TRIMOS

TR Profile + DH-8

TR Profile + DH-8

INTRODUCTION

The TR Profile and TR Profile DH-8 are extremely precise surface roughness measuring instruments, built for the use in the workshop and on production lines as well as in the lab.

From the simple roughness measurement without accessories, directly on the machine, to the measurements in the laboratory with measuring support, special tracers and other accessories, including the recording of contours, the TR Profile and TR Profile DH-8 offer maximum flexibility for surface analysis.

The tracers are the core pieces of the roughness meters. They are, to a wide extent, the determining factor of the precision of the measuring values obtained. The great choice of tracers is the result of decades of experience in the construction of such probes. The traversing unit with an integrated reference flat allows to effect precise measurements also with skidless tracers (VHF versions). The traversing units of TR Profile and TR Profile DH-8 are identical.

All instruments can be connected to a PC. They are delivered with a simple analysis software.

- LINEARITY AND MEASURING ACCURACY
- APPLICATION FLEXIBILITY
- LARGE RANGE OF ACCESSORIES
- REMOVABLE TRAVERSING UNITS
- RECHARGEABLE BATTERY FOR MOBILE APPLICATIONS
- TRACERS WITH AND WITHOUT SKID
- EASE OF USE

DESCRIPTION

INTERCHANGEABLE TRACERS
With skid: version VH
With and without skid: version VHF

TRAVERSING UNIT
integrated in the instrument, can also be connected with a cable to the instrument for measurement with stand or to reach difficult measuring points

USB interface for connection with PC

INTEGRATED PRINTER
For parameters,
Profiles and bearing ratio

USB interface for connection with PC

INTERCHANGEABLE TRACERS
With skid: version VH
With and without skid: version VHF

TR Profile + DH-8

DISPLAY / SOFTWARE

TR PROFILE
Extremely simple and intuitive use. Only 4 buttons to access to all functions.

Parameters:
ISO/DIN: Ra, Rz (DIN), Rmax, R3z, Rt, Rq (RMS), Rk, Rp, Rv, Rpk, Rvk, MR1, MR2, Rpc, C1, C2, bearing ratio Rmr, C0, Cz
JIS: Ra (JIS), Rz (JIS)
ISO 12085: R, AR, Rx

- DISPLAY OF PARAMETERS AND PROFILES
- MEMORY FOR 15 MEASURING PROFILES
- AUTOMATIC CALIBRATION
- CUT-OFF FIRMLY ASSIGNED TO THE TRAVERSING LENGTH
- USB DATA OUTPUT
- MENUS IN 6 DIFFERENT LANGUAGES

TR PROFILE DH-8
Multifunctional and polyvalent measuring instrument for roughness and contour measurement.

Parameters:
ISO/DIN: Ra, Rz (DIN), Rmax, R3z, Rt, Rq (RMS), Rk, Rp, Rv, Rpk, Rvk, MR1, MR2, Rpc, C1, C2, bearing ratio Rmr, C0, Cz
JIS: Ra (JIS), Rz (JIS)
ISO 12085: R, AR, Rx

- DISPLAY OF PARAMETERS AND PROFILES
- MEMORY FOR 50 MEASURING PROFILES
- AUTOMATIC CALIBRATION
- 5 MEASURING LENGTHS, ALL SELECTABLE BETWEEN 0.5 AND 15.0 MM
- MEASURING SPEED SELECTABLE
- CALIBRATION FOR MAX. 8 TRACERS
- 8 MEASURING PROGRAMS
- TOLERANCE INDICATION
- KEY LOCK FOR LT, LC AND R TO PREVENT ANY SETTINGS MISTAKES
- USB OUTPUT FOR DATA TRANSFER (OPTION: BLUETOOTH)
- CONTOUR MEASUREMENTS
- MENUS IN 6 DIFFERENT LANGUAGES

