GB-GANZ

AMR

MODULATING DUOBLOCK BURNER FAMILY

Flexible turndown range
High combustion efficiency
Reliable construction
Easy and simple to maintenance
Environmentally friendly

CE 1015

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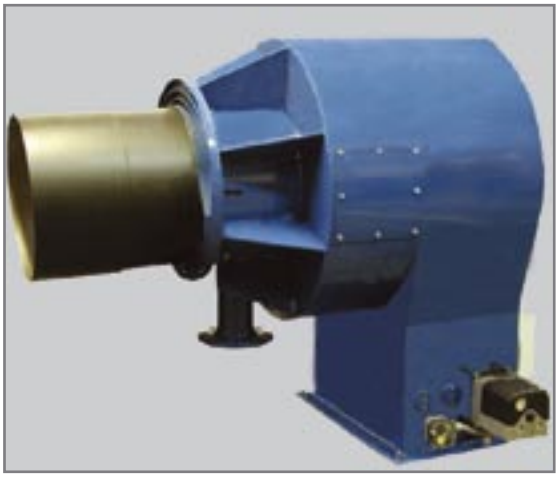
MSZ EN ISO 9001:2009 (ISO 9001:2008)

* A tanúsítás a cég minőségirányítási rendszerére vonatkozik.

Introduction of the AMR modulating industrial burners:

The AMR type industrial burners are modulating output control, automatic firing equipments mounted with separate fan, suitable for the combustion of different fuels (for example: natural gas, LPG, light or heavy oils).

They can be utilised as heat producing units fitted to over-pressure and depression combustion chambers of warm and hot water boilers, steam boilers, air heaters, and other industrial and agricultural equipments.



AMR-G industrial gas burner

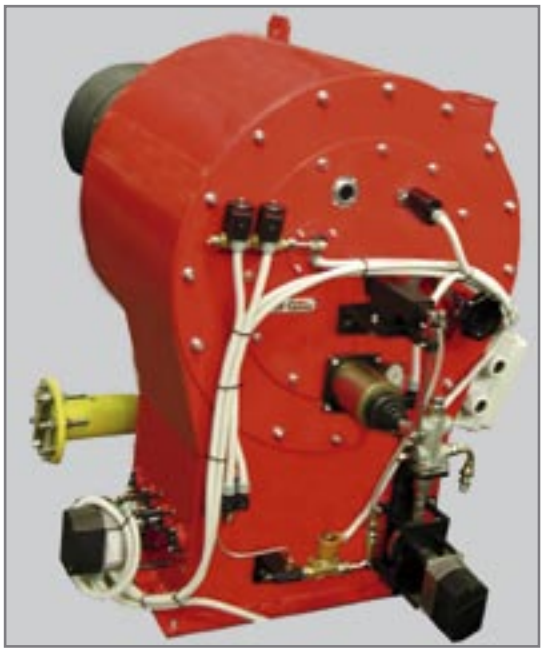
The installation on the boiler can be done by screws through the flange of the burner body. After the installation of the burner all the structural elements can be dismounted and mounted back again, enabling the easy maintenance and reparation. The burner consists of the following separately mounted main units: burner head, gas train, oil block, control box and the fan. The control box is always designed according to the customers' requirements.

Air registers, guide-vane regulation

The burner operates in base of the pre-mixing and after-mixing principle, fitted to the concrete heating equipment. It can be well utilised with over-pressure and depression combustion chambers. We always deliver it according to the customer's requirements with fan fitted to the combustion chamber, therefore we do not give a separate diagram for the burner. With the help of the guide-vane regulator and the nozzle system the form of the flame can be optimally adjusted to the combustion chamber measure. The gas consumption and the combustion air is controlled by servomotors driven by electronic air-gas rate control unit, enabling the 1:3 … 1:5 rate output control.

Air regulation

The operation of the burner is totally automatic, including the gradual and modulating control of the energy supply as well.



Dual fuel AMR burner.

