

## High Pressure Burner - EQA 93

EQA 93 gas burners are used in those systems where the available pressure is 0.2 to 3 kg/cm<sup>2</sup> and where the energy produced by the gas itself is the one necessary for its operation; that is to say, a fan or compressor are not required. When passing through the venturi, the high-pressure gas flow sucks up the necessary air for combustion, which at the same time is controlled and regulated by the primary air register.

The regulation of the air-gas mixture, which allows obtaining the desired type of flame, is performed with the above-mentioned air register, the secondary air register and the burner's ball valve. As an option, this burner admits gas regulation through a needle-type system which diminishes or increases the area where the injector works.

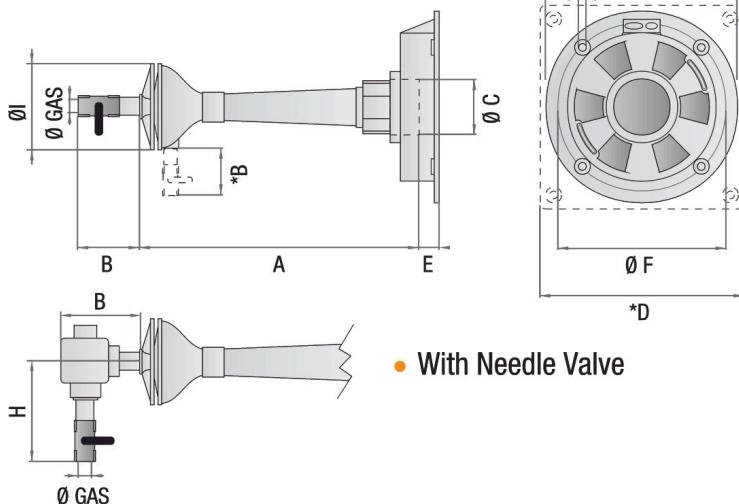
The EQA 93 burner's design is highly specialised and offers the following advantages, among others:

1. Venturi throat aerodynamically designed to ensure the greater quantity of air obtained and the total absence of turbulence in the inside.
2. Fire nozzle with ring chamber, which produces a high retention of flame, eliminating the possibility of switching off.



### DIMENSIONS (in mm).

#### With Ball Valve



#### With Needle Valve

Model	A	B	C	D	E	F	G	H	I	Ø Gas
93 - 1"	250	70	47	-	-	-	-	-	72	3/8"
93 - 1 1/4"	350	100	55	255	34	230	12	60	114	3/8"
93 - 1 1/2"	410	100	70	255	34	234	12	60	114	3/8"
93 - 2"	525	120*	87	300	37	263	12	-	138	1/2"
93 - 3"	640	120	115	365	37	327	14	70	162	1/2"
93 - 4"	780	130	150	387	20	350	14	91	207	3/4"
93 - 6"	980	150	216	524*	41	686	20	137	295	1 1/2"
93 - 8"	1450	180	300	-	-	-	-	137	385	1 1/2"

A+B+E: Length With Plate  
 A+B: Length Without Plate



## APPLICATIONS

Efficiency and performance of EQA 93 burners have been widely proven in the most diverse applications, such as glass furnaces, forging furnaces, annealing furnaces, tempering furnaces, rotary ovens, ceramic or refractory land dryers, heat exchange units, gas or petroleum heaters, ceramic furnaces, etc. They can also be used as air-gas mixers to feed several fire nozzles, continuous flame burners, etc.

They are manufactured in two forms: straight and bended in eight different sizes, their capacities being up to 12,000,000 BTU/h with various types of fire nozzles: for low and high temperatures (up to 2,215°F).

