



Thermo Scientific ClipTip Pipette Tips

User Manual

Thermo Scientific® F1-ClipTip® manual pipettes and ClipTip 20-1000µl and 12.5µl Ext pipette tips* comply with the European Union Directive 98/79/EC, and are marked with a IVD-CE marking. When this pipette and tip system is used in applications related to the Directive 98/79/EC, read the additional information enclosed in the F1-ClipTip pipette package or contact the manufacturer at info.pipettes@thermofisher.com to ensure correct and safe use.

The ClipTip system Instructions for Use consists of information supplied with the F1-ClipTip pipette and the ClipTip pipette tips.

Note The IVD-CE marking **does not** cover the system containing the E1-ClipTip electronic pipette and the ClipTip pipette tips.

ClipTip is a registered trademark of Thermo Fisher Scientific Inc. and its subsidiaries.

*Excluding Filter Reloads

1. Introduction

- The ClipTip® 20-1250 pipette tips feature an innovative interlocking tip interface technology that locks the tip in place ensuring secure tip attachment and preventing tips from being displaced in the middle of pipetting. For improved ergonomics, tips are attached and ejected using minimal application pressure.
- ClipTip 12.5 and all 384 ClipTip tips feature a unique snap on tip attachment mechanism. The tip has small incorporated protrusions that snap on the tip fitting groove ensuring light and secure tip attachment. Flexible plastic lip design seals the tip against the tip fitting.
- ClipTip tips and racks are made of polypropylene (PP).
- 96-format ClipTip 20-1250 tips utilize low retention technology to enable maximum sample recovery.
- The ClipTip tips operate only with F1-ClipTip and E1-ClipTip pipettes. See compatibility chart on page 9. The convenient color coding system facilitates to identify the correct ClipTip pipette by volume for use.
- The ClipTip product offering covers a volume range from 0.1 µl to 1250 µl.
- The ClipTip tips are available as sterile and non-sterile racks and reloads as well as racked filter tips
- All ClipTip tips are certified free of RNase, DNase, DNA, ATP and Endotoxin. A lot specified certificate is included in each product package.
- Sterile tips can be identified from the markings on the package labels including the indicator dots and product units printings.
- Each ClipTip tip insert has ink-jetted lot, order and volume information for easy traceability.

2. Intended Use and Safety Cautions

Cautions are marked with this symbol .

The intended use of the ClipTip tips is to transfer liquids in the volume range of 0.1 µl to 1250 µl. The ClipTip tips and ClipTip pipettes are designed as a component of an analyzing system for an end user, who is responsible for validating the system to ensure reliable and safe results.

Damage to health

- Follow general procedures for hazard prevention and safety instructions; e.g. wear protective clothing, eye protection and gloves.
- For use and waste disposal of hazardous (e.g. radioactive and potentially infectious) material, follow the safety instructions and general laboratory practice.
- The pipette and tips are not intended for in vivo use. Do not use the pipette for pipetting any liquid to be injected into a human body.
- Do not eject the tip towards anybody.
- The ClipTip tips and ClipTip pipettes are to be used by trained personnel with required laboratory skills.
- The instructions for use must be read prior to and during the use of the device (pipette and tip).
- The ClipTip tips can be used between +4°C and +40°C.

Incorrect dispensing results

- Performance may vary due to:
 - a. pipetting method
 - b. temperature (air, liquid, vessel, pipette and tip)
 - c. pressure
 - d. humidity
 - e. operator, e.g. thumb movement, pipetting angle
 - f. liquid density, viscosity and vapor pressure
 - g. type of tip e.g. filter tip, extended length tip
- If the pipetting performance is critical to the outcome of a specific application, the result has to be assured with an alternative test, and if this is not an option, by duplicate testing.
- The possibility of an incorrect volume delivery during pipetting cannot be entirely mitigated.
- To avoid inaccurate dispensing and/or leakage, check that the tip is properly attached to the pipette.
- Pipetting performance cannot be guaranteed if the tip is reused.
- Choose only a tip and pipette with matching color coding.

Incorrect use of tips

- ClipTip tips are designed for single use only.
- To ensure sterility and purity of tips check that the package is unbroken.
- Check that the tip is complete and unbroken. Check for foreign particles in the tip.
- Check that the filter tips have filters in place and the filter is unbroken and not tilted.
- See pipette Instructions for Use manual for correct attachment of ClipTip tips into the tip fitting.

