

**Tempe Fire Department Policies and Procedures**  
**Humat Valve**  
**405.04**  
**Rev 4-27-92**

**PURPOSE**

This valve will provide quick water for an initial supply line and maximum hydrant GPM capability for pumper hook-up and additional lines.

**OPERATING PROCEDURE**

**Straight Lay**

The Humat valve should be kept in the open position, attached to the four-inch supply line while on the apparatus. Taking a hydrant should be done in accordance with Hose Lays (405.05).

**Steamer Connection** (Pumping a Hydrant)

1. Spot apparatus for a steamer hook-up, connect front intake to Humat valve that is connected to the hydrant, then open butterfly valve on Humat.
2. Connect a length of hose to the apparatus discharge and to the 2-1/2" female connection on the Humat valve.
3. Open apparatus discharge gate valve and set engine pressure. The Clapper valve in the Humat valve will open when the engine pressure exceeds the hydrant pressure, allowing you to pump supply line.

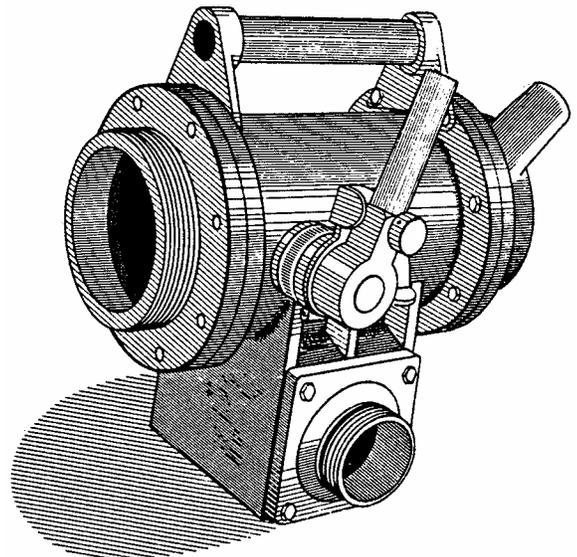
**DESIGN**

The main chamber ID of 5-1/2" and the small chamber ID of 4" permit maximum utilization of available water and pump capacity. Detachable thread flanges allow the Humat valve to accommodate any size hose.

**OPERATING TIPS FOR THE HUMAT 4-WAY HYDRANT VALVE**

When the butterfly is properly adjusted, it may seem to be difficult to open and close the valve when it is not mounted on the hydrant. So, in a classroom situation, when you are teaching the operation of the valve, you may want to loosen the 7/16" bolt on the latching plate and move the latching plate in a clockwise rotation until the latching pin engages itself in the closed position with ease.

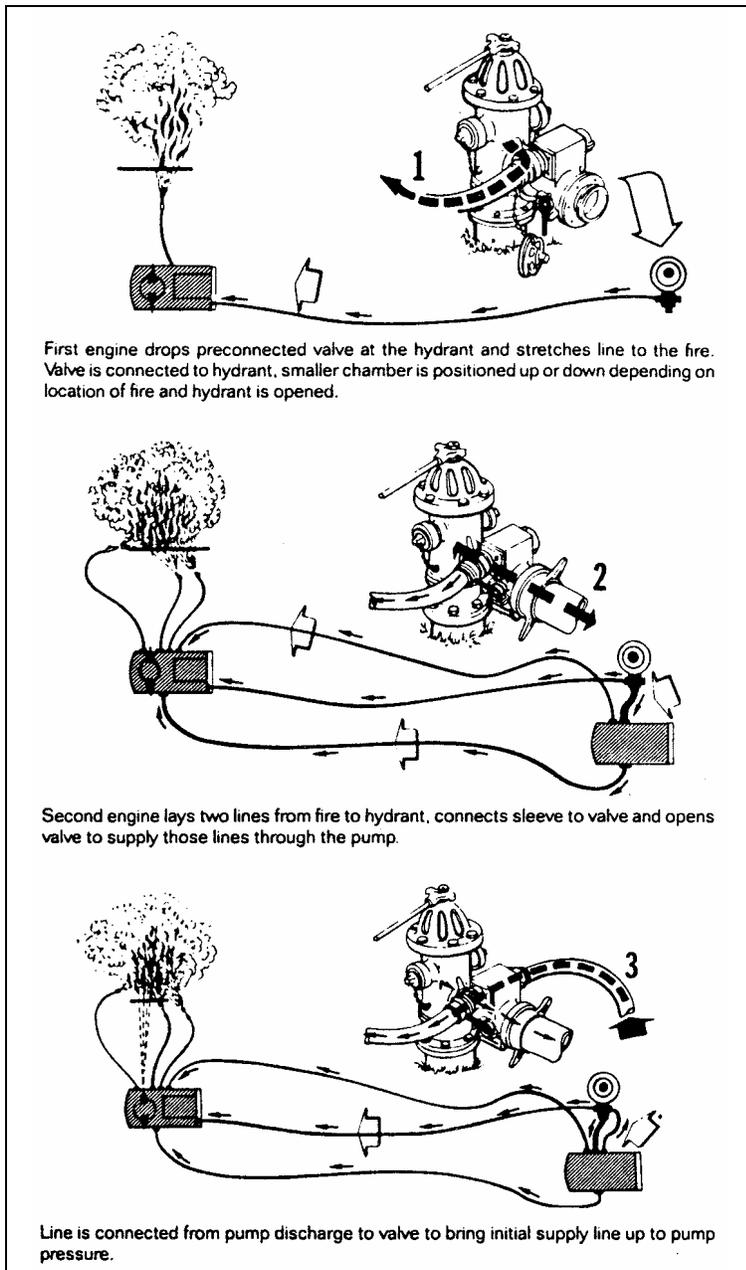
On the fire ground with the valve connected to the hydrant, you have more leverage and the valve can be operated easily when the butterfly is properly adjusted. To open the butterfly valve, pull the operating handle towards the closed position with one hand while pressing on the latching pin with the other hand. The latching pin will easily disengage from its locked closed position. Then, while guarding the operating



**Figure 1**

handle with the one hand, bump the handle with the heel of the other hand toward the open position. Because of the design of the resilient seal used in the butterfly, water pressure will tend to hold the valve closed. Once the seal is broken, the handle can be moved easily throughout the 75 degrees of movement from the fully closed to fully open position. To close the butterfly, move the operating handle toward the closed position. Initially, when moving the handle from fully opened toward the closed position, the water flow will tend to close the valve (the handle should be guarded to prevent water-hammer). As you approach the fully closed position, more pressure is required to close the valve (you are compressing the resilient seal against the interior wall of the valve). Finally, when the latching pin is almost in the closed-locked position, give a brisk tug toward the closed position and the latching pin will engage in the closed-locked position on the latching plate.

The valve is attached to the hydrant by holding the carrying handle with the right or left hand, centering the valve on the male hydrant thread and turning the valve's steamer swivel in a clockwise direction with the other hand.



**Diagram of Valve Positions and Directions of Water Flow**