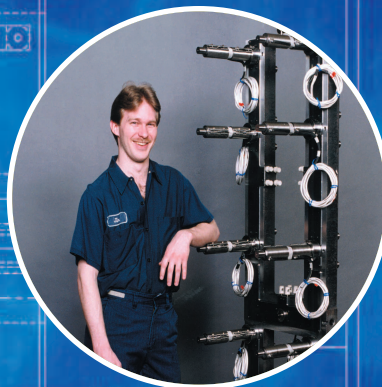


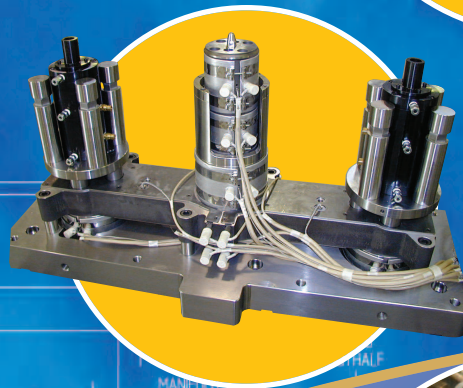
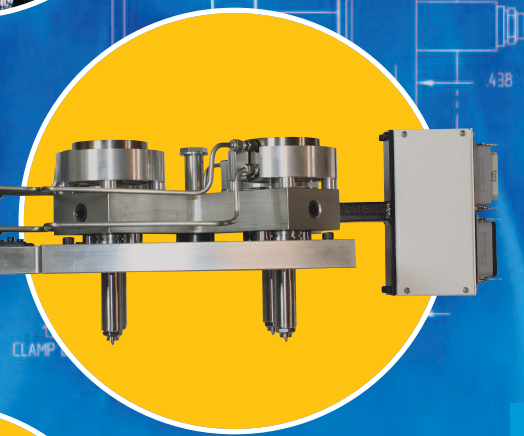
# OSCO<sup>®</sup> inc.

RUNNERLESS MOLDING SYSTEMS



## Interface Options

- **Manifold & Components Only**
- **Pre-Wired**
- **QSS - Quick Set**
- **Hot Half**



**Where Innovation Flows**



Proudly Made in the USA

Manifold and Interface Options

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## Interface Options

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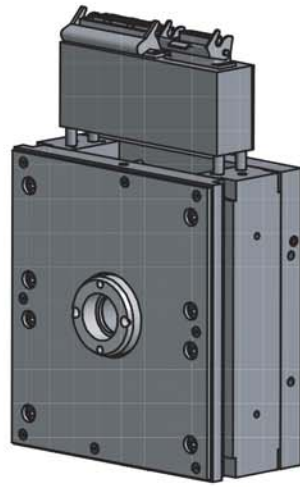


# Interface Options

*OSCO offers an interface option to meet your application needs.*

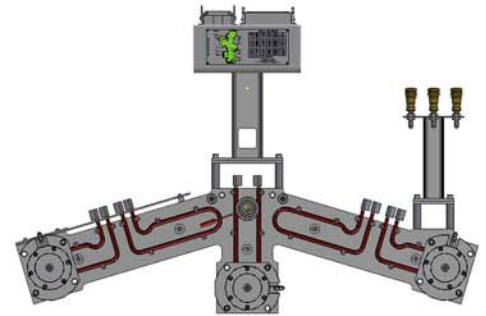
Available  
With Any  
OSCO System

- Valve Gate Systems
- Thermal Systems
- Co-inject Systems
- Two-shot Systems



**Hot-Half System**

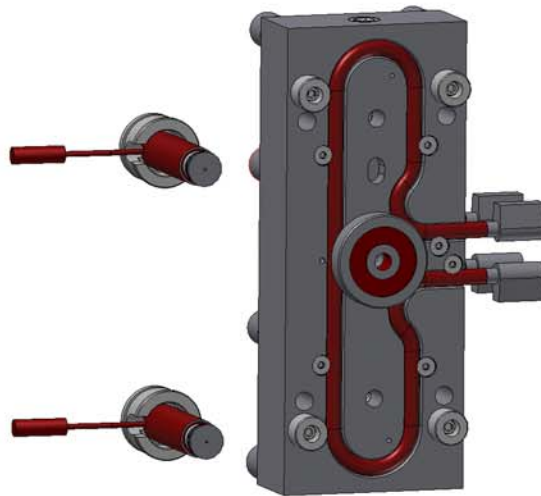
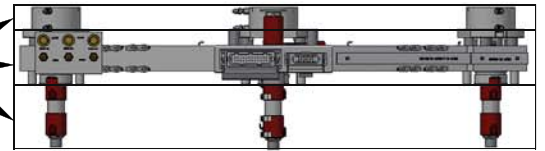
OSCO's Hot-Half is furnished complete with a Top Clamp Plate, Support Rails, Nozzle Plate and the hot-runner system installed, fully-tested and ready-to-go. Simply 'set and shoot'!



**Quickset System**

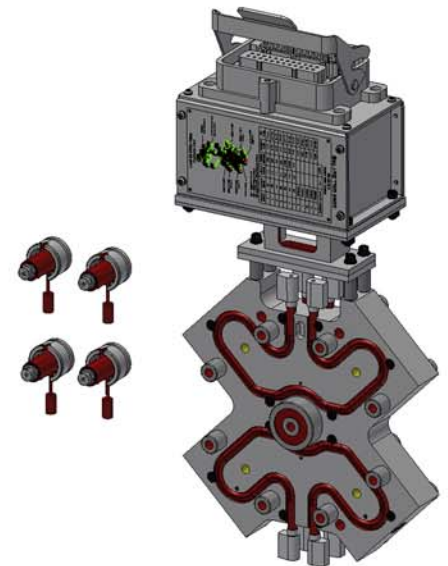
OSCO's Quickset Manifold System provides all of the value and benefits of a complete Hot-Half, but at a much lower price.

Customer Steel



**Manifold & Components**

OSCO's Manifold & Component System option is the basic, manifold system only. Installation and wiring is performed by our customers.



**Pre-Wire Manifold System**

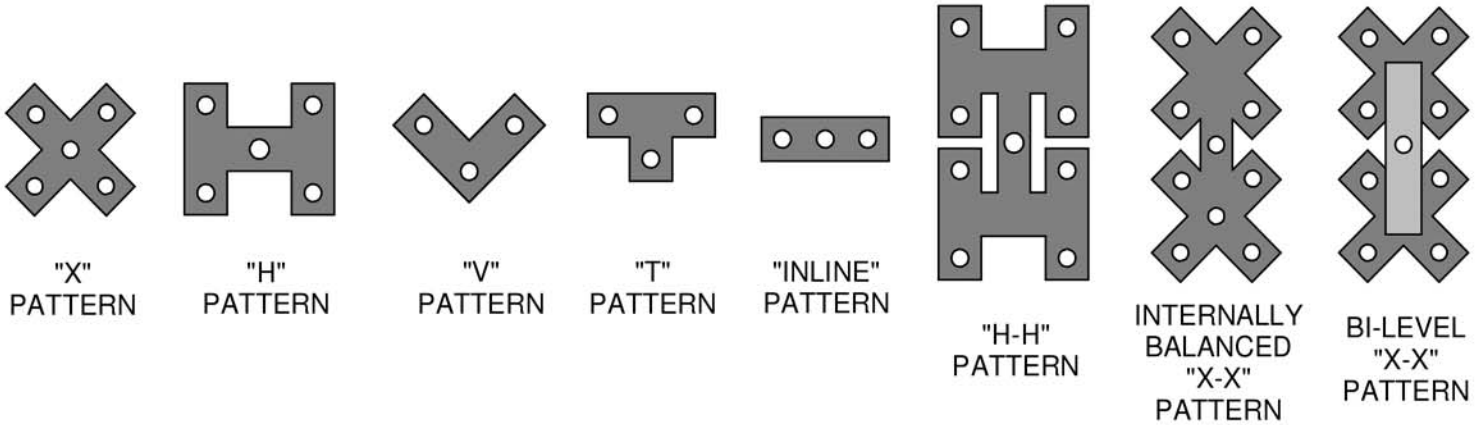
OSCO's Pre-Wired Manifold System is an interface option that offers a lower price-point. The manifold is wired, electrically tested and the wiring schematic is mounted onto the terminal box.

# OSCO'S MANIFOLD SYSTEM

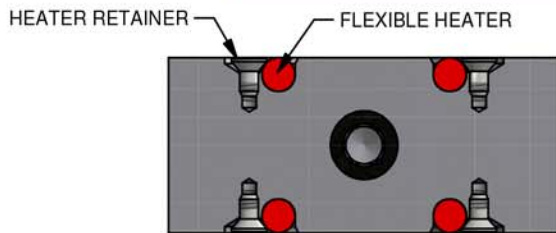
OSCO Manifold Systems are engineered to meet the ongoing needs of the plastic molding industry. Typical manifold applications include: conventional molding, valve gating, two-shot, multi-color and shuttle presses (both horizontal and vertical).

The OSCO Manifold System is designed to meet the gate location requirements dictated by the molded part. Virtually any geometric shape can be manufactured into a high performance melt-conveying manifold system.

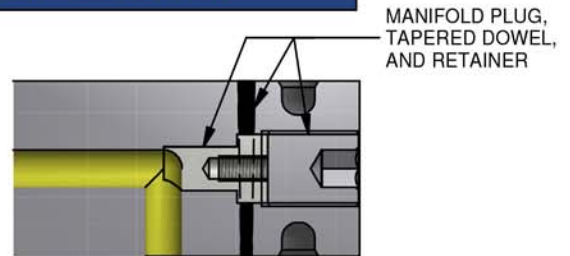
## Common Manifold Patterns



## Accurate Temperature Control and Balanced Flow

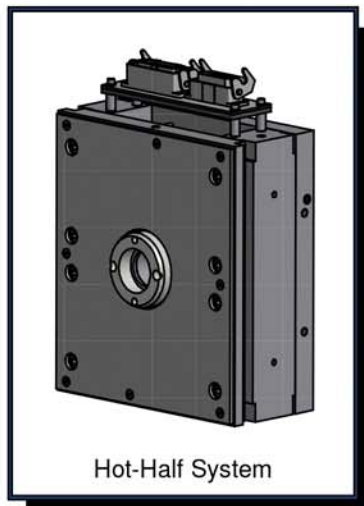


Flexible heaters provide an even heat profile and ease of field replaceability.

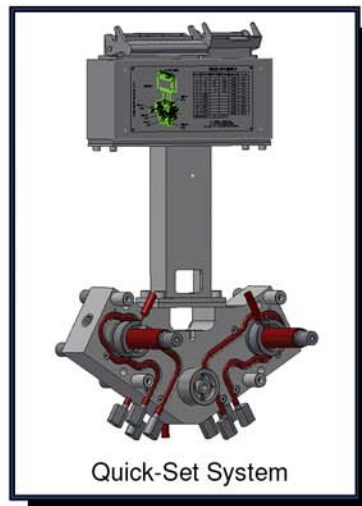


Contoured flow plugs are keyed and removable. Smooth transitions. No dead spots.

