1-13/16 — 2-1/4	1/2	1/4	1/2
2-5/16 — 2-3/4	5/8	5/16	5/8
2-13/16 — 3-1/4	3/4	3/8	3/4
3-5/16 — 3-3/4	7/8	7/16	3/4
3-13/16 — 4-1/2	1	1/2	3/4
4-9/16 — 5-1/2	1-1/4	3/8	3/4
5-9/16 — 6-1/2	1-1/2	3/4	1
6-9/16 — 7-1/2	1-3/4	1/8	1
7-9/16 — 8-15/16	2	3/4	1
9 — 10-15/16	2-1/2	7/8	1

### Materials Available

- UHMW-PE
- Acetal
- Nylon
- Polyurethane



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# Replacement Sprocket Segments

**720 series, 78 series and more.** Diversified Plastics can manufacture replacement tooth segments to fit your existing hubs. Our replacement segments can interface with cast iron, as well as plastic hubs that provide for "replaceable teeth".

By providing Alro Plastics the information detailed below we can ensure proper fit, form, and function of your replacement segments.



## Materials Available

- UHMW-PE
- Acetal
- Nylon
- Polyurethane

### REPLACEMENT

#### SPROCKET SEGMENT DATA

CURRENT TYPE OF CHAIN \_\_\_\_\_

PROPOSED TYPE OF CHAIN \_\_\_\_\_

CHAIN PITCH \_\_\_\_\_

NUMBER OF TEETH \_\_\_\_\_

PITCH DIA \_\_\_\_\_

CHAINSAVER RIM YES OR NO

(IF YES)

CHAINSAVER RIM OD \_\_\_\_\_

INTERIOR DIMENSION (ID) \_\_\_\_\_

#### IF SEGMENT REQUIRES BOLT HOLES

NUMBER OF HOLES \_\_\_\_\_

SIZE OF HOLES \_\_\_\_\_

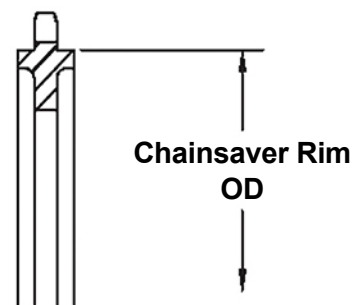
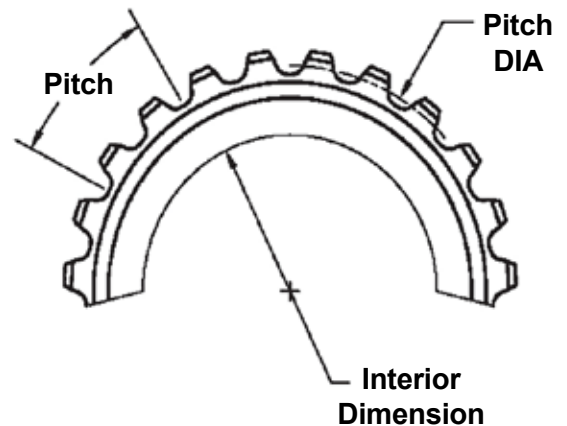
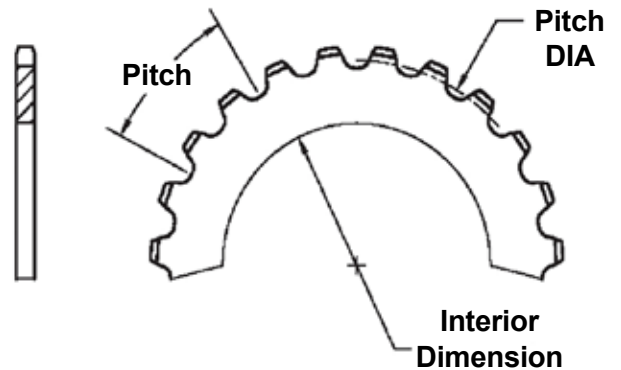
BOLT CIRCLE \_\_\_\_\_

THRU HOLE, COUNTER BORED HOLES OR

CHAMFERED HOLES \_\_\_\_\_

DOES SPROCKET SEGMENT HAVE A COUNTER

BORED ID? \_\_\_\_\_





# Split Non-Metallic Dished Drive Sprockets - 78 series

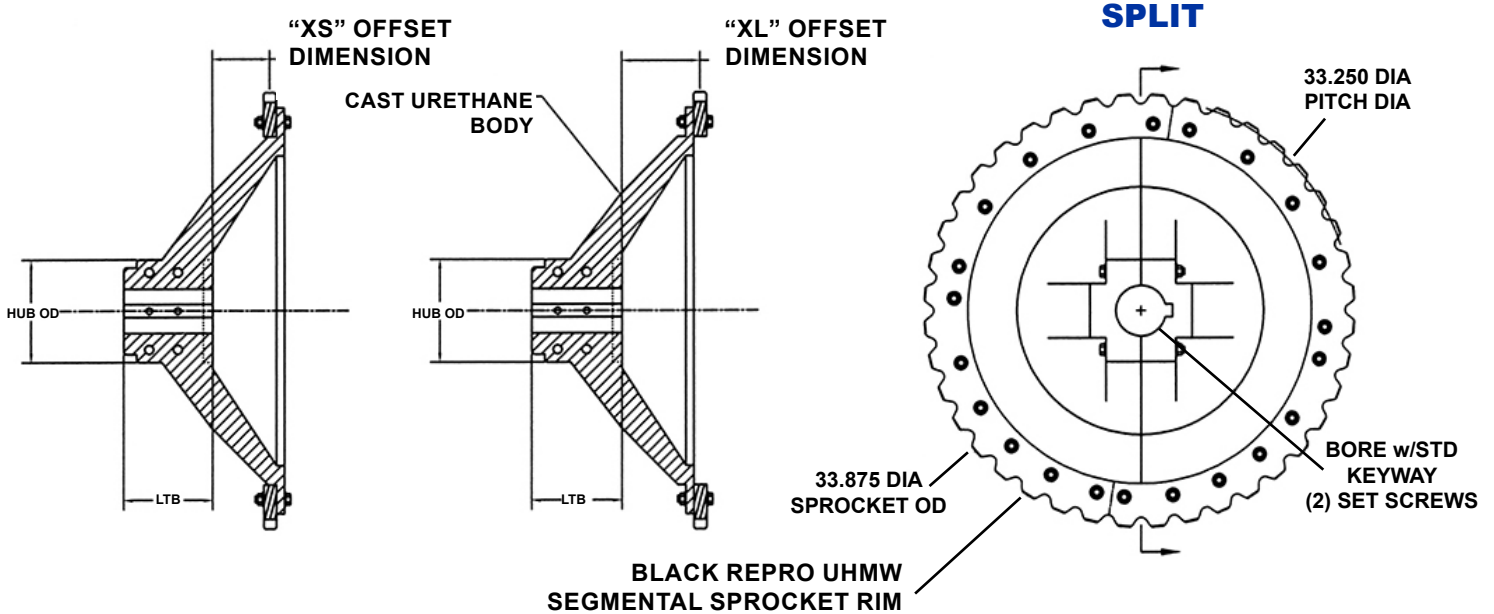
Diversified Plastics' fully non-metallic dished drive sprockets feature a durable polyurethane dished hub. The replaceable bolts on tooth segments are available in your choice of materials, to meet a wide range of demands (see chart below). Note, other chain sizes available upon request.



## Segmental Tooth Materials Available

- UHMW-PE
- Acetal
- Nylon
- Polyurethane

## Hub Configuration



Dished Non-Metallic Drive Sprocket Bodies Material - 75D Urethane						
Catalog #	# Teeth	Pitch Dia.	Max. Bore	LTB	Offset	Hub Configuration
DPWT7840T-1.50	40	33.25	4.9375"	6.250 min.	1.50" - 2.875"	Shallow Dish - XS
DPWT7840T-3.00	40	33.25	4.9375"	6.250 min.	3.00" - 4.375"	Shallow Disc - XL
DPWT7840T-4.50	40	33.25	4.9375"	6.250 min.	4.50" - 6.00"	Deep Dish - XS
DPWT7840T-6.25	40	33.25	4.9375"	6.250 min.	6.25" - 7.00"	Deep Dish - XL

Segmental Sprocket Rim Materials: Standard - Black Repro UHMW (Optional - Nylon or Urethane).

Hub Bolts - (x4) 5/8-11 x 6-1/2" long. Sprocket Rim Bolts (x22) 1/2-13 x 2" long and (x2) 1/2-13 x 3" long.

All Hardware 18-8SS (Optional - 316SS)

(Note: All hardware provided is Type-304 Stainless unless otherwise specified.)





