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RPI PART #CMK247, CMK248 & CMK249 CHECK VALVE UPGRADE KITS INSTALLATION INSTRUCTIONS

This installation instruction is for the RPI Check Valve Upgrade Kit's (RPI Part #'s CMK247, CMK248 and CMK249) that can be used to convert the copper tubing and fittings to Nylon® tubing and plastic push-in fittings to fit the Air Techniques AirStar models AS10 through AS50 and the Airstar model AS70.

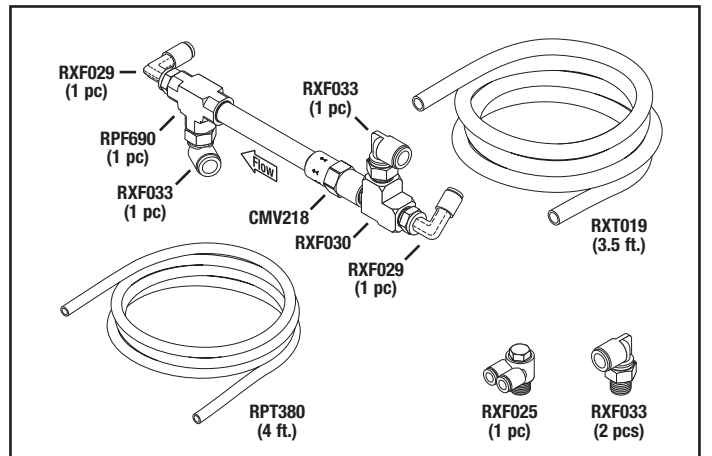
See reverse side for detailed instructions and tools required.

RPI Kit Part #CMK247 Fits AirStar Model AS10

RPI Part #	Quantity and Description
RPT380	(4 ft.) Tubing (.170" ID x 1/4" OD Natural)
RXT019	(3.5 ft.) Tubing (.275" ID x .375" OD Natural)
RXF025	(1 pc) Branch Elbow (Dual 1/4" Push-In x 1/4" MPT)
RXF033	(2 pcs) Elbow Fitting (3/8" Push-In x 1/4" MPT)

Pre-assembled:

CMV218	(1 pc) Check Valve
RPF690	(1 pc) Tee Fitting (1/4" FPT)
RXF029	(2 pcs) Elbow Fitting (1/4" Push-In x 1/4" MPT)
RXF030	(1 pc) Street Tee (1/4" NPT)
RXF033	(2 pcs) Elbow Fitting (3/8" Push-In x 1/4" MPT)
n/a	(4" lg.) Pipe Nipple

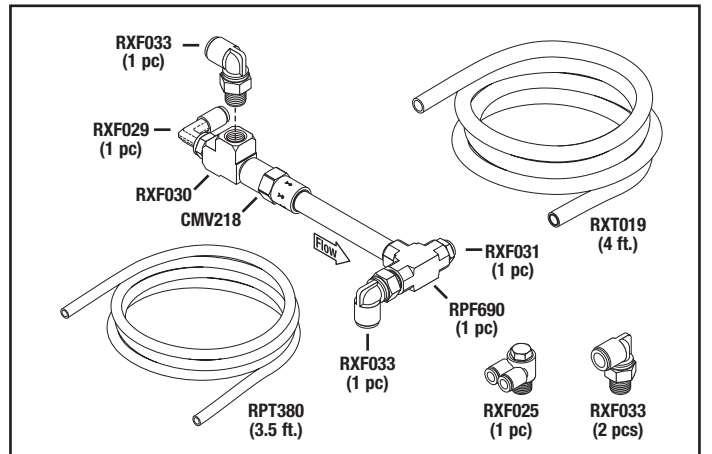


RPI Kit Part #CMK248 Fits AirStar Models AS21, AS22, AS30 & AS50

RPI Part #	Quantity and Description
RPT380	(3.5 ft.) Tubing (.170" ID x 1/4" OD Natural)
RXT019	(4 ft.) Tubing (.275" ID x .375" OD Natural)
RXF025	(1 pc) Branch Elbow (Dual 1/4" Push-In x 1/4" MPT)
RXF033	(2 pcs) Elbow Fitting (3/8" Push-In x 1/4" MPT)

Pre-assembled:

CMV218	(1 pc) Check Valve
RPF690	(1 pc) Tee Fitting (1/4" FPT)
RXF029	(1 pc) Elbow Fitting (1/4" Push-In x 1/4" MPT)
RXF030	(1 pc) Street Tee (1/4" NPT)
RXF031	(1 pc) Male Connector (1/4" Push-In x 1/4" MPT)
RXF033	(2 pcs) Elbow Fitting (3/8" Push-In x 1/4" MPT)
n/a	(4" lg.) Pipe Nipple

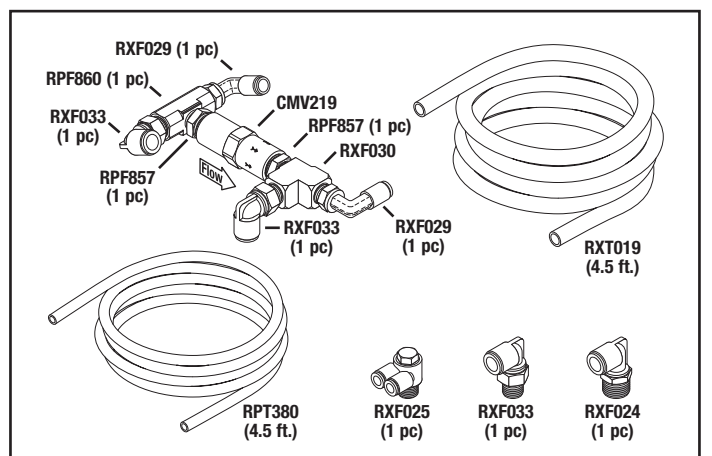


RPI Kit Part #CMK249 Fits AirStar Model AS70

RPI Part #	Quantity and Description
RPT380	(4.5 ft.) Tubing (.170" ID x 1/4" OD Natural)
RXT019	(4.5 ft.) Tubing (.275" ID x .375" OD Natural)
RXF024	(1 pc) Elbow (3/8" Push-In x 3/8" MPT)
RXF025	(1 pc) Branch Elbow (Dual 1/4" Push-In x 1/4" MPT)
RXF033	(1 pc) Elbow Fitting (3/8" Push-In x 1/4" MPT)

