

Anyi

安一量具



桂林安一量具有限公司

Anyi Instrument Co.,Ltd.

Catalog No. 2010

现场检验坐标测量机和高档数控机床，使用步距规——更准确、更实用、更经济

桂林安一量具有限公司生产的步距规，精确更上一层楼。其中规格为1000mm高精度步距规00级规定的极限误差仅为 $\pm 1.0 \mu m$ ，为目前国内外市场上已知同类产品精度指标最高的。世界权威检测部门实测结果也验证了这点：2010年8月和9月分别送中国计量科学研究院（国际计量委员会校准和测量证书互认协议签署成员）校准的规格为1000mm高精度步距规两台，该院出具的校准报告书载明最大误差分别为 $0.6 \mu m$ 和 $0.8 \mu m$ 。2010年11月22日送欧洲检测的规格为1000mm 高精度步距规，由世界权威的德国国家实验室DKD-K-44301出具的编号为1397号校准报告书中载明，最大误差仅为 $0.46 \mu m$ 。用于校准坐标测量机和高档数控机床的定位精度，深受用户欢迎。

DEUTSCHER KALIBRIERDIENST **DKD**

Kalibrierlaboratorium / Calibration laboratory

Akkreditiert durch die / accredited by the

Akkreditierungsstelle des Deutschen Kalibrierdienstes



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Kalibrierschein
Calibration certificate

Kalibrierzeichen
Calibration mark

1397
DKD-K-44301
2010-11

Gegenstand
Object
Stufenmaß aus Stahl mit Stahl-Messzinnen
Step gauge made of steel with steel cylindrical gauge blocks

Hersteller
Manufacturer
Anyi Instrument Co., Ltd

Typ
Type
Länge 1000 mm
Length 1000 mm

Fabrikat/Serien-Nr.
Serial number
FK31001

Auftraggeber
Customer
Anyi Instrument Co., Ltd
1st Floor, Chuangxin Building
Industrial Park of High-Tech Zone
541004 Guilin
P.R.China

Auftragsnummer
Order No.

Anzahl Seiten des Kalibrierscheins
Number of pages of the certificate
7

Datum der Kalibrierung
Date of calibration
22.11.2010

Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).
Der DKD ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine. Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.
This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the International System of Units (SI). The DKD is signatory to the multilateral agreements of the European co-operation for Accreditation (EA) and of the International Laboratory Accreditation Cooperation (ILAC) for the mutual recognition of calibration certificates. The user is obliged to have the object recalibrated at appropriate intervals.

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen bedürfen der Genehmigung sowohl der Akkreditierungsstelle des DKD als auch des ausstellenden Kalibrierlaboratoriums. Kalibrierscheine ohne Unterschrift und Stempel haben keine Gültigkeit.
This calibration certificate may not be reproduced other than in full except with the permission of both the Accreditation Body of the DKD and the issuing laboratory. Calibration certificates without signature and seal are not valid.

Stempel
Seal
Deutscher Kalibrierdienst
DKD-K-44301

Datum
Date
22.11.2010

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über die Neigung der Antastflächen zum Bezugskordinatensystem sind nicht Bestandteil der DKD-Kalibrierung.
about the inclination of the surfaces to the reference coordinate system are not part of the DKD-calibration.

größte Abweichung von 4 Punkten in den Achsrichtungen des Abstand von $\pm 2 \text{ mm}$ zum Mittenmaß ermittelt.
Maximum deviation of all steps was determined.

on of each surface was determined with 4 points in axis direction of in steps with $\pm 2 \text{ mm}$ to the mean size.

Nennmaß Nominal value	Max. Abw. Max. deviation in μm	Nennmaß Nominal value	Max. Abw. Max. deviation in μm	Nennmaß Nominal value	Max. Abw. Max. deviation in μm
-10	0,12	330	0,17	670	0,16
0	0,22	340	0,08	680	0,13
10	0,28	350	0,20	690	0,30
20	0,17	360	0,12	700	0,16
30	0,17	370	0,11	710	0,21
40	0,29	380	0,30	720	0,28
50	0,28	390	0,35	730	0,36
60	0,10	400	0,20	740	0,31
70	0,17	410	0,14	750	0,21
80	0,22	420	0,28	760	0,17
0,25	0,30	430	0,31	770	0,16
0,08	0,40	440	0,13	780	0,12
0,15	0,45	450	0,17	790	0,19
0,09	0,46	460	0,06	800	0,21
0,11	0,47	470	0,12	810	0,16
0,19	0,48	480	0,25	820	0,30
0,28	0,49	490	0,34	830	0,28
0,24	0,50	500	0,27	840	0,15
0,14	0,51	510	0,20	850	0,18
0,28	0,52	520	0,30	860	0,09
0,35	0,53	530	0,35	870	0,13
0,16	0,54	540	0,21	880	0,14
0,15	0,55	550	0,16	890	0,29
0,11	0,56	560	0,15	900	0,20
0,07	0,57	570	0,21	910	0,19
0,11	0,58	580	0,16	920	0,29
0,29	0,59	590	0,28	930	0,37
0,14	0,60	600	0,22	940	0,17
0,14	0,61	610	0,18	950	0,17
0,28	0,62	620	0,30	960	0,14
0,35	0,63	630	0,35	970	0,18
0,31	0,64	640	0,22	980	0,29
0,16	0,65	650	0,20	990	0,37
0,15	0,66	660	0,10	1000	0,32

chung aller Stufen / Maximum deviation of all steps = $0,37 \mu m$

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Messergebnisse
Measurement results

Mittlere Temperatur: 20,05°C
Mean temperature:

Nennmaß zur Messfläche 0 Nominal from measuring surface 0 [mm]	Abstand zur Messfläche 0 Distance from measuring surface 0 [mm]	Nennmaß zur Messfläche 0 Nominal from measuring surface 0 [mm]	Abstand zur Messfläche 0 Distance from measuring surface 0 [mm]	Nennmaß zur Messfläche 0 Nominal from measuring surface 0 [mm]	Abstand zur Messfläche 0 Distance from measuring surface 0 [mm]
-10	-9,99998	330	329,99990	670	669,99997
0	0,00000	340	339,99983	680	679,99983
10	10,00012	350	349,99996	690	689,00029
20	19,99999	360	359,99993	700	700,00020
30	30,00001	370	370,00006	710	710,00028
40	39,99997	380	379,99987	720	720,00028
50	50,00003	390	389,00004	730	730,00028
60	59,99995	400	399,99985	740	740,00020
70	69,99998	410	409,99998	750	750,00020
80	79,99990	420	419,99984	760	760,00017
90	89,99998	430	429,99968	770	770,00035
100	99,99986	440	439,99993	780	780,00027
110	109,99993	450	449,99998	790	790,00031
120	119,99990	460	459,99996	800	800,00018
130	129,99998	470	470,00005	810	810,00024
140	139,99988	480	480,00000	820	820,00013
150	150,00004	490	490,00012	830	830,00025
160	159,99995	500	500,00006	840	840,00011
170	169,99999	510	510,00013	850	850,00023
180	179,99983	520	520,00004	860	860,00018
190	189,99997	530	530,00009	870	870,00027
200	199,99983	540	539,99994	880	880,00023
210	209,99989	550	550,00000	890	890,00036
220	219,99984	560	559,99997	900	900,00023
230	229,99984	570	569,99997	910	910,00036
240	239,99989	580	579,99999	920	920,00024
250	249,99996	590	590,00009	930	930,00048
260	259,99990	600	599,99993	940	940,00034
270	269,99993	610	610,00004	950	950,00041
280	279,99993	620	619,99990	960	960,00042
290	290,00000	630	629,99996	970	970,00044
300	299,99983	640	639,99981	980	980,00034
310	309,99992	650	649,99988	990	990,00043
320	319,99986	660	659,99986	1000	1000,00045

Calibration Certificate
issued by Deutscher
Kalibrdienst DKD

公司简介

桂林安一量具有限公司，是经国家认证的高新技术企业。公司成立于2005年7月1日，注册资金1250万元，位于桂林市国家级高新区信息产业园。

公司专注于研发和生产具有国际先进水平的高档精密量具和非标专用量具。

公司主要产品：

高精度步距规，经中国计量科学研究院及德国DKD检测，精度及稳定性指标均达到国际先进水平；

可升级万能数显卡尺（中国专利），是目前世界上功能最多的电子数显卡尺；

千分级数显卡尺（分辨力0.001mm，中国专利），是目前世界上精度最高的电子数显卡尺；

螺纹中径卡尺（最高分辨力0.001mm，中国专利），专用于测量内外螺纹中径，校对简单，使用方便；

两点内径卡尺（最高分辨力0.001mm，中国专利），用于精密测量孔的直径；

非标专用量具——根据用户特殊要求，可定制专用量具。

公司拥有国内量具行业先进的生产设备：

有高精度中走丝线切割机床20台，高精度磨床8台、超硬真空镀膜设备一套，还有美国哈斯公司产立式加工中心、高温网带式连续热处理炉、大型激光刻线机、全自动振动时效设备、大型电火花线切割机等先进设备多台。

公司计量室内有德国蔡司公司产六米测长机，莱兹公司产一米万能工具显微镜（2台），英国泰勒公司产轮廓仪、乌氏干涉仪、阿贝比长仪、瑞士立光计和2"分度头、高精度测高仪等一系列先进检测设备。

公司宗旨：创建世界名牌！

Company Profile

Located in the Information Industrial Park of Hi-Tech Zone, Guilin Anyi Instrument Co., Ltd., is a high-tech enterprise certified by the state. It was founded on July 1, 2005 with the registered capital of 12.5 million yuan.

Anyi specializes in developing and manufacturing high-end measuring instruments and non-standard measuring tools.

Distinguished products such as:

1. Precision Step Gauge.
2. Universal & Updatable Digital Calipers.
3. Micron Digital calipers.
4. Screw Thread Digital Calipers.
5. Two-Point Inside Digital Calipers.
6. Non-standard Special Measuring Tools.

Anyi has a number of advanced equipment, such as: precision WEDM (20 sets), high precision grinding machine (8 sets), titanium coating equipment (1 set), HAAS machining center (2 sets), gas protecting heat treatment Furnace (1 set), laser marking equipment (2 sets) and automatic VSR equipment (1 set), giant WEDM (2 sets), etc..

Anyi's metrology laboratory has a series of advanced testing and calibrating equipment, such as Carl Zeiss Length Measuring Machine (range: 6m), LEITS-STRASMANN universal tool microscope, Taylor-Hobson profiler, Abbe comparator instrument, height masters, etc..

Anyi's mission: To create world-famous brand.

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主要特点

- ◆ 本公司步距规使用标准量块按照一定的方式排列固定于基体上，由各量块工作面组合提供一系列的同向和异向标准尺寸。
- ◆ 使用步距规检测校准各种机床导轨、坐标测量机、高度仪等设备的直线移动定位精度，廉价、高效且精确。
- ◆ 异向10mm、同向20mm的常规最小步距，可细密完整地检测出整根导轨各部分的定位误差，修正更完整彻底。客户可依据需求定制等步距或者不等步距。
- ◆ 本公司步距规可卧式使用，也可立式使用，配合转动座可调节角度倾斜使用，其它特殊要求还可定制，如检测车床时特制步距规可用于顶针支撑等。
- ◆ 每台步距规都有产品出厂检验报告，检验报告默认为安一公司计量室出具。
- ◆ 可代客户将产品送中国计量科学研究院校准，使用更可靠更放心。（校准费用由客户承担）
- ◆ 陶瓷量块、合金量块、钢量块可供选择。

Features

- ◆ Step Gauge may also be known as check master. The calibration with step gauge is cheap, accurate, and practical.
- ◆ Anyi-Step is not only an ideal mechanical reference artifact for calibration, monitoring and traceability of Co-ordinate Measuring Machine (CMMs), but also for machine tools, machining centers and height gauges.
- ◆ Anyi-Step has standard gauge blocks aligned and mounted in the groove of body. The combination of the working surfaces of its gauge blocks can provide standard lengths of uni-direction and bi-direction.
- ◆ 10mm is the smallest increment which can verify the positioning error of the guide rail and provide precision correction. Customized increments are available upon enquiry.
- ◆ Anyi-Step can be used horizontally or vertically. With its swivel support, it can be used in different angles. It can be customized for special purpose.
- ◆ Every Anyi-Step is with its manufacturer's calibration certificate. Calibration certificate issued by National Institute of Metrology can be provided if customers pay for the calibration.
- ◆ Nominal length from 300 mm up to maximal 1500 mm.
- ◆ Special lengths upon enquiry
- ◆ 20 mm increments (customized increments upon enquiry)
- ◆ Steel gauge blocks, carbide gauge blocks and ceramic gauge blocks are optional.





