

CONTINUOUS FILTERING SYSTEMS

Filtering out undesirable suspensions in the molten bath is the best way to assure satisfactory operation. You can avoid the costly practice of bailing and replenishment by simply installing a relatively inexpensive filtering system.

Ajax Electric can retro-fit appropriate systems to existing salt bath furnaces, regardless of age or manufacture, as well as designing filtering systems for new furnaces, which are used for:

- 1). **Quenching Furnaces**—to remove chlorides and scale.
- 2). **Plastic Removal Furnaces**—to remove carbonates, pigments and non-reactive contaminants.
- 3). **Descaling & Desanding Furnaces**—to remove particles and residues.

Principle of Operation

Ajax Filtering Systems are designed to trap and remove non-reactive suspended particles. In the accompanying symbolic drawing, note that a salt bath may be designed to incorporate several filter baskets, two or more propeller agitators and one or more weirs.

Arrows indicate typical circulation of the molten salt and how contaminants are filtered out.

Typical Applications

To obtain maximum hardness and other optimum physical properties in isothermal quenching, the nitrate or nitrate-nitrite salts, operating from 350° to 1100°F, must be continuously filtered. This avoids build-up of chloride salts carried over by parts transferred from the high temperature bath.

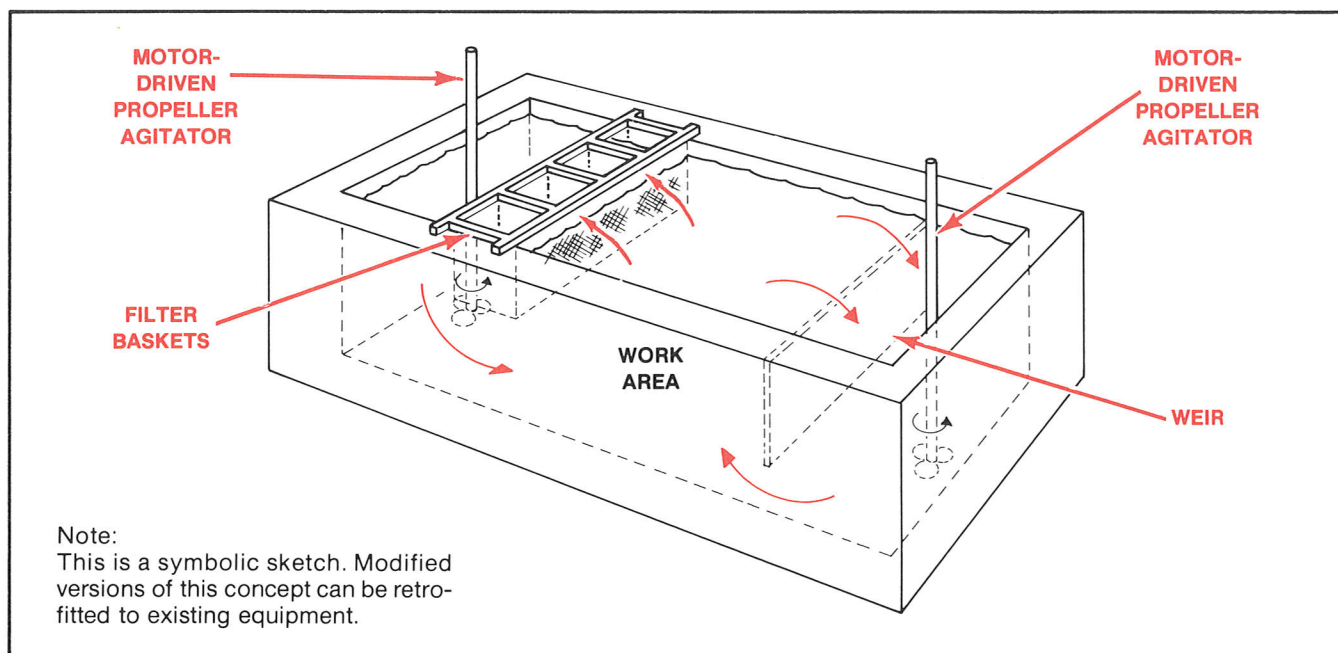
To maintain effectiveness & uniformity in plastic removal applications and descaling furnaces, filtering should be employed to remove the carbonates, scale, sand pigments, etc. Filtering avoids build-up and assures maximum cleaning action.

