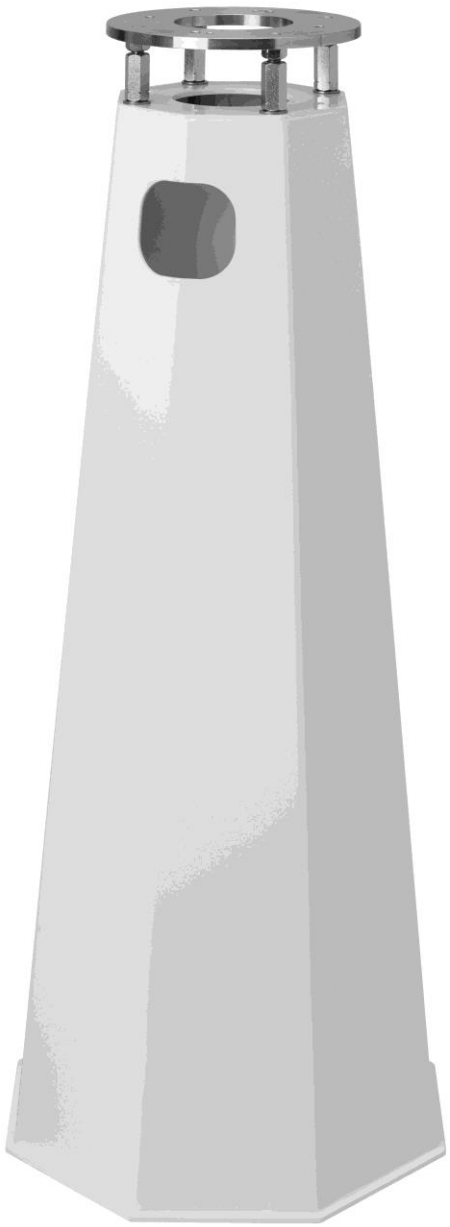
EMC Static Pier P200



Tapered, octagonal shape offers extreme stiffness and torsional rigidity for Telescope weights up to 70kg

Large base surface area for optimum transmission of forces into the ground

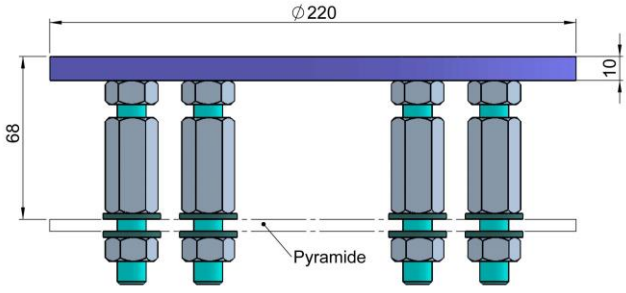
Adaption for almost any mount

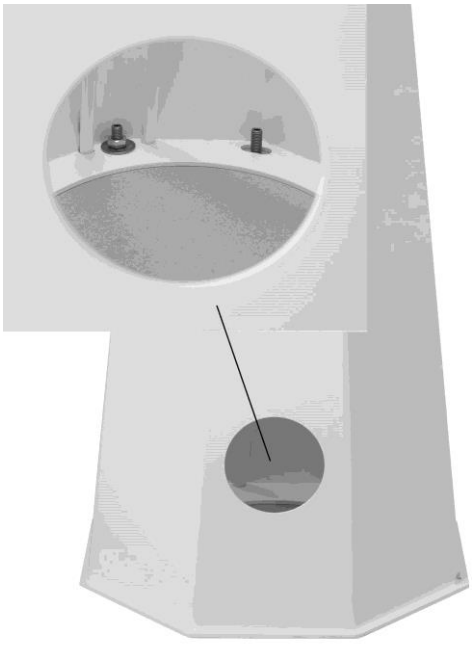
Minimal vibration transmitted to the telescope

The EMC observatory pier system P200 is designed using a pyramid shape for uncompromising high load carrying capacity.

The top of the pyramid has a cross section corresponding to that of a circular tube of 200mm diameter, hence the 'P200' name. At the base, where the active forces are greatest, the diameter grows to 400mm (over a 1000mm pier). The stiffness follows the third power of the diameter. The increase in diameter to 400mm is thus, for example superior to a steel pipe of a 180mm diameter and 10mm wall thickness by a factor of 3 or 4!

The drawing below shows the height-adjustable pyramid head; it forms the transition from the welded pyramid on the precision machined surface for receiving the telescope mount. The pyramid head is completely made of stainless steel, the head plate with 220 mm diameter is machined flat. The hole pattern is not final and is subject to the future needs. Here individual wishes are always feasible. It is also possible to mount a custom mount adapter directly to the pier.



