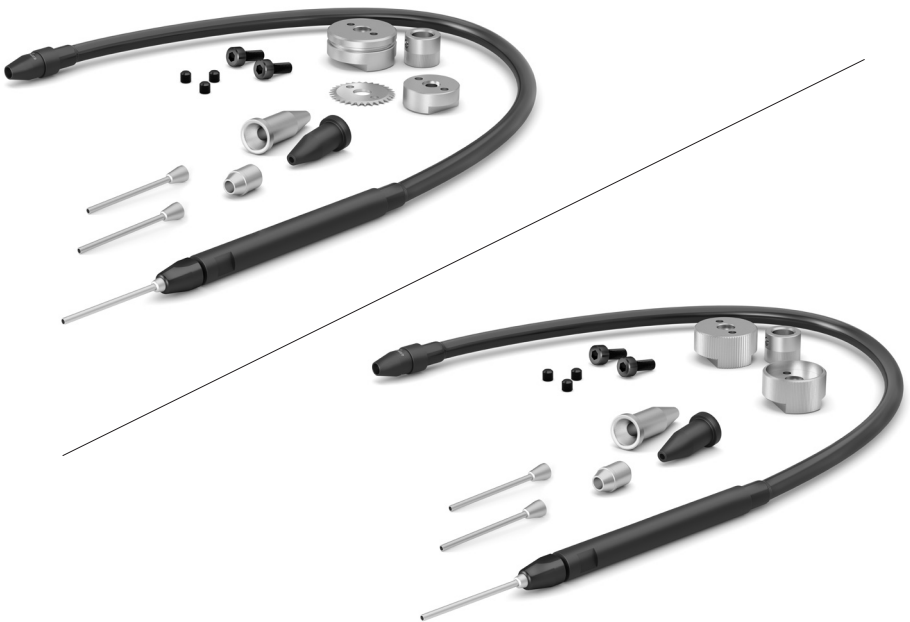


# JBC

[www.jbctools.com](http://www.jbctools.com)

## INSTRUCTION MANUAL



## GSFR

Guide Kit for Robot with/without  
Solder Wire Perforation

This manual corresponds to the following references:

**GSFR[XX]V[LL]-B With Solder Wire Perforation**

<u>Ref.</u>	<u>Wire Diameter Ø</u>	<u>Tube Length</u>
<b>GSFR08V03-B</b>	0.8 mm / 0.032 in	0.3 m / 11.81 in
<b>GSFR08V05-B</b>	"	0.5 m / 19.69 in
<b>GSFR08V06-B</b>	"	0.6 m / 23.62 in
<b>GSFR08V07-B</b>	"	0.7m / 27.56 in
<b>GSFR08V10-B</b>	"	1.0 m / 39.37 in
<b>GSFR10V03-B</b>	1.0 mm / 0.040 in	0.3 m / 11.81 in
<b>GSFR10V05-B</b>	"	0.5 m / 19.69 in
<b>GSFR10V06-B</b>	"	0.6 m / 23.62 in
<b>GSFR10V07-B</b>	"	0.7m / 27.56 in
<b>GSFR10V10-B</b>	"	1.0 m / 39.37 in
<b>GSFR10V15-B</b>	"	1.5 m / 59.05 in
<b>GSFR12V03-B</b>	1.2 mm / 0.047 in	0.3 m / 11.81 in
<b>GSFR12V05-B</b>	"	0.5 m / 19.69 in
<b>GSFR12V07-B</b>	"	0.7m / 27.56 in
<b>GSFR12V10-B</b>	"	1.0 m / 39.37 in
<b>GSFR15V03-B</b>	1.5 mm / 0.059 in	0.3 m / 11.81 in
<b>GSFR15V04-B</b>	"	0.4 m / 15.75 in
<b>GSFR15V05-B</b>	"	0.5 m / 19.69 in
<b>GSFR15V07-B</b>	"	0.7m / 27.56 in
<b>GSFR15V10-B</b>	"	1.0 m / 39.37 in
<b>GSFR15V15-B</b>	"	1.5 m / 59.05 in
<b>GSFR16V03-B</b>	1.6 mm / 0.063 in	0.3 m / 11.81 in
<b>GSFR16V04-B</b>	"	0.4 m / 15.75 in
<b>GSFR16V05-B</b>	"	0.5 m / 19.69 in
<b>GSFR16V15-B</b>	"	1.5 m / 59.05 in

This manual corresponds to the following references:

