



USER GUIDE – ML & MX Hydra-Latch™ Systems

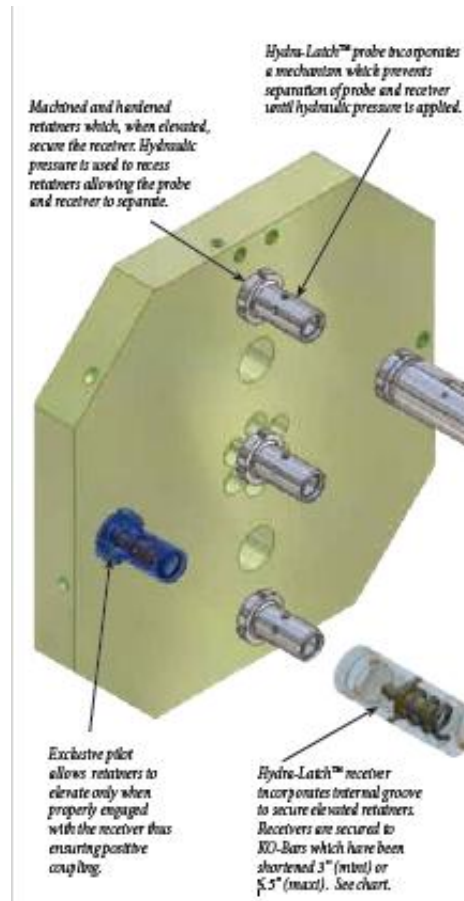


Table of Contents

- A. Introduction
- B. Machine Preparation
- C. Installation of Probes
- D. KO Bar Modification
- E. Mold Loading
- F. Mold Un-Loading



N118 W18251 Bunsen Drive Germantown, WI 53022
Telephone: (262) 250-4410 • Fax: (262) 250-4409
www.pfa-inc.com

HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

A. Introduction

