

One Stop Solution for Industrial & Aircraft Fuelling Equipment



**HR AUTOSOLUTIONS**

# MANUFACTURED PRODUCT CATALOG

**2025**



We offer complete 2D Drawing/Drafting & 3D Assembly/Modeling services along with Fabrication and Consultancy for Special Purpose Vehicles. In addition, we trade in all kinds of Aircraft Fuelling related equipment and raw materials, including post-processing solutions for any development requirements.

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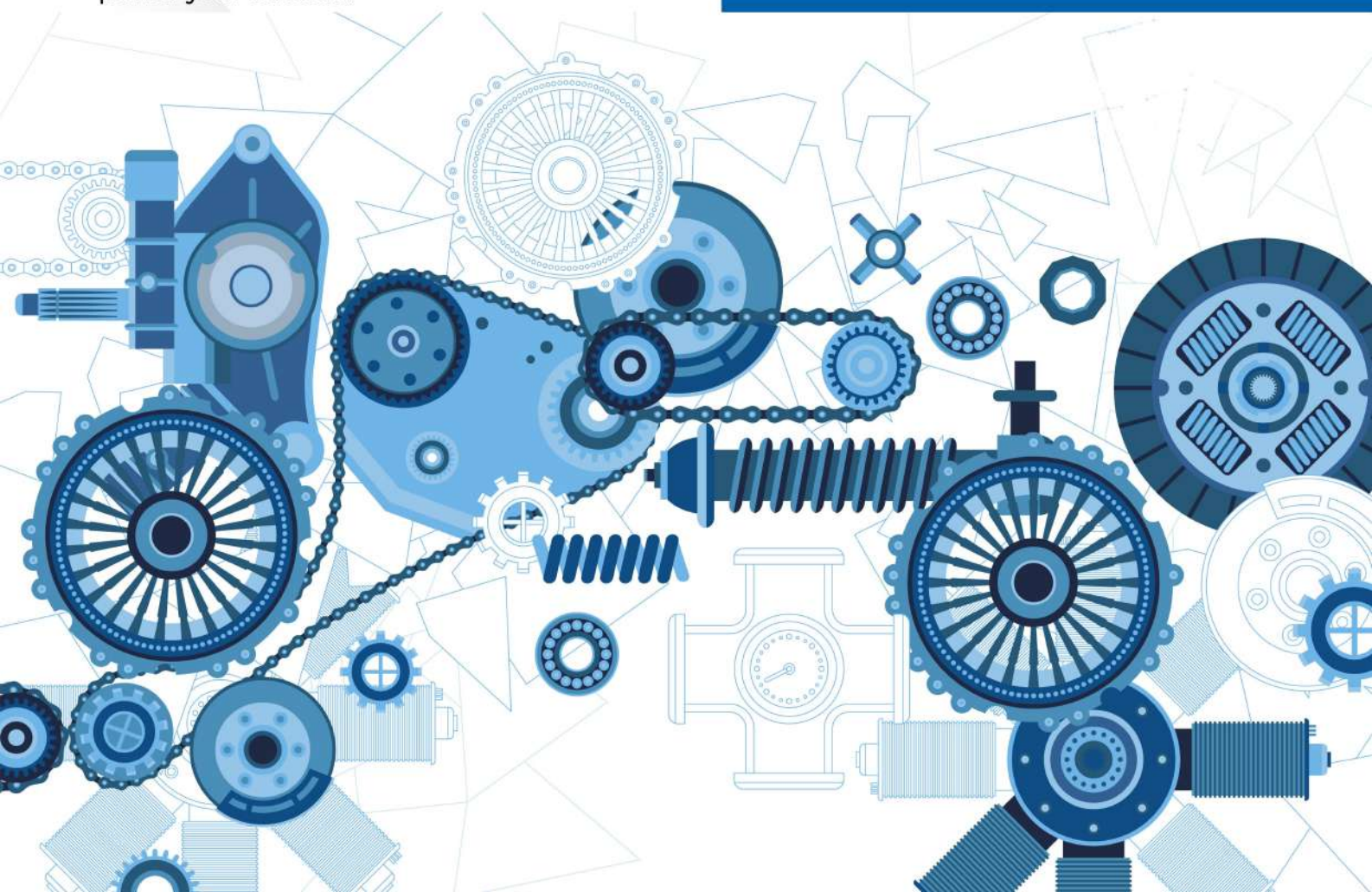
# About Our Products

## The best work from us for your business

We deliver the best work for your business through complete solutions in 2D/3D design, fabrication, and consultancy for Special Purpose Vehicles, along with trading of industrial and aircraft fuelling equipment, raw materials, and accessories. From sheet plates, valves, fasteners, and fittings to pneumatic, electrical, and tanker systems, we provide one-stop customized solutions for all your industrial needs. With quality, reliability, and innovation at our core, we aim to build long-term business relationships and power your success.

