

Invest In The Best.


2023 ACCESSORIES CATALOG

## Why SECO

## SECD MANUFACTURING

## For decades，SECO Manufacturing Co．，has stayed on the cutting edge of designing and manufacturing tools and accessories for surveying，construction，utilities and other industries that use GPS／GNSS technology．

From instrument tripods，and prism assemblies，to survey poles and leveling rods，SECO products are made to last no matter the field conditions． SECO also makes brackets and cradles for all the current handhelds on the market．

SECO enjoys a global reputation for innovation and quality because we control each phase of product manufacture．We maintain an on－site manufacturing facility featuring state－of－the－art equipment to make certain that all products are made to meet SECO＇s strict quality standards． SECO quality is so well recognized worldwide that many key surveying and construction manufacturers ask SECO to produce their own branded accessories．This has developed an important high－end OEM market， respected above the low cost／low quality manufacturers established in Asia．For years，the＂Manufacturing by Seco＂label has been recognized for quality that has never been surpassed．


The SECO facilities at Redding，CA．

SECO product managers are known for coming up with solutions for any kind of field requirement to meet customer needs．SECO products are available through dealers in almost every continent．

Precision manufacturing，quality focus，and skilled workmanship provide consistency to always meet and exceed customers＇expectations． SECO＇s continued goal is to be the best accessories supplier for the surveying and construction markets．This ongoing mission ensures that investing in SECO brand products will remain the smartest investment for productivity and longevity in the field．

SECO，based in California，USA，with facilities in Redding，Tecate，CA and Mexico，controls all facets of its manufacturing business． SECO＇s 82,500 square－foot manufacturing plant in Redding houses our company headquarters，customer service team，engineering， research and development，and a complete manufacturing facility．The facilities include anodizing，electrostatic powder－painting，and silk－ screening departments，as well as a state－of－the－art machine shop．

Rounding out the SECO inventory，we also offer entry－level third－party manufactured accessory products for those customers who do not have the budget or need for long－lasting SECO manufactured products．

Check out Surveying．com，follow us on Twitter，Facebook and Linkedln，and contact SECO for all your field accessory needs！

Invest In The Best．


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## CHECK DUT OUR NEW PRDDUCTS

Scan the QR code to see all the new and exciting product offerings from SECO Manufacturing

## Tripods：GNSS／MC

Standard and Heavy Duty，with telescoping legs


FEATURES \＆BENEFITS
－5119－00 version offers dual graduations，collapsible center staff with a quick clamp and／or screw clamp（see table）and includes removable $5 / 8 \times 11$ adapter，and an on－ board compass
－Both the 5115－00－XXX
series and the 5119 series
have a fixed－height，2－meter center staff that rotates $360^{\circ}$ for calibrating the included 8 －minute vial
－All aluminum hardware is anodized black for long life
－5119－10 features large telescoping legs（ 1.25 to 1.5 inch diameters）feature adjustable handle levers on the leg pivots and a large

6－inch diameter round head which easily holds lasers or robots
All three tripods feature extendable electrostatically powder painted legs and include replaceable points

| PART NO． | LOCKING | HEIGHT | COLLAPSES | COLOR | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5115－00－FLY | Quick Clamp | 2 m | 2 m | Flo Yellow | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | ［ |
| 5115－00－YEL | Quick Clamp | 2 m | 2 m | Yellow | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 『 |
| 5119－10－FLY | Screw Clamp | 1．5，1．8， 2 m | 55 inches（1．4 m） | Flo Yellow | $20.00 \mathrm{lb}(9.07 \mathrm{~kg})$ | ［ |
| 5119－10－YEL | Screw Clamp | 1．5， $1.8,2 \mathrm{~m}$ | 55 inches（1．4 m） | Yellow | $20.00 \mathrm{lb}(9.07 \mathrm{~kg})$ | ［ |
| 5119－00－FLY | Quick Clamp／Screw Clamp | 1．5，1．8， 2 m | 50 inches（ 1.27 m ） | Flo Yellow | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 䧚 |
| 5119－00－FOR | Quick Clamp／Screw Clamp | 1．5，1．8， 2 m | 50 inches（ 1.27 m ） | Flo Orange | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | ［E |
| 5119－00－YEL | Quick Clamp／Screw Clamp | 1．5，1．8， 2 m | 50 inches（ 1.27 m ） | Yellow | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 倵 |

## Network Adapters

Professional Stainless Steel 303 CORS monument adapters


FEATURES \＆BENEFITS
－Adapters in the 2072－Series have $3.20-\mathrm{in}(8.19-\mathrm{cm})$ diameters and overall heights of $3.036-\mathrm{in}(7.71-\mathrm{cm})$
－Adapters are leveled by three screws with a tilt range $+/-7^{\circ}$ －Made of 303 SS and brass
－Includes a removable brass $5 / 8 \times 11$ male stud that is adjustable in azimuth and held in location by two set screws
－The axis height is engraved on the outside of the monuments

Height above the pivot point to stud shoulder is 1.37 －in （ $3.50-\mathrm{cm}$ ）
－Height below the brass 5／8 stud to shoulder is 0.463 －in （1．18－cm）


| PART NO． | FITS | COMPATIELE WITH | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: |
| 2072－30 | MPT 1－1／2 $\times 11-1 / 2$ TPI | 1．5－inch pipe | $5.50 \mathrm{lb}(2.50 \mathrm{~kg})$ | 䏺 |
| 2072－31 | MPT $2 \times 11-1 / 2$ TPI | 2－inch pipe | $6.60 \mathrm{lb}(3.00 \mathrm{~kg})$ | E－ |
| 2072－32 | MPT 3－1／2 $\times 8$ TPI | 3 －inch pipe | $6.90 \mathrm{lb}(3.10 \mathrm{~kg})$ | ＂E |
| 2072－33 | MPT 5／8 $\times 11$ TPI | any female $5 / 8 \times 11$ | $6.20 \mathrm{lb}(2.80 \mathrm{~kg})$ | ＂e |
| 2072－050 | 40 －minute leveling vial | any female $5 / 8 \times 11$ | $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$ | 翏雨 |

## Redio Antenne Tripod



FEATURES \＆BENEFITS
－Radio antenna tripod with antenna mast gets your radio antenna to the desired height －Telescoped to $7.5-\mathrm{ft}(2.3-\mathrm{m})$ and the tripod can be set to $5.5-\mathrm{ft}(1.7-\mathrm{m})$ for a total elevation of 13 － $\mathrm{ft}(4-\mathrm{m})$

Aluminum with a male $5 / 8 \mathrm{x}$ 11 tip
－Hardwood／Fiberglass tripod is
SECO＇s 5302－13－BLK
－Aluminum tripod is SECO＇s 5301－21－ORG

The antenna mast can be purchased separately to convert your own heavy－duty tripod as well
－SECO＇s 5301－21－ORG
Weighs $19.00 \mathrm{lb}(8.62 \mathrm{~kg})$

5561－20 — Radio Antenna Mast Assembly
5300－11－Hardwood／Fiberglass
5300－12－Aluminum（shown）


Whether you use a smartphone or a field tablet，our new MagPad ${ }^{\text {TM }}$ takes a sturdy grip to a whole new level with powerful magnets．


FEATURES \＆BENEFITS
－Device plate 2．35＂square／ 4．4＂square
－Self aligning magnets and tapered pocket for secure
－Horizontal and vertical alignment
－Plate is adhesive backed with 3M VHB．Weather tested to ensure security
－over time and in all environments
－Designed for the industries heaviest and most rugged tablets
－Pole bracket provides secure， fast，clamping with only a few turns．
－Pressure distributing clamp provides a secure，
－non－slip hold without damaging your pole．

## C400－Smartphone Size MagPad™

C500－Tablet Size MagPadTM


## Provide Secure Hands－free Operation During Field Use



FOR TABLETS THAT HAVE
THE QUICK RELEASE BRACKET ATTACHED

| ERACKET PART NO． | FIT |  |
| :---: | :---: | :---: |
| $5200-39-051$ | Yuma 2／Yuma 7T－7 |  |
| $5200-40-051$ | Kenai／T－10 | $\vdots$ |
| $5200-42-051$ | FZ－G1 With Radio | E |
| $5200-44-051$ | TSC7／Ranger7 | E |

Note：Tablet not included． Brackets sold separately．

5200－95－One Shoulder Tablet Harness
5200－96－Two Shoulder Tablet Harness
5200－39－052－Quick Release Bracket Adapter

## Pole Clamp: Ball and Socket Tablet

Virtually unlimited positions on the pole keeps the glare off the collector

FEATURES \& BENEFITS


- Pole Clamp locks securely to the pole, no slipping!
- All ports, connections, and camera are accessible and usable with the bracket attached
- Easy "snap in/out" design holds the tablet securely
- Compatible with add-on keyboard and extended battery
- Made from a single, solid 0.080 inch ( 2.03 mm ) aluminum sheet metal
- Features ram ball links which allow many positions
- The 5200-35 features a 1-inch ram ball - the Ball-and-Socket versions allow the data collector to be in more positions

| PART NO. | WORKS WITH |
| :---: | :---: |
| $5200-30$ | Panasonic FZ-G1/Leica CS35 (Not for Radio Models) |
| $5200-31$ | Getac T800 |
| $5200-35$ | Tesla , Mesa $2 / 3$, FC 5000, RT3/4 |
| $5200-41$ | FZ-G1/CS35 with Radio, Ram |

## Crades: Claw Bell and Socket

Design your own custom solution with one bracket and one cradle


FEATURES \& BENEFITS

- These Claw ${ }^{\text {TM }}$ clamps are made of durable anodized aluminum
- The Claw technology allows maximum tightening without crushing
- Features a 1-inch ram ball the Ball-and-Socket versions allow the data collector to be in more positions
- Use with 5200-201 Ball and Socket Link, and 5200-160 or 5199-052 Pole Clamp

| PART NO. | WORKS WITH | TYPE |  |
| :---: | :---: | :---: | :---: |
| 5200-16-050 | TSC3, Ranger 3 Series | Claw | 彦 |
| 5200-17-050 | Mesa/Tesla | Snap In/Out | " |
| 5200-29-050 | Panasonic FZ-M1, B2 | Snap In/Out | 氯 |

## Pale Clamp: Tablet Quick Release

Secure connection to your survey pole and tablet during field use

## FEATURES \& BENEFITS



5200-33

- Quick Release from Pole Clamp for taking photos, etc. and also allows Landscape or Portrait orientation of the Display
- All ports, connections, and camera are accessible and usable with the bracket attached
- Easy "snap in/out" design holds the tablet securely
- Compatible with add-on keyboard and extended battery
Made from a single, solid 0.080 inch ( 2.03 mm ) aluminum sheet metal, powder-coated black

| PART NO. | MODEL | TAELET SIZE |  |
| :---: | :---: | :---: | :---: |
| 5200-32 | Panasonic FZ-M1 | 7 inch ( 17.78 cm ) tablet | 틏 |
| 5200-33 | Panasonic FZ-G1/Leica CS35 | 10 inch ( 25.4 cm ) tablet | E |
| 5200-41 | FZ-G1 with Radio | 10 inch ( 25.4 cm ) tablet | 틀 |
| 5200-42 | Panasonic FZ-G1/Leica CS35 with Radio | 10 inch ( 25.4 cm ) tablet | 틀 |
| 5200-43 | T-10 with Radio Quick Release | 10 inch ( 25.4 cm ) tablet | E |

Claw Cradles:
Quick Release

## Pole Clamps and Cradles

Design your own custom solution with clamp and cradle

FEATURES \& BENEFITS


5198-056


5198-153


5200-160


5198-073

- Original Open-Style Pole Clamp technology for a complete solution
- Use a Claw Quick-Release cradle or clamp for a complete solution
- Made of black anodized aluminum
- Depressing the quickrelease button will allow the Claw Quick-Release cradle or clamp to rotate in to a comfortable position for reading the data collector or
controller
- Features a quick-release button and a stainless steel clamp screw that attaches to the pole
Designed for standard poles or rods with a 0.75 to $1.25-$ inch OD



## Claw Cradle Assembly for TSC7/Ranger7



## FEATURES \& BENEFITS

- New Claw design for the TSC7/ RANGER7 Controller
- 5200-079 with 5200-167 is a complete assembly 5200-45
- The 5200-45 is also compatible with the TSC3/Ranger3 handheld, for those wanting a more heavy-duty claw-clamp solution with more tilt positions on the pole
- Includes replaceable silicone pads that hold the controller
securely
- This new design utilizes our stronger quick release that we use on heavy tablet pole brackets.
- All machined anodized aluminum and stainless steel construction
- Pole Clamp fits all standard 1.25 " diameter poles
- Pole clamp has six tilt positions from vertical to horizontal of the display

5200-45 - Claw Cradle Pole Clamp System Assembly for TSC7/Ranger7 \& TSC3/Ranger3<br>5200-079 - Claw Cradle<br>5200-167 - Pole Clamp


Claw Cradle Assembly for TSC5


FEATURES \& BENEFITS

- New Claw design for the TSC5 Controller
- Made of durable machineanodized aluminum and stainless steel construction for years of trouble-free use in the field
- Includes replaceable silicone pads that hold the controller
securely
- This new design utilizes SECO's stronger quick release that we use on heavy tablet pole brackets
Pole Clamp fits all standard 1.25 inch diameter poles Pole Clamp has six tilt positions from vertical to horizontal of the display

Assembly weighs only 0.95 lb ( 0.43 kg )

- Component 5200-080 (Claw Cradle) weighs 0.04 lb ( 0.18 kg)
- Component 5200-167 (Pole Clamp) weighs 0.55 lb ( 0.25 kg)


## 5200-46 - Claw Cradle Pole Clamp System Assembly for TSC5/Ranger5 <br> 5200-080 - Claw Cradle <br> 5200-167 - Pole Clamp <br> 

## Tripod Data Collector Brackets

- The open clamp attachment allows quick and easy connection to the pole; it connects to 1 -to-1.25-inch ( 25.4 to 31.8 mm ) OD poles
Brass male $5 / 8 \times 11$ captive stud is easily removed for direct attachment of the radio antenna to the bar
- Includes a non-slip Velcro ${ }^{\oplus}$ cable strap to help manage radio cables
- Weighs $0.22 \mathrm{lb}(0.10 \mathrm{~kg})$


2133-03 - Antenna Bracket

- Designed to fit precisely on the back of the controller
- Works with most heavy-duty tripods that feature a connecting bar on the hinge area


Tripod Hook Brackets Designed for 5196-17 — Nomad
5196-18 - TSC3 or Ranger 3
5196-19 - Mesa Tesla
5196-20 - Archer 2

- Bracket holds a radio antenna securely to a tripod leg
- The heavy-duty bracket makes plumbing the antenna easy
- Fits all full-size and heavy-duty tripods and uses a 1/2inch long, $5 / 8 \times 11$ male stud to secure the antenna or extension (tripod sold separately)
- Can be used with the SECO Six Foot Snap-Lock Radio Antenna Pole (5139-02, page 14) or any extension with a male/female $5 / 8 \times 11$ connection
- Weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$


2133-05 — Radio Antenna Bracket for Tripod 嗐

- Easy installation and removal
- Adjust location on tripod leg for your convenience
- Powder painted aluminum
- Weight 0.40lbs / 0.18kg


5196-22 - Tripod Hook TSC7 E /Ranger 7, TSC3/Ranger3 \&
TSC5/Ranger5

- Holds the Allegro 1-3, Archer ${ }^{\oplus}$, Explorer, Recon ${ }^{\circledR}$ or Jet ${ }^{\bullet \bullet}$ ce


5196-07 - Tilted Bracket

Easily holds a laptop computer

- Measures: $13 \times 10.25$ in ( $33 \times 26.04 \mathrm{~cm}$ )


5196-02 - Laptop Bracket


## Telescopic Carbon Fiber Rover Rods

## Carbon fiber rover rods are 30\% lighter



5129-50


5129-70

FEATURES \& BENEFITS

- Designed so the GNSS surveyor has all the features needed in a single rod
- Zero height, reads direct
- The included pin can lock the length of the rod at set points - TLV ${ }^{\text {TM }}$ locking mechanism comes standard
- Carbon fiber makes these
rods $30 \%$ lighter
- Order 8160-00-ORG for carrying case


## Snap-Lock Rover Rods Easy set up



## Aluminum Pale Series with Locking Pins, Adapter

Extends to 2.6 M

- 0 Height, graduated in centimeters

Locking pin holes at $1.8 \mathrm{M}, 2.0 \mathrm{M}$,
2.2M, 2.4M, 2.6M

- 40' Vial
- Weight 3.15 lbs ( 1.43 kg )

Can easily be converted to different heights by using one of our Quick Change Pole Height Adapters

5512-13-FLY-GM — GNSS Model

- Extends to 8.5 ft
- 135MM Height, graduated in centimeters and .01ft
- Locking pin holes at 6.5FT, 7.0FT, 7.5FT, 8.0FT, 8.5FT
- $40^{\prime}$ Vial
- Weight 3.15lbs ( 1.43 kg )

Can easily be converted to different heights by using one of our Quick Change Pole Height Adapters

5512-14-FOR-GT — Robotic Model — 10ths 5512-14-FOR-GM — Metric Robotic Model

- Adapts Swiss-style prism poles to $5 / 8 \times 11$
- Weighs $0.06 \mathrm{lb}(0.03 \mathrm{~kg})$


2090-00 — Wild Prism E Pole Adapter

## Quick Change Prism Poles Vials are on the locks, out of the way of instruments on the pole



FEATURES \& BENEFITS

- Compatible with all targets, prisms, and GNSS antennas - Using adapters, any of the poles in this series can be used for GNSS, robotics or total station surveys
- Metric Centimeter Graduations
- Quick conversion to another application by changing adapters (sold separately, see page 13)
- TLV ${ }^{\text {TM }}$ (Twist-Lock with Vial) locking mechanism includes a

40-minute vial

- Available with locking pin \& holes (the locking system guarantees no slipping of the sections)
- Carbon fiber and aluminum models offered

| PART NO. | GRADUATED LENGTH | OUTER POLE | LOCKING PIN | ADAPTER INCLUDED |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5527-10 | 1.33 to 2.20 m | Aluminum |  | 2090-12 |  |
| 5527-13 | 1.33 to 2.20 m | Carbon Fiber | @ 1.4, 1.6, 1.8, 2.0, 2.2M | 2090-12 | = |
| 5527-15 | 1.51 to 2.60 m | Aluminum |  | 2090-12 | = |
| 5527-16 | 1.51 to 2.60 m | Carbon Fiber | @ 1.8, 2.0, 2.2, 2.4, 2.6M | 2090-12 | = |
| 5527-17 | 1.58 to 3.60 m | Carbon Fiber | @ 1.8, 2.0M | 2090-12 | E |
| 5527-20 | 1.58 to 3.60 m | Aluminum |  | 2090-12 | ) |
| 5527-22 | 1.58 to 3.60 m | Carbon Fiber | @ 1.8 to 3.6M every .2M | 2090-12 | E |
| 5527-30 | 1.65 to 4.65 m | Aluminum |  | 2090-12 | [ |



## Accessories for Robotics Gear

-5/8 X 11 aluminum prism height adapters allow the base pole to be used with other manufacturers' $360^{\circ}$ prisms


2090-01 - For Topcon Users w/ 77 mm Prism 2090-02 - For Leica Users w/86 mm Prism 2090-04 — Users w/115 mm Prism 2090-06 - Convert Robotics to GNSS Pole (not shown) 2090-07 — For Topcon ATP1/2 with 50 mm Prism

Copper-coated 35 mm prisms
$360^{\circ}$ Robotic Prism Assembly

FEATURES \& BENEFITS

- Includes six 35 mm prisms - 0 offset
- 77 mm prism height
- Copper-coated for moisture prevention
- This lightweight bipod is used to keep a GNSS or robotic pole off the ground when not in use
- Weighs $0.90 \mathrm{lb}(0.41 \mathrm{~kg})$


5217-15-ABK - 12 inch Open Clamp Bipod

6401-00-YEL — $360^{\circ}$ Robotic Prism Assembly


GNSS Accessories and Adapters

Converts any GNSS receiver or prism with $5 / 8 \times 11$ threads to a Quick Release

- Adapter features a female $5 / 8 \times 11$ quick release tip
- Made of anodized aluminum or optional Stainless Steel version
- Adds $23.8-\mathrm{mm}$ (. 937 inches) to length of rod
- Weighs $0.05 \mathrm{lb}(0.02 \mathrm{~kg})$

