

# KODSAN

HEAT  
INTERFACE  
UNITS







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## HEAT INTERFACE UNITS

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# KODSAN

## Our Vision

In the light of the principles of honesty and trust, to provide human and environment-oriented products and services, to enlarge the business opportunities it has developed, and to be one of the top 5 companies in the world in the industry.

## Our Mission

With its expert and dynamic team, innovative spirit and strong business partners, spreading our quality to the World, to create added value and difference by enlarging the business models.

## Main Export Countries

Azerbaijan, Canada, Denmark, France, Germany, Greece, Holland, Iraq, Israel, Italy, Kenya, Norway, Portugal, Qatar, Republic of South Africa, Russia, Saudi Arabia, South Korea, Spain, Sweden, Thailand, United Arab Emirates, United Kingdom, Uruguay



## About Us

Kodsan entered the heating industry with solid fuel boiler production when Mehmet Namik Kodaman founded the company in 1984, Ankara. It has become a leading company with its innovations, success, and people-oriented business strategies. It has grown, developed, and renewed considerably with the strength of over 35 years of experience.

As Turkey's first and largest enamel coated water heater manufacturer, Kodsan increases its recognition in early 2000, in Turkey and surrounding countries. Kodsan manufactures enamel/ non-enamel covered water heaters, heat interface units, automatic pump controlled expansion systems, separators and filters, installment protection equipments.

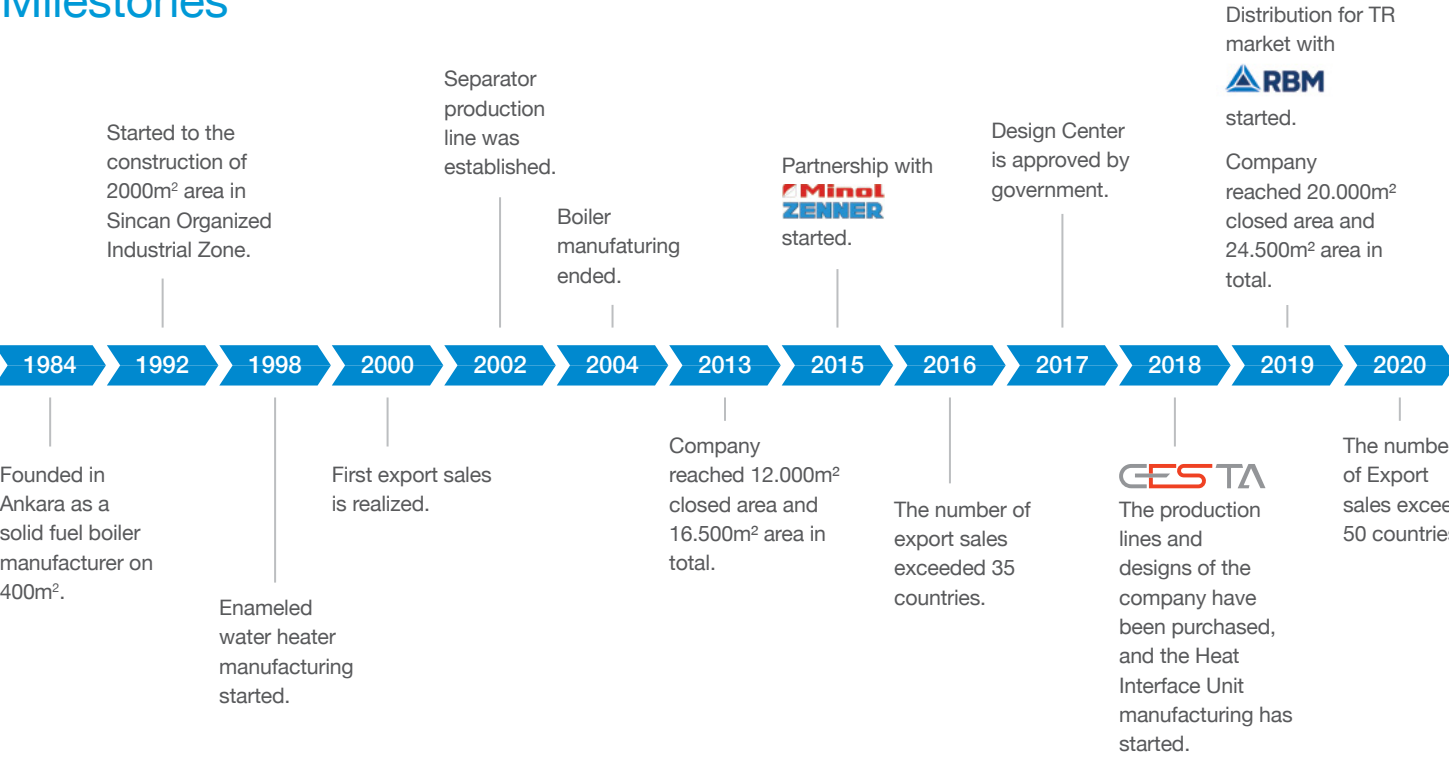
Additionally, with its extensive technical service network, Kodsan provides service for energy consumption management and heat meter inspection.

## Our Achievements

Kodsan shines out with its advanced technology, high efficiency products and flexible production capability which can quickly adapt to the customer demands. However among these specialities, Kodsan prioritizes human health as well as the environment. Following this principle, all production processes and products are appropriate to the Europe Environment and Human Health Regulations(Reach and Rosh). For example;

- WRAS certification for the used enamel as well as for all the materials and products that contacts the drinkable water.
- Kodsan manufactures specially designed products that avoid bacteria growth such as legionella which causes the legionnaire disease.
- Kodsan is one of the limited companies that has a waste water treatment facility.
- Raw material which does not include heavy metals and with low carbon footprint are being used during production.
- Maximum sensitivity shown for recycling through all production processes.

## Milestones







# CUSTOMIZABLE DESIGN

**“Engineered for individual needs, configured for simple installation and maintenance.”**

Kodsan heat interface units offer equipment modification options and provide spot on solutions to users with their adaptable design to different projects.



# SMART SOLUTIONS

Kodsan utilizes smart equipment that allows its products to be integrated with building automation and smart thermostats to maximize energy saving and comfort



# PATENTED EQUIPMENTS

Kodsan, which produces with the vision of high quality and maximum efficiency, uses patented application with specialized heat exchangers to reduce reaction time under 8 seconds to provide comfort and best user experience.



# BESA TEST

The characteristics and performance of the equipment and fittings used in Kodsan heat interface units have been tested according to standards of BESA in Kodsan Laboratories and available all over the world.



