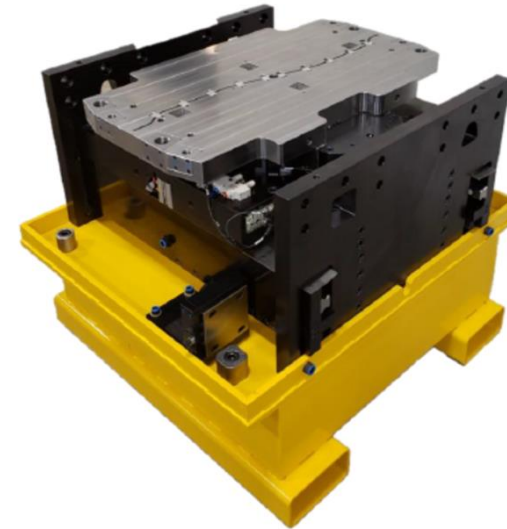


LIMITLESS SOLUTIONS, SINGLE SOURCE



Statistics / FAQs

- Developed First Machine Solution in 1998
- All Products are Designed, Built to Order, and Assembled in Germantown, WI
- Over 100 Products Deployed – Worldwide Install Base

Why Retrofit Solution vs OEM Solution?

- Ability to Easily Configure to New or Existing Assets
- Faster Leadtime using Existing OEM Machines; Injection System Solutions - available
- Industries' most Flexible and Reliable Product Offering

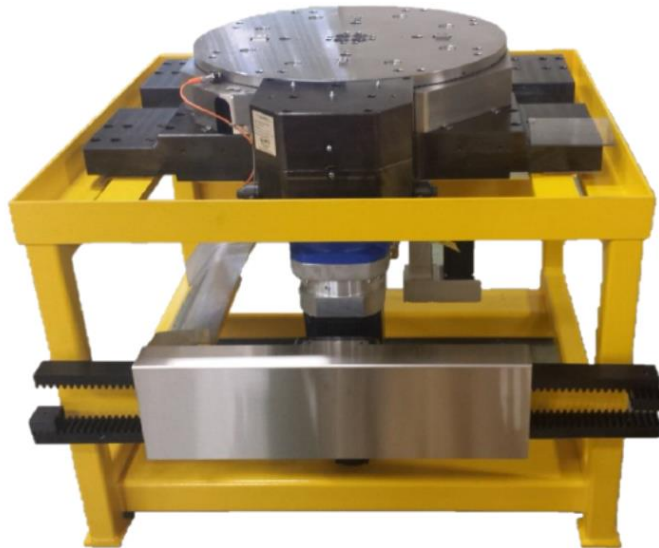
Why MGS vs Competitor Offerings?

- Complete System Solution – Industries' Largest Product Offering & Available Sizes
- Better Performance is Standard – Low Maintenance, High Uptime
- Customizable – Each Solution Built to Order; per Application
- Answer Challenges with Unconventional Solutions
- Turnkey & Integration Capability

Rotary Stack Systems

Features & Specifications

Small – Medium / 250 – 1300 ton IMM
Mechanically Integrated to the IMM/or
Flexible Independent Integrated Design



