



TECHNICAL CATALOGUE

Wall-Hung Type
Premix System
Condensing Boiler

Viwa
50-150

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Viwa Boilers

Warmhaus offers high efficiency and high performance with new range of condensing high capacity boilers. With 50/65/90/115/125 and 150 kW options, Viwa Boiler Series offer ideal solutions for central heating systems.

Viwa boilers offer compact size, light weight and side-by-side mounting.

Viwa Boiler Series:

- Built-in interface card without cascade control panel.
- Easy connection and communication between boilers.
- The cost of cabling is reduced as a result of the external interface card and the smart plug system.
- Smart plug system can reach up to eight boilers and central system heating power can reach up to 1,200 kW.
- It can control 2 heating zones and a boiler pump without the necessity of an additional panel.
- Using an additional panel, 15 boilers can be controlled and central heating system power can reach up to 2,250 kW. Using this system, 4 heating zones and a boiler pump can also be controlled.

High Energy Saving, High Efficiency.

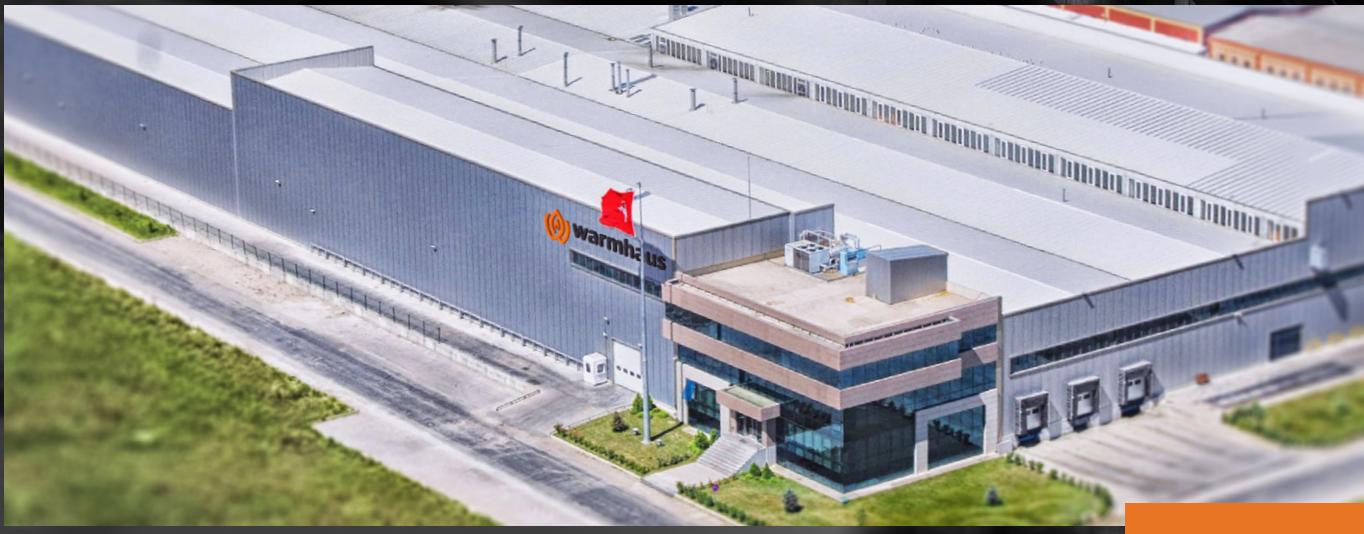
- Viwa 50 - 65 boilers are the first boilers in its segment to use a Gas Adaptive System.
- Viwa Boilers automatically adjust the heating water temperature and provides up to 108% efficiency as a result of its condensation technology.
- As a result of 1:8 modulation rate of Viwa 50-65 series and 1:6 modulation rate of Viwa 90-150 series, the boilers consume less gas and provide high energy savings.
- With Viwa, all heating zones can be programmed both weekly with room thermostats and modulating the boilers according to the ambient temperature.

New design, perfectly compatible parts.

- The internal air separator, internal mini Air & Dirt Separator of the outlet manifold, prevent the air and dirt in the system from damaging the heat exchangers of Viwa Boilers.
- Viwa 50 and Viwa 65 boiler series have a long service life as both their heat exchanger and burner are made of stainless steel.
- Viwa 90 - 150 boiler series with Al-Si-Mg alloy heat exchangers provide higher heating capacity from smaller dimensions.
- Viwa series boilers have 10 mm thick insulation, which prevents heat loss from the boiler body and reduces the noise level.

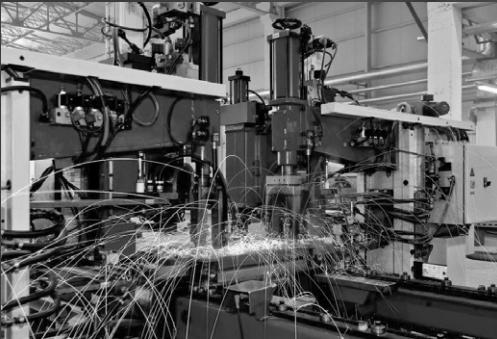


Warmhaus



Warmhaus is an affiliate of Beyçelik Holding which is amongst the top 10 radiator producers in the world and amongst the top 4 in Turkey, with more than 23 years' of experience in heating industry.

Being one of the biggest panel radiator manufacturer in the World and heating one in every seven house in Turkey products of Warmhaus heat houses and buildings in more than 35 countries.





**WARMHAUS PRODUCES
BOILERS, HIGH CAPACITY
WALL HUNG CONSENDING
BOILERS AND STEEL
PANEL RADIATORS.**

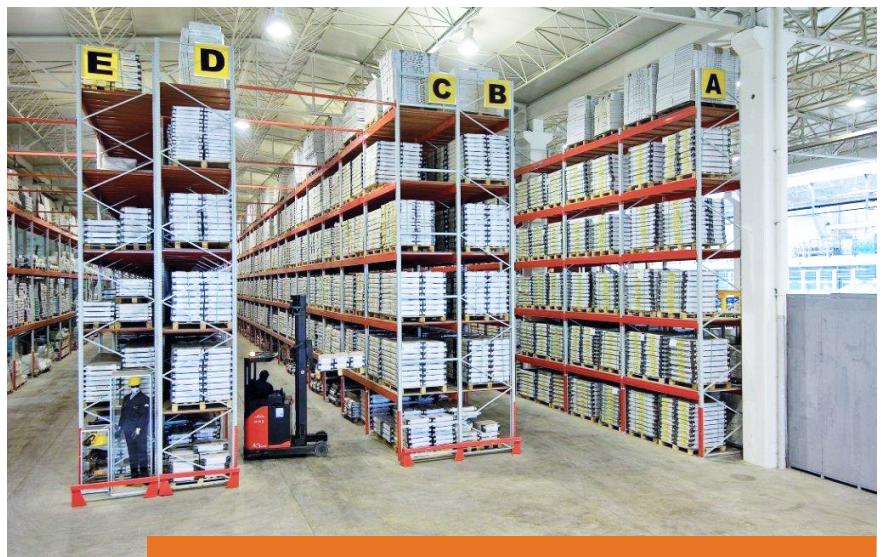


OUR PRODUCTION
LINES ARE
EQUIPPED WITH
**MODERNIZED
AUTOMATION
SYSTEMS.**



warmhaus

FAST DELIVERY THANKS
TO THE MODERN
WAREHOUSE WITH
THE **AUTOMATED
SHELVING SYSTEM.**



WARMHAUS EXPORTS
%60 OF ITS PRODUCTION
TO THE REST OF
THE WORLD.



WARMHAUS PRODUCTS
HEAT HOUSES AND
BUILDINGS IN **MORE**
THAN 35 COUNTRY.

- ➊ 27.000 m² panel radiator manufacturing site
- ➋ 8.000 m² combi manufacturing site
- ➌ Export to more than 30 different country
- ➍ %100 local capital
- ➎ 2.700.00 mtule panel radiator manufacturing capacity in a year

- ➏ 150.000 Combi munfacturing capacity in a year
- ➐ 3.000 m² depot and sales ofice in England
- ➑ 369th company in ranking ISO second 500 Big Institution
- ➒ In the World among the first 10, in Turkey among the first 4 radiator manufacturer



WARMHAUS IS AMONG **THE BIGGEST 10** IN
THE WORLD, **THE BIGGEST 4** IN TURKEY
AS PANEL RADIATOR MANUFACTURERS.

OUR PRODUCTS
ARE **CERTIFIED BY**
INTERNATIONAL
INSTITUTIONS TO MEET
THE HIGHEST INDUSTRY
STANDARDS.



Product Range



Viwa 50-65



General Features

- 50 kW and 65 kW Power Options
- High Combustion Efficiency and Perfect Condensation Technology Thanks to **PREMIX System Combustion Technology**
- **Modulation Rate** Up to 1: 8
- **Stainless Steel Heat Exchanger**
- Up to 6 Cascade Systems can be installed and thus **central heating power up to 390 kW**.
- Built-in Air & Dirt Separator
- Thanks to its **excellent body insulation**, it is low noise and therefore less heat loss than the boiler body
- Due to its **compact dimensions**, smaller volumes can be installed.



Villa Type
Houses



Small
Buildings



Kindergarten,
Nurseries and
Nests



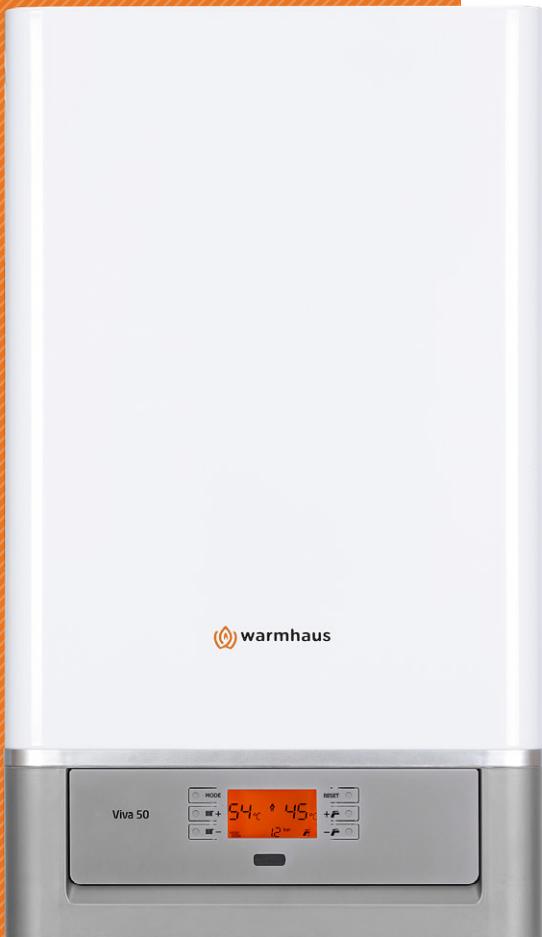
Restaurants



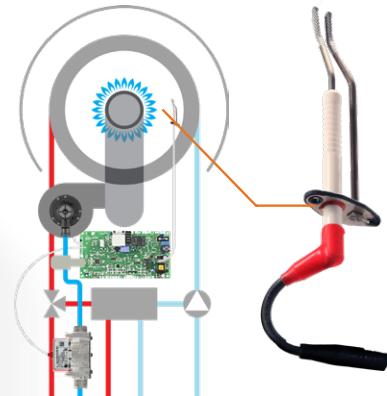
Gym

Viwa

50-65 kW



11 Reasons to Choose Viwa Boiler



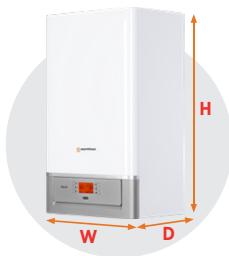
Gas Adaptive System

Viwa 50 and Viwa 65 boilers have gas adaptive system features that provide continuous high efficiency by adjusting the ideal air and gas ratio.



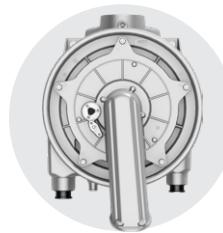
High Productivity in all Season with 1:8 Modulation Ratio

It ensures high productivity every time both in mid-season and at while minimum power is needed with cutting ability its maximum power 1:8 ratio.



Compact Dimensions & Less Installation Area (W:425 x D:385 x H:725 mm)

Compact dimensions and adjacent installation capability allows installation with less area.



Stainless Steel Exchanger

High efficient coil type exchanger provides long product life and decreases clogging risk to minimum with its watertight and wide hydraulic channels.



Cascade up to 6 boilers & 390 kW Power

Central heating capacity up to 390 kW with 6 boilers can be obtained easily with cascade installation.



Coordination with Different Cascade Control Panel

Thanks to OpenTherm communication protocol it can contact with any cascade control unit sold in the market.



Multi-zone management

With an external optional module, 4 heating zone or 1 heating zone plus 1 underfloor zone can be controlled.



User Friendly Control Panel

Illuminated wide information screen shows heater, hot usage water, installation pressure, Outside Sensor connection and room thermostat connection and flame modulation in the screen at the same time.



Built-in Air & Dirt Separator

Built-in mini Air & Dirt Separator on the exhaust manifold prevent air and particle in the system from damaging the exchanger.



Hermetic Flue Connection

Warmhaus Viwa boilers have room sealed hermetic boiler design and compatible with Ø80/125 mm concentric flue connection. Each boiler can be used with its own flue sets independent from each other which makes cascade systems easy to install in roof spaces without a stainless steel flue.



Perfect Body Isolation

High Usage Productivity is ensured by 10 mm thickened isolation which prevents heat loss from boiler body and decreases sound level.

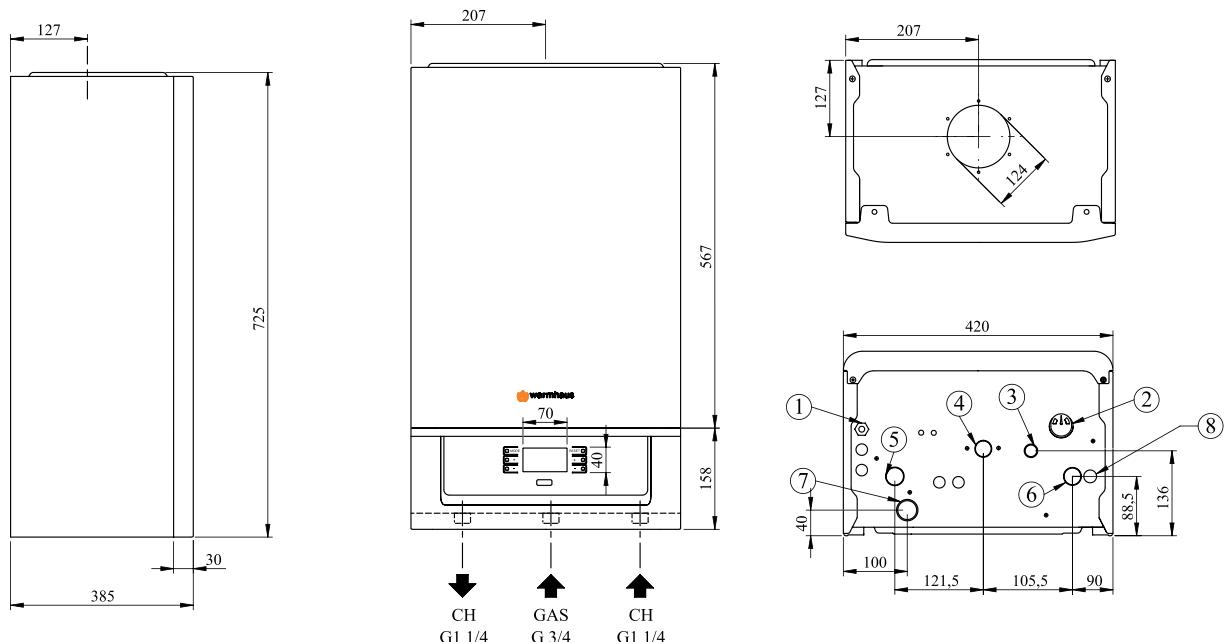
Control Panel

Wide Illuminated information screen shows heater, hot usage water, installation pressure, outside air sensor connection, room thermostat connection and flame modulation at the same time.

