contents

About Mashal Kaveh Industrial & Manufacturing, LLC

Mashal Kaveh is the first and oldest manufacturer of oil & gas burners in Iran. In 1971, Parviz Paidavosy founded Pipeline, LLC and imported and sold burners under both exclusive and non-exclusive licensing, to residential and commercial buildings and campuses. As industrial and commercial markets in Iran grew and matured, Parviz started manufacturing different burner models in Saveh, Iran. In 1979, he changed the name of the company to Mashal Kaveh to better position and represent the breadth of its product line to all markets both domestic and international. Since its establishment, Mashal Kaveh has had a distinguished position in the market for manufacturing burners for industrial and construction projects.

Parviz had earned a Master of Science in Mechanical Engineering from University of Tehran, and was a member of ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.) In 1979, he changed the name of the company to Mashal Kaveh to better promote what the company produced. Parviz retired in 2010, and handed over the ownership of the company to his sons. Kasra Paidavosy is the current president of Mashal Kaveh.

Mashal Kaveh holds a significant market share for manufacturing different types of burners in Iran. Its wide range of products include burners with capacities ranging from 80,000 to 40,000,000 Kcal/hr using gas, light oil, and heavy oil fuel (single, double, and triple) for steel boilers (stem, hot water, and hot oil), cast iron boilers, and different types of industrial furnaces.

Customers of Mashal Kaveh include construction cooperatives, offices, commercial and residential complexes, sport & cultural complexes, hotels, hospitals, ministries, banks, municipalities, universities & research centers, food industries, textile producers, automobile manufacturing industries, chemical & petrochemical plants, and power plants.

Mashal Kaveh actively designs and manufactures turbojet burners for asphalt factories, centrifuged burners for special furnaces for producing raw material, hot gas mill in cement factories, separate fan burners for refinery furnaces, radiant tube burners, and many other types of burners for large public and private projects.

For the past 45 years, Mashal Kaveh has kept is exclusive position in the market by following these principles stemming from the founder's vision to provide the best-in-class to customers:

1. Vision: Always innovate, keep up with state-of-the-art technologies, and deliver highest quality products to customers.
2. Mission: Always adhere to all national and international safety and environmental standards, when manufacturing, installing, and servicing its products.
3. Policies & best practices: Always strive for Customer Satisfaction by providing fast and reliable service post sales.

Mashal Kaveh holds Iranian compulsory standard certificates No. 7594 and 7595 from Iranian National Standards Organization. It received ISO 9001:2008 quality management and quality assurance certificate from CCPL Co. of Norway, and the certificate of competent manufacturing from National Iranian Gas Company (NIGC).

Mashal Kaveh is a member of Iran Industrial Equipment Manufacturers Association and Iranian Syndicate of Heating, Refrigeration, and Air-conditioning Industries.

ISIRI
INSTITUTE OF STANDARDS AND INDUSTRIAL RESEARCH OF IRAN

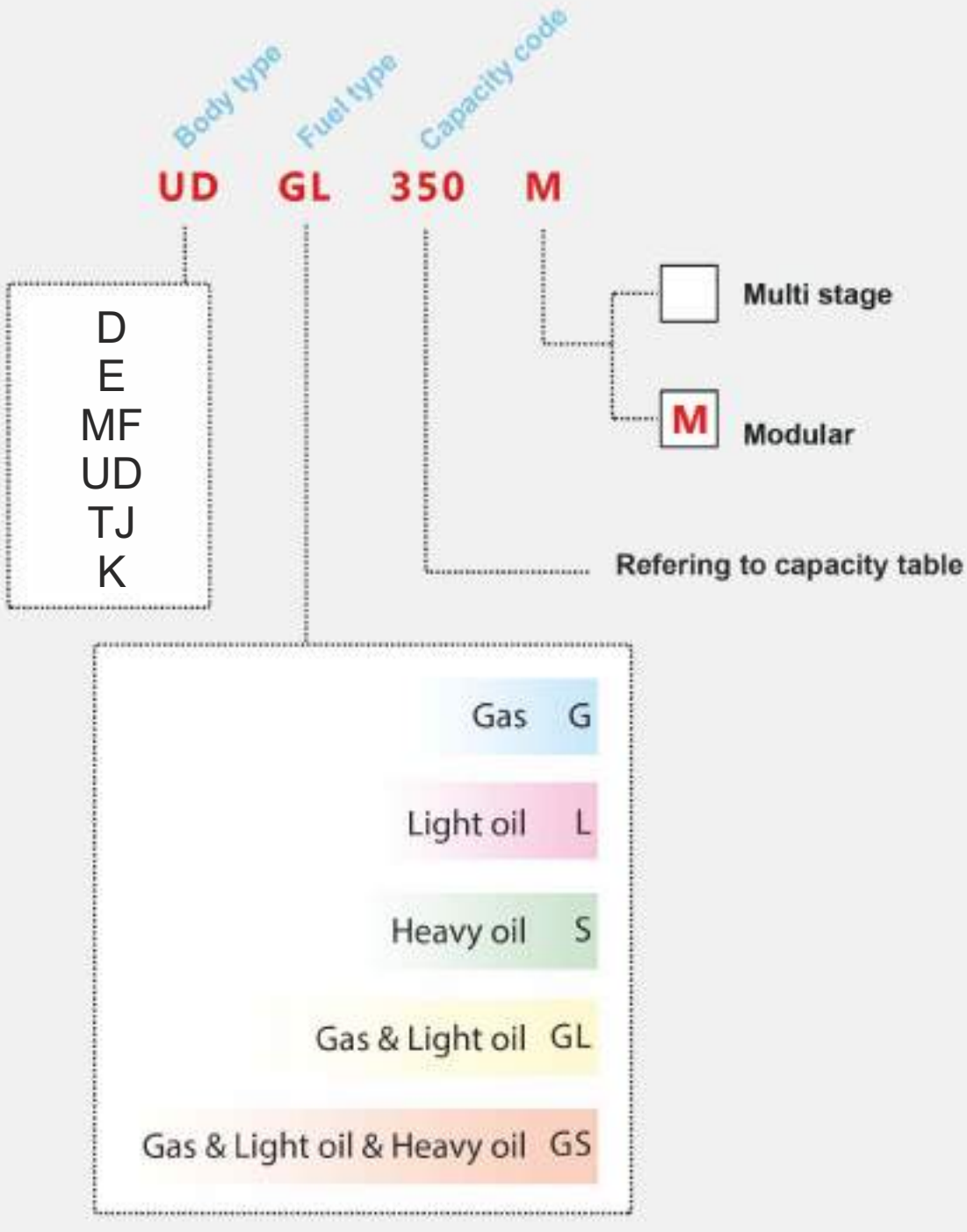
Registered CCPL
ISO 9001:2008

NATIONAL IRANIAN OIL COMPANY

IRAN INDUSTRIAL EQUIPMENT MANUFACTURERS ASSOCIATION(SATSA)

ISHRAI
IRANIAN SYNDICATE OF HEATING REFRIGERATION AND AIR-CONDITIONING INDUSTRIES

Coding Guide



Capacity Table

burner model	thermal output kcal/hr	operation	combustion efficiency %	gas consumption (max) m^3/hr	oil consumption (max) kg/hr	sound pressure db
D10	80,000	ON / OFF	84	9	8	66
E02	130,000	ON / OFF	84	14	12	68
E3-25	250,000	ON / OFF	84	26	25	70
E3-30	300,000	ON / OFF	84	32	30	70
E4-40	350,000	ON / OFF	86	37	35	72
E4-60	400,000	ON / OFF	86	42	40	72
E4-2-60	500,000	LOW / Hi	86	53	50	75
MF100-80	650,000	LOW / Hi	86	69	65	78
MF100-100	850,000	LOW / Hi	87	85	80	78
MF100-140	1,100,000	LOW / Hi	87	117	110	78
UD 150-1	1,300,000	LOW / Hi / LOW	90	138	130	80
UD 150-2	1,500,000	LOW / Hi / LOW	90	159	150	80
UD 250-1	1,800,000	LOW / Hi / LOW	90	191	180	80
UD 250-2	2,250,000	LOW / Hi / LOW	90	239	225	80
UD 250-3	2,600,000	LOW / Hi / LOW	90	276	260	80
UD 350	3,000,000	LOW / Hi / LOW	90	319	300	82
UD 500	3,500,000	LOW / Hi / LOW	90	372	350	82
UD 600	4,000,000	LOW / Hi / LOW	90	425	400	82
MF 500	3,500,000	LOW / Hi / LOW	90	372	350	85
MF 600	4,000,000	LOW / Hi / LOW	90	425	400	85
MF 700	5,000,000	LOW / Hi / LOW	90	532	500	85
MF 800	6,000,000	LOW / Hi / LOW	90	638	600	85
MF 900	7,000,000	LOW / Hi / LOW	90	744	700	85
MF 1000	8,000,000	LOW / Hi / LOW	90	851	800	86
MF 1100	9,000,000	LOW / Hi / LOW	90	957	900	86
MF 1200	10,000,000	LOW / Hi / LOW	90	1063	1000	87
MF 1400	12,000,000	LOW / Hi / LOW	90	1276	1200	87

Remarks:

1-The above-mentioned thermal capacity of burners is calculated on the basis of standard conditions: average humidity of 50%, in sea level, atmospheric pressure and 25°C.

2-Combustion efficiency is calculated on the basis of gas fuel.

3-The consumption of gas is calculated on the basis of 9,400 kcal/m^3 for gas heating value and the consumption of light oil is calculated on the basis of 10,000 kcal/kg for oil heating value.

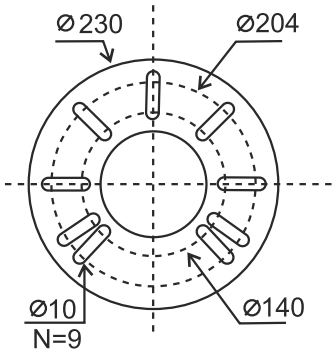
4-The models **E3-25**, **E3-30**, **E3-40** and **E4-60** can be customized to low/hi if ordered.

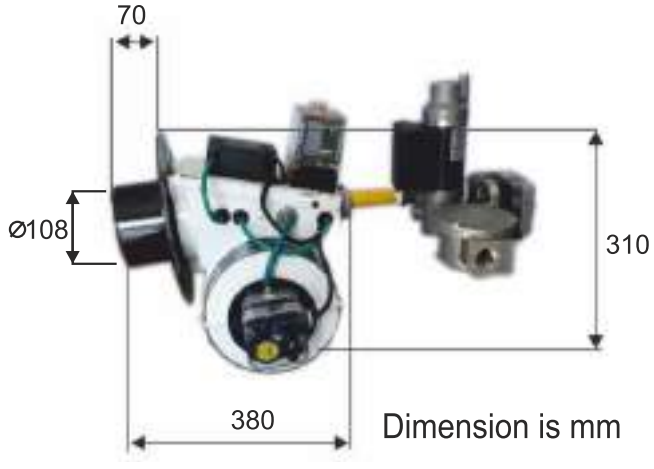
5-All models can be customized to be modular if ordered.

6-Intelligent combustion control system can be installed on all burners if ordered.

7-Burners with capacity more than 12,000,000 kcal/hr can be manufactured if ordered.

