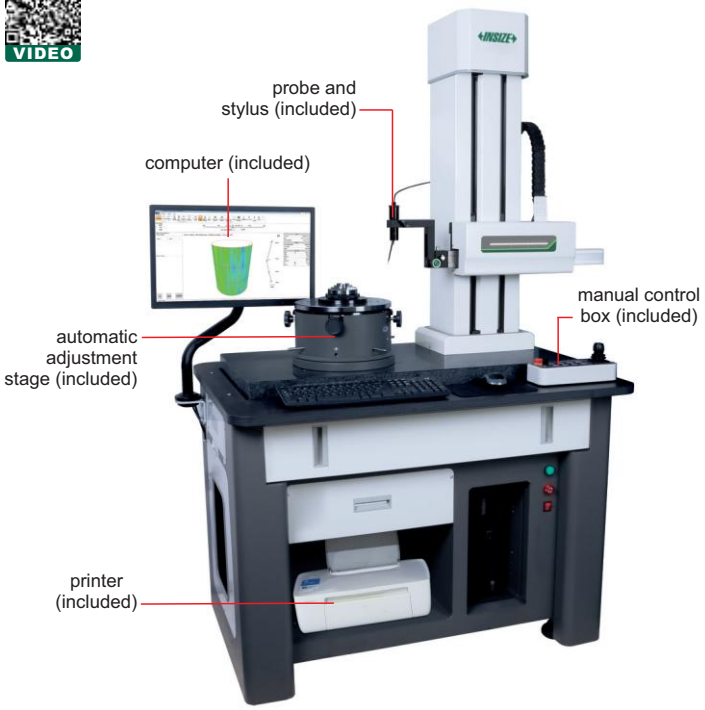
ROUNDNESS/CYLINDRICITY TESTER
CODE RCT-300



- Automatic centering and leveling
- Evaluation items
  -Cylindricity module: cylindricity, radial full run, coaxiality, taper, radius
  -Roundness module: roundness, concentricity, radial single jump, wall thickness difference
  -Straightness module: straightness, parallelism, squareness
  -Single section flatness module: single section flatness, axial single hop, perpendicularity, parallelism
  -Multi-section flatness module: multi-section flatness, parallelism, axial full runout, perpendicularity
  -Commutator module: monolithic bounce, immediate bounce, interval difference
- Analytical ability
  -Cylindricity function: 2-10 sections, 3 evaluation methods
  -Reference benchmarks for cylindricity evaluation: LSCY, MZCY, MICY, MCCY, OSCY
  -Reference circle for roundness evaluation: LSC, MZC, MIC, MCC
  -Measurement band: 1-15upr, 1-50upr, 1-150upr, 1-250upr, 1-500upr, 15-100upr, 15-500upr, 2-15upr, 1-1500upr, custom
  -Notched measurement

SPECIFICATION

Probe	**measuring range**	±500μm
	resolution	1:262144
	linear accuracy	0.1%
Ruby stylus	**size**	Ø2×10mm
	direction	two directions
	adjustable angle	±45°
X axis	**travel**	165mm
	excess range	25mm
	drive mode	motor
	moving speed	0.1~50mm/s
Z axis	**measuring range**	480mm
	straightness	0.3μm/100mm
	movement speed	0.1~10mm/s
	movement mode	motor
Detector	**acquisition device**	circular grating
	circumferential sampling points	14400
Granite stage		900×500mm
Rotary stage	**rotation accuracy**	(0.025+6H/10000)μm, H is the measuring height in mm
	rotation speed	6rpm, 8rpm, 10rpm
	max. measuring diameter	300mm
	max. workpiece diameter (rotation diameter)	450mm
Automatic adjustment stage	**workbench diameter**	280mm
	adjustment range of center	±3mm
	adjustment range of level	±1°
	weight capacity	30kg
Precision chuck	**external grip diameter**	Ø1~Ø81mm
	internal grip diameter	Ø31~Ø70mm
Air filter	**pressure range**	0~0.8MPa
	oil mist removal accuracy	0.01μm
	export oil mist concentration	0.5mg/m³
Dimension (L×W×H)		1680×862×1685mm
Power supply		220±10%V, 50Hz
Power		500W
Weight		350kg

To be continued

Continued from previous page


air filter (included)

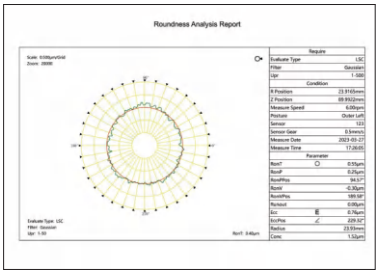

standard block (included)


column adjusting rod (included)

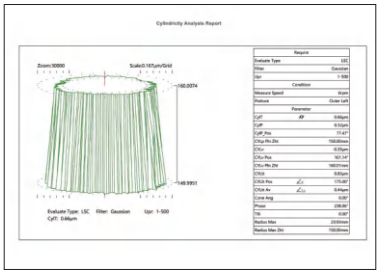

precision chuck (included)

STANDARD DELIVERY

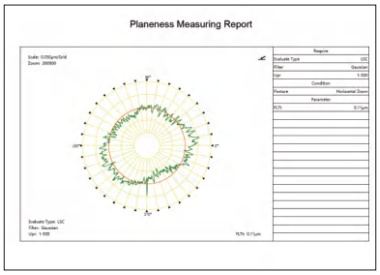
Main unit	1 pc
Probe (with ruby stylus)	1 pc each
Standard block	1 pc
Column adjusting rod	1 set
Precision chuck	1 pc
Automatic adjustment stage	1 pc
Roundness cylindricity acquisition and analysis system	1 set
Air filter	1 set
Computer	1 pc
Printer	1 pc
Installation tools	1 set



roundness analysis


cylindricity analysis

straightness analysis

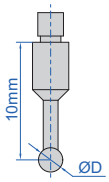


planeness analysis

OPTIONAL ACCESSORY

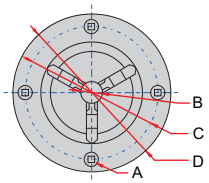
Probes	see below details
Precision chucks	see below details
Dryer	ISC-DRY

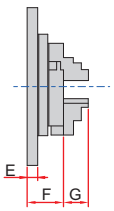
SPECIFICATION OF PROBES



Code	Diameter (ØD)	Remark
RCT-RA260-T1	2mm	included
RCT-RA260-T2	0.5mm	optional
RCT-RA260-T3	1mm	optional
RCT-RA260-T4	4mm	optional
RCT-RA260-T5	8mm	optional

SPECIFICATION OF PRECISION CHUCKS





(mm)

Code	A	B	C	D	E	F	G	Clamping range		Remark
								external grip dia.	internal grip dia.	
RCT-RA260-C1	M5×0.8	16	100	118	8	28	13	Ø0.8~63	Ø23~58	optional
RCT-RA260-C2	M6×1.0	20	116	143	10.5	37	15	Ø1~81	Ø31~70	included
RCT-RA260-C3	M6×1.0	26	140	168	10	39	19	Ø1~100	Ø36~90	optional

ROUNDNESS MEASURING MACHINE
CODE RCT-RA260

VIDEO

- Air-floating spindle
- Can measure roundness, coaxiality, concentricity, flatness, radial runout, axial runout, parallelism and perpendicularity
- Spectrum analysis, automatic gap/burr removal, waveform analysis
- 4 roundness evaluation methods: smallest area method, least square method, smallest circumscribed circle method, largest inscribed circle method
- Measuring filer: 1-15upr, 1-50upr, 1-150upr, 1-250upr, 1-500upr, 15-100upr, 15-500upr, 2-15upr
- Filter form: gauss (ISO standard)
- Software is included, for measurement, analysis, data output, etc.

SPECIFICATION

Probe	**measuring range**	±300μm
	resolution	0.001μm
	linear accuracy	0.25%
Ruby stylus	**size**	Ø2×10mm
	direction	two directions
	adjustable angle	±45°
X axis	**travel**	165mm
	excess range	25mm
	drive mode	by hand
Z axis	**drive mode**	motor
	travel	320mm
	movement speed	0.5~10mm/s
Rotary stage	**rotation accuracy**	(0.025+6H/10000)μm for H≤20mm, H is the measuring height in mm
	rotation speed	6rpm
	max. measuring diameter	260mm
	max. workpiece diameter (rotation diameter)	400mm
Rotary axis	**radial rotation accuracy**	±0.0125μm
	axial runout accuracy	±0.05μm
Adjustable 3D stage	**diameter**	180mm
	adjustment range of center	±3mm
	adjustment range of level	±2°
	weight capacity	20kg
Granite stage		700×500mm
Precision chuck	**external grip diameter**	Ø1~Ø81mm
	internal grip diameter	Ø31~Ø70mm
Air filter	**pressure range**	0~0.8MPa
	oil mist removal accuracy	0.01μm
	export oil mist concentration	0.5mg/m³
Dimension (L×W×H)		1300×795×1715mm
Power supply		220±10%V, 50Hz
Power		500W
Weight		320kg

To be continued

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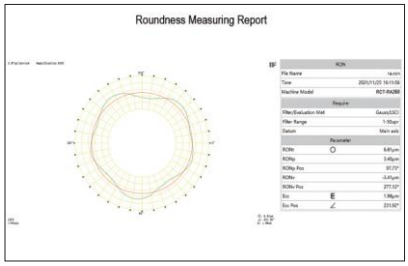
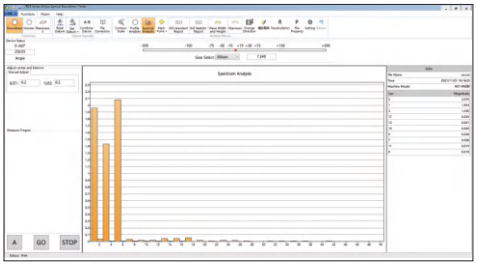


measurement



spectrum analysis

STANDARD DELIVERY

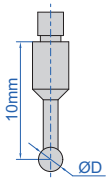
Main unit	1 pc
Probe (with ruby stylus)	1 pc each
Standard block	1 pc
Precision chuck	1 pc
Adjustable 3D stage	1 pc
Rotary stage	1 pc
Computer	1 pc
Software	1 set
Printer	1 pc
Air filter	1 set
Installation tools	1 set

standard block (included)

OPTIONAL ACCESSORY

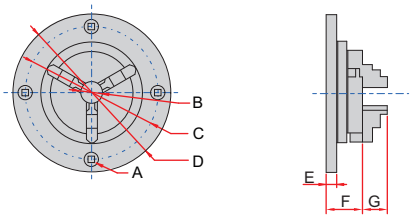
Probes	refer to details
Precision chucks	refer to details
Dryer	**ISC-DRY**

SPECIFICATION OF PROBES



Code	Diameter (ØD)	Remark
RCT-RA260-T1	2mm	included
RCT-RA260-T2	0.5mm	**optional**
RCT-RA260-T3	1mm	**optional**
RCT-RA260-T4	4mm	**optional**
RCT-RA260-T5	8mm	**optional**

