

Weishaupt Monarch oil burners Sizes 1 and 3

1/2002 GB

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Description

Weishaupt Monarch oil burners are of the fully automatic pressure atomising type. Their design has been carefully considered down to the smallest detail and has been proved successful over and over again. They meet all the demands for safety, reliability and low cost servicing. Weishaupt oil burners are type tested to EN 267.

The burners are distinguished by a variety of interesting features:

- Range of application 6 - 65 kg/h (71 - 775 kW)
- Automatic sequence of operations
- Stable fan characteristics – good combustion results
- Air regulation on pressure side
- Air damper closed on burner shut-down
- Quiet operation
- Complete pre-wired integral switch-gear
- Hinged burner casing
- Combustion head can be withdrawn when the burner is hinged open
- The design of the burner makes installation, adjustment and servicing easy

Construction

All the components are assembled in one unit. The motor drives the fan and the fuel pump. All the equipment used for the regulation of fuel and air is clearly arranged and easily accessible. The burners can be hinged to the left or right, which simplifies service work on the combustion head, diffuser, nozzles and ignition electrodes.

Application

The burners can be used on hot water boilers, steam boilers, air heaters and for certain heating processes. The burners are used in particular on modern, high rated boilers, as they are capable of overcoming high combustion chamber pressures. RL burners are preferably used where there is a continually changing heat demand.

Fuels

Distillate oil and medium oil to DIN 51 603 can be fired.

Viscosity:

Types Monarch L and RL -

< 6 mm²/s at 20°C

Type Monarch M -

≤ 75 mm²/s at 50°C

Regulation

On L and M type burners, the regulation of oil and air takes place as follows:

- two stage, nozzle head with two nozzles and a motor controlled, quickly opening air damper.
- three stage, with three nozzles and a motor controlled, slowly opening air damper.

The RL burner alters its capacity slowly (sliding). Fuel and air are controlled in compound. The burner can, depending on the controller and servomotor, be either:

- sliding two stage (20 s running time) or
- modulating (42 s running time)

With sliding two stage regulation, the partial and full load positions are fixed within the burner operating range. The burner slides to one position or the other, depending on the appliance demand, and there are no rapid changes of fuel throughput.

By fitting a suitable controller into the control panel, the burner can be altered to modulating operation. Modulating burners operate at any point within the capacity range, depending on the heat demand.

On sliding two stage burners and modulating burners, the slow capacity alteration ensures a particularly good matching to the heating appliance.

Flame supervision

The burner controller automatically sequences the operations and monitors the flame optically via the flame sensor.

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The controller is mounted on the burner on all standard L and M burners, but can be supplied loose if requested. Together with the control panel, each burner forms one complete unit. On the RL burner, the burner controller is supplied loose for fitting into the control panel.

There is no interference with radio and television reception, as radio interference created during ignition is below the permitted limits specified by the relevant EMC standards and regulations.

Quiet operation

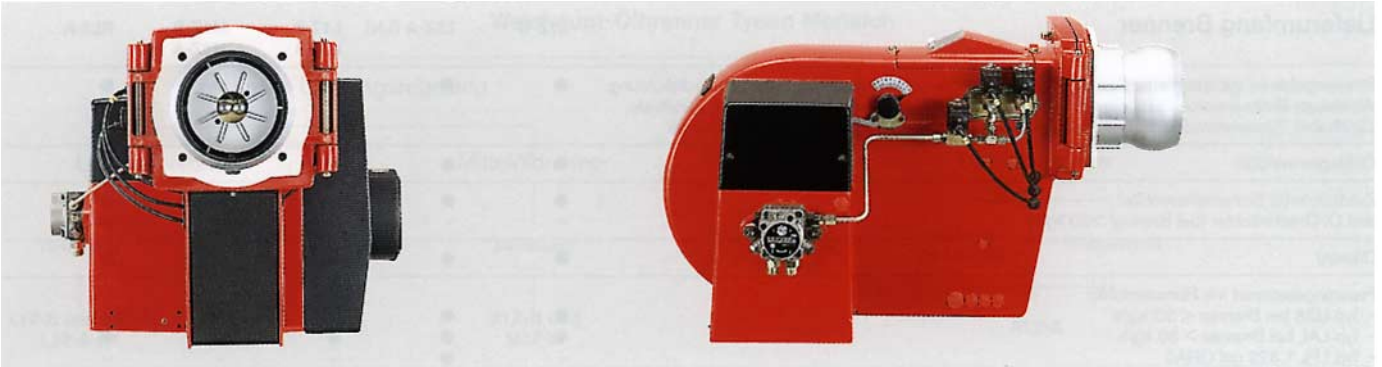
Weishaupt burners operate quietly. All air handling burner parts have been aerodynamically designed, the fuel / air mixing noise is reduced to a minimum and rotors and fan wheels are dynamically balanced. For installations where special emphasis is placed on burners with low noise levels, sound absorbers which reduce burner noise by approximately 70% are available (please ask for details).

Oil temperature regulation

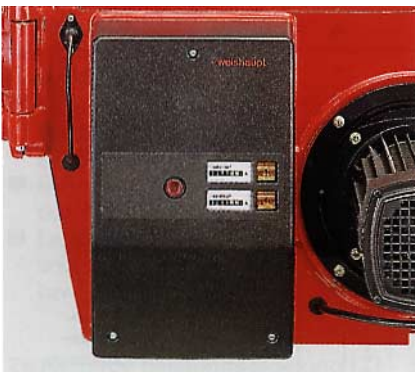
Residual oil burners are fitted with an oil preheater. The oil is quickly heated to the required atomising temperature, due to the large heat exchange surface combined with a relatively small oil volume. Fast, even heat distribution prevents local overheating and carbonisation of the oil.

Heated nozzle head and nozzle recirculation system on residual oil burners

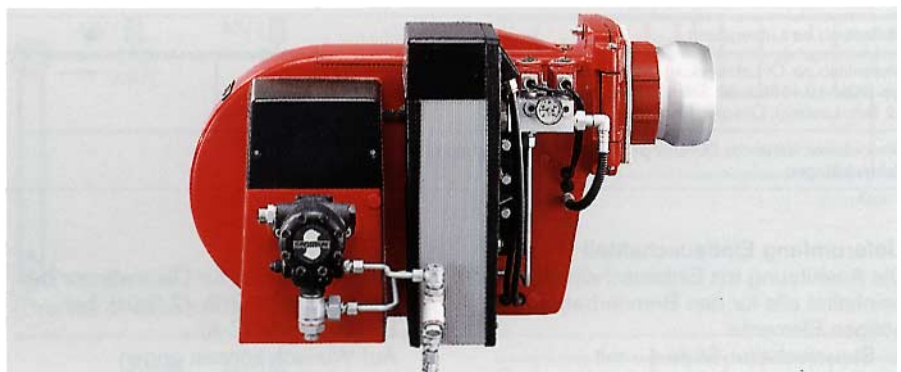
All residual oil burners are fitted with a heated nozzle head system. After the oil temperature in the nozzle head has been reached, the burner starts by means of a release thermostat. During prepurge, heated oil flows through the nozzle head and oil line system. This ensures that evenly heated oil is available for flame establishment.



