

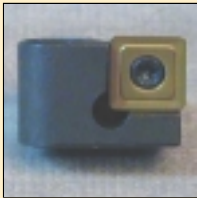
# M-Series

## Shell Mill Style with 0° Lead Postive Rake 3/8" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-TP3-0-3W(3)	TPGH-322	3	3/4" Weldon	-	-	MTP3-0	16288	TX-0832-3	10326-A
	M-SPR-2-TP3-0-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-TP3-0-B(3)			R8	-	-				
3"	M-SPR-3-TP3-0-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-TP3-0-5(5)			-	1.25"	1/2"				
5"	M-SPR-5-TP3-0-6(6)			-	1.5"	5/8"				
6"	M-SPR-6-TP3-0-8(8)		8	-	2"	3/4"				
8**	M-SPR-8-TP3-0-10(10)		10	-	-	-				
10**	M-SPR-10-TP3-0-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 1° Lead Postive Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SP4-1-3W(3)	SPGH-433	3	3/4" Weldon	-	-	MSP4-1	16288	TX-0832-3	10326-A
	M-SPR-2-SP4-1-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SP4-1-B(3)			R8	-	-				
3"	M-SPR-3-SP4-1-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SP4-1-5(5)			-	1.25"	1/2"				
5"	M-SPR-5-SP4-1-6(6)			-	1.5"	5/8"				
6"	M-SPR-6-SP4-1-8(8)		8	-	2"	3/4"				
8**	M-SPR-8-SP4-1-10(10)		10	-	-	-				
10**	M-SPR-10-SP4-1-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 15° Lead Postive Rake 1/2" I.C.




Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SP4-15-3W(3)	SPGH-433	3	3/4" Weldon	-	-	MSP4-15	16288	TX-0832-3	10326-A
	M-SPR-2-SP4-15-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SP4-15-B(3)			R8	-	-				
3"	M-SPR-3-SP4-15-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SP4-15-5(5)			-	1.25"	1/2"				
5"	M-SPR-5-SP4-15-6(6)			-	1.5"	5/8"				
6"	M-SPR-6-SP4-15-8(8)		8	-	2"	3/4"				
8**	M-SPR-8-SP4-15-10(10)		10	-	-	-				
10**	M-SPR-10-SP4-15-10(12)		12	-	2.5"	1"				

- Left-handed available
- Wedge-lock designs available
- Nests can be adapted to hold your insert



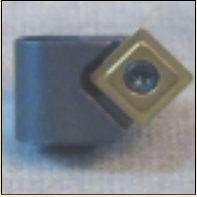
# M-Series

## Shell Mill Style with 30° Lead Postive Rake 1/2" I.C.




Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw				
2"	M-SPR-2-SP4-30-3W(3)	SPGH-433	3	3/4" Weldon	-	-	MSP4-30	16288	TX-0832-3	10326-A				
	M-SPR-2-SP4-30-5W(3)			1.25" Weldon	-	-								
	M-SPR-2-SP4-30-B(3)			R8	-	-								
3"	M-SPR-3-SP4-30-4(5)		5	-	1"	3/8"								
4"	M-SPR-4-SP4-30-5(5)		6	-	1.25"	1/2"								
5"	M-SPR-5-SP4-30-6(6)		8	-	1.5"	5/8"								
6"	M-SPR-6-SP4-30-8(8)		10	-	2"	3/4"								
8**	M-SPR-8-SP4-30-10(10)		12	-	2.5"	1"								
10**	M-SPR-10-SP4-30-10(12)													

## Shell Mill Style with 45° Lead Postive Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw				
2"	M-SPR-2-SP4-45-3W(3)	SPGH-433	3	3/4" Weldon	-	-	MSP4-45	16288	TX-0832-2	10326-A				
	M-SPR-2-SP4-45-5W(3)			1.25" Weldon	-	-								
	M-SPR-2-SP4-45-B(3)			R8	-	-								
3"	M-SPR-3-SP4-45-4(5)		5	-	1"	3/8"								
4"	M-SPR-4-SP4-45-5(5)		6	-	1.25"	1/2"								
5"	M-SPR-5-SP4-45-6(6)		8	-	1.5"	5/8"								
6"	M-SPR-6-SP4-45-8(8)		10	-	2"	3/4"								
8**	M-SPR-8-SP4-45-10(10)		12	-	2.5"	1"								
10**	M-SPR-10-SP4-45-10(12)													

