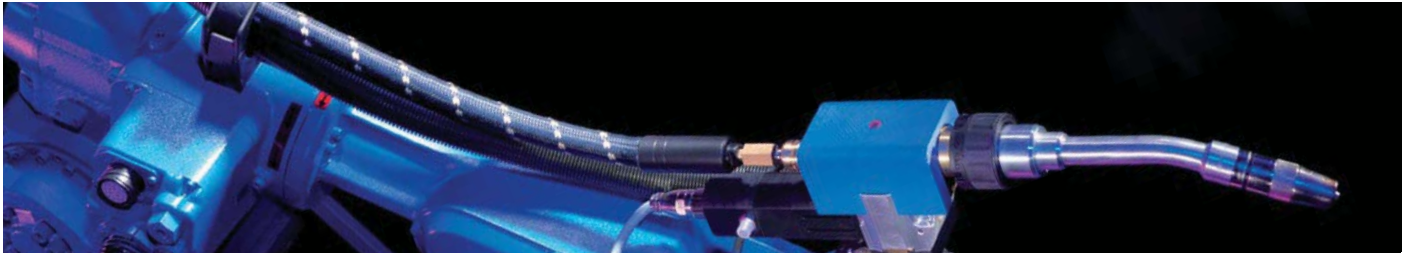


Robot Peripherals

Wire Feeder System "MasterLiner"



Top-level wire feeding ...

The products of the MasterLiner series are setting new wire feeding standards. They are made up of individual segments, each turnable by 360°. Four small rollers in every single segment guarantee smooth wire feeding, with almost no resistance. This means – for example with laser applications – that no further wire feeders are required in addition to the master feeder, even over longer distances.

The MasterLiner system is available as MasterLiner and MasterLiner MAXI both in FLEX and HD versions. FLEX stands for flexible. This version is made up of a corrugated hose and connection system and enables a configuration of the exact required length. It can also be repaired in the field. This main advantage is saving time and money. The heavy-duty HD version is fitted with a resistant aramid-reinforced protection for extreme applications.

Arguments that speak for themselves:

- Low friction forces
- Long life time
- Ultrasonic cleaning
- Maintenance free and the overall system is prone to little interference
- Wire feeding over long distances and by only one wire feeder
- Suitable for all welding processes with wire feeding, including laser welding and brazing
- Suitable for all types of wire
- Easy and quick assembly and exchange possible by using quick connectors

Application area:



Robot controlled MIG/MAG, TIG, PLASMA and laser welding processes



Wire Feeder System „MasterLiner HD & FLEX“

System Overview & Technical Data

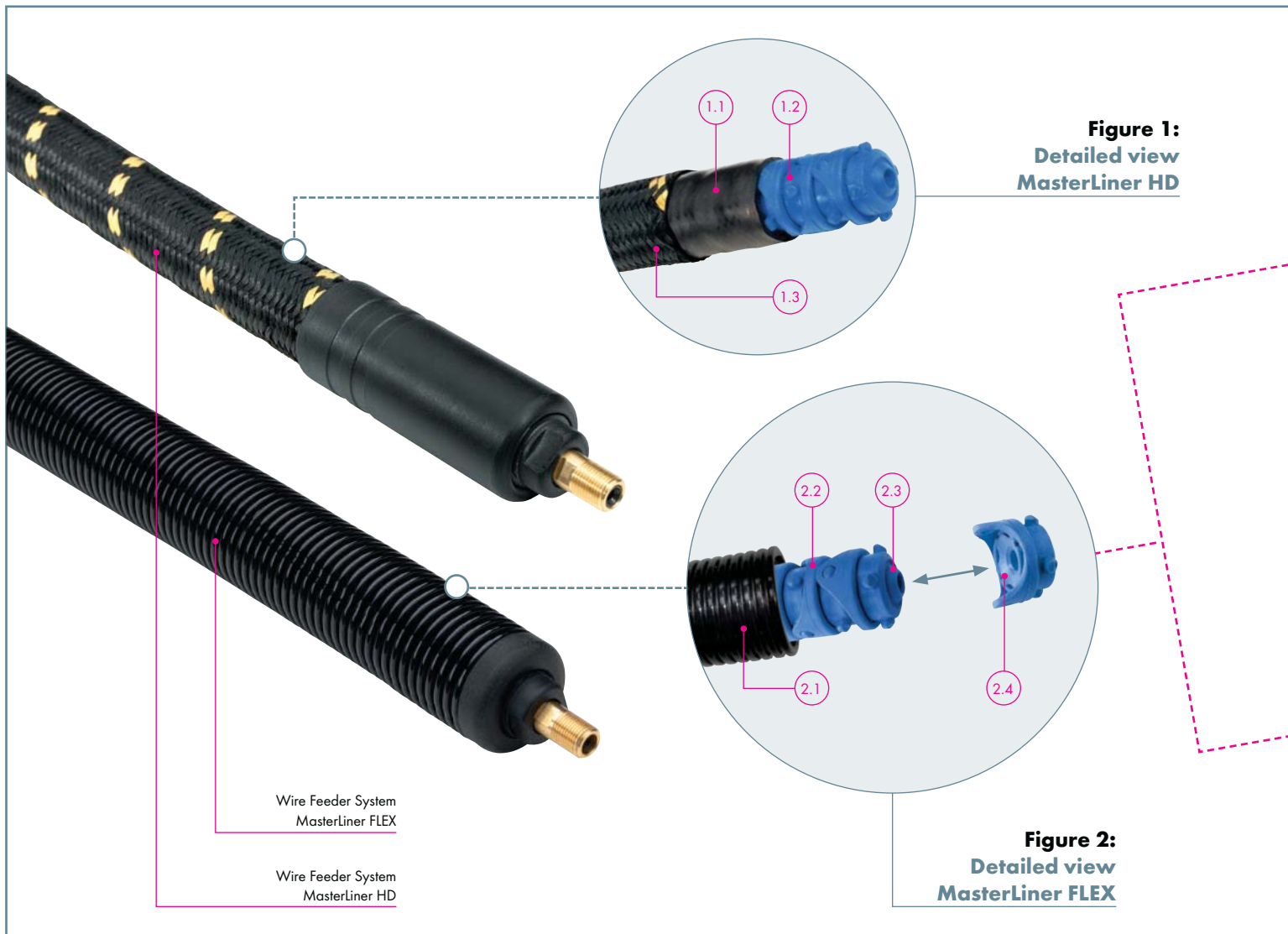


Figure 1:
Detailed view MasterLiner HD

- 1.1 Inner protective sheathing made of rubber – additional protection with high flexibility
- 1.2 MasterLiner with four rollers per segment for minimal friction and extremely short distance between the individual segments
- 1.3 Aramid fibre sheath – for optimum protection against external influences – with heat- and fireresistant fibres, that are characterized by great strength, high impact strength, excellent breaking strain, good vibration damping and resistance to acids and alkalis

Figure 2:
Detailed view MasterLiner FLEX

- 2.1 End fitting for a clean connection to the outer hose
- 2.2 MasterLiner with four rollers per segment for minimal friction and extremely short distance between the individual segments
- 2.3 Side convex (no fixed rolling direction)
- 2.4 Side concave (no fixed rolling direction)



Figure 3:
Connection G 1/4"
convex (components)

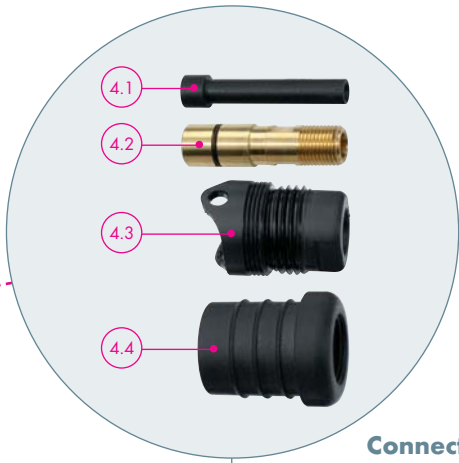


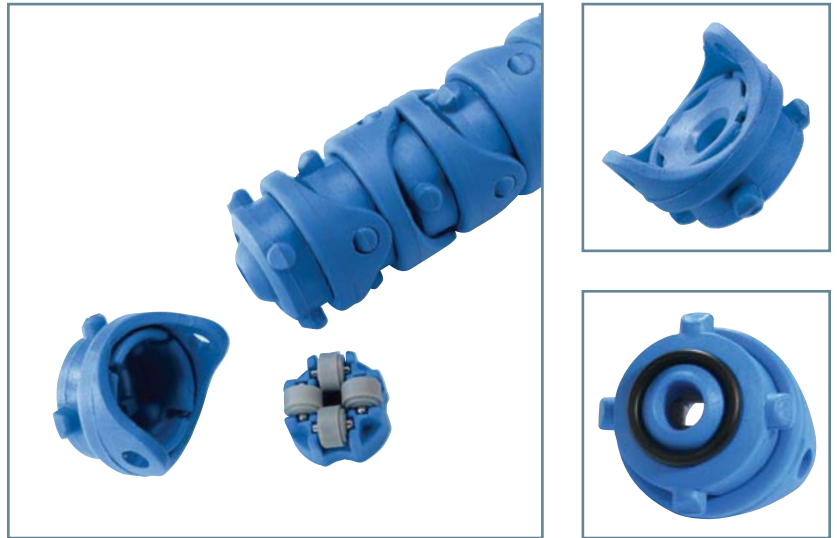
Figure 4:
Connection G 1/4"
concave (components)

Figure 3:
Connector G 1/8" convex (components)

- 3.1 Long wire guide tube - easy to replace
- 3.2 Sturdy brass connection G 1/4"
- 3.3 Connection MasterLiner convex
- 3.4 End fitting for a clean connection to the outer hose

Figure 4:
Connector G 1/8" concave (components)

