Kennedy Valve

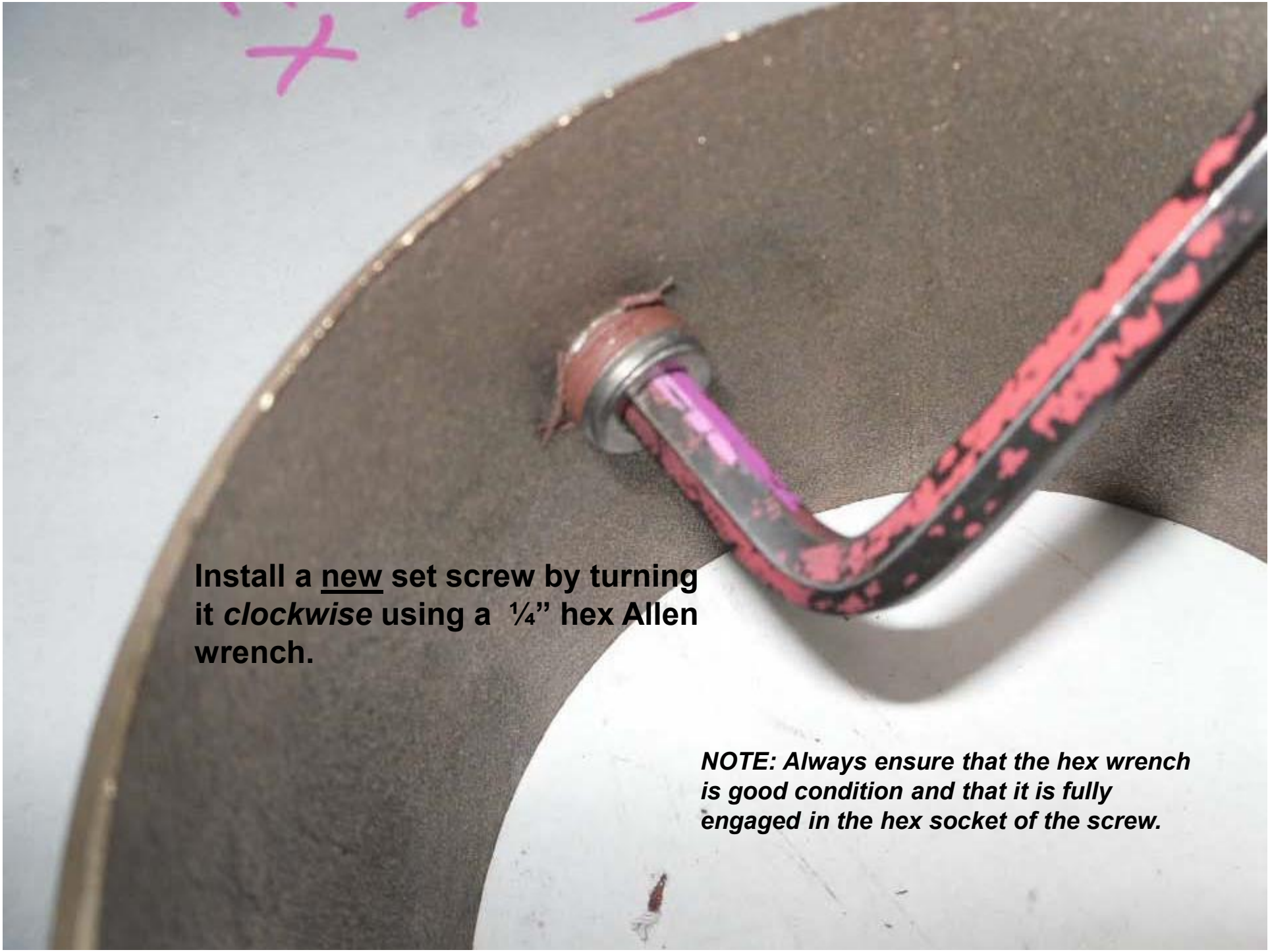
K81 Guardian Hydrant

Nozzle Installation Procedure

Prepared by: Dan Burczynski

Typical K81 Guardian Hydrant upper barrel with nozzles removed.

Nozzle set screw holes are gauged for proper fit to assure sealing and control of installation torque.


