TS EN 12953-1-3 TS 377-1-2-3-4-5 ISO 9001-2008 BFPN:153-1000



## THE FEATURES OF AYSK-B SOLID FUEL HALF-CYLINDRICAL THREE PASS STEAM BOILERS

It complies with TS EN 12953-1-3, TS 377-1-2-3-4-5-6-7-8-10-11-12-14, TS EN 12953-1-2-3-4-5-6-7-8-10-11-12- 14 standards.
It has operational flexibility compatible with different combustion systems.

• It is produced with superior manufacturing and design technology.

It burns all solid fuels with high efficiency.

 Thanks to large water and steam, it easily meets the necessary steam need in intensive and persistent working conditions and sudden steam traction.

• It is manufactured with computer aided design and manufacturing technology in accordance with CE quality standards, TRD pressure vessels directive, EN, TSE standards.

 With the advantage of high heating surface, it provides acquiring drier steam with higher energy.

 With low counter pressure values, it provides better burning and less energy consumption.

 It operates safer with the pipes welded to the mirrors and it is more durable than the equivalents.

With Optimum isolation, it ensures maximum efficacy and

maximum performance.

• Optimum combustion chamber dimensions ensure high heat transfer, radiation, more efficient usage of heat transfer surfaces and the occurrence of full burning in combustion chamber.

• It has minimum chimney gas emission rates and it is environmentally-friendly.

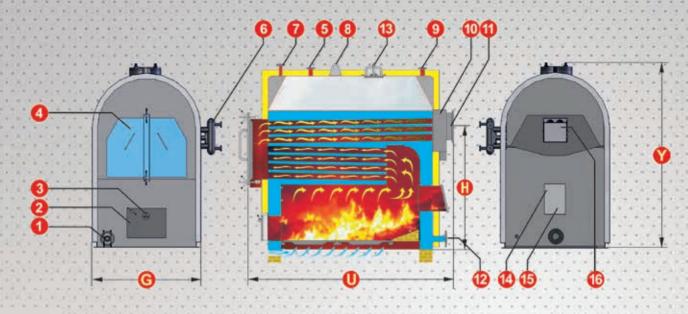
• It provides high efficient full burning without economizers; it provides an environmentally friendly burning graph and reduces fuel consumption.

In order to meet customer expectations, it increases production capacity range appropriate for need and the manufacturing is conducted.

• It provides the opportunity to obtain steam at higher capacities with stoker and other automatic loading systems and it has the flexibility of burning different fuels.

• Upper pressure limit for designing and manufacturing in semi-cylindrical steam boilers has been detected to be 5 Bar.

• BFPN : 153.1100 are solid fuel boilers made from steam producer steel material under 3 atm construction pressure.



1	1.	Hand hole	6.	Level collector		10.
1	2.	Coal throwing cover	7.	Prosestad, manometer and		11.
1	3.	Flare peep cover		thermometer nozzles		12.
1	4.	Front steam boxes	8.	Transport ring		13.
1	5.	Steam exit	9.	Safety output	1	14.
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1.1	ירו.	Duisting minge
-	16.	Chimney Clapper
	12.1	
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## TECHNICAL DIMENSIONS OF AYSK-B SOLID FUEL HALF-CYLINDRICAL THREE PASS STEAM BOILERS