- 4.1 Long wire guide tube - easy to replace
- 4.2 Sturdy brass connection G 1/4"
- 4.3 Connection MasterLiner concave
- 4.4 End fitting for a clean connection to the outer hose



Technical Data:

MasterLiner HD:

Outer Ø:	30.0 mm
Wire Ø:	max. 1.2 mm
Weight:	approx. 400 g/m (without connections, with aramid coating)
Recommended length (max.):	25.0 m
Bend radius (min.):	150 mm
Flexibility/tensile strength:	1.500 N
Connection:	G 1/4" and G 1/8" ¹

MasterLiner FLEX:

Outer Ø:	22.0 mm (without outer hose) 34.0 mm (with outer hose)
Wire Ø:	max. 1.2 mm
Weight:	approx. 250 g/m (without outer hose) approx. 400 g/m (with outer hose)
Recommended length (max.):	25.0 m
Bend radius (min.):	150 mm
Flexibility/tensile strength:	600 N
Connection:	G 1/4" and G 1/8" ¹

¹ Two adapters for G 1/8" are included as standard.

Wire Feeder System „MasterLiner MAXI HD & FLEX“ System Overview & Technical Data

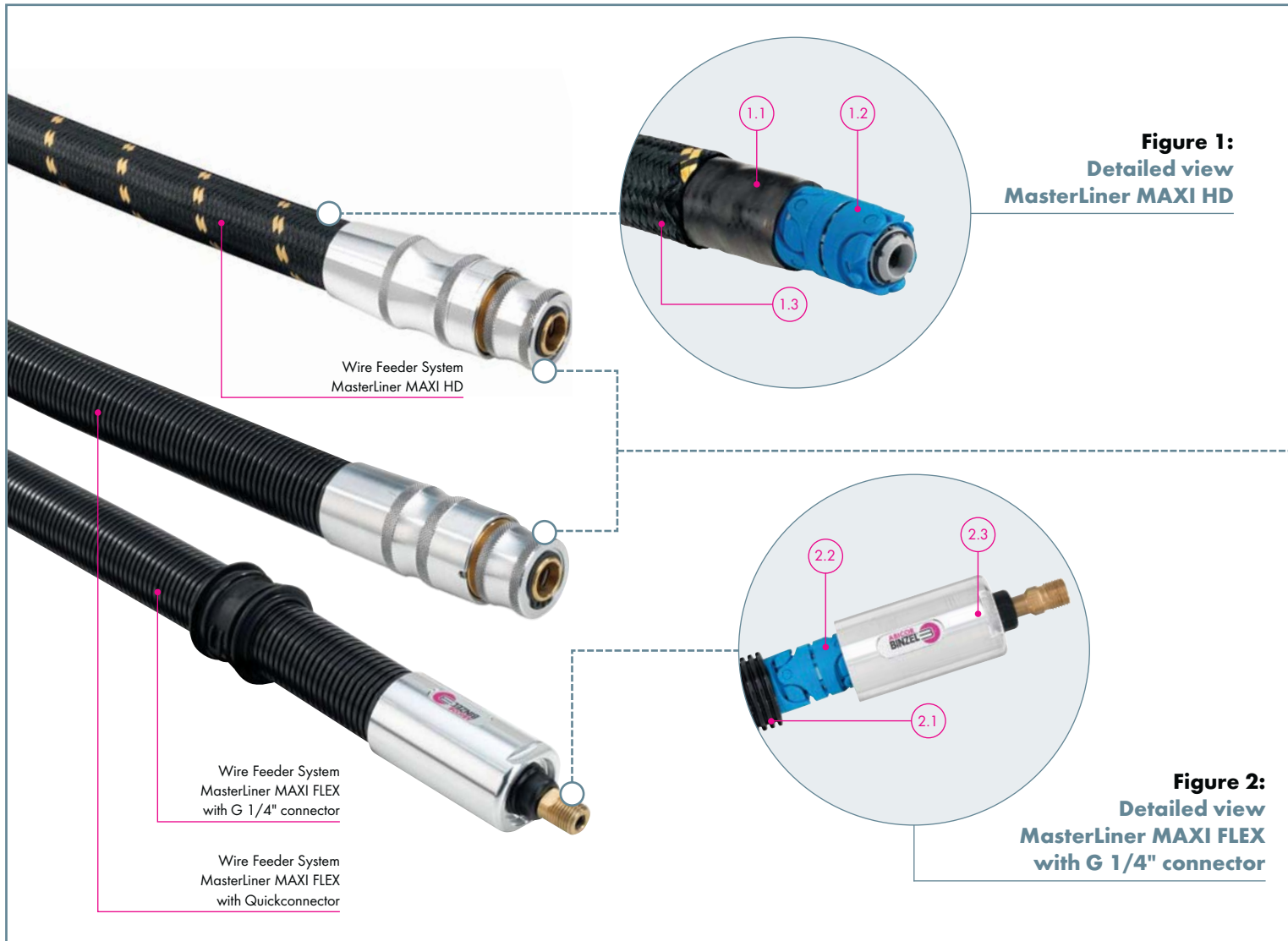


Figure 1:
Detailed view MasterLiner MAXI HD

- 1.1 Inner protective sheathing made of rubber – additional protection with high flexibility
- 1.2 MasterLiner with four rollers per segment for minimal friction and extremely short distance between the individual segments
- 1.3 Aramid fibre sheath for optimum protection against external influences

