Wire Guide module Assembly & Maintenance

Tools Required	WGM-1 Kit Contents	End Cap Kit Contents
(2) 8mm wrenches*	(1) 45° module	(1) “A” style end cap with threaded insert
(1) Conduit Cutter* (pt. #EC-CUTTER)	(2) Intermediate fasteners	(1) “B” style end cap with threaded insert
(1) Countersink Tool* (pt. #EC-DB)	(1) Intermediate pilot pin	(4) End cap fasteners

Assembly of 90°, 135° & 180° Guide Modules

Step 1: Connecting Modules (for 90°, 135° or 180° turn)

Insert intermediate pin in one end of module until it firmly seats (Step 1A). Connect the two modules using the intermediate pin and ears to align the modules together (Step 1-B). Use the intermediate fasteners to lock modules together. Continue connecting modules until you have the proper bend radius. If only a 45° turn is required (one module), or if using a WGM-M-1 Mini 90°, simply connect the end caps.

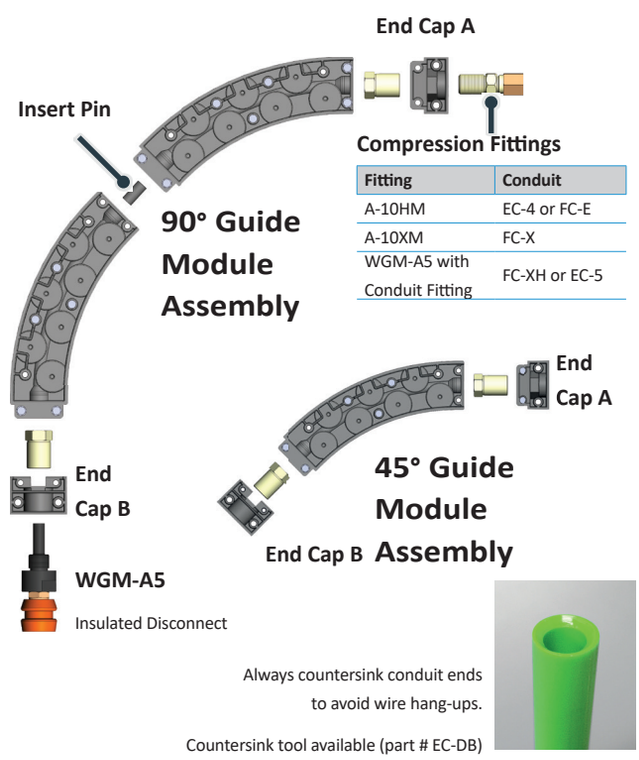
Step 2: Connecting End Caps

Connect the appropriate end cap as shown. Insert and tighten the end cap fasteners to lock in place. Repeat with the other end cap. Insert pins for the end caps are only required when using the A-10HM or A-10XM fitting (caps will be included with fitting).

Step 3: Adding End Cap Fittings & Connecting Conduit

Pass Through Compression Fitting: Thread the pass-through compression fitting into the appropriate end cap. Debur and countersink the conduit out to the conduit edge (a countersink tool for polymer conduit (part # EC-DB) is available from Wire Wizard). If you are using EC-4 polymer conduit, you may push the conduit directly into the module, however be sure to countersink the ends or wire may not feed properly. Push the conduit through the compression nut until the conduit stops at the inlet inside the module. Tighten compression nut. Doing so will pull the conduit to the face of the end cap pin without crushing it.
WGM-A5 Quick Disconnect Option: Thread quick disconnect into the appropriate end cap and attach conduit.

Guide Module® Assembly



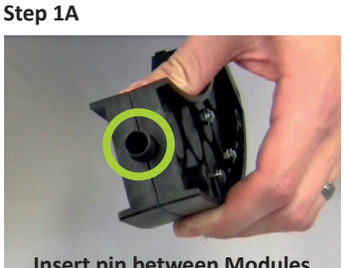
Compression Fittings

Fitting	Conduit
A-10HM	EC-4 or FC-E
A-10XM	FC-X
WGM-A5 with Conduit Fitting	FC-XH or EC-5

Always countersink conduit ends to avoid wire hang-ups.

