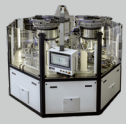
RHM 100 / 150 / 200
RHM 300 / CM 120 –
perfect capping

The flexible machine for
finishing tubes and applying caps
in inline and offline production

//polytype

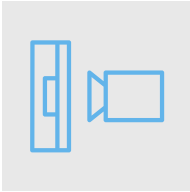
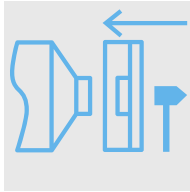
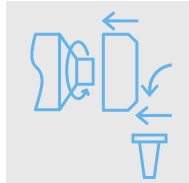
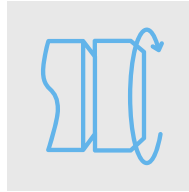
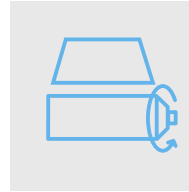
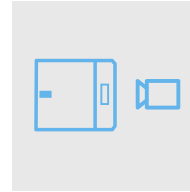
For all your tube capping needs

Operations overview

	Tube transfer	Snipping	1-Step membrane sealing	2-Steps membrane sealing	Special applications
 CM 120	Up to 120 / min	✗	✓ (up to 90 / min)	✗	✗
 RHM 100	Up to 100 / min	✓	✓	✓	✓
 RHM 150	Up to 150 / min	✗	✓	✓	✓
 RHM 200	Up to 200 / min	✓	✓	✓	✓
 RHM 300	Up to 300 / min	✓	✓	✓	✓

The modular design of the //polytype RHM 100/150/200 & 300 makes it ideal for finishing tubes. Its unique flexibility resulting from freely selectable operations means it can be used for a wide range of applications. The //polytype CM120 is the right machine for standard cap finishing operations, with a small footprint and an excellent price-performance ratio.

// High reliability and maximum productivity
// Excellent access to the stations
// Different workstation options (can also be retrofitted)

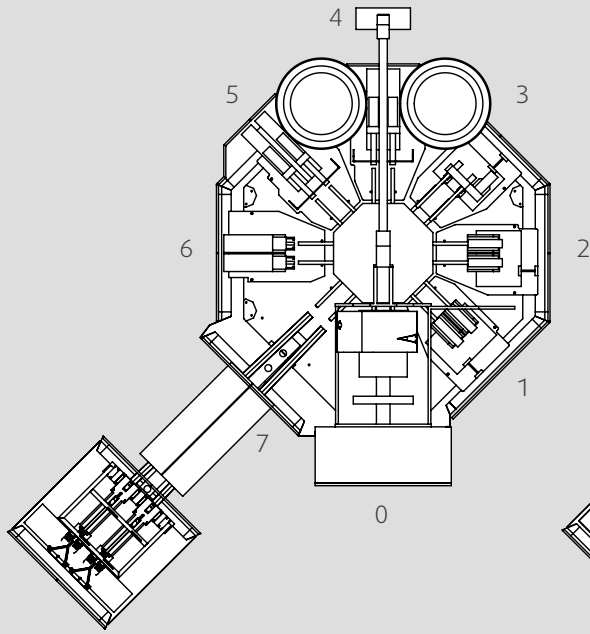
Cap registering mark detection with camera	Cap snap-on (positioning)	Cap screw-on	Cap tightening	Labeling	Cap-Tube quality control with camera
					
✗	✓	✓ (no conical caps)	✓	✗	✗
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✗	✗
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✗	✓

The //polytype RHM 100/150/200 & 300 is a high-quality Swiss product delivering excellent process reliability. Its ease of access also makes it a very maintenance-friendly and user-friendly machine.

