



TOOLS & MOULDS SERIES

DLC

Multi Source

Tribological Solution

Hard Coating Solution

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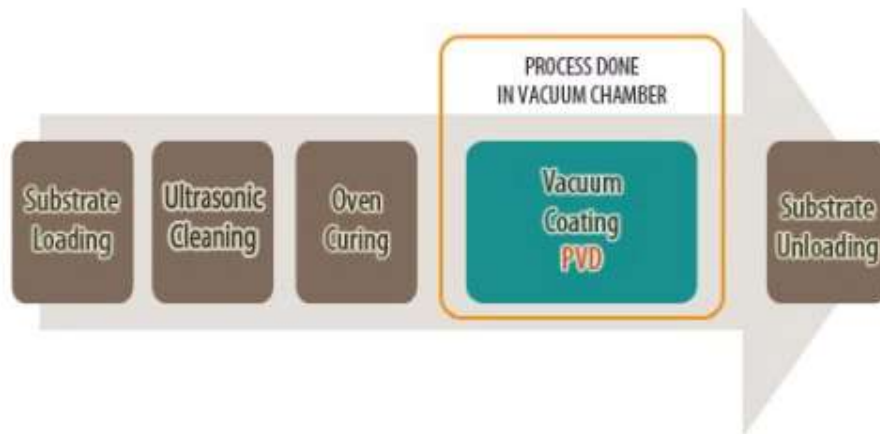
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System Summary

Tools PVD Thin Film Deposition Vacuum Coating Machine is high performing and easy operating, equipped with arc sputtering system. This machine offers a wide range of application, such as hard film coating, abrasion resistance coating and exterior coating on tools of cutting, stamping, molding and metal die-casting, with DLC (diamond like coating) function to improve the hardness. Substrates can be three-dimensional motion, to enhance the uniform of coating. The full automatic control processing is steady and perfect.

PROCESS:



MACHINE CONFIGURATION:

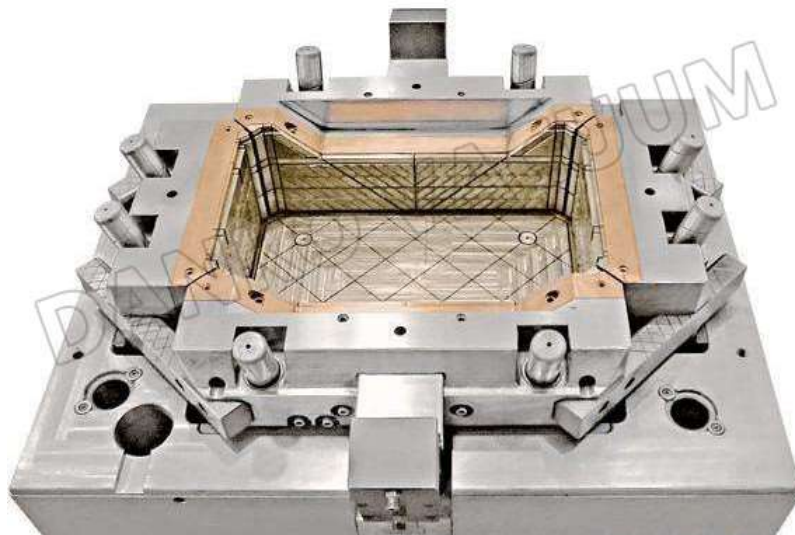
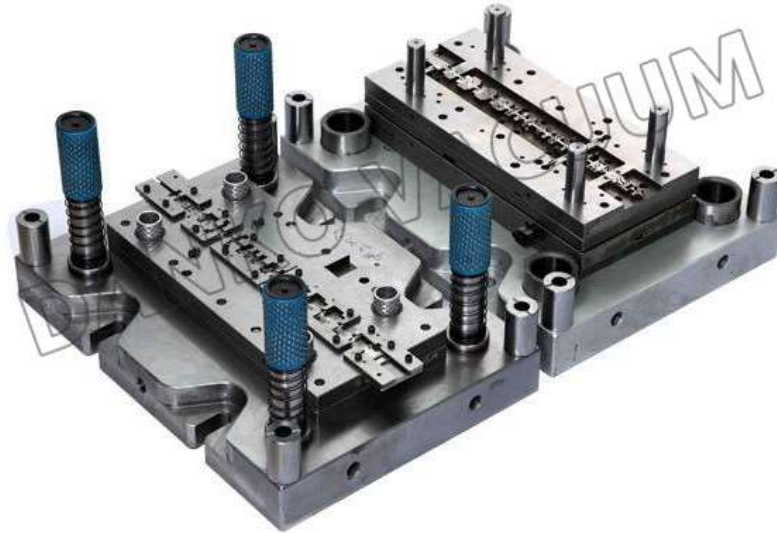
Model	Chamber size	target	time	Standard coating	configuration
DKDLC-380	Ø380×H450mm	2pcs×3	3-5hours/cycle	TiN, CrN, AlTiN, AlCrN	Mechanical pump, Roots pump, holding pump and diffusion pump or molecular pump
DKDLC-600	Ø600×H650mm	2pcs×3	4-6hours/cycle	TiN, CrN, AlTiN, AlCrN	Mechanical pump, Roots pump, holding pump and diffusion pump or molecular pump
DKDLC-650	Ø650×H700mm	4pcs×3	3-6hours/cycle	TiN, CrN, AlTiN, AlCrN	Mechanical pump, Roots pump, holding pump and diffusion pump or molecular pump
DKDLC-900	Ø900×H950mm	6pcs×3	5-8hours/cycle	TiN, CrN, AlTiN, AlCrN	Mechanical pump, Roots pump, holding pump and diffusion pump or molecular pump

