



INSTRUMENTS PVT. LTD.



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Vivek Singh Rathore
CEO & Managing Director

THE COMPANY OVERVIEW

RV Instruments Pvt. Ltd. is professionally managed liquid handling products manufacturing company producing high quality products. The products are sold Internationally through extensive distributors, sales and support network.

RV Instruments Pvt. Ltd. is ISO 9001-2008 certified company and products are **CE** certified.

With a presence in more than 35 countries world wide, **RV Instruments Pvt. Ltd.** has emerged as a fastest growing & reliable source of complete ranges of Liquid Handling products.

RV Instruments with its strong R&D base, is committed to continuous development and to live up to its customers's expectations.

Established in Lucknow(India) in an Eco friendly environment, **RV Instruments** has a strength of over 50 technically skilled team of professionals . Prompt deliveries and continuous customer support is basic policy of the company.

R-Vertex series of pipettes are designed for different type of routine laboratory work. Having soft finger grip of thermoplastic ensuring

- Minimum transfer of body heat to the plastic resulting high accuracy on continuous use.
- Minimum hand fatigue on hands and fingers.
- Reduced thumb stress
- Easy identification through colour coding
- Four digit large display for easy readout.
- Attractive look



SPECIFICATIONS & ORDERING INFORMATION

Variable Volume Micropipettes

Cat No.	VOLUME RANGE	Inc. μl	Vol. μl	Acc. $\pm\%$	CV $\leq\%$
40002	0.2-2.0 μl	0.02	0.2	12.0	6.0
			1.0	2.5	1.5
			2.0	1.5	0.7
400010	0.5-10 μl	0.02	0.5	5.0	2.8
			5.0	1.5	0.8
			10.0	1.0	0.4
400020	2-20 μl	0.02	2.0	5.0	1.5
			10.0	1.0	0.6
			20.0	1.0	0.3

Cat No.	VOLUME RANGE	Inc. μl	Vol. μl	Acc. $\pm\%$	CV $\leq\%$
400050	5-50 μl	0.2	5.0	2.5	6.0
			25.0	0.7	1.5
			50.0	0.7	0.7
400100	10-100 μl	0.1	10.0	2.5	2.8
			50.0	0.8	0.8
			100.0	0.8	0.4
400200	20-200 μl	0.2	20.0	2.5	1.5
			100.0	1.0	0.6
			200.0	0.6	0.3
401000	100-1000 μl	1.0	100.00	1.6	0.3
			500.00	0.6	0.2
			1000.00	0.5	0.2

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

FEATURES :

- ☑ Constructed of High quality plastic, combined with stainless steel piston for many years of dependable service.
- ☑ Individually Calibrated as per procedure laid down in ISO 8655 standards, a calibration report is provided with each pipette.
- ☑ Accuracy and Precision values provided are better than those laid down in the ISO 8655 standards.
- ☑ Seven volume ranges cover the complete pipetting range from 0.2 μ l to 1ml. a wide choice to select the most suitable for any application.



New Body design provide improved ergonomcy for more comfort and less fatigue during operation.



Built-in, streamlined tip ejector facilitates easy tip ejection and access to narrow necked bottles and tubes.



Large display panel for four digits



Soft plunger movement for more comfort and less fatigue during long hours of continues use.



Universal tip cone to adapt all standard tips available in the market.

RV VERTEX FIXED VOLUME MICROPIPETTES

Fixed Volume Pipettes are designed for many different types of routine laboratory work. Using the same state-of-art design and basic features of Variable Volume Pipettes, these fixed volume pipettes are ideal for Clinical Diagnostics, Control Analysis etc. ...



Fixed Volume Pipettes are available in all capacities from 0.5 μ l to 1000 μ l (1 ml.)

Call our customer service for any Custom-made fixed volume micropipette between 0.3 μ l - 1 ml.

Available in Semi Autoclavable versions.



SPECIFICATIONS & ORDERING INFORMATION

Fixed Volume Micropipettes

Cat No.	Vol. μ l	Acc. \pm %	CV \leq %
RVx-F1	1.0	2.5	1.8
RVx-F2	2.0	2.5	1.2
RVx-F5	5.0	1.5	0.8
RVx-F10	10.0	1.0	0.5
RVx-F20	20.0	0.5	0.3
RVx-F25	25.0	0.5	0.3

Fixed Volume Micropipettes

Cat No.	Vol. μ l	Acc. \pm %	CV \leq %
RVx-F50	50.0	0.3	0.3
RVx-F100	100.0	0.3	0.2
RVx-F200	200.0	0.3	0.2
RVx-F250	250.0	0.3	0.2
RVx-F500	500.0	0.3	0.2
RVx-F1000	1000.0	0.3	0.2

