

– weishaupt –

product

Information on compact burners



Digital combustion technology

Weishaupt oil burners, WL10 to WL40 (30 – 570 kW)

Hot for quality

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 checks.

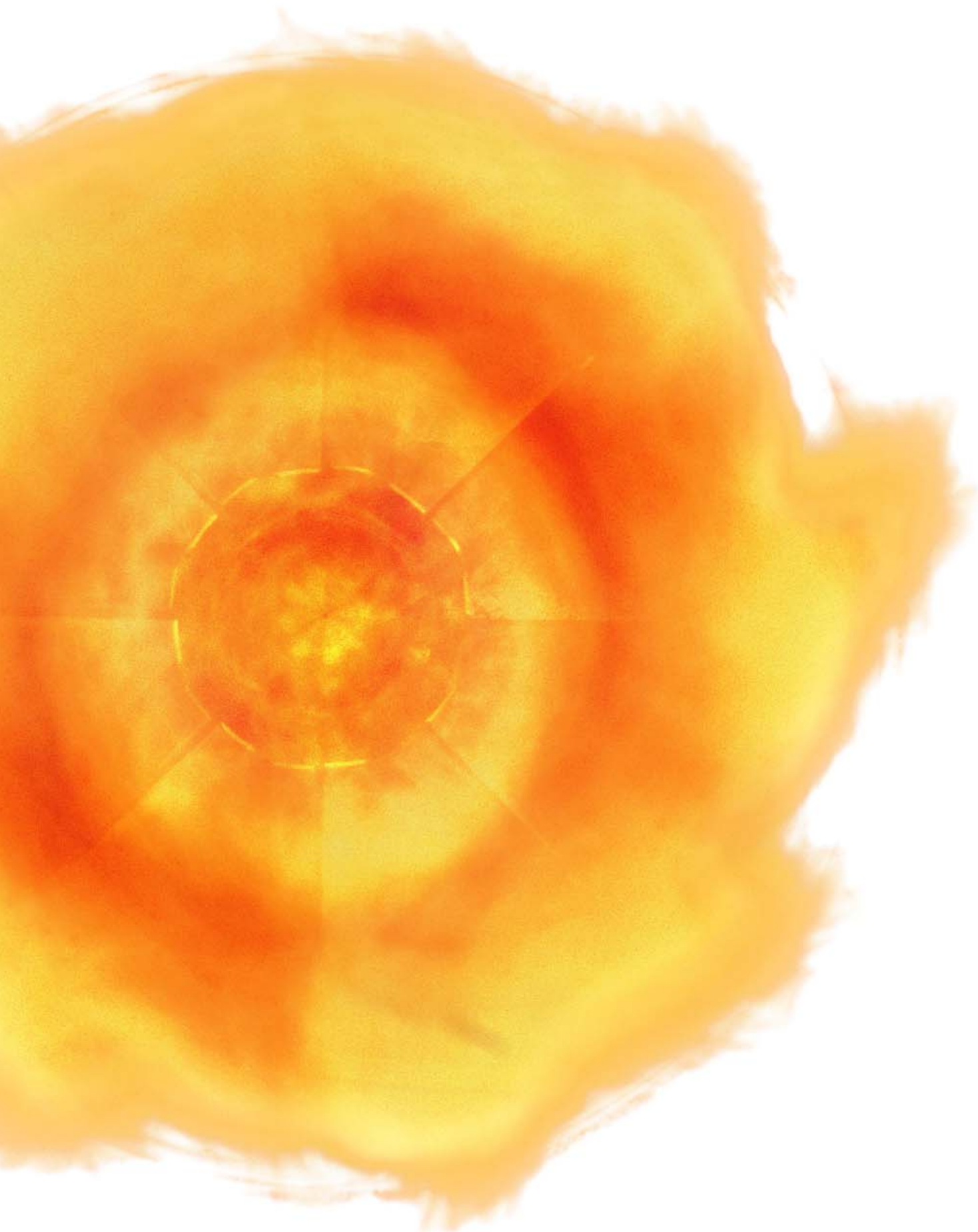
It has been proven over a million times in the field that heating specialists and customers hold Weishaupt burners to be reliable, long lasting, environmentally friendly and technologically advanced. A fact also documented by numerous design and innovation prizes.

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.

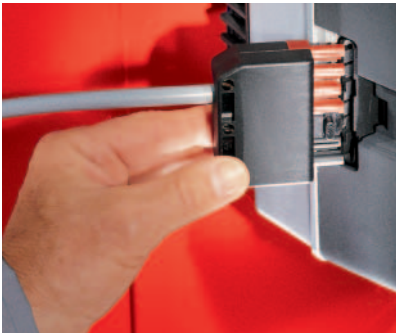


Ultra-modern research and production methods and rigorous quality control ensures the quality for which Weishaupt is renowned





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.

Large capacity range

The large capacity range of 12.5 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.

Digital combustion management for safety and ease of use

Weishaupt is a pioneer in this field. Digital combustion management offers greater ease of use and simple servicing, even greater reliability in operation, and, last but not least, an extremely attractive price/capacity relationship. Furthermore, this intelligent technology enables the burner to be integrated with complex automation systems.

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.

Service case

The Weishaupt service case for burner sizes up to WL20 combines sensible storage of spare parts with optimal service readiness. All the parts needed for repairs and service work are clearly arranged in this handy and robust plastic case.

