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BENCH BURNERS



CARLISLE MINI CC BENCH BURNER
Cat. No. 16011

A surface mixed burner that offers a high level of versatility in the flame. It is the perfect bench burner for beginners and experts alike. Recommended pressures are 2 Psi gas and 5 Psi oxygen. They may be used with a mixture of oxygen and either natural gas or propane. The body is constructed of brass and has cooling fins cut into the profile. It has a seven tube matrix made of stainless steel. The stand places the burner head at a 45° angle and allows for a 15° increased or decreased tilt.



CARLISLE WILDCAT BURNER
Cat. No. 16012

The durable WildCat Burner has an extraordinarily powerful flame that can be used with borosilicate and soft glass. It works equally well with propane and natural gas with oxygen. The Wildcat features sturdy brass casing and 19 stainless steel fuel ports. It uses a ball joint for articulation of the burner head and remotely placed metering valves that allow for a wide range of control. It has incredibly efficient combustion and uses the highly effective "Vortex" cooling system which uses oxygen from the burner to pull air through the casing.



CARLISLE HELLCAT BENCH BURNER
Cat. No. 16016

The Hellcat is a two stage burner with a 7 port centerfire, similar to the Mini CC, also a 14 jet outerfire which are separately controlled. Using the four precision control valves, virtually any flame combination can be achieved. The Hellcat base is similar to that on the Wildcat and Mini CC and accepts the Crowley Marver, Cat. No. 16013.



MEGA MINOR BENCH BURNER
Cat. No. 16021

A Mega-step forward, this new torch is hotter than the Minor, offering a larger, wider flame. The Mega Minor has greater versatility. It allows the use of borosilicate glass as well as larger sizes of soft glass. For fine detail and stringer work, just dial down the flame. The Mega's use of oxygen for a hotter, wider flame makes better use of oxygen concentrators than ever before.



"MINOR" BENCH BURNER
Cat. No. 1602

Bench burner has a specially designed with surface mix stainless steel front end and precision needle valves. Uses either natural or propane gas with easily adjustable control valves. Variable flame size with no tips to change and a narrow head for easy manipulation. Smooth action tilt, heavy base and easy take-apart construction. Torch is easily removed from the stand for use by hand or as a lathe burner. Works tubes or rods up to 45mm in diameter. **Recommended operating pressures: .25 to 5 Psi gas, 5 to 15 Psi oxygen.**



"MAJOR" BENCH BURNER
Cat. No. 1603

A sturdy stainless steel surface mix bench burner with a "Minor" Bench Burner mounted on top which replaces the normal center fire. The "Major" Bench Burner supplies flames up to 1-1/2" diameter with the larger burner and up to 3/4" diameter with the smaller burner. Features precision needle valves to regulate the flow of fuel and oxygen to both burner assemblies. The narrow head of the "Minor" assembly allows easy manipulation of work. Operates at fuel gas pressures as low as 0.2 Psi. **Recommended operating pressures: .25 to 5 Psi gas, 5 to 15 Psi oxygen.**



CARLISLE CC BURNER #5 CENTERFIRE, RACK & PINION
Cat. No. 16014

The Carlisle CC Burner #5, Rack & Pinion produces two distinctive flames; the centerfire (pre-mixed) and the outerfire (surface mixed). The centerfire, which has the characteristics of a single ported tip, produces a pre-mixed flame.

The #5 centerfire tip has a large orifice. For fuel gas supply, four metering valves are attached to the back of the mixer body. These valves are color coded. The oxygen valves have green handles while the gas valves have red handles. These valves are standardly interconnected by crossover attachments to limit the feed hose requirements to two. The Rack & Pinion style mount utilizes a pinion gear to pivot the burner in an arc. The user can adjust a knob on the side of the mounting device for quick, accurate positioning. The Heat Exchanger is manufactured from aluminum. It dissipates heat from the burner body. Cooling fins provide increased surface area for the transfer of heat. Ideal for larger soft glass or hard glass working.



THE "HOT HEAD" BEADMAKING TORCH
Cat. No. 15613

Developed and designed exclusively for the beadmaking industry, this torch head for MAPP Gas tanks gives more oxygen to the head for truer, clearer and more vibrant colors. Inexpensive, needs no elaborate fuel or oxygen tanks and is easy to set up. The ideal way to get started making glass beads!



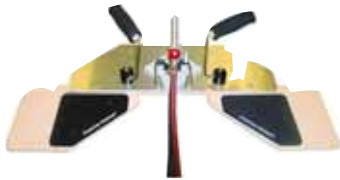
PADDED ARM REST
Cat. No. 156125

Designed by a lampworker to prevent nerve damage to the forearm. Right and left-handed forearm pads are mounted on a stainless steel base to be set on a table's edge for use. Suitable for use with oxygen-gas burners or tank-mounted torch heads. 26" long. Illustrated with Accessory Torch Adapter (Cat. No. 156126).



TORCH HOLDER Cat. No. 15612

Very secure mounting for MAPP or propane gas tanks. Bracket rests on table edge and fastens with a "C" clamp (not included). Position of the torch head is fully adjustable. Ring clamp allows easy installation or removal of the tank. All metal construction. Recommended for use with the Hot Head Torch (Cat. No. 15613).



CREATION STATION
Cat. No. 156127

An innovative, ergonomically-friendly workstation for torchworkers. The Creation Station features a universal torch clamp to hold the torch in place and fully adjustable wrist and elbow rests designed to make fine detail work easier. The workstation can be adapted to any torch size, can be attached directly to the work area, and is designed so that the torchworker can customize the entire unit to suit his/her lampworking needs. Great for classrooms!



ACCESSORY TORCH ADAPTER (for Padded Arm Rest)
Cat. No. 156126

Mounts on the center of the Arm Rest. Supplied with two stainless steel clamps. Recommended for use with the Hot Head Torch assembly.

HAND STABILIZERS

Cat. No. 152749 - Small 4" tall
Cat. No. 152750 - Medium 6" tall

With the angled pedestal top and the moveable top plate, you can create endless combinations of hand positions to help you find your most comfortable position and working height. The combination of the pivoting angled anchorage and the adjustable top plate, provide for an ergonomic support for your hands that is both comfortable and effective. Instead of merely pivoting, the new design allows the top plate to be put in many more positions or even be removed and replaced quickly and easily. Hand Stabilizers are meant to be mounted magnetically close to your torch. The bottom magnet is rated for 65 pounds of pressure and the top is rated for 25 pounds of pressure.



OXYGEN GENERATORS

Cat. No. 16040 M-10 10 PSI

Cat. No. 16041 M-15 15 PSI

Cat. No. 16043 Hurricane 20 PSI

An oxygen concentrator takes oxygen from the air, replacing the nuisance of purchasing oxygen by the cumbersome tank. Three units are available to fit a wide range of needs. The charts will show the popular torches that will run efficiently with each size and the specifications of each. There is also the ability to link two (or more) of the same units to generate additional oxygen. These quiet running generators will pay for themselves in a few months.

	M-10	M-15	Hurricane
Nortel Minor	100%	100%	100%
Piranha	100%	100%	100%
Betta	100%	100%	100%
Bobcat	100%	100%	100%
Little Dragon	100%	100%	100%
Wildcat	100%	100%	100%
Midrange	N/A	N/A	95%
Barracuda	N/A	N/A	95%
Knight Bullet	N/A	N/A	95%
Tiger Shark	N/A	N/A	90%
Phantom	N/A	N/A	90%
Hellcat	Requires 2 Hurricane Generators		



16040



16041



16043



BOOSTER BOXES

For oxygen generators. A Booster Box will increase the output flow of Unlimited Oxygen Brand oxygen generators, such as the Models M-10, M15, Tornado & Hurricane.

Electrical: 115V 5 AMPS, 60 Hz
Weight: 65 lbs. 24" x 15" x 10.5"

0208 BOOSTER BOX

Cat. No. 160441
Increases oxygen generator output 6-8 LPM.

MEGA BOOSTER BOX

Cat. No. 160442
Increases oxygen generator output 10 LPM.

Model	Cat. No.	Part #	Operating Pressure	Flow per Minute	Flow per Hour	Purity*	Soft Glass	Small Boro	Med. Boro
M-10	16040	1005	10 PSI	5 LPM	10.59 SCFH	95%	Y	Y	N
M-15	16041	1508	15 PSI	8 LPM	16.94 SCFH	95%	Y	Y	Y
Hurricane	16043	2015	20 PSI	15 LPM	31.77 SCFH	95%	Y	Y	Y



TOP HAT FOOT PEDAL
Cat. No. 160443

The ultimate oxygen saving device. Press the foot pedal for oxygen flow - release the foot to shut off the flow. Fully mechanical - no electric required.



156310



156311



156312



156313



156314



1580



1589OX



1589YO

REGULATORS

PREMIER BRAND REGULATORS

Cat. No. 156310 - Oxygen

Cat. No. 156311 - Bottled Gas

Compact design with rear inlet service and cylinder connections. Has "B" size hose fittings, forged brass body with chrome bonnet and a specially compounded diaphragm and seat material with relief valve. 1-1/2" gauges with one piece polycarbonate lens. Oxygen regulator delivers 5-50 Psi. Gas regulator delivers up to 15 Psi.

PREMIER JR. GAS REGULATOR

Cat. No. 156312

Similar to Cat. No. 156311 with a smaller body. Connects from rear to "barbecue" type household gas bottles.

OXYGEN ECONOMY REGULATOR

Cat. No. 156313

BOTTLED GAS ECONOMY REGULATOR

Cat. No. 156314

All brass body & fittings. Side inlet service and cylinder connection. "B" size outlet hose fitting. 2" (51mm) easy to read gauges, with one piece polycarbonate lens.

RIGHT ANGLE SWIVEL

Cat. No. 1580

1/4" (96mm) precision-made solid brass swivel with easy rotation and effective air seal. Fits flexible plastic tubing.

HOSE FITTINGS - THREAD TO BARB

Cat. No. 1589OX - Oxygen Hose

Cat. No. 1589GS - Gas Hose

For torches with threaded connectors. 9/16" (14mm), 18 thread brass swirl nut to 1/4" (6mm) I.D. hose. Barbed male end. Oxygen fitting has right-hand thread and gas fitting has a left-hand thread.

Y HOSE CONNECTOR

Cat. No. 1589YO - Oxygen Connector

Cat. No. 1589G - Gas Connector

Connects two hoses to either a gas or oxygen tank.



QUICK CONNECT/ FLASHBACK ARRESTOR COMBINATION

Cat. No. 158950

- A Quick Connect
- Reverse Flow Check Valve
- Flashback Arrestor
- Automatic Shutoff When Disconnected

Provides protection from a flashback flame caused by a reverse flow of gas or oxygen. Quick Connect provides quick release portability of the torch. Double Seal Socket Connection provides added safety protection. Rated at pressures up to 125 PSIG Oxygen or 22 PSIG Gas. 100% Factory Flame and Leak Tested.



FLASHBACK ARRESTORS

Cat. No. 15895 - Propane & Oxygen*

Check Valve helps prevent a flashback flame caused by a reverse flow of gas by quenching the flame. Install male end at regulator and female end toward the torch. Fits regulators with Size B, 9/16", 18 thread coupling. Made of solid brass.

NOTE: For torches with a barb fitting, in lieu of a female thread end, an adapter fitting is required (Cat. No. 1589FIT).

*Not for use with natural gas.



1589FIT

HOSE ADAPTER/FLASHBACK ARRESTOR

Cat. No. 1589FIT

For torches with a barb fitting. Adapter provides threaded coupling to fit flashback arrestors.



FIRECHECK FOR NATURAL GAS

Cat. No. 15801

Flashback Arrestors are not suitable for use with natural gas. The pressure is very low. The Fire Check Caps are the answer. This flashback safety device uses a very different method of stopping a flashback, which does not require any minimum pressures.

ADAPTER 1/4" NPT TO "B" SIZE THREAD

Cat. No. 15802



1576TFL

SPARK LIGHTER

Cat. No. 1576TFL

Three flint lighter accumulates gas in a shield for instant ignition.



1576EF

FLINTS

Cat. No. 1576EF

Card of four clusters. 12 flints total.

See page A2 for Skutt Bead Kiln.

HOSES



15662

TWIN HOSE ASSEMBLY 10' long
Cat. No. 15662

Type T oxygen and gas line hose joined together. I.D. 1/4" (6mm). Includes necessary fittings to connect from burners to tanks. Joined pairs withstand abuse and keep the workplace tidy.



15615

HOSE ASSEMBLY ADAPTER
Cat. No. 15615

Everything you need to adapt the Hot Head Torch to larger bulk gas tanks. Includes a 5 ft. (1524mm) hose and all the brass fittings needed. Fast and easy!



CONVERSION KIT HOSE SET
Cat. No. 160161

4 to 2 Conversion Kit Hose Adapters. Connects hose to both oxygen or gas outlets on torch to an outlet to the tank.



1581

BLOWHOSE
Cat. No. 1581

For use when mouthblowing while glass is manipulated in the flame. Consists of a plastic mouthpiece, 6 feet (2.1m) of flexible hose and a 1/4" (6mm) right angle swivel.



STUMP SUCKER, 2" (51mm)
Cat. No. 15621

Developed for Loren Stump, renowned glass sculptor. It is used to vacuum encase small glass sculptures for beads, buttons, paperweights, etc. Consists of a perforated graphite disk over which the sculpture is placed. This in turn is placed in a graphite cup with a tube through which the vacuum is drawn. A glass glob, heated to a soft state, is placed over the sculpture. Advanced lampworking skill is a requisite.

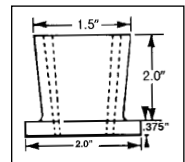
HOSE SET W/FILTER
Cat. No. 15622

For use on the Stump Sucker.



BEADMAKING MINI-OPTIC MOLDS

Mini-optic molds designed for the lampworker! Makes a basic shape for murrini. Miniatures of the large cast aluminum optic molds used by glassblowers.



1582-B3



1582-B4



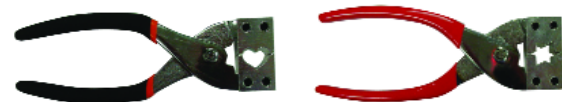
1582-B8



1582-B10



1582-B12



HEART DESIGN PRESSER

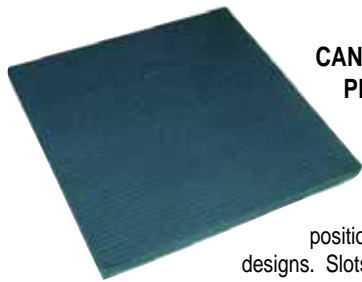
Cat. No. 156808

STAR DESIGN PRESSER

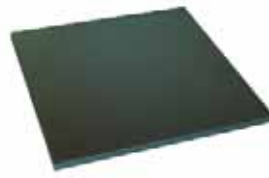
Cat. No. 156809

Tools that press glass gather into a heart or star pattern that can be pulled into a cane. Slice the cane to incorporate into beads for more interesting designs.

