–weishaupt–

product

Information on compact burners

Digital dual fuel burners

Weishaupt dual fuel burners WGL30-C and WGL40-A (70 – 550 kW)

Hot for quality

Ultra-modern research and production methods, rigorous quality control, and a comprehensive service network ensures the reliability for which Weishaupt is renowned

Our motivation is technological progress, which has been driving us for more than 50 years to set new standards for the combustion industry.

Weishaupt's own Research and Development Centre is constantly working on both new developments and the optimisation of existing products.

It is our goal and our responsibility to go above and beyond current legislative requirements in developing combustion systems which produce fewer and fewer emissions, save more and more energy, and in so doing combine ecology and economy in a practical manner.

Therefore, not only do we invest in research and technology but we also only ever work on the best materials with modern tools and we carry out meticulous quality control check.

It has been proven over a million times in the field that heating specialists and customers hold Weishaupt burners to be reliable, long lasting, environmentally friendly and technologically advanced. A fact also documented by numerous design and innovation prizes.

Over 600 burners are manufactured daily at our ultra-modern production facilities in Schwendi. Every single burner is subjected to a mechanical and electrical function test. The combination of technology with an effective quality control system safeguards Weishaupt's renowned reputation for quality.

A new burner is always an investment in the future. Cost needs to be well balanced against use, but the final deciding factors for long term success are quality, technology and safety. Deciding for Weishaupt burners is therefore a safe investment in the future.

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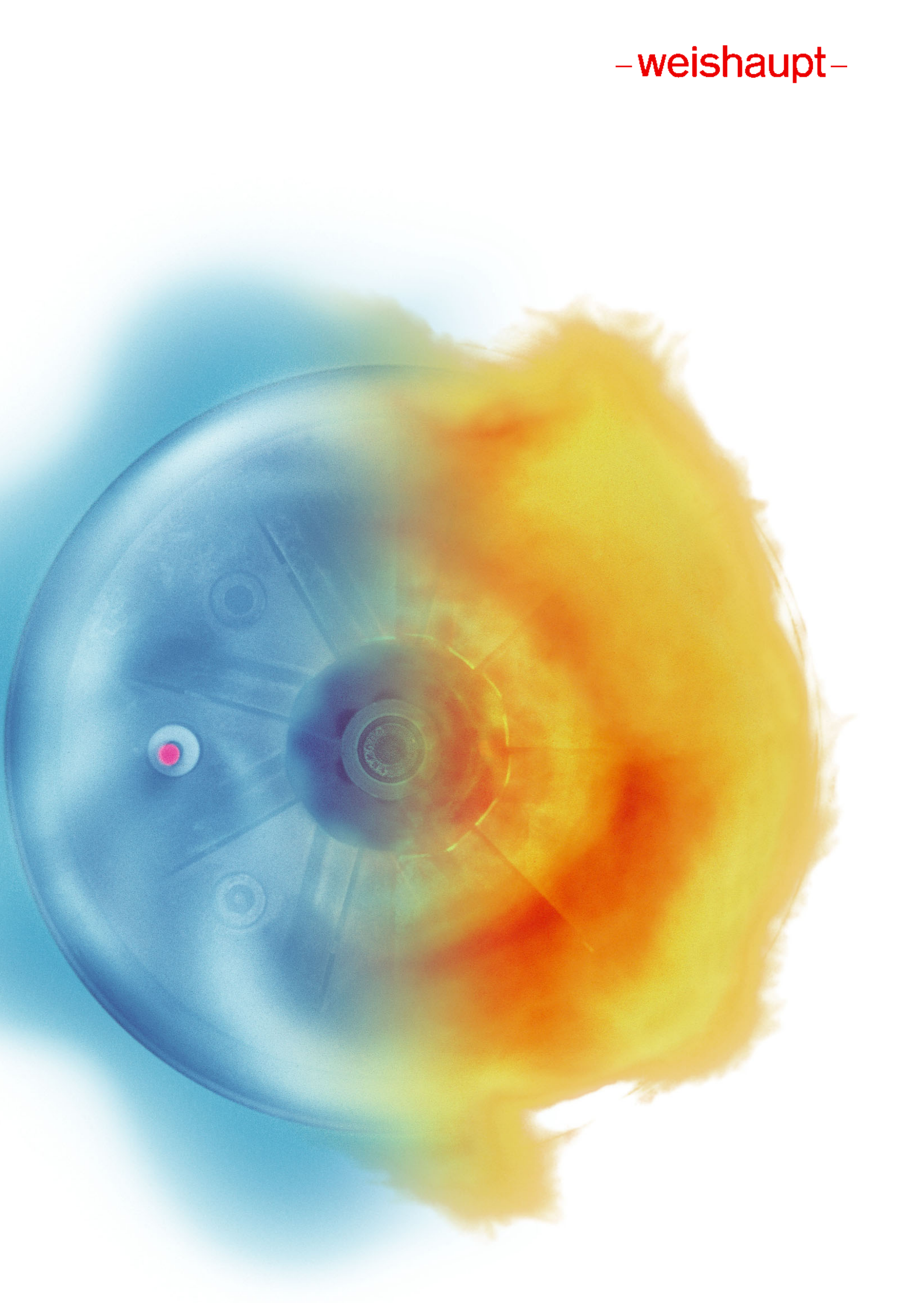