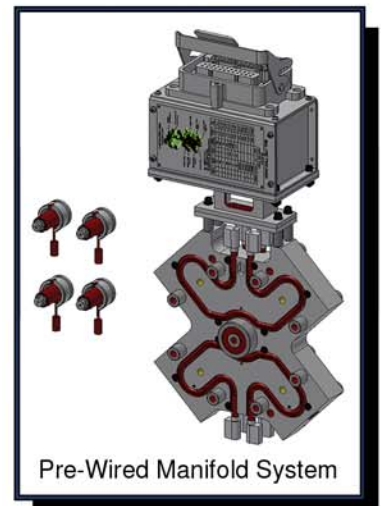
## Interface Options



Hot-Half System



Quick-Set System

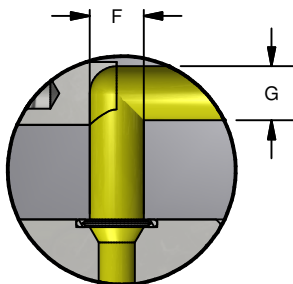
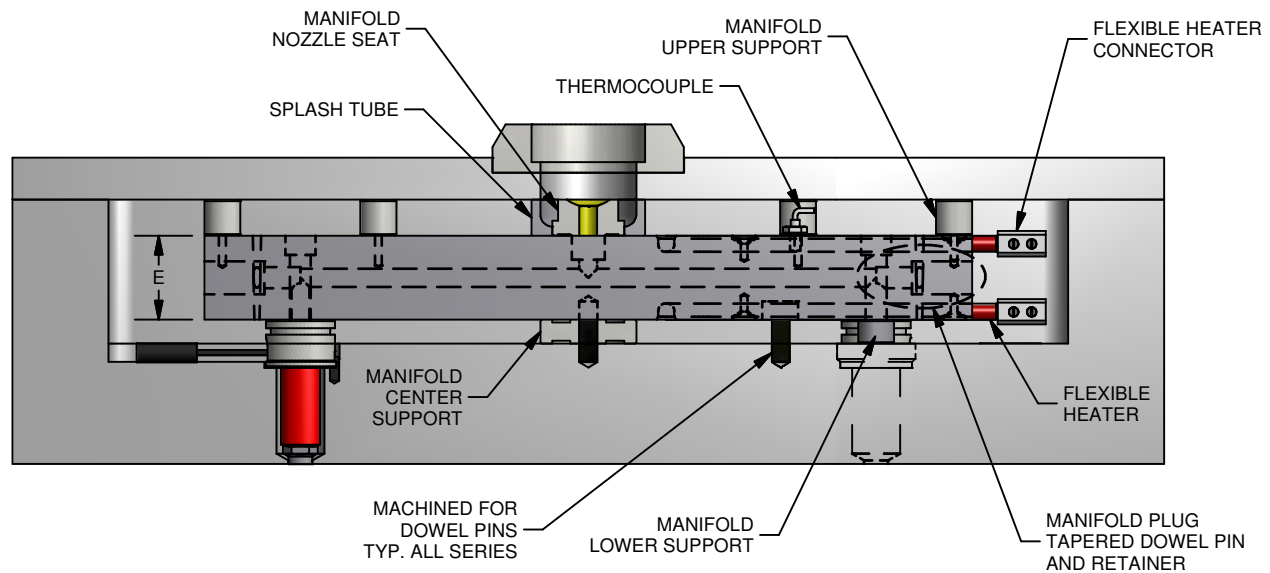
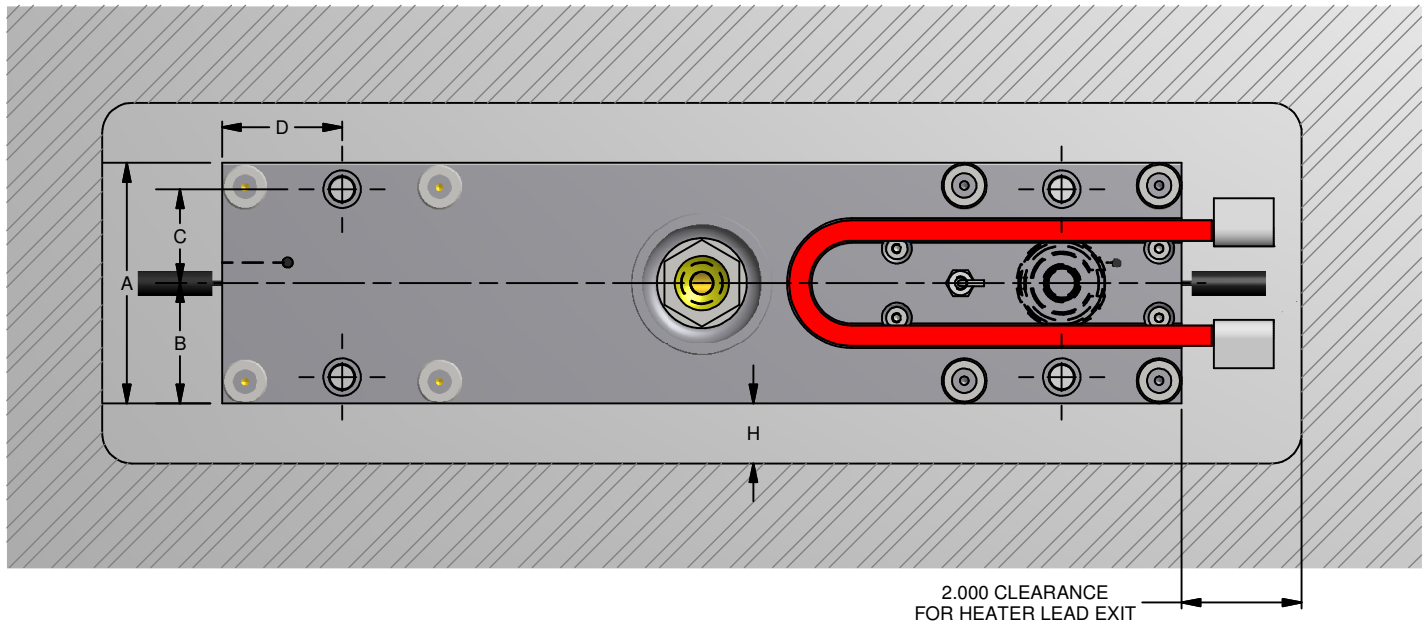


Pre-Wired Manifold System



# MANIFOLD DETAILS

OSCO offers five (5) standard manifold systems detailed below. Flow channels, manifold footprint, and clearance details can be altered to suit a specific application.



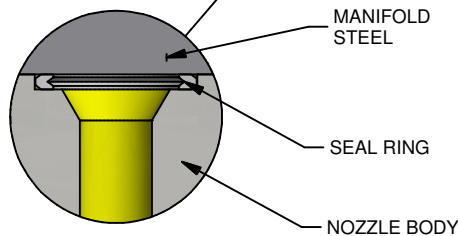
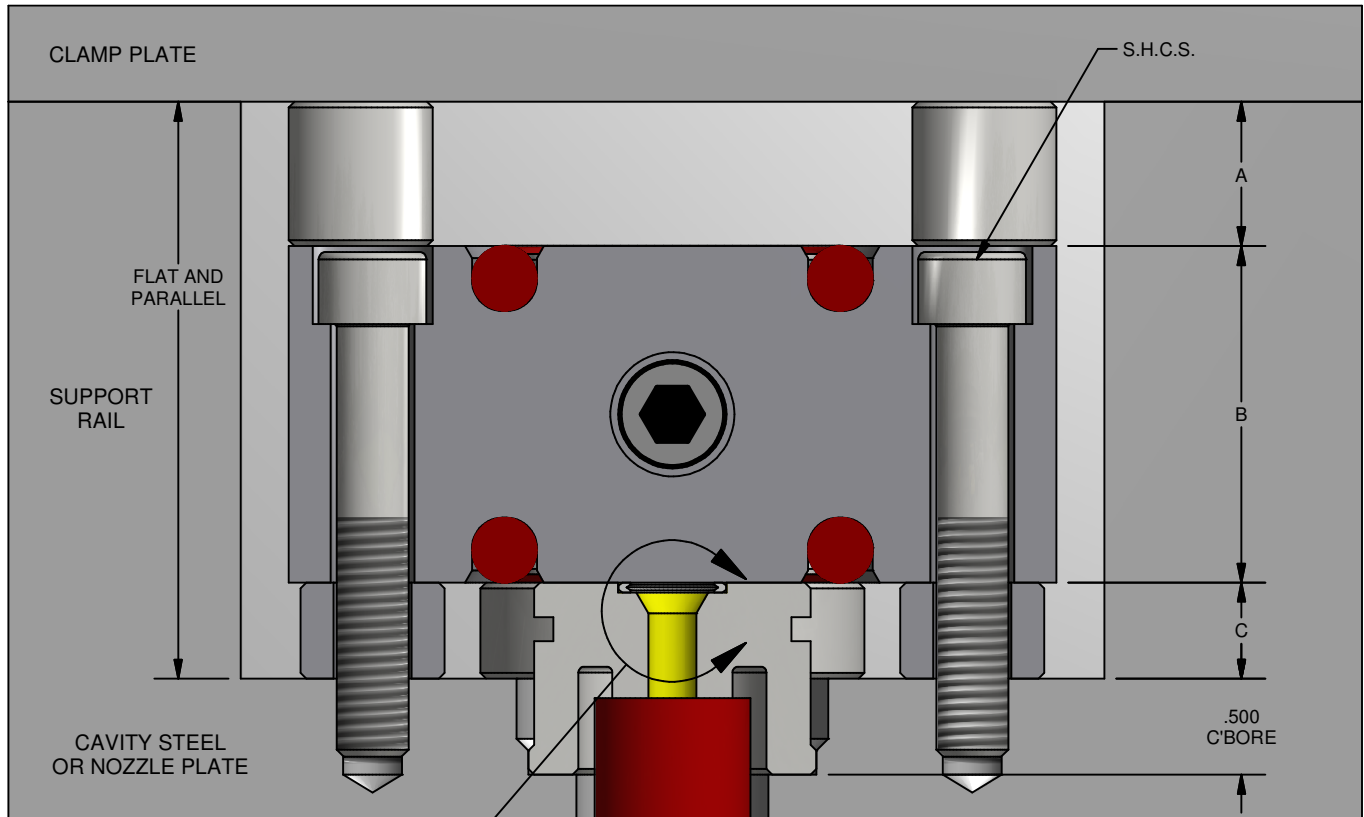
STANDARD MANIFOLD SYSTEM DIMENSIONS								
SERIES	A	B	C	D	E	F	G	H
20	3.000	1.500	1.125	1.625	1.500	.250	.250	.250
50	4.000	2.000	1.562	2.000	1.750	.375	.375	1.000
100	4.000	2.000	1.562	2.000	2.000	.500	.500	1.000
200	5.000	2.500	2.000	2.500	2.250	.625	.625	1.000
300	6.000	3.000	2.000	3.000	2.500	.750	.750	1.000

For sizes other than shown here, please contact OSCO.

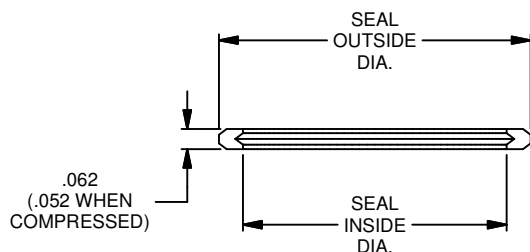
# LEAK PROOF SOLUTION

## OSCO's Manifold System is Proven Leak Proof

1. Maintain sufficient clamp tonnage for the projected area being molded.
2. Relationship between manifold lower supports and nozzle head surface must be equal in height, flat and parallel.
3. Relationship between heights of manifold upper supports and the mold support system must be equal in height, flat and parallel.
4. Manifold system stack height must be equal to, or up to a .002" pre-load to the mold support system.
5. Nozzle seal ring stand .010" proud from the nozzle head. After securing the manifold screws, the seal rings will crush, providing a leak proof assembly.



1. MANIFOLD ASSEMBLY, A + B + C, MUST BE EQUAL TO THE MOLD RAIL HEIGHT OR POCKET DEPTH.
2. ALL NOZZLE C'BORE DEPTHS MUST BE EQUAL AND FREE OF BURRS OR CONTAMINANTS.