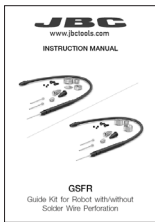
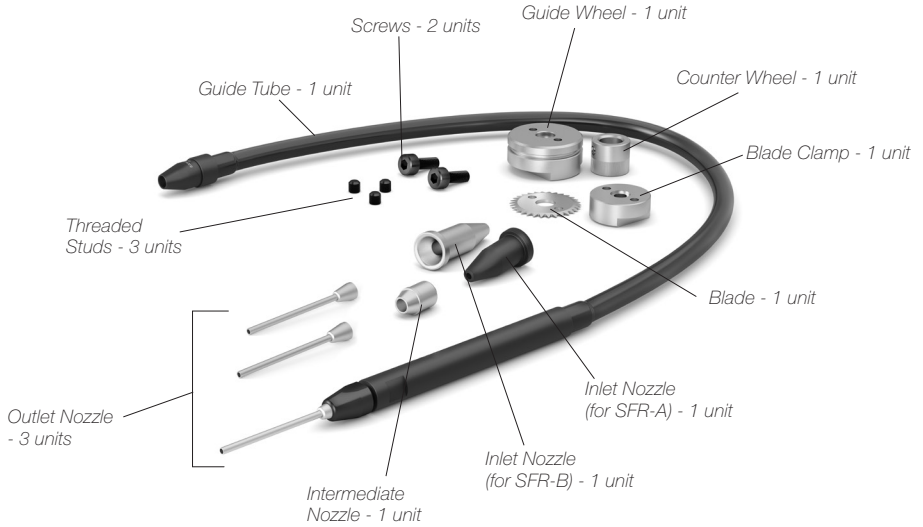
**GSFR[XX]D[LL]-B Without Solder Wire Perforation**

<u>Ref.</u>	<u>Wire Diameter Ø</u>	<u>Tube Length</u>
<b>GSFR05D03-B</b>	Ø0.46 - 0.56 mm / Ø0.018 - 0.022 in	0.3 m / 11.81 in
<b>GSFR05D05-B</b>	“	0.5 m / 19.68 in
<b>GSFR05D07-B</b>	“	0.7 m / 27.92 in
<b>GSFR05D10-B</b>	“	1.0 m / 39.37 in
<b>GSFR06D03-B</b>	Ø0.60 - 0.64 mm / Ø0.023 - 0.025 in	0.3 m / 11.81 in
<b>GSFR07D03-B</b>	Ø0.70 - 0.78 mm / Ø0.028 - 0.031 in	0.3 m / 11.81 in
<b>GSFR07D07-B</b>	“	0.7 m / 27.92 in
<b>GSFR08D03-B</b>	Ø0.80 - 0.82 mm / Ø0.032 - 0.033 in	0.3 m / 11.81 in
<b>GSFR08D05-B</b>	“	0.5 m / 19.68 in
<b>GSFR08D06-B</b>	“	0.6 m / 23.62 in
<b>GSFR08D07-B</b>	“	0.7 m / 27.92 in
<b>GSFR08D10-B</b>	“	1.0 m / 39.37 in
<b>GSFR10D03-B</b>	Ø0.90 - 1.10 mm / Ø0.036 - 0.044 in	0.3 m / 11.81 in
<b>GSFR10D06-B</b>	“	0.6 m / 23.62 in
<b>GSFR10D07-B</b>	“	0.7 m / 27.92 in
<b>GSFR10D10-B</b>	“	1.0 m / 39.37 in
<b>GSFR12D03-B</b>	Ø1.14 - 1.27 mm / Ø0.045 - 0.051 in	0.3 m / 11.81 in
<b>GSFR12D05-B</b>	“	0.5 m / 19.68 in
<b>GSFR12D10-B</b>	“	1.0 m / 39.37 in
<b>GSFR15D03-B</b>	Ø1.50 - 1.57 mm / Ø0.060 - 0.063 in	0.3 m / 11.81 in
<b>GSFR15D04-B</b>	“	0.4 m / 15.75 in
<b>GSFR15D05-B</b>	“	0.5 m / 19.68 in
<b>GSFR15D10-B</b>	“	1.0 m / 39.37 in
<b>GSFR15D15-B</b>	“	1.5 m / 59.05 in
<b>GSFR16D03-B</b>	Ø1.60 - 1.63 mm / Ø0.063 - 0.065 in	0.3 m / 11.81 in
<b>GSFR16D04-B</b>	“	0.4 m / 15.75 in
<b>GSFR16D05-B</b>	“	0.5 m / 19.68 in
<b>GSFR16D07-B</b>	“	0.7 m / 27.92 in
<b>GSFR16D15-B</b>	“	1.5 m / 59.05 in

# Packing List

## Guide Kit for Robot with Solder Wire Perforation

The following items are included (*more information at page 11*).

