Henry Pratt
Diviner Position
Indicator

Operation and
Maintenance Manual

Job Name: ____________________________

Contractor: ___________________________

Date: ________________________________

Document #:DIVPOSNOM  Revision Date: 2/9/11
SAFETY MESSAGES

All safety messages in the instructions are flagged with an exclamation symbol and the word “Warning”. These messages indicate procedures that must be followed exactly to avoid equipment damage, physical injury, or death. Safety labels on the product indicate hazards that can cause equipment damage, physical injury, or death.

WARNING

Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials.

PARTS

Order parts from your local Henry Pratt sales representative or directly from Henry Pratt Company. When ordering parts, please include the serial number located on the valve tag.

WARRANTY ISSUE

Seller warrants that, at its option, it will repair, replace, or refund the unit purchase price of any products which are non-conforming due to Seller’s material or workmanship during the warranty period. The warranty period shall be twelve (12) months for parts and eighteen (18) months for all other goods after date of shipment. This shall be Buyer’s sole remedy. In order to maintain this product warranty, Buyer must give written notice to Seller’s Field Service Supervisor prior to any work being performed.

IN CONSIDERATION OF THE FOREGOING, SELLER EXCLUDES ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Seller does not warrant water operated metallic cylinders against damage caused by corrosion, electrolysis or mineral deposits. In no event shall warranty include valve removal or reinstallation.

WARNING

Read all applicable directions and instructions prior to any maintenance, troubleshooting or installation.
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FUNCTIONAL DESCRIPTION

The Pratt Diviner is a valve position indicator used for buried valves to enable you to identify valve position, identification, and operating directions at a glance. It is installed in a standard 5-1/4" buried valve box just below the removable valve box cover. The Pratt Diviner is adjustable for use with valves requiring 1-150 or 150-250 turns. The working parts are non-metallic material, that are virtually indestructible and maintenance free in buried valve service.

The Diviner position indicator is shipped for field assembly complete with cast iron adapter (1) and caps screws, guide bushing (2), position indicator (3), flexible washer (4), and a two-inch square AWWA nut (5) with set screw. The adapter fits a standard 5-1/4 inch valve box (6) or 5 inch cast iron soil pipe bell utilizing a cast cover with skirt depth of 1” or less (7). Extension stems (8) are supplied in 5-foot or 10-foot lengths (see Figure 1).
INSTALLATION / OPERATION

The following procedure should be followed for ease of installation (See Figure 2).

1. Establish desired finished elevation and adjust the existing valve box (5) to 3” below this elevation.
2. Assemble extension stem by inserting extension shaft (3A) to the drive collar (3B) and securing by means of set screws (3C).
3. Assemble extension stem assembly to operator by placing the drive collar (3B) over the AWWA nut on the operator, taking care that the drive collar is properly seated.
4. Measure 1-3/4” up from the top of the adjusted valve box (5) and mark extension shaft (3A) at this point. Cut off excess shaft. De-burr.
5. Place indicator adapter (2A) inside the valve box (5) and tighten hex head cap screws (2C) so that the adapter will not rotate in the valve box.
6. Slip guide bushing (2B) over extension shaft and seat in indicator adapter (2A). A light coat of grease may be applied to the mating surfaces of these two parts.
7. Adjust the Diviner indicator for the intended valve as follows:
   a. The transparent top cover of the Diviner must be clean and free of any oil or dirt. Clean with Methyl Alcohol only. Do not use grease solvents of any kind or the transparency may be destroyed. Allow to dry before proceeding.
   b. Position the base plate (the decal having the numbers from 0 to 102/255) on the Diviner face. While holding the decal at the top half, raise the bottom half and remove the paper backing and anchor decal to Diviner. Then remove the backing from the top half. Do not remove all the backing at one time or it will be difficult to position the decal properly. Remove any trapped air bubbles.
   c. Use the table below for Pratt valves with Pratt MDT Actuators.

<table>
<thead>
<tr>
<th>PRATT VALVE SIZE</th>
<th>ACTUATOR</th>
<th>NO. OF TURNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 THRU 12</td>
<td>MDT-2S</td>
<td>32</td>
</tr>
<tr>
<td>14 THRU 16</td>
<td>MDT-3S</td>
<td>30</td>
</tr>
<tr>
<td>16 THRU 24</td>
<td>MDT-4S</td>
<td>40</td>
</tr>
<tr>
<td>24 THRU 36</td>
<td>MDT-5</td>
<td>44</td>
</tr>
<tr>
<td>36 THRU 48</td>
<td>MDT-5S</td>
<td>136</td>
</tr>
<tr>
<td>42 THRU 72</td>
<td>MDT-6S</td>
<td>215</td>
</tr>
</tbody>
</table>
   d. Position the top plate (the decal with the “Diviner” logo) so that the window is lined up with the appropriate number of turns. Repeat the procedure described for the base plate.
e. If using an actuator other than an MDT, turn the nut on the actuator until the valve is fully closed. Next, open the valve and count the number of turns required to bring the valve to the full open position. Close the valve and again count the number of turns required to fully close the valve. The number of turns to close the valve should equal the number of turns to open the valve. Record the number of turns required to open and close the valve.

**WARNING**

**CAUTION:** Be sure the plates are properly positioned before removing the backing paper. The adhesive is strong, making it extremely difficult to reposition after once being glued down.

8. Determine whether the valve is in the open or closed position and set the position indicator (Diviner) (1) accordingly.

9. Slip position indicator over the extension shaft and lower into correct position in the indicator taking care that the flat portions of the indicator flange match up with the flat keys in the indicator adapter.

10. Slip the felt washer (2F) over the end of the extension shaft and on to the indicator hub.

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**Figure 2 - Diviner Position Indicator**
INSTALLATION / OPERATION (Cont.)

11. Assemble 2” square nut (2D) to extension shaft and press down firmly while tightening set screws (2E).
12. Replace existing valve box cover (4).
13. To disassemble reverse the above procedure.

MAINTENANCE

The “Diviner” position indicator is a sealed, water-tight unit and is not intended for field maintenance. No attempt should be made to disassemble. Additional decals are available if the Diviner is transferred to another valve installation.
HOW TO CONTACT PRATT

HOW TO ORDER PARTS:
To order parts, contact our Parts Department:

Write: - Henry Pratt Company
       401 South Highland Avenue
       Aurora, IL 60506-5563

       Attn: Parts Manager

Call - (630) 844-4000

Fax - (630) 844-4191

Please include valve serial number and description of part requested.

HOW TO OBTAIN SERVICE:
To obtain further information or secure field service, contact our Field Service Department:

Write: - Henry Pratt Company
       401 South Highland Avenue
       Aurora, IL 60506-5563

       Attn: Field Service Manager

Call - (630) 844-4163

Fax - (630) 844-4160

Please include the following with your inquiry for service:

Henry Pratt Order Number:
Henry Pratt Item Number:
Valve Serial Number:
Type of Service Requested