EARLY STRESS DETECTION GLASSES

Disease, drought and weed invasion are plant and turf killers. But by the time you see them it can be too late. TurfSpy™ glasses, with stress detection technology developed by NASA, lets you “see into the future” to identify problems 2-10 days before they are visible to your naked eye. Keep your turf and vegetation healthy BEFORE serious problems arise.

- Fusarium patch
- Pythium blight
- Yellow patch (Rhizoctonia)
- Brown patch
- Anthracnose

**features**
- Shatterproof/polycarbonate stress detection lens (ANSI approved safety lens)
- Wrap-around lens limits ambient light for optimal detection
- Sports frame with adjustable ear piece
- Lightweight case included

**HOW IT WORKS**
Dying vegetation absorbs and reflects sunlight differently than when its healthy. The earliest signals occur at the outer limits of the human visual spectrum, and are rendered invisible compared to the predominant middle wavelengths. TurfSpy™ filters the light in the center so that fringe spectra, which show early plant stress, become visible.

**get a jump on broken or poor-performing sprinklers**

- Highly efficient spot watering saves time and labor costs
- Superior weed location and spraying saves time and money

**ordering**
Part # NG655-01 TurfSpy™ Glasses and Deluxe Case

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**HeadChecker™**

**NOZZLE DISCHARGE PRESSURE GAUGE**

Use this liquid-filled 160 psi gauge with 30" flex hose and solid brass Pitot tube, hose bib, or spray head adapter to measure water pressure at discharge points.

**ordering**
Part # A-PHG-160K HeadChecker™ gauge, 30" Flex Hose, Pitot Tube
Part # A-SHG-160K HeadChecker™ gauge with Spray Head Adapter
Part # A-HBG-160K HeadChecker™ with ¼" POC Hose Bib Tap
Part # A-HCGPK HeadChecker™ gauge and Pitot tube
Part # A-PG160L HeadChecker™ 160 psi pressure gauge only
Part # A-HCP Pitot tube only
Part # A-HBT ¼" Hose Thread x ⅛" Brass Hose Bib Tap
Part # A-SHA Spray Head Adapter
Targeting hot spots on fairways, roughs, etc., mound watering, new seed grown in, other low volume watering.

SpotShot™
LOW VOLUME PORTABLE SPRINKLER KIT
SpotShot™ is an expandable sprinkler system kit ideal for turf areas requiring low volume watering for extended periods. Connect the Starter Kit to a quick coupler (or golf sprinkler with the HoseTap™ on page 12) and connect Add-On Kits for larger area needs.

Starter Kit includes 20' of ½ flexible PVC tubing with connection fittings, pressure regulator, sprinkler base and low volume rotating sprinkler (20 ft. radius / 0.65 GPM - 0.16 in./hr.)

Add-On Kit includes 20' of ½ flexible PVC tubing with connection fittings, sprinkler base and low volume rotating sprinkler (20 ft. radius / 0.65 GPM - 0.16 in./hr.)

Micro-Sprinkler Options
- 20 ft. radius / 0.65 GPM (0.16 in./hr.)
- 20 ft. radius / 1.2 GPM - (0.26 in./hr.)

RollerPro™
PORTABLE SPRINKLER BASE
The 22” wide stainless steel roller of RollerPro™ provides a stable field position for supplemental watering. Designed for years of hard use, it is ideal for watering dry spots and newly seeded areas.

features
- 22” wide stainless steel roller is weighted to prevent movement during use.
- ¾” inlet and outlet adapters included
- Standard 1” FHT inlet x 1” female NPT outlet

ordering
Part # A-RP221 RollerPro™
Part # SS-SK SpotShot™ Starter Kit (20 ft. rad, 0.65 GPM)
Part # SS-A0K SpotShot™ Add-on Kit (20 ft. rad, 0.65 GPM)
Part # SS-SK26 SpotShot™ Starter Kit (20 ft. rad, 1.2 GPM)
Part # SS-A0K26 SpotShot™ Add-on Kit (20 ft. rad, 1.2 GPM)
Part # SS-SB SpotShot™ Sprinkler Base
Part # R75-HFM-40 Pressure Regulator (40 psi)
Part # TP-050-20 20’ Coil of ½” PVC, SuperFlex Pipe
Part # S40-050-HFS ¾” Hose Thread Female x Male, Slip Fitting
Part # S40-050-HMS ¾” Hose Thread Male x Female, Slip Fitting
Part # SS-S16 Micro-sprinkler (20 ft. rad, 0.65 GPM - 0.16 in./hr.)
Part # SS-S26 Micro-sprinkler (20 ft. rad, 1.2 GPM - 0.26 in./hr.)
Tracker™

