

ACK 3 Three Pass Low Temperature Boilers



Power of Triple Circulation

Well known scotch type boilers have been redefined by large combustion chambers and large fire tubes along with excellent flow rates by ACK3 series.

ACK3 series increases the use of input energy by employing 3 way tubes to maximize heat transfer surfaces.

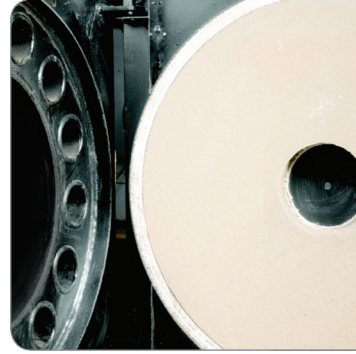
Robust body and fully automated production processes ensures maximum reliability.



arikazan

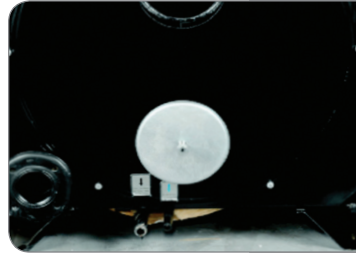
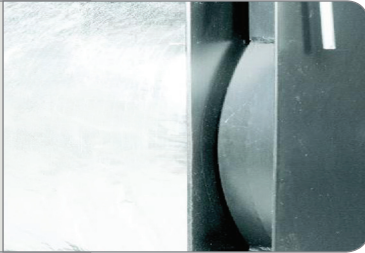
Special hinge system offers easy installation, maintenance and operation. Capability of opening in both directions. Independent 4 point adjustable sealing system.

Any damages to insulation elements are prevented by use of special hinge system. As hinge loosened, front door moves forward by itself.



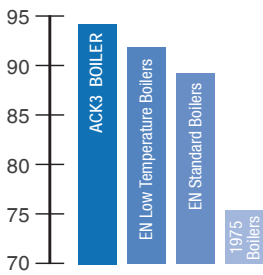
Peak values on front door heat insulation and leak proof valves:
Higher temperature endurance: 1371 oC
Higher durability: 62 kg/cm2
Lower density: 1.28 kg/dm3
Lower thermal Conduction: 0,33 kcal/hr (C/M)

with aluminium folio wrapped high density glass wool insulation, boiler radiation, boiler radiation losses and stand by losses are decreased to minimum levels.



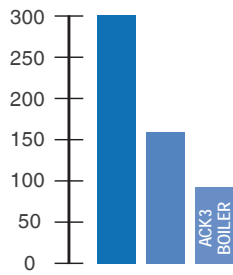
Perfect natural circulation and maximum heat transfer obtained as circulation water inlet located bottom rear, balanced large water galleries inside the boiler.

% EFFICIENCY



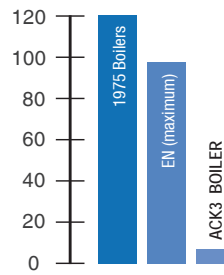
BOILER EFFICIENCY

mg/kWh



NOX EMISSIONS

ppm



CO EMISSIONS

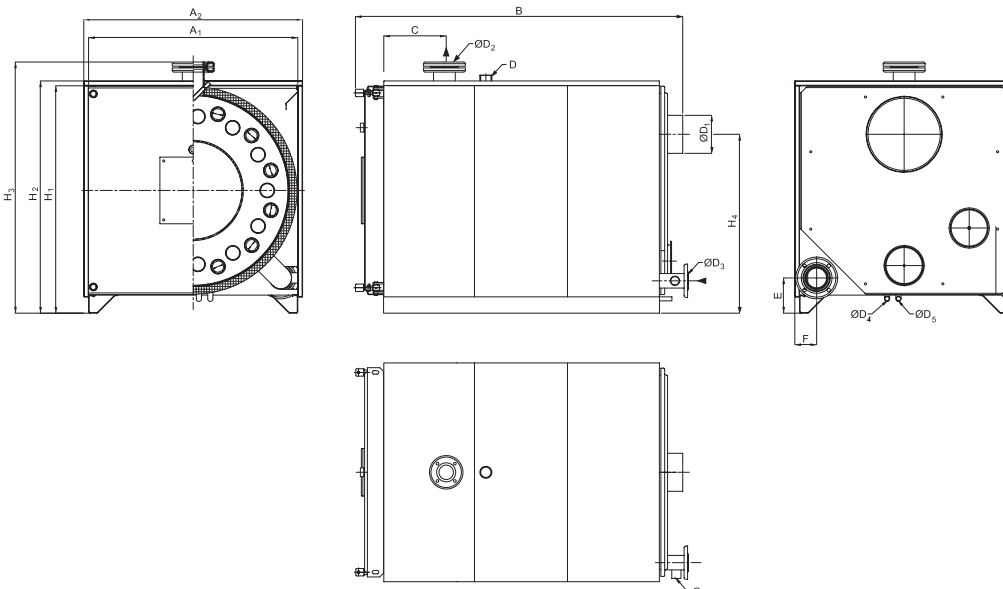
BOILER EFFICIENCY

Flue gas temperatures are lowered to 175-185 °C and %95-96 efficiency values attained based on DIN 4207-8 norms, providing %3 more efficiency values are achieved compared to EN minimum efficiency norms allowing the boiler to be Qualified to bear international ★★"energy & performance" mark.