相关术语

- 1、工作面
步距规量块露出的工作面部分
- 2、零点工作面
步距规上作为示值零点的工作面，通常被标记为0
- 3、工作尺寸
步距规上各工作面中心与零点工作面中心的距离，如图1所示
- 4、平行度
步距规上各工作平面对零点工作面的平行度。如图2所示，在平面上偏离中心点2mm的4个点对步距规进行测量，示值相对于零点工作面的距离变化量的最大值是该工作面的平行度。

Terms

- 1). Working Surface
The exposed working surfaces of gauge blocks of step gauge.
- 2). Origin Working Surface
The working surface used as the indication Zero of step gauge, usually marked "0".
- 3). Measuring Range
The center-to-center distances between the measuring surfaces and the surface 0 (fig.1).
- 4). Parallelism
The parallelism between each working surface and the Origin working surface (fig.2). the biggest measured value from the 4 points which are 2mm away from the working surface center to the Origin working surface is the parallelism between this working surface and the Origin working surface.

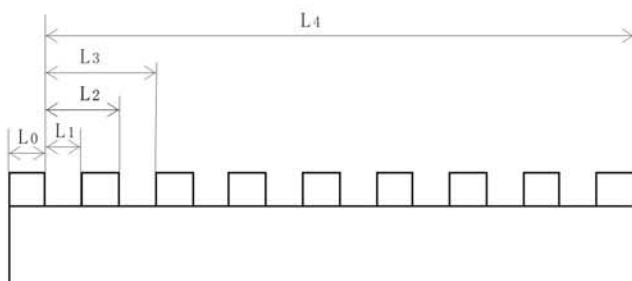


图1 工作尺寸
Fig.1 Measuring Range

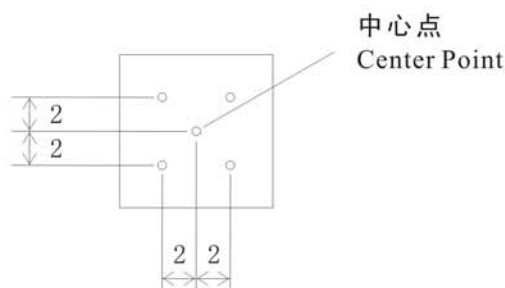
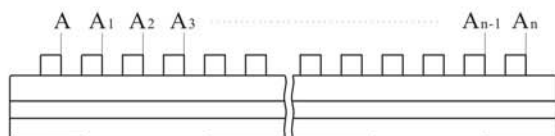
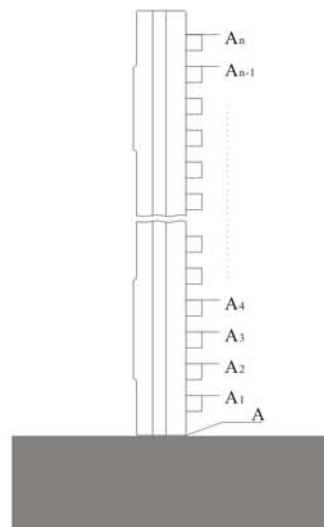


图2 平行度测量点位置
Fig.2 Point position for measuring parallelism

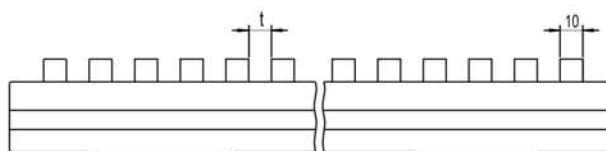
步距规 / Precision Step Gauges



平行I: 各工作面与零点工作面A的平行度
Parallelism I: Parallelism of each working surface and Origin Working Surface A



平行II: 各工作面与零点工作面A的平行度
Parallelism II: Parallelism of each working surface and Surface A of inspection surface plate



性能参数 Specifications

工作尺寸(L) Measuring Range (L)	1级 Grade 1		0级 Grade 0		00级 Grade 00	
	极限误差 Limit Error	平行度 Parallelism	极限误差 Limit Error	平行度 Parallelism	极限误差 Limit Error	平行度 Parallelism
$0 < L \leq 300\text{mm}$	$\pm 1.2\mu\text{m}$	$1.0\mu\text{m}$	$\pm 0.8\mu\text{m}$	$0.8\mu\text{m}$	-	-
$300 < L \leq 600\text{mm}$	$\pm 1.8\mu\text{m}$	$1.5\mu\text{m}$	$\pm 1.0\mu\text{m}$	$1.0\mu\text{m}$	-	-
$600 < L \leq 1000\text{mm}$	$\pm 2.5\mu\text{m}$	$1.5\mu\text{m}$	$\pm 1.5\mu\text{m}$	$1.0\mu\text{m}$	$\pm 1.0\mu\text{m}$	$1.0\mu\text{m}$
$1000 < L \leq 1500\text{mm}$	$\pm 4.0\mu\text{m}$	$2.0\mu\text{m}$	$\pm 2.5\mu\text{m}$	$1.5\mu\text{m}$	$\pm 1.5\mu\text{m}$	$1.5\mu\text{m}$

工作尺寸 Measuring Range	1级 货号 Grade 1 Order No.	0级 货号 Grade 0 Order No.	00级 货号 Grade 00 Order No.	常规间隔(t) General Increment (t)
300mm	022-1030	022-0030	-	20mm
400mm	022-1040	022-0040	-	20mm
500mm	022-1050	022-0050	-	20mm
600mm	022-1060	022-0060	-	20mm
800mm	022-1080	022-0080	022-0080A	20mm
1000mm	022-1100	022-0100	022-0100A	20mm
1500mm	022-1150	022-0150	022-0150A	20mm

步距规（卡尺） / Precision Step Gauges(For Checking Caliper)

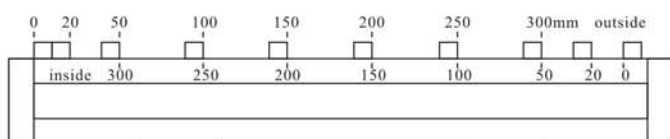


主要特点

- ◆ 用于校准各种量具(卡尺、高度尺等)测量示值
- ◆ 量块排列方式可按客户要求定制
- ◆ 按客户需求，工作量块可选择金属钢制、硬质合金或陶瓷量块
- ◆ 陶瓷量块防锈抗磨
- ◆ 金属钢制量块为经济型，需注意防锈

Features

- ◆ For calibrating various application measurements including dial calipers, digital calipers and height gauges and the like.
- ◆ Gauge blocks arrangement can be designed according to customers' needs.
- ◆ Available with stainless steel gauge blocks, carbide-tipped gauge blocks and ceramic gauge blocks.
- ◆ The steel type is the most economical, but it should pay attention to avoid rust.
- ◆ The ceramic one is free from rust and abrasion.



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	极限误差 Limit Error
300mm	022-163C	$\pm 2.0\mu\text{m}$

转动座(步距规) / Swivel Support (Patented)



主要特点

- ◆ 使用步距规校准坐标测量机，需要将步距规倾斜一定角度进行不同方向检测
- ◆ 步距规倾角支座是配合安一步距规使用的，其作用是以多个可调节的倾斜角度支撑步距规，完成坐标测量机的指定检测内容
- ◆ 倾斜角度：0°，15°，30°，45°，60°，90°

Features

- ◆ The innovated swivel support can easily hold the step gauge from 0°, 15°, 30°, 45°, 60°, to 90°.

性能参数 Specifications

货号 Order No.	适用范围 Applicable Scope
007-0146	600mm
007-0148	800mm
007-0150	1000mm

可升级全能数显卡尺 / Universal Digital Calipers



可测量小到Φ1孔
Can measure Φ1mm hole

可测量平面内槽
Can measure
inside flat groove

可测量外尺寸
Can measure
outside dimensions

薄刃：测量较深的窄槽
Thin blade jaws: can measure
very narrow grooves

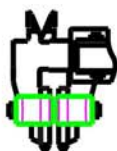
可测量孔与孔中心之间的
中心距离
Can measure the center
distance between two holes

可测量边缘与孔中心之间的
中心距离
Can measure from edge
to hole center

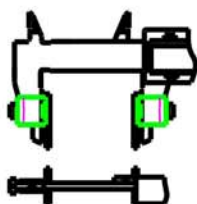
可测量阶梯轴
Can measure sectioned
shafts



可测量阶差断面
Can measure stepped
sections



可测量内沟槽
Can measure
inside groove



可测量钢丝绳直径
Broad measuring faces can
easily measure the diameter
of steel wire rope



可测量管厚
Can measure tube
wall thickness



可测量外沟槽
Can measure
outside groove

主要特点

- ◆ 配上各种测头可完成各种测量
- ◆ 可测量Φ1mm 孔
- ◆ 可测量平面内槽
- ◆ 可以测量较深的窄槽
- ◆ 可测量外尺寸
- ◆ 可测量孔与孔中心之间的中心距离
- ◆ 可测量边缘与孔中心之间的中心距离
- ◆ 可测量阶差断面
- ◆ 可测量外沟槽
- ◆ 可测量内沟槽
- ◆ 可测量阶梯轴
- ◆ 可测量管厚
- ◆ 可测量钢丝绳直径
- ◆

Features

- ◆ Universal Digital Calipers (Updatable for different measuring tasks with all kinds of attachment)
- ◆ Can measure Φ1mm hole.
- ◆ Can measure inside flat groove.
- ◆ Can measure very narrow grooves.
- ◆ Can measure outside dimensions
- ◆ Can measure the center distance between two holes.
- ◆ Can measure from edge to hole center.
- ◆ Can measure stepped sections.
- ◆ Can measure outside groove.
- ◆ Can measure inside groove.
- ◆ Can measure sectioned shafts.
- ◆ Can measure tube wall thickness.
- ◆ Broad measuring faces can easily measure the diameter of steel wire rope.
- ◆

性能参数 Specifications

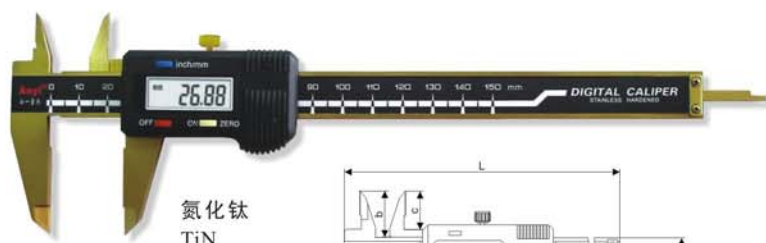
测量范围 Measuring Range	货号 Order No.	分辨率 Resolution
0-150mm	110-1060	0.01mm

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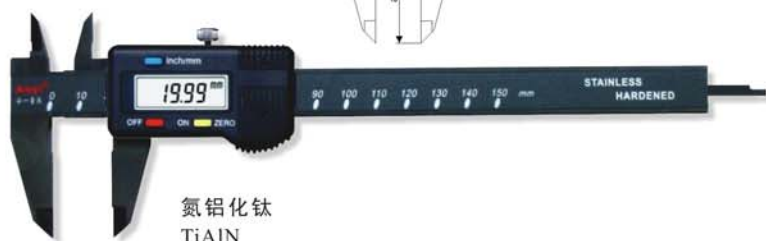
<http://www.aylj.com>

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全涂镀数显卡尺 / Complete Titanium Coated Digital Calipers



氮化钛
TiN



氮铝化钛
TiAlN

主要特点

- ◆ 硬质涂层，明显提高卡尺耐磨性，延长使用寿命
- ◆ 内测量精度可按德标
- ◆ 任意位置清零
- ◆ 公英制转换
- ◆ 可数据输出

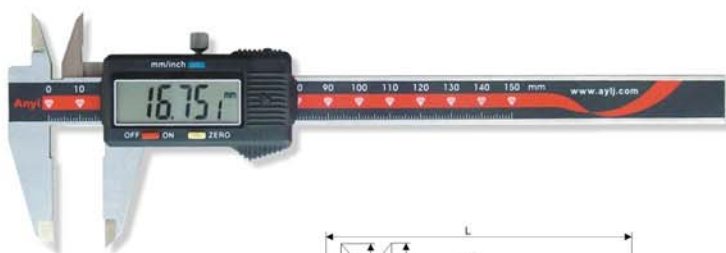
Features

- ◆ TiAlN or TiN coating to improve greatly durability and working life.
- ◆ The internal jaws measurement accuracy can accord with DIN862.
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	备注 Remarks	L	a	b	c	d
0-150mm	111-101G	0.01mm	±0.02mm	金色 Golden	236	40	21	16.5	16
0-150mm	111-101B	0.01mm	±0.02mm	黑色 Black	236	40	21	16.5	16