Burner Dimension

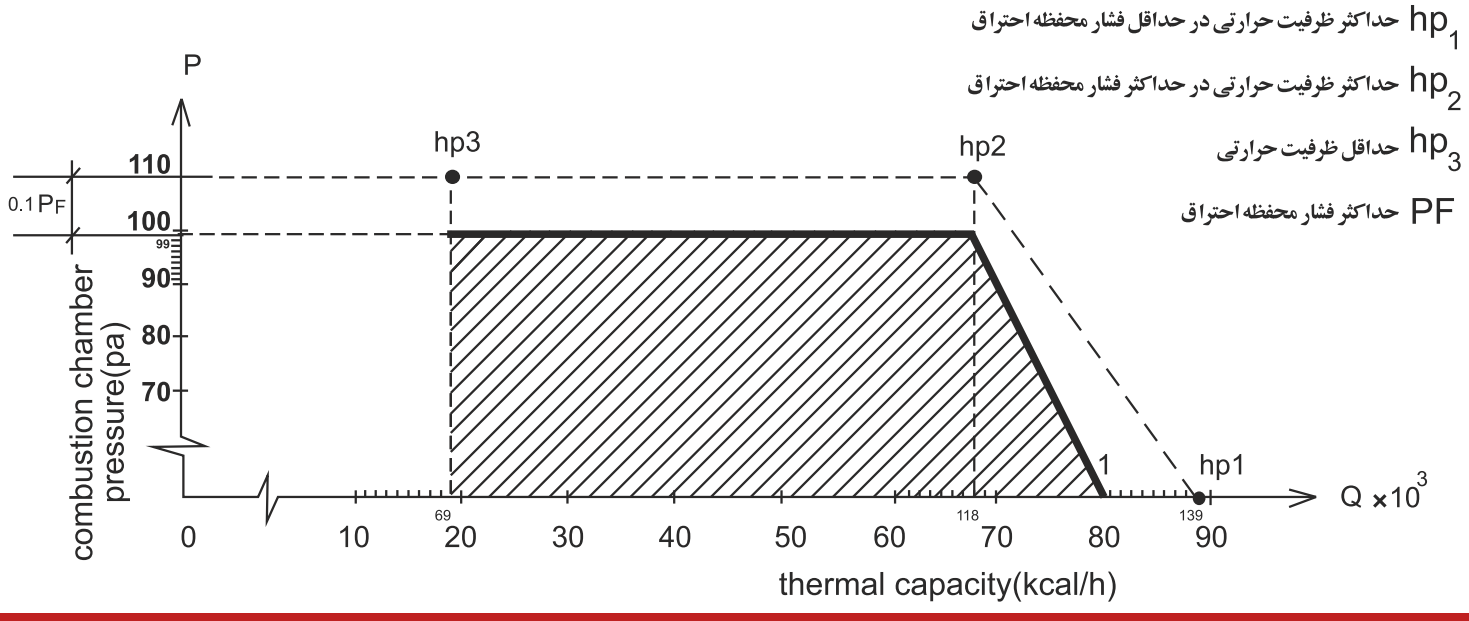




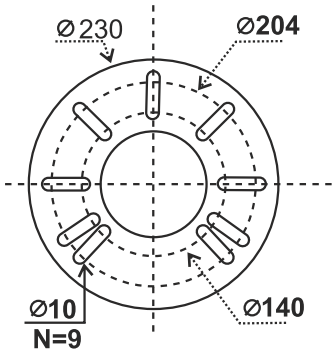
Dimension is mm

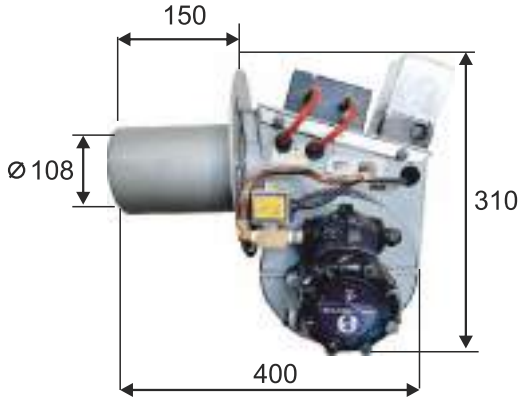
BURNER MODEL	thermal output Kcal/h	Fan electromotor w	Fan airflow m^3/h	BURNER control relay	Flame detection	gas train inch	burner operating gas pressure mbar	burner weight kg
DG10	80/000	90	120	shokooh G790	ionisation prob	1/2	18	10

working Field (at sea level)



Burner Dimension





Dimension is mm

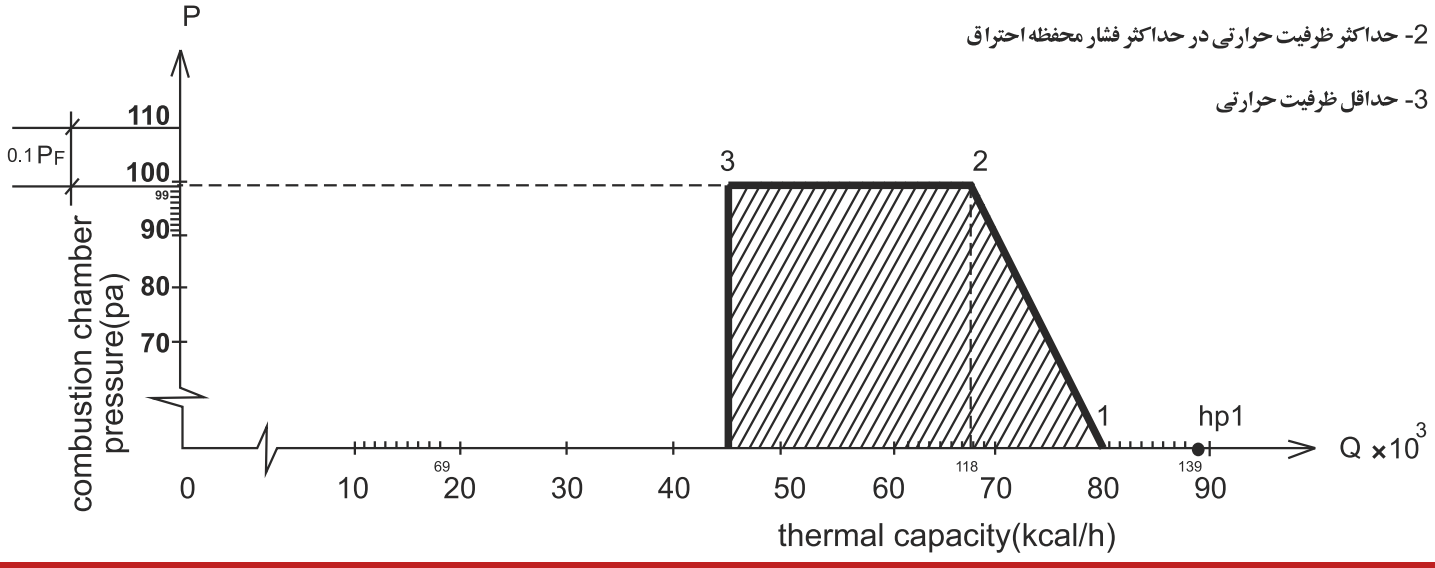
BURNER MODEL	thermal output Kcal/h	Fan electromotor w	Fan airflow m^3/h	BURNER control relay	Flame detection	oil pump	burner operating oil pressure bar	burner weight kg
DL10	80000	90	120	shokooh TF 701	photo resistor	j3	12	14

working Field (at sea level)

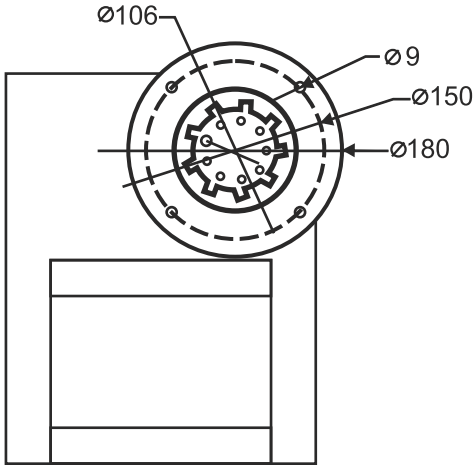
1- حداکثر ظرفیت حرارتی در حداقل فشار محفظه احتراق

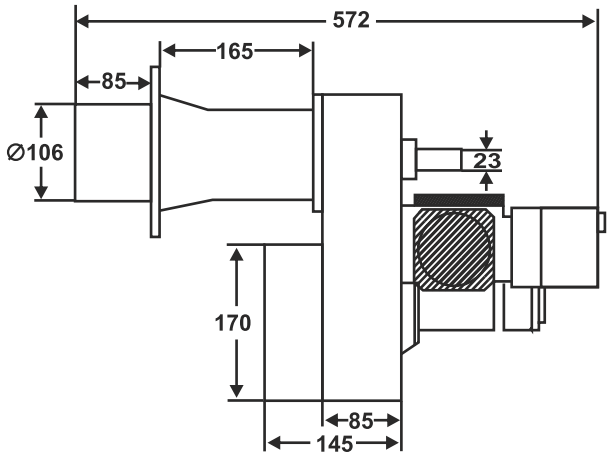
2- حداکثر ظرفیت حرارتی در حداکثر فشار محفظه احتراق

3- حداقل ظرفیت حرارتی



Burner Dimension

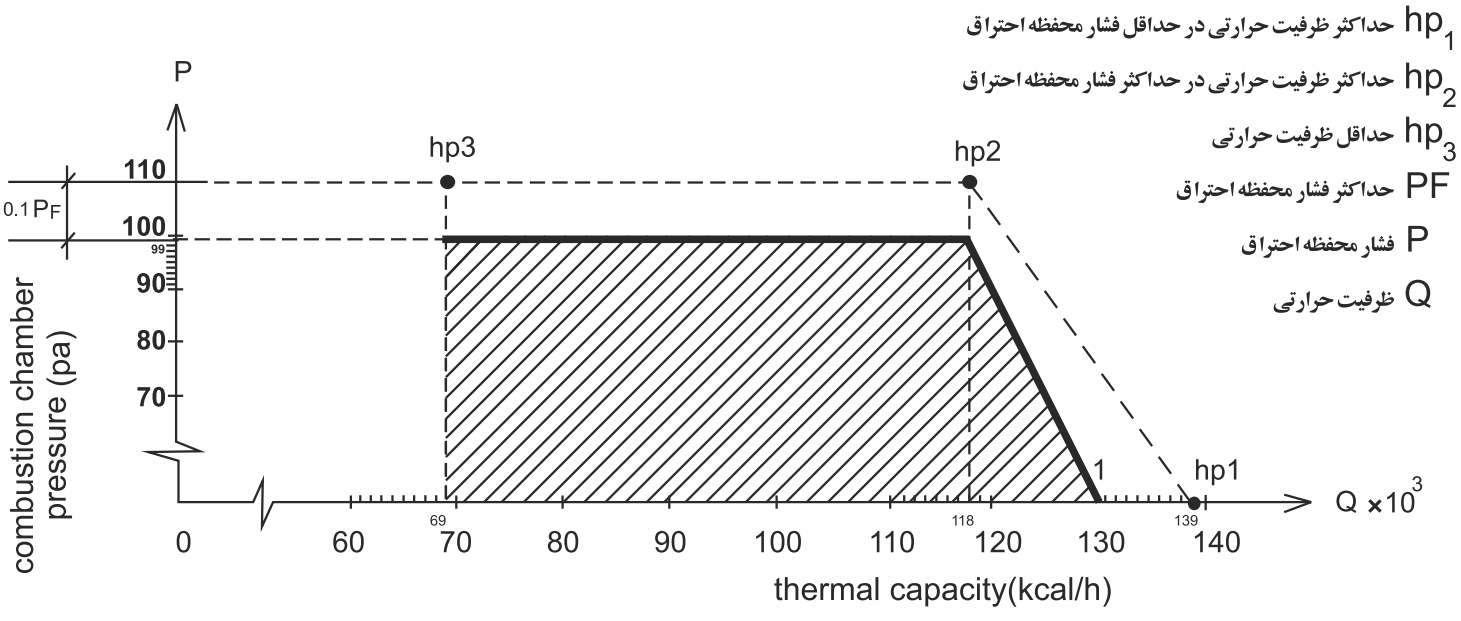




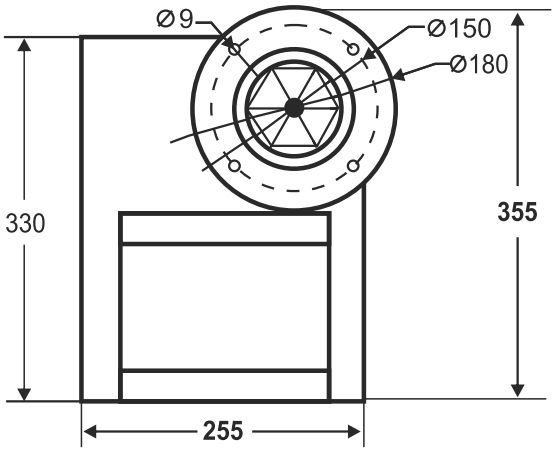
Dimension is mm

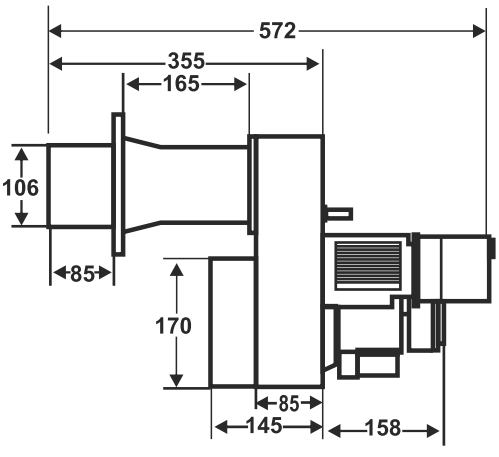
BURNER MODEL	thermal output Kcal/h	Fan electromotor w	Fan airflow m^3/h	BURNER control relay	Flame detection	gas train inch	burner operating gas pressure mbar	burner weight kg
EG02	140,000	110	200	shokooh G790	ionisation prob	1/2	18	13

working Field (at sea level)