BOILER TYPE	UNIT	AYSK-B 5	AYSK-B 10	AYSK-B 15	AYSK-B 20	AYSK-B 25	AYSK-B 35	AYSK-B 40	AYSK-B 45	AYSK-B 60
Total heating surface	m	5	10	15	20	25	35	40	45	60
Heating capacity (with stocker)	Kcal/h	50.000	100.000	150.000	200.000	250.000	350.000	400.000	450.000	600.000
Heating capacity (loaded by hand)	Kcal/h	30.000	60.000	90.000	120.000	150.000	210.000	240.000	270.000	360.000
Width 🕞	mm	1.040	1.110	1.100	1.200	1.240	1.440	1.540	1.640	1.740
Length 🕕	mm	1.330	2.025	2.180	2.515	2.680	2.880	2.950	2.980	3.250
Height 🕚	mm	1.535	1.780	1.880	2.025	2.500	2.400	2.480	2.700	2.790
Funnel axis height 🛛 🕕	mm	1.025	1.270	1.370	1.515	1.990	1.890	1.970	2.250	2.340
Base width x length	mm	1140x1430	1210x2125	1200x2280	1300x2615	1340x2780	1540x2980	1640x3050	1740x3080	1840x3350
Max. Steam Dome Volume	Lt	290	575	865	1.150	1.440	2.050	2.300	2.400	3.200
Water volume	Lt	260	570	960	1.462	1.637	2.030	2.750	3.601	3.711
Funnel diameter	Ø mm	150x150	200x200	250x250	300x300	350x350	400x400	400x400	450x450	500x500
Steam exit diameter	Ømm	25	32	32	32	50	50	50	50	50
Security valve output	Ømm	20/32	20/32	20/32	20/32	20/32	20/32	20/32	20/32	25/40
Foot bluff hole	Ømm	40	40	40	40	40	40	40	40	40
Weight (6 Atü)	Kg	730	1.130	1.520	1.840	2.820	3.110	3.830	4.210	4.730
Weight (8 Atü)	Kg	767	1.187	1.596	1.932	2.961	3.266	4.022	4.421	4.967
Weight	Kg	805	1.246	1.676	2.029	3.109	3.429	4.223	4.642	5.215
Counter pressure	mBar	2.2	3.5	4	4.5	6	6	6.7	8	8
counter pressure	IIIDdi	Ζ,Ζ	5,5	4	4,5	D	U	0,7	0	0
BOILER TYPE	UNIT	AYSK-B 65	AYSK-B 70	AYSK-B 80	4,5 AYSK-B 85	AYSK-B 90	AYSK-B 100	AYSK-B 120	AYSK-B 140	AYSK-B 150
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BOILER TYPE	UNIT	AYSK-B 65	AYSK-B 70	AYSK-B 80	AYSK-B 85	AYSK-B 90	AYSK-B 100	AYSK-B 120	AYSK-B 140	AYSK-B 150
BOILER TYPE Total heating surface	UNIT m	<b>AYSK-B 65</b>	<b>AYSK-B 70</b> 70	<b>AYSK-B 80</b> 80	AYSK-B 85	<b>AYSK-B 90</b> 90	<b>AYSK-B 100</b> 100	AYSK-B 120 120	<b>AYSK-B 140</b> 140	AYSK-B 150 150
BOILER TYPE Total heating surface Heating capacity (with stocker)	UNIT m Kcal/h	AYSK-B 65 65 650.000	<b>AYSK-B 70</b> 70 700.000	<b>AYSK-B 80</b> 80 800.000	AYSK-B 85 85 850.000	<b>AYSK-B 90</b> 90 900.000	<b>AYSK-B 100</b> 100 1.000.000	AYSK-B 120 120 1.200.000	<b>AYSK-B 140</b> 140 1.400.000	AYSK-B 150 150 1.500.000
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width     Length	UNIT m Kcal/h Kcal/h	AYSK-B 65 65 650.000 390.000	<b>AYSK-B 70</b> 70 700.000 420.000	<b>AYSK-B 80</b> 80 800.000 480.000	AYSK-B 85 85 850.000 510.000	<b>AYSK-B 90</b> 90 900.000 540.000	AYSK-B 100 100 1.000.000 600.000	AYSK-B 120 120 1.200.000 720.000	AYSK-B 140 140 1.400.000 840.000	<b>AYSK-B 150</b> 150 1.500.000 900.000
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width     C     Length   U     Height   V	UNIT m Kcal/h Kcal/h mm	AYSK-B 65 65 650.000 390.000 1.740 3.250 2.870	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940	AYSK-B 90 90 900.000 540.000 1.740 3.770 3.060	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150	<b>AYSK-B 120</b> 120 1.200.000 720.000 1.940 4.500 3.220	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width     Length	UNIT m Kcal/h Kcal/h mm mm	AYSK-B 65 65 650.000 390.000 1.740 3.250 2.870 2.420	<b>AYSK-B 70</b> 70 700.000 420.000 1.740 3.310	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.490	AYSK-B 90 90.000 540.000 1.740 3.770 3.060 2.610	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width   ①     Length   ①     Height   ②     Funnel axis height   ①     Base width x length   ①	UNIT m Kcal/h Kcal/h mm mm mm mm	AYSK-B 65 65 650.000 390.000 1.740 3.250 2.870 2.420 1840x3350	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890 2.440 1840x3410	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.490 1840x3450	AYSK-B 90 90 900.000 540.000 1.740 3.770 3.060 2.610 1840x3870	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860 2040x5980	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width     ①     Length   ①     Height   ②     Funnel axis height   ①	UNIT m Kcal/h Kcal/h mm mm mm mm	AYSK-B 65 65 650.000 390.000 1.740 3.250 2.870 2.420 1840x3350 3.300	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890 2.440 1840x3410 3.400	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450	AYSK-B 85       85       850.000       510.000       1.740       3.350       2.940       2.490       1840x3450       3.500	AYSK-B 90       90       900.000       540.000       1.740       3.770       3.060       2.610       1840x3870       3.600	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width   ①     Length   ①     Height   ②     Funnel axis height   ①     Base width x length   ①	UNIT m Kcal/h Kcal/h mm mm mm mm	AYSK-B 65 65 650.000 390.000 1.740 3.250 2.870 2.420 1840x3350	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890 2.440 1840x3410	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.490 1840x3450	AYSK-B 90 90 900.000 540.000 1.740 3.770 3.060 2.610 1840x3870	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860 2040x5980	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130
