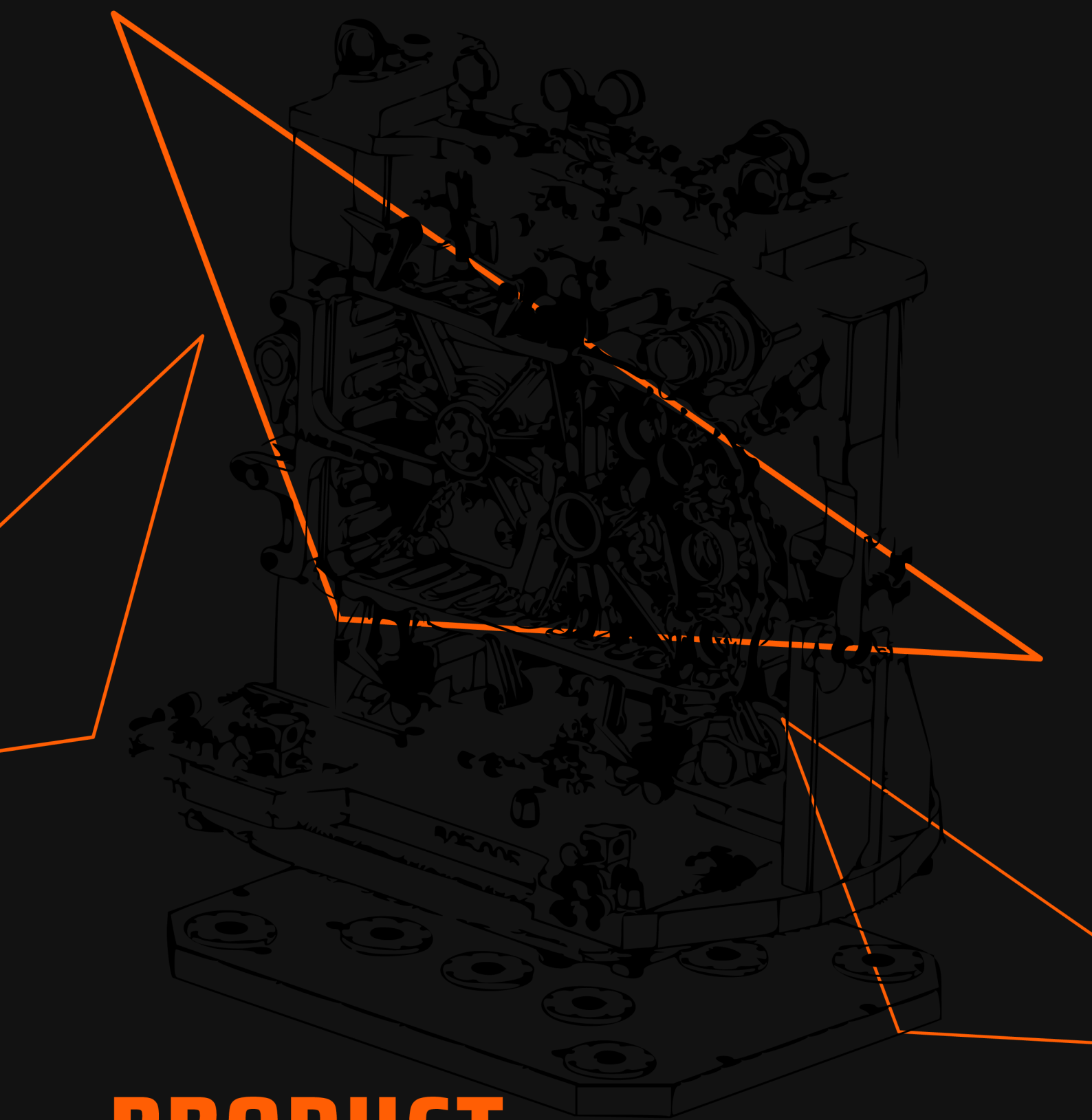




PRODUCT CATALOGUE

2025

STG
WORKHOLDING

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ABOUT US



We are a Precision Manufacturing company specializing in hydraulic & manual workholding devices and hydraulic powerpacks for VMC, HMC, VTL, and Gear machining applications.

With in-house machining and fabrication facilities and partnerships with 15+ global brands, we deliver custom clamping solutions that improve Productivity, Accuracy, and Safety - on time, every time.

Why choose us?

- Global - Standard solutions at local pricing
- International parts, locally supported
- Experienced team for installation, integration & servicing
- In-house design and manufacturing
- Fast turnaround for custom requirements
- Guaranteed quality and consistency
- Tailored Solutions

What we do?

- Custom Workholding solutions
- Hydraulic Powerpack
- Manufacturing & Fabrication
- Source & supply workholding products
- Upgradation of Existing fixture to Hydraulic

How we do?

