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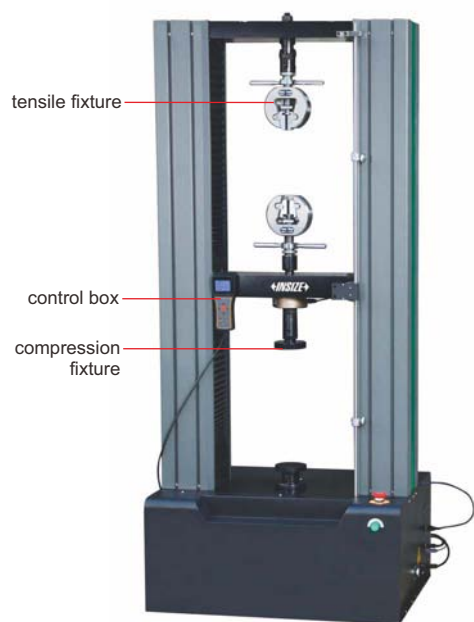


Dial Tension Gages
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Spindle Tension Meters
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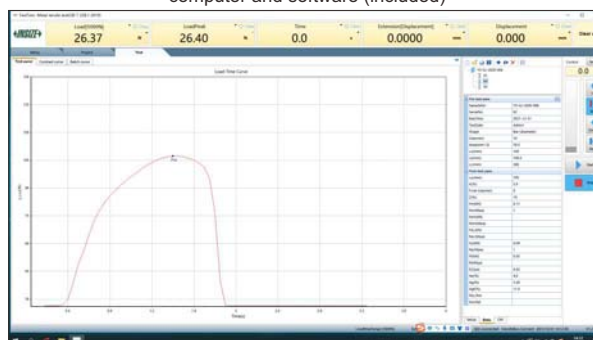
ELECTRONIC UNIVERSAL TESTING MACHINES



UTM-E50

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

computer and software (included)



flat jaws (included)



V-shaped jaws (included)



STANDARD DELIVERY

Main unit	1 pc
Control box	1 pc
Computer	1 pc
Measuring software	1 pc
Printer	1 pc
Wedge tension fixture (including flat jaws and V-shaped jaws) **	1 set
Compression fixture	1 set
Extensometer (only for UTM-E100, UTM-E300)	1 pc

**UTM-E10 does not have V-shaped jaws

OPTIONAL ACCESSORY

Extensometer	page 865
Fixtures	page 862~863

SPECIFICATION

Code	UTM-E10	UTM-E50	UTM-E100	UTM-E300
Max. test force	10kN	50kN	100kN	300kN
Accuracy class	0.5 class			
Test force measurement range	0.2%~100%FS			
Test force measurement accuracy	±0.5% of indicating value			
Resolution of test force measurement	1/300000 of Max. test force (same resolution all the way)			
Deformation measurement range	0.2%~100%FS			
Deformation measurement accuracy	±0.5% of indicating value			
Deformation measurement resolution	1/200000 of Max. deformation, up to 1/300000			
Large deformation measurement range	10~800mm			
Large deformation measurement accuracy	±1% of indicating value			
Large deformation measurement resolution	8μm			
Displacement accuracy	±0.5% of indicating value			
Displacement resolution	0.01mm			
Force control speed adjustment range	0.005~5%FS/s			
Force control speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Deformation speed adjustment range	0.005~5%FS/s			
Deformation speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Beam displacement speed adjustment range	0.001~500mm/min			
Beam displacement speed control accuracy	±1% of the set value (speed<0.5mm/min) ±0.2% of the set value (speed≥0.5mm/min)			
Crosshead travel*	1030mm	970mm	1250mm	1000mm
Effective compression travel*	800mm	700mm	700mm	600mm
Horizontal test space*	400mm	440mm	600mm	550mm
Power supply	220V, 50Hz, 0.4kW~1kW		380V, 50Hz, 2kW~5kW	
Dimension	715×500×1680mm	820×620×1880mm	1070×855×2180mm	1070×920×2550mm
Weight	230kg	350kg	1000kg	1500kg

*Can be customized according to test requirements

HIGH AND LOW TEMPERATURE TEST CHAMBERS FOR ELECTRONIC UNIVERSAL TESTING MACHINES



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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

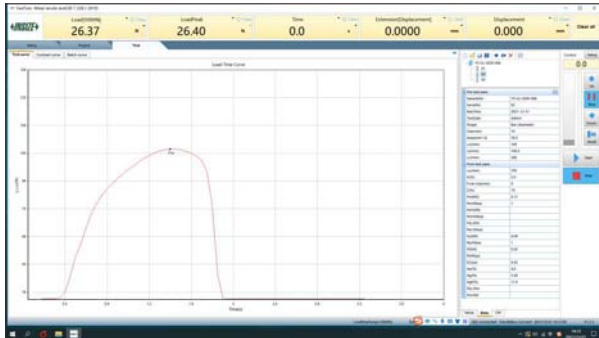
Code	for UTM-E10	UTT-M03-E10	UTT-M33-E10	UTT-M63-E10
	for UTM-E50	UTT-M03-E50	UTT-M33-E50	UTT-M63-E50
	for UTM-E100	UTT-M03-E100	UTT-M33-E100	UTT-M63-E100
Temperature range		(room temperature+10)~300°C	-30~300°C	-60~300°C
Temperature accuracy *		±1°C		
Temperature fluctuation *		±0.5°C		
Temperature 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

computer and software (included)



VIDEO



UTM-S5KA

- For tensile, peel, tear tests of metal and non-metal materials

STANDARD DELIVERY

Main unit	1 pc
Control box	1 pc
Computer	1 pc
Measuring software	1 pc
Printer	1 pc
Tensile fixture	1 set

