

***MOWER***  
***SHARPENING***  
***SOLUTIONS***



**BERNHARD**  
TURF TECHNOLOGY SOLUTIONS



**BERNHARD**

*About Bernhard and Company*

A specialist in sports turf technology, Bernhard and Company is committed to providing leading turf care solutions to golf course and pitch care specialists worldwide.

From blade sharpening systems, lighting solutions to sports surface aeration and moisture control, the Bernhard product portfolio is focused on providing its global customer base world class playability. Bernhard's turf care solutions are used at top courses and famous sporting venues around the World.



I feel incredibly proud when someone tells me that they have seen a considerable improvement in mower performance since using the Bernhard system. The fact that they can visibly see the results of cleanly cut grass, the improved health of every blade, and that in turn their customers comment on consistent ball roll and improved playing surfaces, is proof of our commitment to turf health worldwide.

Our customers have reason to be proud too. Thanks to Bernhard's expertise and round the clock support they are guaranteed exceptional playing surfaces all year round.

This guarantee is built on over 150 years of grinding and turf health experience. All coming together to help you create world class greens and pitches.

Bernhard's philosophy continues to drive us forward. And it goes some way to explaining why thousands of loyal customers all around the world – including over 65 of the world's top 100 golf courses – believe it must be Bernhard.

**STEPHEN BERNHARD**  
*Chairman*



### ***Specialists in turf health***

Our expertise extends beyond the product with our in-depth knowledge of both engineering and agronomy, plus an unrivalled understanding of the development and maintenance of playing surfaces.



### ***Customer support***

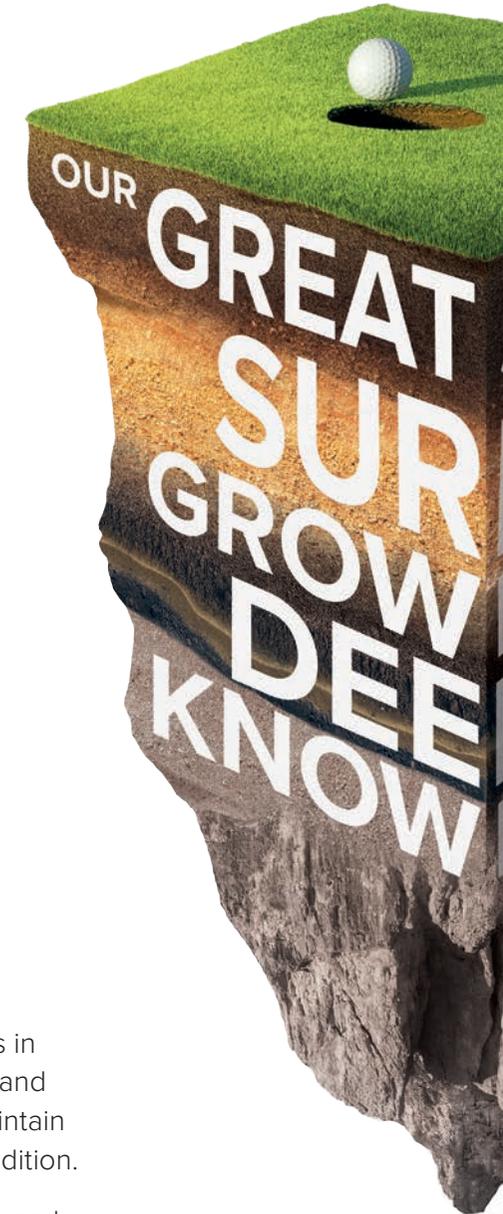
We know that the best way to learn more and improve our products is to listen to our customers.

We make frequent visits to both current and prospective users to learn and understand their needs.



