

HP Atlas

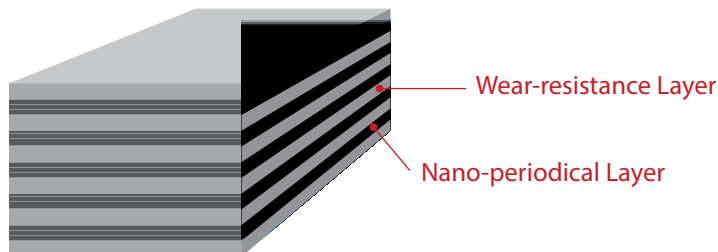


HP Atlas

HP Atlas is a coating optimized for cutting tools (especially for drilling). It consists of overlapping nano-periodical layers and wear-resistance layers, engineered to suppress the propagation of cracks that are likely to occur during drilling. The wear-resistance layer is composed of multiple hard layers; while the nano-periodical is a combination of hard and soft layers. With a mixture of hard and soft layers, internal stress can be relieved, allowing the **HP Atlas** coating to achieve both high wear resistance and extreme toughness to ensure stable and consistent tool life under aggressive cutting conditions.

With years of know-how in round shank tools, Primus Coating offers advanced coating technologies distinctly different from other companies.

Coating structure



Coating characteristics

Heat Resistance	Adhesion Strength	Surface Roughness	Wear Resistance	Welding Resistance	Toughness
⊙	⊙	○	⊙	⊙	⊙

