

Product Data Sheet

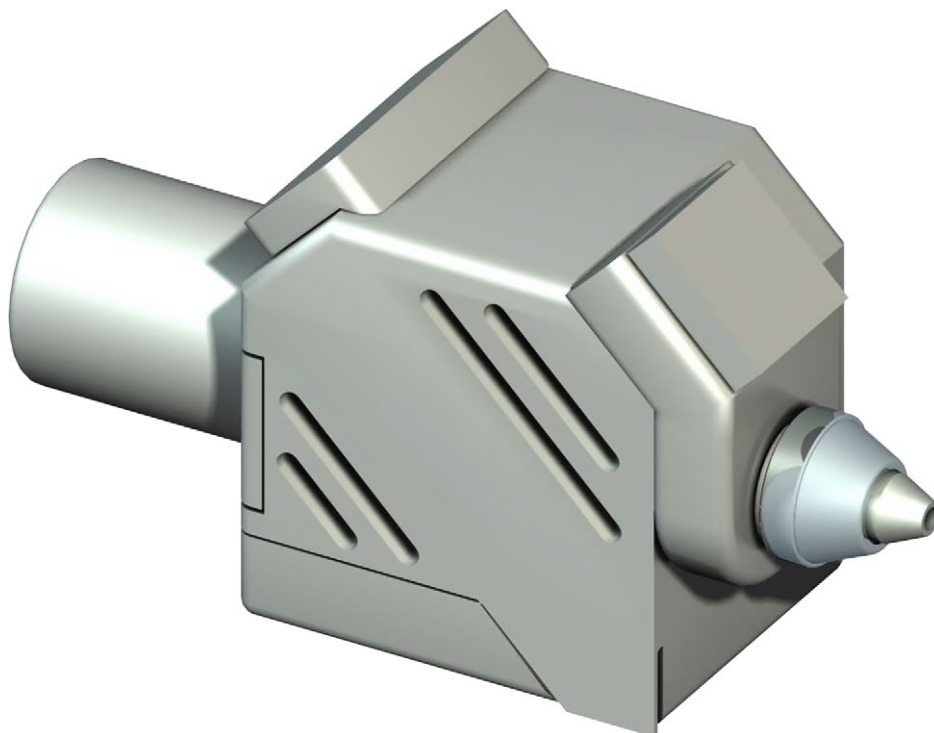
Metco EGD-K Combustion Wire Spray Gun

The Metco™ EGD-K gun for Combustion Wire Spray is a heavy-duty, machine-mount spray gun designed for high-volume production on automated spray systems. The Metco EGD-K employs a closed-loop wire speed sensor that allows the spray system controller to monitor and adjust the wire speed automatically for optimum coating consistency.

When a heavy-duty gun is required for high-volume or continuous combustion wire flame spray production, the Metco EGD-K gun provides superior performance results. It is built for automated, mass production environments, having been designed to spray continuously for long periods while maintaining constant coating quality. When maintenance is required, the Metco EGD-K can be serviced quickly and simply, returning to production with minimal downtime.

Besides the inherent robustness of the Metco EGD-K combustion wire gun, it is also economical to operate. Oerlikon Metco know-how in gas head and wire feed design results in a spray gun with low gas consumption and highly efficient operation. Coupled with the ease of operation and simplified maintenance requirements, the Metco EGD-K combustion wire spray gun is a proven performer for any production environment.

Combustion wire spray systems using a Metco EGD-K gun are an excellent choice for mass production coatings for synchronizer rings, piston rings, tube mill applications, shifter forks, sliding wear applications requiring self-lubricating properties and high-volume corrosion coating applications.



Metco EGD-K Combustion Wire Spray Gun

1 General Description

Metco EGD-K wire guns come equipped to spray 3.175 mm (1/8 in) and 4.76 mm (3/16 in) combustion wire materials.

Metco EGD-K guns can be configured to spray the full range of combustion wire materials, and are supplied ready to spray the harder wire materials. Conversion to coating applications employing softer wires, such as pure aluminum, pure copper, babbitt, tin and zinc based materials, is accomplished quickly and easily with an optional “high speed” package.