# KFS 711

## INDIRECT DOMESTIC HOT WATER HEAT INTERFACE UNIT

KODSAN



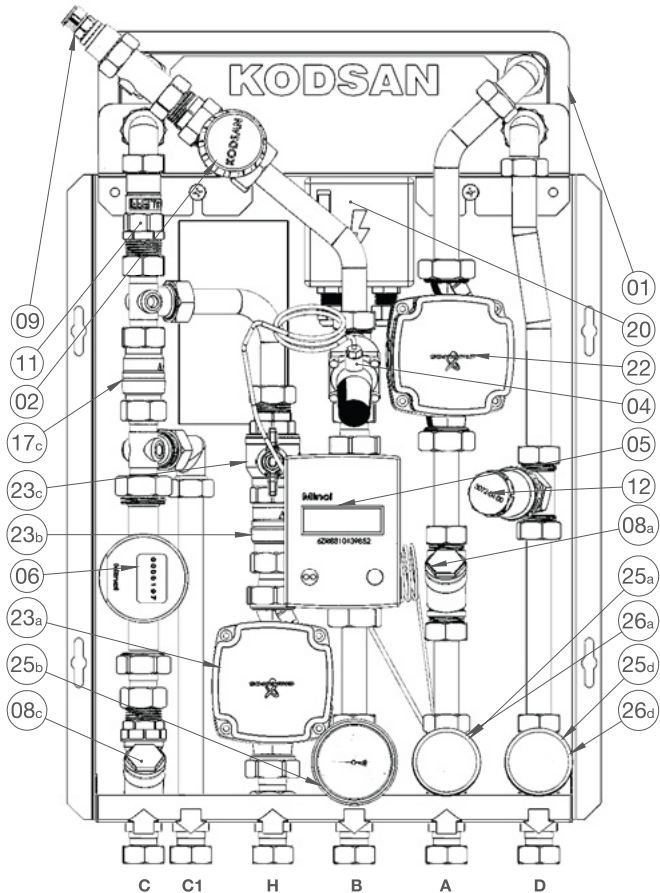
KODFLAT711 series Heat Interface Units is the most compact solution, operating with district heating system that require high static pressures and thermal medium temperatures.

The district heating and domestic hot water circuits are completely separate; no mixing and contamination are allowed.

Heating System	: Two Pipe Flow
Mounting	: Wall Mounted
Dimensions	: G x D x Y (mm) (**)
Casing	: Painted Metal Sheet
Plate Heat Exchanger	: Stainless Steel, Copper Brazed
Pipework	: Stainless Steel Pipe With Brass Fittings
Insulation	: EPP, ERF
All External Connections	: G¾" Coupling

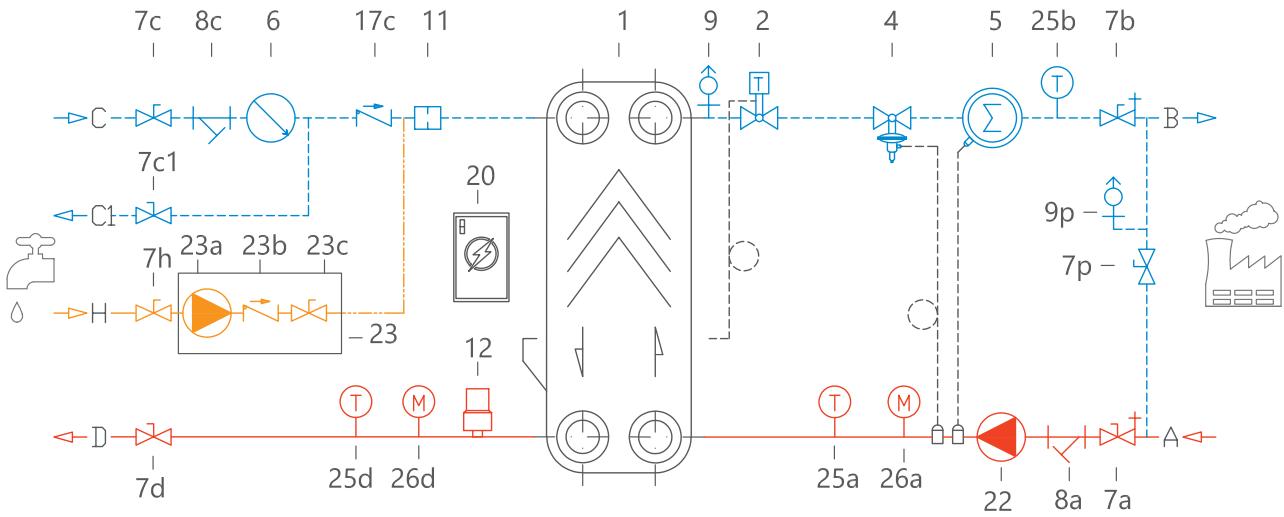
KODFLAT711 is useful when designing or redesigning the domestic hot water systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

PRIMARY CIRCUIT	
Nominal Heat Capacity (*)	: 7,3-72,9 kW
Min. - Max. Hot Water Flow Rate	: 96-1086 l/h
Min.- Max. Flow Temperature	: 50- 90 °C
Nominal Pressure	: PN 10 (****)
Min. Required Differential Pressure	: 35 kPa (****)
SECONDARY CIRCUIT	
Maximum Flow Rate	: 1800 l/h
Nominal DHW Circuit Temperature	: 50 °C
Nominal Pressure	: PN 10



- 01. Plate Heat Exchanger (DHW)
  - 02. Two-way Modulating Valve
  - 04. Differential Pressure Regulating Valve
  - 05. Heat Meter
  - 06. Cold Water Flow Meter
  - 07. Thermocouple Outlet Ball Valve
  - 08. Strainer
  - 09. Air Vent
  - 11. Flow Limiter
  - 12. Water Hammer Arrestor
  - 17. Non-return Valve
  - 20. Cable Terminal Box
  - 22. Circulating Pump
  - 23. Re-circulating Pump Kit
  - 25. Temperature Gauge
  - 26. Pressure Gauge
- A. District Heating Flow  
B. District Heating Return  
C. Cold Water Mains  
C1. Domestic Cold Water  
D. Domestic Hot Water (DHW)  
H. Re-circulating Flow

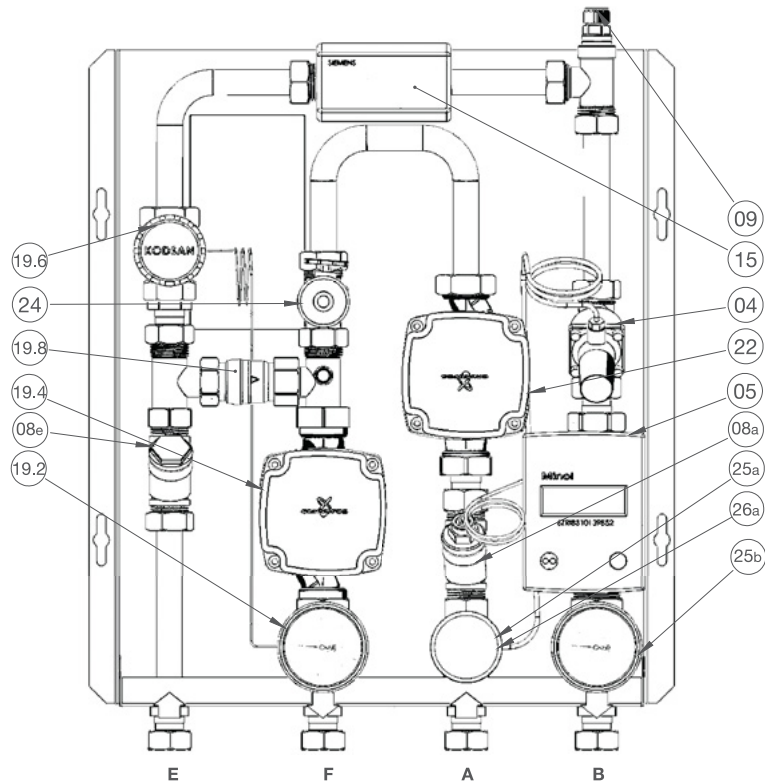
HYDRAULIC DIAGRAM (\*\*)



(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) The hydraulic diagram shows all components of the material list. It may vary according to product type and application (underfloor or radiator heating).  
(\*\*\*) Dimensions will be alter depend on used components and connection preferences.  
(\*\*\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*\*\*) PN 16 available on enquiry.