BOILER TYPE     Total heating surface     Heating capacity (with stocker)     Heating capacity (loaded by hand)     Width   ①     Length   ①     Height   Ŷ     Funnel axis height   ①     Base width x length   Max. Steam Dome Volume	UNIT m Kcal/h Kcal/h mm mm mm mm Lt	AYSK-B 65       65       650.000       390.000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890 2.440 1840x3410 3.400 570 550x550	AYSK-B 80       80       800.000       480.000       1.740       3.350       2.940       2.490       1840x3450       3.450       960       600x600	AYSK-B 85       85       850.000       510.000       1.740       3.350       2.940       2.490       1840x3450       3.500       1.462       600x600	AYSK-B 90       90       900.000       540.000       1.740       3.770       3.060       2.610       1840x3870       3.600       1.637       600x600	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800 2.030 650x650	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860 2040x5980 4.850	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (loaded by hand) Width © Length ① Height Ŷ Funnel axis height ① Base width x length Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter	UNIT m Kcal/h Kcal/h mm mm mm mm Lt Lt Lt Ø mm Ø mm	AYSK-B 65       65       650.000       390.000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65	AYSK-B 70 70 700.000 420.000 1.740 3.310 2.890 2.440 1840x3410 3.400 570 550x550 80	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450 960 600x600 80	AYSK-B 85       85       850.000       510.000       1.740       3.350       2.940       2.490       1840x3450       3.500       1.462       600x600       80	AYSK-B 90       90       900.000       540.000       1.740       3.770       3.060       2.610       1840x3870       3.600       1.637       600x600       80	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800 2.030 650x650 80	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500 2.750 700x700 100	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860 2040x5980 4.850 3.601 750x750 100	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (loaded by hand) Width C Length Height Funnel axis height Base width x length Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter Security valve output	UNIT m Kcal/h Kcal/h mm mm mm mm Lt Lt Lt Ø mm Ø mm	AYSK-B 65       65       650.000       390.000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65       25/40	AYSK-B 70       70       700.000       420.000       1.740       3.310       2.890       2.440       1840x3410       3.400       570       550x550       80       25/40	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450 960 600x600 80 25/40	AYSK-B 85       85       850.000       510.000       1.740       3.350       2.940       2.490       1840x3450       3.500       1.462       600x600       80       25/40	AYSK-B 90       90       900.000       540.000       1.740       3.770       3.060       2.610       1840x3870       3.600       1.637       600x600       80       25/40	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800 2.030 650x650 80 25/40	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500 2.750 700x700 100 32/50	AYSK-B 140 140 1.400.000 840.000 1.940 5.880 3.310 2.860 2040x5980 4.850 3.601 750x750 100 32/50	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100 32/50
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (toaded by hand) Width C Height Height Funnel axis height Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter Security valve output Foot bluff hole	UNIT m Kcal/h mm mm mm mm mm Lt Lt Lt Lt Ø mm Ø mm Ø mm	AYSK-B 65       65       650.000       390.000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65       25/40       40	AYSK-B 70       70       700.000       420.000       1.740       3.310       2.890       2.440       1840x3410       3.400       570       550x550       80       25/40       40	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450 960 600x600 80 25/40 40	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.940 2.490 1840x3450 3.500 1.462 600x600 80 25/40 40	AYSK-B 90 90.000 540.000 1.740 3.770 3.060 2.610 1840x3870 3.600 1.637 600x600 80 25/40 40	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800 2.030 650x650 80 25/40 40	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500 2.750 700x700 100 32/50 40	AYSK-B 140 140 1400000 840.000 1.940 5.880 3.310 2.860 2.040x5980 4.850 3.601 750x750 100 32/50 40	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100 32/50 40
