STRAINER PRICING
AND ENGINEERING DATA

APPLICATIONS

Suction Service

December 2, 2015

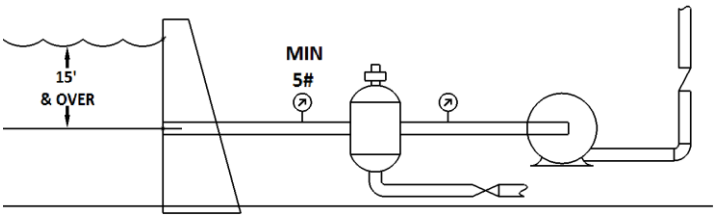

FIGURE A

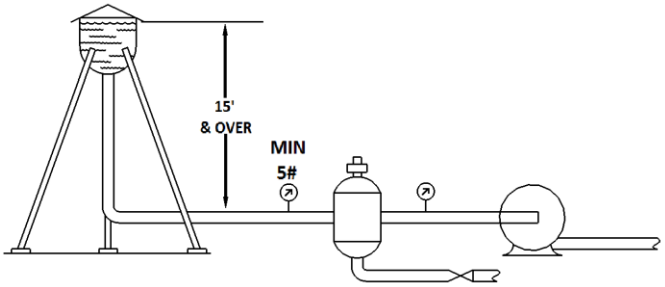

FIGURE B

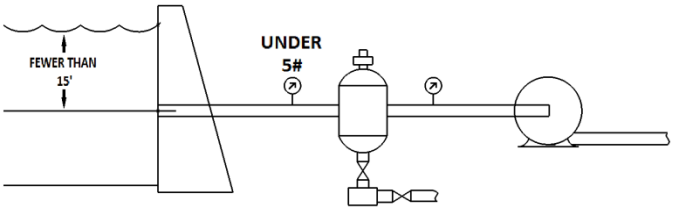

FIGURE C

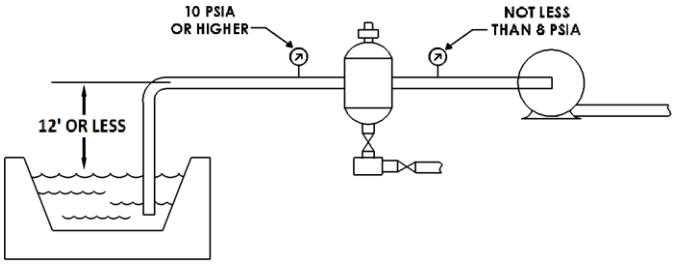

FIGURE D

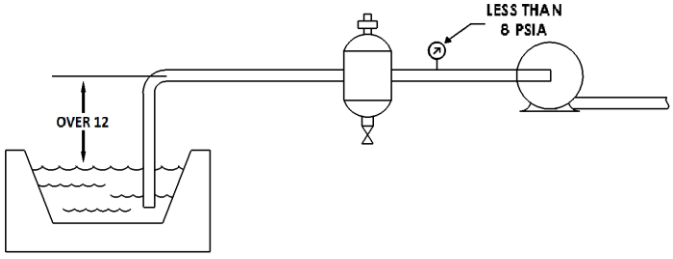

FIGURE E

The term “suction service,” as applied to a Type KB strainer installation does not depend upon the position of the strainer with respect to a pump, but rather on the minimum inlet water pressure that may exist. Basically, a strainer having an inlet pressure that is always in excess of 5 PSIG, under full operating flow, is not in “suction service” and will not require an eductor to backflush properly. If the inlet pressure falls below 5 PSIG, an eductor is required and the installation is one of “suction service.”

Figures A and B show two of the many possible arrangements where a KB strainer is on the suction side of a pump yet will self-clean without additional equipment.

Figure C, with its low inlet head and resulting low inlet pressure, will not clean without help and must have an eductor.

Figure D is, of course, an installation easily recognized as suction service with the pressure inside the strainer being less than atmospheric. An eductor is always required with this arrangement.

Figure E shows a suction installation which results in a sub-atmospheric pressure in the strainer so low that the unit cannot be flushed even with the help of an eductor. Because of the economics of this system it will seldom be encountered. A KB strainer cannot be made to function in such a system.

All KB strainer installations have certain fundamental requirements. The drain from the flushing connection, whether from the strainer body or from the eductor discharge, should have no vertical upward rises and should have a free atmospheric discharge. If these conditions cannot be met, the actual details of the installation should be referred to Application Engineering.

When an eductor is used, the strainer discharge pressure must never be less than 8 PSIA.

To permit reasonable control settings for automatic units and to avoid possible cleaning problems on low head installations, the following pressure drops for maximum flow through a clean strainer should not be exceeded:

Actual Inlet Pressure (PSIG)	Maximum Allowable Clean ΔP (PSI)
5 or less	1
10	2
15	4
20	5
25 or more	6