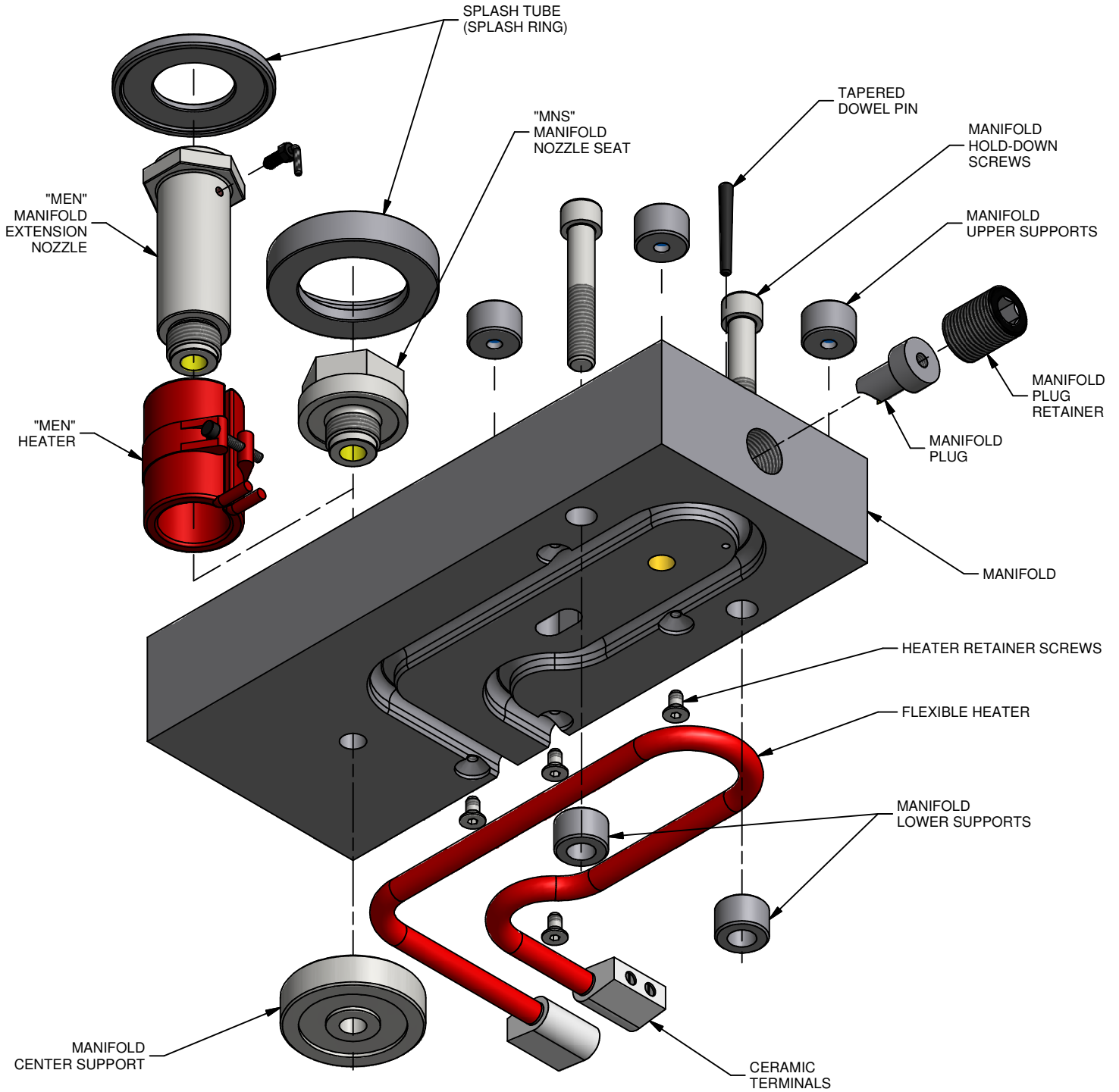
MANIFOLD TORQUE SPECIFICATIONS		
SERIES	MANIFOLD HOLD DOWNS	TORQUE SPECS
20	5/16-18	32 ft/lbs.
50	3/8-16	32 ft/lbs.
100	3/8-16	32 ft/lbs.
200	3/8-16	32 ft/lbs.
300	3/8-16	32 ft/lbs.



# OSCO'S MANIFOLD SYSTEM

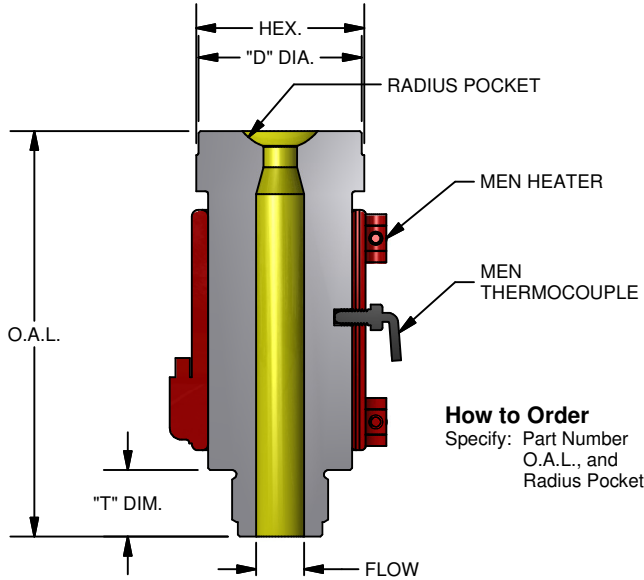
OSCO Manifold systems are engineered to be an extension of the injection machine barrel. We take the single point of injection from the injection machine unit and disperse the resin evenly to each nozzle drop in the mold cavity.

## 100 SERIES MANIFOLD



# MANIFOLD COMPONENT PARTS

## MANIFOLD EXTENSION NOZZLES

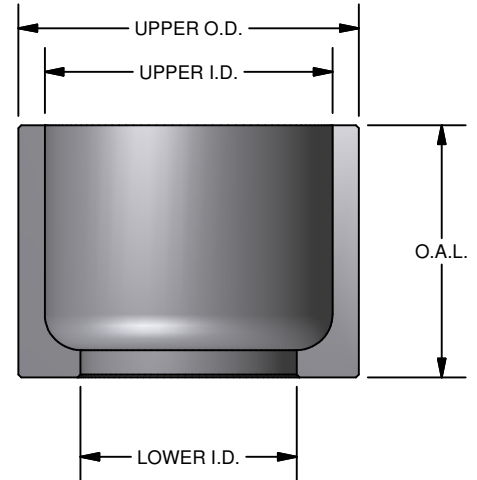


**How to Order**  
Specify: Part Number  
O.A.L., and  
Radius Pocket

Standard Radius Pockets are:  $\varnothing 1/2"$ ,  $\varnothing 3/4"$  or Flat.

MANIFOLD EXTENSION NOZZLE INFORMATION					
PART NUMBER	O.A.L.	FLOW	"D" DIA.	"T" DIA.	
MEN 1020	2.000	$\varnothing.375$	$\varnothing 1.125$	$\varnothing.505$	20 / 50 / 100 SERIES
MEN 1030	3.000	$\varnothing.375$	$\varnothing 1.125$	$\varnothing.505$	
MEN 1040	4.000	$\varnothing.375$	$\varnothing 1.125$	$\varnothing.505$	
MEN 1050	5.000	$\varnothing.375$	$\varnothing 1.125$	$\varnothing.505$	
MEN 1060	6.000	$\varnothing.375$	$\varnothing 1.125$	$\varnothing.505$	
MEN 2040	4.000	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 1.700$	$\varnothing.692$	200 / 300 SERIES
MEN 2050	5.000	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 1.700$	$\varnothing.692$	
MEN 2060	6.000	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 1.700$	$\varnothing.692$	
MEN 2070	7.000	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 1.700$	$\varnothing.692$	
MEN 2080	8.000	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 1.700$	$\varnothing.692$	

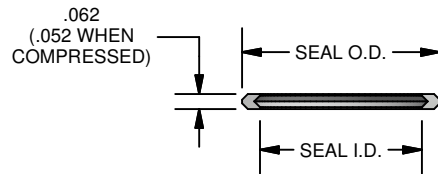
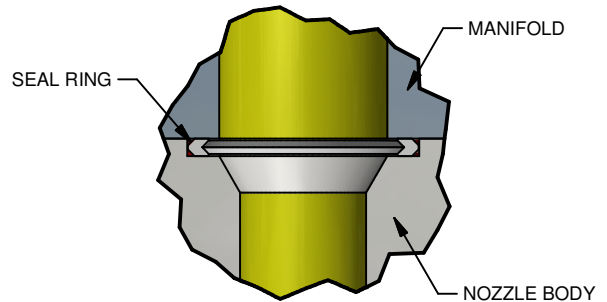
## SPLASH TUBE



### STANDARD SPLASH TUBE INFORMATION

PART NUMBER	UPPER O.D.	UPPER I.D.	LOWER I.D.	O.A.L.
SPLASH TUBE 050/100	$\varnothing 2.365$	$\varnothing 2.00$	$\varnothing 1.503$	1.000
SPLASH TUBE 050/100	$\varnothing 2.365$	$\varnothing 2.00$	$\varnothing 1.503$	2.000
SPLASH TUBE 200	$\varnothing 2.365$	$\varnothing 2.03$	$\varnothing 1.503$	1.000
SPLASH TUBE 200	$\varnothing 2.365$	$\varnothing 2.03$	$\varnothing 1.503$	2.000

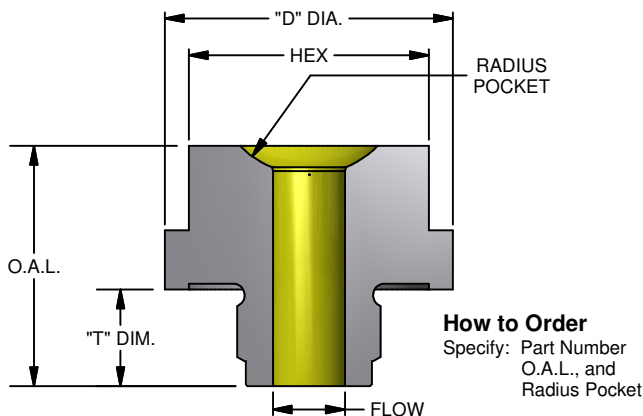
## SEAL RINGS



### SEAL RING INFORMATION

SEAL RING NUMBER	SEAL I.D.	SEAL O.D.
416	$\varnothing.250$	$\varnothing.374$
716	$\varnothing.437$	$\varnothing.561$
816	$\varnothing.500$	$\varnothing.631$
916	$\varnothing.562$	$\varnothing.686$
1116	$\varnothing.687$	$\varnothing.812$
1216	$\varnothing.750$	$\varnothing.874$
1516	$\varnothing.937$	$\varnothing 1.062$
1716	$\varnothing 1.062$	$\varnothing 1.187$
1916	$\varnothing 1.187$	$\varnothing 1.312$
2016	$\varnothing 1.250$	$\varnothing 1.375$
2416	$\varnothing 1.500$	$\varnothing 1.625$

## MANIFOLD NOZZLE SEAT



**How to Order**  
Specify: Part Number  
O.A.L., and  
Radius Pocket

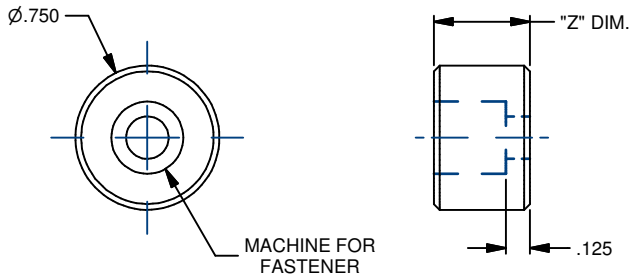
Standard Radius Pockets are:  $\varnothing 1/2"$ ,  $\varnothing 3/4"$  or Flat.