### ***Tournament support***

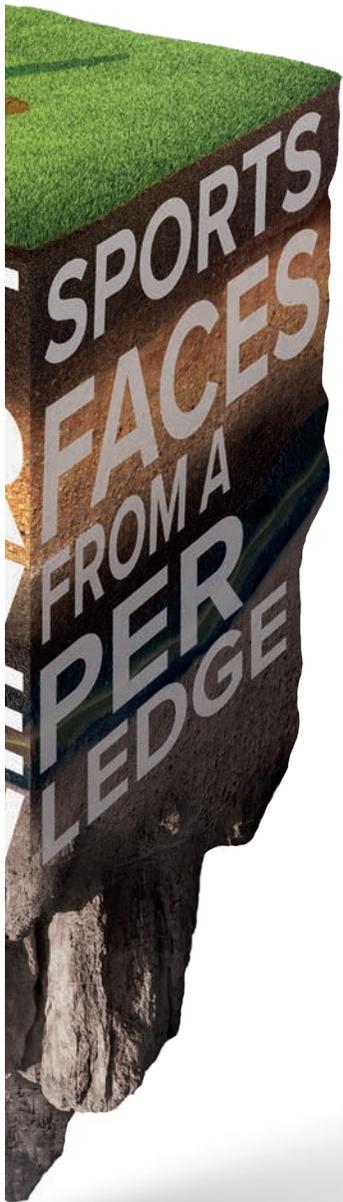
The European Tour, PGA Tour of America, and the United States Golf Association (USGA) call upon Bernhard and Company to assist in preparing their mowers for major tournaments. We are flattered and delighted to help.



## **KEEPING THE WORLD OF TURF SHARP**

Bernhard and Company is one of the world's most influential forces in the presentation and quality of turf grass. The company manufactures and distributes worldwide, a range of sharpening systems designed to maintain today's sophisticated mowing machines in perfect cutting condition.

Consistent quality is vital in the amenity turf market because of demands on maintenance budgets and considerate environmental sustainability.



### ***Supporting education***

At Bernhard Academy, we offer accredited turfcare courses to greenkeepers and turf equipment specialists worldwide to bring them the latest and relevant information on turf grass agronomy, environmental sustainability and the mechanical benefits of sharpening for critical tournament support. We also host educational seminars worldwide.



### ***Industry support***

We have worked alongside major mower manufacturers and associations for many years. Knowledge has been shared and a common goal identified—to produce the best possible turf conditions for the most economic investment. Together we are helping our customers operate their golf courses using best management practices.

## **AFTERCARE SUPPORT**

We offer world-class technical support and training, delivered through a dedicated global network.

We know our customers deserve prompt, courteous expert service, and we deliver it, going the extra mile to make life easier for you.

Reach our customer service experts and Global Parts Centre at:

**+44 1440 702312**  
(Worldwide)

**1-800 392 2235**  
(toll-free from North America)

**service@bernhard.co.uk**



REEL SHARPENING SYSTEMS

## EXPRESS DUAL RANGE

WORLD'S FASTEST AND EASIEST TO USE  
REEL SHARPENERS

Renowned for combining superb grind quality with unmatched speed, ease of use, reliability and long life, you will find Express Dual in hundreds of top golf and sports turf facilities worldwide.

The unique auto-cut eliminates the need for lapping and extra relief, thereby dramatically reducing maintenance costs while improving turf health.

- World's fastest and most accurate reel grinder
- Mowers sharpened in-situ, no need to remove bedknives or rollers
- Intuitive in-feed balance display to ensure a parallel grind
- Fast turnaround (Greens units: 5 minutes, Fairway units: 15 minutes floor-to-floor)
  - Health and safety compliant with guards and safety interlocks as standard



# EXPRESS DUAL 5500

The Express Dual 5500 is a fully connected reel mower system.

Now comes with a unique laser reel surveying system allowing for correction and high precision reel conditioning.





