

CARBIDE, 2 FLUTE LONG NECK BALL NOSE
SEM846 SERIES

MATERIAL		P														
		NON-ALLOYED STEELS ALLOY STEELS CAST IRON					ALLOY STEELS HEAT RESISTANT STEELS					HARDENED STEELS				
HARDNESS		~ HRC35					HRC35 ~ HRC45					HRC45 ~ HRC55				
STRENGTH		~ 1100N/mm²					1110 ~ 1500N/mm²					1500 ~ 2000N/mm²				
DIA.	LBS	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)
0.1	0.2	50000	240	16	0.002	0.009	50000	215	16	0.002	0.007	50000	190	16	0.002	0.005
0.1	0.3	50000	240	16	0.002	0.009	50000	215	16	0.002	0.007	50000	190	16	0.002	0.005
0.1	0.5	50000	240	16	0.002	0.006	50000	215	16	0.002	0.005	50000	190	16	0.002	0.004
0.1	1	45000	195	14	0.002	0.002	45000	175	14	0.002	0.002	45000	155	14	0.002	0.001
0.2	0.5	50000	335	31	0.003	0.018	50000	310	31	0.003	0.014	43200	260	27	0.003	0.010
0.2	1	50000	335	31	0.003	0.013	50000	310	31	0.003	0.010	43200	260	27	0.003	0.007
0.2	1.5	45000	270	28	0.003	0.007	45000	250	28	0.003	0.006	38880	210	24	0.003	0.004
0.2	2	45000	270	28	0.003	0.005	45000	250	28	0.003	0.004	38880	210	24	0.003	0.003
0.2	3	45000	270	28	0.003	0.003	45000	250	28	0.003	0.003	38880	210	24	0.003	0.002
0.3	1	50000	475	47	0.005	0.019	50000	430	47	0.004	0.015	42800	365	40	0.004	0.011
0.3	1.5	50000	475	47	0.005	0.019	50000	430	47	0.004	0.015	42800	365	40	0.004	0.011
0.3	2	45000	385	42	0.004	0.011	45000	350	42	0.004	0.008	38520	295	36	0.004	0.006
0.3	2.5	45000	385	42	0.004	0.007	45000	350	42	0.004	0.005	38520	295	36	0.004	0.004
0.3	3	45000	385	42	0.004	0.007	45000	350	42	0.004	0.005	38520	295	36	0.004	0.004
0.3	4	40000	305	38	0.004	0.004	40000	275	38	0.003	0.003	34240	235	32	0.003	0.002
0.3	5	30000	200	28	0.003	0.003	30000	180	28	0.003	0.002	25680	155	24	0.003	0.002
0.4	1	41000	490	52	0.006	0.036	38800	425	49	0.005	0.028	34200	340	43	0.005	0.020
0.4	1.5	41000	490	52	0.006	0.025	38800	425	49	0.005	0.020	34200	340	43	0.005	0.014
0.4	2	41000	490	52	0.006	0.025	38800	425	49	0.005	0.020	34200	340	43	0.005	0.014
0.4	2.5	36900	395	46	0.005	0.014	34920	345	44	0.005	0.011	30780	275	39	0.004	0.008
0.4	3	36900	395	46	0.005	0.014	34920	345	44	0.005	0.011	30780	275	39	0.004	0.008
0.4	4	36900	395	46	0.005	0.009	34920	345	44	0.005	0.007	30780	275	39	0.004	0.005
0.4	5	32800	315	41	0.005	0.009	31040	270	39	0.004	0.007	27360	220	34	0.004	0.005
0.4	6	32800	315	41	0.005	0.005	31040	270	39	0.004	0.004	27360	220	34	0.004	0.003
0.4	8	24600	205	31	0.004	0.004	23280	180	29	0.004	0.003	20520	145	26	0.004	0.002
0.4	10	12300	90	15	0.004	0.004	11640	75	15	0.003	0.003	10260	60	13	0.003	0.002
0.5	1	34200	685	54	0.010	0.045	32300	580	51	0.009	0.035	28500	515	45	0.009	0.025
0.5	1.5	34200	685	54	0.010	0.045	32300	580	51	0.009	0.035	28500	515	45	0.009	0.025
0.5	2	34200	685	54	0.010	0.032	32300	580	51	0.009	0.025	28500	515	45	0.009	0.018
0.5	2.5	34200	685	54	0.010	0.032	32300	580	51	0.009	0.025	28500	515	45	0.009	0.018
0.5	3	30780	555	48	0.009	0.018	29070	470	46	0.008	0.014	25650	415	40	0.008	0.010
0.5	4	30780	555	48	0.009	0.018	29070	470	46	0.008	0.014	25650	415	40	0.008	0.010
0.5	5	30780	555	48	0.009	0.011	29070	470	46	0.008	0.009	25650	415	40	0.008	0.006
0.5	6	27360	440	43	0.008	0.011	25840	370	41	0.007	0.009	22800	330	36	0.007	0.006
0.5	8	20520	290	32	0.007	0.007	19380	245	30	0.006	0.005	17100	215	27	0.006	0.004
0.5	10	20520	290	32	0.007	0.005	19380	245	30	0.006	0.004	17100	215	27	0.006	0.003
0.5	12	10260	125	16	0.006	0.005	9690	105	15	0.005	0.004	8550	95	13	0.006	0.003
0.5	14	10260	125	16	0.006	0.005	9690	105	15	0.005	0.004	8550	95	13	0.006	0.003
0.5	16	3420	35	5	0.005	0.005	3230	30	5	0.005	0.004	2850	25	4	0.004	0.003
0.6	1	34200	1025	64	0.015	0.038	32300	840	61	0.013	0.029	28500	685	54	0.012	0.021
0.6	2	34200	1025	64	0.015	0.038	32300	840	61	0.013	0.029	28500	685	54	0.012	0.021
0.6	3	34200	1025	64	0.015	0.038	32300	840	61	0.013	0.029	28500	685	54	0.012	0.021
0.6	4	30780	830	58	0.013	0.022	29070	680	55	0.012	0.017	25650	555	48	0.011	0.012
0.6	5	30780	830	58	0.013	0.014	29070	680	55	0.012	0.011	25650	555	48	0.011	0.008

DIA. = Diameter
LBS = Length Below Shank

RPM = rev./min.
FEED = mm/min.

