HTC 850 S/0 PC.167

CONCRETE CASTING BURNER CONE

HTC 850 S/0 PC - MV Ø167

Maximum output [kW]		850
Fuel pressure at maximum capacity [mbar] (measured at $P_{1.F}$ – pag. 2)	Natural gas (8250 kcal/Nm^3)	45
	LPG (22500 kcal/Nm^3)	105
Air pressure at maximum capacity [mbar] (measured at $P_{1.A}$ – pag. 2)	Natural gas (8250 kcal/Nm^3)	55
	LPG (22500 kcal/Nm^3)	
Flame length at maximum capacity [mm] (measured from the end of the burner body)	Natural gas (8250 kcal/Nm^3)	1000
	LPG (22500 kcal/Nm^3)	1150
Flame speed at maximum capacity [m/s] (with 20% excess of air)	Medium speed	60
Flame detection	Ionization flame detection electrode or UV cell	
Fuel	Natural gas, LPG	

All information is based on laboratory tests in a neutral pressure chamber. Different conditions and chamber sizes can affect the data.
All information is based on a standard combustor design. Modifications to the combustor will alter performance and pressures.
All data are based on gross calorific values.
All information is based on tests conducted on generally acceptable air and gas piping systems.
Data reported in this technical sheet are subject to change without notice.
Performance data and dimensions are guidelines only and are not binding.
ELCO reserves the right to modify the construction and / or configuration of its products at any time