Install a new set screw by turning it *clockwise* using a ¼" hex Allen wrench.
NOTE: Always ensure that the hex wrench is good condition and that it is fully engaged in the hex socket of the screw.


Thread the set screw in until flush with outside surface.
Note: End of set screw painted white for clarity.

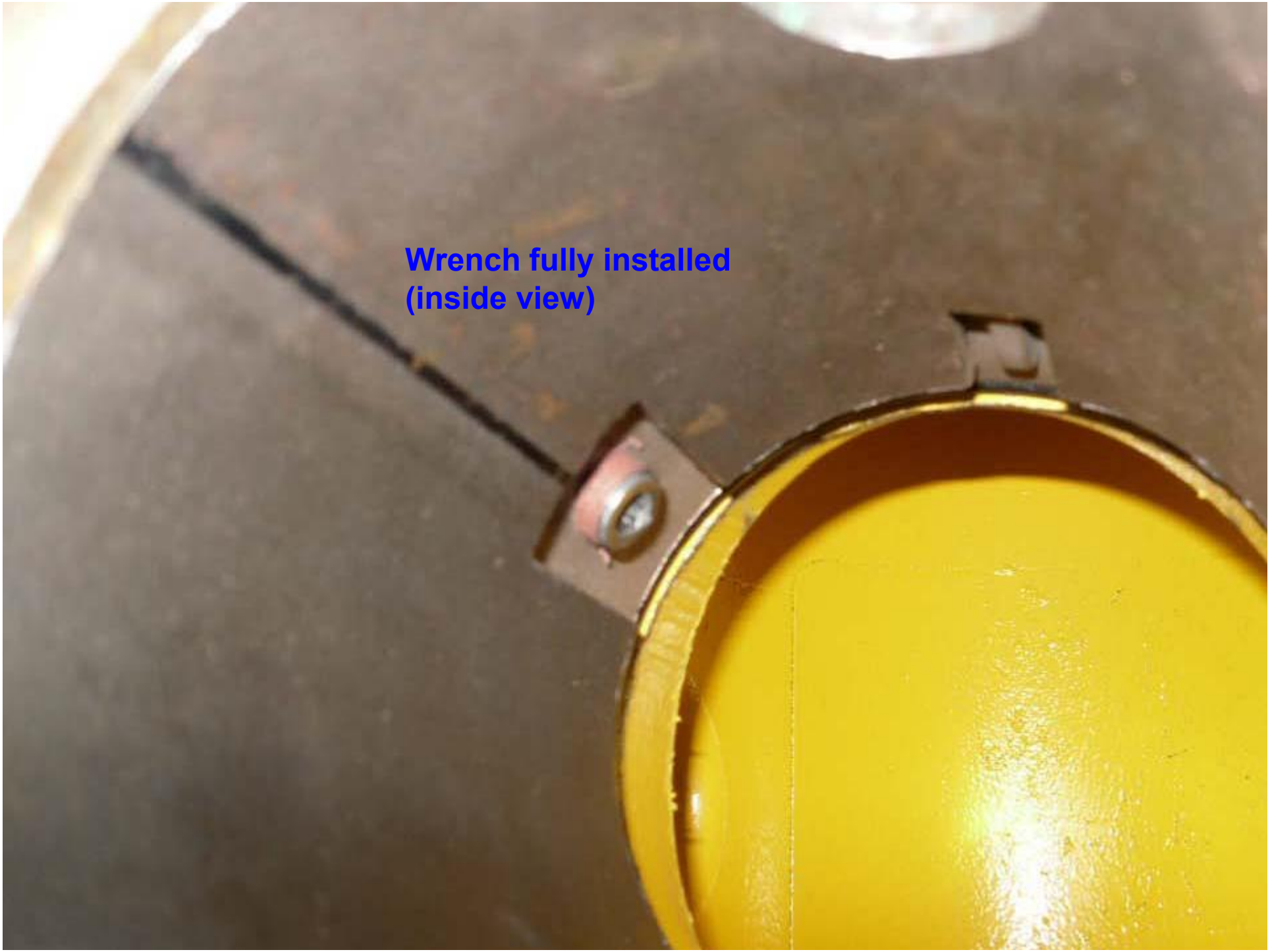
After inspecting the o-ring seating surface in the upper barrel for dirt/debris, lightly lubricate and install a new o-ring as shown *(use Nevastane or comparable food grade grease).*


Insert the nozzle as shown and until contacting the o-ring.

