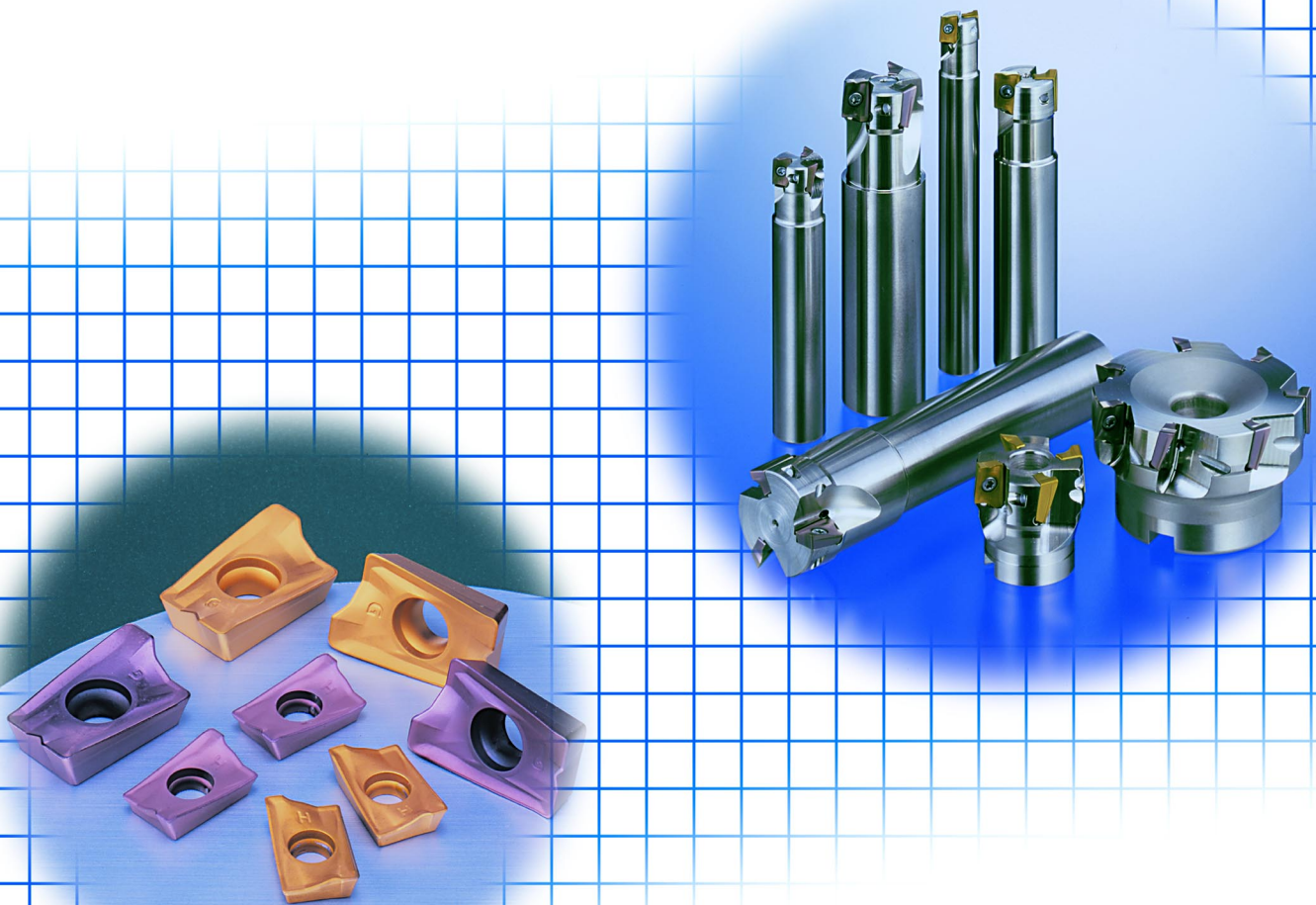




SUMITOMO

CARBIDE - CBN - DIAMOND

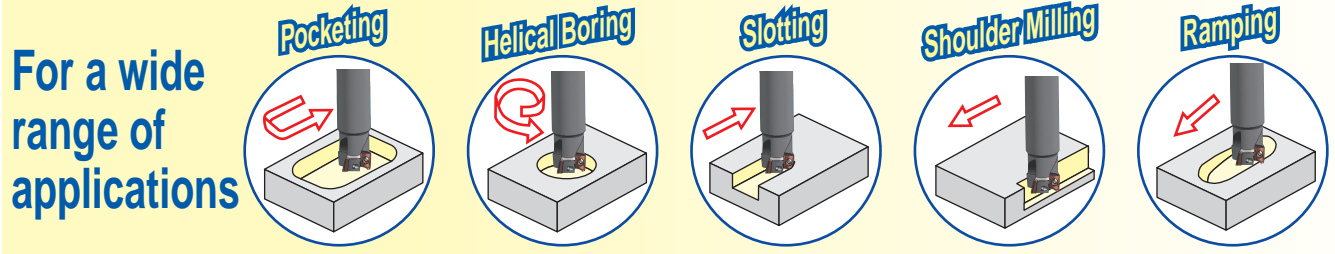
WEX ENDMILLS



90° shoulder endmill with high feed rate capabilities due to strong cutting edges

WEX Endmill Features and Benefits

High efficiency machining due to its optimized cutting edge geometry and highly rigid body

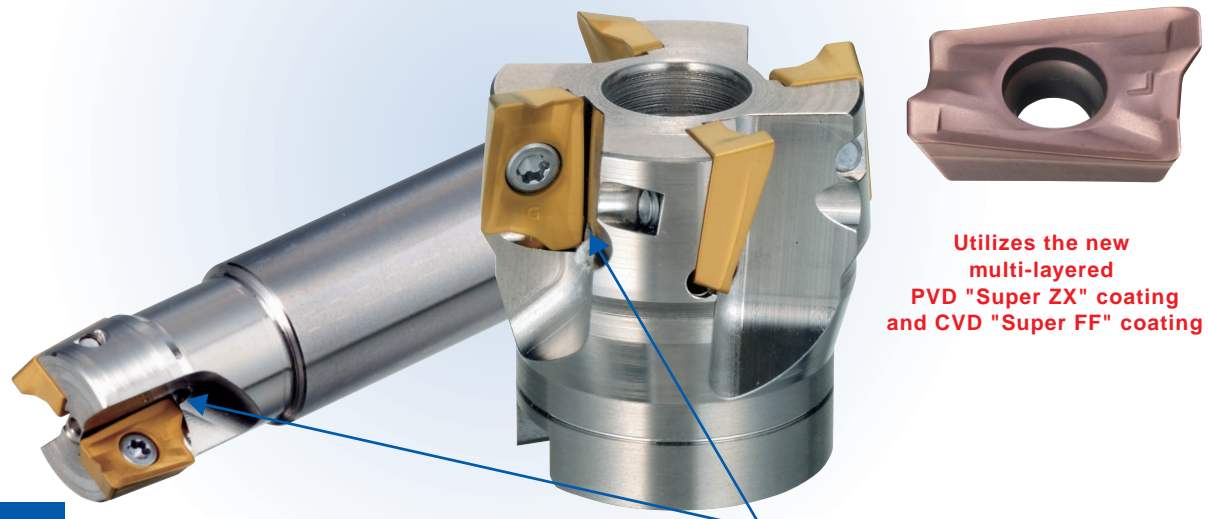


Tough, sharp and highly accurate cutting edge geometry

- The unique shape and strength of the cutting edge has been improved resulting in reduced cutting forces
- Insert facet generates high quality surface finishes

Wide selection of insert geometries and grades

- Available in 3 different geometries (L, G, and H)
- A wide range of machining applications due to the new "Super ZX" coating and CVD "Super FF" coating for steel and iron



