**PRODUCT DESCRIPTION**

- Frame sets come with all components necessary for a complete frame assembly.
- Extruded solid aluminum .5” (1.3 cm) diameter rods.
- Rigid frame supports allow the addition or removal of supports and apparatus without needing to dismantle the entire set-up.

**APPLICATIONS**

- Wide assortment of rod lengths available, suitable for many laboratory applications.
- Rigid frame supports are especially useful for glassware and apparatus assemblies in chemistry laboratories.

**STRONG AND VERSATILE SUPPORT SYSTEMS!**

- Easy construction in almost any rectangular shape and size
- Two sizes of frame set-ups
- Eight sizes of frame rods
- 24 Month Warranty

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Model #</th>
<th>Description</th>
<th>Dimensions</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H (inches)</td>
<td>W (inches)</td>
</tr>
<tr>
<td>7090</td>
<td>Includes 4 ea. 7100-1, 2 ea. 7100-3, 8 ea. 7100-4, and 22 ea. 7050-1</td>
<td>24 (61)</td>
<td>24 (61)</td>
</tr>
<tr>
<td>7096</td>
<td>Includes 6 ea. 7100-1, 6 ea. 7100-2, 2 ea. 7100-4, 7 ea. 7100-6, 5 ea. 7100-7, 49 ea. 7050-1 and 8 ea. 7051</td>
<td>48 (122)</td>
<td>72 (183)</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model #</th>
<th>Description</th>
<th>Length</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7100-1</td>
<td>Alumaloy Rods</td>
<td>1.64 (4.1)</td>
<td>$5.00</td>
</tr>
<tr>
<td>7100-2</td>
<td>Alumaloy Rods</td>
<td>12 (30.5)</td>
<td>$7.00</td>
</tr>
<tr>
<td>7100-3</td>
<td>Alumaloy Rods</td>
<td>18 (45.7)</td>
<td>$8.00</td>
</tr>
<tr>
<td>7100-4</td>
<td>Alumaloy Rods</td>
<td>24 (61)</td>
<td>$12.00</td>
</tr>
<tr>
<td>7100-5</td>
<td>Alumaloy Rods</td>
<td>36 (91.4)</td>
<td>$14.00</td>
</tr>
<tr>
<td>7100-6</td>
<td>Alumaloy Rods</td>
<td>48 (122)</td>
<td>$22.00</td>
</tr>
<tr>
<td>7100-7</td>
<td>Alumaloy Rods</td>
<td>72 (182.9)</td>
<td>$27.00</td>
</tr>
<tr>
<td>7100-8</td>
<td>Alumaloy Rods</td>
<td>96 (243.8)</td>
<td>$31.00</td>
</tr>
<tr>
<td>7050-1</td>
<td>Frame Clamp</td>
<td></td>
<td>$9.00</td>
</tr>
<tr>
<td>7051</td>
<td>Frame Foot</td>
<td></td>
<td>$14.00</td>
</tr>
</tbody>
</table>
**Laboratory Apparatus**

**Alumaloy® Clamps**

Lab-Line

**Model 7040—Clamp Holder**
- Double “45” clamp holder for rods or pipes up to .9” diameter.
- Horizontal or vertical right-angle clamp set up.
- Two 45° angle ribbed thumbscrews included.

**Model 7068**
- “One-hand” clamp holder with both thumbscrews mounted on the same side.
- Clamp sections are at right angles to each other.