Pre-assembled:

CMV219	(1 pc) Check Valve
RPF857	(2 pcs) Adaptor (1/4" FPT x 3/8" MPT)
RPF860	(1 pc) Male Branch Tee (1/4" NPT)
RXF029	(2 pcs) Elbow Fitting (1/4" Push-In x 1/4" MPT)
RXF030	(1 pc) Street Tee (1/4" NPT)
RXF033	(2 pcs) Elbow Fitting (3/8" Push-In x 1/4" MPT)



RPI PART #CMK247, CMK248 & CMK249 - CHECK VALVE UPGRADE KITS INSTALLATION INSTRUCTIONS (Continued)

Preparation

- Review the list of Tools Required and gather them before you begin upgrading the unit.
- Ensure that all removed hardware is kept with the assembly it was removed from, or keep hardware for each assembly in its own separate container.
- When removing fittings, ensure the mating threads and sealing surfaces are clean and free of debris. This will help to form a strong seal for all newly installed hardware.
- It is important to note the location and orientation of any part or assembly being removed to avoid any confusion upon reassembly. If needed, take a photo of the assembly prior to disassembly.

Tools Required
5/16" Nut Driver
Open-End Wrench set with:
7/16" Open-End Wrench
9/16" Open-End Wrench
1/4 Drive Ratchet set with:
5/16" Socket
7/16" Socket
<i>Tools are not included in Kits.</i>

- Remove the brass elbow fitting from the main storage tank. Install a new push-in elbow fitting into the main storage tank. For the correct Elbow Fitting to use with each model - see below:
 - For models AS10 through AS50, install the push-in Elbow Fitting (RPI Part #RXF033).
 - For model AS70, install the push-in Elbow Fitting (RPI Part #RXF024) into the main storage tank.
- Disconnect the 1/4" plastic regeneration line from the plastic push-in fitting on the purge tank.
- Remove the OEM copper tee from the purge tank and install the new Elbow Fitting (RPI Part #RXF025).
- Reconnect the regeneration line to one port of the branch elbow. (See Figure 1 below for guidance.)
- Follow the regeneration line back to the check valve and disconnect it from the existing plastic push-in fitting.

Important Safety Information

- Caution:** Always disconnect power to the unit prior to replacing any components of the unit.
- Caution:** To avoid injury, it is critical to verify the depressurization of the main storage tank, and any pressurized lines prior to performing any maintenance or repairs.

Check Valve Upgrade Procedure

- There are three copper tubes (listed below) that need to be disconnected by loosening the associated fittings.
 - Drying chamber to check valve (3/8")
 - Purge tank to check valve (1/4")
 - Check valve to storage tank (3/8")
- Remove the copper fitting from the top of the drying chamber and remove any debris from the top of the drying chamber threads. Install a new push-in elbow fitting into the top of the drying chamber. For the correct elbow fitting to use for each model - see below:
 - For models AS10 through AS50, install the push-in Elbow Fitting (RPI Part #RXF033).
 - For model AS70, install the push-in Elbow Fitting (RPI Part #RXF024).
- Remove the brass elbow fitting from the main storage tank. Install a new push-in elbow fitting into the main storage tank. For the correct Elbow Fitting to use with each model - see below:
 - For models AS10 through AS50, install the push-in Elbow Fitting (RPI Part #RXF033).
 - For model AS70, install the push-in Elbow Fitting (RPI Part #RXF024) into the main storage tank.
- Disconnect the 1/4" plastic regeneration line from the plastic push-in fitting on the purge tank.
- Remove the OEM copper tee from the purge tank and install the new Elbow Fitting (RPI Part #RXF025).
- Reconnect the regeneration line to one port of the branch elbow. (See Figure 1 below for guidance.)
- Follow the regeneration line back to the check valve and disconnect it from the existing plastic push-in fitting.
- Important:** (2) pipe clamps and (2) screws secure the check valve assembly in place on AS70 models. Ensure the clamps are installed and centered on the outlet side of the check valve.
- Remove the screw(s) and pipe clamp(s) holding the check valve assembly to the drying chamber bracket. Remove the check valve assembly and retain the screw(s) and clamp(s) for reassembly in the next step.
- Mount the new check valve assembly to the drying chamber bracket in the same orientation as the old assembly. Use the screw(s) and clamp(s) from the previous step to secure the assembly into place.
- Connect the regeneration line to the push-in elbow fitting on the check valve assembly.
- Cut the replacement tubing to the length needed for the connections listed below:
 - Drying chamber to the check valve use RPI Part #RXT019
 - Purge tank to check valve use RPI Part #RPT380.
 - Check valve to storage tank use RPI Part #RXT019.
- Ensure all tubing is connected, all fittings are secure and that the check valve assembly is secured to the drying chamber bracket. Then verify the operation of the compressor and ensure there are no leaks.

Figure 1 - Location of Connections Based on Model

