



TECHNICAL CHARACTERISTICS
INSTRUCTIONS FOR USE, ASSEMBLY INSTRUCTIONS,
MAINTENANCE INSTRUCTIONS



MODEL 45F – 45FX

**2-OUTLETS MANUALLY-OPERATED GAS VALVE
FOR COOKING APPLIANCES**

| | | | |
|---|-------------------------|---|-----------------------|
|  Gas Safety Certified | |  | |
| AS 4617 | | EN 1106 EN13611 | |
| models | 45F – 45FX (SAI-400157) | models | 45F – 45FX (51CR4738) |

| |
|-----------------------------|
| GENERAL INSTRUCTIONS |
|-----------------------------|

| Feature | Description |
|------------------------------------|---|
| Type | 2 - conical plug valve |
| applications | hot plates, ovens, grills etc |
| types of gas used | 1 st – 2 nd – 3 rd family |
| group | 1 |
| number of outlets | 2 |
| nominal diameter | 8 |
| maximum working pressure | 6.5 kPa |
| minimum working temperature (body) | 0°C |
| maximum working temperature (body) | 80/130°C |
| nominal flow rate (model 45 F) | 0.27 m ³ /h (test gas: air - pressure drop 100 Pa) |
| Reduced flow rate (model 45 F) | 0.04 m ³ /h (test gas: air – pressure drop 100 Pa) |
| nominal flow rate (model 45 FX) | 0.27 m ³ /h (test gas: air - pressure drop 100 Pa) |
| Reduced flow rate (model 45 FX) | 0.07 m ³ /h (test gas: air – pressure drop 100 Pa) |
| opening angle of max. flow rate | 90° |
| opening angle of min. flow rate | 210°(45F); 230° (45FX) |
| external leak tightness | leakage ≤ 60 cc/h (1 ml/min) (air - pressure 15 kPa) |
| internal leak tightness | leakage ≤ 20 cc/h (0.3 ml/min) (air - pressure 15 kPa) |
| gas valve continued operation | 40,000 cycles (EN 1106 - EN 13611) 10,000 cycles (AS 4617) |
| inlet gas connection | bracket, flange (see attached sheets) |
| outlet gas connection | see attached sheets |
| storage temperature range | -15°C to +50°C |

If applicable,

| TABLE 1 - MICROSWITCH CHARACTERISTICS | |
|---------------------------------------|------------------|
| Nominal tension | 250 V |
| Method for operation | push-button |
| Max. operating temperature | 125 °C |
| Contact distance | small – standard |
| Protection level | IP00 |
| Insulation class | I |
| Pollution situation | standard |
| Heat-resistance | category D |
| Tracking index | PTI250 |

INSTRUCTIONS FOR USE

To turn the valve on, simultaneously press and turn the control shaft.

Pressing the control shaft frees the valve from the “closed” position block. This allows the plug to rotate and the gas to pass to the burner.

For the gas valves model 45F, starting from the “closed” position (0°A), after turning the control shaft through 90° is reached the maximum flow-rate of both the outlets (1 and 2); by continuing the rotation up to 165° is reached the closure of outlet 1 and the maximum flow-rate of the outlet 2. At 210°A is reached the reduced flow-rate of the outlet 2, while the outlet 1, from 165°A to 210°A, remains always closed. The valve has an adjustable perforated metering screw (by-pass) which fixes the reduced flow-rate of the outlet 2 at a presetted value when fully tightened. If a different type of gas is used, the amount of reduced flow of the outlet 2 can be adjusted by turning the by-pass with a screwdriver.

As regards the gas valve model 45F, X variant, starting from the “closed” position (0°A), after turning the control shaft through 90° is reached the maximum flow-rate of the outlet 1, by continuing the rotation up to 160° is reached the reduced flow-rate of the outlet 1 and then by continuing the rotation up to 230° is reached the closure of the outlet 1. The outlet 2, from 90°A to 230°A, remains always opened. The valve has an adjustable perforated metering screw (by-pass) which fixes the reduced flow-rate of the outlet 1 at a presetted value when fully tightened. If a different type of gas is used, the amount of reduced flow of the first outlet can be adjusted by turning the by-pass with a screwdriver.

