

## MARINELLI BEAKERS CATALOG



**Snap-on Lid Design**



**Gas Marinelli Beaker**



**Threaded Lid Design**

# MARINELLI BEAKERS CATALOG

## TABLE OF CONTENTS

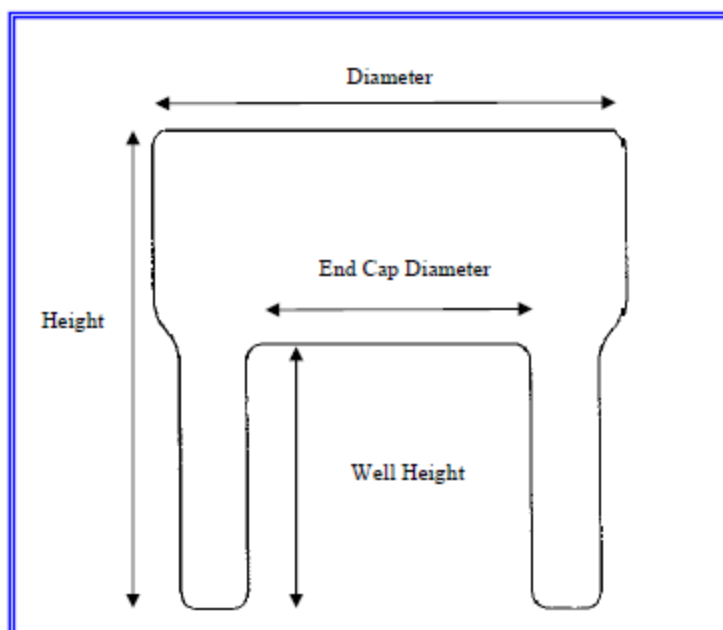
MARINELLI BEAKERS	3
LIQUID AND SOLID SAMPLES	4
<b>SECTION A:</b> THREADED LID MARINELLIS GA-MA'S STANDARD PRODUCT LINE	5—8
<b>SECTION B:</b> SNAP ON LID MARINELLIS GA-MA'S STANDARD PRODUCT LINE	9—13
GAS CONTAINERS POLYSTYRENE FOR GAS SAMPLES	14—16
RADIOGAS CONTAINERS WITH / WITHOUT VALVES	17—18
VALES	19
FLAT BOTTOM BEAKERS	20
PLANCHETS & RADIOCHEMISTRY DISCS	21—23
MARINELLI BEAKER SELECTION CHART	24
CUSTOMER SERVICE INFORMATION	25

# 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	Detector Types	EndCap Diameter Inches
<b>~500 ML</b>							
523GWMTJ	4.2 (10.7)	4.9 (12.4)	2.7 (6.9)	2.32 (5.9)	0.730	Germanium or Ge-Li	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 or Ge-Li	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)
<b>~1 LITER</b>							
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 or Ge-Li	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 88 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



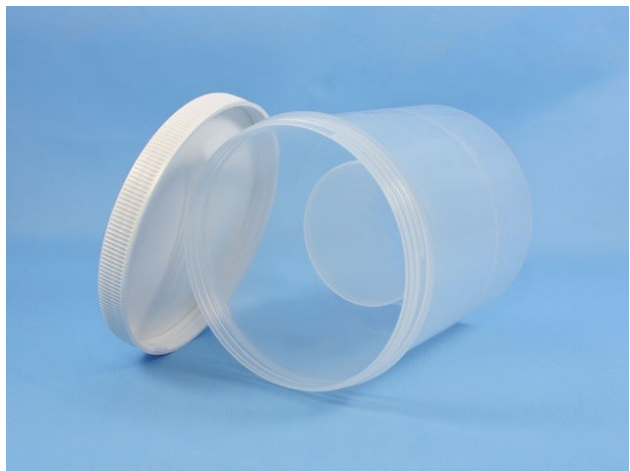
### **MODEL: 133GWMTJ**

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	Detector Types	EndCap Diameter Inches
~250 ML							
443016	2.6 (6.6)	4.5 (11.4)	1.5 (3.8)	3.06 (7.8)	0.235	Germanium or Ge-Li	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 NaI 3×3	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)
<b>~500 ML</b>							
523N-E	4.1 (10.4)	4.6 (11.7)	2.7 (6.8)	2.30 (5.8)	0.49	Germanium or 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 or Ge-Li	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 3×3 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)
<b>~1 Liter</b>							
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 or Ge-Li	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 or Ge-Li	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	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)
<b>~2 Liter</b>							
227G-E	6.5 (16.5)	6.2 (15.7)	3.0 (7.6)	2.81 (7.1)	1.80	Germanium	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 or Ge-Li	3.00 (7.6)
233N-E	6.5 (16.5)	6.2 (15.7)	3.0 (7.6)	3.30 (8.4)	1.68	3×3 NaI	3.25 (8.3)
<b>~4 Liter</b>							
*430G-E	7.0 (17.8)	7.9 (20.1)	3.0 (7.6)	3.06 (7.8)	3.76	Germanium or Ge-Li	3.00 (7.6)
433N-E	7.0 (17.8)	7.9 (20.1)	3.0 (7.6)	3.37 (8.6)	3.69	3×3 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 4×4 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)
<b>~1 Liter</b>							
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)
<b>~4 Liter</b>							
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.

<b>Model</b>	<b>Height w/o Valves Inches (cm)</b>	<b>Max. Diameter w/o Valves Inches (cm)</b>
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

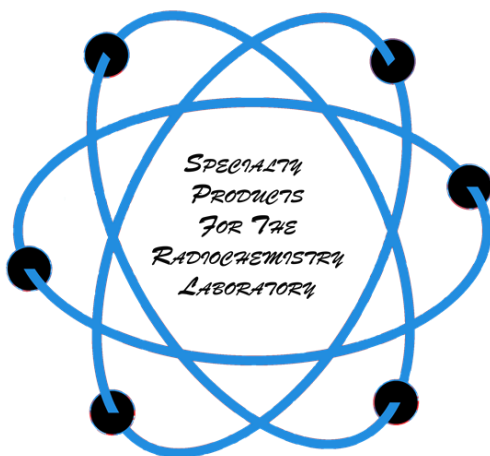
**Packaging**

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)

# 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)
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	580G-E

Detector Endcap Diameter =	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 :	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



metorX BV  
Oostdijkseweg 12  
3252LN Goedereede  
www.meteorx.com  
info@meteorx.com  
+ 31(0) 187 630176