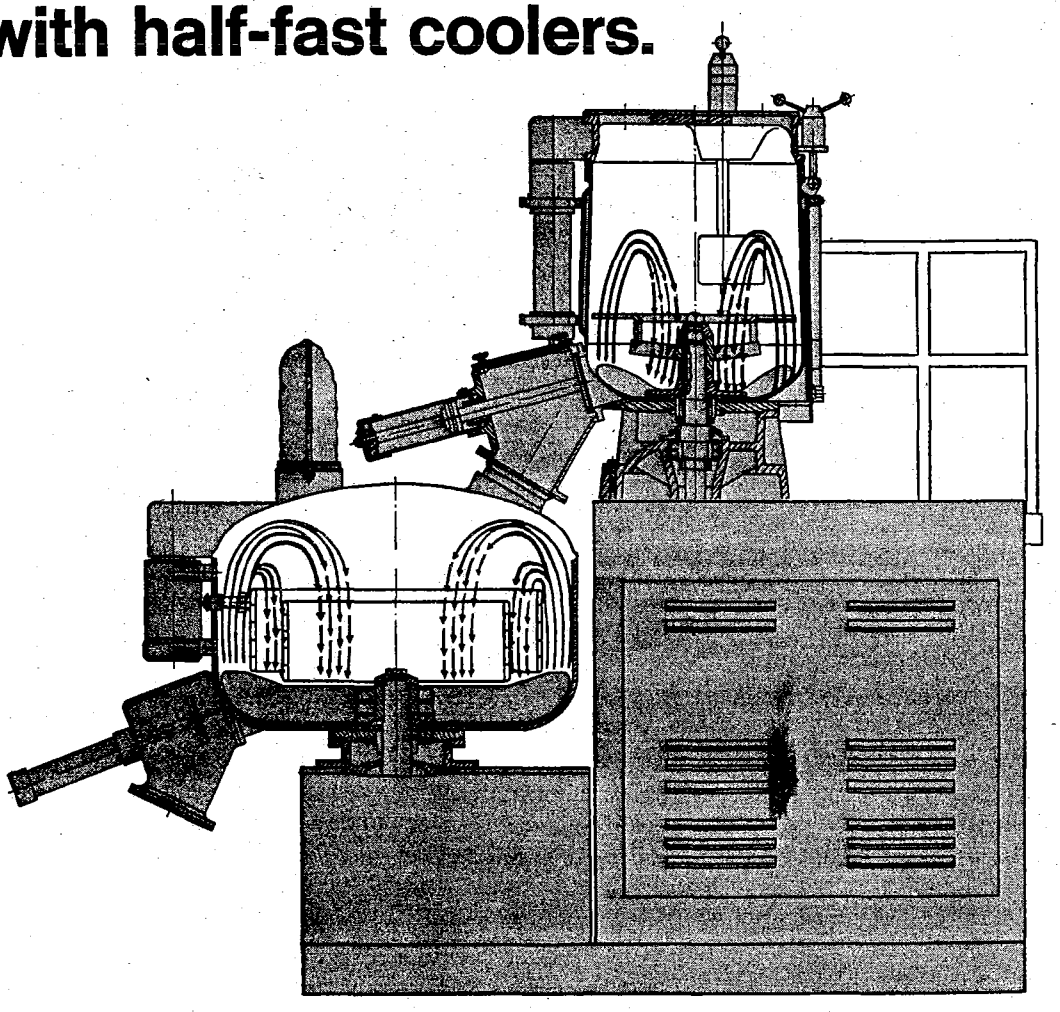
How to avoid fast PVC mixers with half-fast coolers.



Welex coolers cool as fast as Welex mixers mix. (Up to 8,000 lb./hr. for the 26 cu. ft. model.)

This is unusual. Not for us. But for the rest of the industry. Most other mixer-coolers seem to come in not-very-matched sets, with the mixer's production rate much greater than the cooler's.

You get two choices.

You can run the mixer at less than capacity so the cooler can keep up—getting nowhere fast.

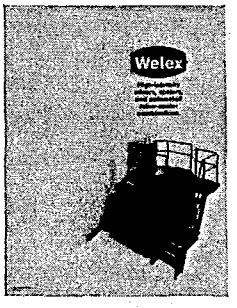
Or you can mix at full capacity and wait for the cooler to finish the previous batch—getting somewhere slow.

