

PULSAR OBSERVATORIES

THE WORLD'S FINEST OBSERVATORY DOMES



■ Steve Collingwood and Gary Walker

History

Big things grow from modest beginnings. When Gary Walker started looking to purchase an observatory dome, he was unable to find a manufacturer in the UK to supply a suitable one. So Gary, who is a carpenter by trade, set about designing and hand-making the patterns to his own dome, the original Pulsar 2.1-metre. The patterns were then taken to a local glass-fibre company to take moulds from. Realising that his dome design could fill a gap in the market, he decided to go into production, and Pulsar Observatories was born. Between 2000 and 2009, Pulsar made and sold hundreds of 2.1 metre domes before the model was retired in favour of new designs. They have supplied observatories to amateur astronomers, schools, colleges and societies in over 26 countries in Europe and around the world, as far afield as Chile, Singapore and the USA. Pulsar now also have a European distribution partner in Bresser GmbH, who are proving to be extremely successful in taking Pulsar's presence in Europe to new heights.

Automation

Always looking to improve and evolve the design, the opportunity arose for Pulsar to produce new hi-tech models based on CAD drawings and moulds that were precision

Having now reached the milestone of their twentieth year designing and manufacturing observatory domes and accessories, Pulsar Observatories are close to building their 1,000th dome.

CNC-manufactured, giving not only the highest-class finish of any commercially available observatory, but also unparalleled accuracy on both 2.2 and 2.7 metre models.

As well as producing a world-leading observatory dome, Pulsar has also turned its attention to enabling automation of their domes. Frustrated with the commercially available control systems, Pulsar has designed a new drive system for both rotation and shutter automation. The idea is to make the process as simple as possible, taking out the daunting complexity of remotely controlling a telescope and dome via computer. Pulsar now produce drives that are ahead of anything else available to the industry. Fully ASCOM-compliant control enables the dome to be controlled using either Pulsar's own proprietary software or third-party software that can also run the telescope and accessories. Pulsar's drive systems utilise many great features, including Bluetooth connection between the shutter and the rotation drive for wireless control, cutting-edge rechargeable-battery technology for powering the shutter, and also induction charging for efficient maintenance of the shutter drive batteries.

Alongside the domes and automation systems, Pulsar also manufacture anti-vibration piers and adaptor plates for a wide range of mounts, rubber flooring kits and other observatory accessories to enable the user to get the best out of their Pulsar dome.

The people behind the scenes

Pulsar Observatories is run by its founder and owner Gary Walker, and Director Steve Collingwood. Gary started Pulsar Optical in 1996 and, as well as designing and building domes, he has also designed and built many large-aperture Dobsonian telescopes up to 610mm (24-inch) aperture. He also built a 20-inch (508mm) slip-ring design telescope that was used for a time at Kielder Observatory.

■ A Pulsar 2.2-metre dome observatory.



■ Pieces of the domes waiting to be assembled in the factory.



■ The moulds Pulsar use to fabricate the domes.



■ The original Pulsar 2.1-metre dome. All images: Pulsar Observatories

Steve Collingwood was the last craftsman at Broadhurst, Clarkson and Fuller, and was the head engineer at Telescope House, where he ran the Meade UK service department for many years. Steve also owns and runs SC Telescopes, repairing and servicing telescopes. He also owns the historical company of Broadhurst, Clarkson and Fuller Ltd, with a trading history dating back to 1785.

With a combined total of over 40 years in the business, Gary and Steve bring together a wealth of engineering talent, electronic and building skills, and experience. Both are very knowledgeable and experienced amateur astronomers who are well respected telescope specialists in the industry. They are committed to setting the highest standards for products and installations, and their ethos was recently recognised by Channel 5's *Gadget Show*, which described the Pulsar Dome as "such a fantastic and simple use of technology." Pulsar will soon be producing their 1,000th observatory, which will be an incredible milestone for the company and one that Gary and Steve are extremely proud of. This 1,000th model will be given away in a charity raffle, in conjunction with *Astronomy Now*. Look to the Pulsar website, pulsarastro.com, for more details later this year!

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