

**anago**

ensure optimum sharpness

# Anago Sharpness Testers

Optimized Productivity and Safety



[www.anagosharp.com](http://www.anagosharp.com)

The Global Leader in Sharpness Testing

# About Anago

Anago Limited is a technology company based in Hamilton, New Zealand. Established in 2001, Anago specializes in products that improve safety and production performance, primarily in the food processing industry. Anago invented and commercialized the world's leading knife sharpness testing technology.

Anago's knife sharpness testers (KSTs) have been instrumental in the improvement of knife sharpness levels and the optimization of sharpening methods throughout the United States, Australasia, and Europe. Within food processing companies, these improvements have directly resulted in increases in production yield and output as well as reduced musculoskeletal disorders amongst workers.

To complement our KST range of products, Anago has developed AnagoSafe, a benchmarking software for comprehensive incident, hazard, and absence management.

Anago also provides customised sharpness testing technology and consulting services to specialist blade manufacturers (including the medical industry), processors and researchers.

Anago knife and blade sharpness testing technology is represented and serviced globally by Anago direct and through a distributor and service agent network.



## Contact

Please contact Anago for further information about our products and services, to discuss how they can benefit your business and operations or for our nearest representative.

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SSPEC-ST-MP-V2.0

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# Summary of Benefits

## The Meat Behind the KST

Typical results of implementing the Anago Knife Sharpness Tester (KST) in a meat processing facility:



knife sharpness  
(force to cut)

**x2**  
**(-50%)**



overuse injury

**-80%**



cuts per minute

**+30%**



production yield

**+1%**



return on investment

**3 mths**



# Products

Anago designs and manufactures a range of Sharpness Tester products to provide accurate measurement of sharpness of knives, trimmer blades and other cutting blades, for all types of industries and applications.

## Knife Sharpness Testers

### **KST200e**

For blade length up to 8" (20 cm)

Manual test media incrementing and pre-tension required.



### **KST200e Auto** (with Automation Module)

For blades up to 8" (20 cm long)

Includes automation module which automatically increments and pre-tensions test media, significantly increasing speed of knife testing.



### **KST300e**

For blades up to 12" (30 cm long)

Manual test media incrementing and pre-tension required.



### **KST300e Auto** (with Automation Module)

For blades up to 12" (30 cm long)

Includes automation module which automatically increments and pre-tensions test media, significantly increasing speed of knife testing.



Model	KST200e	KST200e Auto	KST300e	KST300e Auto
Type	Standard	Auto	Standard	Auto
Max blade length	20 cm (8")	20 cm (8")	30 cm (12")	30 cm (12")
Weight	10 kg (22 lb)	20 kg (45 lb)	11 kg (24 lb)	21 kg (46 lb)
Dimensions (L x W x H)	70 x 19 x 47 cm (27.5"x7.5"x18.5")	79 x 24 x 49 cm (31.1"x9.5"x19.3")	86 x 19 x 47 cm (33.9"x7.5"x18.5")	95 x 24 x 49 cm (37.4"x9.5"x19.3")

## Trimmer Sharpness Tester

### *TST*

For testing Whizard 620, 750, 850 and 1000 trimmer blades.



## Integrated Sharpness Tester

### *B300*

For integration into automated or robotic knife sharpening machines.



## Consumable – Test Media

The Anago knife and trimmer blade sharpness testers use one consumable – the test media cut during each test.

The test media is specifically prepared for the operation of the Anago KST and only genuine Anago test media is guaranteed to provide the performance required.

Each roll is capable of testing between 80 and 120 knives, depending on blade length and the gap left between tests (we recommend about a 25 mm / 1" gap).

Part: KST-TM-5: Anago Test Media (box of 5 rolls, 25 m per roll)



## Options & Accessories

### *Laser Guiding*

The KST is available with the option of a laser guiding unit to simplify and speed up the accurate clamping alignment of blades during testing, enabling faster testing and fewer opportunities for operator error and inconsistency.

