–weishaupt–

product

Information on oil, gas and dual-fuel burners

Industrial burners

Industrial burners (1000–11 700 kW) • versatile and reliable

Weishaupt industrial burners: Versatile and reliable

Worldwide, for more than 60 years, Weishaupt industrial burners have been a benchmark for reliability, energy efficiency, noise emissions, and ease of use.

With ratings between 1000 and 11 700 kW, the spectrum of possible applications ranges from heating and steam boilers to air heaters and the latest heavy-duty boilers.

Weishaupt's broad range of industrial burners can be used with almost any gaseous or liquid fuel, ensuring there is the right burner for virtually every job.

Contents

Weishaupt industrial burners: Powerful and versatile

Weishaupt industrial-series burners have been designed especially for industrial applications. The monobloc burners are noteworthy for their large capacity and their versatility, as well as numerous other interesting details:

Versatility
The burners can be used on heat exchangers such as hot water boilers, steam boilers, or air heaters, and for certain process applications. As the burners are capable of overcoming high combustion chamber resistances, they are primarily used on heavy-duty boilers.

Digital combustion management
Digital combustion management ensures the simple and safe operation of combustion plant. All important functions, such as fuel and air supply or flame monitoring, are controlled with digital precision. Operational functions are optimised, economy is maximised and emissions are minimised. The integral bus interface enables all necessary data and functions to be relayed to a master control system

Energy saving with VSD and O_2 trim
Electrical consumption is definitely a cost factor for large combustion plant. Variable speed drive (VSD) uses a frequency convertor to match the speed of the fan to the actual air requirement, allowing for sizeable electrical savings, particularly at partial load.

With O_2 trim, flue gases are continuously monitored to ensure the best possible degree of combustion efficiency and thus lower fuel consumption and increased reliability.

Fuels
- Light oil (<6 mm^2/s at 20 °C) in accordance with DIN 51 603
- MFO/HFO (<50 mm^2/s at 100 °C) in accordance with DIN 51 603
- Natural gas
- LPG

Permissible ambient conditions
- Ambient temperature during operation -10 to +40 °C (oil/dual-fuel burners) -15 to +40 °C (gas burners)
- Humidity: max. 80 % relative humidty, no condensation
- Suitable for operation indoors only
- For plant in unheated areas, certain further measures may be required (please enquire)

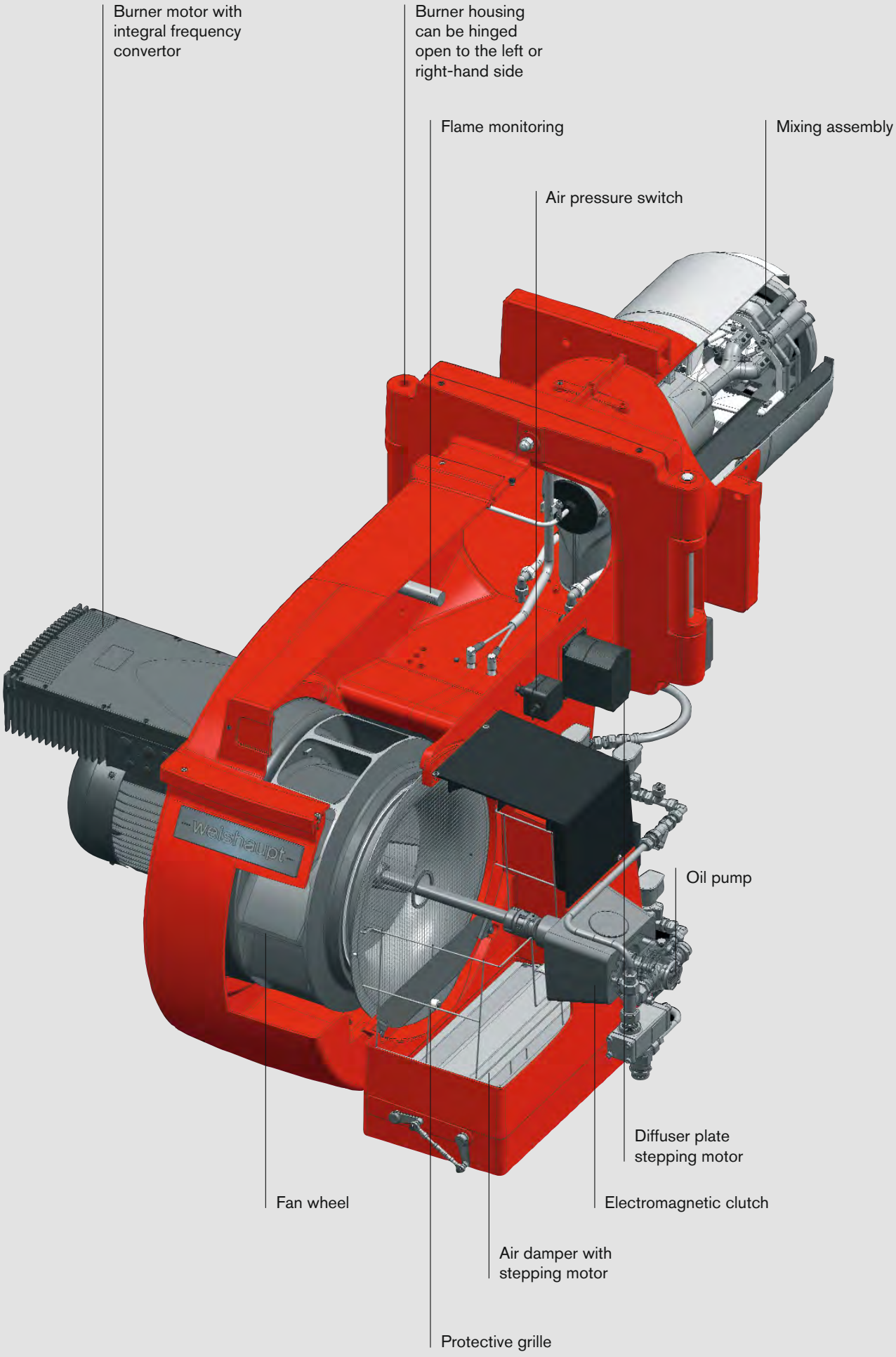
Use of the burner for other applications or in ambient conditions not detailed above is not permitted without the prior written agreement of Max Weishaupt GmbH. Service intervals will be reduced in accordance with the more extreme operational conditions.

Certification
The burners are tested by an independent body and conform to the following standards and EU directives:

- EN 267 and EN 676
- Machinery Directive, 2006/42/EC
- Electromagnetic Compatibility Directive, 2004/108/EC
- Low Voltage Directive, 2006/95/EC
- Gas Appliance Directive 90/396/EEC
- Pressure Equipment Directive, 97/23/EC
- The burners carry CE and CE-PIN marks in accordance with 90/396/EEC

Outstanding service
Weishaupt maintains an extensive global sales and service network. Customer service is available every day around the clock. In-house training by Weishaupt ensures the high standard of their service engineers.

The most important advantages:
- Large capacity and range of applications
- Stable fan characteristics
- Good combustion behaviour
- Burner housing can be hinged open
- Easy to install, commission and service
- Increased safety provided by nozzle-head shut-off device with solenoid
- Nozzle recirculation and precise oil temperature regulation on heavy-oil burners
- Compliance with all current emission standards worldwide
- Higher turndown (RL, RGL)


Burner motor with integral frequency convertor
Burner housing can be hinged open to the left or right-hand side
Flame monitoring
Mixing assembly
Air pressure switch
Oil pump
Diffuser plate stepping motor
Fan wheel
Electromagnetic clutch
Air damper with stepping motor
Protective grille

Characteristics

Standard version
Oil, gas, and dual-fuel burners for installations with no particular NO_x emission limits. Suitable for natural gas, LPG, and light and heavy oils, as well as special oils and gases upon application. Type-tested, standard-version, natural-gas and light-oil burners meet NO_x Class 1 requirements.

NR version
Gas and dual-fuel burners with a more advanced version of the standard mixing assembly for installations with gas-side NO_x emission limits. Compared to standard-version burners, NR-version burners have lower NO_x emissions when firing on gas. Oil-side emissions remain the same. Suitable for natural gas, LPG, and light and heavy oils. Type-tested, NR-version, natural-gas, LPG, and light-oil burners meet NO_x Class 2 (or Class 3) requirements when firing on gas and NO_x Class 1 requirements when firing on oil.

1LN version
Low-NO_x gas and dual-fuel burners with a special mixing assembly for installations with gas and oil-side NO_x emission limits. 1LN-version burners have lower NO_x emissions than NR-version burners. Suitable for natural gas, LPG, and light oil. Type-tested, 1LN-version, natural-gas, LPG, and light-oil burners meet NO_x Class 3 requirements when firing on gas and NO_x Class 2 requirements when firing on oil.

LN version
Low-NO_x gas burners with a special mixing assembly for installations with gas-side NO_x emission limits. LN-version burners have lower NO_x emissions than 1LN-version burners. Suitable for natural gas and LPG. Type-tested, LN-version, natural-gas burners meet NO_x Class 3 requirements.

3LN version
Ultra-Low-NO_x oil, gas, and dual-fuel burners with multiflam® mixing assemblies for installations with extremely low NO_x emission limits (suitable for three-pass and through-pass boilers only). The burners' extremely low NO_x emissions are achieved using a special fuel distribution system. Type-tested, 3LN-version, natural-gas and light-oil burners meet NO_x Class 3 requirements.

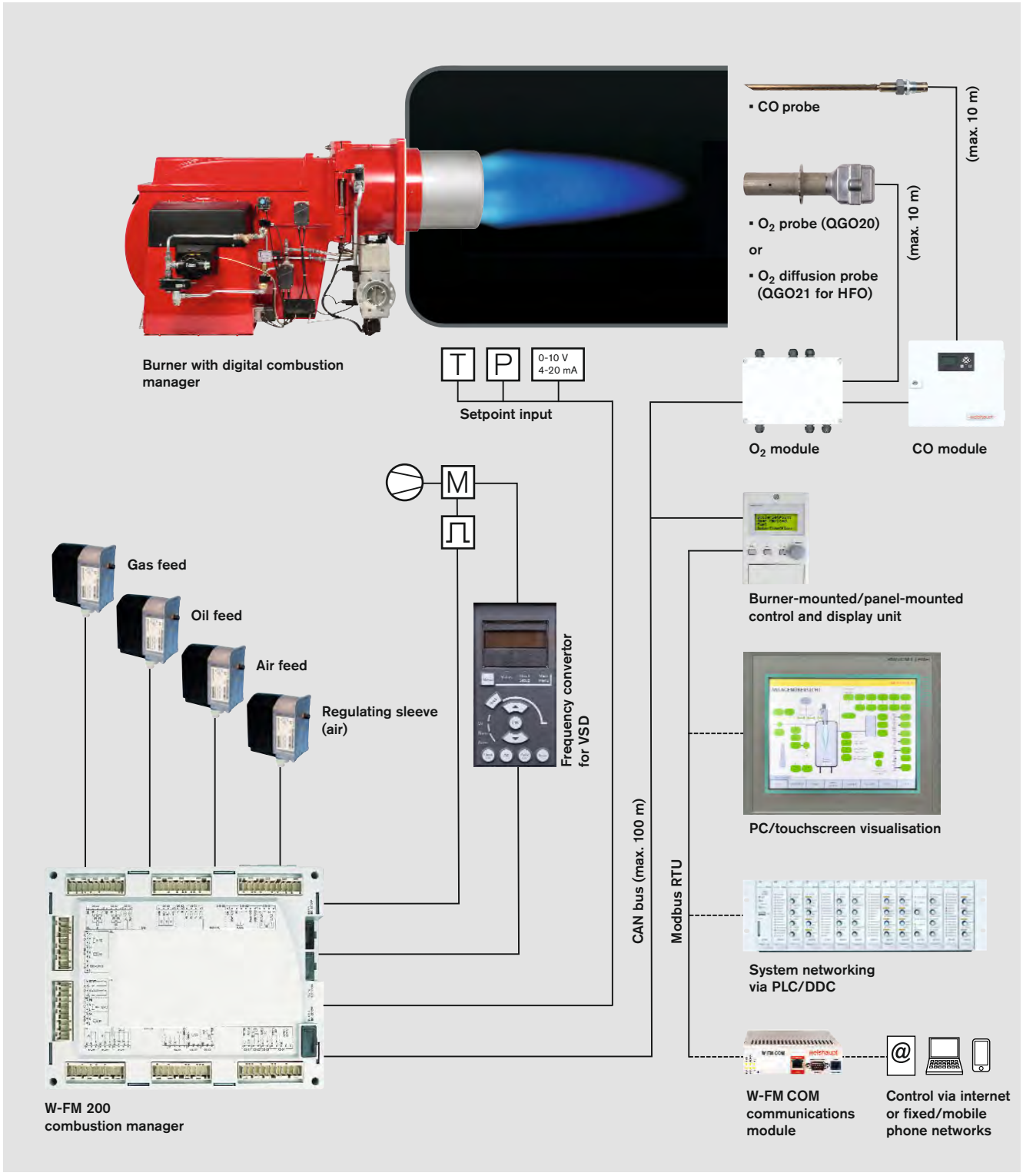
Notes
Gas-firing standard, NR, 1LN, and 3LN-version burners are equipped with a gas pilot line.

Project-specific NO_x emission figures can be found in our list of guaranteed NO_x figures (Print No. 83097202).

Combustion figures will vary, depending on combustion chamber geometry, volumetric loading and boiler design. The basic conditions listed in relation to measurement tolerances, temperature, pressure, humidity, etc. should be taken into consideration.

Digital combustion management General system overview	**W-FM 100**	**W-FM 200**
Single-fuel operation	●	●
Dual-fuel operation	●	●
Controller for intermittent operation	●	●
Controller for continuous operation	●	●
Flame sensor for intermittent operation	ION/QRI/QRB/QRA	ION/QRI/QRB/QRA
Flame sensor for continuous operation	ION/QRI	ION/QRI
Actuators in electronic compound (max.)	x 4	x 6
Actuators with stepping motors	●	●
Variable speed drive available		●
O_2 trim available		●
Gas valve proving	●	●
4-20 mA input signal	Optional	●
Integrated, self-checking PID controller for temperature or pressure	Optional	●
Removable operating unit (max. distance)	100 m	100 m
Fuel consumption meter (switchable)		●
Combustion efficiency display		●
eBUS / Modbus interface	●	●
PC-supported commissioning	●	●

Please enquire regarding connections available for additional functions, e.g. flue gas dampers, oil shut-off assemblies etc.


▪ CO probe
(max. 10 m)
▪ O_2 probe (QGO20)
or
▪ O_2 diffusion probe (QGO21 for HFO)
(max. 10 m)
Burner with digital combustion manager
T
P
0-10 V
4-20 mA
Setpoint input
O_2 module
CO module
M
Gas feed
Oil feed
Air feed
Regulating sleeve (air)
Frequency convertor for VSD
Burner-mounted/panel-mounted control and display unit
PC/touchscreen visualisation
CAN bus (max. 100 m)
Modbus RTU
System networking via PLC/DDC
W-FM COM communications module
Control via internet or fixed/mobile phone networks
W-FM 200 combustion manager

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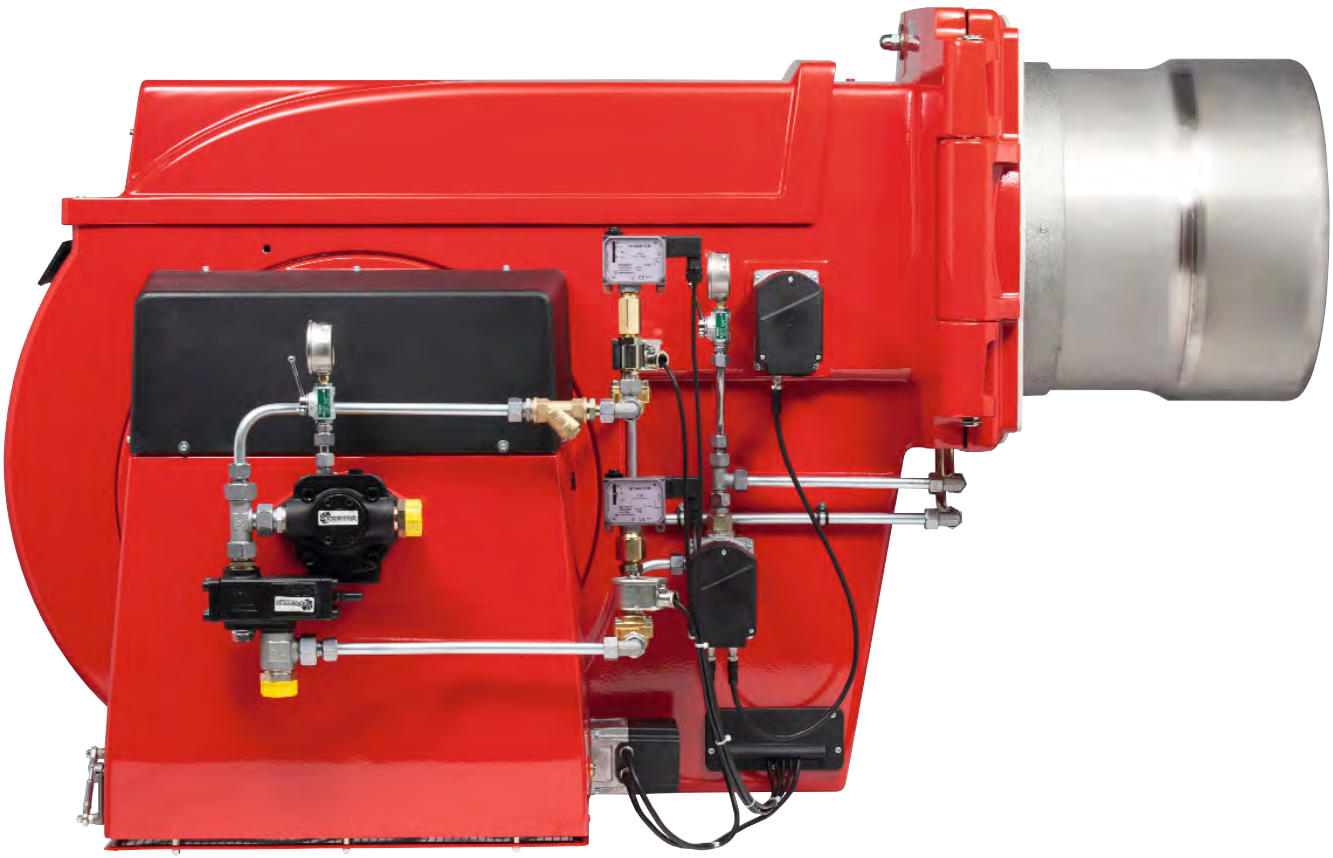
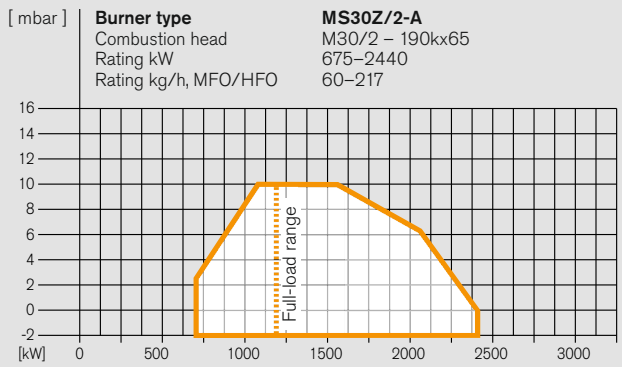
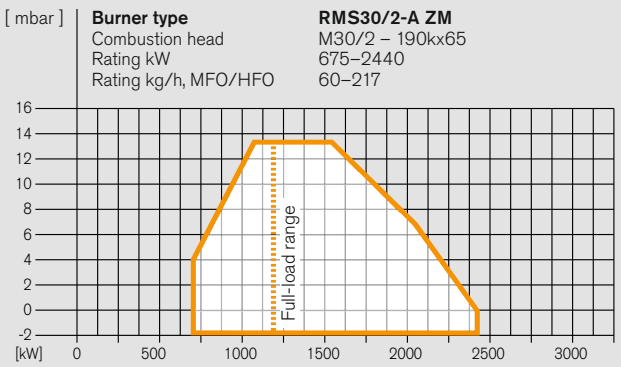
Oil burners



Burner selection
Size 30, standard version





Fuels
HFO

Stated oil throughputs are based on a calorific value of 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

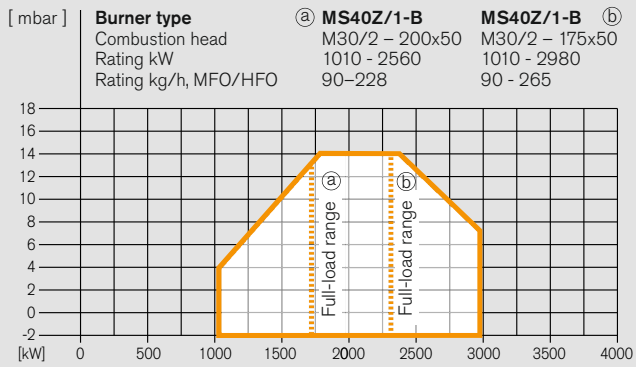
For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

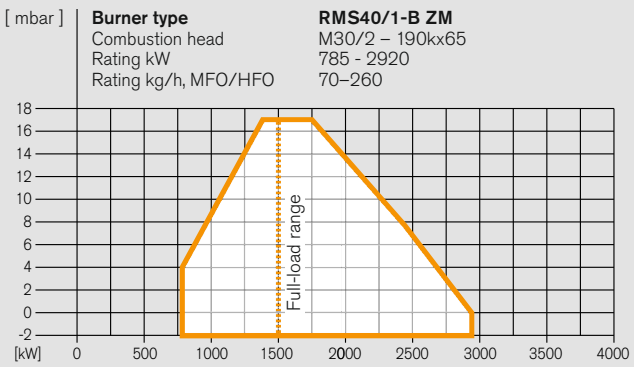
Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

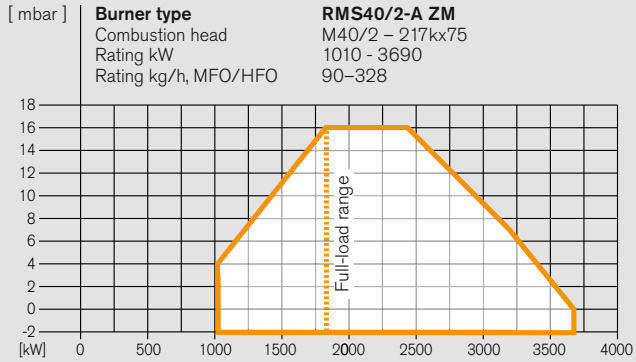
Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	DIN-CERTCO	Order No.
MS30Z/2-A	–	–	212 303 02
RMS30/2-A	ZM	–	212 305 02

Burner selection
Size 40, standard version







Burner type	Version	DIN-CERTCO	Order No.
MS40Z/1-B	–	–	212 402 00
RMS40/1-B	ZM	–	212 404 00
RMS40/2-A	ZM	–	212 405 02

Fuels
HFO

Stated oil throughputs are based on a calorific value of 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

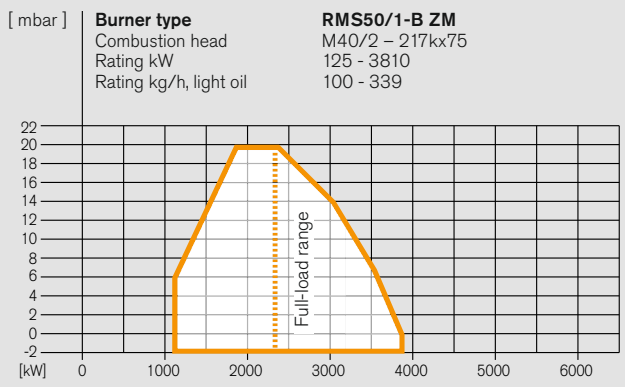
Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

