

# 384. Ready. Set. Pipette!

384-well pipetting made easy  
16- and 24-channel pipettes and epT.I.P.S.® 384

# 16 and 24 Wells in Just One Step

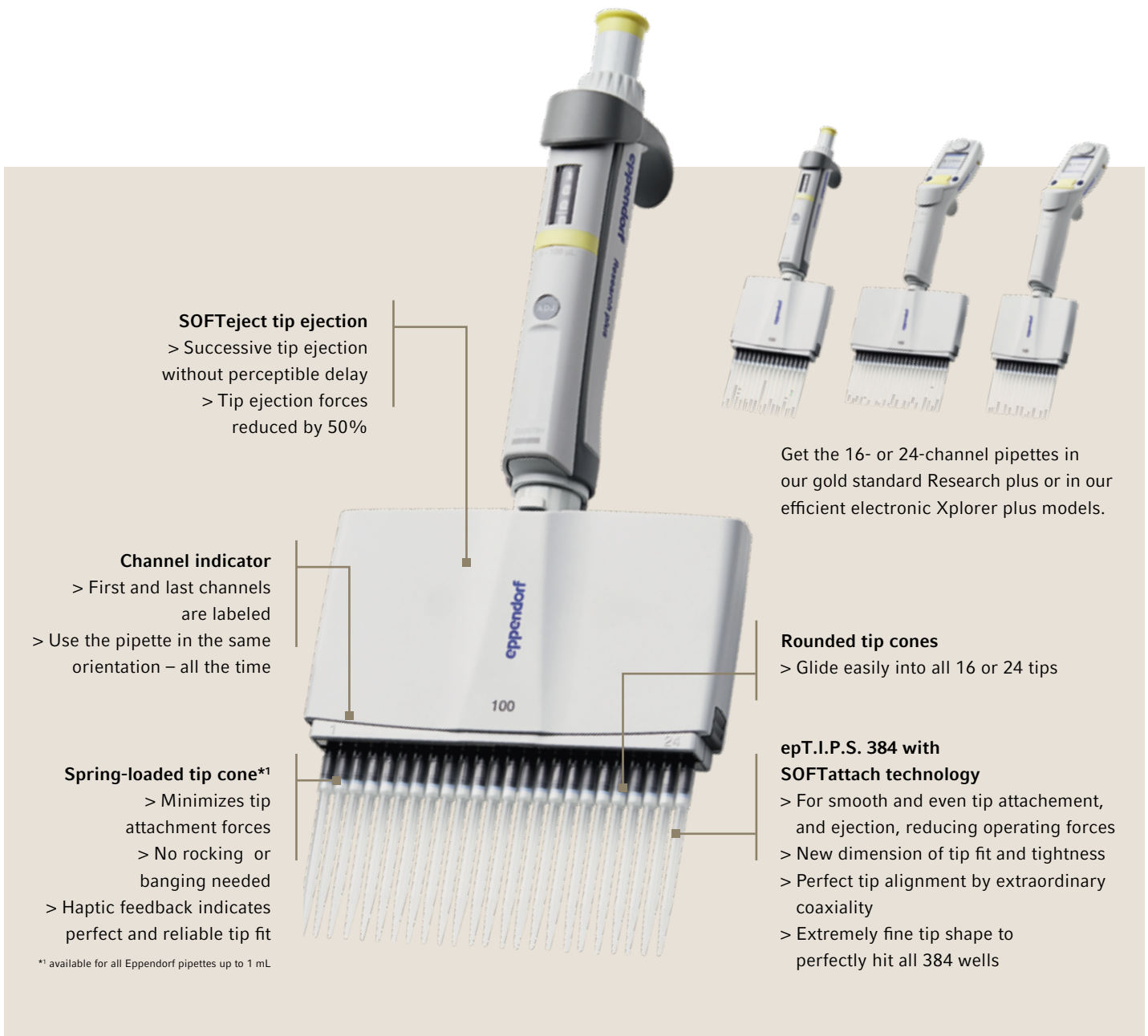
## Pipette into 384-well plates without the pain

Do you work with 384-well plates and strive for more efficient manual pipetting methods? Your worries are over.

Eppendorf's new 16- or 24-channel pipettes and epT.I.P.S.® 384 make working with 384-well plates convenient, ergonomic and safe.

## Fill 384 wells within a minute

- > No more mistakes or tedious work due to inconvenient alternate well pipetting with 8- or 12-channel pipettes
- > Set up or validate an automated process manually, and have a back-up system in case automation fails
- > Increase your throughput today and change from 96 to 384-well plates. There's no reason to hesitate anymore!