Proven quality

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

- EN 267
- Machinery Directive 98/37/EC
- Electromagnetic Compatibility Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC
- Boiler Efficiency Directive 92/42/EEC

LN version burners also comply with:

- Germany's *Bundesemissions-Schutzverordnung* (Federal Emissions Control Act - 1.BImSchV)
- Switzerland's *Luftreinhalte-Verordnung* (Clean Air Act - LRV)

Digital combustion management: safe and easy to use



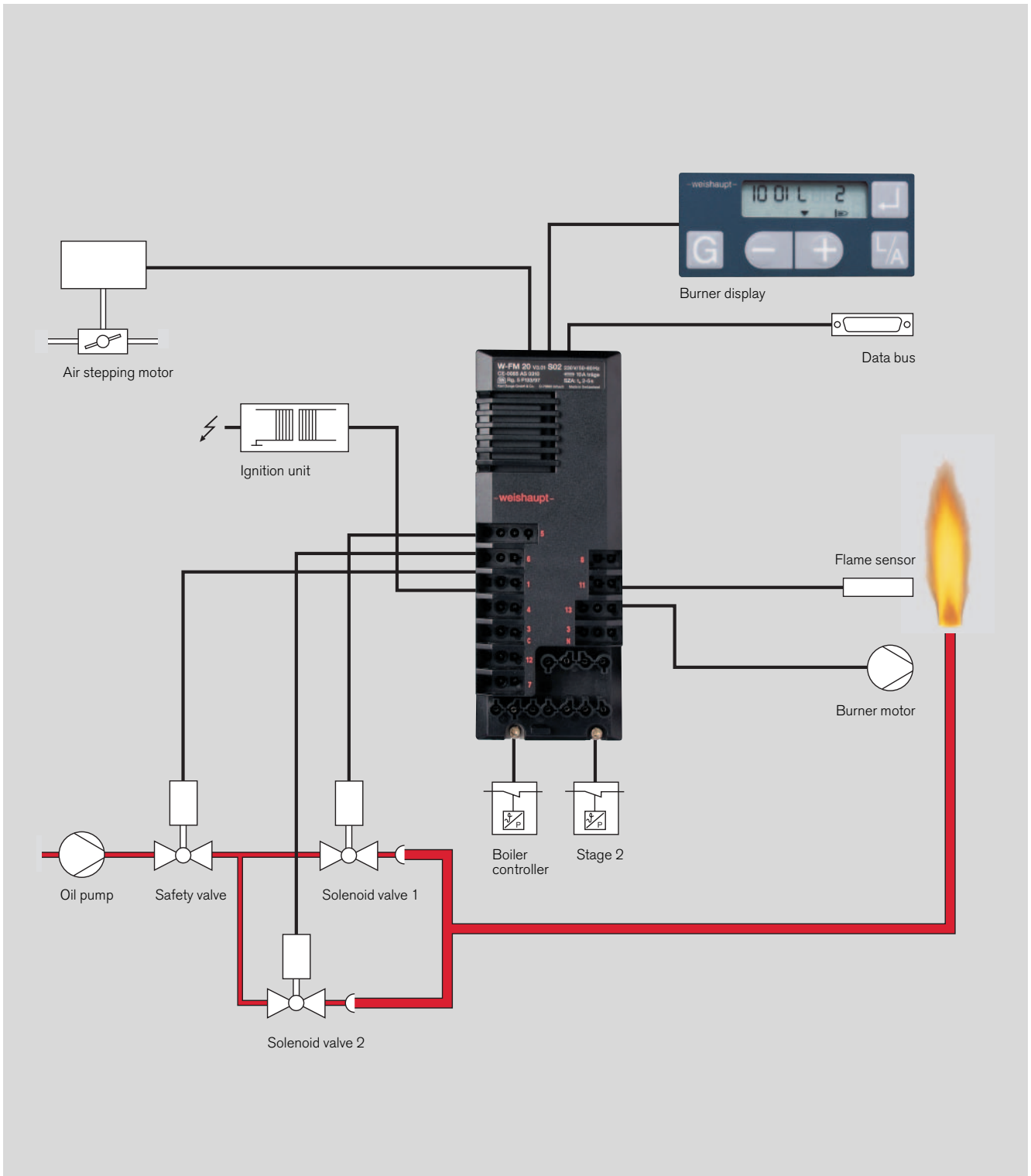
All Weishaupt W series burners are fitted with digital combustion managers as standard, whose microprocessors control and monitor all burner functions. The result: Weishaupt burners are easy to use, precise and safe.

The digital combustion managers also offer 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:

- The utilisation of identical units for gas and oil burners simplifies commissioning and reduces the number of spares required.
- 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 (reciprocal monitoring)
- Vari-coloured LED lamp to indicate burner operational stage and fault conditions (WL10 and WL20)
- LCD display with interrogation, servicing and parameter functions. The burner can be set directly via the operating keys (WL30 and WL40)
- Suitable for continuous operation of hot water plant (controlled shutdown and restart every 24 hours)
- Suitable for air heaters and Group II and III steam boilers
- The integrated eBUS interface offers the following functions:
 - Connection to a PC for display of the operational sequence and the setting of function parameters
 - Remote monitoring and diagnosis via a self dialling modem
 - Connection to modern building management systems
 - Prepurge time can be set from a PC via the eBUS interface