**Field Tested by Thousands of Satisfied Users!**
- Special die-cast aluminum alloy—more corrosion-resistant than zinc or steel
- 47,000 psi tensile strength and 1100°F melting point
- Stainless steel spring for uniform tension
- Nickel-plated brass pivot pins ensure positive movement without wobbling

★★—24 Month Warranty

**Ordering Information**

<table>
<thead>
<tr>
<th>Model  #</th>
<th>Rod Capacity Diameter</th>
<th>Total Length</th>
<th>US List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inches (cm)</td>
<td>Inches (cm)</td>
<td>Price</td>
</tr>
<tr>
<td>7040</td>
<td>up to 0.9 (2.2)</td>
<td>5.5 (14)</td>
<td>$15.00</td>
</tr>
<tr>
<td>7050-1</td>
<td>up to 0.5 (1.3)</td>
<td>1.75 (4.4)</td>
<td>$9.00</td>
</tr>
<tr>
<td>7050-6</td>
<td>up to 0.5 (1.3)</td>
<td>1.75 (4.4)</td>
<td>$14.00</td>
</tr>
<tr>
<td>7053</td>
<td>up to 0.5 (1.3)</td>
<td>3 (7.6)</td>
<td>$30.00</td>
</tr>
<tr>
<td>7066</td>
<td>up to 0.5 (1.3)</td>
<td>1.5 (3.8)</td>
<td>$36.00</td>
</tr>
<tr>
<td>7068</td>
<td>up to 0.5 (1.3)</td>
<td>2 (5.1)</td>
<td>$14.00</td>
</tr>
</tbody>
</table>

**Frame Clamps**
- Used for apparatus support frame set-up: add a horizontal or vertical rod without having to tear down the existing standard frame.
- Model 7050-1 uses Allen screws (included).
- Model 7050-6 has ribbed thumbscrews—perfect for student use.

**Extension Clamp Couplings**
- Used to join support rod lengths or to extend clamps fastened to support rods.
- Allows rods of different diameter to be intermixed.
- Ribbed thumbscrews included.
- Model 7053 provides end-to-end butt coupling.
- Model 7066 provides side-to-side linear coupling, with V-shaped centering groove to guarantee stability.

---

*see inside front cover for details
PRODUCT DESCRIPTION

Tri-Grip "45" Extension Clamps
- Three pronged jaws.
- Three vinyl and three woven fiberglass high temperature sleeves included.
- Sizes to fit every application.

Varigrip Clamps
- Perfect for cylindrical glassware and simular apparatus.
- Adjustable spring collar.
- Stainless steel handle and clamp.
- Available in four sizes.
- Thumbscrews included.

Tri-Grip "45" Combination Utility and Burette Clamp
- Three pronged jaws.
- Three vinyl and three woven fiberglass high temperature sleeves included.
- 360° rotating 45° angle ribbed thumbscrew clamp holder.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model #</th>
<th>Description</th>
<th>Extension Rod Diameter (inches)</th>
<th>Jaw Cap. (inches)</th>
<th>Support Rod Adjustable (inches)</th>
<th>Total Length (inches)</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7000</td>
<td>Small</td>
<td>.37 (0.9)</td>
<td>1.5 (3.8)</td>
<td>—</td>
<td>9 (22.9)</td>
<td>$22.00</td>
</tr>
<tr>
<td>7004</td>
<td>Large</td>
<td>.44 (1.1)</td>
<td>3.5 (8.9)</td>
<td>—</td>
<td>11 (27.9)</td>
<td>$24.00</td>
</tr>
<tr>
<td>7018</td>
<td>Micro</td>
<td>.25 (0.6)</td>
<td>1 (2.54)</td>
<td>—</td>
<td>6.5 (16.5)</td>
<td>$22.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model #</th>
<th>G.O. Accommodation (inches)</th>
<th>Extension Shaft Diameter (inches)</th>
<th>L</th>
<th>D</th>
<th>Total Length (inches)</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7048-1</td>
<td>2.5 (6.4)-3.5 (8.9)</td>
<td>7.25 (18.4)</td>
<td>0.43 (1.1)</td>
<td>12 (30.5)</td>
<td>$27.00</td>
<td></td>
</tr>
<tr>
<td>7048-2</td>
<td>3.75 (9.5)-4.5 (11.4)</td>
<td>7.25 (18.4)</td>
<td>0.43 (1.1)</td>
<td>12 (30.5)</td>
<td>$27.00</td>
<td></td>
</tr>
<tr>
<td>7048-3</td>
<td>4.75 (12)-5.5 (14)</td>
<td>7.25 (18.4)</td>
<td>0.43 (1.1)</td>
<td>12 (30.5)</td>
<td>$27.00</td>
<td></td>
</tr>
<tr>
<td>7048-4</td>
<td>5.5 (14)-6.5 (16.5)</td>
<td>7.25 (18.4)</td>
<td>0.43 (1.1)</td>
<td>12 (30.5)</td>
<td>$27.00</td>
<td></td>
</tr>
</tbody>
</table>

