

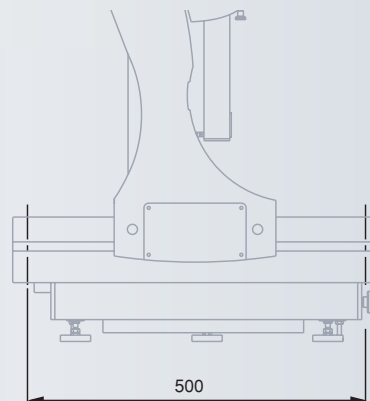
## TESA Micro-Hite 3D 454, Recorder Machine Version

The Recorder coordinate measuring machine is the latest development in the whole range of small TESA MICRO-HITE 3D. An added functionality makes it possible for the operator to control the servomotors in the three coordinate axes, but also to reproduce a programme sequence of the machine displacements in the automatic mode. Each displacement can either be operated manually or using the joystick. No preliminary programming is needed.

Through the evolution of their manual CMM, TESA provide today a flexible and user-friendly machine version for hand-operated and/or automated measurements.

### Main Features

- Fast and easy workpiece alignment.
- Point-to-point part probing or manual scanning.
- ZMouse for significant time savings.
- Manual displacement in the 3 coordinate axes.
- Automatic reproduction of the manual machine displacement.
- Displacement speed in automatic mode: 200 mm/sec.
- TESA-REFLEX Recorder application software.
- TESASTAR-i indexable probe head.



### General



EN ISO 10360-2



CMM with moving bridge.

Measuring systems along with air bearing guiding in the three axes.



Measuring volume (X/Y/Z):

440 x 490 x 390 mm



TESA-REFLEX Recorder: 0,001 mm or 0.00001 in



Manual probing movements.

Manual or motorised execution of a part programme.



Light alloy machine base; granite measuring table.



Opto-electronic measuring systems based on incremental glass scales



0,039 µm (system)



Manual version: 760 mm/sec. Motorised version: 200 mm/sec.

### TESA-REFLEX Recorder Control Panel



154 x 116 mm display field with illuminated background



7-decade display (digits) plus sign for the measured values.

Icon-based graphical User interface.



RS232



Manual mode:  $MPE_E^* = (3 + 4 L/1000) \mu m$

$MPE_p = 3 \mu m$

Motorised mode:

$MPE_E^* = (2,5 + 3,9 L/1000) \mu m$

$MPE_p = 2 \mu m$

\* L in mm

Additional technical Data on the page opposite.

**Workpiece-oriented features**

Overall dimensions: (W x D x H): 600 x 750 x 430 mm

Maximum weight: 227 kg

**CMM-oriented features**

Mass (W x P x H): 1030 x 1100 x 1680 mm

Net weight: 225 kg (granite table included).  
Table alone: 99 kg.  
Gross weight: 350 kg

Air pressure: 3,9 bars (60 à 120 psi).  
Air absorption: 60 NI/min.

115 to 230 Vac ±10%, 50 to 60 Hz.

Air absorption: 0,3 to 0,7 A

20°C ±1°C

13°C to 35°C



Shipping box (W x D x H): 1350 x 1350 x 2200 mm

Inspection report

EN ISO 10360-2

**Sales programme**

	Machine version	03939042		03939242		03939043		03939243		03939120		03939122		03939169	
		MH3D F	MH3D F	MH3D Fi	MH3D Fi	MH3D RC	MH3D RC	MH3D RC	MH3D RC	MH3D Recorder	MH3D Recorder				
Machine type		454	474	454	474	454	474	454	474	454	474	454	474	454	474
<i>Consisting of:</i>															
	Fine adjust device	●	●	●	●	●	●	●	●	●	●	●	●	●	●
03939020	TESASTAR probe head	●	●	—	—	—	—	—	—	—	—	—	—	—	—
03939030	TESASTAR-i probe head	—	—	●	●	●	●	●	●	●	●	●	●	●	●
03969040	M3 probe styli kit	●	●	●	●	●	●	●	●	●	●	●	●	●	●
03960381	TESA REFLEX MH3D Control panel plus software	●	●	●	●	●	●	●	●	●	●	●	●	●	—
03960303	TESA REFLEX Recorder Control panel plus software	—	—	—	—	—	—	—	—	—	—	—	—	—	●
03969011	Reference sphere	●	●	●	●	●	●	●	●	●	●	●	●	●	●
82-703-1	Granite table	●	●	●	●	●	●	●	●	●	●	●	●	●	●
049746	Air filter and regulator	●	●	●	●	●	●	●	●	●	●	●	●	●	●
052283	Joystick (RC version)	—	—	—	—	—	—	—	—	●	●	●	●	—	—
M1604.6011	Joystick (Recorder version)	●	—	—	—	—	—	—	—	—	—	—	—	—	—
01962003	USB-Stick	●	●	●	●	●	●	●	●	●	●	●	●	●	●

**Optional Accessories for Manual CMMs**

No	Description
03939020	TESASTAR probe head
03939030	TESASTAR-i probe head
03939031	TESASTAR-i M8 probe head
03969009	ReflexScan software
03969007	RS232 connecting cable
03960309	RS232 adapter cable for TESA-REFLEX Recorder control panel
03969001	Cabinet with top mounted table
03939170	TESASTAR-mp touch-trigger probe LF, 0,055 N, L = 10 mm
03939171	TESASTAR-mp touch-trigger probe SF, 0,08 N, L = 10 mm
03939172	TESASTAR-mp touch-trigger probe MF, 0,10 N, L = 25 mm
03939173	TESASTAR-mp touch-trigger probe EF, 0,10 N, L = 50 mm
03939174	TESASTAR-mp probe body
03960175	Air saver
03939210	TESASTAR-mp probe kit (2 TESASTAR-mp probes, type SF + 1 TESASTAR-mp probe body)
82-1631	TESA practice piece
03969095	Hexagon practice piece
03969003	Dust cover
03969040	M3 styli kit
03960223	Camera kit with cross line generator included
03969047	Straight probe, Ø 6,35 mm

