

# HP Atlas

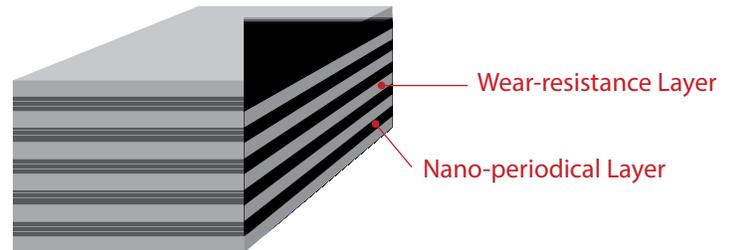


# HP Atlas

**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

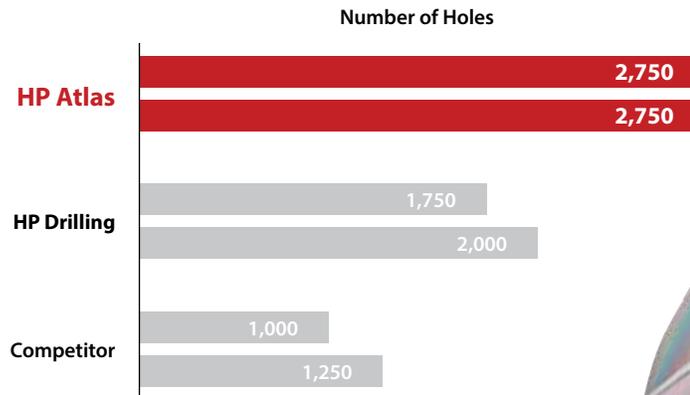


# Test Data

## Superior friction protection and unmatched durability

### Superior Durability in Carbon Steel S50C

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



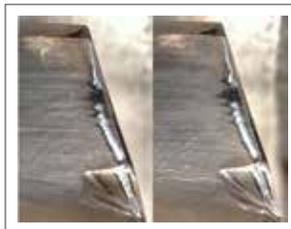
### Cutting edge condition after drilling 500 holes



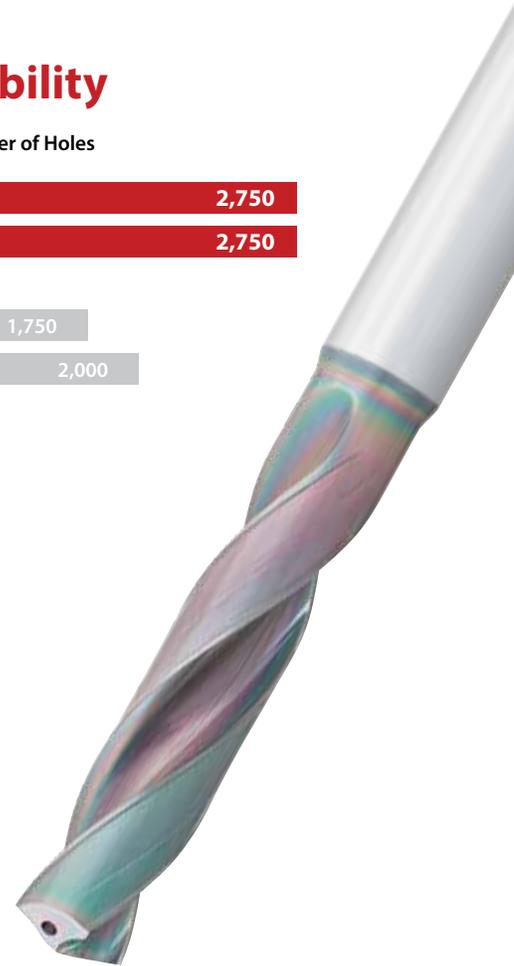
HP Atlas



HP Drilling



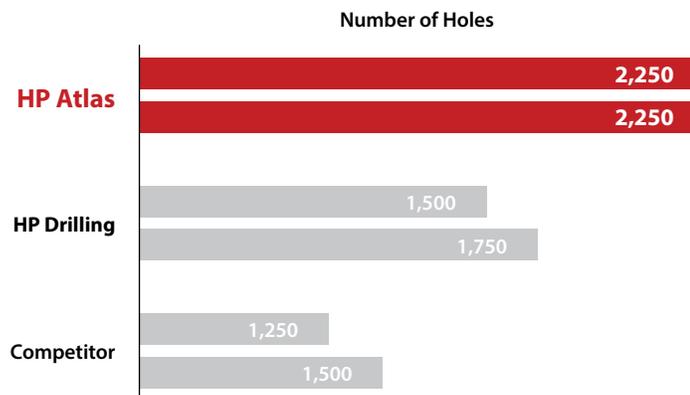
Competitor



## Better performance drilling alloy steel

### Drilling SCM440 (30HRC)

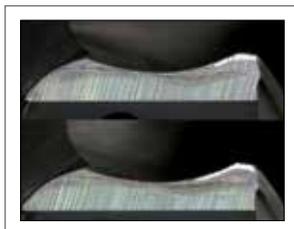
<b>Tool</b>	ø10mm Carbide Drill with Oil Holes
<b>Work Material</b>	SCM440 (30HRC)
<b>Cutting Speed</b>	75 m/min (2,389 min <sup>-1</sup> )
<b>Feed Rate</b>	597 mm/min (0.25 mm/rev)
<b>Depth of Hole</b>	50 mm (Blind Hole)
<b>Coolant</b>	Water-soluble (Internal)
<b>Machine</b>	Horizontal Machining Center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



