## seco <br> ACCESSORIES INVEST IN THE BEST



## New Products



Tri-Max ${ }^{\circledR}$ Instrument Tripods (90550-WD, 90551-WD, 90553-WD)
Hardwood Tri-Max ${ }^{\oplus}$ precision instrument tripod.


Safety Lighted Utility Vest (8565 series)
Retroreflective and Active Lightning Features minimize injury risk by making workers visible in dark or poorly lit environments


Hand Level (4300-KR) 2-Power Stadia Hand Level


## SK Leveling Rods

(7400-10, 7400-20, 7400-30)
Non-conductive lightweight
fiberglass leveling rods


Mini 360 Prism and Kit
(6406-01 and 6406-02)
Lightweight and inexpensive, made to be set up and left for extended periods


Claw Cradle Pole Clamp System Assembly for TSC7/Ranger7
(5200-45, 5200-079, 5200-167)
Heavy duty claw cradle system with 6 tilt positions

Copper-coated Mini-prism with $360^{\circ}$ Rotation \& Magnetic attachment (6605 series) Monitor bridges, rail lines, buildings quickly and accurately
Retro Reflective Survey Targets (6606 series) Ideal for back sights, check shots, elevation references

Retro Reflective Target with $360^{\circ}$ Rotation (6604 series)
Twistable and rugged. Leave in place for extended use


Note on the Flags: All products are available worldwide. The US flag means that the product is shipped from the US warehouse only. The EU flag means that it can also be shipped from our European warehouse.

Inventory subject to change without notice. Refer to SECO's website at Surveying.com for the latest product information.

Drone Ground Control
Targets (6705-30)
Made in USA for all Survey Drone software


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## SECO 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.

SECO product managers are known for coming up with solutions for any kind of field requirement to meet customer needs. SECO products are available


The SECO facilities at Redding, CA. 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!


## FEATURES \＆BENEFITS

－5119－00 version offers dual graduations，collapsible center staff with a quick clamp and／ or screw clamp（see table） and includes removable $5 / 8 \mathrm{x}$ 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 | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 5 |
| 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 | $20.00 \mathrm{lb}(9.07 \mathrm{~kg})$ | E |
| 5119－10－YEL | Screw Clamp | 1．5，1．8， 2 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 | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | E |
| 5119－00－FOR | Quick Clamp／Screw Clamp | 1．5，1．8， 2 m | 50 inches（ 1.27 m ） | Flo Orange | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 维 |
| 5119－00－YEL | Quick Clamp／Screw Clamp | 1．5，1．8， 2 m | 50 inches（ 1.27 m ） | Yellow | $15.00 \mathrm{lb}(6.80 \mathrm{~kg})$ | 5 |

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 （ $1.18-\mathrm{cm}$ ）


| PART NO． | FITS | COMPATIBLE WITH | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: |
| 2072－30 | MPT 1－1／2 $\times 11-1 / 2$ TPI | 1．5－inch pipe | $5.50 \mathrm{lb}(2.50 \mathrm{~kg})$ | 翏 |
| 2072－31 | MPT $2 \times 11-1 / 2$ TPI | 2－inch pipe | $6.60 \mathrm{lb}(3.00 \mathrm{~kg})$ | $\underline{\text {＂10 }}$ |
| 2072－32 | MPT 3－1／2 $\times 8$ TPI | 3 －inch pipe | $6.90 \mathrm{lb}(3.10 \mathrm{~kg})$ | 䎂止 |
| 2072－33 | MPT 5／8×11 TPI | any female $5 / 8 \times 11$ | $6.20 \mathrm{lb}(2.80 \mathrm{~kg})$ | ＂ |
| 2072－050 | 40－minute leveling vial | any female $5 / 8 \times 11$ | $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$ | 眗 |

## Radio Antenna 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－ORG
－Aluminum tripod is SECO＇s 5301－21－ORG

[^0]5561－20 — Radio Antenna Mast Assembly 5300－11－Hardwood／Fiberglass 5300－12－Aluminum（shown）


Hands Free Tablet Harnesses
Provide Secure Hands－free Operation During Field Use


Note：Tablet not included． Brackets sold separately．

## FEATURES \＆BENEFITS

－When purchased with the correct tablet bracket，each of these harnesses provide reliable hands－free operation
－Over one shoulder model allows for easy on／off operation （5200－95）
－Two－shoulder model allows for tighter movement and helps reduce fatigue for day－long operation（5200－96）
－Ball－and－Socket designs allows a tablet to be in multiple positions and very easy to adjust
－Mounts to tablet bracket using standard 1－1／2 inch ram ball connection
－5200－95 and－96 come with 1－1／2 inch RAM ball
－Mount is made from a $0.080-$ inch $(2.03-\mathrm{mm})$ black powder－ coated aluminum sheet metal
－Weights：5200－95 1.95 lbs ，
－5200－96 1.9 lbs
－Tablet brackets allow all ports， connections，and antenna to be accessible with the bracket attached

## APPLICATIONS

－GNSS／Robotic surveying
－Construction Layout
－Road and highway surveys
－GIS Surveys

FOR TABLETS THAT HAVE THE QUICK RELEASE BRACKET ATTACHED

| BRACKET PART NO． | FIT |  |
| :---: | :---: | :---: |
| 5200－39－051 | Yuma 2／Yuma 7／T－7 | 『 |
| 5200－40－051 | Kenai／T－10 | ） |
| 5200－42－051 | FZ－G1 With Radio | 『 |
| 5200－44－051 | TSC7／Ranger7 | ） |

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

COMPLETE WITH TABLET BRACKET AND RAM LINK

| BRACKET PART NO． | FIT |  |
| :---: | :---: | :---: |
| 5200－29－051 | FZ－M1 | 险 |
| 5200－30－051 | FZ－G1／CS35 | ！ |
| 5200－31－051 | Getac T800 | 5 |
| 5200－35－051 | Tesla，Mesa 2／3／FC 5000／RT3／4 | ［諒 |
| 5200－37－051 | Yuma 2，T－7，7＂Rugged Tablet | 5 |
| 5200－38－051 | Kenai，10＂Rugged Tablet | ［ |
| 5200－41－051 | FZ－G1 with Radio | \％ |
| 5200－44－051 | TSC7／Ranger7（RAM 1.5 inch） | ） |

## 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 |

## Cradles： <br> Claw Ball 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 |
| $5200-17-050$ | Mesa／Tesla | Snap In／Out |
| $5200-29-050$ | Panasonic FZ－M1，B2 | Snap In／Out |

Secure connection to your survey pole and tablet during field use

## FEATURES \＆BENEFITS


－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 $(2.03 \mathrm{~mm})$ aluminum sheet metal，powder－coated black

| PART NO． | MODEL | TABLET SIZE |  |
| :---: | :---: | :---: | :---: |
| 5200－32 | Panasonic FZ－M1 | 7 inch（ 17.78 cm ）tablet | 気 |
| 5200－33 | Panasonic FZ－G1／Leica CS35 | 10 inch（ 25.4 cm ）tablet | 気 |
| 5200－41 | FZ－G1 with Radio | 10 inch（25．4 cm）tablet | 를 |
| 5200－42 | Panasonic FZ－G1／Leica CS35 with Radio | 10 inch（25．4 cm）tablet | 気 |
| 5200－43 | T－10 with Radio Quick Release | 10 inch（ 25.4 cm ）tablet | E |



5200－076

## FEATURES \＆BENEFITS

－The Claw ${ }^{\text {TM }}$ is a clamping system featuring an innovative clamping device that keeps your expensive data collecting hardware snug on the pole
where it belongs without crushing it
－The Claw cradles and clamps are made of durable anodized aluminum for years of trouble－ free use in the field

> Quick-Release cradles plug directly in to Quick Release Pole Clamps

| PART NO． | WORKS WITH |  |
| :---: | :---: | :---: |
| 5200－050 | FC 2500 | 気 |
| 5200－058 | FC－200，FC－250 | ＂ |
| 5200－059 | Nomad 800－900 Series | 三 |
| 5200－062 | Carlson Surveyor，Surveyor＋，GIS－1 | ＂ |
| 5200－064 | Geo 6000 Series，Geo 7X | 三 |
| 5200－065 | TSC3，Ranger 3 Series | ＂ |
| 5200－070 | Juno 5 ／Juno T41 Series，Slate | ＂ |
| 5200－072 | Mesa Tesla | ＂ |
| 5200－073 | Archer 2，Mini2，FC 500 | 翟 |
| 5200－074 | Allegro 2，Allegro 3，Surveyor 2 | ＂ |
| 5200－075 | Nautiz X8，Nautiz X9 | 를 |
| 5200－076 | Panasonic Toughpads FZ－M1，B2（Not Claw－＂Snap in＂） | ＂： |
| 5200－077 | Mesa 2／3，FC 5000，RT3／4（Not Claw－＂Snap in＂） | 気 |

## Claw Cradle Assembly

 for TSC7／Ranger7

5200－079

## 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 $1.25^{\prime \prime}$ diameter poles
－Pole clamp has six tilt positions from vertical to horizontal of the display
－Assembly weighs only 0.95 lbs ， 0.43 kg
－ $5200-079$ weighs 0.4 lbs ， 0.18 kg
－5200－167 weighs 0.55 lbs ， 0.25 kg

5200－45－Claw Cradle Pole Clamp System
E
Assembly for TSC7／Ranger7
5200－079－Claw Cradle
5200－167－Pole Clamp


## Ball－and－Socket and Claw Accessories

## Perfect for creating a custom solution



Pole Clamps and Cradles
Design your own custom solution with clamp and cradle

## FEATURES \＆BENEFITS



5198－056


5198－153


5200－160


5198－073
cradle or clamp for a complete solution
－Original Open－Style Pole Clamp technology for a complete solution
－Use a Claw Quick－Release
－Made of black anodized aluminum
－Depressing the quick－release 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

| PART NO． | Quick Release Open－Style Clamps（for 1．25－inch OD pole） |  |
| :---: | :---: | :---: |
| 5198－052 | Plain | 気 |
| 5198－054 | 40－minute Vial | E－ |
| 5198－055 | Compass | 틀 |
| 5198－056 | Compass and 40－minute Vial | ［ |
| 5198－059 | $0.15 \times 0.92$－inch Slot | E |
| 5198－152 | For 1．5－inch OD Pole | 翏事 |
| 5198－153 | Battery Slot with Quick Release | 些雨 |
| PART NO． | Claw Ball－and－Socket Clamps（for 1．25－inch OD pole） |  |
| 5200－160 | Plain with 1＂Ball | 阿 |
| 5200－164 | With Compass | E－5 |
| 5200－165 | With 40－minute Vial and Compass | 何 |
| 5200－166 | Plain with 1．5＂Ball | ＂ |
| PART NO． | Claw Quick Release Clamps（for 1．25－inch OD pole） |  |
| 5200－150 | Plain | 気 |
| 5200－151 | With 40－minute Vial | ＂ |
| 5200－152 | With 20－minute Vial | 를 |
| 5200－154 | With Compass | 諒 |
| 5200－155 | With 40－minute Vial and Compass | 维 |
| PART NO． | Quick Release Cradles |  |
| 5198－073 | Nautiz N7，DAP 9800，SDR33，Titan | E－ |
| 5198－081 | PDA | 翟 |

## Quick Release Cradle



5198-086

## FEATURES \& BENEFITS

-5198-086 cradle requires Leica pole bracket, any model. This modifies the Leica pole bracket to work with SECO poles.

