



 MITSUBISHI MATERIALS U.S.A.

MEMSS SERIES END MILL

DYNAMIC SOLID CARBIDE END MILL
FOR HIGH EFFICIENCY MILLING (HEM)



MEMSS SERIES END MILL

DYNAMIC SOLID CARBIDE END MILL FOR HIGH EFFICIENCY MILLING (HEM)

The MEMSS features variable helix and variable pitch design for reduced harmonics. Reduced cycle time results in higher metal removal rates. The MEMSS end mills feature an AlCrN coating which allows long, predictable tool life in milling applications involving high temperatures and abrasive workpiece materials, such as titanium and ph stainless steels. This is ideal for trochoidal milling applications in medical and aerospace industries.



FEATURES

- Variable helix and variable pitch design for reduced harmonics
- Made from Premium Micro Grain Carbide
- Excellent performance in light profiling, High Efficiency Milling (HEM), and finishing applications

BENEFITS

- Reduced harmonics
- Higher metal removal rates
- Improved cycle time

OUTCOMES

- Reliable and long tool life
- Economical efficiency

MEMSS - 4 Flute

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
62165044	MEMSS4-0250-0625	.2500	-	.6250	2.500	.2500	4	□
23881143	MEMSS4-0250-0625-R015	.2500	.0150	.6250	2.500	.2500	4	□
23881150	MEMSS4-0312-0750	.3125	-	.7500	2.500	.3125	4	□
23881167	MEMSS4-0312-0750-R015	.3125	.0150	.7500	2.500	.3125	4	□
23881174	MEMSS4-0375-0500	.3750	-	.5000	2.500	.3750	4	□
23881181	MEMSS4-0375-0500-R015	.3750	.0150	.5000	2.500	.3750	4	□
62165051	MEMSS4-0375-0875	.3750	-	.8750	2.500	.3750	4	□
23881198	MEMSS4-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	4	□
23881204	MEMSS4-0375-0875-R030	.3750	.0300	.8750	2.500	.3750	4	□
23881211	MEMSS4-0375-0875-R060	.3750	.0600	.8750	2.500	.3750	4	□
23881228	MEMSS4-0375-1250	.3750	-	1.2500	3.000	.3750	4	□
23881235	MEMSS4-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	4	□
23881242	MEMSS4-0500-0750	.5000	-	.7500	2.500	.5000	4	□
23881259	MEMSS4-0500-0750-R015	.5000	.0150	.7500	2.500	.5000	4	□
62165068	MEMSS4-0500-1250	.5000	-	1.2500	3.000	.5000	4	□
23881266	MEMSS4-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	4	□
62137379	MEMSS4-0500-1250-R030	.5000	.0300	1.2500	3.000	.5000	4	●
23881273	MEMSS4-0500-1250-R060	.5000	.0600	1.2500	3.000	.5000	4	□
23881280	MEMSS4-0500-1250-R090	.5000	.0900	1.2500	3.000	.5000	4	□
23881297	MEMSS4-0500-1250-R125	.5000	.1250	1.2500	3.000	.5000	4	□
23881303	MEMSS4-0500-2000	.5000	-	2.0000	3.750	.5000	4	□
23881310	MEMSS4-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	4	□
23881327	MEMSS4-0625-1000	.6250	-	1.0000	3.000	.6250	4	□
23881334	MEMSS4-0625-1000-R015	.6250	.0150	1.0000	3.000	.6250	4	□
62165082	MEMSS4-0625-1250	.6250	-	1.2500	3.500	.6250	4	●
23881341	MEMSS4-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	4	□
62165099	MEMSS4-0625-1250-R030	.6250	.0300	1.2500	3.500	.6250	4	□
23881358	MEMSS4-0625-1250-R060	.6250	.0600	1.2500	3.500	.6250	4	□
23881365	MEMSS4-0625-1250-R090	.6250	.0900	1.2500	3.500	.6250	4	□
23881372	MEMSS4-0625-1250-R125	.6250	.1250	1.2500	3.500	.6250	4	□
23881389	MEMSS4-0625-2250	.6250	-	2.2500	4.500	.6250	4	□
23881396	MEMSS4-0625-2250-R015	.6250	.0150	2.2500	4.500	.6250	4	□
23881402	MEMSS4-0750-1000	.7500	-	1.0000	3.000	.7500	4	□
23881419	MEMSS4-0750-1000-R030	.7500	.0300	1.0000	3.000	.7500	4	□
62165105	MEMSS4-0750-1500	.7500	-	1.5000	4.000	.7500	4	●
23881426	MEMSS4-0750-1500-R015	.7500	.0150	1.5000	4.000	.7500	4	□
62165112	MEMSS4-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	4	□
23881433	MEMSS4-0750-1500-R060	.7500	.0600	1.5000	4.000	.7500	4	□
23881440	MEMSS4-0750-1500-R090	.7500	.0900	1.5000	4.000	.7500	4	□
23881457	MEMSS4-0750-1500-R125	.7500	.1250	1.5000	4.000	.7500	4	□
23881464	MEMSS4-0750-2250	.7500	-	2.2500	4.500	.7500	4	□
23881471	MEMSS4-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	4	□

● □ = NEW

● : USA Stock □ : Non-Stock Standard

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23881488	MEMSS4-1000-1250	1.0000	-	1.2500	3.000	1.0000	4	□
23881495	MEMSS4-1000-1250-R030	1.0000	.0300	1.2500	3.000	1.0000	4	□
23881501	MEMSS4-1000-2000	1.0000	-	2.0000	4.500	1.0000	4	□
23881518	MEMSS4-1000-2000-R015	1.0000	.0150	2.0000	4.500	1.0000	4	□
23881525	MEMSS4-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	4	□
23881532	MEMSS4-1000-2000-R060	1.0000	.0600	2.0000	4.500	1.0000	4	□
23881549	MEMSS4-1000-2000-R090	1.0000	.0900	2.0000	4.500	1.0000	4	□
23881556	MEMSS4-1000-2000-R125	1.0000	.1250	2.0000	4.500	1.0000	4	□
23881563	MEMSS4-1000-3000	1.0000	-	3.0000	5.000	1.0000	4	□
23881570	MEMSS4-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	4	□