SPECIFICATION OF PRECISION CHUCKS

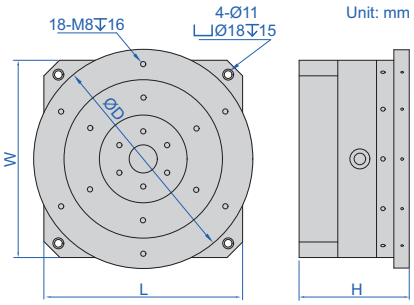


(mm)

Code	A	B	C	D	E	F	G	Clamping range		Remark
								external grip dia.	internal grip dia.	
RCT-RA260-C1	M5×0.8	16	100	118	8	28	13	Ø0.8~63	Ø23~58	**optional**
RCT-RA260-C2	M6×1.0	20	116	143	10.5	37	15	Ø1~81	Ø31~70	included
RCT-RA260-C3	M6×1.0	26	140	168	10	39	19	Ø1~100	Ø36~90	**optional**

PRECISION AIR FLOATING ROTARY TABLES

6875-320



air filter (included)

- Manual rotation
- Optional accessory:
  high precision digital indicators (code **2133** series),
  hydraulic universal magnetic stands (code **6274** series)

Code	Stage size ØD	Max. RPM	Air supply pressure	Max. load	Radial stiffness	Axial stiffness	Radial runout	Axial runout	L×W×H
6875-320	320mm	500rpm	5-6bar	100kg	250N/μm	500N/μm	<0.3μm	<0.3μm	272×272×161mm
6875-400	400mm	500rpm	5-6bar	100kg	250N/μm	500N/μm	<0.3μm	<0.3μm	272×272×161mm
6875-500	500mm	500rpm	5-6bar	100kg	250N/μm	500N/μm	<0.3μm	<0.3μm	272×272×191mm

Standard glass hemisphere (optional)

Code	Roundness
6875-BALL*	0.05μm

*To check the accuracy of rotary table

6875-BALL

application

Clamp for glass hemisphere (optional)

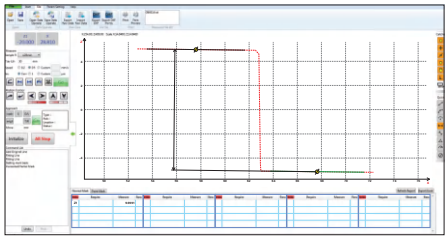
Code
6875-CLAMP

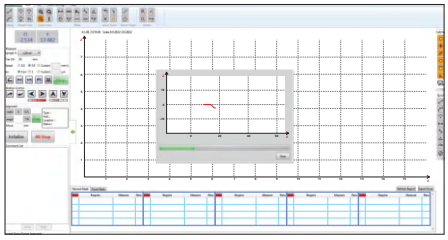
6875-CLAMP

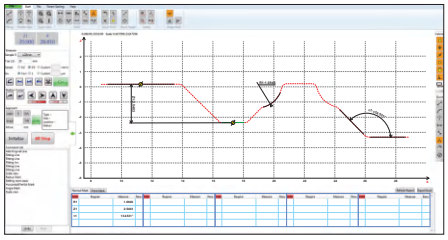
SURFACE PROFILE MEASURING MACHINE
CODE SPM-1000

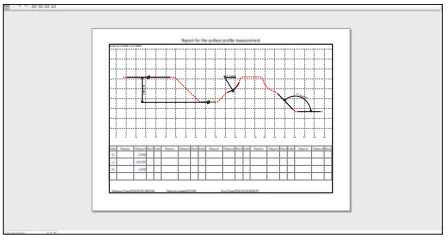
VIDEO

- Software is included, for surface profile measurement and data output
- Probe compensation
- Output as format txt, csv, etc.
- Large range design, the leverage ratio is 1:2.2, maintain the original accuracy of the sensor
- The overall structure of the Z-axis sensor does not have any elastic components, ensuring the measuring force is constant regardless the position of probe


calibration

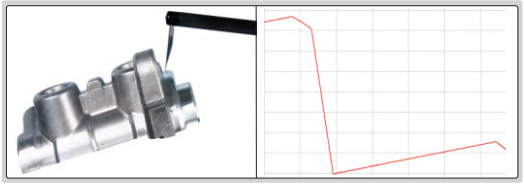

contour scanning


dimension measurement


data output

SPECIFICATION

X axis measuring range	140mm
X axis resolution	0.2μm
X axis straightness	0.8μm/100mm
X axis moving speed	0.1~10mm/s
Z axis measuring range	±20mm
Z axis resolution	0.05μm
Z axis moving speed	0.5~10mm/s
Linear accuracy	±(1.5+|0.2H|)μm, H is measuring height in mm
Angular measuring accuracy	±2′
Arc measuring accuracy	±(2+R/8)μm, R is 2~10mm standard ball
Radius of probe tip	25μm
Moving direction	backward
Measuring force	6.86~9.8mN
Measuring unit	mm/inch
Traceable angle	72° (upward), 87° (downward)
Drive mode	motor
Travel of Z axis	430mm
Dimension (L×W×H)	1200×700×1780mm
Power supply	220±5%V, 50Hz
Weight	320kg




standard balls (included)


standard blocks (included)

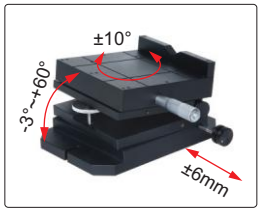

standard shaft (included)

To be continued

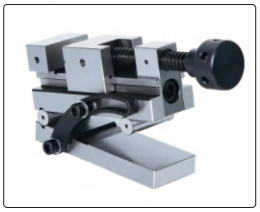
Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Standard probe and arm	1 pc of each
Standard block	2 pcs
Standard ball	2 pcs
Standard shaft	1 pc
Stage	1 pc
Vise	1 pc
Measuring arm	1 pc
Computer	1 pc
Measurement software	1 pc
Printer	1 pc
Installation tools	1 set



stage (included)


vise (included)

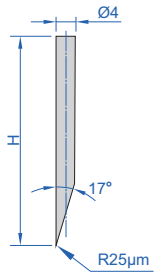
OPTIONAL ACCESSORY

Probe	refer to details

SPECIFICATION OF PROFILE PROBES

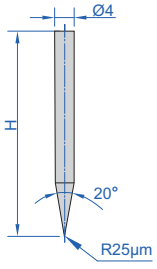
Unit: mm

chisel stylus



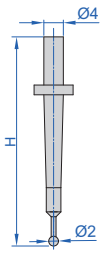
code **SPM-1000-T01** (H=32mm, included)
code **SPM-1000-T02** (H=48mm, **optional**)
code **SPM-1000-T03** (H=68mm, **optional**)

cone stylus



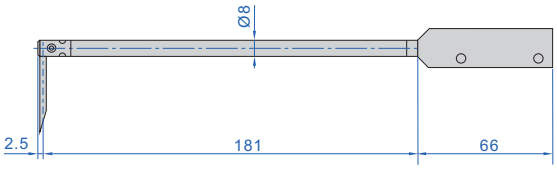
code **SPM-1000-Z01** (H=32mm, **optional**)
code **SPM-1000-Z02** (H=48mm, **optional**)
code **SPM-1000-Z03** (H=68mm, **optional**)

ball stylus

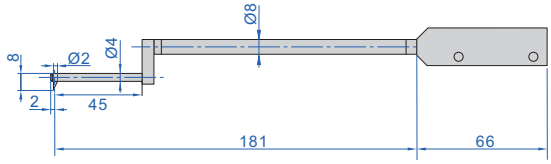


code **SPM-1000-R01** (H=32mm, **optional**)
code **SPM-1000-R02** (H=48mm, **optional**)
code **SPM-1000-R03** (H=68mm, **optional**)

standard arm, code SPM-1000-SP (included), **stylus is not included**

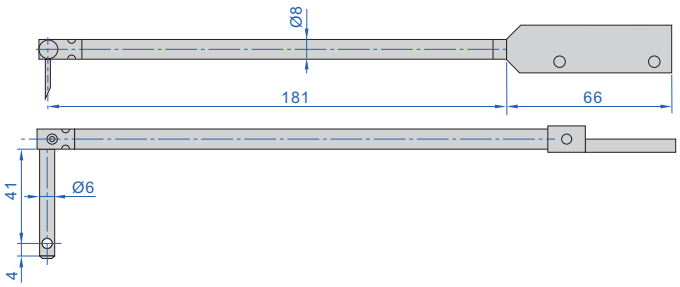


probe for small holes, code SPM-1000-SBP (optional), stylus is included



measure the contour of holes with diameter>Ø8mm

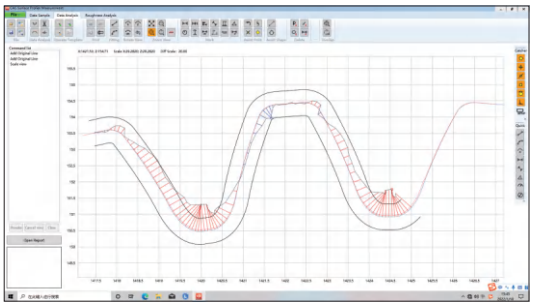
transverse probe, code SPM-1000-LP (optional), stylus is included



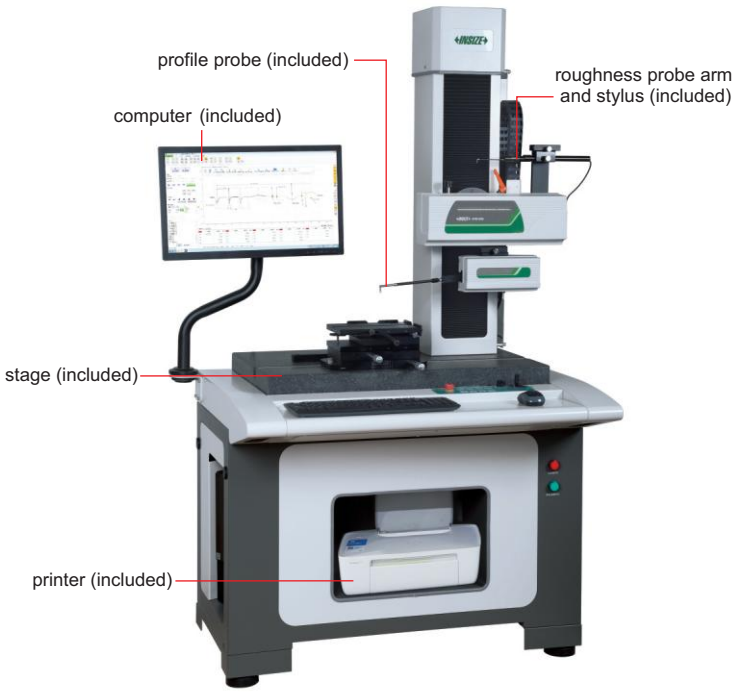
measure the contour of holes in radial direction