- 
- 1. OFF / Winter / Summer button
 - 2. C.H. temperature increase button
 - 3. C.H. temperature reduce button
 - 4. Reset button
 - 5. D.H.W. temperature increase button
 - 6. D.H.W. temperature reduce button

Dimension and Weight

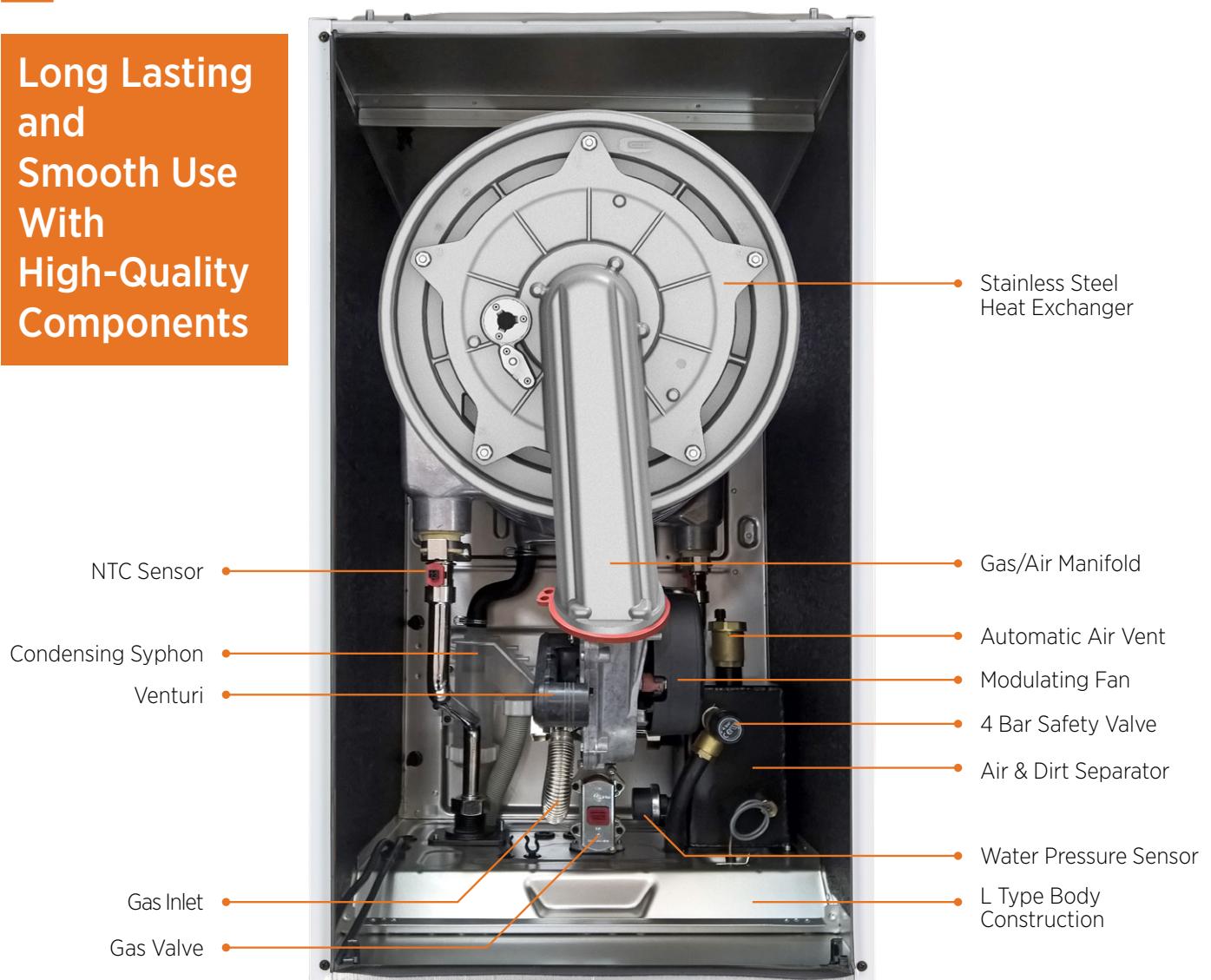
It can be installed side by side without distance thanks to compact dimensions.
Thanks to smaller volume and low weight it provides easy assembling.



WIDTH	: 425 mm
DEPTH	: 385 mm
HEIGHT	: 725 mm
WEIGHT	: 40 Kg (Viwa 50) 45 Kg (Viwa 65)

Internal View and Components

**Long Lasting
and
Smooth Use
With
High-Quality
Components**



Stainless Steel Exchanger & Burner

Thanks to large hydraulic outgoing and without its non-leaking feature spiral exchanger which minimizes the risk of clogging ensures longer usage period.

Advantages of Stainless Steel Exchanger

Aluminum body and cover, Ferritic Stainless Steel (EN 1.4509/AISI 441) temperature exchanger (Laser-welded tube), stainless steel single spiral, stainless steel burner, high efficiency, fitted condensation platform for ErP, low emission rates, none parallel hydraulic circuit, brass and without manifold hydraulic circuit, non-hydraulic leaking, balanced hydraulic flow, better thermal efficiency, more resistance to dirty with large hydraulic outgoing are among the advantages.



Technical Data

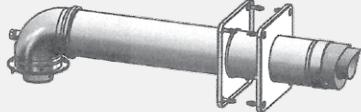
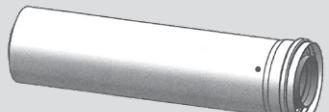
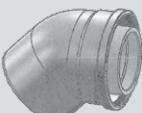
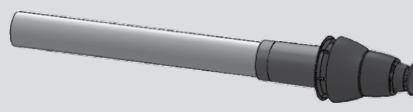
Technical Table	Unit	Viwa 50	Viwa 65
CE Certificate		CE-1015CT 0659	CE-1015CT 0660
Gas Circuit			
Gas type		G20	
Gas Supply Pressure	mbar	20	
Maximum Gas Consumption	m³/h	4,809	6,506
Minimum Gas Consumption	m³/h	0,619	0,825
Premix System		Gas Adaptive (*)	
Modulation Rate		1:8	
Exchanger Material		Stainless steel	
Efficiency		G20	G20
Efficiency at (80/60 °C) Maximum Heat Output	%	97,56	97,33
Efficiency at (50/30 °C) Maximum Heat Output	%	105,32	104,92
Efficiency at (36/30 °C) 30% Load	%	107,78	108,02
Seasonal Heating Energy Efficiency	%	92 (Class A)	
Radiator Circuit		G20	G20
Maximum Heat Input (Qn)	kW	50	65
Minimum Heat Input (Qn)	kW	6,5	8
Maximum Heat Output (Pn) (80/60 °C)	kW	45,73	57,78
Minimum Heat Output (Pn) (80/60 °C)	kW	5,69	7,28
Maximum Heat Output (Pn) (50/30 °C)	kW	51,23	64,66
Minimum Heat Output (Pn) (50/30 °C)	kW	6,51	8,51
(High) Temperature Setting Range for Radiator Circuit (min÷max)	°C	25÷80	
(High) Temperature Setting Range for Underfloor Heating Circuit (min÷max)	°C	25÷47	
Operating Pressure (Maximum)	bar	4	
Operating Pressure (Minimum)	bar	0,5	
Temperature Setting Range			
Temperature Setting Range	°C	35 - 60	
Electrical Circuit			
Power Supply	Watt	4	
Power Consumption (Maximum/Minimum)	V AC-50 Hz	230 V +%10; -%15	
Protection Index	Watt	92 / 11	100 / 12
Power Consumption (Stand-By Mode PSB)	IP	IPX5D	
Exhaust Gas Circuit		G20	G20
Exhaust Gas Temperature (Qn)	°C		
(80/60 °C) Exhaust Gas Temperature (Min. / Max.)	°C	55,7 / 62,1	61,4 / 72,0
(50/30 °C) Exhaust Gas Temperature (Min. / Max.)	°C	37,2 / 44,4	40,0 / 51,0
NOx	Class	6	
NOx Weight Values (GCV)	mg/kWh	40	
Exhaust Gas Flow Rate (60/80°C - Qn) Nominal/Minimum	g/s	22,25 / 2,83	28,50 / 3,50
General			
Dimensions (H X W X D)	mm	725 x 425 x 385	
Noise Level (± 1.5 dBA)	dB (A)	61	58
Net Weight	kg	40	46
Packaged Weight	kg	42	48
Type		B 23, C 13, C 33, C 53, C 63, C 83	
Category		I2H (G20=20 mbar)	

Gas Adaptive (*): This boiler fitted with gas/air ratio controls. Gas and air ratio control settings must not be changed un autorised persons.
The gas valve calibration method is explained on service manual and has to be done by Warmhaus official service.

Flue Accessories

Concentric (Optional) Flue Accessories ($\varnothing 80/125$ mm) for Viwa 50 & Viwa 65 Wall-Hung Type Premix Condensing Boilers

The flue accessories can be mounted with each other by a tight fit method and therefore no additional parts are required for connection.

Product Code	Product Name	Explanation	Product View
153.11.014.000006	$\varnothing 80/125$ Horizontal Flue Set This product is provided as a standard with Viwa 50 and Viwa 65 boilers..	Horizontal Flue Set can be used till 10 m with Stretching Flue Accessories.	
153.11.660.600025	$\varnothing 80/125$ Flue Extension L=500 mm	It can be used with Horizontal Flue Set and Vertical Set.	
153.11.660.600026	$\varnothing 80/125$ Flue Extension L=1000 mm	It can be used with Horizontal Flue Set and Vertical Set.	
153.11.660.600027	$\varnothing 80/125$ Extension Flue L=1500 mm	It can be used with Horizontal Flue Set and Vertical Set.	
153.11.660.600028	$\varnothing 80/125$ Extension Flue L=2000 mm	It can be used with Horizontal Flue Set and Vertical Set.	
153.11.660.600029	$\varnothing 80/125$ Bend (45°)	It can be used in horizontal and / or vertical flue applications. Each 45° bend usage requires to decrease maximum 50 cm from horizontal/ vertical distance.	
153.11.660.600030	$\varnothing 80/125$ Bend (90°)	It can be used in horizontal and / or vertical flue applications. Each 90° bend usage requires to decrease maximum 100 cm from horizontal/ vertical distance.	
153.11.660.600037	$\varnothing 80/125$ Vertical Flue Set	Vertical Flue Set can be used with Extension Flue Accessories up to 11 m. For usage of vertical flue set $\varnothing 80/125$ Vertical Flue Adaptor must be installed to boiler flue output.	
153.11.660.600038	$\varnothing 80/125$ Vertical Flue Adapter	It is the accessory which must be installed to boiler flue output if Vertical Flue Set is used.	
153.11.660.600039	BAL 80.100 Flue Check Valve	If more than one boiler is used in cascade system, it is the 45° angled valve accessory which must be installed to flue output of each boiler. Boiler connection is $\varnothing 80$ and collector connection is $\varnothing 100$ mm.	
153.11.660.600067	BOB 80.100 Flue Check Valve	If more than one boiler is used in the cascade system, accessory with Flue Check Valve must be fitted to the flue outlet of each boiler. Boiler connection is $\varnothing 80$ and collector connection is $\varnothing 100$ mm.	

Flue Distances

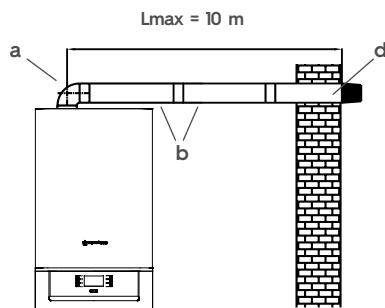
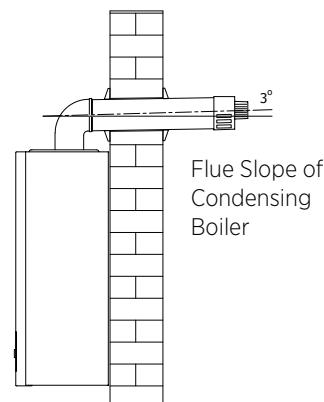
(Ø80/125 mm) Installation with Horizontal Concentric Flue Set

! During installation of horizontal flue pipe slope of pipe must be kept minimum 3% to up and it must be plugged at per each 3 meter and retaining clamp must be used.

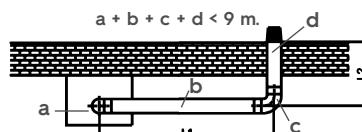
! In case of need to shorten the escape funnel and / or strip , always note that inside pipe must be forward 5 mm from outside pipe.

! For safety even short time or temporary the escape/ suction flue of boiler must not be clogged.

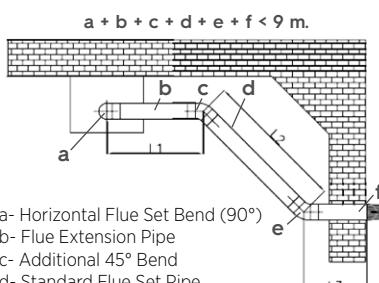
! The total length of the concentric flue set must not exceed 10 m horizontally with a single bend. This total length decreases 1 m for each 90 ° bend use and 0.5 m for each 45 ° bend use. Maximum three 90 ° bends can be used.



I. Sample Flue Installation of Single 90° bended



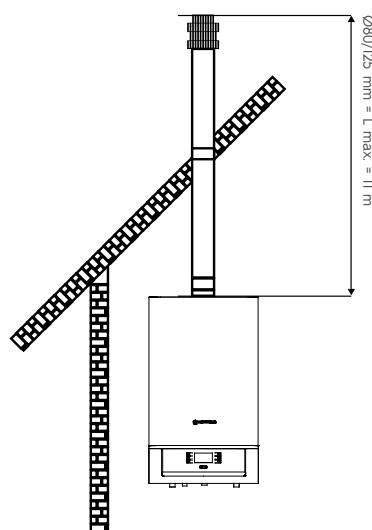
a- Horizontal Flue Set Bend (90°)
b- Flue Extension Pipe
c- Additional 90° Bend
d- Horizontal Flue Set Pipe



III. Sample Flue Installation of One 90° and two 45° bended

Installation with (Ø80/125 mm) Vertical Concentric Flue Set

Your boiler can also be vertically connected to flat and sloping roofs via available connection accessories depending on the status of installation place. For direct connections, it shall not exceed 11 m with (Ø 80/125 mm) vertical flue set.



