

-- ● INTRODUCTION TO 'FIREFLY' MULTI PRESSURE PUMP ● --
(MP SERIES)

Multi pressure or Low and high-pressure pumps are now being used by most of the fire brigades/fire professionals worldwide. These pumps are now the call of the day and they incorporate many such systems in them, which were unheard of, some few years back. These pumps are not only efficient on their own but also are found highly useful in combating large fires with a minimum water requirement. The days are near when the conventional fire pumps will be obsolete and only multi pressure pumps will be used throughout the world, as all the advantages of the conventional fire pumps are also available in such pumps.

Some questions which would normally be asked are answered below if some questions still persist please do not hesitate to call us back.

▶ **What is new in 'FIREFLY' MP Series fire pump?**

The conventional fire fighting pump mounted on a fire tender has only one pressure mode (in Most cases 1800 to 2250 Liter/min at pressures up to 7.0 kg/cm²)

The new MP series 'FIREFLY' fire pump can deliver from 1800 liter/min to 4000 liter/min (depending on the model) of water at pressure above 7.0 kg/cm² (i.e. low pressure) and up to 300 liter/min at more than 35 kg/cm² (high pressure) both simultaneously or individually.

▶ **What is the use of high pressure as high as 35 to 40 kg/cm² in fighting the fire?**

Normally in the conventional fire pumps 63.0 mm delivery hose is used as hand lines and these are very difficult to maneuver when the pump is operated at pressures up to 7.0 Kg/cm² or below, secondly 90% of the water thrown out of these hand lines goes to waste without doing any fire fighting work and only 10 % of the water is used for effective fire fighting.

The new MP series "FIREFLY" fire pump has two high-pressure outlets of 25.0 mm dia. apart from the low-pressure outlets. Connections are given from these HP outlets to a high-pressure hose reel, which terminates into a high pressure gun. High-pressure hose of 19.0 mm is used in the hose reels having 60 meters hose length. Discharge available through these hose reel is around 300 liter/min at 35 kg/cm². With the help of a high pressure gun (having nozzle size of only 9.0 mm) a water jet reaching more than 20 meters can be achieved. When a pressure of 35 kg/cm² or more is attained at the high-pressure gun the water molecules are broken into micro droplets having sizes in microns. Due to this the jet can be broken and a fog like throw can be achieved which has a massive cooling effect. This cooling effect has two advantages it cools the object on fire immediately and also saves the firemen from the radiant heat from the fire, over and above it also saves the property being damaged due to heavy throw of water.

▶ **What are the practical advantages of a high pressure gun?**

High-pressure gun is ideal equipment for combating fires inside buildings, incipient fires and forest fires. It is extremely handy in use and consumes very little water yet has enormous combat power and extinguishing and cooling effectiveness. Switch over from combat mode to heat / fog shield mode can be done in a split second. It has a hydro cushion to reduce operator fatigue.

► **How is such a high pressure achieved?**

A high-pressure impeller, of regenerative type, is mounted back to back of the low-pressure impeller, which is of centrifugal type. The high pressure impeller has multiple profiles cut accurately on its periphery, which in turn rotate in an annular trapezoidal shape. On rotation of this impeller the pressure increases in multiples as it happens in a peripheral turbine.

► **What is the difference in the performance of a low-pressure hose reel and high-pressure hose reel?**

In the conventional low-pressure hose reel fitted with a shut off nozzle a water jet even at a pump pressure of 7.0Kg/cm² reaches hardly 4 to 5 meters and is not useful for effective fire fighting. Whereas in a high-pressure hose reel connected to a FIREFLY MP Series pump a water jet can reach more than 20 meters at a pressure of 40 kg/cm² with around 150 liters of water discharge and can be very effectively used for fire fighting. Plus the fireman has total control of the gun at his hands and can select a stream jet or a fog pattern at his choice almost instantaneously. The jet available at the end of HP gun has deep penetration properties and can be used on the commodities which are stacked in a warehouse like bagasse etc.

► **Is the pump easy and safe enough to operate?**

Yes. The 'FIREFLY' MP series fire pump is much easier to operate than any other equivalent multi pressure pump. The pump has a totally automatic priming system (water ring type and reciprocating type are available at option) and it requires no attendance whatsoever from the pump operator to prime the pump. The pump can be operated in low pressure or high-pressure mode individually or simultaneously. One single lever operation (change over valve) shifts the pump from low pressure to high-pressure mode. There is an inbuilt Pressure Release Valve (PRV), which automatically operates and bypasses the water to low pressure if the high-pressure gun is put in off position suddenly while the pump is working in the high-pressure mode.

► **Why 'FIREFLY' MP Series pump only?**

The 'FIREFLY' MP series pumps are 100 % indigenously manufactured hence spares if required are available ex-stock. Critical components such as high – pressure impeller, HP cover plate etc. are machined on highly accurate computer numerically controlled machines. The pumps are lightweight and compact. All the 'FIREFLY' pumps are rigorously tested in the factory for their performance. 'FIREFLY' MP series fire pumps not only fulfill the IS standards but also meet the international standards (EN 1028) as well. MUMBAI FIRE BRIGADE, DELHI FIRE SERVICES, ONGC LTD. and some other leading fire departments in India have tested the 'FIREFLY' MP series fire pump for its performance. Lastly 'FIREFLY' Fire Pumps deliver you trouble free life for extended years and commits you total peace of mind.

► **What else does 'FIREFLY' offer?**

Firefly has been manufacturing high quality firefighting pumps. 'Firefly' Pumps are CE approved and confirms EN1028. Currently Firefly Pumps are undergoing through UL testing criteria and by the end of year 2010 pumps will be UL listed.