3. Sterilization

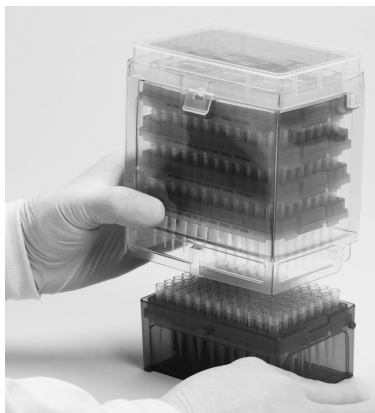
ClipTip 20-1250 96-format tips, inserts and racks can be autoclaved at 121°C (252°F) (2 ata) for 20 minutes. If the tips are sterilized by autoclaving it is recommended to sterilize the tips in racks. If a sterilization bag is used leave the rack lid open. In case sterilization bag is not used keep the rack lid closed. After autoclaving allow rack to cool to room temperature.

Note ClipTip 384, ClipTip 12.5, filter tips, 384 insert plates and reload sleeves are not autoclavable.

4. Using ClipTip Reloads

Note When using reloads ensure adequate purity and sterility of the reused racks

4.1 Reload Towers



Step 1.

While grasping lowest insert, lift sleeve up off rack and transfer entire sleeve to an empty rack. Make sure to align sleeve knockouts with latch and rear lid posts.

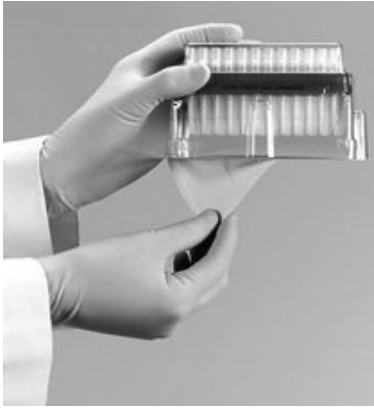


Step 2.

Push down on the middle of top insert, which will slide bottom insert into empty tray.

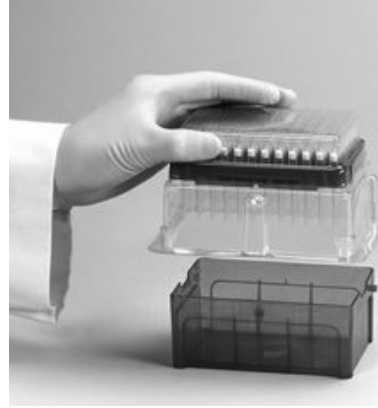
Note Plastic sleeve is not intended to rest on any counter top without a rack underneath it.

4.2 Reload Inserts



Step 1.

Hold the top of the reload insert cup and peel the paper on the bottom of the cup.



Step 2.

Remove the rack lid. Align the reload insert cup with the rack base.



Step 3.

Push down directly, locking the reload insert cup into the rack.