MARVERING PLATES

**CANE MARVERING PLATE****Cat. No. 1571**6" x 6" x 3/8"
(152 x 152 x 9.5mm)

47 equally spaced slots position stringers for Latticino designs. Slots are 1 x 1mm spaced 3mm (1/8") apart. Many uses include bead, marble, vase and bottlemaking. Lay stringers in the slots and marver over for cane.

**GRAPHITE MARVERING FLAT PLATE****Cat. No. 1577**12" x 12" x 1/2"
(305 x 305 x 13mm)

Made of high density, fine-grained graphite, this plate is an ideal and useful fixture for the torchworking artist.

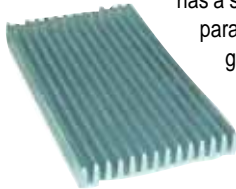
**VERMICULITE****Cat. No. 4831** - 1-1/2 lb. (680g) carton**Cat. No. 48312** - 18 lb. (8kg) bag

Useful for annealing hot pieces directly from the torch. Allows project to cool slowly—minimizing stress.

BEAD-MAKING GROOVED MARVER PLATE**Cat. No. 1597**

1-7/8" x 4" x 5/8" (48 x 102 x 15.8mm)

A combination marver and pattern impresser. One side has a smooth finish, and the other has 12 vertical parallel fins with rounded tops. Rolling the hot gather over the fins produces a linear pattern, a grid pattern or a diamond (pineapple) pattern. Made of solid aluminum. A versatile tool for the beadmaker.

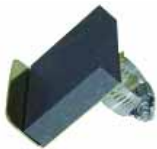
**NON-ASBESTOS WORK SURFACE****Cat. No. 1583** - 16" x 24" x 3/8"

(406 x 610" x 9mm)

Cat. No. 15831 - 10" x 12" x 1/4"

(254 x 305 x 6mm)

A rigid flame-proof, non-asbestos material work surface. Buff-gray color.

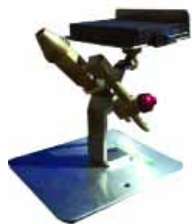
**MILLE MARVER****Cat. No. 1596**

Torch mounted marver for shaping glass. Acts as a shelf to avoid thermal shock when preheating millefiori, chips

and rods. 90° angle at the back of the marver plate makes corners and edges on ribbon cane. Mounting clamps provide easy installation when adapting the Mille Marver to the Hot Head Torch, the Minor Bench Burner or the 3A National Torch.

**HANDHELD ROLLING MARVERS****Cat. No. 152741** - Small Barrel**Cat. No. 152742** - Large Barrel

The Small Barrel Rolling Marver is great for most beadmaking. Use this one for almost all marvering. The large one is recommended if working with boro because it can take higher heat, but the marvering action is the same.

**MINI CC TORCH MOUNTED "CROWLEY" MARVER****Cat. No. 16013**

The crowning feature of this marver is the separate articulation ball joint. It allows the pad to be angled and moved to almost any position regardless of how the head is angled. It allows having a level marver pad on an angled torch head or

anywhere in between. The innovative Crowley Marver uses a threaded connection point to securely attach the marver to the burner. The graphite pad is premium quality EDM grade and is 4" wide x 2.5" deep x .5" thick (102 x 64 x 13mm). It's held in place by two strong grip spring clips. Torch not included.

**HOLEY MARVERS****Cat. No. 152743** - Small

Hole sizes: 7/32", 1/4", 9/32", 5/16", 11/32", 3/8"

Cat. No. 152744 - Large

Hole sizes: 7/16", 1/2", 5/8."

Take lampwork to another level of class and elegance with the consistency you have been looking for. Very easy to figure out. Turn out perfect round beads on the first try. Cut down on the time that it takes to make the base of your beads. 8" handle on both small and large holey marvers.

**MULTI POKER****Cat. No. 152746**

Make great plunges without pushing your glass all over the place and distorting your design. There is room for seven pins. This tool comes with 8 pins, so you have an extra if you should ever need it. You can place the desired amount of pins wherever you want to get the pattern that you desire. The tool measures 11" long and the diameter is 7/32". The pin hole are 1/32". Each pin measures 1 1/2" long.



NEW

ELECTRIC MANDREL SPINNER WITH POWER BOX**Cat. No. 152740**

An excellent tool for those who are using larger mandrels or who want to use the spinner to turn glass rods instead of mandrels. There are 9 sleeves holding mandrels as small as 1/16" and as large as 1/4". It comes in one shaft size with a Power Box.

**MULTI MANDRELS**

NEW

Cat. No. 152747 -
1/16" Multi Mandrel



Cat. No. 152748 -
3/32" Multi Mandrel

Make buttons, multi strand spacers and other unique components. The unit without mandrels measures 9" long. The small Multi-Mandrel spread is 4.6mm between mandrels across from each other. The measurement between the mandrels next to one another is 3mm. The small one is for 1/16" mandrels only. The large holds either four 3/32" mandrels or four 1/8" mandrels. Two sizes in one Multi-Mandrel. Use any combination that suits you.

**STAINLESS STEEL MANDRELS (RODS)**

Cat. No. 153903 - 1/16" x 10" (1.5 x 254mm)
Cat. No. 1539025 - 5/64" x 10" (2mm x 254mm)
Cat. No. 1539015 - 3/32" x 10" (2.4 x 254mm)
Cat. No. 153902 - 1/8" x 10" (3 x 254mm)

Stainless steel rods excellent for beadmaking when coated with separator. Available in four diameters. 10 per package.

STAINLESS STEEL TUBING**Cat. 153906**

Use as a miniature blowpipe or as a mandrel to make large diameter bead holes. 16" (406mm) long x 1/4" (6mm) diameter.

**PUFFY MANDRELS**

NEW

Cat. No. 154126 - 3/32" x 12"
Cat. No. 154127 - 1/8" x 12"
Cat. No. 154128 - 1/4" x 12"

The easy way to make hollow beads.

BIG HOLE MANDRELS

Cat. No. 15410 -
7/16" (11mm) core

Cat. No. 15411 -
5/8" (16mm) core

Cat. No. 15412 -
1" (25mm) core

New big glass hole mandrels are used to make large holes in glass beads, rings and loops for scarves, sculptures or core formed vessels. The mandrels have a 5/32" (4mm) diam. x 10" (254mm) long shaft. The handle is thin enough to make quicker rotations and thick enough to make it difficult to bend.

**BIG HOLE MANDRELS**

NEW

Cat. No. 154105
Stainless steel 1/2" (13mm) x 12" long mandrel.

Cat. No. 154115
Stainless steel 3/4" (19mm) x 12" long mandrel.

Cat. No. 154125
Stainless steel 1" (25mm) x 12" long mandrel.

**BUTTON MANDRELS**

12" Long overall stainless steel mandrels.

Cat. No. 15413 - 1/16" diameter

Cat. No. 15414 - 3/32" diameter

NEW

**BEAD MANDREL BLOCK****Cat. No. 1611**

Sturdy support for coated mandrels. Keeps the mandrels upright while drying. Can hold twenty mandrels up to 1/8" (3mm) in diameter. Smoothly sanded block measures 6" x 3.5" x 1.5" (152 x 89 x 38mm).

**BEAD MANDREL REST**

Cat. No. 1609 - 8" x 2" (203 x 51mm)

Stainless steel V-shaped platform to rest hot mandrels, glass and tools for easy access while working. Supports 15 mandrels (has 15 slots).

CARBON RODS - Cat. No. 1538-

Made of fine grain, high density graphite, these rods have many uses in the lampworking studio. Rods may be tapered in a pencil sharpener or on a sander. 12" (305mm) long.

CARBON RODS			
Cat. No.	Description	Diameter	
		Standard	Metric
1538-1	Carbon Rod	1/4"	6.4mm
1538-2	Carbon Rod	3/16"	4.8mm
1538-3	Carbon Rod	1/2"	12.7mm
1538-4	Carbon Rod	3/4"	19mm
1538-5	Carbon Rod	1"	25mm



BEAD HOLE CLEANER

Cat. No. 15782

Handy tool for cleaning dried bead release residue from bead core. Steel barbed shaft 1/16" (1.6mm) diameter x 2" (51mm) long. Wooden handle.



All for use in manipulating hot glass.

ADJUSTABLE PIN VISE

Cat. No. 15395

TUNGSTEN ROD 3-1/4" x 3/32"

Cat. No. 15396

TUNGSTEN ROD 3-1/4" x 1/8"

Cat. No. 15397

TUNGSTEN BENT RAKE

Cat. No. 15398



SPATULA TOOL SET

Cat. No. 154135

Many uses in lampworkers kit. Great for shaping hot glass. Kit of 4.



Cat. No. TUNGSTEN POKE

Cat. No. 154136

Heat resistant tungsten. Used to make holes in beads while hot, etc.



"PINK SLIPPER" BEAD RELEASE

Cat. No. 15904 [17.6 oz. (500g) bottle]

Cat. No. 15905 [7 oz. (200g) bottle]

Tested and approved by professional beadmakers. A release and lubricating agent for steel mandrels. Dries with a smooth finish. Not the usual dark, messy release! Pink Slipper is bright and clean to work with. It has the right viscosity to coat a mandrel evenly with one dip, yet with enough cover to hold a large bead securely while being manipulated, even combed. Releases the finished bead cleanly and without fuss. Dip and go recommendation.



AIR-DRY BEAD RELEASE

Cat. No. 1590 - 8 oz. (226 g)

Cat. No. 15901 - 35 oz. (1000g)

Release agent that is ideal for pre-coating and air-drying steel mandrels for beadmaking. Easy to coat and ready-to-use as needed. 36 per carton. Net Wt. 8 oz. (226g)

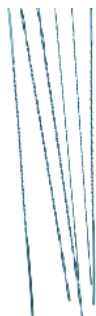


FLAME-DRI™ BEAD RELEASE

Cat. No. 1591 - 1.85 lbs. (839g) - 9 per carton

Cat. No. 15915 - 8 oz. (227g) - 36 per carton

Release and lubricating agent for steel mandrels used for beadmaking. Flame-Dri™ Release eliminates the need for pre-coating and air-drying mandrels. Just dip the mandrel in the prepared Flame-Dri™ Release and into the flame for immediate use! Cuts preparation time. Wide-mouthed jar for dipping ease.



BEAD CORE SCRAPER SET

Cat. No. 15781

Simplifies cleaning bead core after removing from the mandrel wire or rod. Set contains two each of 1.2mm, 1.6mm and 2.0mm scrapers. Use two at a time for larger diameter cores. Scraper rods have the appearance of barbed wire.

153904



15614

BEADMAKERS RAKE

Cat. No. 153904

Raking (combing) is the process of drawing a metal rod across the surface of softened glass. The rake is a 1/8" (3mm) stainless steel rod bent to 90° at the end. It has been sharpened to a point and slightly blunted to make a furrow in the molten glass. The rod is secured to a wooden handle.

BEADMAKERS RAKE/PICK

COMBO TOOL

Cat. No. 15614 - 8" long (203mm)

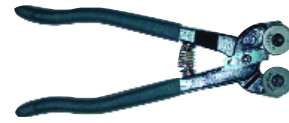
A lightweight versatile beadmaker's tool. Serves as a rake or dimpling tool and has many other uses. Knurled grip for positive handling with plated steel ends. Weighs less than 1 oz. (28g).

**BRASS FLARING TOOL****Cat. No. 1566**

All-purpose tapered shaping tool that is mounted on an insulated wooden handle. Shaping area is 1" (25mm) wide and 1/16" (1.6mm) thick.

**MINI PADDLE****Cat. No. 15745**

1" x 4" x 1/4" (25 x 101 x 6mm). Graphite micro paddle with a wooden handle.

**HOTLINE™ ROD LOPPER****Cat. No. 1564** - 8" (203mm)

Hand-held tool for cutting glass rods. Minimum pressure on the handgrips leaves a clean edge on sliced rods. Adjustable guide centers the rod between cutter heads. Long-wearing cutter heads may be rotated for long life. Cutter jaws open to 5/8" (16mm). Optimum cutting can be done on rods up to 3/8" (9mm). Weight: 12-1/2 oz. (354g).

**GRAPHITE FLARING TOOL****Cat. No. 154130**

45° 1-1/4" x 1-3/4" x 3/8" flaring tool. Diamond cut, 158mm (6-1/4") aluminum handle provides a lightweight, balanced grip.

**GRAPHITE FLARING TOOL****Cat. No. 154131**

75° 2-1/4" x 1-7/8" x 3/8" flaring tool. Diamond cut, 158mm (6-1/4") aluminum handle provides a lightweight, balanced grip.

**MIKEY SHAPER****Cat. No. 154129**

Originally designed for making core vessels, the Mikey shaper has come to be an excellent general purpose shaping tool. A piece of graphite measuring 2-1/2" x 3/4" x 3/4" has a radius running down the overall length. At the end is a 60° chisel tip.

**SPEEDY SHARP CARBIDE CUTTER****Cat. No. 15675**

"Speedy Sharp" carbide cutter is used for score-cutting glass tubing and rods. Two-sided carbide blade stays sharp with hard usage. Blade is set in comfortable plastic handle-container with lid.

UTILITY SHEARS

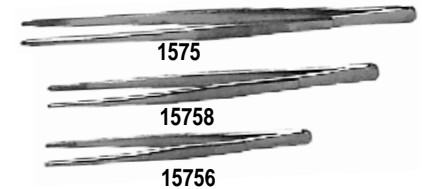
Vintage design is ideal for trimming the ends of hot glass rods or for using in other soft, hot glass applications. Comfortable Grip. Smooth action. Silver color.

**Cat. No. 156404 - Small**

[5" (51mm) overall with 1-1/4" (32mm) blades]

Cat. No. 156403 - Large

[7-1/2" (190mm) overall with 2-7/8" (73mm) blades]



1575

15758

15756

TWEEZERS**Cat. No. 1575** - 10" (254mm) Stainless**Cat. No. 15758** - 8" (203mm) Stainless**Cat. No. 15756** - 6" (152mm) Stainless**HOT GLASS SHEARS****Cat. No. 156401**

6" (152mm) overall length
With 2" (51mm) blades, this vintage design is ideal for trimming the ends of hot glass rods or for using in other soft, hot glass applications.

**STAINLESS STEEL OVAL END GRIPPER****Cat. No. 157503** -

9-1/2" (241mm) long

A tweezer-type tool with serrated open oval shaped ends.

