

# MDL Fanbeam

MDL's Fanbeam® is a laser range and bearing system designed for repetitive, high accuracy positioning and tracking of marine vessels, and static and semi-static anchored structures.

The basic system consists of a Laser-Scanning Head, an Autotilting Yoke and a Universal Control Unit with embedded scanning software.

The laser head is mounted on a motorised yoke that can rotate 360° at up to 50° per second.

An autotilt mechanism incorporated into the yoke of the Fanbeam® allows the laser scanning head to be adjusted by ±15° giving a total beam range of -24° to +24°.

The UCU is an industrial quality PC unit designed specifically for Marine Fanbeam® Operations.

Fanbeam® UCU is supplied with proprietary MDL embedded software for Single Target DP or Multiple Target DP software.

## APPLICATIONS

- Dynamic Positioning
- Collision Avoidance
- Dredging Control
- Hydrographic Survey
- Construction Barge Positioning
- Traffic Control
- Anchor Control
- Jacket Installation
- Pipe Tow Out Positioning
- Tanker Mooring
- Docking Control
- Replenishment at Sea
- FPSO Shuttle Tanker Positioning
- Mine Counter Measures
- Walk Way Monitoring



## FEATURES

- Competitively priced
- Class1 eyesafe laser system
- Quick and easy to install
- Excellent primary or backup system
- Range to 2,000m with ±10cm accuracy
- Utilises inexpensive intrinsically safe retro reflectors
- Rugged design ideal for the offshore marine environment
- Autotilt mechanism compensates for large vessel differences in height

## TECHNICAL SPECIFICATION

### LASER

Type	Semiconductor Laser Diode 7.5 KHz Rep Rate
Wavelength	905nm
Beam Divergence	Vertical 18° Horizontal 2.5 milli radian
Laser	Standard Class1 eyesafe
Maximum Range	4.1 = 1000m / 4.2 = 2000m
Accuracy	20cm (10cm Possible Depending on Target and Scan Rate)
Angular Resolution	0.01°

### MOTORISED YOKE

Scan Speed	Up to 50° per sec
Optical Encoder	Horizontal 0° to 360

### COMMUNICATION

Current Loop	20mA Digital
Baud Rate	9600

### POWER SUPPLY

Output	28 V DC 3.5 amp
Universal Input	85V - 264V AC / 47 - 440Hz
Dimensions (WxLxH)	160x260x140mm
Weight	3.7kgs

### ENVIRONMENTAL

Operating Temperature	-20° C to +55°C (-25°C to +75°C)
Water and Dust Resistant	IP66 Complies with EN.60945 Complies with EN.60950-1:2001

### PHYSICAL

Construction	Machined Aluminium
Dimensions (WxLxH)	200 x 300 x 290mm
Weight	12.9kgs

### OPTIONAL TILT MECHANISM

Gear Box	Servo Driven Worm and Wheel
Range	-15° to +15° (5° Increments)

### UNIVERSAL CONTROL UNIT UCU

Specification	400MHz, 32Mb RAM, Windows NT4.0, Backlit Keypad, Integrated Positional Device, 800x600x250 VGA Output, Integrated Speaker
Size (WxLxH)	240x160x66mm
Weight	2.4kg

Note: Dynamic Positioning Services reserve the right to amend this specification without prior notice.