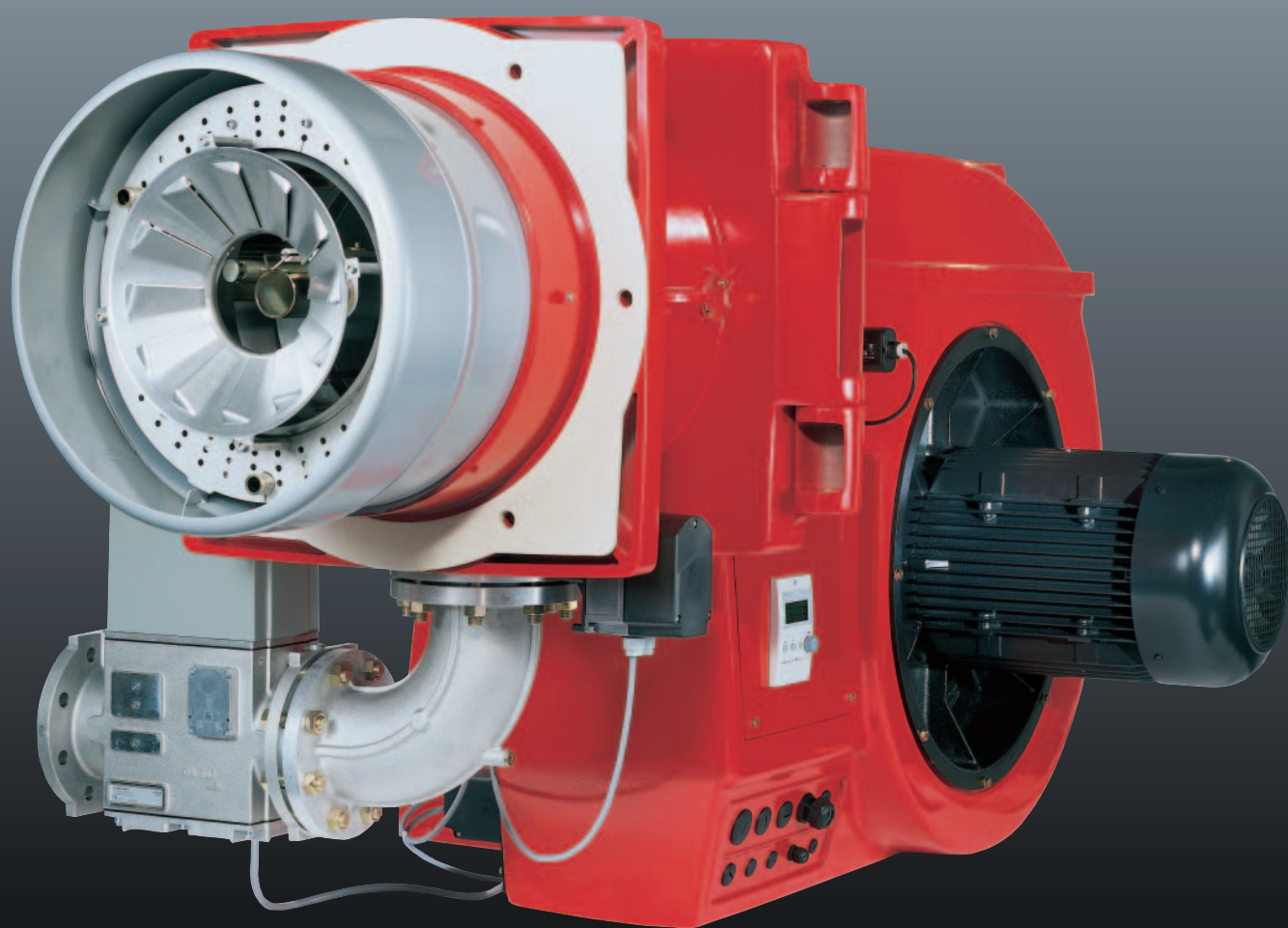


Weishaupt gas burners
Sizes 30 to 70
Version NR (NO_x reduced)

–weishaupt–



Description

Weishaupt industrial burners, sizes 30 to 70, have been especially designed for industrial capacity ranges. The monobloc burners are noteworthy for their large capacity and operational ranges and numerous other interesting details:

- Compliance with the most stringent directives and emission limits
- Large capacity and operational ranges
- Stable fan reference line - good combustion behaviour
- Quiet operation
- Burner housing can be hinged open
- Easy to install, set and service
- Automatic air shut off on burner shut down

Regulation

Dependent on fuel, burner size and requirements, the regulation of air and fuel is by:

• Sliding two stage

For sliding two stage control, partial and full load are set positions within the regulation range. The burner's firing rate slides between the two load points, depending on the heat demand, for which the servomotor runtime can be set between 30 and 120 s. Thus there are no sudden large increases or decreases in the amount of fuel used.

• Modulation

The standard sliding two stage burner can be made to modulate with the addition of a capacity regulator. Modulating burners operate at any point within the regulation range, depending on the heat demand. The servomotor runtime is approximately 40 s. This precision enables the burner to operate with reduced excess air at full and partial load, thus improving the combustion figures. The regulating range between partial and full load is also increased.

Reduced capacity at start-up

The burners start at ignition load an additional pilot line. In this way only a small amount of gas flows into the combustion chamber. After a short delay the burner moves to partial load operation.

Controlled shut downs from partial load

Controlled shut down of the burner always takes place from the partial load position, thus preventing impact on the gas main.

Fuel / air ratio

The controlled mixing of fuel and combustion air varies depending on the size and type of burner:

Size 30

Pressure side air regulation via an adjustable control sleeve in the mixing head for capacity adjustment.

Sizes 40 to 70

Pressure side air regulation via a compound regulated control sleeve in the mixing head.

Valve trains

To comply with EN 676 burners must be equipped with two solenoid valves. Weishaupt gas and dual fuel burners are equipped with two Class A solenoid valves (DMV) as standard. The W-FM 100 combustion manager provides for valve proving when an additional gas pressure switch is fitted. Other gas side accessories such as gas filters and gas pressure regulators, can be found in the List of Accessories.

Digital combustion management

The W-FM 100 and W-FM 200* combustion managers ensure the simple and safe operation of combustion plant.

All important functions, such as fuel and air feed or flame monitoring are controlled with digital precision. The aim is the optimisation of operational functions, the maximisation of economy, and the minimisation of emissions.

Thanks to digital combustion management such an optimisation is available today at limited cost. The outlay for installation and service is substantially lower than with conventional technologies.

For example, a separate control panel for the burner switchgear is no longer necessary. Furthermore, remote operation, diagnosis and monitoring of the plant can be realised. That makes things safer and simpler for the operator.

Applications

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

Fuels

Gas side (DVGW Worksheet G 260/1):
Natural Gas E (formerly designated Natural Gas H)
Natural Gas LL (formerly designated Natural Gas L).
Liquid petroleum gas F

Installation sites

In standard execution (materials, construction, protection), the burners are suitable for use indoors at temperatures between -15°C and +40°C and with a maximum relative humidity of 80%.

Certification

The burners have been independently tested and comply with the following European standards and EC directives:

- EN 676
- Machinery Directive 98/37/EC
- Electromagnetic Compatibility Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC
- Gas Appliance Directive 90/396/EEC
- Pressure Vessel Directive 97/23/EC

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.

Variants

Digital combustion management (W-FM 100)	Digital combustion management (W-FM 100) with capacity regulation and speed control	Digital combustion management (W-FM 200*) with capacity regulation O ₂ trim and speed control
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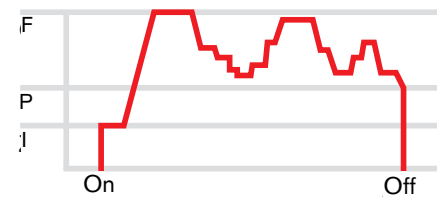
- Standard
- Special execution

Capacity regulation

Sliding two stage (ZM)



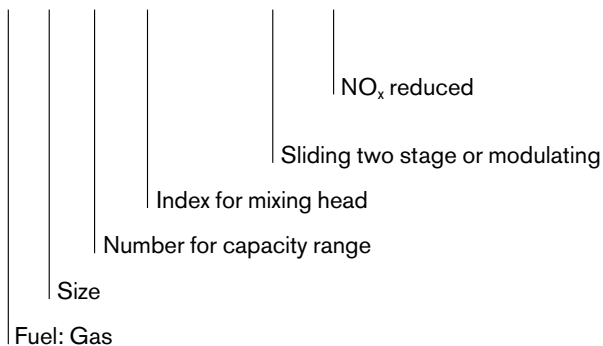
Modulating (ZM)



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

Explanation of designation

G 40/1 – B, Vers. ZM-NR



The advantages of digital combustion management



Control and Display Unit

Digital combustion management means optimal combustion figures, continually reproducible setting figures, and ease of use.