### *Rugged Carry Case*

Machines can be supplied pre-packed into a rugged Pelican carry case, designed to provide superior protection for sensitive equipment that needs to endure the rigours of transportation as part of normal use.

The case is also useful for protecting the machine if it is being moved between sites or for service.

### *2kg Calibration Mass*

Used for calibration of the sharpness testers. We recommend regular calibration to ensure consistency of results and optimise the performance of your sharpness tester.

A new 'hassle-free' design of calibration mass hooks directly onto the test media.

### *Custom Clamping*

Specialized blade clamps and holders can be requested and designed for unique blades and applications.

# Benefits

## Accurate Sharpness Data & Sharper Knives

The most obvious and immediate benefit of the Anago Sharpness Tester is that a true (i.e. accurate and objective) measurement of knife or blade sharpness is obtained. No longer does a subjective technique such as paper cutting, thumb pressing or hair cutting/shaving need to be taken as an indication of a knife's sharpness. Knives are the most critical productivity tool in your plant. KNOW how sharp this equipment is.

As a direct result of using the feedback from the machine to optimise sharpening technique and maintain the improvement with monitoring, most users will double the knife sharpness levels across their plant, halving the required cutting force and hence the loading on workers' bodies.

## Health And Safety Benefits

### *Reduce Overuse (MSD) Injuries*

Companies using the knife sharpness tester at their processing plants have reduced their incidence of musculoskeletal disorder (MSD) overuse injuries by up to 80% due to the reduced cutting forces required when operating with suitably sharp knives.

### *Fewer Slips And Cuts*

Reduced cutting forces also increases precision and decreases the likelihood of the knife slipping and causing a laceration.

### *Identify Those At Risk Before It's Too Late*

The sharpness tester enables you to identify people operating with dull knives and assign knife sharpening and maintenance training to reduce the chance of an overuse injury developing or a slip/cut happening.

### *Reduce Discomfort And Fatigue*

As well as reducing injuries, the impact of reduced loading on workers bodies also has a positive impact on their comfort and energy levels.

## Operational Benefits

### *Production Output*

A sharp knife does the work faster. A 30% increase in cutting speed is common.

### *Production Yield*

A sharp knife does the work better. Lower cutting forces allow greater knife control, which means more meat off the bone and a cleaner job with more meat remaining on higher value cuts and less ending up in the scrap and rework pile. Improvements in yield over 1% are common.

A US poultry plant increased knife sharpness levels using the KST and were able to create a higher value product enabling 30% more cuts per minute with the same number of line staff and product through put as before using the KST.

### *Product Evaluation*

Objectively evaluate and choose the products that work. Simply test prospective knives and sharpening equipment with the KST to separate marketing hype from reality.

### *Return On Investment*

When improvements in production rate, yield, and improved health and safety performance are costed, a typical ROI is just 3 months, demonstrating the extraordinary value of adding the Anago Knife Sharpness Tester to an operation.

#### Accurate

reliable  
precise score

#### Simple to use

intuitive, easy  
to train operators

#### Objective

removes  
user bias

#### Non-destructive

no damage  
to blade edge

#### Trusted

by the biggest & best  
processors globally

# Operation

## Typical User

The Anago knife sharpness tester was initially developed to benefit the **food processing industry** by improving the sharpness of cutting tools.

It is typically operated by a **knife/sharpening room technician or trainer** in a meat plant, who uses the objective knife/blade test results to guide changes in sharpening technique, improving sharpening processes and skill.

## Reporting

The capture and analysis of sharpness test data by the Anago operating and analysis software allows users to **report data, typically to a safety or operations manager**.

**Many of the larger companies with multiple plants** will then make the data available to someone assigned at corporate level who can view the data from all facilities once uploaded to the Anago Sharpness Dashboard.

## User Requirements

Anago sharpness testers are designed to **suit all user skill levels**, but training is provided to ensure correct operation and optimum use of the data generated.