DISPLAY / SOFTWARE

SOFTWARE DIASOFT

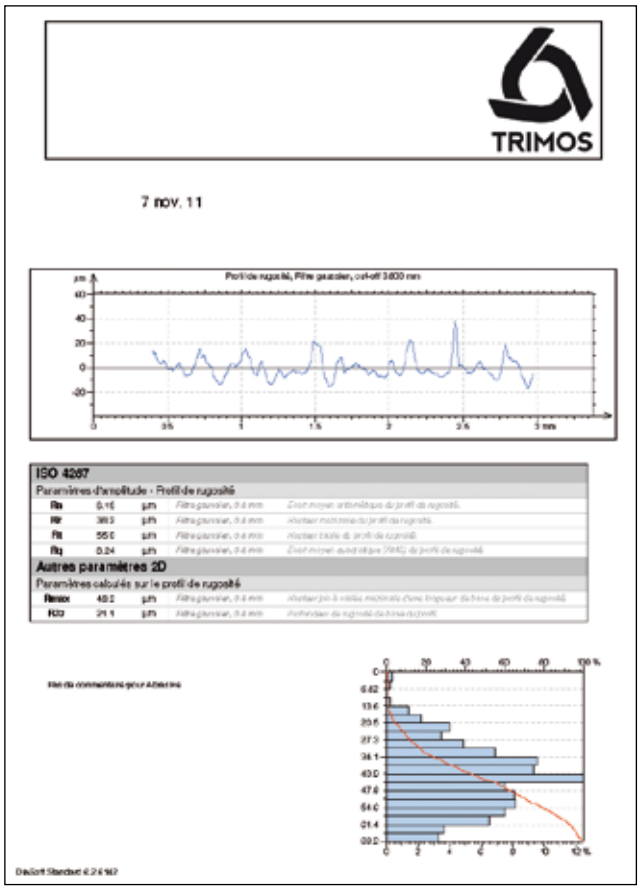
DIASOFT is a multilingual software that gives the opportunity to further improve the DIAVITE possibilities. This software will work out an even greater number of roughness parameters and will be a help for the memorization and the presention of your measurements protocols. All measured values can be analysed and compared. The software most adapted to your needs will doubtlessly be found among the 4 existing versions:

- **Basic (TA-SW-601, included in standard delivery)**
  Basic software with Ra, Rq, Rv, Rp, Rt, Sm, Rsk, Rku, Rz, RTp, RHTp, RDq, RPc, roughness curve, Abbott curve. Predefined protocol.

- **Standard (TA-SW-602)**
  Same as «Basic», additionally with RLq, Rlo, RzJIS, R3z, waviness and roughness profile on the same curve, zoom functions, symmetry, comparison of profiles etc. Protocols can be customized individually.

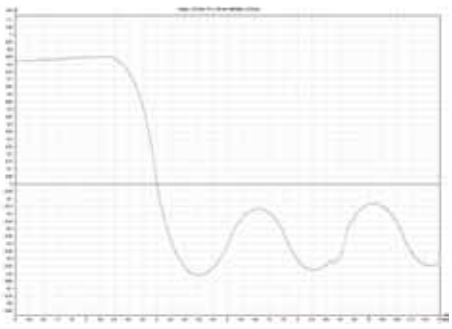
- **Automotive (TA-SW-603)**
  Same as «Standard», additionally with ISO 12085 (CNOMO), ISO 13565, (parameter Rk)

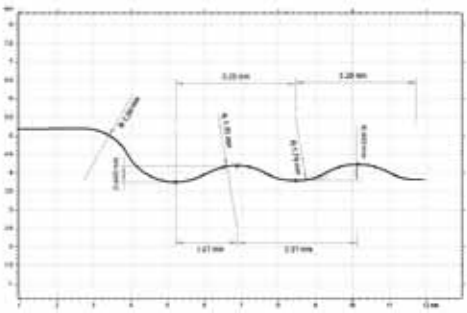
- **Expert (TA-SW-604)**
  Same as «Automotive», additionally with analysis of series of profiles and a lot more features for surface analysis. The most complete offer for the specialist, now and in the future.



MEASUREMENT OF CONTOURS

The TR Profile DH-8/VHF now offers the possibility, as an option, to precisely measure contours. For this purpose, a special contour measuring tracer is needed, in combination with a specific software module.





The softwares DIASOFT Standard, Automotive and Expert can be equipped with the following modules:

- Contour module Simple (TA-SW-610)
- Contour module Advanced (TA-SW-611)

