

Title (en)

INJECTION NEEDLE WITH ELASTIC NEEDLE TIP

Title (de)

EINSPRITZNADEL MIT ELASTISCHER NADELSPITZE

Title (fr)

AIGUILLE D'INJECTION PRESENTANT UNE POINTE D'AIGUILLE ELASTIQUE

Publication

**EP 1332283 A1 20030806 (DE)**

Application

**EP 01992835 A 20011030**

Priority

- DE 0104102 W 20011030
- DE 10054183 A 20001102

Abstract (en)

[origin: WO0236961A1] The injection needle comprises a needle tip (11), elastically connected to a needle shaft (12) by means of a connector piece. A damping of the force with which the needle tip (11) hits the corresponding sealing seat (5) is possible by means of the elastic connection. The load on the sealing seat (5) is thus reduced.

IPC 1-7

**F02M 61/10**; **F02M 61/18**

IPC 8 full level

**F02M 61/04** (2006.01); **F02M 61/10** (2006.01); **F02M 61/18** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)

**F02M 61/047** (2013.01 - EP US); **F02M 61/10** (2013.01 - EP US); **F02M 61/1873** (2013.01 - EP US); **F02M 2200/30** (2013.01 - EP US); **F02M 2200/306** (2013.01 - EP US)

Citation (search report)

See references of WO 0236961A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**WO 0236961 A1 20020510**; DE 10054183 A1 20020529; DE 50110071 D1 20060720; EP 1332283 A1 20030806; EP 1332283 B1 20060607; US 2003213459 A1 20031120

DOCDB simple family (application)

**DE 0104102 W 20011030**; DE 10054183 A 20001102; DE 50110071 T 20011030; EP 01992835 A 20011030; US 42835903 A 20030502