

Worldwide CNC Solutions, Local Dedication

Precision engineering, reverse manufacturing, and rapid supply for the MENA region's heavy industries.

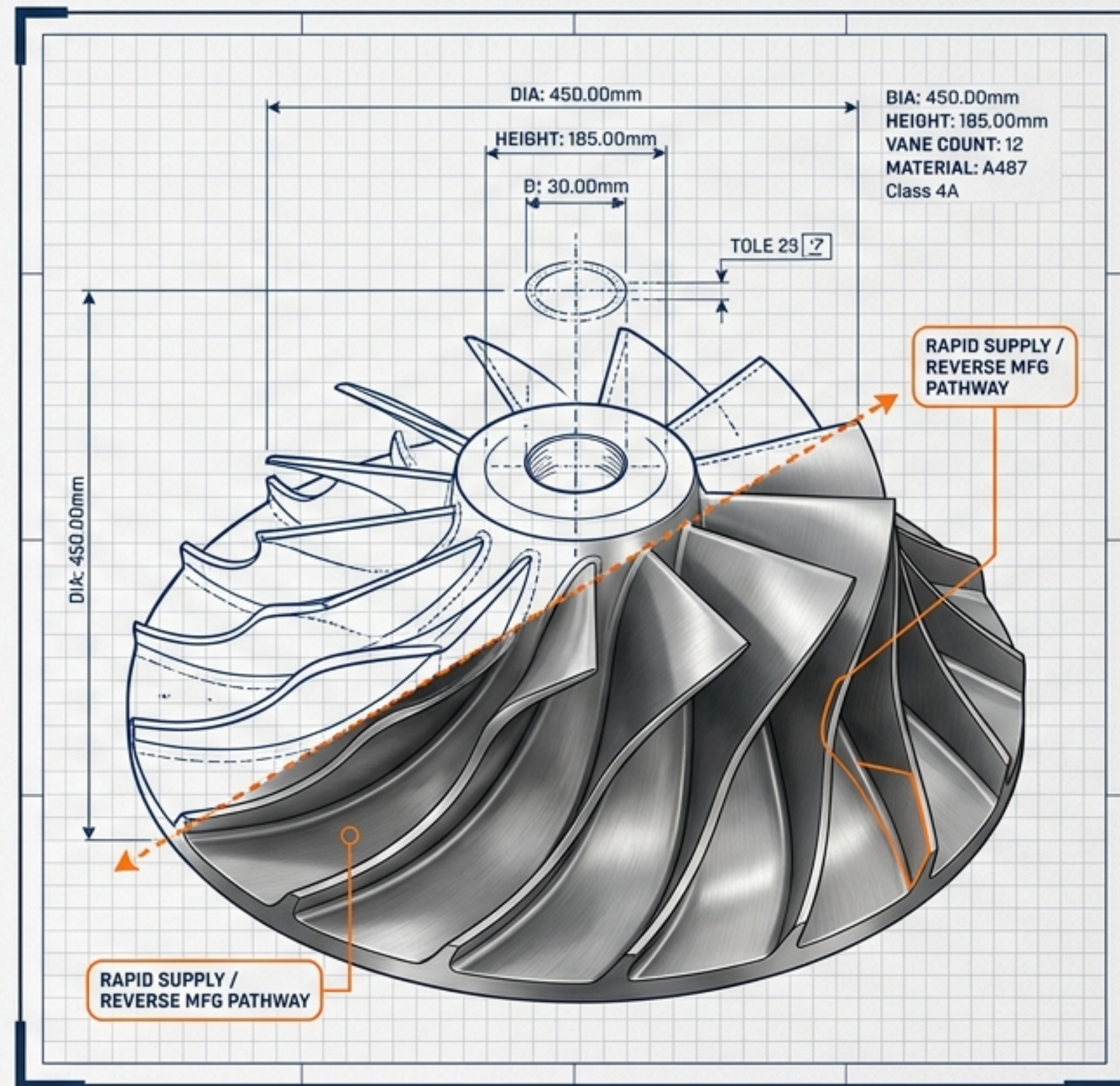
- Engineered for
- Oil & Gas,
- Petrochemicals,
- Power
- Generation,
- and Marine.

Engineering and metrology expertise for precision and reliability.

Engineered solution for deconstruction and complex regions and heavy industries.

Proven process and consistent manufacturing, and enhanced heavy consumers.

Provide high comprehensive of solutions, manufacturing, rotating rotor, and Marine.



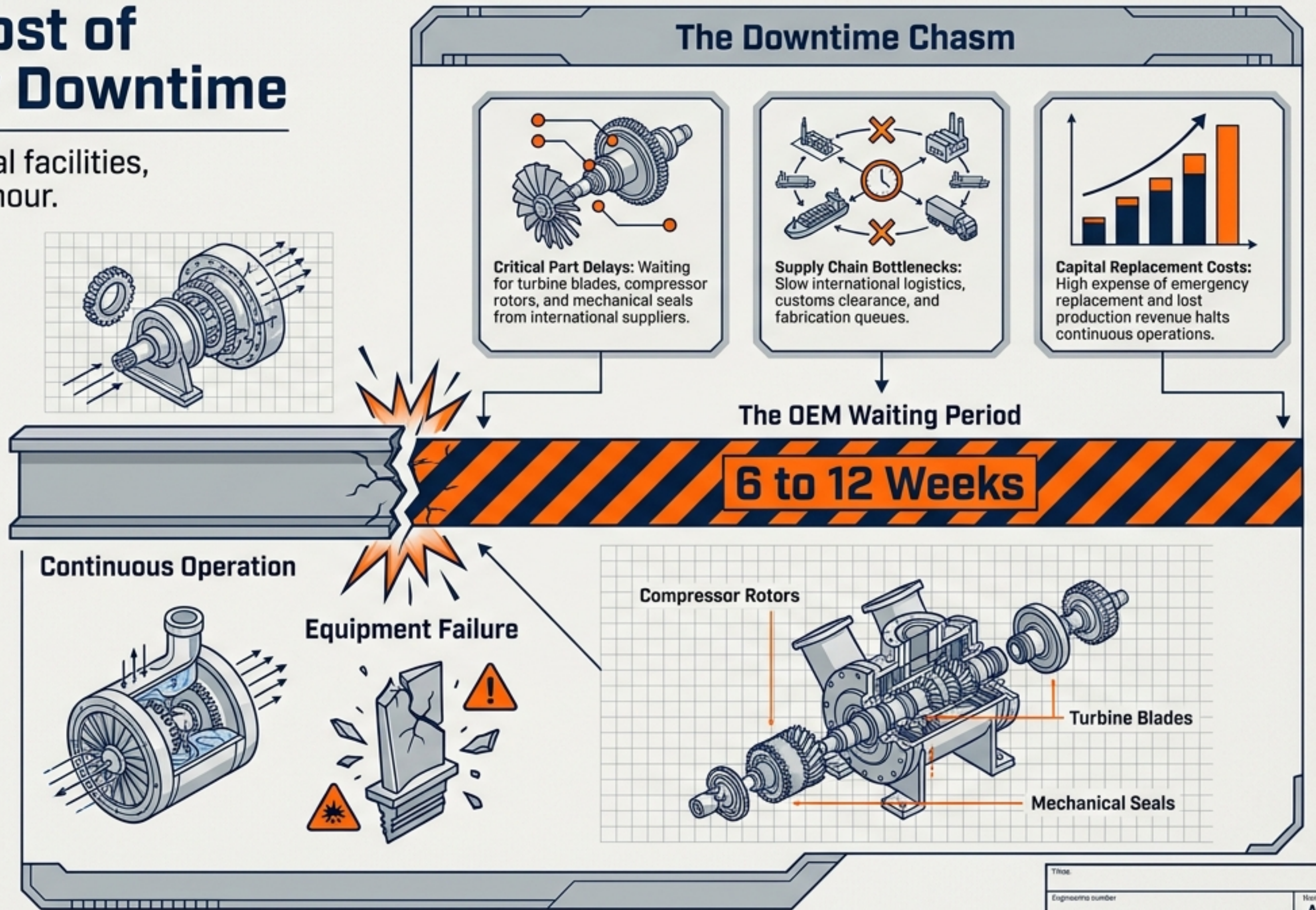
The Extreme Cost of Heavy Industry Downtime

In Oil & Gas and Petrochemical facilities, downtime costs millions per hour.