ROUGHNESS AND PROFILE MEASURING MACHINE (TWO PROBES TYPE) CODE SPM-2000

ATTENTION: PROFILE AND ROUGHNESS PROBES ARE USED SEPARATELY



CAD profile comparison



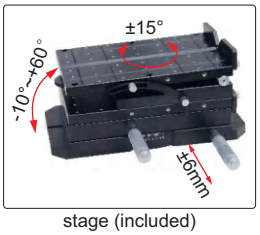
- Software is included, for measurement and data output
- Profile sensor with low noise
- Wide range roughness sensor without skid
- Meet ISO1997, ISO1984, BS1988, DIN1990, ASME1995, JIS1982, JIS1994 standards
- 65 roughness parameters

PROFILE MEASUREMENT SPECIFICATION

X axis measuring range	140mm
X axis resolution	0.2μm
X axis traverse speed	0.05~15mm/s
Z axis measuring range	50mm
Z axis resolution	0.05μm
Z axis traverse speed	0.2~15mm/s
Straightness	0.5μm/100mm
Linear accuracy	±(0.8+|0.15H|)μm, H is measuring height in mm
Angular measuring accuracy	±1′
Arc measuring accuracy	±(1.5+R/12)μm, R is 2~10mm standard ball
Measuring unit	μm/μin
Measuring speed	0.05~1mm/s
Traceable angle	72° (upward), 88° (downward)
Travel of Z axis	430mm
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1400×850×1780mm
Weight	350kg

ROUGHNESS MEASUREMENT SPECIFICATION

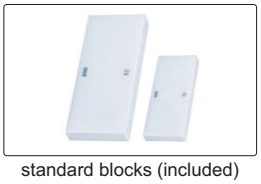
Roughness parameters	Ra, Rp, Rv, Rz, Rz (JIS), R3z, Rz (DIN), Rzj, Rmax, Rc, Rt, Rq, Rsk, Rku, Rsm, Rs , PΔq, Rk, Rpk, Rvk, Mr1, Mr2, Rmr
Waviness parameters	Wa, Wt, Wp, Wv, Wz, Wq, Wsm, Wsk, Wku, Wmr
Primary profile parameters	Pa, Pt, Pp, Pv, Pz, Pq, Psm, Psk, Pku, Pmr
Measuring range	±420μm
Resolution	0.001μm
Linear accuracy	≤±(5nm+2.8%)
Probe radius/angle	5μm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μm
Measuring speed	0.05~0.25mm/s



stage (included)

vise (included)

standard shaft (included)



standard blocks (included)

standard balls (included)

To be continued

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STANDARD DELIVERY

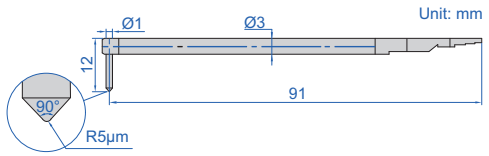
Main unit	1 pc
Calibration block	1 set
Roughness probe arm	1 pc
Roughness stylus	1 pc
Profile probe arm	1 pc
Profile chisel stylus	1 pc
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

OPTIONAL ACCESSORY

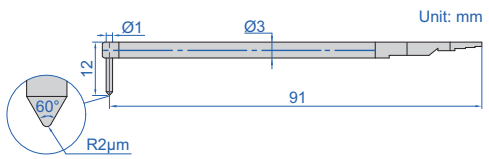
Probe	refer to details

SPECIFICATION OF ROUGHNESS PROBE

standard probe, code SPM-2000-P (included), **stylus is included**



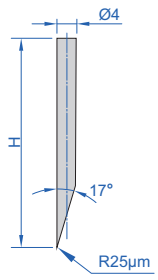
small roughness probe, code SPM-2000-P1 (optional), stylus is included



SPECIFICATION OF PROFILE PROBES

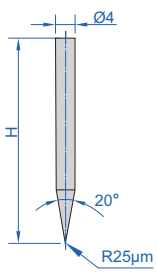
Unit: mm

chisel stylus



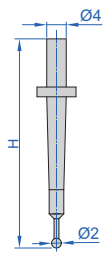
code **SPM-1000-T01** (H=32mm, included)
code **SPM-1000-T02** (H=48mm, **optional**)
code **SPM-1000-T03** (H=68mm, **optional**)

cone stylus



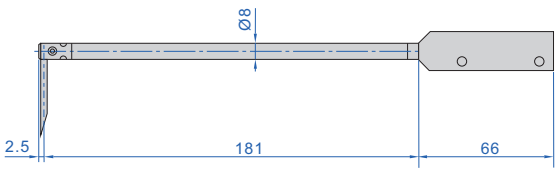
code **SPM-1000-Z01** (H=32mm, **optional**)
code **SPM-1000-Z02** (H=48mm, **optional**)
code **SPM-1000-Z03** (H=68mm, **optional**)

ball stylus

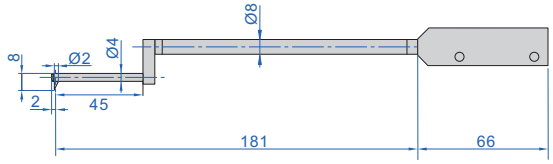


code **SPM-1000-R01** (H=32mm, **optional**)
code **SPM-1000-R02** (H=48mm, **optional**)
code **SPM-1000-R03** (H=68mm, **optional**)

standard arm, code SPM-1000-SP (included), **stylus is not included**

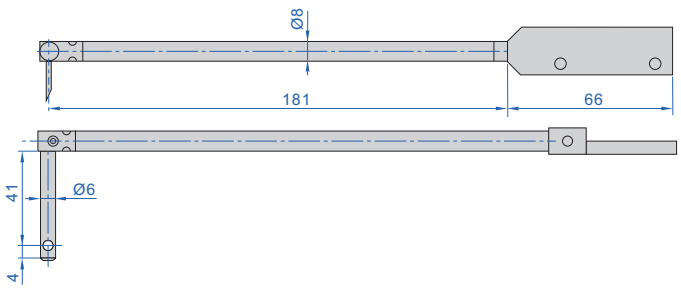


probe for small holes, code SPM-1000-SBP (optional), stylus is included



measure the contour of holes with diameter>Ø8mm

transverse probe, code SPM-1000-LP (optional), stylus is included



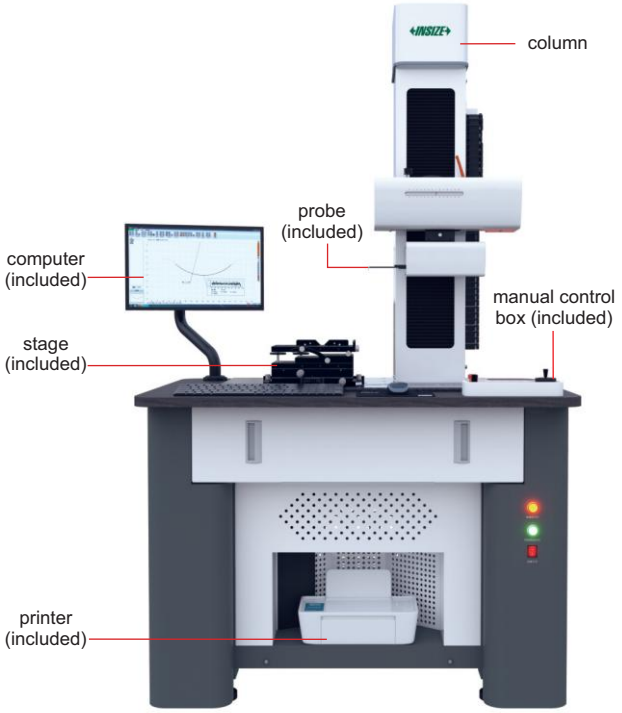
measure the contour of holes in radial direction

ROUGHNESS AND PROFILE MEASURING MACHINE (ONE PROBE TYPE) CODE SPM-5000

VIDEO

PROFILE AND ROUGHNESS MEASUREMENT AT THE SAME TIME

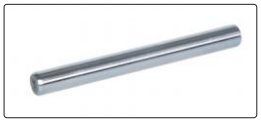
- Roughness, waviness, and profile analysis can be achieved with just one measurement
- Can measure all roughness and waviness parameters
- Can be used for automatic measurement system
- Air flotation and shockproof system to reduce measurement deviation
- Free to edit measurement reports



PROFILE MEASUREMENT SPECIFICATION

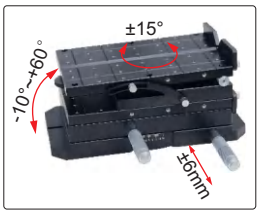
X axis measuring range	100mm
X axis resolution	0.2μm
X axis traverse speed	0.05~50mm/s
X axis linear accuracy	±(0.8+|0.015L|)μm, L is measuring length in mm
Z axis measuring range	±10mm
Z axis resolution	0.01μm
Z axis traverse speed	0.2~50mm/s
Z axis linear accuracy	±(0.5+|0.08H|)μm, H is measuring height in mm
Angular measuring accuracy	±1′
Arc measuring accuracy	±(1+R/12)μm, R is 2~10mm standard ball
Straightness	0.3μm/100mm
Measuring unit	mm/inch
Travel of Z axis	320mm
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1700×820×1900mm
Weight	500kg


standard balls (included)

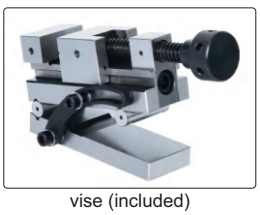

standard shaft (included)

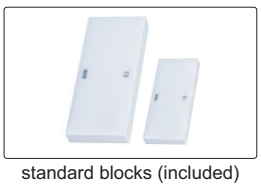
ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Ramax, Ramin, Rasd, Rp, Rpmax, Rpmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzsd, R3z, Rc, Rcmax, Rcmin, Rcsd, Rt, Rq, Rqmax, Rqmin, Rdsd, Rsk, Rskmax, Rskmin, Rsksd, Rku, Rkumax, Rkumin, Rkusd, Rsm, Rsmmax, Rsmmin, Rsmsd, Rs, RΔa, RΔamax, RΔamin, RΔasd, RΔq, RΔqmax, RΔqmin, RΔqsd, Rk, Rpk, Rvk, Mr1, Mr2, Rλa, Rλamax, Rλamin, Rλasd, Rλq, Rλqmax, Rλqmin, Rλqsd, Rδc, Rpc, Rmr
Waviness parameters	Wa, Wamax, Wamin, Wasd, Wsa, Wca, Wa08, Wc, Wcmax, Wcmin, Wcsd, Wt, Wz, Wzmax, Wzmin, Wzsd, Wp, Wpmax, Wv, Wvmax, Wvmin, Wvsd, Wq, Wqmax, Wqmin, Wqsd, Wsm, Wsmmax, Wsmmin, Wsmsd, Wsk, Wskmax, Wskmin, Wsksd, Wku, Wkumax, Wkumin, Wkusd, WΔq, WΔqmax, WΔqmin, WΔqsd, Wδc, Wmr, Wpsd, Wpmin
Original profile parameters	Pa, Pt, Pp, Pc, Pv, Pz, Pq, Psm, Psk, Pku, RzJ, Rpq, Rvq, Rmq, Pmr, PΔq, Avh, Hmax, Hmin, Area, Pδc, Tilta
Motif parameters	Ncrx, R, Rx, AR, Nr, Cpm, Sr, Sar, W, Wx, Aw, Wte, Nw, Sw, Saw
Measuring range	±10mm
Resolution	0.01μm
Linear accuracy	≤±(4nm+2.5%)
Probe radius/angle	5μm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μm
Measuring speed	0.1~2mm/s



stage (included)


vise (included)


standard blocks (included)

