

ABSTRACT

APPARATUS AND METHOD FOR SPRAY DRYING

An electrostatic spray dryer for drying liquid into powder including an elongated body defining a drying chamber, a spray nozzle assembly at one end of the drying chamber and a filter element housing and powder collection chamber at an opposite end. A non-structural non-metallic liner is disposed within the elongated body in spaced relation to an inner wall surface for defining an internal drying zone. The liner is releasably supported within the body for enabling selective removal and replacement following a particular usage. The illustrated elongated body has a modular construction comprising a plurality of modules, with at least one being selectively removable and replacement for altering the length of the drying chamber for a particular spray application. The liner also is replaceable with a liner of a length corresponding to the altered length of the drying chamber or with a different diameter for a particular usage.

Figure 1.