The OEM Waiting Period

6 to 12 Weeks

Relying on international OEM supply chains means waiting 6 to 12 weeks for critical replacement parts like turbine blades, compressor rotors, or mechanical seals. Capital replacement is slow, expensive, and halts continuous operations.

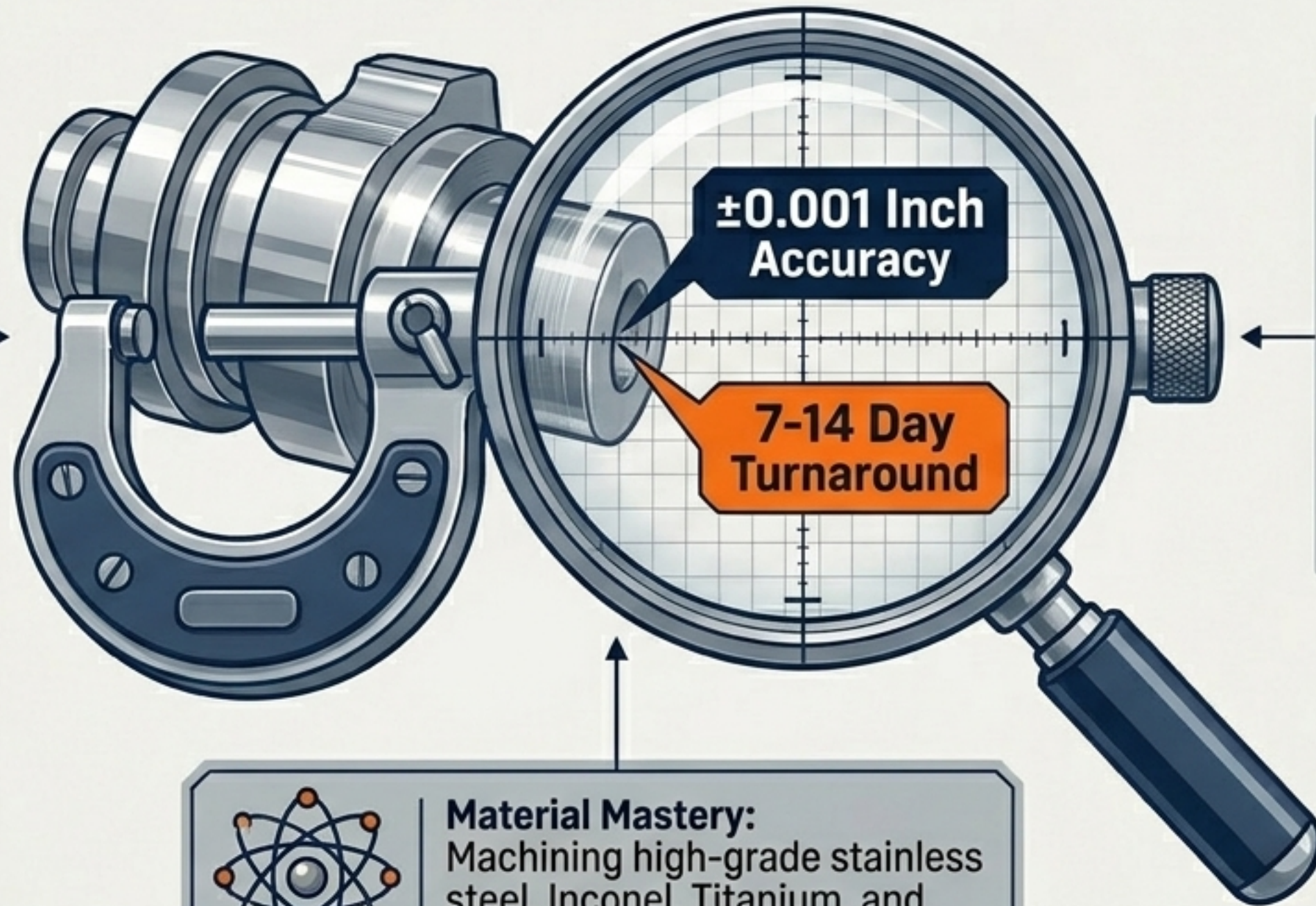


The Tech-Land Advantage: Precision Meets Proximity


We deliver global OEM-quality CNC machining with localized MENA speed, eliminating the international supply chain bottleneck.



Advanced Manufacturing:
State-of-the-art CNC, 3D scanning, and CAD/CAM optimization.



MENA Accessibility:
Delivery in 7-14 days, with 24-48 hour dispatch for emergency AOG-equivalent breakdowns.



Material Mastery:
Machining high-grade stainless steel, Inconel, Titanium, and specialized alloys.

Title:	
Engineering number:	1001 2
Document No: HETM-ENG-001 Rev. A Date: OCT 5054	

An Ecosystem of Industrial Reliability

Consult & Design

3D scanning, CFD/FEA modeling, and API/ASME compliance audits. Energy savings up to 20%.



Fabricate & Machine

Precision CNC machining of impellers, shafts, and valves using modern technology.



Supply & Distribute

10,000+ SKUs stocked in UAE/Saudi/Qatar depots, ensuring 95% on-time delivery rates.



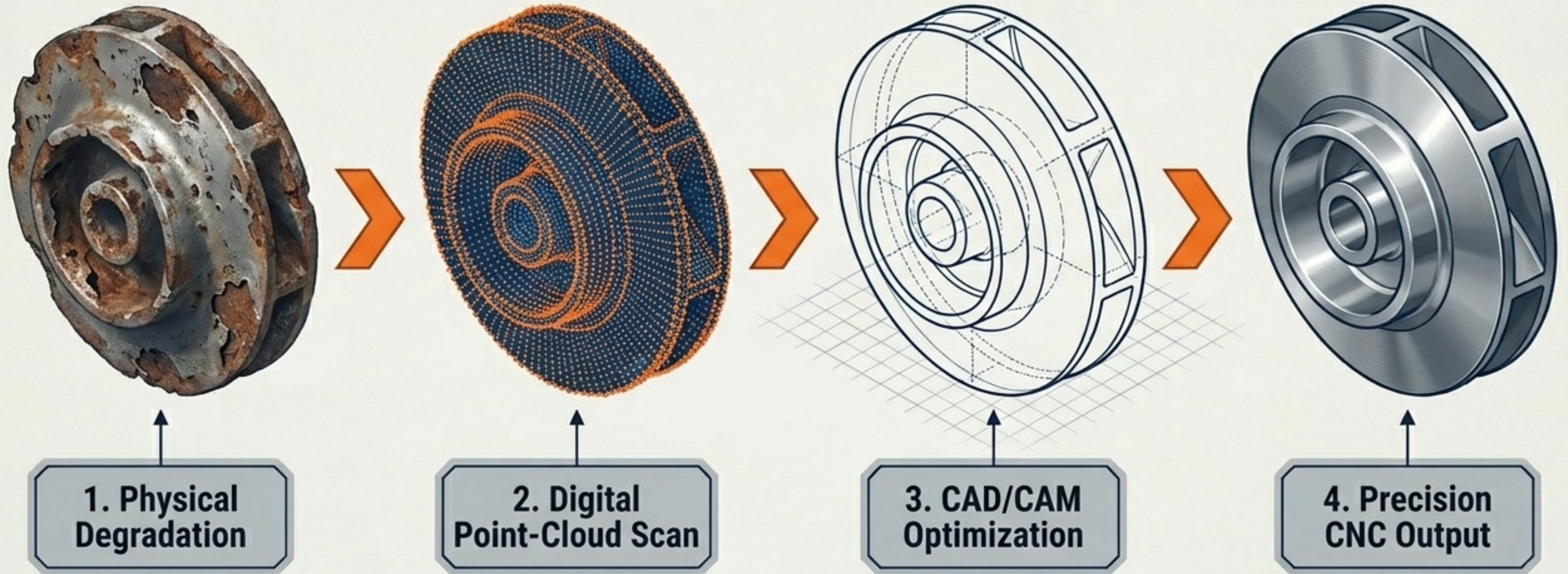
Repair & Remanufacture

GTAW welding, HVOF thermal spray coatings, and dynamic balancing. Extends life by 50-100%.



