

## PHG & PHS New Turning Grades

The best grades for machining Steels and Stainless Steels



PHG & PHS  
New Turning Grades

NEW

Cosmic Technology for better **Productivity**



## PHG105 P05-P10

First choice for continuous cut with hardness higher than 38HRC

New CVD coating with  $\text{Al}_2\text{O}_3$ +TiN combined with a very hard substrate.

## PHG115 P10-P25

Suitable for high to medium cutting speeds on steels

New CVD coating with  $\text{Al}_2\text{O}_3$ +TiN.

## PHG125 P20-P35

Ideal for general application in all kind of steels

Carbide grade suitable for medium machining of steels at medium cutting speeds.

## PHG140 P25-P45

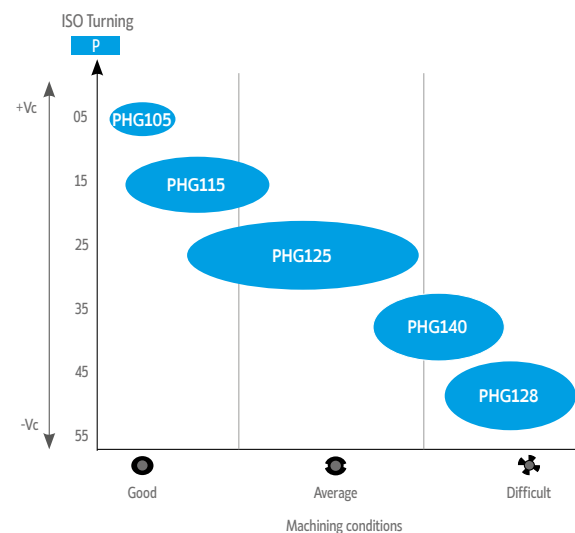
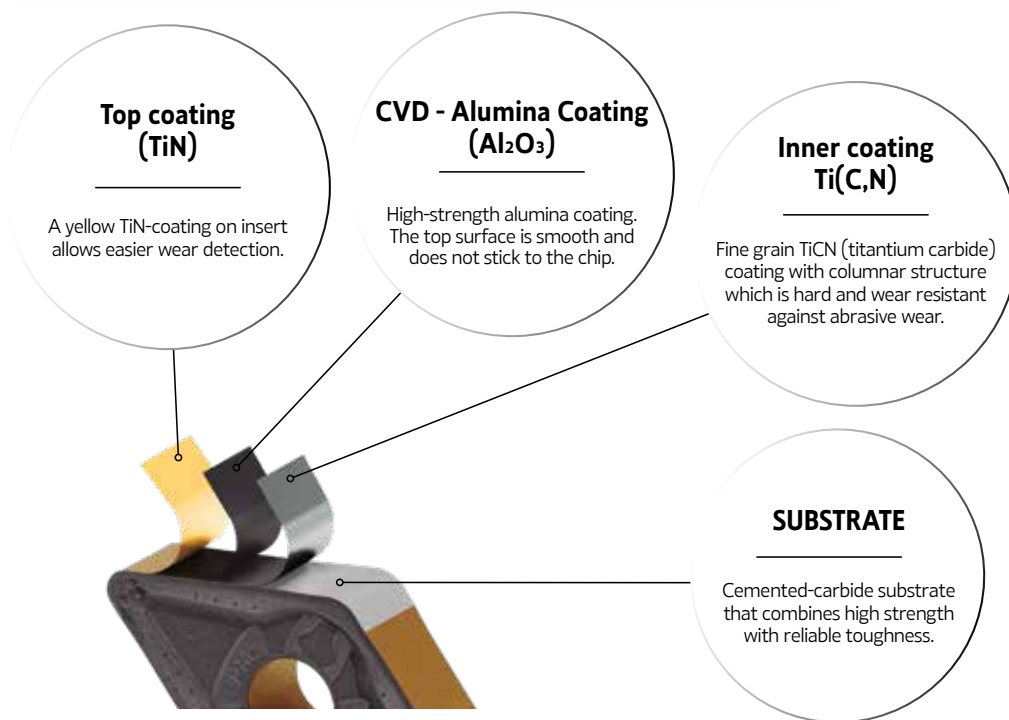
First choice for roughing to heavy roughing operations with interrupted cut at medium to low cutting speeds

Binary substrate grade (Wc - Co) with medium grain size combined with a medium temperature CVD coating.

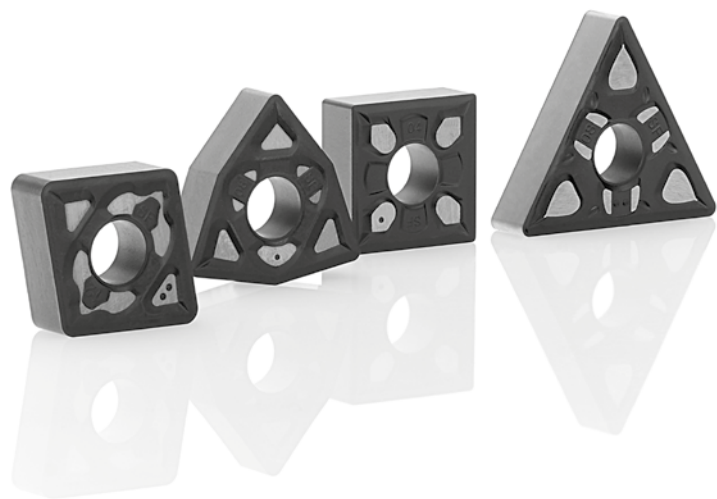
## PHG128 P40-P50

A very high toughness grade ideal for heavy roughing applications while using on large I.C inserts

New CVD coating with  $\text{Al}_2\text{O}_3$ +TiN.







