

# **Boiler Product Catalog**

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# Catalog

# Coal-fired Steam and Hot Water Boilers

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鼎益科技 Top-In Technology Co.,Ltd.

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#### TP-SZL Series Water Pipe Steam Boiler



#### **INTRODUCTION TO SERIES OF TP-SZL BOILERS:**

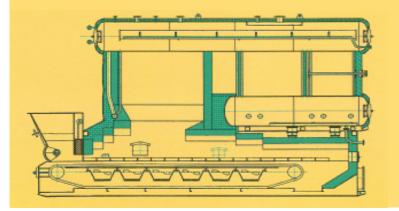
Series of TP-SZL Boiler is the horizontal dual cylinder portrait arranged, chain grating, pipe steam and hot water boiler designed by our technical personnel according to advanced technology and experiences from home and abroad. The technology, performance and environmental protective index of this series of products reach the international advanced level, and this product is the mainstay in boiler industry.

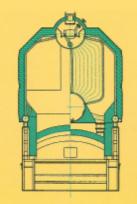
This boiler has quick fitting structure for assembly. The 4-6t/h boiler has quick fitting pipe structure, it is completely assembled in the factory, the boiler of  $6\sim25t/h$  is composed of 2 main components: The upper assembled component is the heat receiving part, and the lower assembled component is of combustion equipment.

The former part of the boiler body is arranged as water cooling wall, the upper part of it is connected to boiler cylinder, and its lower part is connected to collective chest, so as to form a combustion room and absorb the radiated heat from the furnace; its rear part is arranged with dense convection pipe bundle between upper and lower boiler cylinders; the high temperature smog after combustion shall stand for twice returning flushing transversely to the heat accepting surfaces, and shall be introduced to coal saver singly arranged, and flow into duster and exhausted from chimney in the end.

The 20t/h assembled water pipe boiler is composed of front furnace, rear furnace, convection pipe bundle, coal saver and chain grating, and which are assembled in big components respectively for delivery.

This series of boiler absorbs the merits from quick fitting boiler; it is compact in structure, the boiler furnace is one storey arranged, convenient for site installation, short in construction period, cheap in cost, simple in operation and etc. This series of steam boiler is suitable for industrial and living steam consumption; the correspondent capacity hot water boiler is applied for industrial and civil heating purpose.





## 鼎益科技股份有限公司

$\setminus$		-				Specification of Pack	kage and Shop-assen	nbled Water Tube Cos	al-fired Boiler		
		Item		★ TP-SZL4-1.25-All TP-SZL4-1.6-All TP-SZL4-2.45-All	★ TP-SZL6-1.25-All( 快 ) TP-SZL6-1.6-All TP-SZL6-2.45-All	★ TP-SZL6-1.25-All( 組 ) TP-SZL6-1.57-All TP-SZL6-2.45-All	★ TP-SZL8-1.25-All TP-SZL8-1.6-All TP-SZL8-2.45-All	★ TP-SZL10-1.25-All TP-SZL10-1.6-All TP-SZL10-2.45-All	★ TP-SZL15-1.25-All TP-SZL15-1.6-All TP-SZL15-2.45-All	★ TP-SZL20-1.6-All TP-SZL20-2.45-All	★ TP-SZL25-1.6-All TP-SZL25-2.45-All
	Rated Ev	aporation Cap (t/h)	acity	4	6	6	8	10.0	15	20	25
	Rated	Rated Pressure (Mpa)		1.25/1.6/2.45	1.25/1.6/2.45	1.25/1.57/ 2.45	1.25/1.6/2.45	1.25/1.6/2.45	1.25/1.6/2.45	1.6/2.45	1.6/2.45
	Rated Stea	am Temperatur	e (℃ )	194/204/225	194/204/225	194/204/225	194/204/225	194/204/225	194/204/225	204/225	204/225
	Water Sup	Water Supply Temperature (°C )		20	20	20	20	20	20	20	20
		Body (n	2 1)	21(Radiation) 78.5(Convection)	21(Radiation) 105.1(Convection)	139.2	26.1(Radiation) 184(Convection)	29.5(Radiation) 204.1(Convection)	34.8(Radiation) 283.7(Convection)	504(Steam)	90.5(Radiation) 482.5(Convection) 118 (Superheater)
	Heating Surface	Economizer	r (m <sup>2</sup> )	38.5	109	130.8	130.8	174.4	348.8 (Steam )	377.6 (Steam) 236 (Water)	381.5
		Air prehe	ater	/	/	/	/	/	/	/	/
Furnace	Grate Ef	fective Surface	(m <sup>2</sup> )	5.3	7.8	7.8	10.2	12	18	23.2	28.6
	Suitable	Designed Co	al Type	AII	AII	AII	AII	AII	AII	AII	AII
	Fuel	Low heat Value(KCA	ing L/kg)	5019	5019	5019	5019	5019	5019	5019	5019
	Fuel Co	onsumption (kg	;/h)	591	884	880	1155	1443	2157	2866	3617
	Therm	al Efficiency (	%)	81	81	81	81.3	82	82	82	82
	Maximun	n shipping weig	ght (t)	32	40	21	25	28	30	30	36.8
	Maximum shipping dimensions (m)		7.46 x 2.65 x 3.52	8.5 x 3.2 x 3.54	7 x 2.7 x 3.5	6.9 x 3.16 x 3.524	7.89 x 3.26 x 3.53	10 x 3.2 x 3.5	11 x 3.2 x 3.5	11.5 x 3.24 x 3.53	
	Boiler As (Length )	sembled Dimer Width xHeight	nsions t) (m)	7.46 x 3.5 x 4.4	9.1 x 5.1 x 4.8	8 x 3.6 x 6.2	8.4 x 4.0 x 6.2	9.380 x 4.0 x 6.2	13 x 5.6 x 6.7	14 x 5.6 x 6.7	17 x 6.5 x 8.5
		Air volume	(m <sup>3</sup> /h)	17245	12000-24000	12000-24000	27045-31554	30000	33318-50356	36762-69347	60611-94052
	I.D Fan	Air Pressure	e (Pa)	3099-3040	3980-4245	3980-4245	3895-3932	4030-4120	3628-3393	2824-3874	3112-3688
	1.D Fall	Rotational Speed (r/min)		1750	1750	1750	1750	1750	1750	1750	1750
		★ Motor Efficiency (kw)		22	37	37	55	55	75	110	110
		Air volume	(m <sup>3</sup> /h)	3742-7226	12000-7000	12000-7000	14840-16281	15012.2	31400-19400	23003-32079	33173-60960
	F.D Fan	Air Pressure	e (Pa)	1275-2036	1442-2109	1442-2109	3151-2843	2241.6	1450-2380	2559-2668	2150-3401
	1.014	Rotational S (r/min)		3500	3500	3500	3500	3500	3500	3500	3500
		★ Motor Eff (kw)		5.5	7.5	11	15	15	22	30	55
Auxiliary		Rotational S (r/min)	Speed )	2900/3500	2900/3500	2900/3500	2900/3500	2900/3500	2900/3500	2900/3500	2900/3500
Machine	Feed Water Pump	Lift (m	)	150	150	150	175	175	170	180	238
		★ Motor Effi (kw)	iciency	7.5	7.5	7.5	15	15	22	30	45
		Model	l	GL-5P	GL-10W	GL-10P/110	GL-16P	GL-16P	GL-20P/ll	GL-20PWI	GL-30P
	Speed	Ν	lodel	YCT112-4A	YCT112-4B	YCT112-4B	YCT132-4A	YCT132-4A	YCT132-4B	JZTY22-4	YCT160-4A
	Governor	Motor P	ower	1.1	1.1	1.1	1.1	1.1	1.5	1.5	2.2
			ational peed	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250
	Cinder	P Motor	ower	1.1	1.5	1.5	1.5	1.5	2.2	2.2	2.2
	Conveyor	Rot	ational peed	960	960	960	960	960	960	960	960
	Dust	Collector Mod	el	XTD-4	XTD-6	XTD-6	XTD-10	XTD-10	XTD-15	XTD-20	XTD-25

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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#### TP-SZL Series Water Pipe Hot Water Boiler



#### INTRODUCTION TO SERIES OF TP-SZL BOILERS:

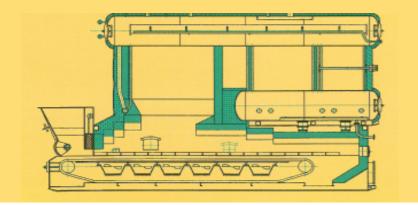
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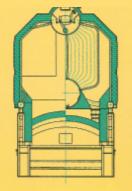
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$\setminus$	-				Specification of Pack	age and Shop-assen	abled Water Tube Coa	al-fired Boiler			
		Item		★ TP-SZL4-1.25-All TP-SZL4-1.6-All TP-SZL4-2.45-All	★ TP-SZL6-1.25-All(快) TP-SZL6-1.6-All TP-SZL6-2.45-All	★ TP-SZL6-1.25-All(組) TP-SZL6-1.57-All TP-SZL6-2.45-All	★ TP-SZL8-1.25-All TP-SZL8-1.6-All TP-SZL8-2.45-All	★ TP-SZL10-1.25-All TP-SZL10-1.6-All TP-SZL10-2.45-All	★ TP-SZL15-1.25-All TP-SZL15-1.6-All TP-SZL15-2.45-All	★ TP-SZL20-1.6-All TP-SZL20-2.45-All	★ TP-SZL25-1.6-All TP-SZL25-2.45-All
	Rated Ev	aporation (MW)	Capacity	2.8	4.2	4.2	5.6	7.0	10.5	14	17.5
	Rated	Pressure	(Mpa)	0.7	1.0	1.0	1.0/1.25	1.0/1.25	1.0/1.25	1.0/1.25	1.0/1.25
	Output Wa	iter Tempe	erature(°C)	95	115	115	115/130	115/130	115/130	115/130	115/130
	Return Wa	ter Tempe	erature(°C)	70	70	70	70	70	70	70	70
	Body (m <sup>2</sup> )		ty (m <sup>2</sup> )	21(Radiation) 78.5(Convection)	21(Radiation) 105.1(Convection)	139.2	26.1(Radiation) 184(Convection)	29.5(Radiation) 204.1(Convection)	34.8(Radiation) 283.7(Convection)	396(Water)	90.5(Radiation) 482.5(Convection)
	Heating Surface	Econor	mizer (m <sup>2</sup> )	118 (Superheater)	109	130.8	130.8	174.4	174.4	236	381.5
		Air p	reheater	1	/	/	1	1	1	/	/
Furnace	Grate Eff	èctive Su	rface (m <sup>2</sup> )	5.3	7.8	7.8	10.2	12	18	23.2	28.6
	Suitable	Designe	d Coal Type	AII	All	All	All	All	All	All	All
	Fuel		heating KCAL/kg)	5019	5019	5019	5019	5019	5019	5019	5019
	Fuel Co	onsumptio	n (kg/h)	591	884	880	1155	1443	2157	2866	3617
	Therm	al Efficier	ncy (%)	81	81	81	81.3	82	82	82	82
	Maximum shipping weight (t)		32	40	21	25	28	30	30	36.8	
	Maximum shipping dimensions (m)		7.46 x 2.65 x 3.52	8.5 x 3.2 x 3.54	7 x 2.7 x 3.5	6.9 x 3.16 x 3.524	7.89 x 3.26 x 3.53	10 x 3.2 x 3.5	11 x 3.2 x 3.5	11.5 x 3.24 x 3.53	
			Dimensions Height) (m)	7.46 x 3.5 x 4.4	9.1 x 5.1 x 4.8	8 x 3.6 x 6.2	8.4 x 4.0 x 6.2	9.380 x 4.0 x 6.2	13 x 5.6 x 6.7	14 x 5.6 x 6.7	17 x 6.5 x 8.5
	Air volume (m <sup>3</sup> /h) Air Pressure (Pa)		17245	12000-24000	12000-24000	27045-31554	30000	33318-50356	36762-69347	60611-94052	
			3099-3040	3980-4245	3980-4245	3895-3932	4030-4120	3628-3393	2824-3874	3112-3688	
		Rotational Speed (r/min)		1750	1750	1750	1750	1750	1750	1750	1750
			r Efficiency kw)	22	37	37	55	55	75	110	110
		Air volu	ume (m <sup>3</sup> /h)	3742-7226	12000-7000	12000-7000	14840-16281	15012.2	31400-19400	23003-32079	33173-60960
	F.D Fan	Air Pre	essure (Pa)	1275-2036	1442-2109	1442-2109	3151-2843	2241.6	1450-2380	2559-2668	2150-3401
			onal Speed /min)	3500	3500	3500	3500	3500	3500	3500	3500
			r Efficiency kw)	5.5	7.5	11	15	15	22	30	55
Auxiliary			Rotational d (r/min)	3500	3500	3500	3500	3500	3500	3500	3500
Machine	Feed Water Pump	Li	ft (m)	150	150	150	175	175	170	180	238
			r Efficiency (kw)	7.5	7.5	7.5	15	15	22	30	45
		N	fodel	GL-5P	GL-10W	GL-10P/110	GL-16P	GL-16P	GL-20P/ll	GL-20PWI	GL-30P
	Speed Governor		Model	YCT112-4A	YCT112-4B	YCT112-4B	YCT132-4A	YCT132-4A	YCT132-4B	JZTY22-4	YCT160-4A
	Governor	Motor	Power	1.1	1.1	1.1	1.1	1.1	1.5	1.5	2.2
			Rotational Speed	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250	125-1250
	Cinder	Motor	Power	1.1	1.5	1.5	1.5	1.5	2.2	2.2	2.2
	Conveyor		Rotational Speed	960	960	960	960	960	960	960	960
		Collector		XTD-4	XTD-6	XTD-6	XTD-10	XTD-10	XTD-15	XTD-20	XTD-25
D	. 1	T1 C	1	C	se on the quotation						