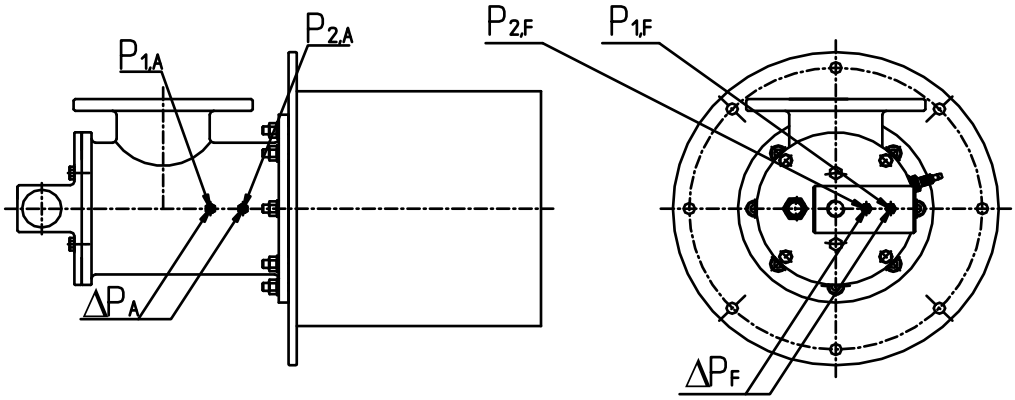
CHARACTERISTICS OF THE BURNER

Fuel 1: CH4
Fuel 1 diaphragm: Ø22

Fuel 2: LPG
Fuel 2 diaphragm: Ø14

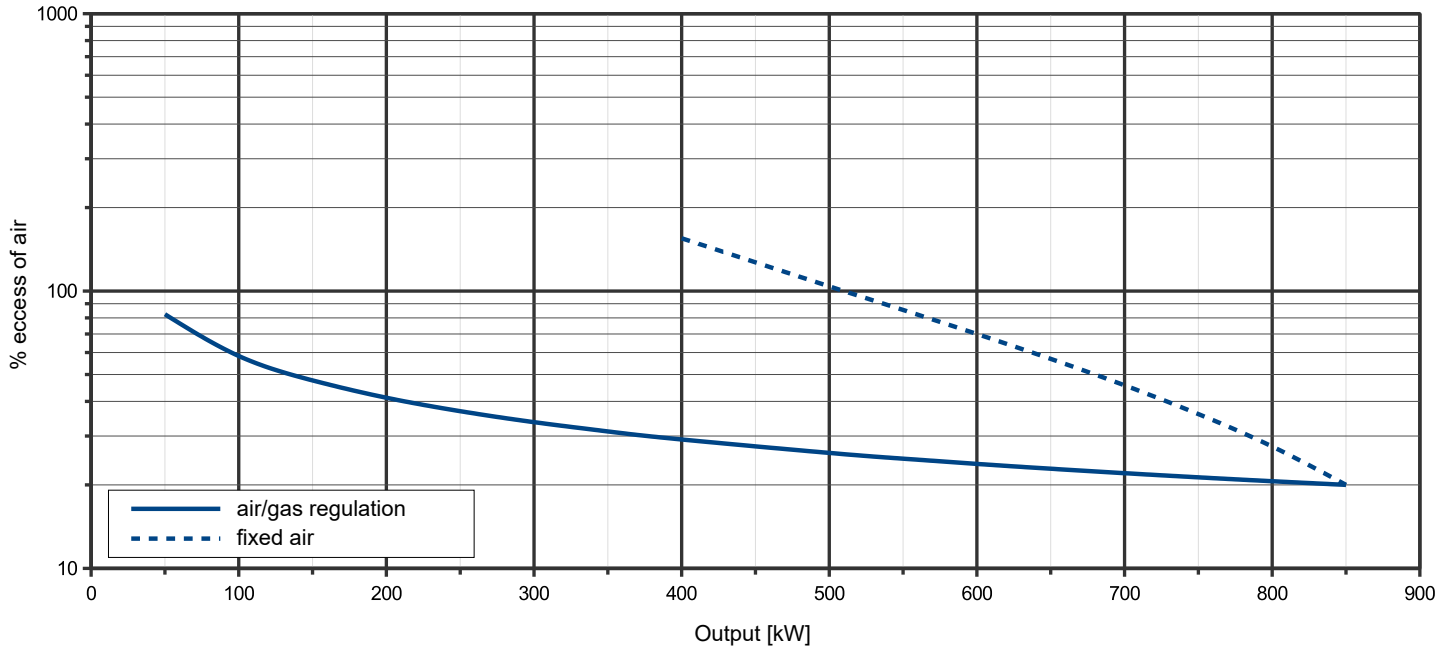
Comburent: Air
Comburent diap.: Ø120

Cone: Ø167



OPERATING RANGE

TYPICAL OPERATING RANGE



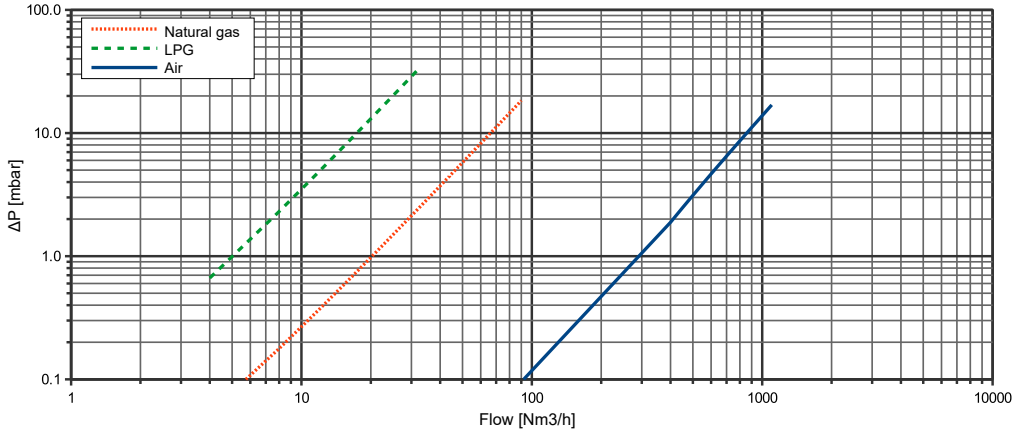
LEGENDA

Q_F Fuel flow
Q_A Air flow
$P_{1.F}$ Fuel pressure upstream the diaphragm
$P_{1.A}$ Air pressure upstream the diaphragm
$P_{2.F}$ Fuel pressure downstream the diaphragm
$P_{2.A}$ Air pressure downstream the diaphragm
ΔP_F Differential fuel pressure between ports 1 and 2
ΔP_A Differential air pressure between ports 1 and 2

