

Ejector Pump

The Water Dragon uses two systems never previously linked. The high water power of the third stage of modern fire appliance pumps and the technique of multiple staging of an ejector pump to effectively harness this high velocity power and allow it to drive a return flow back to the fire appliance of up to five times the primary input flow. The Water Dragon can produce fire streams of up to 26 l/s (350 gpm) operating from a remote static source.

The unit operates on the high water horsepower available from the third stages of series/parallel pumps. This power, in the form of a jet, hydraulically forces static water back to the fire appliance, from distances of 30 to 90 metres.

The jet, at pressures up to 3,200 kPa (450 psi) and flow of 5.5 l/s (75 gpm) passes through 4 pick up nozzle stages of steadily increasing cross sectional area. The composite flow of drive water and driven water leaving the discharge venturi, is 32 l/s (420 gpm) at 180 kPa (25 psi). Thus the high pressure input flow, passing through the multiple stages has picked up 5 times its own value. This enables pick up from remote static water at flow rates and distances never before possible.

The Water Dragon is set up and operated using the same layouts and operating techniques as conventional "B" type ejector pumps.

Because there are no perfectly standard layouts for drive hose and return hose, together with variable lift, performance is difficult to quote exactly.

The Water Dragon can be driven to two different ways:

- By 41mm (1 1/2") high pressure snow hose fed direct from 3rd stage high pressure outlet on pump panel. This gives the best results.
- Using Wajax pump to Water Dragon for tank or monsoon bucket filling.



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