OPTIONAL ACCESSORY

Extensometer	page 865
Fixtures	page 862~863

SPECIFICATION
















Code	UTM-S200A	UTM-S500A	UTM-S1KA	UTM-S2KA	UTM-S5KA
Max. test force	200N	500N	1kN	2kN	5kN
Accuracy class	0.5 class				
Test force measurement range	0.4%~100%FS				
Test force measurement accuracy	±0.5% of indicating value				
Resolution of test force measurement	1/300000 of Max. test force (same resolution all the way)				
Deformation measurement range	0.2%~100%FS				
Deformation measurement accuracy	±0.5% of indicating value				
Deformation measurement resolution	1/200000 of Max. deformation, up to 1/300000				
Large deformation measurement range	10~800mm				
Large deformation measurement accuracy	±1% of indicating value				
Large deformation measurement resolution	8μm				
Displacement accuracy	±0.5% of indicating value				
Displacement resolution	0.01mm				
Force control speed adjustment range	0.005~5%FS/s				
Force control speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)				
Deformation speed adjustment range	0.005~5%FS/s				
Deformation speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)				
Beam displacement speed adjustment range	0.001~500mm/min				
Beam displacement speed control accuracy	±1% of the set value (speed<0.5mm/min) ±0.2% of the set value (speed≥0.5mm/min)				
Crosshead travel*	900mm				
Effective compression travel*	630mm				
Power supply	220V, 50Hz, 0.4kW~1kW				
Dimension	510×510×1580mm				
Weight	150kg				

* Can be customized according to test requirements

FIXTURES FOR ELECTRONIC UNIVERSAL TESTING MACHINES

















CUSTOM-MADE

- Used with **UTM-E** series and **UTM-S** series electronic universal testing machines

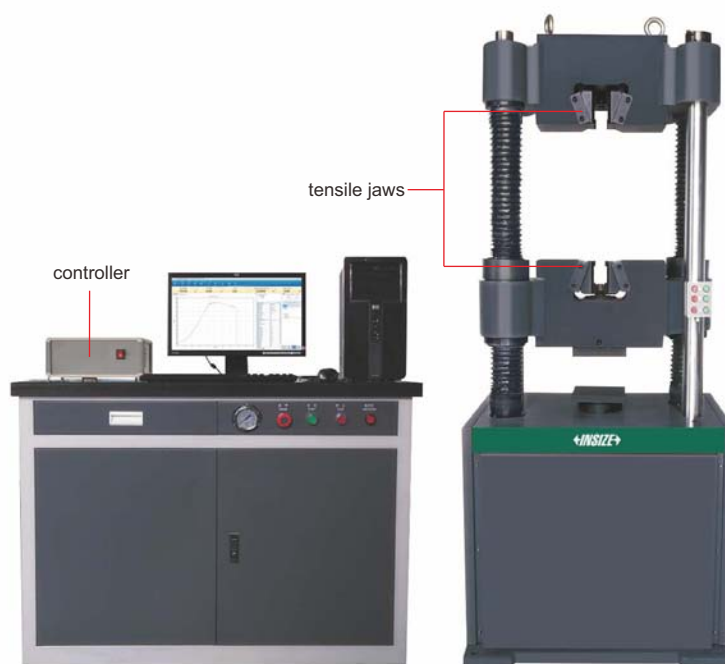
<p>UTM-F001</p> <ul style="list-style-type: none"> Wedge tensile fixture For tensile testing of non-metallic materials and thin metal specimens 	<p>UTM-F002</p> <ul style="list-style-type: none"> Hydraulic tensile fixture For tensile testing of metallic materials, round bar specimens 	<p>UTM-F003</p> <ul style="list-style-type: none"> 10kN wedge tensile fixture For tensile testing of metal specimens 
<p>UTM-F004</p> <ul style="list-style-type: none"> Pneumatic tensile fixture For tensile testing of non-metallic material specimens 	<p>UTM-F005</p> <ul style="list-style-type: none"> Insulation profile longitudinal shearing fixture Longitudinal shear test for insulation type materials 	<p>UTM-F006</p> <ul style="list-style-type: none"> Insulation profile transverse tensile fixture For transverse tensile testing of insulation-type materials 
<p>UTM-F007</p> <ul style="list-style-type: none"> Filament winding fixture For tensile testing of data wires, textile fabric wires, plastic wires 	<p>UTM-F008</p> <ul style="list-style-type: none"> Filament opposite fixture For tensile testing of wire specimens 	<p>UTM-F009</p> <ul style="list-style-type: none"> Pneumatic threadlet tensile fixture For tensile testing of non-metallic wire specimens 
<p>UTM-F010</p> <ul style="list-style-type: none"> Steel wire tensile fixture For tensile testing of fine steel wires and iron wires 	<p>UTM-F011</p> <ul style="list-style-type: none"> Threadlet winding fixture For tensile testing of filamentary metal specimens 	<p>UTM-F012</p> <ul style="list-style-type: none"> Fabric belt winding tensile fixture For tensile testing of non-metallic material specimens 
<p>UTM-F013</p> <ul style="list-style-type: none"> Film tensile fixture For tensile testing of paper, film and non-metallic materials 	<p>UTM-F014</p> <ul style="list-style-type: none"> Film tensile fixture For tensile testing of paper, film and non-metallic materials 	<p>UTM-F015</p> <ul style="list-style-type: none"> Thin film opposite fixture For tensile testing of paper, film and non-metallic materials 