Chipbreaker

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23881587	MEMSSC4-0375-0875	.3750	-	.8750	2.500	.3750	4	□
23881594	MEMSSC4-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	4	□
23881600	MEMSSC4-0375-1250	.3750	-	1.2500	3.000	.3750	4	□
23881617	MEMSSC4-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	4	□
23881624	MEMSSC4-0500-1250	.5000	-	1.2500	3.000	.5000	4	□
23881631	MEMSSC4-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	4	□
23881648	MEMSSC4-0500-2000	.5000	-	2.0000	3.750	.5000	4	□
23881655	MEMSSC4-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	4	□
23881662	MEMSSC4-0625-1250	.6250	-	1.2500	3.500	.6250	4	□
23881679	MEMSSC4-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	4	□
23881686	MEMSSC4-0625-2250	.6250	-	2.2500	4.500	.6250	4	□
23881693	MEMSSC4-0625-2250-R015	.6250	.0150	2.2500	4.500	.6250	4	□
23881709	MEMSSC4-0750-1500	.7500	-	1.5000	4.000	.7500	4	□
23881716	MEMSSC4-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	4	□
23881723	MEMSSC4-0750-2250	.7500	-	2.2500	4.500	.7500	4	□
23881730	MEMSSC4-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	4	□
23881747	MEMSSC4-1000-2000	1.0000	-	2.0000	4.500	1.0000	4	□
23881754	MEMSSC4-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	4	□
23881761	MEMSSC4-1000-3000	1.0000	-	3.0000	5.000	1.0000	4	□
23881778	MEMSSC4-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	4	□

MEMSS - 5 Flute

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
62197656	MEMSS5-0250-0625	.2500	-	.6250	2.500	.2500	5	●
23881785	MEMSS5-0250-0625-R015	.2500	.0150	.6250	2.500	.2500	5	□
62146753	MEMSS5-0250-0625-R020	.2500	.0200	.6250	2.500	.2500	5	●
62197663	MEMSS5-0312-0750	.3125	-	.7500	2.500	.3125	5	●
23881792	MEMSS5-0312-0750-R015	.3125	.0150	.7500	2.500	.3125	5	□
62146760	MEMSS5-0312-0750-R020	.3125	.0200	.7500	2.500	.3125	5	●
23881808	MEMSS5-0375-0500	.3750	-	.5000	2.500	.3750	5	□
23881815	MEMSS5-0375-0500-R015	.3750	.0150	.5000	2.500	.3750	5	□
62197670	MEMSS5-0375-0875	.3750	-	.8750	2.500	.3750	5	●
62146777	MEMSS5-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	5	●
62109642	MEMSS5-0375-0875-R030	.3750	.0300	.8750	2.500	.3750	5	●
62146784	MEMSS5-0375-0875-R060	.3750	.0600	.8750	2.500	.3750	5	●
23881822	MEMSS5-0375-1250	.3750	-	1.2500	3.000	.3750	5	□
23881839	MEMSS5-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	5	□
23881846	MEMSS5-0500-0750	.5000	-	0.7500	2.500	.5000	5	□
23881853	MEMSS5-0500-0750-R015	.5000	.0150	0.7500	2.500	.5000	5	□
62197687	MEMSS5-0500-1250	.5000	-	1.2500	3.000	.5000	5	●
62146791	MEMSS5-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	5	●
62146807	MEMSS5-0500-1250-R030	.5000	.0300	1.2500	3.000	.5000	5	●
62146814	MEMSS5-0500-1250-R060	.5000	.0600	1.2500	3.000	.5000	5	●
62146821	MEMSS5-0500-1250-R090	.5000	.0900	1.2500	3.000	.5000	5	●
62146838	MEMSS5-0500-1250-R125	.5000	.1250	1.2500	3.000	.5000	5	●
23881860	MEMSS5-0500-2000	.5000	-	2.0000	3.750	.5000	5	□
23881877	MEMSS5-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	5	□
23881884	MEMSS5-0625-1000	.6250	-	1.0000	3.000	.6250	5	□
23881891	MEMSS5-0625-1000-R030	.6250	.0300	1.0000	3.000	.6250	5	□
62197694	MEMSS5-0625-1250	.6250	-	1.2500	3.500	.6250	5	●
62146845	MEMSS5-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	5	●
62146852	MEMSS5-0625-1250-R030	.6250	.0300	1.2500	3.500	.6250	5	●
62146869	MEMSS5-0625-1250-R060	.6250	.0600	1.2500	3.500	.6250	5	●
62146876	MEMSS5-0625-1250-R090	.6250	.0900	1.2500	3.500	.6250	5	●
62146883	MEMSS5-0625-1250-R125	.6250	.1250	1.2500	3.500	.6250	5	●
23881907	MEMSS5-0625-2250	.6250	-	2.2500	4.500	.6250	5	□
23881914	MEMSS5-0625-2250-R030	.6250	.0300	2.2500	4.500	.6250	5	□
23881921	MEMSS5-0750-1000	.7500	-	1.0000	3.000	.7500	5	□
23881938	MEMSS5-0750-1000-R030	.7500	.0300	1.0000	3.000	.7500	5	□
62197700	MEMSS5-0750-1500	.7500	-	1.5000	4.000	.7500	5	●
62146890	MEMSS5-0750-1500-R015	.7500	.0150	1.5000	4.000	.7500	5	●
62146906	MEMSS5-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	5	●
62146913	MEMSS5-0750-1500-R060	.7500	.0600	1.5000	4.000	.7500	5	●
62146920	MEMSS5-0750-1500-R090	.7500	.0900	1.5000	4.000	.7500	5	●
62146937	MEMSS5-0750-1500-R125	.7500	.1250	1.5000	4.000	.7500	5	●
23881945	MEMSS5-0750-2250	.7500	-	2.2500	4.500	.7500	5	□
23881952	MEMSS5-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	5	□

