

# THE POWER OF SAGE® UNLEASHED

SAGE UMT® AUTOMATIC STEAM TRAP TESTER



**Armstrong®**  
EXPERIENCE MATTERS™

# SAGE UMT<sup>®</sup> IS A SIMPLER, FASTER, MORE ACCURATE WAY TO SURVEY YOUR STEAM TRAPS

Armstrong's groundbreaking wireless, handheld steam trap testing device eliminates user error and raises the quality of trap surveys to a new level. With SAGE UMT<sup>®</sup>, anyone can test your steam trap population quickly, easily and accurately—with the simple touch of a button.



## **BEST-IN-CLASS TRAP MANAGEMENT BEGINS WITH BEST-IN-CLASS STEAM TRAP TESTING.**

SAGE UMT® is a fundamental tool in your complete steam trap management program. Our state-of-the-art automatic tester works seamlessly with SAGE® Smart Steam System Management platform to provide the most comprehensive and advanced steam trap management program available in the industry today.

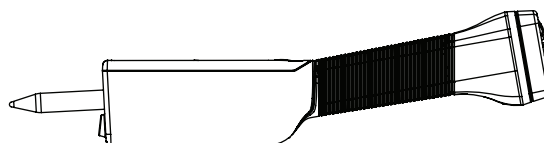
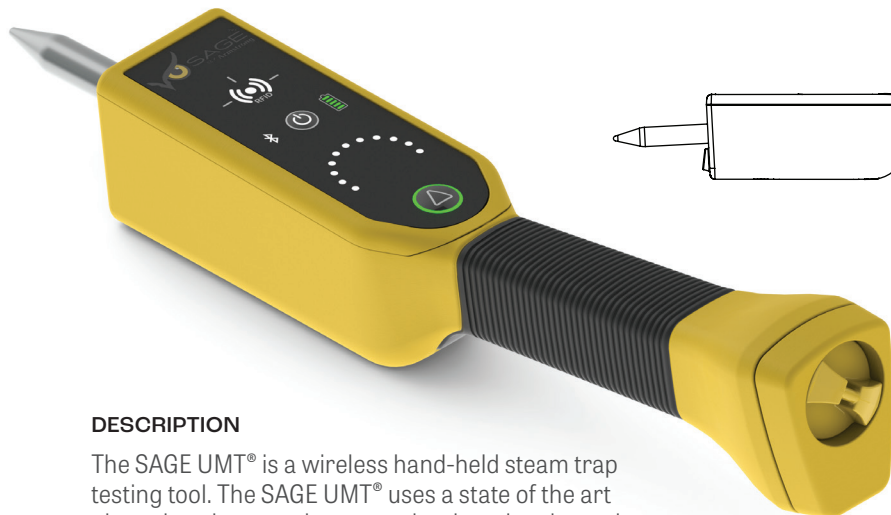
- | Detects traps in good, cold, leaking and blow-through condition
- | Piezoelectric acoustic sensor, developed and tuned specifically for the unique conditions found in steam traps
- | Non-contact infrared temperature sensor
- | RFID technology significantly reduces the time required to locate and identify traps
- | SAGE UMT® works seamlessly with SAGE® Smart Utility System Management platform
- | Data is uploaded to the cloud by SAGE® for secure storage and automated backups
- | Customers own their data
- | No calibration required
- | Use SAGE UMT® for 10 hours or more before recharging; charge is restored to 80% within 2.5 hours
- | Easy-to-hold, ergonomic handle with rubberized ribbed grip
- | SAGE UMT® accommodates any standard, threaded extension pole to allow easy access to hard-to-reach traps
- | Convenient holster holds SAGE UMT® securely; configure for right- or left-hand use
- | Firmware updates for SAGE UMT® and SAGE® Mobile are included with your SAGE® subscription, ensuring you always have the up-to-date tools needed for best-in-class trap management

## **DISCOVER JUST HOW QUICK, EASY AND ACCURATE STEAM TRAP SURVEYS CAN BE WITH SAGE UMT®.**

SAGE UMT® pairs wirelessly to the SAGE® Mobile app on your iOS or Android mobile device. SAGE® Mobile then delivers your steam trap information directly to SAGE® Smart Utility System Management platform, eliminating the need to manually enter survey information or decipher illegible field notes. And of course, you always own your data.

- | Scan a trap's RFID tag with SAGE UMT® and SAGE® Mobile automatically opens the details for that trap
- | Press the stainless steel probe tip to the trap and press the test button
- | Test progress will be visible on both SAGE UMT® and SAGE® Mobile
- | As the test is being performed, SAGE UMT® wirelessly transfers temperature and acoustic information to SAGE® Mobile where it is collected, analyzed and saved
- | SAGE® Mobile analyzes the data received from SAGE UMT® using Armstrong's proprietary, UNFCCC-approved, steam system efficiency methodology; based on the results, SAGE® Mobile assigns a condition to the trap
- | With SAGE UMT®, there's no need to enter information manually—SAGE® Mobile stores the trap's data (complete database including thousands of steam trap models from almost all manufacturers), automatically pushing it to SAGE® Smart Steam System Management platform
- | SAGE® Mobile immediately uploads data, or stores it locally until an Internet connection can be established. The data is stored in the SAGE Smart Utility System Management Platform where all data is protected by high-level security and automated backups.

# SAGE UMT® AUTOMATIC STEAM TRAP TESTER



## DESCRIPTION

The SAGE UMT® is a wireless hand-held steam trap testing tool. The SAGE UMT® uses a state of the art piezo electric acoustic sensor developed and tuned specifically for the unique conditions found in steam traps. The acoustic sensor coupled with a non-contact infrared temperature sensor makes testing steam traps as simple as pressing a button.