MANIFOLD NOZZLE SEAT INFORMATION				
PART NUMBER	O.A.L.	FLOW	"D" DIA.	"T" DIA.
MNS 050	1.250	$\varnothing.375$	$\varnothing 1.500$	$\varnothing.503$
MNS 100	1.250	$\varnothing.375$	$\varnothing 1.500$	$\varnothing.503$
MNS 200	1.312	$\varnothing.500$ w / $\varnothing.350$ INLET	$\varnothing 2.000$	$\varnothing.692$



# MANIFOLD COMPONENT PARTS

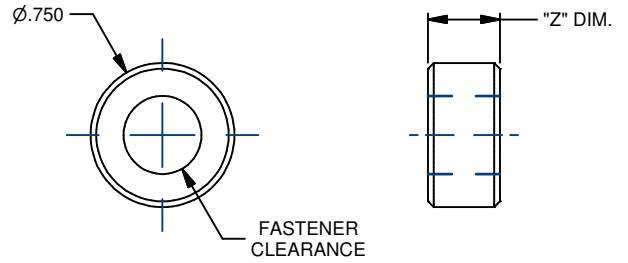
## MANIFOLD UPPER SUPPORT



### How to Order

Specify: Diameter and "Z" Dimension.

## MANIFOLD LOWER SUPPORT



### How to Order

Specify: Diameter and "Z" Dimension.

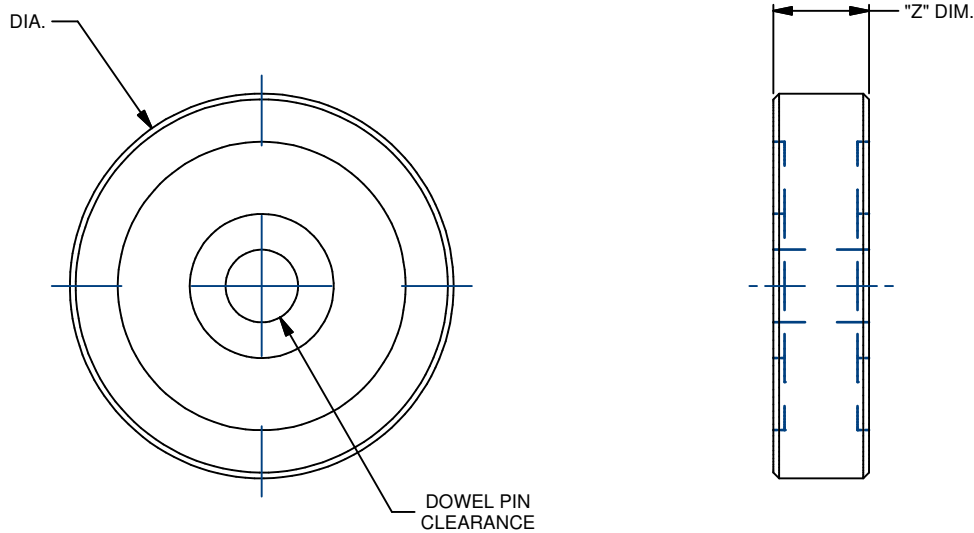
### UPPER SUPPORT INFORMATION

PART NUMBER	DIA.	STANDARD "Z" DIM.	FASTENER
SUPPORT - UPPER	Ø.625	.500 / .750	#10 S.H.C.S.
SUPPORT - UPPER	Ø.750	.500 / .750 / 1.000	#10 S.H.C.S.
SUPPORT - UPPER	Ø1.000	.500 / .750 / 1.000	1/4" S.H.C.S.

### LOWER SUPPORT INFORMATION

PART NUMBER	DIA.	STANDARD "Z" DIM.	FASTENER
SUPPORT - LOWER	Ø.625	.500	1/4" S.H.C.S.
SUPPORT - LOWER	Ø.750	.500 / .750 / 1.000	3/8" S.H.C.S.

## MANIFOLD CENTER SUPPORT



### How to Order

Specify: Diameter and "Z" Dimension.

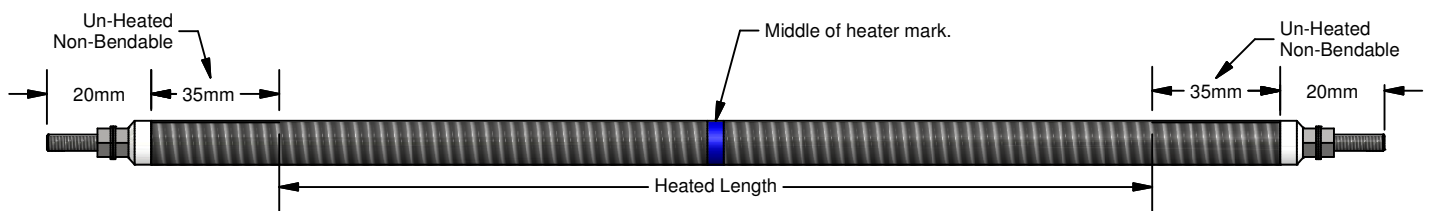
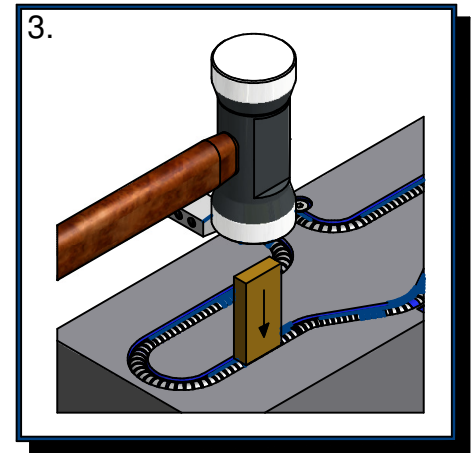
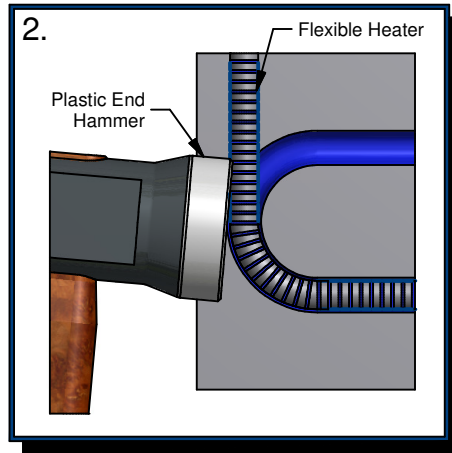
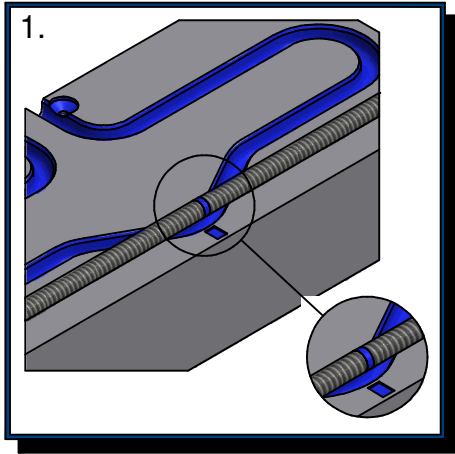
### CENTER SUPPORT INFORMATION

PART NUMBER	DIA.	STANDARD "Z" DIM.	DOWEL
SUPPORT - CENTER - 020	Ø1.500	.500	1/4"
SUPPORT - CENTER - 050/100/200	Ø2.000	.500 / .750 / 1.000	3/8"

# OSCO FLEXIBLE HEATER INSTALLATION

Some advantages of using Flexible Tubular Heaters:

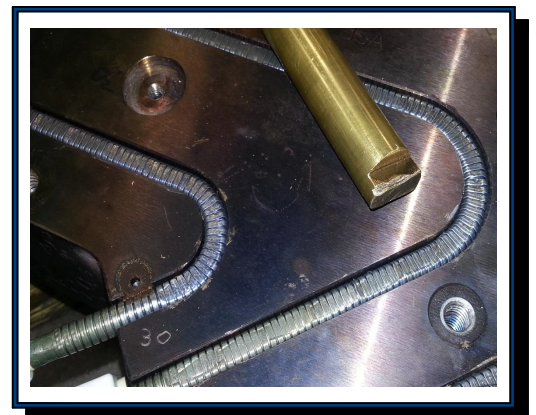
- Can be hand-formed
- No Special tools required for installation
- Easy to replace



1. Line up centers. Align the center of the Osco Flex Heater with the center of the manifold track.
  - a. Manifold track center point is marked inside the groove on earlier manifolds, or on the surface outside the track on newer manifolds.
  - b. If need be you can measure for the center points.
    - i. Lay a cord inside the track.
    - ii. Mark the end points. Remove the cord & measure for center.
    - iii. Mark the center of the cord and re-lay the cord in the track to find manifold track center point.
2. Press in Heater from the center point outward. Use a mallet &/or manually press heater in.
3. Stake the heater with flat surfaced tool & hammer.
  - a. No sharps, a flat piece of bronze or brass works well.
  - b. Stake the entire length of the heater for best results.
  - c. Staking will help form the heater to the track and provide for the best fit.

## NOTES:

- Do not use sharp edged tools.
- Make sure the groove is chamfered and without any sharps or burrs
- Do not bend the heater back and forth.
- Do not bend the unheated cold section

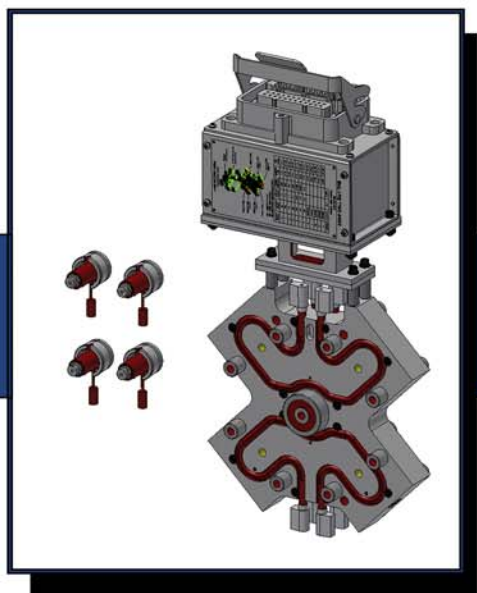
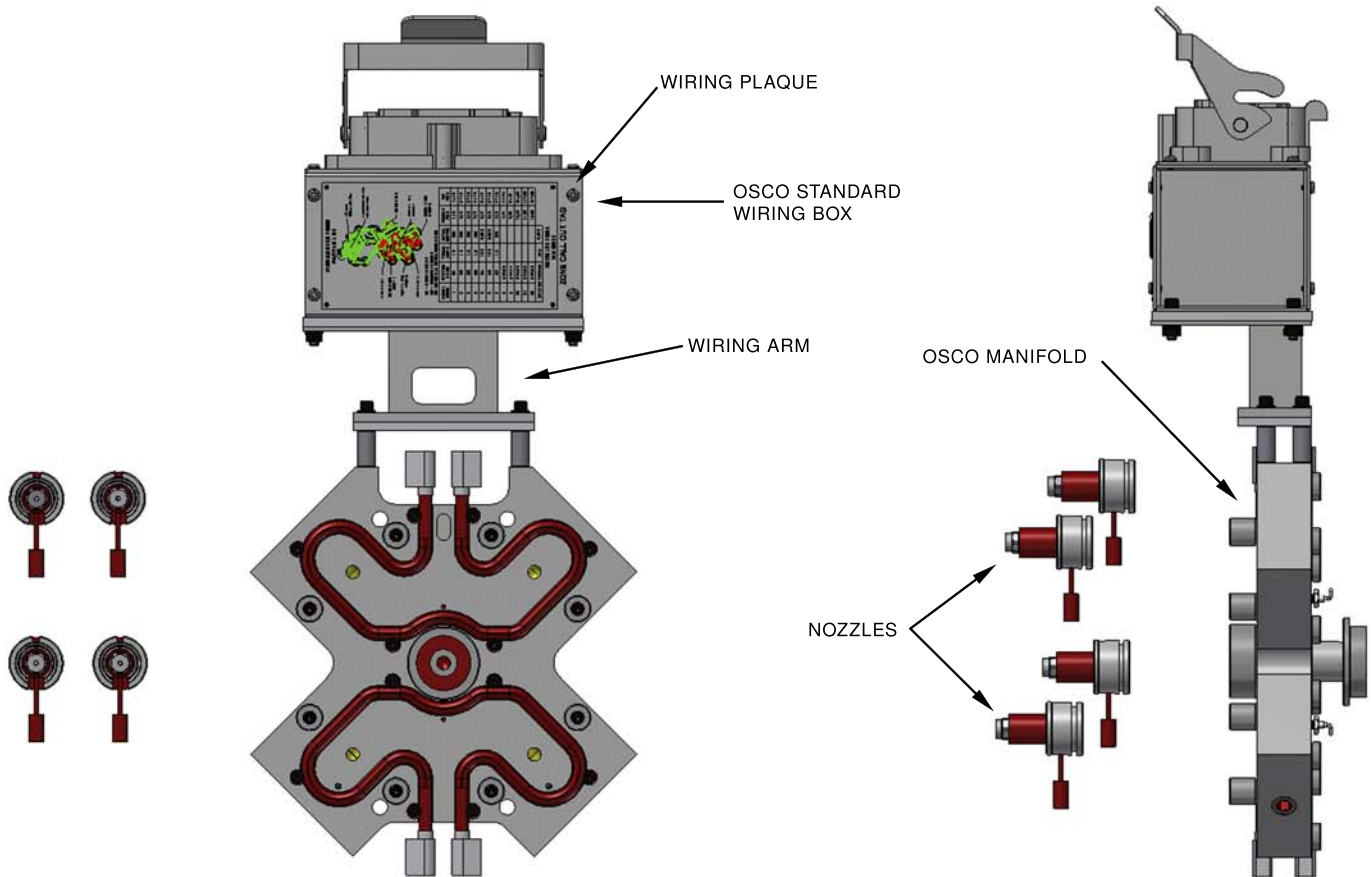




