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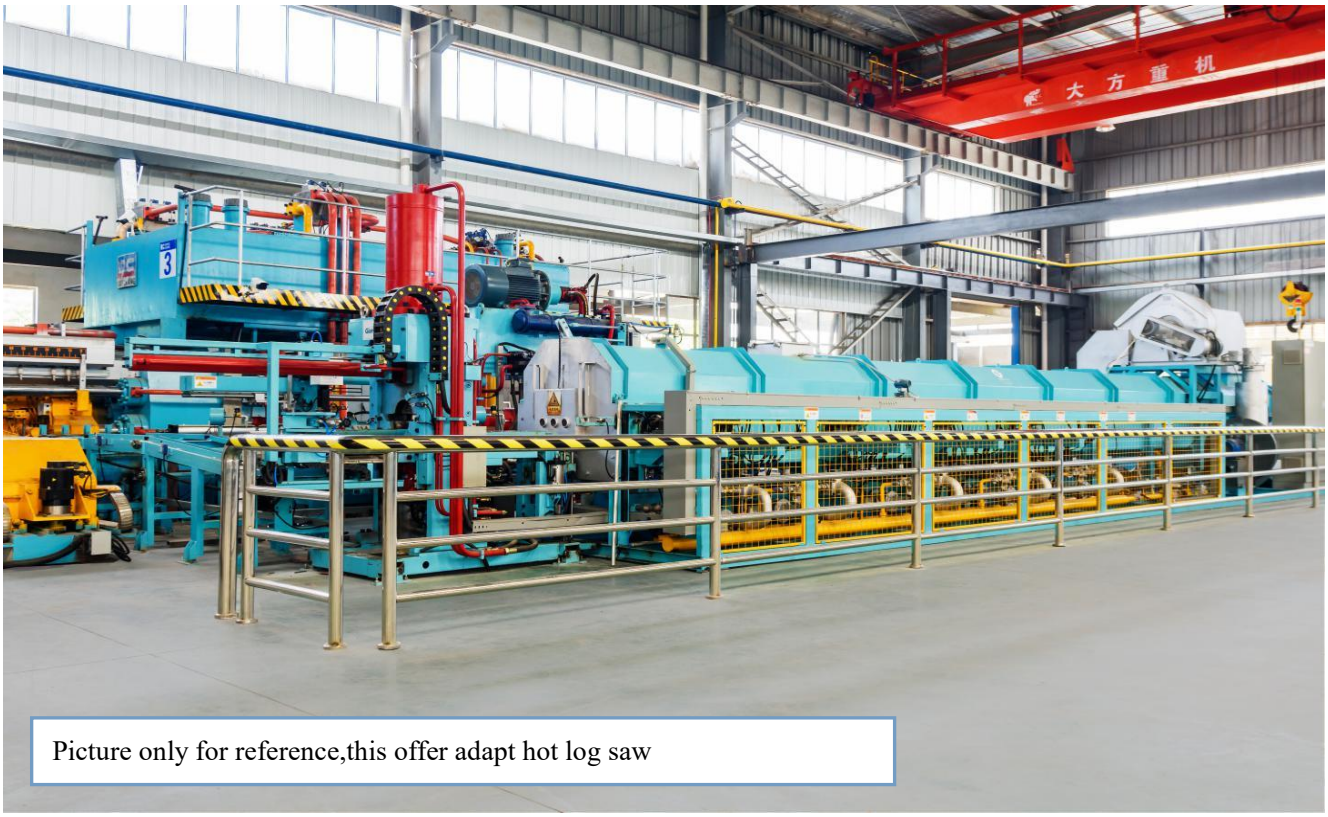
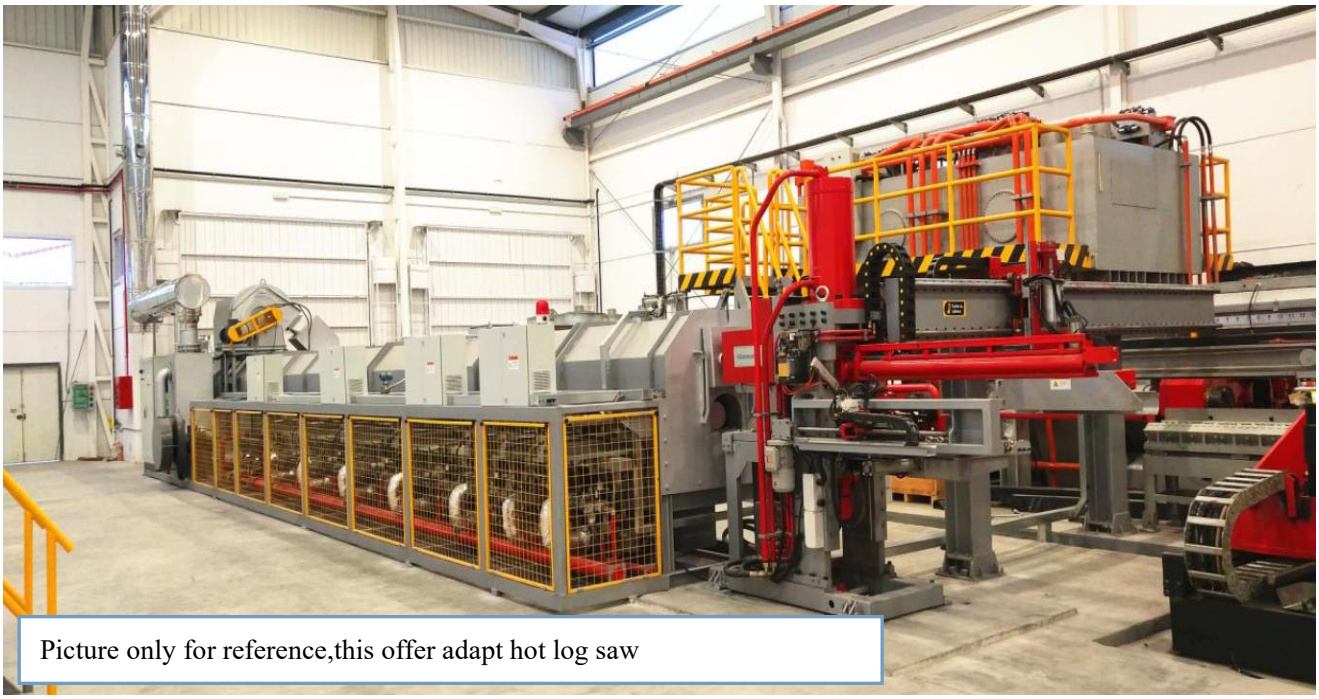
Specification Data- 7” SINGLE BILLET PREHEATING FURNACE WITH HOT SAW