Utilizes the new multi-layered PVD "Super ZX" coating and CVD "Super FF" coating

Highly durable

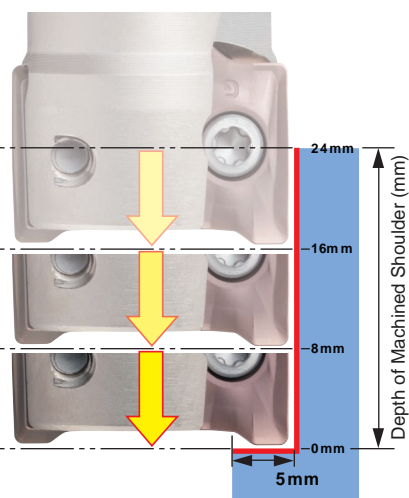
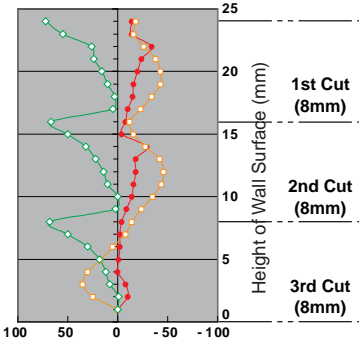
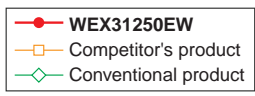
- Cutter body and insert strength provide for high feed rate capabilities

Coolant holes

- Efficient chip removal due to new air/coolant hole design

Cutting Performance

- Shoulder accuracy generated in profile machining



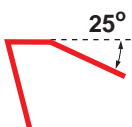
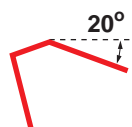
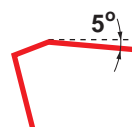
Minimal depth of cut variation due to assembly precision!

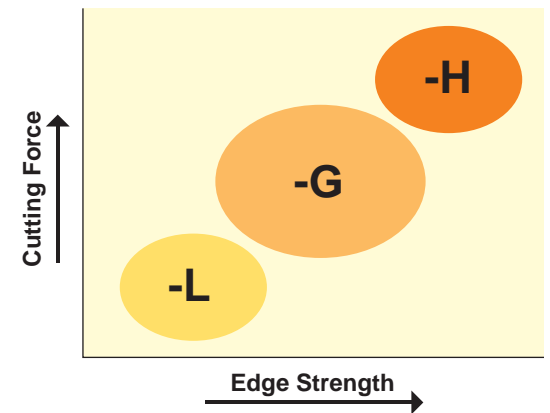
WEX Endmill Insert Selection Guide

Grade Applications

Grade	Coating	Description
ACP100	Al ₂ O ₃	Excellent wear and thermal crack resistance in steels, with the new "Super FF" CVD coating containing a fine grain Ti-based layer.
ACP200	TiAlN/AICrN	ACP200 is a general grade for steels that provides excellent wear and chipping resistance due to the new "Super ZX" coating and tough carbide substrate.
ACP300	TiAlN/AICrN	ACP300 features the new "Super ZX" coating improving the toughness and chipping resistance in difficult to machine materials.
ACK200	Al ₂ O ₃	General purpose grade that features the new "Super FF" CVD coating for machining gray and ductile cast irons.
ACK300	TiAlN/AICrN	ACK300 with "Super ZX" PVD coating for milling heavily interrupted gray and ductile irons.

Chipbreaker Selection Guide

Work Material	Steel, Stainless Steel, Cast Iron		
Insert Geometry	-L	-G	-H
Characteristics	Light Cutting	Multi-purpose	High Strength
Insert Cross Section			
Application	Light DOC, Low rigidity conditions	General purpose applications	Heavy cutting applications



