

# TC-MATRIX160

## Fully Automatic Chemistry Analyzer

- 150 Tests / Hour, Double Reagent

For over 25 years, Teco Diagnostics has been an industry leader in the manufacturing of in-vitro clinical diagnostic tests and instruments. From powder to liquid clinical chemistry, we have high quality solutions for your diagnostic needs. Based in Anaheim, CA, our manufacturing facility is FDA regulated, and thus all phases of our production processes are based on strict Current Good Manufacturing Practices (cGMP) regulations which safeguard the excellent quality of all our products.



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Compliant Manufacturer  
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# TC-MATRIX160

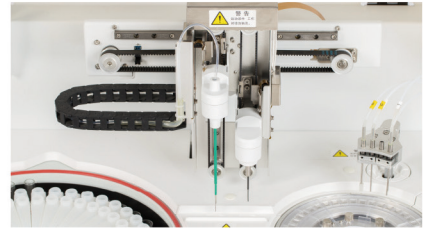
## Fully Automatic Chemistry Analyzer

- Constant 150 test / hour with double reagent
- 80 reagent positions
- Automatic liquid level sensing, anti-collision protection.
- Integrated full closed optical system, multi wavelength simultaneous detection.
- New amorphous optical plastics reaction cups, perfect transmittance.
- Maintenance free semiconductor solid state refrigeration.
- Friendly surface and easy to operation



## Multifunctional precision sampling probe

- External & internal mirror polish, external & internal probe washing
- Dedicated sampling probe equipped with sensitive liquid sensor, timely feedback of reagent & sample residuals.
- Collision protection, automatic probe depth adjusting



## Excellent mixer design

- Teflon coating mixers. No water dropping (reducing carry-over)
- Excellent mixing effect with standard mixing procedure



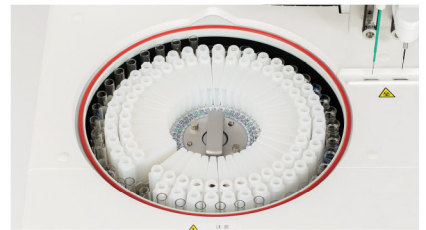
## High precision ceramic syringe

- Permanent ceramic piston
- Accurate dispensing as low as 0.1µl



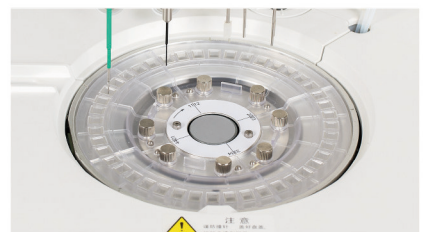
## Reagent & sample tray

- 80 reagent positions (40 for R1, 40 for R2)
- 40 sample positions, micro cup & test tube can be used
- Non-stop cooling system with peltier pad inside, 24 hours 2°C -14°C
- Bar code reader (optional)



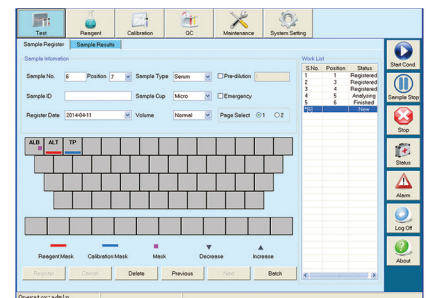
## Reaction tray

- 44 disposable cuvettes
- Reaction volume as low as 150µl
- Stable & accurate temperature( 37±0.1°C ) for reaction



## Advanced operating system

- User friendly software interface simple, easy-to-operation
- Sample automatic dilution(decrease, increase, normal)
- Reaction result automatic checking and warning, calibration result automatic checking, warning alarm log
- Linear & nonlinear calibration, Multi-points calibration up to 8 points
- Quality control apply to westgard, L-T plot, cumulative



# Technical specifications

## General information

<b>Machine type</b>	Random access, open reagent & locked reagent (optional)
<b>Test speed</b>	Constant 150 tests/hour (Mono reagent or double reagent)
<b>Test principle</b>	Colorimetric method, turbidimetry
<b>Test method</b>	1 point end, 2 point end, Fixed-Time, Kinetics
<b>Calibration type</b>	Linear & nonlinear

## Sample unit

<b>Sample tray</b>	40 sample positions
<b>Sample tube</b>	Micro cup & Test tube & Blood collection tube can be used. ( $\varnothing$ 12 -13 )mm * ( 25 — 100 )mm
<b>Sample volume</b>	2-30 $\mu$ l, step by 0.1 $\mu$ l
<b>Sample probe</b>	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
<b>Sample barcode</b>	Sample barcode reader (optional)

## Reagent unit

<b>Reagent tray</b>	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent
<b>Reagent volume</b>	20-300 $\mu$ l, step by 1 $\mu$ l
<b>Reagent needle</b>	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
<b>Regent barcode</b>	Regent barcode reader (optional)

## Reaction unit

<b>Reaction tray</b>	44 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
<b>Reaction volume</b>	150 $\mu$ l-330 $\mu$ l
<b>Reaction time</b>	10 minutes
<b>Temperature</b>	Peltier pad incubation system, reaction temperature (37°C $\pm$ 0.1°C)

## Mixing system

<b>Mixer</b>	paddle-type mixing, effective reducing of carry-over
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## Optical system

<b>Light source</b>	Halogen lamp
<b>Wavelength</b>	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm 700nm (4 more options)
<b>Absorbance range</b>	0-4.0 Abs
<b>Resolution</b>	0.0001 Abs

## Operation system

<b>Operation system</b>	Windows XP, Windows 7, Windows 8, Windows 10
<b>Data processing</b>	Automatic calibration, test combination, effective time management of reagents, serum index, whole process de-tection, linear expansion of enzyme, blank deduction,dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
<b>Report printing</b>	6 formats optional, surpport custom pattern
<b>Interface</b>	TCP/IP network interface

## Working conditions

<b>Power supply</b>	AC 110/220V $\pm$ 10%, 50/60 Hz, 650W
<b>Water consumption</b>	6L/hour(maximum)
<b>Dimension</b>	750mm • 535mm • 475mm (L*W*H)
<b>Weight</b>	80kg