数显千分级卡尺 / Micron Digital Calipers



合金量面
Carbide-tipped measuring faces

主要特点

- ◆ 分辨力为0.001mm的微米级数显卡尺
- ◆ 用于测量尺寸精度要求较高的工件
- ◆ 使用标准校对块，能达到更高的测量准确度
- ◆ 任意位置清零

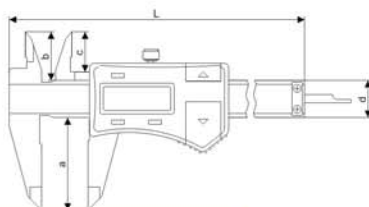
Features

- ◆ Resolution 0.001mm.
- ◆ Used for measuring the workpiece demanding higher accuracy.
- ◆ Calibrated by master gauges, measurement can reach higher accuracy.
- ◆ Zero-setting at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(合金量面) Order No.(Carbide Type)	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-50mm	110-011	110-251	0.001mm	±0.005mm	236	40	21	16.5	16
50-100mm	110-012	110-252	0.001mm	±0.007mm	236	40	21	16.5	16
100-150mm	110-013	110-253	0.001mm	±0.009mm	236	40	21	16.5	16

高精度数显卡尺 / High Precision Digital Calipers



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-150mm	110-051	0.005mm	±0.015mm	236	40	21	16.5	16
0-200mm	110-052	0.005mm	±0.020mm	286	50	24	19.5	16
0-300mm	110-053	0.005mm	±0.025mm	400	60	25	20.5	17

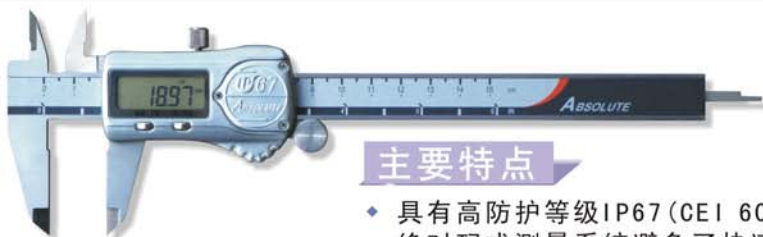
主要特点

- ◆ 分辨力为0.005mm
- ◆ 内测量精度可按德标
- ◆ 任意位置清零
- ◆ 任意位置进行相对测量和绝对测量的转换
- ◆ 可数据输出

Features

- ◆ Resolution: 0.005mm.
- ◆ The internal jaws measurement accuracy can accord with DIN862.
- ◆ Zero-setting at any position.
- ◆ Absolute and relative measurement conversion at any position.
- ◆ Data output.

IP67防水数显卡尺 / IP67 Water Proof Digital Calipers



主要特点

- ◆ 具有高防护等级IP67 (CEI 60529), 能在冷却液、水、尘、油环境中使用。绝对码式测量系统避免了快速移动或受干扰时测量原点丢失而反复设置原点的烦恼, 甚至更换电池后测量原点也不会丢失。
- ◆ 双键设计, 按键菜单式提示, 简洁、方便, 易于操作。
- ◆ 手动/自动电源开关, 未使用延时5分钟自动关机 (在关机16小时内, 拉动尺框会自动开机)。
- ◆ 低电压报警, 高、低温及其它错误报警。
- ◆ 响应速度高, 没有超速误差。
- ◆ ABS/INC模式和mm/IN模式功能。

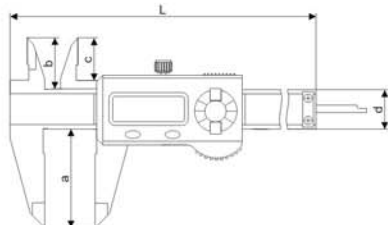
Features

- ◆ This product has the high protective level IP67 (CEI 60529). It can be used in workshop, exposed to coolant, water, dust or oil. Absolute encoding measuring system can avoid the loss of the measurement origin when the slider is fast moved or interfered. It can also avoid the trouble of setting origin before measurement each time. The origin won't be lost even after replacing the battery.
- ◆ Two-button design, menu prompt, simple, convenient and easy to operate.
- ◆ Manual / automatic power switch. automatic shutdown after 5 minutes without being used (Some models will automatically reboot at a 16-hour shutdown when the slider is moved.)
- ◆ Low-voltage alarm, high and low temperature, and other error alarm.
- ◆ Infinite response speed, no speed error.
- ◆ ABS / INC mode and metric / inch system conversion.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	111-281	0.01mm	±0.02mm
0-200mm	111-282	0.01mm	±0.03mm
0-300mm	111-283	0.01mm	±0.04mm

IP54防潮数显卡尺 / IP54 Damp Proof Digital Calipers



主要特点

- ◆ 先进的设计款式，精度高。
- ◆ 防护符合IP54标准
- ◆ 任意位置清零
- ◆ 公英制转换

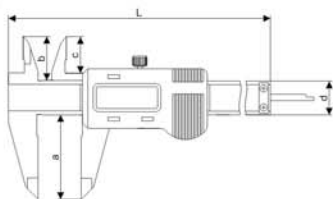
Features

- ◆ Advanced design styling and high accuracy.
- ◆ Protection conforms to IP54 Level.
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-150mm	111-261	0.01mm	±0.02mm	236	40	21	16.5	16
0-200mm	111-262	0.01mm	±0.03mm	286	50	24	19.5	16
0-300mm	111-263	0.01mm	±0.04mm	400	60	25	20.5	17

数显卡尺 / Digital Calipers



合金量面
Carbide-tipped measuring faces

主要特点

- ◆ 内测量精度可按德标
- ◆ 任意位置清零
- ◆ 可数据输出
- ◆ 可选合金测量面，坚固耐磨，使用寿命长

Features

- ◆ The internal jaws measurement accuracy can accord with DIN862.
- ◆ Zero-setting at any position.
- ◆ Data output.
- ◆ Available with carbide-tipped measuring faces to improve the durability and working life.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(金属罩壳) Order No.(Metal Casing)	货号(合金量面) Order No.(Carbide Type)	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-75 mm	111-075	—	—	0.01mm	±0.02mm	145	30.5	17	12.5	13
0-100mm	111-100	—	—	0.01mm	±0.02mm	170	30.5	17	12.5	13
0-150mm	111-101	111-101G	111-251	0.01mm	±0.02mm	236	40	21	16.5	16
0-200mm	111-102	111-102G	111-252	0.01mm	±0.03mm	286	50	24	19.5	16
0-300mm	111-103	111-103G	111-253	0.01mm	±0.04mm	400	60	25	20.5	17

机械防护数显卡尺 / Protective Digital Calipers



主要特点

- 通过支架隔离尺身正面，防止手掌上的汗、切削液等传到尺身正面上，从而避免数显卡尺因电解质的屏蔽作用而失效（汗和切削液中含的盐、碱是电解质）

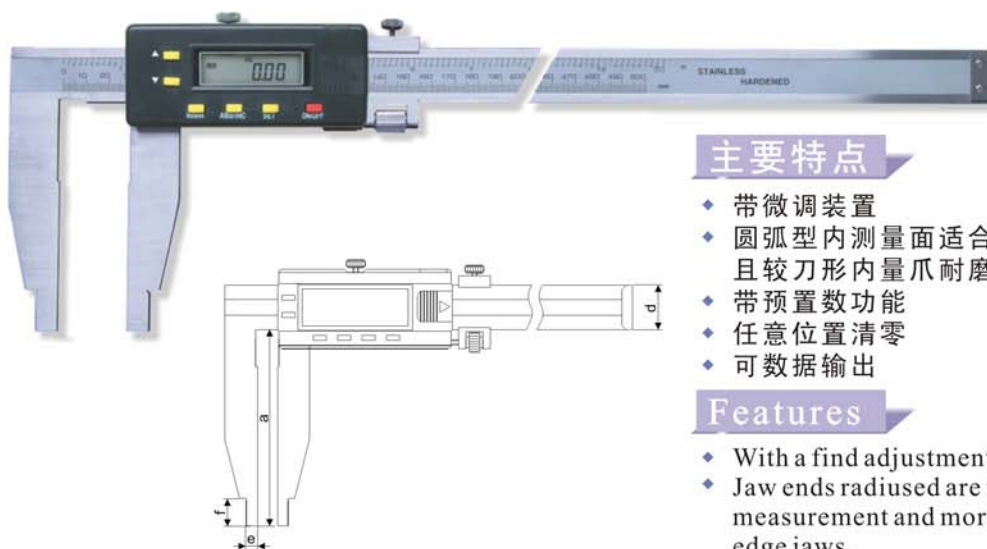
Features

- The protective device can prevent sweat, coolant, etc. from dropping to the front main scale. Sweat and coolant have Electrolyte which can shield the sliding sensor and cause reading error.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	111-291	0.01mm	±0.02mm
0-200mm	111-292	0.01mm	±0.03mm
0-300mm	111-293	0.01mm	±0.04mm

单向爪数显卡尺 / Digital Calipers without upper jaws (Type D)



主要特点

- 带微调装置
- 圆弧型内测量面适合于精确的内测量，且较刀形内量爪耐磨损
- 带预置数功能
- 任意位置清零
- 可数据输出

Features

- With a find adjustment.
- Jaw ends radiused are fit for accurate inside measurement and more durable than the knife edge jaws.
- With presetting function.
- Zero-setting at any position.
- Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	a	d	e	f	备注 Remarks
0-500mm	111-705	0.01mm	±0.04mm	100	24	10	18	测孔径 ID range: 20-500
0-600mm	111-706	0.01mm	±0.04mm	100	24	10	24	测孔径 ID range: 20-600
0-800mm	111-708	0.01mm	±0.05mm	125	31	10	24	测孔径 ID range: 20-800
0-1000mm	111-710	0.01mm	±0.05mm	125	42	10	24	测孔径 ID range: 20-1000
0-1500mm	111-715	0.01mm	±0.08mm	150	42	10	24	测孔径 ID range: 20-1500

注：特殊定货，爪长不受限制

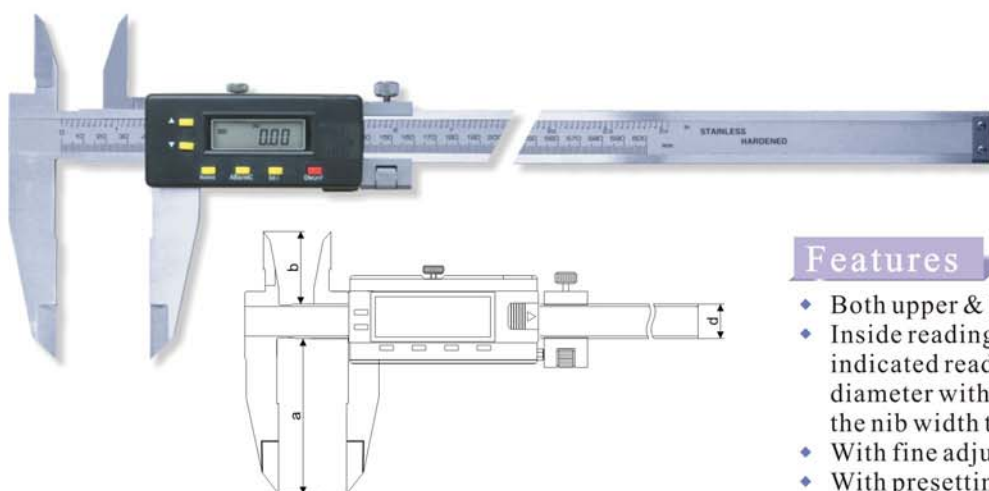
Note: The jaw length can be extended by special order.