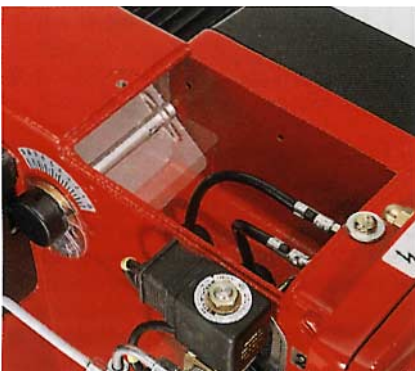
Monarch L distillate oil burner, two stage



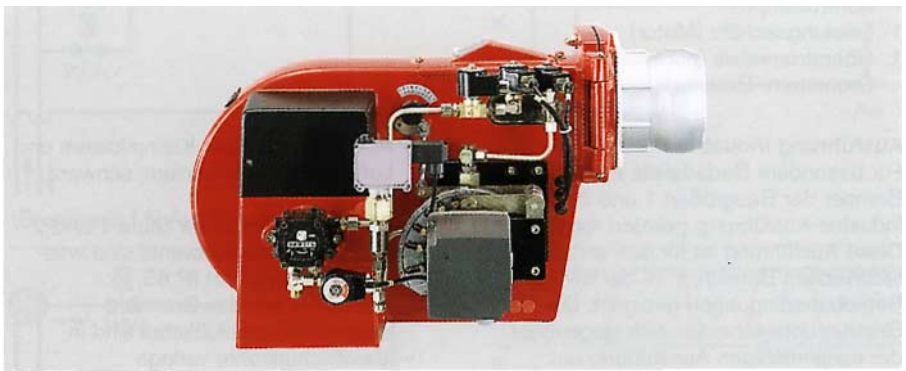
Integral switchgear (distillate oil burner)



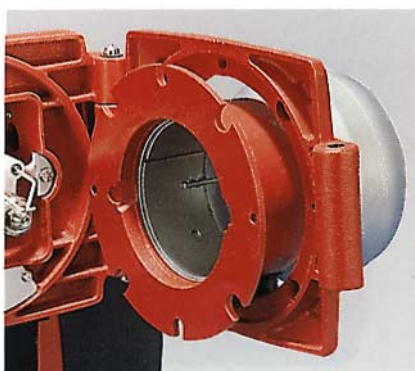
Monarch M residual oil burner, preheater side



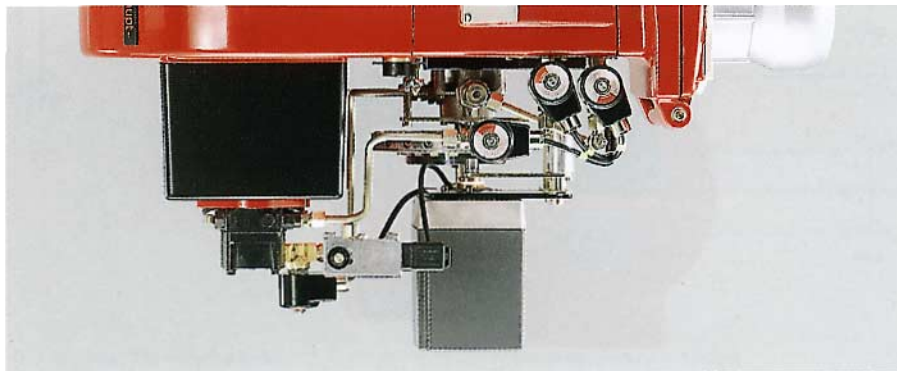
Pressure side air regulation



Monarch RL distillate oil burner, compound regulator side



Combustion head removable from behind



Monarch RL distillate oil burner, regulating drive

Included in delivery

Industrial version

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Included in burner delivery	L1Z-B	L3Z-A (LN)	L1T-B L3T-A	M1Z-B M3Z-A	RL3-A
Burner casing with integral air inlet, hinged flange, hinge interlock switch, flange gasket, Weishaupt burner motor, fan, pump, oil hoses, nozzle assembly, combustion head, ignition transformer, ignition cables, ignition electrodes, fixing screws, air damper on fan pressure side.	●	●	●	●	●
Oil solenoid valve(s)	●	●	●	●	●
Additional safety valve(s) and oil pressure switch (on burners >30 kg/h)	● –	● –	● –	● ●	● ●
Nozzles(s)	●	●	●	●	●
Burner controller with flame sensor – Type LOA for burners <30 kg/h – Type LAL for burners > 30 kg/h – Type LFL 1.322 with QRA2	● ● –	● ● ●	– ● –	● ● –	– ● –
Terminal strip or Integral switchgear	● ●	● ●	● ●	● ●	● –
Servomotor for air regulation	●	●	●	●	–
Servomotor for oil / air regulation with regulating cam (sliding two stage burners type SQM 10.15562, 20 s running time; modulating burners type SQM 10.16562, 42 s running time), oil regulator, spill type nozzle	–	–	–	–	●
Oil preheater, heated nozzle head and nozzle recirculation system, filter	–	–	–	●	–

Parts supplied with integral switchgear

The integral switchgear version includes all the parts required for operation.

- 1 stage 1 control switch with indicating lamp
- 1 stage 2 control switch with indicating lamp
- 1 contactor (motor)
- 1 overload relay (three phase burners only)

- 1 contactor for oil preheater on burner type M1Z-B (2 on burner type M3Z-A)
Hours counters can be fitted on request at extra cost.

Industrial execution

Where required, a special industrial version of burner sizes 1 and 3 can be supplied. This version is suitable for process applications, e.g. where operating conditions are severe. These burners differ from the standard version as follows:

1. Black painted aluminium cover over the terminal box and air regulator.
2. Waterproof (to IP 65) safety valve and stage 1 and 2 solenoid valves.
3. All external connection cables in conduit.
4. A separate control panel is provided for the burner switchgear.

Explanation of type designation

R L 3 Z - A version ZMD

E = single phase a.c.
D = three phase a.c.