5187-00 - GNSS Quick-Release Adapter 5187-00-SS - GNSS Quick-Release Adapter (Stainless Steel)


- Use with GNSS Quick-Release Adapter (5187-00)
- Made of anodized aluminum or optional Stainless Steel version
- Adapter adds $76.22-\mathrm{mm}$ (. 937 inches) to the pole length
- Weighs $0.14 \mathrm{lb}(0.06 \mathrm{~kg})$

5111-00 - GNSS Quick-Disconnect Adapter
5111-00-SS — GNSS Quick-Disconnect Adapter (Stainless Steel)

## GNSS Accessories and Adapters cont．

Converts any GNSS receiver or prism with $5 / 8 \times 11$ threads to a quick release

Anti－rotation quick－release assembly
－Heavy－duty construction，will hold up to $20 \mathrm{lb}(9.00 \mathrm{~kg})$
Short height，only 60 mm （ 2.5 inches）
－Constructed of quality stainless steel and aluminum
－Easy to operate，push button release
－Includes one（1）5111－04－051
－For extra 5111－04－051，order separately
－Weighs $0.35 \mathrm{lb}(0.16 \mathrm{~kg})$


## 5111－04－ 60 mm Anti－Rotation Quick Release 5111－04－051－Male 5／8

Used to elevate a radio antenna to 6 feet plus the height of the tripod setup
－Snap locks into a fixed length of 6－feet（1．8－m）
－Collapses to 41.5 －inches（1－meter）
Includes a 3.5 －inch（ 8.89 cm ）OD plate adapter
－（5182－002）to attach to any $5 / 8 \times 11$ tripod heads
－Available in standard yellow of fluorescent yellow
－Weighs $1.40 \mathrm{lb}(0.62 \mathrm{~kg})$

## 5139－02－FLY－ 6 Foot Snap－Lock Radio Antenna Pole

嘼
－The 5114－series allows quicker attachment of the GNSS antenna
－The 5114－10 is an extra－tall mag mount for use when attaching GNSS receivers with downward antennas
Both magnets have a 3.5 －inch $(8.89 \mathrm{~cm})$ diameters（5114－050 and 5114－051
－Each single has 120 lb ．of pull on $1 / 2^{\prime \prime}$ steel plate
－5114－050 or 5114－051 weigh $0.92 \mathrm{lb}(0.42 \mathrm{~kg})$


5114－01 — Quick－Release Triple Mag Mount $5114-02$－ $5 / 8 \times 11$ Triple Mag Mount 5114－10－Triple Mag Mount for Precisional R10 $5114-050$－ $5 / 8 \times 11$ Tip 5114－051 — Quick－Release Tip
－SECO＇s Tripod Radio Antenna Kit attaches easily to instrument tripods
－Tripod leg clamp will attach to any tripod leg and ram ball and socket section of clamp quickly．Sets the antenna pole up vertically
－A large washer is included to allow a straight connection to a tripod for a separate setup
－Kit consists of three antenna sections that set up the radio antenna pole height to $3.1 \mathrm{ft}(0.95$ m）above the tripod
Kit bag measures $16 \times 6 \times 2$－inches $(40.6 \times 15.2 \times 5.8-\mathrm{cm})$
－Weighs $1.90 \mathrm{lb}(0.86 \mathrm{~kg})$

－Adapter has male $5 / 8 \times 11$ threads
Weighs $0.08 \mathrm{lb}(0.04 \mathrm{~kg})$

5113－012 — GNSS Quick－Release Tip
原


Designed to hold on to pipes，flip the switch to release its hold on metal surfaces
－Holds up to $132.20 \mathrm{lb}(60.00 \mathrm{~kg})$
Weighs $2.15 \mathrm{lb}(0.98 \mathrm{~kg})$


5114－052 — Switchable Kelly Magnet Mount
亶

All－Terrain Rover Rod＂Big Wheel＂
－Measures $19 \times 1$－5／8－inch（ $48.26 \mathrm{~cm} \times 3.81 \mathrm{~cm}$ ）
Rod and Bipod are not included with Wheel
－Perfect for RTK profiling
Weighs $3.80 \mathrm{lb}(1.72 \mathrm{~kg})$

5125－056－All Terrain Wheel
Add Rover top section：
5125－057－FLY－Aluminum Rod 5128－052－Carbon Fiber Rod
－The Satellite Stick ${ }^{\text {TM }} \mathrm{XL}$ is composed of six， 1 －in（ $25.4-\mathrm{mm}$ ）OD carbon fiber sections
Collapses to $1.23-\mathrm{ft}(37.5-\mathrm{cm})$
－Includes carrying bag
Weighs $2.40 \mathrm{lb}(1.09 \mathrm{~kg})$


5126－10－Satellite Stick XL
Use D11145 adapter to increase diameter to 1.25 ＂pole．Shown on page 10

GNSS Compass for 1.25 inch $(3.18 \mathrm{~cm})$ diameter poles


5125－050 — GNSS Compass


## FEATURES \& BENEFITS

- Drone, GCP, Ground Control Points set
- Target size 18X18X1/8"
- Compatible with any drone
software that recognizes
GCP targets
- Numbered 1-10
- Orange/Black color
- Made from rigid weather resistant ACM Panel.
(Aluminum Composite Material)
- Center hole, $1 / 4$ ", to center over existing control point
- Carrying bag made of
tough Rhinotech and
Polyester materials, \#10
YKK zipper
- Weight ea. 1.65 lbs .

Weight in the included carrying bag 18.5 lbs .


No Minimum Order Quantity. This product does not qualify for Free Freight.

6705-30 — Drone Ground Control Targets


## Propeller AeroPoints

Generation ᄅ


## FEATURES \& BENEFITS

- Generation 2 Propeller

AeroPoints offers significant upgrades.

- More Capability Without Complexity.
- A new wifi chip adds fast and reliable connectivity.

Dual-frequency delivers shorter flight times and more robust positioning.

- An upgrade to battery performance and plug-in charging gives customers better battery life and flexibility out in the field.
- And there's a brand new AeroPoints app that doubles down on diagnostic issues and makes configuration setup a breeze.

GNSS Bracket
for Truck Door


Expands vertically from 47 to 61 inches

FEATURES \& BENEFITS

- This bracket holds a GNSS pole to the door of your survey truck
- Easy to put on and take off and features a non-damaging mount
- 5114-20 fits most trucks
and SUVs
The door opens and closes with the bracket attached to the door
Bracket holds all GNSS- and RTK type poles
Utilizes a safety strap under tension to keep it on the door

Brackets are available to hold controller inside the cab

- Designed for off-road use
- Both products available in colors FLY, FOR, YEL
- Weighs $6.20 \mathrm{lb}(2.80 \mathrm{~kg})$


5114-20-051
3-inch Extension Kit for Dodge and other truck models


5114-21-054
3-inch Extension Kit for Dodge and other truck models

5114-20-051 — GNSS Bracket for Truck
5114-21-054 - Ford F-150 2015 \& 2016 models

Invest In The Best.

## UTV Roll Cage Transporter for GN5S Rods

Easy set-up or disassembly in 10 minutes or less

FEATURES \& BENEFITS

- The RUXWORKS GNSS Rod Transporter ${ }^{\text {TM }}$ fits all popular UTVs
- Mounts easily to either side and installs in 10 minutes or less
- The UTV bracket has up to $30^{\circ}$ of tilt to set your rover rod plumb
- The pole clamp section is $63-$ in ( $160-\mathrm{cm}$ ) long and disassembles quickly from the UTV bracket with two quick release pins or two bolts
- The UTV bracket can stay
permanently attached to the UTV
- Includes a rod clamp that fits all popular rover rods and poles with points and/or topo shoes up to a 2-1/2-inch ( $6.35-\mathrm{cm}$ ) diameter

| PART NO. | FITS | WEIGH5 |  |
| :---: | :---: | :---: | :---: |
| $5114-40-01$ | Tubular Roll Cage up to 2-inches $(5.08 \mathrm{~cm})$ | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ |  |
| $5114-40-02$ | Rectangular Roll Cage up to $2 \times 4$-inch $(5.8 \times 10-\mathrm{cm})$ | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ |  |
|  |  |  |  |

## ATV Bracket for

 TSC7 / Ranger 7FEATURES \& BENEFITS

- Works with ATVs,

Snowmobiles, and
Motorcycles

- Fits handlebars from 0.5 to
1.25 inches in diameter
- Also fits TSC3 / Ranger3

Two links included for different height location. Long Link 5.625", Short Link 3.5"

- Uses 1.5 " balls for stable positioning holding
- Weighs only 1.4 lbs 0.64 kg


5198-52 - Bracket ATV, TSC7 / Ranger 7

Plen Holder


Conveniently organize and store job site materials in your vehicle

## FEATURES \& BENEFITS

- Plan holder hangs on the back or front of any vehicle seat
- Slots which hold four 6-inch
$(15.24 \mathrm{~cm})$ diameter plans
- Front pocket accommodates a note pad, phone, or other small items
- Organizer strap holds pens,
pencils, markers, and other
necessary tools
- Weighs $0.95 \mathrm{lb}(0.43 \mathrm{~kg})$


## Viels

Each kit comes with its respective vial and three M3 socket cap screws, 12 mm long. The vial holder body and screws are not available as a service part.


## Levels

- No longer need to look down while traffic is flying by simply look through the window
- Features a soft rubber knob on an adjustable clamp that fit most survey poles and most vials
- The Heads-Up ${ }^{\text {TM }}$ level is more comfortable to read; the bubble is direct reading
- Fits 1 - to- 1.25 -inch ( 25.4 - to- $31.75-\mathrm{mm}$ ) OD poles
- Weighs $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$


5001-10 — Standard Rod Level

- Features a die-cast aluminum body and adjustable vial
- Suitable for use with track light, robotic instruments, or conventional leveling
- Fits round or rectangular rods
- Fits poles with a 1 - to- 1.25 -inch
- (25.4- to- $31.75-\mathrm{mm}$ ) OD
- Feature a 40 minute sensitivity vial
- Weighs $0.10 \mathrm{lb}(0.04 \mathrm{~kg})$


5001-12 — Snap-On Rod Level

## Scanner Spheres



FEATURES \& BENEFITS

- 100 mm OD lightweight aluminum sphere
- Precision design, allowable deviation $<1 \mathrm{~mm}$
- Female $1 / 4 \times 20$ threaded mounting
- Painted non-glare white
- Weighs $0.60 \mathrm{lb}(0.27 \mathrm{~kg})$
- Center height is 49 mm from bottom flat
- Height adapters: 6703-005 or 6703-002 see page 20

6703-001 - 100 mm Scanner Sphere
E

FEATURES \& BENEFITS

- Lightweight aluminum scanner sphere
- 230 mm diameter, accuracy $<2 \mathrm{~mm}$
- Female $5 / 8 \times 11$ threaded mounting
- Painted non-glare white
- Center height is 114 mm from bottom flat
- Weighs $2.70 \mathrm{lb}(1.22 \mathrm{~kg})$
- For drawsting carrying pouch, order PN D12560 (for 230 mm )

6704-001 - 230 mm Scanner Sphere

## Sphere Adapters,

Accessories and Case



Invest In The Best.

## Scanner Targets



FEATURES \& BENEFITS

- Adjustable tilting target, for affixing to pole top and used in multiple survey jobs.
- Contrasting 6" (152mm) Black
and White pattern
- Matte non-glare target material
- Adjustable tilting axis
- Anodized aluminum yoke and

6705-10 — Target, Tilting, 6 " B/W

FEATURES \& BENEFITS

- Easy-to-use self-adhesive target, which can be fixed to measuring points.
- Ideal for monitoring work where you have to leave targets in position over long periods.

6705-20 - Target, Adhesive, 150X200mm, B/W, 10pk
for easier, bubble-free

Contrasting 6" (152mm) Black and White pattern

- Matte non-glare target material
- Material is 3M 3.2-mil vinyl films with a pressuresensitive adhesive and air release channels for easier, bubble-free
target plate
- Axis height 135 mm
- 5/8-11 threaded base
- Weight $0.90 \mathrm{lbs}, 0.41 \mathrm{~kg}$
application. Easy to remove, leaves no adhesive.
- Weather resistant and UV stable.
Space to mark target ID
- Adhesive backed
- Package weight: 0.25 lbs ( 0.11 kg )


## Carbon Fiber Rabatics Pales

Features carbon fiber and TLV locking mechanism

|  | FEATURES \& BENEFITS <br> Graduated to read direct for a 135 mm prism height <br> Adapters will achieve other prism heights <br> Carbon fiber pole offers a stainless steel pin which locks |  |  | the inner pole <br> Features TLV ${ }^{\text {TM }}$ lock mechanism with 40-minute vial built-in <br> Optional outer graduations in metric (GM) or 10ths/100ths (GT) |  | Swiss Style Pole (SW) includes the 2090-10 adapter fixed to the pole <br> Order 8160-00-ORG for carrying case |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PART No. | GRADS | SECTIONS | PIN LOCKING | OUTER GRADS | LeNGTH | WEIcHS |  |
| m- | 5129-52 | Dual | 1 | Every 0.5 ft | 10ths/100ths (GT) | $4.97 \mathrm{ft}-8.53 \mathrm{ft}$ | $2.30 \mathrm{lb}(1.04 \mathrm{~kg})$ | 1: |
|  | 5129-53 | Metric | 1 | Every 20 cm | Metric (GM) | $1.53 \mathrm{~m}-2.6 \mathrm{~m}$ | $2.30 \mathrm{lb}(1.04 \mathrm{~kg})$ | (1) |
|  | 5129-72 | Dual | 2 | Every 0.5 ft | None | $5.18 \mathrm{ft}-11.81 \mathrm{ft}$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | E |
|  | 5129-73 | Metric | 2 | Every 20 cm | None | $1.58 \mathrm{~m}-3.6 \mathrm{~m}$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | E |
|  | 5129-52-SW | Dual | 1 | Every 0.5 ft | 10ths/100ths (GT) | $8.5 \mathrm{ft} / 2.6 \mathrm{~m}$ | $2.3 / 1.04 \mathrm{~kg}$ | E |
|  | 5129-53-SW | Metric | 1 | Every 20 cm | Metric (GM) | $8.5 \mathrm{ft} / 2.6 \mathrm{~m}$ | 1.04 kg | 틀 |
|  | 5129-72-SW | Dual | 2 | Every 0.5 ft | 10ths/100ths (GT) | $11.8 \mathrm{ft} / 3.6 \mathrm{~m}$ | $3.3 / 1.5 \mathrm{~kg}$ | 辰 |
|  | 5129-73-SW | Metric | 2 | Every 20 cm | Metric (GM) | 11.8 ft / 3.6 m | 1.5 kg | E |

Telescopic Carbon Fiber Prism Pale

Carbon fiber poles are approximately $30 \%$ lighter than similar aluminum poles


FEATURES \& BENEFITS

- Adjustable tip that will adjust to a prism height of 65 mm to 115 mm
- TLV locking and dual graduations and OD is 1.27 in ( 32 mm )
- Extends $8.53 \mathrm{ft}(2.60 \mathrm{~m})$

Collapses to $4.97 \mathrm{ft}(1.51 \mathrm{~m})$
Weighs $2.30 \mathrm{lb}(1.05 \mathrm{~kg})$


## Swiss－Style QLV Prism Poles

QLV Locking Mechanisms


FEATURES \＆BENEFITS
－Swiss－style quick release stud Reads direct for any 86 mm height prisms
－The small－diameter， 25 mm bottom section fits Leica slide－ on controller brackets
－QLV ${ }^{\text {TM }}$ locking mechanisms
－Powder－coated and silk screened aluminum
－Lower lock features a 40－minute vial

Swiss－Style TLV and Twist－Lock Prism Pales

Twist Lock with Vial（TLV）

FEATURES \＆BENEFITS
－Swiss－style tip（for 86 mm prism heights）for GPH1－type prisms
－1．25－or 1．50－inch（31．75－or
Comes in 1 or 3 sections $38.1-\mathrm{mm}$ ）outside diameter
－Dual or metric graduations TLV ${ }^{\text {TM }}$ or Twist－Lock mechanisms

The popular TLV locking system provides simple but secure locking

| PART No. | SECTIONS | $\begin{aligned} & \text { LOCK } \\ & \text { STYLE } \end{aligned}$ | LENGTH | OD | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5501－11 | 1 | TLV | $8.53 \mathrm{ft}-4.97 \mathrm{ft}(2.60 \mathrm{~m}-1.51 \mathrm{~m})$ | 1.25 inch（ 31.75 mm ） | Dual | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 槩 |
| 5521－11 | 1 | TLV | $2.60 \mathrm{~m}-1.51 \mathrm{~m}$ | 31.75 mm | Metric | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 汤 |
| 5503－30 | 3 | Twist－Lock | $15.25 \mathrm{ft}-5.41 \mathrm{ft}(4.65 \mathrm{~m}-1.65 \mathrm{~m})$ | 1.50 inch（ 38.1 mm ） | Dual | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | 釷 |

## Quick－Release Telescopic Prism Poles

## Vials are on the locks，out of the way of the instruments on the pole

FEATURES \＆BENEFITS
－Quick－Release locking mechanism with 40－minute vial

Adjustable tension via set screw in the handle and another set screw to assist in keeping the spring in position
－Quick－Release handle lock
allows for a simple and fast setup
Constructed of powder－ coated and silk screened aluminum

| PART NO． | GRADS | SECTIONS | TIP | EXTENDED | COLLAPSED | WEIchs |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5700－10 | Dual | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | 4.97 ft （1．52 m） | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 䍓 |
| 5720－10 | Metric | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | $4.97 \mathrm{ft}(1.52 \mathrm{~m})$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | E |
| 5700－20 | Dual | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | $5.18 \mathrm{ft}(1.58 \mathrm{~m})$ | $5.10 \mathrm{lb}(2.30 \mathrm{~kg})$ |  |

TLV and Twist－Locking Telescopic Prism Poles


FEATURES \＆BENEFITS
－The aluminum twisting lock with vial（TLV）pole is wear－ resistant for long life
－The soft rubber knob is easy to tighten or loosen，even when wearing gloves
－TLV locks feature a convenient 40－minute vial built into the lock

Made of quality aluminum tubing
－Powder－coated red and white －Vials may be switched out－ see page 18 for options

## Compression Lock Telescopic Prism Pales

## Constructed of brass and aluminum



FEATURES \＆BENEFITS
－Compression locking mechanism
－Constructed of sturdy aluminum tubing and a two－ stage adjustable top－threaded tip

Adjustable Tip
－Single（1）section pole
－Extends $8.53 \mathrm{ft}(2.60 \mathrm{~m})$
－Collapses $4.97 \mathrm{ft}(1.516 \mathrm{~m})$
－Dual graduations

Finished with electrostatic powder paint coating on the outer pole and permanent silkscreened grads on the inner pole
Weighs $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$

Simple to adjust bubble and lever tension

## QLV Locking Prism Poles

FEATURES \＆BENEFITS
－The QLV™（Quick Lever with Vial）lock allows fast，simple setups
－Simple to adjust bubble and lever tension
－Includes a lock with 40－minute level vial，adjustable，or fixed tip and your choice of dual （10ths）or metric graduations （cm）
－Easy locking
－Finished with electrostatic
powder paint coating on the outer pole and permanent silkscreened grads on the inner pole

| PART NO． | SECTIONS | TIP | Extends | Collapses | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $5801-10$ | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | $4.97 \mathrm{ft}(1.516 \mathrm{~m})$ | Dual | $2.95 \mathrm{lb}(1.50 \mathrm{~kg})$ |  |
| $5813-10$ | 1 | Fixed | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | $4.97 \mathrm{ft}(1.516 \mathrm{~m})$ | Dual | $2.95 \mathrm{lb}(1.50 \mathrm{~kg})$ |  |

