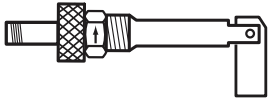




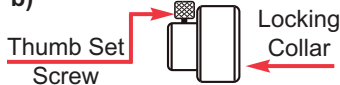




X144D-AF e-FlowMeter

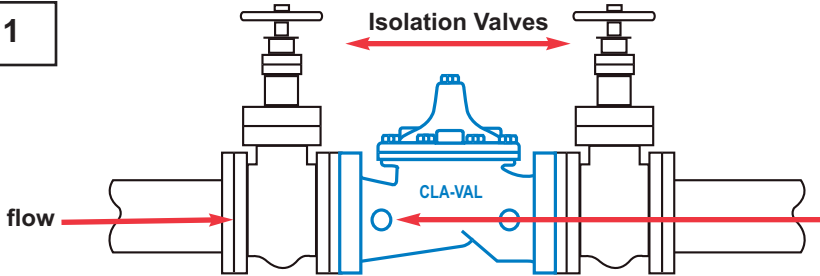
Quick Start Installation & Removal Instructions

X144D-AF e-FlowMeter Included Hardware

<p>1 Sensing Probe</p> 	<p>3 Sensing Cable</p> 	<p>Parts List</p> <p>1) Sensing Probe 2) Flow Display 3) Sensing Cable</p> <p>4) Installation Kit containing: a) Insertion Tool b) Locking Collar with Thumb Set Screw (a and b come assembled)</p>	
<p>2 Flow Display</p> 	<p>4 Complete Installation Kit</p> 	<p>a) Insertion Tool</p> 	<p>b)</p> 

Step-By-Step X144D-AF e-FlowMeter Installation Instructions

1



Isolation Valves

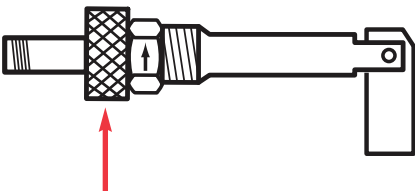
CLA-VAL

Step 1: Take necessary safety precautions

- Isolate the control valve using main line isolation valves
- Bleed pressure from valve before removing body plug
- Remove an inlet body plug

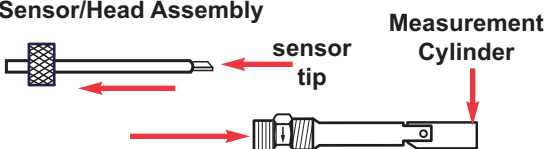
NOTE: If both inlet body tappings are used for the pilot system, consult factory for correct modification instructions.

2



Step 2A:
Loosen Knurled Lock Nut on e-FlowMeter Assembly

Sensor/Head Assembly



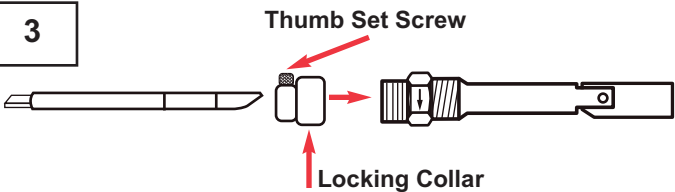
sensor tip

Measurement Cylinder

Threaded Swivel Insert

Step 2B: Pull apart. Straighten Measurement Cylinder by hand. Set aside Sensor/Head in safe location, protecting sensor tip

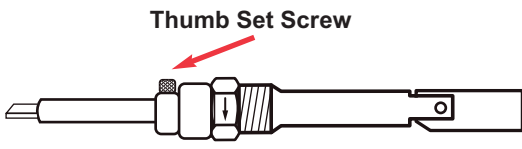
3



Thumb Set Screw

Locking Collar

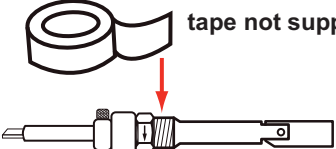
Step 3A: Screw Locking Collar on straight threads. Insert angled end of provided tool as shown, until it stops



