



ALLOY HARDFACING

Evolving to meet YOUR Needs....

Continuous Shells



- ◆ Thicker Shell Materials
- ◆ Jacketed or Non-Jacketed
- ◆ Carbon or Stainless
- ◆ Standard or “U” Shells
- ◆ Shell Reinforcement Rings
- ◆ Four Compartment Shells

Alloy is committed to offering its customers the best possible product at the best possible investment. Applying these principals to Continuous Cooker Shells means offering designs with extended useful life at investments that are more than just “competitive”.

Knowing wear life is the *number one concern*, Alloy offers a series of innovations to add to shell life without adding disproportionate cost.

Alloy inner shells are constructed from the thickest materials offered by *any* manufacturer. Even our standard inner shells are manufactured from 1-1/4” thick materials a full 1/8” thicker than used by others. Based on customer wear reports, this difference can represent two additional years wear at a nominal additional investment. While 1/8” may not seem significant, consider that current ASME code means a (2) compartment 1800 style shell has a minimum allowable thickness of 1.0127” for operation at 125 PSI. As a result of the additional one eighth inch, usable life is increased by **211%**.

Because excessive material thickness can affect cook times, next Alloy looked beyond added material thickness to extend useful life. Examining the ASME code, we applied the same technique used to extend batch cooker life and added *Shell Reinforcement Rings*, which add to useful life by permitting the inner shell to be worn thinner without any negative cooking impact. These rings offer the least investment technique of improving over all inner shell wear profile.



This Cooker's Inner Shell was produced from 1-1/4" Thick Pressure Vessel Quality Plate, adding as much as 2 years life over the 1-1/8" Thick materials used by others.

Still not satisfied with useful life, Alloy Design Engineers returned to the review of ASME code finding the Ultimate Solution was to split the shell into four compartments rather than the traditional two. Since the distance between supports is cut in half the effect in minimum allowable thickness is very significant.

Because the industry's raw materials are changing Alloy Continuous Shells are offered in both steam jacketed and non-jacketed designs. Some customers have found these new products present problems when processed in vessels with steam jacketed shells, others have reported steam jacketed shells to show less wear per year of operation as well as better heat transfer rates. Since no solution is right for all processes, Alloy offers both.

Product changes including ever increasing levels of high acid materials such as D.A.F., have accelerated the wear profiles of traditional shell materials. As a result, Alloy offers a variety of shell material combinations including all carbon, all stainless and carbon/stainless inner and outer shell combinations.

ALLOY HARDFACING & ENGINEERING CO., INC.

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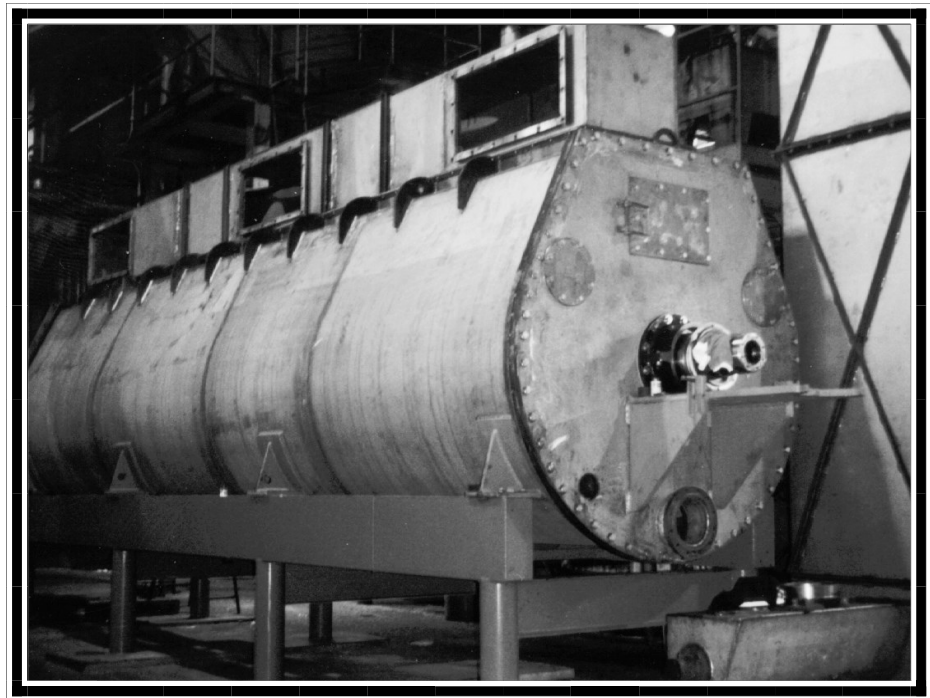
www.alloyhardfacing.com email: salesinfo@alloyhardfacing.net

The ALLOY ALLtra Shell



Set in place and partially assembled, this cooker is nearly ready for start up. The Vapor Bonnet has been set in place and the bolt removable access doors have been left off for illustration.

For ease of access and service the Alloy "ALLtra" cooker has a bolt removable discharge head, bolt removable Vapor Bonnet and both top and bottom access hatches mounted on the discharge head.



Ready for shipment, this Alloy ALLtra non-jacket shell will house a rotor with up to 28 tubes approaching 1800 square feet of heat transfer area.

Both this shell and the accompanying rotor were constructed entirely in *Stainless Steel* to assure maximum useful life even in the toughest operating environment. Once installed, the Vapor Bonnet will be placed on top providing a "disengagement zone" for the vapors, maximizing operating efficiency.

The Shell is constructed of 3/4" thick *Stainless Steel* materials throughout.



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