

# Equipment



## FEATURING:

- Magnetic Susceptibility Balances
- Hydrogen and Oxygen Removing Purifiers
- Waterflame Microwelder™
- Wig-L-Bug® Mixing/Grinding Mills
- ...and more

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A Johnson Matthey Company

Where Science Meets Service

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## MKII Magnetic Susceptibility Balances

Magnetic Susceptibility Balances from Johnson Matthey



For educators and laboratory professionals who have long struggled with the Gouy method, an awkward traditional technique for the measurement of magnetic susceptibility, an amazingly simplified alternative is now available. Johnson Matthey's Magnetic Susceptibility Balances are a revolutionary testing device offering unparalleled advantages over traditional techniques. Two models are available, the original MSB-I and the Mark II.

### Advantages of the MSB-1

#### Compare

The balance is compact, portable, lightweight and reasonably priced. For classroom or laboratory use, installation is a snap. Just plug it into any standard 115VAC/220VAC source.

#### Easy to Operate

Measurement of magnetic susceptibility has never been simpler. You merely insert the sample tube and instantly read the voltage from the digital voltmeter. This read-out is used in a simple equation to provide a quick, reliable measurement of magnetic susceptibility.

#### Flexible

Measurements can be made on a wide range of both solid and liquid paramagnetic and diamagnetic materials. Even with small samples, you can get accurate measurements. The balance normally works with a sample weight of about 250mg. By using a thin bore or ultra-thin bore sample tube, as little as 100mg or 50mg is required to obtain an accurate measurement.

#### Accurate

Since sensitivity and accuracy levels achieved with this technique are comparable to traditional methods, you obtain measurements you can rely on. You enjoy tremendous cost savings without sacrificing either accuracy or sensitivity

Stock #	Description	Size
14120	<b>Magnetic Susceptibility Balance, MSB-1, 115V</b> Note: For international orders, please specify country of destination for correct plug fittings	1 each
41468	<b>Magnetic Susceptibility Balance, MSB-1, 220V</b> Note: For international orders, please specify country of destination for correct plug fittings	1 each
41758	<b>Travel clamp for MSB-1</b>	1 each

### MKII Magnetic Susceptibility Balance from Johnson Matthey



The enhanced features incorporated into the MKII unit are aimed at industrial quality control and analytical applications. The versatility and sensitivity makes it particularly suited to research and analytical methods development.

This balance is based on the Evans design and has all the advantages of the MSB-1 and much more. Compare these features:

#### **Portability**

This balance weighs just 5 pounds (2.3 pounds less than the MSB-1) and comes supplied with its own rechargeable battery supply which allows 8 hours of operation away from a power supply. It comes fully operational in its own carrying case. A simply applied, external travel clamp and adjustable level control makes it easy to transport and set-up...ready in less than a minute.

#### **Efficiency and Simplicity through Microprocessor Control**

An 8751 microprocessor has the balance calibration constant entered during manufacture. The digital units are displayed directly in cgs volume susceptibility units without further adjustment. Mass susceptibility can be read directly by entering the sample length and weight. Sensors automatically detect and correct for different diameters of sample tubes available.

In addition to the direct digital read-out, an analogue output for a chart recorder is available as well as an RS232 interface for your computer. Also included is easy to use, menu-driven software that greatly simplifies data collection, analysis, and storage.

The balance automatically zeros itself when a sample tube is not in position so it is always ready for use. The Auto-tare facility is implemented by simply pushing the tare button with a blank tube in the sample position.

The sample handling detector is separated from the read-out and controls which are situated on a hand-held unit. (This is particularly useful when analyzing hazardous materials.)



## MKII Magnetic Susceptibility Balances

### Diversity

The balance comes equipped with the following sample tubes which are intended to expand the range of new applications which are now possible: two standard sample tubes (4mm OD), one large sample tube (5mm OD)(an approximate 60% increase in sample volume), one solution flow cell and one gas-tight/air-sensitive sample tube.