To be continued

Continued from previous page

<p>UTM-F016</p> <ul style="list-style-type: none"> ■ Thin plate opposite fixture ■ For tensile testing of thin plates of non-metallic materials 	<p>UTM-F017</p> <ul style="list-style-type: none"> ■ Annule tensile fixture ■ For tensile testing of non-metallic annular material specimens 	<p>UTM-F018</p> <ul style="list-style-type: none"> ■ Adhesive tensile shearing fixture ■ For tensile shear testing of different adhesive specimens 
<p>UTM-F019</p> <ul style="list-style-type: none"> ■ Surface bonding strength fixture ■ Tensile testing for adhesive properties 	<p>UTM-F020</p> <ul style="list-style-type: none"> ■ Leverage tensile fixture ■ For tensile testing of rubber, silicone and other elastomers 	<p>UTM-F021</p> <ul style="list-style-type: none"> ■ Rubber tensile fixture ■ Specialized for tensile testing of rubber material specimens 
<p>UTM-F022</p> <ul style="list-style-type: none"> ■ 90° rubber peel fixture ■ Peel test for adhesion of rubber materials 	<p>UTM-F023</p> <ul style="list-style-type: none"> ■ PCB plate 90° peel fixture ■ Peel-off test for adhesion of sticky materials on PCBs 	<p>UTM-F024</p> <ul style="list-style-type: none"> ■ Plastic bending fixture ■ Specialized for flexural testing of plastic specimens 
<p>UTM-F025</p> <ul style="list-style-type: none"> ■ Three-point bending fixture ■ For bending test of various material specimens 	<p>UTM-F026</p> <ul style="list-style-type: none"> ■ Waving fixture ■ For tensile testing of non-metallic specimens 	<p>UTM-F027</p> <ul style="list-style-type: none"> ■ Butt fixture ■ For tensile testing of different materials 
<p>UTM-F028</p> <ul style="list-style-type: none"> ■ Shear fixture ■ For shear testing of different materials 	<p>UTM-F029</p> <ul style="list-style-type: none"> ■ Ceramic shearing fixture ■ Specialized for shear testing of ceramic materials 	<p>UTM-F030</p> <ul style="list-style-type: none"> ■ Compressive fixture ■ For compression testing of different materials 
<p>UTM-F031</p> <ul style="list-style-type: none"> ■ Puncture fixture ■ For film puncture testing 		

HYDRAULIC UNIVERSAL TESTING MACHINES



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	extensometer				
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
	oil source	1140×600×855			1250×930×3550
Weight		2T	2.2T	3T	7.5T
					12.6T

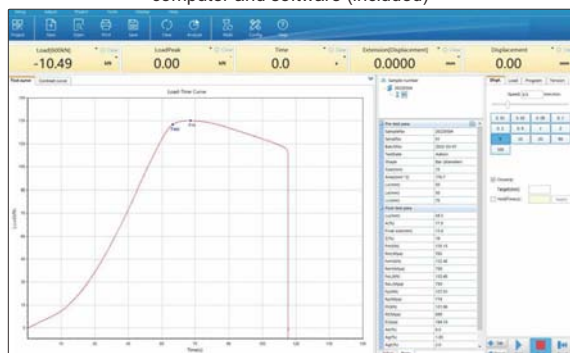
* Customizable 0~30mm

** Customizable 0~40mm

To be continued

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computer and software (included)



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



acrylic safety shield (optional)



steel wire safety shield (optional)

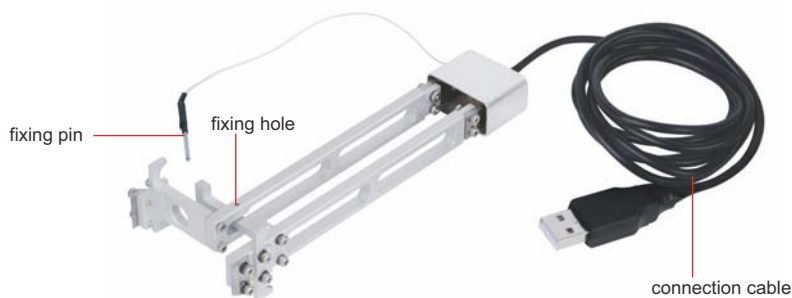
OPTIONAL ACCESSORY

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

- Used with universal testing machines

SPECIFICATION

Code	Gage 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	



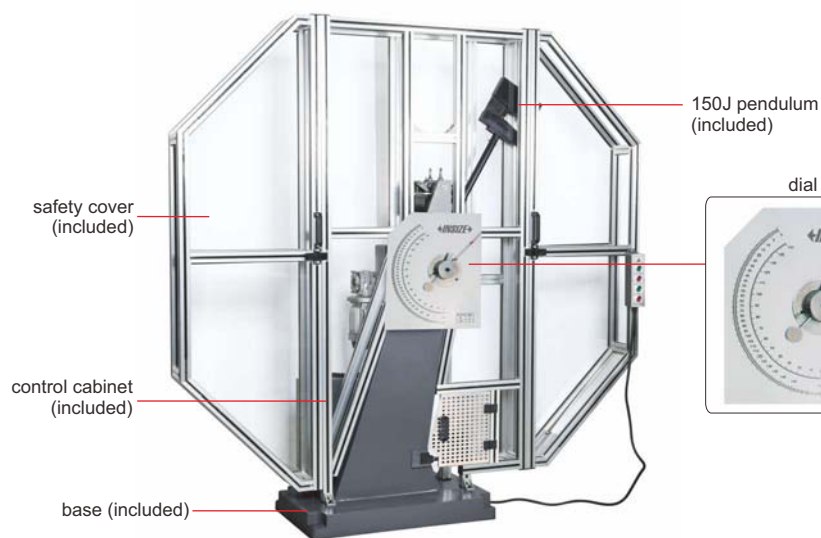
UTM-EX50-10

EXTENSOMETERS

SEMI-AUTOMATIC IMPACT TESTING MACHINES



VIDEO



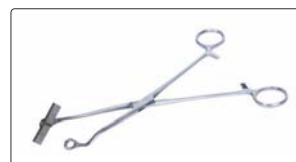
ITM-S150J



pendulum (included)