### SOFTeject tip ejection

- > Successive tip ejection without perceptible delay
- > Tip ejection forces reduced by 50%

### Channel indicator

- > First and last channels are labeled
- > Use the pipette in the same orientation – all the time

### Spring-loaded tip cone\*1

- > Minimizes tip attachment forces
- > No rocking or banging needed
- > Haptic feedback indicates perfect and reliable tip fit

\*1 available for all Eppendorf pipettes up to 1 mL



Get the 16- or 24-channel pipettes in our gold standard Research plus or in our efficient electronic Xplorer plus models.

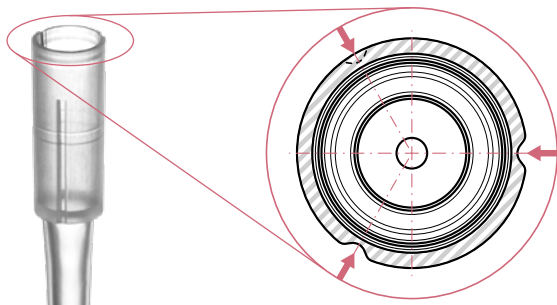
### Rounded tip cones

- > Glide easily into all 16 or 24 tips

### epT.I.P.S. 384 with SOFTattach technology

- > For smooth and even tip attachment, and ejection, reducing operating forces
- > New dimension of tip fit and tightness
- > Perfect tip alignment by extraordinary coaxiality
- > Extremely fine tip shape to perfectly hit all 384 wells

# Ergonomics – Practiced Innovation



## epT.I.P.S. 384 with SOFTattach technology – the key innovation

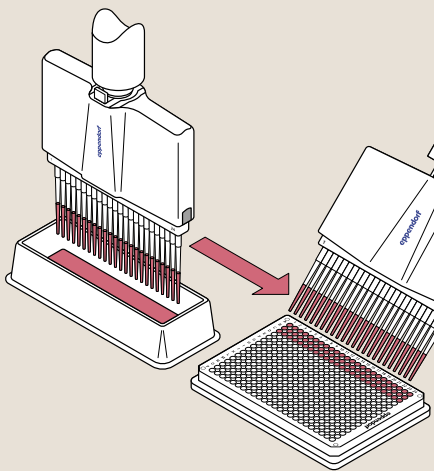
For the first time, pipette tips have elastic forming grooves. They allow the tips to stretch as much as necessary to enable a perfect seal while operating forces are reduced to a minimum.

### Your benefit:

- > Outstanding and reliable tip fit and tightness
- > Reduced tip attachment and ejection forces

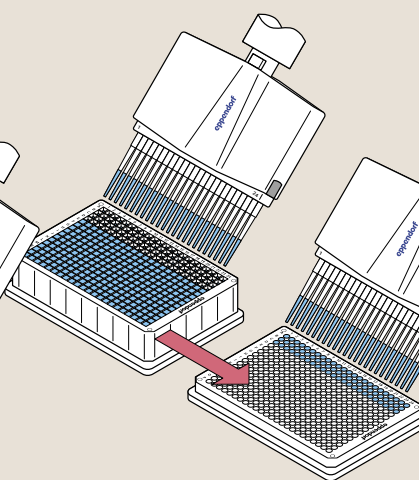
## Applications for 384 Well Plates

### 1 From reagent reservoir to 384-well plate



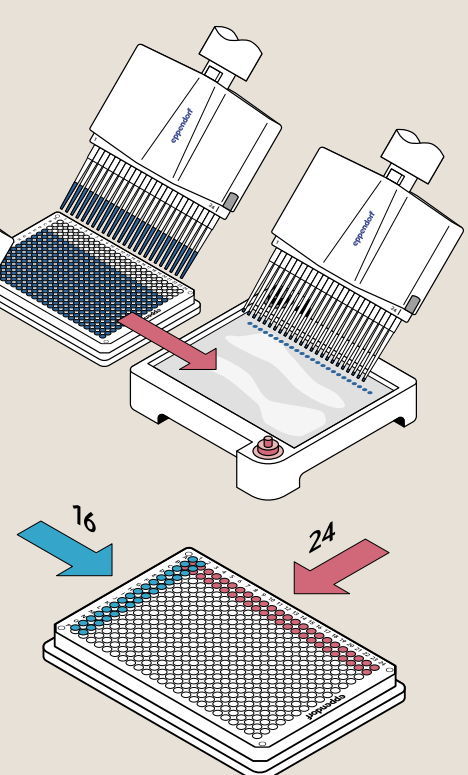
- > Biochemical assays
- > Cell based assays
- > Immunoassays
- > Storage of biological samples or chemical compounds

