



PRODUCT CATALOG

AN ESSENTIAL PART
IN CLEAN

WATER



PLASTICS INNOVATORS




With the rivers, mountains, and forests surrounding Missoula to inspire us, our company began producing plastic wear strips for lumber and pulp mills in the area. Today, we are innovators of plastics solutions for the water and wastewater treatment industry.

INSPIRED BY OUR ENVIRONMENT

Launched in a garage by Rod Reid in 1976, we have grown to be a North American leader in plastics design, engineering, and manufacturing – doing whatever it takes to achieve more with plastic.

Diversified Plastics, Inc. is led by Brad Reid, a mechanical engineer, and a team of more than 80 experienced, knowledgeable, and creative plastics professionals.



**Explore our range
of parts and
components on the
following pages.**

Contact us to
discuss how we
can help solve your
unique challenges
with in-house
design engineering
and prototyping.

A VISIT TO **YOUR SITE**



Let's arrange a meeting
at your facility for a full
evaluation, at no cost to you.

With an assessment of your
processes, materials, designs,
and parts, we can offer
plastics solutions to help.

800.321.0084

email: sales@dpiplastics.com

IN DEPTH ADVANTAGES

Why engineered plastics are a growing favorite in water treatment

The benefits of choosing plastic parts and components for use in water treatment facilities are endless.

Specify DPI plastic parts and components and see advantages like corrosion and rust resistance, abrasion resistance, wear resistance, and longer service life in high humidity and submerged environments.

We have the plastic solution for all your essential equipment.

Sprockets and Gears

Chain and Flight Components

Chain Guides

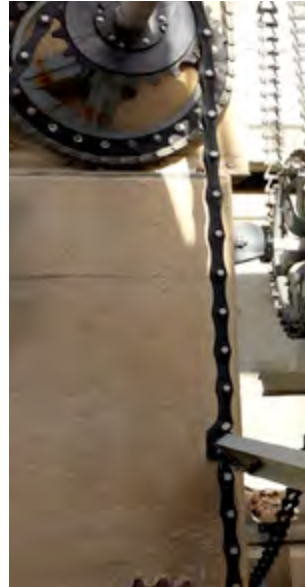
Bar Screen Components

Bearings

Sludge Scraper Components

Bar Screen Rakes

Grit Collector Components





CONCEPT TO **CREATION**

From first ideas to finished products, we are your most comprehensive plastic parts manufacturer.

- Single source for plastic parts engineering, tooling, and production
- Multiple manufacturing processes to meet any need
- Capabilities for custom orders, short runs, or high quantities



ON-SITE **DESIGN ENGINEERING**

Using creativity, collaboration,
and a progressive mindset, we solve
challenges no one else can.

With an in-house engineering team representing a range of engineering disciplines and having extensive experience with plastics, you can rely on us to develop innovative solutions for any situation. And our in-house tooling capabilities streamline prototyping and ensure quality in production.

We can also incorporate custom resins, additive packages, and color matches to ensure you have the right plastic for the job.

Our engineers will show you
what's possible with plastic.

Whether your goal is to update designs, simplify components, improve wear life, reduce costs, or boost productivity, we can help.

LET'S CLARIFY THE
ADVANTAGES OF

INJECTION MOLDED UHMW-PE

Our proprietary process makes us the only manufacturer with the ability to injection mold highly versatile, durable, and lightweight UHMW-PE.

The ability to injection mold UHMW-PE is our specialty – and a cost savings advantage you'll find only at DPI.

Our injection molding capabilities allow for custom and precision parts work and provide benefits such as faster cycle times, high production runs, reduced material waste, and significant savings of costs and time compared to machining. And our in-house tooling and mold fabrication streamlines development and ensures quality in production.

Your low-volume, high-volume, and high-cost machined UHMW-PE replacement parts are great candidates for converting to injection molding with DPI.



THE RANGE OF PARTS WE CAN
INJECTION MOLD
WILL INSPIRE
NEW IDEAS

Why machine it when
you can mold it?

The range of types,
designs, and sizes of
plastic components
that we can injection
mold is nearly limitless.