# KFS 712

DIRECT SPACE HEATING  
HEAT INTERFACE UNIT



- 04. Differential Pressure Regulating Valve
- 05. Heat Meter
- 07. Thermocouple Outlet Ball Valve
- 08. Strainer
- 09. Air Vent
- 15. Zone Control Valve
- 19-2. Temperature Gauge
- 19-4. Circulating Pump
- 19-6. Two-way Modulating Valve
- 19-8. Non-return Valve
- 22. Circulating Pump
- 24. Drain Cock
- 25. Temperature Gauge
- 26. Pressure Gauge
- A. District Heating Flow
- B. District Heating Return
- E. Space Heating Return
- F. Space Heating Flow

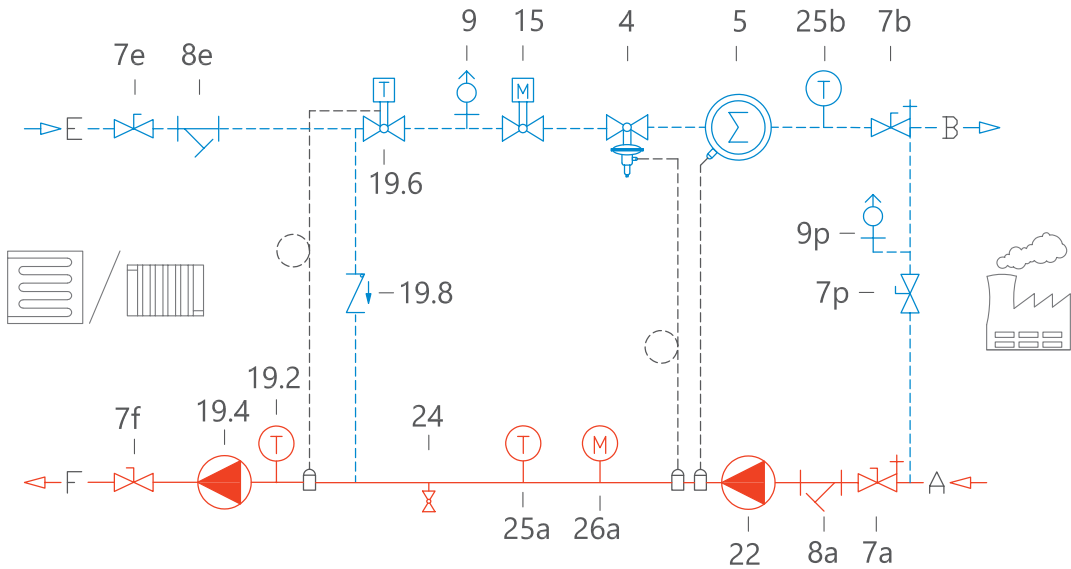
KODFLAT712 series Heat Interface Units are the most compact solution, operating with district heating system that require medium static pressures and temperatures.

The district heating and space heating circuits are controlledly connected to each other.

KODFLAT712 is useful when designing or redesigning the heating systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

Heating System	: Two Pipe Flow	Nominal Heat Capacity (*)	: Underfloor Heating: 15 kW Radiator Heating: 26 kW
Mounting	: Wall Mounted	Maximum Flow Rate	: 900 l/h
Dimensions	: G x D x Y (mm) (***)	Nominal Water Temperature	: 70 °C
Casing	: Painted Metal Sheet	Min.- Max. Flow Temperature	: 50- 90 °C
Plate Heat Exchanger	: Stainless Steel, Copper Brazed	Nominal Pressure	: PN 10 (****)
Pipework	: Stainless Steel Pipe With Brass Fittings	Min. Required Differential Pressure	: 35 kPa (****)
Insulation	: EPP, ERF		
All External Connections	: G¾" Coupling		

HYDRAULIC DIAGRAM (\*\*)

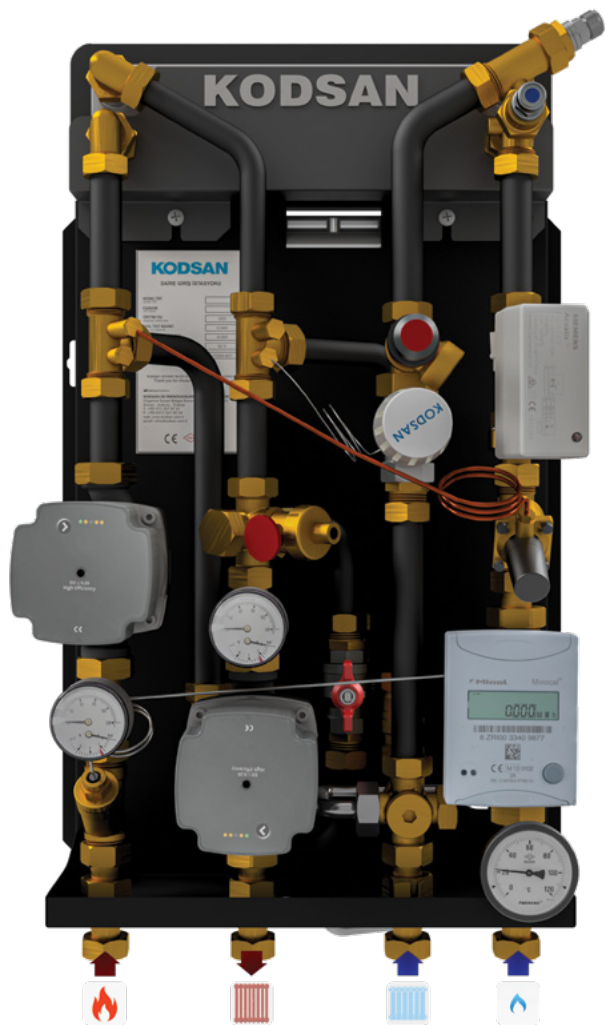


(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) The hydraulic diagram shows all components of the material list. It may vary according to product type and application (underfloor or radiator heating).  
(\*\*\*) Dimensions will be alter depend on used components and connection preferences.  
(\*\*\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*\*\*) PN 16 available on enquiry.

