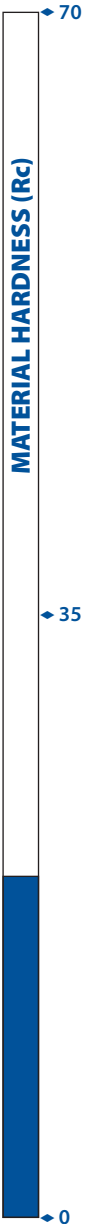


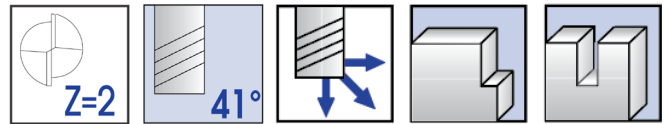
**N**

**HSAL End Mills**  
**BALINIT® MAYURA Coating**

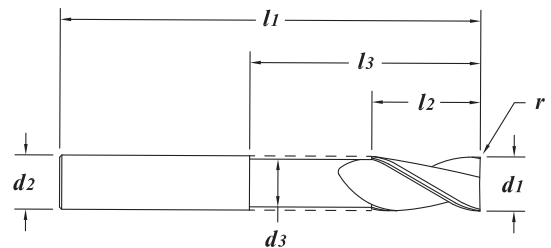
**Target Materials:**  
Aluminum



**142M**   **142R**   **142B**



**CALCULATE IDEAL PARAMETERS  
FOR THE 142M, 142R AND 142B  
IN YOUR APPLICATION WITH  
GARR TECHNICAL ADVISOR**



← **View the 142**

**TOLERANCES**

<i>d1</i>	+0.000" -0.001" (+0.000 -0.025mm)
<i>d2</i>	h6
<i>r</i>	+0.001" -0.001" (+0.025 -0.025mm)
<i>ball</i>	+0.0000" -0.0005" (+0.0000 -0.0127mm)

# HIGH EFFICIENCY MILLING

Series 142M, 142R, 142B



.1575" - .2756"  
(4.000mm - 7.000mm)

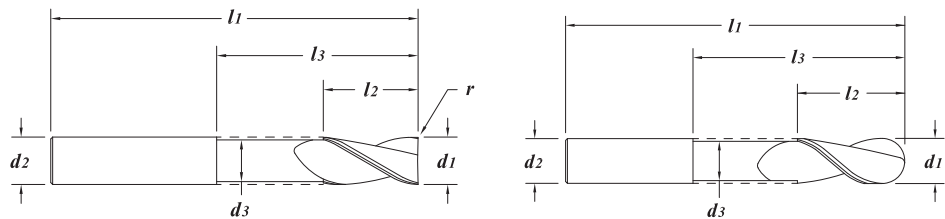
Recommended for aluminum

HIGH PERFORMANCE  
END MILLS

## HSAL End Mill - Square End, Corner Radius and Ball End

### BALINIT® MAYURA Coating

- Solid submicron grain carbide end mill - center cutting
- Engineered for High Efficiency Milling
- Specific coating engineered to repel aluminum
- Engineered to run at 750-2500 SFM (225-750 M/Min.)
- For high speed machining of aluminum
- High velocity - high metal removal rate (for spindles 10,000 RPM and above)
- Need to use properly balanced holders
- Holds perpendicularity
- Flats can be added within 48 hours



EDP#	<i>d1</i> † Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>r</i> Corner Radius	<i>l3</i> Reach Length	<i>d3</i> Neck Diameter
	Decimal	Metric						
41222	.1575	4.000	6	50	12	-	-	-
39222	.1575	4.000	6	50	12	0.30	-	-
42522	.1575	4.000	6	50	12	BALL	-	-
41232	.1575	4.000	6	65	6	-	20	3.7
39232	.1575	4.000	6	65	6	0.50	20	3.7
39242	.1575	4.000	6	65	6	1.00	20	3.7
41282	.1875	3/16"	4.763	3/16"	2"	9/16"	-	-
39282	.1875	3/16"	4.763	3/16"	2"	9/16"	.010"	-
42582	.1875	3/16"	4.763	3/16"	2"	9/16"	BALL	-
41342	.1969	5.000	6	65	16	-	-	-
39342	.1969	5.000	6	65	16	0.30	-	-
42642	.1969	5.000	6	65	16	BALL	-	-
41352	.1969	5.000	6	75	8	-	20	4.7
39352	.1969	5.000	6	75	8	0.50	20	4.7
39362	.1969	5.000	6	75	8	1.00	20	4.7
41402	.2362	6.000	6	65	19	-	-	-
39402	.2362	6.000	6	65	19	0.30	-	-
42702	.2362	6.000	6	65	19	BALL	-	-
41412	.2362	6.000	6	75	10	-	25	5.7
39412	.2362	6.000	6	75	10	0.50	25	5.7
39422	.2362	6.000	6	75	10	1.00	25	5.7
39432	.2362	6.000	6	75	10	1.50	25	5.7
39442	.2362	6.000	6	75	10	2.00	25	5.7
41462	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	-	-
39462	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	-
42762	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	BALL	-
42764	.2500	1/4"	6.350	1/4"	4"	3/8"	BALL	1-1/8"
41542	.2756	7.000	8	65	19	-	-	-
42842	.2756	7.000	8	65	19	BALL	-	-

