EKİN ENDÜSTRİYEL

ENERGY SYSTEMS GENERAL CATALOGUE

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EKİN ENDÜSTRİYEL
Isıtma-Soğutma San. Tic. Ltd. Şti.

The first condition of innovation is to question.
And the first condition of sustainable innovation is to question constantly.

The journey of innovation has started with a question for us too: “How can we develop value-added technologies in Turkey?”. First turning point in this long journey was the birth of MIT (Made in Turkey) brand. MIT made us the first plate heat exchanger producer of Turkey and it’s founding vision was not to become a local alternative, it was to build a high-quality brand that can compete on a global level.

While we are working towards this goal in the past 15 years, our products and processes deemed worthy for documentation by many national and international quality assessment institutions such as ISO, TSE, CE, GOST and many more. This was the natural outcome of our constant questioning of the status-quo and our desire to outperform ourselves.

New Generation Engineering

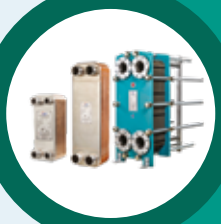
With our engineering approach that focuses on the process, not the problem, we do not just specialize in a product, we consider the entire ecosystem of that product. Ergo, we produce all the other components of a system in addition to plate heat exchangers and we focus on the constant development of engineering staff required to provide an end-to-end application.

We provide a “solution” rather than a product with our business development, presales, sales and after sales services provided by our expert engineers.

In our 15th year, we continue to grow as a solution partner for projects that need high technology in more than 60 countries with our internationally approved high-quality plate heat exchangers; components such as accumulation tanks, boilers, industrial pumps and installation materials that completes these exchangers to form a system; and complementary services provided by our expert engineer staff.

ISO CE GOST CERTIFICATE 799 33 13 TSE-HYB TURQUM® TURKISH QUALITY OF MACHINERY

APPLICATION FIELDS



HEAT TRANSFER PRODUCTS

• Gasketed Plate Heat Exchangers • Brazed Heat Exchangers • Shell & Tube Heat Exchangers • Air Fan Oil Cooler • Economizers • Coils and Radiators

PRESSURE VESSELS

• Water Heater Tanks • Water Storage Tanks • Buffer Tanks • Expansion Tanks • Stainless Steel Process Tanks • Balance Tanks / Dirt Separators / Air Separators • Vapour Separator • Pressured Air Tanks • Neutralization Tanks • Air Tubes • Steel IBC Tanks with ADR

COMPLETE SYSTEMS UNITS

• Heat Stations • Steam Package Systems
• Special Designed Systems • Dosing Systems
• Substations • Thermoregulators

FOOD GRADE SYSTEMS

• Pasteurizers with Plate Heat Exchangers • Hygienic Pasteurizers with Shell & Tube Heat Exchangers
• Cheese and Whey Systems • UHT - Sterilization Systems
• CIP Systems • Hygienic Storage and Process Tanks
• Homogenizers • Standardization Systems • Evaporators
• Turn-key Projects

FLUID TRANSFER PRODUCTS

• Lobe Pumps • Hygienic Centrifuge Pumps • Turbo / Roots / Centrifuge Blowers • Drum Pumps • Acid Pumps • Dosing Pumps • Monopumps • Air Operated Double Diaphragm Pumps (AODD)

FLOW CONTROL UNITS

• Butterfly Valves • Ball Valves • Globe Valves • Knife Gate Valves • Actuators • Check Valves • Strainers
• Thermoplastic Valves • Plastomatic Valves

ENERGY SYSTEMS

• Boiler Systems
• Solar Collectors
• Water Heater Tanks For Solar

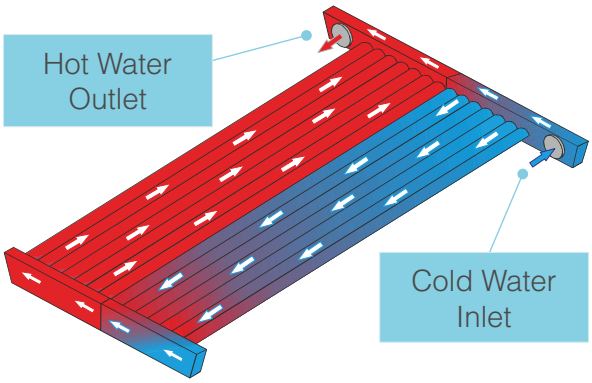
Contents

EKİN ENDÜSTRİYEL

BOILER SYSTEMS

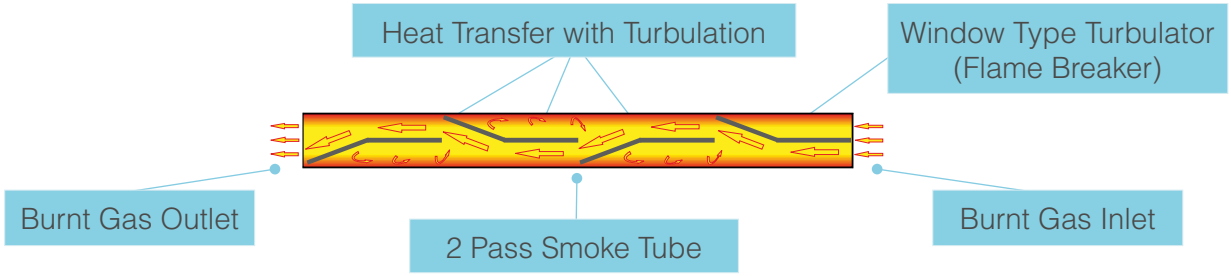
WATER COOLED GRATING

In manual-loaded central system hot water boilers produced with MIT brand, Ekin Endüstriyel patented “Water Cooled Grating System” is used. In standard boilers in which cast gratings are used, cracking or melting problems may also occur due to excessive heat. These problems constitute change and refurbishment costs for the end user. Thanks to our Water Cooled Grating design, this extra cost is avoided and also boiler efficiency increases due to extra heat transfer surface, fuel cost is lowered.



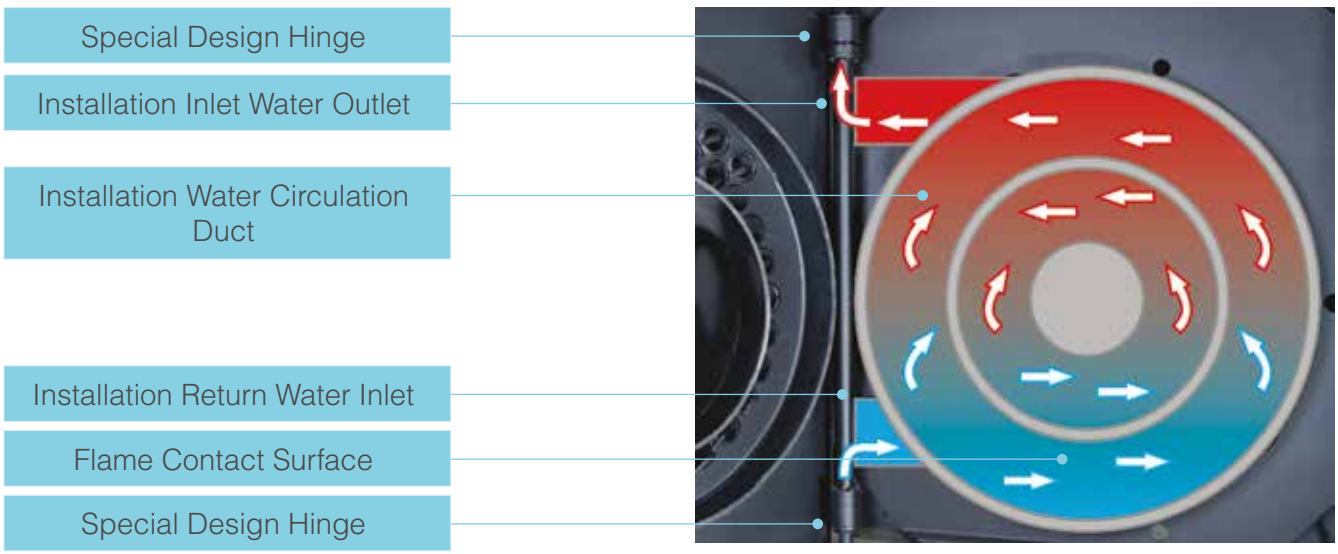
WINDOW TYPE FLAME BREAKER (TURBULATOR)

Thanks to window-type turbulators (flame breaker) found in second pass pipes, combustion efficiency increases and fuel consumption decreases.



WATER COOLED COVER

In all solid, liquid and gas-fueled central system hot water boilers produced under the brand name MIT, water cooled cover system is used. Thanks to Ekin Endüstriyel patented “Water Cooled Cover System, this device allows longer life than covers with refractory material, and fault and service costs are eliminated before occurring. Besides, since heat losses occurring on front cover are transferred to installation water as energy within the system, fuel consumption costs are reduced.



STANDARD CONTROL PANEL

Digital control panel provided on all solid fueled boilers as a standard to our customers;

- Adjusting installation water to desired temperature.
- Heat tracking with digital display.
- Adjusting installation water temperature according to exterior ambient temperature.
- Protection against excessive heatings thanks to safety thermostat.
- Preventing unnecessary electricity consumption by controlling circulation pump as per installation water temperature are all provided.

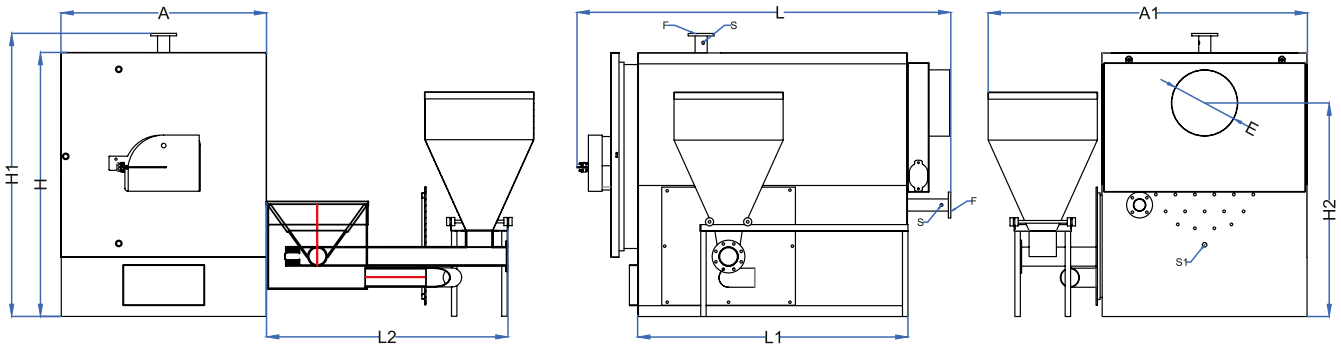
TKOS SERIES

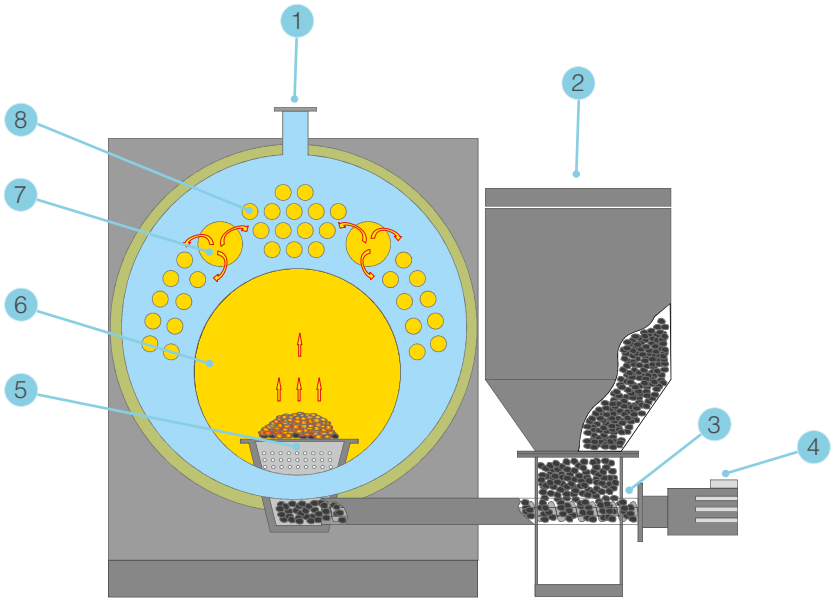
Solid Fueled Three-Pass Automatic Loaded (Stoker) Hot Water Boiler

TKOS Series; Three pass, solid fueled, automatic loading (stoker) steel hot water boilers, are specially designed for central heating systems with their long service life with low operating costs. While fuel loading is performed via automatic fuel loading system in TKOS model boilers, burning continues above via spiral. Thanks to special design of spiral loading system, passage of smoke from spiral pipe to bunker is prevented, and an efficient burning is provided.

Features

- High combustion efficiency up to 85%.
- Window type flame crushers in smoke pipes (turbulators).
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Water cooled cover system.
- Standard operating pressure 4 bars.
- Production amount up to 8 bar.
- Full cylindrical boiler review.
- State-of-the-art manufacturing techniques.
- Pipe bundle between passes excluding three pass burning room.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Mobile and removable bunker towards protection against coal jamming.
- Extensive service network.
- Compliance with national and International norms.





1	Installation Putlet Flange
2	Bunker
3	Helical Shaft
4	Reducer
5	Pot
6	Burning Room (1st Pass)
7	Smoke Pipe (2nd Pass)
8	Smoke Pipe (3rd Pass)

TKOS TECHNICAL SPECIFICATIONS								
Model			TKOS 175	TKOS 200	TKOS 250	TKOS 300	TKOS 350	TKOS 400
Capacity		kcal/h	175.000	200.000	250.000	300.000	350.000	400.000
		kW	203	232	290	348	406	464
Width	A	mm	1150	1150	1347	1347	1347	1500
Width	A1	mm	1780	1780	2180	2180	2180	2340
Height	H	mm	1410	1410	1600	1600	1600	1935
Height	H1	mm	1574	1574	1760	1760	1760	2075
Length	L	mm	1901	2101	2178	2178	2424	2481
Foot Length	L1	mm	1187	1387	1489	1489	1739	1732
Bunker Exit Distance	L2	mm	1340	1340	1612	1612	1612	1770
Chimney Diameter	E	mm	250	250	300	300	300	500
Chimney Height	H2	mm	1130	1130	1340	1340	1340	1565
Hot Water Trip (PN 16)	F	DN	65	65	65	65	80	80
Water Volume		lt	450	605	786	720	852	1074
Anhydrous Weight		kg	1495	1600	2300	2475	2645	3165
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1”	1”	1”
Bunker Capacity		lt	275	275	400	400	400	400
Fan Model			ERF 3	ERF 3	ERF 3	ERF 3	ERF 4	ERF 4
Fan Flow		m^3	1600	1600	1600	1600	1900	1900
Gearhead Power		kW	0.75	1.1	1.1	1.1	1.1	1.1
Fan and Reducer Operating Voltage		V	380	380	380	380	380	380
Operational Pressure		bar	4	4	4	4	4	4

TKOS TECHNICAL SPECIFICATIONS							
Model			TKOS 450	TKOS 500	TKOS 600	TKOS 700	TKOS 800
Capacity		kcal/h	450.000	500.000	600.000	700.000	800.000
		kW	522	580	696	812	928
Width	A	mm	1500	1500	1780	1780	1780
Width	A1	mm	2340	2340	2600	2600	2600
Height	H	mm	1935	1935	2207	2207	2207
Height	H1	mm	2075	2075	2385	2385	2385
Length	L	mm	2481	2731	2716	2888	3060
Foot Length	L1	mm	1732	1982	1984	1984	2314
Bunker Exit Distance	L2	mm	1770	1770	1955	1955	1955
Chimney Diameter	E	mm	500	500	580	580	580
Chimney Height	H2	mm	1565	1565	1740	1740	1740
Hot Water Trip (PN 16)	F	DN	100	100	125	125	125
Water Volume		lt	1030	1172	1404	1638	1872
Anhydrous Weight		kg	3220	3565	4370	4830	5375
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”
Bunker Capacity		lt	400	400	1100	1100	1100
Fan Model			ERF 4	ERF 4	ERF 4	ERF 4	ERF 4
Fan Flow		m^3	1900	1900	2500	2500	3500
Gearhead Power		kW	2.2	2.2	2.2	2.2	2.2
Fan and Reducer Operating Voltage		V	380	380	380	380	380
Operational Pressure		bar	4	4	4	4	4

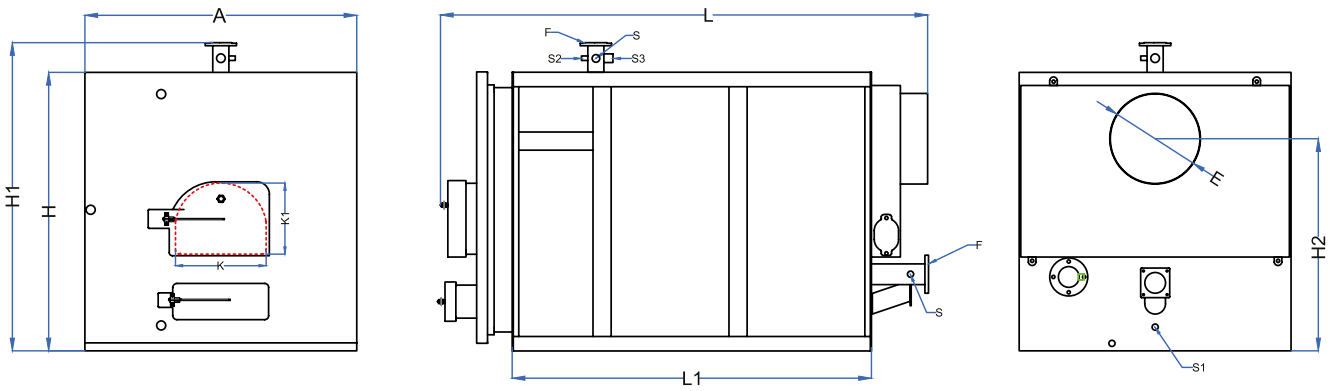
TKM SERIES

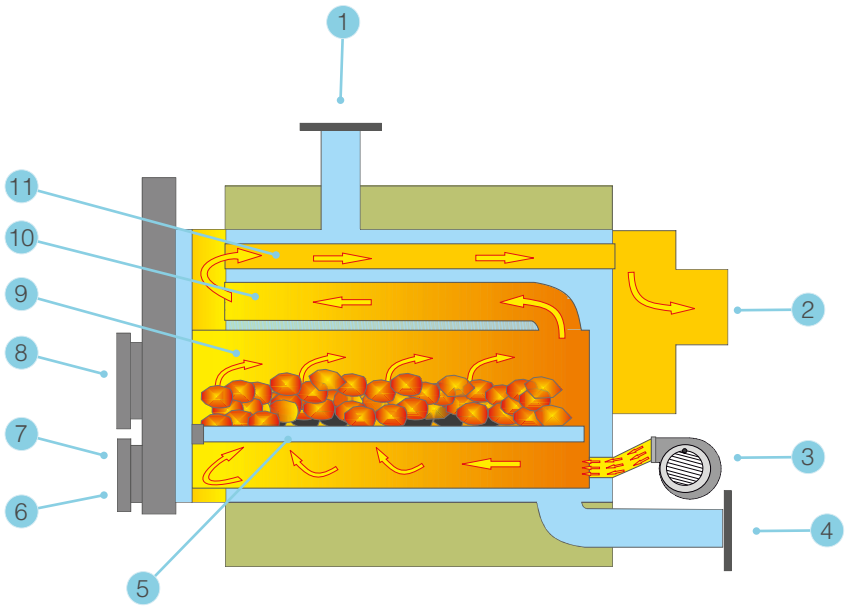
Solid Fuel Fired Three-Pass Manual Loaded Hot Water Boiler

TKM Series; Fueled manual loaded hot water boilers are manufactured with three-pass. It allows maximum heat transfer and fuel saving by distributing the heat equally obtained through its three-pass design. Combustion air is provided with thermostatically controlled fan. Air obtained from fan located at the rear of boiler is transferred to combustion chamber uniformly. Flame within the burning chamber is transferred to the front side with secondary flow pipes. These hot gases coming to preliminary smoke box are transferred to back smoke box and transferred to chimney from here.

