

Machine Model	AFM-3D6-T*	AFM-3D8-T	AFM-3D10-T*	AFM-3D12-T	AFM-3D14-T	AFM-3D16-T
Wire Diameter Range (Millimeters)	2mm - 6.4mm	2mm - 8mm	**4mm - 10mm	**4mm - 12mm	6mm - 14mm	6mm - 16mm
Wire Diameter Range (Inches)	0.080" - 0.250"	0.080" - 0.313"	0.160" - 0.394"	0.160" - 0.472"	0.160" - 0.550"	0.250" - 0.630"
Max. Wire Tensile At Max. Wire Diameter	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>
———— (kPSI)	90 kPSI	90 kPSI	90 kPSI	90 kPSI	90 kPSI	90 kPSI

Performance Specifications

Feeder Axis #1

Wire Feed Resolution (Millimeters)	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm
Wire Feed Resolution (Inches)	0.0002"	0.0002"	0.0002"	0.0002"	0.0002"	0.0002"
Max wire feed speed (Meters)	120 m/min	120 m/min	120 m/min	120 m/min	85 m/min	80 m/min
Max wire feed speed (Feet)	394' f/min	394' f/min	394' f/min	394' f/min	280' f/min	262' f/min

Bender Axis #2

Bender Resolution	0.0005°	0.0005°	0.0005°	0.0005°	0.0005°	0.0005°
Max Bender speed	1500°/sec	1100°/sec	1100°/sec	1100°/sec	1000°/sec	950°/sec
Max Bender angle	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Z-Axis #3

Z-Axis Resolution	0.0004°	0.0004°	0.0004°	0.0004°	0.0004°	0.0004°
Max Z-Axis speed	600°/sec	600°/sec	600°/sec	600°/sec	500°/sec	500°/sec
Max Z-Axis rotation	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Turret Axis #4

Turret Axis ToolChange time	300 mSec	300 mSec	350 mSec	350 mSec	350 mSec	400 mSec
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Set-Up Time

Same Wire Diameter	1 minute	1 minute	1 minute	1 minute	1 minute	1 minute
Change feeder rollers & Bending tools	8 minutes	8 minutes	8 minutes	8 minutes	8 minutes	30 minutes

Power Consumption, Electrical & Air Requirements

Average Power Consumption (KW/h)***	2	2	2.4	2.6	2.6	3.7
Electrical requirement	50/60 Hz	400V or 460V, 3 phase - all models****				
Installed Power	40KVA	42KVA	46KVA	50KVA	50KVA	82KVA
Air requirements	100 PSI @ 2 SCFM - all models					

Dimensions & Weight (Machine weight only / not for shipping)

Width, Depth & Height (meters)	2.59 x 2.08 x 2.13	2.59 x 2.08 x 2.13	2.59 x 2.08 x 2.13	2.59 x 2.08 x 2.13	3.048 x 2.08 x 2.13	3.556 x 2.2 x 2.13
———— (inches)	102" x 82" x 84"	102" x 82" x 84"	102" x 82" x 84"	102" x 82" x 84"	120" x 82" x 84"	140" x 90" x 84"
Gross weight (Kg)	4100 Kg	4196 Kg	4276 Kg	4354 Kg	6300 Kg	6804 Kg
Gross weight (Lbs)	9040 Lbs	9250 Lbs	9410 Lbs	9600 Lbs	13876 Lbs	15000 Lbs

\* Available in Non-Turret Configuration.  
\*\* Machines can form wire down to 2mm with additional tooling.  
\*\*\* Power Consumption Data is measured on average production.  
\*\*\*\* Specify on Order.


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AFM-3D16-T

AccuFORM MODULAR  
PERFORMANCE IN CNC WIRE BENDING



AFM-3D shown without safety barrier for display purposes.



Automated Industrial Machinery, Inc.