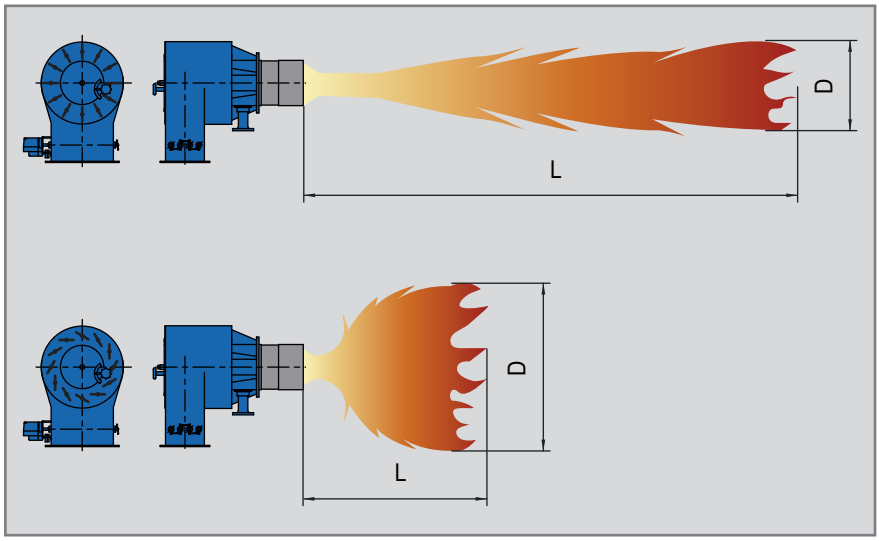
The advantages of the firing equipments:

- high thermo-technical efficiency
- elastic output control range
- stable and controllable flame form
- easy mounting, fast maintenance
- environment protecting, low emission of noxious material
- safe operation
- long term durability

The burner can be installed on heat supplying equipments of industrial, agricultural plants as:

- warm-water boilers
- hot-water boilers
- steam-boilers
- air-heaters
- agricultural and industrial dryers
- other technological process equipments

Flame form scheme, according to the position of the combustion air guide-vane regulator:



The blades are in radial direction, the air turbulence is minimal.

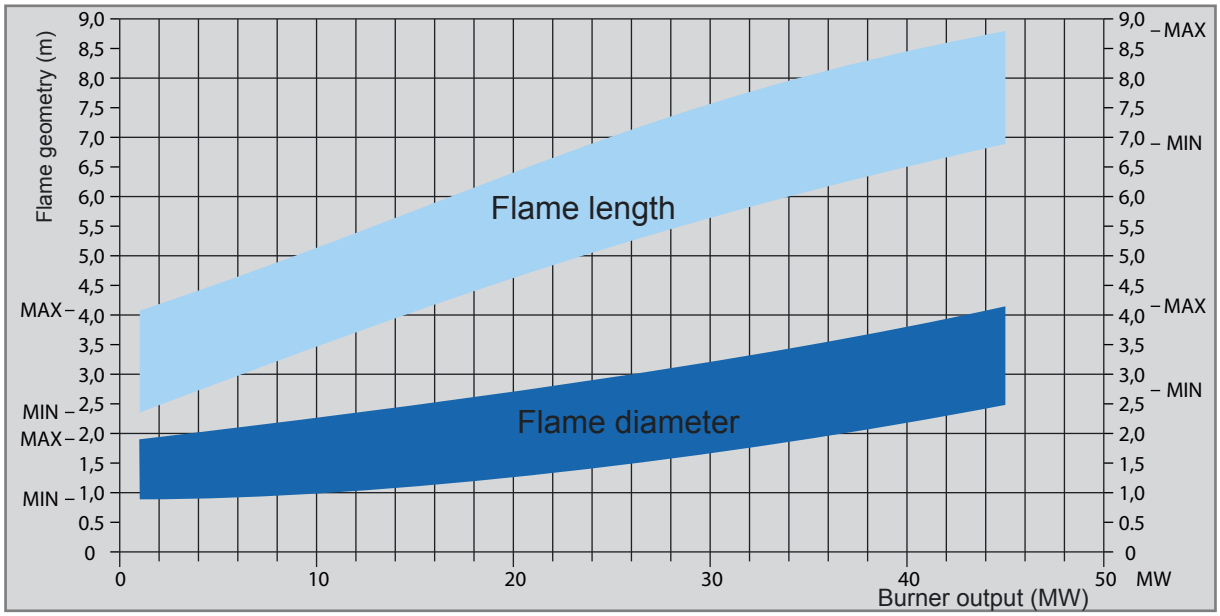
Long, extended flame.