To be continued

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STANDARD DELIVERY

Main unit (including workbench, controller, driver, sensor)	1 pc
Calibration block	1 set
Probe arm	1 pc
Stylus	1 pc
Air flotation and shockproof system	1 set
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

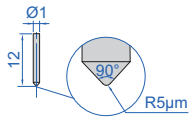
OPTIONAL ACCESSORY

Probe	refer to details

SPECIFICATION OF STANDARD PROBE

Unit: mm

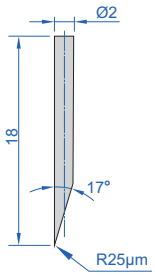
standard stylus , code SPM-5000-R1 (included)



SPECIFICATION OF PROFILE PROBES

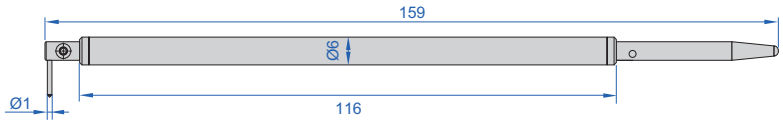
Unit: mm

chisel stylus

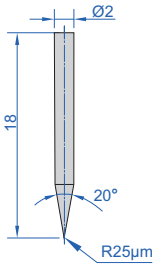


code **SPM-5000-T01** (**optional**)

standard arm, code SPM-5000-P1 (included), **stylus is not included**

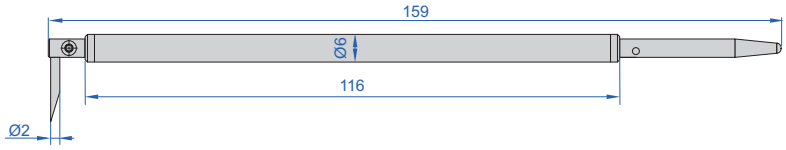


cone stylus

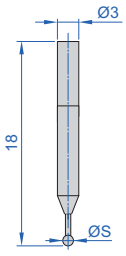


code **SPM-5000-Z01** (**optional**)

profile arm, code SPM-5000-P2 (**optional**), **stylus is not included**

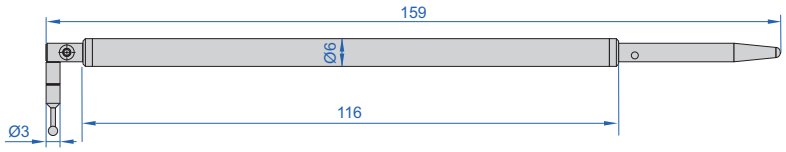


ball stylus



code **SPM-5000-S01** (ØS=1mm, **optional**)
code **SPM-5000-S02** (ØS=2mm, **optional**)

profile arm, code SPM-5000-P3 (**optional**), **stylus is not included**



BIDIRECTIONAL ROUGHNESS AND PROFILE MEASURING MACHINE
CODE SPM-6000

VIDEO

- Intelligent tracking control system, real-time scanning measurement
- Bidirectional probe measurement
- Constant measuring force
- Can be used to measure absolute diameters
- Real time variable speed measurement, high-speed measurement can also ensure accuracy
- The trajectory of the probe is vertical, with more realistic Z-axis coordinate point and large range
- The profile data point cloud spacing is consisten, enabling high accuracy measurement

PROFILE MEASUREMENT SPECIFICATION

X axis measuring range	325mm
X axis resolution	0.01μm
X axis traverse speed	5~10mm/s
X axis straightness	0.45μm/100mm
X axis linear accuracy	±(0.8+L/100)μm, L is measuring length in mm
X axis measuring speed	0.2~0.7mm/s
Z axis measuring range	325mm
Z axis resolution	0.01μm
Z axis traverse speed	5~10mm/s
Z axis straightness	0.45μm/100mm
Z axis linear accuracy	±(0.8+L/100)μm, H is measuring height in mm
Z axis measuring speed	0.2~0.7mm/s
Angular measuring accuracy	±2'
Arc measuring accuracy	±(0.8+R/15)μm
Measuring unit	mm/inch
Traceable angle	72° (upward), 89° (downward)
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1700×820×1900mm
Weight	500kg

ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Ramax, Ramin, Rasd, Rp, Rpmax, Rpmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzsd, R3z, Rc, Rcmax, Rcmin, Rcsd, Rt, Rq, Rqmax, Rqmin, Rdsd, Rsk, Rskmax, Rskmin, Rsksd, Rku, Rkumax, Rkumin, Rkusd, Rsm, Rsmmax,Rsmmin, Rsmsd, Rs, RΔa, RΔamax, RΔamin, RΔasd, RΔq, RΔqmax, RΔqmin, RΔqsd, Rk, Rpk, Rvk, Mr1, Mr2, Rλa,Rλamax, Rλamin, Rλasd, Rλq, Rλqmax, Rλqmin, Rλqsd, Rδc, Rpc, Rmr
Waviness parameters	Wa, Wamax, Wamin, Wasd, Wsa, Wca, Wa08, Wc, Wcmax, Wcmin, Wcsd, Wt, Wz, Wzmax, Wzmin, Wzsd, Wp, Wpmax, Wv, Wvmax, Wvmin, Wvsd, Wq, Wqmax, Wqmin, Wqsd, Wsm, Wsmmax, Wsmmin, Wsmsd, Wsk, Wskmax, Wskmin, Wsksd, Wku, Wkumax, Wkumin, Wkusd, WΔq, WΔqmax, WΔqmin, WΔqsd, Wδc, Wmr, Wpsd, Wpmin
Original profile parameters	Pa, Pt, Pp, Pc, Pv, Pz, Pq, Psm, Psk, Pku, RzJ, Rpq, Rvq, Rmq, Pmr, PΔq, Avh, Hmax, Hmin, Area, Pδc, Tilta
Motif parameters	Ncrx, R, Rx, AR, Nr, Cpm, Sr, Sar, W, Wx, Aw, Wte, Nw, Sw, Saw
Resolution	0.01μm
Linear accuracy	≤±(20nm+5%)
Probe radius/angle	5μm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μm
Measuring speed	0.1~2mm/s

To be continued

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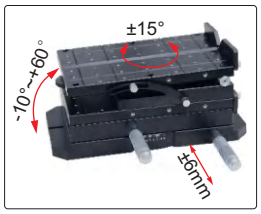
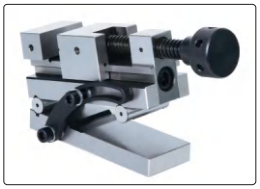
STANDARD DELIVERY

Main unit (including workbench, controller, driver, sensor)	1 set
Calibration block	1 set
Profile arm	1 pc
Bidirectional profile stylus	1 pc
Roughness arm	1 pc
Unidirectional roughness stylus	1 pc
Stage	1 pc
Vise	1 pc
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

calibration blocks (included)



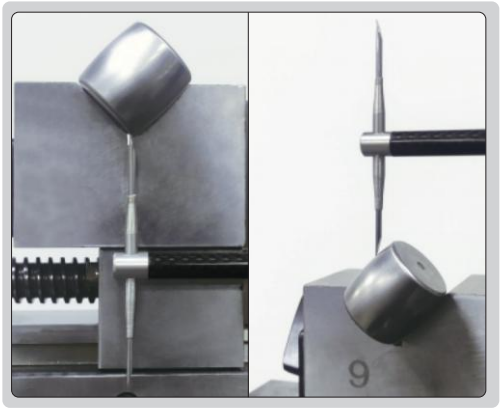
stage (included)



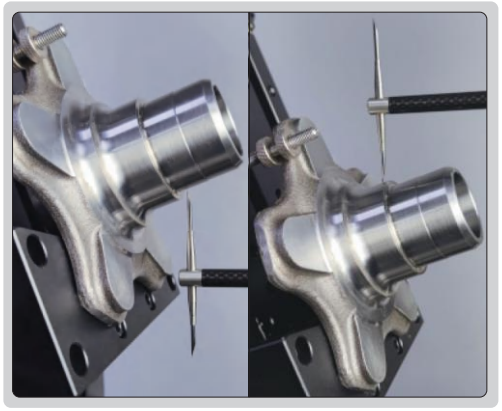
vise (included)

standard shaft (included)

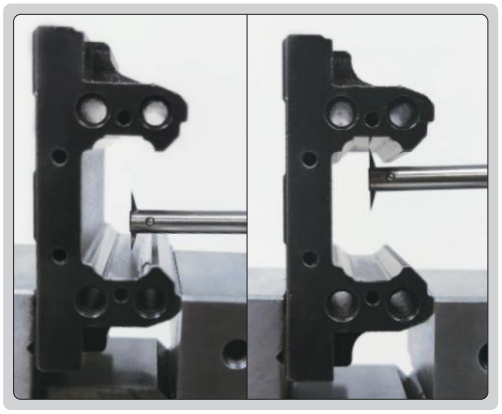
APPLICATION EXAMPLES



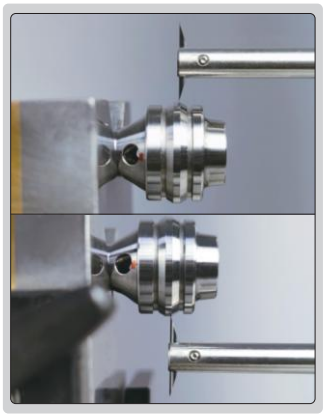
roller bearing



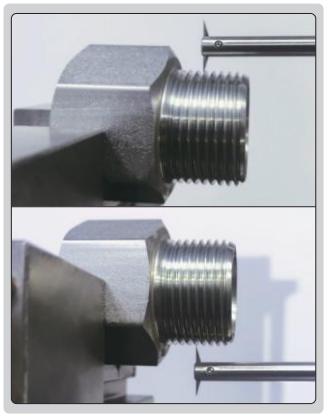
hub bearing



slider



valve spool



thread

To be continued

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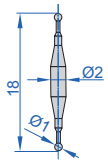
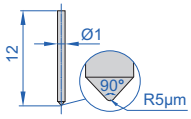
SPECIFICATION OF PROBES

Unit: mm

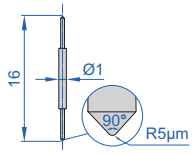
bidirectional spherical stylus
code **SPM-6000-R01 (optional)**



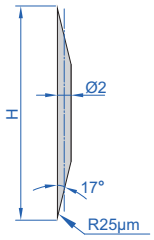
unidirectional roughness stylus
code **SPM-6000-S01** (included)



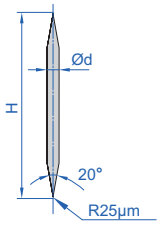
bidirectional roughness stylus
code **SPM-6000-S02 (optional)**