Burner Dimension





Dimension is mm

BURNER MODEL	thermal output Kcal/h	Fan electromotor w	Fan airflow m^3/h	BURNER control relay	Flame detection	oil pump	burner operating oil pressure bar	burner weight kg
EL02	120/000	110	200	shokooh TF 701	photo resistor	SUNTEC	15	13.5

working Field (at sea level)

منحنی ظرفیت حرارتی مشعل گازوئیلی کاوه مدل EL02

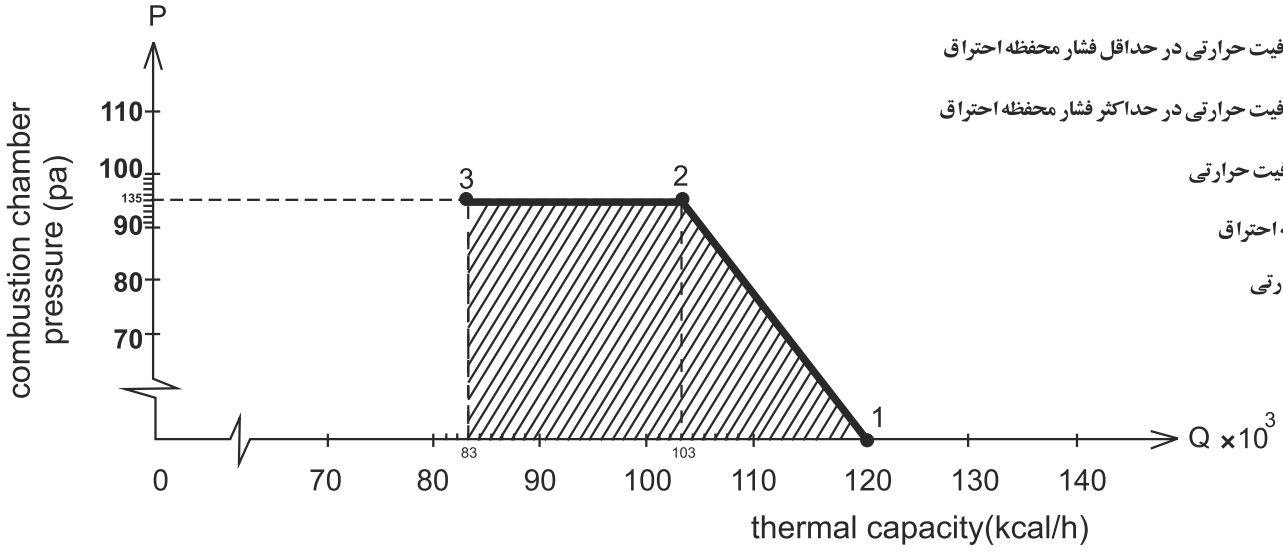
1- حداکثر ظرفیت حرارتی در حداقل فشار محفظه احتراق

2- حداکثر ظرفیت حرارتی در حداکثر فشار محفظه احتراق

3- حداقل ظرفیت حرارتی

P- فشار محفظه احتراق

Q- ظرفیت حرارتی



- Capacity ranges From 250,000 kcal/hr to 500,000 kcal/hr
- On/off operation from 250,000 kcal/hr to 400,000 kcal/hr
- Low/high operation 500,000 kcal/hr
- Low/high/low & modulating operations are available on request
- New design for construction projects
- Suitable for residential buildings due to low noise of burner
- Easy installation,operating & maintenance
- Protection against external heat of furnace of boiler due to long flame tube of burner

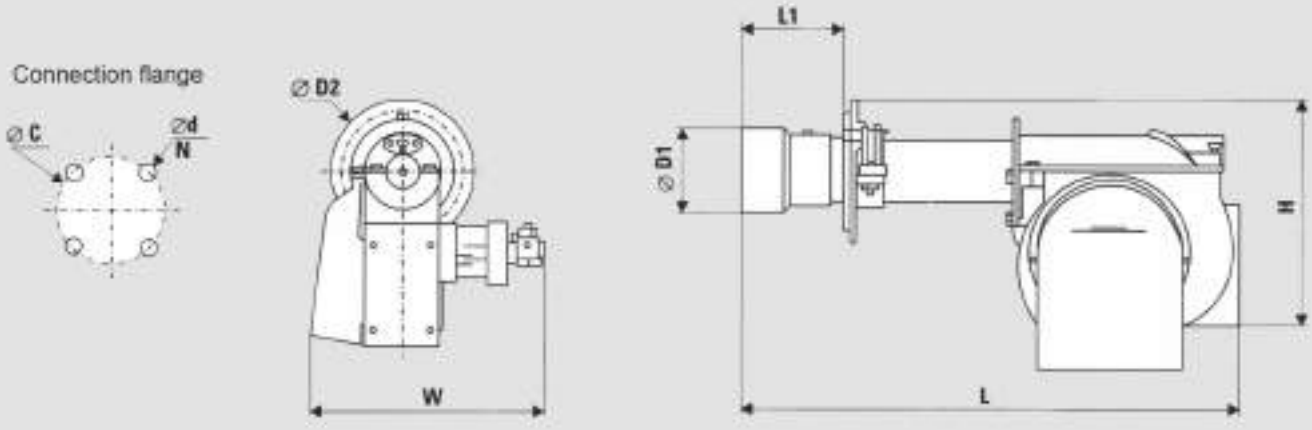
burner model	thermal output kcal/hr	fan electromotor kw	fan airflow m^3/hr	motor damper	fan type
EL3-25	250,000	0.25	400	———	Forward centrifugal fan
EG3-25	250,000	0.25	400	———	Forward centrifugal fan
EL3-30	300,000	0.37	490	———	Forward centrifugal fan
EG3-30	300,000	0.37	490	———	Forward centrifugal fan
EL4-40	350,000	0.37	560	———	Forward centrifugal fan
EG4-40	350,000	0.37	560	———	Forward centrifugal fan
EGL4-40	350,000	0.37	560	———	Forward centrifugal fan
EL4-60	400,000	0.600	700	———	Forward centrifugal fan
EG4-60	400,000	0.55	700	———	Forward centrifugal fan
EGL4-60	400,000	0.55	700	———	Forward centrifugal fan
EL4-2-60	500,000	0.600	800	Hydrojack	Forward centrifugal fan
EG4-2-60	500,000	0.55	800	LKS120 Conectron	Forward centrifugal fan
EGL4-2-60	500,000	0.55	800	LKS120 Conectron	Forward centrifugal fan

EG L4 - 2 - 60

EG 4-2-60

oil pump	burner control relay	burner photocell Elame detector	control panel	gas train inch	burner operating gas pressure mbar
Danfoss(Denmark) or equivalent	TF701 Shokoh (Iran)	Photoresistor	Yes	———	———
———	G790 Shokoh (Iran)	Ionisation prob	Yes	3/4	20
Danfoss(Denmark) or equivalent	TF701 Shokoh (Iran)	Photoresistor	Yes	———	———
———	G790 Shokoh (Iran)	Ionisation prob	Yes	1	20
Danfoss(Denmark) or equivalent	TF701 Shokoh (Iran)	Photoresistor	Yes	———	———
———	G790 Shokoh (Iran)	Ionisation prob	Yes	1	20
Danfoss(Denmark) or equivalent	LME21 Siemens (Germany) or equivalent	QRA2 Siemens or equivalent	Available on request	1	30
Danfoss(Denmark) or equivalent	TF701 Shokoh (Iran)	Photoresistor	Yes	———	———
———	G790 Shokoh (Iran)	Ionisation prob	Yes	1	20
Danfoss(Denmark) or equivalent	LME21 Siemens (Germany) or equivalent	QRA2 Siemens or equivalent	Available on request	1	35
———	TF701 Shokoh (Iran)	Photoresistor	Yes	———	———
Suntec(France) or equivalent	G790 Shokoh (Iran)	Ionisation prob	Yes	1 1/2	20
Suntec(France) or equivalent	LME21 Siemens (Germany) or equivalent	QRA2 Siemens or equivalent	Available on request	1 1/2	35

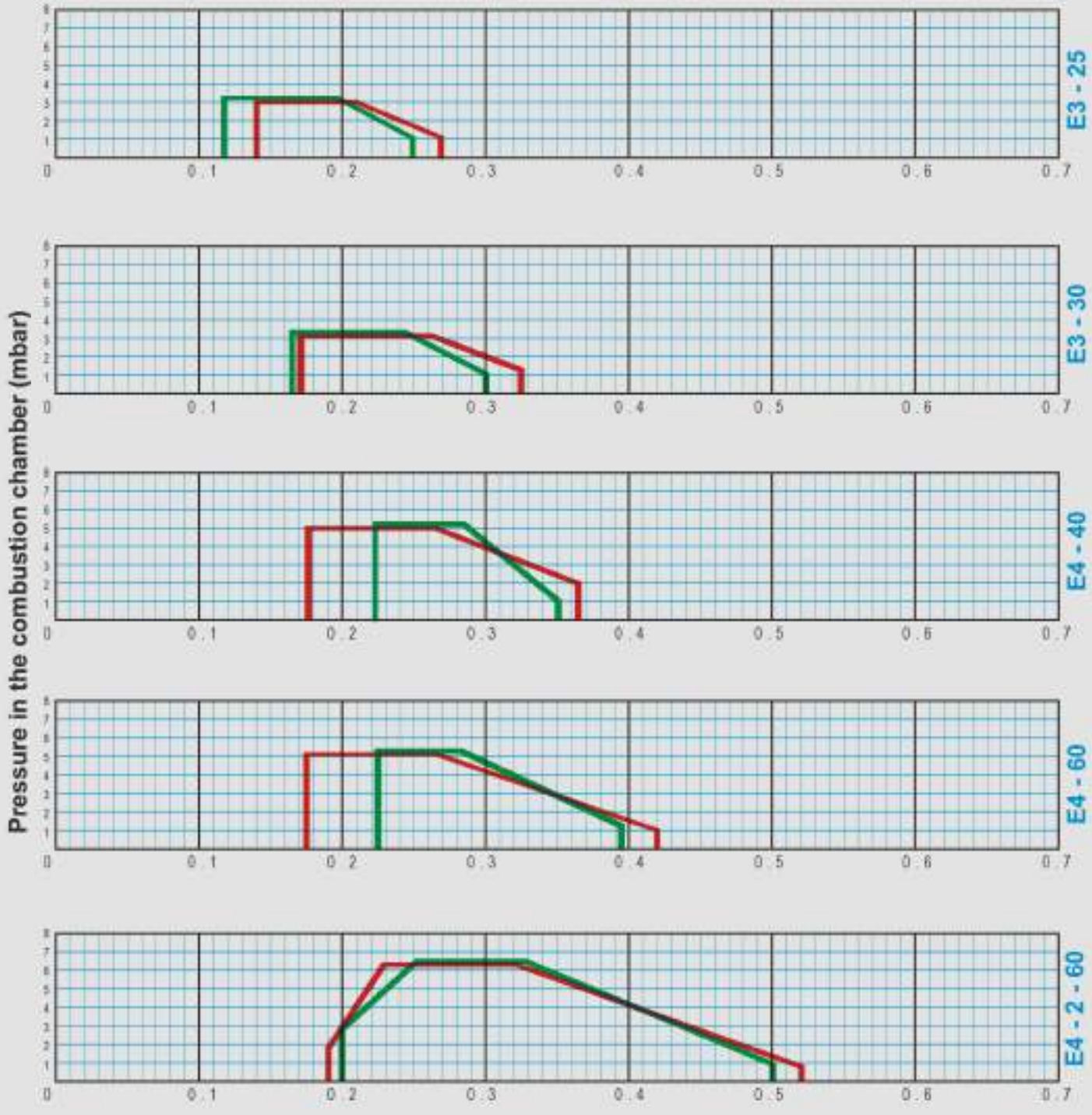
Burner Dimension



BURNER MODEL	H mm	L mm	W mm	L1 mm	⌀D1 mm	⌀D2 mm	⌀C mm	⌀d mm	N	Weight kg
EG3-25	440	820	550	140	165	240	200	18	4	28
EG3-30	440	820	550	140	165	240	200	18	4	30
EG4-40	440	940	550	140-380	165	240	200	18	4	35
EG4-60	440	940	550	140-380	165	240	200	18	4	37
EG4-2-60	440	940	550	140-380	165	240	200	18	4	38
EL3-25	440	760	400	140	165	240	200	18	4	28
EL3-30	440	760	400	140	165	240	200	18	4	30
EL4-40	440	950	500	140-380	165	240	200	18	4	33
EL4-60	440	950	500	140-380	165	240	200	18	4	35
EL4-2-60	440	950	500	140-380	165	240	200	18	4	38
EGL4-40	440	940	640	140	165	240	200	16	4	46
EGL4-60	440	940	640	140	165	240	200	16	4	48
EGL4-2-60	440	940	640	140	165	240	200	16	4	50

