



Southeast Morris County Municipal Utilities Authority

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FIRE HYDRANT

GENERAL

The Southeast Morris County Municipal Utilities Authority (referred to herein as the "Authority") is subject to the standard terms and conditions set forth by the Authority's Rules and Regulations, pursuant to N.J.S.A. 40:14B.

As a public water supply, the Authority is required to protect and provide safe drinking water to consumers in accordance with the N.J.A.C. 7:10 Safe Drinking Water Act Rules.

The Authority is committed to providing an efficient process for developers to achieve their project goals in accordance with the Authority's Rules and Regulations.

Developers interested in conducting business with the Authority shall comply with the standard terms and conditions mandated by the Authority's Rules and Regulations.

Developer shall mean applicant responsible for application, fees and contract agreement with the Authority.

REFERENCE

ANSI/AWWA	American National Standards Institute/American Water Works Standards
C104/A21.4-13	Cement-Mortar Lining for Ductile-Iron Pipe and Fittings
C110/A21.10-12	Ductile-Iron and Gray-Iron Fittings
C111/A21.11-12	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
C151/A21.51-09	Ductile-Iron Pipe, Centrifugally Cast
C502-05	Dry-Barrel Fire Hydrants
C509-09	Resilient-Seated Gate Valves for Water Supply Service
C511-07	Reduced-Pressure Principle Backflow Prevention Assembly
C651-05	Disinfecting Water Mains
C700-09	Cold-Water Meters – Displacement Type, Bronze Main Case
C702-10	Cold-Water Meters – Compound Type
C703-11	Cold-Water Meters – Fire-Service Type
ASTM	American Society for Testing and Materials
ASTM B88	Standard Specification for Seamless Copper Water Tube
N.J.S.A. 40:14B	New Jersey Statutes – Title 40 Municipal and County Utilities Authorities Law
N.J.A.C. 7:10	New Jersey Administrative Code – Title 7 Safe Drinking Water Act Rules
NSF	National Sanitation Foundation International Standard
NSF/ANSI 61	Drinking Water System Components – Health Effects
Rules and Regulations	The Southeast Morris County Municipal Utilities Authority's Rules and Regulations

REQUIREMENTS

1. Developers shall verify that all submittals conform to local, county and state ordinances.
2. Road opening permits on local and county roads shall be obtained by the developer. State road opening permits shall be obtained by the Authority at the developer's expense.
3. All excavation and backfill shall be the responsibility of the developer.
4. Only authorized personnel of the Authority will be permitted to make connections to the water mains of the Authority, access and operate curb stops, hydrants and valves as mandated by the Rules and Regulations.
5. All proposed materials shall be submitted for approval. Failure to submit information shall cause the Authority to reject work and deny water service.
6. All materials submitted for approval shall be of first-class high-grade quality, clean and sound and conform to the latest revisions of ANSI/AWWA Standards. No inferior or low-grade materials will be approved or accepted.
7. All materials shall be approved for NSF/ANSI 61 for potable drinking water.
8. All materials shall be manufactured in the United States of America.
9. As-built drawings shall be prepared and submitted to the Authority on a CD in PDF and CAD format, indicating the location of all facilities installed before water is turned on.

SPECIFICATIONS FOR FIRE HYDRANT (see Section 14 of the Rules and Regulations):

1. Fire hydrants shall be in compliance with ANSI/AWWA C502-05.
2. Fire hydrants shall be required to meet the following:
 - a. Meet all test requirements and listed by Underwriters Laboratories Inc.;
 - b. Meet all test requirements and have full approval of Factory Mutual;
 - c. Compression type, opening against the pressure and closing with the pressure;
 - d. 5-1/4" main valve opening;
 - e. Open left, counterclockwise;
 - f. 1-1/8" pentagon caps and operating nut;
 - g. Painted red with white bonnet and caps;
 - h. Three-way design – one (1) 5" Storz pumper nozzle, two (2) 2-1/2" NST hose nozzles;
 - i. 6" ductile iron mechanical joint shoe with a minimum of six (6) bolts and nuts to fasten the shoe to the lower barrel; and
 - j. MEGALUG style retainer glands.