The Metco EGD-K gun is designed for use with automated spray systems and closed-loop gas control. In addition, the wire speed sensor allows the controller to monitor and adjust the wire speed. The controller can also start and stop the wire instantaneously. An ignition device is required for the Metco EGD-K, available as an additional purchase (see Section 3), is mounted on the gun for automated lighting and senses that the gun has lit.

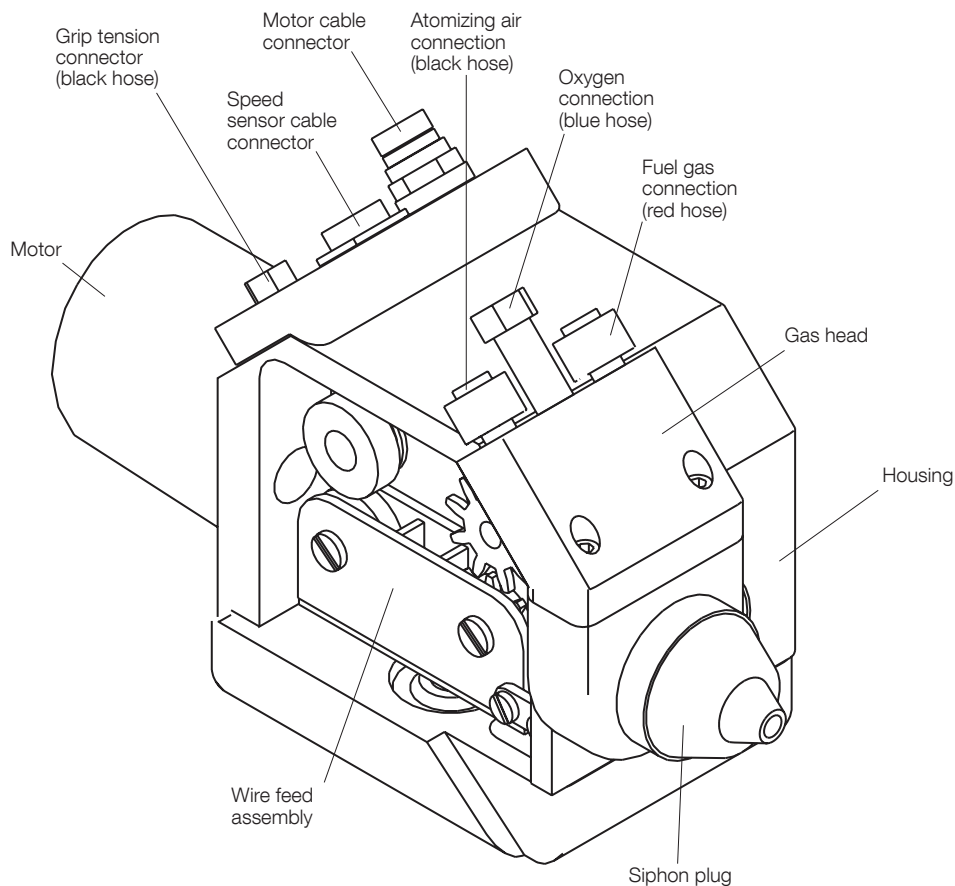
The durable housing on the Metco EGD-K gun is sealed to prevent contamination from the production environment,

such as dust, grease and oil, assuring trouble-free operation. The gas head, which incorporates Oerlikon Metco’s unique siphon plug design, is built for extended service life and is highly resistant to backfire. The powerful wire drive system, with its robust variable speed motor and transmission, delivers constant and smooth feed of the wire material throughout coating application.

All Metco EGD-K series guns are factory-configured for acetylene as the fuel gas. However, the Metco EGD-K series universal gas head design can be adapted to use other fuel gases. Customers can choose from a variety of fuel gases, including hydrogen, acetylene, propane, natural gas, MAPP or MPS using available optional gun hardware.

The Metco EGD-K spray gun is CE-conformant.

Metco EGD-K combustion wire spray guns should always be used with Oerlikon Metco controllers. Oerlikon Metco offers a large portfolio of wire materials optimized for the combustion wire spray process. Use of these materials will provide the best results.