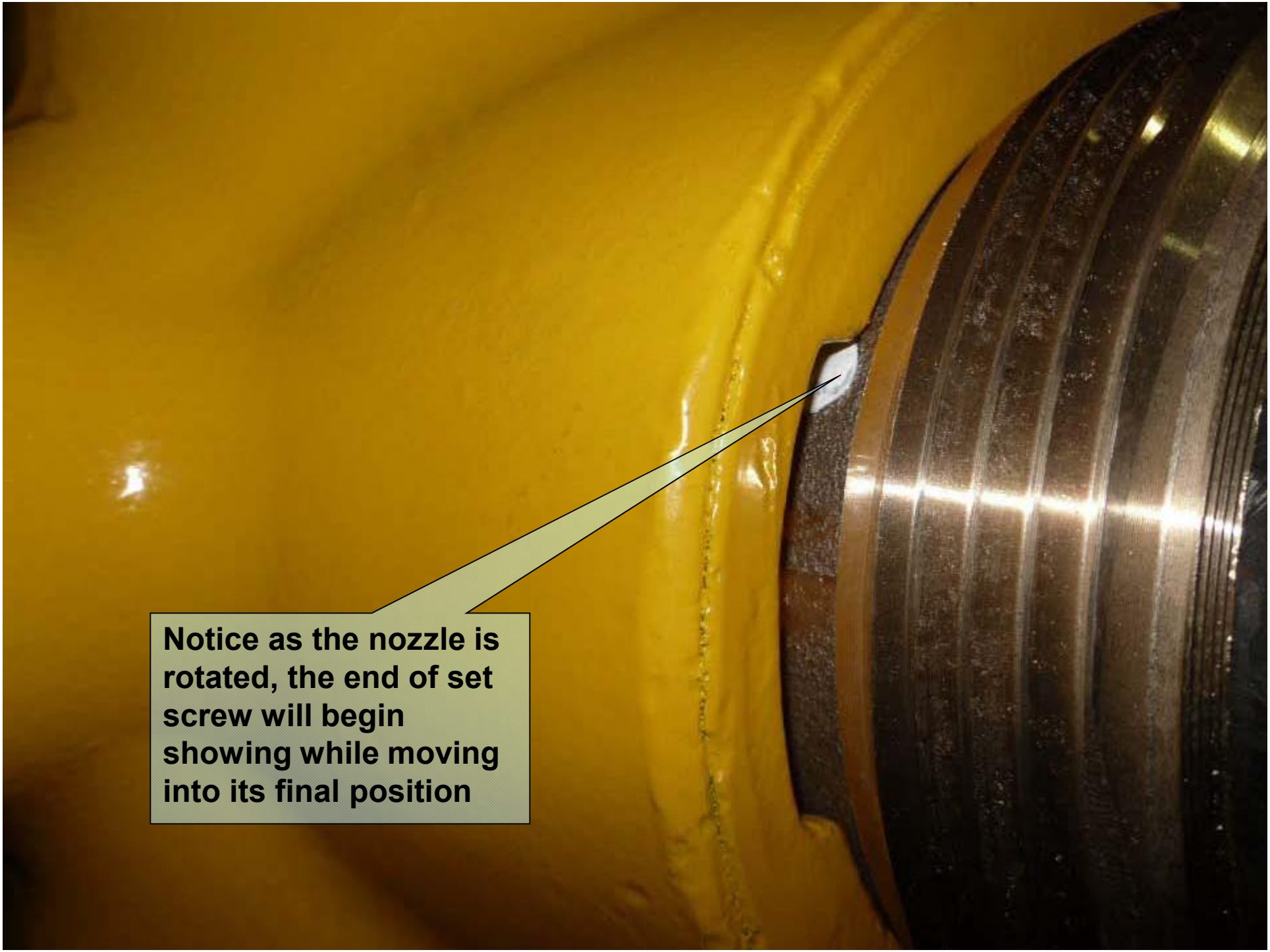

By hand, rotate the nozzle counter-clockwise as far as possible assuring that the nozzle and the o-ring remain centered.

