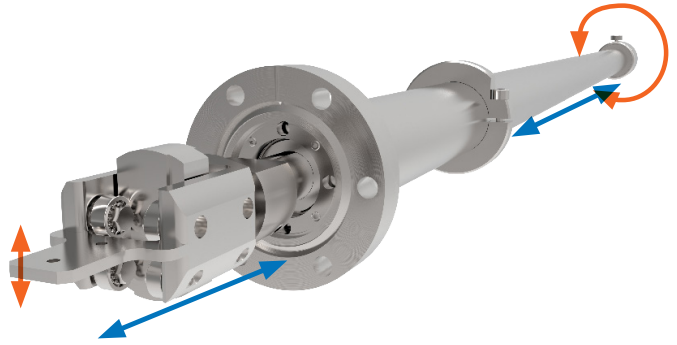


# Linear & Elevation

## Elevating PowerProbe

[EPP Series]



Complete sampling-handling system providing linear motion and up to 50mm of lift in the Y-axis for sample hand-off. Stroke lengths from 304mm to 1219mm and motorisation options available.

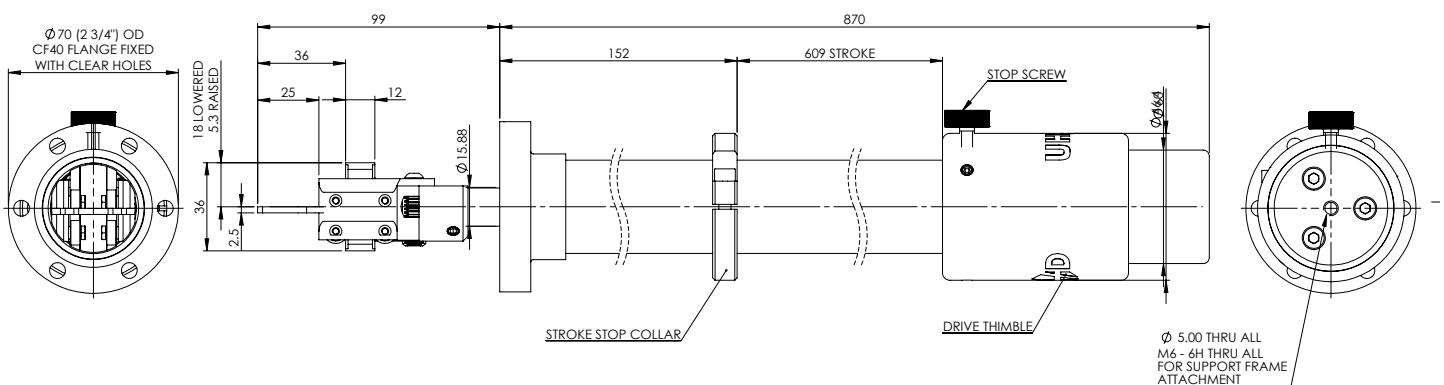
### EPP KEY ADVANTAGES

- » Up to 50mm of lift in the Y-axis
- » Unrivalled axial coupling strength
- » 10x the thrust of conventional probes
- » Exceptional axial stiffness
- » Zero backlash under low load
- » Bakeable to 250°C without removing any components

The Elevating PowerProbe transforms conventional approaches to sample transfer. In addition to its internally-guided linear motion, the probe has the ability to elevate its end-effector throughout its stroke, providing 12.7mm of lift as standard (with 25mm and 50mm options) in the Y axis for sample hand-off.

This PowerProbe variant greatly simplifies sample transfer techniques, providing a single device to provide both linear motion for sample introduction and the lift/lower motion to collect or hand-off the sample.

With a range of industry-standard effectors, the Elevating PowerProbe provides a complete sample-handling system in its own right removing the need for secondary motion tools. This reduces cost and simplifies the transfer process.



