

# MUELLER

## SEAT WRENCHES - CENTURION® FIRE HYDRANT OPERATING INSTRUCTIONS

### PRIOR-TO

- Before using the A-361 make sure the wrench is configured for the bury depth of the hydrant you will be working on.
- The lower stems on Sentryx software enabled Super Centurion hydrants have larger outer diameters than the lower stems found in Super Centurion hydrants. Any wrench whose operation requires sliding it down the length of the upper and lower stem must have an inner diameter equal or greater than 3" if circular or equal or greater than 2.75" by 2.75" if square. (Wrenches smaller than this may not reach the seat ring and could potentially damage the lower stem of a Sentryx software enabled Super Centurion.)

### DE-PRESSURIZATION OF HYDRANT

1. Before removing any bolt(s) holding hydrant together, shut off the appropriate gate or isolation valve(s) to isolate hydrant from main water source.
2. Loosen – BUT DO NOT REMOVE – one nozzle cap two turns and check for water under pressure inside the hydrant – bleed off any pressure, then remove the nozzle cap completely.
3. Open hydrant main valve completely.
4. A continuous flow of water, no matter how slight, indicates hydrant is not properly isolated from the main water supply. This issue must be corrected before any hydrant disassembly can proceed, i.e. the water to the hydrant MUST be stopped.

### ! WARNING

**DO NOT REMOVE ANY BOLT(S) HOLDING THE HYDRANT TOGETHER BEFORE THE HYDRANT IS DE-PRESSURIZED.**

DISASSEMBLY OF HYDRANT WITH PRESSURIZED WATER ACTING AGAINST THE MAIN VALVE COULD RESULT IN UNEXPECTED EJECTION OF HYDRANT PARTS, DEBRIS OR HIGH-PRESSURE WATER STREAM, WHICH COULD CAUSE SERIOUS BODILY INJURY.

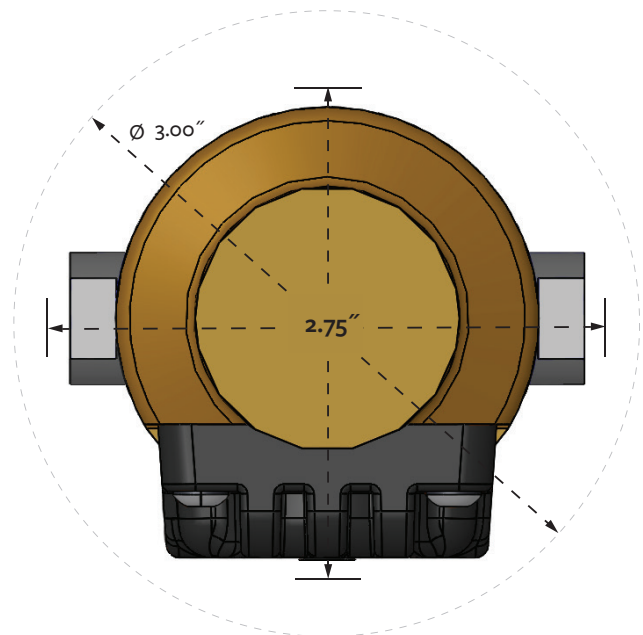
FOLLOW ALL COMPANY POLICIES AND OSHA REQUIREMENTS FOR LOCK-OUT/TAG-OUT.

### ! CAUTION

COMPLY WITH ALL REQUIRED INDUSTRY, SITE, STATE, AND FEDERAL SAFETY REQUIREMENTS.

WHEN REMOVING THE LOWER STEM FROM A SENTRYX™ SOFTWARE ENABLED SUPER CENTURION HYDRANT ONLY USE THE A-359/A-359-00, A-361, OR OTHER SEAT WRENCH WHOSE INTERIOR OPENING MEETS BELOW CLEARANCE REQUIREMENTS.

IF UTILIZING THE A359/A359-00 TO REMOVE A SEAT RING ON A SENTRYX SOFTWARE ENABLED CENTURION HYDRANT, ENSURE THE STEM COUPLING IS JOINING THE UPPER STEM AND THE LOWER STEM OF THE HYDRANT.



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## EQUIPMENT & TOOLS NEEDED:

### PPE:

- Hard hat, safety shoes, safety vest, safety glasses, work gloves

## CAUTION

MUELLER CO. RECOMMENDS FOLLOWING AWWA M-17 MANUAL FOR INSTALLATION, FIELD TESTING AND MAINTENANCE OF FIRE HYDRANTS.

## REMOVING THE MAIN VALVE THROUGH THE UPPER BARREL

### INSTRUCTIONS FOR A-359 AND A-359-00:

(The A-359 and the A-359-00 are the same wrench – the A-359 comes with a “T” handle while the A-359-00 uses the hydrant’s operating nut.)