Please read entire Users Guide before proceeding with installation.

Study the attached Mini-Latch brochure to become familiar with the equipment.

B. Machine Preparation

Examine the machines KO plate and remove any burrs or other material which is located where the probes and hydraulic manifolds will be installed.

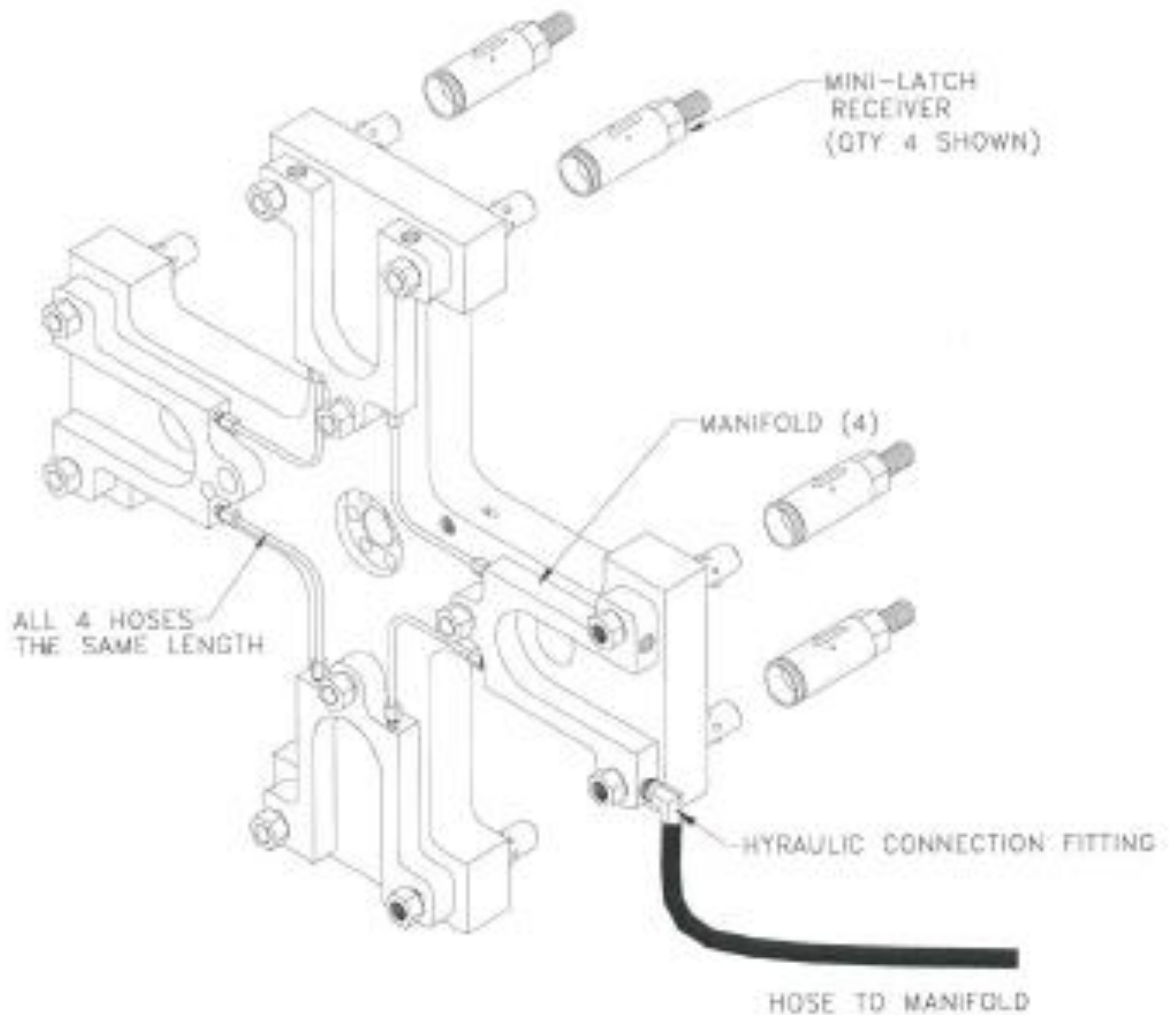
Confirm that the thru holes in the KO Plate are the proper diameter for the probes.