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

Trouble shooting Guide

Problem	Cause	Solution
Micropipette performance outside the given specs	<ul style="list-style-type: none"> ■ Unsuitable tip ■ Non-standard test conditions or calibration altered ■ Micropipette has not been maintained regularly ■ Micropipette is leaking. 	<ul style="list-style-type: none"> ■ Test with original manufacturer's tip ■ Perform test according to the used ISO 8655 STANDARD and recalibrate if necessary ■ Perform routine user maintenance and retest ■ See instructions below.
Micropipette is leaking	<ul style="list-style-type: none"> ■ Unsuitable tip ■ Tip incorrectly attached ■ Worn or dirty tip cone ■ Worn or dried piston sealing ■ Instrument damaged 	<ul style="list-style-type: none"> ■ Use original manufacturer's tip ■ Attach tip firmly ■ Clean the tip cone ■ Change the tip cone ■ Clean and regrease O-ring ■ Change the O-ring ■ Send for Service
Plunger jammed or moves erratically	<ul style="list-style-type: none"> ■ Liquid has entered tip cone and dried inside ■ Insufficient amount of grease on a piston and seal. 	<ul style="list-style-type: none"> ■ Clean and grease the piston/seal and the tip cone ■ Grease accordingly
Micropipette blocked, aspirated volume too small	<ul style="list-style-type: none"> ■ Liquid entered the cone and dried 	<ul style="list-style-type: none"> ■ Clean and regrease O-ring and piston and clean tip cone.
Tip ejector jammed or moves erratically	<ul style="list-style-type: none"> ■ Tip cone and / or ejector collar contaminated 	<ul style="list-style-type: none"> ■ Clean with soft cloth and mild detergent or 70% ethanol.

Colour coding Caps for easy identification



HANDYPETTE⁺

MICROPIPETTES

FULLY AUTOCLAVABLE

RV Instruments on market feedback has made a logical step and proudly presents the new, high precision micropipette series for today's sophisticated users in the field of Molecular biology, Microbiology, Immunology, cell culture, Analytical Chemistry, Biochemistry, Genetics etc.



SPECIFICATIONS & ORDERING INFORMATION

Fully Autoclavable Adjustable Volume Micropipettes

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
700000	0.2-2.0 μ l	0.01	0.2	12.0	6.0
			1.0	2.5	1.5
			2.0	1.5	0.7
700020	0.5-10 μ l	0.1	0.5	5.0	2.8
			5.0	1.5	0.8
			10.0	1.0	0.4
700040	2-20 μ l	0.1	2.0	5.0	1.5
			10.0	1.0	0.6
			20.0	1.0	0.3

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
700060	5-50 μ l	1.0	5.0	2.5	6.0
			25.0	0.7	1.5
			50.0	0.7	0.7
700080	10-100 μ l	1.0	10.0	2.5	2.8
			50.0	0.8	0.8
			100.0	0.8	0.4
700100	20-200 μ l	1.0	20.0	2.5	1.5
			100.0	1.0	0.6
			200.0	0.6	0.3

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

FEATURES :

- ☑ Constructed of High quality plastic, combined with stainless steel piston for many years of dependable service.
- ☑ Individually Calibrated as per procedure laid down in ISO 8655 standards, a calibration report is provided with each pipette.
- ☑ Accuracy and Precision values provided are better than those laid down in the ISO 8655 standards.
- ☑ Built-in, streamlined tip ejector facilitates easy tip ejection and access to narrow necked bottles and tubes.
- ☑ New Body design provide improved ergonomics for more comfort and less fatigue during operation.
- ☑ User adjustment (re-calibration) can be performed easily.
- ☑ Easy volume adjustment by turning the plunger even when wearing gloves. Plunger does not snag gloves.
- ☑ Ten volume ranges cover the complete pipetting range from 0.2 μ l to 10ml. a wide choice to select the most suitable for any application.

ATTRACTIVE COLOUR CODING FOR EASY IDENTIFICATION.



Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
700120	100-1000 μ l	10.0	100.0	1.6	0.3
			500.0	0.6	0.2
			1000.0	0.5	0.2
700140	200-2000 μ l	10.0	200.0	1.5	0.3
			1000.0	0.6	0.2
			2000.0	0.6	0.2
700160	0.5-5 ml	100.0	500.0	1.5	0.3
			2500.0	0.6	0.2
			5000.0	0.6	0.2
700180	1-10 ml	100.0	1000.0	1.5	0.3
			5000.0	0.6	0.2
			10000.0	0.6	0.2



HANDYPETTE

MICROPIPETTES

SEMI AUTOCLAVABLE

Handypette variable volume Micropipettes are semi autoclavable where the TIP cone assembly (consisting of Piston, O-ring, spring and the TIP cone) can be detached and autoclaved. The version is suitable for every application including Molecular Biology, Microbiology, Immunology, Cell culture, Analytical Chemistry, Biochemistry, Genetics etc.



SPECIFICATIONS & ORDERING INFORMATION

Semi Autoclavable Adjustable Volume Micropipettes

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
600000	0.2-2.0 μ l	0.01	0.2	12.0	6.0
			1.0	2.5	1.5
			2.0	1.5	0.7
600020	0.5-10 μ l	0.1	0.5	5.0	2.8
			5.0	1.5	0.8
			10.0	1.0	0.4
600040	2-20 μ l	0.1	2.0	5.0	1.5
			10.0	1.0	0.6
			20.0	1.0	0.3

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
600060	5-50 μ l	1.0	5.0	2.5	6.0
			25.0	0.7	1.5
			50.0	0.7	0.7
600080	10-100 μ l	1.0	10.0	2.5	2.8
			50.0	0.8	0.8
			100.0	0.8	0.4
600100	20-200 μ l	1.0	20.0	2.5	1.5
			100.0	1.0	0.6
			200.0	0.6	0.3

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- ☑ Ten volume ranges cover the complete pipetting range from 0.2 μ l to 10ml. a wide choice to select the most suitable for any application.