# AccuFORM MODULAR

## FEATURES & BENEFITS

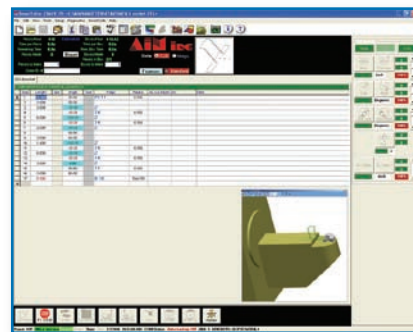
- Concurrent Operations: Dual processor allows programming a part while running production
- Production Statistics for cost estimating & scheduling
- 2D/3D DXF file transfer & optional 3D Step file import
- Animation / Bending simulation allows you to see programmed moves before running production
- Remote, off-line programming with stand-alone software or through installed network card
- Color touch screen monitor and industrial grade sealed keyboard for data entry
- Simple programming with Windows XP Pro® based operating system
- Exceptional accuracy and repeatability
- Sealed, oversize bearings for low maintenance operation
- Wire fed directly from coil
- A variety of servo drive options for combinations of faster feed and bending speeds
- Double acting hydraulic cutting system for high tensile wire provides the strongest cut in the market
- One keystroke transition between metric and English units of measure
- Video camera for machine monitoring or video conferencing
- Merge individual part programs for production of complete assemblies or program to make alternating parts
- Programmable delay or hold functions to match downstream operations in work cells
- Spiral software function allows user to define any spiral with just three numbers
- Easily accessible tooling for minimal setup and changeover time
- Hardened and ground tool steel moving parts for exceptional wear and tool life
- I/O's for interconnection of auxiliary equipment such as robotics, threaders, & inspection devices
- Highest overall production speeds in the industry
- Network ready for (Dial-A-Service)
- Parallel, Serial, Ethernet & USB Ports
- Aluminum extrusion safety barrier with high impact polycarbonate shields and safety interlock door included
- Unlimited rotation of bending arm for maximum efficiency and reliability
- Temperature controlled electronics cabinets with washable filters

**The AFM-3D Series.** The machine that pioneered modularity in the wire industry. Modular frame construction provides the most flexible, versatile 3D machines in the market.

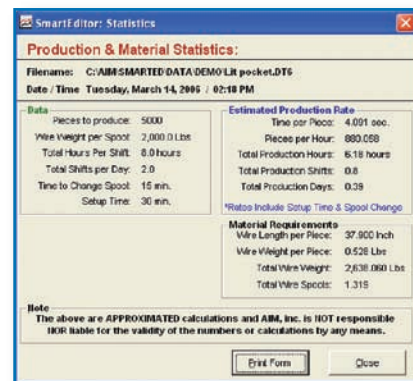
### Multiple Mandrel Indexing Tool Head Option

All AFM-3D benders are available with the Turret Head indexing tool head option. Turret Head machines feature not just one but TWO programmable bending pins. The hard bending pin is used for short bend-to-bend requirements and producing parts with extremely complex bends. The roller bearing bending pin is used for radius generation in making rings, spirals or large radius bends.

The multi-mandrel tool cluster holds round pins, roller tools, and sharp bend dies...all of which are user replaceable. The slide action hydraulic cutter provides burr-free square cuts and is capable of a "zero length" cut-off.



**Simple Programming Interface.**  
SmartEditor® helps figure out machine movements. User only needs to add feed length, bend angle, radius size & tool configuration



Instant Production Estimates and Material Consumption

### Expandability - Versatility

All 3D benders can be expanded by simply separating and inserting the appropriate modules. Adding modules for inline secondary operations such as chamfering, threading, undercutting and flattening can extend the versatility of your AccuForm AFM-3D machine. Stand-alone floor mounted units are available for chamfering, threading, ball-end radius and cold heading. Multiple axes pick and place units can automatically transfer formed parts to secondary machine operations. A second bending head can be added for extremely intricate bends.