● □ = NEW

● : USA Stock □ : Non-Stock Standard

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23881969	MEMSS5-1000-1250	1.0000	-	1.2500	3.000	1.0000	5	□
23881976	MEMSS5-1000-1250-R030	1.0000	.0300	1.2500	3.000	1.0000	5	□
62197717	MEMSS5-1000-2000	1.0000	-	2.0000	4.500	1.0000	5	●
62146944	MEMSS5-1000-2000-R015	1.0000	.0150	2.0000	4.500	1.0000	5	●
62146951	MEMSS5-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	5	●
62146968	MEMSS5-1000-2000-R060	1.0000	.0600	2.0000	4.500	1.0000	5	●
62146975	MEMSS5-1000-2000-R090	1.0000	.0900	2.0000	4.500	1.0000	5	●
62146982	MEMSS5-1000-2000-R125	1.0000	.1250	2.0000	4.500	1.0000	5	●
23881983	MEMSS5-1000-3000	1.0000	-	3.0000	5.000	1.0000	5	□
23881990	MEMSS5-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	5	□

Chipbreaker

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882003	MEMSSC5-0375-0875	.3750	-	.8750	2.500	.3750	5	□
23882010	MEMSSC5-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	5	□
23882027	MEMSSC5-0375-1250	.3750	-	1.2500	2.500	.3750	5	□
23882034	MEMSSC5-0375-1250-R015	.3750	.0150	1.2500	2.500	.3750	5	□
23882041	MEMSSC5-0500-1250	.5000	-	1.2500	3.000	.5000	5	□
23882058	MEMSSC5-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	5	□
23882065	MEMSSC5-0500-2000	.5000	-	2.0000	3.750	.5000	5	□
23882072	MEMSSC5-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	5	□
23882089	MEMSSC5-0625-1250	.6250	-	1.2500	3.500	.6250	5	□
23882096	MEMSSC5-0625-1250-R030	.6250	.0300	1.2500	3.500	.6250	5	□
23882102	MEMSSC5-0625-2250	.6250	-	2.2500	4.500	.6250	5	□
23882119	MEMSSC5-0625-2250-R030	.6250	.0300	2.2500	4.500	.6250	5	□
23882126	MEMSSC5-0750-1500	.7500	-	1.5000	4.000	.7500	5	□
23882133	MEMSSC5-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	5	□
23882140	MEMSSC5-0750-2250	.7500	-	2.2500	4.500	.7500	5	□
23882157	MEMSSC5-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	5	□
23882164	MEMSSC5-1000-2000	1.0000	-	2.0000	4.500	1.0000	5	□
23882171	MEMSSC5-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	5	□
23882188	MEMSSC5-1000-3000	1.0000	-	3.0000	5.000	1.0000	5	□
23882195	MEMSSC5-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	5	□

MEMSS - 6 Flute

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882201	MEMSS6-0375-0500	.3750	-	.5000	2.500	.3750	6	□
23882218	MEMSS6-0375-0500-R015	.3750	.0150	.5000	2.500	.3750	6	□
62197724	MEMSS6-0375-0875	.3750	-	.8750	2.500	.3750	6	●
62178310	MEMSS6-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	6	●
62109659	MEMSS6-0375-0875-R030	.3750	.0300	.8750	2.500	.3750	6	●
62178327	MEMSS6-0375-0875-R060	.3750	.0600	.8750	2.500	.3750	6	●
23882225	MEMSS6-0375-1250	.3750	-	1.2500	3.000	.3750	6	□
23882232	MEMSS6-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	6	□
23882249	MEMSS6-0500-0750	.5000	-	.7500	2.500	.5000	6	□
23882256	MEMSS6-0500-0750-R015	.5000	.0150	.7500	2.500	.5000	6	□
62197731	MEMSS6-0500-1250	.5000	-	1.2500	3.000	.5000	6	●
62178334	MEMSS6-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	6	●
62109666	MEMSS6-0500-1250-R030	.5000	.0300	1.2500	3.000	.5000	6	●
62178341	MEMSS6-0500-1250-R060	.5000	.0600	1.2500	3.000	.5000	6	●
62178358	MEMSS6-0500-1250-R090	.5000	.0900	1.2500	3.000	.5000	6	●
62178365	MEMSS6-0500-1250-R125	.5000	.1250	1.2500	3.000	.5000	6	●
23882263	MEMSS6-0500-2000	.5000	-	2.0000	3.750	.5000	6	□
23882270	MEMSS6-0500-2000-R030	.5000	.0300	2.0000	3.750	.5000	6	□
23882287	MEMSS6-0625-1000	.6250	-	1.0000	3.000	.6250	6	□
23882294	MEMSS6-0625-1000-R030	.6250	.0300	1.0000	3.000	.6250	6	□
62197748	MEMSS6-0625-1250	.6250	-	1.2500	3.500	.6250	6	●
62178372	MEMSS6-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	6	●
62178389	MEMSS6-0625-1250-R030	.6250	.0300	1.2500	3.500	.6250	6	●
62178396	MEMSS6-0625-1250-R060	.6250	.0600	1.2500	3.500	.6250	6	●
62178402	MEMSS6-0625-1250-R090	.6250	.0900	1.2500	3.500	.6250	6	●
62178419	MEMSS6-0625-1250-R125	.6250	.1250	1.2500	3.500	.6250	6	●
23882300	MEMSS6-0625-2250	.6250	-	2.2500	4.500	.6250	6	□
23882317	MEMSS6-0625-2250-R030	.6250	.0300	2.2500	4.500	.6250	6	□
23882324	MEMSS6-0750-1000	.7500	-	1.0000	3.000	.7500	6	□
23882331	MEMSS6-0750-1000-R030	.7500	.0300	1.0000	3.000	.7500	6	□
62197755	MEMSS6-0750-1500	.7500	-	1.5000	4.000	.7500	6	●
62178426	MEMSS6-0750-1500-R015	.7500	.0150	1.5000	4.000	.7500	6	●
62178433	MEMSS6-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	6	●
62178440	MEMSS6-0750-1500-R060	.7500	.0600	1.5000	4.000	.7500	6	●
62178457	MEMSS6-0750-1500-R090	.7500	.0900	1.5000	4.000	.7500	6	●
62178464	MEMSS6-0750-1500-R125	.7500	.1250	1.5000	4.000	.7500	6	●
23882348	MEMSS6-0750-2250	.7500	-	2.2500	4.500	.7500	6	□
23882355	MEMSS6-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	6	□

