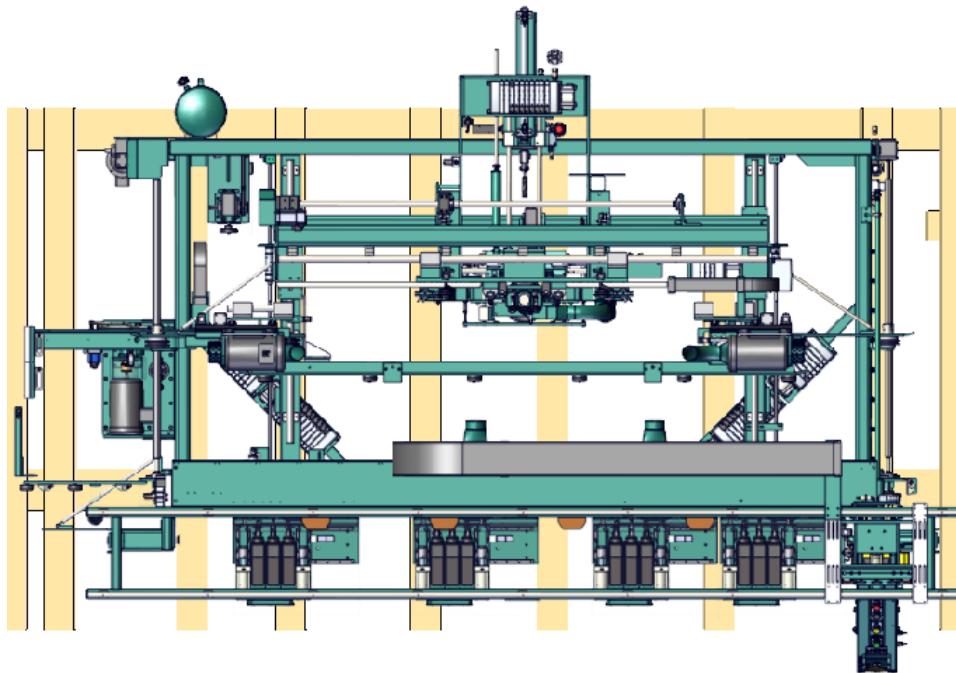


Innovation, Quality & Honesty

# *Uncrating Manual*

Published: 11/5/19

## ***990 and Commander Series*** **Uncrating Manual**



---

## Proprietary Notice

This Manual is confidential and contains proprietary information and intellectual property of KVAL Inc., and is to be used solely by Customer as an operating manual for KVAL Inc. machines. Neither this Manual nor any of the information contained herein may be reproduced or disclosed under any circumstances without the express written permission of KVAL Inc. For authorization to copy this information, please call Kval Customer Support at (800) 553-5825 or fax (707) 762-0485. Outside the U.S. and Canada, call (707) 762-7367.

Manual Part Number: 990\_Uncrate\_V3

Copyright 2019 Kval Incorporated. All rights reserved.

All other products are trademarks or registered trademarks of their respective holders, all rights reserved. Reference to these products is not intended to imply affiliation with or sponsorship of Kval Incorporated.

## Contacting KVAL

**Customer Service:** For further information about this manual or other Kval Incorporated products, contact the Customer Support Department

- Mailing address:

Customer Support Department  
Kval Incorporated  
825 Petaluma Boulevard South  
Petaluma, CA 94952

- Phone and Fax:

In the U.S and Canada, call (800) 553-5825 or fax (707) 762-0485  
Outside the U.S. and Canada, call (707) 762-7367 or fax (707) 762-0485

- Business hours:

Technical Support:

6:00 AM to 4:00 PM Pacific Standard Time, Monday through Thursday  
6:30 AM to 1:30 PM Pacific Standard Time, Friday

Parts & Service Sales:

6:30 AM to 4:00 PM Pacific Standard Time, Monday through Thursday  
6:30 AM to 1:30 PM Pacific Standard Time, Friday

(Other sales related inquiries: <http://www.kvalinc.com>)

- Email: [service@kvalinc.com](mailto:service@kvalinc.com)

**Your Feedback is Welcome:** To help us design products that make your job easier and your business more successful, we'd like to gain your perspective about your user experience with our product - that is, the manual, the machinery, the software, etc. What was easy or difficult to use or to learn? If you could change something about the design, what would it be? Please email your comments and suggestions for improvement to [userexperience@kvalinc.com](mailto:userexperience@kvalinc.com). (**NOTE:** This is not a customer support email)

---

---

link. For that, please refer to the Customer Service contact information above.) Thank you!