### Wire Bending Made Easy

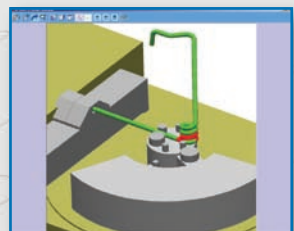
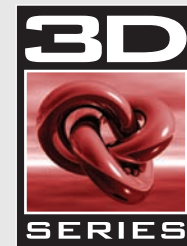
The AccuForm modular line of 2D & 3D programmable CNC steel wire benders make virtually any kind of simple or complex parts from round and flat wire.

Using AIM's SmartEditor® program, a variety of different shapes can easily be designed. SmartCode can be used for standard shapes such as rings, polygons and spirals by simply entering the desired lengths, number of sides or diameters.

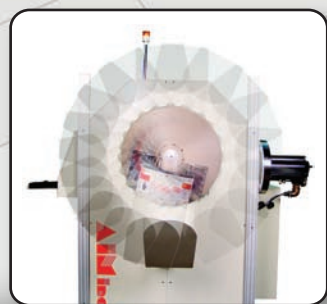
DXF files can be imported from your CAD system. Animation Simulation shows the part being formed before production begins allowing changes to be made prior to machine operation.

"Dial-a-Service" allows access to any machine worldwide via internet allowing diagnostics to be performed within minutes.

The AFM Series is backed by a **two-year** limited Parts and Labor Warranty, the most comprehensive in the market.

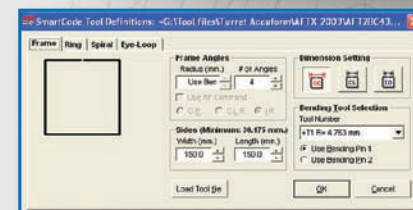


Production Animation  
With Collision Detection  
Makes Programming Seamless!

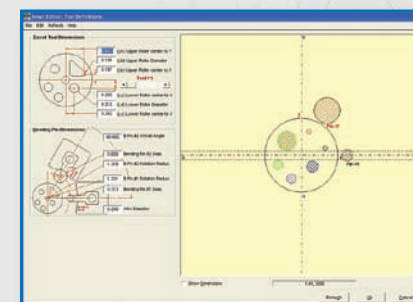


Unlimited Rotation  
of Bender Arm

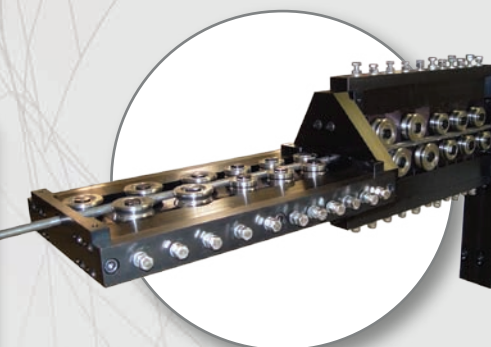
AFM-3D shown without safety barrier for display purposes.



SmartCode for Automatic Programming of frames,  
eye loops, rings & spirals



Graphic Representation of Installed Tools on Machine

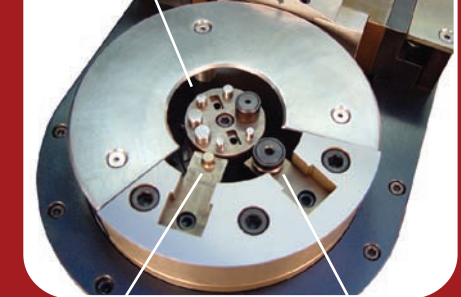


Dual Size Straightener Rollers  
for Wide Range of Wire Diameters

### TURRET HEAD Indexing Tool Changer

Replaceable  
Bending Mandrels

Dual Acting,  
Hydraulic Wire Cutter



Programmable  
Hard Bending Pin

Programmable Roller  
Bending Pin

AFM-3D SERIES

