

# Overview of capillary/guide tubes for machines/wire feeders without eFeed

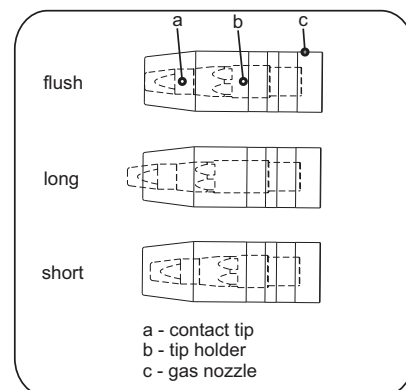
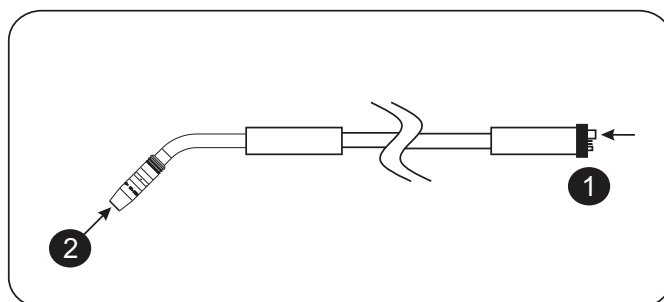
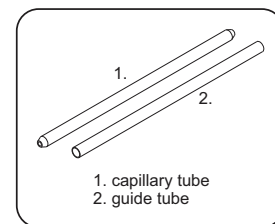
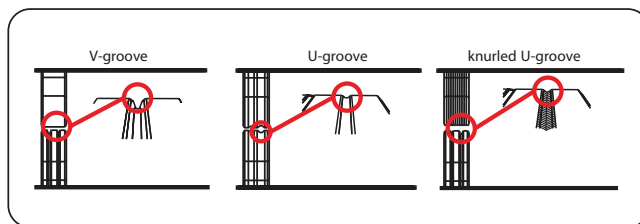
## Use and assignment of different capillary tubes and guide tubes

Euro torch connectors on our machines are fitted with a capillary tube for welding torches with a steel liner ex works. The Euro torch connector needs to be modified accordingly if a welding torch with a liner is used!

Operate welding torches with liners with a guide tube in the Euro torch connector!

Operate welding torches with steel liners with a capillary tube in the Euro torch connector!

|                                                                        | Capillary tubes                                                                                                    |                                                                                                                    | Guide tube       |                  |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------|------------------|
|                                                                        | 094-006634-00000 ( $\leq 1.6 \text{ mm } \varnothing$ )<br>094-021470-00000 ( $\leq 2.4 \text{ mm } \varnothing$ ) | 094-014186-00000 ( $\leq 1.6 \text{ mm } \varnothing$ )                                                            | 094-006051-00000 |                  |
| <b>Compact machines (machines with integrated wire feed mechanism)</b> |                                                                                                                    |                                                                                                                    |                  |                  |
| Mira                                                                   |                                                                                                                    | ●                                                                                                                  |                  | 094-019350-00000 |
| Saturn                                                                 | ●                                                                                                                  |                                                                                                                    | ●                |                  |
| Wega                                                                   | ●                                                                                                                  |                                                                                                                    | ●                |                  |
| Picomig 180                                                            | 094-014667-00000 ( $< 2.0 \text{ mm } \varnothing$ )                                                               |                                                                                                                    |                  | 094-018316-00000 |
|                                                                        | Capillary tubes                                                                                                    |                                                                                                                    | Guide tube       |                  |
|                                                                        | 094-006634-00000 ( $\leq 1.6 \text{ mm } \varnothing$ )<br>094-021470-00000 ( $\leq 2.4 \text{ mm } \varnothing$ ) | 094-002559-00000 ( $\leq 1.6 \text{ mm } \varnothing$ )<br>094-007515-00000 ( $\leq 2.0 \text{ mm } \varnothing$ ) | 094-006051-00000 | 094-001064-00000 |
| <b>Wire feeders</b>                                                    |                                                                                                                    |                                                                                                                    |                  |                  |
| drive 41L                                                              |                                                                                                                    | ●                                                                                                                  |                  | ●                |
| drive 41                                                               | ●                                                                                                                  |                                                                                                                    | ●                |                  |
| Drive 4X Steel D200<br>Drive 4 Basic S D200                            | 094-014667-00000 ( $\leq 2.0 \text{ mm } \varnothing$ )                                                            |                                                                                                                    |                  | 094-018316-00000 |



## Capillary/guide tube for eFeed wire feed mechanism

The use of capillary or guide tubes ensures optimum wire guiding from spool to weld pool.



Recommendation:

- Use a steel liner to weld hard, unalloyed wire electrodes (steel).
- Use a plastic liner to weld or braze soft or alloy wire electrodes.