## Installation

Anago sharpness testers are designed for a **benchtop**, and are **fully portable**.

They operate from on onboard **battery** or single-phase 110-240V **mains power**.

A simple test can be run without a PC but it is highly recommended they be used with the Anago software installed on an adjacent PC (or laptop for extra portability).

## Training

Comprehensive **Operation Manuals** are provided with all products, and **full training** is offered at installation.

## Operation

Testing is **quick and easy**. Simply clamp the knife in place, enter the test data to be captured and hit GO.

Note: test media needs to be tensioned on the non-automated machine. Total test time per knife is usually 1-2 minutes.

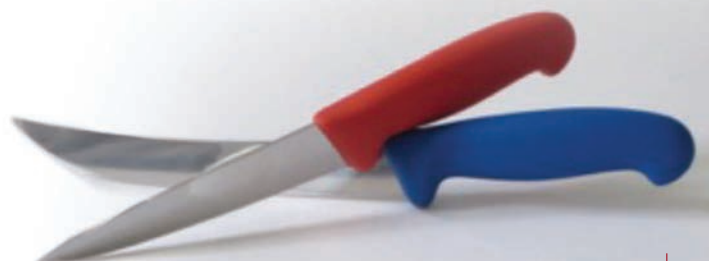
## Maintenance

The Anago KST & TST require **regular calibration** of the load cell to ensure consistency of knife tests results. Typically, users will calibrate once or twice a week or after testing particularly dull knives.

Beyond calibration, **virtually no maintenance** is required aside from keeping it clean and dry, and periodic cleaning and lubricating of the drive screw.

## Support

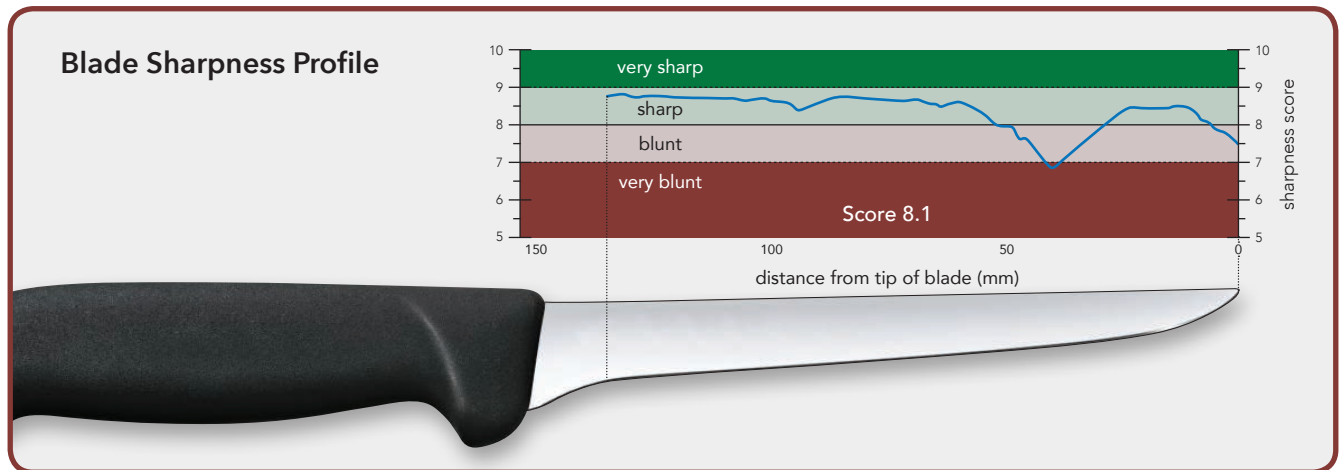
Anago offers **comprehensive product support**, from head office, our US-based service technicians and through our network of distributors. We are ready to answer any queries, and dispatch **trained service technicians** if required.