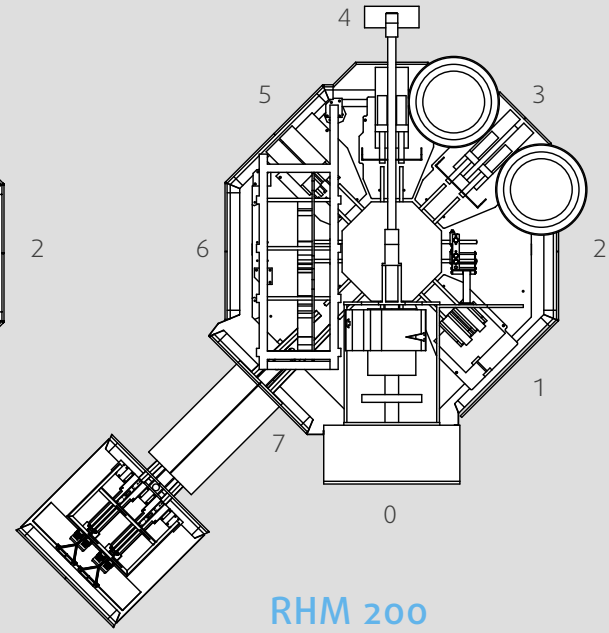
The //polytype CM 120 is a high-quality capping machine designed in Switzerland that fulfills everyday needs. It is the optimal solution as a standalone machine for flexible production.

Many high-quality processes on a single machine

// Fast product changeovers and simple maintenance
// Simple control interface designed for a fast set up
// Integrated process control for a safe production
// Prepared for industry 4.0



RHM 150



RHM 200
(like RHM 100)

Stations can be set up for RHM 160

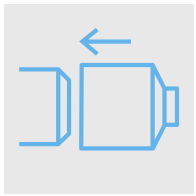
0 – Feeding tubes
1 – Membrane film punching
2 – Membrane film sealing
3 – Mark detection
4 – KPFS for cap screw-on / snap-on
5 – KPFS for cap screw-on / snap-on
6 – Cap tightening
7 – Unloading tubes

Stations can be set up for RHM 200

0 – Feeding tubes
1 – Membrane film punching & sealing
2 – Mark detection
3 – KPFS for cap screw-on / snap-on
4 – KPFS for cap screw-on / snap-on
5 – Cap tightening
6 – Labeling
7 – Unloading tubes

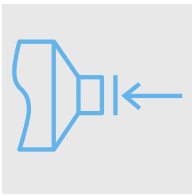
Technical data	RHM 100	RHM 150	RHM 200
Min./max. diameter:	(13.5)19-50(60) mm	(13.5)19-50(60) mm	(13.5)19-50(60) mm
Skirt length:	50-215 mm	50-215 mm	50-215 mm
Cap diameter:	13.5-60 mm	13.5-60 mm	13,5-60 mm
Max. speed:	100 tubes/min	150 tubes/min	200 tubes/min
Mandrels*:	8	16	16
Weight of main machine:	~6000 kg	~6000 kg	~7000 kg

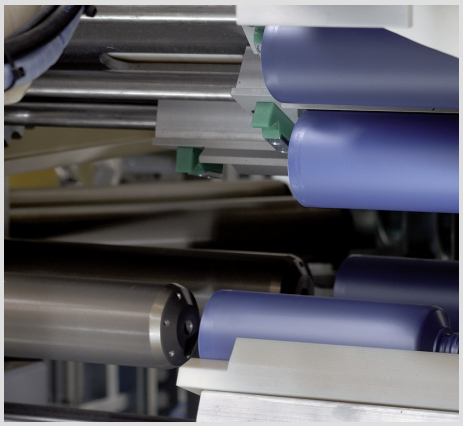
Feeding tubes
Tubes are fed onto a vacuum drum using chain pins. Vacuum prisms transfer the tubes from the vacuum drum to the mandrels safely.