Ultralite Prism Poles
Non－conductive fiberglass

|  | FEATURES \＆BENEFITS <br> －The lightest pole offered by SECO <br> Included in this package is Seco＇s patented Topo Boot ${ }^{\circledR}$ |  | －Reduced weight SECO TLV™ lock <br> －Features a 40－minute adjustable vial，a soft touch knob，and an adjustable 5／8 x 11 tip |  | －The inner and outer poles are constructed of lightweight nonconductive fiberglass <br> Vials may be switched out－ see page 18 for options |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PART No．SECTIONS | TIP | Length | VIAL | GRADS | WEICH5 |  |
|  | 5540－20 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | 40－minute | Dual | $2.50 \mathrm{lb}(1.13 \mathrm{~kg})$ | 鹤 |
|  | 5541－20 2 | Adjustable | 3.60 m （11．81 ft） | 40－minute | Metric | $2.50 \mathrm{lb}(1.13 \mathrm{~kg})$ | E |
|  | 5540－30 3 | Adjustable | 15.27 ft（4．65 m） | 40－minute | Dual | $3.15 \mathrm{lb}(1.43 \mathrm{~kg})$ | 嘒 |
|  | 5541－30 3 A | Adjustable | 4.65 m （ 15.27 ft ） | 40－minute | Metric | $3.15 \mathrm{lb}(1.43 \mathrm{~kg})$ | E |

## Contractor Series TLV Prism Poles

Import $\mathrm{TLV}^{\text {TM }}$ prism poles


| Includes 40－minute level vial | Color：Red and White |
| :--- | :--- |
| $5 / 8$ Adjustable Tip | Length $3.60 \mathrm{~m}(11.81 \mathrm{ft})$, |
| Metric Grad $(\mathrm{cm})$ | Weighs $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ |

－Metric Grad（cm）
－Hardened steel points
－TLV locking mechanism
－Weighs $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$

| PART NO． | SECTIONS | TIP | LENGTH | POLE TYPE | GRADS | WEICHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5530－20 | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | Aluminum | Dual | $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ |  |
| 5531－20 | 2 | Adjustable | 3.60 m | Aluminum | Metric | $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ | 䧚 |
| 5530－30 | 3 | Adjustable | $15.25 \mathrm{ft}(4.65 \mathrm{~m})$ | Aluminum | Dual | $5.38 \mathrm{lb}(2.44 \mathrm{~kg})$ | 翏 |
| 5531－30 | 3 | Adjustable | 4.65 m | Aluminum | Metric | $5.38 \mathrm{lb}(2.44 \mathrm{~kg})$ | E |

## Contractor Series Compression Lock Pales

Traditional Compression lock import prism poles


## Offset Tools

－Used with total stations and prism poles to help get accurate elevation measurements in hard－to－reach places such as sewer lines
－Has an adjustable centerline， 1.60 to $1.00-\mathrm{ft}$（ 48.76 to $30.48-\mathrm{cm}$ ） in $0.20-\mathrm{ft}(6.09-\mathrm{cm})$ increments
－Constructed of anodized $1 / 2$ inch thick aluminum
－Includes brass male $5 / 8 \times 11$ threaded post and a stainless steel $5 / 8 \times 11$ Heli－Coil ${ }^{\circledR}$
Weighs $1.15 \mathrm{lb}(0.52 \mathrm{~kg})$
－Maintains Exact Pole Elevation Readings！

Perform odd setups and stay away from dangerous situations with the Offset Pole Holder Kit
－Combine the kit with any $5 / 8 \times 11$ threaded pole and a Heads－Up ${ }^{T M}$ Level（PN 5001－20，page 18）for a safe and sturdy setup
－A padded case，hex wrench，and an adapter plate for instrument tripods is included
－Weighs $1.79 \mathrm{lb}(0.81 \mathrm{~kg})$


## Renge Pole Accessories


－The Rodrest is a self－retracting＇kickstand＇for survey rods
－Activated by simply pushing down a few inches on the handle
－Weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$

Pole not included．

5214－01 — Gardener Rod Rest 1．25－inch OD

## Pole Extensions



Aluminum，carbon fiber or fiberglass extensions

FEATURES \＆BENEFITS
－The pole extensions have $5 / 8 \times 11$ female threads on
the bottom and $5 / 8 \times 11$ male threads on the top to allow more added sections

Choose powder－painted aluminum，carbon fiber，or fiberglass

| Part No． | OUTSIDE DIAMETER | LeNGTH | POLE TYPE | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5182－001 | 1 in（ 25 mm ） | 3 in（7．62 cm） | Aluminum | $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$ | 䮖止 |
| 5132－00－ACL | 1 in（25 mm） | 6 in（ 15.2 cm ） | Aluminum | $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$ | 些 |
| 5130－01－FLY | 1 in（ 25 mm ） | $1 \mathrm{ft}(30.5 \mathrm{~cm})$ | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 些 |
| 5902－00－FLY | 1 in（ 25 mm ） | 50 cm （19．69 in） | Aluminum | $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$ | E |
| 5131－01－FLY | 1 in（25 mm） | 2 ft （61 cm） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ | 釷丰 |
| 5901－00－FLY | $1 \mathrm{in}(25 \mathrm{~mm})$ | 1 meter（39．37 in） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ | 氯 |
| 5110－01－FLY | 1 in（25 mm） | $4 \mathrm{ft}(1.22 \mathrm{~m})$ | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 翟 |
| 5145－00－FLY | 1.25 in（ 32 mm ） | 25 cm （9．84 in） | Aluminum | $0.90 \mathrm{lb}(0.41 \mathrm{~kg})$ | 维 |
| 5130－00－FLY | 1.25 in（ 32 mm ） | $1 \mathrm{ft} \mathrm{( } 30.5 \mathrm{~cm}$ ） | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 䝂 |
| 5144－00－FLY | 1.25 in（32 mm） | 50 cm （19．69 in） | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 5 |
| 5131－00－YEL | 1.25 in（32 mm） | 2 ft （61 cm） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ | 金 |
| 5143－00－FLY | 1.25 in（32 mm） | 1 meter（39．37 in） | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 를 |
| 5110－00－FLY | 1.25 in（ 32 mm ） | $4 \mathrm{ft}(1.22 \mathrm{~m})$ | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 䮖 |
| 5110－00－RED | 1.25 in（32 mm） | $4 \mathrm{ft}(1.22 \mathrm{~m})$ | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 㖪 |
| 5145－03 | 1 in（ 25 mm ） | 25 cm （9．84 in） | Carbon Fiber | $0.35 \mathrm{lb}(0.16 \mathrm{~kg})$ | 些垔 |
| 5145－02 | 1.25 in（ 32 mm ） | 25 cm （9．84 in） | Carbon Fiber | $0.35 \mathrm{lb}(0.16 \mathrm{~kg})$ | － |
| 5144－02 | 1.25 in（ 32 mm ） | 50 cm （19．69 in） | Carbon Fiber | $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$ | 気 |
| 5143－02 | 1.25 in（ 32 mm ） | 1 meter（39．37 in） | Carbon Fiber | $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$ | 狺 |
| 5130－10 | 1.25 in（32 mm） | 0.20 meter（ 7.87 in ） | Fiberglass | $0.34 \mathrm{lb}(0.15 \mathrm{~kg})$ | 釷 |

## Imported Range Poles

## Contractor Series of Extendible Section Poles

－Single 4－foot（1．22－m）section range pole
1．13－in（29－mm）outside diameter
－With brass male／female fittings on all range poles
－Includes bag（no point included）
－Weighs $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$

5160－02－WOR－Contractor Series 4－ft Range Pole
－Two 4－ft（1．22 m）sections creating 8－ft（2．44－m） range pole
－1．13－in（29－mm）outside diameter
－With brass male／female fittings on all range poles
－Includes point and bag
－Weighs $3.40 \mathrm{lb}(1.54 \mathrm{~kg})$

5140－02－WOR－Contractor
捧
Series 8－ft Range Pole
－Three 4－foot（1．22－m）sections creating 12－ft（3．66－m） range pole
1．13－in（29－mm）outside diameter
－With brass male／female fittings on all range poles
－Includes point and bag
－Weighs $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$

## Prism Pale Bipods \& Tripods

## Prism Pole Bipods And Tripods

- A surveyor can set up a free-standing GNSS antenna pole or prism pole
- Poles 1 - to 1.25 -inch (25.6- to $32-\mathrm{mm}$ ) OD attach through the open clamp
- 1.5-inch ( 38.1 mm ) OD poles can be loaded through the top
- Legs (independently) extend to 6 feet ( 1.8 m )
- Collapses to 43 inches (109 cm)
- Weighs $4.25 \mathrm{lb}(1.93 \mathrm{~kg})$
- Order bag 8180-20 and leg clips 5217-30

Includes No-Crush Head

5217-04-FOR — Original Thumb Release Bipod 5217-04-FLY — Original Thumb Release Bipod 5217-04-RED — Original Thumb Release Bipod 5217-04-YEL — Original Thumb Release Bipod

- A surveyor can set up a free-standing GNSS antenna pole or prism pole
- Poles 1 - to 1.25 -inch (25.6- to 32-mm) OD attach through the open clamp
- 1.5-inch ( 38.1 mm ) OD poles can be loaded through the top
- Legs (independently) extend to 6 feet ( 1.8 m )
- Collapses to 43 inches ( 109 cm )
- Weighs 4.25 lb ( 1.93 kg )
- Comes with bag and leg clips for easy transportation

Includes
No-Crush Head


> 5217-40-FLY — Thumb Release Bipod
> 5217-40-RED - Thumb Release Bipod 5217-40-YEL — Thumb Release Bipod

This assembly easily converts your existing prism/range pole bipod to a prism/range pole tripod when extra stability is needed!

- Easy to attach or remove with our "open clamp" design
Operation is exactly the same as a one-piece Pole Tripod
- Same construction as the third leg on a Pole Tripod
A good accessory for 5217-04 and 5217-40
- Weighs $1.85 \mathrm{lbs}(0.84 \mathrm{~kg})$

Bipod and Pole not included.

5218-06-FLY - Solo Leg with Clamp 5218-06-FOR - Solo Leg with Clamp 5218-06-RED - Solo Leg with Clamp 5218-06-YEL — Solo Leg with Clamp

- Carbon Fiber Thumb Release Bipod uses the same design concepts as the SECO aluminum Thumb Release Bipod, but weighs less
- 1- to 1.25 -inch ( 25.6 - to $32-\mathrm{mm}$ ) diameter poles attach easily through the open clamp $1.5-\mathrm{inch}(38.1-\mathrm{mm})$ OD poles can be loaded through the top
- Collapses to 43-inches (109-cm)
- Legs (independently) extend to 6 -feet (1.8-m)
- Weighs $4.10 \mathrm{lb}(1.86 \mathrm{~kg})$

Includes
No-Crush Head


E

- The Carbon Fiber Thumb Release Tripod features a large 5 -lobe soft touch rubber clamping knob, and legs of super strong, lightweight carbon fiber
- Legs collapses to 43 -inches ( $109-\mathrm{cm}$ )
- Legs extend to 6 -ft (1.8-m)
- Weighs $4.10 \mathrm{lb}(1.86 \mathrm{~kg})$


5219-05 - Carbon Fiber Thumb Release Tripod
配


## Bipods \& Tripods

This tripod is ideal for use with poles under 24 -inches ( $61-\mathrm{cm}$ ) long 1 - to 1.5 inch ( 25.4 - to $38.1-\mathrm{mm}$ ) diameter poles thread easily through the open clamp on top

- Legs are fixed at 12 -inches $(30.5-\mathrm{cm})$ each
- Includes stainless steel clamp screw and rubber tips

Rod, 5010-00-RED, page 22, not included

- Weighs $1.30 \mathrm{lb}(0.60 \mathrm{~kg})$


5218-15-ABK — Mini Tripod with 12 inch Legs

- The Mini Bipod utilizes the same design concepts as the popular 5217-04 bipod, just shorter (see page 28)
- Poles 1 - to 1.25 -inch ( 25.6 - to $32-\mathrm{mm}$ ) diameter attach easily through the open clamp
- Poles 1.5-inch ( $38.1-\mathrm{mm}$ ) OD can load through the top
- Collapses to 25 inches ( 63.5 cm )
- Extends to 35 inches ( 88.9 cm )
- Leg clip is included (5217-30)
- Weighs $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$
- See 5217-30 Bipod Leg Clip Below

Includes No-Crush Head


5217-05-FOR — Thumb Release Mini Bipod 5217-05-FLY — Thumb Release Mini Bipod 5217-05-RED — Thumb Release Mini Bipod 5217-05-YEL — Thumb Release Mini Bipod


- The tripod features a ball-and-socket head, which makes leveling a bubble easy
- Legs extend from 2.62- to $4.17-\mathrm{ft}(80-\mathrm{cm}$ to $1.3-$ m)
- The rubberized jaws hold a pole (up to 2-inch ( $51-\mathrm{mm}$ ) OD) firmly in place
- Carrying case is included
- Weighs $2.65 \mathrm{lb}(1.20 \mathrm{~kg})$


Alligator clamp with rubberized jaws!

5214-00 — Alligator Clamp Prism Pole Tripod
E

- The bipod leg clip easily attaches to the base of any 1.25 -inch ( $32-\mathrm{mm}$ ) OD prism or antenna pole
- The bipod legs snap into the clip making the system convenient for transport or storage
- Ideal for 5217-04 series
- Can be used for prism pole tripods with combination of 2 units
- Weighs $0.04 \mathrm{lb}(0.02 \mathrm{~kg})$


5217-30 — Bipod Leg Clip

- Thumb-Release ${ }^{\text {TM }}$ Tripods creates free-standing GNSS antenna poles or prism poles
- The thumb lock design allows adjustment of tension without disassembly of the leg
- Universal head accommodates poles from 1- to 1.5 -inch ( 25.6 - to $38.1-\mathrm{mm}$ ) OD
- Legs extend (independently) to 6 - $\mathrm{ft}(1.8-\mathrm{m}$ )
- Feature large, smooth, thumb release buttons
- Constructed of powder-coated aluminum
- Weighs $6.00 \mathrm{lb}(2.60 \mathrm{~kg})$

5218-40-FLY — Thumb Release Tripod 5218-40-RED — Thumb Release Tripod 5218-40-YEL — Thumb Release Tripod

## Prism Offsets

Corner cube prisms (or retroreflectors) used with electronic distance measuring (EDM) instruments have an offset due to the fact that the transmitted light beam from the EDM takes longer to enter and exit the prism. This longer time translates to a longer distance measured. This distance is corrected by using an 'offset' and/ or positioning the prism in relationship to the plumb line of the prism holder. The offset is determined by multiplying the height of the prism by the refractive index of the glass used. Common offsets are $0,-17.5 \mathrm{~mm},-30 \mathrm{~mm},-34 \mathrm{~mm}$, and -40 mm .

## Nodal Offsets

- A nodal offset is defined by the relationship of the prism holder and prism that places the optical center of the prism on the plumb line of the holder. This offset is the most advantageous at close range work when the apex or center of the prism is used as a pointing target for vertical and horizontal angle measurement. Every prism has a nodal offset. Prisms and holders that are not in the nodal position however, can cause angular errors when using the prism apex as a target if it is not perfectly pointed toward the measuring instrument.
- To reduce pointing errors, several SECO prism assemblies are designed with a nodal point alignment at -17.5 (for 25 mm prisms) or -40 mm offset (for 62 mm prisms). See illustration at right.
Commonly, the best reading of the beam is achieved when the prism face is perpendicular to the incoming beam for a parallel return. Unfortunately, ideal alignment is not always achieved in the field.
To compensate for pointing errors, nodal point alignment minimizes the error associated with misalignments (two illustrations below).


Non-Aligned at -30 mm Offset

at -17.5 or -40 mm Offset


Non-Aligned at 0 mm Offset

## Prism Range

- Corner cube prisms redirect the measuring beam back to the EDM for signal processing.
- There are two main factors for good range measurement: prism diameter and beam deviation.

If the beam deviation is not accurate enough, the returned beam will miss the EDM entirely.

- This occurs mainly near the maximum range of the EDM (check with your manufacturer).

SECO standard prisms are $<5$ seconds. Higher accuracy prisms are also available.

## Prism Holder Accuracy

- Prism accuracy is determined by the physical location of the prism in its canister and then to its holder. SECO prism accuracy is 1 mm or less.



## 62 mm Rear Screw Lock

FEATURES \& BENEFITS

- Tilting holder is anodized aluminum and features a
- 62 mm copper-coated canister prism
- Features an improved brass locking thumb screw design and a light but durable metal holder
- Tilting axis height is 115 mm

Mounted in either 0 or

- -30 mm offset positions

| PART NO. | TARGET COLOR | TARGET SIZE | Weighs |  |
| :---: | :---: | :---: | :---: | :---: |
| 6402-02-FLB | Flo Yellow with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ |  |
| 6402-02-FOB | Flo Orange with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ |  |
| 6402-02-YLB | Yellow with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ |  |
| 6422-02-FOB | Flo Orange with Black | $5.5 \times 7$ in | $1.59 \mathrm{lb}(0.72 \mathrm{~kg})$ | 気 |
| 6422-02-YLB | Yellow with Black | $5.5 \times 7$ in | $1.59 \mathrm{lb}(0.72 \mathrm{~kg})$ | = |

## 62 mm Rear Lever Lock



FEATURES \& BENEFITS

- The heavy-duty 62 mm silvercoated prism is sealed in a strong canister with an o-ring to prevent water and dust from getting inside
- Incorporates a simple rearlocking stainless steel lever mechanism that is easy to set while adjusting the prism and target tilt
- Prism can be mounted in
either 0 or - 30 mm offset positions
- 115 mm tilting axis height

Two target sizes and three color combinations are available

| PART NO. | TARGET COLOR | TARGET SIZE | Weighs |  |
| :---: | :---: | :---: | :---: | :---: |
| 6402-20-FLB | Flo Yellow with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ |  |
| 6402-20-FOB | Flo Orange with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ |  |
| 6402-20-YLB | Yellow with Black | $6 \times 9$ in | $1.75 \mathrm{lb}(0.79 \mathrm{~kg})$ | $\underline{\underline{\underline{\underline{E}}}}$ |
| 6422-20-YLB | Yellow with Black | $5.56 \times 7.13$ in | $1.59 \mathrm{lb}(0.72 \mathrm{~kg})$ |  |

## 62 mm blinking strobe prism assembly

FEATURES \& BENEFITS

- Combines the premier target and holder with a strobe prism
- Features a blinking strobe prism with an LED light that flashes every 0.5 -second
- This prism can be purchased separately (6416-00, page


## 39)

- Perfect for low light conditions
- Tilting axis height is 115 mm
- Weighs $1.35 \mathrm{lb}(0.62 \mathrm{~kg})$

| PART NO. | TARGET COLOR | TARGET SIZE |
| :---: | :---: | :---: |
| $6402-03-F L B$ | Flo Yellow with Black | $6 \times 9$ in |
| $6402-03-$ FOB | Flo Orange with Black | $6 \times 9$ in |
| $6402-03-Y$ YB | Yellow with Black | $6 \times 9$ in |

## Premier Prism Assemblies

-35 mm to work with Precisional and Spectra Geospatial Total Stations


FEATURES \& BENEFITS

- Features a - 35 mm offset and a prism accuracy of $<5$ seconds
- Mounting base features
standard female $5 / 8 \times 11$ threads

| Part No. | TARGET COLOR | TAREET SIZE |
| :---: | :---: | :---: |
| $6402-05-$ FOB | Flo Orange with Black | $6 \times 9$ in |
| $6402-05-$ YLB (shown) | Yellow with Black | $6 \times 9$ in |

Premier Prism Assemblies
-30 and 0 mm to work with Nikon, Topcon \& Sokkia Total Stations


## FEATURES \& BENEFITS

- 62 mm copper-coated prism is encased in a heavy-duty canister with M20 threads
- Features a - 30 and 0 mm offset
dive
- Height of the prism in the holder is 100 mm
- Tilting holder is constructed of anodized aluminum
- Prism accuracy of $<5$ seconds
- Mounting base features standard female $5 / 8 \times 11$

| Part No. | TARGET COLOR | TARGET SIZE |  |
| :---: | :---: | :---: | :---: |
| 6402-06-FLB | Flo Yellow with Black | $6 \times 9$ in | 三1, |
| 6402-06-FOB | Flo Orange with Black | $6 \times 9$ in | 三 |
| 6402-06-YLB (shown) | Yellow with Black | $6 \times 9$ in | 를 |

Stendard Prism Assembly Contractor Series 62 mm prism assembly


FEATURES \& BENEFITS

- Features a 62 mm coppercoated canister type prism
- Water-resistant and has a M20 universal mounting thread
- Tilting holder is powderpainted die cast aluminum
- Uses a simple but proven locking system
- Target size 5.5" x 7"

6402-10-FOB — Prism Assembly in Flo Orange with Black 6402-10-FLB — Prism Assembly in Flo Yellow with Black 6402-10-YLB — Prism Assembly in Yellow with Black

Mounted in either 0 or - 30 mm offset positions

- Tilting axis height is 115 mm
- Weighs $1.35 \mathrm{lb}(0.62 \mathrm{~kg})$
threads
- Weighs $1.75 \mathrm{lb}(0.80 \mathrm{~kg})$ is encased in a heavy-duty canister with M20 threads
Weighs $1.75 \mathrm{lb}(0.80 \mathrm{~kg})$
- Nodal

Tilting holder is constructed of anodized aluminum

- Height of the prism in the holder is 135 mm

Invest In The Best.