A hallmark of practical combustion technology

Coded plugs for safe electrical connection

All components are easily accessible

Simple commissioning and diagnosis

A safe investment in the future
Reliable and economical: The millionfold success of the Weishaupt compact burners is the result of orienting without compromise towards quality and the customer. The technology has been constantly developed and improved over decades.

The latest production methods and stringent quality checks of all products ensure Weishaupt's reputation for quality. You are making a safe investment in the future.

The WGL integrates seamlessly with the other burners in the W series family to unite all the advantages of the W series with increased fuel flexibility.

Large capacity range
The large capacity range of 70 to 340 kW and 125 to 550 kW makes the burners suitable for the widest range of heat exchangers.

Electronic ignition
The W-ZG 01 ignition unit used on all Weishaupt W burners is particularly energy efficient and extremely reliable.

Valve proving as standard with the W-FM24 combustion manager
The low gas pressure switch is used to check the tightness of the gas valves, thus providing valve proving without the need for any additional components or costs.

Gas multifunction assembly
The Weishaupt gas multifunction assembly incorporates the following components/functions:
- Servo-controlled gas pressure governor for continual gas pressure
- 2 solenoid valves (Class A)
- Filter
- Gas pressure switch
  If the gas pressure falls too low, a low gas pressure program is started. The gas pressure switch also provides for automatic valve proving.

Outstanding service
Weishaupt has an extensive sales and service network worldwide. Customer service is available around the clock. Optimal in-house training at Weishaupt ensures our service engineers are of the highest calibre.

Proven quality
All burners are tested by an independent body and conform to the following standards and EU directives:
- EN 267
- Gas Appliance Directive 90/396/EEC
- EN 676
- Machinery Directive 98/37/EC
- Electromagnetic Compatability Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC
- Boiler Efficiency Directive 92/42/EEC
- Pressure Equipment Directive 97/23/EC

The common platform for all W series burners simplifies the provision and storage of spare parts

Trustworthy technology

Even the visual impression after removing the burner cover is convincing. All components are clearly arranged, the electrical connections are obvious and noninterchangeable.
The technology makes a good impression because it is typical Weishaupt.

Compact construction
The WGL burner's compact construction means it can be easily installed by one person. Commissioning costs have been reduced to a minimum.

Sound attenuated air inlet
The transverse fan is sound attenuated on the suction side. These burners therefore operate particularly quietly.

Electronically controlled air damper
The electronically controlled air damper closes at burner shutdown to hinder the cooling-down of the combustion chamber.

Servicing positions
A special bracket enables the burner and pump assembly to be put into a servicing position, which allows easy access to the burner and mixing assembly.

Common platform
The common platform principle used with W burners simplifies the provision and storage of spare parts.