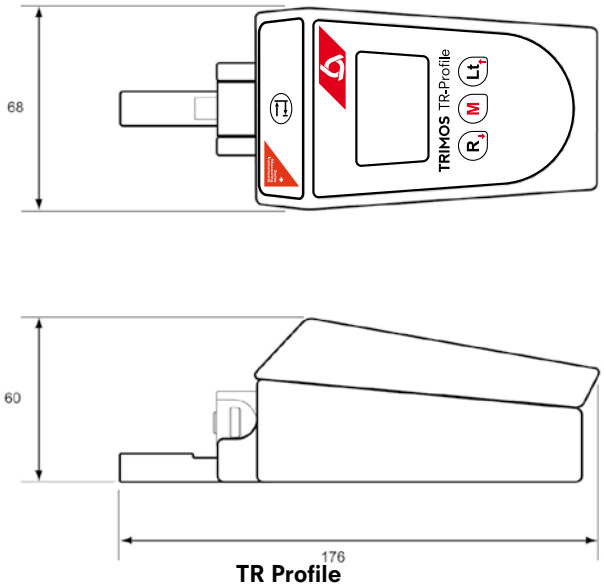
TR Profile + DH-8

TECHNICAL SPECIFICATIONS

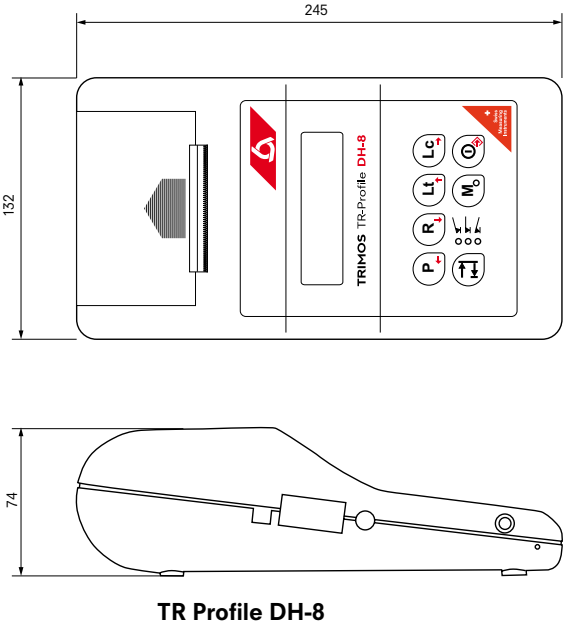
		TR Profile	TR Profile DH-8
Measuring range (Ra, Rq)	µm	20	
Measuring range (other parameters)	µm	350	
Measuring range of tracers	µm	350	
Max. permissible errors Ra	%	5%	
Repeatability (Ra, 1σ)	µm	0.009	
Resolution (Ra, Rq)	µm	0.01 (<0.1 µm: 0.001)	
Resolution (other parameters)	µm	0.1	
Vertical resolution of tracers	µm	0.01	
Horizontal resolution of tracers	µm	1	
Measuring speed	mm/s	0.5	0.25/0.5/1.0
Measuring force, tracers with skid	N	< 0.15	
Measuring force, tracers without skid	mN	< 0.5	
Diamond tip radius	µm	5 µm, 90° (standard) or 2 µm, 60° (option)	
Cutoffs lc	mm	0.08/0.25/0.8/2.5	
Measuring lengths lt	mm	0.48/1.50/4.8/15.0	0.5 ÷ 15 (programmable)
Relative humidity	%	20 ÷ 80	

Contour Tracer (TA-MS-650)		
Horizontal measuring range (X)	mm	15
Vertical measuring range (Z)	mm	4
Max. permissible errors (Z)	µm	5
Tracing angle: rising flanks	°	< 77
Tracing angle: falling flanks	°	< 88

DIAGRAM



TR Profile



TR Profile DH-8

STANDARD INSTRUMENT

The TR Profile instruments are supplied as follows:
Instrument according to specifications
Traversing unit VH or VHF
Standard tracer (TA-MS-601)
Adapter with connecting cable (TA-EL-601)
Roughness standard, Ra=3.0 µm (TA-MG-609)
Charging unit
USB cable
Screw driver
User's manual (750 50 0040 03) and quick guide (750 50 0036 03)
Certificate of quality
Software DIASOFT Basic (TA-SW-601)
Carrying case

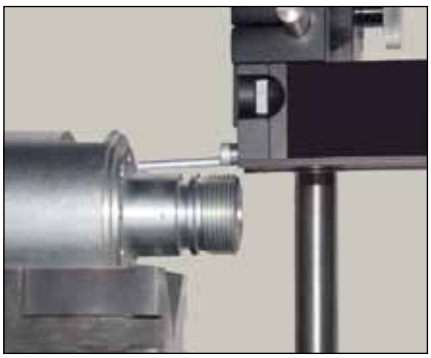
The TR Profile DH-8 instruments are supplied as follows:
Instrument according to specifications
Traversing unit VH or VHF
Standard tracer (TA-MS-601)
Roughness standard, Ra=3.0 µm (TA-MG-609)
Charging unit
USB cable
Screw driver
User's manual (750 50 0042 00) and quick guide (750 50 0043 03)
Certificate of quality
Software DIASOFT Basic (TA-SW-601)
Carrying case