Metco EGD-K – Main Parts Overview

2 Features and Benefits

- Heavy duty, rugged design: Built for production environments where trouble-free operation is a must
- Built in wire speed sensor communicates directly with the spray controller
- Simple operation: Requires minimal operator training
- Flexible wire choices: Can be configured for use with hard or soft wires in a variety of diameters
- Flexible fuel gas choices: Suits plant operational requirements and economics
- Extra-sturdy tool post: Ensures the gun will remain in its set position
- Unique universal gas head: Produces high spray rates with low gas consumption and is resistant to backfire
- O-rings between the nozzle and the siphon plug ensures safe and reliable operation and simplifies gun maintenance
- Precision wire feed control: Provides precise control of wire feed rate and wire start and stop
- Dependable wire drive: Regardless of fluctuations in air pressure and wire drag for constant, uniform feed of coating material
- Long gear life: Designed with large, rugged gears coupled with circulating gear lubricant pump that rarely needs servicing
- Simple maintenance and hardware changeover: The nozzle, siphon plug and front wire guide assemblies can be easily removed and replaced as a complete unit

3 Accessories and Options

Oerlikon Metco offers a variety of options that allow configuration of a Metco EGD-K gun for use in a wide number of coating applications and to suit specific production requirements.

These include drive rolls and gears, hoses, nozzles, siphon plugs and wire guides. Air caps are available to achieve various spray patterns and angles.

Extension Modules:

Extension modules for Metco EGD-K gun permit coating of interior bore diameters and surfaces.

They are available in four lengths:

Metco 5XT-6:	152.5 mm	6 in
Metco 3XT-1:	305 mm	1 ft
Metco 3XT-2:	610 mm	2 ft
Metco 3XT-3:	915 mm	3 ft

Please refer to the Metco 5XT / Metco 3XT Extension Module Product Data Sheet for additional information.

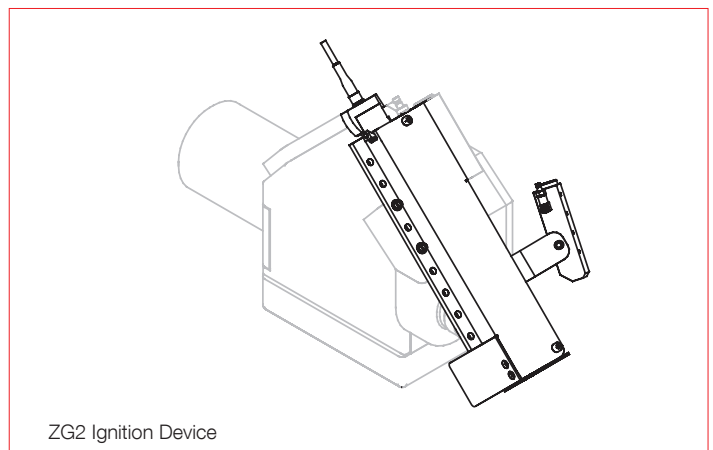
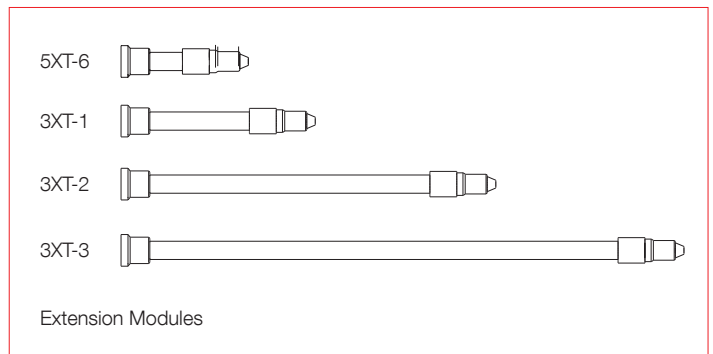
ZG2 Ignition Device

The ZG2 Ignition Device attaches to the Metco EGD-K gun housing and serves to both ignite the gun and senses that the gun is lit. Ignition is initiated from the thermal spray controller, which in turn receives feedback from the flame sensor that the gun is ready for operation.

