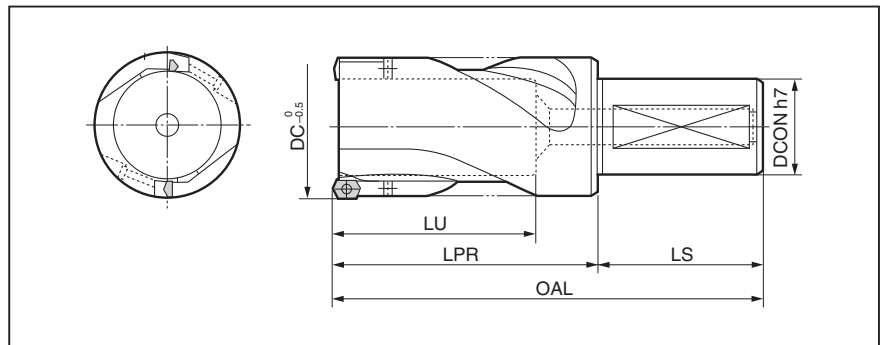
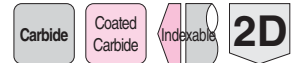


## Medium To Large Sized Holes

Carbon Steel Alloy Steel Up to 0.28% From 0.29%	Tempered Steel	Harden Steel Up to 45HRC From 48HRC	Stainless Steel	Ti Alloy	Heat-resistant Steels	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP
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### ■ Holders

DC (mm)	Stock	Cat. No.	Dimensions (mm)				
			Effective Length LU	Overhang Length LPR	Total Length OAL	Shank LS	Side Lock Flat DCON
50 to 65		<b>TCS 050 to 065</b>	115 to 145	140 to 180	205 to 245	65	40
66 to 80		<b>066 to 080</b>	145 to 175	180 to 215	245 to 280	65	40
81 to 85		<b>081 to 085</b>	175 to 185	215 to 230	290 to 305	75	50
86 to 95		<b>086 to 095</b>	185 to 205	230 to 255	305 to 330	75	50
96 to 105		<b>096 to 105</b>	205 to 225	255 to 280	330 to 355	75	50
106 to 110		<b>106 to 110</b>	225 to 235	280 to 290	355 to 365	75	50

Holders can be made for diameters as low as  $\phi DC=200mm$ . Specify all measurements and attachment shape when ordering.

### ■ Inserts **P** **M** **S** **K** **N** **S** **H**

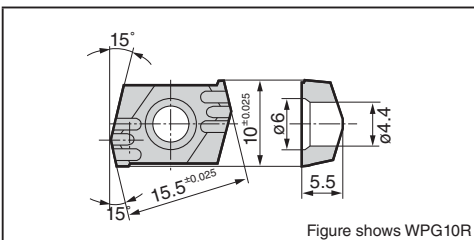


Figure shows WPG10R

Application	Grade		Application
	Coated Carbide	Carbide	
High Speed/Light			
General Purpose		<b>P</b>	
Roughing			
Cat. No.	AC325	A30N	
<b>WPG 10R</b>			Outer
<b>WPG 10L</b>			Inner

### ■ Recommended Cutting Conditions

$v_c$ : Cutting Speed (m/min)  $f$ : Feed Rate (mm/rev)

Diameter DC (mm)	Conditions	Soft Steel Alloy Steel (Below 320HB)	Soft Steel Alloy Steel General Steel (Below 250HB)	Die steel (About 250HB)	Ductile Cast Iron	Gray Cast Iron
Up to $\phi 165$	$v_c$	70 - <b>90</b> - 110	90 - <b>110</b> - 130	50 - <b>70</b> - 80	100 - <b>120</b> - 140	100 - <b>120</b> - 140
	$f$	0.05 - <b>0.1</b> - 0.15	0.05 - <b>0.1</b> - 0.15	0.05 - <b>0.1</b> - 0.15	0.1 - <b>0.15</b> - 0.2	0.15 - <b>0.2</b> - 0.25

Min. - **Optimum** - Max.

### ■ Spare Parts

Applicable Holder	Cartridges		Cap Screw		Set Screw (Outer)	Axial Adjustment Screw	Screw	Wrench (For Screw)	
	Stock	Outer	Stock	Inner					
									<b>3.0</b>
TCS 050 to 055	TU050055K1	TU050055K2	BX 0408	BX 0408					
TCS 056 to 065	TU055065K1	TU055065K2	BX 0410	BX 0410					
TCS 066 to 075	TU065075K1	TU065075K2	BX 0414	BX 0414					
TCS 076 to 085	TU075085K1	TU075085K2	BX 0418	BX 0418	BT 0306	AJM4FT	BFTX 0409N	TRX 15	
TCS 086 to 095	TU085095K1	TU085105K2	BX 0418	BX 0425					
TCS 096 to 105	TU095105K1		BX 0425	BX 0425					
TCS 106 to 115	TU105135K1	TU105125K2	BX 0430	BX 0425					

Recommended Tightening Torque(N · m)