## ***New control, ultimate accuracy***

**NEW 10.5" touchscreen** with an intuitive and responsive interface

**Contactless RFID technology** allows recall of previous set-ups and different users

**Wireless handset** for operator flexibility

**Direct reel drive** with super fast setup

**Laser technology** ensures higher reel accuracy

**Remote service module** for support and customer care

Selectable automated grind cycles plus configurable routines

## ***Ease of use***

**Mowers ground in-situ**, without the need to remove bedknives or rollers

**Express Lift Table** built-in for rapid loading and unloading of mowers

**New reel drive adaptors** ensure all your mowers are supported

Robust soft-closing storage drawers

## ***Ergonomics and safety***

Totally enclosed cabinet with scratch resistant safety guards

Acoustic noise suppression with environmental control

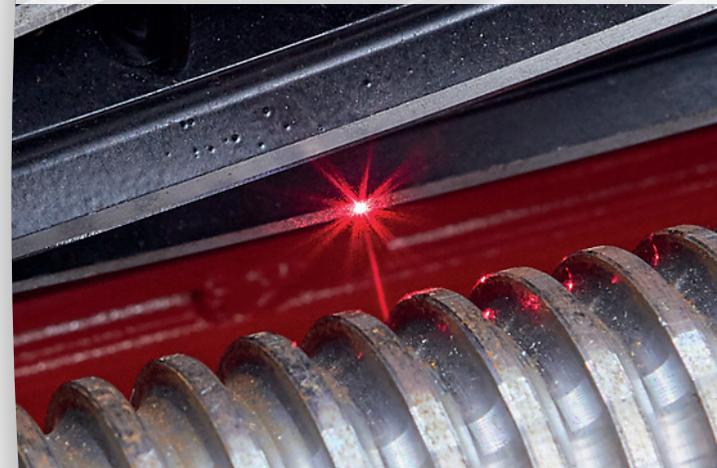
**New LED lighting** for improved visibility

Vacuum for safe dust extraction

Intuitive 10.5" touch-screen controls



Laser ensures accurate reels



Consistency and accuracy guaranteed with contactless RFID technology



REEL SHARPENING SYSTEMS

## EXPRESS DUAL RANGE

WORLD'S FASTEST AND EASIEST TO USE  
REEL SHARPENERS



EXPRESS DUAL  
5500



EXPRESS DUAL  
4250



EXPRESS DUAL  
4100

The Bernhard reel sharpening line-up comprises of the newest Express Dual 5500 flagship, the Express Dual 4250 and 4100 models, and the ever-dependable Express Dual 3000MC and 2000 models.

These are complimented by the Express Relief, available now with an optional leg-set kit.



EXPRESS DUAL  
3000MC



EXPRESS DUAL  
2000



EXPRESS  
RELIEF

# EXPRESS DUAL 4250

Express Dual 4250 provides the speed, ease of use and automation associated with the world famous Express Dual brand.

With advanced controls, it delivers rapid, safe and economic reel blade sharpening. Allows automatic grinding of mower cylinders in-situ without disassembling the mower.





### **Speed and ease of use**

Delivers a 15-minute turnaround, floor to floor

Table top design enables rapid loading of cutting units

Bernhard patented lift table ergonomically designed for operator safety

New **LED lighting** for better visibility

**Scratch resistant** viewing panel

New smoother robust drawers with handles for better grip

New reel drive auto-locking drive rod and drive adaptors

### **Control and accuracy**

**Fully automated feed system** with configurable grind cycles

**Touch-screen operator interface** with automated grind programme

V-mounting brackets with improved positioning scales

Graphical touch-screen controls



Improved positioning scales



Lift-table for easy loading of mowers



REEL SHARPENING SYSTEMS

## **EXPRESS RELIEF**

ATTACH TO LIFT TABLE OR USE  
STAND-ALONE ON ITS OPTIONAL LEG SET



A quick compact, cost effective solution for putting relief on reels. Works in parallel with the Bernhard Express Dual family, effectively allowing you to add relief while spin grinding.

Simply attach the Express Relief to the lift table using the quick clamp mechanism, and unclamp and fold away when not in use.

### **Compact and powerful**

Durable – heavy duty, high speed electric grinding action

Fast, simple – quick clamp mechanism, simple to position for use

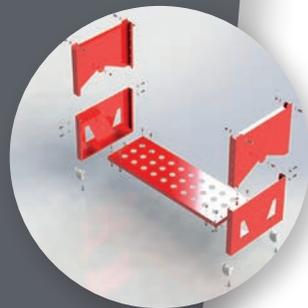
Versatile – mounts to the **Express Dual Lift Table**

Can also be mounted to a workbench or onto our purpose made Express Relief Leg Set, available as an optional extra (see below)

### **OPTIONAL: EXPRESS RELIEF LEG SET**

Also available is a lightweight workbench for stand-alone use, supplied flat-packed for self-assembly.