Vc = m/min.
fz = mm/tooth

**CARBIDE, 2 FLUTE LONG NECK BALL NOSE****SEM846** SERIES

MATERIAL		P														
		NON-ALLOYED STEELS ALLOY STEELS CAST IRON					ALLOY STEELS HEAT RESISTANT STEELS					HARDENED STEELS				
HARDNESS		~ HRc35					HRc35 ~ HRc45					HRc45 ~ HRc55				
STRENGTH		~ 1100N/mm²					1110 ~ 1500N/mm²					1500 ~ 2000N/mm²				
DIA.	LBS	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)
0.6	6	30780	830	58	0.013	0.014	29070	680	55	0.012	0.011	25650	555	48	0.011	0.008
0.6	8	27360	655	52	0.012	0.008	25840	540	49	0.010	0.006	22800	440	43	0.010	0.005
0.6	10	20520	430	39	0.010	0.005	19380	355	37	0.009	0.004	17100	290	32	0.008	0.003
0.6	12	20520	430	39	0.010	0.005	19380	355	37	0.009	0.004	17100	290	32	0.008	0.003
0.6	14	10260	185	19	0.009	0.005	9690	150	18	0.008	0.004	8550	125	16	0.007	0.003
0.6	16	10260	185	19	0.009	0.005	9690	150	18	0.008	0.004	8550	125	16	0.007	0.003
0.7	2	34200	1130	75	0.017	0.063	32300	930	71	0.014	0.049	28500	765	63	0.013	0.035
0.7	4	30780	915	68	0.015	0.025	29070	755	64	0.013	0.020	25650	620	56	0.012	0.014
0.7	6	30780	915	68	0.015	0.016	29070	755	64	0.013	0.012	25650	620	56	0.012	0.009
0.7	8	27360	725	60	0.013	0.016	25840	595	57	0.012	0.012	22800	490	50	0.011	0.009
0.7	10	27360	725	60	0.013	0.009	25840	595	57	0.012	0.007	22800	490	50	0.011	0.005
0.7	12	20520	475	45	0.012	0.006	19380	390	43	0.010	0.005	17100	320	38	0.009	0.004
0.8	2	34200	1230	86	0.018	0.072	32300	1035	81	0.016	0.056	28500	855	72	0.015	0.040
0.8	3	34200	1230	86	0.018	0.050	32300	1035	81	0.016	0.039	28500	855	72	0.015	0.028
0.8	4	34200	1230	86	0.018	0.050	32300	1035	81	0.016	0.039	28500	855	72	0.015	0.028
0.8	5	30780	995	77	0.016	0.029	29070	840	73	0.014	0.022	25650	695	64	0.014	0.016
0.8	6	30780	995	77	0.016	0.029	29070	840	73	0.014	0.022	25650	695	64	0.014	0.016
0.8	8	30780	995	77	0.016	0.018	29070	840	73	0.014	0.014	25650	695	64	0.014	0.010
0.8	10	27360	785	69	0.014	0.018	25840	660	65	0.013	0.014	22800	545	57	0.012	0.010
0.8	12	27360	785	69	0.014	0.011	25840	660	65	0.013	0.008	22800	545	57	0.012	0.006
0.8	14	20520	515	52	0.013	0.007	19380	435	49	0.011	0.006	17100	360	43	0.011	0.004
0.8	16	20520	515	52	0.013	0.007	19380	435	49	0.011	0.006	17100	360	43	0.011	0.004
0.8	20	10260	220	26	0.011	0.007	9690	185	24	0.010	0.006	8550	155	21	0.009	0.004
0.9	4	29250	1120	83	0.019	0.032	27630	935	78	0.017	0.025	24390	775	69	0.016	0.018
0.9	6	29250	1120	83	0.019	0.032	27630	935	78	0.017	0.025	24390	775	69	0.016	0.018
0.9	8	29250	1120	83	0.019	0.020	27630	935	78	0.017	0.016	24390	775	69	0.016	0.011
0.9	10	26000	885	74	0.017	0.020	24560	740	69	0.015	0.016	21680	610	61	0.014	0.011
1.0	2	30800	1540	97	0.025	0.090	29100	1310	91	0.023	0.070	25700	1075	81	0.021	0.050
1.0	3	30800	1540	97	0.025	0.090	29100	1310	91	0.023	0.070	25700	1075	81	0.021	0.050
1.0	4	30800	1540	97	0.025	0.063	29100	1310	91	0.023	0.049	25700	1075	81	0.021	0.035
1.0	5	30800	1540	97	0.025	0.063	29100	1310	91	0.023	0.049	25700	1075	81	0.021	0.035
1.0	6	27720	1245	87	0.022	0.036	26190	1060	82	0.020	0.028	23130	870	73	0.019	0.020
1.0	7	27720	1245	87	0.022	0.036	26190	1060	82	0.020	0.028	23130	870	73	0.019	0.020
1.0	8	27720	1245	87	0.022	0.036	26190	1060	82	0.020	0.028	23130	870	73	0.019	0.020
1.0	10	27720	1245	87	0.022	0.023	26190	1060	82	0.020	0.018	23130	870	73	0.019	0.013
1.0	12	24640	985	77	0.020	0.023	23280	840	73	0.018	0.018	20560	690	65	0.017	0.013
1.0	14	24640	985	77	0.020	0.014	23280	840	73	0.018	0.011	20560	690	65	0.017	0.008
1.0	16	18480	645	58	0.017	0.014	17460	550	55	0.016	0.011	15420	450	48	0.015	0.008
1.0	18	18480	645	58	0.017	0.009	17460	550	55	0.016	0.007	15420	450	48	0.015	0.005
1.0	20	18480	645	58	0.017	0.009	17460	550	55	0.016	0.007	15420	450	48	0.015	0.005
1.0	22	9240	275	29	0.015	0.009	8730	235	27	0.013	0.007	7710	195	24	0.013	0.005
1.0	26	9240	275	29	0.015	0.009	8730	235	27	0.013	0.007	7710	195	24	0.013	0.005
1.0	30	9240	275	29	0.015	0.009	8730	235	27	0.013	0.007	7710	195	24	0.013	0.005
1.0	40	3080	75	10	0.012	0.009	2910	65	9	0.011	0.007	2570	55	8	0.011	0.005

DIA. = Diameter
LBS = Length Below ShankRPM = rev./min.
FEED = mm/min.Vc = m/min.
fz = mm/tooth