# OSCO'S PRE-WIRED MANIFOLD SYSTEM

The Pre-Wired option will simplify the installation of the manifold system into your mold. Furnished with OSCO standard "PIC" and "MTC" type mold connectors, electrical schematic, wiring arm secured to the manifold, and wiring schematic plaque fastened to the terminal box for easy in-press zone identification.

- Save time during installation and dis-assembly.
- Neat and clean wiring installation will assist in avoiding 'down-time'.
- Clearly marked and labeled wiring zones will assure you that the electrical system is both reliable and accurate.

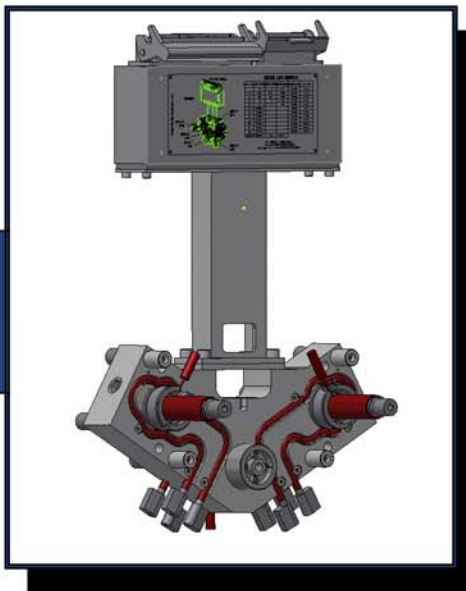
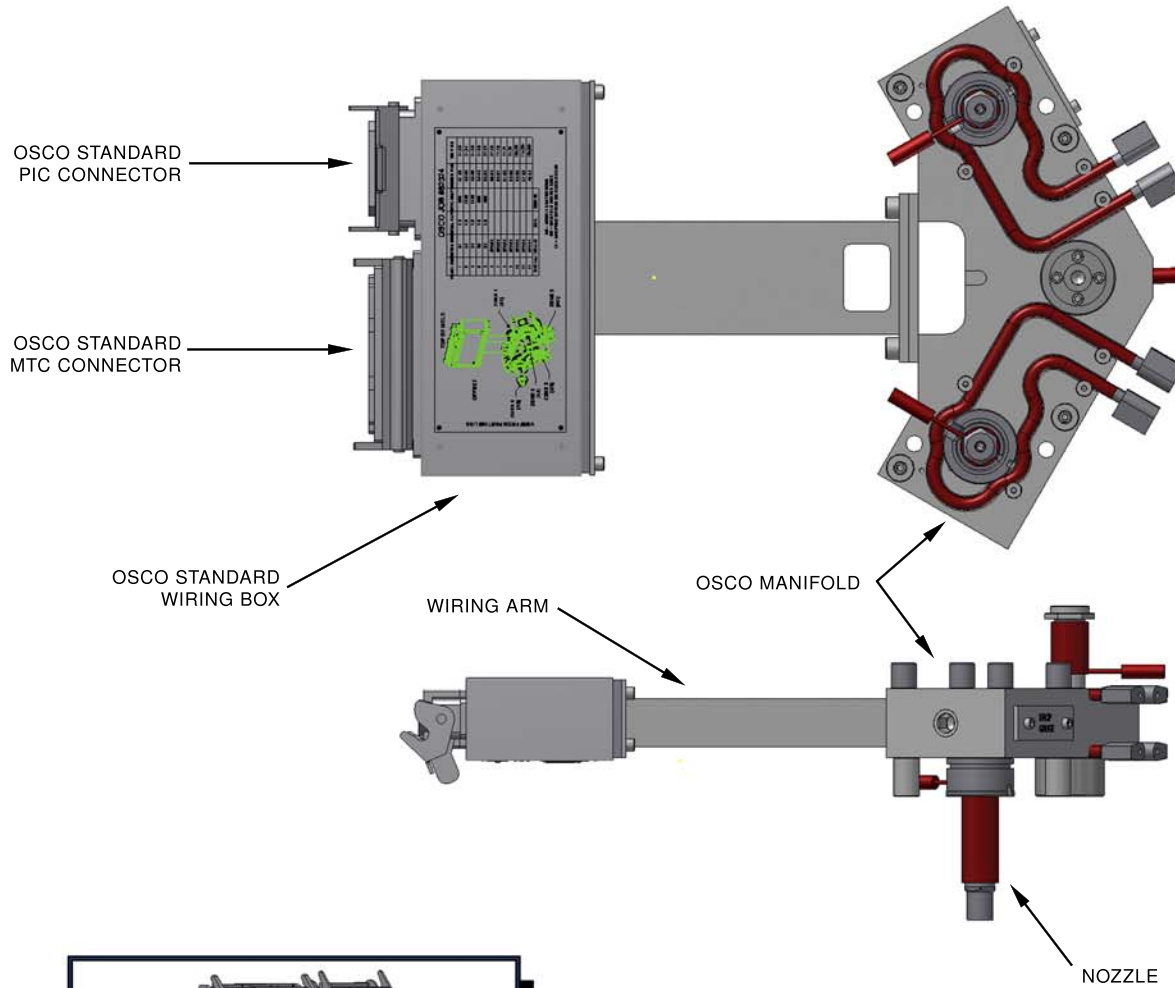


OSCO's Pre-Wired System

# OSCO'S QUICK-SET MANIFOLD SYSTEM

The Quick-Set system option will simplify the installation of a complete manifold system into your mold. Furnished with OSCO standard "PIC" and "MTC" type mold connectors, electrical schematic, wiring arm and all connectors secured to the manifold, and wiring schematic plaque fastened to the terminal box for easy in-press zone identification.

- Save time during installation and dis-assembly.
- Neat and clean wiring installation will assist in avoiding 'down-time'.
- Clearly marked and labeled wiring zones will assure you that the electrical system is both reliable and accurate.

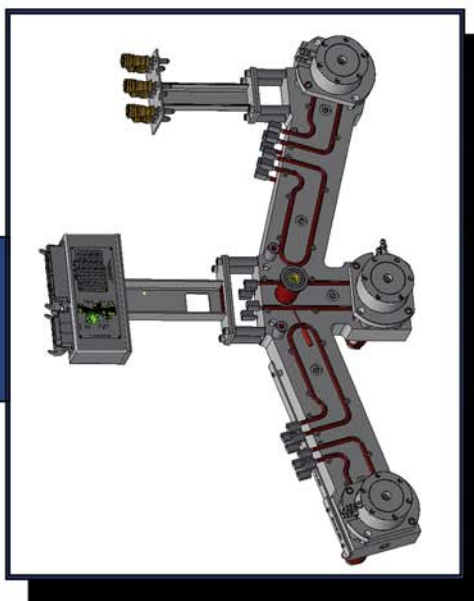
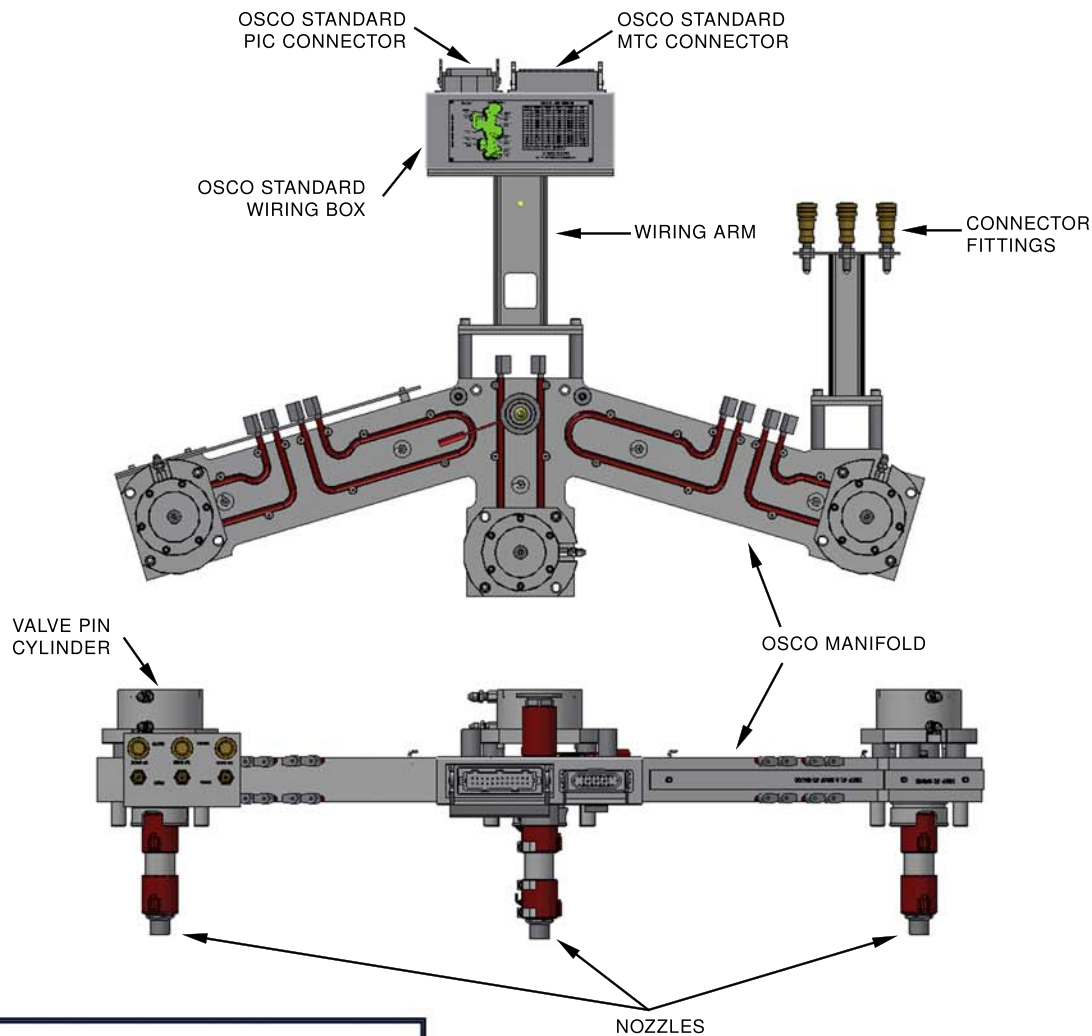


## OSCO's Quick-Set Manifold System

# OSCO'S QUICK-SET VALVE GATE SYSTEM

The Quick-Set Valve-Gate system option will simplify the installation of a complete valve-gate manifold system into your mold. Furnished with *OSCO* standard "PIC" and "MTC" type mold connectors, electrical schematic, wiring arm and all connectors secured to the manifold, and wiring schematic plaque fastened to the terminal box for easy in-press zone identification.