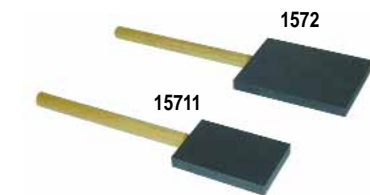
Ratchet at finger side locks when squeezed. Stainless steel construction.

**STAINLESS STEEL BENT TWEEZERS****Cat. No. 157501** - 7" (203mm) long

A useful lampworking tool. These traditional tweezers (squeeze to close) have sharp curved points. Pin assures alignment of closed points. Stainless steel.

**STAINLESS STEEL SELF-CLOSING TWEEZERS****Cat. No. 157502** - 6-1/2" (165mm) long

Once clamped, these tweezers won't let go until released. Squeeze to open, release to close. Curved tips are finely serrated. Stainless steel with heat-resistant fiber grips.



1572

15711

GRAPHITE PADDLE**Cat. No. 15711** - 2" x 3" x 3/8" (51 x 76 x 9.5mm)

Ideal for beadmaking. Fine grain, high density graphite with a wooden handle.

GRAPHITE PADDLE**Cat. No. 1572** - 3" x 4" x 3/8" (76 x 101 x 9.5mm)

Rectangular paddle made from fine grain, high density graphite with a wooden handle.

FORCEPS WITH CURVED TIP**Cat. No. 1575012**

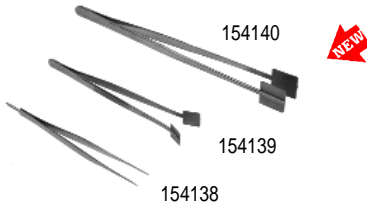
12" (305mm) long.

Tweezer-type tool with curved serrated tip. Ratchet at finger grips lock when squeezed for a positive grip. Plated steel.



**10" HOLDING TWEEZERS****Cat. No. 154137**

A different type of tweezer. Tweezers meet at tip end when closed. Open the tips are 7/16" apart, but will hold up to 1" objects.

**STRAIGHT TWEEZER MASHER****Cat. No. 154140**

12" Straight tweezer masher.

ANGLED TWEEZER MASHER**Cat. No. 154139**

8" Angled tweezer masher.

TWEEZER RAKE COMBO**Cat. No. 154138**

7" Sharp tip with tungsten rake on other end.

**MINI FLATTENER****Cat. No. 15701**

A handy tool for beadmakers. Flatteners are 1/2" square (12.5mm) on 8" long (203mm) tweezers.

**PARALLEL CLOSING GLASS FLATTENER**

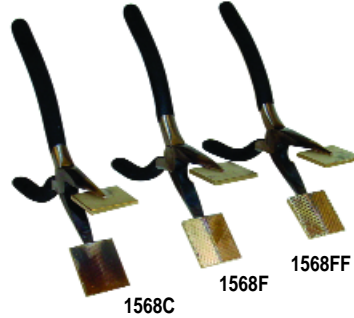
Cat. No. 1579 - 9-1/2" (241mm) overall length, 2" (51mm) square x 1/16" (1.6mm) thick stainless steel pads mounted on a spring-loaded steel frame. Designed for parallel closing which maintains uniform thickness. Insulated with wooden handles.

**SHAPING TOOL****Cat. No. 153601** - 7" (178mm) long

A handy multi-purpose tool with a 6-sided stainless steel 90° pointed head. Has one flat-folded side and a curled side for making flutes, spirals, twists and other shapes.

**CURVED JAW TOOL****Cat. No. 1569**

1-1/2" (38mm) diameter pad.

**PATTERN IMPRESSING PLIERS****Cat. No. 1568FF**- Fish Fin/Bird Tail**Cat. No. 1568F** - Fine Leaf**Cat. No. 1568C** - Coarse Leaf

Pattern plates mounted on top quality 8" (203mm) long-nose pliers for mashing molten rod ends. Leafmakers form a V-vein pattern on one side of the glass. A Fish Fin or Bird Tail impresser forms parallel grooves on both sides of the glass.

**FORMED LEAF MAKER****Cat. No. 156804**

6-1/4" (159mm) overall length. Matching impression plates make a realistic 7/8" x 1-3/8" (12 x 35mm) curved leaf design.

STAR MASHER**Cat. No. 156905**

Use to make a star murrini. Form a 3/4" (19mm) gather of glass, approx. 2" (5mm) long.



Punty an end. Heat at pinch point and pinch along the cylinder side to form a star leg. Repeat as needed, then pull to desired diameter.

**HANDY MASHERS**

These mashers facilitate making leaves or similar objects with a torch. Angled mashers save marvering time when producing angular shapes. They require little pressure to "squeeze" out the desired shape. Add one or all three to a lampworking tool kit.

**Flat Leaf Masher w/veins - Cat. No. 156805**

Length - 6-3/4" (171mm)

Diameter of impression - 1-1/8" (29mm)

**Angle Leaf Masher w/veins - Cat. No. 156806**

Length 6-3/4" (171mm)

Diameter of impression - 1-1/8" (29mm)

**Angle Leaf Masher w/o Veins - Cat. No. 156807**

Length - 6-3/4" (171mm)

Diameter of impression - 1-1/8" (29mm)

**PARALLEL ACTION MASHER**

Cat. No. 157901 - 8-3/4" (222mm) long Heavy-duty pliers with 1-1/2" (38mm) square mashing plates. Plates remain parallel when squeezed. Spring maintains open position until squeezed. Maximum open position: 11/16" (17.5mm).

**FOUR FINGER HOLDERS**

Cat. No. 156512 - Small
3/8" to 1-1/4" diameter (9.5 - 32mm) 18 gauge wire.

Cat. No. 156513 - Medium
7/16" to 1-3/4" diameter (11- 44mm) 16 gauge wire.

Cat. No. 156514 - Large
3/4" to 2-1/4" diameter (19 - 57mm) 14 gauge wire.
Curved fingertips open and close with sliding collars to assure a firm grip on glass shapes. Curved tips are also designed to grip the inside of rings, tubes, etc.

**E-Z MARBLE MOLD**

Cat. No. 15724
Versatile marble mold has six cavities for forming 5/8", 3/4", 7/8", 1", 1-1/4", and 1-1/2" diameter marbles. (16, 19, 22, 25, 32 and 38mm). Band clamp allows circular mold to be rotated for operator's convenience. Carbon block, 3-1/2" diameter (90mm) is 1" (25mm) thick. Smooth reverse side serves as a marvering surface. Mold with wooden handle is 10" (254mm) long.

**BEAD MOLD PADDLE**

Cat. No. 15731 - 3" x 6" x 1" (76 x 152 x 25mm)
Beadmakers ask for this handy tool. A heavy-duty dual purpose mold and paddle. Bead wells on one side (flat surface on opposite side). Sturdy wooden handle.

Eight bead wells (diameters):

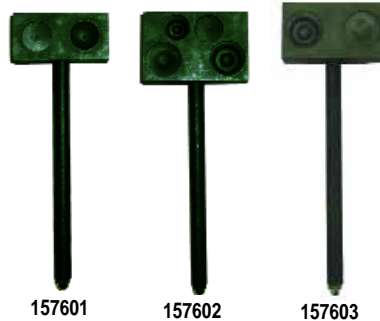
6, 8, 10, 15, 18, 20, 25 and 30mm

Two oval wells: 8 x 16mm; 9 x 18mm

Four teardrop wells: 6 x 9mm; 8 x 12mm;
15 x 25mm; 18 x 30mm

**BEAD MARVERING PADDLE**

Cat. No. 157331
4-1/2" x 2-1/2" x 3/4" (114 x 64 x 19mm)
Designed especially for beadmaking, this paddle makes a smooth, round or cylindrical bead. Marvering wells are 1/2" (12.5mm), 5/8" (15mm), 3/4" (20mm) and 1" (25mm) in diameter. Mandrel slots allow the hot bead to rotate for either a sheer or rounded end. A convex 10mm head protrudes for indenting a concave bead end if desired. Smooth back makes the paddle dual purpose for conventional marvering.

**BUTTON MOLDS**

Cat. No. 157601 - Standard
Cat. No. 157602 - All-in-One
Cat. No. 157603 - Special

Graphite paddles with circles of different diameters, depths and profiles. Standard molds have gentler and simpler shapes than the Special mold, making them ideal for adding custom decorations to the surface.

Standard paddle has two flat and two convex cavities. **Special paddle** has five cavities—one mild convex, two deep convex and two multi-depth. **All-in-One paddle** has nine cavities—two flat, three deep convex, one mild convex and three multi-depth.

POWDER VIBE (at left)

Cat. No. 152745

For quick, mess-free precise Enamel Powder application and control. Cover tip, fill with powder, slowly slide cap on. Attaches magnetically to vibrating mechanism. Push button to start flow, release to stop. Powder flows out when vibrated. Powder instantly fuses when dropped onto hot glass. Use a different tube for every color.

Cat. No. 152745T - Replacement tubes
Set of 6.

BEAD SUNDRIES**LETTER OPENERS**

(pictured from left to right)

Cat. No. 484221 - Flat Topped

Cat. No. 484222 - Round Topped

Cat. No. 484223 - Short Mandrel Top

Cat. No. 484224 - Long Mandrel Top

Four different styles of letter openers! Choose the Flat and Round topped styles for attaching small fused glass designs. Add glass beads to the Short and Long Mandrel Topped openers to convert them into a unique works of art.

SILVER LETTER OPENER

Cat. No. 16700

Beautiful and well-crafted. Silver-plated beaded letter openers will accommodate beads made on a 3/32" (2mm) mandrel or a 1.5mm hole. Beads not included.

**MAGNIFYING GLASS**

Cat. No. 16701

Beautiful and well-crafted silver plated magnifying glass measures 5-1/5" (132mm) long. It will accommodate beads made on a 3/32" (2mm) mandrel or a 1.5mm hole. Beads are not included with this product.

**HEART KEY CHAIN**

Cat. No. 16703 - Silver Color

WOW! Brushed silver makes this a very classy finding, which can also be used as a necklace pendant!

Durable parts also protect beads! Houses a round bead best, but may use spacers or multiple beads, as long as they fit within the 15mm opening (about 5/8"). Beads can be made on a standard 3/32" mandrel.



BEAD SUNDRIES

STEEL CABLE CHOKER

Cat. No. 16705

Perfect for wearing your favorite cabochon. Choker necklace made of coated steel cable. 16" in length with a magnet clasp. In packs of 3.



WINE STOPPERS

Metal & rubber wine stoppers for displaying lampworked and fused glass objects. Use Wine Stopper Base below to display or store Wine Stoppers.

- Cat. No. 48436 - Flat
- Cat. No. 48437 - Round
- Cat. No. 48438 - Large Bead
- Cat. No. 48439 - Short Bead
- Cat. No. 48443 - Trough Top



WINE STOPPER BASE

Cat. No. 484410

Stainless steel. 3 hole. 7" long, 1 3/8" wide.



THE DELUXE KIT*

Cat. No. 159842

Tools and supplies for use with oxygen and bottled gas. Includes a Minor bench burner which is recommended for beadmaking.

Kit includes:

DESCRIPTION	Cat. No.
1 Minor Bench Burner	1602
1 Spark Lighter	1576TFL
1 Glasspro Nipper	20571
2 Sheets Fiber Blanket (6 x 12")	
1 7oz. bottle Pink Slipper	15905
10 Stainless Steel Mandrels	1539025
1 Pair Didymium Safety Glasses	49701
1 Table Protector Board (16" x 24")	1583
1 Graphite Paddle (3" x 4")	1572
1 Propane Regulator	156312
1 Oxygen Regulator	156310
1 Hose Set	15662

*NOTE: Kit does not include oxygen or bottled gas.



PROFESSIONAL GLASSWORKER KIT

Cat. No. 15993

Now sold with the Carlisle Wildcat Burner (Cat. No. 16012)! This starter kit has everything necessary to work with borosilicate glass (oxygen and propane tanks are not included). Includes a comprehensive hands-on, step-by-step instruction book. Kit includes:

DESCRIPTION	Cat. No.
Carlisle Wildcat Burner	16012
Spark Lighter	1576TFL
Carbide Knife (glass cutting)	15675
Graphite Paddle (3" x 4")	1572
Didymium Safety Glasses	4970
Tweezers (10")	1575
Oxygen Regulator	156310
Gas Regulator, Propane	156311
Hose Set for Oxygen & Gas	15662
Insulated Table Board (16" x 24" x 3/8")	1583



BEADMAKERS STARTER KIT

Cat. No. 15951

Everything for making beads, marbles and small 3-D glass objects. Kit includes:

DESCRIPTION	Cat. No.
1 Hot Head for MAPP Gas*	15613
10 Rod Mandrels - 1/8" Stainless	153902
Bead Rake	15614
Grooved Marver Plate	1597
Rod Scrubber	—
1 7oz. bottle Pink Slipper	15905
Table Clamp (to secure tank)	—
2 sheets of Fiber Blanket (6" x 12")	—
15 pc. Effetre Rods, Asst. (each 13-1/2" long)	—
1 oz. Tube Millefiori Slices	1554
Work Surface	15831

*NOTE: KIT DOES NOT INCLUDE OXYGEN OR BOTTLED GAS. Propane gas may be used with the Hot Head, but is not suitable for some bright colors.

DIDYMIUM GLASSES

Didymium glass absorbs the bright yellow sodium flare (589 NM) which occurs when heating glass in the torch flame. They allow safe viewing of glass as it is worked in the flame. For the beginning lampworker using MAPP gas or propane torches with soft, soda-lime glass. May also be used for periodic viewing of fusing/kiln projects. This brand is not recommended for high pressure torch flames on hard glass, pyrex or quartz.



DIDYMIUM SAFETY GLASSES

Cat. No. 4970

Polycarbonate Phillips ACE 202 Amethyst Contrast Enhancer Glass didymium lenses filter some infrared and U-V light. Advanced Didymium optics now absorb more yellow sodium flare. Multi-fit bridge and universal fitting with nickel silver temples. Plastic frames and metal reinforced arms.



GOLD COATED DIDYMIUM II SAFETY GLASSES

Cat. No. 49701

Dual purpose safety glasses for the hot glass worker. Lens surfaces are 24K *gold coated* to reflect against radiant energy such as that emitted from an open furnace or Glory Hole. Didymium lenses are made of scratch resistant polycarbonate. Frames have side shields for peripheral protection. The lenses have a darker blue color under the gold surface which passes less light than Cat. No. 4970 (for small furnace or Glory Hole exposure).