## Shell Mill Style with Round Inserts Postive Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw				
2"	M-SPR-2-RP4-0-3W(3)	RD-8C	3	3/4" Weldon	-	-	MRD8	16288	TX-0832-4	10326-A				
	M-SPR-2-RP4-0-5W(3)			1.25" Weldon	-	-								
	M-SPR-2-RP4-0-B(3)			R8	-	-								
3"	M-SPR-3-RP4-0-4(5)		5	-	1"	3/8"								
4"	M-SPR-2-RP4-0-5(5)		6	-	1.25"	1/2"								
5"	M-SPR-2-RP4-0-6(6)		8	-	1.5"	5/8"								
6"	M-SPR-2-RP4-0-8(8)		10	-	2"	3/4"								
8**	M-SPR-2-RP4-0-10(10)		12	-	2.5"	1"								
10**	M-SPR-2-RP4-0-10(12)													

\*Cutters are 2 3/8" thick and supplied with 4.00" bolt circle

# M-Series

## Shell Mill Style with 0° Lead Negative Rake 3/8" I.C.



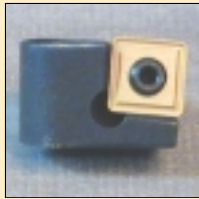
Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-TN3-0-3W(3)	TNMA-322	3	3/4" Weldon	-	-	MTN3-0	16288	DIS-4-10	10326-A
	M-SNR-2-TN3-0-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-TN3-0-B(3)			R8	-	-				
3"	M-SNR-3-TN3-0-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-TN3-0-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-TN3-0-6(6)			-	1.5"	5/8"				
6"	M-SNR-6-TN3-0-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-TN3-0-10(10)		10	-	-	-				
10**	M-SNR-10-TN3-0-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 0° Lead Negative Rake 1/2" I.C.



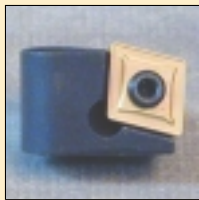
Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-CN4-0-3W(3)	CNMG-432	3	3/4" Weldon	-	-	MCN4-0	16288	DIS-4-10	10326-A
	M-SNR-2-CN4-0-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-CN4-0-B(3)			R8	-	-				
3"	M-SNR-3-CN4-0-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-CN4-0-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-CN4-0-6(6)			-	1.5"	5/8"				
6"	M-SNR-6-CN4-0-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-CN4-0-10(10)		10	-	-	-				
10**	M-SNR-10-CN4-0-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 5° Lead Negative Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-SN4-5-3W(3)	SNMG-432	3	3/4" Weldon	-	-	MSN4-5	16288	DIS-4-10	10326-A
	M-SNR-2-SN4-5-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-SN4-5-B(3)			R8	-	-				
3"	M-SNR-3-SN4-5-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-SN4-5-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-SN4-5-6(6)			-	1.5"	5/8"				
6"	M-SNR-6-SN4-5-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-SN4-5-10(10)		10	-	-	-				
10**	M-SNR-10-SN4-5-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 15° Lead Negative Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-CN4-15-3W(3)	CNMG-432	3	3/4" Weldon	-	-	MCN4-15	16288	DIS-4-10	10326-A
	M-SNR-2-CN4-15-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-CN4-15-B(3)			R8	-	-				
3"	M-SNR-3-CN4-15-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-CN4-15-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-CN4-15-6(6)			-	1.5"	5/8"				
6"	M-SNR-6-CN4-15-8(8)		8	-	2"	3/4"				
8*	M-SNR-8-CN4-15-10(10)		10	-	-	-				
10*	M-SNR-10-CN4-15-10(12)		12	-	2.5"	1"				



# M-Series

## Shell Mill Style with 30° Lead Negative Rake 1/2" I.C.

Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-SN4-30-3W(3)	SNMG-432	3	3/4" Weldon	-	-	MSN4-30	16288	DIS-4-10	10326-A
	M-SNR-2-SN4-30-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-SN4-30-B(3)			R8	-	-				
3"	M-SNR-3-SN4-30-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-SN4-30-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-SN4-30-6(6)			6	-	1.5"				
6"	M-SNR-6-SN4-30-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-SN4-30-10(10)		10	-	-	-				
10**	M-SNR-10-SN4-30-10(12)		12	-	2.5"	1"				