N118 W18251 Bunsen Drive Germantown, WI 53022
Telephone: (262) 250-4410 • Fax: (262) 250-4409
www.pfa-inc.com

HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

C. Installation of Probes



1. Please study the figure. In this case note that 12 probes are furnished. Systems come in a variety of configurations and a layout is typically provided for the system you have purchased. Please review that drawing and call PFA if you have questions on the layout.



HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

2. Manifold configurations vary as well, however, installations will remain similar. Manifolds typically arrive with fittings installed to help make the install easier. If needs change, standard hydraulic fittings may be replaced for additional 90 degree turns or 45 degree bends as needed.
3. The probes have been sized for a machine KO plate of a specific thickness OR to match a specific thickness plus a standoff amount to clear interference. If supplied, it is important to use the standoffs for proper clearance and hydraulic interface between the probes and the manifolds. Expected plate thickness + standoff = total length dimension and is noted as X.XXX" in the system part number and probe part number - 7223AXXXYYYY. The probe diameter is noted as .YYY" Confirm the plate thickness and ensure the system is correct for the plate. It is critical to the probe installation. Figure 2 shows how the probes interface with KO plate and manifold. Figure 3 shows how the hydraulic connection interfaces with the KO plate and manifold.

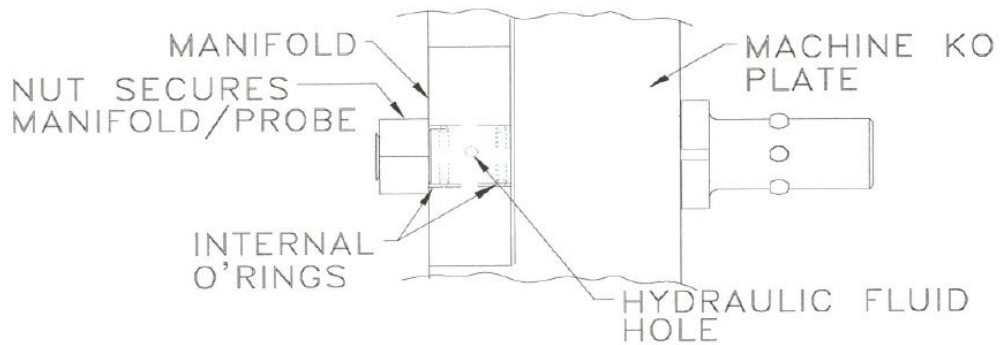


Figure 2

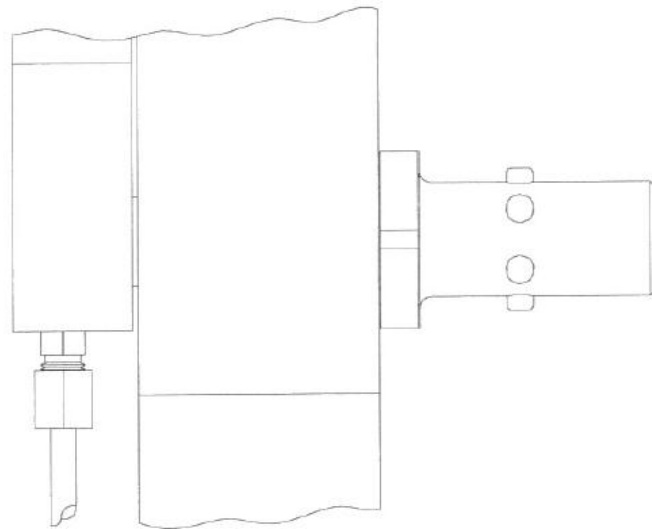


Figure 3



N118 W18251 Bunsen Drive Germantown, WI 53022
Telephone: (262) 250-4410 • Fax: (262) 250-4409
www.pfa-inc.com

HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

4. Insert probes carefully through the KO plate. Ensure the orings are installed in the manifolds. Carefully insert the manifold over the ends of the probes. .

Caution:

***Make sure that the internal o' rings in the manifold are lubricated.
Be careful to avoid damaging o' rings.***

5. When the manifold and probes are connected, secure the assembly by installing the nuts on the probe ends. Use tool shown in figure 4 (below) to prevent rotation of the probe while tightening the nuts.
6. Install hydraulic connection hoses between hydraulic manifolds per provided documentation with the shipment.