# KFS 713

## INDIRECT SPACE HEATING HEAT INTERFACE UNIT

KODSAN



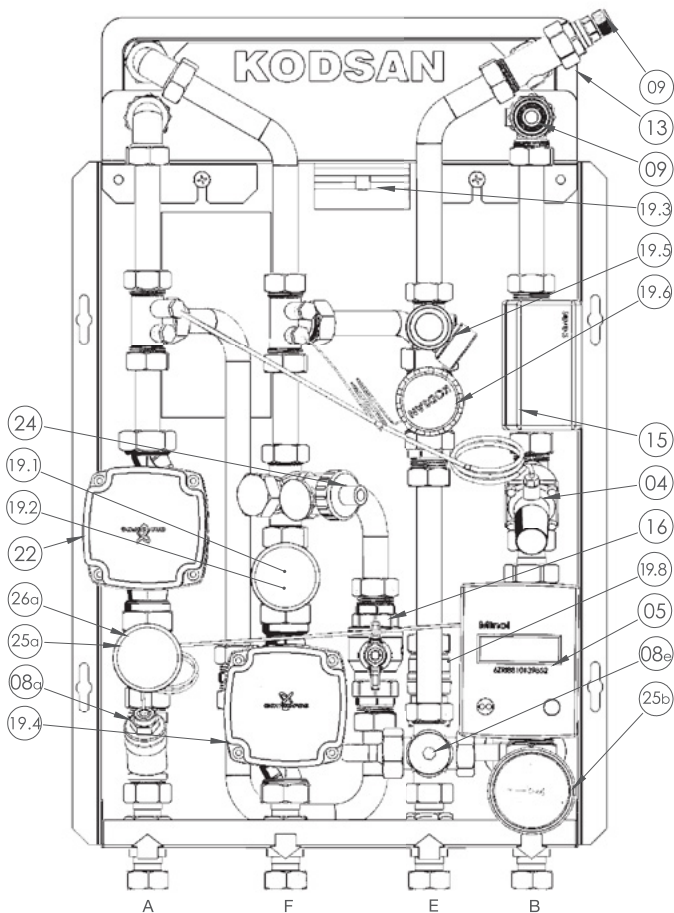
KODFLAT713 series Heat Interface Units are the most compact solution, operating with district heating system that require high static pressures and temperatures.

The district heating and space heating circuits are completely separate; no mixing and contamination are allowed.

Heating System	: Two Pipe Flow
Mounting	: Wall Mounted
Dimensions	: G x D x Y (mm) (***)
Casing	: Painted Metal Sheet
Plate Heat Exchanger	: Stainless Steel, Copper Brazed
Pipework	: Stainless Steel Pipe With Brass Fittings
Insulation	: EPP, ERF
All External Connections	: G¾" Coupling

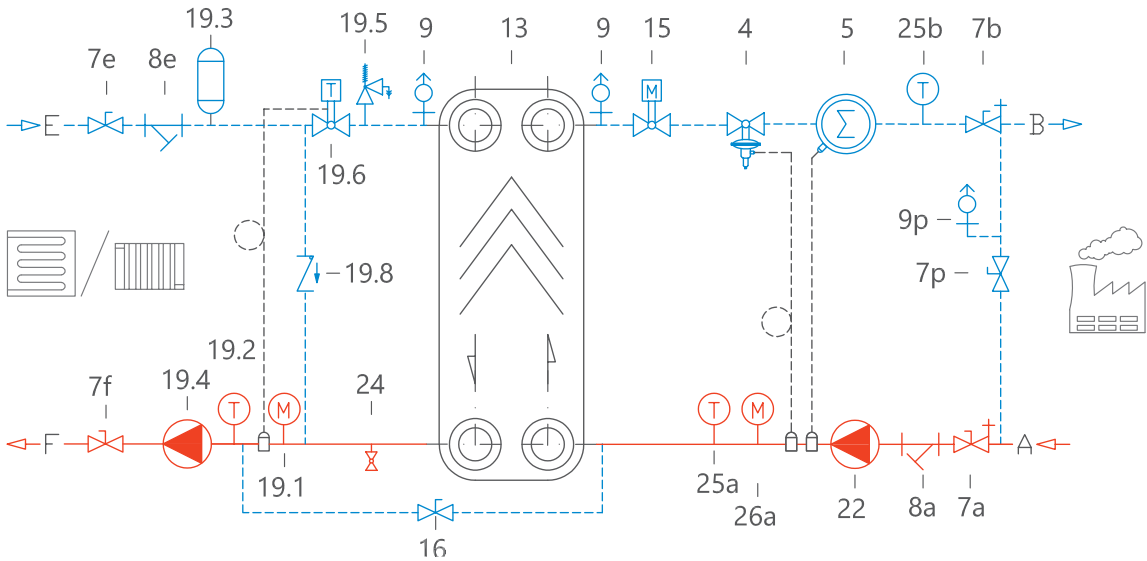
KODFLAT713 is useful when designing or redesigning the heating systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

<b>PRIMARY CIRCUIT</b>	
Nominal Heat Capacity (*)	: Underfloor Heating: 15 kW Radiator Heating: 26 kW
Maximum Flow Rate	: 850 l/h
Min.- Max. Flow Temperature	: 50- 90 °C
Nominal Pressure	: PN 10 (****)
Min. Required Differential Pressure	: 40 kPa (****)
<b>SECONDARY CIRCUIT</b>	
Maximum Flow Rate	: 1300 l/h
Max. Space Heating Circuit Temp.	: 70 °C
Nominal Pressure	: PN 10



- 04. Differential Pressure Regulating Valve
- 05. Heat Meter
- 07. Thermocouple Outlet Ball Valve
- 08. Strainer
- 09. Air Vent
- 13. Plate Heat Exchanger (Space Heating)
- 15. Zone Control Valve
- 16. Ball Valve
- 19-1. Pressure Gauge
- 19-2. Temperature Gauge
- 19-3. Expansion Vessel
- 19-4. Circulating Pump
- 19-5. Safety Relief Valve
- 19-6. Two-way Modulating Valve
- 19-8. Non-return Valve
- 20. Cable Terminal Box
- 22. Circulating Pump
- 24. Drain Cock
- 25. Temperature Gauge
- 26. Pressure Gauge
- A. District Heating Flow
- B. District Heating Return
- E. Space Heating Return
- F. Space Heating Flow

HYDRAULIC DIAGRAM (\*\*)