CARBIDE, 2 FLUTE LONG NECK BALL NOSE
CARBIDE
HSS

 CBN
END MILLS

 i-Xmill
END MILLS

 i-SMART
MODULAR
TYPE END MILLS

 X5070
END MILLS

**4G MILL
END MILLS**

 X-POWER
END MILLS

 JET-POWER
END MILLS

 TitaNox
-POWER
END MILLS

 V7 PLUS A
END MILLS

 V7 MILL INOX
END MILLS

 ALU-POWER
HPC
END MILLS

 ALU-POWER
END MILLS

 D-POWER
GRAPHITE
END MILLS

 D-POWER
CFRP
END MILLS

 ROUTERS
CFRP

 STANDARD
CARBIDE
END MILLS

 ONLY ONE
COATED PM60
END MILLS

 SINE -POWER
END MILLS

 TANK-POWER
END MILLS

 STANDARD
COBALT & HSS
END MILLS

 TECHNICAL
DATA

SEM846 SERIES

MATERIAL		P														
		NON-ALLOYED STEELS ALLOY STEELS CAST IRON					ALLOY STEELS HEAT RESISTANT STEELS					HARDENED STEELS				
HARDNESS		~ HRC35					HRC35 ~ HRC45					HRC45 ~ HRC55				
STRENGTH		~ 1100N/mm²					1110 ~ 1500N/mm²					1500 ~ 2000N/mm²				
DIA.	LBS	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)
1.0	50	3080	75	10	0.012	0.006	2910	65	9	0.011	0.005	2570	55	8	0.011	0.003
1.2	4	26300	1375	99	0.026	0.076	24800	1150	93	0.023	0.059	21900	950	83	0.022	0.042
1.2	6	26300	1375	99	0.026	0.076	24800	1150	93	0.023	0.059	21900	950	83	0.022	0.042
1.2	8	23670	1115	89	0.024	0.043	22320	930	84	0.021	0.034	19710	770	74	0.020	0.024
1.2	10	23670	1115	89	0.024	0.027	22320	930	84	0.021	0.021	19710	770	74	0.020	0.015
1.2	12	23670	1115	89	0.024	0.027	22320	930	84	0.021	0.021	19710	770	74	0.020	0.015
1.2	16	21040	880	79	0.021	0.016	19840	735	75	0.019	0.013	17520	610	66	0.017	0.009
1.2	20	15780	580	59	0.018	0.011	14880	485	56	0.016	0.008	13140	400	50	0.015	0.006
1.2	26	7890	245	30	0.016	0.011	7440	205	28	0.014	0.008	6570	170	25	0.013	0.006
1.4	6	21500	1295	95	0.030	0.088	20300	1100	89	0.027	0.069	18000	935	79	0.026	0.049
1.4	8	19350	1050	85	0.027	0.050	18270	890	80	0.024	0.039	16200	755	71	0.023	0.028
1.4	10	19350	1050	85	0.027	0.050	18270	890	80	0.024	0.039	16200	755	71	0.023	0.028
1.4	16	17200	830	76	0.024	0.032	16240	705	71	0.022	0.025	14400	600	63	0.021	0.018
1.5	4	23900	1580	113	0.033	0.135	22600	1355	106	0.030	0.105	20000	1075	94	0.027	0.075
1.5	5	23900	1580	113	0.033	0.095	22600	1355	106	0.030	0.074	20000	1075	94	0.027	0.053
1.5	6	23900	1580	113	0.033	0.095	22600	1355	106	0.030	0.074	20000	1075	94	0.027	0.053
1.5	7	23900	1580	113	0.033	0.095	22600	1355	106	0.030	0.074	20000	1075	94	0.027	0.053
1.5	8	21510	1280	101	0.030	0.054	20340	1100	96	0.027	0.042	18000	870	85	0.024	0.030
1.5	10	21510	1280	101	0.030	0.054	20340	1100	96	0.027	0.042	18000	870	85	0.024	0.030
1.5	12	21510	1280	101	0.030	0.054	20340	1100	96	0.027	0.042	18000	870	85	0.024	0.030
1.5	14	21510	1280	101	0.030	0.034	20340	1100	96	0.027	0.026	18000	870	85	0.024	0.019
1.5	16	19120	1010	90	0.026	0.034	18080	865	85	0.024	0.026	16000	690	75	0.022	0.019
1.5	18	19120	1010	90	0.026	0.034	18080	865	85	0.024	0.026	16000	690	75	0.022	0.019
1.5	20	19120	1010	90	0.026	0.02	18080	865	85	0.024	0.016	16000	690	75	0.022	0.011
1.5	22	19120	1010	90	0.026	0.02	18080	865	85	0.024	0.016	16000	690	75	0.022	0.011
1.5	26	14340	665	68	0.023	0.014	13560	570	64	0.021	0.011	12000	450	57	0.019	0.008
1.5	30	14340	665	68	0.023	0.014	13560	570	64	0.021	0.011	12000	450	57	0.019	0.008
1.5	35	7170	285	34	0.020	0.010	6780	245	32	0.018	0.008	6000	195	28	0.016	0.005
1.5	40	7170	285	34	0.020	0.010	6780	245	32	0.018	0.008	6000	195	28	0.016	0.005
1.6	4	22200	1555	112	0.035	0.101	21000	1300	106	0.031	0.078	18500	1110	93	0.030	0.056
1.6	6	22200	1555	112	0.035	0.101	21000	1300	106	0.031	0.078	18500	1110	93	0.030	0.056
1.6	8	22200	1555	112	0.035	0.101	21000	1300	106	0.031	0.078	18500	1110	93	0.030	0.056
1.6	10	19980	1260	100	0.032	0.058	18900	1055	95	0.028	0.045	16650	900	84	0.027	0.032
1.6	12	19980	1260	100	0.032	0.058	18900	1055	95	0.028	0.045	16650	900	84	0.027	0.032
1.6	16	19980	1260	100	0.032	0.036	18900	1055	95	0.028	0.028	16650	900	84	0.027	0.020
1.6	20	17760	995	89	0.028	0.036	16800	830	84	0.025	0.028	14800	710	74	0.024	0.020
1.8	4	22200	1780	126	0.040	0.113	21000	1470	119	0.035	0.088	18500	1225	105	0.033	0.063
1.8	6	22200	1780	126	0.040	0.113	21000	1470	119	0.035	0.088	18500	1225	105	0.033	0.063
1.8	8	22200	1780	126	0.040	0.113	21000	1470	119	0.035	0.088	18500	1225	105	0.033	0.063
1.8	10	19980	1440	113	0.036	0.065	18900	1190	107	0.031	0.050	16650	990	94	0.030	0.036
1.8	12	19980	1440	113	0.036	0.065	18900	1190	107	0.031	0.050	16650	990	94	0.030	0.036
1.8	16	19980	1440	113	0.036	0.041	18900	1190	107	0.031	0.032	16650	990	94	0.030	0.023
1.8	20	17760	1140	100	0.032	0.041	16800	940	95	0.028	0.032	14800	785	84	0.027	0.023
2.0	6	18000	1795	113	0.050	0.180	17000	1525	107	0.045	0.140	15000	1285	94	0.043	0.100

 DIA. = Diameter
LBS = Length Below Shank
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/tooth

