Dalhamer (right) says it’s vital to surround yourself with good people, including assistant superintendents Jack Holt (left) and Billy Hausch (middle).

Continued from page 29

born and bred, he has always enjoyed working outdoors, something he attributes to genetics.

“Many of my relatives are farmers in Ohio, where my dad was born,” he says.

During high school and college, Dalhamer worked summers and winters as a greenkeeper at Poppy Hills Golf Course, a public course in Pebble Beach. That’s when he got hooked on golf course maintenance. Dalhamer, also an avid golfer with a 10 handicap, graduated with a bachelor’s degree in business (and a minor in plant science) from Chico State University.

After college, he participated in the Northern California Golf Association’s internship program and landed at Pebble Beach, where he worked under Michaud. About 18 months into the two-year internship, Michaud named him as an assistant superintendent, a post Dalhamer held for about five years. It was a good time to work at Pebble Beach as Michaud and his crew readied for the U.S. Amateur (1999) and the U.S. Open (2000).

“I owe a lot to Mark,” Dalhamer says. “He gave me an opportunity at a young age.”

Dalhamer was impressed with Michaud’s work ethic and sense of urgency to get things done. “His motto was: Let’s get as much done as we can get done today instead of putting it off until tomorrow,” Dalhamer says. “That’s a theme I’ve carried through.”

But Dalhamer left Pebble Beach in 1999 to take the superintendent’s job at nearby Carmel Valley Ranch Golf Club in Carmel, Calif.

“It was a good opportunity locally where I could grow in the profession,” he says. “It was a good place for me to hone my skills.”

When Troon Golf, a Phoenix-based management company, took over Carmel Valley in 2001, Dalhamer was soon promoted to senior agronomist for the West Coast. He enjoyed the position

Continued on page 32
Continued from page 31

and the chance to visit golf courses throughout California.

But in 2002, Spyglass Hill Golf Course, another of the four courses at Pebble Beach Resorts, had an opening for a superintendent and came looking for Dalhamer.

“It was tough to leave Troon, but Spyglass is one of those courses that I’ve always loved,” Dalhamer says.

Three years into his job at Spyglass Hill, Tom Huesgen left Pebble Beach Golf Links for the Cornerstone (Colo.) Golf Club, and the resort named Dalhamer to replace him.

“I have a lot of experience locally,” Dalhamer says.

Yes, he does, and he’s definitely a local boy who has done well for himself. And Dalhamer has made an impression on, not only his crew workers, but others as well.

“I thought I knew it all when I arrived here three years ago,” Hausch says. “But I’ve learned so much from Chris. I know from the time I spend here that I’ll be much better off for the rest of my career than not having this experience.”

Pat Gross, director of the Southwest region for the United States Golf Association’s Green Section who has worked with Dalhamer for the past few years to prepare the course for the U.S. Open, says Dalhamer has what it takes to be the superintendent of a high-profile course Continued on page 35
So many questions, one easy answer: Yes, Interface™ should be the core of your program for healthier turf. It provides broad-spectrum disease control and turf safety you can count on anytime, anywhere. Interface blows away the competition on dollar spot, is the best on leaf spot and even controls snow mold. Its non-DMI chemistry lets you manage resistance issues. You can use it in the heat of summer and rotate in year-round. Yes, Interface with StressGard™ formulation technology provides denser turf and stronger roots to manage course stress. And naturally it is Backed by Bayer. So perhaps the only question left is do we have the data to back it up? And of course, the answer is yes – at BackedbyBayer.com/Interface.
Great things happen when passion and commitment combine with technology and value.
To learn more about how Nufarm’s passion for turf can help you, both agronomically and financially, see your distributor or go to www.nufarm.com/us.


© 2010 Nufarm. Important: Always read and follow label instructions.

“We’re just as CRAZY ABOUT PERFECT TURF as you are.”

Blaine Pinkerton, Regional Sales Manager
“I LOOK AT IT AS AN HONOR AND A PRIVILEGE.”

— CHRIS DALHAMER, ON HOSTING THE U.S. OPEN

Continued from page 32

like Pebble Beach.

“You think about the qualities it
takes to handle that kind of job, and
Chris has them,” Gross says. “He has
good work ethic, he’s easy to work
with, and he’s one of the nicest guys
you’ll ever meet.”

Dalhamer accepts the compliments
with an unassuming nod and quick
smile. He appreciates the support, but
is not one to rest on his laurels. There’s
no time for that, especially at a place
that bustles like Pebble Beach.

“I’m not somebody that needs the
limelight,” he says.

Dalhamer will say that hosting the
U.S. Open, which he calls the Super
Bowl of golf, is the highlight of his
career. And the great thing is he gets to
do it at a spectacular place like Pebble
Beach.

“I look at it as an honor and a
privilege,” Dalhamer says. “Here I am
at a golf course that’s one of the top
in the world. And I not only get to
maintain it, I get to maintain it for the
U.S. Open.”

Even on a gray and rainy day, tend-
ing the turfgrass at Pebble Beach Golf
Links is still a thrill.