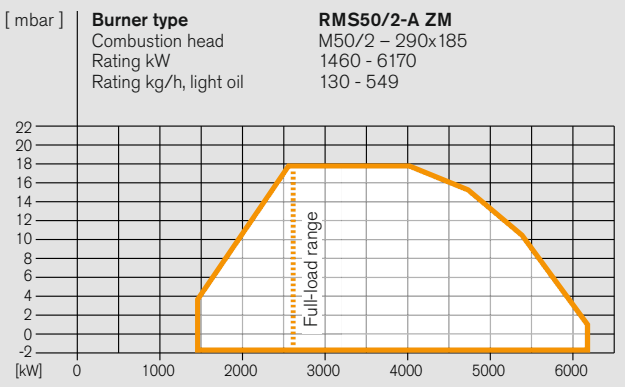
For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner selection
Size 50, standard version





Burner type	Version	DIN-CERTCO	Order No.
RMS50/1-B	ZM	–	212 504 00
RMS50/2-A	ZM	–	212 505 02

Fuels
HFO

Stated oil throughputs are based on a calorific value of 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

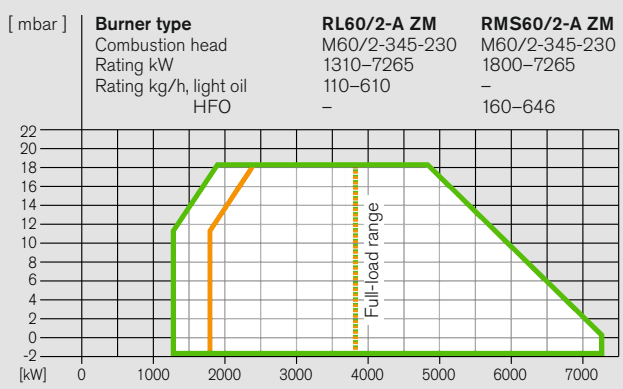
Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

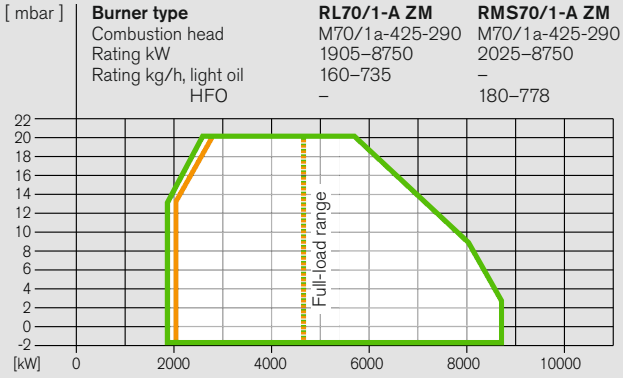
For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

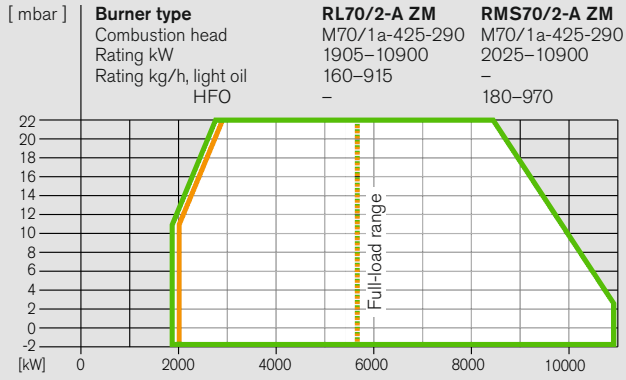
Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner selection
Sizes 60 and 70, standard version







Burner type	Version	DIN-CERTCO	Order No.
RL60/2-A	ZM	5G587/10	211 605 02
RMS60/2-A	ZM	–	212 605 02
RL70/1-A	ZM	5G588/10	211 704 02
RMS70/1-A	ZM	–	212 704 02
RL70/2-A	ZM	5G589/10	211 705 02
RMS70/2-A	ZM	–	212 705 02

Fuels
Light oil
HFO

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil and 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Scope of delivery, special equipment
Sizes 30 to 70, standard version

Scope of delivery	MS30	MS40	RMS30	RMS40	RMS50	RMS60	RMS70	RL60	RL70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, nozzle assembly with oil nozzle(s), combustion manager with control unit, flame sensor, stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●	●	●	●	●	●	●	●
W-FM 100 combustion manager	–	–	●	●	●	●	●	●	●
Air-pressure switch	–	–	–	–	–	●	●	–	–
Oil-pressure switch in return	●	●	●	●	●	●	●	●	●
Oil-pressure switch in supply	–	–	–	–	–	●	●	–	–
Mixing assembly with adjustable regulating sleeve	●	–	–	–	–	–	–	–	–
Mixing assembly with modulating regulating sleeve	–	–	●	●	●	●	●	●	●
Oil pump, fitted	●	●	●	●	●	–	–	●	●
Oil preheater, fitted	●	●	●	●	●	–	–	–	–
Oil hoses	●	●	●	●	●	●	●	●	●
3 oil solenoid valves, 1 safety valve, three-stage nozzle head without shut-off device	–	–	–	–	–	–	–	–	–
Solenoid valve in supply and return, nozzle assembly with shut-off device (solenoid for RL and RMS burners, hydraulically controlled ball valve for MS burners)	●	●	●	●	●	–	–	●	●
Solenoid valve in supply and return, bypass solenoid valve, nozzle assembly with shut-off device (solenoid)	–	–	–	–	–	●	●	–	–
Downward-firing version	●	●	●	●	●	●	●	●	●
Heated oil-side components	●	●	●	●	●	●	●	–	–

Special equipment	MS30	MS40	RMS30	RMS40	RMS50	RMS60	RMS70	RL60	RL70
Air-inlet flange for duct connection	○	○	○	○	○	○	○	○	○
Heated, stainless-steel oil hoses	○	○	○	○	○	○	○	–	–
Electromagnetic clutch	–	–	○	○	○	–	–	○	○
Combustion-head extension	○	○	○	○	○	○	○	○	○
Medium preheater with fittings	○	○	○	○	○	○	○	–	–
Variable speed drive	–	–	○	○	○	○	○	○	○
O_2 trim	–	–	○	○	○	○	○	○	○
W-FM supplied loose for mounting in a control panel	–	–	○	○	○	○	○	○	○
Bus interface	–	–	○	○	○	○	○	○	○
PED execution	○	○	○	○	○	○	○	○	○
Multi-language ABE	○	○	○	○	○	○	○	○	○

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

Technical data
Sizes 30 and 40, standard version

Technical data				MS30Z/2-A	RMS30/2-A
400 V, 3 ~ burner motor [1]			Type	W-D112/170-2/4K5	W-D112/170-2/4K5
Nominal rating			kW	4.5	4.5
Current draw at 400 V			A	9.5	9.5
Motor prefusing (ϒΔ motor start)			A	16	16
Speed (50 Hz)			rpm	2900	2900
Fan wheel			Colour / ø	blue / 268 x 104	blue / 268 x 104
Combustion manager			Type	LAL 2.25	W-FM 100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	1055/80	SQM45
	Fuel		Type	–	SQM45
	Mixing assembly		Type	–	SQM45
Integral pump			Type	E7	TA3
Oil preheater			Type	EV2D	EV2D
	Oil throughput		kg/h	270	270
	Heating capacity		kW	13.2	13.2
Oil solenoid valves	230 V, ⅛"	19 W	Type	121 K 2423	–
	230 V, ⅛"	19 W	Type	122 K 9321	–
	115 V, ⅜" (supply)	20 W	Type	321 H 2322	321 H 2322
	115 V, ⅜" (return)	20 W	Type	121 G 2320	121 G 2320
Oil pressure switch	1–10 bar (return, light oil - 5 bar)		Type	–	–
	1–10 bar (return, HFO - 7 bar)		Type	DSA 46 F001	DSA 46 F001
Oil hoses			DN / length	20/1000	20/1000
(metal, high-pressure hoses on MS, RMS and RGMS burners)				20/1300	20/1300
Burner weight			kg (approx.)	135	140

Technical data				MS40Z/1-B	RMS40/1-B	RMS40/2-A
400 V, 3 ~ burner motor [1]			Type	W-D112/170-2/5K5	W-D112/170-2/5K5	W-D112/170-2/7K0
Nominal rating			kW	5.5	5.5	7
Current draw at 400 V			A	14	14	15
Motor prefusing (ϒΔ motor start)			A	20	20	25
Speed (50 Hz)			rpm	2940	2940	2940
Fan wheel			Colour / ø	blue / 295 x 104	blue / 295 x 104	blue / 295 x 104
Combustion manager			Type	LAL2.25	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02	W-ZG02
Actuator	Air		Type	SQM10	SQM45	SQM45
	Fuel		Type	–	SQM45	SQM45
	Mixing assembly		Type	–	SQM45	SQM45
Integral pump			Type	E7	TA3	TA3
Oil preheater			Type	EV2D	EV2D	EV2D [2) 3)]
	Oil throughput		kg/h	270	270	270
	Heating capacity		kW	13.2	13.2	13.2
Oil solenoid valves	230 V, ⅛"	19 W	Type	121 K 2423	–	–
	230 V, ¼" (safety valve)	20 W	Type	–	–	–
	230 V, ⅛"	19 W	Type	122K9321	–	–
	115 V, ⅜" (supply)	20 W	Type	321 H 2322	321 H 2322	321 H 2322
	115 V, ⅜" (return)	20 W	Type	121 G 2320	121 G 2320	121 G 2320
Oil pressure switch	1–10 bar (return, light oil - 5 bar)		Type	–	–	–
	1–10 bar (return, HFO - 7 bar)		Type	DSA 46 F001	DSA 46 F001	DSA 46 F001
Oil hoses			DN / length	20/1000	20/1000	20/1000
(metal, high-pressure hoses on MS, RMS and RGMS burners)				20/1300	20/1300	20/1300
Burner weight			kg (approx.)	159	166	172

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Burners > 270 kg/h: WEV2.2 oil preheater in lieu of EV2D, see special equipment for additional price.
[3] Burners > 300 kg/h: WEV3 oil preheater in lieu of WEV2.2, see special equipment for additional price.

Technical data
Size 50, standard version

Technical data				RMS50/1-B	RMS50/2-A
400 V, 3 ~ burner motor [1]			Type	W-D132/170-2/9K0	W-D132/210-2/14K0
Nominal rating			kW	9	14
Current draw at 400 V			A	18	28
Motor pre-fusing (ϒΔ motor start)			A	35	50
Speed (50 Hz)			rpm	2930	2920
Fan wheel			Colour / ø	blue / 345 x 104.5	blue / 345 x 104.5
Combustion manager			Type	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM45	SQM45
	Fuel		Type	SQM45	SQM45
	Mixing assembly		Type	SQM45	SQM45
Integral pump			Type	TA4C	T2C
Oil preheater			Type	WEV2.2/01 [2]	WEV3/01
	Oil throughput		kg/h	300	500
	Heating capacity		kW	13.8	22.4
Oil solenoid valves	115 V, ⅜" (supply)	20 W	Type	321 H 2322	321 H 2322
	115 V, ⅜" (return)	20 W	Type	121 G 2320	121 G 2320
Oil pressure switch	1–10 bar (return, light oil - 5 bar)		Type	–	–
	1–10 bar (return, HFO - 7 bar)		Type	DSA 46 F001	DSA 46 F001
Oil hoses			DN / length	25 / 1150	25 / 1150
(metal, high-pressure hoses on MS, RMS and RGMS burners)				25 / 1500	25 / 1500
Burner weight			kg (approx.)	248	250

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Burners > 300 kg/h: WEV3 oil preheater in lieu of WEV2.2, see special equipment for additional price.

Technical data
Sizes 60 and 70, standard version

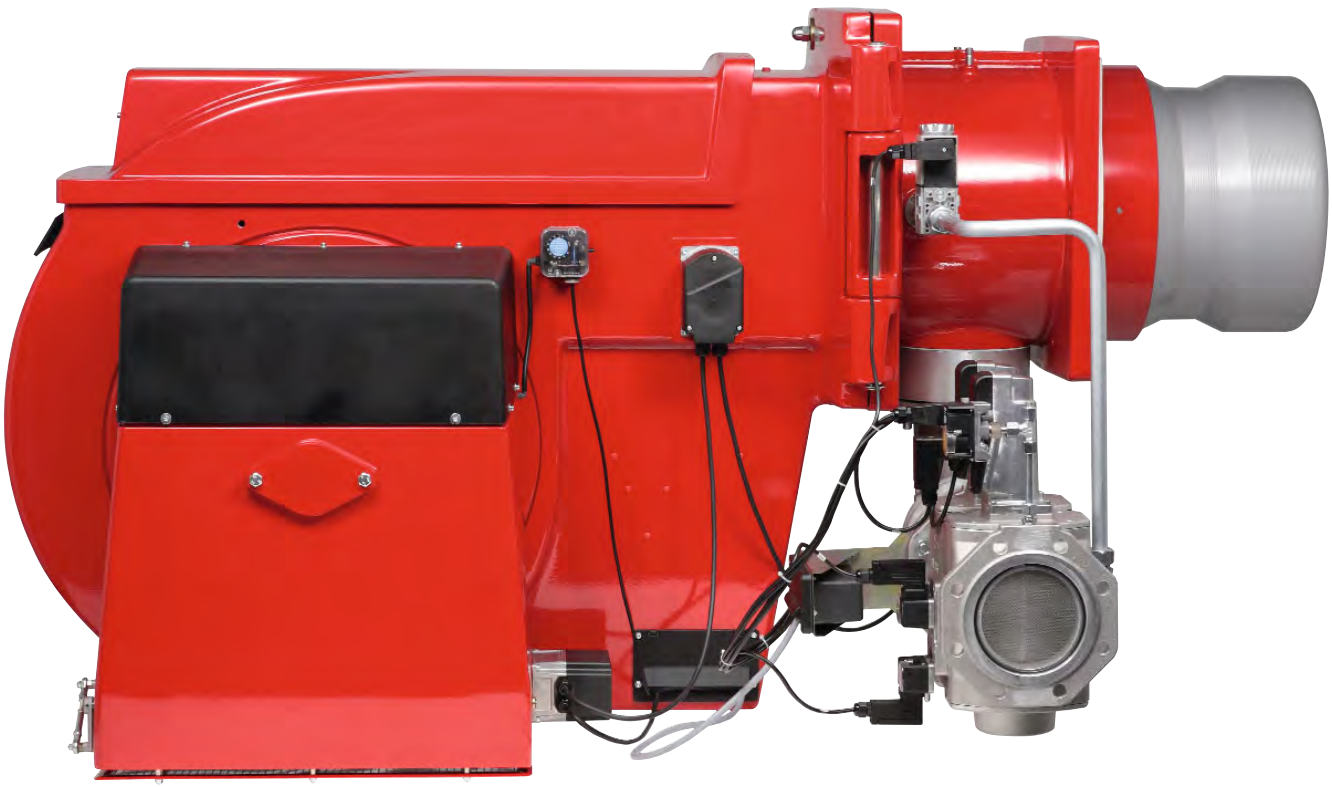
Technical data				RL60/2-A	RMS60/2-A
400 V, 3 ~ burner motor [1]			Type	W-D132/210-2/14K0	W-D132/210-2/14K0
Nominal rating			kW	14	14
Current draw at 400 V			A	28	28
Motor pre-fusing (ϒΔ motor start)			A	50	50
Speed (50 Hz)			rpm	2920	2920
Fan wheel			Colour / ø	blue / 515 x 120	blue / 515 x 120
Combustion manager			Type	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM48	SQM48
	Fuel		Type	SQM45	SQM45
	Mixing head		Type	SQM45	SQM45
Integral pump			Type	T2C	–
Oil solenoid valves	115 V, ⅜" (supply)	20 W	Type	321 H 2322	321 H 2322
	115 V, ⅜" (return)	20 W	Type	121 G 2320	121 G 2320
	230 V, ⅜" (bypass)	19 W	Type	–	322 H 7306
Oil pressure switch	3–25 bar (supply - 18 bar)		Type	–	DSA 58 F 001
	1–10 bar (return, light oil - 5 bar)		Type	DSA 46 F 001	–
	1–10 bar (return, HFO - 7 bar)		Type	–	DSA 46 F 001
Oil hoses			DN / length	25 / 1300 (x 2)	16 / 1150
(metal, high-pressure hoses on RMS and RGMS burners)				–	16 / 1500
Burner weight			kg (approx.)	250	210 [2]

Technical data				RL70/1-A	RL70/2-A	RMS70/1-A	RMS70/2-A
400 V, 3 ~ burner motor [1]			Type	W-D160/240-2/18K0	W-D160/240-2/22K0	W-D160/240-2/18K0	W-D160/240-2/22K0
Nominal rating			kW	18	22	18	22
Current draw at 400 V			A	35	43	35	43
Motor pre-fusing (ϒΔ motor start)			A	50	63	50	63
Speed (50 Hz)			rpm	2950	2940	2950	2940
Fan wheel			Colour / ø	green / 530 x 120	blue / 590 x 160	green / 530 x 120	blue / 590 x 160
Combustion manager			Type	W-FM100	W-FM100	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02	W-ZG02	W-ZG02
Actuator	Air		Type	SQM48	SQM48	SQM48	SQM48
	Fuel		Type	SQM45	SQM45	SQM45	SQM45
	Mixing head		Type	SQM45	SQM45	SQM45	SQM45
Integral pump			Type	T2C (up to 600 kg/h)	T2C (up to 600 kg/h)	–	–
			Type	T3C (from 600 kg/h)	T3C (from 600 kg/h)	–	–
Oil solenoid valves	115 V, ½" (supply)	20 W	Type	321 H 2522	321 H 2522	321 H 2522	321 H 2522
	15 V, ½" (return)	20 W	Type	121 G 2520	121 G 2520	121 G 2520	121 G 2520
	230 V, ⅜" (bypass)	19 W	Type	–	–	322 H 7306	322 H 7306
Oil pressure switch	3–25 bar (supply - 18 bar)		Type	–	–	DSA 58 F 001	DSA 58 F 001
	1–10 bar (return, light oil - 5 bar)		Type	DSA 46 F 001	DSA 46 F 001	–	–
	1–10 bar (return, HFO - 7 bar)		Type	–	–	DSA 46 F 001	DSA 46 F 001
Oil hoses			DN / length	25 / 1300 (x 2)	25 / 1300 (x 2)	20/1150	20/1150
(metal, high-pressure hoses on RMS and RGMS burners)				–	–	20/1500	20/1500
Burner weight			kg (approx.)	350	350	310 [2]	310 [2]

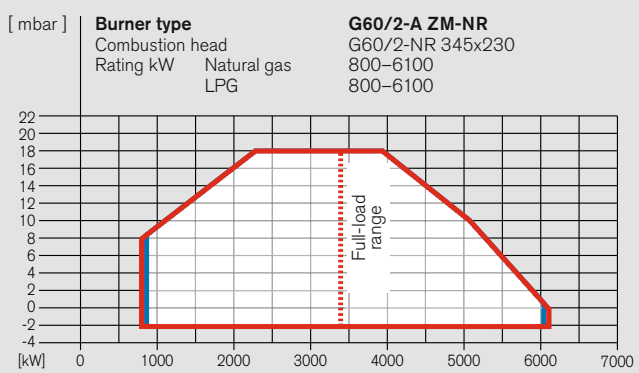
[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Weight excluding pump and preheater stations.

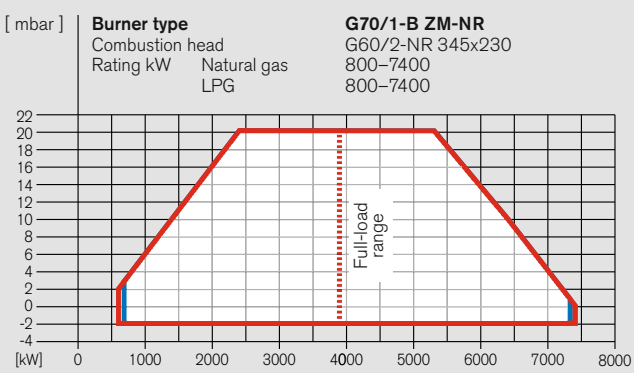
weishaupt

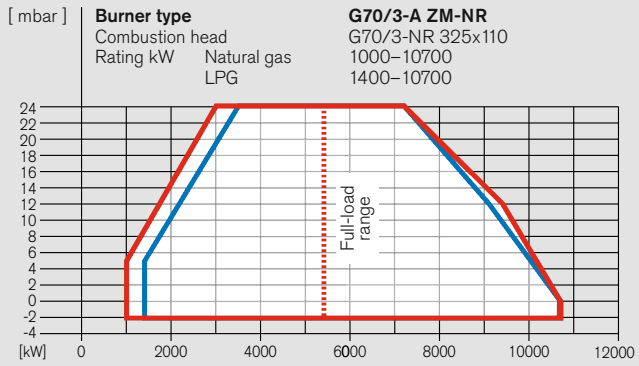
Gas burners

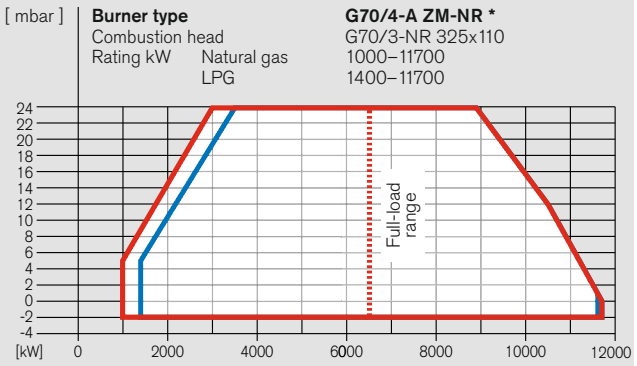


Burner selection
Sizes 60 and 70, version NR









Fuels
Natural gas
LPG

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 efficiency at 50/60 Hz (no IE classification at 55 Hz).