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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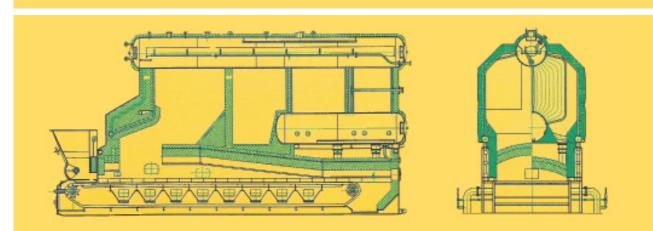
#### TP-SZL Series Anthracite Assembled Steam Boiler



#### Introduction to Anthracite Coal Series of TP-SZL Boiler:

Series of TP-SZL type is the dual boiler cylinder longitudinal assembled water pipe boiler. The capacity of evaporation is 6-20t/h with the working pressure of 1.25-2.45Mpa. The boiler is composed of upper furnace and lower combustion body, the economizer and air pre-heater are arranged at the rear part of the boiler; the combustion device uses center flexible grating; the smog after combustion shall have twice backhaul flushing transverse convection on heat receiving surface and then induced into economizer and air pre-heater, and then exhaust from chimney.

This series of boiler features compact structure, high heat efficiency, and low temperature in exhaustion; it is single storey arranged, the installation period is greatly shortened, the construction cost for boiler is significantly reduced; simple in operation, safe and reliable in operation, convenient in maintenance, and etc...



$\setminus$					TP-SZL Series Double-	drum Vertical Type Assem	bling Water Tube Boiler	TP-SZL Series Double-drum Vertical Type Assembling Water Tube Boiler						
		Item		★ TP-SZL6-1.25-WII TP-SZL6-1.6-WII TP-SZL6-2.45-WII	★ TP-SZL8-1.25-WII TP-SZL8-1.6-WII TP-SZL8-2.45-WII	★ TP-SZL10-1.25-WII TP-SZL10-1.6-WII TP-SZL10-2.45-WII	TP-SZL15-1.25-WII ★ TP-SZL15-1.6-WII TP-SZL15-2.45-WII	TP-SZL20-1.25-WII ★ TP-SZL20-1.6-WI TP-SZL20-2.45-WII						
	Rated	Evaporation Capac	ity(t/h)	6	8	10	15	20						
	]	Rated Pressure(Mpa	i)	1.25/1.6/2.45	1.25/1.6/2.45	1.25/1.6/2.45	1.25/1.6/2.45	1.25/1.6/2.45						
	Rate	d Steam Temperatur	re(°C )	194/205/225	194/205/225	194/205	194/205	194/205						
	Water	r Supply Temperatu	re(℃ )	105	105	105	105	105						
	Heating Surface	Body(m <sup>2</sup> )		20(Radiation) 199.3(Convection)	20(Radiation) 202(Convection)	229.5(Radiation) 204.1(Convection)	24.6(Radiation) 315(Convection)	42.51(Radiation) 380(Convection)						
	Burlace	Economiz	er(m <sup>2</sup> )	199.3(Convection)	20(Radiation)	69.8	212	267.8						
		Air preh	leater	202(Convection)	29.5(Radiation)	88.7	224	342.1						
Furnace	Grat	e Effective Surface	(m <sup>2</sup> )	204.1(Convection)	24.6(Radiation)	16.6	21.13	25.7						
		Designed C	oal Type	315(Convection)	42.51(Radiation)	WII	WII	WII						
	Suitable Fuel	Low heating Value(KCAL/kg)		380(Convection)	6071	6071	6071	6071						
	Max	imum shipping wei	ght(t)	23	25	27	30	32						
	Maximum shipping dimensions(m)			8.7 x 2.7 x 3.5	10.6 x 3.16 x 3.53	10.6 x 3.16 x 3.53	10.6 x 3.16 x 3.53	10.6 x 3.16 x 3.53						
	Boiler Assembled Dimensions			9.5 x 3.6 x 5.9	10.95 x 4 x 5.95	10.95 x 4 x 5.95	11.8 x 5.63 x 6.2	13.5 x 6.6 x 9.8						
		Air volume(m <sup>3</sup> /h)		18000	30000	30000	33318-62850	36762-69347						
		Air Pressu	ure(Pa)	Air volume(m3/h)	4120	4120	3752-4005	2824-3874						
	I.D Fan	Rotational Speed(r/min)		1750	1750	1750	1750	1750						
		★ Motor Efficiency (kw)		37	55	55	75	110						
		Air volume	e(m <sup>3</sup> /h)	8294-10171	8327-14156	8327-14156	21362-25435	19888-28078						
		Air Pressu	ure(Pa)	4101-4453	3907-3975	3907-3975	3704-3812	4249-4917						
	F.D Fan	Rotational Sp	eed(r/min)	3500	3500	3500	3500	3500						
		★ Motor Effic	eiency (kw)	22	37	22	37	75						
		Rotational Sp	eed(r/min)	2950	2900	2900	2900	2900						
	Feed Water Pump	Lift(r	n)	175	175	175	210	210						
A		★ Motor Effic	eiency (kw)	7.5	15	15	30	30						
Auxiliary Machine		Mod	el	GL-16PW/ll	GL-16P/ll	GL-20PW/ll	GL-20PW/ll	GL-30P						
	Speed		Model	YCT132-4A	YCT132-4A	YCT132-4B	YCT132-4B	YCT160-4A						
	Governor	Motor	Power(kw)	1.1	1.1	1.5	1.5	2.2						
			Rotational Speed (r/min)	125-1250	125-1250	125-1250	125-1250	125-1250						
	Circl		Power(kw)	1.5	1.5	1.5	2.2	2.2						
	Cinder Motor		Rotational Speed	960	960	960	960	960						
		Dust Collector Mod	(r/min) el	XTD-6	XTD-8	XTD-10	XTD-15	XTD-20						

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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#### TP-DZL Series Horizontal Quick-Installed Steam Boiler

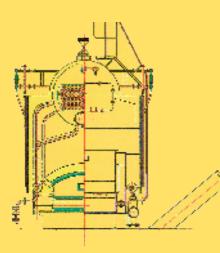


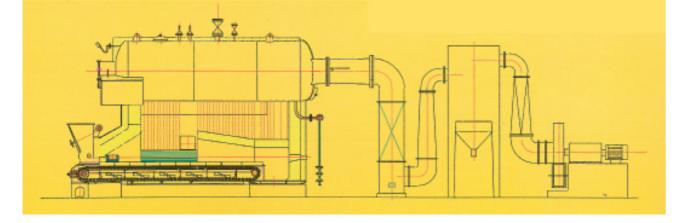
#### INTRODUCTION TO SERIES OF TP-DZL BOILERS:

Series of TP-DZL quick fitting boiler is the horizontal tri-returning water and fire pipes chain grating boiler, which uses medium level quality soft coal. The boiler body is a single cylinder type, longitudinal arranged; there are left and right 2 rows of fire pipe bundles inside boiler cylinder to form convection heat receiving surfaces, the boiler cylinder and water cooling walls at both sides shape the furnace radiation heat receiving surfaces; the combustion equipment uses light chain grating; exit shop in whole machine & quick fitting type.

The electric control realizes free grating speeds, and achieves parameter alarm and inter-lock protection.

Features of this series of boiler: compact structure, small volume; convenient installation, cheap in fundamental construction; mechanized coal feeding and cinder removing: the output of the boiler is sufficient and has high efficiency. It is the well appreciated equipment for extensive steam supply equipment for medium and small enterprises and public heating.





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$\setminus$					Water and F	ire Tube Coal-fired Boiler S	pecification		
		Item		★ TP-DZL1-0.7- AII TP-DZL1-1.0- AII	★ TP-DZL2-1.0- AII TP-DZL2-1.25- AII TP-DZL2-1.57- AII TP-DZL2-2.45-AII	★ TP-DZL4-1.25-AII TP-DZL4-1.57-AII TP-DZL4-2.45-AII	★ TP-DZL6-1.25-AII TP-DZL6-1.6-AII	★ TP-DZL10-1.25-AII TP-DZL10-1.6-AII	
	Rated Evaporation Capacity (t/h)			1	2	4	6	10	
	Rate	d Pressure (Mp	ba)	0.7/1.0	1.0/1.25/1.57/2.45	1.25/1.57/2.45	1.25/1.6	1.25/1.6	
	Rated Steam Temperature (°C)			170/184	184/194/204/225	194/204/225	194/205	194/205	
	Water Supply Temperature (°C)			20/95	20/95	20/95	20/115	60/60	
	Heating	Body (m <sup>2</sup> )		32.4	59.3	89.16	126.7	251	
	Surface	Economizer (m <sup>2</sup> )		12.54	28.16	38.5	78.5	174.4	
	Grate Ef	fective Surface	e (m <sup>2</sup> )	2.05	3.7	5.3	8.32	12	
Furnace -		Designed	Coal Type	AII	AII	AII	AII	AII	
	Suitable Fuel	Low heating Value (Kcal/kg)		5019	5019	5019	5019	5019	
	Fuel C	onsumption (k	g/h)	151	302	600	888	1447	
ĺ	Thermal Efficiency (%)			79	79	79	79	79	
	Maximum shipping weight (t)			13	25	26.7	36.1	25	
ĺ	Maximum s	hipping dimen	sions (m)	5.2 x 2.0 x 2.9	5640 x 2540 x 3467	6.3 x 2.65 x 3.55	7.32 x 3.25 x 3.54	7.2 x 3.3 x 3.53	
ĺ	Boiler Assembled Dimensions (Length x Width x Height) (m)		6 x 3.5 x 4.1	6 x 3.85 x 5	7.2 x 4 x 4.9	8 x 5.1 x 4.62	8.2 x 3.6 x 6.5		
		Air volur	me (m <sup>3</sup> /h)	6610-7902	5000-9000	11000-14000	12000-24000	30000	
		Air Pres	sure (Pa)	2089-2138	3340-3100	3920-3930	3980-4245	4030-4120	
	I.D Fan	Rotational Speed (r/min)		1750	1750	1750	1750	1750	
		★ Motor Efficiency (kw)		7.5	11	22	37	55	
		Air volur	me (m <sup>3</sup> /h)	1630-3600	2664-5268	3742-7226	12000-7000	15012.2	
		Air Pres	sure (Pa)	650-1040	650-1040	986-1578	1275-2036	1442-2109	
	F.D Fan		al Speed nin)	3500	3500	3500	3500	3500	
		★ Motor Eff	iciency (kw)	2.2	3	5.5	7.5	15	
Auxiliary Machine			al Speed nin)	2900/3500	2900/3500	2900/3500	2900/3500	2900/3500	
	Feed Water Pump	Lift	(m)	105	115	161	175	175	
			r Efficiency w)	2.2	7.5	7.5	7.5	15	
		Мо	del	EW-766A	GL-5P	GL-5P	GL-10P	GL-16P	
	Governor		Power	0.55/1.1	0.55	0.55	0.75	1.1	
		Motor	Rotational Speed	690~1380	125~1250	125~1250	125~1250	1440	
	Cinder	Mar	Power	1.1	1.1	1.1	1.5	1.5	
	Conveyor	Motor	Rotational Speed	960	960	960	960	960	
	Dust	Collector Mod	iel	XTD-1	XTD-2	XTD-4	XTD-6	XTD-10	