# Interpreting & Applying Results

The image below shows a typical output from a **KST sharpness test**. The user has a clear visual indication of the **overall knife sharpness** (as a score out of 10) and a **profile of sharpness along the blade** (measured at 2mm (1/12") intervals).

The **TST** provides an **overall trimmer blade sharpness** (also as a score out of 10).



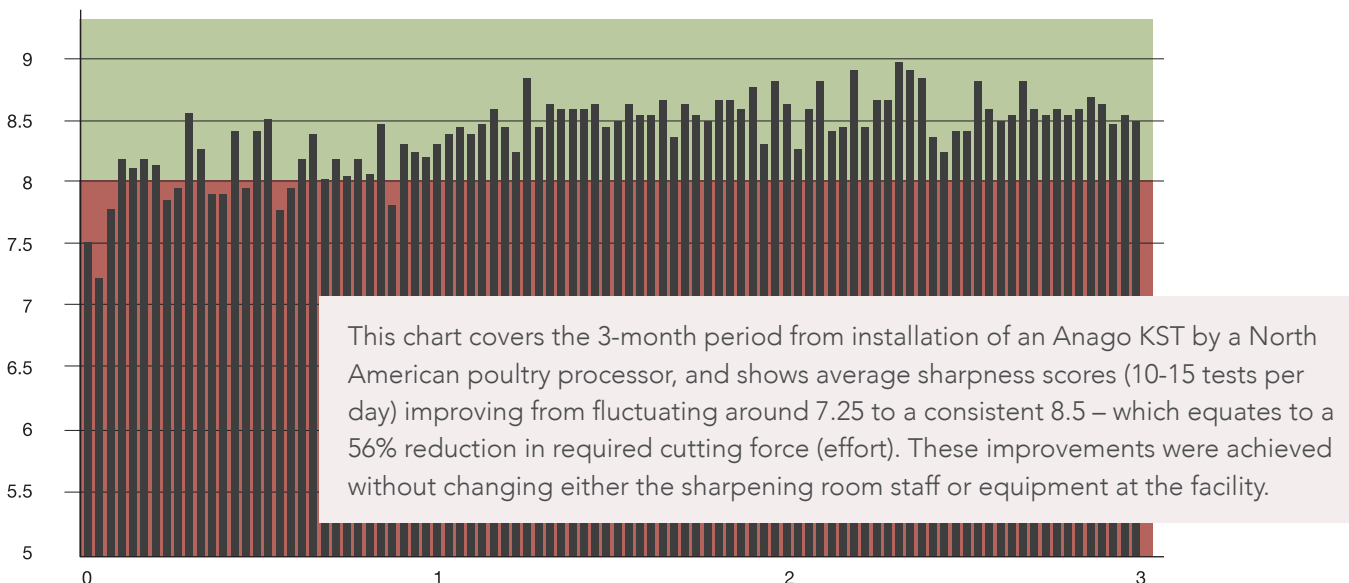
The user can immediately **identify the sharpness of the blade compared to other knives**, and **identify any dull/sharp areas** as well as nicks in the blade. The information can assist the user in determining the corrective action required to improve the sharpness level.

**For example**, the results may show the 1st inch of the blade from the tip end is comparatively dull compared with the rest of the blade. This would indicate the subject is having trouble sharpening/steeling this part of the blade and some instruction could be given to remedy the problem. The knife can then be re-tested to confirm the improvement and provide feedback on whether the changes made to sharpening technique have been effective.

It is this **process of experimenting** with what does and what doesn't work that allows our users to achieve **significant improvements in their average knife sharpness levels**.

The **Anago operating and analysis software** allows you to **view, save, compare, and export your test results**. Each test is tagged with test details (user name, knife identifier, test date, time etc and other customisable fields).

