Easy Edge Adjustment MSE45-SF

The usage of SEEN wiper insert

The features of the wiper insert

By inserting one wiper insert to the cutter which has been attached standard insert, surface roughness can be improved. The edge geometry of wiper insert is arc style and over hang is slightly prominent to axis direction when cutter is installed. Having finish by only wiper insert bottom of workpiece, good surface finish can be realized.

Recommended Cutting Conditions

1) Vc, fz···within recommended cutting conditions
2) ap≦0.5mm

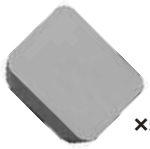
How to attach wiper insert

1) Insert only one wiper insert against standard insert.
2) As wiper insert is one edge use, please attach insert arrow "↓" that faces to workpiece cutting surface.
3) Control overhang amount for wiper insert using MSE45-SF type. So you can obtain much more stable surface roughness.

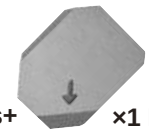
How to set up amount of over hang for wiper edge

1) Please adjust wiper insert overhang within 0.03 to 0.1mm from the largest overhang standard insert. If overhang is larger than this, life of insert should be lower.
2) It is recommended having wiper insert overhang about 0.05mm.

For example, when finishing Aluminum with ø125···



×5 Edges+



×1 Edge

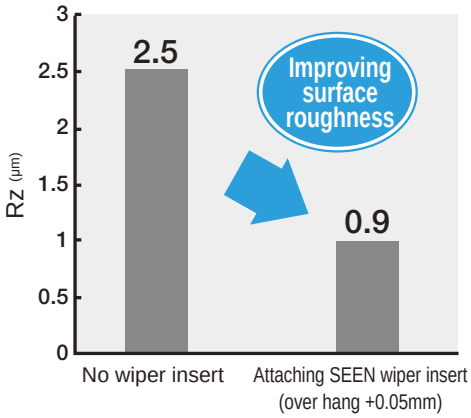
KW10

KPD001
Arrow sied is wiper edge

Low cost and good cutting surface

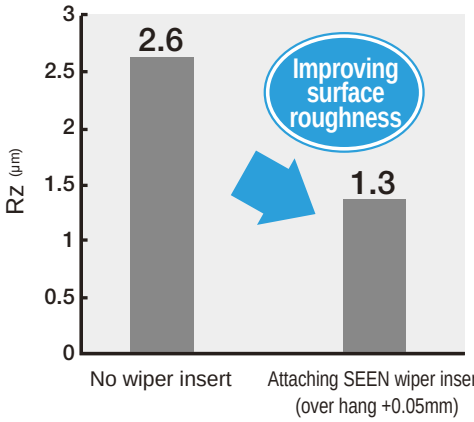
Case Studies

In case of Aluminum (AlMg 2.5) (A5052)



Cutting Conditions
·MSE45100R-6T-SF
·Vc=300m/min
·ap=0.2mm
·fz=0.2mm/t
·Wet
·No wiper insert
SEKN1203AFFN(KW10)
6 Edges
·With wiper insert
SEKN1203AFFN(KW10)
5 Edges
SEEN1203AFFR-W(KPD001)
1 Edge

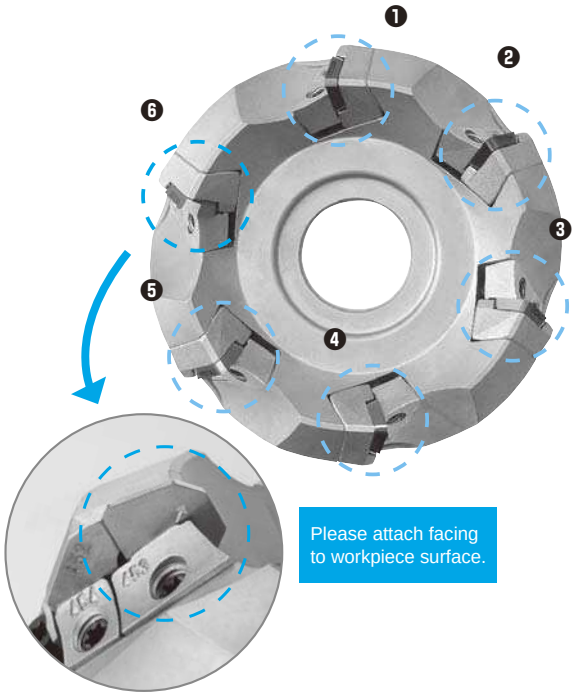
In case of C50 (S50C)



Cutting Conditions
·MSE45100R-6T-SF
·Vc=200m/min
·ap=0.2mm
·fz=0.1mm/t
·Dry
·No wiper insert
SEKN1203AFTN(TN100M)
6 Edges
·With wiper insert
SEKN1203AFTN(TN100M)
5 Edges
SEEN1203AFTR-W(TN100M)
1 Edge

Example of attaching wiper insert

NO.	Insert	Edge deviation
①	Standard	-6µm
②	Standard	-11µm
③	Standard	-15µm
④	Standard	0µm
⑤	Standard	-8µm
⑥	Wiper insert	+0.03~+0.1mm



Please attach facing to workpiece surface.

M

Milling