

*35 Years of Manufacturing and Service Excellence
in Engineering Plastics - Cast Nylon Products,
Plastics Injection Molded Products,
Rubber Molded Components, Rubber Extruded Components,
Rubber Lining Work for Engineering & Process Industries*



ARIHANTRON

The Complete Range of Engineering Plastics, Rubber Products



Cast Nylon (Cast Polyamide) Products



Plastic Injection Molded Products



Compression Molded & Extruded
Rubber Products



Rubber Lining Work



PATIL THERMOPLASTICS

AN ISO 9001 : 2008 Registered Companies

(A PATIL GROUP OF COMPANIES)

REG. OFFICE

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ISO 9001 : 2008

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'Arihantron' Cast Nylon (Cast Polyamide) Products

'Arihantron' Cast Nylon is Highly Molecular Material produced by controlled chemical reaction & by active anionic polymerization of Caprolactum & Copolymer

'Arihantron' Cast Nylon Standard Stock Size –

Sheets	Thickness 8 mm & above, size 1 mtr. x 1.5 mtr.
Rods	Dia. 30 mm to 1 mtr. & maximum length 1 mtr.
Tubes	Minimum ID 40 mm, maximum OD 1000 mm Lth. 1 mtr.



Application Industries

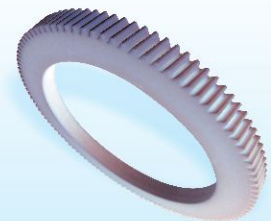
Engineering Industries, Material Handling Equipments, Hoist & Crane Manufacturing, Railway, Textile, Defense, Automobile, Marine, Process Industries, Sugar, Cement, Food, Dairy, Distillery, Pump Industry, Chemical Industry, Steel industries, Mining Industries, Earth moving Machinery etc.

Application Area

Bush Bearings, Straight Bush, One Side Collar, Both Side Collar, Split Type- in one side collar & both side collar, Swivel Bushes, Throttle Linkages, Shackle Bushes, Gaskets & Packings.

Sprockets, Gears, Screws, Nut & Bolts, Timing Pulleys, Dryer Gears. Crane Pulleys, Guide Rollers, Idler, Roller Wheels with or without Metal Insert, Balls, Valve Seats. Cams, Wear Pad & Plates, Sliding Pads, Liners, Propeller Blades, Pedestal Liners, Slipper Pad, Lining of Silo, Bunkers, Chutes, Truck, Rail Wagons.

'Arihantron' Cast Nylon, Tailor made (Machined) Components



Gears



Sprockets



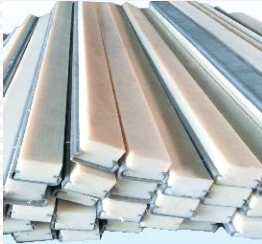
Wheels & Rope Pulleys



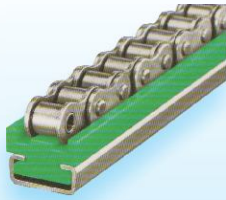
Steel Coil Stoppers & Storage System in Cast Polyamide



Material Handling System Components



Polymer Runners for Rake Carrier



Chain Guides



Polymer Rake



Polymer Rake End



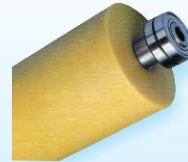
Bearing Inserted Wheels



Eccentric CAM



Polymer Rollers / Idlers



Wear Pads



Bottling Machine Guides



Guides



Textile Machine Bobbin



Bushes for Various Applications in Replacement of Brass, Bronze, Gunmetal, SS or Any Metallic Material



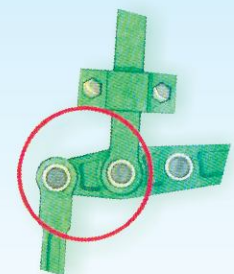
Polymer Bushes for Forklift & Chain Sprockets