The ZG2 is also compatible with the extension modules for the Metco EGD-K gun.

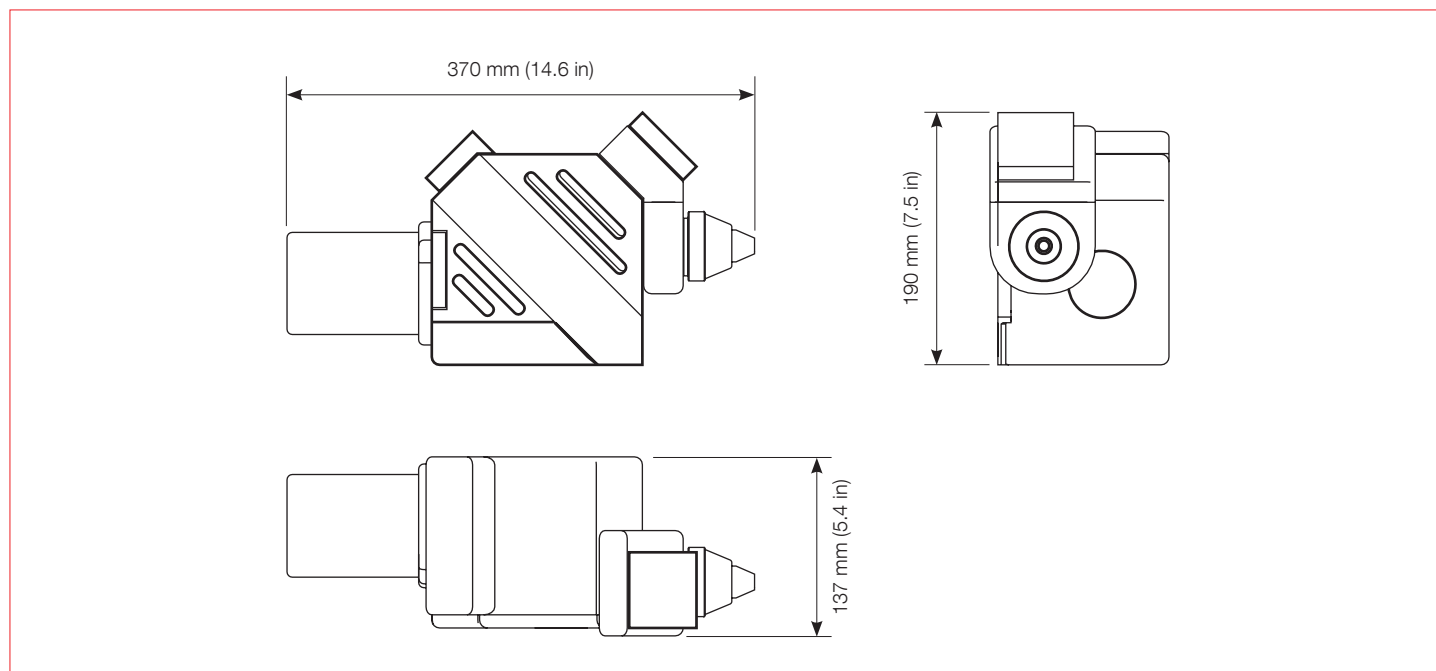
The ZG2 Ignition Device is required to operate the Metco EGD-K gun in an automated spray system.

For a complete list of optional parts and spare parts, please refer to the parts lists section of the reference manual.



4 Technical Data

4.1 Dimensions



4.2 Specifications

Coating Materials

Wire sizes	3.175 or 4.76 mm	1/8 in or 3/16 in
Wire composition	all Oerlikon Metco hard and soft combustion wires	

Weight

Approximate	without hoses and cables	8.5 kg	18.7 lb
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Electric Supply

Voltage	220 VAC
Frequency	50 Hz

Process gas working pressure

Acetylene	1.5 bar	21.75 psi
Oxygen	5 bar	72.5 psi
Compressed air	dry and oil free 7.5 bar	108.8 psi

Protection

Ingress speed sensor	IP 65 (DIN 40050)
Ingress motor	IP 54 (DIN 40050)

Information is subject to change without prior notice.