

Title (en)

Ink jet needle humidor sealing system.

Title (de)

Dichtungssystem für Tintenstrahldruckernadel.

Title (fr)

Système d'étanchéité pour aiguille utilisée pour le transport d'encre.

Publication

EP 0676293 A2 19951011 (EN)

Application

EP 95302152 A 19950330

Priority

- US 22326894 A 19940404
- US 29946394 A 19940831

Abstract (en)

A sealing apparatus or humidor (50; 200) selectively seals an orifice (80) of a hollow ink needle (75) used to transport ink (45) from a reservoir (40; 40') to a printhead (30; 30') of an inkjet printing mechanism (20). The humidor (50) has a resilient elastomeric body (52) that forms a needle parking core (82; 202) where the body (52) extrudes into the needle orifice (80) to form a pseudopod plug (88) that seals the orifice (80). Alternatively, the humidor body (202) is a foam material surrounded by a substantially moisture impervious skin (205) that defines a humidically isolating parking core. Inserting the needle (75) through the humidor (50; 200) pierces the body (52, 202) to either extract ink (45) from the reservoir (40; 40') or infuse ink (45) into the printhead (30; 30'). During refilling, or replacement of the reservoir or printhead (40,40'; 30,30'), the needle (75) is retracted into the humidor (50; 200) until the orifice (80) is surrounded by the parking core (82; 202). The humidor body (52; 202) humidically isolates the needle orifice (80), which virtually eliminates ink spills, drying or contamination of the ink (45) within the needle (75), and prevents operator injury by the needle tip (78). <IMAGE>

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