

# Spool Pieces

## Steel with or without a Test Outlet

**Sizes: Oval 1 1/2" - 2"**  
**Round 3" - 12"**



Operating Pressure psi 150  
 Operating Temperature °F 120

### Materials

Body Steel Tubing  
 Flanges AWWA C707 Class D, ANSI  
 150 lbs.  
 Seams Precision Welded  
 Coating Fusion Epoxy AWWA C213  
 Test Outlet Plug Bronze

### Dimensions

Spool Size	Test Outlet Size	Minimum Lengths
3"	1 1/2"	5 3/4"
4"	2"	6 3/4"
6"	2"	6 3/4"
8"	2"	6 3/4"
10"	2"	6 3/4"
12"	2"	6 3/4"

Unless otherwise specified, spools are finished with fusion epoxy coating and two (2) test outlets. Always specify the EXACT REQUIRED LAYING LENGTH.

**Operation.** These fabricated spools with or without a test outlet are available in many lengths to serve as spacers when exact laying lengths are needed, as downstream test outlets for turbine and compound meters, and for downstream flushing. Each spool piece is equipped with or without a test outlet. The outlet provides increased test flow flexibility.

**Compliance to Standards.** Spool pieces comply with all design requirements of AWWA C207 and material requirements of AWWA C213 as most recently revised.

**Installation.** The spool is usually installed immediately downstream from the meter it serves. When installed, it is preferred that the spool's test outlet extend from the side or the top of the tubing for ease of access.

**Application.** The spool's use is optional with the Elster AMCO Water T3000 and C3000 meters. But its application following the meter will facilitate exact replacement lengths and provide maximum downstream flows for field testing. The spool is for use in *POTABLE COLD WATER* up



to 120°F (50°C) and working pressures up to 150 psi. Working pressure tests are made before shipment.

**Construction.** Spool pieces are constructed from steel tubing to eliminate stress cracks common to iron fittings. The flanged end connections and test outlets are precision welded to the steel tubing. The finished spool is fusion epoxy coated for maximum corrosion resistance. The test outlets are tapped 1 1/2" in a 3" spool and 2" in 4" - 12" sizes. The test plugs are bronze with square heads.

**Connections.** 3" - 12" spools have round flanged end connections. All end connections are compatible to Class 125 and Class 150 flanges.

**Test Outlet Use.** Before removing test outlet plugs, the spool must be isolated from line pressure. Before replacing test outlet plugs, the spool must again be isolated from line pressure.

**C3000 Meters Equipped with Spool Pieces and Strainers.** The C3000 meter is designed for installations where large variations in flow can be expected. These flow rates are obtained by combining a piston type positive displacement type and turbine measurement in one compound meter assembly. Water passes through the strainer, compound meter and spool driving a helix rotor in the turbine and a chamber piston in the bypass meter. These movements are transferred by appropriate reduction gearing and magnetic drive to straight reading totalizers in the register assemblies.

**Replacing Old Compound Meters Made Easy.**

Elster AMCO Water's spool pieces may be ordered in any length simplifying replacement of older, longer laying length meters. Replacement is made easy. Instead of the difficult and time-consuming insertion of large meters into narrow and limited access areas, you simply assemble components into the line, usually without removing the pit cover and always without large and expensive lifting equipment. Also the spool's precise dimensions make on-site pipe cutting and threading unnecessary. The choice of a turbine or compound will depend on the type water service, the high and low flow readings on the replaced compound, the replacement cost, the needs of the customer and preferences of the serving utility. Strainers are recommended for

filtering damaging debris and improving accuracy. Strainers should always be used when less than ten diameters of straight pipe exist immediately upstream and/or a history of damaging debris is present.

**T3000 Turbine Meters Equipped with Spool Pieces and Strainers.**

The T3000 turbine meter is designed for installation where occasional low and moderate to high sustained flows are expected. Water passes through the strainer, turbine meter and spool without a change in flow direction, driving a helix rotor in direct proportion to the quantity of water passing through the meter. Rotor revolutions are transferred by appropriate reduction gearing and a magnetic drive to a straight reading totalizer in the register assembly.

**Chart for Replacing Old Compounds with 3" - 6" Elster AMCO Water Meters, Strainers and Spools**

Old Compound Size	Replacement Meter		Replacement Compound				
	Length Inches	Turbine (Bronze) T3000 Inches	Strainer Inches	Spool Inches	C3000 Inches	Strainer Inches	Spool Inches
3"	24	12	6	5 3/4	13 3/4	6	4*
3"	33	12	6	14 3/4	13 3/4	6	13
4"	29	14	7 1/2	7 1/4	13 3/4	7 1/2	7 1/2
4"	33	14	7 1/2	11 1/4	13 3/4	7 1/2	11 1/2
6"	36	18	9	8 3/4	19 3/4	9	7
6"	36 1/2	18	9	9 1/4	19 3/4	9	7 1/2

\* Would be furnished without test outlets.

To determine the spool length when no strainer is planned, add 1/8" to a combined strainer and spool length.

Elster AMCO Water, Inc.  
PO Box 1852  
Ocala, FL 34478-1852  
United States

T +1 800 874 0890  
F +1 352 368 1950

watermeters@us.elster.com  
www.elster.com

© 2007 by Elster. All rights reserved.

The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.