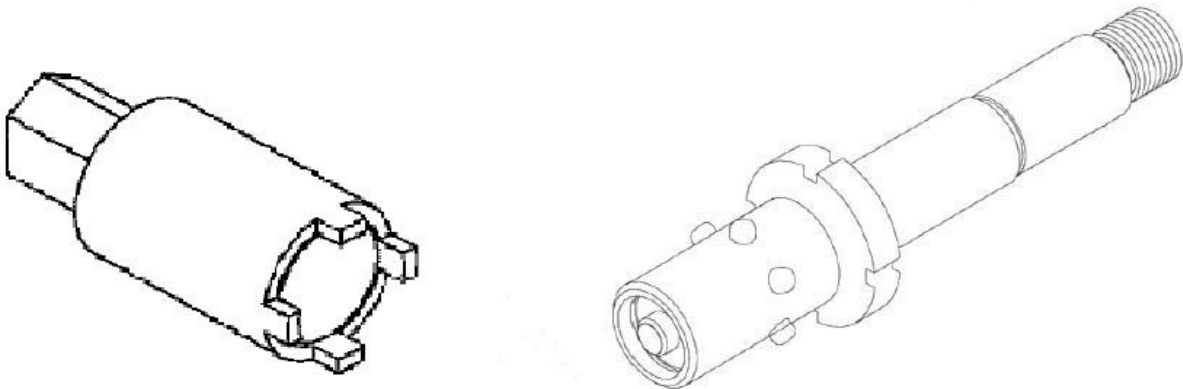
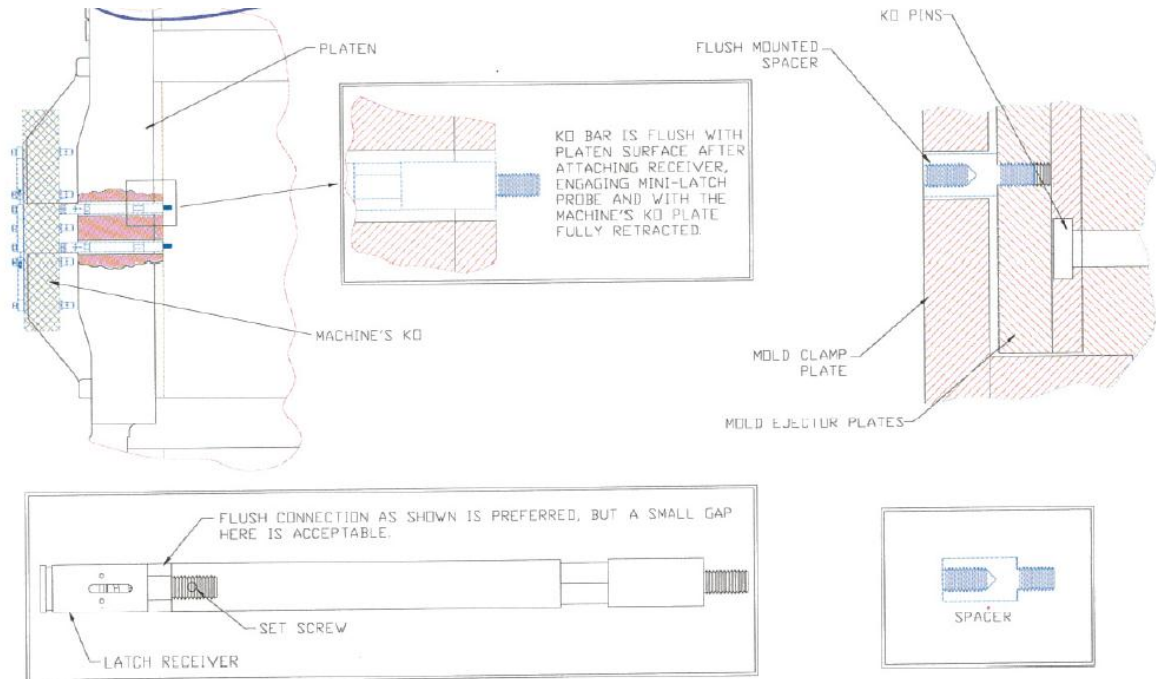


Figure 4



D. KO Bar/Mold Modification



Note:

As customers are very familiar with the operation of molding machines and have a variety of knockout configurations and atypical KO bar arrangements, this is only one of a variety of ways to determine KO bar modifications for use with the PFA ML and MX systems.

1. Bring the machine KO Plate back to its fully normally retracted position. Slide an unfinished KO Bar assembly onto the Probe, press hard until the receiver snaps into place on the Probe. (Allow 2" of extra length for final sizing).
2. Using a Vernier Caliper, measure the length of the excess KO Bar length protruding from the Platen face. Repeat with several other location to confirm proper and consistent changes for all bars. Keeping the needs for the mold interface in mind, Shorten the KO Bars to the appropriate lengths.
3. It is recommended that the molds be equipped with Flush Mounted Spacers to receive the threaded end of the KO Bar assembly.

Please note: FOR FRONT MOUNTED MANIFOLD SYSTEMS ONLY (MLF~~M~~XXXX - Depending on the gap between the platen and KO plate prior to system install, there may be a loss of (up to) 5/8" forward ejection stroke.