Figure 2:
Detailed view MasterLiner MAXI FLEX with G 1/4" connector

- 2.1 Outer hose for optimum protection coupled with high flexibility; can be cut to size as required
- 2.2 MasterLiner with four rollers per segment for minimal friction and extremely short distance between the individual segments
- 2.3 Connector G 1/4"

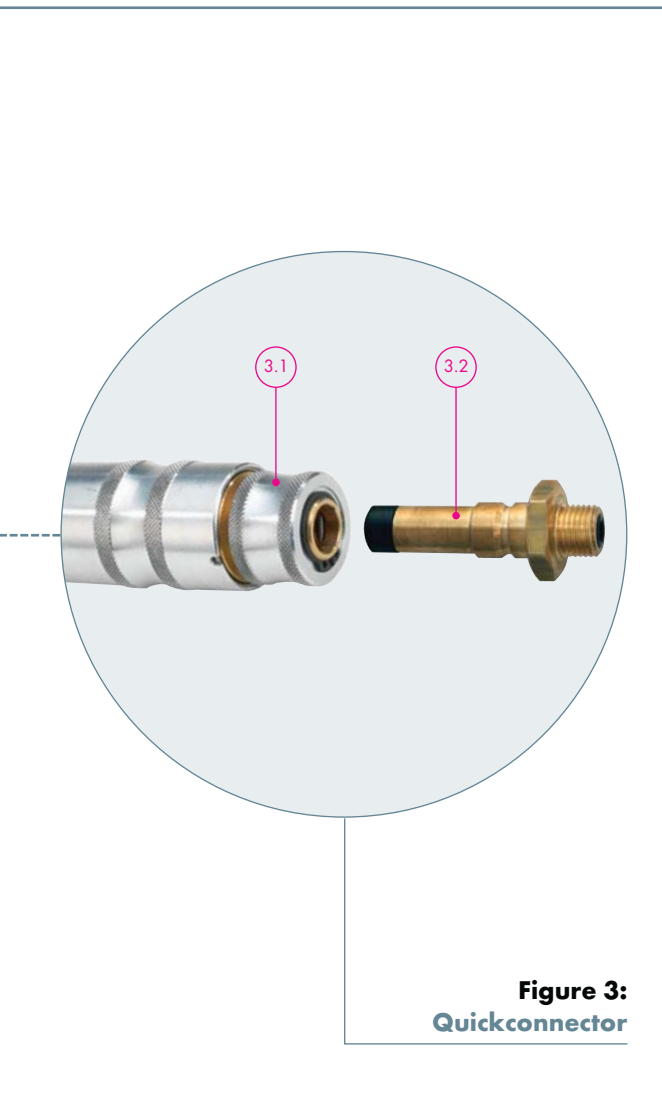
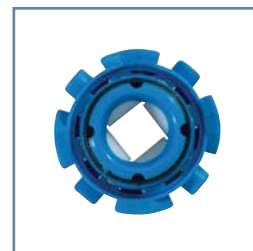


Figure 3:
Quickconnector

Figure 3:
Detailed view Quickconnector

- 3.1 Quickconnector for MasterLiner MAXI FLEX & HD for fast tool-free assembly and disassembly via spring-loaded locking mechanism that can be saved by turning the outer sleeve against accidental pulling
- 3.2 Connector G 1/4" for Quickconnector



Technical Data:

MasterLiner MAXI HD:

Outer Ø:	32.0 mm
Wire Ø:	1.2 mm bis 4.0 mm
Weight:	approx. 540 g/m (without connections, with aramid coating)
Recommended length (max.):	30.0 m
Bend radius (min.):	150 mm
Flexibility/tensile strength:	1.500 N
Connection:	Quickconnector

MasterLiner MAXI FLEX:

Outer Ø:	27.0 mm (without outer hose) 34.0 mm (with outer hose)
Wire Ø:	1.2 mm bis 4.0 mm
Weight:	approx. 460 g/m (without outer hose) approx. 610 g/m (with outer hose)
Recommended length (max.):	30.0 m
Bend radius (min.):	150 mm
Flexibility/tensile strength:	600 N
Connection:	G 1/4" or Quickconnector

Wire Feeder System "MasterLiner" Complete Set



1. Complete Set MasterLiner HD

Connection:
G 1/4"

Properties

Feeding of wire sizes up to 1.2 mm and aramid-reinforced protection for extreme applications



2. Complete set MasterLiner FLEX

Connection:
G 1/4"

Properties

Feeding of wire sizes up to 1.2 mm and easy assembling of the required length and also repairing directly in the field