360 PRISM


Lightweight and inexpensive, made to be set up and left for extended periods

## FEATURES \& BENEFITS

- Compatible with Leica instruments and offsets
- Prism accuracy <5 seconds
- Pointing accuracy <2mm to face of prism
- Range up to 2000 ft (600M)
- Prism Height 86mm
- Push Button Quick Release

6406-01 — PRISM, 360, 86MM, +23.1MM PC
E

- Male 5/8-11 thread on top
- Carrying case included, hard and soft case
- Weight $1.25 \mathrm{lb}(0.6 \mathrm{~kg})$


MINI $\operatorname{BGO}$ PRISM KIT
Lightweight and inexpensive, made to be set up and left for extended periods


FEATURES \& BENEFITS

- Compatible with Leica instruments and offsets
- Prism accuracy <5 seconds
- Prism Offset +30 mm

6406-02 - PRISM, MINI 360, KIT, +30mm PC

Ceiling hook included
Kit weight $1.2 \mathrm{lbs}(0.55 \mathrm{~kg})$
Sliding Circular Vial, sensitivity 40 minutes

- Includes 430 cm extensions with 5 cm point, $1 / 4-20$ threads
- Carrying case included


## Prism Assembly: Tilting Single

## -30mm Offset Assembly

| FEATURES \& BENEFITS | Includes copper-coated 62 <br> mm prism (6411-02) | prism holder, sealed with <br> a rugged corrosion-proof <br> electrostatic powder paint |
| :--- | :--- | :--- | | coating |
| :--- |

6440-00-FOR — Single Prism Tilting Assembly


> Prism: Sliding,
> Tilt Reflector

Use with Prism Pole or Site Rod


FEATURES \& BENEFITS

- Attaches to the bottom of the graduated section of a pole so heights can be taken close to the ground
- Includes a, large, 2.5 inch
$(63.5 \mathrm{~mm}$ ) silver-coated prism with protective rubber ring
$>0$ offset and $40-\mathrm{min}$ leveling vial
- Tilts in $15^{\circ}$ increments, spring locked
- Large easy-to-use clamping knob
- Targets made of fluorescentyellow translucent polycarbonate
- Use with prism pole or site rod
- Weighs $0.81 \mathrm{lb}(0.37 \mathrm{~kg})$

6455-00 — Sliding Prism with Tilting Reflector

## Prism Assembly: Tilting Triple

## Complete system is perfect for longer distances



- Has a peep sight for pointing the holder, perfect for longer distances
- Includes three sealed coppercoated 62 mm prisms in black canisters (6411-02-BLK)
- 0 and -30 mm prism offset
- Target size 12.6 in wide x 11.42 in ( 32 cm wide $\times 29 \mathrm{~cm}$ tall)
- Weighs $2.70 \mathrm{lb}(1.23 \mathrm{~kg})$


## Prism Assembly: Nodal Point

6341-00 - Tilting Triple Prism Assembly
6341-11 — Tilting Triple Prism Target


62 mm can be offset to -40 mm


FEATURES \& BENEFITS

- The import assembly features a polycarbonite holder, three prism offset positions, $0,-30$ and -40 (nodal)

6400-10 — Nodal Point 62 mm Prism Assembly

- The reversible non-tilting metal target comes in orange \& white and black \& white - Prism Target size $20 \mathrm{~cm} x$ 18.5 cm (7.87 in $\times 7.28$ in)
- Weighs $1.45 \mathrm{lb}(0.66 \mathrm{~kg})$


## Prism Assembly:

 Nodal Point
## -34 Swiss Style Prism Assembly



FEATURES \& BENEFITS

- -34 mm offset prism
Quick Release
62 mm diameter coppe
coated prism coated prism

86 mm Height

- Weighs $0.92 \mathrm{lb}(0.42 \mathrm{~kg})$

6406-00 — Nodal Point 62 mm Prism Assembly E

## Prism Assembly: Nodal Point

Eclipse 62 mm can be offset to -40 mm or -30 mm


## FEATURES \& BENEFITS

- The Eclipse ${ }^{\text {TM }}$ prism assembly features a waterresistant, nitrogen-charged, 62 mm target (yellow and black on the reverse)
- Can be set at a -40 mm , which offers optimal angle measurements, even when tilting in either the horizontal or the vertical axis
- Height to center of glass:
- 0.38 ft ( 115 mm )
- -30 mm adapter is included
- Weighs $1.15 \mathrm{lb}(0.52 \mathrm{~kg})$


## Prisms：Mini and Stakeout

－Here＇s a versatile prism system in a small package
－Assembly features a 25 mm copper－coated prism，for fog prevention，a tilting holder，with friction axis， 0 or -30 mm offset －Can be mounted on a prism pole or tribrach at three heights： $70 \mathrm{~mm}, 100 \mathrm{~mm}$ ， 115 mm ，or can be hand－held using the plumb bob bracket or with S－hook for quick attachment to plumb bob

－Includes a 40－minute adjustable circular center or side mounted vial
－Also included a point for stake－out work，and a system bag with belt loop
－Powder painted flo orange
－Weighs $0.34 \mathrm{lb}(0.15 \mathrm{~kg})$

## 6200－10－FOR — Mini Prism System with Center Vial 6200－11－FOR — Mini Prism System with Side Vial（shown）

－The Mini Stakeout Prism features a 25 mm ，copper－coated prism，aluminum double yoke construction with tilting coaxial target
－Two on－board 130－minute vials －top and bottom
－Includes replaceable plumb bob point
－ 0 and -30 mm offset
－Includes carrying case
－Weighs $0.62 \mathrm{lb}(0.28 \mathrm{~kg})$


The Mini Prism Mono Pod Kit forms a stable base with your 6000－Series Mini Prism
－Prism not included－sold separately， 6405－10－FOR
－Kit is easy to set up and can be used by just one person
－Ideal for：construction surveys， inspections，as builts，and many other applications
－Add a standard $5 / 8 \times 11$ extension to the kit to achieve heights to four feet
－Weighs $2.25 \mathrm{lb}(1.02 \mathrm{~kg})$


5216－00 — Mini Prism Mono Pod Kit
－The 25 mm Stakeout Prism Assembly features＇site cones＇that improve vertical angle pointing－the site cones double as tilting－axis lock knobs
－Adjustable 40－min vial is mounted on the front side and is easy to see and simple to adjust
－This mini prism is a zero－offset if you reverse the prism
－Assembly features a 25 mm copper－coated prism，for fog prevention，a tilting holder，with friction axis， 0 or -30 mm offset Can be mounted on a prism pole or tribrach at three heights： 70 $\mathrm{mm}, 100 \mathrm{~mm}, 115 \mathrm{~mm}$ ，or can be hand－held using the plumb bob bracket or with S－hook for quick attachment to plumb bob
Prism height 50 mm to female $5 / 8$
－Prism height 100 mm to Point
－Includes carrying case
－Weighs $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$


6405－10－FOR — 25 mm Stakeout Prism Assembly 童
－The 25 mm Stakeout Prism Assembly features＇site cones＇that improve vertical angle pointing－the site cones double as tilting－axis lock knobs
－Adjustable 40－min vial is mounted on the front side and is easy to see and simple to adjust
－ 17.5 mm （nodal）offset
－Includes carrying case
Weighs $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$
 offset－Flo Orange
6405－11－FLY — Stakeout Mini Prism Kit－ 0 ／－30 mm offset－Flo Yellow
6405－13－FLY — Stakeout Mini Prism Kit－Nodal－17．5 mm offset

Prism System: Tilting Mini



FEATURES \& BENEFITS

- The Eclipse ${ }^{\text {TM }}$ mini system includes: a Mini Tilting Prism; plumb bob attachment; Mini

Bob Prism Mount; Point, and<br>Belt Case

0 and -30 offsets

- Black hardware

6450-00-BLK — Tilting Mini Prism System

## Prisms: Sliding and Pin Pole Kits

Site cones double as locks


- The sliding $360^{\circ}$ Prism Kit allows for quick shots in confined line-of-sight situations and allows for more precise height measurements. Easily find the right shot at the right height!
- The included adapter allows for easy connection to controllers, making it great for handheld use. Use one or all four pin pole sections for the height/portability you need.
- The prism assembly slides on 9-mm-diameter solid steel pin poles, graduated in cm
- The four solid yellow pole sections have cm grooves that the ball-detent in the prism assembly will automatically center on
Replaceable stainless steel point
- The assembly is composed of seven $12.7-\mathrm{mm}$ diameter silver-coated mini-prisms in a $360^{\circ}$ configuration
Prism offset is +2 mm
- Adjustable circular vial is 40-minute
- Clamp screw locks the prism assembly anywhere on the pole
- Data collector adapter and carrying case are included
- Weighs $1.70 \mathrm{lbs}(0.77 \mathrm{~kg})$


5910-24 - Sliding $360^{\circ}$ Prism Kit E

Prism assembly slides up and down the pin pole

- Features a $25 \mathrm{~mm}, 0$ offset silver-coated prism and a high quality aluminum holder
- Foot kit model includes four 1-foot pole sections with $1 / 2$ foot markings
- Metric kit includes four 30.0 cm pole sections

Site cones double as locks
40-minute adjustable vial on prism

- Prism includes an adapter so it can be used on any pole or tribrach adapter with $5 / 8 \times 11$ threads
A system bag is also included
- Weighs $1.40 \mathrm{lb}(0.63 \mathrm{~kg})$


[^0]5910-06 - Metric, 0 offset



- The 12.2 mm OD pin pole features three sections - each 60 cm in length to achieve $5.91 \mathrm{ft}(1.8 \mathrm{~m})$; each color section (red or white) is 10 cm in length
- An adjustable 40-minute circular vial is built in to the prism holder
- 25 mm sliding prism system features a silver-coated prism with a 0 offset
- The holder easily slides up and down the pole, the knobs lock in height and tilt - they also double as vertical angle targets
Other features include a replaceable stainless steel point on the pole, accessory kit with plumb bob hook and cone for attachment to the prism for handheld applications
System Bag included
- Weighs $1.95 \mathrm{lb}(0.90 \mathrm{~kg})$


6600-10 — Pin Pole with Sliding 25 mm Prism System

## Welleye Prism System



Monitoring Survey Targets


## 6606 series - Retro Reflective Survey Targets

- Ideal for back sights, check shots, elevation references and monitoring situations.
- Very affordable solution to save crew time, improve data, and feel more secure about construction layout.
- Prism Constant: Omm

Survey targets range:

- Target reflectors w/ cross hair $30 \times 30 \mathrm{~mm}$ : range approx. $80 \mathrm{~m}(262 \mathrm{ft})$
- Target reflectors w/ cross hair $40 \times 40 \mathrm{~mm}$ : range approx. 100 m (328 ft)
- Target reflectors w/ cross hair $60 \times 60 \mathrm{~mm}$ : range approx. 120 m ( 393 ft )

| Part No. | M2M description | PRISM BACKING |  |
| :---: | :---: | :---: | :---: |
| 6606-04-30 | $30 \times 30 \mathrm{~mm}$ reflective target | N/A | 틀 |
| 6606-04-40 | 40X40 mm reflective target | N/A | 阿 |
| 6606-04-60 | 60X60 mm reflective target | N/A | 倵 |

## Monitoring Accessories

Aluminum plates for anchoring

- Wedge-shaped aluminum plate features a 12.5 mm prism
- Plate can be fixed with special adhesive on to the pavement
Dimensions: $10 \times 10 \times 2 \mathrm{~cm}$ ( $3.94 \times 3.94 \times 0.79$ inches)
- Weighs $0.62 \mathrm{lb}(0.28 \mathrm{~kg})$


4520800 - 12.5 mm
Street-Mountable Building Monitoring Prism System

- Anodized aluminum plate - Three key holes for screws to mount the plate
- With $5 / 8 \times 11$ threaded stud for Tribrach adapter centered on the plate
- Weighs $1.81 \mathrm{lb}(0.82 \mathrm{~kg})$

See Drawing for Installation Data


2072-51 — Screw Mounting Column Plate

Anodized aluminum plate

- The three bottom anchor bolts are embedded in concrete during installation
- With $5 / 8 \times 11$ threaded stud for Tribrach adapter centered on the plate
- Weighs $2.29 \mathrm{lb}(1.04 \mathrm{~kg})$

See Drawing for Installation Data


2072-52 - Column Plate

## Prism: Dual Adjustable

Allows accurate measurements from two or more directions or stations


FEATURES \& BENEFITS

- For mining, tunneling, monitoring and rail
- Minimal horizontal angle is $84^{\circ}$ (Hex tool included)
- Compatible with standard surveying $5 / 8 \times 11$ accessories
- Holders can be stacked for more than two prisms or an GNSS Receiver can be connected on the top $5 / 8 \times 11$ stud so an GNSS measurement can also be made
- Includes two 62 mm silver coated, water-resistant prisms, accuracy <2 arc seconds
- Prism holder is machined from 303 stainless-steel
- Zero (0) prism offset, $\pm 1 \mathrm{~mm}$
- Weighs $2.60 \mathrm{lb}(1.18 \mathrm{~kg})$

6603-03 - Adjustable Dual Prism

Quick Release Adapters Lightweight and inexpensive, made to be set up and left for extended periods


FEATURES \& BENEFITS
-6601-Series Quick Release
Adapters are made of T-303
stainless steel with machined threads that attach to corresponding Anchor Bolts
or the 6602-Series rebar bolts
(see page 60)

- Weighs $0.10 \mathrm{lb}(0.05 \mathrm{~kg})$

6601-01-1/4 x 20 Threads
6601-02 - $3 / 8 \times 16$ Threads 6601-03 - M8 Threads 6601-04 - M12 Threads

## Mini Prisms

Lightweight and inexpensive, made to be set up and left for extended periods

- Lightweight and inexpensive, made to be set up and left for extended periods
- Features a 60 mm diamond pattern sheeting and a 2 mm offset
- Use for distances up to 492 ft ( 150 m )
- Feature an 86 mm height
- Fits Swiss-style male tips or Quick Release adapters
- Weighs $0.17 \mathrm{lb}(0.08 \mathrm{~kg})$


## 6600-01 — Small Tilting EE

Mini Prism - Diamond Pattern

- Features a 60 mm diamond pattern with Crosshairs sheeting and a 2 mm offset
- Use for distances up to 492 ft ( 150 m )
- Features an 86 mm height - Fits Swiss-style male tips or Quick Release adapters
- Weighs $0.15 \mathrm{lb}(0.07$ kg )


6600-03 - Diamond Pattern with Crosshairs

- Use for distances up to $492 \mathrm{ft}(150 \mathrm{~m})$
- Features a 25 mm mini prism for longer distances up to $2,000 \mathrm{ft}$ ( 609.6 m )
- Features an 86 mm height
- Fits Swiss-style male tips or Quick Release adapters
- Offset 17.5 mm
- Weighs $0.23 \mathrm{lb}(0.10 \mathrm{~kg})$


6600-04 - Small Tilting 25 mm Mini Prism

- This Prism series is ideal for deformation and mining surveys or wherever permanent mounting is needed
- This design makes mounting and pointing easy on uneven surfaces
- Mounting Arm allows tilt up to 240 degrees and Prism mount allows 360 degrees rotation
- The two Mounting holes are spaced $1.75^{\prime \prime}$ ( 44.4 mm ) apart
- Mounting holes are $0.328^{\prime \prime}$ ( 8.3 mm ) diameter
- Two Prism mounting holes, spaced 1.75 " ( 44.4 mm ) apart
- Pivot and Prism mounting bolts are 8MM stainless steel with lock washers
- 6 mm Hex wrench included
- Rain Hood included with 6603-05

- The 25 mm copper-coated prism is permanently bonded to the holder making it water and dust proof
- Features a black anodized aluminum holder
- Tilting screw uses an 6 mm hex wrench to loosen and tighten it
- Mounting hole is 8 mm ( 0.315 inch) in diameter
- Design makes mounting and pointing simple
- Centering accuracy 1.5 mm
- -25.5 mm , Leica +8.9 mm
- Weighs $0.45 \mathrm{lb}(0.20 \mathrm{~kg})$


6600-02 - 25 mm 'L-Bar' 源 Copper-Coated Mini Prism

- The 25 mm silver-coated prism is permanently bonded to the holder making it water and dust proof
- Features a black anodized aluminum holder
- Tilting screw uses an 6 mm hex wrench to loosen and tighten it
- Mounting hole is 8 mm ( 0.315 inch) in diameter
- Design makes mounting and pointing simple
- Centering accuracy 1.5 mm
- -25.5 mm , Leica +8.9 mm
- Weighs $0.45 \mathrm{lb}(0.20 \mathrm{~kg})$


6600-05 - 25 mm 'L-Bar' SilvG部 Coated Mini Prism

## Quick Release Adapter Adapter for mini prisms



FEATURES \& BENEFITS

- Makes the 6600-01,-03,-04 compatible with "BW Pipe

Threads G3/8", but easily $\quad$ For Swiss-style threads on to male $5 / 8-11 \mathrm{NC}$ Threads


Single Prism Traverse Kit


## FEATURES \& BENEFITS

- Includes a 62 mm prism with silver-coated canister (640010 , see page 34)
- The adjustable (and reversible) tilt target has a sighting collimator for precise pointing and has
-0, -30 , and -40 offsets
- The kit comes with a rotating tribrach adapter (215310 , see page 41) that is
compatible with all prisms with a 24.9 mm bayonet base
- Features a 2.5 X twist focus optical plummet and a 60-second adjustable
- plate vial
- Prism has <5 arc seconds angle deviation
- The adapter has a precision machined axis that rotates $360^{\circ}$
- The height is 180 to 200 mm
and over the point accuracy is
0.5 mm at 1.5 m
- Also included is a tribrach (2153-04, see page 41) which features three screw-leveling with center line, an 8-minute circular vial, and $5 / 8 \times 11$ base thread
- Includes hard shell case
- Weighs $9.95 \mathrm{lb}(4.51 \mathrm{~kg})$

Invest In The Best.

