eppendorf

Instructions for use
Capillary holder 4
English (EN)

This document is a supplement to the Microinjektor operating manual and does not replace it. Therefore, also read the operating manual. The current version is available on the Internet at www.eppendorf.com/manuals.

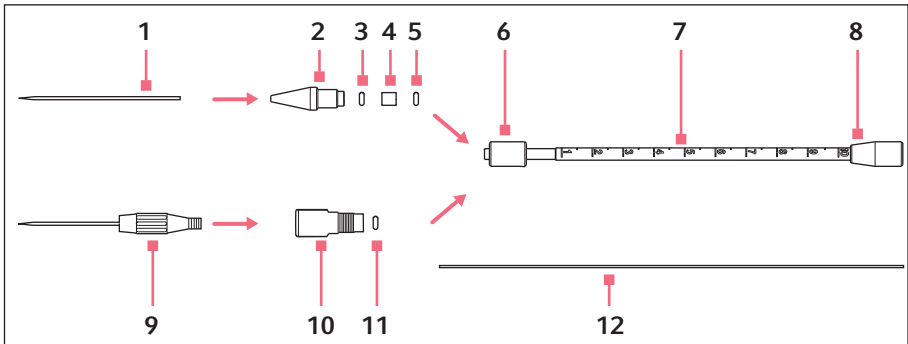## 1   Main illustration of capillary holder 4

Fig. 1:   Capillary holder 4

1   Capillary

2   Grip head 4 size 0

3   O-ring in the grip head

4   Distance sleeve in the grip head

5   O-ring in the grip head

6   Knurled screw

7   Capillary holder

8   Port for injection tube

9   Femtotips

10 Adapter for Femtotips

11 O-ring in the Femtotip adapter

12 Cleaning stylet
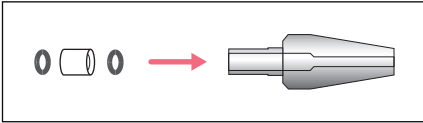
2 Application with capillaries

2.1 Inserting the o-rings and the distance sleeve

Prerequisites

• O-rings matching the grip head size are available.

1. Place the new o-rings and the distance sleeve on a flat surface.
2. Press the grip head vertically onto the first o-ring and push the o-ring into the grip head using the capillary holder.
3. Press the grip head vertically onto the distance sleeve and push the distance sleeve into the grip head using the capillary holder.
4. Press the grip head vertically onto the second o-ring and push the o-ring into the grip head using the capillary holder.
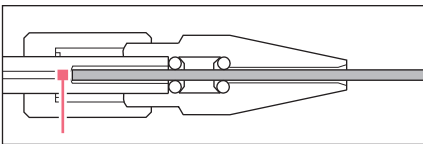
2.2 Inserting the capillary

ⓘ Only capillaries with an outer diameter of 1.0 mm to 1.1 mm fit into the grip head of size 0. When using different diameters, the suitable grip head size must be ordered.

Prerequisites

• The grip head is inserted loosely in the capillary holder.

1. Push the capillary through the o-ring in the grip head until the capillary stop.
2. Tighten the grip head.
3. If necessary, align the capillary using the front knurled screw.
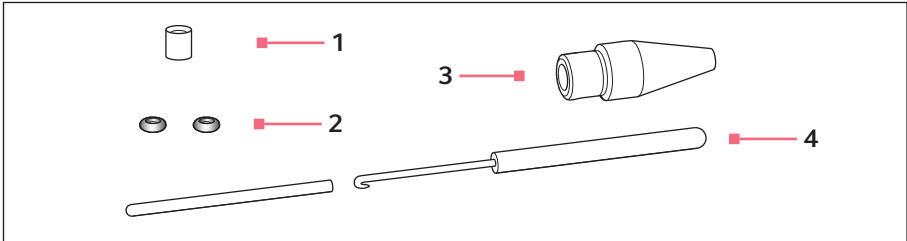
2.3   Replacing the o-rings in the grip head

Fig. 2:   Grip head with removal tool

1 Distance sleeve

2 O-rings
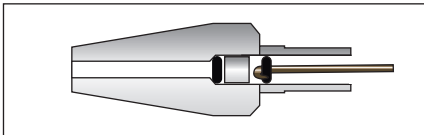Inner diameter 1.0 mm

3 Grip head 4 size 0

4 Removal tool
Hook with protective sleeve

Prerequisites
- The grip head has been unscrewed from the capillary holder.
- The capillary has been removed from the grip head.

The hook of the removal tool is used to pull out the o-rings and the distance sleeve.

1. Pull out the first o-ring.
2. Pull out the distance sleeve.
3. Pull out the second o-ring.
4. Insert new o-rings.

2.4   Assignment grip heads – o-rings

Grip head size	For capillary diameter	O-ring inner diameter
0	1.0 mm – 1.1 mm	1.0 mm
1	1.2 mm – 1.3 mm	1.5 mm
2	1.4 mm – 1.5 mm	1.5 mm
3	0.7 mm – 0.9 mm	1.0 mm
Adapter for Femtotips		1.5 mm

3   Application with Femtotips
3.1   Inserting Femtotips

1. Unscrew the grip head.
2. Screw the adapter for Femtotips into the capillary holder.
3. Screw Femtotips into the adapter.

3.2   Replacing the seal in the adapter for Femtotips

1. Unscrew Femtotips.
2. Use the hook of the removal tool to pull out the o-ring.
3. Insert a new o-ring and push it into the adapter using the capillary holder.

4   Ordering information

Order no. (International)	Order no. (North America)	Description
5196 081.005	5196081005	**Capillary holder 4** for mounting microcapillaries, Femtotips, Femtotip II or grip head 4 (incl. Grip head 4 size 0 and adapter for Femtotips)
		Grip head set 4
5196 082.001	5196082001	size 0
5196 083.008	5196083008	size 1
5196 084.004	5196084004	size 2
5196 085.000	5196085000	size 3
		O-ring set 4 incl. 10 o-rings large, 10 o-rings small, 2 distance sleeves, o-ring removal tool
5196 086.007	5196086007	for grip head sets 4