

Title (en)  
Microfabricated elastomeric valve and pump systems

Title (de)  
Elastisches Mikropumpen- oder Mikroventilsystem

Title (fr)  
Système de micropompes ou soupapes flexibles

Publication  
**EP 1195523 A2 20020410 (EN)**

Application  
**EP 01128819 A 20000627**

Priority  
• EP 00305389 A 20000627  
• US 14150399 P 19990628  
• US 14719999 P 19990803  
• US 18685600 P 20000303

Abstract (en)  
A method of fabricating an elastomeric structure, comprising: forming a first elastomeric layer on top of a first micromachined mold, the first micromachined mold having a first raised protrusion which forms a first recess extending along a bottom surface of the first elastomeric layer; forming a second elastomeric layer on top of a second micromachined mold, the second micromachined mold having a second raised protrusion which forms a second recess extending along a bottom surface of the second elastomeric layer; bonding the bottom surface of the second elastomeric layer onto a top surface of the first elastomeric layer such that a control channel forms in the second recess between the first and second elastomeric layers; and positioning the first elastomeric layer on top of a planar substrate such that a flow channel forms in the first recess between the first elastomeric layer and the planar substrate. <IMAGE>

IPC 1-7  
**F04B 43/04**

IPC 8 full level  
**F04B 43/04** (2006.01); **F15C 5/00** (2006.01)

CPC (source: EP US)  
**F04B 43/043** (2013.01 - EP US); **F15C 5/00** (2013.01 - EP); **F04B 43/14** (2013.01 - EP US)

Cited by  
AU2015224384B2; EP2116988A1; EP2614802A1; US9039993B2; US11021586B2; US7411331B2; US7621317B2; US7362889B2; US9163277B2; US9615970B2; US11154864B2; US11819851B2

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