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SUBMITTAL TRANSMITTAL

November 21, 2011
WCM Submittal No: 02642-001

PROJECT: Harold Thompson Regional WRF
 Birdsall Rd.
 Fountain, CO 80817
 Job No. 2908

ENGINEER: GMS, Inc.
 611 No. Weber St., #300
 Colorado Springs, CO 80903
 719-475-2935 Roger Sams

OWNER: Lower Fountain Metropolitan
 Sewage Disposal District
 901 S. Santa Fe Ave.
 Fountain, CO 80817
 719-382-5303 James Heckman

CONTRACTOR: Superior Sales, Inc.
 13301 W 43rd Drive #11
 Golden, CO 80403
 303-279-3600 Jim Warner
 JimWarner@superiorsalesco.com

SUBJECT: Muller Super Centurion Hydrants for Clarifiers

Note: Spec calls for "open right" operation, but Hanover Fire District would like it to operate "open left", as seen on the submittal.

SPEC SECTION: 02642.14

PREVIOUS SUBMISSION DATES: none

DEVIATIONS FROM SPEC: YES NO

CONTRACTOR'S STAMP: This submittal has been reviewed by WCM and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto.

Contractor's Stamp:

Engineer's Stamp:

Date: 11/21/11

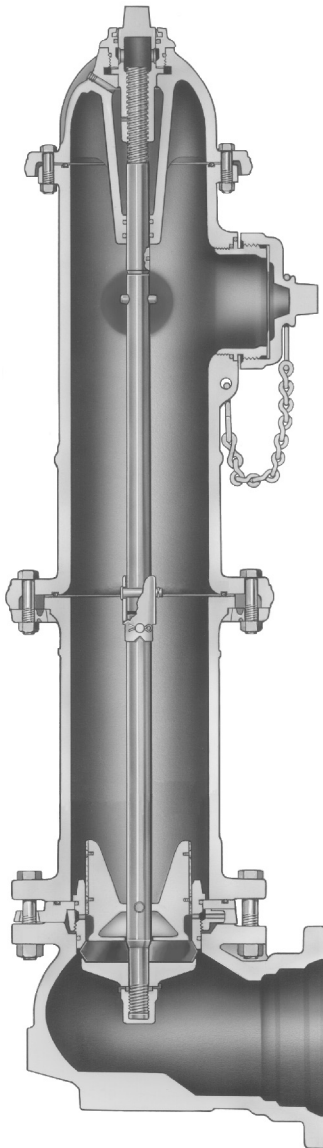
Reviewed by: H.C. Myers
 Reviewed Without Comments
 Reviewed With Comments

ENGINEER'S
 COMMENTS:

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MUELLER SUPER CENTURION 250™ 3-Way Fire Hydrant Features