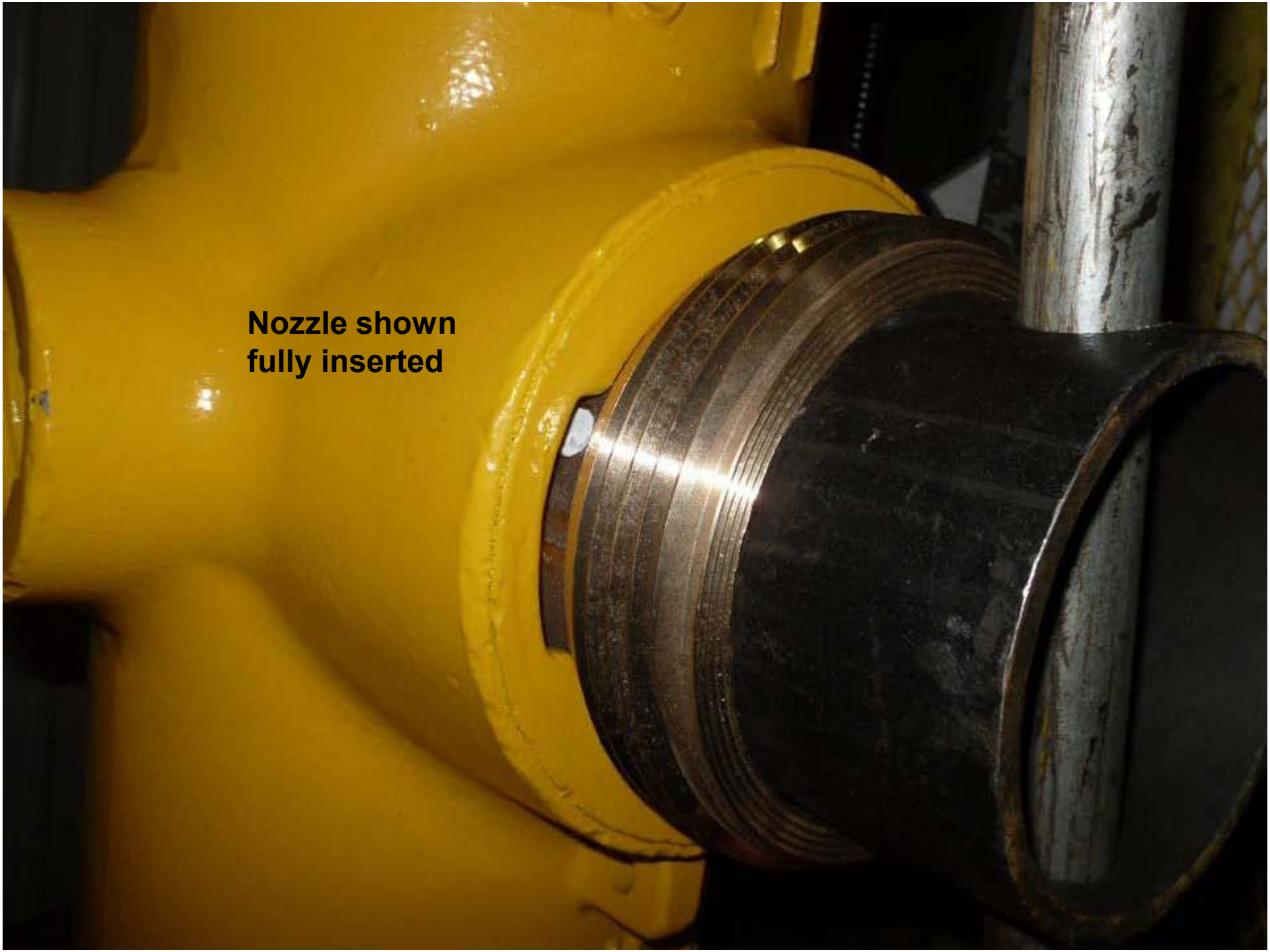

Using the proper size Kennedy nozzle installation tool, insert the tool such that the larger notch fits over the set screw and engages the drive lugs (push in as far as it can go).