<http://www.kvalinc.com>





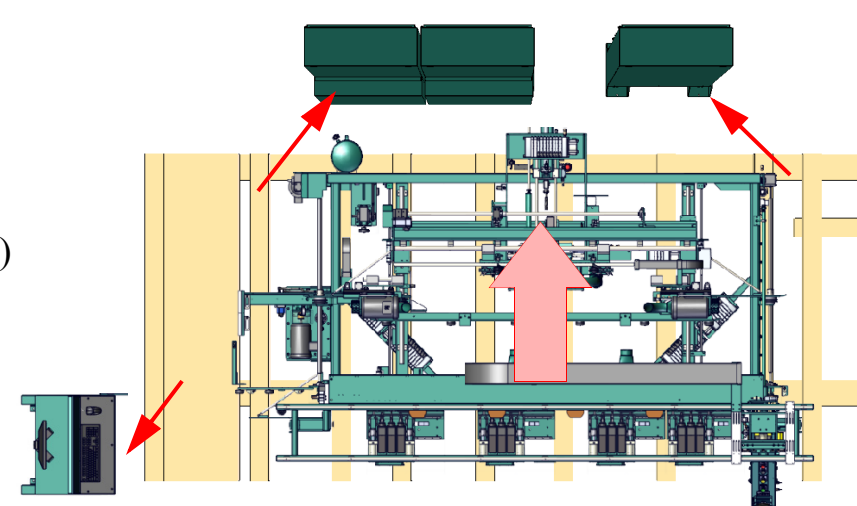
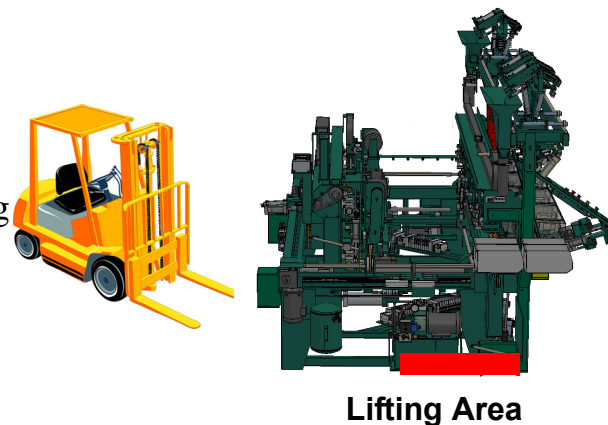
# Uncrating the 990 Series and Commander Series Machines

## Remove Assemblies

1. Move the machine as close to the area it will be stationed before removing the crate
2. Remove all lags from Operator's Station, Boxes, and Electrical Panels.
3. Move the equipment off the skid and carefully place aside. (Pay attention to all cables)
4. Move Back Section away from the Front Section to Balance the load.

## Using Two Forklifts

1. To free the machine from the skid, remove all lags from the machine.
2. Remove cross beams from the ends of the skids.
3. Move forklifts to each end of the machine.
4. Attach leveling bolts to **corners** of the machine.
5. In tandem **Carefully** lift the machine, checking the balance.
6. While machine is up, move the skid from under the machine.
7. Slide pads under machine to match the bolts
8. Level the machine by adjusting the leveling pads