- k. "Traffic-model" having upper and lower barrels joined at ground line by a separate and breakable "swivel" flange providing 360° rotation of upper barrel for proper nozzle facing; and
 - l. Shall be Mueller A-423 Super Centurion 250 Fire Hydrant.
- 3. Example provided in **Appendix B**.

Note: Hydrant valves shall meet specifications set forth in gate valves.

APPENDIX B

Rev. 4-14 Shaded area indicates changes

- **Super Centurion 250/HS™ 3-way and 4-way catalog numbers**
- A-421 4-1/2" main valve opening 3-way (2 hose nozzles / 1 pumper nozzle)
- A-423 5-1/4" main valve opening 3-way (2 hose nozzles / 1 pumper nozzle)
- A-454 5-1/4" main valve opening 3-way (3 hose nozzles)*
- A-455 5-1/4" main valve opening 4-way (4 hose nozzles)*
- A-458 5-1/4" main valve opening 4-way (3 hose nozzles / 1 pumper nozzle)*
- A-459 5-1/4" main valve opening 4-way (2 hose nozzles / 2 pumper nozzles)**

*Hose Gate Valves required for FM approved models

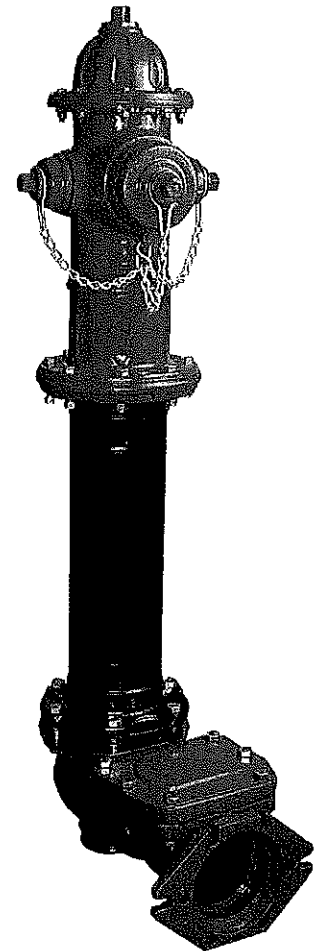
Super Centurion 200/HS™ 2-way catalog numbers

- A-420 4-1/2" main valve opening 2-way (2 hose nozzles)
- A-422 5-1/4" main valve opening 2-way (2 hose nozzles)
- A-425 5-1/4" main valve opening 2-way (2 pumper nozzles)

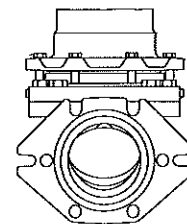
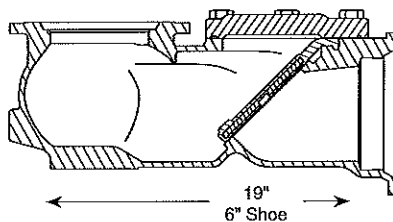
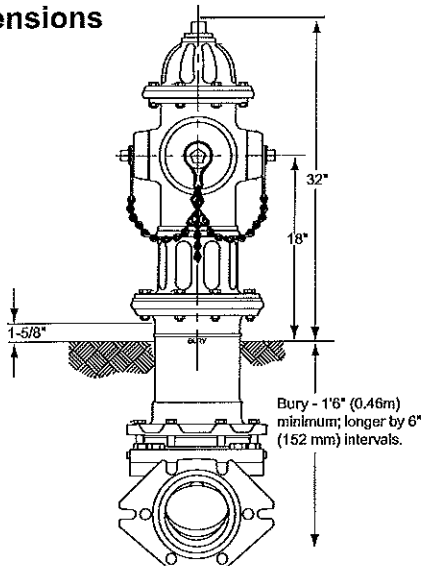
Super Centurion 200/HS™ 1-way catalog number

- A-424 4-1/2" main valve opening 1-way (1 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
- Hydrant shoe incorporates a fabric and steel reinforced elastomeric flapper check valve located inside the hydrant inlet, allowing normal operation and access to the hydrant main valve through bonnet or ground flange.
- 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
- Field replaceable hose and pumper nozzles
- 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 (1725 kPa/17 barg) maximum working pressure, 500 psig (3450 kPa/35 barg) static test pressure for 3-way hydrants;
- 200 psig (1400 kPa/14 barg) maximum working pressure, 400 psig (2800 kPa/28 barg) static test pressure for 2-way and 1-way hydrants