CARBIDE

HSS


**4G MILL
END MILLS**
RECOMMENDED CUTTING CONDITIONS
CARBIDE, 2 FLUTE LONG NECK BALL NOSE
SEM846 SERIES

MATERIAL	P															
	NON-ALLOYED STEELS ALLOY STEELS CAST IRON						ALLOY STEELS HEAT RESISTANT STEELS						HARDENED STEELS			
	~ HRC35						HRC35 ~ HRC45						HRC45 ~ HRC55			
	~ 1100N/mm ²						1110 ~ 1500N/mm ²						1500 ~ 2000N/mm ²			
HARDNESS																
STRENGTH																
DIA.	LBS	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)
2.0	8	18000	1795	113	0.050	0.126	17000	1525	107	0.045	0.098	15000	1285	94	0.043	0.070
2.0	10	18000	1795	113	0.050	0.126	17000	1525	107	0.045	0.098	15000	1285	94	0.043	0.070
2.0	12	16200	1455	102	0.045	0.072	15300	1235	96	0.040	0.056	13500	1040	85	0.039	0.040
2.0	14	16200	1455	102	0.045	0.072	15300	1235	96	0.040	0.056	13500	1040	85	0.039	0.040
2.0	16	16200	1455	102	0.045	0.072	15300	1235	96	0.040	0.056	13500	1040	85	0.039	0.040
2.0	18	16200	1455	102	0.045	0.045	15300	1235	96	0.040	0.035	13500	1040	85	0.039	0.025
2.0	20	16200	1455	102	0.045	0.045	15300	1235	96	0.040	0.035	13500	1040	85	0.039	0.025
2.0	22	14400	1150	90	0.040	0.045	13600	975	85	0.036	0.035	12000	820	75	0.034	0.025
2.0	26	14400	1150	90	0.040	0.045	13600	975	85	0.036	0.035	12000	820	75	0.034	0.025
2.0	30	14400	1150	90	0.040	0.027	13600	975	85	0.036	0.021	12000	820	75	0.034	0.015
2.0	35	10800	755	68	0.035	0.018	10200	640	64	0.031	0.014	9000	540	57	0.030	0.010
2.0	40	10800	755	68	0.035	0.018	10200	640	64	0.031	0.014	9000	540	57	0.030	0.010
2.0	45	5400	325	34	0.030	0.018	5100	275	32	0.027	0.014	4500	230	28	0.026	0.010
2.0	50	5400	325	34	0.030	0.018	5100	275	32	0.027	0.014	4500	230	28	0.026	0.010
2.0	60	5400	325	34	0.030	0.018	5100	275	32	0.027	0.014	4500	230	28	0.026	0.010
2.5	8	15800	1925	124	0.061	0.158	14900	1605	117	0.054	0.123	13200	1305	104	0.049	0.088
2.5	10	15800	1925	124	0.061	0.158	14900	1605	117	0.054	0.123	13200	1305	104	0.049	0.088
2.5	12	15800	1925	124	0.061	0.158	14900	1605	117	0.054	0.123	13200	1305	104	0.049	0.088
2.5	16	14220	1560	112	0.055	0.090	13410	1300	105	0.048	0.070	11880	1055	93	0.044	0.050
2.5	20	14220	1560	112	0.055	0.090	13410	1300	105	0.048	0.070	11880	1055	93	0.044	0.050
2.5	22	14220	1560	112	0.055	0.056	13410	1300	105	0.048	0.044	11880	1055	93	0.044	0.031
2.5	26	12640	1230	99	0.049	0.056	11920	1025	94	0.043	0.044	10560	835	83	0.040	0.031
2.5	30	12640	1230	99	0.049	0.056	11920	1025	94	0.043	0.044	10560	835	83	0.040	0.031
2.5	35	12640	1230	99	0.049	0.034	11920	1025	94	0.043	0.026	10560	835	83	0.040	0.019
2.5	40	9480	810	74	0.043	0.034	8940	675	70	0.038	0.026	7920	550	62	0.035	0.019
2.5	45	9480	810	74	0.043	0.023	8940	675	70	0.038	0.018	7920	550	62	0.035	0.013
2.5	50	9480	810	74	0.043	0.023	8940	675	70	0.038	0.018	7920	550	62	0.035	0.013
3.0	6	13700	2050	129	0.075	0.270	12900	1730	122	0.067	0.210	11400	1435	107	0.063	0.150
3.0	8	13700	2050	129	0.075	0.270	12900	1730	122	0.067	0.210	11400	1435	107	0.063	0.150
3.0	10	13700	2050	129	0.075	0.189	12900	1730	122	0.067	0.147	11400	1435	107	0.063	0.105
3.0	12	13700	2050	129	0.075	0.189	12900	1730	122	0.067	0.147	11400	1435	107	0.063	0.105
3.0	14	13700	2050	129	0.075	0.189	12900	1730	122	0.067	0.147	11400	1435	107	0.063	0.105
3.0	16	12330	1660	116	0.067	0.108	11610	1400	109	0.060	0.084	10260	1160	97	0.057	0.060
3.0	18	12330	1660	116	0.067	0.108	11610	1400	109	0.060	0.084	10260	1160	97	0.057	0.060
3.0	20	12330	1660	116	0.067	0.108	11610	1400	109	0.060	0.084	10260	1160	97	0.057	0.060
3.0	22	12330	1660	116	0.067	0.108	11610	1400	109	0.060	0.084	10260	1160	97	0.057	0.060
3.0	26	12330	1660	116	0.067	0.068	11610	1400	109	0.060	0.053	10260	1160	97	0.057	0.038
3.0	30	12330	1660	116	0.067	0.068	11610	1400	109	0.060	0.053	10260	1160	97	0.057	0.038
3.0	35	10960	1310	103	0.060	0.068	10320	1105	97	0.054	0.053	9120	920	86	0.050	0.038
3.0	40	10960	1310	103	0.060	0.041	10320	1105	97	0.054	0.032	9120	920	86	0.050	0.023
3.0	45	10960	1310	103	0.060	0.041	10320	1105	97	0.054	0.032	9120	920	86	0.050	0.023
3.0	50	8220	860	77	0.052	0.027	7740	725	73	0.047	0.021	6840	605	64	0.044	0.015
3.0	60	8220	860	77	0.052	0.027	7740	725	73	0.047	0.021	6840	605	64	0.044	0.015
4.0	8	9800	1965	123	0.100	0.360	9300	1670	117	0.090	0.280	8200	1395	103	0.085	0.200

 DIA. = Diameter
 LBS = Length Below Shank

 RPM = rev./min.
 FEED = mm/min.

 Vc = m/min.
 fz = mm/tooth

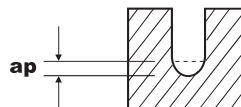
 TECHNICAL
DATA

CARBIDE, 2 FLUTE LONG NECK BALL NOSE

SEM846 SERIES

MATERIAL		P														
		NON-ALLOYED STEELS ALLOY STEELS CAST IRON					ALLOY STEELS HEAT RESISTANT STEELS					HARDENED STEELS				
HARDNESS		~ HRC35					HRC35 ~ HRC45					HRC45 ~ HRC55				
STRENGTH		~ 1100N/mm²					1110 ~ 1500N/mm²					1500 ~ 2000N/mm²				
DIA.	LBS	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)	RPM	FEED	Vc	fz	Ap(mm)
4.0	10	9800	1965	123	0.100	0.360	9300	1670	117	0.090	0.280	8200	1395	103	0.085	0.200
4.0	12	9800	1965	123	0.100	0.360	9300	1670	117	0.090	0.280	8200	1395	103	0.085	0.200
4.0	14	9800	1965	123	0.100	0.252	9300	1670	117	0.090	0.196	8200	1395	103	0.085	0.140
4.0	16	9800	1965	123	0.100	0.252	9300	1670	117	0.090	0.196	8200	1395	103	0.085	0.140
4.0	18	9800	1965	123	0.100	0.252	9300	1670	117	0.090	0.196	8200	1395	103	0.085	0.140
4.0	20	9800	1965	123	0.100	0.252	9300	1670	117	0.090	0.196	8200	1395	103	0.085	0.140
4.0	22	8820	1590	111	0.090	0.144	8370	1355	105	0.081	0.112	7380	1130	93	0.077	0.080
4.0	26	8820	1590	111	0.090	0.144	8370	1355	105	0.081	0.112	7380	1130	93	0.077	0.080
4.0	30	8820	1590	111	0.090	0.144	8370	1355	105	0.081	0.112	7380	1130	93	0.077	0.080
4.0	35	8820	1590	111	0.090	0.090	8370	1355	105	0.081	0.070	7380	1130	93	0.077	0.050
4.0	40	8820	1590	111	0.090	0.090	8370	1355	105	0.081	0.070	7380	1130	93	0.077	0.050
4.0	45	7840	1260	99	0.080	0.090	7440	1070	93	0.072	0.070	6560	895	82	0.068	0.050
4.0	50	7840	1260	99	0.080	0.090	7440	1070	93	0.072	0.070	6560	895	82	0.068	0.050
4.0	60	7840	1260	99	0.080	0.054	7440	1070	93	0.072	0.042	6560	895	82	0.068	0.030
5.0	15	7700	1845	121	0.120	0.315	7300	1455	115	0.100	0.245	6400	1285	101	0.100	0.175
5.0	20	7700	1845	121	0.120	0.315	7300	1455	115	0.100	0.245	6400	1285	101	0.100	0.175
5.0	26	6930	1495	109	0.108	0.180	6570	1180	103	0.090	0.140	5760	1040	90	0.090	0.100
5.0	30	6930	1495	109	0.108	0.180	6570	1180	103	0.090	0.140	5760	1040	90	0.090	0.100
5.0	35	6930	1495	109	0.108	0.180	6570	1180	103	0.090	0.140	5760	1040	90	0.090	0.100
5.0	40	6930	1495	109	0.108	0.180	6570	1180	103	0.090	0.140	5760	1040	90	0.090	0.100
5.0	50	6930	1495	109	0.108	0.113	6570	1180	103	0.090	0.088	5760	1040	90	0.090	0.063
5.0	60	6160	1180	97	0.096	0.113	5840	930	92	0.080	0.088	5120	820	80	0.080	0.063
6.0	20	6500	1900	123	0.146	0.378	6200	1600	117	0.129	0.294	5500	1330	104	0.121	0.210
6.0	30	6500	1900	123	0.146	0.378	6200	1600	117	0.129	0.294	5500	1330	104	0.121	0.210
8.0	25	4850	1800	122	0.186	0.504	4600	1500	116	0.163	0.392	4000	1280	101	0.160	0.280
8.0	30	4850	1800	122	0.186	0.504	4600	1500	116	0.163	0.392	4000	1280	101	0.160	0.280
10.0	30	3850	1650	121	0.214	0.900	3680	1400	116	0.190	0.700	3200	1200	101	0.188	0.500
10.0	40	3850	1650	121	0.214	0.630	3680	1400	116	0.190	0.490	3200	1200	101	0.188	0.350
12.0	32	3200	1520	121	0.238	1.080	3050	1300	115	0.213	0.840	2650	1100	100	0.208	0.600
12.0	45	3200	1520	121	0.238	0.756	3050	1300	115	0.213	0.588	2650	1100	100	0.208	0.420