# Custom Non-Metallic Drive Sprockets

Diversified Plastics can manufacture drive sprockets to meet your specific needs. By providing your Alro Plastics representative the information detailed below, we can ensure proper fit, form, and function of your custom sprocket.<sup>1</sup>

### SPROCKET DATA

CURRENT TYPE OF CHAIN \_\_\_\_\_

PROPOSED TYPE OF CHAIN \_\_\_\_\_

CHAIN PITCH \_\_\_\_\_

NUMBER OF TEETH \_\_\_\_\_

PITCH DIA \_\_\_\_\_

CHAINSAVER RIM YES OR NO  
(IF YES) \_\_\_\_\_

CHAINSAVER RIM OD \_\_\_\_\_

SHAFT SIZE \_\_\_\_\_

SIZE OF KEYWAY & SET SCREWS  
(IF NON-STANDARD) \_\_\_\_\_

LENGTH THRU BORE \_\_\_\_\_

HUB STYLE \_\_\_\_\_

HUB PROFILES \_\_\_\_\_

### Hub Materials Available<sup>2</sup>

- Acetal
- Nylon
- UHMW-PE
- Polyurethane
- Cast Iron

### Segmental Tooth Materials Available

- UHMW-PE
- Nylon
- Acetal
- Polyurethane



**C  
Hub**



**B  
Hub**



**D Hub/  
C Offset**

**Note<sup>1</sup>: 304SS hardware is standard, but 316SS hardware is also available.**

**Note<sup>2</sup>: Not all hub profiles are available in all materials offered.**



# Non-Metallic 78 series - 2.609" pitch

Diversified Plastics offers non-metallic 78 Series sprockets in a variety of configurations and materials. All of our non-metallic materials are corrosion resistant and designed to maximize your chains' service life. Listed below are some of our standard sizes, other chain sizes available upon request. Please call Alro Plastics for your custom requirements.



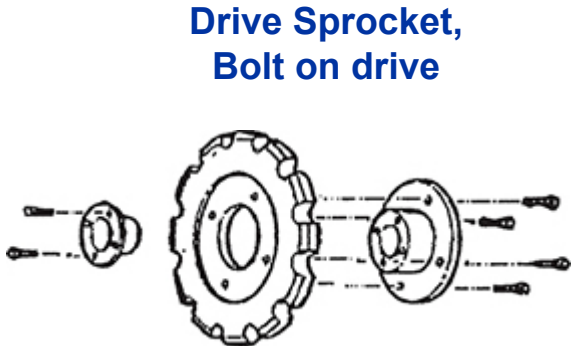
### Materials Available

- UHMW-PE
- Nylon
- Acetal
- Polyurethane

### Styles Available

- A - A Plate**
- B - B style, hub on one side**
- C - C style, hub on both sides**
- D - Drive Sprocket**
- S - Split**
- X - Special**

Product	Catalog #	Teeth	Style
Sprocket #78/81 X	DPWT 7807	7	A, B, C, D, S, X
	DPWT 7808	8	A, B, C, D, S, X
	DPWT 7809	9	A, B, C, D, S, X
	DPWT 7810	10	A, B, C, D, S, X
	DPWT 7811	11	A, B, C, D, S, X
	DPWT 7812	12	A, B, C, D, S, X
	DPWT 7813	13	A, B, C, D, S, X
	DPWT 7814	14	A, B, C, D, S, X
	DPWT 7815	15	A, B, C, D, S, X





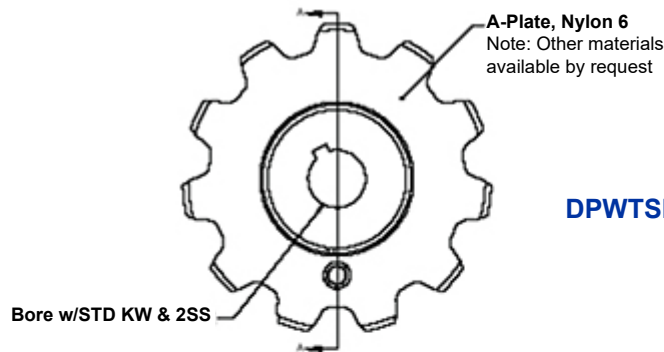
# Shear Pin Sprockets

## NH78 series - 2.609" pitch chain

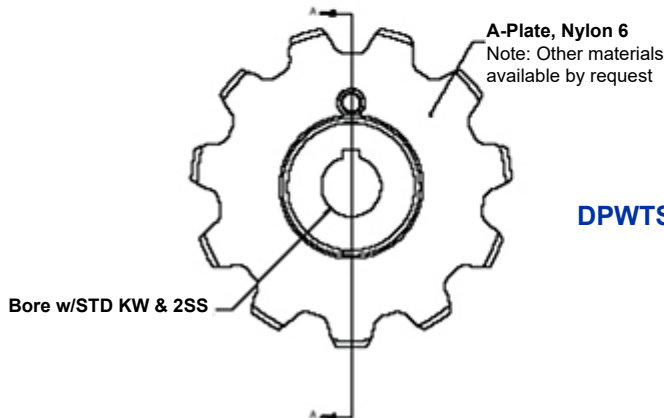
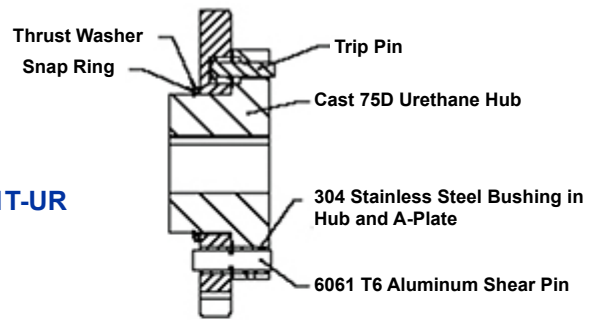
Diversified Plastics Inc. has the "Slim Line" shear pin sprocket assembly to meet the unique constraints of your application. Our shorter length through bore offers more freedom for alignment. The non-metallic version offers great affordability for the lighter duty applications. This stainless steel version provides the corrosion resistance and durability you can depend on.



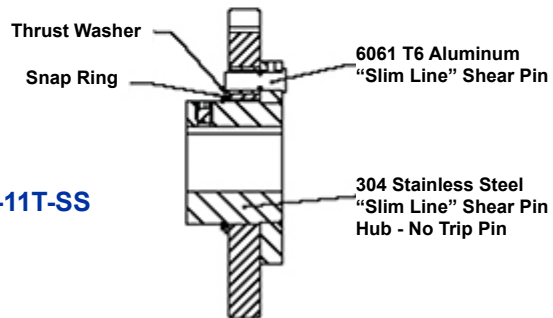
Heavy duty models, and larger bore options are also available.



**DPWTSPA-11T-UR**



**DPWTSPA-11T-SS**



Catalog #	# Teeth	Pitch Dia.	Max. Bore	LTB	Hub OD
DPWTSPA-11T-UR	11	9.26"	2.5"	3.200	6.5"
DPWTSPA-11T-SS	11	9.26"	2.5"	3.031	6.5"

*Note: Each shear pin sprocket comes with one 6061 T6 aluminum shear pin, neck diameter to be specified by customer at time of order.*





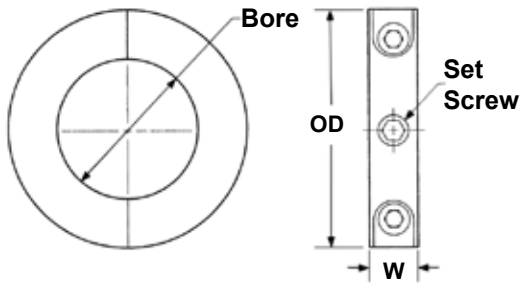


# Split Set Collar & Split Static Sleeve Bushing

- Standard collars are made of black UHMW-PE or black nylon.
- Standard bushings are made of Nyloil® or black UHMW-PE for self lubrication.
- If the sizes or materials listed don't meet your specific needs contact Alro Plastics for your custom requirements.
- All hardware provided in 304 Stainless Steel unless otherwise specified.



**Water Treatment Shaft Collar**



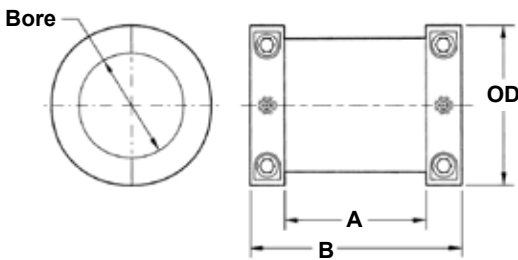
### Shaft Collars: Regular Duty

Catalog #	W	OD	Bore (in.) Dia.
DPWTMSC316UH	1" nom	6.00	1 15/16" up to 3 15/16"
DPWTMSC316NY	1" nom	6.00	1 15/16" up to 3 15/16"
DPWTMSC304UH	1" nom	6.00	1 15/16" up to 3 15/16"
DPWTMSC304NY	1" nom	6.00	1 15/16" up to 3 15/16"

### Shaft Collars: Heavy Duty

Catalog #	W	OD	Bore (in.) Dia.
DPWTSS2600	2.5"	6.00	1 3/4" up to 4"
DPWTSS2800	2.5"	8.00	3 1/4" up to 5"

**Static Shaft Bushing - Split**



### Static Sleeve Bushing - Split

Catalog #	Sprocket Bore	Max. Shaft Size (in.)	A	B	OD
DPWT0047	3-3/4 Idler	2-15/16	4	6	4-1/2
DPWT0064	5 Idler	4	4	6	6
DPWT0072	5-1/4 Idler	4-1/2	4	6	6-1/4
DPWT0084	6 Idler	5-1/4	4	6	7