Type of regulation
ZM = sliding two stage
Code for burner series
Z = two stage, T = three stage
Size
L = distillate oil EL, M = residual oil M
R = variably regulated burner

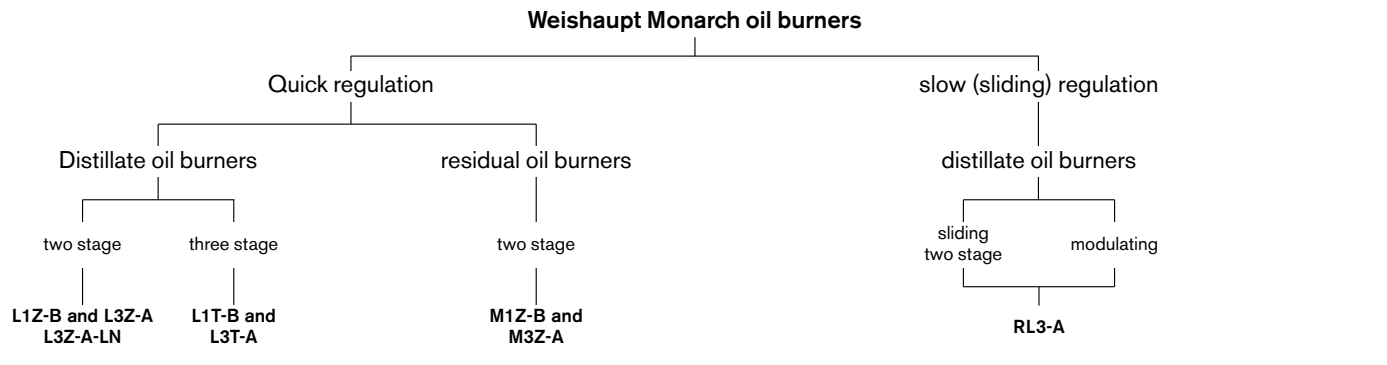
The additional prices are shown on page 12 (special equipment).

Only possible for burners without integral switchgear

Model overview

Types of regulation

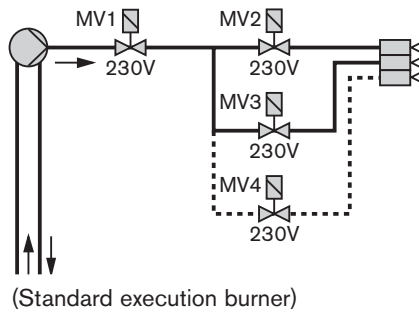
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Two stage and three stage regulation (Z/T)

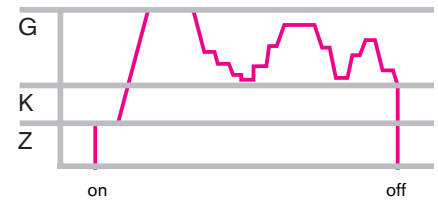
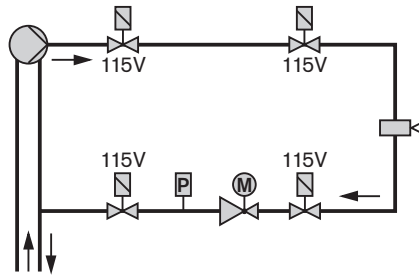
Standard execution burner

- Oil is released at start when solenoid valves 1 and 2 open. The burner works at partial load.
- Full load is reached when solenoid valve 3 / 4 opens.
- The capacity is regulated by opening and closing solenoid valve 3 or 3 and 4



Sliding two stage and modulating regulation (ZM)

- For burner start the oil regulator goes into the 'ignition load' position.
- A slow running oil / air compound servomotor adjusts the oil quantity up to full load. The servomotor regulates the burner capacity between partial and full load.
- The difference between sliding two stage and modulating burners is that on the modulating version the servomotor on the burner has a running time of 42 s and on the sliding two stage burner a running time of 20 s. In addition a special controller is fitted into the control panel for modulating operation.



G = full load, ZW = intermediate load,
K = partial load, Z = ignition load

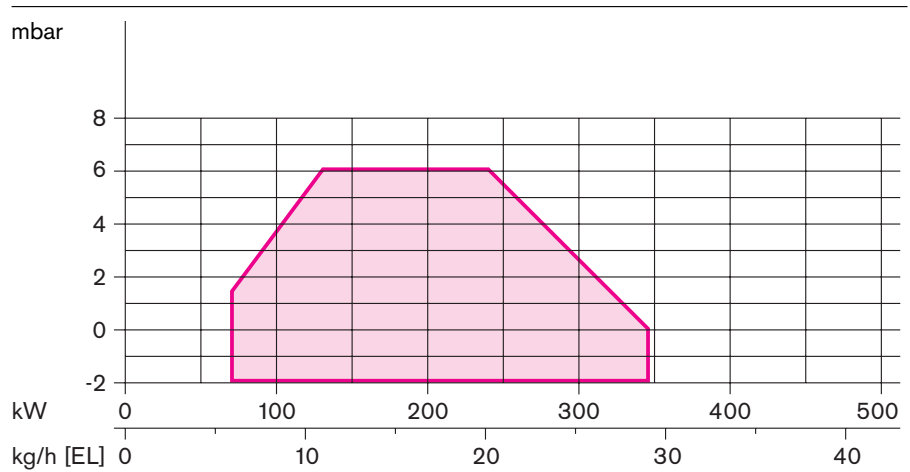
Upper graph: sliding two stage
Lower graph: modulating

Size 1 burner selection

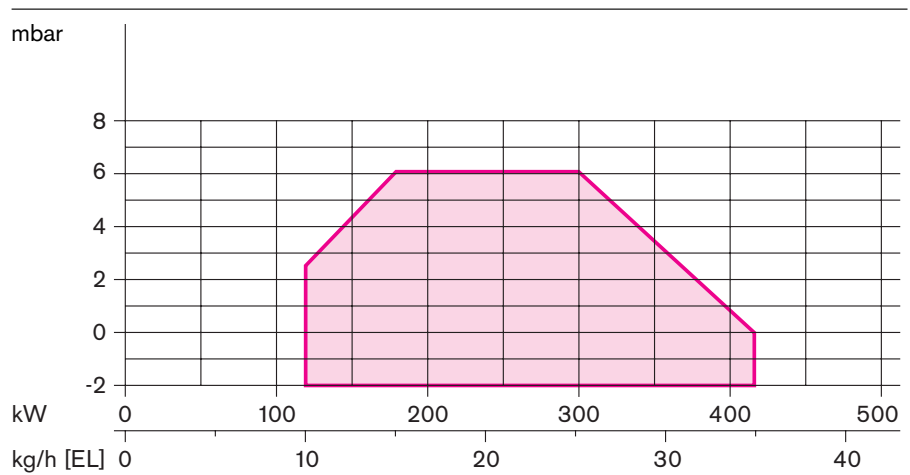
Burner rating / combustion chamber pressure

