

Start NEW with STAR2

Most Compact PVD Coating System For Tool Manufacturers



SURFTECH

STAR2 PVD Coating System

Control What You Can Control

Small

Trendy

Affordable

Reliable

2cathodes

STAR2 is one of the most compact commercially available PVD coating systems. The simple yet functional design offers 10+ most trendy coating types in the market. STAR2 features **fast cycle time, easy operation**, and a **great cost-performance ratio**. The system is equipped with European made power supplies and pumps to deliver the most reliable performance to yield the highest coating quality.

100+

Tools per batch

10+

Coating Types

6

Runs Per Day

No1

Compact
PVD Coating
System

3 EASY Guarantees for YOU

STAR2 PVD coating system is designed with the user in mind to deliver the best PVD coating experiences.

✓ EASY DESIGN

STAR2's small-footprint compact design can be easily installed in almost any working environment without interrupting the current workflow.

✓ EASY OPERATION

STAR2's 3-axis planetary carousel and loading wagon can easily load up to 100+ tools at each batch. It only takes 15 minutes for a single operator to switch a 6" round target without any supportive jigs.

✓ EASY MAINTENANCE

STAR2 is designed to perform like a workhorse to meet your PVD coating demands with minimum maintenance work. The round target design requires no maintenance until the end of its life cycle.



3 FAST Guarantees for YOU

STAR2 PVD coating system is designed to maximize your productivity without compromising coating performance.

FAST SETUP

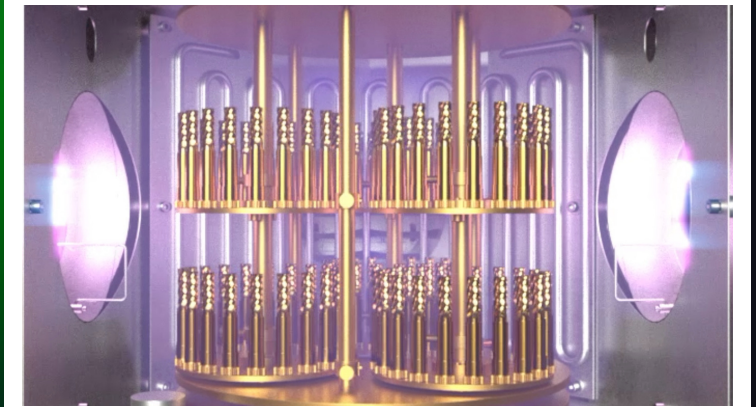
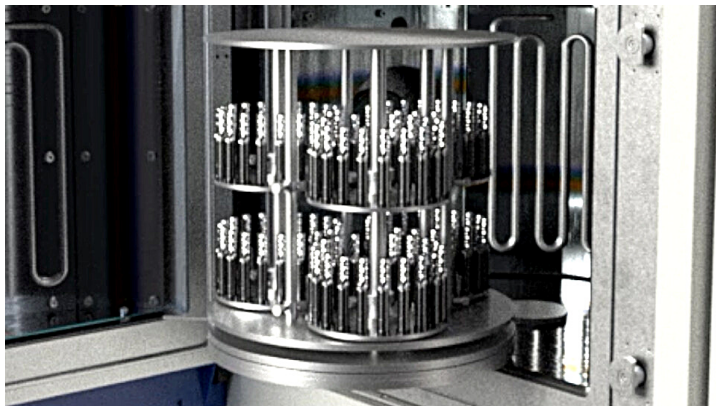
Maximize your productivity and minimize downtime with STAR2's planetary carousel system and round target design.

FAST HEATING

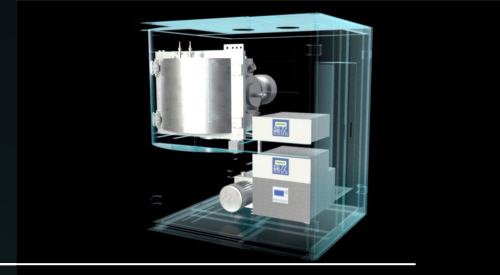
The 12-KW heater can heat up the entire chamber and all the tools to the desired coating temperature in no time.