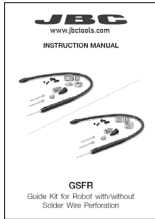
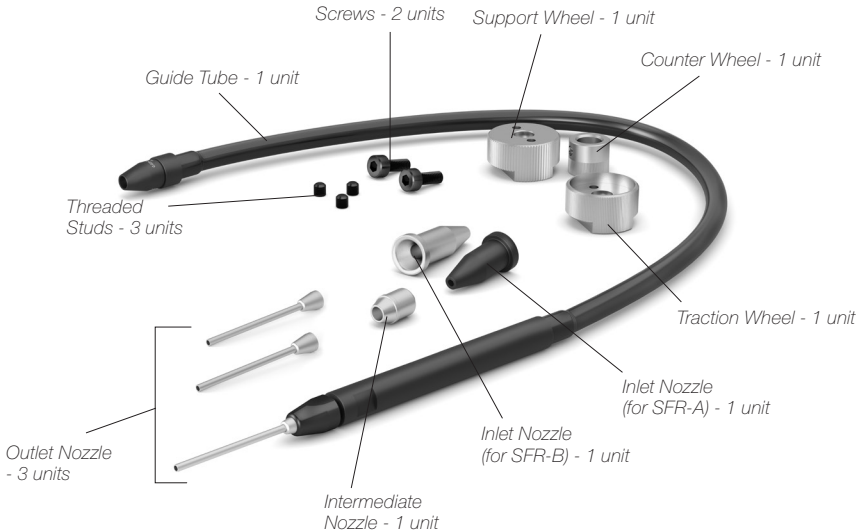


**Manual** ..... 1 unit  
 Ref. 0030637

# Packing List

## Guide Kit for Robot without Solder Wire Perforation

The following items are included (*more information at page 12*).