NOX & CO EMISSIONS

Large combustion chamber allows complete burning along with low flame temperatures, by use of optimal heat transfer surfaces. Burner comparability in compliance with the norms, allows hazardous gasses such as carbon monoxide, nitrogen oxide to be kept below European norms. These values are all tested in EU accredited labs and have obtained the right to be used in all of the environment sensitive European nations.

ACK3 series boilers



TECHNICAL SPECIFICATION OF ACK3 BOILERS	
CAPACITY	Nominal Heat Output
	Direct Efficiency Full load in full load, 100%
OPERATING CONDITIONS	Max. Operating Temperature
	Min. Water Return Temperature
	Operating Pressure
	Boiler Test Pressure
	Electrical Connection
	Recommended Fuel Type
	Required Chimney Draught
	Stand-by Losses
	Boiler Counter Pressure
	Water Flow Resistances
MAIN DIMENSIONS	Boiler Width, A ₂
	Total Width(With Cover Plates), A ₂
	Length, B
	Boiler Height, H ₂
	Total Height(With Cover Plates), H ₂
	Water Connections Height, H ₃
	Stack Size(Outer Diameter), ØD ₁
INSTALLATION WATER CONNECTIONS	Flue Gas Exit Connection Height, H ₄
	Boiler Empty Weight(without cover plates)
	Cover Plates Carton Box Freight Dims (W x H x D)
	Case Weight
	Water Outlet Connection Diameter, ØD ₂
	Expansion Tank Outlet, D
	Water Inlet Connection Diameter, ØD ₃
Expansion Tank Return, G	
Filling&Drain pipe, ØD ₄	
Condensation Outlet, ØD ₅	
Water Content	

Top Rated in Steel Boilers Category

1. THREE PASS FLUE GAS SYSTEM

Most efficient burning is attained by Forcing Flames & Combustion gases to flow through 3 sets of heat transfer surfaces. Flow through low temperature pipes allows low NOX values to be attained than regular systems.

2. GAS TUBES & TURBULATORS

Stainless steel turbulators placed inside the tubes force turbulent flow in gas flow lines. This increases heat transfer rates to the heating water through the tube walls. Flue gas temperatures decreased to desired levels and optimum heating is obtained.

3. BOILER BODY

Cylindrical, high pressure endurant, entirely welded monoblock steel body. Homogeneous heat transfer points balances possible heat expansions offering long service life.

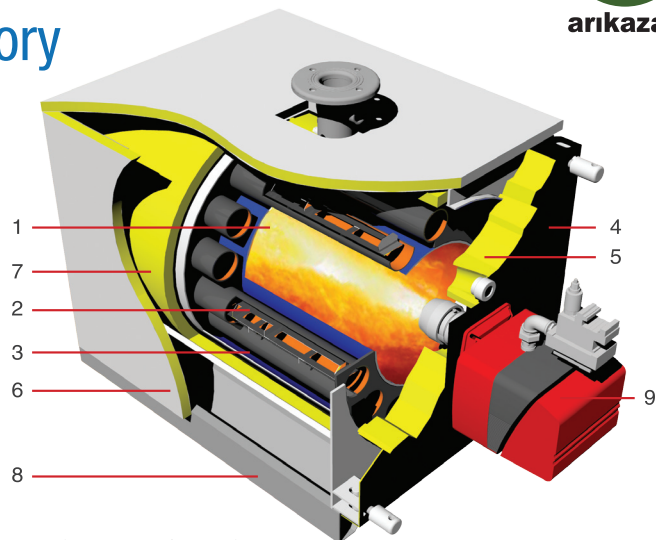
4. REMOVABLE FRONT DOOR

Doors can be opened in both directions. Allows easy installation, maintenance and cleaning of boiler. Special hinge system allows 4 independent edges to be adjusted separately and complete sealing is obtained.

This system prevents possible damages to insulation elements & door parts by moving front by itself, when loosening hinges before opening.

5. FRONT DOOR INSULATION

High temperatures resistant reflective material is used for insulation. Flexible thick gaskets provide long service life.



6. BOILER JACKETS

Aesthetic and modern appearances by metallic grey jackets with hot dipped galvanized and double layer protective painting.

7. BODY INSULATION

Perfect isolation applied to the body minimizes stand by losses.

8. BASES

Single piece durable steel welded stands along the boiler allow the boiler to be moved on pipes for transportation purposes.

9. GAS / DIESEL FUEL BURNER

Long balast tubed and high-pressure burners are not required. Compatible with every burner complies with the norms.