System overview	W-FM 05	W-FM 10	W-FM 20	W-FM 21
Digital combustion management				
Combustion manager for intermittent operation	●	●	●	●
Combustion manager for continuous operation				●
Flame sensor for intermittent operation	ORB, Ion	ORB, Ion	ORB, Ion	ORB, Ion
Flame sensor for continuous operation				ORB, Ion ¹⁾
Stepping motor		●	●	●
Single fuel operation	●	●	●	●
Removable control unit (max. distance)			10 m	10 m
Fuel consumption meter			● ²⁾	● ²⁾
eBUS interface	●	●	●	●
Available on burner models	WL 10-D WL 20-C single stage	WL 10-D WL 20-C two stage	WL 30-C WL 40-A two stage	WL 30-C WL 40-A two stage
¹⁾ Planned ²⁾ in conjunction with VZ04 oil meter with impulse output				



Example of digital combustion management on WL40

Trustworthy technology

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

Compact construction

The WL burners' compact construction means they can be easily installed by one person. Commissioning costs have been reduced to a minimum.

Weishaupt nozzle shut off system

All Low NO_x burners are equipped with the Weishaupt nozzle shut off system. This ensures a tight oil shut off at the nozzle assembly, preventing any drips after the burner has been switched off.

Low NO_x version

There are Low NO_x versions available for all WL burners. A specially designed mixing head produces an intensive internal flue gas recirculation, resulting in exemplary emission levels.

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.

Sevicing position

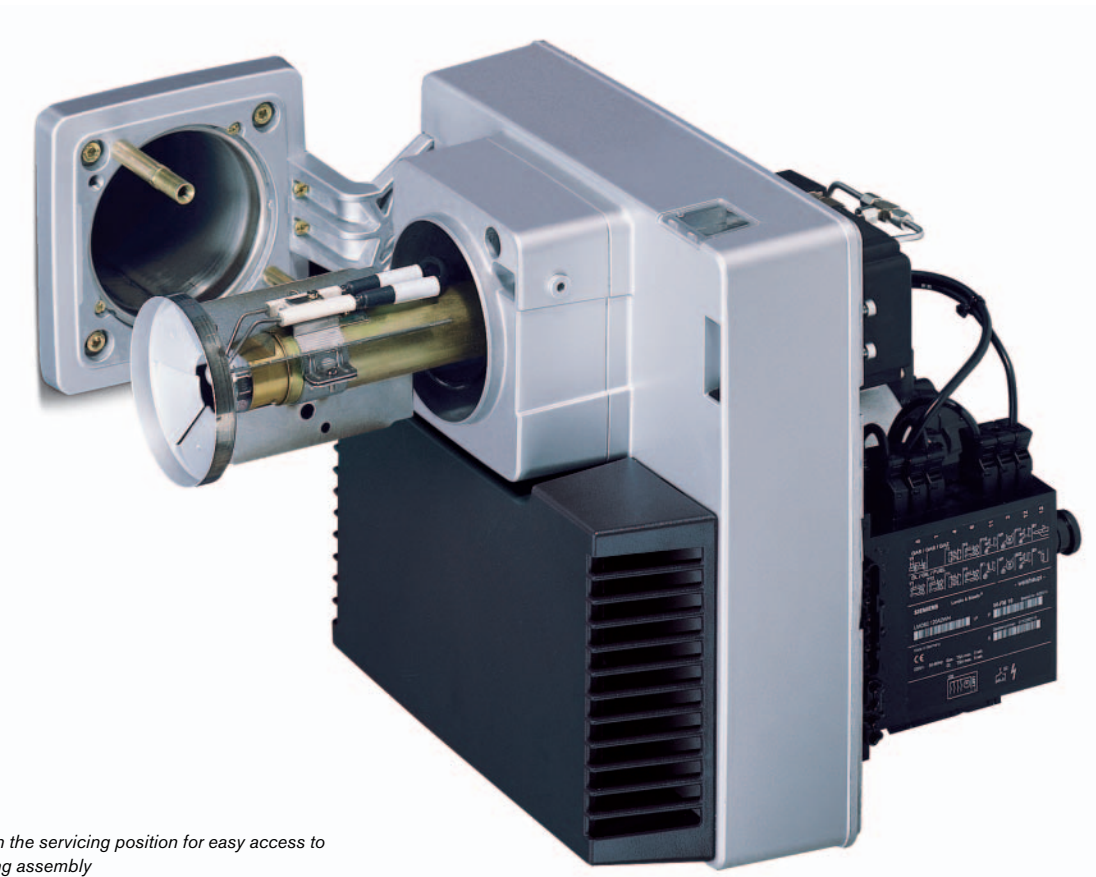
A special bracket enables the burner to be put into a servicing position, which allows easy access to the burner and mixing assembly.

