


**TECHNICAL CHARACTERISTICS**  
**INSTRUCTIONS FOR USE, ASSEMBLY INSTRUCTIONS,**  
**MAINTENANCE INSTRUCTIONS**



**MODEL 43 – 43R – 43M**

**MANUALLY-OPERATED GAS VALVE WITH FLAME  
SURVEILLANCE DEVICE FOR COOKING APPLIANCES**

		
<b>ANSI Z21.78 – CSA 6.2</b>		
<b>models</b>	<b>43 – 43R – 43M (1034249)</b>	

## GENERAL INSTRUCTIONS

Feature	Description
type	conical plug valve
applications	hot plates, ovens, grills etc.
types of gas used	1 <sup>st</sup> – 2 <sup>nd</sup> – 3 <sup>rd</sup> family
number of outlets	1
nominal diameter	8
maximum working pressure	½ psi
minimum working temperature (body)	0°C
maximum working temperature (body)	150°C
nominal flow rate	14.47 ft <sup>3</sup> /h (410 l/h) (test gas: air - pressure drop 249 Pa)
calculated nominal capacity	18,000 Btu/h (test gas: air - pressure drop 249 Pa)
nominal flow rate (with filter)	10.92 ft <sup>3</sup> /h (310 l/h) (test gas: air - pressure drop 249 Pa)
calculated nominal capacity (with filter)	13,700 Btu/h (test gas: air - pressure drop 249 Pa)
Reduced flow rate	0.079 m <sup>3</sup> /h (test gas: air – pressure drop 249 Pa)
calculated nominal capacity (reduced)	3,400 Btu/h (test gas: air - pressure drop 249 Pa)
opening angle of max. flow rate	90°
opening angle of min. flow rate	210° (160° R version – 290° M version)
external leak tightness	leakage ≤ 60 cc/h (air - pressure 3 psi (20.7 kPa))
internal leak tightness	leakage ≤ 20 cc/h (air - pressure 3 psi (20.7 kPa))
gas valve continued operation	10,000 cycles
Flame supervisor device continued operation	6,000 cycles
inlet gas connection	bracket, flange (see attached sheets)
outlet gas connection	see attached sheets
storage temperature range	-15°C to + 50°C
hold-on current/drop-out current (safety device)	≤ 180 mA / ≥ 60 mA (version 1) ≤ 110 mA / ≥ 20 mA (version 2) ≤ 60 mA / ≥ 10 mA (version 3)
Thermocouples maximum closing time	90 sec

These valves can be used with pipes of various diameters and flat manifolds.  
To ensure a perfect seal, place an elastomer gasket between the manifold and the valve.

## INSTRUCTIONS FOR USE

To turn the valve on, simultaneously press and turn the control shaft.  
Holding down the control shaft and turning it anti-clockwise allows the gas to pass to the burner.  
A few seconds after the burner ignites, the thermocouple generates enough current to hold the safe magnet open. The control shaft needs no longer be pressed down.  
Where indicated on the assembly drawing the ignition of the tap can only be performed with the control shaft in the position of 90°.  
Maximum flow-rate is reached after turning anti-clockwise the control shaft through 90°; reduced flow-rate is reached by continuing the rotation up to 210° (160° R version – 290° M version).  
If the flame should accidentally go out, the thermocouple cools and the current is reduced, the magnet is closed and the flow of gas is blocked after a few seconds.  
The valve has an adjustable perforated metering screw (by-pass) which fixes the reduced flow-rate at a preset value when fully tightened. If a different type of gas is used, the amount of reduced flow can be adjusted by turning the by-pass with a screwdriver .

## ASSEMBLY INSTRUCTIONS

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

The valves are designed to be used with manifolds of different diameters using flange or bracket fastenings.

To ensure a perfect seal, place an elastomer gasket between the ramp and the valve.

The outlet is designed for an injector or connection pipe to the burner.

To avoid damage that may compromise correct functioning of the valve, do not exceed the tightening torques listed in the attached tables.

**To avoid dirt or other material entering the equipment which may affect functioning of the valve, a suitable filter should be mounted on the manifold supply inlet.**

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

## 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.**

**VARIANTS**
**INLET VARIANTS**

inlet	denomination		assembly	
1	single bracket	1 screw	tube diameter 14 mm	(hole diameter 8.2 mm)
2	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	bracket	1 screw	tube diameter 16 mm	(hole diameter 8.2 mm)
4a	bracket	2 screws	tube diameter 16 mm	(hole diameter 8.2 mm)
5	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	bracket	1 screw	tube diameter 18 mm	(hole diameter 8.2 mm)
8a	bracket	2 screws	tube diameter 18 mm	(hole diameter 8.2 mm)
9	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	bracket	1 screw	tube diameter 1/2"gas	(hole diameter 8.2 mm)
12	bracket	2 screws	tube diameter 15 mm	(hole diameter 8.2 mm)
13	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	single bracket	1 screw	tube diameter 14 mm	(hole diameter 8.2 mm)
13c	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	bracket	2 screws	tube diameter 14 mm	(hole diameter 8.2 mm)
19	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)

**VARIANTS OF MANUALLY-OPERATED GAS VALVE - MODEL 43 – 43R**

## 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
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
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
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EXAMPLE: A COMPONENT PRODUCED IN JUNE 1995 IS MARKED

**TD**

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 14<sup>TH</sup> WEEK OF 2004 IS MARKED

**1404**

Alternatively, on the component can be marked the day (first digits), the month (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**