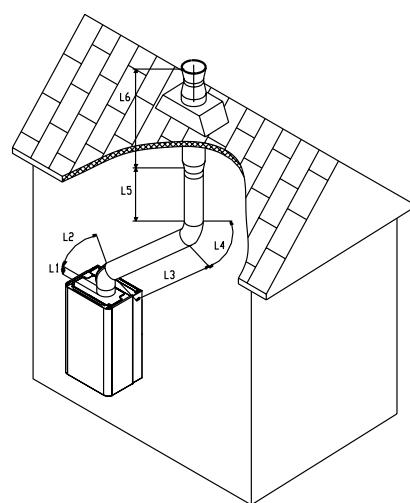
Installation of vertical flue

In Application

- L₁ = 0.3 m.
- L₂ = 0.5 m. (45° bend equivalent length)
- L₃ = 2.0 m.
- L₄ = 0.5 m. (45° bend equivalent length)
- L₅ = 1.0 m.
- L₆ = 2.0 m.

$$L_{\text{Total}} = 6.3 \text{ m.} \quad 6.3 \text{ m.} < L_{\text{max}} = 11 \text{ m.}$$

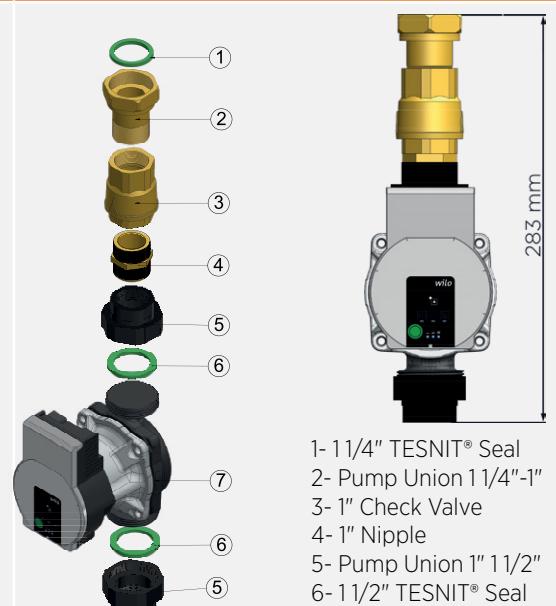
It is right in application.



Installation of Vertical flue set

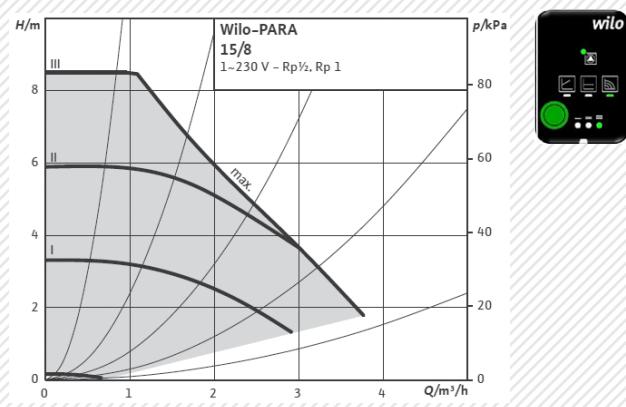
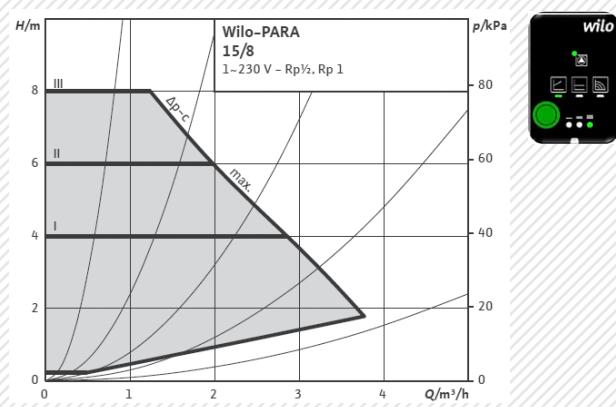
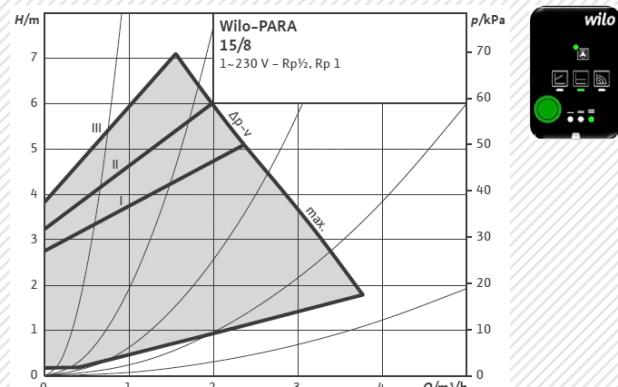
Pump Set Accessories

Pump Connection Set Accessories which has high pressure and high capacity for wall-hung type boilers.

Ürün Kodu	Ürün Adı	Açıklama	Ürün Görüsü
152.11.003.000001	50-65 /Pump Set with Frequency Controlled	Wilo-PARA 25/8 SC pump set with modulated pump connected with 2 connector, check valve and seal set. It is installed just below the boiler.	 <p>1- 1 1/4" TESNIT® Seal 2- Pump Union 1 1/4"-1" 3- 1" Check Valve 4- 1" Nipple 5- Pump Union 1" 1 1/2" 6- 1 1/2" TESNIT® Seal 7- Pump</p>

Pump Capacity/Pressure Charts

Pump which has in capacity 0 m³/h 8,4 h/m pressure or can be controlled with fixed pump, bush button technology as variable pressure, fixed pressure or fixed engine speed



Command and Control Accessories (Optional)

Room Thermostats

Product Code	Product Name	Explanation	Product View
153.11.660.600020	WT-07 Cabled Room Thermostat	With minimal dimensions and decreased 4 button keypad Remote control which is connected to boiler with cable can work in modulation, run weekly programs, adjust hot usage water and show boiler fault code in the screen and reset it. Daily 8 program can be applied for adjusting heating and Domestic Hot Water (Hot Water Storage Tank).	
153.11.660.600021	WT-08 Cabled Wide Screen Room Thermostat	This remote control unit, which also has room thermostat feature, is connected to the combi boiler with cable and has 10-button keypad, where each function is assigned separately. This remote control features work in modulation, runs weekly programme, has DHW adjustment, shows boiler fault code on the screen and reset it. Daily 6 program can be applied for adjusting heating and Domestic Hot Water (Hot Water Storage Tank).	
153.11.660.600022	WT-RF03 Wireless Wide Screen Room Thermostat	This remote control unit, which also has room thermostat feature, is connected to the combi boiler with wireless and has 10-button keypad, where each function is assigned separately. This remote control features modulated operation according to room temperature, weekly schedule, DHW adjustment and display of the boiler fault code on the display and reset it. There are 6 daily programs for heating and DHW heating. Daily 6 program can be applied for adjusting heating and Domestic Hot Water (Hot Water Storage Tank).	

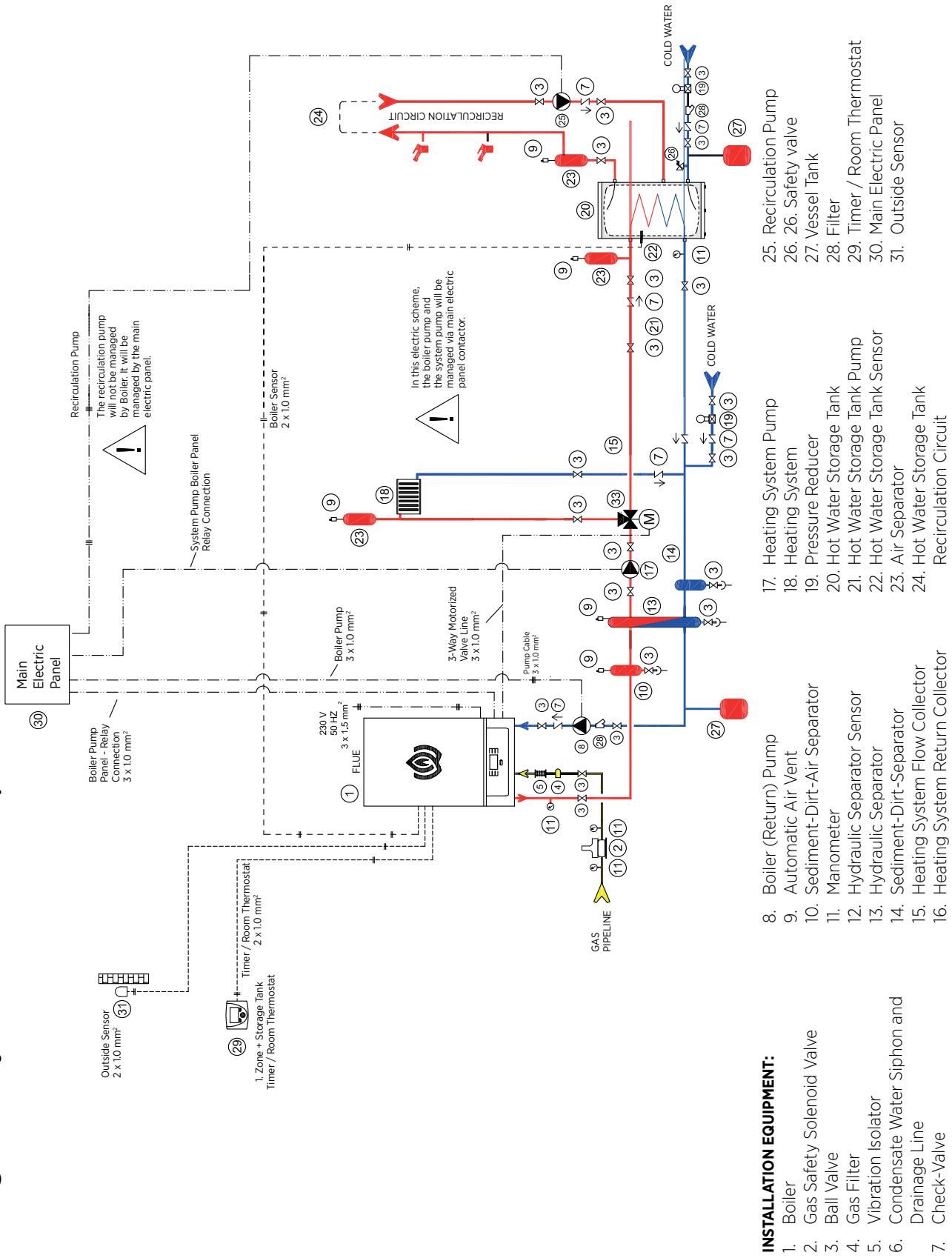
Viwa 50/65 System Accessories

Product Code	Product Name	Explanation	Product View
153.11.660.600046	MLC 27-Cascade Module	Control unit ensures Viwa 50 and Viwa 65 boilers to work as cascade.	
153.11.660.600047	MLC 30-Multiple Zone Module	Control unit which controls Viwa 50 and Viwa 65 boilers low temperature/ Floor Heating Zone (mix fledged circuit).	
153.11.660.600049	QAZ36-Immersion Boiler / Hydraulic Separator Sensor	Immersion Sensor which is used to measure the temperature of Boiler or Hydraulic Separator and inform to the boiler.	
153.11.660.600050	QAD 36-Strap-on Temperature Sensor	Strap-on Temperature Sensor which ensures the measure of temperature on pipe at hydraulic separator. It is used to measure the temperature of flow water of low heating zone at the double heating zone.	
152.11.003.000004	AVC 220 Motorized Three Port Valve	It is the accessory that is used if it is requested to connect one hot water tank to single boiler and controlled by three port valve. This product must be used with "Boiler/ Hydraulic Separator Sensor".	
153.11.660.600001	WDHS-01-Outside Sensor	It is the sensor which measures the outside air temperature and inform maximum flow water temperature to the boiler. A single boiler heating system or cascade heating systems must be used with one Outside Sensor to save fuel.	

Sample Installation Diagram

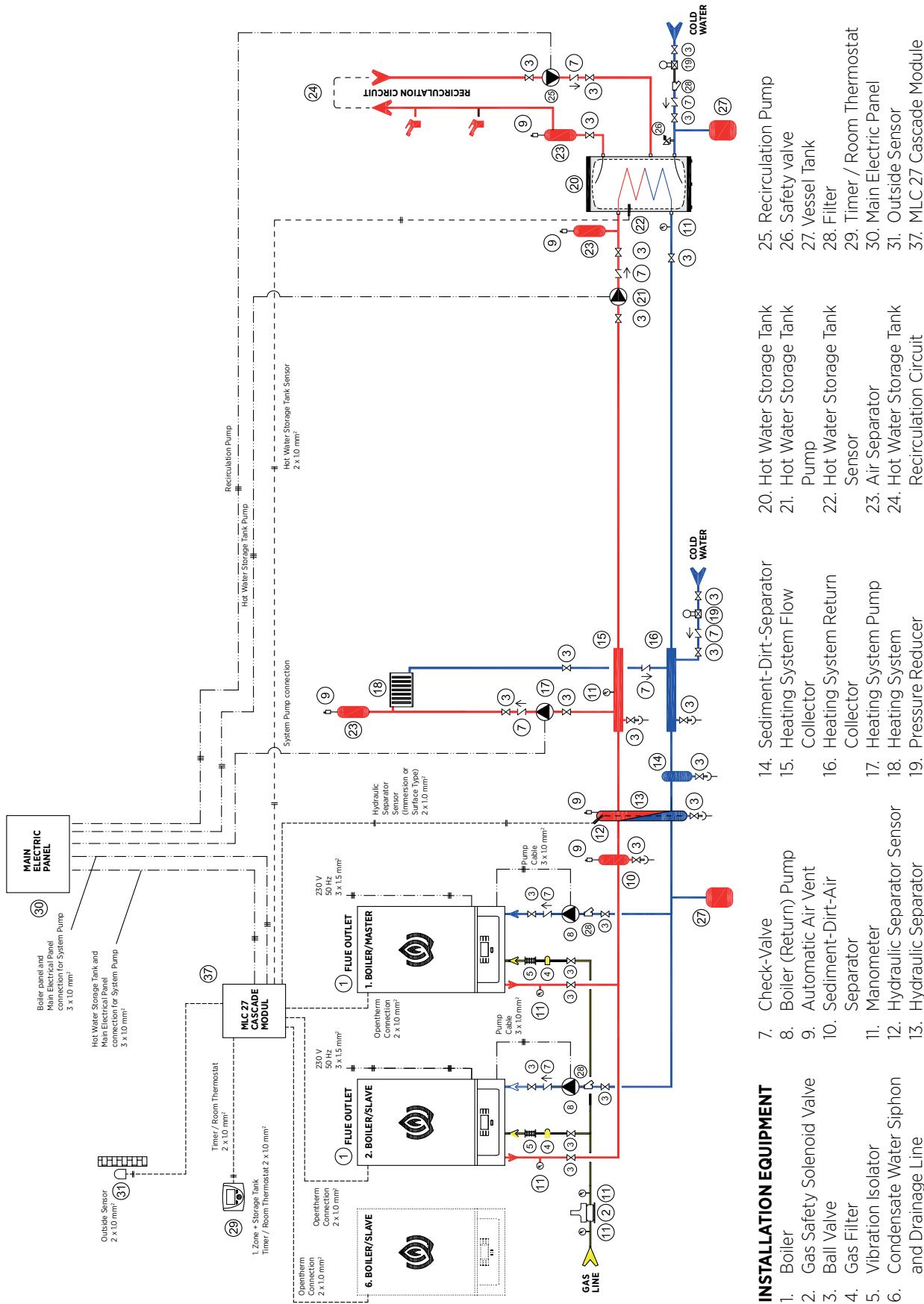
With Viwa 50-65 Single Boiler

Viwa 50-65 Single Boiler with 1 High Temperature Zone + Hot Water Storage Tank System Scheme Example