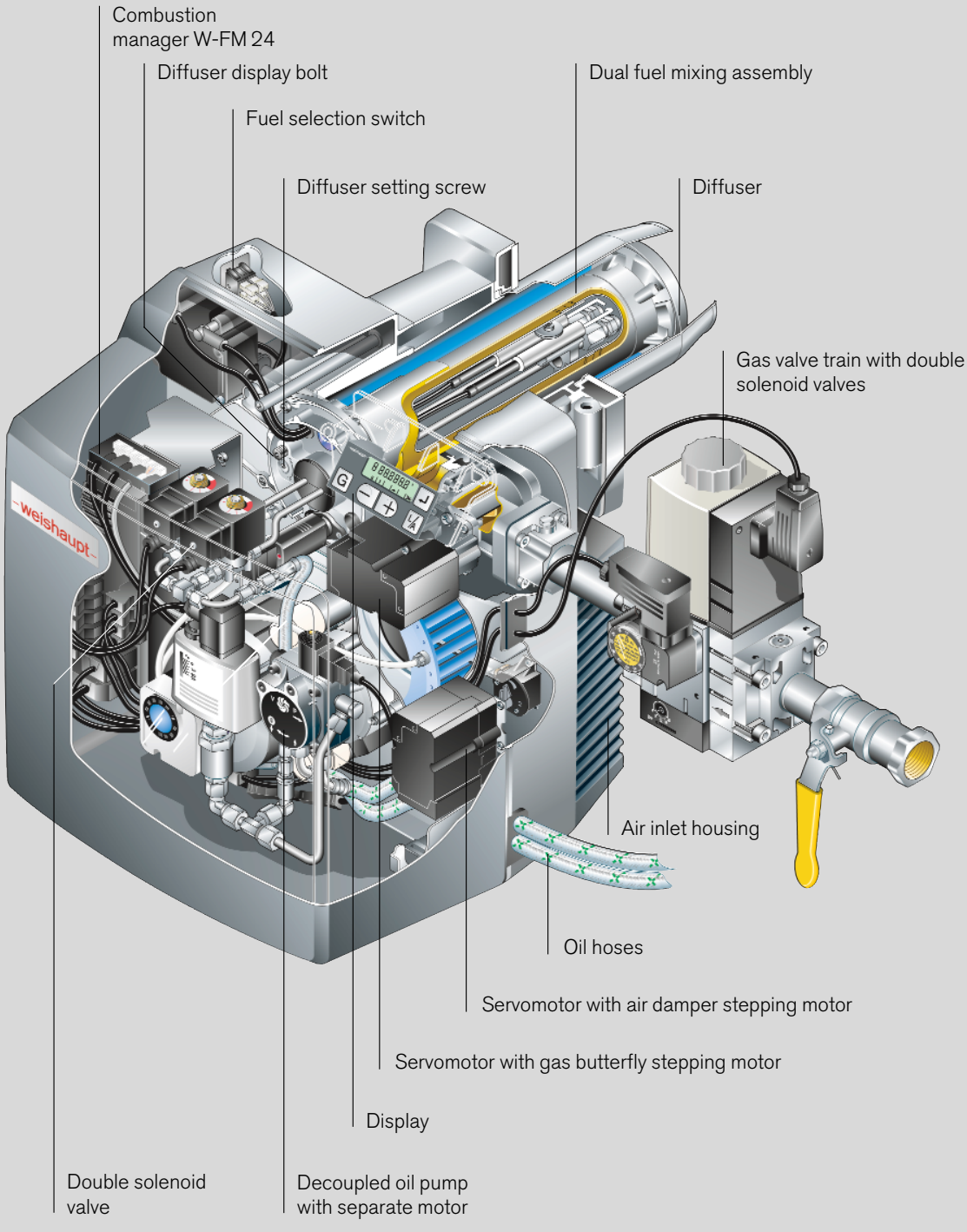
Diagnosis via laptop
A special software package and connection cables are available for interrogating the combustion manager. Combustion optimisation and fault analysis can thus be carried out easily via a laptop computer.

Decoupled oil pump
The oil pump is driven by a separate motor and is decoupled during gas operation, thus protecting the pump and saving electrical energy.

