

BUILD TO PRINT



- PRECISION MACHINING**
- ALL TYPES OF CASTING**
- FORGING**
- SHEET METAL FABRICATION**
- PLASTIC INJECTION MOULDING**

Welcome to Raychem RPG

Raychem RPG (P) Ltd., incorporated in 1989, is a 50:50 Joint Venture between TE Connectivity, U.S.A. and RPG Enterprises, India. It is one of the longest running successful joint ventures in India for over 36 years.

Built on foundation of trust and traditions, Raychem RPG is involved in engineering solutions and services. Pioneering smart products and technologies, the company caters to the infrastructure segment of multiple business industries.



OUR VISION

Reliable Connections. Always...

Whether powering a home or enabling a sector or energizing an industry, our products and solutions form an integral part of systems and play a vital role in shaping the daily lives and driving progress for communities and nations. With each product and solution, we pave the path for a better future.

OUR MISSION

To deliver exceptional value to all stakeholders by fostering collaboration, agility and innovation

We will prioritize collaboration, agility, and innovation as core values. It implies a commitment to delivering exceptional value to stakeholders through a culture of trust & commitment, teamwork, adaptability, and innovation.



CORE VALUES



Focus on Customers
Customer-first approach drives our business success.



Transparency
Communicate openly and demonstrate integrity in all activities.



Stakeholder Appreciation
Develop a committed and responsive community of Employees, Distributors and Vendors.



Performance Recognition
Demonstrate passion for performance through anticipation, speed and flexibility.




Rewarding Growth
Embrace growth and productivity through innovation and entrepreneurship.



Sustainability
Protect the environment and contribute to the society around us.

FUTURE IS IN SMART ENGINEERING



Comprehensive knowledge and learning in design and engineering over the last three decades have helped us set up a strong technical base and offer contemporary products that are on par with international quality and reliability.

Based on the feedback of customers like you, our team of 50+ design engineers continuously researches on improvement and unexplored ideas in material science, electrical design and industrial product engineering.

This enables us to identify gaps in the marketplace and offer you new, innovative products. Unique differentiation in products, achieved through innovation, adds to our knowledge bank. These are protected through continuous filing of Intellectual Property, and help maintain our leadership position in the market.

For you, this means embracing the latest technology.

FUTURE IS IN SMART MANUFACTURING FACILITIES



Halol Plant | 23 Acres



Vasai Plant | 04 Acres



Chakan Plant | 11 Acres



Naigaon Plant | 2.5 Acres

We have state-of-the-art manufacturing facilities at four locations in India (Vasai, Naigaon, Halol and Chakan). With strong capability in lean manufacturing operations results in an optimised and cost-effective products.

RRL manufactures a wide range and variety of products at these facilities using conventional as well as contemporary processes and exclusive material including packaging items, which are environment friendly.

We have implemented smart manufacturing practices like integrated workstations, error-free assembly and streamlined techniques of production. Adoption of internationally acclaimed tools and techniques, combined with automation and digitization at each stage of manufacturing ensures

high level of productivity, quality, reliability, safety and morale. As a testimony to our disciplined and structured working as well as self-reliance, each of our manufacturing facilities is certified for their continued compliance to international standards like ISO 9001, ISO 14001, and OHSAS 18001 for the Quality, Environment, Health and Safety Management Systems respectively. Besides, these facilities have been certified for ISO 50001 and ISO 27001 for their Energy and Information Security Management Systems.

For you, this means international quality products.

**50:50 Joint Venture
Together for over 36 years!**



•US\$ ~16 Bn Revenue



•US\$ ~4 Bn Revenue

GLOBAL PRESENCE



POLAND FACILITY

- RRL sp zoo a 100% wholly owned
- ISO 9001:2015 Certified



PRECISION MACHINING

Production Capacity

- Machine Types: 3-axis, 4-axis, 5-axis CNC milling, CNC turning
- Workpiece Size Range: From small precision parts (1mm) to large components (up to 2000mm)
- Batch Size: Suitable for small, medium, and high-volume production
- Machining Speed: Up to 12,000 RPM (depending on material and tooling). 100+ machine to scale up production



Quality & Tolerances

- Dimensional Accuracy: $\pm 0.005\text{mm}$ to $\pm 0.02\text{mm}$ (depending on material and complexity)
- Surface Flatness: Within 0.01mm over 100mm area
- Roundness & Cylindricity: $\pm 0.01\text{mm}$
- Inspection Methods: CMM (Coordinate Measuring Machine), Optical Inspection, Laser Scanning, Hardness Testing
- Standards & Certifications: ISO 9001, ISO 13485 (for medical), RoHS.