Grade Applications

ISO	Material	Hardness	Grade	Depth of Cut			Feed per tooth
				.002-.050	.050-.125	.125 & over	
P	Low and Medium Carbon Steels	<250 Bhn	ACP100	775-1310	725-1275	675-1225	.006-.0125
			ACP200	721-1213	675-1180	600-1125	.006-.0135
			ACP300	675-1075	650-1025	525-925	.006-.014
	Medium Carbon Alloy Steels 4140, 4340, 5130, 8620	<250 Bhn	ACP100	600-975	575-950	550-900	.006-.0095
			ACP200	550-900	525-900	500-875	.006-.0115
			ACP300	525-875	500-825	475-800	.006-.0115
	Medium-High Carbon Steels	<250 Bhn	ACP100	600-975	575-950	550-900	.006-.011
			ACP200	575-950	550-925	500-875	.006-.012
			ACP300	575-950	550-925	500-875	.006-.012
	Free Machining Steels and Alloys	<250 Bhn	ACP100	725-1300	700-1250	675-1200	.006-.0135
			ACP200	750-1325	725-1275	675-1225	.006-.0135
			ACP300	675-1075	650-1050	650-1025	.006-.014
Tool Steels	<250 Bhn	ACP100	475-820	450-790	425-750	.0047-.010	
		ACP200	450-820	435-790	425-750	.0047-.011	
		ACP300	450-820	425-790	400-725	.0047-.012	
	Bhn 220-350	ACP100	400-775	400-735	400-700	.004-.009	
		ACP200	425-750	400-725	375-690	.0045-.010	
		ACP300	420-700	420-695	375-685	.0047-.012	
>33 Hrc	ACP100	325-650	300-625	300-590	.003-.007		
	ACP200	325-650	300-625	300-590	.0045-.0095		
	ACP300	325-650	300-625	300-590	.0045-.0095		
M	Martensitic and Ferritic Stainless Steels 414, 416, 430, 440	<250 Bhn	ACP200	535-850	520-830	275-820	.004-.011
			ACP300	525-840	515-820	250-800	.004-.012
			ACP200	435-750	420-720	175-700	.004-.011
	Austenitic and Precipitation Hardening Stainless Steels 303, 304, 316, 321, etc.	>250 Bhn	ACP300	425-740	415-720	175-675	.004-.012
			ACP200	325-875	300-850	275-825	.004-.011
			ACP300	300-850	275-825	250-800	.004-.012
K	Gray Cast Iron	<250 Bhn	ACK200	700-1050	625-925	590-900	.004-.014
			ACK300	600-950	575-875	550-850	.004-.014
			ACK200	600-950	525-825	490-800	.004-.014
	>250 Bhn	ACK300	500-850	475-775	450-750	.004-.014	
		ACK200	600-925	550-875	490-800	.004-.012	
		ACK300	550-825	550-825	450-750	.004-.012	
S	Ductile Iron	<320 Bhn	ACK200	600-925	550-875	490-800	.004-.012
			ACK300	550-825	550-825	450-750	.004-.012
S	Exotic Alloys Inconel, Hastalloy, Waspalloy, etc.		ACK200	100-160	70-150	60-135	.003-.0075
			ACK300	100-160	70-150	60-135	.004-.0075

Application Range

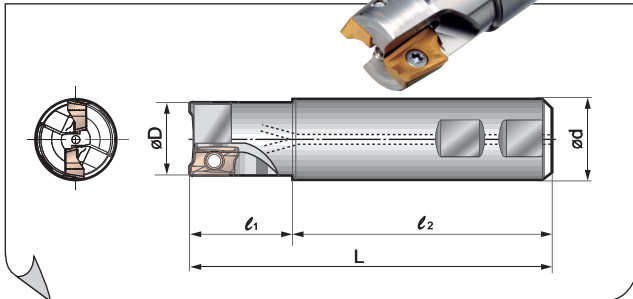
Material	P10/M10/C7	P20/M20/C6	P30/M30/C5A	P40/M40/C5
P	NEW ACP100			
	NEW ACP200			
	NEW ACP300			
M	NEW ACP100			
	NEW ACP200			
K	NEW ACK200			
	NEW ACK300			

Inch & Metric

WEX 2000 Weldon Shank Series

Applicable Insert: AXMT

Inch



WEX 2000 Weldon Shank Series

Catalog Number	Stock	Dimensions (inch)					Ramp Angle	Insert Qty.
		D	d	L	L ₁	L ₂		
WEX20500EW	○	0.500	0.750	3.325	1.309	2.031	5°	1
WEX20625EW	●	0.625	0.625	3.218	1.312	1.906	4°	2
WEX20625EMW	○	0.625	0.625	3.591	1.685	1.906	4°	2
WEX20750EW	●	0.750	0.750	3.561	1.530	2.031	4°	3
WEX20750EMW	○	0.750	0.750	4.091	2.060	2.031	4°	3
WEX20750ELW	○	0.750	0.750	5.091	3.060	2.031	4°	3
WEX21000EW	●	1.000	1.000	3.811	1.530	2.281	2°	4
WEX21250EW	○	1.250	1.250	4.531	2.250	2.281	1°30'	5

