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Specialty products for the Radiochemistry Laboratory

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MARINELLI BEAKERS CATALOG 2024



Snap-on Lid Design



Gas Marinelli Beaker



Threaded Lid Design

MARINELLI BEAKERS CATALOG

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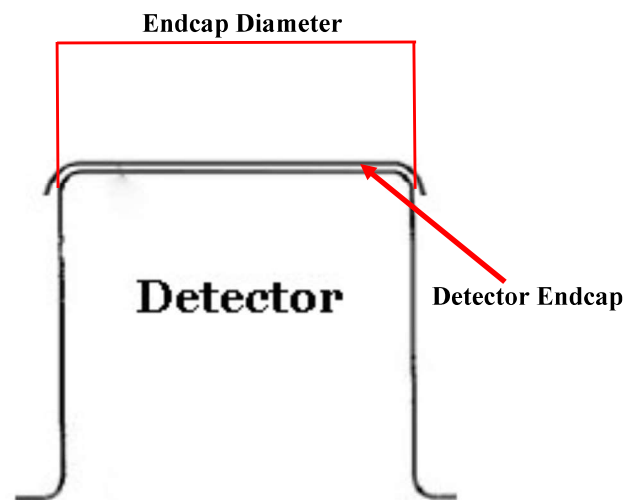
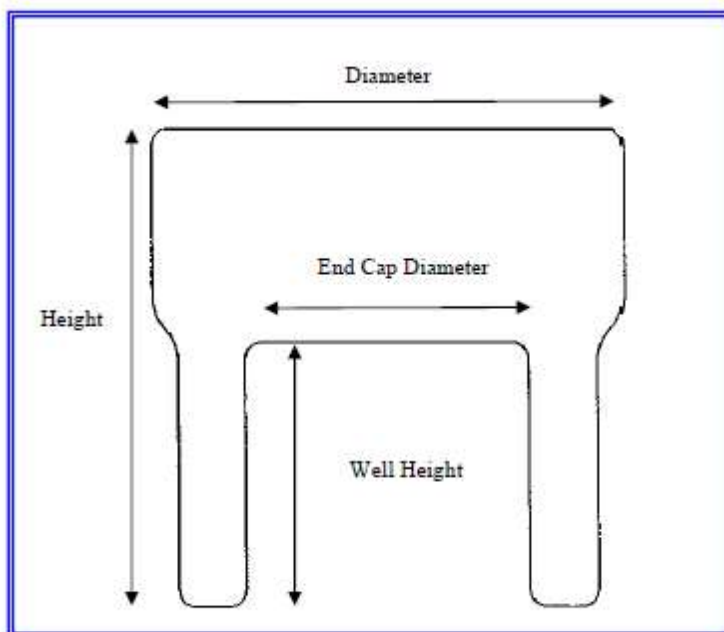
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MARINELLI BEAKERS

GA-MA sells a wide variety of Marinelli-type beakers and associated hardware designed for gamma spectroscopy applications involving solid, liquid and gas samples.

GA-MA manufactures a broad range of high-quality beakers with volumes ranging from 200 ml to 4 Liters for various types of detectors, such as Germanium, NaI, etc.

The use of Marinelli beakers in gamma spectroscopy applications permits one to obtain greater geometric detection efficiencies by positioning larger amounts of sample volume as close to the detector as possible.



MARINELLI BEAKERS FOR LIQUID AND SOLID SAMPLES

The Marinelli type beakers of polypropylene are used for analyzing radioactive liquid or solid samples.

GA-MA Beakers provide a convenient and cost-effective means for analyzing moderate to low activity level radioactive liquid or solid samples directly for gamma ray emitting isotopes.

Use of disposable GA-MA Beakers eliminates the tedious and time-consuming process of evaporating large volumes of liquid samples in planchets prior to analysis.