Working Field

at the sea level



- Including two capacity: 650,000 kcal/hr &1,100,000 kcal/hr
- Low/high operation
- Low/high/low and modulating operations are available on request
- Suitable for residential buildings due to low noise of burner
- Easy installation, operating & maintenance

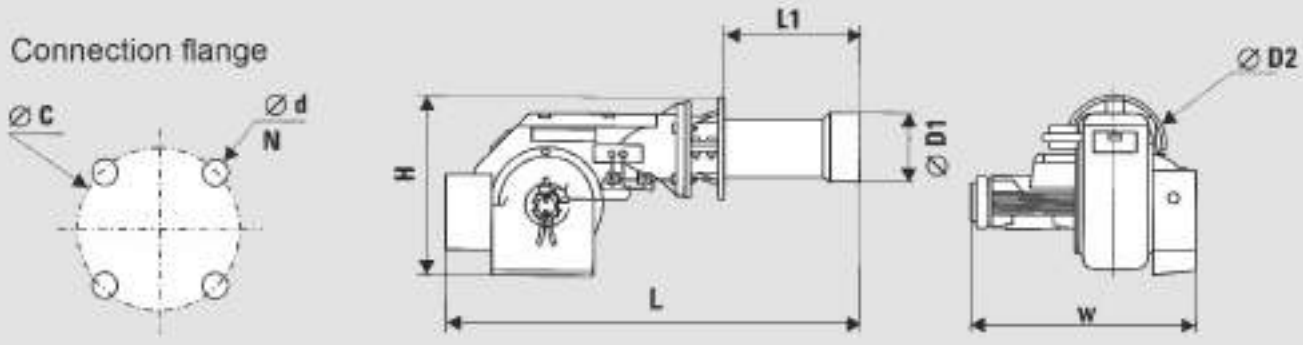
burner model	thermal output kcal/hr	fan electromotor kw	fan airflow m^3/hr	motor damper	fan type
MFL100-80	650/000	0.75	840	Hydrojack	Forward centrifugal fan
MFG100-80	650/000	0.75	840	LKS 120 Conectron	Forward centrifugal fan
MFS100-80	650/000	0.75	840	———	Forward centrifugal fan
MFGL100-80	650/000	0.75	840	LKS 120 Conectron	Forward centrifugal fan
MFL100-100	850,000	1.1	1090	Hydrojack	Forward centrifugal fan
MFG100-100	850,000	1.1	1090	LKS 120 Conectron	Forward centrifugal fan
MFS100-100	850,000	1.1	1090	———	Forward centrifugal fan
MFGL100-100	850,000	1.1	1090	LKS 120 Conectron	Forward centrifugal fan
MFL100-140	1,100,000	2.2	1400	Hydrojack	Forward centrifugal fan
MFG100-140	1,100,000	2.2	1400	LKS 120 Conectron	Forward centrifugal fan
MFS100-140	1,100,000	2.2	1400	Hydrojack	Forward centrifugal fan
MFGL100-140	1,100,000	2.2	1400	LKS 120 Conectron	Forward centrifugal fan

MFGL 100-100

MFS 100-140

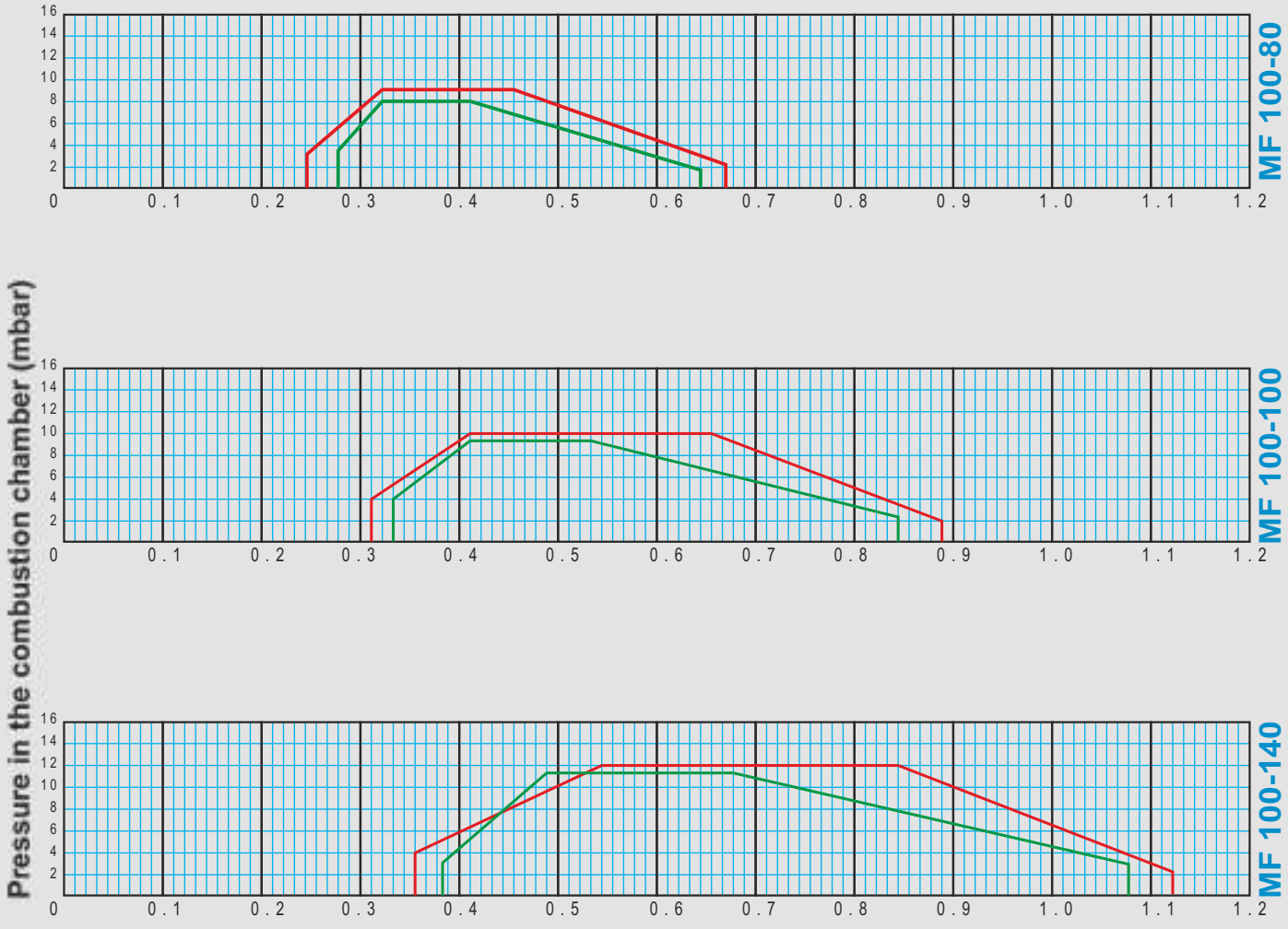
burner model	oil pump	burner control relay	burner photocell	control panel	gas train inch	burner operating gas pressure mbar
MFL100-80	Suntec (France) or equivalent	LOA Siemens or equivalent	photoresistor	Yes	———	———
MFG100-80	———	LME Siemens or equivalent	Ionisation Prob	Yes	$1\,^1/_2$	30
MFS100-80	Danfoss(Denmark) or equivalent	LOA Siemens or equivalent	photoresistor	Available on request	———	———
MFGL100-80	Suntec (France) or equivalent	LME Siemens or equivalent	QRA2 Siemens or equivalent	Available on request	$1\,^1/_2$	40
MFL100-100	Suntec (France) or equivalent	LOA Siemens or equivalent	photoresistor	Yes	———	———
MFG100-100	———	LME Siemens or equivalent	Ionisation Prob	Yes	$1\,^1/_2$	35
MFS100-100	Danfoss(Denmark) or equivalent	LOA Siemens or equivalent	photoresistor	Available on request	———	———
MFGL100-100	Suntec (France) or equivalent	LME Siemens or equivalent	QRA2 Siemens or equivalent	Available on request	$1\,^1/_2$	45
MFL100-140	Suntec (France) or equivalent	LOA Siemens or equivalent	photoresistor	Yes	———	———
MFG100-140	———	LME Siemens or equivalent	Ionisation Prob	Yes	$1\,^1/_2$	35
MFS100-140	Danfoss(Denmark) or equivalent	LOA Siemens or equivalent	photoresistor	Available on request	———	———
MFGL100-140	Suntec (France) or equivalent	LME Siemens or equivalent	QRA2 Siemens or equivalent	Available on request	$1\,^1/_2$	45

Burner Dimension



BURNER Model	H mm	L mm	W mm	L1 mm	⌀D1 mm	⌀D2 mm	⌀C mm	⌀d mm	N	Weight kg
MFL100-80	470	900	690	250	190	300	270	14	4	59
MFG100-80	470	860	690	250	190	300	270	14	4	62
MFS100-80	470	900	710	250	190	300	270	14	4	68
MFGL100-80	470	900	720	140	190	300	270	14	4	80
MFL100-100	470	900	700	250	190	300	270	14	4	61
MFG100-100	470	860	710	250	190	300	270	14	4	64
MFS100-100	470	900	730	250	190	300	270	14	4	70
MFGL100-100	470	900	740	140	190	300	270	14	4	82
MFL100-140	470	930	730	300	230	300	270	14	4	87
MFG100-140	470	900	710	300	230	300	270	14	4	80
MFS100-140	500	900	730	300	230	300	270	14	4	98
MFGL100-140	470	900	740	140	230	300	270	14	4	101

Working Field
at the sea level



- Capacity ranges from 1,300,000 kcal/hr to 2,600,000 kcal/hr
- Low/high/low operation
- Modulating operation is available on request
- High combustion efficiency due to low excess air and good air/fuel mixture ratio
- Low fuel consumption
- High pressure backward centrifugal fan
- Fan air flow high efficiency due to aerodynamics shape of body
- Energy management through intelligent combustion control system (available on request)

burner model	thermal output kcal/hr	fan electromotor kw	fan airflow m^3/hr	motor damper	fan type
UDL150-1	1,300,000	3	1690	Hydrojack	High pressure backward centrifugal fan
UDG150-1	1,300,000	3	1690	SQN31 Siemens	High pressure backward centrifugal fan
UDS150-1	1,300,000	3	1690	Hydrojack	High pressure backward centrifugal fan
UDGL150-1	1,300,000	3	1690	SQN31 Siemens	High pressure backward centrifugal fan
UDGS150-1	1,300,000	3	1690	SQN31 Siemens	High pressure backward centrifugal fan
UDL150-2	1,500,000	3	1880	Hydrojack	High pressure backward centrifugal fan
UDG150-2	1,500,000	3	1880	SQN31 Siemens	High pressure backward centrifugal fan
UDS150-2	1,500,000	3	1880	Hydrojack	High pressure backward centrifugal fan
UDGL150-2	1,500,000	3	1880	SQN31 Siemens	High pressure backward centrifugal fan
UDGS150-2	1,500,000	3	1880	SQN31 Siemens	High pressure backward centrifugal fan
UDL250-1	1,800,000	4	2340	Hydrojack	High pressure backward centrifugal fan
UDG250-1	1,800,000	4	2340	SQN31 Siemens	High pressure backward centrifugal fan
UDS250-1	1,800,000	4	2340	Hydrojack	High pressure backward centrifugal fan
UDGL250-1	1,800,000	4	2340	SQN31 Siemens	High pressure backward centrifugal fan
UDGS250-1	1,800,000	4	2340	SQN31 Siemens	High pressure backward centrifugal fan
UDL250-2	2,250,000	5.5	2900	Hydrojack	High pressure backward centrifugal fan
UDG250-2	2,250,000	5.5	2900	SQN31 Siemens	High pressure backward centrifugal fan
UDS250-2	2,250,000	5.5	2900	Hydrojack	High pressure backward centrifugal fan
UDGL250-2	2,250,000	5.5	2900	SQN31 Siemens	High pressure backward centrifugal fan
UDGS250-2	2,250,000	5.5	2900	SQN31 Siemens	High pressure backward centrifugal fan
UDL250-3	2,600,000	5.5	3300	Hydrojack	High pressure backward centrifugal fan
UDG250-3	2,600,000	5.5	3300	SQN31 Siemens	High pressure backward centrifugal fan
UDS250-3	2,600,000	5.5	3300	Hydrojack	High pressure backward centrifugal fan
UDGL250-3	2,600,000	5.5	3300	SQN31 Siemens	High pressure backward centrifugal fan
UDGS250-3	2,600,000	5.5	3300	SQN31 Siemens	High pressure backward centrifugal fan