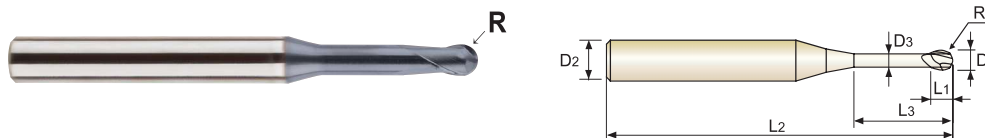
(Depth of Cut per one pass)



DIA. = Diameter
LBS = Length Below Shank
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/tooth


CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- Due to unique ball nose geometry and cutting edges, cutting force decreased, and wear resistance increased.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



P.815~819

Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM846001002	RO.05	0.1	4	0.1	0.2	40	0.085
SEM846001003	RO.05	0.1	4	0.1	0.3	40	0.085
SEM846001005	RO.05	0.1	4	0.1	0.5	40	0.085
SEM84600101	RO.05	0.1	4	0.1	1	40	0.085
SEM846002005	RO.1	0.2	4	0.2	0.5	40	0.17
SEM84600201	RO.1	0.2	4	0.2	1	40	0.17
SEM846002015	RO.1	0.2	4	0.2	1.5	40	0.17
SEM84600202	RO.1	0.2	4	0.2	2	40	0.17
SEM84600203	RO.1	0.2	4	0.2	3	40	0.17
SEM84600301	RO.15	0.3	4	0.3	1	40	0.27
SEM846003015	RO.15	0.3	4	0.3	1.5	40	0.27
SEM84600302	RO.15	0.3	4	0.3	2	40	0.27
SEM846003025	RO.15	0.3	4	0.3	2.5	40	0.27
SEM84600303	RO.15	0.3	4	0.3	3	40	0.27
SEM84600304	RO.15	0.3	4	0.3	4	40	0.27
SEM84600305	RO.15	0.3	4	0.3	5	40	0.27
SEM84600401	RO.2	0.4	4	0.4	1	40	0.37
SEM846004015	RO.2	0.4	4	0.4	1.5	40	0.37
SEM84600402	RO.2	0.4	4	0.4	2	40	0.37
SEM846004025	RO.2	0.4	4	0.4	2.5	40	0.37
SEM84600403	RO.2	0.4	4	0.4	3	40	0.37
SEM84600404	RO.2	0.4	4	0.4	4	40	0.37
SEM84600405	RO.2	0.4	4	0.4	5	40	0.37
SEM84600406	RO.2	0.4	4	0.4	6	40	0.37
SEM84600408	RO.2	0.4	4	0.4	8	40	0.37
SEM84600410	RO.2	0.4	4	0.4	10	40	0.37
SEM84600501	RO.25	0.5	4	0.5	1	45	0.45
SEM846005015	RO.25	0.5	4	0.5	1.5	45	0.45
SEM84600502	RO.25	0.5	4	0.5	2	45	0.45
SEM846005025	RO.25	0.5	4	0.5	2.5	45	0.45

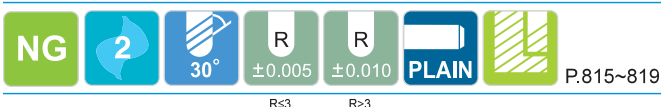
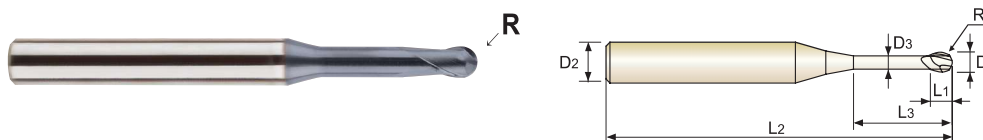
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- ▶ Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- ▶ Due to unique ball nose geometry and cutting edges, cutting force decreased, and wear resistance increased.
- ▶ Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



◇ Call for Availability

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84600503	RO.25	0.5	4	0.5	3	45	0.45
SEM84600504	RO.25	0.5	4	0.5	4	45	0.45
SEM84600505	RO.25	0.5	4	0.5	5	45	0.45
SEM84600506	RO.25	0.5	4	0.5	6	45	0.45
SEM84600508	RO.25	0.5	4	0.5	8	45	0.45
SEM84600510	RO.25	0.5	4	0.5	10	45	0.45
SEM84600512	RO.25	0.5	4	0.5	12	45	0.45
SEM84600514	RO.25	0.5	4	0.5	14	45	0.45
SEM84600516	RO.25	0.5	4	0.5	16	45	0.45
SEM84600601	RO.3	0.6	4	0.6	1	45	0.55
SEM84600602	RO.3	0.6	4	0.6	2	45	0.55
SEM84600603	RO.3	0.6	4	0.6	3	45	0.55
SEM84600604	RO.3	0.6	4	0.6	4	45	0.55
SEM84600605	RO.3	0.6	4	0.6	5	45	0.55
SEM84600606	RO.3	0.6	4	0.6	6	45	0.55
SEM84600608	RO.3	0.6	4	0.6	8	45	0.55
SEM84600610	RO.3	0.6	4	0.6	10	45	0.55
SEM84600612	RO.3	0.6	4	0.6	12	45	0.55
SEM84600614	RO.3	0.6	4	0.6	14	45	0.55
SEM84600616	RO.3	0.6	4	0.6	16	45	0.55
SEM84600702	RO.35	0.7	4	0.7	2	45	0.65
SEM84600704	RO.35	0.7	4	0.7	4	45	0.65
SEM84600706	RO.35	0.7	4	0.7	6	45	0.65
SEM84600708	RO.35	0.7	4	0.7	8	45	0.65
SEM84600710	RO.35	0.7	4	0.7	10	45	0.65
SEM84600712	RO.35	0.7	4	0.7	12	45	0.65
SEM84600801	RO.4	0.8	4	0.8	1	45	0.75
SEM84600802	RO.4	0.8	4	0.8	2	45	0.75
SEM84600803	RO.4	0.8	4	0.8	3	45	0.75
SEM84600804	RO.4	0.8	4	0.8	4	45	0.75

► NEXT PAGE

◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

CARBIDE

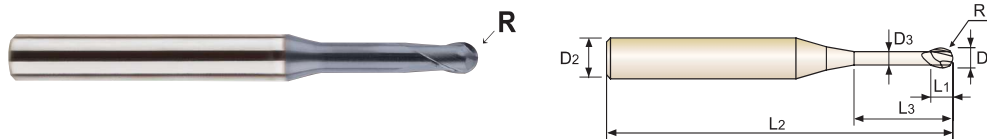
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**4G MILL
END MILLS**
SEM846 SERIES

PLAIN SHANK

CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
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- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



P.815~819

[◇ Call for Availability](#)

