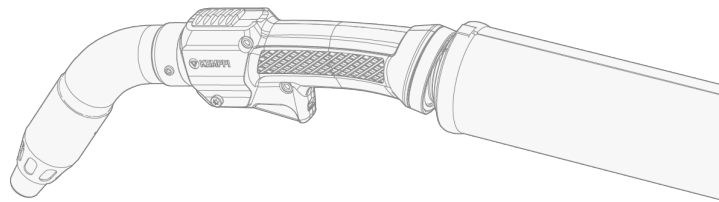


Flexlite GF



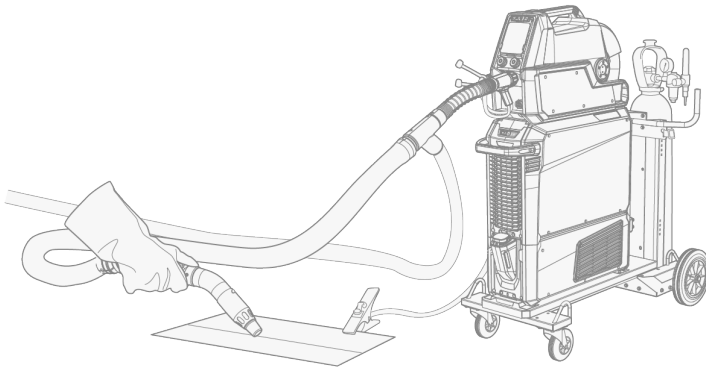
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1. GENERAL

These instructions describe the use of Kemppi's Flexlite GF MIG fume extraction welding guns. Flexlite GF welding guns capture welding fumes at the arc, cleaning the welder's breathing zone. Flexlite GF range covers both water-cooled and gas-cooled models for MIG welding.

Fume extraction guns are used in conjunction with a fume extraction unit. The Flexlite GF welding guns are compatible with fume extraction units of most major manufacturers. For more information, refer to the fume extraction unit manufacturer's documentation.




Important notes

Read the instructions through carefully. For your own safety, and that of your working environment, pay particular attention to the safety instructions delivered with the equipment.

Items in the manual that require particular attention in order to minimize damage and harm are indicated with the below symbols. Read these sections carefully and follow their instructions.

 *Note: Gives the user a useful piece of information.*

 *Caution: Describes a situation that may result in damage to the equipment or system.*

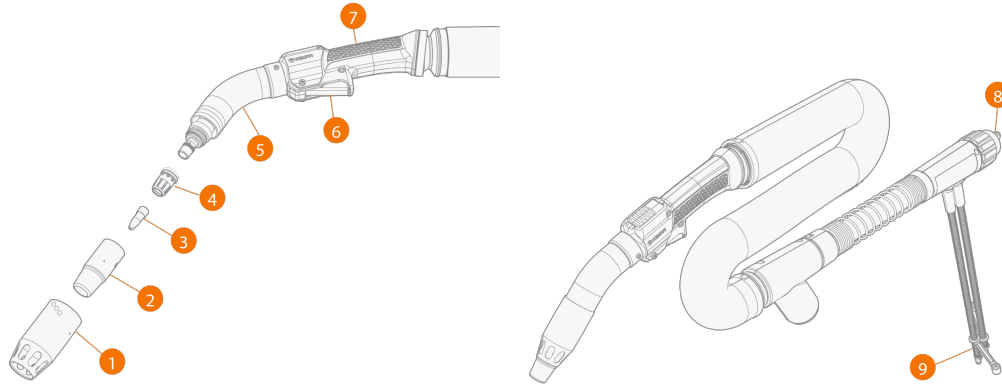
 *Warning: Describes a potentially dangerous situation. If not avoided, it will result in personal damage or fatal injury.*

DISCLAIMER

While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions. Kemppi reserves the right to change the specification of the product described at any time without prior notice. Do not copy, record, reproduce or transmit the contents of this guide without prior permission from Kemppi.

2. ABOUT EQUIPMENT

The Flexlite GF MIG welding gun equipment consists of:



 *The exact visual details may be different between different Flexlite GF models.*

1. Vacuum nozzle
2. Gas nozzle
3. Contact tip
4. Contact tip adapter / gas diffuser
5. Gun neck
6. Trigger switch
7. Handle
8. Gun connector
9. Coolant inlet and outlet hose connectors
>> With water-cooled welding guns only.

EQUIPMENT IDENTIFICATION

Quick Response (QR) code

Device-related information or a web link to such information may be found in the form of a QR code on the device. The code can be read, for example, with a mobile device camera and a QR code application.

3. INSTALLATION



Ensure that the welding equipment is not connected to the mains or that the welding gun is not connected to the welding machine until the installation is complete.



Protect the equipment from rain and direct sunshine.

"Assembling gun" on the next page

"Connecting gun" on page 7

"Installing and replacing wire liner" on page 9

"Installing and removing grip handle (optional)" on page 15

"Replacing and adjusting vacuum nozzle" on page 16

"Replacing vacuum hose cover" on page 17

Before installation and use

Ensure compliance with your local and national safety requirements regarding the installation and use of high voltage units.

Check the contents of the packages and make sure the parts are not damaged.

3.1 Assembling gun

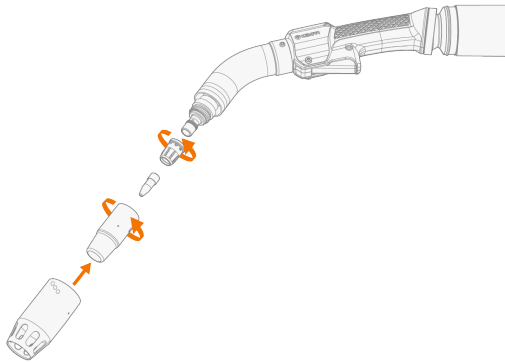
 For component selection, refer to the product catalogue at Kemppi.com.