- Consult
- Design
- Manufacture
- Install
- Support

SUCCESS BLUEPRINT

Protocol we follow:

Workholding

Collect input informations on data sheet

Collect Machine Details

Collect Component Details

Discuss & Solve constraints

Part : Geometry, critical datums, Tolerance stack, material

Process : Operation type, cutting forces (Fx,Fy,Fz), Coolant/ chip environment

Cycle & Timing : clamp/unclamp time target, parts/min, automation level

Environment & Safety : coolant, chip, temperature, lockout requirement

Choose primary/secondary/tertiary locators (3-2-1 rule)

Choose clamping method & concept

Choose Cylinders and clamping parts

Calculation of Flow & pump sizing

Design Hydraulic circuit & components

Design of fixture

Provide Sensors, controls & safety interlocks

Manufacturing, assembly & testing

BOM, drawings & documentation

Maintenance & Lifecycle

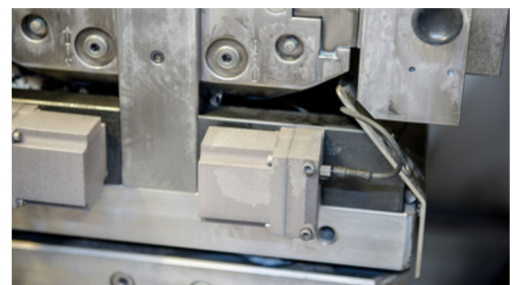
INDUSTRY 4.0

Wireless sensor system

We integrate AMF Wireless sensor system into Fixture, enables fixture into a smart, self-reporting workholding device.

It watches over the clamping and part positioning, then tells the machine whether its safe to start cutting - all without running a single cable to fixture.

A WLAN router can be connected as an option in order to access the web-based user interface of the Gateway via a tablet. In combination, this innovative system forms the basis for worker-free production processes around the clock.



Air Gap Sensor - Fixture resting face

We integrate Festo air gap sensor into Fixture, enables the sensor detects a small air gap between the fixture face and workpiece using controlled air flow. If the gap is larger than allowed (due to chips, burrs or improper loading), the airflow pattern changes and sensor stops machining.



Pressure sensor receiver

We integrate Roemheld pressure sensor system into Fixture, it listens to the fixture's internal pressure readings wirelessly and tells the machine whether it's safe to run, helping avoid crashes, part ejections while running or quality defects.



FIXTURE - MACHINING APPLICATIONS

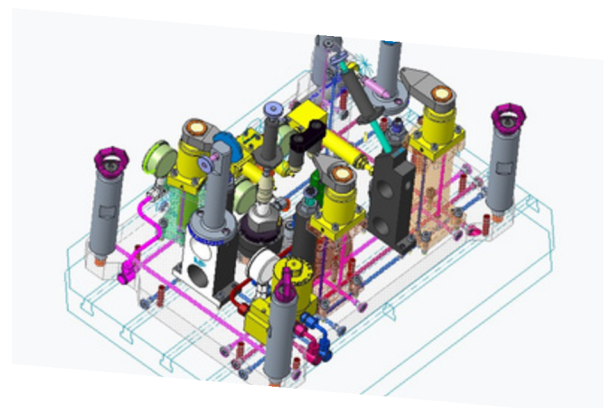
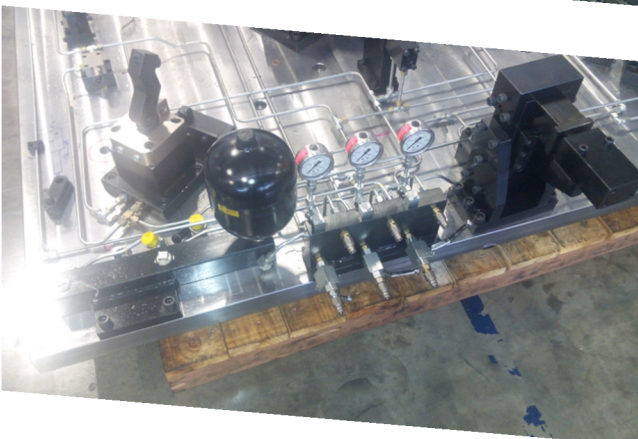
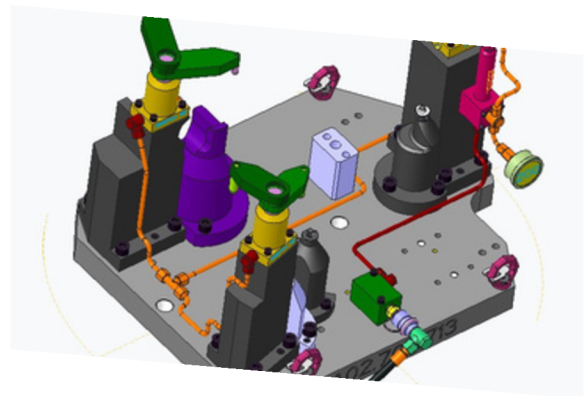
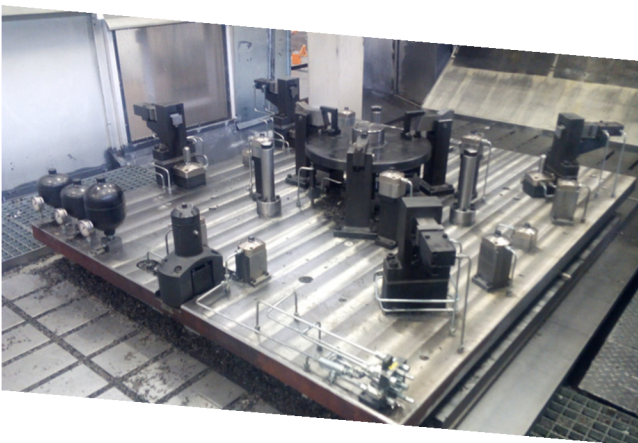
Engineered for VMC, HMC, VTL, Gear Machining

Our Custom-built hydraulic fixtures are designed to deliver **High accuracy, Repeatability, and Productivity** in demanding machining environments.