Good ○ → ⊙ Best

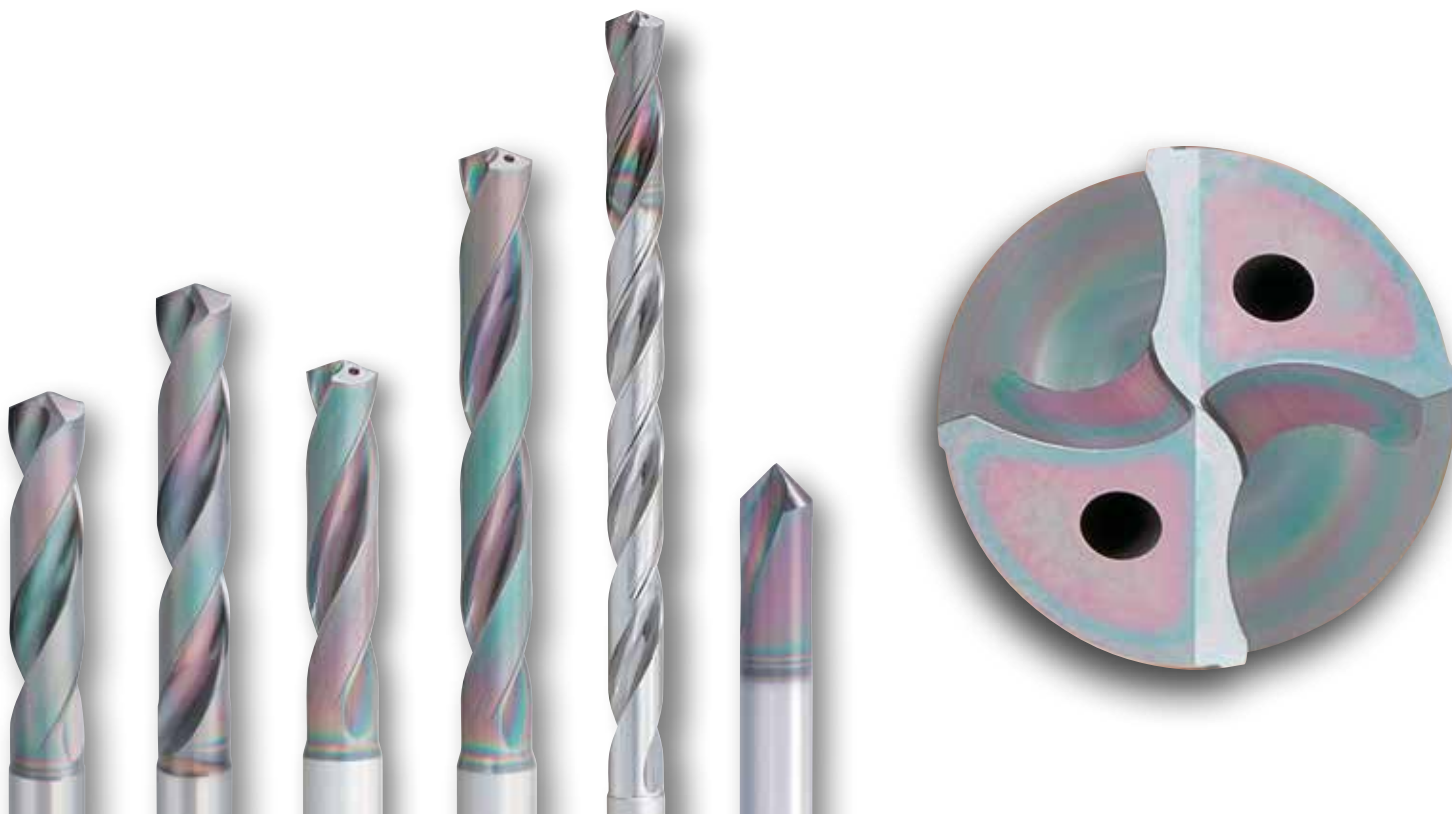
Features

Composition	Color	Structure	Hardness (GPa)	Thickness (μm)	Oxidation Temperature (°C)	Coefficient of Friction	Surface Roughness (Ra)	Properties	Application
Cr, Si Based	Interference Color	Nanolayer	40 GPa	2 ~ 3 μm	1,100° C	0.3	0.10 ~ 0.25	High wear resistance and extreme toughness.	High performance drilling in steels, cast iron, and hardened steels.

Application

P			H	M	K		N			S			-
Carbon Steel	Alloy Steel	Tool Steel	Hardened Steel	Stainless Steel	Cast Iron	Ductile Cast Iron	Copper Alloy	Aluminum Alloy	Plastic	Titanium Alloy	Heat Resistant Alloys	Inconel [®]	Graphite
⊙	⊙	⊙	○		⊙	⊙							

Good ○ → ⊙ Best

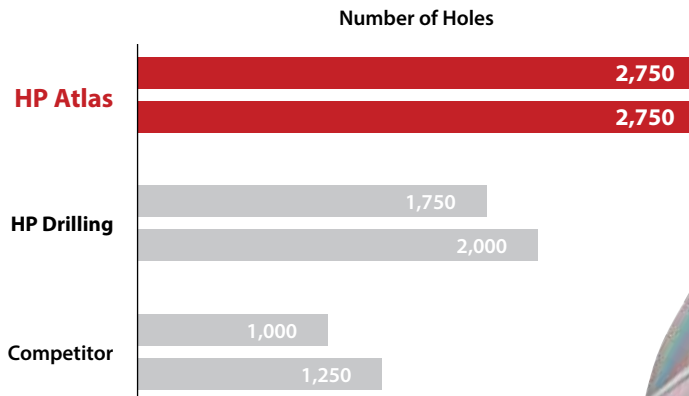


Test Data

Superior friction protection and unmatched durability

Superior Durability in Carbon Steel S50C

Tool	Carbide Drill with Oil Holes
Work Material	S50C
Cutting Speed	100 m/min (3,185 min ⁻¹)
Feed Rate	796 mm/min (0.25 mm/rev)
Depth of Hole	50 mm (Blind Hole)
Coolant	Water-soluble (Internal)
Machine	Horizontal Machining Center (BT40)



Cutting edge condition after drilling 500 holes



HP Atlas



HP Drilling

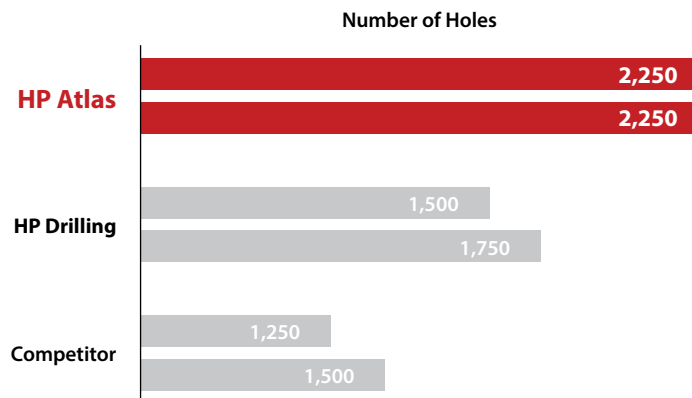


Competitor

Better performance drilling alloy steel

Drilling SCM440 (30HRC)