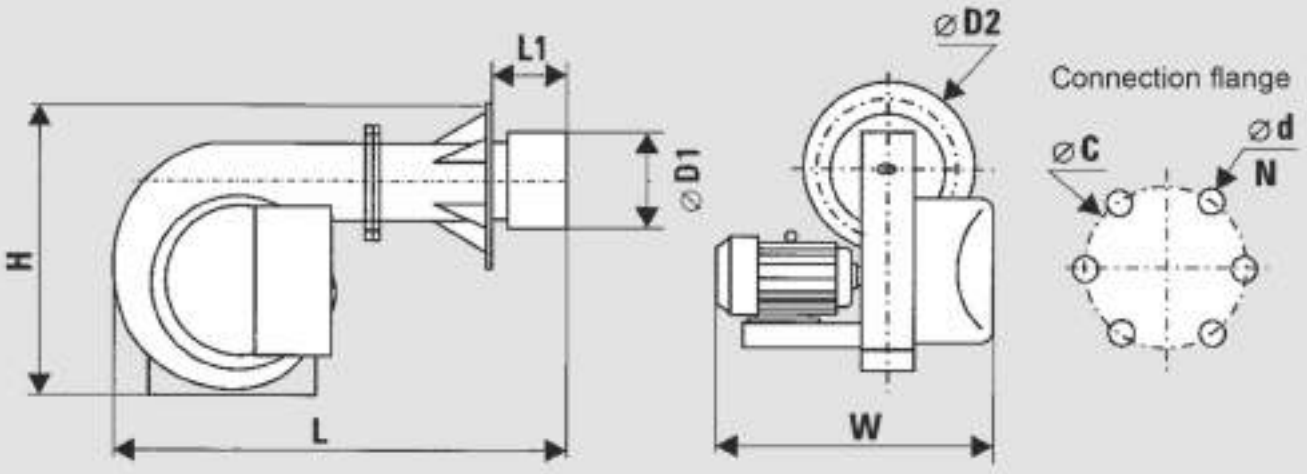
UDGL 150-2

UDS250-3

burner model	oil pump	burner control relay	burner photocell	gas leak control	control panel	gas train inch	burner operating gas pressure mbar
UDL150-1	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDG150-1	———	LME Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	1 1/2	55
UDS150-1	Danfoss(Denmark) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDGL150-1	Suntec(France) or equivalent	LME Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	1 1/2	55
UDGS150-1	Danfoss(Denmark) or equivalent	LME Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	1 1/2	55
UDL150-2	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDG150-2	———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	55
UDS150-2	Danfoss(Denmark) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDGL150-2	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	55
UDGS150-2	Danfoss(Denmark) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	55
UDL250-1	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDG250-1	———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	65
UDS250-1	Danfoss(Denmark) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDGL250-1	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	65
UDGS250-1	Danfoss(Denmark) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	———	Available on request	2	65
UDL250-2	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDG250-2	———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	65
UDS250-2	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens	———	Available on request	———	———
UDGL250-2	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	65
UDGS250-2	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	65
UDL250-3	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens or equivalent	———	Available on request	———	———
UDG250-3	———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	70
UDS250-3	Suntec(France) or equivalent	LOA Siemens	QRB1 Siemens or equivalent	———	Available on request	———	———
UDGL250-3	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	70
UDGS250-3	Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens Available on request	Available on request	2	70

Note : Gas leak control is Available on request

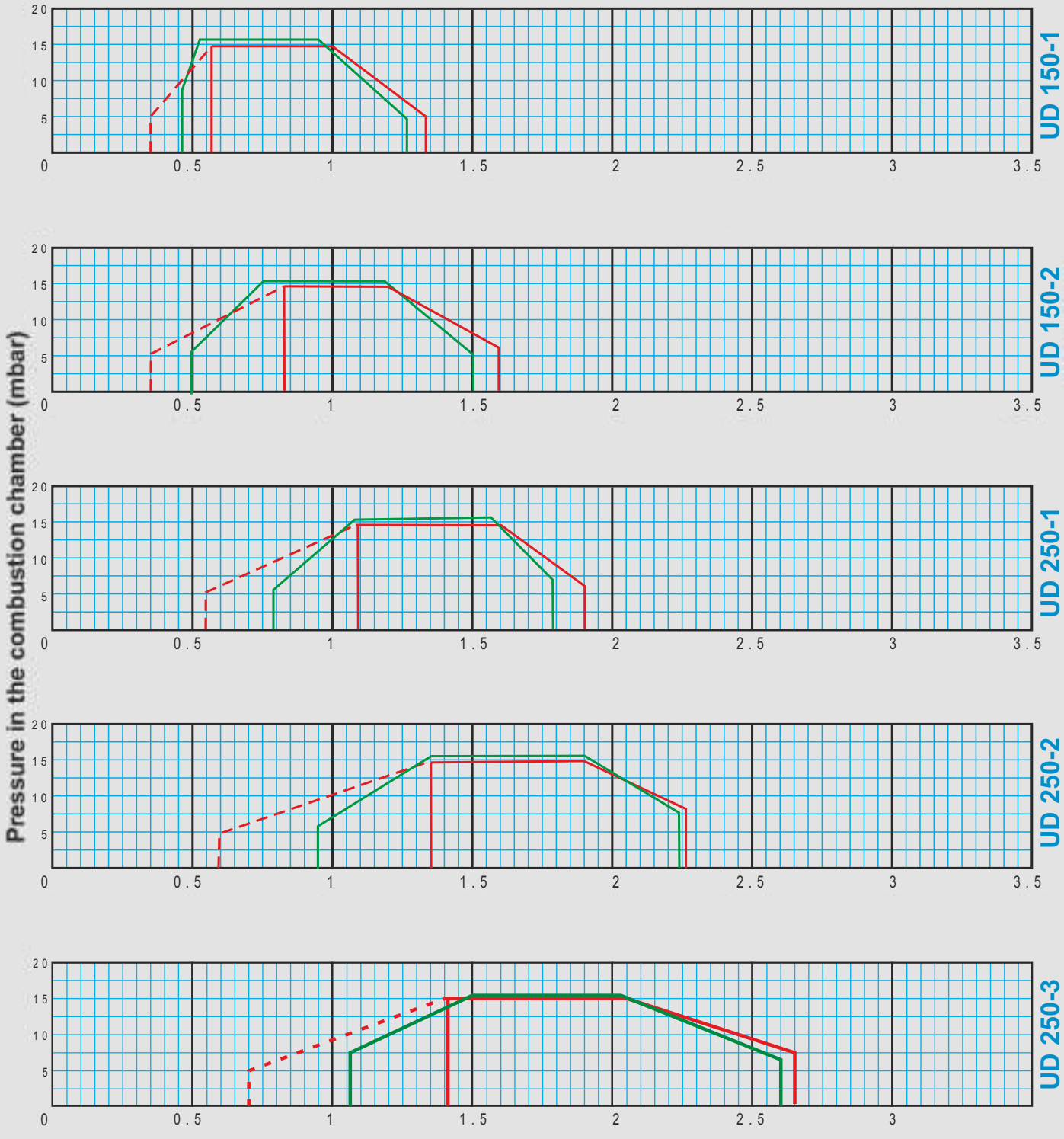
Burner Dimension



BURNER MODEL	H mm	L mm	W mm	L1 mm	ØD1 mm	ØD2 mm	ØC mm	Ød mm	N	Weight kg
UDG150-1	670	1200	760	170	230	340	310	14	6	90
UDG150-2	670	1200	760	170	230	340	310	14	6	90
UDG250-1	820	1400	850	200	285	440	400	16	6	120
UDG250-2	820	1400	850	200	285	440	400	16	6	130
UDG250-3	820	1400	850	200	285	440	400	16	6	132
UDL150-1	650	1270	880	140-360	230	300	270	18	4	100
UDL150-2	650	1270	880	140-360	230	300	270	18	4	100
UDL250-1	780	1450	950	190-400	260	370	325	18	4	144
UDL250-2	780	1450	950	190-400	260	370	325	18	4	155
UDL250-3	780	1450	1000	190-400	260	370	325	18	4	162
UDS150-1	650	1270	880	140-290	230	300	270	18	4	115
UDS150-2	650	1270	880	140-290	230	300	270	18	4	115
UDS250-1	780	1450	950	190-290	260	370	325	18	4	170
UDS250-2	780	1450	950	190-290	260	370	325	18	4	180
UDS250-3	780	1450	1000	190-290	260	370	325	18	4	185
UDGL150-1	670	1270	880	170	230	340	310	14	6	106
UDGL150-2	670	1270	880	170	230	340	310	14	6	106
UDGL250-1	820	1450	950	200	285	440	400	16	6	147
UDGL250-2	820	1450	950	200	285	440	400	16	6	158
UDGL250-3	820	1450	1000	200	285	440	400	16	6	165
UDGS150-1	670	1270	880	170	230	340	310	14	6	120
UDGS150-2	670	1270	880	170	230	340	310	14	6	120
UDGS250-1	820	1450	950	200	285	440	400	16	6	175
UDGS250-2	820	1450	1000	200	285	440	400	16	6	186
UDGS250-3	820	1450	1000	200	285	440	400	16	6	191

Working Field

at the sea level



Capacity ranges from 3,000,000 kcal/hr to 4,000,000 kcal/hr

Low/high/low operation

Modulating operation is available on request

High combustion efficiency due to low excess air and good air/fuel mixture ratio

Low fuel consumption

High pressure backward centrifugal fan

Fan air flow high efficiency due to aerodynamics shape of body

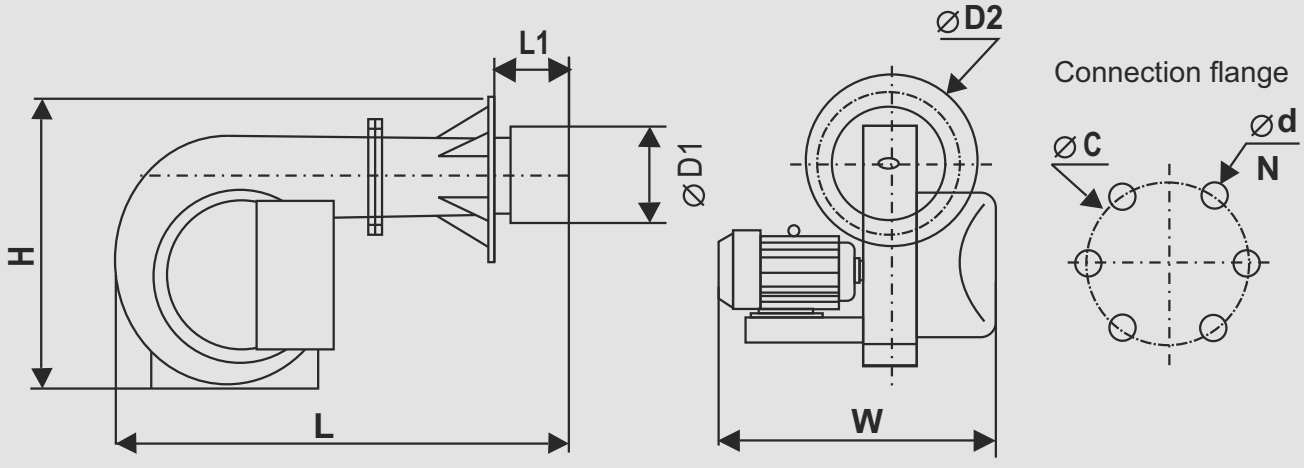
Energy management through intelligent combustion control system (available on request)