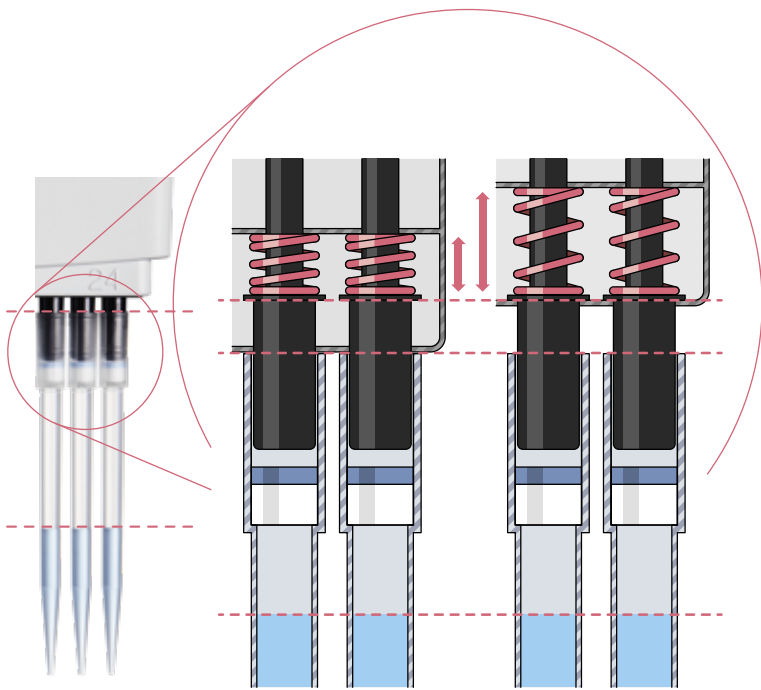
### 2 From 384 to 384-well plate



- > Nucleic acid based methods
  - Amplification
  - Loading of agarose gels
  - Purification
  - Quantification
  - Sequencing

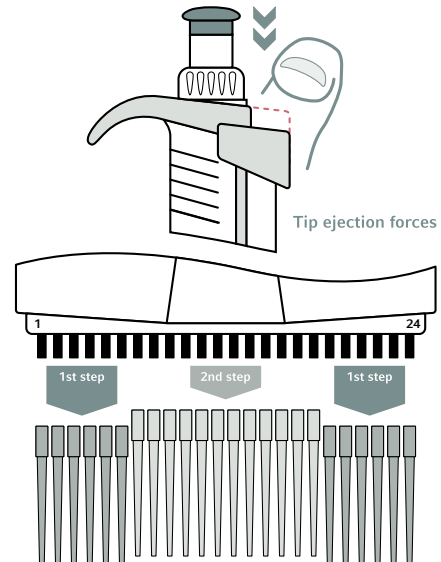
### 3 From 384-well plate to agarose gel





**Spring-loaded tip cone for ergonomic and safe work**

- > Reduced tip attachment force
- > Haptic feedback indicates reproducible and safe tip fit
- > Uniform uptake of liquid



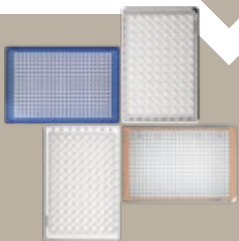
**SOFTject for reduced tip ejection force**

During a single tip ejection stroke, the outside tips eject before the inside tips. This reduces the tip ejection forces by 50%.

## Workflow

**Complete Solutions from Eppendorf**

As a solution provider, we offer 384 well formats with our microplates, thermocyclers, thermomixers, centrifuges and services to complete your 384 well workflow demands. More information about our workflow solutions on: [www.eppendorf.com](http://www.eppendorf.com)



Eppendorf 384-well plates



Eppendorf ThermoMixer® FP



Mastercycler® X50h



Eppendorf Centrifugation

## Ergonomics – Then and Now

**Always focusing on scientists’ needs**

To sustainably support the health of our customers, Eppendorf introduced the **PhysioCare Concept®**. Our philosophy is to continuously listen to scientists’ needs while challenging the status quo of existing tools. Eppendorf has surpassed themselves once again with the new system for 384-well plates by combining proven concepts with new innovations:

The already proven features, the **spring-loaded tip cone** and **SOFTject**, were combined with a further innovation – epT.I.P.S. 384 with **SOFTattach** technology. All these features combined ensure greater user safety and ergonomics at work:

- > Tip attachment – even and reliable
- > Tip ejection – smooth and easy
- > Per tip cone, attachment and ejection forces are significantly reduced
- > Perfectly aligned tips ensure safe plate maneuvering and liquid transfer



[www.eppendorf.com/physiocare](http://www.eppendorf.com/physiocare)



### Superior ergonomics

Ergonomic operation and energy saving. Reduced ejection forces and 40% lower tip attachment forces per cone:

- > **New epT.I.P.S. 384 with SOFTattach technology:** outstandingly smooth and even tip attachment
- > **Spring-loaded tip cone:** with haptic feedback there is no need for rocking and banging, one gentle touch, and done
- > **SOFTject:** 50% reduction of ejection forces by successive tip ejection



### Reproducible results

High level reproducibility and user safety:

- > **Start 16 or 24 reactions simultaneously:** for equal starting conditions
- > **SOFTattach technology and optimal pipette-tip compatibility:** for reliable tip tightness
- > **Perfectly aligned epT.I.P.S. 384:** for safe plate maneuvering and liquid transfer



### Time-saving

Alternate well pipetting with 8- or 12-channel pipettes is a thing of the past:

- > **In just one step:** process complete columns or rows with 16- or 24-channel pipettes
- > **Protects from accidental well misidentification and repeating of experiments**
- > **Improve efficiency with 384-well plates:** 50% reduction in pipetting steps by processing one 384 instead of four 96 well plates

**Eppendorf Research® plus  
(multichannel, variable volume)**

No. of channels	Volume	Color code	Order no.
16 channel	1–20 µL	light pink	3122 000.078
	5–100 µL	light yellow	3122 000.094
24 channel	1–20 µL	light pink	3122 000.086
	5–100 µL	light yellow	3122 000.108

**Eppendorf Xplorer® plus  
(multichannel, variable volume, incl. charger)**

No. of channels	Volume	Color code	Order no.
16 channel	1–20 µL	light pink	4861 000.778
	5–100 µL	light yellow	4861 000.792
24 channel	1–20 µL	light pink	4861 000.779
	5–100 µL	light yellow	4861 000.793

**epT.I.P.S.® / ep Dualfilter T.I.P.S.® 384**

Tips 384	Available as	Tip size	Color code	epT.I.P.S.® 384 Order no.	ep Dualfilter T.I.P.S.® 384 Order no.
<b>Set</b> (Eppendorf Quality™)	epT.I.P.S.® 384, 1,920 tips (5 trays x 384 tips), 1 reusable box	20 µL	light pink	0030 076.028	–
		100 µL	light yellow	0030 076.036	–
<b>Reload</b> (PCR clean)	epT.I.P.S.® 384, 3,840 tips (10 trays x 384 tips)	20 µL	light pink	0030 076.001	–
		100 µL	light yellow	0030 076.010	–
<b>Reload</b> (Eppendorf Quality™)	epT.I.P.S.® 384, 3,840 tips (10 trays x 384 tips)	20 µL	light pink	0030 076.044	–
		100 µL	light yellow	0030 076.052	–
<b>Rack</b> (PCR clean, sterile)	ep Dualfilter T.I.P.S.® 384, 3,840 tips (10 racks x 384 tips)	20 µL	light pink	–	0030 078.853
		100 µL	light yellow	–	0030 078.861

**384-well plates**

	Order no.
<b>Eppendorf twin.tec® PCR plate 384</b>	0030 128.508
<b>Eppendorf Deepwell Plate 384</b>	0030 521.102
<b>Eppendorf Microplate 384/V</b>	0030 621.301

> For more information go to: [www.eppendorf.com/plates](http://www.eppendorf.com/plates)

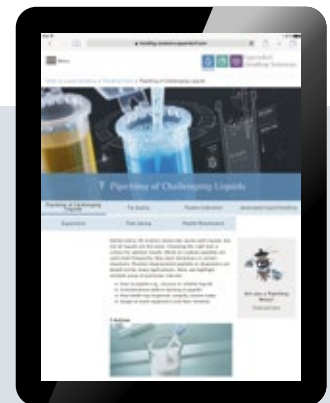
# Eppendorf Handling Solutions

**How to prevent muscle strain during work**

Everyday work in a laboratory puts high demands on our bodies. Visit our Liquid Handling website »Pipetting facts/Ergonomics« for helpful tips and trick.



> Learn more about pipetting and have fun as well:  
[www.eppendorf.com/pipetting](http://www.eppendorf.com/pipetting)



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