Features

- High combustion efficiency up to 85%.
- Window type flame crushers in smoke pipes (turbulator).
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Water cooled cover system.
- Water cooled grating system.
- Standard operating pressure 4 bars.
- Production amount up to 8 bar.
- Full cylindrical boiler body.
- State-of-the-art manufacturing techniques.
- Pipe bundle between passes excluding three pass burning room.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Common service network.
- Compliance with national and International norms.





1	Installation Putlet Flange
2	Chimney Outlet
3	Fan
4	Installation Return Flange
5	Water Cooled Grate
6	Water Cooled Cover
7	Ash Cover
8	Feeding Cover
9	Burning Room (1st Pass)
10	Smoke Pipe (2nd Pass)
11	Smoke Pipe (3rd Pass)

TKM TECHNICAL SPECIFICATIONS										
Model			TKM 80	TKM 100	TKM 125	TKM 150	TKM 175	TKM 200	TKM 250	TKM 300
Capacity		kcal/h	80.000	100.000	125.000	150.000	175.000	200.000	250.000	300.000
		kW	93	116	145	174	203	232	290	348
Width	A	mm	1040	1040	1040	1150	1150	1150	1347	1347
Height	H	mm	1090	1090	1090	1090	1190	1190	1398	1398
Height	H1	mm	1267	1267	1267	1367	1367	1367	1574	1574
Length	L	mm	1467	1667	1667	1873	1873	2073	2178	2178
Foot Length	L1	mm	787	987	987	1187	1187	1387	1484	1484
Chimney Diameter	E	mm	250	250	250	250	250	250	300	300
Chimney Height	H2	mm	844	844	844	951	951	951	1146	1146
Hot Water Trip (PN16)	F	DN	65	65	65	65	65	65	65	65
Water Volume		lt	268	331	310	510	489	638	786	720
Anhydrous Weight		kg	795	875	920	1125	1180	1350	1660	1805
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Fuel Loading Cap	KxK1	mm	504x296	504x296	504x296	504x296	504x296	504x296	504x392	504x392
Fan Model			ERF2 RS	ERF2 RS	ERF2 RS	ERF2 RS	ERF2 RS	ERF2 RS	ERF2 RS	ERF2 RS
Fan Flow		m^3	1600	1600	1600	1600	1600	1600	1600	1600
Fan Operating Voltage (Three-Phase)		V	380	380	380	380	380	380	380	380
Operating Pressure		bar	4	4	4	4	4	4	4	4

TKM TECHNICAL SPECIFICATIONS									
Model			TKM 350	TKM 400	TKM 450	TKM 500	TKM 600	TKM 700	TKM 800
Capacity		kcal/h	350.000	400.000	450.000	500.000	600.000	700.000	800.000
		kW	406	464	522	580	696	812	928
Width	A	mm	1347	1500	1500	1500	1780	1780	1780
Height	H	mm	1398	1536	1536	1536	1810	1810	1810
Height	H1	mm	1574	1714	1714	1714	1991	1991	1991
Length	L	mm	2453	2438	2438	2688	2730	2730	2730
Foot Length	L1	mm	1739	1732	1732	1982	1984	1984	2314
Chimney Diameter	E	mm	300	500	500	500	580	580	580
Chimney Height	H2	mm	1146	1170	1170	1170	1342	1342	1342
Hot Water Trip (PN16)	F	DN	65	80	100	100	125	125	125
Water Volume		lt	852	1074	1030	1172	1790	1656	1923
Anhydrous Weight		kg	2030	2360	2470	2755	3335	3650	3855
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”	1”	1”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Fuel Loading Cap	KxK1	mm	504x392	504x392	504x392	504x392	504x392	504x392	504x392
Fan Model			ERF3	ERF3	ERF3	ERF3	ERF3	ERF3	ERF3
Fan Flow		m^3	1900	1900	1900	1900	2500	2500	3500
Fan Operating Voltage (Three-Phase)		V	380	380	380	380	380	380	380
Operating Pressure		bar	4	4	4	4	4	4	4

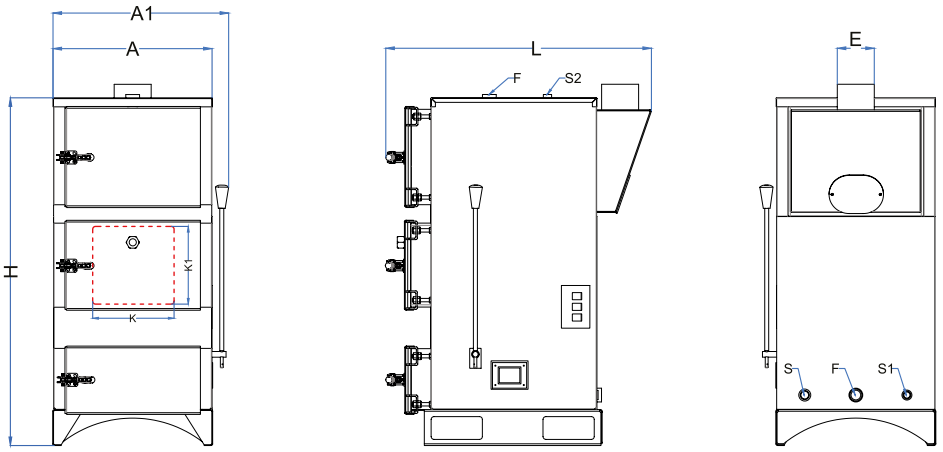
TKS SERIES

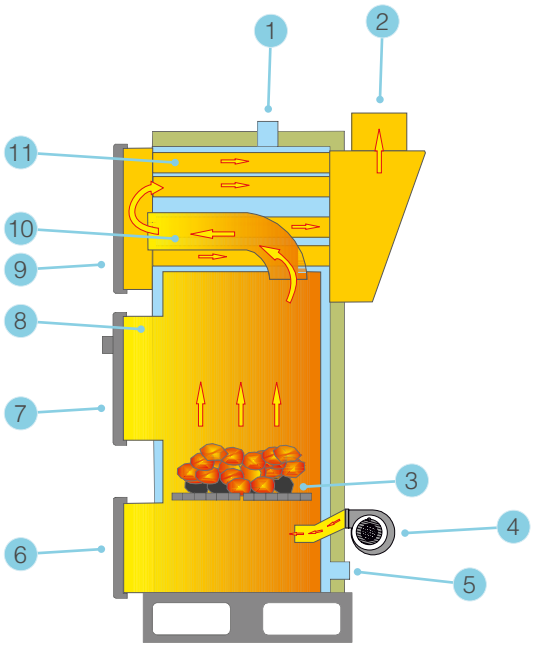
Solid Fuel Fired Three-Pass Manual Loaded Room Heater

TKS Series; Solid fueled manual room heaters are manufactured as semi-cylindrical and threepass systems. 5 different types of production are made within the range of kcal/h (93 kW) 100,000 kcal/h (kW). Maximum heat transfer and fuel saving are ensured by distributing the heat equally obtained through its threepass design. Since the whole fuel is contacted with fan controlled combustion system, the rate of unburned coal is low. In this way, ideal combustion is ensured.

Features

- High combustion efficiency up to 82%.
- Wide combustion chamber suitable for coal, lignite coal and wood burning.
- Fuel loading, ash disposal and cleaning easiness with three different cover design.
- Adjustable caps with custom-designed cover handle and hinge structure.
- Combustion safety and fume resistance with locking lid and combustion safety.
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Standard operating pressure 2 bars.
- Semicircular boiler body.
- Ease of shaking and ash discharge with mobile casting grating.
- Pipe bundle between passes excluding three pass burning room.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Frequency-controlled, energy-efficient circulation pumps.
- Common service network.
- State-of-the-art manufacturing techniques.
- Compliance with national and International norms.





1	Installation Outlet Sleeve
2	Chimney Outlet
3	Moving Cast Grate
4	Fan
5	Installation Return Sleeve
6	Ash Cover
7	Feeding Cover
8	Burning Room (1st Pass)
9	Cleaning Cover
10	Smoke Pipe (2nd Pass)
11	Smoke Pipe (3rd Pass)

TKS TECHNICAL SPECIFICATIONS							
Model			TKS 25	TKS 40	TKS 60	TKS 80	TKS 100
Capacity		kcal/h	25.000	40.000	60.000	80.000	100.000
		kW	29	47	70	93	116
Weight	A	mm	560	560	660	678	678
Weight	A1	mm	603	603	723	712	712
Height	H	mm	1222	1222	1448	1578	1578
Length	L	mm	808	866	904	907	1057
Chimney Diameter	E	mm	130	130	170	170	170
Hot Water Trip	F	inch	1”	1 1/4”	1 1/2”	2”	2”
Water Volume		lt	47	85	133	185	234
Anhydrous Weight		kg	255	295	415	520	605
Safety Trip	S	inch	3/4”	3/4”	3/4”	3/4”	3/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1/2”	1/2”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”	1/2”	1/2”
Fuel Loading Cap	KxK1	mm	286x273	286x273	365x280	410x345	410x345
Fan Model			125/60	125/60	140/60	140/60	140/60
Fan Flow		m^3	275	275	485	485	600
Fan Engine Power		watt	84	84	137	137	137
Operating Voltage (Mono-Phase)		V	220	220	220	220	220
Circulation Pump Model		Wilo	25/6	25/7	25/7		
Pump Operating Voltage (Mono-Phase)		V	220	220	220		
Pump Power		watt	45	45	45		
Pump Connection Diameter		inch	1”	1”	1”		
Operating Pressure		bar	2	2	2	2	2

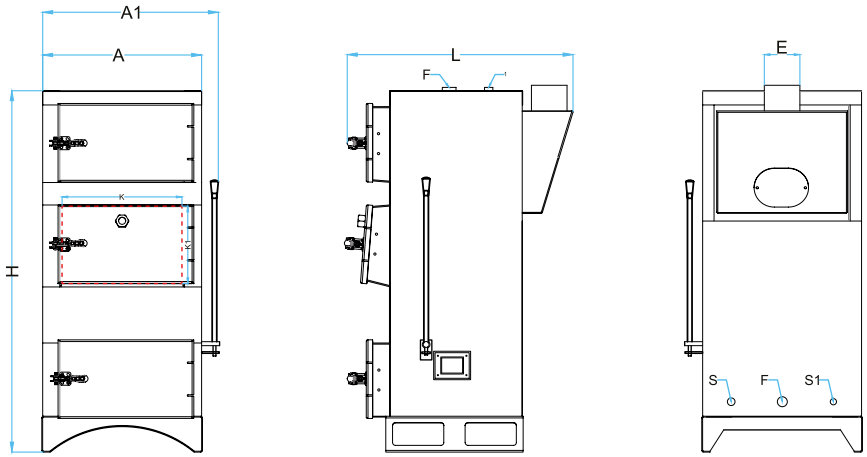
FKSB SERIES

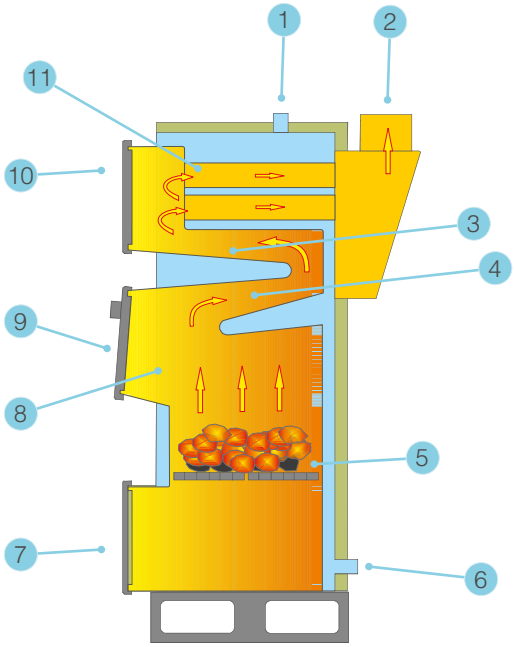
Solid Fuel Fired Four-Pass Manual Loaded Room Heater

FKSB Series; Solid fueled manual loaded room heaters are manufactured as four-pass systems. 3 different types of production are made within the range of 25.000 kcal/h (29 kW) to 60,000 kcal/h (70 kW). Since the whole fuel is contacted with fan controlled combustion system, the rate of unburned coal is low. Complete burning is performed with secondary air ducts located within combustion chamber. Thanks to its four-pass design, it is designed in a way to burn fuels such as low-calorie domestic coal and wood in a highly efficient and environmentalist way. It allows maximum heat transfer and fuel saving by distributing obtained heat equally.

Features

- High combustion efficiency up to 80%.
- Wide combustion chamber suitable for coal, lignite coal and wood burning.
- Fuel loading, ash disposal and cleaning easiness with three different cover design.
- Ease of loading and combustion thanks to wide fuel feeding neck.
- Adjustable caps with custom-designed cover handle and hinge structure.
- Combustion safety and fume resistance with locking lid and combustion safety.
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Standard operating pressure 2 bars.
- Ease of cleaning thanks to plated design (baffle) between passes.
- Ease of shaking and ash discharge with mobile casting grating.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Frequency-controlled, energy-efficient circulation pumps.
- Common service network.
- State-of-the-art manufacturing techniques.
- Compliance with national and International norms.





1	Intallation Outlet Sleeve
2	Chimney Outlet
3	Baffle (3rd Pass)
4	Baffle (2nd Pass)
5	Moving Molding Grate
6	Installation Return Sleeve
7	Ash Cover
8	Burning Room (1st Pass)
9	Feeding Cover
10	Cleaning Cover
11	Smoke Pipe (4th Pass)

FKSB TECHNICAL SPECIFICATIONS					
Model			FKSB 25	FKSB 40	FKSB 60
Capacity		kcal/h	25.000	40.000	60.000
		kW	29	47	70
Weight	A	mm	558	558	629
Weight	A1	mm	625	625	688
Height	H	mm	1270	1270	1504
Length	L	mm	804	928	980
Chimney Diameter	E	mm	130	170	170
Hot Water Trip	F	inch	1”	1 1/4”	1 1/2”
Safety Trip	S	inch	3/4”	3/4”	3/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”
Fuel Loading Cap	KxK1	mm	422x275	422x275	492x305
Water Volume		lt	47	85	133
Anhydrous Weight		kg	240	300	390
Fan Model			125/50	125/60	140/60
Fan Flow		m^3	250	380	590
Fan Engine Power		watt	84	84	137
Operating Voltage (Mono-Phase)		V	220	220	220
Circulation Pump Model		Wilo	25/6	25/7	25/7
Pump Operating Voltage (Mono-Phase)		V	220	220	220
Pump Power		watt	45	45	45
Pump Connection Diameter		inch	1”	1”	1”
Operating Pressure		bar	2	2	2

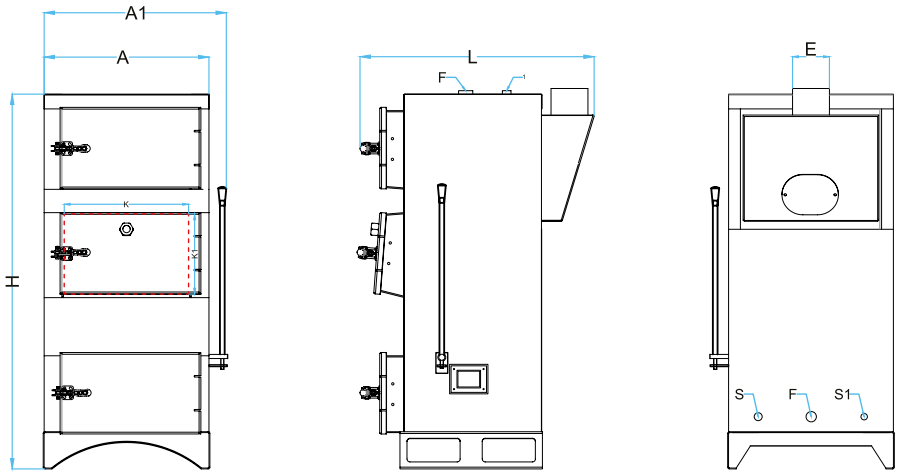
FKB SERIES

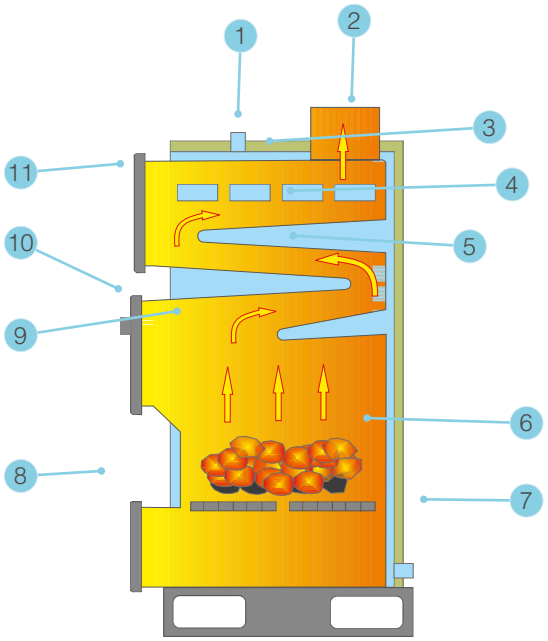
Solid Fuel Fired Four-Pass Full Baffle Manual Loaded Room Heater

FKB Series; Solid fueled manual loaded room centrally heated are manufactured as four-pass and full baffle systems. 3 different types of production are made within the range of 60,000 kcal/h (35 kW) to 30,000 kcal/h (70 kW). Since the whole fuel is contacted with fan controlled combustion system, the rate of unburned coal is low. Complete burning is performed with secondary air ducts located within combustion chamber. Thanks to its four-pass baffle (plated) design, it is designed in a way to burn fuels such as , low-calorie domestic coal and wood in a highly efficient and environmentalist way. It allows maximum heat transfer and fuel saving by distributing obtained heat equally.

Features

- High combustion efficiency up to 80%.
- Wide combustion chamber suitable for coal, lignite coal and wood burning.
- Fuel loading, ash disposal and cleaning easiness with three different cover design.
- Ease the reservoir of loading and tobacco thanks to wide fuel feeding neck and chamber.
- Adjustable caps with custom-designed cover handle and hinge structure.
- Combustion safety and fume resistance with locking lid and combustion safety.
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Standard operating pressure 2 bars.
- Ease of cleaning thanks to plated design (baffle) between passes.
- Ease of shaking and ash discharge with mobile casting grating.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Frequency-controlled, energy-efficient circulation pumps.
- Common service network.
- State-of-the-art manufacturing techniques.
- Compliance with national and International norms.