● USA stocked item

○ New product arrives 1st quarter 2007

WEX 2000 Inserts

Sumitomo Cat. No.	Coated				Dimensions (Inches)				
	ACP100	ACP200	ACP300	ACK200	L	W	T	R	Facet Width
AXMT123504PEERG	★	●	●	●	.472	.260	.138	.016	.061
AXMT123504PEERH	★	●	●	★	.472	.260	.138	.016	.061
AXMT123508PEERG	★	●	●	●	.472	.260	.138	.031	.061
AXMT123508PEERH	★	●	●	★	.472	.260	.138	.031	.061
AXMT123512PEERG	★	●	●	●	.472	.260	.138	.047	.061
AXMT123512PEERH	★	●	●	★	.472	.260	.138	.047	.061

● USA stocked item

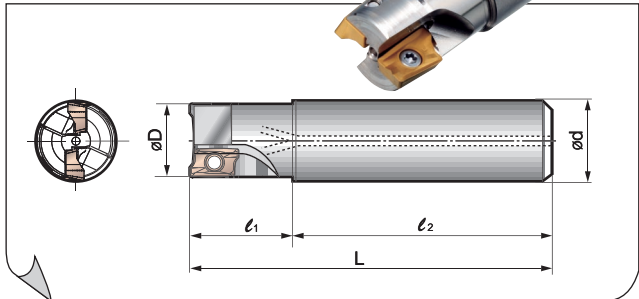
★ Worldwide Warehouse item

Hardware (Inch)

Catalog Number	Insert Screw*	Insert Wrench
WEX20500-WEX20625	BFTX0305IP	TRDR08IP
WEX20750-WEX21250	BFTX0306IP	TRDR08IP

* Torque specifications for insert screw=18-22 in/lbs.

Metric



WEX 2000 Shank Series Standard type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	L ₁	L ₂		
WEX2014E	★	14	16	80	25	55	5°	1
WEX2016E	★	16	16	100	25	75	4°	2
WEX2018E	★	18	16	100	25	75	4°	2
WEX2020E	★	20	20	110	30	80	4°	3
WEX2022E	★	22	20	110	30	80	4°	3
WEX2025E	★	25	25	120	35	85	2°	4
WEX2028E	★	28	25	120	35	85	1°30'	4
WEX2030E	★	30	25	120	35	85	1°30'	4
WEX2032E	★	32	32	130	40	90	1°30'	5
WEX2040E	★	40	32	150	30	120	1°	6
WEX2050E	★	50	32	150	30	120	0°30'	7
WEX2063E	★	63	32	150	30	120	0°30'	8

★ Worldwide Warehouse item

WEX 2000 Shank Series Long type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	L ₁	L ₂		
WEX2014EL	★	14	16	120	25	95	5°	1
WEX2016EL	★	16	16	145	25	120	4°	2
WEX2018EL	★	18	16	145	25	120	4°	2
WEX2020EL	★	20	20	150	40	110	4°	2
WEX2022EL	★	22	20	150	30	120	4°	2
WEX2025EL	★	25	25	170	50	120	2°	2
WEX2028EL	★	28	25	170	30	140	1°30'	2
WEX2030EL	★	30	25	170	30	140	1°30'	2
WEX2032EL	★	32	32	180	60	120	1°30'	2
WEX2040EL	★	40	32	180	30	150	1°	2

★ Worldwide Warehouse item

Sumitomo *Worldwide Warehouse* items are available through our international locations. Items marked with a star "★" in this brochure have a two week delivery.

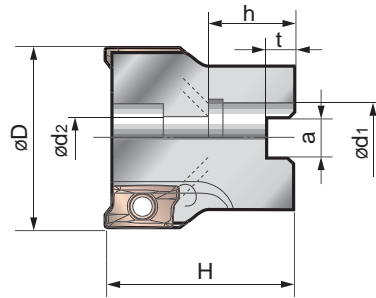
Hardware (Metric)

Catalog Number	Insert Screw*	Insert Wrench
WEX2014-WEX2018	BFTX0305IP	TRDR08IP
WEX2020-WEX2063	BFTX0306IP	TRDR08IP

* Torque specifications for insert screw=18-22 in/lbs.