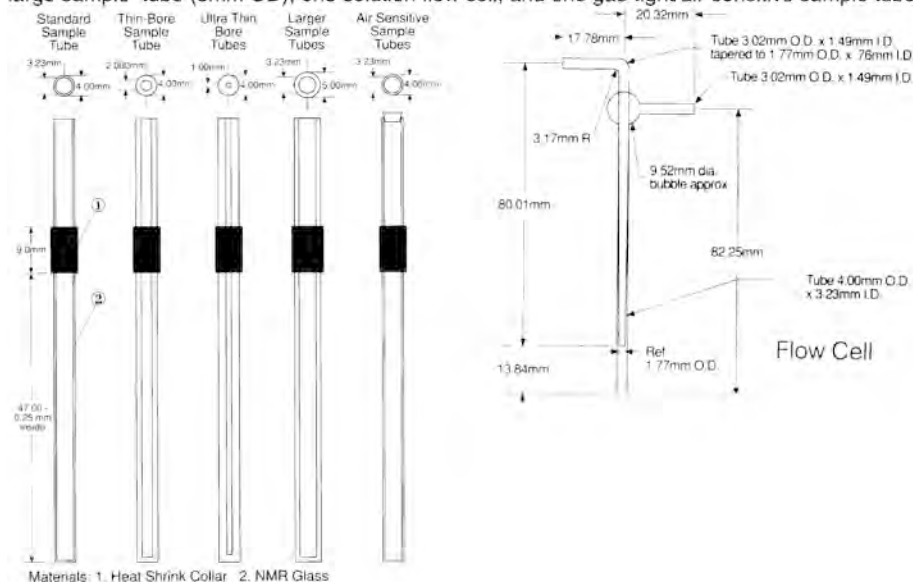
### Sensitivity

The MKII can now measure from  $1.000 \times 10^{-3}$  to  $0.001 \times 10^{-7}$  c.g.s. units in volume magnetic susceptibility units. (This is two orders of magnitude more sensitive than the MSB-I which is itself as sensitive as most traditional methods.)

Stock #	Description	Size
36184	<b>Magnetic Susceptibility Balance, MKII, 115V</b> EINECS 215-18, Note: For international orders, please specify country of destination for correct plug fittings	<b>1each</b>
	 R:35, S:26-37/39-45	
41469	<b>Magnetic Susceptibility Balance, MKII, 220V</b> EINECS 215-18, Note: For international orders, please specify country of destination for correct plug fittings	<b>1each</b>
	 R:35, S:26-37/39-45	

### MKII Magnetic Susceptibility Balance Accessories

The MK II balance comes equipped with the following sample tubes which are intended to expand the range of new applications which are now possible: two standard sample tubes (4mm OD), one large sample tube (5mm OD), one solution flow cell, and one gas-tight/air-sensitive sample tube.



Stock #	Description	Size
14349	<b>Standard Sample Tube, 3.24mm ID</b>	<b>1pc 5pcs 20pcs</b>
14350	<b>Thin-Bore Sample Tube, 2mm ID</b>	<b>1pc 5pcs 20pcs</b>
36152	<b>Ultra thin-bore sample tubes, 1mm ID, &lt;3.98mm OD</b>	<b>1pc 5pcs</b>

## ***MKII Magnetic Susceptibility Balances***

<b>Stock #</b>	<b>Description</b>	<b>Size</b>
<b>36153</b>	<b>Large Sample Tubes, 5mm OD</b>	<b>1pc 5pcs 20pcs</b>
<b>36154</b>	<b>Air Sensitive Sample Tubes</b>	<b>each</b>
<b>36155</b>	<b>Flow Cell</b>	<b>each</b>
<b>40343</b>	<b>Calibration standard for MSB</b>	<b>each</b>
<b>44406</b>	<b>Coil/pcb assembly for MSB-1</b>	<b>1each</b>
<b>43829</b>	<b>Holder for sample tubes</b>	<b>1each</b>
<b>43404</b>	<b>Torsion wire for Magnetic Susceptibility Balance</b>	<b>1each</b>
<b>44878</b>	<b>MKII normal tube adapter</b>	<b>1each</b>

## Hydrogen Purifiers

### Johnson Matthey Hydrogen Purifiers



Now you can produce your own ultra-pure hydrogen from commercial quality gas at substantial savings right in your own lab...a gas supply so pure, no impurities can be detected by conventional analytical techniques.

The Hydrogen Purifier is ideal for use in laboratories or production -- wherever ultra-pure hydrogen is required. Specific applications include: semiconductor manufacturing, gas chromatography, heat treatment and brazing, high-purity hydrogenation reactions, powder metallurgy, nuclear technology and materials research.