Cascade System with Viwa 50-65 Boilers and 1 Radiator (High Temperature) Circuit and Hot Water Storage Tank Scheme Example

Cascade System Scheme



INSTALLATION EQUIPMENT

- | | | | | | | | | | |
|----|---|-----|-----------------------------|-----|-----------------------|-----|--|-----|-------------------------|
| 1. | Boiler | 8. | Boiler (Return) Pump | 15. | Heating System Flow | 21. | Hot Water Storage Tank Pump | 26. | Safety valve |
| 2. | Gas Safety Solenoid Valve | 9. | Automatic Air Vent | 16. | Heating System Return | 22. | Hot Water Storage Tank Sensor | 27. | Vessel Tank |
| 3. | Ball Valve | 10. | Sediment-Dirt-Air Separator | 17. | Heating System Pump | 23. | Air Separator | 28. | Filter |
| 4. | Gas Filter | 11. | Manometer | 18. | Heating System | 24. | Hot Water Storage Tank Recirculation Circuit | 29. | Timer / Room Thermostat |
| 5. | Vibration Isolator | 12. | Hydraulic Separator Sensor | 19. | Pressure Reducer | 30. | Main Electric Panel | 31. | Outside Sensor |
| 6. | Condensate Water Siphon and Drainage Line | 13. | Hydraulic Separator | | | 32. | MLC 27 Cascade Module | | |

Viwa 90-150



General Features

- 4 different models from 90 kW to 150 kW
- High Combustion Efficiency and Excellent Condensation Technology Thanks to **PREMIX System Combustion Technology**
- Al-Mg-Si Alloy Heat Exchanger
- Thanks to its ability **to operate without cascade control panel** up to 8 boiler, it provides central heating power up to 1200 kW
- Built-in Air & Dirt Separator
- Thanks to its **excellent body insulation**, it is low noise and provides less heat loss than the boiler body.
- **Compact dimensions** allow installation to smaller volumes
- Compatible with (optional) RVS cascade control panels and offers up to 15 boiler cascade system installation opportunity and thus **reach up to 2250 kW**



Buildings and
Sites



Hotels and
Hospitals



Schools



Business
centers



Restaurants



Gyms

Viwa

90-115-125-150 kW



11 Reasons to Choose Viwa Boiler



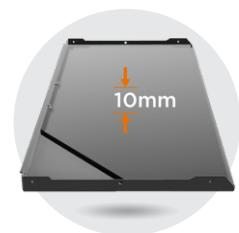
Built-in Cascade Control Unit

Built-in Cascade Module control unit provides connection and communication between boilers without needing additional devices. So each boiler can be used as master or slave.



Perfect Heat Transfer Aconit® Burner

The Aconit® burner with excellent heat transfer is specially designed for maximum utilization of the heat exchanger surface. Thanks to its wide modulation rate and low surface temperature it provides highest performance and lowest NOx emission.



Perfect Body Isolation

High usage efficiency is ensured thanks to 10 mm thick insulation which prevents heat loss from boiler body and decreases sound level.



Cascade Installation up to 15 x 150 = 2250 kW

With (optional) RVS cascade control unit it can reach central heating system till maximum 2250 kW power and 15 boiler. It is also possible to build cascade system without control unit up to 8 boilers and 1200 kW.



Compatibility with different cascade control panels

Warmhaus Viwa boilers are able to communicate with OpenTherm communication protocol and work with various cascade control systems available in the market.



Multiple Part Management

With an external module 4 direct heating circuit and hot water tank or 1 low temperature zone, one high temperature zone and one tank circuit can be controlled.



Easy and Quick installation with Smart Plug System

Easy and quick cascade installation up to eight boilers with to built-in cascade unit and smart plug system.

Installation to Limited Space With Compact Dimensions

W:615 x D:490 x H:720 mm

Compact dimensions and adjacent installation capability allows installation with limited spaces.



Al-Si-Mg Alloyed Monobloc Exchanger

Al-Si-Mg alloyed exchanger is more efficient compared to stainless steel and highly resistant to corrosion.



Built-in Air & Dirt Separator

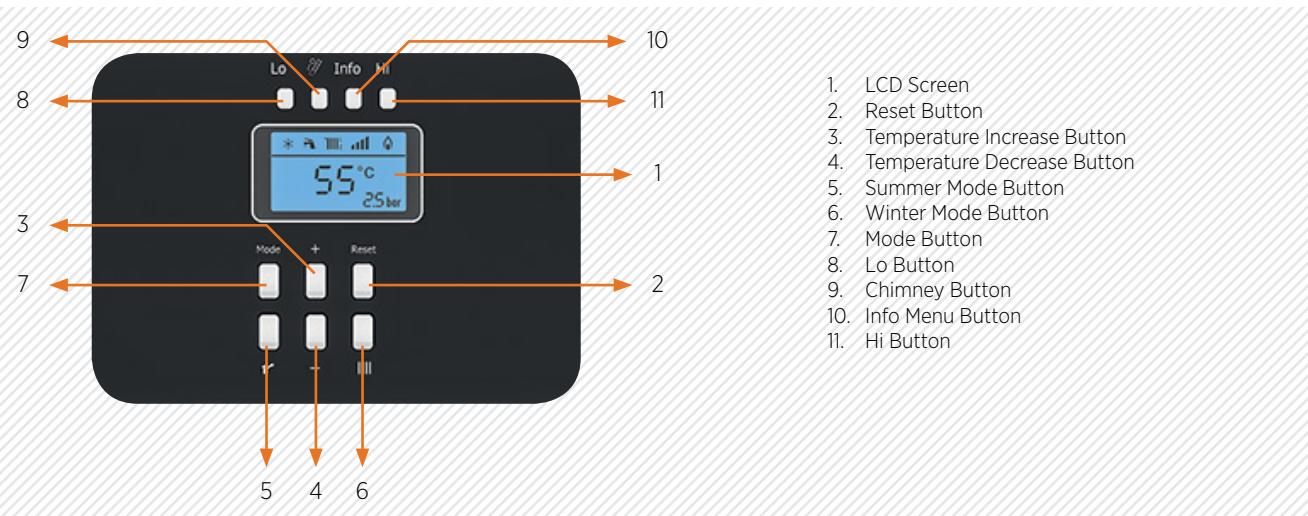
Built-in mini Air & Dirt Separator and additional air separator on the exhaust manifold prevent air and particle in the system from damaging the exchanger.

Viwa 90-150

Hermetic Flue Connection

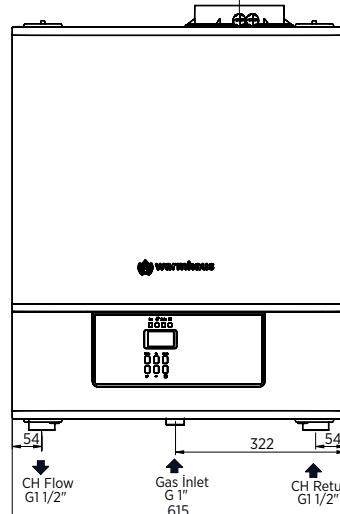
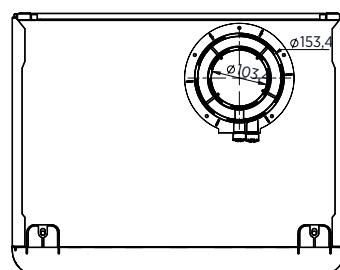
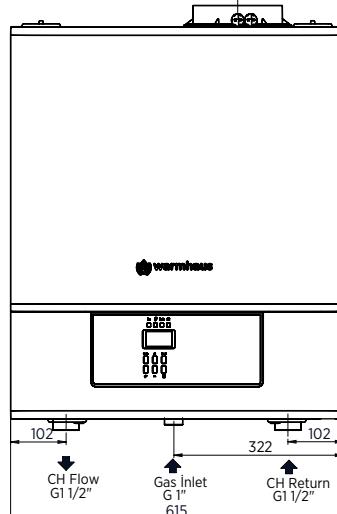
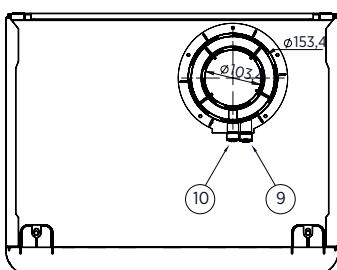
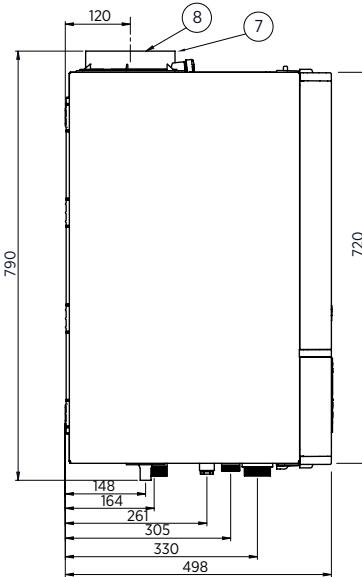
Warmhaus Viwa boilers have room sealed hermetic boiler design and compatible with Ø100/150 mm concentric flue connection. Each boiler can be used with its own flue sets independent from each other which makes cascade systems easy to install in roof spaces without a stainless steel flue.

Control Panel



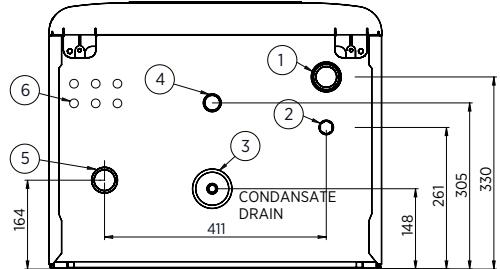
Boiler Dimensions and Connections

Boiler dimensions and connections can be installed side by side without distance thanks to its compact dimensions. It ensures easy assembling to smaller volumes.

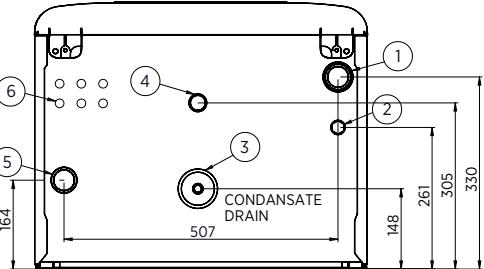


Warmhaus Viwa 125 / Viwa 150

- 1) Heater Return Line
- 2) Sludge-Air Remover Unload Line
- 3) Condensation Discharge Line
- 4) Gas Inlet Line
- 5) Heater Ongoing Line
- 6) Cable Output
- 7) Waste Gas Output Connection
(Ø100 mm)
- 8) Fresh Air Input Connection (Ø150 mm)
- 9) Fresh Air Measure Point
- 10) Waste Gas Measure Point



Viwa 90 / Viwa 115



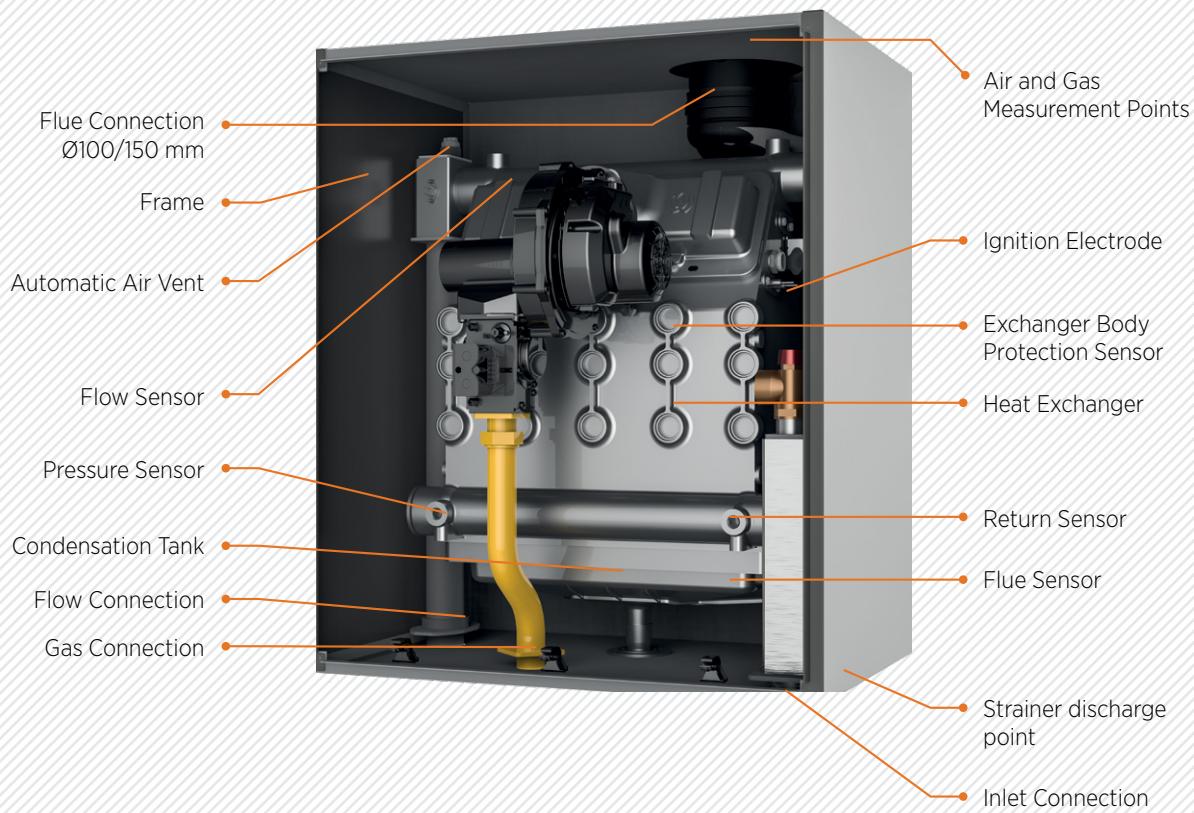
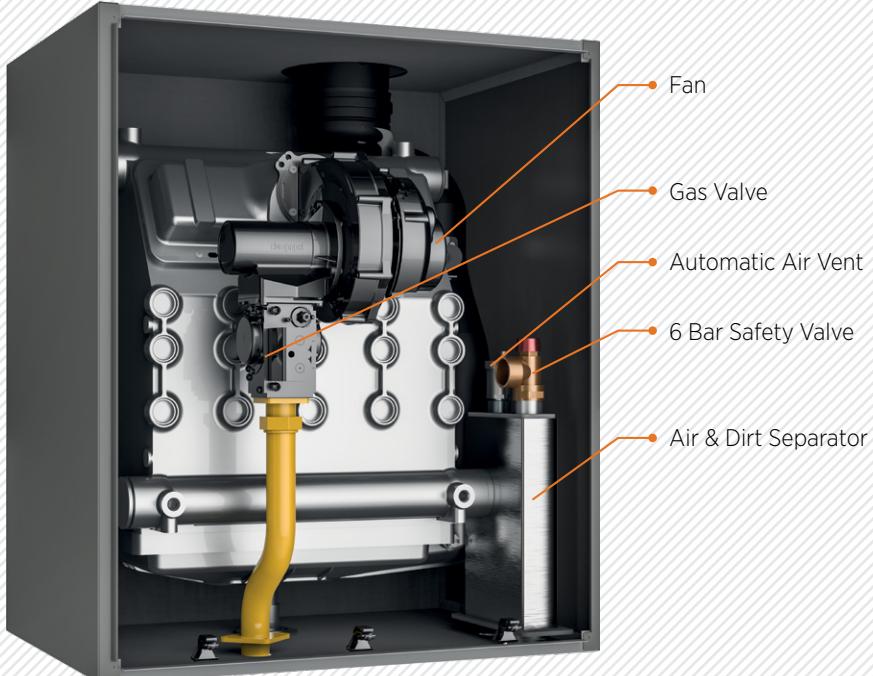
Viwa 125 / Viwa 150

Interior View and Components

Al-Si-Mg Alloyed Exchanger

High efficiency and long period usage with Europe origin monobloc Al-Mg-Si temperature exchanger.