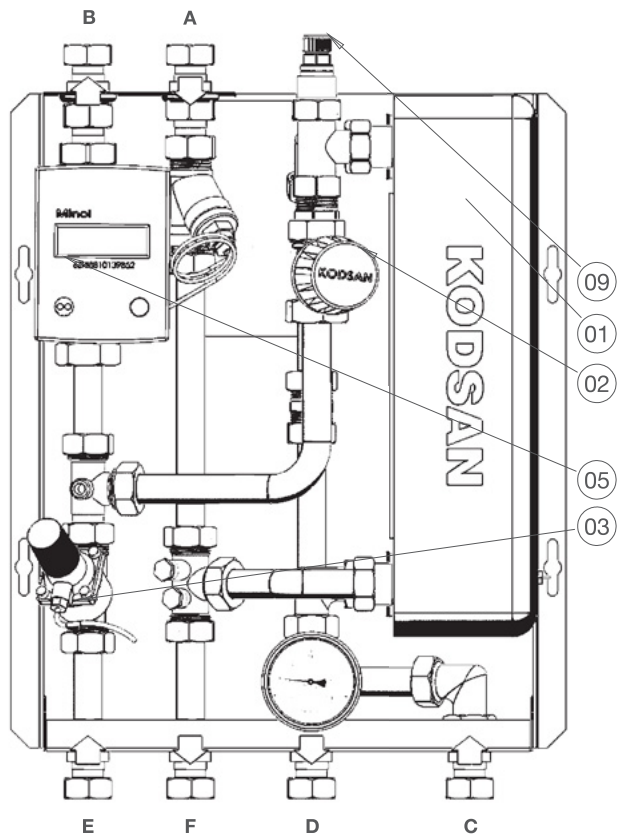
(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) The hydraulic diagram shows all components of the material list. It may vary according to product type and application (underfloor or radiator heating).  
(\*\*\*) Dimensions will be alter depend on used components and connection preferences.  
(\*\*\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*\*\*) PN 16 available on enquiry.



# KFS 721S

INDIRECT DOMESTIC HOT WATER & DIRECT SPACE HEATING HEAT INTERFACE UNIT

KODSAN



- 01. Plate Heat Exchanger (DHW)
- 02. Two-way Modulating Valve
- 03. Differential Pressure Regulating Valve
- 05. Heat Meter
- 09. Air Vent

- A. District Heating Flow
- B. District Heating Return
- C. Cold Water Mains
- D. Domestic Hot Water (DHW)
- E. Space Heating Return
- F. Space Heating Flow

(\*\*): UNDERFLOOR MIXING KIT NOT SHOWN

KODFLAT721S series Heat Interface Units are the most compact solution, operating with district heating system that require medium static pressures and temperatures.

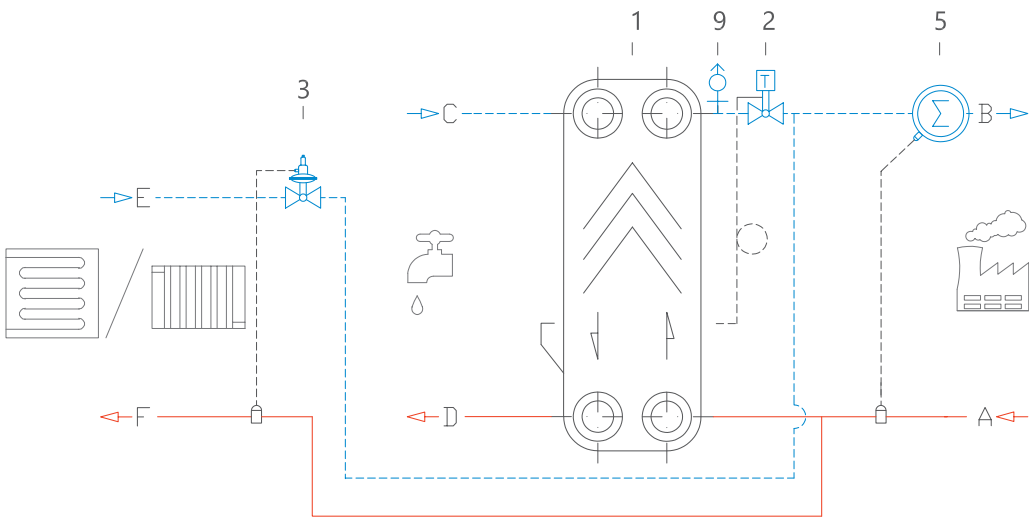
The district heating and space heating circuits are controlledly connected to each other; while DHW secondary circuits are completely separate; no mixing and contamination are allowed.

KODFLAT721S is useful when designing or redesigning the heating and domestic hot water systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

Heating System	: Two Pipe Flow
Mounting	: Wall Mounted
Dimensions	
Underfloor heating	: 450 x 540 x 165 mm
Radiator heating	: 450 x 400 x 125 mm
Casing	: Painted Metal Sheet
Plate Heat Exchanger	: Stainless Steel, Copper Brazed
Pipework	: Stainless Steel Pipe With Brass Fittings
Insulation	: EPP, ERF
All External Connections	: G¾" Coupling

PRIMARY CIRCUIT	
Nominal Heat Capacity (*)	: Domestic Hot Water: 7,3-72,9 kW Underfloor Heating: 15 kW Radiator Heating: 26 kW
Min.-Max. Hot Water Flow Rate	: 96-1086 l/h
Min.-Max. Flow Temperature	: 50- 90 °C
Nominal Pressure	: PN 10
Min. Required Differential Pressure	: 35 kPa (**)
SECONDARY CIRCUIT	
Maximum Flow Rate	: 1800 l/h
DHW Circuit Temperature	: 10/60 °C
Space Heating Circuit Temperature	: 50/70 °C
Nominal Pressure	: PN 10

## HYDRAULIC DIAGRAM

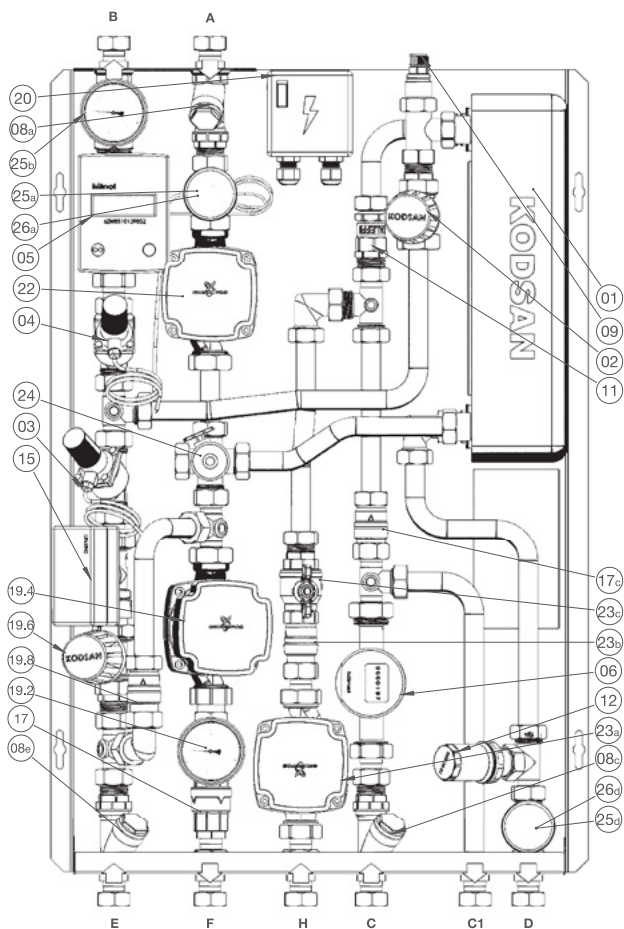
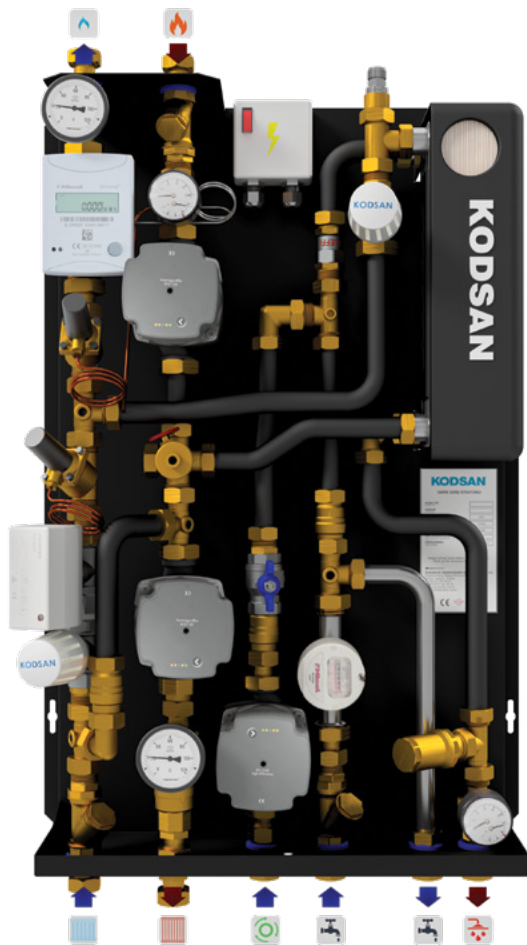


