

**Technical Innovations
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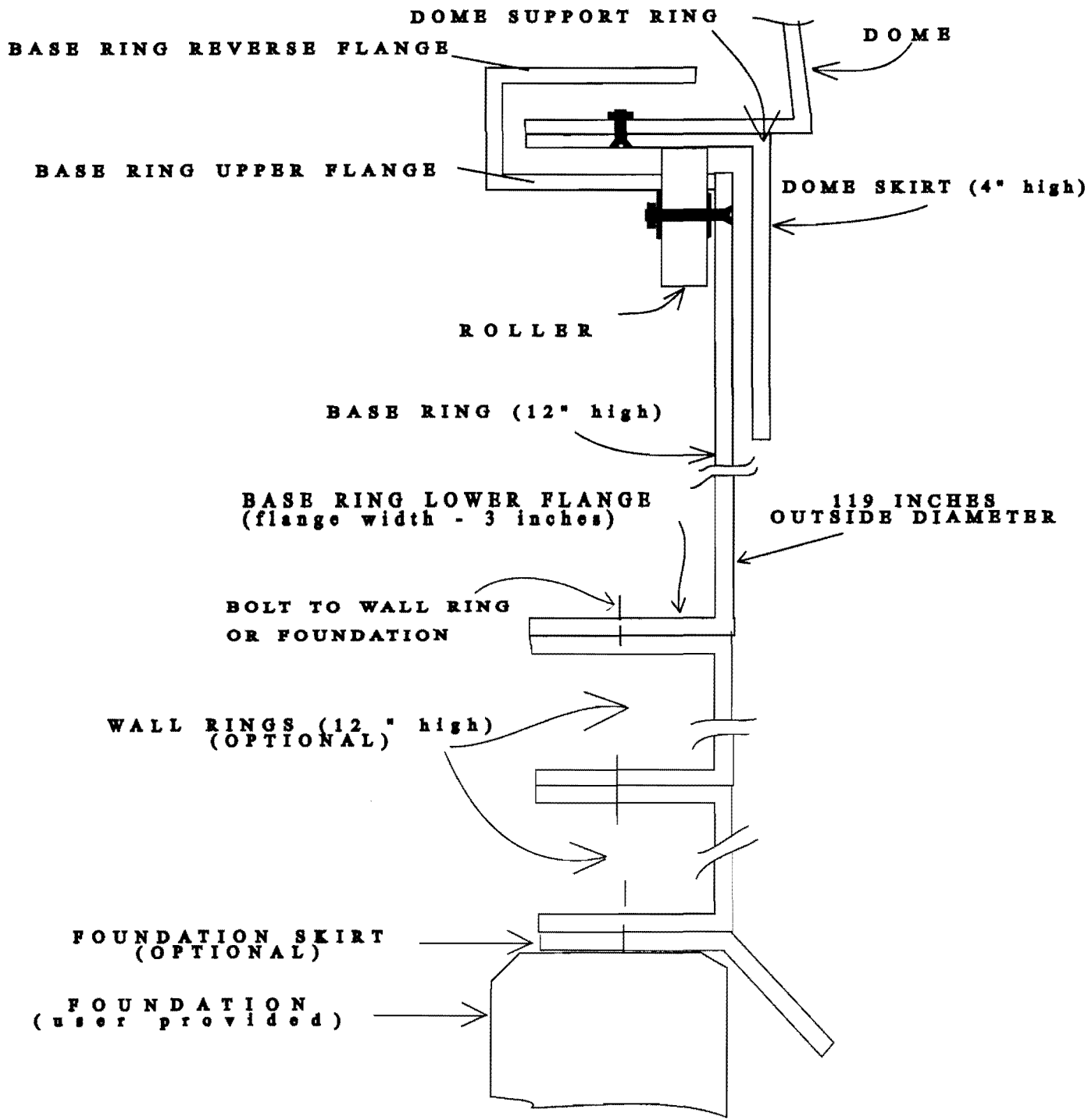
PD10 OBSERVATORY

The PRO-DOME (PD10) is normally a stand-alone dome, mounted onto a concrete pad or even a wooden deck. The PD10 can accommodate most Schmidt-Cassegrain telescopes up to 16" and Newtonians (on German Equatorials) up to 16" diameter. Large yoke-mounted Newtonians may require a larger dome or an off-center telescope mount. Built to the same high standard of all TI domes, the PD10 has a 5' high dome made of two pairs of "quadrants" bolted together along internal flanges. The dome sits on a 12" high base ring that incorporates the ball bearing rollers for dome rotation. A reverse flange at the top of the base ring covers the roller area and keeps the dome safe from wind. The shutter opening is a generous 36" wide, extending up to zenith and 16" beyond. Two shutters open by sliding up and over the dome, then nest together outside the rear cover. As in all our observatories, two integral, automatic latches lock the shutter together for security when closed.

