

# A-dec Non-Quick-Disconnect Syringes

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## Basic Operation

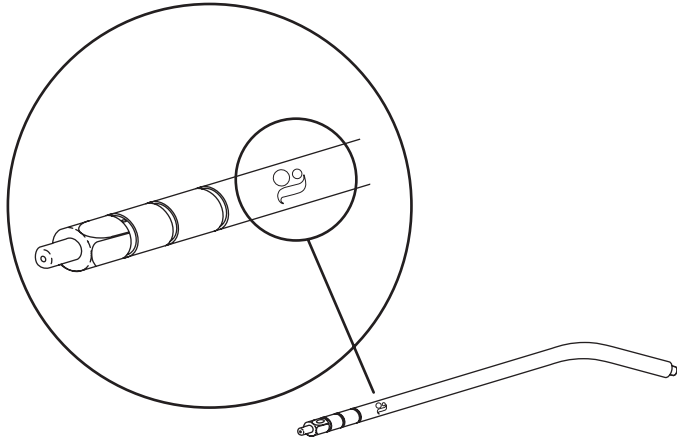
### Water, Air, and Spray Functions

Use the buttons to control water, air, and spray functions. For spray, press both buttons simultaneously.



## Syringe Tip

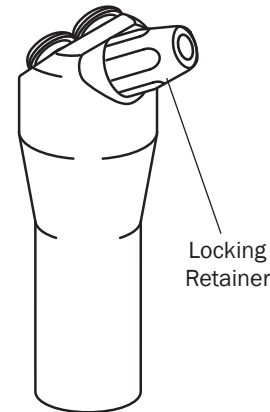
A-dec syringe tips have three locking grooves, which hold the tip in place when properly installed and prevent ejection of the tip during use. The tips are marked with the A-dec “a.”



**WARNING** Use only A-dec syringe tips in A-dec syringes. A-dec syringe tips have been engineered and manufactured for use with A-dec syringes. Using syringe tips manufactured by a company other than A-dec may result in syringe tip ejection. Tip ejection may result in ingestion or aspiration of the tip, requiring immediate medical attention.

## Syringe Tip Locking Retainer

The locking retainer has a hex-shaped exterior that allows the retainer to be tightened, preventing the tip from easily rotating. The tip can then be used for cheek retraction.

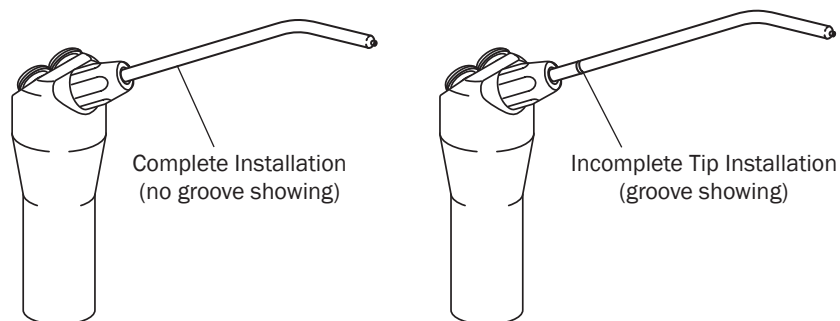


## Install the Syringe Tip



**WARNING** If you do not feel two clicks as you install the syringe tip, do not use the syringe. The O-rings inside the syringe tip retainer assembly are damaged and may allow the syringe tip to be ejected. Replace the O-rings before using the syringe.

1. Push the syringe tip into the retainer assembly until you feel two clicks.



**CAUTION** The syringe tip may eject if it is not fully seated.

2. Point the syringe at the floor and press the air button several times to be sure the tip is installed properly.

## Remove the Syringe Tip

1. Loosen the locking retainer.
2. Pull the tip straight out of the syringe to remove it.

## Restrict the Tip Rotation

If you use your syringe tip for cheek retraction, you must restrict the tip rotation.



