



Automatic capacitors winding machine

# JUMBOLINO 4



Producing high quality capacitors on plastic or paper core  
for AC and power electronic applications with concentric winding option

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Worldwide leader in the manufacturing of capacitors winding machine

**METAR** machines swiss made

## Product

▶ Winding dimensions	S-Mode	D-Mode	S-Mode (CW)
Minimum diameter	25 mm	25 mm	35 mm
Maximum diameter	155 mm	155 mm	155 mm
Minimum width	38 mm	38 mm	38 mm
Maximum width	158 mm	79 mm	158 mm <sup>①</sup>

① Including the barrier film

▶ Core dimensions	S-Mode	D-Mode	S-Mode (CW)
Minimum length [H]	66 mm <sup>②</sup>	40 mm	66 mm <sup>②</sup>
Maximum length [H]	160 mm	80 mm <sup>②</sup>	160 mm

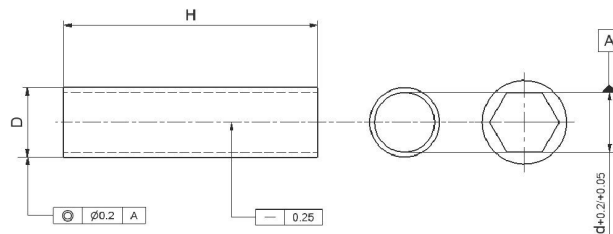
② by loading 2 cores, 40 to 65 mm is possible

### ▶ Hexagonal plastic core

Hex min/max [d]	5 to 36 mm
D min/max	9 to 48 mm

### ▶ Round plastic & paper core

d min/max	16 to 46 mm
D min/max	18 to 48 mm



## Equipment

### ▶ Standard and optional equipment for

#### Jumbolino 4 Basic machine

1 burn-off and cover film included

### ▶ Standard equipment S-Mode

Quantity	Designation
3	Reel carrier for rolls diameter 75 mm (3 inch)
1	Smooth (and linear) thermowelding device for cover film
1	Burn-off device for one side of one film
2	Rewinder for aluminium reel, inside diameter 33 mm or 40 mm (to be confirmed)
2	Aluminium roll for demetallization
1	Mandrel for plastic core, hexagon 5 mm, outside diameter 9 mm (to be confirmed)
1	Set of special tools
1	Output conveyor belt system

### ▶ Optional equipment

#### Designation

- ▶ D-Mode
- ▶ DCW: Dual concentric winding system S-Mode
- ▶ TCW : Triple concentric winding system S-Mode, for Delta and Star connection
- ▶ Edge guiding system for metallized film type DS-Mode
- ▶ Positioning device for metallized and / or cover film
- ▶ Equipment for S4-Mode, max. capacitor width 158
- ▶ Independent Film tension
- ▶ Motor rotation inversion for metallized film
- ▶ Additional burn-off system
- ▶ Winding up to outside diameter on metallized film
- ▶ Winding up to outside diameter on cover film
- ▶ Winding on calculated capacitance
- ▶ Expanding mandrel
- ▶ Variable film tension during main winding
- ▶ Variable pressure on pressure roller during main winding
- ▶ Film tension from 40 to 680 cN for thin film
- ▶ Printing device
- ▶ New edge guiding generation for plain film (>4μm)
  - Automatic reels positioning during winding
  - Guarantees capacitor width
  - Pre-production wobbling measurement at the reel
  - Series Design capacitor ability
  - Transparent edges ability