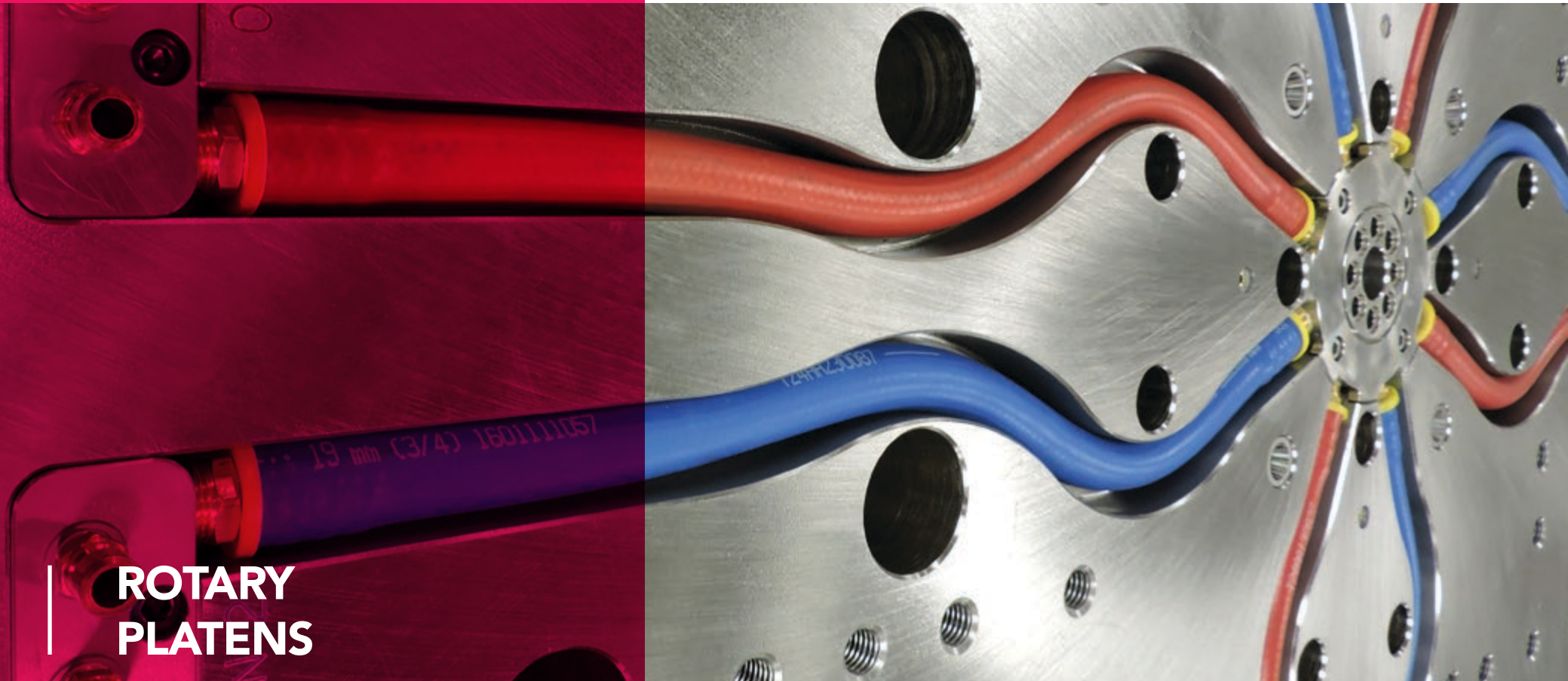


# UNIVERSAL MULTISHOT™ SYSTEMS



**ROTARY  
PLATENS**

Products are covered by patent: **Rotary Platen Assembly U.S. Patent # 6,402,504 B1**