Common platform

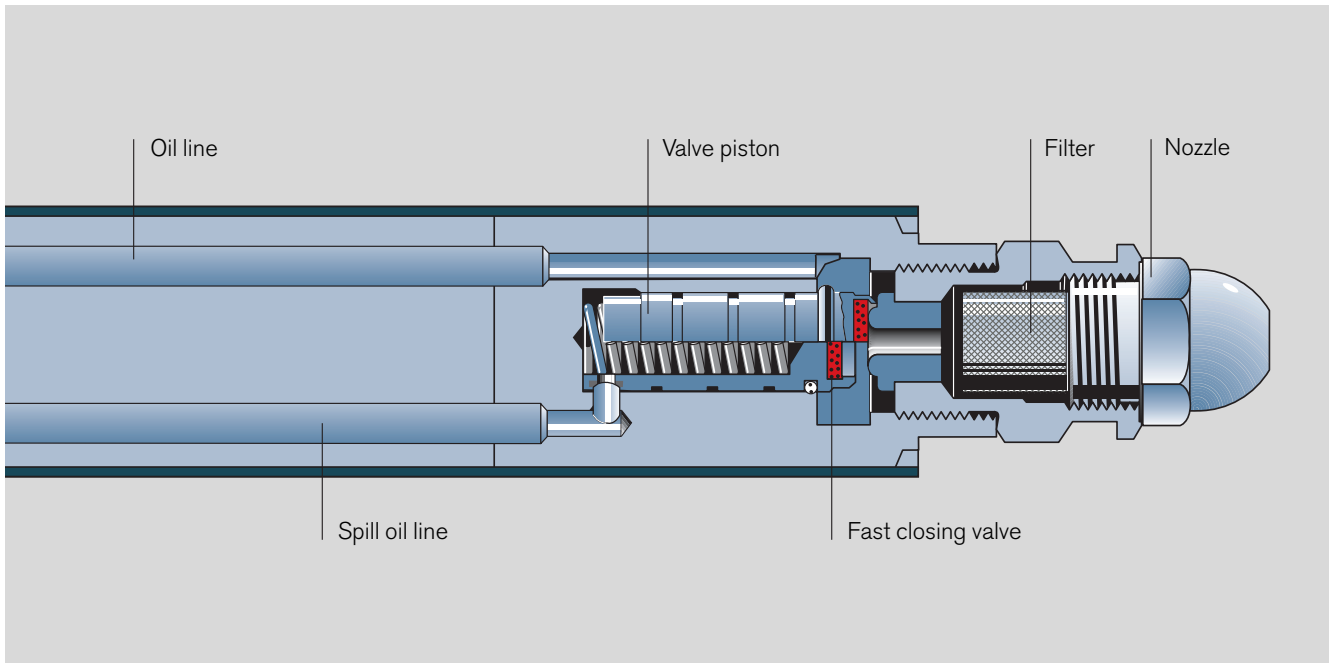
The common platform principle used with W burners simplifies the provision and storage of spare parts.

Diagnosis via laptop

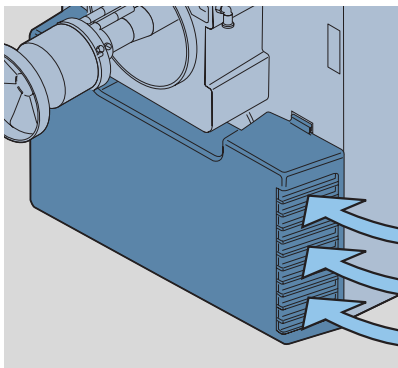
A special software package and connection cables are available for interrogating the combustion manager. Combustion optimisation and fault analysis can thus be carried out easily via a laptop computer.



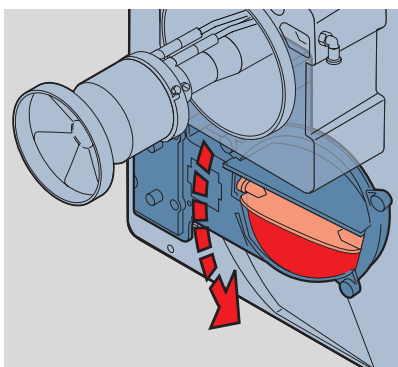
Burner in the servicing position for easy access to the mixing assembly