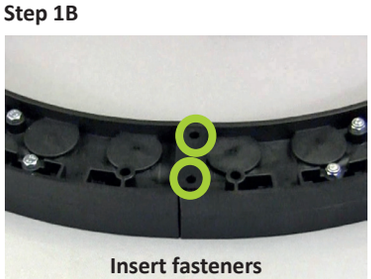
Countersink tool available (part # EC-DB)

Step 1A



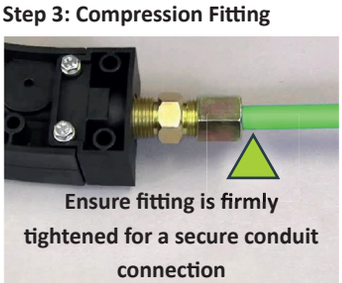
Insert pin between Modules

Step 1B



Insert fasteners

Step 3: Compression Fitting



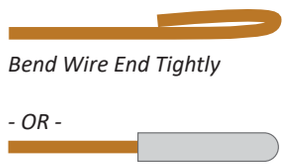
Ensure fitting is firmly tightened for a secure conduit connection

Step 4: Quick Disconnect

Part # WGM-A5

Feeding wire

It is usually necessary to round over the wire or use a wire end cap upon initial feeding (Fig. 1).
This will prevent hang-ups as well as prevent the wire from gouging the conduit.
Wire end caps are required for cored wires. End caps are available from Wire Wizard.



Bend Wire End Tightly

- OR -

Use Crimped Wire End Cap

Figure 1

Maintenance

Wire Guide Modules should be cleaned periodically. Weld wire can deposit industrial contaminants such as dirt and dust as well as drawing compounds from the wire package onto the Wire Guide Module track and rollers. Follow these steps to clean the Guide Module:

Step 1

Take note of the wire path through the module. The module should be re-installed in the position it was removed from. Using 8 mm wrenches:

- Remove end cap fasteners
- Remove the intermediate fasteners if applicable
- Remove the 3 body fasteners

Step 2

The Guide Module will now pull apart (Fig. 2). Remove the rollers and clean the wire track and rollers with a dry rag. You may blast the interior with compressed air to remove any further dust and debris. Do not use solvents inside modules.

Step 3

Reassemble the module making sure any intermediate pilot pins are correctly installed between modules, as shown on page 1.

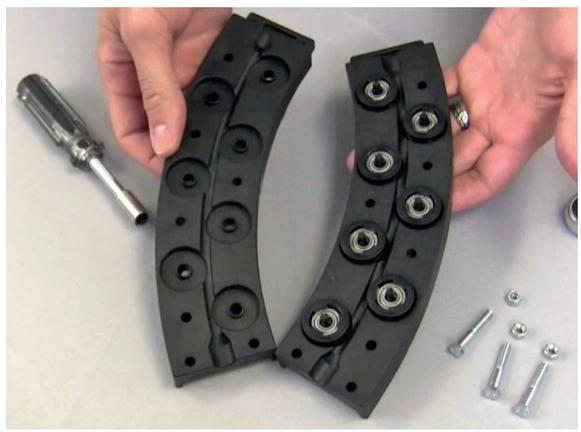
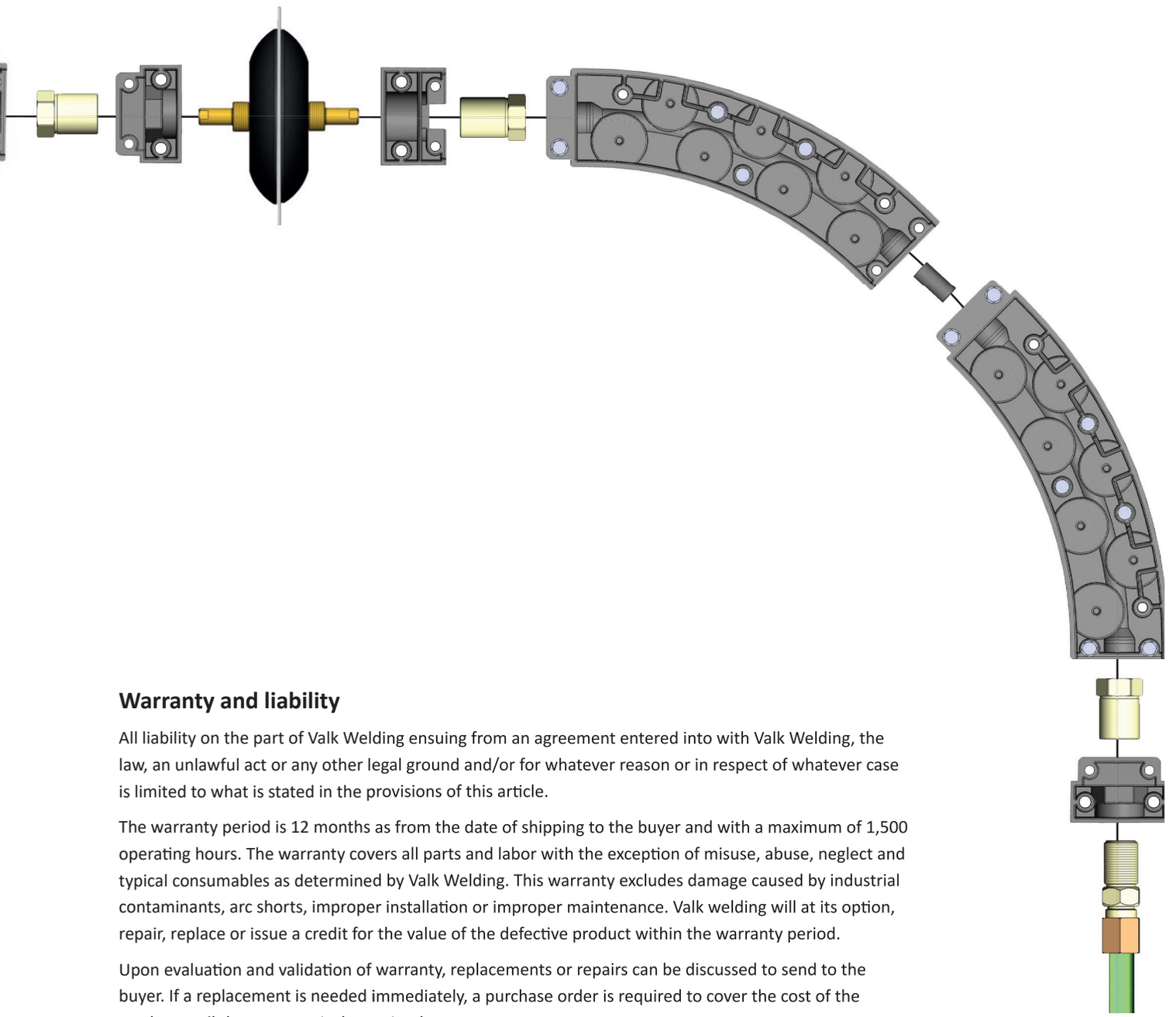


