

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

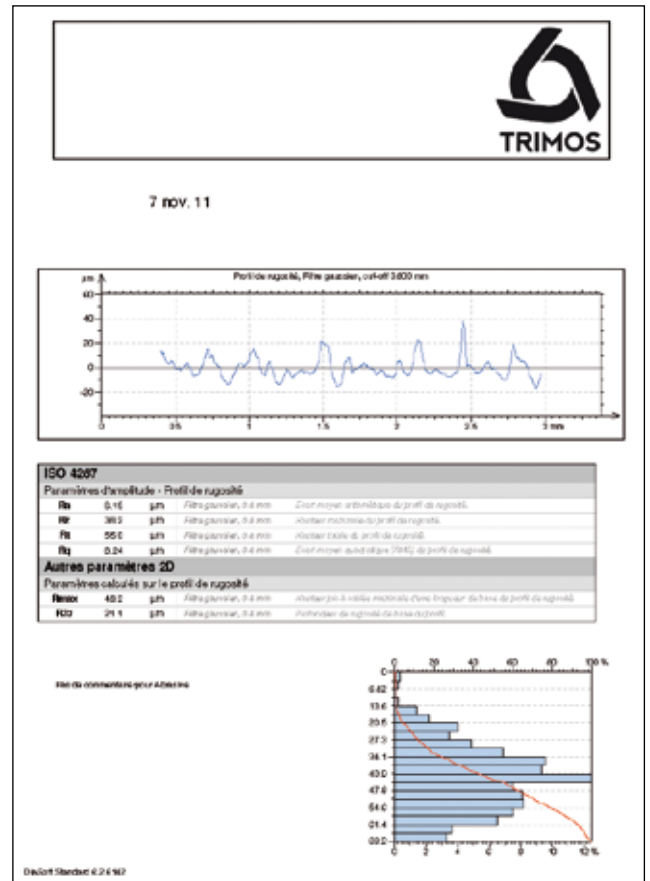


DISPLAY / SOFTWARE

SOFTWARE DIASOFT

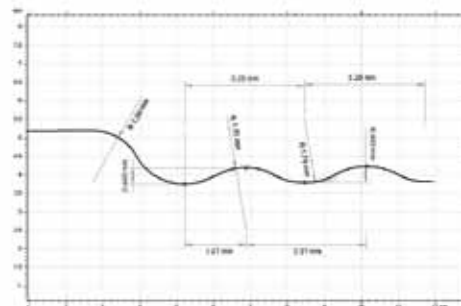
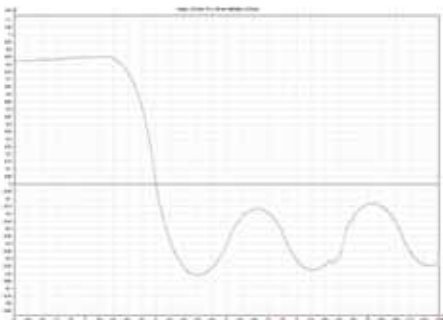
DIASOFT is a multilingual software that gives the opportunity to further improve the DIAVITE possibilities. This software will work out an even greater number of roughness parameters and will be a help for the memorization and the presentation of your measurements protocols. All measured values can be 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, R_{PC}, roughness curve, Abbott curve. Pre-defined 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 (CNO-MO), 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)

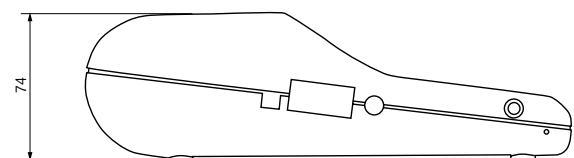
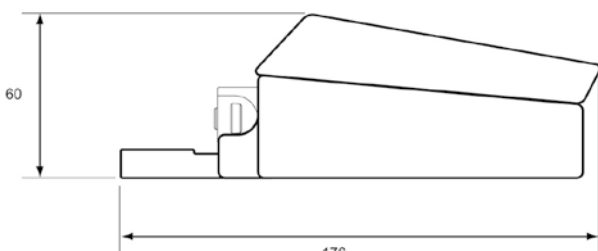
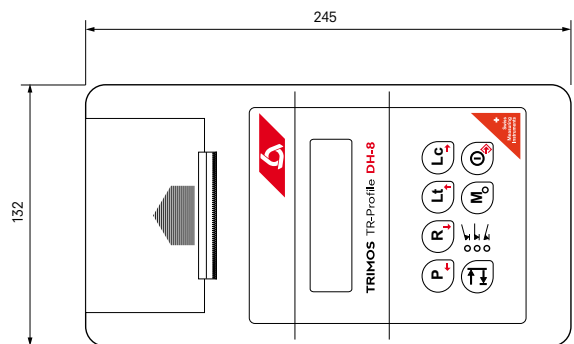
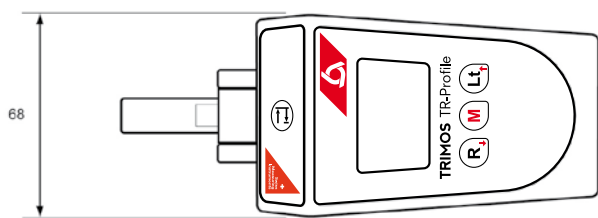
TR Profile + DH-8

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

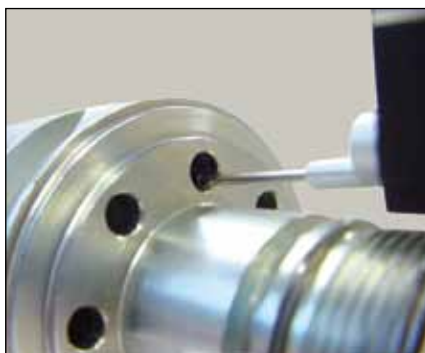
TR Profile	TR Profile DH-8	
TR Profile VH 700 401 10 01	TR Profile DH-8/VH 700 401 10 51	For tracers with skid
TR Profile VHF 700 401 10 02	TR Profile DH-8/VHF 700 401 10 52	For tracers with and without skid
	TR Profile DH-8/VHF-CP-S 700 401 10 61	Set for contour measurements Simple - TR Profile DH-8/VHF - 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)

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APPLICATIONS



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



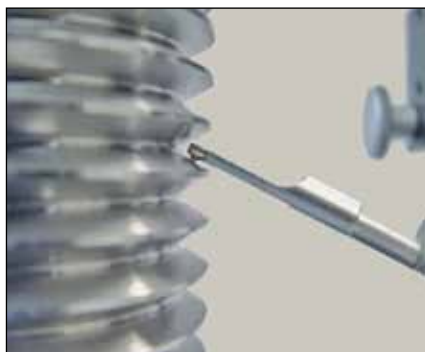
Measurement in small bores (TA-MS-605)



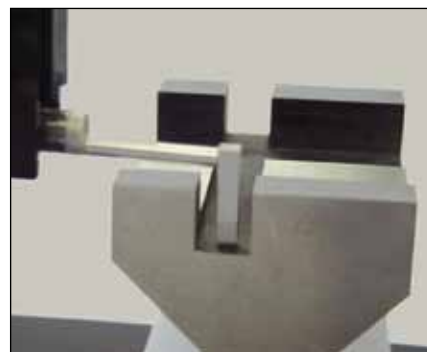
Measuring surface roughness of a polished part (TA-MS-607)



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)