Just some
of the plastics
materials
we can use
for injection
molding

UHMW-PE

Urethane

PEEK

Polypropylene

Nylon

Ultem

HDPE

Glass, Carbon,
and Oil Filled



**Get the benefits of injection
molded parts and components:**

- Savings of Costs, Labor, and Time
- Precise Production and Quality Control
- Custom Additives and Colors
- Multi-Component Mold Capabilities
- Faster Cycle Times than Machining
- Guaranteed Molds Protect Your Investment
- Private Labeling

DPI INNOVATION AT WORK:

MULTIFAB HYBRID COMPONENTS

Blending the best in materials and manufacturing processes to deliver optimum part performance.

To produce truly innovative solutions, our MultiFab Hybrid Components approach allows us to bring together the right polymers with the capabilities of our fabrication, machining, injection molding, and polyurethane casting departments.

The result is optimum part performance and durability at a competitive price – for any given application.



DESIGN ENGINEERING



MULTIFAB HYBRID
COMPONENTS



INJECTION MOLDING



CUSTOM FABRICATION



MACHINING



URETHANE CASTING



THERMOFORMING



MULTIFAB

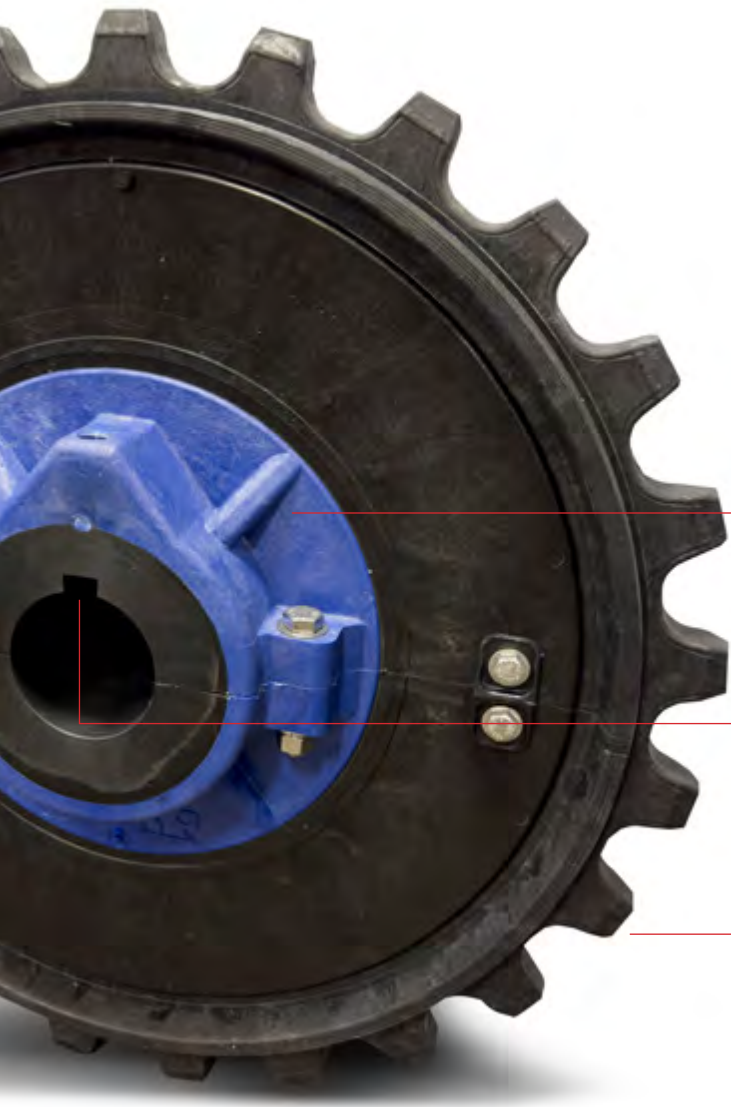
HYBRID COMPONENTS

MULTIFAB BRINGS
IT ALL TOGETHER
FOR A
SINGLE
**SUPERIOR
PART**

We developed MultiFab to address a simple truth: different components of a part often require different qualities for maximum performance.

Get the advantages of MultiFab

- **Superior Performance** – The best materials and production processes optimize the performance of each component.
- **Durability and Strength** – Integrated design to deliver the best wear life and longevity.
- **Lower Weight** – Lighter than cast iron and other materials while still meeting or exceeding specifications.
- **Better Pricing** – MultiFab approach reduces costs of materials, machining, and waste.
- **Customization** – Materials and processes optimized for your application.



A CLOSER LOOK AT OUR MULTIFAB DESIGN-BUILD

Explore the makeup of a component created with our MultiFab approach.