FAST CYCLE

Run up to 6 batches per day with STAR2 as it's equipped with two fast pumps to offer the shortest cycle time within its size category.



STAR2 PVD System Specification



Vacuum Chamber

Construction	Stainless steel with chamber shutter
Cooling	Double walled chamber with water cooling
Chamber Size	632 x 500 x 500mm 24.9" x 19.7" x 19.7"
Effective Plasma Zone	Φ350 x 250mm Φ13.8" x 9.8"

Cathodic Arc Evaporation Source

Evaporator	2 sets of Φ6" circular cathodic arc evaporator
Power Supply	2 sets of 200A digital DC power supply / Auto triggering mechanism

Pump System

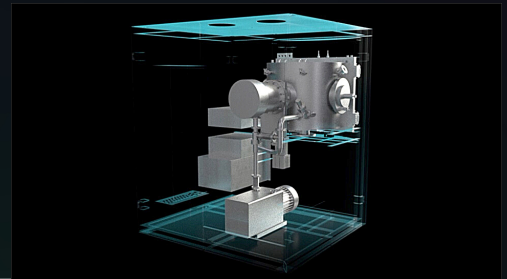
Primary Mechanical Pump	65 m ³ /h (Leybold German made)
Turbomolecular Pump	1600 l/s (Leybold German made)
Dust Filter	Dust filter for vacuum route

Vacuum Measure & Component

Piezo Gauge	1 set (Edwards Japanese made)
Pirani Gauge	2 sets (Edwards Japanese made)
Penning Gauge	1 set (Edwards Japanese made)
Baratron Gauge	1 set (INFICON Swiss made)

Gas Flow Control

Mass Flow Controller: Nitrogen	1 set (FUJIKIN Japanese made)
Mass Flow Controller: Argon	1 set (FUJIKIN Japanese made)
Reactive Gas Filter & Valve	SS filters and valves (FUJIKIN Japanese made)



Heater

Heater Specification	12kW (Chamber sides and door)
Controller	1 set of PID temperature control / 2 sets of thermocouple

