

Firehouse.com WEEKLY DRILL

DRILL # 43: WET BARREL FIRE HYDRANTS

Introduction

One piece of equipment that firefighters often take for granted is the fire hydrant. It is as vital to the operations as any other piece of equipment! However, the fire hydrant is often overlooked because it's not carried on the apparatus like our other tools.

The two principle types of hydrants are the dry barrel fire hydrant, which was discussed in Weekly Drill #34, and the wet barrel fire hydrant. The wet barrel hydrant is used exclusively in milder climates, where there is no chance of it freezing. The dry barrel hydrant is used in virtually all other locations. Both hydrants have been given a prepared set of standards by the American Water Works Association.

Wet Barrel Components

The wet barrel fire hydrant has a number of advantages that the dry barrel does not have. The biggest advantage is that all the mechanical parts used in its operation are located above ground. This makes it much easier to access should repairs need to be made on it.

Another nice feature of the wet barrel style hydrant is the location of the valve. The valve is right at the caps, which means the caps cannot be removed and debris placed in the barrel. This is a constant problem with the dry barrel hydrant in the urban setting. Plastic bags are the worst as they plug the intakes on the pump.

Because the valves are all independent, adding another discharge line during operations is much quicker, as the hydrant does not have to be shut down. Just connect another line to whichever discharge valve is available and, once connected, operate the valve associated with it to flow water. It's just that easy.

The wet barrel hydrant consists essentially of a bury section and a top section. The bury section is located underground and provides the inlet for the water from the branch connection, which is then connected to the water main.

The top section, which is also commonly called the body of the hydrant, extends vertically from the bury



section. This top section is the main body where all the outlet valves and hardware are located. Each valve is associated to an independent outlet nozzle, which controls the flow of water. By attaching the hydrant wrench to the valve nut opposite the nozzle selected for use, and turning it counterclockwise, the valve will open and the water will begin to flow. To shut the valve down, the firefighter will need to turn the nut clockwise.

Generally, all hydrants will have at least two 2½-inch outlet nozzles on them insuring the use of the hydrant should one of the nozzles be damaged. In addition, each hydrant will be outfitted with a suction outlet (usually four inches) to which the large suction hose is attached. This suction outlet connection is sometimes referred to as a steamer connection.

The treads on all outlet nozzles should conform to the American National Standard B-26. This is the standard used by most hose manufacturers for the couplings used on hoses or commonly known as the National Standard thread.

All outlet nozzles require a cap on them when the hydrant is not in use; this protects the threads from becoming damaged. Remember, the wet barrel fire hydrant is only going to be found in areas where the temperatures do not drop into the freezing range, therefore, you will not find one in Maine. You may, however, find both wet and dry barrel fire hydrants in Arizona.

—Prepared by Russell Merrick