- ❑ **ANTI-FRICTION WASHER**
helps assure easy turning operation for the life of the hydrant.
- ❑ **OIL FILLER PLUG**
permits quick check of oil level. Lets you add oil without removing bonnet.
- ❑ **OIL RESERVOIR O-RING SEALS**
seal oil in, water out.
- ❑ **STAINLESS STEEL SAFETY STEM COUPLING -**
pulls free if hydrant is hit by a vehicle preventing damage to the stem and main valve. Coupling will not break into pieces that could drop into lower barrel and affect valve operation. Top of lower stem is below the top of the lower barrel so that a tire cannot depress the stem and open the main valve. Repair is easy and economical.
- ❑ **SAFETY FLANGE -** breaks cleanly to help prevent barrel damage, yet is strong enough to withstand normal handling. Allows economical repair, adding of extension section, rotation or changing of upper barrel without digging or water shut-off.
- ❑ **BRONZE UPPER VALVE PLATE**
conical design for smooth flow.
- ❑ **DRAIN VALVE FACINGS**
specially designed, long-life facings provide effective sealing.
- ❑ **DUCTILE IRON CAP NUT**
retains main valve. Seats against cap nut gasket to prevent corrosion of stem threads. Locked in place by a stainless steel lock washer. Mueller HP Epoxy coated for durability.
- ❑ **250 PSIG - 3-way hydrant:**
250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa)
- ❑ **SHOE DESIGNED FOR MAXIMUM FLOW AND EASY CONNECTION**
with its smooth transitional contours, extended neck and integral anti-rotation pads, allowing use of standard tee-head bolts. The inside of the shoe is covered with MUELLER HP® Epoxy Coating. This thermosetting epoxy forms a tough corrosion-resistant barrier to chemicals, physical impact and electrical currents.
- ❑ **HOLD-DOWN NUT -** with integral weather seal. Design discourages unauthorized removal of the hold-down nut or bronze operating nut. Resilient wiper seal between hold-down nut and operating nut prevents water entry to protect operating nut from freezing. Wiper seal material is resistant to ultra-violet ray deterioration. O-ring seal provides second level of protection.
- ❑ **MEETS OR EXCEEDS**
all applicable requirements of ANSI/AWWA C502 Standard and UL 246 and FM 1510 specifications.
- ❑ **O-RING SEALS AT BONNET, GROUND, AND SHOE FLANGES**
for better leak resistance, easier maintenance.
- ❑ **SEALED OIL RESERVOIR -** O-ring sealed to prevent leakage. Provides positive lubrication of stem threads and bearing surfaces each time the hydrant is operated. Filled at the factory.
- ❑ **FULL FLOW OPENINGS**
large radius hose and pumper openings produce low friction loss.
- ❑ **FIELD REPLACEABLE HOSE AND PUMPER NOZZLES -** O-ring sealed. Threaded in place and retained by stainless steel locks. Nozzles are easily replaced.
- ❑ **ELECTRO-GALVANIZED BOLTS AND NUTS -** provide corrosion protection.
- ❑ **NON-KINKING CHAINS**
heavy-duty chains are securely attached to the hydrant. Special chain loop permits free turning of the cap.
- ❑ **BRONZE SEAT RING -** threaded into drain ring and O-ring sealed. Seat ring is easily removed or installed from above ground. Each time main valve is opened or closed, double drain valves force-flush both drain valve openings to keep them open for effective barrel drainage. Bronze drain valves are integral parts of main valve assembly.
- ❑ **REVERSIBLE, COMPRESSION TYPE MAIN VALVE -** closes with pressure for positive seal. Rubber material has long service life, yet is reversible providing a convenient spare in place.