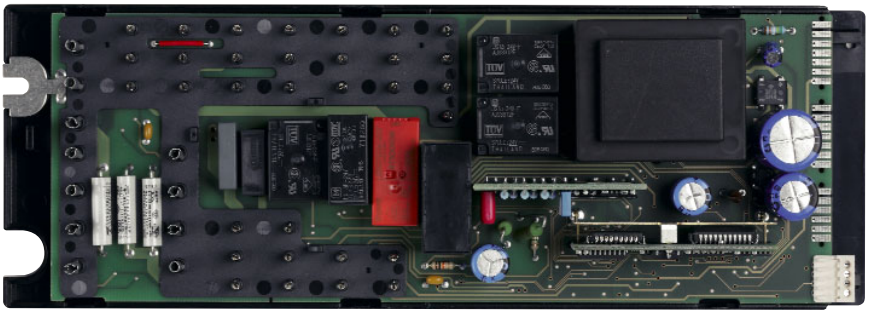
Adjustable diffuser
The position of the diffuser can be easily adjusted from behind with the burner in its installed position by using the setting screw with display bolt.

Fuel changeover
Gas or oil operation is selected via a rocker switch and fuel changeover can even be effected during burner operation. There is also the possibility of remote fuel changeover by a BMS.

Lower gas connection pressures
The newly developed mixing assembly enables operation with a lower gas connection pressure. That in turn allows a smaller gas valve train to be used which has a positive effect on the price/capacity ratio.


Combustion manager W-FM 24
Diffuser display bolt
Fuel selection switch
Diffuser setting screw
Dual fuel mixing assembly
Diffuser
Gas valve train with double solenoid valves
Air inlet housing
Oil hoses
Servomotor with air damper stepping motor
Servomotor with gas butterfly stepping motor
Display
Double solenoid valve
Decoupled oil pump with separate motor

Digital combustion management: safe and easy to use



Secure and simple digital combustion management
Weishaupt is a pioneer of digital combustion management. It offers easier operation and maintenance, even greater operational reliability and last but not least, an attractive price/capacity ratio. Furthermore the intelligent technology allows for easy integration with building management systems.

All Weishaupt W series burners are fitted with digital combustion managers as standard, whose microprocessors control and monitor all burner functions. The result: Weishaupt WGL burners are easy to use, precise and safe.

The digital combustion manager also offers the possibility of communicating with other systems via an integrated eBUS port. This enables the heating engineer to monitor the operation of the burner and remotely diagnose any errors.

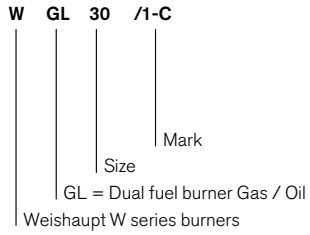
The key points:

- Simplified, display led commissioning
- Non-interchangeable plug connections ensure the correct electrical connection of all components
- Electrical remote reset is possible
- Safety ensured with the use of two microprocessors with reciprocal monitoring
- LCD display with interrogation, servicing and parameter functions. The burner can be set directly via the operating keys

System overview, W-FM 24 digital combustion manager

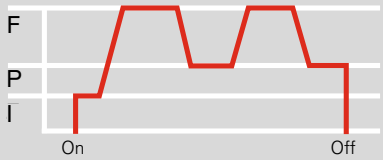
Functions	W-FM 24
Dual fuel operation	●
Combustion manager for intermittent operation	●
Flame sensor for intermittent operation	FLW
Servomotors in electronic compound regulation	2 off
Servomotors with stepping motors	●
Gas valve proving	●
eBUS interface	●
Service Software	MV 2000

Clarification of designation



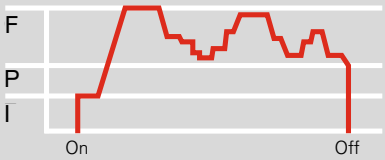
Load control

sliding two stage (gas operation)



two stage (oil operation)

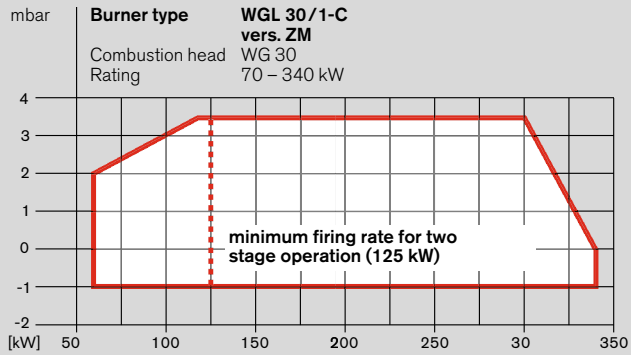
modulating (gas operation) with external load controller