From vertical machining centers to large vertical turning lathes, and from precision gear cutting to heavy duty milling, we provide **robust, leak-free, and operator-friendly solutions** tailored to your parts and processes.

VMC WORKHOLDING

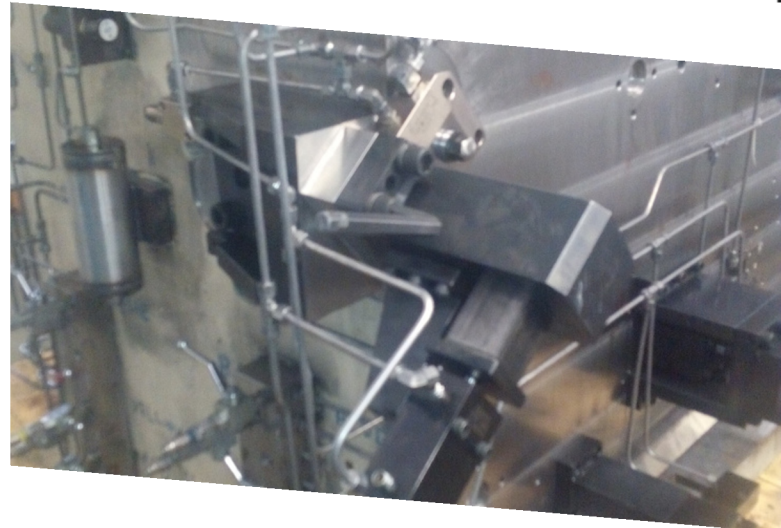
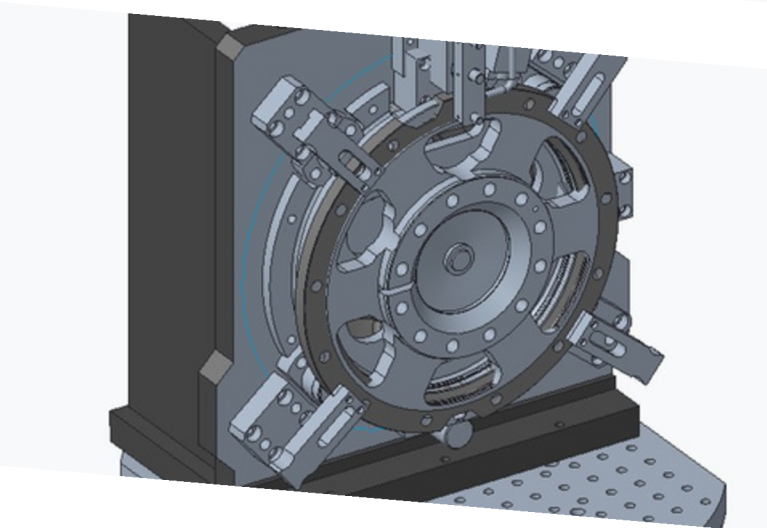
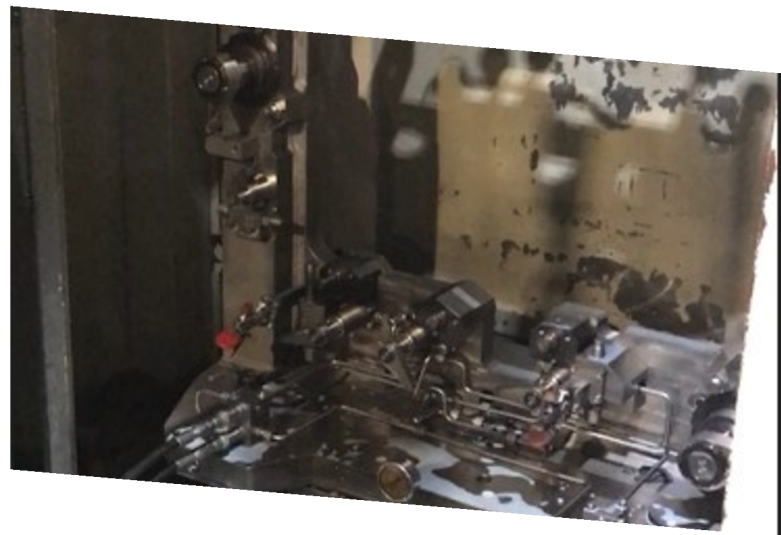
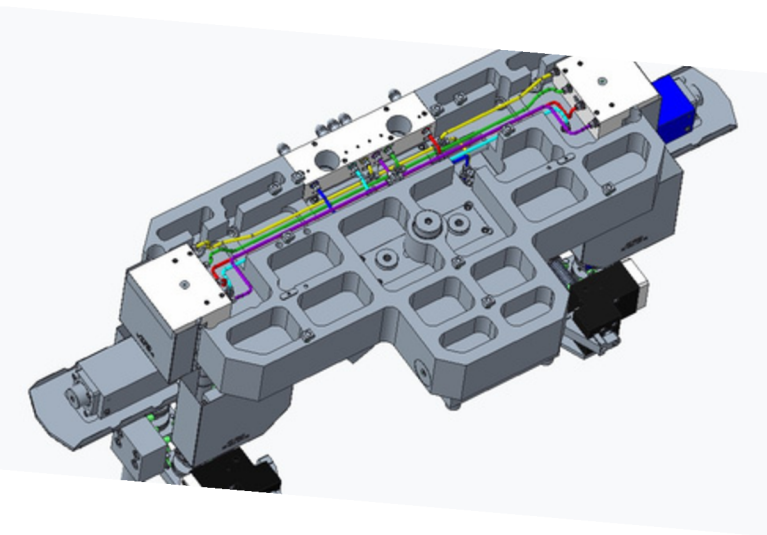
- Designed for vertical machining centers handling medium to high batch production.
- Compact hydraulic circuit integration for easy mounting and maintenance.
- Ideal for prismatic components requiring multi-face machining in a single setup.
- Hydraulic manifolds integrated into the base for neat layout.
- Zero-point location system for quick fixture change over.
- High precision rest pads and locating pins for repeatable accuracy.
- Leak-proof hydraulic connections for coolant-heavy environments.
- Minimal operator intervention.