Weishaupt burners are equipped with electronic compound and digital combustion management since modern combustion technologies demand a precise, continually reproducible dosing of fuel and combustion air. Only in this way can optimal combustion figures be ensured over extended periods.

If required, the burners can also be equipped with O₂ trim and speed control.

Error free operation via a clear text display.

Setting and control of the burner functions is achieved using a control and display unit with a clear text display. The CDU is linked to the combustion manager via a safety bus system and can be placed anywhere the user chooses within 100 m of the burner.

Flexible communication possibilities

The inbuilt interface enables all necessary information and functions to be relayed to a BMS system. If required, a modem enables a telephone connection to be installed for remote operation (e.g. oil/gas change-over, adjustment of setting values) and remote diagnosis.

Communication with external systems via Bus.

If data has to be exchanged between burners and other heating systems with PLC devices, Weishaupt E-Gate acts as a gateway and translates the eBus protocol into the standard Profibus DP protocol.

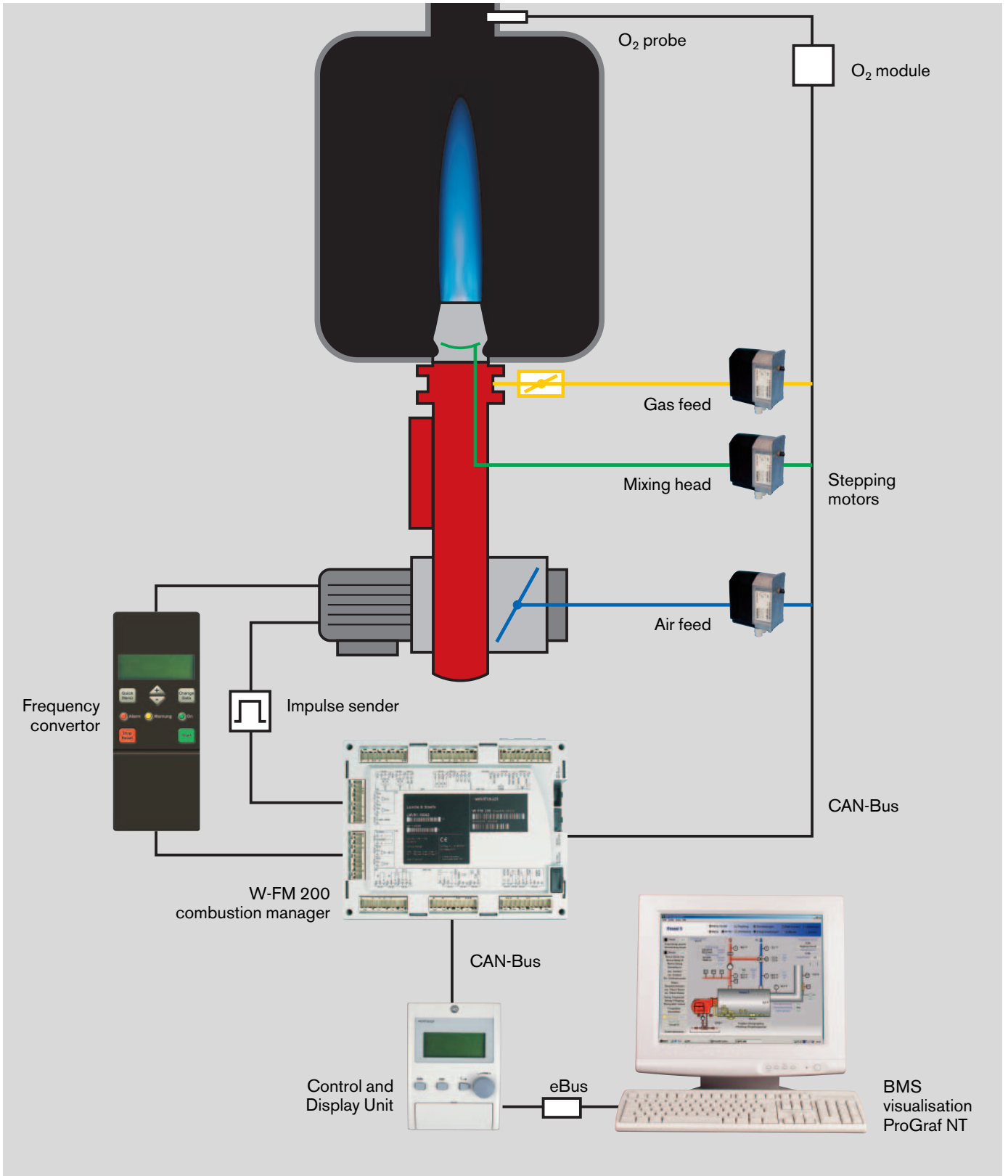
Integration with building management

For the control and management level, Weishaupt offers ProGraf NT - a software product that provides a real time solution to meet all requirements.

The price advantage of new technology

With improved technology and ease of use, combustion plant is becoming even more economical.

- No additional burner controls are required, since this effected by the combustion manager. Contactors and burner motor fuses are the only additional items required.
- Less installation work means fewer errors: the burners are tested as a complete unit at the factory.
- No additional costs for valve proving.
- If required, the W-FM 100 can be fitted with a capacity regulator and speed control module. No separate equipment is required. The capacity regulator and speed control module are included as standard with the W-FM 200.
- Commissioning and service work takes less time. The initial pre-setting of the burner is carried out at the factory. On site, only the site specific load points have to be determined.
- To facilitate O₂ trim, only an O₂ probe and O₂ module have to be installed and connected with the W-FM 200 via the internal safety bus.

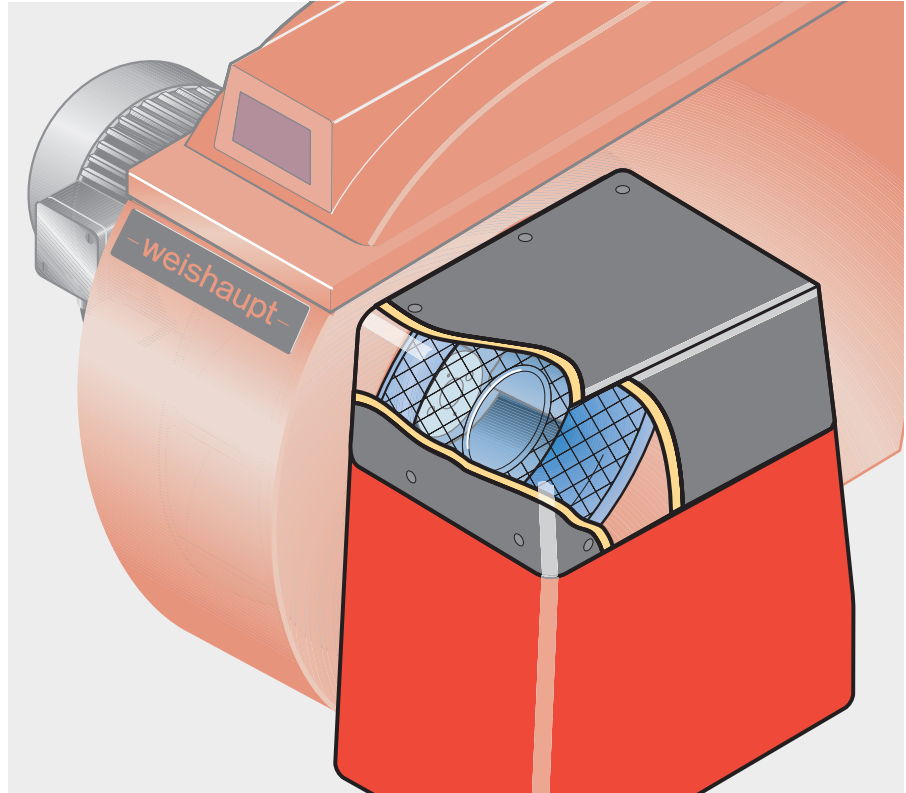


Example of O₂ trim and speed control with W-FM 200

Proven quality in detail

Considerable noise reduction due to sound absorbing air inlet

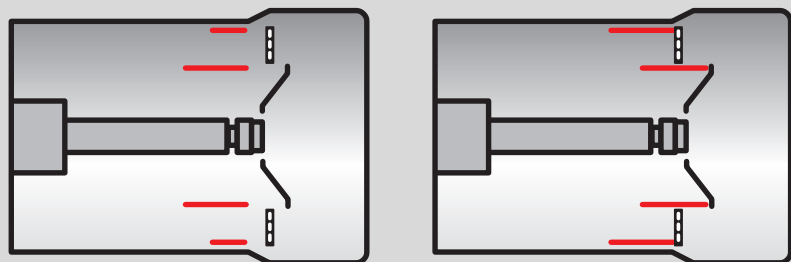
By fitting sound absorbing materials on the fan suction side it has been possible to reduce operational noise considerably.