Resurrecting Legacy Equipment

We replace obsolete or discontinued components. Through precision 3D measurements and CAD/CAM optimization, we manufacture bespoke parts that match or exceed original OEM specifications.



Engineered for Every Node of Your Operation

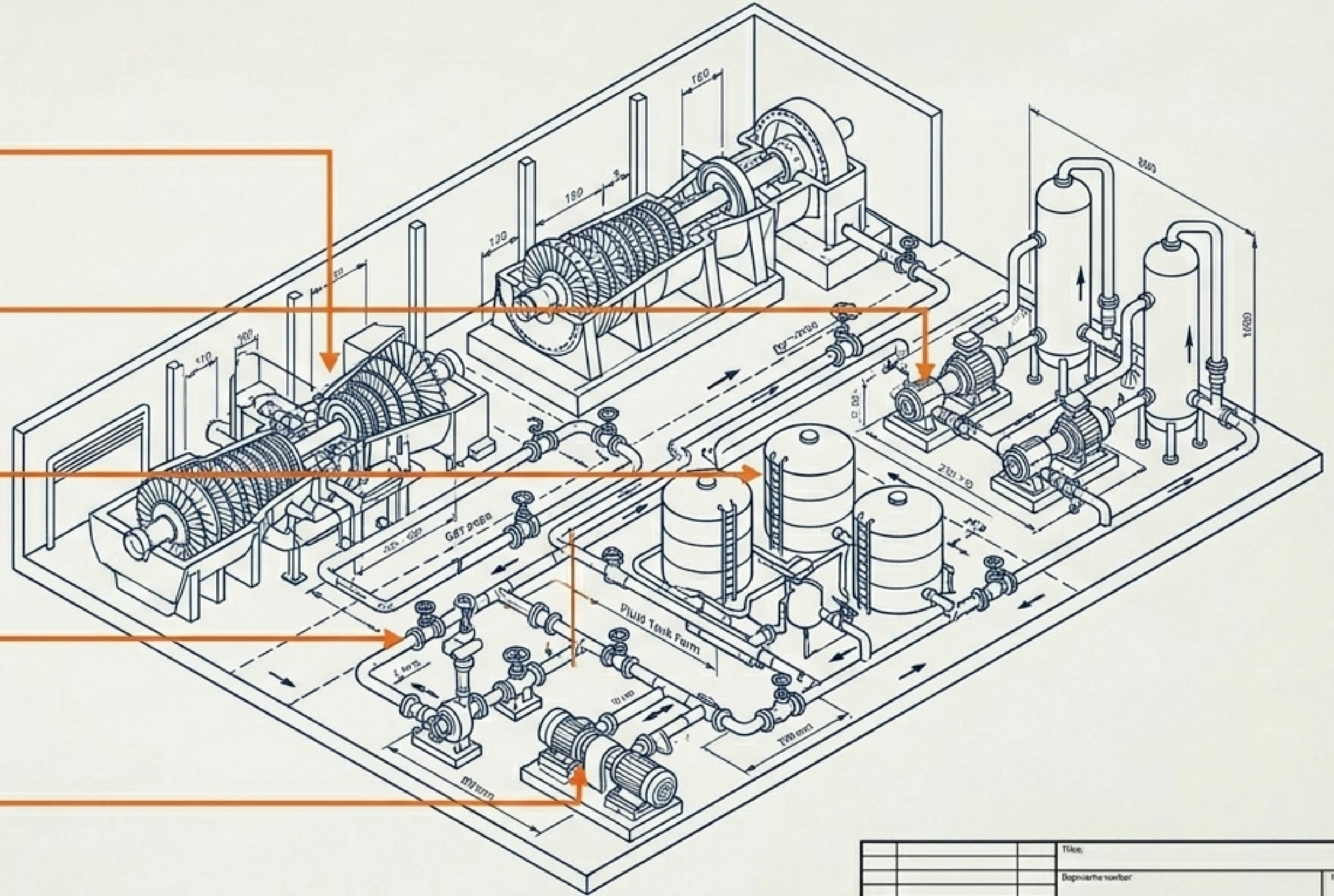
Power Generation:
CNC Turbines (Steam & Gas)

Gas Processing:
CNC Compressors
(High-pressure systems)

Fluid Transfer:
CNC Industrial Pumps
(Vacuum, Coolant, Hydraulic)

Flow Regulation:
Industrial Valves
(Isolation & Control)

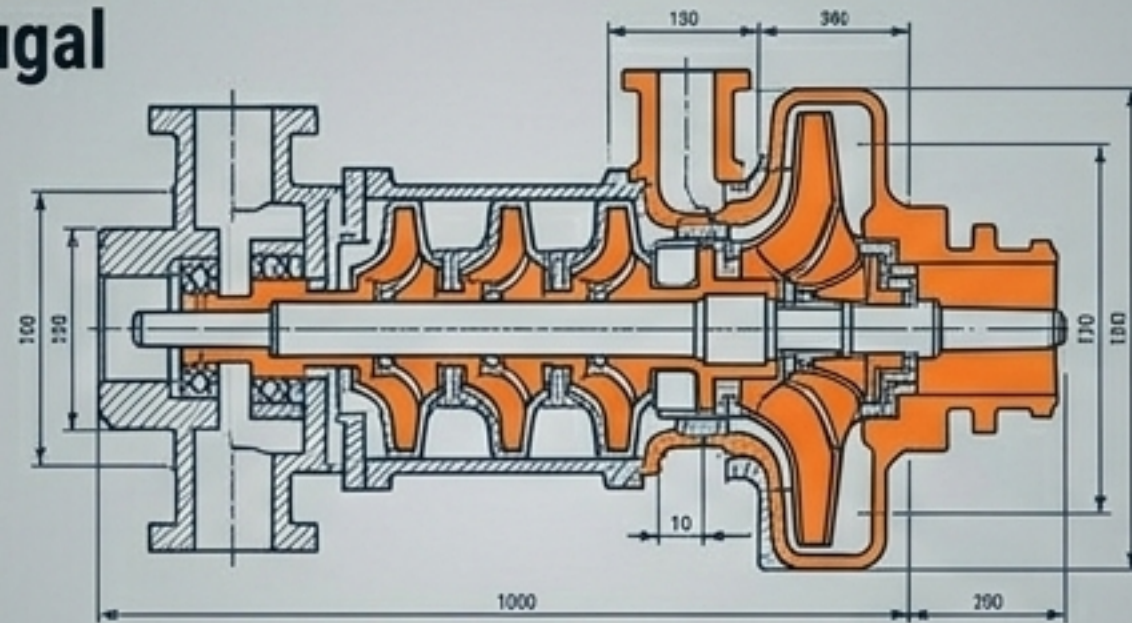
Pressure Containment:
Mechanical Seals
(Shaft interfaces)