Burner model	Thermal output kcal/hr	Fan electromotor kw	Fan airflow m^3/hr	Motor damper	Fan type	Oil pump
UDG350	3,000,000	7.5	4200	SQN31 Siemens	High pressure backward centrifugal fan	———
UDG500	3/500/000	9.2	5200	Siemens SQN31	High pressure backward centrifugal fan	———
UDG600	4/000/000	11	6200	KAVEH PVZ5	High pressure backward centrifugal fan	———
UDL350	3,000,000	7.5	4200	Hydrojack	High pressure backward centrifugal fan	Suntec (France) or equivalent
UDL500	3/500/000	9.2	5200	Hydro jack	High pressure backward centrifugal fan	High pressure Gear pump
UDL600	4/000/000	11	6200	Hydro jack	High pressure backward centrifugal fan	High pressure Gear pump
UDS350	3,000,000	7.5	4200	Hydrojack	High pressure backward centrifugal fan	Suntec (France) or equivalent
UDS500	3/500/000	9.2	5200	Hydro jack	High pressure backward centrifugal fan	High pressure Gear pump
UDS600	4/000/000	11	6200	Hydro jack	High pressure backward centrifugal fan	High pressure Gear pump
UDGL350	3,000,000	7.5	4200	SQN31 Siemens	High pressure backward centrifugal fan	Suntec (France) or equivalent
UDGL500	3/500/000	9.2	5200	Siemens SQN31	High pressure backward centrifugal fan	High pressure Gear pump
UDGL600	4/000/000	11	6200	KAVEH PVZ5	High pressure backward centrifugal fan	High pressure Gear pump
UDGS350	3,000,000	7.5	4200	SQN31 Siemens	High pressure backward centrifugal fan	Suntec (France) or equivalent
UDGS500	3/500/000	9.2	5200	Siemens SQN31	High pressure backward centrifugal fan	High pressure Gear pump
UDGS600	4/000/000	11	6200	KAVEH PVZ5	High pressure backward centrifugal fan	High pressure Gear pump

UD 350-600

Burner model	Burner control relay	Burner photocell	Gas leak control	Control panel	Gas train inch	Burner operating gas pressure mbar
UDG350	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	75
UDG500	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	85
UDG600	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	3	85
UDL350	Siemens LOA or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDL500	Siemens LOA or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDL600	Siemens LAL or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDS350	Siemens LOA or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDS500	Siemens LOA or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDS600	Siemens LAL or equivalent	Siemens QRB1 equivalent	———	Available on request	———	———
UDGL350	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	75
UDGL500	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	85
UDGL600	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	3	85
UDGS350	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	75
UDGS500	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	2½	85
UDGS600	Siemens LFL or equivalent	Siemens QRA2 or equivalent	Siemens LDU or equivalent	Available on request	3	85

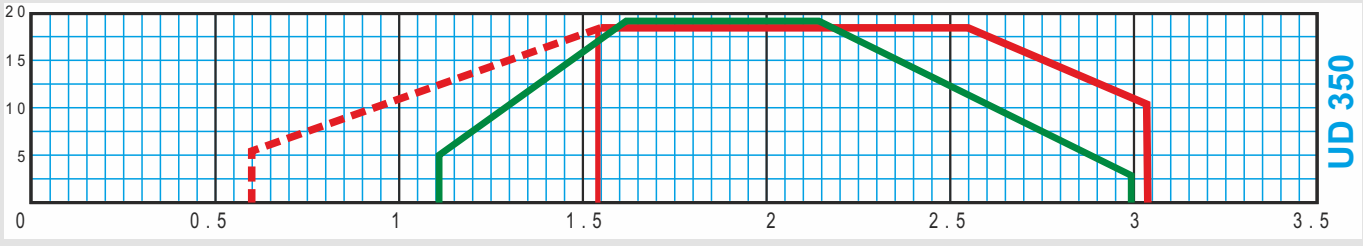
Note : Gas leak control is Available on request



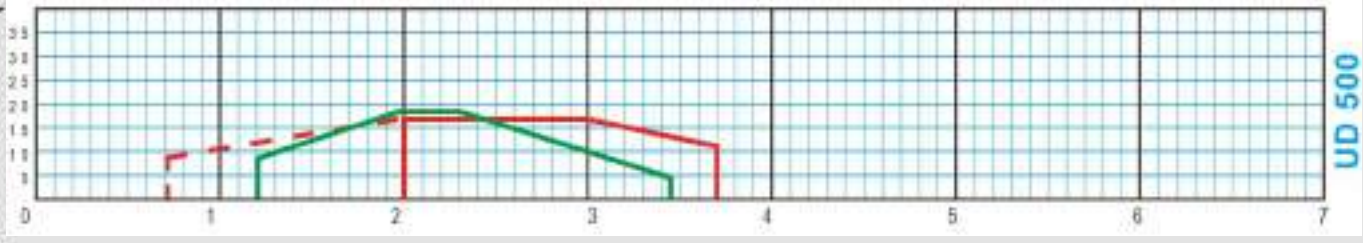
Burner model	H mm	L mm	W mm	L1 mm	Ø D1 mm	Ø D2 mm	ø C mm	Ø d mm	N	Weight Kg
UDG350	920	1540	900	230	315	500	440	18	6	195
UDG500	970	1620	1000	230	335	500	440	20	6	196
UDG600	970	1620	1000	270	370	570	500	20	6	222
UDL350	885	1570	1060	190-470	320	430	400	18	4	208
UDL500	970	1650	1000	230	335	500	440	20	6	195
UDL600	970	1620	1100	270	370	570	500	20	6	221
UDS350	885	1570	1060	190-350	320	430	400	18	4	235
UDS500	970	1650	1000	230	335	500	440	20	6	226
UDS600	970	1620	1150	270	370	570	500	20	6	254
UDGL350	920	1570	1060	230	315	500	440	18	6	209
UDGL500	970	1650	1000	230	335	500	440	20	6	202
UDGL600	970	1620	1100	270	370	570	500	20	6	230
UDGS350	920	1570	1060	230	315	500	440	18	6	235
UDGS500	970	1650	1000	230	335	500	440	20	6	236
UDGS600	970	1620	1150	270	370	570	500	20	6	264

Working Field

at the sea level



Pressure in the combustion chamber (mbar)



$X10^6$kcal/hr

N. Gas —— Oil —— **Burner output**

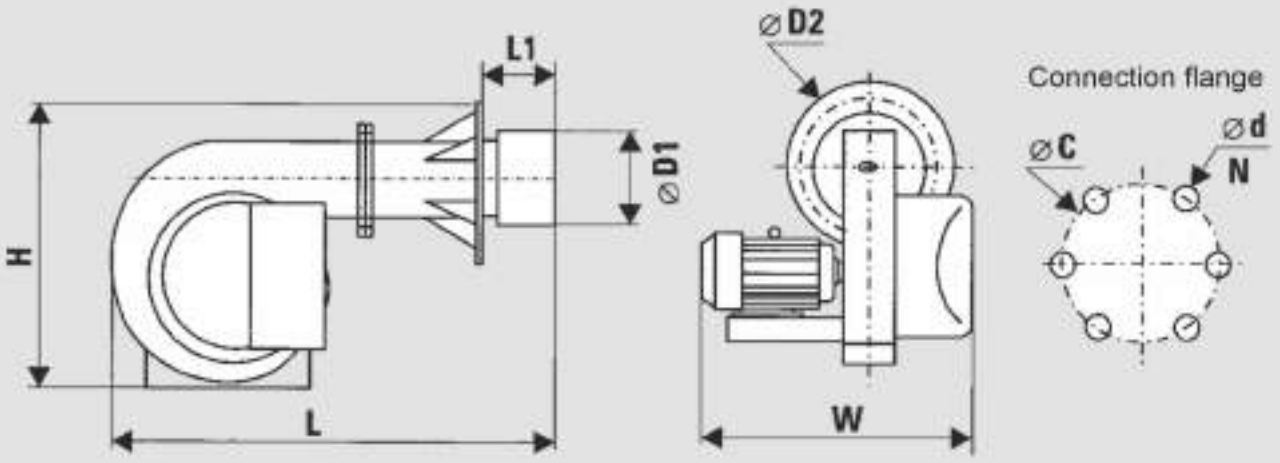
- Capacity ranges from 3,500,000 kcal/hr to 6,000,000 kcal/hr
- Low/high/low operation
- Modulating operation is available on request
- High combustion efficiency and low fuel consumption
- Improving design of burner for reducing sound pressure and Nox and Co emissions
- Installing silencer for reducing more noise if ordered
- High pressure backward centrifugal fan
- Energy management through intelligent combustion control system (available on request)

burner model	thermal output kcal/hr	fan electromotor kw	fan airflow m^3/hr	motor damper	fan type
MFL500	3,500,000	11	5200	Hydrojack	High pressure backward centrifugal fan
MFG500	3,500,000	11	5200	PVZ Kaveh	High pressure backward centrifugal fan
MFS500	3,500,000	11	5200	Hydrojack	High pressure backward centrifugal fan
MFGL500	3,500,000	11	5200	PVZ Kaveh	High pressure backward centrifugal fan
MFGS500	3,500,000	11	5200	PVZ Kaveh	High pressure backward centrifugal fan
MFL600	4,000,000	11	6200	Hydrojack	High pressure backward centrifugal fan
MFG600	4,000,000	11	6200	PVZ Kaveh	High pressure backward centrifugal fan
MFS600	4,000,000	11	6200	Hydrojack	High pressure backward centrifugal fan
MFGL600	4,000,000	11	6200	PVZ Kaveh	High pressure backward centrifugal fan
MFGS600	4,000,000	11	6200	PVZ Kaveh	High pressure backward centrifugal fan
MFL700	5,000,000	15	8300	Hydrojack	High pressure backward centrifugal fan
MFG700	5,000,000	15	8300	PVZ Kaveh	High pressure backward centrifugal fan
MFS700	5,000,000	15	8300	Hydrojack	High pressure backward centrifugal fan
MFGL700	5,000,000	15	8300	PVZ Kaveh	High pressure backward centrifugal fan
MFGS700	5,000,000	15	8300	PVZ Kaveh	High pressure backward centrifugal fan
MFL800	6,000,000	18.5	10800	Hydrojack	High pressure backward centrifugal fan
MFG800	6,000,000	18.5	10800	PVZ Kaveh	High pressure backward centrifugal fan
MFS800	6,000,000	18.5	10800	Hydrojack	High pressure backward centrifugal fan
MFGL800	6,000,000	18.5	10800	PVZ Kaveh	High pressure backward centrifugal fan
MFGS800	6,000,000	18.5	10800	PVZ Kaveh	High pressure backward centrifugal fan

oil pump	burner control relay	burner photocell	gas leak control	control panel	gas train inch	burner operating gas pressure mbar
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	2 1/2	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	2 1/2	95
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	2 1/2	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	3	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	3	95
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	3	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	3	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent		Available on request	3	95
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	3	95
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105