Cut-away of the fan housing

Pressure side air regulation via mixing head with compound regulated control sleeve

The forward and reverse movements of the regulating sleeve in the mixing head ensure that the air annulus is correct at every load point throughout the capacity range. This results in optimum velocities over the whole of the regulation range. With this system, the mixing pressure is increased at partial load, improving the intermixture of fuel and air. This results in a reduction in excess air and improved combustion efficiency due to the constant air/fuel ratio.

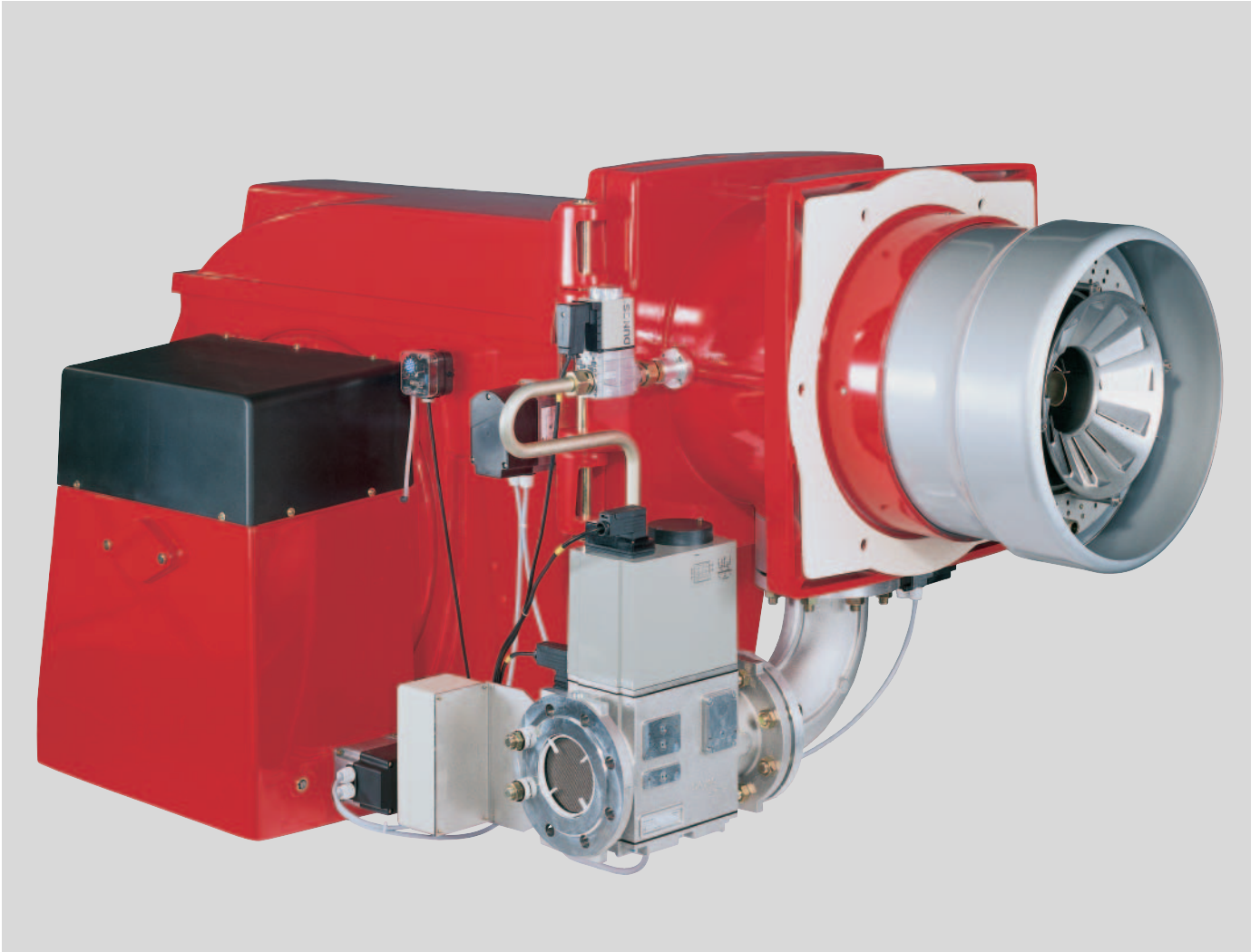


			Control range up to 1:5	
	Control range up to 1:3			

- Burner sizes 40 to 70 with pressure side compound regulation
- Burner without pressure side compound regulation

Example regulation ranges for different burner types

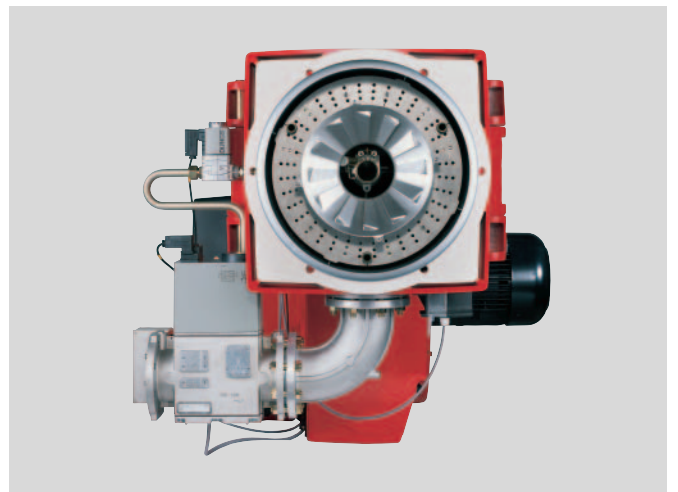
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G70/2-A ZM NR gas burner complete with pre-mounted DMV and plug connections (additional cost)



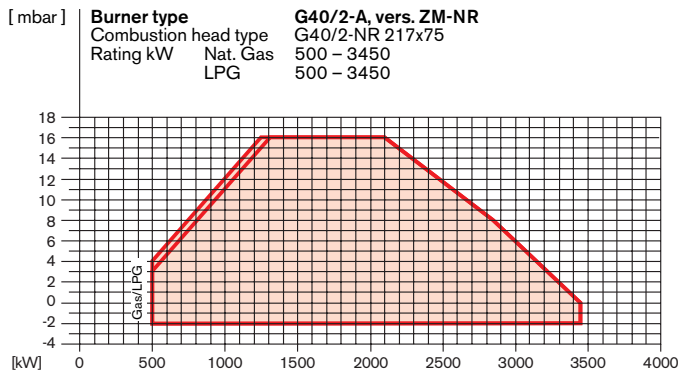
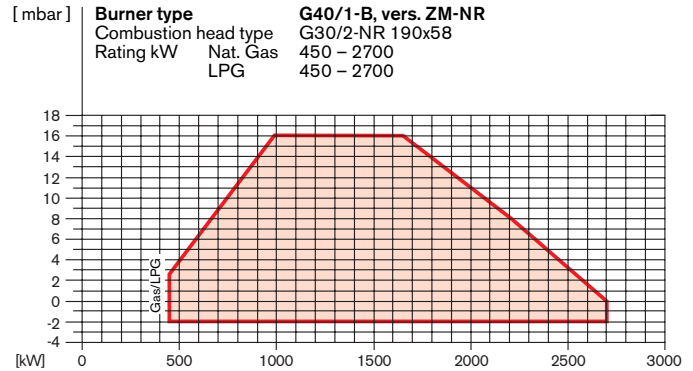
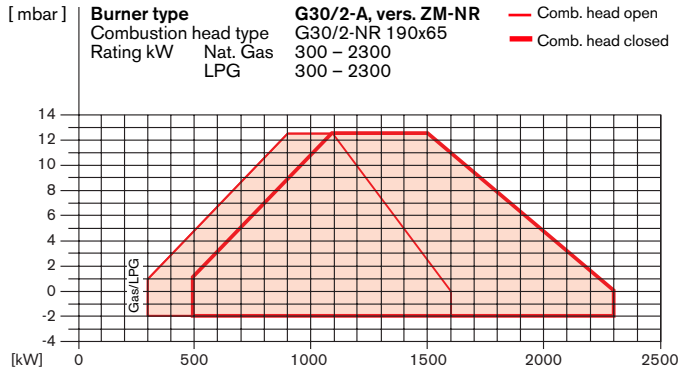
Burner with inbuilt Control and Display Unit



