

WINTER

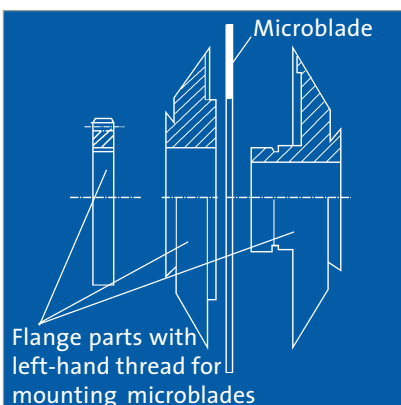
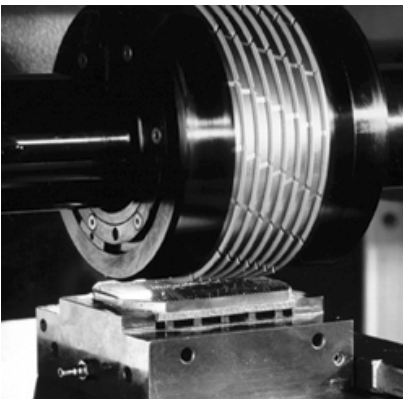
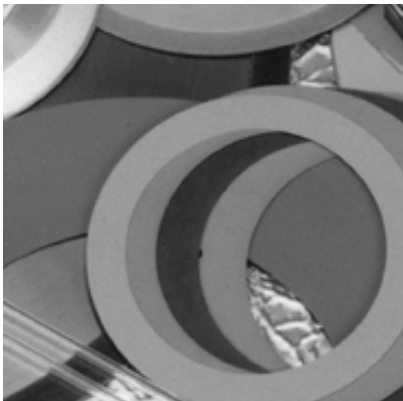
**Diamond
Microblades
(thin-kerf blades)
for all hard
materials,**

e.g. ferrite, glass, ceramics,
quartz, sapphire, silicon,
silicon carbide, zirconia, etc.

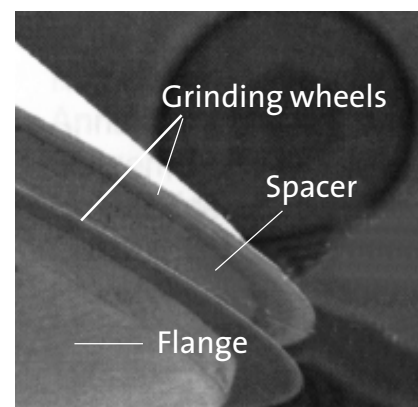
WINTER

Diamond Microblades (thin-kerf blades)

for all hard materials, e.g.
ferrite, glass, ceramics, quartz,
sapphire, silicon, silicon
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2 microblades
simultaneously mounted on
one flange.
Use of spacers permits
considerable time savings
here.



Picture: Hanover University, Institute for
Microtechnology, Germany

WINTER Microblades

Application examples

American standard (mesh)	5000	3000	2500	2000	1000	700	500	400	320	Bond type
Grit size (µm)	2-4	3-6	4-8	6-12	10-20	20-30	30-40	D46	D54	
Material:										
Ceramic hard (corundum)						▲	▲	●	●	K-plus
Ruby						▲	▲	●	●	K-plus
Sapphire						▲	▲	●	●	K-plus
Boron nitride (hard)			▲	▲	●	●				K-plus
Silicon on sapphire						▲	▲	●	●	K-plus
Barium-titanite					▲	▲	●	●		S
Garnet		▲	▲	●	●					S
Lithium-niobate		▲	▲	●	●					S
Lithium-tantalate		▲	▲	●	●					S
Silicon	▲	▲	●	●						S
Glass-coated Si	▲	▲	●							S
Cadmium telluride		▲	●							S
Boron nitride (soft)				▲	▲	●	●			S
Nitride, passivated Si	▲	▲	●							S
Gallium arsenide	▲				▲	▲	●	●	●	S
Bismuth telluride									●	BZ
Ceramic (unfired)								●	●	BZ
Glass, Pyrex & quartz								●	●	BZ
Ferrite / sizing			●	●						BZ
Ferrite /dicing										K-plus
minimal cutting width T	Dependent on grit size					Maximum				
for K-plus and BZ	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.3	2.5
for S	0.025	0.025	0.025	-	0.05	-	0.09	-	-	0.38
Legend:	▲ = low Chipping ● = higher feed rate K-plus = resin bond BZ = bronze bond S = electroplated bond									

Order example:	Bond	Type	Outer diameter	Cutting width (µm)	Bore diameter	No. of segments *)
	BZ	34K	D	T	D1	(S) *)

*) Only where required

For ordering please indicate:

Workpiece material, grit size, grit type, desired bond hardness, concentration.

Possible diameters:

Outer diameter: up to max. 116 mm
Bore diameter: standard 40 mm, 2 3/4" und 3 1/2", other dimensions possible

Bond variants: Nickel, bronze, resin

Available cutting widths: For nickel bond 25 µm - 90 µm
 For bronze & resin bond 150 µm - 2,5 mm
 usual tolerances ± 5 µm

Grit sizes: 2-4 µm to D 54

Applications: For all hard materials, e.g. ferrite, glass, ceramics, quartz, sapphire, silicon, silicon carbide, zirconia

Further information available on request.



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