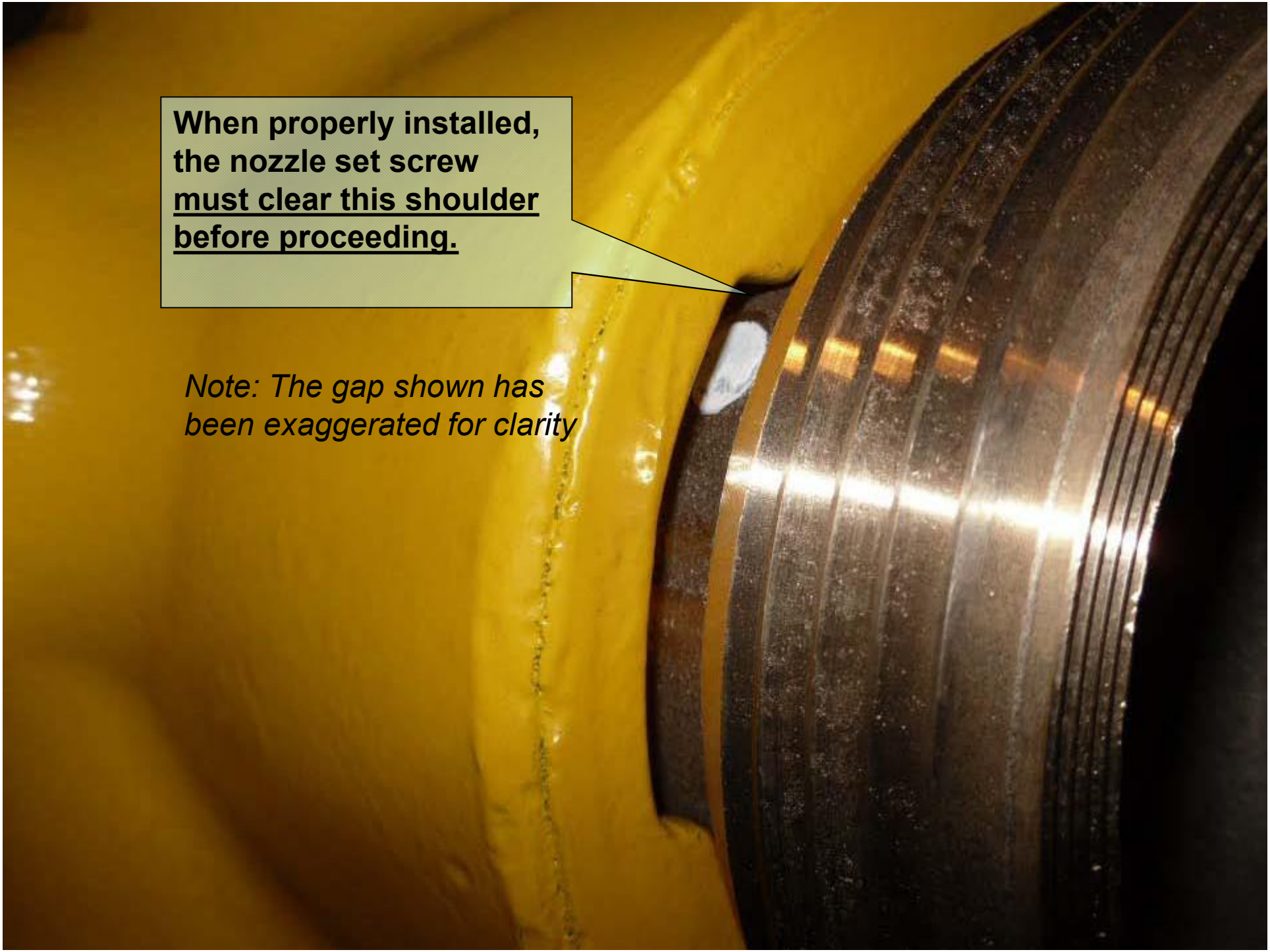

Wrench shown installed


Wrench fully installed
(inside view)


Rotate nozzle counter-clockwise using steady force.