Front view

Gas burner selection

Types G30 and G40, NR version



Burner type	Version	CE No. and type test No.	Valve train	Order No.
G30/2-A	ZM-NR	CE-0085-AP 0528	R 1 1/2"	217 305 18
			R 2"	217 305 19
			DN 50	217 305 33
			DN 65	217 305 43
			DN 80	217 305 53
			DN 100	217 305 63
			DN 125	217 305 73
G40/1-B	ZM-NR	CE-0085-AQ 0720	R 1 1/2"	217 404 18
			R 2"	217 404 19
			DN 50	217 404 33
			DN 65	217 404 43
			DN 80	217 404 53
			DN 100	217 404 63
			DN 125	217 404 73
G40/2-A	ZM-NR	CE-0085-AQ 0720	R 1 1/2"	217 405 13
			R 2"	217 405 15
			DN 50	217 405 32
			DN 65	217 405 42
			DN 80	217 405 52
			DN 100	217 405 62
			DN 125	217 405 72

The ratings given are based on an air temperature of 20°C and an installation altitude of 500 m.

Voltages and frequencies:

As standard, the burners are suitable for three phase alternating current 400 V, 3 ~, 50 Hz. Other voltages and frequencies available on request at no extra cost.

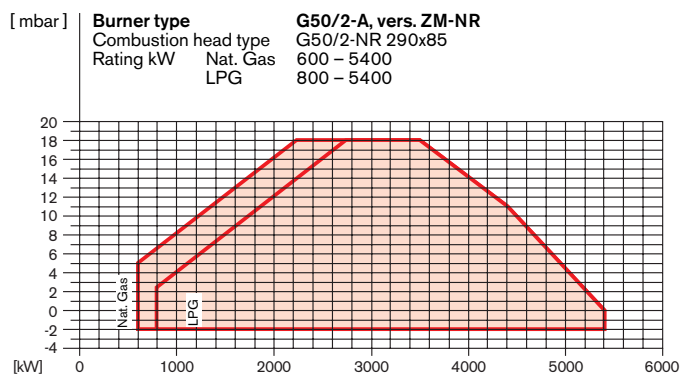
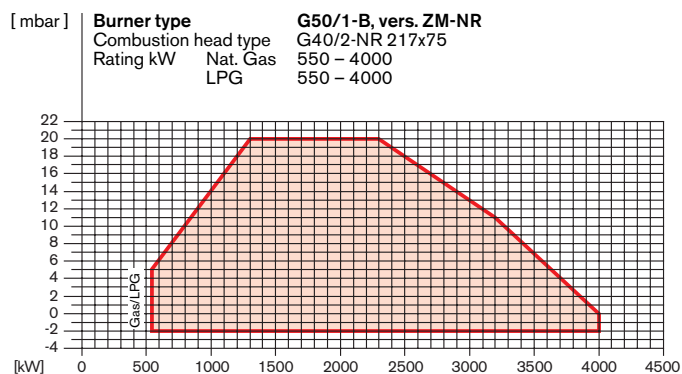
Standard burner motor:

Isolation class F, IP 54 protection

Gas burner selection

Type G50, NR version

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Burner type	Version	CE No. and type test No.	Valve train	Order No.
G50/1-B	ZM-NR	CE-0085-AQ 0721	R 1 1/2"	217 504 13
			R 2"	217 504 15
			DN 50	217 504 32
			DN 65	217 504 42
			DN 80	217 504 52
			DN 100	217 504 62
G50/2-A	ZM-NR	CE-0085-AQ 0721	DN 125	217 504 72
			R 1 1/2"	217 505 13
			R 2"	217 505 15
			DN 50	217 505 32
			DN 65	217 505 42
			DN 80	217 505 52
DN 100	217 505 62			
DN 125	217 505 72			
DN 150 *	217 505 82			

The ratings given are based on an air temperature of 20°C and an installation altitude of 500 m.

Voltages and frequencies:

As standard, the burners are suitable for three phase alternating current 400 V, 3 ~, 50 Hz. Other voltages and frequencies available on request at no extra cost.

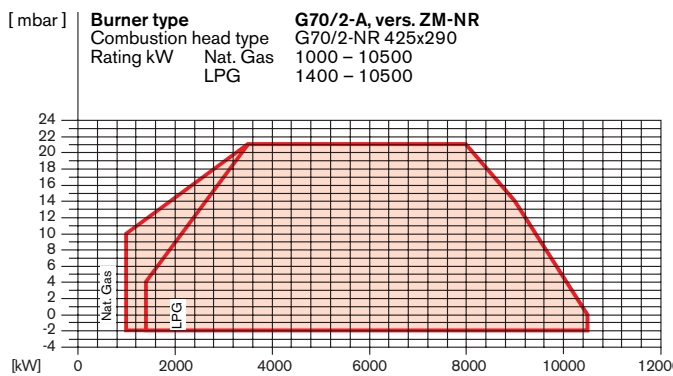
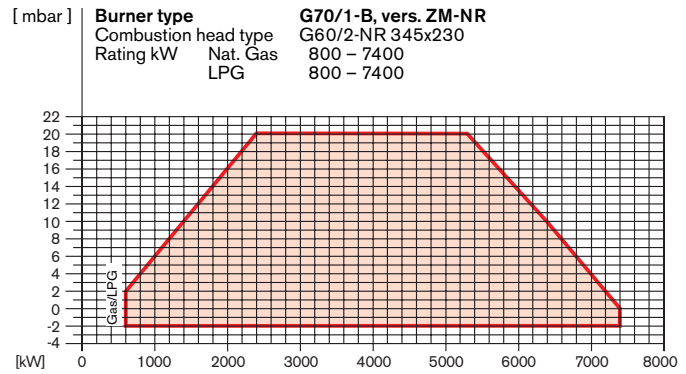
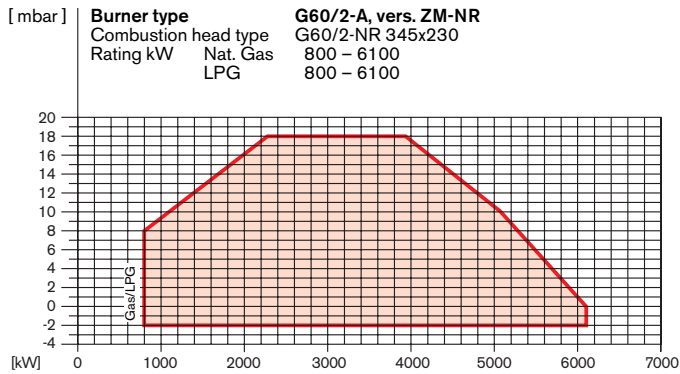
Standard burner motor:

Isolation class F, IP 54 protection

* DN 150 with two individual solenoid valves

Gas burner selection

Types G60 and G70, NR version



Burner type	Version	CE No. and type test No.	Valve train	Order No.
G60/2-A	ZM-NR	CE-0085-AQ 0722	DN 50	217 605 32
			DN 65	217 605 42
			DN 80	217 605 52
			DN 100	217 605 62
			DN 125	217 605 72
G70/1-B	ZM-NR	CE-0085-AQ 0723	DN 150*	217 605 82
			DN 50	217 704 32
			DN 65	217 704 42
			DN 80	217 704 52
			DN 100	217 704 62
G70/2-A	ZM-NR	CE-0085-AQ 0723	DN 125	217 704 72
			DN 150*	217 704 82
			DN 50	217 705 32
			DN 65	217 705 42
			DN 80	217 705 52
			DN 100	217 705 62
			DN 125	217 705 72
			DN 150*	217 705 82

The ratings given are based on an air temperature of 20°C and an installation altitude of 500 m.

Voltages and frequencies:

As standard, the burners are suitable for three phase alternating current 400 V, 3 ~, 50 Hz. Other voltages and frequencies available on request at no extra cost.