The SAGE UMT® is wireless and connects to any smart phone or tablet running the SAGE® mobile app using Bluetooth® technology. This means no more cords to get tangled, broken or melted and giving any steam trap technician the freedom to test traps quickly and easily.

The SAGE UMT® sends information gathered to the SAGE® mobile app where it is immediately processed and recorded. That means, no more crinkled and scribbled on log sheets, no more returning to the computer to re-enter all the recorded survey information, and no more lost or illegible field records.

The SAGE UMT® is the final tool in the SAGE® steam trap management system to bring your program to the highest level.

## MAXIMUM OPERATING CONDITIONS

Minimum steam pressure: 2 psig (0.14 barg)

Maximum steam pressure: 3200 psig (221 barg)

Operating temperature: -4 °F to 140 °F (-20 °C to 60 °C)

Battery charging ambient temperature: 32 °F to 113 °F  
(0 °C to 45 °C)

## MATERIALS

Body: Heat resistant ABS

Acoustic probe: 304 Stainless Steel

Acoustic Sensor: Ceramic Piezoelectric

Battery: 10+ hour Lithium Ion

## FEATURES

Bluetooth® communication

Built in RFID tag reader

Standard thread connection for installation on a "painter's pole"

## SPECIFICATIONS

IP rating: IP 64

BLE Spec: 4.2

RFID Spec: 13.56 MHz

Infrared sensor:

- Optical grade, coated germanium lens

--40 °F to 716 °F (-40 °C to 380 °C)

Weight: 1.25 lbs (0.57 kg)

Voltage: 7.2 VDC

Charging Voltage: is 12 VDC (6.5 W max.)

## SAGE UMT® ACCESSORIES

Accessories included with the SAGE UMT® Package and also available individually.



### SAGE UMT® HOLSTER

The SAGE UMT® holster securely holds the UMT and can be configured in either a right and or a left-hand configuration.



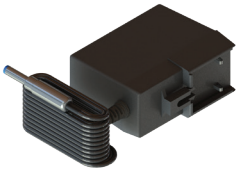
### SAGE UMT® CASE

The SAGE UMT® Case is specially designed to hold the SAGE UMT®, the charger, holster, IOM, a tablet (not included) and several stacks of 20 RFID tags (not included).



### SAGE® RFID TAG

The SAGE® RFID Tag is a non-metallic tag specifically designed to work with the SAGE UMT®. The tag is made of highly visible yellow material with large black numbers making the tag easy to read. The RFID chip can be read by the UMT®, to bring the desired record up quickly and accurately.



### SAGE UMT® CHARGER

The SAGE UMT® charger will charge the UMT® to 80% charge in 2.5 hours. A full charge can be completed in 5 hours.



### RFID TEAR DROP TAG

The RFID teardrop tag can be attached to an existing tag to create an RFID tag that can be read by the UMT®. The teardrop tag can be fastened to the tag hanger and has a high strength adhesive to be fastened to the existing tag.

### TAG INSTALLER

The Tag installed is designed to be installed on the end of a standard "painters" pole (not included).

### METAL TAG (NO RFID)

Standard metal tag with stamped number and hole to hang on heart shaped clip

### HEART SHAPED CLIP

The heart shaped clip is made of spring steel and designed to carry either the metal or SAGE® RFID enabled tags. It's heart shaped design allow the tag to be installed by simply sliding the clip over the piping.

## STANDARD RFID TAGS

Physical Parameters	
Product Size	1" H x 2.7" W (25mm H x 68mm W), 0.16" (4mm) hole
Materials	Polycarbonate
Operating Conditions	-30 °F to 180 °F (-34 °C to 82 °C)
Storage Condition	14 °F to 122 °F (-10 °C to 50 °C), 5-95% RH, no condensation
Single Weight	0.07 oz (2g)
Performance Parameters	
Direct Sunlight Exposure	10 Years
Water Resistance	Resistant to Dripping, Splashing and Prolonged Submersion
Operating Frequency	13.56MHz
Read Distance	1-1/2" (38mm)
Data Retention	50 years
Chemical Resistance	*Isopropyl Alcohol, Hydrochloric Acid, Sodium Hydroxide, Ethyl Acetate, Common Lacquer Thinner, Common Paint Stripper
Mounting Method	Engineered Hole



Front



Back

## TEAR DROP ADD ON RFID TAGS

Physical Parameters	
Product Size	1.25" H x 0.92" W (32mm H x 23mm W), 0.16" (4mm) hole
Materials	PET Epoxy over foil with VHB™ Adhesive Backing
Operating Conditions	-4 °F to 150 °F (-20 °C to 65 °C)
Storage Condition	14 °F to 122 °F (-10 °C to 50 °C), 5-95% RH, no condensation
Single Weight	0.06 oz (1.7g)
Performance Parameters	
Direct Sunlight Exposure	10 Years
Water Resistance	Resistant to Dripping, Splashing and Prolonged Submersion
Operating Frequency	13.56MHz
Read Distance	1/2" (12mm)
Data Retention	10 years
Chemical Resistance	*Isopropyl Alcohol, Hydrochloric Acid, Sodium Hydroxide, Ethyl Acetate, Common Lacquer Thinner, Common Paint Stripper
Mounting Method	VHB™ Adhesive Backing and Engineered Hole



\*Note that some chemicals may alter or damage the tag to which the RFID tag is adhered, even if the RFID Tag may not be affected



**WATCH A VIDEO TO  
LEARN MORE ABOUT  
THE SAGE UMT<sup>®</sup>  
AUTOMATIC STEAM  
TRAP TESTER**



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