Principal characteristics:

1. Higher counting efficiencies
2. Snap on lid marinellis and threaded lid marinellis
3. Nestability, which requires minimal storage space (not applicable to some threaded jar containers)
4. Seamless, thin-wall construction eliminates sample leakage and minimizes gamma ray attenuation

SECTION A

GA-MA'S MARINELLI BEAKERS

WITH THREADED LIDS

PAGES 5 - 8

GA-MA'S NEW MARINELLI BEAKERS WITH THREADED LIDS

Containers for Liquid and Solid Samples

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~0.5" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~500 ML							
523GWMTJ	4.2 (10.7)	4.9 (12.4)	2.7 (6.9)	2.32 (5.9)	0.730	Germanium or 2x2 NaI	2.30 (5.8)
530GWMTJ & 530GSWMTJ	4.2 (10.7)	4.9 (12.4)	2.7 (6.9)	3.03 (7.7)	0.500	Germanium	3.00 (7.6)

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~1" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~1 LITER							
127GWMTJ	5.9 (15.0)	5.7 (14.5)	3.0 (7.6)	2.80 (7.1)	1.26	Germanium	2.75 (7.0)
130GWMTJ	5.9 (15.0)	5.7 (14.5)	3.0 (7.6)	3.05 (7.7)	1.18	Germanium	3.00 (7.6)
133GWMTJ	5.9 (15.0)	5.7 (14.5)	3.0 (7.6)	3.34 (8.5)	1.10	3x3 NaI	3.25 (8.3)

~500 ML GA-MA BEAKERS WITH THREADED LIDS

POLYPROPYLENE BEAKERS for LIQUID and SOLID SAMPLES

MODEL: 523GWMTJ

2.30" (5.8cm)

Detector End Cap Diameter

Polypropylene Beaker

Polypropylene Lid



MODEL: 530GSWMTJ*

3.00" (7.6cm)

Detector End Cap Diameter

Polystyrene Beaker*

Polypropylene Lid



MODEL: 530GWMTJ

3.00" (7.6cm)

Detector End Cap Diameter

Polypropylene Beaker

Polypropylene Lid



~1 LITER GA-MA BEAKERS WITH THREADED LIDS

POLYPROPYLENE BEAKERS for LIQUID and SOLID SAMPLES

MODEL: 130GWMTJ

3.00" (7.6cm)

Detector End Cap Diameter

Polypropylene Beaker

Polypropylene Lid



MODEL: 133GWMTJ

3.25" (8.3cm)

Detector End Cap Diameter

Polypropylene Beaker

Polypropylene Lid



MODEL: 127GWMTJ

2.75" (7.0cm)

Detector End Cap Diameter

Polypropylene Beaker

Polypropylene Lid



SECTION B

GA-MA'S MARINELLI BEAKERS

WITH SNAP-ON LIDS

PAGES 9 - 13

MINI-MARINELLI CONTAINERS FOR LIQUID AND SOLID SAMPLES

Mini-Marinelli Beakers ~250 ml

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~0.5" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~250 ML							
443016	2.6 (6.6)	4.5 (11.4)	1.5 (3.8)	3.06 (7.8)	0.235	Germanium	3.00 (7.6)
463316	2.6 (6.6)	4.6 (11.7)	1.5 (3.8)	3.33 (8.5)	0.222	Germanium or 3x3 NaI	3.25 (8.3)



SNAP-ON LID CONTAINERS FOR LIQUID AND SOLID SAMPLES

~500 ml Marinelli Beakers

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~1" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~500 ML							
523N-E	4.1 (10.4)	4.6 (11.7)	2.7 (6.8)	2.30 (5.8)	0.49	Germanium or 2x2 NaI	2.20 (5.6)
527G-E	4.1 (10.4)	4.6 (11.7)	2.7 (6.8)	2.80 (7.1)	0.44	Germanium	2.75 (7.0)
*530G-E	4.2 (10.7)	4.6 (11.7)	2.7 (6.8)	3.03 (7.7)	0.40	Germanium	3.00 (7.6)
533N-E	4.6 (11.7)	5.1 (13.0)	2.9 (7.5)	3.30 (8.4)	0.51	Germanium or 3x3 NaI	3.25 (8.3)
538G-E	5.0 (12.7)	5.5 (14.0)	3.3 (8.4)	3.78 (9.6)	0.63	Germanium	3.75 (9.5)
541G-E	5.0 (12.7)	5.5 (14.0)	3.5 (8.9)	4.10 (10.4)	0.48	Germanium	4.00 (10.2)
580G-E	4.6 (11.7)	5.1 (13.0)	2.8 (7.1)	3.19 (8.1)	0.58	Germanium	3.15 (8.0)
590G-E	4.6 (11.7)	5.1 (13.0)	3.0 (7.6)	3.60 (9.1)	0.44	Germanium	3.54 (9.0)