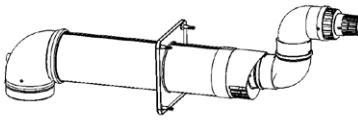
Al- Si-mg alloyed exchanger which ensures important advantages as more efficiency with its 10 times higher heat conductor than stainless steel, being lighter in exact amount and high corrosion resistance ensures from 90 Kw to 150 Kw capacity with its modular design.



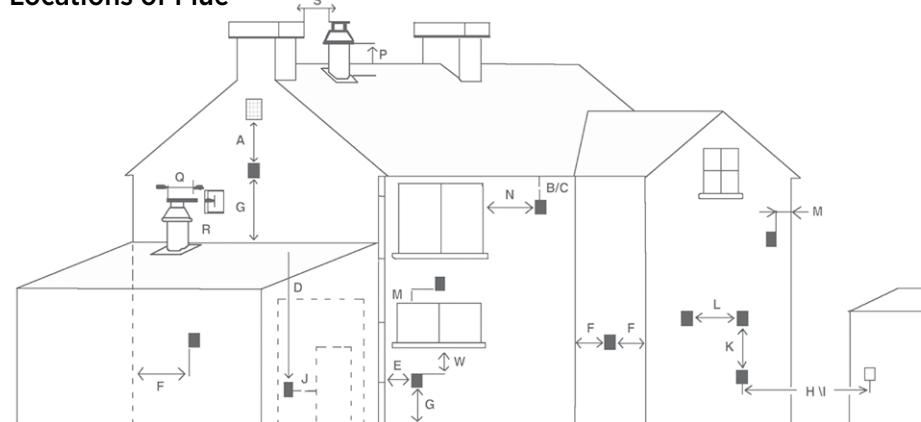
Technical Table	Unit	Viwa 90	Viwa 115	Viwa 125	Viwa 150
Gas Circuit					
Gas type *(Natural Gas G20) Heat Input (Hu=10,56 kWh/m³)		G20	G20	G20	G20
Gas supply pressure	mbar		20		
Gas Consumption at Maximum	m³/h	9,301	11,55	12,737	15,27
Gas Consumption at Minimum	m³/h	1,538	1,787	2,005	2,419
Premix System			Pneumatic		
Modulation Range			1:6		
Heat Exchanger Material			Al-Mg-Si		
Efficiency		G20	G20	G20	G20
(80/60 °C) Efficiency at Maximum Heat Output	%	97,72	97,46	97,78	97,58
(50/30 °C) Efficiency at Maximum Heat Output	%	103,59	102,67	103,6	103,04
Efficiency at 30% load at 36/30 °C	%	107,48	107,17	108,01	107,49
Seasonal Heating Energy Efficiency (given in GCV)	%		92 (Class A)		
Radiator Circuit					
Maximum heat input Qn	kW	90	115	125	150
Minimum heat input Qn	kW	14,5	17,5	20	24
Maximum Heat Output Pn (80/60 oC)	kW	87,9	112	122,2	146,3
Minimum Heat Output Pn (80/60 oC)	kW	13,23	15,38	17,82	21,62
Maximum Heat Output Pn (50/30 oC)	kW	93,2	118	129	154,5
Minimum Heat Output Pn (50/30 oC)	kW	16,08	19,04	20,81	25,05
Temperature selection range (min÷max) high temperature	°C		25÷80		
Temperature selection range (min÷max) low temperature	°C		25÷47		
Operating Pressure (Maximum)	bar		6		
Operating Pressure (Minimum)	bar		0,8		
Domestic Hot Water Circuit					
Temperature adjustment range	°C		20 - 65		
Electricity Circuit					
Electricity Supply	V AC-50 Hz		230 V +%10; -%15		
Electricity Consumption (Max./Min.)	Watt	29 / 120	30/ 128	29 / 169	30 / 265
Protection Index	IP		IPX5D		
Exhaust Gas Circuit					
(80/60 °C) Exhaust gas temperature (Min. / Max.)	°C	53,5 / 61,7	52,5 / 67,8	56,4 / 58,7	56,9 / 67,6
(50/30 °C) Exhaust gas temperature (Min. / Max.)	°C	30,4 / 46,3	31,2 / 50,2	30,1 / 46,6	30,2 / 48,0
NOx	Class		6		
Weighted value of Nox (GCV)	mg/kWh	18	28	25	29
Flue mass flow rate (60/80°C - Qn) Nominal/Minimum	g/s	38,89 / 6,43	48,29 / 7,47	53,25 / 8,38	63,84 / 8,38
General					
Dimensions (H x W X D)	mm		720 x 615 x 490		
Sound Level	dB (A)	62,1	62,1	63,4	63,4
Net Weight	kg	70	70	82	82
Packed Device Weight	kg	87	87	99	99
Type		B 23, C 13, C 33, C 53, C 63, C 83			
Category		I2H/I2E/I2E(S)			

Flue Accessories

Flue Accessories can be installed each other by meshing method so any additional part is not required to connection.

Accessory Code	Accessory Name	Explanation	Matching Product
153.11.014.000007	Ø 100/150 Horizontal Flue Set	Maximum Flue Distance Lmax= 18 m (Viwa 90) Lmax= 17 m (Viwa 115) Lmax= 17 m (Viwa 125) Lmax= 10 m (Viwa 150)	
153.11.660.600042	Ø 100/150 Flue Extension L=500 mm	It can be used with Horizontal Flue Set and Vertical Funnel Set.	
153.11.660.600043	Ø 100/150 Flue Extension L=1000 mm	It can be used with Horizontal Flue Set and Vertical Flue Set.	
153.11.660.600040	BAL 100.100 Flue Check Valve	This is an accessory that must be installed at the outlet of each boiler when multiple boilers are used in the cascade system. The boiler connection and the collector connection are Ø100 mm.	
153.11.660.600068	BOB 100.100 Flue Check Valve	When more than one boiler is used in cascade system, it is the accessory which must be install each boiler chimney outlet. The boiler connection and the collector connection are Ø100 mm.	
153.11.660.600044	Ø 100/150 Bend (90°)	It can be used with Horizontal Flue Set and Vertical Flue Set. Each 90° bend usage requires 100 cm decreasing from maximum horizontal / vertical distance.	
153.11.660.600041	Ø 100/150 Vertical Flue Set	Maximum Flue Distance Lmax= 20 m (Viwa 90) Lmax= 20 m (Viwa 115) Lmax= 19 m (Viwa 125) Lmax= 11 m (Viwa 150)	

Environmental Locations of Flue



	Chimney Position	Min. Distance
A	Under a window	300 mm.
B	Under water groove	75 mm.
C	Under fringes	200 mm.
W	Under balcony	200 mm.
E	To vertical water discharge pipes	150 mm.
F	To inside or outside corners	300 mm.
G	To ground, roof or balcony level	300 mm.
H (*)	To another wall corresponding to the wall	600 mm.
S	To another chimney	1200 mm.
J	From the garage wall to another door	1200 mm.

	Chimney Position	Min. Distance
R	From same wall to another chimney (vertically)	1500 mm.
Q	From same wall to another chimney (horizontally)	300 mm.
M	On another window / culvert	300 mm.
N	Horizontally another window / culvert	300 mm.
P	To the roof level	300 mm.
F	To a neighboring wall	300 mm.
I (*):	On the window on the neighboring wall	1000 mm.
L	To another chimney	600 mm.

(*) Not recommended for C₅ ve C₆!

(Ø100/150 mm) Concentric Chimney Distances



During installation of horizontal flue pipe slope of pipe must be kept minimum 3% to up and it must be plugged at per each 3 meter and retaining clamp must be used.



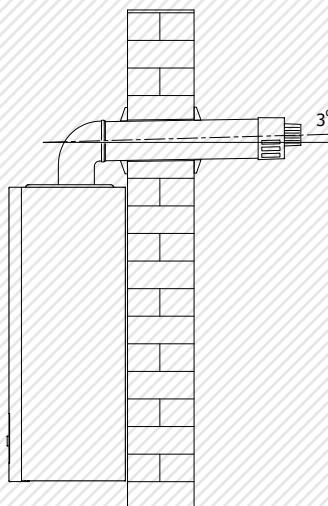
In case of need to shorten the escape flue and / or strip, always note that inside pipe must be forward 5 mm from outside pipe.



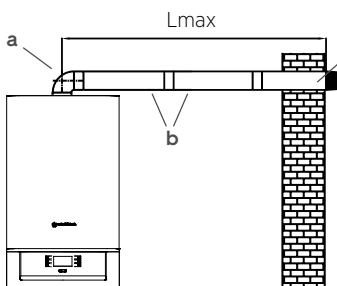
For safety even short time or temporary the escape/ suction flue of boiler must not be clogged.



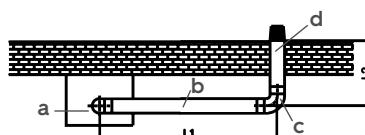
The total length of the concentric flue set must not exceed 10 m horizontally with a single bend. This total length decreases 1 m for each 90° bend use and 0.5 m for each 45° bend use. Maximum three 90° bends can be used..



Flue Slope of Condensing Boiler

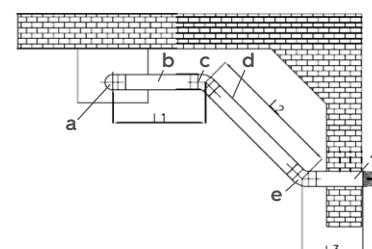


Ø100/150 mm
Lmax= 18 m (Viwa 90)
Lmax= 17 m (Viwa 115)
Lmax= 17 m (Viwa 125)
Lmax= 10 m (Viwa 150)



Ø100/150 mm
a + b + c + d < 19 m = (Viwa 90)
19 m = (Viwa 115)
18 m = (Viwa 125)
10 m = (Viwa 150)

a- Horizontal Flue Set Elbow (90°)
b- Flue Extension Pipe
c- Additional 90 ° Elbow
d- Horizontal Flue Set Pipe



Ø100/150 mm
a + b + c + d + e + f < 19 m = (Viwa 90)
19 m = (Viwa 115)
18 m = (Viwa 125)
10 m = (Viwa 150)

a- Horizontal Flue Set Bend (90°)
b- Flue Extension Pipe
c- Additional 45° Bend
d- Standard Flue Set Pipe
e- Additional 45° Bend

III. Total flue length distance if additional one horizontal 90° and 45° two Bend are used

I. Sample flue Installation of Single 90° bended

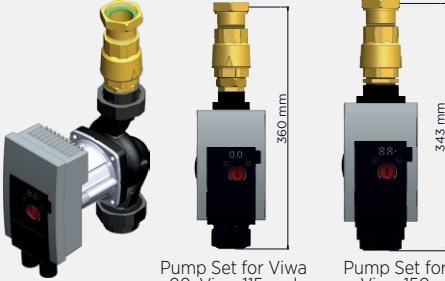
II. Total flue length distance if additional one 90° Rated Bend is used.

Neutralization Kits (Optional)

Accessory Code	Accessory Name	Explanation	Matching Product
153.11.660.600079	Neutralization Tank, 250 kW, 30 L/h, 1"		
153.11.660.600080	Neutralization Tank, 450 kW, 55 L/h, 1"	It is a kit that should be used for the neutralizing of acidic condensate water and allowing it to be discharged without damaging the installation.	
153.11.660.600081	Neutralization Tank, 850 kW, 100 L/h, 1"	Available for systems with heat capacity from 250 kW to 1500 kW.	
153.11.660.600082	Neutralization Tank, 1500 kW, 180 L/h, 1"		

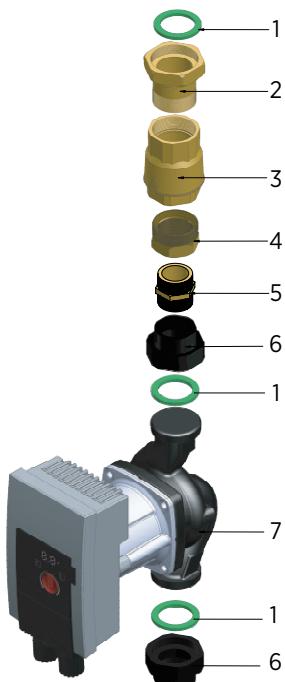
Pump Sets (Optional)

High pressure and flow rate pump for Warmhaus Viwa wall hung boilers.

Accessory Code	Accessory Name	Explanation	Matching Product
152.11.003.000002	Viwa 90, Viwa 115 and Viwa 125 Pump Set with frequency inventors	Wilo-YONOS PARA HF 25/7 pump set with modulation, 2 connectors, check valve and seal set for Viwa 90,115 and 125 . It is installed just below the boilers.	 Pump Set for Viwa 90, Viwa 115 and Viwa 125
152.11.003.000003	Viwa 150 Pump Set with frequency Inventors	Wilo-YONOS PARA HF 25/10 pump set with modulation, 2 connectors, check valve and seal set for Viwa 150. It is installed just below the boilers.	 Pump Set for Viwa 150

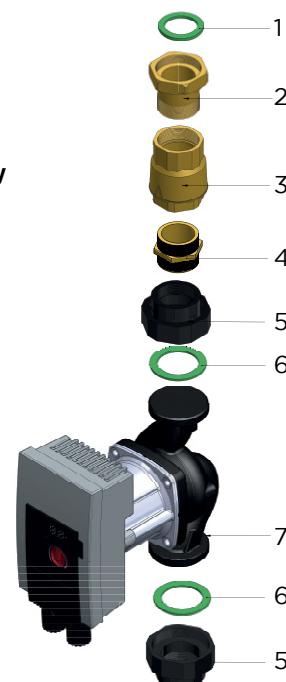
Pump set with frequency inverter for Viwa 90, 115 and 125.