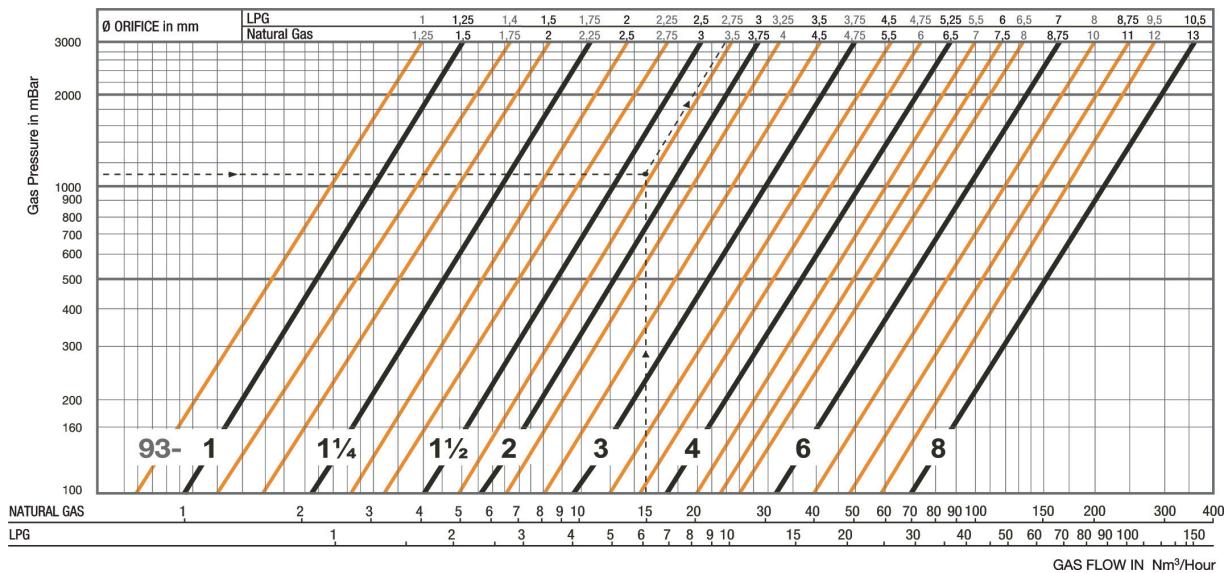
## INSTALLATION

The EQA 93 burners assembly can be carried out through a front plate.

## AUTOMATION

EQA-93 burners admit any type of automation and combustion controls, such as thermocouple flame controllers, electronic controllers, ultraviolet photocells, as well as solenoid valves, pneumatic and/or modulating valves, commanded by safety controls, temperature, among others.

### EQA 93 - CAPACITIES AND ORIFICES CHART IN M<sup>3</sup>/HORA.



These are the **capacity curves for natural gas and liquefied gas**.

The **black** curves represent the maximum capacity for each model and indicate the corresponding injector diameter at the top of the graph. To the left of each curve are the curves for the same model with smaller injectors (in **orange**).

**EXAMPLE:** You need to burn 15 m<sup>3</sup>/hour of natural gas with an available pressure of 1.1 kg/cm<sup>2</sup>. Looking at the graph, the meeting point has the orange line on the right corresponding to the Ø 3.5 mm injector of model 93-2. This defines the burner to be used.

**To burn other gases, consult our Technical Department.**

In addition, the capacity of these burners depends on the internal pressure of the furnace. The curves correspond to a negative pressure of 1 to 2 mmCA in the furnace; for other pressures, the actual capacity must be corrected by dividing by factor A:

Internal Home Pressure (mm. CA)	% Primary Air	A Factor
0 a 4	100	0.74
-1 a 0	90	0.82
-2 a -1	80	1
-3 a -2	70	1.25
-5 a -3	60	1.51
-10 a -5	50	1.77

#### CAPACIDAD CALORIFICA DE LOS GASES

Natural Gas: 9.300 Kcal/m<sup>3</sup>

LPG: 22.500 Kcal/m<sup>3</sup>



At EQA, we strive to minimize our environmental impact through sustainable and responsible practices. Therefore, we encourage you to join our commitment and, at the end of the product's lifecycle, adhere to the current Municipal, Provincial, and National regulations regarding the classification, recycling, destruction, or disposal of the product, spare parts, non-reusable parts, and packaging. By doing so, we prevent environmental damage and promote reuse and recycling whenever possible. Thank you for your commitment and efforts in joining these actions.