PORTABLE IRRIGATION MACHINE
The Tracker™ offers an economical solution for supplementing seasonal watering needs of ¼ acre to 2 acre areas. It’s also ideal for irrigating athletic fields, cemeteries, golf course roughs, or other large areas where an underground system is impractical. Built to last with precision German engineering and high quality materials, this portable powerhouse can irrigate an entire football field in just two passes.

specifications
• Weight: 58 lbs.
• Size: Length 33”, Width 22”, Height 22”
• Materials: Aluminum, Brass, ABS
• Minimum Water Pressure: 50 psi
• Hose Required: 1”
• Includes 1” brass quick-connect adapter

ordering
Part # T-400 Tracker™ Portable Irrigation Machine

THE VERY BEST NOZZLES - KEEP THEM SECURE (and handy)
• Entire Precision™ nozzle series (Rainbow™, Rainmaker™, Cloudburst™ and Cyclone™)
• Solid Brass High-Flow Valve
• CoolPro™ with Precision™ fogging nozzle
• Your choice of MAGNUM™ multi-pattern nozzle (original, UltraMAX Turbo Shift, or UltraMAX Full Throttle)
• Unbreakable, lockable, corrosion-proof case to keep these tools safe and secure

ordering
Part # HP-K1 NozzleLocker™ with ¾” Magnum (yellow) nozzle
Part # HP-K2 NozzleLocker™ with ¾” Magnum UltraMAX Full Throttle nozzle (high flow)
Part # HP-K3 NozzleLocker™ with ¾” Magnum UltraMAX Turbo Shift nozzle (high flow)
Part # HP-K4 NozzleLocker™ with 1” Magnum UltraMAX Turbo Shift nozzle (high flow)
Part # HP-K5 NozzleLocker™ with 1” Magnum UltraMAX Full Throttle nozzle (high flow)

866-863-3744 • www.underhill.us
Quick Coupler Valves & Keys

SOLID BRASS, SINGLE SLOT/LUG ESSENTIALS
Built to last, Underhill valves and keys are constructed of solid red brass and stainless steel. Valves incorporate rugged one-piece design.

Quick Coupler Motion Restraint
When quick coupler valves become unscrewed from swing joints, it's more than just a hassle - it can be dangerous. The Claw™, new from Underhill, offers a simple solution. Embedded in the soil below the quick coupler, and then securely attached to its base, The Claw provides significant resistance to rotational, vertical and horizontal motion, preventing the valve from moving. Made from high strength ductile iron, this compact anchor attaches easily with a single steel bolt.

The Claw™
EASY RETROFIT!
Installs without removing valve or valve box!

hose swivels
Part # HS-075 3/4" FPT x 3/4" MHT outlet
Part # HS-100 1" FPT x 3/4" MHT outlet
Part # HS-101 1" FPT x 1" MHT outlet
Part # HS-151 1 1/4" FPT x 1" MHT outlet

ordering
Part # QCA-075100 The Claw™ for 3/4" and 1" valves
Part # QCA-150 The Claw™ for 1 1/4" valves
**Impact Sprinklers**

**SOLID BRASS, ULTRA-RELIABLE WORKHORSES**
For reliable, trouble-free, high-performance year after year, you just can’t beat our brass impact sprinklers. Available in full circle and full/part circle, in inlet sizes of 3/4", 1" and 1¼".

**features**
- Solid brass construction
- Stainless steel drive spring
- Bearing assembly hood for longer wear life
- Chemical resistant bearing seals
- Solid brass nozzle

<table>
<thead>
<tr>
<th>Ordering</th>
<th>GPM</th>
<th>Radius (ft.)</th>
</tr>
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<tbody>
<tr>
<td>Part # SI075F</td>
<td>¾&quot; MPT Full Circle</td>
<td>13</td>
</tr>
<tr>
<td>Part # SI075P</td>
<td>¾&quot; MPT Part/Full Circle</td>
<td>11</td>
</tr>
<tr>
<td>Part # SI100F</td>
<td>1&quot; MPT Full Circle</td>
<td>23</td>
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<tr>
<td>Part # SI100P</td>
<td>1&quot; MPT Part/Full Circle</td>
<td>23</td>
</tr>
<tr>
<td>Part # SI125F</td>
<td>1¼&quot; MPT Full Circle</td>
<td>51</td>
</tr>
<tr>
<td>Part # SI125P</td>
<td>1¼&quot; MPT Part/Full Circle</td>
<td>54</td>
</tr>
</tbody>
</table>

**Flow:** 5-15 GPM  
**Spacing:** 40-60 ft.

**HoseTap™**

**SOLID METAL HOSE ADAPTER**
HoseTap™ gives you a hose connection anywhere you have a Toro® or Rain Bird® electric, valve-in-head sprinkler... a fast connection when quick-couplers or hose bibs are not available. Includes aircraft aluminum body (won’t break or wear out like plastic) anodized with sprinkler manufacturer color, o-ring, riser, 1" brass swivel and ¾" adapter. Also available without brass swivel/adapter.

