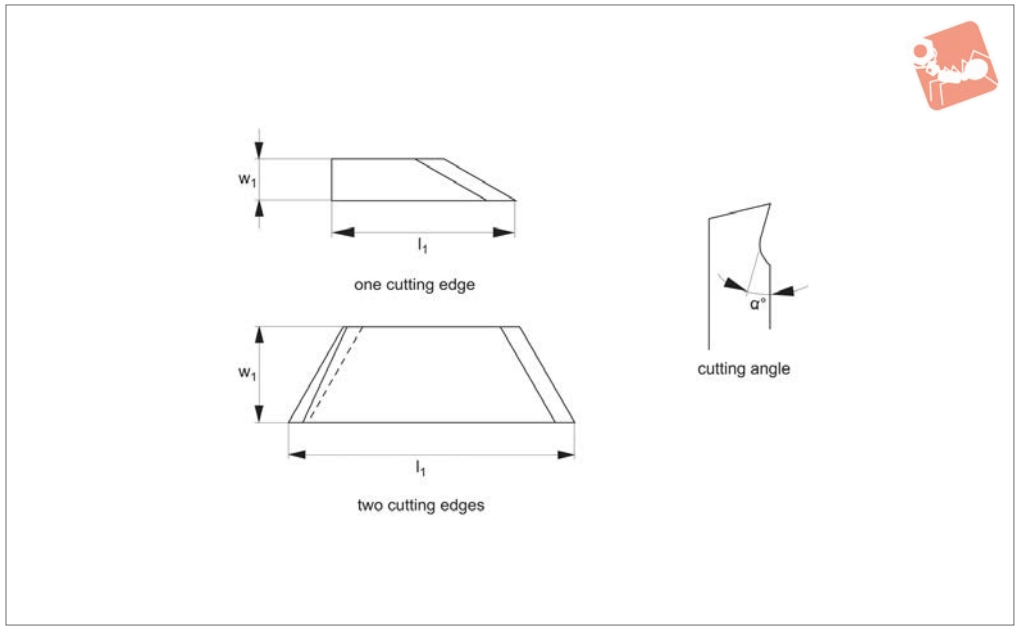


91002

Material
HSS: high speed steel, for most standard materials.
HSS TIN: high speed steel with TIN coating for difficult to machine materials such as stainless steel, titanium and Inconel.
Carbide: for hard materials.

Technical Notes
A blade with a 14.cutting angle is the most commonly used as it covers the widest range of standard materials, please see material suitability table for further advice.

Important Notes
Recommended cutting speed= 10 - 20 m/min. To extend the life of the blade and the pilot cone we recommend lubrication with cutting fluid or soluble oil.

