



# Prestige Solo 299-399 Blower Conversion Kit - Installation Instructions

**Kit Part Number: PARKIT99**

## 1.1. Applicability

P299 boilers up to S/N PA116181

P399 boilers up to S/N PA116693

## 1.2. Purpose

This kit replaces the existing blower, gas valve and venturi assembly on certain Prestige Solo 299 or 399 boilers (see applicability above).

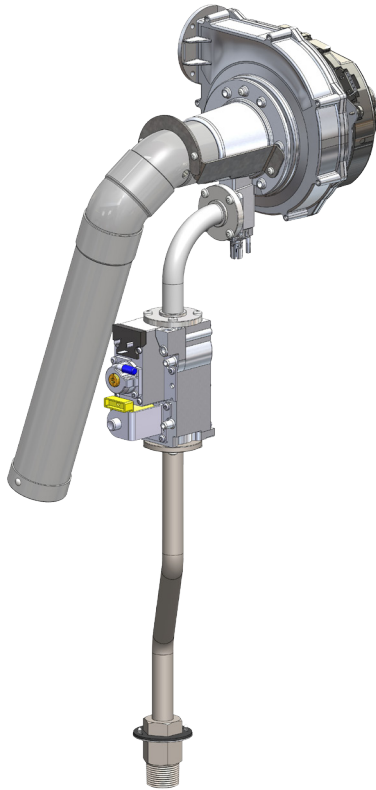


Fig. 1 - Prestige Solo 299-399 - Blower conversion kit - Assembled

## 1.3. Boiler preparation

### 1.3.1 Required Tools and Material

- Adjustable Wrench
- T20 Torx Wrench
- Phillips Screwdriver

### 1.3.2 Procedure

1. Turn the boiler off by pressing the power switch
2. Disconnect electrical power at the external electric box



**Avoid electrical shock by disconnecting the electrical supply prior to performing any operation on the internal parts of the boiler. Failure to comply will result in substantial property damage, serious injury, or death.**

3. Shut off the gas supply to the boiler at the main manual shut off valve.
4. Disconnect gas connection at the bottom of the boiler.
5. Remove boiler front panel to access the blower, gas valve and venturi assembly.
6. Disconnect all plugs from blower and gas valve. Note gas valve wiring connections.
7. Loosen the gas pipe hex retainer at the bottom of the appliance.
8. Disconnect the gas valve union and remove the gas valve/pipe assembly
9. Remove blower and venturi assembly by disconnecting the blower from the heat exchanger.

# PRESTIGE SOLO 299-399 BLOWER CONVERSION KIT - INSTALLATION INSTRUCTIONS

## 1.4. Kit installation

### 1.4.1 Required tools and material

- Phillips Screwdriver
- T20 Torx wrench
- T25 Torx Wrench

### 1.4.2 Installation Procedure (see Fig. 2 on page 3)

1. Install required orifice (5) and o-ring (6) from parts bag on venturi (1).
2. Attach 90° gas pipe (7) to venturi (1) using 4 screws (9) in venturi bag.
3. Install new blower (3) using existing bracket.
4. Install 90° gas pipe and venturi assembly to blower (3) using one screw (2) at the top and required o-ring (4). Leave screw (2) loose; it will be tightened in step 9.
5. Attach lower gas pipe (10) with o-ring (6) to bottom of gas valve (8) using 4 screws (9)

### NOTICE

*With the gas valve facing forward, the lower gas pipe should go back and to the left.*

6. Install gas valve (8) and lower gas pipe (10) on 90° gas pipe using 4 screws (9) and o-ring (6).
7. Install 2 o-rings (16) on venturi inlet before installing plastic air intake tube (12).

8. Install air intake tube retainer (15) using two remaining screws (2).
9. Tighten all venturi to blower screws (2) evenly.
10. Install silencer securing plate (14) using two screws (13), as required.
11. Tighten 2 screws to gas pipe hex retainer (11) on bottom of cabinet.
12. Reconnect all plugs to blower and gas valve.

### NOTICE

*Make sure to route blower power supply cable behind the gas valve to prevent cable damage.*

### 1.4.3 Follow-on Operations

1. Visually check the overall installation.
2. Perform boiler start up procedure, refer to boiler Installation manual for the correct procedure.
3. Carefully check for gas leaks, refer to boiler Installation manual for the correct procedure.
4. Adjust combustion to achieve the targeted O<sub>2</sub> or CO<sub>2</sub> levels indicated in table below. Refer to the boiler installation manual for the correct procedure.