● □ = NEW

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882362	MEMSS6-1000-1250	1.0000	-	1.2500	3.000	1.0000	6	□
23882379	MEMSS6-1000-1250-R030	1.0000	.0300	1.2500	3.000	1.0000	6	□
62197762	MEMSS6-1000-2000	1.0000	-	2.0000	4.500	1.0000	6	●
62178471	MEMSS6-1000-2000-R015	1.0000	.0150	2.0000	4.500	1.0000	6	●
62178488	MEMSS6-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	6	●
62178495	MEMSS6-1000-2000-R060	1.0000	.0600	2.0000	4.500	1.0000	6	●
62178501	MEMSS6-1000-2000-R090	1.0000	.0900	2.0000	4.500	1.0000	6	●
62178518	MEMSS6-1000-2000-R125	1.0000	.1250	2.0000	4.500	1.0000	6	●
23882386	MEMSS6-1000-3000	1.0000	-	3.0000	5.000	1.0000	6	□
23882393	MEMSS6-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	6	□

Chipbreaker

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882409	MEMSSC6-0375-0875	.3750	-	.8750	2.500	.3750	6	□
23882416	MEMSSC6-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	6	□
23882423	MEMSSC6-0375-1250	.3750	-	1.2500	3.000	.3750	6	□
23882430	MEMSSC6-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	6	□
23882447	MEMSSC6-0500-1250	.5000	-	1.2500	3.000	.5000	6	□
23882454	MEMSSC6-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	6	□
23882461	MEMSSC6-0500-2000	.5000	-	2.0000	3.750	.5000	6	□
23882478	MEMSSC6-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	6	□
23882485	MEMSSC6-0625-1250	.6250	-	1.2500	3.500	.6250	6	□
23882492	MEMSSC6-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	6	□
23882508	MEMSSC6-0625-2250	.6250	-	2.2500	4.500	.6250	6	□
23882515	MEMSSC6-0625-2250-R015	.6250	.0150	2.2500	4.500	.6250	6	□
23882522	MEMSSC6-0750-1500	.7500	-	1.5000	4.000	.7500	6	□
23882539	MEMSSC6-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	6	□
23882546	MEMSSC6-0750-2250	.7500	-	2.2500	4.500	.7500	6	□
23882553	MEMSSC6-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	6	□
23882560	MEMSSC6-1000-2000	1.0000	-	2.0000	4.500	1.0000	6	□
23882577	MEMSSC6-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	6	□
23882584	MEMSSC6-1000-3000	1.0000	-	3.0000	5.000	1.0000	6	□
23882591	MEMSSC6-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	6	□

● : USA Stock □ : Non-Stock Standard

MEMSS - 7 Flute

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882607	MEMSS7-0375-0500	.3750	-	.5000	2.500	.3750	7	□
23882614	MEMSS7-0375-0500-R015	.3750	.0150	.5000	2.500	.3750	7	□
62197779	MEMSS7-0375-0875	.3750	-	.8750	2.500	.3750	7	●
62178525	MEMSS7-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	7	●
62109673	MEMSS7-0375-0875-R030	.3750	.0300	.8750	2.500	.3750	7	●
62178532	MEMSS7-0375-0875-R060	.3750	.0600	.8750	2.500	.3750	7	●
23882621	MEMSS7-0375-1250	.3750	-	1.2500	3.000	.3750	7	□
23882638	MEMSS7-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	7	□
23882645	MEMSS7-0500-0750	.5000	-	.7500	2.500	.5000	7	□
23882652	MEMSS7-0500-0750-R030	.5000	.0300	.7500	2.500	.5000	7	□
62197786	MEMSS7-0500-1250	.5000	-	1.2500	3.000	.5000	7	●
62178549	MEMSS7-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	7	●
62109680	MEMSS7-0500-1250-R030	.5000	.0300	1.2500	3.000	.5000	7	●
62178556	MEMSS7-0500-1250-R060	.5000	.0600	1.2500	3.000	.5000	7	●
62178563	MEMSS7-0500-1250-R090	.5000	.0900	1.2500	3.000	.5000	7	●
62178570	MEMSS7-0500-1250-R125	.5000	.1250	1.2500	3.000	.5000	7	●
23882669	MEMSS7-0500-2000	.5000	-	2.0000	3.750	.5000	7	□
23882676	MEMSS7-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	7	□
23882683	MEMSS7-0625-1000	.6250	-	1.0000	3.000	.6250	7	□
23882690	MEMSS7-0625-1000-R015	.6250	.0150	1.0000	3.000	.6250	7	□
62197793	MEMSS7-0625-1250	.6250	-	1.2500	3.500	.6250	7	●
62178587	MEMSS7-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	7	●
62178594	MEMSS7-0625-1250-R030	.6250	.0300	1.2500	3.500	.6250	7	●
62178600	MEMSS7-0625-1250-R060	.6250	.0600	1.2500	3.500	.6250	7	●
62178617	MEMSS7-0625-1250-R090	.6250	.0900	1.2500	3.500	.6250	7	●
62178624	MEMSS7-0625-1250-R125	.6250	.1250	1.2500	3.500	.6250	7	●
23882706	MEMSS7-0625-2250	.6250	-	2.2500	4.500	.6250	7	□
23882713	MEMSS7-0625-2250-R030	.6250	.0300	2.2500	4.500	.6250	7	□
23882720	MEMSS7-0750-1000	.7500	-	1.0000	3.000	.7500	7	□
23882737	MEMSS7-0750-1000-R030	.7500	.0300	1.0000	3.000	.7500	7	□
62197809	MEMSS7-0750-1500	.7500	-	1.5000	4.000	.7500	7	●
62178631	MEMSS7-0750-1500-R015	.7500	.0150	1.5000	4.000	.7500	7	●
62178648	MEMSS7-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	7	●
62178655	MEMSS7-0750-1500-R060	.7500	.0600	1.5000	4.000	.7500	7	●
62178662	MEMSS7-0750-1500-R090	.7500	.0900	1.5000	4.000	.7500	7	●
62178679	MEMSS7-0750-1500-R125	.7500	.1250	1.5000	4.000	.7500	7	●
23882744	MEMSS7-0750-2250	.7500	-	2.2500	4.500	.7500	7	□
23882751	MEMSS7-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	7	□