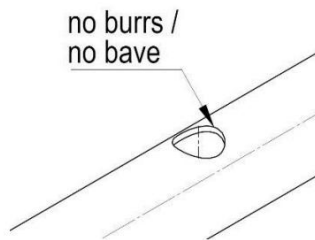
If the valve (Mod. 45F – 45FX) has a microswitch, press down on the control shaft activating the microswitch which drives the thermoelectric lighting device (see table 1).

ASSEMBLY INSTRUCTIONS

The valves are designed to be used inside the gas cooking appliances, protected from any possible infiltrations of liquid or dirt and from any atmospheric agents. The non-observance of this prescription can compromise the correct functionality and the safety of the product.

The valves are designed to be used with manifolds with different diameters using flange or bracket fastenings. To ensure a perfect seal:

- Place an elastomer gasket between the manifold tube and the valve
- Realize, on the manifold, the seating holes according to the table “inlet variants” and ensure they are free of burrs (see following sketch)



The outlet is designed for a burner connection by pipe or injector.

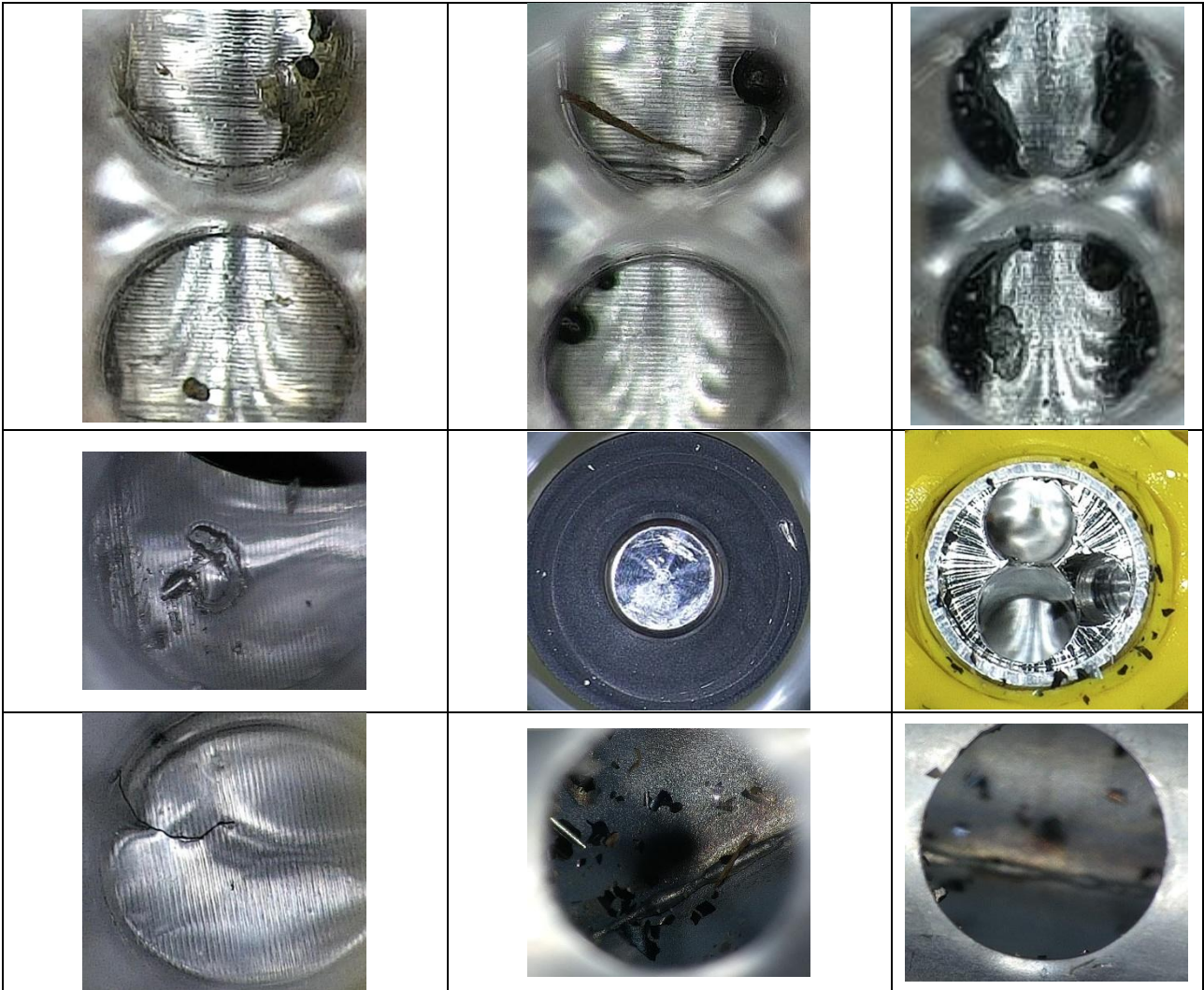
To avoid damage that may compromise correct functionality of the valve, do not exceed the tightening torques listed in the table “maximum torque value”.