1	Installation Outlet Sleeve
2	Chimney Outlet
3	Baffle (4th Pass)
4	Baffle (3rd Pass)
5	Baffle (2nd Pass)
6	Moving Molding Grade
7	Installation Return Sleeve
8	Ash Cover
9	Burning Room (1st Pass)
10	Feeding Cover
11	Cleaning Cover

FKB TECHNICAL SPECIFICATIONS					
Model			FKB 30	FKB 40	FKB 60
Capacity		kcal/h	30.000	40.000	60.000
		kW	35	52	70
Weight	A	mm	563	563	634
Weight	A1	mm	625	625	696
Height	H	mm	1263	1313	1584
Length	L	mm	635	760	760
Chimney Diameter	E	mm	130	170	170
Hot Water Trip	F	inch	1”	1 1/4”	1 1/2”
Safety Trip	S	inch	3/4”	3/4”	3/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”
Fuel Loading Cap	KxK1	mm	422x253	422x253	492x285
Water Volume		lt	48	88	140
Anhydrous Weight		kg	265	325	450
Fan Model			125/50	125/60	140/60
Fan Flow		m^3	250	380	590
Fan Engine Power		watt	84	84	137
Operating Voltage (Mono-Phase)		V	220	220	220
Circulation Pump Model		Wilo	25/6	25/7	25/7
Pump Operating Voltage (Mono-Phase)		V	220	220	220
Pump Power		watt	45	45	45
Pump Connection Diameter		inch	1”	1”	1”
Operating Pressure		bar	2	2	2

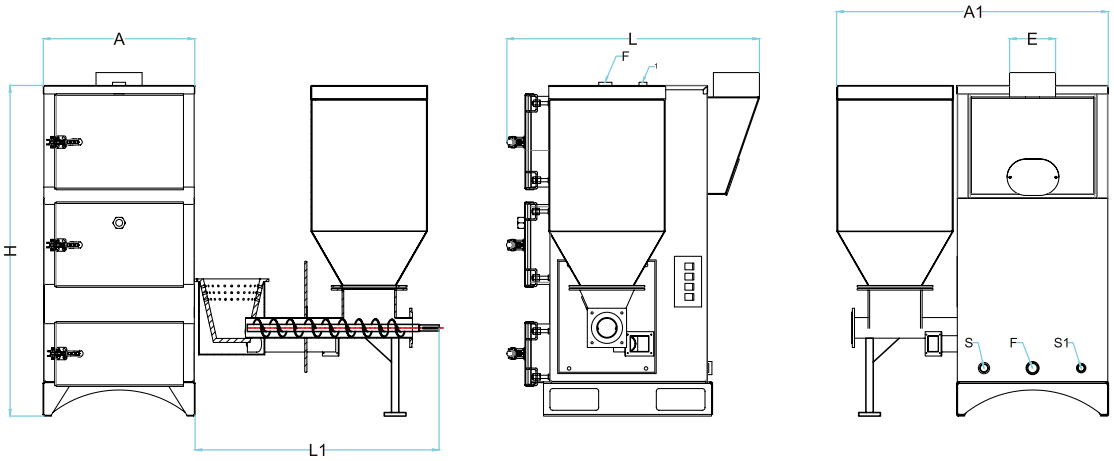
OKS SERIES

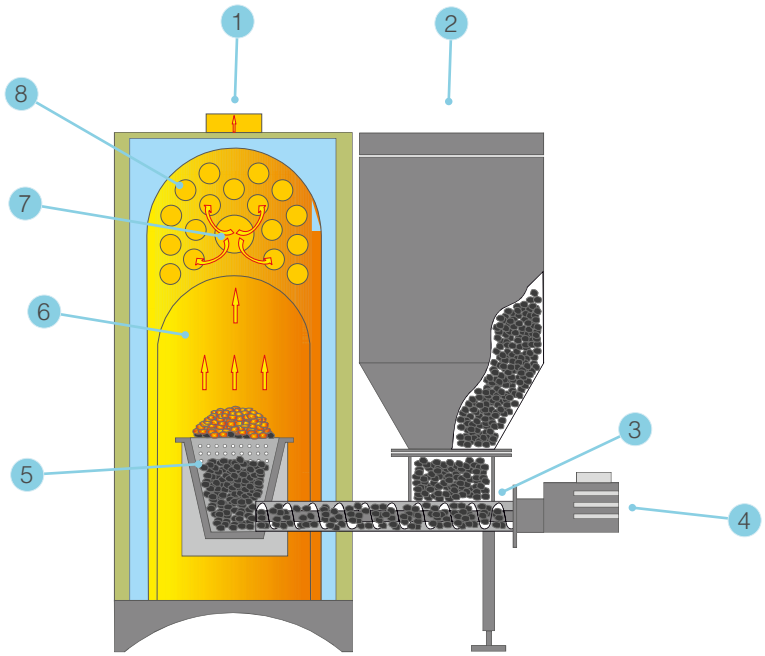
Solid Fuel Fired Three-Pass Automated Loaded (Stoker) Room Heater

OKS Series; Solid fueled automated loaded room heaters are manufactured as semicylindrical and three-pass systems. 7 different types of production are made within the range of 25.000 kcal/h (29 kW) to 15,000 kcal/h (174 kW). Since the whole fuel is contacted with fan-controlled combustion system, the rate of unburned coal is low. Thanks to its three-pass design, it is designed in a way to burn fuels such as low-calorie domestic coal and wood in a highly efficient and environmentalist way. It allows maximum heat transfer and fuel saving by distributing by hand heat equally. While fuel loading is performed below via spiral thanks to automated fuel loading system, burning continues above, passage of smoke from spiral pipe to bunker is prevented due to special design of spiral loading system and an efficient combustion is ensured. At the same time, fuel consumption is reduced since thee are no errors or overloading resulting from incomplete burning errors.

Features

- High combustion efficiency up to 82%.
- Compatible to burning of nut coal at 10-25 mm sizes.
- Fuel loading, ash disposal and cleaning easiness with three different cover design.
- Adjustable caps with custom-designed cover handle and hinge structure.
- Combustion safety and fume resistance with locking lid and combustion safety.
- Specially designed chrome alloy casting ladle.
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Standard operating pressure 2 bars.
- Semicircular boiler body.
- Ease of maintenance with detachable bunker.
- Key allowing forward-backward movement above reduction gear for coal jammings.
- Window type flame crushers in smoke pipes (turbulator).
- Frequency-controlled, energy-efficient circulation pumps.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Common service network.
- State-of-the-art manufacturing techniques.
- Compliance with National and International norms.





1	Chimney Outlet
2	Bunker
3	Helical Shaft
4	Reductor
5	Pot
6	Burning Room (1st Pass)
7	Smoke Pipe (2nd Pass)
8	Smoke Pipe (3rd Pass)

OKS TECHNICAL SPECIFICATIONS									
Model			OKS 25	OKS 40	OKS 60	OKS 80	OKS 100	OKS 125	OKS 150
Capacity		kcal/h	25.000	40.000	60.000	80.000	100.000	125.000	150.000
		kW	29	47	70	93	116	145	174
Weight	A	mm	560	560	660	706	706	767	767
Weight	A1	mm	1004	1004	1272	1366	1366	1450	1450
Height	H	mm	1222	1222	1448	1765	1765	1836	1836
Length	L	mm	808	933	973	871	1055	1443	1643
Bunker Exit Distance	L1	mm	904	904	1124	1124	1256	1410	1410
Chimney Diameter	E	mm	125	170	170	170	170	250	250
Hot Water Trip	F	inch	1”	1 1/4”	1 1/2”	2”	2”	2 1/2”	2 1/2”
Safety Trip	S	inch	3/4”	3/4”	3/4”	3/4”	3/4”	3/4”	3/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Water Volume		lt	47	85	133	185	234	320	362
Anhydrous Weight		kg	350	390	540	630	745	1055	1170
Bunker Capacity		lt	120	120	260	310	310	450	450
Fan Model			125/60	160/60	160/60	ERF 2	ERF 2	ERF 3	ERF 3
Fan Flow		m^3	275	700	700	1600	1600	1900	1900
Fan Engine Power		watt	84 W	193 W	193 W	0,37 kW	0,37 kW	0,55 kW	0,55 kW
Operating Voltage (Mono-Phase)		V	220	220	220	220	220	220	220
Circulation Pump Model		Wilo	25/6	25/7	25/7				
Pump Operating Voltage (Mono-Phase)		V	220	220	220				
Pump Power		watt	45	45	45				
Pump Connection Diameter		inch	1”	1”	1”				
Gearhead Power		kW	0.37	0.37	0.37	0.75	0.75	0.75	0.75
Fan and Reducer Operating Voltage (Mono-Phase)		V	220	220	220	220	220	220	220
Operating Pressure		bar	2	2	2	2	2	2	2

FKSB SERIES

Solid Fuel Fired Four-Pass Automatic Loaded Room Heater

FKSB Series; Solid fueled fully automated loaded room heaters are manufactured as prismatic body baffled and tube bundle four-pass systems. 3 different types of production are made within the range of 30.000 kcal/h (35 kW) to 60,000 kcal/h (70 kW). Since the whole fuel is contacted with fan controlled combustion system, the rate of unburned coal is low.

Features

- High combustion efficiency up to 82%.
- Compatible to burning of nut coal at 10-25 mm sizes.
- Wide combustion chamber suitable for coal, lignite coal and wood burning.
- Automatic ignition property.
- Automatic mixing property.
- Automatic ash removal property.
- Fuel loading, ash disposal and cleaning easiness with three different cover design.
- Adjustable caps with custom-designed cover handle and hinge structure.
- Combustion safety and fume resistance with locking lid and combustion safety.
- Specially designed chrome alloy casting ladle.
- Low gas emission values with eco-friendly design.
- Protection against all kinds of outer effect with steel construction in prismatic structure.
- Coating with electrostatic power paint on galvanized sheet.
- Standard operating pressure 2 bars.
- Ease of maintenance with detachable bunker.
- Key allowing forward-backward movement above reduction gear for coal jammings.
- Use of 3.1 certificated boiler tube compatible with 10217-2 norm.
- Frequency-controlled, energy-efficient circulation pumps.
- Window type flame crushers in smoke pipes (turbulator).
- Extensive service network.
- State-of-the-art manufacturing techniques.
- Compliance with national and International norms.

Automated Fuel Loading System

While fuel loading is performed below via spiral, burning continues above, passage of smoke from spiral pipe to bunker is prevented due to special design of spiral loading system and an efficient combustion is ensured. At the same time, fuel consumption is reduced being now that thee are no errors or overloading resulting from incomplete burning errors.

Automatic and Manual Loading

While 10-25 mm nut coal is burned, at the same time, it is designed in a way to burn fuels such as low calorie domestic coal and wood type fuels in a high efficient and environmentally friendly way with its liquid grating manual loading and burning opportunity.

Auto Ignition System

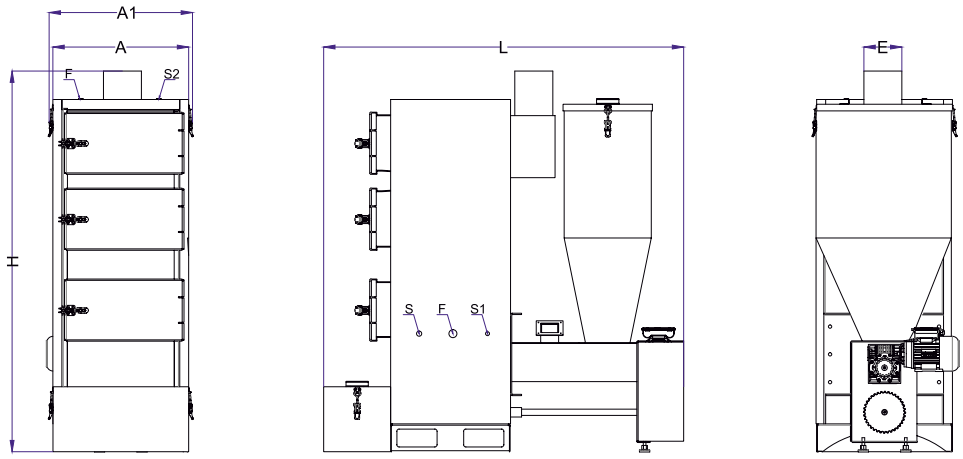
Its automatic ignition system which leaves no need to use wood, kindling etc. to burn coal, ignites coal in a shorter time period with a button and it is automatically disabled when process is completed.

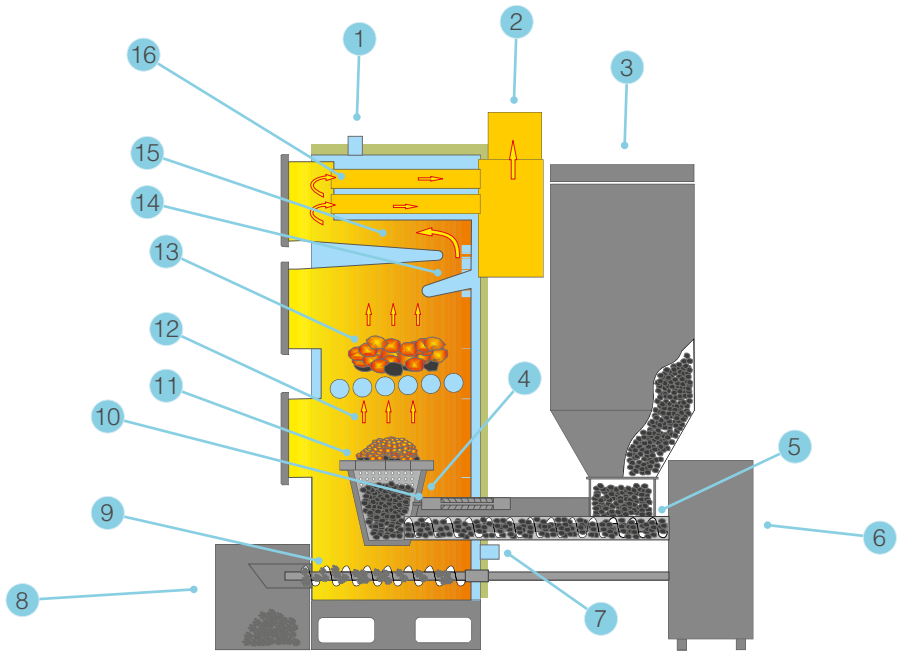
Automated Mixing

Thanks to automatic mixing installation located on crucible, coal on above side of crucible is mixed continuously during combustion, possible clinkers on coal are prevented and at the same time, combustio datasets of correctly is also increased.

Automated Ash Removal

Ash and slag falling from the pot as a result of combustion are transported to ash chest located in the front side thanks to spiral shaft system. Wastes deposited on ash box are moved away from boiler room easily and effortlessly.





1	Installation Outlet Sleeve	9	Automated Ash Discharge
2	Chimney Outlet	10	Automated Igniting
3	Bunker	11	Automated Mixing
4	Pot	12	Burning Room (1st Pass)
5	Helical Shaft	13	Water Cooling Grating
6	Reductor	14	Baffle (2nd Pass)
7	Installation Return Sleeve	15	Baffle (3rd Pass)
8	Ash Chamber	16	Smoke Pipe (4th Pass)

FKSB TECHNICAL SPECIFICATIONS					
Model			FKSB 30	FKSB 45	FKSB 60
Capacity		kcal/h	30.000	45.000	60.000
		kW	35	52	70
Weight	A	mm	600	600	624
Weight	A1	mm	607	607	632
Height	H	mm	1517	1701	1750
Length	L	mm	1640	1640	1700
Bunker Exit Distance	L1	mm	904	904	1124
Chimney Diameter	E	mm	125	170	170
Hot Water Trip	F	inch	1”	1 1/4”	1 1/2”
Safety Trip	S	inch	3/4”	3/4”	3/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”
Indicator Sleeve	S2	inch	1/2”	1/2”	1/2”
Water Volume		lt	60	88	130
Anhydrous Weight		kg	520	600	800
Bunker Capacity		lt	120	120	260
Fan Model			125/60	160/60	160/60
Fan Flow		m^3	275	700	700
Fan Engine Power		watt	84 W	193 W	193 W
Operating Voltage (Mono-Phase)		V	220	220	220
Circulation Pump Model		Wilo	25/7	25/7	25/7
Pump Operating Voltage (Mono-Phase)		V	220	220	220
Pump Power		watt	45	45	45
Pump Connection Diameter		inch	1”	1”	1”
Gearhead Power		kW	0.37	0.37	0.37
Fan ve Reductor Operating Voltage (Mono-Phase)		V	220	220	220
Operating Pressure		bar	2	2	2

CASCADE CONTROL PANEL

RVS boiler control panels have a modular structure that can be chosen according boiler system to be applied. Boiler control panel adjusts boiler water outlet temperature according to outer air temperature, controls 3-way valve and pumps. Thanks to cascade system which allows operation of more than one boiler as a single unit, it is available as an option for the 15 boiler to MIT gas fueled boilers.

Advantages of Siemens Cascade Control Panel

- Easy setup and operation with a user interface supporting English character.
- Compliance with wired and wireless field devices.
- Advanced service module.
- Remote access opportunity.

Usage Area

- Building with central heating system.
- Building and commercial fields with self heating and usage water.
- Standard heating systems.

In addition to its basic features such radiator, convector, floor and ceiling heating compatible; outside air compensation and weekly time schedule, it can provide a compete heating automation thanks to its multi-functional inlets and outlets and various additional features such as sun collector, additional pump, additional electric heater control for usage water. With its ability to control also wall type boilers, RVS can be accessed remotely, and its control can be made over mobile phone.

You can control your system with time schedule, you can be restart your device 3 times within the day. While your device works according to comfort conditions you have specified during desired hours, it works in economy mode and you can hereby save.