The blades are in tangential direction, the air turbulence is strong.

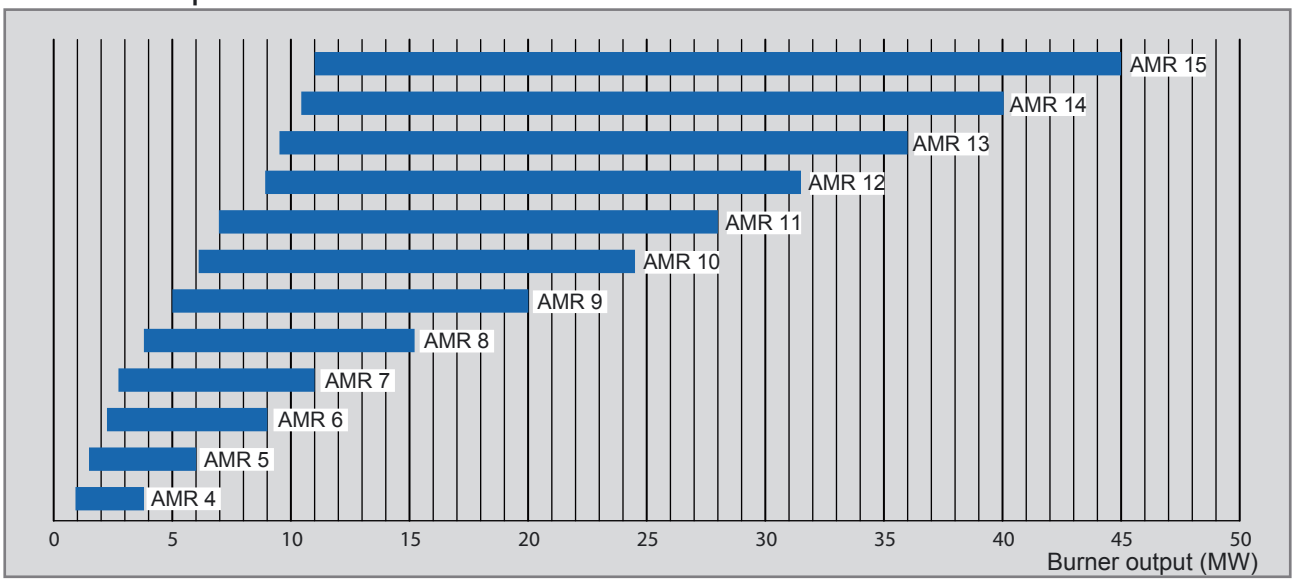
Short, wide flame.

Explanation:
D - Flame diameter
L - Flame length

The flame geometry of the AMR burners



The product range of the duo-block construction AMR burners according to the different outputs.