Cycle Time

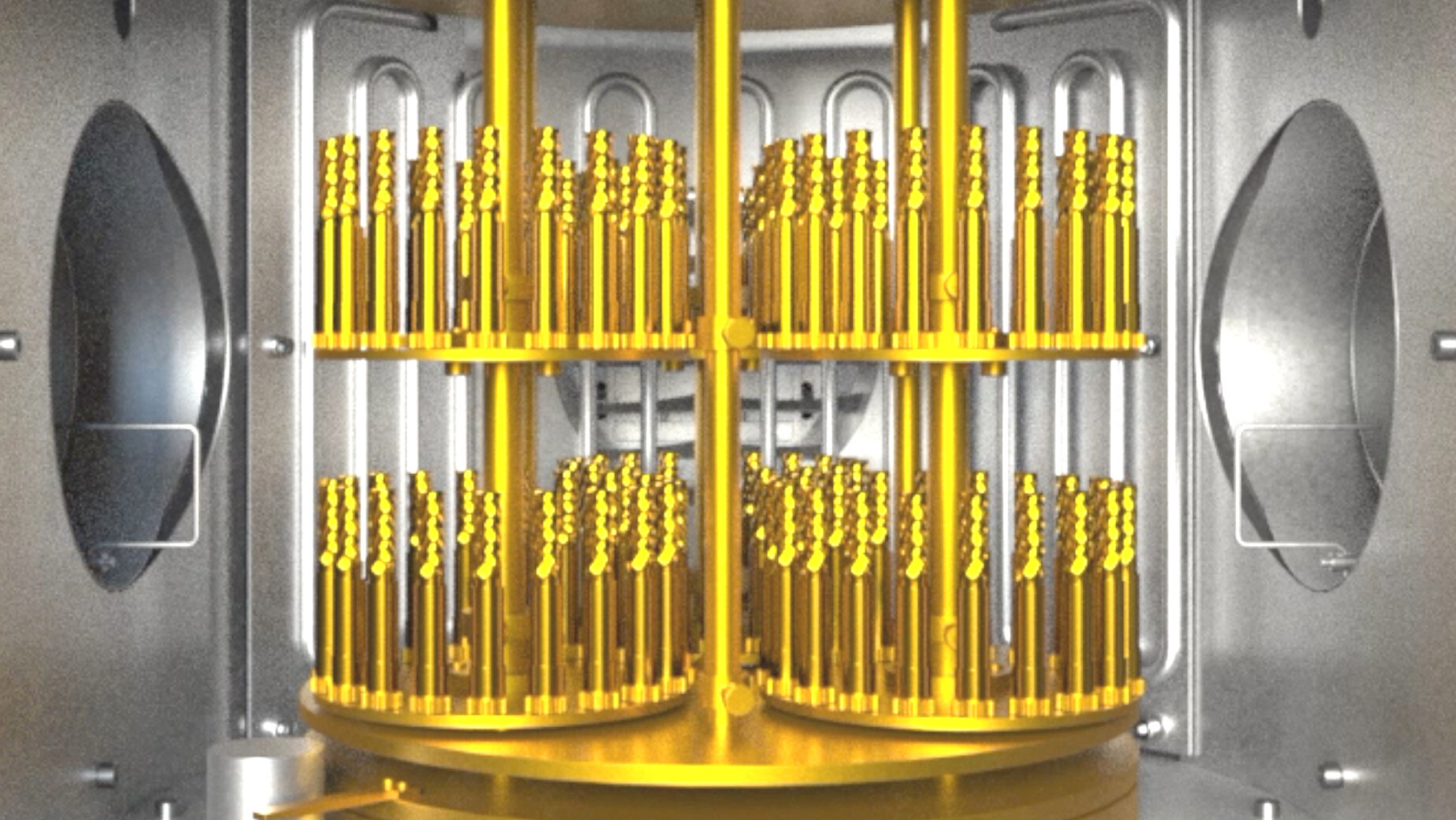
Batch Cycle Time	3-4 Hours
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Equipment Footprint

Footprint	L 2000 × W 2500 × H 2000 mm L 78.74" × W 98.43" × H 78.74"
Recommended Operating Footprint	L 5000 × W 4500 mm (16' x 15')

Electronics and Software

Electrical System	3Φ 380/400V 50/60Hz 30kW
Industrial PC system	15" HMI touch panel PC
Industrial PLC system	Ethernet programmable logic controller
Software Function	• User-friendly interface with touch screen control • Password protected coating parameter input • Automatic and manual process control • Coating log and record & Self-monitoring • Uninterruptible power supply (UPS) for Controller • SMC water flow sensor • Remote diagnostics • Safety interlock protect function



Loading Carousel

Carousel Configuration

3-axis planetary carousel

Loading Capacity – Weight

200 kg

Loading Capacity - Space

Φ350 × 300 mm

BIAS Power Supply

10kW DC 1000V 25A / integrated arc suppression (ADL German made)