*Model 530G-E: NSN#6640-01-063-5570



SNAP-ON LID CONTAINERS FOR LIQUID AND SOLID SAMPLES

~1 Liter Marinelli Beakers

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~1" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~1 Liter							
125G-E	6.0 (15.2)	5.1 (13.0)	3.0 (7.6)	2.56 (6.5)	1.02	Germanium or 2×2 NaI	2.50 (6.4)
127G-E	6.0 (15.2)	5.1 (13.0)	3.0 (7.6)	2.81 (7.1)	0.97	Germanium	2.75 (7.0)
*130G-E	6.1 (15.5)	5.1 (13.0)	3.0 (7.6)	3.05 (7.7)	0.95	Germanium	3.00 (7.6)
LA130G-E	5.1 (13.0)	6.7 (17.0)	3.0 (7.6)	3.05 (7.7)	1.15	Germanium	3.00 (7.6)
132G-E	5.1 (13.0)	6.7 (17.0)	2.8 (7.1)	3.32 (8.4)	1.10	Germanium	3.25 (8.3)
*133N-E	6.0 (15.2)	5.1 (13.0)	3.0 (7.6)	3.33 (8.5)	0.83	Germanium, or 3×3 NaI	3.25 (8.3)
138G-E	6.5 (16.5)	6.2 (15.7)	4.0 (10.2)	3.80 (9.7)	1.60	Germanium	3.75 (9.5)
141G-E	6.5 (16.5)	6.2 (15.7)	4.0 (10.2)	4.08 (10.3)	1.46	Germanium	4.00 (10.2)
190G-E	5.1 (13.0)	6.7 (17.0)	3.0 (7.6)	3.59 (9.1)	1.00	Germanium	3.54 (9.0)

*Model 130G-E: NSN#6640-01-498-9356 /

*Model 133N-E: NSN#6640-01-618-0075



SNAP-ON LID CONTAINERS FOR LIQUID AND SOLID SAMPLES

~2 Liter and ~4 Liter Marinelli Beakers

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	~1" Free board Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~2 Liter							
227G-E	6.5 (16.5)	6.2 (15.7)	3.0 (7.6)	2.81 (7.1)	1.80	Germanium, or 2x2 NaI	2.75 (7.0)
230G-E	6.5 (16.5)	6.2 (15.7)	3.0 (7.6)	3.12 (7.9)	1.74	Germanium	3.00 (7.6)
233N-E	6.5 (16.5)	6.2 (15.7)	3.0 (7.6)	3.30 (8.4)	1.68	Germanium, or 3x3 NaI	3.25 (8.3)
~4 Liter							
*430G-E	7.0 (17.8)	7.9 (20.1)	3.0 (7.6)	3.06 (7.8)	3.76	Germanium	3.00 (7.6)
438G-E	7.0 (17.8)	7.9 (20.1)	4.0 (10.2)	3.77 (9.6)	3.36	Germanium	3.75 (9.5)
433N-E	7.0 (17.8)	7.9 (20.1)	3.0 (7.6)	3.37 (8.6)	3.69	Germanium, or 3x3 NaI	3.25 (8.3)
441G-E	7.0 (17.8)	7.9 (20.1)	4.0 (10.2)	4.07 (10.3)	3.28	Germanium	4.00 (10.2)
445N-E	7.0 (17.8)	7.9 (20.1)	4.1 (10.4)	4.44 (11.3)	3.06	Germanium or 4x4 NaI	4.25 (10.8)
448G-E	7.0 (17.8)	7.9 (20.1)	4.2 (10.7)	4.79 (12.1)	2.88	Germanium	4.75 (12.1)

*Model 430G-E: NSN#6640-01-492-3305



GAS CONTAINERS FOR GASEOUS SAMPLES

GA-MA manufactures Marinelli-type gas analysis containers. The containers are available for Germanium detectors as well as the NaI detectors.