Anyi

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双刀爪数显卡尺 / Digital Calipers with Knife-edge Jaws (Type B)



主要特点

- ◆ 上下量爪均为刀形
- ◆ 用上爪进行内测量时可直接读数，不需加上爪的宽度
- ◆ 带预置数功能
- ◆ 任意位置清零
- ◆ 可数据输出

Features

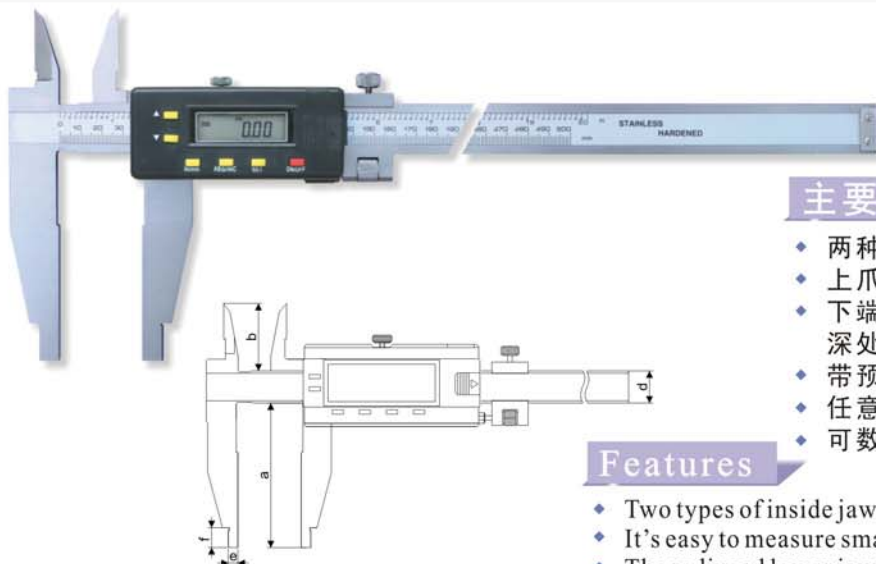
- ◆ Both upper & lower jaws are knife-edge.
- ◆ Inside readings can be read directly from the indicated reading when measuring the inside diameter with upper jaws, do not need to add the nib width to the indicated reading.
- ◆ With fine adjustment, but without depth bar.
- ◆ With presetting function.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	a	b	d
0-500mm	111-405	0.01mm	±0.05mm	100	45	24
0-600mm	111-406	0.01mm	±0.06mm	100	45	24
0-800mm	111-408	0.01mm	±0.07mm	125	45	24
0-1000mm	111-410	0.01mm	±0.07mm	125	60	31

注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

双内爪数显卡尺 / Digital Calipers with Two Types of I.D Jaws (Type E)



主要特点

- ◆ 两种形状的内测量面适合于精确的内测量
- ◆ 上爪尖小，易测小孔
- ◆ 下端弧形内爪，测孔径耐磨损，还可测较深处内腔尺寸
- ◆ 带预置数功能
- ◆ 任意位置清零
- ◆ 可数据输出

Features

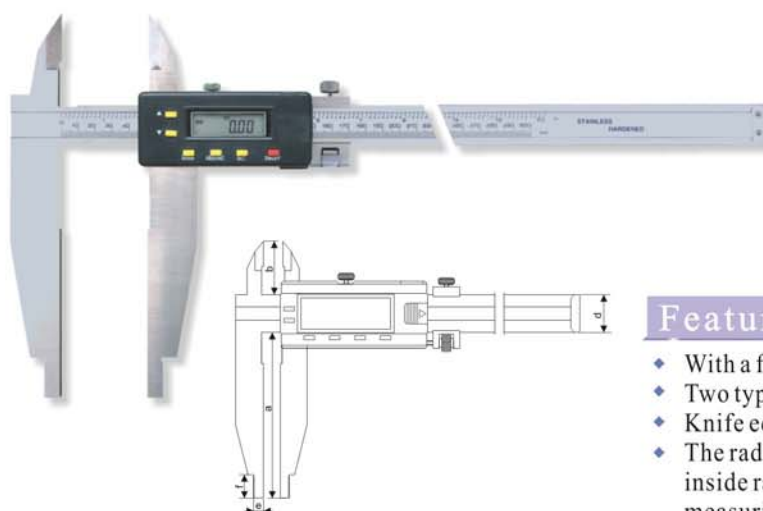
- ◆ Two types of inside jaws are fit for accurate inside measurement.
- ◆ It's easy to measure small holes with its sharp and thin upper jaws.
- ◆ The radiused lower jaws are wear resistant and fit for inside diameter of hole and deeper inside diameter.
- ◆ With presetting function.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	a	b	d	e	f	备注 Remarks
0-500mm	111-605	0.01mm	±0.05mm	100	45	24	10	18	测孔径 ID range: 20-500
0-600mm	111-606	0.01mm	±0.06mm	100	45	24	10	18	测孔径 ID range: 20-600
0-800mm	111-608	0.01mm	±0.07mm	125	45	24	10	24	测孔径 ID range: 20-800
0-1000mm	111-610	0.01mm	±0.07mm	125	60	31	10	24	测孔径 ID range: 20-1000

注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

双外爪数显卡尺 / Digital Calipers with Two Types of O.D Jaws (Type C)



主要特点

- ◆ 两种形状的外测量面适合于精确的外测量
- ◆ 上爪尖刃形，可在工件上直接划线。
- ◆ 下爪端头弧形量面，可测孔径等内腔尺寸，圆弧形内测量面较刀形内爪耐磨损
- ◆ 带预置数功能
- ◆ 任意位置清零
- ◆ 可数据输出

Features

- ◆ With a fine adjustment.
- ◆ Two types of outside jaws are fit for accurate outside measurement.
- ◆ Knife edge and sharp upper jaws can scribe directly on the workpiece.
- ◆ The radiused lower jaws can measure the inside diameter of hole. The inside radiused measuring faces are more wear resistant than knife edge measuring faces.
- ◆ With presetting function.
- ◆ Zero-setting at any position.
- ◆ Data output.

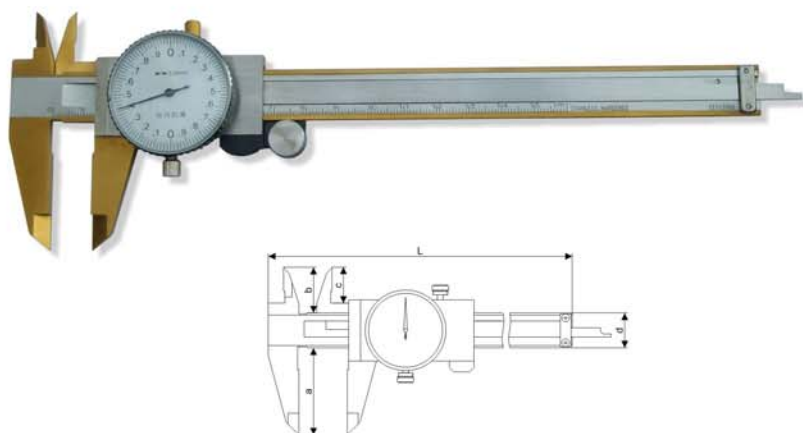
性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	a	b	d	e	f	备注 Remarks
0-500mm	111-305	0.01mm	±0.05mm	100	45	24	10	18	测孔径 ID range: 20-500
0-600mm	111-306	0.01mm	±0.06mm	100	45	24	10	18	测孔径 ID range: 20-600
0-800mm	111-308	0.01mm	±0.07mm	125	45	24	10	24	测孔径 ID range: 20-800
0-1000mm	111-310	0.01mm	±0.07mm	125	60	31	10	24	测孔径 ID range: 20-1000

注：特殊定货，爪长不受限制

Note: The jaw length can be extended by special order.

镀钛带表卡尺 / Titanium Coated Dial Calipers



主要特点

- ◆ 硬质涂层，明显提高卡尺耐磨性，延长使用寿命
- ◆ 防震性较好，不容易偏针、跑针
- ◆ 读数清晰、直观
- ◆ 可测量外径、内径、深度和台阶

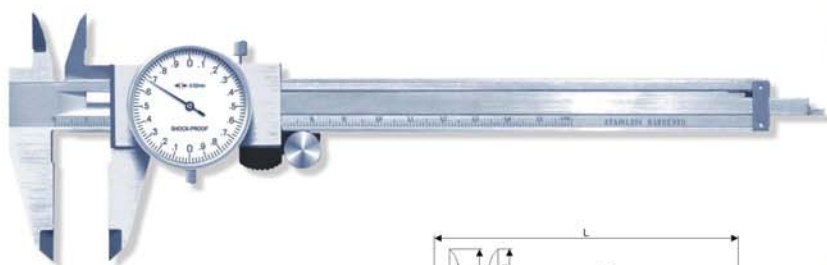
Features

- ◆ TiAlN or TiN coating to improve greatly durability and working life.
- ◆ Good shockproof.
- ◆ Clear and direct reading.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), depth and steps.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	表盘读数 分度值 Graduation	Dial Reading 示值/周 Range/rev.	极限误差 Limit Error	L	a	b	c	d
0-150mm	171-101T	0.02mm	2mm	±0.02mm	236	40	21	16.5	16

带表卡尺 / Dial Calipers



合金量面
Carbide-tipped measuring faces

主要特点

- ◆ 防震性较好，不容易偏针、跑针
- ◆ 读数清晰、直观
- ◆ 可测量外径、内径、深度和台阶
- ◆ 可选合金测量面，坚固耐磨，使用寿命长

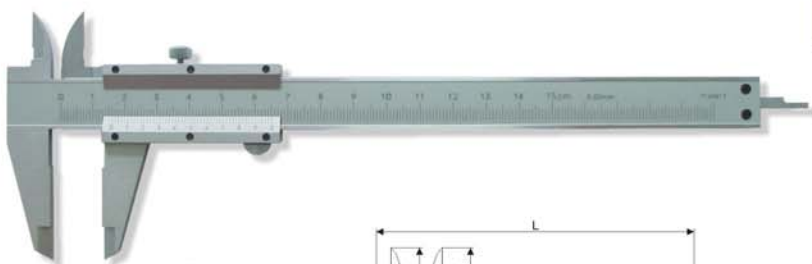
Features

- ◆ Good shockproof.
- ◆ Clear and direct reading.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), depth and steps.
- ◆ Available with carbide-tipped measuring faces to improve the durability and working life.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(合金量面) Order No.(Carbide Type)	表盘读数	Dial Reading	极限误差 Limit Error	L	a	b	c	d
			分度值 Graduation	示值/周 Range/rev.						
0-150mm	171-101	171-251	0.02mm	2mm	±0.02mm	236	40	21	16.5	16
0-150mm	170-101	-	0.01mm	1mm	±0.02mm	236	40	21	16.5	16
0-200mm	171-102	171-252	0.02mm	2mm	±0.03mm	286	50	24	18.5	16
0-200mm	170-102	-	0.01mm	1mm	±0.03mm	286	50	24	18.5	16
0-300mm	171-103	171-253	0.02mm	2mm	±0.04mm	400	60	25	19.5	17

游标卡尺 / Vernier Calipers



合金量面
Carbide-tipped measuring faces

主要特点

- ◆ 传统量具，经久耐用
- ◆ 可测量外径、内径、深度和台阶
- ◆ 可选开式结构、闭式结构
- ◆ 可选硬质合金(钨钢)量面，耐磨损，使用寿命长，用于测量硬度高的物件

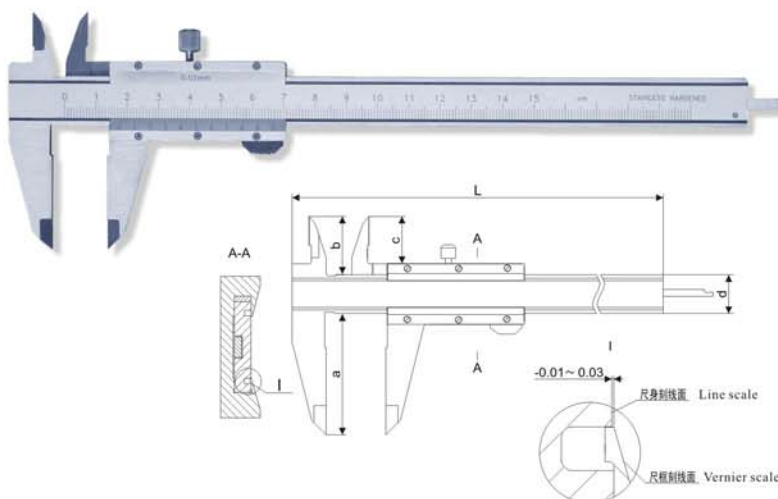
Features

- ◆ Traditional measuring tool with good durability.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), depth and steps.
- ◆ Available with open and close type.
- ◆ Available with carbide-tipped measuring faces for measuring harden workpieces.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	货号(合金量面) Order No.(Carbide Type)	游标读数	极限误差 Limit Error	L	a	b	e	d
				游标读数值 Vernier Reading						
0-100mm	141-100	141-110	141-250	0.02mm	±0.02mm	160	30	19	15	13
0-150mm	141-101	141-111	141-251	0.02mm	±0.02mm	236	40	21	16.5	16
0-200mm	141-102	141-112	141-252	0.02mm	±0.03mm	286	50	24	19.5	16
0-300mm	141-103	141-113	141-253	0.02mm	±0.04mm	400	60	25	20.5	17