APPLICATION:

- Precision mould industry: Stamping die, die cut, standard mold, etc.
- Tools industry: drill, milling head, broaches, gear cutters, etc.
- Auto industry: pistons, piston rings, alloy wheels, etc.
- Engine parts: non-ferrous metal cutting tools, non-ferrous metals and stainless steel forming stamping dies, sliding seal parts, injection molds, etc.
- Racing car parts: valve parts, piston accessories, hydraulic parts /suspension /gearbox.
- Auto car industry: chassis parts, brake components, engine parts, transmission parts.
- Medical technology.

PRODUCTS IMAGES:







COATING PARAMETERS:

	Color	Hardness (HV)	Thickness (μm)	Max Temp (°C)	Friction Coefficient Vs 100Cr6	Most Common Equipment Configuration
TiN	Gold	2400-3000	1-4	500	0.5	2-4-6 Cathode Steered Arc Or Sputter
TiCN	Blue/Grey	2400-3200	1-3	400	0.3	
ZrN	Champagne	2000-2700	1-4	500	0.5	
ZrCN	Various	2000-3000	1-3	400	0.35	
CrN	Silver	1700-2800	1-5	700	0.5	
TiAlN	Dark Grey /Purple	2300-3000	1-4	800	0.55	
TiAlCN	Grey/Black	2500-3200	1-3	700	0.4	
AlTiN	Blue/Black	2400-3100	1-4	850	0.55	
AlCrN	Grey	2600-3200	1-4	950	0.5	
Ti-DLC	Grey-Black	700-1500	1-5	250	0.15	
Cr+WC/C	Grey-Black	800-1800	1-4	250	0.15	
Graphite/Low H	Grey	500-2000	1-3	250	0.1	
CVD a-C:H	Grey-Black	1000-3000	1-3	280	0.05	Dual Cathode Sputter with Hot Filament
CVD Doped a-C:H	Grey-Black	1000-3000	1-3	280-350	0.05	

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AFTER-SALES SERVICE & SUPPORTING:

Danko Vacuum Systems and our global service partners can provide onsite installation, repair service, preventative maintenance, applications and service training. We are available to provide support for your system 24/7.

Free warranty for full equipment for 12 months.

Long term providing the target, vacuum materials and accessories at reduced prices.

Providing vacuum coating machine operation and training of personnel at site.