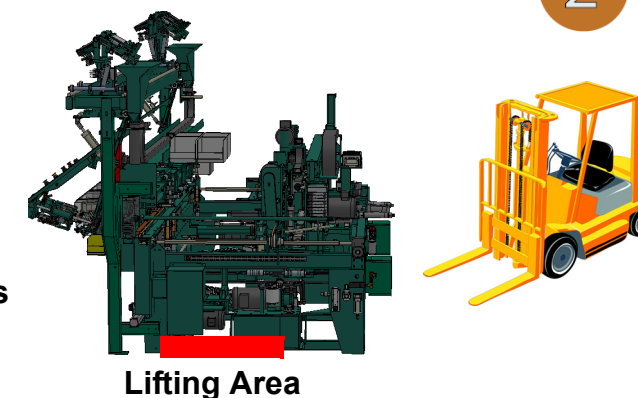
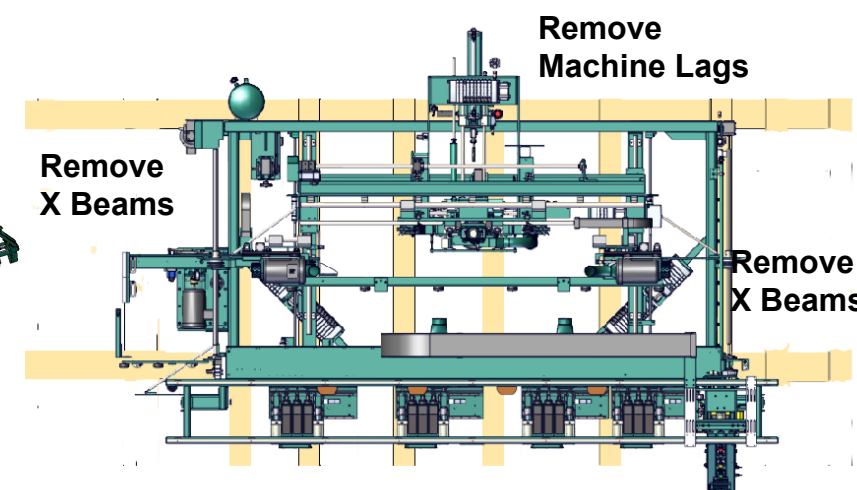
**CAUTION**  
HEAVY  
EQUIPMENT  
OPERATING

1

**Important:** Forklifts should be rated at 10,000 lbs minimum.

**Important:** Avoid damaged cables and air lines, keep them safe when moving the machines

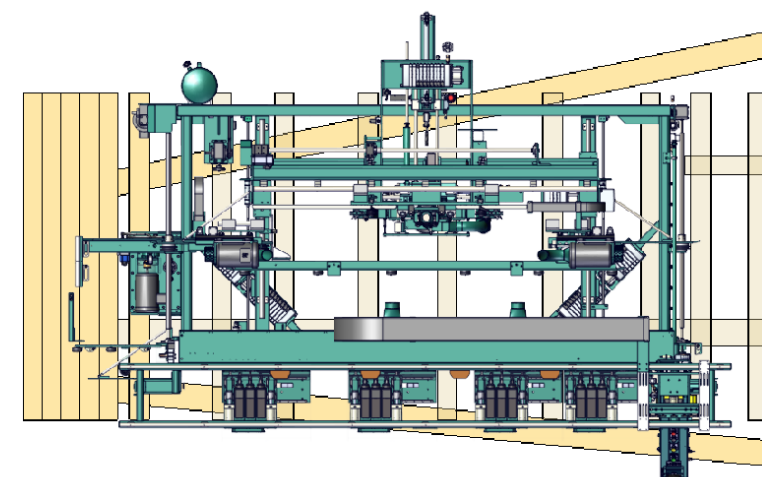
**Important:** Avoid tip-over, ensure back section is moved away from the front section.



2

## Using One Forklift

1. To free the machine and disassemble skid, remove all lags from the machine and the skid.
2. Attach leveling bolts to corners of the machine.
3. Choose an end to start with and remove the cross beams from that end. Temporarily leave cross beams on other end.
4. Slide pads under machine to match the bolts
5. Move the forklift to one end of the machine and **Carefully** lift.
6. To clear an area to place machine, use a sledge hammer to knock runners away to remove.
7. Repeat the process on the remaining end.