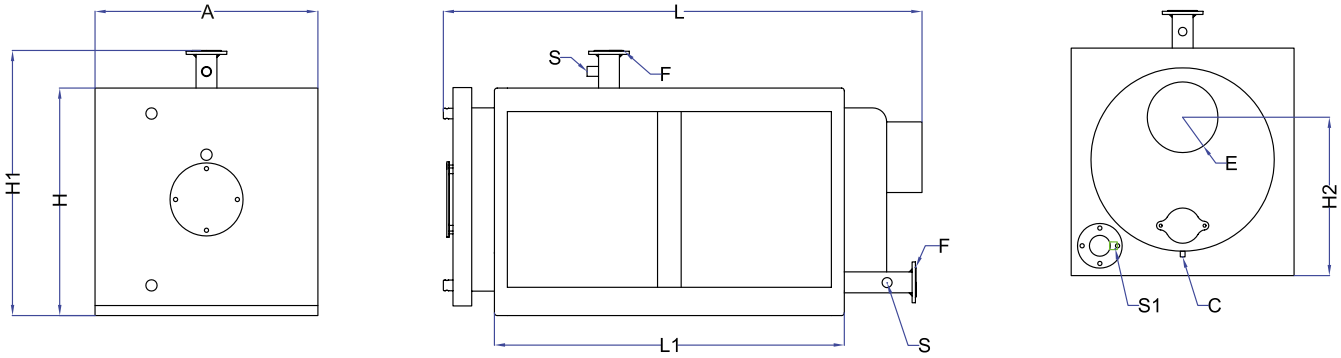
TLG SERIES

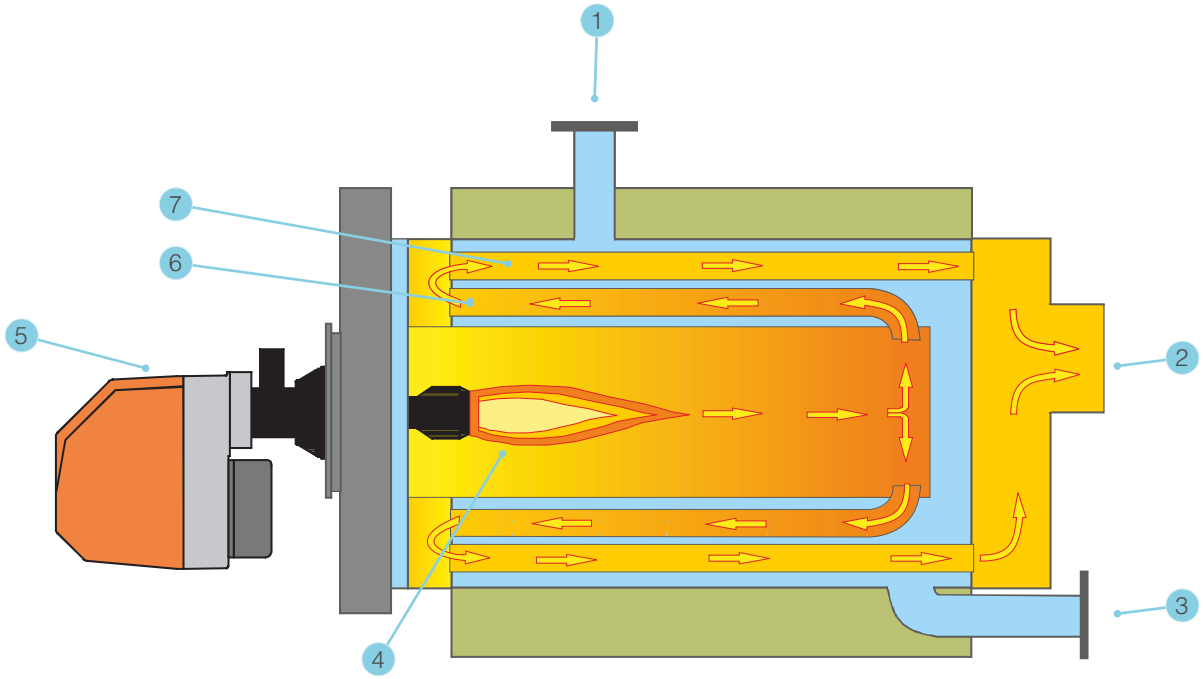
Liquid Gas Fueled Three-Pass Hot Water Boiler

TLG Series; Three-pass liquid and gas-fired hot water boilers are specially designed for central heating systems with their high combustion efficiency, optimal flue gas emissions, quiet operation and long operating life.

Features

- High combustion efficiency up to 95%.
- Window type flame crushers in secondary pass pipes (turbulators).
- Suitable for standard barrel burner use.
- Microprocessor control panel that can control burner and pump system.
- Siemens Albatros Series RVS Model Control Panels offering comfort and economy together. (Optional)
- Water cooled cover system.
- Standard operating pressure 4 bars.
- Full cylindrical boiler body.
- Body shell coated with electrostatic power paint on deposit sheet.
- 80 mm thick mineral-based insulation on body and front cover.
- Production opportunity up to 8 bar on request.
- On-site manufacturing facilities.
- Pipe bundle between passes excluding three pass burning room.
- Compatibility with integrated and external stainless economizer applications.
- 3.1 certificated boiler tube compatible abidance 10217-2 norm.
- Compliance with national and International norms.





1	Installation Inlet Flange
2	Chimney Outlet
3	Installation Return Flange
4	Burning Room (1st Pass)
5	Burner
6	Smoke Pipe (2nd Pass)
7	Smoke Pipe (3rd Pass)

TLG TECHNICAL SPECIFICATIONS								
Model			TLG 80	TLG 100	TLG 125	TLG 150	TLG 175	TLG 200
Capacity		kcal/h	80.000	100.000	125.000	150.000	175.000	200.000
		kW	93	116	145	174	203	232
Weight	A	mm	771	771	771	894	894	894
Weight	H	mm	791	791	791	914	914	914
Height	H1	mm	968	968	968	1091	1091	1091
Height	L	mm	1349	1429	1529	1529	1629	1629
Length	L1	mm	782	882	982	982	1082	1082
Foot Length	E	mm	200	200	200	200	200	200
Chimney Diameter	H2	mm	550	550	550	665	665	665
Chimney Height	F	DN	65	65	65	65	65	65
Hot Water Trip (PN 16)		lt	118	135	138	240	260	251
Water Volume		kg	425	460	505	610	660	670
Anhydrous Weight	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Safety Trip	S1	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Condensation Drain	C	inch	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
Back Pressure		mbar	1.2	1.3	1.5	2.2	2.3	2.5
Standard Operating Pressure		bar	4	4	4	4	4	4

TLG TECHNICAL SPECIFICATIONS								
Model			TLG 250	TLG 300	TLG 350	TLG 400	TLG 450	TLG 500
Capacity		kcal/h	250.000	300.000	350.000	400.000	450.000	500.000
		kW	290	348	406	464	522	580
Weight	A	mm	947	947	947	1113	1113	1113
Weight	H	mm	967	967	967	1133	1133	1133
Height	H1	mm	1144	1144	1144	1312	1312	1312
Height	L	mm	1879	2054	2054	2040	2140	2290
Length	L1	mm	1332	1487	1487	1487	1587	1732
Foot Length	E	mm	300	300	300	300	300	300
Chimney Diameter	H2	mm	670	670	670	849	849	849
Chimney Height	F	DN	65	65	80	80	100	100
Hot Water Trip (PN 16)		lt	354	376	357	578	610	670
Water Volume		kg	815	885	925	1070	1145	1275
Anhydrous Weight	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Safety Trip	S1	inch	1/2”	1/2”	1/2”	1”	1”	1”
Condensation Drain	C	inch	1/2”	1/2”	1/2”	1”	1”	1”
Back Pressure		mbar	2.8	3	3.8	5.2	5.2	5.7
Standard Operating Pressure		bar	4	4	4	4	4	4

TLG TECHNICAL SPECIFICATIONS								
Model			TLG 600	TLG 700	TLG 800	TLG 900	TLG 1000	TLG 1250
Capacity		kcal/h	600.000	700.000	800.000	900.000	1.000.000	1.250.000
		kW	696	812	928	1044	1160	1453
Weight	A	mm	1269	1269	1269	1463	1463	1463
Weight	H	mm	1309	1309	1309	1483	1483	1483
Height	H1	mm	1490	1490	1490	1664	1664	1664
Height	L	mm	2287	2407	2557	2549	2549	2754
Length	L1	mm	1734	1834	1984	1984	1984	2189
Foot Length	E	mm	350	350	350	500	500	500
Chimney Diameter	H2	mm	945	945	945	1078	1078	1078
Chimney Height	F	DN	125	125	125	125	125	125
Hot Water Trip (PN 16)		lt	900	932	996	1368	1385	1412
Water Volume		kg	1480	1695	1780	2180	2360	2510
Anhydrous Weight	S	inch	1 1/2”	1 1/2”	1 1/2”	2”	2”	2”
Safety Trip	S1	inch	1”	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”	1”
Back Pressure		mbar	5.8	5.9	6	5.2	5.2	5.8
Standard Operating Pressure		bar	4	4	4	4	4	4

TLG TECHNICAL SPECIFICATIONS								
Model			TLG 1500	TLG 1750	TLG 2000	TLG 2500	TLG 3000	TLG 3500
Capacity		kcal/h	1.500.000	1.750.000	2.000.000	2.500.000	3.000.000	3.500.000
		kW	1740	2030	2320	2900	3480	4060
Weight	A	mm	1654	1654	1654	1648	1782	1880
Weight	H	mm	1674	1674	1674	1688	1802	1900
Height	H1	mm	1855	1855	1855	1971	1985	2083
Height	L	mm	3054	3354	3754	4060	5085	4612
Length	L1	mm	2484	2784	3184	3474	4515	3986
Foot Length	E	mm	500	500	500	500	500	500
Chimney Diameter	H2	mm	1264	1264	1264	1279	1361	1510
Chimney Height	F	DN	150	150	150	200	200	200
Hot Water Trip (PN 16)		lt	2088	2363	2731	2714	2731	2580
Water Volume		kg	3450	3855	4430	4945	6555	6900
Anhydrous Weight	S	inch	2 1/2”	2 1/2”	2 1/2”	2 1/2”	2 1/2”	2 1/2”
Safety Trip	S1	inch	1”	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”	1”
Back Pressure		mbar	5.8	6.2	6.7	6.5	6.8	7
Standard Operating Pressure		bar	4	4	4	4	4	4

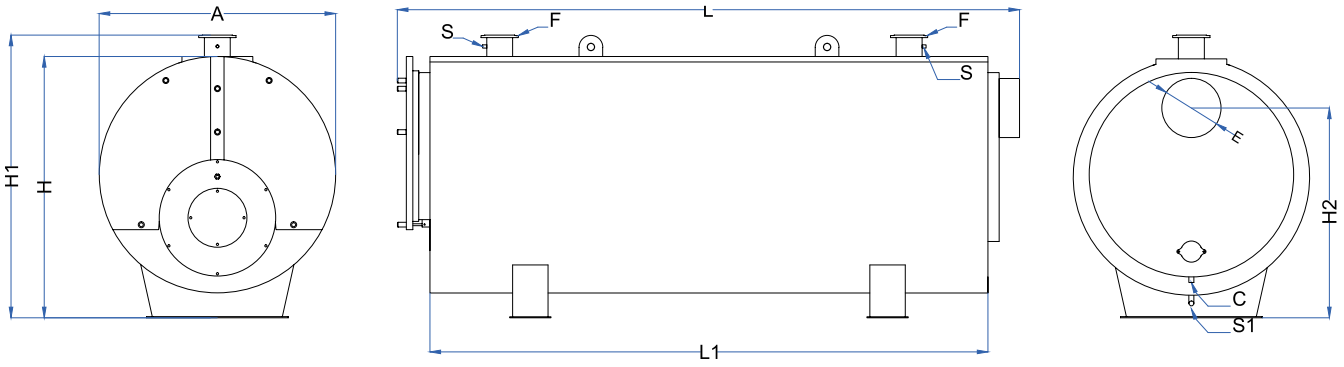
TLGS SERIES

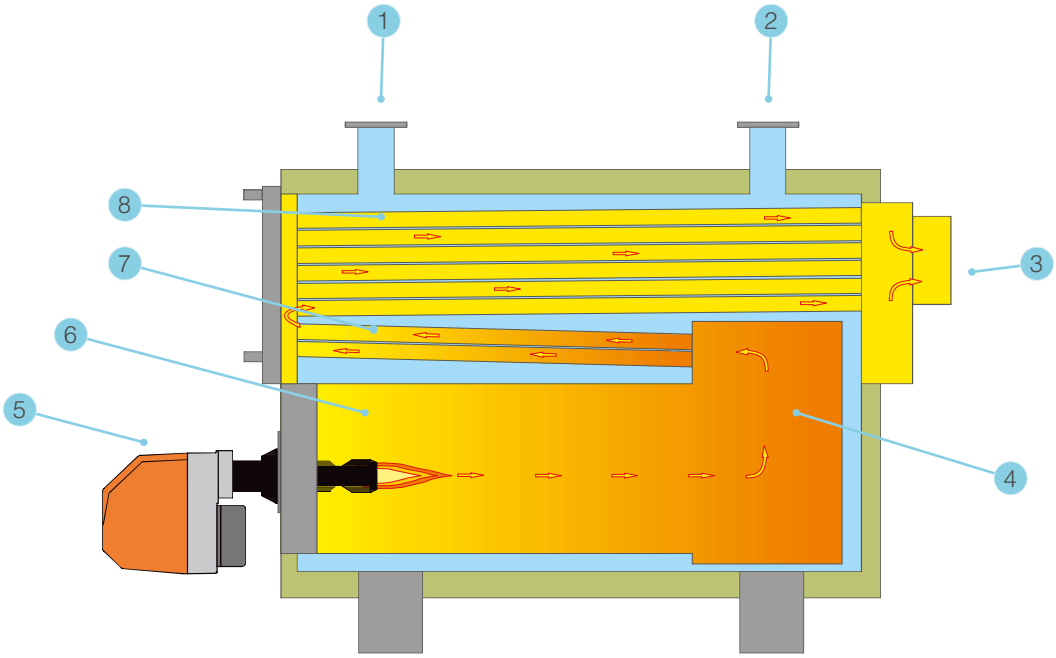
Liquid Gas Fired Three-Pass Scotch Type Hot Water Boiler

TLGS Series; Three pass liquid and gas-fired steel hot water boilers are specially designed for scotch type tlgs model heating systems offering seamless operation, high combustion efficiency, low chimney gas emission values in our country and around the world.

Features

- High combustion efficiency up to 95%.
- Window type flame crushers in secondary pass pipes (turbulators).
- Suitable for standard barrel burner use.
- Microprocessor control panel that acceptable control burner and pump system.
- Siemens Albatros series model control panels offering comfort and economy together (optional).
- Standard operating pressure 4 bars.
- Full cylindrical boiler body.
- Aliminium embossed finish sheet coating.
- 80 mm thick mineral based insulation material on body.
- Production opportunity up to 10 bar on request.
- On-site manufacturing facilities.
- Pipe bundle between passes excluding three pass burning room.
- Ease of installation and maintenance thanks boiler upper sheet which is strong enough to walk on it.
- Front cover that are openable without the need of dismantling the burner.
- Return water routing plate.
- 3.1 certificated boiler tube compatible abidance 10217-2 norm.
- Compliance with national and international norms.





1	Installation Inlet Flange
2	Installation Return Flange
3	Chimney Outlet
4	Furnace Firebox
5	Burner
6	Burning Room (1st Pass)
7	Smoke Pipe (2nd Pass)
8	Smoke Pipe (3rd Pass)

TLGS TECHNICAL SPECIFICATIONS								
Model			TLGS 1000	TLGS 1250	TLGS 1500	TLGS 1750	TLGS 2000	TLGS 2500
Capacity		kcal/h	1.000.000	1.250.000	1.500.000	1.750.000	2.000.000	2.500.000
		kW	1160	1450	1740	2030	2320	2900
Weight	A	mm	1680	1680	1809	1809	1870	1892
Height	H	mm	1893	1893	2017	2017	2081	2106
Height	H1	mm	2073	2073	2198	2198	2259	2289
Length	L	mm	2720	2920	3515	3915	3915	4219
Foot Length	L1	mm	2194	2394	2994	3394	3394	3698
Chimney Diameter	E	mm	500	500	500	500	500	500
Chimney Height	H2	mm	1460	1460	1585	1585	1643	1670
Hot Water Trip (PN 16)	F	DN	125	125	150	150	150	200
Water Volume		lt	1879	1955	2894	3443	3844	4096
Anhydrous Weight		kg	3160	3560	4315	4850	5150	6210
Safety Trip	S	inch	1 1/2”	1 1/2”	1 1/2”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”	1”
Back Pressure		mbar	5.4	6	6	6.4	6.9	6.7
Standard Operating Pressure		bar	4	4	4	4	4	4

TLGS TECHNICAL SPECIFICATIONS							
Model			TLGS 3000	TLGS 3500	TLGS 4000	TLGS 4500	TLGS 5000
Capacity		kcal/h	3.000.000	3.500.000	4.000.000	4.500.000	5.000.000
		kW	3480	4060	4640	5220	5800
Weight	A	mm	2002	2110	2152	2244	2292
Height	H	mm	2212	2320	2360	2452	2502
Height	H1	mm	2293	2503	2543	2635	2687
Length	L	mm	5245	5251	5345	5747	6721
Foot Length	L1	mm	4724	4730	4826	5226	6200
Chimney Diameter	E	mm	500	500	500	600	600
Chimney Height	H2	mm	1776	1884	1884	1966	2014
Hot Water Trip (PN 16)	F	DN	200	200	200	200	200
Water Volume		lt	5589	6684	7292	8369	10141
Anhydrous Weight		kg	8050	8685	9430	10580	12650
Safety Trip	S	inch	1 1/2”	1 1/2”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	7	7	7.2	7.2	7.4
Standard Operating Pressure		bar	4	4	4	4	4

TWG SERIES

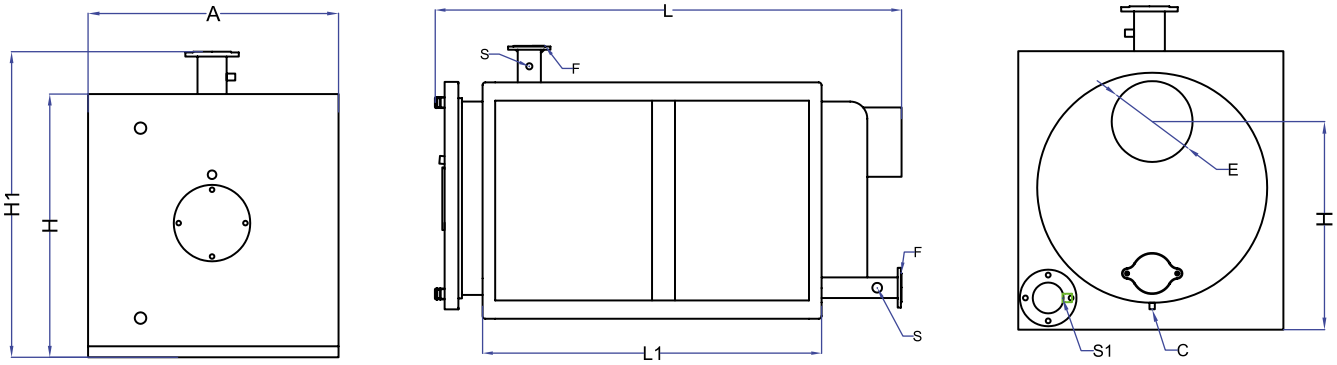
Gas Fired Two-Pass (Counter Pressure) Hot Water Boiler

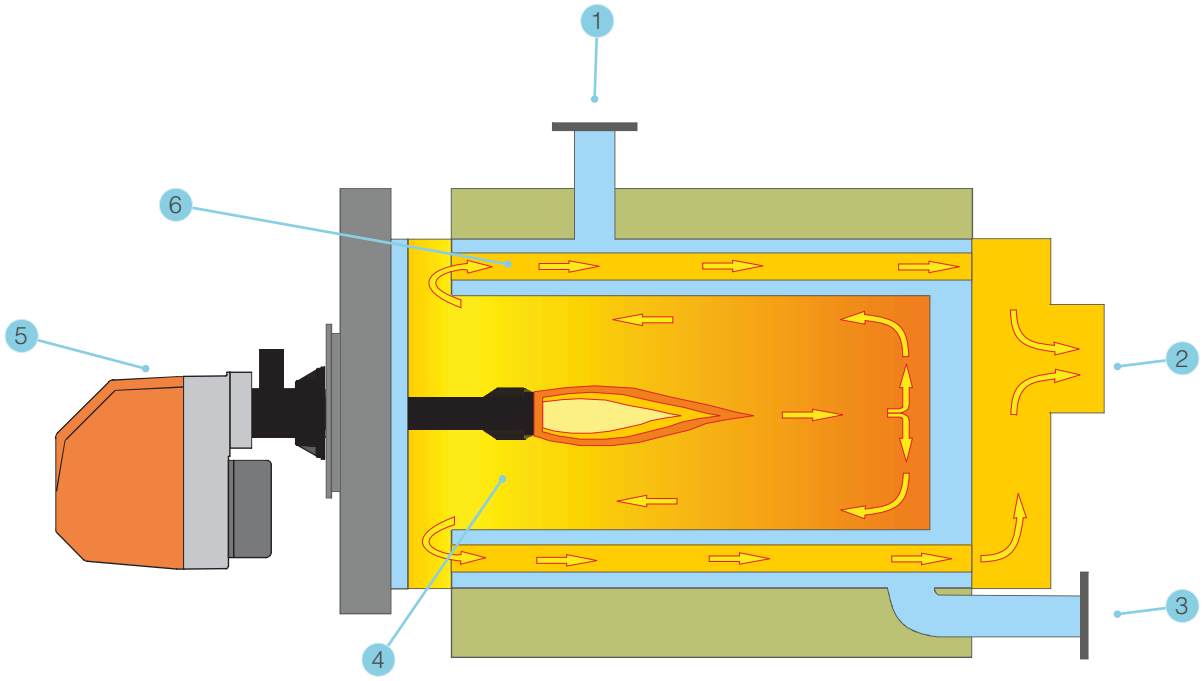
TWG Series (counter pressure) gas fueled steel hot water boilers are specially designed for central heating systems with high combustion efficiency, low chimney gas emission values, small sizes and long usage life.

