

COMPANY

PROFILE

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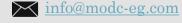


Company Overview

Mosaic Design Corporation (MDC) is a leader in providing high-quality mechanical components and industrial solutions. We specialize in precision manufacturing exclusively, ensuring superior quality and rapid delivery. Our expertise lies in delivering tailored solutions that meet the highest industry standards, with the flexibility to manufacture both locally in Egypt or internationally, depending on the product's specifications and requirements.

At MDC, we conduct comprehensive inspections before delivery to guarantee reliability and performance. We embrace challenging projects and work closely with our clients by sharing technical information to develop the best solutions.

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Vision

To be the most trusted and innovative provider of precision-engineered mechanical components, ensuring operational excellence and industry advancement.

Mission

To deliver high-quality, custom-engineered mechanical parts with precision, reliability, and efficiency, meeting our clients' demands in record time while maintaining superior quality standards. We work according to international standards, ensuring our solutions are both innovative and reliable.

Core Values

- 1. Excellence in Quality: We provide only the highest standard products.
- **2. Innovation & Customization:** We specialize in precision manufacturing and custom spare parts.
- **3.** Customer-Centric Approach: We meet our clients' needs with speed and efficiency.
- **4. Technical Expertise & Reliability:** We ensure comprehensive testing and compliance with international standards.
- **5. Flexibility in Manufacturing:** manufacture both locally and internationally based on the required specifications.
- **6.** Commitment to Reliability: using reliable materials and suggest alternative materials if the original is unavailable, with full responsibility based on scientific criteria.
- 7. Experienced Outsourcing: Our deep industry knowledge enables us to provide expert outsourcing solutions, ensuring the best results for our clients.
- **8. Confidentiality & Contracts:** We adhere to NDA agreements and formal contracts to protect our clients' intellectual property and business interests.



Products

MDC specializes in the supply and manufacturing of essential mechanical parts, including:

- 1. Mechanical Spare Parts (Rollers, Drums, Wire Sheave, Bearing Brackets, etc.)
- 2. Pump Spare Parts (Volute Casing, Impeller, Auxiliary Impeller, Wear Desk, Wear Plates, Bushing, Pump Partitions, etc.)
- 3. Mining Crushing Spare Parts (Hammers, Wear Plate, Impact Plate, Rotating Drums, Jaw Fixed and Movable Plates, Blow Bars, etc.)
- **4. Cement Spare Parts** (Cooler Plate, Lifter Linear Plate, Hammers, Diaphragm Plate, etc.)
- **5. Custom Spare Parts & Precision Components** (Lengthening Bushing, Spacers, Rollers, Sheet Metal Parts, etc.)
- 6. Plastic Injection Parts (Casing, Balance Weight, Inspection Chambers, etc.)
- 7. Infrastructure (Ductile Iron Manhole Covers, GRP Manhole Covers, Linear Drainage, Catch Basin Covers, Side Drain, etc.)
- 8. Water and Drainage (Wall Thickness, Connections, Flanged Fittings, Socket Fittings, Dismantling Joints, Valves, Accessories, etc.)
- 9. HVAC & Firefighting Components (Threaded Fittings, Seamless Fittings, Y-Strainers, Basket Strainers, HVAC Grills, etc.)
- 10. Rubber and polyurethane products (roller coverings and pulley rubber coatings, etc.)





Services

1. Casting:

- Aluminum Alloys.
- Copper Alloys.
- Heat Resistant Alloys.
- Stainless Steel and Corrosion Resistant Alloys.
- Wear and Impact Resistant Alloys.
- · Carbon and Low Alloy Steel Alloys.
- Cast Iron (Ductile & Gray).
- Stainless Steel Duplex.
- Supplying any Ferrous Alloy to customers.