1. Close main valve to the hydrant.

## CAUTION

IF MAIN VALVE IS NOT **CLOSED**, DAMAGE MAY OCCUR TO THE MAIN VALVE ASSEMBLY.

2. Remove hold-down nut turning it clockwise for an open left hydrant (Turn to the counter-clockwise for an open right hydrant).
3. Remove operating nut and anti-friction washer.
4. Lubricate brass sleeve and slide over threaded stem to prevent o-ring damage.
5. Remove bolts (8) and pull bonnet from upper barrel.
6. Lower support arm onto the top flange of the upper barrel.
7. Insert slotted end of the seat wrench over the stem until it rests on the pin in the upper stem.
8. A-359 (a.) or A-359-00 (b.)
  - a. Thread the “T” handle of the seat wrench by turning clockwise.
  - b. Place the operating nut on the upper stem through the top of the seat wrench and thread in place.
9. Pull up on seat wrench to be sure main valve is completely closed.
10. Tighten thumb screw to wrench support arm.
11. Insert handles into the head of the wrench.
12. Turn counter-clockwise to loosen main valve assembly.
13. Remove handles from seat wrench.
14. A-359 (a.) or A-359-00 (b.)
  - a. Unthread “T” handle from the upper stem by turning in the counter-clockwise direction.
  - b. Unthread operating nut from the upper stem.
15. Remove seat wrench from upper stem.
16. Lift and remove stem and main valve assembly as a unit.
17. Place stem and main valve assembly in the desired work location.
18. Follow operating instructions manual for Centurion Series Fire Hydrant (F11929) or instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task.
19. Ensure seat ring threads are coated with Thred Gard® Anti-Seize.
20. Insert stem and main valve assembly as a unit. Turn by hand slightly counter-clockwise then turn clockwise by hand to engage threads before using wrench.
21. Lower support arm onto the top flange of the upper barrel.
22. Insert seat wrench over the stem until it rests on the pin in the upper stem.
23. A-359 (a.) or A-359-00 (b.)
  - a. Thread the “T” handle of the seat wrench by turning clockwise.
  - b. Place the operating nut on the upper stem through the top of the seat wrench and thread in place.
24. Pull up seat wrench to be sure main valve is completely closed.
25. Tighten thumb screw to wrench support arm while main valve is in the closed position.
26. Turn clockwise to tighten main valve assembly to 100-150 ft-lbs.
27. A-359 (a.) or A-359-00 (b.)
  - a. Unthread “T” handle from the upper stem by turning in the counter-clockwise direction.
  - b. Unthread operating nut from the upper stem.
28. Remove seat wrench from upper stem.
29. Follow Operating Instructions Manual for Mueller Centurion Series Fire Hydrant (F11929) or Instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task.

## INSTRUCTIONS FOR A-361:

1. Completely open the main valve to the hydrant.

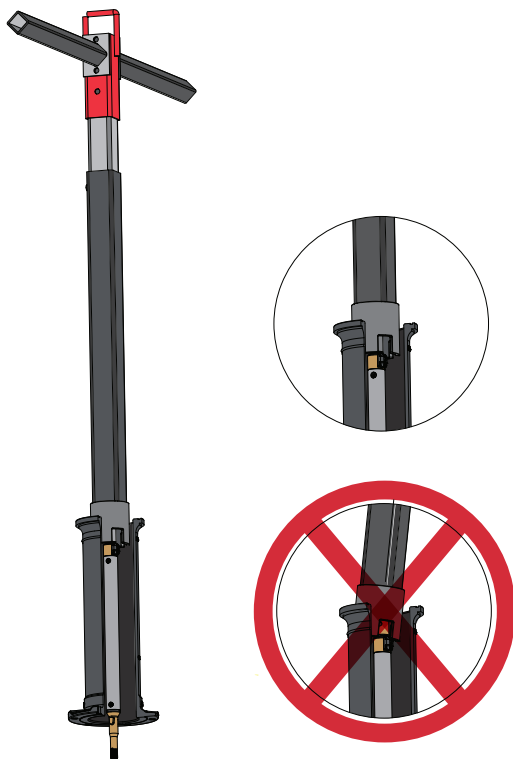
### CAUTION

IF MAIN VALVE IS NOT **OPEN**, DAMAGE MAY OCCUR TO THE MAIN VALVE ASSEMBLY.

2. Remove hold-down nut turning clockwise for an open left hydrant (Turn counter-clockwise for an open right hydrant).
3. Remove operating nut and anti-friction washer.
4. Lubricate brass sleeve and slide over threaded stem to prevent o-ring damage.
5. Remove bolts (8) and pull bonnet from upper barrel.