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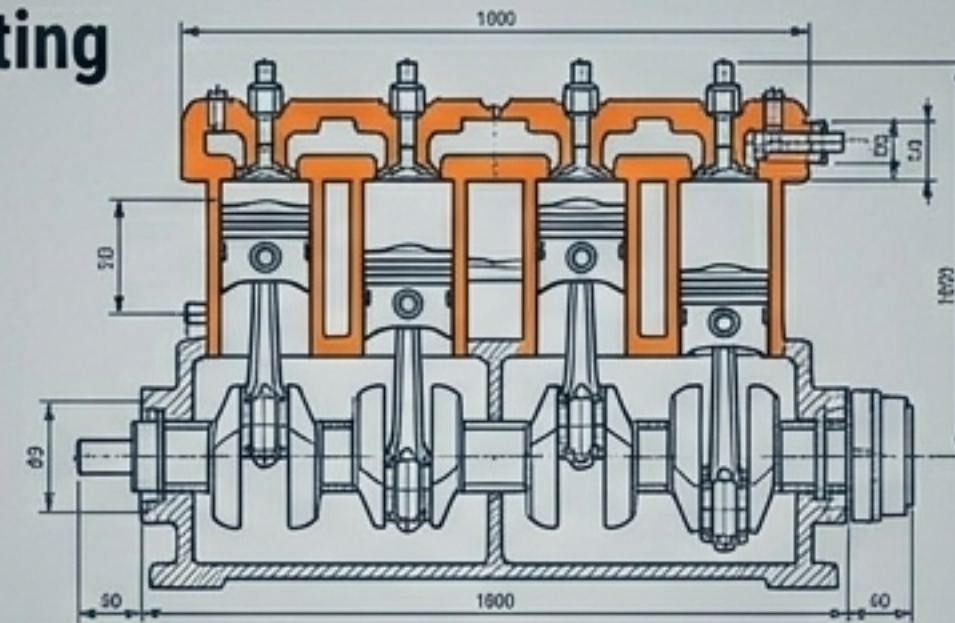
CNC Compressors: Restoring Pressure & Flow

Centrifugal



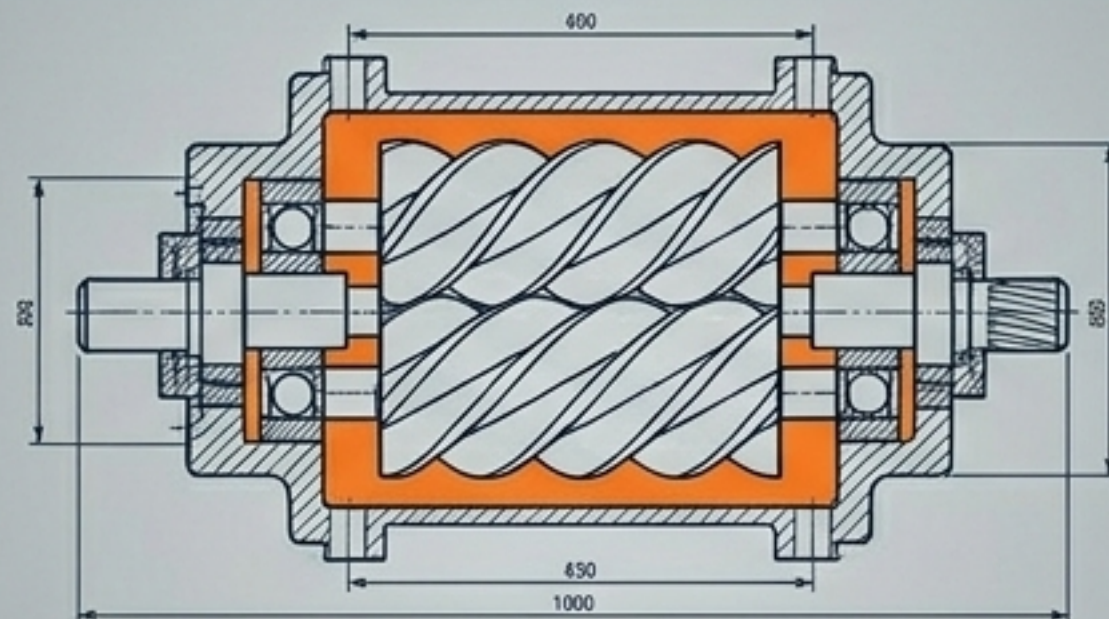
CNC-machined impellers, shafts, and housings for continuous, large-volume petrochemical and power generation operations.

Reciprocating



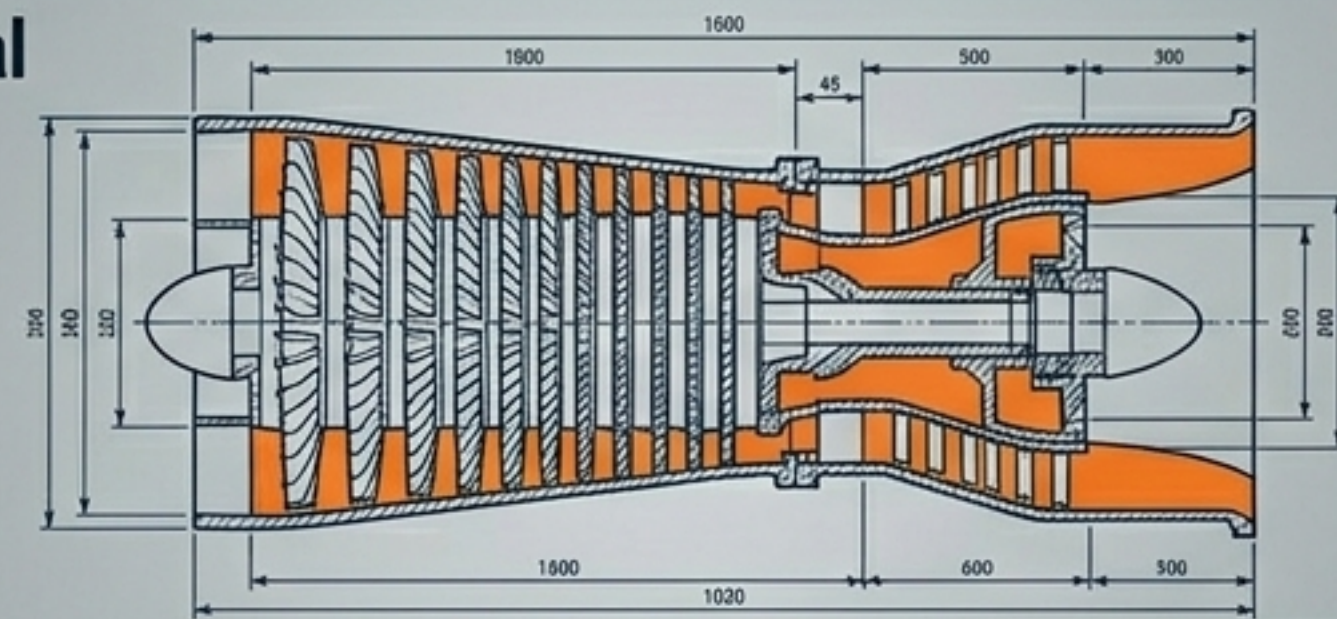
High-accuracy cylinder heads, pistons, and connecting rods for high-pressure gas pipelines.

Screw



Precisely machined helical rotors ensuring low vibration and high efficiency for industrial air systems.