Large / 1500 – 3000 ton IMM



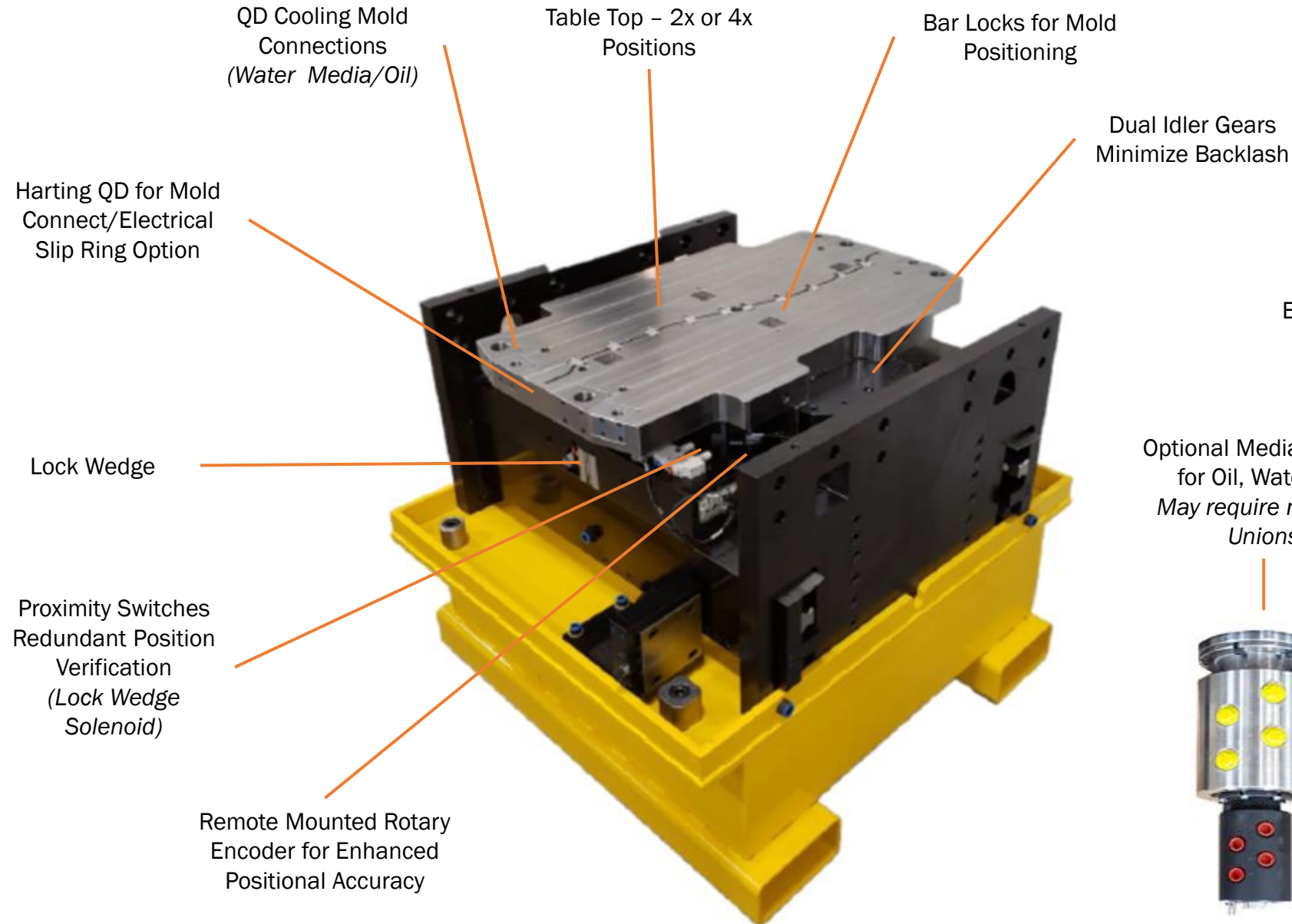
Servo Driven ... PERFORMANCE by design

- ✓ Heavy Load Capacity
- ✓ Easy Integration
- ✓ Optional Media Circuit Volume/Type
- ✓ Independent or Integrated Control
- ✓ Configurable Drive Train Location
- ✓ Electrical Slip Ring
- ✓ Cantilever Arm for Harmonic Motion
- ✓ Custom per Application Presented

Rotary Stack Frame Features – Same for Integrated IMM



Integrated with MGS IU System
or as Standalone Motion Control



Optional Media Circuits for Oil, Water, Air
May require multiple Unions



Electrical

Proximity Switch for
Position Verification

Remote IO for Signal
Exchange to Controls-Panel

Lock Wedge

Pneumatically
sequenced
maintaining table top
position during clamp
motion

Pneumatic Solenoid in
close proximity for
immediate actuation

Absolute Encoder

Absolute Encoder if
mounted on the Load
for Accuracy of
Acceleration &
Deceleration Motion
Control

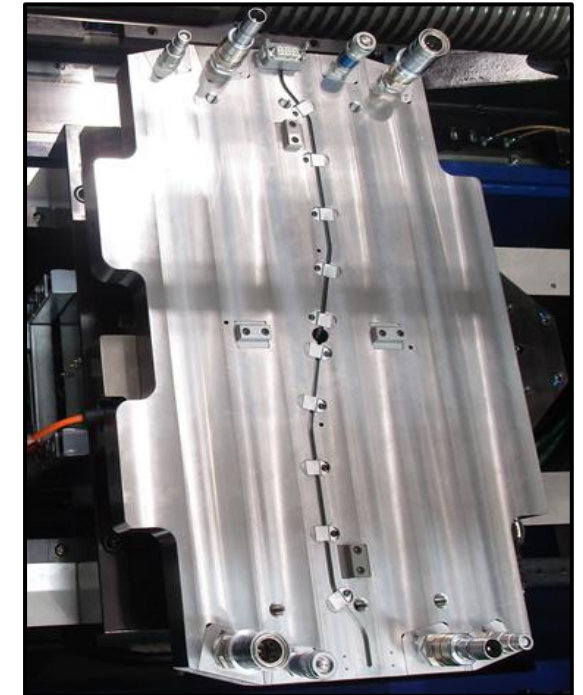
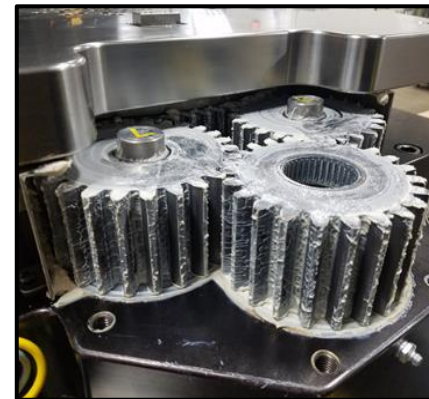
Gear Drivetrain