## Tribrachs \& Adapters Contractor-series tribrachs and adapters

Bright $650-\mathrm{nm}$ focused red laser dot

- Circular vial w/ 8-minute sensitivity
- Standard three-prong forced centering with center lines
- Included is a standard 3 volt CR2 lithium battery
- Weighs $1.65 \mathrm{lb}(0.75 \mathrm{~kg})$
- Laser class 2
- These tribrachs do not fit


Precisional "S6" Series Instruments
2153-02-BLK — Laser Tribrach
This adapts retro prisms to Swiss
style tribrachs and has a removable
Zeiss plug and locking screw
Fits all tribrachs
Weighs $1.75 \mathrm{lb}(0.80 \mathrm{~kg})$
Height 34.5 mm
2070-00 - Rotating Tribrach Adapter

- The Optical Plummet Twist Focus Tribrach features twist focus (2.5X mag) and leveling screws with center line
- Features an 8 -min vial, three-prong forced centering and a $5 / 8 \times 11$ base
- Tribrach has a focusing range of 1.5 to 50 ft ( 0.5 to 15 m )
- These tribrachs do not fit Precisional

"S" Series Instruments
- Weighs $1.85 \mathrm{lb}(0.84 \mathrm{~kg})$

2152-04-BLK — Tribrach with Optical Plummet 2153-04-BLK — Tribrach w/o Optical Plummet

- This rotating friction top tribrach adapter allows the prism to be pointed after installation in the tribrach
- Fits all tribrachs
- Weighs $0.90 \mathrm{lb}(0.41 \mathrm{~kg})$
- Height 32 mm


2020-00 — Rotating Tribrach Adjuster E=

- Allows adjusting of prism height by moving the threaded brass insert in the adapter
- Fits all tribrachs

- Weighs $1.91 \mathrm{lb}(0.87 \mathrm{~kg})$ $50-75 \mathrm{~mm}$

2071-00 — Prism H.T. Adapter

- Use adapter for mounting retro prisms and tripod mounted target systems.
- Fits all tribrachs
- Weighs $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$
- Height 24.5 mm


2010-00 - Fixed Tribrach Adapter

- Use for adjusting optical plummet tribrachs and tribrach bubbles
- Machined black anodized aluminum features a 2-minute bubble
- Weighs $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$

2002-00 — Tribrach Adjuster
$\underline{\underline{\underline{\underline{\underline{E F}}}}}$

- Check and adjusting optical plummet tribrachs in the office
- Precision-machined, black anodized aluminum
- Weighs $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$

2001-00 — Tribrach Adjusting Cylinder

## European Style Tribrach



FEATURES \& BENEFITS

- This tribrach features 2X magnification and a twist focus
- Its reticule is composed of two small concentric circles
- With a sighting distance of 0.3 m to 15 m , the tribrach has an accuracy of 0.5 mm per 1.5 m
- Locking forced-centering knob and a $5 / 8 \times 11$ base and an 8-minute circular vial
- Weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$

2152-05-BLK — European-Style Tribrach with Optical Plummet辰

## Traverse Tribrach Adepter

Compatible with all 24.9 mm bayonet base prisms

FEATURES \& BENEFITS

- The optical plummet is twistfocus with 2.5X magnification -60-second adjustable plate vial
- Precision-machined axis rotates $360^{\circ}$
- Compatible with all prisms with a 24.9 mm bayonet base
- The adjustable height is 100
to 120 mm - fits all standard three-prong tribrachs
- Over point accuracy is 0.5
mm at 1.5 m
- Weighs $1.70 \mathrm{lb}(0.77 \mathrm{~kg})$


## TRI-MAX ${ }^{\text {® }}$ TRIPODS

The Tri-Max ${ }^{\circledR}$ is the only surveying-grade tripod with certified accuracy - highly recommended for all servo-driven and robotic total stations, 3-D laser scanners or construction lasers.

Tri-Max ${ }^{\oplus}$ Wood Dual Clemp Instrument Tripod

Hardwood Tri-Max ${ }^{\oplus}$ precision instrument tripod

FEATURES \& BENEFITS

- The tri-max wood tripod features the exact same revolutionary design and construction quality as the fiberglass Tri-Max tripod (90553) with improved stability and measurement accuracy from the hardwood legs
- Brass hinge bushings for extra stability
- High-quality hardwood material
- Complies with ISO 12858-2-H standards
- New foot equipped with replaceable point
- Foot designed to allow a solid placement in any terrain and improved stability
- Rubberized Carrying Handle included
- Head Cap included
- Shoulder Strap and Leg Slip Strap included, 38mm wide
- Individual SN for ID and Inventory control
- Quality cast aluminum housings, powder painted black
- Oversized, 0.54 ft ( 165 mm ) diameter flat round-head plate
- Length Extended: 5.97 ft ( 182 cm )
- Length Collapsed: 3.74 ft ( 114 cm )
- Weight: $19.49 \mathrm{lb}(8.84 \mathrm{~kg})$

- Retainer Strap (PN 91715) prevents leg kick out on slick surface

Note: Retainer Strap sold separately.

91715 - Retainer Strap

90553-WD — Tri-Max Wood Instrument Tripod

## Fiberglass Tri-Max Tripods

Certified accurate premier instrument tripod


FEATURES \& BENEFITS

- The revolutionary design of this tripod series means this tripod will meet ISO standard (12858-2-H) right out of the box, and after years of field use
- The shape and size of the foot are designed to allow for a solid placement on any terrain
- Features a round head with large center hole to facilitate an easy set-up over a point

Long lasting fiberglass

- The large 'footbed' is there to facilitate solid planting for stability
- Features positive locking systems
- A retaining system - which prevents leg kick out and accidental falls on slick surfaces-is stored on the inside of the leg and can be left in place when the tripod is not in use
- The foot is equipped with
a replaceable point and a retention loop for use with a safety strap
- Tri-Max tripods can handle equipment up to $30 \mathrm{~kg}(65 \mathrm{lb})$
- Collapsed: 113 cm (44.5 in) except 90560: 54 in ( 1.37 m )


## APPLICATIONS

- Robotics

Scanning
Leveling

| Part No. | LOCK TYPE | LEGS | WEIGHS | EXTENSION | HEAD | HARDWARE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90550 | Quick Clamp | Fiberglass | $17.00 \mathrm{lb}(7.70 \mathrm{~kg})$ | 71 in ( 1.8 m ) | Flat | Black | 國 |
| 90551 | Screw Clamp | Fiberglass | $17.00 \mathrm{lb}(7.70 \mathrm{~kg})$ | 71 in ( 1.8 m ) | Flat | Black | 1気 |
| 90553 | Dual Clamp | Fiberglass | $17.00 \mathrm{lb}(7.70 \mathrm{~kg})$ | 71 in (1.8 m) | Flat | Black | 든 |
| 90560 | Dual Clamp | Fiberglass | $20.00 \mathrm{lb}(9.00 \mathrm{~kg})$ | 91 in (2.3 m) | Flat | Black | \% |

Universel Tri-Max Elevator Tripod

A gear box controls the lift and descent so the center column cannot free fall

## FEATURES \& BENEFITS

- SECO's Universal Tri-Max ${ }^{\circledR}$ Elevator Tripod features a working height range of 4.10 $\mathrm{ft}(1.20 \mathrm{~m})$ collapsed to 8.60 $\mathrm{ft}(2.62 \mathrm{~m})$ extended with the center column at full height
- Center column independently lifts 1 meter (90558-050)
- A gear box controls lift and descent so the center column cannot free fall
- The $5 / 8 \times 11$ mounting head is removable and adjustable in azimuth direction
- Fiberglass Legs
- Additional 1 meter section may be added for a total recommended height of 10 ft $(3 \mathrm{~m})$ for instruments under $15 \mathrm{lb}(6.80 \mathrm{~kg})$
- Sections can move up or down
- Machined-aluminum elevator column and fiberglass legs makes for a robust and easy-to-use laser instrument tripod
- Stable for instruments up to $25 \mathrm{lb}(11.33 \mathrm{~kg})$ under most conditions
- Weighs $29.00 \mathrm{lb}(13.20 \mathrm{~kg})$

Collapsed length 53 in

## APPLICATIONS

- Robotics
- Scanning
- Leveling


90558-050 - 1 Meter Extension for Universal Tri-Max Elevator Tripod
90557-050 - Tri-Max Wheel Kit
90558-052 — Adaptor Plate, 3/8-16

Short Tri-Max


Standard Tri-Max quality in a smaller size

FEATURES \& BENEFITS V Extends to $5.67 \mathrm{ft}(1.73 \mathrm{~m})$ Weighs $15.40 \mathrm{lb}(7.00 \mathrm{~kg})$

- The Tri-Max ${ }^{\circledR}$ Short Quick Clamp Tripod features the exact same design and construction as the full-size (90550) Tri-Max but it is more portable
- Collapses to 3.44 ft ( 1.05 m )
- Highly recommended for all servo-driven and robotic total stations and 3-D laser scanners
- Fiberglass legs


## APPLICATIONS

- Robotics
- Scanning
- Leveling


## Premier Fiberglass Tripod Improved quality and stability for more accurate measurements



FEATURES \& BENEFITS

- 6-5/8 inch ( 16.83 cm ) flat round head with large center hole
- (2-5/8 inch, 6.67 cm ) to facilitate an easy set-up over a point
- Foot is equipped with a replaceable point made of hardened steel
- Standard 5/8 x 11 threaded brass instrument stud
- Snap cap to protect tripod head
- Extends to 70.75 inches ( 179 cm )
- Collapses to 43.75 inches ( 111 cm )
- Made in North America under strict quality controls
- Includes a comfortable shoulder strap for carrying over longer distances


## APPLICATIONS

Ideal for mounting theodolites, lasers, auto levels, or total stations

| PART NO. | Locking | LeEs | EXTENDS | collapses | WEICH5 | color |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90582 | Dual Lock | Fiberglass | 70.75 in (179 cm) | 43.75 in (111 cm) | 13.60 lb ( 6.16 kg ) | Orange (shown) | E |

## Extra-Tall Fibergless Elevator Tripod

Locking leg stabilizers provide greater stability


FEATURES \& BENEFITS

- Tripod has a fully-extended leg and center column height of $12.40 \mathrm{ft}(3.80 \mathrm{~m})$ and a collapsed height of 5.97 ft ( 1.82 m )
- Features an adjustable center column that gives you 3.7 ft ( 1.12 m ) of lift
- Lockable leg stabilizer struts, dual clamps, screw clamp and quick clamp, along with dual metal and rubber leg


## 5321-17-ORG - Extra-Tall Fiberglass Elevator Tripod

- Includes leg straps
- Will fit in tripod carrying bag 8153-10 (page 67)
- Weighs $42.28 \mathrm{lb}(19.18 \mathrm{~kg})$


## APPLICATIONS

- Use with lasers, scanners, machine control or other instruments

Birch Wood / Fibergless Hybrid Tripod
points and handy leg strap create greater stability

- Detachable round head plate, with a $5 / 8 \times 11$ stud, gives your instrument a sturdy platform
- Column can hold $66 \mathrm{lb}(30 \mathrm{~kg})$ when collapsed, and 15.4 lb ( 7 kg ) when elevating
- Legs and dowels are constructed of fiberglass for durability, strength and resistance to weathering


Disclaimer: the full-view tripod is a composite photograph for illustrative purposes

FEATURES \& BENEFITS

- Combination of hardwood legs with fiberglass dowels provides stability and weather resistance
- Large aluminum head and leg hinges provide stable mounting base
- Double banded extension legs and large positive locking quick clamp for extra stability
- Powder coated wear-resistant metal hardware
- Aluminum shoe with hardened steel replaceable shoe points

Includes: plastic head cap for protection, heavy-duty polywebbing shoulder strap for ease of carrying to the job site (not shown)

| PART No. | MATERIAL | EXTENDED | COLLAPSES | CLAMPING | HEAD | WEICHT | COLOR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5302-13-BLK | Wood / Fiberglass | 69 " (175.26 cm) | $43^{\prime \prime}$ (109 cm) | Quick Clamp | Triangle | $16.5 \mathrm{lb}(7.48 \mathrm{~kg})$ | Black | 星 |
| 5402-13-BLK | Wood / Fiberglass | $72^{\prime \prime}(183 \mathrm{~cm})$ | $43^{\prime \prime}(109 \mathrm{~cm})$ | Twist Locks | Triangle | $15.7 \mathrm{lb}(7.14 \mathrm{~kg})$ | Black | E |
| 5402-13-ORG | Wood / Fiberglass | 72 " (183 cm) | $43^{\prime \prime}(109 \mathrm{~cm})$ | Twist Locks | Triangle | $15.7 \mathrm{lb}(7.14 \mathrm{~kg})$ | Orange | (1) |

## Heavy-Duty Birch Woad Tripods

Improved kiln dried birch wood tripod models


FEATURES \& BENEFITS

- Made of high quality birch hardwood with wide-frame extension legs and 123 mm (0.91") dowels
- Large 6.5" (165mm)
aluminum head
- Twist locks with die cast leg bands for maximum locking
- Quick clamps, adjustable, for quick sets ups
- Powder Coated metal fittings
- Aluminum shoe with
hardened steel replaceable
shoe points
Instrument Fastener brass 5/8-11
- Includes heavy-duty polywebbing shoulder strap for ease of carrying to the job site (not shown)

| PART NO. | MATERIAL | EXTENDED | COLLAPSES | CLAMPING | HEAD | WEIGHT | COLOR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5220-13-BLK | Wood | 68 " (173 cm) | $43^{\prime \prime}$ (109 cm) | Dual Locks | Round | $16.5 \mathrm{lb}(7.48 \mathrm{~kg})$ | Black | E |
| 5220-13-ORG | Wood | 68 " 1773 cm ) | $43^{\prime \prime}(109 \mathrm{~cm})$ | Dual Locks | Round | $16.5 \mathrm{lb}(7.48 \mathrm{~kg})$ | Orange | [ |
| 5420-13-BLK | Wood | 72 " (183 cm) | $43^{\prime \prime}(109 \mathrm{~cm})$ | Twist Locks | Round | $15.0 \mathrm{lb}(6.82 \mathrm{~kg})$ | Black | = |
| 5420-13-ORG | Wood | $72^{\prime \prime}(183 \mathrm{~cm})$ | $43^{\prime \prime}(109 \mathrm{~cm})$ | Twist Locks | Round | $15.0 \mathrm{lb}(6.82 \mathrm{~kg})$ | Orange | = |

## Aluminum Elevator Tripods

Locking leg stabilizers provide greater stability


FEATURES \& BENEFITS

- Aluminum elevator tripods have smooth operating adjustable center columns
Black hardware
- Tough kick-in cleats and points
- Features a built-in circular vial in the instrument head and safety chains on the legs to prevent slipping on hard surfaces
- Will fit in tripod carrying bag 8154-12 (page 67)


## APPLICATIONS

- Ideal for lasers, scanners, machine control or other instruments

| PART NO. | LOCK TYPE | HEAD | EXTENDS | COLLAPSES | WEIGH5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $5321-16-$ BLK | Quick Clamp | Elevator / Round | $7.60 \mathrm{ft}(2.3 \mathrm{~m})$ | $4.26 \mathrm{ft}(1.26 \mathrm{~m})$ | $16.30 \mathrm{lb}(7.39 \mathrm{~kg})$ |  |

## Square Leg <br> Aluminum Tripads

Heavy-duty aluminum square leg tripods offer stability and accuracy


FEATURES \& BENEFITS

- Equipped with square outer dowels for a more secure lock
- These tripods are equipped with a $5 / 8 \times 11$ threaded adapter for convenient mounting of instruments
- They're built to lastwith heavy construction throughout - and are designed to withstand rigorous field conditions


## APPLICATIONS

[^1]| PART ND. | LOCK TYPE | LEGS | WEIGHS | EXTENSION | HEAD | HARDWARE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5301-31-BLK | Quick Clamp | Aluminum (Square) | $9.70 \mathrm{lb}(4.40 \mathrm{~kg})$ | $64 \mathrm{in}(1.60 \mathrm{~m})$ | Triangle / Flat | Black |  |
| 5301-31-ORG | Quick Clamp | Aluminum (Square) | $9.70 \mathrm{lb}(4.40 \mathrm{~kg})$ | $64 \mathrm{in}(1.60 \mathrm{~m})$ | Triangle / Flat | Orange |  |

FEATURES \＆BENEFITS
－These tripods accommodate $5 / 8 \times 11$ instruments and are designed for all types of jobs
－Choices include：Flat or dome head，standard，elevator or mini tripod size

The telescopic legs allow for setup at various heights and are available with orange or black hardware（on some models）

## APPLICATIONS

Ideal for mounting theodolites， lasers，auto levels，or total stations

| PART NO． | LOCK TYPE | WEIGHS | EXTENSION | $\begin{gathered} \text { COLLAPSED } \\ \text { HEIGHT } \end{gathered}$ | HEAD | HARDWARE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5301－21－ORG | Quick Clamp | $9.35 \mathrm{lb}(4.24 \mathrm{~kg})$ | 65 in（1．65 m） | 40.35 in（1．025 m） | Triangle／Flat | Orange | 釷 |
| 5301－21－BLK | Quick Clamp | $9.35 \mathrm{lb}(4.24 \mathrm{~kg})$ | 65 in（1．65 m） | 40.35 in（1．025 m） | Triangle／Flat | Black | ＂気 |
| 5301－25－BLK | Quick Clamp | $7.45 \mathrm{lb}(3.38 \mathrm{~kg})$ | 63.5 in（ 1.60 m ） | 38.58 in（ 0.98 m ） | Triangle／Flat | Black | 트․ |
| 5301－24－BLK | Quick Clamp | $6.75 \mathrm{lb}(3.06 \mathrm{~kg})$ | 27 in（ 68.65 cm ） | 20.47 in（0．52 m） | Triangle／Flat | Black | － |
| 5311－21－ORG | Quick Clamp | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | 63.5 in（1．60 m） | 40.35 in（1．025 m） | Dome | Orange | 止 |
| 5401－21－BLK | Screw Clamp | $8.13 \mathrm{lb}(4 \mathrm{~kg})$ | 67 in（1．68 m） | 40.5 in（ 1.029 m ） | Triangle／Flat | Black | ！ |
| 5401－24－BLK | Twist Lock | $6.75 \mathrm{lb}(3.06 \mathrm{~kg})$ | 27 in（68．65 cm） | 22 in（ 0.559 m ） | Triangle／Flat | Black | 止 |

Tripod Dolly


Moves a tripod quickly to the next shot without breaking down the instrument

FEATURES \＆BENEFITS
－Tripod Dolly for all surveying tripods
－Easily maneuvered through doorways

Note：Tripod not included with dolly．

Folds for portability，25．5＂ folded
Convenient carrying handle
－Locking 5＂diameter，hard rubber wheels；ball bearing casters with cable guards

Adjustable Velcro straps to
keep tripod secure
－Load capacity 132 lbs
Weight 17 lbs

## Cross Reference Table

## Bags and Cases For Instrument Tripods

| EAGS | PAGE NUMEER | TRIPODS WILL FIT |  |
| :---: | :---: | :---: | :---: |
| 8150－20－ORG | Pg． 66 | Every Tripod Except for；90558，90560，5321－17－ORG | 気 |
| 8153－10－ORG | Pg． 66 | 5321－17－ORG and 5115－00 | 氯 |
| 8154－00－ORG | Pg． 66 | 5119－00 | EF |
| 8154－10－ORG | Pg． 66 | 5300－11 and 5300－12 | 気 |
| 8154－11－ORG | Pg． 66 | Every Tripod Except for；90558，90560，5321－17－ORG | 틸 |
| 8154－12－ORG | Pg． 66 | 5119－10 | 丰 |

## Instrument Tripod Accessories

Designed to provide the extra stability required when working indoors on concrete and other hard surfaces
－Made of heavy－duty aluminum
－Measures $35 \times 35 \times 35$ inches（ $889 \times 889 \times 889 \mathrm{~mm}$ ）
－Collapses for compact storage
－Rubber o－ring fits over the foot of the tripod for extra stability
－Weighs $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$

－Provides non－slip support for tripods
－Works on all ferrous metal surfaces
－Includes three 5－inch round ceramic magnets
－Each magnet has a tripod point connection with a bungee strap
－Handle to remove magnet from surface included
－Each magnet has 210 pull pounds
－Kit bag is included


This Stabilizer helps prevent tripod legs from slipping when used on hard，slick surfaces．
－Lightweight and portable
－Collapses to $263 / 8^{\prime \prime}(67 \mathrm{~cm})$
－Opens to a three point star with $261 / 2^{\prime \prime}(67 \mathrm{~cm})$ legs
－Two $0.315^{\prime \prime}(8 \mathrm{~mm})$ hole in each leg，one at 35 cm from center and one at 65 cm ．
－Anodized aluminum legs
－O－rings to hold tripod foot in place
－Center opening 1 7／8＂ （ 45 mm ）
－Weight $1.05 \mathrm{lbs}(0.48 \mathrm{~kg})$


5610－01－Tripod Stabilizer
－Constructed from anodized aluminum


2120－00 — Tripod Adapter 3－1／2 $\times 8$ to $5 / 8 \times 11$
2130－00 — Tripod Adapter 5／8 x 11 to $3-1 / 2 \times 8$ 2132－01 — Tripod Adapter 5／8 $\times 11 \mathrm{~F}$ to $1 / 4 \times 20 \mathrm{M}$


BRACKETS AND LEVELING RODS
Invest In The Best．

SVR Brackets
for Laser Receivers
Easily attaches to SVR rods


FEATURES \＆BENEFITS
－Brackets are needed to attach laser sensors to the SVR rod
－Top or side brackets are
available for all popular laser receiver models

## APPLICATIONS

| PART NO． | MOUNT TYPE | DESIGNED FOR |
| :---: | :---: | :---: |
| 91100 | Top | Universal |
| 91162 | Top | Storm $^{\ominus}$ HL700／750／450 |
| 91163 | Side | Storm HL700／750／450 |

＇E＇Pattern Builder＇s Rods Dual－sided lightweight rod


FEATURES \＆BENEFITS
－Features a standard＇E＇ pattern
－Lightweight aluminum sections are in contrasting white，red and black colors and have round spring－loaded locking buttons

| Graduations are cm on the | APPLICATIONS |
| :--- | :--- |
| front | Grading |
| Back Side Scale is either a | Masonry |
| Height Scale or a Standard | Site work |
| Scale | Forms |
| Includes a level vial and case | Landscaping |
|  | Foundations |
|  | Sewers |
|  | Slab work |

APPLICATIONS
Grading
asony
work

Landscaping
Foundations
Sewers
Slab work

| PART NO． | LENGTH | GRADS | BACK SIDE SCALE | WEICHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7341－41 | 4 m | cm | Height Scale MM | $3.10 \mathrm{lb}(1.40 \mathrm{~kg})$ | 『 |
| 7341－45 | 4 m | mm | Standard Scale MM | $3.10 \mathrm{lb}(1.40 \mathrm{~kg})$ | 氯 |
| 7341－51 | 5 m | $\mathrm{cm} / \mathrm{mm}$ | Standard Scale MM | $3.80 \mathrm{lb}(1.73 \mathrm{~kg})$ | E |
| 7341－52 | 5 m | $\mathrm{cm} /$ inches | Standard Scale MM | $3.80 \mathrm{lb}(1.73 \mathrm{~kg})$ | ＂ |
| 7341－55 | 5 m | $\mathrm{cm} / \mathrm{mm}$ | Height Scale MM | $3.80 \mathrm{lb}(1.73 \mathrm{~kg})$ | E |
| 7341－56 | 5 m | UK cm／mm | Standard Scale MM | $3.80 \mathrm{lb}(1.73 \mathrm{~kg})$ | 『 |

## Aluminum Builder＇s Rods

Light and durable anodized leveling rods

|  | FEATURES \＆BENEFITS | Each rod section uses sturdy |
| :--- | :--- | :--- | :--- |
| polycarbonate buttons that |  |  |
| lock each section when |  |  |

## Surveyor's Series (SVR) Leveling Rods

## Waterproof and wear-resistant



Rectangular-oval shape allows for wide, glare resistant and wear-resistant scales.