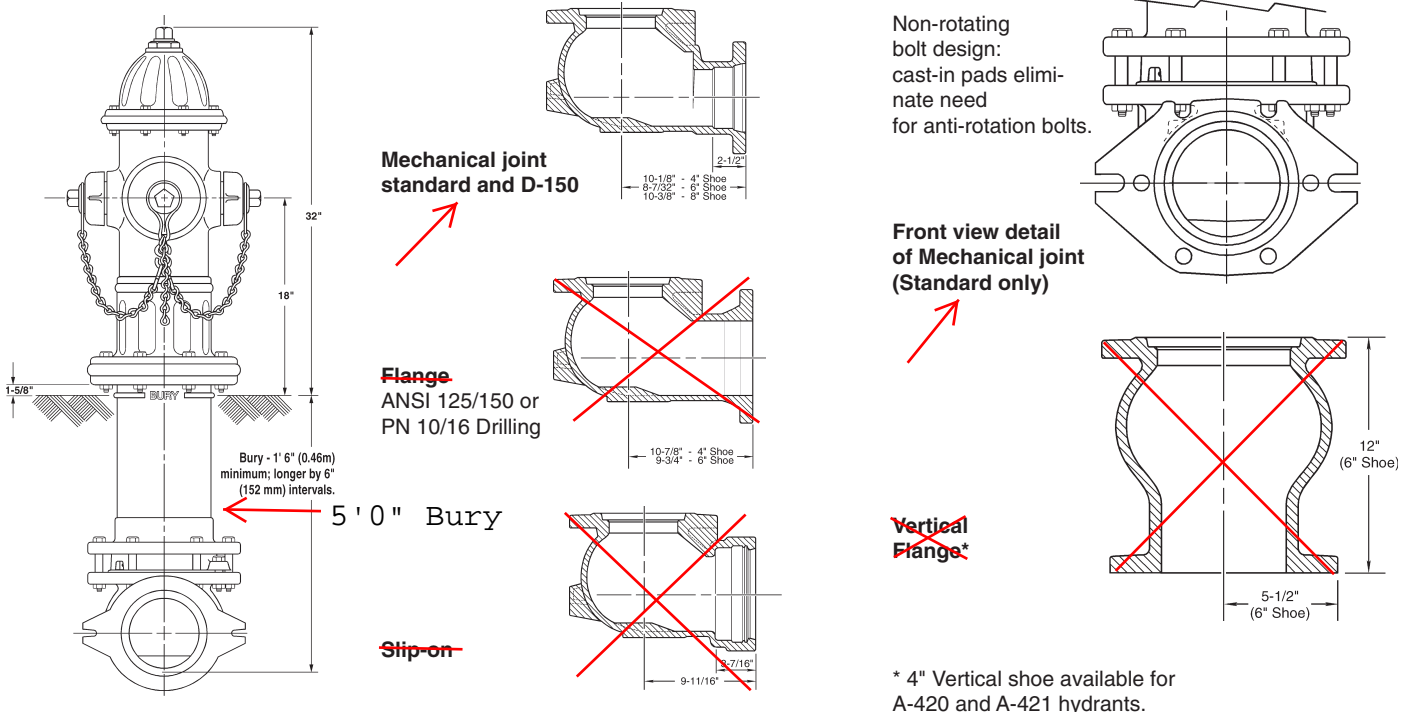


Rev. 8-04 Shaded area indicates changes

- ❑ Super Centurion 250™ 3-way catalog numbers (approved to UL 246, FM 1510, ANSI/AWWA C502 Standards) -
 - ~~A-421 4 1/2" main valve opening three way (two hose nozzles and one pumper nozzle)~~
 - ➔ A-423 5-1/4" main valve opening three way (two hose nozzles and one pumper nozzle)
- ~~Super Centurion 200™ 2-way catalog numbers (approved to ANSI/AWWA C502 Standards) -~~
 - ~~A-420 4 1/2" main valve opening two way (two hose nozzles)~~
 - ~~A-422 5-1/4" main valve opening two way (two hose nozzles)~~
 - ~~A-425 5-1/4" main valve opening two way (two pumper nozzles)~~
- ~~Super Centurion 200™ 1-way catalog number (approved to ANSI/AWWA C502 Standards) -~~
 - ~~A-424 4 1/2" main valve opening one way (one pumper nozzle)~~
- ❑ 10 year limited warranty on material and workmanship
- ❑ Meets all applicable parts of ANSI/AWWA C502 Standard
- ❑ Post type dry barrel design
- ❑ Dry top design with O-ring sealed oil reservoir Color: Red
- ❑ Traffic feature with stainless steel safety stem coupling
- ❑ Compression-type main valve closes with pressure for positive seal; it is made of rubber and is conveniently reversible providing a spare for long service life
- ❑ Operating nut available in wide variety of shapes and sizes-open left ~~or right~~ **Open Left** Pentagon nut
- ❑ Field replaceable hose and pumper nozzles **National Standard Threads**
- ❑ Hose and pumper nozzles have large radius, full flow openings for low friction loss
- ❑ Contoured shoe is designed for full flow
- ❑ Dual bronze drain valves provide effective barrel drainage
- ❑ 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure for 3-way hydrants;
~~200 psig (1379 kPa) maximum working pressure, 400 psig (2758 kPa) static test pressure for 2-way and 1-way hydrants~~