CODE NUMBER

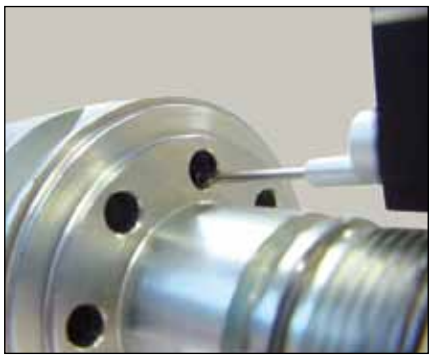
TR Profile	TR Profile DH-8	
TR Profile VH 700 401 10 01	**TR Profile DH-8/VH** 700 401 10 51	For tracers with skid
TR Profile VHF 700 401 10 02	**TR Profile DH-8/VHF** 700 401 10 52	For tracers with and without skid
	TR Profile DH-8/VHF-CP-S 700 401 10 61	Set for contour measurements Simple - TR Profile DH-8/VHF - Contour tracer (TA-MS-650) - Contour standard (TA-MG-651) - Software DIASOFT Standard (TA-SW-602) - Contour module Simple (TA-SW-610)
	TR Profile DH-8/VHF-CP-A 700 401 10 62	Set for contour measurements Advanced - TR Profile DH-8/VHF - Contour tracer (TA-MS-650) - Contour standard (TA-MG-651) - Software DIASOFT Standard (TA-SW-602) - Contour module Advanced (TA-SW-611)

TR Profile + DH-8

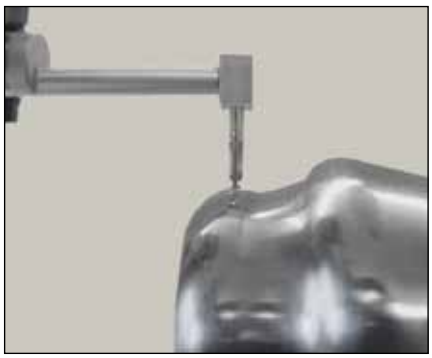
APPLICATIONS



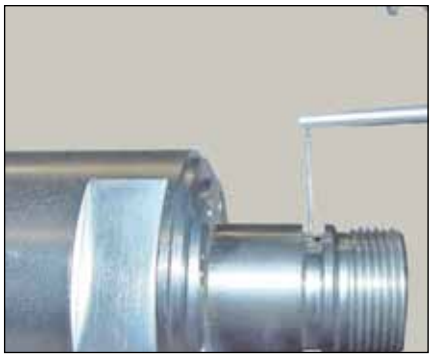
Checking of surface roughness near a shoulder (TA-MS-601)



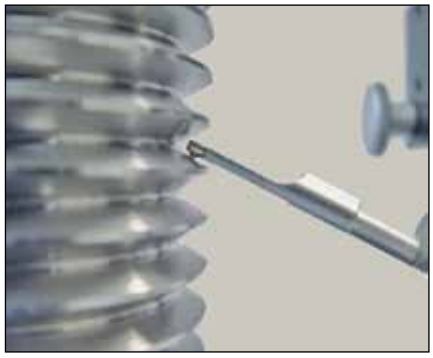
Measurement in small bores (TA-MS-605)



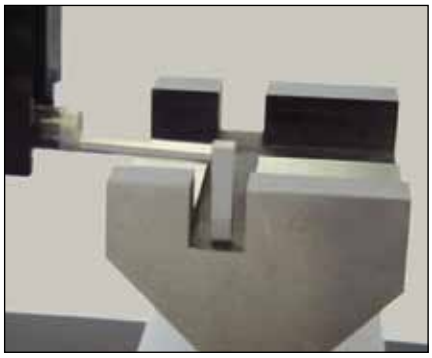
Measuring surface roughness of a polished part (TA-MS-607)



Checking at recessed measuring points (TA-MS-609)

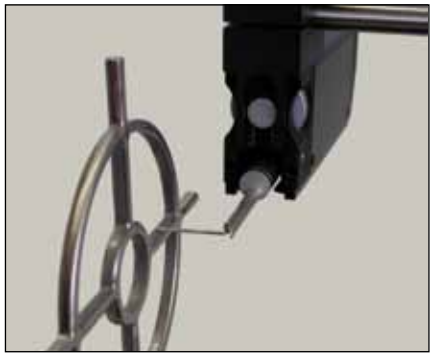


Checking of thread profile roughness of a thread plug gage (TA-MS-620)



Checking in a recess using an appropriate probe (TA-MS-608)

Radial roughness measurement (TA-MS-621)



Transversal flank measurement (TA-MS-627)

Contour measurement with TR Profile DH-8/VHF (TA-MS-650)