

TECHNICAL BULLETIN No. 9

MAZZEI AUTOMATIC BYPASS ASSEMBLY

THEORY OF OPERATION: The Mazzei Automatic Bypass Assembly contains both a Mazzei Injector and a spring loaded check valve. The check valve is preset at the factory to open at 10 psig. When water begins to flow into the Bypass Assembly, the check valve is closed. As the water flow increases it eventually exceeds the flow capacity of the injector. This causes the pressure to increase at the injector inlet. When this pressure exceeds the spring setting (10 psig), the check valve will open. All flow beyond that required by the injector is bypassed through the check valve.

When properly sized, the Automatic Bypass Assembly guarantees that sufficient flow is available both to the Mazzei Injector and to the service application, and sufficient pressure drop (governed by the check valve) is available to the injector to initiate suction.

AVAILABILITY: Mazzei Automatic Bypass Assemblies are available as the ABA-10B, which fits 3/4" and 1" piping; and the ABA-15B, which fits 1-1/2" piping.

ADJUSTMENT: The spring loaded check valve is preset to open at 10 psig. This setting may be adjusted in the field. The adjustment nut accepts an 11/32" socket. Turning the nut in a clock-wise manner increases the opening pressure. Turning the nut in a counter-clock-wise manner decreases the opening pressure. As a rule-of-thumb, at the 10 psig preset pressure, adjusting the nut one full turn increases, or decreases, the opening pressure by 1 psig. The minimum opening pressure is 5 psig, and the maximum opening pressure is 15 psig.