Height adjustable, the leg set comes complete with trolley wheels and a locking system to provide you with an effective mobile solution and additional work surface.



# **EXPRESS DUAL 4100**

The world's most popular reel grinder upgraded.

Still features the renowned, solid and reliable control system allowing for fast and accurate set up.





### **Speed and ease of use**

Delivers a 15-minute turnaround, floor to floor

**Variable reel speed** for consistent results

New reel auto-locking drive rod and drive adaptors

Table top design enables rapid and easy loading of cutting units

Bernhard patented lift table ergonomically designed for operator safety

New **LED lighting** for better visibility

**Scratch resistant** viewing panel

New look handles for better grip

Robust soft-closing storage drawers

### **Control and accuracy**

**Membrane Touch-control panel**

**Intuitive in-feed balance display** ensures a parallel grind

V-mounting brackets with **improved positioning scales**

Intuitive control panel ensures consistent operation



Powered clamp, reel cable drive and improved positional scales



New scratch resistant viewing panels



# EXPRESS DUAL 3000MC

With easy to use electrical and mechanical control systems, the Express Dual 3000MC is competitively priced to meet any budget.

It comes with an electric clamping system making mower mounting and reel grinding super easy and super fast – greens mowers can be ground in as little as 5 minutes.

The simple feed system with digital display ensures accurate reel blade grinding every time.

## **Express Dual 3000MC features**

Rigid, robust chassis

Automatic traverse

Flexible reel drive

Electric clamp

Zero-able digital feed counters

Single switch control

Safety guard

Lift table comes standard

Options: **Express Relief**



# EXPRESS DUAL 2000

The Express Dual 2000 offers all the speed, accuracy and performance of the famous EXPRESS DUAL system at a competitive price.

When the Express Dual 2000 is used in tandem with the Anglemaster 1000 bedknife grinder, these affordable machines provide a complete in-house facility for the grinding of reel mowers at high speed and at minimum cost.

Accuracy of Express Dual system and made to meet your budget needs.

## ***Speed and ease of use***

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Rigid, torsionally robust chassis

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Fast turnaround  
(Greens unit: from as little as 5 minutes  
Fairway unit: 15 minutes floor-to-floor)

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Automatic traverse

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Super safe, self-aligning, torqued controls

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Options: **Express Lift Table; Express Relief**



BEDKNIFE SHARPENING SYSTEMS

## ANGLEMASTER RANGE

HIGH PRECISION BEDKNIFE SHARPENERS

The bedknife is the most important part of any cutting unit, as it gathers and holds the grass in position until the reel blade comes around to cut it.

Properly grinding the top and front faces of a bedknife is crucial to maintaining its sharpness.

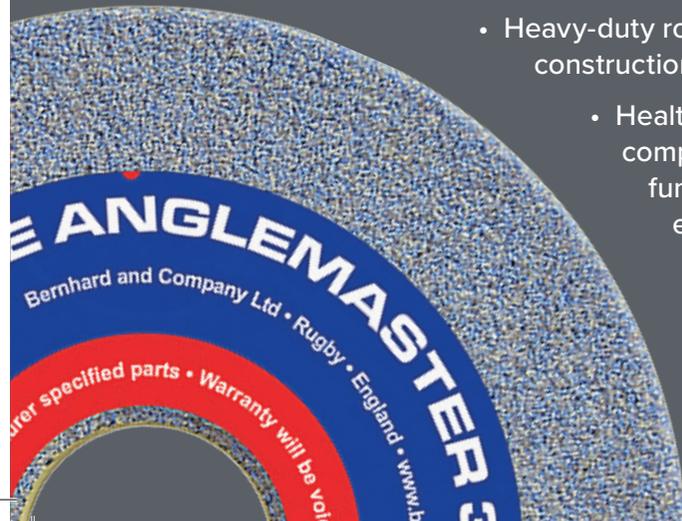
Suiting a variety of budgets, the four Anglemaster models grind blades to within one thousandth of an inch, ensuring bedknives and reels work in perfect harmony.