(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*) Underfloor mixing kit is not shown. Connections assembly configuration may vary accordingly.  
(\*\*\*\*) The pictures, material list and hydraulic diagram show only compenents for radiator heating. They may vary according to underfloor heating application.

# KFS 721

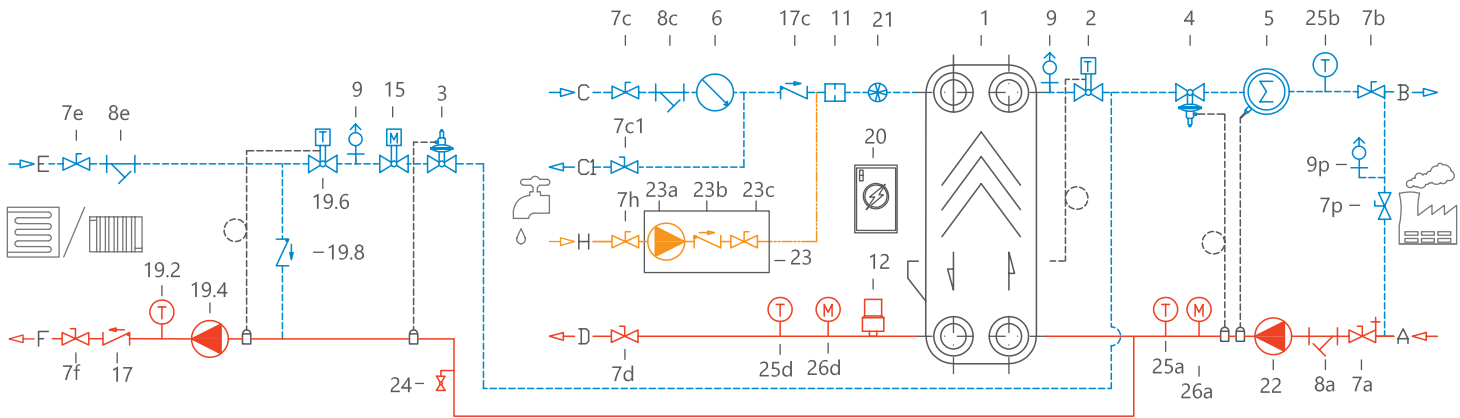
## INDIRECT DOMESTIC HOT WATER & DIRECT SPACE HEATING HEAT INTERFACE UNIT

KODSAN



- 01. Plate Heat Exchanger (DHW)
  - 02. Two-way Modulating Valve
  - 03. Differential Pressure Regulating Valve
  - 04. Differential Pressure Regulating Valve
  - 05. Heat Meter
  - 06. Cold Water Flow Meter
  - 07. Thermocouple Outlet Ball Valve
  - 08. Strainer
  - 09. Air Vent
  - 11. Flow Limiter
  - 12. Water Hammer Arrestor
  - 15. Zone Control Valve
  - 17. Non-return Valve
  - 19-2. Temperature Gauge
  - 19-4. Circulating Pump
  - 19-6. Two-way Modulating Valve
  - 19-8. Non-return Valve
  - 20. Cable Terminal Box
  - 21. Flow Sensor
  - 22. Circulating Pump
  - 23. Re-circulating Pump Kit
  - 24. Drain Cock
  - 25. Temperature Gauge
  - 26. Pressure Gauge
- A. District Heating Flow  
B. District Heating Return  
C. Cold Water Mains  
C1. Domestic Cold Water  
D. Domestic Hot Water (DHW)  
E. Space Heating Return  
F. Space Heating Flow  
H. Re-circulating Flow

HYDRAULIC DIAGRAM (\*\*)



KODFLAT721 series Heat Interface Units are the most compact solution, operating with district heating system that require medium static pressures and temperatures.

The district heating and space heating circuits are controlledly connected to each other; while DHW secondary circuits are completely separate; no mixing and contamination are allowed.

Heating System	: Two Pipe Flow
Mounting	: Wall Mounted
Dimensions	: G x D x Y (mm) (***)
Casing	: Painted Metal Sheet
Plate Heat Exchanger	: Stainless Steel, Copper Brazed
Pipework	: Stainless Steel Pipe With Brass Fittings
Insulation	: EPP, ERF
All External Connections	: G3/4" Coupling

KODFLAT721 is useful when designing or redesigning the heating and domestic hot water systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

PRIMARY CIRCUIT	
Nominal Heat Capacity (*)	: Domestic Hot Water: 7,3-72,9 kW Underfloor Heating: 15 kW Radiator Heating: 26 kW
Min.-Max. Hot Water Flow Rate	: 96-1086 l/h
Min.-Max. Flow Temperature	: 50- 90 °C
Nominal Pressure	: PN 10 (****)
Min. Required Differential Pressure	: 35 kPa (****)
SECONDARY CIRCUIT	
Maximum Flow Rate	: 1800 l/h
DHW Circuit Temperature	: 10/60 °C
Space Heating Circuit Temperature	: 50/70 °C
Nominal Pressure	: PN 10

