

MPA DISPOSABLE FILLING NEEDLES

ENGINEERING PRECISION IN
PHARMACEUTICAL FILLING



DISPOSABLE FILLING NEEDLES

In the pharmaceutical and biopharmaceutical industry, filling process quality depends on the precision and reliability of every product-contact component. Filling needles must deliver dimensional consistency, chemical compatibility and operational repeatability - cycle after cycle.

MPA Disposable Filling Needles draw on **over 25 years of precision dosing expertise**, built on a patented manufacturing process that goes beyond the limitations of conventional production - offering a level of design freedom unique in the industry.



When to choose a disposable needle

Single-use filling needles address increasingly common requirements for operational simplicity and process safety:

- elimination of cleaning and cleaning validation operations;
- reduced risk of cross-contamination;
- ease of management in single-use processes;
- immediate integration into new or existing filling lines.



For these reasons, disposable configurations are becoming a preferred choice in specific sterile filling processes - particularly for high-potency applications, biopharmaceuticals and flexible multi-product manufacturing.

MPA technology: engineered for pharma

MPA needles are designed to deliver high dimensional accuracy and full compatibility with modern pharmaceutical processes, while maintaining the design flexibility that conventional technologies cannot provide.

Production via our **patented 3D printing process** allows custom configurations to be developed around each customer's specific process requirements - reducing development lead times without any compromise on quality or repeatability.

Key features

- **Patented manufacturing process**

MPA's 3D printing process overcomes the geometric constraints of conventional manufacturing, enabling needles in a wide range of configurations and dimensions tailored to the specific needs of each process.



● Transparent biocompatible resin body

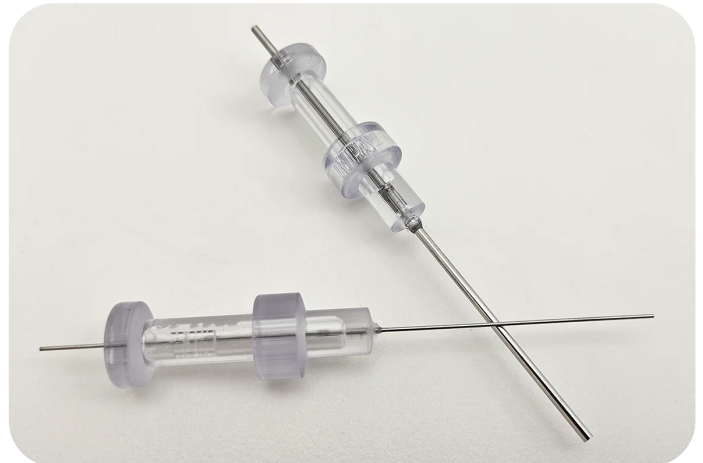
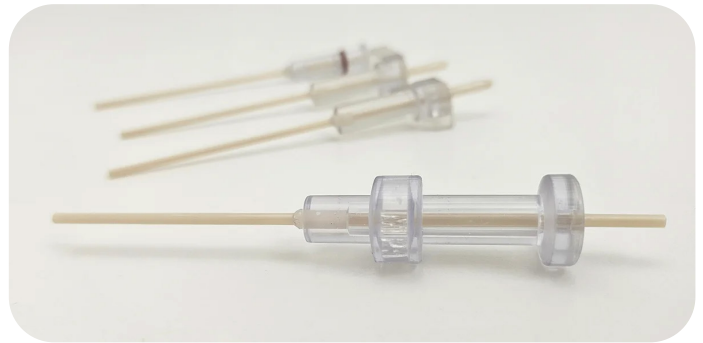
The needle body is manufactured from a cross-linked biocompatible photopolymer, FDA-certified.

● 316L stainless steel or PEEK cannula

The cannula — the primary product-contact surface — is available in 316L stainless steel for standard high-criticality applications, or in PEEK for applications requiring exceptional chemical and thermal resistance.

● Adhesive-free assembly

Body and cannula are assembled without adhesives, eliminating a potential source of contamination and ensuring the highest purity of the fluid path.



Connections and configurations

MPA Disposable Filling Needles are available with Luer connection (diameters from 0.8 to 6 mm) or direct connection, enabling straightforward integration into both new filling lines and existing installations — with no significant system modifications required.

Typical applications

A solution designed for the most demanding contexts:

- filling of injectable liquid drugs;
- filling of biopharmaceutical products prior to lyophilisation;
- filling of high-potency APIs (HPAPI);
- blood-derived products;
- vaccine vial filling..

Quality and compliance

- ISO 9001 certified quality management system
- Material tested in accordance with EU Regulation 10/2011: overall migration, heavy metals and methacrylic acid — all within limits (PASS)
- Compliant with FDA US 21 CFR 173.300
- Compatible with sterilisation per EN ISO 17665 (steam) and ISO 11135 (ethylene oxide)
- Full batch traceability.



An MPA solution

With its Disposable Filling Needles, MPA expands its portfolio of precision pharmaceutical filling solutions — complementing its established product range with an innovative, flexible technology designed for modern manufacturing processes.

One design philosophy: expertise, quality and reliability — at the service of our customers' pharmaceutical manufacturing.



MPA[®]

TECHNICAL DEVICES

MPA Technical Device Srl
Strada di Chiano, 7a
50028 Barberino Tavarnelle
(Firenze) Italy
tel +39 055 807 88 21
tel +39 055 807 88 17
info@mpaitaly.com
www.mpaitaly.com

