

EFFICIENCY AND DURABILITY THROUGH  
**FUNCTION-DRIVEN ENGINEERING**



**POLIMETSAN**

Precision-Machined and Custom-Manufactured  
**INDUSTRIAL COMPONENTS**





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# 1

## ENGINEERING PLASTICS AND METAL PARTS

**Machined plastic and metal parts, fixtures, and custom manufacturing to technical drawings are provided within a single production scope. Design and engineering support complement the manufacturing process.**

### METAL PARTS AND FIXTURES

Custom metal parts, fixtures, and machine components are manufactured. Plastic and metal components can be supplied together for the same machine, production line, or spare-parts project.

### PLASTIC PARTS

Engineering plastics are machined according to material grade, part geometry, and operating conditions. Typical parts include slide pads, wear strips, guide rails, bushings, rollers, liners, and protective plates.

### DRAWING AND SAMPLE-BASED MANUFACTURING

Manufacturing can be initiated from a technical drawing, 3D file, sample, existing part, or a defined application.

### DESIGN AND ENGINEERING SUPPORT

Part geometry, material selection, and manufacturing method are determined by evaluating functional requirements, load conditions, motion characteristics, installation conditions, and the operating environment together.

# 2

## INDUSTRIAL APPLICATIONS

**Custom-manufactured plastic and metal parts are designed and produced to suit the load, motion, wear, and environmental conditions of different industrial systems.**

### APPLICATION AREAS

- Cranes and aerial work platforms
- Conveyors and industrial production lines
- Port and marine applications
- Machinery and OEM spare parts
- Vehicle-mounted equipment
- Part-specific transport solutions

## 2 INDUSTRIAL APPLICATIONS: a Cranes & Conveyors

For moving and load-bearing systems:  
boom slide pads, wear plates, guide  
elements, support pads, bushings, rollers,  
and spare parts.

CRANES &  
AERIAL WORK  
PLATFORMS

CONVEYORS &  
INDUSTRIAL LINES

For internal material-handling systems  
and production lines: chain guides, wear  
strips, side guides, slide rails, rollers,  
conveyor profiles, and custom parts.

# 2 INDUSTRIAL APPLICATIONS:

## .b Ports & Machinery

### PORT & MARINE APPLICATIONS

Fender panels, quay protection plates, pile reinforcement jackets, wear and impact surfaces, replacement polymer panels, and other project-specific components.

Parts for machinery manufacturers, industrial equipment suppliers, assembly requirements, and OEM spare-parts needs across all sectors, manufactured from technical drawings or samples.

### MACHINERY & OEM SPARE PARTS

# 2 INDUSTRIAL APPLICATIONS: 2.c Vehicle-Mounted Equipment

Custom-manufactured plastic and metal parts for moving mechanisms, hydraulic systems, recycling and waste-transfer vehicles, fire trucks, service vehicles, and other special-purpose equipment. Tanks and reservoirs for liquid, gas, and air applications are manufactured from engineering plastics and metals.

## VEHICLE-MOUNTED EQUIPMENT

## CUSTOM MANUFACTURING REQUIREMENTS

Non-standard parts are designed and manufactured according to the available installation space, operating conditions, and performance requirements.

## 2 INDUSTRIAL APPLICATIONS: 2.d Part-Specific Transport Solutions

### TRANSPORT RACKS

Part-specific transport racks are developed to keep components organized and protected throughout production, in-plant handling, storage, and shipment.

Internal dunnage and support elements are designed and manufactured according to part geometry, surface sensitivity, weight, and handling conditions. Appropriate materials and production methods are selected to limit part-to-part contact and movement during transport, reducing the risk of damage.

### PART-SPECIFIC DUNNAGE



# 3

## PART, MANUFACTURING AND APPLICATION SCOPE

**Engineering plastics and metals are machined in accordance with part geometry, material properties, and technical requirements to produce custom components, fixtures, and spare parts.**

### PLASTIC COMPONENTS

- Boom slide pads
- Wear strips and plates
- Guide rails and chain guides
- Bushings, rollers, and pulleys
- Liners and protective panels
- Fender panels and quay protection plates
- Support pads and impact surfaces

### METAL COMPONENTS AND FIXTURES

- Custom-machined spare parts
- Moulds and support blocks for sandwich-panel machinery
- Machine elements and support components
- Custom fixtures
- Positioning and slide components

- Spare parts manufactured from samples
  - Plastic and metal parts manufactured to technical drawings
- Welded fabrication, reinforcement applications, and forming of plastic and metal parts to specified tolerances

