

# SALES BLITZ

## VSM890™

8-EDGE, DOUBLE-SIDED TRUE 90°  
SHOULDER-FACE MILL

**\$50/INCH!**

**ON ALL CUTTER BODIES UP TO 6"**

OR

**BUY ANY 30 INSERTS  
AT REGULAR PRICE,  
GET 10 INSERTS FREE!**



Offer valid November 30 – December 21, 2020. Offer void  
where prohibited by law. ALL SALES ARE FINAL.

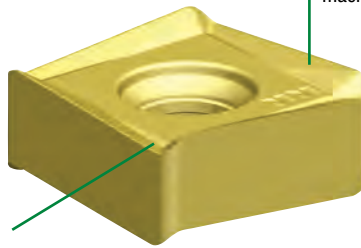
**WIDIA** 

# VSM890™ -12

8-Edged, Double-Sided True 0° Victory™ Shoulder-Face Mill



- True 0° wall and stepping down capability.
- Axial depth of cut capability; Ap1 max up to .386".
- Optimized chip gash design for proper chip evacuation.
- User-friendly pocket numbering system.
- Cutter bodies with internal coolant supply.
- Less bur creation on the workpiece.



Integrated wiper facet for excellent surface floor finish.

Super-positive rake design for low machine power consumption.

**Unique insert rake design to reduce and perfectly balance axial and radial cutting forces.  
Engineered for light machining to heavy roughing in all material groups.**

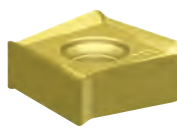
-ALP



N

First choice for Non-Ferrous materials.

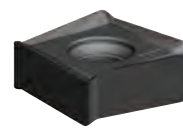
-ML



P M S

First choice for Stainless Steel, light machining, and finishing jobs.

-MM



P M K S H

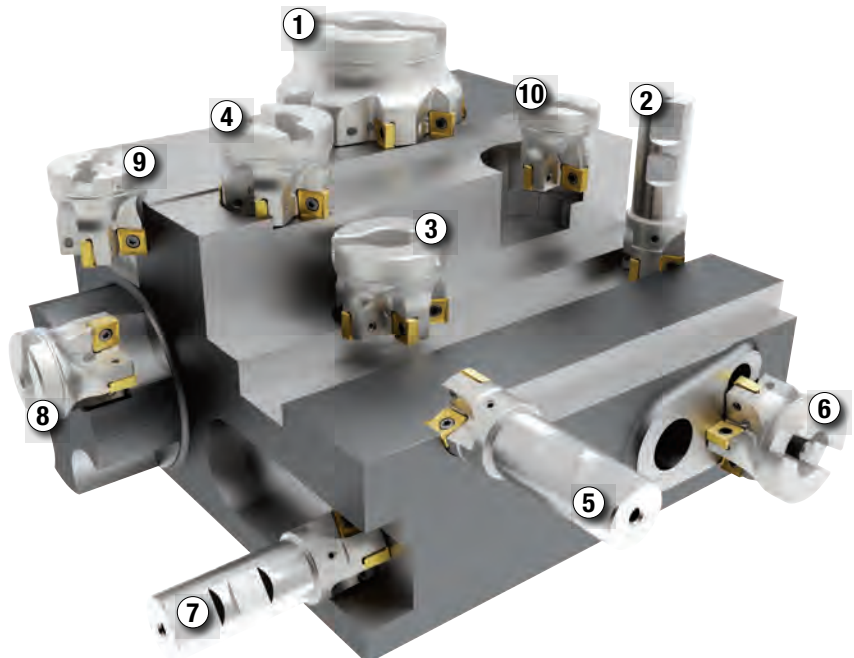
First choice for general purpose in all workpiece materials. Engineered for high-feed rates.

Finishing Capabilities/Lower Cutting Forces

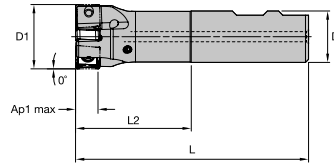
Geometry Strengthening/Stronger Cutting Edge Protection

## Applications

1. Face milling.
2. Full slotting with 100% radial engagement.
3. Shoulder milling with stepping down and great wall finish.
4. Shoulder milling with low axial and high radial engagement.
5. Shoulder milling with low radial and high axial engagement.
6. HPC face milling. First choice to clean up castings.
7. Dynamic/trochoidal slot milling.
8. Z-axis plunge milling.
9. Z-axis contour plunge milling.
10. Z-axis zig-zag slot plunge milling.