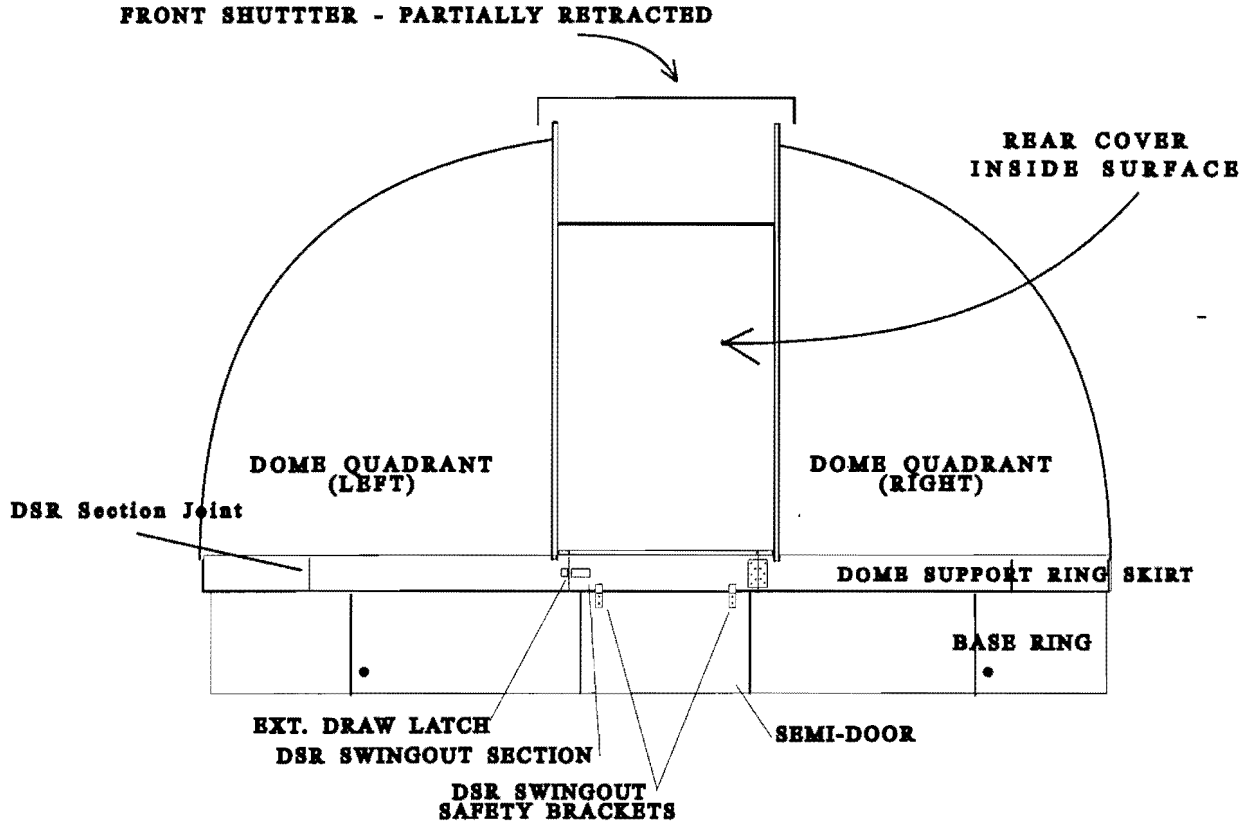
The PD10 includes these added features: a molded semi-door section to allow full height entrance; additional rollers; and soffit to meet the most extreme wind/snow conditions; and a key operated, custom dead-bolt lock for security. Wall height of the PD10 can be increased by adding matching 12" high wall rings, each with a molded door section. Because no part of the PD10 weighs more than about 45 lb, it is easy to assemble without use of cranes, even on top of high structures. As with our other dome designs, the PD10 must be mounted on a foundation or other solid support structure. Assembly time required: two people, two days.