● □ = NEW

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882768	MEMSS7-1000-1250	1.0000	-	1.2500	3.000	1.0000	7	□
23882775	MEMSS7-1000-1250-R030	1.0000	.0300	1.2500	3.000	1.0000	7	□
62197816	MEMSS7-1000-2000	1.0000	-	2.0000	4.500	1.0000	7	●
62178686	MEMSS7-1000-2000-R015	1.0000	.0150	2.0000	4.500	1.0000	7	●
62178693	MEMSS7-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	7	●
62178709	MEMSS7-1000-2000-R060	1.0000	.0600	2.0000	4.500	1.0000	7	●
62178716	MEMSS7-1000-2000-R090	1.0000	.0900	2.0000	4.500	1.0000	7	●
62178723	MEMSS7-1000-2000-R125	1.0000	.1250	2.0000	4.500	1.0000	7	●
23882782	MEMSS7-1000-3000	1.0000	-	3.0000	5.000	1.0000	7	□
23882799	MEMSS7-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	7	□

Chipbreaker

EDP	Item Number	DC	RE	APMX	LF	DCON	No. of Flutes	Stock
23882805	MEMSSC7-0375-0875	.3750	-	.8750	2.500	.3750	7	□
23882812	MEMSSC7-0375-0875-R015	.3750	.0150	.8750	2.500	.3750	7	□
23882829	MEMSSC7-0375-1250	.3750	-	1.2500	3.000	.3750	7	□
23882836	MEMSSC7-0375-1250-R015	.3750	.0150	1.2500	3.000	.3750	7	□
23882843	MEMSSC7-0500-1250	.5000	-	1.2500	3.000	.5000	7	□
23882850	MEMSSC7-0500-1250-R015	.5000	.0150	1.2500	3.000	.5000	7	□
23882867	MEMSSC7-0500-2000	.5000	-	2.0000	3.750	.5000	7	□
23882874	MEMSSC7-0500-2000-R015	.5000	.0150	2.0000	3.750	.5000	7	□
23882881	MEMSSC7-0625-1250	.6250	-	1.2500	3.500	.6250	7	□
23882898	MEMSSC7-0625-1250-R015	.6250	.0150	1.2500	3.500	.6250	7	□
23882904	MEMSSC7-0625-2250	.6250	-	2.2500	4.500	.6250	7	□
23882911	MEMSSC7-0625-2250-R015	.6250	.0150	2.2500	4.500	.6250	7	□
23882928	MEMSSC7-0750-1500	.7500	-	1.5000	4.000	.7500	7	□
23882935	MEMSSC7-0750-1500-R030	.7500	.0300	1.5000	4.000	.7500	7	□
23882942	MEMSSC7-0750-2250	.7500	-	2.2500	4.500	.7500	7	□
23882959	MEMSSC7-0750-2250-R030	.7500	.0300	2.2500	4.500	.7500	7	□
23882966	MEMSSC7-1000-2000	1.0000	-	2.0000	4.500	1.0000	7	□
23882973	MEMSSC7-1000-2000-R030	1.0000	.0300	2.0000	4.500	1.0000	7	□
23882980	MEMSSC7-1000-3000	1.0000	-	3.0000	5.000	1.0000	7	□
23882997	MEMSSC7-1000-3000-R030	1.0000	.0300	3.0000	5.000	1.0000	7	□

MEMSS 4 & 5 Flute FEED/SPEED

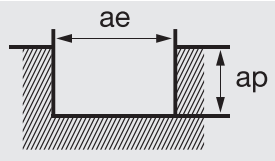
Slotting

Work Material	Carbon Steel (–30HRC)						Alloy Steel, Pre-hardened Steel						Hardened Steel 50 - 60 HRC					
DC	HEM			General			HEM			General			HEM			General		
	SFM	450		SFM	325		SFM	400		SFM	300		SFM	104		SFM	50	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	6876	0.0014	48.1	4966	0.0011	27.3	6112	0.0013	39.7	4584	0.0010	22.9	1589	0.0006	4.8	764	0.0004	1.5
5/16	5501	0.0018	49.5	3973	0.0015	29.8	4890	0.0016	39.1	3667	0.0013	23.8	1271	0.0008	5.1	611	0.0006	1.8
3/8	4584	0.0021	48.1	3311	0.0018	29.8	4075	0.0019	38.7	3056	0.0016	24.4	1059	0.0010	5.3	509	0.0008	2.0
1/2	3438	0.0028	48.1	2483	0.0025	31.0	3056	0.0026	39.7	2292	0.0023	26.4	795	0.0012	4.8	382	0.0010	1.9
5/8	2750	0.0035	48.1	1986	0.0032	31.8	2445	0.0032	39.1	1834	0.0029	26.6	636	0.0016	5.1	306	0.0012	1.8
3/4	2292	0.0042	48.1	1655	0.0039	32.3	2037	0.0038	38.7	1528	0.0035	26.7	530	0.0020	5.3	255	0.0016	2.0
1	1719	0.0056	48.1	1241	0.0053	32.9	1528	0.0051	39.0	1146	0.0048	27.5	397	0.0025	5.0	191	0.0020	1.9
Depth of Cut	ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD		

Work Material	Martensitic & Ferritic Stainless Steels 410, 416, 440						Austenitic Stainless Steel 303, 304, 316						Precipitation Hardening Stainless Steel, Cobalt Chromium Alloy 17-4, 15-5					
DC	HEM			General			HEM			General			HEM			General		
	SFM	325		SFM	300		SFM	275		SFM	250		SFM	250		SFM	225	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	4966	0.0015	37.2	4584	0.0013	29.8	4202	0.0014	29.4	3820	0.0012	22.9	3820	0.0012	22.9	3438	0.0010	17.2
5/16	3973	0.0018	35.8	3667	0.0016	29.3	3362	0.0017	28.6	3056	0.0015	22.9	3056	0.0015	22.9	2750	0.0013	17.9
3/8	3311	0.0021	34.8	3056	0.0019	29.0	2801	0.0020	28.0	2547	0.0018	22.9	2547	0.0018	22.9	2292	0.0015	17.2
1/2	2483	0.0028	34.8	2292	0.0020	22.9	2101	0.0026	27.3	1910	0.0024	22.9	1910	0.0022	21.0	1719	0.0020	17.2
5/8	1986	0.0034	33.8	1834	0.0032	29.3	1681	0.0032	26.9	1528	0.0030	22.9	1528	0.0028	21.4	1375	0.0025	17.2
3/4	1655	0.0040	33.1	1528	0.0038	29.0	1401	0.0038	26.6	1273	0.0036	22.9	1273	0.0035	22.3	1146	0.0030	17.2
1	1242	0.0055	34.1	1146	0.0051	29.2	1051	0.0050	26.3	955	0.0048	22.9	955	0.0045	21.5	860	0.0040	17.2
Depth of Cut	ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD		