To avoid dirt or other material (solid or liquid) entering the appliance which may affect functionality of the valve, a suitable filter must be mounted on the manifold inlet.

The valve has to be stored and assembled in a cleaned area to avoid any contamination.

To avoid any damage on the valve, the manifold must be completely cleaned and free of burrs before the valve assembling. In order to guarantee a cleaned manifold, moreover an air blowing process, a degreasing washing system has to be considered, like an ultrasonic system.

Examples of possible particles contamination that could come in the valve from the inlet compromising its functionality:



MAINTENANCE INSTRUCTIONS

Maintenance of the taps is not foreseen, in case of failure or incorrect operation replace the tap with a new one (same model and same characteristics).

NB.: Leak test should be performed using a suitable appliance. Leak test mustn't be done by means of a flame or immersion of the valve in water or other liquids. The non-observance of this prescription can compromise the correct working and the safety of the product.

SAFETY & ENVIRONMENT INSTRUCTIONS

Please note that none of our products / components contain substances that may be released intentionally during normal or reasonably foreseeable use.

The normal or reasonably foreseeable use of our items does not involve particular precautions; only for disposal at the end of their life, it is recommended not to subject the products / components to mechanical processing such as cutting or drilling, which could cause exposure to the substances contained in the products / components or their dispersion into the environment.

VARIANTS
INLET VARIANTS

| inlet | denomination | | assembly | |
|--------------|---------------------|----------|-----------------------|------------------------|
| 1 -1N | single bracket | 1 screw | tube diameter 14 mm | (hole diameter 8.2 mm) |
| 2 -2N | single bracket | 1 screw | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 3 | bracket | 1 screw | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 4 - 4N | bracket | 1 screw | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 4a - 4aN | bracket | 2 screws | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 5 - 5N | single bracket | 1 screw | tube diameter 18 mm | (hole diameter 8.2 mm) |
| 6 | bracket | 1 screw | tube diameter 18 mm | (hole diameter 8.2 mm) |
| 7 | bracket | 1 screw | tube diameter 18 mm | (hole diameter 11 mm) |
| 8 - 8N | bracket | 1 screw | tube diameter 18 mm | (hole diameter 8.2 mm) |
| 8a - 8aN | bracket | 2 screws | tube diameter 18 mm | (hole diameter 8.2 mm) |
| 9 - 9N | bracket | 2 screws | tube diameter 1/2"gas | (hole diameter 8.2 mm) |
| 10 | bracket | 1 screw | tube diameter 1/2"gas | (hole diameter 8.2 mm) |
| 11 - 11N | bracket | 1 screw | tube diameter 1/2"gas | (hole diameter 8.2 mm) |
| 12 - 12N | bracket | 2 screws | tube diameter 15 mm | (hole diameter 8.2 mm) |
| 13 - 13N | bracket | 2 screws | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 13a | bracket | 2 screws | tube diameter 14 mm | (hole diameter 8.2 mm) |
| 13b - 13bN | single bracket | 1 screw | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 13c - 13cN | single bracket | 1 screw | tube diameter 16 mm | (hole diameter 8.2 mm) |
| 14 | flange | 2 screws | flat tube | (hole diameter 5.7 mm) |
| 15 | bracket | 2 screws | tube diameter 8 mm | (hole diameter 5.7 mm) |
| 16 | bracket | 2 screws | tube diameter 10 mm | (hole diameter 5.7 mm) |
| 17 | bracket | 2 screws | tube diameter 16 mm | (hole diameter 6.2 mm) |
| 17a | bracket | 2 screws | tube diameter 16 mm | (hole diameter 6.2 mm) |
| 18 - 18N | bracket | 2 screws | tube diameter 14 mm | (hole diameter 8.2 mm) |
| 19 - 19N | bracket | 2 screws | tube diameter 19 mm | (hole diameter 8.2 mm) |
| 20 | bracket | 2 screws | tube diameter 17 mm | (hole diameter 8.2 mm) |
| 21 | single bracket | 1 screw | tube diameter 8 mm | (hole diameter 5.7 mm) |
| 22 | single bracket | 1 screw | shaped tube | (hole diameter 8.2 mm) |

