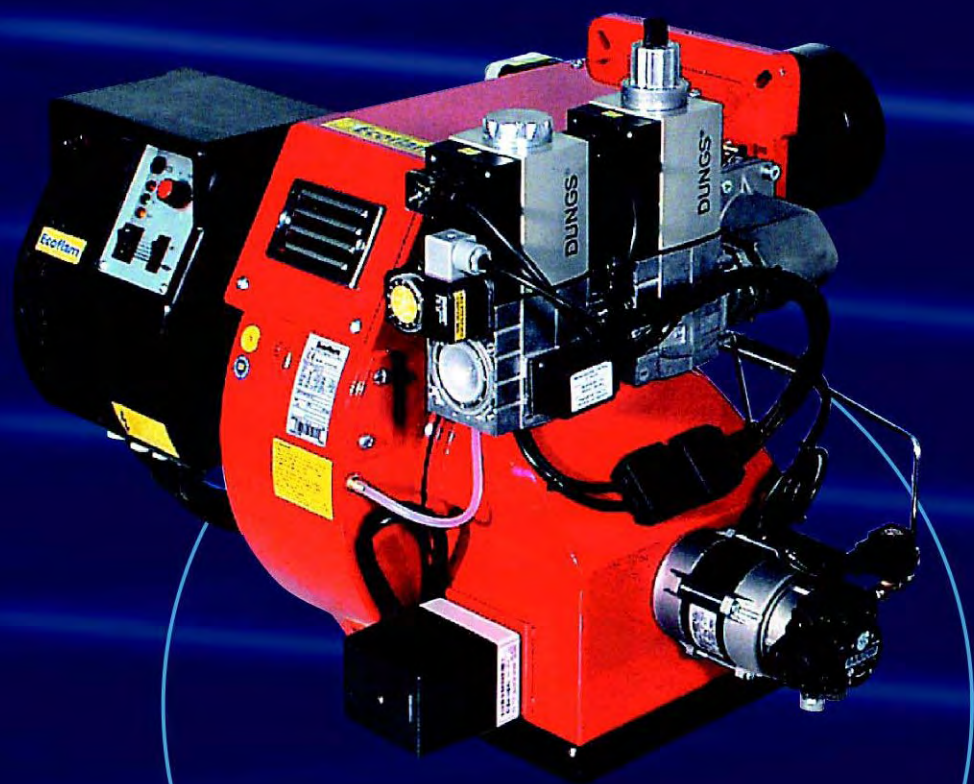


Ecoflam



DUAL MULTICALOR



Ecoflam



DUAL FUEL BURNERS

LIGHT OIL / GAS

轻油燃气两用燃烧器



Ecoflam was founded in 1973 in Castelfranco Veneto, near Venice in the North East of Italy. For more than thirty years Ecoflam has continued to develop all its products with constant dedication and determination addressing Technological Research, Ecology, Energy Saving, and Safety.

Ecoflam today offers a full range of blown air pressure jet burners designed and tested in our "GREEN" modern laboratories. All products conform to CE standards and are manufactured in accordance with ISO 9001 and VISION 2000 certification.

Ecoflam burners guarantee high efficiency and reliable operation with significant energy savings. All models feature extreme ease of installation maintenance and flexible boiler - burner matching.

Multicalor 8000.1 MD



意高（意大利）燃烧设备有限公司在1973年位于意大利北部近威尼斯的Castelfranco Veneto成立。拥有超过30年经验的意高公司，仍不断致力发展各类的产品，并且决心专注技术研究、生态保护、节约能源及安全性等。

意高公司今天能提供各类型的压力吹风式燃烧器。所有燃烧器都在“GREEN”绿色环保实验中心设计及测试，产品全通过CE标准及按照ISO9001及VISION 2000证书标准生产。

意高公司燃烧器保证有高效能，可靠的操作性及高节能特性。所有型号均带有容易安装维修及灵活与锅炉配套使用的特性。

OPERATION / 操作模式

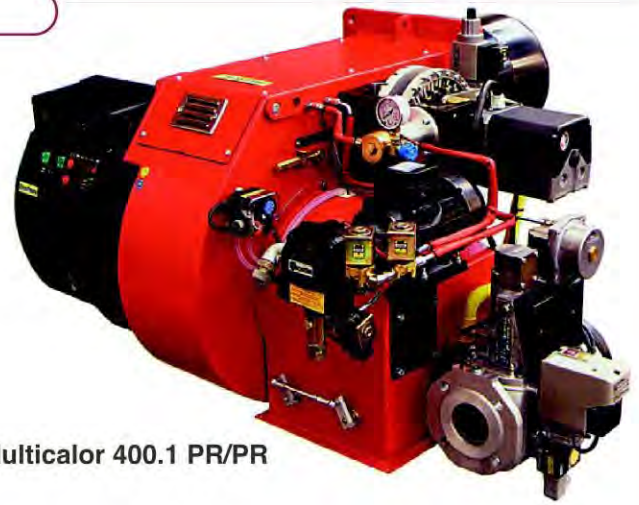
...	On-Off	单段火
...P	On-Off Soft Start	软性起动单段火
...AB	HI-LOW with servomotor	伺服马达控制-两段火
...PR	Progressive	渐进式
...MD	Modulating	比例调节