CLIP-ON FRAME PHILLIPS 202 DIDYMIUM GLASSES

Cat. No. 49706

The same "ACE" Amethyst Contrast Enhancer optics as used in Cat. No. 4970. Clip-on metal frames are lightweight with a gold finish. Clips over most prescription glasses. 48mm lenses.

"ACE" CONTRAST ENHANCEMENT GLASS

"ACE", short for Amethyst Contrast Enhancer, utilizes rare earth oxides in didymium glass composition to achieve unique color enhancing characteristics. This concept selectively positions transmission in the blue, green and red spectral regions, whereby one can improve color discrimination between different colored objects. ACE glass is very efficient in filtering sodium flare in addition to providing ultraviolet protection to 390NM. It makes it very comfortable to view under high ambient light when working with glowing hot glass over a long period of time. Filters the sodium flare from 575 to 600NM.



"ACE" PROFESSIONAL DIDYMIUM GLASSES

Cat. No. 49707

Comfortable, lightweight frames fitted with ACE 202 Amethyst Contrast Enhancer Glass. It is sometimes referred to as AUR 92 Glass. Has excellent color enhancing characteristics. Recommended for the serious professional hot glass craftsman who works with borosilicate (Pyrex Brand) as well as soda-lime (soft) glass. Allows comfortable flame viewing over a long duration.



BENCH MOUNT DIDYMIUM GLASS

Cat. No. 49708

Now have the safety of viewing the torch flame and the freedom of not having to wear eye safety glasses all in one.

The "ACE" 202 Amethyst Contrast Enhancer Didymium Glass is mounted on an adjustable stand which is placed between the flame and the viewer. Full 4" x 4" (102mm) glass may be adjusted vertically while the swivel tilts vertically or horizontally.

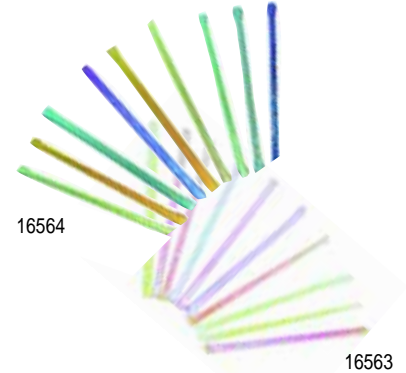
GREEN SHADE 2.5 SAFETY GLASSES

Cat. No. 49692

Snug-fitting with side shields on the temples. 55 x 50mm lenses. Provides partial protection from impact, ultraviolet and infrared rays. Plastic frames.



DICHROIC GLASS



16564

16563

DICHROMAGIC® HOT STIX™

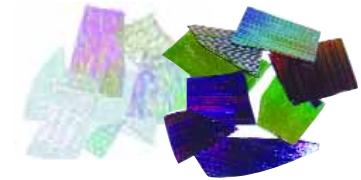
Hot Stix are pre-fired glass strips. The dichroic coating wraps around 2/3 of the diameter. (The rods are 1/4" diameter.) Hot Stix come in packages of 10 clear or black glass strips with random assorted colors. Great for fusing or beadmaking. Hot Stix are 8" long, and they come as 90 C.O.E. or 104 C.O.E.

Cat. No. 16561 - Hot Stix 90 C.O.E. Clear

Cat. No. 16562 - Hot Stix 90 C.O.E. Black

Cat. No. 16563 - Hot Stix 104 C.O.E. Clear

Cat. No. 16564 - Hot Stix 104 C.O.E. Black



DICHROMAGIC® SCRAP

Scrap bags contain 8 oz. of assorted styles and colors. Specify Black or Clear when ordering.

Order as:

DIC-DM-SCRAP (all 90 C.O.E.)

DIC-DM-SCRAP-96 (all 96 C.O.E.)



FUSIBLE DICHROIC 2-1/2" x 8" STRIPS

Cat. No. 11164-96 96 C.O.E.

Cat. No. 11164-90 90 C.O.E.

Cat. No. 11164-104 104 C.O.E.

Conveniently sized and affordably priced DichroMagic™ dichroic strips. Random selection of colors and textures. Specify Black or Clear when ordering.

HOT RODZ™ From Bullseye Colored rods for flameworking and fusing. 98 opalescent and transparent colors are offered with additional colors to be added. They are compatible with Bullseye Frit, Stringers, Confetti, Sizzle Stix and Color Stix. HOT RODZ™ are drawn from remelted, tested compatible sheet glass. The physical characteristics for melting, temperatures for annealing, etc., are the same as Bullseye sheet glass. HOT RODZ™ are approx. 5mm in diameter and 18" long (457mm). Approximately 18 rods per lb. Lustres have 14 per lb.

Cat. No.	Description	Price Code			
OPAL COLORS					
1552-0013	Opaque White	C	1552-2010	Clear & Pink	D
1552-0014*	Cobalt Blue	C	1552-2020	Clear Sunflower	C
1552-0016*	Turquoise	C	1552-2050	Clear Salmon	D
1552-0017*	Mineral Green	C	TRANSPARENT COLORS		
1552-0018*	Periwinkle	C	1552-1022	Red Orange	C
1552-0024	Tomato Red	B	1552-1101	Clear	A
1552-0034	Lt. Peach	A	1552-1105	Deep Plum	A
1552-0046*	Bluestone	C	1552-1107	Light Green	A
1552-0064*	Sterling Blue	C	1552-1108	Aquamarine Blue	A
1552-0100	Black	B	1552-1109	Dark Rose Brown	A
1552-0101	Stiff Black	B	1552-1112	Aventurine Green	C
1552-0108	Powder Blue	A	1552-1114	Deep Royal Blue	A
1552-0112	Mint Green	A	1552-1116	Turquoise Blue	A
1552-0114	Cobalt Blue	A	1552-1118	Midnight Blue	A
1552-0116	Turquoise Blue	A	1552-1119	Sienna	C
1552-0117	Mineral Green	C	1552-1120	Yellow	C
1552-0120	Canary Yellow	B	1552-1122	Red	C
1552-0124	Red	B	1552-1125	Orange	C
1552-0125	Orange	B	1552-1126	Chartreuse	A
1552-0126	Spring Green	B	1552-1128	Deep Royal Purple	A
1552-0127	Nougat	C	1552-1129	Charcoal Gray	A
1552-0132	Driftwood Gray	A	1552-1137	Medium Amber	A
1552-0136	Deco Gray	A	1552-1141	Olive Green	A
1552-0137	French Vanilla	A	1552-1145	Kelly Green	A
1552-0141	Dark Forest Green	A	1552-1164	Carribbean Blue	A
1552-0142	Neo-Lavender	C	1552-1215	Hot Pink, <i>Striker</i>	D
1552-0144	Teal Green	B	1552-1232	Light Fuchsia	D
1552-0145	Jade Green	B	1552-1234	Violet, <i>Striker</i>	D
1552-0146	Steel Blue	B	1552-1305	Sunset Coral	D
1552-0147	Deep Cobalt Blue	B	1552-1311	Cranberry Pink	D
1552-0164	Egyptian Blue	B	1552-1322	Garnet	C
1552-0203	Woodland Brown	B	1552-1334	Gold Purple	D
1552-0212	Olive Green	B	1552-1342	Cranberry Sapprine	D
1552-0216	Light Cyan	B	1552-1401	Crystal Clear	A
1552-0220	Sunflower Yellow	B	1552-1405	Light Plum	A
1552-0227	Golden Green	C	1552-1406	Steel Blue	A
1552-0243	Lighting White	B	1552-1408	Lt. Aquamarine Blue	A
1552-0301	Pink	C	1552-1409	Lt. Bronze	A
1552-0303	Dusty Lilac	C	1552-1412	Lt. Aventurine Green	A
1552-0305	Salmon Pink	C	1552-1414	Lt. Sky Blue	A
1552-0309	Cinnabar	C	1552-1417	Emerald Green	A
1552-0312	Pea Pod*	B	1552-1426	Spring Green	A
1552-0313	Dense White	B	1552-1428	Light Violet	A
1552-0321	Pumpkin Orange	B	1552-1429	Lt. Silver Gray	A
1552-0329	Burnt Orange	C	1552-1437	Light Amber	A
1552-0334	Gold-Purple	D	1552-1439	Khaki	A
1552-0337	Butterscotch	C	1552-1442	Neo-Lavender	C
1552-0421	Petal Pink	D	1552-1506	Pale Steel Blue	A
1552-0459	Rhubarb	D	1552-1514	Pale Sky Blue	A
			1552-1517	Pale Emerald	A
			1552-1528	Pale Amethyst*	A

TINT COLORS

1552-1806	Juniper Blue Tint	A	
1552-1807	Grass Green Tint	A	
1552-1808	Aqua Blue Tint	B	
1552-1812	Lt. Aventurine Green	C	
1552-1820	Pale Yellow Tint	C	
1552-1821	Erbium Pink Tint	D	
1552-1834	Coral Orange Tint	C	
1552-1841	Spruce Green Tint	A	
1552-1842	Neo-Lavender Shift Tint	C	
1552-1859	Rhubarb Pink/ Green Shift Tint	D	

LUSTRES

1552-1701	Amber Lustre	L	
1552-1707	Green Lustre	L	
1552-1714	Blue Lustre	L	
1552-1717	Copper Green Lustre	L	

*New colors.

SIZZLE STIX

Strips of dichroic glass cut from thin (1.6mm) Bullseye Compatible clear or black glass, pre-fired to round the edges and minimize thermal shock in the flame. Sizzle Stix are 16" long.

- 1653-B 1/4" Wide Black Dichroic/tube of 12
- 1653-C 1/4" Wide Clear Dichroic/tube of 12
- 1654-B 1/8" Narrow Black Dichroic/tube of 18
- 1654-C 1/8" Narrow Clear Dichroic/tube of 18



HOT RODZ™ STARTER PACK

Cat. No. 1552-STPK

Contains a wide range of opalescent and transparent colors selected from current stock (at Bullseye), plus two Sizzle Stix.



Torchworking Sample Set

Cat. No. NS8130

Bigger and better set for viewing Bullseye's full line of 108 rod and 57 stringer styles for torchwork and kilnwork. Plus, it shows four samples of Sizzlestix. Each sample piece is 1" (25mm) long, glued and labeled onto sturdy cards and neatly organized in a glossy red binder. Approx. 170 samples all together.

Special Order Only.

SYSTEM 96™ RODS

Colored rods suitable for fusing, lampworking and blowing. System 96 rods are compatible with other System 96 colored sheets, frit, stringers, noodles and casting billets.

Available in 50+ attractive colors, transparent and opalescent. System 96 rods are made from remelted System 96 sheet glass. Therefore all of the properties of the compatible sheet glass pertain to the rods. The melting and annealing temperatures will be the same.

Annealing Point: **Transparents** - 950°F (510°C)

Opals - 940°F (504°C)

Strain Point: **Transparents** - 898°F (481°C)

Softening Point: **Both** - 1250°F (677°C)

Rods are 19-1/2" (20cm) long x 1/4" (6mm) diameter. Sold by the lb. (454g). Each rod weighs approx. 1.2 oz (34g). Packaged 4 pounds, 24 pounds to the case (10.9kg).

OPAL COLORS

	Cat. No.	Color	Price Code
	1544-070	Cloud Opal	C
	1544-200	White Opal	C
	1544-209	Firelight Opal	C
	1544-355	Marigold Opal	C
	1544-421*	Riviera Blue Opal	C
	1544-520	Plum Opal	C
	1544-755*	Fern Opal	C
	1544-1511	Cherry Red Semi-Opal	C
	1544-1611	Yellow Semi-Opal	C
	1544-1711	Orange Semi Opal	C
	1544-2107	Almond Opal	C
	1544-2206	Dk. Green Opal	C
	1544-2222	Easter Green Opal	C
	1544-2232	Turquoise Green Opal	C
	1544-2342*	Cotton Candy Grape Opal	D
	1544-2264	Amazon Green Opal	C
	1544-2302	Medium Blue Opal	C
	1544-2306	Cobalt Blue Opal	C
	1544-2334	Turquoise Blue Opal	C
	1544-2382	Alpine Blue Opal	C
	1544-2402	Mauve Opal	C
	1544-2404	Lilac Opal	C
	1544-2502	Red Opal	C
	1544-2602	Yellow Opal	C
	1544-2672	Sunflower Opal	C
	1544-2702	Orange Opal	C
	1544-2911	Champagne Opal	C

TRANSPARENT COLORS

	Cat. No.	Color	Price Code
	1544-56	Black Transparent	B
	1544-00	Clear Transparent	A
	1544-015	Urobium Pink Transparent	E
	1544-111	Dark Amber Transparent	B
	1544-121	Light Green Transparent	B
	1544-125	Dark Green Transparent	B
	1544-136	Dark Blue Transparent	B
	1544-142*	Lt. Purple Transparent	B
	1544-146	Deep Purple Transparent	B
	1544-476	Neon Orchid Transparent	D
	1544-707	Citron Transparent	B
	1544-774	Ming Green Transparent	B
	1544-906	Straw Transparent	B
	1544-1102	Pale Amber Transparent	B
	1544-1108	Medium Amber Transparent	B
	1544-1308*	Pale Purple Transparent	B
	1544-1808	Pale Grey Transparent	B
	1544-5181*	Bronze Transparent	B
	1544-5262	Moss Green Transparent	B
	1544-5281	Sea Green Transparent	B
	1544-5284*	Olive Green Transparent	B
	1544-5331	Sky Blue Transparent	B
	1544-5333	Deep Aqua Transparent	B
	1544-5342*	Violet Transparent	B
	1544-5384	Steel Blue Transparent	B
	1544-5386	Navy Blue Transparent	B
	1544-5432	Grape Transparent	B
	1544-5911	Pink Champagne Transp.	B

*New colors.

MARDI GRAS ROD SAMPLER

Cat. No. 1544-SAMP

31 Uroboros Rods in bright beautiful colors reminiscent of Mardi Gras. 96 C.O.E. tested compatible. 10" (254mm) in length.



SAMPLE SET SYSTEM 96 RODS

Cat. No. 1544-SET

EFFETRE "SOFT" RODS SPECIFICATIONS

C.O.E.:104 x 10⁻⁷ °C
 Rod & Tubing Length:.....39.37" (1 meter)
 Tubing Bore Diameter:118" (3mm)
 Rod & Tubing Diameter:5-6mm
 Count per Pound:Approx. 8 rods

TEMPERATURE RANGE:

Annealing Range:.....940 to 995/1004°F
 (505 to 535/540°C)
 Strain Point:.....887 to 940/950°F
 (475 to 505/510°C)
 Full Fuse:.....1400 to 1436°F
 (760 to 780°C)

NOTE: Alabaster colors have varied coefficients of expansion. Testing for compatibility is suggested.