#### Incredible Savings

With a Johnson Matthey Hydrogen Purifier, you'll save up to 70% of the cost of high-purity cylinder hydrogen. In fact, savings are so substantial that many Johnson Matthey purifiers have paid for themselves in just the first year of operation! Even when a liquid hydrogen source is used, the Johnson Matthey purifier offers inexpensive insurance against contaminants reaching your process.

#### Wide Ranging Choices

Five standard HP Series benchtop models with capacities ranging from 1-47 SLPM are completely portable, self-contained and operate off any standard 115V AC source. Among their many standard features are orbitally welded 316L stainless steel tubing with electropolished tubing on the ultra-pure hydrogen side, high vacuum Swagelock® or VCR® J fittings, dual set point digital controller for precise temperature control and an over-temperature warning alarm. Options include a hydrogen leak detector with audio-visual alarm and hydrogen feed shutoff.

Stock #	Model No.	Capacity LPM	Power Watts	WxHxD	Weight (lbs)
40560	HP-2-Swagelock	1	68	11x8 1/4x11 1/8	9
11920	HP-2-VCR	1	68	11x8 1/4x11 1/8	9
40475	HP-10-Swagelock	5	118	11x8 1/4x11 1/8	11
11921	HP-10-VCR	5	118	11x8 1/4x11 1/8	11
40561	HP-25-Swagelock, Capacity LPM, 12	12	168	11x8 1/4x11 1/8	
11922	HP-25-VCR	12	168	11x8 1/4x11 1/8	13
40562	HP-50-Swagelock	24	268	11x8 1/4x11 1/8	14
11923	HP-50-VCR	24	268	11x8 1/4x11 1/8	14
40563	HP-100-Swagelock	47	536	11x9 7/8x15	25
11924	HP-100-VCR	47	536	11x9 7/8x15	25

### Series HP Purifier Replacement Cells

Stock #	Description	Size
11926	Replacement cell assembly 115V or 220V for HP-2-VCR	1each
11927	Replacement cell assembly 115V or 220V for HP-10-VCR	1each
11928	Replacement cell assembly 115V or 220V for HP-25-VCR	1each
11929	Replacement cell assembly 115V or 220V for HP-50-VCR	1each
11930	Replacement cell assembly 115V or 220V for HP-100-VCR	1each

### Hydrogen Purifier Purge System

No longer just a separate, side-by-side unit, Johnson Matthey's Hydrogen Purifier Purge System is now available mounted on the same cabinet with the hydrogen purifier to improve ease of operation and save valuable space. In addition, it minimizes start-up time and provides maximum protection for the hydrogen purifier.

The Johnson Matthey Hydrogen Purifier Purge System automatically purges the purifier during normal start-up, shutdown, and emergency shut-down in the event of a power failure, or when operating temperatures fluctuate above or below norms.

Stock #	Model No.	Capacity SLPM	Dimensions WxHxD(in)
41227	HP-10-Purge	5	18x10x19
41228	HP-25-Purge	12	18x10x19
41229	HP-50-Purge	24	18x10x19
41230	HP-100-Purge	47	18x10x19

### Hydrogen Purifier Accessories

Stock #	Description	Size
41333	Flowmeter, 1.5 SLPM For HP-25	1each
43795	Flow meter, 3.0 SLPM Note: for HP-50/200	1each
41553	Hydrogen leak detector for Hydrogen purifier Application(s): Accessory for Hydrogen Purifier	1each
43257	Hydrogen Purifiers, unit inspection	
41646	Heater for hydrogen purifier HP-50; 250W; 115V	1each
41677	Heater for hydrogen purifier HP-50; 250W; 230V	1each
43287	Heater for Hydrogen Purifier HP-200, 1250W, 115V	1each
43791	Heater for Hydrogen Purifier HP-200, 1250W, 230V	1each

## Hydrogen Purifiers

### PureGuard™ Point-of-Use Hydrogen Gas Purifier

Used to purify H<sub>2</sub>, Ar/H<sub>2</sub>, N<sub>2</sub>/H<sub>2</sub>

Operate at high temperature to remove all impurities

Operate at room temperature for removal of H<sub>2</sub>O, O<sub>2</sub>, CO and CO<sub>2</sub> only