MAIN FEATURES / 主要特点

- Aluminium casing up to Multicalor 400.1 and steel casing from 500.1 with integrated electrical control panel.
- New high efficiency fan ventilator designed to give flame stability and easy matching.
- Adjustable combustion head for fine tuning / matching with different shapes of combustion chamber.
- Gas pilot from Multicalor 170.1.
- Hi - Low version with electric servomotor and integrated system for the regulation of air gas and light oil with two nozzle from Multicalor 45 to Multicalor 300.1 and with 3 nozzles available up to Multicalor 600.1.
- Progressive version with electrical servomotor and double adjustable mechanical cam that allows air gas/light oil fine tuning.
- Modulating version with PID system controller with digital set point display and real time value.
- Progressive or modulating nozzle with flow and return. Shut down flow system on the nozzle managed by coil from Multicalor 700.1.
- Firing head with automatic adjustable primary air system that changes according to output required from Multicalor 700.1.
- Easy maintenance with sliding bars system. Standard from Multicalor 700.1 and on request from Multicalor 300.1.
- Standard version running on manual fuel selection mode and on request automatic fuel changeover. The automatic changeover system can be triggered by gas pressure or by a timer .
- On request tailored solutions of flame shape.



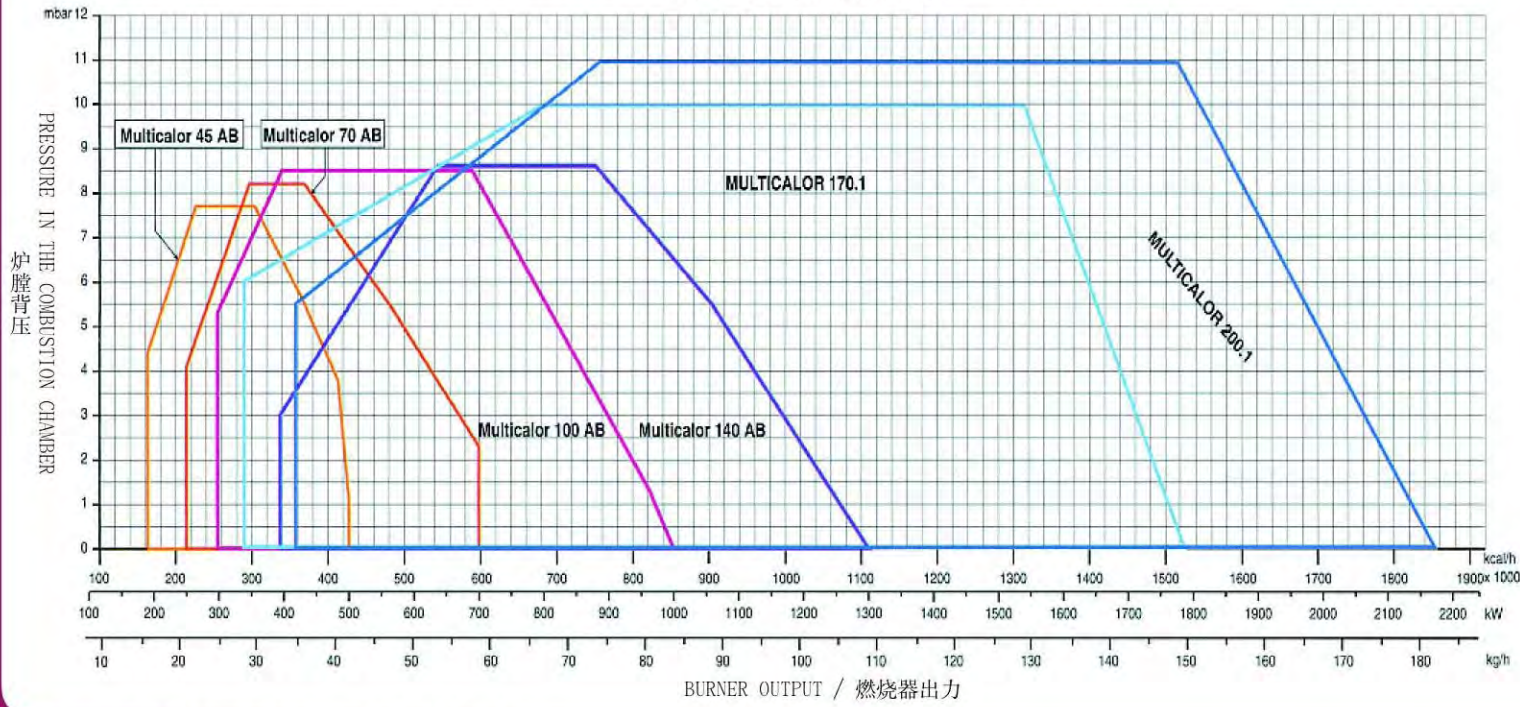
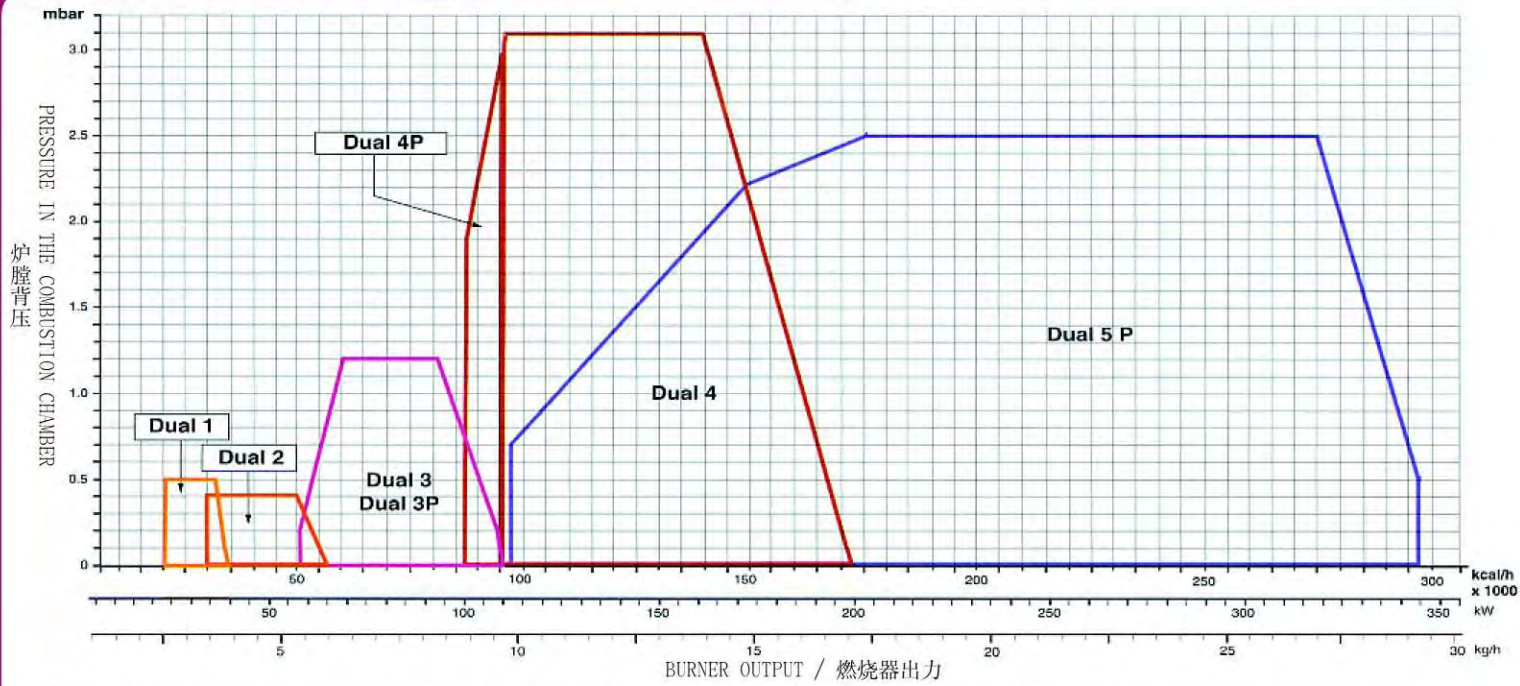
Dual 4 P



