

## Engineering Specifications

# Viega MegaPress®G Fuel-Oil Piping and Storage Tanks



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Viega products are designed to be installed by licensed and trained plumbing and mechanical professionals who are familiar with Viega products and their installation. **Installation by non-professionals may void Viega LLC's warranty.**

## Part 1: General

### 1.1 Summary

MegaPressG fittings are used for fuel oil piping, bulk fuel oil storage, and the distribution of fuel oil.

## Part 2: Products

### 2.1 Manufacturer

Viega LLC  
585 Interlocken Blvd.  
Broomfield CO, 80021  
Phone: (800) 976-9819  
[www.viega.us](http://www.viega.us)

### 2.2 Pipe and Fittings

- A. Pipe: Pipe Schedule (pipe wall thickness) shall conform to the standard referenced dimensions for Schedule 40. Steel Pipe: ASTM A 53/A 53M, black steel, Schedule 40, Type E or S, Grade B.
- B. Fittings: Cold Press Mechanical Joint Fitting shall conform to material requirements of ASTM A420 or ASME B16.3 and performance criteria of ANSI/CSA LC4. Sealing elements for press fittings shall be HNBR. Sealing elements shall be factory installed or an alternative supplied by fitting manufacturer. Press ends shall have SC (Smart Connect®) technology design (leakage path). MegaPressG fittings with Smart Connect technology assure leakage of liquids or gases from inside the system past the sealing element of an unpressed connection. The function of this feature is to provide the installer quick and easy identification of connections which have not been pressed prior to putting the system into operation.
- C. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
- D. Wrought-Steel Welding Fittings: ASTM A 234/A 234M, for butt and socket welding.
- E. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
- F. Forged-Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150.

### 2.3 Specialty Valves

Shall comply with UL 842.

### 2.4 AST and UST

- A. Tanks shall be fabricated and tested in accordance with NFPA and UL labeled.
- B. INSTALLATION: Per manufacturer's specifications in accordance with NFPA & UL listings.
- C. Pressure test and inspect fuel-oil storage tanks, after fabrication and before shipment, according to ASME.
- D. Affix standards organization's code stamp.

## Part 3: Execution

### 3.1 Examination

- A. Examine roughing-in for fuel-oil piping system to verify actual locations of piping connections before equipment installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 Preparation

- A. Close equipment shutoff valves before turning off fuel oil to premises or piping section.
- B. Comply with NFPA 30 and NFPA 31 requirements for prevention of accidental ignition.

### 3.3 Piping Installation

- A. Piping shall conform to NFPA 30.
- B. Install metal pipes and tubes, fittings, valves, and flexible connectors at piping connections to AST and UST.
- C. Install system components with pressure rating equal to or greater than system operating pressure.
- D. Install piping free of sags and bends.
- E. Install fittings for changes in direction and branch connections.

### 3.4 Valve Installation

- A. Install manual fuel-oil shutoff valves on branch connections to fuel-oil appliance.
- B. Install valves in accessible locations.
- C. Protect valves from physical damage.
- D. Install metal tag attached with metal chain indicating fuel-oil piping systems.
- E. Install emergency shutoff valves at dispensers.

### 3.5 Piping Joint Construction

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

### 3.6 Hanger And Support Installation

- A. Pipe hanger and support and equipment support materials and installation shall comply with NFPA 30.
- B. Maximum spans shall be in accordance with MSS SP-58.
- C. Install hangers for horizontal steel piping with the following maximum spacing and minimum rod sizes:

### 3.7 Labeling And Identifying

- A. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on or near each service regulator, service meter, and earthquake valve.
- B. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.
- C. Coordinate dimensions with depth of bury for fuel-oil piping.
- D. Install detectable warning tape directly above fuel-oil piping, identify as "tracer wire" for future use with plastic-laminate sign.

### 3.8 Field Quality Control

- A. Contractor to perform tests and inspections as required by NFPA-30.
- B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Fuel-oil piping and equipment will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.