### Static Sleeve Bushing - Split

Catalog #	Sprocket Bore	Max. Shaft Size (in.)	A	B	OD
Band Clamp Style (316SS)	3 3/4" - 5 1/4"	4 7/16"	4"	6"	4 1/2" - 6 1/4"



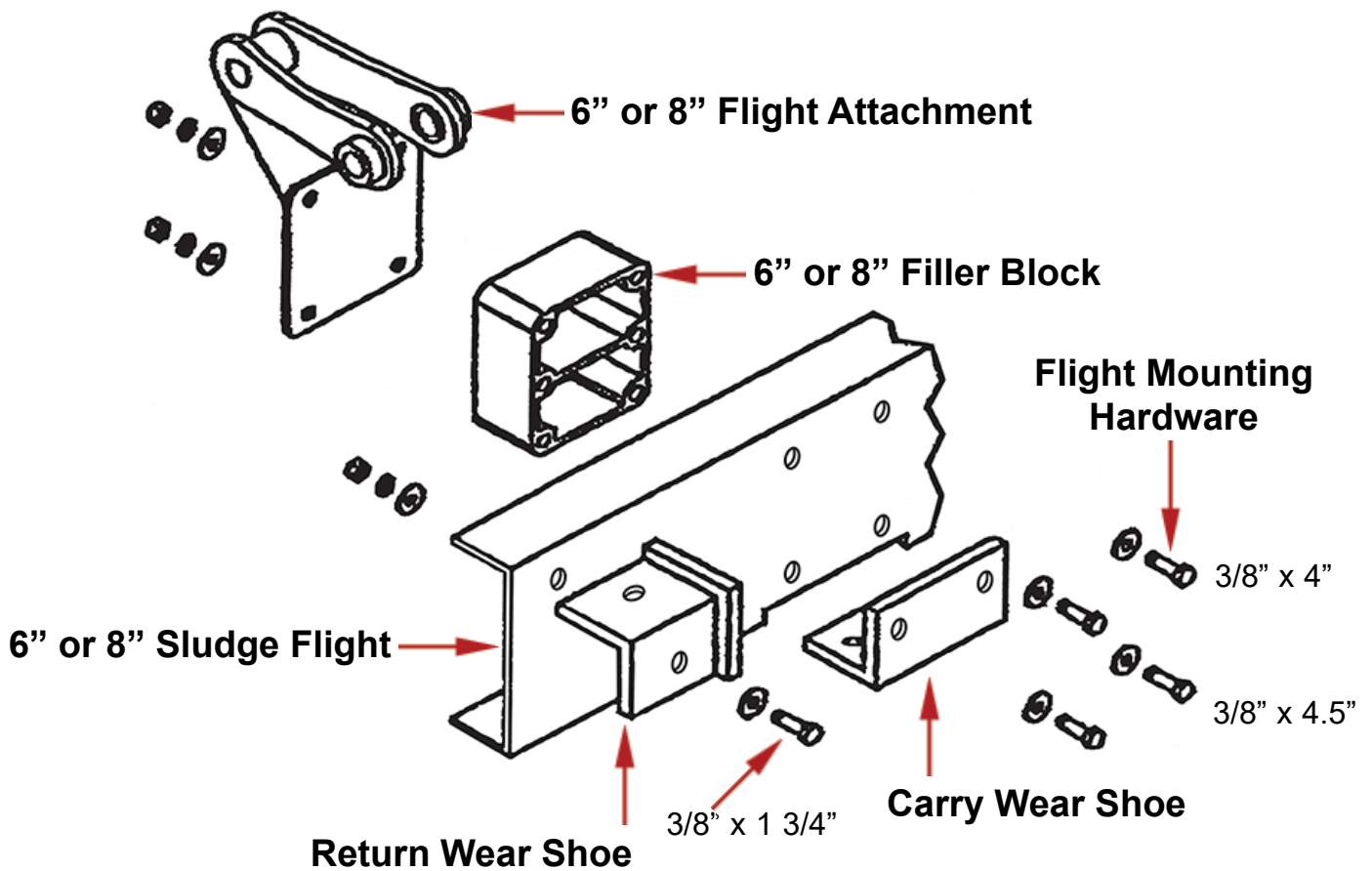
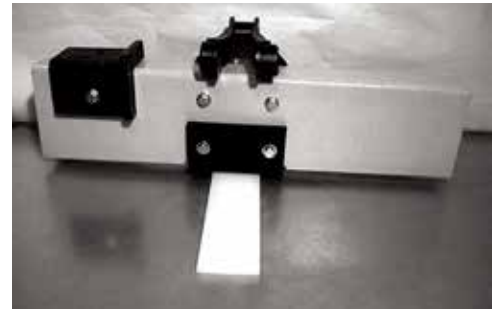


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# “FRP” Sludge Collection Flights

For use with cross collectors as well as primary and secondary clarifiers. Flights are custom fabricated to fit any application. Fiberglass reinforced isophthalic polyester resin (FRP).

Nominal standard sizes are 3” x 6” and 3” x 8”. Hardware available in 304 or 316 stainless steel.



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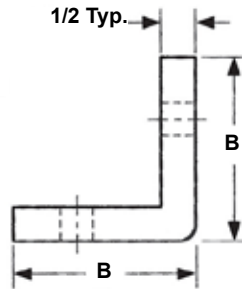
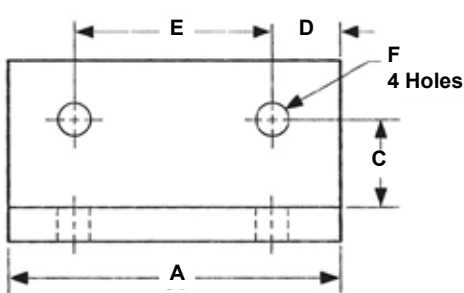


# Carry & Return Wear Shoes

Diversified Plastics manufactures wear shoes from a variety of materials to meet your needs. All of the shoes we offer are molded solid one-piece construction. Sizes and hole patterns vary from system to system. By providing Alro Plastics the information detailed below we can ensure proper fit, form and function for your particular needs.

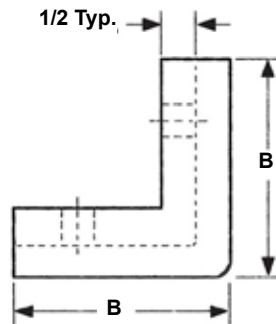
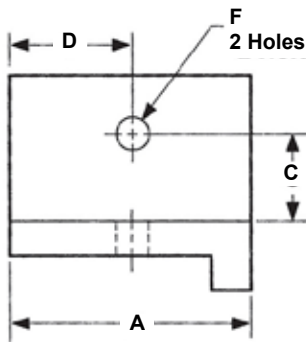


### Carry Wear Shoe



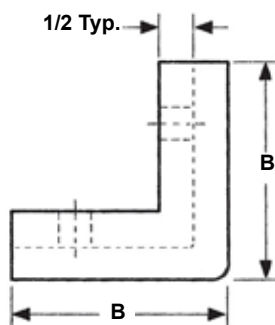
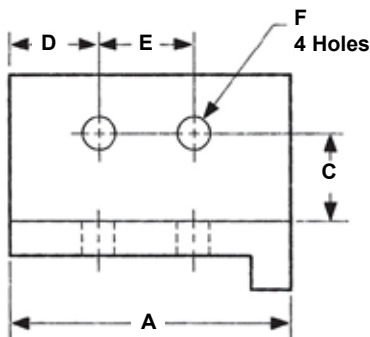
- A \_\_\_\_\_ inches
- B \_\_\_\_\_ inches
- C \_\_\_\_\_ inches
- D \_\_\_\_\_ inches
- E \_\_\_\_\_ inches
- F \_\_\_\_\_ inches

### Single Hole Wear Shoe



- A \_\_\_\_\_ inches
- B \_\_\_\_\_ inches
- C \_\_\_\_\_ inches
- D \_\_\_\_\_ inches
- E \_\_\_\_\_ inches
- F \_\_\_\_\_ inches

### Double Hole Wear Shoe



- A \_\_\_\_\_ inches
- B \_\_\_\_\_ inches
- C \_\_\_\_\_ inches
- D \_\_\_\_\_ inches
- E \_\_\_\_\_ inches
- F \_\_\_\_\_ inches