2. Powder Metallurgy:

- Ferrous Materials (Iron-Based): Iron (Fe) Powders, Steel Powders, Cast Iron Powders.
- **Non-Ferrous Materials:** Copper and Copper Alloys (Bronze, Brass), Aluminum Powders, Nickel and Nickel Alloys, Titanium Powders.
- Composite and Specialty Materials: Tungsten Carbide (WC) with Cobalt (Co), Graphite (C-Base) Powders.
- **3. Machining:** (Cast Iron, Aluminum, Copper, Stainless-Steel, Stainless-Steel Duplex, Any Ferrous Metal)
 - CNC Milling (4-axis 5-axis)
 - Turning & Milling
 - Drilling
 - · Wire Cut
 - Spark Erosion

4. Sheet Metal Works:

- Materials: Aluminum, Stainless Steel, All Sheet Metals.
- Machining: CNC Laser Cutting, CNC Bending, Drilling, Welding.

5. Reverse Engineering Process:

- Comprehensive re-engineering from scratch, tailored to customer requirements, including option studies, prototyping, and testing.
- 3D Scanning, Meshing, Material Analysis, Manufacturing, Testing

6. Rubber and Polyurethane Products:

• Manufacturing Rubber and Polyurethane Products, with hardness ranging from 25 to 100 Shore A durometer in all colors.



Market & Industries Served

MDC operates on a B2B model, focusing on high-quality solutions for various industries, including:

- 1. Construction & Infrastructure Projects
- 2. Government Tenders & Consulting Firms
- 3. Factories (Food, Pharmaceuticals, Chemicals, Cement, Mining, and Pump Industries)
- 4. Mechanical Contracting Companies (MEP)
- 5. Maintenance & Operation Companies

Competitive Advantage

- 1. Expertise in Custom & Precision Manufacturing
- 2. Fast and Efficient Order Fulfillment While Maintaining High Quality
- 3. Comprehensive Testing to Meet International Standards
- 4. Review Designs Using Computational Analysis.
- 5. Strong International Partnerships with trusted suppliers from Turkey & China
- 6. Reliable Logistics & Supply Chain ensuring timely product delivery
- 7. Excellent After Sale Service.
- 8. Variety Material and Sizes.

Pump's Spare Parts



Description

Reverse engineering & manufacturing a comprehensive range of pump spare parts, including volute casings, impellers, auxiliary impellers, wear plates, and rear plates, designed for pumps used in water supply, chemical, industrial processes, and steam systems, ensuring compatibility and optimal performance tailored to client specifications.

Key Features:

- Available in various configurations with customizable dimensions and materials.
- Manufactured from durable materials such as cast iron, stainless steel, duplex, chromium steel, or client-specified alloys.
- Designed to meet stringent balance, material, and performance tests per client requirements.
- Suitable for replacement and maintenance of pumps handling water, steam, chemicals, and other fluids.
- Offers 3D scanning capabilities up to 4 meters per dimension for accurate geometries of complex or legacy parts.
- Includes complete documentation and certification upon delivery: material certificates, dynamic balancing certificates, pump curve certificates, and sealing compatibility certificates.

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MOSAIC DESIGN CORPORATION DETAILS THAT MATTER

Impellers





Description

MDC manufactures impellers through reverse engineering, producing them according to the required materials and delivering high-quality products that comply with balance tests, material tests, and all other client-specified tests.



Key Features:

- Customizable dimensions, materials, and specifications as per reverse engineering process.
- Available in various types: closed, open, or semi-open impellers.
- Manufactured from diverse materials based on the application, including cast iron, stainless steel, duplex, chrome steel, or any other client-specified material.
- Ensures high precision and quality through rigorous testing and balance checks.

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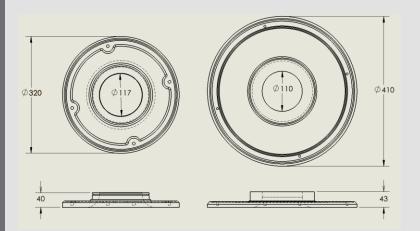
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Pump Wear Plate & Disc





Description

Stainless Steel Slurry Pump Wear Plate & Disc (Other Materials are available including: Cast Iron, Aluminum...etc.)