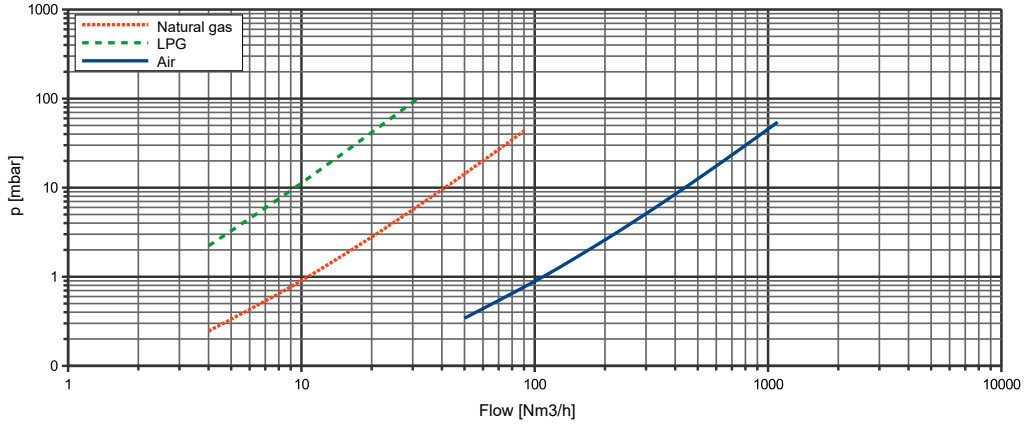
FLOW RATE CURVES

FUEL				
Q_F [Nm³/h]	$P_{1.F}$ [mbar]		ΔP_F [mbar]	
	Natural gas	LPG	Natural gas	LPG
4	0.25	2.22	0.05	0.66
8	0.65	7.51	0.18	2.31
12	1.21	15.85	0.37	4.92
16	1.92	27.26	0.64	8.51
20	2.79	41.73	0.98	13.08
24	3.82	59.26	1.38	18.62
28	5.00	79.86	1.86	25.14
32	6.34	103.51	2.41	32.63
36	7.84		3.03	
40	9.49		3.72	
44	11.31		4.49	
48	13.27		5.32	
52	15.39		6.22	
56	17.67		7.20	
60	20.11		8.24	
64	22.70		9.36	
68	25.45		10.55	
72	28.36		11.80	
76	31.42		13.13	
80	34.64		14.53	
84	38.01		16.00	
88	41.54		17.54	
89	42.45		17.94	
90	43.37		18.34	