5. ClipTip Ordering Information

| ClipTip Racked (non-sterile and sterile) | | | | |
|--|-----------------------------------|---------------------|---------------------|----------------|
| Order number | Description | Volume range | Color Coding | Qty |
| 94410040 | ClipTip 12.5 | 0.5-12.5 µl | Pink | 10 x 96/rack |
| 94410043 | ClipTip 12.5, sterile | 0.5-12.5 µl | Pink | 10 x 96/rack |
| 94410060 | ClipTip 12.5 Ext | 0.1-12.5 µl | Pink | 10 x 96/rack |
| 94410063 | ClipTip 12.5 Ext, sterile | 0.1-12.5 µl | Pink | 10 x 96/rack |
| 94410210 | ClipTip 20 | 1-20 µl | Pink | 10 x 96/rack |
| 94410213 | ClipTip 20, sterile | 1-20 µl | Pink | 10 x 96/rack |
| 94410250 | ClipTip 50 | 5-50 µl | Violet | 10 x 96/rack |
| 94410253 | ClipTip 50, sterile | 5-50 µl | Violet | 10 x 96/rack |
| 94410310 | ClipTip 200 | 2-200 µl | Yellow | 10 x 96/rack |
| 94410313 | ClipTip 200, sterile | 2-200 µl | Yellow | 10 x 96/rack |
| 94410510 | ClipTip 300 | 10-300 µl | Orange | 10 x 96/rack |
| 94410513 | ClipTip 300, sterile | 10-300 µl | Orange | 10 x 96/rack |
| 94410610 | ClipTip 300 Ext | 10-300 µl | Orange | 8 x 96/rack |
| 94410613 | ClipTip 300 Ext, sterile | 10-300 µl | Orange | 8 x 96/rack |
| 94410710 | ClipTip 1000 | 30-1000 µl | Blue | 8 x 96/rack |
| 94410713 | ClipTip 1000, sterile | 30-1000 µl | Blue | 8 x 96/rack |
| 94410810 | ClipTip 1250 | 15-1250 µl | Turquoise | 8 x 96/rack |
| 94410813 | ClipTip 1250 | 15-1250 µl | Turquoise | 8 x 96/rack |
| ClipTip 384 tip | | | | |
| 94410050 | ClipTip 384 12.5 | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94410053 | ClipTip 384 12.5, sterile | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94410070 | ClipTip 384 12.5 Ext | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94410073 | ClipTip 384 12.5 Ext, sterile | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94410100 | ClipTip 384 30, | 1-30 µl | Violet | 10 x 384/rack |
| 94410103 | ClipTip 384 30, sterile | 1-30 µl | Violet | 10 x 384/rack |
| 94410150 | ClipTip 384 125 | 2-125 µl | Yellow | 10 x 384/rack |
| 94410153 | ClipTip 384 125, sterile | 2-125 µl | Yellow | 10 x 384/rack |
| ClipTip Reloads (non-sterile and sterile) | | | | |
| Order number | Description | Volume range | Color Coding | Qty |
| 94410217 | ClipTip 20 Reload Tower | 1-20 µl | Pink | 10 x 96/insert |
| 94410218 | ClipTip 20 Reload Tower, sterile | 1-20 µl | Pink | 10 x 96/insert |
| 94410257 | ClipTip 50 Reload Tower | 5-50 µl | Violet | 10 x 96/insert |
| 94410258 | ClipTip 50 Reload Tower, sterile | 5-50 µl | Violet | 10 x 96/insert |
| 94410317 | ClipTip 200 Reload Tower | 2-200 µl | Yellow | 10 x 96/insert |
| 94410318 | ClipTip 200 Reload Tower, sterile | 2-200 µl | Yellow | 10 x 96/insert |
| 94410517 | ClipTip 300 Reload Tower | 10-300 µl | Orange | 10 x 96/insert |
| 94410518 | ClipTip 300 Reload Tower, sterile | 10-300 µl | Orange | 10 x 96/insert |

| Order number | Description | Volume range | Color Coding | Qty |
|--------------------------------------|---------------------------------------|---------------------------|--------------|-------------------------------|
| 94410617 | ClipTip 300 Ext Reload Tower | 10-300 µl | Orange | 10 x 96/insert |
| 94410618 | ClipTip 300 Ext Reload Tower, sterile | 10-300 µl | Orange | 10 x 96/insert |
| 94410717 | ClipTip 1000 Reload Tower | 30-1000 µl | Blue | 8 x 96/insert |
| 94410718 | ClipTip 1000 Reload Tower, sterile | 30-1000 µl | Blue | 8 x 96/insert |
| 94410817 | ClipTip 1250 Reload Insert | 15-1250 µl | Turquoise | 8 x 96/insert |
| 94410818 | ClipTip 1250 Reload Insert, sterile | 15-1250 µl | Turquoise | 8 x 96/insert |
| ClipTip Filtered Racked | | | | |
| Order number | Description | Volume range | Color Coding | Qty |
| 94420043 | ClipTip Filter 12.5, sterile | 0.5-12.5 µl | Pink | 10 x 96/rack |
| 94420063 | ClipTip Filter 12.5 Ext, sterile | 0.1-12.5 µl | Pink | 10 x 96/rack |
| 94420213 | ClipTip Filter 20, sterile | 1-20 µl | Pink | 10 x 96/rack |
| 94420253 | ClipTip Filter 50, sterile | 5-50 µl | Violet | 10 x 96/rack |
| 94420313 | ClipTip Filter 200, sterile | 2-200 µl | Yellow | 10 x 96/rack |
| 94420513 | ClipTip Filter 300, sterile | 10-300 µl | Orange | 10 x 96/rack |
| 94420613 | ClipTip Filter 300 Ext, sterile | 10-300 µl | Orange | 8 x 96/rack |
| 94420713 | ClipTip Filter 1000, sterile | 30-1000 µl | Blue | 8 x 96/rack |
| 94420813 | ClipTip Filter 1250, sterile | 15-1250 µl | Turquoise | 8 x 96/rack |
| 384 ClipTip Tips | | | | |
| 94420053 | ClipTip Filter 384 12.5, sterile | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94420073 | ClipTip Filter 384 12.5 Ext, sterile | 0.5-12.5 µl | Pink | 10 x 384/rack |
| 94420103 | ClipTip Filter 384 30, sterile | 1-30 µl | Violet | 10 x 384/rack |
| 94420153 | ClipTip Filter 384 125, sterile | 2-125 µl | Yellow | 10 x 384/rack |
| ClipTip Filter Reload Inserts | | | | |
| Order number | Description | Volume range | Color Coding | Qty |
| 94420218 | ClipTip 20 Filter Reload, sterile | 1-20 µl | Pink | 10 x 96/insert |
| 94420258 | ClipTip 50 Filter Reload, sterile | 5-50 µl | Violet | 10 x 96/insert |
| 94420318 | ClipTip 200 Filter Reload, sterile | 2-200 µl | Yellow | 10 x 96/insert |
| 94420518 | ClipTip 300 Filter Reload, sterile | 10-300 µl | Orange | 10 x 96/insert |
| 94420718 | ClipTip 1000 Filter Reload, sterile | 30-1000 µl | Blue | 8 x 96/insert |
| 94420818 | ClipTip 1250 Filter Reload, sterile | 15-1250 µl | Turquoise | 8 x 96/insert |
| ClipTip Empty Racks | | | | |
| 94410219 | ClipTip Empty Rack Small | ClipTip 20 µl and 50 µl | | 10 x 96/rack, no tips/inserts |
| 94410519 | ClipTip Empty Rack Medium | ClipTip 200 µl and 300 µl | | 10 x 96/rack, no tips/inserts |
| 94410619 | ClipTip 300 Ext Empty Rack | ClipTip 300 Ext | | 8 x 96/rack, no tips/inserts |
| 94410819 | ClipTip Empty Rack Large | ClipTip 1000 and 1250 µl | | 8 x 96/rack, no tips/inserts |

