4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

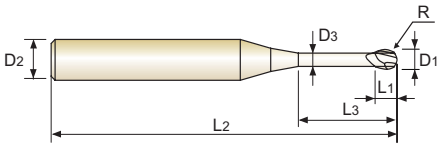
CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL
Fraise carbure, 2 dents, hémisphérique, détalonnée
MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA

- New coating and tool geometry applied resulting outstanding cutting abilities and wear resistance.
- With its unique ball nose geometry and cutting edges the cutting force has decreased, also increasing wear resistance.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit.
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schnittkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
SEM846001002E	R0.05	0.1	4	0.1	0.2	40	0.085
SEM846001003E	R0.05	0.1	4	0.1	0.3	40	0.085
SEM846001005E	R0.05	0.1	4	0.1	0.5	40	0.085
SEM84600101E	R0.05	0.1	4	0.1	1	40	0.085
★ SEM846002005E	R0.1	0.2	4	0.2	0.5	40	0.17
★ SEM84600201E	R0.1	0.2	4	0.2	1	40	0.17
SEM846002015E	R0.1	0.2	4	0.2	1.5	40	0.17
★ SEM84600202E	R0.1	0.2	4	0.2	2	40	0.17
SEM84600203E	R0.1	0.2	4	0.2	3	40	0.17
★ SEM84600301E	R0.15	0.3	4	0.3	1	40	0.27
★ SEM846003015E	R0.15	0.3	4	0.3	1.5	40	0.27
★ SEM84600302E	R0.15	0.3	4	0.3	2	40	0.27
SEM846003025E	R0.15	0.3	4	0.3	2.5	40	0.27
★ SEM84600303E	R0.15	0.3	4	0.3	3	40	0.27
★ SEM84600304E	R0.15	0.3	4	0.3	4	40	0.27
SEM84600305E	R0.15	0.3	4	0.3	5	40	0.27
★ SEM84600401E	R0.2	0.4	4	0.4	1	40	0.37
★ SEM846004015E	R0.2	0.4	4	0.4	1.5	40	0.37
★ SEM84600402E	R0.2	0.4	4	0.4	2	40	0.37
★ SEM846004025E	R0.2	0.4	4	0.4	2.5	40	0.37
★ SEM84600403E	R0.2	0.4	4	0.4	3	40	0.37
★ SEM84600404E	R0.2	0.4	4	0.4	4	40	0.37
★ SEM84600405E	R0.2	0.4	4	0.4	5	40	0.37
★ SEM84600406E	R0.2	0.4	4	0.4	6	40	0.37

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL

Fraise carbure, 2 dents, hémisphérique, détalonnée

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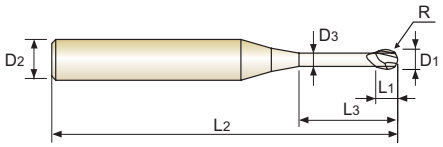

CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

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
SEM84600408E	R0.2	**0.4**	4	0.4	8	40	0.37
SEM84600410E	R0.2	**0.4**	4	0.4	10	40	0.37
★ SEM84600501E	R0.25	**0.5**	4	0.5	1	45	0.45
SEM846005015E	R0.25	**0.5**	4	0.5	1.5	45	0.45
★ SEM84600502E	R0.25	**0.5**	4	0.5	2	45	0.45
SEM846005025E	R0.25	**0.5**	4	0.5	2.5	45	0.45
★ SEM84600503E	R0.25	**0.5**	4	0.5	3	45	0.45
★ SEM84600504E	R0.25	**0.5**	4	0.5	4	45	0.45
★ SEM84600505E	R0.25	**0.5**	4	0.5	5	45	0.45
★ SEM84600506E	R0.25	**0.5**	4	0.5	6	45	0.45
★ SEM84600508E	R0.25	**0.5**	4	0.5	8	45	0.45
★ SEM84600510E	R0.25	**0.5**	4	0.5	10	45	0.45
SEM84600512E	R0.25	**0.5**	4	0.5	12	45	0.45
SEM84600514E	R0.25	**0.5**	4	0.5	14	45	0.45
SEM84600516E	R0.25	**0.5**	4	0.5	16	45	0.45
★ SEM84600601E	R0.3	**0.6**	4	0.6	1	45	0.55
★ SEM84600602E	R0.3	**0.6**	4	0.6	2	45	0.55
★ SEM84600603E	R0.3	**0.6**	4	0.6	3	45	0.55
★ SEM84600604E	R0.3	**0.6**	4	0.6	4	45	0.55
★ SEM84600605E	R0.3	**0.6**	4	0.6	5	45	0.55
★ SEM84600606E	R0.3	**0.6**	4	0.6	6	45	0.55
★ SEM84600608E	R0.3	**0.6**	4	0.6	8	45	0.55
★ SEM84600610E	R0.3	**0.6**	4	0.6	10	45	0.55
★ SEM84600612E	R0.3	**0.6**	4	0.6	12	45	0.55