## Key Highlights

- **Industrial Equipment:** Sheet Plates, Pipes, Valves, Flanges & Fasteners
- Aircraft Fuelling & Petroleum Tanker Accessories
- Pneumatic & Electrical Components (Relays, Wires, Sensors, Switches)
- Fabrication & Custom Development Solutions







## HOSE REEL

- - Type: Single / Double / Triple Swivel
- - Connection: 1" – 4" BSP/NPT/Flanged
- - Material: Carbon Steel / SS 304 / Aluminum
- - Pressure Rating: 10–25 bar
- - Seal: Dual O-rings (Viton / Nitrile / PTFE)
- - Rotation: Full 360°



## CLOSE CIRCUIT SAMPLER

- - Models: Top-Loading / Bottom-Loading / Pressure Type
- - Material: Aluminum / SS 316
- - Pressure: up to 15 bar
- - Valve: Ball / Poppet Type
- - Sample Volume: 100 ml – 500 ml



## SWIVEL JOINT

- - Type: Single / Double / Triple Swivel
- - Connection: 1" – 4" BSP/NPT/Flanged
- - Material: Carbon Steel / SS 304 / Aluminum
- - Pressure Rating: 10–25 bar
- - Seal: Dual O-rings (Viton / Nitrile / PTFE)
- - Rotation: Full 360°



## THREE LUG ADAPTER

- - Material: Aluminum / Brass / SS 316
- - Size: 2½" Standard (API 1004 / BS EN 14420)
- - Working Pressure: 10 bar
- - Coupling: API-type female with 3-lug locking
- - Seal: Viton O-ring



## FDF VALVE

- - Models: Inline / Angle / Remote Operated
- - Size: 1" – 4"
- - Body: Aluminum Alloy / SS 304
- - Pressure Rating: 10–25 bar
- - Operation: Manual or Solenoid Actuated
- - End Connection: Flanged / Threaded



## EMCO TYPE MANHOLE COVER

- - Type: Pressure Vacuum / Emergency Vent
- - Material: Aluminium Alloy / SS 304
- - Size: 16" Standard
- - Working Pressure: 25 psi (max)
- - Fittings: Flame Arrestor, Emergency Vent Cap
- - Standard: EN 13083



## WATER DETECTION SENSOR

- - Type: Capacitive / Optical / Probe
- - Sensitivity: 0.2% water content
- - Output: 4-20 mA / Relay contact
- - Housing: SS 316 / Flame-proof enclosure
- - Cable Length: up to 20 m



## HIGH DP SWITCH

- - Range: 0.2 – 10 bar (adjustable)
- - Body: Aluminium / SS 304
- - Contact: SPDT / DPDT (5A @ 250 V AC)
- - Diaphragm: Nitrile / Viton
- - Protection: IP 65



## DEADMAN TIMER SYSTEM

- - Type: Electronic / Pneumatic
- - Timer Range: 15 – 300 seconds adjustable
- - Power Supply: 24 V DC / 230 V AC
- - Output: Solenoid cutoff / Relay
- - Reset: Manual Push Button



## REMOTE ENGINE THROTTLE

- - Control: Electric / Pneumatic
- - Speed Range: 0-3000 RPM
- - Interface: Analog (0-5 V DC) / Digital Signal
- - Feedback: Tachometer Output
- - Mounting: Panel / Cab





## ANNUNCIATOR

- - Channels: 4 / 8 / 16 / 32
- - Input: Dry contact / 24 V DC logic
- - Output: LED + Buzzer + Relay
- - Supply: 230 V AC / 24 V DC
- - Panel: MS Powder-Coated, IP 54



## WATER DETECTION SYSTEM

- - Sensor Type: Probe / Ultrasonic
- - Alarm Output: Buzzer + LED + Relay
- - Detection Accuracy:  $\pm 0.1\%$  of full scale
- - Supply: 24 V DC / 230 V AC
- - Integration: PLC / Relay System



## RELAY INTEGRATION INTERLOCK SYSTEM

- - Control Type: Relay Logic
- - Voltage: 24 V DC / 230 V AC
- - Components: Heavy-Duty Industrial Relays, Timers, Contactors
- - Panel: MS Powder-Coated IP 54
- - Indication: LED + Alarm Buzzer



## PLC INTEGRATED INTERLOCK SYSTEM

- - PLC: Siemens / Delta / Allen-Bradley compatible
- - I/O: up to 64 points
- - Interface: HMI / SCADA
- - Communication: Modbus / Ethernet / RS-485
- - Enclosure: MS Powder-Coated / SS Panel, IP 65



2D Mechanical Drawings

## 2D Mechanical Drawings (AutoCAD, SolidWorks Drafts)

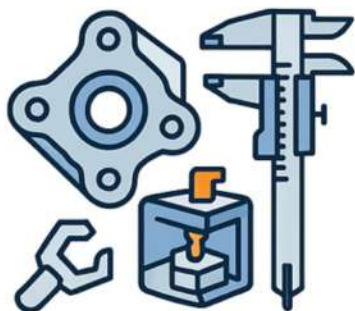
- Preparation of detailed fabrication & assembly drawings
- Dimensional accuracy and tolerance definition
- BOM (Bill of Materials) generation
- Standard and customized layout drawings



3D Modelling

## 3D Modelling (SolidWorks, CATIA, Fusion 360, etc.)

- Parametric modelling of mechanical components
- Complete assembly visualization before production
- Motion and interference analysis
- Generation of 3D printable and machining-ready files



Reverse Engineering & Prototyping

## Reverse Engineering & Prototyping

- Scanning and measurement of existing components
- CAD model recreation from physical parts
- Prototype fabrication using CNC, 3D printing, or manual machining
- Design refinement and fitment validation





**Design Validation  
and Simulation**

## Design Validation and Simulation

- Finite Element Analysis (FEA) for stress and load testing
- Motion, vibration, and thermal simulation
- Optimization of material usage and design geometry
- Virtual performance verification before manufacturing



**Custom Product  
Development Support**

## Custom Product Development Support

- End-to-end design assistance from concept to prototype
- Product customization as per client specification
- Integration of design feedback into production
- Support for design documentation and technical drawings