## Improvement in knife sharpness after implementing the Anago KST

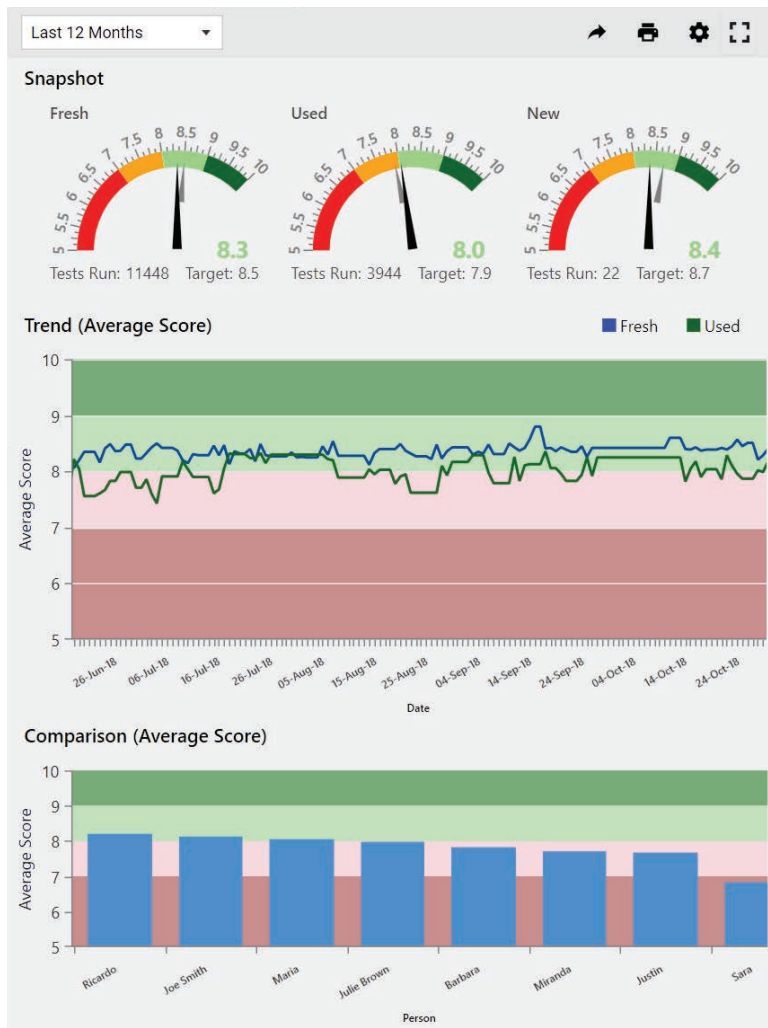




# Data Analysis

## Knife Sharpness Dashboard

Anago provides a cloud-based system where all test results can be automatically uploaded by the KST software for easy viewing and comparisons on our dashboard. This is a subscription service for owners of the Anago knife sharpness tester. The sharpness dashboard enables you to:



- 01 View a live snapshot of knife sharpness across plants, departments, lines and staff
- 02 Quickly and easily monitor the performance of your knife sharpening processes
- 03 Track performance over time with trend analysis
- 04 Improve visibility of performance across plant, department, and knife user, enabling you to target areas where sharpness improvements are needed most
- 05 Save time through automated reporting
- 06 Easily compare performance of sites, equipment & personnel
- 07 Improve effectiveness of your sharpness testing regime

# Applications

Anago's sharpness testers are used to provide accurate sharpness data/results wherever knives and blades are designed, manufactured, tested, used and re-sharpened.