## PHS215 M10-M25

Suitable for high to medium cutting speeds in stainless steel. Ideal for turning on good condition of cut (continuous cut)

## PHS225 M15-M30

First choice for general application on turning of stainless steels

Carbide grade suitable for medium machining of stainless steels and super alloys at medium cutting speeds.

## PHS240 M25-M45

First choice for roughing to heavy roughing operations with interrupted cut at medium to low cutting speeds on stainless steel.

### Top coating (TiC)

A grey TiC-coating on insert allows easier wear detection.

### CVD - Alumina Coating (Al<sub>2</sub>O<sub>3</sub>)

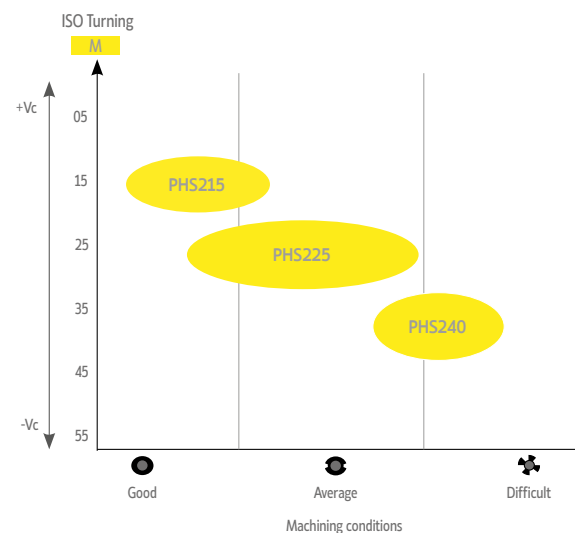
High-strength alumina coating. The top surface is smooth and does not stick to the chip.

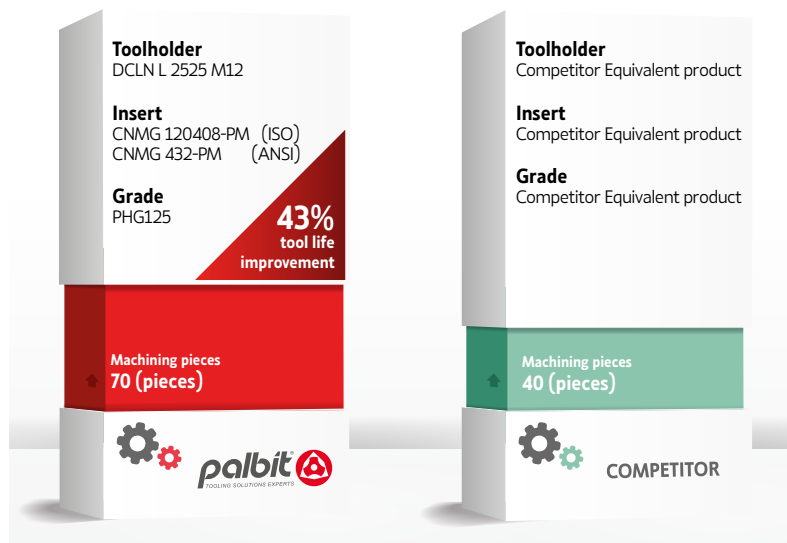
### Inner coating Ti(C,N)

Fine grain TiCN (titanium carbide) coating with columnar structure which is hard and wear resistant against abrasive wear.

### SUBSTRATE

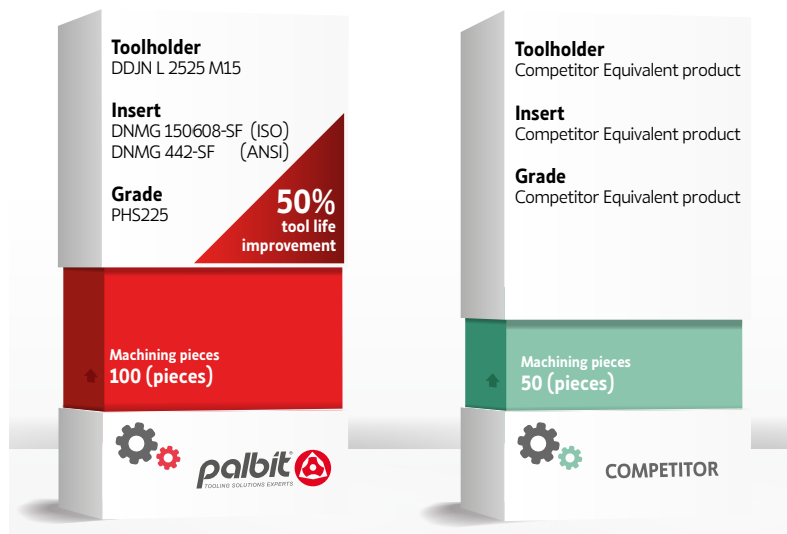
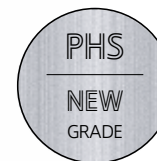
Cemented-carbide substrate that combines high strength with reliable toughness.





Workpiece material: Low-alloy steel, Ck45 (200 HB)

Cutting speed: Vc	200 m/min	656 sfm
Feed per tooth: fn	0,30 mm/r	0.012 in/r
Depth of cut: ap	3,00 mm	0.118 in
Operation	External turning	
Coolant	Emulsion	



Workpiece material: stainless steel, AISI 316

Cutting speed: Vc	180 m/min	590 sfm
Feed per tooth: fn	0,30 mm/r	0.012 in/r
Depth of cut: ap	2,00 mm	0.078 in
Operation	External turning	
Coolant	Emulsion	