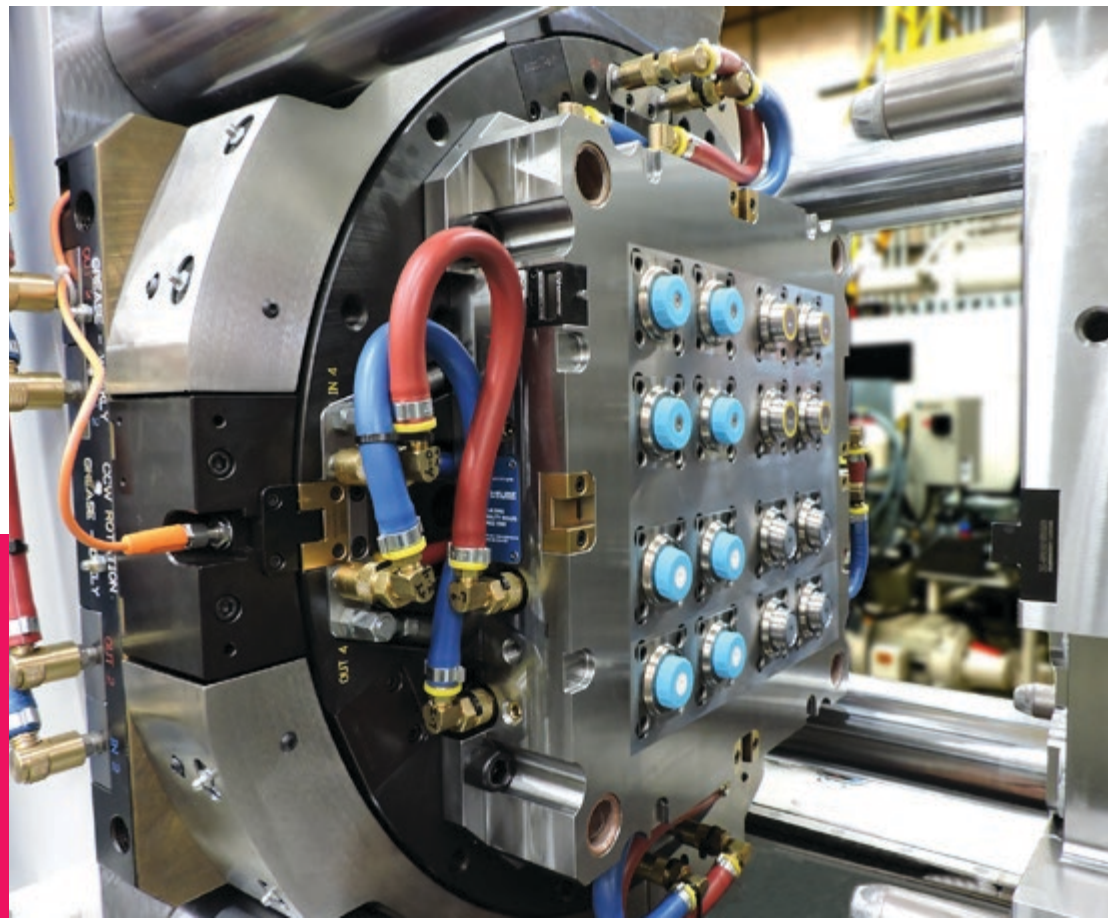
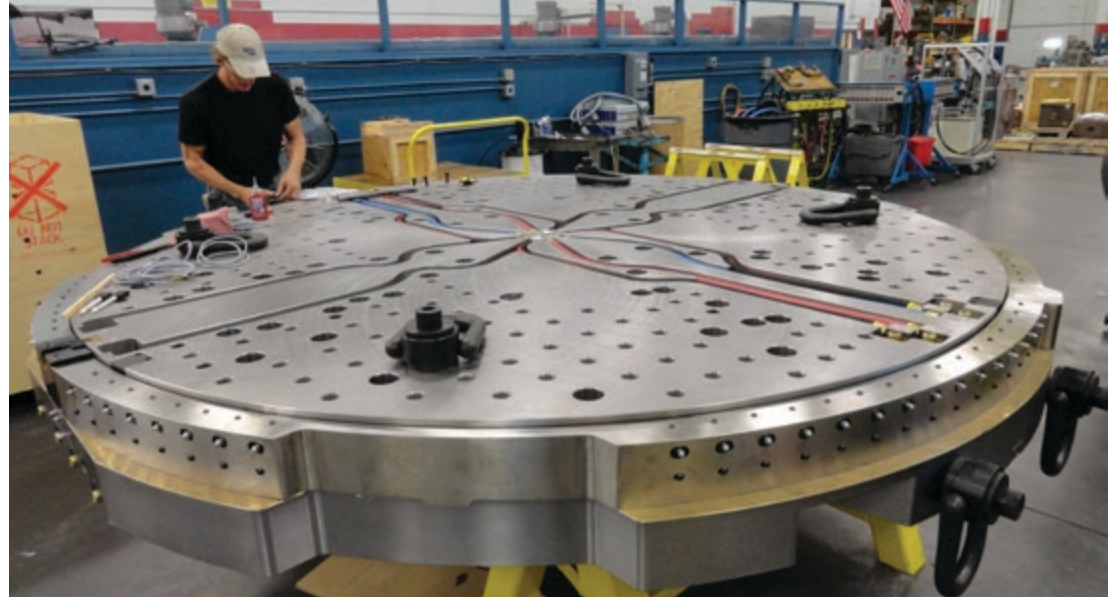
# | ABOUT US