Dimensions



MUELLER® SUPER CENTURION® FIRE HYDRANT PARTS

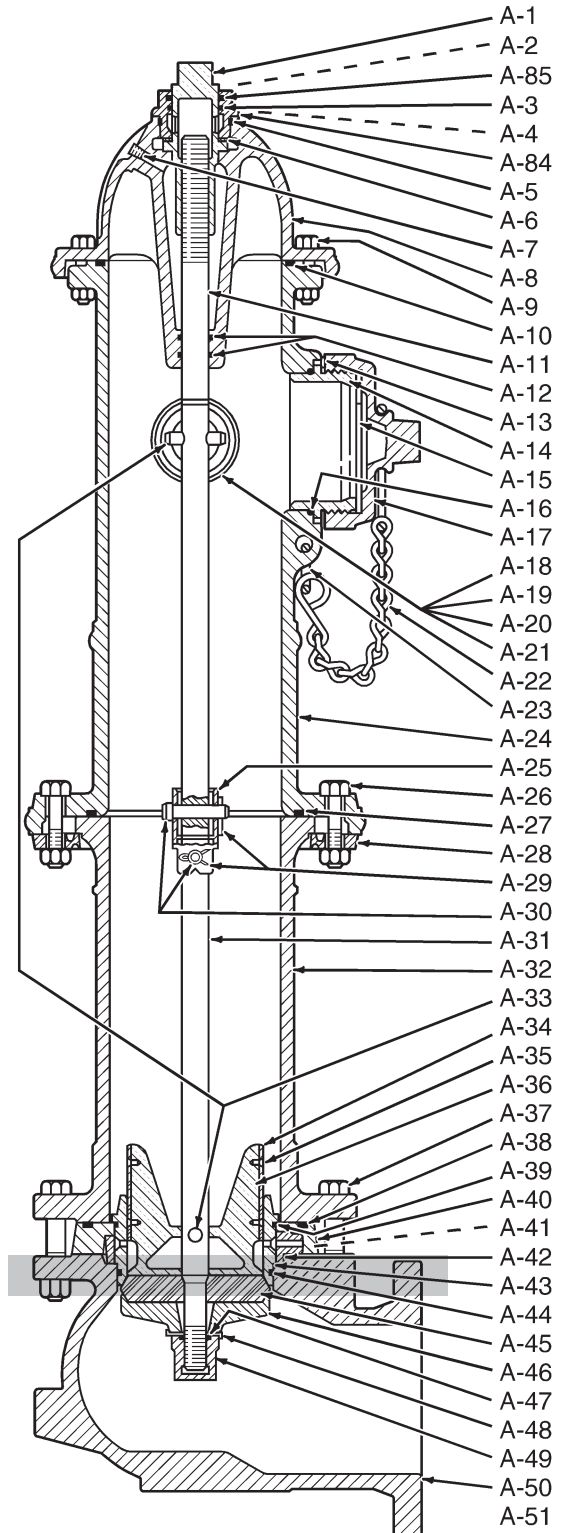


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Shaded area indicates changes Rev. 8-04