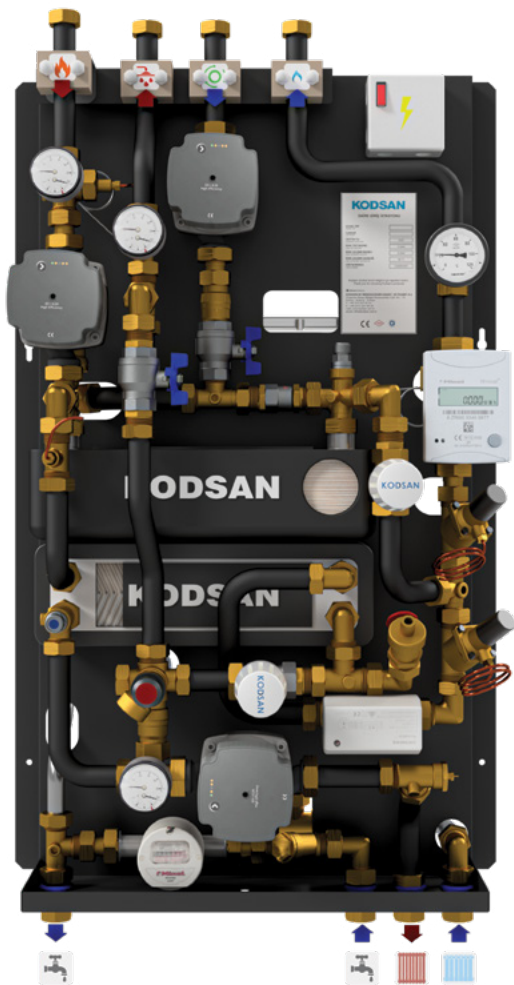
(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) The hydraulic diagram shows all components of the material list. It may vary according to product type and application (underfloor or radiator heating).  
(\*\*\*) Dimensions will be alter depend on used components and connection preferences.  
(\*\*\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*\*\*) PN 16 available on enquiry.



# KFS 722

INDIRECT DOMESTIC HOT WATER & INDIRECT SPACE HEATING HEAT INTERFACE UNIT

KODSAN



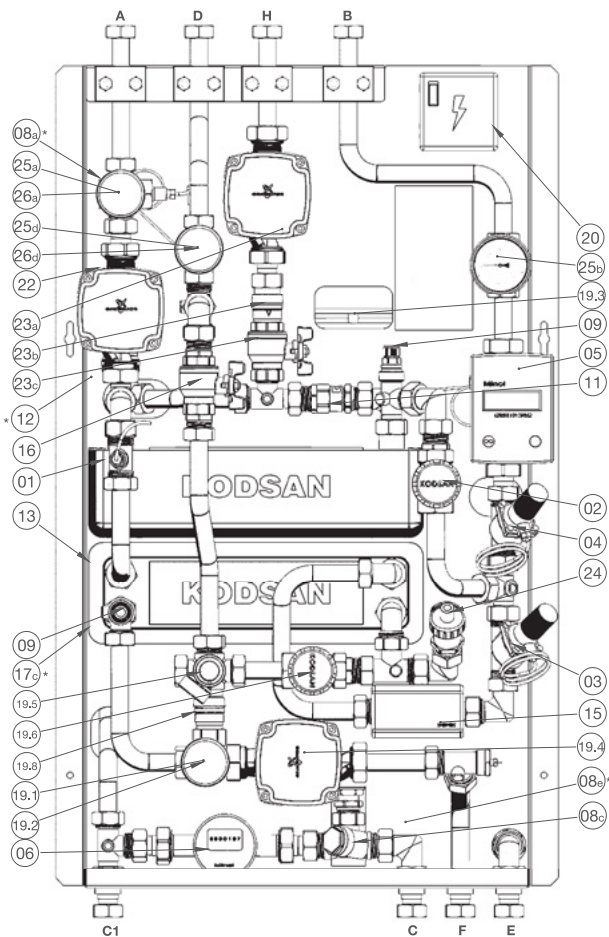
KODFLAT722 series Heat Interface Units are the most compact solution, operating with district heating system that require high static pressures and thermal medium temperatures.

The domestic hot water and space heating circuits are completely separate from the district heating circuit; no mixing and contamination are allowed.

Heating System	: Two Pipe Flow
Mounting	: Wall Mounted
Dimensions	: G x D x Y (mm) (***)
Casing	: Painted Metal Sheet
Plate Heat Exchanger	: Stainless Steel, Copper Brazed
Pipework	: Stainless Steel Pipe With Brass Fittings
Insulation	: EPP, ERF
All External Connections	: G3/4" Coupling

KODFLAT722 is useful when designing or redesigning the heating and domestic hot water systems of apartment buildings under renovation, as well as facilitating any maintenance required in the individual dwellings.

<b>PRIMARY CIRCUIT</b>	
Nominal Heat Capacity (*)	: Domestic Hot Water: 7,3-72,9 kW Underfloor Heating: 15 kW Radiator Heating: 26 kW
Min.-Max. Hot Water Flow Rate	: 96-1086 l/h
Min.-Max. Flow Temperature	: 50- 90 °C
Nominal Pressure	: PN 10 (****)
Min. Required Differential Pressure	: 35 kPa (****)
<b>SECONDARY CIRCUIT</b>	
Maximum Flow Rate	: 1800 l/h
DHW Circuit Temperature	: 10/60 °C
Space Heating Circuit Temperature	: 50/70 °C
Nominal Pressure	: PN 10