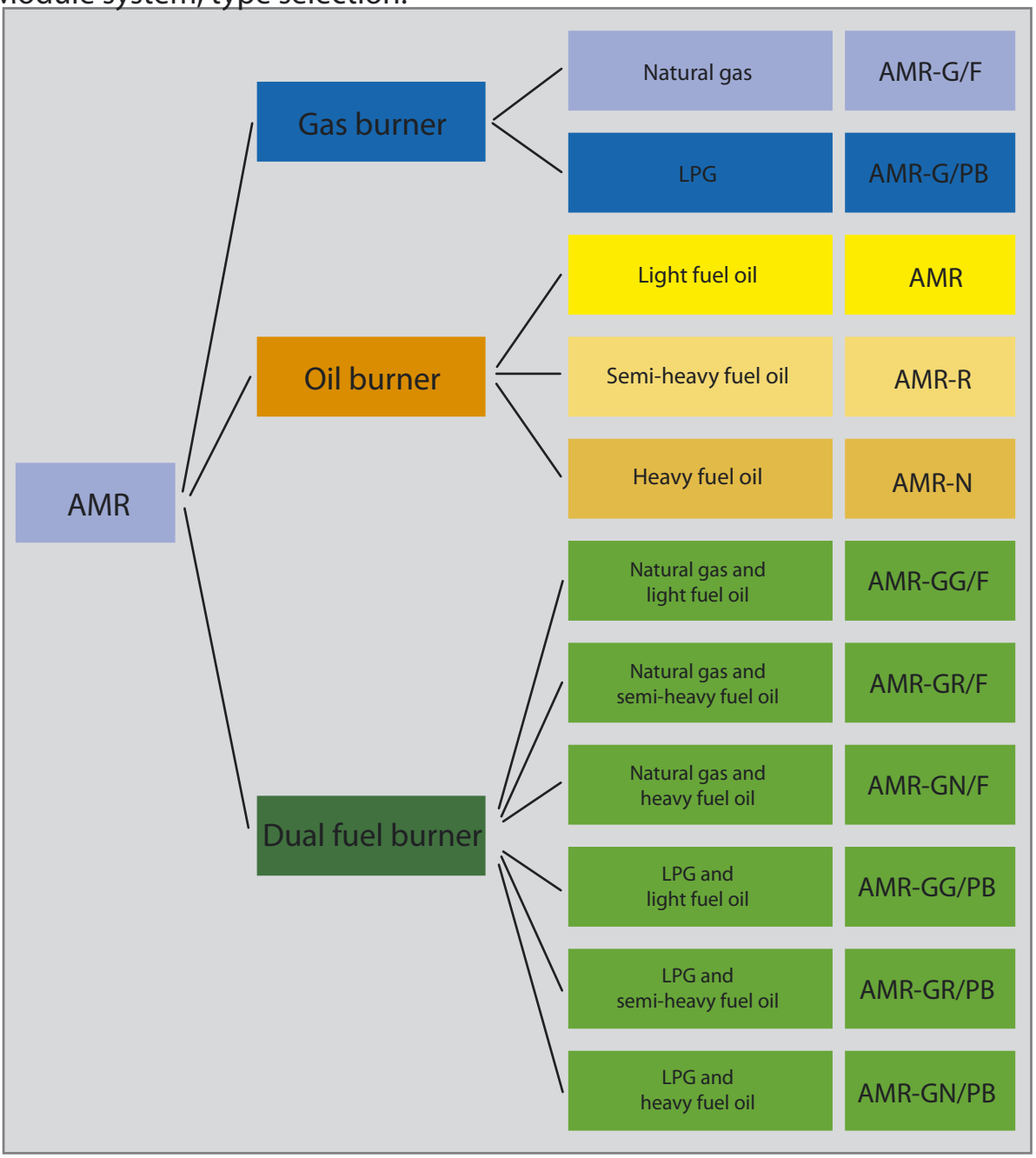


Outputs:

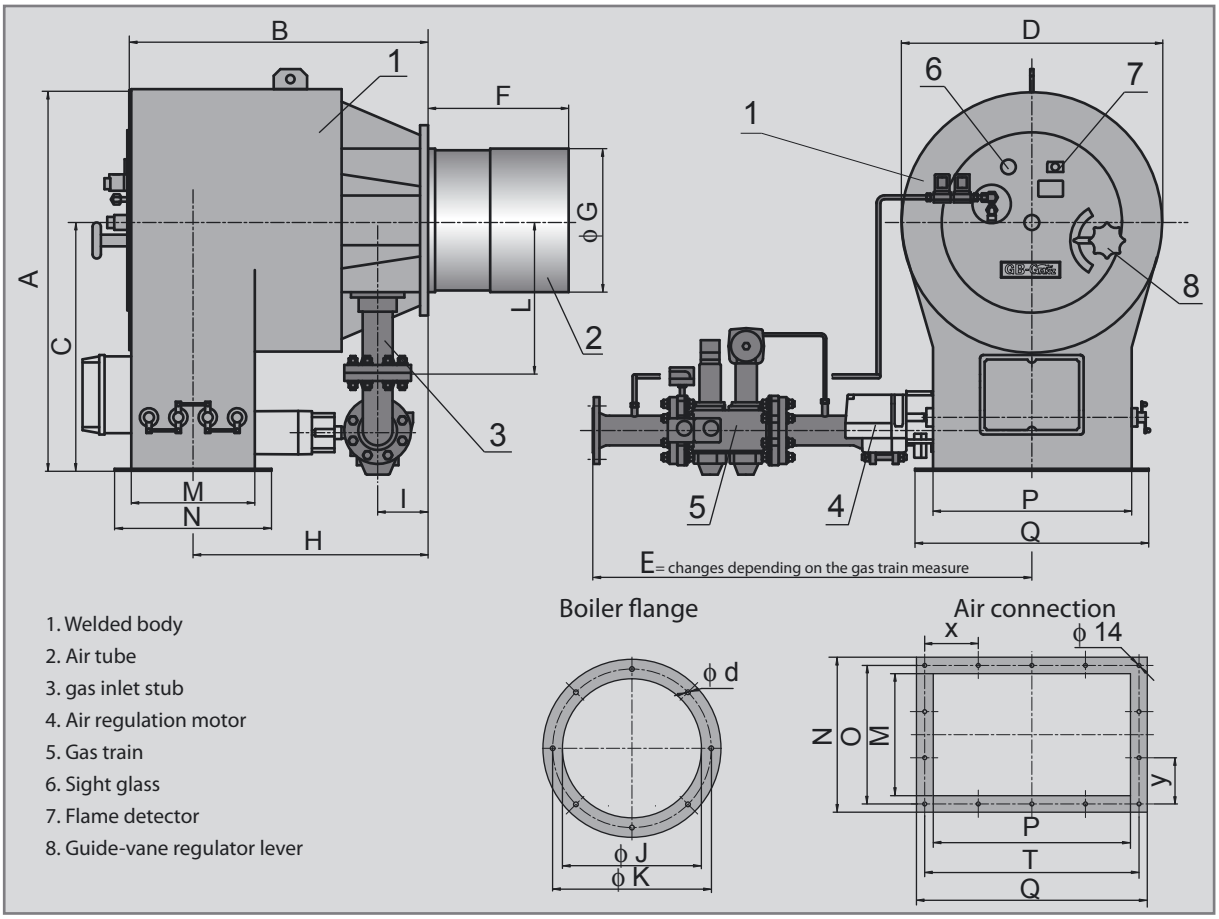
Type	Gas consumption* (Nm^3/h)	Oil consumption** (kg/h)	Heat output (kW)
AMR-4	400	350	3800
AMR-5	635	550	6000
AMR-6	950	820	9000
AMR-7	1150	1000	11000
AMR-8	1600	1400	15200
AMR-9	2100	1800	20000
AMR-10	2600	2200	24500
AMR-11	2965	2585	28000
AMR-12	3340	2900	31500
AMR-13	3810	3320	36000
AMR-14	4290	3740	40500
AMR-15	4770	4150	45000

* Natural gas, $H_a = 34$ MJ/Nm^3 ** Fuel oil H_a=39 MJ/kg

Module system, type selection:

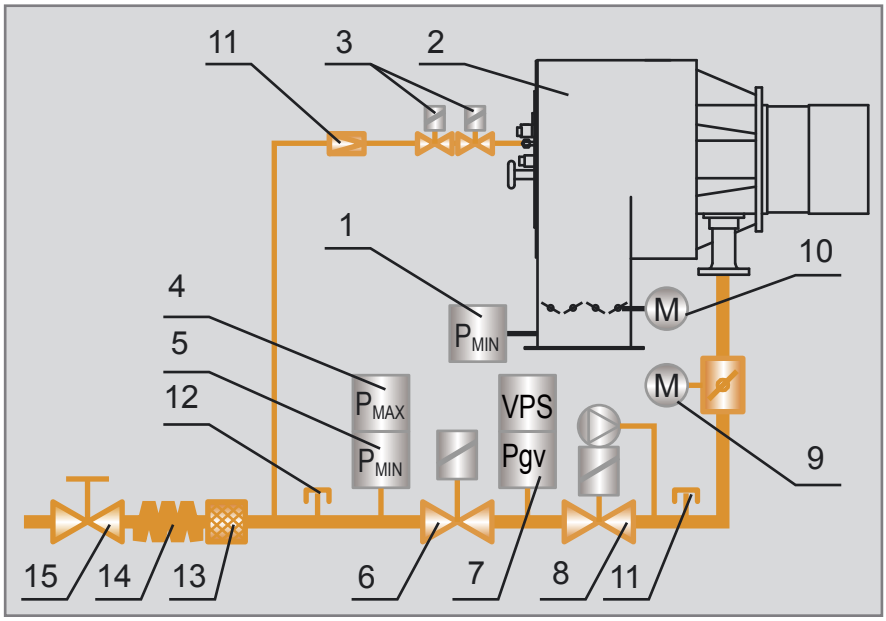


Outline drawing:



Sign	Type											
	AMR-4	AMR-5	AMR-6	AMR-7	AMR-8	AMR-9	AMR-10	AMR-11	AMR-12	AMR-13	AMR-14	AMR-15
A	974	1059	1144	1224	1304	1384	1459	1459	1544	1544	1735	1735
B	660	800	896	976	1041	1091	1141	1141	1238	1238	1295	1295
C	650	700	750	800	850	900	950	950	1000	1000	1150	1150
D	648	718	788	848	908	968	1018	1018	1088	1088	1170	1170
E	Changes depending on the gas train measure											
F	According to the order											
Φ G	312	360	430	490	550	610	660	700	730	770	820	860
H	530	637	703	768	808	833	861	861	933	933	970	970
I	150	150	150	150	150	150	150	150	200	200	200	200
Φ J	325	380	450	510	570	630	680	720	750	790	850	890
Φ K	396	466	536	602	662	722	772	772	842	842	930	930
M	250	310	370	400	450	500	550	550	600	600	650	650
N	350	410	470	500	550	600	650	650	700	700	750	750
O	300	360	420	450	500	550	600	600	650	650	700	700
P	430	530	600	640	700	760	790	790	850	850	910	910
Q	530	630	700	740	800	860	890	890	950	950	1010	1010
T	480	580	650	690	750	810	840	840	900	900	960	960
x	120	145	162	115	125	135	140	140	150	150	160	160
y	100	120	140	90	100	110	120	120	130	130	140	140
Φ d	M 14	M 14	M 14	M 14	M 14	M 16	M 16	M 16	M 16	M 16	M 16	M 16

Gas train structure:

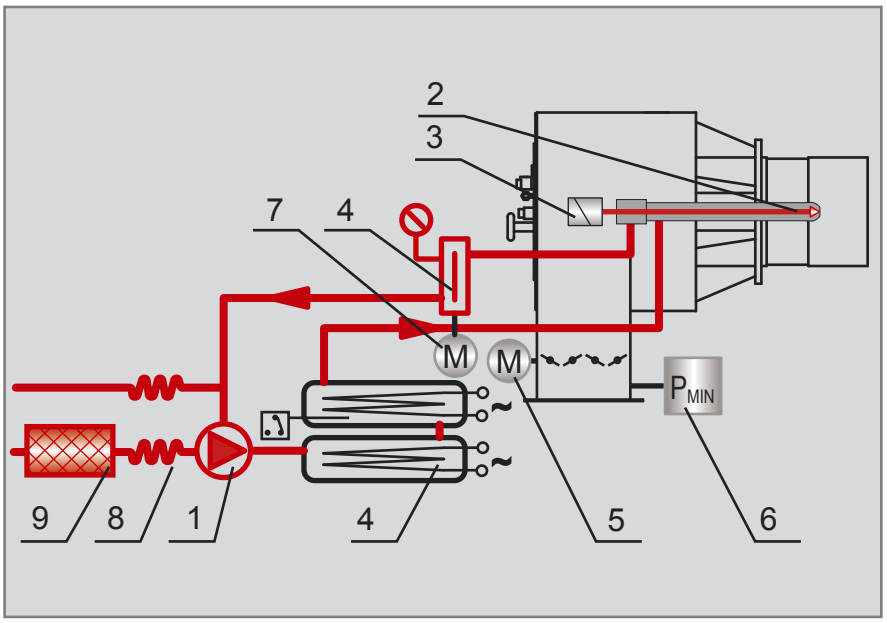


1 Combustion air minimum pressure switch
2 Burner body
3 Ignition gas solenoid valve
4 Max. gas pressure switch
5 Min. gas pressure switch
6 Safety gas valve
7 Gas leakage control system with pressure switch
8 Pressure control main valve
9 Gas regulation motor
10 Air regulation motor
11 Ignition gas pressure governor
12 Gauge pin

At special order

13 Filter
14 Antivibrating connection
15 Manual shut off valve

Oil system structure:

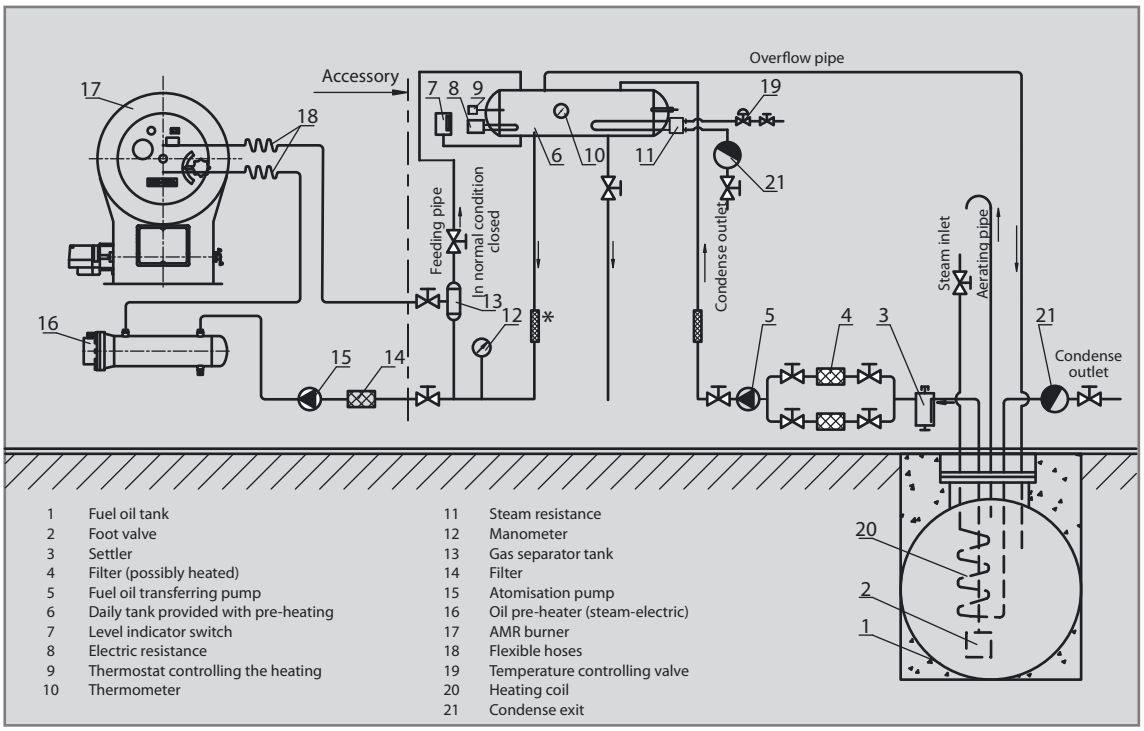


1 Oil pump
2 Recirculation nozzle
3 Needle solenoid valve
4 Recirculation pressure governor
5 Air regulation motor
6 Combustion air minimum pressure switch
7 Oil quantity control motor
8 Flexible hoses
9 Oil filter

At special order:
Manual shut off valve

Structure of the oil supply system:

Scheme of the fuel ring duct equipped with daily tank:

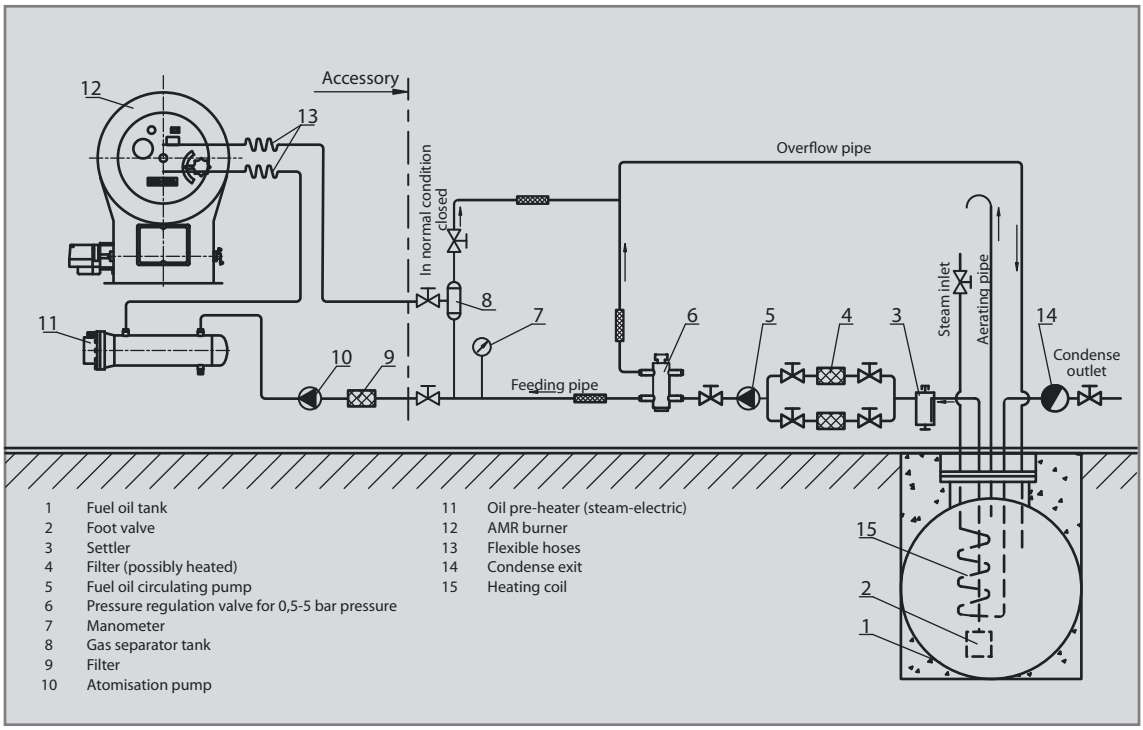


1	Fuel oil tank	11	Steam resistance
2	Foot valve	12	Manometer
3	Settler	13	Gas separator tank
4	Filter (possibly heated)	14	Filter
5	Fuel oil transferring pump	15	Atomisation pump
6	Daily tank provided with pre-heating	16	Oil pre-heater (steam-electric)
7	Level indicator switch	17	AMR burner
8	Electric resistance	18	Flexible hoses
9	Thermostat controlling the heating	19	Temperature controlling valve
10	Thermometer	20	Heating coil
		21	Condense exit

Note: the insulated tube marked by * in its all length should be provided by accompanying heating according to the utilised fuel type

With the burner in operation at the inlet point of the pump should be min. 0,3 bar pressure.

Scheme of the fuel ring duct with supply pump:



1	Fuel oil tank	11	Oil pre-heater (steam-electric)
2	Foot valve	12	AMR burner
3	Settler	13	Flexible hoses
4	Filter (possibly heated)	14	Condense exit
5	Fuel oil circulating pump	15	Heating coil
6	Pressure regulation valve for 0,5-5 bar pressure		
7	Manometer		
8	Gas separator tank		
9	Filter		
10	Atomisation pump		

Your regional dealer:

This handbook serves only for information. We are continuously developing our products, so we keep the right for the modifications, based on the technical developing.

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