

# PHOENIX PROBE BASE

The Probe Base Module, when used with a Probe Head Module, makes up a complete Phoenix NMR probe. The user interface for magic angle adjust is housed in the base module, as well as all electrical and gas connections such as the spinning tachometer, VT

control, and RF which can be adapted to a wide variety of spectrometer manufacturers. The probe base also contains an anti-frost VT system which eliminates the need for additional hardware while delivering a temperature range of -125C to +200C depending on the probe head module material. The X and Y channel tune adjusts and the tuning tubes allow for the broadband tuning of nuclei from  $^{31}\text{P}$  down to  $^{14}\text{N}$ . Because the Proton tune assembly is installed in the base, the base is frequency-specific and can be used with any Phoenix NMR probe head of the same Proton frequency.

**(H-F) or (H&F) Option:** We have developed an innovative new  $^1\text{H}$  tuning design that allows a user to tune in a traditional mode to  $^1\text{H}$  or  $^{19}\text{F}$ . Alternatively this mechanism will allow the user to also tune in an H&F simultaneous mode. If H&F capability is not needed, then the standard Proton assembly would be a better choice.

**Deuterium Lock Option:** We have designed in a lock channel that can be used in combination with some probe heads containing the lock circuit. Lock channel tune adjust is located in the base.

