# SA40 Ultrasonic Thickness Gauge


Combination gauge for non-destructive ultrasonic thickness measurement

The **SA40 Ultrasonic Thickness Gauge** is a small and handy ultrasonic wall thickness gauge. The smart instrument is capable of measuring the wall thickness of a great variety of metallic and nonmetallic materials e.g.: iron, steel, aluminum, brass, copper, lead, magnesium, nickel, titan, zinc, beryllium, molybdenum, quartz glass, acrylic glass, nylon, polyethylene, polystyrene, silicon and many more. The usage of different probes ensures perfect flexibility at different circumstances for instance when measurements must be taken at hardly accessible spots or under extreme temperatures.

Through the usage of wall thickness gauges' materials which are exposed to corrosion or erosion can be controlled and thus, their safe usage is guaranteed.

## Features

- Light, handy and safe in operating
- Large display-screen with automatic lighting
- High accuracy even in residual wall thicknesses
- 4 different probes are available: standard, miniature, high-temperature and cast-iron-testing tip with an 88cm connection cable
- Fast testing tip change by plug-in contacts
- Ultrasonic manually adjustable up to max. 9,999 m/s. Allows measurements on a large variety of materials (see velocities)
- Speed measurement with known wall thicknesses
- Memory holds 40 measurement results
- Units: mm or inch
- Simple calibration with integrated measuring plate
- Battery indicator

### Application

- Steel plates
- Finishing parts
- Tubes
- Pressure vessels
- For example in: the petroleum, chemical, metal, shipbuilding, and aerospace industry

### Top Users

- Sasol, Anglo, Caltex, Koeberg, Dorbyl

## Technical Specifications

| | |
|---|---|
| Technology | Measurement of first echo with transmit-receive sensor |
| Display | 4-digit LCD with backlight |
| Measuring range | 0.8 – 225 mm, depending on test material and chosen sensor |
| Accuracy | 0.70~9.99mm ±0.05mm / 10.00~99.99mm ±(0.5%+0.01)mm |
| | 100.0~300.0 ±(1%+0.1)mm |
| Memory capacity | 40 storage places |
| Resolution | 0.01mm@0.70~99.99mm, 0.1mm@100.0~300.0mm |
| Ultrasonic velocity | 500 – 9.999 m/sec. |
| Coupling | On the display |
| Unit | mm or inch |
| Battery capacity indication | On the display |
| Automatic shut down | After 5 minutes non-use |
| Working temperature | 0 - 40°C |
| Relative humidity | 20 - 90% |
| Power supply | 2 pieces 1.5V AA batteries |
| Size | 124 x 67 x 30 mm |
| Weight | 240 g |

## Packing List

| |
|---|
| SADT SA40 Ultrasonic Thickness Gauge |
| PT-5 Probe (5Mhz) |
| Couplant |
| 2 x 1.5V Batteries |
| Instruction Manual |
| Hard Carry Case |
| Calibration Certificate |

## Probe Options

| Sensor | Application | Measuring range in Steel | Surface temperature of work piece | Frequency | Diameter contact area | Sensor form |
|---|---|---|---|---|---|---|
| **PT-5** | | | | | | |
|  | Standard Probe / Sensor suitable for steel, non-ferrous metals, aluminum with alloys, synthetics, ceramics, glass. | 0.8 to 225 mm | -10°C to +50°C | 5 MHz | 10 mm | Direct |
| **GT-5** | | | | | | |
|  | High Temperature Sensor suitable for steel, non-ferrous metals, aluminum with its alloys, synthetics, ceramics, glass. | 2.5 to 200mm | -10°C to +400°C | 5 MHz | 12 mm | Direct |
| **XT-5** | | | | | | |
|  | Special Miniature Sensor for measurements on small pipes, curved material, edges, small contact areas and where the area of accessibility is limited, on same material as PT-5 | 1 to 30 mm | 0°C to +50°C | 5 MHz | 7 mm | Right-angled |
| **CT-2.5** | | | | | | |
|  | Cast Iron Sensor for measurements on material with high signal attenuation such as cast-iron and synthetics. | 3 to 225 mm | -10°C to +50°C | 2.5 MHz | 12 mm | Right-angled |