Figure 2
Disassembled Guide Module and Rollers.
Note: WGM-1-S Modules will have steel rollers

Troubleshooting

Problem	Potential Cause	Solution
Wire is stuck in module	Intermediate pilot pin not installed between modules	Disassemble joined modules and verify pin has been installed
	Conduit not properly countersunk or deburred	Remove conduit and countersink to conduit edge
	Wire not rounded over	Round over the wire or use wire end cap and try feeding again
	Wire has shorted out and may be melted into drive rolls	Insulate all fittings and Modules from current path, replace damaged Modules
Wire still pulls hard or will not feed at all	The conduit may be crushed causing drag inside the end cap	Remove the conduit and check the end to be sure the conduit was not crushed upon installation
	Conduit is not straight enough	Straighten the conduit by removing excess slack or supporting the conduit
	Wire is tangled inside the drum	Untangle wire and consult wire manufacturer
	Guide Module drive rolls are worn or grooved	Replace drive rolls or Modules. If drive rolls are wearing out prematurely, replace with steel drive rolls or use WGM-1-S heavy duty Modules



Warranty and liability

All liability on the part of Valk Welding ensuing from an agreement entered into with Valk Welding, the law, an unlawful act or any other legal ground and/or for whatever reason or in respect of whatever case is limited to what is stated in the provisions of this article.

The warranty period is 12 months as from the date of shipping to the buyer and with a maximum of 1,500 operating hours. The warranty covers all parts and labor with the exception of misuse, abuse, neglect and typical consumables as determined by Valk Welding. This warranty excludes damage caused by industrial contaminants, arc shorts, improper installation or improper maintenance. Valk welding will at its option, repair, replace or issue a credit for the value of the defective product within the warranty period.

Upon evaluation and validation of warranty, replacements or repairs can be discussed to send to the buyer. If a replacement is needed immediately, a purchase order is required to cover the cost of the product until the warranty is determined.

Except in the event of intent or wilful recklessness on the part of Valk Welding, all liability on the part of Valk Welding for damage, whether direct, indirect or otherwise, and regardless of whether it is based on the contract entered into with Valk Welding, the law, an unlawful act or any other legal ground and/or for whatever reason or in respect of whatever case shall be excluded.