

## Ultrasonic Wall Thickness Measuring Scanners

For cables, pipes and tubing made of plastics or elastomers  
from 1.5 to 63 mm (.06 to 2.48 in.) diameter

The UMAC<sup>®</sup> R40 and -R63 ultrasonic wall thickness scanners offers non-contact wall thickness measurements of cable jackets, small pipes or tubes.

An ingenious and proven system guarantees easy threading and guiding of the product and easy passage of lumps and necks during startup. The scanners are built from non-corrosive resins and stainless steel and are largely maintenance-free.

A special, bubble-free water rinsing guarantees uninterrupted transmission of the ultrasonic energy and reliable, accurate measurements.

UMAC<sup>®</sup> R40 and -R63 scanners are designed to be mounted directly into the cooling trough or as an attachment to the existing trough. This preferred location, next to the extrusion head, allows wall thickness adjustments without dead time and also eliminates centering difficulties due to subsequent rotation of the product.

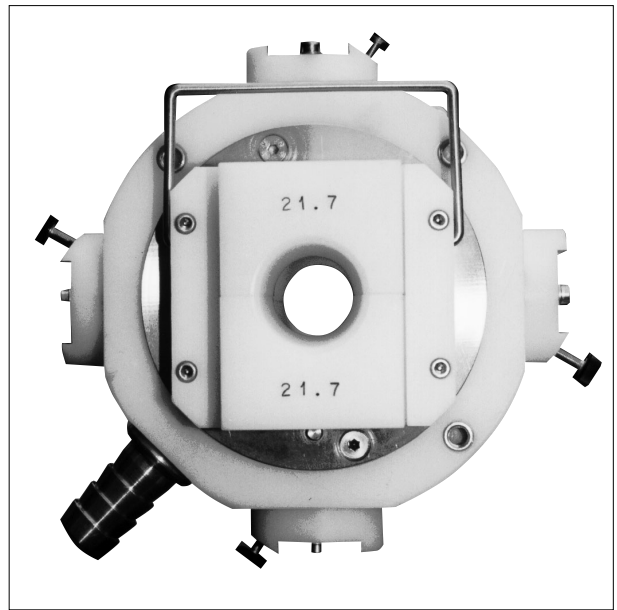
Six particular types are available to provide for a wide diameter range (O.D.) from 1.5 to 63 mm (.06 to 2.48 in.) and for a selection of 4, 6 or 8 measuring points, depending on specification of the product and type of extrusion head:

- UMAC<sup>®</sup> R40-4K
- UMAC<sup>®</sup> R40-6K
- UMAC<sup>®</sup> R63-4K
- UMAC<sup>®</sup> R63-6K
- UMAC<sup>®</sup> R63-8K
- UMAC<sup>®</sup> R63-8K2

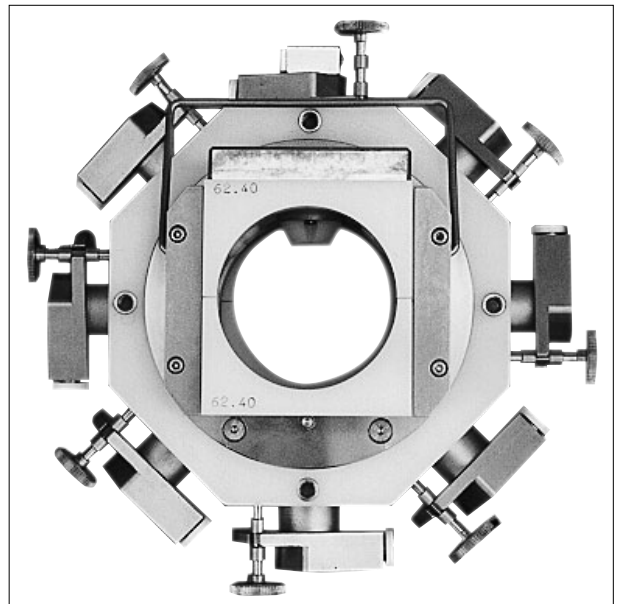
All types are also available in a water basin ("F"-option) including circulation pump.

### Optional Diameter Measurement

With these scanners and in conjunction with the UMAC<sup>®</sup> ECOWALL processor/display unit, the diameter can optionally be measured with an accuracy of typically 0.1 to 0.2 mm (.003 to .008 in.) in addition to the wall thickness and eccentricity. This option includes an additional sensor which will be mounted near the transducers.