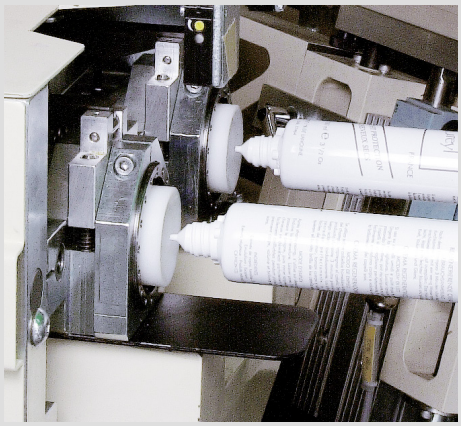


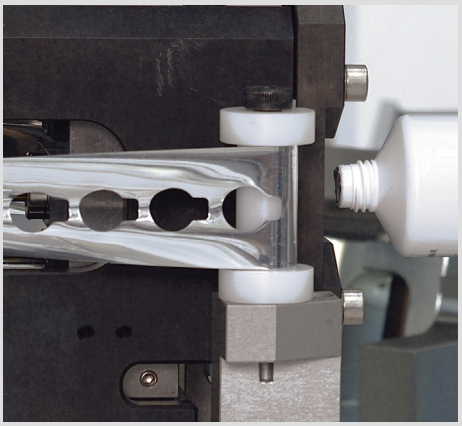
Tube head snipping
As the tubes are rotated very quickly, a guillotine blade is used to cut the injection-molded tube heads cleanly to precisely the right size.

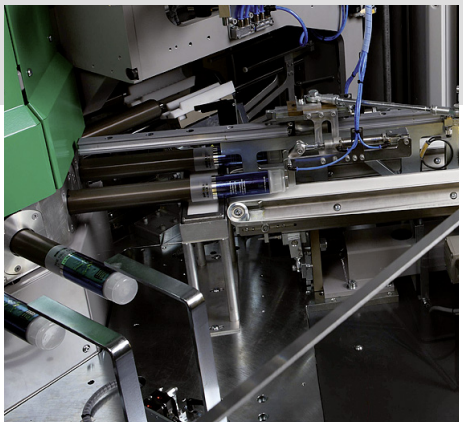
Membrane film fixing
To seal the tube opening, precisely sized membranes are punched out before the aluminum or plastic laminate film is welded to the tube head.

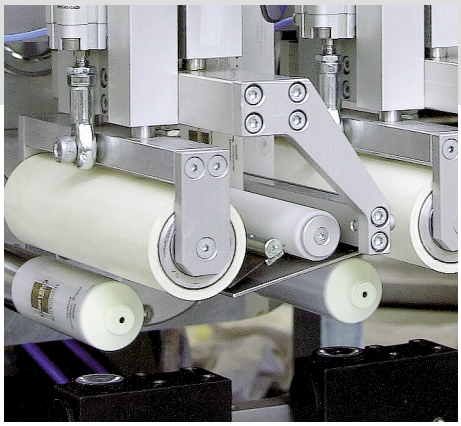


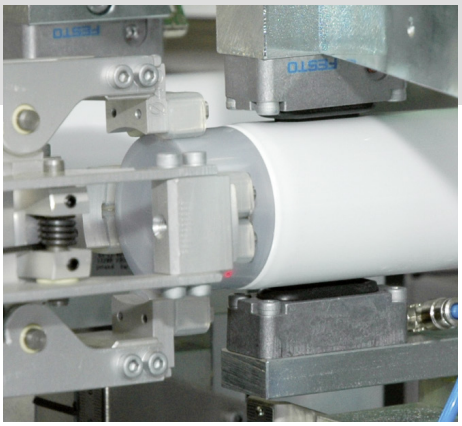


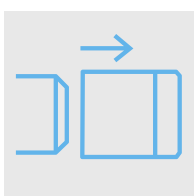




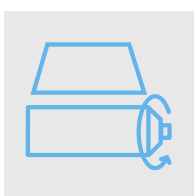




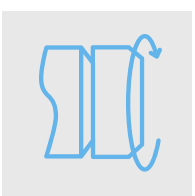




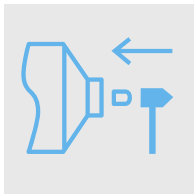
Unloading tubes
The finished tubes are blown out onto a conveyor belt that is connected to a downstream drum and guides the tubes to the next process step. Rejects are also removed during this process.



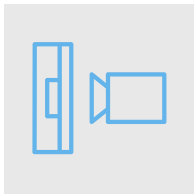
Labeling
To attach self-adhesive labels, the label is first aligned precisely with the relevant cap or tube mark and then applied cleanly.