Multicalor 400.1 PR/PR

- 由Dual 1至Multicalor 400.1型号采用铝质外壳、由Multiflam 500.1型号起采用钢外壳并且配有整合式电控箱。
- 采用特别设计的高效率风机能提供高稳定性火焰及易于配套设备。
- 可调节燃烧头以供调校 / 选配不同形状的炉膛。
- 由Multicalor 170.1型号起采用燃气点火器。
- 两段火型号:采用伺服马达控制及整合式空气、燃气和重油调节系统。
由Multicalor 45至Multicalor 300.1型号使用双油咀
由Multicalor 400.1至Multicalor 600.1型号使用三油咀
渐进式PR型号:采用伺服马达及双调节机械凸轮以易于空气、燃气和重油进行调校。
- 比例调节型号配备数字设定点和实时数值显示的PID系统控制器。
- 渐进式或比例调节油咀都有回油路。由Multicalor 700.1型号起, 油咀在供油路的关闭则由电磁线圈所控制。
- 由Multicalor 700.1以上型号, 自动调节燃烧头可按输出功率要求而改变一次风量。
- 由Multicalor 700.1型号起采用滑动式推杆设计以易于维修。由Multicalor 300.1型号起可按要求安装。
- 标准型号以手动模式操作, 亦可按要求改为自动模式操作。自动切换系统是由供气压力或时间开关来控制。
- 火焰形状可按要求更改。

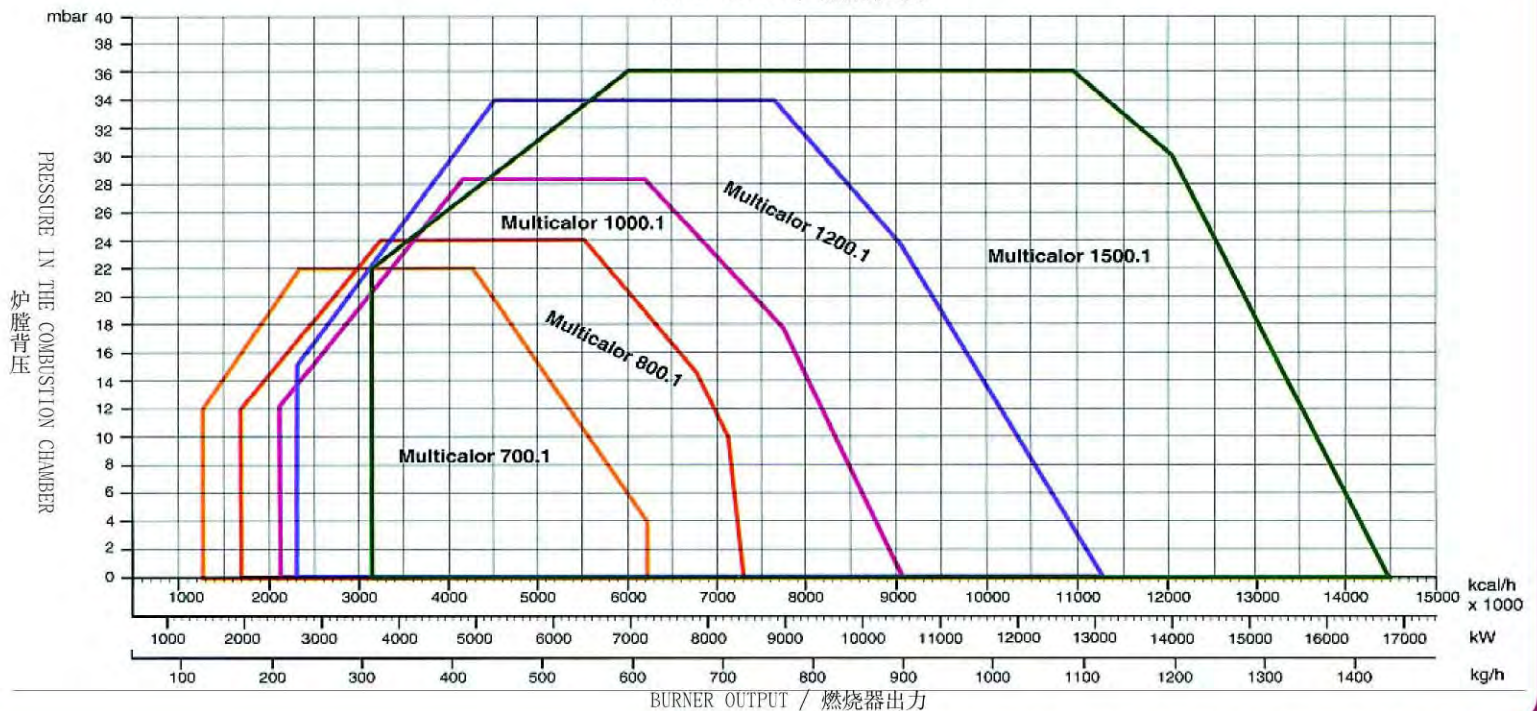
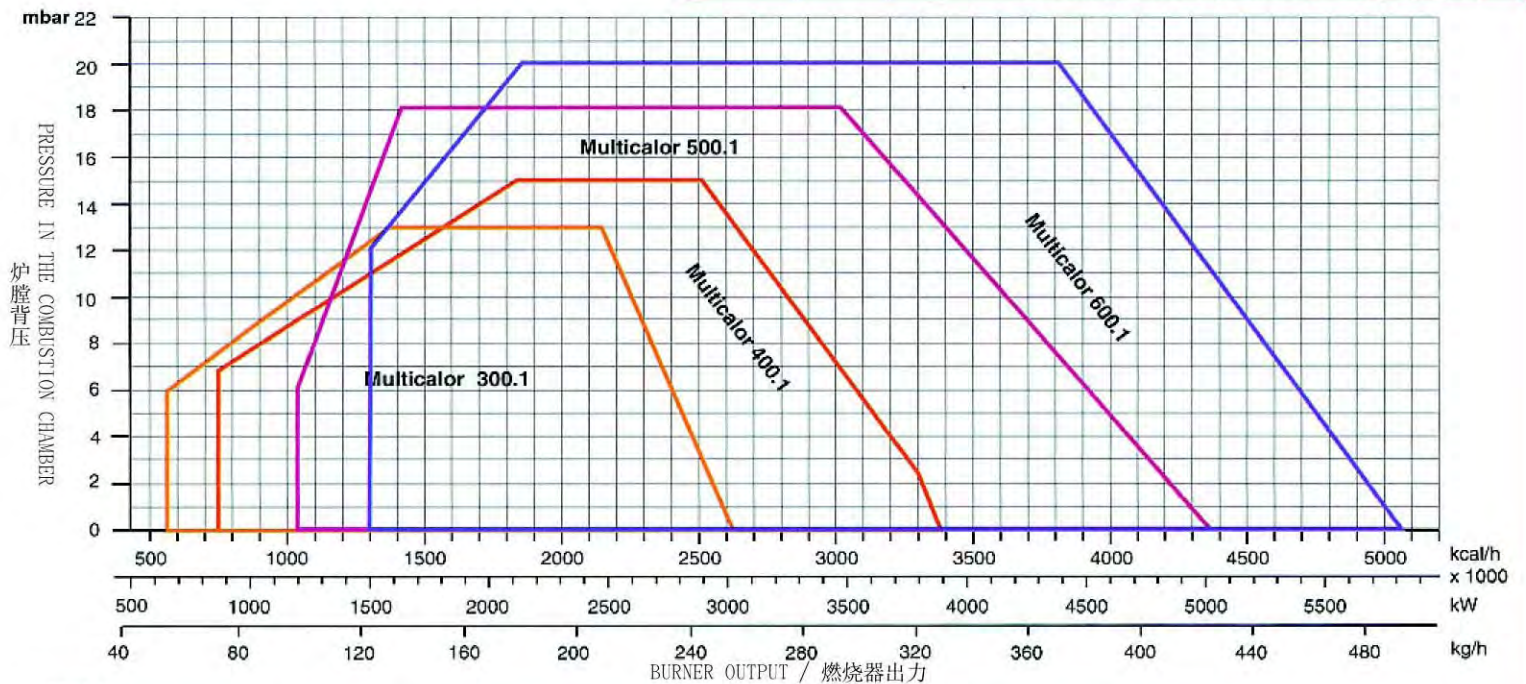
WORKING FIELDS / 工作范围