- Simple to setup and use for repeatable, consistent results
- Grinds new hardened bedknives with ease
- Unique bedknife angle indicators to position bedknives to any desired angle
- Unique ability to restore angles relative to the individual mower condition
  - Stress-free grind makes the bedknife work better with your cutting unit
- Heavy-duty robust construction prevents flexing
  - Health and safety compliant with fully functional safety enclosures and safety interlocks as standard

# ANGLEMASTER 4500

The new Anglemaster 4500 is the fully connected bedknife sharpening solution from Bernhard and Company.

It provides a fully customisable platform for your bedknife sharpening needs – giving you flexibility on how, what and the way you sharpen.





### **Unrivalled controls**

A **new control system** adaptable to your preferred method of working

**7.5" screen menu grinding programme:** New responsive screen providing grinding selection for precision, consistency with options of grinding methods

**Contactless RFID technology** allows recall of previous set-ups and different users

**Wireless handset** providing intuitive commands for quicker setup

**Automatic in-feed**

### **Speed/Efficiency**

The latest innovations provide more effective sharpening

**New main grind motor** offers variable speed, allows you to match the right stone for the right blade

**Direct drive** – Fast and precise mounting bar rotation accurate to 0.5°

Redesigned **blade mounting bar** with tri-magnet design for quick and consistent setup

Variable speed **auto-traverse system** with smooth direction change

### **User-friendly**

**LED lighting** for bright and clear visibility

**Scratch resistant** viewing panel

**Remote service module** for support and customer care

Robust soft-closing storage drawers

### **Intuitive graphical touch-screen controls**



### **Variable speed auto-traverse system with smooth direction change**



### **Consistency and accuracy guaranteed with contactless RFID technology**



BEDKNIFE SHARPENING SYSTEMS

# ANGLEMASTER RANGE

HIGH PRECISION BEDKNIFE SHARPENERS



ANGLEMASTER  
4500



ANGLEMASTER  
4100

The brand new Anglemaster 4500 flagship heads up the Bernhard range of precision bedknife sharpeners, which also features the new Anglemaster 4100, and the Anglemaster 3000MC and 1000 models.



ANGLEMASTER  
3000MC



ANGLEMASTER  
1000

# ANGLEMASTER 4100

The world's most popular bedknife grinder upgraded.

The Anglemaster 4100 gives users more flexibility and control over their grinding practices and evolving with ever changing bedknife materials.





### **Speed and efficiency**

The latest innovations provide more effective sharpening

**Powerful grind motor** – Run CBN and ceramic grinding stones at manufacturers recommended speeds

**New variable traverse system**  
– Gives users more flexibility and control over their grinding practices and cope with ever changing bedknife materials

### **Accurate controls**

A **new control system** adaptable to your preferred way of working

Redesigned **blade mounting bar** with tri-magnet design for quick and consistent setup

Enhanced profile in the bar to accommodate wider range of front face angles

### **User-friendly**

New **LED lighting** for bright and clear visibility

**Scratch resistant** viewing panel

Robust soft-closing storage drawers

Easy to use controls



Bedknife mount with tri-magnet assist



New variable speed traverse system



# ANGLEMASTER 3000MC

**The Anglemaster 3000MC bedknife grinder from Bernhard offers speed and accuracy at a price and specification to suit your requirements.**

Bedknives can be sharpened to within one thousandth of an inch. Independent end-feed paralleling and a single point advance make this the easiest bedknife grinder to operate on the market.



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Simple to set up and use

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Accurate – grinds to within 0.001"

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Can grind bedknives up to 40" long

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Automatic traverse

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Coolant dispersal and debris separation come standard

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Safety compliant guarding system cuts down noise and pollution

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Toro™ DPA bracket included with a comprehensive set of tools and brackets

# ANGLEMASTER 1000

Designed specifically for mower service facilities with more restricted resources, but still appreciate the considerable benefits of an in-house grinding facility.

This dry grind, manual traverse machine is highly accurate and easy to operate.

When paired with the Express Dual 2000 reel grinder, these affordable machines provide a complete in-house solution for grinding reel mowers at high speed and minimum cost.