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

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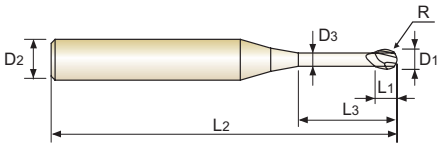

CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
SEM84600614E	R0.3	0.6	4	0.6	14	45	0.55
SEM84600616E	R0.3	0.6	4	0.6	16	45	0.55
★ SEM84600702E	R0.35	0.7	4	0.7	2	45	0.65
★ SEM84600704E	R0.35	0.7	4	0.7	4	45	0.65
★ SEM84600706E	R0.35	0.7	4	0.7	6	45	0.65
SEM84600708E	R0.35	0.7	4	0.7	8	45	0.65
SEM84600710E	R0.35	0.7	4	0.7	10	45	0.65
SEM84600712E	R0.35	0.7	4	0.7	12	45	0.65
SEM84600801E	R0.4	0.8	4	0.8	1	45	0.75
★ SEM84600802E	R0.4	0.8	4	0.8	2	45	0.75
★ SEM84600803E	R0.4	0.8	4	0.8	3	45	0.75
★ SEM84600804E	R0.4	0.8	4	0.8	4	45	0.75
★ SEM84600805E	R0.4	0.8	4	0.8	5	45	0.75
★ SEM84600806E	R0.4	0.8	4	0.8	6	45	0.75
★ SEM84600808E	R0.4	0.8	4	0.8	8	45	0.75
★ SEM84600810E	R0.4	0.8	4	0.8	10	45	0.75
★ SEM84600812E	R0.4	0.8	4	0.8	12	45	0.75
SEM84600814E	R0.4	0.8	4	0.8	14	45	0.75
SEM84600816E	R0.4	0.8	4	0.8	16	45	0.75
SEM84600820E	R0.4	0.8	4	0.8	20	45	0.75
★ SEM84600904E	R0.45	0.9	4	0.9	4	45	0.85
SEM84600906E	R0.45	0.9	4	0.9	6	45	0.85
★ SEM84600908E	R0.45	0.9	4	0.9	8	45	0.85
SEM84600910E	R0.45	0.9	4	0.9	10	45	0.85

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
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Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
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HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
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HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

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VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL

Fraise carbure, 2 dents, hémisphérique, détalonnée

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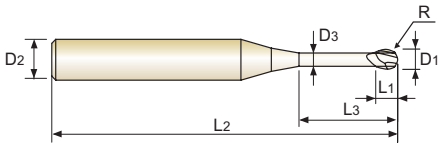

CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder	Flat Shank	Plain Shank
	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
	-	POWER MILLING CHUCK
	-	ER COLLET CHUCK SK SLIM CHUCK