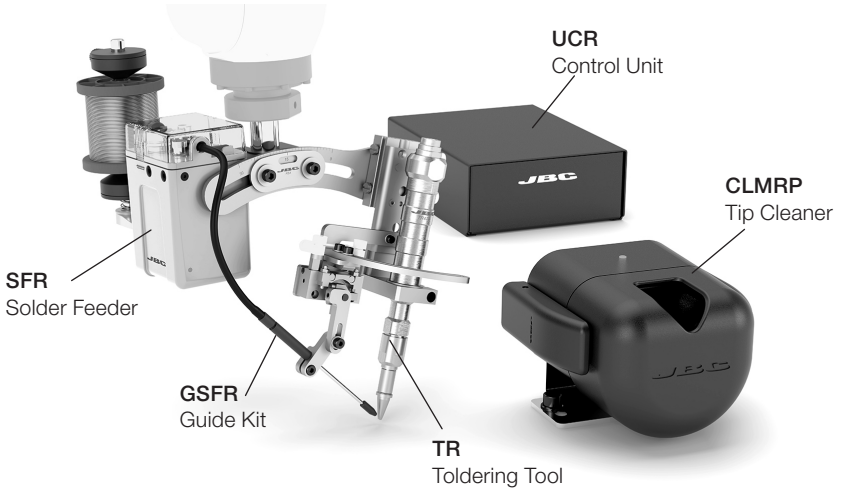


**Manual** ..... 1 unit  
Ref. 0030637

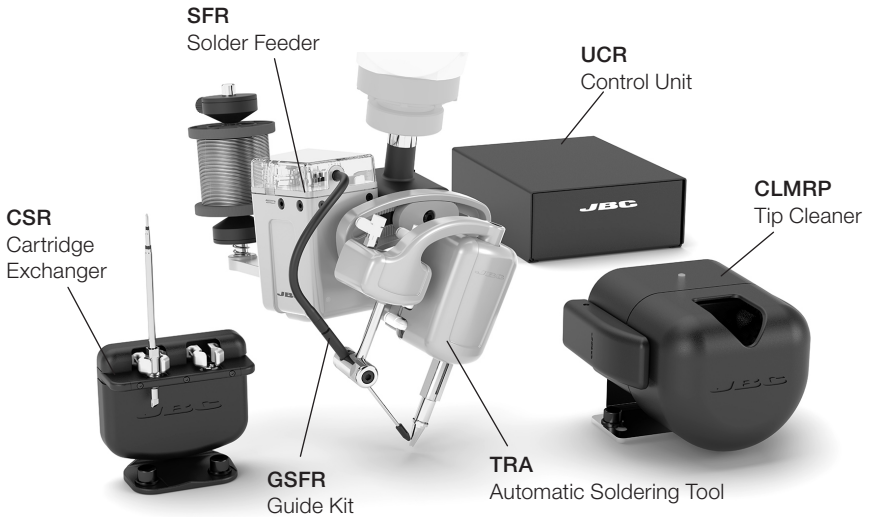
# Features

The Guide Kit GSFR is designed to be used with the Solder Feeder SFR in automatic soldering processes.

## Work Place Examples with TR Soldering Tool



## Work Place Examples with TRA Automatic Soldering Tool and CSR Cartridge Exchanger



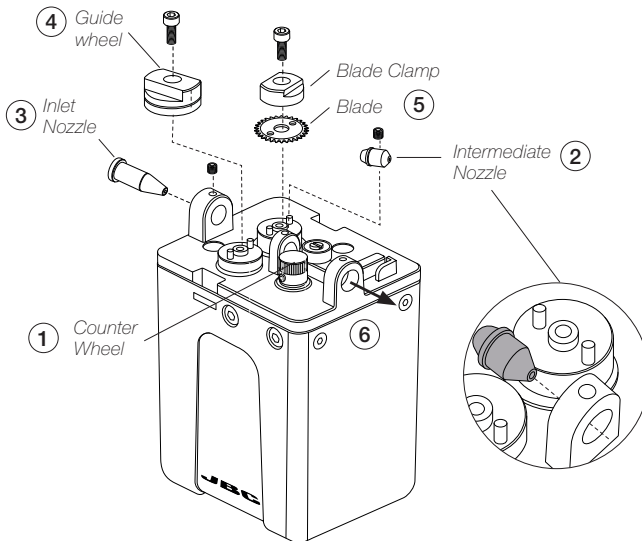
## Assembly: GSFR Wheels to SFR

For this operation, disconnect the device, and take off the cover by pressing the tabs.

Use the allen key and the spanner provided with SFR for the following steps. First disassemble the guide tube (6), the Support and Traction wheels or the Guide Wheel, Blade and Blade Clamp (4)+(5). Then, disassemble the nozzles (2)+(3). Disassemble the Counter Wheel (1) if needed\*.

### Assembly with Solder Wire Perforation

1. Assemble the counter wheel (1) if needed\*.
2. Insert the intermediate nozzle (2) until its collar rests against the housing and tighten the screw.
3. Assemble the inlet nozzle (3) and tighten the screw.
4. Assemble the guide wheel (4) and tighten the screw. **Attention:** Always use the correct wheel set for each wire thickness.
5. Assemble the blade first, then mount the blade clamp (5) onto the same axis and tighten the screw. **Caution:** handle the blade carefully to avoid injury.

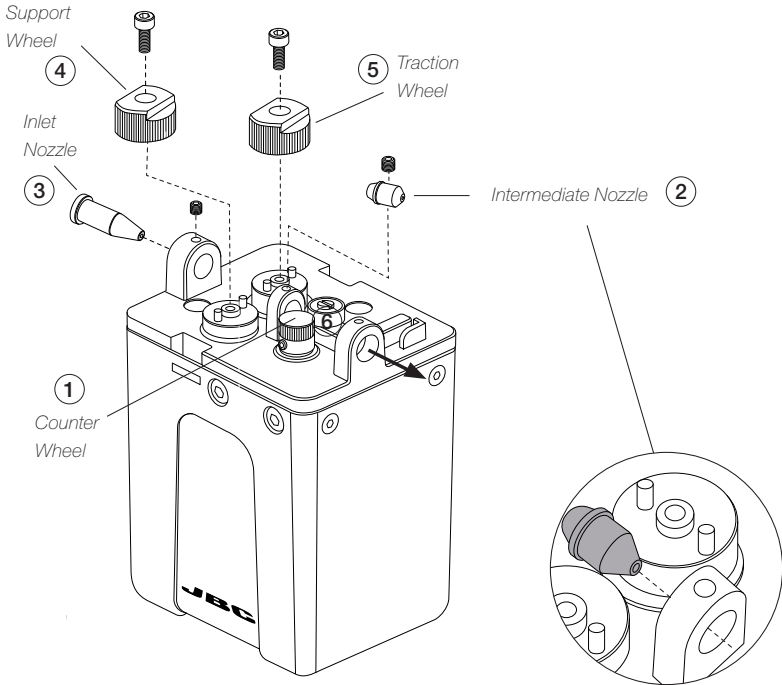


\* SFR comes with a counter wheel already assembled.