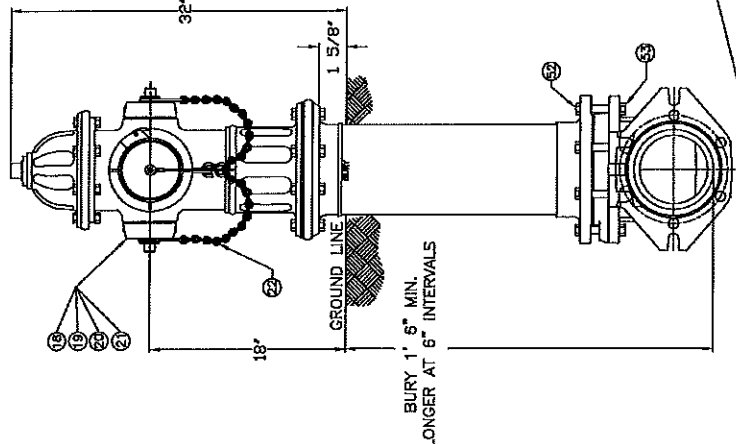


Dimensions



Non-rotating bolt design:
cast-in pads eliminate need
for anti-rotation bolts.

Front view detail
of Mechanical Joint



BURY 1' 6" MIN.
LONGER AT 6" INTERVALS

ITEM	DESCRIPTION	QTY	MATERIAL	ASTM	CLASS
44	VALVE NUT	1	CAST IRON	A-178	CLASS B
45	VALVE NUT SEAL	1	RUBBER		NITRILE
46	HEX NUT	8	STEEL		ELECTRO GALV.
47	STEM O-RING	2	RUBBER	D-2000	BUNA N
48	SAFETY FLANGE NUT	8	STEEL		ELECTRO GALV.
49	DRAIN RING HOUSING O-RING	1	RUBBER	D-2000	BUNA N
50	SLIEVE	1	COPPER	P-58	ALLOY 122
51	UPPER STEM PIN	1	STAINLESS STEEL	A-276	302
52	HEX BOLT	6	STEEL	A-307	ELECTRO GALV. B
53	HEX NUT	6	STEEL	A-307	ELECTRO GALV. B
54	STOKE	1	DUCTILE IRON	ASTM 65	65-45-12