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
★ SEM84601002E	R0.5	1.0	4	1	2	50	0.95
★ SEM84601003E	R0.5	1.0	4	1	3	50	0.95
★ SEM84601004E	R0.5	1.0	4	1	4	50	0.95
★ SEM84601005E	R0.5	1.0	4	1	5	50	0.95
★ SEM84601006E	R0.5	1.0	4	1	6	50	0.95
★ SEM84601007E	R0.5	1.0	4	1	7	50	0.95
★ SEM84601008E	R0.5	1.0	4	1	8	50	0.95
SEM84601009E	R0.5	1.0	4	1	9	50	0.95
★ SEM84601010E	R0.5	1.0	4	1	10	50	0.95
★ SEM84601012E	R0.5	1.0	4	1	12	50	0.95
★ SEM84601014E	R0.5	1.0	4	1	14	50	0.95
★ SEM84601016E	R0.5	1.0	4	1	16	50	0.95
★ SEM84601018E	R0.5	1.0	4	1	18	50	0.95
★ SEM84601020E	R0.5	1.0	4	1	20	50	0.95
SEM84601022E	R0.5	1.0	4	1	22	60	0.95
★ SEM84601026E	R0.5	1.0	4	1	26	60	0.95
★ SEM84601030E	R0.5	1.0	4	1	30	70	0.95
SEM84601040E	R0.5	1.0	4	1	40	80	0.95
SEM84601050E	R0.5	1.0	4	1	50	100	0.95
★ SEM84601204E	R0.6	1.2	4	1.2	4	50	1.15
★ SEM84601206E	R0.6	1.2	4	1.2	6	50	1.15
★ SEM84601208E	R0.6	1.2	4	1.2	8	50	1.15
★ SEM84601210E	R0.6	1.2	4	1.2	10	50	1.15
★ SEM84601212E	R0.6	1.2	4	1.2	12	50	1.15

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
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ISO	P											M			K					
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HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
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HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

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VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL
Fraise carbure, 2 dents, hémisphérique, détalonnée
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- 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 so wear resistance increased.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.

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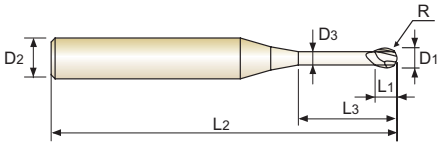
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schnittkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D_1	D_2	L_1	L_3	L_2	D_3
★ SEM84601216E	R0.6	1.2	4	1.2	16	50	1.15
SEM84601220E	R0.6	1.2	4	1.2	20	50	1.15
SEM84601226E	R0.6	1.2	4	1.2	26	60	1.15
SEM84601406E	R0.7	1.4	4	1.4	6	50	1.35
SEM84601408E	R0.7	1.4	4	1.4	8	50	1.35
SEM84601410E	R0.7	1.4	4	1.4	10	50	1.35
SEM84601412E	R0.7	1.4	4	1.4	12	50	1.35
SEM84601416E	R0.7	1.4	4	1.4	16	50	1.35
★ SEM84601503E	R0.75	1.5	4	1.5	3	50	1.45
★ SEM84601504E	R0.75	1.5	4	1.5	4	50	1.45
★ SEM84601505E	R0.75	1.5	4	1.5	5	50	1.45
★ SEM84601506E	R0.75	1.5	4	1.5	6	50	1.45
SEM84601507E	R0.75	1.5	4	1.5	7	50	1.45
★ SEM84601508E	R0.75	1.5	4	1.5	8	50	1.45
★ SEM84601510E	R0.75	1.5	4	1.5	10	50	1.45
★ SEM84601512E	R0.75	1.5	4	1.5	12	50	1.45
★ SEM84601514E	R0.75	1.5	4	1.5	14	50	1.45
★ SEM84601516E	R0.75	1.5	4	1.5	16	50	1.45
★ SEM84601518E	R0.75	1.5	4	1.5	18	50	1.45
★ SEM84601520E	R0.75	1.5	4	1.5	20	50	1.45
SEM84601522E	R0.75	1.5	4	1.5	22	60	1.45
SEM84601526E	R0.75	1.5	4	1.5	26	60	1.45
SEM84601530E	R0.75	1.5	4	1.5	30	70	1.45
SEM84601535E	R0.75	1.5	4	1.5	35	70	1.45