01. Plate Heat Exchanger (DHW)

02. Two-way Modulating Valve

03. Differential Pressure Regulating Valve

04. Differential Pressure Regulating Valve

05. Heat Meter

06. Cold Water Flow Meter

07. Thermocouple Outlet Ball Valve

08. Strainer

09. Air Vent

11. Flow Limiter

12. Water Hammer Arrestor

13. Plate Heat Exchanger (Space Heating)

15. Zone Control Valve

16. Ball Valve

17. Non-return Valve

19-1. Pressure Gauge

19-2. Temperature Gauge

19-3. Expansion Vessel

19-4. Circulating Pump
- 19-5. Safety Relief Valve

19-6. Two-way Modulating Valve

19-8. Non-return Valve

20. Cable Terminal Box

21. Flow Sensor

22. Circulating Pump

23. Re-circulating Pump Kit

24. Drain Cock

25. Temperature Gauge

26. Pressure Gauge
- A. District Heating Flow

B. District Heating Return

C. Cold Water Mains

C1. Domestic Cold Water

D. Domestic Hot Water (DHW)

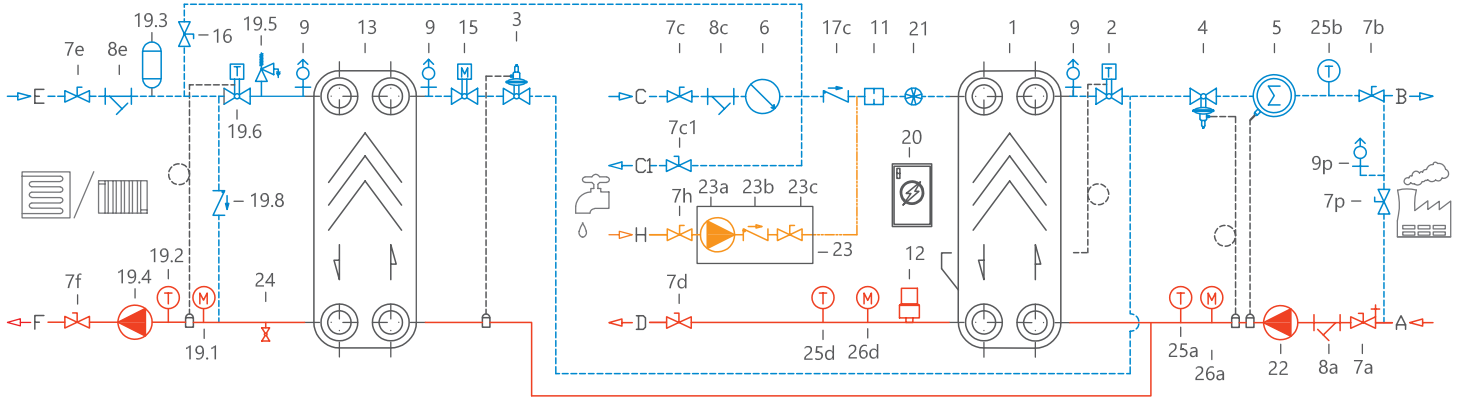
E. Space Heating Return

F. Space Heating Flow

H. Re-circulating Flow

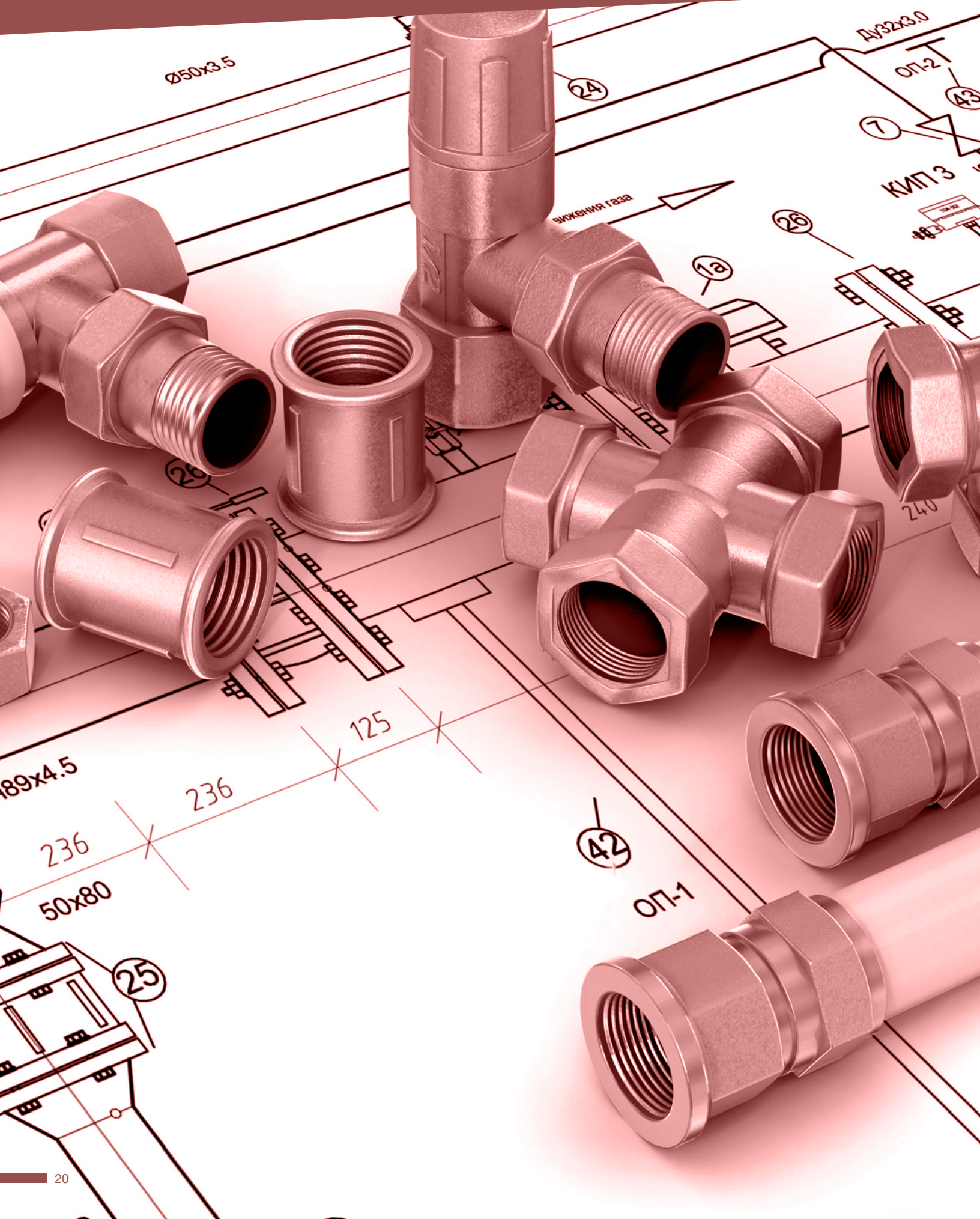
(\*): nonvisible components

HYDRAULIC DIAGRAM (\*\*)



(\*) kW output and DHW flow rate data are correlated with the system parameters.  
(\*\*) The hydraulic diagram shows all components of the material list. It may vary according to product type and application (underfloor or radiator heating).  
(\*\*\*) Dimensions will be alter depend on used components and connection preferences.  
(\*\*\*\*) Heat meter and inter-floor differential pressure regulating valve pressure losses not included.  
(\*\*\*\*\*) PN 16 available on enquiry.





## IMPORTANT NOTES

- We highly recommend to follow instructions specified at the user and installation guide attached to your product in order to secure of using it in safe and efficient.
- Safety Valve, expansion tank and, if required, pressure reducer valve should be used with our products (water heaters and storage tanks).
- KODSAN reserves the right to change the product specifications, technical information and installation diagrams without any notifications.  
All information written on this page can not be copied or used without permission of KODSAN. Kodsan can not be held responsible if any of the technical information and schemes are considered exemplary by third parties.
- You may contact Kodsan for more details about your product.

## SYMBOLS

 Two-Way Motorized Valve	 Bypass Valve	 Pump	 Pressure Relief Valve	 Air Separator	 Boiler System
 Three-Way Modulating Motorized Valve	 Drain Valve	 Twin-Head Pump	 Differential Pressure Regulating Valve	 Dirt Separator	 Condensing Boiler System
 Two Way Thermostatic Valve	 Shut Off Valve	 Heat Meter	 Flow Limiter	 Membrane Expansion Tank	 Cascade System
 Three Way Thermostatic Valve	 Strainer	 Cold Water Flow Meter	 Flow Sensor	 Radiator or Underfloor Heating System	 Combi System
 Filling Valve	 Check Valve	 Pressure Gauge	 Water Hammer Arrestor	 Underfloor Heating System	 Solar Panel
 Ball Valve	 Pressure Release Valve	 Thermometer	 Cable Terminal Box	 Radiator Heating System	 Heat Pump System
 Thermostatic Outlet Ball Valve	 Safety Thermostat	 Air Relief Cock	 Heat Exchanger	 District Heating System	 Usage Area



**KODSAN**

[www.kodsan.com.tr](http://www.kodsan.com.tr)