Example Dimensions (mm) EPP40-609-H-12.7 shown

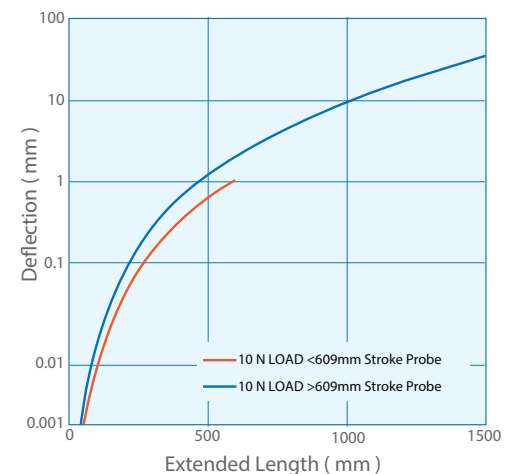
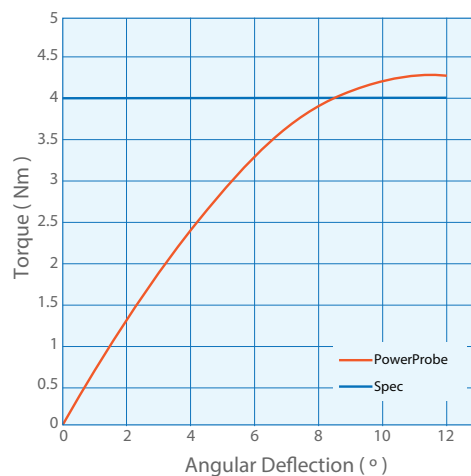
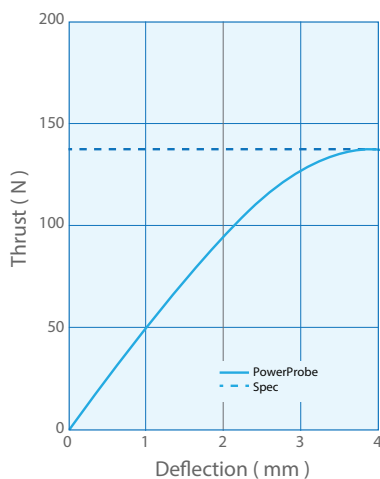
Visit [www.uhvdesign.com](http://www.uhvdesign.com) to configure, view and download 3D models



## EPP Technical Data

SPECIFICATION	VALUE
System mounting flange size standard (12.7mm lift)	CF40 (2 3/4" OD) with clear holes
System mounting flange size optional (25.4mm or 50.8mm lift)	CF63 (4 1/2" OD) with clear holes
Magnetic rotary breakaway torque	4Nm (35 in-lbs)
Magnetic linear breakaway thrust - standard	140 N (31.5 lbs)
Available stroke range	304mm to 1219mm
Elevating Lift stroke - standard	12.7mm (0.5")
Elevating Lift stroke - options	25.4mm (1") or 50.8mm (2")
Bakeout temperature	250 °C with motor removed
Shaft radial run out	N/A
Shaft radial deviation (linearity) over full stroke	+/- 1 degree
Maximum cantilevered load	1.5 Nm (13 in-lbs) on elevating plate
Maximum working axial load	90 N (20 lbs)
Retracted position switch - type	Bakeable micro switch wire to WD-020
Stepper motor option	AS4118L1804 with P42H (4:1) gearbox
Stepper motor - motor wiring	Wired to M12 5-pin
Stepper motor option - switches	Bakeable limit and home switches with lemo socket wired to diagram WD-030
Stepper motor maximum linear speed	25 mm/second (ballscrew option up to 100mm/second)
Linear resolution per 1/2 step	0.00375 mm
Motor option - leadscrew pitch	6mm

## EPP Technical Performance



### For more information:

#### UHV Design Ltd

Judges House, Lewes Road,  
Laughton, East Sussex, BN8 6BN, UK  
T: +44(0)1323 811188  
E:sales@uhvdesign.com  
www.uhvdesign.com

To find your nearest UHV Design representative please visit [www.uhvdesign.com](http://www.uhvdesign.com) and click 'Contact'.