Standard burner motor:

Isolation class F, IP 54 protection

* DN 150 with two individual solenoid valves

Valve train sizing with DMV valves

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Type 30/2-A and 40/1-B, version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 1 1/2" 50* 65 80 100 125 1 1/2"	Nominal diameter of valve trains 50* 65 80 100 125
	Nominal diam. of gas butterfly valve 50 50 50 50 50 50	Nominal diam. of gas butterfly valve 50 50 50 50 50 50

Natural Gas E, $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³) d = 0.606												
1200	58	31	17	12	10	9	23	19	11	8	7	6
1400	79	42	23	16	13	11	32	25	15	11	9	8
1600	102	54	29	20	16	14	42	33	19	14	12	11
1800	128	68	36	24	19	17	53	42	25	18	15	14
2000	158	83	44	29	23	21	65	52	31	22	19	17
2200	190	100	53	35	27	24	79	63	37	26	22	20
2400	226	118	62	42	32	28	94	75	44	31	26	24
2700	285	149	78	51	39	35	118	94	55	39	33	30

Natural Gas LL, $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³) d = 0.641												
1200	83	44	23	15	12	11	33	26	15	10	9	8
1400	112	59	31	20	16	14	45	36	20	14	12	11
1600	145	76	39	25	20	17	59	46	27	18	15	14
1800	183	95	49	32	25	22	75	59	34	24	20	18
2000	226	117	60	39	30	26	92	73	42	29	24	22
2200	272	141	72	46	35	31	111	88	50	35	29	26
2400	-	167	85	54	41	36	132	105	60	42	35	31
2700	-	211	107	68	51	44	-	132	75	52	43	39

LPG B/P, $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³) d = 1.555												
1200	27	16	10	8	-	-	11	9	6	-	-	-
1400	36	21	13	10	9	9	16	13	9	7	6	6
1600	46	27	16	13	11	10	20	17	11	9	8	8
1800	58	33	20	15	13	13	26	21	14	11	10	10
2000	71	41	25	18	16	15	32	26	18	14	13	12
2200	86	49	27	22	19	17	38	32	21	17	15	14
2400	101	57	35	25	22	20	46	38	25	20	18	17
2700	127	72	42	31	27	25	58	48	32	25	23	21

Type G50/2-A version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 1 1/2" 50* 65 80 100 125 150	Nominal diameter of valve trains 1 1/2" 50* 65 80 100 125 150
	Nominal diam. of gas butterfly valve 80 80 80 80 80 80	Nominal diam. of gas butterfly valve 80 80 80 80 80 80

Natural Gas E, $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³) d = 0.606														
2000	162	95	54	39	32	30	29	70	64	40	31	28	26	26
2500	240	135	71	47	37	33	31	97	88	51	37	32	29	28
3000	-	184	91	56	43	37	34	130	117	64	43	35	32	31
3500	-	-	114	67	49	41	37	-	-	78	50	40	35	33
4000	-	-	151	89	65	54	50	-	-	104	67	54	48	45
4500	-	-	190	113	81	68	63	-	-	132	85	69	61	58
5000	-	-	-	137	99	82	76	-	-	-	104	84	74	70
5400	-	-	-	158	113	94	86	-	-	-	120	96	84	80

Natural Gas LL, $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³) d = 0.641																	
2000	234	136	76	54	45	41	39	100	92	57	44	39	37	36			
2500	-	194	100	66	52	46	43	140	127	73	52	45	41	40			
3000	-	-	130	80	60	51	48	-	-	91	61	50	45	43			
3500	-	-	-	164	96	68	57	52	-	-	112	71	57	50	47		
4000	-	-	-	-	123	88	72	66	-	-	-	92	73	64	61		
4500	-	-	-	-	-	153	108	89	81	-	-	-	114	90	78	74	
5000	-	-	-	-	-	-	185	129	105	95	-	-	-	138	108	93	88
5400	-	-	-	-	-	-	-	146	119	107	-	-	-	-	122	105	99

LPG B/P, $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³) d = 1.555																
2000	64	36	19	13	10	9	9	24	22	12	8	7	6	6		
2500	101	58	31	22	18	16	15	41	37	22	16	14	13	12		
3000	146	83	45	31	26	23	22	60	55	33	24	21	20	19		
3500	198	146	62	42	35	31	30	82	75	45	34	29	27	27		
4000	258	198	80	55	44	40	38	107	98	59	44	39	36	35		
4500	-	258	100	68	55	50	48	136	124	74	55	49	45	44		
5000	-	-	-	122	83	67	60	58	-	-	91	68	59	55	54	
5400	-	-	-	-	141	96	77	69	66	-	-	106	78	69	64	62

Type 40/2-A and Type 50/1-B, version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 1 1/2" 50* 65 80 100 125	Nominal diameter of valve trains 1 1/2" 50* 65 80 100 125
	Nominal diam. of gas butterfly valve 65 65 65 65 65 65	Nominal diam. of gas butterfly valve 65 65 65 65 65 65

Natural Gas E, $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³) d = 0.606												
1600	99	51	25	15	12	10	39	31	15	10	8	7
1800	125	65	31	19	14	12	49	39	20	13	10	9
2000	154	79	38	23	17	14	61	48	24	16	12	11
2400	220	113	54	32	23	20	88	69	35	23	18	16
2800	299	152	72	42	30	25	119	94	47	30	24	21
3200	-	199	93	55	39	33	-	123	62	40	31	27
3600	-	-	117	68	48	40	-	-	78	50	39	34
4000	-	-	143	84	59	49	-	-	97	62	48	42

Natural Gas LL, $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³) d = 0.641												
1600	142	73	35	21	15	13	56	44	22	14	11	9
1800	180	92	43	26	18	15	71	55	28	17	13	12
2000	221	112	53	31	22	18	87	68	34	21	16	14
2400	-	161	75	44	31	26	126	99	49	31	24	21
2800	-	218	101	58	41	33	-	134	67	42	32	28
3200	-	-	131	76	53	43	-	-	88	55	43	37
3600	-	-	165	94	66	53	-	-	110	69	53	46
4000	-	-	203	116	80	65	-	-	136	85	66	57

LPG B/P, $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³) d = 1.555												
1600	43	24	13	9	7	7	17	14	8	5	-	-
1800	54	30	16	11	9	8	22	17	10	7	6	5
2000	66	36	19	13	10	9	27	21	12	8	7	6
2400	95	51	26	17	14	12	39	31	17	12	10	9
2800	128	68	35	23	18	16	53	42	23	16	14	12
3200	166	88	45	29	23	20	69	55	31	21	18	16
3600	209	110	55	36	27	24	87	70	38	27	22	20
4000	258	136	68	43	33	29	108	86	47	33	27	25

The combustion chamber pressure in mbar must be added to the minimum gas pressure required.

For low pressure supplies, pressure regulating devices with safety membrane in accordance with EN 88 are used. The maximum permissible supply pressure before the shut off valve is 300 mbar.

For high pressure supplies, high pressure regulating devices in accordance with EN 3380 can be selected from the brochure 'Pressure regulating units with safety assemblies for Weishaupt gas and dual fuel burners'. This details high gas pressure sets suitable for supply pressures of up to 4 bar.

See burner plate for maximum supply pressure.

* The figures given for size DN 50 also apply to 2" valve trains.

Valve train sizing with DMV valves

Type 60/2-A, version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 50* 65 80 100 125 150	Nominal diameter of valve trains 50 65 80 100 125 150
	Nominal diam. of gas butterfly valve 100 100 100 100 100 100	Nominal diam. of gas butterfly valve 100 100 100 100 100 100

Natural Gas E , $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³), $d = 0.606$	
4000	- 135 74 48 38 34
4300	- 156 85 56 44 39
4500	- 171 93 61 48 43
4800	- 194 106 69 54 48
5000	- 210 114 75 58 52
5300	- 127 83 65 57
5600	- 141 91 71 63
6100	- 165 106 82 72

Natural Gas LL , $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³), $d = 0.641$	
4000	- 188 99 62 47 41
4300	- 115 72 55 47
4500	- 126 79 60 52
4800	- 142 89 68 59
5000	- 154 97 73 63
5300	- 172 108 81 70
5600	- 191 119 89 77
6100	- 139 103 89

LPG B/P , $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³), $d = 1.555$	
4000	133 69 44 33 29 27
4300	154 79 50 38 33 31
4500	168 87 55 42 36 34
4800	191 98 62 47 41 38
5000	206 106 67 51 44 41
5300	- 119 75 56 49 46
5600	- 132 82 62 54 50
6100	- 155 96 72 62 58

Type 70/2-A, version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 40* 50* 65 80 100 125 150	Nominal diameter of valve trains 40* 50* 65 80 100 125 150
	Nominal diam. of gas butterfly valve 65 65 65 80 100 100 100	Nominal diam. of gas butterfly valve 65 65 65 80 100 100 100