Burner type	Version	CE-PIN	Valve train	Order No.
G60/2-A	ZM-NR	CE-0085-AQ 0722	DN 65	217 605 42
			DN 80	217 605 52
			DN 100	217 605 62
			DN 125	217 605 72
			DN 150	217 605 82
G70/1-B	ZM-NR	CE-0085-AQ 0723	DN 65	217 704 42
			DN 80	217 704 52
			DN 100	217 704 62
			DN 125	217 704 72
			DN 150	217 704 82
G70/3-A	ZM-NR	CE-0085-AQ 0723	DN 65	217 714 14
			DN 80	217 714 15
			DN 100	217 714 16
			DN 125	217 714 17
			DN 150	217 714 18
G70/4-A *	ZM-NR	CE-0085-AQ 0723	DN 65	217 734 14
			DN 80	217 734 15
			DN 100	217 734 16
			DN 125	217 734 17
			DN 150	217 734 18

* Equipped with W-FM 200 and VSD as standard (55 Hz)

Gas valve train sizing
Size 60, version NR

Type 60/2-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter**						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter**					
	2"	**65**	**80**	**100**	**125**	**150**	**2"**	**65**	**80**	**100**	**125**	**150**
	Nom. diameter of gas butterfly						Nom. diameter of gas butterfly					
	100	100	100	100	100	100	100	100	100	100	100	100
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3400	142	72	44	30	25	23	68	37	28	21	20	19
3700	169	86	54	36	31	28	82	45	34	27	25	24
4100	207	106	66	45	38	35	102	57	43	34	31	30
4500	250	127	80	54	46	42	123	69	52	41	38	37
4900	295	150	94	63	54	49	145	81	62	49	45	44
5300	-	174	109	73	62	56	169	94	72	56	52	50
5700	-	200	124	83	70	64	194	108	82	64	59	57
6100	-	227	140	93	78	71	-	122	92	71	66	64
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3400	199	98	58	37	30	27	94	49	35	26	23	23
3700	238	117	71	45	37	34	113	60	44	33	30	29
4100	293	145	88	57	47	42	140	75	55	42	38	37
4500	-	175	106	68	57	51	169	91	67	51	46	45
4900	-	207	125	81	67	60	-	108	80	60	55	53
5300	-	241	145	93	77	69	-	125	92	70	64	61
5700	-	277	166	106	87	78	-	144	105	79	72	70
6100	-	-	188	119	98	87	-	-	119	89	81	78
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3400	68	39	28	22	20	20	36	24	20	17	17	16
3700	81	47	34	27	24	23	44	29	24	21	20	20
4100	99	58	41	33	30	29	54	36	30	27	26	25
4500	119	69	49	39	36	34	66	43	37	32	31	30
4900	141	81	58	45	41	40	77	51	43	38	36	36
5300	164	94	67	52	48	45	90	60	50	44	42	41
5700	188	107	76	59	54	51	104	68	57	50	48	47
6100	214	122	86	67	60	58	118	77	65	56	54	53

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Size 70, version NR

Type 70/1-B, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3900	189	97	62	42	36	33	93	53	41	32	30	29
4400	239	122	77	52	44	41	118	66	50	40	37	36
4900	295	150	93	63	53	49	145	81	61	48	44	43
5400	-	180	112	75	63	57	175	97	73	57	53	51
5900	-	213	132	87	73	67	-	115	86	67	62	60
6400	-	249	153	101	85	77	-	134	101	78	72	70
6900	-	288	177	116	97	88	-	154	116	90	82	80
7400	-	-	202	132	110	100	-	177	132	102	94	91
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3900	268	134	82	54	46	41	130	71	53	41	37	36
4400	-	170	104	68	57	52	164	90	67	51	47	46
4900	-	209	127	83	69	63	-	110	82	63	58	56
5400	-	253	153	100	83	75	-	133	99	76	69	67
5900	-	-	182	117	97	88	-	158	117	89	82	79
6400	-	-	212	137	113	102	-	185	137	104	95	92
6900	-	-	245	157	129	116	-	-	158	119	109	105
7400	-	-	280	179	147	132	-	-	180	136	124	120
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3900	82	45	30	22	20	18	41	25	20	16	15	15
4400	105	57	39	29	25	24	54	33	26	22	21	20
4900	130	71	48	35	31	30	67	41	33	28	26	26
5400	158	86	58	42	38	35	82	50	40	34	32	31
5900	188	101	68	50	44	41	97	60	48	40	38	37
6400	220	118	79	58	51	48	114	69	56	47	44	43
6900	254	136	90	66	58	54	132	80	64	53	50	49
7400	291	155	103	74	65	61	150	91	73	60	57	56

Type 70/4-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
6500	219	119	66	49	41	99	65	42	35	33
7000	253	138	76	56	47	115	75	48	41	38
7500	290	158	87	64	53	132	86	55	47	44
8000	-	179	98	72	60	150	98	63	53	50
9000	-	226	123	90	75	190	124	79	67	63
10000	-	278	151	111	92	-	153	97	82	77
11000	-	-	182	133	110	-	184	117	99	93
11700	-	-	205	150	124	-	-	133	112	105
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
6500	-	170	93	68	56	142	93	59	50	46
7000	-	197	107	78	65	165	107	68	57	53
7500	-	226	122	89	74	189	123	78	66	61
8000	-	256	138	101	83	-	140	88	74	69
9000	-	-	174	127	104	-	176	111	94	87
10000	-	-	214	155	128	-	-	137	115	107
11000	-	-	258	187	154	-	-	165	139	130
11700	-	-	291	211	173	-	-	187	157	146
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
6500	96	56	34	27	24	46	32	23	20	19
7000	110	63	37	29	26	52	36	25	22	21
7500	125	71	42	32	28	59	40	27	24	23
8000	141	80	46	36	31	66	45	30	26	25
9000	177	99	57	44	37	83	56	38	33	31
10000	218	122	70	53	46	102	69	46	40	38
11000	264	148	85	65	55	124	84	57	49	47
11700	299	167	96	74	63	142	96	65	57	54

Type 70/3-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
5300	146	80	45	33	28	66	43	28	24	22
6000	187	102	57	42	35	85	56	36	30	28
7000	253	138	76	56	47	115	75	48	41	38
8000	-	179	98	72	60	150	98	63	53	50
9000	-	226	123	90	75	190	124	79	67	63
10000	-	278	151	111	92	-	153	97	82	77
10700	-	-	172	126	105	-	175	111	94	88
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5300	210	115	63	46	39	95	62	40	33	31
6000	269	146	79	58	49	122	79	50	42	40
7000	-	197	107	78	65	165	107	68	57	53
8000	-	256	138	101	83	-	140	88	74	69
9000	-	-	174	127	104	-	176	111	94	87
10000	-	-	214	155	128	-	-	137	115	107
10700	-	-	244	177	146	-	-	156	132	123
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5300	69	42	27	23	20	35	25	19	17	16
6000	84	49	31	25	22	41	29	21	18	18
7000	110	63	37	29	26	52	36	25	22	21
8000	141	80	46	36	31	66	45	30	26	25
9000	177	99	57	44	37	83	56	38	33	31
10000	218	122	70	53	46	102	69	46	40	38
10700	250	140	80	61	52	117	80	54	46	44

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery, special equipment
Sizes 60 and 70, version NR

Scope of delivery	G60	G70 / 70/4	
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, combustion manager with control unit, flame sensor, stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●	●
W-FM 100 combustion manager	●	●	–
W-FM 200 combustion manager	–	–	●
Double gas valve assembly (Class A)	●	●	●
Gas butterfly valve	●	●	●
Pilot line solenoid valve (Class A)	●	●	●
Air pressure switch	●	●	●
Low gas pressure switch	●	●	●
Mixing assembly with modulating regulating sleeve	●	●	●
Actuators for compound regulation of gas and air via W-FM:			
Air damper stepping motor	●	●	●
Gas butterfly valve stepping motor	●	●	●
Regulating sleeve stepping motor	●	●	●

Special equipment	G60	G70 / 70/4	
Downward-firing version	○	○	○
Air inlet flange for duct connection	○	○	○
Solenoid valve for air pressure switch test with continuously running fan or post-purge	○	○	○
Combustion head extension	○	○	○
Integral capacity controller for W-FM 100	○	○	–
VSD	○	○	●
O_2 trim	○	○	○
W-FM supplied loose for mounting in a control panel	○	○	○
Bus interface	○	○	○
High gas pressure switch	○	○	○
Multi-language ABE	○	○	○
Offset gas butterfly valve and DMV	○	○	○

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

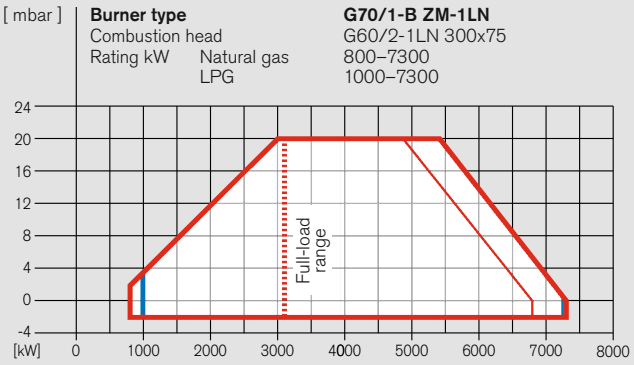
Technical data
Sizes 60 and 70, version NR

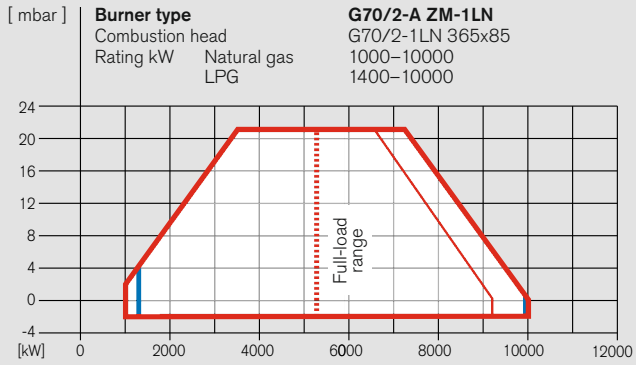
Technical data			G60/2-A		G70/1-B		G70/3-A		G70/4-A	
400 V, 3 ~ burner motor [1]		Type	W-D132/210-2/14K0		W-D160/240-2/18K0		W-D160/240-2/22K0		W-D160/240-2/28K0	
Nominal rating		kW	14		18		22		28	
Current draw at 400 V		A	28		35		43		53	
Motor prefusing (ϒΔ motor start)		A	50		63		63		*	
Speed (50 Hz)		rpm	2920		2950		2940		3220	
Fan wheel		colour / ø	blue / 515 x 120		blue / 590 x 160		blue / 590 x160		blue / 590 x 160	
Combustion manager		Type	W-FM100		W-FM100		W-FM100		W-FM200	
Ignition unit		Type	W-ZG02		W-ZG02		W-ZG02		W-ZG02	
Actuator	Air	Type	SQM48		SQM48		SQM48		SQM48	
	Mixing assembly	Type	SQM45		SQM45		SQM48		SQM48	
	Fuel	Type	SQM45		SQM45		SQM45		SQM45	
Burner weight		kg (approx.)	275		390		420		420	
Weight (gas valve assembly and fittings)		R / DN	1½	2	65	80	100	125	150	
		kg (approx.)	13	24	23	31	39	37	48	

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

* 55 Hz operation with frequency convertor only (no IE classification).

Burner selection
Size 70, version 1LN





Fuels – Rating with combustion head:

	Open	Closed
Natural gas		
LPG		

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	CE-PIN	Valve train	Order No.
G70/1-B	ZM-1LN	CE-0085AQ 0723	DN 65	217 704 45
			DN 80	217 704 55
			DN 100	217 704 65
			DN 125	217 704 75
			DN 150	217 704 85
G70/2-A	ZM-1LN	CE-0085AQ 0723	DN 65	217 705 45
			DN 80	217 705 55
			DN 100	217 705 65
			DN 125	217 705 75
			DN 150	217 705 85

Gas valve train sizing
Size 70, version 1LN

Type 70/1-B, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
3100	74	52	40	36	34	45	38	32	31	30
3700	95	63	45	40	37	54	43	36	34	33
4300	120	77	53	46	42	66	52	41	38	38
4900	151	94	64	54	50	82	62	49	45	44
5500	186	115	77	65	59	100	76	59	54	53
6100	227	140	92	78	70	122	92	71	65	63
6700	273	168	111	93	84	146	110	85	78	76
7300	-	199	131	110	100	174	131	102	94	91
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
3100	101	68	51	45	43	60	49	41	39	38
3700	131	84	59	51	47	73	57	46	43	42
4300	167	104	70	59	54	90	69	54	50	48
4900	211	129	85	71	64	112	84	64	59	57
5500	262	159	103	85	77	138	102	78	71	69
6100	-	193	125	103	93	168	124	94	86	83
6700	-	232	150	123	111	-	150	114	104	101
7300	-	276	178	147	132	-	179	136	124	120
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
3100	51	42	37	35	34	38	34	32	32	31
3700	62	49	42	39	38	44	39	36	35	35
4300	76	59	49	46	44	53	47	43	41	41
4900	94	71	58	54	53	64	56	51	49	49
5500	115	86	70	65	63	78	68	61	59	59
6100	139	103	84	78	75	95	82	74	71	71
6700	167	124	100	93	89	113	99	88	86	85
7300	198	146	119	110	106	135	117	105	102	101

Type 70/2-A, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
5300	153	87	51	40	34	72	50	34	30	28
5900	188	106	62	48	41	89	61	42	36	35
6500	227	128	74	57	49	107	73	50	44	41
7100	269	151	87	67	58	128	87	59	52	49
7700	-	177	102	78	67	150	102	69	60	57
8300	-	205	118	90	77	174	118	80	70	66
8900	-	235	135	103	88	200	135	92	80	76
9500	-	267	153	116	99	-	154	104	91	86
10000	-	296	169	129	110	-	171	115	100	95
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5300	215	119	67	51	43	100	67	44	38	36
5900	266	148	84	63	54	124	83	55	48	45
6500	-	179	101	77	65	151	101	67	58	55
7100	-	213	120	91	77	180	121	80	70	66
7700	-	250	141	106	90	-	142	94	82	77
8300	-	290	163	123	104	-	165	109	94	89
8900	-	-	186	140	119	-	189	125	108	102
9500	-	-	211	159	134	-	-	142	122	115
10000	-	-	233	175	147	-	-	157	135	127
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5300	75	48	33	29	27	41	31	25	23	23
5900	92	59	41	35	32	50	39	31	29	28
6500	111	71	49	42	39	61	47	37	35	34
7100	132	84	58	49	45	73	56	44	41	40
7700	155	98	67	57	53	85	66	52	48	47
8300	179	113	77	66	60	99	76	60	56	54
8900	205	129	88	75	69	113	87	69	64	62
9500	233	146	99	84	77	128	98	78	72	70
10000	257	161	109	93	85	142	109	86	80	78

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery, special equipment
Size 70, version 1LN

Scope of delivery	G70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, combustion manager with control unit, flame sensor, stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●
W-FM 100 combustion manager	●
Double gas valve assembly (Class A)	●
Gas butterfly valve	●
Pilot line	●
Air pressure switch	●
Low gas pressure switch	●
Mixing assembly with adjustable regulating sleeve	●
Actuators for compound regulation of gas and air via W-FM	
Air damper stepping motor	●
Gas butterfly valve stepping motor	●

Special equipment	G70
Downward-firing version	○
Air inlet flange for duct connection	○
Solenoid valve for air pressure switch test with continuously running fan or post purge	○
Combustion head extension	○
Integral capacity controller for W-FM 100	○
Variable speed drive	○
O_2 trim	○
W-FM supplied loose for mounting in a control panel	○
Bus interface	○
High gas pressure switch	○

● Standard
○ Optional

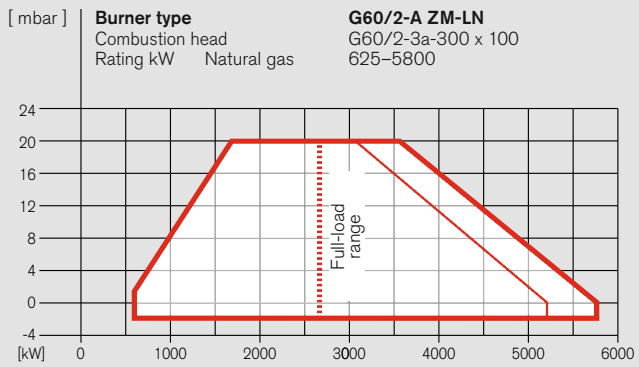
Please enquire or see the price list for additional special equipment.

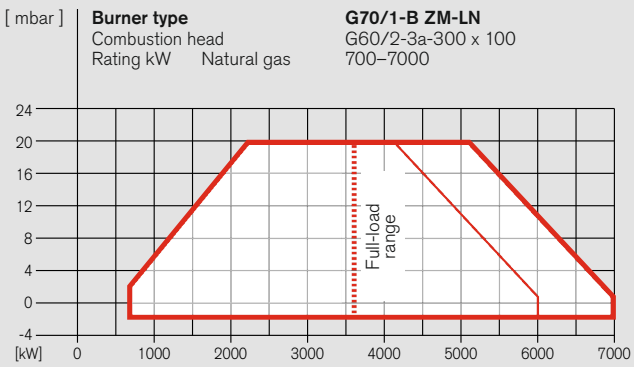
Technical data
Size 70, version 1LN

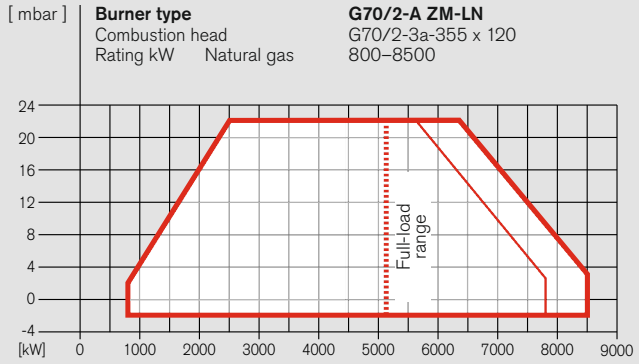
Technical data			G70/1-B					G70/2-A	
400 V, 3 ~ burner motor [1]		Type	W-D160/240-2/18K0					W-D160/240-2/22K0	
Nominal rating		kW	18					22	
Current draw at 400 V		A	35					43	
Motor prefusing (ϒΔ motor start)		A	63					63	
Speed (50 Hz)		rpm	2950					2940	
Fan wheel		Colour / ø	blue / 590 x 160					blue / 590 x 160	
Combustion manager		Type	W-FM100					W-FM100	
Ignition unit		Type	W-ZG02					W-ZG02	
Actuatorr	Air	Type	SQM48					SQM48	
	Fuel	Type	SQM45					SQM45	
Burner weight		kg (approx.)	185					390	
Weight (gas valve assembly and fittings)		R / DN	1½	2	65	80	100	125	150
		kg (approx.)	13	24	23	31	39	37	48

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

Burner selection
Sizes 60 and 70, version LN







Burner type	Version.	CE-PIN	Valve train	Order No.
G60/2-A	ZM-LN	CE-0085AQ 0722	R 2	217 605 13
			DN 65	217 605 43
			DN 80	217 605 53
			DN 100	217 605 63
			DN 125	217 605 73
			DN 150	217 605 83
G70/1-B	ZM-LN	CE-0085AQ 0723	DN 65	217 704 43
			DN 80	217 704 53
			DN 100	217 704 63
			DN 125	217 704 73
			DN 150	217 704 83
G70/2-A	ZM-LN	CE-0085AQ 0723	DN 65	217 705 43
			DN 80	217 705 53
			DN 100	217 705 63
			DN 125	217 705 73
			DN 150	217 705 83

Fuels – Rating with combustion head:

	open	closed
Natural gas	———	———

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Gas valve train sizing
Sizes 60 and 70, version LN

Type 60/2-A, version LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100	High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³		
2700	92 48 31 22 19 17	45 25 19 15 14 14
3000	114 59 38 27 23 22	56 32 25 20 19 18
3300	138 72 46 32 28 26	68 39 30 24 23 22
3600	163 85 54 38 33 30	81 47 36 29 27 26
3900	191 99 63 44 38 35	95 54 42 34 31 30
4200	220 113 72 50 43 39	109 62 48 38 36 35
4500	251 129 81 56 48 44	124 71 54 43 40 39
4800	285 145 91 62 53 48	140 79 60 48 44 43
5200	- 168 104 70 59 54	162 90 69 54 50 48
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³		
2700	126 62 37 24 19 17	58 30 22 16 14 14
3000	158 79 48 31 26 24	75 40 29 22 20 20
3300	192 96 59 39 33 30	92 50 37 29 26 25
3600	229 115 71 47 40 36	111 61 46 35 32 31
3900	269 135 84 55 47 42	131 72 54 42 38 37
4200	- 157 96 64 54 49	151 83 63 48 45 43
4500	- 179 110 73 61 55	173 95 71 55 51 49
4800	- 203 124 82 68 62	197 108 81 62 57 55
5200	- 235 142 93 77 69	- 124 92 70 64 62

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Type 70/1-B, version LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100	High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³		
3600	82 52 36 30 28	44 34 27 25 24
4000	102 64 44 37 34	55 42 33 31 30
4400	122 77 52 44 41	66 50 40 37 36
4800	144 90 61 52 47	78 59 47 43 42
5200	167 104 70 59 54	90 68 53 49 48
5600	192 119 79 66 60	103 78 60 56 54
6000	218 134 88 74 67	117 87 67 62 60
6400	246 150 98 82 74	131 98 75 69 67
7000	290 175 113 94 84	152 113 86 78 76
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³		
3600	113 69 45 38 34	59 43 33 30 29
4000	141 86 57 47 43	74 55 42 39 38
4400	170 105 69 58 52	90 68 52 48 46
4800	202 124 81 68 61	107 80 62 57 55
5200	236 144 94 78 71	125 93 72 66 64
5600	272 165 107 89 80	144 107 82 75 72
6000	- 187 121 100 90	163 121 92 84 81
6400	- 209 133 109 98	182 133 100 92 88
7000	- 243 153 124 111	- 153 114 103 100

Type 70/2-A, version LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 10 125 150** Nom. diameter of gas butterfly 100 100 100 100 100	High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³		
5100	143 82 49 39 34	69 48 33 30 28
5600	172 98 59 46 40	83 57 40 35 34
6100	203 116 68 53 46	98 67 47 41 39
6600	236 134 79 61 53	113 78 54 47 45
7100	271 153 89 69 59	130 89 61 53 51
7600	- 173 100 77 66	147 100 68 60 56
8100	- 193 109 83 71	163 110 73 64 60
8500	- 208 117 88 74	176 117 77 67 63
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³		
5100	201 113 65 50 43	95 64 43 37 35
5600	242 135 78 59 51	114 77 52 45 43
6100	287 160 91 69 59	135 91 61 53 50
6600	- 185 105 80 68	157 105 70 61 57
7100	- 213 120 90 77	180 120 80 69 65
7600	- 241 135 101 85	- 136 90 77 73
8100	- 271 150 112 94	- 152 99 85 80
8500	- 293 160 118 98	- 162 104 88 82

Scope of delivery, special equipment, tech. data Sizes 60 and 70, version LN

Scope of delivery	G60	G70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, combustion manager with control unit, flame sensor, stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●
W-FM 100 combustion manager	●	●
Double gas valve assembly (Class A)	●	●
Gas butterfly valve	●	●
Air pressure switch	●	●
Low gas pressure switch	●	●
Mixing assembly with adjustable flame tube	●	●
Actuators for compound regulation of gas and air via W-FM		
Stepping motor for air damper	●	●
Stepping motor for gas butterfly valve	●	●

Special equipment	G60	G70
Downward-firing version	○	○
Air inlet flange for duct connection	○	○
Combustion-head extension	○	○
Integral capacity controller for W-FM 100	○	○
Variable speed drive	○	○
O_2 trim	○	○
W-FM supplied loose for mounting in a control panel	○	○
Bus interface	○	○
High gas pressure switch	○	○

● Standard
○ Optional

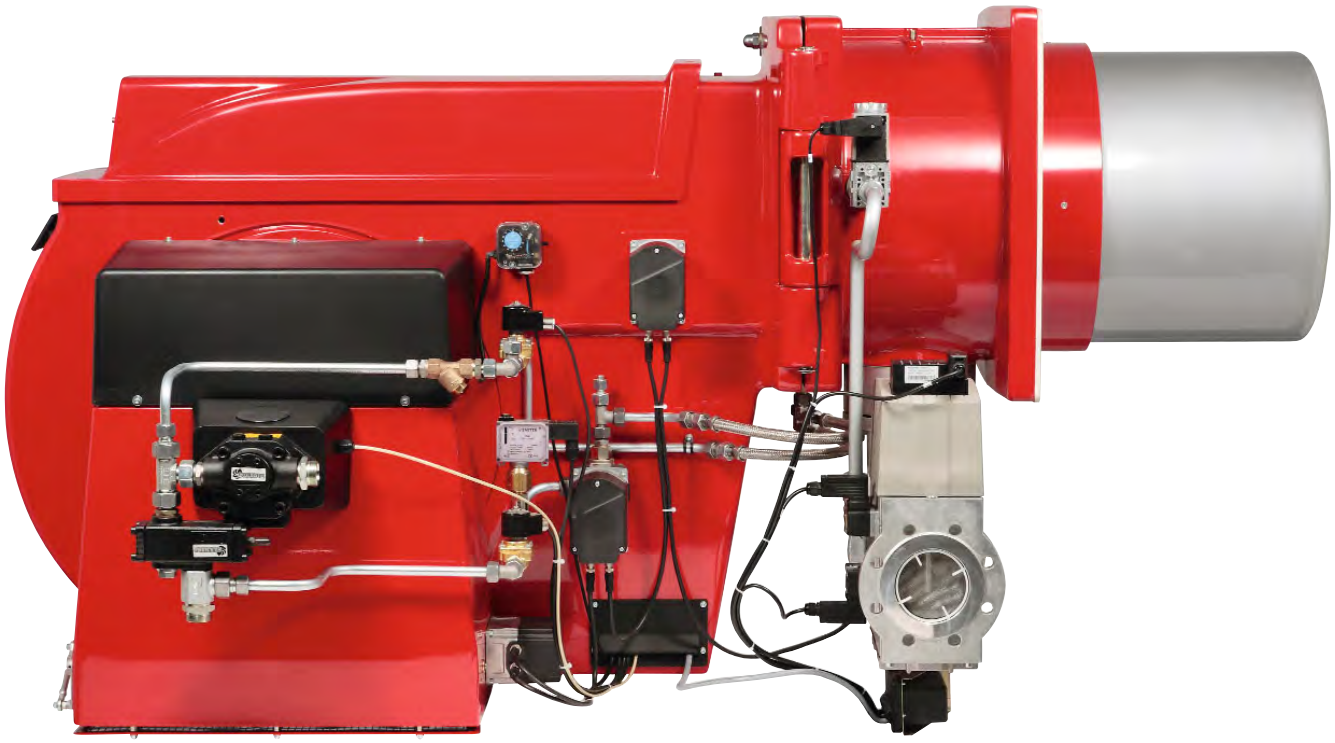
Please enquire or see the price list for additional special equipment.