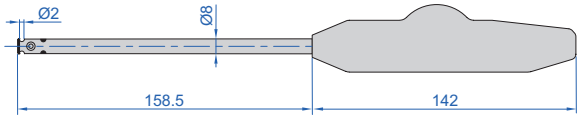
bidirectional chisel stylus
code **SPM-6000-T01** (H=16mm, included)
code **SPM-6000-T02** (H=24mm, **optional**)
code **SPM-6000-T03** (H=30mm, **optional**)



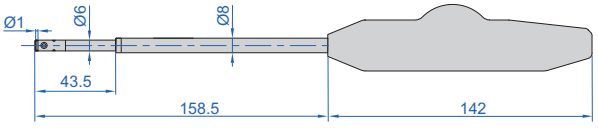
bidirectional cone stylus
code **SPM-6000-Z01** (H=12mm, Ød=2mm, **optional**)
code **SPM-6000-Z02** (H=24mm, Ød=2mm, **optional**)
code **SPM-6000-Z03** (H=10mm, Ød=1mm, **optional**)



profile arm,
code **SPM-6000-ARM1**
(included)



roughness arm,
code **SPM-6000-ARM2**
(included)



ROUGHNESS MEASURING MACHINE CODE SPM-4000

VIDEO

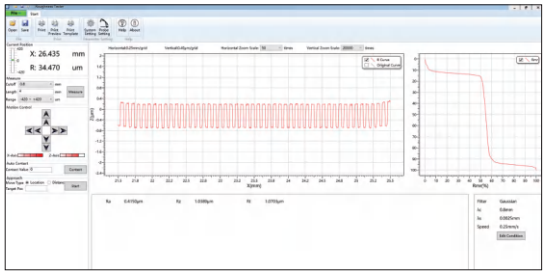
- Skidless probe
- Hundreds of parameters can be evaluated, such as roughness profile, waviness profile, primary profile, etc.
- Software is included, for measurement and data output

STANDARD DELIVERY

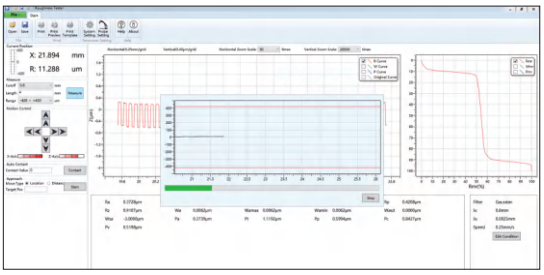
Main unit	1 pc
Roughness probe (with stylus)	1 pc
Calibration block	1 pc
Stage	1 pc
Vise	1 pc
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

To be continued

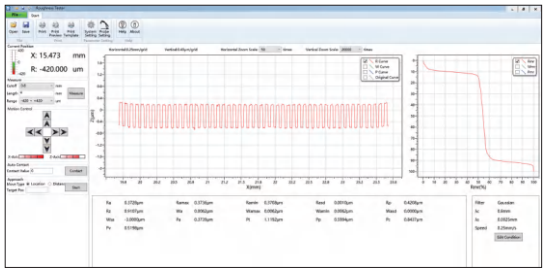
Continued from previous page



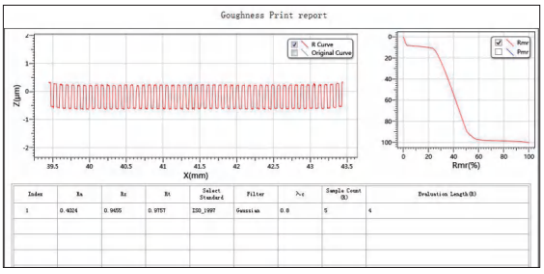
calibration



measurement



parameter measurement



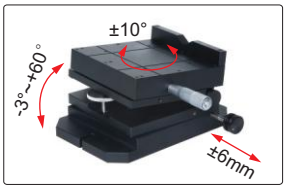
data output

SPECIFICATION

Roughness parameters	Ra, Rp, Rv, Rz, Rz (JIS), R3z, Rz (DIN), Rzj, Rmax, Rc, Rt, Rq, Rsk, Rku, Rsm, Rs, RΔq, Rk, Rpk, Rvk, Mr1, Mr2, Rmr
Waviness parameters	Wa, Wt, Wp, Wv, Wz, Wq, Wsm, Wsk, Wku, Wmr
Primary profile parameters	Pa, Pt, Pp, Pv, Pz, Pq, Psm, Psk, Pku, Pmr
X axis measuring range	100mm
X axis resolution	0.2μm
X axis straightness	0.5μm/100mm
X axis moving speed	0.1~10mm/s
Z axis measuring range	±420μm
Z axis resolution	0.001μm
Z axis linear accuracy	≤±(7nm+3.5%)
Z axis moving speed	0.5~10mm/s
Z axis repeatability	1δ≤2nm
Radius/angle of stylus	5μm/90°
Cut off length	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μm
Drive mode	motor
Travel of Z axis	320mm
Dimension (L×W×H)	1200×700×1780mm
Power supply	220±5%V, 50Hz
Weight	320kg

calibration block (included)

vise (included)



stage (included)

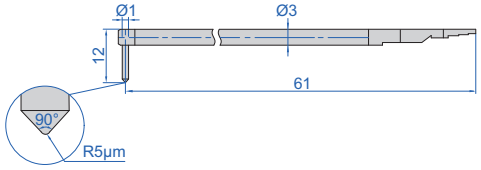
OPTIONAL ACCESSORY

Small roughness probe	refer to details

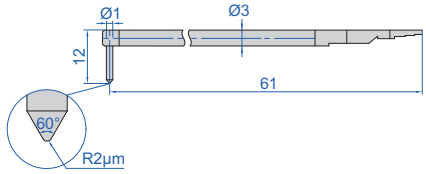
SPECIFICATION OF ROUGHNESS PROBE

Unit: mm

standard probe, code SPM-4000-P (included)



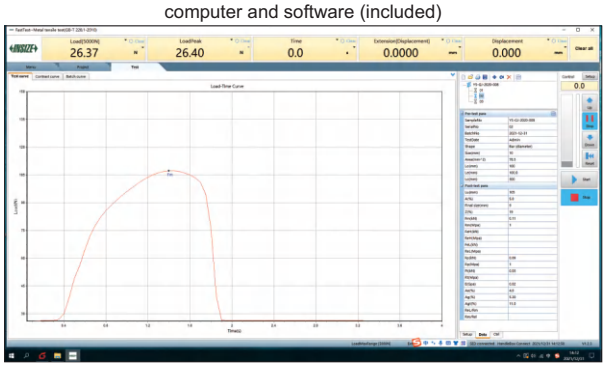
small roughness probe, code SPM-4000-P1 (optional)



ELECTRONIC UNIVERSAL TESTING MACHINES

VIDEO

computer and software (included)



flat jaws (included)

V-shaped jaws (included)

UTM-E50

- For testing and researching the mechanical properties of metals, ceramics, plastics, rubber and composite materials
- For research and quality control of mechanical properties of materials for a wide range of products such as mechanical components, electronic components, food packaging materials, chemical fibres, films and new energy batteries

SPECIFICATION

Code	UTM-E10	UTM-E20	UTM-E30	UTM-E50
Max. test force	10kN	20kN	30kN	50kN
Accuracy class	class 0.5			
Accuracy of test force	±0.5% of indicated value			
Range of test force	0.2%~100%FS			
Resolution of test force	1/500000FS			
Crossbeam displacement accuracy	±0.5% of indicated value			
Crossbeam displacement resolution	0.025μm			
Range of speed adjustment	0.001~500mm/min			
Accuracy of crossbeam speed	±1% of the set value (speed<0.5mm/min) ±0.1% of the set value (speed≥0.5mm/min)			
Range of force control speed	0.005~5%FS/s			
Accuracy of crossbeam speed	±1% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Compression fixture	Ø100mm	Ø100mm	Ø100mm	Ø100mm
Wedge tension fixture	flat jaw: 0~7mm	flat jaw: 0~7mm V-jaw: Ø4~Ø9mm	flat jaw: 0~7mm V-jaw: Ø4~Ø9mm	flat jaw: 0~14mm V-jaw: Ø4~Ø14mm
Effective test width*	400mm	440mm	440mm	440mm
Vertical test space*	1030mm	970mm	970mm	970mm
Effective compression height*	800mm	700mm	700mm	700mm
Dimension (W×D×H)	715×500×1680mm	820×620×1880mm	820×620×1880mm	820×620×1880mm
Weight	230kg	350kg	350kg	350kg
Power supply	AC 220V, 50Hz, 0.4kW~1kW			

*Can be customized according to test requirements

To be continued

Continued from previous page

SPECIFICATION

Code	UTM-E100	UTM-E200	UTM-E300	UTM-E600
Max. test force	100kN	200kN	300kN	600kN
Accuracy class	class 0.5			
Accuracy of test force	±0.5% of indicated value			
Range of test force	0.2%~100%FS			
Resolution of test force	1/500000FS			
Crossbeam displacement accuracy	±0.5% of indicated value			
Crossbeam displacement resolution	0.025μm			
Range of speed adjustment	0.001~500mm/min			0.001~250mm/min
Accuracy of crossbeam speed	±1% of the set value (speed<0.5mm/min) ±0.1% of the set value (speed≥0.5mm/min)			
Range of force control speed	0.005~5%FS/s			
Accuracy of crossbeam speed	±1% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Compression fixture	Ø160mm	Ø150mm	Ø150mm	Ø200mm
Wedge tension fixture	flat jaw: 0~20mm V-jaw: Ø8~Ø26mm	flat jaw: 0~30mm V-jaw: Ø8~Ø36mm	flat jaw: 0~30mm V-jaw: Ø8~Ø36mm	flat jaw: 0~30mm V-jaw: Ø8~Ø46mm
Effective test width *	600mm	600mm	600mm	750mm
Vertical test space *	1250mm	1000mm	1000mm	1100mm
Effective compression height *	700mm	600mm	600mm	650mm
Dimension (W×D×H)	1070×855×2180mm	1070×920×2550mm	1070×920×2550mm	1140×1580×2980mm
Weight	1000kg	1500kg	1500kg	5000kg
Power supply	AC380V, 3Ø, 50Hz, 2kW~5kW			

*Can be customized according to test requirements

SPECIFICATION OF LARGE DEFORMATION EXTENSOMETER (OPTIONAL)

Code	UTM-EY1	UTM-EY2
Range of deformation	10~800mm	
Accuracy of deformation	±1%	
Resolution of deformation	0.01mm	0.004mm
Type of blade	flat blade	
Range of clamp	thicknesses<10mm, width<30mm	

large deformation extensometer (**optional**)

STANDARD DELIVERY

Main unit	1 pc
Control box	1 pc
Measuring software	1 pc
Computer	1 pc
Printer	1 pc
Compression fixture	1 set
Wedge tension fixture	1 set

OPTIONAL ACCESSORY

Fixture	**UTM-F** series (customized, selection of specifications according to test requirements)
Extensometer	**UTM-EX** series (customizable)
Video extensometer	**UTM-M** series
Large deformation extensometer	**UTM-EY** series (customizable)
Security door	customized, available in plexiglass or wire mesh