48 Hour or Sooner Express Shipping Guaranteed!*  
*see inside front cover for details
# Laboratory Apparatus

**Alumaloy® Clamps**

<table>
<thead>
<tr>
<th>Model #</th>
<th>Jaw Capacity</th>
<th>Rod Capacity</th>
<th>Total Length</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7049</td>
<td>2.5 - 6.5</td>
<td>up to 0.5 (1.3)</td>
<td>11.5 (29.2)</td>
<td>$30.00</td>
</tr>
<tr>
<td>7051</td>
<td>2.5 - 6.5</td>
<td>up to 0.5 (1.3)</td>
<td>11.5 (29.2)</td>
<td>$14.00</td>
</tr>
<tr>
<td>7057</td>
<td>2.5 - 6.5</td>
<td>up to 0.5 (1.3)</td>
<td>11.5 (29.2)</td>
<td>$63.00</td>
</tr>
<tr>
<td>7058</td>
<td>2.5 - 6.5</td>
<td>up to 0.5 (1.3)</td>
<td>11.5 (29.2)</td>
<td>$84.00</td>
</tr>
<tr>
<td>7078</td>
<td>1 (2.54)</td>
<td>up to 0.5 (1.3)</td>
<td>3.5 (8.9)</td>
<td>$23.00</td>
</tr>
<tr>
<td>7079</td>
<td>0.5 (1.3)</td>
<td>up to 0.5 (1.3)</td>
<td>3.5 (8.9)</td>
<td>$16.00</td>
</tr>
<tr>
<td>7086</td>
<td>0.5 (1.3)</td>
<td>up to 0.5 (1.3)</td>
<td>3.5 (8.9)</td>
<td>$28.00</td>
</tr>
</tbody>
</table>

**Ordering Information**

- **Chain Clamp**
  - 13" chain locks over a hook on the adjustable portion of the collar.
  - Accommodates beakers with outside diameter of 2.5" to 6.5".
  - Stainless steel shaft is 7.25" L x 0.43" dia. (18.4 x 1.6 cm).
  - Total length 11.5" (29.2 cm).

- **Frame Foot**
  - Designed to support frame set-ups.
  - Accepts .5" (1.3 cm) diameter rods.
  - Three countersunk screw holes in foot.
  - Allen set screws included.
  - Overall diameter 2" (5 cm).

- **Double Support Base and Rod**
  - White glazed porcelain base measures 13" x 17" (33 x 17.8 cm).
  - Base features a drip trough around the rim to prevent lab bench spills.
  - Solid aluminum rod is threaded at one end, measures 23" H x .5" dia. (58.4 x 1.3 cm).
  - Model 7058 includes the Double Burette Holder (Model 7086) with the Double Support Base and Rod (Model 7057).

- **"ERM" Double Burette Holder**
  - Quickly and securely supports two burettes—from micro size to 100 ml.
  - Built-in meniscus reader.
  - Holder will not obscure graduation lines and numbers.
  - Sturdy, corrosion-resistant Lexglas® construction.
  - Overall dimensions 9.5" W x 5" H (24.1 x 12.7), weighs only 6 oz.

- **Water Bath Clamps**
  - Support thermometers and other similar apparatus over water baths.
  - Alumaloy construction with three-prong, vinyl-covered jaws.
  - Model 7078 has a large clamp with rotating jaws, 1" (2.54) jaw capacity.
  - Model 7079 has a small clamp with .5" (1.3 cm) jaw capacity, jaws do not rotate.
  - 2.5" (6.35 cm) from apparatus center to center of support.