Dalhamer and his staff
don’t ever take the
views of Pebble Beach
for granted – like this
view of No. 6.

The only difference
you’ll notice is the price.

Make your maintenance budget go further
with disease control solutions from
Nufarm. We use our worldwide reach and
expertise to provide top-performing
products, backed with outstanding sales
and technical support, and we do it all for
less. That’s what we call: Better Choices,
Better Business. See your distributor or
www.nufarm.com/us for more information.

Better Choices.
Better Business.

©2010 Nufarm.
Important: Always read and follow label instructions.
Tree trimming is hazardous work, so superintendents insist on a safety-first policy

BY KEN KRIZNER, CONTRIBUTING WRITER

GOLF COURSE superintendent Scott Schraer had done his share of tree trimming during more than 20 years of working on golf courses. So when he noticed a dead limb hanging from a tree on the fifth hole at Kinsale Golf Club in Columbus, Ohio, in July 2008, there wasn’t much to think about. Armed with a ladder and chain saw and accompanied by a crew member, Schraer set out to remove the limb.

He figured, as he usually did, there would be nothing to it.

Twenty-five feet above the ground, however, something went terribly wrong. As Schraer was cutting a branch, it broke off and knocked the ladder out from underneath him. The branch, chain saw and ladder all hit Schraer as he fell to the ground.

Schraer sustained a broken rib, collapsed lung and his pelvis was fractured in eight spots. But he considers himself lucky — more so than ever after hearing of the death of Dan Gross, superintendent of Salem (Ohio) Golf Club, who was struck and killed by a falling limb while trimming a tree last December.

“It is difficult to hear about a tragic death in our industry,” Schraer says. “From a personal standpoint, I realize how extremely lucky I was. It certainly could have been a lot worse.”

Tree trimming can be one of the most hazardous duties that golf course grounds crews undertake.

“I would say it’s one of several items we do on the course that has a very high potential of danger,” says John Szklin-
To cut down on the potential danger, most golf clubs have a policy — either formal or informal — as to who can do the trimming and what type of trees can be trimmed. Charlotte Country Club, for example, will only trim small, ornamental trees. Szklinski brings in an outside arborist if a larger tree needs trimming.

As for the equipment, the potential danger of operating a chain saw is self-explanatory. So superintendents mandate in-house training programs, including chain saw operations safety and etiquette.

“We make sure we have knowledgeable operators anytime we need to run a chain saw,” says Jeff Corcoran, manager of golf courses and grounds for Oak Hill Country Club in Rochester, N.Y. “It’s the type of work that scares me the most when my staff is out there. There are a lot of potential accidents that can happen with a chain saw, especially with an inexperienced operator.”

On the course, employees are not allowed to operate a chain saw on their own until Corcoran reaches a level of comfort with their abilities.

“It’s a person-by-person evaluation,” he stresses. “We have staffers that I never want to see operate a chain saw.”

While using a chain saw, employees must wear protective equipment, including helmets, eye and ear protection, gloves and chaps. They must wear helmets when operating a chipper. Also, Oak Hill crew members aren’t permitted to climb trees — their trimming is done on the ground. The club employs an arborist, who works with a dedicated crew member. They are the only two employees allowed to climb trees, Corcoran says.

Charlotte Country Club and Southern Hills Country Club have similar policies.

Szklinski says the policy at Charlotte, which will host the U.S. Women’s Amateur in August, is for the first assistant to cut down a tree, while he oversees the situation. Once a tree is felled, three trained employees make the cuts and run them through a chipper. They are the only staff members involved in tree trimming.

“It limits our potential exposure to liability and keeps a dangerous situation to a small group,” Szklinski says.

Southern Hills has its own dedicated staff of four employees to conduct tree trimming and removal, says Barry Hargrove, director of horticulture for the Tulsa, Okla., course, site of the 2001 U.S. Open and 2007 PGA Championship. They’re the only employees allowed to climb trees, and the group does the overwhelming majority of trimming on the course.

All members of the grounds crew, however, must be trained in the proper use of a chain saw and chipper in case they’re needed in an emergency.

Hargrove tries to preach a common-sense approach to the work, saying employees need to be aware of their situation at all times, whether a limb is hanging or on the ground.

“You need a plan, know where you are going to start and where your access route is if there should be a problem,” he urges. “You just can’t jump into it without thinking through the situation. Common sense can prevent accidents.”

Hargrove emphasizes to his employees that while they’re up in a tree, they should work diligently and at a steady pace.

Continued on page 38
Training

Continued from page 37

“You don’t want to be swinging from limb to limb,” he stresses.

When working with chain saws, employees should avoid a complacent attitude.

“Everyone thinks it’s no big deal to operate a chain saw,” Hargrove says. “But when you become complacent, you slip up. The next thing you know, there is a chain-saw accident.”

Schraer, the father of two young children, has adopted a new attitude since his accident. Prior to it, he often told his employees not to undertake potentially hazardous work without supervision but admits that he didn’t always follow that advice himself.

“I’ve become more apt to examine a situation,” he says. “If I don’t feel comfortable from a safety standpoint, I won’t send out my staff.”

