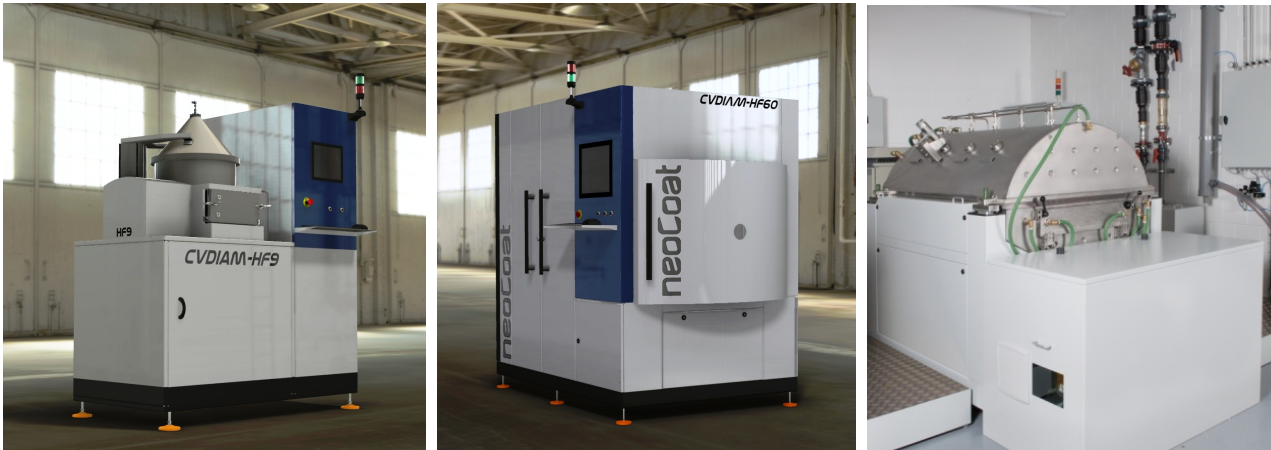
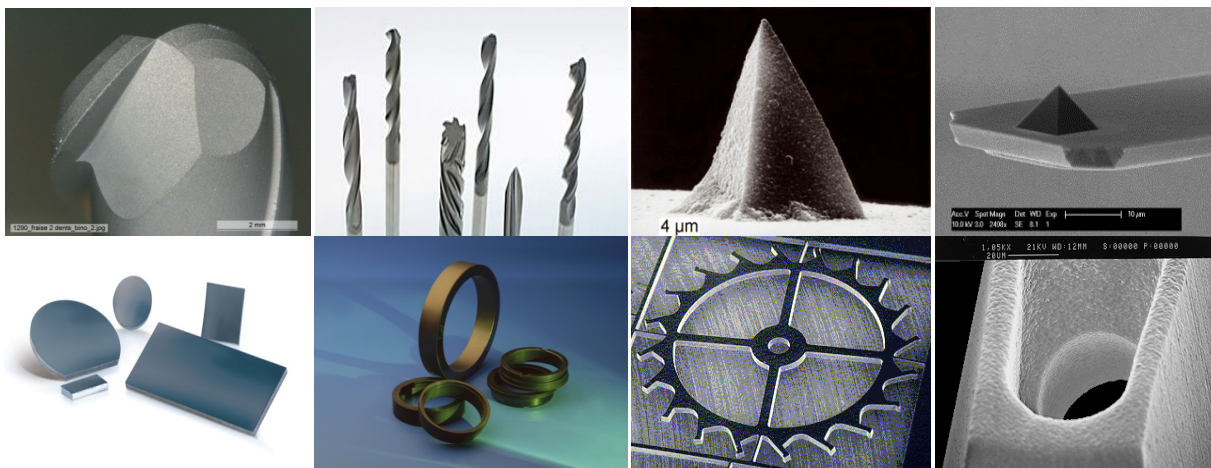


## Industrial Hot Filament CVDiam® reactors for polycrystalline diamond growth



- **Global offer:** Consulting, Equipment, Process and Support
- **Full range of equipments and production capacities** to fit all specific customer needs
- Offer focused on **high quality and reliability**
- User-friendly and **safe operations** with versatility



Applications at glance: cutting tools, Microsystems, wear parts, metrology applications, thermal management, electrodes, etc.

## Main components

- Horizontal filament holder, tensioning system
- DC power supply
- Stainless steel double-wall reactor
- Gas panel (H<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>)
- Pumping system and fine- pressure tuning
- Machine control PLC
- Industrial PC (Windows 7), Touch screen display
- Graphical User Interface (GUI)
- Cooling loop with independent heat-exchanger

## Solution (what we offer)

- HFCVD equipment with custom substrate holder
- Detailed and documented processes
- Installation in your facilities
- Training
- Technical support

## Advantages & benefits of our solution

- A global and ready to use solution without any additional investment or R&D development
- A solution suited for different part geometry and manufacturing capacity needs
- Highly adherent diamond coatings on cutting tools with a wide range of microstructure for different applications.
- Low COO and high-capability processes
- Largest deposition surface on the market
- Modern design for facilitating manufacturing and maintenance operations
- High reliability and safety by using high-quality components and interlock management.
- User-friendly and mass-production designed GUI
- Process development with rigorous design of experiments and finite element model

NeoCoat's full range of **CVDiam® reactors** fulfills all specific needs of customers. Several deposition capacities for lab-scale applications, mass production, industrial applications, R&D projects, etc.

CVDiam®	HF 15	HF 30	HF 60	HF 90	HF 120
Layout (mm) H x L x W	1700 x 1200 x 1000	2000 x 1900 x 1200	2000 x 2200 x 1200	2000 x 3600 x 1300	2000 x 4000 x 1300
Power (KW)	15	30	60	90	120
Deposition surface (mm) W x L	200 x 200	400 x 280	400 x 580	400 x 880	400 x 1180

**CVDiam® reactors** with **dedicated processes** (pretreatment and coating) can be used to produce diamond films with many different specifications.

**NCD (nanocrystalline) – MCD (microcrystalline) – various thicknesses – coatings on 3D, microstructured and edged parts – doped or intrinsic diamond – multilayers – Etc.**