Work Material	Cast Iron						Copper, Copper Alloy					
DC	HEM			General			HEM			General		
	SFM	400		SFM	300		SFM	600		SFM	400	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	6112	0.0012	36.7	4584	0.0010	22.9	9168	0.0020	91.7	6112	0.0014	42.8
5/16	4890	0.0018	44.0	3667	0.0013	23.8	7334	0.0022	80.7	4890	0.0015	37.6
3/8	4075	0.0025	50.9	3056	0.0015	22.9	6112	0.0025	76.4	4075	0.0018	35.7
1/2	3056	0.0035	53.5	2292	0.0020	22.9	4584	0.0030	68.8	3056	0.0021	32.1
5/8	2445	0.0042	51.3	1834	0.0025	22.9	3667	0.0040	73.3	2445	0.0028	34.2
3/4	2037	0.0050	50.9	1528	0.0030	22.9	3056	0.0040	61.1	2037	0.0028	28.5
1	1528	0.0070	53.5	1146	0.0040	22.9	2292	0.0050	57.3	1528	0.0035	26.7
Depth of Cut	ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .5xD		

Work Material	Titanium						Heat Resistant Alloy					
DC	HEM			General			HEM			General		
	SFM	250		SFM	225		SFM	200		SFM	175	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	3820	0.0012	22.9	3438	0.0009	15.5	3056	0.0012	18.3	2674	0.0007	9.4
5/16	3056	0.0015	22.9	2750	0.0012	16.5	2445	0.0015	18.3	2139	0.0009	9.6
3/8	2547	0.0018	22.9	2292	0.0014	16.0	2037	0.0018	18.3	1783	0.0010	8.9
1/2	1910	0.0025	23.9	1719	0.0018	15.5	1528	0.0025	19.1	1337	0.0014	9.4
5/8	1528	0.0030	22.9	1375	0.0023	15.8	1222	0.0030	18.3	1070	0.0017	9.1
3/4	1273	0.0035	22.3	1146	0.0028	16.0	1019	0.0035	17.8	891	0.0020	8.9
1	955	0.0050	23.9	860	0.0037	15.9	764	0.0050	19.1	669	0.0027	9.0
Depth of Cut	ae: 1xD ap: .5xD			ae: 1xD ap: .5xD			ae: 1xD ap: .25xD			ae: 1xD ap: .25xD		



D = Tool Diameter
* ae= WOC (Radial WOC)
* ap= DOC (Axial DOC)

MEMSS 4 & 5 Flute FEED/SPEED

Shoulder Milling

Work Material	Carbon Steel (–30HRC)									Alloy Steel, Pre-hardened Steel								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	900		SFM	450		SFM	450		SFM	775		SFM	400		SFM	400	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	13752	0.0056	385.1	6876	0.0022	75.6	6876	0.0019	65.3	11842	0.0052	307.9	6112	0.0017	52.0	6112	0.0018	55.0
5/16	11002	0.0070	385.1	5501	0.0028	77.0	5501	0.0024	66.0	9474	0.0065	307.9	4890	0.0022	53.8	4890	0.0022	53.8
3/8	9168	0.0084	385.1	4584	0.0035	80.2	4584	0.0029	66.5	7895	0.0077	303.9	4075	0.0026	53.0	4075	0.0027	55.0
1/2	6876	0.0112	385.1	3438	0.0045	77.4	3438	0.0039	67.0	5921	0.0103	304.9	3056	0.0035	53.5	3056	0.0036	55.0
5/8	5501	0.0140	385.1	2750	0.0058	79.8	2750	0.0049	67.4	4737	0.0129	305.5	2445	0.0044	53.8	2445	0.0044	53.8
3/4	4584	0.0168	385.1	2292	0.0070	80.2	2292	0.0058	66.5	3947	0.0155	305.9	2037	0.0052	53.0	2037	0.0053	54.0
1	3438	0.0224	385.1	1719	0.0090	77.4	1719	0.0078	67.0	2961	0.0207	306.4	1528	0.0070	53.5	1528	0.0071	54.2
Depth of Cut	ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

Work Material	Hardened Steel 50 - 60 HRC									Martensitic & Ferritic Stainless Steels 410, 416, 440								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	523		SFM	60		SFM	60		SFM	756		SFM	375		SFM	375	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	7991	0.0029	115.9	917	0.0009	4.1	917	0.0009	4.1	11552	0.0052	300.3	5730	0.0017	48.7	5730	0.0018	51.6
5/16	6393	0.0036	115.1	733	0.0010	3.7	733	0.0010	3.7	9241	0.0065	300.3	4584	0.0022	50.4	4584	0.0022	50.4
3/8	5328	0.0043	114.5	611	0.0012	3.7	611	0.0012	3.7	7701	0.0077	296.5	3820	0.0026	49.7	3820	0.0027	51.6
1/2	3996	0.0047	93.9	458	0.0018	4.1	458	0.0018	4.1	5776	0.0103	297.5	2865	0.0035	50.1	2865	0.0036	51.6
5/8	3197	0.0044	70.3	367	0.0021	3.9	367	0.0021	3.9	4621	0.0129	298.0	2292	0.0044	50.4	2292	0.0044	50.4
3/4	2664	0.0041	54.6	306	0.0025	3.8	306	0.0025	3.8	3851	0.0155	298.4	1910	0.0052	49.7	1910	0.0053	50.6
1	1998	0.0043	43.0	229	0.0035	4.0	229	0.0035	4.0	2888	0.0207	298.9	1433	0.0070	50.1	1433	0.0071	50.9
Depth of Cut	ae: .03xD ~ .06xD ap: 2xD/ APMX"			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