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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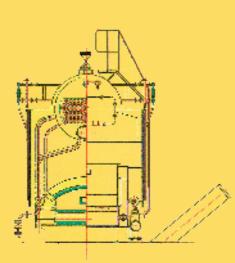
#### TP-DZL Series Horizontal Quick- Installed Hot Water Boiler

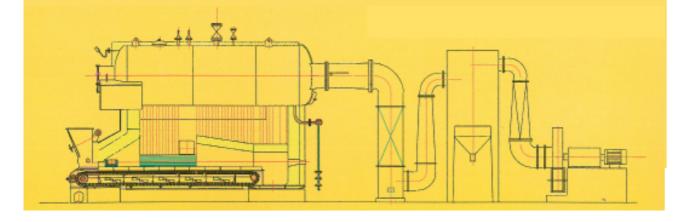


#### INTRODUCTION TO SERIES OF TP-DZL BOILERS

Series of TP-DZL quick fitting boiler is the horizontal tri-returning water and fire pipes chain grating boiler, which uses medium level quality soft coal. The boiler body is a single cylinder type, longitudinal arranged; there are left and right 2 rows of fire pipe bundles inside boiler cylinder to form convection heat receiving surfaces, the boiler cylinder and water cooling walls at both sides shape the furnace radiation heat receiving surfaces; the combustion equipment uses light chain grating; exit shop in whole machine & quick fitting type. The electric control realizes free grating speeds, and achieves parameter alarm and inter-lock protection.

Features of this series of boiler: compact structure, small volume; convenient installation, cheap in fundamental construction; mechanized coal feeding and cinder removing: the output of the boiler is sufficient and has high efficiency. It is the well appreciated equipment for extensive steam supply equipment for medium and small enterprises and public heating.





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					Water and	l Fire Tube Coal-fired Boiler Sp	pecification	
		Item		TP-DZL0.7-0.7/95/70- All	TP-DZL1.4-0.7/95/70-All	TP-DZL2.8-0.7/95/70-All	TP-DZL4.2-1.0/115/70-All	TP-DZL7-1.0/115/70-All
	Rated Evapo	ration Capa	city (MW)	0.7	1.4	2.8	4.2	7
	Rated	Pressure (M	Mpa)	0.7	0.7	0.7	1.0	1.0
	Output Wa	ter Tempera	ature (°C )	95	95	95	115	115
	Return Water Temperature (°C )			70	70	70	70	70
	Heating	Body (m <sup>2</sup> )		32.4	59.3	89.16	126.7	251
	Surface	Economizer (m <sup>2</sup> )		12.54	28.16	38.5	78.5	174.4
F	Grate Eff	ective Surfa	ace (m <sup>2</sup> )	2.05	3.7	5.3	8.32	12
Furnace	Suitable Fuel	Designed	l Coal Type	All	All	All	All	All
	Suitable Fuel		ating Value AL/kg)	5019	5019	5019	5019	5019
	Fuel Co	onsumption	(kg/h)	151	302	600	888	1447
	Thermal Efficiency (%)			79	79	79	79	79
	Maximum shipping weight (t)			13	25	26.7	36.1	25
	Maximum shipping dimensions (m)			5.2 x 2.0 x 2.9	5640 x 2540 x 3467	6.3 x 2.65 x 3.55	7.32 x 3.25 x 3.54	7.2 x 3.3 x 3.53
		embled Dir Width x He		6 x 3.5 x 4.1	6 x 3.85 x 5	7.2 x 4 x 4.9	8 x 5.1 x 4.62	8.2 x 3.6 x 6.5
	Air volu		ume (m <sup>3</sup> /h)	6610-7902	5000-9000	11000-14000	12000-24000	30000
	I.D Fan	Air Pre	ssure (Pa)	2089-2138	3340-3100	3920-3930	3980-4245	4030-4120
	I.D Fall	Rotational Speed (r/min)		1750	1750	1750 1750		1750
		★ Motor Efficiency (kw)		7.5	11	22	37	55
		Air volume (m <sup>3</sup> /h)		1630-3600	2664-5268	3742-7226	12000-7000	15012.2
	F.D Fan	Air Pre	ssure (Pa)	650-1040	650-1040	986-1578	1275-2036	1442-2109
	r.D ran		onal Speed min)	3500	3500	3500	3500	3500
			r Efficiency kw)	2.2	3	5.5	7.5	15
Auxiliary Machine			nal Speed min)	3500	3500	3500	3500	3500
	Feed Water Pump	Lif	ft (m)	105	115	161	175	175
			Efficiency kw)	2.2	7.5	7.5	7.5	15
		М	lodel	EW-766A	GL-5P	GL-5P	GL-10P	GL-16P
	Speed Governor	Mater	Power	0.55/1.1	0.55	0.55	0.75	1.1
		Motor	Rotational Speed	690~1380	125~1250	125~1250	125~1250	1440
	Cinder	Mater	Power	1.1	1.1	1.1	1.5	1.5
	Conveyor			960	960	960	960	960
	Dust (	Collector M	lodel	XTD-1	XTD-2	XTD-4	XTD-6	XTD-10

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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#### TP-DZG/TP-DZL Series Anthracite Quick Installed Steam Boiler



#### Introduction to Anthracite Coal Series of TP-DZG Boiler:

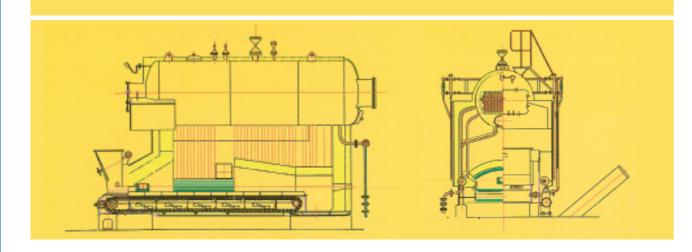
Series of TP-DZG type is the horizontal tri-backhaul water fire pipes fixed grating quick installed boiler. The vaporizing capacity of this series of boilers is 0.5-4t/h the working pressure is 0.7-1.25Mpa. The boiler body frame is the single boiler cylinder longitudinal type, smog and fire pipes are arranged in inner furnace; left and right sides of the furnace are equipped with water cooling wall pipes; the less leaking behive grating is used: manual coal feeding.

Mechanical ventilation, and equipped with appropriate rear arch, duster, high and low water level alarm, electric control cabinet and etc. The 4t/h boiler is equipped with air pre-heater.

#### Introduction to Anthracite Coal Series of TP-DZL Boiler:

Series of TP-DZL type is the horizontal tri-backhaul water fire pipes chain grating quick installed boiler, with the evaporation capacity of 2t/h, 4t/h and working pressure of 1.0-2.45Mpa. The boiler body furnace is single cylinder longitudinal type, the length of boiler cylinder and chain grating are extended; appropriate rear arch is arranged to let coverage reach to 70%; there is air pre-heater at the rear part; the combustion device uses center flexible grating, equipped with bigger blower and induced draft fan. This series of boiler features is compact in structure.

New technologies of arch pipe and shaped flue and helix smoke pipe are high in heat efficiency, safe and reliable in operation, convenient in transportation and installation.



$\backslash$				Spec	cification of Anthracite Quick I	nstalled Water and Fire Pipe B	oiler		
		Item		★ TP-DZG2-1.25-W II	★ TP-DZG4-1.25-WII	★ TP-DZL2-1.0-Wll ★ TP-DZL2-1.25-Wll	★ TP-DZL4-1.25-WII ★ TP-DZL4-1.6-WII		
	Rated E	Rated Evaporation Capacity (t/h)		2	4	2	4		
	R	ated Pressure(Mpa)		1.25	1.25	1.0/1.25	1.25/1.6		
	Rated	Steam Temperature(°C	)	194	194	184/194	184/194		
	Water S	Supply Temperature(°C	)	20	20	20	20		
		Body(r	n <sup>2</sup> )	58.72	133.5	57	132.6		
	Heating Surface	Economizer(m <sup>2</sup> )		/	/	/	/		
		Air preh	eater	/	16.3	15.92	47		
	Grate	Effective Surface(m <sup>2</sup> )		2.52	6.67	4.7	6.67		
Furnace		Designed Co	oal Type	WII	WII	WII	WII		
	Suitable Fuel	Low heating Val	ue(Kcal/kg)	6072	6072	6072	6072		
	Maxir	num shipping weight(t	)	20	31	25	29.2		
	Maximum shipping dimensions(m)		4.72 x 2.3 x 3.3	6.46 x 2.65 x 3.55	6.4 x 2.5 x 3.4	7.3 x 2.65 x 3.56			
	Boiler Assembled Dimensions (Length x Width x Height) (m)		4.72 x 3.1 x 4.81	6.46 x 3.2 x 5.18	6.4 x 3.1 x 4.82	7.3 x 3.2 x 5.05			
		Air volume(m <sup>3</sup> /h)		7000	13000	5000-9000	13000		
	I.D Fan	Air Pressu	re(Pa)	3340	3960	3340	3960		
	1.01 m	Rotational Sp	eed(r/min)	1750	1750	1750	1750		
		★ Motor Efficiency(kw)		11	22	11	22		
		Air volume	e(m <sup>3</sup> /h)	3297-4616	4695-7511	3297-4616	4695-7511		
	F.D Fan	Air Pressu	re(Pa)	3620-3647	4511-4597	3620-3647	4551-4597		
	1.01ai	Rotational Sp	eed(r/min)	3500	3500	3500	3500		
		★ Motor Effic	iency(kw)	7.5	15	7.5	15		
		Rotational Sp	eed(r/min)	3500	3500	3500	3500		
	Feed Water Pump	Lift(n	n)	161	161	161	161		
Auxiliary	reed water rump	★ Motor Effic	iency(kw)	7.5	7.5	7.5	7.5		
Machine		Flow(m	<sup>3</sup> /h)	6	6	6	6		
		Mode	el			GL-5P	GL-5PA		
	Speed Governor	Motor	Model			YCT100-4A	YCT100-4A		
		Wotor	Power(kw)			0.55	0.55		
	Cindor Comunic	Power(kw)	Motor			1.1	1.1		
	Cinder Conveyor	Power(kw)	Rotational Speed (r/min)			960	960		
	D	ust Collector Model				XTD-2	XTD-4		
$Ps \cdot 1$	The final specifications are base on the quotation.								

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### TP-SHX Series Circular Flow Bed Steam Boiler



#### INTRODUCTION TO SERIES OF TP-SHX CIRCULAR FLOW BED PRODUCT:

TP-SHX CFB boiler: evaporation capacity 10-35t, with steam pressure of 1.25-2.5MPa and the steam temperature is saturated steam and superheated steam.