In TWG model which has two-pass design, flame coming out of burner barrel move within furnace (combustion chamber) and hit the opposite mirror (floor). Gases in the flame returning to its source direction as a result of this impact are again met with burner flame within the same cell. With this encounter, unburnt or semi-burnt gas particles are burned again and leave their energy and transformed into heat. Gases burning with burner high pressure within furnace (combustion chamber) hit the front cover and are carried to back smoke box via smoke pipes and then to chimney from here.

Features

- High combustion efficiency up to 95%.
- Window type flame crushers in smoke pipes (turbulators).
- Suitable for long barrel burner use.
- Microprocessor control panel that acceptable control burner and pump system.
- Siemens Albatros series model control panels offering comfort and economy together. (Optional)
- Water cooled cover system.
- Standard operating pressure of 4 bars.
- Full cylindrical boiler body.
- Body shell coated with electrostatic power paint on deposit sheet.
- Minimum wait losses with 80 mm thick mineral-based insulation on body and front cover.
- Production opportunity up to 8 bar on request.
- On-site manufacturing facilities.
- 3.1 certificated boiler tube compatible with 10217-2 norm.
- Compliance with national and international norms.





1	Installation Inlet Flange
2	Chimney Outlet
3	Installation Return Flange
4	Burning Room (1st Pass)
5	Burner
6	Smoke Pipe (2nd Pass)

TWG TECHNICAL SPECIFICATIONS							
Model			TWG 80	TWG 100	TWG 125	TWG 150	TWG 175
Capacity		kcal/h	80.000	100.000	125.000	150.000	175.000
		kW	93	116	145	174	203
Weight	A	mm	707	707	707	757	757
Height	H	mm	757	757	757	807	807
Height	H1	mm	933	933	933	983	983
Length	L	mm	1299	1299	1539	1544	1744
Foot Length	L1	mm	742	742	982	987	1187
Chimney Diameter	E	mm	200	200	200	200	200
Chimney Height	H2	mm	547	547	547	597	597
Hot Water Trip (PN 16)	F	DN	65	65	65	65	65
Water Volume		lt	118	118	145	160	191
Anhydrous Weight		kg	360	370	425	460	510
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1/2”	1/2”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	0.5	1.2	1.3	2.2	2.5
Operating Pressure		bar	4	4	4	4	4

TWG TECHNICAL SPECIFICATIONS							
Model			TWG 200	TWG 250	TWG 300	TWG 350	TWG 400
Capacity		kcal/h	200.000	250.000	300.000	350.000	400.000
		kW	232	290	348	406	464
Weight	A	mm	757	880	880	880	984
Height	H	mm	807	930	930	930	1034
Height	H1	mm	983	1107	1107	1107	1211
Length	L	mm	1744	1744	2039	2039	1939
Foot Length	L1	mm	1187	1187	1482	1482	1384
Chimney Diameter	E	mm	200	300	300	300	300
Chimney Height	H2	mm	597	670	670	670	772
Hot Water Trip (PN 16)	F	DN	65	65	65	80	80
Water Volume		lt	185	285	350	330	383
Anhydrous Weight		kg	530	635	745	800	900
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	3.3	3	2.8	2.5	3
Operating Pressure		bar	4	4	4	4	4

TWG TECHNICAL SPECIFICATIONS							
Model			TWG 450	TWG 500	TWG 600	TWG 700	TWG 800
Capacity		kcal/h	450.000	500.000	600.000	700.000	800.000
		kW	522	580	696	812	928
Weight	A	mm	984	984	1140	1140	1140
Height	H	mm	1034	1034	1160	1160	1160
Height	H1	mm	1211	1211	1341	1341	1341
Length	L	mm	1939	2039	2311	2311	2561
Foot Length	L1	mm	1384	1482	1734	1734	1984
Chimney Diameter	E	mm	300	300	350	350	350
Chimney Height	H2	mm	772	772	864	864	864
Hot Water Trip (PN 16)	F	DN	100	100	125	125	125
Water Volume		lt	371	396	620	586	660
Anhydrous Weight		kg	945	985	1305	1385	1550
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	3.5	4.3	3.8	5.2	5.4
Operating Pressure		bar	4	4	4	4	4

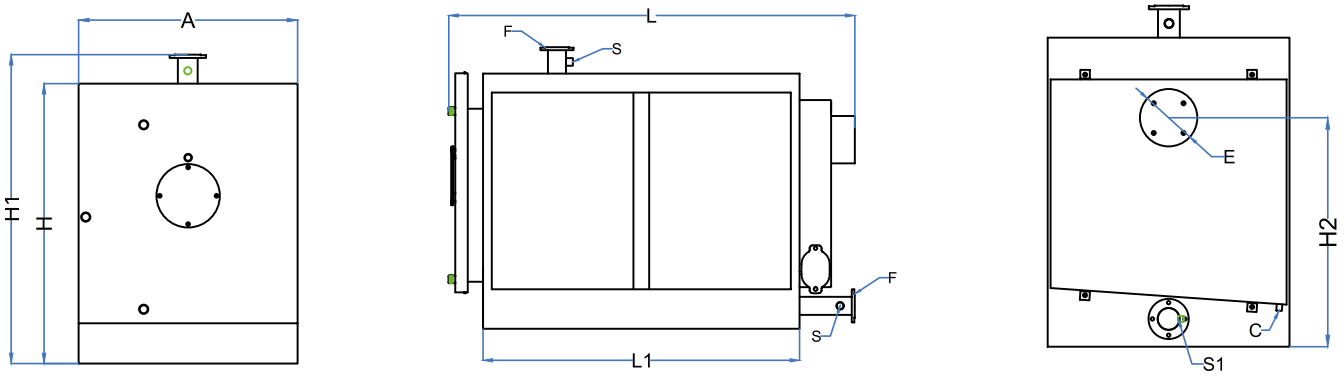
TGY SERIES

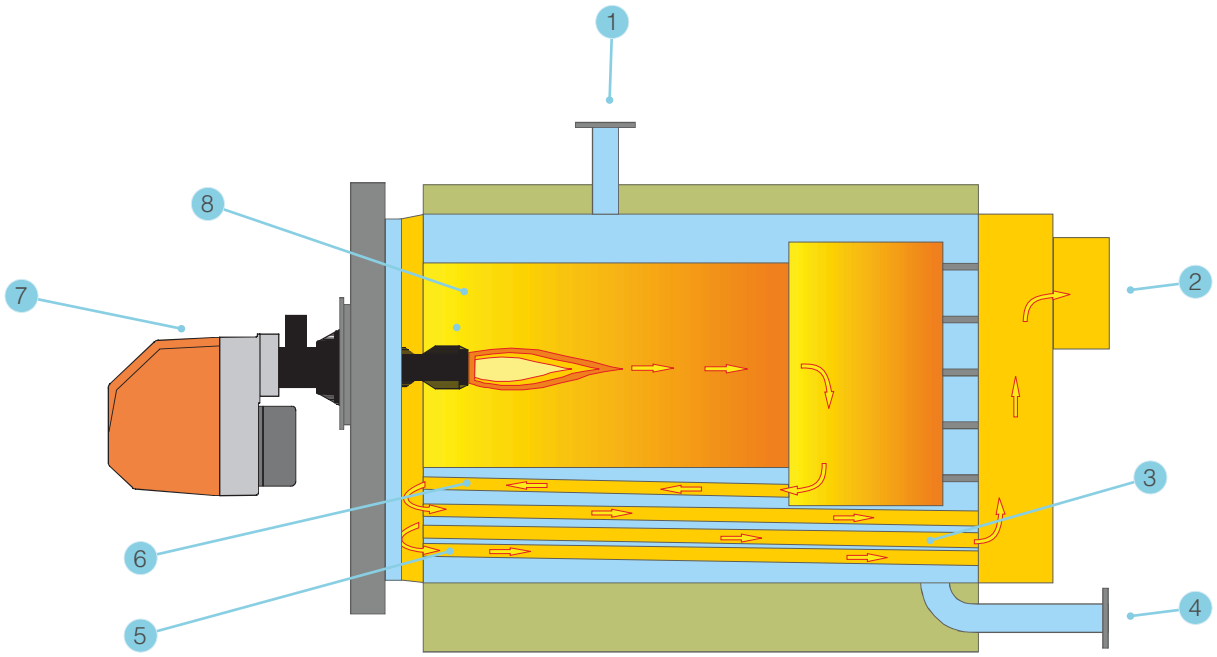
Gas Fired Floor Type Self Condensing Boiler

TGY Series; Gas-fired floor type self-condensing steel body boilers are designed specifically for central heating systems having primary concern of business economy thanks to their high combustion efficiency and long service life. The highest operation temperatures at which TGY boilers reach the highest efficiency are the range of 50/30 ˚C. Condensation energy emerging in boiler third pass pipes are transfered to the system via titanium alloyed stainless steels pipes..

Features

- High combustion efficiency up to 105% (50/30 ˚C).
- All surfaces where condensation occurs contain 316 titanium alloyed stainless steel material.
- Special body design for discharging condensation water.
- Suitable for standard barrel burner use.
- Microprocessor control panel that acceptable control burner and pump system.
- Siemens Albatros series model control panels offering comfort and economy together. (Optional)
- Water cooled cover system.
- Standard operating pressure of 4 bars.
- Full cylindrical boiler body.
- Body shell coated with electrostatic power paint on deposit sheet.
- Minimum wait losses with 80 mm thick mineral-based insulation on body and front cover.
- Production opportunity up to 8 bar on request.
- On-site manufacturing facilities.
- 3.1 certificated boiler tube compatible with 10217-2 norm.
- Compliance with national and international norms.





1	Installation Inlet Flange
2	Chimney Outlet
3	Condensation Level
4	Installation Return Flange
5	Smoke Pipe (3rd Pass)
6	Smoke Pipe (2nd Pass)
7	Burner
8	Burning Room (1st Pass)

TGY TECHNICAL SPECIFICATIONS							
Model			TGY 200	TGY 250	TGY 300	TGY 350	TGY 400
Capacity		kcal/h	200.000	250.000	300.000	350.000	400.000
		kW	232	290	348	406	464
Weight	A	mm	1144	1144	1196	1196	1256
Height	H	mm	1248	1248	1340	1340	1451
Height	H1	mm	1425	1425	1519	1519	1630
Length	L	mm	1981	2051	2208	2438	2321
Foot Length	L1	mm	1414	1484	1641	1871	1754
Chimney Diameter	E	mm	300	300	300	300	300
Chimney Height	H2	mm	960	960	1057	1057	1146
Hot Water Trip (PN 16)	F	DN	65	65	65	80	80
Water Volume		lt	630	677	840	960	953
Anhydrous Weight		kg	1090	1150	1275	1380	1555
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	3.9	4.1	4.2	4.4	4.6
Operating Pressure		bar	4	4	4	4	4
Flue Gas Temperature		˚C	78	76	76	78	78

TGY TECHNICAL SPECIFICATIONS							
Model			TGY 450	TGY 500	TGY 600	TGY 700	TGY 860
Capacity		kcal/h	450.000	500.000	600.000	700.000	860.000
		kW	522	580	696	812	1000
Weight	A	mm	1265	1265	1446	1500	1510
Height	H	mm	1451	1451	1654	1738	1716
Height	H1	mm	1630	1630	1839	1919	1897
Length	L	mm	2421	2551	2497	2632	2887
Foot Length	L1	mm	1854	1984	1930	2065	2320
Chimney Diameter	E	mm	300	300	350	350	350
Chimney Height	H2	mm	1146	1146	1349	1411	1411
Hot Water Trip (PN 16)	F	DN	100	100	125	125	125
Water Volume		lt	1014	1103	1470	1695	1958
Anhydrous Weight		kg	1610	1725	2070	2300	2550
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	4.7	4.2	4.3	4.2	4.4
Operating Pressure		bar	4	4	4	4	4
Flue Gas Temperature		˚C	75	79	85	88	89

TGTY SERIES

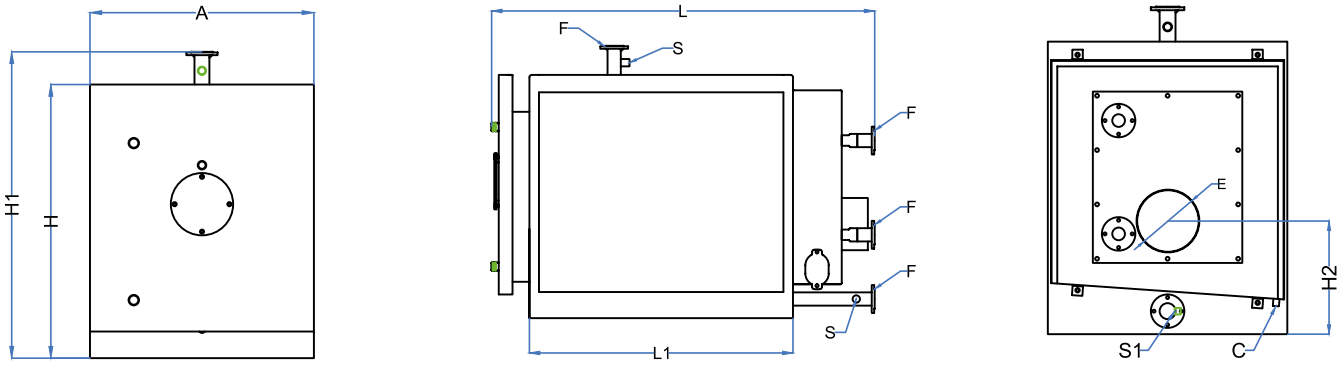
Gas Fired Floor Type Full Condensing Boiler

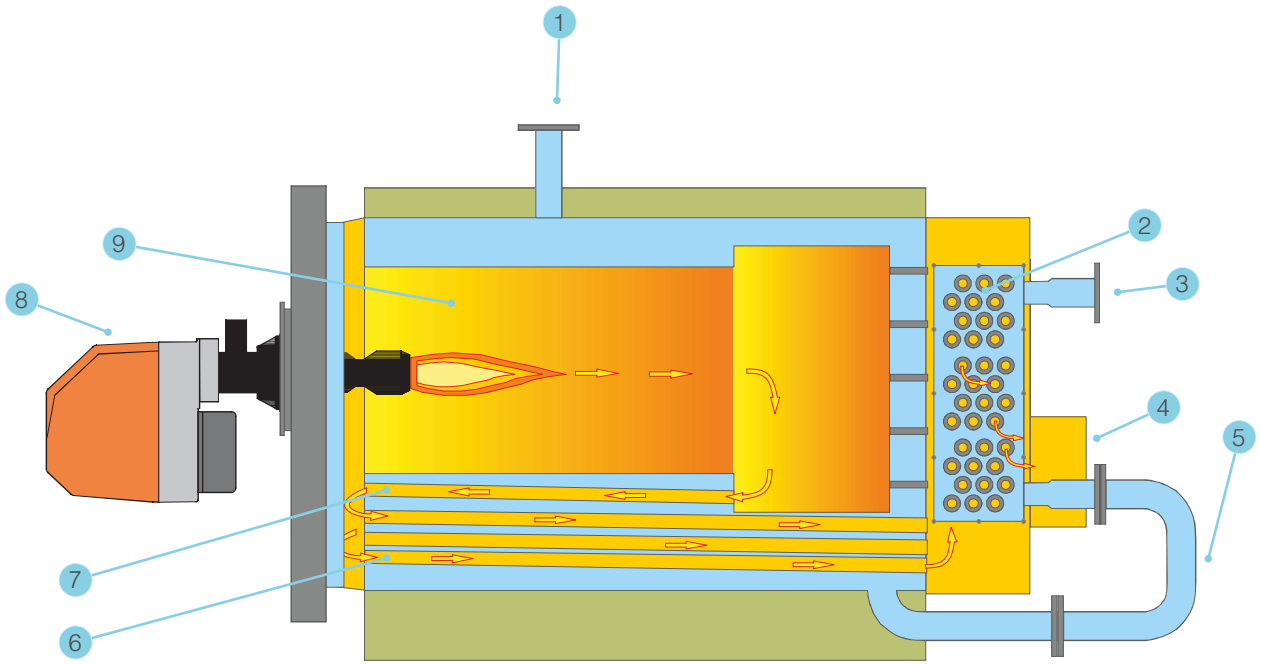
TGTY Series; Gas-fired floor type fully condensing steel body boilers are designed specifically for central heating systems having primary concern of business economy thanks to their high combustion efficiency and long service life.

The highest operation temperatures at which TGTY boilers reach the highest efficiency are the range of 50/30 ˚C. The highest operation temperatures at which TGTY boilers reach the highest efficiency are the range of 50/30 ˚C.

Features

- High combustion efficiency up to 108% (50/30 ˚C).
- All surfaces where condensation occurs contain 316 titanium alloyed stainless steel material.
- Suitable for standard barrel burner use.
- Microprocessor control panel that acceptable control burner and pump system.
- Siemens Albatros series model control panels offering comfort and economy together. (Optional)
- Water cooled cover system.
- Standard operating pressure 4 bars.
- Full cylindrical boiler body.
- Body shell coated with electrostatic power paint on deposit sheet.
- 80 mm thick mineral-based insulation on body and front cover.
- On-site manufacturing facilities.
- Environmentalist design with low chimney gas emissions.
- Compliance with national and international norms.