- 1- 1 1/2" TESNIT® Seal
- 2-Pump Union 1 1/2" - 1 1/4"
- 3-1 1/4" Check Valve
- 4-1" -1 1/4" Pump Reduction
- 5-1" Nipple
- 6-Pump Union 1 1/2"
- 7-Pump

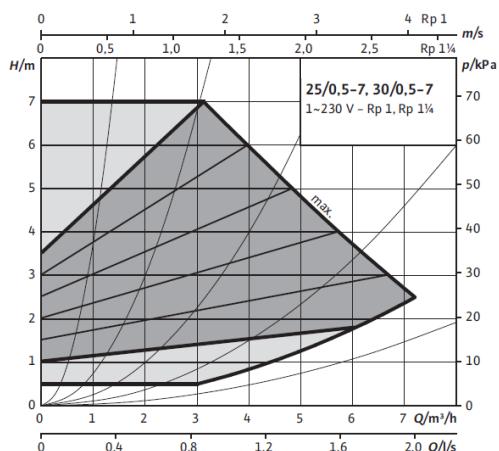


Pump set with frequency inverter for Viwa 150.

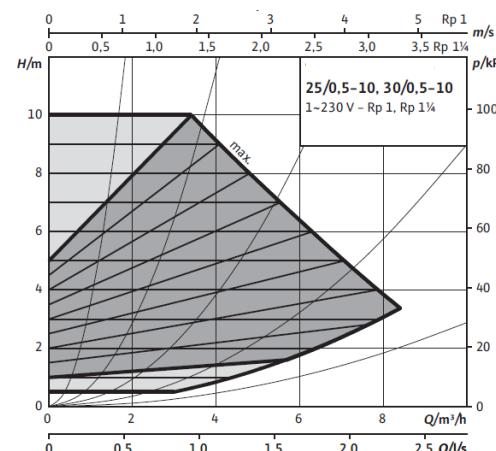
- 1- 1 1/2" TESNIT® Seal
- 2-Pump Union 1 1/2" - 1 1/4"
- 3-1 1/4" Check Valve
- 4-1 1/4" Nipple
- 5-Pump Union 1 1/4" - 2"
- 6-2" TESNIT® Seal
- 7-Pump



Pump Capacity/Pressure Charts

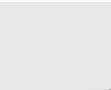


Wilo-YONOS PARA HF 25/7 Pump capacity/ pressure chart which is used under Viwa90, Viwa 115 ve Viwa125 boilers.



Wilo-YONOS PARA HF 25/10 Pump capacity/ pressure chart which is used under Viwa 150 boiler.

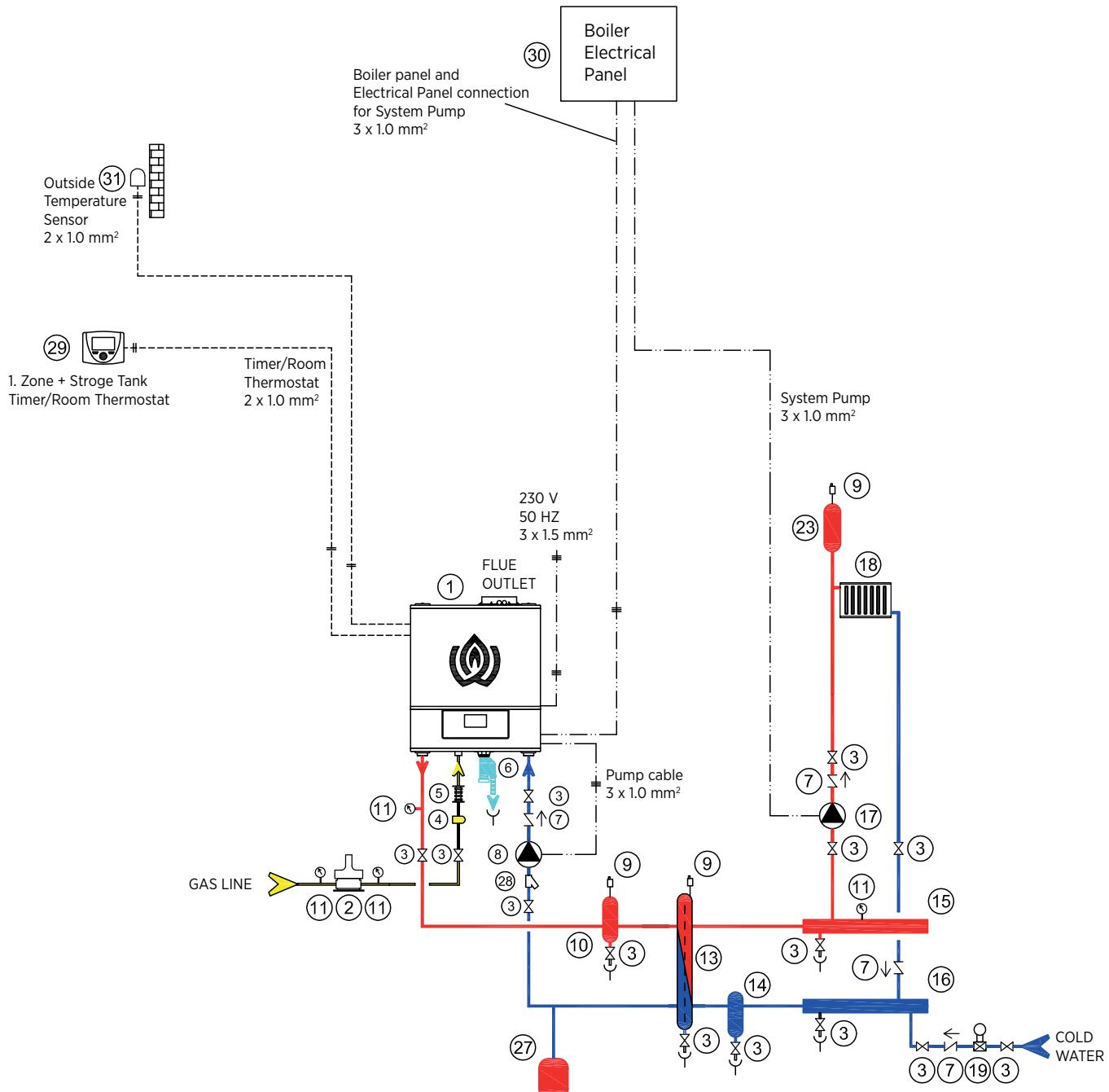
Control Accessories for Cascade System

Accessory Code	Accessory Name	Explanation	Matching Product	Product Image
153.11.660.600001	WDHS-01 Outside Sensor	Sensor which regulates boiler according to outside air temperature.	Viwa 50-150	
153.11.660.600045	RC 21.11 Timer Room Thermostat	Thermostat which sets to apply weekly/ daily program to heater and boiler unit or a unite which can only be used as program clock.	Viwa 50-150	
153.11.660.600049	QAZ 36 Immersion Boiler / Hydraulic Separator Sensor	Immersion Sensor which is used to measure Boiler or Hydraulic Separator Temperature and transfers information to boiler.	Viwa 90-150	
153.11.660.600050	QAD 36 Strap-on Temperature Sensor	Strap-on Temperature Sensor for connection on pipe at the output of hydraulic separator. It is used to measure flow water temperature of second zone at the double heating zone.	Viwa 90-150	
153.11.660.600053	MST80 Calibrated Surface Thermostat	Heating zone/pipe bracket calibrated thermostat for zone	Viwa 50-150	
153.11.660.600047	MLC 30 Multiple Zone Module	Unit which controls the low temperature of Viwa 90, Viwa 115, Viwa 125 and Viwa 150 boilers / underfloor heating zone (blend valve circuit).	Viwa 50-150	
152.11.003.000005	RVS-AVS Cascade Panel Set	It involves RVS 43 Boiler Controller for Cascade and Zone Management , AVS 37 Display Module and AVS 82.490 RVS-AVS Connection Cable -40 cm.	Viwa 50-150	
153.11.660.600051	RVS 43 Boiler Controller	Control Unit which can make cascade for Viwa 90 - 150 boiler up 8 boiler over OpenTherm (Up to cascade 15) 1 Radiator Circuit ,1 Floor Heating Circuit and 1 Boiler can be directed.	Viwa 90-150	
153.11.660.600056	OCI 351.01/101 OpenTherm® Module	Communication Unit for each boiler when RVS Unit is used for Viwa 90 - 150 Boilers.	Viwa 90-150	
153.11.660.600057	AVS 37 Screen Modulation	RVS unit control screen. Mandatory if RVS Unit is used.	Viwa 90-150	
153.11.660.600076	AVS 82.490 RVS-AVS Connecting Cable - 40 cm	It is 40 cm cable to connect AVS37.294 Screen Modulation or AVS 75.390 Zone Multiplication Modules. Mandatory if RVS unit is used.	Viwa 90-150	
153.11.660.600058	AVS 82.491 RVS-AVS Connecting Cable - 100 cm	When RVS Unit is used 100 cm cable must be taken to connect AVS37.294 Screen Modulation or AVS 75.390 Zone Multiplication Modules each other.	Viwa 90-150	
153.11.660.600071	QAC 34 Outside Sensor	Mandatory if RVS unit is used. Regulates boiler according to outside temperature.	Viwa 90-150	
153.11.660.600072	QAA 55 Room Thermostat	Room Thermostat with small screen which can make selection for Economy and comfort mode and allows temperature adjustment.	Viwa 90-150	
153.11.660.600073	QAA 74 Room Thermostat with wide screen	Room Thermostat with wide and enlightened screen which allows economy and comfort mode selection.	Viwa 90-150	
153.11.660.600074	AVS 75 Zone Multiplication Module	Zone Multiplication Module (Module for Additional Zone which has 3 runout table)	Viwa 90-150	
153.11.660.600077	OZW672.01-Web Server 1LPB device	OZW672.01 web server which is connected to RVS 43 Boiler Controller enable remote control for heating center via web and Smartphone-App and follow up.	Viwa 90-150	

Sample Installation Schema

Radiator Circuit connection diagram with Viwa 90-150 boilers

Single Boiler System Schema - 1



INSTALLATION EQUIPMENT

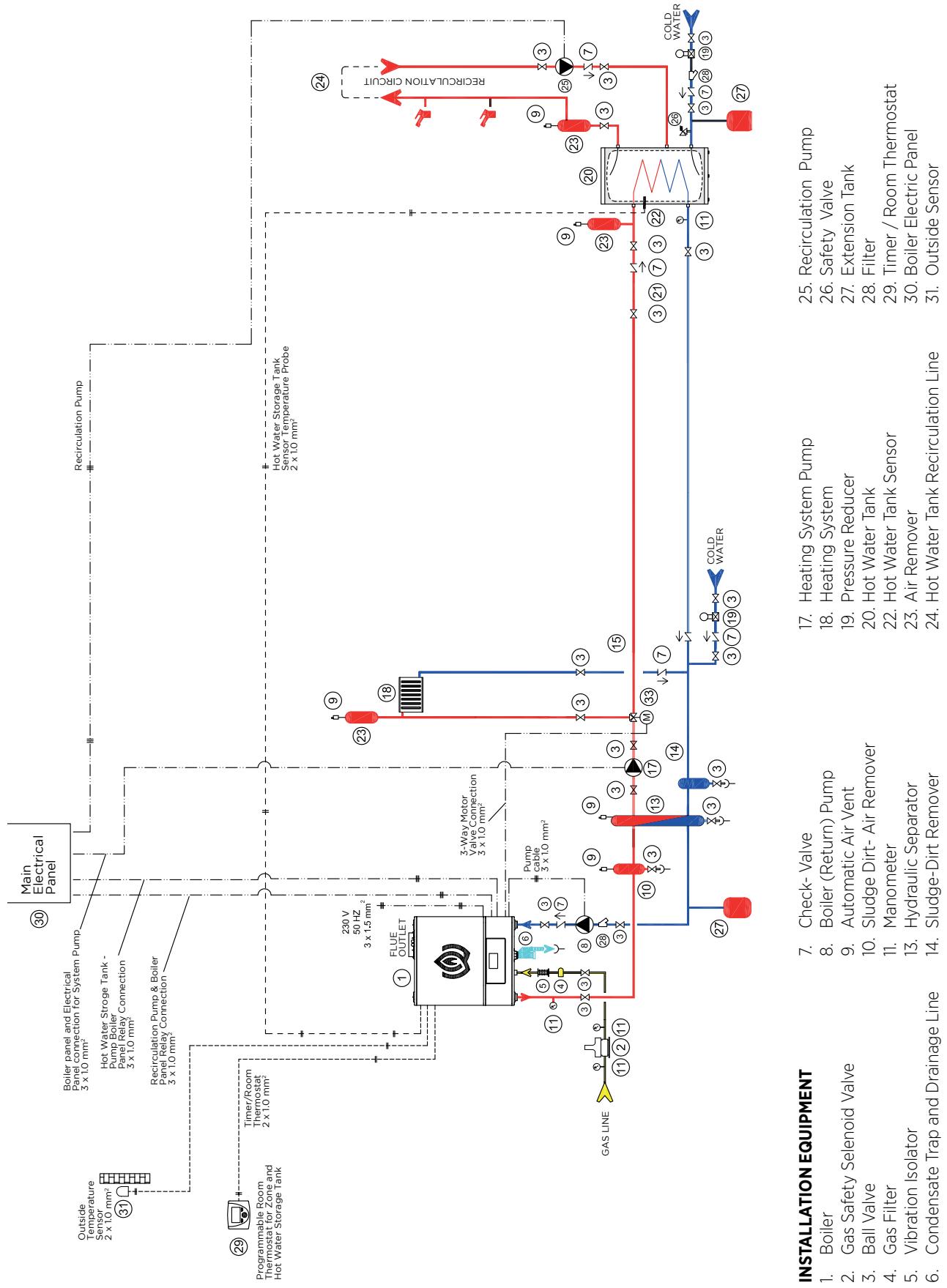
- ## INSTALLATION EQUIPMENT

 1. Boiler
 2. Gas Safety Selenoid Valve
 3. Ball Valve
 4. Gas Filter
 5. Vibration Isolator
 6. Condensate Trap and Drainage Line
 7. Check- Valve
 8. Boiler (Return) Pump

- 9. Automatic Air Vent
 - 10. Sludge Dirt- Air Remover
 - 11. Manometer
 - 13. Hydraulic Separator
 - 14. Sludge-Dirt Remover
 - 15. Heating System Flow Water Collector
 - 16. Heating System Return Water Collector
 - 17. Heating System Pump
 - 18. Heating System
 - 19. Pressure Reducer
 - 23. Air Remover
 - 26. Safety Valve
 - 27. Extension Tank
 - 28. Filter
 - 29. Timer / Room Thermostat
 - 30. Boiler Electric Panel
 - 31. Outside Sensor