- Requires a SECO quick-release pole bracket

5198-086 — Quick Release Cradle for Leica Pole Bracket E

## Tripod Data <br> 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 $31.8-\mathrm{mm}$ ) 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 ${ }^{\circledR}$ cable strap to help manage radio cables
- Weighs $0.22 \mathrm{lb}(0.10 \mathrm{~kg})$


2133-03 - Antenna Bracket

- 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 $1 / 2$ inch 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 䨐

- Easy installation and removal - Adjust location on tripod leg for your convenience
- Powder painted aluminum
- Weight $0.40 \mathrm{lbs} / 0.18 \mathrm{~kg}$


5196-22 - Tripod Hook TSC7 / Ranger 7

- 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


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


- 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 - TLVTM 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


## FEATURES \＆BENEFITS

－Includes a one－piece design and two locking systems for stability
－Zero height，reads direct
－The snap lock prevents slippage and the compression lock
centers the telescopic inner pole and maintains straightness
－Telescoping rods include standard locking lengths and also have OPTIONAL outer graduations in metric（GM）， 10ths／100ths（GT）
－Your choice of either aluminum or carbon fiber rod includes a 40－minute vial
－Order 8160－00－ORG for standard case
－Order 8151－02－FLY system bag （tripod or bipod）

| PART NO． | POLE | OPTIONAL OUTER GRADS | LOCKING LENGTHS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5125－20－FLY | Aluminum | 10ths／100ths（GT）or Metric（GM） | 2 m | $2.30 \mathrm{lb}(1.05 \mathrm{~kg})$ | ［ |
| 5125－20－YEL | Aluminum | 10ths／100ths（GT）or Metric（GM） | 2 m | $2.30 \mathrm{lb}(1.05 \mathrm{~kg})$ | 滈 |
| 5125－22－FLY | Aluminum | 10ths／100ths（GT） | 2，1．8， 1.6 m | $2.30 \mathrm{lb}(1.05 \mathrm{~kg})$ | ［ |
| 5128－20 | Carbon Fiber | 10ths／100ths（GT），Metric（GM） | 2 m | $1.60 \mathrm{lb}(0.73 \mathrm{~kg})$ | 䧚 |
| 5128－22 | Carbon Fiber | 10ths／100ths（GT）or Metric（GM） | 2，1．8， 1.6 m | $1.60 \mathrm{lb}(0.73 \mathrm{~kg})$ | 䧚 |
| 5128－24 | Carbon Fiber | Standard only | $1.8,1.6 \mathrm{~m}$ | $1.60 \mathrm{lb}(0.73 \mathrm{~kg}$ ） | 15 |

## 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 below）
－TLV＇M（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 | 気 |
| 5527－11 | 0.50 to 0.70 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 | 以 |
| 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 | ［浱 |
| 5527－17 | 1.58 to 3.60 m | Carbon Fiber | ＠1．8，2．0M | 2090－12 | ＂ |
| 5527－20 | 1.58 to 3.60 m | Aluminum |  | 2090－12 | ＂， |
| 5527－22 | 1.58 to 3.60 m | Carbon Fiber | ＠ 1.8 to 3.6 M every ．2M | 2090－12 | ＂ |
| 5527－30 | 1.65 to 4.65 m | Aluminum |  | 2090－12 | ＂틀 |

Aluminum Pole Series with Locking Pins，Adapter
－Extends to 2．6M
－ 0 Height，graduated in centimeters
－Locking pin holes at $1.8 \mathrm{M}, 2.0 \mathrm{M}, 2.2 \mathrm{M}$ ， 2．4M，2．6M
－ $40^{\prime}$ 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

## 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


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 铚

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
$360^{\circ}$ Robotic Prism Assembly

Copper-coated 35 mm prisms


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

## 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 -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 -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 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 ( $1.8-\mathrm{m}$ )
- 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

- 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 x 11 Triple Mag Mount 5114-10 - Triple Mag Mount for Trimble 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 $3.1 \mathrm{ft}(0.95 \mathrm{~m})$ 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
留

- 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


- 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 ${ }^{\text {TM }}$ XL is composed of six, 1-in (25.4-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

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


5125-050 — GNSS Compass
E

- Constructed from anodized aluminum


2120-00 - Tripod Adapter 3-1/2 $\times 8$ to $5 / 8 \times 11$

## Drone Ground Control Targets



## 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 .

Minimum Order Quantity 3. This product does not qualify for Free Freight.

6705-30 - Drone Ground Control Targets


Propeller AeroPoints Generation 2


## FEATURES \& BENEFITS

- Generation 2 Propeller

AeroPoints offers significant upgrades.

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

Minimum Order Quantity 10.

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.

## UTV Roll Cage Transporter for GNSS 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 $63-\mathrm{in}(160-\mathrm{cm})$ 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 | WEIGHS |  |
| :---: | :---: | :---: | :---: |
| $5114-40-01$ | 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 7


## FEATURES \& 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 $1.5^{\prime \prime}$ balls for stable positioning holding
- Weighs only 1.4 lbs 0.64 kg


5198-52 - Bracket ATV, TSC7 / Ranger 7
틀

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 Weighs $0.95 \mathrm{lb}(0.43 \mathrm{~kg})$ note pad, phone, or other small items
- Organizer strap holds pens, pencils, markers, and other necessary tools
Vials
Vial for TLV ${ }^{\text {m" }}$ Locks


## 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 $0.60 \mathrm{lb}(0.27 \mathrm{~kg})$

6703-001 - 100 mm Scanner Sphere

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

Center height is 49 mm from bottom flat

- Height adapters: 6703-005 or 6703-002 see page 20

6704-001 - 230 mm Scanner Sphere

## Sphere Adapters,

Accessories and Case

| -3-7/8 inch diameter housing | - Anodized aluminum body | Anodized aluminum body |
| :---: | :---: | :---: |
| - 3-1/2 inch ceramic grade 5 magnet <br> - 120 pounds of pull force | - Male and female $5 / 8 \times 11$ threads <br> - Height is 21 mm | Male and female $5 / 8 \times 11$ threads |
| - Stainless steel $5 / 8 \times 11$ stud | - Center height is 135 mm with 230 mm | - Height is 48 mm |
| - Height is 21 mm <br> - Weighs $0.95 \mathrm{lb}(0.43 \mathrm{~kg})$ | Sphere (6704-001) <br> - Weighs $0.05 \mathrm{lb}(0.02 \mathrm{~kg})$ | - Center height is 196 mm with 230 mm Sphere (6704-001) and Tribrach Adapter (2070-00) Weighs $0.10 \mathrm{lb}(0.04 \mathrm{~kg})$ |
| 6704-002 - Magnet with 5/8 $\times 11$ Stud | 6704-003 - 21 mm Male and Female 5/8 x 11 Adapter | 6704-004 - 48 mm Male and Female 5/8 x 11 Adapter |

- Includes three 230 mm scanner spheres in a hard case
- Includes cover bag for each sphere for insulation and scratch protection
- Airline approved shipping case
- Weighs $17.60 \mathrm{lb}(7.98 \mathrm{~kg})$

6704-10-CASE - Carrying Case solo
D12560 - Cloth cover for the 230 mm sphere 6704-10 - Hard Case and three (3) 230 mm Scanner Spheres
$3 / 8 \times 16$ stainless steel male stud

- Three prong tribrach interface connection
- Height is 60.5 mm
- Height to target with the TX5 / FARO3D
achieves 196 mm
Weighs $1.35 \mathrm{lb}(0.61 \mathrm{~kg})$


6703-011 - 196 mm HT Tribrach Adapter for TX5/FARO3D

- "Quick Release Adapter" specifically for Trimble TX5 and Faro Focus 3D scanners
- Quick and safe connection between the scanner instrument and a Gitzo or any tripod with a male $3 / 8 \times 16$ thread
Rotates smoothly on Delrin ${ }^{\circledR}$ bearing for orientating the instrument
- Clamp screw is captured and protected from damage
- Anodized aluminum and stainless steel materials
- Base has a setscrew to lock base to tripod head
- Built-in 100-minute level vial on base
- Weighs $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$




## 6703-007 — Wall Washer Adapter

- Stainless steel $1 / 4 \times 20$ stud
- Chrome-plated steel cup
- 2.03 inch OD steel cup
- Grade 8 ceramic magnet
- Center height when using the 6703-001 is 72.5 mm
- 40 pounds ( 18.14 kg ) of pull force
- Weighs $0.20 \mathrm{lb}(0.09 \mathrm{~kg})$

6703-002 - Magnet
 with $1 / 4 \times 20$ Stud

- Rubber tips on stainless-steel legs prevent scratching of delicate surfaces
- Folding legs make tripod very portable
- Made of anti-corrosive materials
- Steel-plated washer atop tripod easily attaches to scanner sphere
- Height is 39 mm
- Weighs $0.15 \mathrm{lb}(0.07 \mathrm{~kg})$
- (Sphere not included)


6703-008 - Scanner Sphere Mini Tripod

- Brass washers centers to 6703-002 magnet base connection
- 90 pounds of pull force
- Connects to pipes and flat surfaces
- Weighs $0.90 \mathrm{lb}(0.41 \mathrm{~kg})$


6703-013 - V-Base with Washer Magnet

- Pelican ${ }^{\circledR}$ hard shell case features custom foam keeping spheres, prisms, adapters, etc., safe and secure
-6703-11 includes ten 100 mm scanner spheres and ten magnets with $1 / 4 \times 20$ studs
- Dimensions: $24.5 \times 19 \times 9$ in ( $62.3 \times 48.3 \times 22.9 \mathrm{~cm}$ )
- Weighs 22.00 lb ( 10.00 kg )


6703-11 - 10 piece 100 mm Sphere Kit E includes Hard Case


## 8082-01-ORG - Soft Case for

 100 mm Scanner Spheres- Pelican ${ }^{\circledR}$ hard shell case features custom foam keeping spheres, prisms, adapters, etc., safe and secure
- Same dimensions as 6703-11
- Weighs 14.00 lb ( 6.36 kg )


6703-014 - Pelican Case for 100 mm Spheres (spheres sold separately)

## 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 target plate
Axis height 135 mm

- 5/8-11 threaded base - Weight $0.90 \mathrm{lbs}, 0.41 \mathrm{~kg}$

6705-10 - Target, Tilting, 6" B/W E

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.
- Contrasting 6 " (152mm) Black and White pattern
- Matte non-glare target material
- Material is 3M 3.2-mil vinyl films with a pressure-sensitive adhesive and air release channels for easier, bubble-free 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 )

6705-20 - Target, Adhesive, 150X200mm, B/W, 10pk

## Carbon Fiber Robotics Poles

## 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 TLVTM 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 | WEIGHS |  |
|  | 5129-52 | Dual | 1 | Every 0.5 ft | 10ths/100ths (GT) | $4.97 \mathrm{ft}-8.53 \mathrm{ft}$ | $2.30 \mathrm{lb}(1.04 \mathrm{~kg})$ | 気 |
|  | 5129-53 | Metric | 1 | Every 20 cm | Metric (GM) | $1.53 \mathrm{~m}-2.6 \mathrm{~m}$ | $2.30 \mathrm{lb}(1.04 \mathrm{~kg})$ | E |
|  | 5129-72 | Dual | 2 | Every 0.5 ft | None | $5.18 \mathrm{ft}-11.81 \mathrm{ft}$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 틀 |
|  | 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) | $8.5 \mathrm{ft} / 2.6 \mathrm{~m}$ | $2.3 / 1.04 \mathrm{~kg}$ | 틀 |
|  | 5129-53-5W | Metric | 1 | Every 20 cm | Metric (GM) | $8.5 \mathrm{ft} / 2.6 \mathrm{~m}$ | 1.04 kg | = |
|  | 5129-72-SW | Dual | 2 | Every 0.5 ft | 10ths/100ths (GT) | $11.8 \mathrm{ft} / 3.6 \mathrm{~m}$ | $3.3 / 1.5 \mathrm{~kg}$ | E |
|  | 5129-73-5W | Metric | 2 | Every 20 cm | Metric (GM) | 11.8 ft / 3.6 m | 1.5 kg | "E |