Natural Gas E , $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³), $d = 0.606$	
5000	- 197 102 62 46 39
6000	- 137 80 57 47
7000	- 181 104 72 59
8000	- 133 92 74
9000	- 165 113 91
9500	- 183 124 100
10000	- 138 111
10500	- 152 122

Natural Gas LL , $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³), $d = 0.641$	
5000	- 138 81 57 47
6000	- 189 106 72 58
7000	- 140 94 75
8000	- 182 122 97
9000	- 151 119
9500	- 168 132
10000	- 146
10500	- 159

LPG B/P , $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³), $d = 1.555$	
5000	- 161 121 105 98 96
6000	- 174 118 94 85 81
7000	- 124 92 79 74
8000	- 141 99 82 75
9000	- 167 114 93 84
9500	- 184 125 101 91
10000	- 139 112 101
10500	- 154 124 112

Type 70/1-B, version NR

Burner rating kW	Low pressure supply (flow pressure in mbar before shut off valve $p_{e,max} = 300$ mbar)	High pressure supply (flow pressure in mbar before solenoid valve)
	Nominal diameter of valve trains 50* 65 80 100 125 150	Nominal diameter of valve trains 50 65 80 100 125 150
	Nominal diam. of gas butterfly valve 100 100 100 100 100 100	Nominal diam. of gas butterfly valve 100 100 100 100 100 100

Natural Gas E , $H_i = 37.26$ MJ/mn ³ (10.35 kWh/mn ³), $d = 0.606$	
3500	226 106 59 40 32 29
4000	293 137 75 50 40 35
4500	- 171 93 61 48 43
5000	- 209 114 74 58 51
5600	- 261 140 91 70 62
6200	- 170 109 84 74
6800	- 203 130 100 87
7400	- 239 152 116 101

Natural Gas LL , $H_i = 31.79$ MJ/mn ³ (8.83 kWh/mn ³), $d = 0.641$	
3500	- 147 79 51 39 34
4000	- 191 102 65 50 44
4500	- 241 128 82 62 54
5000	- 157 99 76 66
5600	- 195 123 93 81
6200	- 237 149 112 97
6800	- 283 177 133 115
7400	- 208 156 134

LPG B/P , $H_i = 93.20$ MJ/mn ³ (25.89 kWh/mn ³), $d = 1.555$	
3500	95 46 27 19 16 14
4000	125 61 36 26 21 20
4500	159 78 46 33 27 25
5000	196 96 57 40 34 31
5600	245 120 70 50 42 38
6200	- 145 85 60 50 46
6800	- 173 101 71 58 53
7400	- 204 118 82 67 61

The combustion chamber pressure in mbar must be added to the minimum gas pressure required.

For low pressure supplies, pressure regulating devices with safety membrane in accordance with EN 88 are used. The maximum permissible supply pressure before the shut off valve is 300 mbar.

For high pressure supplies, high pressure regulating devices in accordance with EN 3380 can be selected from the brochure 'Pressure regulating units with safety assemblies for Weishaupt gas and dual fuel burners'. This details high gas pressure sets suitable for supply pressures of up to 4 bar.

See burner plate for maximum supply pressure.

* The figures given for size DN 50 also apply to 2" valve trains.

Scope of delivery

Special equipment

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Description	G30	G40	G50	G60	G70
Burner housing, hinged flange, housing cover, Weishaupt burner motor, air regulation housing, fan wheel, combustion head, ignition unit, ignition cable, ignition electrodes, combustion manager with control unit, flame sensor, flange gasket, limit switch on hinged flange, fixing screws	●	●	●	●	●
W-FM 100 combustion manager	●	●	●	●	●
Gas double solenoid valve (DMV), Class A (DN 150 valve train includes two single solenoid valves type MVD 5150)	●	●	●	●	●
Gas butterfly valve	●	●	●	●	●
Pilot line solenoid valve (Class A)	●	●	●	●	●
Valve connection piece	●	●	●	●	●
Air pressure switch	●	●	●	●	●
Gas pressure switch	●	●	●	●	●
Adjustable regulating sleeve in the mixing head	●				
Compound regulated sleeve in the mixing head		●	●	●	●
Servomotor for fuel/air compound regulation via W-FM 100					
Servomotor for air damper	●	●	●	●	●
Servomotor for gas butterfly	●	●	●	●	●
Servomotor for regulating sleeve		●	●	●	●

In accordance with EN 676, gas filters and governors form part of the burner supply (see Weishaupt Accessories List)
 Burner execution complies with TRD 606, 24 h/72 h see technical brochure, Print No. 863.

Special equipment	G30 Order No.	G40 Order No.	G50 Order No.	G60 Order No.	G70 Order No.	
Vertically firing burner version	standard	standard	standard	standard	290 012 71	
Air intake flange for connection of an air duct	280 003 47	280 001 68	280 000 92	280 000 38	280 000 13	
Solenoid valve for air pressure switch test for continuous run fan or post purge	290 004 29	290 004 29	290 000 31	290 000 31	290 000 31	
Combustion head extension	by 150 mm	G.../1-B, Vers. ZM-NR	–	290 005 25	290 005 21	–
		G.../2-A, Vers. ZM-NR	290 005 13	290 005 05	290 004 97	290 004 17
	by 300 mm	G.../1-B, Vers. ZM-NR	–	290 005 26	290 005 22	–
		G.../2-A, Vers. ZM-NR	290 005 14	290 005 06	290 004 98	290 004 18
Capacity regulator for W-FM 100	280 007 57	280 007 57	280 007 57	280 007 57	280 007 57	

Note: Additional price on request for DMV pre-mounted on burner with plug connections.

Technical data

Sizes 30 to 50

Technical data		G30/2-A				G40/1-B G40/2-A ①			
Burner motor 400 V, 3 ~, 50 Hz	Type	D112/110-2				D112/140-2a ①			
Nominal capacity	kW	4,5				5,5			
Nominal load at 400 VA	A	9,5				11			
Motor prefuse (Y Δ start)	A	20				25			
Speed (50 Hz)	rpm	2900				2900			
Fan wheel	colour / ø	blue / 268 x 100				295 x 100			
Ignition unit	Type	W-FM100				W-FM100			
Combustion manager	Type	W-ZG 02/V				W-ZG 02/V			
Servomotor	Type	SQM 45				SQM 45			
Burner weight	kg (approx.)	120				130			
Valve train weight (DMV or DN150 single solenoid valve)	DN	1 1/2	50	65	80	100	125	150	
	kg (approx.)	21	22	34	43	72	124	140	

Technical data		G50/1-B				G50/2-A			
Burner motor 400 V, 3 ~, 50 Hz	Type	D132/120-2				D132/170-2			
Nominal capacity	kW	9				14,2			
Nominal load at 400 VA	A	18				26,5			
Motor prefuse (Y Δ start)	A	35				50			
Speed (50 Hz)	rpm	2850				2900			
Fan wheel	colour / ø	blue / 345 x 100				blue / 345 x 100			
Ignition unit	Type	W-FM100				W-FM100			
Combustion manager	Type	W-ZG 02/2				W-ZG 02/2			
Servomotor	Type	SQM 45				SQM 45			
Burner weight	kg (approx.)	195				200			
Valve train weight (DMV or DN150 single solenoid valve)	DN	1 1/2	50	65	80	100	125	150	
	kg (approx.)	21	22	34	43	72	124	140	

① Burner type G40/2-A with 112/140-2 burner motor, Nominal capacity 7 kW, nominal load 13.4 A, motor prefuse 35 A.