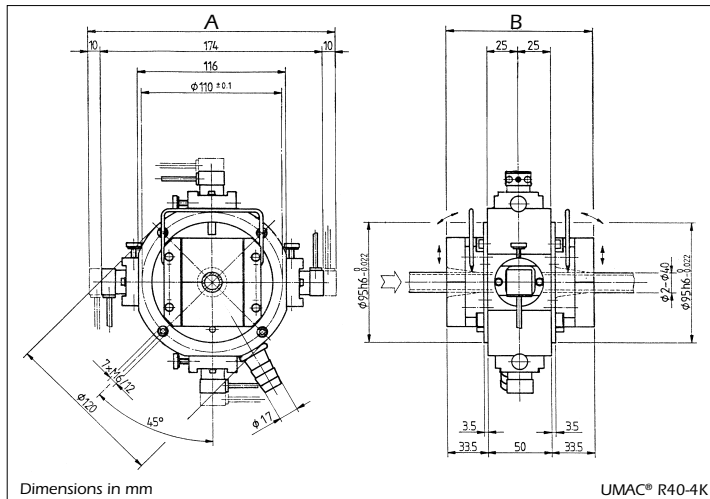
Picture shows UMAC<sup>®</sup> R40-4K scanner



Picture shows UMAC<sup>®</sup> R63-8K scanner

## Dimensions

### UMAC® R40-4K/6K



Dimensions in mm

UMAC® R40-4K

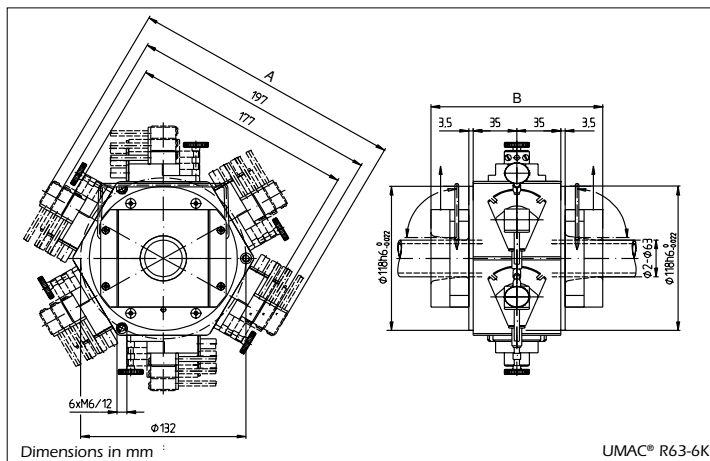
### Specifications for UMAC® R40

Scanner typ	Diameter range	A	B
UMAC® R40-4K <sup>1)</sup>	1.5...40 (.06...1.57)	194 (7.64)	117 (4.61)
UMAC® R40-6K <sup>1)</sup>	1.5...40 (.06...1.57)	194 (7.64)	127 (5.00)

<sup>1)</sup> Number of measuring points (transducer)  
Note: All above types are available with "F"-option.

Dimensions in mm (in.)

### UMAC® R63-4K/6K/8K/8K2



Dimensions in mm

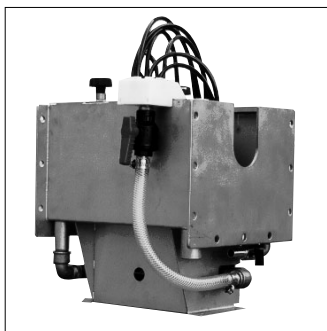
UMAC® R63-6K

### Specifications for UMAC® R63

Scanner typ	Diameter range	A	B
UMAC® R63-4K <sup>1)</sup>	2...63 (.08...2.48)	217 (8.54)	137 (5.39)
UMAC® R63-6K <sup>1)</sup>	2...63 (.08...2.48)	217 (8.54)	137 (5.39)
UMAC® R63-8K <sup>1)</sup>	20...63 (.79...2.48)	215 (8.46)	137 (5.39)
UMAC® R63-8K2 <sup>1)</sup>	2...63 (.08...2.48)	217 (8.54)	167 (5.39)

<sup>1)</sup> Number of measuring points (transducer)  
Note: All above types are available with "F"-option.

### Option "F" water collection basin



The basin can be mounted in 2 ways:

- A) Free standing  
In this case a floor stand is necessary.
- B) Flanged to or between cooling troughs.  
Both ends incl. mounting holes.

☞ For all water basin versions ("F"-option) additional floor stands are available.

### System Expansions

ZUMBACH manufactures a wide array of precision instruments for industrial applications.

- Measuring electronics and processors: UMAC®-OEM, UMAC®-8K, UMAC®-ECOWALL, UMAC®-OEM/USYS 5002, UMAC®-OEM/USYS 10000, UMAC®-CI, WALLMASTER etc.
- ODAC®/USYS Non-contact diameter measuring instruments for on-line or off-line use.

These systems can provide you with flawless SQC/SPC reports on the final diameter of your product.

☞ For more details on UMAC® processors and ODAC®/USYS systems, please ask for the respective ZUMBACH documentation.

▪ Technical specifications are subject to change without notice

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