Picture only for reference,this offer adapt hot log saw



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1. Main design parameters

Sr.	Item	Specification	Note
1.1	Applicable aluminium billet	Φ178(6 series alloy)	L=6000-7000mm
1.3	Motor power of hydraulic station	22KW	
1.4	Maximum shear force	98T	
1.5	Minimum shearing length	300mm	
1.6	Maximum shearing length	900mm	
1.7	Length of furnace body	13000mm	
1.8	Circulating fan power	15KW	
1.9	Combustion supporting fan power	7.5KW	
1.10	Maximum heating temperature	550℃	
1.11	Burning zones	5 zones	
1.12	Heating power of burning zones	≈17 Kcal/zone	
1.13	Total gas consumption (maximum)	≈22 m^3 /T	
1.14	Preheating zone	1 zone	Except burning zones,heated by the exhaust gas
1.15	Fuel	LPG	
1.17	Working pressure of hydraulic system	16Mpa	
1.18	Power of conveying motor	1.1kw	Transfer to press
1.19	Total electric power	≈50KW	
1.20	Feeding capacity	1400kg/h	
Note: the above parameters may vary slightly according to the design requirements.			

2. Configuration description

The furnace adopts continuous gas heating technology,combine hot saw and heating process together,to preheat aluminum billet for aluminum extrusion press.The initial preheating time of this furnace is 20-40 minutes,it can reach target temperature.

This furnace has advantages of low energy consumption,high thermal efficiency,flexible arrangement and less preheating time,high degree of automation,low labor intensity,low production cost and etc.It's the best choose for modern extrusion factory.