3. Complete set MasterLiner MAXI HD

Connection:
Quickconnector

Properties

Feeding of wire sizes from 1.2 mm and comfortable Quickconnector



4. Complete set MasterLiner MAXI FLEX

Connection:
G 1/4" or Quickconnector

Properties

Individual and easy to configure with two different connections for selection and feeding of wire sizes from 1.2 mm to 4.0 mm

1. Complete set MasterLiner HD

Type	Length ¹	Part-No.
MasterLiner HD cpl. with connector G 1/4" / G 1/8" ²	5.0 m	155.0251.1
	6.0 m	155.0252.1
	8.0 m	155.0254.1
	10.0 m	155.0255.1

2. Complete set MasterLiner FLEX

MasterLiner FLEX cpl. with connector G 1/4" / G 1/8" ²	5.0 m	155.0244.1
	6.0 m	155.0245.1
	8.0 m	155.0247.1
	10.0 m	155.0248.1

3. Complete set MasterLiner MAXI HD

MasterLiner MAXI HD cpl. with Quickconnector	5.0 m	155.0184.1
	6.0 m	155.0185.1
	8.0 m	155.0187.1
	10.0 m	155.0189.1

4. Complete set MasterLiner MAXI FLEX

MasterLiner MAXI FLEX cpl. with connector G 1/4"	5.0 m	155.0154.1
	6.0 m	155.0155.1
	8.0 m	155.0156.1
	10.0 m	155.0157.1
MasterLiner MAXI FLEX cpl. with Quickconnector	5.0 m	155.0197.1
	6.0 m	155.0198.1
	8.0 m	155.0199.1
	10.0 m	155.0200.1

¹ Further lengths on request.

² Two adapters for G 1/8" are included as standard.

Wire Feeder System "MasterLiner"

Components for individual configuration

Components for an individual configuration of the MasterLiner system



Components MasterLiner HD¹

No.	Type	Part-No.
1	End fitting for MasterLiner HD	155.0092.1
n/s	Adaptor G 1/4" IG-G 1/8" AG	155.0286.2

Components MasterLiner FLEX

2	MasterLiner basic (50 m container) ²	155.0096.50
3	Connector convex	155.0091.1
4	Connector concave	155.0095.1
5	Wire guide tube convex	155.0087.1
6	Wire guide tube concave	155.0088.1
7	End cap for outer hose	155.0090.1
8	Outer hose (50 m container)	109.0076
n/s	Adaptor G 1/4" IG-G 1/8" AG	155.0286.2
n/s	Hook-and-loop tape, blue, 1 m	191.0128.1

Components MasterLiner MAXI FLEX

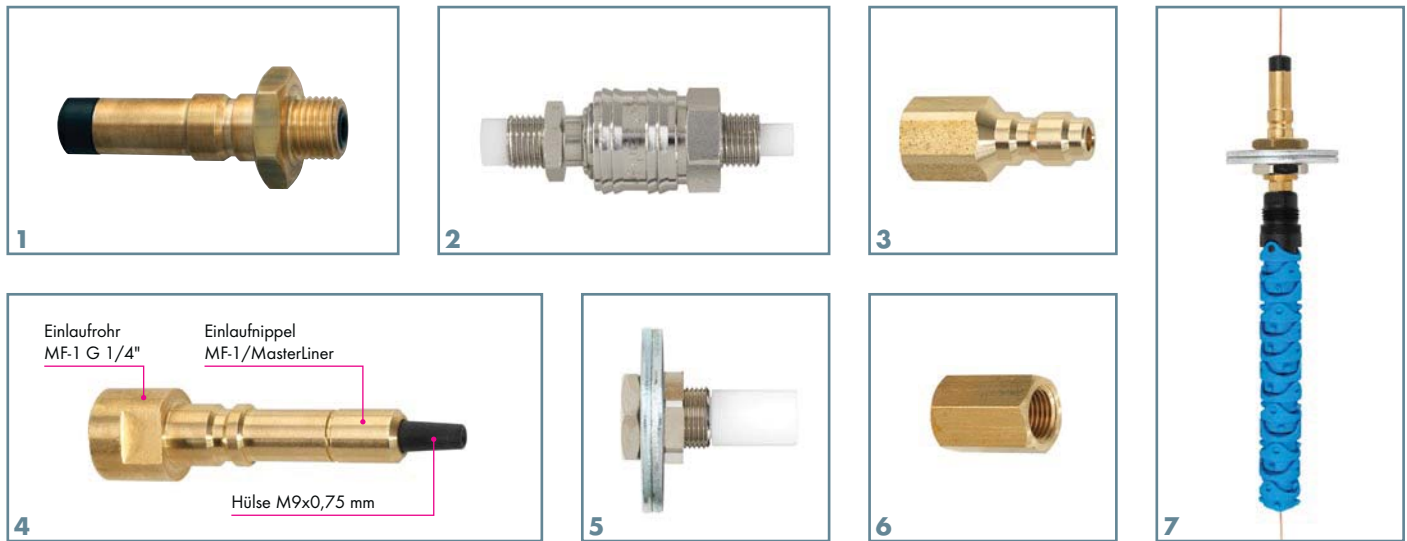
8	Outer hose (50 m container)	109.0076
9	MasterLiner MAXI basic (50 m container) ²	155.0141.50
10	Connector G 1/4" cpl.	155.0147.1
11	Quickconnector cpl.	155.0195.1

¹ The variants of MasterLiner HD are only available in prefabricated lengths.