Technical data			G60/2-A	G70/1-B	G70/2-A
400 V, 3 ~ burner motor [1]		Type	W-D132/210-2/14K0	W-D160/240-2/16K0	W-D160/240-2/22K0
Nominal rating		kW	14	16	22
Current draw at 380 V (400 V)		A	28	33	43
Motor prefusing (ϒΔ motor start)		A	50	50	63
Speed (50 Hz)		rpm	2920	2960	2940
Fan wheel		Colour / ø	blue / 515 x 120	blue / 590 x 160	blue / 590 x 160
Combustion manager		Type	W-FM100	W-FM100	W-FM100
gnition unit		Type	W-ZG02	W-ZG02	W-ZG02
Actuator	Air	Type	SQM48	SQM48	SQM48
	Fuel	Type	SQM45	SQM45	SQM45
Burner weight		kg (approx.)	275	390	390
Weight (gas-valve assembly and fittings)		R / DN	1½ 2 65	80 100	125 150
		kg (approx.)	11 22 21	29 37	35 46

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

–weishaupt–

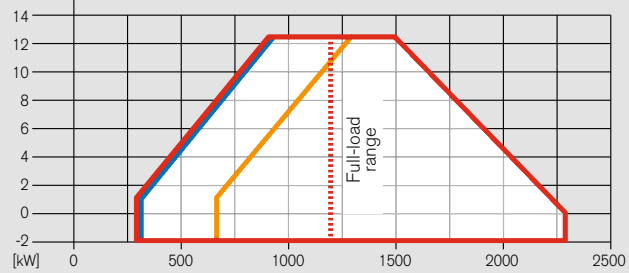
Dual-fuel burners



Burner selection
Sizes 30 and 40, version NR

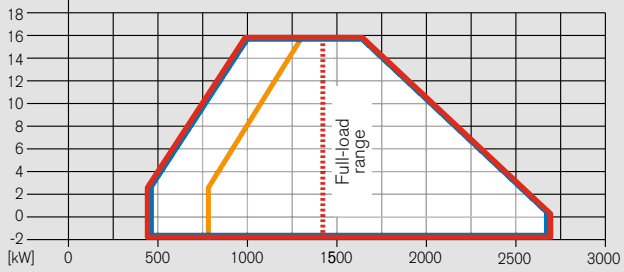
[mbar]

Burner type		RGMS30/2-A ZM-NR
Combustion head		G30/2-NR 190x65
Rating kW	Natural gas	300–2300
	LPG	300–2300
Rating kg/h	HFO	60–205



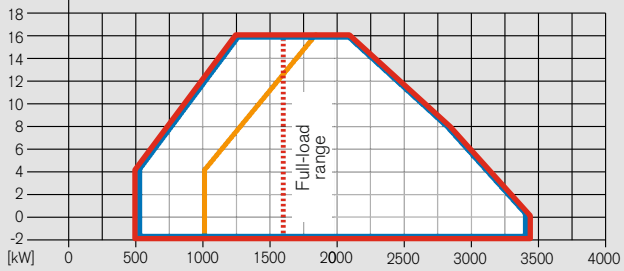
[mbar]

Burner type		RGMS40/1-B ZM-NR
Combustion head		G30/2-NR 190x58
Rating kW	Natural gas	450–2700
	LPG	450–2700
Rating kg/h	HFO	70–240



[mbar]

Burner type		RGMS40/2-A ZM-NR
Combustion head		G40/2-NR 217x75
Rating kW	Natural gas	500–3450
	LPG	500–3450
Rating kg/h	HFO	90–307



Fuels
HFO
Natural gas
LPG

Stated oil throughputs are based on a calorific value of 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676 and EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

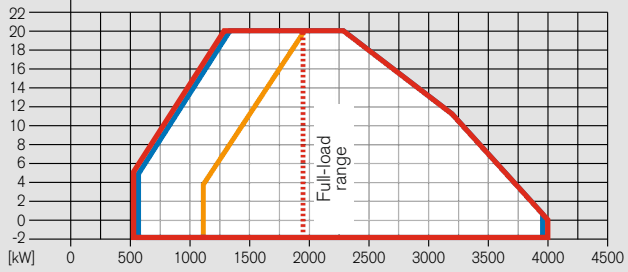
Burner type	Version	CE-PIN	Valve train	Order No.
RGMS30/2-A*	ZM-NR	CE-0085-AP 0528 –	R 1 1/2"	219 305 13
			R 2"	219 305 15
			DN 65	219 305 42
			DN 80	219 305 52
			DN 100	219 305 62
RGMS40/1-B*	ZM-NR	CE-0085-AQ 0720 –	R 1 1/2"	219 404 13
			R 2"	219 404 15
			DN 65	219 404 42
			DN 80	219 404 52
			DN 100	219 404 62
			DN 125	219 404 72
RGMS40/2-A*	ZM-NR	CE-0085-AQ 0720 –	R 1 1/2"	219 405 13
			R 2"	219 405 15
			DN 65	219 405 42
			DN 80	219 405 52
			DN 100	219 405 62
			DN 125	219 405 72

* LPG-fired burners do not have a Product ID No. (CE-PIN)

Burner selection
Size 50, version NR

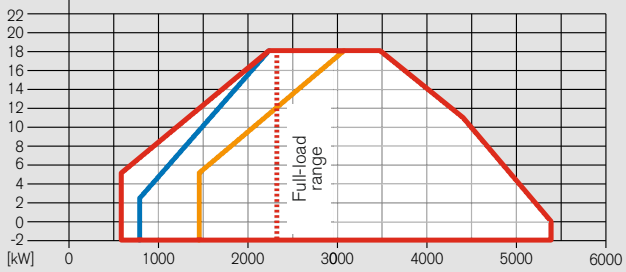
[mbar]

Burner type		**RGMS50/1-B ZM-NR**
Combustion head		G40/2-NR 217x75
Rating kW	Natural gas	550–4000
	LPG	550–4000
Rating kg/h	HFO	100–355



[mbar]

Burner type		**RGMS50/2-A ZM-NR**
Combustion head		G50/2-NR 290x185
Rating kW	Natural gas	600–5400
	LPG	800–5400
Rating kg/h	HFO	130–480



Fuels
HFO
Natural gas
LPG

Stated oil throughputs are based on a calorific value of 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

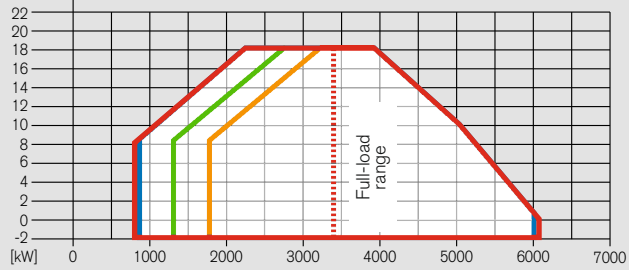
Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	CE-PIN DIN CERTCO	Valve train	Order No.
RGMS50/1-B*	ZM-NR	CE-0085-AQ 0721 –	R 1½	219 504 13
			R 2	219 504 15
			DN 65	219 504 42
			DN 80	219 504 52
			DN 100	219 504 62
			DN 125	219 504 72
RGMS50/2-A*	ZM-NR	CE-0085-AQ 0721 –	R 1½	219 505 13
			R 2	219 505 15
			DN 65	219 505 42
			DN 80	219 505 52
			DN 100	219 505 62
			DN 125	219 505 72
			DN 150	219 505 82

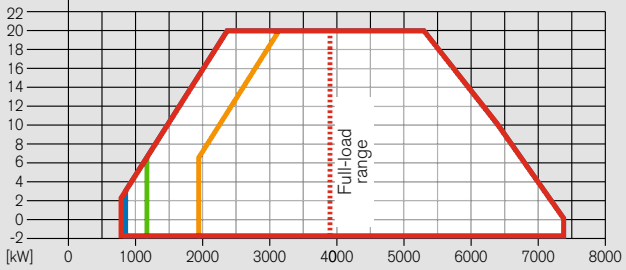
* LPG-fired burners do not have a Product ID No. (CE-PIN)

Burner selection
Sizes 60 and 70, version NR

[mbar]	Burner type		RGL60/2-A ZM-NR	RGMS60/2-A ZM-NR
	Combustion head		G60/2-NR 345x230	G60/2-NR 345x230
	Rating kW	Natural gas	800–6100	800–6100
		LPG	800–6100	800–6100
	Rating kg/h	Light oil	110–512	–
		HFO	–	160–543



[mbar]	Burner type		RGL70/1-B ZM-NR	RGMS70/1-B ZM-NR
	Combustion head		G60/2-NR 345x230	G60/2-NR 345x230
	Rating kW	Natural gas	800–7400	800–7400
		LPG	800–7400	800–7400
	Rating kg/h	Light oil	100–621	–
		HFO	–	175–658



Fuels
Light oil
HFO
Natural gas
LPG

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil and 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation altitude of 500 m above sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

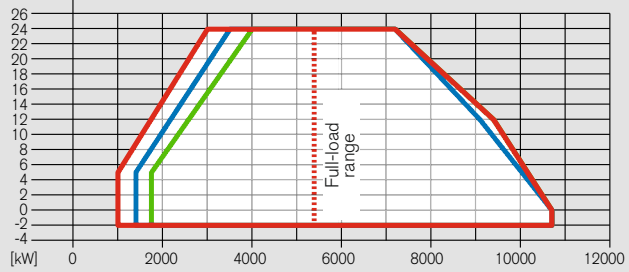
Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	CE-PIN DIN CERTCO	Valve train	Order No.
RGL60/2-A	ZM-NR	CE-0085-AQ 0722 5G518/05M	DN 65	218 605 42
			DN 80	218 605 52
			DN 100	218 605 62
			DN 125	218 605 72
			DN 150 *	218 605 82
RGMS60/2-A*	ZM-NR	CE-0085-AQ 0722 –	DN 65	219 605 42
			DN 80	219 605 52
			DN 100	219 605 62
			DN 125	219 605 72
			DN 150 *	219 605 82
RGL70/1-B	ZM-NR	CE-0085-AQ 0723 5G519/05M	DN 65	218 704 42
			DN 80	218 704 52
			DN 100	218 704 62
			DN 125	218 704 72
			DN 150	218 704 82
RGMS70/1-B*	ZM-NR	CE-0085-AQ 0723 –	DN 65	219 704 42
			DN 80	219 704 52
			DN 100	219 704 62
			DN 125	219 704 72
			DN 150	219 704 82

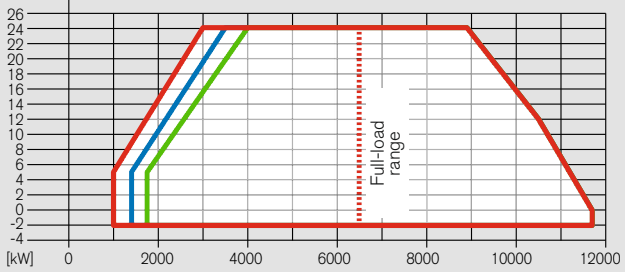
* LPG-fired burners do not have a Product ID No. (CE-PIN)

Burner selection
Size 70, version NR

[mbar]	Burner type		RGL70/3-A ZM-NR	RGMS70/3-A ZM-NR
	Combustion head		G70/3-A-NR 325x110	G70/3-A-NR 325x110
	Rating kW	Natural gas	1000–10700	1000–10700
		LPG	1400–10700	1400–10700
	Rating kg/h	Light oil	147–899	–
		HFO	–	156–954



[mbar]	Burner type		RGL70/4-A ZM-NR	RGMS70/4-A ZM-NR
	Combustion head		G70/3-A-NR 325x110	G70/3-A-NR 325x110
	Rating kW	Natural gas	1000–11700	1000–1700
		LPG	1400–11700	1400–11700
	Rating kg/h	Light oil	147–983	–
		HFO	–	156–1043



Fuels
Light oil
HFO
Natural gas
LPG

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil and 11.24 kWh/kg for HFO.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 efficiency at 50/60 Hz (no IE classification at 55 Hz).

Burner type	Version	CE-PIN DIN CERTCO	Valve train	Order No.
RGL70/3-A	ZM-NR	CE-0085-AQ 0723 5G519/05M	DN 65	218 714 14
			DN 80	218 714 15
			DN 100	218 714 16
			DN 125	218 714 17
			DN 150	218 714 18
RGMS70/3-A	ZM-NR	CE-0085-AQ 0723 –	DN 65	219 714 14
			DN 80	219 714 15
			DN 100	219 714 16
			DN 125	219 714 17
			DN 150	219 714 18
RGL70/4-A *	ZM-NR	CE-0085-AQ 0723 5G519/05M	DN 65	218 734 14
			DN 80	218 734 15
			DN 100	218 734 16
			DN 125	218 734 17
			DN 150	218 734 18
RGMS70/4-A *	ZM-NR	CE-0085-AQ 0723 –	DN 65	219 734 14
			DN 80	219 734 15
			DN 100	219 734 16
			DN 125	219 734 17
			DN 150	219 734 18

* Equipped with W-FM 200 and VSD as standard (55 Hz)

Gas valve train sizing
Sizes 30 and 40, version NR

Type 30/2-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 50 50 50 50 50 50						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 50 50 50 50 50 50					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
1500	89	35	21	16	13	12	48	19	13	11	10	9
1600	100	39	24	18	15	14	54	21	14	12	11	10
1700	113	44	27	20	16	15	61	24	16	14	12	12
1800	127	49	30	22	18	17	69	27	18	16	14	13
1900	141	55	33	24	20	18	77	30	20	18	16	15
2000	156	60	36	27	22	20	85	33	23	19	17	17
2100	171	66	39	29	24	22	94	37	25	21	19	18
2300	205	79	47	34	28	25	112	44	30	25	22	22
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
1500	126	48	28	21	17	15	68	26	17	14	12	12
1600	143	54	32	23	18	17	77	29	19	16	14	13
1700	161	61	36	26	21	19	87	33	22	18	16	15
1800	181	68	40	29	23	21	98	37	24	21	18	17
1900	201	76	44	32	25	23	109	41	27	23	20	19
2000	222	84	49	35	28	25	121	46	30	25	22	21
2100	245	92	53	38	30	28	133	50	33	28	24	23
2300	-	110	63	45	35	32	-	60	40	33	29	28
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
1500	41	19	13	11	10	9	22	10	8	7	7	7
1600	46	21	14	12	11	10	25	12	9	8	8	7
1700	51	23	16	13	12	11	29	13	10	9	9	8
1800	57	26	18	15	13	12	32	15	12	11	10	10
1900	64	28	20	16	14	14	36	17	13	12	11	11
2000	70	31	21	17	15	15	40	19	14	13	12	12
2100	77	34	23	19	17	16	44	20	16	14	13	13
2300	92	40	27	22	19	19	53	25	19	17	16	16

Type 40/1-B, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 50 50 50 50 50 50						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 50 50 50 50 50 50					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
1750	120	47	28	21	17	16	65	25	17	15	13	13
1900	141	55	33	24	20	18	77	30	20	18	16	15
2050	163	63	38	28	23	21	89	35	24	20	18	17
2200	187	72	43	32	25	23	102	40	27	23	20	20
2350	214	82	49	36	29	26	117	46	31	26	23	23
2500	241	92	55	40	32	30	132	52	35	30	26	25
2700	-	107	63	46	37	34	-	60	40	35	30	29
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
1750	171	65	38	27	22	20	92	35	23	19	17	16
1900	201	76	44	32	25	23	109	41	27	23	20	19
2050	233	88	51	37	29	26	127	48	32	27	23	22
2200	-	101	58	42	33	30	-	55	36	30	26	25
2350	-	115	66	47	37	34	-	63	41	35	30	29
2500	-	129	74	53	41	38	-	71	47	39	34	33
2700	-	150	86	61	48	43	-	82	54	45	40	38
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWhNm³												
1750	54	25	17	14	12	12	30	14	11	10	9	9
1900	64	28	20	16	14	14	36	17	13	12	11	11
2050	74	33	22	18	16	15	42	20	15	14	13	12
2200	84	37	25	20	18	17	48	22	17	15	14	14
2350	96	42	28	23	20	19	55	26	20	18	17	16
2500	108	47	32	26	23	21	62	29	22	20	19	18
2700	126	54	36	29	26	24	72	34	26	23	22	21

Type 40/2-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 65 65 65 65 65 65						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 65 65 65 65 65 65					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
1800	121	44	25	17	13	12	64	22	13	11	9	8
2000	149	54	30	20	15	14	78	27	16	13	11	10
2200	180	65	36	24	18	16	95	33	20	16	13	13
2400	214	77	42	29	21	19	113	39	24	19	16	15
2600	251	90	49	33	24	22	133	46	28	22	18	17
2800	-	103	56	38	28	24	-	53	32	25	21	20
3125	-	128	69	46	34	30	-	66	40	32	27	25
3450	-	156	84	56	41	36	-	80	48	39	32	30
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
1800	174	62	34	23	17	15	92	31	18	14	12	11
2000	215	76	41	27	20	18	113	38	22	18	14	14
2200	259	92	49	33	24	21	137	46	27	22	18	17
2400	-	109	58	39	28	25	-	55	33	26	21	20
2600	-	127	68	45	32	28	-	64	38	30	25	23
2800	-	147	78	51	37	32	-	74	44	35	28	27
3125	-	183	97	63	45	40	-	93	55	44	36	34
3450	-	222	117	77	55	48	-	113	67	53	43	41
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
1800	53	21	13	10	8	-	28	11	7	6	5	-
2000	65	26	16	12	10	9	34	13	9	7	6	6
2200	78	30	18	14	11	10	41	16	10	9	8	7
2400	92	36	21	16	13	12	49	19	12	11	9	9
2600	107	41	25	18	15	14	58	22	15	12	11	10
2800	124	47	28	20	16	15	67	25	17	14	12	12
3125	154	59	35	25	20	19	84	32	21	18	16	15
3450	187	71	42	30	24	22	102	39	26	22	19	18

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Sizes 50 and 60, version NR

Type 50/1-B, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) Nominal valve-train diameter						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) Nominal valve-train diameter					
	1½"	2"	65	80	100	125	1½"	2"	65	80	100	125
	Nom. diameter of gas butterfly						Nom. diameter of gas butterfly					
	65	65	65	65	65	65	65	65	65	65	65	65
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
2100	164	59	33	22	17	15	87	30	18	14	12	11
2400	214	77	42	29	21	19	113	39	24	19	16	15
2700	270	96	52	35	26	23	-	49	30	24	20	19
3000	-	118	64	43	32	28	-	61	37	29	24	23
3300	-	143	77	51	38	33	-	73	44	36	30	28
3600	-	169	91	60	44	39	-	87	52	42	35	33
4000	-	208	111	74	53	47	-	107	65	52	43	40
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
2100	236	84	45	30	22	19	125	42	25	20	16	15
2400	-	109	58	39	28	25	-	55	33	26	21	20
2700	-	137	73	48	34	30	-	69	41	32	26	25
3000	-	168	89	59	42	37	-	85	51	40	33	31
3300	-	203	107	70	50	44	-	103	61	48	40	37
3600	-	241	127	83	59	51	-	123	72	57	47	44
4000	-	297	156	102	72	63	-	-	89	71	58	54
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
2100	71	28	17	13	10	10	38	14	9	8	7	7
2400	92	36	21	16	13	12	49	19	12	11	9	9
2700	116	44	26	19	16	14	62	24	16	13	11	11
3000	142	55	32	24	19	17	77	29	20	17	14	14
3300	172	65	38	28	22	21	93	35	24	20	18	17
3600	204	77	45	33	26	24	111	42	28	24	21	20
4000	251	94	55	39	31	28	136	52	34	29	25	24

Type 60/2-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) Nominal valve-train diameter						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) Nominal valve-train diameter					
	2"	65	80	100	125	150	2"	65	80	100	125	150
	Nom. diameter of gas butterfly						Nom. diameter of gas butterfly					
	100	100	100	100	100	100	100	100	100	100	100	100
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
4000	197	101	63	43	36	33	96	54	41	32	30	29
4300	228	116	73	49	42	39	112	63	48	38	35	34
4500	250	127	80	54	46	42	123	69	52	41	38	37
4800	284	144	90	61	52	47	139	78	59	47	43	42
5000	-	156	97	66	56	51	151	85	64	50	47	45
5300	-	174	109	73	62	56	169	94	72	56	52	50
5600	-	194	120	80	68	62	188	105	79	62	57	55
6100	-	227	140	93	78	71	-	122	92	71	66	64
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
4000	278	138	83	54	44	40	133	71	52	39	36	35
4300	-	160	97	62	52	47	154	83	61	46	42	41
4500	-	175	106	68	57	51	169	91	67	51	46	45
4800	-	198	120	77	64	58	193	103	76	58	53	51
5000	-	215	130	84	69	62	-	112	83	63	57	55
5300	-	241	145	93	77	69	-	125	92	70	64	61
5600	-	267	160	103	84	76	-	139	102	77	70	68
6100	-	-	188	119	98	87	-	163	119	89	81	78
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
4000	95	55	39	31	28	27	52	34	29	25	24	24
4300	109	63	45	36	33	31	60	40	34	29	28	28
4500	119	69	49	39	36	34	66	43	37	32	31	30
4800	135	78	56	44	40	38	74	49	42	36	35	35
5000	146	84	60	47	43	41	81	53	45	39	38	37
5300	164	94	67	52	48	45	90	60	50	44	42	41
5600	182	104	74	57	52	50	100	66	56	48	46	46
6100	214	122	86	67	60	58	118	77	65	56	54	53

