



REMIX

AFC-HOLCROFT



REMIX S.A. SEALED QUENCH SQ



Electric chamber furnace Seled Quelch type

APPLICATION

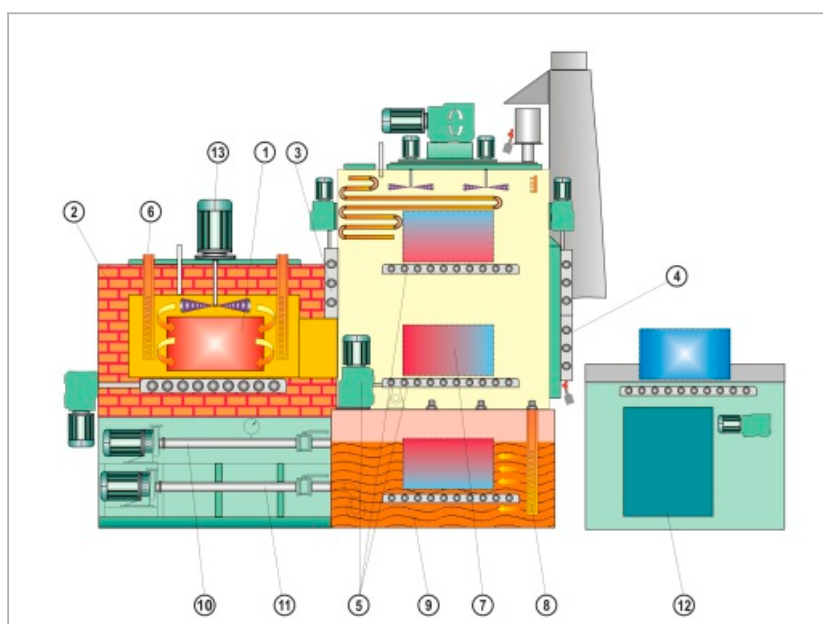
SQ is an universal electric chamber furnace with vestibule and quenching tank and it is intended for heat and thermochemical treatment in atmospheres produced by generator or from Liquid Organic Compounds, within temperature range from 760 to 1000°C.

TECHNOLOGICAL PROCESSES

- Gas carburizing at temperature from 850°C to 950°C
- Gas carbonitriding at temperature from 780°C to 900°C
- Heating before hardening at temperature from 780°C to 1000°C
- Annealing at temperature from 650°C to 850°C



CONSTRUCTION



The construction of universal electric chamber with vestibule and quenching tank includes the following elements:

1. Heating chamber
2. Refractory lining
3. Furnaces door
4. Vestibule door
5. Load transport system
6. Furnaces heating system
7. Vestibule of furnaces
8. Installation of heating oil
9. Oil quenching tank
10. Oil cooling system
11. Oil mixing system
12. Loading device
13. Atmosphere mixer

CHARACTERISTIC PROPERTIES OF SQ FURNACES CONSTRUCTION:

- Lining of furnace chamber is made of insulating materials of highest quality and low coefficient of thermal conductivity
- Hearth of the furnace chamber is made of SiC guides
- A highly efficient mixer, which is installed in the furnace chamber, ensures an appropriate mixing of atmosphere as well as distribution of temperature within the working space (+/- 5K)
- Heating elements, placed vertically in the furnace chamber, in tight heat-resisting radiant tubes
- The system of oil mixing in the oil tank is based on a pumping system with spraying collectors, which allow modeling the direction and intensity of oil flow or it is based on highly efficient mixers, placed on the furnace bath cover, depending on technological requirements for treated details
- Automatic system of internal transport
- Fully automated process

CONTROL SYSTEM

This system ensures a full control over all functions of the furnace operation. The basic functions of the furnace include:

- supplying all receivers of electric energy,
- controlling the operation of individual mechanisms of the furnace,
- visualization of operation statuses,
- visualization of alarm states,
- control and recording of process parameters (temperature, Cp).