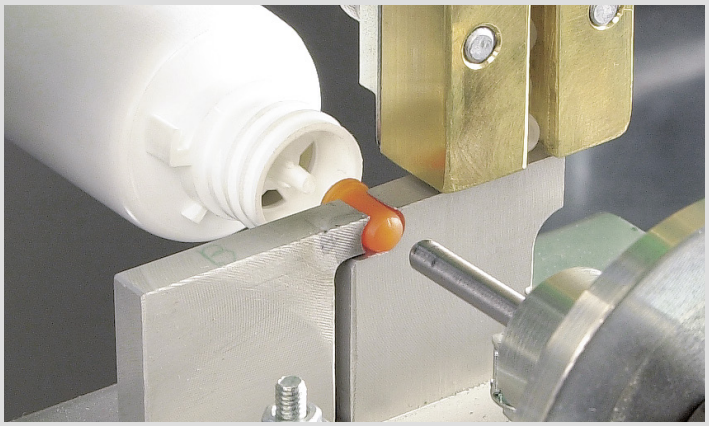
Cap tightening
Once a cap has been screwed on, a controlled process is used to tighten it using the correct torque.

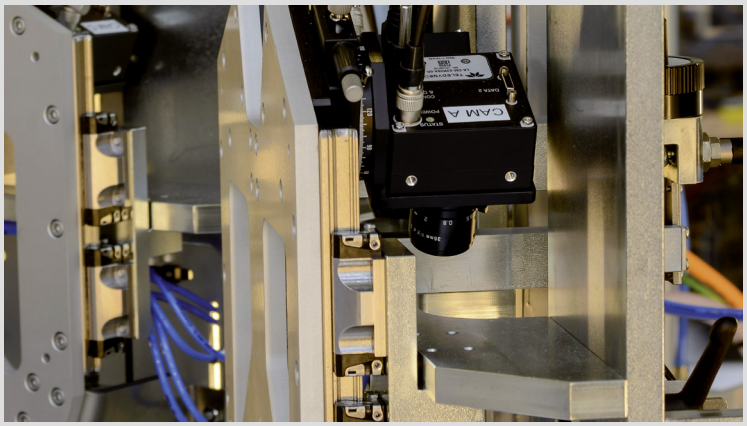


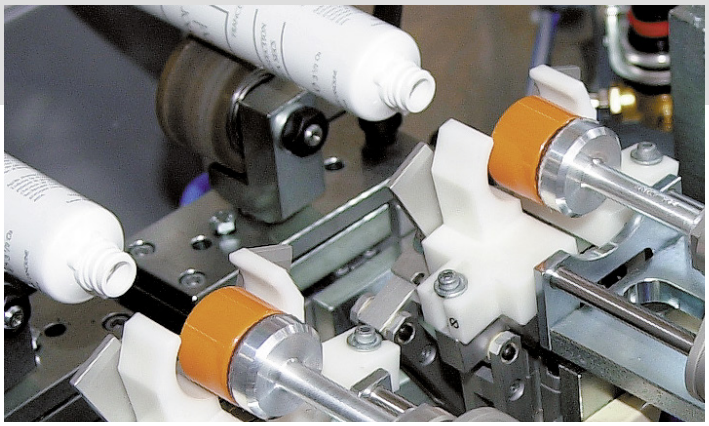
Special applications
At this station, various types of inserts or pump spray heads are applied to the tube. Special solutions can be implemented to meet a wide range of require-ments.

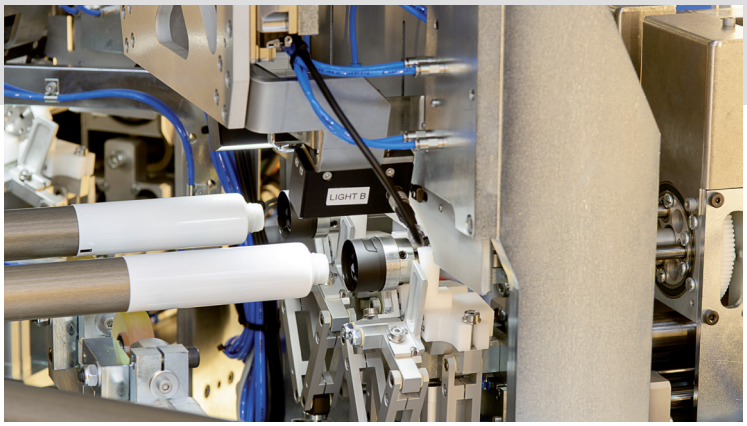


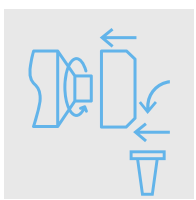
Camera system
Camera system for registering mark detection on caps to ensure easy set-up and precise position-ing and/or camera system for final quality check.