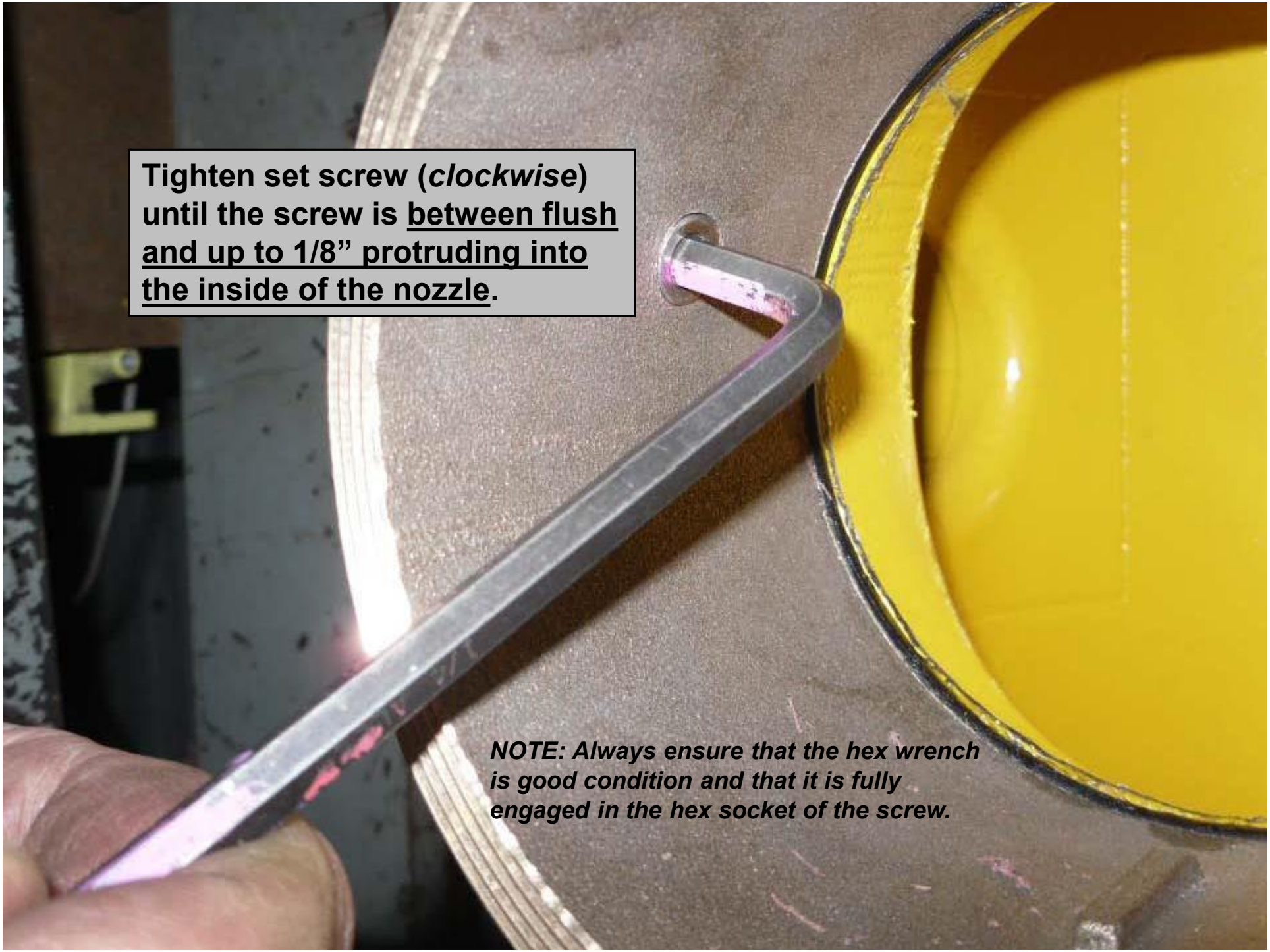

Notice as the nozzle is rotated, the end of set screw will begin showing while moving into its final position