WEX 2000 Shell Mill Series

Applicable Insert: AXMT



WEX 2000 Shell Mill Series (Inch)

Catalog Number	Stock	Dimensions (Inches)							Ramp Angle	Insert Qty.
		D	d ₁	d ₂	a	t	H	h		
WEX21500R	○	1.500	0.750	0.453	0.312	0.187	1.562	0.750	2°	6
WEX22000R	○	2.000	0.750	0.406	0.312	0.187	1.562	0.750	1°	7
WEX22500R	○	2.500	1.000	0.531	0.375	0.218	1.562	0.750	0°30'	8

○ New product arrives 1st quarter 2007

WEX 2000 Shell Mill Series (Metric)

Catalog Number	Stock	Dimensions (mm)							Ramp Angle	Insert Qty.
		D	d ₁	d ₂	a	t	H	h		
WEX2040F	★	40	16	9	8.4	5.6	40	18	2°	6
WEX2050F	★	50	22	11	10.4	6.3	40	20	1°	7
WEX2063F	★	63	22	11	10.4	6.3	40	20	0°30'	8

★ Worldwide Warehouse item

WEX 2000 Inserts

Sumitomo Cat. No.	Coated				Dimensions (Inches)					
	ACP100	ACP200	ACP300	ACK200	ACK300	L	W	T	R	Facet Width
	AXMT123504PEERG	★	●	●	●	●	.472	.260	.138	.016
AXMT123504PEERH	★	●	●	★	★	.472	.260	.138	.016	.061
AXMT123508PEERG	★	●	●	●	●	.472	.260	.138	.031	.061
AXMT123508PEERH	★	●	●	★	★	.472	.260	.138	.031	.061
AXMT123512PEERG	★	★	★	★	★	.472	.260	.138	.047	.061
AXMT123512PEERH	★	★	★	★	★	.472	.260	.138	.047	.061

● USA stocked item

★ Worldwide Warehouse item

Hardware (Inch)

Catalog Number	Insert Screw*	Insert Wrench
WEX21500-WEX22500	BFTX0306IP	TRDR08IP

* Torque specifications for insert screw=18-22 in/lbs.

Hardware (Metric)

Catalog Number	Insert Screw*	Insert Wrench
WEX2040-WEX2063	BFTX0306IP	TRDR08IP

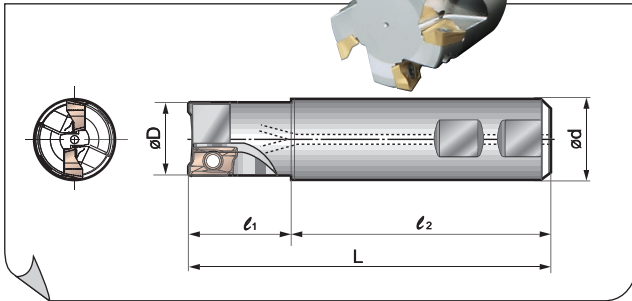
* Torque specifications for insert screw=18-22 in/lbs.

Inch & Metric

WEX 3000 Weldon Shank Series

Applicable Insert: AXMT

Inch



WEX 3000 Weldon Shank Series

Catalog Number	Stock	Dimensions (inch)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX31000EW	●	1.000	1.000	3.811	1.530	2.281	5°	2
WEX31000EMW	○	1.000	1.000	4.841	2.560	2.281	5°	2
WEX31000ELW	○	1.000	1.000	6.341	4.060	2.281	5°	2
WEX31250EW	●	1.250	1.250	4.531	2.250	2.281	3°	3
WEX31250EMW	○	1.250	1.250	6.381	4.100	2.281	3°	3
WEX31500EW	●	1.500	1.250	4.531	2.250	2.281	2°	4
WEX32000EW	○	2.000	1.250	4.531	2.250	2.281	2°	5

- USA stocked item
- New product arrives 1st quarter 2007

WEX 3000 Inserts

Sumitomo Cat. No.	Coated					Dimensions (Inches)				
	ACP100	ACP200	ACP300	ACK200	ACK300	L	W	T	R	Facet Width
	DL1000	HI								
AXMT170504PEERG	★	★	★	★	★	.689	.402	.219	.016	.118
AXMT170508PEERL	★	★	★	★	★	.689	.402	.219	.031	.118
AXMT170508PEERG	★	●	●	●	●	.689	.402	.219	.031	.118
AXMT170508PEERH	★	●	●	★	★	.689	.402	.219	.031	.118
AXMT170512PEERG	★	★	★	★	★	.689	.402	.219	.047	.118
AXMT170512PEERH	★	★	★	★	★	.689	.402	.219	.047	.118
AXMT170516PEERG	★	●	★	★	★	.689	.402	.219	.063	.118
AXMT170502PEFRS				★	★	.689	.402	.219	.008	.118
AXMT170504PEFRS				★	★	.689	.402	.219	.016	.118
AXMT170508PEFRS				★	★	.689	.402	.219	.031	.118