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
600120	100-1000 μ l	10.0	100.0	1.6	0.3
			500.0	0.6	0.2
			1000.0	0.5	0.2
600140	200-2000 μ l	10.0	200.0	1.5	0.3
			1000.0	0.6	0.2
			2000.0	0.6	0.2
600160	0.5-5 ml	100.0	500.0	1.5	0.3
			2500.0	0.6	0.2
			5000.0	0.6	0.2
600180	1-10 ml	100.0	1000.0	1.5	0.3
			5000.0	0.6	0.2
			10000.0	0.6	0.2



ATTRACTIVE COLOUR CODING FOR EASY IDENTIFICATION.

FIXED VOLUME MICROPIPETTES

Fixed Volume Pipettes are designed for many different types of routine laboratory work. Using the same state-of-art design and basic features of Variable Volume Pipettes, these fixed volume pipettes are ideal for Clinical Diagnostics, Control Analysis etc. ...

Available in both Fully and Semi Autoclavable versions.



Fully Autoclavable



Semi Autoclavable



Fixed Volume Pipettes are available in all capacities from 0.5 μ l to 10000 μ l (10 ml.)

Call our customer service for any Custom-made fixed volume micropipette between .3 μ l - 10 ml.

SPECIFICATIONS & ORDERING INFORMATION

Fixed Volume Micropipettes

Cat No.		Vol. μ l	Acc. \pm %	CV \leq %
Fully Autoclavable	Semi Autoclavable			
700200	600200	1.0	2.5	1.8
700220	600220	2.0	2.5	1.2
700240	600240	5.0	1.5	0.8
700260	600260	10.0	1.0	0.5
700280	600280	20.0	0.5	0.3
700300	600300	25.0	0.5	0.3
700320	600320	50.0	0.3	0.3
700330	600330	100.0	0.3	0.2

Fixed Volume Micropipettes

Cat No.		Vol. μ l	Acc. \pm %	CV \leq %
Fully Autoclavable	Semi Autoclavable			
700340	600340	200.0	0.3	0.2
700350	600350	250.0	0.3	0.2
700360	600360	500.0	0.3	0.2
700370	600370	1000.0	0.3	0.2
700380	600380	2000.0	0.3	0.2
700390	600390	5000.0	0.3	0.2
700400	600400	10000.0	0.3	0.2

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

PIPETTING RECOMMENDATIONS

Pipetting Preparations

- Use the tip specified by the manufacturer.
- Ensure that the micropipette and tip have been tested according to ISO 8655 Standards and the tip is fitted correctly.
- Make sure that the micropipettes are correctly calibrated.
- Check that the micropipette, tip and liquid are all at the same temperature.

Pipetting Action

- Hold the micropipette in a vertical position. Tilting the micropipette at an angle causes a volume greater than set volume of liquid to enter the tip.
- Pre-rinsing of tip is always recommended.
- When aspirating fluid the micropipette tip should normally be immersed to a depth of 2-3 mm.
- It is recommended to pipetting against the inside wall of the receiving vessel. Remove the tip by drawing it up against the inside wall.
- Ensure that the micropipette blowout action is fully activated.

- When pipetting liquids with temperatures different to the ambient temperature do pre-rinse the tip and change the tip after each pipetting.
- Ensure that any fluid viscosity variations have been accounted for and the correct technique is employed, i.e. reverse pipetting.
- If handling infectious or radioactive agents make sure appropriate shielding and other precautions protect the operator.

- Ensure that the volume is still set at the required position.
- Avoid leaving the micropipette on its side with liquid in the tip, which might seep back into the mechanism.
- Rack the micropipette when not in use.
- Avoid dropping the micropipette or allowing contact with dirt or grease.
- Never strike the tip cone against the tip tray when mounting the tip, as this can damage the micropipette.
- Avoid exposing the unit to extreme temperature changes, humidity and dust (operating temperature from 15°C to 40°C).
- Clean the micropipette thoroughly before sending to service.

Trouble shooting Guide

Problem	Cause	Solution
Micropipette performance outside the given specs	<ul style="list-style-type: none">■ Unsuitable tip■ Non-standard test conditions or calibration altered■ Micropipette has not been maintained regularly■ Micropipette is leaking.	<ul style="list-style-type: none">■ Test with original manufacturer's tip■ Perform test according to the used ISO 8655 STANDARD and recalibrate if necessary■ Perform routine user maintenance and retest■ See instructions below.
Micropipette is leaking	<ul style="list-style-type: none">■ Unsuitable tip■ Tip incorrectly attached■ Worn or dirty tip cone■ Worn or dried piston sealing■ Instrument damaged	<ul style="list-style-type: none">■ Use original manufacturer's tip■ Attach tip firmly■ Clean the tip cone■ Change the tip cone■ Clean and regrease O-ring■ Change the O-ring■ Send for Service
Plunger jammed or moves erratically	<ul style="list-style-type: none">■ Liquid has entered tip cone and dried inside■ Insufficient amount of grease on a piston and seal.	<ul style="list-style-type: none">■ Clean and grease the piston/seal and the tip cone■ Grease accordingly
Micropipette blocked, aspirated volume too small	<ul style="list-style-type: none">■ Liquid entered the cone and dried	<ul style="list-style-type: none">■ Clean and regrease O-ring and piston and clean tip cone.
Tip ejector jammed or moves erratically	<ul style="list-style-type: none">■ Tip cone and / or ejector collar contaminated	<ul style="list-style-type: none">■ Clean with soft cloth and mild detergent or 70% ethanol.