Gas containers are designed to be used with two valves, which permit the flushing, venting and containment of the radioactive gas samples.

Gas containers are designed for disposable use and may be obtained for very economical prices when purchased in bulk quantities. Disposable use is appropriate for laboratories having large sample loads and/or low detection sensitivity requirements.

The use of Gas containers enables one to significantly reduce sample count times without sacrificing detection sensitivity.

Thin walls minimize attenuation of low energy gamma ray lines, such as the 81 Kev gamma ray of Xe-133, normally found in nuclear power plant radwaste discharges and process streams.



MARINELLI GAS CONTAINERS For GAS SAMPLES

~1 Liter Beakers

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	Approximate Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~1 Liter							
G-125G	6.1 (15.5)	5.2 (13.2)	3.0 (7.6)	2.55 (6.4)	1.4	Germanium	2.50 (6.4)
G-127G	6.1 (15.5)	5.2 (13.2)	3.1 (7.9)	2.82 (7.2)	1.3	Germanium	2.75 (7.0)
G-130G	6.1 (15.5)	5.2 (13.2)	3.0 (7.6)	3.7 (7.8)	1.2	Germanium or Ge-Li	3.00 (7.6)
G-133N	6.1 (15.5)	5.2 (13.2)	3.0 (7.6)	3.37 (8.5)	1.1	3×3 NaI	3.25 (8.3)

**GAS GA-MA Beaker
Model G-130G
With PVC-1 Valves**



MARINELLI GAS CONTAINERS

For GAS SAMPLES

~4 Liter Beakers

Model	Height Inches (cm)	Diameter Inches (cm)	Well Height Inches (cm)	Well Diameter Inches (cm)	Approximate Volume (Liters)	Detector Types	EndCap Diameter Inches (cm)
~4 Liter							
G-430G	7.1 (18.0)	8.1 (20.6)	3.0 (7.6)	3.05 (7.7)	4.57	Germanium or Ge-Li	3.00 (7.6)
G-433N	7.1 (18.0)	8.1 (20.6)	3.0 (7.6)	3.35 (8.5)	4.50*	3×3 NaI	3.25 (8.3)
G-438G	7.1 (18.0)	8.1 (20.6)	4.0 (10.2)	3.80 (9.6)	4.17*	Germanium	3.75 (9.5)
G-441G	7.1 (18.0)	8.1 (20.6)	4.0 (10.2)	4.07 (10.3)	4.09*	Germanium	4.00 (10.2)
G-445N	7.1 (18.0)	8.1 (20.6)	4.2 (10.7)	4.50 (11.4)	4.07*	Germanium or 4×4 NaI	4.25 (10.8)

**GAS GA-MA Beaker
Model G-430G
With GAV-1 Valves**



GA-MA RADIOGAS CONTAINERS

GA-MA manufactures radiogas sample containers that function both as a sample container and an analysis container. Radiogas containers are a substantial improvement over other small volume metal, or glass gas containers utilized in the nuclear power industry.

These containers will withstand up to 10 (PSIG) pressure. Appropriately sized valves facilitate the collection of gas samples and permit the flushing, venting and containment of gases. Quick-disconnect valves may be utilized with the RADIOGAS CONTAINERS.

GA-MA RADIOGAS CONTAINERS are available in 25cc or 100cc volume sizes. They are suitable for gamma spectrum analysis of radioactive gas samples containing moderate-to-high levels of radioactivity; such as those found in nuclear power plant gas decay tanks and containment atmospheres. These containers are also in a geometric configuration to allow high level radioactive samples to be easily elevated from the detector; thus eliminating high dead-time problems due to very high count rates.