- USA stocked item
- ★ Worldwide Warehouse item

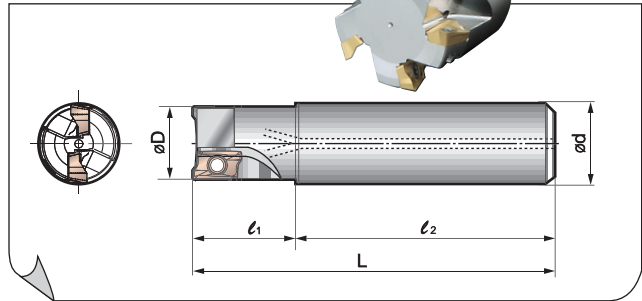
Sumitomo *Worldwide Warehouse* items are available through our international locations. Items marked with a star "★" in this brochure have a two week delivery.

Hardware (Inch)

Catalog Number	Insert Screw*	Insert Wrench
WEX31000	BFTX0407IP	TRDR151P
WEX31250-WEX32000	BFTX0409IP	TRDR151P

* Torque specifications for insert screw=27-31 in/lbs.

Metric



WEX 3000 Shank Series Standard Type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX3025E	★	25	25	120	35	85	5°	2
WEX3032E	★	32	32	130	40	90	3°	3
WEX3040E	★	40	32	170	50	120	2°	4
WEX3050E	★	50	32	170	50	120	1°	5
WEX3063E	★	63	32	170	50	120	0°30'	6

- ★ Worldwide Warehouse item

WEX 3000 Shank Series Short Type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX3050ES	★	50	32	135	25	110	1°	5
WEX3063ES	★	63	32	135	25	110	0°30'	6

- ★ Worldwide Warehouse item

WEX 3000 Shank Series Long Type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX3025EL	★	25	25	170	50	120	5°	2
WEX3028EL	★	28	25	170	50	120	5°	2
WEX3030EL	★	30	25	180	60	120	5°	2
WEX3032E	★	32	32	180	60	120	3°	2
WEX3035EL	★	35	32	180	60	120	2°	2
WEX3040E	★	40	32	220	80	140	2°	2

- ★ Worldwide Warehouse item

WEX 3000 Shank Series Coarse Pitch Type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX3040E-C	★	40	32	170	50	120	2°	3
WEX3050E-C	★	50	32	170	50	120	1°	3
WEX3063E-C	★	63	32	170	50	120	0°30'	4

- ★ Worldwide Warehouse item

WEX 3000 Shank Series Short & Coarse Pitch Type

Catalog Number	Stock	Dimensions (mm)					Ramp Angle	Insert Qty.
		D	d	L	l ₁	l ₂		
WEX3050ES-C	★	50	32	135	25	110	1°	3
WEX3063ES-C	★	63	32	135	25	110	0°30'	4

- ★ Worldwide Warehouse item

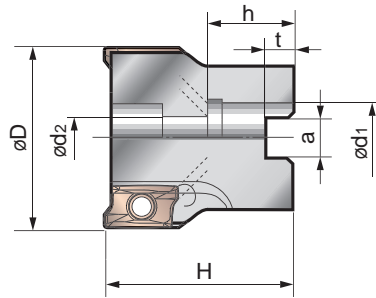
Hardware (Metric)

Catalog Number	Insert Screw*	Insert Wrench
WEX3025	BFTX0407IP	TRDR151P
WEX3032-WEX3063	BFTX0409IP	TRDR151P

* Torque specifications for insert screw=27-31 in/lbs.