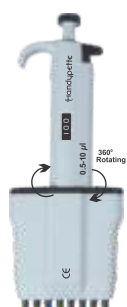
MULTICHANNEL MICROPIPETTES

Recommended for ELISA, Molecular screening,
Kinetic studies, DNA amplifications



NON AUTOCLAVABLE

8-Channel



12-Channel



FEATURES :

- ☑ Lower assembly rotates 360° for optimal working position.
- ☑ Optimum piston-spring balance for soft plunger movement.
- ☑ Easy Volume setting.
- ☑ Easy sequential tip ejection system.
- ☑ Easy user calibration.
- ☑ High accuracy and performance conforming to ISO 8655 standards.

SPECIFICATIONS & ORDERING INFORMATION

8-channel Non Autoclavable Micropipette

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
500100	0.5-10 μ l	0.1	1	4.00	4.00
			5	2.50	2.50
			10	1.50	1.50
500110	02-20 μ l	0.1	2	4.00	4.00
			10	1.50	1.00
			20	1.50	1.00
500120	05-50 μ l	1.0	5	3.00	2.00
			25	1.50	1.00
			50	0.50	0.50
500130	10-100 μ l	1.0	10	3.00	1.50
			50	1.00	0.50
			100	1.00	0.50
500140	20-200 μ l	1.0	20	2.00	0.80
			100	1.00	0.50
			200	0.70	0.25
500150	30-300 μ l	1.0	30	2.00	0.80
			150	1.00	0.50
			300	0.70	0.25

12-channel Non Autoclavable Micropipette

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
081007	0.5-10 μ l	0.1	1	4.00	4.00
			5	2.50	2.50
			10	1.50	1.50
081008	02-20 μ l	0.1	2	4.00	4.00
			10	1.50	1.00
			20	1.50	1.00
081009	05-50 μ l	1.0	5	3.00	2.00
			25	1.50	1.00
			50	0.50	0.50
081010	10-100 μ l	1.0	10	3.00	1.50
			50	1.00	0.50
			100	1.00	0.50
081011	20-200 μ l	1.0	20	2.00	0.80
			100	1.00	0.50
			200	0.70	0.25
081012	30-300 μ l	1.0	30	2.00	0.80
			150	1.00	0.50
			300	0.70	0.25

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

For sensitive applications, there is a choice
of Fully Autoclavable Multichannel Micropipettes

SPECIFICATIONS & ORDERING INFORMATION

8-channel Fully Autoclavable Micropipette

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
060100	0.5-10 μ l	0.1	1	4.00	4.00
			5	2.50	2.50
			10	1.50	1.50
060110	02-20 μ l	0.1	2	4.00	4.00
			10	1.50	1.00
			20	1.50	1.00
060120	05-50 μ l	1.0	5	3.00	2.00
			25	1.50	1.00
			50	0.50	0.50
060130	10-100 μ l	1.0	10	3.00	1.50
			50	1.00	0.50
			100	1.00	0.50
060140	20-200 μ l	1.0	20	2.00	0.80
			100	1.00	0.50
			200	0.70	0.25
060150	30-300 μ l	1.0	30	2.00	0.80
			150	1.00	0.50
			300	0.70	0.25

FULLY AUTOCLAVABLE

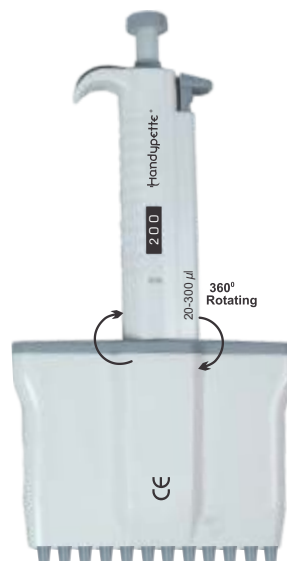
8-Channel



12-channel Fully Autoclavable Micropipette

Cat No.	VOLUME RANGE	Inc. μ l	Vol. μ l	Acc. \pm %	CV \leq %
091007	0.5-10 μ l	0.1	1	4.00	4.00
			5	2.50	2.50
			10	1.50	1.50
091008	02-20 μ l	0.1	2	4.00	4.00
			10	1.50	1.00
			20	1.50	1.00
091009	05-50 μ l	1.0	5	3.00	2.00
			25	1.50	1.00
			50	0.50	0.50
091010	10-100 μ l	1.0	10	3.00	1.50
			50	1.00	0.50
			100	1.00	0.50
091011	20-200 μ l	1.0	20	2.00	0.80
			100	1.00	0.50
			200	0.70	0.25
091012	30-300 μ l	1.0	30	2.00	0.80
			150	1.00	0.50
			300	0.70	0.25

12-Channel



ECONOMY RANGE



Non Autoclavable Micropipettes

Vertex Micropipettes are designed for many different types of routine laboratory work. Using the same state-of-art design and basic features of Variable & Fixed Volume Pipettes are ideal for Clinical Diagnostics, Control Analysis etc. ...