Radiogas containers are integral units made of high-quality, rigid, lightweight plastic materials that are resistant to corrosive gas mediums. Thin-wall construction provides greater detection sensitivities by minimizing the attenuation of low energy gamma rays, such as the 81 keV gamma line of Xe-133.

Model	Height w/o Valves Inches (cm)	Max. Diameter w/o Valves Inches (cm)
RG-25	1.13 (2.9)	2.29 (5.8)
RG-100	2.46 (6.2)	2.29 (5.8)



Model RG-25



Model RG-100

RADIO GAS CONTAINERS WITH VALVES



RG-100VG
**Radiogas Container with
GAV-1 Valves**



RG-100V
**Radiogas Container with
QDV-1 Valves**



RG-25VG
**Radiogas Container with
GAV-1 Valves**



RG-25V
**Radiogas Container with
QDV-1 Valves**

VALVES

GA-MA provides three models of plastic valves for use with GAS GA-MA Containers. Models GAV-1 and QDV-1 can be used with the Radiogas Container.

GA-MA VALVE: GAV-1

Height: 1.75"
Diameter: 2.10"
Weight: 6.0 grams
Material: Polyethylene



Quick Disconnect Valve: QDV-1

Height: 2.00"
Diameter: 1.00"
Weight: 7.7 grams
Material: Acetal

GA-MA provides a double o-ring quick-disconnect valve for use with its radiogas containers. This quick-disconnect dual o-ring seal can be utilized with pressures up to 10 p.s.i.g. This type of valve offers versatility of use for gas sampling.



PVC O-Ring Valve: PVC-1

Height: 3.44"
Diameter: 2.75"
Weight: 30.0 grams
Material: PVC

To be utilized with the GAS GA-MA Container. Each PVC valve has four o-rings, 1/4" NPT threaded end and a tapered hose connection for a flexible tubing

Features include:

- Easily adaptable to any type of connection
- Opens and closes with only a quarter turn
- Replaceable o-ring seats and seals
- Corrosion-resistant all thermo plastic PVC construction
- No sticking or galling
- Full port design



MODEL FB500
GA-MA Flat Bottom Beaker
500ML, Polypropylene with Polyethylene Lid.



Sample Type: Liquid or Solid

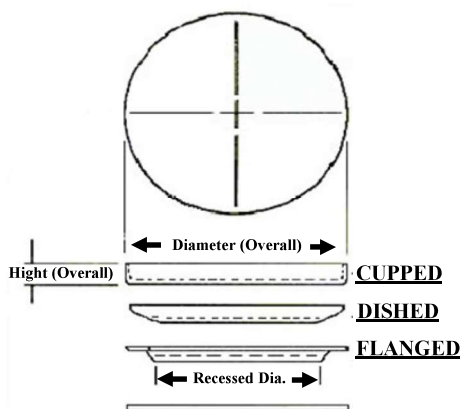
Nominal Height	2.7 inches (6.8cm)
Nominal Diameter	3.9 inches (9.9cm)
Volume Measured at Max Height	485ml
Volume Measured at .25" Freeboard	437ml
Beaker Material	Polypropylene
Lid Material	Polyethylene

Packaging

Quantity per Case:	96
Weight per Case:	Approximately 11.3lbs (5.13kg)
Shipping Dimensions:	17" X 17" X 16" (43.2cm X 43.2cm X 40.6cm)