CFB technology, it is a matured, new type, high efficient technology, and low in pollution and has a lot of merits, which cannot be found in other combustion method.

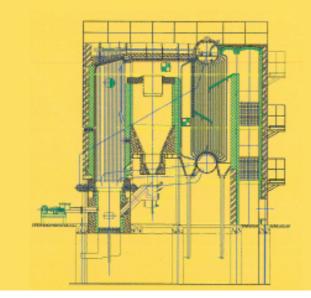
1. CFB belongs to mw temperature combustion; therefore, the exhaustion of nitrogen oxide is far more fewer than coal powder furnace, only 200 ppm approximately; at the same time, at is feasible to actualize direct desulfurizing during combustion, The efficiency of desulfurization is high and the equipment is simple and cheap as well. The initial investment for desulfurization and performance cost is far lower than PC+FCD.

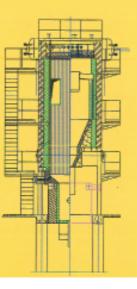
2.Extensive fuel adaptability and is high in combustion efficiency, especially suitable for low calorie inferior coal.

3. The exhausted cinder has better activeness, liable to actualize integrated utilization and free from pollution.

4. Wide range for load adjustment, low load may lower to 30% approximately of the rated load.

5.Current requirement for environment protection is becoming stricter, and electricity load adjustment for power plant becomes larger, and there are more of varieties of coal supply, direct combustion of raw coal takes higher ratio and national economy develops unevenly in different level, the contradiction between environment protection and coal burning are concerned by a lot of people, CFB boiler has become a first choice for high efficiency and low on pollution it is a new combustion technology.





$\backslash$					Circular Flow Bed Stea	am Boiler Specification		
	I	tem	★ TP-SHX10-1.25-AII TP-SHX10-1.6-AII TP-SHX10-2.5-AII	★ TP-SHX15-1.25-AII TP-SHX15-1.6-AII TP-SHX15-2.5-AII	★ TP-SHX20-1.25-AII TP-SHX20-1.6-AII TP-SHX20-2.5-AII	★ TP-SHX25-1.25-AII TP-SHX25-1.6-AII TP-SHX25-2.5-AII	★ TP-SHX30-1.25-AII TP-SHX30-1.6-AII TP-SHX30-2.5-AII	★ TP-SHX35-1.25-AII TP-SHX35-1.6-AII TP-SHX35-2.5-AII
	Rated Evapora	tion Capacity (t/h)	10	15	20	25	30	35
	Rated Pro	essure(Mpa)	1.25/1.6/2.5	1.25/1.6/2.5	1.25/1.6/2.5	1.25/1.6/2.5	1.25/1.6/2.5	1.25/1.6/2.5
	Rated Steam Temperature (°C)		194/204/225	194/204/225	194/204/225	194/204/225	194/204/225	194/204/225
	Water Supply Temperature (°C)		105	105	105	105	105	105
		Radiation(m <sup>2</sup> )	58	114	121.6	179	227	224
	Harting Conferen	Convection(m <sup>2</sup> )	185	248	354.8	442.4	495	609
	Heating Surface	Economizer(m <sup>2</sup> )	247.8	476	446.4	535.7	740	470
		Air Preheater (m <sup>2</sup> )	/	/	280	357.3	404	367
Furnace	Fluidized bed	l dimension(m <sup>2</sup> )	1.6	2.24	2.78	3.25	4.75	5.3
	Coal consumption		1952	3020	4217	5350	6325	6955
	(Standard coal)(Kg/h)		89	89	89	89	89	89
	Designed thermal efficiency(%)		160	165	150	150	150	150
	Smoke exhaust temperature(°C)		1.56	2.51/2.63/4.5	3.6/6.28	4.1/7.1	4.2	4.9
	Transportation weigh for largest part (t)	Air volume(m <sup>3</sup> /h)	8144-9988	14643	15826	26348	30744	32294
		Air Pressure(Pa)	11340-10426	12078	11776	12080	12954	12797
		Rotational Speed (r/min)	2900	2900	2900	2900	1450	1450
		★ Motor Efficiency (kw)	55	75	110	110	200	220
		Air volume(m <sup>3</sup> /h)	5712-10562	9233	9233	19630	22206	22206
	Secondary Draft	Air Pressure(Pa)	1673-2554	4297	4297	3346	4179	4179
	Fan	Rotational Speed (r/min)	2900	1450	1450	1450	1450	1450
		★ Motor Efficiency (kw)	7.5	22	22	30	45	90
		$Air \ volume(m^3/h)$	32000	37485	62888-73368	70253	78800	84858
	I.D Fan	Air Pressure(Pa)	4060	4994	3695-3515	4989	4515	4269
Auxiliary	I.D Fail	Rotational Speed (r/min)	1750	1750	1750	1750	1750	1750
Machine		★ Motor Efficiency (kw)	75	75	110	132	160	220
		Flow(m <sup>3</sup> /h)	12.5	15	25	30	46	46
	Feed Water Dur	Lift(m)	175	204	210	192.5	180	180
	Feed Water Pump	Power(kw)	15	37	30	30	37	37
		Rotational Speed (r/min)	2950	2900	2950	2950	/	2950
	Coal Feeder	Model	LS-10	LS-10	LS-20	LS-20	LS-20	LS-20
	Coarrecter	Motor Efficiency (kw)	3	3	3	3	3	3

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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### TP-SHX Series Circular Flow Bed Hot Water Boiler



#### INTRODUCTION TO SERIES OF TP-SHX CIRCULAR FLOW BED PRODUCT:

Hot water boiler  $14\sim 29$  MW, supplies 130 °C /150 °C hot water. Under pressure of 1.0~1 .6MPa; the returning water temperature is 70°C /90°C.

CFB technology, it is a matured, new type, high efficient technology, and low in pollution and has a lot of merits, which cannot be found in other combustion method.

1. CFB belongs to mw temperature combustion; therefore, the exhaustion of nitrogen oxide is far more fewer than coal powder furnace, only 200 ppm approximately; at the same time, at is feasible to actualize direct desulfurizing during combustion, The efficiency of desulfurization is high and the equipment is simple and cheap as well. The initial investment for desulfurization and performance cost is far lower than PC+FCD.

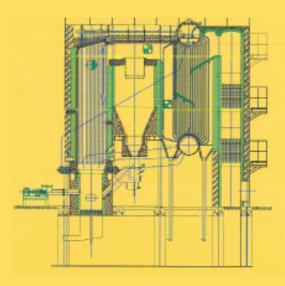
2. Extensive fuel adaptability and is high in combustion efficiency, especially suitable for low calorie inferior coal.

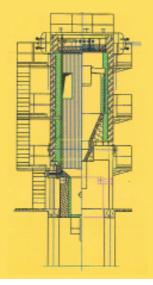
3. The exhausted cinder has better activeness, liable to actualize integrated utilization and free

#### from pollution.

4. Wide range for load adjustment, low load may lower to 30% approximately of the rated load.

5. Current requirement for environment protection is becoming stricter, and electricity load adjustment for power plant becomes larger, and there are more of varieties of coal supply, direct combustion of raw coal takes higher ratio and national economy develops unevenly in different level, the contradiction between environment protection and coal burning are concerned by a lot of people, CFB boiler has become a first choice for high efficiency and low on pollution it is a new combustion technology.





				Circula	r Flow Bed Hot Water Boiler Spe	cification	
	Item		TP-SHX7-1.0/115/70-AII	TP-SHX10.5-1.0/115/70-AII	TP-SHX14-1.0/115/70-AII	TP-SHX17.5-1.0/115/70-AII	TP-SHX21-1.25/115/70-AII
	Rated Evaporation Capacity (MW)		7	10.5	14	17.5	21
	Rated Pr	ressure(Mpa)	1.0	1.0	1.0	1.0	1.25
	Output Water	Temperature(°C)	115	115	115	115	115
	Water Supply	Temperature (℃)	70	70	70	70	70
		Radiation(m <sup>2</sup> )	58	114	121.6	179	227
		Convection(m <sup>2</sup> )	185	248	354.8	442.4	495
	Heating Surface	Economizer(m <sup>2</sup> )	247.8	476	446.4	535.7	740
		Air Preheater (m <sup>2</sup> )	/	/	280	357.3	404
Furnace	Fluidized be	d dimension(m <sup>2</sup> )	1.6	2.24	2.78	3.25	4.75
	Coal consumption		1952	3020	4217	5350	6325
	(Standard coal)(Kg/h)		89	89	89	89	89
	Designed thermal efficiency(%)		160	165	150	150	150
	Smoke exhaust temperature(°C)		1.56	2.63	3.6	4.1	4.2
	Transportation weigh for largest part (t)	Air volume(m <sup>3</sup> /h)	8144-9988	14643	15826	26348	30744
		Air Pressure(Pa)	11340-10426	12078	11776	12080	12954
		Rotational Speed (r/min)	2900	2900	2900	2900	1450
		★ Motor Efficiency (kw)	55	75	110	110	200
		Air volume(m <sup>3</sup> /h)	5712-10562	9233	9233	19630	22206
	Secondary Draft	Air Pressure(Pa)	1673-2554	4297	4297	3346	4179
	Fan	Rotational Speed (r/min)	2900	1450	1450	1450	1450
		★ Motor Efficiency (kw)	7.5	22	22	30	45
		Air volume(m <sup>3</sup> /h)	32000	37485	62888-73368	70253	78800
		Air Pressure(Pa)	4060	4994	3695-3515	4989	4515
Auxiliary	I.D Fan	Rotational Speed (r/min)	1750	1750	1750	1750	1750
Machine		★ Motor Efficiency (kw)	75	75	110	132	160
		Flow(m <sup>3</sup> /h)	12.5	15	25	30	46
	Feed Water	Lift(m)	175	204	210	192.5	180
	Pump	Power(kw)	15	37	30	30	37
		Rotational Speed (r/min)	2950	2900	2950	2950	/
		Model	LS-10	LS-10	LS-20	LS-20	LS-20
	Coal Feeder	Motor Efficiency (kw)	3	3	3	3	3

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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### Boiler of Power Station



### Boiler of Power Station

#### Boiler of Power Station:

Our company has accumulated rich experience in design and manufacturing boilers and formed a powerful production capacity. The specification for design and manufacturing includes 20t/h, 25t/h, 35t/h, 40t/h, 45t/h, 60t/h, 75t/h, 130t/h, 220t/h, and 300t/h. Rated parameters includes low voltage, medium voltage, medium-high voltage, which has formed systematic mode.