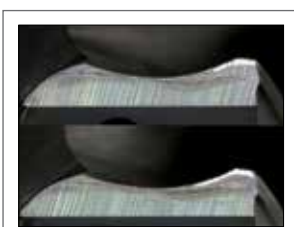
Tool	ø10mm Carbide Drill with Oil Holes
Work Material	SCM440 (30HRC)
Cutting Speed	75 m/min (2,389 min ⁻¹)
Feed Rate	597 mm/min (0.25 mm/rev)
Depth of Hole	50 mm (Blind Hole)
Coolant	Water-soluble (Internal)
Machine	Horizontal Machining Center (BT40)



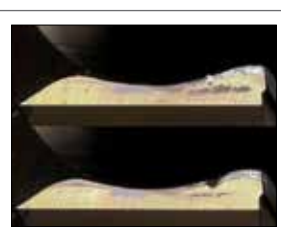
Cutting edge condition after drilling 1,200 holes



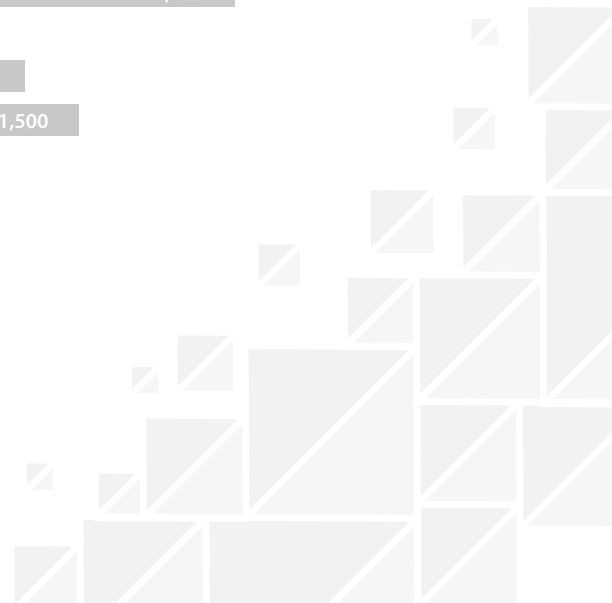
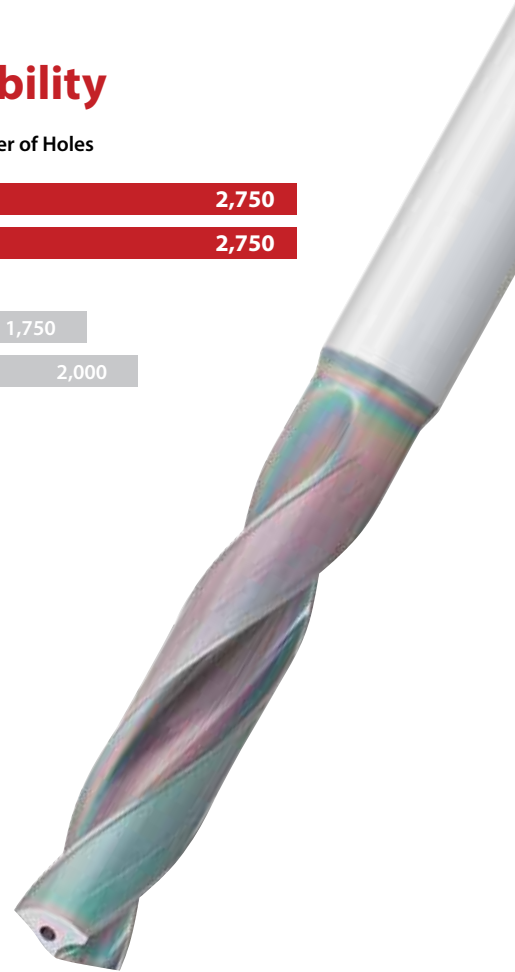
HP Atlas