FIXTURE - MACHINING APPLICATIONS

HMC WORKHOLDING

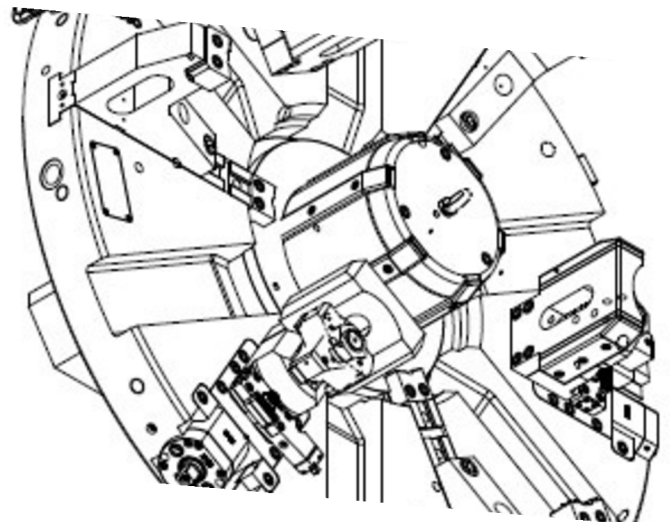
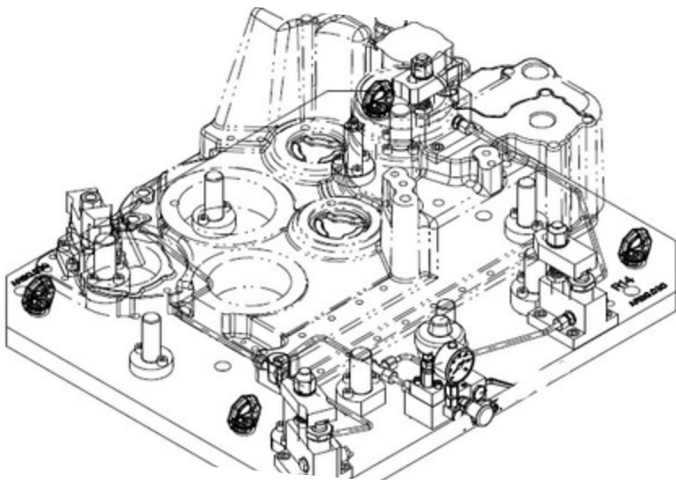
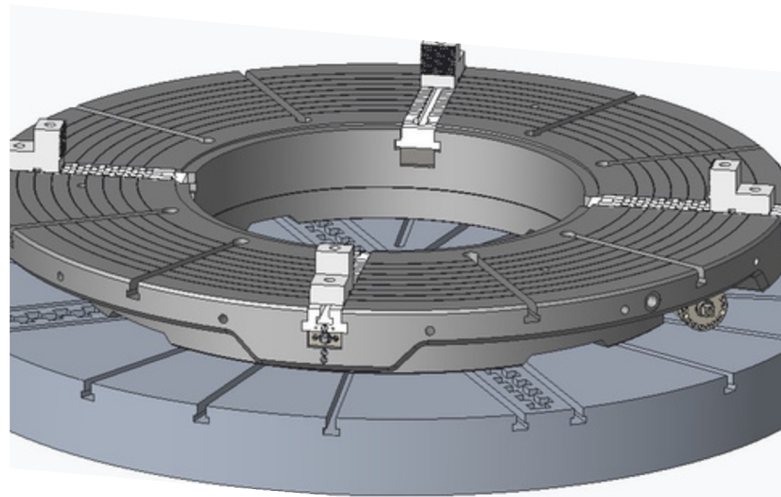
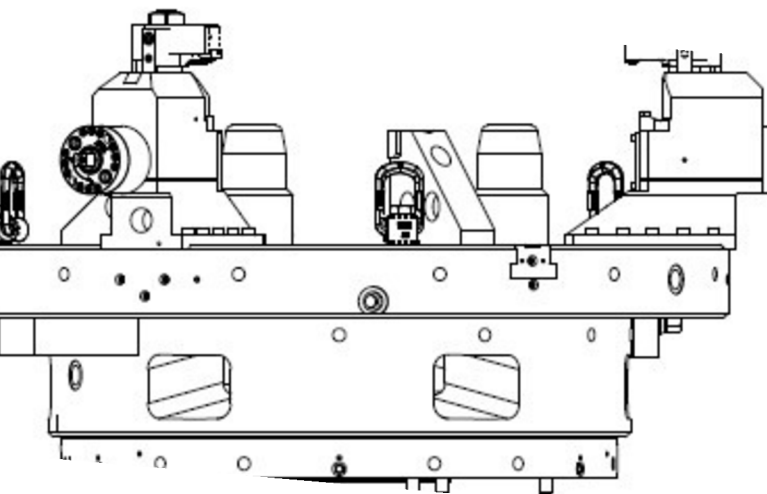
- High-rigidity and vibration-resistant structure for heavy-duty milling.
- Rotary union for continuous hydraulic supply during table indexing.
- Designed for multi-part clamping to maximize spindle uptime.
- Balanced weight distribution to avoid table load imbalance.
- Integrated part presence and clamp position sensors for Automation.
- Minimal re-clamping to improve dimensional consistency.