Designed
for robust use, close
positional tolerance

Media Blocks

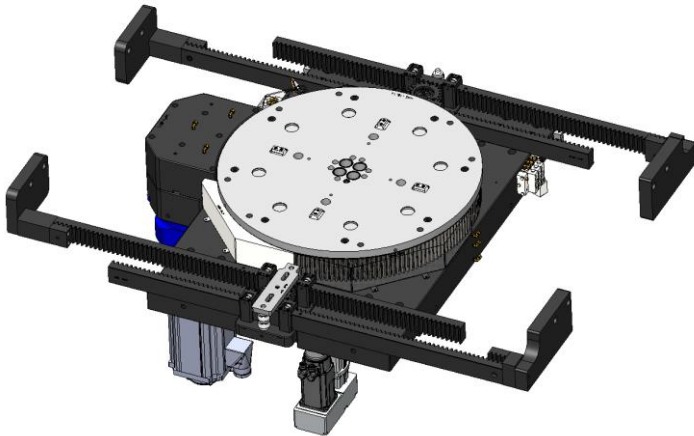
Water / Air / Oil - Configured to
meet criteria

Below 1.25" Water QD W/ SAE 8 Oil
to Mold – Note Hahn Elec Connection



Mechanicals Top View

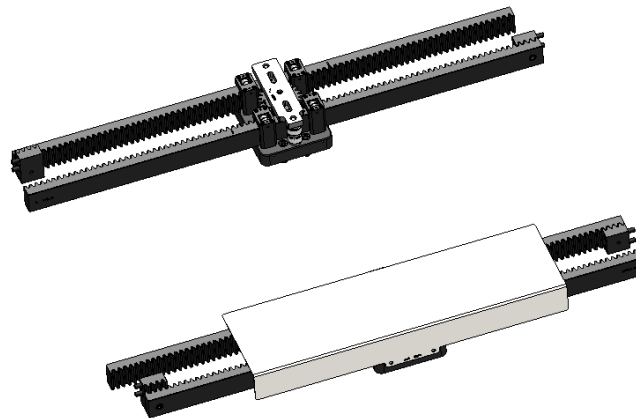
Robustly Designed for Function; Supported by
IMM Platen Linear Rails
2x or 4x Position Capable for Multiple
Production Solutions



Mechanicals Top View

Mechanically actuated by IMM Clamp via Rack
and Pinion; Mold P/L close at same time IMM
Mold Close Safety maintained

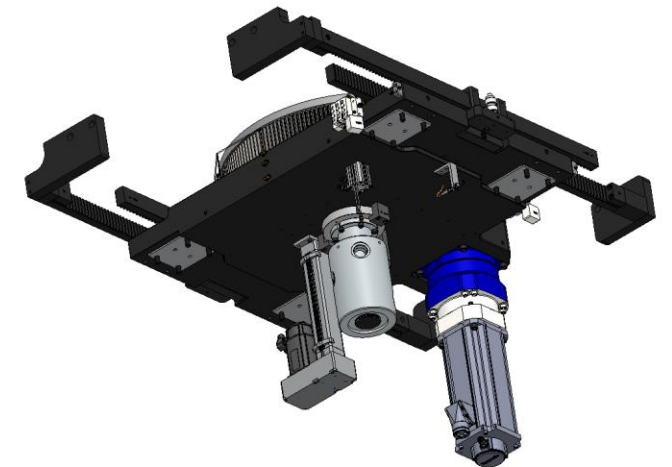
Top of Rack and Pinion Assemblies have
Stainless Steel Guarding for contaminant
management



Mechanicals Bottom View

Support from IMM Platen Linear Rails
Media Management & Servo Motor are
Bottom mounted.

Capable to add Servo-Core or Cylinder for
Hydraulic-Core actuation of Mold Program
Bars





Combination Water/Oil Union

CNC Lathe Machining
Stainless Steel Housing & Shaft
Isolated Shaft Bearings for Long Seal Life

Additional 'Air' Media – use Top of Mold union



Water (Only) Union

CNC Lathe Machining
Stainless Steel Housing & Shaft
Isolated Shaft Bearings for Long Seal Life

Small and Medium 250-1300-ton



| Thank you for your time!



**Please visit us in Germantown, WI.
We'd love to host you for a personal tour.**