Material: Duplex Stainless Steel (Rare Alloy as per client's request)

Weights:

• Wear Plate: 11 kg (Post Machining)

• Wear Disc: 7 kg (Post Machining)

Manufacturing Method: Sand Casting and

Machining



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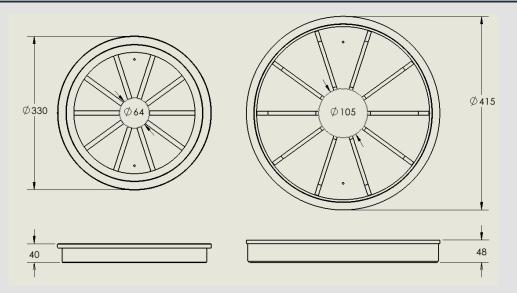
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Pump Partitions



Description

Stainless Steel Slurry Pump Partitions (Other Materials are available including: Cast Iron, Aluminum...etc.)

Material: Duplex Stainless Steel (Rare Alloy as per client's request)
Weights:

Partition A: 10 kg (Post Machining)
Partition B: 20 kg (Post Machining)

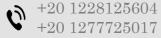
Manufacturing Method: Sand Casting and Machining



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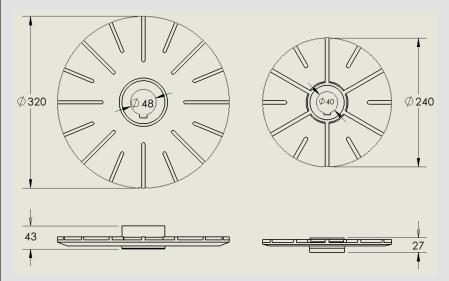
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Pump Auxiliary Impellers





Description

Stainless Steel Slurry Pump Auxiliary Impellers (Other Materials are available including: Cast Iron, Aluminum...etc.)

Material: Duplex Stainless Steel (Rare Alloy as per client's request)

Weights:

• Auxiliary Impeller A : 3 kg (Post Machining)

• Auxiliary Impeller B: 6 kg (Post Machining)

Manufacturing Method: Sand Casting, Machining and Balancing



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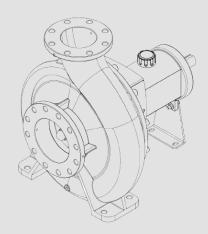


Pump Volute Casing

Description

Stainless Steel Slurry Pump Volute Casing (Other Materials are available including: Cast Iron, Aluminum...etc.)





Material: Duplex Stainless Steel (Rare Alloy as per client's request)

Weights: 100 kg (Post Machining)

Manufacturing Method: Sand Casting and Machining.





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Bearing Bracket





Description

Reverse Engineering of Stainless Steel Bearing Bracket

Material: Stainless Steel 304

Weights: 105 kg (Post Machining)

Manufacturing Method: Casting and Machining.

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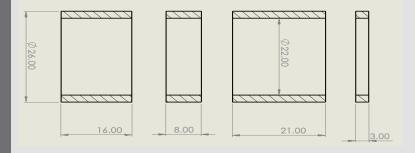
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Tungsten Carbide + Cobalt Bushings







Description

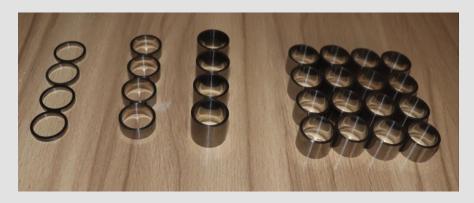
Tungsten Carbide + Cobalt pump bushings

Material: Tungsten Carbide

Customization: Customized dimensions and profiles are available upon

request

Manufacturing Method: Powder Metallurgy.



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Valves & Fittings

Description

MDC supplies a variety of fittings and connections, including Wall Thickness, Connection Types, Flanged Fittings, Socket Fittings, Dismantling Joint and a variety of valves as Gate Valve, Check Valve, Butterfly Valve, Ball Valve, and Globe Valve, designed to meet diverse needs for water and steam applications.