FIXTURE - MACHINING APPLICATIONS

VTL WORKHOLDING

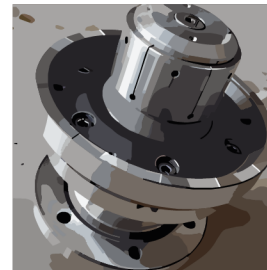
- Robust clamping for large-diameter, high weight workpiece.
- Precision-balanced chuck or fixture for smooth high-speed rotation.
- Hydraulic drawbar or wedge-type mechanisms for strong grip.
- Chip and coolant resistant sealing for harsh turning conditions.
- Stable clamping force maintained throughout roughing & finishing.
- Configure jaws to suit multiple part diameters.



FIXTURE - MACHINING APPLICATIONS

GEAR MACHINING WORKHOLDING

- Micron-level concentricity for precision gear cutting and grinding.
- Hydraulic expanding mandrels or chucks for internal/external clamping.
- Quick-change tooling for minimal downtime between part sizes.
- Integrated seating verification sensors to prevent scrap parts.
- Pressure monitoring systems for safe and consistent clamping.
- Designed for hobbing, shaping, skiving, and profile grinding operations.



CUSTOM PARTS

We manufacture specialised fixture components tailored to your machining requirements

FEATURES

Machining Cutter Clearance

Components are shaped and pocketed to allow free cutter movement without interference, reducing the risk of tool collisions and improving machining flexibility.

Compact Fixture Integration

Designed to minimise footprint while maximizing clamping capacity, ensuring easy loading/unloading and better machine space utilisation.

Adaption to Uneven Casting variations

Locators, pads, and clamps are engineered to compensate for natural casting tolerances, ensuring accurate positioning everytime.

Critical Uneven Component Clamping

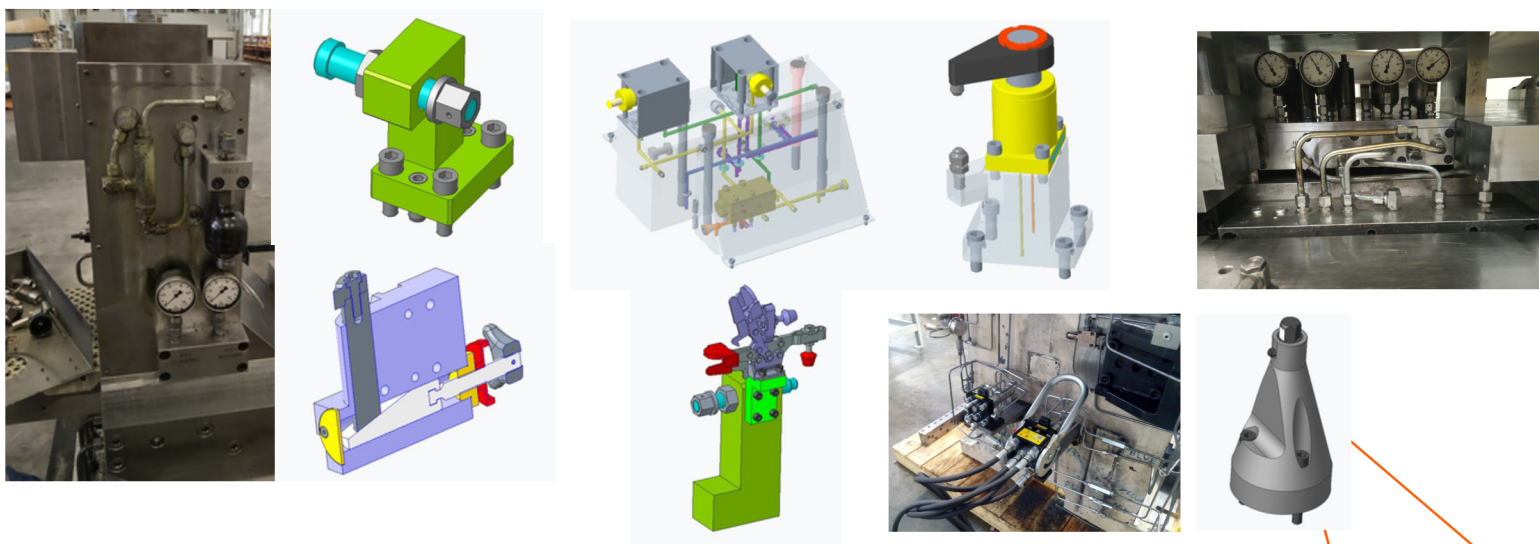
Special jaws, supports, and floating clamps secure irregularly shaped or assymetrical components without distortion.