**CAUTION** Tightening the locking retainer on an improperly installed syringe tip crushes the internal collet, making removal of the syringe tip difficult and installation of a new tip impossible.

1. Use the plastic wrench to tighten the locking retainer.



**NOTE** The wrench is designed to be sterilized. For instructions, see "Asepsis" on page 6.

2. Ensure that the tip does not rotate easily.

## Adjustments

### Air and Water Flow

Adjustments to the air and water flow are made with a pinch valve or a control valve. Use the table below to identify the location and adjustment method for your delivery system or assistant's instrumentation.

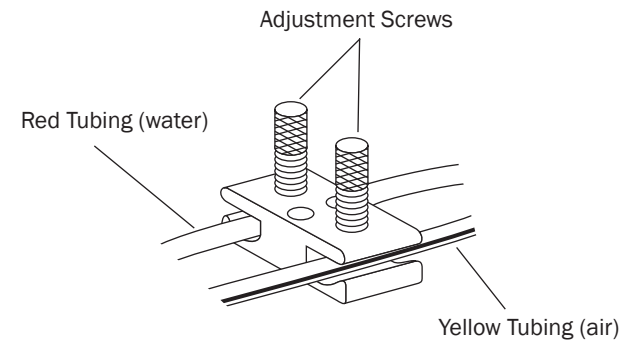
Model	Location of Flow Control	Method of Adjustment
<ul style="list-style-type: none"> <li>A-dec 300 delivery systems</li> <li>A-dec 500 (version A) delivery systems</li> <li>Performer® delivery systems</li> </ul>	Control head	Pinch valve
<ul style="list-style-type: none"> <li>A-dec 351 assistant's instrumentation</li> <li>A-dec 500 assistant's instrumentation</li> <li>Radius® 7115 assistant's instrumentation</li> </ul>	Lift arm of chair	Pinch valve
<ul style="list-style-type: none"> <li>A-dec 352 and 353 support-side assistant's instrumentation</li> <li>Radius 7285 assistant's instrumentation</li> <li>Cascade® 4635 assistant's instrumentation</li> <li>Performer assistant's instrumentations</li> </ul>	Support center	Pinch valve
<ul style="list-style-type: none"> <li>Cascade delivery systems</li> <li>Decade® delivery systems</li> </ul>	Control head	Flow control valve on the control block



**NOTE** If your product is not listed, contact your authorized A-dec dealer for more information.

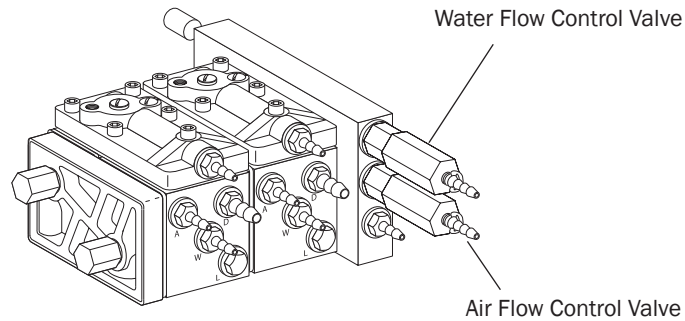
### Adjust the Flow with a Pinch Valve

1. Turn the adjustment screw for the water tubing clockwise to reduce the water flow, or counterclockwise to increase the flow.
2. Turn the adjustment screw for the air tubing clockwise to reduce the air flow, or counterclockwise to increase the flow.
3. Press both syringe buttons to test the spray.



## Adjust the Flow With a Flow Control Valve

1. Turn the top flow control valve clockwise to decrease water flow, or counterclockwise to increase water flow.
2. Turn the bottom flow control valve clockwise to decrease air flow, or counterclockwise to increase air flow.
3. Press both syringe buttons to test the spray.



## Warm Water Syringe Temperature Adjustment

If you have the optional warm water syringe and would like the water temperature adjusted, contact your authorized A-dec dealer.