OUTLET VARIANTS

| outlet | denomination | assembly |
|--------|-------------------------------|-------------------------------|
| A | injector | injector + external thread |
| B | injector | injector |
| C | tube diameter 6.35 mm | compression fitting |
| D | tube diameter 6.35 mm | compression fitting |
| E | G 1/4" gas | flared tube |
| F | M 14 x 1.5 | flared tube |
| G | M 15 x 1.5 | flared tube |
| H | M 16 x 1.5 | flared tube |
| I | tube diameter 6 mm | compression fitting |
| J | tube diameter 8 mm | spring + gasket + flared tube |
| J2 | tube diameter 7 mm | spring + gasket + flared tube |
| J3 | tube diameter 6.35 mm | spring + gasket + flared tube |
| L | tube diameter 7 mm | compression fitting |
| M | tube diameter 8 mm | compression fitting |
| N | tube diameter 8 mm | compression fitting |
| O | M 12 x 1 | flared tube |
| P | tube diameter 9.525 mm (3/8") | compression fitting |
| Q | tube diameter 8 mm | spring + gasket + flared tube |
| Q2 | tube diameter 7 mm | spring + gasket + flared tube |
| Q3 | tube diameter 6.35 mm | spring + gasket + flared tube |
| R | injector | injector |
| S | tube diameter 7 mm | compression fitting |
| T | tube diameter 6 mm | compression fitting |
| W | M 16 x 1.25 | flared tube |

Max. torque values:

| maximum torque value | | |
|---|-----|--------|
| Component | Nm | lbf.in |
| Nut + (olive) + tube for outlet of valves | 15 | 133 |
| Screws for fixing brackets | 1.5 | 13 |
| Injectors | 4 | 35 |

| MANUFACTURING DATE CODES | | | |
|--------------------------|------|------|------|
| MONTH | CODE | YEAR | CODE |
| JANUARY | N | 1992 | A |
| FEBRUARY | O | 1993 | B |
| MARCH | P | 1994 | C |
| APRIL | R | 1995 | D |
| MAY | S | 1996 | E |
| JUNE | T | 1997 | F |
| JULY | U | 1998 | H |
| AUGUST | V | 1999 | I |
| SEPTEMBER | W | 2000 | J |
| OCTOBER | X | 2001 | K |
| NOVEMBER | Y | 2002 | L |
| DECEMBER | Z | 2003 | M |
| | | 2004 | 4 |
| | | 2005 | 5 |
| | | 2006 | 6 |
| | | 2007 | 7 |
| | | 2008 | 8 |
| | | 2009 | 9 |
| | | 2010 | 0 |
| | | 2011 | 1 |
| | | 2012 | 2 |
| | | 2013 | 3 |
| | | 2014 | 4 |
| | | 2015 | 5 |
| | | 2016 | 6 |
| | | --- | --- |

EXAMPLE: A COMPONENT PRODUCED IN APRIL 2004 IS MARKED

R4

Alternatively, on the component can be marked a five digit code indicating the day (first two digits), the month (third digit – according with the code in table above) and the year of production (last two digits).

EXAMPLE: A COMPONENT PRODUCED IN APRIL, 19 2004 IS MARKED

19 R 04

Alternatively, on the component can be marked a four digit code indicating the week (first two digits) and the year of production (last two digits).

EXAMPLE: A COMPONENT PRODUCED THE 14TH WEEK OF 2004 IS MARKED

1404

Alternatively, on the component can be laser marked a six digit code indicating the day (first digit), week (second and third digit), the year of production (fourth and fifth digit) and the shift of production (last digit).

D WW YY S

- D= day of production
(Monday="1", Tuesday ="2"; Wednesday="3"; Thursday="4"; Friday="5"; Saturday="6"; Sunday="7")
- WW= week of production
- YY= year of production
(2012 = "12"; 2013 = "13"; 2014 = "14";)
- S= shift of production
(1°shift = "1"; 2° shift ="2"; 3° shift ="3")