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-PE or urethane, ensuring years of performance and reduced maintenance costs

MultiFab Hybrid Components are the result of our custom process that combines the best of proven polymer materials, with up to three fabrication methods, ensuring a superior component design that meets your specifications and addresses the challenges of your application.

Independent lab testing shows that our MultiFab Hybrid Components are stronger and wear better than parts made of just a single material.

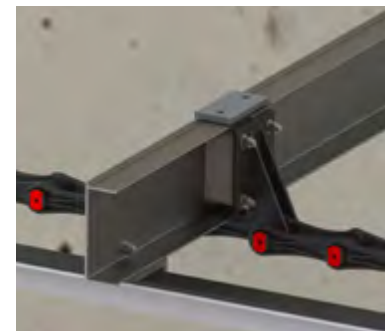
Contact us to learn how we can develop your MultiFab solutions all under one roof.

800.321.0084

email: sales@dpiplastics.com

SPEC DPI PLASTIC COMPONENTS

KEEPING
NEW IDEAS
FLOWING



Our experience in the
water and wastewater
treatment industry
has made us a leading
provider of custom
fabricated water
treatment sprockets.

PRODUCT HIGHLIGHTS



700 SERIES SPROCKETS

Our 700 series molded sprockets are available in UHMW-PE, polyurethane, and glass-filled copolymer. 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.

FEATURES

- Available in chainsaver and non-chainsaver styles
- Can be ordered with straight bore, bore with keyway and set screw, or bored to run on static sleeve bushing
- Corrosion resistant
- Abrasion resistant
- 1/6th the weight of the metal counterpart

MATERIALS

- Glass-Filled Copoly
- Nylon
- UHMW-PE
- Polyurethane

Catalog #	# Teeth	Pitch Dia.	LTB	Hub Dia.	Standard Chainsaver Rim OD	Sprkt OD	Min Bore	Max Keyed Bore	Max Idler Bore
DPWT72013T-M	13	12.88	4/6	8	Varied	13.63	1.438	4.5	4.5
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
DPWT70017T-M	17	16.59	4/6	10	13.950	17.618	1.938	5.75	5.75
DPWT70023T-M	23	22.21	4/6	10	19.980	23.240	1.938	5.75	5.75



SPLIT NON-METALLIC DISHED DRIVE SPROCKETS

Fully non-metallic dished drive sprockets feature our durable polyurethane dished hub. Typically for 78 chain, the replaceable bolt-on tooth segments are available in your choice of materials. Often called “Bull Sprockets,” these parts were historically made of cast iron.

FEATURES

- Increased wear life
- Excellent abrasion and chemical resistance
- Available in different tooth counts, bore sizes, and dished-off set distances

MATERIALS

- Nylon
- UHMW-PE
- Polyurethane

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 Dish - 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-BLK REPRO UHMW-PE, OPTIONAL-NYLON, URETHANE HUB BOLTS-(4)5/8-11X6/12" LONG, SPROCKET RIM BOLTS-(22)1/2-13X2" LONG, ALL HARDWARE 1808SS

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



SHEAR PIN SPROCKET

The “Slim Line” shear pin sprocket assembly will 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 and durability you can depend on.

FEATURES

- Heavy duty models available
- Larger bore options available

MATERIALS

HUB

- Stainless Steel
- Polyurethane

TEETH

- Nylon

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.



REPLACEMENT TEETH

We 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 replacement segments.

FEATURES

- Available for 700 series, 78 series, and more
- Can adapt to cast iron or plastic hubs
- Highly durable

MATERIALS

- Acetal
- Nylon
- Polyurethane
- UHMW-PE



JAW CLUTCH SHEAR PIN DRIVE SPROCKET ASSEMBLY

Jaw clutch assemblies are often used with 78 chain and allow for easy engagement/disengagement of the sprocket teeth with the chain. These non-metallic shear pin sprockets will protect down line equipment without threat of seizure due to corrosion. Traditionally these parts were made of metallic materials but our improved assembly was designed to improve wear life and eliminate failure due to corrosion.

FEATURES

- Available in universal, clockwise, and counter-clockwise rotation
- Corrosion resistant
- Different tooth count and bore sizes available
- Replaceable sprocket rim
- Easy installation

MATERIALS

- Nylon
- Stainless Steel
- UHMW-PE



SPLIT STATIC SLEEVE BUSHING

These bushings are used in various sprocket styles for increased wear resistance and lower friction. Commonly found in 715 and 720 series sprockets.