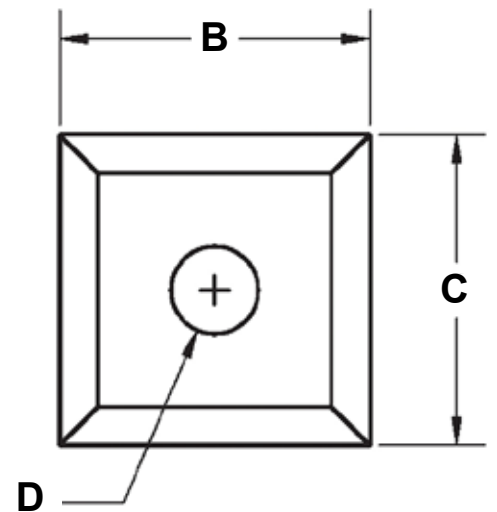
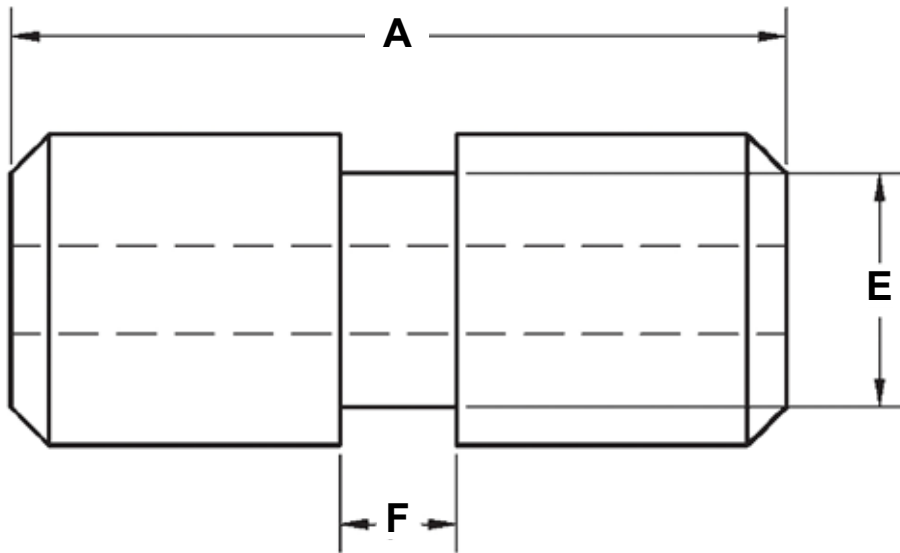
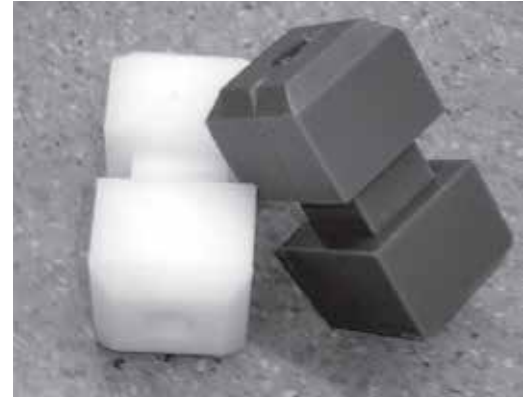


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# Grit Collector Bucket Wear Shoes

Non-Metallic wear shoes provide superior abrasion resistance and reduce drag coefficient.

- A \_\_\_\_\_ inches
- B \_\_\_\_\_ inches
- C \_\_\_\_\_ inches
- D \_\_\_\_\_ inches
- E \_\_\_\_\_ inches
- F \_\_\_\_\_ inches



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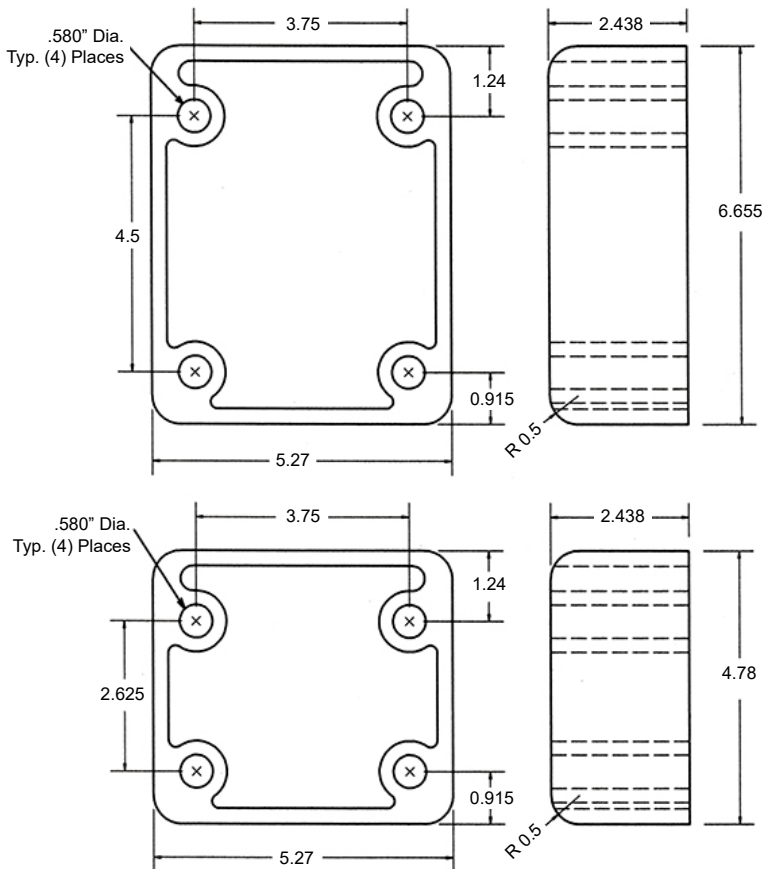
# Flight Filler Blocks 720 and 78 Chain

## FEATURES:

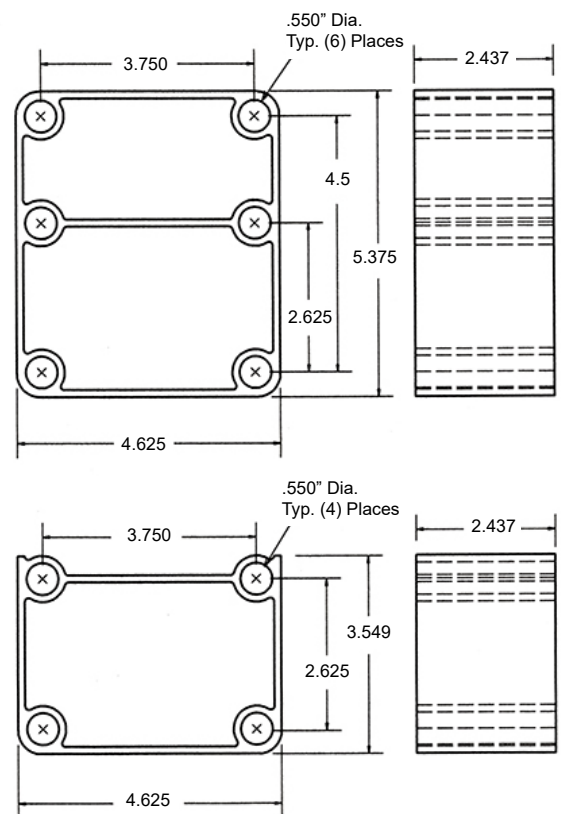
- Light weight.
- Chemical resistant.
- Filler blocks for both 720 and H-78 assemblies.
- Our full depth blocks are designed to fill the full depth of the flight board and provide a secure fit.
- Standard filler blocks are made of impact modified polypropylene.



### FULL DEPTH



### STANDARD



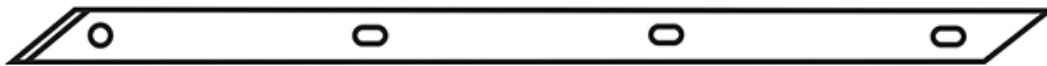


# Wear Strips and Fasteners

Diversified Plastics' wear strips are manufactured from black reprocessed UHMW-PE (Virgin UHMW available upon request). Our black UHMW-PE provides UV protection as well as superior abrasion resistance. Its low coefficient of friction protects the rails as well as opposing parts. Our wear strips are corrosion resistant and absorb no moisture. Listed below are some of our standard sizes, or call Alro Plastics with your custom requirements.



**Starter Wear Strip**



**Filler Wear Strip**

**Water Treatment Starter Wear Strip**

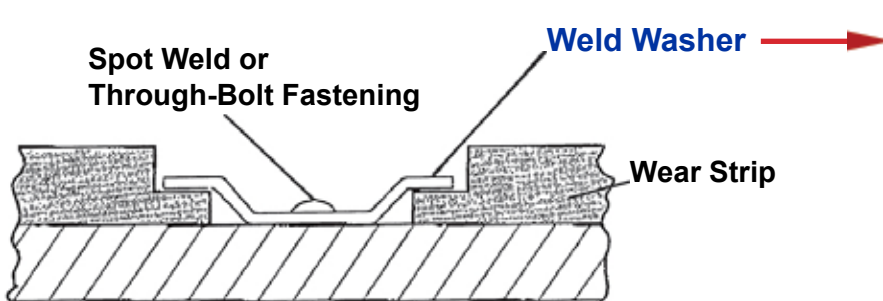
For use with 1-3/8" Weld Washers (see below)

Catalog #	Thickness (inches)	Width (inches)	Length (inches)	Center Line
DPWT3752-S	3/8	2-5/8	120	1-5/16
DPWT3753-S	3/8	3	120	1-1/2
DPWT5025-S	1/2	2-1/2	120	1-1/4
DPWT5030-S	1/2	3	120	1-1/2
DPWT5035-S	1/2	3-1/2	120	1-3/4
DPWT5040-S	1/2	4	120	2
DPWT5050-S	1/2	5	120	2-1/2
DPWT6252-S	5/8	2-1/2	120	1-1/4
DPWT6253-S	5/8	3	120	1-1/2
DPWT6254-S	5/8	4	120	2
DPWT6255-S	5/8	5	120	2-1/2

**Water Treatment Filler Wear Strip**

For use with 1-3/8" Weld Washers (see below)