## Shell Mill Style with 45° Lead Negative Rake 1/2" I.C.

Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-SN4-45-3W(3)	SNMG-432	3	3/4" Weldon	-	-	MSN4-45	16288	DIS-4-10	10326-A
	M-SNR-2-SN4-45-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-SN4-45-B(3)			R8	-	-				
3"	M-SNR-3-SN4-45-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-SN4-45-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-SN4-45-6(6)			6	-	1.5"				
6"	M-SNR-6-SN4-45-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-SN4-45-10(10)		10	-	-	-				
10**	M-SNR-10-SN4-45-10(12)		12	-	2.5"	1"				

## Shell Mill Style with Round Inserts Negative Rake 1/2" I.C.

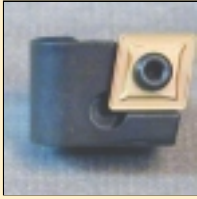
Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SNR-2-RN4-0-W(3)	RNMG-432	3	3/4" Weldon	-	-	MRN4	16288	DIS-4-10	10326-A
	M-SNR-2-RN4-0-5W(3)			1.25" Weldon	-	-				
	M-SNR-2-RN4-0-B(3)			R8	-	-				
3"	M-SNR-3-RN4-0-4(5)		5	-	1"	3/8"				
4"	M-SNR-4-RN4-0-5(5)			-	1.25"	1/2"				
5"	M-SNR-5-RN4-0-6(6)			6	-	1.5"				
6"	M-SNR-6-RN4-0-8(8)		8	-	2"	3/4"				
8**	M-SNR-8-RN4-0-10(10)		10	-	-	-				
10**	M-SNR-10-RN4-0-10(12)		12	-	2.5"	1"				

\*Cutters are 2 3/8" thick and supplied with 4.00" bolt circle

- Left-handed available
- Wedge-lock designs available
- Nests can be adapted to hold your insert

# M-Series

## Shell Mill Style with 0° Lead Hi-Positive Rake 3/8" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-AP16-0-3W(3)	APKT-1604PDSR	3	3/4" Weldon	-	-	MAP3-0	16288	TX-0832-3	10326-A
	M-SPR-2-AP16-0-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-AP16-0-B(3)			R8	-	-				
3"	M-SPR-3-AP16-0-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-AP16-0-5(5)		6	-	1.25"	1/2"				
5"	M-SPR-5-AP16-0-6(6)		8	-	1.5"	5/8"				
6"	M-SPR-6-AP16-0-8(8)		10	-	2"	3/4"				
8**	M-SPR-8-AP16-0-10(10)		12	-	2.5"	1"				
10**	M-SPR-10-AP16-0-10(12)									

## Shell Mill Style with 1° Lead Hi-Positive Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SE4-1-3W(3)	SEGH-433	3	3/4" Weldon	-	-	MSE4-1	16288	TX-0832-3	10326-A
	M-SPR-2-SE4-1-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SE4-1-B(3)			R8	-	-				
3"	M-SPR-3-SE4-1-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SE4-1-5(5)		6	-	1.25"	1/2"				
5"	M-SPR-5-SE4-1-6(6)		8	-	1.5"	5/8"				
6"	M-SPR-6-SE4-1-8(8)		10	-	2"	3/4"				
8**	M-SPR-8-SE4-1-10(10)		12	-	2.5"	1"				
10**	M-SPR-10-SE4-1-10(12)									

## Shell Mill Style with 15° Lead Hi-Positive Rake 1/2" I.C.



Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SE4-15-3W(3)	SEGH-433	3	3/4" Weldon	-	-	MSE4-15	16288	TX-0832-3	10326-A
	M-SPR-2-SE4-15-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SE4-15-B(3)			R8	-	-				
3"	M-SPR-3-SE4-15-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SE4-15-5(5)		6	-	1.25"	1/2"				
5"	M-SPR-5-SE4-15-6(6)		8	-	1.5"	5/8"				
6"	M-SPR-6-SE4-15-8(8)		10	-	2"	3/4"				
8**	M-SPR-8-SE4-15-10(10)		12	-	2.5"	1"				
10**	M-SPR-10-SE4-15-10(12)									



# M-Series

## Shell Mill Style with 30° Lead Hi-Positive Rake 1/2" I.C.

Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SE4-30-3W(3)	SEGH-433	3	3/4" Weldon	-	-	MSE4-30	16288	TX-0832-3	10326-A
	M-SPR-2-SE4-30-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SE4-30-B(3)			R8	-	-				
3"	M-SPR-3-SE4-30-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SE4-30-5(5)			-	1.25"	1/2"				
5"	M-SPR-5-SE4-30-6(6)			6	-	1.5"				
6"	M-SPR-6-SE4-30-8(8)		8	-	2"	3/4"				
8"	M-SPR-8-SE4-30-10(10)		10	-	2.5"	1"				
10"	M-SPR-10-SE4-30-10(12)		12	-						