- ☑Constructed of High quality plastic, combined with stainless steel piston for many years of dependable service.
- ☑Individually Calibrated as per procedure laid down in ISO 8655 standards, a calibration report is provided with each pipette.
- ☑Accuracy and Precision values provided are better than those laid down in the ISO 8655 standards.
- ☑Built-in, streamlined tip ejector facilitates easy tip ejection and access to narrow necked bottles and tubes.

Fixed Volume Pipettes are available in all capacities from 0.5 μ l to 10000 μ l (10 ml.)

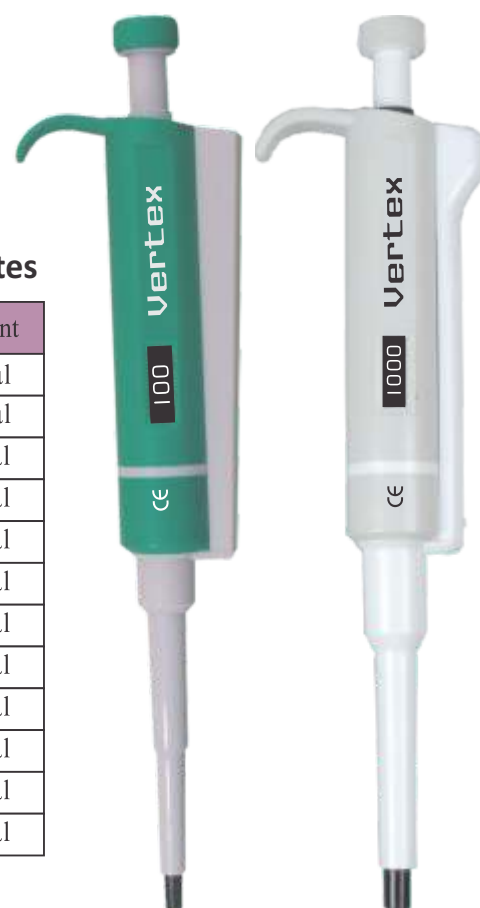
Call our customer service for any Custom-made fixed volume micropipette between .3 μ l - 10 ml.

VERTEX Fix volume pipettes

Cat No.	Volume Range
600680	1 μ l
600700	2.5 μ l
600720	5 μ l
600740	10 μ l
600760	20 μ l
600780	25 μ l
600800	50 μ l
600820	100 μ l
600840	200 μ l
600860	250 μ l
600880	500 μ l
600900	1000 μ l
600920	2000 μ l
600940	3000 μ l
600960	5000 μ l
600980	10000 μ l

VERTEX variable volume pipettes

Cat No.	Volume Range	Increment
600440	0.5 - 10 μ l	0.1 μ l
600460	2 - 20 μ l	0.1 μ l
600480	5 - 40 μ l	1 μ l
600500	5 - 50 μ l	1 μ l
600520	10 - 100 μ l	1 μ l
600540	20 - 200 μ l	1 μ l
600560	40 - 200 μ l	1 μ l
600580	50 - 200 μ l	1 μ l
600600	200 - 1000 μ l	10 μ l
600620	100 - 1000 μ l	10 μ l
600640	1 - 5ml	100 μ l
600660	2 - 10ml	100 μ l



PIPETTING RECOMMENDATIONS

Pipetting Preparations

- Use the tip specified by the manufacturer.
- Ensure that the micropipette and tip have been tested according to ISO 8655 Standards and the tip is fitted correctly.
- Make sure that the micropipettes are correctly calibrated.
- Check that the micropipette, tip and liquid are all at the same temperature.

Pipetting Action

- Hold the micropipette in a vertical position. Tilting the micropipette at an angle causes a volume greater than set volume of liquid to enter the tip.
- Pre-rinsing of tip is always recommended.
- When aspirating fluid the micropipette tip should normally be immersed to a depth of 2-3 mm.
- It is recommended to pipette against the inside wall of the receiving vessel. Remove the tip by drawing it up against the inside wall.
- Ensure that the micropipette blowout action is fully activated.



- When pipetting liquids with temperatures different to the ambient temperature do pre-rinse the tip and change the tip after each pipetting.
- Ensure that any fluid viscosity variations have been accounted for and the correct technique is employed, i.e. reverse pipetting.
- If handling infectious or radioactive agents make sure appropriate shielding and other precautions protect the operator.
- Ensure that the volume is still set at the required position.
- Avoid leaving the micropipette on its side with liquid in the tip, which might seep back into the mechanism.
- Rack the micropipette when not in use.
- Avoid dropping the micropipette or allowing contact with dirt or grease.
- Never strike the tip cone against the tip tray when mounting the tip, as this can damage the micropipette.
- Avoid exposing the unit to extreme temperature changes, humidity and dust (operating temperature from 15°C to 40°C).
- Clean the micropipette thoroughly before sending to service.