Quick - Release Coupling Units

Mounting points and alignment features are designed for easy installation and removal of hydraulic quick couplers, reducing setup time.

Optimised Pressure Gauge Visibility

Gauges are positioned at operator friendly viewing angles, enabling real-time monitoring of clamping pressure and quick detection of pressure drops.



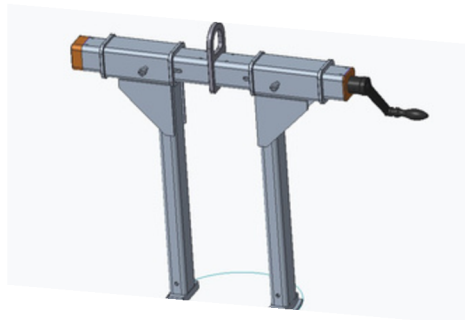
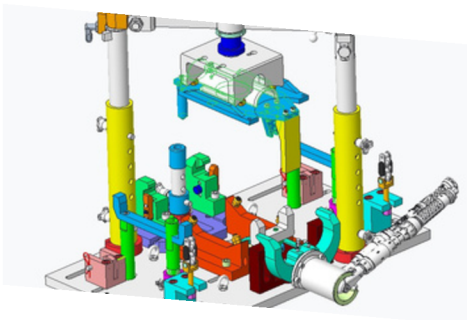
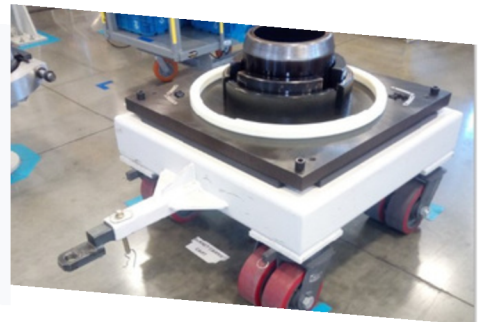
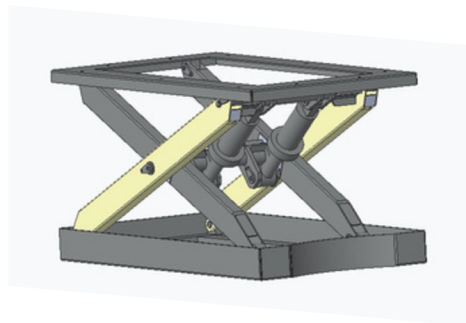
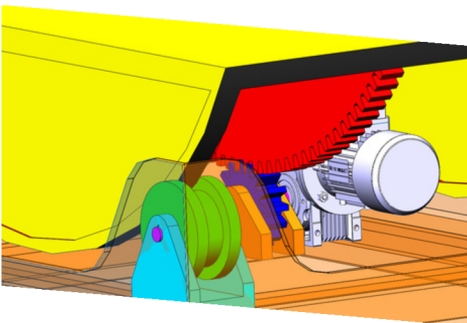
FIXTURE - ASSEMBLY APPLICATIONS

Wide range of Assembly focused solutions

We design and manufacture a wide range of assembly - focused solutions including precision assembly fixtures, lifting tools, custom trolleys, and hydraulic assembly equipments, tailored to improve ergonomics, safety, and productivity on the shop floor.

Each product is engineered for easy handling, accurate positioning, and long durability, ensuring smooth workflows during component assembly, transport, and installation.

From compact workholding setups that simplify sub-assembly tasks, to heavy-duty lifting devices and mobile trolleys that streamline material movement, our solutions are built to reduce operator fatigue, minimise downtime, and improve overall assembly efficiency - all while meeting stringent quality and safety standards.