斜面无视差游标卡尺 / Parallax-free Plane Vernier Calipers



主要特点

- ◆ 尺身两侧的黑色直线凹槽使尺身刻线笔直，且使游标刻线与尺身刻线齐平，消除视差
- ◆ 测量外径、内径、深度和台阶

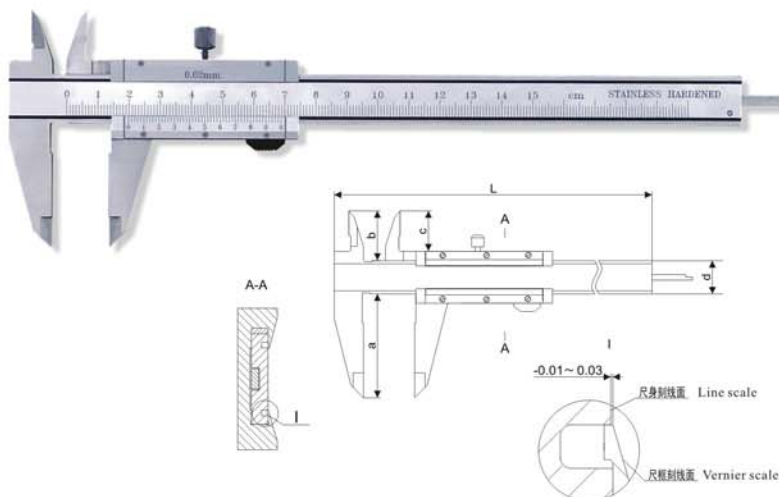
Features

- ◆ The jet black straight grooves on both sides of the master bar allow for positive alignment of graduations and flush fitting of the vernier scales to the main scale, which eliminates parallax.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), depth and steps

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	L	a	b	c	d
0-150mm	140-101W	140-111W	0.02mm	±0.02mm	236	40	21	16.5	16
0-200mm	140-102W	140-112W	0.02mm	±0.03mm	286	50	24	19.5	16
0-300mm	140-103W	140-113W	0.02mm	±0.04mm	400	60	25	20.5	17

闭式可调游标卡尺 / Master Vernier Calipers



主要特点

- ◆ 闭式可调游标卡尺融合了开式游标和闭式游标各自的优点，同时避免了开式游标卡尺和闭式游标卡尺的缺点，因为它的游标前后部是闭式的，而中间是开式
- ◆ 尺身两侧的黑色直线凹槽使尺身刻线笔直，且使游标刻线与尺身刻线齐平，消除视差
- ◆ 测量外径、内径、深度和台阶

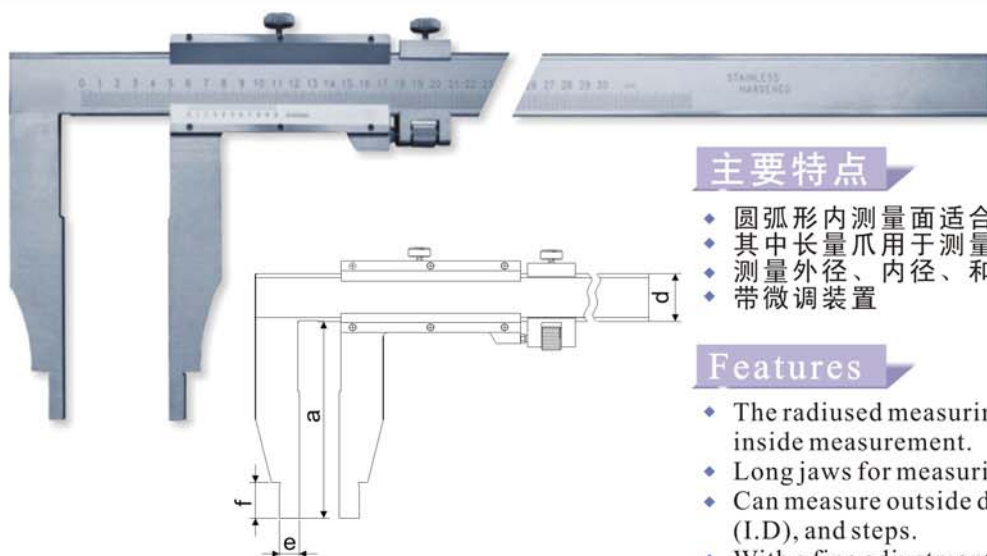
Features

- ◆ Master vernier caliper has the virtues of both screwed vernier caliper and monoblock vernier caliper, but without their shortcomings, because the left part and right part of its verniers are unmovable monoblock, but the middle part of its vernier is screwed vernier.
- ◆ The jet black straight grooves on both sides of the master bar allow for positive alignment of graduations and flush fitting of the vernier scales to the main scale, which eliminates parallax.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), depth and steps

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	游标读数 Vernier Reading	极限误差 Limit Error	L	a	b	c	d
0-150mm	140-101	0.02mm	±0.02mm	236	40	21	16.5	16
0-200mm	140-102	0.02mm	±0.03mm	286	50	24	19.5	16
0-300mm	140-103	0.02mm	±0.04mm	400	60	25	20.5	17

单向爪游标卡尺 / Vernier Calipers without Upper Jaws (Type D)



主要特点

- ◆ 圆弧形内测量面适合于精确的内测量
- ◆ 其中长量爪用于测量通常情况难以达到的位置
- ◆ 测量外径、内径、和台阶
- ◆ 带微调装置

Features

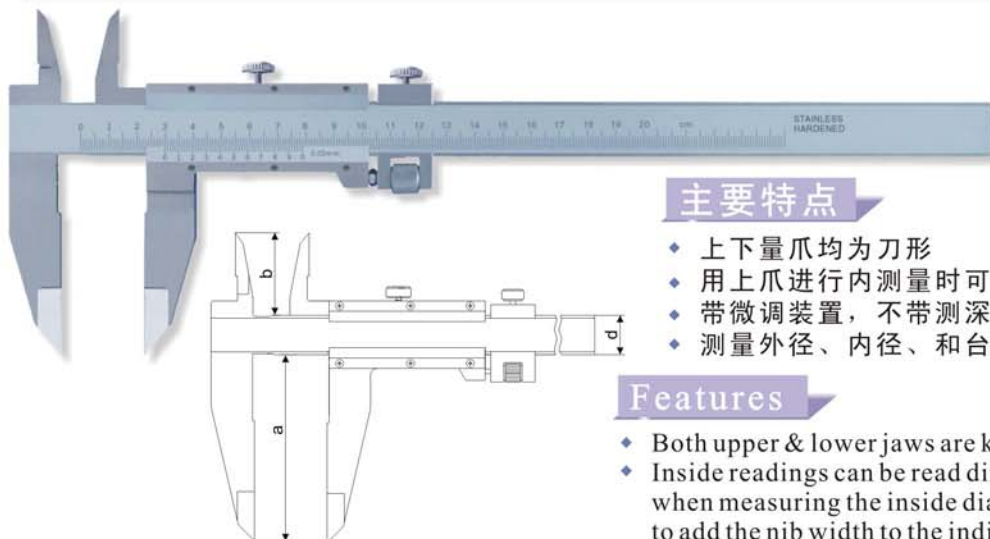
- ◆ The radiused measuring faces are fit for accurate inside measurement.
- ◆ Long jaws for measuring hard-to-reach portions.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), and steps.
- ◆ With a fine adjustment.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	a	d	e	f
0-500mm	141-705	141-745	0.02mm	±0.04mm	100	24	10	18
0-600mm	141-706	141-746	0.02mm	±0.04mm	100	24	10	18
0-800mm	141-708	141-748	0.02mm	±0.05mm	125	31	10	24
0-1000mm	141-710	141-750	0.02mm	±0.05mm	125	31	10	24
0-1500mm	141-715	141-755	0.02mm	±0.08mm	150	31	10	24

注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

双刀爪游标卡尺 / Vernier Calipers with Knife-edge Jaws (Type B)



主要特点

- ◆ 上下量爪均为刀形
- ◆ 用上爪进行内测量时可直接读数，不需加上爪的宽度。
- ◆ 带微调装置，不带测深杆。
- ◆ 测量外径、内径、和台阶

Features

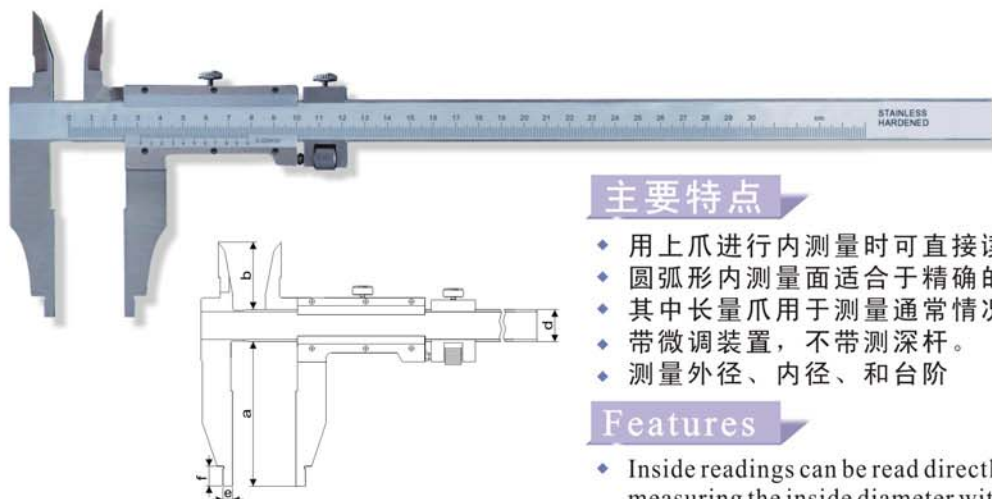
- ◆ Both upper & lower jaws are knife edge.
- ◆ Inside readings can be read directly from the indicated reading when measuring the inside diameter with upper jaws, do not need to add the nib width to the indicated reading.
- ◆ With fine adjustment, but without depth bar.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), and steps.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	a	b	d
0-500mm	141-455	141-485	0.02mm	±0.05mm	100	45	24
0-600mm	141-456	141-486	0.02mm	±0.05mm	100	45	24
0-800mm	141-458	141-488	0.02mm	±0.07mm	125	60	31
0-1000mm	141-460	141-490	0.02mm	±0.07mm	125	60	31

注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

双内爪游标卡尺 / Vernier Calipers with Two Types of I.D Jaws (Type E)



主要特点

- ◆ 用上爪进行内测量时可直接读数，不需加上爪的宽度
- ◆ 圆弧形内测量面适合于精确的内测量
- ◆ 其中长量爪用于测量通常情况难以达到的位置
- ◆ 带微调装置，不带测深杆。
- ◆ 测量外径、内径、和台阶

Features

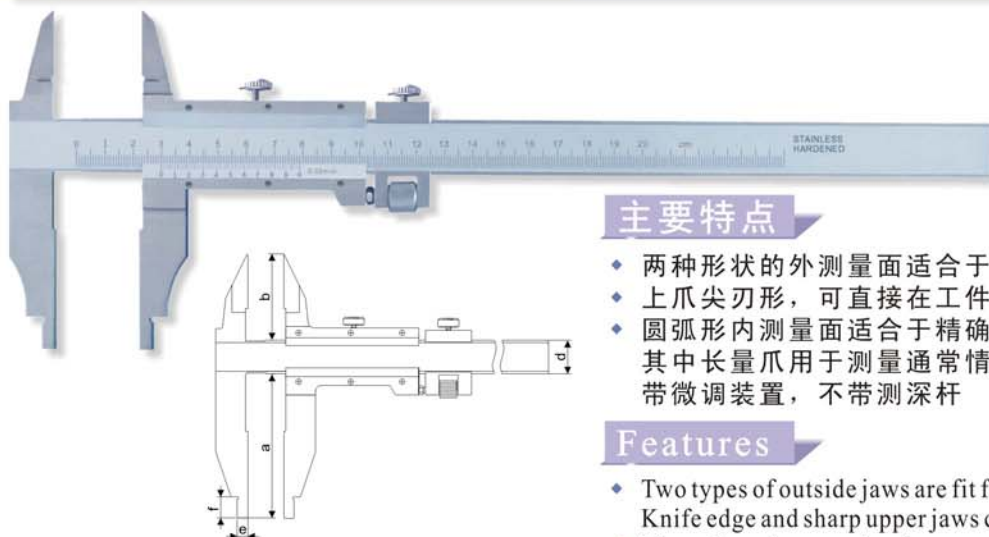
- ◆ Inside readings can be read directly from the indicated reading when measuring the inside diameter with upper jaws, do not need to add the nib width to the indicated reading.
- ◆ The radiused measuring faces are fit for accurate inside measurement.
- ◆ Long jaws for measuring hard-to-reach portions.
- ◆ With fine adjustment, but without depth bar.
- ◆ Can measure outside diameter (O.D), inside diameter (I.D), and steps.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	a	b	c	e	f
0-500mm	141-565	141-585	0.02mm	±0.05mm	100	60	31	10	24
0-600mm	141-566	141-586	0.02mm	±0.05mm	100	45	24	10	18
0-800mm	141-568	141-588	0.02mm	±0.07mm	125	45	24	10	18
0-1000mm	141-570	141-590	0.02mm	±0.07mm	125	60	31	10	24