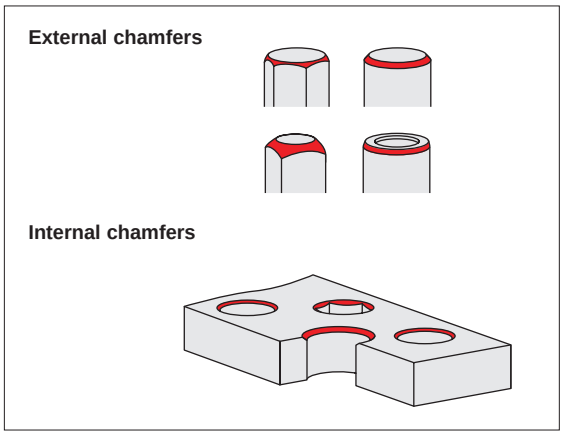
Order No.	Blade material	For chamfer dia. min.|max.	Inc. chamfer angle °	Cutting angle a °	No. of cutting edges	w_1	l_1
91002.W1860-00	HSS	4-17	60°	0°	1	8.7	38.5
91002.W1860-14	HSS	4-17	60°	14°	1	8.7	38.5
91002.W1860-20	HSS	4-17	60°	20°	1	8.7	38.5
91002.W1860-25	HSS	4-17	60°	25°	1	8.7	38.5
91002.W1890-00	HSS	4-17	90°	0°	1	8.7	30.0
91002.W1890-14	HSS	4-17	90°	14°	1	8.7	30.0
91002.W1890-20	HSS	4-17	90°	20°	1	8.7	30.0
91002.W1890-25	HSS	4-17	90°	25°	1	8.7	30.0
91002.W1899-00	HSS	4-17	120°	0°	1	20.0	26.0
91002.W1899-14	HSS	4-17	120°	14°	1	20.0	26.0
91002.W1899-20	HSS	4-17	120°	20°	1	20.0	26.0
91002.W1899-25	HSS	4-17	120°	25°	1	20.0	26.0
91002.W4260-00	HSS	5-41	60°	0°	2	20.0	90.0
91002.W4260-14	HSS	5-41	60°	14°	2	20.0	90.0
91002.W4260-20	HSS	5-41	60°	20°	2	20.0	90.0
91002.W4260-25	HSS	5-41	60°	25°	2	20.0	90.0
91002.W4282-00	HSS	5-41	82°	0°	2	20.0	73.0
91002.W4282-14	HSS	5-41	82°	14°	2	20.0	73.0
91002.W4282-20	HSS	5-41	82°	20°	2	20.0	73.0
91002.W4282-25	HSS	5-41	82°	25°	2	20.0	73.0
91002.W4290-00	HSS	5-41	90°	0°	2	20.0	73.0
91002.W4290-14	HSS	5-41	90°	14°	2	20.0	73.0
91002.W4290-20	HSS	5-41	90°	20°	2	20.0	73.0
91002.W4290-25	HSS	5-41	90°	25°	2	20.0	73.0
91002.W4299-00	HSS	5-41	120°	0°	2	20.0	60.0
91002.W4299-14	HSS	5-41	120°	14°	2	20.0	60.0
91002.W4299-20	HSS	5-41	120°	20°	2	20.0	60.0
91002.W4299-25	HSS	5-41	120°	25°	2	20.0	60.0
91002.W6060-00	HSS	21-59 to 77/117	60°	0°	2	20.0	90.0
91002.W6060-14	HSS	21-59 to 77/117	60°	14°	2	20.0	90.0
91002.W6060-20	HSS	21-59 to 77/117	60°	20°	2	20.0	90.0

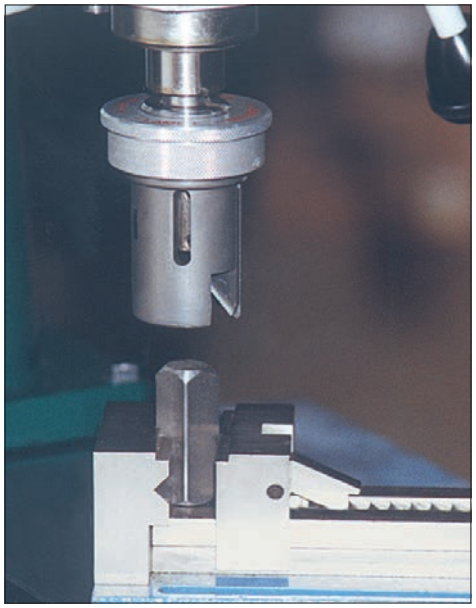
Blades For Inner Chamfering Tools

for use with 91000

Order No.	Blade material	For chamfer dia. min.|max.	Inc. chamfer angle °	Cutting angle a °	No. of cutting edges	w_1	l_1
91002.W6060-25	HSS	21-59 to 77/117	60°	25°	2	20.0	90.0
91002.W6090-00	HSS	21-59 to 77/117	90°	0°	2	20.0	73.0
91002.W6090-14	HSS	21-59 to 77/117	90°	14°	2	20.0	73.0
91002.W6090-20	HSS	21-59 to 77/117	90°	20°	2	20.0	73.0
91002.W6090-25	HSS	21-59 to 77/117	90°	25°	2	20.0	73.0
91002.W1760-20	HSS TIN	4-17	60°	20°	1	8.7	38.5
91002.W4160-20	HSS TIN	5-41 to 77/117	60°	20°	2	20.0	90.0
91002.W1790-20	HSS TIN	4-17	90°	20°	1	8.7	30.0
91002.W4190-20	HSS TIN	5-41 to 77/117	90°	20°	2	20.0	73.0
91002.W4360-00	Carbide	5-41 to 77/117	60°	0°	2	20.0	90.0
91002.W4390-00	Carbide	5-41 to 77/117	90°	0°	2	20.0	73.0