Catalog #	Thickness (inches)	Width (inches)	Length (inches)	Center Line
DPWT3752-F	3/8	2-5/8	120	1-5/16
DPWT3753-F	3/8	3	120	1-1/2
DPWT5025-F	1/2	2-1/2	120	1-1/4
DPWT5030-F	1/2	3	120	1-1/2
DPWT5035-F	1/2	3-1/2	120	1-3/4
DPWT5040-F	1/2	4	120	2
DPWT5050-F	1/2	5	120	2-1/2
DPWT6252-F	5/8	2-1/2	120	1-1/4
DPWT6253-F	5/8	3	120	1-1/2
DPWT6254-F	5/8	4	120	2
DPWT6255-F	5/8	5	120	2-1/2



Catalog #	Material	Dia. (in.)
WW15SS	304 Stainless Steel	1-3/8
WW15SS-316	316 Stainless Steel	1-3/8
WW1125SS	304 Stainless Steel	1-1/8
WW1125SS-316	316 Stainless Steel	1-1/8





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## Other Related Product Offerings

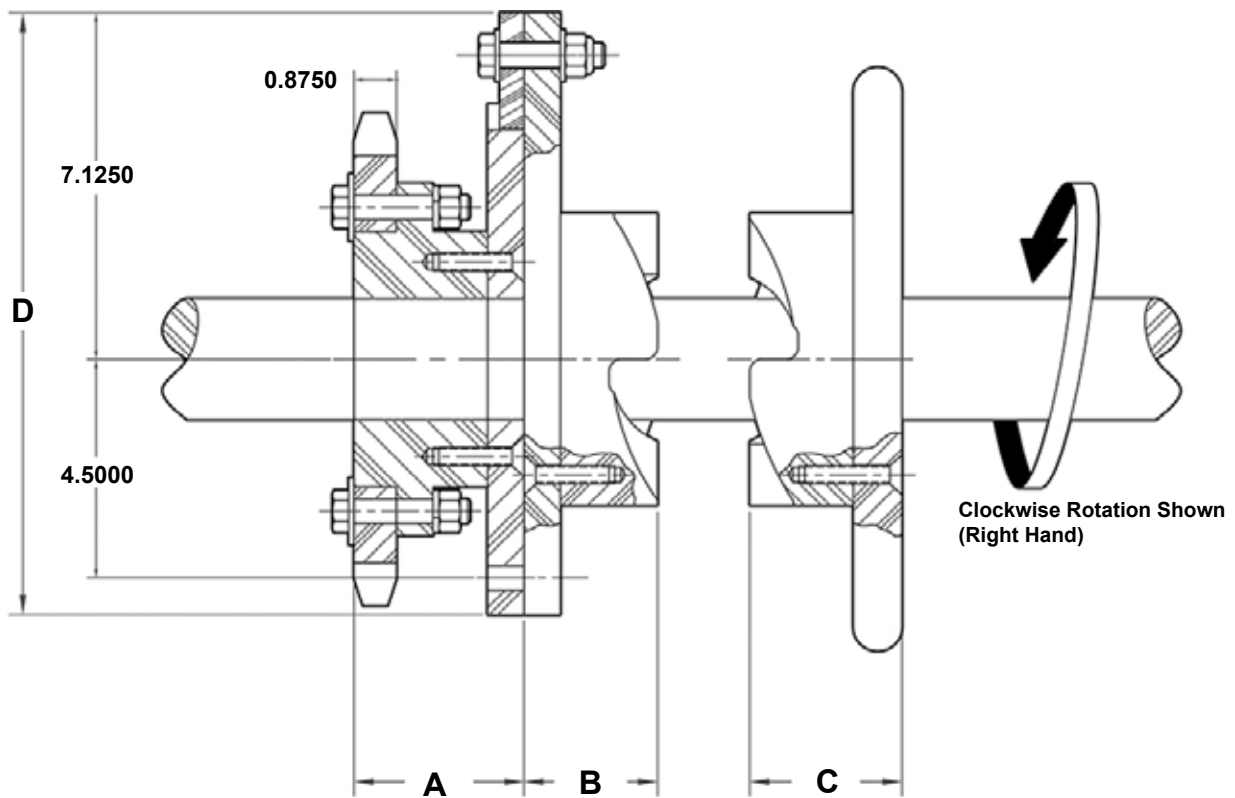
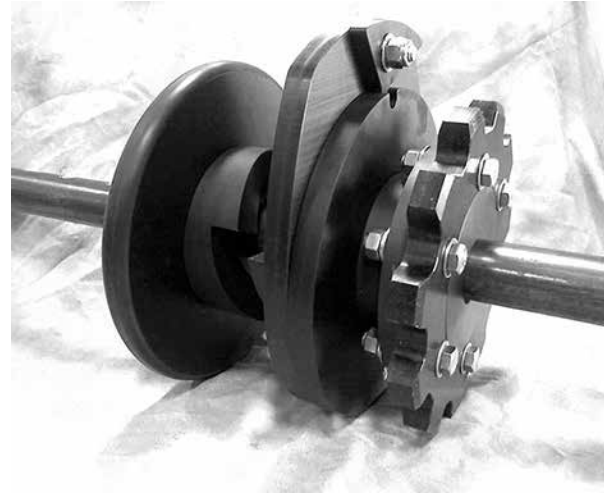




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# Jaw Clutch Shear Pin Drive Sprocket Assembly

- Non-metallic shear pin sprockets will protect down line equipment without threat of seizure due to corrosion.
- Special tooth and bore configurations are available upon request.
- A shear pin is included in each unit.
- Will not rust.
- Replaceable sprocket rim.
- Easy installation.
- Nylon 6 and 304SS hardware are standard materials.
- Available in universal, clockwise, and counterclockwise rotation.



JAW CLUTCH WITH HAND WHEEL ASSEMBLY							
CATALOG #	# OF TEETH	PITCH DIA.	MAX BORE	"A" DIM	"B" DIM	"C" DIM	"D" DIM
DPWTJC7811T	11	9.26	2.50	3.50	2.75	3.00	12.38



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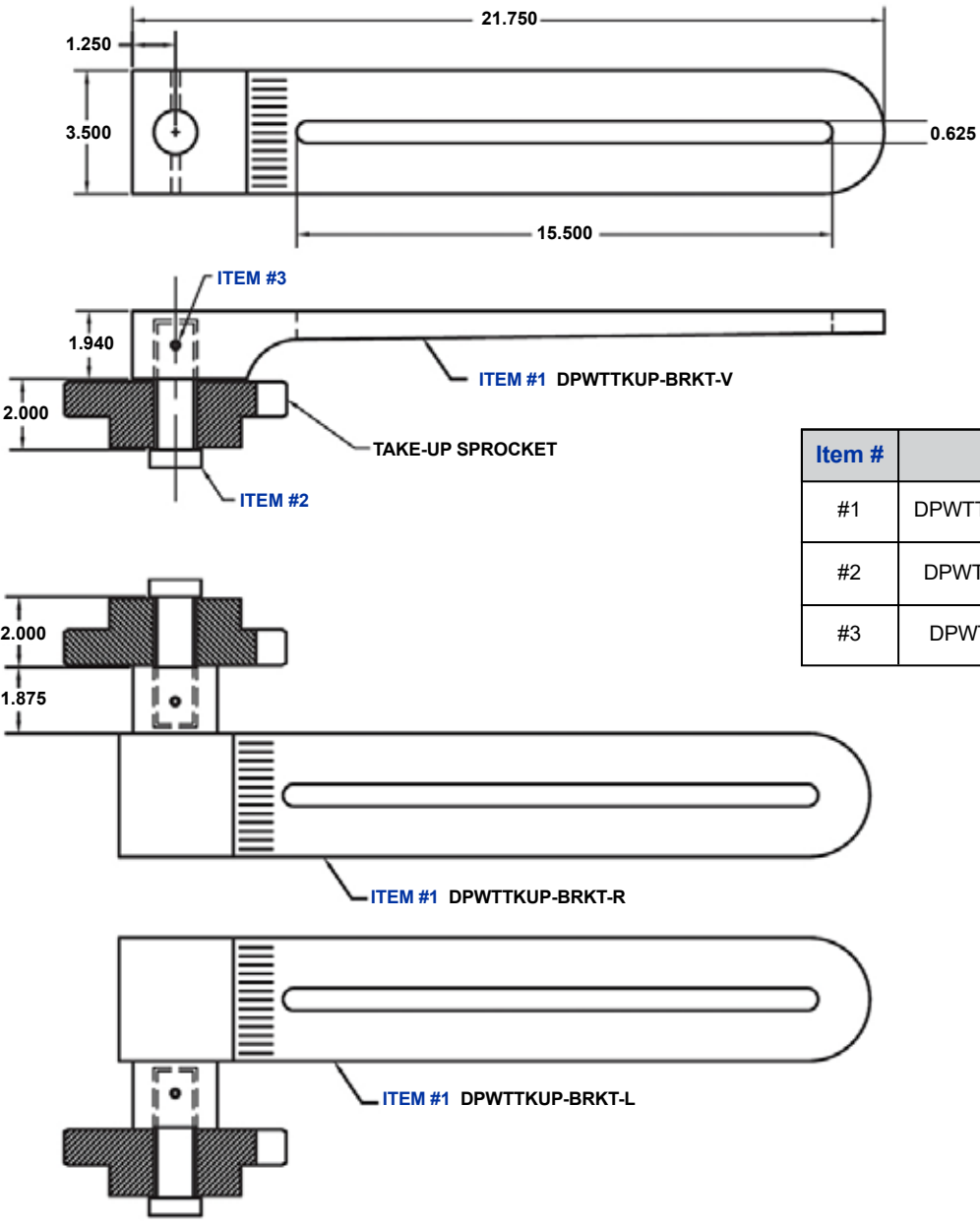
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# Take Up Arm

Proper drive chain tension is an essential key to smooth operation and maximum service life of your components. Diversified Plastics manufactures a versatile non-metallic tensioner, take up frame to help you in maintaining your tank drive system.