Only change the counter wheel if you want to work with a wire diameter that is outside the working range of the counter wheel already assembled to the SFR.

## Assembly without Solder Wire Perforation

1. Assemble the counter wheel (1) if needed\*.
2. Insert the intermediate nozzle (2) until its collar rests against the housing and tighten the screw.
3. Assemble the inlet nozzle (3) and tighten the screw.
4. Assemble the support wheel (4) and tighten the screw. **Attention:** Always use the correct wheel set for each wire thickness.
5. Assemble the traction wheel (5) onto the axis and tighten the screw.



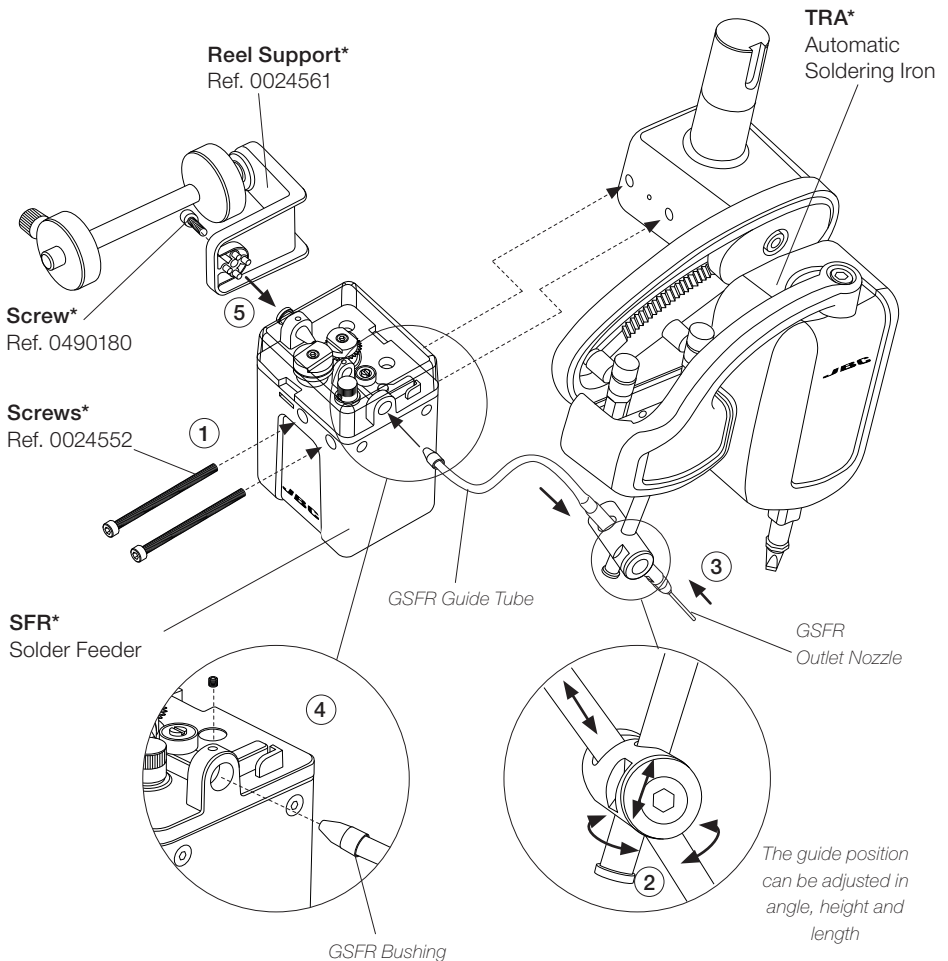
\* SFR comes with a counter wheel already assembled.

Only change the counter wheel if you want to work with a wire diameter that is outside the working range of the counter wheel already assembled to the SFR.



## Assembly: GSFR Tube to SFR\* and TRA\*

1. Assemble SFR to TRA with the screws.
2. Assemble GSFR Guide Tube to TRA and tighten the screw.
3. Assemble the Outlet Nozzle onto the Dispensing Tube.
4. Assemble GSFR Bushing into SFR hole and tighten the screw.
5. Finally attach the Reel Support to SFR with its screw.