MEMSS 4 & 5 Flute FEED/SPEED

Shoulder Milling

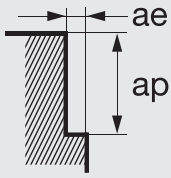
Work Material	Cast Iron									Copper, Copper Alloy								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	900		SFM	400		SFM	400		SFM	935		SFM	628		SFM	628	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	13752	0.0040	275.0	6112	0.0014	42.8	6112	0.0014	42.8	14287	0.0036	257.2	9596	0.0026	124.7	9596	0.0026	124.7
5/16	11002	0.0050	275.0	4890	0.0017	41.6	4890	0.0017	41.6	11429	0.0046	262.9	7677	0.0033	126.7	7677	0.0033	126.7
3/8	9168	0.0060	275.0	4075	0.0020	40.7	4075	0.0021	42.8	9525	0.0055	261.9	6397	0.0036	115.2	6397	0.0036	115.2
1/2	6876	0.0081	278.5	3056	0.0027	41.3	3056	0.0028	42.8	7143	0.0073	260.7	4798	0.0039	93.6	4798	0.0039	93.6
5/8	5501	0.0101	277.8	2445	0.0034	41.6	2445	0.0035	42.8	5715	0.0091	260.0	3838	0.0042	80.6	3838	0.0042	80.6
3/4	4584	0.0121	277.3	2037	0.0041	41.8	2037	0.0042	42.8	4762	0.0109	259.5	3199	0.0045	72.0	3199	0.0045	72.0
1	3438	0.0161	276.8	1528	0.0055	42.0	1528	0.0056	42.8	3572	0.0146	260.7	2399	0.0048	57.6	2399	0.0048	57.6
Depth of Cut	ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

Work Material	Heat Resistant Alloy									Titanium								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	275		SFM	250		SFM	250		SFM	330		SFM	300		SFM	300	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
1/4	4202	0.0030	63.0	3820	0.0015	28.7	3820	0.0012	22.9	5042	0.0036	90.8	4584	0.0013	29.8	4584	0.0013	29.8
5/16	3362	0.0037	62.2	3056	0.0019	29.0	3056	0.0014	21.4	4034	0.0046	92.8	3667	0.0016	29.3	3667	0.0016	29.3
3/8	2801	0.0045	63.0	2547	0.0022	28.0	2547	0.0017	21.6	3362	0.0055	92.4	3056	0.0019	29.0	3056	0.0019	29.0
1/2	2101	0.0059	62.0	1910	0.0030	28.7	1910	0.0023	22.0	2521	0.0073	92.0	2292	0.0025	28.7	2292	0.0026	29.8
5/8	1681	0.0074	62.2	1528	0.0038	29.0	1528	0.0029	22.2	2017	0.0091	91.8	1834	0.0031	28.4	1834	0.0032	29.3
3/4	1401	0.0089	62.3	1273	0.0045	28.7	1273	0.0035	22.3	1681	0.0109	91.6	1528	0.0038	29.0	1528	0.0038	29.0
1	1051	0.0119	62.5	955	0.0060	28.7	955	0.0046	22.0	1261	0.0146	92.0	1146	0.0050	28.7	1146	0.0051	29.2
Depth of Cut	ae: .05xD ~ .07xD ap: 2xD/ APMX			ae: .25xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .05xD ~ .07xD ap: 3xD/ APMX			ae: .25xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

D = Tool Diameter

*HEM = High Efficiency Milling
(chip thinning calculations has already been applied to HEM parameters shown).

*If HEM load is too high,
- reduce Chip load in half to reduce load on machine, keep RPM the same.



* ae= WOC (Radial WOC)
* ap= DOC (Axial DOC)

MEMSS 6 & 7 Flute FEED/SPEED

Shoulder Milling

Work Material	Carbon Steel (—30HRC)									Alloy Steel, Pre-hardened Steel								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	900		SFM	400		SFM	400		SFM	775		SFM	375		SFM	375	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
3/8	9168	0.0086	551.9	4075	0.0022	62.7	4075	0.0021	59.9	7895	0.0058	320.5	3820	0.0019	50.8	3820	0.0019	50.8
1/2	6876	0.0089	428.4	3056	0.0028	59.9	3056	0.0028	59.9	5921	0.0056	232.1	2865	0.0025	50.1	2865	0.0025	50.1
5/8	5501	0.0128	492.9	2445	0.0034	58.2	2445	0.0035	59.9	4737	0.0109	361.4	2292	0.0031	49.7	2292	0.0032	51.3
3/4	4584	0.0110	353.0	2037	0.0041	58.5	2037	0.0042	59.9	3947	0.0104	287.4	1910	0.0037	49.5	1910	0.0038	50.8
1	3438	0.0131	315.3	1528	0.0055	58.8	1528	0.0056	59.9	2961	0.0112	232.1	1433	0.0050	50.1	1433	0.0051	51.1
Depth of Cut	ae: .07xD ~ .1xD ap: 2xD/ APMX"			ae: .3xD ap: 1.25xD"			ae: .015xD ap: 2xD/ APMX			ae: .07xD ~ .1xD ap: 2xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

MEMSS 6 & 7 Flute FEED/SPEED

Shoulder Milling

Work Material	Hardened Steel 50 - 60 HRC									Martensitic & Ferritic Stainless Steels 410, 416, 440								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	523		SFM	85		SFM	85		SFM	756		SFM	375		SFM	375	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
3/8	5328	0.0031	115.6	866	0.0016	9.7	866	0.0014	8.5	7701	0.0064	345.0	3820	0.0026	69.5	3820	0.0019	50.8
1/2	3996	0.0034	95.1	649	0.0021	9.5	649	0.0016	7.3	5776	0.0086	347.7	2865	0.0033	66.2	2865	0.0025	50.1
5/8	3197	0.0032	71.6	520	0.0027	9.8	520	0.0018	6.5	4621	0.0107	346.1	2292	0.0040	64.2	2292	0.0032	51.3
3/4	2664	0.0030	55.9	433	0.0032	9.7	433	0.0020	6.1	3851	0.0129	347.7	1910	0.0048	64.2	1910	0.0038	50.8
1	1998	0.0031	43.4	325	0.0043	9.8	325	0.0024	5.5	2888	0.0172	347.7	1433	0.0061	61.2	1433	0.0051	51.1
Depth of Cut	ae: .02xD ~ .06xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