HIGH AND LOW TEMPERATURE TEST CHAMBERS FOR ELECTRONIC UNIVERSAL TESTING MACHINES

VIDEO

electronic universal testing machine is optional

UTT-M63-E50

- For **UTM-E□□□** electronic universal testing machines
- For tensile, compression, bend, shear tests in high and low temperature environment

SPECIFICATION

Code	**for UTM-E10**	**UTT-M03-E10**	**UTT-M33-E10**	**UTT-M63-E10**
	for UTM-E50	**UTT-M03-E50**	**UTT-M33-E50**	**UTT-M63-E50**
	for UTM-E100	**UTT-M03-E100**	**UTT-M33-E100**	**UTT-M63-E100**
Temperature range		(room temperature+10)~300°C	-30~300°C	-60~300°C
Temperature accuracy*		±1°C		
Temperature fluctuation*		±0.5°C		
Temperature uniformity*		≤2°C		
Temperature resolution		0.1°C		
Cooling system		no	compressor or liquid nitrogen	
Cooling time (room temperature@25°C)			1~2°C/min (no-load)	
Warming up time		1~3°C/min (no-load)		
Temperature control		PID automatic temperature control		
Heating system		magnesium powder heating tube		
Aperture size		Ø50mm		
Chamber dimension**		240×430×530mm (suitable for electronic universal testing machines with column spacing of 400mm and above)		
Power supply		AC 220V, 60Hz		
Total power		1.8kW	2.2kW	2.8kW

*The applicable range of temperature accuracy, uniformity and fluctuation is Ø100×200mm

Customized according to **UTM-E□□□ electronic universal testing machine and customer requirements

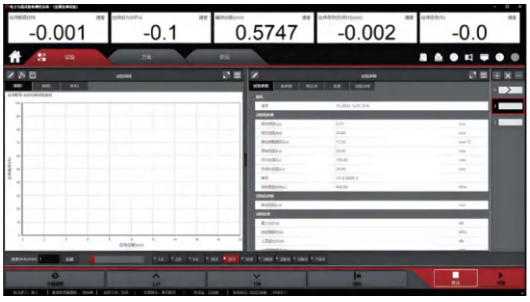
ELECTRONIC UNIVERSAL TESTING MACHINES (ADVANCED TYPE)

UTM-X010

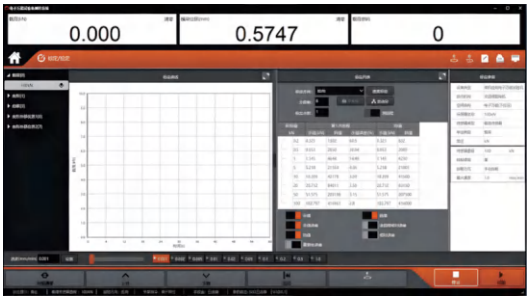
wired hand control box (included)

- Equipped with a variety of test software, can be for metal, ceramics, plastics, rubber and composite materials and other related mechanical properties of the test and research
- Can be used for research and quality control of mechanical properties of various products such as mechanical parts, electronic parts, food packaging materials, chemical fibres, films, new energy batteries and so on
- The rigidity of the host, loading speed and load, deformation measurement accuracy, data reliability, adoption rate and closed-loop control rate are excellent

test interface



test and calibration interface



fully automatic extensometer (**optional**) (class 0.5 high-precision fully-automatic extensometer with a wide measuring range for automatic testing and full strain measurement)

security door (**optional**)

compression fixture (**optional**)

tensile fixture (**optional**)

To be continued

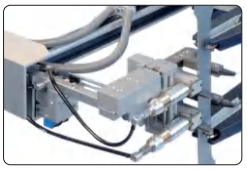
Continued from previous page

high and low temperature environment box (**optional**)

constant temperature and humidity box (**optional**)

high temperature furnace (**optional**)

high precision axial extensometer (**optional**) (a variety of scales can be selected to fully meet the requirements of variety of materials, the accuracy meets class 0.5)



width gauge (**optional**) (widely used for r-value and poisson's ratio measurements, meets the requirements of ASTM E517 and IS010113)

SPECIFICATION

Code		UTM-X001	UTM-X005	UTM-X010	UTM-X050	UTM-X100	UTM-X300
Max. test force		1kN	5kN	10kN	50kN	100kN	300kN
Accuracy class		class 0.5					
Accuracy of test force		±0.5% of indicated value					
Range of test force		0.2%~100%FS					
Test force resolution		0.002N	0.02N	0.02N	0.2N	0.2N	0.5N
Crossbeam displacement accuracy		±0.1% of indicated value					
Crossbeam displacement resolution		0.1μm					
Velocity accuracy		±0.1% of indicated value					
Range of speed adjustment		0.001~1000mm/min			0.001~800mm/min		0.001~500mm/min
Effective test width		420mm			600mm		
Vertical test space	standard model	1200mm			1255mm		1450mm
	heightened 250mm (optional)	1450mm			1505mm		1700mm
	heightened 500mm (optional)	1700mm			—		
Dimension (W×D×H)	standard model	748×582×1600mm			1100×724×2160mm		1180×756×2440mm
	heightened 250mm (optional)	748×582×1850mm			1100×724×2410mm		1180×756×2690mm
	heightened 500mm (optional)	748×582×2100mm			—		
Weight	standard model	160kg			610kg		965kg
	heightened 250mm (optional)	185kg			660kg		1015kg
	heightened 500mm (optional)	210kg			—		
Power supply		AC220V, 50Hz, 1kW			AC380V, 3Ø, 50Hz, 4kW	AC380V, 3Ø, 50Hz, 4.5kW	AC380V, 3Ø, 50Hz, 6kW
Environment requirements		temp: 5~40°C, humidity level: 5~85%RH, non-condensing no vibration					

STANDARD DELIVERY

Main unit	1 pc
Control box	1 pc
Computer	1 pc
Software	1 pc
Printer	1 pc

OPTIONAL ACCESSORY

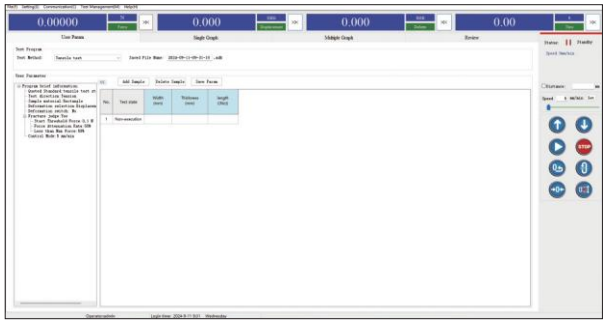
Security door *	customizable
Fixture *	
Extensometer *	
Width gauge *	
High temperature furnace *	
Constant temperature and humidity box *	
High and low temperature environment box *	

*Selection of specifications according to test requirements

ELECTRONIC UNIVERSAL TESTING MACHINES

VIDEO

computer and software (included)



UTM-Z500

- Applicable to metal, non-metal and composite materials for tensile, compression, bending and other mechanical properties test analysis and analytical research
- Automatically obtain the maximum force, breaking force, yield strength, upper and lower yield strength, tensile strength, compressive strength, elongation at break, tensile modulus of elasticity, bending modulus of elasticity and other test data
- Test standards and test parameters can be managed and imported or exported test standards
- Overload emergency shutdown protection device, up and down travel limit protection device
- Crossbeam movement collision mitigation function

SPECIFICATION

Code	UTM-Z50	UTM-Z500	UTM-Z1000	UTM-Z2000	UTM-Z5000
Max. test force*	50N	500N	1000N	2000N	5000N
Accuracy class	class 0.5				
Range of test force	0.4%~100%FS				
Accuracy of test force	±0.5% of indicating value				
Resolution of test force	1/300000FS				
Accuracy of displacement	±0.5% of indicating value				
Resolution of displacement	0.2μm				
Range of crossbeam speed	0.001~1000mm/min				
Accuracy of crossbeam speed	±0.5% of indicating value				
Range of force control speed	0.05%~10%FS/s				
Accuracy of force control speed	±0.5% of indicating value				
Effective tensile travel *	550mm				
Effective compression travel *	700mm				
Dimension (W×D×H)	500×380×1150mm				
Power supply	AC 220V, 50Hz				
Weight	100kg				

STANDARD DELIVERY

Main unit	1 pc
Computer	1 set
Software	1 set
Control box	1 pc
Tensile fixture	1 set

OPTIONAL ACCESSORY

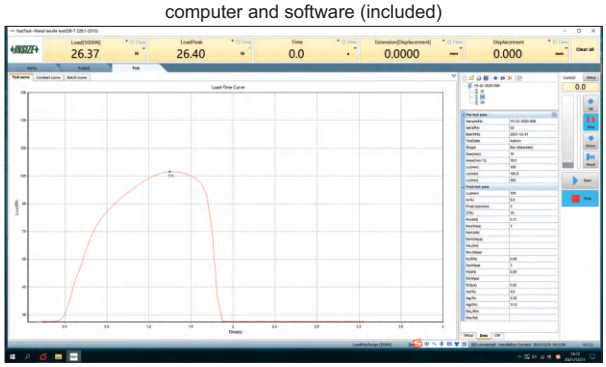
Fixture*	customized
Extensometer*	
Large deformation extensometer*	
Security cover*	

*Can be customized according to test requirements

ELECTRONIC UNIVERSAL TESTING MACHINES

VIDEO

computer and software (included)



UTM-S5KA

- For testing and researching the mechanical properties of metals, ceramics, plastics, rubber and composite materials
- For research and quality control of mechanical properties of materials for a wide range of products such as mechanical components, electronic components, food packaging materials, chemical fibres, films and new energy batteries

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SPECIFICATION

Code	UTM-S200A	UTM-S500A	UTM-S1KA	UTM-S2KA	UTM-S5KA
Max. test force	200N	500N	1kN	2kN	5kN
Accuracy class	class 0.5				
Accuracy of test force	±0.5% of indicated value				
Range of test force	0.2%~100%FS				
Resolution of test force	1/500000FS				
Crossbeam displacement accuracy	±0.5% of indicated value				
Crossbeam displacement resolution	0.025μm				
Range of speed adjustment	0.001~500mm/min				
Accuracy of crossbeam speed	±1% of the set value (speed<0.5mm/min) ±0.1% of the set value (speed≥0.5mm/min)				
Range of force control speed	0.005~5%FS/s				
Accuracy of constant load force	±1% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)				
Vertical test space *	1120mm				
Effective compression height *	800mm				
Dimension (W×D×H)	510×510×1580mm				
Weight	150kg				
Power supply	AC220V, 50Hz, 0.4kW				