Scissor Lift Polymer Bushes



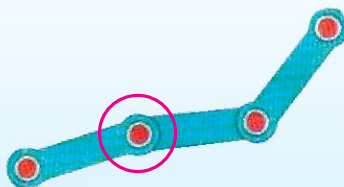
Valve Disc Shaft Polymer Bushes



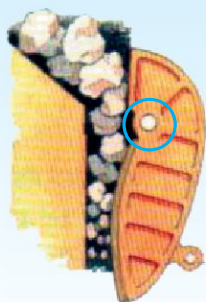
Pivot Joints Polymer Bushes



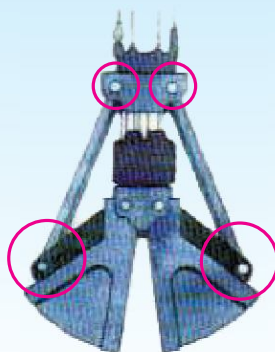
Hydro Power Gate Polymer Bushes



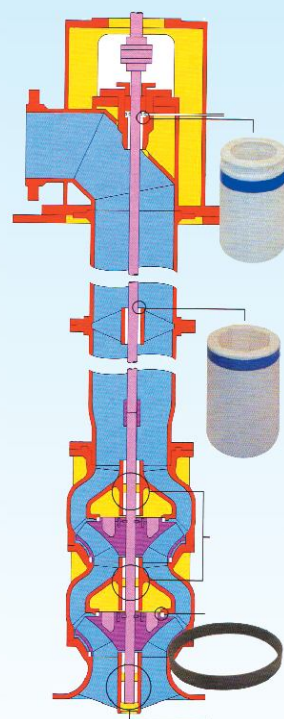
Escalators & Elevator Chains Polymer Bushes



Crusher Polymer Bushes



Grab Bucket Polymer Bushes



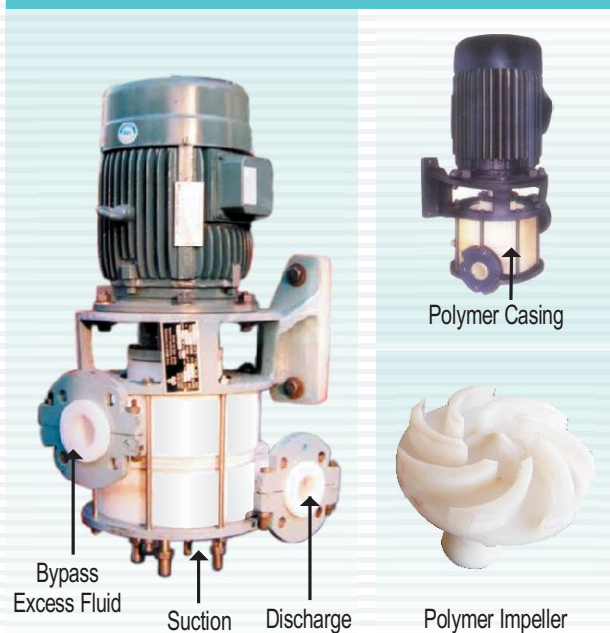
Vertical Turbine Pump
Polymer Bush Bearings

'Arihantron' Cast Nylon (Cast Polyamide) Material Grades

Property	Condition	Test Method	Unit	VALUE		
				'Arihantron' Grade 'N'	'Arihantron' Grade 'L'	'Arihantron' Grade 'S'
PHYSICAL PROPERTIES						
Specific Gravity	Dry	ASTMD 792	----	1.15 - 1.16	1.13	1.14
Water Absorption	Dry	ASTMD 570	%	0.6	0.6	0.6
24 hrs. Saturation	Dry	ASTMD 570	%	0.6 - 7.0	0.6 - 7.0	4.0 - 5.0
MATERIAL PROPERTIES						
Tensile Strength	Dry	ASTMD 638	Kg/cm ²	860	760	650
	Moist	ASTMD 638	Kg/cm ²	660	610	520
Elongation at break	Dry	ASTMD 638	%	10 - 40	40 - 80	40 - 60
	Moist	ASTMD 638	%	40 - 80	100 -150	70 -100
Modulus of Elasticity	Dry	ASTMD 638	Kg/cm ²	38000	30000	32000
	Moist	ASTMD 638	Kg/cm ²	24400	20000	22000
Notched Impact strength	Dry	DIN 53453	Kg/cm ²	2.5 - 3.0	3.5 - 4.5	8.0 - 10.0
	Moist	ASTMD 638	Kg/cm ²	5.10	6.0 - 12.0	22 - Dec
Impact strength	Dry	DIN 53453	Kg/cm ²	No Break	No Break	No Break
Shore Hardness	Dry	DIN 53453	Scale D	83 - 85	80 - 82	80 - 82
	Moist	DIN 53453	Scale D	78 - 80	76 - 78	77 - 79