Tools needed:






8mm

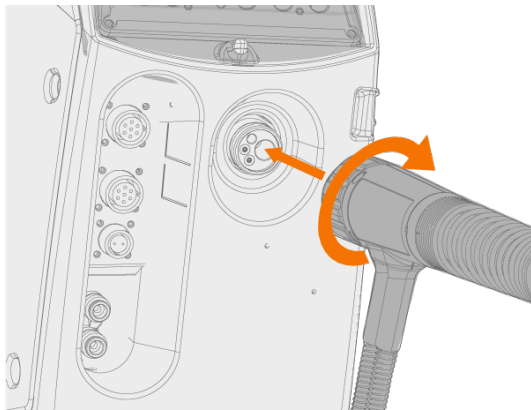
1. Attach the contact tip adapter and hand-tighten it firmly in place. It is important to tighten the adapter properly to enable a tight connection of the contact tip to the gun.
2. Attach the contact tip and secure it with the 8 mm spanner.
3. Attach the gas nozzle and hand-tighten it firmly in place.
4. Attach the vacuum nozzle so that the locking pin snaps into one of the three holes. The holes are at different points for adjusting the vacuum nozzle lengthwise.



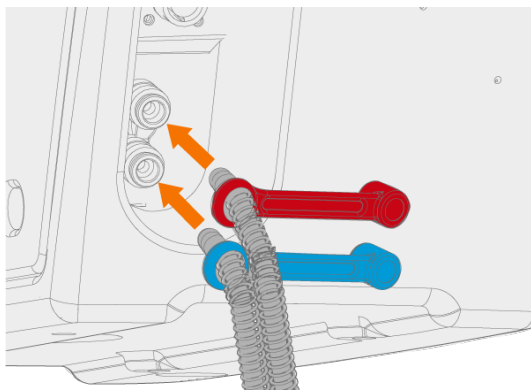
3.2 Connecting gun


-  *Hand-tighten the gun connectors. Loose connectors may overheat, create contact disturbances, mechanical damage and water or gas leakage.*
-  *For connecting the gun (and applicable extension parts), refer also to your welding equipment's instructions.*
-  *If not already preinstalled, the wire liner must be installed before connecting the gun. Refer to "Installing and replacing wire liner" on page 9 for instructions.*

1. Connect the gun to your welding equipment. Secure the connector in place by turning the collar clockwise.

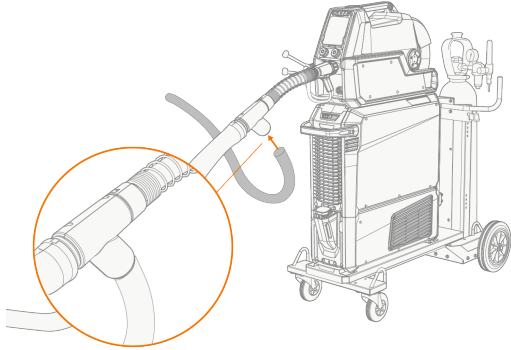


2. Water-cooled models only: Connect the coolant inlet and outlet hoses to your welding equipment. Note that the connectors are color-coded.



-  *Make sure to connect the coolant hoses to the correct hose connectors. If the connections cross, the welding gun may overheat.*

3. Connect the gun's vacuum hose to the hose connected to the fume extraction unit. If necessary, secure the connection with tape.



3.3 Installing and replacing wire liner

The Flexlite GF MIG welding gun cable packs are delivered with the wire liner preinstalled. Refer to this section when the wire liner needs to be replaced.

The wire liner is a consumable part, which needs to be changed if worn and when the filler wire material changes.

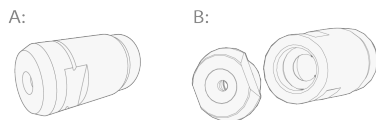
For replacing the steel wire liner, refer to "Replacing steel wire liner" below.

For replacing the DL Chili wire liner, refer to "Replacing DL Chili wire liner" on page 12.

 If you change the filler wire to a different diameter or material, change also the feed rolls accordingly.

 The filler wire must be removed before the wire liner replacement.

This replacement instruction applies to wire liners with a joint end cap and sleeve nut assembly (A). For replacing a wire liner using a separate end cap and sleeve nut assembly (B), refer to the instructions [here \(pdf\)](#). Always read the instructions delivered with the replacement wire liner as well.



3.3.1 Replacing steel wire liner

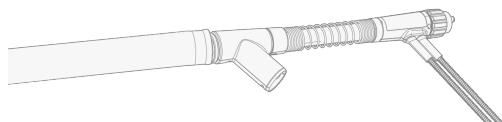
Tools needed:



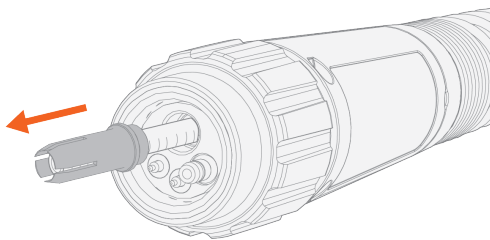
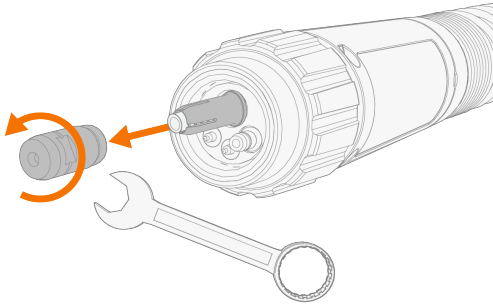
Removing and inserting wire liner

The method is the same for both gas- and water-cooled welding guns.

1. Straighten the welding gun cable pack.

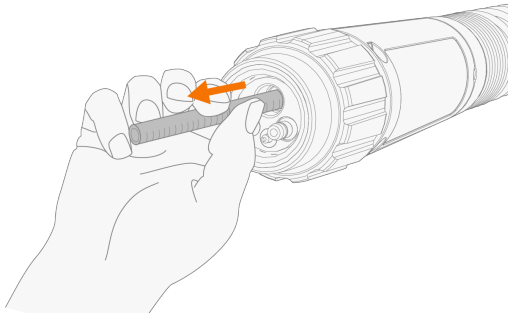


2. At the wire feeder end of the cable, remove the wire liner's sleeve nut and retainer cone.



3. Remove the old wire liner from the cable hose.

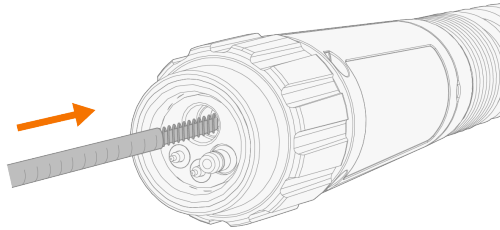
 *If you still plan to use the same wire liner later, make sure not to damage the wire liner at this stage.*



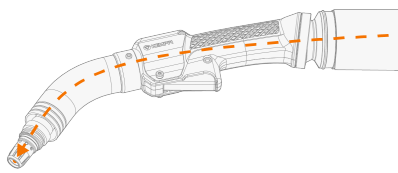
4. Feed the new wire liner into the cable hose until it stops at the gun neck end.