Axial

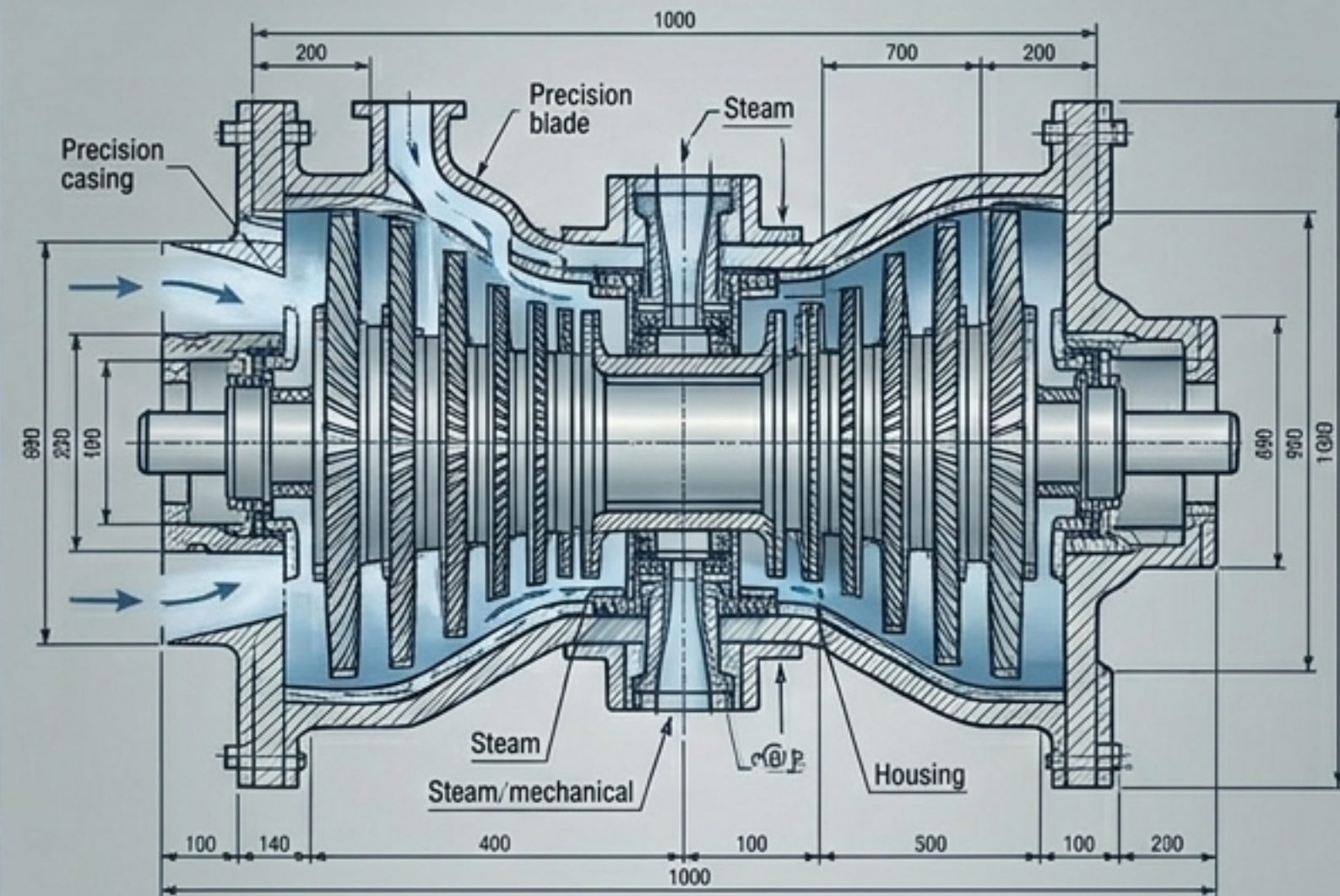


Precision blades, discs, and casings designed for high airflow capacity in gas turbines and aviation.

CNC Turbines: Driving Heavy Power Generation

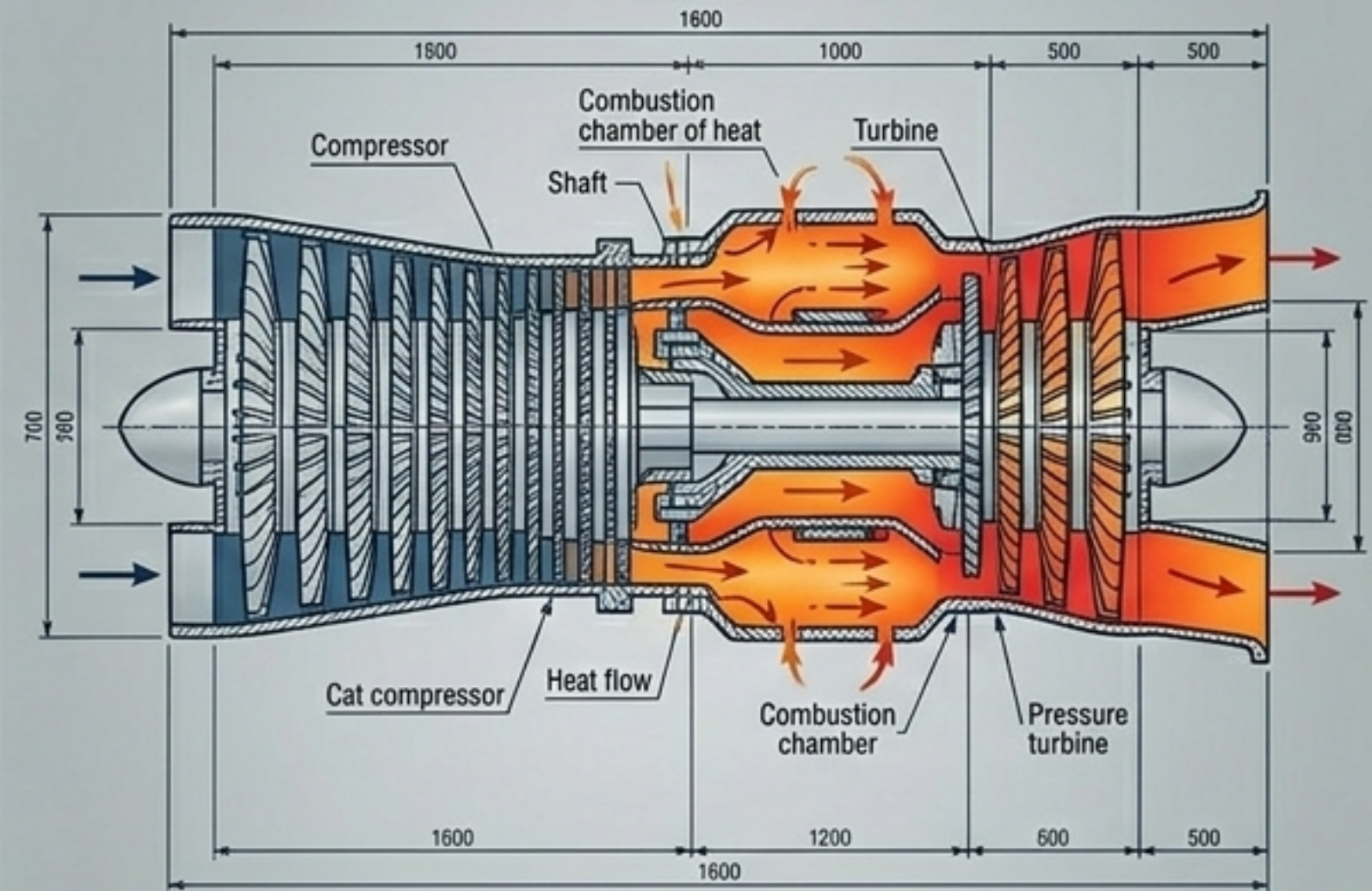
Manufacturing and repairing blades, rotors, shafts, and casings that maintain **structural integrity** under extreme **velocity**, pressure, and operational temperatures.

Steam Turbines



Transforming steam heat into electrical/mechanical power for manufacturing and power plants.

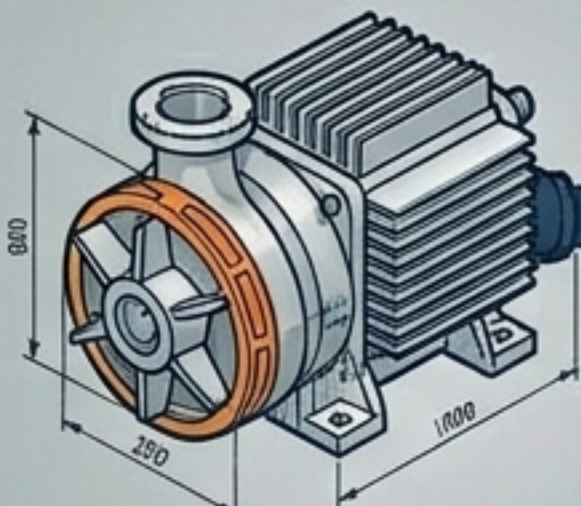
Gas Turbines



Utilizing high-pressure gas for rotational force. Supported by specialized gas turbine maintenance and overhaul services in Dubai.