### NOTICE

*The throttle screw is located on the venturi.*

Table 1 - Acceptable Combustion Levels

		Natural Gas All Models	Propane PA 80/110/155/175/250/299	Propane PA 399
High Fire	CO <sub>2</sub> Range	8.8 to 10.5%	10.7 to 12.0%	10.4 to 11.4%
	CO <sub>2</sub> Target	9.2%	11.0%	
	O <sub>2</sub> Range	2.3 to 5.3%	2.7 to 4.7%	3.7 to 5.2%
	O <sub>2</sub> Target	4.6%	4.2%	
Low Fire	CO <sub>2</sub> Range	0.5 to 0.6% Lower than High Fire CO <sub>2</sub>		
	O <sub>2</sub> Range	0.8 to 0.9% Higher than High Fire O <sub>2</sub>		
	CO Max	100 ppm	150 ppm	

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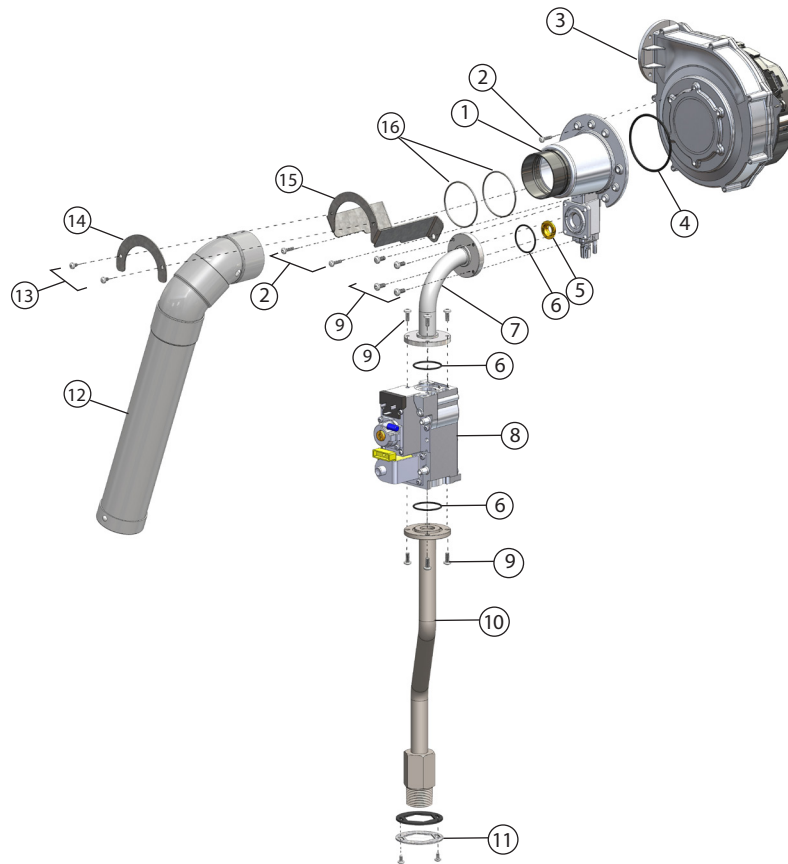


Fig. 2 - Prestige 299-399 Solo - Burner conversion kit

Item	Description	Qty
1	Venturi VMS (with throttle)	1
2	Screw, M4 x 16 - T20	3
3	FAN 137 NRG 110V	1
4	O-Ring (70x3) (mm), Venturi, fan	1
5	Orifice, NG, (8.6)	1
	Orifice, LG (6.7)	1
6	O-Ring, (33x2) (mm), gas pipe	3
7	Elbow for gas valve	1
8	Gas valve (without throttle)	1
9	Screw, M5x12 - T25	12
10	Gas pipe assy P299-399	1
11	Gas pipe hex retainer and 2 screws (on boiler)	
12	Silencer Prestige 399 MK2	1
13	Screw (in first kits only)	2
14	Securing plate, silencer (in first kits only)	1
15	Retainer silencer P399	1
16	O-Ring, (7x1,78) (mm), Silencer	2