MORETTI BOOK

Cat. No. 6992

Text in English, Italian, German and Spanish. Relates the story of Murano glass making. Covers physical/chemical properties of glass drawn rods. Color illustrations depict the stages of rod making. Illustrations of the full line of millefiori patterns and all rods including filigrana (aventurine). 48 pages. 8-1/2" x 12" (216 x 305mm). Excellent color.

DICHROIC COATED EFFETRE RODS

Cat. No. 1556-004DC - Dichroic Crystal Rod

Cat. No. 1556-064DC - Dichroic Black Rod
 5-6mm Effetre rods, each 16" (406mm) long.

Approximately one-third of the rod surface [1/4" (25mm) on each side] is subjected to a metallic thin film deposition (spot where it is held in the coating chamber is not coated). Coated surface should be kept away from the flame and quickly encased with clear glass.



LARGE DIAMETER EFFETRE RODS

Available in the following sizes and colors:

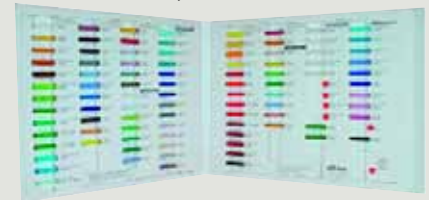
Cat. No. 1559-004 Crystal 10-12mm diameter

Cat. No. 1559-414 Crystal 14-15mm diameter

EFFETRE ROD SAMPLE CARD

Cat. No. 1556-CC

Small color samples of actual Effetre rods mounted on a cardboard gatefold display. Makes color selection easy.



Produced by Effetre Industriale S.P.A.

ASSORTED EFFETRE ROD SETS - 104 C.O.E.

Individual sample sets of each Effetre rod type. Sets contain one 13-5/8" (346mm) long rod of each color. If one color is out of stock in the set, another rod in the set will be added to complete the count total.

Cat. No.	Description	Rods
1556AL	Alabaster Set	16
1557FI	Filigrana Set	20
1556OP	Opal Set	8
1556PA	Pastel Set	22
1556SC	Special Colors Set	15
1556TA	Transparent Set	31

COLOR VARIETY: 161 Effetre colors are available, all of which work well together (i.e. Opal w/ Transparent, etc.).

STRIKING COLORS: Some colors do not appear as described until heated in the flame and cooled. Colors "strike" to the color description. Colors that apply are: Yellow (069), Orange (072), Gold Ruby (456), Rose (532) and Copper (536).

NOTE: Alabaster Colors are not all compatible with the other colors. Please experiment.

NEW COOL COLORS



Cat. No.	Color (Price Code)	Cat. No.	Color (Price Code)
1556-610	Ice (P)	1556-651	Yellow Rock (P)
1556-620	Kiwi (P)	1556-652	Orange Rock (P)
1556-630	Blue Lagoon (P)	1556-653	Red Rock (P)
1556-640	Mimosa Yellow (O)	1556-654	Brown Rock (P)
1556-641	Deep Mimosa Yellow (O)	1556-680	Green Tea (P)
1556-642	Orange African Daisy (O)	1556-682	Cherry Shake (P)
1556-643	American Beauty (O)	1556-683	Fossil (P)
1556-644	Marine Wave (O)	1556-684	Tuxedo (P)
1556-650	Mustard Rock (P)	1556-685	Hawaiian Clay (P)

TRANSPARENT COLORS

	1556-004	Crystal (A)
	1556-006XC*	Extra Clear (B)
	1556-008	Amber Pale (A)
	1556-012	Amber Light (A)
	1556-014	Root Beer (A)
	1556-016	Brown, Dark (A)
	1556-020	Grass Green, Light (A)
	1556-022	Grass Green, Medium (A)
	1556-024	Grass Green Dark (A)
	1556-025*	Olive Green (A)
	1556-026	Blue Green (A)
	1556-028	Emerald Green, Light (A)
	1556-030	Emerald Green, Dark (A)
	1556-034	Aquamarine, Light (A)
	1556-036	Aquamarine Dark (A)
	1556-038	Aquamarine Pale (A)
	1556-039	Purple Glicine, Dark (D)
	1556-040	Amethyst, Light (A)
	1556-041	Purple Glicine, Light (D)
	1556-042	Amethyst, Medium (A)
	1556-044	Amethyst, Dark (A)

	1556-045	Purple Vinaccia (D)
	1556-046	Pale Purple (A)
	1556-048	Grey (A)
	1556-050	Pale Blue (A)
	1556-052	Blue, Light (A)
	1556-054	Blue, Medium (A)
	1556-056	Blue, Dark (A)
	1556-057*	Intense Blue (A)
	1556-060	Blue, Cobalt (A)
	1556-062*	Blue Rosetta (G)
	1556-064	Black (A)
	1556-067*	Rose Quartz (C)
	1556-068	Rose (A)
	1556-069	Bright Yellow (B) <i>Striking</i>
	1556-072	Orange (B) <i>Striking</i>
	1556-073*	Pale Green Apple (A)
	1556-076	Red (B)
	1556-080	Periwinkle, Pale (A)
	1556-082	Pale Lavender (A)
	1556-083*	Rosata Extralux (D)
	1556-084	Grey, Light (A)
	1556-088	Grey, Dark (A)
	1556-090*	Seaweed Green (A)

SPECIAL COLORS











	1556-404	Lemon Yellow, Light (C)		1556-432	Red (C)
	1556-408	Lemon Yellow, Med (C)		1556-436	Red, Extra Dark (C)
	1556-412	Yellow, Dark (C)		1556-438	Purple Red (C)
	1556-416	Sulphur Yellow (C)		1556-444	Chestnut, Light (C)
	1556-419*	Apricot Yellow (F)		1556-448	Chestnut, Dark (C)
	1556-420	Coral (C)		1556-452	Wine Red (C)
	1556-422	Orange (C)		1556-456	Gold Ruby (L) <i>Striking</i>
	1556-424	Orange (C)		1556-460	Mustard (C)
	1556-428	Reddish Orange (C)			

*New colors.

OPALINE COLORS

	1556-504	White (B)		1556-524	Sky Blue (B)
	1556-508	Yellow (B)		1556-528	Periwinkle (B)
	1556-516	Nile Green (B)		1556-532	Rose (E) <i>Striking</i>
	1556-520	Grass Green (B)		1556-536	Copper (G) <i>Striking</i>

PASTEL COLORS

	1556-204	White (B)		1556-240	Cobalt Blue, Medium (C)
	1556-208	White, Light (B)		1556-242	Blue, Medium (E)
	1556-212	Pea Green (B)		1556-246	Cobalt Blue, Dark (F)
	1556-214	Nile Green (B)		1556-248	Grey, Light (B)
	1556-216	Grass Green, Light (B)		1556-252	Grey, Dark (B)
	1556-218	Teal (B)		1556-256	Rose, Dark (M)
	1556-220	Blue (B)		1556-260	Rose, Light (D)
	1556-222*	Periwinkle (F)		1556-264	Ivory (B)
	1556-224	Sky Blue (B)		1556-268	Pearl Grey (B)
	1556-228	Sky Blue, Dark (B)		1556-272	Violet (B)
	1556-232	Turquoise, Light (B)		1556-276	Ivory, Dark (B)
	1556-236	Turquoise, Dark (B)			

ALABASTER COLORS

	1556-304	Pale White (C)		1556-352	Turquoise Medium (D)
	1556-308	White, Light (C)		1556-356	Turquoise, Dark (D)
	1556-312	Special White (D)		1556-360	Periwinkle, Light (D)
	1556-316	Agate White (D)		1556-364	Periwinkle, Dark (D)
	1556-320	Ivory (C)		1556-368	Lapis Blue (C)
	1556-340	Green (C)		1556-372	Rose, Light (E)
	1556-344	Pine Green (C)		1556-376	Rose, Medium (E)
	1556-348	Turquoise, Light (C)		1556-380	Rose, Dark (E)
				1556-384	Navy Blue (D)

NOW MACHINE MADE

Previously hand-pulled, but are now machine made

1556-019—Transp. Sage Green (D)



1556-031—Pale Emerald Yellow (A)



1556-045—Red Wine (D)



1556-049—Straw Yellow (G)



1556-058—Ink Blue (D)



1556-071—Yellow Trans. Green (D)



1556-081—Transp. Dk. Lavender (D)



EFFETRE *HANDMADE* COLORS 104 C.O.E.

Since these rods are hand-pulled. As a result the diameters vary from approx. 6 to 12mm in diameter. Length also varies. Therefore orders will be filled on the basis of diameters available. **Striking Color. *New Colors.

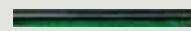
1556-018—Transp. Light Brown (G)



1556-023—Transp. Mosaic Green (K)



1556-027—Dark Teal (G)



1556-059—Mosaic Blue (D)



1556-065—Metallic Black* (N)



1556-066—Intense Black (N)



1556-070—Uranium Yellow (D)



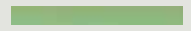
1556-210—Avocado Green** (F)



1556-211—Sage Green (F)



1556-217—Mint Green* (L)



1556-219—Opal Copper Green (K)



1556-219B—1/2 Green, 1/2 Red (K)



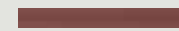
1556-221—Opal Lavender (K)



1556-247—Ink Blue Pastel (K)



1556-253—Striped Pink* (N)



1556-254—Purple (L)



1556-255—Opal Silver Pink** (K)



1556-257—Sedona* (L)



1556-258—Tongue Pink** (K)



1556-261—Rosa P. D'Angelo (G)



1556-262—Powder Pink** (K)



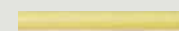
1556-263—Mou (Mocha)* (L)



1556-265—Opal Uranium Yellow (L)



1556-266—Opal Yellow** (L)



1556-271—Light Plum (K)



1556-273—New Violet (K)



1556-274—Opal Dark Violet (K)



1556-275—Dark Violet (K)



RETICELLO

Glass with Twists—interesting glass decorated with colored glass threads and/or ribbons twisted in a clear glass overlay. This fascinating specialty glass is wonderful for all kinds of lampworking, fusing, beadmaking, and jewelry. Due to the individual manner in which this glass is made, diameters vary between 5-8mm. Rods are approximately 12-1/2" (318mm) long. *Check availability of product.* Produced by Effetre Industriale S.P.A.

1552-000

White Lines, Loose Twist



1552-002

Yellow Lines, Medium Twist



1552-003

Red Orange Lines,
Loose Twist



1552-004

Sky Blue Lines, Tight Twist



1552-101

White Lines Edged in
Cobalt Blue, Medium Twist



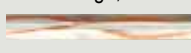
1552-102

White Lines Edged in
Yellow Medium Twist



1552-103

White Lines Edged in
Red-Orange, Medium Twist



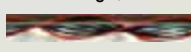
1552-107

White Lines Edged in
Aventurine,
Medium Loose Twist



1552-153

Black Lines Edged in
Red-Orange, Medium Twist



1552-206

Two Thin Pale Pink Lines,
Very Loose Twist



1552-305

Two White Lines in Loose Twist
Surrounded by one Medium and
1 Wide Black Line, Tight Twist



1552-606

Medium Pink Solid Ribbon,
Tight Twist



1552-608

Leaf Green Solid Ribbon,
Medium Twist



1552-609

Peacock Blue Solid Ribbon,
Medium Twist



1552-5B0

Two Light Blue Lines,
Loose Twist Surrounded by
White Lines Tight Twist



1552-B06

Light Pink Lines,
Medium Twist



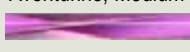
1552-C57

Black Lines Edged in
Aventurine, Loose Twist



1552-E67

Dark Pink Ribbon Edged in
Aventurine, Medium Twist



MILLEFIORI is made in Italy by artisans who for generations have crafted beautiful glass flowers. Prized for fusing and beadmaking, Millifiori is available as rods or slices in opalescent and transparent colors. Rods are 13-3/4" (349mm) in length with diameters ranging from 5 - 8mm.



MILLEFIORI ROD ASSORTMENT - Cat. No. 155820

Assorted popular colors and designs. The combination of colors and designs makes it difficult to order specifics with a reasonable delivery time. Periodically we are able to obtain small lots from production runs. Inquire for current availability. 16 rods per set, approximately 13-1/2" (343mm) long/5-6mm diameter. Sold by weight.

MILLEFIORI SLICES - Assorted colors and styles only. Slices are approx. 3/16" to 1/4" (4.8 - 6.4mm) thick. Three sizes are available in opaque and two sizes in transparent colors. Variation in size may occur due to manufacturing process.

MILLEFIORI RODS - Opaque (Price Code R)

CAT. NO.	DESCRIPTION	DIAMETER
1554	Opaque Slices	9/32" to 5/16" (7-8mm)
1554-8*	Opaque Slices	9/32" to 5/16" (7-8mm)
1554MINI	Opaque Mini-Slices	3/16" to 1/4" (5-6mm)
15548MINI*	Opaque Mini-Slices	3/16" to 1/4" (5-6mm)
1554LG	Opaque Maxi-Slices	5/16" to 3/8" (8-10mm)
1554LG-8*	Opaque Maxi-Slices	5/16" to 3/8" (8-10mm)
1554T	Transparent Slices	9/32" to 5/16" (7-8mm)
1554T-8*	Transparent Slices	9/32" to 5/16" (7-8mm)
1554MINIT	Transparent Mini-Slices	3/16" to 1/4" (5-6mm)
1554MINIT-8*	Transparent Mini-Slices	3/16" to 1/4" (5-6mm)
*8 oz. bulk.	(Otherwise sold in 1 oz. packages.)	





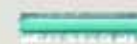


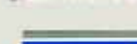
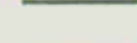







MILLEFIORI RODS - Transparent (Price Code R)



NOTE: NOT COMPATIBLE WITH BULLSEYE OR UROBOROS. May be used with Effetre Sheet glass, Effetre Rods, Reticello, Grande Tronconi Slices, and Tronconi Butts. C.O.E. 104 x 10⁻⁷°C.

FILIGRANA - Colored rods encased in clear crystal. Approx. 8 rods per lb. (454g).