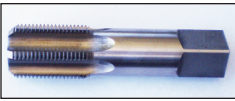
Thumb Set Screw

Step 3B: Tighten Thumb Set Screw

4



tape not supplied



Step 4: Apply Teflon® tape to NPT Threads

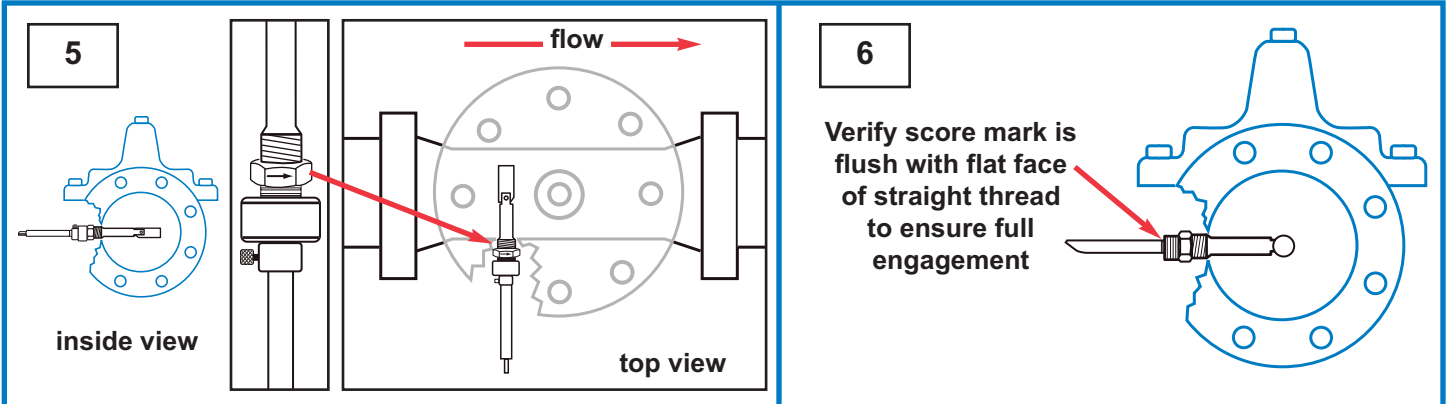
- Check threads on valve
- Use thread chasing tool (not supplied), if necessary



X144 e-FlowMeter

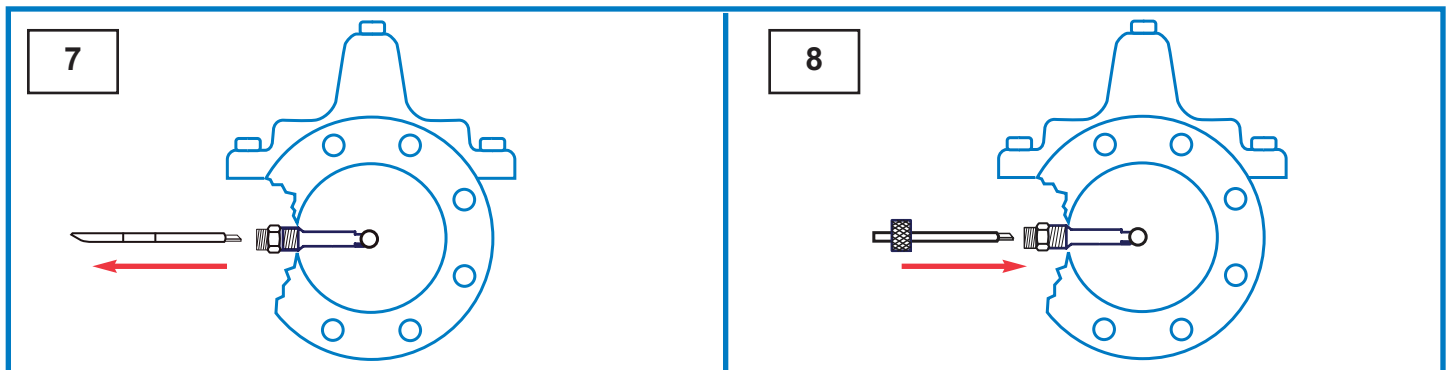
Quick Start Installation & Removal Instructions