Sample Installation Schema

Single Boiler System Schema - 2



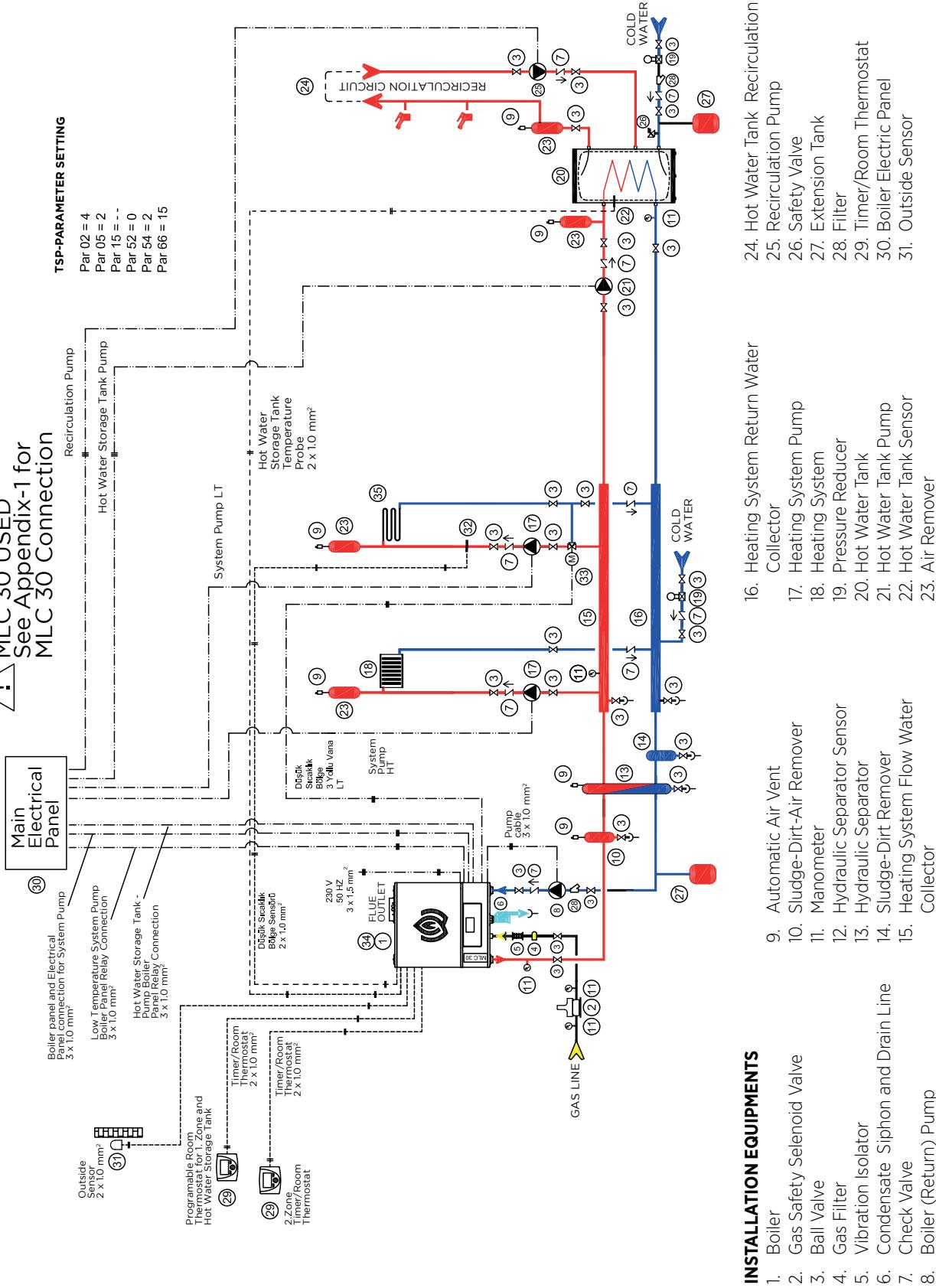
Sample Installation Schema

Single Boiler System Schema - 3

MLC 30-Multi Zone Module is required to install this system.

Sample Installation Diagram for 1 Radiator, 1 Floor Heating and Hot Water Storage Tank Control with Single Boiler

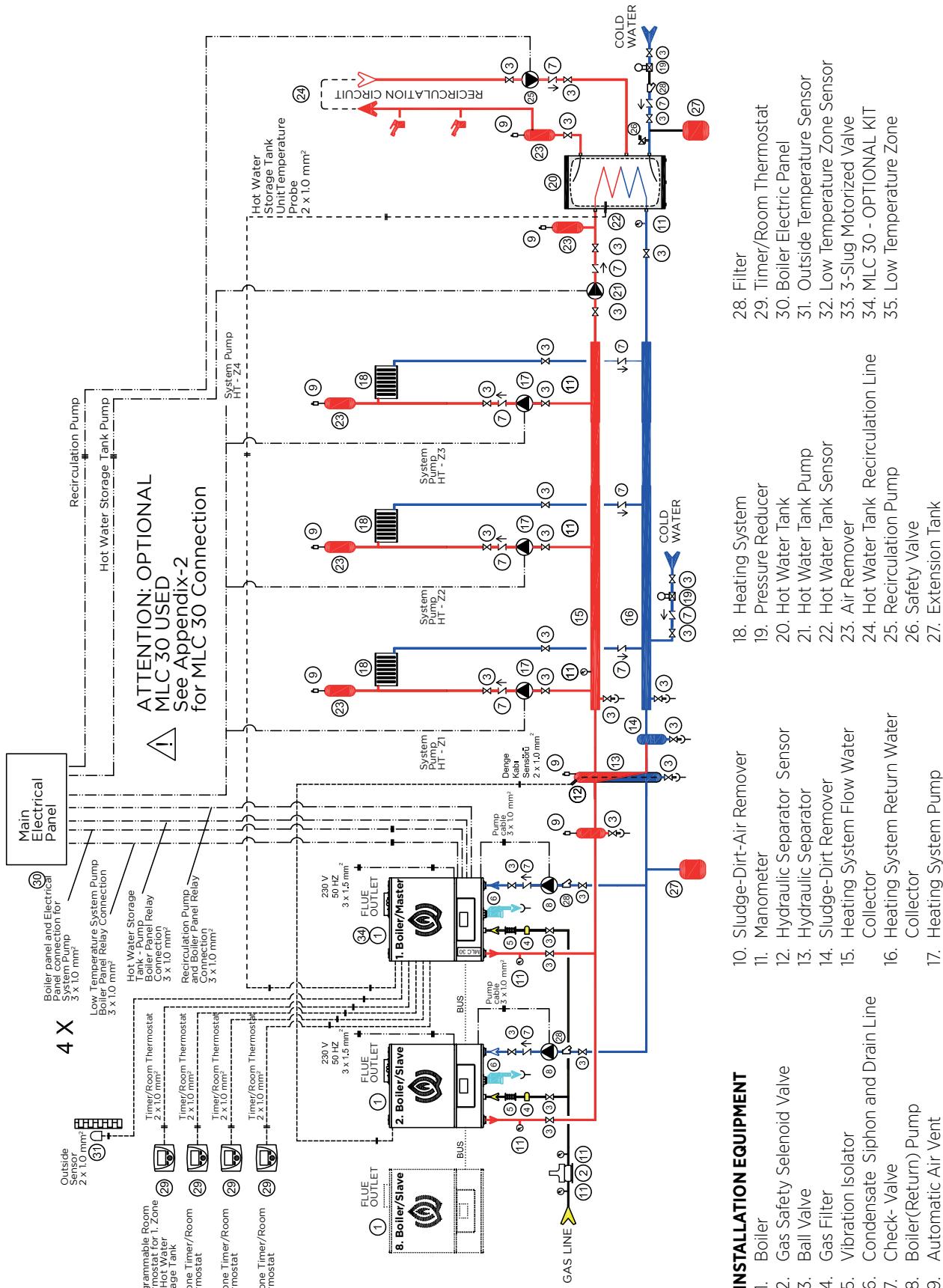
ATTENTION: OPTIONAL
MLC 30 USED
See Appendix-1 for
MLC 30 Connection



INSTALLATION EQUIPMENTS

- Boiler
- Gas Safety Solenoid Valve
- Ball Valve
- Gas Filter
- Vibration Isolator
- Condensate Siphon and Drain Line
- Check Valve
- Boiler (Return) Pump
- Automatic Air Vent
- Sludge-Dirt-Air Remover
- Manometer
- Hydraulic Separator
- Hydraulic Separator
- Sludge-Dirt Remover
- Heating System Flow Water Collector
- Heating System Return Water Collector
- Hot Water Tank Recirculation Line
- Recirculation Pump
- Safety Valve
- Extension Tank
- Filter
- Timer/Room Thermostat
- Boiler Electric Panel
- Outside Sensor

Viwa 90, 115, 125 And 150 Boilers And Cascade System And 3 Or 4 High Temperature (Radiator) System Boilers And MLC 30 Sample Installation Diagram