The range of applications (with customer examples) includes:

## Knife and blade manufacturers

- Research and Development department at a knife designer
- Quality Control department at a knife manufacturing plant

## Food processing companies

- Knife sharpening room in a meat processing plant
- Knife sharpening centre at a vegetable processing plant
- Knife sharpening training in a meat processor's training centre

## Educational and training institutions

- Knife sharpening training at a butchery/chef training institute

## Research organisations

- Laboratory at meat research institute
- A University lab performing research into topics such as the effect of meat temperature on cutting forces, and sharpness level on muscle activation

## Industry associations

- A workplace H&S organization increasing sharpening skills across the industry and increasing awareness of the importance of knife sharpness

## Manufacturers of associated equipment (such as knife sharpening equipment)

- Quality Assurance laboratory of knife sharpening equipment manufacturer

## Knife and blade re-sharpeners

- Quality Control department at a commercial knife re-sharpener



# Implementation

## Typical Implementation at a Meat Processing Plant

### 01 *Carry out a baseline audit of sharpness with the Anago Knife Sharpness Tester (KST)*

This will establish a current sharpness level and a starting point from which you can set goals for improving sharpness levels.

### 02 *Improve skills of the sharpening room staff*

The goal is to ensure all knives exiting the sharpening room are at optimum sharpness. Use the objective results from the KST to guide changes and improvements in sharpening technique. Benchmark a minimum acceptable score for all knives to achieve before leaving the sharpening room, e.g. 8.5 out of 10.

### 03 *Establish a sampling regime for the sharpening room*

This will enable performance to be tracked and constant feedback to be provided to sharpening staff. For example, begin by testing 20 - 30 knives per day and as sharpness levels improve and become more consistent, gradually reduce the sampling rate to 10-15 knives per day.

### 04 *Activate Anagosharp Analytics*

Install Anagosharp Analytics software to provide sharpening personnel and management (local and corporate) with instant access to sharpness analysis and tracking tools, making it much easier to effectively manage and control your sharpening systems.

### 05 *Improve online blade maintenance skills*

Test the processing staff member's knives. Identify staff struggling to maintain sharpness with their steel and provide training, taking advantage of the KSTs test results to prompt changes in technique and also to confirm improvements.

### 06 *Establish a sampling regime for the processing floor*

Set a suitable testing rate to track the blade maintenance performance of staff on the processing floor.

### 07 *Set a benchmark score for minimum sharpness*

Ensure that all knives in use are at a high level of sharpness. Set in place a benchmark score of minimum sharpness for knives to achieve before they go out onto the floor.

# Customers



## Testimonials

"The Sharpness Tester allowed us to not only test people's knives, but also help them evaluate the results and send them away with instructions to improve their sharpening technique. They could return in five minutes, retest their knife and see a huge improvement."

**Garry Drake – Production Manager, Alliance Pukeuri, New Zealand**

"Implementing the Anago KST200e Sharpness Analyzer has resulted in reduced Workers Compensation claims, reduced knife usage and improved team productivity. All this without having to replace our sharpening equipment or personnel."

**Sonia Mavromatis – Plant Safety Manager, Tyson Foods, Temperanceville, VA USA**

"I like the fact we have something concrete to show people about their knife. If they are having trouble sharpening or maintaining their knife, we can actually verify that. I would definitely recommend it to other sites."

**Connie Beinhart – Safety Manager, Cargill Meats, Ottumwa, IA USA**

"Better knife sharpening techniques have resulted in higher yields, with workers able to cut much closer to the bone."

**Pat Fitzgerald – Chief Knife Tutor, Silver Fern Farms, New Zealand**

"By objectively measuring knife sharpness and then adjusting sharpening techniques, an outstanding payback can be produced in terms of increased worker productivity, improved motivation and a reduction in injuries."

**David Beard – Department Manager, Science & Food Technology, South West Institute of TAFE, Warrnambool, VIC Australia**

"We have implemented a testing program for new and old employees which gives us the information we need to identify where further training is required, as well as setting minimum sharpness requirements for both new hires and more experienced knifehands."

**Kevin Hudson – OHS Manager, Tey's Australia, Rockhampton, QLD, Australia**

"Blade sharpness is critical to the performance and safety of trimmer blades and the Anago TST gives us the ability to objectively manage our trimmer sharpening systems."

**Glen Doyle – Manager of Ergonomics, Fresh Meat Operations Support, Tyson Foods, SD USA**