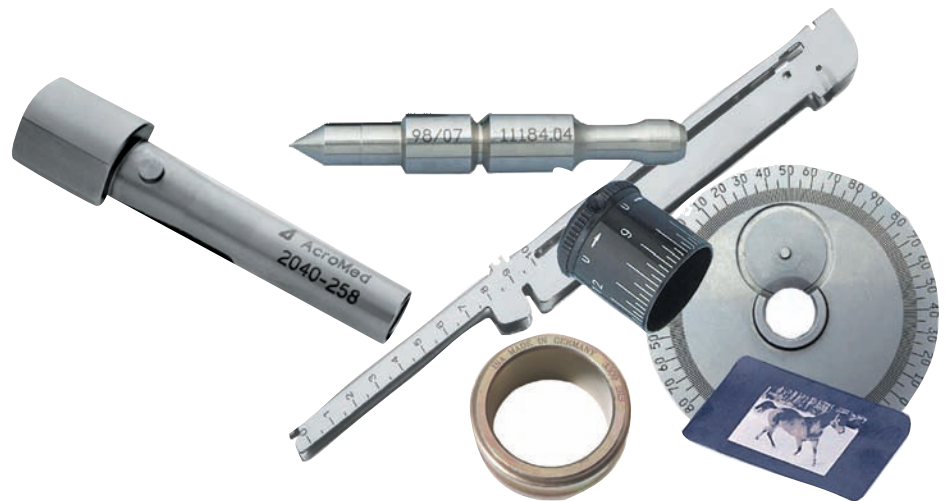


Innovative, compact and flexible ZENITH® Pulsed Fiber to Fiber Ytterbium Lasers are perfectly suited for marking applications that require 24/7 “set and forget”, unattended operation.

Select the ZENITH® 10FQ for low to medium speed applications and the ZENITH® 20FQ when higher power/faster process speeds are required. The 20F features upgraded power. Both lasers offer the additional long-term safeguard of built-in, polarization/optical isolators.



Example — Laser marking on Coated Label Stock



Zenith® 10FQ and 20FQ Pulsed Fiber to Fiber Ytterbium Laser Systems

LASER SPECIFICATIONS

Compliance CDRH, CE, UID
 Wavelength 1,060nm
 Laser Type Ytterbium Fiber Laser, Galvo Steered
 Laser Source Diode-pumped, Fiber to Fiber, Pulsed
 Pulse Repetition..... 20 KHz to 125KHz
 Average Power ZENITH® 10FQ..... 10 Watts
 Average Power ZENITH® 20FQ 20 Watts
 Long term Output Power <5% Instability
 Peak Power ZENITH® 10FQ..... >4KW
 Peak Power ZENITH® 20FQ..... >8KW
 Beam Quality $M^2 < 2$
 Fiber Length ZENITH® 10FQ 5 Meters (16 ft) Std.
 Fiber Length ZENITH® 20FQ 3 Meters (9.8 ft) Std.
 Optical Isolator ZENITH® 10FQ Optional
 Optical Isolator ZENITH® 20FQ Standard
 Positioning..... Visible Red Diode Light. 636nm

Marking Speed Raster = 300 CPS; Vector > 500 CPS
 (application dependent)
 Input Power Selectable 115VAC / 230VAC, 50/60HZ
 Cooling Air Cooled, Fan/Filter
 (no water cooling required)
 Operating Temperature Range..... 10° to 42° C Non-Condensing
 (50° F to 107° F)
 Expected MTBF (diode)..... Greater than 50,000 hrs.
 maintenance free



Customized Part Handling Options Available

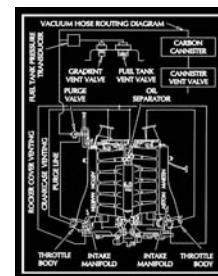


Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

Powered by 110/230VAC with no water-cooling requirements, these units are extremely dependable over a long life, and are backed by a full TWO-YEAR factory warranty on the diode light source — one of the longest warranties in the laser industry.

"All of your employees seem to be willing and able to give that "little bit extra" to make everything go right. The laser marking equipment you have supplied to us thus far has been totally reliable and continues to perform flawlessly, helping Federal-Mogul Corporation reduce costs as it continues to improve product quality. I look forward to a continued relationship with the people I consider my "friends" at Telesis Technologies."

Best Regards,
Ed Reinemeyer
Process Engineer,
Federal-Mogul Corporation



Example
Laser marking
on Coated Label
Stock



Features DATA MATRIX™ 2-D Code Marking Capability —
Meets all Department of Defense UID Requirements

Zenith® 10FQ and 20FQ Pulsed Fiber to Fiber Ytterbium Laser Systems

DIMENSIONS

- ZENITH® 10FQ Marking Head .. 11.8cm(W) x 17cm(H) x 30.2 cm (L)
(4.96" W x 6.7" H x 11.9")
Weight 3.8Kg (8 lbs.)
- ZENITH® 10FQ Laser Controller Standard Rack Mount
48.3cm (W) x 20cm (H) x 60 cm (L)
(19"W x 7.8"H x 23.6"L) Weight 24Kg (53 lbs.)
- ZENITH® 20FQ Marking Head 11.8cm(W) x 17cm(H) x 70 cm (L)
(4.96" W x 6.7" H x 17.9")
Weight 7.7Kg (17 lbs.)
- ZENITH® 20FQ Laser Controller Standard Rack Mount
48.3cm (W) x 20cm (H) x 60 cm (L)
(19"W x 7.8"H x 23.6"L) Weight 30Kg (66 lbs.)

SOFTWARE

- Software..... Merlin® II LS
- Operating System Windows™, 2000, XP, Desktop PC (Std),
Optional Laptop
- Font Generation True Type Fonts
- Barcodes and Matrix..... 2D Data Matrix TM, PDF417, BC 39,
Interleaved 2 of 5, UPCA/UPCE BC 128,
Maxi Code, Code 93, QR Code and Others
- Graphic Formats Raster and Vector,
BMP, .GIF, JPG, .WMF, .EMF, .PLT, .DXF
- Serialization Automatic and Manual Input Host
Interface Capable
- Linear Marking..... Scalable with Letter Spacing Control
- Arc Text Marking Scalable and Adjustable
- Drawing Tools Line, Rectangle, Arc, Circle
- Interface..... Serial , I/O and Host capable
- Power Monitoring Self-Calibrating, Output Power Feedback
and Auto Adjustment

LENS CONFIGURATIONS AVAILABLE

Focal Length	Marking Field	Work Clearance
100mm	45mm x 45mm (1.8" x 1.8")	97mm (3.82")
160mm	90mm x 90mm (3.5" x 3.5")	176mm (6.93")
163mm	110mm x 110mm (4.3" x 4.3")	185mm (7.28")
254mm	155mm x 155mm (6.1" x 6.1")	296mm (11.65")
* 330mm	215mm x 215mm (8.4" x 8.4")	387mm (15.23")
* 420mm	275mm x 275mm (10.8" x 10.8")	493mm (19.40")

* Application dependent