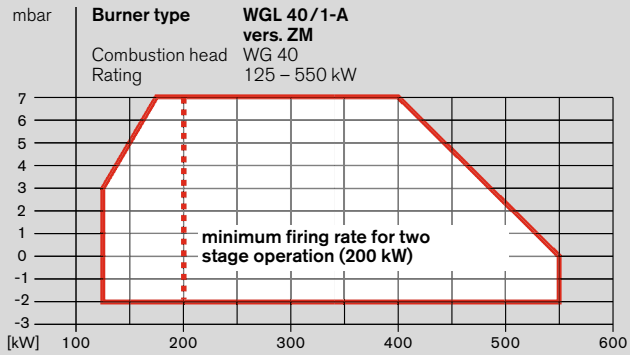
F = Full load; P = Partial load; I = Ignition load

Burner capacity
Valve train selection

Capacity graph WGL30-C



Capacity graph WGL40-A



Capacity graphs in accordance with EN 676. The ratings are based on an installation altitude of 0 m. An altitude-based reduction in capacity of approx. 1 % per 100 m above sea level should be taken into consideration.

WGL30-C gas valve train selection

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar		
[kW]	**3/4″**	**1″**	**1 1/2″**
Natural Gas E, H_i = 10.35 kWh/mn³, d = 0.606, W_i = 13.295 kWh/mn³			
125	16	15	14
145	16	15	14
165	17	15	14
185	18	15	14
200	18	15	15
220	19	16	15
240	21	16	15
260	22	17	15
280	24	18	15
300	26	19	16
320	28	20	17
340	30	21	18

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar		
[kW]	**3/4″**	**1″**	**1 1/2″**
Natural Gas LL, H_i = 8.83 kWh/mn³, d = 0.641, W_i = 11.029 kWh/mn³			
125	18	17	16
145	19	17	16
165	20	18	17
185	21	18	17
200	22	19	17
220	24	19	17
240	26	20	17
260	28	21	17
280	31	22	18
300	33	24	18
320	36	25	20
340	40	27	21

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar		
[kW]	**3/4″**	**1″**	**1 1/2″**
LPG B/P, H_i = 25.89 kWh/mn³, d = 1.555, W_i = 20.762 kWh/mn³			
125	11	11	–
145	12	11	–
165	12	12	–
185	13	12	–
200	13	12	–
220	14	13	–
240	15	13	–
260	16	13	–
280	16	14	–
300	17	14	–
320	18	15	–
340	19	15	–

WGL40-A gas valve train selection

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar					
[kW]	**3/4″**	**1″**	**1 ½″**	**2″**	**65**	**80**
Natural Gas E, H_i = 10.35 kWh/mn³, d = 0.606, W_i = 13.295 kWh/mn³						
200	18	14	13	11	11	11
225	20	15	14	12	11	11
250	22	16	15	12	12	12
275	25	18	16	13	13	13
300	28	19	18	14	14	14
325	32	22	20	16	15	15
375	41	27	24	20	19	19
400	45	29	25	21	20	20
425	48	30	26	21	20	20
450	52	31	26	22	21	20
500	60	34	28	23	21	21
550	69	38	31	24	23	22

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar					
[kW]	**3/4″**	**1″**	**1 ½″**	**2″**	**65**	**80**
Natural Gas LL, H_i = 8.83 kWh/mn³, d = 0.641, W_i = 11.029 kWh/mn³						
200	23	17	16	14	14	14
225	26	18	17	15	15	14
250	29	20	18	16	15	15
275	33	22	19	17	16	16
300	37	24	21	18	17	17
325	42	26	23	20	19	19
375	53	33	29	24	23	22
400	58	35	30	25	24	23
425	63	37	32	26	24	23
450	69	39	33	26	25	24
500	81	44	37	28	26	25
550	94	50	41	31	29	27

Burner rating	Low pressure supply (Supply pressure in mbar into isolating valve) $p_{e,max}$ = 300 mbar					
[kW]	**3/4″**	**1″**	**1 ½″**	**2″**	**65**	**80**
LPG B/P, H_i = 25.89 kWh/mn³, d = 1.555, W_i = 20.762 kWh/mn³						
200	10	9	-	-	-	-
225	12	10	-	-	-	-
250	13	11	-	-	-	-
275	15	12	-	-	-	-
300	17	14	-	-	-	-
325	20	15	-	-	-	-
375	25	19	-	-	-	-
400	27	21	-	-	-	-
425	29	21	-	-	-	-
450	30	22	-	-	-	-
500	34	24	-	-	-	-
550	38	26	-	-	-	-

The flue gas resistance must be added to the minimum supply pressure calculated. The minimum supply pressure should be no less than 15 mbar.