Key Features:

- Valves suitable for water or steam applications.
- Supports various applications including drainage and water systems.
- Includes boiler and steam valves.
- Operating pressures of PN 10 and PN 16.







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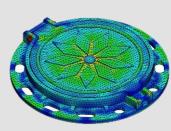
Ductile Cast Iron Access Cover

Code: DIAC B125 300 1 0001

Description: Ductile Cast Iron Access Cover

- Ø300 mm - Load B125 - Class B - Green color







Material: Ductile Cast Iron (GGG50)

Dimensions: Ø300 mm / Opening Angle: Up to 130°

Color: RAL 6018 - Yellow Green

Test Load:

• Complies with EN124 standard – B125 (12.5 Tons)

Footways, pedestrian areas and comparable areas, cark park or parking decks



Special Features:

- Mansoura 1 Presidential Palace Logo
- Fitted with tilted surfaces and slots for rain drainage
- Fitted with a non-removable Stainless-Steel hinge
- The Base is designed with 3 locking keys to be fitted to the polypropylene INSPECTION CHAMBER shown Above.

Installation:

- The pp Inspection Chamber is to be installed first
- The Cover is to be lowered horizontally into place with the three locking pins fitted correctly

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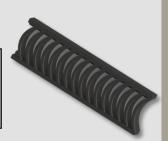


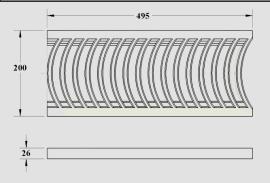
Ductile Cast Iron Linear Rain Drain

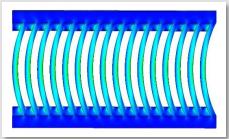
Code: DIRD C250 200 2 0001

Description: Ductile Cast Iron Frameless Linear Rain

Drain - 200 X 500 mm - Load C250 - Class C - Black







Material: Ductile Cast Iron (GGG50)

Dimensions: 200 X 495 X 26 mm

Color: Black Weight: 8.5 kg

Coating: Waterproof Bituminous Coating (Epoxy upon request)

Test Load:

Complies with EN124 standard – C250 (25 Tons)

Footways, pedestrian areas and comparable areas, cark park or parking decks



Special Features:

• Project's Logo could be added upon request

Installation:

- The frame is to be cleaned thoroughly from dust, oils and debris.
- The Cover is to be lowered horizontally into place

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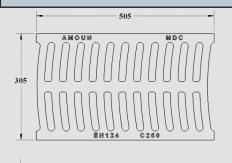


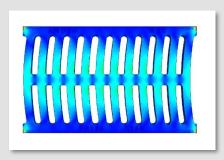
Ductile Cast Iron Linear Rain Drain

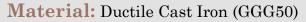
Code: DIRD C250 300 2 0002

Description: Ductile Cast Iron Frameless Linear Rain

Drain - 300 X 500 mm - Load C250 - Class C - Black







Dimensions: 200 X 495 X 26 mm

Color: Black Weight: 8.5 kg

Coating: Waterproof Bituminous Coating (Epoxy upon request)

Test Load:

• Complies with EN124 standard – C250 (25 Tons)

• Footways, pedestrian areas and comparable areas, cark park or parking decks



Special Features:

· Project's Logo could be added upon request

Installation:

- The frame is to be cleaned thoroughly from dust, oils and debris.
- The Cover is to be lowered horizontally into place

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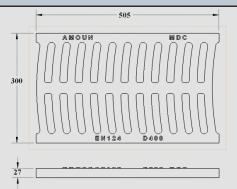


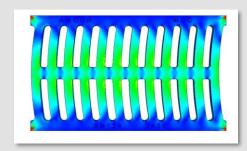
Ductile Cast Iron Linear Rain Drain

Code: DIRD C400 300 2 0003

Description: Ductile Cast Iron Frameless Linear Rain

Drain - 300 X 500 mm - Load D400 - Class D - Black





Material: Ductile Cast Iron (GGG50)

