

Precision at your fingertips



# STEPPER™

# REPEATER PIPETTE FOR ECOSTEP™ SYRINGES



# Stepper™ 416 repeater pipette

Latest generation of a compact and reliable instrument intended for serial dispensing within 10 to 5000 µL. Associated with three Ecostep™ syringes only, it provides a broad choice of 53 different volumes, and up to 73 doses per filling.

Stepper™ has a unique trigger action mechanism eliminating thumb fatigue. It enables a precise activation movement and is best suited for repeat dispensing, aliquoting, tubes and plate filling. Two-year warranty.

## Main values

- 4-finger friendly trigger activation
- Setting knobs showing volumes and number of aliquots
- Only three positive displacement syringes
- Colour coded setting knobs and syringes
- Self-locking mechanism
- Regular and *bioproof*™ Ecostep™ syringes
- Broad chemical compatibility



### Instant volume reading ①

Select appropriate volume by simple rotation. Volume and corresponding number of aliquots are clearly visible.

### Syringe filling ②

Pull trigger to aspirate liquid for full or partial syringe filling.

### Ready to dispense ③

Instrument fits any hand in a very comfortable way.

### Finger activation with no thumb fatigue ④

Ergonomic, effortless distribution movements using four fingers.

### Release for next dose ⑤

Easy trigger action to monitor fast or slow dispensing.

### Self-locking mechanism ⑥

Stop function prevents false delivery if remaining liquid is insufficient.

# Ecotstep™ 316 syringes for Stepper™



Three syringe sizes cover full volume range from 10 to 5000 µL. Colour coding on syringe and selector button eliminates any setting error. The graduation helps monitoring syringe content. Available in standard non-sterile and sterile *bioproof™* versions. Compatible with all Stepper™ generations.

## Reliable consumables

- 19 different volumes per syringe
- Thin tip end to enter narrow tubes
- Non-sterile, bulk packaging
- Sterile, *bioproof™*, single-wrapped
- Compatible with all Stepper™ generations

## Volume and aliquot chart

No. of aliquots	Volume µL	Volume µL	Volume µL
73	10	50	500
49	15	75	750
36	20	100	1000
29	25	125	1250
24	30	150	1500
20	35	175	1750
18	40	200	2000
15	45	225	2250
14	50	250	2500
12	55	275	2750
11	60	300	3000
10	65	325	3250
9	70	350	3500
8	75	375	3750
8	80	400	4000
7	85	425	4250
7	90	450	4500
7	95	475	4750
6	100	500	5000



## Noble resin materials ⑦

Selected materials provide for excellent chemical resistance. Scan QR code to access chemical chart for further details.

## Reusable syringe adapter ⑧

Available with each bag or as spare part.

## Performance

Volume µL	Performance at	Inaccuracy (E%)	Imprecision (CV%)
10 - 100	20 µL 100 µL	<± 1.5 % <± 1.0 %	< 1.5 % < 0.8 %
50 - 500	100 µL 500 µL	<± 1.0 % <± 0.5 %	< 1.0 % < 0.5 %
500 - 5000	1000 µL 5000 µL	<± 0.8 % <± 0.5 %	< 1.2 % < 0.4 %

Performance values obtained with bidest. water at constant temperature (± 0.5°C) comprised between 20 and 25°C in accordance with ISO 8655

**Sterilization and Purity Certificate – Ecotstep *bioproof™***

Socorex® certifies that Ecotstep *bioproof™* syringes, intended for use with the Stepper™ repeater pipette are sterilized and free of detectable human DNA, DNase, RNase and Pyrogen (endotoxins).

Quality controls performed on each lot by independent laboratories according to procedures below.