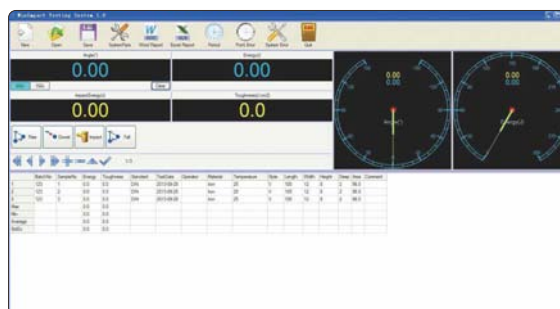


span aligner (included)



tongs (included)

- According to ISO148
- For testing the anti-impact performance of metal materials under dynamic load
- High-precision bearings, small bearing friction, the impact absorption rate of empty pendulum is less than 0.3%
- Alloy steel impact blade, hardness HRC60
- PLC controller with built-in energy loss correction program
- Supplied with safety cover
- Supplied with software for data storage, automatic processing, etc.
- Data can be stored in Excel format, output and printed



software (included)

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				
Power supply	AC 380V, 50Hz				
Base size	800×500mm		960×650mm		
Power	400W		1.5kW		
Dimension of main body	2050×690×2015mm		2100×835×2200mm		
Weight	450kg		900kg		

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit		1 pc
Dial		1 pc
Control cabinet		1 pc
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
Simply supported beam fixture (including jaws, anvil)		1 set
Computer		1 set
Printer		1 pc
Software		1 set
Span aligner		1 pc
Tongs		1 pc
Safety cover		1 set

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



VIDEO

IMPACT SPECIMEN NOTCH BROACHING MACHINE (DOUBLE BROACHES) CODE ITM-U32

- Conforms with ISO 148, ISO 83 and EN 10045 standards
- One-time broaching forming, hydraulic transmission, special internal lubrication device to avoid damage of the broaches
- Dual-station broach, two specimen notches can be processed at the same time

SPECIFICATION

Broach stroke	350mm (V2, U2, U3 broaches) 400mm (U5 broach)
Specimen size (T×W×L)	10×10×55mm
Broaching speed	0.35-2.5m/min
Driving method	hydraulic
Power supply	380V, 50Hz, 0.4kW
Dimension	660×400×1200mm
Weight	200kg



raised broaches



lowered broaches



ITM-U32

STANDARD DELIVERY

Main unit	1 pc
Broach	U2 and V2

OPTIONAL ACCESSORY

U3 broach	ITM-U32-U3
U5 broach	ITM-U32-U5

UNIVERSAL PUSH AND PULL TESTING MACHINES



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ISF-U202

- Set force, set positioning and set deformation testing modes
- Protective functions of built-in mechanical limit, overload auto stop and emergency stop
- Dual-speed preset, high-speed approximation and low-speed acquisition
- Automatic back to start location after the test
- Can save 10 sets of test value and 3 sets of curve, test reports can be printed by built-in printer
- Display peak value, real-time value and process curve simultaneously
- Auto calibration of displacement zero
- Unit: lbf, N, kgf, ozf
- Auto power off (the time can be set)

SPECIFICATION

Code	ISF-U055	ISF-U101	ISF-U202
Max. test force	500N	1000N	2000N
Resolution of force	0.05N	0.1N	0.2N
Test force measurement range	1%~100%FS		
Test force measurement accuracy	±1%FS (test force<10%FS) ±0.5%FS (test force≥10%FS)		
Range of adjustable speed	0.5~500mm/min		
Speed accuracy	±2%FS (speed<10%FS) ±1%FS (speed≥10%FS)		
Displacement resolution	0.001mm		
Displacement travel	300mm	450mm	450mm
Displacement accuracy	±0.4mm		
Unit	lbf, N, kgf, ozf		
Pressure plate size	Ø80mm		
Power supply	AC 220V, 50/60Hz		
Dimension	420×250×700mm	365×305×915mm	365×305×915mm
Weight	29.4kg	40kg	40kg

STANDARD DELIVERY

Main unit	1 pc
Adapter	2 pcs



DATA
OUTPUT

DIGITAL SPRING TESTERS

- Peak hold and automatic release function
- Set upper and lower limits, red and green indicator and buzzer alarm
- Automatic conversion of three units: N, kgf, lbf
- Built in printer
- Automatic power off



ISF-S10



ISF-S500



ISF-S1000

SPECIFICATION

Code	ISF-S10	ISF-S20	ISF-S30	ISF-S50	ISF-S100	ISF-S200
Maximum load	10N	20N	30N	50N	100N	200N
Resolution	0.001N	0.002N	0.01N	0.01N	0.02N	0.05N
Range of digital scale	65mm	65mm	65mm	95mm	95mm	95mm
Resolution of digital scale	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm
Disk diameter	Ø30mm	Ø30mm	Ø30mm	Ø49mm	Ø49mm	Ø49mm
Maximum free length of spring	65mm	65mm	65mm	95mm	95mm	95mm
Measuring range of force	5%~100% (maximum load)					
Accuracy of force	±1% (maximum load)					
Data output	RS232					
Power supply	220V, 50/60Hz					
Dimension	300×235×600mm	300×235×600mm	300×235×600mm	300×235×620mm	300×235×620mm	300×235×620mm
Weight	13.2kg	13.2kg	13.2kg	17.3kg	19.1kg	19.1kg