- Save time during installation and dis-assembly.
- Neat and clean wiring installation will assist in avoiding 'down-time'.
- Clearly marked and labeled wiring zones will assure you that the electrical system is both reliable and accurate.



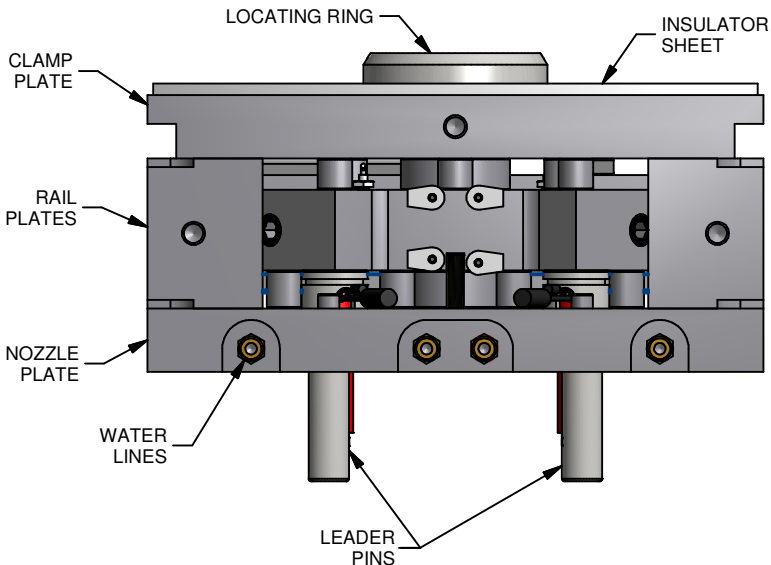
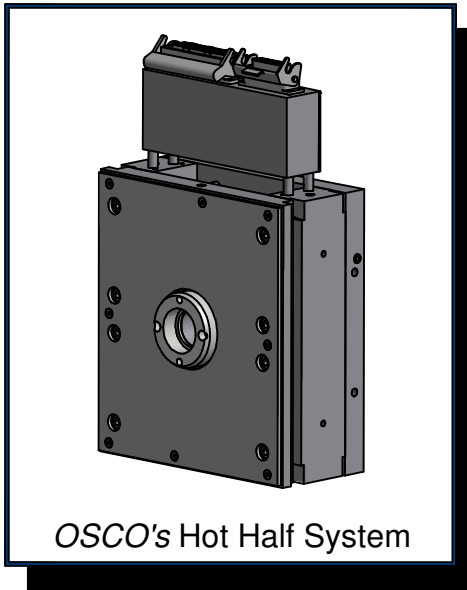
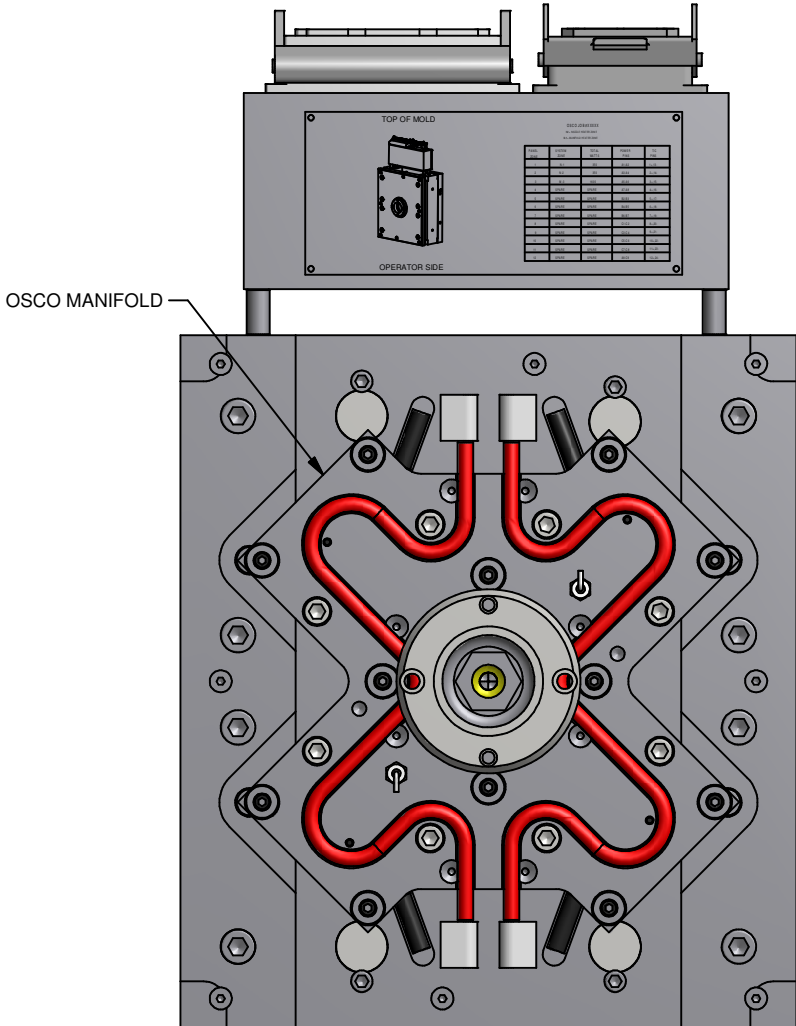
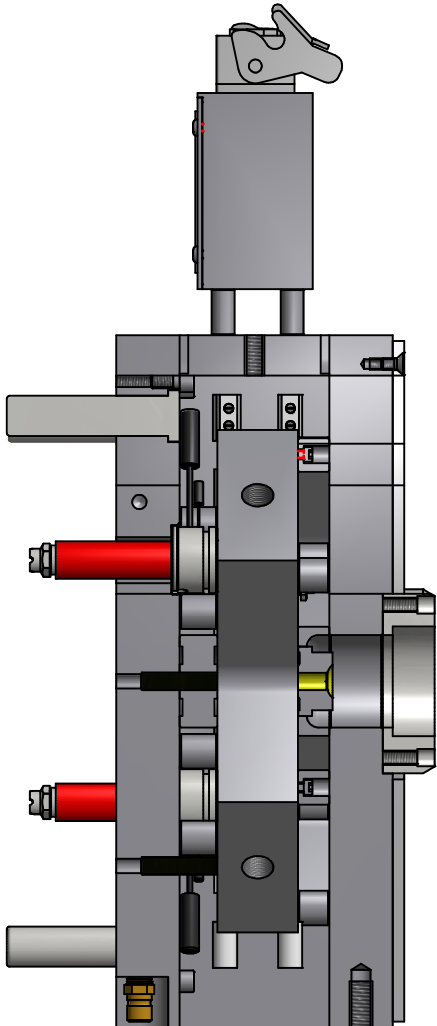
## OSCO's Quick-Set Valve Gate System



# OSCO'S HOT HALF SYSTEM

OSCO's Hot Half System is designed to facilitate the Hot Runner interface. Furnished complete with the top clamp plate, nozzle retainer plate, support rails, locating ring and the OSCO manifold system fully assembled, installed and electrically tested.

- Simply fasten the Hot Half System to your mold base and you are ready to run.
- Simplifies Hot Runner installation, assembly and servicing.
- Helps reduce mold lead-time.

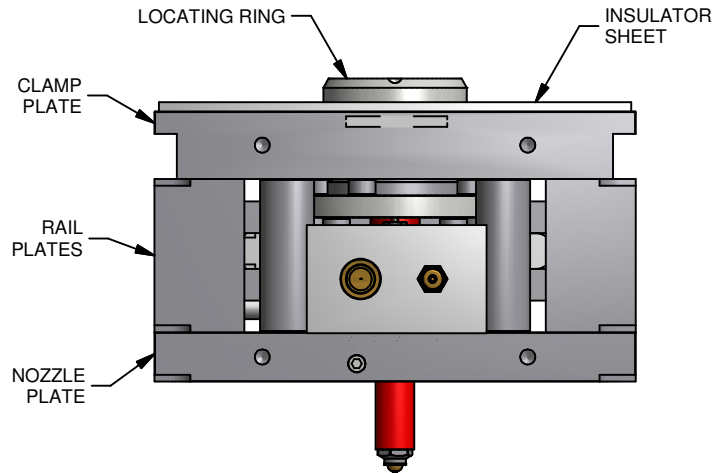
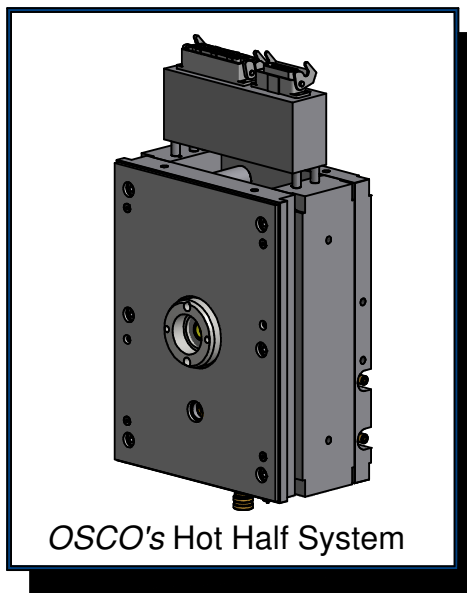
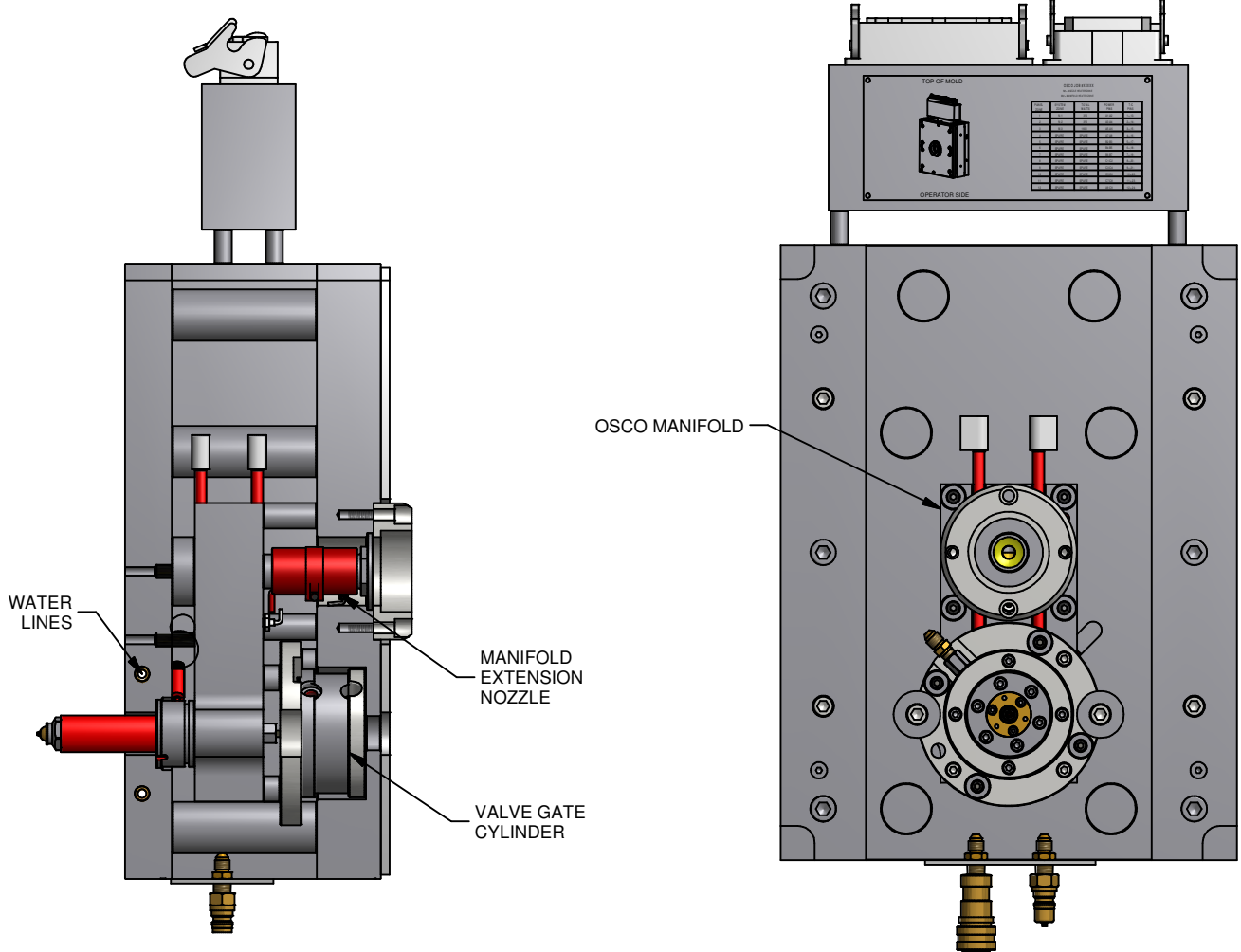