 *The standard steel wire liner includes a stripped steel spiral section(*) at its front end. This section goes in first.*





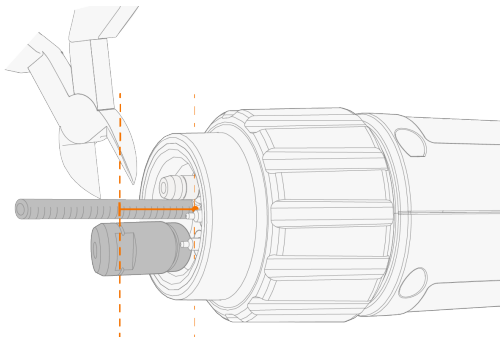
- i** To ensure that the wire liner is in the correct position, temporarily remove the welding gun contact tip. For more information on the contact tip, refer to "About equipment" on page 4 and "Assembling gun" on page 6.



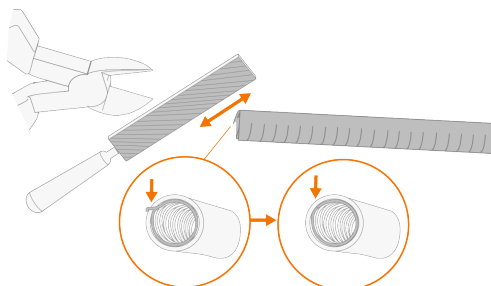
Installing sleeve assembly and cutting wire liner

The method is the same for both gas- and water-cooled welding guns.

1. Insert the sleeve nut next to the wire liner for measure.
2. Using side cutting pliers, cut the wire liner flush with groove in the sleeve nut end.

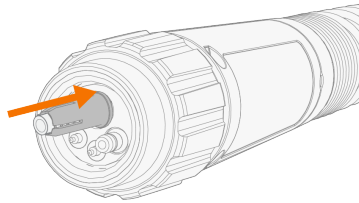


3. File the end of the liner.

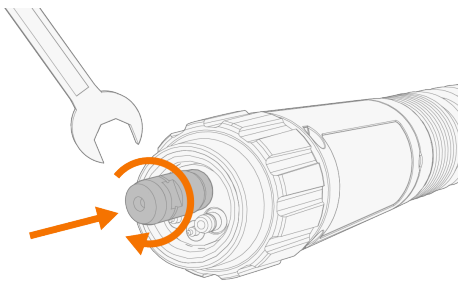


 Don't leave any rough, inward edges that could potentially damage the filler wire.

4. Insert the retainer cone onto the wire liner and push it in place.



5. Place the sleeve nut on the wire liner and secure it in place. Tighten to 12 Nm torque.



3.3.2 Replacing DL Chili wire liner

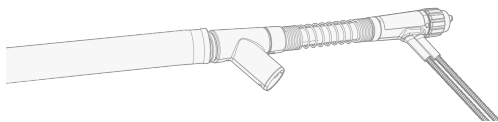
Tools needed:



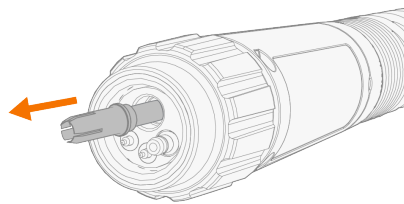
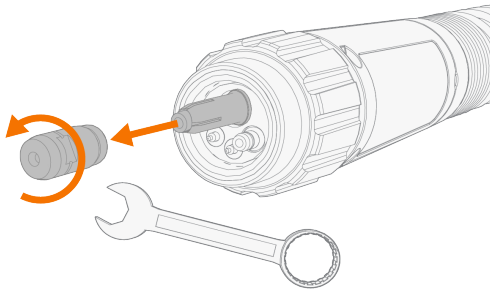
Removing and inserting wire liner

The method is the same for both gas- and water-cooled welding guns.

1. Straighten the welding gun cable pack.

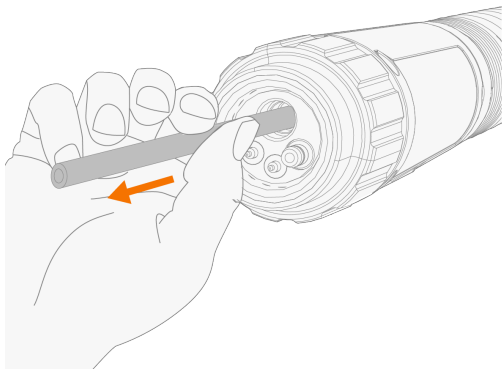


2. At the wire feeder end of the cable, remove the wire liner's sleeve nut and retainer cone.




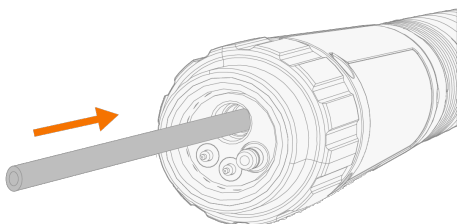
3. Remove the old wire liner from the cable hose.


 *If you still plan to use the same wire liner later, make sure not to damage the wire liner at this stage.*

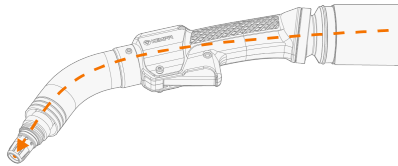


4. Feed the new wire liner into the cable hose until it stops at the gun neck end.

 *The standard DL Chili wire liner includes a short metal spiral section at its front end. This metal spiral end goes in first.*



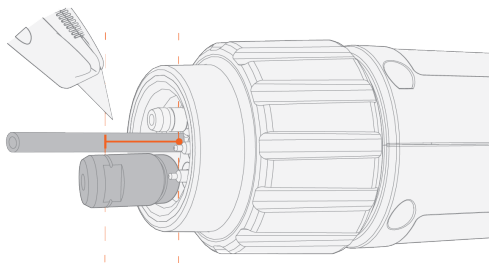
-  To ensure that the wire liner is in the correct position, temporarily remove the welding gun contact tip. For more information on the contact tip, refer to "About equipment" on page 4 and "Assembling gun" on page 6.