TECHNICAL DATA / 技术数据

MODELS 型号	Output 最大输出		Output 最小输出		Flow rate 最大流量	Flow rate 最小流量	Power supply 电源	Motor 马达	Operation 操作
	max.		min.		max.	min.			
	kW	kcal/hx1000	kW	kcal/hx1000	kg/h	kg/h	V	kW	
DUAL 1	40	34.4	23	19.78	3.37	1.94	230/400	0.050	ON-OFF
DUAL 2	65	55.9	34	29.24	5.48	2.86	230/400	0.050	ON-OFF
DUAL 3-3P	110	94.6	58	49.88	9.27	4.89	230/400	0.200	ON-OFF/P
DUAL 4	200	172	110	94.6	16.86	9.27	230/400	0.250	ON-OFF
DUAL 4 P	200	172	100	86	16.86	8.43	230/400	0.250	P
DUAL 5 P	345	296.7	110	94.6	29.1	9.27	230/400	0.300	P
MULTICALOR 45	500	430	190	163.4	42.17	16	230/400	0.55	AB
MULTICALOR 45	500	430	120	103.2	42.17	10.12	230/400	0.55	PR-MD
MULTICALOR 70	700	602	250	215	59	21	230/400	0.74	AB
MULTICALOR 70	700	602	190	163.4	59	16	230/400	0.74	PR-MD
MULTICALOR 100	1,000	860	300	258	84.31	25.3	230/400	1.1	AB
MULTICALOR 100	1,000	860	200	172	84.31	16.86	230/400	1.1	PR-MD
MULTICALOR 140	1,300	1,118	400	344	109.6	33.7	230/400	2.2	AB
MULTICALOR 140	1,300	1,118	250	215	109.6	21.08	230/400	2.2	PR-MD
MULTICALOR 170.1	1,770	1,526	342	295	150	29	230/400	3	AB-PR-MD
MULTICALOR 200.1	2,150	1,853.45	414	356.9	182	35	230/400	4	AB-PR-MD