\*Not included, sold separately

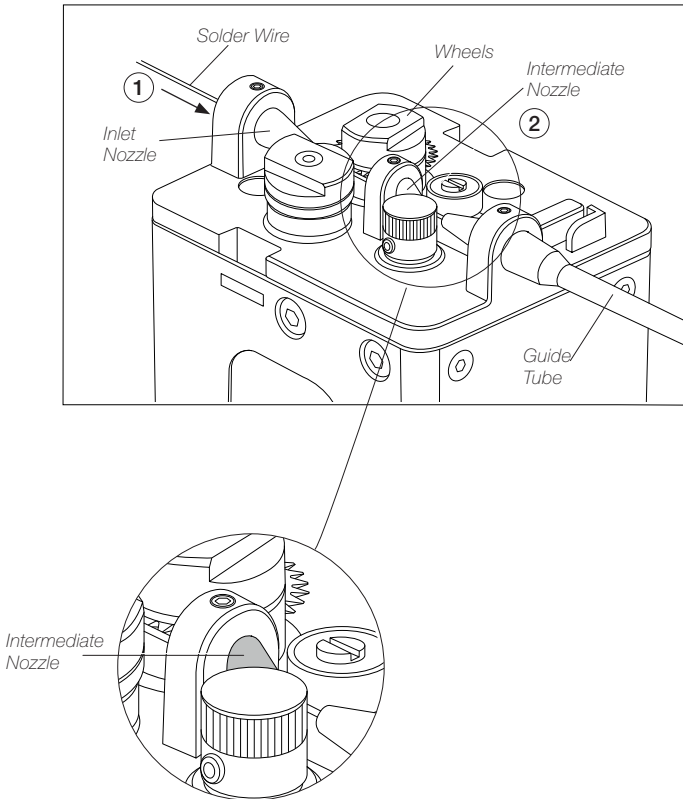
# Solder Wire Loading

GSFR must be assembled previously.

1. Feed the Solder Wire into the Inlet Nozzle until it reaches the wheels.
2. Make sure the wire passes through the Intermediate Nozzle and enters into the Guide Tube.

**Important:** Set the wire thickness parameter before starting to dispense the wire. To set W-THI command see the Communication Protocol for SFR unit at [www.jbctools.com/jbcsoftware.html](http://www.jbctools.com/jbcsoftware.html).

Wire feeding is controlled by an external controller (Robot/PLC/Computer). To start wire loading process use W-SLD command. See the Communication Protocol for SFR unit at [www.jbctools.com/jbcsoftware.html](http://www.jbctools.com/jbcsoftware.html)



## Maintenance

- Before carrying out maintenance, always unplug the tool and the device.
- Use a damp cloth to clean the tool. Alcohol can only be used to clean the metal parts.
- Periodically check that the metal parts of the mechanism are clean.
- Keep Dispensing Nozzle Tip clean to avoid solder feeding obstruction.
- Periodically check all cables and tube connections.
- Replace any defective or damaged parts. Use original JBC spare parts only.
- Repairs should only be performed by a JBC authorized technical service.

## Safety



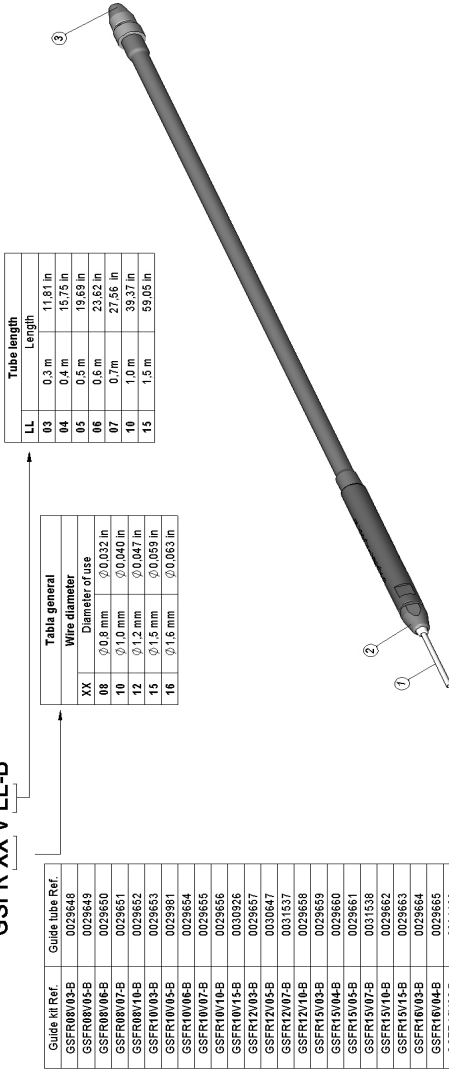
**It is imperative to follow safety guidelines to prevent electric shock, injury, fire or explosion.**