The main element of the control system is a logic controller (PLC), which executes the control algorithm of the furnace and generates control signals for executive elements (contactors, solenoid valves, signaling elements, etc.).

The SQ furnaces are equipped with the system of automatic control of temperature and carbon potential, based on carbon potential regulators and oxygen probe. This system allows for conducting the process according to preset profile of heat treatment (temperature, carbon potential).



Series of types of furnaces SQ type

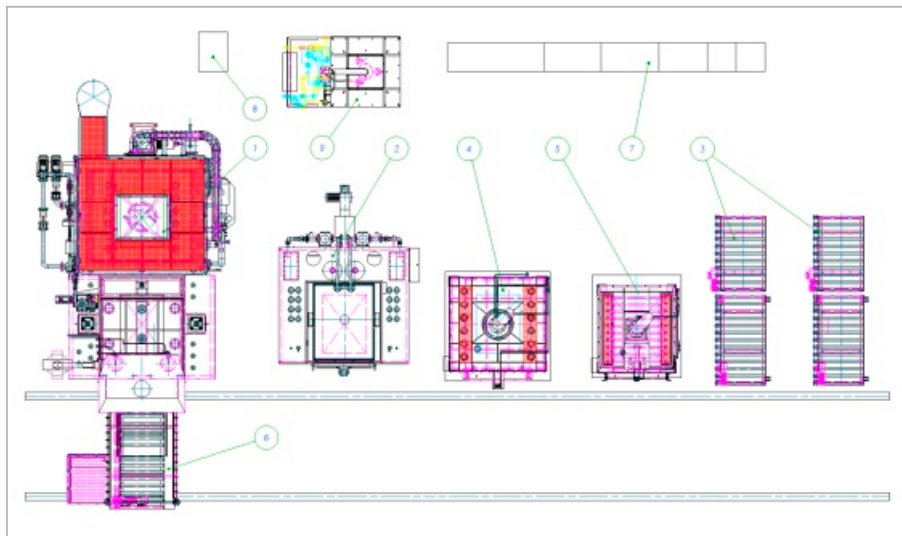
Furnace type	Temperature max	Usable dimensions			Charge weight brutto	3x400/230V;50Hz Installed Power kW	Overall furnace dimensions			Furnace weight kg
		h	s	l			S	L	H	
		mm	mm	mm	kg	kW	mm	mm	mm	kg
SQ-135	1000°C	300	450	650	200	53	2100	3200	3100	9500
SQ-270		460	610	910	375	81	2700	4150	3600	10500
SQ-340		610	610	910	400	93	2700	4150	4000	13000
SQ-565		610	760	1220	600	118	2900	4650	4000	16000
SQ-840		760	910	1220	1200	250	3600	5350	5600	22500
SQ-1200		610	1300	1550	1200	250	3900	6350	4900	24000

Notice: Overall dimensions s(S) x l(L) x h(H) - width x length x height

AUXILIARY EQUIPMENT INCLUDED IN THE LINE:

- Chamber furnaces for high and low temperature tempering
- Washing plants
- Mobile charge loaders
- Loading and unloading tables
- Atmosphere generators

1. Chamber furnaces SQ type
2. Washing machine
3. Loading table
4. Chamber furnaces for high tempering
5. Chamber furnaces for low tempering
6. Mobile loading machine CLP type
7. Control cabinet
8. Gas cabinet
9. Generator ENDO



OFFER

- Industrial furnaces and process lines for heat treatment and thermo-chemical treatment of metals
- Vacuum furnaces
- Crucible furnaces for melting and holding of non-ferrous metals
- Bath furnaces for melting and holding of aluminium
- Furnaces for aluminium heat treatment
- Bath furnaces for hot galvanizing
- Auxiliary equipment
- Overhauls and modernizations of already installed units
- Spare parts (heating elements, etc.)
- Crucibles and castings accesories



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