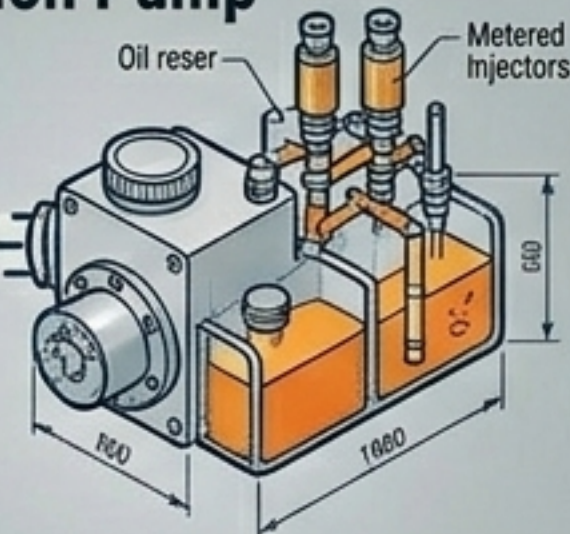
Industrial CNC Pumps: Precision Fluid & Pressure Control

Coolant Pump



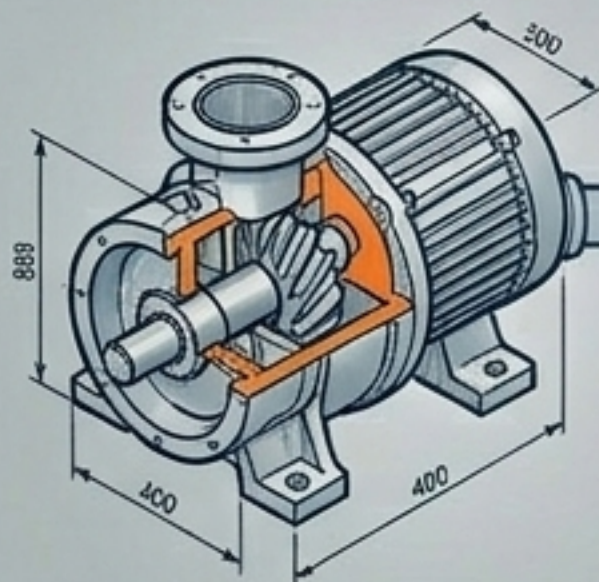
Coolant Pumps: Circulate fluid to remove heat from cutting zones, preventing tool overheating and extending lifespan.

Lubrication Pump



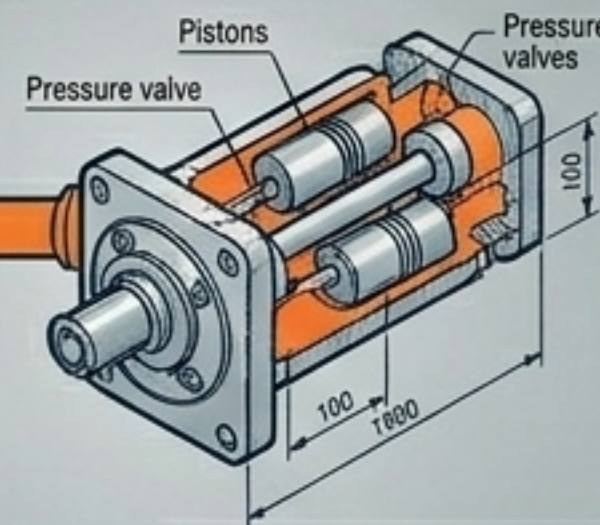
Lubrication Pumps: Deliver oil to moving components, minimizing friction and protecting against mechanical wear.

Vacuum Pumps

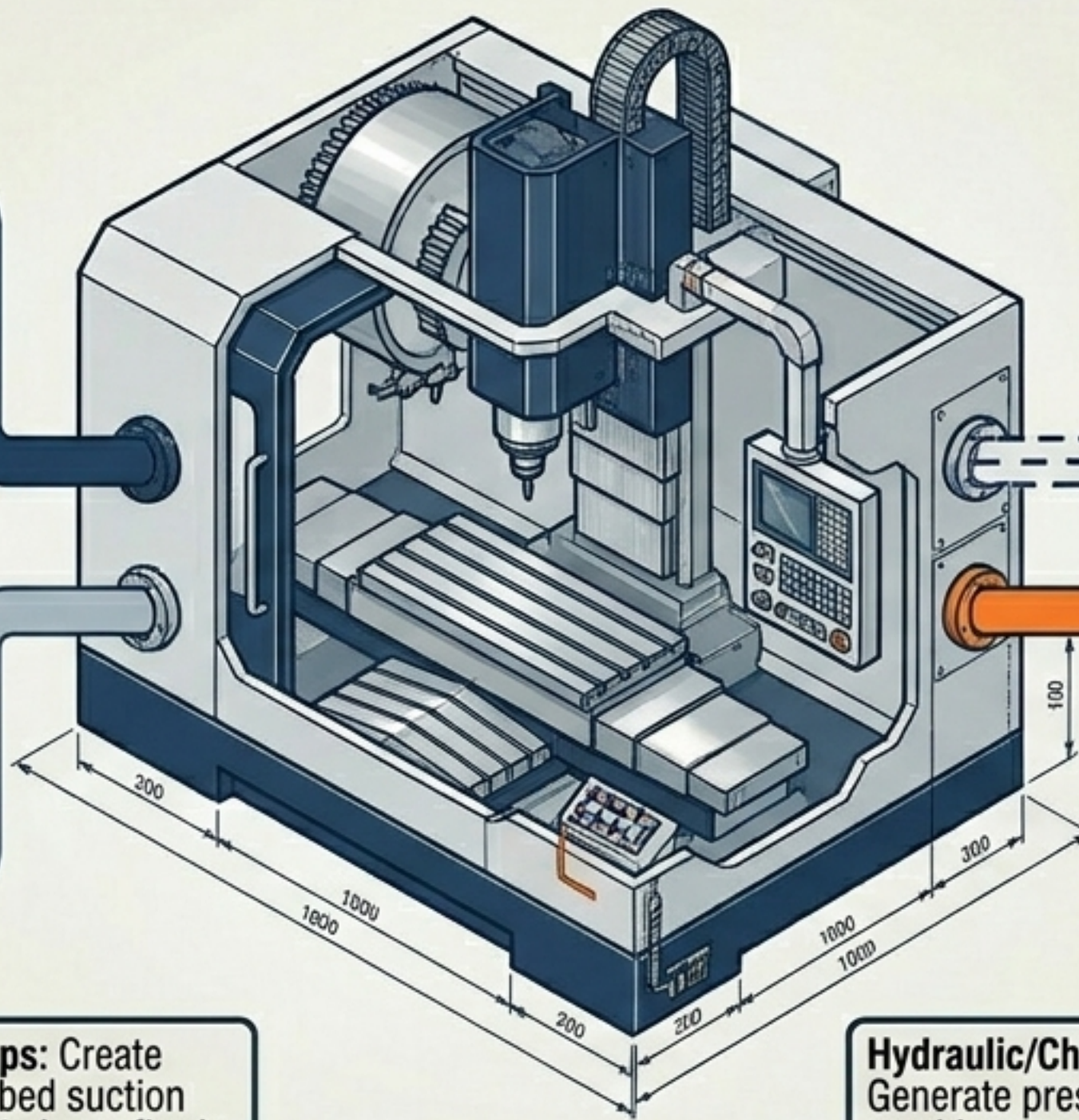


Vacuum Pumps: Create intense table/bed suction to secure workpieces firmly during high-precision routing and milling.