Sometimes, a superintendent has to call in an outside company to take care of tree trimming if the potential for danger is too great. When it comes to higher costs vs. endangering employees, the safety and well-being of employees must win out, Schraer says. Superintendents should work with their greens committee and other club officials responsible for budgetary decisions to make sure all interested parties are on the same page on this point, he says.

“We’re all here trying to do the best for our clubs to give them as much as we can within our budgets,” Schraer says. “At the same time, we have to draw a line if something is outside the scope of our abilities.”

If You Must Do It Yourself …

You’re making your way around the golf course and notice that some trees need to be trimmed. What’s your first move?

According to R.J. Laverne, a board-certified master arborist and manager of education and training for Kent, Ohio-based Davey Tree Expert Co., your first move should be to hire a trained arborist to do the job.

“It’s dangerous to remove large pieces of suspended wood,” he says. “As we have seen over and over again, lives can be lost or serious injury can be suffered when you try to lower a heavy piece of wood to the ground in a controlled manner.”

But Laverne acknowledges that some superintendents don’t have the budgetary funds to hire an outside arborist, meaning they will assign the trimming to their crews. For those superintendents, Laverne offers some tips to safely trim trees:

- Careful pruning using proper reduction cuts of weakened branches can be beneficial by reducing the weight on the limb without removing the entire limb, which may be too heavy to safely remove without advanced rigging.
- An employee shouldn’t use a chain saw while standing on a ladder or use a chain saw when its bar is above the shoulder.
- Employees should always wear suitable protective equipment when cutting wood, including hard hat, eye and ear protection, and ballistic chaps that cover the legs.
- Don’t stand more than 6 feet off the ground on an extension ladder. Davey Tree’s internal policy dictates that if its workers are more than 6 feet up on a ladder, they must be tied into the tree using an approved climbing saddle.
- Only a trained arborist should use a chain saw when working on a ladder. An employee who is not a trained arborist should only use hand tools (pruner, hand saw) when working off the ground.
- If you use an extension ladder, it should be placed firmly against the tree — not the limb — and a co-worker should be at its base holding it in place.
- Don’t trim at the end of the day. You shouldn’t start a dangerous task if you’re tired or fatigued.

Laverne emphasizes the potential for injury is greater when an employee is trimming a tree compared with allowing the limb to fall on its own. The odds are in your favor that no one will be underneath if the limb falls, he says.

“The level of risk jumps substantially — exponentially — as soon as a person starts working on a tree because there is a target,” he stresses. — Ken Krizner

Krizner is a freelance writer from Willowick, Ohio.
You’ve got enough to worry about, so use Trinity® fungicide to control anthracnose, brown patch, take-all patch, summer patch and dollar spot, even during summer stress periods. Use it to suppress algae, too, which can lead to higher turf quality. Like the entire family of BASF fungicides, Trinity works. So don’t worry. Everything will be a-ok.

betterturf.basf.us | 800-545-9525
NEW Underhill PRODUCTS!

TEAR OUT THIS INSERT

for your chance to WIN A LAS VEGAS VACATION FOR 2!

VISIT www.underhill.us/contest for details

And if you see anything you like in our catalog...

GET IT NOW from these UNDERHILL ★ AUTHORIZED FULL-LINE DISTRIBUTORS ★

fore-par.com  rrproducts.com  eagleonegolf.com  precisionusa.com

For a list of local distributors in your area, contact Underhill: 866-863-3744
Test your sprinkler performance with AuditMaster™. Easy-to-use and highly accurate measuring kits. See Page 4

**Profile™**

**SOLID METAL GOLF SPRINKLER NOZZLES**

Upgrade your Toro® or Rain Bird® sprinklers with our perfect-fit Profile™ nozzles and you will see improved results immediately. Water distribution so uniform that you can cut back watering times to **save millions** of gallons of water **every year**. Over time, since Profile solid metal nozzles resist wear and clogging, you’ll enjoy these superior results for the life of your sprinkler...never needing to change out nozzles again.

Call us to request our **free video** on Profile solid metal golf sprinkler nozzles! Or watch it online at [www.underhill.us](http://www.underhill.us)

- Cut watering times significantly
- No more worn out / clogged plastic nozzles
- Eliminate wet and dry spots
- Improve course playability
- Stop wasting water

“We’ve had Profile nozzles in for about two years now with outstanding results and excellent water savings. We’re way past break-even on ROI.”

“...consistently uniform distribution. The nozzles perform the same today as when we first installed them.”