**ordering**
- Part # HN-T100S HoseTap™ for Toro® 1" inlet golf sprinklers
- Part # HN-T150S HoseTap™ for Toro® 1½" inlet golf sprinklers
- Part # HN-R125S HoseTap™ for Rain Bird® Eagle 700 Series sprinklers
- Part # HN-R150S HoseTap™ for Rain Bird® Eagle 900 Series sprinklers

Includes 1" brass swivel and ¾" adapter. Add “B” for BSP thread.

**To order without brass swivel:** Remove “S” from part number.

**REPLACEMENT O-RINGS**
- Part # OR-100 Fits Toro® 1" inlet and Rain Bird® Eagle 700 Series golf sprinklers / HoseTap
- Part # OR-150 Fits Toro® 1½" inlet golf sprinklers / HoseTap
- Part # OR-150R Fits Rain Bird® 1½" inlet golf sprinklers / HoseTap

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SuperKey™

MULTI-PURPOSE GOLF SPRINKLER TOOL
This ultimate multi-purpose tool designed for Rain Bird®, Toro® and John Deere® golf sprinklers is a must have. Made of stainless steel and composite material, it effortlessly turns Electric-Valve-In-Heads on and off, removes internal assembly snap rings and performs many other sprinkler maintenance chores.

Fits Rain Bird

![SuperKey diagram](image)

Fits Toro, John Deere

ordering
Part # A-SKR SuperKey™ for Rain Bird® golf sprinklers
Part # A-SKT SuperKey™ for Toro® and John Deere® golf sprinklers

VersaLid™

VALVE BOX UNIVERSAL REPLACEMENT LID
VersaLid™ is the easy solution for broken or missing valve box lids. No need to guess what brand a buried box is or even worse - dig it up to find out - VersaLid's locking system fits all 6"-7" round valve boxes.

features
- Fits all 6"-7" round boxes
- Universal fit
- Greater top-load strength and more UV-resistant than structural foam lids
- Purple Lid available for non-potable/reclaimed water

ordering
Part # VL-6 Green VersaLid™ 6"-7" valve box lid
Part # VL-6P Purple VersaLid™ 6"-7" valve box lid
Part # DBRY-4 Direct Bury Splice Kit - 4 Pack

Splice Kit

3M DIRECT BURY SPLICE KIT
Each kit includes one wire connector which can accommodate wire sizes from 18-10 gauge and a waterproof gel case. Excellent for golf, commercial and residential applications.
Gulp™ UltraMAX

SUPER HIGH-CAPACITY WATER REMOVAL SUCTION PUMPS

Whether you need to remove water from sprinklers and valve boxes or other areas or devices, UltraMax Series Pumps are the ideal tools for the job...huge capacities and the smoothest pumps you will ever use as well.

special features
- Super Smooth Pumping Action
- Extra Volume Capacity
- Strong Aluminum Pump Shaft
- Heavy-Duty Clear Tube Material
- Self Priming

also great for
- fountains
- pipe repair
- boats
- toilets
- spas
- and more!

GULP SYRINGE ULTRA
- 12 oz./stroke
- 12" pump chamber

GULP ULTRA
- 8 gallons per minute!
- 14" clear pump chamber
- 18" outlet hose

BIG GULP ULTRA
- 12+ gallons per minute!
- 36" clear pump chamber
- 72" or 36" outlet hose

Aluminum shaft

Easy, push-button cleaning system

Gulp UltraMAX and BigGulp UltraMAX include debris filter attachment for very dirty water.

ordering
- Part # A-G12-C  Gulp™ UltraMax
- Part # A-G3636CK  BigGulp™ UltraMax w/ 36" outlet hose
- Part # A-G3672CK  BigGulp™ UltraMax w/ 72" outlet hose
- Part # A-G12S-C  Gulp™ Syringe Ultra
- Part # A-GTUB-C  100 ft. outlet hose

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An industry leader in innovative watering products all over the world, Underhill brings 33 years of know-how in developing our inventory of "Products that work...smart."
FACEBOOK, UPDATED!

As of March 30, the business pages on the most popular social networking site on the planet took on a major change. Facebook forced implementation of the "Timeline" profile format for all business pages – and that includes those for golf courses.