Code	ISF-S300	ISF-S500	ISF-S1000	ISF-S2000	ISF-S5000
Maximum load	300N	500N	1000N	2000N	5000N
Resolution	0.1N	0.1N	0.2N	0.5N	1N
Range of digital scale	95mm	95mm	150mm	150mm	150mm
Resolution of digital scale	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm
Disk diameter	Ø49mm	Ø49mm	Ø108mm	Ø108mm	Ø108mm
Maximum free length of spring	95mm	95mm	200mm	200mm	200mm
Measuring range of force	5%~100% (maximum load)				
Accuracy of force	±1% (maximum load)				
Data output	RS232				
Power supply	220V, 50/60Hz				
Dimension	300×235×620mm	300×235×620mm	490×300×920mm	490×300×920mm	490×300×920mm
Weight	19.1kg	20.8kg	47.5kg	47.5kg	47.5kg

STANDARD DELIVERY

Main unit	1 pc
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DIGITAL FORCE GAGES (HIGH ACCURACY)

DATA
OUTPUT

INSPECTION
CERTIFICATE

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software flash disk
(included)

printer (optional)



ISF-DF100A
type A



ISF-DF5KA
type B



ISF-DF10KC
type C

- Type A and B can be used for tension and pressure tests, type C is only used for pressure tests
- Peak (max.) and tracking mode
- Units for type A: mN, N, gf, kgf, ozf, lbf, type B: N, kgf, lbf, kN, MPa, type C: N, kgf, lbf, kN, tf, MPa
- Tolerance testing
- 1000 memories
- Automatic power off
- Metal case, touch buttons
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm
- Keyboard signal, can be transmitted to Excel

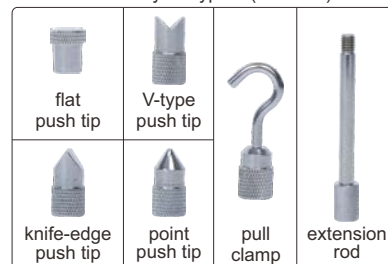


VIDEO

accessory for type B (included)



accessory for type A (included)



SPECIFICATION

Code	ISF-DF5A	ISF-DF10A	ISF-DF20A	ISF-DF50A	ISF-DF100A	ISF-DF200A	ISF-DF500A	ISF-DF1KA
Type	A (internal sensor)							
Load capacity (N)	5	10	20	50	100	200	500	1000
Resolution (N)	0.0005	0.001	0.005	0.005	0.01	0.05	0.05	0.1
Accuracy	±0.2% (of load capacity)							
Power supply	built-in rechargeable battery							

Code	ISF-DF1KB	ISF-DF2KA	ISF-DF5KA	ISF-DF10KA	ISF-DF20KA
Type	B (external sensor)				
Load capacity (N)	1000	2000	5000	10000	20000
Resolution (N)	0.1	0.5	0.5	1	5
Accuracy	±0.2% (of load capacity)				
Power supply	built-in rechargeable battery				

Code	ISF-DF10KC	ISF-DF20KC	ISF-DF50KC	ISF-DF100KC	ISF-DF200KC
Type	C (external sensor)				
Load capacity (kN)	10	20	50	100	200
Resolution (kN)	0.001	0.005	0.005	0.01	0.05
Accuracy	±0.2% (of load capacity)				
Power supply	built-in rechargeable battery				

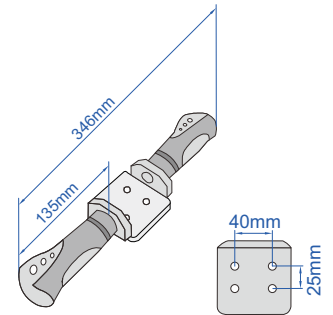
STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	type A 6 pcs (flat push tip, V-type push tip, knife-edge push tip, point push tip, pull clamp, extension rod)
	type B 4 pcs (flat push tip, adapter, pull clamps)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

FORCE GAGE HANDLES CODE ISF-DFAT1



- For digital force gages (code **ISF-DF**□□□)
- Push and pull test
- Maximum range 1000N

STANDARD DELIVERY

Handle	2 pcs
Base	1 pc

push test with single handle



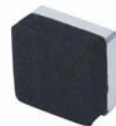
pull test with two handles



SOFT PROBES FOR HUMAN BODY



ISF-DFAT2-C1



ISF-DFAT2-C2



ISF-DFAT2-C3



ISF-DFAT2-C4

- To measure muscle force
- For press test with digital force gages (code **ISF-DF**□□□) and force gage handles (code **ISF-DFAT1**)
- Maximum range 1000N

Code	Specification
ISF-DFAT2-C1	rectangle, 90×25mm, M6
ISF-DFAT2-C2	square, 25×25mm, M6
ISF-DFAT2-C3	arc-shaped, 90×25mm, R80mm, M6
ISF-DFAT2-C4	M6

application



DIGITAL FORCE GAGES

DATA
OUTPUT

INSPECTION
CERTIFICATE



software flash disk
(included)



ISF-1DF100

- Push and pull test
- Units: N, gf, kgf, ozf, lbf
- 500 memories
- Automatic power off
- Metal case
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm

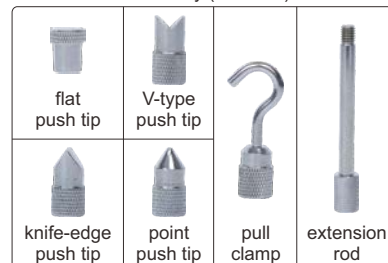


VIDEO

printer (optional)



accessory (included)



SPECIFICATION

Code	ISF-1DF10	ISF-1DF50	ISF-1DF100	ISF-1DF500	ISF-1DF1000
Load capacity (N)	10	50	100	500	1000
Resolution (N)	0.01	0.01	0.1	0.1	1
Accuracy	±0.3% (of load capacity)				
Measuring mode	tracking, peak (max.), tolerance testing				
Power supply	built-in rechargeable battery				
Dimension	150×73×33mm				
Weight	450g				

STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	6 pcs (flat push tip, V-type push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

TEST STAND FOR DIGITAL FORCE GAGES CODE ISF-MT1K

- For digital force gages (code ISF-1DF□□□ and ISF-DF□□□)
- To be used in vertical and horizontal orientation

SPECIFICATION

Load capacity	1000N
Travel	200mm (3mm vertical movement per revolution of handwheel)
Dimension	196×250×446mm
Weight	13kg

OPTIONAL ACCESSORY

Digital scale (range: 200mm, resolution: 0.01mm/0.0005")	ISF-MT1K-SCALE
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force gage
is optional



VIDEO



digital scale (optional)



horizontal orientation test



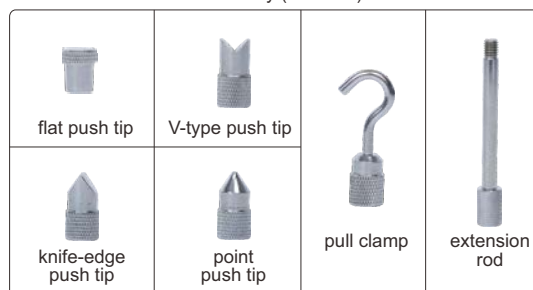
FORCE GAGES



ISF-F500

- Push and pull test
- Peak (max.) or tracking mode

accessory (included)



SPECIFICATION

Code		ISF-F10	ISF-F20	ISF-F30	ISF-F50	ISF-F100	ISF-F200	ISF-F300	ISF-F500
Capacity	N	10	20	30	50	100	200	300	500
	kgf	1	2	3	5	10	20	30	50
Graduation	N	0.05	0.1	0.2	0.25	0.5	1	2	2.5
Accuracy		±1% (of load capacity)							

STANDARD DELIVERY

Main unit	1 pc
Push tip	4 pcs (flat, V-type, knife-edge, point)
Pull clamp	1 pc
Extension rod	1 pc

OPTIONAL ACCESSORY

Test stand	ISF-MT500
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TEST STAND FOR FORCE GAGE CODE ISF-MT500

- For force gages (code ISF-F□□□)
- To be used in vertical and horizontal orientation

force gage
is optional



horizontal orientation test

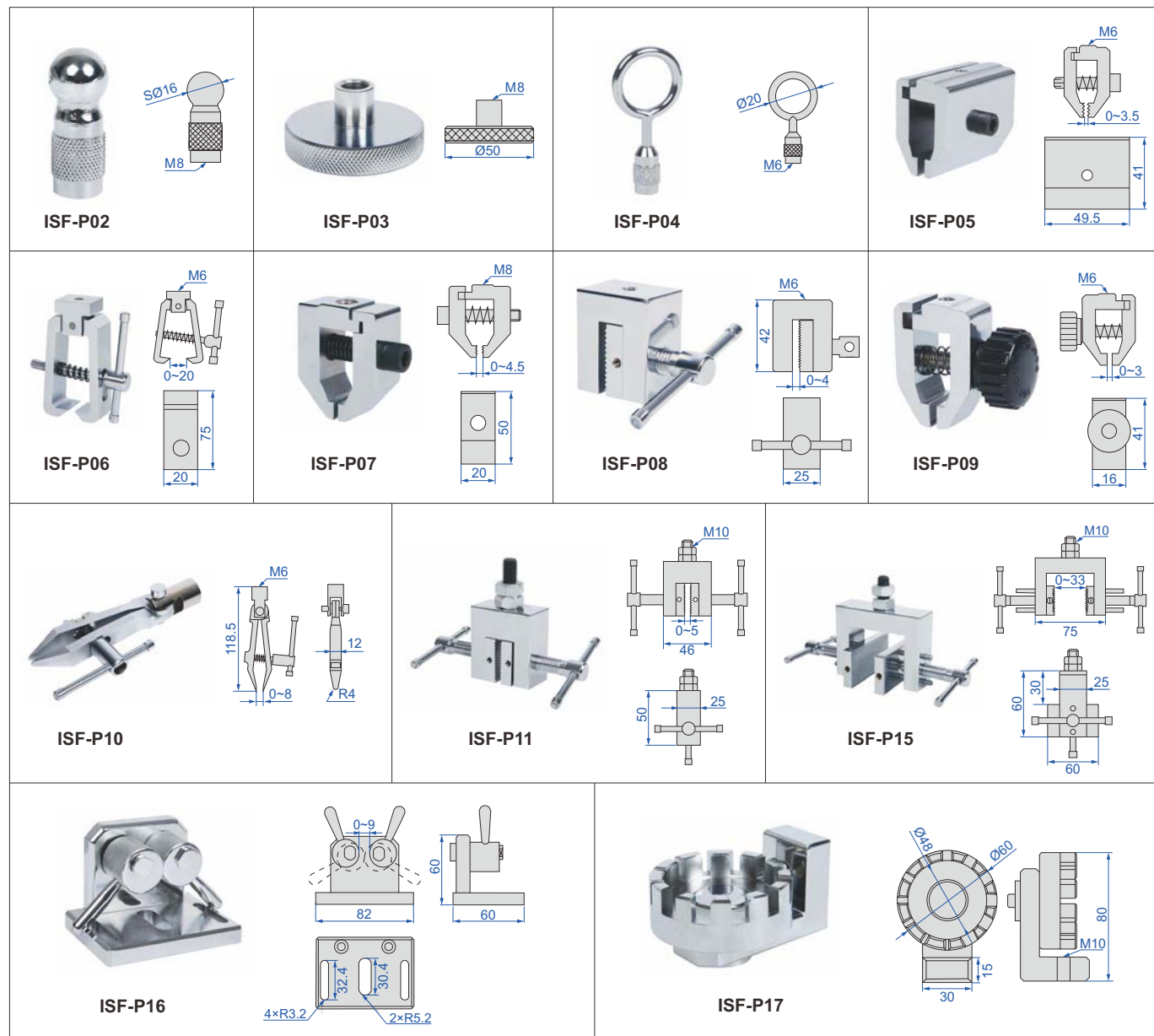
SPECIFICATION

Load capacity	500N
Travel	150mm (3mm vertical movement per revolution of handwheel)
Dimension	160×240×460mm
Weight	12kg