WEX 3000 Shell Mill Series

Applicable Insert: AXMT



WEX 3000 Shell Mill Series (Inch)

Catalog Number	Stock	Dimensions (Inches)							Ramp Angle	Insert Qty.
		D	d ₁	d ₂	a	t	H	h		
WEX32000R	●	2.000	0.750	0.406	0.312	0.187	1.562	0.750	1°	5
WEX32500R	●	2.500	1.000	0.531	0.375	0.218	1.562	0.750	0°30'	6
WEXC33000R	○	3.000	1.000	0.531	0.375	0.218	1.750	0.750	0°30'	5
WEX33000R	●	3.000	1.000	0.531	0.375	0.218	1.750	0.750	0°30'	7
WEXC34000R	○	4.000	1.250	0.656	0.500	0.281	2.000	0.750	N/A	6
WEX34000R	●	4.000	1.250	0.655	0.500	0.281	2.000	0.750	N/A	8

- USA stocked item
- New product arrives 1st quarter 2007

WEX 3000 Shell Mill Series Standard Type (Metric)

Catalog Number	Stock	Dimensions (mm)							Ramp Angle	Insert Qty.
		D	d ₁	d ₂	a	t	H	h		
WEX3040F	★	40	16	9	8.4	5.6	40	18	2°	4
WEX3050F	★	50	22	11	10.4	6.3	40	20	1°	5
WEX3063F	★	63	22	11	10.4	6.3	40	20	0°30'	6
WEX3080R	★	80	25.40	13	9.5	6	50	25	0°30'	4
WEX3100R	★	100	31.75	—	12.7	8	63	—	N/A	5
WEX3125R	★	125	38.10	—	15.9	10	63	—	N/A	6

★ Worldwide Warehouse item

WEX 3000 Shell Mill Series Fine Pitch Type (Metric)

Catalog Number	Stock	Dimensions (mm)							Ramp Angle	Insert Qty.
		D	d ₁	d ₂	a	t	H	h		
WEXF3080R	★	80	25.40	13	9.5	6	50	25	0°30'	7
WEXF3100R	★	100	31.75	—	12.7	8	63	—	N/A	8
WEXF3125R	★	125	38.10	—	15.9	10	63	—	N/A	9

★ Worldwide Warehouse item

WEX 3000 Inserts

Sumitomo Cat. No.	Coated					Dimensions (Inches)						
	ACP100	ACP200	ACP300	ACK200	ACK300	DL1000	HL	L	W	T	R	Facet Width
AXMT170504PEERG	★	★	★	★	★			.689	.402	.219	.016	.118
AXMT170508PEERL	★	★	★	★	★			.689	.402	.219	.031	.118
AXMT170508PEERG	★	●	●	●	●			.689	.402	.219	.031	.118
AXMT170508PEERH	★	●	●	★	★			.689	.402	.219	.031	.118
AXMT170512PEERG	★	★	★	★	★			.689	.402	.219	.047	.118
AXMT170512PEERH	★	★	★	★	★			.689	.402	.219	.047	.118
AXMT170516PEERG	★	●	●	★	★			.689	.402	.219	.063	.118
AXMT170502PEFRS						★	★	.689	.402	.219	.008	.118
AXMT170504PEFRS						★	★	.689	.402	.219	.016	.118
AXMT170508PEFRS						★	★	.689	.402	.219	.031	.118

- USA stocked item
- ★ Worldwide Warehouse item

Hardware (Inch)

Catalog Number	Insert Screw*	Insert Wrench
WEX32000-WEX34000	BFTX0409IP	TRDR15IP

* Torque specifications for insert screw=27-31 in/lbs.

Hardware (Metric)

Catalog Number	Insert Screw*	Insert Wrench
WEX3040-WEX3125	BFTX0409IP	TRDR15IP

* Torque specifications for insert screw=27-31 in/lbs.



SUMITOMO

CARBIDE - CBN - DIAMOND

Sumitomo Electric Carbide, Inc.

Headquarters

1001 Business Center Drive
Mount Prospect, IL 60056-6080
P.O. Box 545, Mt. Prospect, IL 60056-0545
Phone: (800) 950-5202
Phone: (847) 635-0044
Fax: (847) 635-7866
<http://www.sumicarbide.com>

Detroit Branch

14496 Sheldon Road #230
Plymouth, MI 48170
Phone: (800) 239-5177
Phone: (734) 451-0200
Fax: (734) 451-5338

Cincinnati Branch

4450 Carver Woods Drive
Cincinnati, OH 45242-5545
Phone: (800) 879-1887
Phone: (513) 891-4000
Fax: (513) 794-2911



**For more information log onto:
www.sumicarbide.com**