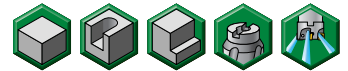
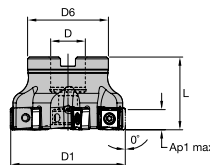


## Victory™ Shoulder-Face Mills • VSM890™-12 Series



### Weldon® End Mills

order number	catalog number	D1	D	L	L2	Ap1 max	Z	max RPM	coolant supply	lbs
6596129	VSM890D125Z03W100SN12	1.250	1.000	4.530	2.250	.387	3	33400	Yes	.89
6596130	VSM890D150Z04W100SN12	1.500	1.000	4.530	2.250	.387	4	29100	Yes	1.18



### Shell Mills

order number	catalog number	D1	D	D6	L	Ap1 max	Z	max RPM	coolant supply	lbs
6596131	VSM890D200Z04S075SN12	2.000	.750	1.750	1.575	.387	4	23800	Yes	.73
6596132	VSM890D200Z05S075SN12	2.000	.750	1.750	1.575	.387	5	23800	Yes	.70
6596133	VSM890D250Z05S075SN12	2.500	.750	1.750	1.575	.387	5	20700	Yes	1.06
6596134	VSM890D250Z07S075SN12	2.500	.750	1.750	1.575	.387	7	20700	Yes	.99
6596135	VSM890D300Z05S100SN12	3.000	1.000	2.190	1.750	.387	5	18500	Yes	1.63
6596136	VSM890D300Z07S100SN12	3.000	1.000	2.190	1.750	.387	7	18500	Yes	1.73
6596137	VSM890D300Z09S100SN12	3.000	1.000	2.190	1.750	.387	9	18500	Yes	1.69
6596138	VSM890D400Z06S150SN12	4.000	1.500	3.810	2.000	.387	6	15700	Yes	3.51
6596139	VSM890D400Z08S150SN12	4.000	1.500	3.810	2.000	.387	8	15700	Yes	3.76
6596151	VSM890D400Z11S150SN12	4.000	1.500	3.810	2.000	.387	11	15700	Yes	3.67
6596152	VSM890D500Z07S150SN12	5.000	1.500	3.810	2.380	.387	7	13800	Yes	6.06
6596153	VSM890D500Z10S150SN12	5.000	1.500	3.810	2.380	.387	10	13800	Yes	6.44
6596154	VSM890D500Z14S150SN12	5.000	1.500	3.810	2.380	.387	14	13800	Yes	6.18
6596155	VSM890D600Z08S200SN12	6.000	2.000	4.875	2.380	.387	8	12500	Yes	11.19
6596156	VSM890D600Z12S200SN12	6.000	2.000	4.875	2.380	.387	12	12500	Yes	9.49
6596157	VSM890D600Z16S200SN12	6.000	2.000	4.875	2.380	.387	16	12500	Yes	9.70
* 6596158	VSM890D800Z10S250SN12	8.000	2.500	5.118	2.380	.387	10	10700	Yes	12.08
* 6596159	VSM890D800Z14S250SN12	8.000	2.500	5.118	2.380	.387	14	10700	Yes	12.60
* 6596160	VSM890D800Z22S250SN12	8.000	2.500	5.118	2.380	.387	22	10700	Yes	12.45
* 6613696	VSM890D1000Z16S250SN12	10.000	2.500	5.118	2.380	.387	16	9500	Yes	18.01

\* - Items NOT included in Current Promotion

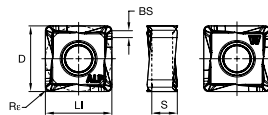
### Spare Parts

D1	insert screw	in. lbs.	wrench
1.250-10.000	MS-2071	35	DT151P

NOTE: Please order Torx Plus driver separately.

# VSM890™ -12

Victory™ Shoulder-Face Mills • VSM890-12 Series

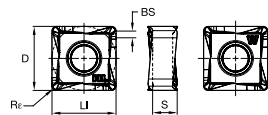


● first choice  
○ alternate choice

P	■			●	●	●	○
M	■			●	○	●	●
K	■	●	●	○	○	●	●
N	■			●			
S	■			●		○	●
H	■						●

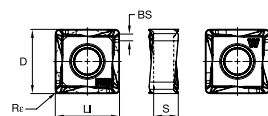
## ^ SNHX-ALP • For Aluminum and Other Non-Ferrous Alloys

ISO catalog number	ANSI catalog number	cutting edges	LI		S		D		BS		Rε		WK15CM	WK15PM	WN25PM	WP25PM	WP35CM	WP40PM	WS40PM	WU10PM	
			mm	in	mm	in	mm	in	mm	in	mm	in									
SNHX120408PNERALP	SNHX1202PNERALP	8	12,00	.472	4,61	.181	12,00	.472	1,34	.053	0,80	.032	■	■	6596397	■	■	■	■	■	■



## ^ SNHX-ML • Precision Finishing and Light Machining

ISO catalog number	ANSI catalog number	cutting edges	LI		S		D		BS		Rε		WK15CM	WK15PM	WN25PM	WP25PM	WP35CM	WP40PM	WS40PM	WU10PM	
			mm	in	mm	in	mm	in	mm	in	mm	in									
SNHX120408PNERML	SNHX1202PNERML	8	12,00	.472	4,61	.181	12,00	.472	1,34	.053	0,80	.032	■	■	■	6596398	■	■	6596399	■	■



## ^ SNHX-MM • Universal Geometry for Medium Machining

ISO catalog number	ANSI catalog number	cutting edges	LI		S		D		BS		Rε		WK15CM	WK15PM	WN25PM	WP25PM	WP35CM	WP40PM	WS40PM	WU10PM
			mm	in	mm	in	mm	in	mm	in	mm	in								
SNHX120408PNSRMM	SNHX1202PNSRMM	8	12,00	.472	4,61	.181	12,00	.472	1,34	.053	0,80	.032	6667462	■	■	6596431	■	6596432	6596433	6596400