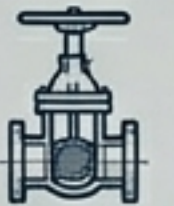

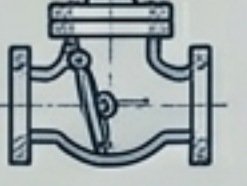

Hydraulic/Charge Pump



Hydraulic/Charge Pumps: Generate pressure for heavy machine movements, tool changers, and fail-safe pressure maintenance.



CNC Industrial Valve Selector

Valve Type	Primary Function	Ideal Application	CNC Components
 Ball Valve	Quick shut-off	Flow control with minimal pressure drop	CNC machined balls, trims
 Gate Valve	On/Off isolation	Full flow in main pipelines	Wedges , precision stems
 Globe Valve	Precise regulation	Accurate flow throttling	Valve seats , customized discs
 Check Valve	Backflow prevention	Unidirectional safety systems	Flaps , internal sealing components
 Butterfly Valve	Compact isolation	Large pipeline systems	Precision-machined discs

The Anatomy of a Mechanical Seal

High-Pressure Process Fluid

Microscopically Flat, Perfectly Flush Interface: Zero Leakage Barrier

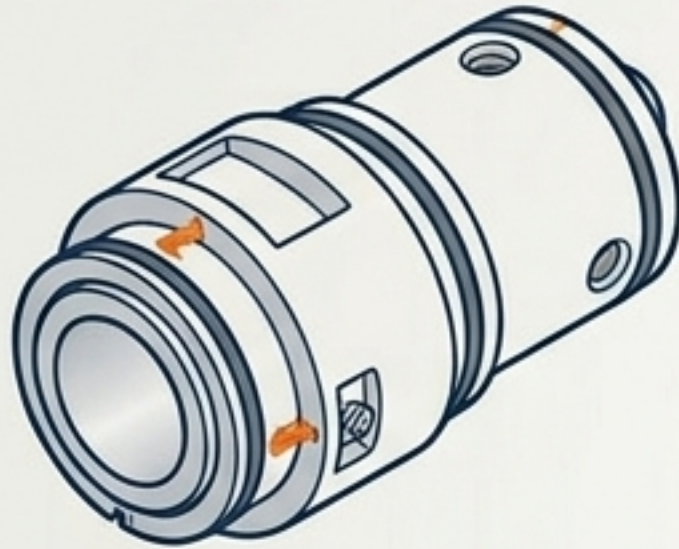
Safe External Environment

- A mechanical seal is the primary barrier between **pressurized, often toxic process fluids** and the **environment**.
- Replaces outdated gland packing for zero-to-minimal leakage.
- Faces are lapped and polished to a **helium-light-band flatness**.
- Manufactured to **API 682 standards** for high-pressure centrifugal compressors.
- High-Pressure Process Fluid



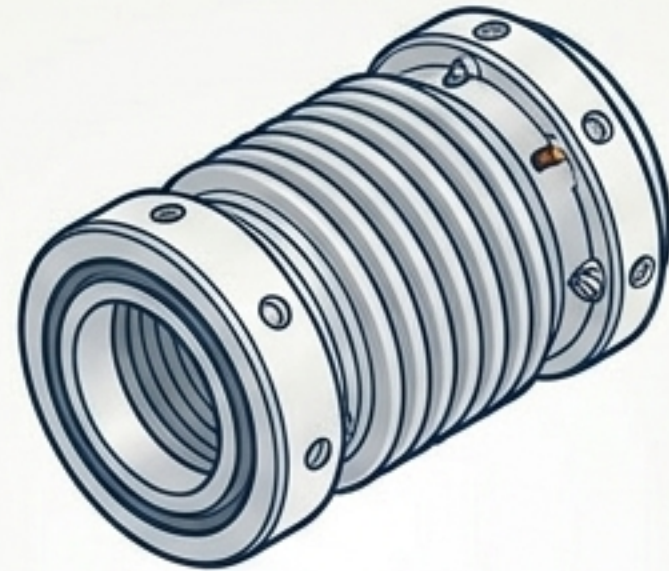
Specialized Sealing Solutions by Application

Cartridge Seals



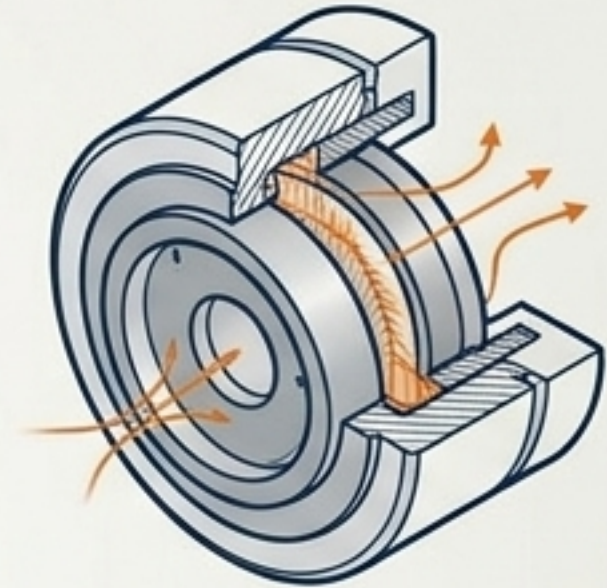
Pre-assembled units eliminating installation errors. **The gold standard** for **rapid maintenance** in Oil & Gas and Petrochemical plants.

Metal Bellows Seals



Bellows design compensates for thermal expansion and misalignment without dynamic O-rings. Ideal for high-temperature/corrosive environments.

Dry Gas Seals



Utilizes a microscopic gas film to separate seal faces for non-contact, wear-free operation. Engineered strictly for high-speed centrifugal compressors.

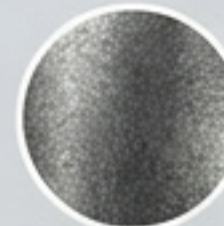
Face Materials:



Carbon
(water)



Silicon Carbide
(abrasive/high-pressure)



Tungsten Carbide
(heavy-duty torque)