Two shutters move up-and-over, automatically disengaging during opening to nest together at the rear of the dome when open. This patented design makes the full shutter opening available to the astronomer (and assists in sky orientation for students). The dome turns easily on hard rubber, ball-bearing rollers mounted on the base ring. You can add motors to rotate the dome and move the shutters, and even operate the dome remotely. By stacking modular wall rings, walls of any height can be assembled to match your telescope and pier height. Three wall rings maximizes the usable space inside the observatory as you have nearly 6 feet clearance right against the wall. We offer a full height entrance door (using the slot opening as part of the doorway) allowing access without duck-under doors or high walls.

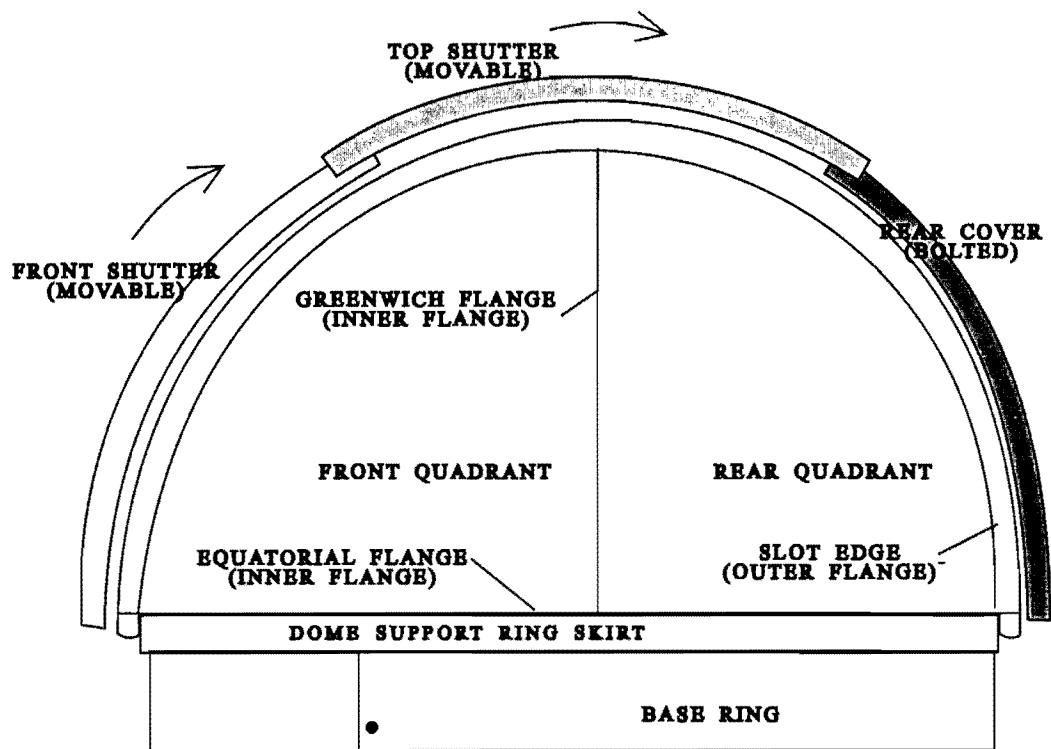
The domes use bolt-together construction. Assembly requires alignment of parts, measuring and drilling bolt holes, and use of common hand and power tools. Larger holes, for rollers and latches, are cut and finished at the factory. Typically, domes are assembled in place by two or three persons, without cranes or special equipment. Our PD10 ten foot diameter domes are installed at homes, schools, colleges, museums and research sites. Observers place them on concrete pads, wooden towers, decks, rooftops, and on custom structures.



