

Lipseals and Contact Elements for Semiconductor Electroplating Apparatuses

ABSTRACT

5 Disclosed are cup assemblies for holding, sealing, and providing electrical power
to a semiconductor substrate during electroplating which may include a cup bottom
element having a main body portion and a moment arm, an elastomeric sealing element
disposed on the moment arm, and an electrical contact element disposed on the
elastomeric sealing element. The main body portion may be such that it does not
10 substantially flex when a substrate is pressed against the moment arm, and it may be
rigidly affixed to another feature of the cup structure. The ratio of the average vertical
thickness of the main body portion to that of the moment arm may be greater than about
5. The electrical contact element may have a substantially flat but flexible contact portion
disposed upon a substantially horizontal portion of the sealing element. The elastomeric
15 sealing element may be integrated with the cup bottom element during manufacturing.

Fig. 7A