# OSCO'S HOT HALF VALVE GATE SYSTEM

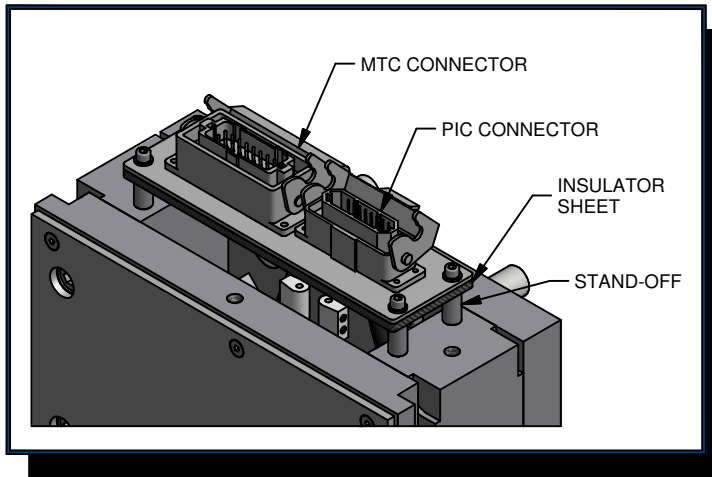
OSCO's Hot Half System is designed to facilitate the Hot Runner interface. Furnished complete with the top clamp plate, nozzle retainer plate, support rails, locating ring and the OSCO manifold system fully assembled, installed and electrically tested.

- Simply fasten the Hot Half System to your mold base and you are ready to run.
- Simplifies Hot Runner installation, assembly and servicing.
- Helps reduce mold lead-time.

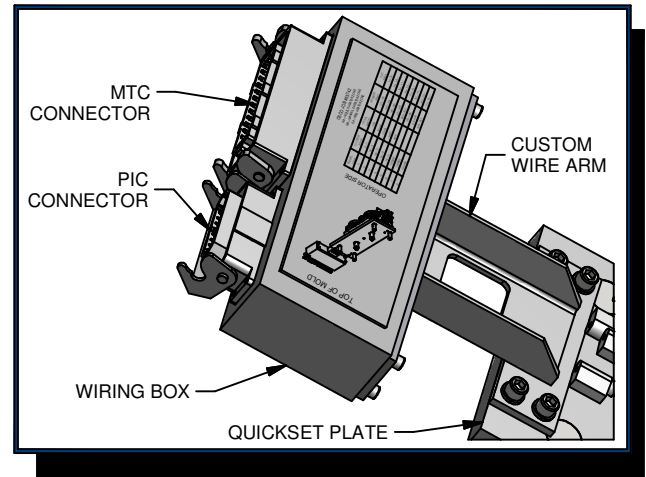


# WIRING OPTIONS

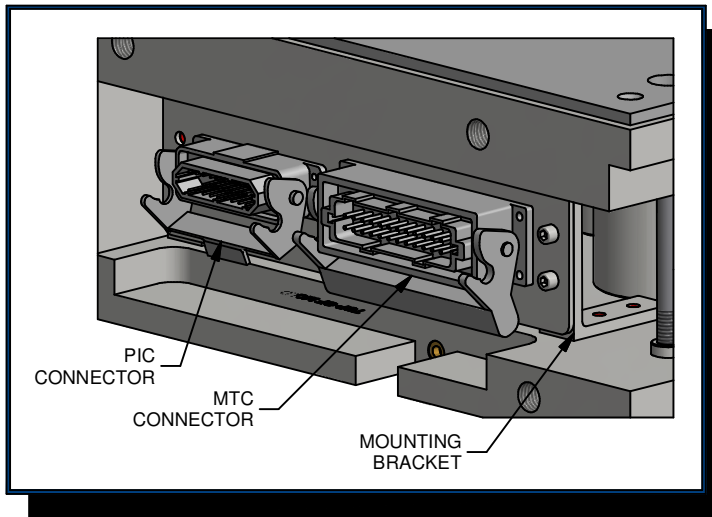
THE WIRING OPTIONS SHOWN BELOW ARE SOME OF THE MOST COMMON MOUNTING CONFIGURATIONS.



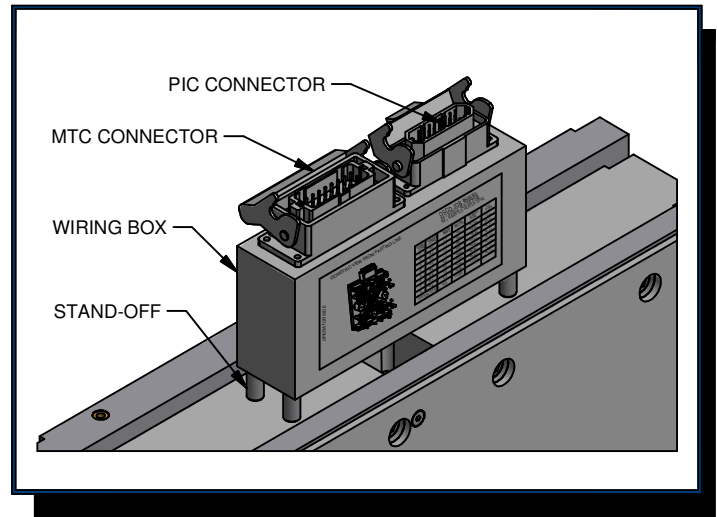
CUSTOM HOT-HALF SYSTEM  
STAND-OFF MOUNTED CONNECTORS



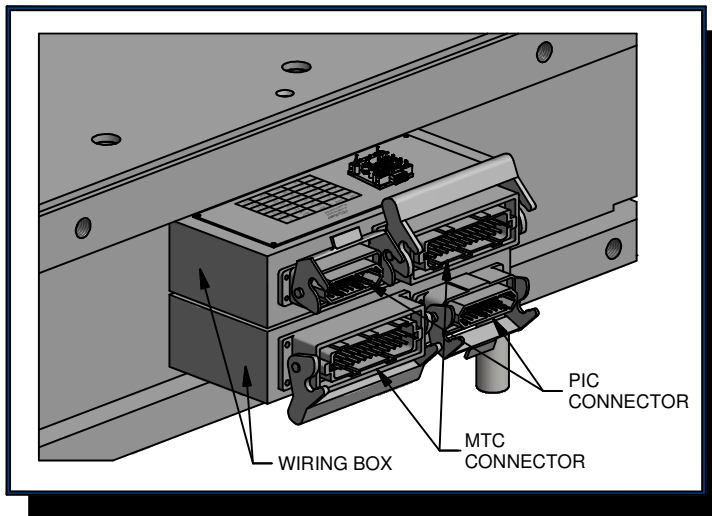
CUSTOM QUICKSET SYSTEM  
WIRE-ARM MOUNTED WIRING BOX WITH CONNECTORS



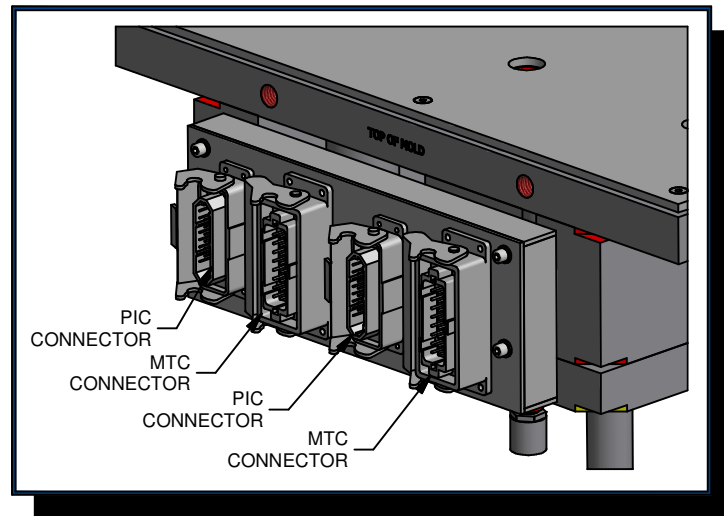
CUSTOM HOT-HALF SYSTEM (BRACKET MOUNTED)  
ANGLE MOUNTED WIRING PLATE WITH CONNECTORS