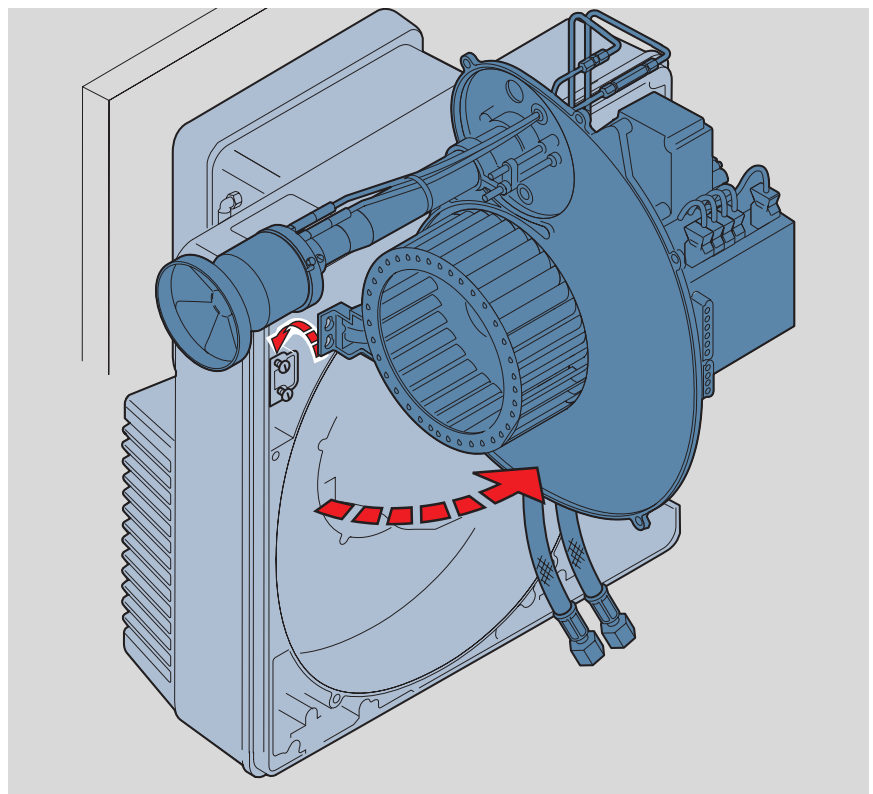
Weishaupt nozzle shut off system



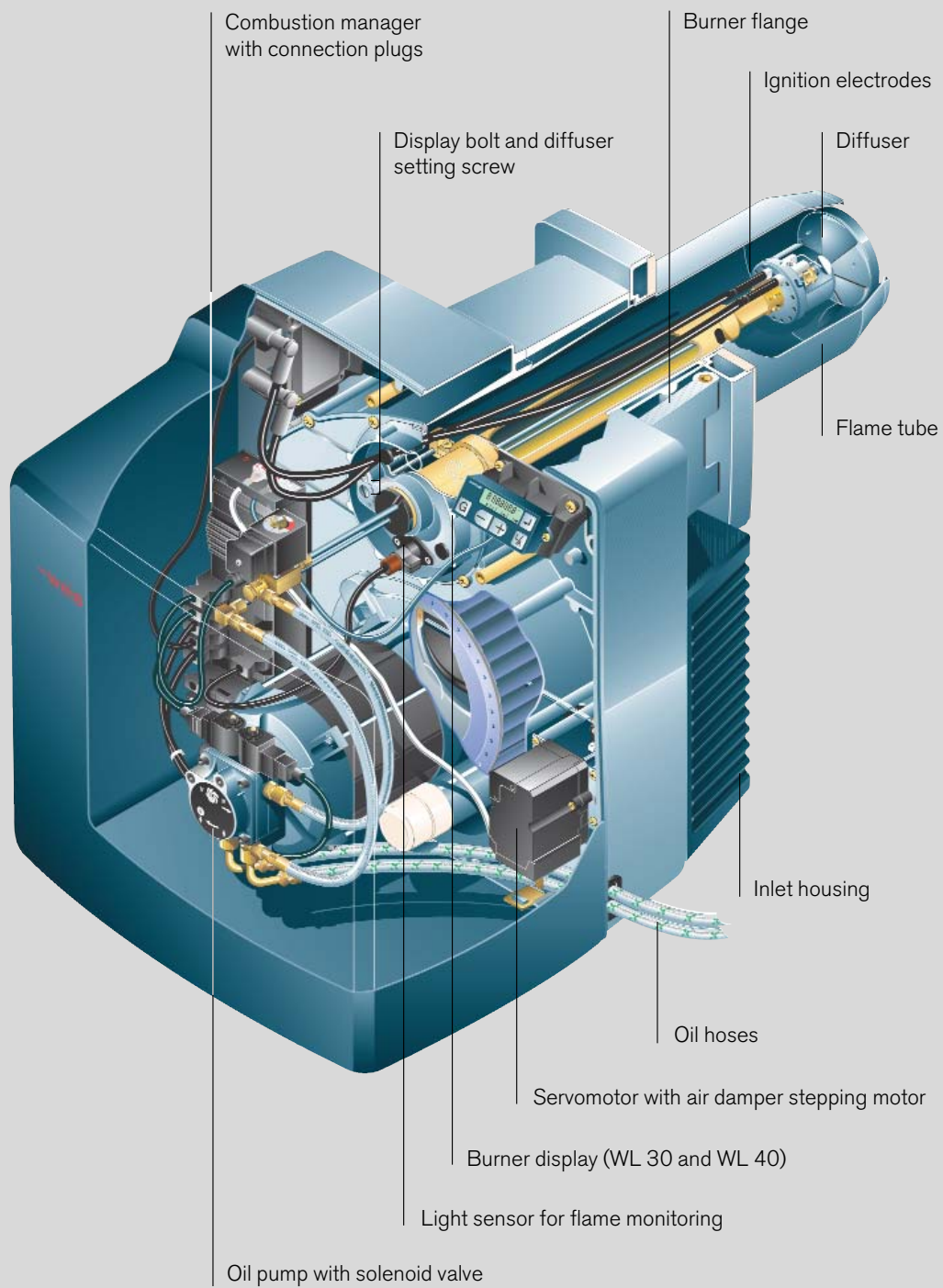
Sound absorbing air inlet housing



Electronically controlled air damper



Housing with components in the servicing position: easy access to the fan wheel



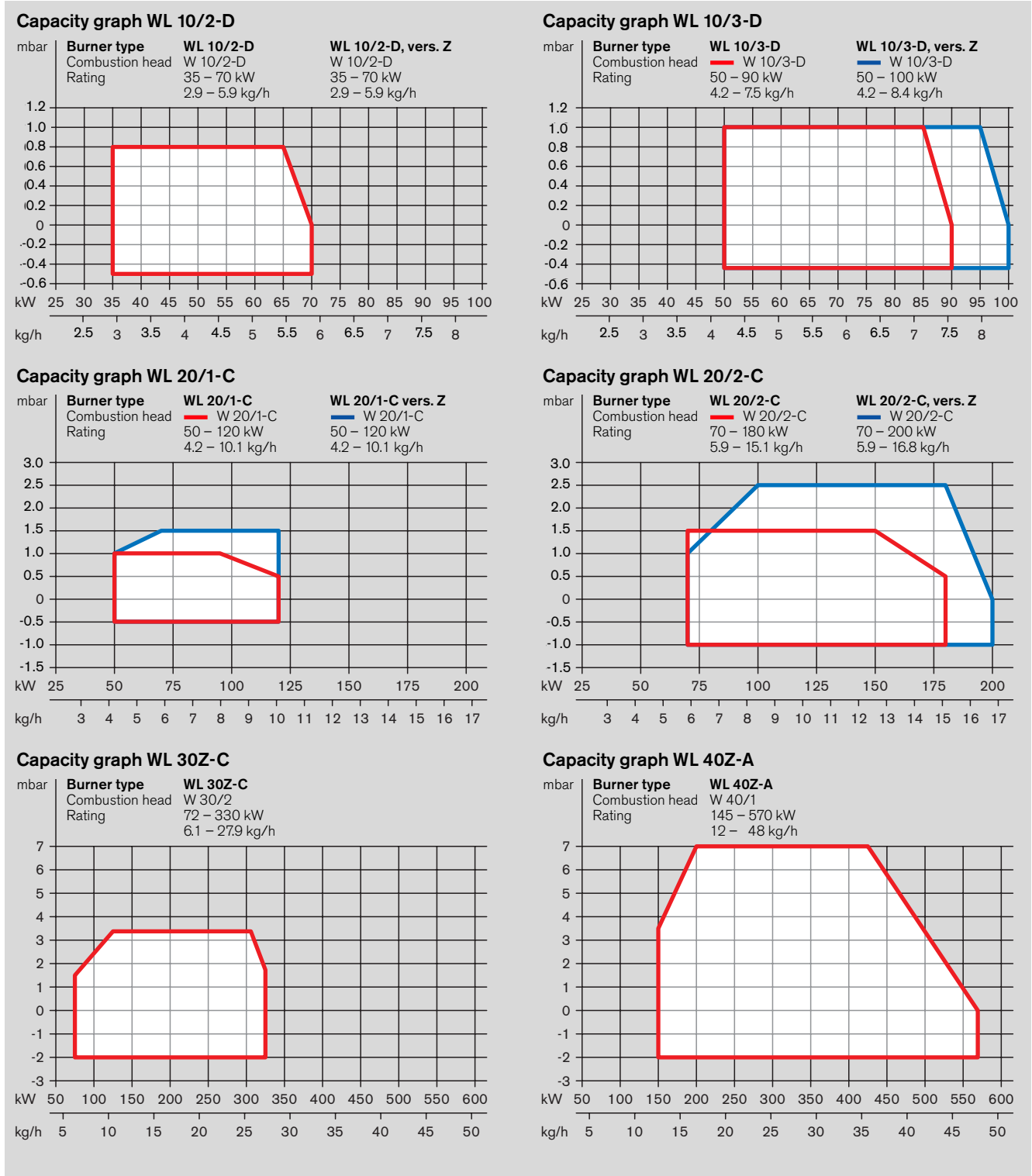
Example: WL30/WL40, version LN (Low NO_x)

Model overview

Burner type	Version	Mode of operation	Rating	Power consumpt.	Weight	Order No.
Standard						
WL 10/2-D		single stage	35 – 70 kW	0.13 kW	14.0 kg	241 111 22
WL 10/2-D		single stage with servomotor	35 – 70 kW	0.13 kW	14.0 kg	241 111 20
WL 10/2-D	Z	two stage	35 – 70 kW	0.13 kW	14.0 kg	241 111 23
WL 10/3-D		single stage	50 – 90 kW	0.13 kW	14.0 kg	241 110 31
WL 10/3-D		single stage with servomotor	50 – 90 kW	0.13 kW	14.0 kg	241 110 30
WL 10/3-D	Z	two stage	50 – 100 kW	0.13 kW	14.0 kg	241 110 32