Use a Sledge Hammer to Knock Away Runners



Alternate Lifting Ends

3



# Tips and Best Practices

4

## Machine Layout

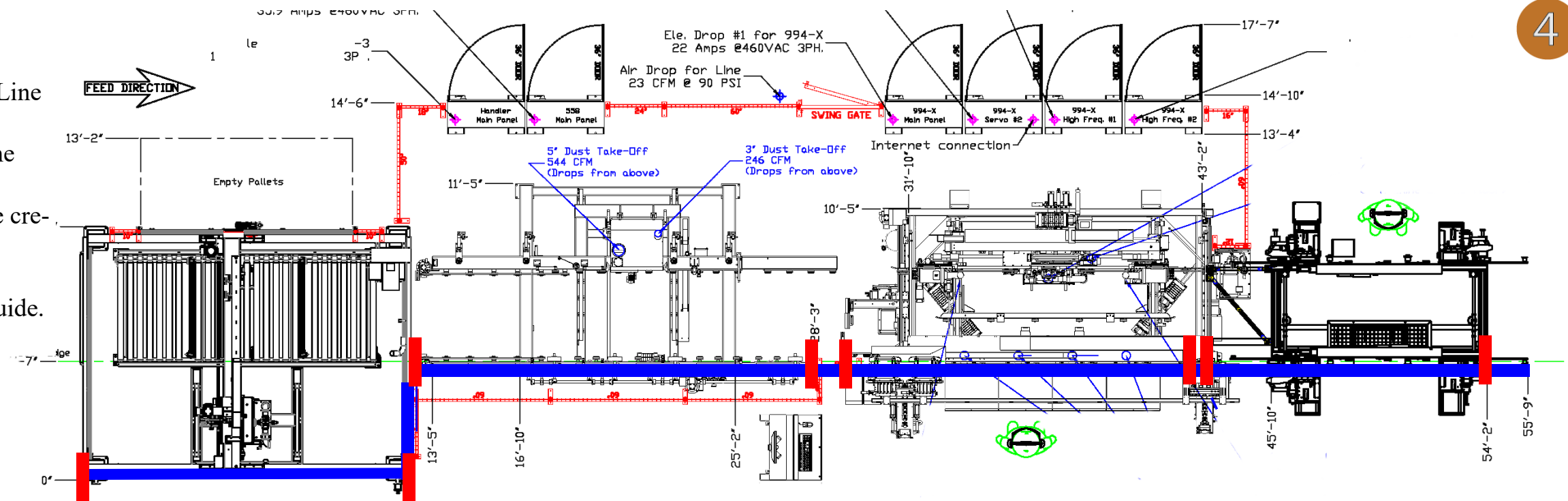
### Get a Reference.

Match placement of the Machine Line with the Layout Print.

Lay a string parallel the front of the machine line.

Tape, spray paint, or chalk the line created. Mark the front and end of the machines.

Use these marks as a placement guide.



## Tips

After the Machine Line is set, remove all painted set collars from the shafts. Just about every shaft on the machine has set collars to secure the movable assembly mounted to the shafts.

Take off any tape securing the various buttons, switches and knobs.

Leave a clear shot from the bolt holes in the foot pads to your shop floor. At this point, make sure the machine won't rock back and forth. Level the machine.

Once the machine has been leveled and aligned, anchor it to the floor so that it won't move across the floor during operation.

KVAL recommends a ½ RED HEAD, TRUE BOLT ANCHOR in each of the foot pads. When drilling the concrete for the anchor bolts use a 5/8 bit.

## Packing Materials



Follow all electrical, lifting and heavy equipment safety rules.  
**Failure to do so can result in damage to equipment and/or serious injury to personnel.**

### Part and Tool Information

**TABLE 1. Skid Parts**

Parts	Part Number	Quantity
Main Skid	Dwg 94-CRT-02 (Attached)	(1)
½ x 7' lg lags	Stock	(40)
½ flat washers	Stock	(48)
½ x 4' lg lags	Stock	(8)

**TABLE 2 Parts and Misc**

Parts	Part Number	Quantity
Ball Rail Clamps		(4)
Split Collar	sc212f----3/4" 2-piece Steel.	(34)
Split Collar	sc216f ---1.0" 2-piece Steel.	(10)
Split Collar	sc224f----1-1/2" 2-piece Steel.	(12)
soft band	Stock	100 ft
soft band clips	Stock	20 count

**TABLE 3. Six Shooter Parts**

Parts	Part Number	Quantity
Blocks	13-00-D1	(1)
Shipping Bracket	13-00-DB_1	(1)
1.0"x5.0"x5-1/2" (Wood Screw)	Stock	(1)
3-1/2"x6.0"x11.0" (Wood Screw)	Stock	(1)
2-1/2"x4.0"x12.0 (Wood Screw))	Stock	(1)
1-1/2"x3-1/2"x12.0" (Wood Screw)	Stock	(1)
1/2" x 8.0" NC Hex Bolt	Stock	(1)
1/2" Locl Washer	Stock	(1)
1/2"Flat washer	Stock	(2)
1/2" CC Nut	Stock	(1)