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84600805	R0.4	0.8	4	0.8	5	45	0.75
SEM84600806	R0.4	0.8	4	0.8	6	45	0.75
SEM84600808	R0.4	0.8	4	0.8	8	45	0.75
SEM84600810	R0.4	0.8	4	0.8	10	45	0.75
SEM84600812	R0.4	0.8	4	0.8	12	45	0.75
SEM84600814	R0.4	0.8	4	0.8	14	45	0.75
SEM84600816	R0.4	0.8	4	0.8	16	45	0.75
SEM84600820	R0.4	0.8	4	0.8	20	45	0.75
SEM84600904	R0.45	0.9	4	0.9	4	45	0.85
SEM84600906	R0.45	0.9	4	0.9	6	45	0.85
SEM84600908	R0.45	0.9	4	0.9	8	45	0.85
SEM84600910	R0.45	0.9	4	0.9	10	45	0.85
SEM84601002	R0.5	1.0	4	1	2	50	0.95
SEM84601003	R0.5	1.0	4	1	3	50	0.95
SEM84601004	R0.5	1.0	4	1	4	50	0.95
SEM84601005	R0.5	1.0	4	1	5	50	0.95
SEM84601006	R0.5	1.0	4	1	6	50	0.95
SEM84601007	R0.5	1.0	4	1	7	50	0.95
SEM84601008	R0.5	1.0	4	1	8	50	0.95
SEM84601009	R0.5	1.0	4	1	9	50	0.95
SEM84601010	R0.5	1.0	4	1	10	50	0.95
SEM84601012	R0.5	1.0	4	1	12	50	0.95
SEM84601014	R0.5	1.0	4	1	14	50	0.95
SEM84601016	R0.5	1.0	4	1	16	50	0.95
SEM84601018	R0.5	1.0	4	1	18	50	0.95
SEM84601020	R0.5	1.0	4	1	20	50	0.95
SEM84601022	R0.5	1.0	4	1	22	60	0.95
SEM84601026	R0.5	1.0	4	1	26	60	0.95
SEM84601030	R0.5	1.0	4	1	30	70	0.95
SEM84601040	R0.5	1.0	4	1	40	80	0.95

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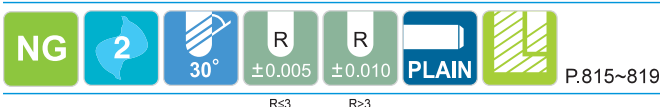
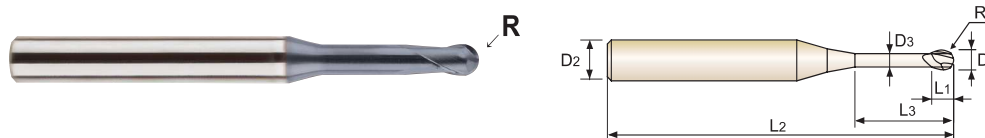
◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

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END MILLSALU-POWER
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END MILLSALU-POWER
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END MILLSD-POWER
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CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- ▶ Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- ▶ Due to unique ball nose geometry and cutting edges, cutting force decreased, and wear resistance increased.
- ▶ Excellent performance when cutting prehardened steels, up to HRC55 which are used for molds & dies.



◇ Call for Availability

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84601050	RO.5	1.0	4	1	50	100	0.95
SEM84601204	RO.6	1.2	4	1.2	4	50	1.15
SEM84601206	RO.6	1.2	4	1.2	6	50	1.15
SEM84601208	RO.6	1.2	4	1.2	8	50	1.15
SEM84601210	RO.6	1.2	4	1.2	10	50	1.15
SEM84601212	RO.6	1.2	4	1.2	12	50	1.15
SEM84601216	RO.6	1.2	4	1.2	16	50	1.15
SEM84601220	RO.6	1.2	4	1.2	20	50	1.15
SEM84601226	RO.6	1.2	4	1.2	26	60	1.15
SEM84601406	RO.7	1.4	4	1.4	6	50	1.35
SEM84601408	RO.7	1.4	4	1.4	8	50	1.35
SEM84601410	RO.7	1.4	4	1.4	10	50	1.35
SEM84601412	RO.7	1.4	4	1.4	12	50	1.35
SEM84601416	RO.7	1.4	4	1.4	16	50	1.35
SEM84601503	RO.75	1.5	4	1.5	3	50	1.45
SEM84601504	RO.75	1.5	4	1.5	4	50	1.45
SEM84601505	RO.75	1.5	4	1.5	5	50	1.45
SEM84601506	RO.75	1.5	4	1.5	6	50	1.45
SEM84601507	RO.75	1.5	4	1.5	7	50	1.45
SEM84601508	RO.75	1.5	4	1.5	8	50	1.45
SEM84601510	RO.75	1.5	4	1.5	10	50	1.45
SEM84601512	RO.75	1.5	4	1.5	12	50	1.45
SEM84601514	RO.75	1.5	4	1.5	14	50	1.45
SEM84601516	RO.75	1.5	4	1.5	16	50	1.45
SEM84601518	RO.75	1.5	4	1.5	18	50	1.45
SEM84601520	RO.75	1.5	4	1.5	20	50	1.45
SEM84601522	RO.75	1.5	4	1.5	22	60	1.45
SEM84601526	RO.75	1.5	4	1.5	26	60	1.45
SEM84601530	RO.75	1.5	4	1.5	30	70	1.45
SEM84601535	RO.75	1.5	4	1.5	35	70	1.45

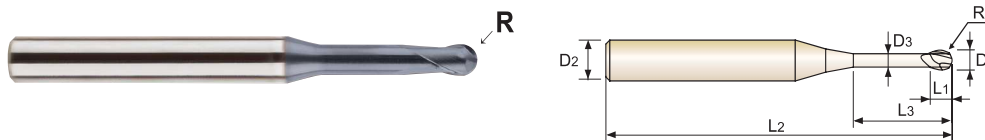
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70									
○	◎	◎	◎	○			○							


CARBIDE, 2 FLUTE LONG NECK BALL NOSE

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- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



NG



P.815~819

Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84601540	R0.75	1.5	4	1.5	40	80	1.45
SEM84601604	R0.8	1.6	4	1.6	4	50	1.55
SEM84601606	R0.8	1.6	4	1.6	6	50	1.55
SEM84601608	R0.8	1.6	4	1.6	8	50	1.55
SEM84601610	R0.8	1.6	4	1.6	10	50	1.55
SEM84601612	R0.8	1.6	4	1.6	12	50	1.55
SEM84601616	R0.8	1.6	4	1.6	16	50	1.55
SEM84601620	R0.8	1.6	4	1.6	20	50	1.55
SEM84601804	R0.9	1.8	4	1.8	4	50	1.75
SEM84601806	R0.9	1.8	4	1.8	6	50	1.75
SEM84601808	R0.9	1.8	4	1.8	8	50	1.75
SEM84601810	R0.9	1.8	4	1.8	10	50	1.75
SEM84601812	R0.9	1.8	4	1.8	12	50	1.75
SEM84601816	R0.9	1.8	4	1.8	16	50	1.75
SEM84601820	R0.9	1.8	4	1.8	20	50	1.75
SEM84602004	R1.0	2.0	4	2	4	50	1.95
SEM84602006	R1.0	2.0	4	2	6	50	1.95
SEM84602008	R1.0	2.0	4	2	8	50	1.95
SEM84602010	R1.0	2.0	4	2	10	50	1.95
SEM84602012	R1.0	2.0	4	2	12	50	1.95
SEM84602014	R1.0	2.0	4	2	14	50	1.95
SEM84602016	R1.0	2.0	4	2	16	50	1.95
SEM84602018	R1.0	2.0	4	2	18	50	1.95
SEM84602020	R1.0	2.0	4	2	20	50	1.95
SEM84602022	R1.0	2.0	4	2	22	60	1.95
SEM84602026	R1.0	2.0	4	2	26	60	1.95
SEM84602030	R1.0	2.0	4	2	30	70	1.95
SEM84602035	R1.0	2.0	4	2	35	70	1.95
SEM84602040	R1.0	2.0	4	2	40	80	1.95
SEM84602045	R1.0	2.0	4	2	45	90	1.95