No wonder so many people have bought Welex coolers to help out their Brand X mixers.

Because Welex coolers are built to keep up with Welex mixers.

They have full cooling jackets. Plus two internal cooling rings (patent applied for). Plus internally cooled impeller blades. Plus a lively mixing action that keeps the charge constantly moving over, under, around, and between the cooling surfaces. Plus a close clearance between impeller and wall to prevent boundary layer build-up.

Result: five to nine square feet of effective cooling area for every cubic foot of charge—about double the cooling area of half-fast coolers.



The Welex cooler is so good that it is already the most widely used cooler for PVC production, and is catching on quickly elsewhere. A copy of our new Bulletin WM-3 will give you full details. And a visit to our plant will show you how good this new kind of cooling is in action. Call or write for an appointment.

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How to cut costs, improve products

The Idea Exchange

Catalytic oxidation cleans up vinyl calendering air pollution problem

When it comes to the massive problems posed by galloping environmental pollution, the tendency is to feel helpless, shrug, and turn away. But maybe you could help and actually realize savings thereby, as the following suggests.

Masland Duraleather Co., Philadelphia, Pa., installed a catalytic oxidation system to take care of fumes from its vinyl processing oven. The company is a major producer of calendered upholstery products. Involved in the system is a catalytic fume abator that oxidizes smoke-like exhaust into near-invisible vapor and eliminates objectionable odors. This, however, only partially solved the problem.

While the system successfully coped with fumes from the oven, other fumes accumulated in the area where the sheet cooled before being wound into rolls. Solution: a second catalytic unit installed on the roof of the single-story plant adjacent to the first. Both operate independently, but they utilize the same basic principles: the fumes are oxidized via catalytic beds.

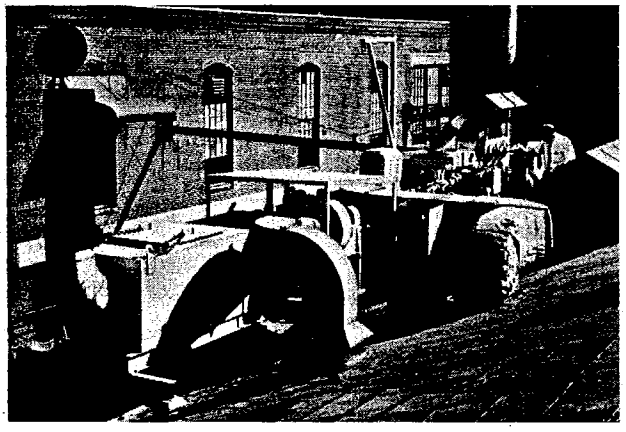
Temperature of the exhaust stream from the cooling area is about 150° F. It's now preheated to about 650° F. for effective catalytic combustion. The burner uses the same natural gas as the oven. As oxidation occurs in the bed, the stream temperature rises to around 750° F.

Direct flame incineration of pollutants in the exhaust stream—identified as nitrogen substances and carbon monoxide from decomposition of plasticizers—would require a temperature of 1000 to 1200° F. It's estimated that use of catalytic oxidation saves the company between $7500 and $10,000/yr. in fuel otherwise needed to burn out these contaminants.

Maintenance costs of the two catalytic units reportedly have been minimal. The catalytic bricks in the bed of the first unit are removed every three months to wash off the minute amount of contaminant that forms on them. It takes two men about 5 hr. to do the job. The ceramic honeycomb bed coated with catalysts in the second unit reportedly has not required cleaning so far.

The oven is currently in operation about 12 hr./day, 6 days/wk. Twin control panels located on a nearby wall enable workmen to start up or switch off the units individually, and check conditions at a glance. The panels also contain signal alarm systems.

Catalytic oxidation systems designed and engineered by Oxy-Catalyst Inc., West Chester, Pa.







Fumes from vinyl calendering are oxidized by twin catalytic air pollution control units installed on plant roof (top photo). The two units take care of noxious smoke and odors from two-stage oven and cooling area (above).

Plant manager checks operating temperature of fume abator on control gage located close to processing oven.

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