### CAUTION

WHEN USING THE A-361 WRENCH TO REMOVE THE SEAT FROM A HYDRANT WITH A SENTRYX SOFTWARE ENABLED LOWER STEM MAKE SURE NOT TO COME DOWN AT AN ANGLE AS THIS FORCEFUL IMPACTS TO THE ANTENNA OF THE LOWER STEM COULD CAUSE DAMAGE.



6. Insert seat wrench over the stem until it rests on the seat ring.
7. Slide centering spider into upper barrel until it rests in place.
8. Place two bolts in flange to secure centering spider.
9. Turn slowly until wrench sits inside the seat ring. The wrench will drop into place.
10. Assemble head of wrench to wrench body.
11. Insert handle into the head of the wrench.
12. Lock handle in place with the "1" bolt.
13. Turn counter-clockwise to loosen main valve assembly.
14. Remove "1" bolt from the handle and seat wrench.
15. Remove handle from seat wrench.
16. Remove seat wrench and centering spider from upper stem.
17. Lift and remove stem and main valve assembly as a unit.
18. Place stem and main valve assembly in the desired work location.
19. Follow Operating Instructions Manual for Centurion Series Fire Hydrant (F11929) or Instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task. (For re-assembly, consider a smaller A-359 wrench).
20. Ensure seat ring threads are coated with Thred Gard® Anti-Seize.
21. Insert stem and main valve assembly as a unit. Turn by hand slightly counter-clockwise then turn clockwise by hand to engage threads before using wrench.
22. Insert seat wrench over the stem until it rests on the seat ring.
23. Slide centering spider into upper barrel until it rests in place.
24. Turn slowly until wrench sits inside the seat ring. The wrench will drop into place.
25. Assemble head of wrench to wrench body.
26. Insert handle into the head of the wrench.
27. Lock handle in place with the "1" bolt.
28. Turn clockwise to tighten main valve assembly to 100-150 ft-lbs.
29. Remove "1" bolt from the handle and seat wrench.
30. Remove handle from seat wrench.
31. Remove seat wrench from hydrant.
32. Follow Operating Instructions Manual for Centurion Series Fire Hydrant (F11929) or Instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task.

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## INSTRUCTIONS FOR A-340 :

### CAUTION

THE A-340 WILL NOT FIT ON THE LOWER STEMS FOUND IN SENTRYX SOFTWARE ENABLED SUPER CENTURION HYDRANT.

1. Make sure you have the correct A-340 for the hydrant's bury depth.
2. Close main valve to the hydrant.
3. Remove hold-down nut turning clockwise for an open left hydrant (Turn to the counter-clockwise for an open right hydrant).
4. Remove operating nut and anti-friction washer.
5. Lubricate brass sleeve and slide over threaded stem to prevent o-ring damage.
6. Remove bolts (8) and pull bonnet from upper barrel.
7. Insert seat wrench over the stem until it rests on the seat ring.
8. Slide centering spider into upper barrel until it rests in place.
9. Turn slowly until wrench sits on lugs of seat ring. The wrench will drop into place.
10. Insert adjustable stem over upper stem. Thread down and tighten adjustable stem onto upper stem.
11. Pull up on seat wrench to be sure the main valve is in the closed position.
12. Insert handles into the head of the wrench.
13. Turn counter-clockwise to loosen main valve assembly.
14. Unthread the adjustable stem from the upper stem.
15. Remove handles from seat wrench.
16. Remove seat wrench and spider from upper stem.
17. Lift and remove stem and main valve assembly as a unit.
18. Place stem and main valve assembly in the desired work location.
19. Ensure seat ring threads are coated with Thred Gard® Anti-Seize.
20. Follow Operating Instructions Manual for Centurion Series Fire Hydrant (F11929) or Instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task. [For re-assembly, consider a smaller A-359 wrench].
21. Re-insert stem and main valve assembly as a unit into the hydrant. Turn by hand slightly counter-clockwise then turn clockwise by hand to engage threads before using wrench.
22. Insert seat wrench over the stem until it rests on the seat ring.
23. Slide centering spider into upper barrel until it rests in place.
24. Turn slowly until wrench sits on lugs of seat ring. The wrench will drop into place.
25. Insert adjustable stem over upper stem. Thread adjustable stem onto upper stem.
26. Pull up on seat wrench to be sure the wrench and stem assembly move as one unit.
27. Insert handles into the head of the wrench.
28. Turn clockwise to tighten main valve assembly to 100-150 ft-lbs.
29. Unthread the adjustable stem from the upper stem.
30. Remove handles from seat wrench.
31. Remove seat wrench and spider from upper stem.
32. Follow Operating Instructions Manual for Centurion Series Fire Hydrant (F11929) or Instructions for Sentryx software enabled Super Centurion Kit (F14286) to complete task.

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