<b>Sterility SAL (sterility assurance level):</b> 10 <sup>-6</sup>	
<b>Sterilization ref:</b> CSSR S.A. SOP ref 7.5.1-13, page 1	<b>Sterility test ref:</b> CSSR S.A. SOP 7.5.1-30, ISO 11138-1 and -2
<b>Method:</b> Gas exposure 90% EtO, 10% CO <sub>2</sub> , initial vacuum 50 mbar, temperature 50°C, RH: humidity 50%, Theoretical calculated gas concentration 772 mg EtO / L, exposure time 4h, 5 mixing steps	<b>Method:</b> 18 self-contained biological indicators Bacillus Atropsinis (Socorex var. rigens) ATCC No 3972 at 10 <sup>6</sup> concentration, 2 days incubation at 37°C
	<b>Validation:</b> No growth detected
<b>Human Deoxyribonucleic Acid (DNA) &lt; 2 pg</b>	
<b>Test ref:</b> Socorex Research S.A., SOP ref. SAM503 v1, 2014-01	
<b>Method:</b> Amplification by PCR of "Alu" genomic area in human DNA. Migration of PCR product on agarose gel. Test performed on Ecotstep™ syringes rinsed with DNA-free water.	
	1) Syringe from tested lot 2) Syringe added with 1 µg of Human DNA, 3) Negative control 4) Positive control
<b>Validation:</b> No DNA amplification in samples 1) and 3), detected amplification in samples 2) and 4)	
<b>Deoxyribonuclease (DNase) &lt; 10<sup>7</sup> Kunitz Units</b>	
<b>Test ref:</b> Socorex Research S.A., SOP ref. SAM501 v1, 2014-01	
<b>Method:</b> Incubation on agarose gel of RNA molecular scale. Test performed on Ecotstep™ syringes.	
	1) Syringe from tested lot 2) Syringe added with a 10 <sup>7</sup> K unit of DNase 3) Negative control 4) Positive control
<b>Validation:</b> No degradation on agarose gel of the DNA molecular scale in samples 1) and 3), degradation in samples 2) and 4)	
<b>Ribonuclease (RNase) &lt; 10<sup>6</sup> Kunitz Units</b>	
<b>Test ref:</b> Socorex Research S.A., SOP ref. SAM502 v1, 2014-01	
<b>Method:</b> Incubation on agarose gel of RNA molecular scale. Test performed on Ecotstep™ syringes.	
	1) Syringe from tested lot 2) Syringe added with a 10 <sup>6</sup> K unit of RNase 3) Negative control 4) Positive control
<b>Validation:</b> No degradation on agarose gel of the RNA molecular scale in samples 1) and 3), degradation in samples 2) and 4)	
<b>Pyrogen (endotoxins) &lt; 0.005 IU or EU/mL, &lt; 0.5 EU or EU item tested</b>	
<b>Test ref:</b> LAL chromogenic method, European Pharmacopoeia 8th edition (2014), chapter 2.6.14, and United States Pharmacopoeia 37 NF 32 (2014), chapter 85	
<b>Method:</b> Preparation of a standard curve from 5 IU (or EU/mL) to 5 · 10 <sup>-6</sup> IU (or EU/mL). Bacterial endotoxin rates determined using spectrophotometric measure at 600 nm.	
	Test performed on Ecotstep™ syringes rinsed with Pyrogen-free water. 1) Syringe from tested lot 2) Syringe added with 0.5 IU (or EU/mL) of endotoxin 3) Negative control
<b>Validation:</b> No detection in samples 1) and 3), detection in sample 2)	

LOT SPECIFIC CERTIFICATE AVAILABLE FROM: [SOCOREX@SOCOREX.COM](mailto:socorex@socorex.com)

**SOCOREX SWISS**  
socorex@socorex.com www.socorex.com Ecolab, September 2020

Jean-Marc Ammann  
Quality System & Regulatory Affairs Manager

## High purity grade syringes

Each batch of sterilized, single wrapped Ecotstep™ syringes is tested by independent laboratories for sterility, and certified free of detectable DNase, RNase, human DNA and Pyrogen (endotoxin).

## Chemical resistance chart



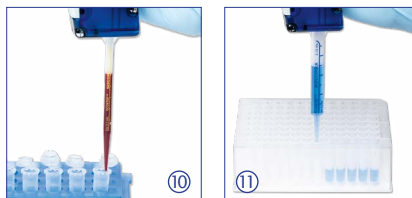
# Stepper™ 416 & Ecostep™ 316 applications and ordering

## Multi purpose use ⑨



Positive displacement Ecostep™ syringes avoid any direct liquid contact with instrument. Chemicals such as acids, bases, solvents and foaming liquids are easily distributed, as well as viscous and high-density reagents.

## Aliquoting and serial distribution ⑩ ⑪



Stepper™ is best suited for dividing samples in small portions, for precise dispensing in tubes and vials or screening procedures.

## Running test kits ⑫



Both Stepper™ and Ecostep™ syringes provide for reliable sample preparation and dilution work, as well as for kit reagent distribution.

## Ordering information

Description	Packaging	Cat. No.
Stepper™ 416 (incl. 3 setting knobs, adapter, syringe samples)	1 / pk	416.5000
Replacement adapter for red Ecostep™ syringe	5 / pk	1.411.7
Stand for one Stepper™	1 / pk	320.411
<b>Ecostep™ bioproof™ sterile, single wrapped</b>		
Yellow, 10 - 100 µL, capacity 0.75 mL	50 / pk	316.010.9
Blue, 50 - 500 µL, capacity 3.75 mL	50 / pk	316.050.9
Red, 500 - 5000 µL, capacity 37.5 mL	50 / pk	316.500.9
<b>Ecostep™ non sterile, bulk</b>		
Yellow, 10 - 100 µL, capacity 0.75 mL	100 / pk	316.010
Blue, 50 - 500 µL, capacity 3.75 mL	100 / pk	316.050
Red, 500 - 5000 µL, capacity 37.5 mL	100 / pk	316.500
<b>Ecostep™ selection packs</b>		
20 ea. yellow, blue and red syringes	60 / pk	316.900
20 ea. sterile, single wrapped yellow, blue and red syringes	60 / pk	316.900.9

## Stand for Stepper™ ⑬



## Ecostep™ selection packs ⑭



Packs include 20 ea. of yellow, blue and red syringes in sterile or non-sterile versions.

## QC certificate and warranty

Individual quality control certificates issued after stringent tests. See package insert for complete warranty terms, safety precautions and operating instructions. Product and specifications are subject to change without prior notice.



## Your local distributor



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