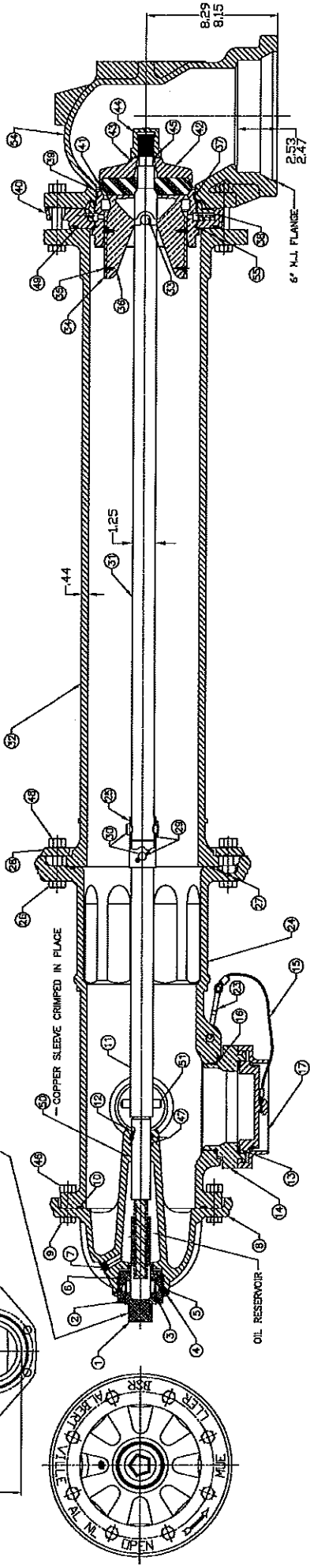
ITEM	DESCRIPTION	QTY	MATERIAL	ASTM	CLASS
24	CAP CHAIN	3	STEEL		
25	CHAIN HOOK	3	STEEL		
26	UPPER BARREL	1	CAST IRON	A-178	CLASS B
27	SAFETY STEM COUPLING	1	STAINLESS STEEL	A-307	1.6% SILICON MAX.
28	SAFETY FLANGE BOLT	8	STEEL		ELECTRO GALV. B
29	TOP UPPER BARREL O-RING	1	RUBBER	D-2000	BUNA N
30	SAFETY FLANGE	2	CAST IRON	A-178	CLASS B
31	COTLER PIN	2	STAINLESS STEEL	A-276	302
32	CLEVIS PIN	2	CARBON STEEL	A-276	GR 11441
33	LOWER STEM	1	CAST IRON	A-178	CLASS B
34	LOWER BARREL	1	STAINLESS STEEL	A-276	302
35	STEM PIN	2	IN ALUMINUM		US 9660-00
36	DRAIN VALVE FACING	2	STAINLESS STEEL	A-276	302
37	DRAIN VALVE FACING SCREW	4	BRONZE	P-584	ALLOY C89833
38	UPPER VALVE PLATE	1	RUBBER	D-2000	BUNA N
39	BOTTOM SEAT O-RING	1	RUBBER	P-584	ALLOY C89833
40	DRAIN RING	1	BRONZE	P-584	ALLOY C89833
41	SEAT RING	1	CAST IRON	A-178	CLASS B
42	DRAIN RING HOUSING	1	RUBBER	D-2000	NATURAL
43	MAIN VALVE	1	CAST IRON	A-178	CLASS B
44	LOWER VALVE PLATE	1	CAST IRON	A-178	CLASS B
45	LOCK WASHER	1	STAINLESS STEEL	A-276	302

ITEM	DESCRIPTION	QTY	MATERIAL	ASTM	CLASS
1	OPERATING NUT	1	BRONZE	P-584	ALLOY C89833
2	WIPER RING	1	RUBBER	D-2000	EPDM
3	HOLD DOWN NUT O-RING	1	RUBBER	D-2000	BUNA N
4	HOLD DOWN NUT	1	BRONZE	P-584	ALLOY C89833
5	BONNET O-RING	1	RUBBER	D-2000	BUNA N
6	ANTI-FRICTION WASHER	1	BRASS	160-04	
7	OIL FILLER PLUG	1	CAST IRON	A-178	CLASS B
8	BONNET	1	STEEL	A-307	ELECTRO GALV. B
9	HEX BOLT	8	STEEL	A-307	ELECTRO GALV. B
10	TOP UPPER BARREL O-RING	1	CARBON STEEL	A-276	GR 11441
11	UPPER STEM	1	CAST IRON	A-178	CLASS B
12	STEM O-RING	1	RUBBER	D-2000	BUNA N
13	GASKET	1	WASHER	P-584	C89833
14	5" STORY PUMPER NOZZLE	1	RUBBER	D-2000	BUNA N
15	STORZ CAP CABLE	1	ALUMINUM		
16	PUMPER NOZZLE O-RING	1	RUBBER	D-2000	BUNA N
17	5" STORY PUMPER CAP	2	BRONZE	P-584	ALLOY C89833
18	HOSE NOZZLE	2	RUBBER	D-2000	NEOPRENE
19	HOSE NOZZLE CAP GASKET	2	RUBBER	D-2000	BUNA N
20	HOSE NOZZLE O-RING	2	RUBBER	D-2000	BUNA N
21	HOSE NOZZLE CAP	2	CAST IRON	A-178	CLASS B

SEE CAT. RECORD FOR RESPECTIVE PARTS OR SUB. ASS'YS

NOTE: SIZE AND STYLE OF OPERATING NUT, SHOE SIZE, AND THREADING OF NOZZLES IS PER CUSTOMER SPECS.

