



Floc Log Placement In Pump Discharge Systems

Literally thousands of applications occur each year in which a pump draws turbid water from a construction site pond, basin or foundation excavation ... and, without clarification, discharges the water into a storm sewer, ditch, wetland, lake and other 'convenient' location. In many cases, this practice damages the environment, generates ill-will, invokes legal fees, extracts monetary penalties and/or breaks the law. However, until polymer use was accepted by MDEQ, reasonable cost and performance qualified alternatives to discharging poor-quality water simply did not exist. Now, with polymer acceptance and proper use, discharges of high-quality pumped water are both simple and economical.



Fig. 1: Wye introduction system

The use of polymers to clarify pump discharges requires the four steps outlined in another *KeyNote* titled "Active Stormwater Clarification Systems". Contact your *Price and Company, Inc. Regional Representative* for information pertaining to a) Selecting an appropriate polymer [Step 1], b) Mixing polymer with turbid water [Step 3] and c) Settling or filtering the resulting floc

from the discharging water [Step 4]. The remainder of this *KeyNote* addresses one method to introduce polymer into a pump discharge system [Step 2 in the four-step process]. More succinctly, the following paragraphs describe how to place **Floc Logs**®, a partially hydrated form of polymer blends, into a small diameter [4" or less] pump discharge system.



Fig. 2: Wye with 5/16" eye bolt installed

In all cases, **Floc Logs** should be introduced down-gradient from the pump. The herein described **Floc Log** introduction 'system' consists of nothing more than a standard 6" diameter, Schedule 40 PVC wye with related fittings to adapt to various pipe or hose inlet and outlet sizes [Figure 1]. Although not depicted, quick connect couplings may also be inserted at both the up-gradient and down-gradient ends.



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Using a wye enables replacement of **Floc Logs** without line 'breaking' and re-coupling. Furthermore, the wye provides an ideal location for eye-bolt placement to which the **Floc Log** ropes are secured [Figure 2]. A preferred alternative includes eye-bolt placement on the pipe section, rather than on the 'cleanout' extension. Figure 3 details the eye-bolt connection.



Fig.3: Eye bolt details - note rubber washers

Sufficient length of 6" PVC is needed down-gradient from the wye to 'house' one or more **Floc Logs** [Figure 4]. Typically, two **Floc Logs** will fit into each 5' pipe length. Because greater efficiency is developed when polymer introduction is spaced out along a system, more than one wye component may be required in a system. Bench tests performed by either *Applied Polymer Systems, Inc.* or *Price & Company* will assist in determining how many Floc Logs will be required for the flow rate and site-specific soil chemistry. Variations in **Floc Log** use typically range between 25-75 gpm flow for each **Floc Log** used.



Fig. 4: Floc Log 'housing'



Fig. 5: Housing to down-gradient PVC pipe adaptors



Fig. 6: Housing to down-gradient corrugated hose adaptor

Contact your *Price & Company* **Regional Representative** for additional information on how to use polymer systems to improve stormwater quality.

Floc Log is a trademark of Applied Polymer Systems, Inc.