#### 1 • Circulation Fluidized Bed Power Station Boiler

	Boiler Sp	ecifications and Technical Require	ements	
Item	★ ZZ35/3.82-M1	★ ZZ75/5.4-M1	★ ZZ130/9.8-M1	★ ZZ220/9.8-M1
Boiler Rated Evaporation Capacity(t/h)	35	75	130	220
Steam outlet pressure (Mpa)	3.82	5.4	9.8	9.8
Steam Outlet Temperature(°C)	450	485	540	540
F.W Temperature (°C)	150	150	215	215
Smoke exhaust temperature(°C)	150	150	140	136
Primary air temperature (°C)	145	145	150	207
Secondary air temperature (°C)	180	180	150	220
Design efficiency (%)	90	90	90.5	91
Actual Coal Consumption (kg/h)	10851	10851	20536	31830
Coal granularity scope (mm)	0-8	0-8	0-8	0-8
Desulfurization limestone granularity (mm)	0-1.5	0-1.5	0-1.5	0-1.5
Desulfurization rate (Ca/S=2.5h)	90	90	90	90
Applicable seismic intensity	≦7 °	≦7∘	≦7∘	≦7∘
Design Fuel	WII, AII	WII, AII	WII, AII	WII, AII
Hydro pressure test (Mpa)	5.4	7.6	13.6	13.6
Design ambient temperature (°C)	20	20	20	20
Design ambient relative humidity (%)	70	70	70	70

#### 2 · Layer Combustion Power Station Boiler

		Boiler Specificat	ions and Technical Req	uirements		
Item	★ ZZ20-3.82/450-AII	★ ZZ35-3.82/450-AII	★ ZZ40-3.82/450-All	★ ZZ50-3.82/450-All	★ ZZ60-3.82/450-All	★ ZZ75-3.82/450-All
Boiler Rated Evaporation Capacity(t/h)	20	35	40	50	60	75
Steam Outlet Pressure (Mpa)	3.82	3.82	3.82	3.82	3.82	3.82
Steam Outlet Temperature (℃)	450	450	450	450	450	450
F.W Temperature (°C )	104	104	105	105	105	105
Smoke exhaust temperature (°C )	166	153	145	150	150	145
Design efficiency (%)	80.6	81.4	81.5	80.1	82	81.6
Fuel Consumption (kg/h)	3523	5957	6455	7491	9332.6	12088
Range of fuel granularity	0-3mm<30% 6-19mm>60%	0-3mm counted as 30% Largest granule ≦40%	0-3mm counted as 30% Largest granule ≦40%	Less than 6mm<60% Largest granule ≦40%	0-3mm<30% Largest granule ≤ 40mm	0-3mm counted as 30% Largest granule ≤ 40%
Applicable seismic intensity	≦7°	≦ 7 °	≦ 7 °	≦ 8 °	≦ 7 °	≦ 7 °
Radiation heating surface area (m <sup>2</sup> )	95.7	154.3	154.3	182.6	289	312.3
Superheater heating surface area (m <sup>2</sup> )	230.9	312.5	312.5	388.9	616	657
Economizer heating surface area (m <sup>2</sup> )	327.7	624.3	624.3	766.1	1119	1493.6
Air preheater heating surface $(m^2)$	365.4	530.8	530.8	733.5	1036	1145
Hot air temperature	106	113	113	126	126	108
Grate effective area (m <sup>2</sup> )	13.6	35.9	35.9	44.1	59.6	68.2
Design Fuel	AII	AII	AII	AII	AII	AII
Hydro pressure test (Mpa)	5.30	5.30	5.30	5.30	5.30	5.30

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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#### TP-SHL Bulk Series Steam Boiler



### TP-SHL Bulk Series Steam Boiler INTRODUCTION TO SERIES OF TP-SHL BOILERS:

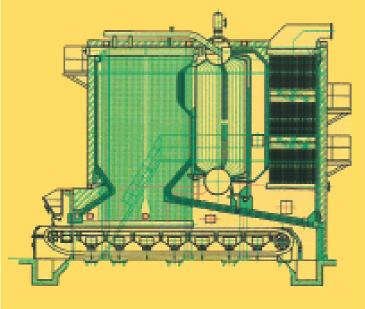
Series of TP-SHL is the bulk industrial boiler with dual cylinders and transverse arranged, as well as the natural cycling coal combustion water pipe boiler. The transverse upper and lower boiler cylinders and water cooling pipe walls together form the silo type furnace together with convection pipe bundle and collection chest to form the boiler body frame.

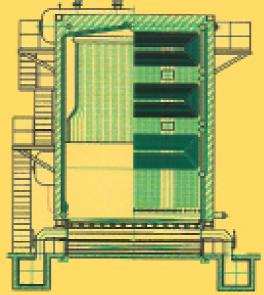
At the rear part, there is a coal saving air pre-heater; and if necessary superheater is also available to set up in inner furnace. The combustion equipment is squama grating with free timing control. Exit shop in bulk type for site assembly and construction. The smog flow is multi-backhaul type.

The boiler has the following characteristics: capable of over duty. It can rise temperature quickly, high in heat efficiency, less land needed and leak-free. The squama grating is enhancing the reliability and performance of the boiler, it is

suitable varieties of coals, the furnace arch and wall can be built in casting way and it is good in block out performance.

It features in sufficient output and high efficiency. Excellent adaptability for varieties of coal, safe and reliable, good in duster and de-smog and etc. It is extensively applied in field of public living heating. With greater ignition conditions, environment protection, energy saves, high efficiency in combustion, high extent in automation, stable in performance safe and reliable, and has long working life.





$\setminus$				Bulk Series Water Tube	Steam Boiler Specification	
		Item	★ TP-SHL10-1.25-AII TP-SHL10-2.45-AII	★ TP-SHL20-1.6-AII TP-SHL20-2.5-AII TP-SHL20-2.5/400-AII	★ TP-SHL30-1.25-AII	★ TP-SHL35-1.6-AII TP-SHL35-2.5-AII TP-SHL35-2.5/400-AII
	Rated Evap	poration Capacity (t/h)	10	20	30	35
	Rate	ed Pressure	1.25/2.45	1.6/2.5	1.25	1.6/2.5
	Rated Stean	n Temperature(°C )	194/225	204/225/400	194	225/205/400
	Water Suppl	y Temperature(°C )	105	105	105	105
	Heating	Body (m <sup>2</sup> )	Radiation57.5	Radiation97.5	Radiation80.7	Radiation131.7
	Surface	Economizer (m <sup>2</sup> ) / Air Preheater	Convection237.3	Convection146	Convection315	Convection388.5
	Grate Effec	ctive Surface (m <sup>2</sup> )	12.2	23.2	31	35.12
Furnace	Suitable Fuel	Designed Coal Type	AII	AII	AII	AII
	Suitable Fuel	Low heating Value (KCAL/kg)	5019	5019	5019	5019
	Thermal	Efficiency (%)	81	81.5	82	82
	Fuel Consumption (kg/h)		1445	2870	4340	5016
	Maximum shipping dimensions(m)		5.5 x 1.5 x 1.6	6.1 x 1.29 x 1.06	5.3 x 4 x 4.2	7.6 x 1.3 x 1.04
	Maximum shipping weight(t)		3.2	7.3	10.7	9.4
	Overall dimension of boiler assembled (Length x Width x Height) (m)		11.9 x 7.0 x 9.8	14.3 x 8.8 x 12.5	12 x 6 x 7.5	15.35 x 8.88 x 12.5
	I.D Fan	Air volume (Qm <sup>3</sup> /h) Air Pressure (Pa)	30000/4030-4120	36762-69347/2824-3874	102412-121272/2204-2843	86586-109550/3968-4020
		★ Power (kw)	55	110	132	220
	F.D Fan	Air volume (Qm <sup>3</sup> /h) Air Pressure (Pa)	15012.2/2241.6	35052-44128/1775-2440	31554-60533/2194-31554	53124-80570/2659-3943
		★ Power (kw)	15	37	55	90
	Electric Water	Flow(m <sup>3</sup> )/Lift(m)	12.5/175	25/210	30/166.5	46/200
A	Pump	★ Motor Efficiency (kw)	15	30	37	45
Auxiliary Machine	Steam Pump	Model/Parameter	QB-5	QB-7	QB-9	QB-9
	Furnace water supply pump	★ Motor Efficiency (kw)	5.5Kw	5.5Kw	5.5Kw	5.5Kw
	Speed	Model/Parameter	GL-16P	GL-20P	GL-30P	GL-40P
	Governor	Model	1.1/125-1250	1.5/125-1250	2.2/125-1250	/
	Cinder	Model	Disc-type or Martine Type	Disc-type or Martine Type	Disc-type or Martine Type	Disc-type or Martine Type
	Conveyor	★ Motor Efficiency (kw)	1.5/2.2	1.5/2.2	1.1/2.2	1.1/2.2
	Dust Collector	Model	XTD-10 Or Water film	XTD-20 Or Water film	XTD-30 Or Water film	Water film

Ps. : 1. \* The final specifications are base on the quotation.

#### TP-SHL Bulk Series Hot Water Boiler



TP-SHL Bulk Series Hot Water Boiler INTRODUCTION TO SERIES OF TP-SHL BOILERS:

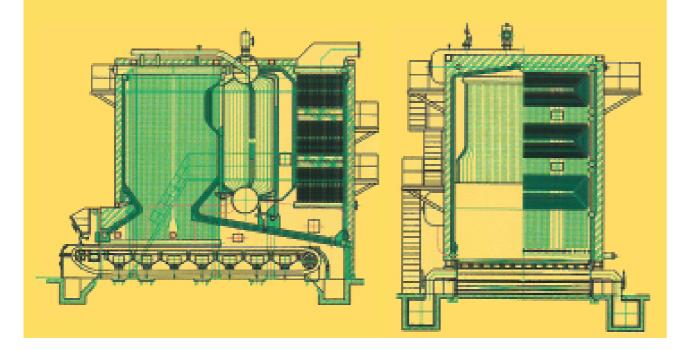
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At the rear part, there is a coal saving air pre-heater; and if necessary superheater is also available to set up in inner furnace. The combustion equipment is squama grating with free timing control. Exit shop in bulk type for site assembly and construction. The smog flow is multi-backhaul type.

The boiler has the following characteristics: capable of over duty. It can rise temperature quickly, high in heat efficiency, less land needed

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It features in sufficient output and high efficiency. Excellent adaptability for varieties of coal, safe and reliable, good in duster and de-smog and etc. It is extensively applied in field of public living heating. With greater ignition conditions, environment protection, energy saves, high efficiency in combustion, high extent in automation, stable in performance safe and reliable, and has long working life.



$\setminus$				Bulk Series Water Tube S	team Boiler Specification	
	1	item	TP-SHL7-1.0/115/70-AIII	TP-SHL14-1.0/95/70-AII TP-SHL14-1.25/130/70-AII	TP-SHL21-1.0/115/70-AII	TP-SHL29-1.25/130/70-AII
	Rated Evaporat	ion Capacity (MW)	7	14	21	29
	Rated Pressure		1.0 1.0/1.25		1.0	1.25
	Hot Water 7	Femperture(°C)	115	95/130	115	130
	Return Water	Temperature(°C)	70	70	70	70
	H .: 6 6	Body (m <sup>2</sup> )	Radiation57.5	Radiation97.5	Radiation80.7	Radiation131.7
	Heating Surface	Economizer (m <sup>2</sup> ) / Air Preheater	Convection237.3	Convection146	Convection315	Convection388.5
E	Grate Effecti	we Surface (m <sup>2</sup> )	12.2	23.2	31	35.12
Furnace		Designed Coal Type	AII	AII	AII	AII
	Suitable Fuel	Low heating Value (KCAL/kg)	5019	5019	5019	5019
	Thermal Efficiency (%)		81	81.5	82	82
	Fuel Consumption (kg/h)		1445	2870	4340	5016
	Maximum shipping dimensions (m)		5.5 x 1.5 x 1.6	6.1 x 1.29 x 1.06	5.3 x 4 x 4.2	7.6 x 1.3 x 1.04
	Maximum shipping weight (t)		3.2	7.3	10.7	9.4
	Overall dimension of boiler assembled (Length x Width x Height) (m)		11.9 x 7.0 x 9.8	14.3 x 8.8 x 12.5	12 x 6 x 7.5	15.35 x 8.88 x 12.5
	IDE	Air volume (Qm <sup>3</sup> /h) Air Pressure (Pa)	30000/4030-4120	36762-69347/2824-3874	102412-121272/2204-2843	86586-109550/3968-4020
	I.D Fan	★ Power (kw)	55	110	132	220
	EDE	Air volume (Qm <sup>3</sup> /h) Air Pressure (Pa)	15012.2/2241.6	35052-44128/1775-2440	31554-60533/2194-31554	53124-80570/2659-3943
	F.D Fan	★ Power (kw)	15	37	55	90
		Flow (m <sup>3</sup> ) /Lift (m)	12.5/175	25/210	30/166.5	46/200
	Electric Water Pump	★ Motor Efficiency (kw)	15	30	37	45
Auxiliary Machine	Steam Pump	Model/Parameter	QB-5	QB-7	QB-9	QB-9
	Furnace water supply pump	★ Motor Efficiency (kw)	5.5Kw	5.5Kw	5.5Kw	5.5Kw
	Smood Courses	Model/Parameter	GL-16P	GL-20P	GL-30P	GL-40P
	Speed Governor	Model	1.1/125-1250	1.5/125-1250	2.2/125-1250	/
	CialasC	Model	Disc-type or Martine Type	Disc-type or Martine Type	Disc-type or Martine Type	Disc-type or Martine Type
	Cinder Conveyor	★ Motor Efficiency (kw)	1.5/2.2	1.5/2.2	1.1/2.2	1.1/2.2
	Dust Collector	Model	XTD-10 Or Water Film	XTD-20 Or Water Film	XTD-30 Or Water Film	Water Film

Ps. : 1.  $\star$  The final specifications are base on the quotation.