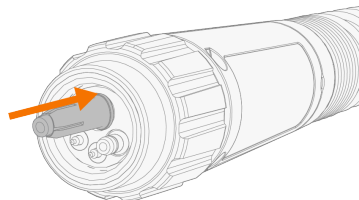
Installing sleeve assembly and cutting wire liner

The method is the same for both gas- and water-cooled welding guns.

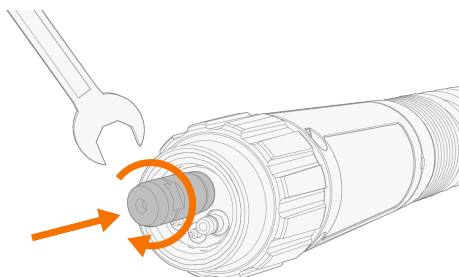
1. Insert the sleeve nut next to the wire liner for measure.
2. Using carpet knife, cut the wire liner flush with groove in the sleeve nut end.



3. Insert the retainer cone onto the wire liner and push in place.



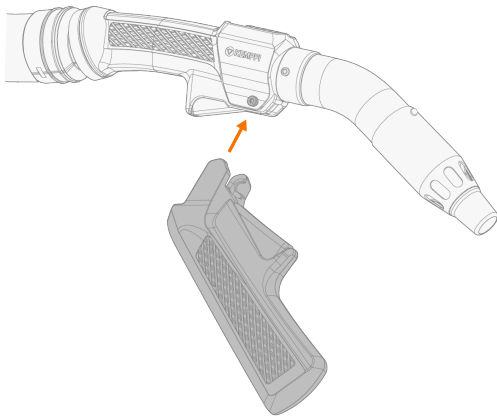
4. Place the sleeve nut on the wire liner and secure it in place. Tighten to 12 Nm torque.



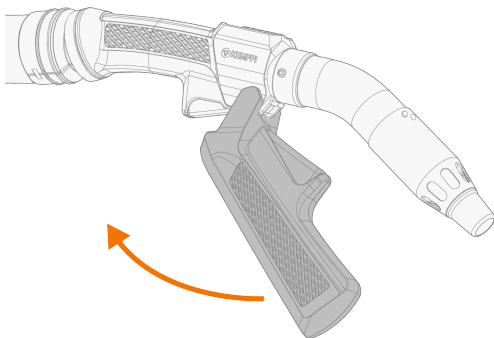
3.4 Installing and removing grip handle (optional)

The additional grip handle is available for all Flexlite GF MIG welding guns.

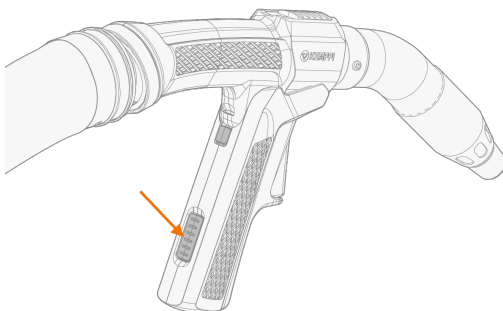
1. Keeping the bottom of the grip handle pointing forward, fit the inside grooves of the grip handle over the screws on the gun.



2. Pull the handle backward to lock it in position.



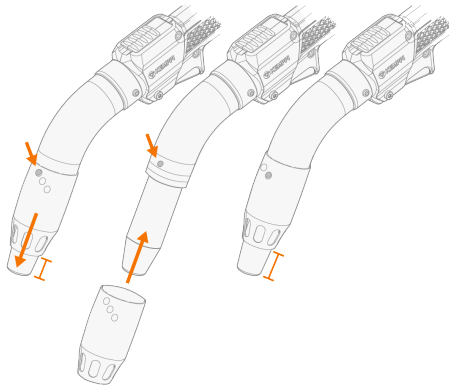
To remove the grip handle, press the unlock button in the grip handle rear:



3.5 Replacing and adjusting vacuum nozzle

The vacuum nozzle is a consumable part, which needs to be changed if worn.

1. Remove the old vacuum nozzle by pressing the locking pin and pulling out the vacuum nozzle.
2. Attach the new vacuum nozzle so that the locking pin snaps into one of the three holes. The three holes are at different points for adjusting the vacuum nozzle lengthwise.

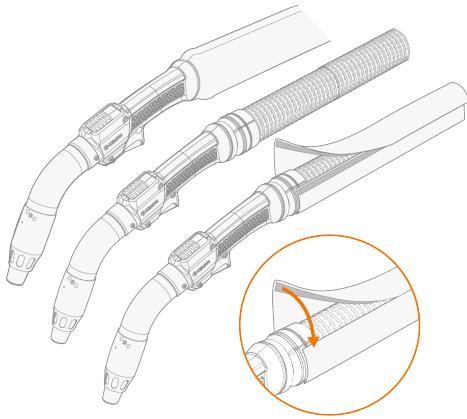


3.6 Replacing vacuum hose cover

The Flexlite GF welding gun's vacuum hose comes with a leather cover, attached with cable ties. Refer to this section when the vacuum hose leather cover needs to be replaced.







The vacuum hose leather cover is a consumable part, which needs to be changed if worn.

1. Remove the old leather cover.
2. Wrap the new leather cover around the vacuum hose.
3. Close the hook-and-loop fastener.

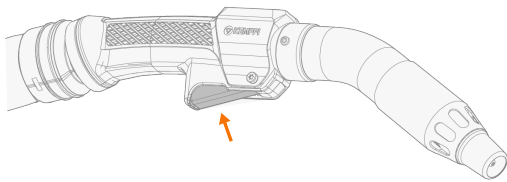


4. OPERATION

Before using the equipment, ensure that all the necessary installation actions have been completed according to your equipment setup and instructions.