The Euro torch connectors on our wire feeders and welding machines are equipped with a capillary tube for welding torches with steel liners (for wires  $\leq 1.6$  mm) ex-works. The Euro torch connector needs to be modified accordingly on the machine if a welding torch with a plastic liner is used!

| Use in wire feeders:                       |                                                                                     | Capillary tube                                                                                                                                                                   | Guide tube                                                                                                                                                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Machine series                             |  | <b>Wires <math>\leq 1.6</math> mm:</b><br>094-006634-00000<br><b>Wires <math>\leq 2.4</math> mm:</b><br>094-021470-00000<br><b>Wires <math>\geq 2.4</math> mm:</b><br>On request | <b>Wires <math>\leq 1.6</math> mm:</b><br>094-020064-00000<br><b>Wires <math>\leq 2.4</math> mm:</b><br>On request<br><b>Wires <math>\geq 2.4</math> mm:</b><br>On request |
|                                            |                                                                                     | ●                                                                                                                                                                                | ●                                                                                                                                                                          |
| drive 4X IC<br>drive 4X IC D<br>drive 4 IC |  | ●                                                                                                                                                                                | ●                                                                                                                                                                          |
|                                            |                                                                                     | ●                                                                                                                                                                                | ●                                                                                                                                                                          |

| Use on compact welding machines                                                                                           | Capillary tube                                                                                                                                                                   | Guide tube                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                           | <b>Wires <math>\leq 1.6</math> mm:</b><br>094-006634-00000<br><b>Wires <math>\leq 2.4</math> mm:</b><br>094-021470-00000<br><b>Wires <math>\geq 2.4</math> mm:</b><br>On request | <b>Wires <math>\leq 1.6</math> mm:</b><br>094-020064-00000<br><b>Wires <math>\leq 2.4</math> mm:</b><br>On request<br><b>Wires <math>\geq 2.4</math> mm:</b><br>On request |
| Machine series                                                                                                            |                                                                                                                                                                                  |                                                                                                                                                                            |
| Picomig 185/305<br>                      | ●                                                                                                                                                                                | ●                                                                                                                                                                          |
| Phoenix/Taurus 355 compact<br>           | ●                                                                                                                                                                                | ●                                                                                                                                                                          |
| Phoenix/Taurus 351/401/501 compact<br> | ●                                                                                                                                                                                | ●                                                                                                                                                                          |
| Titan XQ 350/400 C<br>                 | ●                                                                                                                                                                                | ●                                                                                                                                                                          |

If welding torches and the Euro torch connector are not equipped in line with the wire electrode used, there will be problems with wire feeding:

- Bird nest
- Jolting, irregular wire feed; the whole wire feed system may get jammed

This is why either a liner or steel liner with a compatible inner diameter must be used in the welding torch and a capillary or guide tube in the welding machine Euro torch connector, depending on the wire electrode diameter and wire electrode type.

## Wire feed rolls - Overview capillary tubes / intermediate wire guides

- **Recommendation**

- Use a steel liner with capillary tube to weld hard, unalloyed wire electrodes (steel)
- Use a liner with guide tube to weld or braze soft or alloy wire electrodes

**Capillary tube**

- Capillary tube for use on a steel liner when welding steel wire



| Designation    | Length<br>mm | Version                | PU<br>ve | Item no.         | PE | PG | Price  |
|----------------|--------------|------------------------|----------|------------------|----|----|--------|
| Capillary tube | 107          | Wire diameter ≤ 1.6 mm | 10       | 094-006634-00000 | Pc | E5 | 3,42 € |
|                | 105          | Wire diameter ≤ 2.4 mm | 5        | 094-021470-00000 | Pc | E5 | 6,89 € |
|                | 118          | Wire diameter ≤ 1.6 mm | 5        | 094-002559-00000 | Pc | E5 | 3,45 € |
|                |              | Wire diameter ≤ 2.0 mm | 5        | 094-007515-00000 | Pc | E5 | 3,45 € |
|                | 48           | Wire diameter ≤ 1.6 mm | 5        | 094-014186-00000 | Pc | E5 | 5,09 € |
|                | 69           | Wire diameter ≤ 2.0 mm | 5        | 094-014667-00000 | Pc | E5 | 4,99 € |

**Guide tube**

- Guide tube for use on a liner when welding or brazing soft or alloyed wire



| Designation | Length<br>mm | PU | Item no.         | PE | PG | Price   |
|-------------|--------------|----|------------------|----|----|---------|
| Guide tube  | 45           | 1  | 094-019350-00000 | Pc | E5 | 19,65 € |
|             | 66           | 1  | 094-018316-00000 | Pc | E5 | 4,20 €  |
|             | 105          | 10 | 094-006051-00000 | Pc | E5 | 2,40 €  |
|             | 115          | 10 | 094-001064-00000 | Pc | E5 | 2,40 €  |