## Telescopic Carbon Fiber Prism Pole

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
Collapses to $4.97 \mathrm{ft}(1.51 \mathrm{~m})$ graduations and $O D$ is 1.27 in Weighs $2.30 \mathrm{lb}(1.05 \mathrm{~kg})$ ( 32 mm )

- Extends 8.53 ft ( 2.60 m )



## Swiss-Style TLV and Twist-Lock Prism Poles

Twist Lock with Vial (TLV)

|  | FEATURES \& BENEFITS <br> - Swiss-style tip (for 86 mm prism heights) for GPH1-type prisms <br> - 1.25 - or 1.50 -inch (31.75- or | $38.1-\mathrm{mm}$ ) outside diameter - Dual or metric graduations TLVTM or Twist-Lock mechanisms | -Comes in 1 or 3 sections <br> - The popular TLV locking system provides simple but secure locking |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PART NO. SECTIONS LOCK STYLE | Lengit | OD | Grads | WEIGHS |  |
|  | 5501-11 11 TLV | $8.53 \mathrm{ft}-4.97 \mathrm{ft}(2.60 \mathrm{~m}-1.51 \mathrm{~m})$ | $1.25 \mathrm{inch}(31.75 \mathrm{~mm})$ | Dual | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | $\underline{\underline{\underline{\underline{\underline{E}}}}}$ |
|  | 5521-11 1 | $2.60 \mathrm{~m}-1.51 \mathrm{~m}$ | 31.75 mm | Metric | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | E |
|  | 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 | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | $\underline{\underline{\underline{\underline{\underline{E}}}}}$ |

## Quick－Release Telescopic Prism Poles

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


TLV and Twist－Locking Telescopic Prism Poles
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 | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $5700-10$ | Dual | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | $4.97 \mathrm{ft}(1.52 \mathrm{~m})$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ |  |
| $5720-10$ | Metric | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | $4.97 \mathrm{ft}(1.52 \mathrm{~m})$ | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ |  |
| $5700-20$ | Dual | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | $5.18 \mathrm{ft}(1.58 \mathrm{~m})$ | $5.10 \mathrm{lb}(2.30 \mathrm{~kg})$ | ＝ |



## 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

| Part No． | SECTIONS | TIP | EXTENDED | COLLAPSED | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5500－11 | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | 4.97 ft （1．52 m） | Dual | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ |  |
| 5512－11 | 1 | Fixed | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | 4.97 ft （1．52 m） | Dual | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 些 |
| 5520－11 | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | 4.97 ft （1．52 m） | Metric | $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$ | 를 |
| 5500－21 | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | $5.18 \mathrm{ft}(1.58 \mathrm{~m})$ | Dual | $5.10 \mathrm{lb}(2.32 \mathrm{~kg})$ | ＂ |
| 5520－21 | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | $5.18 \mathrm{ft}(1.58 \mathrm{~m})$ | Metric | $5.10 \mathrm{lb}(2.32 \mathrm{~kg})$ | 吅 |
| 5500－30 | 3 | Adjustable | $15.25 \mathrm{ft}(4.65 \mathrm{~m})$ | $5.41 \mathrm{ft}(1.65 \mathrm{~m})$ | Dual | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | ＂ |
| 5520－30 | 3 | Adjustable | $15.25 \mathrm{ft}(4.65 \mathrm{~m})$ | 5.41 ft （1．65 m） | Metric | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | ＂틀 |

Quick Change Pole Adapters

Use with SECO Quick Change Prism Poles to achieve desired height


FEATURES \＆BENEFITS
－Using adapters，any of the poles in the Quick Change series can be used for GNSS，
robotics or total station surveys
Quick conversions to another application by changing adapters

Simple adapter determinations： 150 mm minus your target height $=$ length of adapter needed

| Part No． | Target | Target Height | Length＂L＂ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2090－10 | Leica GPH1 | 60 mm | 90 mm | 陘 |
| 2090－11 | SECO 6400 Series | 100 mm | 50 mm | 辰 |
| 2090－12 | SECO 6400 Series | 115 mm | 35 mm | ＝ |
| 2090－13 | Trimble RMT | 135 mm | 15 mm | 言 |
| 2090－14 | Adjustable 5／8×11 | 50 mm to 135 mm | N／A | 䮖 |
| 2090－15 | GNSS Antenna | 0 mm | 150 mm | 5， |
| 2090－17 | Leica Adjustable | 86 mm to 125 mm | N／A | 辰 |
| 2090－19 | SECO Mini Prisms | 70 mm | 80 mm | 汤 |
| 2090－21 | Topcon 360 Prism | 77 mm | 73 mm | 틀 |
| 2090－26 | Topcon APT1／2 | 50 mm | 100 mm | E＂ |
| 5079－066 | Laser Detector Adapter | 0 mm | 150 mm | 翏 |

## Compression Lock Telescopic Prism Poles

## 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 $3.30 \mathrm{lb}(1.50 \mathrm{~kg})$


| Contractor Series TLV Prism Poles | Import TLV＇M prism poles |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FEATURES \＆BENEFITS <br> Dual－section Twist lock Prism Pole <br> －Aluminum outer and inner pole |  |  | －Includes 40－minute level vial <br> －5／8 Adjustable Tip <br> －Metric Grad（cm） <br> －Hardened steel points |  | －TLV locking mechanism <br> －Color：Red and White <br> －Length $3.60 \mathrm{~m}(11.81 \mathrm{ft})$ ， <br> －Weighs $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ |  |  |
|  | PART No． | SECTIONS | TIP | LENGTH | POLE TYPE | GRADS | WEIGHS |  |
|  | 5530－10 | 1 | Adjustable | $8.53 \mathrm{ft}(2.60 \mathrm{~m})$ | Aluminum | Dual | $2.67 \mathrm{lb}(1.21 \mathrm{~kg})$ | 䝂 |
|  | 5531－10 | 1 | Adjustable | 2.60 m | Aluminum | Metric | $2.67 \mathrm{lb}(1.21 \mathrm{~kg})$ | PE |
|  | 5530－20 | 2 | Adjustable | $11.81 \mathrm{ft}(3.60 \mathrm{~m})$ | Aluminum | Dual | $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ | 䝂 |
|  | 5531－20 | 2 | Adjustable | 3.60 m | Aluminum | Metric | $3.65 \mathrm{lb}(1.66 \mathrm{~kg})$ | 気 |
|  | 5530－30 | 3 | Adjustable | $15.25 \mathrm{ft}(4.65 \mathrm{~m})$ | Aluminum | Dual | $5.38 \mathrm{lb}(2.44 \mathrm{~kg})$ | 颐 |
|  | 5531－30 | 3 | Adjustable | 4.65 m | Aluminum | Metric | $5.38 \mathrm{lb}(2.44 \mathrm{~kg})$ | － |

## Contractor Series Compression Lock Poles

Traditional Compression lock import prism poles


## FEATURES \＆BENEFITS

－These＇no－frills＇imported poles are designed to give service in the field at a lower purchase price

Your choice of metric（cm）or Hardened steel points
dual（cm／10ths）graduations $\quad$ Red and white color
－Aluminum outer and inner pole
40－minute level vials
－Adjustable tip

| PART NO． | SECTIONS | TIP | LENGTH | POLE TYPE | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5631－10 | 1 | Adjustable | 2.60 m （8．53 ft） | Aluminum | Metric | $2.65 \mathrm{lb}(1.20 \mathrm{~kg})$ | ＂ |
| 5631－20 | 2 | Adjustable | 3.60 m （11．81 ft） | Aluminum | Metric | $3.45 \mathrm{lb}(1.56 \mathrm{~kg})$ | 気 |
| 5631－30 | 3 | Adjustable | 4.65 m（15．25 ft） | Aluminum | Metric | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | ＂ |

## 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 ${ }^{\text {TM }}$ 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 $1.79 \mathrm{lb}(0.81 \mathrm{~kg})$

## Prism Tips and Topo Shoes

3．37－inch $(85.6-\mathrm{mm})$ steel body
Weighs $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$ Prism Pole Point
3．37－inch（85．6－mm）steel body，
removable point
Weighs $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$
5194－00 — Prism Pole Point
with Replaceable Plumb Bob Point
3．37－inch（85．6－mm）aluminum body
Removable point
Weighs $0.10 \mathrm{lb}(0.05 \mathrm{~kg})$
5194－01－Aluminum
Replaceable Point
－3．37－inch（ $85.6-\mathrm{mm}$ ） aluminum with steel tip （91605）
－Weighs $0.01 \mathrm{lb}(0.004 \mathrm{~kg})$
－The topo－shoe（91601） screws over the precision point made of black nylon and increases the area of the point for the use on soft surfaces in topo shots
－Weighs $0.05 \mathrm{lb}(0.02 \mathrm{~kg})$

91605 －Aluminum Prism Pole
Point and Steel Tip
91601 －Topo Shoe
－Features an ＇L－Bracket＇ to rest the prism pole point on and the adjustable top piece
－Convenient for adjusting and calibrating pole vials in the office
－Use the adjustable top to center your pole before adjusting the bubble
－Weighs $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$


5194－007－KIT－ 40 each Prism Pole Dull Point
－Hardened steel replacement point for 5194－series
－Weighs $0.06 \mathrm{lb}(0.03 \mathrm{~kg})$

5194－003－KIT－ 40 each， 틀 Prism Pole Sharp Point
－This point features an anodized aluminum body and an easy－to－replace steel point
－Weighs $0.16 \mathrm{lb}(0.07 \mathrm{~kg})$

5194－05－KIT－ 15 each，Prism
Pole Point，Sharp
－This prism allows for easy determination of right angle points or perpendicular points between two targets


4900－00 — Double Right－Angle
Prism
阯
－Stedi－Rest ${ }^{\oplus}$ fits any 1.25 to 1.5 inch（ 31.75 to 38.1 － mm ）pole and can take the place of
 three separate products
－Weighs $0.15 \mathrm{lb}(0.07 \mathrm{~kg})$

## －The Center Punch Point fits all poles or products with male $5 / 8 \times 11$ threads

－The hardened steel point will mark all metal and non－metal surfaces
－Weighs $0.20 \mathrm{lb}(0.09 \mathrm{~kg})$

5194－10－Center Punch Point 5194－10－002－Replacement Point
－The point features an aluminum body and an easy－to－replace steel point
－Male $5 / 8 \times 11$ Thread
－Weighs $0.16 \mathrm{lb}(0.07 \mathrm{~kg})$

5194－04－Point Assembly

－3．37－inch（ $85.6-\mathrm{mm}$ ）aluminum body
－Weighs $0.34 \mathrm{lb}(0.15 \mathrm{~kg})$

5191－00－Prism Pole Topo Shoe
点

3．37－inch（ $85.6-\mathrm{mm}$ ）length
－ 64 mm OD with steel body
－Weighs $1.26 \mathrm{lb}(0.57 \mathrm{~kg})$


5192－00 — Wide Base Topo Shoe $\sqrt{\text { E }}$
－Allows easy conversions from ＇control＇to＇topo＇surveys


5192－02－Topo Shoe
阿 and Point Combo

2－inch（ 50.8 －mm）diameter chrome－
plated steel housing with grade－8
ceramic magnet ring
Standard topo shoe length， 3.375 －inch
（85．7－mm）
Magnet has 40 pounds of pull force on
$3 / 8$－inch $(9.5-\mathrm{mm})$ clean steel plate
Female $5 / 8 \times 11$ threads are machined brass
Black anodized aluminum alloy 6061 body
Tilting pivot allows measurement on sloped or flat
pipe surfaces
Weighs $0.55 \mathrm{lb}(0.25 \mathrm{~kg})$