Step-By-Step X144D-AF e-FlowMeter Installation Instructions (continued)



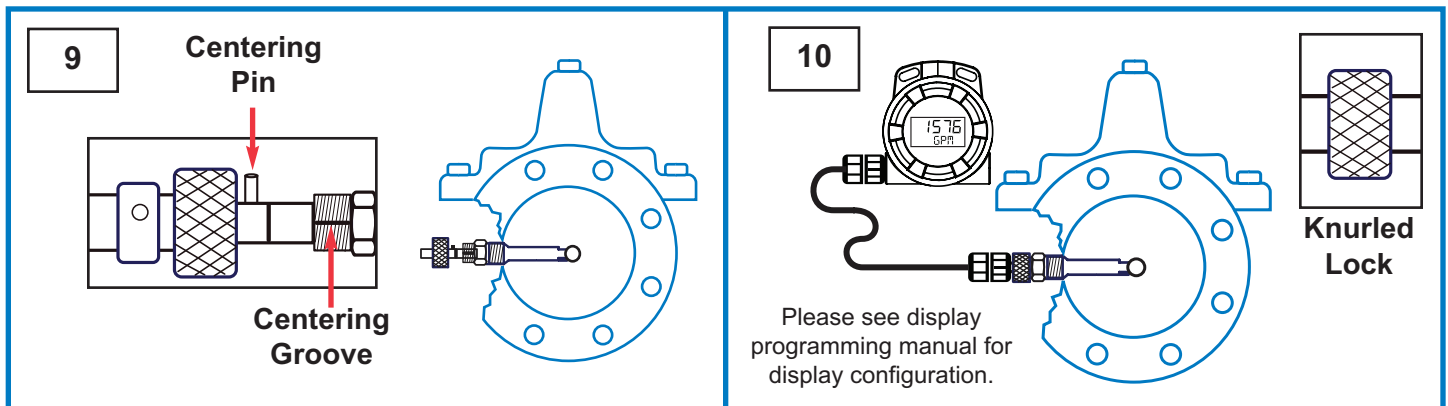
Step 5: Insert straightened Swivel Insert/Measurement Cylinder Assembly into valve, orient arrow on wrench flat to point downstream

Step 6: Loosen Thumb Set Screw. Remove Locking Collar from tool. Remove tool and re-insert opposite end into Swivel Assembly. Engage the tool and push firmly to orient Measurement Cylinder 90° into flow path



Step 7: Remove tool from Threaded Swivel Insert

Step 8: Insert tip of e-FlowMeter Sensor/Head Assembly into Threaded Swivel Insert



Step 9: Line-Up Centering Groove on straight threads with Centering Pin; push to seat o-ring

