

Product Data Sheet

Metco SH and SHA Safety Handle Assembly for Hand-Held Spray Guns

A choice of universal, CE-conformant accessory kits that enhance safety for manual spray operations. Either the SH or SHA Assembly is easily installed on a Metco hand-held powder combustion or HVOF thermal spray gun and integrated into the thermal spray system.

Metco™'s SH and SHA Safety Handle Assemblies are the only accessories of their kind available on the market today for hand-held operation. When used with any hand-held Metco powder combustion or HVOF thermal spray gun, a properly installed SH or SHA assembly will instantly shut off the flow of fuel and oxygen gases when the handle is released by the operator.

Even the most skilled and safety-conscious operator using manual thermal spray equipment can be faced with a situation where a spray gun is accidentally dropped. The use of the SH or SHA Assembly provides an additional level of safety and eliminates hazards of this type.

Oerlikon Metco recommends that all operators of hand-held thermal spray guns strongly consider the use of this accessory.



VB Valve Box Assembly

1 General Description

The Safety Handle Assembly (SHA) replaces the existing handle provided on Metco powder combustion or HVOF hand-held spray guns. It incorporates a pneumatic safety switch that is held in the closed position during spray operation. Should the operator release the safety handle for any reason, whether inadvertently or deliberately, the safety switch is released, automatically cutting off the gas supply to the spray gun and instantly shutting off the flame.

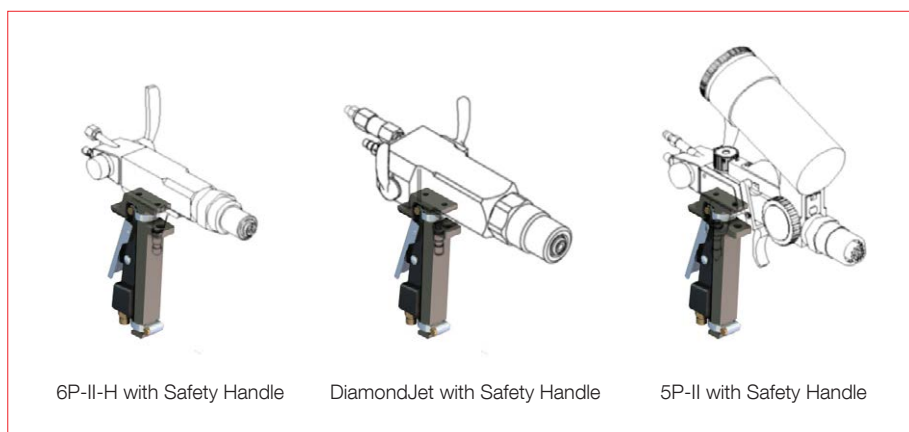
1.1 SHA Safety Handle Assembly (Complete)

The SHA consists of two major components: the Safety Handle (SH) and the Valve Box Assembly (VB) equipped with a dual slamshut valve mechanism that operates with compressed air.

The dual slamshut valve is a normally-closed, pneumatically actuated dual gas valve. When air pressure is applied to the actuator by closing the pneumatic safety switch on the handle, the valves are opened allowing oxygen and fuel gas to flow to the spray gun. When the safety switch is released, air is cut off and the gas valves close, extinguishing the flame.

1.2 SH Safety Handle Assembly

Alternatively, the SH Safety Handle can be purchased separately for integration into a customer-designed process gas shutoff solution.



1.3 Included Items

The follow items are included with the SHA and SH Safety Handle Assemblies:

Item	Item No.	SHA Safety Handle Assembly Complete (Item No. 1065886)	SH Safety Handle Assembly (Item No. 1051558)
SH Safety Handle with Pneumatic Safety Switch	1051558	●	●
VB Valve Box Assembly	1051554	●	●
Twin Line Air Hose Assembly	17 m 55 ft 1051546	●	●
3M820 Air Hose Assembly	9.7 m 32 ft 1000726	●	●
Oxygen / Fuel Supply Hose	See table below	●	●
CE Declaration of Incorporation, Annex II, B.		●	●
Product Manual 42839		●	●

● Included

● Not included. Customer must supply their own, functional solution

● Not included but required

1.4 Oxygen/Fuel Supply Hose

All Safety Handle Assembly installations require an additional Oxygen/Fuel Supply Hose to connect from the gas regulator to the VB Valve Box Assembly. Customers should choose from the following:

