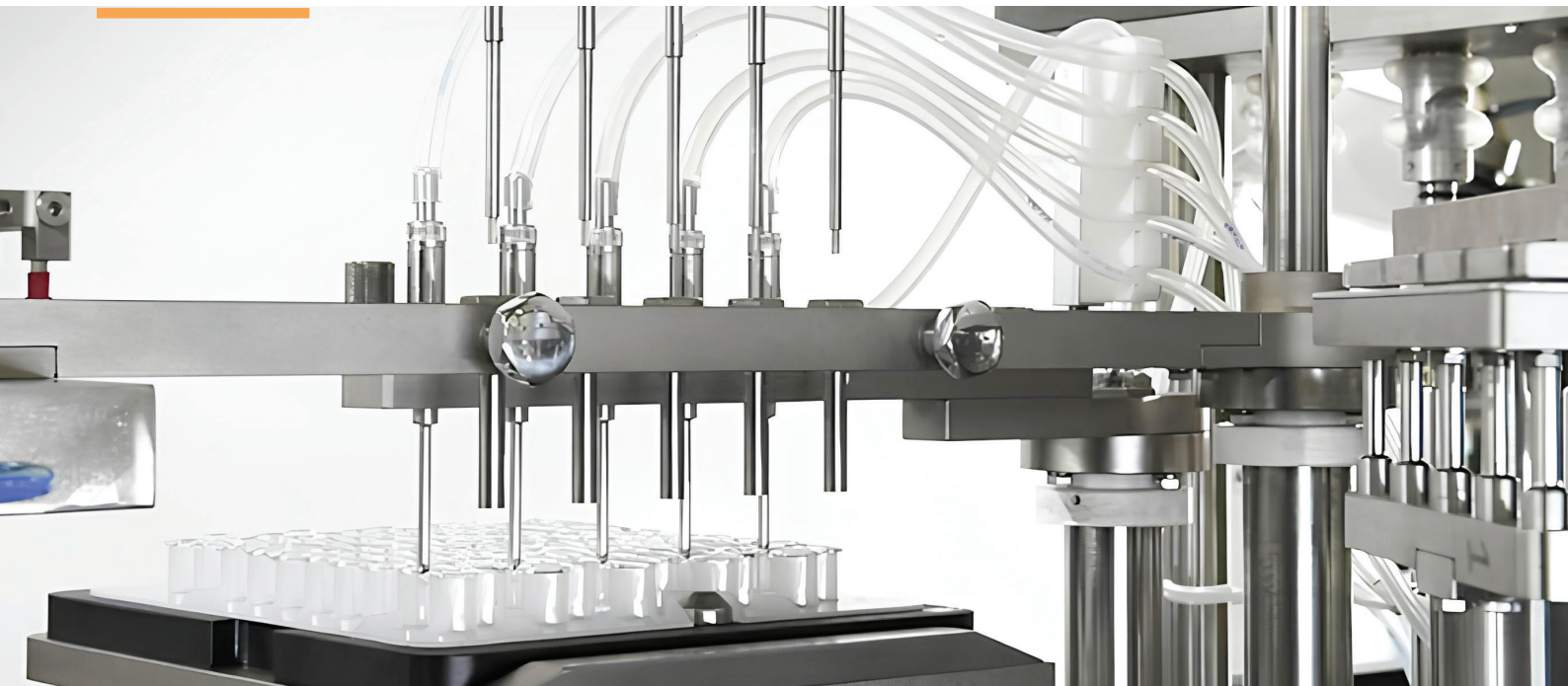


M54

IN-NEST FILLING MACHINE



M54 identifies MAR machine series for nested components (vials PFS and cartridges).

The fully automated or semi-automatic working cycle includes:

- nest pick-up from tub;
- filling cycle (by 2 / 5) filling heads, each delivering 100% of fill volume into each vial/PFS/cartridges;
- stoppering cycle to insert a rubber stopper or rubber bung (handling 2 / 5 stopper/bung);
- stoppering can be mechanical or by vacuum;
- nest repositioning into the tub.

Filling heads (2/5) might include:

- stainless steel or ceramic volumetric rotary pumps;
- peristaltic pumps.

The M54 can fill liquid for these kind of containers:

VIALS



SYRINGES



CARTRIDGES



OPHTHALMIC



BOTTLES



NEST



M54

IN-NEST FILLING MACHINE

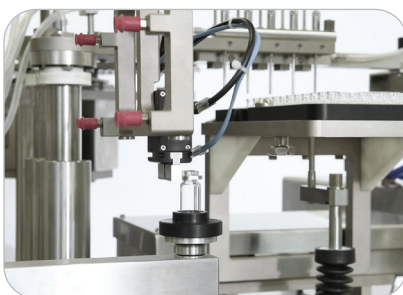
HIGHLIGHTS



Robot for automatic nest handling



Vial de-nester



Vial check-weighing by robotic arm

M54 is electronically driven. It can be completed as a fully automatic line adding OBM (Opening Bag Machine) and OTM (Opening Tub Machine).

Completely manual solutions are available for nest loading and for small batches.

A robotic arm can automatically handle lid and liner removal and nest moving. Robotic arm may also pick up vial/PFS to perform in process check-weighing cycle.

Quick change-over operations.

De-nester unit might be installed down-stream the M54 for nested vials.

Filled and stoppered vials are loaded to a stand-alone capper for sealing operations.

M54 are suitable for installation under o-RABS, c-RABS and isolators.

TECHNICAL DATA

DEVELOPMENT	Robotic
MOVEMENT	Intermittent
WEIGHT CONTROL	In process
OUTPUT	Up to 150 pcs/min
CONTAINMENT	o-RABS c-RABS Isolator
CIP/SIP READY	Yes