PLANCHETS & RADIOCHEMISTRY DISCS

TYPE	STOCK NUMBER ALUMINUM	STOCK NUMBER STAINLESS STEEL	DIAMETER OVERALL		HEIGHT OVERALL		RECESSED DIAMETER	
			INCHES	MM	INCHES	MM	INCHES	MM
CUPPED	C-1A	C-1S	1	25.4	3/32	2.4		
	C-2A	C-2S	1	25.4	1/4	6.4		
	C-3A	C-3S	1	25.4	5/16	7.9		
	C-4A	C-4S	1-1/4	31.8	3/32	2.4		
	C-5A	C-5S	2	50.8	3/32	2.4		
	C-5AA	C-5AS	2	50.8	1/8	3.2		
	C-6A	C-6S	2	50.8	5/32	4.0		
	C-7A	C-7S	2-1/16	52.4	3/32	2.4		
	C-8A	C-8S	2-1/16	52.4	5/32	4.0		
	C-9A	C-9S	2	50.8	3/16	4.8		
	C-10A	C-10S	2	50.8	1/4	6.4		
	C-11A	C-11S	2	50.8	5/16	7.9		
	C-12A	C-12S	2-3/8	60.3	1/8	3.2		
	C-12AA	C-12AS	3-1/8	80.0	7/32	5.5		
	C-12BA	C-12BS	2-3/8	60.3	1/4	6.4		
DISHED	C13AA	C-13S	4-3/16	106.4	1/8	3.2		
	C-13A	C-13AS	4-3/16	106.4	1/4	6.4		
	C-14A	C-14S	4-1/2	114.3	1/8	3.2		
	C-15A	C-15S	4-7/8	123.8	5/32	4.0		
	D-AA	D-AS	1	25.4	3/32	2.4		
	D-1A	D-1S	2	50.8	5/32	4.0		
FLANGED	D-2A	D-2S	2-1/16	52.4	5/32	4.0		
	FL-1A	FL-1S	1-5/8	41.3	5/64	2.0	1-5/16	33.3
	FL-2A	FL-2S	1-5/8	41.3	1/8	3.2	1	25.4
	FL-3A	FL-3S	2-5/16	58.9	5/32	4.0	2-3/32	53.2
	FL-4A	FL-4S	2-5/16	58.9	5/16	7.9	2-3/32	53.2



CUPPED



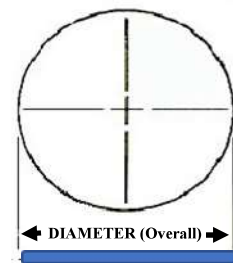
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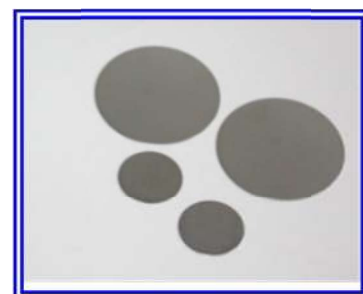
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PLANCHETS & RADIOCHEMISTRY DISCS FLAT BOTTOM

TYPE	STOCK NUMBER ALUMINUM*	STOCK NUMBER STAINLESS STEEL*	DIAMETER OVERALL	
			INCHES	MM
FLAT	F-CAA	F-CSA	5/8	15.9
	F-CAC	F-CSC	5/8	15.9
	F-CAD	F-CSD	5/8	15.9
	F-BAA	F-BSA	11/16	17.5
	F-BAC	F-BSC	11/16	17.5
	F-BAD	F-BSD	11/16	17.5
	F-AAA	F-ASA	3/4	19.0
	F-AAC	F-ASC	3/4	19.0
	F-AAD	F-ASD	3/4	19.0
	F-AAAA	F-AASA	7/8	22.0
	F-AAAC	F-AASC	7/8	22.0
	F-AAAD	F-AASD	7/8	22.0
	F-1AA	F-1SA	1	25.4
	F-1AC	F-1SC	1	25.4
	F-1AD	F-1SD	1	25.4
	F-2AA	F-2SA	1-1/4	31.8
	F-2AC	F-2SC	1-1/4	31.8
	F-2AD	F-2SD	1-1/4	31.8
	F-3A	F-3S	1-1/2	38.1
	F-3AA	F-3AS	1-3/4	44.0
	F-3BA	F-3BS	1-15/16	49.2
	F-4A	F-4S	2	50.8
	PACKAGING PREFERENCE DESIGNATION:	A: Bulk C: With Protective Tape D: One Per Envelope	ALL POLISHED ONE SIDE	