*Can be customized according to test requirements

STANDARD DELIVERY

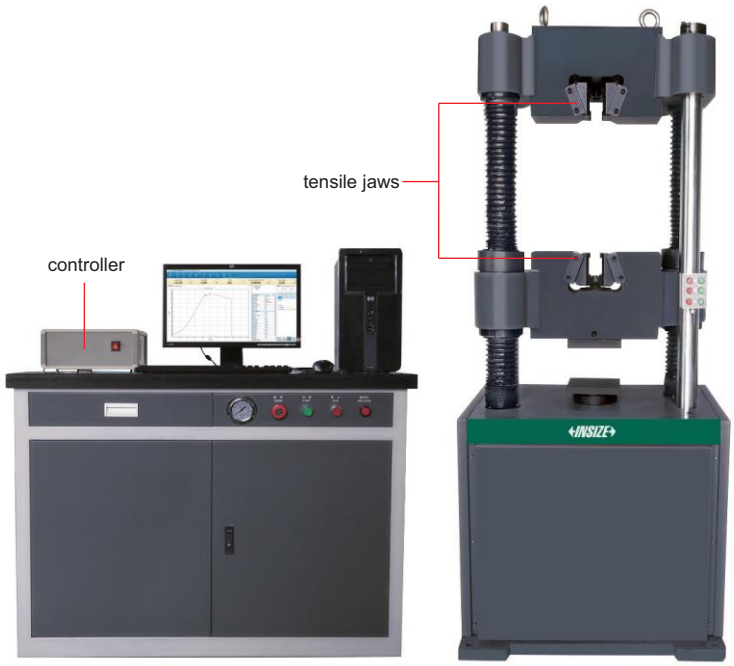
Main unit	1 pc
Control box	1 pc
Measuring software	1 pc
Computer	1 pc
Printer	1 pc
Compression fixture (except UTM-S200A)	1 set
Tension fixture	1 set

OPTIONAL ACCESSORY

Fixture	**UTM-F** series (customized, selection of specifications according to test requirements)
Extensometer	**UTM-EX** series (customizable)
Video extensometer	**UTM-M** series
Large deformation extensometer	**UTM-EY** series (customizable, page 948)
Security door	customized

HYDRAULIC UNIVERSAL TESTING MACHINES

VIDEO



UTM-H300B

- For tensile, compression, bend, shear tests of metal and non-metal materials

SPECIFICATION

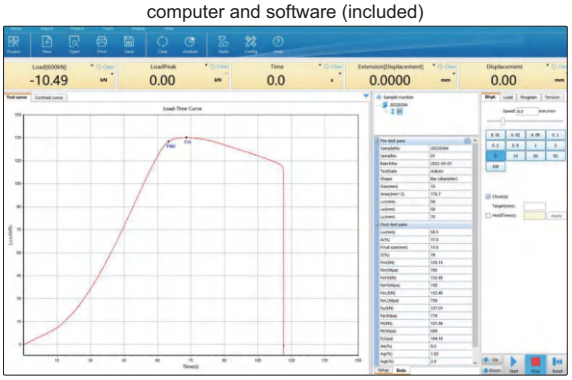
Code		UTM-H300B	UTM-H600B	UTM-H1000B	UTM-H2000B	UTM-H3000B
Max. test force		300kN	600kN	1000kN	2000kN	3000kN
Accuracy		±1%				
Test force measurement range		2%~100%FS				
Resolution of test force measurement		1/300000 of Max. test force (same resolution all the way)				
Deformation measurement device		extensomeнt				
Deformation measurement range		1%~100%FS				
Deformation measurement accuracy		±1%				
Deformation measurement resolution		1/300000				
Displacement accuracy		±1%				
Displacement resolution		0.01mm				
Displacement travel		200mm				
Max tensile space (including piston stroke)		600mm	600mm	680mm	600mm	900mm
Max compression space (including piston stroke)		500mm	500mm	560mm	500mm	800mm
Transmission mode		chain drive				
Safety protection device		software protection and mechanical limit protection				
Control function		special software, closed-loop of stress, strain and velocity				
Clamping range of round sample		Ø10~32mm	Ø13~40mm	Ø13~60mm	Ø20~70mm	Ø25~80mm
Clamping range of flat sample		0~15mm	0~15mm*	0~20mm**	0~40mm	0~80mm
Upper and lower pressure plate size		Ø188mm	Ø188mm	Ø208mm	Ø208mm	Ø208mm
Bending branch roll width		140mm				
Total power		2.5kW	3.0kW	3.0kW	3.75kW	5.5kW
Power supply		380V, 50Hz				
Dimension (mm)	host	800×620×1900	820×650×2000	940×780×2250	1100×760×3000	1250×930×3550
	oil source	1140×600×855				
Weight		2T	2.2T	3T	7.5T	12.6T

*Customizable 0~30mm **Customizable 0~40mm

To be continued

Continued from previous page

computer and software (included)



acrylic safety shield (**optional**)

steel wire safety shield (**optional**)

STANDARD DELIVERY

Main unit	1 pc
Electro hydraulic servo oil source	1 pc
Electro hydraulic servo valve	1 pc
High pressure oil pump	1 pc
Oil pressure sensor	1 pc
Control box	1 pc
Extensometer	1 pc
Computer	1 pc
Measuring software	1 set
Printer	1 pc
Tensile fixture	1 set
Compression fixture	1 set

OPTIONAL ACCESSORY

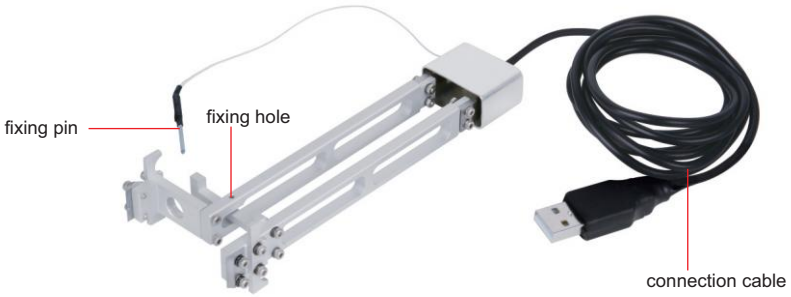
Acrylic safety shield	**UTM-H-COVER1**
Steel wire safety shield	**UTM-H-COVER2**

EXTENSOMETERS

- For universal testing machines

SPECIFICATION

Code	Gauge length	Deformation
UTM-EX25-5	25mm	5mm
UTM-EX25-10	25mm	10mm
UTM-EX25-25	25mm	25mm
UTM-EX50-5	50mm	5mm
UTM-EX50-10	50mm	10mm
UTM-EX50-25	50mm	25mm
UTM-EX100-5	100mm	5mm
UTM-EX100-10	100mm	10mm
UTM-EX100-25	100mm	25mm
UTM-EX200-5	200mm	5mm
UTM-EX200-10	200mm	10mm
UTM-EX200-25	200mm	25mm
UTM-EX-B	large deformation, customized according to the workpieces	



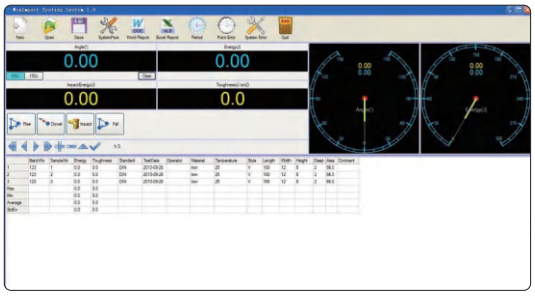
UTM-EX50-10

IMPACT TESTING MACHINES

VIDEO

ITM-S300J

low-temperature chamber (**optional**)



software (included)

- According to GB/T 3808, GB/T 229, JJG 145, ASTM E23 (with American standard blade), ISO 148.1, ISO 148.2, ISO 148.3, ISO R83
- For testing the anti-impact performance of metal materials under dynamic load
- Capable of performing metal impact tests in large quantities on a continuous basis

SPECIFICATION

Code	ITM-S150J	ITM-S300J	ITM-S450J	ITM-S600J	ITM-S750J
Impact energy	150J	300J	450J	600J	750J
Dial range	0~150J	0~300J	0~450J	0~600J	0~750J
Dial graduation	1J	2J	3J	4J	5J
Pendulum moment	M=80.3848N·m	M=160.7695N·m	M=241.1543N·m	M=321.5390N·m	M=401.9238N·m
Pendulum preparing angle	150°				
Distance between pendulum shaft center and specimen center	750mm				
Impact speed	5.24m/s				
Span of specimen seat	40mm				
End face radius of specimen seat	R (1.0~1.5)mm				
Radius of impact blade	R (2.0~2.5)mm				
Inclination angle of support surface of specimen seat	11°±1°				
Angle of impact blade	30°±1°				
Thickness of impact blade	16mm				
Range of measuring angle	0~360°				
Angle resolution	≤0.06°				
Specimen size	10×10×55mm				
Base size	800×500mm		960×650mm		
Dimension of main body	2050×690×2015mm		2100×835×2200mm		
Weight	450kg		900kg		
Power supply	AC 380V, 3Ø, 50Hz				
Power	400W		1.5kW		

To be continued

Continued from previous page

SPECIFICATION OF LOW-TEMPERATURE CHAMBER (OPTIONAL)

Code	ITM-S-40	ITM-S-60	ITM-S-80	ITM-S-80S	ITM-S-100	ITM-S-196*
Range of temperature	room temperature ~-40°C	room temperature ~-60°C	room temperature ~-80°C	room temperature ~-80°C	room temperature ~-100°C	-20°C~-196°C
Accuracy of temperature control	±0.5°C					±2°C
Evenness	≤1.0°C					≤2.0°C
Resolution	0.1°C					0.1°C
Method of refrigeration	compressor refrigeration					liquid nitrogen refrigeration
Cooling medium	ethanol or other unfrozen liquid					liquid nitrogen
Number of specimen	≥60 pcs					
Cooling speed	+25°C~0°C about 1.5°C/min, 0°C~-20°C about 1.2°C/min, -20°C~-40°C about 1.0°C/min	+25°C~0°C about 1.8°C/min, 0°C~-20°C about 1.5°C/min, -20°C~-40°C about 1.3˚C/min, -40°C~-60°C about 1.0°C/min	+25°C~0°C about 1.5°C/min, 0°C~-20°C about 1.3°C/min, -20°C~-60°C about 1.0°C/min, -60°C~-80°C about 0.8°C/min		+25°C~0°C about 2.0°C/min, 0°C~-40°C about 1.5°C/min, -40°C~-80°C about 1.3°C/min, -80°C~-100°C about 0.8°C/min	1˚C~-3˚C
Heating speed	3°C/min					
Timekeeping device	1min~9999min, resolution: 1min					
Volume of refrigeration room (W×D×H)	275×160×120mm					
Effective volume of refrigeration room (W×D×H)	150×140×110mm					
External dimension (W×D×H)	910×510×920mm			755×555 ×950mm	1105×705 ×1110mm	710×600 ×740mm
Material of the case	Iron shell spraying moulding			stainless steels	Iron shell spraying moulding	stainless steels
Power supply	AC220V, 3Ø, 50Hz, 1.8kW	AC220V,3Ø, 50Hz, 2.3kW	AC220V, 3Ø, 50Hz, 2.5kW	AC220V, 3Ø, 50Hz, 2.5kW	AC 220V, 3Ø, 50Hz, 3.0kW	AC 220V, 3Ø, 50Hz, 100W