Trouble shooting Guide

Problem	Cause	Solution
Micropipette performance outside the given specs	<ul style="list-style-type: none"> ■ Unsuitable tip ■ Non-standard test conditions or calibration altered ■ Micropipette has not been maintained regularly ■ Micropipette is leaking. 	<ul style="list-style-type: none"> ■ Test with original manufacturer's tip ■ Perform test according to the used ISO 8655 STANDARD and recalibrate if necessary ■ Perform routine user maintenance and retest ■ See instructions below.
Micropipette is leaking	<ul style="list-style-type: none"> ■ Unsuitable tip ■ Tip incorrectly attached ■ Worn or dirty tip cone ■ Worn or dried piston sealing ■ Instrument damaged 	<ul style="list-style-type: none"> ■ Use original manufacturer's tip ■ Attach tip firmly ■ Clean the tip cone ■ Change the tip cone ■ Clean and regrease O-ring ■ Change the O-ring ■ Send for Service
Plunger jammed or moves erratically	<ul style="list-style-type: none"> ■ Liquid has entered tip cone and dried inside ■ Insufficient amount of grease on a piston and seal. 	<ul style="list-style-type: none"> ■ Clean and grease the piston/seal and the tip cone ■ Grease accordingly
Micropipette blocked, aspirated volume too small	<ul style="list-style-type: none"> ■ Liquid entered the cone and dried 	<ul style="list-style-type: none"> ■ Clean and regrease O-ring and piston and clean tip cone.
Tip ejector jammed or moves erratically	<ul style="list-style-type: none"> ■ Tip cone and / or ejector collar contaminated 	<ul style="list-style-type: none"> ■ Clean with soft cloth and mild detergent or 70% ethanol.

BOTTLE TOP DISPENSER

FULLY AUTOCLAVABLE

(a) REGULAR MODEL

(b) PREMIUM MODEL



VERTEX Bottle top dispenser is another genius of its strong R&D base. Responding to the needs of the present generation, **RV Instruments** is proud to offer its NEW BOTTLE TOP DISPENSERS in two indigenous versions. Regular & Premium which is an unique combination of affordable pricing and high performance.

Regular Model : Wetted parts are PP, Borosilicate Glass and FEP. Suitable for routine laboratory application.

Premium Model : All wetted parts are PTFE, FEP and Borosilicate Glass only. This can be used for all laboratory reagents except **HF**.

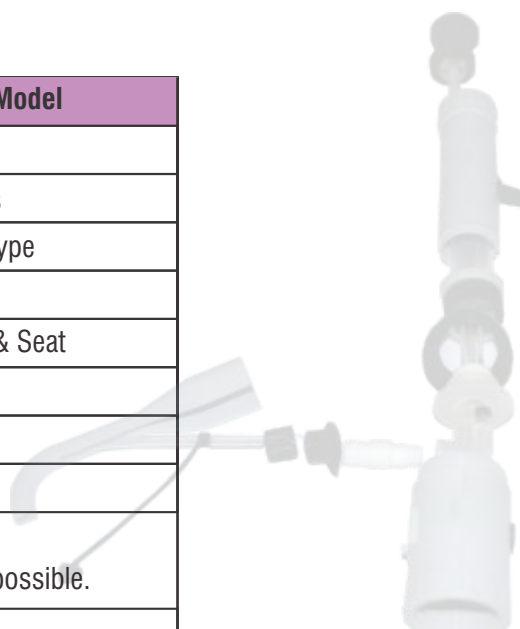
Simple design clubbed with variety of useful features makes **VERTEX** Bottle Top Dispensers an obvious choice for all dispensing needs.

High precision and accuracy is ensured through careful selection of component raw material and several stages of strict quality checks during manufacturing process

Each instrument is individually calibrated in accordance with ISO 8655 standards and comes with individual Calibration certificate.

GENERAL PRODUCT INFORMATION :

Description	Regular Model	Premium Model
Piston	PTFE	PTFE
Cylinder	Glass	Glass
Volume adjustment knob	Screw Type	Screw Type
Valve Housing	Polypropylene	PTFE
Valve assembly	Glass Ball & Seat	Glass Ball & Seat
Discharge Assembly	PTFE	PTFE
Delivery tube	FEP	FEP
Inlet tube	FEP	FEP
Calibration	Individually calibrated and certified In -lab easy Calibration by the user is also possible.	
Accuracy & Reproducibility	In accordance with ISO 8655 standards.	
Compatibility	Good for routine lab application	Excellent compatibility with all reagents except HF



FEATURES : REGULAR & PREMIUM MODEL



■ Both Regular & Premium Model Available in 6 volume ranges :

- | | | |
|-----------------|----------------|--------------|
| (a) 0.25-2.5 ml | (b) 0.5-5.0 ml | (c) 1.0-10ml |
| (d) 2.5-25.0 ml | (e) 5.0-50.0ml | (f) 10-100ml |

■ Easy to use, simple construction and smooth, effortless plunger movement for bubble free dispensing.

■ Piston : Specially designed PTFE Piston with Silicone O-ring ensures smooth, effortless piston movement and high accuracy.

■ Each instrument comes with five adaptors to fit in most of the laboratory reagent bottles.