FEATURES

- Self-lubricating
- Available in various bore sizes
- Increased wear resistance

MATERIALS

- NYLOIL®
- UHMW-PE

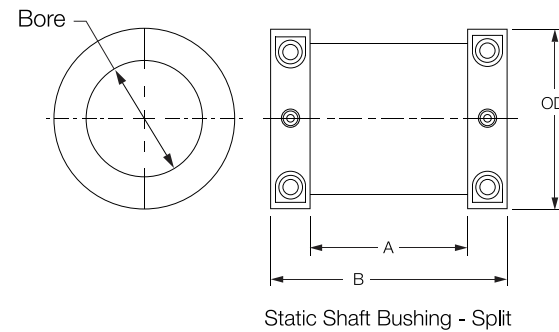


Static Sleeve Bushing: Split

Sprocket Bore	Max. Shaft Size (in.)	A	B	OD
3-3/4 Idler	2-15/16"	4"	6"	4-1/2"
5 Idler	4"	4"	6"	6"
5-1/4 Idler	4-1/2"	4"	6"	6-1/4"
6 Idler	5-1/4"	4"	6"	7"

Static Sleeve Bushing: Band Clamp Style

Sprocket Bore	Max. Shaft Size (in.)	A	B	OD
3 3/4" - 5 1/4"	4 7/16"	4"	6"	4 1/2" - 6 1/4"



CIRCULAR WALL BEARING

We can meet your wall bearing needs with a variety of options. Whether it is a simple circular type wall bearing or a peak cap bearing block, 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.

FEATURES

- Non-metallic
- Self-lubricating

MATERIALS

- UHMW-PE
- Nylon
- Polyurethane



PEAK CAP WALL BEARING

Our Peak Cap Wall Bearings' unique top design is optimal for the least amount of sediment build-up on the “roof”. These Split Bearings are manufactured from a variety of materials and are able to encompass most all shaft sizes. They are mounted on Stainless or FRP angle plate that can be manufactured to fit a variety of mounting bolts.

FEATURES

- Self-lubricating
- Replaceable Bearings independent from the Mounting Bracket
- Split design for easy Shaft Install

MATERIALS

- UHMW-PE
- Urethane
- Nylon



POLYURETHANE NON-METALLIC WALL BEARING

Wall bearings are manufactured to support high load idler shafts typically in water treatment tanks. These maintain low friction and high wear for optimal performance.

FEATURES

- Offered in many styles and bore sizes
- Low coefficient of friction
- Non-metallic

MATERIALS

- Nylon
- UHMW-PE
- Urethane



HUB BALL INSERT

We manufacture a Split Housing Self-aligning Wall Bearing Insert to prolong the life of your Wall Bearings.

FEATURES

- Available in various materials
- High wear
- Low-cost
- Corrosion resistant

MATERIALS

- Cast Polyurethane
- Molded Polyurethane
- Molded UHMW-PE



FLIGHT FILLER BLOCKS

Our full depth filler blocks are designed to fill the full depth of the flight board. They provide a secure fit and are made of impact modified polypropylene.

FEATURES

- Lightweight
- Chemical resistant
- Filler blocks for 720 assemblies
- Both 6" and 8" blocks available

MATERIALS

- Polypropylene



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.

FEATURES

- Structurally stable
- 3 different styles available
- Lengths up to 16"

MATERIALS

- Glass-Filled Polypropylene



SPLIT SET COLLAR

Our machined and molded set collars, also called shaft collars, are generally used to locate sprockets or other components such as bearings on shafts. Our parts are typically used to locate 720 sprockets on both the drive and idler shafts.

FEATURES

- Variety of bore sizes
- Various materials available
- Regular and heavy duty styles

MATERIALS

- Polyurethane
- UHMW-PE
- Nylon



Shaft Collars: Regular Duty

W	OD	Bore (in.) Dia.
1" nom	6.00	1 15/16" up to 3 15/16"

Shaft Collars: Heavy Duty

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



WEAR STRIPS + FASTENERS

DPI's wear strips are manufactured from black reprocessed UHMW-PE (Virgin UHMW-PE available upon request). Its low coefficient of friction protects the rails as well as opposing parts.