² Further lengths on request.

Wire Feeder System "MasterLiner"

Connections



Connection MasterLiner ↔ wire feeder

No.	Description	Part-No.
1	Connection G 1/4" for Quickconnector	155.0167.1
n/s	Connection 11.5 mm (suitable e. g. for EWM®)	783.5208.1
	Connection 12.2 mm (suitable e. g. for Lincoln®)	155.0084.1
	Connection 13.0 mm (suitable e. g. for Fronius®)	783.5209.1
2	Quick coupling G 1/4" cpl.	783.5207.1
3	Adaptor G 1/4" auf Quickconnector (suitable e. g. for Fronius® or Parker®)	155.0159.1
n/s	Wire inlet MasterLiner to MF-1	783.5222.1

Connection MasterLiner ↔ Masterfeeder MF-1

4	Inlet tube MF-1 G 1/4"	155.0160.1
n/s	Inlet nipple MF-1/MasterLiner	131.0035.1
	Sleeve M9x0.75 mm (for inlet tube MF-1)	881.1096.1

Connection MasterLiner FLEX/MAXI FLEX ↔ Dome connector

n/s	Dome connector PG29 ¹	155.0103.1
	Nut PG29	155.0106.1

Connection MasterLiner ↔ Dome connector with quick coupling

5	Dome connector G 1/4"	783.5205.1
2	Quick coupling G 1/4" cpl.	783.5207.1
6	Adaptor MasterLiner G 1/8" to G 1/4"	783.5233.1
	Adaptor MasterLiner MAXI G 1/4" to G 1/4"	155.0162.1

Connection MasterLiner MAXI with Quickconnector ↔ Dome connector

7	MasterLiner MAXI HD/FLEX dome connector cpl.	155.0171.1
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¹ Only for MasterLiner HD – clamp with rubber directly on the outer aramid fabric.

Wire Feeder System "MasterLiner" Accessories

Wire end sensor

The wire-end sensor – positioned between the wire drum and the wire feeder hose (e.g. MasterLiner) – signals an upcoming end of the wire in the wire drum. Due to a simple and non-contact detection of the wire-end and clear LED-display the replacement of the wire drum can be carried out timely. The intensity of the sensibility can be continuously adjusted by potentiometer and guarantees easy handling.

Technical Data:

Ring diameter: Ø 5 mm
 Supply voltage: 10–30 volt
 Current carrying capacity: max. 200 mA
 Current consumption: < 15 mA 24 V DC
 Temperature range: -20 to +60 °C
 Protection class: IP 65
 Connector: H (M12)

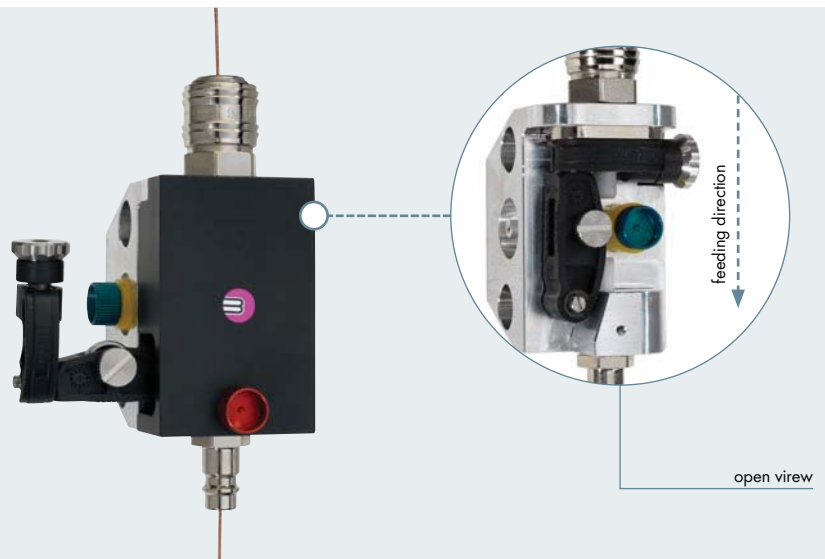


Type	Part-No.
Wire end sensor with LED signal	881.3225.1
Control cable	101.0168.1

Wire inching tool

The wire inching tool allows that the wire can be threaded quickly and easy from the wire drum into the wire feeder hose directly. Manual and time-consuming threading is no longer necessary. Recommended especially for longer distances.