#### Specifications

- <10 ra electropolished material
- <1 ppb outlet impurities
- Impurities removed when operated hot: CO, CO<sub>2</sub>, H<sub>2</sub>O, O<sub>2</sub>, N<sub>2</sub>, THC, and H<sub>2</sub>
- When operated at room temperature: H<sub>2</sub>O, CO, and CO<sub>2</sub>
- 316L Stainless steel housing: other material available upon request
- 0.5μ inlet and 0.03μ particulate retention filter built-in
- Flow rates ranging from 0.05 slpm to 20 slpm
- All fittings 1/4" VCR, other fittings available upon request
- Maximum operating pressure 250 psig
- Helium leak tested to 2 x 10<sup>-10</sup> atm cc/sec
- Operates at room temperature and up to 450° C
- Custom-engineered units are available upon request



Size	A in (mm)	B in (mm)	C in (mm)	Suggested Flow (SLPM)
HG- 50	3.38 (85.8)	0.76 (19.3)	1.0 (25.4)	0-0.5
HG-100	3.38 (85.8)	0.76 (19.3)	1.5 (38.1)	0.2-1.0
HG-200	4.8 (122)	2.26 (57.4)	1.5 (38.1)	0.2-2.0
HG-500	6.3 (160)	3.68 (93.5)	2.0 (50.8)	1.0-5.0

Stock #	Description	Size
44200	<b>Hydrogen gas purifier, model 50</b> PUREGUARD™ HG-50, Application(s): Suggested flow 0-0.5 SLPM	<b>1 each</b>
44217	<b>Hydrogen gas purifier, model 100</b> PUREGUARD™ HG-100, Application(s): Suggested flow 0.2-1.0 SLPM	<b>1 each</b>
44218	<b>Hydrogen gas purifier, model 200</b> PUREGUARD™ HG-200, Application(s): Suggested flow 0.2-2.0 SLPM	<b>1 each</b>
44201	<b>Hydrogen gas purifier, model 500</b> PUREGUARD™ HG-500, Application(s): Suggested flow 1.0-5.0 SLPM	<b>1 each</b>

## Johnson Matthey Oxygen Removing Purifiers



These state of the art purifiers from Johnson Matthey provide the pure gas supplies you demand...the control and accuracy you need...and save you money as well.

Removal of oxygen or hydrogen is a critical factor in the laboratory use of numerous base gases such as hydrogen, oxygen, nitrogen, argon, helium and carbon dioxide. Johnson Matthey Oxygen Removing Purifiers are capable of producing the purity level you need...reducing oxygen or hydrogen presence to only one part-per-million. They are often used in conjunction with a hydrogen purifier.

#### How They Work

A catalytic process is employed to combine the oxygen and hydrogen to form water vapor. Either gas can be added to the gas stream to produce the needed 2:1 chemical ratio required for the process to be driven to completion and achieve its optimum level of purity. The water formed in the process passes off with the purified gas as a vapor and can be subsequently removed downstream from the catalyst, if necessary, with a desiccant or a Johnson Matthey Hydrogen Purifier. The maximum pressure rating is 250 psi unless otherwise noted.

#### Connections

Available with 1/4" or 1/2" FPT, VCR®, or Swagelock® fittings. Other connections are available.

Stock #	Description	Size
11932	<b>Oxygen remover, OR-10</b> Note: Capacity, 5 SLPM	1each
11933	<b>Oxygen remover, OR-25</b> Note: Capacity, 12 SLPM	1each
11934	<b>Oxygen remover, OR-50</b> Note: Capacity, 25 SLPM	1each
11935	<b>Oxygen remover, OR-100</b> Note: Capacity, 50 SLPM	1each
11936	<b>Oxygen remover, OR-200</b> Note: Capacity, 100 SLPM	1each
41222	<b>Oxygen remover, OR-300</b> Note: Capacity, 150 SLPM	1each
14646	<b>Oxygen remover, OR-400</b> Note: Capacity, 200 SLPM	1each
41223	<b>Oxygen remover, OR-600</b> Note: Capacity, 300 SLPM	1each

## The Waterflame Microwelder

The Waterflame Microwelder™ from Johnson Matthey

### Distilled water transformed into a high temperature flame -- for precision laboratory welding applications.

Imagine common distilled water, present in all laboratories, as the fuel source for a state-of-the-art professional welder...producing a clean, controlled flame with temperatures from 1200 to 3300°C!

#### Here's how it works

Through electrolysis, using just a standard 115/220V AC electrical source and drawing 550 watts, the Waterflame Microwelder turns water into oxygen and hydrogen gases, passes them through an atomizer and delivers the mixed gases to a variable torch head.