FEATURES

- Superior abrasion resistance
- UV protected
- Corrosion resistance
- No moisture absorption
- Custom fit and sizes available

MATERIALS

- Wear Strips: UHMW-PE
- Fasteners: Stainless Steel

Catalog # (in.)	Material	Diameter (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



TAKE UP ARM

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

FEATURES

- Custom styles and tooth counts available
- Non-metallic
- Easy to mount

MATERIALS

- Nylon
- UHMW-PE
- Urethane



CARRY AND RETURN WEAR SHOES

Wear shoes are mounted to flight boards that are used in rectangular clarifiers. We manufacture wear shoes from a variety of materials to meet your needs. All of the shoes we offer are molded solid one piece construction.

FEATURES

- Solid one piece construction
- Various sizes and hole patterns available
- Corrosion resistant
- Abrasion resistant

MATERIALS

- Nylon
- UHMW-PE
- Urethane



FRP SLUDGE COLLECTION FLIGHTS

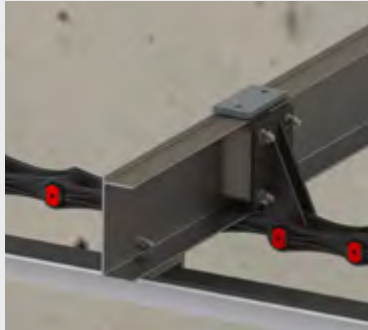
For use with cross collectors as well as primary and secondary clarifiers. Flights are custom fabricated to fit any application.

FEATURES

- 6" and 8" standard height
- Corrosion resistant
- Various profiles available

MATERIALS

- FRP



GRIT COLLECTOR BUCKET WEAR SHOE

Used in water treatment these parts go in grit bucket style collectors. Our non-metallic wear shoes provide superior abrasion resistance and reduce drag coefficient for longer chain and part life. We have many styles, and custom sizes are available upon request.

FEATURES

- Corrosion resistant
- High wear
- Easy to replace

MATERIALS

- UHMW-PE
- Urethane



NON-METALLIC BAR SCREEN RAKES

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

FEATURES

- Custom shapes and sizes
- Rigid or flexible styles available
- Abrasion resistant

MATERIALS

- Nylon
- Polyurethane
- UHMW-PE



STUB SHAFT

Corner Stub Shafts are typically used with our Static Sleeve Bushings and Idler Sprockets. Our Steel Reinforced Cast Urethane Stub Shafts have standard mounting holes and come in lengths ranging from 12" to 24".

FEATURES

- Aligns with all industry standard sprockets and static sleeve bushings
- Maintains shape and alignment with minimal deflection
- Stands up to rigorous

MATERIALS

- Nylon
- Polyurethane



POLYURETHANE VALVE SEAT

We manufacture Yellow 90A Urethane Valve Seat for direct replacement of the Valve Seat used in a 14" Willet Pump.

FEATURES

- Custom sizing
- Material options available

MATERIALS

- Polyurethane



NCS720 COLLECTOR CHAIN

Used in Rectangular Clarifiers and Cross-Collectors, this 6" pitch non-metallic glass-reinforced 720 Chain has become the industry standard and widely used throughout the world. Designed for its strength and durability, it is UV resistant, corrosion resistant, and wear resistant.


FEATURES

- Among the strongest NCS720-series chains on the market
- F226 and F228 attachment links accommodate 6" and 8" Flight Boards
- Simple to assemble and secure without clips or cotters

MATERIALS

- Glass-Filled Polymer





METAL COMPONENTS CAN
EXHIBIT RUST WITHIN HOURS OF
EXPOSURE TO THE ELEMENTS

DPI's plastic **parts** **never rust**

and remain functional for extended periods of time without
breaking down or degrading in material quality.



THE RANGE OF OUR CAPABILITIES ARE LIMITLESS

ANYTHING IS POSSIBLE WITH DPI AS **YOUR PARTNER**

No matter your part, material, application, or industry, we'll find the best solution for your situation.

From custom-engineering components and building prototypes in house to injection molding pieces with unique shapes or features to efficiently producing parts for short runs or high-production lines to help reduce costs, we can make it happen.

Our team includes plastics engineers as well as materials and production innovators – ready to collaborate and bring their unique areas of expertise to your challenge.

Plastics are a top material solution for innovation in a wide range of industries.

Ready for a better way? Some of the benefits that you'll realize when you bring plastics from DPI into your approach include:

- Reduced material and production costs
- Resistance to abrasion and wear
- Reduced friction compared to metals
- Resistance to chemicals, moisture, and corrosion
- Improved long-term durability and useful life
- Range of plastics types to suit the application
- Opportunities to recycle or reuse plastic materials

Plastics are lightweight yet have the strength to outperform metals in many situations. Additionally, the process of manufacturing plastic is significantly quicker and more efficient than manufacturing metal.