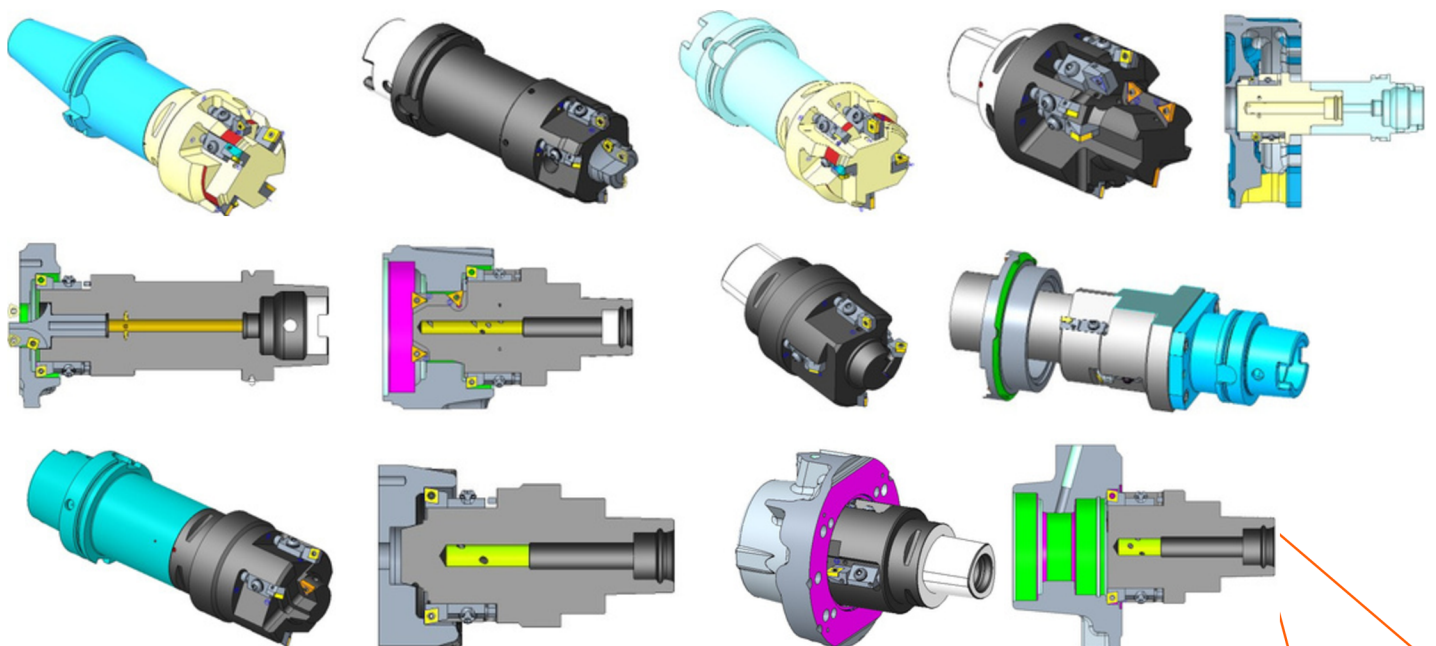
CUSTOMIZED - CUTTING TOOLS

Single Tool - Multiple operations at a Time

Customized Multi-Operation Cutting tools, We manufacture high- performance customized cutting tools for CNC machining that allow multiple operations to be completed with a single tool - removing the need for mid-cycle tool changes. This approach not only reduces cycle times but also improves accuracy, machine uptime, and overall process efficiency.

Key Advantages:

- **Multitple Operations in one** - Combine drilling, boring, chamfering, facing, counterboring or profiling in a single tool.
- **Reduced Tool Changes** - Minimises spindle downtime and NC program interruptions.
- **Higher Dimensional Consistency** - Less clamping disturbance means better repeatability.
- **Shorter Cycle Times** - Optimized machining sequence for faster throughput.
- **Custom Geometry** - Designed specifically for your part material, dimensions, and tolerance needs.
- **Long Tool Life** - Made from premium -grade tool steels, carbides, and advanced coatings.
- **Precision Balancing** - Ensures vibration-free operation at high speeds.



POWERPACKS

WorkHolding & other General Applications

We design and manufacture high-performance hydraulic powerpacks tailored for both fixture operations and general industrial applications, delivering reliable performance from 70 bar up to 200 bar and flow capacities up to 50 LPM. Our powerpacks are built with precision-engineered components for long life, minimal maintenance, and consistent pressure output even under demanding conditions.

For Fixture Applications

Operating pressures from 70 bar to 200 bar to suit a wide range of hydraulic workholding systems. Compact designs for direct integration with VMC, HMC, VTL, and gear machining fixtures. Options for continuous supply (on-duty) powerpacks for uninterrupted clamping, or offline powerpacks supporting quick-release and standard coupling systems for energy-efficient operation.

For General Applications

Up to 50 LPM flow capacity at 200 bar, suitable for lifting systems, presses, and industrial automation equipment. Configurable tank sizes, motor capacities, and control logic to match application needs. Built with high-quality pumps, valves, and filtration systems for maximum service life.

Key Features

Rugged steel construction for shop floor durability.
Integrated pressure gauges and safety valves for operator assurance.
Low-noise, low-heat designs for continuous operation.
Customisable configurations for unique process requirements.
Technical Specifications – Hydraulic Powerpacks
Parameter Fixture Applications General Applications

Description		Specifications
Operating Pressure		70 – 200 bar Up to 200 bar
Flow Rate		Up to 15 LPM Up to 50 LPM
Powerpack Type	Continuous supply (on-duty) / Offline quick-release & standard coupling Continuous duty	
Tank Capacity		Compact 15-50 liters 50-200 liters
Motor Capacity		1 HP – 5 HP 3 HP – 15 HP
Coupling Compatibility		Quick-release & standard couplings Standard hydraulic couplings

SOURCING & SUPPLY

Global Sourcing & Supply of Workholding Parts

Alongside our in-house manufacturing expertise, we provide a dedicated global sourcing and supply service for all types of workholding components — ensuring you get the exact brand, model, and specification you require. Whether you've identified a preferred manufacturer or need help selecting the right solution, our team can source from trusted suppliers worldwide and deliver to your doorstep.

We supply a wide range of items including hydraulic and pneumatic clamps, chucks, cylinders, rotary unions, zero-point clamping systems, quick-change couplings, hydraulic manifolds, precision locating pins, rest pads, pressure gauges, and more — all available in your brand of choice.

Our sourcing process ensures:

- Genuine, Brand-Verified Products - Direct from authorised sources.
- Global Coverage - We handle imports and exports with full compliance to international trade regulations.
- Competitive Pricing - Leveraging our buying network for cost efficiency.
- Logistics Support - End-to-end coordination from order to delivery, including customs handling.
- Technical Guidance - Helping match the right component to your application for best performance.