The change might seem drastic, but it actually presents some great opportunities for golf courses to connect in completely new ways with players and colleagues. Here are some tips for handling the switch like a pro.

BE VISUAL. Taking a cue from other social media sites like Pinterest, Facebook is starting to skew for a more visual layout. The Timeline format organizes content not by its type but by its importance and timeliness. Want to share photos of the course? Upload a shot from your phone and watch it get top placement in your feed rather than being tucked away in an album. Keep that in mind when logging photos for a proposed upgrade project that needs to be sold to your members.

The new "cover image" gives you another opportunity to use a beauty shot from your course to really show off the turf you work so hard to manage. Make the first thing the visitor sees just as memorable as the course itself.

BE IN CONTROL. The new "Admin panel" not only collects all your notifications and alerts to one place, but gives you enhanced control of your entire page. Take a look at who's recently liked elements on your page, and check out the statistics of what's got people talking about them. Use your Activity Log to manage each interaction on your page.

Use the bar beneath your cover image to show off important photos, links or apps your members might find useful. Individual posts can be managed to span the width of the Timeline for more prominence, or can even be permanently "pinned" to the top for more visibility.

BE A PERSON. Facebook is allowing customers to offer reviews of companies on their own pages, which can be shared with others. It may be impossible for businesses to remove unfavorable customer reviews, but in trade, businesses are finally able to interact with users via private messages. Located in the Admin panel, new private messages will give you the chance to make things right with a dissatisfied member or discuss a problem on the course without airing the whole conversation on the course's Wall.

PUTTING A NEW SPIN ON GRINDING

Spin or relief, everyone agrees... quality of cut is what it's really all about. For "spin only" operations, nothing beats a Foley for speed, accuracy and ease of use. And for relief grinding, Foley's hands-free "auto-index" relief system means you can perform other tasks while the machine does the work. No matter how you grind it, Foley makes it easier and faster to keep your reels performing like new.

You Can't Be Too Sharp.

www.foleyunited.com
WHO, WHAT, WHO AND WHY?

You've probably heard of "Who, What and Why," but when contemplating irrigation system improvements it should be Who, What, Who and Why?

WHO WILL DESIGN YOUR IMPROVEMENTS?
Will it be an irrigation consultant, the distributor, the irrigation contractor, yourself or a club member who's a retired engineer? Costs, comfort level, independence and even proximity will all factor into the decision.

You must feel comfortable with your designer. You want to get along with him/her because you'll be working closely for what could be several years. Equipment distributors may have design services and can provide a design representing each manufacturer's equipment. If you go this route, will you be able to tell the differences between the distributors' designs? If the improvements are not too extensive, can you determine what is needed on your own? The designer should not only be experienced with golf course irrigation design, but have experience designing with the product you want. At a minimum, make sure there are detailed plans, product specifications and details. A set of installation and behavior rules, payment schedule and construction schedule also make a smoother project. If using an outsider, ask their references if they came in on budget.

WHAT EQUIPMENT WILL YOU USE? This includes which manufacturers, sprinklers, controllers and valves (i.e. Hunter, Rain Bird, Toro, etc.), and should include less obvious components such as pipe, fittings, wire and valve boxes. These days there are many important choices for irrigation systems - HDPE versus PVC, decoder versus field controllers, hard wire versus wireless communication - and some of them should be made early in the design process.

When it comes to hard goods, the products have many similarities and differences. Do your homework. Research which product works best for your course and, more importantly, your irrigation and water management philosophy. The improvements should match your style. If you are dealing with a large project - such as a full-replacement system - then consider:

Many of the larger irrigation installers have several crews. Are you getting the "A" team or the "F" team? Along those lines, how deep is the crew's experience? If the foreman takes a day off, is a qualified supervisor still on site? Get a reference list and call them. Talk to other courses the contractor has done, but may not be on the reference list. Visit courses where the contractor is working and look at how the irrigation system is being installed.

WHY THE BACK-UP FOR THE THREE PREVIOUS DECISIONS AND WHY ARE YOU UNDERTAKING THE IMPROVEMENTS IN THE FIRST PLACE? With the economy as it is and a large amount of money that will be spent for irrigation improvements it is important to back up your decisions. Document your due diligence for a designer, equipment supplier and installer. Have reference lists. Have notes on talking to people. Have pictures of site visits and write down your thinking process. Have a budget that includes all aspects of the project. Have all your bid documents and proposals organized and put all the numbers in a spreadsheet. You may not need it, but if someone asks you how and why you picked the who or a what, you want to easily explain why and be able to convince the board, owner or whoever that it was the best choice based on all the factors of experience, cost and schedule. GCI