From concept to creation, we are your most comprehensive plastics parts manufacturer.

With the ability to utilize a variety of plastics manufacturing and production processes under one roof, we always have the best approach to shorten lead times, maximize efficiency, and adapt to your needs.

Custom Fabrication
Machining
Injection Molding
Injection Molding UHMW-PE
Urethane Casting
Thermoforming
Plastics Welding
Vacuum Forming
Overmolding of Steel Parts
QC Testing
Stamping, Labeling Parts ID
MultiFab Hybrid Components™ Solutions

NEXT LEVEL PERFORMANCE

The right plastic material for every water application.

With our expertise in all things plastic, we'll find the best solution for your part by considering factors like design, impact resistance, wear resistance, and viscosity – as well as your production and cost objectives.

There are hundreds of types of polymer materials with hundreds of potential applications. We can also incorporate custom resins, additive packages, and color matches to ensure you have the right plastic for the job.

Discover the unique characteristics and benefits of the many plastic materials solutions available. We work with a wide range of industrial plastics, polymers, and thermoplastics materials including:

- ABS Plastic
- Acrylic
- Delrin®
- HDPE / LDPE
- HYDEX®
- Nylon
- PET
- Phenolics
- Polycarbonates
- Polypropylene
- Polysteel
- Polystone®
- Polystyrene
- Polyurethanes
- PVC
- Rulon®
- Sintimid™
- Styrene
- Teflon®
- Thermoplastic
- UHMW-PE
- Ultem™ PEI
- Urethanes
- Vinyl



CERTIFIED FOUR-SQUARE CORROSION WEAR TESTING

10-year simulated wear testing –
Stork Materials Technology

Test Results

- 70/75D (4) test sprockets shown with gauge that represents the original tooth profile before testing
- Tooth profile wear exceeded testing parameters

Test Media

Perkool 9407 - 100ppm

Salt - 2472mg/L

Silica Sand - .25 lbs

Cycles = 90,068

Chain Pull - 1500 lbs

Chain Speed- 29.7 fpm

Submittal No: 11355-056



40-year simulated wear testing –
Rexnord Technical Services

Test Results

- DPI 23T sprocket 74D urethane segments on cast iron hub
- Component designation: 43380-2
- Measured tooth wear (inches): .002 -.007
- DPI 23T sprocket 74D urethane segments on cast iron hub
- Component designation: 43380-4
- Measured tooth wear (inches): .024 -.031

Test Media

120-140 MESH SILICA - 0.5g/L

Salt - 2.0g/L

Water Soluble Oil - 0.48fl oz/L

Chain Pull - 2100 lbs

Cycles = 64.4×10^4

Chain Speed - 86 fpm

RTS Project Number: P.O. 09-067

MISSION

Pursue creative plastic solutions with determination and energy to achieve more

OUR VALUES

PEOPLE FIRST

Creating opportunities by encouraging collaboration, continuous learning, and investing in the personal growth of our team and customers

Valuing our team members and customers by treating them as vital partners

CUSTOMER CENTRIC

Doing whatever it takes to deliver the ultimate customer experience through creative problem solving, innovative engineering, responsive service, and unique, state-of-the-art plastic products

Every interaction with our customers is an opportunity to build a lasting relationship based on trust, reliability, and mutual success

Actively listen to customer feedback to deliver quality solutions that meet or exceed expectations

PROGRESSIVE MINDSET

Leveraging years of experience and expertise with the relentless energy and excitement of a new company to revolutionize the future of plastics and our company

Challenge the status quo by thinking differently and creatively in all aspects of our product development

Always pursuing innovative solutions with our multiple capabilities to solve problems no one else can



QUALITY AND VALUE FOR THE LONG RUN

Competitive pricing and responsive service is our promise.

As a progressive and determined company, we're able to ensure that our pricing is always competitive – so you can relax knowing you're getting the best quality plastic parts at the best prices.

And with our plastics expertise in every industry, you've got a knowledgeable, reliable team to call on for everything you need.

For information or pricing quotes, contact us today.

800.321.0084

email: sales@dpiplastics.com





Get a quote on your project today!

Call 800.321.0084 or visit
www.dpiplastics.com

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Manufactured in the U.S.A.