- Do not use the device for any other purpose.
- Be sure that the power supply is disconnected before changing any spare part.
- Avoid flux coming into contact with skin or eyes to prevent irritation.
- Be careful of fumes produced while soldering.
- Keep your workplace clean and tidy. Wear appropriate protective glasses and gloves while handling components to avoid personal injury.
- Utmost care must be taken with liquid tin waste which can cause burns.

# Exploded View

WITH SOLDER WIRE PERFORATION

## GSFR XX V LL-B



LL	Tube length	Length
03	0.3 m	11.81 in
04	0.4 m	15.75 in
05	0.5 m	19.69 in
06	0.6 m	23.62 in
07	0.7 m	27.56 in
10	1.0 m	39.37 in
15	1.5 m	59.05 in

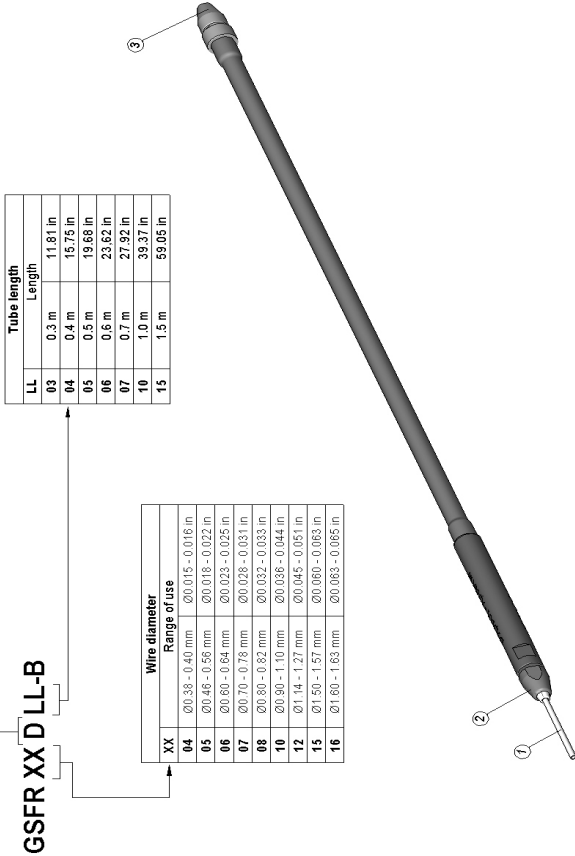
Table general	
XX	Wire diameter
08	Ø 0.8 mm
10	Ø 1.0 mm
12	Ø 1.2 mm
15	Ø 1.5 mm
16	Ø 1.6 mm

Guide kit Ref.	Guide tube Ref.
GSFR00/03-B	0032648
GSFR00/05-B	0032649
GSFR00/06-B	0032650
GSFR00/07-B	0032651
GSFR00/10-B	0032652
GSFR00/15-B	0032653
GSFR00/05-B	0032981
GSFR00/06-B	0032984
GSFR00/07-B	0032985
GSFR00/10-B	0032986
GSFR00/15-B	0032987
GSFR12/03-B	0032987
GSFR12/05-B	0030647
GSFR12/07-B	0031537
GSFR12/10-B	0023658
GSFR12/15-B	0023659
GSFR15/03-B	0023660
GSFR15/04-B	0023661
GSFR15/07-B	0031538
GSFR15/10-B	0023662
GSFR15/15-B	0023663
GSFR16/03-B	0023664
GSFR16/04-B	0023665
GSFR16/05-B	0031468
GSFR16/15-B	0023666

Tube length	Wire Ø	Guide wheel Ref.	Blade Ref.	Blade clamp Ref.	Inlet nozzle Ref. (for SFR-A)	Interm. nozzle Ref.	Inlet nozzle Ref. (for SFR-B)	Counter wheel Ref.	Screws Ref.	Threaded stud Ref.	Needle	Metal cap	Input tube guide
GSFR08/LL-B	0021696				0033740	0030561	0030537				0023943		0023950
GSFR10/LL-B	0021699				0033741	0030562	0030538				0023944		
GSFR12/LL-B	0021738			0018638	0033738	0030563	0030539		0028695	0028696	0023945	0023948	
GSFR15/LL-B	0018688				0033654	0030564	0030540				0023946		0023951
GSFR16/LL-B	0023522				-	0030565	0030541	0026894			0023947		