## Troubleshooting

Use the following troubleshooting table to identify and solve problems with the syringe.

Problem	Possible Cause	Action
Syringe leaks air or water from a button.	Faulty O-rings on the button.	Replace the button assembly (p/n 23.1234.00).
Syringe tip drips when the syringe is not in use.	Faulty O-rings on the water button.	Replace the water button (p/n 23.1234.00).
A short burst of water sprays from the tip when the air button is pressed.	Improperly installed or damaged syringe tip.	Pull out and reinstall the syringe tip correctly. Replace the syringe tip if it still leaks. (p/n 23.0872.01)
Water or air leaks from the syringe handle.	Syringe handle is not tightly connected to the syringe.	Tighten the syringe handle onto the syringe.
	O-rings on the terminal are damaged.	Replace the O-rings (p/n 030.002.02) on the terminal and lubricate with A-dec silicone lubricant.
Air leaks from the top of the tip retainer assembly.	Syringe tip is damaged.	Replace with a new tip (p/n 23.0872.01).
	Retainer internal O-rings are damaged.	Replace the two inner O-rings (p/n 035.062.00) of the retainer assembly.
Syringe tip is difficult to install.	Retainer internal O-rings have been lubricated with a petroleum-based lubricant.	Replace the O-rings (p/n 034.003.01) and remove remaining lubricant from the retainer. Use A-dec silicone lubricant on the new O-rings.
	The tip retainer assembly has been damaged.	Replace the tip retainer assembly (non-locking p/n 23.1112.00/ locking p/n 23.1090.00).

## Troubleshooting (continued)

Problem	Possible Cause	Action
Water leaks from the base of the tip retainer assembly.	Tip is not fully installed.	Push tip completely into place with the third groove hidden.
	Small O-ring in the retainer assembly has failed.	Replace the O-ring or replace the retainer assembly (p/n 034.003.01).
Syringe tip is loose in the retainer assembly.	A non-A-dec syringe tip is in use.	Replace with an A-dec syringe tip (p/n 23.0872.01).
	Retainer O-rings are worn or damaged.	Replace the O-rings (p/n 035.062.00).

## Asepsis

A-dec syringes are considered a noncritical item. Use single-use barriers or a hospital disinfectant to disinfect the syringe between each patient or when the barrier has been compromised. A-dec syringes are designed to withstand steam sterilization that may be used instead of or in addition to barriers and disinfectants.

All syringe tips are considered semicritical items and must be sterilized after each use. A-dec has designed the syringe tips to be autoclavable or heat sterilized. Remove the syringe and syringe tips from the delivery system for sterilization.

### Disconnect the Syringe

1. Turn off the delivery system and depressurize the system by pressing the air and water buttons on the syringe over a sink, cuspidor, or appropriate container.
2. Unscrew the syringe handle until the syringe head separates from the syringe terminal. When the syringe is disconnected, any water remaining in the syringe head drips out.

### Preclean the Syringe Tip

1. Remove the tip from the syringe.
2. Immerse the tip in a holding solution until it is ready for ultrasonic cleaning.

### Clean the Syringe and/or Syringe Tip

#### Manual Cleaning

1. Gently brush the syringe threads with a nylon or brass bristle brush.
2. Use an irrigating syringe with clean water to flush the lumens of the tip.
3. Rinse the syringe and syringe tip with clean water.
4. Remove excess water and allow to dry before sterilizing.

#### Ultrasonic Bath Cleaning

1. Use a general purpose or enzymatic detergent.
2. Follow instructions provided by ultrasonic bath manufacturer and detergent manufacturer for processing time.
3. Rinse the syringe and syringe tip with clean water.
4. Remove excess water and allow to dry before sterilizing.

#### Automated Washer/Thermal Disinfectant



**CAUTION** The use of automated washers and thermal disinfectant is not recommended as it may damage the syringe and syringe tip finish. The processing of dissimilar metals may also lead to tarnishing of instruments.