## Shell Mill Style with 45° Lead Hi-Positive Rake 1/2" I.C.

Cut Dia. 'A'	Catalog #	Insert	# of Inserts	Shank	Bore 'B'	Drive Slot 'C'	Nest	Nest Screw	Insert Screw	Adjusting Screw
2"	M-SPR-2-SE4-45-3W(3)	SEGH-433	3	3/4" Weldon	-	-	MSE4-45	16288	TX-0832-3	10326-A
	M-SPR-2-SE4-45-5W(3)			1.25" Weldon	-	-				
	M-SPR-2-SE4-45-B(3)			R8	-	-				
3"	M-SPR-3-SE4-45-4(5)		5	-	1"	3/8"				
4"	M-SPR-4-SE4-45-5(5)			-	1.25"	1/2"				
5"	M-SPR-5-SE4-45-6(6)			6	-	1.5"				
6"	M-SPR-6-SE4-45-8(8)		8	-	2"	3/4"				
8"	M-SPR-8-SE4-45-10(10)		10	-	2.5"	1"				
10"	M-SPR-10-SE4-45-10(12)		12	-						

\*Cutters are 2 3/8" thick and supplied with 4.00" bolt circle

- Left-handed available
- Wedge-lock designs available
- Nests can be adapted to hold your insert

# M-Series

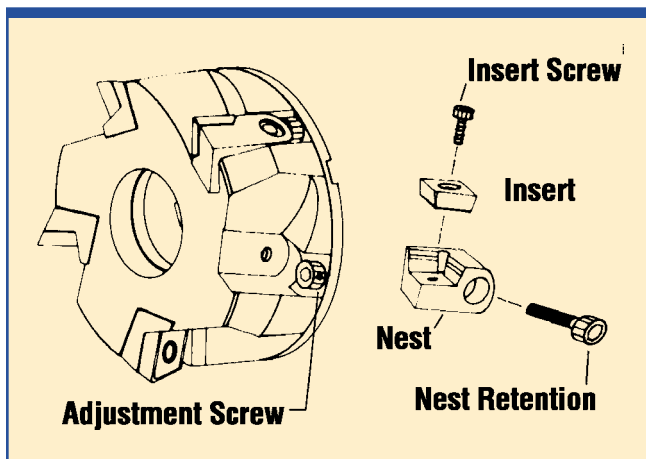
## Instruction for "M" Series Milling Cutter Setup

The Lindsay Cutting Tools "M" Style Milling Cutter products are unique in the fact that they are **modular** in design. This concept creates flexibility and interchangeability of lead and rake angles through the proper selection, application and set-up of the modular components which comprise the completed assembly.

This assembly consists of:

- A ruggedly designed one piece cutter body
- Replaceable nests
- Standard carbide insert
- Nest adjustment screws
- Nest retention screws
- Insert retention screws

After selecting the proper lead and rake angle nest (see page 35), and the proper geometry and grade of carbide inserts to be used, it is important that proper set-up procedures be followed to insure that maximum productivity and tool life are achieved.



The following set-up procedure is recommended:

- A. When installing a complete set of nests:
1. Back off nest adjustment screw
  2. Place nests in body and snug nest retention screw while placing finger pressure against the top of nest so that it locates toward the adjustment screw.
  3. After all nests are installed, place inserts in nests and tighten insert retention screw. (Caution - Do Not Overtighten)
  4. Next rotate nest adjustment screws until slight contact is made against the nest.
  5. Place assembly, back side down, on a surface plate or setting fixture.
  6. Using a dial indicator, locate the insert which sits the highest from the surface plate and while placing light finger pressure on top of the nest/insert in the direction toward the adjusting screw, back off then retighten the nest retention screw just enough to seat and hold the nest firmly in place. (Tighten nest retention screws to approximately 10 foot lbs.)
  7. Recheck your height setting. "Zero" your indicator and rotate the cutter body until you can indicate the next insert.
  8. Repeat step #6 using the nest adjustment screw to achieve the same "zero" point as on previous insert.
  9. Continue to set all inserts in this manner, maintaining a  $\pm .001$ " set-up tolerance or better to insure obtaining the best part finish possible.
- B. When only replacing one nest or when indexing inserts, only steps #6 through #9 are required.

NOTE: When more convenient, or when a surface plate/setting fixture is not available, the cutter body may be located in the machine and steps #1-9 followed in the same manner.