Fuel: Natural Gas (L.C.V. 8,570 kcal/Nm³), LPG (L.C.V. 22,260 kcal/Nm³) : Light oil (L.C.V. 10,200 kcal/kg max. visc 1.5°E at 20°C) 燃料: 天然气 (热值 8,570 kcal/Nm³), 液化气 (热值 22,260 kcal/Nm³) : 轻油 (热值 10,200 kcal/kg 最大黏度 1.5°E at 20°C)



TECHNICAL DATA / 技术数据

MODELS 型号	Output 最大输出 max.		Output 最小输出 min.		Flow rate 最大流量 max.	Flow rate 最小流量 min.	Power supply 电源	Motor 马达	Operation 操作
	kW	kcal/hx1000	kW	kcal/hx1000	kg/h	kg/h	V	kW	
MULTICALOR 300.1	3,000	2,586	630	543.1	253	53	230/400	5.5	AB-PR-MD
MULTICALOR 400.1	3,900	3,362	875	754.3	330	74	230/400	7.5	AB-PR-MD
MULTICALOR 500.1	5,000	4,310	1,200	1,034.5	423	101	230/400	11	AB-PR-MD
MULTICALOR 600.1	5,800	5,000	1,500	1,290	490	126	230/400	15	AB-PR-MD
MULTICALOR 700.1	7,250	6,250	1,500	1,290	613	126	230/400	15	PR-MD
MULTICALOR 800.1	8,500	7,327.5	2,000	1,724	718	169	230/400	18.5	PR-MD
MULTICALOR 1000.1	10,500	9,052	2,500	2,155	887	211	230/400	22	PR-MD
MULTICALOR 1200.1	13,100	11,293.1	2,700	2,327.6	1107	228	230/400	37	PR-MD
MULTICALOR 1500.1	16,800	14,448	3,464	2,986	1416	293	230/400	45	PR-MD
Fuel: Natural Gas (L.C.V. 8,570 kcal/Nm ³), LPG (L.C.V. 22,260 kcal/Nm ³) : Light oil (L.C.V. 10,200 kcal/kg max. visc 1.5°E at 20°C)					燃料: 天然气 (热值 8,570 kcal/Nm ³), 液化气 (热值 22,260 kcal/Nm ³) : 轻 油 (热值 10,200 kcal/kg 最大黏度 1.5°E at 20°C)				

DETAILS / 技术资料



Diffuser Multicalor 500.1
稳焰盘 Multicalor 500.1



HI-LOW with servomotor
两段火型号配有伺服马达



Progressive version with servomotor, mechanical cam and pressure regulator
渐进式型号配有伺服马达、机械凸轮及油压调节器

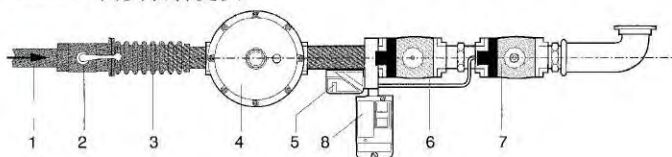


Modulating version with PID regulation (proportional, integral and derivative) digital control board.
比例调节型号配有PID调节(比例、积分及微分)数码控制面板

GAS TRAIN / 管道

Dungs SV-SVDLE / MB-MBDLE / DMV-DMVSE

To be supplied by the installer
由安装者提供



- 1 - Main gas pipe / 主供气管
- 2 - Ball valve / 球阀
- 3 - Antivibration coupling / 膨胀接
- 4 - Gas governor / 调压阀
- 5 - Gas pressure switch / 气压开关
- 6 - Safety gas valve / 安全电磁阀
- 7 - Working gas valve / 工作电磁阀
- 8 - Leakage control (optional) / 检漏装置(选购)

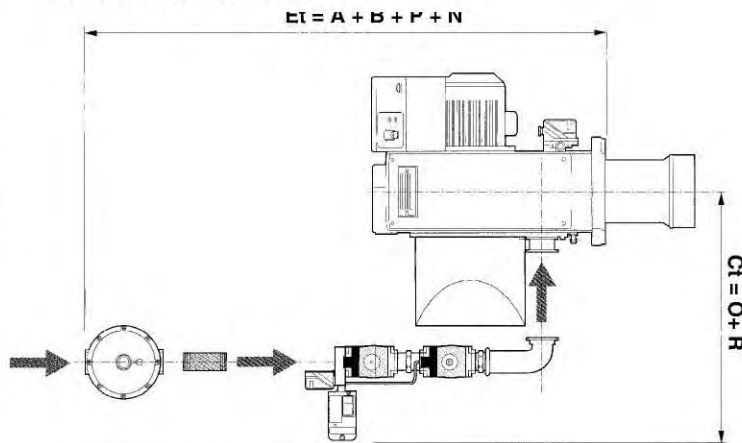
HOW TO CALCULATE THE OVERALL DIMENSION OF BURNER COMPLETE WITH THE MATCHING GAS TRAIN

如何计算燃烧器装上供气管道的整体尺寸?