Note : Gas leak control is Available on request

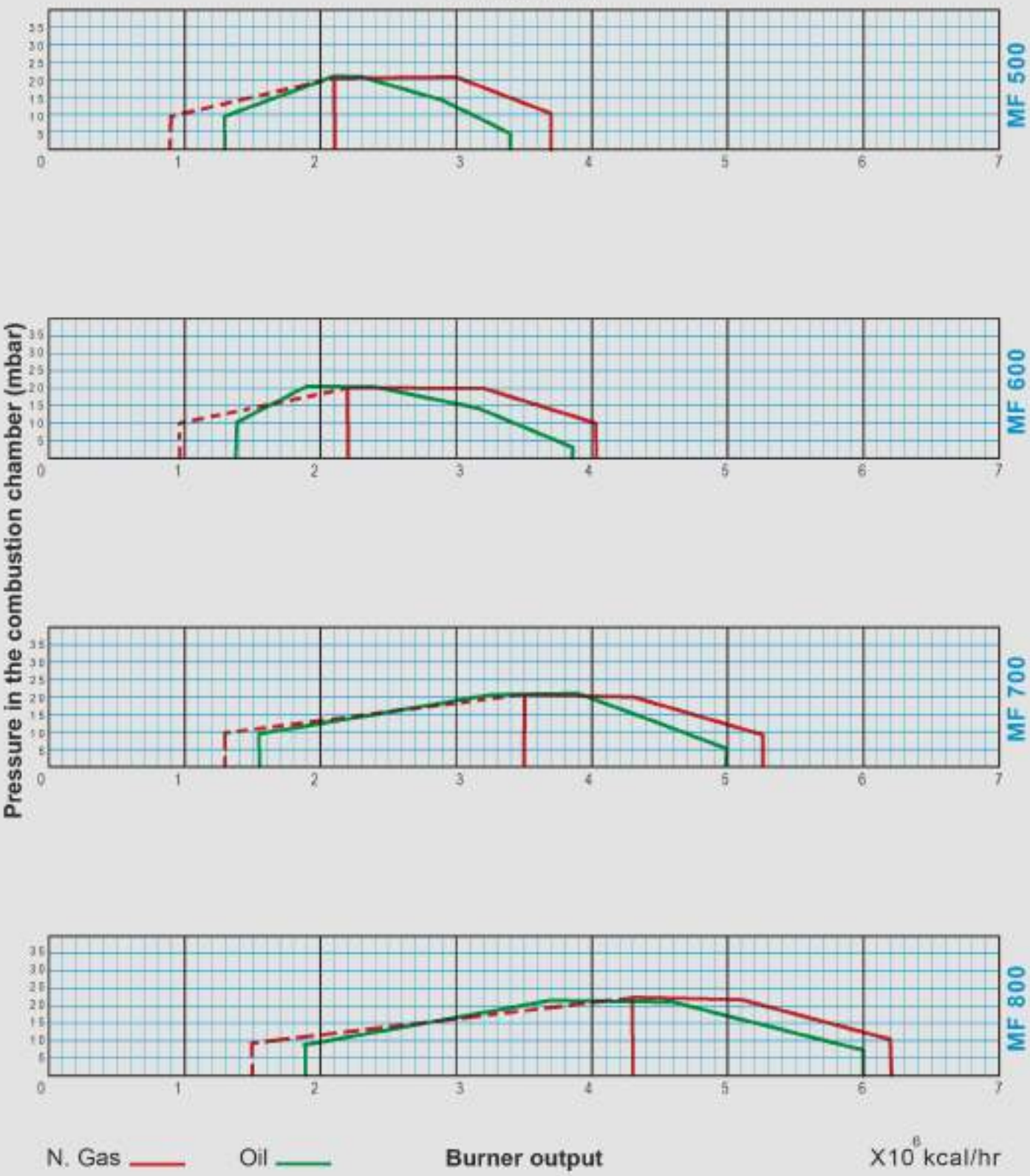
Burner Dimension



BURNER MODEL	H mm	L mm	W mm	L1 mm	ØD1 mm	ØD2 mm	ØC mm	Ød mm	N	Weight kg
MFG500	1000	1580	900	230	335	500	440	24	6	329
MFG600	1000	1620	900	270	370	570	500	24	6	329
MFG700	1000	1620	900	270	400	570	500	24	6	335
MFG800	1050	1620	1020	270	440	650	600	24	6	369
MFL500	1000	1580	1000	230	335	500	440	24	6	317
MFL600	1000	1620	1000	270	370	570	500	24	6	317
MFL700	1000	1620	1000	270	400	570	500	24	6	325
MFL800	1050	1620	1230	270	440	650	600	24	6	360
MFS500	1000	1580	1000	230	335	500	440	24	6	363
MFS600	1000	1620	1000	270	370	570	500	24	6	363
MFS700	1120	1620	1000	270	400	570	500	24	6	371
MFS800	1230	1620	1350	270	440	650	600	24	6	420
MFGL500	1000	1580	1000	230	335	500	440	24	6	332
MFGL600	1000	1620	1000	270	370	570	500	24	6	332
MFGL700	1000	1620	1100	270	400	570	500	24	6	340
MFGL800	1050	1620	1230	270	440	650	600	24	6	375
MFGS500	1000	1580	1000	230	335	500	440	24	6	365
MFGS600	1000	1620	1000	270	370	570	500	24	6	365
MFGS700	1120	1620	1000	270	400	570	500	24	6	372
MFGS800	1230	1620	1350	270	440	650	600	24	6	425

Working Field

at the sea level



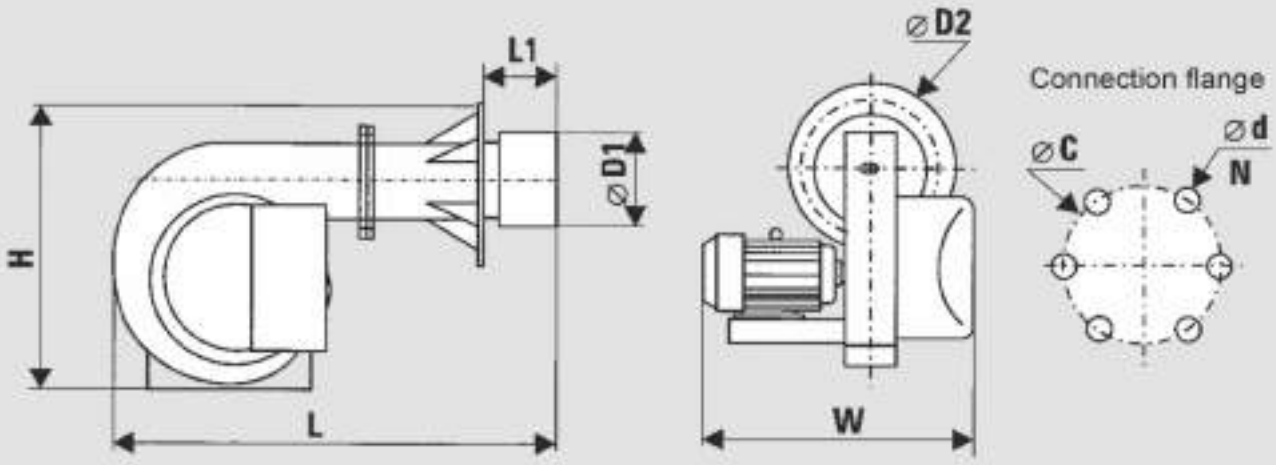
- Capacity ranges from 7,000,000 kcal/hr to 12,000,000 kcal/hr
- Low/high/low operation
- Modulating operation is available on request
- High combustion efficiency and low fuel consumption
- Improving design of burner for reducing sound pressure and Nox and Co emissions
- Installing silencer for reducing more noise if ordered
- High pressure backward centrifugal fan
- Energy management through intelligent combustion control system (available on request)

burner model	thermal output kcal/hr	fan electromotor kw	fan airflow m^3/hr	motor damper	fan type
MFL900	7,000,000	18.5	12000	Hydrojack	High pressure backward centrifugal fan
MFG900	7,000,000	18.5	12000	PVZ KAVEH	High pressure backward centrifugal fan
MFS900	7,000,000	18.5	12000	Hydrojack	High pressure backward centrifugal fan
MFGL900	7,000,000	18.5	12000	PVZ KAVEH	High pressure backward centrifugal fan
MFGS900	7,000,000	18.5	12000	PVZ KAVEH	High pressure backward centrifugal fan
MFL1000	8,000,000	22	13500	Hydrojack	High pressure backward centrifugal fan
MFG1000	8,000,000	22	13500	AR30 Sauter	High pressure backward centrifugal fan
MFS1000	8,000,000	22	13500	Hydrojack	High pressure backward centrifugal fan
MFGL1000	8,000,000	22	13500	AR30 Sauter	High pressure backward centrifugal fan
MFGS1000	8,000,000	22	13500	AR30 Sauter	High pressure backward centrifugal fan
MFL1100	9,000,000	30	15000	Hydrojack	High pressure backward centrifugal fan
MFG1100	9,000,000	30	15000	AR30 Sauter	High pressure backward centrifugal fan
MFS1100	9,000,000	30	15000	Hydrojack	High pressure backward centrifugal fan
MFGL1100	9,000,000	30	15000	AR30 Sauter	High pressure backward centrifugal fan
MFGS1100	9,000,000	30	15000	AR30 Sauter	High pressure backward centrifugal fan
MFL1200	10,000,000	37	16500	Hydrojack	High pressure backward centrifugal fan
MFG1200	10,000,000	37	16500	Siemens	High pressure backward centrifugal fan
MFS1200	10,000,000	37	16500	Hydrojack	High pressure backward centrifugal fan
MFGL1200	10,000,000	37	16500	Siemens	High pressure backward centrifugal fan
MFGS1200	10,000,000	37	16500	Siemens	High pressure backward centrifugal fan
MFL1400	12,000,000	45	18500	Hydrojack	High pressure backward centrifugal fan
MFG1400	12,000,000	45	18500	Siemens	High pressure backward centrifugal fan
MFS1400	12,000,000	45	18500	Hydrojack	High pressure backward centrifugal fan
MFGL1400	12,000,000	45	18500	Siemens	High pressure backward centrifugal fan
MFGS1400	12,000,000	45	18500	Siemens	High pressure backward centrifugal fan

oil pump	burner control relay	burner photocell	gas leak control	control panel	gas train inch	burner operating gas pressure mbar
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	105
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	120
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	135
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	135
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	4	135
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
———	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	6	135
Suntec(France) or equivalent	LAL Siemens or equivalent	QRB1 Siemens or equivalent	———	Available on request	———	———
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	6	135
Suntec(France) or equivalent	LFL Siemens or equivalent	QRA2 Siemens or equivalent	LDU11 Siemens or equivalent	Available on request	6	135

Note : Gas leak control is Available on request

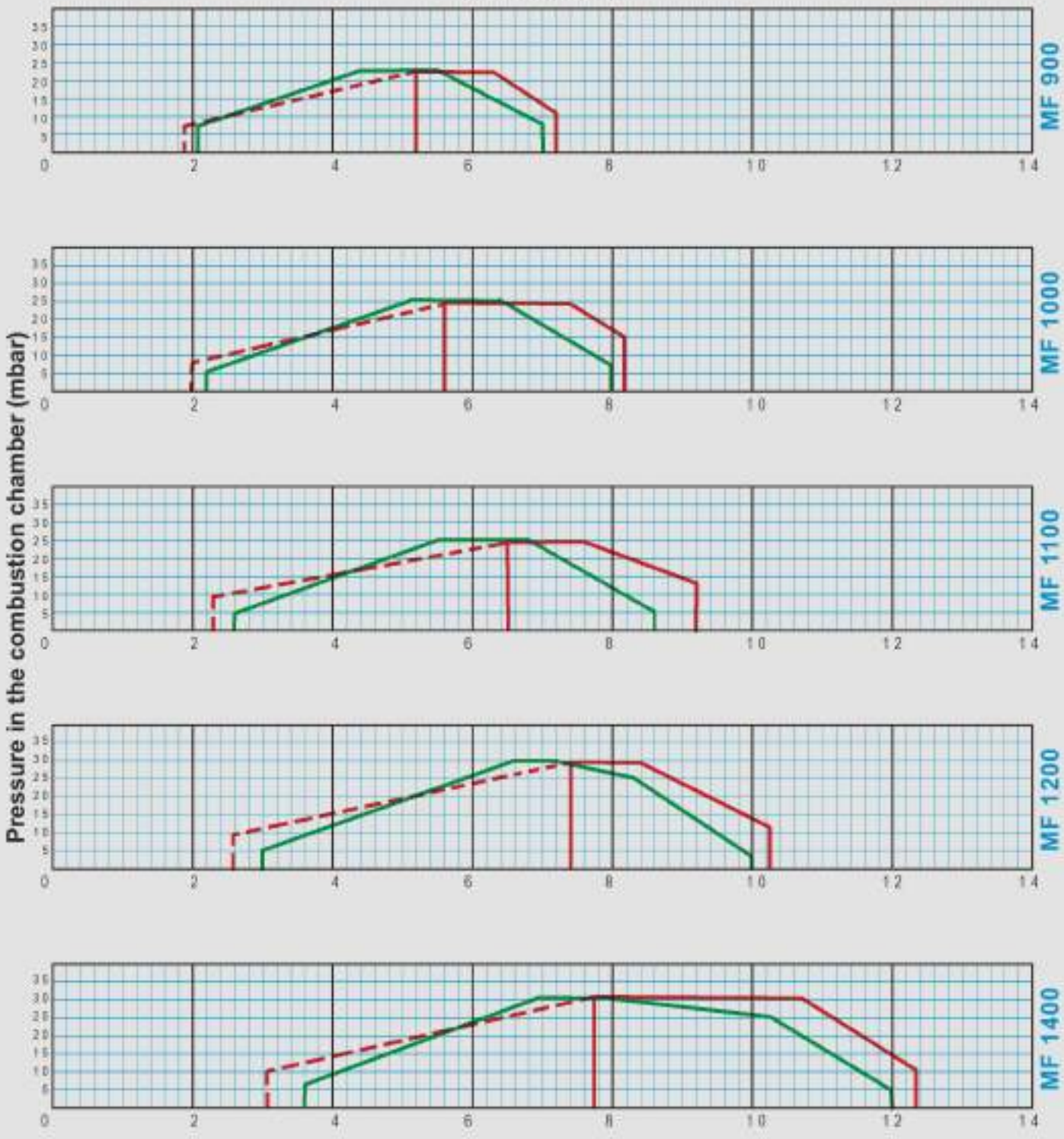
Burner Dimension



BURNER MODEL	H mm	L mm	W mm	L1 mm	ØD1 mm	ØD2 mm	ØC mm	Ød mm	N	Weight kg
MFG900	1050	1620	1020	270	440	650	600	24	6	373
MFG1000	1100	1620	1240	270	440	650	600	24	6	400
MFG1100	1100	1620	1240	270	440	650	600	24	6	450
MFG1200	1250	2120	1300	400	550	760	700	24	8	495
MFG1400	1250	2120	1300	400	550	760	700	24	8	640
MFL900	1050	1620	1230	270	440	650	600	24	6	364
MFL1000	1100	1620	1400	270	440	650	600	24	6	384
MFL1100	1100	1620	1400	270	440	650	600	24	6	390
MFL1200	1250	2120	1300	400	550	760	700	24	8	450
MFL1400	1250	2120	1300	400	550	760	700	24	8	632
MFS900	1230	1620	1350	270	440	650	600	24	6	424
MFS1000	1260	1620	1400	270	440	650	600	24	6	450
MFS1100	1260	1620	1400	270	440	650	600	24	6	500
MFS1200	1450	2120	1300	400	550	760	700	24	8	556
MFS1400	1450	2120	1300	400	550	760	700	24	8	720
MFGL900	1050	1620	1230	270	440	650	600	24	6	378
MFGL1000	1100	1620	1400	270	440	650	600	24	6	450
MFGL1100	1100	1620	1400	270	440	650	600	24	6	495
MFGL1200	1250	2120	1300	400	540	750	700	24	8	530
MFGL1400	1310	2150	1600	400	540	750	700	24	8	648
MFGS900	1230	1620	1350	270	440	650	600	24	6	429
MFGS1000	1260	1620	1400	270	440	650	600	24	6	554
MFGS1100	1260	1620	1400	270	440	650	600	24	6	600
MFGS1200	1450	2120	1300	400	550	760	700	24	8	648
MFGS1400	1450	2120	1300	400	550	760	700	24	8	750