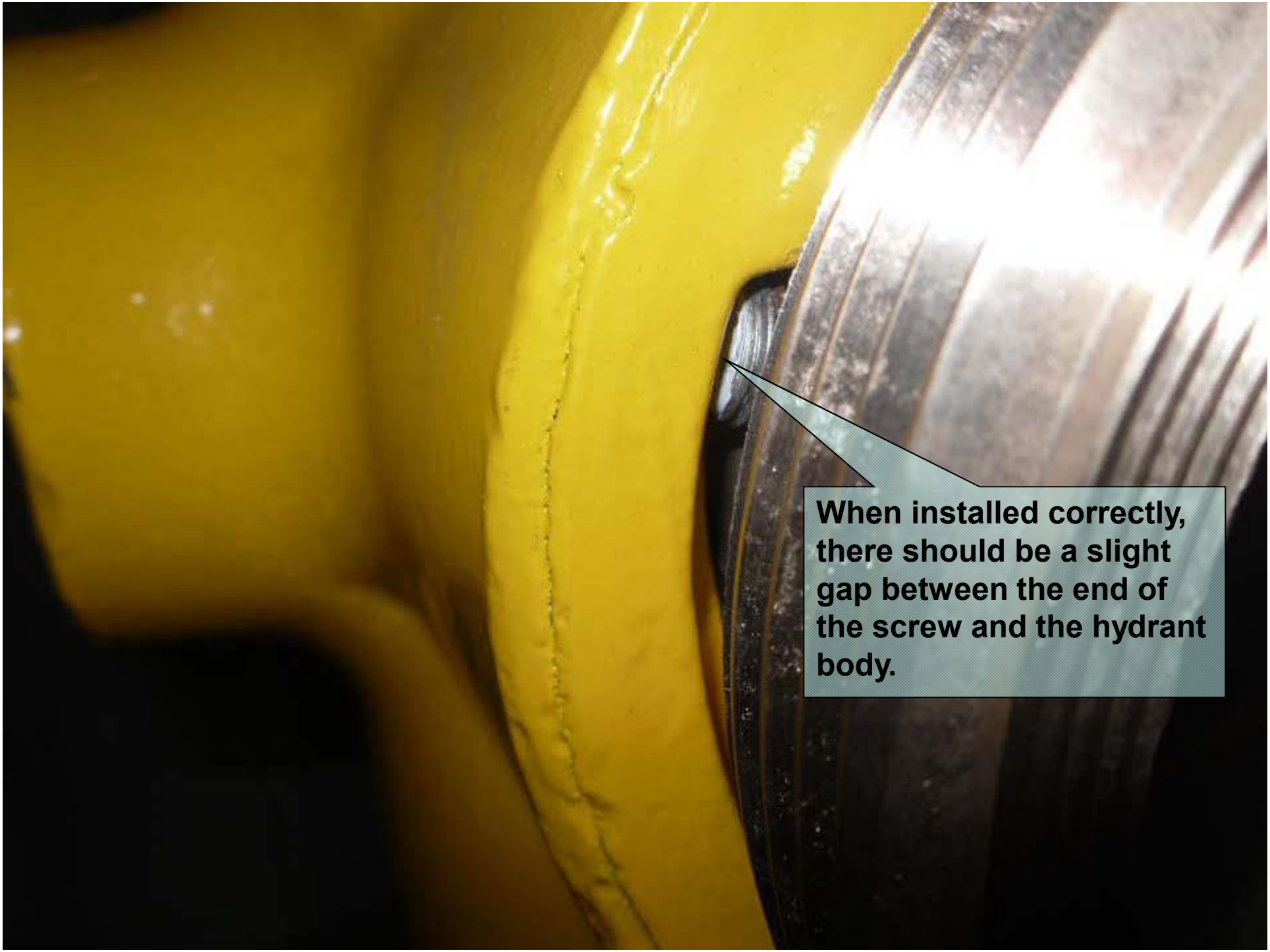

Nozzle shown
fully inserted

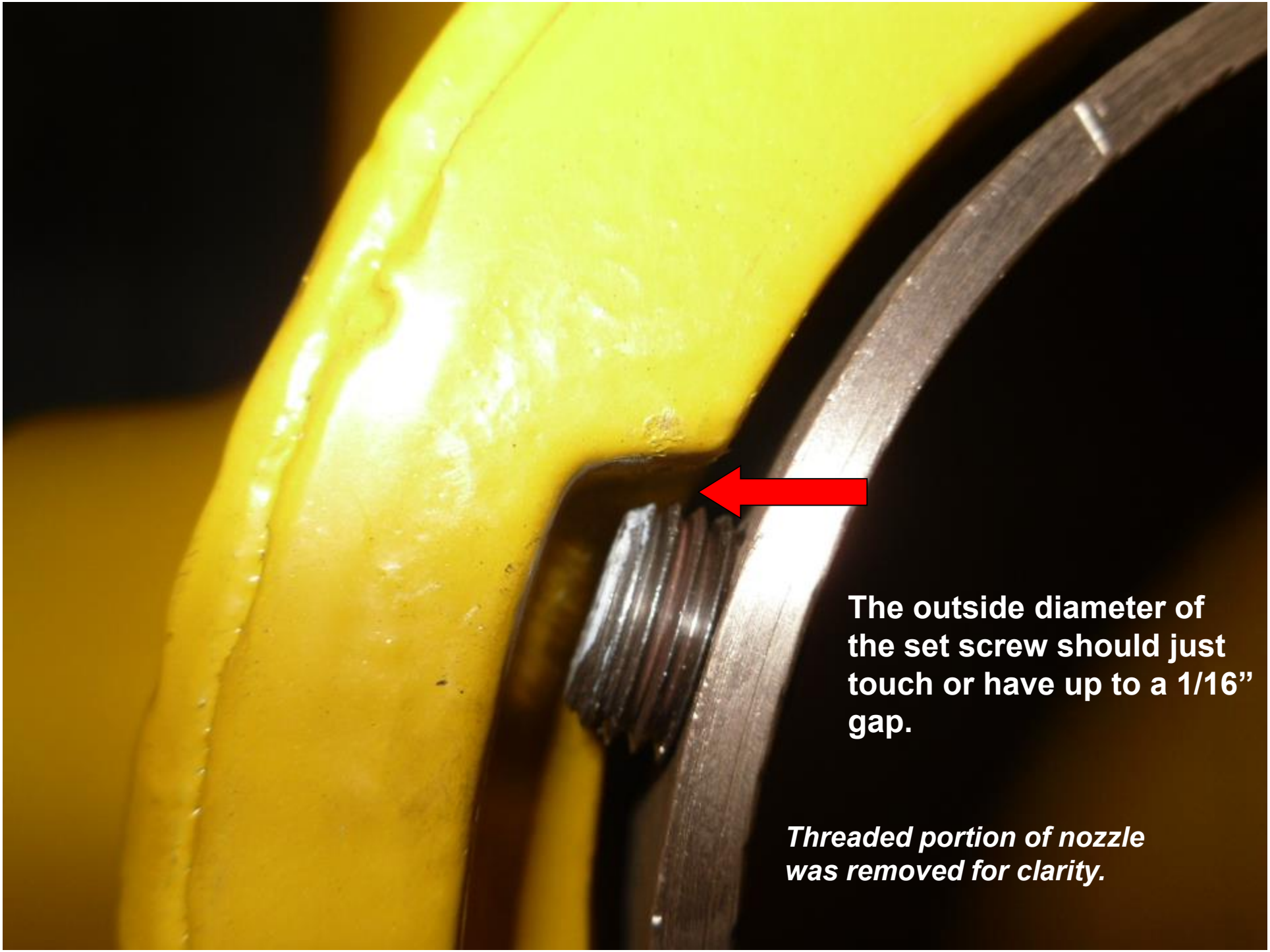

When properly installed, the nozzle set screw must clear this shoulder before proceeding.
Note: The gap shown has been exaggerated for clarity

After set screw is clear of the retention shoulder, remove nozzle wrench


Fully engage ¼” hex wrench


Tighten set screw (*clockwise*) until the screw is between flush and up to 1/8” protruding into the inside of the nozzle.
NOTE: Always ensure that the hex wrench is good condition and that it is fully engaged in the hex socket of the screw.


When installed correctly, there should be a slight gap between the end of the screw and the hydrant body.


The outside diameter of the set screw should just touch or have up to a 1/16” gap.
Threaded portion of nozzle was removed for clarity.


When correctly installed, the nozzle should be centered in upper barrel nozzle port, with the o-ring uniformly seated.