Technical data

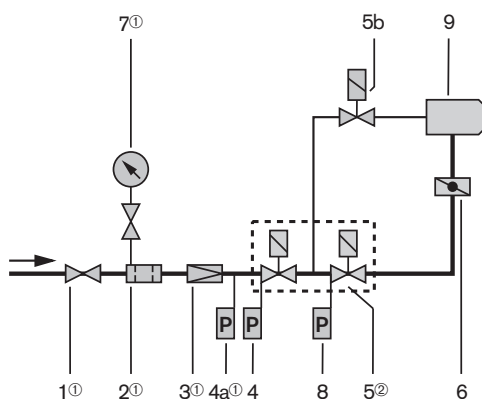
Sizes 60 and 70

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Technical data		G60/2-A						
Burner motor 400 V, 3 ~, 50 Hz	Type	D132/170-2						
Nominal capacity	kW	14,2						
Nominal load at 400 VA	A	26,5						
Motor prefuse (Y Δ start)	A	50						
Speed (50 Hz)	rpm	2900						
Fan wheel	colour / ø	blue / 515 x 120						
Combustion manager	Type	W-FM100						
Ignition unit	Type	W-ZG 02/V						
Servomotor	Type	SQM 45						
Burner weight	kg (approx.)	290						
Valve train weight (DMV or DN150 single solenoid valve)	DN	1 1/2	50	65	80	100	125	150
	kg (approx.)	29	31	56	58	95	135	200

Technical data		G70/1-B				G70/2-A			
Burner motor 400 V, 3 ~, 50 Hz	Type	D160/215-2B				D160/215-2			
Nominal capacity	kW	18				21			
Nominal load at 400 VA	A	38				41			
Motor prefuse (Y Δ start)	A	63				63			
Speed (50 Hz)	rpm	2900				2900			
Fan wheel	colour / ø	blue / 515 x 120				blue / 590 x 160			
Combustion manager	Type	W-FM100				W-FM100			
Ignition unit	Type	W-ZG 02/V				W-ZG 02/V			
Servomotor	Type	SQM 45				SQM 45			
Burner weight	kg (approx.)	290				390			
Valve train weight (DMV or DN150 single solenoid valve)	DN	41 1/2	50	65	80	100	125	150	
	kg (approx.)	29	31	56	58	95	135	200	

Types G30 to G70 With DMV solenoid valves

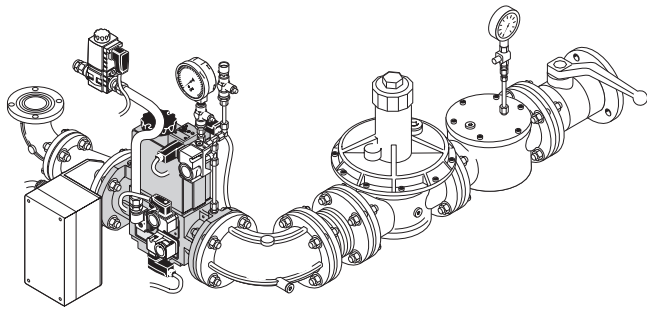


Legend

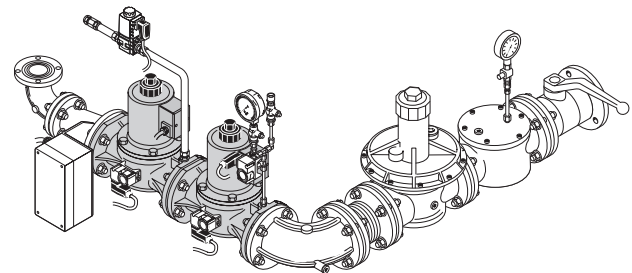
- 1 Isolating cock ①
- 2 Gas filter ①
- 3 Governor (LP) ①
- 4 Low gas pressure switch
- 4a High gas pressure switch (for TRD) ①
- 5 Double solenoid valve (DMV) ②
- 5a Pilot line solenoid valve
- 6 Gas butterfly valve
- 7 Gas pressure gauge and cock ①
- 8 Gas pressure switch (valve proving)
- 9 Burner

- ① Not included in burner price
② Single solenoid valves for DN 150

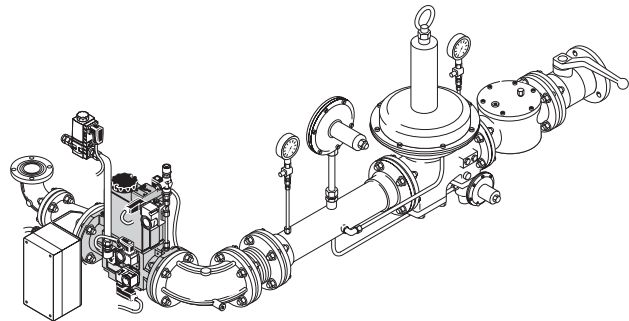
Installation example



Low pressure supply: flanged valve train with DMV valves



Single solenoid valves



High pressure supply: flanged valve train with DMV valves

The installation example shows a basic valve train, i.e. DMV solenoid valves and additional gas valve train components.

Layout of the valve train

On boilers with hinged doors, the valve train must be mounted on the opposite side to the boiler door hinges. The pilot line solenoid valve can be fitted to either side.

Compensator

To enable a tension free mounting of the valve train, it is recommended that a compensator is also fitted.

Break points in the valve train

Break points in the gas line should be provided to enable the door of the heat exchanger to be swung open. The main gas line is best separated at the compensator.

Support of the valve train

The valve train should be properly supported in accordance with the site conditions. See the Weishaupt Accessories List for various valve train support components.

Gas meter

A gas meter must be installed to measure gas consumption during commissioning.

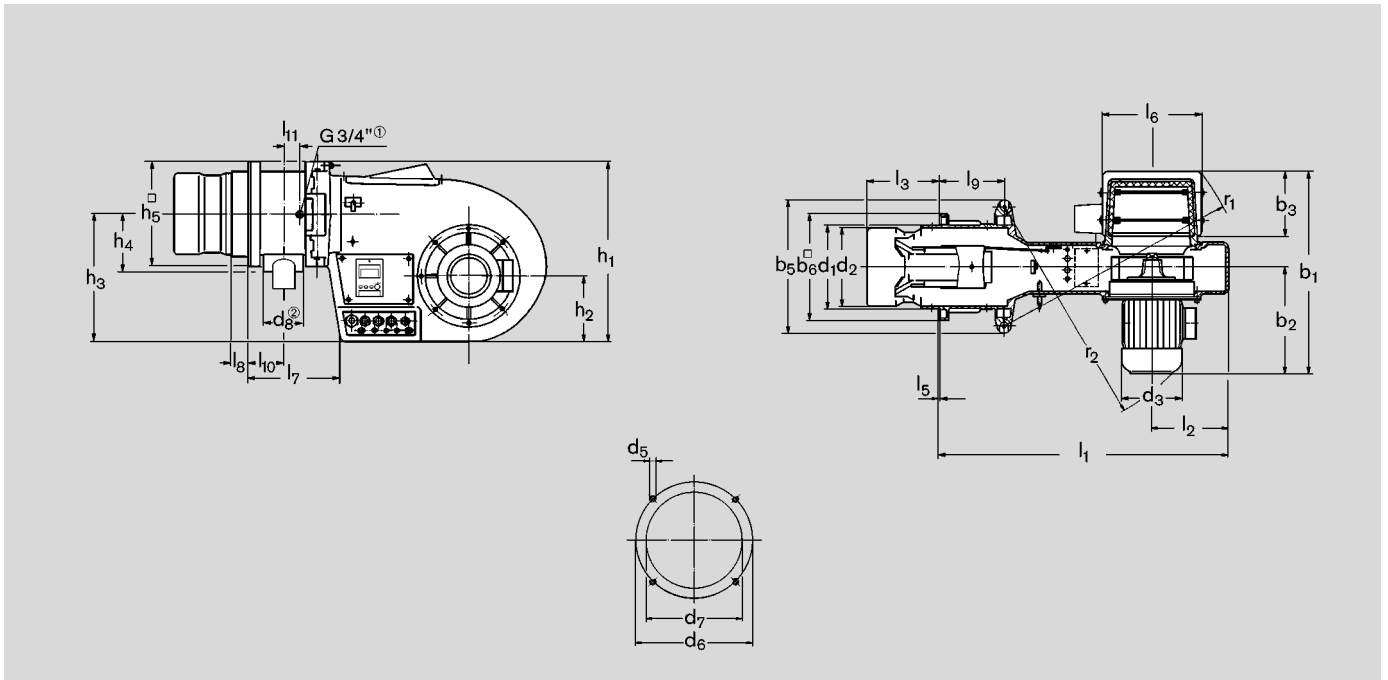
Thermische Absperreinrichtung (TAE)

optimal je nach Vorschrift

Bei geschraubten Armaturen im Kugelhahn integriert. Bei geflanschten Armaturen separates Bauteil vor dem Kugelhahn mit HTB-Dichtungen.