## Range 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 | $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$ | $\underline{\underline{\underline{\underline{\underline{E s}}}}}$ |
| 5132－00－ACL | 1 in（ 25 mm ） | 6 in（ 15.2 cm ） | Aluminum | $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$ | 気 |
| 5130－01－FLY | 1 in（ 25 mm ） | $1 \mathrm{ft}(30.5 \mathrm{~cm})$ | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 翏 |
| 5902－00－FLY | 1 in（ 25 mm ） | 50 cm （19．69 in） | Aluminum | $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$ | E気 |
| 5131－01－FLY | 1 in（ 25 mm ） | 2 ft （61 cm） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ | 区 |
| 5901－00－FLY | 1 in（ 25 mm ） | 1 meter（39．37 in） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ | 気 |
| 5110－01－FLY | 1 in（ 25 mm ） | $4 \mathrm{ft}(1.22 \mathrm{~m})$ | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 㘹 |
| 5145－00－FLY | 1.25 in（32 mm） | 25 cm （9．84 in） | Aluminum | $0.90 \mathrm{lb}(0.41 \mathrm{~kg})$ | 1， |
| 5130－00－FLY | 1.25 in（32 mm） | $1 \mathrm{ft}(30.5 \mathrm{~cm})$ | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 單 |
| 5144－00－FLY | 1.25 in（32 mm） | 50 cm （19．69 in） | Aluminum | $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ | 㖪 |
| 5131－00－YEL | 1.25 in（32 mm） | 2 ft （61 cm） | Aluminum | $1.10 \mathrm{lb}(0.50 \mathrm{~kg})$ |  |
| 5143－00－FLY | 1.25 in（ 32 mm ） | 1 meter（39．37 in） | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 阿 |
| 5110－00－FLY | 1.25 in（32 mm） | 4 ft （1．22 m） | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | 10］ |
| 5110－00－RED | 1.25 in（ 32 mm ） | $4 \mathrm{ft}(1.22 \mathrm{~m})$ | Aluminum | $1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ | ＂e |
| 5145－03 | 1 in（ 25 mm ） | 25 cm （9．84 in） | Carbon Fiber | $0.35 \mathrm{lb}(0.16 \mathrm{~kg})$ | 気 |
| 5145－02 | 1.25 in（ 32 mm ） | 25 cm （9．84 in） | Carbon Fiber | $0.35 \mathrm{lb}(0.16 \mathrm{~kg})$ | 気 |
| 5144－02 | 1.25 in（ 32 mm ） | 50 cm （19．69 in） | Carbon Fiber | $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$ | － |
| 5143－02 | 1.25 in（ 32 mm ） | 1 meter（39．37 in） | Carbon Fiber | $0.70 \mathrm{lb}(0.32 \mathrm{~kg})$ | 限 |
| 5130－10 | 1.25 in（32 mm） | 0.20 meter（ 7.87 in ） | Fiberglass | $0.34 \mathrm{lb}(0.15 \mathrm{~kg})$ | 鶷 |

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

5150－02－WOR－Contractor Series 12－ft Range Pole

## Prism Pole Bipods \& 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 $32-\mathrm{mm}$ ) 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 $4.25 \mathrm{lb}(1.93 \mathrm{~kg})$
- 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 lbs ( 0.84 kg )

Bipod and Pole not included.

5218-06-FLY - Solo Leg with Clamp
至
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-inch ( $38.1-\mathrm{mm}$ ) OD poles can be loaded through the top
- Collapses to 43 -inches ( $109-\mathrm{cm}$ )
- Legs (independently) extend to 6 -feet ( $1.8-\mathrm{m}$ )
- Weighs $4.10 \mathrm{lb}(1.86 \mathrm{~kg})$

Includes
No-Crush Head


5219-03 - Carbon Fiber Thumb Release Bipod

- 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 $6-\mathrm{ft}(1.8-\mathrm{m})$
- Weighs $4.10 \mathrm{lb}(1.86 \mathrm{~kg})$


5219-05 - Carbon Fiber Thumb Release Tripod 亶

- To upgrade older bipod models, use this upgrade kit
- Contoured head design prevents crushing of carbon fiber range or prism poles even when excess force is used
- All metal design is "form fitting" for all popular pole sizes.
- Weighs $4.25 \mathrm{lb}(1.93 \mathrm{~kg})$


## 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 $\underline{\underline{\underline{\underline{E E}}}}$

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 $1.5-\mathrm{inch}(38.1-\mathrm{mm})$ 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 $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$

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 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 $6.00 \mathrm{lb}(2.60 \mathrm{~kg})$


5214-00 - Alligator Clamp Prism Pole Tripod
E

- Constructed of powder-coated aluminum
- Weighs $6.00 \mathrm{lb}(2.60 \mathrm{~kg})$
- SECO manufactured, not imported
- 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 1.5inch ( 25.6 - to $38.1-\mathrm{mm}$ ) OD
- Legs extend (independently) to 6 -ft (1.8-m)
- Feature large, smooth, thumb release buttons


## 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 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.



## Premier Prism Assemblies



## FEATURES \& BENEFITS

- Features a -35 mm offset and a prism accuracy of $<5$ seconds
- Mounting base features standard female $5 / 8 \times 11$
threads
Tilting holder is constructed of
anodized aluminum
Height of the prism in the
holder is 135 mm
- 62 mm silver-coated prism is encased in a heavy-duty canister with M20 threads
- Weighs $1.75 \mathrm{lb}(0.80 \mathrm{~kg})$
- Nodal

| Part No. | TARGET COLOR | TARGET 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
- 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 $5 / 8 \times 11$ threads
- Weighs $1.75 \mathrm{lb}(0.80 \mathrm{~kg})$

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

## 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 powder-painted die cast aluminum
- Uses a simple but proven locking system
- Target size 5.5" x 7"
- Mounted in either 0 or -30 mm offset positions
- Tilting axis height is 115 mm
- Weighs $1.35 \mathrm{lb}(0.62 \mathrm{~kg})$

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

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 $2000 \mathrm{ft}(600 \mathrm{M}$ )
Prism Height 86 mm
Push Button Quick Release

Prism Height 86 mm

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


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

## E

## MINI 360 PRISM KIT

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


## FEATURES \& BENEFITS

- Compatible with Leica instruments and offsets

40 .ircular Vial, sensitivity 40 minutes

- Ceiling hook included
- Kit weight $1.2 \mathrm{lbs}(0.55 \mathrm{~kg})$
- Prism accuracy $<5$ seconds
- Includes 430 cm extensions with 5 cm point, 1/4-20 threads
- Prism Offset + 30 mm
- Carrying case included

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

## Prism Assembly: Tilting Single

Swiss Style Prism Assembly


FEATURES \& BENEFITS

- Includes copper-coated 62 mm prism (6411-02)
- 30 mm offset aluminum prism holder, sealed with a rugged corrosion-proof electrostatic powder paint coating

Target Size: $4.75^{\prime \prime} \times 4.75^{\prime \prime}$

- 115 mm prism height
- Weighs $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$

6440-00-FOR — Single Prism Tilting Assembly

## Prism: Sliding, <br> 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 mm ) silver-coated prism with
protective rubber ring
- 0 offset and 40-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
Compleste system is perfect for longer distances

## 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 $0.62 \mathrm{lb}(0.28 \mathrm{~kg})$


6405-01-FOR - 25 mm Stakeout Prism Assembly - Flo Orange 6405-01-FLY - 25 mm Stakeout Prism Assembly - Flo Yellow

- The white site cones on X and Y axis of the assembly help improve centering of your instrument's crosshairs for vertical and horizontal pointing
- Used in four height configurations: 50 mm , $100 \mathrm{~mm}, 115 \mathrm{~mm}$ and 150 mm , top or bottom of the pole, handheld, or tribrach mounted
- Choose between $01-30 \mathrm{~mm}$ or -17.5 mm (nodal) offsets
- Weighs $0.80 \mathrm{lb}(0.36 \mathrm{~kg}), 1.30 \mathrm{lb}(0.59 \mathrm{~kg})$ with heavy-duty point


[^1]- 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 <br> 醇

- The 25 mm Stakeout Prism Assembly features 'site cones' that improve vertical angle pointing - the site cones double as tiltingaxis 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 $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$


6405-12-FOR - 25 mm Stakeout Prism Assembly

| Prism System: Tilting Mini |  |  |  |
| :---: | :---: | :---: | :---: |
|  | FEATURES \& BENEFITS | plumb bob attachment; Mini | - 0 and -30 offsets |
|  | - The Eclipse ${ }^{\text {TM }}$ mini system | Bob Prism Mount; Point, and | - Black hardware |
|  | includes: a Mini Tilting Prism; | Belt Case | - Case included <br> - Weighs $0.30 \mathrm{lb}(0.14 \mathrm{~kg})$ |
|  | 450-00-BLK - Tilting Mini Prism System |  |  |

## Prisms: Sliding and Pin Pole Kits

## Site cones double as locks

- This Euro-Style Pole System features a 40-minute adjustable vial, white sight cones and a $5 / 8 \times 11$ adapter for standard prism poles (for height of 115 mm )
- All 30 cm sections are anodized aluminum
- A carrying case is also included
- Weighs 1.60 lb ( 0.73 kg )

- 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 with a 15 cm mark
- 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 $1.40 \mathrm{lb}(0.63 \mathrm{~kg})$


5910-05 - Feet, 0 Offset (shown) 5910-06 - Metric, 0 offset


童

- 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

## Walleye Prism System



## FEATURES \＆BENEFITS

－Lightweight and inexpensive， made to be set up and left for extended periods
－Features \＆Benefits
－The Walleye ${ }^{\text {TM }}$ Prism System accommodates a full size 62 mm prism（6411－03－BLK）for long range applications or when a larger prism is needed －Rain hood helps keep the
prism clean to ensure continual measurements over a long measuring cycle
－The flat bottom of the L－Bracket is a large $2.3 \times 3.4$ inch（ 58.24 $x 86.36 \mathrm{~mm}$ ）with five holes for mounting to a variety of surfaces
－Components available individually so you can configure your specific needs

The system is compatible with all M20 screw－in type prism canisters
－Center pivot hole is $3 / 8$ inch （ 9.5 mm ），the four screw holes are 4.5 mm OD
－Features include a－ 40 mm offset，$\pm 2 \mathrm{~mm}$ ，ability to pivot in two axes，stainless－steel locking
System weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$

| Part No． | Description |  |
| :---: | :---: | :---: |
| 6603－00 | Complete Walleye Prism System with Prism and 5／8×11 Adapter | 틀 |
| 6603－01 | Complete Walleye Prism System with Prism and M8 Adapter | ［ |
| 6603－00－050 | L－Bracket Assembly Only | 䮖 |
| 6603－00－005－TMB | Rain Hood Only | 止 |
| 6603－01－051 | M8 Adapter with Screws and Washer | E |

## Monitoring Survey Targets

6605 series－Copper－coated Mini－ prism with $360^{\circ}$ Rotation \＆Magnetic attachment
－Twistable， 25.4 mm mini－prism made with a rugged plastic housing system．
－Easy to align precisely with any measuring instrument．
－Perfect target to monitor bridges，rail lines， buildings and other structures quickly and accurately．
－Multiple mounting solutions：magnetic system， mounting adhesives or screws

## Product characteristics：

－Copper coated mini prism．Diameter： 25.4 mm with a tolerance of $+/-0.2 \mathrm{~mm}$
－Height of the 25.4 mm prism： 13.125 mm
－Accuracy is 5 arc sec with a tolerance of $+/-2$ arc
$\rightarrow$ Offset－ 16.9 （minus 16．9），height of tilting axis： 45 mm
－Recommended measurement range： 600 meter
－Two color available：Red or Grey