WL 20/1-C		single stage	50 – 120 kW	0.25 kW	20.0 kg	241 210 21
WL 20/1-C		single stage with servomotor	50 – 120 kW	0.25 kW	20.0 kg	241 210 11
WL 20/1-C	Z	two stage	50 – 120 kW	0.25 kW	20.0 kg	241 213 21
WL 20/2-C		single stage	70 – 180 kW	0.25 kW	20.0 kg	241 210 22
WL 20/2-C		single stage with servomotor	70 – 180 kW	0.25 kW	20.0 kg	241 210 12
WL 20/2-C	Z	two stage	70 – 200 kW	0.25 kW	20.0 kg	241 213 22
WL 30-C	Z	two stage	72 – 330 kW	0.42 kW	28.0 kg	241 313 21
WL 40-A	Z	two stage	145 – 570 kW	0.62 kW	37.0 kg	241 403 21
Low NO_x						
WL 10/1-D 1LN	1LN	single stage	30 – 55 kW	0.13 kW	14.0 kg	241 110 15
WL 10/2-D 1LN	1LN	single stage	50 – 70 kW	0.13 kW	14.0 kg	241 110 25
WL 20/1-C 1LN	Z-1LN	two stage	55 – 130 kW	0.25 kW	20.0 kg	241 213 25
WL 30-Z-C 4LN	4LN	two stage	72 – 215 kW	0.42 kW	28.0 kg	241 313 26
WL 40-Z-A 1LN	1LN	two stage	120 – 355 kW	0.62 kW	37.0 kg	241 403 25