Type 50/2-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) Nominal valve-train diameter							High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) Nominal valve-train diameter						
	1½"	2"	65	80	100	125	150	1½"	2"	65	80	100	125	150
	Nom. diameter of gas butterfly							Nom. diameter of gas butterfly						
	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³														
2300	210	84	52	40	33	31	30	118	49	35	31	28	27	27
2800	-	113	66	47	38	34	33	-	63	42	35	31	30	29
3300	-	147	82	56	42	38	36	-	78	49	40	34	33	32
3800	-	193	105	71	53	47	44	-	101	63	51	43	41	40
4300	-	247	135	92	68	61	57	-	130	81	66	56	53	52
4800	-	-	167	113	84	74	70	-	-	101	82	69	66	65
5400	-	-	208	140	103	91	85	-	-	125	101	85	81	79
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³														
2300	-	120	74	56	46	43	41	-	71	50	44	40	38	38
2800	-	162	93	67	52	48	46	-	90	59	50	44	42	42
3300	-	212	116	79	59	53	50	-	112	70	57	49	46	45
3800	-	275	148	99	72	64	60	-	-	88	71	59	56	55
4300	-	-	187	124	90	79	74	-	-	110	89	74	70	68
4800	-	-	229	151	108	95	89	-	-	134	107	89	84	82
5400	-	-	284	185	131	114	106	-	-	-	130	107	101	98
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³														
2300	86	35	22	17	14	13	13	47	19	13	11	10	10	10
2800	129	52	33	25	21	20	19	71	30	21	19	17	16	16
3300	179	72	45	35	29	27	27	100	42	31	27	24	24	24
3800	237	96	60	46	38	36	35	133	57	41	36	33	32	32
4300	-	121	76	58	48	45	44	-	72	52	46	42	41	40
4800	-	150	93	71	59	55	53	-	90	64	57	52	50	50
5400	-	188	116	88	73	68	66	-	112	81	71	64	63	62

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Size 70, version NR

Type 70/1-B, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3900	189	97	62	42	36	33	93	53	41	32	30	29
4400	239	122	77	52	44	41	118	66	50	40	37	36
4900	295	150	93	63	53	49	145	81	61	48	44	43
5400	-	180	112	75	63	57	175	97	73	57	53	51
5900	-	213	132	87	73	67	-	115	86	67	62	60
6400	-	249	153	101	85	77	-	134	101	78	72	70
6900	-	288	177	116	97	88	-	154	116	90	82	80
7400	-	-	202	132	110	100	-	177	132	102	94	91
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3900	268	134	82	54	46	41	130	71	53	41	37	36
4400	-	170	104	68	57	52	164	90	67	51	47	46
4900	-	209	127	83	69	63	-	110	82	63	58	56
5400	-	253	153	100	83	75	-	133	99	76	69	67
5900	-	-	182	117	97	88	-	158	117	89	82	79
6400	-	-	212	137	113	102	-	185	137	104	95	92
6900	-	-	245	157	129	116	-	-	158	119	109	105
7400	-	-	280	179	147	132	-	-	180	136	124	120
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3900	82	45	30	22	20	18	41	25	20	16	15	15
4400	105	57	39	29	25	24	54	33	26	22	21	20
4900	130	71	48	35	31	30	67	41	33	28	26	26
5400	158	86	58	42	38	35	82	50	40	34	32	31
5900	188	101	68	50	44	41	97	60	48	40	38	37
6400	220	118	79	58	51	48	114	69	56	47	44	43
6900	254	136	90	66	58	54	132	80	64	53	50	49
7400	291	155	103	74	65	61	150	91	73	60	57	56

Type 70/3-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
5300	146	80	45	33	28	66	43	28	24	22
6000	187	102	57	42	35	85	56	36	30	28
7000	253	138	76	56	47	115	75	48	41	38
8000	-	179	98	72	60	150	98	63	53	50
9000	-	226	123	90	75	190	124	79	67	63
10000	-	278	151	111	92	-	153	97	82	77
10700	-	-	172	126	105	-	175	111	94	88
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5300	210	115	63	46	39	95	62	40	33	31
6000	269	146	79	58	49	122	79	50	42	40
7000	-	197	107	78	65	165	107	68	57	53
8000	-	256	138	101	83	-	140	88	74	69
9000	-	-	174	127	104	-	176	111	94	87
10000	-	-	214	155	128	-	-	137	115	107
10700	-	-	244	177	146	-	-	156	132	123
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5300	69	42	27	23	20	35	25	19	17	16
6000	84	49	31	25	22	41	29	21	18	18
7000	110	63	37	29	26	52	36	25	22	21
8000	141	80	46	36	31	66	45	30	26	25
9000	177	99	57	44	37	83	56	38	33	31
10000	218	122	70	53	46	102	69	46	40	38
10700	250	140	80	61	52	117	80	54	46	44

Type 70/4-A, version NR

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/mn³; d = 0.606; Wi = 13.295 kWh/mn³										
6500	219	119	66	49	41	99	65	42	35	33
7000	253	138	76	56	47	115	75	48	41	38
7500	290	158	87	64	53	132	86	55	47	44
8000	-	179	98	72	60	150	98	63	53	50
9000	-	226	123	90	75	190	124	79	67	63
10000	-	278	151	111	92	-	153	97	82	77
11000	-	-	182	133	110	-	184	117	99	93
11700	-	-	205	150	124	-	-	133	112	105
Natural Gas LL LHV = 8.83 kWh/mn³; d = 0.641; W_i = 11.029 kWh/mn³										
6500	-	170	93	68	56	142	93	59	50	46
7000	-	197	107	78	65	165	107	68	57	53
7500	-	226	122	89	74	189	123	78	66	61
8000	-	256	138	101	83	-	140	88	74	69
9000	-	-	174	127	104	-	176	111	94	87
10000	-	-	214	155	128	-	-	137	115	107
11000	-	-	258	187	154	-	-	165	139	130
11700	-	-	291	211	173	-	-	187	157	146
LPG B/P LHV = 25.89 kWh/mn³; d = 1.555; W_i = 20.762 kWh/mn³										
6500	96	56	34	27	24	46	32	23	20	19
7000	110	63	37	29	26	52	36	25	22	21
7500	125	71	42	32	28	59	40	27	24	23
8000	141	80	46	36	31	66	45	30	26	25
9000	177	99	57	44	37	83	56	38	33	31
10000	218	122	70	53	46	102	69	46	40	38
11000	264	148	85	65	55	124	84	57	49	47
11700	299	167	96	74	63	142	96	65	57	54

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery, special equipment
Sizes 30 to 50, version NR

Scope of delivery	RGMS30	RGMS40	RGMS50
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, nozzle assembly with oil nozzle(s), combustion manager with control unit, flame sensor stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●	●
W-FM 100 combustion manager	●	●	●
Double gas valve assembly (Class A)	●	●	●
Gas butterfly valve	●	●	●
Pilot line	●	●	●
Air pressure switch	●	●	●
Oil pressure switch in return	●	●	●
Low gas pressure switch	●	●	●
Mixing assembly with modulating regulating sleeve	●	●	●
Actuators for compound regulation of gas and air via W-FM			
Air damper stepping motor	●	●	●
Gas butterfly valve stepping motor	●	●	●
Regulating sleeve stepping motor	●	●	●
Oil pump, fitted	●	●	●
Oil preheater, fitted	●	●	●
Oil hoses	●	●	●
2 solenoid valves in supply and return	–	–	–
Solenoid valve in supply and return, nozzle assembly with shut-off device (solenoid)	●	●	●
Electromagnetic clutch	●	●	●

Special equipment	RGMS30	RGMS40	RGMS50
Downward-firing version	○	○	○
Air inlet flange for duct connection	○	○	○
Solenoid valve for air pressure switch test with continuously runnung fan or post-purge	○	○	○
Combustion head extension	○	○	○
Integral capacity controller for W-FM 100	○	○	○
Variable speed drive	○	○	○
O_2 trim	○	○	○
W-FM supplied loose for mounting in a control panel	○	○	○
Bus interface	○	○	○
PED execution	○	○	○
High gas pressure switch	○	○	○
Separate pump station	○	○	○
Separate preheater station (electric/medium)	○	○	○
Multi-language ABE	○	○	○
Offset gas butterfly valve and DMV	○	○	○

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

Scope of delivery, special equipment
Sizes 60 and 70, version NR

Scope of delivery	RGMS60	RGMS70	RGL60	RGL70 / 70/4
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, nozzle assembly with oil nozzle(s), combustion manager with control unit, flame sensor stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●	●	● ●
W-FM 100 combustion manager	●	●	●	● –
W-FM 200 combustion manager	–	–	–	– ●
Double gas valve assembly (Class A)	●	●	●	● ●
Gas butterfly valve	●	●	●	● ●
Pilot line	●	●	●	● ●
Air pressure switch	●	●	●	● ●
Oil pressure switch in return	●	●	●	● ●
Low gas pressure switch	●	●	●	● ●
Mixing assembly with modulating regulating sleeve	●	●	●	● ●
Actuators for compound regulation of gas and air via W-FM				
Air damper stepping motor	●	●	●	● ●
Gas butterfly valve stepping motor	●	●	●	● ●
Regulating sleeve stepping motor	●	●	●	● ●
Oil pump, fitted	–	–	●	● ●
Oil hoses	●	●	●	● ●
Solenoid valve in supply and return, nozzle assembly with shut-off device (solenoid)	●	●	●	● ●
Electromagnetic clutch	●	●	●	● ●

Special equipment	RGMS60	RGMS70	RGL60	RGL70 / 70/4
Downward-firing version	○	○	○	○ ○
Air inlet flange for duct connection	○	○	○	○ ○
Solenoid valve for air pressure switch test with continuously runnung fan or post-purge	○	○	○	○ ○
Combustion head extension	○	○	○	○ ○
Integral capacity controller for W-FM 100	○	○	○	○ –
Variable speed drive	○	○	○	○ ●
O_2 trim	○	○	○	○ ○
W-FM supplied loose for mounting in a control panel	○	○	○	○ ○
Bus interface	○	○	○	○ ○
PED execution	○	○	○	○ ○
High gas pressure switch	○	○	○	○ ○
Separate pump station	○	○	○	○ ○
Separate preheater station (electric/medium)	○	○	–	– –
Multi-language ABE	○	○	○	○ ○
Offset gas butterfly valve and DMV	○	○	○	○ ○

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

Technical data
Sizes 30 and 40, version NR

Technical data				RGMS30/2-A
400 V, 3 ~ burner motor [1]			Type	W-D112/170-2/4K5
Nominal rating			kW	5.5
Current draw at 400 V			A	13
Motor prefusing (ϒΔ motor start)			A	16
Speed (50 Hz)			rpm	2900
Fan wheel			Colour / ø	blue / 268 x 100
Combustion manager			Type	W-FM100
Ignition unit			Type	W-ZG02
Actuator	Air		Type	SQM45
	Mixing assembly		Type	SQM45
	Fuel		Type	SQM45
Integral pump			Type	TA3
Oil preheater			Type	EV2D
	Oil throughput		kg/h	270
	Heating capacity		kW	13.2
Oil solenoid valves	115 V, ⅜" (supply)	20 W	Type	321 H 2322
	115 V, ⅜" (return)	20 W	Type	121 G 2320
Oil pressure switch	1–10 bar (return, HFO - 7 bar)		Typ	DSA 46 F001
Oil hoses (metal, high-pressure hoses on RGMS burners)			DN / length	20 / 1300
Burner weight			kg (approx.)	175
Weight (gas valve assembly and fittings)			R / DN	1½ 2 65 80 100 125 150
			kg (approx.)	23 25 65 80 130 220 240

Technical data				RGMS40/1-B RGMS40/2-A
400 V, 3 ~ burner motor [1]	40/1		Type	W-D112/170-2/5K5
Nominal rating			kW	5.5
Current draw at 400 V			A	14
Motor prefusing (ϒΔ motor start)			A	20
400 V, 3 ~ burner motor [1]	40/2		Type	W-D112/170-2/7K0
Nominal rating			kW	7
Current draw at 400 V			A	15
Motor prefusing (ϒΔ motor start)			A	25
Speed (50 Hz)			rpm	2940
Fan wheel			Colour / ø	blue / 295 x 100
Combustion manager			Type	W-FM100
Ignition unit			Type	W-ZG02
Actuator	Air		Type	SQM45
	Mixing assembly		Type	SQM45
	Fuel		Type	SQM45
Integral pump			Type	TA3
Oil preheater			Type	EV2D
	Oil throughput		kg/h	270
	Heating capacity		kW	13.2
Oil solenoid valves	115 V, ¼" (supply)	20 W	Type	321 H 2322
	115 V, ⅛" (return)	20 W	Type	121 G 2320
Oil pressure switch	1–10 bar (return, HFO - 7 bar)		Type	DSA 46 F001
Oil hoses (metal, high-pressure hoses on RGMS burners)			DN / length	20 / 1300
Burner weight			kg (approx.)	190
Weight (gas valve assembly and fittings)			R / DN	1½ 2 65 80 100 125 150
			kg (approx.)	23 25 65 80 130 220 240

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

Technical data
Sizes 50 and 60, version NR

Technical data			RGMS50/1-B	RGMS50/2-A
400 V, 3 ~ burner motor [1]		Type	W-D132/170-2/9K0	W-D132/210-2/14K0
Nominal rating		kW	9	14
Current draw at 400 V		A	18	28
Motor prefusing (ϒΔ motor start)		A	35	50
Speed (50 Hz)		rpm	2930	2920
Fan wheel		Colour / ø	blue / 345 x 100	blue / 345 x 100
Combustion manager		Type	W-FM100	W-FM100
Ignition unit		Type	W-ZG02	W-ZG02
Actuator	Air	Type	SQM45	SQM45
	Mixing assembly	Type	SQM45	SQM45
	Fuel	Type	SQM45	SQM45
Oil preheater		Type	WEV2.2/01 [2]	WEV3/01
	Oil throughput	kg/h	300	500
	Heating capacity	kW	13,8	22,4
Integral pump		Type	TA4C	T2C
Oil solenoid valves	115 V, ⅜" (supply) 20 W	Type	321 H 2322	321 H 2322
	115 V, ⅜" (return) 20 W	Type	121 G 2320	121 G 2320
Oil pressure switch	1–10 bar (return, HFO - 7 bar)	Type	DSA 46 F001	DSA 46 F001
Oil hoses		DN / length	25 / 1500	25 / 1500
Burner weight		kg (approx.)	305	305

Weight (gas valve assembly and fittings)							
R / DN	1½	2	65	80	100	125	150
kg (approx.)	23	25	65	80	130	220	240

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Burners above 300 kg/h: WEV3 oil preheater in lieu of WEV2.2, see special equipment for additional price.

Technical data			RGMS60/2-A
400 V, 3 ~ burner motor [1]		Type	W-D132/210-2/14K0
Nominal rating		kW	14
Current draw at 400 V		A	28
Motor prefusing (ϒΔ motor start)		A	50
Speed (50 Hz)		rpm	2920
Fan wheel		Colour / ø	blue / 515 x 120
Combustion manager		Type	W-FM100
Ignition unit		Type	W-ZG02
Actuator	Air	Type	SQM48
	Mixing assembly	Type	SQM45
	Fuel	Type	SQM45
Integral pump		Type	–
Oil solenoid valves	115 V, ⅜" (supply) 20W	Type	321 H 2322
	115 V, ⅜" (return) 20W	Type	121 G 2320
	230 V, ⅜" (bypass) 19W	Type	322 H 7306
Oil pressure switch	3–25 bar (supply - 18 bar)	Type	DSA 58 F001
	1–10 bar (return, light oil - 5 bar)	Type	–
	1–10 bar (return, HFO - 7 bar)	Type	DSA 46 F001
Oil hoses		DN / length	–
(metal, high-pressure hoses on RGMS burners)		DN / length	16 / 1500
Burner weight		kg (approx.)	290 [2]

Weight (gas valve assembly and fittings)						
R / DN	2	65	80	100	125	150
kg (approx.)	25	65	80	130	220	240

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Weight excluding pump and preheater stations.

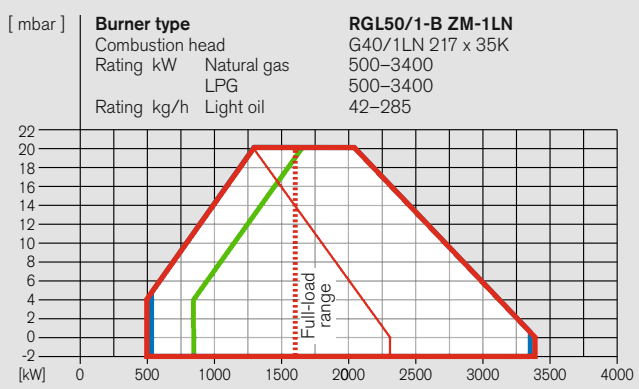
Technical data
Size 70, version NR

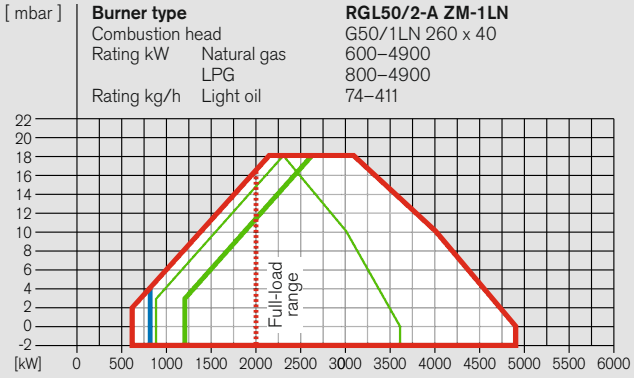
Technical data				RGMS70/1-B	RGMS70/3-A
400 V, 3 ~ burner motor [1]			Type	W-D160/240-2/18K0	W-D160/240-2/22K0
Nominal rating			kW	18	22
Current draw at 400 V			A	35	43
Motor prefusing (ϒΔ motor start)			A	63	63
Speed (50 Hz)			rpm	2950	2940
Fan wheel			Colour / ø	blue / 590 x 160	blue / 590 x 160
Frequency convertor with braking resistor			Type	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM48	SQM48
	Mixing assembly		Type	SQM45	SQM48
	Fuel		Type	SQM45	SQM45
Integral pump			Type	–	–
			Type	–	–
Oil solenoid valves	115 V, ½" (supply)	20W	Type	321 H 2522	321 H 2522
	115 V, ½" (return)	20W	Type	121 G 2520	121 G 2520
	230 V, ⅜" (bypass)	19W	Type	322 H 7306	322 H 7306
Oil pressure switch	3–25 bar (supply - 18 bar)		Type	DSA 58 F001	DSA 58 F001
	1–10 bar (return, light oil - 5 bar)		Type	–	–
	1–10 bar (return, HFO - 7 bar)		Type	DSA 46 F001	DSA 46 F001
Oil hoses			DN / length	–	–
(metal, high-pressure hoses on RGMS burners)			DN / length	20 / 1150	20 / 1150
			DN / length	20 / 1500	20 / 1500
Burner weight			kg (approx.)	385 [2]	385 [2]
Weight (gas valve assembly and fittings)			R / DN	2 65	80 100 125 150
			kg (approx.)	25 65	80 130 220 240

Technical data				RGL70/4-A*	RGMS70/4-A*
400 V, 3 ~ burner motor [1]			Type	W-D160/240-2/28K0	W-D160/240-2/28K0
Nominal rating			kW	28	28
Current draw at 400 V			A	53	53
Motor prefusing (ϒΔ motor start)			A	*	*
Speed (50 Hz)			rpm	3220	3220
Frequency convertor with braking resistor			Type	FC301 P22K IP20	FC301 P22K IP20
Fan wheel			Colour / ø	blue / 590 x 160	blue / 590 x 160
Frequency convertor with braking resistor			Type	W-FM200	W-FM200
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM48	SQM48
	Mixing assembly		Type	SQM48	SQM48
	Fuel		Type	SQM45	SQM45
Integral pump			Type	T4C	–
Oil solenoid valves	115 V, ½" (supply)	20W	Type	321 H 2522	321 H 2522
	115 V, ½" (return)	20W	Type	121 G 2520	121 G 2520
	230 V, ⅜" (bypass)	19W	Type	–	322 H 7306
Oil pressure switch	3–25 bar (supply - 18 bar)		Type	–	DSA 58 F001
	1–10 bar (return, light oil - 5 bar)		Type	DSA 46 F001	–
	1–10 bar (return, HFO - 7 bar)		Type	–	DSA 46 F001
Oil hoses			DN / length	25 / 1300	–
(metal, high-pressure hoses on RGMS burners)			DN / length	–	20 / 1150
			DN / length	–	20 / 1500
Burner weight			kg (approx.)	430	385 [2]
Weight (gas valve assembly and fittings)			R / DN	2 65	80 100 125 150
			kg (approx.)	25 65	80 130 220 240

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.
[2] Weight excluding pump and preheater stations.
* 55 Hz operation with frequency convertor only (no IE classification).