Issue	
Discouraged/for:	File
TS3.0 SPEC-APP-001 Rev. A Date: 000 50e4	

Tech-Land vs. Global OEM Supply Chains



Global OEM Supply Chains

Lead Times: 6-12 Weeks



Emergency Access:
Fly-in specialist required



Customization:
Wait for new production runs



Logistics Cost:
High international air/sea freight

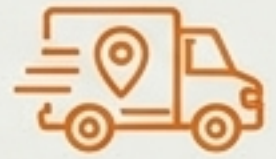


Tech-Land UAE

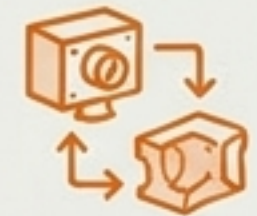
• **Lead Times: 7-14 Days**



• **Emergency Access:**
24-48 hour on-site UAE dispatch



• **Customization:**
3D scan and reverse-engineer
obsolete parts on-demand

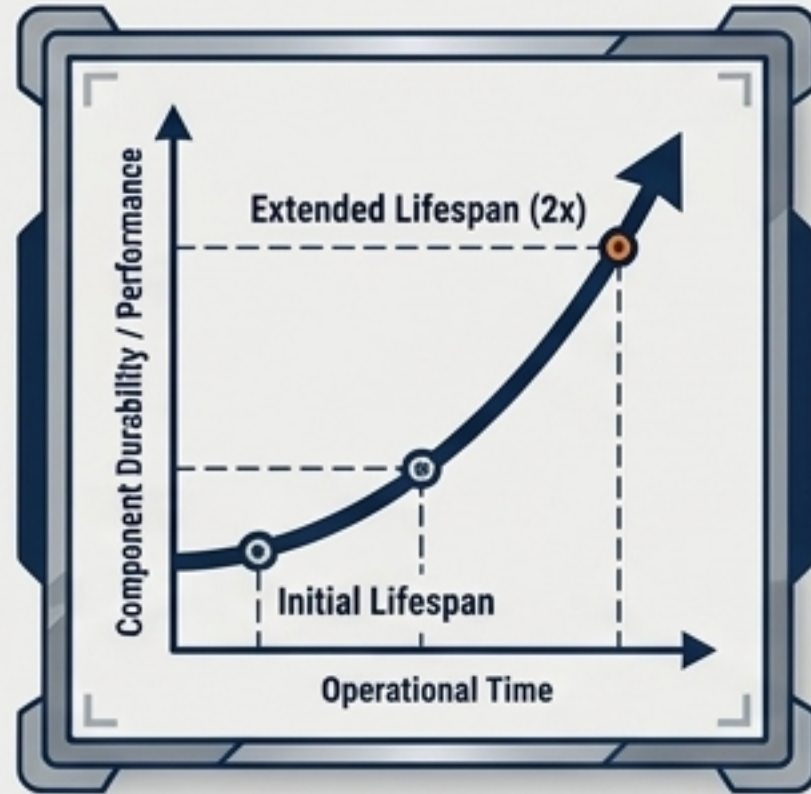


• **Logistics Cost:**
Minimal local distribution



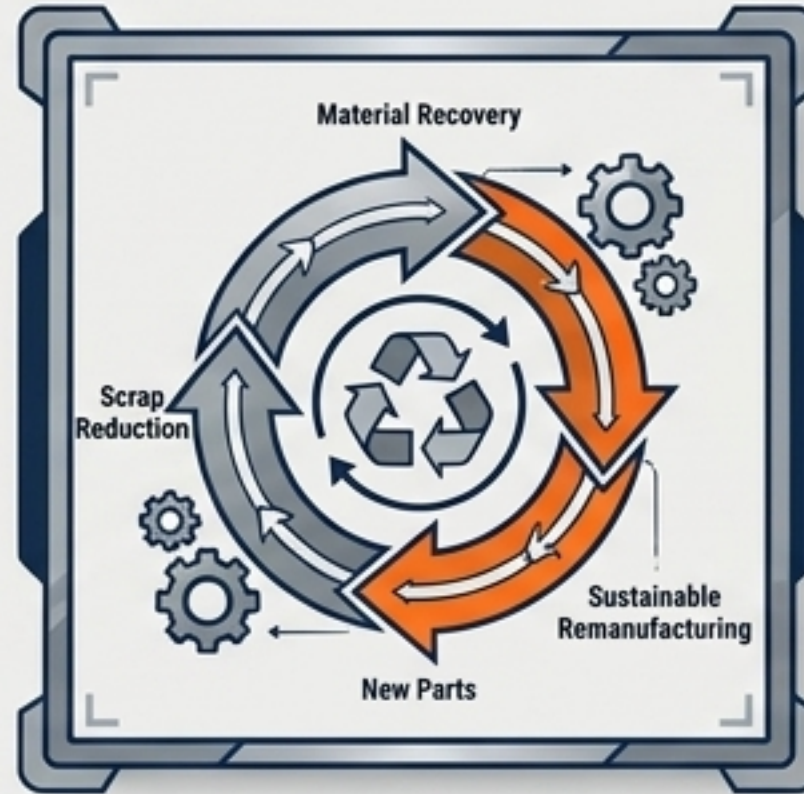
The ROI of Refurbishment

Combining local MENA proximity with global CNC precision proves that **refurbishment** is mathematically and strategically superior to full capital replacement.



Metric 1: 50–100% Life Extension

Advanced diagnostics, HVOF coatings, and precise CNC machining double the lifespan of existing infrastructure.



Metric 2: 80% Material Recycled

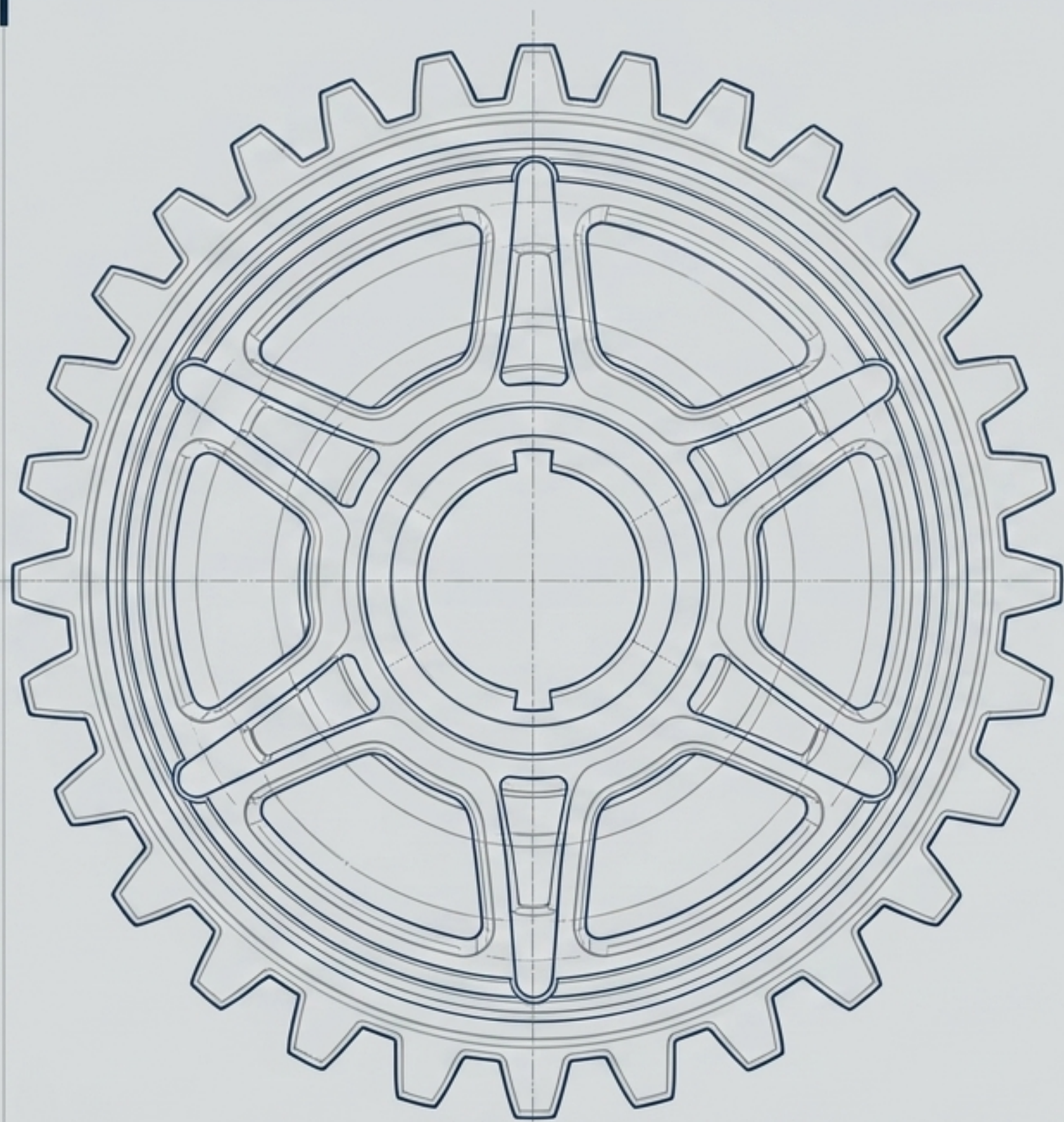
Eco-friendly remanufacturing aligns with offshore net-zero goals, keeping heavy metals out of scrap.



Metric 3: Zero-Wait Operations

Eliminating 10 weeks of OEM lead time saves millions in otherwise lost production output.

Speed + Precision = Superior Strategic Choice



Secure Your Continuous Operations Today.

Partner with the **MENA region's premier CNC precision engineering team** to permanently eliminate your supply chain bottlenecks.

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Precision engineered for the Middle East.