Simple to set up and use

Accurate – grinds to within 0.001"

Can grind bedknives up to 40" long

Manual, dry traverse

Fast cycle time and change over between blades

Self-Contained. Compact. Small footprint

## UPGRADE YOUR KNOWLEDGE



Take your knowledge to the next level with our educational programme to help you better understand the best and most cost efficient practices of good maintenance routines.

To find out more on how to enrol and find the dates and times perfect for you, visit:

[bernhard.co.uk/enrol](http://bernhard.co.uk/enrol)

[academy@bernhard.co.uk](mailto:academy@bernhard.co.uk)

+44 1788 811600  
(Worldwide)

1-888 474 6348  
(toll-free from North America)

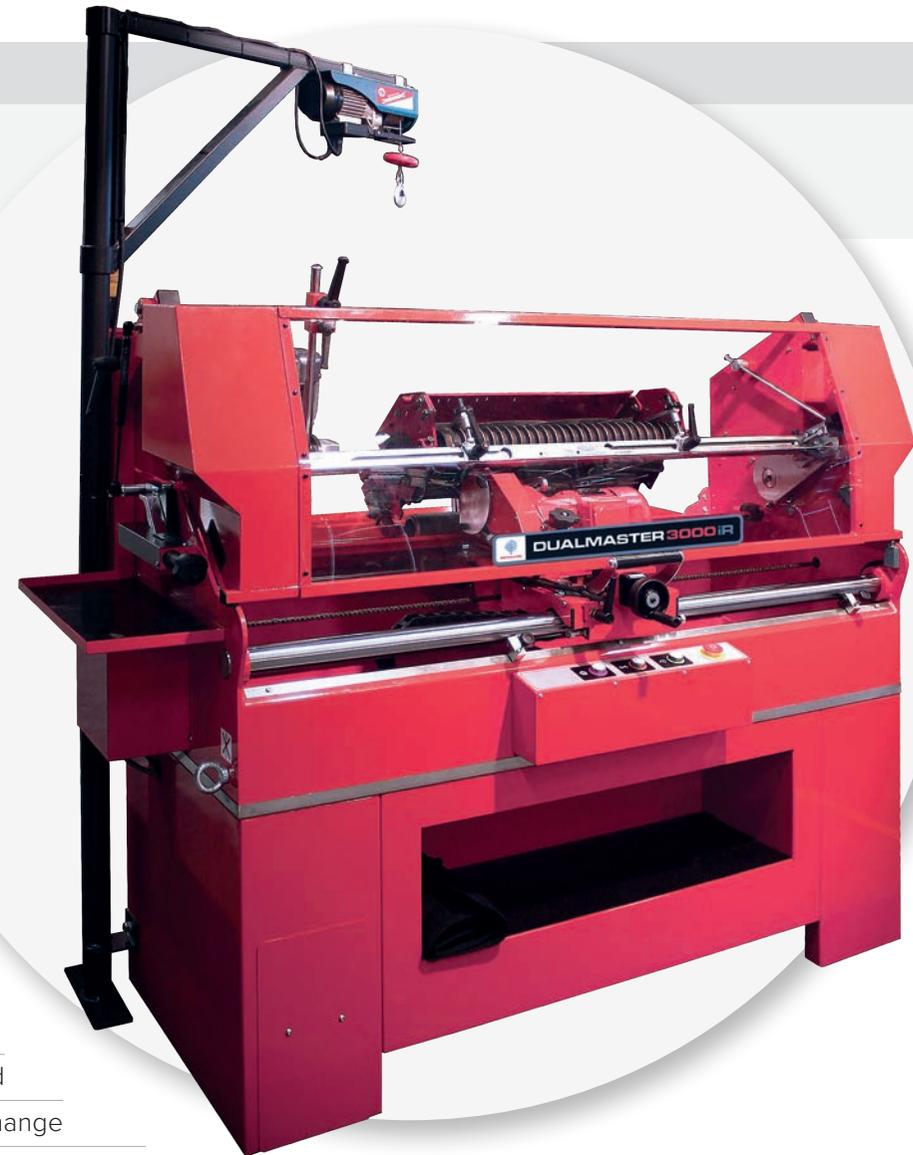
# DUALMASTER 3000iR

## SPIN & RELIEF GRINDER

**The DUALMASTER 3000iR integrates the dual functions of spin and relief grinding where regular relief grinding is important.**

Building on the technical foundations of the renowned Express Dual and Anglemaster system, the DualMaster 3000iR incorporates auto-indexing relief to deliver the fastest, easiest and most accurate spin and relief grinding.

