

RING MILL BOWLS

1 of 3

A unique range of bowls from 10 to 2000cc nominal capacity

The Labtech Essa programme of ring mill bowls is unique because it includes 3 sizes of internationally patented high capacity and performance bowls together with a range of traditional ring and roller type bowls.

The patented bowls consist of a single, solid “flying saucer” shaped puck operating in a bowl with a concave curved bottom surface. The mass of this single puck in combination with the spatula like grinding interaction between its lower curved surface and that of the bowl provides superior pulverising with grinding performance. The puck also has an off-centre, truncated hole through it to assist in the mixing of the sample to assure homogeneity. These bowls are of through hardened steel construction for optimum life. They are available in 800, 1000 & 2000cc nominal capacity.



*Labtech Essa unique patented solid
“flying saucer” shaped puck*

Labtech Essa traditional ring and roller style bowls are available in 50, 100, 125, 300 & 400cc nominal capacity. These too are of through hardened steel construction as standard, with optional materials available on request.

All bowls in this range are suitable for use on the Labtech Essa model LM1, LM1.5 and LM2 mills as set out on page 2 of this data sheet (see separate data sheets for mill details). Ring and roller bowls can be used as replacements for those from other manufacturers.

The patented bowls typically have the ability (when used on a Labtech Essa mill) to reduce ores, minerals, metallurgical samples, ceramics, soils, aggregates, chemicals and similar particulates to a nominal 75 μ product in approximately 3 minutes; with the ring and roller range typically capable of producing an even finer product in approximately 1 to 3 minutes. The useable capacity of each bowl will generally be 60 to 80% of its nominal capacity. The performance expectation of all bowls is subject to the physical characteristics of the sample being milled and the final particle sizing required.

**Labtech Essa are pleased to be able to conduct
pre-purchase trials on customer supplied samples**



**Labtech
Essa**

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April 2002

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2 of 3

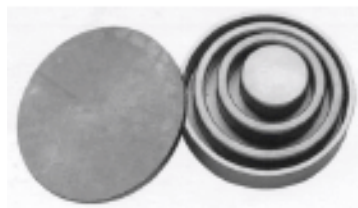
TYPES AND SIZES AVAILABLE

LABTECH ESSA UNIQUE 800, 1000 & 2000cc nominal capacity bowl assemblies:



Model number	Nominal capacity (cc)	Internal diameter x depth (mm)	Grinding elements	Mass (kg)
B800	800	210 x 65	1 disc	16
B1000	1000	240 x 65	1 disc	19
B2000	2000	252 x 93	1 disc	27

LABTECH ESSA ring & roller bowl assemblies:



Model number	Nominal capacity (cc)	Internal diameter x depth (mm)	Grinding elements	Mass (kg)
B50	50	65 x 37	1 roller	2
B100	100	140 x 50	1 ring + 1 roller	7
B125	125	140 x 60	1 ring + 1 roller	7
B300	300	200 x 47	2 rings + 1 roller	14
B400	400	200 x 47	1 ring + 1 roller	14

NOTE: A spacer ring may need to be fitted between the bowl and the mill to assure correct fitment of the bowl.

All the above bowl assemblies are suitable for use on the Labtech Essa Models LM1, LM1.5 and LM2 mills

(The use of the B1000 and B2000 is not recommended when connecting the LM1 to a 60 cycle power supply)

Labtech Essa ring and roller bowls can be substituted for any equivalent product on mills manufactured by others. Labtech Essa models B800, B1000 & B2000 bowls however are not recommended for use on competitors mills unless of equivalent power and speed.

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STEEL BOWLS: TYPICAL ANALYSIS

Essa Genuine Steel Grinding Bowls and Grinding Elements

Including our High-Capacity, High-Production Bowl and Disc Type

Grinding bowls and elements are manufactured from steel having the following **maximum** levels of minor and trace elements.

ELEMENT	STANDARD		CHROME	
	Max. Level	Unit	Max. Level	Unit
Au	2.0	ppm	0.05	ppm
Ag	10	ppm	1.0	ppm
Bi	10	ppm	10	ppm
Cd	10	ppm	10	ppm
Co	2000	ppm	300	ppm
Cu	5000	ppm	2500	ppm
Cr	2500	ppm	14	%
Mg	2000	ppm	1000	ppm
Mn	2.0	%	7500	ppm
Mo	1.0	%	2500	ppm
Ni	5000	ppm	4000	ppm
Pb	2000	ppm	25	ppm
V	1.0	%	1500	ppm
Zn	2000	ppm	500	ppm

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Every batch of steel used in our manufacturing process is tested by a certified laboratory. If you would like a copy of the Batch Analysis Report regarding your particular bowl or grinding elements or require further information please contact Essa, quoting the serial number stamped into the bowl or grinding elements.

Email: mail@essa.com.au

Web: www.essa.com.au

BOWL PRODUCTS LISTING

SUITABLE MILL FOR BOWL	BOWL MODEL	ITEM	CHROME STEEL	STANDARD STEEL	SPACER RING
LM1 Mill 50hZ	B50	Bowl	471002	477002	470001
		Roller	471003	477003	
		Lid	471004	471004	
		O Ring	470049	470049	
LM1 Mill 60hZ	B100	Bowl	471042	477006	470003
		Ring	471007	477007	
		Roller	471008	477008	
		Lid	471009	471009	
LM1.5 Mill 50hZ	B125	Bowl	471014	477014	470005
		Ring	471007	477007	
		Roller	471008	477008	
		Lid	471009	471009	
LM1.5 Mill 60hZ	B300	Bowl	471016	477016	470005
		Inner Ring	471096	477096	
		Outer Ring	471095	477095	
		Roller	471097	477097	
LM2 Mill 50 & 60hZ	B400	Lid	471018	471018	470005
		Lid Seal	470040	470040	
		Bowl	471016	477016	
		Ring	471098	477098	
LM5 Mill	B800	Roller	471099	477099	470007
		Lid	471018	471018	
		Lid Seal	470040	470040	
		Bowl	471025	477025	
	B1000	Disc	471026	477026	470007
		Lid	471027	471027	
		Lid Seal	470039	470039	
		Bowl	471029	477029	
	B2000	Disc	471030	477030	470007
		Lid	471032	471032	
		Lid Seal	470038	470038	
		Bowl	471029	477029	
	B5000	Disc	471034	477034	Spacer Ring not required
		Lid	471035	477035	
		Lid Seal	471036	471036	
		Lid Seal	470021	470021	
	B5000	Bowl	n/a	477004	Not Applicable
		Disc	n/a	477005	
		Lid	n/a	475004	
		Lid Seal	n/a	470022	