In order to calculate the overall dimension of the burner complete with gas train, you need to consider value "N" and "V" indicated in the burner leaflet and the dimension, of the matching gas train choosen, according to the inlet gas pressure available in the gas train leaflet.

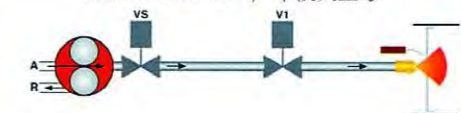
为了计算燃烧器装上供气管道的整体尺寸, 用户需要考虑尺寸 "N" 及 "V" 这两个显示在燃烧器简介及管道简介而按入气压力选配的管道来计算。

Multicalor 45-140

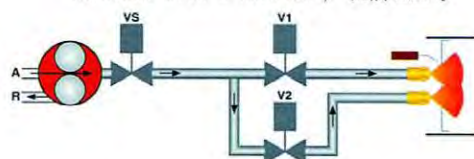


HYDRAULIC CIRCUIT / 液压油路

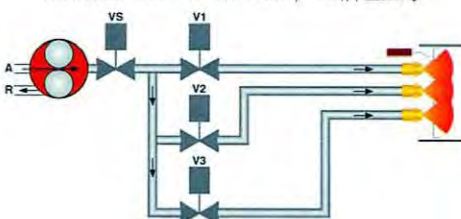
versions ON-OFF / 单段火型号



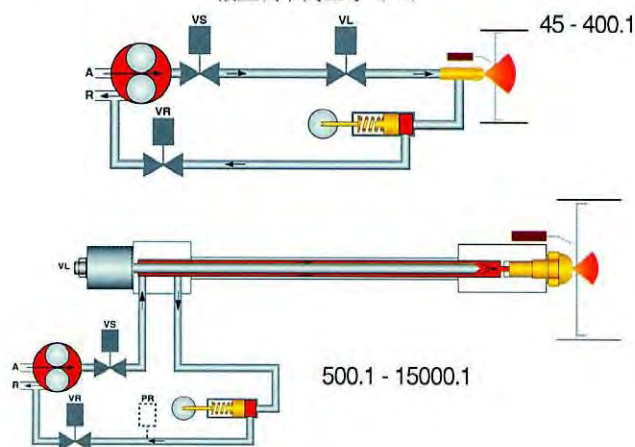
versions with 2 nozzles / 双油咀型号



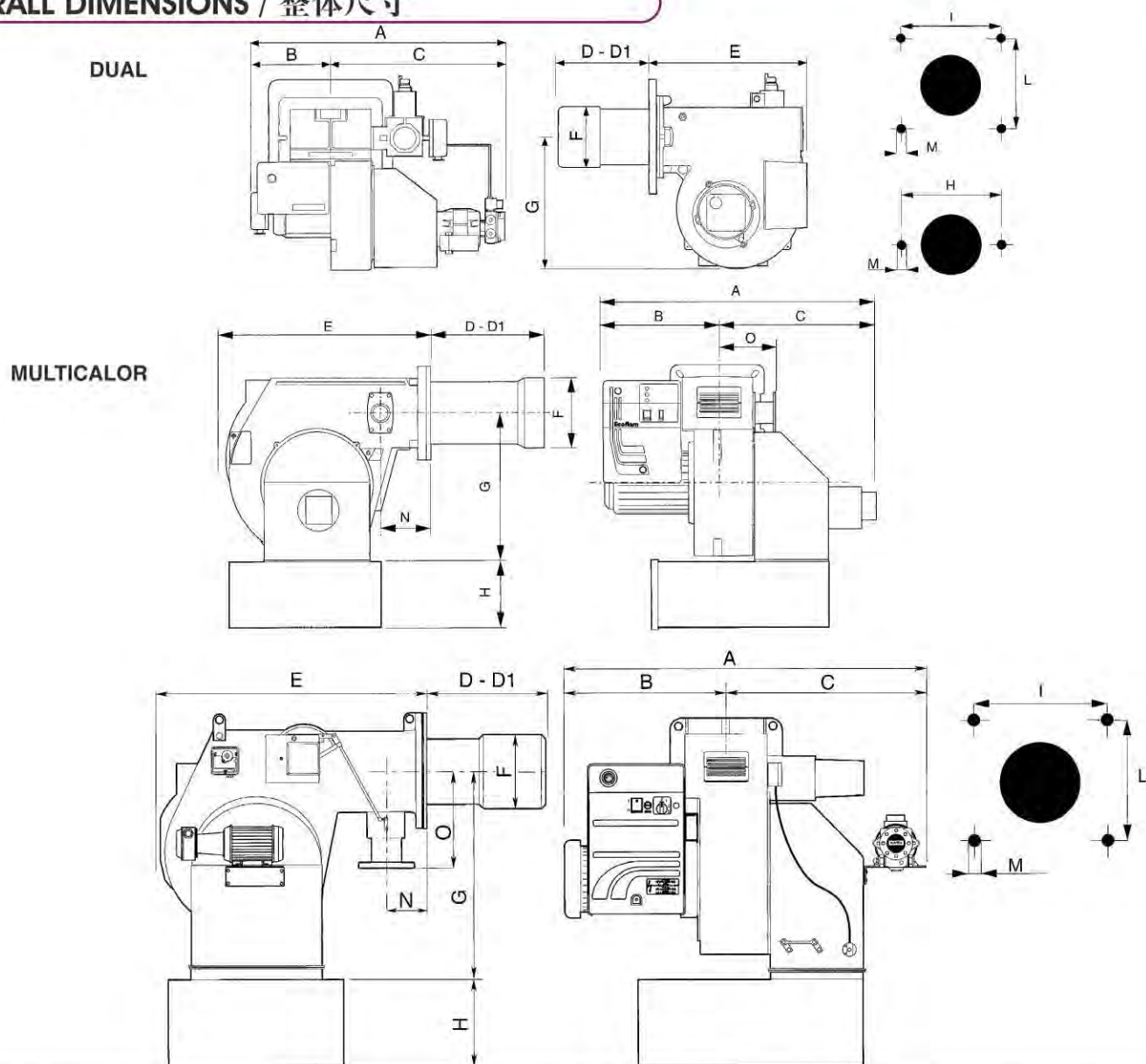
versions with 3 nozzles / 三油咀型号



versions with hydraulic pressure regulator (PR)
液压调节阀型号 (PR)



OVERALL DIMENSIONS / 整体尺寸



MODELS 型号	A	B	C	D	D1	E	F	G	H	I	L	M	N	O
DUAL 1-2	525	235	290	75	130	210	89	192	153	110	110	M8	-	-
DUAL 3-3P/4-4P	490	240	250	175	275	350	108	270	185	-	-	M8	-	-
DUAL 5P	445	145	300	200	315	350	140	270	185	190	190	M8	-	-
Dimensions refer to the burner with gas train / 尺寸包括供气管道														
MODELS 型号	A	B	C	D	D1	E	F	G	H	I	L	M	N	O
MULTICALOR 45	780	330	450	175	335	555	160	385	225•	190	190	M10	115	165
MULTICALOR 70	780	330	450	175	395	555	180	385	225•	190	190	M10	115	165