MUELLER Super Centurion Fire Hydrant Parts

Cat. part #	Description	Material	Material standard
A-1	Operating nut	Bronze	ASTM B584
A-2	Weather cap (not shown; used only on pre-1988 models)	Cast iron	ASTM A126 CL.B
A-3	Hold down nut O-ring	Rubber	ASTM D2000 BUNA N
A-4	Hold down nut (not shown; used only on pre-1988 models)	Bronze	ASTM B584
A-5	Bonnet O-ring	Rubber	ASTM D2000 BUNA N
A-6	Anti-friction washer	Celcon	
A-7	Oil plug	Brass	ASTM B16
A-8	Bonnet	Cast iron	ASTM A126 CL.B
A-9	Bonnet bolt and nut	Steel	ASTM A307 Plated
A-10	Bonnet O-ring (1997 and newer 3-way models; all pre-1997 models and 1-way and 2-way models have flat gasket)	Rubber	ASTM D2000 BUNA N
A-11	Upper stem	Steel	ASTM A576 GR.B
A-12	Stem O-ring	Rubber	ASTM D2000 BUNA N
A-13	Nozzle lock	Stainless steel	ASTM A276
A-14	Pumper nozzle	Bronze	ASTM B584
A-15	Pumper nozzle gasket	Rubber	ASTM D2000 Neoprene
A-16	Pumper nozzle O-ring	Rubber	ASTM D2000 BUNA N
A-17	Pumper nozzle cap	Cast iron	ASTM A126 CL.B
A-18	Hose nozzle	Bronze	ASTM B584
A-19	Hose nozzle gasket	Rubber	ASTM D2000 Neoprene
A-20	Hose nozzle O-ring	Rubber	ASTM D2000 BUNA N
A-21	Hose nozzle cap	Cast iron	ASTM A126 CL.B
A-22	Cap chain	Steel	Plated
A-23	Chain ring	Steel	Plated
A-24	Upper barrel less nozzles	Cast iron	ASTM A126 CL.B
A-25	Safety coupling	Stainless steel	ASTM A890
A-26	Safety flange bolt and nut	Steel	ASTM A307 Plated
A-27	Safety flange O-ring (1997 and newer models; pre-1997 models have flat gasket)	Rubber	ASTM D2000 BUNA N
A-28	Safety flange	Cast iron	ASTM A126 CL.B
A-29	Cotter pin	Stainless steel	ASTM A276
A-30	Clevis pin	Stainless steel	ASTM A276
A-31	Lower stem	Steel	ASTM A576 GR.B
A-32	Lower barrel	Cast iron	ASTM A126 CL.B
A-33	Stem pin	Stainless steel	ASTM A276
A-34	Drain valve facing	Plastic	
A-35	Drain valve screw	Stainless steel	ASTM A276
A-36	Upper valve plate (includes A-34 and A-35)	Bronze	ASTM B584
A-37	Shoe bolt and nut	Steel	ASTM A307 Plated
A-38	Drain ring housing O-ring (1997 and newer models; pre-1997 models have square gasket)	Rubber	ASTM D2000 BUNA N
A-39	Seat ring top O-ring	Rubber	ASTM D2000 BUNA N
A-40	Drain ring housing	Cast iron	ASTM A126 CL.B
A-41	Drain ring housing bolt and nut (not shown; used only on pre-1997 model hydrants)	Steel	ASTM A307 Plated
A-42	Drain ring	Bronze	ASTM B584
A-43	Seat ring	Bronze	ASTM B584
A-44	Seat ring bottom O-ring	Rubber	ASTM D2000 BUNA N
A-45*	Reversible main valve (1997 and newer models only; pre-1997 models use non-reversible main valve and lower valve plate - not shown)	Rubber	ASTM D2000
A-46	Lower valve plate (1997 and newer models for reversible main valve; pre-1997 models have non-reversible main valve - not shown)	Cast iron	ASTM A126 CL.B
A-47	Cap nut seal	Rubber	ASTM D2000
A-48	Lock washer	Stainless steel	ASTM A276
A-49	Lower valve plate nut	Cast iron	ASTM A126 CL.B
A-50	Shoe**	Cast iron	ASTM A126 CL. B
A-84	Hold down nut	Bronze	ASTM B584
A-85	Weather seal	Rubber	ASTM D2000
A-51	10.5 oz. hydrant lubricating oil (not shown)		



* Pre-1997 models may be upgraded to use the reversible main valve by also replacing the lower valve plate with the 1997 model.

** 6" MJ shoe is Ductile Iron, ASTM A536 Grade 65-45-12.