Standard threads : 30mm

Adaptors :

28mm, 32mm,

36mm, 40mm, and 45mm.



■ Nozzle cap prevents any unwanted drop on the work space.

■ Easy to dis-assemble for cleaning and servicing.

■ Glass Barrel is protected by a polypropylene sleeve. It also ensures no glass splitting in case of any accidental breakage.

■ Valve Manifold : Specially designed, single piece PTFE valve manifold in the Premium Model ensures excellent chemical compatibility, leak proof valve functioning and excellent reproducibility.

■ Instrument is fully autoclavable at 121°C, 15psi. No Need for dis-assembling the instrument for autoclaving.

■ Screw type volume adjustment knob with large pointer ensures precise, easy and quick volume adjustment.

■ Calibration : Specially designed universal calibration tool is provided for convenient and quick In-lab user re-calibration. This is in compliance with GLO/ISO Norms.

SPECIFICATIONS & ORDERING INFORMATION

Bottle Top Dispenser

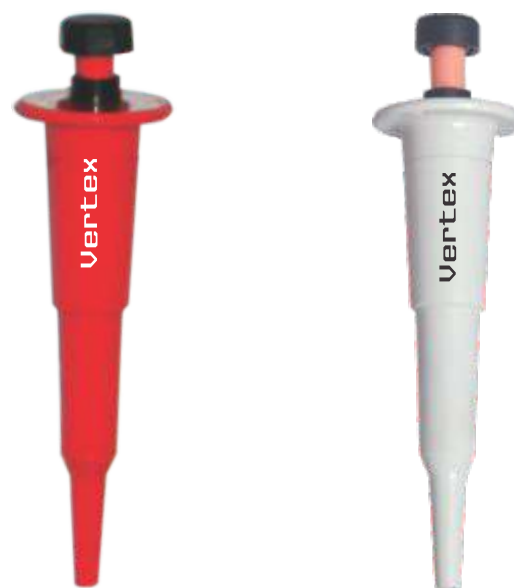
				ISO 8655 Specifications				RV Instruments Specifications			
Model No.		Vol. Range	Increment	Accuracy		CV		Accuracy		CV	
Regular Model	Premium Model			± %	± ml	± %	± ml	± %	± ml	± %	± ml
BTDR-1	BTDP-1	0.25-2.5 ml	0.05 ml	0.6	0.015	0.2	0.005	0.6	0.015	0.2	0.005
BTDR-2	BTDP-2	0.5-5 ml	0.1 ml	0.6	0.030	0.2	0.010	0.5	0.025	0.1	0.005
BTDR-3	BTDP-3	1-10 ml	0.2 ml	0.6	0.060	0.2	0.020	0.5	0.050	0.1	0.010
BTDR-4	BTDP-4	2.5-25 ml	0.5 ml	0.6	0.180	0.2	0.060	0.5	0.150	0.1	0.025
BTDR-5	BTDP-5	5-50 ml	1.0 ml	0.6	0.360	0.2	0.120	0.5	0.300	0.1	0.050
BTDR-6	BTDP-6	10-100 ml	2.0 ml	0.6	0.600	0.2	0.120	0.5	0.500	0.1	0.100

MINIVERTEX FIXED VOLUME MICROPIPETTES

MINI VERTEX

These low cost vertex minipipettes fixed volume are specially designed for use with Diagnostic Kits reduced in length to 85mm. Maximum accuracy, two stage Plunger movement ensuring last drop dispensing. The Calibration conforming ISO 8655 standards.

These high volume minipipettes of 200 μ l, 250 μ l 500 μ l and 1000 μ l are specially designed for routine Laboratory work.



Custom made mini vertex
fix volume pipettes between
3 μ l - 1ml. shall be made available
on demand

SPECIFICATIONS & ORDERING INFORMATION

Miniature Fixed Volume Micropipettes

Model	Vol. μ l	Acc. \pm %	CV \leq %
MV-3	3	1.5	1.0
MV-5	5	1.5	1.0
MV-10	10	1.0	1.0
MV-20	20	0.5	0.5
MV-25	25	0.5	0.5
MV-50	50	0.4	0.3

Miniature Fixed Volume Micropipettes

Model	Vol. μ l	Acc. \pm %	CV \leq %
MV-100	100	0.3	0.3
MV-200	200	0.5	0.5
MV-250	250	0.5	0.5
MV-500	500	0.5	0.5
MV-1000	1000	0.5	0.5

CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

FEATURES :

FULLY AUTOCLAVABLE

- Mini Vertex is fully autoclavable at 121°C & 15 psi.

STRICT QUALITY CONTROL

- Each pipette undergoes a strict quality control at every manufacturing stage.

VARIOUS PACKAGING OPTIONS

- Pack of 5 Mini Vertex
- Pack of single Mini Vertex

Custom packaging options are also available on request.

Vertex pro



COLOUR CODING

Mini Vertex are coloured for different volumes for easy identification in laboratory.