### Cutting edge condition after drilling 1,200 holes



HP Atlas



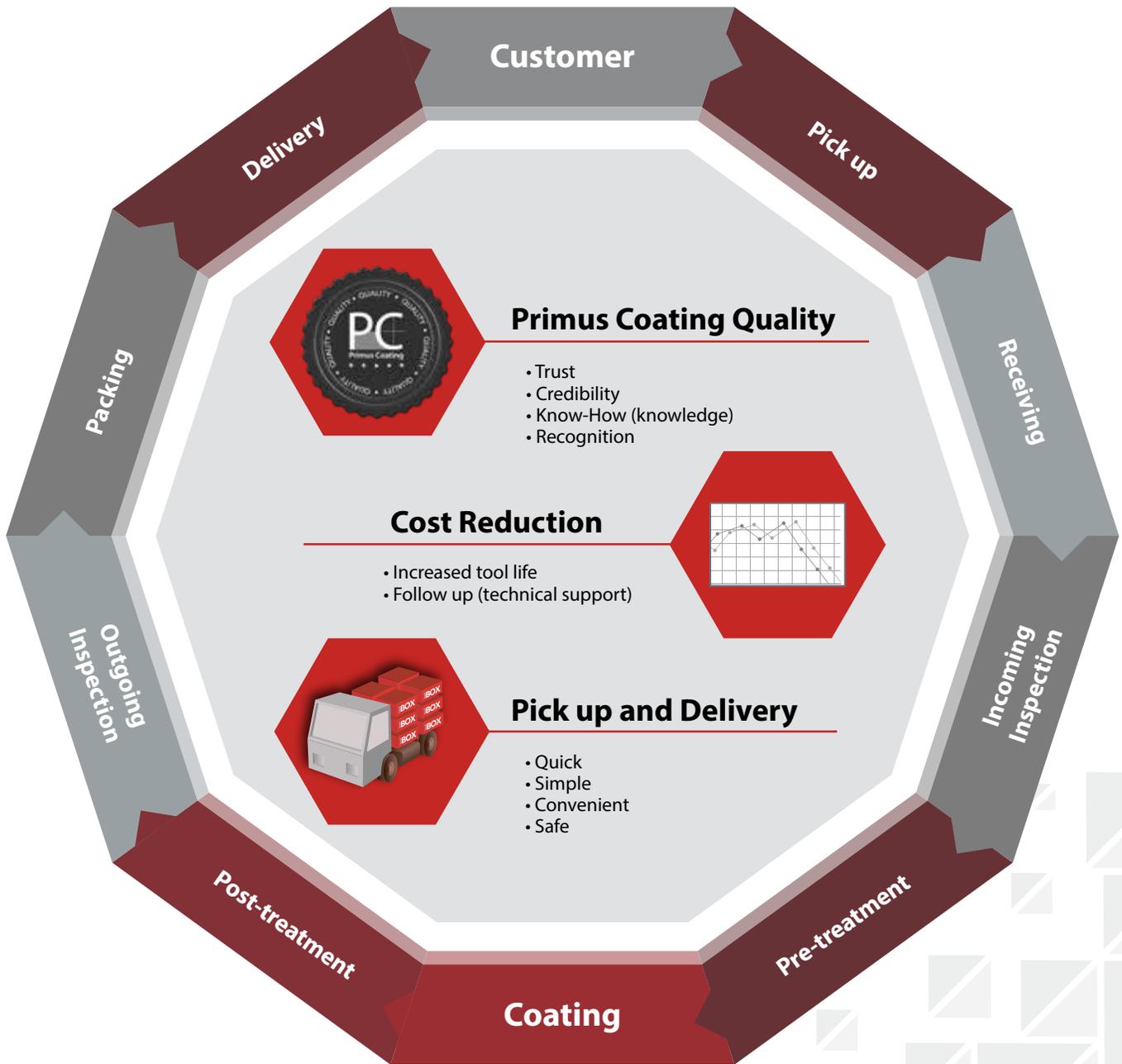
HP Drilling



Competitor



## ■ Primus Coating's Business Excellence



# PrimusCoating

**Primus Coating Michigan, LLC**  
319 McIntyre Lane  
Springfield, MI 49037  
Phone: +1 269 339 4765  
sales@primuscoating.com

**Primus Coating Tennessee, LLC**  
1114 Stones River Court  
La Vergne, TN 37086  
Phone: +1 865 323 5530  
sales@primuscoating.com

Scan to access our website  
[www.primuscoating.com](http://www.primuscoating.com)