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL

Fraise carbure, 2 dents, hémisphérique, détalonnée

MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA

- New coating and tool geometry applied resulting outstanding cutting abilities and wear resistance.
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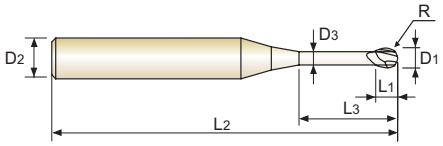
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit.
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schniitkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

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
SEM84601540E	R0.75	1.5	4	1.5	40	80	1.45
SEM84601604E	R0.8	1.6	4	1.6	4	50	1.55
SEM84601606E	R0.8	1.6	4	1.6	6	50	1.55
★ SEM84601608E	R0.8	1.6	4	1.6	8	50	1.55
SEM84601610E	R0.8	1.6	4	1.6	10	50	1.55
★ SEM84601612E	R0.8	1.6	4	1.6	12	50	1.55
★ SEM84601616E	R0.8	1.6	4	1.6	16	50	1.55
SEM84601620E	R0.8	1.6	4	1.6	20	50	1.55
★ SEM84601804E	R0.9	1.8	4	1.8	4	50	1.75
SEM84601806E	R0.9	1.8	4	1.8	6	50	1.75
★ SEM84601808E	R0.9	1.8	4	1.8	8	50	1.75
SEM84601810E	R0.9	1.8	4	1.8	10	50	1.75
★ SEM84601812E	R0.9	1.8	4	1.8	12	50	1.75
★ SEM84601816E	R0.9	1.8	4	1.8	16	50	1.75
SEM84601820E	R0.9	1.8	4	1.8	20	50	1.75
★ SEM84602004E	R1.0	2.0	4	2	4	50	1.95
★ SEM84602006E	R1.0	2.0	4	2	6	50	1.95
★ SEM84602008E	R1.0	2.0	4	2	8	50	1.95
★ SEM84602010E	R1.0	2.0	4	2	10	50	1.95
★ SEM84602012E	R1.0	2.0	4	2	12	50	1.95
★ SEM84602014E	R1.0	2.0	4	2	14	50	1.95
★ SEM84602016E	R1.0	2.0	4	2	16	50	1.95
★ SEM84602018E	R1.0	2.0	4	2	18	50	1.95
★ SEM84602020E	R1.0	2.0	4	2	20	50	1.95

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL
Fraise carbure, 2 dents, hémisphérique, détalonnée
MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA

- New coating and tool geometry applied resulting outstanding cutting abilities and wear resistance.
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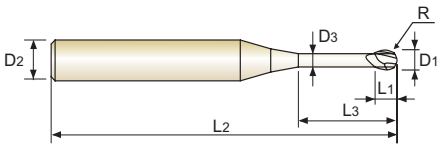
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schnittkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
SEM84602022E	R1.0	**2.0**	4	2	22	60	1.95
★ SEM84602026E	R1.0	**2.0**	4	2	26	60	1.95
★ SEM84602030E	R1.0	**2.0**	4	2	30	70	1.95
★ SEM84602035E	R1.0	**2.0**	4	2	35	70	1.95
SEM84602040E	R1.0	**2.0**	4	2	40	80	1.95
SEM84602045E	R1.0	**2.0**	4	2	45	90	1.95
SEM84602050E	R1.0	**2.0**	4	2	50	100	1.95
SEM84602060E	R1.0	**2.0**	4	2	60	110	1.95
★ SEM84602508E	R1.25	**2.5**	4	2.5	8	50	2.40
★ SEM84602510E	R1.25	**2.5**	4	2.5	10	50	2.40
★ SEM84602512E	R1.25	**2.5**	4	2.5	12	50	2.40
★ SEM84602516E	R1.25	**2.5**	4	2.5	16	50	2.40
★ SEM84602520E	R1.25	**2.5**	4	2.5	20	50	2.40
SEM84602522E	R1.25	**2.5**	4	2.5	22	60	2.40
SEM84602526E	R1.25	**2.5**	4	2.5	26	60	2.40
SEM84602530E	R1.25	**2.5**	4	2.5	30	70	2.40
SEM84602535E	R1.25	**2.5**	4	2.5	35	70	2.40
SEM84602540E	R1.25	**2.5**	4	2.5	40	80	2.40
SEM84602545E	R1.25	**2.5**	4	2.5	45	90	2.40
SEM84602550E	R1.25	**2.5**	4	2.5	50	100	2.40
★ SEM84603006E	R1.5	**3.0**	6	3	6	50	2.85
★ SEM84603008E	R1.5	**3.0**	6	3	8	50	2.85
★ SEM84603010E	R1.5	**3.0**	6	3	10	50	2.85
★ SEM84603012E	R1.5	**3.0**	6	3	12	50	2.85