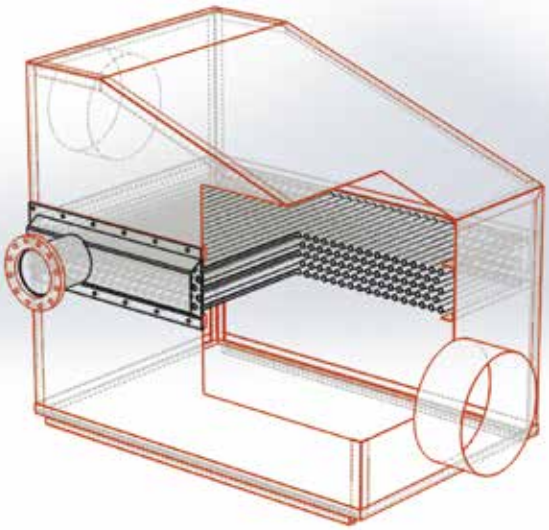


1	Installation Inlet Flange
2	Condensation Level
3	Installation Return Flange
4	Chimney Outlet
5	Installation Return Connection
6	Smoke Pipe (3rd Pass)
7	Smoke Pipe (2nd Pass)
8	Burner
9	Burning Room (1st Pass)

TGTY TECHNICAL SPECIFICATIONS							
Model			TGTY 200	TGTY 250	TGTY 300	TGTY 350	TGTY 400
Capacity		kcal/h	200.000	250.000	300.000	350.000	400.000
		kW	232	290	348	406	464
Weight	A	mm	1144	1144	1196	1196	1256
Height	H	mm	1248	1248	1340	1340	1451
Height	H1	mm	1425	1425	1519	1519	1630
Length	L	mm	2100	2175	2359	2589	2542
Foot Length	L1	mm	1414	1484	1641	1871	1754
Chimney Diameter	E	mm	300	300	300	300	300
Chimney Height	H2	mm	477	477	577	560	656
Hot Water Trip (PN 16)	F	DN	65	65	65	80	80
Water Volume		lt	630	677	840	960	953
Anhydrous Weight		kg	1210	1265	1440	1555	1730
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/4”	1 1/4”	1 1/4”
Filling/Discharging	S1	inch	1/2”	1/2”	1/2”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	3.9	4.1	4.2	4.4	4.6
Operating Pressure		bar	4	4	4	4	4
Flue Gas Temperature		˚C	54	51	53	48	49

TGTY TECHNICAL SPECIFICATIONS							
Model			TGTY 450	TGTY 500	TGTY 600	TGTY 700	TGTY 860
Capacity		kcal/h	450.000	500.000	600.000	700.000	860.000
		kW	522	580	696	812	1000
Weight	A	mm	1265	1265	1446	1500	1510
Height	H	mm	1451	1451	1654	1738	1716
Height	H1	mm	1630	1630	1839	1919	1897
Length	L	mm	2642	2772	2724	2884	3052
Foot Length	L1	mm	1854	1984	1930	2065	2320
Chimney Diameter	E	mm	300	300	350	350	350
Chimney Height	H2	mm	656	656	720	867	710
Hot Water Trip (PN 16)	F	DN	100	100	125	125	125
Water Volume		lt	1014	1103	1470	1695	1958
Anhydrous Weight		kg	1785	1900	2355	2620	2905
Safety Trip	S	inch	1 1/4”	1 1/4”	1 1/2”	1 1/2”	1 1/2”
Filling/Discharging	S1	inch	1”	1”	1”	1”	1”
Condensation Drain	C	inch	1”	1”	1”	1”	1”
Back Pressure		mbar	4.7	4.2	4.3	4.2	4.4
Operating Pressure		bar	4	4	4	4	4
Flue Gas Temperature		˚C	51	48	53	52	47

ECONOMIZER



Condensing Stainless Economizer

What is an Economizer?

In today's competitive conditions where energy costs have gained importance, consumers look for way to use energy both efficiently and economically. This quest makes the energy economy a need and obligation.

The economizer is an overall name given to energy-saving systems used in the preheating of fluids to reduce energy consumption and to save energy.

Why Should Economizer Be Used?

When economizer is added to the system, amount of investment per produced unit heat energy will be reduced. Since economizer lowers the chimney temperature, unnecessary hot smoke gas within the chimney is cooled and discharged.

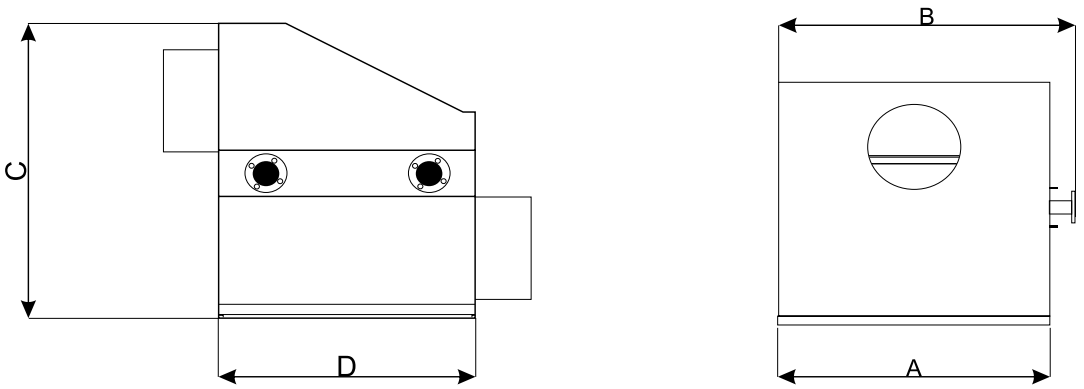
In this way, loss of efficiency resulting from an increase in air surplus coefficient can be recovered at a significant level.

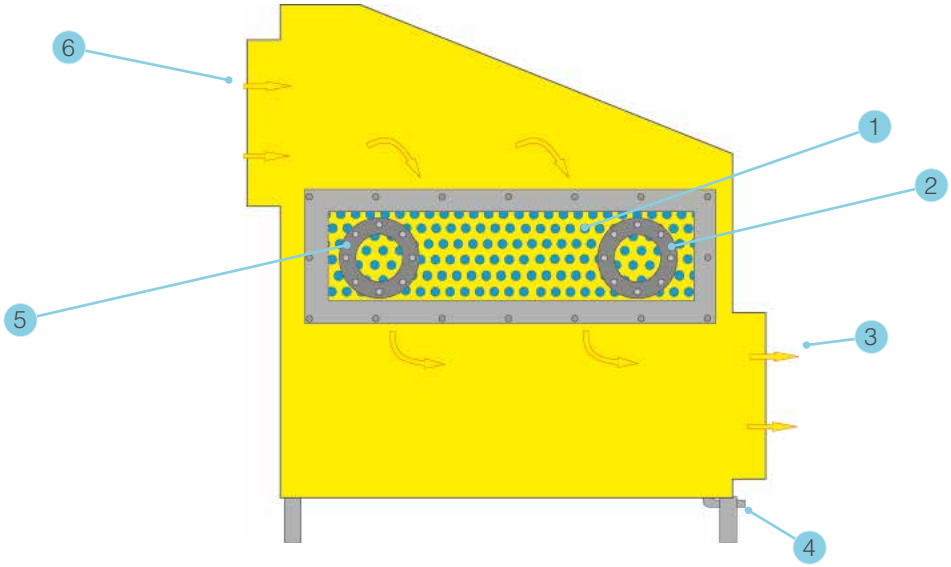
How It Works?

Boiler feeding water is heated with smoke gases within the economizer system before entering into actual heating surfaces of the boiler. In this way, since the temperature difference between water sent to the boiler and the water being heated is reduced, discharging of gases in water is facilitated and thermal efficiency increases. Especially, this system, recommended when natural gas is used as fuel, is also environmentally friendly product.

Features

- Compatible with all gas-fired boiler models within the capacity range of 200,000 kcal/h to 5,000,000 kcal/h.
- Production in two separate models that are mounted of boilers (internal) or that can be mounted. they were at boiler chimney outlet (external).
- Compatible with all brand and model gas-fired boilers.
- An average of 5% to 10% efficiency increase in systems used.
- The whole body is covered with 80-mm thick mineral-based insulation material.
- All surfaces where condensation occurs 316 titanium alloy stainless steel material.
- Special body design for discharging condensation water.
- High efficiency heat transfer surface thanks to finned pipes.





1	Stainless Finned Pipes (316 Ti)
2	Installation Return Flange
3	Chimney Outlet
4	Condensation Drain
5	Installation Inlet Flange (Boiler Connection)
6	Chimney Input (Boiler Output)

ECONOMIZER CAPACITY TABLE									
Model			ME 400	ME 450	ME 500	ME 600	ME 700	ME 800	ME 900
Ekonomizer			EKO 400	EKO 450	EKO 500	EKO 600	EKO 700	EKO 800	EKO 900
Flue Gas	Boiler Operation (˚C)	Capacity							
200 ˚C	80 - 60	kcal/h	29.000	32.000	36.000	45.000	52.500	59.000	67.000
		kWh	34	37	42	52	61	68	78
	70 - 50	kcal/h	32.000	35.000	38.000	47.000	53.000	61.000	68.000
		kWh	37	41	44	55	61	71	79

ECONOMIZER CAPACITY TABLE									
Model			ME 1000	ME 1250	ME 1500	ME 1750	ME 2000	ME 2500	ME 3000
Ekonomizer			EKO 1000	EKO 1250	EKO 1500	EKO 1750	EKO 2000	EKO 2500	EKO 3000
Flue Gas	Boiler Operation (˚C)	Capacity							
200 ˚C	80 - 60	kcal/h	75.000	93.500	112.000	131.000	148.000	184.000	223.000
		kWh	87	108	130	152	172	213	259
	70 - 50	kcal/h	77.000	94.500	113.500	133.000	150.000	187.000	225.000
		kWh	89	110	132	154	174	217	261

MIT FUEL OIL TANK

Cylindirical Convex Fuel Oil tank

MIT fuel oil tanks are used for the safe storage of petroleum derivative fuels such as fuel-oil, diesel and lubricants.

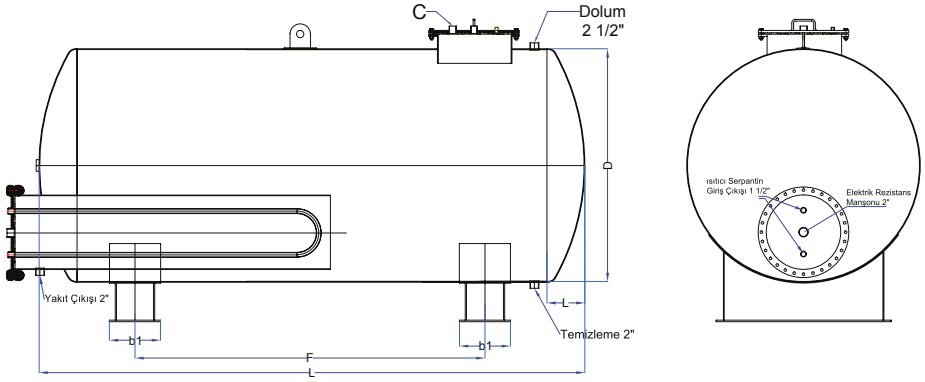
In the heating systems where fuel-oil fuel is used and in industrial facilities, the serpentines of the manufactured devices, including the heater serpentine, are manufactured from the 10217-2 boiler pipe (PN 6). The heater effect is increased by covering the heater pipe with a sheet cover. The heater is suitable for use in hot water and steam as a fluid.

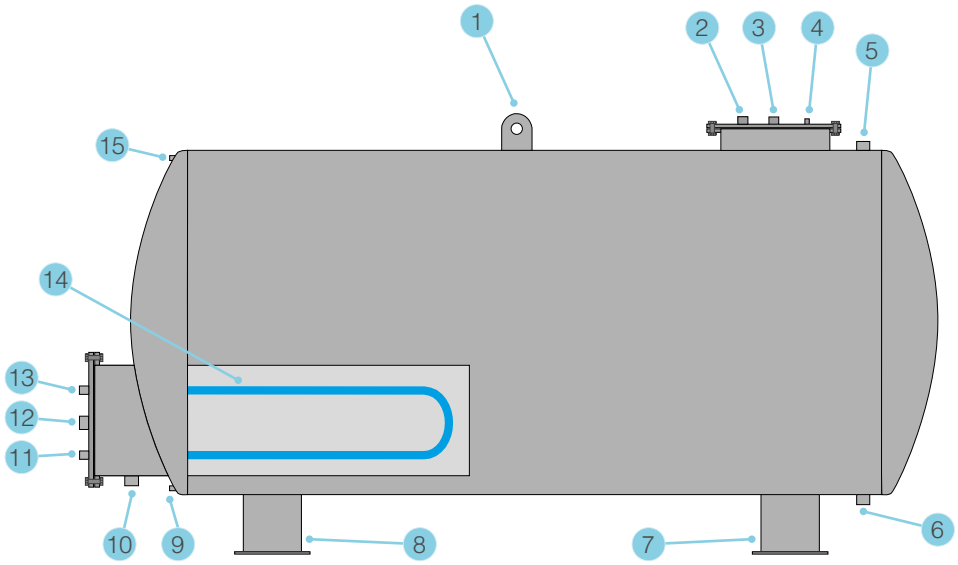
Over time, the debris accumulated at the bottom of the tank, water, sediment and bottom mud may block filters and cause blockages of the fuel roads in the later times. There are manhole caps on the top and front of the appliance to be used for cleaning such problems.

Tanks made of St-37 quality material as cylindrical and convex It can be produced in two separate models, underground and above, in material thicknesses determined by the TSE standards.

The tank coil and its body are subjected to required pressure tests and controls. The devices produced in conjunction with the carrier stand are painted with two layers of anti-rust paint on demand.

Produced by designing according to TS EN 12285-2 standards.





1	Bearing Eyebolt	9	Indicator Sleeve
2	Ring Ling Sleeve	10	Fuel Exit
3	Indicator Sleeve	11	Heating Serpantine Exit
4	Air Vent	12	Electrical Heating Entry
5	Filling Sleeve	13	Heating Serpantine Input
6	Cleaning Sleeve	14	Heating Serpantine
7	Carrier Foot	15	Indicator Sleeve
8	Carrier Foot		

MAT TECHNICAL SPECIFICATIONS										
Model	Capacity (lt)	Size (mm)					Vent Hole (C)	Outer Surface m^2	Weight Without Heater (kg)	Weight With Heater (kg)
		Dia (D)	Length (L)	Camber Depth (T)	Foot Width (B)1	Foot Axis Range (F)				
MAT-1	1.000	1000	1510	180	350		1 1/2”	6	263	313
MAT-3	3.000	1250	2740	220	350		1 1/2”	12.7	525	575
MAT-5	5.000	1600	2820	260	350	1170	1 1/2”	16	740	790
MAT-7	7.000	1600	3740	260	350	2270	1 1/2”	22.8	930	980
MAT-10	10.000	1600	5350	260	350	4290	1 1/2”	30.5	1250	1300
MAT-13	13.000	1600	6960	260	525	5625	1 1/2”	38.5	1550	1660
MAT-16	16.000	1600	8570	260	525	7135	1 1/2”	45.7	1850	1900
MAT-20	20.000	2000	6960	320	600	5395	1 1/2”	49	2400	2450
MAT-25	25.000	2000	8540	320	600	7005	1 1/2”	60	2850	2900
MAT-30	30.000	2000	10120	320	600	8615	1 1/2”	68.5	3400	3450
MAT-40	40.000	2500	8800	400	950	6760	2”	77.8	4400	4450
MAT-50	50.000	2500	10800	400	950	8820	2”	93.9	5300	5350
MAT-60	60.000	2500	12800	400	950	10880	2”	108	6300	6350

EKİN ENDÜSTRİYEL

SOLAR COLLECTORS

SOLAR THERMAL COLLECTORS

INNSUN solar collectors; are the hot water sources that have high efficiency and specific surface area. They are used for heating the water as absorbing the energy from sunshine.

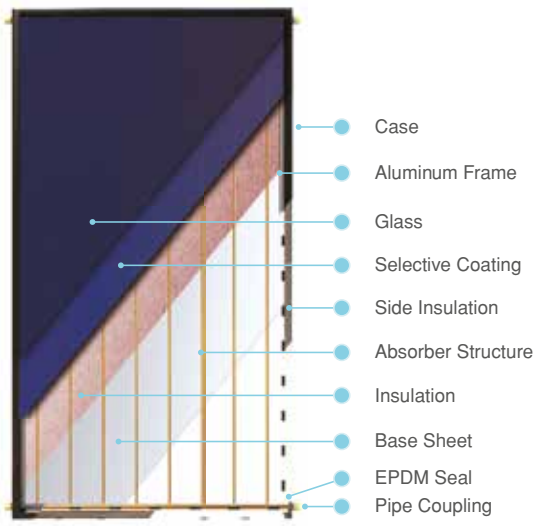
INNSUN solar collectors, are used for meet the hot water requirements of houses, villas, hotels, buildings, restaurants, hospitals, swiming pools and many industrial areas like factories.

INNSUN solar collectors, which are all domestic production, provide maximum energy efficiency by means of solar technologies with their production technologies and high material quality.

Advantages

- High energy efficiency.
- Energy-saving.
- Easy assembling compact system
- Eco-friendly
- Individuality in the hot water needs.
- Low maintenance costs.