All ClipTip tips are certified to be free from RNase, DNase, DNA, ATP and endotoxins*

* Does not apply to empty racks

6. ClipTip Compatibility Chart

| Order No. | Description | ClipTip | | | | | | |
|-----------------------------------|--------------------------------|------------------|------------|------------|-------------|-------------|-------------------|--------------|
| | | ClipTip 12.5 Ext | ClipTip 20 | ClipTip 50 | ClipTip 200 | ClipTip 300 | ClipTip 300 Ext * | ClipTip 1000 |
| F1-ClipTip Manual Pipettes | | | | | | | | |
| | Single channels | | | | | | | |
| 4641310N | F1-ClipTip 0.1-2µl | • | | | | | | |
| 4641320N | F1-ClipTip 1-10µl | • | | | | | | |
| 4641180N | F1-ClipTip 2-20µl | | • | | | | | |
| 4641190N | F1-ClipTip 5-50µl | | | • | | | | |
| 4641200N | F1-ClipTip 10-100µl | | | | • | | | |
| 4641210N | F1-ClipTip 20-200µl | | | | • | | | |
| 4641220N | F1-ClipTip 30-300µl | | | | | • | • | |
| 4641230N | F1-ClipTip 100-1000µl | | | | | | | • |
| 4651280N | F1-ClipTip 10µl fixed volume | • | | | | | | |
| 4651200N | F1-ClipTip 20µl fixed volume | | • | | | | | |
| 4651210N | F1-ClipTip 25µl fixed volume | | | • | | | | |
| 4651220N | F1-ClipTip 50µl fixed volume | | | • | | | | |
| 4651230N | F1-ClipTip 100µl fixed volume | | | | • | | | |
| 4651240N | F1-ClipTip 200µl fixed volume | | | | • | | | |
| 4651250N | F1-ClipTip 250µl fixed volume | | | | | • | • | |
| 4651260N | F1-ClipTip 500µl fixed volume | | | | | | | • |
| 4651270N | F1-ClipTip 1000µl fixed volume | | | | | | | • |
| | Multichannels | | | | | | | |
| 4661210N | F1-ClipTip 8-ch 1-10µl | • | | | | | | |
| 4661120N | F1-ClipTip 8-ch 5-50µl | | | • | | | | |
| 4661130N | F1-ClipTip 8-ch 10-100µl | | | | • | | | |
| 4661140N | F1-ClipTip 8-ch 30-300µl | | | | | • | • | |
| 4661220N | F1-ClipTip 12-ch 1-10µl | • | | | | | | |
| 4661160N | F1-ClipTip 12-ch 5-50µl | | | • | | | | |
| 4661170N | F1-ClipTip 12-ch 10-100µl | | | | • | | | |
| 4661180N | F1-ClipTip 12-ch 30-300µl | | | | | • | • | |

* Performance specifications with extended length tips differ from the specifications of the standard tips. Specifications available separately.

Note:

The following F1-ClipTip 1-10µl pipettes have been discontinued and replaced by new design pipettes with product catalogue numbers shown in the above chart.