System Components

Ajax Filtering Systems comprises five basic parts:

1. Filter basket(s)
2. Basket supporting frame(s)
3. Propeller agitator(s)
4. Basket dumping stand
5. Monorail Hoist

With new furnace designs, Ajax can provide continuous filtration without any interruption to production. With retro-fit designs, the systems must operate within given areas and allow for any nearby obstructions. Continuous filtration may not always be possible, but removable systems have been developed which are lowered into the work area of the furnace for overnight or weekend filtration.



Arrows indicate flow of molten salt through the filtering baskets. This assures active, positive and continuous filtration.

See other side for specifications and ordering information.

Continuous Filtering Systems

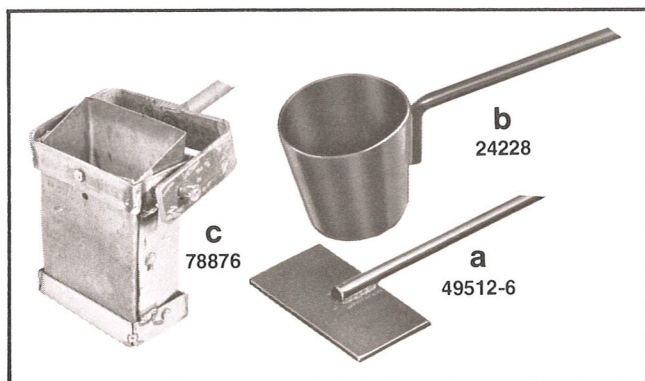
Specifications

- 1). **Filter Basket:** Sturdy steel frame, welded construction. Filtering screens on one or more sides. Complete with lifting handle.
- 2). **Supporting Frame:** Removable design of welded steel. Support basket(s) and propeller agitator(s).
- 3). **Propeller Agitator:** Electric or air-driven. Steel or alloy shaft & propeller. (See Data/Order Sheet No. 7.)
- 4). **Basket Dumping Stand:** Welded steel frame. Floor mounted. Equipped with handle and trunions for easy dumping.
- 5). **Monorail Hoist:** Curved, overhead rail and supporting structure facilitates removal of baskets for dumping offline.

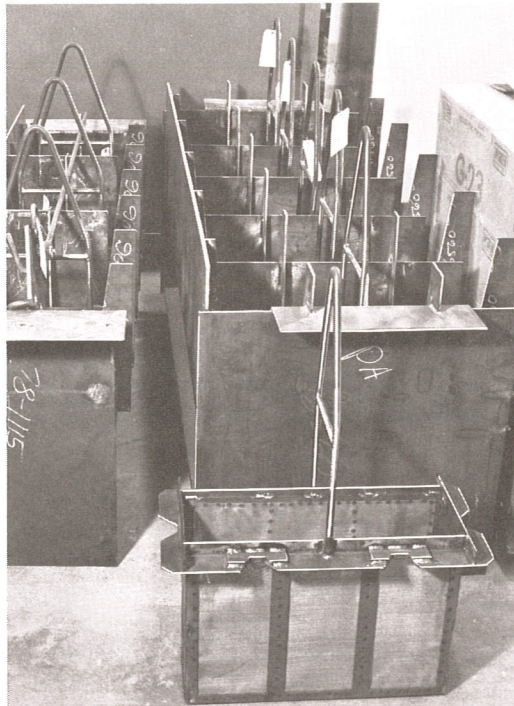
Suggested Spare Parts

Remember that to avoid delays in repair and downtime, certain parts should be kept on hand, including:

- (1) An extra filter basket.
- (2) Ideally a complete propeller agitator—or at least, a spare motor, propeller shaft, or propeller.
- (3) A set of maintenance tools.



Maintenance Tools



Filter Baskets fabricated at Ajax



Basket Dumping Stand

(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 reply call **Ajax Spare Parts Dept. (215) 947-8500**)

Quantity _____

_____ Replacement Filter Basket(s) for Ajax furnace Serial # _____

_____ Replacement Agitator(s) Motor for Ajax furnace Serial # _____

_____ Replacement Propeller and Shaft for Ajax furnace Serial # _____

_____ Maintenance Tools (Specify Type A, B, or C per photo above)

_____ Design a Filtering System for Ajax furnace Serial # _____

or my furnace (Submit drawing please)

COMPANY _____

ADDRESS _____

CITY _____ **STATE** _____ **ZIP** _____

Name of Authorized Person _____ **PHONE NO.** _____

AJAX 
ELECTRIC COMPANY

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