

FLOW CONVERSION CHART

The accompanying chart provides fast answers to many problems that may confront the pipe fitter. Procedures for using the chart are as follows:

Note that there are three sets of figures shown in connection with the extreme left-hand column **A**.

“Standard” gives the internal diameter of standard pipe (somewhat greater than 1" for 1 in. standard pipe).

“Exact” gives the exact diameter.

“Extra Heavy” gives the internal diameter of extra heavy pipe.

EXAMPLE:

How much water is passing through a pipe with parameters:

I.D. of exactly 1 in.

Velocity of the water being 3 F.P.S.

To apply the chart to the problem locate 1 in. in column “**A**” using the scale “**Exact**” and run a straight line from the point through the 3 in column “**C**”. From the intersection of this line with column “**B**”, run a straight line horizontally to column “**G**”. The intersection of this line at columns “**D**”, “**E**” and “**F**” gives the following information:

“**D**” shows the cubic feet/minute flowing through the pipe.

“**E**” shows the volume of flow in gallons/minute

“**F**” gives the weight of the water in pounds/minute.

(For liquids other than water, multiply the value of column “**F**” by the specific gravity of the liquid for accurate weight conversion.)

If a quantity in columns “**D**”, “**E**” and “**F**” is known then velocity may be determined by reversing the procedure. Draw a horizontal line from the known point to column “**G**”. From this intersection draw a line to the exact I.D. of the pipe in column “**A**” and extend this line to cross column “**C**”. The intersection with column “**C**” gives the velocity in feet/second.

The chart can be used as a conversion chart to determine the number of gallons in a certain number of cubic feet of liquid. The horizontal line already drawn to determine answers in columns “**C**” and “**D**” will provide the answer to the conversion in column “**E**”.

A little practice will prove this chart to be a real time-saver.

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