Burner selection
Size 50, version 1LN





Fuels – Rating with combustion head

	open	closed
Light oil		
Natural gas		
LPG		

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676 and EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

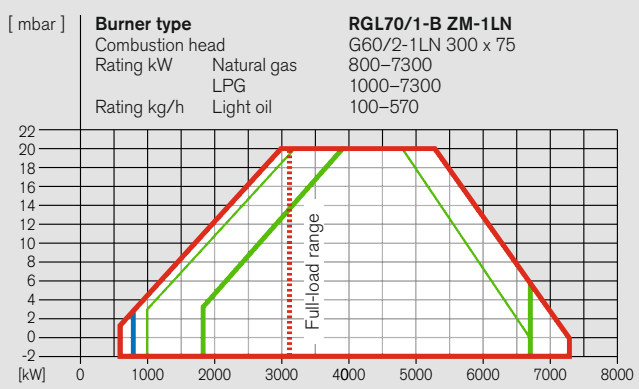
For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

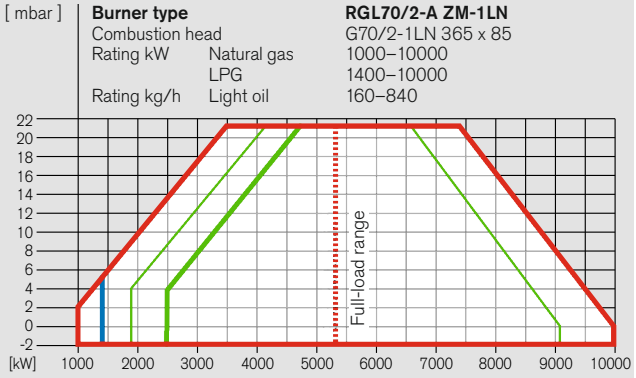
Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	CE-PIN DIN-CERTCO	Valve train	Order No.
RGL50/1-B	ZM-1LN	CE-0085AQ0721 5G535/05M	R 1½	218 504 16
			R 2	218 504 17
			DN 65	218 404 43
			DN 80	218 504 53
			DN 100	218 504 63
			DN 125	218 504 73
RGL50/2-A	ZM-1LN	CE-0085AQ0721	R 1½	218 505 16
			DN 65	218 505 43
			DN 80	218 505 53
			DN 100	218 505 63
			DN 125	218 505 73
			DN 150	218 505 83

Burner selection
Size 70, version 1LN





Fuels – Rating with combustion head

	open	closed
Light oil		
Natural gas		
LPG		

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676 and EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 effciency

Burner type	Version	CE-PIN DIN-CERTCO	Valve train	Order No.
RGL70/1-B	ZM-1LN	CE-0085AQ0723 5G519/05M	DN 65	218 704 43
			DN 80	218 704 53
			DN 100	218 704 63
			DN 125	218 704 73
			DN 150	218 704 83
RGL70/2-A	ZM-1LN	CE-0085AQ0723 5G519/05M	DN 65	218 705 43
			DN 80	218 705 53
			DN 100	218 705 63
			DN 125	218 705 73
			DN 150	218 705 83

Gas valve train sizing
Size 50, version 1LN

Type 50/1-B, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 65 65 65 65 65 65						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **1½" 2" 65 80 100 125** Nom. diameter of gas butterfly 65 65 65 65 65 65					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
2100	172	67	40	30	24	23	94	37	26	22	20	19
2300	205	79	47	34	28	26	112	44	30	25	22	22
2500	241	92	54	39	31	29	132	51	34	29	26	25
2700	280	106	62	45	36	33	-	59	40	34	30	29
2900	-	122	71	51	41	37	-	68	45	39	34	33
3100	-	139	81	58	46	42	-	77	52	44	39	37
3400	-	167	97	70	55	50	-	93	62	53	47	45
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
2100	246	93	54	39	31	29	134	51	34	29	25	24
2300	293	110	63	45	35	32	-	60	39	33	29	28
2500	-	128	73	52	40	36	-	69	45	38	33	32
2700	-	148	83	59	45	41	-	80	52	43	37	36
2900	-	169	95	66	51	46	-	91	59	49	42	40
3100	-	192	107	74	57	51	-	103	66	55	47	45
3400	-	229	127	88	67	60	-	123	78	65	56	53
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
2100	82	39	28	24	22	21	49	26	21	19	18	18
2300	97	46	32	27	25	24	58	30	24	22	21	21
2500	114	53	37	31	28	27	67	34	28	25	24	24
2700	132	60	42	35	32	30	78	40	32	29	28	27
2900	151	69	48	40	36	34	90	45	36	33	32	31
3100	172	79	55	45	40	39	103	52	41	38	36	35
3400	207	94	66	54	48	46	124	63	50	46	43	43

Type 50/2-A, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **1½" 2" 65 80 100 125 150** Nom. diameter of gas butterfly 65 65 65 65 65 65							High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **1½" 2" 65 80 100 125 150** Nom. diameter of gas butterfly 65 65 65 65 65 65						
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³														
2500	239	90	52	37	30	27	26	130	49	32	27	24	23	23
2800	-	113	66	48	38	34	33	-	63	42	35	31	30	30
3100	-	138	80	57	45	41	40	-	77	51	43	38	36	36
3400	-	164	94	67	53	48	46	-	91	60	51	44	42	42
3800	-	201	114	80	62	56	53	-	110	71	60	52	50	49
4200	-	240	134	92	70	63	59	-	129	82	68	58	56	55
4600	-	282	154	104	77	69	65	-	-	93	76	64	61	60
4900	-	-	169	113	83	73	68	-	-	100	81	68	64	63
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³														
2500	-	125	70	49	37	34	32	-	67	43	35	30	29	28
2800	-	157	88	62	47	43	40	-	85	54	45	39	37	37
3100	-	192	107	74	57	51	48	-	103	66	55	47	45	44
3400	-	229	127	87	66	59	56	-	123	78	64	55	53	52
3800	-	281	154	105	79	70	66	-	-	94	77	65	62	61
4200	-	-	183	123	91	81	76	-	-	110	89	75	71	70
4600	-	-	214	142	103	90	85	-	-	127	102	85	80	78
4900	-	-	238	156	112	98	91	-	-	139	111	91	86	84
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³														
2500	109	48	33	27	24	23	22	63	30	23	21	20	19	19
2800	143	66	47	39	35	34	33	86	44	36	33	31	31	31
3100	178	84	60	51	46	44	44	108	57	47	44	41	41	41
3400	214	101	73	61	55	54	53	131	70	57	53	51	50	50
3800	265	124	88	74	66	64	63	-	85	69	64	61	60	60
4200	-	145	101	84	75	72	71	-	98	79	73	69	68	67
4600	-	166	113	93	82	78	77	-	110	87	80	75	73	73
4900	-	181	121	98	85	81	80	-	117	91	83	78	76	76

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Size 70, version 1LN

Type 70/1-B, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
4600	135	85	58	50	46	74	57	45	42	41
5000	156	97	66	56	51	85	64	51	47	45
5400	180	111	75	63	57	97	73	57	53	51
5800	206	127	84	71	64	111	83	65	60	58
6200	234	144	95	80	73	126	94	73	67	65
6600	265	163	107	90	82	142	107	83	76	74
7000	298	183	121	101	92	160	120	93	86	83
7300	-	199	131	110	100	174	131	102	94	91
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
4600	188	116	77	65	59	101	76	59	54	53
5000	219	134	88	73	66	116	87	66	61	59
5400	253	153	100	83	75	133	99	76	69	67
5800	290	175	113	94	84	152	113	86	79	76
6200	-	199	128	106	96	174	128	97	89	86
6600	-	225	145	120	108	197	145	110	101	98
7000	-	254	163	135	121	-	164	125	114	110
7300	-	276	178	147	132	-	179	136	124	120
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
4600	85	64	53	50	48	58	51	46	45	45
5000	97	73	60	56	54	66	58	52	51	50
5400	111	83	68	63	61	76	66	59	58	57
5800	127	94	77	71	69	86	75	67	65	64
6200	144	107	87	80	77	98	85	76	74	73
6600	162	120	97	90	87	110	96	86	83	82
7000	182	135	109	101	97	124	108	96	93	92
7300	198	146	119	110	106	135	117	105	102	101

Type 70/2-A, version 1LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/mNm³										
5300	153	87	51	40	34	72	50	34	30	28
5900	188	106	62	48	41	89	61	42	36	35
6500	227	128	74	57	49	107	73	50	44	41
7100	269	151	87	67	58	128	87	59	52	49
7700	-	177	102	78	67	150	102	69	60	57
8300	-	205	118	90	77	174	118	80	70	66
8900	-	235	135	103	88	200	135	92	80	76
9500	-	267	153	116	99	-	154	104	91	86
10000	-	296	169	129	110	-	171	115	100	95
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5300	215	119	67	51	43	100	67	44	38	36
5900	266	148	84	63	54	124	83	55	48	45
6500	-	179	101	77	65	151	101	67	58	55
7100	-	213	120	91	77	180	121	80	70	66
7700	-	250	141	106	90	-	142	94	82	77
8300	-	290	163	123	104	-	165	109	94	89
8900	-	-	186	140	119	-	189	125	108	102
9500	-	-	211	159	134	-	-	142	122	115
10000	-	-	233	175	147	-	-	157	135	127
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5300	75	48	33	29	27	41	31	25	23	23
5900	92	59	41	35	32	50	39	31	29	28
6500	111	71	49	42	39	61	47	37	35	34
7100	132	84	58	49	45	73	56	44	41	40
7700	155	98	67	57	53	85	66	52	48	47
8300	179	113	77	66	60	99	76	60	56	54
8900	205	129	88	75	69	113	87	69	64	62
9500	233	146	99	84	77	128	98	78	72	70
10000	257	161	109	93	85	142	109	86	80	78

Stated pressures for LPG are based on propane, but may also be used for butane.

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery
Sizes 50 and 70, version 1LN

Scope of delivery	RGL50	RGL70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, nozzle assembly with oil nozzle(s), combustion manager with control unit, flame sensor stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●
W-FM 100 combustion manager	●	●
Double gas valve assembly (Class A)	●	●
Gas butterfly valve	●	●
Pilot line	●	●
Air pressure switch	●	●
Oil pressure switch in return	●	●
Low gas pressure switch	●	●
Mixing assembly with adjustable regulating sleeve	●	–
Mixing assembly with adjustable flame tube	–	●
Actuators for compound regulation of gas and air via W-FM		
Air damper stepping motor	●	●
Gas butterfly valve stepping motor	●	●
Oil regulator stepping motor	●	●
Oil pump, fitted	●	●
Oil hoses	●	●
2 oil solenoid valves, 1 safety valve, two-stage nozzle assembly with shut-off device (solenoid)	●	●
Electromagnetic clutch	●	●

Special equipment	G50	G70
Downward-firing version	○	○
Air inlet flange for duct connection	○	○
Solenoid valve for air pressure switch test with continuously running fan or post-purge	○	○
Combustion head extension	○	○
Integral capacity controller for W-FM 100	○	○
Variable speed drive	○	○
O_2 trim	○	○
W-FM supplied loose for mounting in a control panel	○	○
Bus interface	○	○
PED execution	○	○
High-gas-pressure switch	○	○

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

Technical data
Sizes 50 and 70, version 1LN

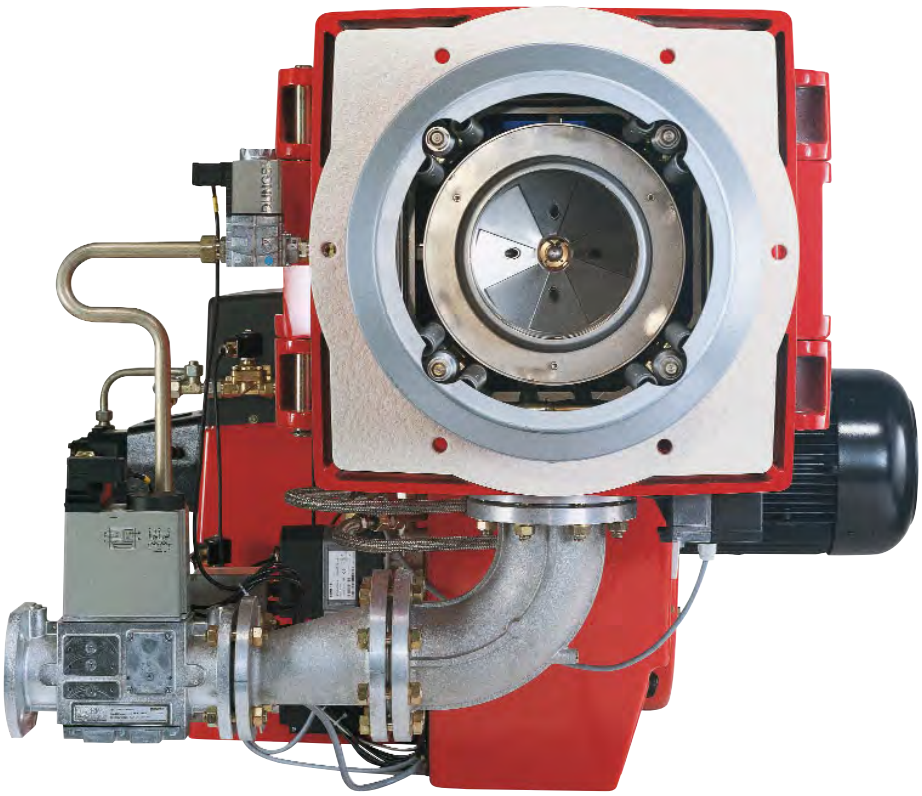
Technical data				RGL50/1-B	RGL50/2-A
400 V, 3 ~ burner motor [1]			Type	W-D132/170-2/9K0	W-D132/210-2/14K0
Nominal rating			kW	9	14
Current draw at 400 V			A	18	28
Motor prefusing (ϒΔ motor start)			A (slow)	35	50
Speed (50 Hz)			rpm	2930	2920
Fan wheel			Colour / ø	blue / 345 x 100	blue / 268 x 100
Combustion manager			Type	W-FM100	W-FM100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM45	SQM45
	Fuel		Type	SQM45	SQM45
Integral pump			Type	TA4C	T2C
Oil solenoid valves	115 V, ⅜"	(supply) 20 W	Type	321 H 2322	321 H 2322
	115 V, ⅜"	(return) 20 W	Type	121 G 2320	121 G 2320
Oil pressure switch	1–10 bar	(return - 5 bar)	Type	DSA 46 F001	DSA 46 F001
Oil hoses			DN / length	25 / 1300	25 / 1300
Burner weight			kg (approx.)	230	230
Weight (gas valve assembly and fittings)			R/DN	1½ 2 65 80 100 125 150	
			kg (approx.)	23 25 65 80 130 220 240	

Technical data				RGL70/1-B	RGL70/2-A
400 V, 3 ~ burner motor [1]			Type	W-D160/240-2/18K0	W-D160/240-2/22K0
Nominal rating			kW	18	22
Current draw at 400 V			A	35	43
Motor prefusing (ϒΔ motor start)			A (slow)	63	63
Speed (50 Hz)			rpm	2950	2940
Fan wheel			Colour / ø	blue / 590 x 160	blue / 590 x 160
Combustion manager			Type	W-FM100	W-FM 100
Ignition unit			Type	W-ZG02	W-ZG02
Actuator	Air		Type	SQM48	SQM48
	Fuel		Type	SQM45	SQM45
Integral pump			Type	T2C (< 600 kg/h) T3C (> 600 kg/h)	T2C (< 600 kg/h) T3C (> 600 kg/h)
Oil solenoid valves	115 V, ⅜"	(supply) 20 W	Type	321 H 2522	321 H 2522
	115 V, ⅜"	(return) 20 W	Type	121 G 2520	121 G 2520
Oil pressure switch	2–40 bar	(supply - 18 bar)	Type	–	–
	1–10 bar	(return - 5 bar)	Type	DSA 46 F 001	DSA 46 F 001
Oil hoses			DN / length	25 / 1300	25 / 1300
Burner weight			kg (approx.)	430	430
Weight (gas valve assembly and fittings)			DN	65 80 100 125 150	
			kg (approx.)	65 80 130 220 240	

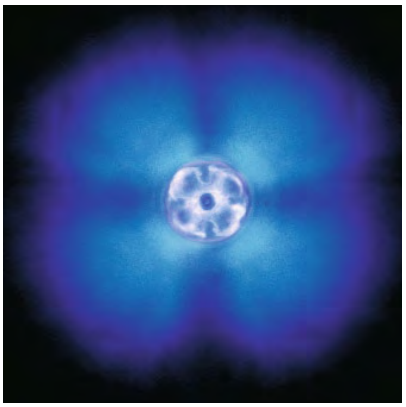
[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

–weishaupt–

multiflam® burners



The multiflam® principle: Reduced emissions as standard

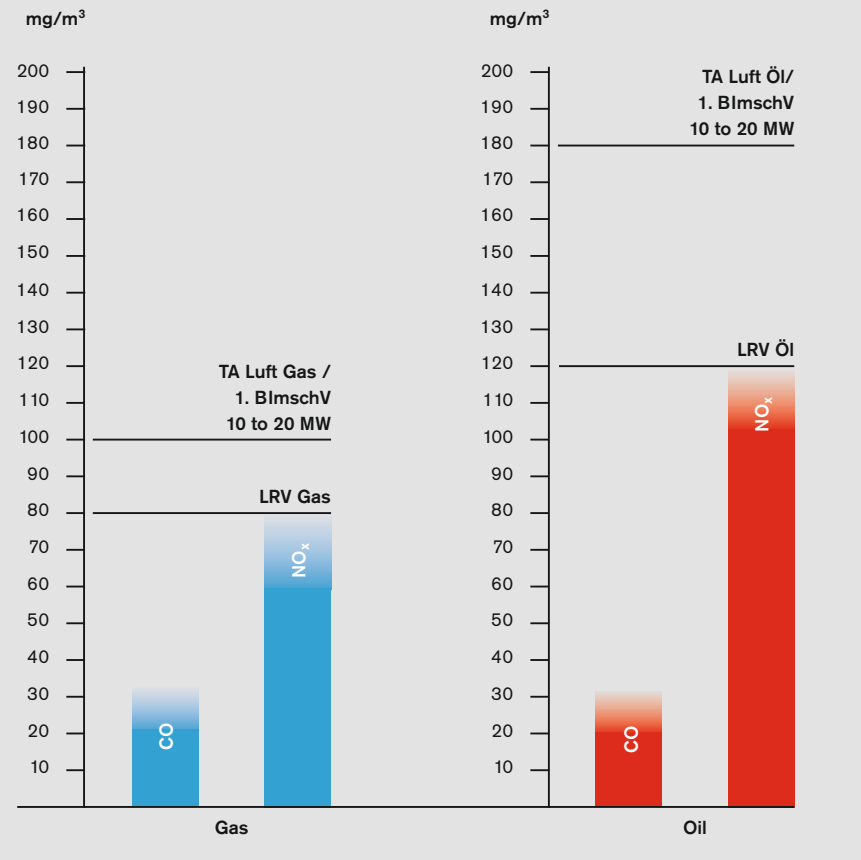


A multiflam® flame showing efficient combustion

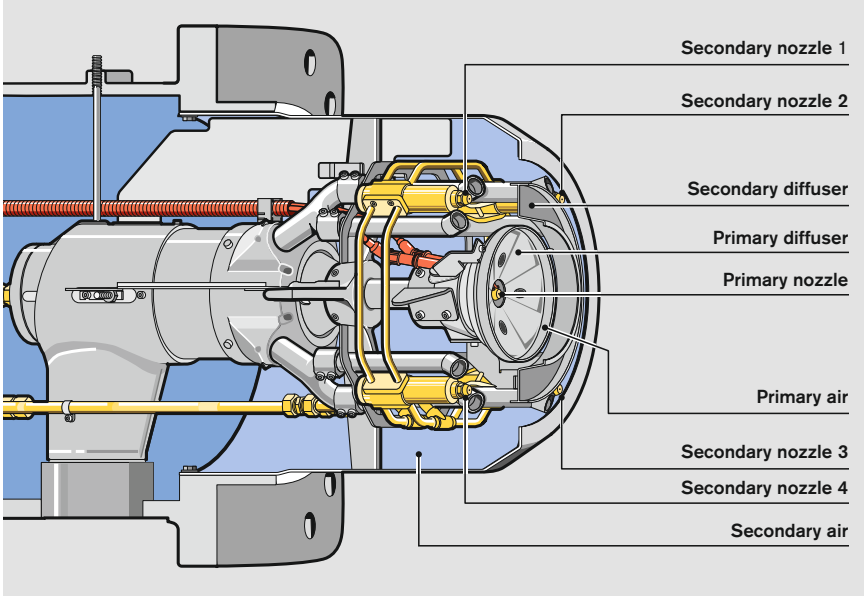
When Weishaupt introduced its multiflam® technology in 1998 it made history, astounding the industry with its unprecedentedly low emissions. Using a patented mixing assembly design, Weishaupt was able to reduce the NO_x emissions from large and medium-sized burners to levels that hitherto had only ever been associated with compact burners. Weishaupt set an all-new benchmark, achieving levels below 80 mg/kWh on gas and 120 mg/kWh on oil, subject to the combustion-chamber geometry.

Weishaupt's multiflam® burners meet the world's toughest standards. In those countries with particularly stringent environmental legislation, such as Switzerland, multiflam® industrial burners are market-sector leaders.

At the heart of Weishaupt's multiflam® technology is a special mixing-assembly design which distributes the fuel among primary and secondary nozzles. This results in extremely efficient combustion thanks to recirculation of the flue gases directly at the mixing assembly.

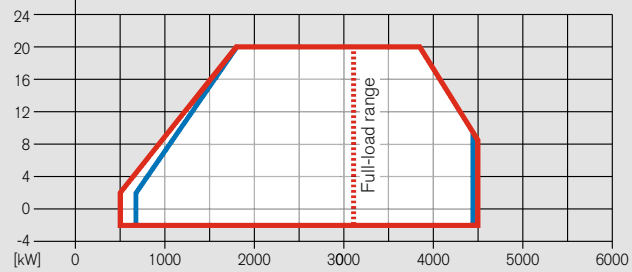


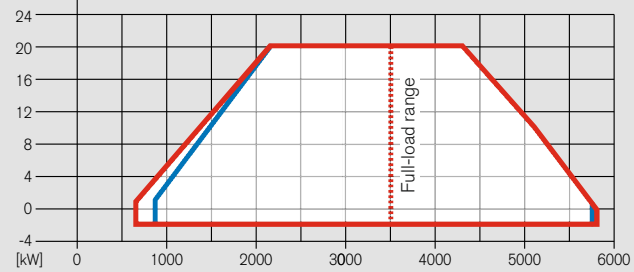
Typical emission levels for hot-water plant (subject to combustion chamber design)

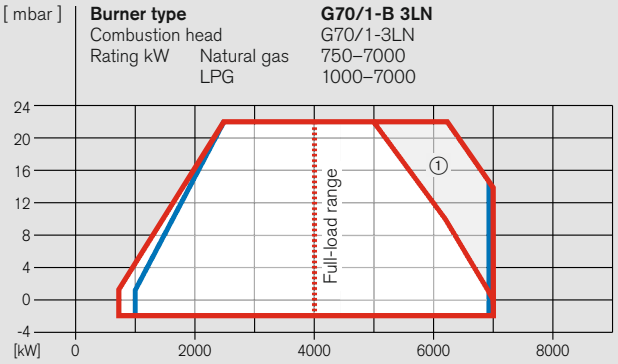


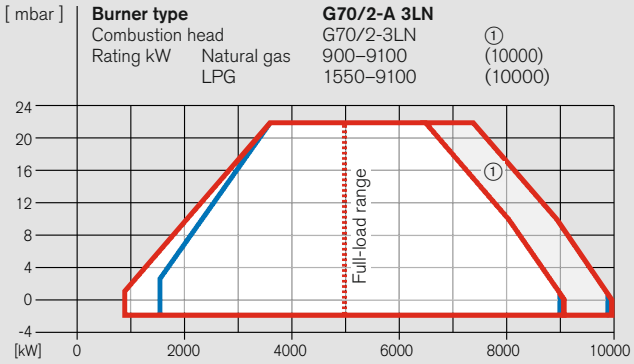
Cut-away illustration of the mixing assembly

Gas burner selection
Sizes 60 and 70, version 3LN – multiflam®









① 55 Hz version with VSD (additional cost)

Fuels
Natural gas
LPG

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost).

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 efficiency at 50/60 Hz (no IE classification at 55 Hz).

*** Note regarding G60/1-B 3LN**
The burner is equipped with VSD as standard. Its high-capacity fan wheel is driven by an IP 55 Weishaupt motor operating at 55 Hz when at full speed.

The burner is supplied with a W-FM 200 combustion manager as standard, and the burner price includes an FC301 P11K frequency convertor (IP 20 protection), and a braking resistor suitable for 55 Hz operation (supplied loose for mounting in a control panel).

