

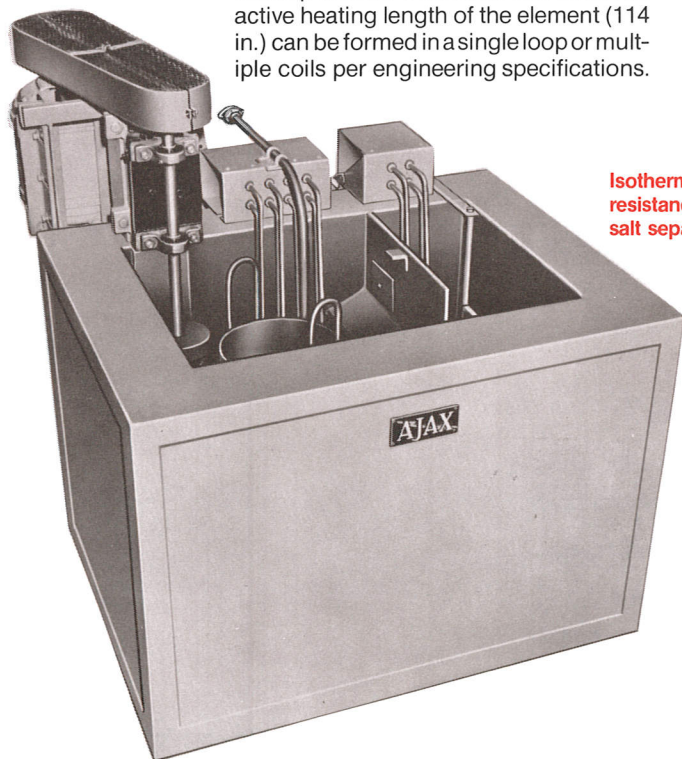


## RESISTANCE IMMERSION HEATERS & GAS – FIRED TUBES

Resistance heating elements, enclosed within steel sheaths, should have a service life of from one to five years when used in molten salt. Replacement elements should be kept in stock at all times because premature failures can occur. If solidified salt and sludge are allowed to build up and embed the element, overheating and burnout can result. Or, if the salt line drops below the "heat line" (the active portion) of the element, the heater will burn out.

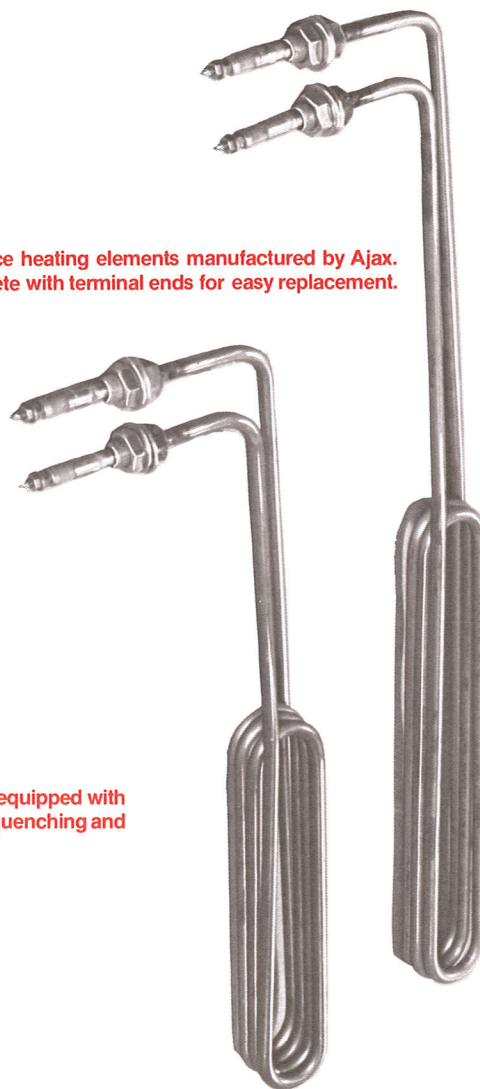
Currently, various types of Ajax salt bath furnaces and equipment employ resistance heating elements: Type IQ, IQC, and IQCR quenching units operating at 350 to 750° F (177 to 400° C.), Type TS furnaces for tempering, Type PR furnaces for removing plastic residues that operate up to 950° F (510° C.), Type TO for oil quench tanks, and Type TW for heating alkaline wash, hot water wash and rinse tanks. Ajax designs and manufactures the heating elements for any applicable Ajax furnace, and can also custom build elements for competitive salt bath units when key information is provided — i.e., bath dimensions, operating temperature and type of medium employed.

Two types of sheaths are employed — a steel sheath for bath temperature to approximately 700° F, and an alloy sheath for baths to 950° F. Ajax elements can be manufactured for baths as deep as 60 in. or as shallow as 12 in. The active heating length of the element (114 in.) can be formed in a single loop or multiple coils per engineering specifications.



**Isothermal quench furnace equipped with resistance elements for the quenching and salt separating chambers.**

**Typical resistance heating elements manufactured by Ajax. Units are complete with terminal ends for easy replacement.**



### Ajax builds in Quality

All Ajax heaters are equipped with specially designed terminal ends to withstand the critical environment of high temperature, corrosive fumes and high humidity. These special terminal ends thus minimize premature failure.

All Ajax resistance heating elements are tested twice before shipping. Before fabrication the elements are checked for electrical continuity, and after forming the coils the elements are tested for electrical "shorts" and exact location of the heat line.