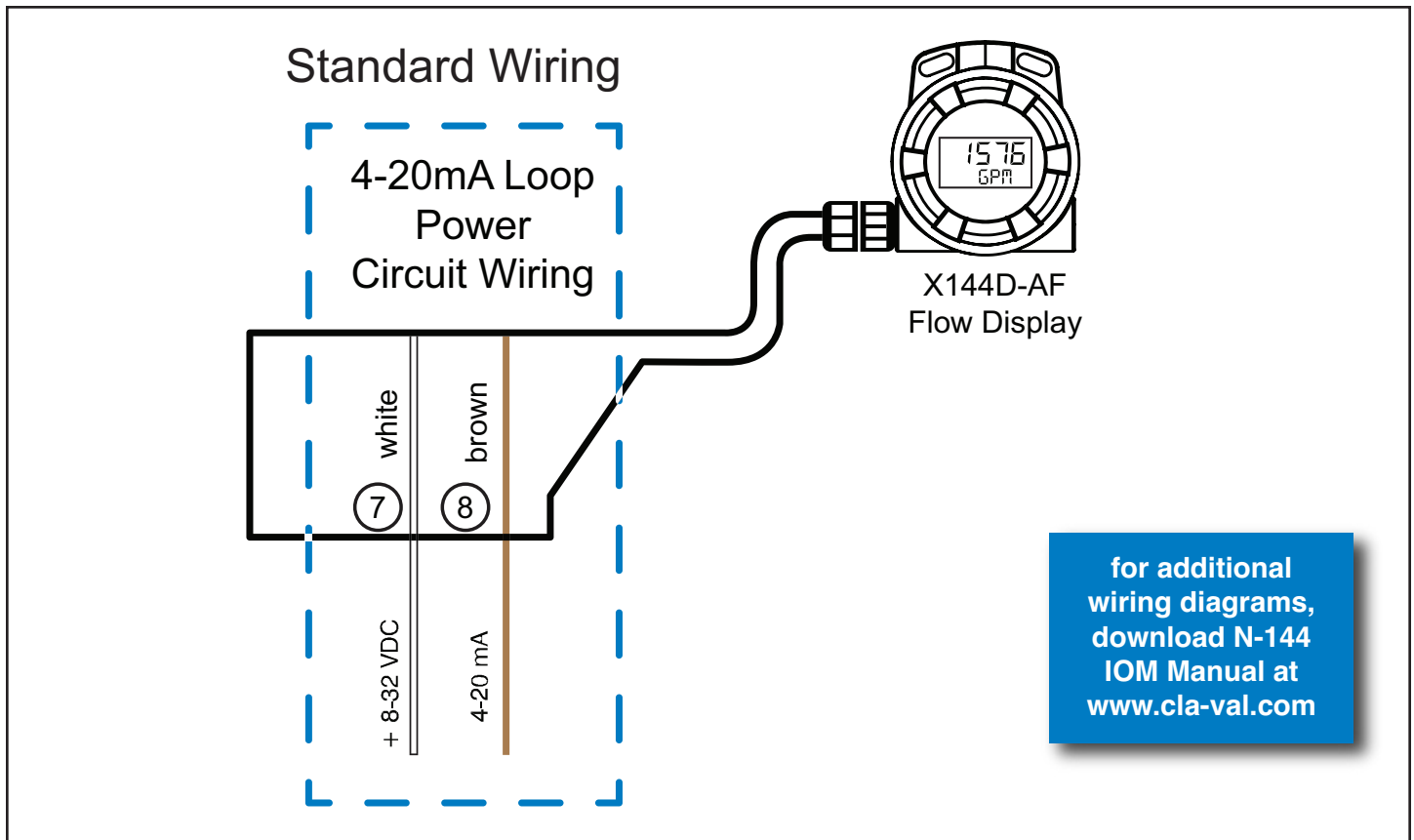
Step 10: **HAND TIGHTEN** Knurled Lock onto straight threads. Attach Sensing Cable to Sensing Probe and Flow Display.

Proceed in accordance with Wiring Diagram

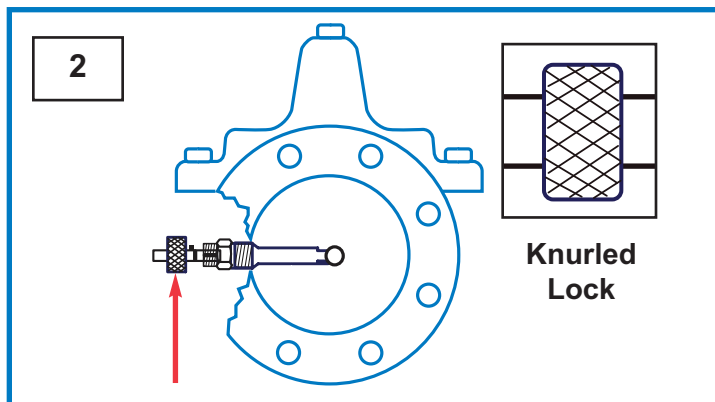
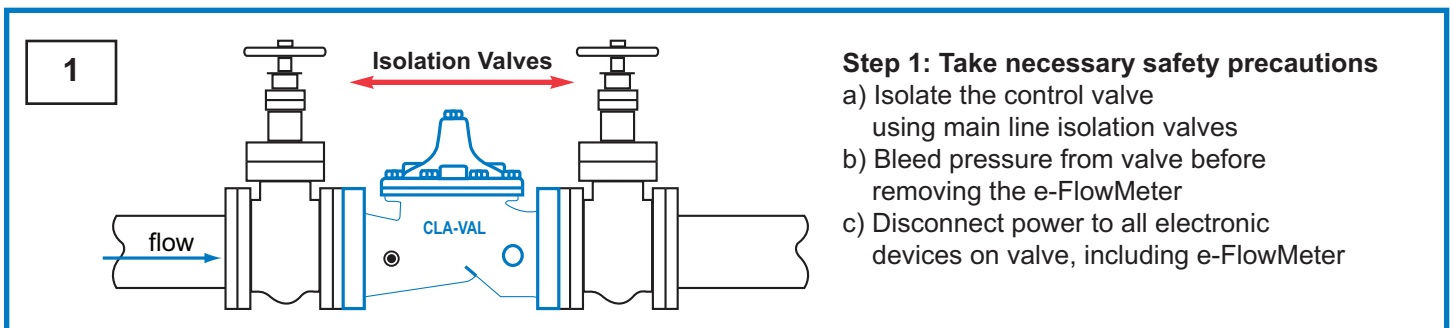