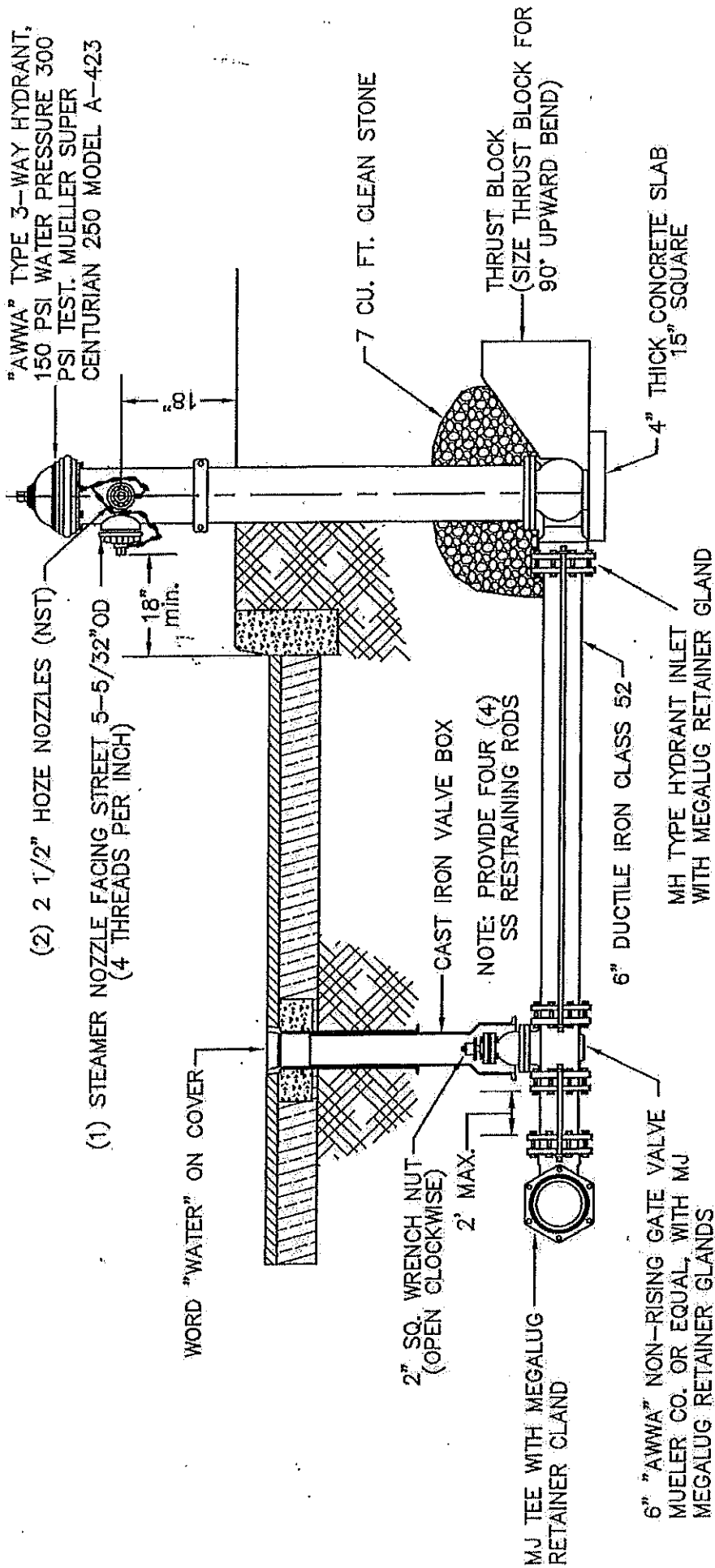
OPEN LEFT APPROXIMATELY 17 1/4 TURNS TO OPEN OP. NUT DIMENSIONS PER CUSTOMER SPECS. STANDARD 1-1/2 PENT.



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4 1/2" A421 & 5 1/4" A423 SUPER CENTURION "250" W/ TWO HOSE NOZZLES & ONE PUMPER NOZZLE - 250 P.S.I. W.P. - 500 P.S.I. TEST, 1997 STYLE.

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Notes:

1. CAP NUTS AND OPERATING NUT ARE TO BE 1-1/8" PENTAGON.
2. COUNTER CLOCK OPERATING DIRECTION.
3. RED BODY WHITE BONNET AND CAPS.

FIRE HYDRANT DETAIL

NOT TO SCALE