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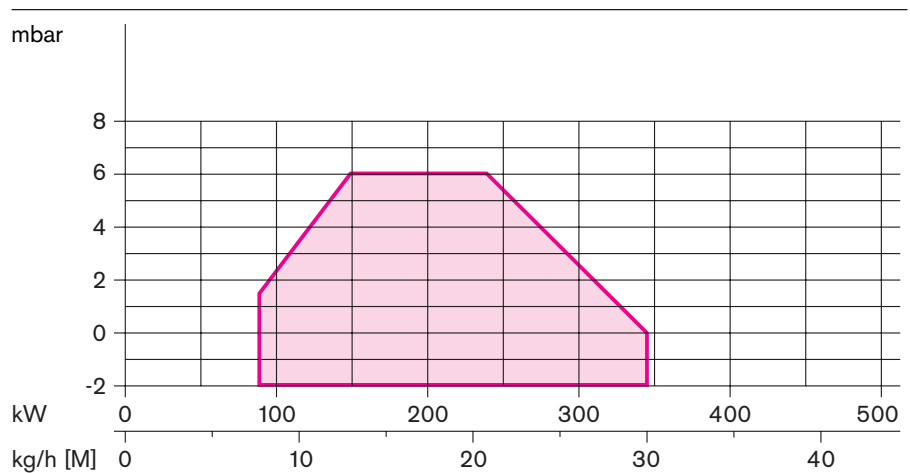
Burner type _____ **L1Z-B and L1T-B**
Version _____ E and D
Combustion head type
 L1Z-B _____ M1/5a-105Kx33
 L1T-B _____ M1/5a-105Kx36
Rating kg/h _____ 6-29
 kW _____ 70-345



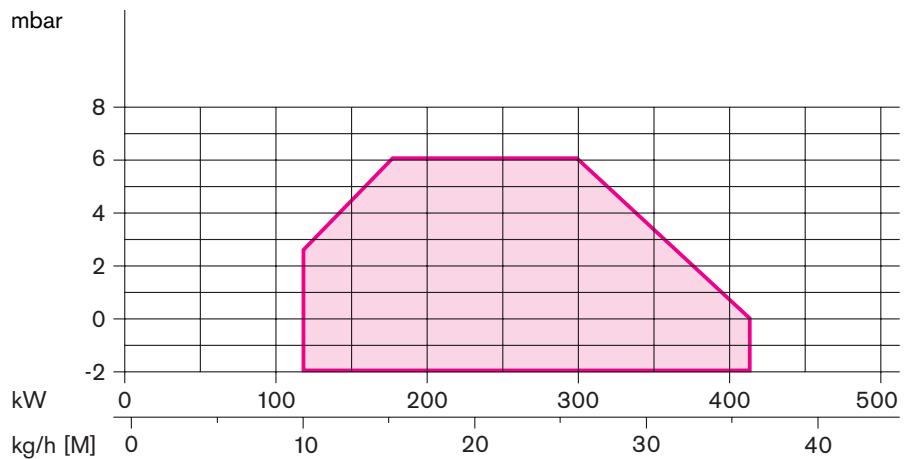
Burner type _____ **L1Z-B and L1T-B**
Version _____ E and D
Combustion head type
 L1Z-B _____ M1/5a-100Kx33
 L1T-B _____ M1/5a-100Kx36
Rating kg/h _____ 10-35
 kW _____ 120-415



Burner type _____ **M1Z-B**
Version _____ E and D
Combustion head type
 type _____ M1/5a-105Kx33
Rating kg/h _____ 8-31
 kW _____ 90-345



Burner type _____ **M1Z-B**
Version _____ **E and D**
Combustion head
type _____ **M1/5a-100Kx33**
Rating **kg/h** _____ **11-37**
 kW _____ **120-415**



The capacities in relation to combustion chamber resistances are maximum values, which were measured to EN 267 on idealised test flame tubes.

All ratings data given relate to an air temperature of 20°C and an installation height above sea level of 500 m.

The oil throughput information refers to a calorific value of
11.91 kWh/kg for distillate oil EL
11.24 kWh/kg for residual oil M

Shut off devices

All burners with an oil throughput > 30 kg/h are equipped with a second solenoid valve (safety valve) as standard.

Voltages and frequencies

The burners are supplied with single phase 230 V, 50 Hz supply (E), or three phase 400 V, 50 Hz supply (D) as standard. Please indicate other voltages and frequencies required (no extra price).

Burner motor standard version

Btrop class insulation, to IP54. Motors can also be supplied to F class insulation (additional price on request).

Residual oil burners

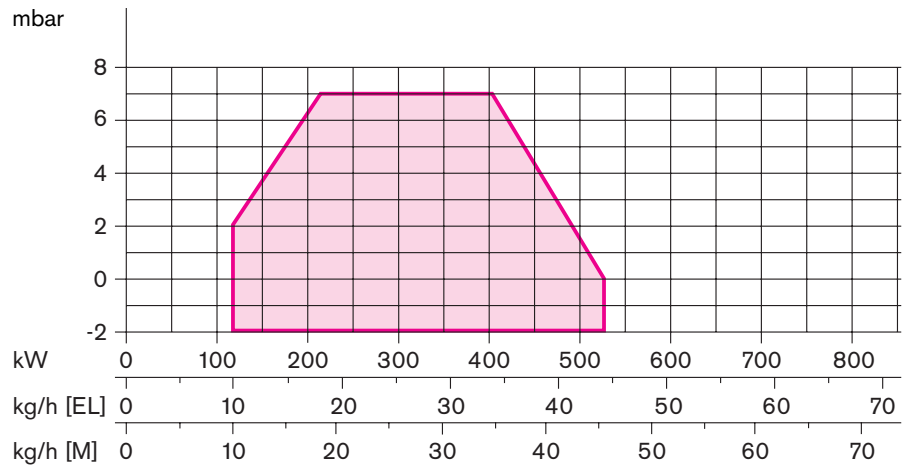
The burner type M1Z-B is not type tested and may only be used outside the Federal Republic of Germany.