Universal Multishot™ Systems began operations in 1998 when traditional sources of supply could not react to our quickly expanding multiple material molding needs. MGS has an extensive and long history of leadership in the plastics industry with regard to molding more than one resin within a molding cycle – we have been building multishot molds since the 1980s! When MGS Molding operations began in the late 90s, we found that the manufacturers of injection molding machines had excessively long lead times and a very narrow range of application and flexibility. Rather than making due, our engineers did what they do best – solve problems through innovation. We began building our own stand-alone portable injection units and rotational mechanisms to enable multishot molding.

Our in-house units quickly earned a reputation amongst our customers as the most effective and flexible solution. Rather than being locked into the screw sizes and barrel configurations of an OEM two-shot machine, MGS UMS™ equipment was developed to be portable *and* flexible. Our equipment is available in a wide range of sizes and is built to convert a standard injection molding machine into a multishot machine – in a matter of hours.

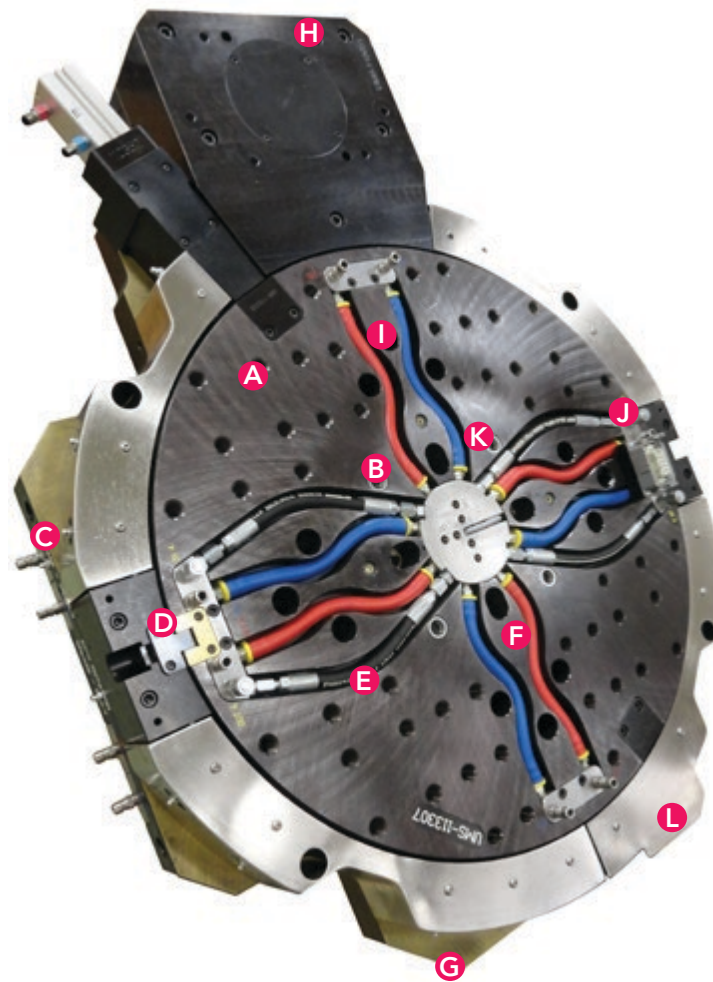
Whether used as part of a development project or for long-term production molding, UMS™ equipment is conducive, robust, repeatable and reliable.