With the connectors a quick and easy integration into the respective wire-feeding-system is possible. The threading device must remain in the wire feeding system after threading with open counter pressure roller.

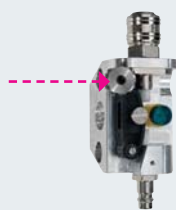


Type	Part-No.
Wire inching tool	881.3238.1

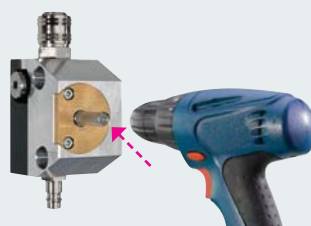
Manual



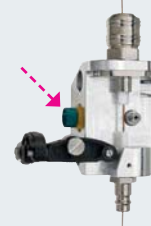
Step 1:
Thread wire



Step 2:
Set contact pressure



Step 3:
Feeding the wire by electric screwdriver



Step 4:
Remove drive roll and fix outside

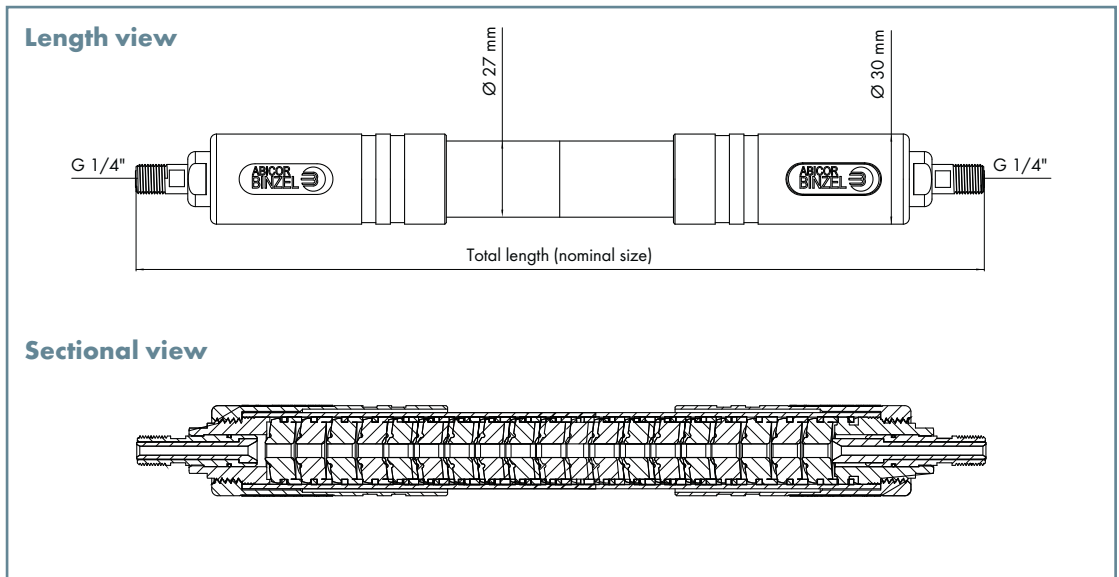


Step 5:
Fix rocker with housing cover

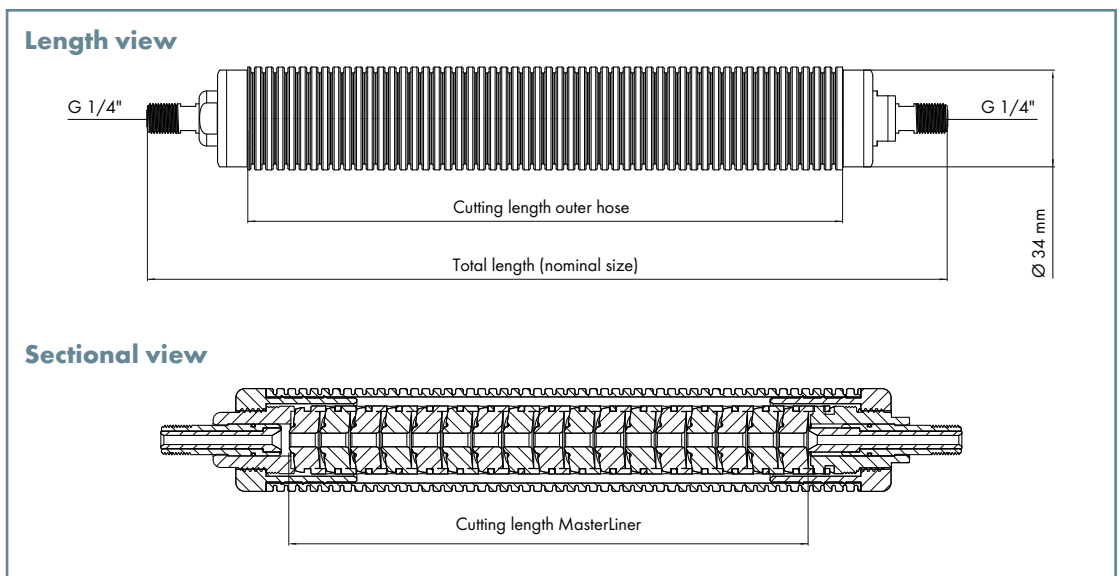
Wire Feeder System "MasterLiner"

