

ENEFLOW[®]

Fluid Dynamic Power Cells

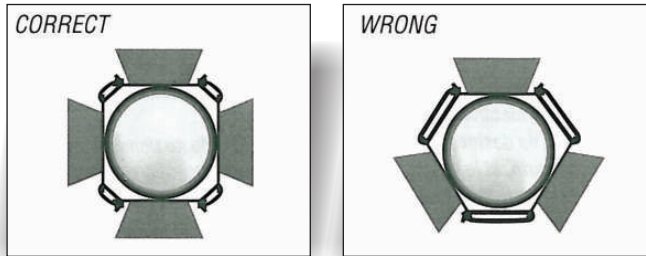
Using ENEFLOW[®] 5000

PLEASE READ THESE INSTRUCTIONS CAREFULLY PRIOR TO USE

ENEFLOW[®] 5000 Fluid Dynamic Power Cells should be installed in a 'ring' around a pipe using the following as a guide:

Pipe Diameter	Pairs ENEFLOW 5000
2" - 4"	1 Pair
5" - 8"	2 Pair
9" - 10"	3 Pair
11" - 13"	4 Pair
14" - 16"	5 Pair
16" - 18"	6 Pair
18"+	Consult EA Magnetics

The Power Cell units should be installed in pairs diametrically opposite each other on the pipe as depicted in the diagram below. This will serve to balance the magnetomotive force fields within the pipe.



Note: The Power Cell is coated to protect it from the elements.

For very turbulent fluid flow situations on larger pipes, a multi-stage installation may be necessary for optimum performance.

The Power Cells should be installed on a clean, straight section of pipe. Any insulation must be removed to expose the pipe. Once the Power Cells have been installed, the pipe can be safely re-insulated (cocooning the Power Cell installation). ENEFLOW[®] Power Cells require no external power source and, unlike electromagnetic devices, emit no heat or potentially harmful electromagnetic radiation.

The Power Cells should be placed on a pipe to allow approximately 10 feet of straight pipe after the Power Cell installation for optimum performance. In many cases, however, a shorter section of pipe is all that is available. If that is the case, it is important to have an absolute minimum of 1 foot of straight pipe after the Power Cell installation for best results.

The Power Cells should be kept 4 feet from all appliances, motors, electrical equipment, etc.

People with heart pacemakers should not handle the Power Cell - the magnetic field may interfere with the pacemaker's operation.



The Power Cells should be secured firmly around the pipe using the self-locking plastic straps provided. The Power Cells should be orientated with the fluid flow direction as per arrows on the units.

Where large storage tanks or storage vessels are involved (static fluid conditions), the Power Cells should be installed on the output side of the vessel for best results. If the vessel itself requires treatment then a recirculating loop should be considered.

The optimum place to install the Power Cells is on the output side of pumps and valves. Some pumps may cause turbulence in the fluid and this will reduce the effectiveness of the system. For this reason it is better to install the Power Cells at least 4 feet away from any pumps if possible.

If there is a stray current in the pipe where the Power Cells are to be installed, this will interfere with the effectiveness of the system. Shunting of the stray current around the Power Cells is advised or, preferably, installation of a dielectric union in the piping system.

Where there are noticeable entrained solids (sediment) in the fluid, a suitable filter installation should be considered.

Where there is excessive iron in the water, the Power Cells will accelerate the formation of iron oxide. This changes Ferrous (dissolved) iron into Ferric (particle) iron. This 'free' iron can then be removed by use of a sediment filter downstream of the Power Cell installation. Of course, the sediment filter cartridge must be changed / cleaned periodically.

In oil field applications, typical problems include paraffin build-up, and / or mineral scale build-up. These problems can be effectively controlled with a proper Power Cell installation.

High pressure boiler applications where super-saturated steam is used are not good applications for this system.

Process steam (not recirculated) is a good application for the main boiler feed line. Best results have been obtained on continuous flow units as opposed to reservoir types.

Low pressure, recirculating steam systems (steam passes through heat exchanger and is then recirculated back to the boiler) are good applications. Installation of the Power Cell system should be on the recirculating line and the feedwater line. Best results have been obtained on water tube boilers as opposed to fire tube boilers.

If a fluid has no conductance (distilled water) or if there is no relative velocity between the magnetic field and the fluid (Faraday's Law), no treatment will take place.

The greater the relative velocity, the more effective the descaling treatment will be. Conversely, if the fluid velocity is very slow or intermittent, then relatively poor results will be obtained.

All information contained herein is based on long term testing in our laboratories as well as practical field experience and is believed to be reliable and accurate. No condition or warranty is given covering the results from use of our products in any particular case, whether the purpose is disclosed or not, and we cannot accept liability if the desired results are not obtained.

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