Dimensions Sizes 30 and 40

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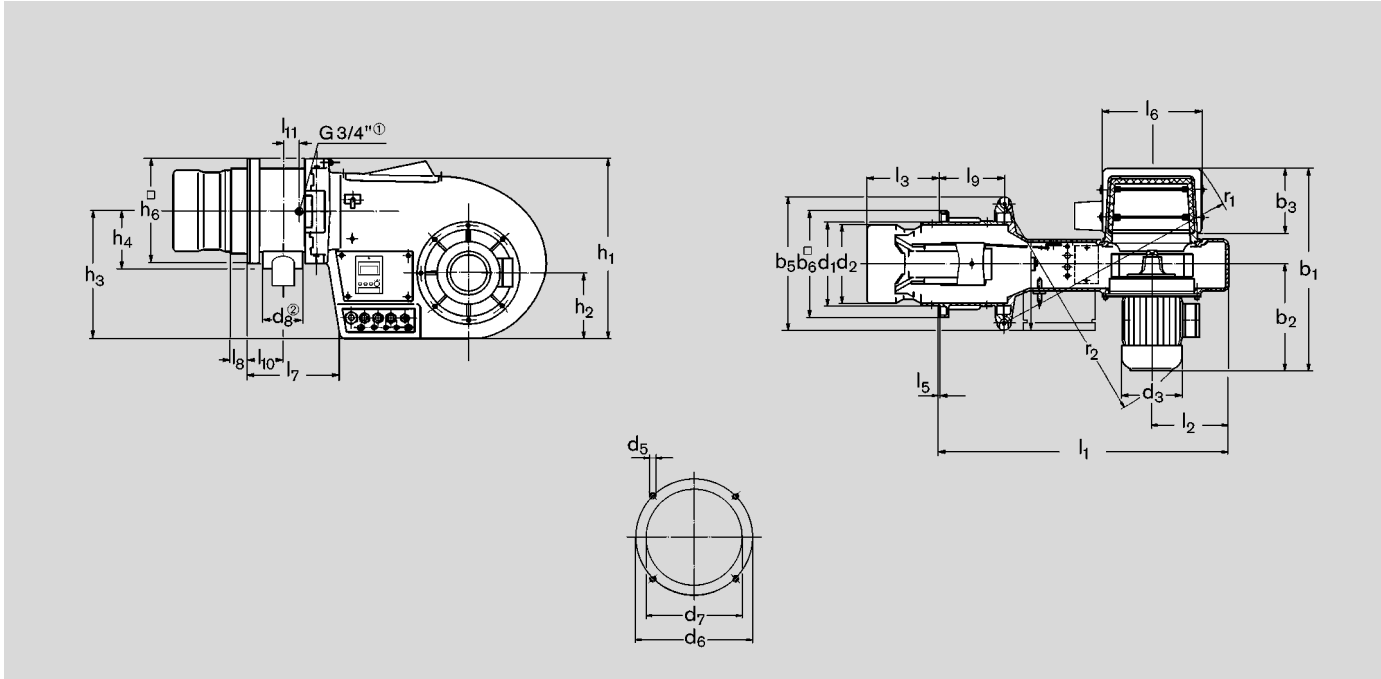
Size	Dimensions in mm															
	l1	l2	l3	l5	l6	l7	l8	l9	l10	l11	b1	b2	b3	b5	b6	
30/2-A	1083	245	272	8	354	300	58	238	123	32	700	371	208	418	□ 330	
40/1-B	1128	270	272	8	414	320	58	238	123	32	755	401	242	462	□ 330	
40/2-A	1148	270	332	8	414	340	67	258	133	42	755	401	242	462	□ 370	
	h1	h2	h3	h4	h5	d1	d2	d4	d5	d6	d7	d8 ^②	r1	r2		
30/2-A	572	207	407	207	□ 330	280	250	218	M12	360	285	DN50	840	890		
40/1-B	607	211	422	207	□ 330	280	250	218	M12	360	285	DN50	895	970		
40/2-A	607	211	422	227	□ 370	320	290	218	M12	400	325	DN65	895	970		

- ① Pilot line connection either side
 ② Flange facing to DIN EN 1092-1

All measurements are approximate. Weishaupt reserve the right to make alterations in light of future developments.

Dimensions

Size 50



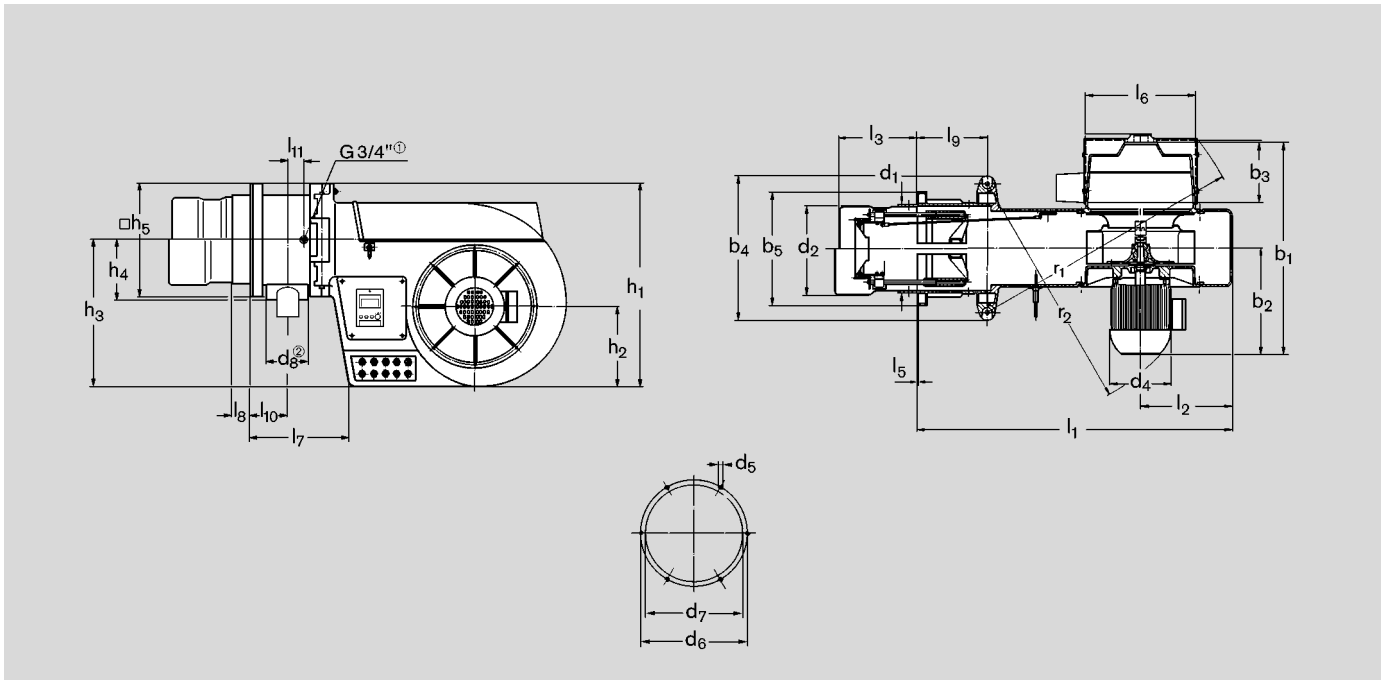
Size	Dimensions in mm														
	l1	l2	l3	l5	l6	l7	l8	l9	l10	l11	b1	b2	b3	b5	b6
50/1-B	1195	315	332	8	422	363	67	258	133	42	820	440	277	550	□ 370
50/2-A	1245	315	332	8	422	413	72	308	158	65	860	465	277	550	□ 430
	h1	h2	h3	h4	h5	d1	d2	d4	d5	d6	d7	d8②	r1	r2	
50/1-B	730	263	513	227	□ 370	320	290	258	M12	400	325	DN65	1060	1000	
50/2-A	730	263	513	257	□ 430	380	350	258	M16	480	390	DN80	1060	1025	

- ① Pilot line connection either side
 ② Flange facing to DIN EN 1092-1

All measurements are approximate. Weishaupt reserve the right to make alterations in light of future developments.

Dimensions Sizes 60 and 70

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Size	Dimensions in mm														
	l1	l2	l3	l5	l6	l7	l8	l9	l10	l11	b1	b2	b3	b4	b5
60/2-A	1478	405	357	8	508	440	89	348	178	85	980	487	280	670	□ 520
70/1-B	1648	483	357	8	614	510	89	348	178	87	1125	602	340	760	□ 520
70/2-A	1668	483	362	8	614	530	102	368	188	87	1170	602	340	760	□ 600
	h1	h2	h3	h4	h5	d1	d2	d4	d5	d6	d7	d8 ^②	r1	r2	
60/2-A	930	360	670	302	□ 520	432	400	258	M16	470	435	DN100	1250	1140	
70/1-B	1075	420	775	302	□ 520	432	400	310	M16	470	435	DN100	1440	1310	
70/2-A	1075	420	775	315	□ 600	470	480	310	M16	550	500	DN100	1440	1310	

- ① Pilot line connection either side
 ② Flange facing to DIN EN 1092-1

All measurements are approximate. Weishaupt reserve the right to make alterations in light of future developments.

Product and customer service - the complete Weishaupt range

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

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