Size 3 burner selection

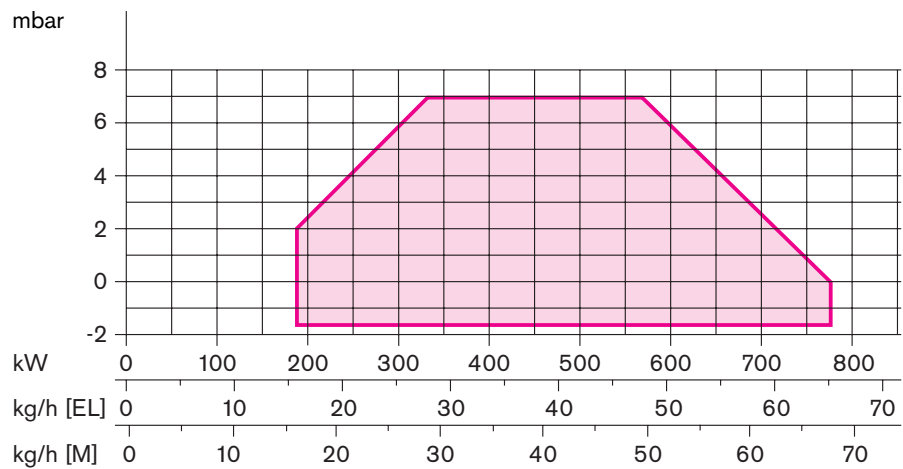
Burner rating / combustion chamber pressure

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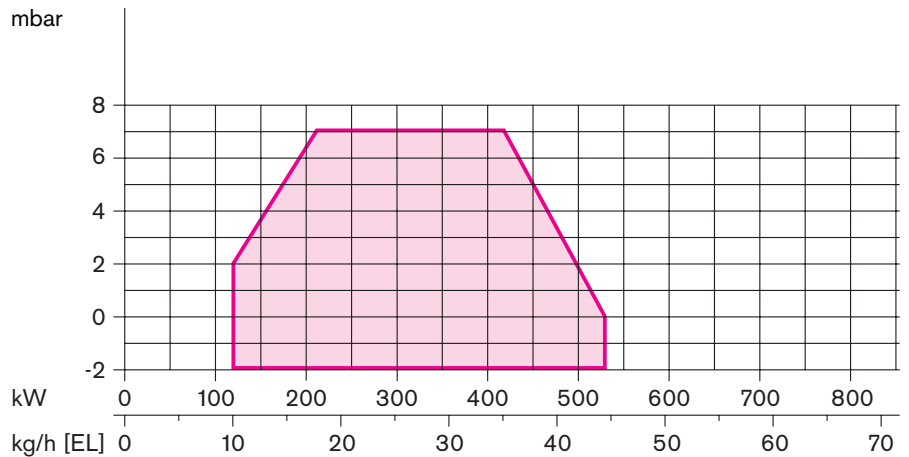
Burner type ____ L3Z-A, L3T-A, M3Z-A
Version
 L-Burner ____ E, D, E-C and D-C
 M-Burner ____ D and D-C
Combustion head
 type ____ M2/1a-116x40
 Rating kg/h-distillate oil EL ____ 10-40
 kg/h-residual oil M ____ 10.7-46.7
 kW ____ 120-525



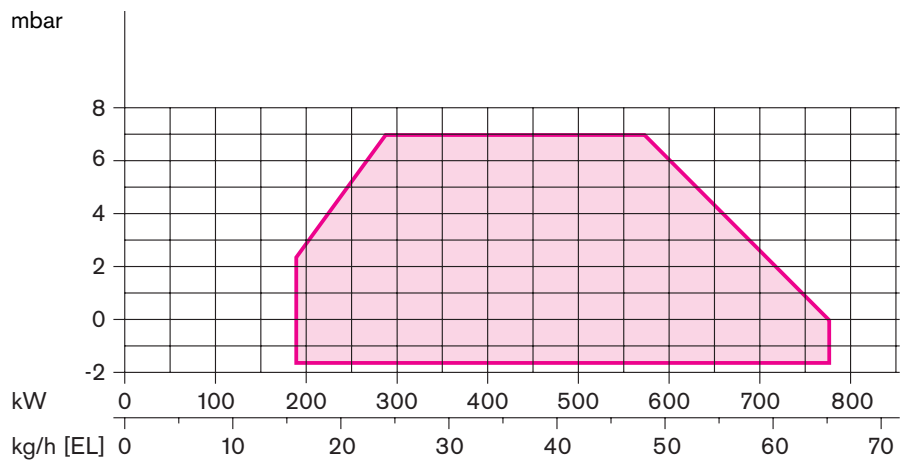
Burner type ____ L3Z-A, L3T-A, M3Z-A
Version
 L-Burner ____ E, D, E-C and D-C
 M-Burner ____ D and D-C
Combustion head
 type ____ M5/2a-116x40
 Rating kg/h-distillate oil EL ____ 16-65
 kg/h-residual oil M ____ 16.9-69
 kW ____ 190-775



Burner type _____ **RL3-A**
Version _____ ZME and ZMD
Combustion head type __ M2/1a-116x40
Rating kg/h _____ 10-44
 kW _____ 120-525



Burner type _____ **RL3-A**
Version _____ ZME and ZMD
Combustion head type _ M5/2a-116x40
Rating kg/h _____ 16-65
 kW _____ 190-775



The capacities in relation to combustion chamber resistances are maximum values, which were measured to EN 267 on idealised test flame tubes.

All ratings data given relate to an air temperature of 20°C and an installation height above sea level of 500 m.

The oil throughput information refers to a calorific value of
 11.91 kWh/kg for distillate oil EL
 11.24 kWh/kg for residual oil M

Shut off devices

All burners with an oil throughput > 30 kg/h are equipped with a second solenoid valve (safety valve) as standard.

Voltages and frequencies

The burners are supplied with single phase 230 V, 50 Hz supply (E), or three phase 400 V, 50 Hz supply (D) as standard. Please indicate other voltages and frequencies required (no extra price).

Burner motor standard version

Btrop class insulation, to IP54. Motors can also be supplied to F class insulation (additional price on request).

Residual oil burners

The burner type M3Z-A is not type tested and may only be used outside the Federal Republic of Germany.

Modulating burners

The modulating RL3-A burner is based on the sliding two stage burner. The modulating feature is obtained by fitting a suitable electrical controller into the panel (for price see accessories list).