- 4641170N F1-ClipTip 1-10µl
- 4651190N F1-ClipTip 10µl fix vol
- 4661110N F1-ClipTip 8-ch 1-10µl
- 4661150N F1-ClipTip 12-ch 1-10µl

These pipettes are compatible with CT20 tips which are available normally.

| Order No. | Description | ClipTip | | | | | | | | | | | | |
|---------------------------------------|---|--------------|--------------------|------------|------------|-------------|-------------|-------------------|--------------|--------------|------------------|-----------------------|----------------|-----------------|
| | | ClipTip 12.5 | ClipTip 12.5 Ext * | ClipTip 20 | ClipTip 50 | ClipTip 200 | ClipTip 300 | ClipTip 300 Ext * | ClipTip 1000 | ClipTip 1250 | ClipTip 12.5 384 | ClipTip 12.5 Ext 384* | ClipTip 30 384 | ClipTip 125 384 |
| E1-ClipTip Electronic Pipettes | | | | | | | | | | | | | | |
| | Single channels | | | | | | | | | | | | | |
| 4670000 4670000BT | E1-ClipTip 0.5-12.5 µl | • | • | | | | | | | | | | | |
| 4670020 4670020BT | E1-ClipTip 2-125 µl | | | | | • | | | | | | | | |
| 4670030 4670030BT | E1-ClipTip 10-300 µl | | | | | | • | • | | | | | | |
| 4670040 4670040BT | E1-ClipTip 15-1250 µl | | | | | | | | | • | | | | |
| | Multichannels | | | | | | | | | | | | | |
| 4671000 4671000BT | E1-ClipTip 8-ch 0.5-12.5 µl | • | • | | | | | | | | | | | |
| 4671040 4671040BT | E1-ClipTip 8-ch 2-125 µl | | | | | • | | | | | | | | |
| 4671070 4671070BT | E1-ClipTip 8-ch 10-300 µl | | | | | | • | • | | | | | | |
| 4671100 4671100BT | E1-ClipTip 8-ch 15-1250 µl | | | | | | | | | • | | | | |
| 4671010 4671010BT | E1-ClipTip 12-ch 0.5-12.5 µl | • | • | | | | | | | | | | | |
| 4671050 4671050BT | E1-ClipTip 12-ch 2-125 µl | | | | | • | | | | | | | | |
| 4671080 4671080BT | E1-ClipTip 12-ch 10-300 µl | | | | | | • | • | | | | | | |
| 4671090 4671090BT | E1-ClipTip 12-ch 30-850 µl | | | | | | | | | • | | | | |
| 4671020 4671020BT | E1-ClipTip 16-ch 0.5-12.5 µl | | | | | | | | | | • | • | | |
| 4671030 4671030BT | E1-ClipTip 16-ch 1-30 µl | | | | | | | | | | | | • | |
| 4671060 4671060BT | E1-ClipTip 16-ch 2-125 µl | | | | | | | | | | | | | • |
| | Adjustable Tip Spacing Multichannels | | | | | | | | | | | | | |
| 4672090 4672090BT | E1-ClipTip Equalizer 6-ch 15-1250 µl | | | | | | | | | • | | | | |
| 4672050 4672050BT | E1-ClipTip Equalizer 8-ch 2-125 µl | | | | | • | | | | | | | | |
| 4672080 4672080BT | E1-ClipTip Equalizer 8-ch 10-300 µl | | | | | | • | • | | | | | | |
| 4672100 4672100BT | E1-ClipTip Equalizer 8-ch 15-1250 µl | | | | | | | | | • | | | | |
| 4672010 4672010BT | E1-ClipTip Equalizer 384 8-ch 0.5-12.5 µl | | | | | | | | | | • | • | | |
| 4672030 4672030BT | E1-ClipTip Equalizer 384 8-ch 1-30 µl | | | | | | | | | | | | • | |
| 4672060 4672060BT | E1-ClipTip Equalizer 384 8-ch 2-125 µl | | | | | | | | | | | | | • |
| 4672020 4672020BT | E1-ClipTip Equalizer 384 12-ch 0.5-12.5 µl | | | | | | | | | | • | • | | |
| 4672040 4672040BT | E1-ClipTip Equalizer 384 12-ch 1-30 µl | | | | | | | | | | | | • | |
| 4672070 4672070BT | E1-ClipTip Equalizer 384 12-ch 2-125 µl | | | | | | | | | | | | | • |

* Performance specifications with extended length tips differ from the specifications of the standard tips. Specifications available separately.

This product is covered by patents issued in the US.
For patent coverage, see <http://www.thermofisher.com/pipetteip>

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