FEATURES \& BENEFITS

- Features a new shorter collapsed length (58.5 inches on 25 ft versions) and a lighter weight
- Constructed of strong, rigid fiberglass with reinforcing ribs for added stability
- Water-resistant and nonconductive
- A tight locking mechanism features round buttons that resist jamming from sand and dirt
- Includes a $1 / 4 \times 20$ female adapter in top section


## APPLICATIONS

- Grading
- Masonry
- Site work
- Forms
- Landscaping
- Foundations
- Sewers
- Slab work

Includes carrying case. Order 91411 for replacement carrying case - see page 68

| PART NO. | HEGGHT SCALE | LENGTH | GRADS | BACK | SCALE |
| :---: | :---: | :---: | :---: | :---: | :---: |



## FEATURES \& BENEFITS

- The LR Series leveling rods are round and easy to handle
- The LR-STD is available in a 25 ft model in 10ths, inches, and 0.5 cm metric scales
- The LR-PRO is larger in diameter so sturdier and easier to read
- The LR-PRO is available in $25 \mathrm{ft}, 35 \mathrm{ft}$ and 45 ft lengths in feet/10ths/100ths


## APPLICATIONS

- Grading
- Masonry

Site work
Forms

- Landscaping
- Foundations
- Sewers
, Slab work

Includes carrying case. Order 91402 for replacement carrying case - see page 68

| PART No. | LENGTH | OUTSIDE DIAMETER | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 90004 | LR-STD 25 ft | 1-5/8 inch | 10ths | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | E |
| 90009 | LR-STD 25 ft | 1-5/8 inch | 8ths | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 気 |
| 90014 | LR-STD 7.6 m | 1-5/8 inch | Metric | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 翟 |
| 90022 | LR-PRO 25 ft | 2 inch | 10ths | $7.00 \mathrm{lb}(3.17 \mathrm{~kg})$ | - |
| 90024 | LR-PRO 35 ft | 2-3/16 inch | 10ths | $9.00 \mathrm{lb}(4.08 \mathrm{~kg})$ |  |
| 90026 | LR-PRO 45 ft | 2-3/16 inch | 10ths | $10.00 \mathrm{lb}(4.53 \mathrm{~kg})$ | E" |

## Rectangular Series（CR） Leveling Rods

## Rounded back corners for better gripping



Rectangular shape allows for laser detectors to be mounted directly to the rod －no bracket required！


FEATURES \＆BENEFITS
－Features a rectangular shape with rounded back corners for better gripping
－Scale width is graduated to fill the entire face of the rod and measuring scale on the back side that allows for overall height readings
－For laser detector mounting with no special brackets required
－Made with strong fiberglass which is waterproof， corrosion－resistant and non－ conductive
－Features $1 / 4 \times 20$ female adapter in the top section

## APPLICATIONS

－Grading
－Masonry
－Site work
－Forms
－Landscaping
－Foundations
－Sewers
－Slab work

Includes carrying case．Order 91410 for 8 ft or 91411 for $13-20 \mathrm{ft}$ replacement carrying case－see page 68

| PART NO． | LENGTH | GRADS | BACK SIDE SCALE | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 92001 | 8 ft | 10ths | No | $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$ | 翏 |
| 92002 | 8 ft | 8ths | No | $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$ | 彦 |
| 92021 | 13 ft | 10ths | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 䍂 |
| 92022 | 13 ft | 8ths | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 辰 |
| 92041 | 16 ft | 10ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 翟 |
| 92042 | 16 ft | 8ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 沯 |
| 92031 | 20 ft | 10ths | No | $7.00 \mathrm{lb}(3.17 \mathrm{~kg})$ | 䮖 |
| 92032 | 20 ft | 8ths | No | $7.00 \mathrm{lb}(3.17 \mathrm{~kg})$ | 痤 |
| 92026 | 4.0 m | ＇E＇metric | Yes | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 䮖 |
| 92027 | 4.0 m | 0.5 cm metric | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 疗 |
| 92046 | 5.0 m | ＇E＇metric | Yes | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 䎂 |
| 92047 | 5.0 m | 0.5 cm metric | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | ＂ |
| 92048 | 5.0 m | British＇E＇metric | Yes | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 鹤 |
| 92043 | 5.0 m | Philly metric | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 庣 |

## SK Leveling Rods



## FEATURES \＆BENEFITS

－Non－conductive lightweight fiberglass leveling rods
－Waterproof and corrosion－ proof even against seawater
－Unique patented oval shape permits equal size graduations full－length， prevents rod from rolling and is easier to hold
－Numerals and graduations are epoxy－protected for maximum wear－resistance and sized for maximum readability．
－The Level Rod Sections are cushioned with glides to prevent wear．
－Height measuring gauge on the back side（see illustration

[^2]
## LASERLINE MFG.

LaserLine Mfg., Inc. is the world's largest manufacturer of direct reading (Lenker style) grade rods. We are proud to offer the highest in quality, selection and service.


GR1000 \& GR1450 Rods Match Guide

| DETECTOR ERAND \& MODEL | B-1 | El-LA | ElT | 日-550 | El-L570-80 | E-STORM | E-CR700 | B-LCA-C | U-1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADIR PRO LD-8 | X | -- | -- | -- | -- | -- | -- | -- | - |
| AGATEC SR2000, RCR500 | -- | -- | -- | -- | -- | - | - | -- | X |
| AGL LS-100 | -- | X | -- | -- | -- | -- | -- | -- | X |
| APACHE CYCLONE | -- | X | -- | -- | -- | -- | -- | -- | -- |
| APACHE 33,34 LIGHTENING | X | -- | -- | -- | - | -- | -- | -- | X |
| APACHE LIGHTENING 2, TWISTER | -- | -- | -- | -- | -- | -- | -- | -- | X |
| APACHE STORM | -- | -- | -- | -- | -- | X | -- | -- | -- |
| BOSCH LR-1 | -- | -- | -- | -- | -- | -- | -- | -- | X |
| CST BERGER LD100N, LD120, LD400 | X | -- | -- | -- | -- | -- | -- | -- | X |
| CST BERGER RD1, RD5, LD90, LD440, LD440G | -- | -- | -- | -- | -- | -- | -- | -- | X |
| DAVID WHITE LD18 | -- | -- | -- | -- | -- | -- | -- | -- | X |
| FUTTURA CR1 | -- | -- | -- | -- | -- | -- | -- | -- | X |
| FUTTURA CR2+ | -- | -- | -- | -- | -- | -- | -- | -- | X |
| FUTTURA CR3 | -- | -- | -- | -- | X | -- | -- | -- | X |
| FUTTURAC4 | - | -- | -- | -- | -- | X | -- | -- | -- |
| GEOMAX ZRD105, ZRD105B, ZRP105 | -- | - | -- | -- | -- | -- | -- | X | -- |
| GEOMAX ZRB35 | - | -- | -- | -- | -- | -- | -- | -- | X |
| HILTI PRA 31, 35 | - | -- | -- | -- | -- | -- | -- | -- | X |
| LASER REFERENCE R4, R5, R7 (R8 OLD STYLE, THREADED HOLE) | X | -- | -- | -- | -- | -- | -- | -- | X |
| LASER REFERENCE R8 NEWER, SLIDE BACK | -- | -- | -- | -- | -- | -- | -- | -- | X |
| LASER REFERENCE R9 | X | -- | -- | -- | - | -- | -- | -- | -- |
| LEICA ROD EYE RVL 80 | - | -- | -- | -- | -- | -- | -- | -- | X |
| LEICA ROD EYE DIGITAL (OLDER) | -- | -- | -- | -- | -- | X | -- | -- | -- |
| LEICA ROD EYE PRO/CLASSIC (OLDER) | -- | X | -- | -- | -- | -- | -- | -- | X |
| LEICA ROD EYE PLUS (OLDER) | - | -- | -- | -- | -- | -- | -- | -- | X |
| LEICA ROD EYE 120, 120G, 140, 160, 180 | -- | -- | -- | -- | -- | -- | -- | X | -- |
| LEICA COMBO | - | -- | -- | -- | -- | -- | -- | X |  |
| PLS HVD 505R, HLD 1000 | -- | -- | -- | -- | -- | -- | -- | -- | X |
| SITE PRO RD200 | X | -- | -- | -- | -- | -- | -- | -- | -- |
| SITE PRO RD202 | -- | -- | -- | - | -- | -- | - | -- | X |
| SOKKIA LR100 | X | - | -- | -- | -- | -- | -- | -- | X |
| SPECTRA PRECISION 1077, 1274, 1275 | X | -- | -- | -- | -- | -- | -- | -- | X |
| SPECTRA PRECISION 1175, 1177, 3075 | -- | -- | -- | -- | -- | -- | -- | -- | X |
| SPECTRA HR200 | X | -- | - | -- | -- | -- | -- | -- | X |
| SPECTRA HR150 (U), HR220, HR300 | -- | - | -- | -- | -- | -- | -- | -- | X |
| SPECTRA HR250, 320, 350 | - | - | -- | -- | -- | -- | -- | -- | X |
| SPECTRA HR400, 500, CR 600 | - | -- | X | -- | -- | -- | -- | -- | -- |
| SPECTRA HR550 | -- | -- | -- | X | -- | -- | -- | -- | X |
| SPECTRA HL450, 700, 750, 760 | -- | -- | -- | -- | -- | X | -- | -- | -- |
| SPECTRA CR700 COMBO | -- | -- | -- | -- | -- | -- | X | -- | -- |
| TOPCON LS30, LS50, LS80, LS80A, LS1 | -- | -- | -- | -- | X | -- | -- | -- | X |
| TOPCON LS100D | -- | X | -- | -- | -- | -- | -- | -- | -- |
| ALL OTHER DETECTORS (MOST BRANDS) | - | -- | -- | -- | -- | -- | -- | -- | X |



## Heavy－Duty Pocket Tape Light weight measuring tools for all situations



FEATURES \＆BENEFITS
－Rubberized black and high visibility yellow case
－Positive thumb lock and release action


| PART NO． | LENGTH | WIDTH | GRADS |  |
| :---: | :---: | :---: | :---: | :---: |
| 4769－00 | 25 ft | 1 inch（ 32 mm ） | 10ths | 槶 |
| 4769－01 | 25 ft | 1 inch（ 32 mm ） | 10ths／Metric | 䎂 |
| 4769－02 | 25 ft | 1 inch（ 32 mm ） | 10ths／8ths | 眗 |
| 4769－03 | 33 ft | 1 inch（ 32 mm ） | 10ths | 既 |
| 4769－04 | 33 ft | 1 inch（ 32 mm ） | 10ths／8ths | － |
| 4769－06 | 33 ft （10 m） | 1 inch（ 32 mm ） | 10ths／Metric | 墔 |
| 4769－14 | 5 m | $3 / 4$ inch（ 19 mm ） | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 翏 |

Coated Fibergless and Steel Measuring Tapes

Great in all kinds of weather conditions

FEATURES \＆BENEFITS Choose between PVC－coated
－These coated tapes are designed to be used in the field for many years
－Single sided tape

| PART NO． | TYPE | LENGTH | GRADS |  |
| :---: | :---: | :---: | :---: | :---: |
| 3003－06 | PVC－Coated Fiberglass | 100 ft | 10ths | 鹤事 |
| 3003－07 | PVC－Coated Fiberglass | 200 ft | 10ths | ＂ |
| 3003－10 | PVC－Coated Fiberglass | 30 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 鹤 |
| 3006－06 | Nylon－Coated Steel | 100 ft | 10ths | 12 |
| 3006－07 | Nylon－Coated Steel | 200 ft | 10ths | 衰 |
| 3006－10 | Nylon－Coated Steel | 30 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 気 |
| 3006－11 | Nylon－Coated Steel | 60 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 三 |

## APPLICATIONS

－General construction steel tape
－Features a hook end and fast－ winding crank

## Rhino Ruler® Engineer's Folding Ruler

## Waterproof fiberglass outlasts wood rulers



## FEATURES \& BENEFITS

- Waterproof fiberglass construction prevents common problems that occur with wood rulers such as fading, splintering, and chipping
- Engraved graduations resist weather and scratches - Easy-to-fold locking joints are tighter than traditional folding rulers made of wood allowing for a more accurate measurement along the ruler's length


## APPLICATIONS

- General construction

4770-00 — Rhino Ruler Waterproof Fiberglass Engineer's Folding Ruler - 10ths / 8ths 4770-01 — Rhino Ruler Waterproof Fiberglass Engineer's Folding Ruler - 10ths / Metric

## CMR Series Measuring Rulers with Cases

Designed for one-person measuring


FEATURES \& BENEFITS

- A versatile tool for fast, accurate, one-person measuring, the CMR Series is the tool for measuring heights, clearances and horizontal distances up to fifty feet
- The rod is equipped with a female $1 / 4 \times 20$ adapter in the top section
- Made of rugged, nonconductive fiberglass and includes a carrying case and calliper tip

Carrying cases are made from the highest quality 1000-denier nylon

| PART NO. | LENGTH | WEICHT | OD | REPLACEMENT CARRY CASE | OD CASE MEASUREMENTS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90180 | $25 \mathrm{ft}(7.6 \mathrm{~m})$ | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | 1-13/16 inch | 91415 | $3.5 \times 65$ in (8.89 $\times 165.1 \mathrm{~cm}$ ) | 䜿 |
| 90181 | 36 ft (11 m) | $9.00 \mathrm{lb}(4.08 \mathrm{~kg})$ | 2-7/32 inch | 91416 | $4.5 \times 68$ in (11.43 $\times 172.72 \mathrm{~cm}$ ) |  |
| 90182 | $50 \mathrm{ft}(15.2 \mathrm{~m})$ | $12.00 \mathrm{lb}(5.44 \mathrm{~kg})$ | 2-13/32 inch | 91417 | $4.5 \times 76$ in (11.43 $\times 193.04 \mathrm{~cm}$ ) | E |

## SubSurface ${ }^{\text {® }}$ Handheld Magnetic Locators

Built by the team with the most experience in the industry


FEATURES \& BENEFITS

- Both models come with an industry exclusive 7 year warranty
- Choose the standard model or the LCD meter model
- The ML-1M has visual indication in addition to audio
- Tube-through construction ensures strength and
durability from the bottom tip to the handle
- Overall length: 38.75 in ( 98.4 cm )
- The system comes with a padded carrying bag and four alkaline 9-volt batteries - two to use and two spares
- Waterproof from bottom tip to LCD box
- Weighs $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$


## APPLICATIONS

- Perfect for locating survey corner markers, PK and Mag Nails, valve and covers, steel and iron pipes, well casings, steel tanks, lost tools or even downed and buried fence lines

ML-1 ML-1M

ML-1 — SubSurface Handheld Magnetic Locators Standard Model ML-1M - SubSurface Handheld Magnetic Locators With LCD Meter ML-1-050 — Hard Shell Case for Locators

## Gopher Pole Wire Instellation Toal

Installing wires across ceiling spans is a lot easier with this unique fiberglass pole


FEATURES \＆BENEFITS
－With its long，adjustable span of up to 22 feet，the Gopher Pole makes wiring easy in hard－to－reach areas such as suspended ceilings，sub－oors， crawl spaces and attics
－Ideal for pushing／pulling wire over long spans and acoustic ceiling tiles
－Telescopes from 4 to 22 feet（ 1.22 to 6.70 meters）in seconds
－Features a positive－locking system that won＇t accidentally collapse
－Features a strong but malleable metal tip that allows for easy shaping of the hook
－Sturdy and lightweight with no loose parts；constructed of durable non－conductive fiberberglass

APPLICATIONS
－Utility Companies
Electrical Contractors
Electrical Supply Distributors
－Communications
－Data Network Solutions
－Commercial And Industrial Lighting
－Security Equipment Firms
－General Interior Construction

## 

90520 －Gopher Pole Wire Installation Tool

Stream Gauges


Un－Numbered

4－inch－wide Un－Numbered


4－inch－wide Feet／10ths／100ths

## FEATURES \＆BENEFITS

－Stream Gauges allow you to instantly see water levels
－Fiberglass stream gauges are the best permanent marker in a variety of applications and environments
－Sturdy fiberglass assures a long life，it does not rot，rust or corrode
－Stream gauges are provided in separate units that can be used separately or combined for convenient measuring
－Easy to read at long distances，gauges are protected with a non－glare coating and are easy to mount
－Stainless steel fasteners are provided which will attach to most surfaces including metal，masonry，wood，and many other surface types
－ $1 / 8$ inch thick and the pre－ drilled holes for mounting have a diameter of $1 / 4$ inch
－Gauges may be ordered in successive increments to
form ranges and elevations －Number plates（sold separately）may be used to customize elevations for a particular application

## APPLICATIONS

－Monitoring the water level of rivers，creeks，streams，bays etc．

7－inch Stream Gauges feature 2－1／4 inch（ 5.72 cm ）tall numbers 4－inch Stream Gauges features $1-1 / 4$－inch（ 3.175 cm ）tall numbers Use unnumbered gauges for height beyond 15.5 ft ， 16 ft ，or 3.66 m as needed

| PART NO． | DESCRIPTION | LENGTH | WIDTH | GRADS | WEICHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99000 | Un－Numbered | 4 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 翏 |
| 99001 | 4 ft | 0－4 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 俸 |
| 99002 | 4 ft | 4－8 ft | 4 inch（10．2 cm） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 䍂 |
| 99003 | 4 ft | 8－12 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | \％ |
| 99004 | 4 ft | 12 － 16 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 國 |
| 99023 | Un－Numbered | 4 ft | 4 inch（10．2 cm） | feet／10ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | \＃ |
| 99051 | 1.22 m | 0－1．22 m | 10.2 cm（4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | E－5 |
| 99052 | 1.22 m | 1．22－2．44 m | 10.2 cm （4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | Ee |
| 99053 | 1.22 m | 2．44－3．66 m | 10.2 cm（4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | － |
| 99071 | Un－Numbered | 5 ft | $7 \mathrm{inch}(17.78 \mathrm{~cm}$ ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 翏 |
| 99072 | Un－Numbered | 5 ft | 7 inch（ 17.78 cm ） | feet／10ths／100ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ |  |
| 99079 | 5 ft | $0.5-5.5 \mathrm{ft}$ | $7 \mathrm{inch}(17.78 \mathrm{~cm}$ ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 翟 |
| 99080 | 5 ft | $5.5 \mathrm{ft}-10.5 \mathrm{ft}$ | $7 \mathrm{inch}(17.78 \mathrm{~cm}$ ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 翟易 |
| 99081 | 5 ft | $10.5-15.5 \mathrm{ft}$ | $7 \mathrm{inch}(17.78 \mathrm{~cm}$ ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | \％ |