注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

双外爪游标卡尺 / Vernier Calipers With Two Types of O.D Jaws (Type C)



主要特点

- ◆ 两种形状的外测量面适合于精确的外测量
- ◆ 上爪尖刃形，可直接在工件上划线
- ◆ 圆弧形内测量面适合于精确的内测量
- ◆ 其中长量爪用于测量通常情况难以达到的位置
- ◆ 带微调装置，不带测深杆

Features

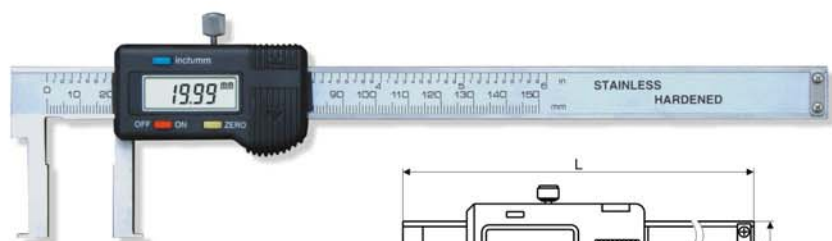
- ◆ Two types of outside jaws are fit for accurate outside measurement. Knife edge and sharp upper jaws can scribe directly on the workpiece.
- ◆ The radiused measuring faces are fit for accurate inside measurement.
- ◆ Long jaws for measuring hard-to-reach portions. With fine adjustment, but without depth bar.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Tpe)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	a	b	c	e	f
0-500mm	141-605	141-645	0.02mm	±0.05mm	100	56	24	10	18
0-600mm	141-606	141-646	0.02mm	±0.05mm	100	56	24	10	18
0-800mm	141-608	141-648	0.02mm	±0.07mm	125	67	31	10	24
0-1000mm	141-610	141-650	0.02mm	±0.07mm	125	67	31	10	24

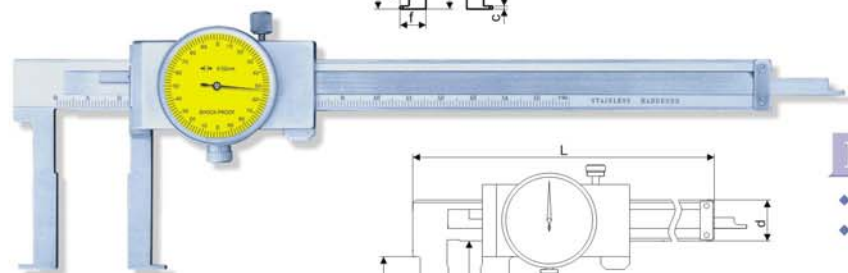
注：特殊定货，爪长不受限制 Note: The jaw length can be extended by special order.

扁头内槽卡尺 / Inside Groove Calipers with Flat Points



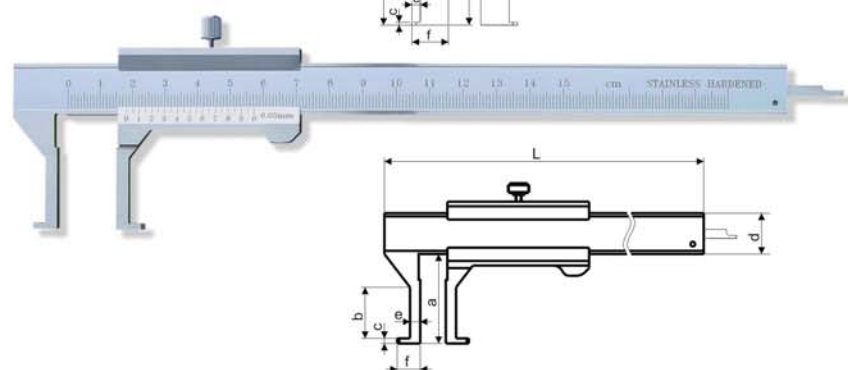
主要特点

- ◆ 可测量孔内较窄沟槽的尺寸
- ◆ 可选用带预置数的电子组件，使测量更方便，而且磨损后不影响测量结果
- ◆ 特殊订货需提供以下参数：
 - 1、孔口直径
 - 2、沟槽至孔口距离
 - 3、沟槽宽度
 - 4、沟槽单边深度
 - 5、槽底形状



Features

- ◆ Can measure narrow grooves in a hole.
- ◆ Electronic components with presetting functions can make measurement convenient and rereset after the measuring faces are worn.
- ◆ Special order requires the following data:
 - 1.The diameter of the hole
 - 2.The distance from the groove to the orifice
 - 3.The width of the groove
 - 4.The depth of each groove
 - 5.The shape of the groove bottom



性能参数 Specifications

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e	f
22-150mm	113-201	0.01mm	±0.04mm	250	36	30	1	16	5	11
35-150mm	113-201-1	0.01mm	±0.05mm	250	66	60	1.5	16	6	17.5
25-200mm	113-202	0.01mm	±0.04mm	310	46	40	1	16	5	12.5
40-200mm	113-202-1	0.01mm	±0.05mm	310	76	70	1.5	16	7	20
30-300mm	113-203	0.01mm	±0.05mm	410	56	50	1.5	17	5	15
50-300mm	113-203-1	0.01mm	±0.06mm	410	86	80	1.5	17	8	25
40-500mm	113-205	0.01mm	±0.06mm	680	100	90	1.5	24	5	20
60-500mm	113-205-1	0.01mm	±0.07mm	680	130	120	2	24	10	30
80-500mm	113-205-2	0.01mm	±0.07mm	680	160	150	3	24	16	40

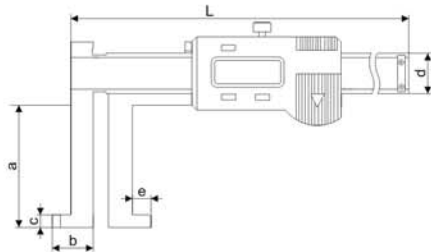
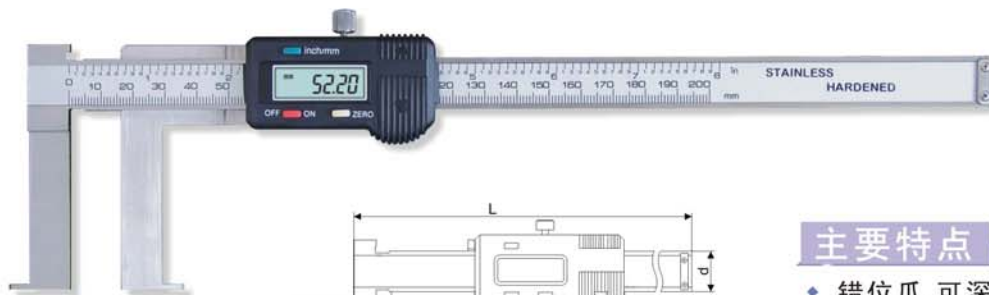
带表 Dial Type

测量范围 Measuring Range	货号 Order No.	表盘读数 分度值 Graduation	Dial Reading 示值/周 Range/rev.	极限误差 Limit Error	L	a	b	c	d	e	f
25-150mm	173-201	0.02mm	2mm	±0.04mm	236	50	44	1.5	16	5	12.5
20-200mm	173-202	0.02mm	2mm	±0.04mm	286	40	34	1.5	16	5	10
25-200mm	173-202-1	0.02mm	2mm	±0.05mm	286	50	44	1.5	16	5	12.5

游标 Vernier Type

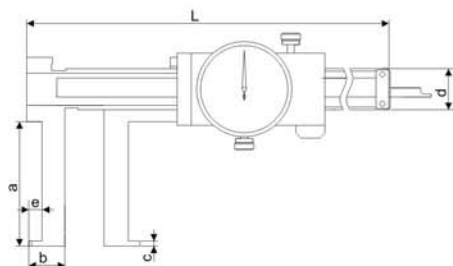
测量范围 Measuring Range	货号 Order No.	游标读数 Vernier Reading	极限误差 Limit Error	尺寸需客户提供 Dimensions provided by customers							
18-150mm	143-201	0.02mm	±0.04mm								

刀头内槽卡尺 / Inside Groove Calipers with Knife Points



主要特点

- ◆ 错位爪, 可深入较小的孔内
- ◆ 可选带预置数的电子组件, 使测量更方便, 而且磨损后不影响测量结果
- ◆ 特殊订货需提供以下参数:
 - 1、孔口直径
 - 2、沟槽至孔口距离
 - 3、沟槽宽度
 - 4、沟槽单边深度
 - 5、槽底形状



Features

- ◆ Cross-interaction Jaws achieve to a small inside hole.
- ◆ Electronic components with presetting functions can make measurement convenient and represet after the measuring faces are worn.
- ◆ Special order requires the following data:
 1. The diameter of the hole
 2. The distance from the groove to the orifice
 3. The width of the groove
 4. The depth of each groove
 5. The shape of the groove bottom

性能参数 Specifications

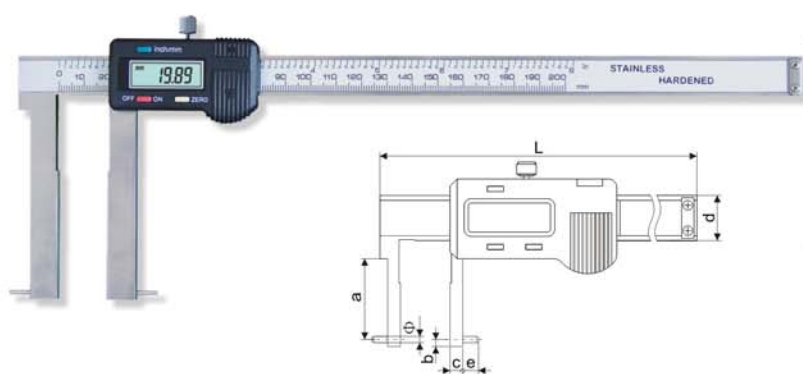
数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e
14-150mm	113-101	0.01mm	±0.03mm	236	30	12	1	16	5
19-150mm	113-101-1	0.01mm	±0.05mm	236	60	17	2	16	6
25-150mm	113-101-2	0.01mm	±0.05mm	291	90	23	3	20	8
15-200mm	113-102	0.01mm	±0.04mm	290	40	13	1	16	5
23-200mm	113-102-1	0.01mm	±0.05mm	290	70	20	2	16	7
29-200mm	113-102-2	0.01mm	±0.05mm	347	100	27	3	20	10
17-300mm	113-103	0.01mm	±0.05mm	400	50	15	1.5	17	5
16-300mm	113-103-1	0.01mm	±0.06mm	400	80	24	2.5	17	8
33-300mm	113-103-2	0.01mm	±0.06mm	453	110	31	3.5	20	12
25-500mm	113-105	0.01mm	±0.06mm	670	90	23	2	24	6
35-500mm	113-105-1	0.01mm	±0.07mm	670	120	33	3	24	8
47-500mm	113-105-2	0.01mm	±0.07mm	670	150	45	3	24	20

带表 Dial Type

测量范围 Measuring Range	货号 Order No.	表盘读数 分度值 Graduation	Dial Reading 示值/周 Range/rev.	极限误差 Limit Error	尺寸需客户提供 Dimensions provided by customers
16-150mm	173-101	0.02mm	2mm	±0.03mm	