FLAT



NICKEL –PLANCHETS & RADIOCHEMISTRY DISCS

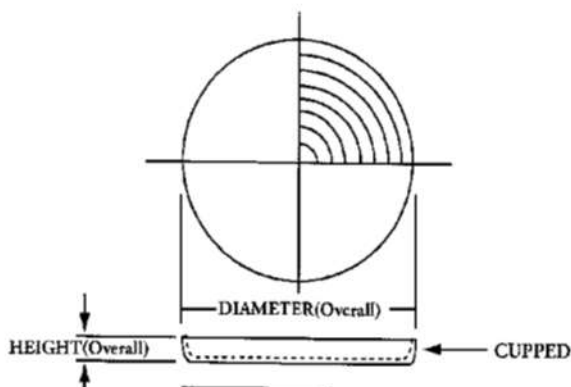
TYPE	STOCK NUMBER PRICE PER 1000	DIAMETER OVERALL	
		INCHES	MM
FLAT	F-CN	5/8	15.9
	F-BN	11/16	17.9
	F-AN	3/4	19.0
	F-AAN	7/8	22.0
	F-1N	1	25.4

NO DISCOUNTS ON ALL PLANCHETS

PLANCHETS & RADIOCHEMISTRY DISCS CONCENTRIC BOTTOM

TYPE	STOCK NUMBER ALUMINUM	STOCK NUMBER STAINLESS STEEL	DIAMETER OVERALL		HEIGHT OVERALL	
			INCHES	MM	INCHES	MM
CUPPED	C-1AC	C-1SC	1	25.4	3/32	2.4
	C-2AC	C-2SC	1	25.4	1/4	6.4
	C-3AC	C-3SC	1	25.4	3/16	7.9
	C-4AC	C-4SC	1-1/4	31.8	3/32	2.4
	C-5AC	C-5SC	2	50.8	3/32	2.4
	C-5AAC	C-5ASC	2	50.8	1/8	3.2
	C-6AC	C-6SC	2	50.8	5/32	4.0
	C-7AC	C-7SC	2-1/16	52.4	3/32	2.4
	C-8AC	C-8SC	2-1/16	52.4	5/32	4.0
	C-9AC	C-9SC	2	50.8	3/16	4.8
	C-10AC	C-10SC	2	50.8	1/4	6.4
	C-11AC	C-11SC	2	50.8	5/16	7.9
	C-12AAC	C-12ASC	3-1/8	80.0	7/32	5.5
	C-12AC	C-12SC	2-3/8	60.0	1/8	3.2
	C-13AAC	C-13ASC	4-3/16	106.4	1/8	3.2
	C-13AC	C-13SC	4-3/16	106.4	1/4	6.4
	C-14AC	C-14SC	4-1/2	114.3	1/8	3.2

NO DISCOUNTS ON ALL PLANCHETS



MARINELLI BEAKER SELECTION CHART BASED UPON DETECTOR ENDCAP DIAMETER

Detector Endcap Diameter =	2.30" (5.8cm)	2.50" (6.4cm)	2.75" (7.0cm)	3.00" (7.6cm)	3.15" (8.0cm)	3.15" (8.0cm) or 3.25" (8.3cm)	3.54" (9.0cm)	3.54" (9.0cm) or 3.75" (9.5cm)	4.00" (10.2cm)	4.25" (10.8cm)	4.75" (12.1cm)
Available Models :	523N-E 523GWMTJ	125G-E G-125G	527G-E 127G-E 227G-E G-127G 127GWMTJ	443016 530G-E 130G-E 230G-E 430G-E G-530G G-130G G-430G 130GWMTJ 530GWMTJ 530GSWMTJ	580G-E	463316 533N-E 132G-E 133N-E 233N-E 433N-E G-133N G-433N 133GWMTJ	590G-E 190G-E	538G-E 138G-E G-438G 438G-E	541G-E 141G-E 441G-E G-441G	445N-E G-445N	448G-E