#### Flame size is adjustable

Just fit on one of the six torch tip sizes that come with the Microwelder. Two each of 6 sizes, up to 25 gauge, is included. The comprehensive range makes the Waterflame one of the world's most flexible microwelders...covering all your high temperature laboratory needs.

#### Versatility and Control

By adding a fluid to the atomizer such as water, methylated spirit, methyl-ethyl-ketone or acetone, the burning rate is adjustable between 1200°C and 3300°C. This gives the Waterflame Microwelder the necessary control and versatility for heating, melting or other high-temperature laboratory uses.

#### Safety

Because water is the basic fuel, no gas cylinders are needed, so there is no complicated fuel storage to worry about. Because of the water fuel, a high-temperature flame is produced with very little combustion residue -- especially important in laboratory applications.

#### Operating Ease

The torch head is lightweight and easy to handle. Torch tips are changed in seconds. Refueling with water is quick and easy as well.

### Microwelders

Stock #	Model #	HxWxD(mm)	Weight (kg)	# of Operators	Power Consumption
13397	A+	212x375x175	550W	1	16
43462	A Super	404x350x300	850W	2	30
43463	B	404x350x300	1400W	4	46

### Accessories

Stock #	Description	Size
40532	Torch for microwelder	1each
40533	Hose, connecting, for the microwelder	1each
42198	Torch tips, Gauge #18 (12/box)	box
40534	Torch tips, Gauge #19 (12/box)	box
43942	Torch tips, Gauge #20 (12/box)	box
44852	Torch tips, Gauge #21 (12/box)	box
43943	Torch tips, Gauge #22 (12/box)	box
44851	Torch tips, Gauge #23 (12/box)	box
43690	Pressure switch, new style	1each
43691	Atomizer O ring (flat)	1each
43692	Cell gasket	1each
43693	ICL board, A super 110V	1each
43742	Main switch for model A+ microwelder	1each
44848	Service kit for model A+	1each

## Thin Film Spin Coater



Stock #	Description	Size
42779	<b>Thin film Spin Coater</b> Application(s): Coating of thin films Features two speed ranges, beginning with the low speed setting to help the spread of the coating solution. The duration of the low speed stage is controlled by an automatic timer. When the pre-set time is reached, the spinning automatically converts to a higher speed range at a pre-set speed and for a pre-set time.	<b>each</b>
	Low Speed Range                      500-2500 rpm, adjustable Low Speed Timer                        2-18 seconds High Speed Range                        1000-8000 rpm, adjustable High Speed Timer                        3-60 seconds Substrate Size                            up to 4 inches Other Features                            LED RPM display Vacuum on/off switch	
43924	<b>Chuck; Dia(in), 1; for thin film spin coater</b>	<b>1each</b>
43721	<b>Chuck; Dia(in), 2; for thin film spin coater</b>	<b>1each</b>

## Spin Coaters

### Roto-Film™ Rotational Film Maker



Stock #	Description	Size
42770	<b>Roto-Film™ rotational film maker</b> Note: Uses planar-parabolic rotational coating method to give reproducible thin films	1each
<b>Specifications:</b>		
Make polymer films without a lab press.		
Makes thin polymer films in 60 seconds.		
Limited sample preparation.		
Precise control of film thickness.		
Numerous film removal techniques.		
Multiple analytical techniques.		
Enables use of films as media for X-ray and IR samples.		
Enables preparation of composites by layering.		

## Colorimeters



Stock #	Description	Size
42788	<b>Chroma 252 Colorimeter, 110 V</b> Note: Includes operator manual, sample holder for 10mm cell, 1 pack of 100 cuvettes, and 1 spare lamp. Requires a filter	

## Colorimeter Accessories

Stock #	Description	Size
42791	<b>Gelatin filter holder</b>	<b>1each</b>
42792	<b>Set of 8 Gelatin filters</b> Note: Set of 8 gelatin filters: 430nm, 470nm, 490nm, 520nm, 540nm, 580nm, 600nm, and 710nm	<b>each</b>
42793	<b>Gelatin filter, 430 nm</b>	<b>1each</b>
42794	<b>Gelatin filter, 490 nm</b>	<b>1each</b>
42795	<b>Gelatin filter, 540 nm</b>	<b>1each</b>
42796	<b>Gelatin filter, 600 nm</b>	<b>1each</b>
42797	<b>Interference filter, 725 nm</b>	<b>1each</b>
42798	<b>Interference filter, 600 nm</b>	<b>1each</b>
42799	<b>Interference filter, 546 nm</b>	<b>1each</b>
42800	<b>Interference filter, 405 nm</b>	<b>1each</b>