BİRİM	BOILER TYPE																		
	ACK3-100	ACK3-150	ACK3-200	ACK3-250	ACK3-300	ACK3-350	ACK3-400	ACK3-500	ACK3-600	ACK3-700	ACK3-800	ACK3-1000	ACK3-1250	ACK3-1500	ACK3-1750	ACK3-2000	ACK3-2500	ACK3-3000	
kW	116	174	233	291	349	407	465	581	698	814	930	1.163	1.453	1.744	2.035	2326	2907	3488	
kcal/h	100.000	150.000	200.000	250.000	300.000	350.000	400.000	500.000	600.000	700.000	800.000	1.000.000	1.250.000	1.500.000	1.750.000	2.000.000	2.500.000	3.000.000	
%	93,9	93,9	93,9	93,9	93,7	93,5	93,2	92,9	92,9	93,2	93,2	92,6	92,5				92,3	92,1	
°C	90												90						
°C	55												55						
bar	4												4						
bar	6												6						
-	230V _{ac} 50 _{Hz}												230V _{ac} 50 _{Hz}						
-	Fuel-Oil (6 cSt at 20 °C) & Natural Gas, LPG												Fuel-Oil (6 cSt at 20 °C) & Natural Gas, LPG						
mbar	-0,4~0																		
%	0,1	0,09	0,32	0,28	0,27	0,25	0,24	0,17	0,17	0,16	0,16	0,16	0,15	0,15	0,15	0,15	0,15	0,15	
mbar	1,13	2,27	2,18	2,19	2,19	2,07	2,07	2,02	2,96	2,69	3,37	3,53	4,38	6,12	5,33	6,53	6,43	8,42	
mbar	0,32	0,5	0,92	1,25	2,09	2,35	2,49	2,51	2,73	3,55	5,15	4,79	9,86	15,77	11,07	15,9	22,67	38,57	
mm	725	800	990		990			1.100		1.190		1.400		1.500		1.750		2.000	
mm	775	850	1.040		1.040			1.150		1.240		1.450		1.550		1.800		2.050	
mm	1.173	1.373	1.423		1.423		1.573	1.673	1.673	1.923	1.983	2.183	2.283	2.754	3.004	3.004	3.254	3.254	3.754
mm	820	895	1.085		1.086			1.195		1.285		1.495		1.595		1.845		2.120	
mm	846	920	1.110		1.111			1.220		1.310		1.520		1.620		1.870		2.145	
mm	903	1.028	1.202		1.202			1.320		1.495		1.700		1.797		2.037		2.352	
mm	200	200	250		300			400		450			500		500		600		
mm	663	700	800		800			940		985		1.090		1.140		1.300		1.300	
kg	345	442	619	674	754	833	880	1.033	1.153	1.360	1.503	2.000	2.735	2.955	3.540	3.875	4.965	5.575	
mm	220x520x810	310x425x880	310x445x1075	310x445x1075	310x445x1075	310x590x1075	310x690x1075	310x525x1180	310x775x1180	310x625x1270	310x825x1270	310x725x1480	310x860x1580	310x1110x1580	310x1110x1830	415x780x1830	415x780x2080	415x1030x2080	
kg	20	27	34	34	34	38	40	43	48	50	58	70	85	95	110	120	135	155	
inch	2"	NW65		NW80			NW100		NW125			NW150			NW200				
inch	1"	1 1/2"	1 1/2"		2"			2 1/2"			2 1/2"		3"		4"				
inch	2"	NW65		NW80			NW100		NW125			NW150			NW200				
inch	1"		1 1/4"			1 1/2"		2"			2 1/2"			3 1/2"					
inch	3/4"						3/4"						3/4"						
inch	3/4"						3/4"						3/4"						
lt	151	240	326		248	246	328	372	459	610	706	1.026	1.372	1.550	2.595	2.782	3.439	4.116	



ACK 3 Three Pass Low Temperature Boilers

High Efficiency:

High norm efficiency up to % 96 (CE verified) is obtained by use of large volume combustion chamber design maximizing heat transfer surfaces. Boiler gas & water side resistances, stand by losses are minimized and European Nox norms are achieved by CAD design processes.

Environment Friendly:

No hazardous materials are used in our products nor in the production processes. We ensure our environment friendly policy not only controlling our processes but also for all our suppliers by demanding them to provide necessary certificates for their products.

Long Service Life:

All Certified materials, balanced and reliable design on heat expansion points, certified automated welding methods, Design & production in European norms and approved automatic resource management methods offer longer service times then ever.

Burner Compatibility:

Thanks to our versatile design, special high pressure and long ballast burners are not required. High efficiency is attained with stable, smooth and silent combustion by all burners that comply with EN676 and EN267.

Aesthetic Appearance:

Boiler cover jackets are protected against corrosion and external factors by 3 features:

- 1- Hot dipped Galvanized (GALVATITE®) steel material.
- 2- Protective double layer special organic undercoat plating.
- 3- Special organic paint in front, with top layer protective and aesthetic plating. (COLORCOAT®)



arıkazan

Büyükelçi Sokak No:9 Kavaklıdere - Ankara / Türkiye T: +90 312 468 09 11 F: +90 312 468 45 96 www.arikazan.com



50+
Years In
BUSINESS