Universal Multishot™ Systems is a division of MGS Mfg. Group. Founded in 1982, MGS is a leading global provider of optimized manufacturing solutions for high precision plastic products. With more than 1,400 employees at 10 facilities here and abroad, MGS is the ideal partner to meet your greatest challenges and make your program successful.



# FEATURES & BENEFITS

- A** SPI, Euromap and custom combinations of knock-out and bolt patterns are available to fit any press or application.
- B** Isolated water union with non-loaded bearings for long seal life. Hydraulics for cores are available.
- C** Quick disconnects for easy coolant connections to the press.
- D** Straight locks for verification of locations and set-up.
- E** Optional circuits available for hydraulic, electrical, water, and air.
- F** Isolated water lines maximize thermal efficiency.



- G** Solid bronze alloy coated base plate protects the rotary plate from wear.
- H** Stainless steel cover(s).
- I** Quick disconnects for easy connection to mold.
- J** Proximity switches for table position verification.
- K** Tapered locators ensure fast and true mold positioning.
- L** Absolute encoder for primary position control.

# SPECIFICATIONS

## STANDARD MODELS

MODEL SIZE (mm)	MINIMUM TIE BAR CLEARANCE (H X W) (in) (cm)		MINIMUM FREE SPACE DIAMETER (in) (cm)		WATER CIRCUITS & INSIDE DIAMETER (qty) (in) (cm)			MODEL SHUT HEIGHT (in) (cm)		ROTARY PLATEN WEIGHT (lbs) (kg)		MAX MOLD WEIGHT (lbs) (kg)	
400-S	12.00 x 12.00	30.48 x 30.48	18.0	45.7	2	0.344	0.874	4.750	12.06	425	193	425	193
475-S	13.75 x 13.75	34.93 x 34.93	21.0	53.3						550	250	550	250
550-S	15.90 x 15.90	40.39 x 40.39	23.6	59.9						800	364	1250	568
650-S	20.08 x 20.08	51.00 x 51.00	29.3	74.4						950	432	1700	773
750-S	22.05 x 22.05	56.01 x 56.01	33.2	84.3						1350	614	2550	1159
850-S	25.00 x 25.00	63.50 x 63.50	36.9	93.7						1500	682	3825	1739
975-S	28.75 x 28.75	73.03 x 73.03	41.6	105.6						2000	909	5525	2511
1100-S	31.90 x 31.90	81.03 x 81.03	46.9	119.0	4	0.344	0.874	5.900	14.97	3386	1539	6656	3025
1250-S	34.64 x 34.64	88.00 x 88.00	52.4	133.0						3801	1728	10266	4666
1340-S	39.37 x 39.37	100.0 x 100.0	55.5	140.9						4411	2005	10723	4874
1400-S	39.90 x 39.90	101.3 x 101.3	58.7	149.0						4797	2180	12180	5539
1600-S	44.90 x 44.90	114.0 x 114.0	66.5	168.8						5843	2656	14790	6723