Item #	Part #	Description	Material
#1	DPWTTKUP-BRKT-X	Take-Up Bracket	75 D Urethane
#2	DPWTTKUP-STUB	Stub Shaft	MDS Filled Nylon
#3	DPWTTKUP-RPN	Roll Pin	400 SS



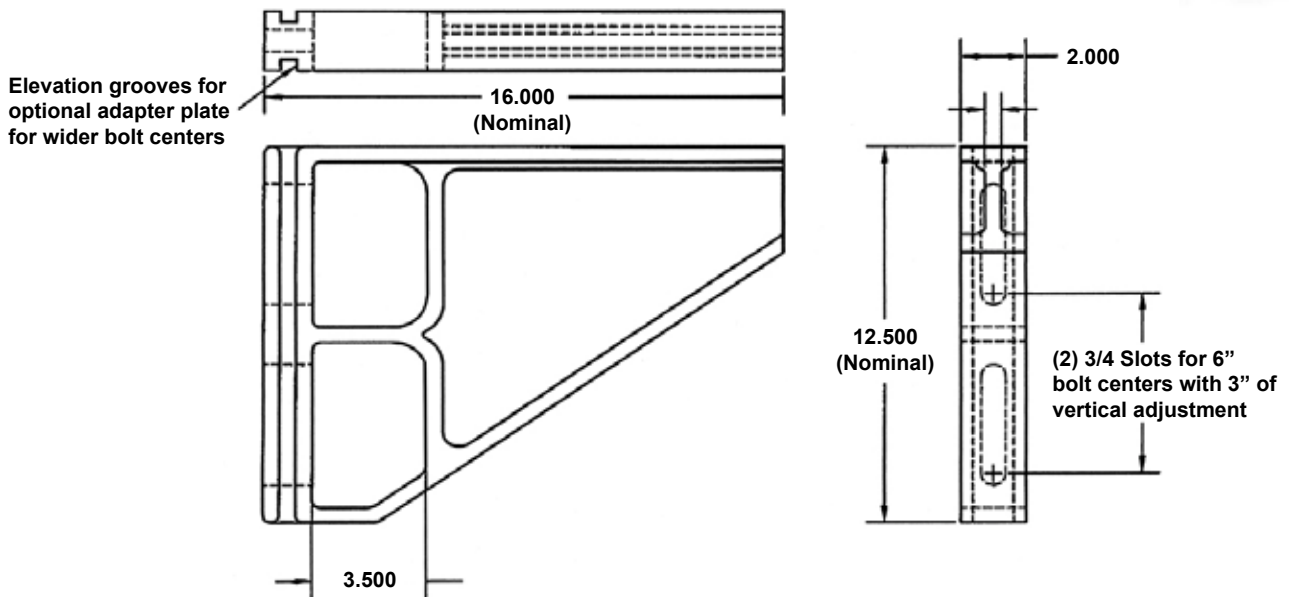


# Wall Brackets

The DPI non-metallic wall brackets are lightweight, rugged, and easy to install. The wall brackets come complete with a mounted link shoe to attach the return rail and wear strips to the bracket. Retrofit difficulties are minimized with vertical adjustment and slotted mounting holes to accommodate various anchor bolt sizes and spacing. The wall bracket in Fig.1 can be fabricated to length in the field.

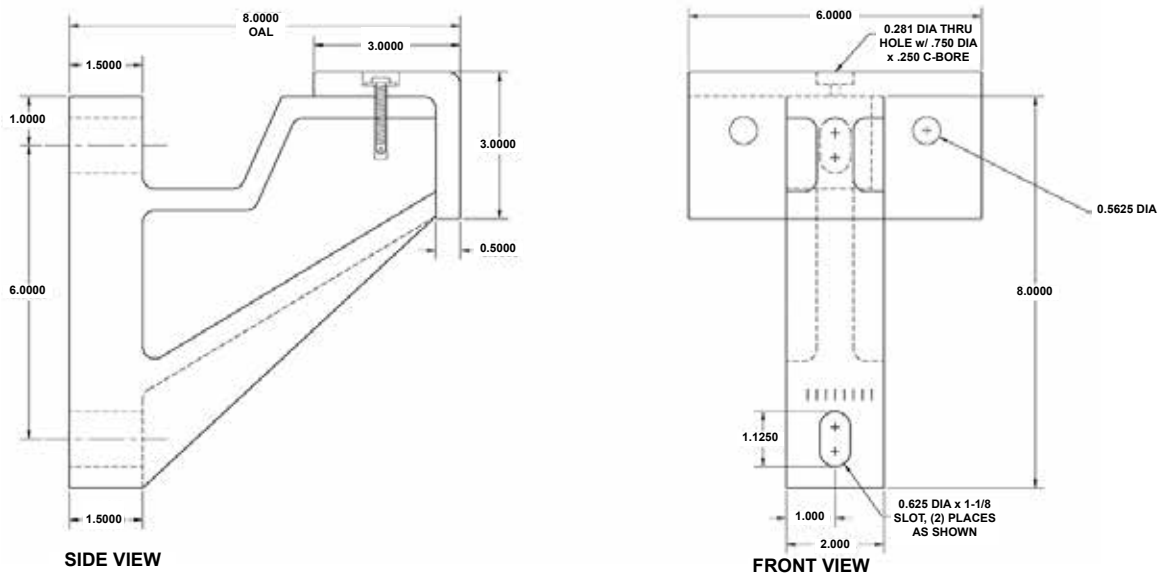


**FIGURE 1**



(Note: Measure from outside of wall bracket to outside of shoe for Figure 1.)

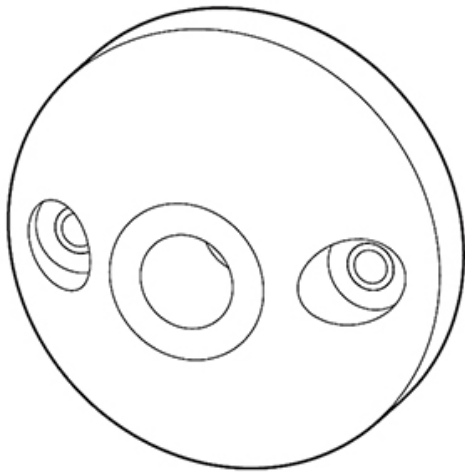
**FIGURE 2**



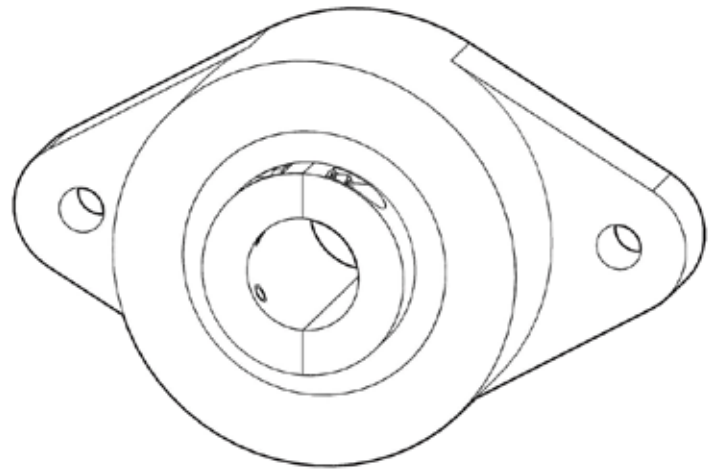


# Wall Bearings

Diversified Plastics Inc. can meet your wall bearing needs with a variety of options. Whether it is a simple circular type wall bearing or a cast urethane non-metallic wall bearing, we can help. The non-metallic features can be real problem solvers for your applications. The “no lube” feature of non-metallic bearing designs will keep shafts from freezing in the bearings during down times.



**Circular Wall Bearing**



**Cast Urethane Non-Metallic Wall Bearing**





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# Polyurethane Hub Ball Insert

Diversified Plastics Inc. can manufacture Split Housing Wall Inserts to prolong the life of your wall bearings by introducing a low cost, high wear insert. These self-aligning inserts offer multiple materials and an optional grease system.



