Brookfield Helipath™ Stand

The Helipath Stand is designed for measurement of non-flowing substances such as gels, pastes, creams and putty using a T-bar shaped spindle.

Many substances, because of the nature of their yield values, have been considered unsuitable for viscosity or consistency measurements with rotational viscometers. Any rotating spindle, be it cylinder, disc, or paddle, will create a channel in such substances and after a very short time exert a negligible and meaningless torque on any sensing device. This effect also occurs with materials that have a gel structure.

Paint dyes, lithographic inks, and many other substances are thixotropic in that their structure is broken down and their viscosity is decreased when subjected to internal shearing. While no rotating spindle will ever spin freely in such materials, the torque required to produce this motion will become less as the period of internal shearing lengthens. The study of such data can lead to difficulties and require rigid testing procedures for QC.

Other materials, notably pastes and creams, show a combination of the two effects listed above. They will show a yield value as well as a change in relative viscosity/consistency with time.

The Brookfield Helipath™ Stand is designed to slowly lower or raise a Brookfield Viscometer/Rheometer so that its rotating T-bar spindle will describe a helical path through the test sample. By always cutting into fresh material, the problem of channeling or separating is eliminated and meaningful viscosity/consistency measurements can be made. The automatic reversing feature of the Helipath™ Stand allows measurements to be made over a variable period of time.