### Style of Platen

- Flush mounted
- Euro media
- Automatic unscrewing mechanism

### Drives

- Hydraulic motor
- Servo motor
  - Hydraulic motor
  - Servo motor

### Bolt & K.O. Hole Platen

- SPI (standard) EuroMap, JIS, or Custom

### Additional Circuits

- Hydraulic
- Electrical
- Water
- Air

PERFORMANCE MODELS

MODEL SIZE	MINIMUM TIE BAR CLEARANCE (H X W)		MINIMUM FREE SPACE DIAMETER		WATER CIRCUITS & INSIDE DIAMETER			MODEL SHUT HEIGHT		ROTARY PLATEN WEIGHT		MAX MOLD WEIGHT	
	(mm)	(in) (cm)	(in) (cm)	(in) (cm)	(qty)	(in) (cm)	(in) (cm)	(in) (cm)	(in) (cm)	(lbs) (kg)	(lbs) (kg)	(lbs) (kg)	(lbs) (kg)
650-P	20.08 x 20.08	51.00 x 51.00	29.3	74.4	4	0.344	0.874	5.900	14.97	1325	602	2000	909
750-P	22.05 x 22.05	56.01 x 56.01	33.2	84.3						1740	791	3000	1364
850-P	25.00 x 25.00	63.50 x 63.50	36.9	93.7						2150	977	4500	2045
975-P	28.75 x 28.75	73.03 x 73.03	41.6	105.6						2570	1168	6500	2955
1100-P	31.90 x 31.90	81.03 x 81.03	46.9	119.0	4	0.560	1.421	9.250	23.48	5300	2409	10200	4636
1250-P	34.64 x 34.64	88.00 x 88.00	52.4	133.0						5950	2705	13840	6291
1340-P	39.37 x 39.37	100.0 x 100.0	55.5	140.9						6900	3136	14500	6591
1400-P	39.90 x 39.90	101.3 x 101.3	58.7	149.0						7300	3318	16470	7486
1600-P	44.90 x 44.90	114.0 x 114.0	66.5	168.8						9225	4193	20000	9091
1800-P	51.00 x 51.00	129.5 x 129.5	74.8	189.8						11600	5273	24000	10909
2000-P	56.00 x 56.00	142.2 x 142.2	84.2	213.7						14200	6455	28000	12727
2200-P	63.00 x 63.00	160.0 x 160.0	94.0	238.6	4	0.720	1.827	9.625	24.43	16920	7691	32000	14545
2550-P	70.00 x 70.00	177.8 x 177.8	106.4	270.1						22560	10255	40000	18182
2700-P	75.00 x 75.00	190.5 x 190.5	122.6	285.8						24700	11227	40000	18182
2850-P	80.00 x 80.00	203.2 x 203.2	120.4	305.6						28180	12809	40000	18182

Rotation

- 2 position (0°–180°–0°)
- 2 position (0°–180°–360°)
- 3 position (0°–180°–240°–360°)
- 4 position (0°–90°–180°–270°–360°)

Mechanical

- Auto greaser
- Electric slip ring connector

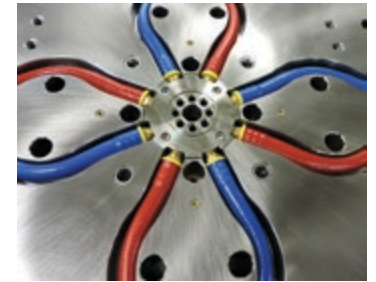
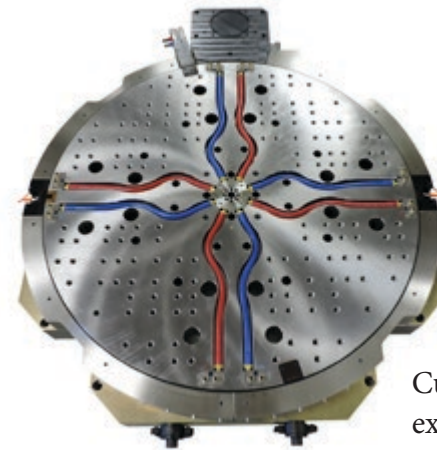
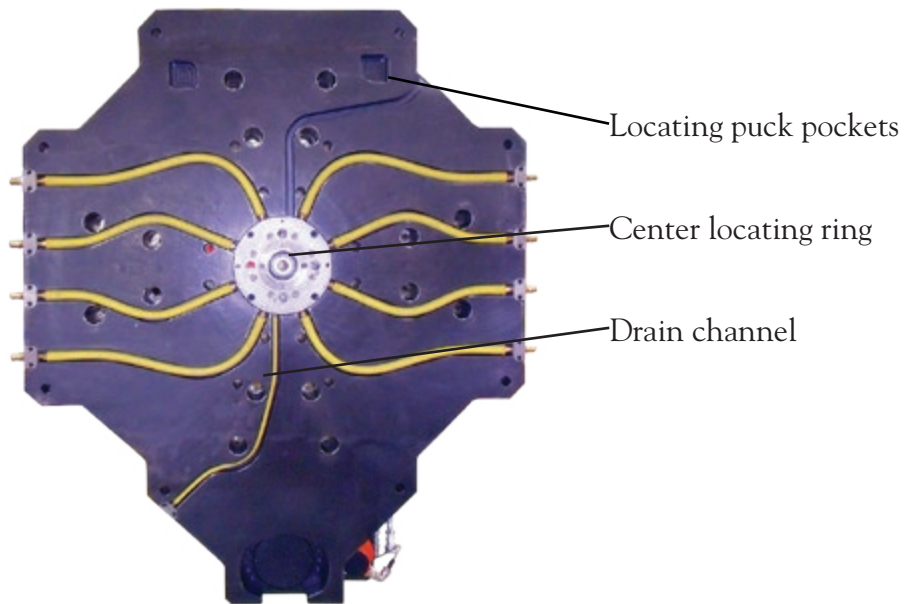
Control