## Spectroscopy-IR

## Sample Preparation Equipment and Holders

Stock #	Description	Size
43660	<b>12 Ton E-Z Press hydraulic press</b>	<b>1each</b>
43661	<b>13 mm Macro-Micro KBr pellet die set</b>	<b>1each</b>
43316	<b>KBr little pellet press</b> Application(s): Pressing pellets for infrared analysis, Note: Includes one press body, two bolts, and sample holder	<b>1each</b>

## Wig-L-Bug® Mixing/Grinding Mills and Accessories



Stock #	Description	Size
44204	<b>Heavy duty Wig-L-Bug mixing/grinding mill</b> Note: 30 minute timer	<b>1each</b>
44604	<b>"Wig-L-Bug" mixing/grinding mill, without cover</b> Note: Dial type timer, metal arms	<b>1each</b>
42627	<b>"Wig-L-Bug" mixing/grinding mill, with cover</b>	<b>1each</b>

## Accessories for 42627

Stock #	Description	Size
44603	<b>Capsule and pestle, screw type, for stock# 42627</b>	<b>1each</b> <b>4each</b>
44628	<b>Plastic base, holds six capsules</b> Note: For stock # 44603/42627	<b>1each</b>
44629	<b>Set of six Capsule and pestle, with holder</b> Note: For use with stock # 42627	<b>1each</b>

**Accessories for 44204 & 44604**

<b>Stock #</b>	<b>Description</b>	<b>Size</b>
42631	Ball pestle; clear plexiglas; 3/8" diameter	25pcs 100pcs
44532	Ball pestle; clear plexiglas; 1/8" diameter	25pcs 100pcs
44024	Adapter for 1" long, 0.5" diameter vials	1each
42628	Polystyrene vial with polyethylene slip-on cap; 1" long x 1/2" dia.	5pcs 25pcs
44530	Polystyrene vial with polyethylene slip-on cap; 2" long x 1/2"	25pcs 100pcs
44531	Adapter for 2" long, 0.5" diameter vials	1each
42629	Stainless steel vial, 1" long x 1/2" dia.; with stainless steel ball pestle, 1/4" dia. Application(s): For grinding and mixing hard powders	1each
44205	Agate vial 1 5/8" long x 5/8" dia.; with Agate ball pestle 1/4" dia.	1each
44206	Adapter for Agate vials	1each
44427	Long arm for the mixing/grinding mill	1each 2each

## Superconductivity Demonstration Kits

### Superconductivity Demonstration Kit



An introductory kit which demonstrates the phenomena of superconductivity. Observe a rare earth magnet float above a superconductive disc (made from oxides of yttrium, barium and copper) as its temperature is lowered with liquid nitrogen. This is called the Meissner Effect.

Kit includes 1" diameter superconductive disc, 1/8" long rare earth magnet, tweezers, petri dish, insulated storage case and instructions.

Stock #	Description	Size
36117	Superconductivity Demonstration Kit	1kit

### Suspension and Levitation Kit



Suspension and Levitation Kit utilizes the Melt-Quench-Grow (MQG) process to fabricate High Temperature Superconductors. The disc included with the kit will levitate and suspend a magnet, or trap magnetic flux, so that the magnet will hang below the superconductive disc. The kit contains all of the components of #36117 plus the MQG disc and more powerful rare earth magnet.

Stock #	Description	Size
36122	Suspension and Levitation Kit	1kit

**USA Standard Sieves**



Alfa Aesar is pleased to offer a series of USA Standard Sieves. The brass frame, stainless steel mesh sieves meet ASTM E11 requirements and all current amendments. These sieves are full height. Three inch diameter sieves are one inch deep; eight inch diameter sieves are two inches deep; twelve inch diameter sieves are three inches deep. Sieve covers, made of polished brass, have a recessed wire handle.

Multiple diameters and mesh sizes are stocked to fulfill all your sizing needs. Mesh size is checked using a Nikon optical comparitor to confirm conformity with ASTM E11 and amendments. The superior quality of these sieves guarantees accuracy and reproducibility. Their sturdy construction ensures easy stacking for many years. Other mesh sizes, depth and diameters are available.