## Exploded View

→ WITHOUT SOLDER WIRE PERFORMANCE



Tube length	
LL	Length
03	0.3 m / 11.81 in
04	0.4 m / 15.75 in
05	0.5 m / 19.68 in
06	0.6 m / 23.62 in
07	0.7 m / 27.92 in
10	1.0 m / 39.37 in
15	1.5 m / 59.05 in

XX	Wire diameter Range of use
04	Ø0.38 - 0.40 mm / Ø0.015 - 0.016 in
05	Ø0.46 - 0.55 mm / Ø0.018 - 0.022 in
06	Ø0.60 - 0.64 mm / Ø0.023 - 0.025 in
07	Ø0.70 - 0.78 mm / Ø0.028 - 0.031 in
08	Ø0.80 - 0.82 mm / Ø0.032 - 0.033 in
10	Ø0.90 - 1.10 mm / Ø0.036 - 0.044 in
12	Ø1.14 - 1.27 mm / Ø0.045 - 0.051 in
15	Ø1.50 - 1.57 mm / Ø0.060 - 0.063 in
16	Ø1.60 - 1.63 mm / Ø0.063 - 0.065 in

### GSFR XX D LL-B

Guide kit Ref.	Guide tube Ref.
GSFR05003-B	0029667
GSFR05005-B	0023262
GSFR05007-B	0029668
GSFR05010-B	0029669
GSFR06003-B	0029670
GSFR07003-B	0029671
GSFR07007-B	0031776
GSFR08003-B	0029648
GSFR08005-B	0029649
GSFR08006-B	0029650
GSFR08007-B	0029651
GSFR08010-B	0029652
GSFR10003-B	0029653
GSFR10006-B	0029654
GSFR10007-B	0029655
GSFR10010-B	0029656
GSFR12003-B	0029657
GSFR12005-B	0030647
GSFR12010-B	0029658
GSFR15003-B	0029659
GSFR15004-B	0029660
GSFR15005-B	0029661
GSFR15010-B	0029662
GSFR15015-B	0029663
GSFR16003-B	0029664
GSFR16004-B	0031468
GSFR16005-B	0031468
GSFR16007-B	0031548
GSFR16015-B	0029666

Traction wheel Ref.	Support wheel Ref.	Inlet nozzle Ref. (for SFR-W)	Inlet nozzle Ref. (for SFR-B)	Interm. nozzle Ref.	Inlet nozzle Ref. (for SFR-B)	Counter wheel Ref.	Screws Ref.	Threaded stud Ref.	Needle	Metal cap	Input tube guide
0019479	0020345	0023740	0030558	0030559	0030554	0026693	0029665	0026696	0029840	0029948	0029949
	0019519										
0019481	0019480	0023741	0030562	0030563	0030537	0026894	0029845	0029846	0029847	0029945	0029950
0019481	0019481	0023855	0030565	0030565	0030541	0026894	0029846	0026894	0029847	0029945	0029951



**Notes**

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# Specifications

## GSFR

### Guide Kit for Robot with/without Solder Wire Perforation

Ref.: **GSFR[XX]V[LL]-B** With Solder Wire Perforation *(detailed Ref. see page 2)*

Ref.: **GSFR[XX]D[LL]-B** Without Solder Wire Perforation *(detailed Ref. see page 3)*

- |                                      |                                  |
|--------------------------------------|----------------------------------|
| - Total Net Weight:                  | 42 g / 0.093 lb                  |
| - Total Package Dimensions / Weight: | 245 x 185 x 45 mm / 117 g        |
| (L x W x H)                          | 9.65 x 7.28 x 1.77 in / 0.258 lb |

Complies with CE standards.  
ESD safe.

# JBC

## Warranty

JBC's 2 year warranty covers this equipment against all manufacturing defects, including the replacement of defective parts and labour.

Warranty does not cover product wear or misuse.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased.



This product should not be thrown in the garbage.

In accordance with the European directive 2012/19/EU, electronic equipment at the end of its life must be collected and returned to an authorized recycling facility.



[www.jbctools.com](http://www.jbctools.com)