-  1557-204 Black/Crystal (I)
-  1557-208 White/Crystal (I)
-  1557-209 Pale Blue/Crystal (J)
-  1557-210 Periwinkle Blue/Crystal (J)
-  1557-211 Jade Green/Crystal (J)
-  1557-212 Ruby/Crystal (J)
-  1557-213* Clear Red/Clear (K)
-  1557-214 Turquoise Light/Crystal (J)
-  1557-215 Dark Turquoise/Crystal (J)
-  1557-216 Gold Brown Flecked/Crystal (L)
-  1557-218 Teal/Crystal (J)
-  1557-219 Pea Green/Crystal (J)
-  1557-220 Blue Flecked/Crystal (M)
-  1557-224 Rose/Crystal (J)

-  1557-228 Green/Crystal (I)
-  1557-229 Gray, Light/Crystal (J)
-  1557-232 Aquamarine/Crystal (I)
-  1557-236 Yellow/Crystal (J)
-  1557-240 Amethyst/Crystal (I)
-  1557-242 Blue Medium/Crystal (J)
-  1557-244 Orange/Crystal (J)
-  1557-248 Blue/Crystal (J)
-  1557-264 Ivory/Crystal (J)
-  1557-272 Violet/Crystal (J)
-  1557-420 Coral/Crystal (J)
-  1557-438 Maroon/Crystal (J)
-  1557-916 Goldstone (M)
-  1557-920 Blue Aventurine (N)



GRANDE TRONCONI BUTTS

Cat. No. 49531 (opal)

Cat. No. 49531T (transparent)

A Tronconi Butt is the beginning or end of a millefiori cane pull. The tapered butt of the pull is the remaining glass with a shape resembling an animal's horn. This glass is great for slicing! Comes in Opal or Transparent. 104 C.O.E. Size and weight varies. Priced by the pound (453g).



GRANDE TRONCONI SLICES

Cat. No. 4953

Millefiori on a grand scale! Sizes range from 12 to 37mm. Random diameters and patterns over the typical 6mm thick slices. The C.O.E. 104 is compatible with other Effetre products including sheet glass. Great for fusing, stepping stones, beads, etc. 6 oz. package (170g).



EFFETRE STRINGERS

To satisfy the demand for heavier stringers, the manufacturers now offer this 2 to 3mm size. The length is 1 meter (39"). Note that the long length makes the narrow size more fragile than 5mm rods and may cause some breakage in shipment. Effetre Stringers are compatible with Effetre rods, Millefiori and Sheet Glass. 104 C.O.E.

EFFETRE SHEET GLASS

Tested 104.0 C.O.E. FUSIBLE

Effetre Sheet Glass is made from the same melt as the famous Effetre rods. A soft, long-working glass ideal for lampworking or fusing. The following styles of Effetre sheet glass are tested 104 C.O.E. and are compatible with Millefiori rods and slices and all Effetre rods (except the alabaster colors). Even though these sheets are made from the same batch as the rods, we strongly recommend testing for compatibility. Sold by the sheet.

ORDERING INFORMATION

Effetre Sheet Size:

- ❖ Measures approximately 19-1/2" x 19-1/2" (495mm)
- ❖ Thickness: Approximately 3mm
- ❖ Weight per sheet: Approximately 4.5 lbs. (2kg)

Cat. No.	Color	Code	Cat. No.	Color	Code
1558-004	Clear	AA	1558-218	Petroleum Green	BB
1558-012	Light Topaz	AA	1558-220	Periwinkle	BB
1558-014	Medium Topaz	AA	1558-224	Light Sky Blue	BB
1558-020	Light Grass Green	AA	1558-228	Dark Sky Blue	BB
1558-022	Med. Grass Green	AA	1558-232	Light Turquoise	BB
1558-024	Dark Grass Green	AA	1558-236	Dark Turquoise	BB
1558-026	Light Teal	AA	1558-240	Light Lapis	CC
1558-028	Light Emerald	AA	1558-246	Blue Pastel	FF
	Green		1558-264	Ivory Pastel	BB
1558-034	Light Aqua	AA	1558-272	Violet Pastel	BB
1558-036	Dark Aqua	AA	1558-276	Dark Ivory	BB
1558-040	Light Purple	AA	1558-404	Light Lemon Yellow	CC
1558-044	Dark Purple	AA	1558-408	Lemon Yellow	CC
1558-056	Dark Blue	AA	1558-420	Coral	CC
1558-060	Cobalt Blue	AA	1558-432	Red	CC
1558-064	Black	AA	1558-436	Dark Red	CC
1558-066	Intense Black	MM	1558-444	Light Brown	CC
1558-204	White Pastel	BB	1558-448	Dark Brown	CC
1558-212	Pea Green	BB	1558-460	Yellow Ochre	CC
1558-214	Nile Green	BB	1558-916	Aventurine Gold	MM
1558-216	Green Pastel	BB	1558-920	Aventurine Blue	MM



NOTE: *Red is a striking color which starts as a Pale Amber, and when fired, strikes a beautiful Cherry Red tone.

MESSY COLORS

by Creation Is Messy (CIM)
 C.O.E. 104. Size: Diameter 5-6mm,
 length 13", weight per rod .05 lb.
 (3/4 oz.), approximately 21 rods per lb.



1543-229
Clockwork



1543-241
Creamsicle



1543-346
Ghee



1543-351
Stone Ground



1543-402
Celadon



1543-413
Peacock Green



1543-430
Elphaba



1543-448
Dirty Martini



1543-449
Kryptonite



1543-505
French Blue



1543-508
Leaky Pen



1543-512
Halong Bay



1543-519
Glacier



1543-531
Lapis



1543-543
Sapphire



1543-547
Electric Avenue



1543-550
Chalcedony



1543-562
Ming



1543-563
Pulsar



1543-568
Fremen



1543-569
Smurfy



1543-570
Grumpy Bear



1543-571
Cornflower



1543-618
Simply Berry



1543-632
Thai Orchid



1543-645
Heffalump



1543-652
Count von Count



1543-653
Larkspur



1543-654
Grape Ape



1543-655
Eggplant



1543-658
Plum



1543-660
Crocus



1543-661
Evil Queen



1543-667
Poi



1543-701
Ginger



1543-703
Butter Queen



1543-717
Khaki



1543-722
Canyon de Chelly



1543-742
Sepia



1543-765
Chai



1543-806
Cirrus



1543-820-02
Hades 2-3mm



1543-820
Hades



1543-834-02
Clear 2-3mm



1543-834-04
Clear 4-6mm



1543-834-06
Clear 6-8mm



1543-834-08
Clear 8-10mm



1543-835
Peace



1543-859
Marshmallow



1543-872
Tuxedo



1543-904
Gelly's Sty



1543-907
Rose Quartz



1543-915
Pink Champagne



1543-921
Blush



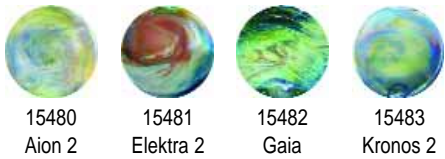
1543-926
Cranberry Pink



1543-957
Desert Pink

DOUBLE HELIX RODS NEW!

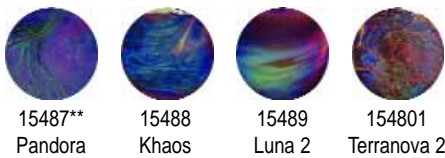
104 C.O.E. 5mm diameter x 12" long rods. (1/4 lb. min.)



15480 Aion 2 15481 Elektra 2 15482 Gaia 15483 Kronos 2



15484** Nyx 15485 Psyche 15486 Triton



15487** Pandora 15488 Khaos 15489 Luna 2 154801 Terranova 2



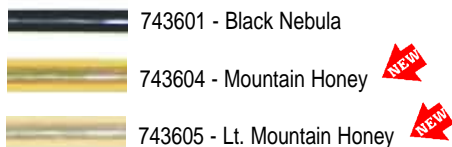
154802 Aurae

**Though the rods start out black as night, Nyx and Pandora will kiln strike through a steady fade of Midnight Blue, Lapis, Peacock, Turquoise, and Sky Blue. Determine the coloration through annealing time, temperature and placement in your kiln.



REDUCTION RODS

104 C.O.E. hand-pulled rods. Reduction flame brings out the silver from the rods in interesting variations. Approx. 5mm diam., 12-15" lengths (about 20 pcs. per lb.)



743601 - Black Nebula

743604 - Mountain Honey NEW!

743605 - Lt. Mountain Honey NEW!



GOLDSTONE FRIT
(size 3) Cat. No. 15504
[1 lb. (454 g)]



BLUE AVENTURINE FRIT
(size 3) Cat. No. 15505
[1 lb. (454 g)]

Now available as frit in addition to chips. Used to make glass rods and stringers as well as decorating beads.



MICA POWDER (Pixie Dust)

Use Pixie Dust to create a sparkle or pearl luster color inside glass or on its surface. To use, place powder in a frit trough, on a marvering pad or small metal bowl, or you can also use an enamel sifter. Heat the glass until the surface is molten. Pixie Dust will only stick to molten glass. While the glass is still molten, dip it, roll it or sprinkle it with Pixie Dust. Put the glass back into a gentle flame to flame anneal it. Works on all glass except borosilicate (hard) glass. Available in 30 gm bottles. (16601 to 16604 are in 100 gm bottles.)



16601 Bright Silver 16602 Silver Super Sparkle 16603 Inca Gold

16604 Super Bronze 16605 Glitter Champagne 16606 Glitter Gold

16607 Sparkle Aztec Gold 16608 Sparkle Bronze 16609 Sparkle White

16610 Highlight Violet 16611 Sparkle Bright Copper 16612 Sparkle Fruit Punch

GOLDSTONE (AVENTURINE) CHIPS & CULLET

Cat. No. 15501 - Chips - 1 lb. pkg.
Cat. No. 15502 - Chips - 4 oz. pkg.
Cat. No. 15503 - Cullet - 1 lb. bag



Goldstone (Aventurine) is used in making glass rods. Goldstone is available in chip form for making stringers or decorating beads. The chips vary in size but average 1/4". Chips are easier to use than cullet, which must be smashed to size.

Stringers made from chips are more dense than a goldstone prefabricated rod. Make a stringer by picking up a chip and encasing it with clear glass. Pull and marver it to the desired length.



NEW!

DICHOIRCOPPER SHEET

Cat. No. 49596

A new concept for easily transferring a Dichroic Coating for a lampworked project or to a gob of glass for the glass blower. The 6" x 12" copper foil sheet is the substrate for the layer of dichroic colors. The coating "jumps off" and attaches to molten glass when marvering. The sheet does not require pre-heating. The coating is 3 times as thick as regular dichroic coating, which is a beautiful silver color with various rainbow hues. Use with any type of glass, it is non-specific C.O.E.

JEWELRY & BEADMaking GOLD & SILVER LEAF

22 karat gold and pure silver available in leaf form for jewelry and beadmaking. Packaged in books. The sheets are interleaved with an ultra-thin roughed sheet of paper for protection and easy release.



22 KARAT GOLD LEAF

Cat. No. 16501
3-3/8" square (85.7mm).
25 sheets.



PURE SILVER LEAF

Cat. No. 16502
3-3/8" square (85.7mm).
25 sheets.



PURE SILVER FOIL

Cat. No. 165021
3-3/4" square (95.2mm)
25 sheets to a "book".
Thicker than leaf and easier to handle.

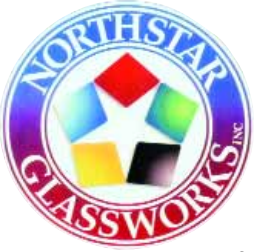
Cat. No. 16503 - 9" square (228mm) sheets. Pack of 10 sheets.



GOLD FOIL

Cat. No. 16504
8" square (203mm) sheets.
23.4 karat gold. Pack of 10 sheets.

Cat. No. 16505
3-3/8" sq. (25.7mm)
10 leaf book.



NORTHSTAR GLASS RODS

Northstar Borosilicate glass colors are saturated to prevent "boiling" and the tendency to dull in a reducing flame. The colors are vibrant and rich. They stand up to more heat and a variety of flame settings.

Northstar colors can be worked uncased and easily pulled into stringers. Without fear of boiling and with minimal patience, these colors can be worked on the surface without being remixed. Slowly and evenly heating the color with a gentle neutral flame is recommended.

The 4 examples below show how some of the rods appear after torchworking, and how they appear when encased in clear glass.

SPECIFICATIONS

C.O.E. 33.2 (± 2.0)

Compatible with Pyrex™, Kimax™ & Duran™ Glass

Rod Length = 15" - 18" (381 - 457mm)

Diameter = 5 - 9mm

Annealing Temp. = Max. 1112°F (600°C)

Suggested Annealing Temp. = 1050°F (565°C)

Rod Count per lb. (454g) = Approx. 14

1547NS-04
Dark Multi



1547NS-07
Ruby



1547NS-24
Transparent Green



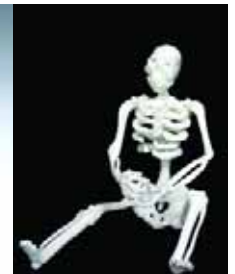
1547NS-28
Blue Exotic



Jared DeLong



Jesse Kohl

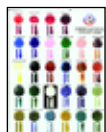


Sanjaya Silga

	1547NS-01	Cobalt (A)
	1547NS-03	Multi (C)
	1547NS-04	Dark Multi (D)
	1547NS-05	Orange (F)
	1547NS-06	Dark Orange (G)
	1547NS-07L	Light Ruby (H)
	1547NS-07	Ruby (H)
	1547NS-08	Dark Ruby (H)
	1547NS-09	Yellow (F)
	1547NS-11	Jade (G)
	1547NS-13	Amber Purple (H)
	1547NS-14	Iridized (G)
	1547NS-15	Turquesa (F)
	1547NS-19	Light Cobalt (A)
	1547NS-20	Dark Cobalt (A)
	1547NS-23	Pink (D)
	1547NS-24	Transparent Green (C)
	1547NS-25	Peach (K)
	1547NS-26	Dbl. Amber/Purple (I)
	1547NS-27	Green Exotic (I)
	1547NS-28	Exotic Blue (I)

	1547NS-29	Red Exotic (I)
	1547NS-31	Lavender (D)
	1547NS-32	Violet (D)
	1547NS-33	Turbo Cobalt (A)
	1547NS-34	Extra Light Yellow (B)
	1547NS-37	Rootbeer (G)
	1547NS-38	Green Blue (H)
	1547NS-41	Butterscotch (G)
	1547NS-42	Cinnamon (B)
	1547NS-43	Rust (G)
	1547NS-44	Caramel (G)
	1547NS-45	Blue Moon (G)
	1547NS-47	Aurora (I)
	1547NS-48	Lt. Blue Amber Purple (H)
	1547NS-49	Dk. Blue Amber Purple (H)
	1547NS-52	Teal (I)
	1547NS-53	Forest Green (I)
	1547NS-54	Star White (G)
	1547NS-55	Periwinkle (H)
	1547NS-57	Midnight (H)
	1547NS-58	Mint (F)

	1547NS-59	Cranberry (G)
	1547NS-62	Bubblegum (H)
	1547NS-63	Canary (G)
	1547NS-64	Lava (G)
	1547NS-65	Cherry (G)
	1547NS-66	Sublime (I)
	1547NS-69	Green Amber Purple (I)
	1547NS-70	Ice Blue (F)
	1547NS-72	Glacier Blue (D)
	1547NS-73	Millennium Moss (H)
	1547NS-75	Indigo Aventurine (H)
	1547NS-76	Onyx (H)
	1547NS-77	Deep Sea Blue (H)
	1547NS-78	Mystery Aventurine (H)
	1547NS-79	Blue Spruce (I)
	1547NS-80	Hyacinth (H)
	1547NS-81	Blue Caramel (G)
	1547-NS82*	Ruby K (G)
	1547-NS83*	Skyline K (G)
	1547NS-84	Goldenrod (G)
	1547NS-85	Poppy (G)
	1547NS-86	Garnet (H)
	1547NS-87	Garnet Dark (H)
	1547NS-88	Pomegranate (F)
	1547NS-89	Nile (I)
	1547NS-90	Rhapsody (H)
	1547-NS91*	Ninja (H)
	1547NS-92	Amethyst (F)
	1547NS-93	Plum Crazy (H) <i>Striking</i>
	1547NS-94	Egyptian White Sand (I)
	1547NS-95	Oregon Grey (D)
	1547NS-96*	Lt. Oregon Gray (D)
	1547NS-97	Evergreen (I)
	1547NS-98	Loch Ness (J)








**NORTHSTAR COLOR
BROCHURE**
Cat. No. 1547CB



NORTHSTAR SMALL SAMPLE SET
Cat. No. 1547-SSP

A set of 6" (152mm) rods, one of each color carried by Northstar. Also includes a 1 oz. packet of small frit, 1 oz. of large frit, and 1 oz. of powder and an instruction booklet.