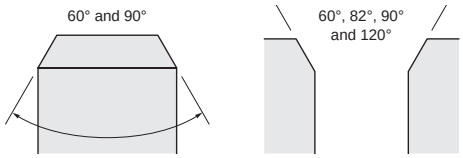
Wixroyd chamfering tools are mainly used as drill extensions to add high quality, consistent inner and outer chamfers. The chamfer angles achievable on a wide range of metals are between 60° to 120° inclusive.

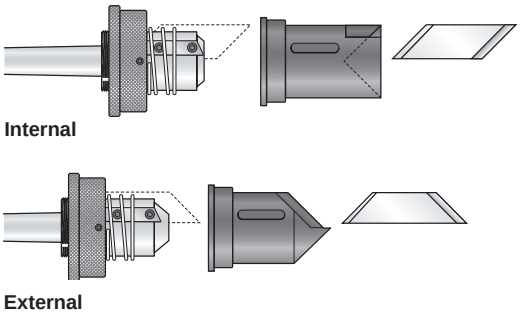




Construction

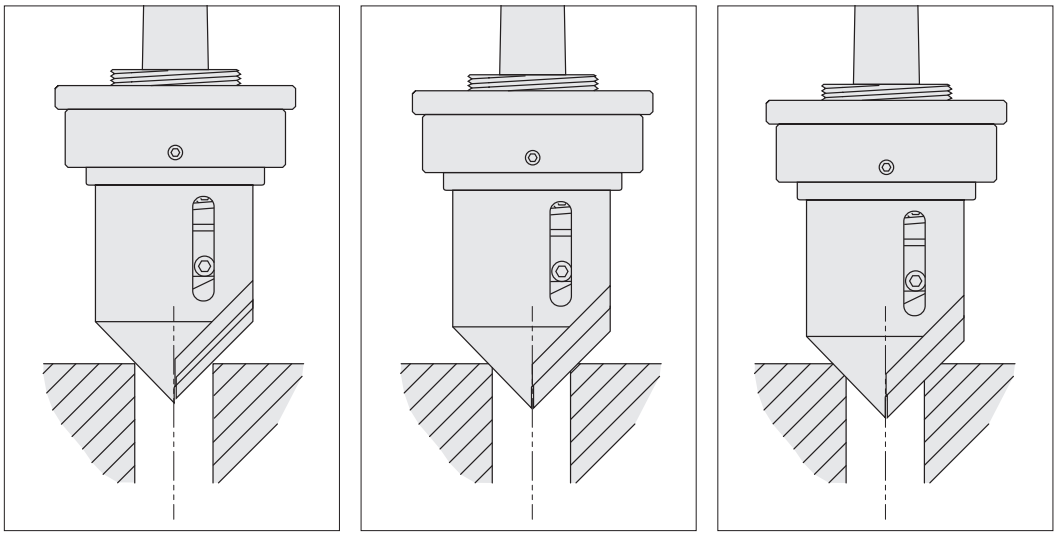
- Concentric chamfers.
- Excellent surface finish.
- Reduces risk of cutting into the workpiece.
- Controlled machining torque.





Chamfering tools consist of three main elements: an attachment spindle, pilot cone and cutting blade.

A variety of spindle attachments are available from CM1 to CM3 inclusive.



Our chamfer tools act by gradually shaving material away from a right angled corner to create a transitional, angled edge between two planes.

Example: with a blade protrusion of 0,1mm the device will make 10 revolutions to cut 1mm.

1. **When the chamfer tools spindle is lowered, it's pilot cone firstly centres the workpiece before retracting to allow the blade to come into contact with the material and start cutting of the chamfer.**
2. **Adjusting the output of the blade controls the thickness of the chip count NOT the value or angle of the chamfer e.g. with a blade protrusion of 0,1mm the chamfering tool requires 10 revolutions to cut 1mm of the chamfer.**
3. **Concentric chamfer achieved.**

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