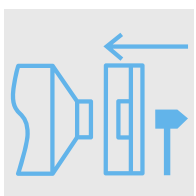








Cap screw-on
In this process, standard screw-on caps are applied correctly with the standard KPSF station.
With the 90° station, the application of conical caps can be carried out easily.

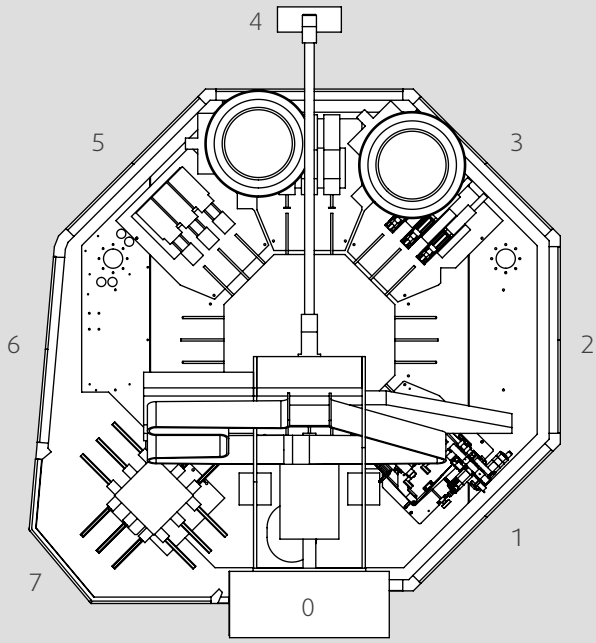


Cap snap-on
In this process, flip-top caps are positioned correctly and pressed on with the standard KPSF station in accordance with the tube design.

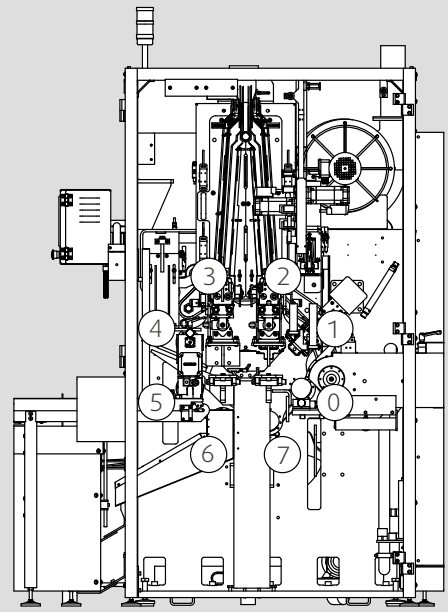
For all your tube capping needs

Other options:

// Processing of metallized closures
// Application of oval caps



RHM 300



CM 120

Stations can be set up for RHM 300

0 – Feeding tubes
1 – Membrane film punching & sealing
2 – Mark detection
3 – Combi screw-on station
4 – KPFS for cap screw-on and snap-on
5 – Cap tightening
6 – Free
7 – Unloading tubes with prisms

Stations can be set up for CM 120

0 – Feeding tubes
1 – Feeding step 2 / Loading control
2 – KPFS for cap screw-on and snap-on /
Or membrane film punching & sealing
3 – KPFS for cap screw-on and snap-on
4 – Cap tightening
5 – Unloading tubes
6 – Waste
7 – Check unloading

Technical data	RHM 300	CM 120
Min./max. diameter:	(10)19-50 mm	19-50(60) mm
Skirt length:	50-215 mm	50-215 mm
Cap diameter:	10-50 mm	19-60 mm
Max. speed:	300/min	120/min
Mandrels:	24	8
Weight of main machine:	~8500 kg	~2500 kg

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