Dimensions: 305 X 505 X 27 mm

Color: Black

Coating: Waterproof Bituminous Coating (Epoxy upon request)

Test Load:

• Complies with EN124 standard – D400 (40 Tons)

• Carriage ways of roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles



Special Features:

• Project's Logo could be added upon request

Installation:

- The frame is to be cleaned thoroughly from dust, oils and debris.
- The Cover is to be lowered horizontally into place

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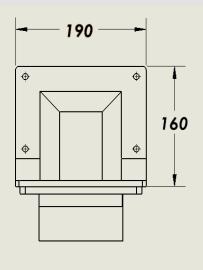
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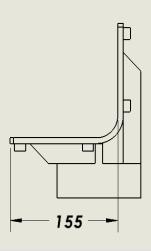


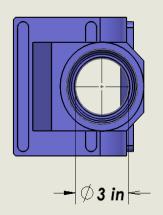


3-inch Cast Iron Side Drain

Code: GIAC D400 420 1 0002







Description: 3-inch Cast Iron Side Drain with a 304 stainless steel grating

Material: Grey Cast Iron + 304 stainless steel

Dimensions: A x A : 560 * 520

B x B : 420 * 420

H : 100

Paint : Epoxy
Test Load:

- Class D400 in compliance with EN 124 Hard shoulders and parking Areas.
- light weight, heavy duty and hinged.



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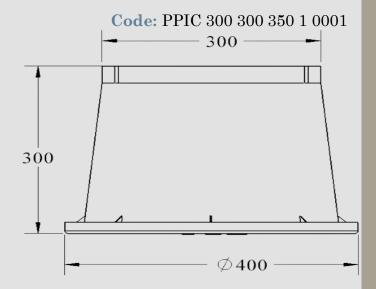
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Polypropylene Inspection Chamber





Description

Copolymer Polypropylene Inspection Chamber – $\emptyset 300 \text{ mm}$ - Black

Material: Copolymer Polypropylene Plastic Dimensions: Ø300 mm / Height: 300 mm Color: Black (Available at any color)





Key Features:

- Tough and flexible material to withstand sudden impacts
- A sturdy base and slanted silhouette for proper fixation
- Three locking key holes for a Ductile Cast Iron Access Cover to be installed on

Installation:

- The earth is to be excavated to a suitable depth
- Soil is compacted and levelled
- · Chamber is placed and buried

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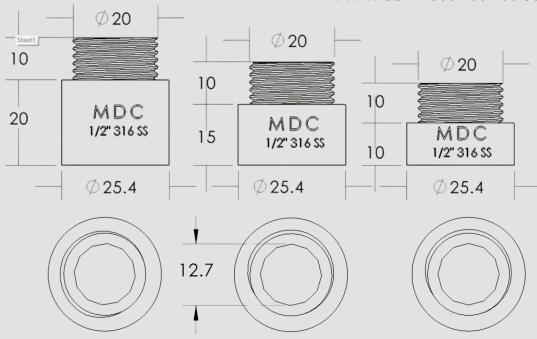
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Stainless Steel ½" Lengthening Bushing Kit

Code: SSLB 500 200 250 300 1 0001



Description: Stainless Steel Water Lengthening Bushing Kit – ½" – Silver

Material: Grey Cast Iron + 304 stainless steel

Dimensions: A x A : 560 * 520

B x B: 420 * 420

H:100

Paint: Epoxy **Test Load:**

- Class D400 in compliance with EN 124 Hard shoulders and parking Areas.
- light weight, heavy duty and hinged.