-  *Welding is forbidden in places where there is an immediate fire or explosion hazard!*
-  *Welding fumes may cause injury. Take care to ensure sufficient ventilation during welding and wear respiratory protection!*
-  *Always check before use that interconnecting cable, shielding gas hose, earth return lead/clamp and mains cable are in serviceable condition. Ensure that the connectors are correctly fastened. Loose connectors can impair welding performance and damage connectors.*
-  *The exact function of the gun and trigger may vary depending on your welding machine settings (e.g. 2T, 4T or Mini-log).*
-  *Before you start welding, measure and adjust the fume extraction airflow. Refer to "Measuring and decreasing fume extraction air flow" on the next page.*
-  *With fume extraction on, hot fumes pass through the gun handle and affect the handle's temperature.*

To start welding, press the trigger switch.



For component selection, refer to the product catalogue at Kemppi.com.

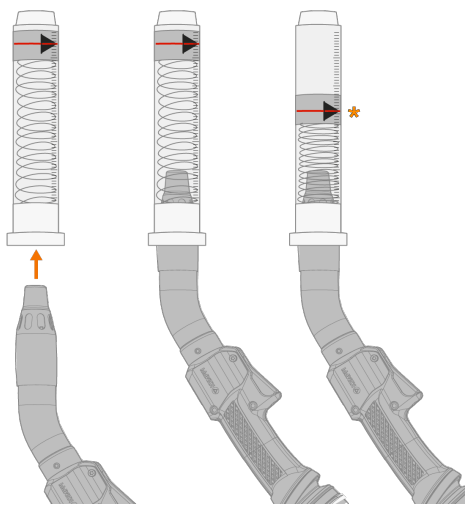
4.1 Measuring and decreasing fume extraction air flow

Fume extraction guns need to provide the appropriate amount of shielding gas to protect the weld from defects without compromising the fume capture efficiency of the gun. If the fume extraction air flow is too strong, it captures shielding gas. If the fume extraction air flow is too weak, it doesn't capture welding fumes effectively enough.

 Before welding, measure the fume extraction air flow with a fume extraction air flow meter (sold separately).

Measuring fume extraction air flow

1. Insert the vacuum nozzle of the welding gun into the fume extraction air flow meter.
2. Turn the fume extraction on.

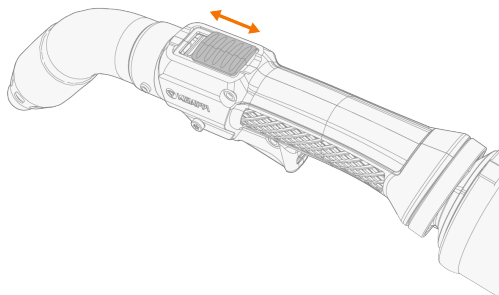


* Fume extraction air flow

For adjusting the fume extraction air flow at the fume extraction unit, refer to the operating manuals of the fume extraction unit manufacturer.

Decreasing fume extraction air flow

To decrease the fume extraction air flow, use the air flow bypass valve at the gun handle.

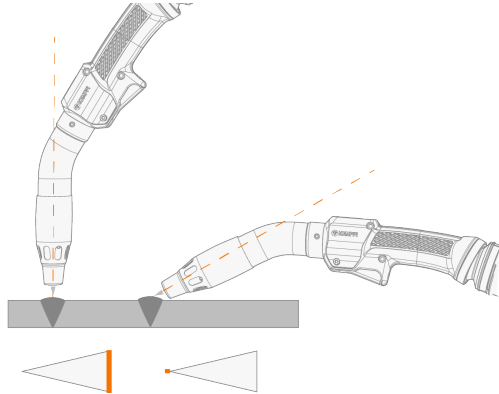


4.2 Optimizing fume extraction efficiency

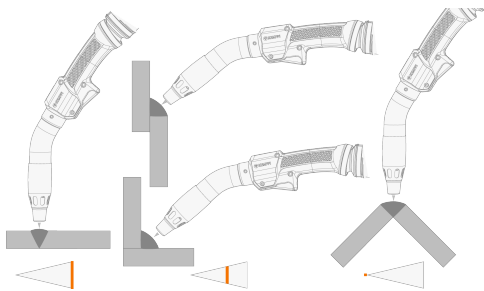
The following factors help maximizing the fume extraction efficiency of a Flexlite GF welding gun.

Welding positions and joint types

The most effective position for fume extraction is the flat position (on the left) because the fumes naturally rise upward.

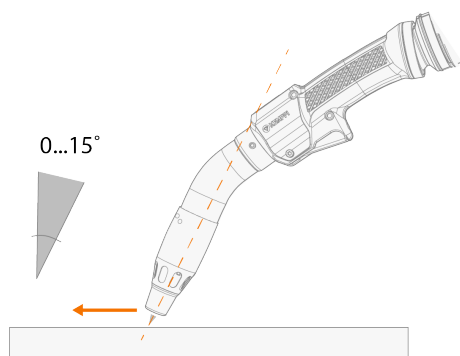


The following figures display how joint types affect fume capture efficiency. The best optimization is shown on the left.

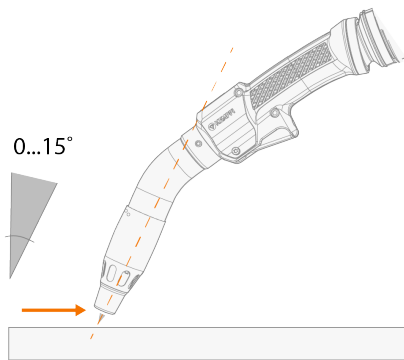


Wire material and gun angle

When welding with solid wires, weld with a 0 ... 15° pushing gun angle.



When welding with flux-cored wires, weld with a 0 ... 15° pulling gun angle.



Removal of residual fumes

At the end of welding, hold the fume extraction gun in place for 10 ... 15 seconds. This allows the gun to remove residual fumes as the weld is cooling.

5. MAINTENANCE

When planning routine maintenance, consider the operating frequency of the welding equipment and the working environment.

Correct operation of the welding equipment and regular maintenance helps you avoid unnecessary downtime and equipment failure. Mainly due to the high temperatures, MIG guns require regular checks and maintenance. Periodically, check the cables set for damage and ensure connections are tightened correctly.