Burner type	Version	CE-PIN	Valve train	Order No.
G60/1-B	3LN *	CE 0085 AQ 0722	R 2	217 604 14
			DN 65	217 604 44
			DN 80	217 604 54
			DN 100	217 604 64
			DN 125	217 604 74
			DN 150	217 604 84
G60/2-A	3LN	CE 0085 AQ 0722	DN 65	217 605 44
			DN 80	217 605 54
			DN 100	217 605 64
			DN 125	217 605 74
			DN 150	217 605 84
G70/1-B	3LN	CE 0085 AQ 0723	DN 65	217 704 44
			DN 80	217 704 54
			DN 100	217 704 64
			DN 125	217 704 74
			DN 150	217 704 84
G70/2-A	3LN	CE 0085 AQ 0723	DN 65	217 705 44
			DN 80	217 705 54
			DN 100	217 705 64
			DN 125	217 705 74
			DN 150	217 705 84

Gas valve train sizing
Size 60, version 3LN

Type G60/1-B 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3100	145	86	64	52	48	46	83	57	50	44	43	42
3300	161	95	70	56	52	49	92	63	54	48	46	46
3600	188	110	79	63	58	55	106	71	61	54	52	51
3900	217	125	90	70	64	61	121	81	69	60	58	57
4200	249	142	101	79	72	68	138	91	77	67	64	64
4500	283	161	113	87	79	75	156	102	86	75	72	70
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3100	199	114	81	64	58	55	110	73	62	54	52	51
3300	222	126	89	69	63	60	122	80	67	59	56	55
3600	260	146	102	78	71	67	142	92	77	66	64	62
3900	-	168	116	88	79	75	163	105	87	75	71	70
4200	-	192	132	99	89	84	187	118	98	83	80	78
4500	-	217	148	111	99	93	-	133	109	93	89	87
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3100	85	61	52	47	45	45	58	48	45	42	42	42
3300	94	67	56	51	49	48	64	52	48	46	45	45
3600	108	76	63	56	54	53	73	59	54	51	50	50
3900	123	85	71	63	60	59	82	66	61	57	56	56
4200	140	96	79	70	67	66	93	74	68	64	63	62
4500	158	108	88	78	74	73	104	82	75	71	70	69

Type G60/2-A 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3500	160	85	57	41	36	34	82	49	39	32	31	30
3700	177	94	62	44	39	36	90	53	42	35	33	32
3900	194	102	67	47	41	39	98	58	46	37	35	34
4100	213	112	72	51	44	41	108	63	49	40	37	36
4300	233	121	78	55	47	44	117	68	53	43	40	39
4600	265	137	87	61	52	48	132	76	59	47	44	43
4900	299	154	97	67	57	53	149	85	66	52	49	47
5200	-	172	108	74	63	58	166	94	73	58	54	52
5500	-	191	120	81	69	63	185	105	80	63	59	57
5800	-	211	132	89	76	69	-	115	88	69	64	63
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3500	222	115	73	50	43	40	110	63	49	39	36	35
3700	247	127	80	55	47	43	122	69	53	42	39	38
3900	273	139	88	60	51	47	135	76	58	46	42	41
4100	-	153	96	65	55	50	148	83	63	50	46	45
4300	-	167	104	70	59	54	162	90	69	54	50	48
4600	-	190	118	79	66	60	184	102	77	60	56	54
4900	-	214	132	88	74	67	-	115	87	68	62	61
5200	-	240	148	98	82	75	-	129	97	75	70	67
5500	-	268	164	109	91	83	-	144	108	84	77	75
5800	-	297	182	120	101	91	-	159	120	93	85	83
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3500	84	53	42	35	33	32	50	37	33	30	29	29
3700	92	58	45	38	35	34	55	40	35	32	31	31
3900	100	63	48	40	38	36	59	43	38	34	33	33
4100	109	68	51	43	40	39	64	46	41	37	36	35
4300	119	73	55	46	43	41	70	50	43	39	38	38
4600	134	82	61	50	47	45	78	55	48	43	42	42
4900	150	91	68	55	51	49	87	61	53	48	46	46
5200	168	101	75	61	56	54	97	68	59	53	51	50
5500	186	111	82	66	62	59	108	75	65	58	56	55
5800	206	123	90	73	67	65	119	82	71	63	61	60

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Size 70, version 3LN

Type G70/1-B 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
4000	111	73	53	46	43	64	51	42	40	39
4500	137	90	64	56	52	79	63	51	48	47
5000	167	108	76	66	62	95	75	61	57	56
5500	199	128	89	77	72	113	88	72	67	65
6000	233	149	103	89	82	131	102	82	77	75
6500	270	171	117	100	92	151	117	93	87	85
7000	-	194	131	112	103	171	131	104	97	94
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
4000	152	98	68	59	54	85	67	54	50	49
4500	191	122	85	73	67	107	83	67	63	61
5000	234	148	102	88	81	131	101	81	76	74
5500	280	177	121	103	95	156	120	96	89	87
6000	-	206	140	119	109	182	140	111	103	100
6500	-	236	159	134	122	-	159	125	115	112
7000	-	267	177	148	135	-	177	138	127	123
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
4000	60	45	37	34	33	40	35	31	30	30
4500	76	56	46	43	41	51	44	39	38	38
5000	93	69	56	52	50	62	54	48	47	46
5500	111	82	66	61	59	74	64	58	56	55
6000	131	96	77	71	69	87	75	67	65	64
6500	151	110	88	81	78	101	87	77	74	73
7000	172	125	99	91	87	114	98	86	83	82

Type G70/2-A 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
5000	143	85	53	43	38	72	52	38	34	33
5500	172	101	63	51	45	86	62	45	41	39
6000	204	120	74	60	53	102	73	53	48	46
6500	239	140	86	69	61	120	85	62	56	53
7000	276	161	99	79	70	138	99	71	64	61
8000	-	209	128	102	90	180	128	93	83	80
9000	-	263	160	128	113	-	161	117	105	100
10000	-	-	197	157	138	-	199	144	129	123
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5000	203	118	72	57	50	100	71	50	45	43
5500	244	141	85	68	59	120	85	60	54	51
6000	289	167	100	79	70	142	100	71	63	61
6500	-	195	117	92	81	167	117	83	74	71
7000	-	225	135	106	93	193	135	96	85	81
8000	-	293	175	137	120	-	176	125	111	106
9000	-	-	200	173	151	-	-	158	140	134
10000	-	-	271	213	185	-	-	194	173	165
LPG B/P* LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5000	75	51	38	34	32	44	36	30	29	28
5500	90	61	46	41	38	54	44	37	35	34
6000	107	72	54	48	45	64	52	44	41	41
6500	125	84	62	55	52	75	61	51	48	47
7000	144	97	72	64	60	86	70	59	56	55
8000	187	126	92	82	77	112	91	77	73	71
9000	236	158	116	103	96	142	115	96	91	90
10000	290	194	142	126	118	174	141	119	112	110

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery, special equipment
Sizes 60 and 70, version 3LN – multiflam®

Scope of delivery	G60	G70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, combustion manager with control unit, UV flame sensor, stepping motors, flange gasket limit switch on hinged flange, fixing screws	●	●
W-FM 100 combustion manager	●	●
Double gas-valve assembly (Class A)	●	●
Pilot line solenoid valve	●	●
Air pressure switch	●	●
Low gas pressure switch	●	●
Mixing assembly with modulating diffuser	●	●
Actuators for compound regulation of gas and air via W-FM		
Air damper stepping motor	●	●
Gas butterfly valve stepping motor	●	●
Mixing assembly stepping motor	●	●

Special equipment	G60	G70
Air inlet flange for duct connection	○	○
Combustion head extension	○	○
Integral capacity controller for W-FM 100	○	○
Variable speed drive	○	○
O_2 trim	○	○
W-FM supplied loose for mounting in a control panel	○	○
Bus interface	○	○
High gas pressure switch	○	○

EN 676 stipulates that gas filters and gas-pressure switches form part of the burner supply (see Weishaupt accessories list)

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

Technical data
Sizes 60 and 70, version 3LN – multiflam®

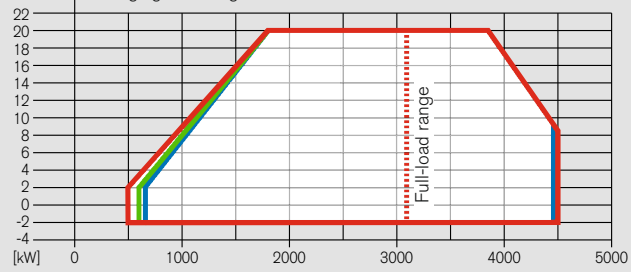
Technical data			G60/1-B 3LN	G60/2-A 3LN	G70/1-B 3LN	G70/2-A 3LN
400 V, 3 ~ burner motor [1]		Type	W-D132/210-2/14K0	W-D132/210-2/14K0	W-D160/240-2/18K0	W-D160/240-2/22K0
Nominal rating		kW	14	14	18	22
Current draw at 400 V		A	28	28	35	43
Motor prefusing (ϒΔ motor start)		A (slow)	50	50	63	63
speed (50 Hz)		rpm	2920	2920	2950	2940
Frequency convertor with braking resistor		Type	FC301 P11K IP20	–	–	–
Fan wheel		Colour / ø	blue / 515 x 127.5	blue / 515 x 127.5	blue / 590 x 160	blue / 590 x 160
Combustion manager		Type	W-FM 200	W-FM 100	W-FM 100	W-FM 100
Ignition unit		Type	W-ZG02	W-ZG02	W-ZG02	W-ZG02
Actuator	Air	Type	SQM48	SQM48	SQM48	SQM48
	Fuel	Type	SQM45	SQM45	SQM45	SQM45
	Mixing assembly	Type	SQM48	SQM48	SQM48	SQM48
Burner weight		kg (approx.)	345	330	435	435
Weight (gas valve assembly and fittings)		R / DN	1½ 2 65	80 100	125 150	
		kg (approx.)	13 24 23	31 39	37 48	

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009.

Dual-fuel burner selection
Sizes 60 and 70, version 3LN – multiflam®

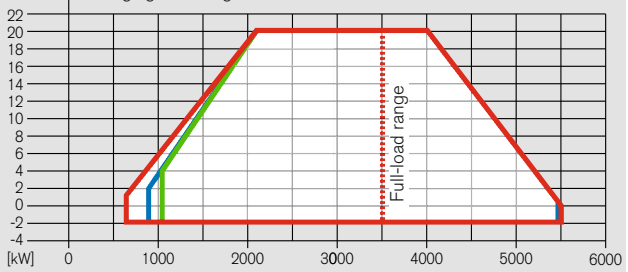
[mbar]

Burner type		**RGL60/1-B 3LN ***
Combustion head		G50/2-3LN
Rating kW	Natural gas	500–4500
	LPG	600–4500
Rating kW	Light oil	595–4500
Rating kg/h	Light oil	50–378



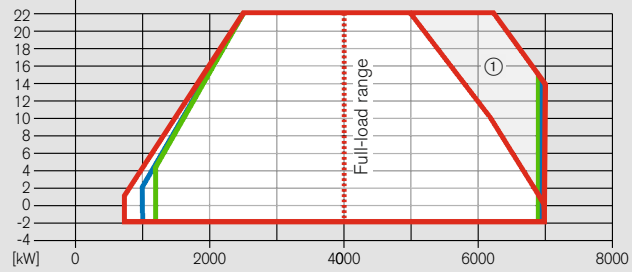
[mbar]

Burner type		**RGL60/2-A 3LN**
Combustion head		G60/2-3LN
Rating kW	Natural gas	650–5500
	LPG	900–5500
Rating kW	Light oil	1071–5500
Rating kg/h	Light oil	90–462



[mbar]

Burner type		**RGL70/1-B 3LN**
Combustion head		G70/1-3LN
Rating kW	Natural gas	750–7000
	LPG	1000–7000
Rating kW	Light oil	1190–7000
Rating kg/h	Light oil	100–588



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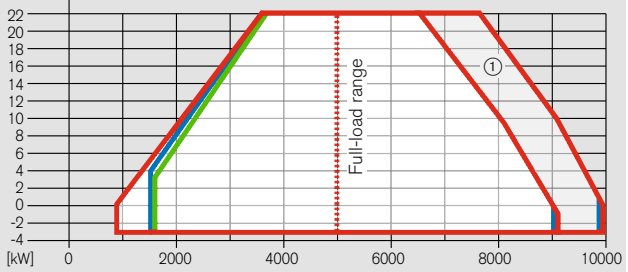
Burner type		**RGL70/2-A 3LN**	
Combustion head		G70/2-3LN	①
Rating kW	Natural gas	900–9100	(10000)
	LPG	1550–9100	(10000)
Rating kW	Light oil	1550–9100	(10000)
Rating kg/h	Light oil	130–763	(839)



① 55 Hz version with VSD (additional cost)

Fuels
Light oil — Natural gas — LPG

Stated oil throughputs are based on a calorific value of 11.91 kWh/kg for light oil.

Plotted operational ranges represent maximal values measured on idealised flame tubes in accordance with EN 676 and EN 267.

Stated ratings are based on an air temperature of 20 °C and an installation at sea level.

For installations at higher altitudes, a reduction in capacity of 1 % per 100 m above sea level should be taken into account.

Voltages and frequencies:
The burners are equipped as standard for three-phase alternating current, 400 V, 3 ~, 50 Hz. Other voltages and frequencies are available on application (no additional cost)

Standard burner motor:
Insulation Class F, IP 55 protection, IE3 efficiency at 50/60 Hz (no IE classification at 55 Hz).

*** Note regarding RGL60/1-B 3LN**
The burner is equipped with VSD as standard. Its high-capacity fan wheel is driven by an IP 55 Weishaupt motor operating at 55 Hz when at full speed.

The burner is supplied with a W-FM 200 combustion manager as standard, and the burner price includes an FC301 P11K frequency convertor (IP 20 protection), and a braking resistor suitable for 55 Hz operation (supplied loose for mounting in a control panel).

Burner type	Version.	CE-PIN	Valve train	Order No.
RGL60/1-B	3LN *	CE 0085 AQ 0722 5G518/05M	R 2	218 604 14
			DN 65	218 604 44
			DN 80	218 604 54
			DN 100	218 604 64
			DN 125	218 604 74
			DN 150	218 604 84
RGL60/2-A	3LN	CE 0085 AQ 0722 5G518/05M	R 2	218 605 14
			DN 65	218 605 44
			DN 80	218 605 54
			DN 100	218 605 64
			DN 125	218 605 74
			DN 150	218 605 84
RGL70/1-B	3LN	CE 0085 AQ 0723 5G519/05M	DN 65	218 704 44
			DN 80	218 704 54
			DN 100	218 704 64
			DN 125	218 704 74
			DN 150	218 704 84
RGL70/2-A	3LN	CE 0085 AQ 0723 5G519/05M	DN 65	218 705 44
			DN 80	218 705 54
			DN 100	218 705 64
			DN 125	218 705 74
			DN 150	218 705 84

Gas valve train sizing
Size 60, version 3LN – multiflam®

Type RGL60/1-B 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3100	145	86	64	52	48	46	83	57	50	44	43	42
3300	161	95	70	56	52	49	92	63	54	48	46	46
3600	188	110	79	63	58	55	106	71	61	54	52	51
3900	217	125	90	70	64	61	121	81	69	60	58	57
4200	249	142	101	79	72	68	138	91	77	67	64	64
4500	283	161	113	87	79	75	156	102	86	75	72	70
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3100	199	114	81	64	58	55	110	73	62	54	52	51
3300	222	126	89	69	63	60	122	80	67	59	56	55
3600	260	146	102	78	71	67	142	92	77	66	64	62
3900	-	168	116	88	79	75	163	105	87	75	71	70
4200	-	192	132	99	89	84	187	118	98	83	80	78
4500	-	217	148	111	99	93	-	133	109	93	89	87
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3100	85	61	52	47	45	45	58	48	45	42	42	42
3300	94	67	56	51	49	48	64	52	48	46	45	45
3600	108	76	63	56	54	53	73	59	54	51	50	50
3900	123	85	71	63	60	59	82	66	61	57	56	56
4200	140	96	79	70	67	66	93	74	68	64	63	62
4500	158	108	88	78	74	73	104	82	75	71	70	69

Type RGL60/2-A 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100						High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **2" 65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100 100					
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³												
3100	129	70	48	36	32	30	67	41	34	28	27	26
3500	160	85	57	41	36	34	82	49	39	32	31	30
4000	204	107	70	49	43	40	103	60	47	39	36	35
4300	233	121	78	55	47	44	117	68	53	43	40	39
4500	254	132	84	59	50	47	127	73	57	46	43	42
4800	287	148	94	65	56	51	143	82	63	51	47	46
5000	-	160	101	69	59	55	155	88	68	54	50	49
5300	-	178	112	76	65	60	172	98	75	59	55	54
5500	-	191	120	81	69	63	185	105	80	63	59	57
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³												
3100	178	93	60	43	37	34	89	52	41	33	31	30
3500	222	115	73	50	43	40	110	63	49	39	36	35
4000	287	146	92	62	53	48	141	79	61	48	44	43
4300	-	167	104	70	59	54	162	90	69	54	50	48
4500	-	182	113	76	64	58	176	98	74	58	54	52
4800	-	206	127	85	71	65	200	111	84	65	60	58
5000	-	222	137	91	77	70	-	120	90	70	65	63
5300	-	249	153	101	85	77	-	134	101	78	72	70
5500	-	268	164	109	91	83	-	144	108	84	77	75
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³												
3100	69	45	36	31	29	29	42	32	29	26	26	26
3500	84	53	42	35	33	32	50	37	33	30	29	29
4000	105	65	50	41	39	38	62	44	39	36	35	34
4300	119	73	55	46	43	41	70	50	43	39	38	38
4500	129	79	59	49	45	44	75	53	47	42	41	40
4800	145	88	66	54	50	48	84	59	51	46	45	44
5000	156	94	70	57	53	51	91	63	55	49	48	47
5300	174	104	77	63	58	56	101	70	61	54	52	52
5500	186	111	82	66	62	59	108	75	65	58	56	55

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Gas valve train sizing
Size 70, version 3LN – multiflam®

Type RGL70/1-B 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
4000	111	73	53	46	43	64	51	42	40	39
4500	137	90	64	56	52	79	63	51	48	47
5000	167	108	76	66	62	95	75	61	57	56
5500	199	128	89	77	72	113	88	72	67	65
6000	233	149	103	89	82	131	102	82	77	75
6500	270	171	117	100	92	151	117	93	87	85
7000	-	194	131	112	103	171	131	104	97	94
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
4000	152	98	68	59	54	85	67	54	50	49
4500	191	122	85	73	67	107	83	67	63	61
5000	234	148	102	88	81	131	101	81	76	74
5500	280	177	121	103	95	156	120	96	89	87
6000	-	206	140	119	109	182	140	111	103	100
6500	-	236	159	134	122	-	159	125	115	112
7000	-	267	177	148	135	-	177	138	127	123
LPG B/P LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
4000	60	45	37	34	33	40	35	31	30	30
4500	76	56	46	43	41	51	44	39	38	38
5000	93	69	56	52	50	62	54	48	47	46
5500	111	82	66	61	59	74	64	58	56	55
6000	131	96	77	71	69	87	75	67	65	64
6500	151	110	88	81	78	101	87	77	74	73
7000	172	125	99	91	87	114	98	86	83	82

Type RGL70/2-A 3LN

Burner rating kW	Low-pressure supply (with FRS) (flow pressure in mbar into shut-off valve, pe, max = 300 mbar) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100					High-pressure supply (with HP regulator), (flow pressure in mbar into gas valve assembly) **Nominal valve-train diameter** **65 80 100 125 150** Nom. diameter of gas butterfly 100 100 100 100 100				
Natural Gas E LHV = 10.35 kWh/Nm³; d = 0.606; Wi = 13.295 kWh/Nm³										
5000	143	85	53	43	38	72	52	38	34	33
5500	172	101	63	51	45	86	62	45	41	39
6000	204	120	74	60	53	102	73	53	48	46
6500	239	140	86	69	61	120	85	62	56	53
7000	276	161	99	79	70	138	99	71	64	61
8000	-	209	128	102	90	180	128	93	83	80
9000	-	263	160	128	113	-	161	117	105	100
10000	-	-	197	157	138	-	199	144	129	123
Natural Gas LL LHV = 8.83 kWh/Nm³; d = 0.641; W_i = 11.029 kWh/Nm³										
5000	203	118	72	57	50	100	71	50	45	43
5500	244	141	85	68	59	120	85	60	54	51
6000	289	167	100	79	70	142	100	71	63	61
6500	-	195	117	92	81	167	117	83	74	71
7000	-	225	135	106	93	193	135	96	85	81
8000	-	293	175	137	120	-	176	125	111	106
9000	-	-	200	173	151	-	-	158	140	134
10000	-	-	271	213	185	-	-	194	173	165
LPG B/P* LHV = 25.89 kWh/Nm³; d = 1.555; W_i = 20.762 kWh/Nm³										
5000	75	51	38	34	32	44	36	30	29	28
5500	90	61	46	41	38	54	44	37	35	34
6000	107	72	54	48	45	64	52	44	41	41
6500	125	84	62	55	52	75	61	51	48	47
7000	144	97	72	64	60	86	70	59	56	55
8000	187	126	92	82	77	112	91	77	73	71
9000	236	158	116	103	96	142	115	96	91	90
10000	290	194	142	126	118	174	141	119	112	110

The combustion chamber pressure in mbar must be added to the minimum gas pressure determined from the above chart.

For low-pressure supplies, EN 88-compliant governors with safety diaphragms are used. The maximum permissible supply pressure into the shut-off valve for low pressure installations is 300 mbar.

For high-pressure supplies, EN 334-compliant high-pressure regulators should be selected from the brochure *"Pressure regulators with safety devices for Weishaupt gas and dual-fuel burners"*. This brochure details high-gas-pressure sets suitable for supply pressures of up to 4 bar.

Refer to the burner's rating plate for the maximum connection pressure.

Scope of delivery, special equipment
Sizes 60 and 70, version 3LN – multiflam®

Scope of delivery	RGL60	RGL70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air-inlet housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, atomisation system with oil nozzle(s), combustion manager with control unit, flame sensor, stepping motors, flange gasket, limit switch on hinged flange, fixing screws	●	●
W-FM 100 combustion manager	●	●
Double gas valve assembly (Class A)	●	●
Pilot line solenoid valve	●	●
Gas butterfly valve	●	●
Air pressure switch	●	●
Low gas pressure switch	●	●
Mixing assembly with modulating diffuser	●	●
Actuators for compound regulation of gas and air via W-FM		
Air damper stepping motor	●	●
Gas butterfly valve stepping motor	●	●
Mixing assembly stepping motor	●	●

Special equipment	RGL60	RGL70
Air inlet flange for duct connection	○	○
Solenoid valve for air pressure switch test with continuously running fan or post-purge	○	○
Combustion head extension	○	○
Integral capacity controller for W-FM 100	○	○
Variable speed drive	○	○
O_2 trim	○	○
W-FM supplied loose for mounting in a control panel	○	○
Bus interface	○	○
PED execution	○	○
High gas pressure switch	○	○

EN 676 stipulates that gas filters and gas-pressure switches form part of the burner supply (see Weishaupt accessories list)

● Standard
○ Optional

Please enquire or see the price list for additional special equipment.