This furnace uses direct-fired spray heating aluminum logs, heating control is divided into multi-zones, each heating zone is equipped with temperature sensors for real-time monitoring and heating of aluminum logs. LPG is used as fuel, and the pressure is adjusted to 5-8 Kpa by pressure reducing valve. The fuel is mixed with combustion-supporting air through mixer, and the billet is heated by burner.

2.1 Aluminum Log Storage Table

The storage table is welded by profiled bar and armor plate, equipped with buffer mechanism and pusher to drive the billet into furnace.

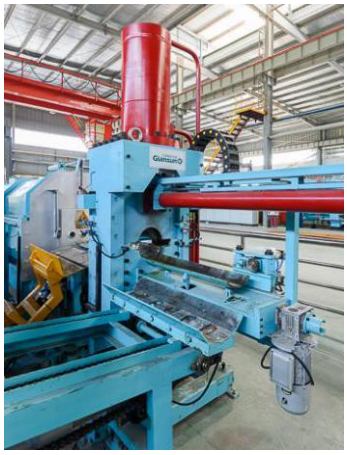
2.2 Log Pusher

This mechanism is welded by profiled bar and armor plate,is mainly responsible for conveying aluminum log into the furnace for heating,equipped with speed reducer, log pushing trolley.

2.3 Aluminum log heating furnace

The aluminum log heating furnace is made of steel and steel plates, and is equipped with a combustion air blower, a circulating fan, a combustion system, and a temperature measuring system. The aluminum log is heated in a plurality of combustion zones on the furnace, and each combustion zone is equipped with an independent temperature measuring system. The furnace is also equipped with a furnace pressure measurement control system and a heat exchanger system. The furnace pressure system measures the pressure in the furnace in real time, and adjusts the pressure in the furnace in a normal range accordingly, and the explosion is opened on the top of the furnace. The heat exchanger reuses the exhaust gas discharged, and heats the combustion air to burn, thereby effectively improving the utilization rate of energy, thereby reducing energy consumption and saving production costs.

2.4 Hot Log Shear



Hot log shear is made of Q235 steel,45 steel and tooling steel.

2.4.1 Max shear force:98T

2.4.2 Working pressure: 16 Mpa

2.4.3 Shear blade is made of tooling steel, heat treatment HRC 46-48

2.4.4 Sizing system: With position detector and mechanical device to cut log into 300--900mm.

2.5 Sizing mechanism

The Sizing mechanism is automatic, which is driven by a screw log and a guide log. The motor reducer is used as a power to move the fixed-length head back and forth. The sizing is equipped with a rotary encoder for position control. The length of the sizing is determined according to the user. The sizing needs to be set freely and flexible.

2.6 Billet Conveyor

The device transports the sheared billet to loading device of press via motor. The whole operation can automatically operate with shear cycle.With billet carbon sprayer to blacken the billet end.

2.7 PLC and electrical control system

The system uses PLC and man-machine interface for system control, which can manually and automatically control the equipment. The parameter setting of the equipment and alarm information can be set and reflected directly on the man-machine interface, which is very intuitive and Humanize.

3. Main components

Sr.	Item	Brand
3.1	PLC	Mitsubishi
3.2	Touch screen	WEINVIEW
3.3	Frequency converter	WEINVIEW
3.4	Button	SCHNEIDER
3.5	Circuit breaker	SCHNEIDER

3.6	AC contactor	SCHNEIDER
3.7	Travel switch	SCHNEIDER
3.8	Wire and cable	Shanghai Public Cable
3.9	Vane pump	Green
3.10	Hydraulic valve	YUKEN
3.11	Saw blade	MRK
3.12	Reducer	GUOMAO/GUANGZHUO
3.13	Pneumatic system	CHELIC/SNS
3.14	Gas solenoid valve	ELX (Electrolux)
3.15	Gas filter	Sinon

4.Scope of supply

Hot log shear	1set
Furnace body	1set
Log pusher	1set
Log storage table	1set
Finished billet conveyor	1set
Electrical system	1set
Hydraulic system	1set

5. Technical information provided by the seller

5.1 Equipment layout and foundation drawing (if needed);
5.2 List of wearing parts;
5.3 Electrical control schematic diagram;
5.4 Hydraulic control schematic diagram;
5.5 Equipment instruction manual;
5.6 The first item above will be provided after the completion of the product general plan design, and other technical data will be provided at the time of shipment;

Notes:All the pictures in the document are for reference only.