An industry leader in innovative watering products all over the world, Underhill brings over 30 years of know-how in developing our inventory of “Products that work...smart.”
### 730 SERIES

**Full Circle: Front/Rear Nozzle Set**
- **Part #**: T730-3313
- **Nozzle Color**: Brown 33 / Gray 13
- **Toro Nozzle #**: 33
- **Part #**: T730-3413
- **Nozzle Color**: Blue 34 / Gray 13
- **Toro Nozzle #**: 34
- **Part #**: T730-3515
- **Nozzle Color**: Violet 35 / Red 15
- **Toro Nozzle #**: 35
- **Part #**: T730-3515L
- **Nozzle Color**: Green 35 / Red 15
- **Toro Nozzle #**: 35
- **Part #**: T730-3615
- **Nozzle Color**: Red 36 / Red 15
- **Toro Nozzle #**: 36
- **Part #**: T730-3617
- **Nozzle Color**: Red 36 / Lavender 17

*For square spacing, specify #17 (lavender) nozzle with the #35 and #36 range nozzles.*

### 630 SERIES

**Full Circle: Midrange/Close-in Nozzle Set**
- **Part #**: T630-GY
- **Nozzle Color**: Gray

### 670 SERIES

**Full Circle: Rear Nozzles**
- **Part #**: T670-BY
- **Nozzle Color**: Black / Yellow

### 690 SERIES

**Full Circle: Rear Nozzle**
- **Part #**: T690-G
- **Nozzle Color**: Gray

### 750 SERIES

**Full Circle: Front/Rear Nozzle Set**
- **Part #**: T750-5617
- **Nozzle Color**: Red 56 / Lavender 17
- **Toro Nozzle #**: 56
- **Part #**: T750-5717
- **Nozzle Color**: Gray 57 / Lavender 17
- **Toro Nozzle #**: 57

### 760 and 860 SERIES

**Part Circle: Midrange/Close-in Nozzle Set**
- **Part #**: T760-GY
- **Nozzle Color**: Gray / Yellow
- **Part #**: T860-GY
- **Nozzle Color**: Gray / Yellow

### 830 and 834S SERIES

**Full Circle: Midrange/Close-in Nozzle Set**
- **Part #**: T830-GY
- **Nozzle Color**: Gray / Yellow
- **Toro Series**: 830
- **Part #**: T834-GY
- **Nozzle Color**: Gray / Yellow
- **Toro Series**: 834S

### 835S SERIES

**Full Circle: Midrange/Close-in Nozzle Set**
- **Part #**: T835S-WP
- **Nozzle Color**: White / Plug

### 650 SERIES

**Call for Availability**

### 855S SERIES

**Full Circle: Midrange/Close-in Nozzle Set**
- **Part #**: T855S-PP
- **Nozzle Color**: Pink / Plug

### 900 EAGLE SERIES

**Full Circle: Close-in Nozzle**
- **Part #**: R900-M
- **Nozzle Color**: Maroon

### 91 SERIES BRASS IMPACTS

**Full Circle: Close-in Nozzle**
- **Part #**: R91-G
- **Nozzle Color**: Gray

### 51 SERIES BRASS IMPACTS

**Full Circle: Front/Rear Nozzles**
- **Part #**: R51-1411.5
- **Nozzle Color**: White 14 / Gray 11.5
- **Rain Bird Nozzle #**: 14 / 11.5
- **Part #**: R51-1611.5
- **Nozzle Color**: Blue 16 / Gray 11.5
- **Rain Bird Nozzle #**: 16 / 11.5
- **Part #**: R51-1811.5
- **Nozzle Color**: Yellow 18 / Gray 11.5
- **Rain Bird Nozzle #**: 18 / 11.5
- **Part #**: R51-2011.5
- **Nozzle Color**: Red 20 / Gray 11.5
- **Rain Bird Nozzle #**: 20 / 11.5
- **Part #**: R51-2213
- **Nozzle Color**: Green 22 / Black 13
- **Rain Bird Nozzle #**: 22 / 13
- **Part #**: R51-2413
- **Nozzle Color**: Black 24 / Black 13
- **Rain Bird Nozzle #**: 24 / 13

### 690 SERIES

**Full Circle: Rear Nozzle**
- **Part #**: T690-G
- **Nozzle Color**: Spread
- **Rain Bird Nozzle #**: Gray

### 835S SERIES

**Full Circle: Midrange/Close-in Nozzle Set**
- **Part #**: R70028-RG
- **Nozzle Color**: Blue / Gray
- **Rain Bird Nozzle #**: 28
- **Part #**: R70032-RG
- **Nozzle Color**: Red / Gray
- **Rain Bird Nozzle #**: 32
- **Part #**: R7003640-GG
- **Nozzle Color**: Blue / Gray
- **Rain Bird Nozzle #**: 36/40 and larger

Our NEW low-angle 12° wind-fighting spreader nozzle delivers exceptional close-in uniformity for all Eagle 700 series sprinklers on either triangular or square spacing.

---

All original equipment manufacturers, names and products presented in this publication are used for identification purposes only, and we are in no way implying that any of our products are original equipment parts. Toro® is a registered trademark of the Toro Company. Rain Bird® is a registered trademark of the Rain Bird Sprinkler Manufacturing Corporation.

866-863-3744 • www.underhill.us

---

UPGRADE AND SAVE MILLIONS of gallons of water EVERY YEAR!
AuditMaster™

EXPERT SPRINKLER PERFORMANCE TESTING KITS

Poorly performing sprinklers waste a lot of water as watering times are increased to compensate. Accurately measuring sprinkler application rates with Underhill™ AuditMaster™ will maximize your customer’s water savings.