## Part Materials and Process

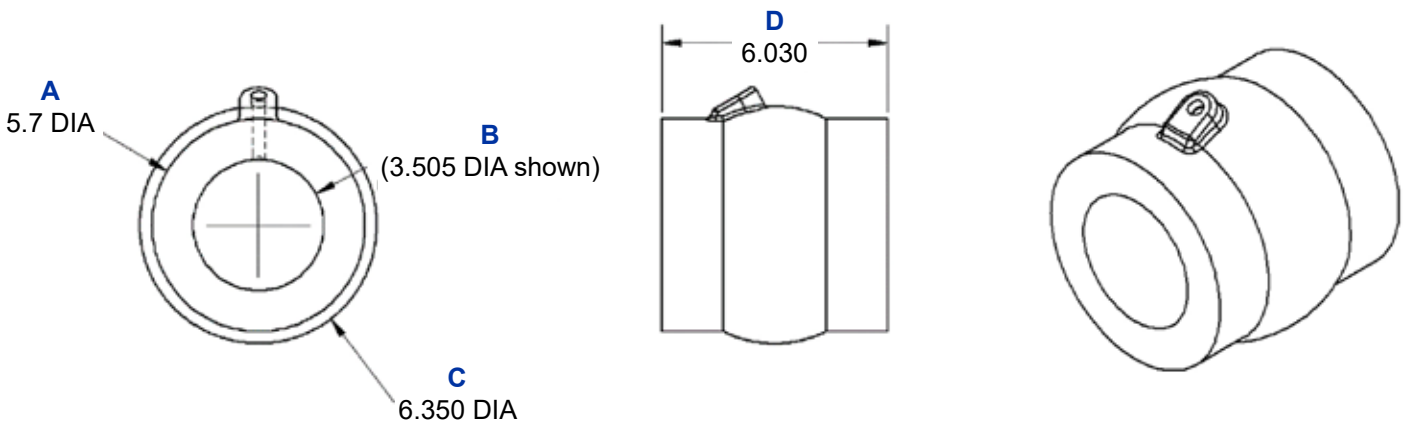
**DPWTBB10001 74D - Molded Polyurethane**

**DPWTBB10002 - Molded UHMW-PE**

**DPWTBB10003 75D - Cast Polyurethane**

Catalog #	I.D. (A)"	Bore Range (B)"	Ball O.D. (C)"	Length (D)"
DPWTBB100001	5.7	3.375 - 4.75	6.350	6.030
DPWTBB100002	5.7	3.375 - 4.75	6.350	5.930
DPWTBB100003	5.7	1.5 - 4.75	6.350	5.930

**Note: Custom sizing and material options available by request**



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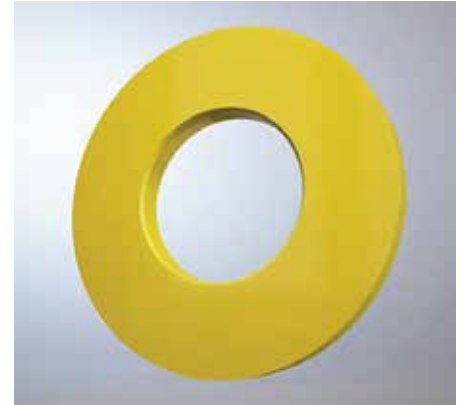
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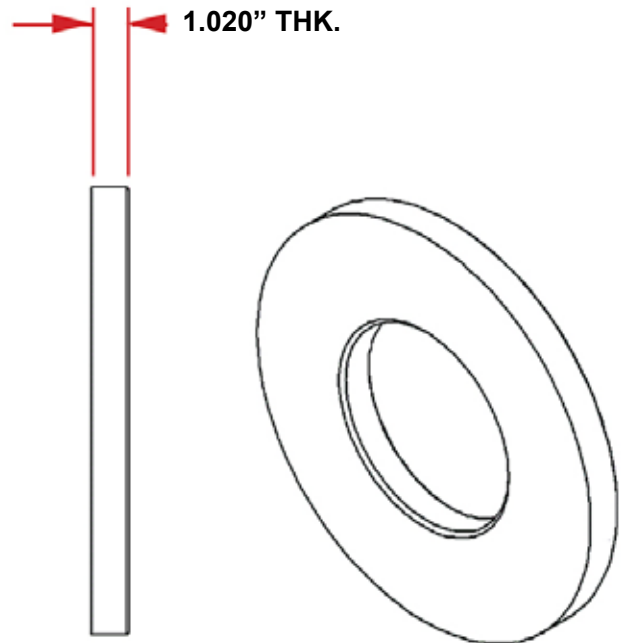
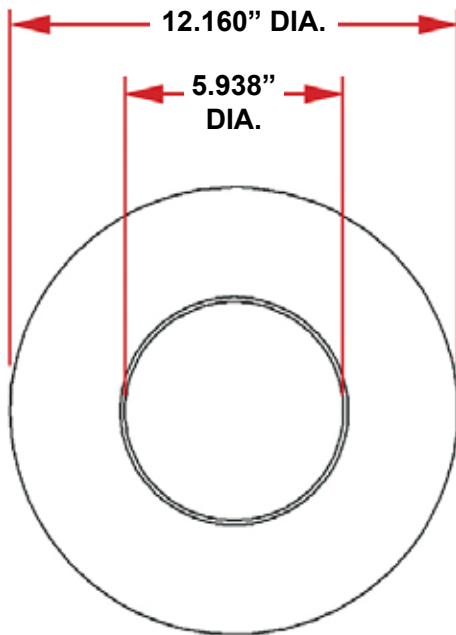
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# Polyurethane Valve Seat

Diversified Plastics Inc. can manufacture Yellow 90A Urethane Valve Seat for direct replacement of the Valve Seat used in 14" Willet Pump.



Catalog #	I.D.	O.D.	Thickness
DPWTPVS00001	5.938"	12.160"	1.020"
<b>Note: Custom sizing and material options available by request</b>			

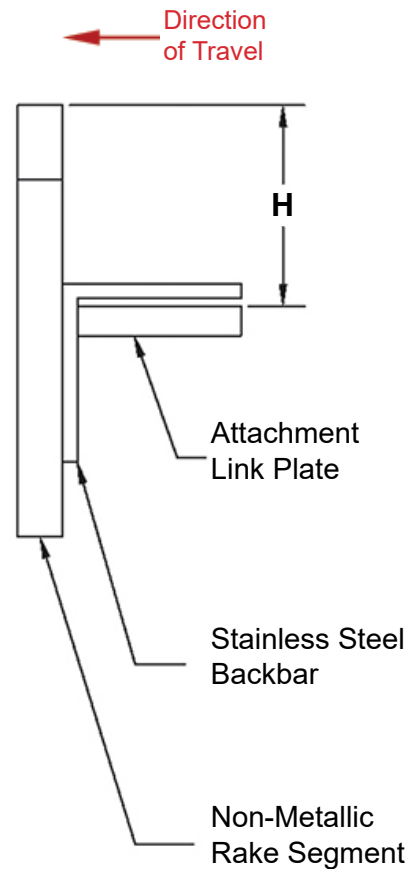
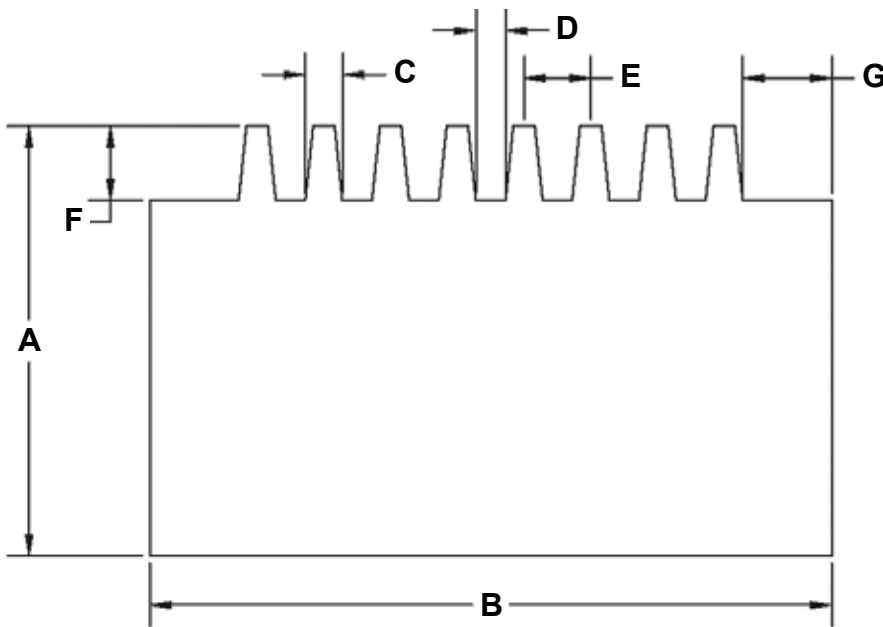




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# Non-Metallic Bar Screen Rakes

Diversified Plastics Inc. can offer solutions to increase the service life of your bar screen components by utilizing engineered plastics along with optional stainless steel components.