## 6606 series－Retro Reflective <br> 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．

## Survey targets range：

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

## 6604 series－Retro Reflective Target with $360^{\circ}$ Rotation

－Twistable， $30 \times 30 \mathrm{~mm}$ reflective target made with a rugged plastic housing system which can be rotated $360^{\circ}$ for unlimited tilting and turning options．
The target can easily be glued to difficult surfaces such as glass and marble facades，historic buildings， steel girders，rail lines，gas and oil pipelines，etc．or can be attached using bolts and screws．

## Product characteristics：

－ $30 \times 30 \mathrm{~mm}$ retro reflective target with cross hairs
－Accuracy is 5 arc sec with a tolerance of $+/-2$ arc
－Offset 0 ，height of tilting axis： 45 mm
Recommended measurement range： 80 meter
two color available：Red or Grey

| Part No． | M2M description | $\begin{gathered} \text { PRISM } \\ \text { BACKING } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: |
| 6604－20－R | 30 mm swivel survey Target | COPPER | ＂ |
| 6604－20－G | 30 mm swivel survey Target | COPPER | 㓞 |
| 6605－60M－R | MP swivel survey Target | COPPER | 틀 |
| 6605－60M－G | MP swivel survey Target | COPPER | ＝ |
| 6606－04－30 | $30 \times 40 \mathrm{~mm}$ reflective target | N／A | 틀 |
| 6606－04－40 | $40 \times 40 \mathrm{~mm}$ reflective target | N／A | 陚 |
| 6606－04－60 | $60 \times 60 \mathrm{~mm}$ reflective target | N／A | 三틀 |



## 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 $492 \mathrm{ft}(150 \mathrm{~m})$
- 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 䧚 Mini Prism - Diamond Pattern
Mini Prisms

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

Features a 60 mm diamond pattern sheeting and a
2 mm offse

## FEATURES \& BENEFITS

- Makes the 6600-01,-03,-04 (page 38) compatible with "BW

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

6600-01-001 - M16 x 1-6H


## Single Prism Traverse Kit



## FEATURES \& BENEFITS

- Includes a 62 mm prism with silver-coated canister (6400-10, 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 (2153-10, see
page 41) that is compatible with all prisms with a 24.9 mm bayonet base
- Features a 2.5X 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 $9.95 \mathrm{lb}(4.51 \mathrm{~kg})$

2159-01-BLK - Single Prism Traverse Kit 2159-050 - Hard Shell Traverse Carrying Case (included in kit or sold separately)

Precision Traverse Kit for 155 mm Heights

For Nikon Nivo ${ }^{\text {TM }}$ XF, XS and Trimble C3, C5 M3 Total Stations

FEATURES \& BENEFITS

- Preset to a 155 mm height making it compatible with Nikon NIVOTM Series Total Stations
- Kit includes a 62 mm prism assembly
- Prism has $<5$ arc seconds angle deviation and a silver-coated prism to resist fogging
- Includes rotating tribrach adapter with a 2.5 X pull focus optical plummet and a 45-second adjustable plate vial
- Adapter has a precision machined axis that rotates $360^{\circ}$
- Tilt target has 0 or - 30 offsets
- Over the point accuracy is 0.5 mm at 1.5 meters
- Also included is a (2153-04, see page 41) tribrach which
features three-screw-leveling with center line, an 8 -minute circular vial, and $5 / 8 \times 11$ base thread
- Kit comes in a bright orange, hard shell carrying case (2159050, see above) which features high density foam inserts, nickel plated latches and backpack straps
- Weighs $9.95 \mathrm{lb}(4.51 \mathrm{~kg})$


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

Bright 650 -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 Trimble
"S6" Series Instruments

## European Style Tribrach Choose with or without Optical Plummet



## FEATURES \& BENEFITS

- This tribrach features 2 X 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
- Choose with or without an optical plummet
- Weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$

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

## Traverse Tribrach Adapter

Compatible with all 24.9 mm bayonet base prisms


## FEATURES \& BENEFITS

- The optical plummet is twistfocus with 2.5 X 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 ${ }^{\circledR}$ 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.


## 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 | E |
| 90551 | Screw Clamp | Fiberglass | $17.00 \mathrm{lb}(7.70 \mathrm{~kg})$ | 71 in (1.8 m) | Flat | Black | 琂 |
| 90553 | Dual Clamp | Fiberglass | $17.00 \mathrm{lb}(7.70 \mathrm{~kg})$ | 71 in (1.8 m) | Flat | Black | E |
| 90560 | Dual Clamp | Fiberglass | $20.00 \mathrm{lb}(9.00 \mathrm{~kg})$ | 91 in (2.3 m) | Flat | Black | [ |

Universal Tri-Max Elevator Tripod


## FEATURES \& BENEFITS

- SECO's Universal Tri-Max ${ }^{\circledR}$ Elevator Tripod features a working height range of 4.10 ft ( 1.20 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 m ) for instruments under 15 lb ( 6.80 kg )

- Sections can move up or down
- Machined-aluminum elevator column and fiberglass legs makes for a robust and easy-touse 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

Leving

## 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 $5 / 8 \times 11$ 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 | LEGS | EXTENDS | COLLAPSES | WEIGHS | COLOR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90582 | Dual Lock | Fiberglass | $70.75 \mathrm{in}(179 \mathrm{~cm})$ | $43.75 \mathrm{in}(111 \mathrm{~cm})$ | $13.60 \mathrm{lb}(6.16 \mathrm{~kg})$ | Orange (shown) |  |

Extra-Tall Fiberglass
Elevator Tripod


## 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 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 $(7 \mathrm{~kg})$ when elevating
- Legs and dowels are constructed of fiberglass
for durability, strength and resistance to weathering
- Includes leg straps
- Will fit in tripod carrying bag 8153-10 (page 67)
- Weighs $33.10 \mathrm{lb}(15.00 \mathrm{~kg})$


## APPLICATIONS

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


## Birch Wood / Fiberglass

 Hybrid Tripod

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

Improved kiln dried birch wood / fiberglass hybrid tripod models

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)


Square Leg
Aluminum Tripods

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

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

| PART No. | LOCK TYPE | LEGS | WEIGHS | EXTENSION | HEAD | HARDWARE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5301-31-BLK | Quick Clamp | Aluminum (Square) | $9.70 \mathrm{lb}(4.40 \mathrm{~kg})$ | 64 in (1.60 m) | Triangle / Flat | Black | 㘹 |
| 5301-31-ORG | Quick Clamp | Aluminum (Square) | $9.70 \mathrm{lb}(4.40 \mathrm{~kg})$ | 64 in (1.60 m) | Triangle / Flat | Orange | 響 |

## 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 | LEGS | WEIGHS | EXTENSION | HEAD | HARDWARE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5301－21－ORG | Quick Clamp | Aluminum（Round） | $9.35 \mathrm{lb}(4.24 \mathrm{~kg})$ | 65 in（1．65 m） | Triangle／Flat | Orange | 侸 |
| 5301－21－BLK | Quick Clamp | Aluminum（Round） | $9.35 \mathrm{lb}(4.24 \mathrm{~kg})$ | 65 in（ 1.65 m ） | Triangle／Flat | Black | 辰 |
| 5301－25－BLK | Quick Clamp | Aluminum（Round） | $7.45 \mathrm{lb}(3.38 \mathrm{~kg})$ | 63.5 in（1．60 m） | Triangle／Flat | Black | 狺 |
| 5301－24－BLK | Quick Clamp | Aluminum（Round） | $6.75 \mathrm{lb}(3.06 \mathrm{~kg})$ | 27 in（ 68.65 cm ） | Triangle／Flat | Black | ＂ |
| 5311－21－ORG | Quick Clamp | Aluminum（Round） | $7.60 \mathrm{lb}(3.45 \mathrm{~kg})$ | 63.5 in（1．60 m） | Dome | Orange | ＝ |
| 5401－21－BLK | Screw Clamp | Aluminum（Round） | $8.13 \mathrm{lb}(4 \mathrm{~kg})$ | 67 in（ 1.68 m ） | Triangle／Flat | Black | ） |
| 5401－24－BLK | Twist Lock | Aluminum（Round） | $6.75 \mathrm{lb}(3.06 \mathrm{~kg})$ | 27 in（68．65 cm ） | Triangle／Flat | Black | ＂ |

Tripod Dolly


## FEATURES \＆BENEFITS

－Tripod Dolly for all surveying tripods
－Easily maneuvered through doorways

Note：Tripod not included with dolly．


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

| BAGS | PAGE NUMBER | TRIPODS WILL FIT |  |
| :---: | :---: | :---: | :---: |
| 8150－20－ORG | Pg． 67 | Every Tripod Except for；90558，90560，5321－17－ORG | PE |
| 8153－10－ORG | Pg． 67 | 5321－17－ORG and 5115－00 | 氯 |
| 8154－00－ORG | Pg． 67 | 5119－00 | 丰 |
| 8154－10－ORG | Pg． 67 | 5300－11 and 5300－12 | 曶 |
| 8154－11－ORG | Pg． 67 | Every Tripod Except for；90558，90560，5321－17－ORG | PE |
| 8154－12－ORG | Pg． 67 | 5119－10 | E |

## 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 $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$


## 5610－00 — Tripod Stabilizer

－Lightweight and portable，keep your tripod level in all surface conditions
－Simple to use
－Features cleats to minimize slipping
－Attached bungee cables enable easy carrying，hanging or placement
－Sold in packs of three
－Each weighs $0.29 \mathrm{lb}(0.12 \mathrm{~kg})$


5610－11－Sta－Level Feet Tripod Stabilizer（w／Rubber Pads）

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 $17 / 8^{\prime \prime}(45 \mathrm{~mm})$
－Weight $1.05 \mathrm{lbs}(0.48 \mathrm{~kg})$

## 5610－01－Tripod Stabilizer

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



## Leveling Rod Accessories

| －Use with aluminum leveling rods <br> －Weighs $0.50 \mathrm{lb}(0.23 \mathrm{~kg})$ | These replacement rod button kits fit on SECO aluminum leveling rods |
| :---: | :---: |
| 7321－050－Leveling Rod Vial | 70014－6－Round 17 mm Button <br> 70014－7 — Round 13 mm Button w／Ring |
| 6－inch long caliper for SVR／Oval rods and CMR ruler | Adapt the thread size to $5 / 8 \times 11$ for mounting prisms on the LR＇s female adapter <br> Weighs $0.20 \mathrm{lb}(0.09 \mathrm{~kg})$ |
| 91014 －6－inch Caliper for SVR／Oval Rods and CMR Ruler |  |
| －USL／SVR Hook | －Swiss－Style Prism Adapter |
| 91275 －USL／SVR Hook 䝂 | 6601－01－Swiss－Style Prism Adapter 1／4 x 20 Threads 紫 |
| －Snap－Tite ${ }^{\text {S }}$ SVR Rod Level | －Snap－Tite CR Rod Level |
| 91255 －Snap－Tite SVR Rod Level | 91535 －Snap－Tite CR Rod Level $\underline{\underline{\underline{\underline{E E}}}}$ |

－The Leveling Plates（or Turtles as they are commonly known）are cast heavy steel and red powder painted for durability
－Other quality features include chrome plating on the dome，carrying handle and ground points
－Use to improve the accuracy of level runs in soft terrain
－Diameter 5.51 in（ 14 cm ）
－Diameter of half ball 1.81 in $(3 \mathrm{~cm})$
－Height of half ball 0.79 in $(2 \mathrm{~cm})$
－Height of foot to top half ball 2.60 in $(6.6 \mathrm{~cm})$
－Weighs $4.41 \mathrm{lb}(2.00 \mathrm{~kg})$


