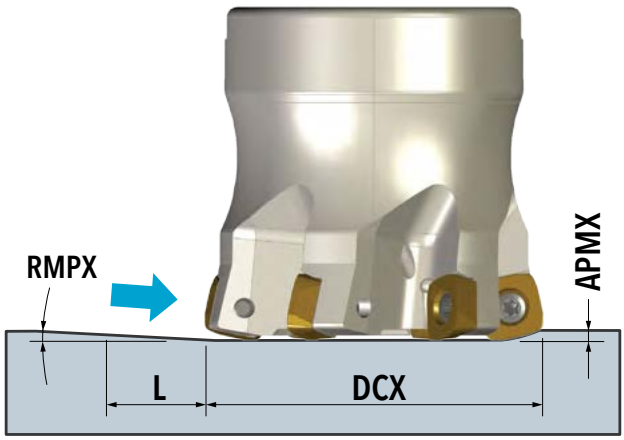
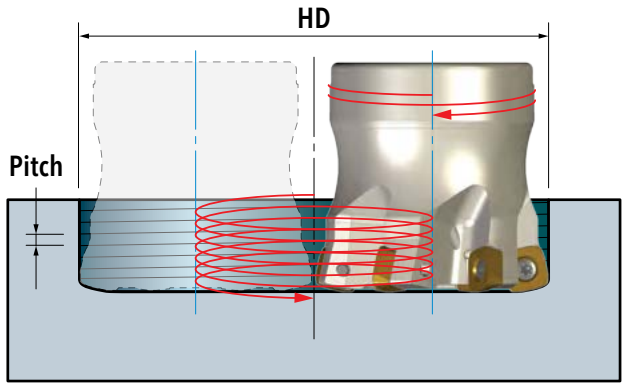
13 mm (MDR Inserts) • Straight Ramping



Using Inserts SDES1305MDR-MR, SDES1305MDR-MR1, SDMS1305MDR-PH, & SDXS1305MDR-PH			
DCX Cutting Dia. Max.	**RMPX** Ramp Angle Max.	**L***	**APMX** Depth of Cut Max.
1.250	13.10	0.344	0.078
1.500	7.10	0.631	0.078
2.000	3.90	1.147	0.078
2.500	2.70	1.656	0.078
3.000	1.60	2.794	0.078
4.000	1.10	4.063	0.078
5.000	0.80	5.587	0.078

* L in this table is the length the cutter travels to reach the maximum depth of cut **(.078")** while traveling at the maximum ramp angle listed for the cutter.

13 mm (MDR Inserts) • Helical Ramping



PITCH

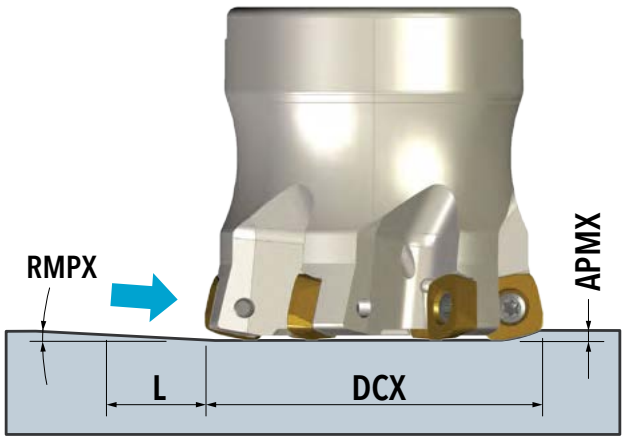
The maximum pitch is determined to not exceed the maximum depth of cut (APMX) and to not exceed the maximum ramp angle (RMPX).

Using Inserts SDES1305MDR-MR, SDES1305MDR-MR1, SDMS1305MDR-PH, & SDXS1305MDR-PH					
DCX Cutting Dia. Max.	**HD** Hole Dia. Min.	**HD** Hole Dia. Max.	**HD** Hole Dia. Min. w/o Cusp	**HD** Hole Dia. Max. w/o Cusp	Max. Pitch Per Revolution
1.250	1.502	2.500	1.607	1.673	0.078
1.500	2.000	3.000	2.107	2.173	0.078
2.000	2.996	4.000	3.104	3.170	0.078
2.500	3.996	5.000	4.102	4.170	0.078
3.000	5.002	6.000	5.105	5.171	0.078
4.000	7.002	8.000	7.102	7.170	0.078
5.000	9.002	10.000	9.104	9.170	0.078

» The table lists the maximum and minimum hole diameters (HD) for helical interpolating a hole from solid stock. For holes where a flat-bottom is required, the table includes maximum and minimum hole diameters such that no cusp is remaining at the bottom of the hole.

» The figure shows that the maximum pitch (advance for every 360° of machine travel) should not exceed **.078"**.

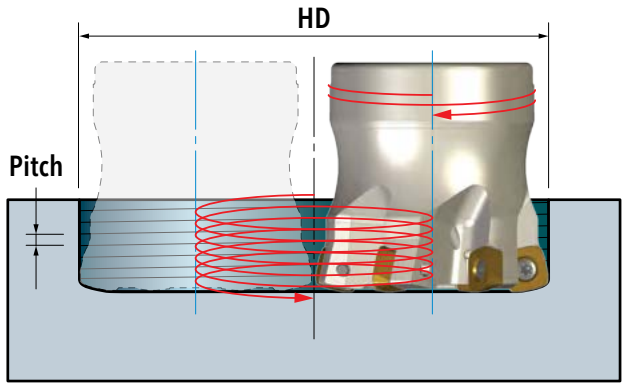
13 mm (MPR Inserts) • Straight Ramping



Using Inserts SDES1305MPR-MR, SDES1305MPR-MR1, SDXS1305MPR-MR, & SDXS1305MPR-MR1			
DCX Cutting Dia. Max.	**RMPX** Ramp Angle Max.	**L***	**APMX** Depth of Cut Max.
1.220	9.10	0.556	0.088
1.470	5.20	0.971	0.088
2.960	2.90	1.739	0.088
3.960	2.10	2.402	0.088
4.961	1.20	4.202	0.088
5.961	0.80	6.303	0.088
6.961	0.60	8.404	0.088

* L in this table is the length the cutter travels to reach the maximum depth of cut **(.088")** while traveling at the maximum ramp angle listed for the cutter.

13 mm (MPR Inserts) • Helical Ramping



PITCH

The maximum pitch is determined to not exceed the maximum depth of cut (APMX) and to not exceed the maximum ramp angle (RMPX).

Using Inserts SDES1305MPR-MR, SDES1305MPR-MR1, SDXS1305MPR-MR, & SDXS1305MPR-MR1					
DCX Cutting Dia. Max.	**HD** Hole Dia. Min.	**HD** Hole Dia. Max.	**HD** Hole Dia. Min. w/o Cusp	**HD** Hole Dia. Max. w/o Cusp	Max. Pitch Per Revolution
1.220	1.504	2.440	1.635	1.753	0.088
1.470	2.004	2.940	2.136	2.254	0.088
1.970	3.000	3.940	3.133	3.251	0.088
2.470	3.998	4.940	4.133	4.251	0.088
2.970	5.014	5.940	5.134	5.252	0.088
3.970	7.012	7.940	7.131	7.251	0.088
4.970	9.012	9.940	9.133	9.251	0.088

» The table lists the maximum and minimum hole diameters (HD) for helical interpolating a hole from solid stock. For holes where a flat-bottom is required, the table includes maximum and minimum hole diameters such that no cusp is remaining at the bottom of the hole.

» The figure shows that the maximum pitch (advance for every 360° of machine travel) should not exceed **.088"**.