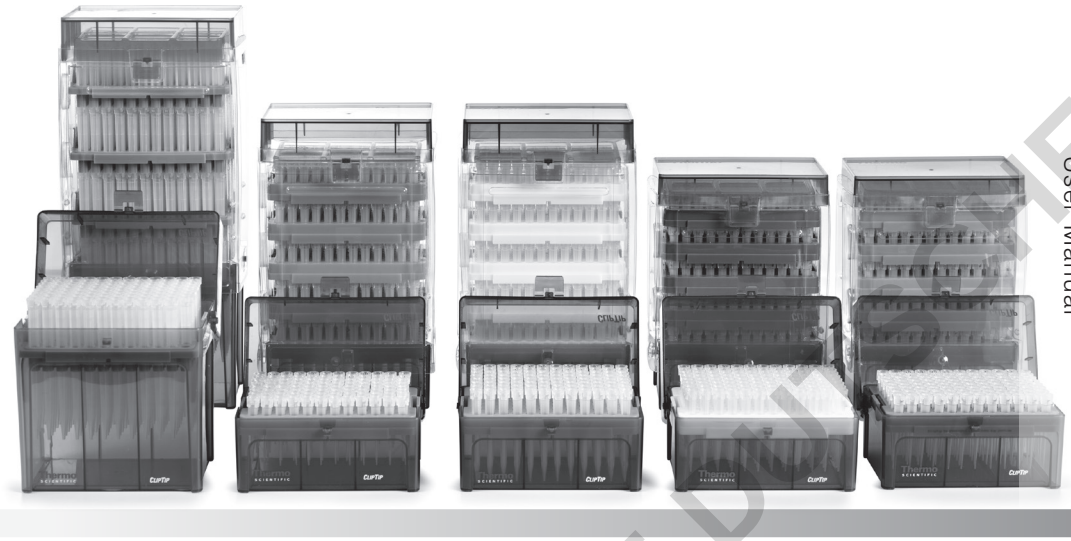


User Manual

Thermo Scientific ClipTip Pipette Tips

User Manual

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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, PCR inhibitors, 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 lenght 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.

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⚠ 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

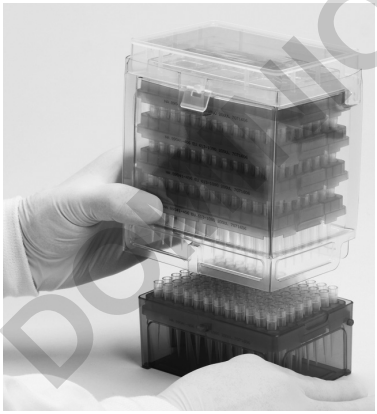
ClipTip 20-1250 96-format tips, inserts and racks can be autoclaved at 121°C (252°F) (2 ata) for 20 minutes. If the tips are sterilized by autoclaving it is recommended to sterilize the tips in racks. If a sterilization bag is used leave the rack lid open. In case sterilization bag is not used keep the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

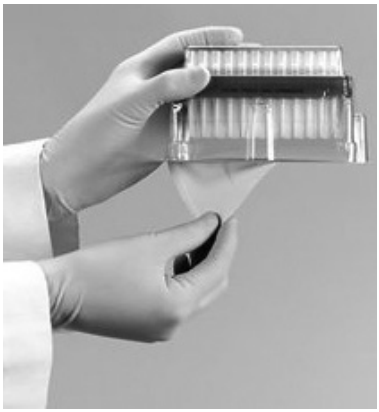


Step 2.

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.

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4.2 Reload Inserts



Step 1.

Hold the top of the reload insert cup and peal 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 relaod insert cup into the rack.

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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	0.5-12.5 µl	Pink	10 x 96/rack
94410063	ClipTip 12.5 Ext, sterile	0.5-12.5 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

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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	0.5-12.5 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 free of RNase, DNase, DNA, PCR inhibitors, ATP, and Endotoxin*

* Does not apply to empty racks

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6. ClipTip Compatibility Chart

		ClipTip						
Order No.	Description	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.

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Order No.	Description	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.

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

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