Machine Model

Machine Model	AFM 3D8 S	AFM 3D12 S	AFM 3D13 S	AFM 3D16 S
Wire Diameter Range (Millimeters)	2mm - 8mm	*4mm - 12mm	*5mm - 13mm	*6mm - 16mm
Wire Diameter Range (Inches)	0.080"- 0.315"	*0.160"- 0.472"	*0.197"- 0.500"	*0.236"- 0.629"
Max. Wire Tensile at Max. Wire Diameter	550 N/mm²	550 N/mm²	550 N/mm²	550 N/mm²
Max. Wire Tensile at Max. Wire Diameter (kPSI)	80 kPSI	80 kPSI	80 kPSI	80 kPSI

Performance Specifications

Feeder Axis #1

	AFM 3D8 S	AFM 3D12 S	AFM 3D13 S	AFM 3D16 S
Wire Feed Resolution (Millimeters)	<0.0001mm	<0.0001mm	<0.0001mm	<0.0001mm
Wire Feed Resolution (Inches)	<0.00001"	<0.00001"	<0.00001"	<0.00001"
Max Wire Feed Speed (Meters)	152 m/min	145 m/min	138 m/min	135 m/min
Max Wire Feed Speed (Feet)	506' f/min	475' f/min	452' f/min	442' f/min

Bender Axis #2

Bender Resolution	<0.0001°	<0.0001°	<0.0001°	<0.0001°
Max Bender Speed	1800°/sec	1285°/sec	900°/sec	900°/sec
Max Bender Angle	Unlimited	Unlimited	Unlimited	Unlimited

Z-Axis #3

Z-Axis Resolution	<0.0001°	<0.0001°	<0.0001°	<0.0001°
Z-Axis Speed	720°/sec	514°/sec	514°/sec	514°/sec
Maximum Z-Axis Rotation	Unlimited	Unlimited	Unlimited	Unlimited

Turret Axis #4

Turret Axis ToolChange Time	250mSec	300mSec	300mSec	300mSec

Bender Mandrel Axis #5

Mandrel Axis Resolution	<0.0001°	<0.0001°	<0.0001°	<0.0001°
Mandrel Axis Speed	2700°/sec	1800°/sec	1800°/sec	1800°/sec
Maximum Mandrel Axis Rotation	Unlimited	Unlimited	Unlimited	Unlimited

Set-Up Time

Same Wire Diameter	2 minutes	2 minutes	2 minutes	2 minutes
Change Feeder Rollers & Bending Tools	15 minutes	15 minutes	15 minutes	15 minutes

Power Consumption, Electrical & Air Requirements

Average Power Consumption (KW/h)**	4	6	7	9
Electrical Requirement	480V, 3 phase, 50/60 Hz - all models			
Installed Power	50KVA	55KVA	77KVA	105KVA
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	3.04 x 2.13 x 2.13	3.556 x 2.2 x 2.13
Width, Depth & Height (inches)	102" x 82" x 84"	102" x 82" x 84"	120" x 84" x 84"	140" x 90" x 84"
Approx Gross weight (Kg)	4300 Kg	4700 Kg	5500 Kg	7000 Kg
Approx Gross weight (Lbs)	9460 Lbs	10340 Lbs	12125 Lbs	15400 Lbs

Versatility

Total Bending Tools (Positive & Negative)	10	10	10	10
Total Bending Mandrels	3	3	3	3

* Additional tooling required for less than lower range wire diameter
** Power Consumption Data is measured on average production parts. Actual values might vary and are part specific

Optional Equipment

AccuThread
Single End Threading Module

AccuPress
Modular Inline Press Station

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AFM 3D8 S
AFM 3D12 S
AFM 3D13 S
AFM 3D16 S

AccuForm Synchro
Performance in CNC Wire Bending

3D SYNCHRO SERIES

Synchro AFM 3D8 S

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

FORMING OUR FUTURE WITH YOURS

Automated Industrial Machinery, Inc.

ACCUFORM SYNCHRO

FEATURES & BENEFITS

- Concurrent Operations: Dual processor allows programming a part while running production
- Production Statistics for cost estimating & scheduling
- XYZ, DXF & optional Solid Modeling STEP & IGES file import
- Animation / graphic simulation allows you to see programmed moves before running production
- Remote, off-line programming with stand-alone software or through installed network card.
- Color LCD Touch screen monitor and industrial grade sealed keyboard for data entry
- Simple programming with Microsoft Windows® based operating system
- Exceptional accuracy and repeatability
- Sealed, oversize bearings for low maintenance operation
- Ultra Options for even faster feed and bending speeds
- Double acting 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 remote machine monitoring or video conferencing
- Group 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 (O.R., I.R. and distance between spirals)
- Easily accessible tooling for minimal setup and changeover time
- Hardened and precision ground tool steel moving parts for exceptional wear and tool life
- Spare I/O's for interconnection of auxiliary equipment such as robotics, threading units, & inspection devices
- Highest overall production speeds in the industry
- Network ready for "Dial-A-Service"
- Serial, Ethernet & USB Ports
- Robust safety barrier with safety interlock door included
- Unlimited rotation of Bending Arm, Turret, Bender and Mandrel Benders for maximum efficiency and reliability
- Fully automated payoff unit included: 5Hp, 2000 Kgr (4500 Lbs) capacity
- Temperature controlled electronics cabinets with washable filters
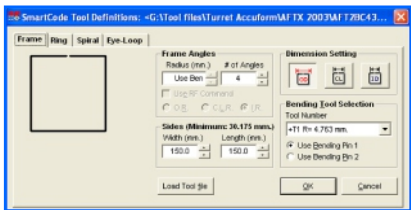- Two years Parts & Labor, limited warranty

The AccuForm Modular Series machine joins our "Synchro Technology" providing a refined bender with an expandable base. Versatility, Flexibility and Modular Frame construction provides you with an unparalleled CNC 3D Wire Former, brought to you by the pioneers in modularity of wire forming equipment.