By partnering with us, you avoid the hassle of dealing with multiple vendors, currency exchanges, and shipping challenges — instead, you get a single-point, turnkey supply solution for all your workholding needs, anywhere in the world.

SERVICE & INSTALLATION

We don't just supply equipment

we ensure it's professionally installed, tested, and ready for production at your facility. Our skilled workforce provides complete on-site service and installation for all workholding systems, hydraulic powerpacks, and other manufacturing equipment purchased from us.

From precision alignment of fixtures on your VMC, HMC, VTL, or gear machining setup, to commissioning of hydraulic power units and integration with your machine's control systems, we handle every step to guarantee smooth operation. Our team follows strict installation procedures, safety standards, and performance checks to ensure your equipment runs at its optimal capacity from day one.

Our Service Includes:

On-Site Installation - Accurate setup, alignment, and mounting of fixtures and powerpacks.

Hydraulic & Pneumatic Connection Setup - Leak-proof piping, hose routing, and quick coupler installation.

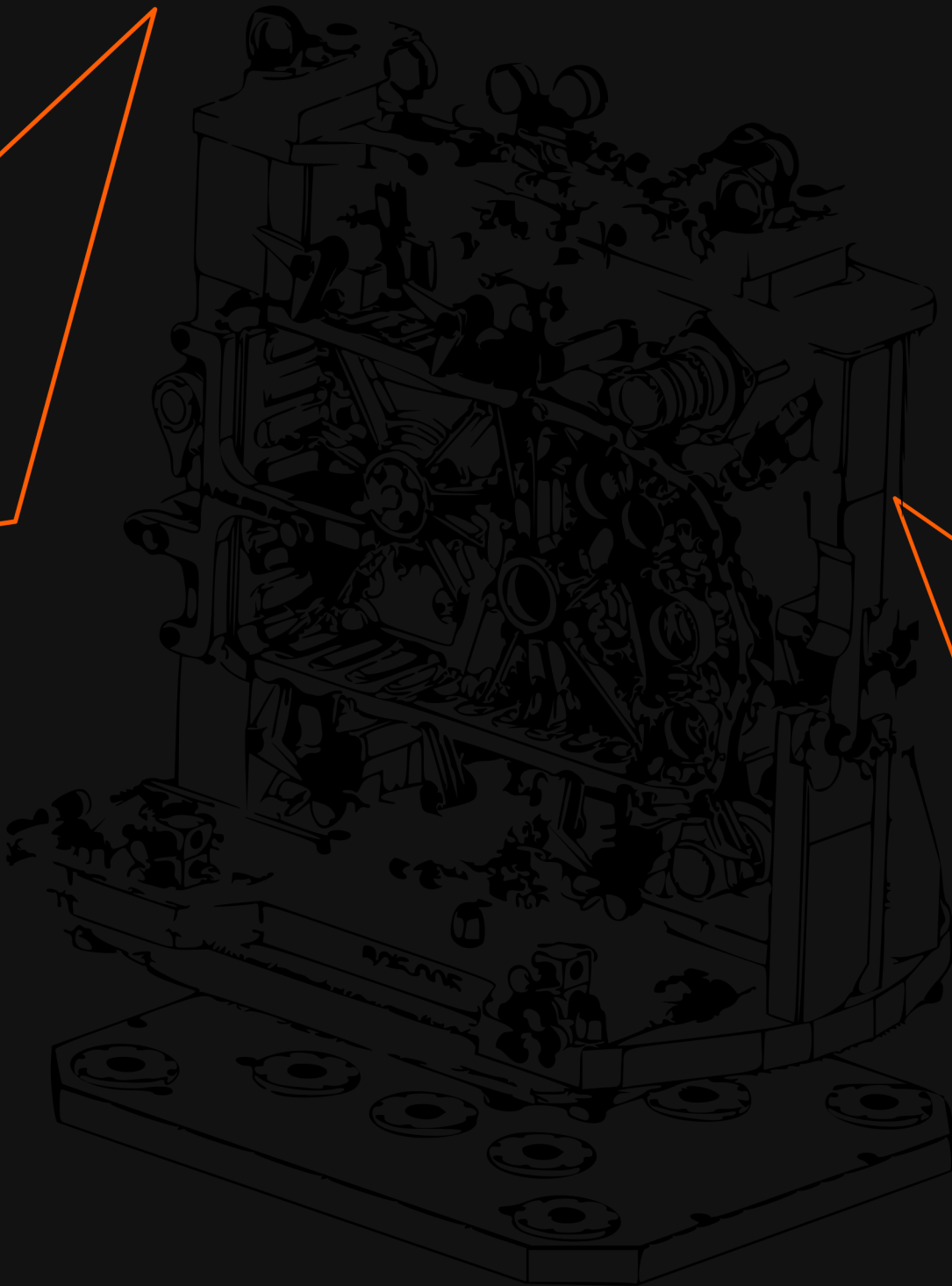
System Commissioning - Testing clamping pressures, cycle timing, and interlocks.

Operator Training - Hands-on guidance for safe, efficient use and routine maintenance.

After-Sales Support - Prompt service visits, spare parts supply, and performance optimisation.

With our installation-to-operation service, you can be confident that your new workholding systems and equipment are integrated seamlessly into your manufacturing process — reducing downtime and maximising productivity from the start.

**CONTACT US
FOR FURTHER
INQUIRIES**



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