Order numbers, technical information

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Description		L1Z-B Version E / D ^③	L1T-B Version E / D ^③	L3Z-A Version E / D ^⑤	L3Z-A Version E-C / D-C
Order numbers - Version E or EC with integral switchgear ^①		211 163 03	211 193 03	211 363 01	711 365 01
Version E or EC without integral switchgear ^②		211 163 04	211 193 04	211 363 02	711 365 02
Version D or DC with integral switchgear ^①		211 164 03	211 194 03	211 364 01	711 366 01
Version D or DC without integral switchgear ^②		211 164 04	211 194 04	211 364 02	711 366 02
Version ZME without integral switchgear ^②		–	–	–	–
Version ZMD without integral switchgear ^②		–	–	–	–
Burner motor 1Z230V, 50 Hz		Version E Type ECK07-2	Version E Type ECK07-2	Version E Type ECK08/90-2	Version E-C Type ECK08/90-2
Nominal capacity	kW	0.25	0.25	0.76	0.76
Nominal load at 230V	A	2.3	2.3	6	6
Motor pre-fuse	A	10	10	16	16
Speed	rpm	2850	2850	2850	2850
Capacitor	µF	16	16	25	25
Burner motor 3Z230/400V, 50 Hz		Version D Type DK07/F-2	Version D Type DK07/F-2	Version D Type DK07/F-2	Version D-C Type DK07/F-2
Nominal capacity	kW	0.76	0.76	0.76	0.76
Nominal load at 230/400V	A	3.6/2.1	3.6/2.1	3.6/2.1	3.6/2.1
Motor pre-fuse	A	6	6	6	6
Speed	rpm	2820	2820	2820	2820
Type test No.		5G547/95	5G548/95	5G549/95	5G549/95
Burner controller	Type	LOA 24.171 ^④	LAL2	LOA 24.171 ^④	LAL2
Servomotor	Type	–w– 1055/23	– W – 1055/80	–w– 1055/23	–w– 1055/23
Pump	Type	AE67	AE67	AE97	AE97
Fan		galvanised	galvanised	galvanised	galvanised
Ignition transformer	V	2 x 5000	2 x 5000	2 x 5000	2 x 5000
Oil hoses	DN	8	8	8	8
	Length / mm	1000	1000	1000	1000
	Connection	3/8"	3/8"	3/8"	3/8"
Oil preheater	Type	–	–	–	–
	Heating capacity / kW	–	–	–	–
Weight	kg (approx.)	29	29	40	40

^① A separate control panel is required on installations to TRD 604, 72 hr (operation without continuous supervision). The integral switchgear is therefore omitted.

^② On burners without integral switchgear, the burner controller is supplied loose. It can be mounted on the burner at extra cost (see page 12). A terminal strip is provided in both cases.

^③ L1Z-B and L1T-B burners, versions E and D, can be used with this specification up to 30 kg/h. Over 30 kg/h the additional prices for "LAL 2.25 burner controller in lieu of LOA 24.171" and "Solenoid valve as additional shut off device" apply (see special equipment, page 12).

^④ Flame monitoring with flame sensor QRB.

^⑤ L3Z-A burners, versions E and D, can be used with this specification up to 30 kg/h. Over 30 kg/h L3Z-A burners versions E-C or D-C should be used (see page 11). These burners are fitted with an LAL 2.25 burner controller and an additional safety solenoid valve as standard.

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L3T-A Version E-C, D / D-C	L3Z-A-1LN Version D-C	RL3-A Version ZME / ZMD	M1Z-B Version E / D	M3Z-A Version D	M3Z-A Version D-C
711 395 01	-	-	-	-	-
711 395 02	-	-	212 163 04	-	-
711 396 01	211 364 23	-	-	712 364 03	712 366 03
711 396 02	211 364 24	-	212 164 04	712 364 04	712 366 04
-	-	711 373 02	-	-	-
-	-	711 374 02	-	-	-
Version E	Version E-C	Version ZME	Version E	-	-
ECK08/90-2	ECK08/90-2	ECK08/90-2	ECK07-2	-	-
0.76	0.76	0.76	0.25	-	-
6	6	6	2.3	-	-
16	16	16	10	-	-
2850	2850	2850	2850	-	-
25	25	25	16	-	-
Version D-C	Version D-C	Version ZMD	Version D	Version D	Version D-C
DK07/F-2	DK07/F-2	DK07-2/2	DK07/F-2	DK07/F-2	DK07/F-2
0.76	0.76	0.76	0.76	0.76	0.76
3.6/2.1	3.6/2.1	3.6/2.1	3.6/2.1	3.6/2.1	3.6/2.1
6	6	6	6	6	6
2820	2820	2820	2820	2820	2820
5G549/95	5G862/98	5G552/95	-	-	-
LAL2	LFL1.322 with QRA2	LAL2	LOA 24.571 ④	LOA 24.171 ④	LAL2
-w- 1055/80	-w- 1055/80	SQM 10...	-w- 1055/23	-w- 1055/23	-w- 1055/23
AE 97	AT 65	AJ6	E4	E4	E4
galvanised 2 x 5000	galvanised 2 x 5000	galvanised 2 x 5000	galvanised 2 x 5000	galvanised 2 x 5000	galvanised 2 x 5000
8	8	8	13	13	13
1000	1000	1000	500 u. 800	700 u. 1000	700 u. 1000
3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
-	-	-	EV1B	EV2B	EV2B
-	-	-	1.8	4.5	4.5
40	40	47	36	55	55