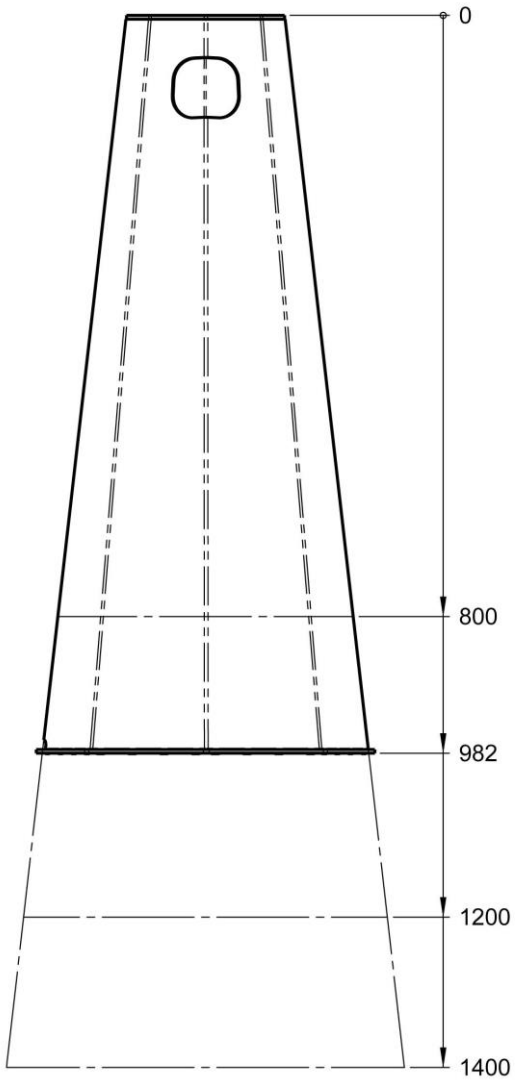


An opening near the bottom allows access to the inner floor bolts.

The observatory pier system P200 is comprised of two assemblies, the 'pyramid' and the 'pyramid head'. The diagram on the right shows how different heights are generated. The top of the pier is always the same size, with a constant angle and extended cross section towards the base until the desired height is reached. The base of the pyramid behaves linearly to the column height and is ideally suited to the demands of static piers.

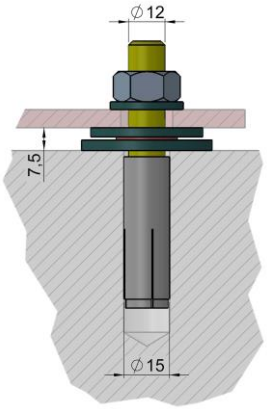
Any stationary column reaches its theoretical rigidity only with ideal floor anchoring. This fact is rarely given the necessary attention. The pyramid shape, with its large surface area at the base and bespoke anchoring kit provide the optimal solution to this problem.

The pyramid is made of 4mm thick steel and powder coated white. Construction and finish will provide many years of corrosion resistance in even the harshest observatory enviroments



<u>Anchoring Kit 1 for existing concrete surfaces</u>

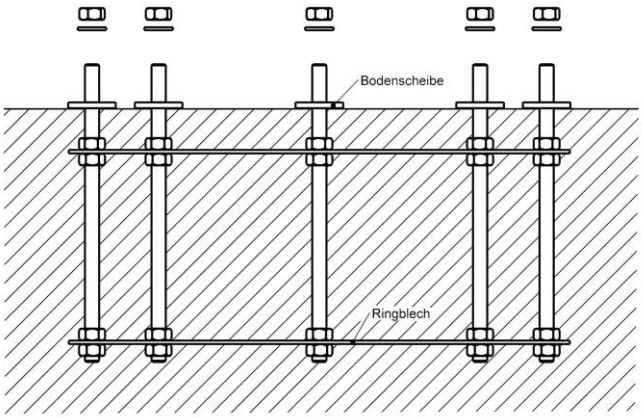
Delivery as shown on the right. Comprising heavy duty M12 anchors and associated parts for a simple and optima fitting

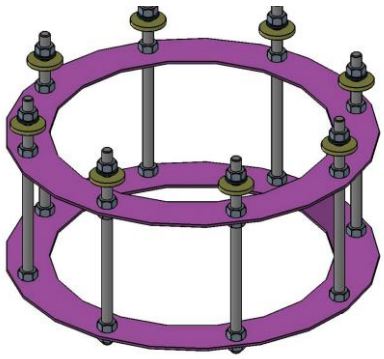


<u>Anchoring Kit 2 when newly concreted</u>

Two ring plates set during concreting with the threaded rods providing a particularly good anchorage to the ground.

After curing the pier is simply attached to the anchor ensuring ideal power transmission. Each column height requires a dedicated anchoring kit.





Description	Standard Sizes	Part Code
Static Pier P200-8	800mm	600-240-80
Static Pier P200-10	1000mm	600-240-100
Static Pier P200-12	1200mm	600-240-120
Static Pier P200-14	1400mm	600-240-140
Anchoring Kit 1	n/a	600-243
Anchoring Kit 2-8	For 800mm Pier	600-244-80
Anchoring Kit 2-10	For 1000mm Pier	600-244-100
Anchoring Kit 2-12	For 1200mm Pier	600-244-120
Anchoring Kit 2-14	For 1400mm Pier	600-244-140

Pier mount adaption is per S130 Mobile pier or dedicated. Please contact us for details

The P200 Static Pier system is also available in custom configurations to suit induvidual requirements.

Please contact us to discuss your needs.