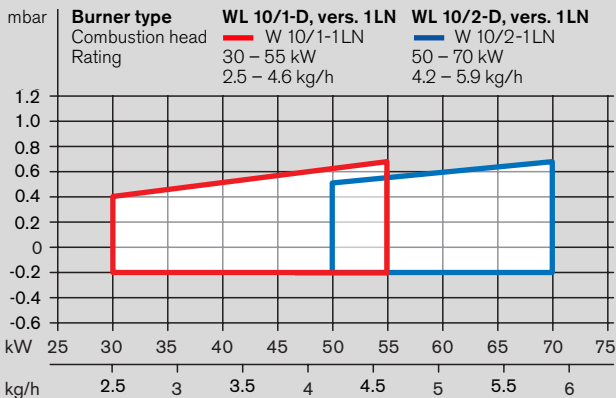
See price list for special equipment

Burner capacities in relation to combustion chamber resistance (standard burners)

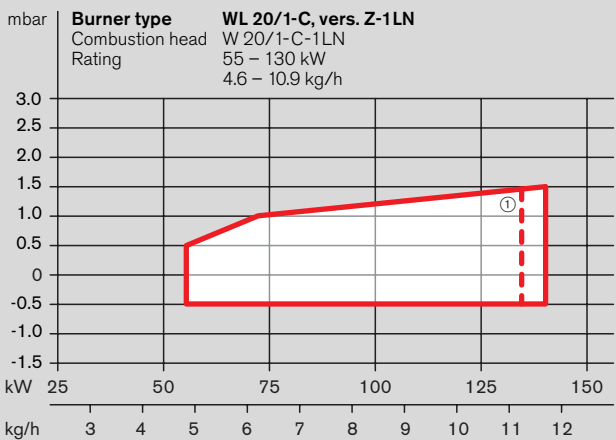


Burner capacities in relation to combustion chamber resistance (Low NO_x burners)

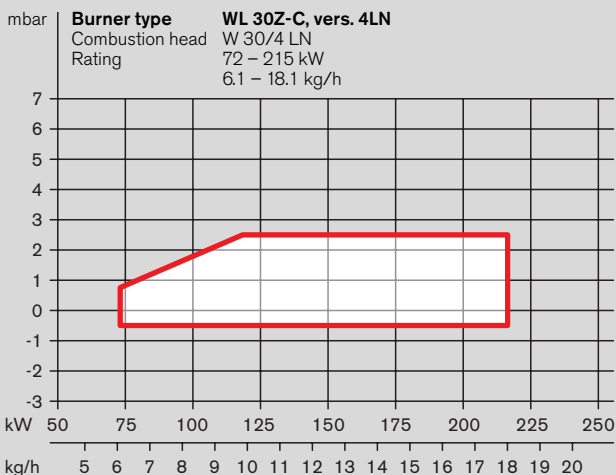
Capacity graph WL 10/...-D, version 1LN



Capacity graph WL 20/1-C, version Z-1LN



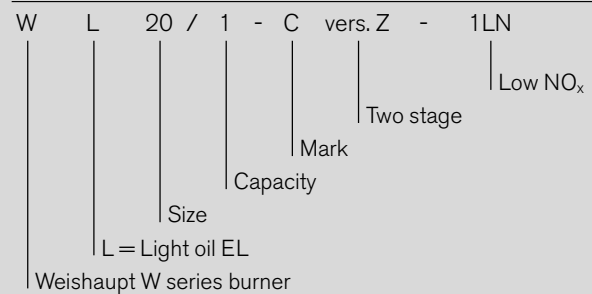
Capacity graph WL 30-Z-C, version 4LN



Capacity graphs in accordance with EN 267.

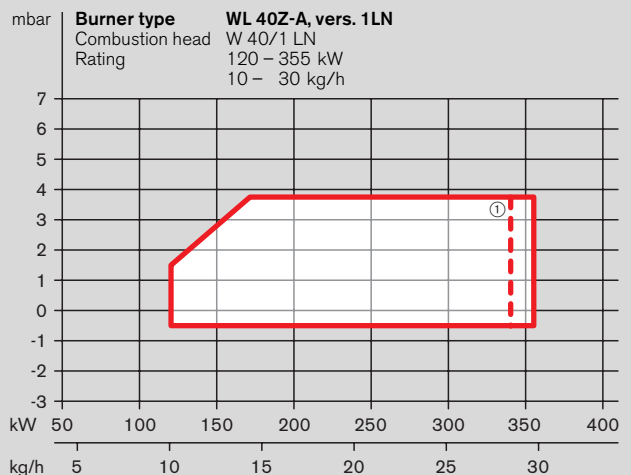
All ratings are based on an air temperature of 20 °C and an installation altitude of 500 m. The oil throughputs given are based on a nett calorific value of 11.91 kWh/kg for light oil EL.

