

Feed and Speed Information-Carbide Drill Blade

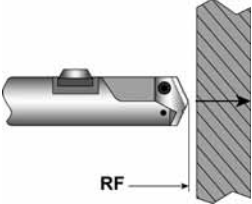
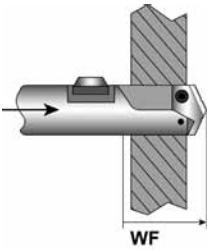
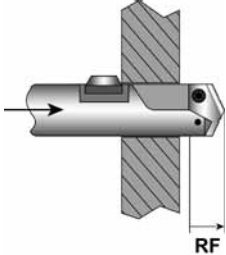
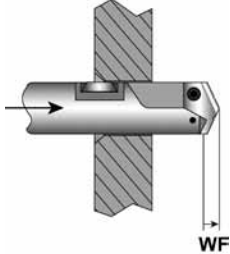
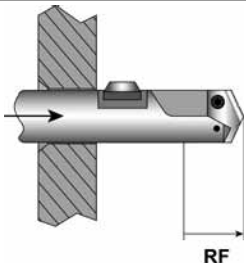
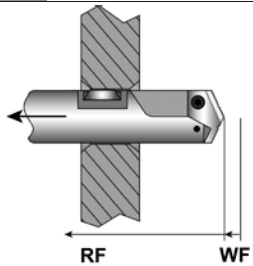
	Brinell	Carbide Grade	Feed (IPR) Bore Size, Ød				
			Ft/min	9.5-12.5	13-17	18-24	25-35
Free Machining Steel	100-150	C5	320	.006	.009	.012	.015
	150-200		280	.006	.008	.011	.013
	200-250		260	.005	.008	.010	.012
Low Carbon Steel	85-125	HSS/C5	300	.006	.008	.010	.014
	125-175		260	.005	.008	.010	.014
	175-225		240	.004	.007	.008	.012
Medium Carbon Steel	125-175	HSS/C5	260	.005	.008	.010	.014
	175-225		240	.005	.007	.008	.012
	225-275		220	.004	.007	.008	.012
Alloy Steel	125-175	C5	250	.005	.008	.010	.013
	175-225		230	.005	.007	.009	.012
	225-275		210	.004	.007	.009	.012
High Strength Alloy	225-300	C5	160	.005	.007	.008	.010
	300-350		140	.004	.006	.007	.009
Structural Steel	100-150	C5	240	.006	.010	.011	.012
	150-250		200	.005	.008	.009	.011
High Temp Alloy	140-220	C2	80	.003	.006	.007	.009
	220-310		60	.003	.005	.006	.008
Stainless Steel	135-185	C2	160	.006	.008	.009	.011
	185-275		120	.005	.007	.008	.010
Tool Steel	150-200	C5	160	.003	.005	.007	.009
	200-250		120	.003	.005	.007	.009
Aluminum	30	C2	1200	.008	.013	.016	.020
	180		800	.007	.011	.014	.018
Cast Iron	120-150	C2	320	.006	.009	.011	.015
	150-200		270	.005	.008	.010	.014
	200-220		240	.005	.007	.008	.012

SNAP Chamfer Inserts

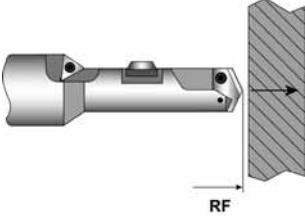
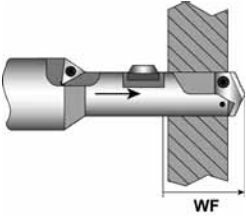
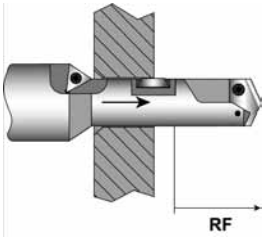
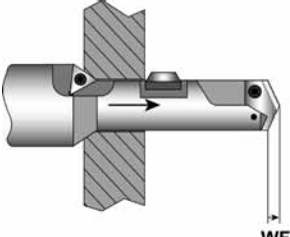
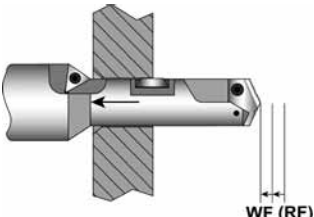
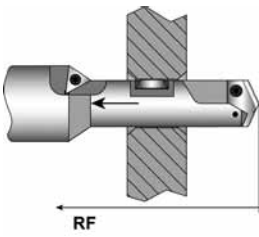
Material	IPPR	SFM
Aluminum	0.006-0.012	320-800
Brass	0.006-0.014	210-400
Low Carbon Steels	0.004-0.008	150-210
Med Carbon Steels	0.004-0.009	130-180
Free Machining Alloys	0.004-0.006	100-160
Stainless Steel	0.002-0.005	90-140
Gray Cast Iron	0.004-0.008	150-220
Nodular Cast Iron	0.003-0.007	150-220
Short Chipping Iron	0.003-0.007	100-150
Titanium	0.001-0.003	20-50

Important: Tool holder must be modified with blade locking mechanism for spindle speeds above 6,000 rpm. Please contact Heule Tool Corporation Engineering Department.

Programming Instructions - Drill Chamfer Tool

	<p>Step 1: Rapid Feed the tool to within clearance of the workpiece.</p>
	<p>Step 2: With forward Working Feed (WF), feed the tool through the workpiece until the hole is drilled and the drill tip is clear of the bore.</p>
	<p>Step 3: Rapid feed the tool so the SNAP blade is within clearance of the workpiece top surface or burr.</p>
	<p>Step 4: With working feed, cut the top chamfer. Continue feeding until the SNAP blade is completely retracted into the tool body.</p>
	<p>Step 5: Use rapid feed to position the SNAP blade on the far side of the part. Position the tool so the SNAP blade is completely extended and clear of the part or burr.</p>
	<p>Step 6: With back working feed, cut the back chamfer. When the SNAP blade is completely within the tool and clear of the back surface, the tool can be extracted with rapid feed.</p>

Programming Instructions - Drill Countersink Chamfer Tool

	<p>Step 1: Rapid Feed the tool to within clearance of the workpiece.</p>
	<p>Step 2: With forward Working Feed (WF), feed the tool through the workpiece until the hole is drilled and the drill tip is clear of the bore.</p>
	<p>Step 3: Rapid feed the tool so the SNAP blade is within clearance of the workpiece top surface or burr.</p>
	<p>Step 4: With working feed, cut the top countersink. Continue feeding until the required countersink size is achieved.</p>
	<p>Step 5: If necessary, use rapid backward feed to position the SNAP insert within clearance distance of the back surface of the workpiece or burr. The back chamfer can then be cut in working backward feed.</p>
	<p>Step 6: When the SNAP insert is clear of the back surface and completely retracted in the tool body, the tool can be retracted from the workpiece using rapid backward feed.</p>