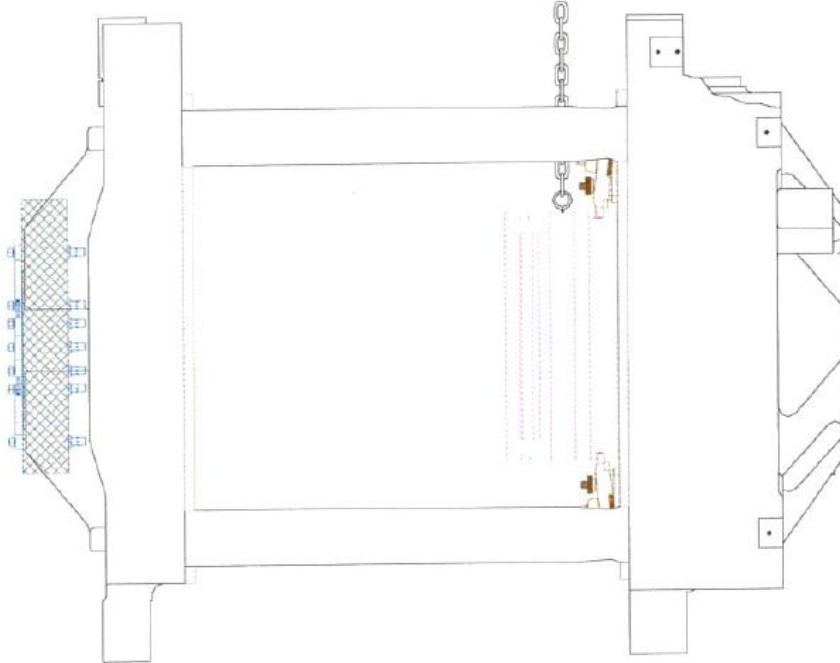


N118 W18251 Bunsen Drive Germantown, WI 53022
Telephone: (262) 250-4410 • Fax: (262) 250-4409
www.pfa-inc.com

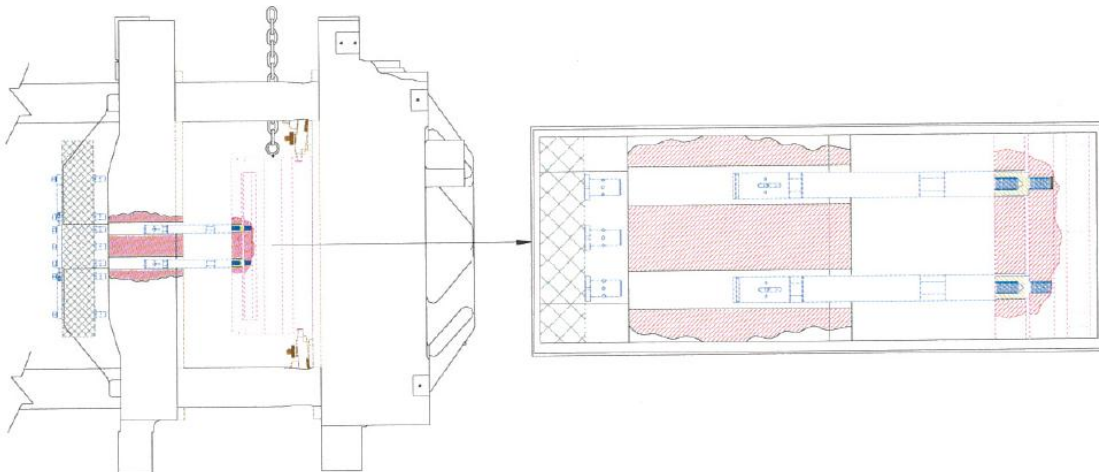
HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