Surface Finish & Post-Processing

- Surface Roughness:
 - Milling: Ra 0.4 - 3.2 μm
 - Turning: Ra 0.8 - 3.2 μm
 - Grinding & Polishing: Ra 0.1 - 0.8 μm
- Post-Processing Options: Anodizing, Powder Coating, Electroplating, Heat Treatment, Passivation, Laser Engraving
- Custom Finishing: Mirror polish, sandblasting, matte finishing



Material Compatibility

- Metals:
 - Aluminum Alloys: 6061, 7075, ADC12
 - Steel & Stainless Steel: SS304, SS316, Mild Steel, Tool Steel
 - Titanium & Alloys: Grade 2, Grade 5 (Ti-6Al-4V)
 - Copper & Brass: C110, C360, Bronze
 - Magnesium & Alloys: AZ31, AZ91
- Plastics & Composites:
 - Engineering Plastics: PEEK, Nylon, Delrin (Acetal), ABS, PTFE (Teflon)
 - Carbon Fiber & Fiberglass Composites



SHEET METAL FABRICATION

Production Capacity

- Sheet Thickness Range: 0.5mm – 25mm
- Maximum Sheet Size: Up to 4000mm x 2000mm
- Production Rate: High-speed processing for large volumes
- Batch Size: Suitable for prototyping, small batches, and mass production
- Fabrication Techniques: Laser Cutting, CNC Punching, Bending, Welding, Stamping, Rolling, Forming



Quality & Tolerances

- Dimensional Accuracy: $\pm 0.05\text{mm}$ to $\pm 0.5\text{mm}$ (depending on process)
- Flatness Tolerance: $\pm 0.2\text{mm}$ per meter
- Hole Position Accuracy: $\pm 0.1\text{mm}$
- Welding Quality: AWS D1.1, ISO 3834 certified standards (if applicable)
- Inspection Methods: CMM, Ultrasonic Testing, Hardness & Tensile Testing

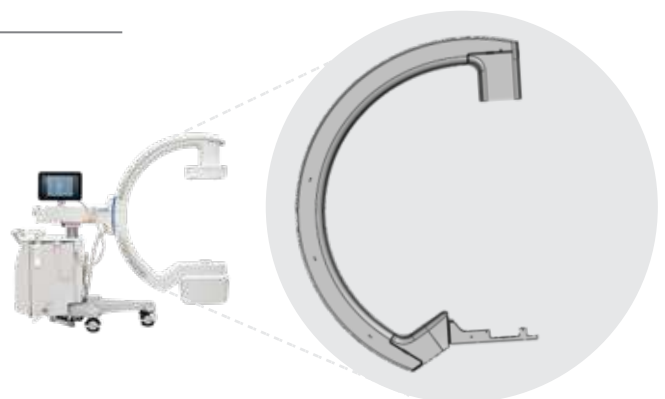


Surface Finish & Post-Processing

- Surface Roughness: $R_a 0.8 - 6.3 \mu\text{m}$ (depending on material & finish)
- Standard Finishes: Brushed, Polished, Matte, Textured
- Post-Processing Options: Powder Coating, Anodizing, Galvanizing, Electroplating, Painting
- Custom Finishes: Bead Blasting, Heat Treatment, Passivation

Material Compatibility

- Mild Steel (MS): CRCA, HRPO, Galvanized
- Stainless Steel (SS): SS304, SS316, SS430
- Aluminum Alloys: 5052, 6061, 7075
- Copper & Brass: C110, C360
- High-Strength Alloys: Titanium, Inconel, Hastelloy