---

*see inside front cover for details*
**Duo-Clamp**
- Add attachments to support framework without disturbing previous set-up.
- Joins two rods in a "T" connection at any angle within a 360° arc.
- Alumaloy construction.
- Allen set screws and bead wrench included.
- 1.1" (2.8 cm) overall diameter.

**All-Angle Swivel Clamp**
- Connect rods, extension clamps, frames or other apparatus up to .5" diameter at any angle.
- Two 45° angle ribbed thumbscrews rotate on a connecting rod.
- Total length 3" (7.62 cm).

**Thermometer Clamp**
- Support thermometers, glass tubes or similar apparatus up to .5" diameter.
- Stainless steel clamping jaws have .5" (1.3 cm) adjustable extension and rotate 360°.
- 3.75" (9.5 cm) from thermometer to center of support; total length 5.5".

**Ordering Information**

<table>
<thead>
<tr>
<th>Model #</th>
<th>Rod Capacity</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7054</td>
<td>up to 0.5 (1.3)</td>
<td>$73.00</td>
</tr>
<tr>
<td>7064</td>
<td>up to 0.5 (1.3)</td>
<td>$25.00</td>
</tr>
<tr>
<td>7077</td>
<td>up to 0.5 (1.3)</td>
<td>$18.00</td>
</tr>
</tbody>
</table>

* 48 Hour or Sooner Express Shipping Guaranteed!*  
*see inside front cover for details
LABORATORY APPARATUS
LABORATORY JACKS AND SAF-T-SHIELDS

LABORATORY JACKS®

- Provides easy raising and lowering of many different types of instruments or apparatus, such as heaters, hot plates, water baths or glassware.
- Accurate, slippage-free vertical adjustment.
- Stable in all positions.
- Stepless screw-type control smoothly raises or lowers loading platform.
- Supports various types and sizes of glassware, apparatus and instrumentation at specific heights as required to accommodate experimental set-ups.

WHEN LAB EQUIPMENT NEEDS A LIFT!
- Stable in all positions
- Available in three sizes
- Sturdy, corrosion-resistant anodized aluminum construction
- 24 Month Warranty

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model #</th>
<th>Size of Plate</th>
<th>Adjustable</th>
<th>Max. Load</th>
<th>Shipping</th>
<th>US List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inches (cm) L</td>
<td>From-To Inches (cm)</td>
<td>At Middle Lb. (kg)</td>
<td>Weight Lb. (kg)</td>
<td>Price</td>
</tr>
<tr>
<td>24</td>
<td>4.7 (12) 5.5 (14) 2.4 (6) to 9.6 (24.3)</td>
<td>110 (50)</td>
<td>1.86 (0.85)</td>
<td>$147.00</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>4.8 (12.2) 5.9 (15) 3.1 (8) to 10.8 (27.8)</td>
<td>176 (80)</td>
<td>2.60 (1.18)</td>
<td>$200.00</td>
<td></td>
</tr>
<tr>
<td>26*</td>
<td>7.9 (20.0) 7.9 (20) 3.1 (8) to 10.9 (27.8)</td>
<td>176 (80)</td>
<td>4 (1.82)</td>
<td>$275.00</td>
<td></td>
</tr>
</tbody>
</table>

*Includes two (7.9" x 7.9") Platforms

SAF-T-SHIELD

- 20” (.5 cm) thick Lexan® shield provides clear visibility and protection.
- Protects lab workers or students from the initial force of an explosion, sheet of flame, flying glass or chemical spill.
- Shield is 36” (91.4 cm) high, adjusts from 14” to 32” (35.6 to 8.12 cm) wide.
- Can fully enclose most lab set-ups such as boiling flasks, distillation or reflux apparatus—use anywhere there’s a risk of a reaction getting out of hand.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model #</th>
<th>Dimensions Fully Extended Feet (cm)</th>
<th>Weight</th>
<th>US List</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>32(81.3) 36(91.4) 37(16.8)</td>
<td>$615.00</td>
<td></td>
</tr>
</tbody>
</table>

Lexan® is a registered trademark of GE Plastics
**KWIK-SET® LAB-CHRON® TIMERS**

- Large illuminated start-stop switch facilitates sequential timing.
- Five-digit sealed counter with large, easy-to-read numbers.
- High torque synchronous motor for instant starts.
- Timing is accurate—independed of voltage fluctuations or electrical load.
- Electric brake for instantaneous stops without overshoot.
- Compact, lightweight and portable.
- Non-skid rubber feet.
- Heavy duty line cord.