# 990 Series Only: Six and Eight Shooter Uncrate

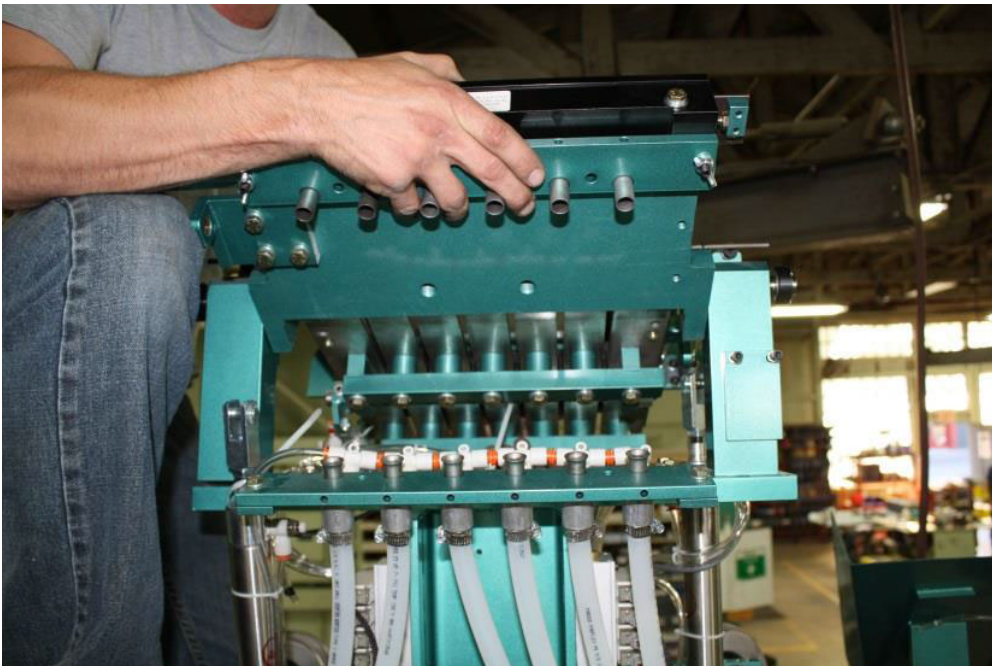
## About this guide

This is a step-by-step guide detailing the 6-Shooter uncrating process

### 1. Bring hopper to carriage

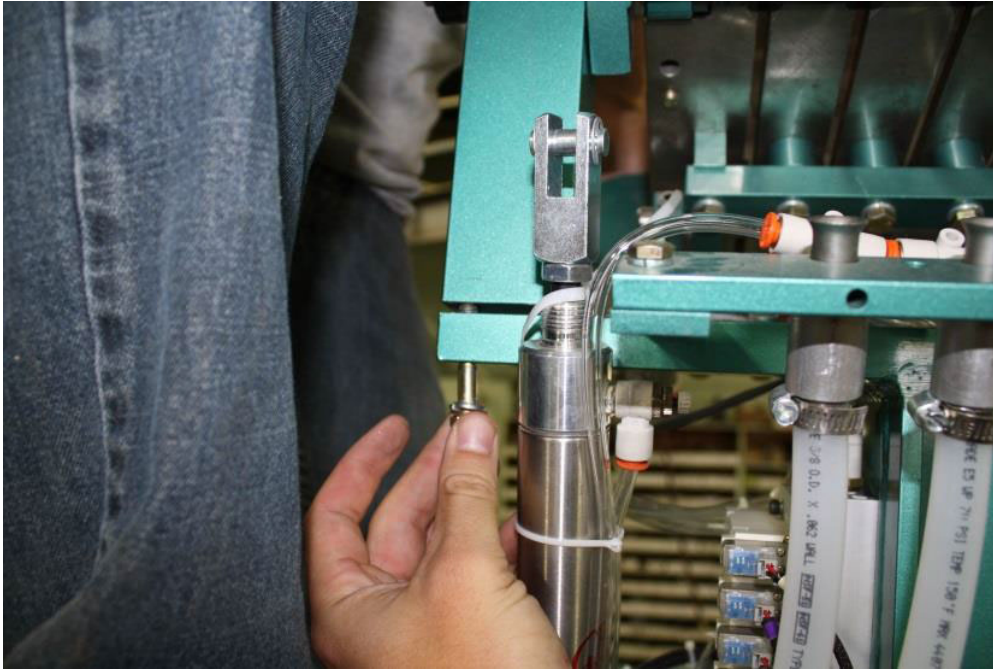


### 2. Place hopper on carriage and line up mounting blocks



### 3. Secure hopper

Use the 8x bolts provided. Re-attach the lifting cylinders using attached hardware.