Order Numbers, Special Equipment
Technical Data

Burner

Burner type	Version	Operation		Valve train selection	Order No.
		Fuel oil EL	Natural Gas E, LL	DN	
WGL30/1-C	ZM	two stage	sliding two stage or modulating	3/4"	235 316 21
		two stage	sliding two stage or modulating	1"	235 316 31
		two stage	sliding two stage or modulating	1 1/2"	235 316 41
WGL40/1-A	ZM	two stage	sliding two stage or modulating	3/4"	235 416 21
		two stage	sliding two stage or modulating	1"	235 416 31
		two stage	sliding two stage or modulating	1 1/2"	235 416 41
		two stage	sliding two stage or modulating	2"	235 416 61
		two stage	sliding two stage or modulating	DN65	235 426 31
		two stage	sliding two stage or modulating	DN80	235 426 41

Special equipment

Description		Order No.	
		WGL30-C	WGL40-A
Combustion head extension	by 100 mm	230 010 36	230 010 80
	by 200 mm	230 010 37	230 010 81
	by 300 mm	230 010 38	–
Solenoid valve	for air pressure switch test for continuous running fan and post-purge	230 010 46	230 010 46
Air inlet	for extraneous air **without** additional air pressure switch	230 010 31	230 005 68
	for extraneous air **with** additional air pressure switch	230 010 32	230 008 36
Burner rotated through 180°		230 010 28	230 010 28
Oil meter and hours counter		230 010 45	–
Gas pressure switch	max. UB 50 loose	230 006 01	230 006 01

