

Pleur-evac®

Chest Drainage System

CLIENT: Deknatel Division of Pfizer

Note: Pleur-evac® is now sold by Teleflex.

OBJECTIVE:

Chest drainage is frequently necessary for thoracic, cardiovascular, trauma and critical care. The original method for chest drainage required the careful and precise addition of water to regulate the amount of suction placed on the thoracic cavity.

Adding water was difficult in an often-chaotic setting. In addition, at the time of DCI's initial participation, the original patents that protected the Pleur-Evac product line were nearing expiration, and a number of companies in the medical industry were developing similar devices.



Deknatel needed an upgraded version of the device that would solve the major problems with the original device and that would also provide a strong patent position.

SOLUTION:

DCI conceived of a "dry suction" system that would not require the addition of water for suction regulation. A wide range of conceptual approaches was examined to support the new technology, up to and including the preparation of highly refined proof-of-principal models. DCI worked closely with the Deknatel technical staff as the concepts demonstrated in the proof-of-principal models were prepared for manufacture and worldwide distribution.

RESULTS:

Over the span of 4 years, the development work performed by DCI resulted in the assignment of 5 new patents to Pfizer and the emergence of several new products based on the DCI patents. These innovative products were ultimately responsible for preserving and/or expanding Deknatel's dominance in this lucrative market.