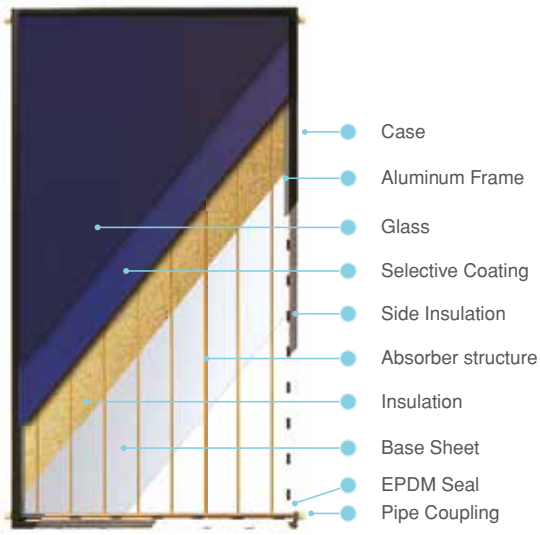
Innsun High



Solar Keymark certified
Almeco - Tinox highly selective aluminum
Rock wool insulation Copper pipe
Low iron tempered glass Laser welding

TECHNICAL SPECIFICATIONS					
		Unit	High 2510	High 2108	High 1808
Technical Data	Dimensions	mm	1988x1218x90	1988x1041x90	1927x927x90
	Casing		Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case
	Weight	kg	44	37,2	34
	Gross Area	m^2	2,42	2,07	1,79
	Aperture Area	m^2	2,24	1,92	1,62
Copper Tubes	Heat Carrier Volume	lt	1,27	1,07	1
	Diameter Of Absorber Tube / Header Tube	mm	8 / 18	8 / 18	8 / 18
	Number Of Tubes		10	9	8
Absorber	Absorber Material		Almeco - Tinox Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum
	Absorptance / Emittance		%95 / %4	%95 / %4	%95 / %4
	Welding Method		Laser Welding	Laser Welding	Laser Welding
Insulation	Insulation Material		Rock Wool	Rock Wool	Rock Wool
	Density / Thickness	(kg/m^3) / (mm)	50 / 40	50 / 40	50 / 40
Glass	Glass Material		Low Iron Tempered Glass	Low Iron Tempered Glass	Low Iron Tempered Glass
	Thickness Of Glass	mm	4	4	4
Maximum Rating	Stagnation Temperature	°C	194,5	194,5	194,5
	Maximum Operation Pressure	bar	8,6	8,6	8,6
	Nominal Flow Rate	lt/h	120	105	100
	Back Sheeting		Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet
	Mounting Type		In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof

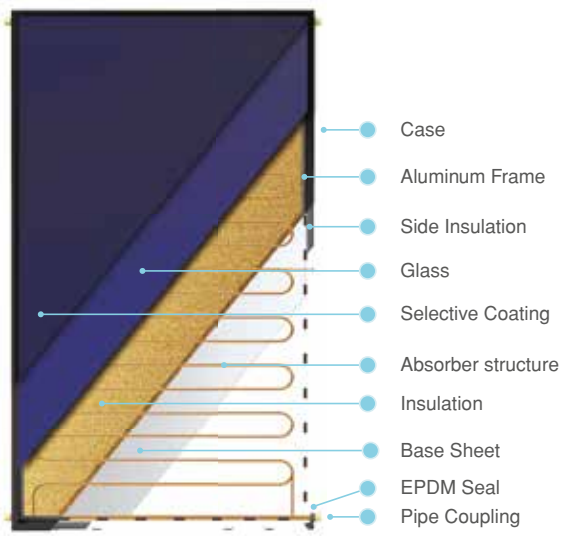
Innsun Pro



Solar Keymark certified
Almeco - Tinox highly selective aluminum
Copper pipe Glass wool insulationNormal
iron tempered glass Laser welding

TECHNICAL SPECIFICATIONS					
		Unit	Pro 2510	Pro 2108	Pro 1808
Technical Data	Dimensions	mm	1988x1218x90	1988x1041x90	1927x927x90
	Casing		Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case
	Weight	kg	44	37,2	34
	Gross Area	m^2	2,42	2,07	1,79
	Aperture Area	m^2	2,24	1,92	1,62
Copper Tubes	Heat Carrier Volume	lt	1,27	1,07	1
	Diameter Of Absorber Tube / Header Tube	mm	8 / 18	8 / 18	8 / 18
	Number Of Tubes		10	9	8
Absorber	Absorber Material		Almeco - Tinox Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum
	Absorptance / Emittance		%95 / %3	%95 / %3	%95 / %3
	Welding Method		Laser Welding	Laser Welding	Laser Welding
Insulation	Insulation Material		Glass Wool	Glass Wool	Glass Wool
	Density / Thickness	(kg/m^3) / (mm)	14 / 50	14 / 50	14 / 50
Glass	Glass Material		Normal Iron Tempered Glass	Normal Iron Tempered Glass	Normal Iron Tempered Glass
	Thickness Of Glass	mm	4	4	4
Maximum Rating	Stagnation Temperature	°C	190	190	190
	Maximum Operation Pressure	bar	8,6	8,6	8,6
	Nominal Flow Rate	lt/h	120	105	100
	Back Sheeting		Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet
	Mounting Type		In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof

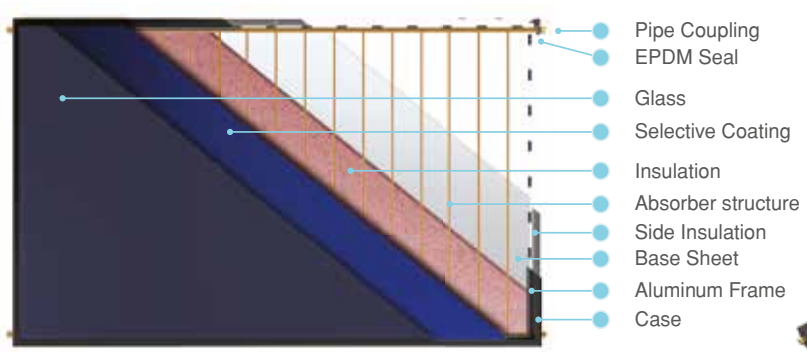
Innsun Pro Serpantine



Solar Keymark certified
Almeco - Tinox highly selective aluminum
Rock wool insulation Copper pipe
Low iron tempered glass Laser welding

TECHNICAL SPECIFICATIONS				
		Unit	Pro 2510 Coil	Pro-H 2510 Coil
Technical Data	Dimensions	mm	1988x1218x90	1988x1218x90
	Casing		Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case
	Weight	kg	44	44
	Gross Area	m^2	2,42	2,42
	Aperture Area	m^2	2,24	2,24
Copper Tubes	Heat Carrier Volume	lt	1,27	1,27
	Diameter Of Absorber Tube / Header Tube	mm	8 / 18	8 / 18
	Number Of Tubes		1	1
Absorber	Absorber Material		Almeco - Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum
	Absorptance / Emittance		%95 / %3	%95 / %3
	Welding Method		Laser Welding	Laser Welding
Insulation	Insulation Material		Glass Wool	Rock Wool
	Density / Thickness	(kg/m^3) / (mm)	14 / 50	50 / 40
Glass	Glass Material		Normal Iron Tempered Glass	Low Iron Tempered Glass
	Thickness Of Glass	mm	4	4
Maximum Rating	Stagnation Temperature	°C	192	192
	Maximum Operation Pressure	bar	8,6	8,6
	Nominal Flow Rate	lt/h	120	120
	Back Sheeting		Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet
	Mounting Type		In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof

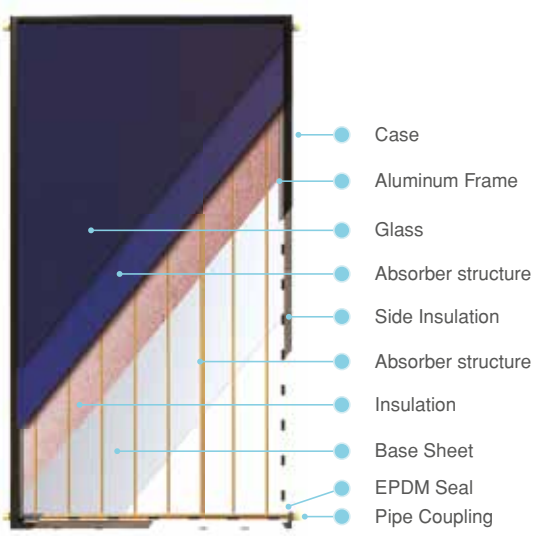
Innsun Pro Horizontal



Almeco - Tinox highly selective aluminum
Rock wool insulation Copper pipe
Low iron tempered glass
Laser Welding Horizontal system

TECHNICAL SPECIFICATIONS				
		Unit	Pro 2510 Horizontal	Pro 2108 Horizontal
Technical Data	Dimensions	mm	1218x1988x90	1041x1988x90
	Casing		Electrostatic Painted Aluminum Case	Electrostatic Painted Aluminum Case
	Weight	kg	44	37,2
	Gross Area	m^2	2,42	2,07
	Aperture Area	m^2	2,24	1,92
Copper Tubes	Heat Carrier Volume	lt	1,88	1,6
	Diameter Of Absorber Tube / Header Tube	mm	8 / 18	8 / 18
	Number Of Tubes		17	17
Absorber	Absorber Material		Almeco - Highly Selective Aluminum	Almeco - Tinox Highly Selective Aluminum
	Absorptance / Emittance		%95 / %3	95% / 3%
	Welding Method		Ultrasonic Welding	Ultrasonic Welding
Insulation	Insulation Material		Rock Wool	Rock Wool
	Density / Thickness	(kg/m^3) / (mm)	50 / 40	50 / 40
Glass	Glass Material		Low Iron Tempered Glass	Low Iron Tempered Glass
	Thickness Of Glass	mm	4	4
Maximum Rating	Stagnation Temperature	°C	232	232
	Maximum Operation Pressure	bar	8,6	8,6
	Nominal Flow Rate	lt/h	105	105
	Back Sheeting		Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet
	Mounting Type		In Roof - On Roof - Flat Roof	In Roof - On Roof - Flat Roof

Innsun C-High



Solar Keymark certified
Almeco - Tinox highly selective copper
Rock wool insulation copper pipe
Low iron tempered glass Ultrasonic welding

TECHNICAL SPECIFICATIONS			
		Unit	C-High 2509
Technical Data	Dimensions	mm	2325x1041x90
	Casing		Electrostatic Painted Aluminum Case
	Weight	kg	44
	Gross Area	m^2	2,42
	Aperture Area	m^2	2,24
	Absorber Area	m^2	2,23
Copper Tubes	Heat Carrier Volume	lt	1,27
	Diameter Of Absorber Tube / Header Tube	mm	8 / 18
	Number Of Tubes		9
Absorber	Absorber Material		Almeco - Tinox Highly Selective Aluminum
	Absorptance / Emittance		%95 / %3
	Welding Method		Ultrasonic Welding
Insulation	Insulation Material		Rock Wool
	Density / Thickness	(kg/m^3) / (mm)	50 / 40
Glass	Glass Material		Low Iron Tempered Glass
	Thickness Of Glass	mm	4
Maximum Rating	Stagnation Temperature	°C	194,5
	Maximum Operation Pressure	bar	8,6
	Nominal Flow Rate	lt/h	120
	Back Sheeting		Embossed - Finished - Aluminum Sheet
	Mounting Type		In Roof - On Roof - Flat Roof

THERMOSIPHON SYSTEMS

INNSUN Thermosyphon Systems; is designed for the reason of protecting humans health with using stainless steel serpantines in tanks for domestic hot water applications

INNSUN thermosyphon systems all are compact and easy-assembling systems which already designed with particular engineering calculations.

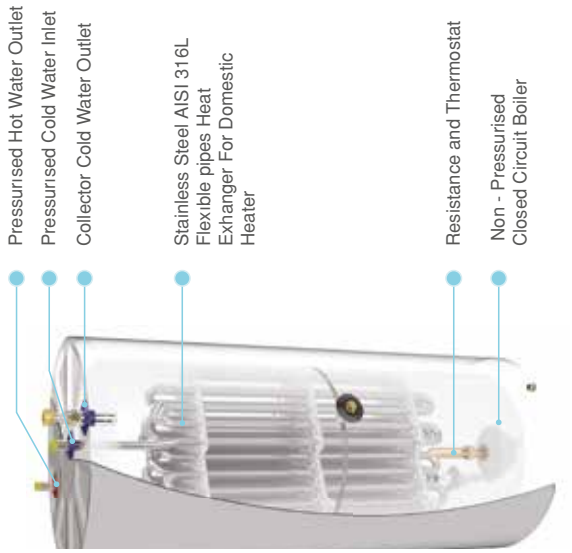
INNSUN thermosyphon systems consist of a combination of collector and a tank which has AISI 316L stainless steel flexible tube heat exchanger.

The water that is heated in stainless pipes is shown us the most hygienic state of domestic water.

Advantages

- Hygienic.
- Compact system.
- Easy-assembling complete system
- Energy-saving.
- Individuality in the hot water needs.
- Lowmaintenance costs.
- High energy efficiency.
- Eco-friendly.

Innsun Box



Solar Keymark certified
No need magnesium
anode and maintenance Free
Unpressurized tank,
pressurized water
Hidden tank behind panels
5 year warranty

TECHNICAL SPECIFICATIONS				
	Unit	**Box 120**	**Box 200**	**Box 300**
Capacity	lt/day	120	200	300
Tank Working Pressure	bar	0-3	0-3	0-3
Heat Exchanger Working Pressure	bar	2-5	2-5	2-5
Maximum Temperature	°C	95	95	95
Insulation		50 mm / 40 kg/m³ / Polyurethan Insulation (CFC Free)	50 mm / 40 kg/m³ / Polyurethan Insulation (CFC Free)	50 mm / 40 kg/m³ / Polyurethan Insulation (CFC Free)
Heat Exchanger		AISI 316 L Stainless Steel	AISI 316 L Stainless Steel	AISI 316L Stainless Steel
Boiler Final Dimensions (Length / Diameter)	mm	1115 / 540	1200 / 540	1725 / 540
Outer Cylinder Materials		Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel
Boiler Net Weight	kg	45	65	82
		Pro 2108	**Pro 2510**	**Pro 2108* (2 Adet)**
Dimensions	mm	1988x1041x90	1988x1218x90	1988x1041x90
Weight	kg	37,2	44	37,2
Gross Area	m²	2,07	2,42	2,07
Aperture Area	m²	1,92	2,24	1,92
Absorber Area	m²	1,89	2,23	1,89
Absorber Material		Black Aluminum	Black Aluminum	Black Aluminum
Welding Method		Laser Welding	Laser Welding	Laser Welding
Glass Material		Normal Iron Tempered Glass	Normal Iron Tempered Glass	Normal Iron Tempered Glass
Insulation Material		Glass Wool	Glass Wool	Glass Wool
Base Sheeting		Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet	Embossed - Finished - Aluminum Sheet

EKİN ENDÜSTRİYEL

WATER HEATER TANKS FOR SOLAR

PRESSURE VESSELS

Ekin Endüstriyel which aim to expand the product range as made in Turkey, presenting us the future technologies with their INNSUN hygienic pressured vessels which is one of the most concrete display.

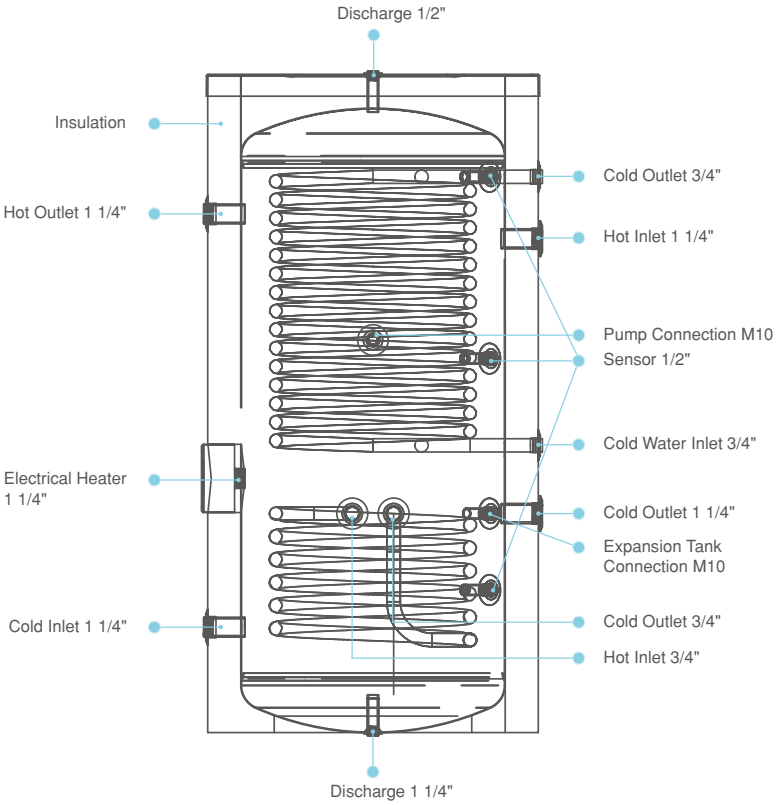
INNSUN Pressure vessels series provide hygienic domestic hot water with their single or double AISI 316L stainless steel serpantines in hybrid applications that have heat sources like hot water boilers, solar panels, heat pumps, geothermal energy...etc

INNSUN pressure vessels can be used in all heating and cooling applications as compact one like villas, apartments, hospitals, sport centers, and factories...etc.

Advantages

- Hygienic domestic water.
- Suitable for heat pump.
- Insulation that minimizes heat loss.
- High heat transfer area,
- Electric heater can be installed.
- Suitable for solar energy.
- Maintenance-free.
- Easy-assembling
- Lightweight
- Compact designed
- Well-designed
- Long-lifed

Innsun BCS

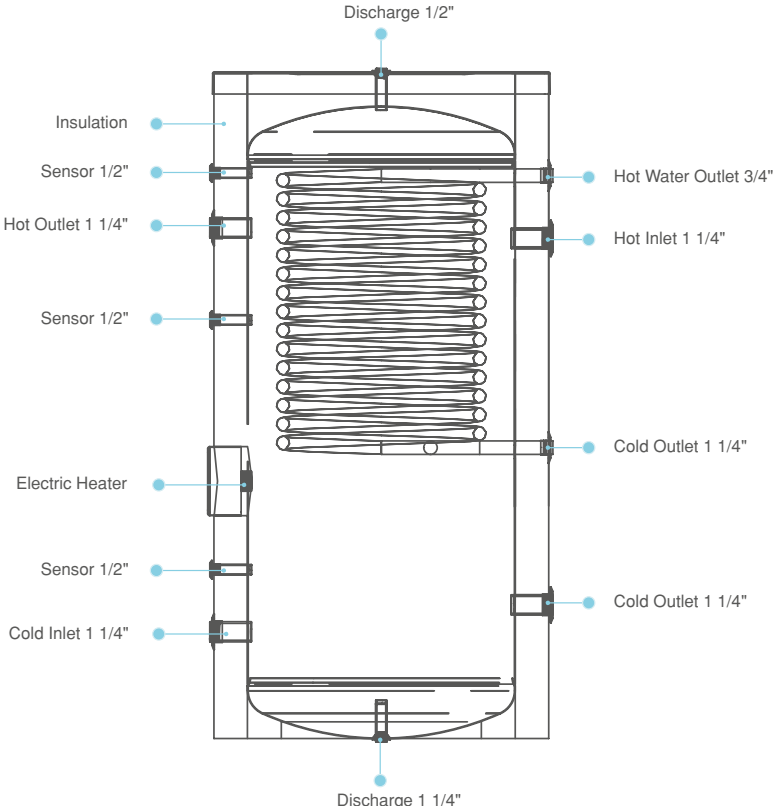


TECHNICAL SPECIFICATIONS				
	Unit	BCS 300	BCS 500	BCS 1000
Height	mm	1770	1653	2033
Diameter	mm	542	750 / 807	1017
Net Weight	kg	85	100	190
Volume	lt	245	454	970
Insulation		50 mm / 40 kg/m^3	50 mm / 40 kg/m^3 - 80 mm 18 kg/m^3	80 mm 18 kg/m^3
Insulation Material		Polyurethane (CFC Free)	18 Density Foam Rubber/ Polyurethane (CFC Free)	18 Density Foam Rubber
Outer Cylinders Material		Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel / Leatherette Jacket	Leatherette Jacket
Material Of Coil		AISI 316L Stainless Steel	AISI 316L Stainless Steel	AISI 316L Stainless Steel
Number Of Coils		2	2	2
1.Coil Area	m^2	3,83	4,81	8,76
2.Coil Area	m^2	1,72	1,75	2,62

- Hygenic water with stainless steel heat exchanger
- Less Lime-scale due to flexible heat exchanger
- No sacrifical anode bar
- Pressurized potable water
- Unpressurized tank
- Lightweight, aesthetic, long life and maintenance-free
- Compatible with heat pump and hybrid energy system
- Optional immersion heater
- Minimum heat loss - polyurethane insulation
- Easy installation due to compact design
- Compatible with solar energy systems
- 5 year warranty

Diameters of electrical resistance connections are 1 1/4" for 100-200-300 models, for the 500-1000 models the diameter is 2".