AuditMaster Combo ST/LT Kit pictured, includes large CatchCanPro cups (blue) and CatchCanPro Mini cups (30 each).

AuditMaster ST Kit excludes the large CatchCanPro cups. This kit is ideal for SMALL TURF audits.

AuditMaster LT Kit excludes the CatchCanPro Mini cups, 3/4” Hose Bib and Gauge, or the Spray Head Tester w/Gauge. This kit is optimized for golf courses, sports fields and other LARGE TURF audits.

CatchCan Pro™

features

• Self standing - easily anchors into turf, even on slopes
• Measures sprinkler application in inches or centimeters
• Unique design allows for shorter duration test
• Made of durable polypropylene engineered plastic
• Can be stacked for easy storage
• Each 10 pack kit comes with instructions

ordering

Part # AUD-ST AuditMaster ST Kit
Part # AUD-LT AuditMaster LT Kit
Part # AUD-STLT AuditMaster Combo ST/LT Kit
Part # SALESPro4 AuditMaster Wheeled Carry Case
Part # CCPK-10 CatchCan Pro (Blue) - 10 Pack
Part # CCPMK-10 CatchCan Pro Mini - 10 Pack
Part # A-HBG-160K 3/4” POC Hose Bib w/Gauge
Part # A-PHG-160K Pitot Tube, 30” Flex Hose w/Gauge
Part # A-SHG-160K Spray Head Tester w/Gauge
Part # MT-100 Fiberglass Measuring Tape: 100’
Part # A-STW Stop Watch
Part # A-WIND Anemometer (Wind Gauge)
Part # A-FLAG-50 Marking Flags - 50 Pack
TurfSpy™
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.

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 it’s 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.

HeadChecker™
NOZZLE DISCHARGE PRESSURE GAUGE
Use our liquid-filled 160 psi gauge with a solid brass Pitot tube, hose bib, or spray head adapter to measure water pressure at discharge points or in the pipeline.

ordering
Part # A-HCGPK HeadChecker™ 160 psi gauge and Pitot tube
Part # A-PG160L Pressure gauge only
Part # A-HCP Pitot tube only
Part # A-PH 30” Flex Hose For Pitot tube/gauge
Part # A-HBT 3/4” Hose Thread x 1/4” Brass Hose Bib Tap
Part # A-SHA Spray Head Adapter

866-863-3744 • www.underhill.us
**Magnum™**

**SOLID METAL HOSE NOZZLE**

Underhill™ Magnum™ contains no plastic internal parts to break, stick or wear out. Our unique ratchet mechanism easily adjusts from gentle fan to powerful jet stream and prevents over-tightening damage. Precision-machined, incredibly smooth operation and outstanding distribution patterns make it ideal for high-demand areas like greens and tees. Magnum™ is also an excellent equipment wash-down nozzle.

**features**

- Built for 1” and 3/4” flow rates
- Fire hose quality nozzle feels great in your hands
- Ultra-durable construction withstands any abuse
- Solid metal internal - no plastic parts to break or wear out
- Beautiful, consistent spray patterns for life
- Ratchet mechanism prevents over-tightening damage
- Multi-pattern sprays - effortless control with hydraulic assist on/off

**specifications**

- Materials: stainless steel, aluminum, TPR rubber
- Flow: 37 GPM at 80 psi
- Inlet: 3/4” hose thread
- (1” brass adapter available, see Page 7)

**ordering**

- Part # NG450 MAGNUM™ Hose Nozzle
- Part # HNCC075 CoolPro™ Valve and Nozzle
- Part # CV075L CoolPro™ Valve only

---

**CoolPro™**

**COOL WITHOUT OVER WATERING - NO ROOT DAMAGE**

A hot summer day can be murder on your greens. Use too much water and you risk damage to the roots. CoolPro™ is the first nozzle specifically designed for the single purpose of lightly misting the turf canopy to cool without over watering. And its 25 foot fogging pattern gets the job done quickly.

**features**

- 3/4” inlet (1” brass adapter available, see Page 7)
- Ergonomic handle/valve provides easy grip and variable on/off control.
- Durable solid metal design: zinc, aircraft aluminum and stainless steel.
- Patented Precision™ nozzle fogs at 70 psi to deliver a 25 ft. pattern with only 4-6 GPM

Perfect for tournament play, CoolPro™ puts down only enough water to cool the turf canopy. It prevents wilting while maintaining good ball speed. CoolPro is a great tool for protecting grass on hot days without damaging roots.

---

**CoolPro™ nozzle pictured with 1” brass adapter (sold separately on Page 7)**
### Precision™

**SOLID METAL, SPECIFIC TASK HOSE NOZZLES**

Underhill Precision™ nozzles deliver millions of soft, uniform droplets to provide rapid yet surprisingly gentle water application over a huge range of flow rates. From soft watering to powerful drenching, patented Precision nozzles are designed with ideal flow rates and droplet sizes to fully irrigate without disturbing turf, dirt, seeds, etc., providing a precise solution for every hand watering application.