- Integrated with UMS™ Injection Unit(s) operator interface
- Independent control system with HMI pneumatic package & sequences
- Auxiliary robot interface plug

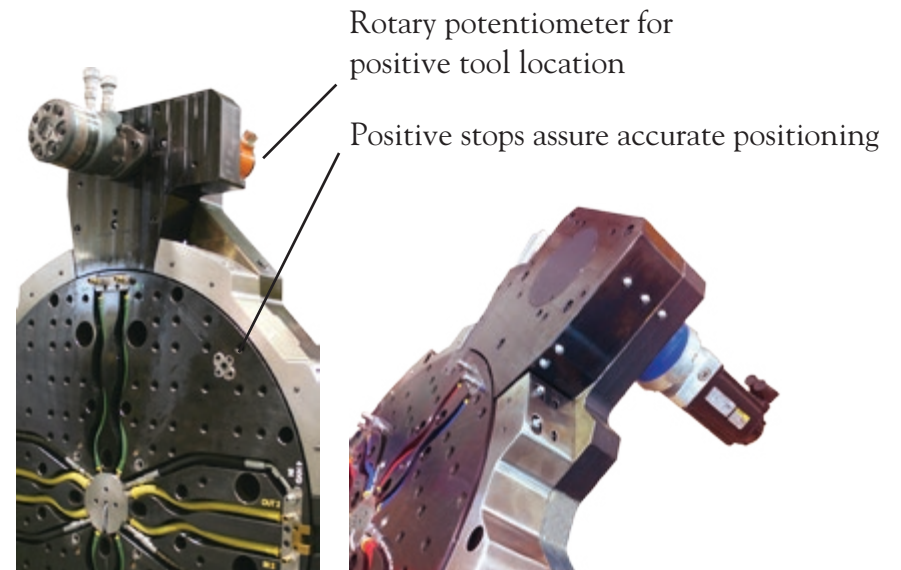


## INDEPENDENT WATER UNION

- Free floating bearing on rotating water union seal
- Independent modular construction for ease of maintenance
- Very low friction for reduced wear
- Excellent corrosion and chemical resistance with fluid compatibility
- Drain port prevents water leaks onto the tool in case of seal failure



Custom unions are available – example shown features 4 extra media circuits on center bolt circle



Hydraulic or Servo motor options for fast and accurate table rotation. Front or rear motor mounting available.

# ROTARY STACK & SPINDLE SYSTEMS

UMS™ Portable technologies - Rotary Platens and Rotary Stack Systems - are designed to move from press to press to accommodate different molds.

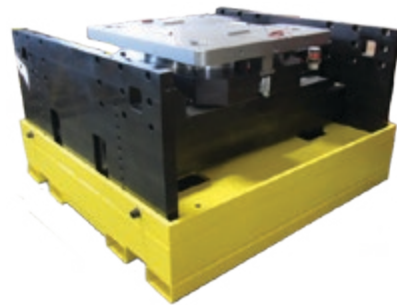
## What's the difference?

Conventional rotary platens provide 50% finished product every cycle and require larger injection molding machinery, increasing hourly rate and energy consumption. UMS™ Rotary Stack Systems use a two or four-sided rotary center section, facilitating a higher production yield with a smaller footprint and can accommodate press sizes up to 3,000 ton.