The following photos are of rods after torchworking.

	1547-NS-100*	Black Lightning (G)
	1547-NS101*	Purple Urple (G)
	1547-NS102*	Silver Bullet (G)
	1547-NS103*	Berry Gumbolt (B)
	1547-NS104*	Unobtanium (J)
	1547-NS105*	Silver Creek (G)
	1547-NS106*	Dark Amethyst (B)
	1547-NS107*	Green Tea (G)
	1547-NS109*	Plum Kusha (F)
	1547-NS111*	Alaskan Thunder (G)
	1547-NS112*	Mother of Green Pearl (J)
	1547-NS113*	Turbo Amethyst (D)
	1547-NS114*	Tan Silver Creek (D)
	1547-NS115*	Silver Sea Weed (G)
	1547-NS116*	Silver Pearl (I)
	1547-NS117*	Millenium Falcon (F)
	1547-NS118*	Obtanium (J)
	1547-NS119*	Super Unobtanium (J)
	1547-NS120*	Silber Unobtanium (I)
	1547-NS121*	Blue Nebula (D)
	1547-NS122*	Blue Thunder (F)
	1547-NS123*	Crystal Bliss (D)
	1547-NS124*	Silver Amethyst (F)
	1547-NS125*	Jet Black (D)
	1547-NS126*	Opaque Aqua (B)
	1547-NS129*	Steel Wool (G)
	1547-NS131*	English Ivy (G)
	1547-NS132*	Lokis Lipstick (G)
	1547-NS133*	Silver Aqua (G)

*New colors.



**CORNING
PYREX®
BOROSILICATE GLASS RODS
(C.O.E. 32.5 x 10⁻⁷°C)**

Cat. Nos. 154503 to 154525

Compatible with Schott, Duran, and Northstar colored rods. Not compatible with "soft" beadmaking glass. 5 to 11mm sizes are 1219mm (48") long, +/- approx. 6mm (1/4") with ends cut. 12.7 to 25.4mm sizes are 1219mm (48") long +/- approx. 13mm with ends cut.

	Pyrex® Rods	Approx. Kilos per Meter	Approx. lbs. per ft.	Approx. pcs. per Case	Approx. Weight per Case	
Cat. No.	Outer Diam.				lbs.	kilos
154503	3mm	.0149	.010	625	25	11.35
154504	4mm	.0283	.019	328	25	11.35
154505	5mm	.0432	.029	215	25	11.35
154506	6mm	.0595	.043	145	25	11.35
154507	7mm	.0863	.058	107	25	11.35
154508	8mm	.1116	.075	83	25	11.35
154509	9mm	.1414	.095	65	25	11.35
154510	10mm	.1756	.118	52	25	11.35
154511	11mm	.2128	.143	44	25	11.35
154512	12.7mm	.2827	.190	33	25	11.35
154515	15.9mm	.4404	.296	21	25	11.35
154519	19mm	.6369	.428	14	25	11.35
154525	25.4mm	1.1309	.760	8	.24	10.90



PYREX BOROSILICATE ROD ASSORTMENT

Cat. No. 1554ASST

96 Pieces cut to 16" (406mm) lengths. Approx. 8 lbs. (3.6 Kg) Borosilicate Rods. Consists of: 24 each of 4mm, 6mm, 8mm and 10mm diameter rods. Compatible with Schott, Duran, Kimble KG33, Northstar and other 32 C.O.E. rods.

BOROSILICATE ROD PHYSICAL PROPERTIES	
Softening Point.....	821°C (1510°F)
Annealing Point	560°C (1040°F)
Strain Point	510°C (950°F)
Coefficient of Expansion ..	32.5 x 10 ⁻⁷ °C
Rod Length	48-1/4" ± 1/4"(1225mm)



**CORNING PYREX®
BOROSILICATE TUBING**

Use Borosilicate tubing to complement Northstar Colored Glass Rods.

STANDARD WALL TUBING - Cat. Nos. 154603 to 154651.

MEDIUM WALL TUBING - Cat. Nos. 1546M63 to 1546M50.

HEAVY WALL TUBING - Cat. Nos. 1546H09 to 1546H22.

	Total Var. O.D. +/- mm	Wall mm	Approx. Kilos per Meter	Approx. lbs. per ft.	Approx. pcs. per case	Approx. Weight per case	
Cat. No.	Outer Diam.					lbs.	kilos
Standard Wall Tubing - 3 to 25mm outer diameters are 1219mm (48") long +/- approx. 6mm (1/4"). 3 & 4mm sizes have ends cut, while 5 to 25mm sizes have ends fire-polished. 38 and 51mm outer diameters are 1226mm (48-1/4") long +/- approx. 6mm. Ends are trimmed and glazed.							
154603	3mm	.2	.6	.018	.012	520	15 11.35
154610	10mm	.3	1.0	.062	.042	148	25 11.35
154612	12mm	.3	1.0	.077	.052	120	25 11.35
154613	13mm	.3	1.2	.100	.067	93	25 11.35
154617	17mm	.3	1.2	.132	.089	70	25 11.35
154622	22mm	.4	1.5	.216	.145	43	25 11.35
154625	25mm	.4	1.5	.247	.166	37	25 11.35
154638	38mm	.7	2.0	.506	.34	18	25 11.35
154651	51mm	1.0	2.0	.684	.46	13	25 11.35
Medium Wall Tubing - 6.3 to 38.1mm outer diameters are 1219mm long +/- approx. 6mm. Ends are cut and glazed or fire-polished. 44.4 and 50.8mm outer diameters are 1226mm long +/- approx. 6mm with ends cut.							
1546M63	6.3mm	.3	1.2	.0432	.029	276	32 14.53
1546M12	12.7mm	.3	1.6	.1235	.083	96	32 14.53
1546M15	15.9mm	.3	1.6	.1577	.106	75	32 14.53
1546M19	19mm	.3	1.6	.1949	.131	61	32 14.53
1546M25	25.4mm	.4	2.4	.3869	.26	31	32 14.53
1546M31	31.7mm	.7	2.4	.4910	.33	24	32 14.53
1546M38	38.1mm	.7	2.4	.6101	.41	18	30 13.62
1546M44	44.4mm	1.0	2.4	.7142	.48	15	29 13.17
1546M50	50.8mm	1.0	3.2	1.0714	.72	4	12 5.45
Heavy Wall Tubing - 9.5 to 22.2mm sizes are 1219mm long +/- approx. 6mm with ends cut.							
1546H09	9.5mm	.3	2.0	.1042	.07	96	27 12.23
1546H12	12.7mm	.3	2.4	.1637	.11	61	27 12.23
1546H15	15.9mm	.3	2.4	.2232	.15	45	27 12.23
1546H19	19.0mm	.3	3.2	.3571	.24	28	27 12.23
1546H22	22.2mm	.4	3.2	.4166	.28	30	34 15.44

BOROSILICATE SCALLOP TUBING

Cat. No. 15465-221 - 22 x 1mm (22.44 lbs. per box). Internal scallop. Smooth exterior. Approx. 36 pc. per case. Rod length: 59" (1499mm)



SCHOTT R6 CLEAR GLASS RODS FOR BEADMAKERS & FUSERS - 90 C.O.E.

Cat. No. 15495 - 59" long rods (6 rods per lb.)

Cat. No. 15495-CL - 14-3/4" rods (24 rods per lb.)

Transparent rods may be used as a base or to encase colored glass. Coefficient of expansion is similar to C.O.E. 90 x 10⁻⁷°C Bullseye and Uroboros glass. Noted for clarity and consistency, this long-working, soft, soda-lime glass is easy to work with. Perfect for all sorts of creative uses! Rods are 5mm in diameter.



STUDIO NUGGETS

Cat. No. 15254

Crystal clear C.O.E. 96 x 10⁻⁷°C nuggets. Sold in 50 lb. bags. Pillow shape. Size approx. 1 x 3/4 x 1/2" (25 x 19 x 13mm). Good for casting and glassblowing. Inquire for 2000 lb. price.



FUSION FX CASTING BILLETS

Cat. No. 15256

Water clear tested compatible C.O.E. 90 x 10⁻⁷°C Casting Billets. Ideal for casting sculptures, tile, table tops and other art objects. Gives a color-free appearance when cast into large objects. May be used to create the look of hot cast glass in the kiln. Approximate size: 6" x 9" x 3/4" (152 x 229 x 19mm). Weight: 3.75 lbs.

SPECIFICATIONS for SCHOTT R6

	Cat No. 15495	Cat. No. 15495-CL
Rod Size:	59" (150cm) long	14.75" (375mm)
Thickness:	5mm diameter	5mm diameter
Rods per Pound:	6 rods (454g)	24 rods (454g)

PHYSICAL PROPERTIES

Coefficient of Expansion:	90 x 10 ⁻⁷ /°C
Working Point:	1040°C (1904°F)
Softening Point:	715°C (1319°F)
Upper Annealing Point:	530°C (986°F)
Transformation Temperature:	520°C (986°F)

SCHOTT PUGS

Cat. No. 49570

Glass pugs produced by Schott, Germany. Optically clear. C.O.E. 109. Fit well with Effetre (Moretti) rods. Excellent for clear glass encasement. Used by Loren Stump in his classes. 2" diameter x 1-1/4" thick. (51 x 31mm) Weight = 5.3 oz. (150 gms).



EFFETRE "104" CASTING CULLET

Cat. No. 1559-005 - 24 lb. bag (10.9 kg)

Cullet in large random size chunks weighing approximately 2 to 2-1/2 lbs. (.9 - 1.3 kg) each. Ideal for casting, pate-de-verre, etc. Break into smaller pieces or crush for fusing or lampworking.

Taken from same melt as Effetre Crystal (Cat. No.1520-004) Sheet Glass. C.O.E. 104 x 10⁻⁷°C. Compatible with Effetre rods (excluding Alabaster).



UROBOROS "90" CULLET

Cat. No. 15255

Ideal for casting, pate-de-verre, etc. Compatible with all C.O.E. 90 x 10⁻⁷°C glass. Transparent scrap pieces from 3mm sheet. Sold in 30 lb. pails.



SYSTEM "96" CULLET

Cat. No. 15253

System 96 clear glass cullet, crushed. Excellent for casting, pate-de-verre, etc. Compatible with all System 96 colors. Available in 50 lb. pails.



SYSTEM 96 CASTING PLATES

Formed and formulated for the specific demands of Kiln Casting. These rectangular plates are 6" x 12" in size, 1/2" thick, and weight approx. 3.5 lbs. each. They are highly devit resistant with exceptional flow characteristics and a low bubble count and first-rate clarity. Ten 6" x 12" plates per box (approx 35 lbs.). Also available as blocks (random-sized shapes larger than 2") and chunks (random-sized shapes smaller than 2").

Cat. No.	Description
111900	Cast Plate Clear
111901	Cast Block Clear
111902	Cast Chunk Clear
111910	Cast Plate Crystal Clear
111911	Cast Block Crystal Clear
111912	Cast Chunk Crystal Clear



Casting Plate



Casting Blanks



Casting Chunks



CLAMP & MOLDS

- Cat. No. 15871** - Glaskolben Mold Clamp
- Cat. No. 15860** - Pine Cone Pressing Mold
- Cat. No. 15861** - Strawberry Pressing Mold
- Cat. No. 15862** - Santa Pressing Mold
- Cat. No. 15863** - Fish Pressing Mold
- Cat. No. 15864** - Fir Tree Pressing Mold

The two-part aluminum molds are ideal for blowing Christmas ornaments. Designed for use with **Glaskolben™** pre-pulled points, they give a very durable, reproducible image. Designed to bolt into clamping device, Cat. No. 15871



155100 & 155103

Glaskolben™

Create Your Own Blown Glass Christmas Tree Ornaments

Using Glaskolben, the pre-formed glass cylinder with blowpipe for mouth-blowing glass balls or 3-dimensional shapes, create ornaments reminiscent of the work of traditional European artisans.

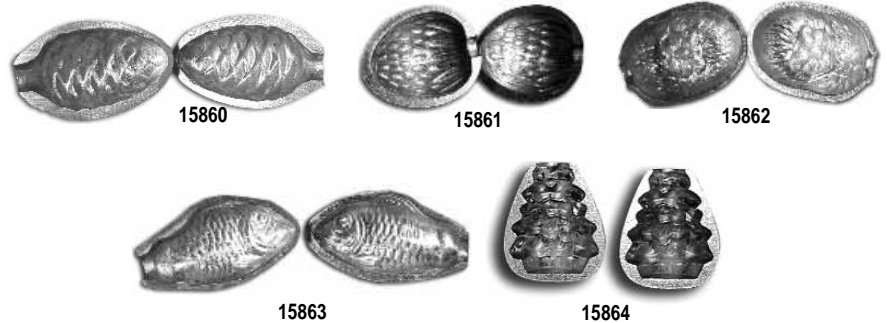
Marver **Glaskolben™** with stringers, frit and frit powder. Paint them with glass paints, stains or lacquers. Heat cure with colored enamels. Apply decals to the surface of the finished ornaments. Experiment with using glass blowing molds for various shapes and designs. The creative possibilities are endless!

