



# COMBINING TUBES

## Tail Pieces for the Hydro Ejector

Coal fired power plants utilize combining tubes as a method to convey materials such as fly ash or bottom ash in a wet slurry condition. Utilizing "Bernoulli's Principle", the combining tube functions as a mechanism to increase or boost the velocity of a conveyed material in a hydraulic or pneumatic system. The mechanics of conveyance are simple - associated wear phenomenon is very complex. Tube life is subject to abrasion wear, but varies with type of material, material abrasiveness, hardness, particle size, percentage of particulate in total volume conveyed, velocity of conveyance system and net quantity of material conveyed.

Chemical analysis of O.E.M. parts provided to Astech by a variety of customers has conclusively determined that O.E.M. standard material offered in NI-Hard white iron. For many years, NI-Hard has attained popular acceptance as an inexpensive casting material for combining tube applications: but with inherent wear problems.

Astech Technology has developed 750 C.M. (High Chromium-Molybdenum Heat Treated Alloy) castings as a superior alternative to NI-Hard. 750 C.M. is manufactured with **hardness up to 67 RC**. Astech also perfected the art of preventing micro-shrinkage during the casting process, a common problem with NI-Hard castings. Pin holes will form on the surface of the casting if micro-shrinkage is allowed to occur. These pin holes cause turbulence, which creates areas of extreme wear and drastically reduces the service life of the part. Astech's experience and knowledge has created a superior combining tube which will substantially out last O.E.M. NI-Hard combining tubes.

"750 C.M. is manufactured with **hardness up to 67 RC** and will substantially out last NI-Hard combining tubes"



### AVAILABLE SIZES

- 4"
- 4 1/2"
- 5"
- 5 1/2"

OPTIONAL ACCESS PORT FOR INSPECTION

### ASTECH Alloy Steel Technologies

5512 Scotch Rd. P.O. Box 158 • Vassar, MI 48768 • 800.327.8474 • Fax 989.823.7214

[www.astechinc.net](http://www.astechinc.net)

[sales@astechinc.net](mailto:sales@astechinc.net)