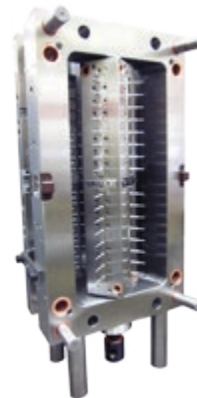


with Bolster Plates

## ROTARY STACK FRAMES



without Bolster Plates



ROTARY SPINDLE STACK



ROTARY STACK MOLD

## Features

- Media management (water, air, oil)
- Low maintenance
- Easy installation
- No additional machining required
- Integrated (UMS™ Portable Injection Unit) or independent rotary motion controls 2 or 4 position control for robot insertion or ejection during molding cycle



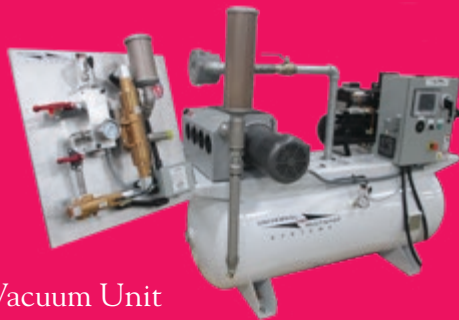
ROTARY STACK MOLD  
with Cantilever Arms

## CUSTOMIZED EQUIPMENT FOR YOUR PRODUCT APPLICATION



MGS Injection Machine with  
Interchangeable Tooling System

- Servo Hybrid Platform



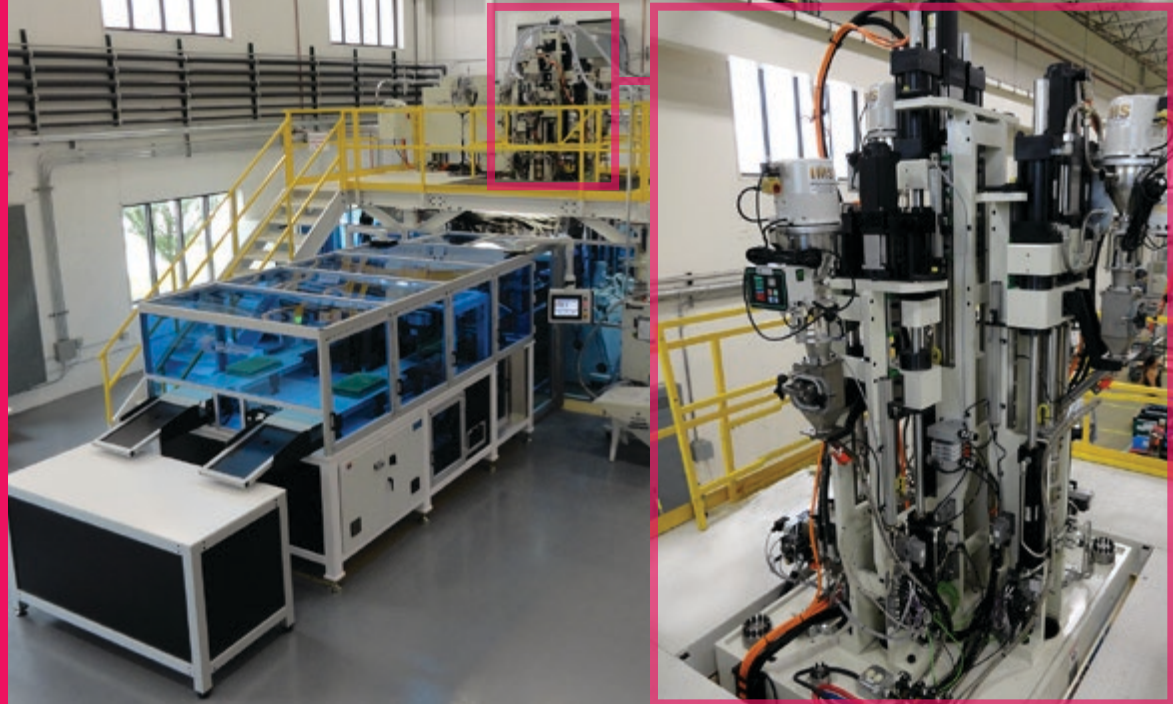
UMS™ Large Capacity Vacuum Unit

- 120 gallon tank reservoir
- Remote manifold control plate



Epoxy Dispensing System

- Multiple position (8x) injection
- Rotary turntable



MGS 200 TON VERTICAL MULTISHOT (4-SHOT) INJECTION  
MOLDING MACHINE WITH INTEGRATED MGS AUTOMATION CELL

## | CONTACT US

We invite you to take a tour of our Universal Multishot™ Systems facility. Send your RFQ/RFP and allow us to prove MGS UMS™ portable injection units, rotary technologies and specialty molding equipment is precisely the right choice for your application.



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