Daily maintenance

 *Disconnect the power source from the mains power supply before handling electrical cables.*

- Check regularly that all the components are tightly fastened.
- Check that the current transfer surface on the gun connector is clean and unscratched, and the connector pins are straight and undamaged.
- Check the vacuum hose for damage.
- Clean dust from the liner with pressurized air every time you change the wire spool, or every day during heavy use.
- Check and remove any spatter build-up from the nozzle.
- When not using the gun, keep it in the welding gun holder on the wire feeder.

For repairs, contact your Kemppi dealer.

Periodic maintenance

 *Only qualified service personnel are allowed to carry out periodic maintenance.*

Check the electrical connectors of the unit at least every six months. Clean oxidized parts and tighten loose connectors.

 *Use the correct tension torque when fastening loose parts.*

 *Do not use pressure washing devices.*

Service workshops


Kemppi Service Workshops complete the welding system maintenance according to the Kemppi service agreement.

The main aspects in the service workshop maintenance procedure are:

- Cleanup of the machine
- Maintenance of the welding tools
- Checkup of the connectors and switches
- Checkup of all electric connections
- Checkup of the power source mains cable and plug
- Repair of defective parts and replacement of defective components
- Maintenance test
- Test and calibration of operation and performance values when needed.

Find your closest service workshop at Kemppi website.

5.1 Troubleshooting

 *The problems and the possible causes listed are not definitive, but suggest some typical situations that may turn up during normal use of the welding system. For further information and assistance, contact your nearest Kemppi service workshop.*

General:

The welding system does not power up

- Check that the mains cable is plugged in properly.
- Check that the mains switch of the power source is at the ON position.
- Check that the mains power distribution is on.
- Check the mains fuse and/or the circuit breaker.
- Check that the earth return cable is connected.

The welding system stops working

- The gun may have overheated. Wait for it to cool down.
- Check that none of the cables is loose.
- The wire feeder may have overheated. Wait for it to cool down and see that the welding current cable is properly attached.
- The power source may have overheated. Wait for it to cool down and see that the cooling fans work properly and the air flow is unobstructed.

Wire feeder:

The filler wire on the spool unravels

- Check that the spool locking cover is closed.

The wire feeder does not feed the filler wire

- Check that the filler wire has not run out.
- Check that the filler wire is properly routed through the feed rolls to the wire liner.
- Check that the pressure handle is properly closed.
- Check that the feed roll pressure is adjusted correctly for the filler wire.
- Blow compressed air through the wire liner to check that it is not blocked.

Welding gun:

The wire burns into the contact tip

- Make sure the size and type of the current tip and liner are suitable for the filler wire.
- Make sure the wire liner is clean.
- Make sure the wire liner does not make any steep loops.
- Check the motor current level. If the current is too high, there may be problems in the wire liner.
- Check the tightness of the feeding rolls. Too tight feeding rolls may affect soft filler wires, such as aluminium and flux-cored wires.

The gun overheats

- Make sure the gun's neck is correctly connected to the handle: push the neck deep enough and check that the neck tightener is properly tightened.
- Make sure that the contact tip adapter is properly hand-tightened and the contact tip properly attached to it.
- Make sure that the welding parameters are within the range of the welding gun and the neck. The gun and the neck have separate limits for the maximum current; the lower one of these is the maximum current that can be used.

The gun neck overheats

- Make sure you are using original Kemppi consumable and spare parts. Incorrect spare part materials may cause the overheating of the neck.

The welding gun connector overheats

- Make sure the connector is properly connected to the wire feeder.
- Make sure the current transfer surface and the connector pins of the gun connector are clean and undamaged.

The gun vibrates too much during welding

- Check the tightness of the contact tip adapter and contact tip.
- Check the motor current.
- Check the wire liner (e.g. for dirt and to ensure that the wire liner has been cut properly).
- Check the filler wire. It must be straight and start coiling when it comes out from the contact tip. If not, check the tightness of the feeding rolls.
- Check the filler wire batch for any quality issues with the wire.

Weld quality:

Dirty and/or poor weld quality

- Check that the shielding gas has not run out.
- Check that the shielding gas flow is unobstructed.
- Check that the gas type is correct for the application.
- Check the polarity of the gun/electrode.
- Check that the welding procedure is correct for the application.
- Check the fume extraction airflow. If the fume extraction airflow is too high, it captures shielding gas and thus increases weld porosity.

Varying welding performance

- Check that the wire feed mechanism is adjusted properly.
- Blow compressed air through the wire liner to check that it is not blocked.
- Check that the wire liner is correct for the selected wire size and type.
- Check the welding gun contact tip's size, type and wear.
- Check that the welding gun is not overheating.
- Check that the earth return clamp is properly attached to a clean surface of the workpiece.

High spatter volume

- Check the welding parameter values and welding procedure.
- Check the gas type and flow.
- Check the polarity of the gun/electrode.
- Check that the filler wire is correct for the current application.

Fume extraction is not efficient

- Check that the fume extraction airflow is sufficient.

5.2 Disposal of machine



Do not dispose of any electrical equipment with normal waste!

In observance of WEEE Directive 2012/19/EU on waste of electrical and electronic equipment and European Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and their implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and taken to an appropriate environmentally responsible recycling facility. The owner of the equipment is obliged to deliver a decommissioned unit to a regional collection center, as per the instructions of local authorities or a Kempfi representative. By applying these European Directives you improve the environment and human health.

6. TECHNICAL DATA

"Technical data: Flexlite GF 300 A (gas-cooled)" on the next page

"Technical data: Flexlite GF 300 A (water-cooled)" on page 29

"Technical data: Flexlite GF 400 A (gas-cooled)" on page 31

"Technical data: Flexlite GF 400 A (water-cooled)" on page 33

"Technical data: Flexlite GF 400 A Carsat (gas-cooled)" on page 35

"Technical data: Flexlite GF 400 A Carsat (water-cooled)" on page 37

For component selection, refer to the product catalogue at Kemppi.com.

For ordering codes, refer to "Ordering codes" on page 39.