**APPLICATIONS**

- Ideal for timing growth processes, rates of chemical reactions, flow of liquids and gases and histological preparations.
- Can be used in viscosity testing and a wide range of other industrial applications.

**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Time Range (Increments)</th>
<th>Overall Dimensions (Inches (cm))</th>
<th>W</th>
<th>H</th>
<th>D</th>
<th>Lb. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1405</td>
<td>0.1 to 9999.9 sec. (0.1 sec.)</td>
<td>7.37 (18.7) 4.37 (11.1) 4 (10.2)</td>
<td>5 (2.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Model #</th>
<th>Volts</th>
<th>Electrical Hz</th>
<th>US List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1405</td>
<td>120</td>
<td>60</td>
<td>$276.00</td>
</tr>
</tbody>
</table>

**EASY-TO-USE TIMER!**
- Push-button reset for ease of use
- Angled display for ease of viewing
- Precision motor provides accurate timing
- 24 Month Warranty

---

Model 1405

**48 Hour or Sooner Express Shipping Guaranteed!**

*see inside front cover for details*
POLYPRO WATER SAMPLER

- Three sizes—filling capacity of 60 ml, 1400 ml or 2000 ml.
- Designed for water sampling and B.O.D. testing applications.
- Polypropylene construction allows accurate sampling for trace metals.
- Polypropylene inlet and outlet opening plugs connected with adjustable nylon cord.
- All metal parts are plated or stainless steel.
- Built-in weighted base provides stability when unit is submerged.
- Bayonet fitting and foam ring hold top on securely.
- Reliable gravity-activated “spring catch” opening system.
- Model 4196 can fit into a 2” (5 cm) pipe.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model #</th>
<th>Capacity (ml)</th>
<th>Overall Size</th>
<th>Shipping Weight</th>
<th>US List</th>
</tr>
</thead>
<tbody>
<tr>
<td>4196</td>
<td>600</td>
<td>17 (17.8)</td>
<td>1.87 (0.8)</td>
<td>$78.00</td>
</tr>
<tr>
<td>4197</td>
<td>1400</td>
<td>14 (35.6)</td>
<td>4.5 (1.1)</td>
<td>$426.00</td>
</tr>
<tr>
<td>4198</td>
<td>2000</td>
<td>18 (45.7)</td>
<td>4.5 (1.1)</td>
<td>$468.00</td>
</tr>
</tbody>
</table>

SEWAGE SAMPLER

- Nickel-plated bronze and brass construction is resistant to corrosive agents.
- Cover and body are precisely machined to provide air-tight, water-tight closure.
- Ratio of volume between the sampler and bottle complies with three-fold displacement requirement.
- Cover is connected to the body by a 10” (25 cm) brass chain.
- Sample bottle (up to 300 ml) is automatically positioned by built-in platform and filling tube.
- Design accommodates ordinary variation between different sample bottles.
- Designed for manual sampling for B.O.D., sludge, turbidity and dissolved oxygen determinations in accordance with A.P.H.A. Method Requirements and a variety of EPA applications.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model #</th>
<th>Capacity (ml)</th>
<th>Overall Dimensions</th>
<th>Shipping Weight</th>
<th>US List</th>
</tr>
</thead>
<tbody>
<tr>
<td>4199</td>
<td>up to 300</td>
<td>17 (43.2) 4 (10.2)</td>
<td>15 (6.8)</td>
<td>$952.00</td>
</tr>
</tbody>
</table>