### 4. Remove shipping brackets

Once the hopper is secured you can remove the shipping brackets holding the carriage in place.



### 5. Cut block 3's banding

The black banding securing the #3 block to the machine can be cut, pictured below.





## 6. Remove bolts securing blocks 1, 2 and 4

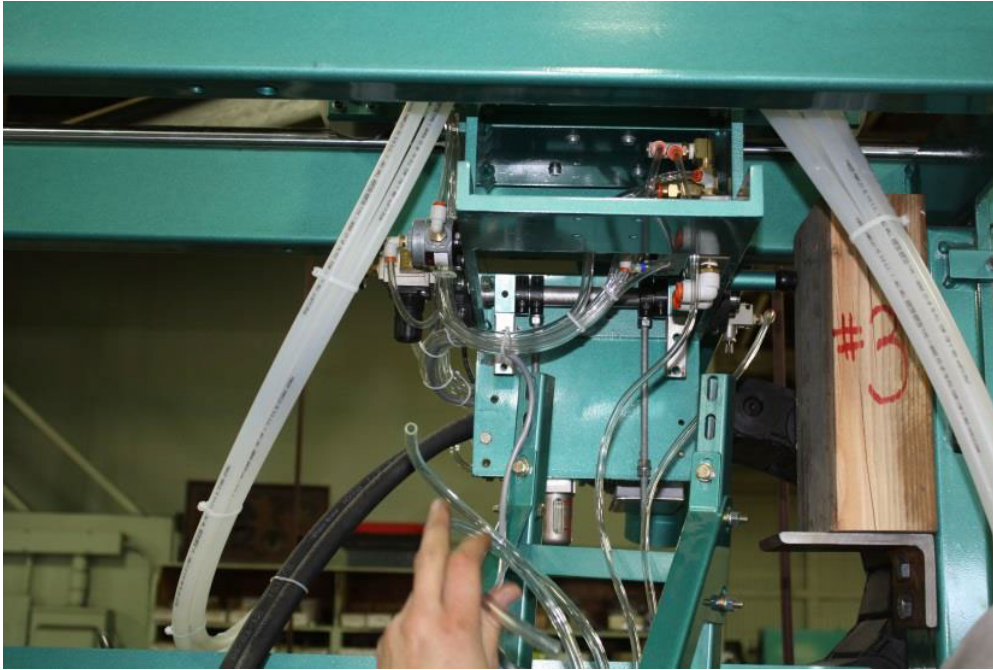
You'll need a second person to hold the 6-Shooter in place for this step.



## 7. Bring the 6-Shooter to the carriage

Slide the 6-Shooter onto the receiving posts, being careful to guide in the threaded rods at the same time.