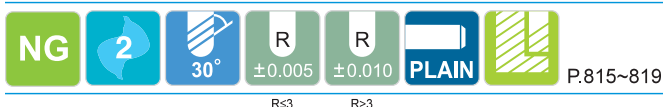
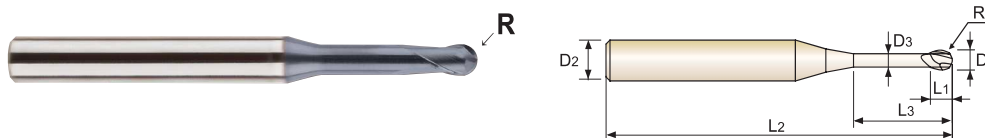
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

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◇ Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84602050	R1.0	2.0	4	2	50	100	1.95
SEM84602060	R1.0	2.0	4	2	60	110	1.95
SEM84602508	R1.25	2.5	4	2.5	8	50	2.40
SEM84602510	R1.25	2.5	4	2.5	10	50	2.40
SEM84602512	R1.25	2.5	4	2.5	12	50	2.40
SEM84602516	R1.25	2.5	4	2.5	16	50	2.40
SEM84602520	R1.25	2.5	4	2.5	20	50	2.40
SEM84602522	R1.25	2.5	4	2.5	22	60	2.40
SEM84602526	R1.25	2.5	4	2.5	26	60	2.40
SEM84602530	R1.25	2.5	4	2.5	30	70	2.40
SEM84602535	R1.25	2.5	4	2.5	35	70	2.40
SEM84602540	R1.25	2.5	4	2.5	40	80	2.40
SEM84602545	R1.25	2.5	4	2.5	45	90	2.40
SEM84602550	R1.25	2.5	4	2.5	50	100	2.40
SEM84603006	R1.5	3.0	6	3	6	50	2.85
SEM84603008	R1.5	3.0	6	3	8	50	2.85
SEM84603010	R1.5	3.0	6	3	10	50	2.85
SEM84603012	R1.5	3.0	6	3	12	50	2.85
SEM84603014	R1.5	3.0	6	3	14	60	2.85
SEM84603016	R1.5	3.0	6	3	16	60	2.85
SEM84603018	R1.5	3.0	6	3	18	60	2.85
SEM84603020	R1.5	3.0	6	3	20	60	2.85
SEM84603022	R1.5	3.0	6	3	22	65	2.85
SEM84603026	R1.5	3.0	6	3	26	65	2.85
SEM84603030	R1.5	3.0	6	3	30	70	2.85
SEM84603035	R1.5	3.0	6	3	35	70	2.85
SEM84603040	R1.5	3.0	6	3	40	80	2.85
SEM84603045	R1.5	3.0	6	3	45	90	2.85
SEM84603050	R1.5	3.0	6	3	50	100	2.85
SEM84603060	R1.5	3.0	6	3	60	100	2.85

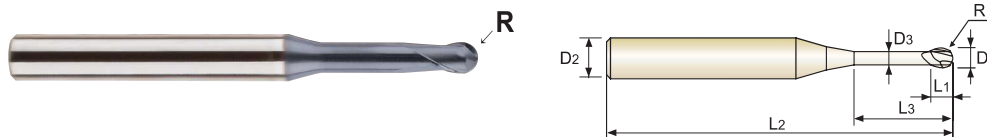
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70									
○	◎	◎	◎	○			○							


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P.815~819

[◇ Call for Availability](#)

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84604008	R2.0	4.0	6	4	8	50	3.85
SEM84604010	R2.0	4.0	6	4	10	50	3.85
SEM84604012	R2.0	4.0	6	4	12	50	3.85
SEM84604014	R2.0	4.0	6	4	14	60	3.85
SEM84604016	R2.0	4.0	6	4	16	60	3.85
SEM84604018	R2.0	4.0	6	4	18	60	3.85
SEM84604020	R2.0	4.0	6	4	20	60	3.85
SEM84604022	R2.0	4.0	6	4	22	65	3.85
SEM84604026	R2.0	4.0	6	4	26	65	3.85
SEM84604030	R2.0	4.0	6	4	30	70	3.85
SEM84604035	R2.0	4.0	6	4	35	70	3.85
SEM84604040	R2.0	4.0	6	4	40	80	3.85
SEM84604045	R2.0	4.0	6	4	45	90	3.85
SEM84604050	R2.0	4.0	6	4	50	100	3.85
SEM84604055	R2.0	4.0	6	4	55	100	3.85
SEM84604060	R2.0	4.0	6	4	60	100	3.85
SEM84605015	R2.5	5.0	6	6	15	60	4.85
SEM84605020	R2.5	5.0	6	6	20	60	4.85
SEM84605026	R2.5	5.0	6	6	26	65	4.85
SEM84605030	R2.5	5.0	6	6	30	70	4.85
SEM84605035	R2.5	5.0	6	6	35	70	4.85
SEM84605040	R2.5	5.0	6	6	40	80	4.85
SEM84605045	R2.5	5.0	6	6	45	90	4.85
SEM84605050	R2.5	5.0	6	6	50	100	4.85
SEM84605055	R2.5	5.0	6	6	55	100	4.85
SEM84605060	R2.5	5.0	6	6	60	100	4.85
SEM84606020	R3.0	6.0	6	8	20	60	5.85
SEM84606030	R3.0	6.0	6	8	30	60	5.85
SEM84606020090	R3.0	6.0	6	12	20	90	5.85
SEM84606030090	R3.0	6.0	6	12	30	90	5.85

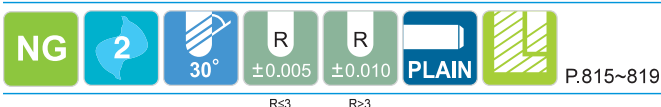
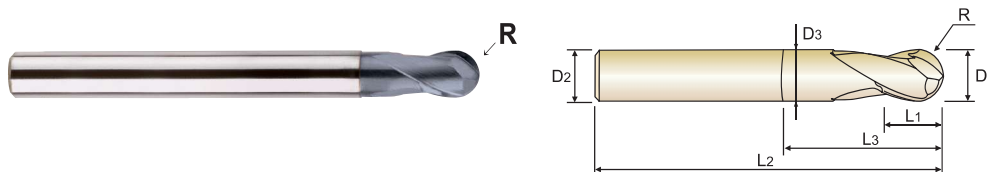
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

CARBIDE, 2 FLUTE LONG NECK BALL NOSE

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◇ Call for Availability

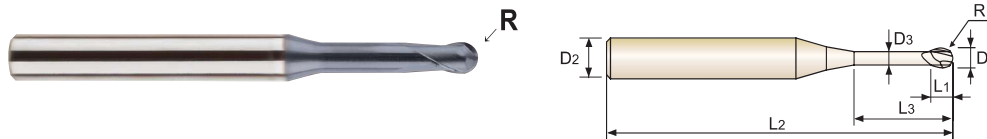
EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM84608025	R4.0	8.0	8	10	25	70	7.70
SEM84608035	R4.0	8.0	8	10	35	70	7.70
SEM84608025100	R4.0	8.0	8	14	25	100	7.70
SEM84608035100	R4.0	8.0	8	14	35	100	7.70
SEM84610030	R5.0	10.0	10	12	30	75	9.70
SEM84610040	R5.0	10.0	10	12	40	75	9.70
SEM84610030100	R5.0	10.0	10	18	30	100	9.70
SEM84610040100	R5.0	10.0	10	18	40	100	9.70
SEM84612032	R6.0	12.0	12	14	32	80	11.70
SEM84612045	R6.0	12.0	12	14	45	80	11.70
SEM84612032110	R6.0	12.0	12	22	32	110	11.70
SEM84612045110	R6.0	12.0	12	22	45	110	11.70

