



# IDENTIFICATION SOLUTIONS FOR HARSH ENVIRONMENTS

INDUSTRY: OIL AND GAS

## KEYPOINTS

- ▶ ID of oil and gas equipment in the field that will last for the life of the equipment.
- ▶ Dot peened metal plates offer flexibility in the mark on the plate (can mark logos and images), but with a much lower price point than a laser engraver.



## DECIDING PURCHASING FACTORS

“We chose a CIM solution due to pricing and customer service throughout the decision making process.”



Machine: MDM1000

## CUSTOMER

Dynaflo Artificial Lift Systems.

## CHALLENGE

Dynaflo Artificial Lift Systems is an Oklahoma based oil and gas service company. They were in need of a permanent asset ID solution for oil and gas equipment.

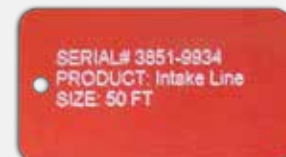
## SOLUTION

### CIM's MDM1000 dot peen marking machine

The MDM1000 is an automatic dot peen marking machine that produces a laser-like mark by a series of micro percussion dots.

## RESULTS

Metal plates are marked with serial numbers, product type, and size, and affixed with rivets to oil and gas equipment including pumps, motors, intake lines and gas separators.



Identify safety critical equipment in harsh environments with dot peened metal plates.

YOUR SUPPLY DEPOT LIMITED

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# TECHNICAL FEATURES

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## PLATE & FEEDER

<b>Dimensions</b>	Width: 1.18 - 4.53 in / 30 - 115 mm - only MDM1000 up to 7.092 in / 180 mm Height: 0.83 - 3.54 in / 21 - 90 mm - only MDM1000 up to 4.334 in / 110 mm
<b>Thickness</b>	0.0157 - 0.0354 in / 0.4 - 0.9 mm
<b>Materials</b>	Aluminium, copper, and brass
<b>Input hopper</b>	MDM1000: manual feed - Single Access Point
<b>Output hopper</b>	MDM1000: manual feed Options: FIFO (first in – first out) technology or side eject

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## STAMPING

<b>Technology</b>	Micro percussion using a stylus in Widia steel - marking pressure adjustable depending on the material to be stamped (standard force 500 N)
<b>Resolution</b>	200 dpi
<b>Fonts</b>	Standard Windows fonts including special characters and symbols
<b>Logos</b>	Up to 2 at a time, resident in equipment. Max area about 13 square in / 84 cm <sup>2</sup>
<b>Layout facilities</b>	Fonts and logos can be rotated 90°/180°/270°
<b>Stamping area</b>	Full plate except for 0.039 in / 1 mm from the top and left/right edges and 0.28 in / 7 mm from the bottom edge. Avoid edges in order to not damage the stylus.
<b>Performance</b>	Depending on font and logo size - marking speed 50 dots per second stamping in 'DRAFT' mode increases the speed by 65%

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## COMMUNICATION INTERFACE & SOFTWARE

<b>Communication Interface</b>	RS232 serial port
<b>Protocols</b>	CIM, Xon-Xoff, MultiEmbosser and Pound-Pound
<b>Operating system</b>	Sword PC application proprietary software compatible with Windows / XP / Vista / 7
<b>Application software</b>	Automatic data field; plate archive; DBIII, DBIV, Excel, MS Access file compatibility; self diagnostics, automatic repetition of faulty plate personalization, resetable and non-resetable counters.
<b>LCD Edit</b>	Via external keyboard; 20 storable formats downloadable
<b>Data format</b>	50 fields of 80 characters each (Variable, Fixed data, Counters, etc.)

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## HARDWARE

<b>Power supply</b>	100 - 117 - 220 - 230 or 240 Volts - 50 or 60 Hz
<b>Power consumption</b>	100 Watt
<b>Operating environment</b>	Temperature: 41 - 104 °F / 5 -40 °C Relative humidity: 30% - 90 % non condensing
<b>Dimensions (WxDxH)</b>	MDM1000/MDM2000: 24.8 x 29.1 x 15 in / 630 x 740 x 380 mm
<b>Weight</b>	MDM1000 119 lbs / 54 Kg - MDM2000 126 lbs / 57 Kg

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## VARIOUS

<b>LCD display</b>	2 lines of 40 characters LCD display for diagnostics and offline operation
<b>FLASH memory technology</b>	For easy firmware upgrade operation
<b>Other</b>	Lithium back up battery; security operation with key lock; machine status indicator lights; near end input / near full output hopper plate sensors for continuous production

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**VERSATILE** - The dot peening technology makes the MDM1000 / 2000 one of the most versatile marking solutions for metal plates, since it allows total freedom in designing the plate layout.

**EASY & FLEXIBLE** - Manual (MDM1000) or automatic (MDM2000) loading and unloading has never been easier. Equipped with a unique clamp for plates of most dimensions and metals, the METAL DOT MATRIX are designed to meet most requirements in metal plate marking. CIM has developed various command protocols allowing the MDM1000 / 2000 to easily interface with custom applications.