Length and sectional views

Wire Feeder System
MasterLiner HD
with Connector
G 1/4"



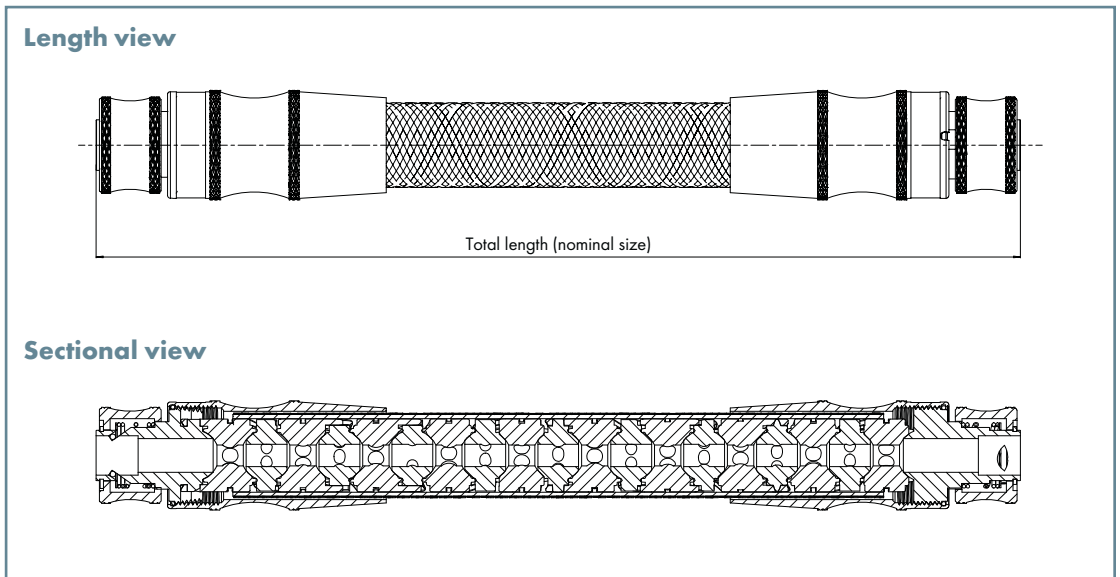
Wire Feeder System
MasterLiner FLEX
with Connector
G 1/4"



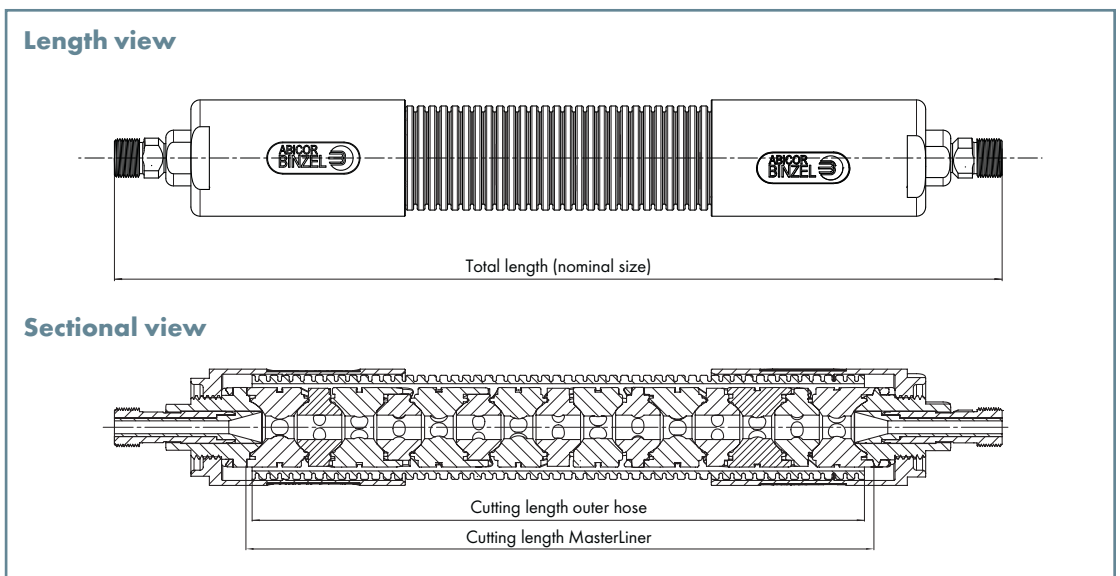
Wire Feeder System „MasterLiner MAXI“

Length and sectional views

Wire Feeder System
MasterLiner MAXI
HD with Quickcon-
nector



Wire Feeder System
MasterLiner MAXI
FLEX with Connec-
tor G 1/4"



Wire Feeder System
MasterLiner MAXI
FLEX with Quick-
connector