Working Field

at the sea level



Industrial Burner
Furnace Burner (K series)
(burner with seperate fan)

- Capacity range: 100,000 - 10,000,000 kcal/hr
- Operation: On/Off / multi stage / modular
- Fuel: gas / light oil / heavy oil
- Application:

1. Casting furnaces
2. Post heating furnaces
3. Pre heating furnaces
4. metal melting furnaces & pots (aluminum, copper, lead, iron & cast iron)
5. Glass melting furnaces
6. Cooking furnaces (limekiln, brick, ceramic)
7. Stress relief furnaces

burner model	Fuel consumption		burner capacity
	kg/hr Oil	m3/hr Gas	kcal/hr
k10	10	11	100,000
k20	20	21	200,000
k30	30	32	300,000
k60	60	64	600,000
k80	80	85	800,000
k100	100	106	1,000,000
k150	150	160	1,500,000
k200	200	213	2,000,000
k250	250	266	2,500,000
k300	300	319	3,000,000
k400	400	425	4,000,000
k500	500	532	5,000,000
k600	600	638	6,000,000
k700	700	745	7,000,000
k800	800	851	8,000,000
k900	900	957	9,000,000
k1000	1000	1064	10,000,000

Notes:

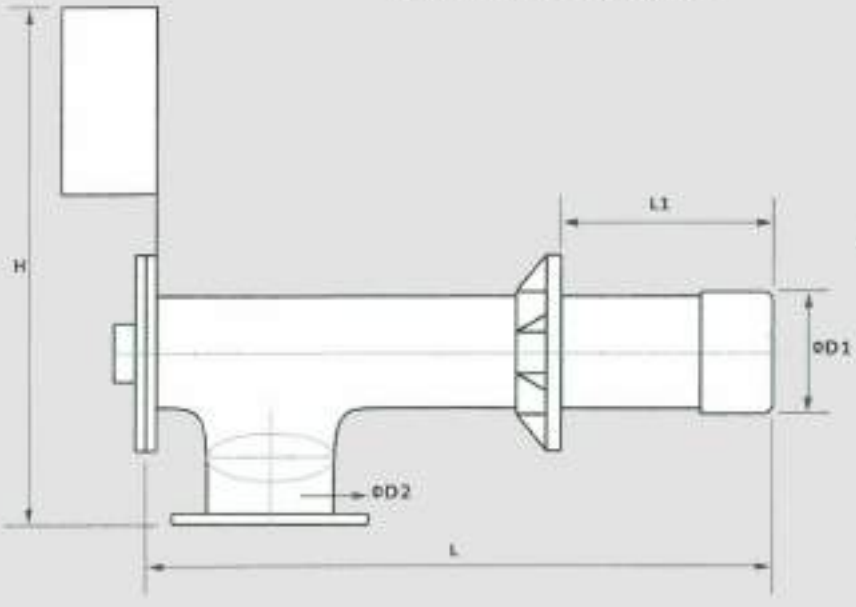
1) Gas consumption is based on 9400 kcal/m^3 (gas heating value) and oil consumption is based on 10,000 kcal/kg (oil heating value)

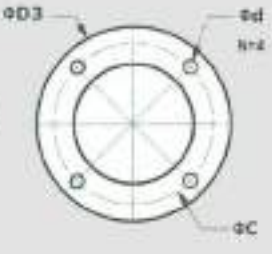
2) Burners with capacity more than k100 are available as per client requirements.

KS 150

KG 150

Burner Dimension

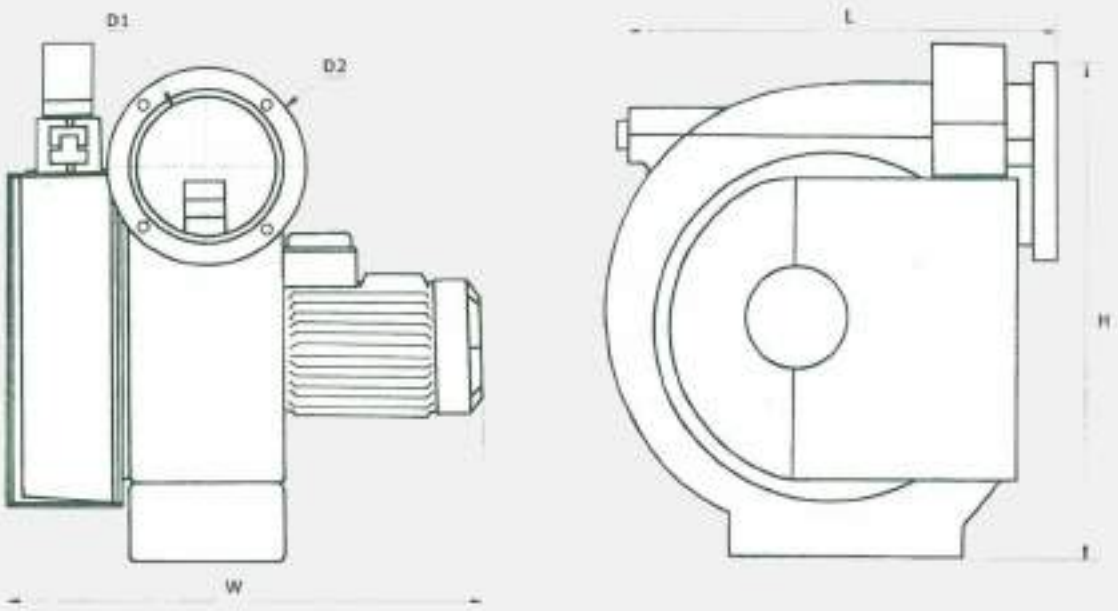




Connection Flange

Burner model	H mm	L mm	L1 mm	ØD1 mm	ØD2 mm(in)	ØD3 mm	ØC mm	Ød mm	N
K10	620	480	60-280	115	50(2)	195	163	14	4
K20	620	480	60-280	115	65(2½)	195	163	14	4
K30	620	480	60-280	115	80(3)	195	163	14	4
K60	440	650	140-350	156	125(5)	245	200	18	4
K80	460	740	190-400	190	150(6)	280	240	16	4
K100	560	970	190-400	245	200(8)	360	320	18	4

Blower type : BE , BMF , BUD



burner model	motor kw	fan capacity m3/hr	fan pressure mmH20	H mm	W mm	L mm	D1 mm	D2 mm
BE3	0.370	450	40	360	430	345	135	180
BE4	0.550	700	60	360	430	345	135	180
BMF100-100	1.1	1030	80	440	555	590	160	300
BMF100-140	2.2	1300	100	440	555	590	190	300
BUD150-1	3	1500	130	630	600	525	170	260
BUD150-2	3	1800	130	630	600	525	190	260
BUD250-1	4	2200	150	740	720	680	220	320
BUD250-2	5.5	2800	150	740	720	680	220	320
BUD350	7.5	4200	170	830	800	740	240	340
BMF500	11	5200	210	940	900	900	200×370	350×470
BMF700	15	8500	210	940	900	900	200×370	350×470
BMF800	18.5	10800	230	960	1000	900	250×370	400×500
BMF900	18,5	12000	250	960	1000	900	250×370	400×500
BMF1000	22	13500	280	1025	1100	900	250×410	400×500
BMF1100	30	15000	300	1025	1170	900	250×410	400×500

Blower BUD Model

Blower BE Model

Gas Train

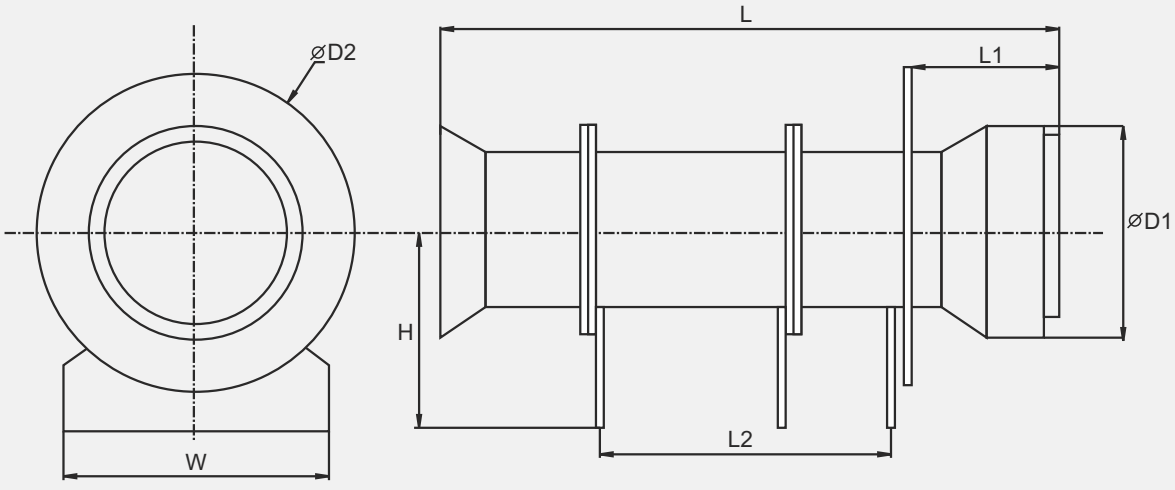
- Filter
- Pressure Gage
  (with push botton valve)
- Shutt Off Valve
- Regulator
- Relief Valve
- Pressure Gage
  (with push botton valve)
- Pilote Valve
- Low Pressure Regulator
  (for gas pilot)
- Ball Valve
  (for gas pilot)
- Low Limit Pressure Switch
- Solenoid Valve
  (fast opening-fast closing)
- High Limit Pressure Switch
- Vent Solenoid Valve
- Solenoid Valve
  (slow opening-fast closing)

Industrial Burner
Turbojet Burner
(TJ series)

- Capacity range: 6,000,000 - 10,000,000 kcal/hr
- Operation: modular
- Fuel: gas / light oil / heavy oil
- Application: asphalt plants (for drying sand and preparing it for mixiing with bitumen)

Burner model	Max capacity kcal/hr	Max. fuel consumption kg/hr	fan airflow m^3/hr	motor kw	fan Flow rate m^3/hr	Pump Lit/hr
TJ 800	6,000,000	600	638	11	9600	1000
TJ 1000	8,000,000	800	851	15	13500	1500
TJ 1200	10,000,000	1000	1064	18.5	16500	1800

Burner Dimension



burner model	H mm	W mm	L mm	L1 mm	L2 mm	D1 mm	D2 mm	weight kg (approx)
TJ 800	590	570	2000	520	700	670	750	390
TJ 1000	670	600	2120	520	1000	800	1000	520
TJ 1200	670	600	2120	520	1000	800	1000	540

For Our Environment:
Save Energy, Reduce Emissions

In recent years, Mashal Kaveh started using updated technologies plus modern intelligent combustion control systems from reputable German and English manufacturers to achieve maximum efficiency, energy saving and minimum pollutant emissions. These systems based on Co/O2 emissions help to adjust fuel/air ratio precisely and keep stable conditions in burner operations.

Some capabilities of intelligent combustion control system:

1. Upgrading burner control system
2. Changing fuel/air ratio mechanical link to electronical link
3. Increasing combustion efficiency through precise adjustment of fuel/air ratio
4. Connection to online O2/Co analyzers and continuous monitoring of optimal points of burner operation*
5. Connection to central control system*
6. Equipped with gas leak detection system
7. Equipped with failsafe outputs
8. Equipped with advanced failure detection system
9. Equipped with burner load control system according to boiler output
10. Equipped with graphical screen

* wherever possible