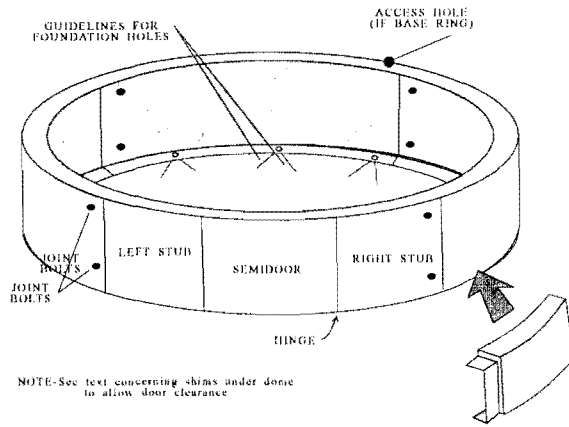
PD10 - Wall/Base Ring Structure



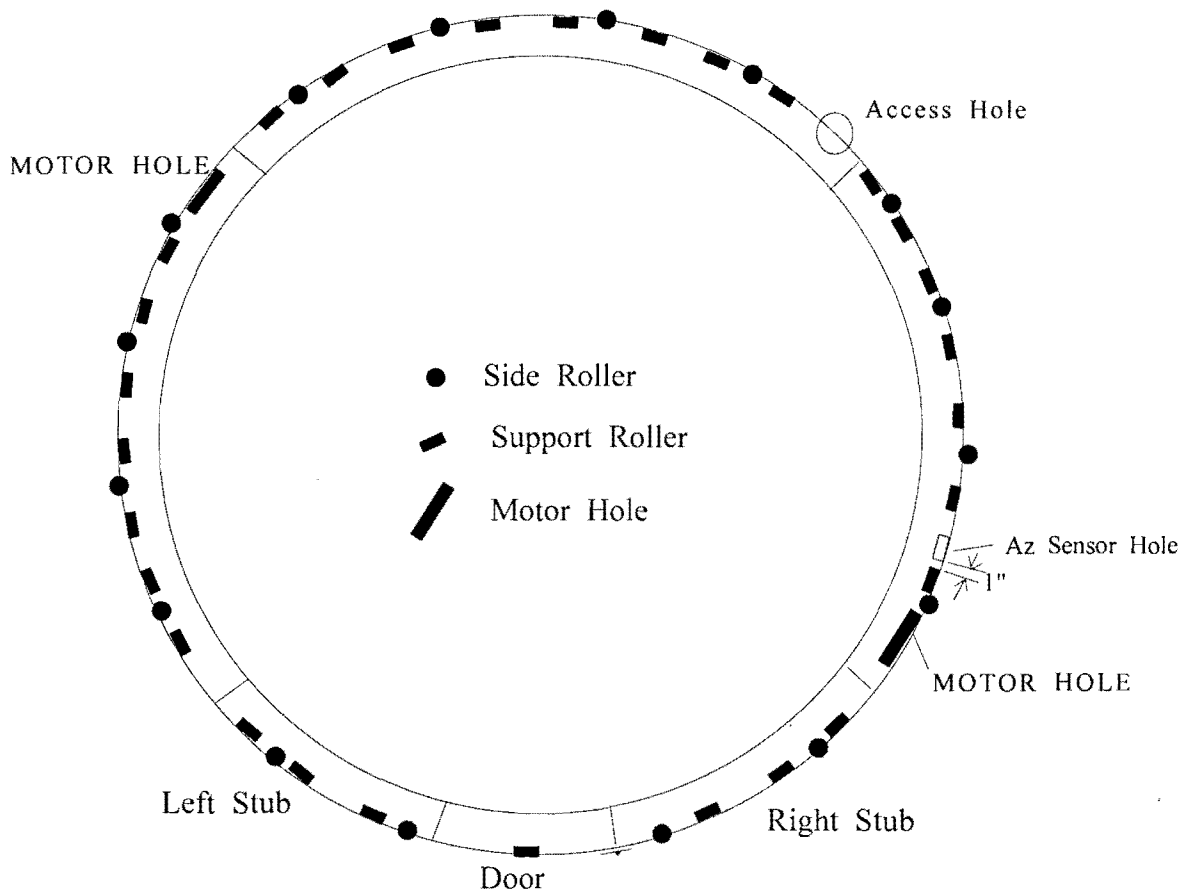
PD10 - FRONT VIEW



PD10 - SIDE VIEW



FIRST RING INSTALLATION



FRONT

BASE RING ARRANGEMENT

PD10