Work Material	Austenitic Stainless Steel 303, 304, 316									Precipitation Hardening Stainless Steel, Cobalt Chromium Alloy 17-4, 15-5								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	500		SFM	350		SFM	350		SFM	360		SFM	325		SFM	325	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
3/8	5093	0.0063	224.6	3565	0.0018	44.9	3565	0.0018	44.9	3667	0.0050	128.4	3311	0.0015	34.8	3311	0.0015	34.8
1/2	3820	0.0083	221.9	2674	0.0023	43.1	2674	0.0024	44.9	2750	0.0067	129.0	2483	0.0019	33.0	2483	0.0020	34.8
5/8	3056	0.0104	222.5	2139	0.0029	43.4	2139	0.0030	44.9	2200	0.0083	127.8	1986	0.0024	33.4	1986	0.0025	34.8
3/4	2547	0.0125	222.8	1783	0.0035	43.7	1783	0.0036	44.9	1834	0.0100	128.4	1655	0.0029	33.6	1655	0.0030	34.8
1	1910	0.0167	223.3	1337	0.0047	44.0	1337	0.0048	44.9	1375	0.0133	128.0	1242	0.0039	33.9	1242	0.0040	34.8
Depth of Cut	ae: .02xD ~ .06xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX			ae: .02xD ~ .06xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

Work Material	Cast Iron									Copper, Copper Alloy								
DC	*HEM			Roughing			Finishing			*HEM			Roughing			Finishing		
	SFM	1164		SFM	350		SFM	350		SFM	935		SFM	628		SFM	628	
	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM	RPM	IPT	IPM
3/8	11857	0.0043	356.9	3565	0.0019	47.4	3565	0.0015	37.4	9525	0.0050	333.4	6397	0.0024	107.5	6397	0.0024	107.5
1/2	8893	0.0057	354.8	2674	0.0033	61.8	2674	0.0020	37.4	7143	0.0057	285.0	4798	0.0027	90.7	4798	0.0027	90.7
5/8	7114	0.0071	353.6	2139	0.0040	59.9	2139	0.0025	37.4	5715	0.0095	380.0	3838	0.0028	75.2	3838	0.0028	75.2
3/4	5929	0.0085	352.8	1783	0.0049	61.1	1783	0.0030	37.4	4762	0.0100	333.4	3199	0.0028	62.7	3199	0.0028	62.7
1	4446	0.0114	354.8	1337	0.0062	58.0	1337	0.0040	37.4	3572	0.0107	267.5	2399	0.0030	50.4	2399	0.0030	50.4
Depth of Cut	ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .01xD ap: 2xD/ APMX			ae: .05xD ~ .1xD ap: 3xD/ APMX			ae: .3xD ap: 1.25xD			ae: .015xD ap: 2xD/ APMX		

Cutting Performance

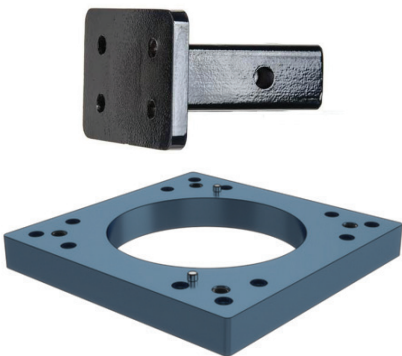
APPLICATION EXAMPLE

MEMSS5-0500-1250-R030
Mounting Plate
4140
Alloy Steel (P)

Roughing the ends of a 2.00" inch thick 4140 plate. Tool is removing an area of material roughly 4 inches wide x 2 inches thick x 1.250 long.

Cutting Conditions

Hardness 25 RC
Dia 0.5000
SFM 650
RPM 5000
IPM 125
DOC 1
WOC 0.06
MEMSS 20 PCS
Competitor 7 PCS



APPLICATION EXAMPLE

MEMSS6-0500-1250-R030
Armor Plate
AR500
Alloy Steel (P)

Customer was looking for a faster process to rough and finish the OD of his parts. The parts are 2.0" thick and the outside walls are flame cut, and need cleaned up, and finished. The MEM tool performed much better. It was larger in diameter and had a shorter gage length. This helped reduce the vibration more and was able to complete the part very quickly.

Cutting Conditions

Hardness 45 RC
Dia 0.5000
SFM 540
RPM 2750
IPM 132
DOC 1
WOC 0.025
MEMSS 3 PCS
Competitor 1 PCS



APPLICATION EXAMPLE

MEMSS7-0500-1250-R030
Bracket
17-4
Stainless Steel (M)

MEMSS7 endmill cuts much smoother than competitors and was able to run fast and better tool life. 17-4 is not an easy material to cut and it worked great. Used to profile rough finish and to rough out a slot that was 1.1" deep and 1" long.

Cutting Conditions

Hardness 38 RA
Dia 0.5000
SFM 300
RPM 2300
IPM 32
DOC 1.1
WOC 0.03
MEMSS 255 PCS
Competitor 110 PCS



APPLICATION EXAMPLE

MEMSS5-0312-0750
AR Trigger
8620 Cast
Alloy Steel (P)

Great improvement to surface finish and extra tool life.

Cutting Conditions

Hardness 28RC
Dia .3125
SFM 825
RPM 10,100
IPM 190
DOC .290
WOC .025
MEMSS 1440 PCS
Competitor 960 PCS



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For Your Safety

- Don't handle inserts and chips without gloves.
- Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage.
- Please use safety covers and wear safety glasses.
- When using compounded cutting oils, please take fire precautions.
- When attaching inserts or spare parts, please use only the correct wrench or driver.
- When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.



www.mmc-carbide.com/us

Tools specifications subject to change without notice.

MEMSS-US-2024.10