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL

Fraise carbure, 2 dents, hémisphérique, détalonnée

MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA

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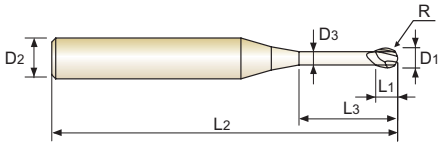

CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

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
★ SEM84603014E	R1.5	**3.0**	6	3	14	60	2.85
SEM84603015E	R1.5	**3.0**	6	3	15	60	2.85
★ SEM84603016E	R1.5	**3.0**	6	3	16	60	2.85
★ SEM84603018E	R1.5	**3.0**	6	3	18	60	2.85
★ SEM84603020E	R1.5	**3.0**	6	3	20	60	2.85
★ SEM84603022E	R1.5	**3.0**	6	3	22	65	2.85
★ SEM84603026E	R1.5	**3.0**	6	3	26	65	2.85
★ SEM84603030E	R1.5	**3.0**	6	3	30	70	2.85
★ SEM84603035E	R1.5	**3.0**	6	3	35	70	2.85
★ SEM84603040E	R1.5	**3.0**	6	3	40	80	2.85
★ SEM84603045E	R1.5	**3.0**	6	3	45	90	2.85
★ SEM84603050E	R1.5	**3.0**	6	3	50	100	2.85
SEM84603060E	R1.5	**3.0**	6	3	60	100	2.85
★ SEM84604008E	R2.0	**4.0**	6	4	8	50	3.85
★ SEM84604010E	R2.0	**4.0**	6	4	10	50	3.85
★ SEM84604012E	R2.0	**4.0**	6	4	12	50	3.85
★ SEM84604014E	R2.0	**4.0**	6	4	14	60	3.85
★ SEM84604016E	R2.0	**4.0**	6	4	16	60	3.85
★ SEM84604018E	R2.0	**4.0**	6	4	18	60	3.85
★ SEM84604020E	R2.0	**4.0**	6	4	20	60	3.85
★ SEM84604022E	R2.0	**4.0**	6	4	22	65	3.85
★ SEM84604026E	R2.0	**4.0**	6	4	26	65	3.85
★ SEM84604030E	R2.0	**4.0**	6	4	30	70	3.85
★ SEM84604035E	R2.0	**4.0**	6	4	35	70	3.85

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

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ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL
Fraise carbure, 2 dents, hémisphérique, détalonnée
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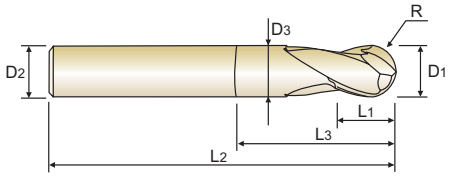


CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

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
★ SEM84604040E	R2.0	**4.0**	6	4	40	80	3.85
SEM84604045E	R2.0	**4.0**	6	4	45	90	3.85
★ SEM84604050E	R2.0	**4.0**	6	4	50	100	3.85
SEM84604055E	R2.0	**4.0**	6	4	55	100	3.85
SEM84604060E	R2.0	**4.0**	6	4	60	100	3.85
SEM84605015E	R2.5	**5.0**	6	6	15	60	4.85
★ SEM84605020E	R2.5	**5.0**	6	6	20	60	4.85
★ SEM84605026E	R2.5	**5.0**	6	6	26	65	4.85
★ SEM84605030E	R2.5	**5.0**	6	6	30	70	4.85
★ SEM84605035E	R2.5	**5.0**	6	6	35	70	4.85
★ SEM84605040E	R2.5	**5.0**	6	6	40	80	4.85
SEM84605045E	R2.5	**5.0**	6	6	45	90	4.85
★ SEM84605050E	R2.5	**5.0**	6	6	50	100	4.85
SEM84605055E	R2.5	**5.0**	6	6	55	100	4.85
SEM84605060E	R2.5	**5.0**	6	6	60	100	4.85
★ SEM84606020E	R3.0	**6.0**	6	8	20	60	5.85
★ SEM84606030E	R3.0	**6.0**	6	8	30	60	5.85
★ SEM846060200 90E	R3.0	**6.0**	6	12	20	90	5.85
★ SEM846060300 90E	R3.0	**6.0**	6	12	30	90	5.85
★ SEM84608025E	R4.0	**8.0**	8	10	25	70	7.70
★ SEM84608035E	R4.0	**8.0**	8	10	35	70	7.70
SEM846080251 00E	R4.0	**8.0**	8	14	25	100	7.70
★ SEM846080351 00E	R4.0	**8.0**	8	14	35	100	7.70
★ SEM84610030E	R5.0	**10.0**	10	12	30	75	9.70

★ : Stock Item

▶ NEXT PAGE

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

phone:+82-32-526-0909, www.yg1.solutions, E-mail:yg1@yg1.solutions
YG-1 CO., LTD.

CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit LANG ABGESETZTEM SCHAFTTETL

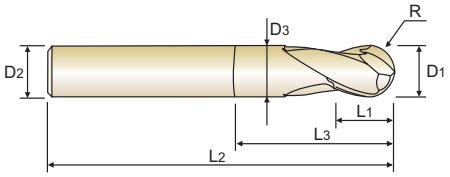
Fraise carbure, 2 dents, hémisphérique, détalonnée

MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA

- New coating and tool geometry applied resulting outstanding cutting abilities and wear resistance.
- With its unique ball nose geometry and cutting edges the cutting force has decreased, also increasing wear resistance.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit.
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schniitkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder	Flat Shank	Plain Shank
	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
	-	POWER MILLING CHUCK
	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
★ SEM84610040E	R5.0	**10.0**	10	12	40	75	9.70
★ SEM84610030100E	R5.0	**10.0**	10	18	30	100	9.70
★ SEM84610040100E	R5.0	**10.0**	10	18	40	100	9.70
★ SEM84612032E	R6.0	**12.0**	12	14	32	80	11.70
SEM84612045E	R6.0	**12.0**	12	14	45	80	11.70
★ SEM84612032110E	R6.0	**12.0**	12	22	32	110	11.70
★ SEM84612045110E	R6.0	**12.0**	12	22	45	110	11.70

★ : Stock Item

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0 ~ - 0.012	h5
over R3	± 0.010	0 ~ - 0.015	

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

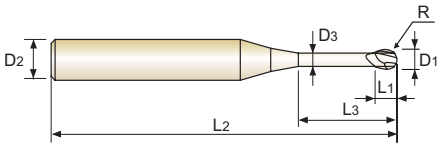
CARBIDE, 2 FLUTE BALL NOSE with EXTENDED NECK (6mm shank)

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit ABGESETZTEM SCHAFTTETL (6mm ZYLINDERSCHAFT)
Fraise carbure, 2 dents, hémisphérique, détalonnée (Ø queue 6mm)
MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA (gambo 6mm)