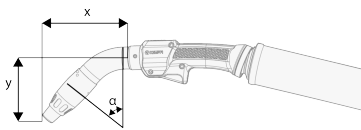
6.1 Technical data: Flexlite GF 300 A (gas-cooled)

Flexlite GF	303G
Feature	Value
Welding process	MIG/MAG
Contact tip	M10x1
Method of guidance	Manual
Type of cooling	Air
Coolant flow rate (l/min)	-
Coolant max. pressure (bar)	-
Min. cooling power at 1 l/min * (kW) IEC 60974-7	-
Min. flow rate (l/min)	-
Min. extraction flow rate (m ³ /h)	57
Pressure difference (Pa)	5500
Capture efficiency (%) ISO 21904-3	84
Type of connection	Euro
Wire diameters (mm)	0.8..1.2
Load capacity:	
35% / Ar + 18% CO ₂	300 A
60% / Ar + 18% CO ₂	-
100% / Ar + 18% CO ₂	-
35% / CO ₂	-
60% / CO ₂	-
100% / CO ₂	-
Gas flow (l/min) in load capacity test	15
Filler wire diameter in load capacity test	1.2
Stick out length in load capacity test	18
Filler wire diameters (mm):	
Fe	0.8..1.2
Fe-MC/FC	0.9..1.2
Ss	0.8..1.2
Ss-MC/FC	0.9..1.2
Al	0.8..1.2
Operating temperature range	-20°C...+40°C
Storage temperature range	-40°C...+60°C
Pistol grip handle	Yes
Rotating neck	No
Changeable neck	No

Neck dimensions:	
Length x (mm) (see figure below)	130
Height y (mm) (see figure below)	90
Neck angle α (°) (see figure below)	45
Standards	IEC 60974-7 ISO 21904-3
Gun length (m)	3.5 / 5

** Measured using the longest gun length available.*

Neck dimensions, G-models:



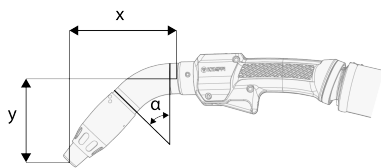
6.2 Technical data: Flexlite GF 300 A (water-cooled)

Flexlite GF	303W
Feature	Value
Welding process	MIG/MAG
Contact tip	M10x1
Method of guidance	Manual
Type of cooling	Liquid
Coolant flow rate (l/min)	1
Coolant max. pressure (bar)	5
Min. cooling power at 1 l/min * (kW) IEC 60974-7	0.9
Min. flow rate (l/min)	1
Min. extraction flow rate (m ³ /h)	57
Pressure difference (Pa)	5500
Capture efficiency (%) ISO 21904-3	84
Type of connection	Euro
Wire diameters (mm)	0.8...1.6
Load capacity:	
35% / Ar + 18% CO ₂	-
60% / Ar + 18% CO ₂	-
100% / Ar + 18% CO ₂	300 A
35% / CO ₂	-
60% / CO ₂	-
100% / CO ₂	-
Gas flow (l/min) in load capacity test	15
Filler wire diameter in load capacity test	1.2
Stick out length in load capacity test	18
Filler wire diameters (mm):	
Fe	0.8...1.6
Fe-MC/FC	0.9...1.6
Ss	0.8...1.6
Ss-MC/FC	0.9...1.6
Al	0.8...1.6
Operating temperature range	-20°C...+40°C
Storage temperature range	-40°C...+60°C
Pistol grip handle	Yes
Rotating neck	No
Changeable neck	No

Neck dimensions:	
Length x (mm) (see figure below)	130
Height y (mm) (see figure below)	90
Neck angle α (°) (see figure below)	45
Standards	IEC 60974-7 ISO 21904-3
Gun length (m)	3.5 / 5

** Measured using the longest gun length available.*

Neck dimensions, W-models:



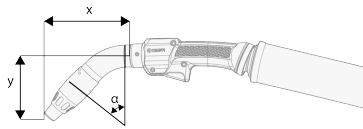
6.3 Technical data: Flexlite GF 400 A (gas-cooled)

Flexlite GF	403G
Feature	Value
Welding process	MIG/MAG
Contact tip	M10x1
Method of guidance	Manual
Type of cooling	Air
Coolant flow rate (l/min)	-
Coolant max. pressure (bar)	-
Min. cooling power at 1 l/min * (kW) IEC 60974-7	-
Min. flow rate (l/min)	-
Min. extraction flow rate (m ³ /h)	57
Pressure difference (Pa)	5500
Capture efficiency (%) ISO 21904-3	84
Type of connection	Euro
Wire diameters (mm)	0.8...1.6
Load capacity:	
35% / Ar + 18% CO ₂	400 A
60% / Ar + 18% CO ₂	-
100% / Ar + 18% CO ₂	-
35% / CO ₂	-
60% / CO ₂	-
100% / CO ₂	-
Gas flow (l/min) in load capacity test	20
Filler wire diameter in load capacity test	1.6
Stick out length in load capacity test	22
Filler wire diameters (mm):	
Fe	0.8...1.6
Fe-MC/FC	0.9...1.6
Ss	0.8...1.6
Ss-MC/FC	0.9...1.6
Al	0.8...1.6
Operating temperature range	-20°C...+40°C
Storage temperature range	-40°C...+60°C
Pistol grip handle	Yes
Rotating neck	No
Changeable neck	No

Neck dimensions:	
Length x (mm) (see figure below)	130
Height y (mm) (see figure below)	90
Neck angle α (°) (see figure below)	45
Standards	IEC 60974-7 ISO 21904-3
Gun length (m)	3.5 / 5

** Measured using the longest gun length available.*

Neck dimensions, G-models:



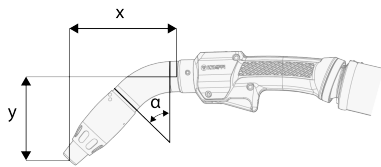
6.4 Technical data: Flexlite GF 400 A (water-cooled)

