## The T-219 Front-Mount 2-Axis Bore Target

The ideal alignment tool for tube sheet alignment and other small bore applications

## **Target Features**

Hamar Laser's T-219 Front-Mount 2-Axis Bore Target is designed for the alignment of tube sheets and tube support plates for heat exchangers. The target is designed to work with bore adapters for small bore applications, where the target needs to be mounted at the far end of the bore. Target features include:

- 10x10 mm PSD (Position Sensing Detector) is mounted as close as possible to the front of the target, minimizing bore offset errors caused by the target not being mounted inside the bore.
- PSD with .00002 in. (0.0005 mm) resolution when used with the R-1307 Readouts.
- 2.000 in. OD, with stainless steel ground and hardened surface.
- PSD concentric to housing to < .0005 in. (0.013 mm).
- Accommodates bores down to 0.5 in.(12.7 mm).
- Small and compact, with a removable cable for easy storage.
- Can be used with the R-1307C or R-1307 2.4ZB target readouts. Use the A-910-2.4ZB Radio Receiver for a PC with the R-1307-2.4ZB for wireless data downloads into our Bore8 software.
- Spirit level orients the PSD sensor axes to the alignment axes of the bore.



The T-219 Front-Mount 2-Axis Bore Target showing levels



Typical target adapter and optional target light shield for the T-219 Target



## **Specifications**

## The T-219 Front-Mount 2-Axis Bore Target

**Size:** 2 in. (50.8 mm) x 1.5 in. (38.1 mm)

Sensor: PSD with .00002 in. (0.0005 mm) resolution when used with the R-1307 or R-358

**PSD Concentricity to OD:** <.0005 in. (0.013 mm)

Material: Stainless steel

Cable: Removable 10 ft. (3 m) cable with Lemo connector

**Weight:** 16 oz. (.45 Kg)

Adapters: Removable adapters can be customized to one bore ID. Spring expanding design keeps

target adapter centered and magnets hold target in place

Light Shield: Used when targets are inserted in T-230 Target Stand to reduce ambient light effects in

bright light conditions. Blinking laser capability of the R-1307 removes most background

light effect.