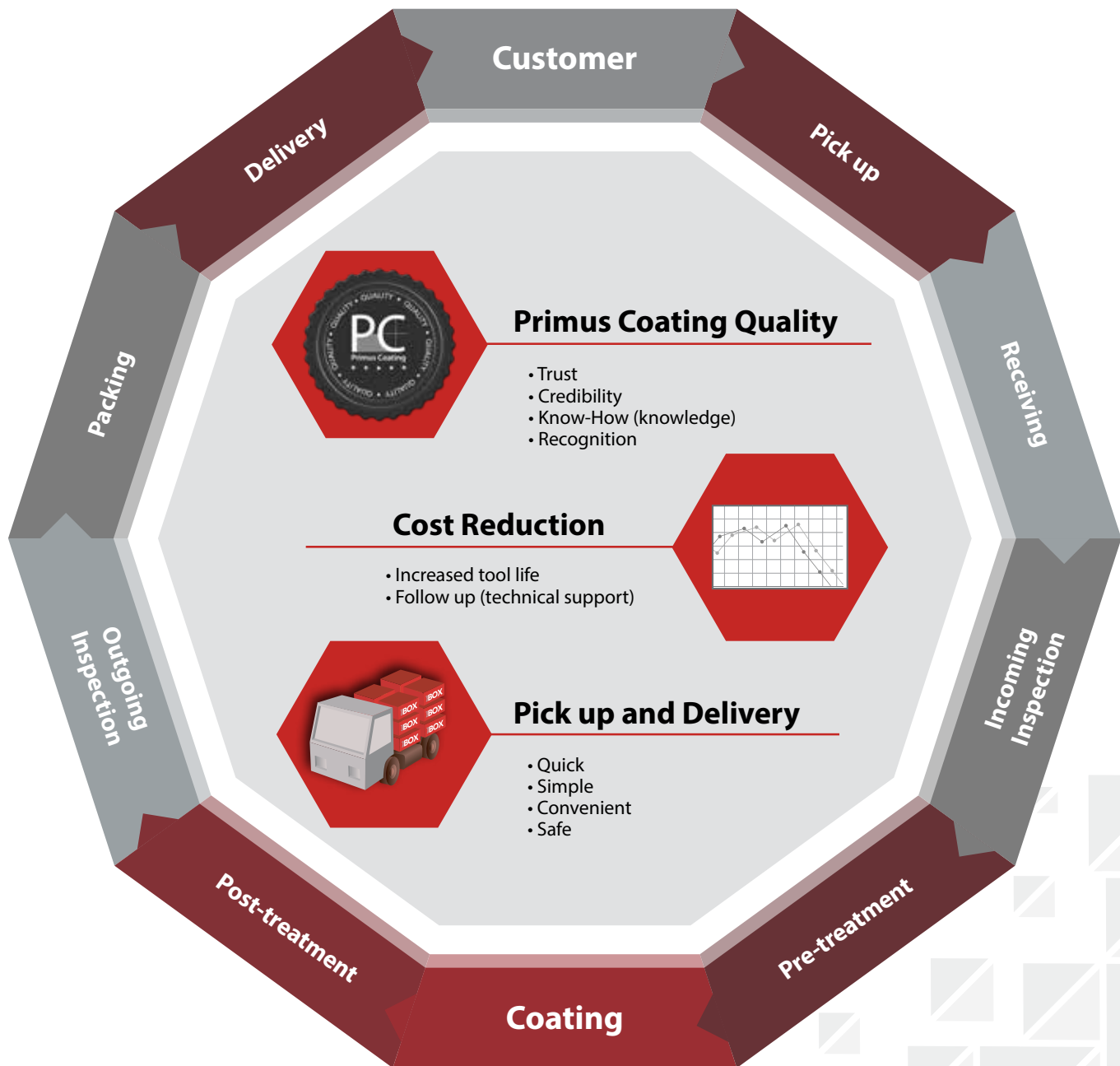
HP Drilling



Competitor



■ Primus Coating's Business Excellence



PrimCoat

PrimCoat PVD Technology India Private Limited

Pune Plant

Plot No. G-22, MIDC Phase II
Chakan Industrial Area - Savardari Village
Tal Khed, Pune - 410 501
Maharashtra, India

raman@primcoat.com | www.primcoat.com | Tel.: +91 755 022 3546

Bangalore Plant

Plot No: 22-J2, Attibele Industrial Area
Survey No 125, 126, 127 - Ichhangur Village
Attibele Hobli, Anekal Taluk, Bangalore- 562 107
Karnataka, India

Chennai Plant

Plot No: K-16, Phase II
SIPCOT Industrial Park - Mambakkam Village
Sriperumbudur Taluk, Kancheepuram - 602105
Tamil Nadu, India

Gujarat Plant

Plot No. 8,9,10 Swastik Industrial Estate
Sarkhej - Bavla highway, Village Sari
Tal. Sanand, Dist - 382213
Ahmedabad - 382213, India

www.primuscoating.com