Special equipment

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Item No.	Description		L1... M1... Order No.	L3... M3... Order No.
1	Hours counter in integral switchgear	1 x L...Z + T	210 000 69	210 000 69
		2 x L...Z	210 000 70	210 000 70
		2 x M...Z	210 000 70	210 000 70
2	Heating for pump E	M...Z	110 004 74	110 004 74
3	Pressure gauge with isolating valve	L...Z + T	110 006 63	110 006 63
		RL	–	210 000 92
		M...Z	110 008 82	110 008 82
4	Vacuum gauge with isolating valve	L...Z + T	110 006 64	110 006 64
		RL	–	110 006 64
		M...Z	110 005 70	110 005 70
5	Potentiometer fitted in servomotor (ZM)	RL	220 Ohm	110 002 86
		RL	1000 Ohm	110 003 03
6	Solenoid valve as additional shut off device ①	M...Z	210 000 47	210 000 49
7	Solenoid valve for post purge to relieve pressure	L...Z	without E.	210 005 99
		L...Z	with E.	210 007 15
		L...T	without E.	210 006 20
		L...T	with E.	–
		RL	–	210 000 52
		M...Z	–	210 000 88
8	Magnetic clutch for post purge to relieve pressure	L...Z	without E.	210 003 25
		L...Z	with E.	210 003 90
		L...T	without E.	210 004 92
		L...T	with E.	–
		RL	without E.	–
		M...Z	without E.	210 003 26
9	Combustion head extensions (for standard execution burners)	L1Z	100 mm	210 003 22
			200 mm	210 003 23
		L1T	100 mm	210 004 76
			200 mm	210 004 77
		M1Z	100 mm	210 003 30
			200 mm	210 003 31
		L3Z	100 mm	–
			200 mm	210 000 19
		L3T	100 mm	–
			200 mm	210 000 21
			100 mm	210 004 79
			200 mm	210 004 80
		RL3	100 mm	–
			200 mm	210 000 23
			100 mm	210 000 25
	200 mm	210 002 29		
		210 002 30		
10	Oil meter fitted	L1Z	210 005 30	–
		L1T	210 004 86	–
		L3Z	–	210 004 30
		L3T	–	210 005 27
			–	–
11	Oil hoses	1300 in lieu of 1000 mm lang	L...Z + T	210 003 00
		1000 mm, Gummi, beheizt	M...Z	210 002 02
		1300 mm, Gummi, beheizt	M...Z	210 002 03
12	Burner controller (in combination with integral switchgear)	LAL 2.25 in lieu of LOA 24.171	L...Z Exec. E	210 006 07
		LAL 2.25 in lieu of LOA 24.171	L...Z Exec. D	210 002 62
		LAL 2.25 in lieu of LOA 24.171	M...Z Exec. D	210 006 05
		LOA 44.252 in lieu of LOA24.171②	L...Z Exec. E	210 006 10
		LOA 44.252 in lieu of LOA24.171②	L...Z Exec. D	210 002 52
		LOA 44.252 in lieu of LOA24.171②	M...Z Exec. D	–
		LOK 16... in lieu of LOA... resp. LALL...Z	Exec. E	210 006 11
LOK 16... in lieu of LOA... resp. LALL...Z	Exec. D	210 003 98		
13	Burner controller (loose, for fitting into control panel)	LAL 2.25 in lieu of LOA 24.171	L...Z Exec. E + D	210 002 54
		LOA 44.252 in lieu of LOA 24.171	L...Z Exec. E	210 006 10
		LOA 44.252 in lieu of LOA 24.171	L...Z Exec. D	210 002 52
		LOA 44.252 in lieu of LOA 24.171	M...Z Exec. D	–
		LOK 16... in lieu of LOA... resp. LALL...Z	Exec. E + D	210 004 03
		LOK 16... in lieu of LOA... resp. LALL...Z	Exec. E-C + D-C	–
		LOK 16... in lieu of LOA... resp. LALRL...	–	210 003 87
LGK16.322	L3Z-A-1LN	–		
14	Air intake flange	RL... Exec. ZME	–	210 003 97
		RL... Exec. ZMD	–	210 003 35
15	Intake flange for connection of air duct.		210 000 67	210 000 67
16	Type of protection IP54/Industrial version	L...Z	210 003 19	210 002 47
		L...T	210 006 02	210 006 03
		RL...Z	–	210 004 17
		M...Z	210 006 04	210 003 77
17	Price reductions Oil preheater	EV2A in lieu of EV2B	M...Z Exec. D m. E.	–
		EV2A in lieu of EV2B	M...Z Exec. D o. E.	–
		EV2A in lieu of EV2B	M...Z Exec. D-C m. E.	–
			210 004 68	210 000 85
			–	210 004 69

① The additional price applies only to burners with oil throughputs up to 30 kg/h. For burners > 30 kg/h (version C) this solenoid valve is fitted as standard.

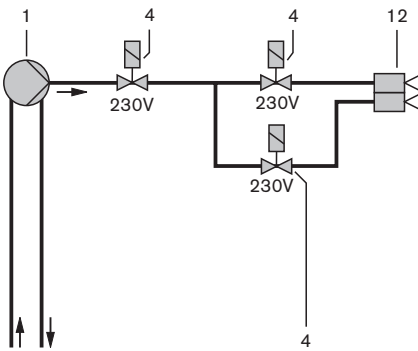
② Additional price applies to burners L3Z-A / M3Z-A.

Burners supplied to TRD 604, 24 hr / 72 hr
See technical leaflet, print No. 863.

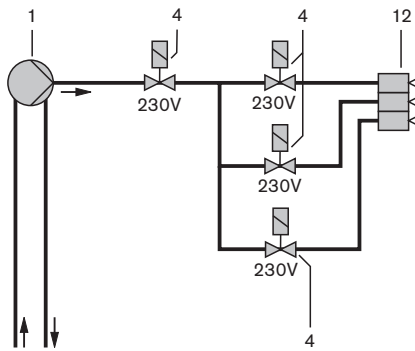
Burner fuel systems

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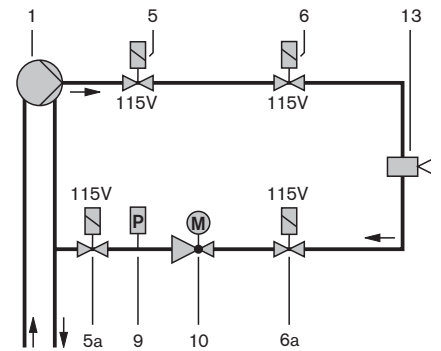
Monarch L1Z-B and L3Z-A burners



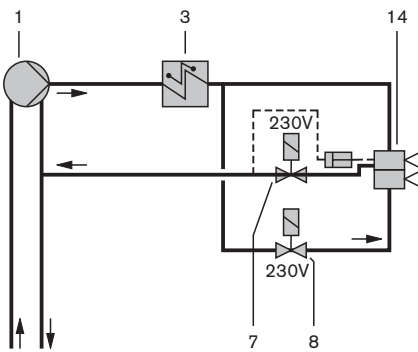
Monarch L1T-B and L3T-A burners



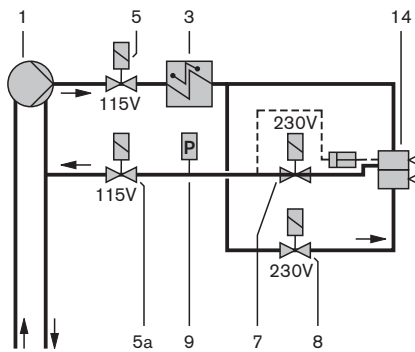
Monarch RL3-A sliding two stage and modulating burner without shut off device