Clarification of designation

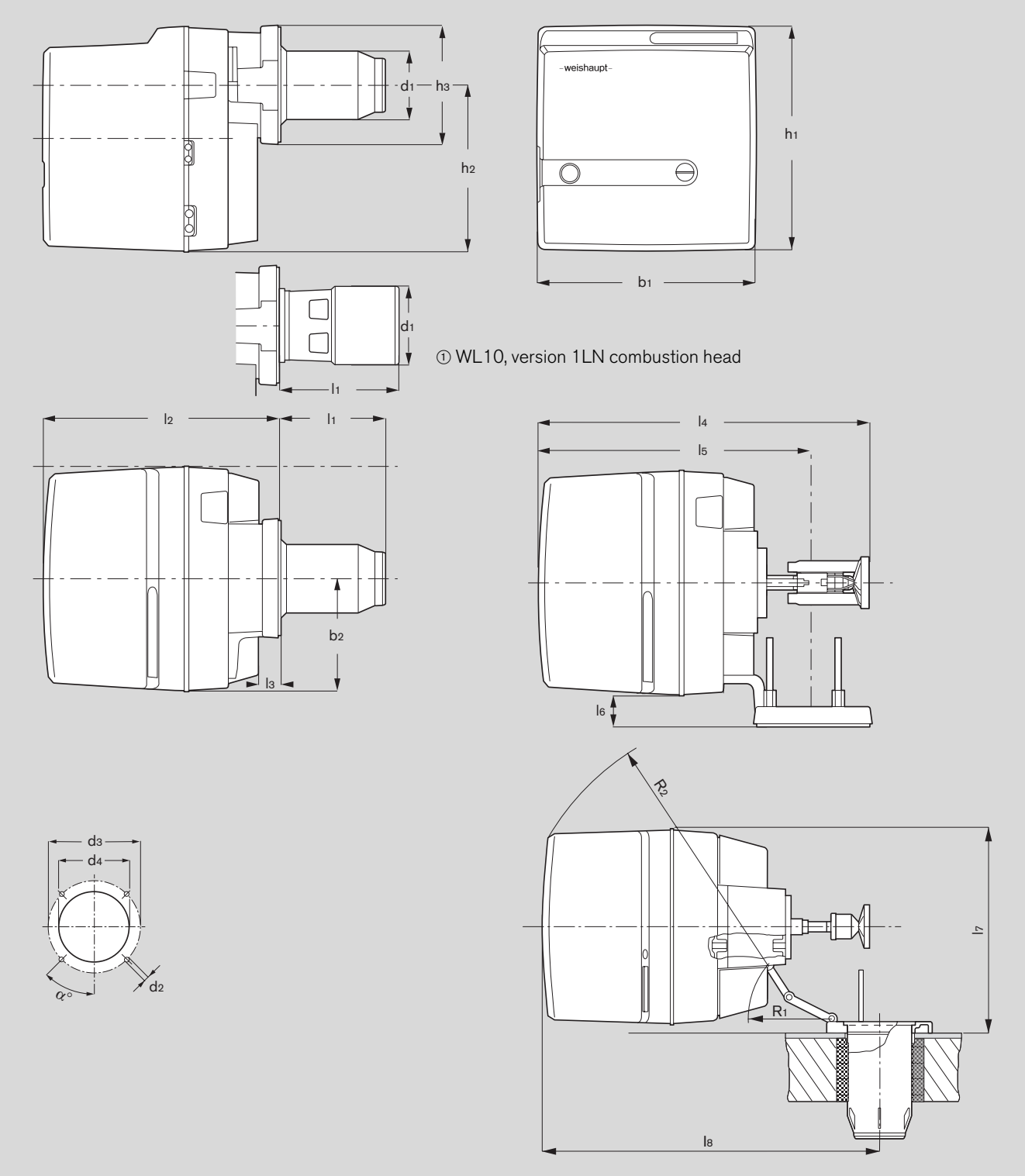


① Limitation for Switzerland:
For use with three-pass heat exchangers only.

Capacity graph WL 40-Z-A, version 1LN



Dimensions



Burner dimensions

Burner type	Dimensions in mm																							
	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	b ₁	b ₂	b ₃	h ₁	h ₂	h ₃	h ₄	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	R ₁	R ₂	α°
Standard																								
WL 10/2-D	137	345	32	476	398	51	-	-	330	165	-	353	270	165	-	99	M8	150 - 170	110	-	-	-	-	-
WL 10/3-D	140	345	32	476	398	51	-	-	330	165	-	353	270	165	-	108	M8	150 - 170	110	-	-	-	-	-
WL 20/1-C	144	393	31	525	434	73	-	-	358	179	-	376	285	182	183	108	M8	170	130	123	150	-	-	-
WL 20/2-C	174	393	31	558	434	73	-	-	358	179	-	376	285	182	183	120	M8	170	130	123	150	-	-	-
WL 30Z-C	169	480	40	30	600	62	460	600	420	226	100	460	342	-	-	127	M8	170 - 186	130	-	-	158	490	45
WL 40Z-A	235	577	40	30	615	72	480	615	450	245	108	480	360	-	-	151	M10	186 - 200	160	-	-	185	570	45
Low NO_x																								
WL 10/1-D 1LN	①	345	27	476	398	51	-	-	330	165	-	353	270	165	-	100	M8	150 - 170	110	-	-	-	-	-
WL 10/2-D 1LN	②	345	27	476	398	51	-	-	330	165	-	353	270	165	-	108	M8	150 - 170	110	-	-	-	-	-
	①	236 - 256		②	236 - 261																			
WL 20/1-C 1LN	144	393	31	532	434	73	-	-	358	179	-	376	285	182	183	108	M8	170	130	123	150	-	-	-
WL 30Z-C 4LN	169	480	40	30	600	62	460	600	420	226	100	460	342	-	-	127	M8	170 - 186	130	-	-	158	490	45
WL 40Z-A 1LN	235	577	40	30	615	72	480	615	450	245	108	480	360	-	-	151	M10	186 - 200	160	-	-	185	570	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 the job. 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 and heating systems.