#### choose your nozzle by flow rate or specific task

<table>
<thead>
<tr>
<th>NOZZLE NAME (color)</th>
<th>GPM</th>
<th>VALVE</th>
<th>TASKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainbow™ (yellow)</td>
<td>15</td>
<td>CoolPro</td>
<td>Greens, tees, sensitive landscaping, transplants, seed beds</td>
</tr>
<tr>
<td>Rainmaker™ (green)</td>
<td>23</td>
<td>High-Flow</td>
<td>Syringe and spot watering turf and hardy landscaping</td>
</tr>
<tr>
<td>Cloudburst™ (blue)</td>
<td>48</td>
<td>High-Flow</td>
<td>Dry spots, high volume drenching and application of wetting agent</td>
</tr>
<tr>
<td>Cyclone™ (red)</td>
<td>50+</td>
<td>High-Flow</td>
<td>Pre-game skins watering, heavy watering of large areas</td>
</tr>
</tbody>
</table>

Note: GPM will vary with pressure at nozzle.

### high-flow valves

- **SOLID BRASS**
  - 3/4" hose thread inlet/outlet
  - up to 50 GPM

- **COMPOSITE / STAINLESS STEEL**
  - 3/4" hose thread inlet/outlet
  - oversized handle
  - up to 55 GPM

### hose adapters / quick-connectors

- Part # HP-K1 NozzlePro Kit
- Part # HN1500 Precision™ Rainbow™ Hose Nozzle
- Part # HN2300 Precision™ Rainmaker™ Hose Nozzle
- Part # HN4800 Precision™ Cloudburst™ Hose Nozzle
- Part # HN5000 Precision™ Cyclone™ Hose Nozzle
- Add “-CV” to part numbers to include brass high-flow valve and 1” adapter (as pictured above).
- Part # CV075H High-Flow 3/4” Valve - Brass
- Part # A-BV77FM High-Flow 3/4” Valve - Composite/Steel
- Part # A-BA107FM 1” FHT x 3/4” MHT Brass Hose Adapter
- Part # A-BA107MF 1” MHT x 3/4” FHT Brass Hose Adapter
- Part # A-BQ7M 3/4” Quick-Connect, male end
- Part # A-BQ7F 3/4” Quick-Connect, female end
- Part # HN075W replacement washer, 3/4” hose

NEW!

**NozzlePro Kit**

MAGNUM, CoolPro, the entire Precision nozzle series and a high-flow brass valve - kept safe and secure in an unbreakable, lockable, corrosion-proof case.

**NEW!**

7866-863-3744 • www.underhill.us
PelletPro™

APPLICATOR GUN FOR SOLID WETTING AGENT TABLETS

We outfitted our heavy-duty surfactant applicator with a high-flow composite/stainless steel valve and a Precision™ Cloudburst™ nozzle to produce the finest wetting agent gun available. The PelletPro™ accepts all wetting agent tablets and is designed to provide powerful, yet ultra-soft spray when watering or applying surfactants to tight, hydrophobic soils.

features

- 48 GPM capability gets the job done faster!
- Ultra Heavy-Duty - brass fittings, aircraft aluminum, stainless steel, and precision engineered glass-filled materials
- Patented Precision™ Cloudburst™ nozzle delivers large droplets in an outstanding fan pattern
- Pellet rotation (1 RPS) evenly dissolves/applies tablets

With the included 1” FHT x 3/4” MHT brass adapter, PelletPro™ works with both 3/4” and 1” hoses.

2 products in 1!

Remove the PelletPro™ bowl and you have a superb syringe nozzle combo: the patented, 48 GPM Precision™ Cloudburst™ with our high-flow, oversized handle valve.

ordering

Part # A-PPWA50K PelletPro™ Applicator Gun
Part # A-PPB In-line Filter Bowl
Part # A-PPBG Gasket

8 Products that work...smart.™
LiquidPro™

APPLICATOR GUN FOR LIQUID WETTING AGENT

This popular “liquid” version of the PelletPro™ features the proven combination of our Precision™ Cloudburst™ nozzle and the high-flow composite/stainless steel valve. Adding a chemical-resistant, UV-protected, lightweight siphon/mixing system produces an applicator gun which can cover 1000 square feet in less than a minute. Now, with unmatched speed and uniformity, you can virtually “paint” your turf with liquid wetting agent, fertilizers, and micronutrients. And like the PelletPro, LiquidPro disassembles easily to create the Cloudburst™ High-Flow Valve syringe nozzle.

features

• Patented Precision™ Cloudburst™ nozzle evenly distributes wetting agent ensuring uniform coverage. Made of aircraft aluminum and stainless steel.
• Lightweight, durable nylon construction weighs only 3 lbs., UV-protected and chemical resistant.
• High-density polybottle has full quart capacity with easy-to-read measurements in fluid ounces and milliliters.
• Needle Valve Metering Chamber: Engineered venturi siphon mixes proper amount of wetting agent into the water flow.
• Pistol grip design with textured handle provides sure grip surface and reduces operator fatigue.
• Adjustable metering dial offers 10 additive settings including “Water Only.”
• Metering dial can be removed to prevent tampering with a predetermined setting.

ordering

Part # A-LPWA50K  -  LiquidPro™ Applicator Gun
Part # A-LPWAB-6  -  6-Pack of 32 oz. Polybottles and Carrier

With the included 1” FHT x 3/4” MHT brass adapter, LiquidPro™ works with both 3/4” and 1” hoses.

