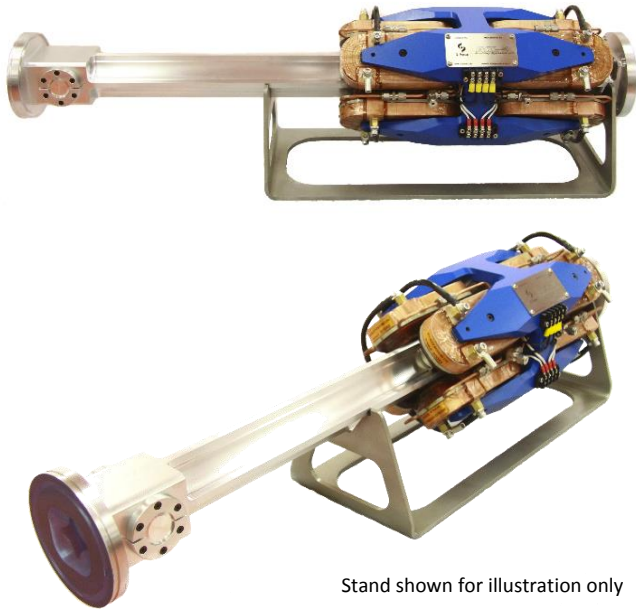




MiniPET-30 Beamline

Compact beamline for PET, with both Horizontal and Vertical Focusing and Steering to give Complete Beam Tuning



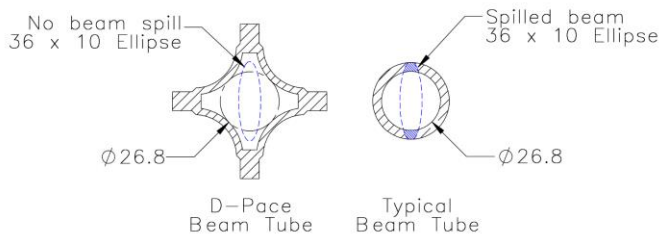
Stand shown for illustration only

The **D-Pace MiniPET-30** beamline performs both focusing and steering functions, through use of a combined quadrupole doublet and X and Y steering magnets. This allows for increased control of a proton beam for PET isotope production, which can greatly improve production rates. This compact and light-weight beamline uses low-activation materials and a unique, self-supporting beam pipe. The beamline is mounted directly to upstream and downstream elements, requiring no other support or dedicated stand. All water and electrical connections are made on a single side of the system for simple access and hose/cable routing. Two KF25 ports are included, for vacuum connection or other devices.

- Unique aluminum beam tube aperture for high beam transmission and low activation
- Combined quadrupole/steering doublet achieves focusing and steering in both horizontal and vertical directions, for optimized beam on target
- Ideal for use with 12-19 MeV proton beams for radioisotope production
- Light-weight, no dedicated support required
- Combined magnet self-aligns with beam tube

SPECIFICATIONS: *MiniPET-30* Beamline

Mass (Weight)	54 kg
Dimensions (W x H x L)	236 x 236 x 908 mm
Circular Aperture	Ø26.8 mm
Beam Tube Material	Aluminum
Entrance / Exit Flange	ISO63 / ISO100
Vacuum Ports	2x KF25 (4x KF25 available)
Upstream Support	65 N.m bending
Downstream Support	18 N.m bending
Max. Quadrupole Field	0.25 Tesla
Quadrupole B/l	33 Gauss / A
Effective Length	150 mm
Max. Steering Angle	6.5 mrad at 12.6 MeV H+
Cooling Water:	
Input	1 L/min, 20 °C
Connections	4 mm OD Tube Fitting
Thermal Switch:	One per coil
Trip Temperature	70 °C
Connection	#6 Screw Terminal
Power Supply Input (each, 4 supplies)	230 V AC, Single Phase, 50/60 Hz, 6 A Max.



MiniPET-30 Magnet	Quadrupole	Steering
Upstream Coils	Horizontal Focusing	Vertical Steering
Downstream Coils	Vertical Focusing	Horizontal Steering
Connections	4 AWG Cable Lug	#6 Screw Terminal
Power Supply:	Quantity = 2	Quantity = 2
Output	0-75 A, 0-8 V, 600 W	± 10 A, ± 20 V, 200 W
Control	Analog 0 to 10 V	Analog -10 to $+10$ V

The *MiniPET-30* beamline includes power supplies to operate the four magnet functions: horizontal focusing, vertical focusing, horizontal steering, and vertical steering. A customized beam pipe can be provided to match the overall length and flange connections of existing installations. Additional KF 25 ports can be provided upon request.

D-Pace reserves the right to update specifications as part of its ongoing product improvement program.