- New coating and tool geometry applied resulting outstanding cutting abilities and wear resistance.
- With its unique ball nose geometry and cutting edges the cutting force has decreased, also increasing wear resistance.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit.
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schnittkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R (±0.005)	D1	D2	L1	L3	L2	D3
SEM846005016SE	R0.25	0.5	6	0.5	1	45	0.45
SEM846005026SE	R0.25	0.5	6	0.5	2	45	0.45
SEM846005046SE	R0.25	0.5	6	0.5	4	45	0.45
SEM846006016SE	R0.3	0.6	6	0.6	1	45	0.55
SEM846006026SE	R0.3	0.6	6	0.6	2	45	0.55
SEM846006036SE	R0.3	0.6	6	0.6	3	45	0.55
SEM846006046SE	R0.3	0.6	6	0.6	4	45	0.55
SEM846006056SE	R0.3	0.6	6	0.6	5	45	0.55
★ SEM846006066SE	R0.3	0.6	6	0.6	6	45	0.55
SEM846006086SE	R0.3	0.6	6	0.6	8	45	0.55
SEM846006106SE	R0.3	0.6	6	0.6	10	45	0.55
SEM846006126SE	R0.3	0.6	6	0.6	12	45	0.55
SEM846006146SE	R0.3	0.6	6	0.6	14	45	0.55
SEM846006166SE	R0.3	0.6	6	0.6	16	45	0.55
SEM846008016SE	R0.4	0.8	6	0.8	1	45	0.75
SEM846008026SE	R0.4	0.8	6	0.8	2	45	0.75
SEM846008036SE	R0.4	0.8	6	0.8	3	45	0.75
SEM846008046SE	R0.4	0.8	6	0.8	4	45	0.75
SEM846008056SE	R0.4	0.8	6	0.8	5	45	0.75
SEM846008066SE	R0.4	0.8	6	0.8	6	45	0.75
SEM846008086SE	R0.4	0.8	6	0.8	8	45	0.75
SEM846008106SE	R0.4	0.8	6	0.8	10	45	0.75
SEM846008126SE	R0.4	0.8	6	0.8	12	45	0.75
SEM846008146SE	R0.4	0.8	6	0.8	14	45	0.75

★ : Stock Item

▶ NEXT PAGE

Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
± 0.005	0 ~ - 0.012	h5

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

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

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit ABGESETZTEM SCHAFTTETL (6mm ZYLINDERSCHAFT)
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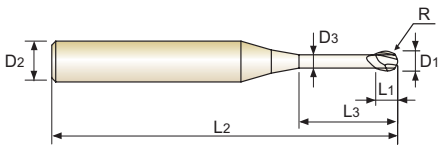
- Aufgrund der einzigartigen Kugelgeometrie und Schneidkantenpräparation wird die Schniitkraft reduziert und die Verschleißfestigkeit erhöht.
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 | PLAIN | Y Coating

p.C320~C331

Recommended ToolHolder	Flat Shank	Plain Shank
	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
	-	POWER MILLING CHUCK
	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R (±0.005)	D1	D2	L1	L3	L2	D3
SEM846008166SE	R0.4	**0.8**	6	0.8	16	45	0.75
SEM846008206SE	R0.4	**0.8**	6	0.8	20	45	0.75
SEM846010026SE	R0.5	**1.0**	6	1	2	50	0.95
SEM846010036SE	R0.5	**1.0**	6	1	3	50	0.95
★ SEM846010046SE	R0.5	**1.0**	6	1	4	50	0.95
SEM846010056SE	R0.5	**1.0**	6	1	5	50	0.95
★ SEM846010066SE	R0.5	**1.0**	6	1	6	50	0.95
SEM846010076SE	R0.5	**1.0**	6	1	7	50	0.95
SEM846010086SE	R0.5	**1.0**	6	1	8	50	0.95
SEM846010096SE	R0.5	**1.0**	6	1	9	50	0.95
★ SEM846010106SE	R0.5	**1.0**	6	1	10	50	0.95
SEM846010126SE	R0.5	**1.0**	6	1	12	50	0.95
SEM846010146SE	R0.5	**1.0**	6	1	14	50	0.95
SEM846010166SE	R0.5	**1.0**	6	1	16	50	0.95
SEM846010186SE	R0.5	**1.0**	6	1	18	50	0.95
SEM846010206SE	R0.5	**1.0**	6	1	20	50	0.95
SEM846010226SE	R0.5	**1.0**	6	1	22	60	0.95
SEM846010266SE	R0.5	**1.0**	6	1	26	60	0.95
SEM846010306SE	R0.5	**1.0**	6	1	30	70	0.95
SEM846015036SE	R0.75	**1.5**	6	1.5	3	50	1.45
SEM846015046SE	R0.75	**1.5**	6	1.5	4	50	1.45
★ SEM846015066SE	R0.75	**1.5**	6	1.5	6	50	1.45
★ SEM846015086SE	R0.75	**1.5**	6	1.5	8	50	1.45
★ SEM846015106SE	R0.75	**1.5**	6	1.5	10	50	1.45