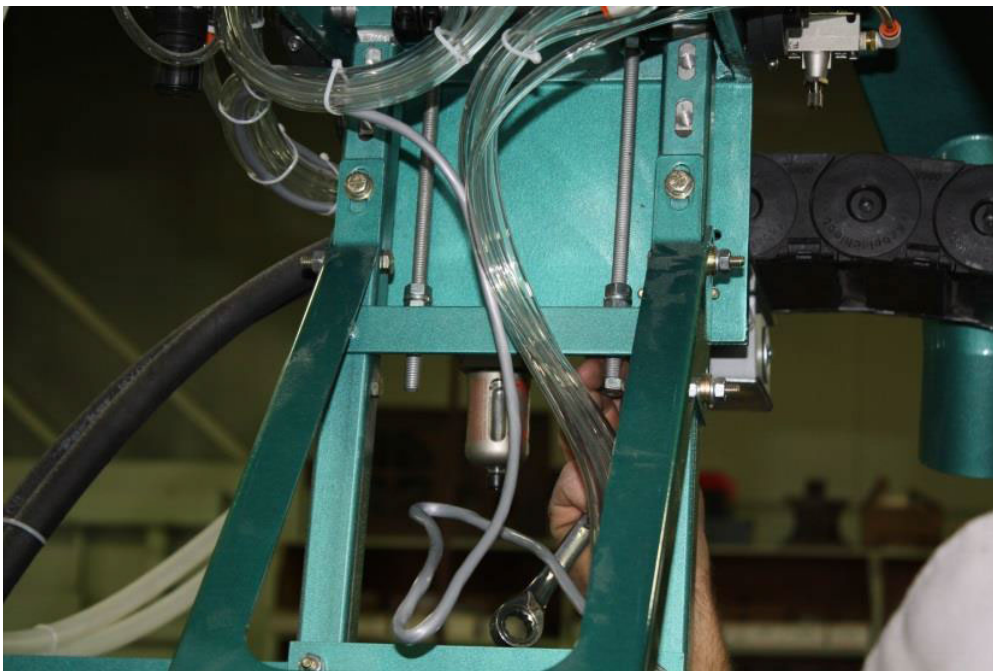


## 8. Secure the threaded rods

Using the supplied nuts to secure the threaded rods first.

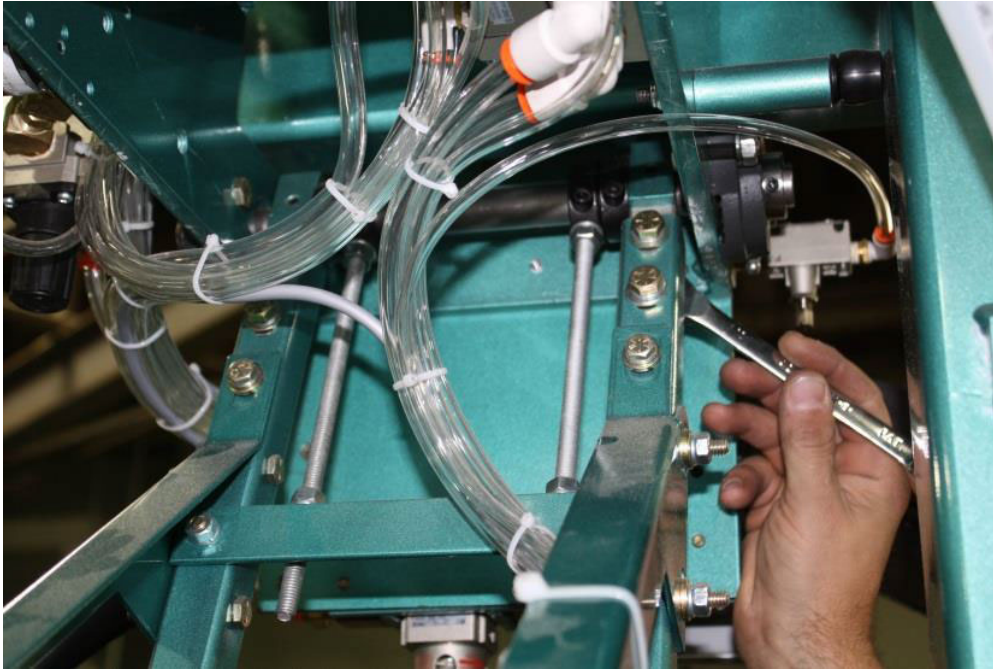
**Important**

Do not adjust the upper set of nuts yet



## 9. Secure 6-Shooter tubes

Use the supplied hardware.



## 10. Re-attach top mounting plate

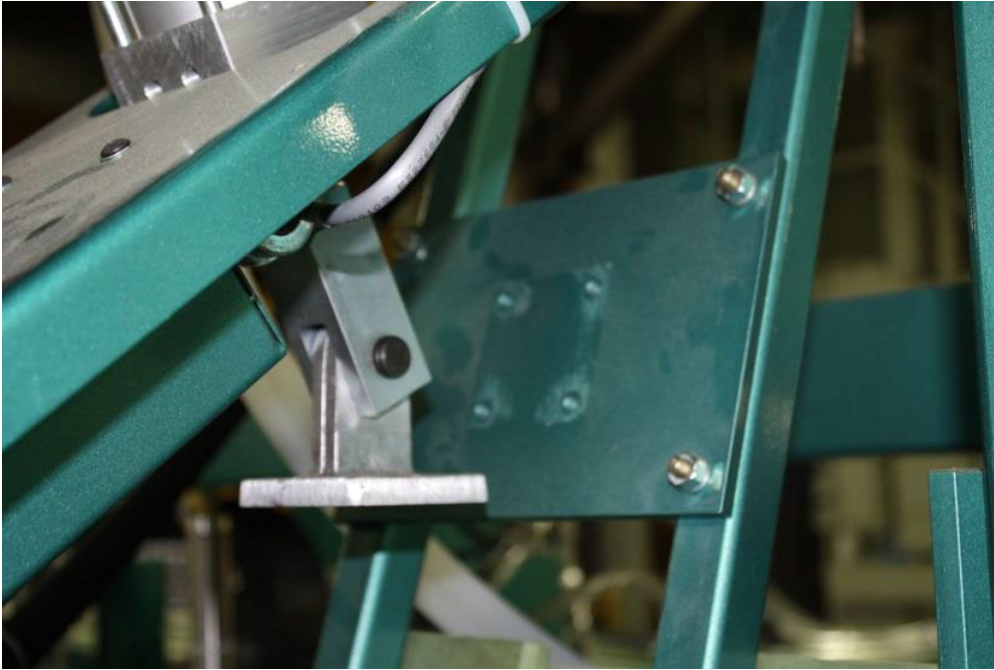
Attach the top mounting plate for the lifting cylinder using the provided hardware.