圆柱头内槽卡尺 / Inside Groove Calipers with Round Points



主要特点

- ◆ 测头较长，便于测量孔内较深的沟槽尺寸
- ◆ 可选带预置数的电子组件，使测量更方便，而且磨损后不影响测量结果
- ◆ 特殊订货参照左边结构图提供参数

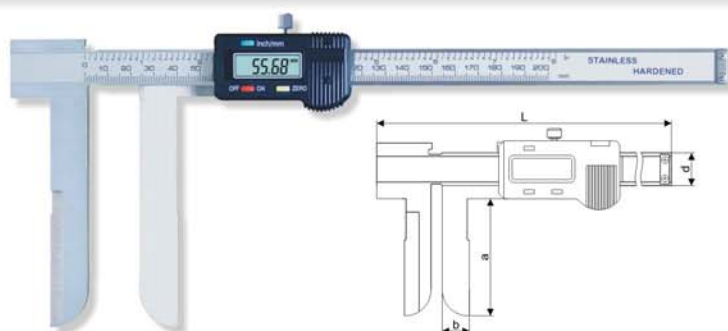
Features

- ◆ The quite long round anvils make a convenient measurement for the small inside hole.
- ◆ Electronic components with presetting functions can make measurement convenient and reset after the measuring faces are worn.
- ◆ The parameters of special order refer to the Inside Groove Calipers with Knife Points on the left.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e	φ
24-150mm	113-301	0.01mm	±0.04mm	250	30	3	7	16	5	2
35-150mm	113-301-1	0.01mm	±0.05mm	250	60	3	11.5	16	6	2
50-150mm	113-301-2	0.01mm	±0.05mm	260	90	4	17	20	8	3
25-200mm	113-302	0.01mm	±0.04mm	310	40	3	7.5	16	5	2
40-200mm	113-302-1	0.01mm	±0.05mm	310	70	3	13	16	7	3
60-200mm	113-302-2	0.01mm	±0.05mm	310	100	3	20	20	10	3
30-300mm	113-303	0.01mm	±0.05mm	410	50	3	10	16	5	2
50-300mm	113-303-1	0.01mm	±0.06mm	410	80	3	17	16	8	3
60-300mm	113-303-2	0.01mm	±0.06mm	410	110	3	20	20	10	3
40-500mm	113-305	0.01mm	±0.06mm	680	90	3	15	24	5	3
60-500mm	113-305-1	0.01mm	±0.07mm	680	120	3	20	24	10	3
80-500mm	113-305-2	0.01mm	±0.07mm	680	150	3	24	24	16	3

长爪内径数显卡尺 / Inside Knife-Edge Digital Calipers



主要特点

- ◆ 可测量较深内孔直径
- ◆ 任意位置清零
- ◆ 可数据输出

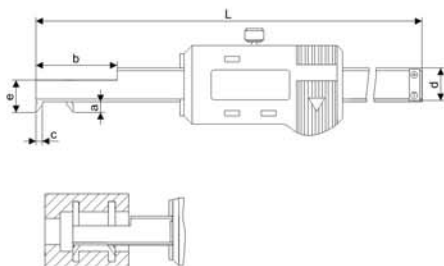
Features

- ◆ Facilitate the measurement of the inside diameter of a deeper hole.
- ◆ Zero-setting at any position.
- ◆ Data output

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	d
15-150mm	113-501	0.01mm	±0.03mm	250	60	12	16
20-150mm	113-501-1	0.01mm	±0.04mm	250	90	14	16
25-150mm	113-501-2	0.01mm	±0.05mm	250	150	17	24
18-200mm	113-502	0.01mm	±0.05mm	305	75	14	16
22-200mm	113-502-1	0.01mm	±0.06mm	305	100	17	16
25-200mm	113-502-2	0.01mm	±0.07mm	305	150	17	24
20-300mm	113-503	0.01mm	±0.05mm	410	90	14	16
22-300mm	113-503-1	0.01mm	±0.06mm	410	120	17	24
25-300mm	113-503-2	0.01mm	±0.07mm	410	150	17	24
22-500mm	113-505	0.01mm	±0.07mm	700	100	22	25
25-500mm	113-505-1	0.01mm	±0.08mm	700	150	22	25

内槽宽数显卡尺 / Groove Width Digital Calipers



主要特点

- ◆ 测量内沟槽宽和沟槽位置
- ◆ 任意位置清零
- ◆ 可数据输出

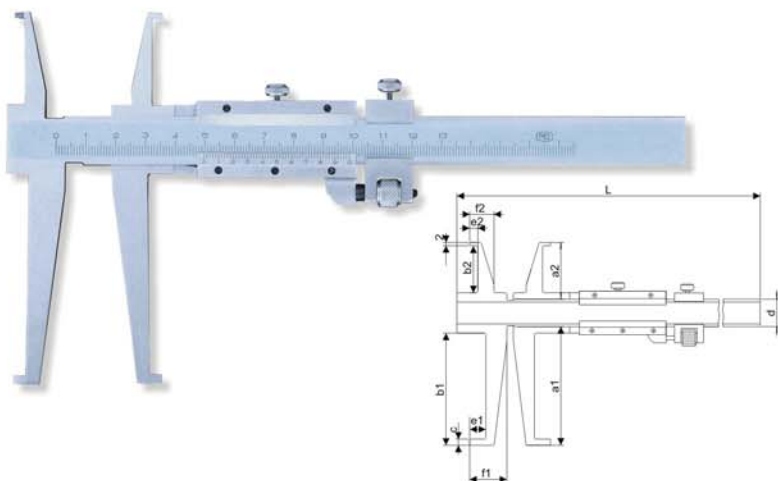
Features

- ◆ Measure the width of inside groove and position of a groove.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e
3-150mm	113-401	0.01mm	±0.03mm	235	4	24	3	16	12
3-200mm	113-402	0.01mm	±0.03mm	310	4	24	3	16	12
4-300mm	113-403	0.01mm	±0.04mm	466	5	86	4	17	14

刀头双内沟游标卡尺 / Knife-Point Inside Groove Vernier Calipers



主要特点

- ◆ 测头较薄，便于测量孔内较窄沟槽尺寸

Features

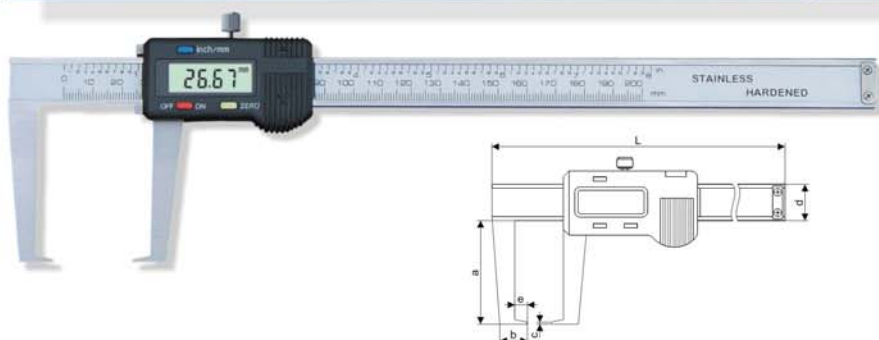
- ◆ Thin anvils are convenient to measure the narrow and hard-to-reach inside grooves.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	游标读数 Vernier Reading	极限误差 Limit Error
15-125mm	143-200A	0.02mm	±0.04mm
18-150mm	143-202A	0.02mm	±0.04mm

测量范围 Measuring Range	L	a1	a2	b1	b2	c	d	e1	e2	f1	f2
15-125mm	230	73.5	35.2	70.5	31.5	2.9	16	5	4	17	11
18-150mm	258	73.5	35.2	69.5	31.2	3.8	17	10	5	23	15

扁头外槽卡尺 / Outside Groove Calipers with Flat Points



主要特点

- ◆ 测量工件外部凹槽尺寸及型腔壁厚
- ◆ 任意位置清零
- ◆ 可数据输出

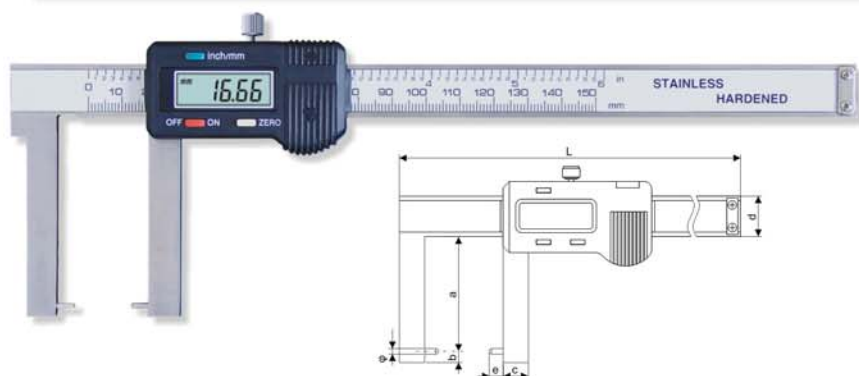
Features

- ◆ Measure the external groove and tube wall thickness.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e
0-150mm	112-101	0.01mm	±0.03mm	250	40	15	1	16	5
	112-101-1	0.01mm	±0.04mm	250	70	20	2	16	7
	112-101-2	0.01mm	±0.04mm	290	100	30	2	20	10
0-200mm	112-102	0.01mm	±0.04mm	310	50	19	1	16	7
	112-102-1	0.01mm	±0.04mm	310	80	23	1.5	16	9
	112-102-2	0.01mm	±0.05mm	340	110	34	2	20	12
0-300mm	112-103	0.01mm	±0.04mm	400	60	21	1.5	17	8
	112-103-1	0.01mm	±0.05mm	440	100	30	2	20	10
	112-103-2	0.01mm	±0.05mm	480	150	32	2	24	12
0-500mm	112-105	0.01mm	±0.06mm	690	100	34	2	24	12
	112-105-1	0.01mm	±0.07mm	690	150	36	2	24	12
	112-105-2	0.01mm	±0.08mm	690	200	36	2	24	12

圆柱外槽卡尺 / Outside Groove Calipers with Round Points



主要特点

- ◆ 工件外部凹槽尺寸及型腔壁厚
- ◆ 任意位置清零
- ◆ 可数据输出

Features

- ◆ Can measure the diameter of the outside groove or the tube wall thickness.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e	φ
0-150mm	112-111	0.01mm	±0.03mm	250	40	3	10	16	5	2
	112-111-1	0.01mm	±0.04mm	250	70	3	10	16	5	2
	112-111-2	0.01mm	±0.05mm	290	100	3	20	20	10	3
0-200mm	112-112	0.01mm	±0.04mm	300	50	3	12	16	8	2.5
	112-112-1	0.01mm	±0.04mm	300	80	3	12	16	8	2.5
	112-112-2	0.01mm	±0.05mm	340	110	3	22	20	12	3
0-300mm	112-113	0.01mm	±0.04mm	410	80	3	14	17	10	2.5
	112-113-1	0.01mm	±0.05mm	440	100	3	20	20	10	3
	112-113-2	0.01mm	±0.05mm	480	150	3	20	24	12	3
0-500mm	112-115	0.01mm	±0.06mm	680	100	3	20	24	12	3
	112-115-1	0.01mm	±0.07mm	680	150	3	20	24	12	3
	112-115-2	0.01mm	±0.08mm	680	200	3	20	24	12	3

细尖爪卡尺 / Pointed Jaw Calipers



主要特点

- ◆ 测量窄小空间的局部尺寸
- ◆ 内测量精度可按德标

Features

- ◆ Easy to measure the very narrow or small outside grooves or small holes.
- ◆ The measurement accuracy of the inside jaws can accord with DIN862.

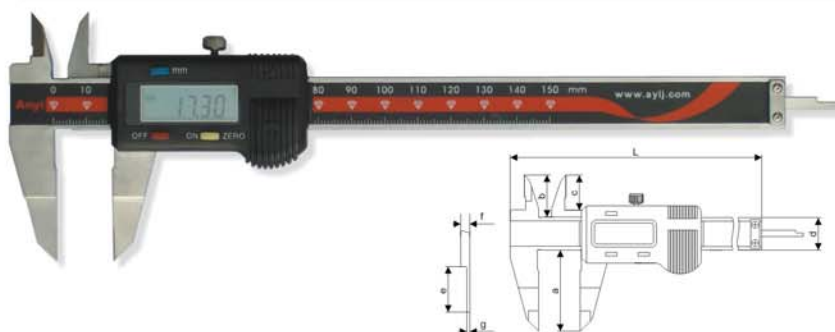
性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	数显 Digital Type				
				L	a	b	c	d
0-100mm	111-200	0.01mm	±0.02mm	170	30	17	12	13
0-150mm	111-201	0.01mm	±0.03mm	236	40	21	16	16
0-200mm	111-202	0.01mm	±0.03mm	286	50	24	19	16
0-300mm	111-203	0.01mm	±0.04mm	400	60	25	20	17

游标 Vernier Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-150mm	141-201	0.02mm	±0.03mm	236	40	21	16	16
0-200mm	141-202	0.02mm	±0.03mm	286	50	24	19	16
0-300mm	141-203	0.02mm	±0.04mm	400	60	25	20	17

薄片爪卡尺 / Blade Calipers



主要特点

- ◆ 薄片型量爪可以插入非常小的凹槽
- ◆ 内测量精度可按德标

Features

- ◆ Thin jaws as thin as knife blade can easily reach narrow grooves for measurement.
- ◆ The measurement accuracy of the inside jaws can accord with DIN862.