*For test >-20°C, **ITM-T80** is recommended

STANDARD DELIVERY

Main unit		1 pc
Control cabinet		1 pc
Simply supported beam fixture (including jaws, anvil)		1 set
Pendulum	ITM-S150J	150J pendulum
	ITM-S300J	300J pendulum and 150J pendulum
	ITM-S450J	450J pendulum and 150J pendulum
	ITM-S600J	600J pendulum and 150J pendulum
	ITM-S750J	750J pendulum and 150J pendulum
Span aligner		1 pc
Tongs		1 pc
Safety cover		1 set
Software		1 set
Computer		1 pc
Printer		1 pc

OPTIONAL ACCESSORY

Workbench	7911-15
150J pendulum	ITM-S-PE150J
300J pendulum	ITM-S-PE300J
450J pendulum	ITM-S-PE450J
600J pendulum	ITM-S-PE600J
750J pendulum	ITM-S-PE750J
ASTM standard impact blade	ITM-S-ASTM-IB
Sample recovery device	ITM-S-RD
Digital display screen	ITM-S-DDS
Impact specimen notch projector (GB/T 229, ASTM E23)	ITM-S-1
Low-temperature chamber	ITM-S-40
	ITM-S-60
	ITM-S-80
	ITM-S-80S
	ITM-S-100
	ITM-S-196
Impact specimen notch broaching machine (double broaches)	ITM-U32
Impact standard sample	ITM-BR series

SALT SPRAY TEST CHAMBERS

CUSTOMIZABLE CHAMBER SIZE

COMPLY WITH ISO STANDARD SALT SPRAY TEST REQUIREMENT

VIDEO

SFT-T350

- Adopting plastic precision nozzle and cone spraying device, even mist falling, fast, long nozzle life, no crystallisation
- Spraying time can be controlled internally without the need for an external time relay
- Adjustment of brine flow and compressed air pressure by means of a flow meter and a high-pressure valve to ensure uniform salt spray deposition
- Adopt manual water filling system, water level is insufficient to automatically replenish the function, to ensure that the test is not interrupted
- USB port for download curves and historical data

SPECIFICATION

Advanced type	Code	SFT-T350	SFT-U680	SFT-E305	SFT-S410
	test condition	suitable for NSS (Neutral), AASS (Acid), CASS (Copper Accelerated) test			
Basic type	Code	SFT-S210R	SFT-G550	SFT-L965	SFT-V125
	test condition	NSS (Neutral), AASS (Acid) test only			
Chamber dimension (W×H×D)		900×600×500mm	1200×850×500mm	1600×850×550mm	2000×950×600mm
Chamber volume		270L	480L	740L	1440L
Saline tank volume		25L	90L	90L	120L
Chamber temperature		(NSS, AASS) test temperature: 35°C±1°C/(CASS) test temperature: 50°C±1°C			
Saturated barrel temperature		(NSS, AASS) test temperature: 47°C±1°C/(CASS) test temperature: 63°C±1°C			
Saline temperature		(NSS, AASS) test temperature: 35°C±1°C/(CASS) test temperature: 50°C±1°C			
Heat type		advanced type: thermal radiation heat/basic type: steam heat			
Test fluid		NSS: pure water+NaCl (pH 6.5~7.2), AASS: pure water+NaCl+CH_3COOH (pH 3.0~3.3) CASS: pure water+NaCl+$CuCl_2$ (pH 3.0~3.3)			
Compressed air pressure		0.2MPa	0.6MPa	0.6MPa	0.6MPa
Power		2kW	3kW	4kW	4.5kW
Power supply		AC 220V, 1Ø, 50Hz			
External dimension (W×H×D)		1460×910×500mm	1900×1150×1500mm	2300×1150×1550mm	2700×1350×1600mm
Weight (basic type)		108kg	485kg	585kg	760kg
Weight (advanced type)		105kg	385kg	480kg	580kg

STANDARD DELIVERY

Main unit	1 pc
Sample holder	1 group
Sodium chloride NaCl	2 bottles
10L salt water preparation cup	1 pc
80cm² collection cup	2 pcs
50cm glass measure cylinder	2 pcs

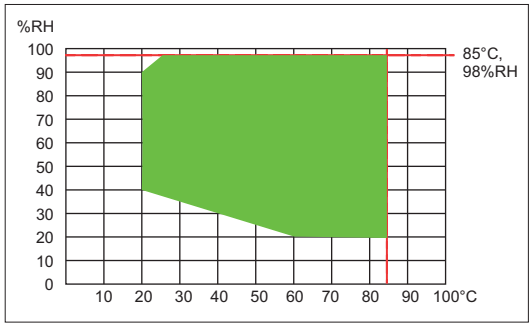
OPTIONAL ACCESSORY

Nozzle	SFT-S210R-NOZZLE
Brine filter	SFT-S210R-FILTER

DESKTOP TEMPERATURE AND HUMIDITY CHAMBER
CODE THT-Z158

VIDEO

temperature and humidity control range chart



- Table design, quiet and small
- Equipped with operation system with 7 inch touch screen controller
- Intelligent refrigeration and dehumidification system, it can save 30~45% of electricity compared with traditional machines
- Output excel data report through USB port

SPECIFICATION

Chamber dimension (W×H×D)		300×350×300mm
Chamber volume		30L
Temperature range		-40~120°C
Humidity range		20%RH~98%RH
Temperature deviation		±2.0°C
Temperature fluctuation		±0.5°C
Temperature uniformity		≤2.0°C
Humidity deviation		±3.0%RH (at 75%RH~98%RH), ±5.0%RH (at 20%RH~75%RH)
Humidity fluctuation		±3.0%RH
Humidity uniformity		≤5.0%RH (at 75%RH~98%RH), ≤7.0%RH (at 20%RH~75%RH)
Heating rate		1°C/min~3°C/min
Cooling rate		0.7°C/min~1°C/min
Operation environment	**temperature**	5~35°C
	humidity	≤85%RH
Material	**case material**	cold rolled steel plate+varnish
	chamber material	SUS#304 stainless steel
	thermal insulation material	polyurethane foam
Cooling system		air-cold compressor
Protector		compressor overload protection switch, refrigerant high pressure protection switch, ceramic fuse, water plate of water shortage protection switch, electromagnetic switch, air burn protection switch, alarm
Power supply		AC220, 50/60Hz, 2kW
External dimension (W×H×D)		550×850×1050mm
Weight		125kg

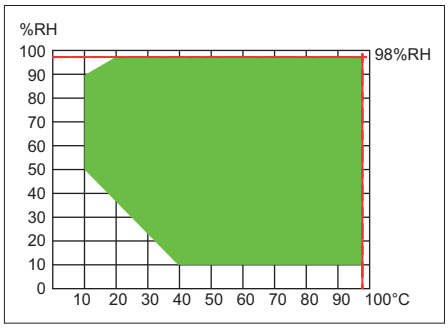
STANDARD DELIVERY

Main unit	1 pc
Test hole	1 pc
Shelf	2 pcs

TEMPERATURE AND HUMIDITY CHAMBERS

VIDEO

temperature and humidity control range chart



THT-A101T

- The chamber is equipped with an independent operation system with 7-inch or 10.1-inch touch screen contuoller
- Intelligent refrigeration and dehumidification system, combined with energy-saving control algorithm, can adjust the refrigeration level and save energy. Compared with traditional machines, it can save 30~45% of electricity
- It can output excel data report through USB port

SPECIFICATION

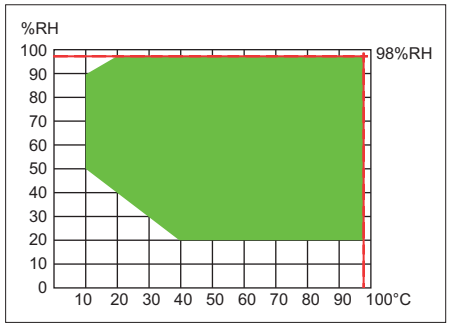
Code		THT-A101T	THT-A102T	THT-A103T	THT-A104T	THT-A105T
Chamber dimension (W×H×D)		500×600×500mm	500×500×400mm	500×750×600mm	700×850×700mm	1000×1000×1000mm
Chamber volume		150L	100L	225L	416L	1000L
Temperature range		-40~150°C				
Humidity range		10~98%RH				
Temperature/humidity fluctuation		±0.5°C, ±2.5%RH				
Temperature/humidity uniformity		<2°C, 5%RH				
Temperature/humidity stability		0.2°C, 2%RH				
Temperature/humidity deviation		±2°C, 3%RH				
Warm up time		about 3°C/min				
Cooling time		about 1°C/min				
Material	case material	cold rolled steel plate+varnish				
	chamber material	SUS#304 stainless steel				
	thermal insulation material	rigid polyurethane foam				
Cooling system		compressor				
Protector		no fuse switch, compressor overpressure, overheat protection, overtemperature protection, overload protection, dry burning protection, water shortage protection, etc.				
Power supply		AC220V, 50Hz, 4.5kW	AC220V, 50Hz, 2kW	AC380V, 3Ø, 50Hz, 4kW	AC380V, 3Ø, 50Hz, 3.5kW	AC380V, 3Ø, 50Hz, 3.5kW
Dimension (W×H×D)		800×1660 ×1400mm	750×1550 ×1170mm	850×1750 ×1200mm	950×1850 ×1400mm	1300×1950 ×1850mm
Weight		365kg	285kg	385kg	510kg	950kg

STANDARD DELIVERY

Main unit	1 pc
Test hole	1 pc
Shelf	2 pcs

PROGRAMMABLE TEMPERATURE AND HUMIDITY CHAMBER (ADVANCED TYPE) CODE HTT-A150

temperature and humidity control range diagram



- The chamber is equipped with a standalone operation system and uses a 7-inch human-machine interface touch screen programmable controller
- Adopt advanced balanced temperature and humidity control system, dynamic PID and steam partial pressure control, HFC environmental refrigerant
- Remote control and data acquisition can be performed through the RS232 interface, and CSV data files can be directly exported to a USB flash drive

SPECIFICATION

Chamber dimension (W×H×D)		500×600×500mm
Chamber volume		150L
Temperature range		-40~150°C
Humidity range		20~98%RH
Temperature/humidity deviation		±2.0°C, ±2.5%RH
Temperature/humidity fluctuation		±0.5°C, ±2.0%RH
Temperature/humidity uniformity		±2.0°C, ±3.0%RH
Warm up time		2.0~3.0°C/min (empty)
Cooling time		1.0~1.5°C/min (empty)
Cooling system		compressor
Material	**case material**	double-sided galvanized steel plate+spray treatment
	chamber material	SUS#304 stainless steel
	thermal insulation	rigid polyurethane foam
Protector		total power supply phase sequence and out-of-phase protection, leakage protection, load short-circuit protection, adjustable over-temperature protection, humidification system water-deficit protection, compressor over-pressure protection, etc.
Power supply		AC380V, 50Hz, 5kW
Dimension (W×H×D)		765×1670×1575mm
Weight		370kg

STANDARD DELIVERY

Main unit	1 pc
Test hole	1 pc
Shelf	2 pcs