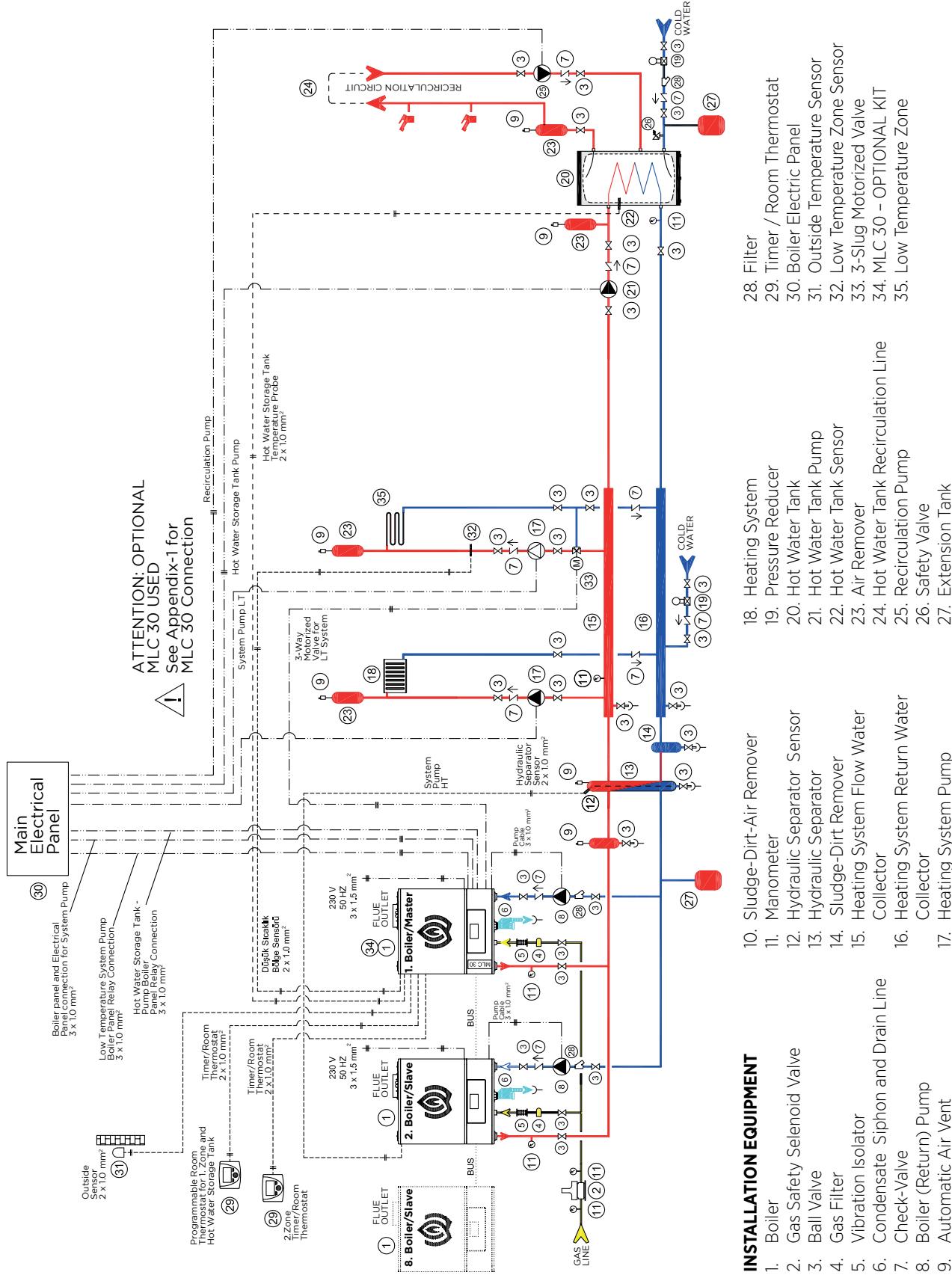


34

Viwa 90-150

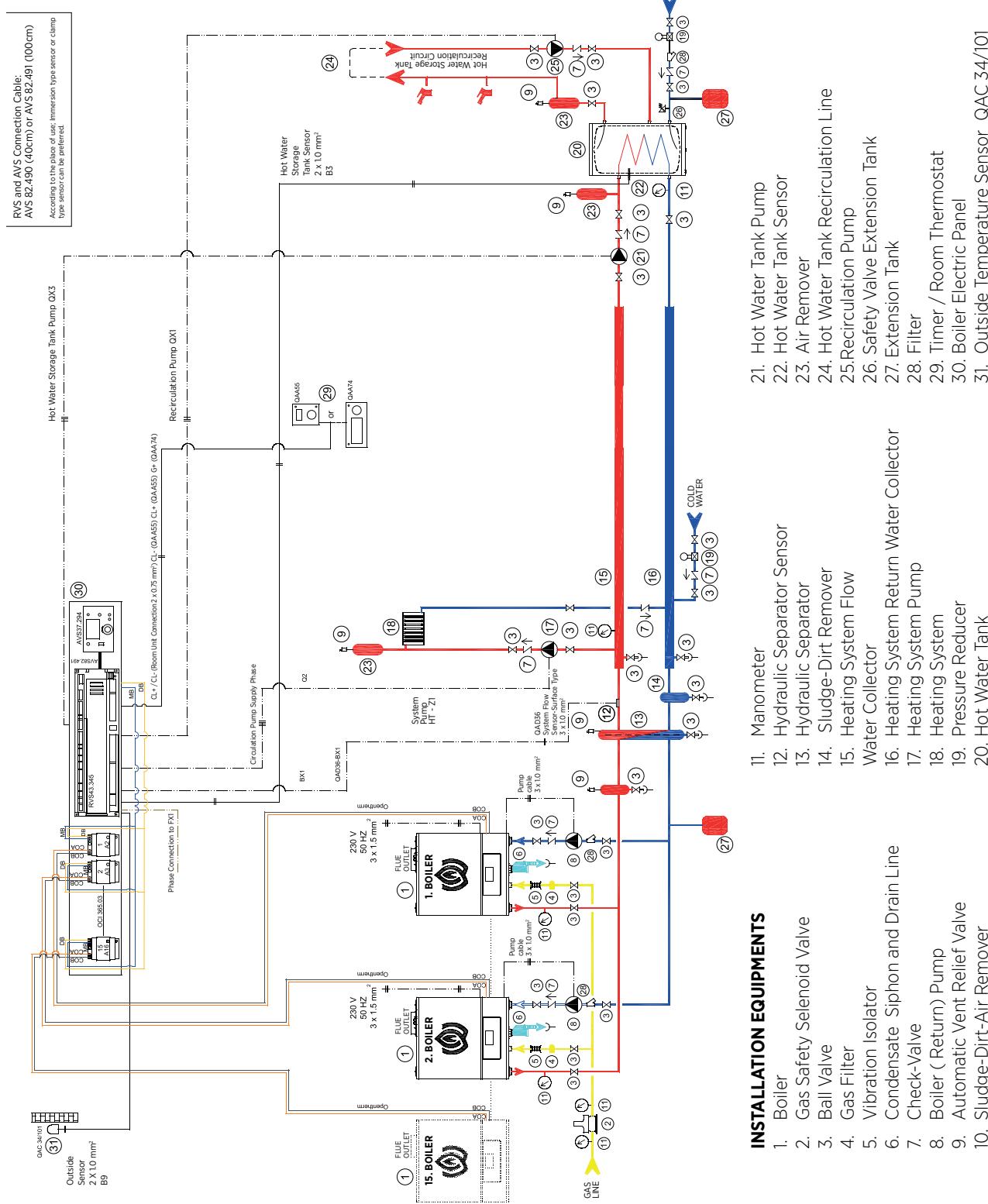
Sample Installation Schema

Cascade System Diagram for up to 8 Boiler - 2



Sample Installation Schema

Cascade System Diagram With RVS Panel for up to 15 Boiler - 1



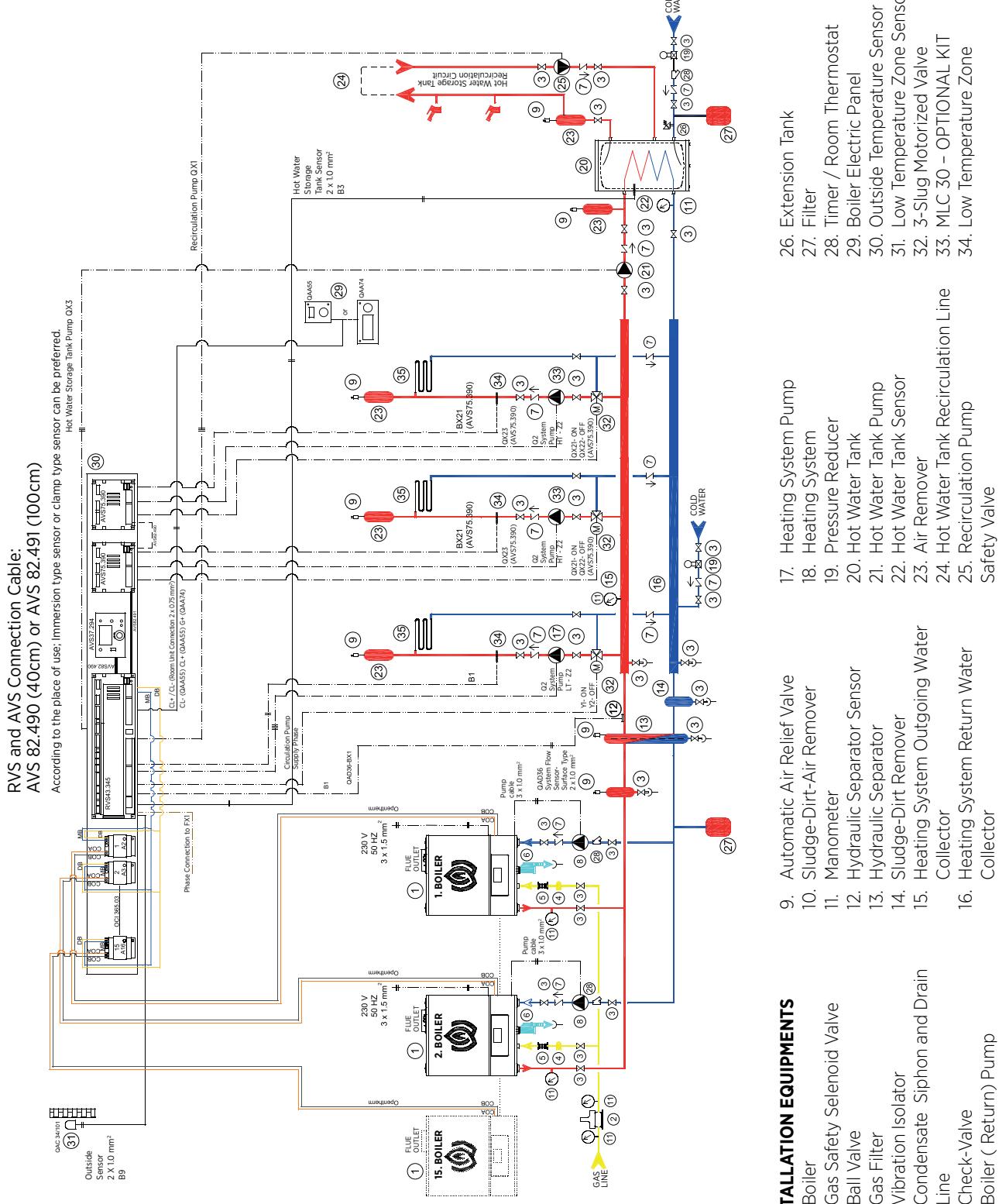
INSTALLATION EQUIPMENTS

- 1. Boiler
 - 2. Gas Safety Solenoid Valve
 - 3. Ball Valve
 - 4. Gas Filter
 - 5. Vibration Isolator
 - 6. Condensate Siphon and Drain Line
 - 7. Check-Valve
 - 8. Boiler (Return) Pump
 - 9. Automatic Vent Relief Valve
 - 10. Sludge-Dirt-Air Remover

Sample Installation Schema

Cascade System Diagram With RVS Panel for up to 15 Boiler - 2

3 Floor Heating (Low Temperature) Zone with cascade System up to 15 Boilers

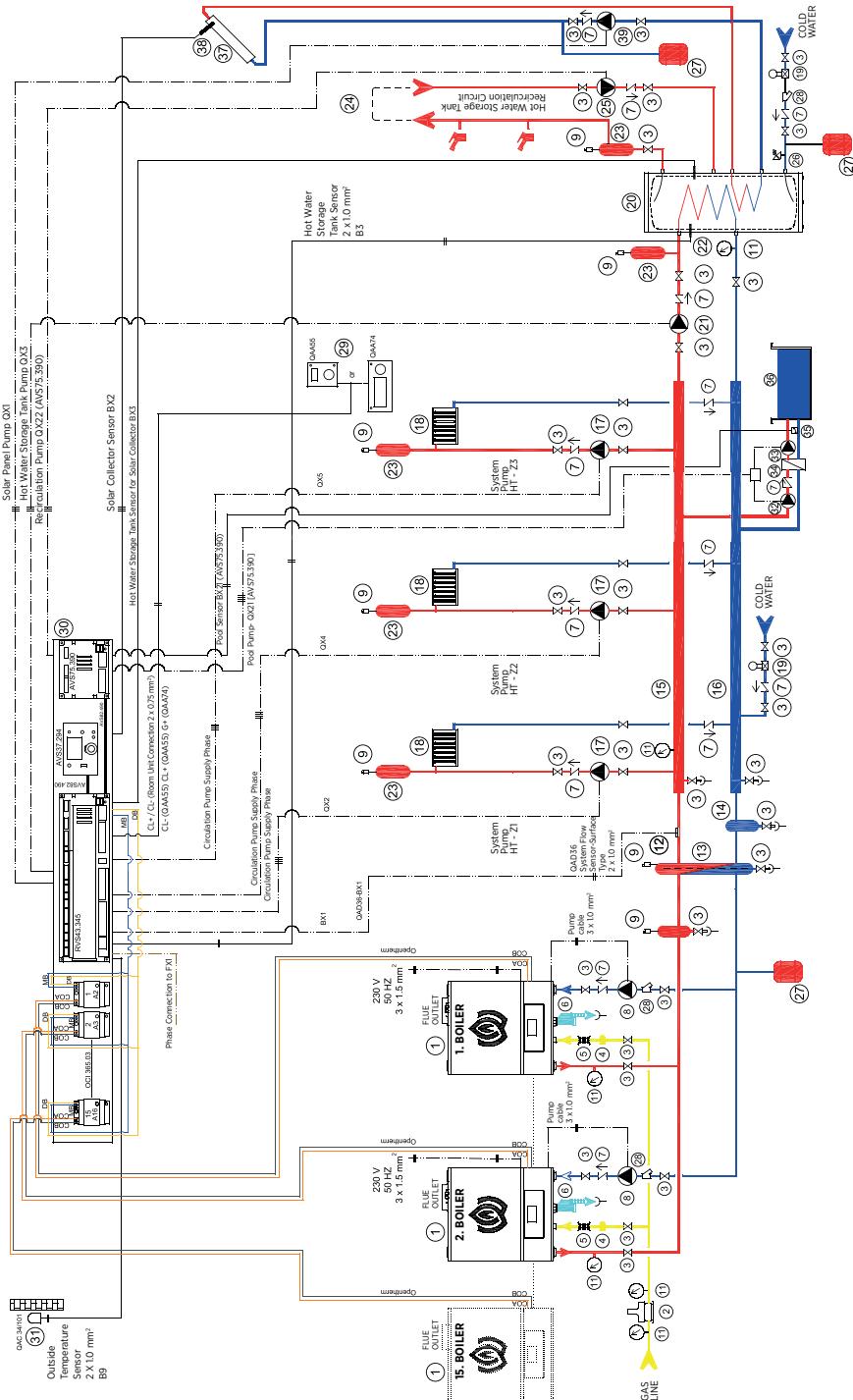


Sample Installation Schema

Cascade System Diagram With RVS Panel for up to 15 Boiler - 3

3 Radiator Heating (High Temperature) Zone, Hot Water Tank, Pool up to 15 Boilers with Cascade System

RVS and AVS Connection Cable:
AVS 82.490 (40cm) or AVS 82.491 (100cm)
According to the place of use, Immersion type sensor or clamp type sensor can be preferred.



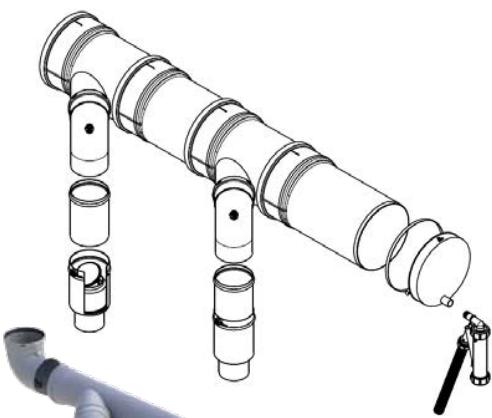
INSTALLATION EQUIPMENTS

1. Boiler
2. Gas Safety Selenoid Valve
3. Ball Valve
4. Gas Filter
5. Vibration Isolator
6. Condensate Siphon and Drain Line
7. Check-Valve
8. Boiler (Return) Pump
9. Automatic Air Relief Valve
10. Sludge-Dirt-Air Remover
11. Manometer
12. Hydraulic Separator Sensor
13. Sludge-Dirt Remover
14. Heating System Outgoing Water Collector
15. Heating System Return Water Collector
16. Condensate Siphon and Drain Line
17. Heating System Pump
18. Heating System
19. Pressure Reducer
20. Hot Water Tank
21. Hot Water Tank Pump
22. Hot Water Tank Sensor
23. Air Remover
24. Hot Water Tank Recirculation Line
25. Recirculation Pump
26. Safety Valve
27. Extension Tank
28. Filter
29. Timer / Room Thermostat
30. Boiler Electric Panel
31. Outside Temperature Sensor QAC 34/101
32. Pool Exchanger Feeding Pump
33. Pool Exchanger
34. Pool Sensor
35. Swimming Pool
36. Solar Panel Collector
37. Solar Panel
38. Solar Sensor
39. Solar Panel Pump

Cascade Flue Sets and Accessories

In case connecting boiler cascade it is ready flue collector for two boiler and third additional boiler to discharge waste gas till building steel flue.

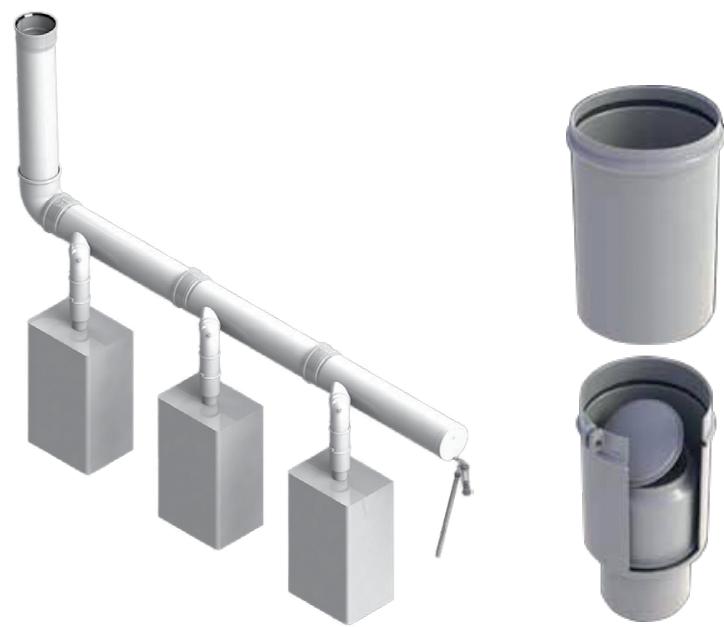
Accessory Code	Accessory Name / Explanation	Matching Product
153.11.660.600065	Cascade Flue Collector for Ø160_2 Ø80 Boiler	Viwa 50-65
153.11.660.600066	Cascade Flue Collector for Ø160_1 Ø80 Boiler	Viwa 50-65
153.11.660.600067	BOB 80.100 Flue Valve (Boiler Ø80 - Collector Ø100)	Viwa 50-65
153.11.660.600059	Cascade Flue Collector for Ø200_2 Ø100 Boiler	Viwa 90-150
153.11.660.600060	Cascade Flue Collector for Ø200_1 Ø100 Boiler	Viwa 90-150
153.11.660.600061	Cascade Flue Collector for Ø250_2 Ø100 Boiler	Viwa 90-150
153.11.660.600062	Cascade Flue Collector for Ø250_1 Ø100 Boiler	Viwa 90-150
153.11.660.600063	Cascade Flue Collector for Ø300_2 Ø100 Boiler	Viwa 90-150
153.11.660.600064	Cascade Flue Collector for Ø300_1 Ø100 Boiler	Viwa 90-150
153.11.660.600068	BOB 100.100 Flue Valve (Boiler Ø100- Collector Ø100)	Viwa 90-150



Cascade Flue Collector for Additional Third Boiler



Cascade Flue Collector for 2 Boilers



Cascade Flue Collector for 3 Boilers



Flue Valve



Everybody **Deserves** a Warmhaus

Administration Office

Nidakule Ataşehir Kuzey
Barbaros Mahallesi, Begonya Sokak
No: 3 K: 19 D: 170-175
Ataşehir 34746 İstanbul, Turkey

P +90216 300 16 50

Boiler Factory

İşiktepe OSB Mah.
Park Cad. No:10
16140 Nilüfer, Bursa, Turkey

Radiator Factory

Minareliçavuş OSB Mah.
Selvi Cad. No:3
16140 Nilüfer, Bursa, Turkey

P +90224 295 94 00
F +90224 41123 77

United Kingdom

Unit 7, St Martins Business Centre
St Martins Way, Bedford MK42 0LF, UK

P +44 207 164 6233
F +44 207 000 1336