Item	Item No.	Process	Length	CE-Conformance
8HEX	1001581	Combustion Powder	1.2 m 4 ft	●
8H	1032414	Combustion Powder	1.2 m 4 ft	●
9HEX	1001617	Combustion Powder	4.6 m 15 ft	●
9H	1020786	Combustion Powder	4.6 m 15 ft	●
16HEX	1031439	HVOF	3.1 m 10 ft	●
16H	1031438	HVOF	3.1 m 10 ft	●

Note: additional hardware may be required. See Special Considerations section, 1.5, below

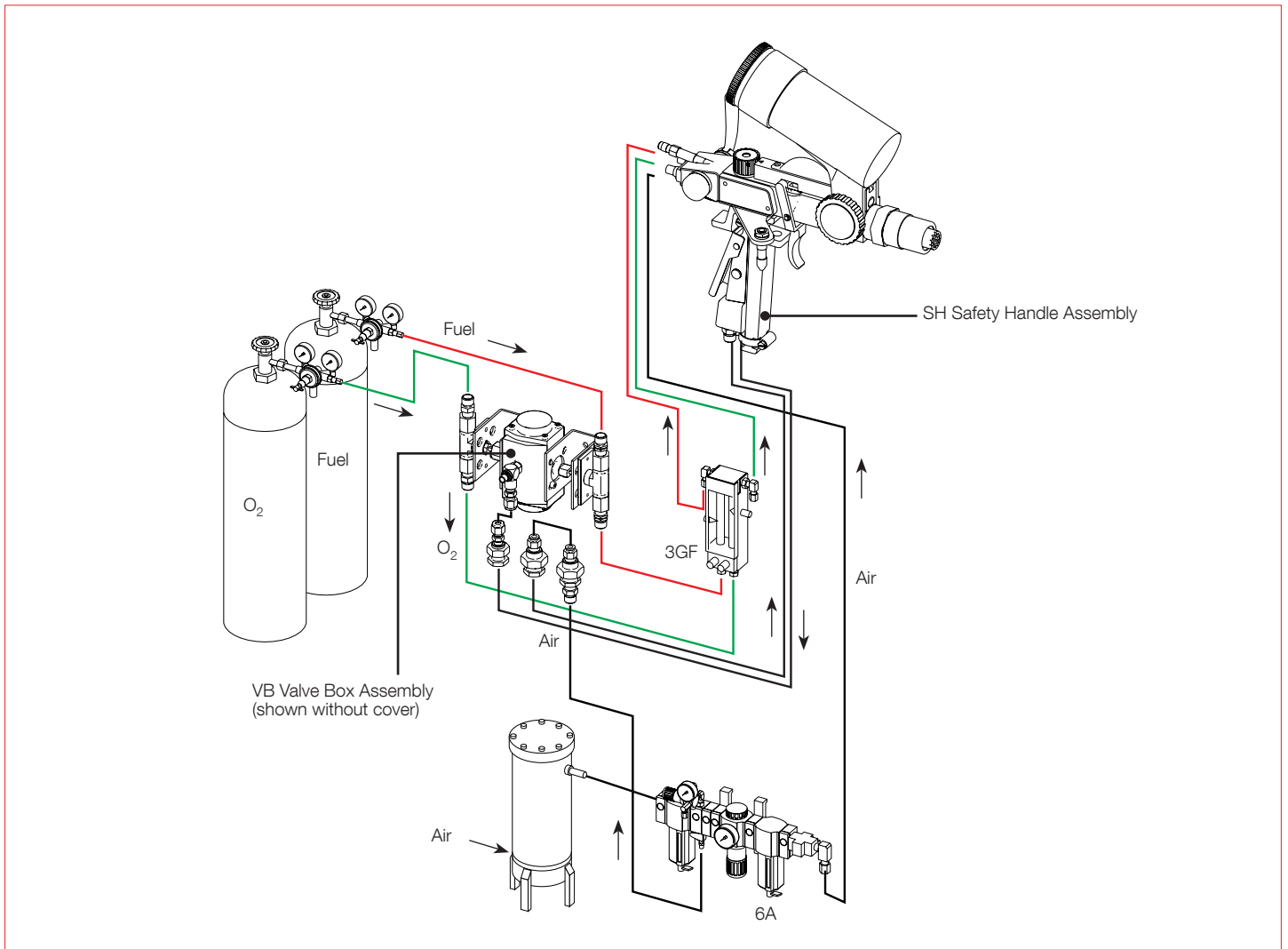
1.5 Special Considerations

When installed on a Metco™ 6P-II-H or DiamondJet™ spray gun, the powder on/off functionality is no longer available on the handle. Powder feed on/off functionality can be accomplished using one of the following 2 options:

To install the Safety Handle on the Metco™ 5P-II spray gun, the use of a SHA89764 (Item No. 1058330) adapter plate is required. This item is not included and must be ordered separately.