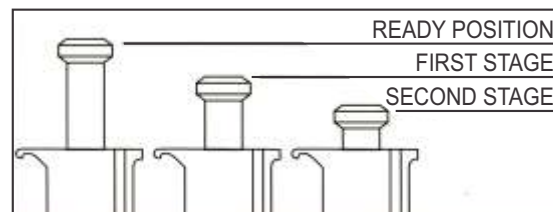


UNIQUE TIP-CONE

- The tip cone of Mini Vertex (3µl, 5µl, 10µl, 20µl) is designed to accept regular 200 µl tips or ultra micro tips up to 20µl and 1000µl TIP size
- Use of Ultra micro tips for volumes up to 20µl enhances the accuracy and precision very significantly.

TWO STEP PLUNGER OPERATION

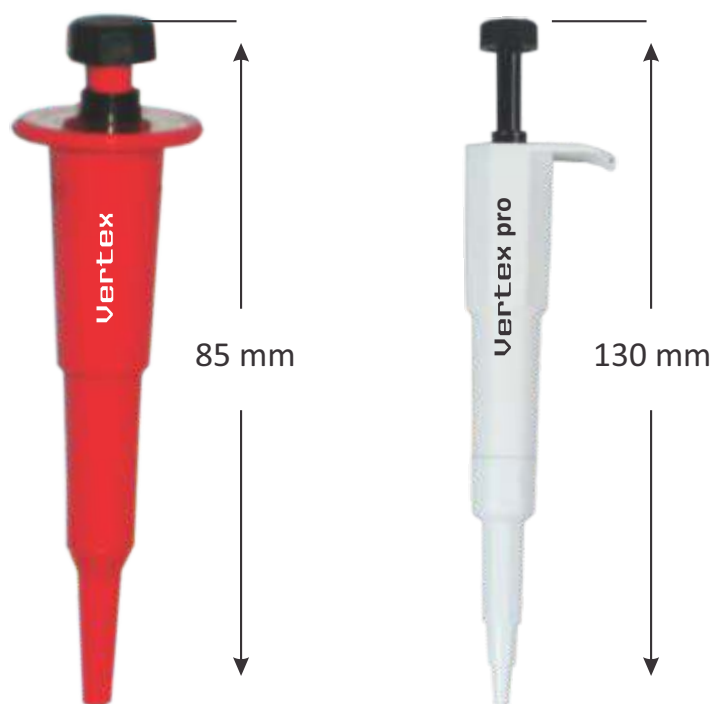
- This is a unique feature that makes Mini Vertex a genuine miniature micropipette.



- Two-step plunger operation facilitates super blow-out from the tip (last drop dispensing), resulting in very high accuracy & precision.
- This also allows the Mini Vertex to be used for reverse pipetting and repetitive pipetting.

OPTIMUM SIZE

- Mini Vertex is 85 mm in length which is an optimum size for user comfort during pipetting.
- Mini Vertex is held like a pipette and not like a syringe !!



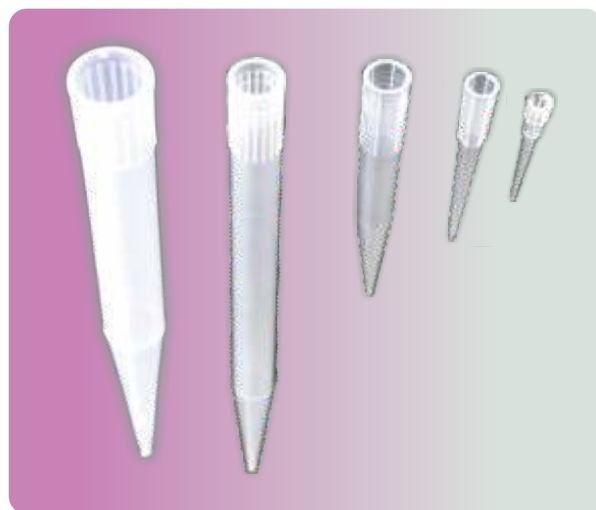
TIPS FOR MICROPIPETTES

RV Instruments Pvt. Ltd. high precision tips are available in all sizes. We recommend use of standard tips for Micropipettes manufactured by RV Instruments.

SPECIFICATIONS & ORDERING INFORMATION

Tips for Micropipettes

TIPS	Description
Neutral	Capacity upto 10 μ l Pkt. of 100 Nos.
Yellow	Capacity upto 200 μ l Pkt. of 1000 Nos.
Blue	Capacity upto 1000 μ l Pkt. of 500 Nos.
Neutral	Capacity upto 5000 μ l Pkt. of 100 Nos.
Neutral	Capacity upto 10000 μ l Pkt. of 100 Nos.



MICROPIPETTE STAND

RV Instruments Pvt. Ltd. Pipette stands are State of the art design for Holding single channel and Multichannel pipettes.

Pipettes attached to the stand by the handle rules out potential cross contamination from the stand to the pipette.



CALIBRATION & SPECIFICATIONS CONFORMING TO ISO 8655 STANDARDS

TRADE SHOWS





Our Commitment

We are committed to manufacture & deliver our products under strict quality control and GMP norms. Each Micropipette & Bottle Top Dispenser is individually tested and calibrated conforming to ISO 8655 standards. However if you are dissatisfied in any way with the operation of product call our 24x7 customer service cell 9044095343, 9044095330.



R V Instruments Pvt. Ltd.

Website : www.rvinstruments.com