#### TP-DZL New Type Water Tube Boiler

#### Introduction of TP-DZL New Type Water Tube Boiler :

TP-DZL new type water tube boiler is integrating all advantages of other water and fire boilers in home and abroad. It is a new generation product and technological achievements of domestic colleges and professional pressure vessel research institutes. It features high technology content when comparing with current industrial boiler it has better burning and heat conducting efficiency. Water cycling is safer and more reliable and with enough output force. The output force and efficiency will not change in the boiler's lifetime. This boiler is environmental friendly and it can conserve a lot of energy and has great economic and social benefits.

Series TP-DZL New Type Water tube Boiler has the following eight advantages

1) Constant Force:

High efficiency heat conductive screw thread tube is used and the height of screw thread is guaranteed, so we are able to create  $10\sim15\%$  more force than other boilers. The speed of fume is rational so the tubes are free of accumulated dust. The force of boiler and the heat efficiency will not reduce even we extend the operation time. It has an ideal constant force and efficiency. 2) The boiler outer size is largely reduced to save customer's investment:

High efficiency heat conductive screw thread tubes is used various capacity of hot water boiler with the output water temperature less than 150°C can save on tail heating surface, and the length of boiler can be reduced greatly.

The height of boiler is rather short compare with other boiler type with same capacity. It has the smallest outside dimension and the investment on boiler room will be reduced at least 1/3.

3) No need for special protection for power failure:

Due to mixed cycling is adopted for hot water type and the large volume of boiler, when the power fails there is no need to take special protection measures. Therefore damage of heating surface and media caused by vaporization can be prevented 4) High efficiency:

The main convection heating surface, the screw thread tubes is equipped in shell, so cool wind will not come into the side of the tubes. In addition the removal of tail heating surface will reduce the quantity of cool air along with less heat dissipation. As hot water type adopts mixed cycling, and economizer is not used the water resistance of boiler body is reduced, which is no more than 0.05MPa, the energy consumption of boiler also reduced largely.

The dropping value is obviously larger than the increasing value of fume resistance because of application of screw thread duct. The tail of boiler is set with casting air preheated, which not only increase the adaptability of different type of coal and will help with complete burning of coal, and also reduce the discharging temperature, the operation efficiency of boiler is rated 84%.

#### 5) Quick temperature rising:

The total weight of boiler steel material, heat resistance and insulating materials are less than that other boilers, and high efficiency heat conductive screw thread tubes is equipped in shell, so the time required by temperature rising is greatly shortened, is 1/3 less comparing with other boilers.

#### 6) Safe and reliable:

Adopting protruding panel plate structure with screw thread tube, the thermal pressure of tubes and panel plate is greatly reduced. Lower tank backwater spraying, brushing front edge of side wall, with high temperature plate these will help with prevention on water cooling wall cracking or high temperature plate breaking when used under normal conditions 7) The initial dust discharge is low:

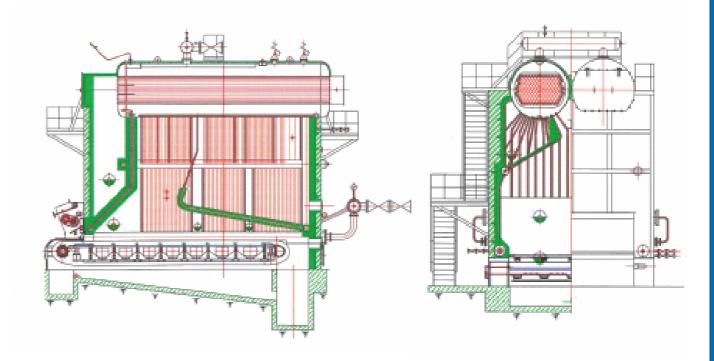
Boiler rear part of hearth is set with dust separation steering chamber; and the volume of hearth is large, so the initial dust discharge of boiler is lower than the allowed value of standard.

#### 8) Easy installation:

Installation duration and installation costs are 1/2 when comparing with other single drum water boiler. It can be put into operation at the same year of manufacturing

	T.		TP-DZL New Type Water	Tube Boiler Specification	
	Item	TP-DZL29-1.0/115/70-AII	TP-DZL46-1.25/130/70-AII	TP-DZL58-1.25/130/70-AII	TP-DZL70-1.6/150/90-AII
Rated Eva	aporation Capacity (MW)	29MW/h	46 MW/h	58 MW/h	70 MW/h
Rat	ted Pressure (MPa)	1.0	1.25	1.25	1.6
Output	Water temperature (°C)	115	130	130	150
Return	Water Temperature (°C)	70	70	70	90
Heating Surface	Body (m <sup>2</sup> )	1006.6	1396	2103	2713
Grate	Effective Surface (m <sup>2</sup> )	36	58	77	89
	Designed Coal Type	AII	AII	AII	AII
Suitable Fuel	Low heating Value (KCAL/kg)	4295	4295	4295	4295
Fuel	Consumption (Kg/h)	6890	10638	13785	16190
The	rmal Efficiency (%)	80	81	81	81.8
Maxim	um shipping weight (t)	20	29	31	31
Maximum	n shipping dimensions (m)	9568 x 2036 x 2568	9000 x 2440 x 3070	9620 x 2900 x 2440	9620 x 2900 x 3145
	dimension after installation of Length xWidth x Height)	11177 x 6272 x 8656	1149 x 9330 x 1108	12440 x 10361 x 11080	13247 x 10991 x 12490
	Air volume(m <sup>3</sup> /h)	48083	94763	12920	141170
F.D Fan	Air Pressure(Pa)	3018	2414	2595	2474
r.D ran	Rotational Speed(r/min)	3500	3500	3500	3500
	★ Power(kw)	55	90	132	132
	Air volume(m <sup>3</sup> /h)	83088	199800	233070	356000
I.D Fan	Air Pressure(Pa)	2697	3100	3452	3079
1.D Fan	Rotational Speed(r/min)	1750 r.p.m	1750 r.p.m	1750 r.p.m	1750 r.p.m
	★ Power(kw)	110kw	280kw	355kw	450kw
Speed	Model	ZJ40W-1	ZJ600W	ZJ80W	ZJ80W
Governor	Power (kw)	3kw	4kw	5.5kw	5.5kw

Ps. : 1.  $\star$  The final specifications are base on the quotation.



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### **TP-WNS Series Boiler**

The whole boiler facilities has been checked and accepted before being delivered to customer for installation, commissioning and operation.

Fully auto on operation, combustion, water level, temperature and steam pressure all automatic adjusted and protected.

Front and rear flue chest are openable for boiler inspection and maintenance.

We use international top brand burner to ensure thermal efficiency for the boiler and enhance the quality of the boiler.

#### Introduction to TP-WNS series:

TP-WNS is hull type horizontal tri -backhauling internal combustion boiler designed by our technical professionals by advanced technologies form home, abroad and combined with our Engineers practical experiences.

The boiler is fully automatic, the process is for the fuels to get atomized by burner, and form flames to fill the whole waveform furnace. Via furnace wall to transfer the radiant heat as this is the first backhauling.

The high temperature smog yields from combustion is concentrated in back combustion chamber and turns to the second backhauling.

After heat exchange by convection, the smog temperature gradually lowers and goes into the front smog chest, and turned into the third backhauling and then passes through rear smog chest to chimney and finally exhausts to the atmosphere.

This series of steam boilers has high efficiency, more economical on oil and gas to lower the operational cost, to reach the target of high performance and enhance the safety of the boiler. This product has passed the examination from the Industrial Boiler Research Institute and the environment protection test from Dust Equipment Inspection center under National Environment Protection Bureau and specialist's certification from Machinery Industry Bureau to ensure the

performance target reaches the design requirements and in line with the national standard and it is also unanimously believed WNS series has reached international standards. This series of boiler is more human orientated, high in efficient, safer with automatic intelligent control, greater energy saving, environmental friendly, easy in maintenances and

durable.

and the second second

#### Top-In Technology Co.,Ltd.

Sufficient room for steam storage ensures the boiler has high efficiency for producing larger thermal power and high quality quantitative steam.

Water cooling counter-wise room (Wet back type), 100%"Fire in water design, raises thermal efficiency, extending working life of the boiler.

Varies kinds of high quality accessories for boilers, to ensure boiler's normal operation.

★ Note: We can customize the boiler appearances according to customer's needs.

100 % Wave-type furnace with large space in combustion chamber to ensure the boiler has good thermal flexibility.

### **TP-WNS** Advantages

#### Structure of the boiler:

1. TP-WNS boilers use horizontal tri-backhauling wet back structure with threaded smoke tube. Adopting wetback downstream design can prevent smoke box's temperature to be too high.

2. The furnace adopts the most advanced domestic structure---corrugated furnace, which can increase the heat transfer area and the stability of the furnace.

3. The smoke tube adopts high efficient heat transfer component—threaded smoke tube. It raises the heat transfer coefficient of the smoke tube. The volume of the boiler can be further decreased.

Advantages of Oil (Gas) Boilers:

1. Safe, Stable, Powerful

2. Environmental friendly

3. Automatic Operation

4. With compact structure the construction investment can be decreased.

5. With quick start the boiler can reach rated working condition in 20 minutes.

6. Combustion equipments are made out of imported materials with good quality and less maintenance is needed.

7. Insulating layer of 100mm is adopted. The exterior temperature won't be higher than 50°c. (National Standard).

Automatic controlling system and safety protection:

(1) Controlling system which includes alarm system and security protection system and they are interlocked installed. The boiler security protection system and controlling system can be obviously divided.

(2)The combustion control and safe operation are controlled by the sequencer it has the following 5 functions.

- A. Front blowing and sweeping in the hearth.
- B. Automatic ignition program protection.
- C. Locking and protection program of operation completion.
- D. Fire extinction protection program
- E. Complete protection program.

#### All the control and security protection with various operation are all displayed on the electric control cabinet.

#### The main control contents:

(2) When steam pressure is higher than set point. The boiler can stop automatically. (3) When the water level is lower than its safe level, the boiler can stop automatically and can sound an alarm. (4) When the gas pressure is lower than set value, the boiler can stop and sound an alarm. (5) The boiler can stop and sound an alarm when the combustion engine has malfunctions. (6) The main controlling signal is steam pressure.

#### Boiler and its combusting system:

The combustion system can be adjusted and its efficiency can be higher than 90%. (1) When the interlock system of exterior protection is working normally, the combustion engine can start automatically. The program controls normal combustion progresses of blowing, sweeping and automatic ignition. Igniter adopts high-pressure electric ignition measure. (2) When the ignition is successful, the flame detector can detect the flame. Signals can be converted through the detector and then sent to the controller. The controller controls the movements of the main electromagnetic valve to keep the ignition. When the flame extinguishes flame detector will lose signals and controller will send signals to shut main electromagnetic valve to cut off the electric supply.