## Mounting Hardware For Stream Gauges

## Included with purchase of any Stream Gauge

FEATURES \＆BENEFITS
－Includes 7 sets of stainless steel screws and anchors
－Contains 14 each of screws and anchors packaged in packs of four

## APPLICATIONS

－Monitoring the water level of rivers，creeks，streams，bays etc．

99043 －Mounting Hardware for Stream Gauges

## Stream Gauges Plate Numbers



FEATURES \＆BENEFITS
－Number plates may be used to customize elevations for a particular application
－All stream gauges are 1／8－ inch thick and the pre－drilled holes for mounting have a diameter of $1 / 4$－inch

## APPLICATIONS

－Monitoring the water level of rivers，creeks，streams，bays etc．

| PART NO． | NUMEER PLATE | MEASURES |  |
| :---: | :---: | :---: | :---: |
| 99060 | 0 （zero） | 2－1／4 $\times 4$ inches |  |
| 99061 | 1 （one） | 2－1／4 $\times 4$ inches | ＂ |
| 99062 | 2 （two） | 2－1／4 $\times 4$ inches | 些 |
| 99063 | 3 （three） | 2－1／4 $\times 4$ inches | 疮 |
| 99064 | 4 （four） | 2－1／4 $\times 4$ inches | ＂ |
| 99065 | 5 （five） | 2－1／4 $\times 4$ inches |  |
| 99066 | 6 （six） | 2－1／4 $\times 4$ inches | 鹤 |
| 99067 | 7 （seven） | 2－1／4 $\times 4$ inches | 辰 |
| 99068 | 8 （eight） | 2－1／4 $\times 4$ inches | 翏 |
| 99069 | 9 （nine） | 2－1／4 $\times 4$ inches | 翏 |
| 99070 | －（Minus） | 2－1／4 x 4 inches |  |

## Hand Levels

2 power stadia hand level with very sharp field of view and a stadia ratio 1：32

－Hand－finished for smooth and accurate operation
－Etched glass prisms and precision ground lenses
－There are no exposed screws to cause adjustment failure
－When taken apart for cleaning，they can be completely assembled and adjusted in the field
－The interiors are non－glare
－The exterior has a highly visible powder coating finish
－Five inches long when closed；seven inches long opened
－All hand levels include a leather carrying case with belt loop and snap flap，parts list and instructions
－Manufactured by Kuker－Ranken

## Magnetic Dampened Auto Level



FEATURES \＆bENEFITS
－The 32X auto level features a sturdy metal Japanese－ style body with a magnetic dampened compensator
－Fits $5 / 8 \times 11$ flat or domed tripods
－The top cover plate is easily removed for adjustment
－Accurate to $1 / 16$ inch per 100 feet（with good weather conditions）
－Metal housing for increased durability

## APPLICATIONS

－Two－person leveling across the job site
－Leveling forms and footers
－Checking elevation
－Measuring cut and fill


| PART NO． | POWER／DAMPENING |  | TRIPOD | ROD |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4811－24 | 24X／Magnetic Dampened |  | No | None | 些 |
| 4811－32 | 32X／Magnetic Dampened |  | No | None | ＂ |
| AL24A | 24X／Air Dampened |  | No | None | 翟 |
| AL24M | 24X／Magnetic Dampened |  | No | None | 恝 |
| AL32A | 32X／Air Dampened |  | No | None | 㕩 |
| SPECIFICATIONS | 4811－24 | 4811－32 | ALE4A | ALE4M | ALシこA |
| Magnification | 24X | 32 X | 24X | 24X | 32 X |
| Objective Diameter | 36 mm | 42 mm | 30 mm | 30 mm | 36 mm |
| Field of View Angle | $1^{\circ} 20^{\prime}$ | $1^{\circ} 20^{\prime}$ | $1^{\circ} 20^{\prime}$ | $1^{\circ} 20^{\prime}$ | $1^{\circ} 20^{\prime}$ |
| Shortest Focusing Distance | 0.3 m | 0.3 m | 0.6 m | 0.6 m | 0.6 m |
| Stadia Constant | 100 | 100 | 100 | 100 | 100 |
| Additive Constant | 0 | 0 | 0 | 0 | 0 |
| Compensator Dampening | Magnetic | Magnetic | Air | Magnetic | Air |
| Compensator Range | $\pm 15$＇ | $\pm 15$＇ | $\pm 15$＇ | $\pm 15$＇ | $\pm 15$ |
| Compensator Setting Accuracy | ＜0．5＂ | ＜0．5＂ | ＜0．5＂ | ＜0．5＂ | $<0.3$＂ |
| Double Run Leveling per 1 km | 2 mm | 1 mm | 2 mm | 2 mm | 1 mm |
| Circular Vial Accuracy | $8 / 2 \mathrm{~mm}$ | $8 / 2 \mathrm{~mm}$ | $8 / 2 \mathrm{~mm}$ | $8 / 2 \mathrm{~mm}$ | $8 / 2 \mathrm{~mm}$ |
| Horizontal Circle | $1^{\circ}$ | $1^{\circ}$ | $1^{\circ}$ | $1^{\circ}$ | $1^{\circ}$ |
| Base Plate | $5 / 8 \times 11$ | $5 / 8 \times 11$ | $5 / 8 \times 11$ | $5 / 8 \times 11$ | $5 / 8 \times 11$ |
| Color | Red | Red | Yellow | Yellow | Yellow |
| Weight | $3.97 \mathrm{lb}(1.80 \mathrm{~kg})$ | $3.97 \mathrm{lb}(1.80 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ |



## Construction Theodalite



Optional eye piece sold separately

FEATURES \& BENEFITS

- Designed for general construction applications
- The Spectra Precision DET-2 digital electronic theodolite gives you accurate measurements in an affordable, versatile, easy to use platform
- Offers dual displays and controls for easy accessibility and operation, very large backlit LCD characters for easy reading (also, reduces eye strain and chance for errors), and a host of features and parameters normally found on much higher priced instruments
- Fast investment payback is the goal of the Spectra Precision DET-2
- With its 2-second accuracy (1- or 5-second selectable display readings) and vertical axis compensation, it can handle any construction job
- Operating costs are kept low with the included rechargeable battery pack and charger
- Able to be fully customized for your preferred operating style or job, with programmable settings for the horizontal angle resolution and beep, vertical degrees or \%, automatic shutoff (to save battery life), and zenith angle
- A backup alkaline pack holding four standard AA batteries is also included
- Includes a built-in reticle illuminator that allows you to work inside buildings and other environments with little or no light, such as near dawn or dusk
- You can count on working in difficult conditions with an environmental rating of IP-54 making it water and dustproof
- Comes equipped with a plumb bob, NiMH rechargeable battery pack and charger, alkaline battery pack, adjustment tools, rain hood, multi-language user guide, and hard-shell carrying case
- Accurate enough for any job,
yet the display resolution can be tailored to any operator's preferences for fast readings
- Vertical axis compensation can be turned on or off depending on the operator or job
Programmable settings for the horizontal angle resolution and beep, vertical degrees or percent are easy to configure
- The recharge kit reduces operating costs and downtime
- For Specifications see website


## APPLICATIONS

- Establishing 90 degree reference lines
- Checking angles, alignment, and plumb
- Anchor bolt alignment
- Gravity flow pipe laser setup
- Steel column placement
- Alignment of forms, tilt-up walls, and curtain walls
- Basic grade work
- Short range leveling


## DET-2 - Construction Theodolite DE-50 - Diagonal Eye Piece <br> 

## Eatter Board Clamp

Accessories and components for rotating lasers


## FEATURES \& BENEFITS

- Attaches to boards with thicknesses up to 2.17 in ( 55 mm )
- Mounting plate with its $5 / 8 \times 11$ screw can easily be removed when connecting it to a laser or theodolite
- Nail hole ensures that a theodolite's axis is positioned
exactly over the reference point
- Soft-touch locking knobs prove comfortable when using in cold and wet weather
- 3-point contact for secure, sturdy grip
- Quick release clamp for quick instrument attachment
- Weighs 2.43 lb ( 1.10 kg )


## APPLICATIONS

- Perfect for a laser for vertical applications or Theodolites


FEATURES \& BENEFITS

- Measures $3 / 4 \times 9.9$ inches ( $19.05 \times 251.46 \mathrm{~mm}$ ) long
- Includes a hex bolt used to hammer the bolt in to the surface
- Once installed, remove the hex bolt and install the 6601-Series adapter of your choice (see page 38)
- Weighs $1.25 \mathrm{lb}(0.57 \mathrm{~kg})$

Well/Column Bracket for Lasers and Tatal Stations

Dual mounting options enable flexibility on the construction job site

## FEATURES \& BENEFITS

- SECO's 4852-17 is a dualuse bracket for lasers and total stations
- Mounts easily to columns (or corners) and flat walls
- The unique design allows quick and easy separation for dual usage
-5/8 x 11 platform holds the instrument 5 inches from the wall/column surface
- A ratchet and strap secures the bracket to columns up to 20 inches (use Extension Strap \#D12328 for larger columns, offering 37 to 69 inches of extra length)
- Multiple nail/screw holes enable wall mounting
- Features a powder coated steel frame
- Weighs $5.00 \mathrm{lb}(2.30 \mathrm{~kg})$


## APPLICATIONS

- For use with Lasers and Total Stations on large construction sites


## Heavy Duty <br> Instrument Column Clamp

Mounts to structural columns for stability and support for heavy instruments


4852-18 - Heavy Duty Instrument Column Clamp

## Heavy-Duty <br> Instrument Column Clamp



FEATURES \& BENEFITS

- SECO's Heavy-Duty Column Clamp has a solid stable design and works with all $5 / 8$ x 11 instruments
- The adjustable column rotates and moves vertically to orient the instrument when needed and features 12 -inches ( 30.48 cm ) of height adjustment
- Centerline of the $5 / 8 \times 11$ stud to column measures 15-inches ( $38.1-\mathrm{cm}$ )
- Now with 0.39 " holes in each
corner for hard mounting with $3 / 8$ bolts ( not supplied ) Includes a 2-inch ( 5.08 cm ) by $10-\mathrm{ft}(3.05-\mathrm{m})$ strap rated for a 2200 pound load and a heavy-duty ratchet to create a strong connection to both round and square columns
- Constructed of structural aluminum for industrial applications and stainless steel hardware - Weighs $13.75 \mathrm{lb}(6.24 \mathrm{~kg})$ APPLICATIONS
- For use with Robotic Total Stations and scanners
- Ideal for mounting theodolites, lasers, etc.


## 4852-16 — Heavy-Duty Column Clamp

트중

## Rotating Laser Column Clamp


tightens the column clamp into place to create a strong connection to columns with diameters up to 20 inches ( 0.5 m )

- Made of aluminum and stainless steel
- An Extension Strap is also available (D12328, sold separately) which adds 37 to 69 in ( 94 to 175.2 cm ) to the existing strap for big columns
- Weighs $5.10 \mathrm{lb}(2.32 \mathrm{~kg})$


## APPLICATIONS

- Perfect for lasers or Theodolites



## FEATURES \& BENEFITS

- Developed in conjunction with surveyors from the California Department of Transportation to improve safety without sacrificing functionality
- ANSI/ISEA Class 2 compliant
- Longer visibility range than standard reflective safety vest.
- Enhanced visibility without the need for incident / external light source.
- Fully certified ANSI / REACH / RoHS compliant


The vest will light up as soon as the USB is inserted into the charged battery. Press the button at the shoulder to toggle from pulse to continuous lighting. Turn off by holding the button down for 1-2 seconds.

## THE VEST

- Made from durable ANSI/

ISEA compliant polyester and polyester mesh

- Features include YKK zippers, 4-inch ( 10.16 cm ) wide reflective tape with 2-inch
$(5.08 \mathrm{~cm})$ wide silver stripes made with 3M Scotchlite Reflective Material
- Padded collar is made with Outlast ${ }^{\circledR}$ Adaptive Comfort ${ }^{\text {® }}$ material
- Tested for electromagnetic compliance
- Safe working in wet conditions
- Functional vest including many quality features (multiple pockets for cell phone, tapes, radio, pencils, maps, spray cans, inside pockets and mic clips)
- Soft reflective materials
- Polyester mesh with cooling properties for hot and humid conditions
- Available in Fluorescent Yellow or Fluorescent Orange


## the Active

 ILLUMINATIONFlexible light and homogenous illumination

- Suitable for washing and drying process in apparels
- Guaranteed for at least 20 wash cycles ( 15 more than the standard requires)
8-hour battery life thanks to long-lasting batteries
- Low 5-volt voltage to ensure safety in wet working conditions
- EMC-tested and confirmed

- Power capacity 5000 mAh

Note: Item can be purchased separately
D13038 - SECO Power Bank 5000 mAh


| PART No. | COLOR | SIzE |  |
| :---: | :---: | :---: | :---: |
| 8265-42-FLY-LED | Fluorescent Yellow | 42 (M) | 気 |
| 8265-42-FOR-LED | Fluorescent Orange | 42 (M) | 를 |
| 8265-46-FLY-LED | Fluorescent Yellow | 46 (M) | 틀 |
| 8265-46-FOR-LED | Fluorescent Orange | 46 M ) | 를 |
| 8265-50-FLY-LED | Fluorescent Yellow | 50 (L) | = |
| 8265-50-FOR-LED | Fluorescent Orange | 50 (L) | = |
| 8265-54-FLY-LED | Fluorescent Yellow | 54 (XL) | = |
| 8265-54-FOR-LED | Fluorescent Orange | 54 (XL) | $\underline{ }$ |
| 8265-58-FLY-LED | Fluorescent Yellow | 58 (XXL) | E |
| 8265-58-FOR-LED | Fluorescent Orange | 58 (XXL) | 틀 |
| 8265-62-FLY-LED | Fluorescent Yellow | 62 (XXXL) | = |
| 8265-62-FOR-LED | Fluorescent Orange | 62 (XXXL) | 를 |
| 8265-66-FLY-LED | Fluorescent Yellow | 66 (J) | E |
| 8265-66-FOR-LED | Fluorescent Orange | 66 (J) | = |
| 8365-42-FLY-LED | Fluorescent Yellow | 42 (M) | E |
| 8365-42-FOR-LED | Fluorescent Orange | 42 (M) | E |
| 8365-46-FLY-LED | Fluorescent Yellow | 46 (M) | E |
| 8365-46-FOR-LED | Fluorescent Orange | 46 M ) | ) |

## Safety Utility Vest 8365－Series



## FEATURES \＆BENEFITS

－Made from durable ANSI／ ISEA compliant polyester and polyester mesh
－Features include $\mathrm{YKK}^{\text {TM }}$ zippers， 4 inch（ 10.16 cm ） wide reflective tape with 2 inch （ 50.8 mm ）wide silver stripes made with 3M Scotchlite ${ }^{\oplus}$ reflective material
－Adaptive Comfor ${ }^{\oplus}$ material by Outlast ${ }^{\oplus}$ ，a Certified Space Technology ${ }^{\top \mathrm{TM}}$ ，designed to
balance body temperature －Developed in conjunction with surveyors from the California Department of Transportation
－Includes many quality features；multiple pockets for cell phone，tapes，radio， pencils，maps，spray cans and etc
－Plus，two inside pockets and comes with dual mic clips

## APPLICATIONS

－Workplace safety
－Perfect for construction crews or surveyors near busy roads or other possibly hazardous locations where worker visibility is desired

| PART NO． | COLOR | SIzE |  |
| :---: | :---: | :---: | :---: |
| 8365－50－FLY | Fluorescent Yellow | 50 （L） | 芽 |
| 8365－50－FOR | Fluorescent Orange | 50 （L） | 嘒 |
| 8365－54－FLY | Fluorescent Yellow | 54 （XL） | 釷 |
| 8365－54－FOR | Fluorescent Orange | 54 （XL） | 䮖 |
| 8365－58－FLY | Fluorescent Yellow | 58 （XXL） | 㘹 |
| 8365－58－FOR | Fluorescent Orange | 58 （XXL） | \＃\＃ |
| 8365－62－FLY | Fluorescent Yellow | 62 （XXXL） | 捧 |
| 8365－62－FOR | Fluorescent Orange | 62 （XXXL） | 氯 |
| 8365－66－FLY | Fluorescent Yellow | 66 （J） | 芽 |
| 8365－66－FOR | Fluorescent Orange | 66 （J） | 鹤 |

Safety Utility Vest 82G5－Series


## FEATURES \＆BENEFITS

－Developed in conjunction with surveyors from the California DOT
－Features include bright fluorescent material， 4 inch $(101.6 \mathrm{~mm})$ wide contrasting reflective material with 2 inch $(50.8 \mathrm{~mm})$ wide silver stripes made of $3 \mathrm{M}^{\text {TM }}$ Scotchlite ${ }^{\text {TM }}$ reflective material
－Made of durable polyester， brass grommets，heavy－duty webbing and trim，and a
genuine YKK $^{\text {TM }}$ zipper
－Adaptive Comfort ${ }^{\text {m }}$ material by Outlast ${ }^{\oplus}$ ，a Certified Space Technology ${ }^{\top M}$ ，designed to balance body temperature
－Features four large pockets on the outside and two generous pockets on the inside－great for field books， tapes，pencils，flagging，cell phones，etc
－Includes two spray can holders

## APPLICATIONS

－Workplace Safety
－Perfect for construction crews or surveyors near busy roads or other possibly hazardous locations where worker visibility is desired

| PART NO． | COLOR | SIZE |  |
| :---: | :---: | :---: | :---: |
| 8265－50－FLY | Fluorescent Yellow | 50 （L） | 鹤 |
| 8265－50－FOR | Fluorescent Orange | 50 （L） | 翌 |
| 8265－54－FLY | Fluorescent Yellow | 54 （XL） | 丰 |
| 8265－54－FOR | Fluorescent Orange | 54 （XL） | E＝ |
| 8265－58－FLY | Fluorescent Yellow | 58 （XXL） | 丰 |
| 8265－58－FOR | Fluorescent Orange | 58 （XXL） | 島 |
| 8265－62－FLY | Fluorescent Yellow | 62 （XXXL） | 気 |
| 8265－62－FOR | Fluorescent Orange | 62 （XXXL） | 気 |
| 8265－66－FLY | Fluorescent Yellow | 66 （J） | 翟 |
| 8265－66－FOR | Fluorescent Orange | 66 （J） | 釷 |

## Safety Utility Vest 8068－Series



FEATURES \＆BENEFITS
－Durable fluorescent fabric is constructed of $100 \%$ polyester for softness， comfort，superior strength and abrasion resistance
－Features convenient pockets with sturdy fasteners，map
pocket and mic clip
－Complies with ANSI／ISEA Class 2 standards for high－ visibility safety apparel with two－inch－wide stripes of retroreflective tape
－Snaps on chest allow vest to close

## APPLICATIONS

－Workplace Safety
Perfect for construction crews or surveyors near busy roads or other possibly hazardous locations where worker visibility is desired

| PART NO． | COLOR | SIZE |  |
| :---: | :---: | :---: | :---: |
| 8068－50－FLY | Fluorescent Yellow | 50 （L） | $\underline{\underline{\underline{\underline{\underline{\underline{E}}}}}}$ |
| 8068－50－FOR | Fluorescent Orange | 50 （L） | 䮖 |
| 8068－54－FLY | Fluorescent Yellow | 54 （XL） | $\underline{\underline{\underline{\underline{\underline{E}}}}}$ |
| 8068－54－FOR | Fluorescent Orange | 54 （XL） | ＂ |
| 8068－58－FLY | Fluorescent Yellow | 58 （XXL） |  |
| 8068－58－FOR | Fluorescent Orange | 58 （XXL） | 氣 |
| 8068－62－FLY | Fluorescent Yellow | 62 （XXXL） | 㫛 |
| 8068－62－FOR | Fluorescent Orange | 62 （XXXL） | $\underline{\underline{\underline{\underline{\underline{E}}}}}$ |
| 8068－66－FLY | Fluorescent Yellow | 66 （J） | 䮖 |
| 8068－66－FOR | Fluorescent Orange | 66 （J） | EF |