Technical Data

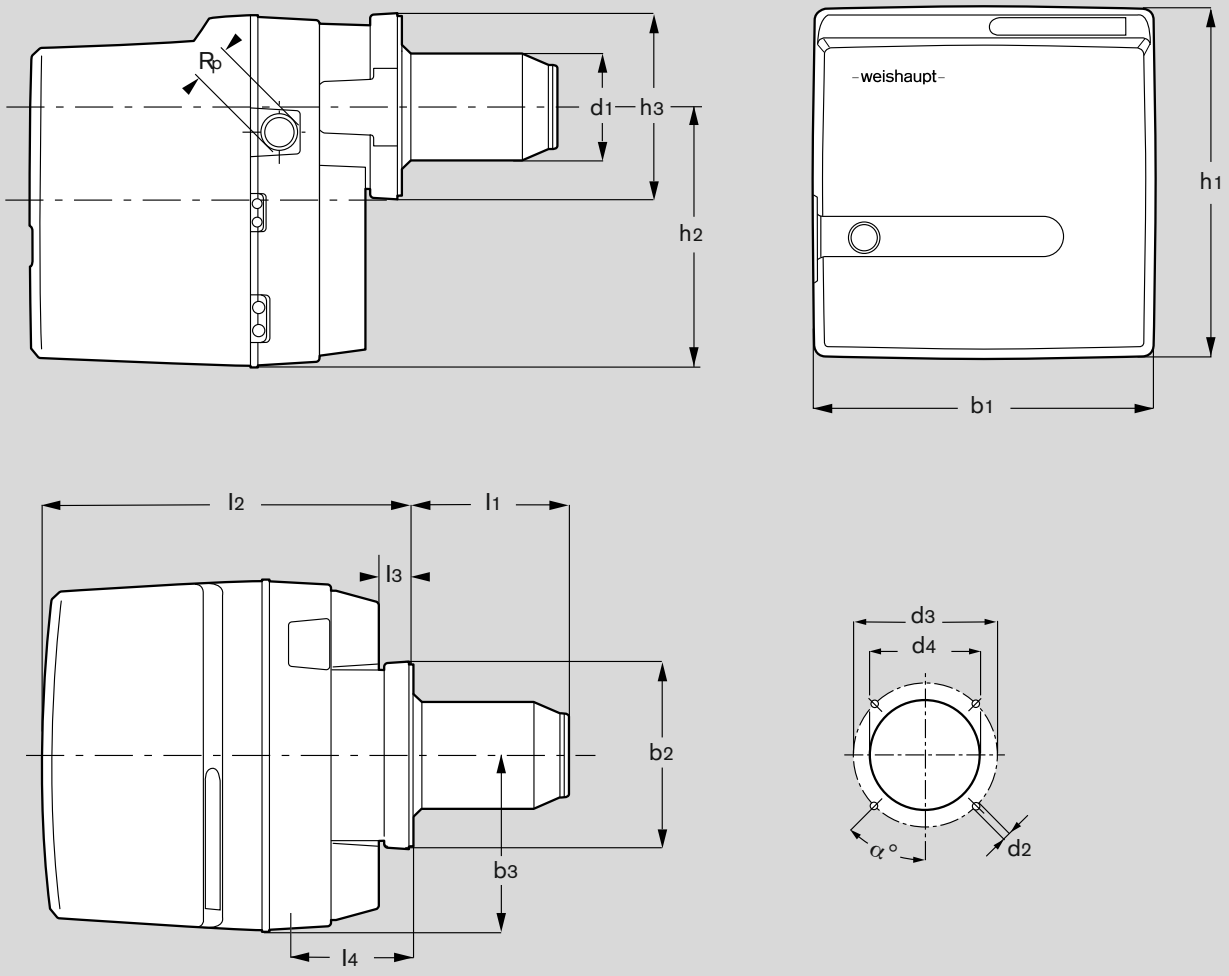
Burner type	Combustion manager	Motor Fan	Motor Oil pump	Servomotor	Air pressure switch	Weight ① Burner	Valve train Size	Type	Weight ①	Flame monitoring
WGL30/1-C	W-FM 24	ECK 05/A-2 230 V; 50 Hz Cond. 12 µF 2.3 A; 0.38 kW 2890 rpm	ECK 02/F-2P 230 V; 50 Hz Cond. 3 µF 0.63 A; 0.075 kW 2810 rpm	STE 4.5 * BO.36/6-01L	LGW 10A2	27 kg	3/4˝ 1˝ 1 1/2"	W-MF SE 507 W-MF SE 512 W-MF SE 512	6 kg 9 kg 11.5 kg	Flicker detector
WGL40/1-A	W-FM 24	ECK 06/A-2 230 V; 50 Hz Cond. 16 µF 3.2 A; 0.53 kW 2900 rpm	ECK 02/F-2P 230 V; 50 Hz Cond. 3 µF 0.63 A; 0.075 kW 2810 rpm	STE 4.5 * BO.36/6-01L	LGW 10A2	47 kg	3/4˝ 1˝ 1 1/2" 2" DN65 DN80	W-MF SE 507 W-MF SE 512 W-MF SE 512 DMV 525 DMV 5065 DMV 5080	6 kg 9 kg 11.5 kg 17.5 kg see tech. worksheet see tech. worksheet	Flicker detector

① Weights are approximate.

Dimensions

Burner dimensions

Burner type	Dimensions in mm															
	l_1	l_2	l_3	l_4	b_1	b_2	b_3	h_1	h_2	h_3	d_1	d_2	d_3	d_4	Rp	α°
WGL30-C	169	480	62	197	420	226	196	460	342	226	127	M8	170 – 186	130	1 ½"	45°
WGL40-A	235	577	72	235	450	245	207	480	360	245	154	M10	186 – 200	160	1 ½"	45°



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We're right where you need us

A strong service network gives peace of mind
Weishaupt equipment is available from good heating companies, with whom Weishaupt works in partnership. To support the specialists, Weishaupt maintains a large sales and service network. Delivery, spares and service are thus continually ensured.

Even in an emergency, Weishaupt is on call. The service department is available to Weishaupt customers around the clock, 365 days a year. A Weishaupt branch office or agency near you can answer all your questions on heating and Weishaupt burners.