Glaskolben™ is transparent glass with a C.O.E. of 89 x 10⁻⁷°C. It is compatible with readily available "90 C.O.E." frit and frit powder.

ORNAMENT CAP & LOOP SETS

The finishing touch for beautiful handmade glass ornaments! Two sizes of glittering Cap & Loop Sets made of lightweight metal. Brilliantly gold or silver plated and embossed with elegant Art Deco like designs. Loops are strong spring steel for durability and secure attachment. 100 sets per package.

- Cat. No. 15840** - Silver 10mm
- Cat. No. 15842** - Silver 17mm
- Cat. No. 15841** - Gold 10mm
- Cat. No. 15843** - Gold 17mm



BLOWPIPES

BLOWPIPE WITH SEALED-END CYLINDER

- Cat. No. 155100** - 1.0mm wall x 28mm diameter
 - Cat. No. 155103** - 1.5mm wall x 40mm diameter
- This Glaskolben sealed-end cylinder style is used for mouth-blowing spheres or other round shapes. It is also used for blowing into a mold.

BLOWPIPE WITH CYLINDER & SEALED-END TAPERED SPIKE

- Cat. No. 155102** - 1.5mm thick wall x 32mm cylinder diameter.

This dual-spiked cylinder has a blowpipe on one end and a sealed taper spike on the other. It allows the blown bulb to be worked into a wide variety of shapes. The dual-spiked ends facilitate picking up and marvering powders or frit onto the hot surface. Box of 100.



Cat.No.	Description	Wall	Diameter
155100	Sealed-End Cylinder	1.0mm	28mm
155102	Dual-Spike Cylinder	1.5mm	32mm
155103	Sealed-End Cylinder	1.5mm	40mm

NO MIXING ALLOWED

Glaskolben™ Preformed cylinders eliminate the tedious and time consuming task of "pulling points" from a glass tube.



STUDIO SERIES GLORY HOLE

Cat. No. 153105

Designed by Don McKinney, prominent glass artist.

Features:

- Propane fired forced air burner
- Easy reach propane ball valve shutoff
- Blower on/off switch
- 2" thick, high purity ceramic fiber lining providing quieter operation and superior heat retention
- Large base flange allows for securing of unit to work surface as well as improved stability
- Adjustable height ball bearing yoke
- Two-stage propane regulator, providing consistent fuel deliver pressure
- Six foot 'T' grade propane supply hose
- Overall dimensions: 20" tall, 10" wide, 16" deep
- Interior dimensions: 6" wide, 13" deep, 5" opening



EVENHEAT CRUCIBLE FURNACE

Cat. No. 48821

Features and Benefits:

- Controls placed at side of chamber keeps controls out of the way and leaves the front of the kiln open for working. Control mounted in Swing View swivel mounted enclosure – allows for adjustment of viewing and programming angle.
- Type S Thermocouple – Precise temperature control and long life.
- Chamber baffle system – 2" (51mm) fiber shaped baffle prevents major heat loss when chamber accessed. User will need to cut access holes to shape of crucible(s). Baffle also has hand grip cuts allowing for easy removal.
- 4-1/2" (114mm) firebrick chamber walls and 3" (76mm) firebrick lid and floor.
- Non-elemented lower chamber section limits damage in the event of crucible damage and can be easily replaced.
- 2 position lid prop bar – props in the half and full open positions. Lid chain also included for those wishing to remove the lid prop bar (great for one handed operation).
- Massive and stout lid handle – offers easy operation for the gloved hand.
- RampMaster II control
- 12 gauge heating elements for long life.
- 240V, 17.6A, 4224W
- I.D. - 13-1/4" (337mm) wide, 18" (457mm) deep. Addition of fiber baffle limits chamber depth to 15" (381mm) deep.
- **Shipping Weight:** 155 lbs.



GREEN SHADE 2.5 SAFETY GLASSES

Cat. No. 49692

Green shade, 2.5 safety glasses. Snug-fitting with side shields on the temples. 55 x 50mm lenses. Provides partial protection from impact, ultraviolet and infrared rays. Plastic frames.



REPLACEMENT ELEMENTS

Cat. No. 488212

5 are required.

CRUCIBLE

Flat bottom-fired clay crucible for melting glass. Designed for melting glass with a high level of metallic oxides.

See page B27 for Glass Cullet.

Cat. No.	Size	Dimensions			
		Capacity	Top Diameter	Height	Wall Thickness
4836	2	8 lbs. 3.63kg	6" 152mm	7" 178mm	1/2" 13mm



BLADES

JACK OVAL BLADES

Cat. No. 1526-171
15-3/4" (400mm)
Oval blades, pointed ends.



JACK FLAT BLADES

Cat. No. 1526-172A
15-3/4" (400mm)
Flat blades, blunt ends.



JACK FLAT BLADE

Cat. No. 1529118S
All type 304 Stainless Steel. 10-3/4" (274mm) long blade. Flat blade is 3/4 x 1/8" (19 x 3mm). 17-3/4" overall (450mm). Maintains consistent spring tension with maximum adjustability.



JACK ROUND BLADE

Cat. No. 1529415S
All type 304 Stainless Steel. Round blade, 4-3/4" (120mm) long. Overall 14-3/4" (375mm). Grip maintains constant spring tension. Manipulates with ease.



TONGS

Cat. No. 1526-180
12" (305mm)
Blunt type, equal width blades.



Cat. No. 1526-183
12" (305mm)
Shoulder type, pointed.



Cat. No. 1526-184
12" (305mm)
Shoulder type, curved points.



PARCHOFFI TONGS

Cat. No. 1529520R
Type 304 Stainless Steel spring grip handle with 10-1/2" (268mm) x 1-3/16" (30mm) diameter cherrywood rods. Entire tool may be immersed in water without a rust problem. A versatile tool!

SHEARS

PUTSCH COMBINATION SHEARS

Cat. No. 1530153M
Grips and shears with ease. 4" (100mm) jaw. 9-3/4" (240mm) long. Hardened steel. Comfortable grip handle.



MINI DIAMOND SHEAR

Cat. No. 156402
A handy molten glass cut-off plated steel shear. Easy to handle. Blade measures 1-1/2" (38mm). 6" (152mm) overall.



CARBON PADDLE

Cat. No. 1529816
Sturdy construction. Paddle measures 7-1/4" x 3" x 3/8" (184 x 76 x 9.5mm). Has sure-grip plastic handle on cast aluminum carbon holder. Overall length is 13.5" (343mm).



FOOTING TOOL

Cat. No. 15291211
A clapper style tool with type 304 Stainless Steel handle and cherrywood blades. Blades measure 4-1/4" x 5-1/4" (108 x 134mm). Large enough to hold a 4" (102mm) glass foot. Suitable for total water immersion.



ROTATING STEAM STICK

Cat. No. 1529973
3-1/8" (80mm) diameter x 6" (152mm) long fine grain clear redwood cone tapers to a point. Redwood absorbs more water and thus produces more steam than the less porous cherry wood. Aluminum hardware and plastic handle are impervious to corrosion. A useful tool for opening out a ball. 12" (305mm) overall length.



Close-ups
of E-Z Gather**E-Z GATHER**

The E-Z Gather 100 and the E-Z Gather 125 both contain features including the E-Z Gather domed gathering end and the Quick Taper. The domed gathering end provides easy bubble free gathers from a variety of gathering angles. The Quick Taper feature returns the head diameter back down to the 3/4" (19mm) shaft diameter in a shorter distance from the domed end. This means that the moil can be kept closer to the rail of the bench without any deflection. All metal parts are 304 stainless steel.

BLOWPIPE E-Z GATHER 100**Cat. No. 1529100****Specifications:**

Head - 1" (25mm) diam. x 5-1/2" (140mm) length
Shaft - 3/4" (19mm) diam. x .065" (1.7mm) tube wall thickness

Mouth piece - Acetyl (Delrin)

Overall length - 54" (1372mm)

BLOWPIPE E-Z GATHER 125**Cat. No. 1529125****Specifications:**

Head - 1-1/4" (32mm) diam. x 6" (152mm) length
Shaft - 3/4" (19mm) diam. x .083 (2.1mm) tube wall thickness

Mouth piece - Acetyl (Delrin)

Overall length - 54" (1372mm)

**PALMER BLOWPIPE****Cat. No. 15291355D**

Made of type 304 Stainless Steel with 3/8" (9.5mm) opening. The heavy wall does not bend easily and is scale resistant. 54" (1372mm) long with 11/16" (17.5mm) shaft and 1" (25mm) head. Delrin mouthpiece and rubber grip handle. Weighs 3-1/4 lbs. (1.47kg).

PALMER PUNTY**Cat. No. 15291454**

Made of type 304 Stainless Steel hollow shaft with vent hole and solid end. 54" long (1372mm) x 11/16" (17.5 mm) diameter. Rubber grip. Weighs 3-1/4 lbs. (1.42 kg).

**BLOW PIPE HOSE EXTENSION****Cat. No. 1533BPE6**

5/8" (16mm) pipe mouthpiece diameter.

Cat. No. 1533BPE7

3/4" (19mm) pipe mouthpiece diameter.

The extension slides over the mouthpiece with a 90° swivel connector attached to a 6 ft. piece of latex tubing. Work a piece at the bench or glory hole without bringing the pipe to your mouth.



15271



15272

**BLOWPIPE HEAD DETAIL****BLOWPIPE MOUTHPIECE DETAIL****MINIATURE BLOW PIPE****Cat. No. 15271**

18" x 1/4" (457 x 6mm) diameter flares to 1/2" (13mm) diameter for gather. Head made of stainless steel, shaft of stainless tubing and mouthpiece of Delrin Acetal plastic.

MINIATURE PUNTY ROD**Cat. No. 15272**

18" long x 1/4" (457 x 6mm) diam. Made of stainless steel.

**GATHERING ROD****Cat. No. 15273**

Useful tool for "gathering" molten glass from a crucible or removing glass from the crucible at the end of a melt. Steel rod: 5/16" (8mm) diameter, 24" (610mm) long with a 1" (25mm) ball on the end.

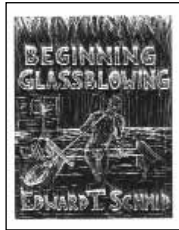
**GLASSBLOWERS YOKE****Cat. No. 15883**

Comprised of two 1" (25mm) diameter balls, each resting on smaller balls which roll on a spherically contoured seat—giving the yoke its fluid motion. 12" (305mm) long, made of steel and welded to a 1" (25mm) diameter shaft. Adjustable housing is 15" (381mm) long and is meant to be welded to a floor stand.

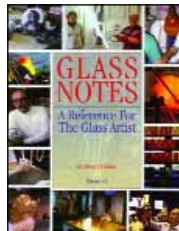
**GLASSBLOWERS YOKE****Cat. No. 15884**

Adjustable steel glassblowers yoke. Ideal for use with a Murphy Fire Bucket or other table-based hot glassworking. Supports blowpipe or pontil. Base height is 7" (178mm). Extends to 14" (356mm).

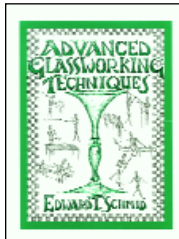
GLASSBLOWING BOOKS

**BEGINNING
GLASSBLOWING****Cat. No. 67068**

Schmid. Explains the tools and techniques for glassblowing in detail. Covers gathering, shaping, health and safety, tumblers, goblets, etc. Easy to follow instructions. 120 pages.

**GLASS NOTES****Cat. No. 69812**

Halem. Professor Henry Halem, Director of Glass Studies at Kent State University, authors an illustrated guide for building and maintaining a modern glass studio. Includes: building a furnace and Glory Hole, moldmaking, sand and kiln casting, glass enameling, glass adhesives, electro-forming and conversion charts.

**ADVANCED GLASSWORKING
TECHNIQUES****Cat. No. 6840**

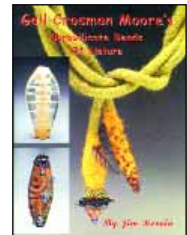
Schmid. 320 page spiral-bound glassblowing reference manual with excellent hand-illustrated text. Covers basics, tools, color, Venetian-style techniques, solidworking, moldblowing and other special techniques.

**PENLAND BOOK OF GLASS****Cat. No. 670863**

Lark Books. Focuses on glass and the ten top contemporary flameworkers who have taught at the school, all of whom have areas of expertise that make them leaders in their field. In photos and how-to sections, each one shows a particular technique. 230 color pages. Hard cover.

**MASTERS: GLASS BEADS****Cat. No. 70213**

Scott. The art of glass beadmaking has exploded in popularity during the past decade—and these awe-inspiring examples, exquisitely fashioned by 40 of the world's top creators, reveal exactly why. Whether showcasing faces, animals, or flowers, these beads exhibit incredible detail and gorgeous color.

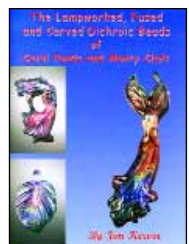
**BOROSILICATE BEADS OF NATURE****Cat. No. 70312**

Kervin. Work with nationally known bead artist, Gail Crosman Moore, to learn some of the techniques that she uses in making her borosilicate beads. Many of the shapes and color schemes that she uses are inspired by nature. Step-by-step instructions are provided.

NEW LAMPWORKING BOOKS

**ENCASE IT!****Cat. No. 66411**

Dove. Encasing techniques are essential for creating highly finished art beads! Deanna Griffin Dove explains how to execute a wide range of encasing techniques guaranteed to stretch your skills. Written for novice and advanced beadmakers alike, it includes a rich array of photos and insights. 72 pages.

**LAMPWORKED, FUSED & CARVED
DICHROIC BEADS****Cat. No. 670141**

Kervin. Contains step-by-step instructions on how to make several types of beads and pendants, including Leaf, Flower, Lorelei, Angel and Gingko Pendants, Bachelor Button Beads and Lola Beads. Also included are instructions on creating patterned dichroic glass.

**JUST PLAIN BEADS****Cat. No. 72A046**

Dove & Langston. A treasure-trove of techniques, tactics and tips. Instructions and guidance for a variety of shapes and problems in this easy-to-follow book. Build a sturdy framework for understanding how heat and motion affect a bead shape.

**DOT, DOT, DOTS!****Cat. No. 72A047**

Dove. Techniques and tutorials for glass beadmakers. Easy-to-read explanations show how techniques are refined, implemented and layered. Tips and insights help to develop essential skills and new ways to problem-solve. Numerous tutorials challenge to acquire techniques and expand abilities.