### DRAWING AND SAMPLE-BASED MANUFACTURING

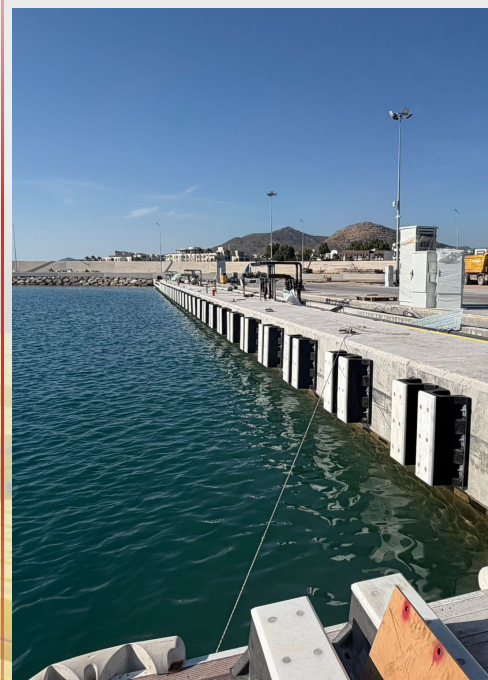
# 4

## MATERIAL GUIDE

**Material selection is based on load, motion, temperature, chemical exposure, dimensional requirements, and expected service life.**

### SELECTION CRITERIA

- Load and impact
- Friction and wear
- Type of motion
- Temperature
- Chemical contact
- Exposure to outdoor or marine conditions
- Dimensional stability
- Expected service life



# 4 MATERIAL GUIDE:

## 1.a Properties & Applications

### **HDPE**

A durable, chemically resistant material used for liners, panels, protective plates, and general industrial components.

### **PA PA6G CAST POLYAMIDE**

Provides high mechanical strength and wear resistance in load-bearing components such as slide pads, rollers, bushings, pulleys, guide blocks, and industrial spare parts.

### **POM ACETAL DELRIN**

A rigid, dimensionally stable material for precision-machined parts, gears, bushings, rollers, fasteners, and small mechanical components.

# 4 MATERIAL GUIDE:

## .b Properties & Applications

### **PTFE TEFLON**

A low-friction material with high chemical resistance for seals, sealing elements, sliding surfaces, bearing components, and applications exposed to chemicals.

### **PU POLYURETHANE**

An elastic, wear-resistant material used for wheels, bumpers, and impact-protection components. Suitability depends on the manufacturing method, geometry, and application.

### **UHMWPE**

A low-friction material with high impact and wear resistance, used for conveyor wear strips, chain guides, slide plates, fender panels, liners, and marine applications.



# 5

## CUSTOM MANUFACTURING

Non-standard or application-specific plastic and metal parts, fixtures, and spare parts are manufactured from technical drawings, 3D models, samples, or defined requirements. Material, geometry, tolerances, and manufacturing method are determined by evaluating the part's function, operating conditions, and installation requirements together.



# 5 CUSTOM MANUFACTURING

## .a Request for Quotation (RFQ) Information

Quotations are prepared by evaluating the part's technical data, operating conditions, quantity, and delivery expectations together.

### RFQ ESSENTIALS

- Preferred material or required function of the part
- Part dimensions, tolerances, and critical surfaces
- Quantity and expected repeat orders
- Operating load and type of motion
- Temperature, chemical exposure, and exposure to outdoor or marine conditions
- Technical drawing, 3D file, sample part, or application photograph
- Target delivery date and delivery location

### COMPATIBLE FILES

PDF | DXF | DWG | STEP

**Note:** The availability of other file formats should be confirmed before submitting an RFQ.

# 5 CUSTOM MANUFACTURING

## .b Design and Engineering Support

Parts that do not yet have a final design, or whose existing design must be adapted to the application, are evaluated and developed before manufacturing with consideration for function, installation space, load, motion, and operating conditions.

### EVALUATION CRITERIA

- Geometry and fit
- Material selection
- Manufacturability
- Installation or assembly constraints
- Load, motion, and wear conditions
- Development from a sample or existing geometry

Even when a part performs the same function, it **may require different geometry, material, and manufacturing methods depending on the machine and operating conditions** in which it will be used.

Design and engineering support considers installation space, load, motion, and environmental effects together before manufacturing, enabling the part to be engineered for its specific application.

# 6

## QUALITY DOCUMENTATION

Quality records, material information, and project-specific documents are prepared or obtained according to the product's technical requirements and the scope of manufacturing. The type and scope of documentation are defined at the quotation stage.

### QUALITY AND COMPLIANCE DOCUMENTS

- Applicable certificates
- Material information
- Manufacturing records, when required
- Inspection reports or project-specific records



# 7

## SUPPLY CONTINUITY

Adding an additional manufacturing source to an existing supply structure provides planning flexibility when capacity changes or lead-time pressure occurs. Sourcing critical parts from more than one supplier makes purchasing processes more controlled and predictable.



# 8

## CONTACT

**For a new project, a technical matter, or a potential collaboration, please contact us:**

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