Viscosity Correction Chart

To find the appropriate pump for products with viscosities > 10,000 SSU, multiply the viscosity factor (Figure 1) by the required flow.

Next, locate the corrected GPM duty point on the published performance curve to determine the volume and air pressure needed to deliver the required flow.

Example:

- Flow: 15 GPM
- Discharge head: 50 PSI
- Viscosity: 35,000 SSU

The correction number for 35,000 SSU is 2.0.

⇨ Multiply 2.0 x 15 GPM = 30
⇨ Locate 30 GPM at 50 PSI head on the pump performance curve to determine required air pressure and SCFM. ***Refer to page 2 for an illustration on a sample performance curve.***

Notes:

1. At high viscosities, suction conditions are critical and must be adequate.
2. This chart is provided as an approximate guide. Pump performance may vary dependent on flow characteristics of material being pumped.
3. It is recommended to use PTFE balls when pumping thick liquids with viscosities > 10,000 SSU (given it is chemically compatible with the application)

General Conversion Factors:

cSt = cP/SG
1 cP = 1 mPa.s
SSU = cP X 4.55 (where cP > 50)

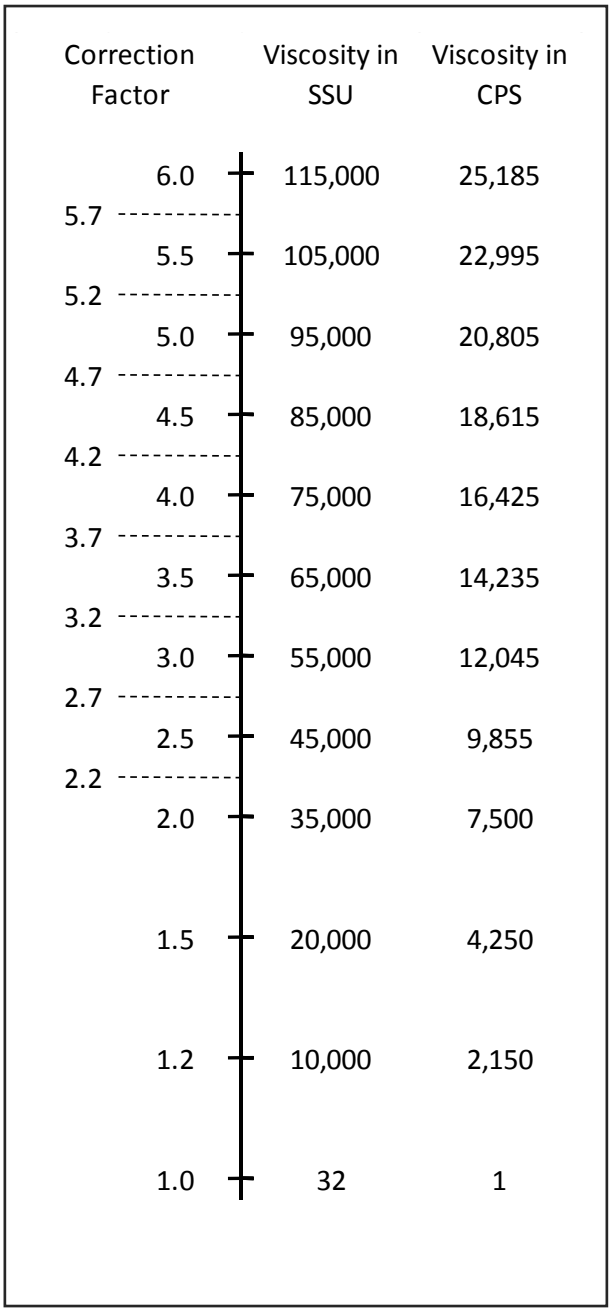

Figure 1

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PSG a DOVER company

The curve shown below for a pump model A150 illustrates the change in pump performance due to high viscosities > 10,000 SSU. When the viscosity is < 10,000 SSU, the A150 can deliver 15 GPM at 50 PSI using 20 SCFM (represented by the yellow line on the curve). When the viscosity changes to 35,000 SSU, per the example in page 1, we notice the following:

- The A150 will be sized for 30 GPM, instead of 15 GPM, after applying the viscosity factor for 35,000 SSU
- Required SCFM will increase to nearly 50 as shown by the red line

At this point, upsizing the pump is necessary to provide the required 15 GPM of 35,000 SSU at 50 PSI

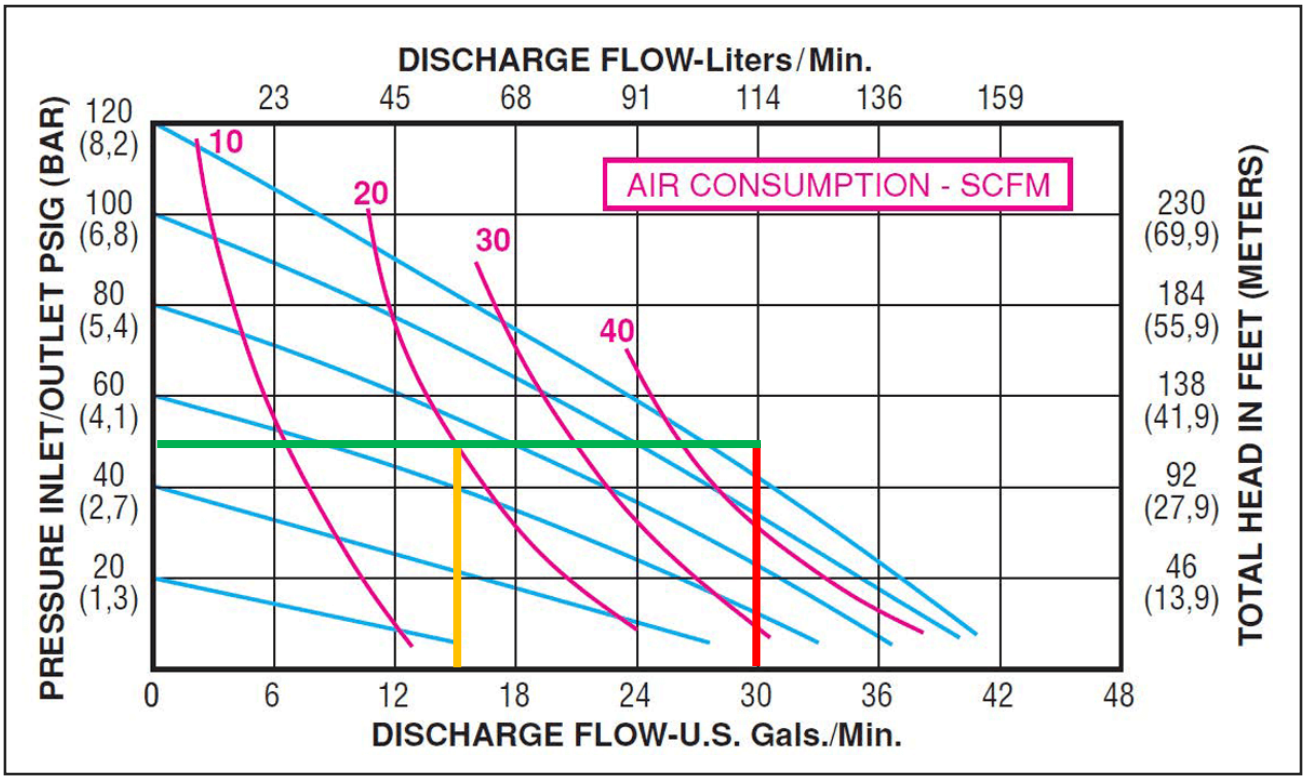

Figure 2