E. Mold Loading

1. Locate, level and clamp mold to fixed Platen.

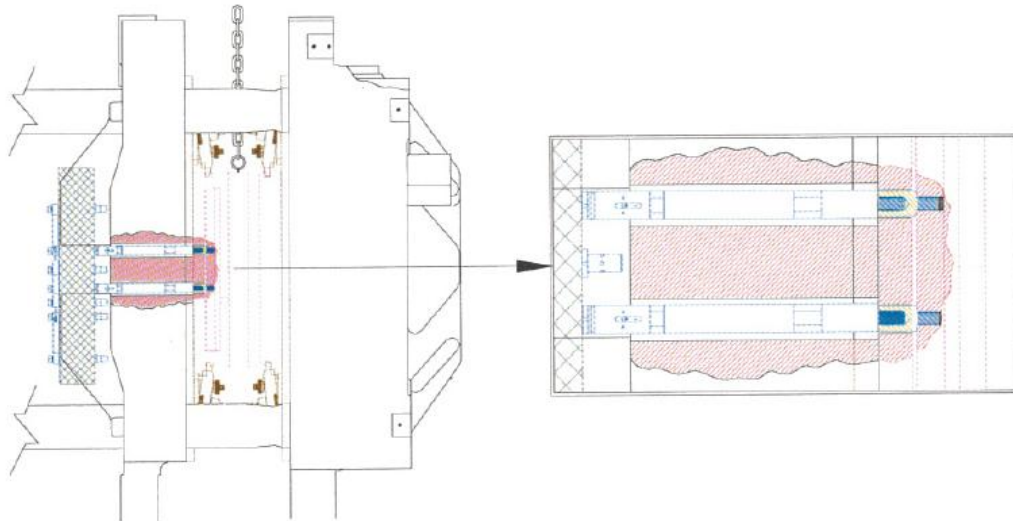


2. Thread KO Bar assemblies into back of mold.

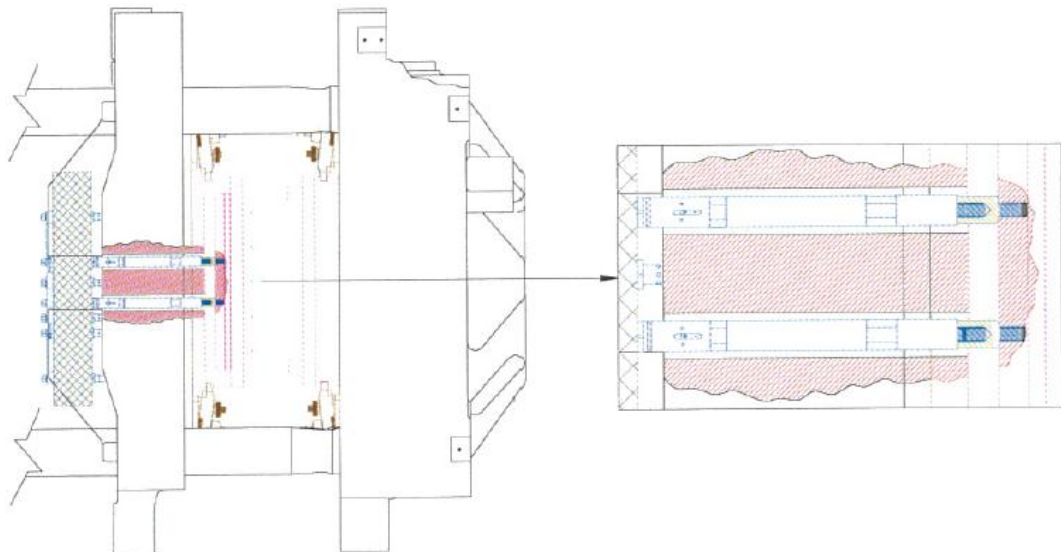




3. Bring moving platen forward and contact mold.



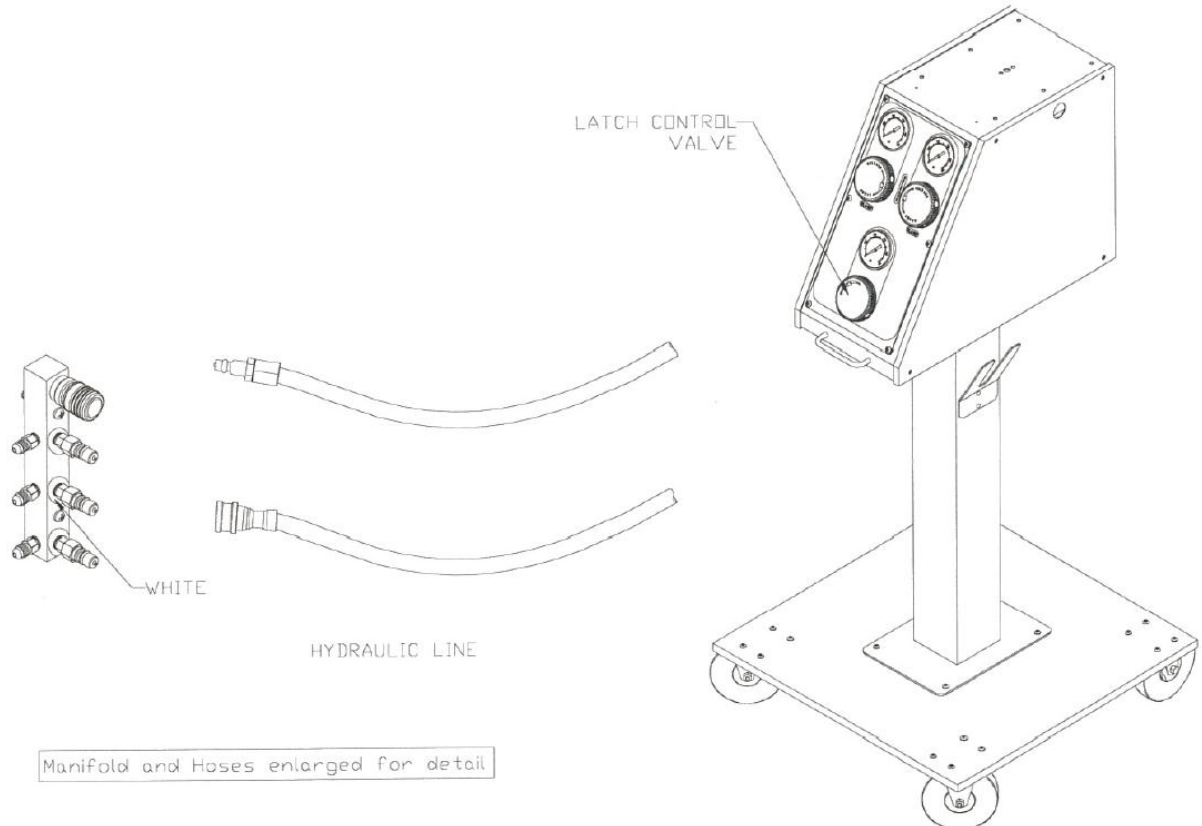
4. Secure moving platen clamps (Ensure mold is fully mounted and clamped).
5. KO Bar is automatically engaged (ML/MX system is now connected)
6. Remove lift Chain.
7. Open machine.
8. Activate ejector plate to forward position to assure engagement of all latch system components.
9. Dry cycle ejectors to confirm proper connection to latch system.





F. Mold Un-Loading