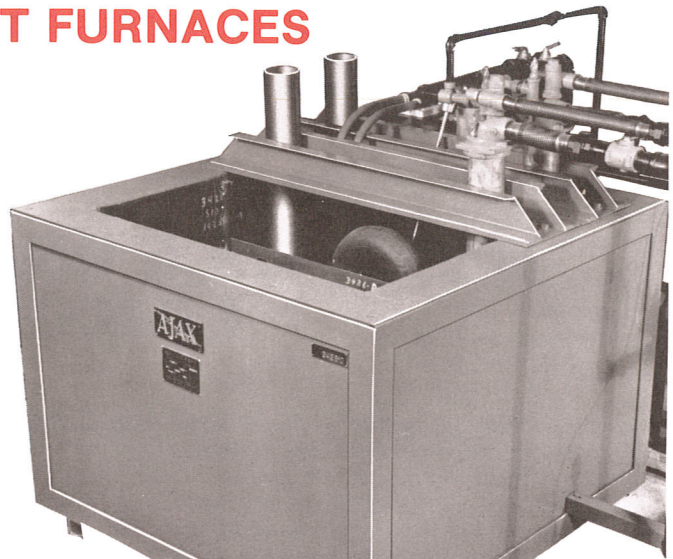
See other side for data on Gas-fired tubes.



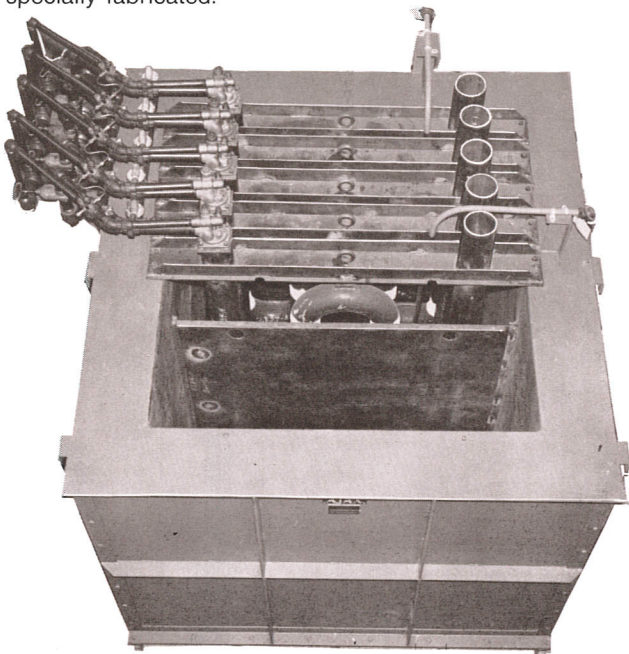
# RADIANT GAS-FIRED TUBES FOR AJAX DGT FURNACES

The DGT family of Ajax salt bath furnaces utilize gas-fired radiant tubes for heat treatments in temperatures ranging from 400 to 1150° F. These units can range in length from three feet to over 40 feet, with capacities up to several tons per hour, and can employ many immersion tube units. Tubes are fabricated from stainless steel tubing in sizes up to 6 in. nominal diameters.

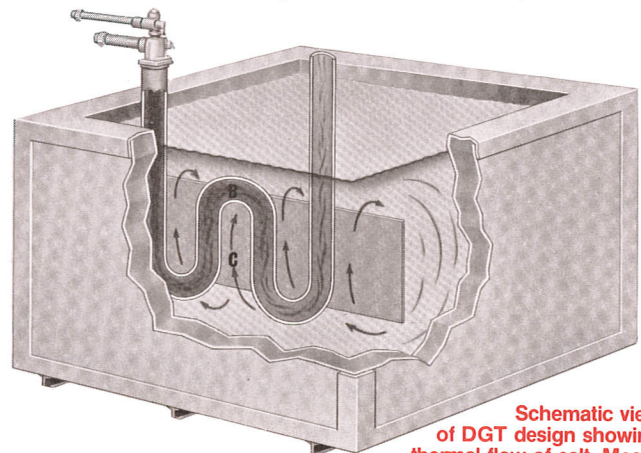
Immersion tubes are the heart of AJAX DGT gas-fired furnaces. The service life of these custom-designed tubes can be extended with reasonable care and maintenance. Nevertheless, tube failure can occur, and Ajax can supply replacement tubes although these are not stock items — they must be specially fabricated.



DGT tempering furnace with two immersion tubes for 650-850° F operation has working dimensions 40" long x 20" wide x 29" salt depth.



Five immersion tubes employed in this DGT furnace for operation at 950-1000° F. Working dimensions are 48" long x 29" wide x 60" salt depth.



Schematic view of DGT design showing thermal flow of salt. Mechanical agitation can be provided. (A = pressure burner, B = immersion tube, C = baffle.)

(Clip, complete and mail to AJAX ELECTRIC COMPANY)

☐ Proceed with repairs or replacement parts, use our P.O. # \_\_\_\_\_  
(or)

☐ Please advise costs and delivery.

(For quick replay call **Ajax Spare Parts Dept. (215) 947-8500**)

\_\_\_\_\_ Electric Resistance Heaters for our Ajax Furnace Serial # \_\_\_\_\_

\_\_\_\_\_ Electric Resistance Heaters for compelative furnace with working dimensions: \_\_\_\_\_" length, \_\_\_\_\_" width, \_\_\_\_\_" medium depth,

\_\_\_\_\_ Operating Temperature Range: \_\_\_\_\_ Type of medium employed: \_\_\_\_\_

\_\_\_\_\_ Gas-fired Immersion Tubes for Ajax DGT furnace, Serial # \_\_\_\_\_

\* For other types of equipment, please provide drawings and description of application.

**COMPANY** \_\_\_\_\_

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**AJAX**  
ELECTRIC COMPANY



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