**Information Needed:**

- A = Width of Rake: \_\_\_\_\_
- B = Length of Rake: \_\_\_\_\_
- C = Tooth Width: \_\_\_\_\_
- D = Tooth Gap: \_\_\_\_\_
- E = Tooth Centerline: \_\_\_\_\_
- F = Length of Tooth: \_\_\_\_\_
- G = End of Rake to First Tooth: \_\_\_\_\_  
(check both ends)
- H = Distance from Rack to Attachment Link: \_\_\_\_\_
- # of Gaps: \_\_\_\_\_
- # of Teeth: \_\_\_\_\_
- Type of Chain: \_\_\_\_\_
- Attachment Link: \_\_\_\_\_





# 1900 Ultrahigh Molecular Weight Polymer

## SAND-SLURRY TEST FOR ABRASION RESISTANCE

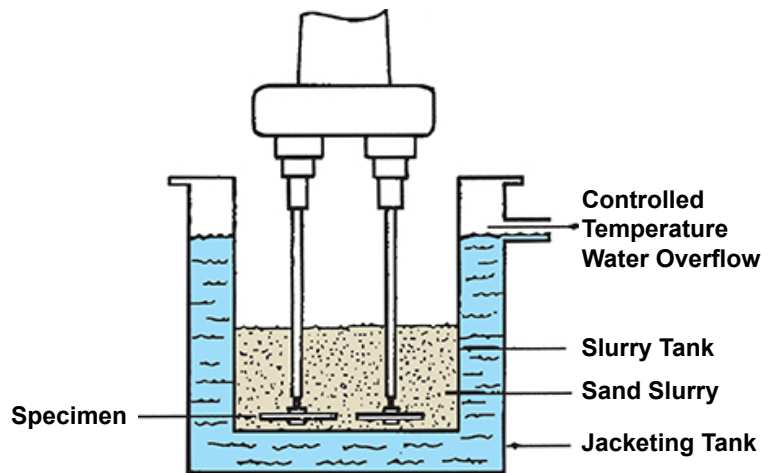
This test can be used to determine the relative abrasion resistance of 1900 ultrahigh molecular weight (UHMW) polymer, as well as other materials. The test produces a scratching, low-stress type of abrasive action.

### Summary of Test Method

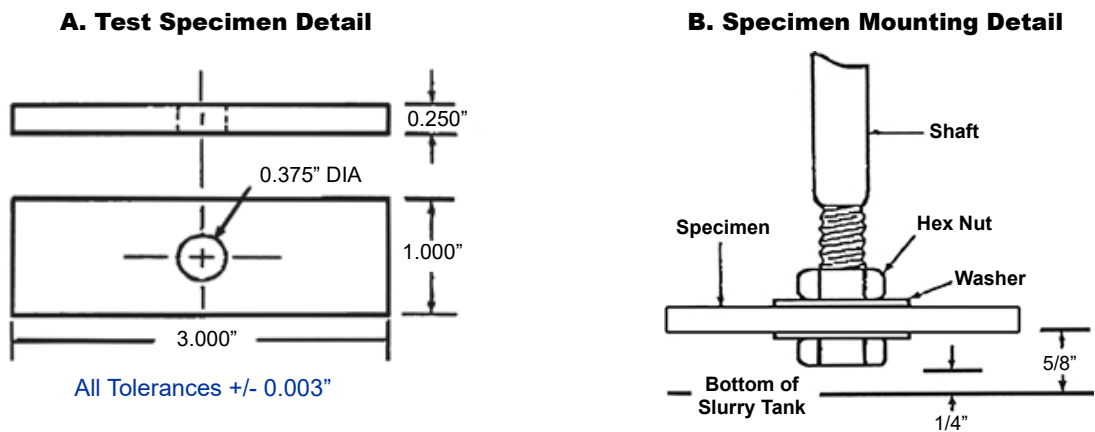
A specimen of the material to be evaluated is rotated simultaneously with a steel control specimen in a sand slurry to produce accelerated wear. The resulting wear, or abrasion, is measured as weight loss. This measurement is converted to a volumetric loss of the material by calculation from the material density. The volumetric loss of material relative to the steel control (based on an assigned value of 100 for steel) is called Abrasion Index (AI). A value lower than 100 denotes a higher wear resistance than that of steel. The lower the index value, the more resistant the material is to abrasion.

Material	Abrasion Resistance
1900 UHMW polymer	10
Nylon	24
Polyurethane (70D)	27
PTFE	72
304 Stainless Steel	84
Polycarbonate	96
Carbon Steel	100
Polyacetal	110
Phosphor Bronze	190
Phenolic Laminate L.E.	200
Yellow Brass	400
Hard Neoprene Rubber	800
Hickory Wood	950

**FIGURE 1**  
Apparatus for Abrasion Index Test



**FIGURE 2**





# Property Comparison Chart

Property	Units	Test Method ASTM	Acetal	Unified 6/6 Nylon	Cast Nylon	Nylatron™ GS	PTFE	UHMW	Polyethylene H.D.	Polypropylene		
<b>M E C H A N I C A L</b>	Specific Gravity	g/cm3	D-792	1.41	1.15	1.15-1.16	1.16	2.1-2.3	0.94	0.952	0.905	
	Tensile Strength, @73°F	psi	D-638	11,000/10,000	11,000	11,500-12,000	12,500	1,500-5,000	6,800	3100-5500	4300-5500	
	Elongation, @73°F	%	D-638	30	50	20-30	25	250-300	450	20-1000	200-700	
	Compressive @10% Deflection-Strength	psi	D-638	16,000/15,000	12,000	14,000-15,000	16,000	—	—	2700/3600	5600/8000	
	Tensile Modules of Elasticity, @73°F	psi	D-638	450,000/400,000	400,000	400,000	480,000	50,000-90,000	—	—	.18 x 103	
	Tensile Impact Strength, @73°F	ft • lb/in <sup>2</sup>	D1822	50	100	70-80	75	—	708	—	—	
	Flexural Strength, @73°F	psi	D-790	13,000/12,000	14,000	16,000	17,000	NO BREAK	—	3,200	6,000-8,000	
	Flexural Modules of Elasticity, @73°F	psi	D-732	450,000/400,000	400,000	500,000	480,000	525,000-650,000	110,000	1.11	175,000	
	Shear Strength	psi	D-732	9,000-8,000	10,000	10,500-11,000	16,000	90,000-110,000	3,500	3,380	5,710	
	Coefficient of Friction (Dry vs. Steel) Dynamic	—	—	.15-.35	.17-.43	.16-.25	.15-.35	.04-.10	.15-.20	—	—	
Hardness: Rockwell „R“, @73°F	—	D-785	M89/M88	M80	M80	M80	10-20	64	67	92		
	Durometer „D“, @73°F	—	D2240	D86/D85	D80	D85	D85	55-70	67	72	76	
<b>T H E R M A L</b>	Continuous Service Temperature In Air (Max.)	° F	—	180	220	200	220	—	200	250	225-300	
	Deformation Under Load 2,000psi @ 122°F	%	D-621	0.3-1.0	1.0-3.0	0.5-1.0	0.5-2.5	9-11	—	—	—	
	Heat Deflection: 264 psi	° F	D-648	250/240	200	200	200	100-140	174	151	—	
		° F	D-648	316-338	—	400-425	400-490	—	115	170	210	
	Coefficient of Linear Thermal Expansion (in/inF x 10-4)	in/in/ ° F	D-695	407/504	505	305	305	5055-705	103 x10-4	106 x10-4	9.58-10-4	
Melting Point	° F	D-789	347/335	500	420	500	621 +-9	270	270	335		
<b>E L E C T R I C A L</b>	Dielectric Strength, short time in air at 73°F	V/mil	D-149	450/420	400	400-500	350	500-650	900	488	450-650	
	Volume Resistivity @73°F	Ohm-CM	D-257	1.0 x 10 <sup>14</sup>	4.5 x 10 <sup>13</sup>	2.5 x 10 <sup>12</sup>	2.5 x 10 <sup>13</sup>	10 <sup>15</sup>	>10 <sup>18</sup>	8.37	8.45	
	Dielectric Constant:											
		60Hz	—	D-150	3.7	4.1	3.7	—	2.0-2.1	2.3-2.35	2.63	2.25
		10Hz	—	D-150	3.7	—	—	—	2.0-2.1	2.3-2.35	—	—
106Hz	—	—	3.7	—	—	—	2.0-2.1	2.3-2.35	—	—		
Water Absorbion 24 hrs. Immersion	%	D-570	0.2	0.3	0.3	0.3	<.01	NIL	<0.03	.01/.03		
Saturation	%	D-570	0.9	7.0	7.0	7.0	—	NIL	—	—		
TYPICAL APPLICATIONS:			Gears, bushings, bearings, pulleys.	Bearings, bushings, gears & guides.	Cams, gears valve seats, washers seats.	Bearings, bushings valve seats, water surfaces.	Gaskets, spacers seal rings, bearings.	Bushings, rollers,	Washers, rollers, Thermoformed	Appliances, spacers, & washers.		
TYPICAL PROPERTIES:			High strength, dimensional stability, resilient.	Good wear resistance, low friction, light weight.	Wear resistance, high tensile strength, low friction.	Wear resistance, low surface friction, high strength & rigidity.	Extreme corrosion resistance. high dielectric strength.	Tough Engineering equipment	High abrasion resistance high impact, low friction.	Low cost good impact & chemical resistance.		







# Alro Plastics

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## CHICAGO

279 Madsen Drive  
Suite #102  
Bloomington, IL 60108  
Ph: (888) 877-2576

## DETROIT

1750 E. Heights Drive  
Madison Heights, MI 48071  
Ph: (800) 877-2576

## GRAND RAPIDS

4670 60th SE  
Grand Rapids, MI 49512  
Ph: (616) 656-2820

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Ph: (502) 968-9980

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Ph: (812) 424-5554

## JACKSON

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Ph: (517) 787-5500

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