1. Connect the PFA Power and Control Module to the hydraulic QDC fittings and to the plant air supply as appropriate for your desires. (Mounting and manifold/supply methods may vary from that shown).



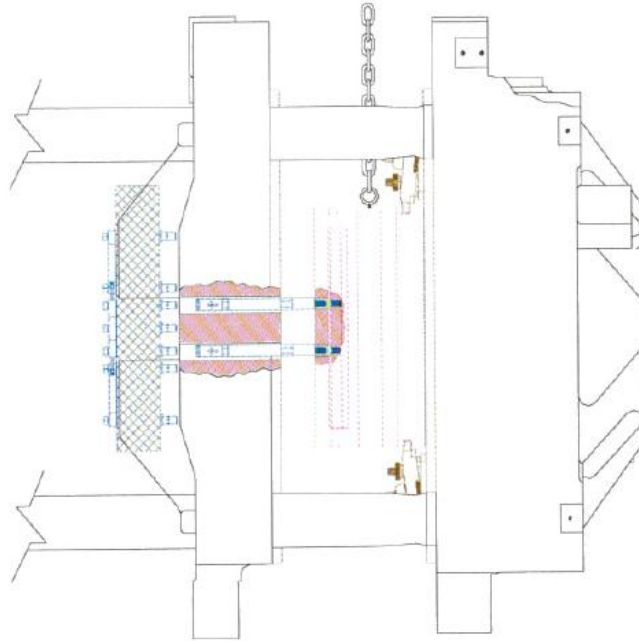
2. Apply hydraulic pressure to the Hydra-Latch system to release the latch mechanisms, by rotating the Latch Control Knob on the Unit.
3. Secure mold and attach chain.
4. Unclamp Moving Platen.



N118 W18251 Bunsen Drive Germantown, WI 53022
Telephone: (262) 250-4410 • Fax: (262) 250-4409
www.pfa-inc.com

HYDRA-LATCH™ Quick Knockout Systems (ML/MX)

5. Retract Moving Platen



6. Disconnect KO Bars from flush mounted spacers.
7. Unclamp fixed platen.
8. Remove mold.