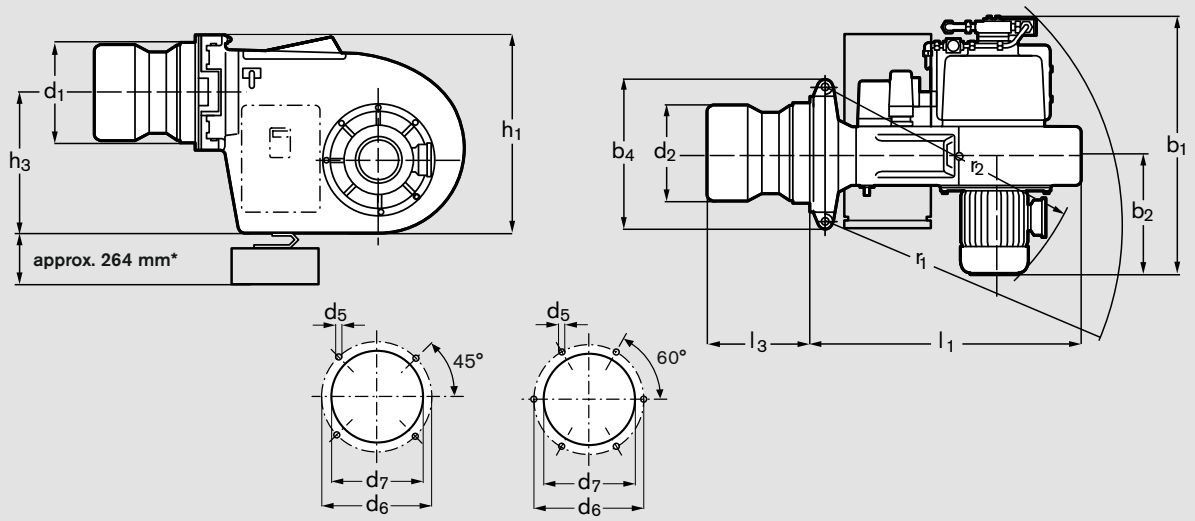
Technical data
Sizes 60 and 70, version 3LN – multiflam®

Technical data			RGL60/1-B 3LN	RGL60/2-A 3LN
400 V, 3 ~ burner motor [1]		Type	W-D132/210-2/14K0	W-D132/210-2/14K0
Nominal rating		kW	14	14
Current draw at 400 V		A	28	28
Motor prefusing (ϒΔ motor start)		A	50	50
Speed (50 Hz)		rpm	2920	2920
Frequency convertor with braking resistor		Type	FC301 P11K IP20	–
Fan wheel		Colour / ø	– / 515 x 127.5	– / 515 x 127.5
Combustion manager		Type	W-FM 200	W-FM 100
Ignition unit		Type	W-ZG02	W-ZG02
Actuator	Air	Type	SQM48	SQM48
	Fuel	Type	SQM45	SQM45
	Mixing assembly	Type	SQM48	SQM48
Integral pump		Type	T2C	T2C
Oil solenoid valves	115 V (supply)	Type	321 H 2322 (x 2)	321 H 2322 (x 2)
	115 V (return)	Type	121 G 2320 (x 2)	121 G 2320 (x 2)
Oil pressure switch (return, light oil - 5 bar)	1–10 bar	Type	DSA 46 F001	DSA 46 F001
Oil hoses		DN / length	25 / 1300	25 / 1300
Burner weight		kg (approx.)	345	330
Weight (gas valve assembly and fittings)		R / DN	1½ 2 65 80 100 125 150	
		kg (approx.)	13 24 23 31 39 37 48	

Technical data			RGL70/1-B 3LN	RGL70/2-A 3LN
400 V, 3 ~ burner motor [1]		Type	W-D160/240-2/18K0	W-D160/240-2/22K0
Nominal rating		kW	18	22
Current draw at 400 V		A	35	43
Motor prefusing (ϒΔ motor start)		A	63	63
Speed (50 Hz)		rpm	2950	2940
Fan wheel		Colour / ø	blue / 590 x 160	blue / 590 x 160
Combustion manager		Type	W-FM 100	W-FM 100
Ignition unit		Type	W-ZG02	W-ZG02
Actuator	Air	Type	SQM48	SQM48
	Fuel	Type	SQM45	SQM45
	Mixing assembly	Type	SQM48	SQM48
Integral pump		Type	T2C (< 450 kg/h) T3C (> 450 kg/h)	T3C
Oil solenoid valves	115 V (supply)	Type	321 H 2522 (x 2)	321 H 2522 (x 2)
	115 V (return)	Type	121 G 2520 (x 2)	121 G 2520 (x 2)
Oil pressure switch (return, light oil - 5 bar)	1–10 bar	Type	DSA 46 F001	DSA 46 F001
Oil hoses		DN / length	25 / 1300	25 / 1300
Burner weight		kg (approx.)	435	435
Weight (gas valve assembly and fittings)		R / DN	1½ 2 65 80 100 125 150	
		kg (approx.)	13 24 23 31 39 37 48	

[1] The electrical motors are premium-efficiency IE3 motors in accordance with Commission Regulation (EC) No. 640/2009

Oil burner dimensions
Sizes 30 to 70



** varies according to oil preheater*

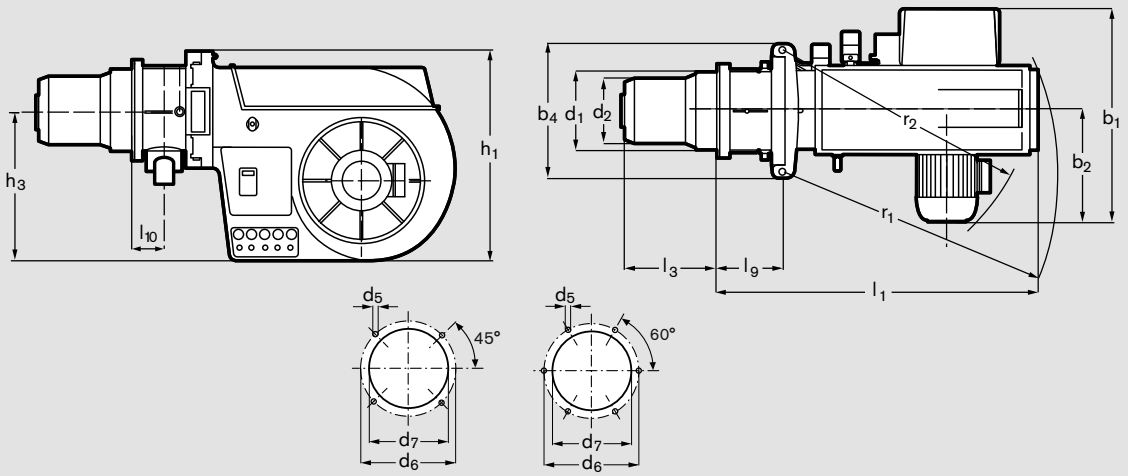
Sizes 30-50

Sizes 60-70

Burner type	Dimensions in mm													
	b_1	b_2	b_4	d_1	d_2	d_5	d_6	d_7	h_1	h_3	l_1	l_3	r_1	r_2
MS30Z/2-A	843	430	418	280	250	M12	360	285	572	407	892	303	963	929
RMS30/2-A	843	430	418	280	250	M12	360	285	572	407	892	303	963	929
MS40Z/1-B	877	431	462	280	250	M12	360	285	607	422	937	303	1009	958
RMS40/1-B	877	431	462	280	250	M12	360	285	607	422	937	303	1009	958
RMS40/2-A	877	431	462	320	290	M12	400	325	607	422	937	361	1009	958
RMS50/1-B	968	462	550	320	290	M12	400	330	728	513	985	361	1077	1025
RMS50/2-A	1002	502	550	380	350	M16	480	390	728	513	990	386	1083	1050
RL60/2-A	1110	527	670	429	400	M16	470	435	930	670	1189	407	1247	1178
RMS60/2-A	1006	527	670	429	400	M16	470	435	930	670	1189	407	1250	1178
RL70/1-A	1279	603	760	470	480	M16	550	500	1075	775	1368	417	1428	1338
RMS70/1-A	1168	603	760	470	480	M16	550	500	1075	775	1368	417	1428	1338
RL70/2-A	1279	603	760	470	480	M16	550	500	1075	775	1368	417	1428	1338
RMS70/2-A	1168	603	760	470	480	M16	550	500	1075	775	1368	417	1428	1338

See manual for further dimensions

Gas burner dimensions
Sizes 30 to 70



(3LN-version depicted)

Sizes 30–50

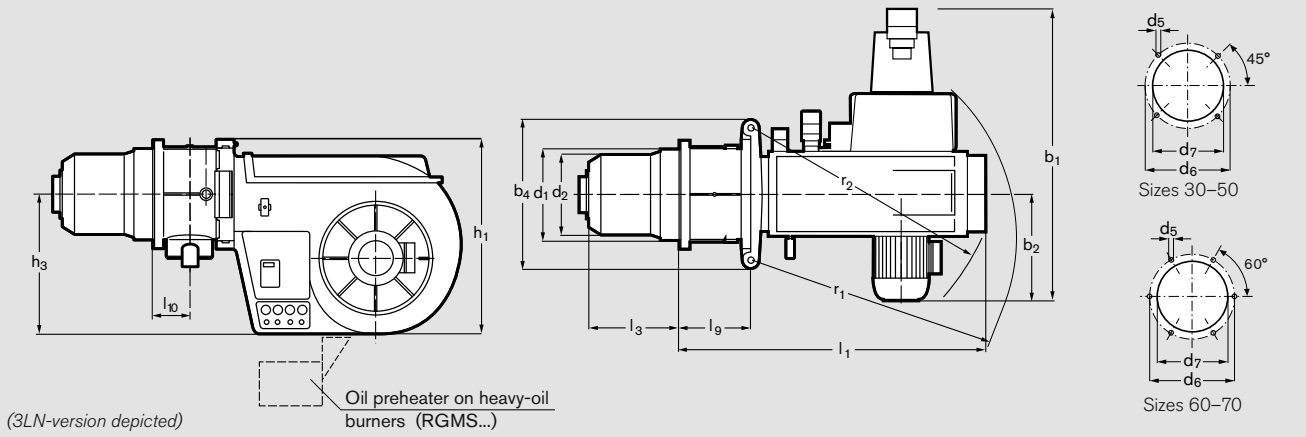
Sizes 60–70

Burner type	Dimensions in mm															
	b_1	b_2	b_4	d_1	d_2	d_5	d_6	d_7	h_1	h_3	l_1	l_3	l_9	l_{10}	r_1	r_2
G60/2-A ZM-NR	1006	527	670	432	400	M16	470	435	930	670	1478	357	348	178	1250	1178
G70/1-B ZM-NR	1168	603	760	432	400	M16	470	435	1075	775	1648	357	348	178	1428	1338
G70/3-A ZM-NR	1168	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1428	1338
G70/4-A ZM-NR	1168	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1428	1338
G70/1-B ZM-1LN	1168	603	760	432	406	M16	470	435	1075	775	1648	419	348	178	1428	1338
G70/2-A ZM-1LN	1168	603	760	470	480	M16	550	500	1075	775	1668	447	368	188	1428	1338
G60/2-A ZM-LN	1006	527	670	432	406	M16	470	435	930	670	1478	432	348	178	1250	1178
G70/1-B ZM-LN	1168	603	760	432	406	M16	470	435	1075	775	1648	432	348	178	1428	1338
G70/2-A ZM-LN	1168	603	760	470	480	M16	550	500	1075	775	1668	437	368	188	1428	1338
G60/1-B 3LN	1006	527	670	432	334	M16	470	435	930	670	1478	431	348	178	1250	1178
G60/2-A 3LN	1006	527	670	432	376	M16	470	435	930	670	1478	480	348	178	1250	1178
G70/1-B 3LN	1168	603	760	432	376	M16	470	435	1075	775	1648	480	348	178	1428	1338
G70/2-A 3LN	1168	603	760	470	444	M16	550	500	1075	775	1668	475	368	188	1428	1338

See burner manual for additional dimensions

* Pilot line connection 805 mm

Dual-fuel burner dimensions
Sizes 30 to 70



(3LN-version depicted)

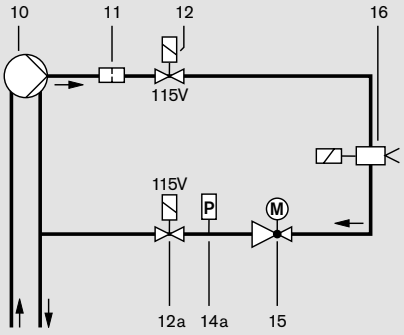
Burner type	Dimensions in mm															
	b_1	b_2	b_4	d_1	d_2	d_5	d_6	d_7	h_1	h_3	l_1	l_3	l_9	l_{10}	r_1	r_2
RGL60/2-A ZM-NR	1235	527	670	432	400	M16	470	435	930	670	1478	357	348	178	1337	1178
RGL70/1-B ZM-NR	1402	603	760	432	400	M16	470	435	1075	775	1646	357	348	178	1490	1338
RGL70/3-A ZM-NR	1402	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1490	1338
RGL70/4-A ZM-NR	1402	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1490	1338
RGMS30/2-A NR	950	430	330	280	250	M12	360	285	572	407	1083	272	338	123	1003	929
RGMS40/1-B NR	984	431	330	280	250	M12	360	285	608	422	1129	272	338	123	1081	958
RGMS40/2-A NR	984	431	370	320	290	M12	400	325	608	422	1148	330	358	133	1081	958
RGMS50/1-B ZM-NR	1092	462	550	320	290	M12	400	325	730	513	1195	332	258	133	1166	1025
RGMS50/2-A ZM-NR	1125	502	550	382	350	M16	480	390	730	513	1249	332	308	158	1167	1050
RGMS60/2-A ZM-NR	1006	527	670	432	400	M16	470	435	930	670	1478	357	348	178	1250	1178
RGMS70/1-B ZM-NR	1168	603	760	432	400	M16	470	435	1075	775	1646	357	348	178	1490	1338
RGMS70/3-A ZM-NR	1168	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1490	1338
RGMS70/4-A ZM-NR	1168	603	760	510	480	M16	580	530	1075	775 *	1660	467	368	186	1490	1338
RGL50/1-B ZM-1LN	1092	462	550	320	290	M12	400	325	730	513	1195	332	258	133	1166	1025
RGL50/2-A ZM-1LN	1125	502	550	382	350	M16	480	390	730	513	1249	447	308	158	1167	1050
RGL70/1-B ZM-1LN	1402	603	760	432	406	M16	470	435	1075	775	1648	419	348	178	1490	1338
RGL70/2-A ZM-1LN	1402	603	760	470	480	M16	550	500	1075	775	1668	447	368	188	1490	1338
RGL60/1-B 3LN	1235	527	670	432	334	M16	470	435	930	670	1478	431	348	178	1337	1178
RGL60/2-A 3LN	1235	527	670	432	376	M16	470	435	930	670	1478	480	348	178	1337	1178
RGL70/1-B 3LN	1402	603	760	432	376	M16	470	435	1075	775	1648	480	348	178	1490	1338
RGL70/2-A 3LN	1402	603	760	470	444	M16	550	500	1075	775	1668	475	368	188	1490	1338

See manual for further dimensions

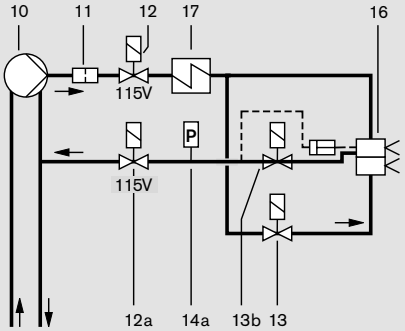
* Pilot line connection 805 mm

Fuel systems

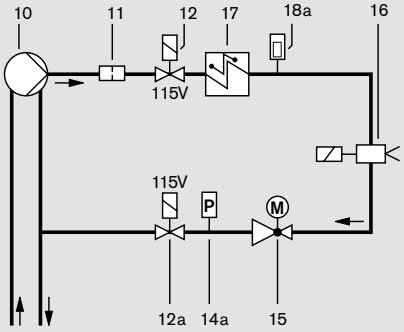
RL60 to RL70
RGL50 to RGL70 (oil side)



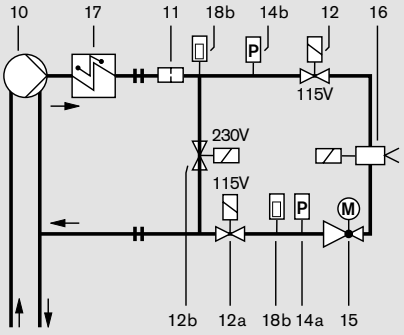
MS30Z/2-A, MS40Z/1-B



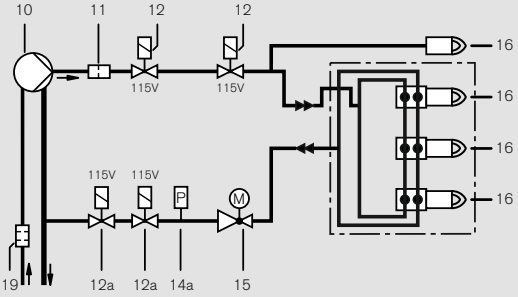
RMS30 to RMS50
RGMS30 to RGMS50 (oil side)
Integral oil pump and preheater



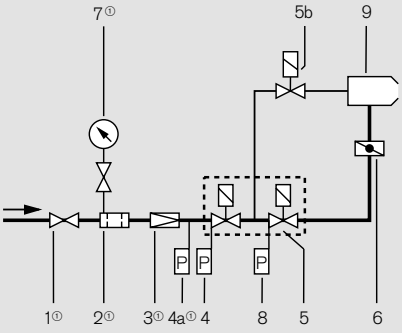
RMS60 to RMS70
RGMS60 to RGMS70 (oil side)
Separate oil pump and preheater stations



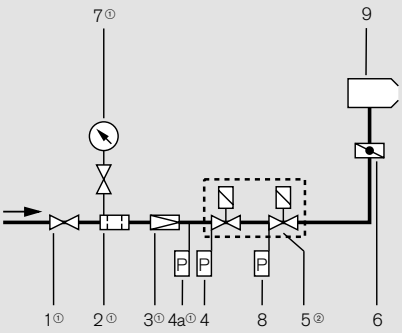
RGL60 to RGL70, version 3LN (oil side)



G60 to G70, versions NR, 1LN & 3LN
RGL50 to RGL70 (gas side)
with gas valve assembly



G60 to G70, version LN
with gas valve assembly



Legend

1 Ball valve ①
2 Gas filter ①
3 Pressure regulator (LP) ①
4 Low-gas-pressure switch
4a High-gas-pressure switch (for TRD) ①
5 Double solenoid valve (DMV) ②
5a Pilot line solenoid valve
6 Gas butterfly valve
7 Pressure gauge with push-button valve ①
8 Valve-proving pressure swtich ①
9 Burner
10 Oil pump
11 Strainer
12 Normally closed solenoid valve (115 V, switched in series with 12a)
12a Normally closed solenoid valve (115 V, switched in series with 12, fitted against the direction of flow)
12b Normally open bypass solenoid valve
13 Normally closed solenoid valve
13a Normally closed solenoid valve for stages 1, 2, and 3
13b Normally open solenoid valve
14a Oil-pressure switch in return
14b Oil-pressure switch in supply
15 Oil regulator
16 Nozzle assembly with shut-off device
16a Nozzle assembly without shut-off device
17 Oil preheater
18a Temperature switch
18b PT 100 temperature sensor (to monitor the minimum oil temperature)
19 External oil filter ①

① Not included in burner price.

Pump and preheater stations

Scope of supply: pump stations
Pump unit (screw pump with motor), pressure gauge, vacuum gauge, pressure regulating valve, ball valves, inlet flange, outlet flange including counter-flanges, screws and washers, inlet filter. All parts are supplied piped-up and fully assembled on an oil drip tray.

Pump stations are available as simplex units with one pump, or as duplex units with two pumps. The latter operate as duty/standby sets, enabling a prompt change-over to the second pump in the event the first pump fails.

Only tried-and-tested pump types are used. The pumps stations are carefully matched to the capacity of the burner.

Scope of supply: preheater stations
Preheater stations are supplied piped-up on an oil drip tray. The preheater station continuously regulates the preheat temperature, and thus the viscosity, of the oil which is to be atomised.

Two basic types of oil preheater station are available, WEV and MV:
1. Electric preheating (WEV)
2. Medium preheating (MV)

MV-series medium preheaters
Medium preheaters are high-capacity, forced-circulation heat exchangers that utilise hot water, steam or thermal fluid as their heat-supplying medium. A high-capacity is achieved with a uniform, space-saving construction. The oil preheaters guarantee an extremely stable oil temperature and thus good combustion figures. The oil temperature that can be achieved depends on the heating medium used.

When selecting and sizing the preheater, close attention must be paid to the oil temperature charts in section 5.3 of the manual *"Weishaupt Electric & Media Oil Preheaters"* (Print No. 18).

Weishaupt medium oil preheaters are universally employable. They can be operated on a stand-alone basis or in conjunction with an electric preheater, and the medium used can be changed at any time.

If there is a continual supply of process steam at more than 7.5 bar, or hot water at 180 to 200 °C, then an electric preheater is not needed. This is also the case if the plant can be operated on gas or light oil until this minimum pressure or temperature is reached.

If the medium temperature is not sufficient to adequately preheat the fuel oil, then an electric preheater provides the additional heating required. The electric preheater heats the fuel oil during the start-up of the plant, which can then be switched over to the medium preheater once the required medium temperature is reached, thus saving on expensive electrical energy.

Medium preheater connection fittings should be selected to suit the medium being used. If the medium oil preheater is to be used without an electric preheater, then a mechanical temperature regulator must be used with the medium connection fittings.

Medium preheater connection fittings are not included in preheater prices.

General notes
When starting a heavy-oil-fired boiler from a cold condition, the capacity of the electric preheater must be sufficient to cover at least 30 % of the boiler's rated output.

Installation notes
The oil filter, air/gas separator, circulation tank, pump station, and oil preheater must be installed near the burner.

For burners with separate oil preheaters, the time required for oil circulation during start-up depends upon the distance between the burner and the air/gas separator or circulation tank. The shorter the pipeline, the shorter the time between the call for heat and oil release or burner restart after a controlled shut-down.

Pump and preheater stations

Simplex pump stations (not for burner version 3LN)

Burner Rating, kg/h (approx.)	Technical data - Pump Flow rate, l/h	Speed, rpm	Motor, kW	Station with 1 pump Pump type	Part No.
Light oil, 6 mm²s, ℓ = 0.84 kg/l, frequency 50 Hz*					
504 – 600	1428	2900	2,20	LFW-15-EL	270 008 01
600 – 789	1878	2900	3,00	LFW-20-EL	270 008 02
789 – 1011	2406	2900	3,00	LFW-26-EL	270 008 03
Light oil, 6 mm²s, ℓ = 0.84 kg/l, frequency 60 Hz*					
474 – 748	1782	3450	2,64	LFW-15-EL	270 008 07
748 – 983	2340	3450	3,60	LFW-20-EL	270 008 08
983 – 1260	3000	3450	3,60	LFW-26-EL	270 008 09
HFO, 12 mm²s, ℓ = 0.98 kg/l, frequency 50 Hz*					
349 – 479	977	2900	1,50	LFW-10-S	270 008 24
479 – 749	1529	2900	2,20	LFW-15-S	270 008 25
749 – 985	2011	2900	3,00	LFW-20-S	270 008 26
HFO, 12 mm²s, ℓ = 0.98 kg/l, frequency 60 Hz*					
282 – 438	894	3450	1,80	LFW-7-S	270 008 30
438 – 594	1212	3450	1,80	LFW-10-S	on application
594 – 923	1884	3450	2,60	LFW-15-S	on application

* Design data for operation

Duplex pump stations (not for burner version 3LN)

Burner Rating, kg/h (approx.)	Technical data - Pump Flow rate, l/h	Speed, rpm	Motor, kW	Station with 2 pumps Pump type	Part No.
Light oil, 6 mm²s, ℓ = 0.84 kg/l, frequency 50 Hz*					
up to 600	1428	2900	2,20	DLC-1800-EL	270 008 12
600 – 789	1878	2900	3,00	DLC-2400-EL	270 008 13
789 – 1011	2406	2900	3,00	DLC-2600-EL	270 008 14
Light oil, 6 mm²s, ℓ = 0.84 kg/l, frequency 60 Hz*					
bis 474	1128	3450	1,80	DLC-1200-EL	270 008 18
474 – 748	1782	3450	2,64	DLC-1800-EL	270 008 19
748 – 983	2340	3450	3,60	DLC-2400-EL	270 008 20
HFO, 12 mm²s, ℓ = 0.98 kg/l, frequency 50 Hz*					
349 – 479	977	2900	1,50	DLC-1200-S	270 008 36
479 – 749	1529	2900	2,20	DLC-1800-S	270 008 37
749 – 985	2011	2900	3,00	DLC-2400-S	270 008 38
HFO, 12 mm²s, ℓ = 0.98 kg/l, frequency 60 Hz*					
282 – 438	894	3450	1,80	DLC-900-S	on application
438 – 594	1212	3450	1,80	DLC-1200-S	on application
594 – 923	1884	3450	2,60	DLC-1800S	on application

* Design data for operation

Preheater stations

Type	Quantity	Medium preheater kg/h	Electric preheater kg/h at Δt = 75 °C	Part No.
WEV3.1/01	1	–	375	170 003 55
WEV3.1/01	2	–	750	170 003 52
WEV3/01	1	–	500	170 002 23
WEV3/01	2	–	1000	170 002 24
MV9C with temperature regulator	1	500	–	170 001 03
MV9C without temperature regulator	1	500	–	170 001 04
MV10A with temperature regulator	1	1000	–	170 000 94
MV10A without temperature regulator	1	1000	–	170 002 30

Details for connection fittings and for other pump stations and preheaters are available upon request.