<b>Stock #</b>	<b>Description</b>	<b>Size</b>
<b>38738</b>	<b>USA Standard Sieve, 10 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>43657</b>	<b>USA Standard Sieve, 12 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>43658</b>	<b>USA Standard Sieve, 18 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39983</b>	<b>USA Standard Sieve, 20 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>43659</b>	<b>USA Standard Sieve, 30 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39984</b>	<b>USA Standard Sieve, 40 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>44753</b>	<b>USA Standard Sieve, 45 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39985</b>	<b>USA Standard Sieve, 50 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>41200</b>	<b>USA Standard Sieve, 60 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39986</b>	<b>USA Standard Sieve, 80 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39987</b>	<b>USA Standard Sieve, 100 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>
<b>39988</b>	<b>USA Standard Sieve, 120 Mesh</b>	<b>3in</b>
		<b>8in</b>
		<b>12in</b>

## USA Standard Sieves

Stock #	Description	Size
39989	USA Standard Sieve, 140 Mesh	3in
		8in
		12in
39990	USA Standard Sieve, 170 Mesh	3in
		8in
		12in
39991	USA Standard Sieve, 200 Mesh	3in
		8in
		12in
39992	USA Standard Sieve, 230 Mesh	3in
		8in
		12in
39993	USA Standard Sieve, 270 Mesh	3in
		8in
		12in
39994	USA Standard Sieve, 325 Mesh	3in
		8in
		12in
39995	USA Standard Sieve, 400 Mesh	3in
		8in
		12in
40181	USA Standard Sieve, 500 Mesh	3in
		8in
		12in
41593	USA Standard Sieve, 635 Mesh	3in
		8in
		12in
43242	USA Standard Sieve, 850 Mesh	3in
		8in

## USA Standard Sieves Accessories

Stock #	Description	3in	8in	12in
39999	Sieve Pans, polished brass, 1in deep			
40000	Sieve Covers, polished brass			

I<sup>2</sup>R™ Polyethylene Glove Bag™ Inflatable Chamber



1 Connect GLOVE BAG to a source of inert gas, using the plastic coupler provided, and a length of tubing.



2 Purge and insert your equipment. There's lots of room inside for your apparatus plus accessories.



3 Close, using the HANDY-LOK Closure provided or the optional Quick - Closing Clamp. Inflate the GLOVE BAG and you're set to work.



4 When you have finished, GLOVE BAG can be stored for further use, or, if contaminated, thrown away.

The I<sup>2</sup>R Glove Bag inflatable chamber provides an excellent means for handling the air and moisture sensitive, high purity chemicals and materials available from Alfa Aesar. Glove bag have many advantages...

Stock #	Description	Size
91717	<b>Polyethylene Glove Bag, 43cm (17in) x 43cm (17in) x 28cm (11in), 29cm (11.5in) entrance</b> Bags include closure, tubing coupler, and cotton gloves.	1bag 4bag
92717	<b>Polyethylene Glove Bag, 68cm (27in) x 43cm (17in) x 30cm (12in), 56cm (22in) entrance</b> Bags include closure, tubing coupler, and cotton gloves.	1bag 4bag
92727	<b>Polyethylene Glove Bag, 69cm (27in) x 69cm (27in) x 38cm (15in), 57cm (22.5in) entrance</b> Bags include closure, tubing coupler, and cotton gloves.	1bag 4bag
93727	<b>Polyethylene Glove Bag, 94cm (37in) x 69cm (27in) x 46cm (18in), 85cm (33.5in) entrance</b> Bags include closure, tubing coupler, and cotton gloves.	1bag 4bag
93737	<b>Polyethylene Glove Bag, 94cm (37in) x 94cm (37in) x 64cm (25in), 88cm (34.5in) entrance</b> Bags include closure, tubing coupler, and cotton gloves.	1bag 4bag

I<sup>2</sup>R™ Polyethylene Glove Bag™ Accessories

Stock #	Description	Size
42910	<b>Glove Bag Clips</b>	5pcs 10pcs
42909	<b>Glove Bag Clamp</b> Note: Quick-closing clamp for use with stock #91717	1pc
45015	<b>HANDY-LOK® closure set for use with stock# 91717</b>	1each

**NEW!**

Labware & Equipment

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*A Johnson Matthey Company*

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