★ : Stock Item

▶ NEXT PAGE

Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
± 0.005	0 ~ - 0.012	h5

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

4G MILL END MILLS

PLAIN SHANK **SEM846** SERIES

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

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS mit ABGESETZTEM SCHAFTTETL (6mm ZYLINDERSCHAFT)
Fraise carbure, 2 dents, hémisphérique, détalonnée (Ø queue 6mm)
MD, 2 TAGLIENTI, SEMISFERICA, SCARICATA (gambo 6mm)

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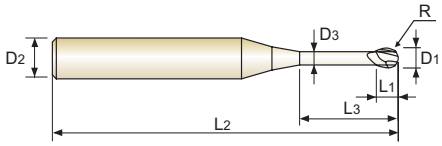
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.





CARBIDE | 2 | 30° | R ±0.005 | PLAIN | Y Coating | p.C320~C331

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	-	POWER MILLING CHUCK
○	-	ER COLLET CHUCK SK SLIM CHUCK

Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R (±0.005)	D1	D2	L1	L3	L2	D3
★ SEM846015126SE	R0.75	**1.5**	6	1.5	12	50	1.45
SEM846015146SE	R0.75	**1.5**	6	1.5	14	50	1.45
SEM846015166SE	R0.75	**1.5**	6	1.5	16	50	1.45
SEM846015186SE	R0.75	**1.5**	6	1.5	18	50	1.45
SEM846015206SE	R0.75	**1.5**	6	1.5	20	50	1.45
SEM846015226SE	R0.75	**1.5**	6	1.5	22	60	1.45
SEM846015266SE	R0.75	**1.5**	6	1.5	26	60	1.45
SEM846015306SE	R0.75	**1.5**	6	1.5	30	70	1.45
SEM846015356SE	R0.75	**1.5**	6	1.5	35	70	1.45
SEM846015406SE	R0.75	**1.5**	6	1.5	40	80	1.45
SEM846020046SE	R1.0	**2.0**	6	2	4	50	1.95
★ SEM846020066SE	R1.0	**2.0**	6	2	6	50	1.95
★ SEM846020086SE	R1.0	**2.0**	6	2	8	50	1.95
★ SEM846020106SE	R1.0	**2.0**	6	2	10	50	1.95
★ SEM846020126SE	R1.0	**2.0**	6	2	12	50	1.95
SEM846020146SE	R1.0	**2.0**	6	2	14	50	1.95
★ SEM846020166SE	R1.0	**2.0**	6	2	16	50	1.95
SEM846020186SE	R1.0	**2.0**	6	2	18	50	1.95
★ SEM846020206SE	R1.0	**2.0**	6	2	20	50	1.95
SEM846020226SE	R1.0	**2.0**	6	2	22	60	1.95
SEM846020266SE	R1.0	**2.0**	6	2	26	60	1.95
SEM846020306SE	R1.0	**2.0**	6	2	30	70	1.95
SEM846020356SE	R1.0	**2.0**	6	2	35	70	1.95
SEM846020406SE	R1.0	**2.0**	6	2	40	80	1.95
SEM846020456SE	R1.0	**2.0**	6	2	45	90	1.95
SEM846020506SE	R1.0	**2.0**	6	2	50	100	1.95

★ : Stock Item

Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
± 0.005	0 ~ - 0.012	h5

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	○	◎	◎	○	◎	◎	◎	○	◎				○	○	○	○	○	○

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend																		○		◎	○

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