Flexlite GF	403W
Feature	Value
Welding process	MIG/MAG
Contact tip	M10x1
Method of guidance	Manual
Type of cooling	Liquid
Coolant flow rate (l/min)	1
Coolant max. pressure (bar)	5
Min. cooling power at 1 l/min * (kW) IEC 60974-7	0.9
Min. flow rate (l/min)	1
Min. extraction flow rate (m ³ /h)	57
Pressure difference (Pa)	5500
Capture efficiency ISO 21904-3	84
Type of connection	Euro
Wire diameters (mm)	0.8...1.6
Load capacity:	
35% / Ar + 18% CO ₂	-
60% / Ar + 18% CO ₂	-
100% / Ar + 18% CO ₂	400 A
35% / CO ₂	-
60% / CO ₂	-
100% / CO ₂	-
Gas flow (l/min) in load capacity test	20
Filler wire diameter in load capacity test	1.6
Stick out length in load capacity test	22
Filler wire diameters (mm):	
Fe	0.8...1.6
Fe-MC/FC	0.9...1.6
Ss	0.8...1.6
Ss-MC/FC	0.9...1.6
Al	0.8...1.6
Operating temperature range	-20°C...+40°C
Storage temperature range	-40°C...+60°C
Pistol grip handle	Yes
Rotating neck	No
Changeable neck	No

Neck dimensions:	
Length x (mm) (see figure below)	130
Height y (mm) (see figure below)	90
Neck angle α (°) (see figure below)	45
Standards	IEC 60974-7 ISO 21904-3
Gun length (m)	3.5 / 5

** Measured using the longest gun length available.*

Neck dimensions, W-models:



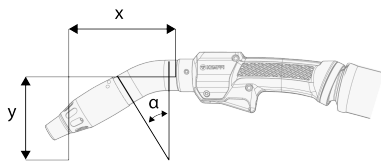
6.5 Technical data: Flexlite GF 400 A Carsat (gas-cooled)

Flexlite GF	403GCS30D
Feature	
Welding process	MIG/MAG
Contact tip	M10x1
Method of guidance	Manual
Type of cooling	Air
Coolant flow rate (l/min)	-
Coolant max. pressure (bar)	-
Min. cooling power at 1 l/min * (kW) IEC 60974-7	-
Min. flow rate (l/min)	-
Min. extraction flow rate (m ³ /h)	57
Pressure difference (Pa)	5500
Capture efficiency (%) ISO 21904-3	84
Type of connection	Euro
Wire diameters (mm)	0.8...1.6
Load capacity:	
35% / Ar + 18% CO ₂	400 A
60% / Ar + 18% CO ₂	-
100% / Ar + 18% CO ₂	-
35% / CO ₂	-
60% / CO ₂	-
100% / CO ₂	-
Gas flow (l/min) in load capacity test	20
Filler wire diameter in load capacity test	1.6
Stick out length in load capacity test	22
Filler wire diameters (mm):	
Fe	0.8...1.6
Fe-MC/FC	0.9...1.6
Ss	0.8...1.6
Ss-MC/FC	0.9...1.6
Al	0.8...1.6
Operating temperature range	-20°C...+40°C
Storage temperature range	-40°C...+60°C
Pistol grip handle	Yes
Rotating neck	No
Changeable neck	No

Neck dimensions:	
Length x (mm) (see figure below)	130
Height y (mm) (see figure below)	90
Neck angle α (°) (see figure below)	30
Standards	IEC 60974-7 ISO 21904-3
Gun length (m)	5

** Measured using the longest gun length available.*

Neck dimensions, GCS-model:



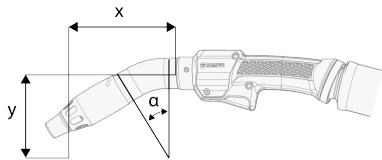
6.6 Technical data: Flexlite GF 400 A Carsat (water-cooled)

Flexlite GF	403WCS	403WCS45D
Feature	Value	
Welding process	MIG/MAG	MIG/MAG
Contact tip	M10x1	M10x1
Method of guidance	Manual	Manual
Type of cooling	Liquid	Liquid
Coolant flow rate (l/min)	1	1
Coolant max. pressure (bar)	5	5
Min. cooling power at 1 l/min * (kW) IEC 60974-7	0.9	0.9
Min. flow rate (l/min)	1	1
Min. extraction flow rate (m ³ /h)	57	57
Pressure difference (Pa)	5500	5500
Capture efficiency (%) ISO 21904-3	84	84
Type of connection	Euro	Euro
Wire diameters (mm)	0.8...1.6	0.8...1.6
Load capacity:		
35% / Ar + 18% CO ₂	-	-
60% / Ar + 18% CO ₂	-	-
100% / Ar + 18% CO ₂	400 A	400 A
35% / CO ₂	-	-
60% / CO ₂	-	-
100% / CO ₂	-	-
Gas flow (l/min) in load capacity test	20	20
Filler wire diameter in load capacity test	1.6	1.6
Stick out length in load capacity test	22	22
Filler wire diameters (mm):		
Fe	0.8...1.6	0.8...1.6
Fe-MC/FC	0.9...1.6	0.9...1.6
Ss	0.8...1.6	0.8...1.6
Ss-MC/FC	0.9...1.6	0.9...1.6
Al	0.8...1.6	0.8...1.6
Operating temperature range	-20°C...+40°C	-20°C...+40°C
Storage temperature range	-40°C...+60°C	-40°C...+60°C
Pistol grip handle	Yes	Yes
Rotating neck	No	No
Changeable neck	No	No

Neck dimensions:		
Length x (mm) (see figure below)	150	150
Height y (mm) (see figure below)	65	65
Neck angle α (°) (see figure below)	30	45
Standards	IEC 60974-7 ISO 21904-3	IEC 60974-7 ISO 21904-3
Gun length (m)	5	5

** Measured using the longest gun length available.*

Neck dimensions, WCS-model:



7. ORDERING CODES

Tip: Letters with the product model names stand for:

W = water-cooled, G = gas-cooled, CS = Carsat model, 30D = neck angle 30°, 45D = neck angle 45°.

Flexlite GF		
Product	Ordering code	
	3.5 m:	5 m:
Flexlite GF 303G	GF303G35	GF303G5
Flexlite GF 303W	GF303W35	GF303W5
Flexlite GF 403G	GF403G35	GF403G5
Flexlite GF 403W	GF403W35	GF403W5
Flexlite GF 403WCS	-	GF403WCS5
Flexlite GF 403GCS30D	-	GF403GCS30D5
Flexlite GF 403WCS45D	-	GF403WCS45D5