



**“NEXTGEN”
WATER TREATMENT SYSTEMS
PRODUCES THE RIGHT QUALITY OF WATER FOR
WATERJET CUTTING MACHINES**

It is different!!! Because it produces
the right quality of water unlike
conventional R.O / D.M plants.

State of the art *user friendly* water treatment

**System for selective removal of salts & dissolved gases
like Oxygen and Carbon Dioxide**

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The right quality of water for Water Jet Cutting:

Importance of adequate water quality for water jet cutting machines:-

The quality of water is of extreme importance to the efficient use of water jet machines. The life of the water jet machine system, cutting efficiency, safety, maintenance cost, even tool life and finish are influenced by the quality of the water. It is essential that the quality of the available water is studied and the proper water treatment system be selected on the basis of the local water characteristics.

Water used for making water jet machines should have particular property for the most economical and trouble free use, but even the cleanest of shop water is rarely pure. *Paradoxically, you don't want your water to be too clean, as water is an excellent solvent and if you remove all the trace materials from it, it will begin to dissolve your pump and nozzle parts. In addition to the salt there are some impurities like dissolved oxygen and carbon Dioxide present in the water that can severely corrode the special stainless steel high pressure pumps, tubing and fittings leading to accident and catastrophic failure of the machine. The machines generally operate up to a pressure of 6200 bar. The replacement parts and orifices are very costly and the production loss due to down time will be enormous.*

Water is usually contaminated with hardness minerals and other salts which have detrimental effect upon the cutting efficiency, Orifice life and maintenance cost. Rain water is soft containing no minerals. Water obtained from lakes and rivers may be relatively free of minerals or be heavily contaminated, depending upon whether or not the waters have been able to dissolve minerals during natural course. Water from bore wells may be relatively free from suspended solids but may have high contamination with minerals.

Minerals/salts in water jet fluids can cause corrosion of machine tools and machined parts, can aggravate deposition of residues on machine tools and can increase the rate at which the critical machine components like high pressure pumps fail.

Our recommendations:-

This is the right time to ask the right questions

Besides the Capital costs, there are many other parameters that goes in determining the economics of operating a water treatment plant.

1. **Energy Consumption** – what does it take to operate a treatment plant can it be run using alternate energy sources?
2. **Reducing water consumption / wastage** – How much input water do we need to treat? - Can we reduce the wastage given that water is so scarce?
3. **What kind of consumables** are required to operate the plant daily.
4. Does the water treatment plant require **skilled personnel** to operate it.
5. **How dependable** is the water treatment plant to produce the yield consistently - can it run smoothly for a long duration of time?

Bottom line:

Water treatment for water jet cutting machine is important. More important is what technology you use to get the right quality of water. The selection of process technology is important. Traditional water treatment technologies like water softening, Reverse osmosis often aggravates the problem rather than solving it.

Ionic with it's in-depth knowledge in water treatment and experience gathered over 2 decades has developed a system to produce the right quality of water, based on electro adsorption process and membrane degassers. Contact us today to get "Peace of Mind"