Safety Utility Vest 8069－Series

Designed to meet ANSI／ISEA Class 2 Standards

FEATURES \＆BENEFITS
－Vests are manufactured to meet ANSI／ISEA Class 2 standards
－Features a cool，comfortable mesh back and snaps in front to close vest
－100\％polyester
－Includes special compartments for notebooks， pencils，compass，flagging tape，etc
－Features exterior radio mic clip

## APPLICATIONS

－Workplace Safety
－Perfect for construction crews or surveyors near busy roads or other possibly hazardous locations where worker visibility is desired

| PART NO． | COLOR | SIZE |  |
| :---: | :---: | :---: | :---: |
| 8069－50－FLY | Fluorescent Yellow | 50 （L） | 捧 |
| 8069－50－FOR | Fluorescent Orange | 50 （L） |  |
| 8069－54－FLY | Fluorescent Yellow | 54 （XL） | 芽 |
| 8069－54－FOR | Fluorescent Orange | 54 （XL） | EFere |
| 8069－58－FLY | Fluorescent Yellow | 58 （XXL） | 嘒 |
| 8069－58－FOR | Fluorescent Orange | 58 （XXL） | ＂気 |
| 8069－62－FLY | Fluorescent Yellow | 62 （XXXL） | 翏 |
| 8069－62－FOR | Fluorescent Orange | 62 （XXXL） | 䂪 |
| 8069－66－FLY | Fluorescent Yellow | 66 （J） | $\underline{\underline{\underline{\underline{1 / 2}}} \underline{ }}$ |
| 8069－66－FOR | Fluorescent Orange | 66 （J） | 1 |

## Dual Safety Utility Vest 8260－Series U．5．／Canada

## Designed to meet ANSI／ISEA Class 2 and Canadian CSA－Z96 Standards



FEATURES \＆BENEFITS
－Manufactured to meet ANSI／ ISEA 107－2015 Class 2 and CSA－Z96 standards
－Vest compartments include a field notebook pocket， pencil slots，flagging tape pocket with grommets，and an internal cell phone pocket
－Includes a special padded collar made of Outlast ${ }^{\text {® }}$ material for added comfort

Four－inch－wide reflective tape that includes a two－inch－wide silver stripe and high－vis material makes this vest highly visible in any weather condition－day or night
－Also including two exterior radio mic clips and a front closing zipper
－Made of 100\％polyester

## APPLICATIONS

－Workplace Safety
－Perfect for construction crews or surveyors near busy roads or other possibly hazardous locations where worker visibility is desired

| PART NO． | COLOR | SIzE |  |
| :---: | :---: | :---: | :---: |
| 8260－46－FOR | Fluorescent Orange | 46 （M） | 恝 |
| 8260－50－FOR | Fluorescent Orange | 50 （L） | （\％） |
| 8260－54－FOR | Fluorescent Orange | 54 （XL） | 恝 |
| 8260－58－FOR | Fluorescent Orange | 58 （XXL） | ＂ |
| 8260－62－FOR | Fluorescent Orange | 62 （XXXL） | 翟 |

## Hydration Backpack

Stay hydrated on the job while maintaining workplace safety


FEATURES \＆BENEFITS
－ $20 \times 8$ inches（ $50.8 \times 20.32$ cm）
－Chest strap，side release buckle
－4－inch（ 101.6 mm ）wide fabric with 2－inch（ 50.8 mm ）wide reflective tape（same as safety vest）
－1－inch（ 25.4 mm ）wide polypropylene webbing allows shoulder straps to adjust
－1000D Cordura Nylon is bonded to the $1 / 4$－inch（ 6.35 mm ）back padding
－Neoprene sleeve surrounds
the hydration tube
－Bladder size 2.5 liters （ 84.5 fl oz ）
－When bladder is completely full the hydration pack is 5 inches（ 127 mm ）thick
－Mod－U－Lox ${ }^{\circledR}$ keeps hydration tube secure on either strap， allowing access to the bite valve for either right－or left－ handed use（one on each side）
－Weighs（with water） 6.70 lb （ 3.03 kg ）
－Weighs（without water） 1.20 $\mathrm{lb}(0.54 \mathrm{~kg})$

8125－60－FOR — Hydration Backpack
8125－60－PART－BLADDER－L－BLU－T — Replacement Bladder

## Applications

－Workplace Safety
－Construction environment


Backpack Carrying System

Easy to mount backpack system for carrying all large instrument containers


FEATURES \＆BENEFITS
－Easy to mount carrying system backpack
－Compatible with all large total station models
－Comfortable padded straps and padded back
－Ideal solution to carry total station and accessories from one job site to another
Weight： 4 lbs
－Measures： $24 \times 12 \times 5$ inches （folded）

## Applications

－Keeps your total station safe and secure during transportation
Workplace safety
Construction environment

| PART NO． | COLOR | LED LIGHT |
| :---: | :---: | :---: |
| D13035－BLK | Black | No |
| D13035－KHA | Khaki | No |



## Toal Pouches <br> Designed to keep your tools safe and organized

- Features include an $11 \times 7$ inch $(28 \times 18 \mathrm{~cm})$ and $6 \times 4$ inch ( $15 \times 10 \mathrm{~cm}$ ) pouches
- Has slots for markers, a loop for axes or hammers
- Weighs $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$
- Features a $9 \times 2 \times 11$ inch ( $22.9 \times 5.08 \times 27.9 \mathrm{~cm}$ ) pocket
- Large pocket is lined with two layers of 1000D Cordura
- Webbed belt adjusts to a 50 inch ( 127 cm ) waist
- Includes a hammer loop and marker storage
- Weighs $1.05 \mathrm{lb}(0.48 \mathrm{~kg})$



## GN5S Pale and Tripod Bags

Designed to keep your GNSS tripods and rods safe and secure

- This bag features heavy-duty Cordura ${ }^{\circledR}$ and reinforced Rhinotek ${ }^{\text {mw }}$ material
- Shoulder strap is included
- Use with Heavy-Duty GNSS Antenna Tripods (5119-10)
- Measures: 8 inch ID x 56 inches ( $20.32 \times 142.24 \mathrm{~cm}$ )
- Weighs $1.80 \mathrm{lb}(0.82 \mathrm{~kg})$



## 8154-12-ORG - Heavy-Duty GNSS Tripod Bag

- Use with our Collapsible GNSS Antenna Tripod (5119-00) or other conventional tripods
- Designed to carry the tripod without the point on the center pole to prevent damage to the pole
- Features a full length heavy-duty zipper
- Weighs $1.70 \mathrm{lb}(0.77 \mathrm{~kg})$
- Inside Dimensions: 7"x 50 "



## 8154-00-ORG - Collapsible GNSS Antenna Tripod Bag 峌

- Designed to protect the rods during transportation or storage
- 5.5 ID x 41 inches long with a 10 " flap
- Weighs $0.45 \mathrm{lb}(0.20 \mathrm{~kg})$


8162-00-ORG - GPS Rover Rod Carrying Case

Replacement carrying case for Radio Antenna Tripod

- Case comes included when you purchased the

Radio Antenna Tripod (5300-11 \& 5300-12)

- Outside Dimensions: 8 inches x 54 inches


8154-10-ORG - Radio Antenna / Elevated Tripod Carrying Case

- Features a full-length zipper and shoulder strap
- Measures: $82 \times 9$ OD inches ( $208.28 \times 22.86$ OD cm)
- Weighs $1.88 \mathrm{lb}(0.85 \mathrm{~kg})$


8153-10-ORG - Extra-Large Antenna / ElevatOR Tripod Carrying Case

- This bag holds a 2 meter Snap-Lock pole and bipod or tripod (connected)
- Constructed of tough Cordura material and Rhinotek ends
- Measures 56 inches long ( 1.42 m )
- Weighs $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$


8151-02-FLY — Heavy-Duty Snap-Lock 2-Meter Pole System Bag

## Instrument Tripod Eags and Cases

Designed to keep your instrument tripods safe and secure

- The SECO Instrument Tripod Bag holds all major brands of aluminum and wooden tripods
- Made of heavy-duty nylon Cordura, with a Rhinotek bottom, and pull string ties at the top
- Measures: $52 \times 8.75$ OD inches ( $132 \times 22.23$ OD cm)
- 8150-20 weighs 1.85 lb ( 0.84 kg )

8150-20-ORG - Heavy-Duty Tripod Bag with Rhinotek Bottom


[^3]8154-11-ORG — Super-Duty Tripod Bag

Assorted Rad

Carrying Cases | Designed to keep your One Shot, DE rod, Range pole, LR-STD, LR-PRO and CR rod |
| :--- |
| safe and clean |

## CMR Measuring Ruler Cases

- Made from the highest-quality 1000-denier nylon.
- For use with our rugged fiberglass CMR Series Measuring Rulers 90180, 90181 and 90182, and for gopher pole 90520 on page 53.



## Lath and Stake Eags Designed to hold your lath and stakes secure

- Carries up to 50 lath or rebar
- Measures $9 \times 38$ inches ( $2.54 \times 96.52 \mathrm{~cm}$ )
- Weighs $0.22 \mathrm{lb}(0.10 \mathrm{~kg})$


8102-01-0RG — 38 inch Lath Carrier

- Carries up to 50 lath or rebar
- Measures $9 \times 38$ inches $(2.54 \times 96.52 \mathrm{~cm})$
- Weighs $0.22 \mathrm{lb}(0.10 \mathrm{~kg})$


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8102-00-0RG — 38 inch Lath Carrier

- Use to carry 21 inch ( 53 cm ) or 30 inch ( 76 cm ) flags
-8093-00-ORG weighs $0.22 \mathrm{lb}(0.10 \mathrm{~kg})$
- 8094-00-ORG weighs $0.28 \mathrm{lb}(0.13 \mathrm{~kg})$


8093-00-0RG - Wire Stake Flag Bag for 21 in Flags 8094-00-ORG - Wire Stake Flag Bag for 30 in Flags

- Holds 24 inch ( 61 cm ) wood lath
- Features a hand loop, shoulder strap, outside pocket
- 8 inch ( 20.3 cm ) inside diameter
- Weighs $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$

- Heavy-duty lath carrier fits 36 or 48 -inch lath
- Features space inside for any standard 12 inch, five-gallon bucket
- Weighs $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$ without bucket and approx. $3.85 \mathrm{lb}(1.75 \mathrm{~kg})$ with bucket added

8104-20-ORG - Heavy-Duty Bucket Lath Carrier


- Heavy-Duty Lath Bag but with Rhinotek material on the bottom and six inches up the sides
- Designed in two sizes: 8 inches wide by 36 or 48 inches deep
- Both weigh approximately $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$

8100-20-0RG - 36 inch Heavy-Duty Lath or Rebar Bag 8101-20-0RG - 48 inch Heavy-Duty Lath or Rebar Bag

- Choose between a standard spray can holder or a holder with updated features like four pockets for pens/pencils and a heavy web strap
- Both weighs approximately. $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$

8098-00-0RG — Standard Spray Can Holder 8098-10-0RG - With Accessory Pockets (shown)


## Total Station, G15 and GN55 Backpacks

- This pack includes a cam-lock antenna pole, adjustable straps, several interior pockets, belt loop straps, rain flap and much more
- Interior dimensions (measured between the pads): $15 \times 9 \times 4$ in
- Pole extends from $157 / 8$ to 32 inches ( 40.3 to 81.3 cm )
- Has $5 / 8 \times 11$ tip on antenna pole
- Weighs $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$


## 8125-50-ORG - Small GIS Backpack D10694-T — Replacement Range Pole, Twist Lock

- Features a double-zipped, top-loading station compartment lined with rigid foam padding, two side pockets for cables, and one front battery pocket
- Comfortable padded belt with lumbar back support system, shoulder straps with all-point adjustment features, and a rubberized carrying handle
- The free-standing aluminum frame keeps the pack upright even when fully loaded
- Has a top rain flap with closure and rain flaps on the side pockets
- Features a Rhinotek bottom
- Interior dimensions (measured between the pads): $17 \times 10 \times 10$ in
- Exterior dimensions: $24.5 \times 15 \times 16$ in

Weighs $8.00 \mathrm{lb}(3.62 \mathrm{~kg})$

- Holds 40 lb ( 18.14 kg )


Designed to keep your Total Station, GIS and GNSS equipment safe and secure


- The Total Station Backpack is similar in style to a commercially available lightweight day pack
Main compartment has an innovative 'wrap' made of $3 / 8$-inch high-density foam with hook and loop adjustment that securely cradles all total stations
- Features extra pockets and Rhinotek ${ }^{\text {TM }}$ bottom
- 8120-40: Height - 18" (46 cm), Bottom - 9" X 10" ( $23 \mathrm{~cm} \times 25 \mathrm{~cm}$ )
- 8120-30: Height - 15 " ( 38 cm ),
 Bottom - 7" X 9" (18 cm x 23 cm )
- Weighs $2.40 \mathrm{lb}(1.10 \mathrm{~kg})$


## 8120-30-ORG - 400 mm Total Station Backpack (shown)

 $8120-40-0 R G-500 \mathrm{~mm}$ Total Station Backpack- This pack, which includes cool mesh and foam back pad, offers a convenient and comfortable way to transport and manage GIS instrumentation
- Features include a built-in pocket for CamelBak ${ }^{\circledR}$ or other hydration systems
- Includes a protective rain flap
- Also features adjustable internal pockets; padded, adjustable shoulder straps, and waist belt
Constructed of heavy-duty, high-vis polyester
Interior dimensions: $20 \times 9.5 \times 4$ in
Includes a $5 / 8 \times 11$ tip
- Weighs $2.80 \mathrm{lb}(1.27 \mathrm{~kg})$


8125-11-ORG — Large GIS Backpack with Cam-Lock Antenna Pole

Prism and Tribrach Bags Designed to keep prisms and tribrachs secure


## 8070-00-ORG - Single Prism Bag

## - Easily holds a tribrach

- Interior dimensions (measured between the pads): $6 \times 6 \times 2$ inches
- Weighs $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$


Holds a tilting prism with tribrach and adapter

- Interior dimensions (measured between the pads): $12 \times 12 \times 3$ inches - Weighs $1.85 \mathrm{lb}(0.84 \mathrm{~kg})$


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- Heavily padded for triple prisms
- Interior dimensions (measured between the pads): $9 \times 7 \times 2$ inches
- Weighs $0.75 \mathrm{lb}(0.34 \mathrm{~kg})$


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8080-00-0RG — Triple Prism Bag

Designed for vertical triple prism assemblies

- Holds target with tribrach and adapter
- Interior dimensions (measured between the pads): $15 \times 8 \times 2$ inches
Available in Orange
Weighs $1.45 \mathrm{lb}(0.66 \mathrm{~kg})$

For triple prisms and prism targets or tribrachs

- Interior dimensions (measured between the pads): $10 \times 9.5 \times 3$ inches
- Weighs $1.06 \mathrm{lb}(0.48 \mathrm{~kg})$

8081-00-ORG — Jumbo Triple Prism Bag

## ChrisNik MagNails， MagSpikes ${ }^{\text {® }}$ and MagHubs ${ }^{\circledR}$

## Corrosion resistant and magnetized for easy detection

－Mag Nails have been coated with an environmentally friendly zinc and clear chromate to resist corrosion
－Stronger，more durable，higher quality，magnetic and longer lasting than other nails
－Mag Nails are larger and magnetic making them easier to locate using the naked eye or a locator －Each box includes 100 Mag Nails
－Constructed of premium steel that produces the most durable survey marker in the industry －Like the Mag Nail the Mag Spike is magnetized for easy detection
－Featuring a large center point and 1－inch（25．4 mm ）diameter head makes it great for control points and property corners
－Made in the USA
－The Mag Hub is magnetized for easy detection and zinc plated to resist corrosion
－Featuring a large center point and looks like a standard survey marker
－Not made to be driven into asphalt or concrete
Easy to carry and less expensive than stakes
－Mag Hubs come in a $30 \mathrm{lb}(13.61 \mathrm{~kg})$ box approximate quantities are below


| PART NO． | SI2E | QUANTITY | WEICHTS |  |
| :---: | :---: | :---: | :---: | :---: |
| Chrisnik MagNails |  |  |  |  |
| 24750－CS | $3 / 4 \times 1 / 8$ inch | 100 per box， 12 box per case | $7 \mathrm{lb} / \mathrm{case}$ | 䮖 |
| 241000－CS | $1 \times 5 / 32$ inch | 100 per box， 12 box per case | $11 \mathrm{lb} / \mathrm{c}$ ase | 気 |
| 241250－CS | $11 / 4 \times 3 / 16$ inch | 100 per box， 12 box per case | $18 \mathrm{lb} /$ case | 些 |
| 241500－CS | $11 / 2 \times 1 / 4$ inch | 100 per box， 12 box per case | $33 \mathrm{lb} /$ case | 翏 |
| 242000－CS | $2 \times 1 / 4$ inch | 100 per box， 12 box per case | $41 \mathrm{lb} / \mathrm{case}$ | 䮖 |
| 242500－CS | $21 / 2 \times 1 / 4$ inch | 100 per box， 12 box per case | $48 \mathrm{lb} / \mathrm{case}$ | 丰 |
| Chrisnik MagSpikes |  |  |  |  |
| 253MAGSPIKE | $3 / 8 \times 3$ inch | 25 per box | $2.5 \mathrm{lb}(1.13 \mathrm{~kg})$ | 丰 |
| 256MAGSPIKE | $3 / 8 \times 6$ inch | 20 per box | $4.00 \mathrm{lb}(1.18 \mathrm{~kg})$ | 崀雨 |
| 258MAGSPIKE | $3 / 8 \times 8$ inch | 20 per box | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | ＂ |
| Chrisnik MagHubs |  |  |  |  |
| 23MAGHUB6 | $1 / 4 \times 6$ inch | Approx．．． 367 | $30.00 \mathrm{lb}(13.61 \mathrm{~kg})$ | 鹤 |
| 23MAGHUB8 | $1 / 4 \times 8$ inch | Approx．．． 272 | $30.00 \mathrm{lb}(13.61 \mathrm{~kg})$ | 䎂 |

Flagging Dispenser

－The steel Presco Roll Flagging Belt Dispenser is a convenient time－
saver
－Weighs $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$

8025－00－0RG — Padded Flagging Dispenser


Rite in the Rein

- Rite in the Rain bound books ensure that your valuable data won't be lost
- These all-weather books have 160 pages (80 sheets), including a title and contents page
- This $4-3 / 4 \times 7-1 / 2$ inch yellow field book also features a sewn binding
- Books sold individually
- Weighs $0.65 \mathrm{lb}(0.29 \mathrm{~kg})$
$\square$
Transit Pattern
8 vertical lines to the inch

on the page


## 300F - Transit Pattern Bound Book 310F — Level Pattern Bound Book

- Overall Size: $4.625 \times 7$ inches ( $11.75 \times 17.78 \mathrm{~cm}$ )
- Cover Material: field flex
- Binding: side stapled
- Number of Pages: 48 (numbered)
- Number of Sheets: 24

- Books sold individually
- Weighs $0.56 \mathrm{lb}(0.25 \mathrm{~kg})$


311FX - Level pattern Side-stapled Notebook for Tough Conditions 301FX - Transit pattern Side-stapled Notebook for Tough Conditions

- Overall Size: $4.625 \times 7$ inches ( $11.75 \times 17.78 \mathrm{~cm}$ )
- Soft Cover Material: Polydura (recycled material)
- Binding: side-spiral
- Number of Pages: 64 (32 sheets)
- Books sold individually
- Weighs $0.20 \mathrm{lb}(0.09 \mathrm{~kg})$


303 - Transit pattern Recyclable Side-spiral Notebook 353 - Field pattern Recyclable Sidespiral Notebook


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Invest InThe Best.


[^0]:    5910-05 — Feet, 0 Offset (shown)

[^1]:    Ideal for mounting theodolites, lasers, auto levels, or total stations

[^2]:    7400－10－SK Leveling Rod Feet／in 10ths 7400－20－SK Leveling Rod Feet／in 8ths $7400-30$－SK Leveling Rod Metric（E－Type）

[^3]:    - Heavy-duty bag for carrying many different brands of tripods, including SECO and Tri-Max
    - Features zipper closure
    - Measures: $48 \times 8$ OD inches ( $121.9 \times 20.3$ OD cm)
    - Weighs $1.80 \mathrm{lb}(0.82 \mathrm{~kg})$