(3) Steam boiler is installed with pressure eliminator, super high pressure protection and pressure proportional controller, the pressure eliminator controls the steam pressure to make sure the pressure is in a certain range. When the pressure eliminator has malfunctions and the pressure is higher than the set value super high pressure protection will start and the boiler will shut down and sound an alarm. The proportion controller controls the proportion of boiler pressure and fuel consumption. It can help to avoid fluctuation of the steam pressure. (4) WNS is installed with visual water level gauge with auto feed water controller and super low water level protection equipment to carry out four section of controlling. First section when boiler reaches a super low water pressure it will stop it and sound an alarm. Second section when the boiler reaches the set low water level pump will start operating and feed the water. Third section when the water level reached the set high water level the pump will stop operating. Fourth section when the water level is below safe water level or the water pump has malfunctions and can run normally the super low water level protection equipment will start automatically to stop the combustion engine and sound an alarm.

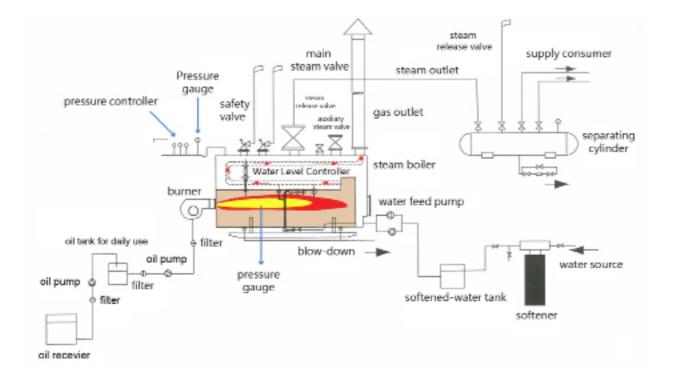
(5) Blast-proof door is installed on the main body of the boiler. When the smoke pressure is higher than a certain value, the pressure can be released to our set value. Safety valve is also installed on the main body of the boiler. When the steam pressure is higher than a certain value, the pressure can be released to our set value.

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- (1) When the gas, water and electricity are under normal condition, the boiler system can start automatically.

### TP-WNS Series of Oil (Gas) Steam Boilers & Systems Diagram





#### Parameter of TP-WNS Series Steam Boiler:

Boiler Model		TP-WNS1-0.7-Y(Q) TP-WNS1-1.0-Y(Q)	TP-WNS1.5-1.0-Y(Q) TP-WNS1.5-1.25-Y(Q)	TP-WNS2-1.0-Y(Q) TP-WNS2-1.25-Y(Q)	TP-WNS3-1.0-Y(Q) TP-WNS3-1.25-Y(Q)	TP-WNS4-1.25-Y(Q) TP-WNS4-1.6-Y(Q)	TP-WNS5-1.25-Y(Q) TP-WNS5-1.6-Y(Q)		
Rated Evapora (t/ł		1	1.5	2	3	4	5		
Rated steam pr	ressure (MPa)	0.7/10	1.0/1.25	1.0/1.25	1.0/1.25	1.25/1.6	1.25/1.6		
Steam Tempe	erature (°C)	170/184	184/194	184/194	184/194	194/204	194/204		
Water Supply (°C	•	20	20	20	20	20	20		
Heating	Body	25	36	60.3	77	113.3	127.4		
Surface (m <sup>2</sup> )	Economizer	8.15	8.15	11.45	17.4	17.37	29.6		
Thermal effi	ciency (%)	>90	>90	>90.2	>90.5	>90.3	>90.3		
Fue	el	Light diesel oil, heavy oil, natural gas							
★ Motor Po	ower (KW)	3.6	4.8	7.0	10.5	13	16.5		
Fuel	Light Oil (kg/h)	66.5	99	133	196	266	332.5		
consumption	Natural Gas (Nm <sup>3</sup> /h)	75	112	150	225	300	375		
Maximum shipp	ping weight (t)	4	4.5	8.5	8.9	13.3	14.3		
Maximum dimensio		3.6 x 2.0 x 2.0	3.6 x 2.0 x 2.0	4.86 x 2.5 x 2.46	5.3 x 2.5 x 2.5	5.84 x 2.85 x 2.8	6.3 x 2.9 x 2.8		

Boil	er Model	TP-WNS6-1.25-Y(Q) TP-WNS6-1.6- Y(Q)	TP-WNS8-1.25- Y(Q) TP-WNS8-1.6- Y(Q)	TP-WNS10-1.25- Y(Q) TP-WNS10-1.6- Y(Q)	TP-WNS15-1.25- Y(Q) TP-WNS15-1.6- Y(Q)	TP-WNS20-1.25- Y(Q) TP-WNS20-1.6- Y(Q)		
Rated Evapora	ation Capacity (t/h)	6	8	10	15	20		
Rated steam	n pressure (MPa)	1.25/1.6	1.25/1.6	1.25/1.6	1.25/1.6	1.25/1.6		
Steam Ter	nperature (°C)	194/204	194/204	194/204	194/204	194/204		
Water Supply	Temperature (°C)	20	20	20	20	20		
Heating Surface	Body	181.17	190.77	232.16	346.2	467.6		
(m <sup>2</sup> )	Economizer	29.6	33.55	33.55	42.55	238.6		
Thermal	efficiency (%)	>91.2	>91.6	>91.6	>91.8	>92		
	Fuel	Light diesel oil, heavy oil, natural gas						
★ Motor	Power (KW)	19.5	29.5	33	60	90.5		
Fuel	Light Oil (kg/h)	399	532	660	997	1204		
consumption	Natural Gas (Nm <sup>3</sup> /h)	450	600	750	1125	1418		
Maximum sł	hipping weight (t)	19.5	22.6	25.8	34.7	46		
Maximum shipp	ping dimensions (m)	7.25 x 3.1 x 3.15	7.45 x 3.26 x 3.2	8.73 x 3.26 x 3.2	8.73 x 3.74 x 3.51	10.2 x 3.6 x 4.02		

Ps. : 1.  $\star$  The final specifications are base on the quotation.

鼎益科技股份有限公司

### **TP-WNS Hot Water Boiler Series**

Parameters of TP-WNS Series Hot Water Boiler:

Boiler Model		TP-WNS0.7-0.7/ 95/70-Y(Q)	TP-WNS1.4-0.7/ 95/70-Y(Q)	TP-WNS2.1-1.0/ 95/70-Y(Q)	TP-WNS2.8-0.7/ 95/70-Y(Q)	TP-WNS3.5-1.0/ 95/70-Y(Q)		
Rated Thermal	Power (MW)	0.7	1.4	2.1	2.8	3.5		
Outlet press	sure (MPa)	0.7	0.7	1.0	0.7	1.0		
Output Water Te	mperature (°C)	95	95	95	95	95		
Return Water Te	mperature (°C)	70	70	70	70	70		
Heating Su	urface(m <sup>2</sup> )	26	44	77	99	127.4		
Thermal effi	ciency (%)	>90	>90	>90	>90	>90		
Suitable	e Fuel	Light diesel oil, heavy oil, natural gas						
Eval commution	Light Oil (kg/h)	66	133	196	266	332.5		
Fuel consumption	Natural Gas (Nm <sup>3</sup> /h)	77	154	231	308	385		
Maximum shi (t		4	8.3	8.9	13.3	14.3		
Maximum shipp (m		3.6 x 2.0 x 22.0	4.5 x 2.0 x 2.1	5.3 x 2.5 x 2.5	5.84 x 2.85 x 2.8	6.3 x 2.9 x 2.8		

Boiler	Model	TP-WNS4.2-1.0/ 115/70-Y(Q)	TP-WNS5.6-1.0/ 115/70-Y(Q)	TP-WNS7-1.0/ 115/70-Y(Q)	TP-WNS10.5-1.0/ 115/70-Y(Q)	TP-WNS14-1.0/ 115/70-Y(Q)		
Rated Thermal	Power (MW)	4.2	5.6	7	10.5	14		
Outlet press	sure (MPa)	1.0	1.0	1.0	1.0	1.0		
Output Water Te	mperature (°C )	115	115	115	115	115		
Return Water Te	mperature (°C )	70	70	70	70	70		
Heating Su	urface(m <sup>2</sup> )	144	187	266	366.5	488		
Thermal effi	ciency (%)	>90	>90	>90	>90	>90		
Suitabl	e fuel	Light diesel oil, heavy oil, natural gas						
E l	Light Oil (kg/h)	397	530	656	996	1327		
Fuel consumption	Natural Gas (Nm <sup>3</sup> /h)	460	613	768	1153	1537		
Maximum shi (t		19.5	22.6	25.8	33	46		
Maximum shippin	g dimensions (m)	7.25 x 3.1 x 3.15	7.45 x 2.0 x 2.1	8.73 x 3.26 x 3.2	8.73 x 3.26 x 3.51	10.2 x 3.6 x 4.02		

Ps. : 1.  $\star$  The final specifications are base on the quotation.

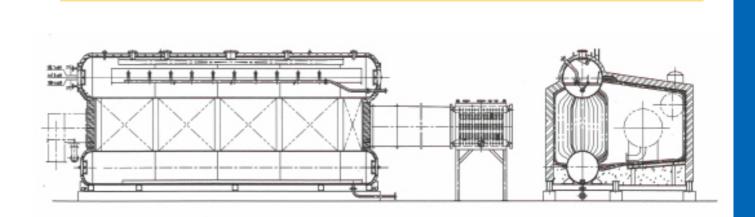
### TP-SZS Series Oil Fuel/Gas Boiler



#### Introduction to Series of TP-SZS Boiler:

Series of TP-SZS Boiler is arranged in"D"type with quick fitting structure. The water-cooling wall uses close-row structure which ensures the boiler has high performance and is suitable for heat radiation exchange. The smoke will reach the rear part of the furnace and turn right to pass through over heater then it will go through convection pipe bundle for convection heat exchange, at final it will go backward to pass through fuel and coal saver then exhaust from chimney.

TP-SZS boiler features great heat efficiency, can rise temperature quickly, safe and reliable to operate, small in volume, light in weight, and short in installation period. It is equipped with coal saver, dual cylinder pipe structure to ensure quick pressure rising and it can combusts full automatically, it is stable and reliable in performance.



### Parameter of TP-SZS Series Oil Fuel/Gas Steam Hot Water Boiler:

					Specification		
	Item		TP-SZS2-2.5-Y(Q)	TP-SZS4-2.5-Y(Q)	TP-SZS6-1.25-Y(Q) TP-SZS6-2.45-Y(Q) TP-SZS4.2-1.0/115/70/-Y(Q)	TP-SZS10-1 25-Y(Q) TP-SZS10-2 45-Y(Q) TP-SZS10-1.0/115/70-Y(Q)	TP-SZS15-1 25-Y(Q) TP-SZS15-2.45-Y(Q) TP-SZS10.5-1.0/115/70-Y(Q)
		ation Capacity (T/H) tion Capacity (MW)	2	4	6/4.2	10	15/10.5
	Rated P	ressure (Map)	2.5	2.5	1.25/2.45/1.0	1.25/2.45/1.0	1.25/2.45/1.0
		Femperature / temperature (°C)	226	225	194/225/115	194/225/115	194/225/115
		oly Temperature / r Temperature (°C)	20	20	20/70	105/70	105/70
		Body	33.51	100.65	139.2	163.2	258
	Heating Surface	Economizer	15	25.4	130.8	138	261.6
Furnace	Suitable Fuel		Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)
	Fuel consumption	Light Oil	140	280	417	1675	1043
		Natural Gas	172	344	483	806	1209
	Thermal efficiency (%)		88	88	89	89	89
	Maximum shipping weight (t)		20.352	25	26	26	34
	Boiler Assembled Dimensions (LxWxH) (m)		5.7 x 1.965 x 3.56	5.76 x 4.075 x 3.66	6.5 x 3.27 x 3.36	7.87 x 3.4 x 3.34	7.1 x 3.66 x 3.5
		Air volume (m <sup>3</sup> /h)	6610-7920	9474	18000	31554	50356
	LD Far	Air Pressure (pa)	2089-2138	2452	3187	2041	3745
	I.D Fan	Rotational Speed (rpm)	2900	1800	1450	1450	1450
		Motor Power (kw)	7.5	11	30	45	75
		Model	Burner Set	Burner Set	Burner Set	Burner Set	Burner Set
Auxiliary Machine		Air volume (m <sup>3</sup> /h)	/	/	/	/	/
	F.D Fan	Air Pressure (pa)	/	/	/	/	/
		Rotational Speed (rpm)	/	/	/	/	1
		★ Motor Efficiency (kw)	4.5	9.0	12	22	45
	Feed Water	Lift (m)	300	300	294	200	180
	Pump	★ Motor Efficiency (kw)	15	15	15	15	30