# Victory™ Shoulder-Face Mills • VSM890™-12 Series

## Insert Selection Guide

Material Group	Light Machining		General Purpose		Heavy Machining	
	Geometry	Grade	Geometry	Grade	Geometry	Grade
P1-P2	SNHX-ML	WS40PM	SNPX-MM	WP40PM	SNPX-MM	WP40PM
P3-P4	SNHX-ML	WS40PM	SNPX-MM	WP40PM	SNPX-MM	WP40PM
P5-P6	SNHX-ML	WP25PM	SNPX-MM	WP35CM	SNPX-MM	WP40PM
M1-M2	SNHX-ML	WS40PM	SNHX-ML	WS40PM	SNPX-MM	WS40PM
M3	SNHX-ML	WS40PM	SNHX-ML	WS40PM	SNPX-MM	WS40PM
K1-K2	SNPX-MM	WK15PM	SNPX-MM	WK15CM	SNPX-MM	WK15CM
K3	SNPX-MM	WK15PM	SNPX-MM	WP35CM	SNPX-MM	WP35CM
N1-N2	SNHX-ALP	WN25PM	SNHX-ALP	WN25PM	SNHX-ALP	WN25PM
N3	SNHX-ALP	WN25PM	SNHX-ALP	WN25PM	SNHX-ALP	WN25PM
S1-S2	SNHX-ML	WP25PM	SNHX-ML	WS40PM	SNPX-MM	WS40PM
S3	SNHX-ML	WS40PM	SNHX-ML	WS40PM	SNPX-MM	WS40PM
S4	SNHX-ML	WS40PM	SNHX-ML	WS40PM	SNPX-MM	WS40PM
H1	SNHX-MM	WU10PM	SNHX-MM	WU10PM	-	-

## Recommended Starting Speeds [SFM]\*

Material Group		WK15CM	WK15PM	WN25PM	WP25PM	WP35CM	WP40PM	WS40PM	WU10PM
P	1	-	-	-	1085 935 885	1495 1295 1215	970 855 805	-	-
	2	-	-	-	900 785 655	920 835 755	820 705 590	-	-
	3	-	-	-	835 705 575	835 755 675	755 640 525	-	-
	4	-	-	-	740 605 490	625 575 525	675 560 445	-	-
	5	-	-	-	605 560 490	855 755 690	560 510 445	560 475 395	-
	6	-	-	-	540 410 330	525 445 360	490 375 295	490 360 260	-
M	1	-	-	-	675 590 540	675 605 510	640 560 510	690 560 460	-
	2	-	-	-	605 525 425	605 525 460	575 490 410	590 475 395	-
	3	-	-	-	460 395 310	475 425 375	425 375 295	475 360 280	-
K	1	1380 1265 1115	885 805 705	-	755 675 605	970 870 785	-	-	970 870 785
	2	1100 970 900	690 625 575	-	590 525 490	770 690 625	-	-	755 675 625
	3	920 820 755	575 525 475	-	490 445 395	640 575 525	-	-	640 575 525
N	1	-	-	3525 3100 2870	-	-	-	-	-
	2	-	-	3100 2870 2495	-	-	-	-	-
	3	-	-	3100 2870 2495	-	-	-	-	-
S	1	-	-	-	130 115 80	-	-	130 115 80	-
	2	-	-	-	130 115 80	-	-	130 115 80	-
	3	-	-	-	165 130 80	-	-	165 130 80	-
	4	-	-	-	230 165 115	-	-	195 165 100	-
H	1	-	-	-	-	-	-	-	525 425 295

NOTE: FIRST choice starting speeds are in bold type. As the average chip thickness increases, the speed should be decreased.  
 \*Material groups P, M, K, and H show recommended starting speeds for dry machining. For wet machining, reduce speed by 20%.  
 \*Material groups N and S show recommended starting speeds for wet machining. Not recommended for dry machining.

Light Machining	General Purpose	Heavy Machining
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## Recommended Starting Feeds [IPT]

Insert Geometry	Programmed Feed per Tooth (fz) as a % of Radial Depth of Cut (ae)														Insert Geometry	
	5%			10%			20%			30%			40-100%			
.E..ALP	.005	<b>.010</b>	.015	.003	<b>.007</b>	.011	.003	<b>.005</b>	.008	.002	<b>.005</b>	.007	.002	<b>.004</b>	.006	.E..ALP
.E..ML	.007	<b>.012</b>	.023	.005	<b>.009</b>	.017	.004	<b>.007</b>	.012	.003	<b>.006</b>	.011	.003	<b>.005</b>	.010	.E..ML
.S..MM	.009	<b>.014</b>	.032	.007	<b>.010</b>	.023	.005	<b>.008</b>	.017	.004	<b>.007</b>	.015	.004	<b>.006</b>	.014	.S..MM

NOTE: Use "Light Machining" values as starting feed rate.