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (loaded by hand) Width C Height Height Funnel axis height Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter Security valve output Foot bluff hole Weight (6 Atii)	UNIT m Kcal/h mm mm mm mm Lt Lt Lt Ø mm Ø mm Ø mm	AYSK-B 65       65       650,000       390,000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65       25/40       40       4.820	AYSK-B 70       70       700.000       420.000       1.740       3.310       2.890       2.440       1840x3410       3.400       570       550x550       80       25/40       40       5100	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450 960 600x600 80 25/40 40 5.330	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.940 2.490 1840x3450 3.500 1.462 600x600 80 25/40 40 5.850	AYSK-B 90     90       900.000     540.000       540.000     1.740       3.770     3.060       2.610     1840x3870       3.600     1.637       600x600     80       25/40     40       6.210     10	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2.040x4050 3.800 2.030 650x650 80 25/40 40 6.720	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500 2.750 700x700 100 32/50 40 7.960	AYSK-B 140 140 1400000 840.000 1.940 5.880 3.310 2.860 2.040x5980 4.850 3.601 750x750 100 32/50 40 8.960	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100 32/50 40 9.220
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (loaded by hand) Width C Height Height Height Base width x length Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter Steam exit diameter Security valve output Foot bluff hole Weight (6 Atü) Weight (8 Atü)	UNIT m Kcal/h mm mm mm mm Lt Lt Lt Ø mm Ø mm Ø mm Ø mm	AYSK-B 65       65       650,000       390,000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65       25/40       40       4.820       5.061	AYSK-B 70       70       700.000       420.000       1.740       3.310       2.890       2.440       1840x3410       3.400       570       550x550       80       25/40       40       5100       5355	AYSK-B 80       80       800.000       480.000       1.740       3.350       2.940       2.490       1840x3450       960       600x600       80       25/40       40       5.330       5.597	AYSK-B 85       85       850.000       510.000       1.740       3.350       2.940       2.490       1840x3450       3.500       1.462       600x600       80       25/40       40       5.850       6.143	AYSK-B 90     90       900.000     540.000       1.740     3.770       3.060     2.610       1840x3870     3.600       1.637     600x600       80     25/40       40     6.210       6.521	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2040x4050 3.800 2.030 650x650 80 25/40 40 6.720 7.056	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 2.770 2040x4600 4.500 2.750 700x700 100 32/50 40 7.960 8.358	AYSK-B 140 140 140000 840.000 1.940 5.880 3.310 2.860 2.040x5980 4.850 3.601 750x750 100 32/50 40 8.960 9.408	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100 32/50 40 9.220 9.681
BOILER TYPE Total heating surface Heating capacity (with stocker) Heating capacity (loaded by hand) Width C Height Height Funnel axis height Max. Steam Dome Volume Water volume Funnel diameter Steam exit diameter Security valve output Foot bluff hole Weight (6 Atii)	UNIT m Kcal/h mm mm mm mm Lt Lt Lt Ø mm Ø mm Ø mm	AYSK-B 65       65       650,000       390,000       1.740       3.250       2.870       2.420       1840x3350       3.300       260       500x500       65       25/40       40       4.820	AYSK-B 70       70       700.000       420.000       1.740       3.310       2.890       2.440       1840x3410       3.400       570       550x550       80       25/40       40       5100	AYSK-B 80 80 800.000 480.000 1.740 3.350 2.940 2.490 1840x3450 3.450 960 600x600 80 25/40 40 5.330	AYSK-B 85 85 850.000 510.000 1.740 3.350 2.940 2.940 2.490 1840x3450 3.500 1.462 600x600 80 25/40 40 5.850	AYSK-B 90     90       900.000     540.000       540.000     1.740       3.770     3.060       2.610     1840x3870       3.600     1.637       600x600     80       25/40     40       6.210     10	AYSK-B 100 100 1.000.000 600.000 1.940 3.950 3.150 2.700 2.040x4050 3.800 2.030 650x650 80 25/40 40 6.720	AYSK-B 120 120 1.200.000 720.000 1.940 4.500 3.220 2.770 2040x4600 4.500 2.750 700x700 100 32/50 40 7.960	AYSK-B 140 140 1400000 840.000 1.940 5.880 3.310 2.860 2.040x5980 4.850 3.601 750x750 100 32/50 40 8.960	AYSK-B 150 150 1.500.000 900.000 1.940 6.030 3.310 2.860 2040x6130 5.200 3.711 800x800 100 32/50 40 9.220

The capacities specified on the table were calculated due to the input values of 3 bar operating water volume and 800°C sap. Security exits specified on the table was detected due to full lifting security valves emptying capacity and opening adjustment pressure was detected according to 3,5 bar. Base width must be accepted minimum as 100 mm. The right of making change in technical issues is reserved by our firm. Special designs and manufacturing can be done.

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