Innsun BTS

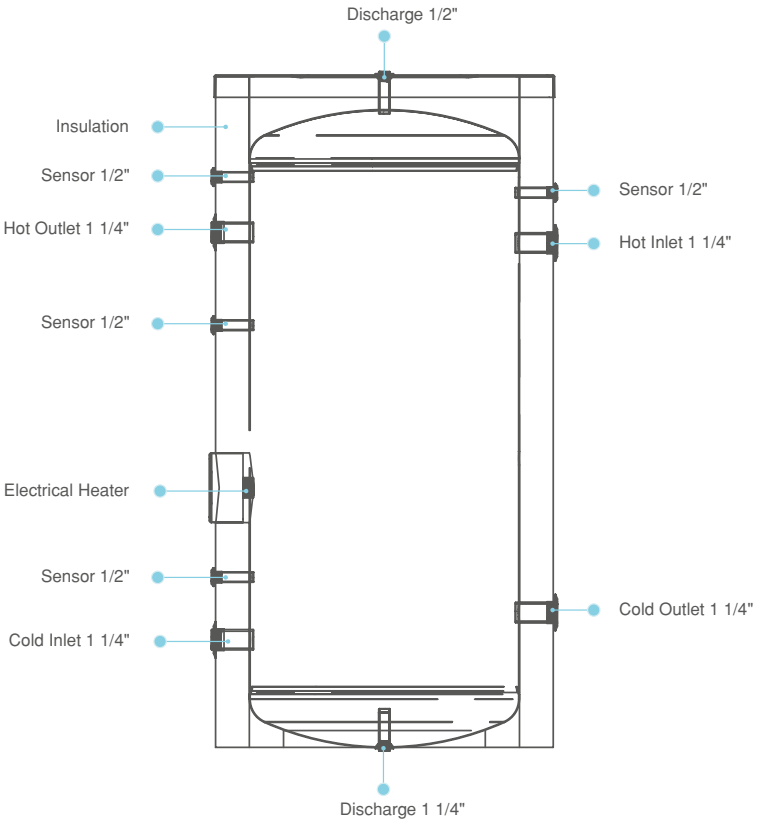


TECHNICAL SPECIFICATIONS					
	Unit	**BTS 200**	**BTS 300**	**BTS 500**	**BTS 1000**
Height	mm	1245	1770	1653	2033
Diameter	mm	542	542	750 / 807	1017
Net Weight	kg	75	85	100	190
Volume	lt	170	245	454	970
Insulation		50 mm / 40 kg/m^3	50 mm / 40 kg/m^3	50 mm / 40 kg/m^3 - 80 mm 18 kg/m^3	80 mm 18 kg/m^3
Insulation Material		Polyurethane (CFC Free)	Polyurethane (CFC Free)	Polyurethane / 18 Density Foam Rubber (CFC Free)	18 Density Foam Rubber
Outer Cylinders Material		Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel / Leatherette Jacket	Leatherette Jacket
Material Of Coil		AISI 316L Stainless Steel	AISI 316L Stainless Steel	AISI 316L Stainless Steel	AISI 316L Stainless Steel
Number Of Coils		1	1	1	1
1.Coil Area	m^2	3,83	3,83	5,48	8,76

- Hygenic water with stainless steel heat exchanger
- Less Lime-scale due to flexible heat exchanger
- No sacrifical anode bar
- Pressurized potable water
- Unpressurized tank
- Lightweight, aesthetic, long life and maintenance-free
- Compatible with heat pump and hybrid energy system
- Optional immersion heater
- Minimum heat loss - polyurethane insulation
- Easy installation due to compact design
- Compatible with solar energy systems
- 5 year warranty

Diameters of electrical resistance connections are 1 1/4" for 100-200-300 models, for the 500-1000 models the diameter is 2".

Innsun BFT



TECHNICAL SPECIFICATIONS						
	Unit	BFT 100	BFT 200	BFT 300	BFT 500	BFT 1000
Height	mm	795	1245	1770	1653	2033
Diameter	mm	542	542	542	750 / 807	1017
Net Weight	kg	50	60	70	90	180
Volume	lt	100	170	245	454	970
Insulation		50 mm / 40 kg/m^3	50 mm / 40 kg/m^3	50 mm / 40 kg/m^3	50 mm / 40 kg/m^3 - 80 mm 18 kg/m^3	80 mm 18 kg/m^3
Insulation Material		Polyurethane (CFC Free)	Polyurethane (CFC Free)	Polyurethane (CFC Free)	Polyurethane / 18 Density Foam Rubber (CFC Free)	18 Density Foam Rubber
Outer Cylinders Material		Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel	Electrostatic Powder Painted ST 37 Steel	Leatherette Jacket

- Minimum heat loss - polyurethane insulation
- Compatible with heat pump systems
- Lightweight, aesthetic, long life and maintenance-free
- Optional immersion heater
- Easy installation due to compact design
- 5 year warranty

Diameters of electrical resistance connections are 1 1/4" for 100-200-300 models, for the 500-1000 models the diameter is 2".

THERMAL MOUNTING KITS

Roof Top

TECHNICAL SPECIFICATIONS	
Model	
INN-D1	2510 Single
INN-D2	2510 Double
INN-D3	2510 Triple
INN-D4	2108 Single
INN-D5	2108 Double
INN-D6	1808 Single
INN-D7	1808 Double
INN-D8	PVT Single
INN-D9	PVT Double

TECHNICAL SPECIFICATIONS	
Model	
INN-C1	2510 Single
INN-C2	2510 Double
INN-C3	2108 Single
INN-C4	2108 Double
INN-C5	1808 Single
INN-C6	1808 Double
INN-C7	PVT Single
INN-C8	PVT Double

THERMAL ACCESSORIES

Pump Satation
TI-0131 ve TI-0129

Solar Controller
TI-0209 ve TI-0210

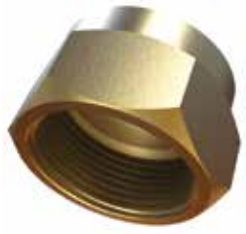
Expansion Vessel
TI-0531

Roof Hook Galvanized Steel

Roof Hook Painted

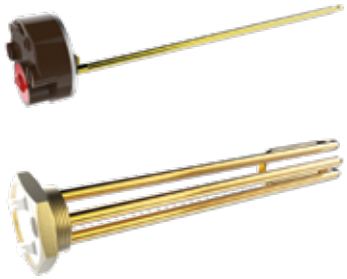
Roof Hook Stainless Steel

Air Purger
HA-1498



End Cap
HA-0345

Flexible Connection
YA-0215



Electrical Heater Thermostat
TI-0079 ve TI-0080

Sensor Set
MA-0577

CERTIFICATES

ISQ Certification Body

CERTIFICATE

EKİN ENDÜSTRİYEL ISITMA SOĞUTMA SAN. VE TİC. LTD. ŞTİ.

ATATÜRK CAD. DESSAN SANAYİ SİTESİ B14 BLOK 107 SOK. 2/A NO:4
ÜMRANİYE / İSTANBUL / TURKEY, Türkiye

ISO 45001:2018

PLAKALI EŞANJÖR, AKÜMÜLASYON TANKI, BOYLER, LEHİMLİ EŞANJÖR, BORULU EŞANJÖR, GENLEŞME TANKI, ISI İSTASYONU, DENGE TANKI, TORTU TUTUCU, HAVA AYIRICI, BUFFER TANKI, PAKET SİSTEM, POMPA, SOĞUTMA KULESİ, CHİLLER, SOĞUTMA GRUBU, KAZAN, DİFÜZÖR, BLOWER, BATARYA, ISI DEĞİŞTİRİCİ RADYATÖR, EKONOMİZER, SERPANTİN, VANA, UHT, CIP VE PASTÖRİZATÖR ÜRETİMİ VE SATIŞI

Sertifika No / Certificate No: OHMS-0090- 13001066-TR

06.11.2018 — Sertifika Tarihi / Certificate Date
06.11.2019 — Sertifika Son Basım Tarihi / Certificate Last Issue Date
3 YIL / YEAR — Belgelendirme Periyodu Bitiş Tarihi / Certification Period Expiration Date
05.11.2020 — Sertifika Geçerlilik Tarihi / Certificate Expiry Date

ONAY / APPROVAL

ISQ Certification Body

CERTIFICATE

EKİN ENDÜSTRİYEL ISITMA SOĞUTMA SAN. VE TİC. LTD. ŞTİ.

ATATÜRK CAD. DESSAN SANAYİ SİTESİ B14 BLOK 107 SOK. 2/A NO:4
ÜMRANİYE / İSTANBUL / TURKEY, Türkiye

ISO 50001:2018

PLAKALI EŞANJÖR, AKÜMÜLASYON TANKI, BOYLER, LEHİMLİ EŞANJÖR, BORULU EŞANJÖR, GENLEŞME TANKI, ISI İSTASYONU, DENGE TANKI, TORTU TUTUCU, HAVA AYIRICI, BUFFER TANKI, PAKET SİSTEM, POMPA, SOĞUTMA KULESİ, CHİLLER, SOĞUTMA GRUBU, KAZAN, DİFÜZÖR, BLOWER, BATARYA, ISI DEĞİŞTİRİCİ RADYATÖR, EKONOMİZER, SERPANTİN, VANA, UHT, CIP VE PASTÖRİZATÖR ÜRETİMİ VE SATIŞI

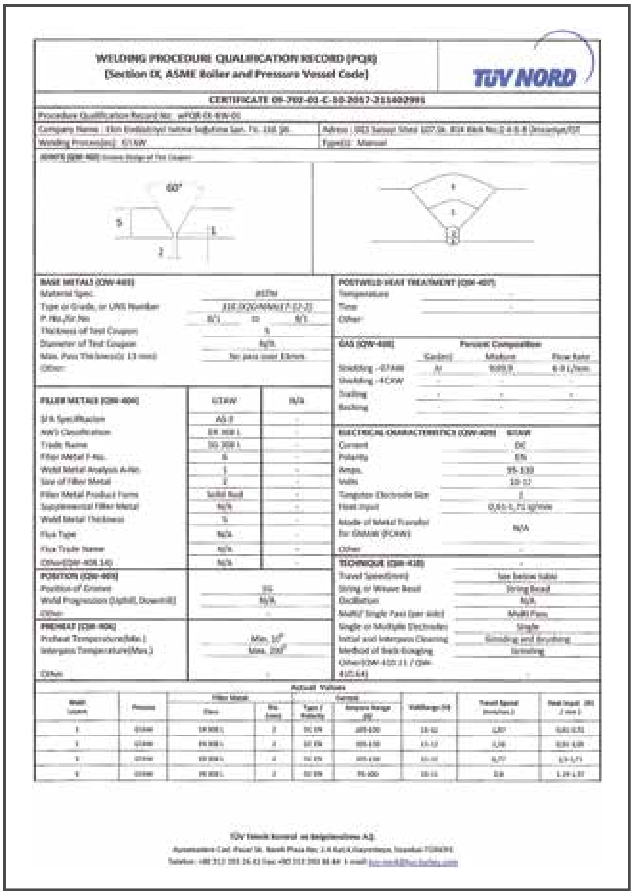
Sertifika No / Certificate No: EnMS-0090- 13001066-TR

06.11.2018 — Sertifika Tarihi / Certificate Date
06.11.2019 — Sertifika Son Basım Tarihi / Certificate Last Issue Date
3 YIL / YEAR — Belgelendirme Periyodu Bitiş Tarihi / Certification Period Expiration Date
05.11.2020 — Sertifika Geçerlilik Tarihi / Certificate Expiry Date

ONAY / APPROVAL

EAC

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ



WELDING PROCEDURE QUALIFICATION RECORD (PQR)
(Section IX, ASME Boiler and Pressure Vessel Code)

TÜV NORD

TÜV Teknik Kontrol ve Belgelendirme A.Ş.

EKIN ACADEMY

A chain is only as strong as its weakest link.

Running and maintaining a quality production process that meets international standards requires focusing on quality all along the ecosystem. Maintaining this focus requires a unifying vision of constant improvement shared by all stakeholder, and a certain level of expertise for all parties involved. Ekin Academy was established with the principles of continuous development and growing together to share the knowledge and experience that will realize this vision.

We support the development of our employees with training programs that directly contribute to the results in their business processes and make a difference in their personal development. We offer technical trainings on heat transfer, pressure vessels, package systems, food systems and liquid transfer. We help them become individuals who will make a difference with our development programs that covers topics like leadership, strategy, sales and many more. In addition, we provide information regarding installation, operating, maintenance and repairs with our pre and after sales training modules prepared for our business partners and customers.

At Ekin Academy we do not solely focus on the development of our staff, partners and customers. Thanks to our university collaborations, we provide the means for future engineers to put their theoretical knowledge to use with practical applications.

We organize seminars, conferences and trainings for professional chambers, and institutions we collaborate on social responsibility projects. Because we know that only by investing in the society, the industry and the future of the industry, we can become a country known for its high-quality engineering products.

SALES TEAM

An Engineering Approach from Sales to Maintenance

We offer value added pre and after sale services with our customer satisfaction-oriented approach and deep expertise we are more than happy to share. Thanks to our expert engineers that provide proactive solutions, we focus on making a difference throughout the process, from presales to maintenance.

With our “quality product, quality service, quality solution” approach, we are more than a manufacturer and supplier, we are a highly motivated solution partner for all kinds of heating and cooling projects.

Customer Satisfaction

Our priority is to ensure customer satisfaction and protect the rights of our customers with our pre-sales processes that analyze customer needs well, quality-registered product range, expert staff and meticulous working methods.

Ethical Values

We conduct all our activities in accordance with the laws and then with ethical values. We believe in growing together and we look for mutual benefit in all our business relationships.

Privacy Policy

All your personal information shared with our company is guaranteed by our ethical values and our processes in compliance with the Law No. 6698 on Protection of Personal Data.

Information Security

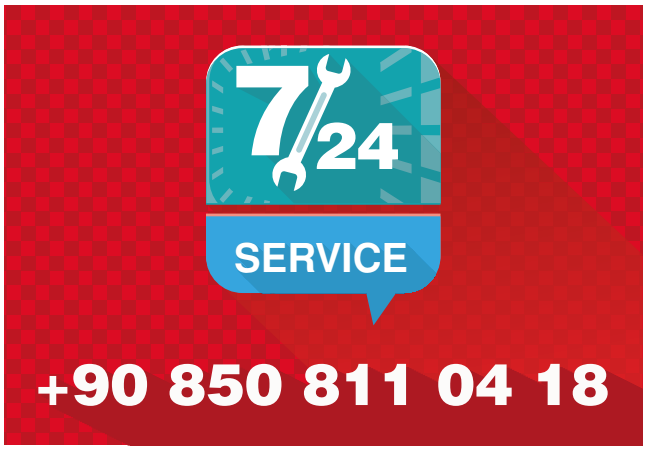
All our information technology operations are protected by our information security processes, which are managed in accordance with ISO 27001 Information Security Management System requirements.

PROFESSIONAL SYSTEM SOLUTION CENTER

From our MIT professional system solution center, you can get help with problems with your pumps, heat exchangers and your system. Our solution center consisting of our expert engineers will be happy to help you.

- Domestic hot water installations.
- Central and district heating systems.
- Milk, yogurt, heating, cooling and pasteurization systems.
- Industrial cooling and heating systems.
- Oil cooling systems.
- Energy recovery systems.
- Pool heating systems.
- Steam installations.

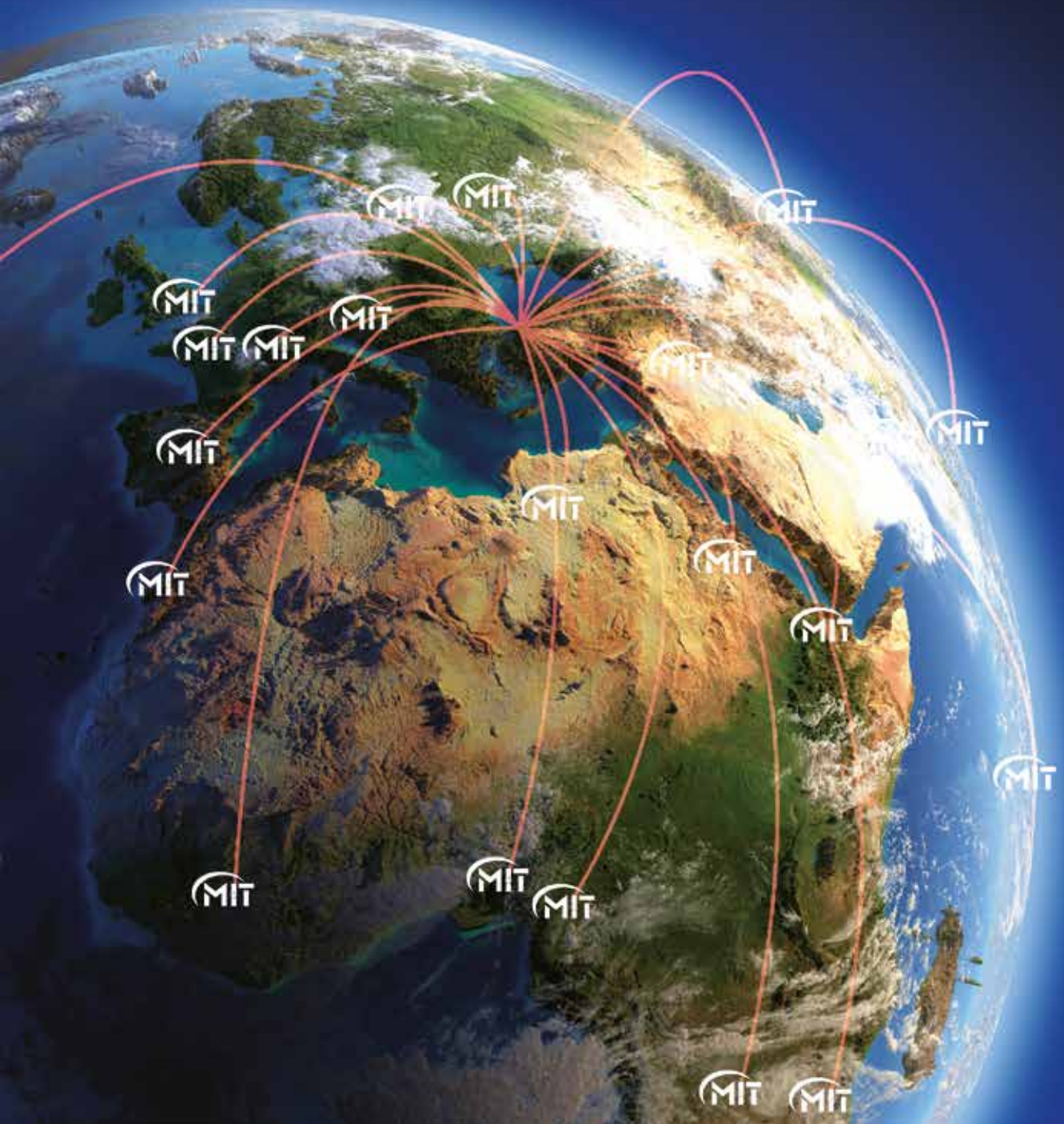
It is vital for your system to be designed and implemented correctly in the first installation in order to be able to operate at the desired capacity, smoothness and long life. For this reason, you can get first-hand the technical support you need during the installation phase of your system and the problems that may arise in the business; You can reach us **24 hours +90 (216) 232 24 12 in 7 days**.



We would like to reiterate that we will be happy to share our knowledge accumulated over many years with our valued customers in order for your system to work correctly and performance.

Ekin will continue to be the best solution partner for you in all applications with all kinds of heating and cooling applications.

Today; **135 points** in the world.



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EKİN ENDÜSTRİYEL
Isıtma-Soğutma San. Tic. Ltd. Şti.

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