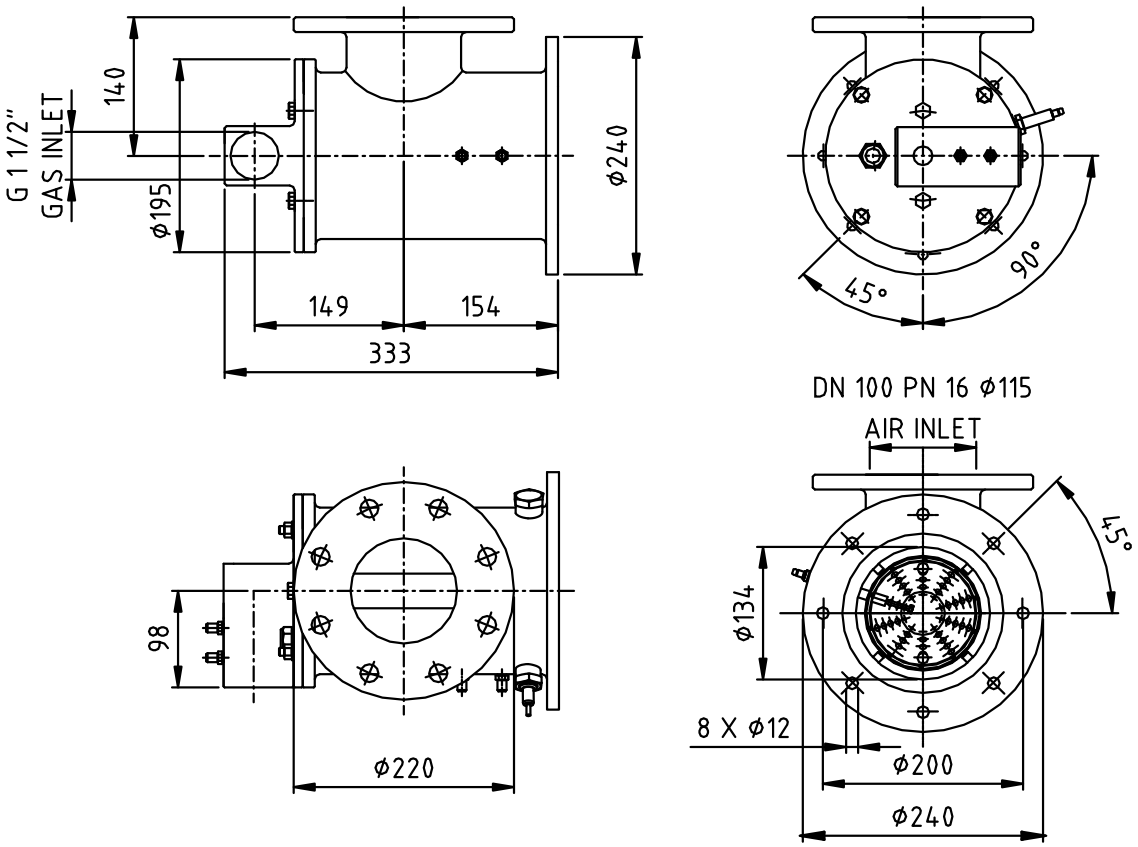
AIR		
Q_A [Nm³/h]	$P_{1.A}$ [mbar]	ΔP_A [mbar]
50	0.34	0.03
100	0.89	0.12
150	1.64	0.26
200	2.59	0.47
250	3.75	0.74
300	5.11	1.06
350	6.67	1.44
400	8.44	1.88
450	10.41	2.46
500	12.58	3.12
550	14.96	3.85
600	17.54	4.65
650	20.32	5.54
700	23.31	6.50
750	26.50	7.53
800	29.89	8.64
850	33.49	9.83
900	37.29	11.09
950	41.29	12.43
1000	45.50	13.85
1025	47.68	14.59
1050	49.91	15.34
1075	52.19	16.12
1100	54.52	16.91



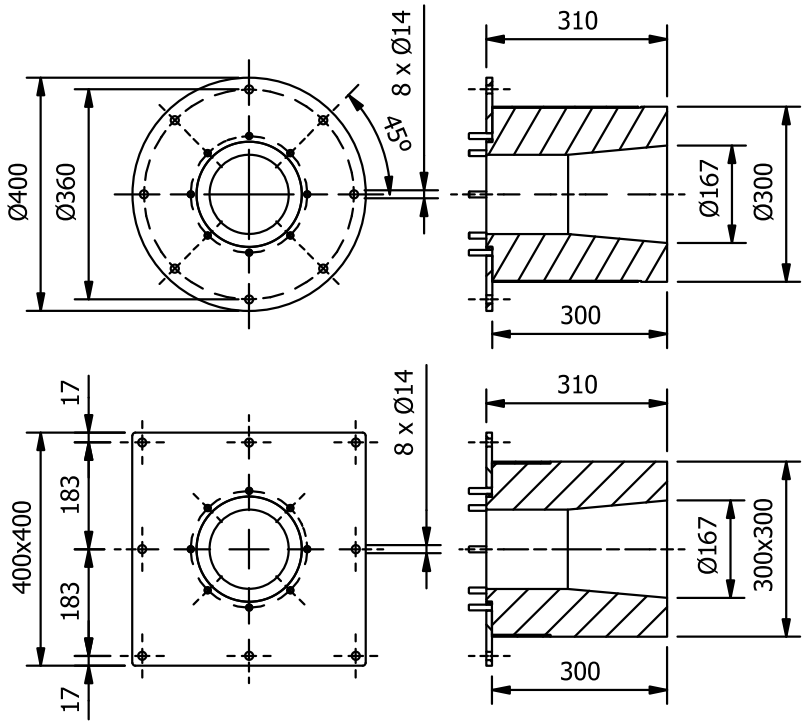
STATIC PRESSURE REQUIRED



DIMENSIONS [mm]



Concrete casting cone:



Round flange

Square flange