

XMS-WF COLD WIRE FEEDER Product Specification



Cold Wire Feeders

AMET is pleased to provide the following product introduction on our stand-alone model of cold wire feeders. These wire feeders are designed to deliver filler wire into GTAW (TIG) and PAW (plasma) welding arcs. AMET has also used cold wire feeders to feed extra wire into GMAW and SAW welds.

AMET has a distinct advantage over “conventional” wire feeders and wire feed controls on the market. AMET uses DSP technology and this technology allows us to precisely verify the actual wire feed speed to the programmed value. AMET’s XMS-WF includes pulsed wire capability.

AMET offers our wire feeders in 3 models, the X-FEEDER, the Q-FEEDER, and the XMS-WF. Each model is supplied with a two or four roll Mechafin wire drive assembly, wire spool holder and spool cover. By changing out wire feed kits, the operator can feed hard or soft wires with any of these models of feeders. All models include encoder feedback for precise wire feeding.

On the XMS-WF, the basic wire positioner with 3 axis of adjustment is included. AMET optionally offers two other wire positioners from which to select. AMET offers a manual 5-axis adjustable positioner, where 4-axis can easily be adjusted during welding. AMET also offers a motorized version of 3-axis wire positioner. On our motorized version, 2 axis are motorized and include manual override adjustment of the 2-axis of adjustment.

All of our cold wire feeders include a base plate assembly. The wire drive mechanism, the motor with encoder and the wire spool with cover are fixed to this base plate to simply mounting. However, you can separate the wire drive with motor and spool holder if required by your application.

The XMS-WF is supplied with a DC servomotor with encoder feedback. The feeder includes the XM wire feed module and Universal XMS-PNDT remote hand pendant. This model can be integrated with the XM system control in future when more demanding welding projects need to be accommodated.

OPTIONAL FEATURES:

1. Wire Feed Kits
2. Advanced Wire Positioners
3. Wire Straightner – 3 roll version

Note: For synchronized pulsed wire with weld current, either a pulse signal from the power source or customer’s control is required, or the system needs to be interfaced with AMET’s T2-Pro control with optional weld current control.

Purpose/Applications:

Cold Wire Feeders are typically used for one of the four reasons:

- I. For metallurgical integrity and requirements
- II. To simply add filler wire to the weld joint, whether the joint is a “V” joint, a “T” joint, or in some cases to add reinforcement to a butt joint.
- III. For overlay and cladding projects, where dilution rates and metallurgical issues required precise weld parameter control. Hot wire feed is also advantageous for this application.
- IV. To help control the weld puddle by chilling the weld, which is especially helpful in out-of – position weld joints.

Benefits:

Our “stand-alone” wire feeders are ideally suited for GTAW and PAW applications for the following reasons:

- Slow feed requirements. Most GMAW and SAW wire feeders will not feed wire at slow enough feed rates required by GTAW and PAW applications
- Speed control is critical. Our wire feeders will feed cold wire at consistent speeds, which is critical for GTAW, and PAW applications.
- Our wire feeders use standard consumable GMAW tips.
- Pulsed Feed ability – synchronized or independent
- Our feed kits use a polymer conduit for smooth and consistent wire delivery on hard and soft wires.
- Spool cover included on all models to protect the wire from environmental contaminants
- Precision wire positioners insure consistent and accurate wire entry into the weld puddle
- Wire drive mechanism isolated from drive motor and base assembly to insure weld current and noise is not conducted through the motor and motor circuit.

These benefits help reduce consumable costs and help insure you get consistent and accurate wire feed. These factors help reduce the chance of improper welds that require costly rework and part scrap, while production rates are increased.



XMS-WF
Stand-Alone Feeder



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XMS-WF

AMET'S Stand-Alone Cold Wire Feeder uses a single DSP in the control module to monitor and correct the wire feed as required.

The XMS-WF includes the operator remote control hand pendant. This pendant allows the operator to set up, program, control and override the wire feeder from a convenient location.

The XMS-WF consists of an XM control module, loaded with wire feed software, wire drive assembly, basic wire positioner, an interconnection cable between control and slide, a hand pendant with retractable cord and the power cord.



GENERAL SPECIFICATIONS:

Wire Diameter Range:	“V” – 0.6 to 1.6 mm (.023 to .062”) “U” – 0.8 to 3.2 mm (.030 to .125”) Knurled – 1.0 to 3.2 mm (.035 to .125”)
XMS-WF Feed Rate:	1 to 500 IPM (25 to 12700 mm/min)
Wire Start Delay:	0 to 99.00 seconds
Wire Stop Delay:	0 to 99.00 seconds
Wire Retract:	0 to 1” (25 mm)
Wire Retract Speed:	Programmable
Wire Spool Holder:	12” / 30 lbs (300 mm/13.5 kg) with 2” (50 mm) hole
Wire Spool Cover:	Included on all models
Wire Speed Override:	Available on all models
Override % Limits:	Programmable
Closed-loop:	via encoder feedback
Jog Forward/Reverse:	Available on all models
Pulse rate:	0 to 5 pulses per second

Control Dimensions & Mounting Specs:

XMS-WF Control: **Please contact AMET for drawing on module and hand pendant**

Please contact AMET if additional dimensional information on the above drive assembly is required.

Cable Length – Wire Drive to Control – 10 ft (3 m)

Cable Length – Hand Pendant to Control, retractable – 10ft (3M)

Power Requirements: 120/220, 50/60 hz, 1 ph, 500 watt

Wire Drive Specifications:

As standard, we set up the Mechafin wire drive with a flat pressure roll on top with a “V” or “U” groove shaped wheel on the bottom. This reduces the time to change from one wire diameter to another, as only one set of drive rolls has to be changed.

The XMS-WF uses a DC Servo motor with encoder feedback to drive the Mechafin drive assembly.

Four Roll XM Wire Feeder .023” - .062” Wire