7304－01 — Leveling Plate（Turtle）
－This bipod features a special head that will hold a rectangular rod
－The head will fit rods with widths between 1.57 inches（ 39.9 mm ） and 2.56 inches（ 65.0 mm ）
－5／8 x 11 Prism Mounting Adapter Kit


91258 － $5 / 8 \times 11$ Prism Mounting Adapter Kit
－This bipod features a special head that will hold a rectangular rod
－The head will fit rods with widths between 2.95 inches（ 74.9 mm ） and 3.8 inches（ 96.5 mm ）
－Depth： 1.75 inches（ 44.4 mm ）


## 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 non－ conductive
－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． | HEIGHT SCALE | LENGTH | GRADS | BACK SCALE | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 98010 | Height Scale | 25 ft （7．6 m） | 10ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ |  |
| 98011 | Height Scale | 25 ft （7．6 m） | 8ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | ＂ |
| 98012 | Height Scale | 25 ft （7．6 m） | 0.5 cm metric | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ |  |
| 98013 | Height Scale | 25 ft （7．6 m） | ＇E＇metric | Yes | $6.00 \mathrm{lb}(2.72 \mathrm{~kg}$ ） | 三 |
| 98014 | Height Scale | 25 ft （7．6 m） | Philly metric | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 鹤 |
| 98015 | Dual Scale | 25 ft （7．6 m） | 8ths／10ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | ＝ |
| 98016 | Dual Scale | 25 ft （7．6 m） | 10ths／Philly Metric | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 痤 |
| 98017 | Dual Scale | 25 ft （7．6 m） | 10ths／10ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | ＂ |
| 98020 | Height Scale | $17 \mathrm{ft}(5.18 \mathrm{~m})$ | 10ths | No | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | ＝ |
| 98021 | Height Scale | $17 \mathrm{ft}(5.18 \mathrm{~m})$ | 8ths | No | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | ＂ |
| 98023 | Height Scale | 17 ft （5．18 m） | ＇E＇metric | Yes | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ |  |
| 98024 | Height Scale | $17 \mathrm{ft}(5.18 \mathrm{~m})$ | Philly metric | No | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | 彦 |
| 98025 | Dual Scale | 17 ft （ 5.18 m ） | 8ths／10ths | No | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | 鹤事 |
| 98026 | Dual Scale | 17 ft （5．18 m） | 10ths／Philly metric | No | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | ＝ |

Standard／Pro Series（LR） Leveling Rods

## 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 | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 嘒 |
| 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 | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 恝 |
| 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 | $9.00 \mathrm{lb}(4.08 \mathrm{~kg})$ | 䮖 |
| 90026 | LR－PRO 45 ft | 2－3／16 inch | 10ths | $10.00 \mathrm{lb}(4.53 \mathrm{~kg})$ | $\underline{\underline{\underline{=1}}}$ |

## Rectangular Series（CR） Leveling Rods

## Rounded back corners for better gripping

－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 ft replacement carrying case－see page 68

| PART NO． | LENGTH | GRADS | BACK SIDE SCALE | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 92001 | 8 ft | 10ths | No | $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$ | 䍂 |
| 92002 | 8 ft | 8ths | No | $3.00 \mathrm{lb}(1.36 \mathrm{~kg})$ | ＂ |
| 92021 | 13 ft | 10ths | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 翏 |
| 92022 | 13 ft | 8ths | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | ＝ |
| 92041 | 16 ft | 10ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 爰 |
| 92042 | 16 ft | 8ths | No | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ |  |
| 92031 | 20 ft | 10ths | No | $7.00 \mathrm{lb}(3.17 \mathrm{~kg})$ | 気 |
| 92032 | 20 ft | 8ths | No | $7.00 \mathrm{lb}(3.17 \mathrm{~kg})$ | 鹤 |
| 92026 | 4.0 m | ＇E＇metric | Yes | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 鹤 |
| 92027 | 4.0 m | 0.5 cm metric | No | $5.00 \mathrm{lb}(2.26 \mathrm{~kg})$ | 辰 |
| 92046 | 5.0 m | ＇E＇metric | Yes | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ |  |
| 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 | $6.00 \mathrm{lb}(2.72 \mathrm{~kg})$ | 以 |

## 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．

## 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
－Lengths vary from 12 ft to 33 ft
－Tape made from epoxy paint coated steel

Applications
－General construction

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

Coated Fiberglass and Steel Measuring Tapes

Great in all kinds of weather conditions

## FEATURES \＆BENEFITS •Choose between PVC－coated

 fiberglass or nylon－coated steel tape－Features a hook end and fast－ winding crank
－These coated tapes are designed to be used in the field for many years
－Single sided tape

## APPLICATIONS

－General construction

| PART NO． | TYPE | LENGTH | GRADS |  |
| :---: | :---: | :---: | :---: | :---: |
| 3003－06 | PVC－Coated Fiberglass | 100 ft | 10ths |  |
| 3003－07 | PVC－Coated Fiberglass | 200 ft | 10ths | 氯 |
| 3003－10 | PVC－Coated Fiberglass | 30 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 翏 |
| 3006－06 | Nylon－Coated Steel | 100 ft | 10ths | E |
| 3006－07 | Nylon－Coated Steel | 200 ft | 10ths | 些 |
| 3006－10 | Nylon－Coated Steel | 30 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 15 |
| 3006－11 | Nylon－Coated Steel | 60 m | $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ | 気 |
| 3006－18 | Nylon－Coated Steel | $200 \mathrm{ft} / 60 \mathrm{~m}$ | 10ths／Metric（Dual Grad） | E＝ |

## Rhino Ruler ${ }^{\circledR}$ 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

## CMR Series Measuring Rulers with Cases



## 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 | WEIGHT | OD | REPLACEMENT <br> CARRY CASE | OD CASE MEASUREMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## SubSurface ${ }^{\oplus}$ 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

Hard-shell case is impact resistant ABS plastic construction (ML-1-050, sold separately)
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

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 berglass
- Includes a carrying case


## 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 91415 - Carrying Case

## Stream Gauges

Allows you to instantly see water levels

－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

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

| PART NO． | DESCRIPTION | LENGTH | WIDTH | GRADS | WEIGHS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99000 | Un－Numbered | 4 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 気 |
| 99001 | 4 ft | $0-4 \mathrm{ft}$ | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | ＝ |
| 99002 | 4 ft | 4－8 ft | 4 inch（10．2 cm） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 器 |
| 99003 | 4 ft | 8－12 ft | 4 inch（ 10.2 cm ） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 恝 |
| 99004 | 4 ft | $12-16 \mathrm{ft}$ | 4 inch（10．2 cm） | feet／10ths／100ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 痤 |
| 99023 | Un－Numbered | 4 ft | 4 inch（ 10.2 cm ） | feet／10ths | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 辰 |
| 99051 | 1.22 m | 0－1．22 m | 10.2 cm （4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 気 |
| 99052 | 1.22 m | 1．22－2．44 m | 10.2 cm （4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 鹤 |
| 99053 | 1.22 m | 2．44－3．66 m | 10.2 cm（4 inch） | $\mathrm{m} / \mathrm{dm} / \mathrm{cm}$ | $2.00 \mathrm{lb}(0.91 \mathrm{~kg})$ | 痤 |
| 99071 | Un－Numbered | 5 ft | 7 inch（17．78 cm） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 痤 |
| 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 inch（ 17.78 cm ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | ＂ |
| 99080 | 5 ft | $5.5 \mathrm{ft}-10.5 \mathrm{ft}$ | 7 inch（ 17.78 cm ） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 痤 |
| 99081 | 5 ft | $10.5-15.5 \mathrm{ft}$ | 7 inch（17．78 cm） | feet／10ths | $4.00 \mathrm{lb}(1.81 \mathrm{~kg})$ | 辰 |

## APPLICATIONS

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

4－inch－wide Feet／10ths／100ths


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

Stream Gauges Plate Numbers

Sturdy fiberglass assures a long life，will not rust or corrode


## 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． | NUMBER PLATE | MEASURES |  |
| :---: | :---: | :---: | :---: |
| 99060 | 0 （zero） | 2－1／4 $\times 4$ inches | ＂巨 |
| 99061 | 1 （one） | 2－1／4 $\times 4$ inches | 辰 |
| 99062 | 2 （two） | 2－1／4 $\times 4$ inches | 疗 |
| 99063 | 3 （three） | 2－1／4 $\times 4$ inches | ＂ |
| 99064 | 4 （four） | 2－1／4 $\times 4$ inches | 鹤 |
| 99065 | 5 （five） | 2－1／4 $\times 4$ inches | 辰 |
| 99066 | 6 （six） | 2－1／4 $\times 4$ inches | ＂ |
| 99067 | 7 （seven） | 2－1／4 $\times 4$ inches | ＂ |
| 99068 | 8 （eight） | 2－1／4 $\times 4$ inches | 翟 |
| 99069 | 9 （nine） | 2－1／4 $\times 4$ inches | 嵒 |
| 99070 | －（Minus） | 2－1／4 $\times 4$ inches |  |

## Hand Levels

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


－Made from padded Nylon Cordura is perfect for your level
－Measures $6.5 \times 2.62$ inches（ $16.5 \times 6.66 \mathrm{~cm}$ ）
－Weighs $0.05 \mathrm{lb}(0.02 \mathrm{~kg})$

Replacement case for hand levels

## seco <br> OPTICAL INSTRUMENTS

## Magnetic Dampened <br> Auto Level



Easy－to－use 24X and 32X auto－levels

## 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）
－Includes carrying case
－Air dampened auto compensator
－Double－sided，continuous horizontal tangent drives
－Stadia lines for simple distance measurement
－Water resistant construction
－Convenient horizontal angle measurement

Built in bubble mirror and optical sighting alignment －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 | 気 |
| 4811－32 | 32X／Magnetic Dampened |  | No | None | ＂E |
| AL24A | 24X／Air Dampened |  | No | None | ＂雨 |
| AL24M | 24X／Magnetic Dampened |  | No | None | F－7 |
| AL32A | 32X／Air Dampened |  | No | None | 䏺 |
| SPECIFICATIONS | 4811－24 | 4811－32 | AL24A | AL24M | AL32A |
| Magnification | 24X | 32 X | 24X | 24X | 32X |
| 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 | $\pm 15^{\prime}$ | $\pm 15^{\prime}$ | $\pm 15^{\prime}$ | $\pm 15^{\prime}$ | $\pm 15^{\prime}$ |
| 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 | $3.97 \mathrm{lb}(1.80 \mathrm{~kg})$ | $3.97 \mathrm{lb}(1.80 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ | $3.50 \mathrm{lb}(1.60 \mathrm{~kg})$ |




DE-50
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 (1or 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


## DET-2 — Construction Theodolite

DE-50 — Diagonal Eye Piece

- 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 dust-proof
- 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


## 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 $2.43 \mathrm{lb}(1.10 \mathrm{~kg})$


## APPLICATIONS

- Perfect for a laser for vertical applications or Theodolites


## Lightning 2 Laser Detector Lets you get to grade faster on a wide variety of job sites



FEATURES \& BENEFITS

- The Lightning ${ }^{\text {TM }} 2$ has an easy-to-read dual LCD and LED displays
- Comes equipped with a snap-in rod clamp allowing for fast switching from rod-mounted to hand-held applications
- Tough IP67 waterproof housing protects the unit from dust, moisture, and accidental drops
- Loud 100 db speaker can be heard on noisy job sites
-With two on-grade sensitivities (fine and medium), the Lightning 2 lets you get to grade faster on a wide variety of job sites
- Weighs (with batteries) 0.65 lb ( 0.29 kg )
- Weighs (without batteries and rod clamp) $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$