70  
MATERIAL HARDNESS (Rc)  
35  
0

# Series 142M, 142R, 142B

.3125" - .7500"  
(7.938mm - 19.050mm)

MATERIAL HARDNESS (Rc)

70

35

0

EDP#	$d1^{\dagger}$ Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	$r$ Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter	
	Decimal	Metric							
41602	.3125	5/16"	7.938	5/16"	2-1/2"	3/4"	-	-	
39602	.3125	5/16"	7.938	5/16"	2-1/2"	3/4"	.015"	-	
42902	.3125	5/16"	7.938	5/16"	2-1/2"	3/4"	BALL	-	
41662	.3150		8.000	8	65	19	-	-	
39662	.3150		8.000	8	65	19	0.50	-	
42962	.3150		8.000	8	65	19	BALL	-	
41672	.3150		8.000	8	75	12	-	25	7.4
39672	.3150		8.000	8	75	12	0.50	25	7.4
39682	.3150		8.000	8	75	12	1.00	25	7.4
39692	.3150		8.000	8	75	12	2.00	25	7.4
39702	.3150		8.000	8	75	12	3.00	25	7.4
41722	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	-	-	-
39722	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.030"	-	-
43022	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	BALL	-	-
43023	.3750	3/8"	9.525	3/8"	4"	1/2"	BALL	1-1/8"	.355"
41802	.3937		10.000	10	70	24	-	-	-
39802	.3937		10.000	10	70	24	0.50	-	-
43102	.3937		10.000	10	70	24	BALL	-	-
41812	.3937		10.000	10	75	12	-	30	9.4
41822	.3937		10.000	10	100	12	-	35	9.4
39812	.3937		10.000	10	100	12	1.00	35	9.4
39822	.3937		10.000	10	100	12	1.50	35	9.4
39832	.3937		10.000	10	100	12	2.00	35	9.4
39842	.3937		10.000	10	100	12	3.00	35	9.4
41882	.4724		12.000	12	75	32	-	-	-
39882	.4724		12.000	12	75	32	0.50	-	-
43182	.4724		12.000	12	75	32	BALL	-	-
41892	.4724		12.000	12	75	16	-	30	11.4
41902	.4724		12.000	12	100	16	-	35	11.4
41912	.4724		12.000	12	100	16	-	40	11.4
39892	.4724		12.000	12	100	16	0.50	40	11.4
39902	.4724		12.000	12	100	16	1.00	40	11.4
39912	.4724		12.000	12	100	16	1.50	40	11.4
39922	.4724		12.000	12	100	16	2.00	40	11.4
39932	.4724		12.000	12	100	16	3.00	40	11.4
41942	.5000	1/2"	12.700	1/2"	3"	1-1/4"	-	-	-
39942	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-
43242	.5000	1/2"	12.700	1/2"	3"	1-1/4"	BALL	-	-
43243	.5000	1/2"	12.700	1/2"	4"	5/8"	BALL	2-1/4"	.475"
42022	.6250	5/8"	15.875	5/8"	4"	1-5/8"	-	-	-
40022	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.030"	-	-
43322	.6250	5/8"	15.875	5/8"	4"	1-5/8"	BALL	-	-
42072	.6299		16.000	16	75	16	-	30	15.4
42082	.6299		16.000	16	100	40	-	-	-
40082	.6299		16.000	16	100	40	1.00	-	-
43382	.6299		16.000	16	100	40	BALL	-	-
42092	.6299		16.000	16	100	20	-	40	15.4
42102	.6299		16.000	16	125	20	-	60	15.4
40092	.6299		16.000	16	125	20	1.00	60	15.4
40102	.6299		16.000	16	125	20	2.00	60	15.4
42142	.7500	3/4"	19.050	3/4"	4"	1-5/8"	-	-	-
40142	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.030"	-	-
43442	.7500	3/4"	19.050	3/4"	4"	1-5/8"	BALL	-	-
43444	.7500	3/4"	19.050	3/4"	5"	1"	BALL	3-1/16"	.715"

# Series 142M, 142R, 142B

.7874" - 1.000"  
(20.000mm - 25.400mm)

HIGH PERFORMANCE  
END MILLS

EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	$r$ Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter
	Decimal	Metric						
40182	.7874	20.000	20	100	40	1.00	-	-
42212	.7874	20.000	20	100	32	-	-	-
43482	.7874	20.000	20	100	32	BALL	-	-
42222	.7874	20.000	20	100	20	-	40	19
42232	.7874	20.000	20	125	20	-	60	19
40192	.7874	20.000	20	150	20	1.00	65	19
40202	.7874	20.000	20	150	20	2.00	65	19
40212	.7874	20.000	20	150	20	3.00	65	19
43542	.9843	25.000	25	100	38	BALL	-	-
42302	1.000	1"	25.400	1"	4"	1-5/8"	-	-
43602	1.000	1"	25.400	1"	4"	1-5/8"	BALL	-

