

## 3D-XB Scan Head

3-Axis with Dynamic Focus

### Ideal for Oversized, Sophisticated, and High-Power Applications

The FARO® 3D-XB Scan Head is designed to deliver large field sizes (from 150 mm to 2,000 mm), without the use of f-theta lenses, XY tables, or gantries. This 3-axis technology provides better field-size/spot-size ratios than those of standard f-theta scanning lenses.

With the 3D-XB Scan Head, spot sizes as small as 20  $\mu\text{m}$  and scan fields as large as 2 m x 2 m are achievable. The ability to vary the field and spot size offers application flexibility, which makes the 3D-XB ideally suited for process development and job shop settings. The dynamic lens translator continuously adjusts the focus distance to produce a flat or contoured field. Various field and spot size combinations can be selected simply by turning a knob to adjust the working distance.

The accurate, high-performance 3D-XB is used for optical scanning in XY and XYZ applications with a variety of laser wavelengths and is a flexible tool ideal for most laser applications.



### Features and Benefits

- Large Field/Small Spot
- Mirror size: 30 mm to 45 mm
- Available wavelengths: 1064 nm and 10.6 microns
- Processes 3D work surface
- Easy generation of custom correction files
- Flexible for process development and job shop settings
- Ideal for high volume-factory laser processing
- Cost effective

### Accessories

- Cables for data and power connections
- Protective windows for exit aperture
- Collimator adapters for fiber lasers
- DC power supply

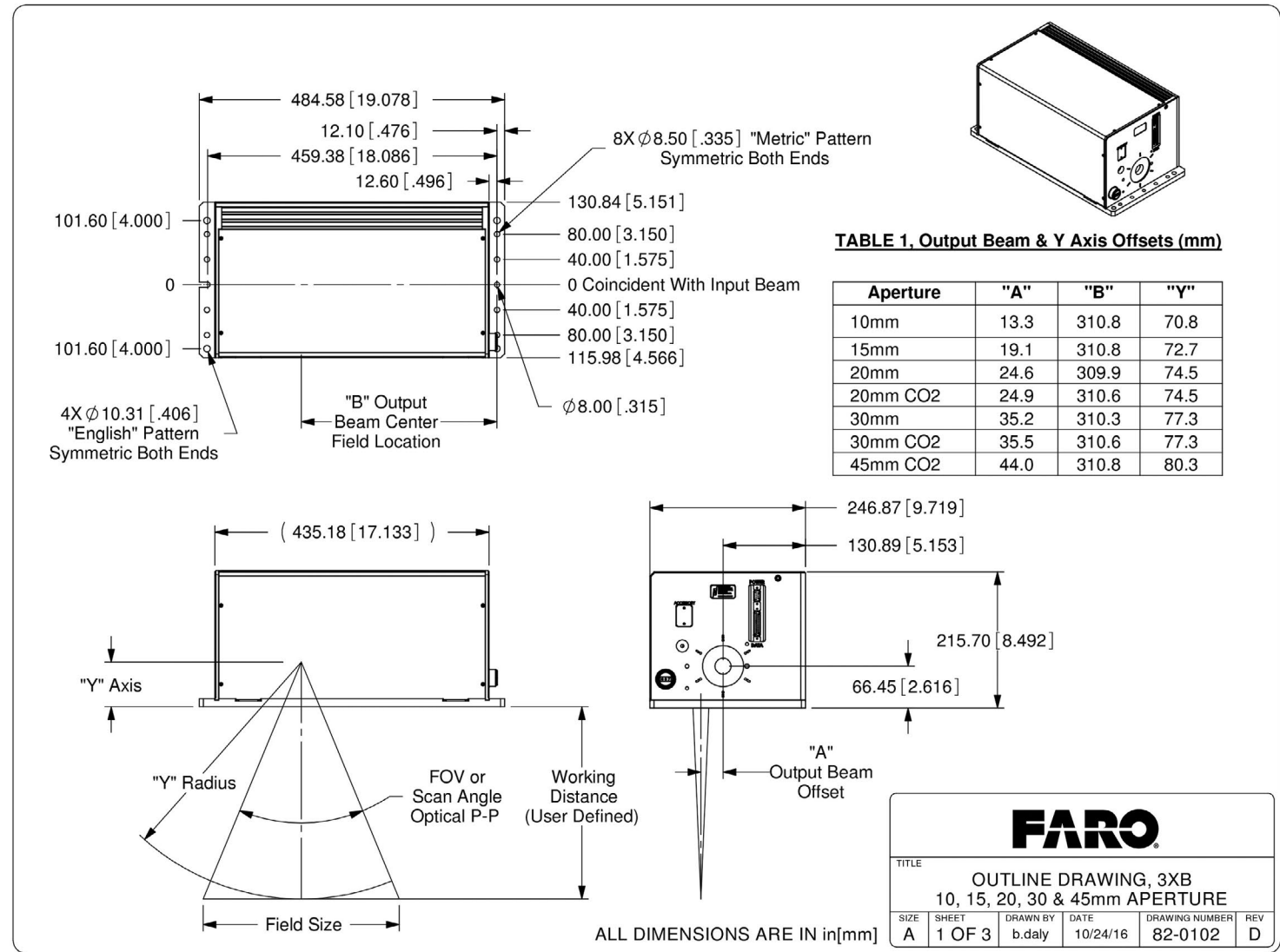
### Applications

- Large Field Marking
- Contoured Surface Marking
- Micromachining
- Textile Cutting and Embossing
- Solar/Thin Film Scribing
- Laser Process Development
- Paper/Organic Material Cutting

Specifications\*

| Field Size (mm) | 30 Nd: YAG<br>Spot Ø* (µm) | 30 CO <sub>2</sub><br>Spot Ø* (µm) | 45 CO <sub>2</sub><br>Spot Ø* (µm) |
|-----------------|----------------------------|------------------------------------|------------------------------------|
| 200             | 22                         | 166                                |                                    |
| 300             | 30                         | 235                                | 165                                |
| 400             | 38                         | 310                                | 210                                |
| 500             | 46                         | 390                                | 210                                |
| 600             | 54.4                       | 450                                | 295                                |
| 700             | 62.4                       | 525                                | 350                                |
| 800             | 71.3                       | 592.50                             | 395                                |
| 900             | 80.2                       | 675                                | 450                                |
| 1000            | 89.1                       | 742.5                              | 495                                |

\* 1/e<sup>2</sup> spot @ center  
The above chart assumes TEM 00 and M<sup>2</sup> = 1.2.



For more information, call 603.893.6200 or visit [www.faro.com](http://www.faro.com)  
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