## APPLICATIONS

- Highly accurate distance measurement

ATI993600-09 - Lightning 2 Laser Detector - Yellow

## Storm Laserometer Receiver

Highly-visible LED lights show red for off-grade and green for on-grade


## FEATURES \& BENEFITS

- Features a digital readout of elevation which provides a numeric display of $\pm 2$ inches ( $\pm 5 \mathrm{~cm}$ )
- Accurate measurements can be made without moving the rod clamp, saving time and increasing productivity
- Waterproofed to IP67 standards
- The protective over-molding allows it to withstand a drop of 10 feet ( 3 meters) onto concrete
- The patented universal
reversible clamp fits square and oval rods
- 5 inch ( 12.7 cm ) reception height, allows quick acquisition of the laser beam
- A patented anti-strobe sensor prevents construction lights from giving faulty signals
- The high visible LEDs on the front show red for high and low and green for on-grade
- Fiberglass rod sold separately
- Weighs (with batteries) 0.85 lb ( 0.38 kg )
- Weighs (without batteries and rod clamp) $1.20 \mathrm{lb}(0.54 \mathrm{~kg}$ )


## APPLICATIONS

- Highly accurate distance measurement


## ATI994000-09 — Storm Laserometer Receiver - Yellow

Specifically designed for harsh, loud construction environments


## FEATURES \& BENEFITS

- Designed to receive reference elevation information from rotating laser levels
- Detector receives invisible laser beams as well as visible red beams
- Detector includes a Liquid Crystal Display (LCD) on the front and rear for easy indication of detector status and grade information
- Beeper emits an audible tone
that indicates on-grade, high or low
- Specifically designed for use in harsh, loud construction environments
- Battery life is 70+ hours
- Beam window height is 2 inches
- Accuracy levels are user selectable to meet various job requirements
- Impact resistant housings, recessed windows, waterproof design, durable battery
contacts, and a high volume beeper are incorporated into every detector
- General purpose clamp is designed to mount the detector on various grade rods and staffs
- Weighs $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$ with batteries


## APPLICATIONS

- Highly accurate distance measurement


## Bullseye 5+ Laser Receiver

Four selectable accuracies for each on-grade location


## FEATURES \& BENEFITS

- Angle compensation automatically calculates and corrects grade display for the angle of the dipper arm - Check grade with the dipper arm extended or retracted up to $30^{\circ}$
- Plumb indication built in - for quick and accurate grade checking for excavators and backhoes
- Offset on-grade - for productive excavation
- Center On-grade - for grading operations - use on dozers,
graders, scrapers, box blades
Up to 8 channels of grade information plus directional out of beam indicators


## APPLICATIONS

- Highly accurate distance measurement

| PART NO. | POWER SOURCE | COLOR |
| :---: | :---: | :---: |
| ATI991370-02 | Alkaline | Red |
| ATI991370-09 | Alkaline | Yellow |
| ATI991376-02 | Rechargeable NIMH | Red |

## Bullseye 3+ Laser Receiver

Use on dozers, graders, scrapers, and box blades


Bullseye Magnetic Mounts Use with Bullseye Receivers


## FEATURES \& BENEFITS

- Both magnetic mount models can be used with all Bullseye receivers
- Two magnet banks combine for 900 pounds of holding force
- Easy to slide receiver up and down
- Easy removal is accomplished using a release lever
- Features a large vertical adjustment range for quicker laser set-ups


## APPLICATIONS

- Highly accurate distance measurement

| Bullseye Receiver Accessories PART NO. | sulisyer recevir accessorils |  |
| :---: | :---: | :---: |
| AT010992-50 | Receiver cale, stright, 50 t | $\underline{\underline{\underline{\underline{\underline{\underline{E}}}}}}$ |
| Ат101093 | Mactine power calee, Ighter adaper, 2.8 .tt | 婩 |
| ATI99160 | Univesal batey charger with wall plugs | $\underline{\underline{\underline{\underline{\underline{E s}}}}}$ |

Rebar Bolts

||
FEATURES \& BENEFITS Once installed, remove the hex

- Measures $3 / 4 \times 9.9$ inches ( $19.05 \times 251.46 \mathrm{~mm}$ ) long bolt and install the 6601-Series adapter of your choice (see
- Includes a hex bolt used to page 39) hammer the bolt in to the - Weighs $1.25 \mathrm{lb}(0.57 \mathrm{~kg})$ surface

6602-03 — Rebar Bolt M8 Threads

Wall/Column Bracket for Lasers and Total Stations

Dual mounting options enable flexibility on the construction job site

## FEATURES \& BENEFITS

- SECO's 4852-17 is a dual-use 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
- $5 / 8 \times 11$ 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



## FEATURES \& BENEFITS

- SECO's Heavy Duty Column Clamp has a solid stable design and works with all $5 / 8 \times 11$ instruments
- The adjustable column rotates and moves vertically to orient the instrument when needed and features 12 inches $(30.48 \mathrm{~cm})$ of height adjustment - Now with $0.39^{\prime \prime}$ holes in each corner for hard mounting with

3/8 bolts ( not supplied )

- Centerline of the $5.8 \times 11$ stud to column measures 15 inches ( 38.1 cm )
- Includes 20 inch standard 3/4 inch NPT Pipe with Heavy Duty sliding clamp
- Constructed of structural aluminum for industrial applications and stainless steel hardware
- Weight is $15 \mathrm{lbs}(6.8 \mathrm{~kg})$


## APPLICATIONS

- For use with Robotic Total Stations and scanners
- Ideal for mounting theodolites, lasers, etc.

Order 2"X10 ft ratchet strap kit 4852-18-050 as needed for different mounting options

4852-18 - Heavy Duty Instrument Column Clamp

Heavy-Duty
Instrument Column Clamp


## FEATURES \& BENEFITS

- SECO's Heavy-Duty Column Clamp has a solid stable design and works with all $5 / 8 \times 11$ 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-cm)
- Now with $0.39^{\prime \prime}$ holes in each corner for hard mounting with $3 / 8$ bolts ( not supplied ) Includes a 2-inch $(5.08 \mathrm{~cm})$ by $10-\mathrm{ft}(3.05-\mathrm{m})$ strap rated for a 2200 pound load and a heavyduty 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

 ERotating Laser
Column Clamp
Column Clamp

Accessories and components for rotating lasers

## FEATURES \& BENEFITS

- Works with all $5 / 8 \times 11$ instruments
- Column rotates to orientate the instrument when needed and features $1 \mathrm{ft}(30 \mathrm{~cm})$ of height adjustment
- Center-line of the $5 / 8 \times 11$ stud to column measures 6.5 in ( 16.5 cm )
- Designed to fit both round and square columns
- A ratchet strap quickly 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

## seco

## Safety Lighted Utility Vest 8565－Series



Retroreflective and Active Lightning Features minimize injury risk by making workers visible in dark or poorly lit environments

## 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
－100\％visibility－ 360 degrees

## 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 ${ }^{\circledR}$ 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 ILLUMINATION

－Flexible 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 fault－free

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


60 mph －perception $88 \mathrm{ft}-$ braking distance $180 \mathrm{ft}=268 \mathrm{ft}$（82 meters）

| PART NO． | COLOR | SIZE |  |
| :---: | :---: | :---: | :---: |
| 8565－42－FLY | Fluorescent Yellow | 42 （S） | ［ |
| 8565－42－FOR | Fluorescent Orange | 42 （S） | 1 |
| 8565－46－FLY | Fluorescent Yellow | 46 （M） | ［ |
| 8565－46－FOR | Fluorescent Orange | 46 （M） | ［ |
| 8565－50－FLY | Fluorescent Yellow | 50 （L） | 陚 |
| 8565－50－FOR | Fluorescent Orange | 50 （L） | 틀 |
| 8565－54－FLY | Fluorescent Yellow | 54 （XL） | 㓞 |
| 8565－54－FOR | Fluorescent Orange | 54 （XL） | 河 |
| 8565－58－FLY | Fluorescent Yellow | 58 （XXL） | ［ |
| 8565－58－FOR | Fluorescent Orange | 58 （XXL） | 『 |
| 8565－62－FLY | Fluorescent Yellow | 62 （XXXL） | 溤 |
| 8565－62－FOR | Fluorescent Orange | 62 （XXXL） | 娮 |
| 8565－66－FLY | Fluorescent Yellow | 66 （J） | ［ |
| 8565－66－FOR | Fluorescent Orange | 66 （J） | ［ |

Safety Utility Vest
$8365-$ Series


## FEATURES \＆BENEFITS

－Made from durable ANSI／ ISEA compliant polyester and polyester mesh
－Features include YKK ${ }^{\text {TM }}$ zippers， 4 inch（ 10.16 cm ）wide reflective tape with 2 inch $(50.8 \mathrm{~mm})$ wide silver stripes made with 3M Scotchlite ${ }^{\circledR}$ reflective material －Adaptive Comfort ${ }^{\circledR}$ material
by Outlast ${ }^{\oplus}$ ，a Certified Space Technology ${ }^{\top M}$ ，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 |  |
| :---: | :---: | :---: | :---: |
| 8365－42－FLY | Fluorescent Yellow | 42 （S） |  |
| 8365－42－FOR | Fluorescent Orange | 42 （S） | 氯 |
| 8365－46－FLY | Fluorescent Yellow | 46 （M） | 䜿 |
| 8365－46－FOR | Fluorescent Orange | 46 （M） | 止 |
| 8365－50－FLY | Fluorescent Yellow | 50 （L） | 気 |
| 8365－50－FOR | Fluorescent Orange | 50 （L） | 気 |
| 8365－54－FLY | Fluorescent Yellow | 54 （XL） | 翟 |
| 8365－54－FOR | Fluorescent Orange | 54 （XL） | 餢 |
| 8365－58－FLY | Fluorescent Yellow | 58 （XXL） |  |
| 8365－58－FOR | Fluorescent Orange | 58 （XXL） | 気 |
| 8365－62－FLY | Fluorescent Yellow | 62 （XXXL） | 翟 |
| 8365－62－FOR | Fluorescent Orange | 62 （XXXL） | 氯 |
| 8365－66－FLY | Fluorescent Yellow | 66 （J） |  |
| 8365－66－FOR | Fluorescent Orange | 66 （J） |  |

Safety Utility Vest 8265－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 $3 \mathrm{M}^{\mathrm{TM}}$ Scotchlite ${ }^{\mathrm{TM}}$ reflective material
－Made of durable polyester， brass grommets，heavy－duty webbing and trim，and a genuine YKK $^{\text {TM }}$ zipper
－Adaptive Comfort ${ }^{\oplus}$ material by Outlast ${ }^{\circledR}$ ，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 |  |
| :---: | :---: | :---: | :---: |
| 8265－42－FLY | Fluorescent Yellow | 42 （S） |  |
| 8265－42－FOR | Fluorescent Orange | 42 （S） | 120 |
| 8265－46－FLY | Fluorescent Yellow | 46 （M） | 顇 |
| 8265－46－FOR | Fluorescent Orange | 46 （M） | 侸 |
| 8265－50－FLY | Fluorescent Yellow | 50 （L） |  |
| 8265－50－FOR | Fluorescent Orange | 50 （L） | － |
| 8265－54－FLY | Fluorescent Yellow | 54 （XL） | 趾 |
| 8265－54－FOR | Fluorescent Orange | 54 （XL） | I |
| 8265－58－FLY | Fluorescent Yellow | 58 （XXL） | 䮖 |
| 8265－58－FOR | Fluorescent Orange | 58 （XXL） | ＂－ |
| 8265－62－FLY | Fluorescent Yellow | 62 （XXXL） | 韱 |
| 8265－62－FOR | Fluorescent Orange | 62 （XXXL） | 兂 |
| 8265－66－FLY | Fluorescent Yellow | 66 （J） | 槶 |
| 8265－66－FOR | Fluorescent Orange | 66 （J） | ＂en |



