

METALLIZATION PLANTS



The META Family

A wide range of different evaporating materials such as Al, Cu, CrNi, Ag, Au as well as ZnS, MgF₂ and SiO_x compounds can be utilized and provide highest flexibility in terms of various applications. Project oriented substrate holding systems guarantee an optimal load of the process chamber and a smooth distribution of the thin metal films on the product surface. In order to protect the metallized parts e.g. against corrosion a transparent polymer coating (HMDS) can optionally be

applied.

Coating plants of the "META family" furthermore allow for the deposition of thick metal films up to 3 μm (EMI-protection).

For the proper pre-treatment of the components prior to metallization, VTD offers a separate plasma system which provides a superfine cleaning and an activation resulting in an improved adhesion of the metal film.

| Typ | META 1100 | META 1450 | META 1800 | META 1900 | META 2052 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| • chamber: inside diameter | 1.088 mm | 1.484 mm | 1.800 mm | 1.900 mm | 2.050 mm |
| chamber length | 1.650 mm | 1.900 mm | 1.980 mm | 2.540 mm | 2.915 mm |
| coating length up to | 1.245 mm | 1.600 mm | 1.400 mm | 1.600 mm | 2.040 mm |

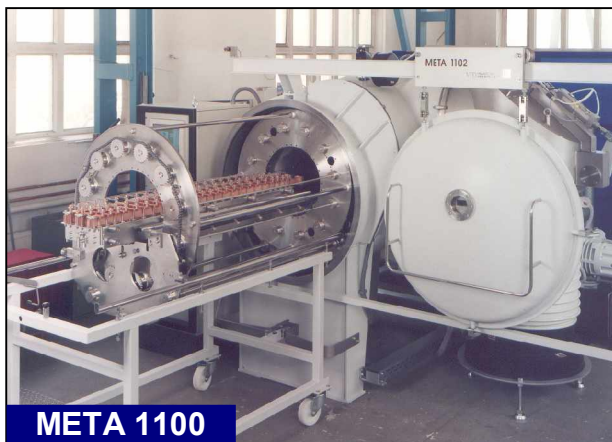
• **evaporator:**

- resistance evaporator with coils or boats
- 1 – 4 evaporation units
- standard power of evaporator 10 – 18 kVA (META 2052 – 40 kVA)

• **plasma polymerisation unit**

• **plasma pre-treatment unit**

Horizontal coating systems



Vertical systems

META 1200 V

Vertical coating system with two chamber doors

- **Chamber:**
 - inside diameter 1.200 mm
 - chamber height 2.100 mm
 - coating length up to 1.700 mm
- **evaporator:**
 - resistance evaporator with coils or boats
 - 1 – 2 evaporation units
 - standard power of evaporator 18 kVA
- **plasma polymerisation unit**
- **plasma pre-treatment unit**



Special plants

PLASMA 550/1058

VTD offers separate plasma systems which provides a superfine cleaning and an activation of the substrate surface for a better adhesion of the basic lacquer film. These systems can be integrated in automatically production lines.

usable chamber volume:

- mm (l x w x h) 1,650 x 550 x 250
- mm (l x w x h) 1,650 x 1,058 x 250

operation pressure:

- n x 10⁻² mbar



Sputter-Systems

META^{ROT} 500

Horizontal fast-cycle sputtering system

- **max. coating area:** 45,0 m²/h (max.)
- **typical cycle time*:** 240 – 360 second
- **target material:** Al, other metals such as Cu, CrNi, Cr, Ag or stainless steel can also be used
- **chamber with:** (w x l x h) 570 x 2,970 x 695 mm
 - coating length up to 2,040 mm
 - sputtering source
 - plasma polymerisation unit
 - plasma pre-treatment



META^{CIRCLE} 850

Horizontal, fully-automatic 5-chamber sputter system

- **coating area:** 850 mm x 460 mm
- **effective depth:** 210 mm
- **total batch time*:** 38 second per palette
- **target material:** Al, other metals such as Cu, CrNi, Cr, Ag or stainless steel
- **circle chamber:** transport equipment to parallel process course
- **process chambers:**
 - lock chamber
 - plasma pre-treatment
 - sputtering
 - plasma polymerisation



META^{TABLE} C

Horizontal fast-cycle sputtering system

- **coating area:** 850 mm x 930 mm
- **effective depth:** 210 mm with holder
- **total batch time*:** 130 second without pre-treatment
- **target material:** Al, other metals such as Cu, CrNi, Cr, Ag or stainless steel
- **process chamber:**
 - with sputtering and transport equipment
 - optional pre-treatment



(*clean and empty chamber)



VTD offers furthermore:

- flexible technical and technological support and service
- coating of your samples

More information:

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