Property	Condition	Test Method	Unit	VALUE		
				'Arihantron' Grade 'N'	'Arihantron' Grade 'L'	'Arihantron' Grade 'S'
Coefficient of Friction						
(Nylon/steel) No Lubrication	----	----	----	0.30 - 0.35	0.30 - 0.35	0.15 - 0.29
Initial lubrication	----	----	----	0.05 - 0.10	0.05 - 0.10	0.05 - 0.10
THERMAL PROPERTIES						
Melting point	Dry	ASTMD 569	°C	220	205	205
Flammability	Dry	ASTMD 635	----	Self Eat.	Self EXT.	----
Heat Distortion Test						
66 PSI	Dry	ASTMD 648	°C	150	143	----
264 PSI	Dry	ASTMD 648	°C	76	71	----
Maximum Service Temp.						
Continuous	Dry	----	°C	100 - 110	100 - 110	100 - 110
Intermittent	Dry	----	°C	130 - 160	130 - 160	130 - 160
At Low Temp.	Dry	----	°C	-40	-40	-40
Coefficient of thermal Expression	Dry	ASTMD 696	10 - 6 / °C	80	80	80
ELECTRICAL PROPERTIES						
Dielectric Strength	Moist	DIN 534481	KV/mm	15 - 20	15 - 20	15 - 20
Volume Resistivety	Moist	DIN 534482	Ohm x cm	3-5 x 10-12	3-5 x 10-12	3-5 x 10-12
Surface Resistivety	Moist	DIN 534482	Ohm	1-3 x 10-10	1-3 x 10-10	1-3 x 10-10
Dielectric Constant 10 Hz	Moist	DIN 534483	----	12	12	12
Dissipation factor 10 Hz	Moist	DIN 534484	----	0, 15	0, 15	0, 15
Resistance to Tracking	Moist	DIN 534480	0	KV 600	KV 600	KV 600

Arihantron Polymer Glandless, Sealless Pumps



For Pumping of Corrosive & Abrasive Fluid.

Maintenance Free Pump

Our Polymer Pump is constructed with best Engineering Plastic UHMWPE / Polyamide which can handle chemicals, corrosive liquids & abrasive materials. The pump is working without stuffing box wear ring, mechanical seals, shaft sleeve & bearings hence pump is totally maintenance free.

Range	4 Models
Pumping capacity	10 to 200m ³ per hour
Head	up to 50 mtr.

Application -

- Distillery, Dairies, Food & Pharmaceuticals, Sugar Plants Industries.
- Fertilizer, Electroplating, Tannery & Chemical processing units.
- Effluent & Waste Water Treatment Plates.



Arihantron Injection Molded Plastic Components

Injection Molded Plastic Components in LDPE/HDPE/PP/Nylon/Delrin/PVC

Full range of injection molded spares for Pump Industries, Power Tools, Dairy Industries, Vacuum Cleaners, Testing M/C



'Arihantron' Rubber Lining Work

We carry out Quality Rubber Lining Work for different applications. We are doing Rubber Lining Work for Tank, Vessels, Pump Body, Valve Bodies in different material like Nitrile, Ebonite, Neoprene Polymers.

Also we are doing Rubber Lining on Rollers used in Textile, Paper Mills, Printing Machines, Rice Mills, Particle Board Industries, Food Processing Industries in different materials and in different shore hardness.



'Arihantron' Rubber Molded Products

The range of Rubber Services we offer –

- **Rubber used :** Natural, Nitrile, Neoprene, EPDM, Butyl, Silicon, Viton Polyurethane Rubber
- **Molded Component :** Ready mold – 2000 Nos.
- Max. Molding M/C size 1200 mm x 2200 mm with 400 mm day light
- **Components :**
 - **Bush :** Hydraulic /Straight, Half Round, Conical Bush with & without metal insertion,
 - **Pneumatic Seals :** Rubber Star for Love Joy Coupling, Snap Rap Coupling, Tyre Coupling, Rubber Stator for Roto Pump Rubber Spider for Vertical Turbine Pump, Rubber Lined Brass Shell, Thorden Bearing for VT Pump
 - **Buffer :** For Centrifugal Machine, Dumping Pads, Cushioning Plates

- **Gaskets** : Square, Round & any shape as per required thickness
- **Diaphragm** : Sounders Valve, Steam Regulating Valve, Firca Valve, Solenoid Valve & Butterfly Valve, Bellows
- **Rubber Sheet** : Natural & Synthetic Rubber Plane Sheet, Canvas inserted Sheet & Electrical Mating up to 4'x8'
- **Sight Glass Gasket** : Round & 'C' Type
- **Rubber Hoses** : Flexible Corrugated Hoses, low & high pressure Hoses with metallic connection
- **Specialty** : The Rubber Gasket for Plate Type Heat Exchanger
- **Full range** of Dairy Industry, Sugar Plant, Distillery, Partial Board Industries
- **Rubber Products for** : Testing Machineries & Power Tools
- **Rubber Lining** : For Rollers, Valves, Pipes, Pumps, Chemical Tanks, D.M. Plant Piping & Valves