Carousel Loading Capacity

Regular Round Cutting Tool

ø 1/2" x 3" OAL - 120 pcs

Small Round Cutting Tool

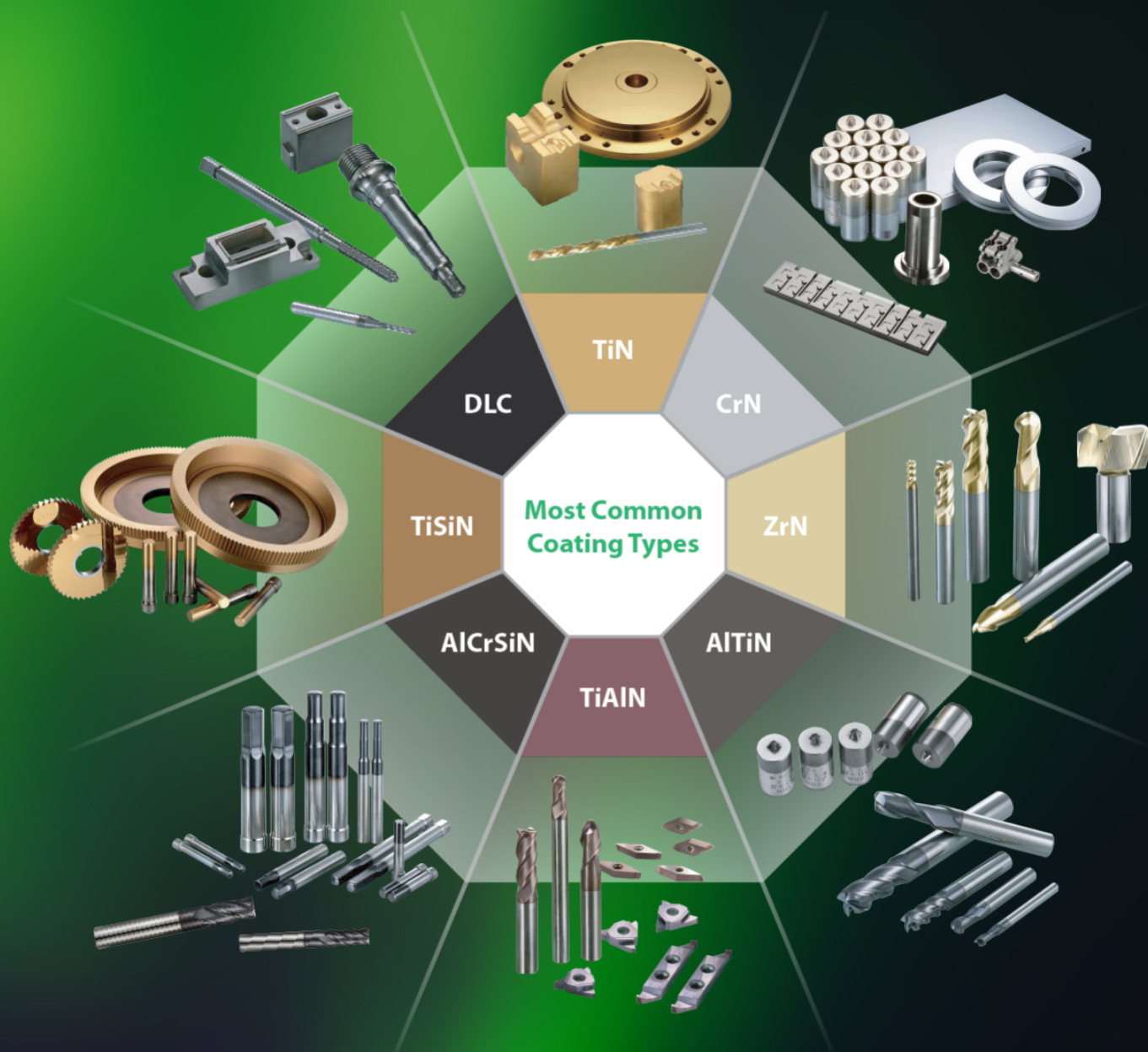
ø 1/4" x 3" OAL - 180 pcs

Long Round Cutting Tool

Up to 10" OAL - 45 pcs

*OAL: Overall Length

STAR2 Coating Technology





Aurora Scientific Corp is the global distributor-partner of Surftex and is headquartered in Vancouver, Canada.

Aurora sells, installs, and services STAR Series for North American customers and provides PVD coating services to customers in its 4000 sq/ft facility offering more than 10 coating options.

Aurora serves many industries, including Tooling, Biomedical, Aerospace, Marine, and Woodworking clients. Its engineering and research teams in Vancouver are dedicated to testing and evaluating new coating applications and developments, and also to providing in-depth coating consultations for all its customers.

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