FORGING

Production Capacity

- Process Types: Open-Die Forging, Closed-Die Forging, Drop Forging, Upset Forging, Ring Rolling
- Forging Weight Range: 100g – 5000kg (varies by process)
- Forging Part Size: Small to large industrial components
- Production Rate: High-volume or custom parts for low to medium volumes

Quality & Tolerances

- Dimensional Accuracy:
 - Open-Die Forging: $\pm 0.5\text{mm}$ to $\pm 2\text{mm}$
 - Closed-Die Forging: $\pm 0.05\text{mm}$ to $\pm 0.5\text{mm}$
- Flatness Tolerance: $\pm 0.2\text{mm}$ per 100mm

Surface Finish & Post-Processing

- Surface Roughness:
 - Ra 1.6 – 6.3 μm (depending on material & finish)
- Post-Processing Options:
 - CNC Machining Shot Peening
 - Heat Treatment Surface Coating

Material Compatibility

Ferrous Metals:	
Carbon Steel (C45, 1045)	Alloy Steel (4140, 4340)
Tool Steel (H13, D2)	Stainless Steel (SS304, SS316)
High-Strength Steels	

Non-Ferrous Metals:	
Aluminum Alloys (6061, 7075)	Brass, Bronze
Titanium Alloys (Ti6Al4V)	Nickel Alloys



CASTING

Production Capacity

- Process Types: Sand Casting, Investment Casting, Pressure Die Casting, Gravity Die Casting
- Casting Weight Range: 50g - 5000kg (varies by process) 8kg for pressure die casting
- Wall Thickness: Minimum 2mm (Investment Casting), 4mm (Sand Casting)
- Machine Tonnage: 80T - 1000T for PDC
- Production Rate: Up to 200 shots per hour (depending on complexity)
- Batch Size: Suitable for low to high-volume production



Quality & Tolerances

- Dimensional Accuracy:
 - Sand Casting: $\pm 0.5\text{mm}$ to $\pm 5\text{mm}$
 - Investment Casting: $\pm 0.1\text{mm}$ to $\pm 0.3\text{mm}$
 - Pressure Die Casting: $\pm 0.02\text{mm}$ to $\pm 0.1\text{mm}$
- Flatness Tolerance: $\pm 0.2\text{mm}$ per 100mm
- Inspection Methods:
 - X-ray Inspection
 - Ultrasonic Testing
 - Dye Penetrant Testing
 - CMM (Coordinate Measuring Machine)



Surface Finish & Post-Processing

- Surface Roughness:
 - Sand Casting: Ra 6.3 - 25 μm
 - Investment Casting: Ra 1.6 - 6.3 μm
 - Pressure Die Casting: Ra 1.6 - 3.2 μm



Common defects and prevention" header required for table

Defect	Causes	Prevention Measures
Porosity	Gas entrapment, shrinkage	Vacuum casting, proper gating design
Cold Shut	Low metal temperature	Controlled pouring, optimized alloy composition
Shrinkage	Insufficient feeding of metal	Proper riser design, controlled cooling
Surface Roughness	Poor mold quality	High-quality sand/resin, precision molds
Cracks	Thermal stress	Gradual cooling, proper heat treatment
Flash Formation	High injection pressure	Precise die maintenance & trimming
Die Soldering	Metal adhesion to mold	High-quality die coatings & cooling control

Material Compatibility

- Ferrous Metals:
 - Cast Iron (Gray, Ductile, Malleable)
 - Carbon Steel & Alloy Steel
 - Stainless Steel (SS304, SS316, SS420)
- Non-Ferrous Metals:
 - Aluminum Alloys (A356, A319, ADC12)
 - Zinc Alloys (ZAMAK 3, ZAMAK 5)
 - Copper Alloys (Brass, Bronze)
 - Magnesium Alloys



Furnace & Melting Process

Parameter	Details
Furnace Type	Induction, Cupola, Electric Resistance, Gas-Fired
Melting Temperature	Steel: 1500°C, Aluminum: 660°C, Iron: 1400°C
Degassing & Filtration	Used for high-purity metal casting





OFFICE

HEAD OFFICE

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