Hydration Backpack


## FEATURES \& BENEFITS

- $20 \times 8$ inches ( $50.8 \times 20.32 \mathrm{~cm}$ )
- Chest strap with 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 ${ }^{\oplus}$ keeps hydration tube secure on either strap, allowing access to the bite valve for either right- or lefthanded use (one on each side)
- Weighs (with water) 6.70 lb ( 3.03 kg )
- Weighs (without water) 1.20 lb ( 0.54 kg )

8125-60-FOR — Hydration Backpack
点

Applications

- Workplace Safety
- Construction environment


Backpack Carrying System


## 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

[^2]- Applications
- Keeps your total station
safe and secure during
transportation
- Workplace safety
- Construction environment


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



## Tool Pouches

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 $1.05 \mathrm{lb}(0.48 \mathrm{~kg})$

- This bag features heavy-duty Cordura ${ }^{\circledR}$ and reinforced Rhinotek ${ }^{\top \pi}$ 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 肂

- 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 㖣

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 $\times 54$ 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 / Elevated 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 Bags 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 $1.85 \mathrm{lb}(0.84 \mathrm{~kg})$


8154-11-ORG - Super-Duty Tripod Bag BAGS AND CASES



```
- Fits \(8 \mathrm{ft}(2.4 \mathrm{~m})\) rods
- Made from 1000-denier nylon
- Water-resistant
Measures: \(3.5 \times 56.5\) inches ( \(8.9 \times 143.5 \mathrm{~cm}\) )
- Weighs \(0.30 \mathrm{lb}(0.14 \mathrm{~kg})\)
```


## 91410 - CR-8 ft/2.4m Carrying Case

## BACK BY POPULAR DEMAND!

This DE Rod Bag, previously discontinued, has been brought back through customer requests

- Extremely durable Cordura(R) bag with reinforced bottom
- Pocket for a sensor bracket
- Shoulder strap included
- $4 \times 71$ inch ( $10.16 \times 180.34 \mathrm{~cm}$ )
- Weighs $0.5 \mathrm{lb}(0.23 \mathrm{~kg})$

8166-01-ORG - Direct Elevation Rod Bag

## 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 Bags 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-ORG - 38 inch Lath Carrier

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


童
8102-00-ORG - 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-ORG - 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 $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$


## 8103-20-ORG — Heavy-Duty Rhinotek Lath Bag $\underline{\underline{\underline{\underline{\underline{E}}}}}$

- The main compartment of this bag is constructed of tough Rhinote ${ }^{\text {tm }}$ material and designed to hold 18 inch stakes or rebar
- Include hammer loop, adjustable strap and brass grommet drain holes - the 8091-20-ORG features a partition
- Standard bag weighs $1.55 \mathrm{lb}(0.70 \mathrm{~kg})$
- Partitioned bag weighs $1.70 \mathrm{lb}(0.77 \mathrm{~kg})$


8090-20-0RG - Heavy-Duty 18-inch Bag for Stakes or Rebar 8091-20-ORG — Heavy-Duty 18-inch Bag w/ Center Partition

This stake bag is the same as the 8090-20-ORG, but holds 24 inch stakes

- Features a Rhinotek bottom
- Standard bag weighs $1.70 \mathrm{lb}(0.77 \mathrm{~kg})$
- Partitions bag weighs $1.60 \mathrm{lb}(0.73 \mathrm{~kg})$


8092-20-ORG — Heavy-Duty 24-inch Bag for Stakes or Rebar 8096-20-ORG - Heavy-Duty 24-inch Bag w/ Center Partition

- 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-ORG - 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-ORG - Standard Spray Can Holder 8098-10-ORG - With Accessory Pockets (shown)


Front and Top Loading
Total Station Cases
Heavy-duty cases for your Total Station


## Total Station, GIS and GNSS Backpacks

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

- 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 15 7/8 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 $40 \mathrm{lb}(18.14 \mathrm{~kg})$
- 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 $10^{\prime \prime}(23 \mathrm{~cm} \times 25 \mathrm{~cm})$
- 8120-30: Height - $15^{\prime \prime}(38 \mathrm{~cm})$, Bottom - 7" X 9" ( $18 \mathrm{~cm} \times 23 \mathrm{~cm}$ )
- Weighs $2.40 \mathrm{lb}(1.10 \mathrm{~kg})$


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

 8120-40-ORG -500 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 ${ }^{\oplus}$ 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


- Holds a tilting prism with tribrach and adapter
- Interior dimensions (measured between the pads): $12 \times 12 \times 3$ inches
- Weighs $1.85 \mathrm{lb}(0.84 \mathrm{~kg})$


8081-00-ORG — Jumbo Triple Prism Bag

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


## 点 <br> 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 $1.45 \mathrm{lb}(0.66 \mathrm{~kg})$

8082-00-ORG — Super Jumbo
Padded Bag

## ChrisNik MagNails®， MagSpikes ${ }^{\circledR}$ 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． | SIZE | QUANTITY | WEIGHTS |  |
| :---: | :---: | :---: | :---: | :---: |
| Chrisnik MagNails |  |  |  |  |
| 24750－CS | $3 / 4 \times 1 / 8$ inch | 100 per box， 12 box per case | $7 \mathrm{lb} / \mathrm{case}$ |  |
| 241000－CS | $1 \times 5 / 32$ inch | 100 per box， 12 box per case | $11 \mathrm{lb} /$ case | 気 |
| 241250－CS | $11 / 4 \times 3 / 16$ inch | 100 per box， 12 box per case | $18 \mathrm{lb} /$ case | 翟砉 |
| 241500－CS | $11 / 2 \times 1 / 4$ inch | 100 per box， 12 box per case | $33 \mathrm{lb} /$ case | 気 |
| 242000－CS | $2 \times 1 / 4$ inch | 100 per box， 12 box per case | $41 \mathrm{lb} /$ case | 釷雨 |
| 242500－CS | $21 / 2 \times 1 / 4$ inch | 100 per box， 12 box per case | $48 \mathrm{lb} /$ case | ＂ |
| Chrisnik MagSpikes |  |  |  |  |
| 253MAGSPIKE | $3 / 8 \times 3$ inch | 25 per box | $2.5 \mathrm{lb}(1.13 \mathrm{~kg})$ | E＂ |
| 256MAGSPIKE | $3 / 8 \times 6$ inch | 20 per box | $4.00 \mathrm{lb}(1.18 \mathrm{~kg})$ | 㕩 |
| 258MAGSPIKE | $3 / 8 \times 8$ inch | 20 per box | $5.00 \mathrm{lb}(2.27 \mathrm{~kg})$ | 鹤 |
| Chrisnik MagHubs |  |  |  |  |
| 23MAGHUB6 | $1 / 4 \times 6$ inch | Approx．．． 367 | $30.00 \mathrm{lb}(13.61 \mathrm{~kg})$ | を |
| 23MAGHUB8 | $1 / 4 \times 8$ inch | Approx．．． 272 | $30.00 \mathrm{lb}(13.61 \mathrm{~kg})$ |  |

Flagging Dispenser

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

## Miscellaneous Accessories

－Choose between a 17.5 inch blade and a 13 inch blade for clearing that thick underbrush
on the job site
－Weighs approx． $1.00 \mathrm{lb}(0.45 \mathrm{~kg})$

9500－17－17．5 inch blade，includes sheath 9500－13－13 inch blade，$\xlongequal[\underline{\underline{\underline{\underline{E}}}}]{ }$ includes sheath
－9500－01 for knife and scissor sharpening
－9500－02 for Axes or other edged tool sharpening
－9500－01 weighs $0.05 \mathrm{lb}(0.02 \mathrm{~kg})$
－9500－02 weighs $0.20 \mathrm{lb}(0.09 \mathrm{~kg})$


9500－01－For knives and scissors 9500－02－For hand tools
－Shot bags are great for holding down maps or blueprints in windy conditions
－Weighs $1.50 \mathrm{lb}(0.68 \mathrm{~kg})$


8010－10－BLU－Cordura Shot Bag 童
－Lightweight aluminum center punches are great for marking a variety of materials or punching starter holes for nails or drill bits
－Durable removable－tip scribers are perfect for making quick and accurate marks
on hard work pieces
－The scriber features a durable tungsten carbide point that is able to make precise marks to $1 / 100$ th of an inch
－The magnetic cap quickly cleans up stray metal shavings


25456855 －Stake Tacks 1 LB 2180－00 — Regular Tac Ball 2180－01－Tac Ball with Clip
－The 3／16 inch spring steel， 14 inch pins are powder－painted red and white， alternating at each inch
－Quiver（8041－00－ORG）sold separately
－Weighs $1.54 \mathrm{lb}(0.70 \mathrm{~kg})$

## 2183－00 — Marking Pins 11 count $\underline{\underline{\underline{\underline{\underline{\underline{E}}}}}}$

## －6001－06

－Gammon Reel ${ }^{\oplus}$ Plumb Line Reel for Surveyors
－Designed for use in the surveying field
－6－1／2 foot（ 1.9 m ）orange string
－Quickly retracts eliminating tangled string
－
－6001－12
－Gammon Ree ${ }^{\circledR}$ Plumb Line Reel
－Designed for use in the construction field

－ 12 foot（ 3.6 m ）fluorescent red string
－Mylar ${ }^{\circledR}$ protected target also serves as a sight
－Quickly retracts eliminating tangled string

6001－06 — Gammon Reel 6.5 ft （ 1.9 m ） 6001－12 — Gammon Reel 12 ft （ 3.7 m ）
－ 24 yard（ 7.3 m ）bobbin of Gammon Reel refill cord
－Available in Flo Red and Orange

6001－FR－Gammon Reel Refill－Flo Red 6001－OR－Gammon Reel Refill－Orange
－Each solid brass bob features a hardened steel point and a storage area for a spare point

| 6000－012 | 12 oz | 340 g | 気 |
| :---: | :---: | :---: | :---: |
| 6000－014 | 14 oz | 397 g | 辰 |
| 6000－016 | 16 oz | 454 g | ＂ |
| 6000－018 | 18 oz | 510 g | ＝ |
| 6000－024 | 24 oz | 680 g | 鹤 |
| 6000－032 | 32 oz | 907 g | ＂ |

－Heavy－duty sheath is double stitched top grain leather with a belt loop for SECO plumb bobs
 6000－240－Leather Sheath for 24－32 oz（510－907 g）


2182－00－Raised Shiners， 260 count
－Flat shiners are 2.25 in（ 57.2 mm ）OD
－Featuring punched centers with crimped edges
－Weighs $2.60 \mathrm{lb}(1.18 \mathrm{~kg})$

## Rite in the Rain

- 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 <br> 8 vertical lines

to the inch


Level Pattern 6 vertical columns 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



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Small GIS Backpack and
Replacement Range Pole
Total Station Backpack
Robotics Backpack
Large GIS Backpack with Cam-Lock Antenna Pole
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[^0]:    The antenna mast can be purchased separately to convert your own heavy－duty tripod as well
    －Weighs $19.00 \mathrm{lb}(8.62 \mathrm{~kg})$

[^1]:    6405-11-FOR — Stakeout Mini Prism Kit - 0 / -30 mm 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

[^2]:    - Made with Rhinotek ${ }^{\circledR}$ High grade abrasion resistant fabric
    - Self illuminated high visibility features
    Weight: 4 lbs
    - Measures: $24 \times 12 \times 5$ inches (folded)