MULTICALOR 100	780	330	450	175	395	555	190	385	225•	190	190	M10	115	165
MULTICALOR 120	800	350	450	310	460	555	215	385	225•	190	190	M10	115	165
MULTICALOR 140	800	350	450	310	460	555	215	385	225•	190	190	M10	115	165
MULTICALOR170.1	930	385	545	340	540	680	250	398	283•	240	240	M14	125	250
MULTICALOR 200.1	950	405	545	345	545	680	270	398	283	240	240	M14	125	250
MULTICALOR300.1	1096	448	648	330	530	780	290	466	280	315	315	M16	195	250
MULTICALOR400.1	1096	448	648	365	565	780	320	466	280	315	315	M16	195	250
MULTICALOR500.1	1219	495	724	375	575	970	320	565	400	330	330	M16	195	250
MULTICALOR600.1	1269	545	724	375	575	970	320	565	400	330	330	M16	195	250
MULTICALOR700.1	1215	585	630	470	-	1420	420	800	480	460	460	M20	195	232
MULTICALOR800.1	1285	655	630	470	-	1420	420	800	480	460	460	M20	195	232
MULTICALOR1000.1	1315	685	630	470	-	1420	420	800	480	460	460	M20	195	232
MULTICALOR1200.1	1425	795	630	470	-	1420	450	800	480	460	460	M20	195	232
MULTICALOR1500.1	1670	800	870	457	-	1420	500	1100	530	620	620	M20	195	255
Dimensions refer to the burner without gas train / 尺寸不包括供气管道														

D = short head / 短头 D1= long head / 长头 • = optional / (选购)
 Dimension (mm) / 尺寸 (mm)



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