Newtonian Fluid - A fluid which when subjected to agitation at a constant temperature does not change in viscosity. (i.e. mineral oil).

Dilatant Fluid - A fluid which when subjected to agitation at a constant temperature increases in viscosity as agitation increases (i.e. clay slurries, candy compounds).

Thixotropic Fluid - A fluid which when subjected to agitation at a constant temperature decreases in viscosity as agitation increases (i.e. molasses, waxes, corn syrup).

Below is a viscosity correction curve which should be consulted when sizing the Blagdon range of pumps in viscous applications.

A flow rate of 12 UK gallons per minute places this duty well within the capacity of a B25 pump. (The rated output of a ball valve version of the B25 is 30 UKGPM at zero head). The published flow of 30 UKGPM is now corrected by the effect of the viscous fluid (e.g. 4000 cps @ S.g. 1.1) by reading off from the viscosity correction curve above (see dot) - available capacity is now 71%. Therefore corrected capacity is 30 x .71 = 21.3 UGPM.

This calculation shows that the available capacity left, taking into account the viscous fluid, is 21.3 UKGPM. 12 UKGPM being less than the available capacity means that a B25 will be suitable for this duty.

PLEASE NOTE: This correction formula should be used as a guide only as there is no proven empirical formula for double diaphragm pumps viz a viz viscosity correction.
All viscosity comparisons are as accurate as possible with existing information. Comparisons are made with materials having a specific gravity of one.

To extend range of only the kinematic Saybolt Universal, Redwood No 1 and Engler Scales Multiply by 10, the viscosities on these scales between 100 and 1000 Centistokes on the Kinematic Scale and the corresponding viscosities on the other 3 scales. For further extension multiply these scales as above by 100 or a higher power of 10.

Example:

1500 Centistokes = 150 X 10 CS 695 X 10 SUS