CUSTOM HOT-HALF SYSTEM (SIDE RAIL MOUNTED)  
STAND-OFF MOUNTED WIRING BOX WITH CONNECTORS



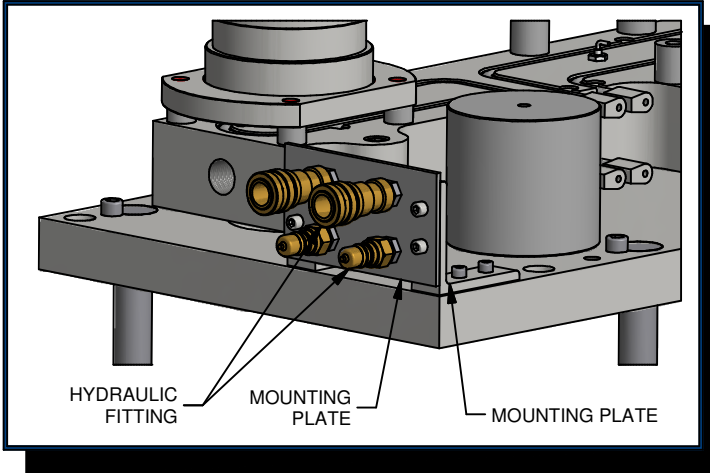
CUSTOM HOT-HALF SYSTEM (SIDE RAIL MOUNTED)  
PARALLEL MOUNT WIRE BOXES



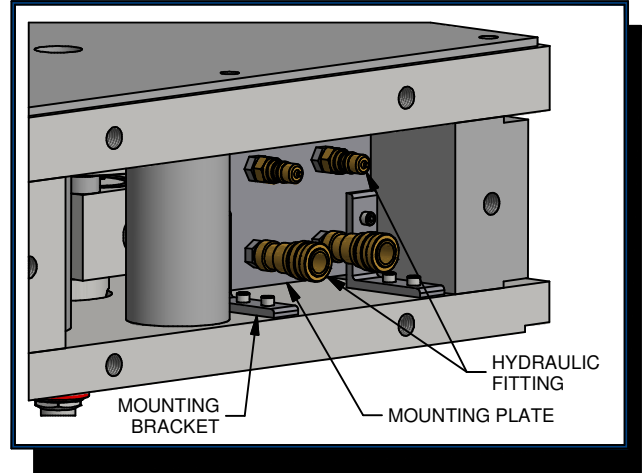
CUSTOM HOT-HALF SYSTEM (STAND-OFF MOUNTED)  
VERTICAL MOUNT WIRE CONNECTORS

# PIPING OPTIONS

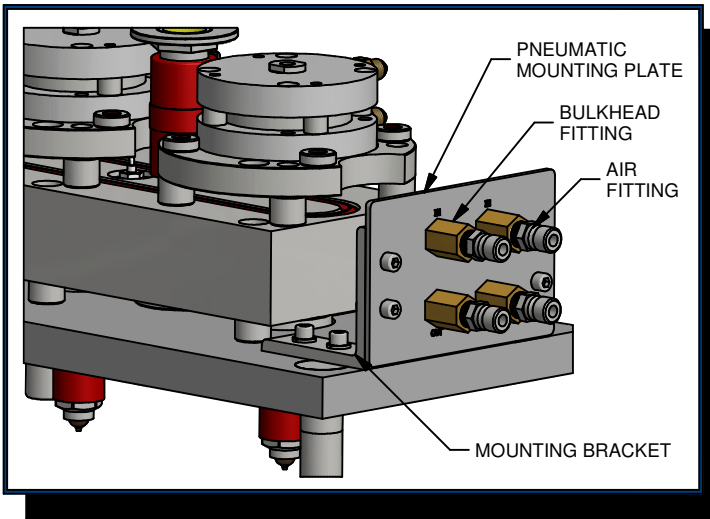
THE PIPING OPTIONS SHOWN BELOW ARE SOME OF THE MOST COMMON MOUNTING CONFIGURATIONS.



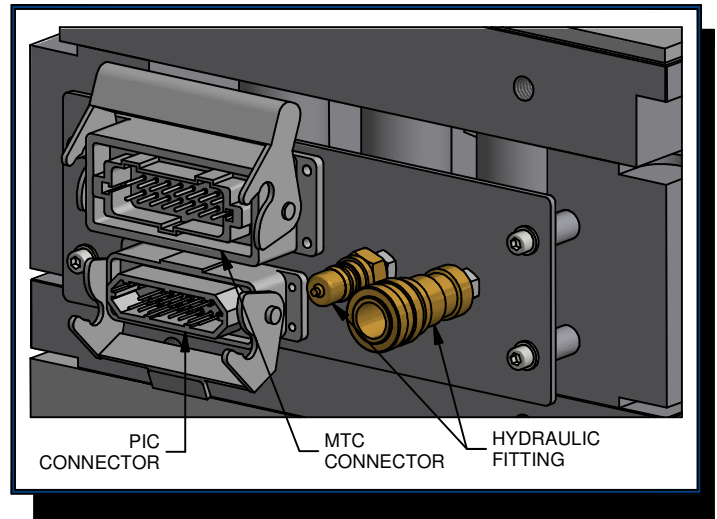
CUSTOM QUICK-SET SYSTEM  
HYDRAULIC PIPING (BRACKET MOUNTING)



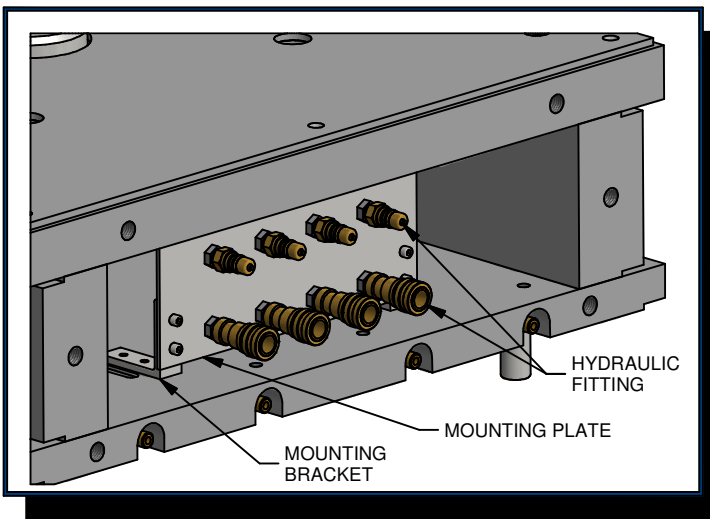
CUSTOM HOT-HALF SYSTEM  
HYDRAULIC PIPING (RECESSED BRACKET MOUNTING)



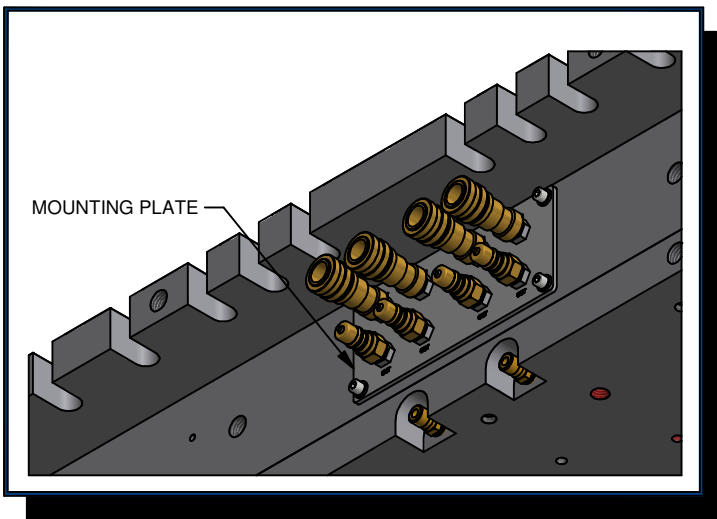
CUSTOM QUICKSET SYSTEM  
AIR PIPING (BRACKET MOUNTING)



CUSTOM HOT-HALF SYSTEM (END-MOUNTED)  
STAND-OFF MOUNTED PIPING WITH ELECTRICAL CONNECTORS

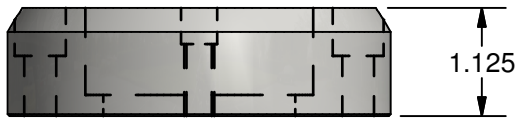
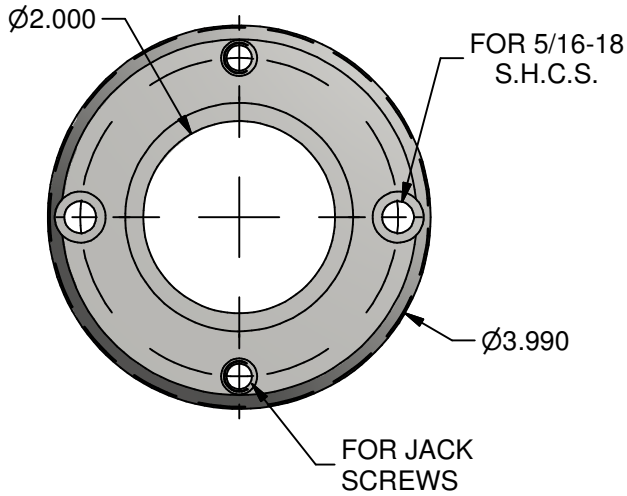


CUSTOM HOT-HALF SYSTEM  
HYDRAULIC PIPING (RECESSED BRACKET MOUNTING)

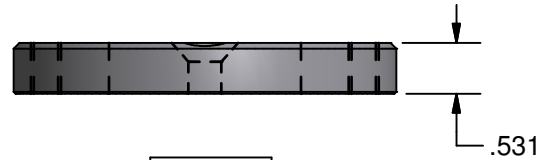
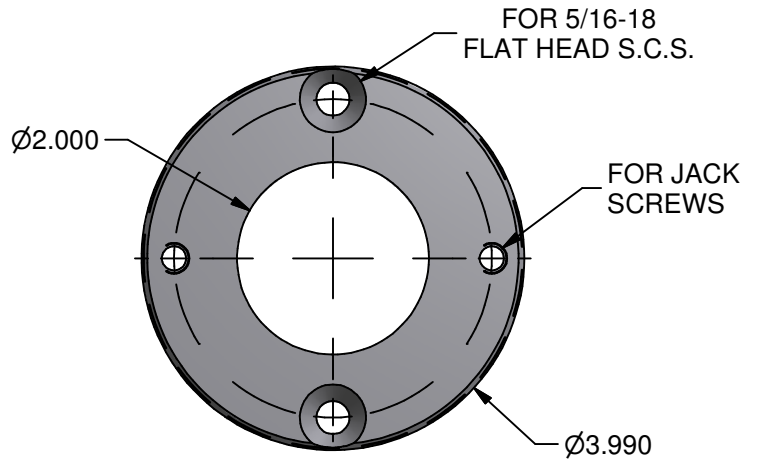


CUSTOM HOT-HALF SYSTEM  
PNEUMATIC PIPING (RAIL MOUNTED)

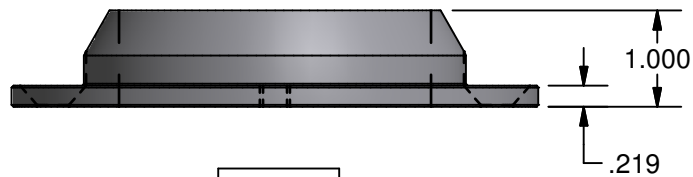
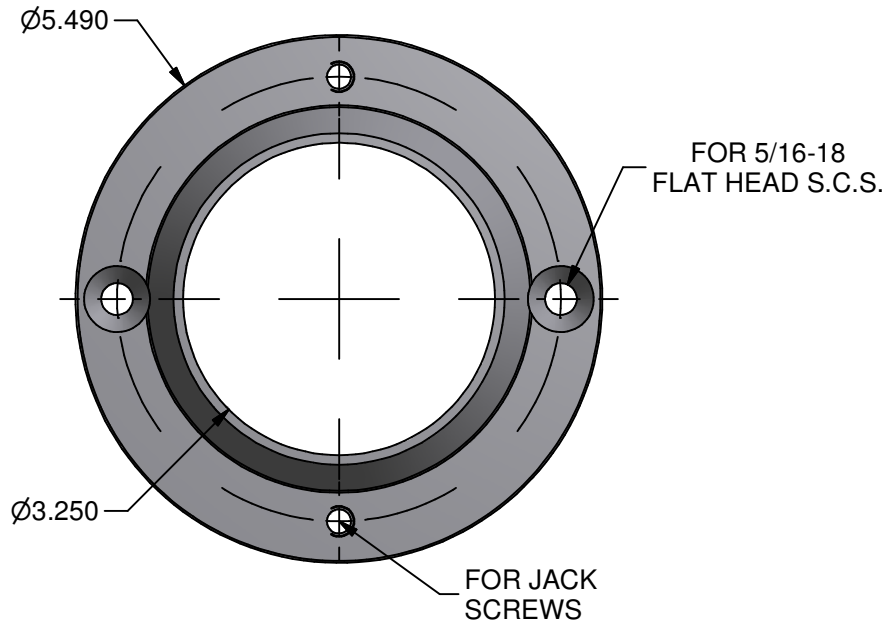
# STANDARD LOCATING RINGS FOR SYSTEMS



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