- Remote Control Assembly: This includes control of powder feed on/off, carrier gas on/off and E-Stop.
 - For CE-Conformance: Order PKG58423 (Item No. 1050357)
 - For non-CE: Order PKG54915 (Item No. 1050160)
 - Original Handle Assembly: Connect the MPHE or DJ125 handle directly to the powder feeder. Note that adapter cable 5MPE58365 (Item No. 1049831) may be required if connecting an older gun to a 5MPE or 5MPE-HP Powder Feeder.

1.6 Typical Installation (used for an example)



2 Benefits

Effective:

- Enhances safety to a new level, when operating hand-held combustion powder or HVOF thermal spray guns.
- Simply and easily replaces existing handle on hand-held combustion powder or HVOF spray guns.
- Easily integrated into existing manually operated thermal spray equipment.
- Provides CE-conformance for hand-held spray guns

Environmental:

- Enhances operator and facility safety.

Efficient:

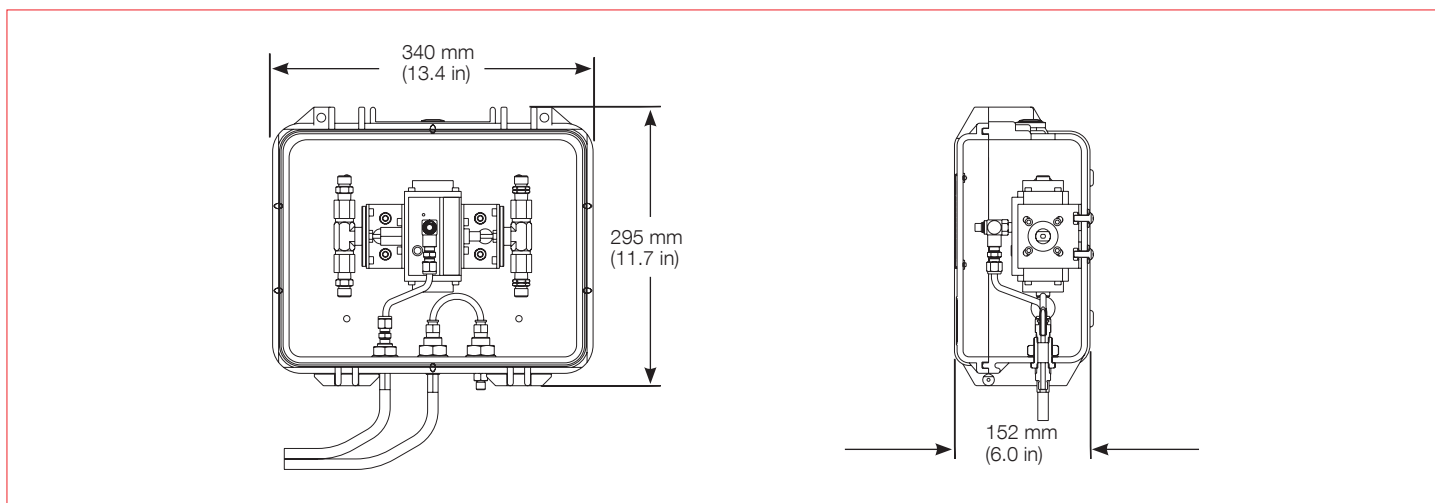
- Shuts gases off and extinguishes flame quickly, thereby preventing potential operator injury.
- Simple and easy to use, with little or no maintenance required.

Economical:

- Eliminates potentially expensive injuries.
- Cost-effective SH handle option, for customers with their own shut off valve option.

3 Technical Data

3.1 Dimensions



3.2 Specifications

Operating Conditions

Temperature	min.	-21 °C	-5 °F
	max.	+41 °C	+105 °F
Air Pressure		5.2 bar	75 psi
Shutoff Time	max.	4 s	

Weight

Valve box	excluding hoses	4.2 kg	9.25 lb
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Compatibility

Combustion powder		5P-II, 6P-II series guns	
HVOF		All hand-held DiamondJet series guns	

Information is subject to change without prior notice.