With the ability to change from spin to relief or from relief to spin in under 60 seconds the Dual Master 3000iR can save time in the workshop leaving you free for other duties.



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Automatic traverse

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Auto-index relief

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Independent end feed alignment

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Single point in-feed advance

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Variable reel speed

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Rapid stone change

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Comprehensive guarding with task light

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Hoist fitted as standard

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Option: Express Lift table

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# ROTAMASTER 4000

## ROTARY BLADE SHARPENER

**With a unique clamp mechanism and fast aligning jig bars, blade mounting is easy and fast, delivering significant benefits in overall cycle time.**

ROTAMASTER ensures both ends of the rotary blade are sharpened equally with the precision only an automated machine can deliver, so your blades have a superior edge with consistent balance for a better quality of cut, resulting in longer lasting blades and better looking grass.

Automated – indexed in-feed with adjustable “auto cut-off”

Easy-to-use – ergonomic height for ease of use

Effortless – smooth pneumatically operated automatic traverse to take out the hard work

Safety – ergonomically designed for operator safety

Value – offers substantial whole-life cost savings

Self-contained – compact with integral storage



## BERNHARD TOOLS & ACCESSORIES

A sharp mower will be a major factor in keeping the plant healthy. We offer you options, accessories and parts to help.

A good starting point would be ensuring that your cutting units operate at the same height of cut and leave smooth and clean edges, and also that your mower sharpening equipment is ready to help maintain that cutting edge.

**Looking for spline drives?  
Our parts team can help you.**



## **BERNHARD TOOLS & ACCESSORIES**

To order or find out more  
about our parts and  
warranty service contact:

**+44 1440 702312**  
(Worldwide)

**1-800 392 2235**  
(toll-free from North America)

[parts@bernhard.co.uk](mailto:parts@bernhard.co.uk)



## **RAPID FACER**

**Its unique bar aligns an accurate face  
on the bedknife in just 90 seconds.**

**This sharpening tool gets your mowers out of  
the maintenance facility and cutting the grass.**

We know how important a bedknife can be in getting  
a precise cut out of a mower. The Rapid Facer puts a  
perfect edge on the front face of your bedknife in just one  
and half minutes. With speed, ease and accuracy you can  
re-sharpen weekly or even daily, as needed.



## **HEIGHT OF CUT GAUGE**

**For precision setting of mowers.**

Essential workshop tool for bench setting the  
height of cut of mowing cutting units.

Use in conjunction with the prism gauge to set,  
monitor and control the height of cut.

Measures to the ground surface of the bedknife –  
the datum reference for cutting.

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Eliminates trial and error guesswork.

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Accurate to .001 inch (0.025mm).



# TURF EVALUATION KIT

The **Turf Evaluation Kit** includes a **Macroscope** and **Prism Gauge** packaged together in a hard-wearing and waterproof protective case, allowing you to safely and conveniently store and transport them.



## Macroscope

The macroscope allows you to take a closer look – inspect the quality of cut for yourself and see how your mowers are impacting the turf.

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Lightweight and easy to use

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Get a detailed look at turf health

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Identify diseases, nutrient issues and other physiological conditions

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Observe what is really going on with turf at 25X actual size



## Prism Gauge

The prism gauge helps you to put some science into your cutting practices and monitor your height of cut.

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Determine actual height of cut

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Guarantee consistency in cutting units

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Robust, quality design

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Easy to read scale



The macroscope and prism gauge are also available to purchase separately.



*Share or talk to us about our  
Turf Technology Solutions*



**Mobile Lighting Solutions**



**Air Movement Solutions**



**SubAir Sub-surface Solutions**



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