Monarch M1Z-B and M3Z-A burners < 30 kg/h



Monarch M1Z-B and M3Z-A burners > 30 kg/h



- 1 Pump without inbuilt solenoid valve
- 2 Pump with two inbuilt solenoid valves
- 3 Oil preheater
- 4 Normally closed solenoid valve
- 4a Normally open solenoid valve
- 5 Normally closed solenoid valve (1st shut off device in supply line 115 V, electrically connected in series)
- 5a Normally closed solenoid valve (1st shut off device in return line 115 V, electrically connected in series - fitted against direction of flow)

- 6 Normally closed solenoid valve (2nd shut off device in supply line 115 V, electrically connected in series)
- 6a Normally closed solenoid valve (2nd shut off device in return line 115 V, electrically connected in series - fitted against direction of flow)
- 7 Normally open solenoid valve (stage 1)
- 8 Normally closed solenoid valve (stage 2)
- 9 Pressure switch in return
- 10 Oil regulator

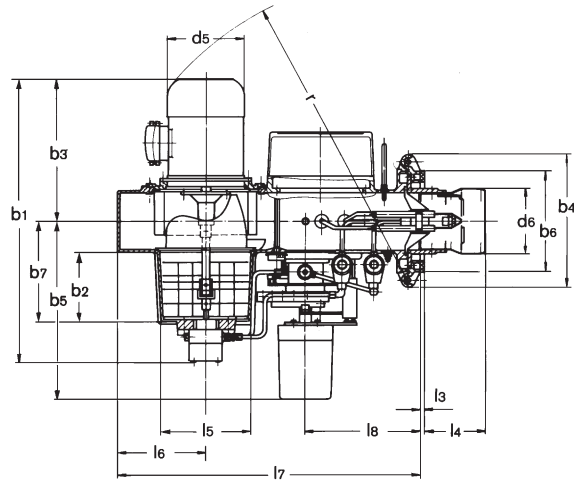
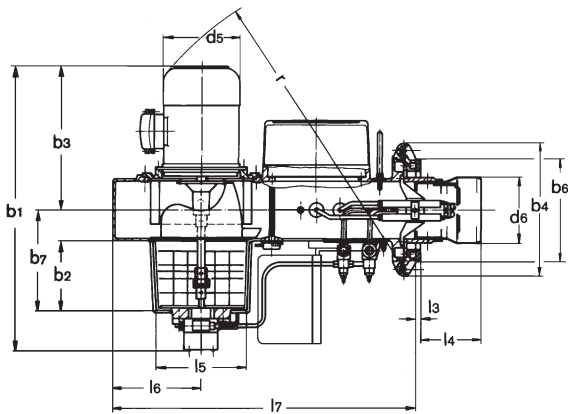
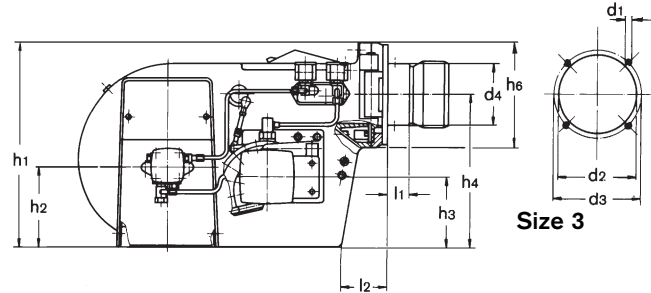
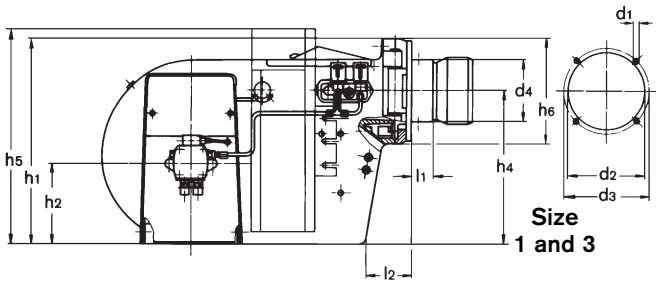
- 11 Nozzle head with one nozzle, without shut off device
- 12 Nozzle head with two / three nozzles, without shut off device
- 13 Nozzle head R, without integral shut off device
- 14 Nozzle head M, with integral shut off device

Dimensions

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Monarch L and M

Monarch RL



Monarch L and M, size 1 and 3

Size	Dimensions in mm													
	h1	h2	h4	h5	h6	d1	d2	d3	d4	d5	d6 ②	b1	b2	b3 ①
1	388	150	290	420	195	M8	135	160-170	120	161/175①	128	526/507①	153	257/239①
3	435	170	325	460	220	M10	165	186	130/150②	161/175①	140/160②	592/533①	153	312/253①
	b4	b6	b7	l1	l2	l3	l4 ②	l5	l6	l7	r1	r2		
1	248	195	210	32	80	8	122	195	168	538	555①	600		
3	280	220	218	47	100	8	124/134②	198	188	645	665/650①	675		

Monarch RL, Size 3

Size	Dimensions in mm													
	h1	h2	h3	h4	h6	d1	d2	d3	d4	d5	d6	b1	b2	b3 ①
3	435	170	150	325	220	M10	165	186	130/150②	161/175①	140/160②	612/553①	153	312/253①
	b4	b5	b6	b7	l1	l2	l3	l4	l5	l6	l7	l8	r1	r2
3	280	385	220	218	47	100	8	124/134②	198	188	645	220	665/650①	650

① For version E/version D

② For combustion head M2/1a, M5/2a

Weishaupt control panels and MCR technology

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Weishaupt control panels for

- two stage burners
- three stage burners
- sliding two stage burners and modulating burners

The basic control panels contain all burner controls, that means all inbuilt switchgear necessary for the operation of a burner.

Description

Weishaupt control panels conform to applicable national/international standards.

Switching includes

- Power supply
- Burner control
- Fan control
- Start-up/regulation
- Door mounted switches
- Door mounted indicating lamps

Individual customer requirements can be met at any time.



Weishaupt MCR technology for

- Boiler installations
- Thermal process equipment
- Ships execution
- Building management systems

Together with its core business of burners and heating systems, Weishaupt are able to offer complex control technology up to BMS level with SPS and DDC systems.

From planning to handover, tailor made solutions are available from one supplier.

Product and customer service- the complete Weishaupt range

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Regular maintenance reduces heating costs and environmental pollution. Only a properly adjusted burner can save energy and be environmentally friendly. Behind each Weishaupt customer service organisation. The outstanding efforts made in maintenance and service justify the enormous trust placed in Weishaupt's burners, for at Weishaupt product and customer service belong together.

Weishaupt customer service is there for you all year round. Whenever you need help, be it the supply of spare parts, technical advice or a site visit. We are there when you need us.