2 products in 1!
The Precision™ Cloudburst™ nozzle and high-flow valve can be quickly assembled to create a powerful, 48 GPM syringe nozzle.

a real time saver!

Bring plenty of wetting agent, fertilizers, and micronutrients to the field all at once with our 6-pack of polybottles.
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.
- Standard 1” FHT inlet x 1” female NPT outlet.
- 3/4” inlet and outlet adapters included.

RollerPro™ works with both 1” and 3/4” hoses and sprinklers using the included adapters. Sprinklers sold separately on page 12-13.

ordering
Part # A-RP221 RollPro™

HoseTap™
SOLID METAL HOSE ADAPTER
HoseTap™ gives you a hose connection anywhere you have a Toro® or Rain Bird® electric, valve-in-head sprinkler...ideal for fast connections when quick-couplers or hose bibs are not available. Aircraft aluminum body won’t break or wear out like plastic, and is anodized with color for easy sprinkler manufacturer identification. Each HoseTap™ includes the precision metal disc, o-ring, and riser. Brass swivels sold separately (see Page 12).

ordering
Part # HN-T100 - HoseTap™ for Toro® 1” inlet golf sprinklers
Part # HN-T150 - HoseTap™ for Toro® 1-1/2” inlet golf sprinklers
Part # HN-R125 - HoseTap™ for Rain Bird® Eagle 700 Series golf sprinklers
Add “B” to part numbers to specify BSP thread
Add “S” to part numbers to include 1” brass swivel
Add “S75” to part numbers to include 3/4” brass swivel

REPLACEMENT O-RINGS
Part # OR-100 Fits Toro® 1” inlet and Rain Bird® Eagle 700 Series golf sprinklers / HoseTap
Part # OR-150 Fits Toro® 1-1/2” inlet golf sprinklers / HoseTap

Order with brass swivel for extra savings!
Mirage™

HUGE THROW, HIGH-PERFORMANCE LARGE TURF SPRINKLERS

Underhill Mirage pop-up turf sprinklers, featuring precision German engineering and huge throws, can be installed completely outside the playing area of sports fields.

M-160: With its powerful 174 ft. throw radius, the Mirage™ M-160 is a worldwide favorite for sports fields, golf driving ranges and other large area turf or dust control applications.

M-125: A very impressive long-throw sprinkler in its own right with a 125 ft. radius, the M-125 is perfect for installation in the out-of-play areas of large turf fields.

M-115: For areas where irrigation must be installed within the playing area, the M-115’s deep sod cup cover holds a 9” (220 mm) diameter section of natural grass to “disappear” when not in use, staying out of the way of athletes and mowers.

Tracker™

PORTABLE IRRIGATION MACHINE

The Tracker™ offers a very economical solution for supplementing seasonal watering needs of 1/4 acre to 2 acre areas. It is 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

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

CALL FOR DETAILS!

YOU PICK THE CONTROLLER...WE CAN MAKE IT 2WIRE!

Underhill™ decoder modules can convert controllers to 2-wire operation - with no field grounding and no special wire - so you can use your favorite clock to lower the cost and simplify the installation of your next irrigation project. Control up to 48 stations with a single module. More affordable than what you are using now (save a ton on wiring costs alone!), easier to use, and ultra-reliable (15 years and 150,000+ field successes).
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.

Valve: Part # QV-075R (3/4” FPT inlet)
Key: Part # QK-075 (3/4'' MPT x 1/2'' FPT outlet)

Valve: Part # QV-100R (1” FPT inlet)
Key: Part # QK-100 (1” MPT x 3/4” FPT outlet)

Valve: Part # QV-150R (1-1/2” FPT inlet)
Key: Part # QK-150 (1-1/2” MPT x 1-1/4” FPT outlet)

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 1-1/2” FPT x 1” MHT outlet

The Claw™
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.

ordering
Part # QCA-075100 The Claw™ for 3/4” and 1” valves
Part # QCA-150 The Claw™ for 1-1/2” valves

EASY RETROFIT
Installs without removing valve or valve box!

The Claw™ pictured with 1” quick coupler, key and hose swivel.
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 1-1/4”.

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

3/4”
Flow: 5-15 GPM
Spacing: 40-60 ft.

1”
Flow: 15-45 GPM
Spacing: 50-80 ft.

1-1/4”
Flow: 25-120 GPM
Spacing: 75-110 ft.