$\backslash$			Specification							
		Item	TP-SZS20-1.25-Y(Q) TP-SZS20-2.45-Y(Q) TP-SZS10.5-1.0/115/70-Y(Q)	TP-SZS21-1.25/130/70-Y(Q)	TP-SZS25-1.25-Y(Q) TP-SZS25-2.45-Y(Q)	TP-SZS29-1.25/130/70-Y(Q)	TP-SZS35-1.25-Y(Q) TP-SZS35-2.45-Y(Q)			
	Rated Evaporation Capacity (T/H) Rated Evaporation Capacity (MW)		20/10.5	21	25	29	35			
	Rated Pressure (Map)		1.25/2.45	1.25	1.25/2.45	1.25	1.25/2.45			
		Femperature / temperature (℃)	194/225/115	130	194/225	130	194/225			
	Water Supp Return Water	ly Temperature / Temperature (℃)	105	70	104	70	105			
	Hasting Surface	Body	691	430		603				
Furnace	Heating Surface	Economizer	698	436		610.4				
Fumace	Suitable Fuel		Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)	Light Oil (Natural Gas)			
	Fuel	Light Oil	2834.2	1675		2345				
	consumption	Natural Gas	3208.5	1925		2695				
	Thermal efficiency (%)		89	92	91.16	92.51	90			
	Maximum shipping weight (t)		38.198	CFS 4.6	CFS 4.375	CFS 4.785	CFS 5			
	Boiler Assembled Dimensions (LxWxH) (m)		7.54 x 3.71 x 3.48	9.1 x 3.8 x 3.84	9.083 x 3.71 x 3.84	13.052 x 6.9 x 7.26	13.6 x 8 x 7.2			
		Air volume (m <sup>3</sup> /h)	34993-74137	85692		110772				
	I.D Fan	Air Pressure (pa)	1618-1451	3323		2535				
	1.01 aii	Rotational Speed (r pm)	1450	1450		1450				
		★ Motor Efficiency (kw)	90	110		132				
Auxiliary		Air volume (m <sup>3</sup> /h)	41040	/		/				
Machine	F.D Fan	Air Pressure (pa)	5000	/		1				
	r.b i an	Rotational Speed (r pm)	960	1		1				
		★ Motor Efficiency (kw)	55							
	Feed Water	Lift (m)	38	190		180				
	Pump	★ Motor Efficiency (kw)	11	30		37				

Ps. : 1.  $\star$  The final specifications are base on the quotation.

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#### Top-In Technology Co.,Ltd.

#### TP-YLL Series Coal Combustion Organic Heater Boiler

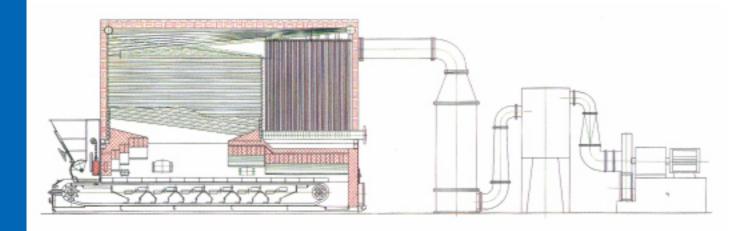


#### Coal Fired Organic Heat Carrier Heater Boiler Introduction :

This is a new type of thermal equipment, which uses coal as fuel; it takes heat conduction oil as circular media for heat supply. We use high temperature circular pump for heat conduction oil; the heat conduction oil shall return to the boiler for warm up after supplying to heat consumption equipment.

It has a lot of advantages such as can reach to high working temperature (300°C approximately) under normal pressure, can carry out stable heating, can precisely control working temperature, has higher heat efficiency in the system, does not require any water treatment equipment, convenient in performance and maintenance, safe, reliable and save energies.

This series of heat conduction furnace is compact in structure, elegant in appearance, great performance and easy in operation. It is extensively used in industries of textile, printing, chemical, plastic, paint and automobile, synthetic fiber, rubber, shipbuilding, food, and etc...



#### TP-YLL Series Coal Combustion Organic Heater Boiler Technical Parameter :

Standard Specification / Model		TP-YLL-1400MA(W)	TP-YLL-1800MA(W)	TP-YLL-2400MA(W)	TP-YLL-2800MA(W)	TP-YLL-3500MA(W)
Rated Evaporation Capacity (KW)		1400	1800	2400	2800	3500
Design temperature ( ≦°C )		300	300	300	300	350
Rated Press	ure (MPa)	0.6	0.6	0.7	0.7	1.0
Thermal effici	ency ( $\geq \%$ )	≥ 74	≥ 74	≥ 78	≥ 78	≥ 78
System installed capacity (KW)		55	63	76	85	100
Heating Surface (m <sup>2</sup> )		84	90	100	108	111.5
Furnace oil volume (m <sup>3</sup> )		1.81	2.38	2.6	2.8	3.1
Expansion	tank (m <sup>3</sup> )	2.0	2.5	2.5	3.5	3.5
Oil storage	tank (m <sup>3</sup> )	4.5	6.0	6.0	8.5	8.5
The maximum	Length (L)	5500	5500	6100	6100	6810
dimensions for transportation	Width (W)	2300	2600	2500	2500	2500
(mm)	Height (H)	3340	3700	3060	3600	3600
Maximum shipping weight (Kg)		19500	23000	26500	27500	29000

Standard Specifi Model	cation /	TP-YLL-4200 MA(W)	TP-YLL-4600 MA(W)	TP-YLL-5600 MA(W)	TP-YLL-7000 MA(W)	TP-YLL-8200 MA(W)	TP-YLL-9400 MA(W)	TP- YLL-10500 MA(W)	TP- YLL-12000 MA(W)	TP- YLL-14000 MA(W)
Rated Evaporation Capacity (KW)		4200	4600	5600	7000	8200	9400	10500	12000	14000
Design temperatu	re ( ≦°C )	350	350	350	350	320	320	320	320	320
Rated Pressure	(MPa)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Thermal efficience	cy (≧%)	≧ 78	≧ 78	≧ 78	≧ 79	≧ 79	≧ 79	≥ 79	≧ 79	≥ 79
System installed capacity (KW)		100	100	120	120	150	160	200	260	320
Heating Surfac	$e(m^2)$	194	280	360	460	520	585	650	742	821
Furnace oil volu	me (m <sup>3</sup> )	3	3.8	5.2	6.5	7.8	11.4	12.8	14.6	15.9
Expansion tanl	k (m <sup>3</sup> )	5.0	5.0	5.0	6.0	6.0	8.0	8.0	10.0	10.0
Oil storage tan	k (m <sup>3</sup> )	10	10	10	15	15	20	20	25	25
Th	Length (L)	7100	7800	8200	8840	9740	10400	10400	10400	10400
The maximum dimensions for transportation	Width (W)	2620	2620	3200	3200	3200	3380	3380	3560	3560
(mm)	Height (H)	3300	3300	3300	3300	3300	3260	3390	3420	3580
Maximum shippir (Kg)	ng weight	35000	37000	38000	40000	46000	51000	56000	62000	68000

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#### TP-YYW Series Oil (Gas) Combustion Organic Heat Carrier Heater Boiler



#### TP-YYW Oil (Gas) Organic Heat Carrier Boiler

This is a new type of thermal equipment, which uses oil or gas as fuel; it takes heat conduction oil as circular media for heat supply. We use high temperature circular pump for heat conduction oil; the heat conduction oil shall return to the boiler for warm up after supplying to heat consumption equipment.

It has a lot of advantages such as can reach to high working temperature (300°C approximately) under normal pressure, can carry out stable heating, can precisely control working temperature, has higher heat efficiency in the system, does not require any water treatment equipment, convenient in performance and maintenance, safe, reliable and save energies.

This series of heat conduction furnace is compact in structure, elegant in appearance, great performance and easy in operation.

It is extensively used in industries of textile, printing, chemical, plastic, paint and automobile, synthetic fiber, rubber, shipbuilding, food, and etc..

Standard Specification / Model		TP-YYW- 700Y(Q)	TP-YYW- 1000Y(Q)	TP-YYW- 1200Y(Q)	TP-YYW- 1400Y(Q)	TP-YYW- 1800Y(Q)	TP-YYW- 2400Y(Q)	TP-YYW- 2800Y(Q)
Rated Evaporation Capacity (KW)		700	1000	1200	1400	1800	2400	2800
Design temperature ( ≦°C )		320	320	320	320	320	320	320
Rated Pressure (MPa)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Design efficiency ( $\geq$ %)		≧80	≧83	≧83	≧85	≧85	≧85	≧ 85
All System installe	ed capacity (KW)	30	30	42	42	45	70	80
	Length (L)	3500	4200	4500	5000	5700	6000	6300
Dimensions (mm)	Width (W)	1950	2100	2200	2300	2600	2600	2800
	Height (H)	2350	2500	2700	2900	3000	3000	3100
Maximum shipping weight (Kg)		6900	7800	8300	9100	9700	10300	11600

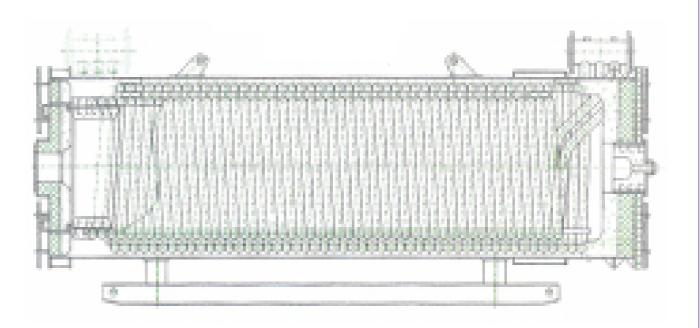
TP-YYW Series Oil (Gas) Combustion Organic Heat Carrier Heater Boiler Technical Parameter ( I )

#### TP-YYW Series Oil (Gas) Combustion Organic Heat Carrier Heater Boiler Technical Parameter ( II )

Standard Specification / Model		TP-YYW- 3500Y(Q)	TP-YYW- 4200Y(Q)	TP-YYW- 5600Y(Q)	TP-YYW- 7000Y(Q)	TP-YYW- 9500Y(Q)	TP-YYW- 12000Y(Q)	TP-YYW- 14000Y(Q)
Rated Evaporation Capacity (KW)		3500	4200	5600	7000	9500	12000	14000
Design temperature ( ≦°C )		320	320	320	320	320	320	320
Rated Pressure (MPa)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Design efficiency ( $\geq$ %)		≧86	≧86	≧86	≧88	≧ 88	≧ 88	≧ 88
All System installed capacity (KW)		90	100	100	100	150	150	200
Dimensions (mm)	Length (L)	7500	7500	8100	9200	9550	11000	12600
	Width (W)	2800	2800	2900	2900	3000	3000	3000
	Height (H)	3100	3100	3200	3200	4000	4000	4000
Maximum shipping weight (Kg)		16100	18600	23000	28500	33600	38000	45000

### The Other Fuels for Organic Heat Carrier Furnace

In recent years the world's tradition energy resources are getting less and less, our company advanced our technology and study carefully for different countries energy resources and develop the Organic Heat Carrier Furnace to burn these bio fuels such as timber, sawdust, nutshell, rice husk, palm shell...etc, for customer to choose.



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