## 11. Re-attach bottom mounting plate

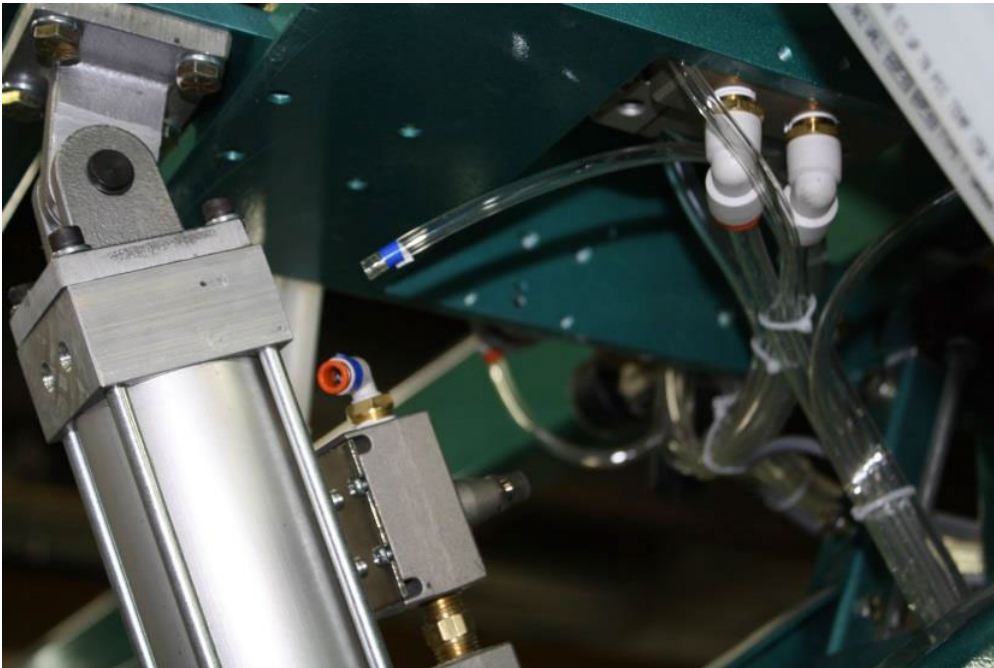
Attach the bottom mounting plate for lifting cylinder using the provided hardware.





## 12. Secure cylinder air lines

Re-attach all air lines to the lifting cylinders using matching colors to identify the correct location of each line.



## 13. Secure other air lines

Re-attach all other air lines by matching the hoses with the fitting of the same color.





14. Remove shipping bracket



15. Align 6-Shooter parking station



## 16. Re-attach parking station

Use the provided hardware to secure the parking station.



17. Your 6-Shooter is now properly assembled





















<http://www.kvalinc.com>



**Contacting KVAL**

Phone and Fax:

In the U.S and Canada, call (800) 553-5825 or fax  
(707) 762-0485

Outside the U.S. and Canada, call (707) 762-7367  
or fax (707) 762-0485

Email: [service@kvalinc.com](mailto:service@kvalinc.com)

<http://www.kvalinc.com>

**Customer Service**

Mailing address:

Customer Support Department

Kval Incorporated

825 Petaluma Boulevard South

Petaluma, CA 94952

---