**ordering**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>GPM</th>
<th>Radius (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI075F</td>
<td>3/4” MPT Full Circle Sprinkler</td>
<td>13</td>
<td>57</td>
</tr>
<tr>
<td>SI075P</td>
<td>3/4” MPT Part/Full Circle Sprinkler</td>
<td>11</td>
<td>48</td>
</tr>
<tr>
<td>SI100F</td>
<td>1” MPT Full Circle Sprinkler</td>
<td>23</td>
<td>71</td>
</tr>
<tr>
<td>SI100P</td>
<td>1” MPT Part/Full Circle Sprinkler</td>
<td>23</td>
<td>71</td>
</tr>
<tr>
<td>SI125F</td>
<td>1-1/4” MPT Full Circle Sprinkler</td>
<td>51</td>
<td>96</td>
</tr>
<tr>
<td>SI125P</td>
<td>1-1/4” MPT Part/Full Circle Sprinkler</td>
<td>54</td>
<td>78</td>
</tr>
</tbody>
</table>

Performance data shown at 80 psi. GPM and radius will vary with pressure at sprinkler.

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**
- Stepped locking system
- Fits all 6”-7” round boxes
- Interchangeable, easy to install
- Greater top-load strength and more UV-resistant than structural foam lids

Splice Kit

**DIRECT BURY SPLICE KIT**

Developed by 3M Company, each kit includes a single wire connector which can accommodate wire sizes from 18-10 gauge, and a waterproof gel case. Excellent for golf, commercial and residential applications.

**ordering**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBRY-4</td>
<td>Direct Bury Splice Kit - 4 Pack</td>
</tr>
<tr>
<td>VL-6</td>
<td>VersaLid™ 6”-7” valve box lid</td>
</tr>
</tbody>
</table>
DeepDrip™

TREE WATERING STAKES
DeepDrip™ stakes allow you to water and fertilize your trees at the roots, encouraging deeper roots and healthier trees. Water gets underground fast, so you can water for shorter periods and enjoy considerable water conservation. They also help to aerate the soil with oxygen, and you can add fertilizer into the shaft to direct nutrients to the root zone.

DeepDrip comes in three sizes, each designed for use with automatic landscape drip systems or a hose. The 14.5” unit is ideal for small trees and shrubs with shallow roots, like rose bushes and ornamental trees (or in commercial use for boxed trees). The 24.5” stake is best for most tree varieties except for palms and other deeper rooted trees, which will benefit from the longer 36” stakes.

ordering
Part # A-DD14 DeepDrip™ 14.5” watering stake
Part # A-DD24 DeepDrip™ 24.5” watering stake
Part # A-DD36 DeepDrip™ 36” watering stake

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

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

Fits Toro, John Deere

ordering
NEW! Gulp™ Ultra Pumps

HIGH-CAPACITY WATER REMOVAL SUCTION PUMPS

Whether you need to remove water from sprinklers and valve boxes or displace gallons of standing water in the field, the Underhill Gulp™ Ultra series of water removal hand pumps has the right tool for the job. Constructed from heavy-duty, corrosion-proof materials, these pumps are self-priming and easy to clean. The Gulp Syringe™ Ultra and Gulp™ Ultra are ideal for carrying on maintenance carts for small, routine needs. For larger water removal jobs, BigGulp™ Ultra can pump well over a gallon of water in only three strokes!

**Gulp™ Ultra Pumps**

**Gulp™ Classic**

**Gulp™**
- 8 oz./stroke
- 12” pump chamber
- 10” outlet pipe

**Gulp Syringe**
- 8 oz./stroke
- 12” pump chamber

**Gulp Ultra**
- 12 oz./stroke
- 12” clear pump chamber
- 24” outlet hose

**Big Gulp**
- 35 oz./stroke
- 36” chamber
- 72” or 36” outlet hose

**Gulp Syringe Ultra**
- 12 oz./stroke
- 12” clear pump chamber

**Super Gulp**
- 16 GPM pumping capability
- 4” dia. x 2 ft. pump chamber
- 3” dia. x 3 ft. outlet hose
- 3” dia. x 7 ft. inlet hose

**Big Gulp Ultra**
- 47 oz./stroke
- 36” clear pump chamber
- 72” or 36” x 1-1/2” outlet hose

**special features**
- Extra Volume Pump Capacity
- Easy cleaning twist-off inlet and exit caps
- Replacement Wiper Seal and Bottom Check Valve (Big Gulp/Gulp)
- Dual Wiper Seal (Replaceable)
- Extra Strength Pump Tube Material
- Stainless Steel Pump Shaft
- Self Priming

**ordering**

**Gulp Ultra Series**
- Part # A-G12-C  Gulp™ Ultra
- Part # A-G12S-CK  Gulp™ Syringe Ultra
- Part # A-G3636CK  BigGulp™ Ultra with 36” outlet hose
- Part # A-G3672CK  BigGulp™ Ultra with 72” outlet hose

**Gulp Classic Series**
- Part # A-G12  Gulp™
- Part # A-G12S  Gulp™ Syringe
- Part # A-G3636K  BigGulp™ with 36” outlet hose
- Part # A-G3672K  BigGulp™ with 72” outlet hose
- Part # A-G2484  SuperGulp™ with 84” outlet hose
- Part # A-G01  BigGulp™ Riser Attachment

866-863-3744 • www.underhill.us