## Disinfect the Syringe Tip

1. Flush the tips with isopropyl alcohol.

## Package

Instruments should be packaged in a sterilization wrap or pouch to maintain sterility unless the instruments are to be used immediately after sterilization. For specific use requirements, refer to the instructions for use that accompany the sterilizer and the sterilization packaging material. The use of sterilization indicators or integrators is recommended.

## Sterilize

1. Heat sterilize the syringe and syringe tip using a steam autoclave for the following:
  - **Gravity Displacement** – 30 minutes at a dwell temperature of 250°F (121°C).
  - **Dynamic-Air-Removal** – 4 minutes at a dwell temperature of 273°F (134°C)
2. Allow the pack to cool and dry before removing from sterilizer to prevent cross contamination.

## Storage

Store in a dry and dust free location. Do not store with non-sterile instruments. See the sterilization packaging manufacturer's instructions for use to determine how long sterility can be maintained.

## Test

Before using a syringe and syringe tip that have been sterilized, turn on the delivery system and test the syringe to ensure the tip does not eject from it.

## Maintenance

The syringe is designed to be easily serviced in the operatory. The syringe parts subject to wear under normal use are provided in a syringe repair kit available from your authorized A-dec dealer.

Proper care and maintenance of your A-dec syringe is critical to ensure the safety of your patients and the reliability of this precision instrument.

## A-dec Silicone Lubricant

Use only A-dec silicone lubricant to lubricate the syringe button assemblies and the O-rings in the syringe tip retainer assembly.



**CAUTION** The use of petroleum-based lubricants (jellies, creams, or lotions) cause the O-rings in the syringe to swell and/or deteriorate, resulting in syringe malfunction or failure.

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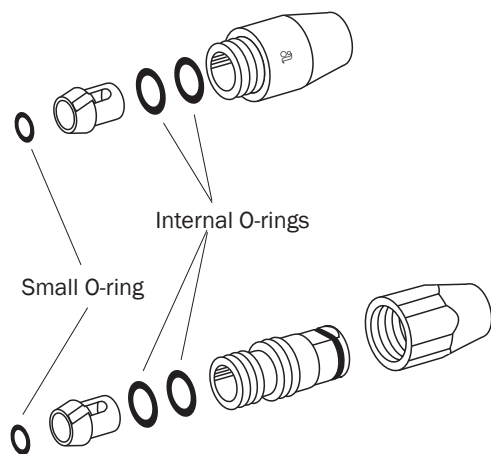
## A-dec Replacement Parts

A-dec replacement parts have been precisely designed for your A-dec syringe to ensure that the syringe functions properly.

A-dec recommends that you replace the two internal O-rings (p/n 035.062.00) and the small O-ring (p/n 034.003.01) in the syringe tip retainer assembly at least once a year. Lubricate the O-rings with A-dec silicone lubricant (p/n 98.0090.01) when you replace them.

## Recommended Tools

Use the wrench (p/n 98.0900.00) from the kit (p/n 23.1090.00) to tighten the locking retainer (p/n 23.1103.00). Use the adaptor (p/n 23.1354.00) to torque the non-locking retainer (smooth retainer, p/n 23.1111.01).



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## Specifications, Warranty, and Product Service

### Minimum Air and Water Requirements

Air: 2.5 scfm (71 SL/min) at 80 psi (550 kPa)

Water: 1.50 gpm (5.7 L/min) at 40 psi (270 kPa)



**IMPORTANT** For additional specifications, identification of symbols, warranty, and other regulatory requirements, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00), which is available in the Document Library at [www.a-dec.com](http://www.a-dec.com).



**NOTE** Specifications are subject to change without notice. Some requirements may vary from country to country. For more information, contact your authorized A-dec dealer.

### Product Service

Product service is available through your local authorized A-dec dealer. For service information, or to locate an authorized dealer, contact A-dec at 1.800.547.1883 in the USA and Canada or 1.503.538.7478 worldwide, or visit [www.a-dec.com](http://www.a-dec.com).



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