PUSH TIPS AND PULL CLAMPS FOR FORCE GAGES

■ For force gages (code ISF-DF□□□, ISF-1DF□□□ and ISF-F□□□)

Unit: mm



Push tips

Code	Max. load	Diameter	Weight
ISF-P02	5000N	16mm	33g
ISF-P03	3000N	50mm	17g

Pull ring

Code	Max. load	Diameter	Weight
ISF-P04	500N	16mm	158g

Special pull clamps

Code	Max. load	Opening size	Application	Weight
ISF-P16	2400N	0~9mm	for wire pull test	803g
ISF-P17	5000N	1.8~8.4mm	for wire terminal pull test	620g

Pull clamps

Code	Max. load	Jaw opening	Jaw width	Weight
ISF-P05	1100N	0~3.5mm	49.5mm	241g
ISF-P06	1000N	0~20mm	20mm	217g
ISF-P07	500N	0~4.5mm	20mm	190g
ISF-P08	500N	0~4mm	25mm	274g
ISF-P09	140N	0~3mm	16mm	87g
ISF-P10	230N	0~8mm	4mm	173g
ISF-P11	1500N	0~5mm	25mm	484g
ISF-P15	2000N	0~33mm	60mm	742g



MOTORIZED VERTICAL TEST STAND CODE ISF-RV61

- For digital force gages (code **ISF-1DF** and **ISF-DF**)
- Push and pull test
- Automatic and manual test
- Programmable automatic operation (automatic cycle)
- Four operation modes: displacement cycle (D cycle), force cycle (F cycle), demo (teaching & playback) mode and positioning mode
- Alarm indications: stroke overrange alarm, force overrange alarm, motor block alarm

SPECIFICATION

Load capacity	650N (250lbf, 65kg)
Max. travel	220mm
Resolution of displacement	0.01mm
Accuracy of displacement	±0.3mm
Range of adjustable speed	30~720mm/min
Resolution of speed	1mm/min
Accuracy of speed	±2%
Data output	USB, RS232
Work temperature and relative humidity	10~40°C, 10%~80%RH
Power supply	100~230V
Dimension	340×180×630mm
Weight	15.5kg

digital force gage
is optional



STANDARD DELIVERY

Test stand	1 pc
AC/DC adapter	1 pc
MD8 cable (for force gages)	1 pc
Software and USB cable	1 pc



MOTORIZED HORIZONTAL TEST STAND CODE ISF-RH62

- For digital force gages (code **ISF-1DF** and **ISF-DF**)
- Push and pull test
- Automatic and manual test
- Programmable automatic operation (automatic cycle)
- Four operation modes: displacement cycle (D cycle), force cycle (F cycle), demo (teaching & playback) mode and positioning mode
- Alarm indications: stroke overrange alarm, force overrange alarm, motor block alarm

SPECIFICATION

Load capacity	650N (250lbf, 65kg)
Max. travel	220mm
Resolution of displacement	0.01mm
Accuracy of displacement	±0.3mm
Range of adjustable speed	30~720mm/min
Resolution of speed	1mm/min
Accuracy of speed	±2%
Data output	USB, RS232
Work temperature and relative humidity	10~40°C, 10%~80%RH
Power supply	100~230V
Dimension	671×120×278mm
Weight	13kg

digital force gage
is optional



STANDARD DELIVERY

Test stand	1 pc
AC/DC adapter	1 pc
MD8 cable (for force gages)	1 pc
Software and USB cable	1 pc

MANUAL VERTICAL TEST STANDS FOR FORCE GAGES

ATTENTION:
ONLY FOR PRESS TEST

- For press test with force gages



VIDEO

force gage
is optional



ISF-V10A

SPECIFICATION

Code	ISF-V10A	ISF-V10D
Apply to	dial force gages (code ISF-F□□□)	digital force gages (code ISF-1DF□□□ and ISF-DF□□□)
Load capacity	500N	
Maximum workpiece height	280mm	
Travel	70mm	
Dimension	152×235×425mm	
Weight	10.7kg	

MANUAL HORIZONTAL TEST STANDS FOR FORCE GAGES

ATTENTION:
ONLY FOR PULL TEST

- For pull test with force gages



VIDEO

force gage
is optional



ISF-H20A

SPECIFICATION

Code	ISF-H20A	ISF-H20D
Apply to	dial force gages (code ISF-F□□□)	digital force gages (code ISF-1DF□□□ and ISF-DF□□□)
Load capacity	500N	
Travel	60mm	
Dimension	450×185×170mm	
Weight	9kg	

MANUAL HORIZONTAL TEST STAND FOR FORCE GAGES CODE ISF-MH2

- For force gages (code ISF-F□□□, ISF-DF□□□ and ISF-1DF□□□)
- Push and pull test



VIDEO

force gage
is optional



SPECIFICATION

Load capacity	1000N
Travel	250mm (1.5mm horizontal movement per revolution of handwheel)
Dimension	542×189×278mm
Weight	21.5kg