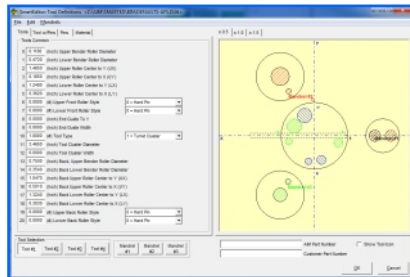### Multiple Mandrel Indexing Bending Head
All AFM 3D S Benders come with the Synchro Head bender design. The Patented Synchro Head is not only the most unique but most versatile bending head in the industry.

Synchro technology is a hybrid configuration of our Turret head coupled with three rotary satellite benders! This enables the end user to have their choice of turret forming, rotary mandrel forming or both. Press brake style bends, perfectly round eye-loops, off plane bending, programmable tool configurations, tube forming, the capabilities of the Synchro design are endless. In addition, the forming pins can be easily replaced as needed.

The multi-mandrel tool cluster holds round pins, roller tools, and sharp bend dies... all of which are user replaceable. The slide action cutter provides burr-free square cuts and is capable of a "zero length" cut-off. In addition, one of the benders can be equipped with cutting tools for smaller wires, eliminating the need to reverse the feed in order to cut.

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

Graphic Representation of Installed Tools on Machine

Expandability - Versatility
All AIM 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 Synchro machine. Stand-alone floor mounted units are available for chamfering, threading, ball-end radius and cold heading. Robotics or Multi axes pick and place units can automatically transfer formed parts to secondary machine operations.
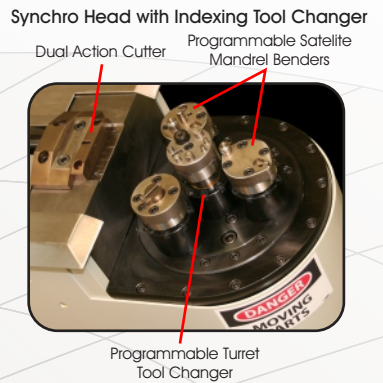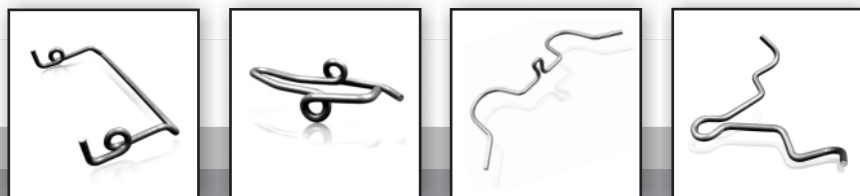
Wire Bending Made Easy
The AccuForm modular line of 2D & 3D programmable CNC steel wire benders make virtually any kind of simple or complex parts from round and profiled wire. Using AIM's SmartEditor® program, a variety of different shapes can easily be designed.

SmartCode can be used for standard shapes such as rings, polygons and spirals by simply entering the desired lengths, number of sides or diameters.
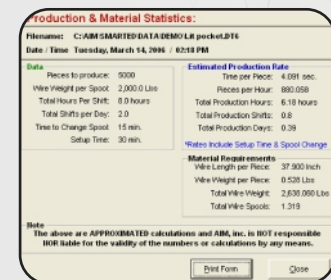
DXF files can be imported from your CAD system. Animation Simulation shows the part being formed before production begins allowing changes to be made prior to machine operation.

"Dial-a-Service" allows access to any machine worldwide via internet allowing diagnostics to be performed within minutes.
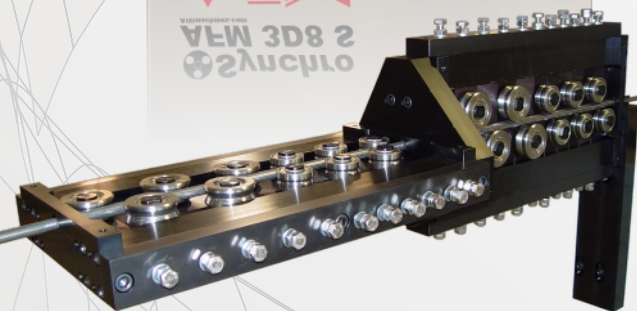
The AFM 3D S Series is backed by a two-year limited Parts and Labor Warranty, the most comprehensive in the market.

SYNCHRO

Synchro Head with Indexing Tool Changer
Dual Action Cutter
Programmable Satelite Mandrel Benders
Programmable Turret Tool Changer

Synchro AFM 3D8 S

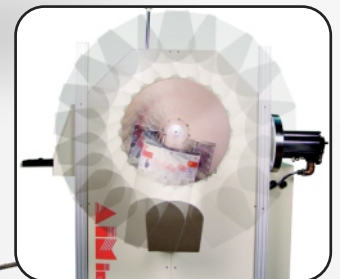AFM-3D S shown without safety barrier for display purposes.

Simple Programming Interface. SmartEditor® helps with programming. User only needs to add feed length, bend angle, radius size & tool configuration
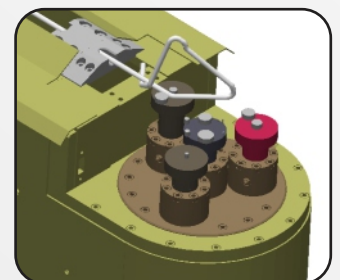

Instant Production Estimates and Material Consumption

Dual Size Straightener Rollers for Wide Range of Wire Diameters

Unlimited Rotation of Bender Arm

Production Animation With Collision Detection Makes Programming Seamless!

AIM inc®