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Cement products

Description

MDC manufactures a diverse range of cement-related products, including Boltless Lifter Classifier Liner Plate, Wet Process Liner Plate, Cooler Plate and other products

Mining Parts

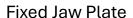














Svedala Crusher Hammer

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Cement Parts



Boltless Lifter Classifier Liner Plate



Cooler Plate



lifter liner plate



Diaphragm Plate

Construction Parts



Mixer Blade











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Polyurethane products

Description

MDC manufactures a range of high-quality rubber and polyurethane products, including industrial rollers and custom components, designed for various applications in manufacturing and industrial sectors













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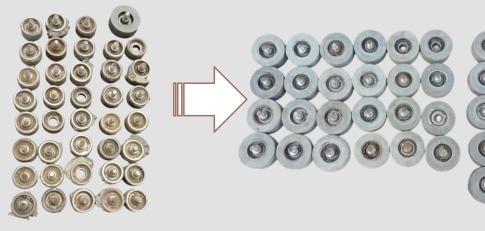
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Roller (Rubber / Polyurethane)

Code: RP 150 15 20 1 0001



Description: industrial rollers manufactured using either rubber or polyurethane, depending on client specifications. The hardness is measured and adjusted to meet the specific requirements of each application.

Material: Rubber or Polyurethane

Dimensions: OD 150mm, Thickness 20mm, Width 15mm











Key Features:

- Made from high-quality rubber or polyurethane for durability and flexibility.
- Customizable hardness levels based on client needs (measured via Shore hardness scale).
- Designed for specialized industrial uses tailored to client specifications.
- Easy to integrate into various machinery.

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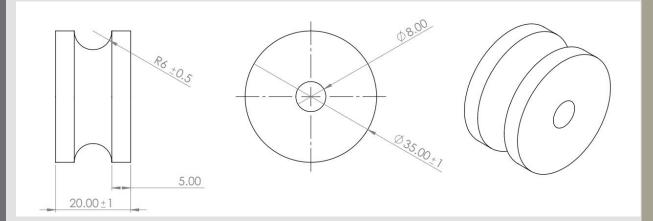
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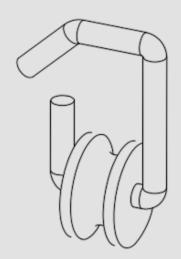


Rubber Wheel

Code: NRH 500 20 35 8 0001



Description: Natural Rubber Wheel for Fan Hock 8mm



Material: Natural Rubber

Dimensions: Outer Diameter: 35 mm

Inner Diameter: 8 mm

Width: 20 mm

Color: Black

Hardness: 60 Shore A



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Metal Balance Weight

Code: MBW 35 83 29 1 0001

Description

Metal balance weight, made from cast iron, provide stability or counterbalance in machinery or equipment.





Material: Gray cast Iron Dimensions: 35*83*29 mm

Hole Diameter: 5 mm

Weight: 470±10 gram



Key Features:

- Durable cast iron coated with anti-rust spray.
- Customizable shape and size to fit specific machinery requirements.
- Mounting holes for secure attachment.
- Meet precise weight specifications for balancing applications.





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Plastic Balance Weight

R48

10 ±

16.1 ±0.4

±0.5

33 ±2

2 holes Ø 5*0.3 20 ±2

Code: PBW 80 19 38 1 0001

17 ±2

40 ±2

40 ±2

(5 ±0.3)

R48

38 ±2

5 ±0.3

Description

a plastic balance weight, molded then injected from a durable plastic material, designed to provide stability or counterbalance in machinery or equipment.

Material: Composite Plastic Dimensions: 80* 38*19 mm,

Hole diameter: 5 mm Weight: 92:102 gram

Special Features:

- Made from polypropylene plastic for long-lasting performance.
- Customizable shape and size to fit specific machinery requirements.
- Features a mounting hole for secure attachment.
- Designed to meet precise weight specifications for balancing applications.



(70,4 ±0.3)







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Car Robot

Code: CR 26 15 1 0001





Description

A Robot Platform is a versatile mobile robot platform that uses four gear motors and four wheels to move around. It's often used in robotics projects for tasks like navigation, object manipulation, and exploration.

Material: Aluminum 1050 Dimensions: 26 cm * 15 cm

Key Features:

- Customizable design with multiple mounting holes for attaching sensors, cameras, or other components.
- Supports a wide range of robotics applications, including autonomous navigation and payload handling.
- Compact and lightweight frame for easy integration into different project setups.

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