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	±0.005	0~-0.012	h6
over R3	±0.010	0~-0.015	

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○			○				


CARBIDE, 2 FLUTE LONG NECK BALL NOSE (6mm shank)

- ▶ Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- ▶ Due to unique ball nose geometry and cutting edges, cutting force decreased, and wear resistance increased.
- ▶ Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



NG

2



P.815~819

Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM846005016S	R0.25	0.5	6	0.5	1	45	0.45
SEM846005026S	R0.25	0.5	6	0.5	2	45	0.45
SEM846005046S	R0.25	0.5	6	0.5	4	45	0.45
SEM846006016S	R0.3	0.6	6	0.6	1	45	0.55
SEM846006026S	R0.3	0.6	6	0.6	2	45	0.55
SEM846006036S	R0.3	0.6	6	0.6	3	45	0.55
SEM846006046S	R0.3	0.6	6	0.6	4	45	0.55
SEM846006056S	R0.3	0.6	6	0.6	5	45	0.55
SEM846006066S	R0.3	0.6	6	0.6	6	45	0.55
SEM846006086S	R0.3	0.6	6	0.6	8	45	0.55
SEM846006106S	R0.3	0.6	6	0.6	10	45	0.55
SEM846006126S	R0.3	0.6	6	0.6	12	45	0.55
SEM846006146S	R0.3	0.6	6	0.6	14	45	0.55
SEM846006166S	R0.3	0.6	6	0.6	16	45	0.55
SEM846008016S	R0.4	0.8	6	0.8	1	45	0.75
SEM846008026S	R0.4	0.8	6	0.8	2	45	0.75
SEM846008036S	R0.4	0.8	6	0.8	3	45	0.75
SEM846008046S	R0.4	0.8	6	0.8	4	45	0.75
SEM846008056S	R0.4	0.8	6	0.8	5	45	0.75
SEM846008066S	R0.4	0.8	6	0.8	6	45	0.75
SEM846008086S	R0.4	0.8	6	0.8	8	45	0.75
SEM846008106S	R0.4	0.8	6	0.8	10	45	0.75
SEM846008126S	R0.4	0.8	6	0.8	12	45	0.75
SEM846008146S	R0.4	0.8	6	0.8	14	45	0.75
SEM846008166S	R0.4	0.8	6	0.8	16	45	0.75
SEM846008206S	R0.4	0.8	6	0.8	20	45	0.75
SEM846010026S	R0.5	1.0	6	1	2	50	0.95
SEM846010036S	R0.5	1.0	6	1	3	50	0.95
SEM846010046S	R0.5	1.0	6	1	4	50	0.95
SEM846010056S	R0.5	1.0	6	1	5	50	0.95

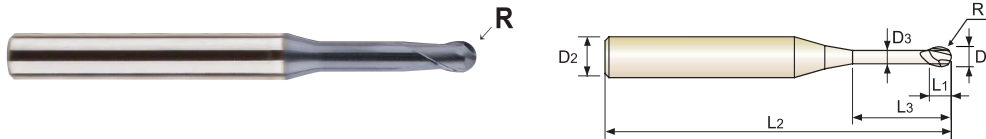
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◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○			○							

CARBIDE, 2 FLUTE LONG NECK BALL NOSE (6mm shank)

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- ▶ Excellent performance when cutting prehardened steels, up to HRC55 which are used for molds & dies.



◇ Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM846010066S	RO.5	1.0	6	1	6	50	0.95
SEM846010076S	RO.5	1.0	6	1	7	50	0.95
SEM846010086S	RO.5	1.0	6	1	8	50	0.95
SEM846010096S	RO.5	1.0	6	1	9	50	0.95
SEM846010106S	RO.5	1.0	6	1	10	50	0.95
SEM846010126S	RO.5	1.0	6	1	12	50	0.95
SEM846010146S	RO.5	1.0	6	1	14	50	0.95
SEM846010166S	RO.5	1.0	6	1	16	50	0.95
SEM846010186S	RO.5	1.0	6	1	18	50	0.95
SEM846010206S	RO.5	1.0	6	1	20	50	0.95
SEM846010226S	RO.5	1.0	6	1	22	60	0.95
SEM846010266S	RO.5	1.0	6	1	26	60	0.95
SEM846010306S	RO.5	1.0	6	1	30	70	0.95
SEM846015036S	RO.75	1.5	6	1.5	3	50	1.45
SEM846015046S	RO.75	1.5	6	1.5	4	50	1.45
SEM846015066S	RO.75	1.5	6	1.5	6	50	1.45
SEM846015086S	RO.75	1.5	6	1.5	8	50	1.45
SEM846015106S	RO.75	1.5	6	1.5	10	50	1.45
SEM846015126S	RO.75	1.5	6	1.5	12	50	1.45
SEM846015146S	RO.75	1.5	6	1.5	14	50	1.45
SEM846015166S	RO.75	1.5	6	1.5	16	50	1.45
SEM846015186S	RO.75	1.5	6	1.5	18	50	1.45
SEM846015206S	RO.75	1.5	6	1.5	20	50	1.45
SEM846015226S	RO.75	1.5	6	1.5	22	60	1.45
SEM846015266S	RO.75	1.5	6	1.5	26	60	1.45
SEM846015306S	RO.75	1.5	6	1.5	30	70	1.45
SEM846015356S	RO.75	1.5	6	1.5	35	70	1.45
SEM846015406S	RO.75	1.5	6	1.5	40	80	1.45
SEM846020046S	R1.0	2.0	6	2	4	50	1.95
SEM846020066S	R1.0	2.0	6	2	6	50	1.95

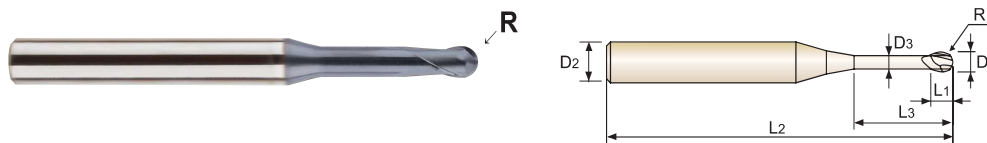
▶ NEXT PAGE

◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
◎	◎	◎	◎	○			○			○				


CARBIDE, 2 FLUTE LONG NECK BALL NOSE (6mm shank)

- ▶ Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- ▶ Due to unique ball nose geometry and cutting edges, cutting force decreased, and wear resistance increased.
- ▶ Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.



NG



P.815~819

Call for Availability

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
SEM846020086S	R1.0	2.0	6	2	8	50	1.95
SEM846020106S	R1.0	2.0	6	2	10	50	1.95
SEM846020126S	R1.0	2.0	6	2	12	50	1.95
SEM846020146S	R1.0	2.0	6	2	14	50	1.95
SEM846020166S	R1.0	2.0	6	2	16	50	1.95
SEM846020186S	R1.0	2.0	6	2	18	50	1.95
SEM846020206S	R1.0	2.0	6	2	20	50	1.95
SEM846020226S	R1.0	2.0	6	2	22	60	1.95
SEM846020266S	R1.0	2.0	6	2	26	60	1.95
SEM846020306S	R1.0	2.0	6	2	30	70	1.95
SEM846020356S	R1.0	2.0	6	2	35	70	1.95
SEM846020406S	R1.0	2.0	6	2	40	80	1.95
SEM846020456S	R1.0	2.0	6	2	45	90	1.95
SEM846020506S	R1.0	2.0	6	2	50	100	1.95

Mill Dia. Tolerance (mm)	Radius Tolerance (mm)	Shank Dia. Tolerance
0~-0.012	±0.005	h6

◎ : Excellent ○ : Good

P					H	M	K	N					S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium	High Temperature Alloy
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
◎	◎	◎	◎	○			○							