X144D-AF e-FlowMeter

Quick Start Installation & Removal Instructions



Step-By-Step X144D-AF e-FlowMeter Removal Instructions



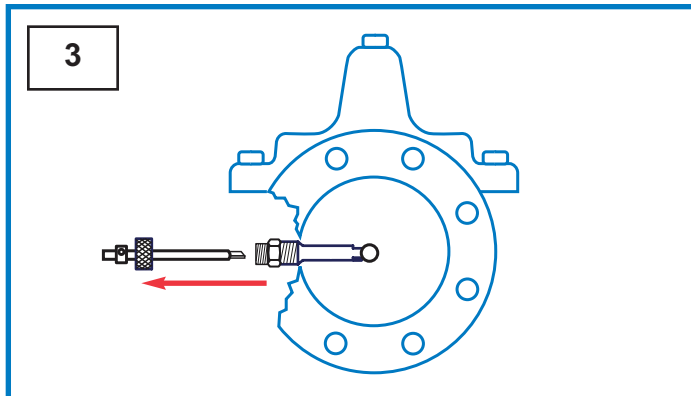
call 800.942.6326 for assistance
or log-on to
www.cla-val.com for more information



X144D-AF e-FlowMeter

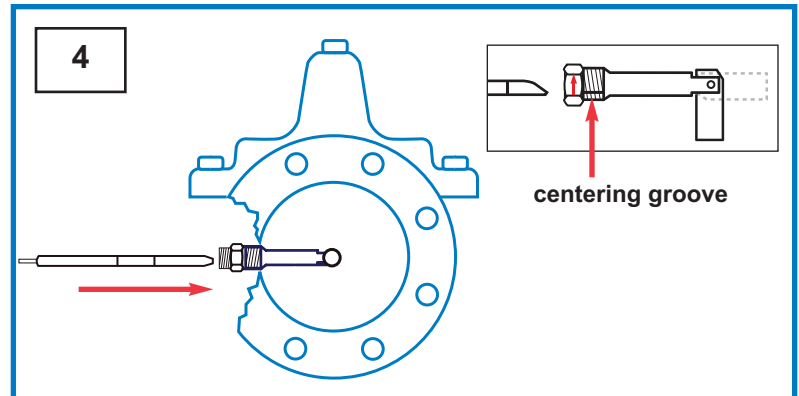
Quick Start Installation & Removal Instructions

Step-By-Step X144D-AF e-FlowMeter Removal Instructions (continued)



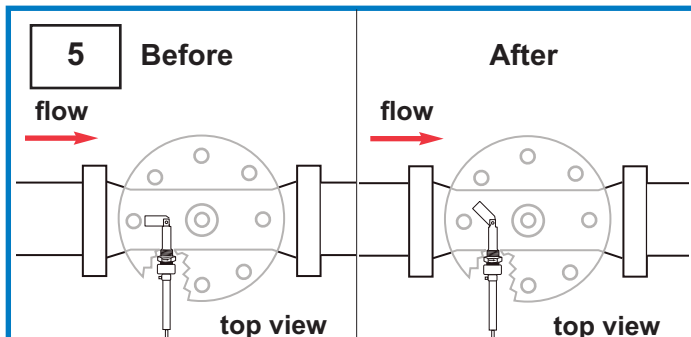
Step 3:

- Remove the e-FlowMeter Sensor/Head Assembly by pulling straight outward, being careful not to hit the sensor tip on the Threaded Swivel Insert tube
- Set Sensor/Head Assembly aside, taking care to protect the sensor tip



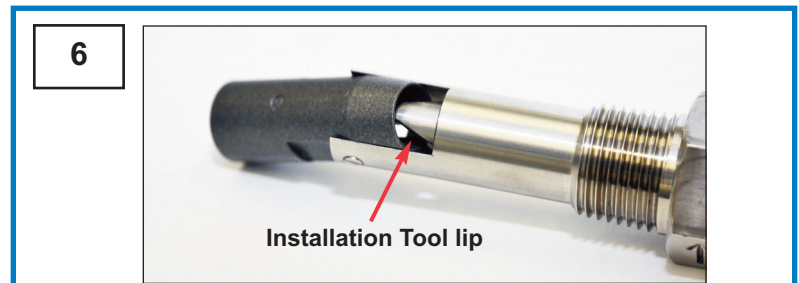
Step 4:

- Orient the Installation Tool so that the bevel is facing downstream, away from the centering groove as shown in detail drawing, and insert into the Threaded Swivel Insert



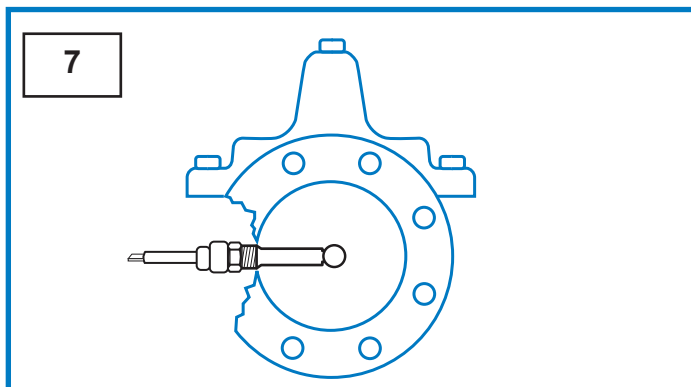
Step 5:

- Once inserted into the Threaded Swivel Insert tube, the Installation Tool will engage the top face of the Measurement Cylinder and force it to the 45° position, as shown above



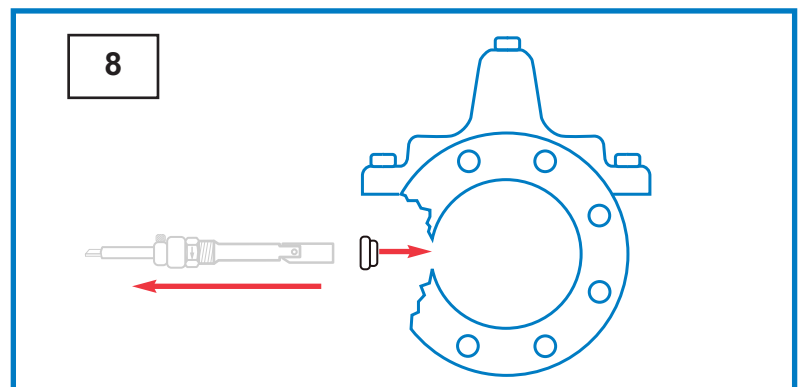
Step 6:

- Slide Installation Tool straight out, then rotate 180° so that the bevel is facing upstream of the valve, which is now facing the same direction of the centering groove, see above
- The lip of the Installation Tool will engage the inside of the Measurement Cylinder as shown in photo



Step 7:

- Once engaged, use light force to straighten the measurement cylinder, and then secure the Installation Tool in place with Locking Collar in locked position



Step 8:

- Remove Threaded Swivel Insert from the valve tapping with the Measurement Cylinder straightened
- Insert body plug into tapping while servicing the e-FlowMeter