Apart from above special size can be manufactured as per customer's requirements

Rubber Material Selection Chart

	Natural	EPDM	Neoprene	Nitrile	Hypalon	Silicon	Viton	Fluro Silicon	SBR/BR
Price Grade	1	1	2	2	3	8	15	40	1
MaX Int Temp	105	150	125	130	160	250	300	280	115
Max Cont Temp	75	130	95	100	130	205	205	200	85
Lowest Temp	-60	-50	-35	-20	-25	-60	-20	-60	-55
Oil Resistance	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Weather Resistance	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Hardness Range	30-95	30-85	30-90	40-100	40-85	40-80	50-95	40-80	40-80



Wagon Tippler Rubber Element



Rubber Extruded Profile



Diaphragms



Valve Seats



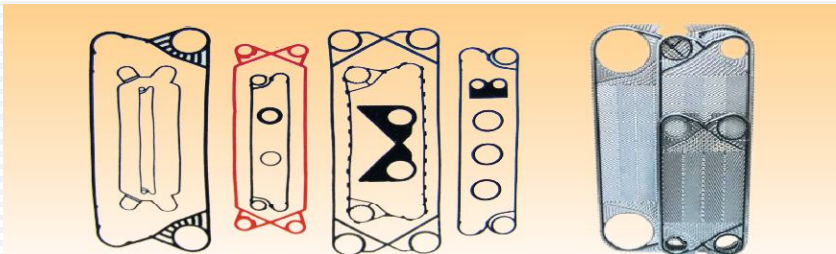
Diaphragms



Expansion Bellow



Buffer



PHE (Plate type Heat Exchanger) Gaskets



Rubber Spiders & Butterfly Valve Seats



Couplings



Rubber Bushes

We **Patil Thermoplastics (A Patil Group Of Companies)**, an ISO 9001:2008 Certified Company, is specialized in manufacturing of Engineering Plastics - Cast Nylon, Plastic Injection Molded Components, Rubber molded, extruded, lined components. We are located in Palus, Sangli district Maharashtra, India. We have area more than 5000 square meters and own a series of advanced equipments and facilities.

Since establishment we have introduced up-dated technologies and innovation of emphasized the training and innovations of technologies and talents as well. Now a days we are having annual capacity of more than 100 Tons in Cast Nylon, 7000 Tons in rubber manufacturing and have more than 10000 ready molds for rubber compression molding and extrusions. Because of high quality and competitive pricing, **Patil Thermoplastics** has won good reputation in Domestic as well as Export Market, having more than 1000 customers.

Patil Thermoplastics make Cast Nylon Products, Rubber Products are widely used in Sugar Factories, Chemical Factories, Food Industries, Cement Industries, Mining Industries, Engineering Industries, Railways, Defense, Navy, Ship Building Industries etc. Also continuous supply to OEM like ThyssenKrupp Industries, NHEC, ISGES Thomson etc. Also we can manufacture specific products according to customer requirements.

Our company people have always been sticking to the managing theory of "Quality Innovation and Credibility", seeking existence with quality developing with innovation, cooperation with credibility. Few of our associated and valuable customers :-

OEM Customers (Original Equipment Manufacturers)

ThyssenKrupp Industries, Pune
Thyssenkrup Electrical, Nashik.
ISGEC Thompson, Noida,
National Heavy Engg. Corp., Pune.
SS Engineering, Pune.
Ulka Industries, Pune.
Walchandnagar Industries.
Kirloskar Brothers Ltd., Kirolskarwadi,
Ghatge Patil Industries Kolhapur.
POSCO IPPC, Pune.
Manugraph Industries.

Government Institutions

Indian Railway	Indian Navy
Rail Coach Factory.	Hydropower Plants.
Thermal Power Plants	

Other Reputed Area of Customers

TATA Steels Ltd.
Bokaro Steel Plant.
Thermal Power Plants
Cement Plants
Steel Foundries.
Sugar Factories.
Milk Processing Units.
Alcohol Industries.
Mining Industries.
Steel Wire Drawing Industries.
Food Processing units.
Textile Industries.
Printing Industries
Oil Mills
Coal Handling Plants.



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