VIDEO

MANUAL STRIPPING FORCE TEST STANDS

- For stripping force test with force gages



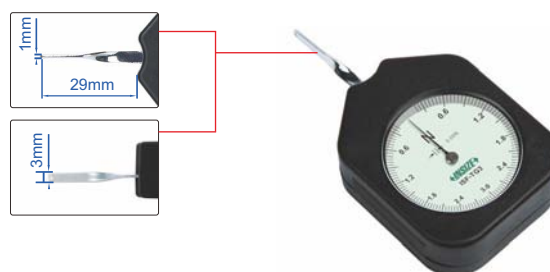
SPECIFICATION

Code	ISF-P30A	ISF-P30D
Apply to	dial force gages (code ISF-F□□□)	digital force gages (code ISF-1DF□□□ and ISF-DF□□□)
Load capacity	500N	
Horizontal travel	170mm	
Dimension	420×215×480mm	
Weight	22kg	



VIDEO

- Clockwise and counter-clockwise use
- For electronic and precision mechanical industry, such as test the contact pressure of relay, adjust the tension or compression of spring



DIAL TENSION GAGES

SPECIFICATION (Unit: N)

Code	ISF-TGD1	ISF-TGD3	ISF-TGD5	ISF-TG1	ISF-TG1D5	ISF-TG3	ISF-TG5
Range (N)	0.01~0.1	0.03~0.3	0.05~0.5	0.1~1	0.15~1.5	0.3~3	0.5~5
Graduation (N)	0.002	0.005	0.01	0.02	0.025	0.05	0.1
Accuracy	±2% (full scale)						
Dimension (L×W×H)	90×47×19mm						
Weight	60g						

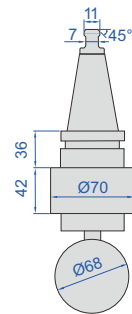
SPECIFICATION (Unit: gf)

Code	ISF-TG10	ISF-TG30	ISF-TG50	ISF-TG100	ISF-TG150	ISF-TG300	ISF-TG500
Range (gf)	1~10	3~30	5~50	10~100	15~150	30~300	50~500
Graduation (gf)	0.2	0.5	1	2	2.5	5	10
Accuracy	±2% (full scale)						
Dimension (L×W×H)	90×47×19mm						
Weight	60g						

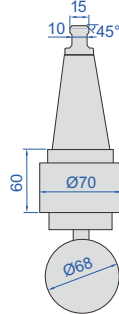
SPINDLE TENSION METERS



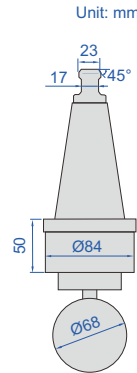
RFS-BT40



RFS-BT30



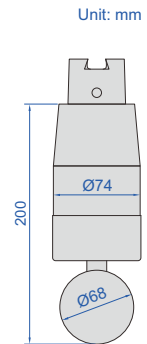
RFS-BT40



RFS-BT50



RFS-HSK63A



RFS-HSK63A

- Hydraulic mechanical structure, high stability
- To detect the tension of locking device

RFS-BT SPECIFICATION

Code	Dial range*	Accuracy	Applicable tension of spindle	Rivet angle**
RFS-BT30	0~60kg/cm ²	±0.96kg/cm ²	200~500kgf	45°
RFS-BT40	0~150kg/cm ²	±2.4kg/cm ²	500~1100kgf	
RFS-BT50	0~250kg/cm ²	±4kg/cm ²	1500~2200kgf	

RFS-HSK SPECIFICATION

Code	Dial range*	Accuracy	Applicable tension of spindle
RFS-HSK20A	0~120kg/cm ²	±1.92kg/cm ²	50~100kgf
RFS-HSK20C			
RFS-HSK20E			
RFS-HSK25A	0~150kg/cm ²	±2.4kg/cm ²	250~500kgf
RFS-HSK25C			
RFS-HSK25E			
RFS-HSK32A	0~500kg/cm ²	±8kg/cm ²	350~600kgf
RFS-HSK32B			
RFS-HSK32C			
RFS-HSK32D			
RFS-HSK32E			
RFS-HSK32F			
RFS-HSK40A	0~680kg/cm ²	±10.9kg/cm ²	750~1500kgf
RFS-HSK40B			
RFS-HSK40C			
RFS-HSK40D			
RFS-HSK40E			
RFS-HSK40F			
RFS-HSK50A	0~1100kg/cm ²	±17.6kg/cm ²	1000~2000kgf
RFS-HSK50B			
RFS-HSK50C			
RFS-HSK50D			
RFS-HSK50E			
RFS-HSK50F			

Code	Dial range*	Accuracy	Applicable tension of spindle
RFS-HSK63A	0~1800kg/cm ²	±28.8kg/cm ²	1500~3000kgf
RFS-HSK63B			
RFS-HSK63C			
RFS-HSK63D			
RFS-HSK63E			
RFS-HSK63F			
RFS-HSK80A	0~2800kg/cm ²	±44.8kg/cm ²	2000~4000kgf
RFS-HSK80B			
RFS-HSK80C			
RFS-HSK80D			
RFS-HSK80E			
RFS-HSK80F			
RFS-HSK100A	0~7000kg/cm ²	±112kg/cm ²	6000~9000kgf
RFS-HSK100B			
RFS-HSK100C			
RFS-HSK100D			
RFS-HSK100E			
RFS-HSK100F			
RFS-HSK160A	0~11500kg/cm ²	±184kg/cm ²	10000~16000kgf
RFS-HSK160B			
RFS-HSK160C			
RFS-HSK160D			
RFS-HSK160E			
RFS-HSK160F			

*The actual tension of spindle (kgf) is 10X of dial reading

**Can be customized for 60° and 90°