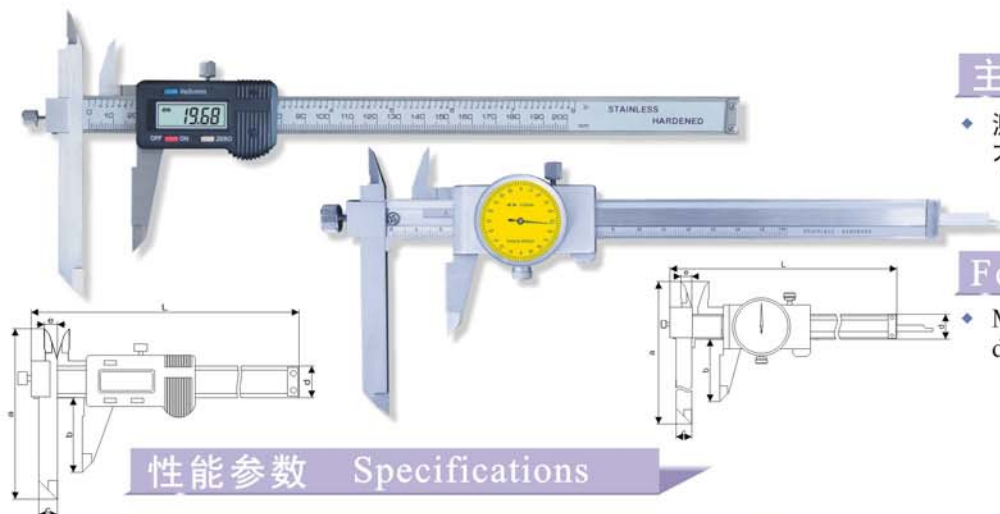
性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	数显 Digital Type						
					a	b	c	d	e	f	g
0-100mm	111-210	0.01mm	±0.02mm	170	30	17	12	13	20	3	0.7
0-150mm	111-211	0.01mm	±0.02mm	236	40	21	16	16	20	3.2	0.7
0-200mm	111-212	0.01mm	±0.03mm	286	50	24	19	16	20	3.6	0.7
0-300mm	111-213	0.01mm	±0.04mm	400	60	25	20	17	20	3.8	1

游标 Vernier Type

测量范围 Measuring Range	货号 Order No.	游标读数 Vernier Reading	极限误差 Limit Error	L	a	b	c	d	e	f	g
0-150mm	141-211	0.02mm	±0.02mm	236	40	21	16	16	20	3.2	0.7
0-200mm	141-212	0.02mm	±0.03mm	286	50	24	19	16	20	3.6	0.7
0-300mm	141-213	0.02mm	±0.04mm	400	60	25	20	17	20	3.8	1

伸缩爪卡尺 / Offset Calipers



主要特点

- 测量爪可上下伸缩移动，可测量不等高平面间的距离

Features

- Main scale jaw can be slid up and down to measure stepped sections.

性能参数 Specifications

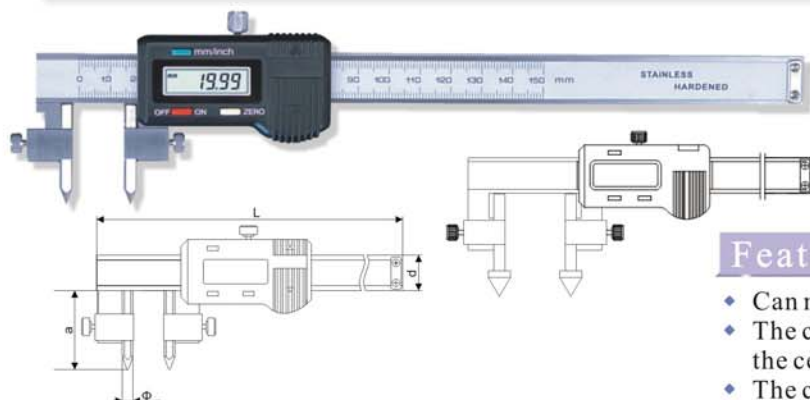
测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d	e
0-150mm	115-101	0.01mm	±0.04mm	239	110	40	10	16	7
0-200mm	115-102	0.01mm	±0.04mm	289	120	50	10	16	7
0-300mm	115-103	0.01mm	±0.05mm	389	130	60	10	16	7
0-500mm	115-105	0.01mm	±0.07mm	685	210	100	22	24	11

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	表盘读数 分度值 Graduation	示值/周 Range/rev.	极限误差 Limit Error	L	a	b	c	d	e
0-150mm	175-101	0.02mm	2mm	±0.04mm	239	110	40	10	16	7
0-200mm	175-102	0.02mm	2mm	±0.04mm	289	120	50	10	16	7

带表 Dial Type

数显中心距卡尺 / Centerline Digital Calipers



主要特点

- 能测量孔与孔中心之间的中心距离
- 测头可上下移动调整，测量位于不同高度的孔的中心距
- 可选带预置数功能，方便测量

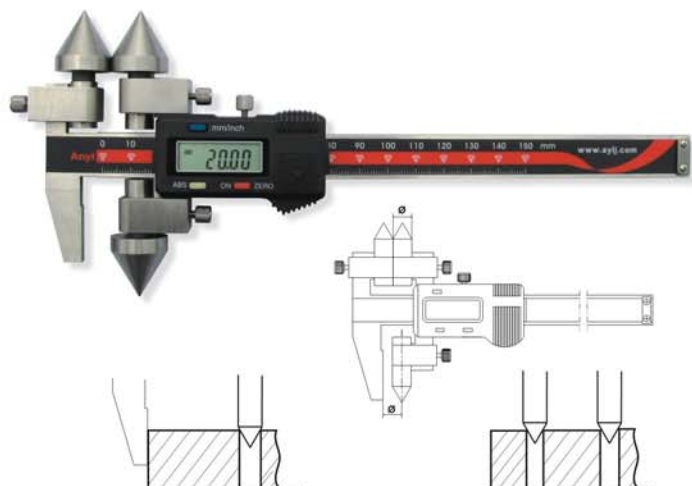
Features

- Can measure the center distance between two holes.
- The conical points can be adjusted up or down to measure the center distance between two holes on different heights.
- The caliper with presetting function for easy measuring is optional.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	d	φ
5-150mm	115-201	0.01mm	±0.03mm	236	35	16	5
10-150mm	115-201-1	0.01mm	±0.03mm	236	40	16	10
5-200mm	115-202	0.01mm	±0.04mm	285	35	16	5
10-200mm	115-202-1	0.01mm	±0.04mm	285	40	16	10
5-300mm	115-203	0.01mm	±0.05mm	385	35	16	5
10-300mm	115-203-1	0.01mm	±0.05mm	385	40	16	10
10-500mm	115-205	0.01mm	±0.06mm	650	50	24	10
20-500mm	115-205-1	0.01mm	±0.06mm	650	60	24	20
10-1000mm	115-210	0.01mm	±0.08mm	1200	50	31	10
20-1000mm	115-210-1	0.01mm	±0.08mm	1200	60	31	20

中心距边心距卡尺 / Apothem and Centerline Digital Calipers



主要特点

- ◆ 可测量孔与孔中心之间的中心距离
- ◆ 可测量面与孔中心之间的中心距离
- ◆ 测头可上下移动调整，测量位于不同高度的孔的中心距
- ◆ 可选带预置数功能，方便测量

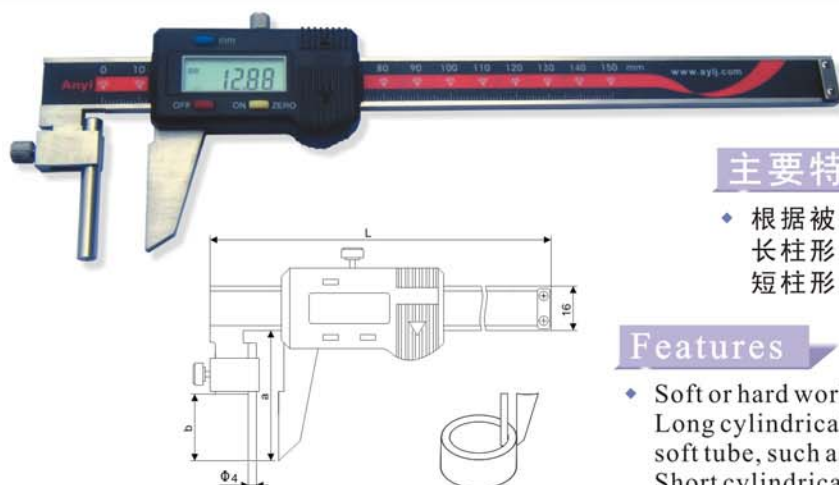
Features

- ◆ Can measure the center distance between two holes.
- ◆ Can measure the distance between edge and center.
- ◆ Centerline contacts can be slid up and down to measure the center distance between stepped holes.
- ◆ The caliper with presetting function for easy measuring is optional.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
5-150mm	115-221	0.01mm	±0.03mm
10-150mm	115-221-1	0.01mm	±0.03mm
20-150mm	115-221-2	0.01mm	±0.03mm
5-200mm	115-222	0.01mm	±0.04mm
10-200mm	115-222-1	0.01mm	±0.04mm
20-200mm	115-222-2	0.01mm	±0.04mm
5-300mm	115-223	0.01mm	±0.05mm
10-300mm	115-223-1	0.01mm	±0.05mm
20-300mm	115-223-2	0.01mm	±0.05mm

管壁厚数显卡尺 / Tube Thickness Digital Calipers



主要特点

- ◆ 根据被测工件材质软硬不同：
长柱形内腔测头可测软管，如塑胶
短柱形内腔测头可测硬管，如金属管或陶瓷管

Features

- ◆ Soft or hard workpieces need different length of contacts:
Long cylindrical contact on the main scale is for measuring soft tube, such as plastic tube.
Short cylindrical contact on the main scale is for measuring hard tube, such as metal tube or ceramic tube.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b
0-150mm	114-101	0.01mm	±0.03mm	250	30	30
0-200mm	114-102	0.01mm	±0.04mm	300	38	40
0-300mm	114-103	0.01mm	±0.04mm	400	48	50

螺纹中径数显卡尺 / Screw Thread Digital Calipers



主要特点

- ◆ 测量内外螺纹作用中径或单中径
- ◆ 针对每种螺距设计，测量中径范围大
- ◆ 可选用硬质合金量面
- ◆ 可选用高精度电子组件
- ◆ 利用校对规，校对后测量精度更高

Features

- ◆ Measure the working and single pitch diameters of internal and external threads.
- ◆ Can design according to each kind of pitch for wide measuring range of pitch diameter.
- ◆ Available with carbide-tipped jaws and the high precision electronic component.
- ◆ Calibrated by master gauge for higher accuracy.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	118-121	0.01mm	±0.03mm
0-200mm	118-122	0.01mm	±0.04mm
0-300mm	118-123	0.01mm	±0.05mm
0-500mm	118-125	0.01mm	±0.06mm
0-600mm	118-126	0.01mm	±0.06mm

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	118-111	0.005mm	±0.020mm
0-200mm	118-112	0.005mm	±0.030mm
0-300mm	118-113	0.005mm	±0.040mm
0-100mm	118-100	0.001mm	±0.007mm
0-150mm	118-101	0.001mm	±0.009mm

宽量面数显卡尺 / Digital Calipers with Broad Measuring Faces



主要特点

- ◆ 加宽量面，多用于测量钢丝绳直径，以确定其安全性
- ◆ 量面硬度高，耐磨损
- ◆ 任意位置清零
- ◆ 可数据输出
- ◆ 量面尺寸可定制

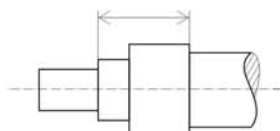
Features

- ◆ Broadened measuring faces are mainly used for measuring the diameter of the wire rope.
- ◆ Hardened measuring faces are wear resistant.
- ◆ Zero-setting at any position.
- ◆ Measuring faces dimension can be customized.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	常规量面尺寸 General Measuring Faces Dimension
0-150mm	112-801	0.01mm	±0.03mm	20×30mm
0-200mm	112-802	0.01mm	±0.04mm	20×30mm
0-300mm	112-803	0.01mm	±0.05mm	20×30mm

旋转爪数显卡尺 / Rotatable Jaw Digital Calipers



主要特点

- ◆ 量爪可以旋转，以便测量阶梯轴

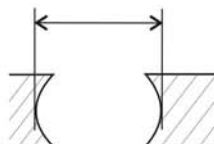
Features

- ◆ Rotate the jaw to easily measure the step shaft and other ends not in a line.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	115-301	0.01mm	±0.04mm
0-200mm	115-302	0.01mm	±0.05mm
0-300mm	115-303	0.01mm	±0.06mm
0-500mm	115-305	0.01mm	±0.08mm

轴承滚道卡尺 / Bearing Raceway Digital Calipers



主要特点

- ◆ 用于轴承行业的测量
- ◆ 测量大型轴承滚道理论中心的直径

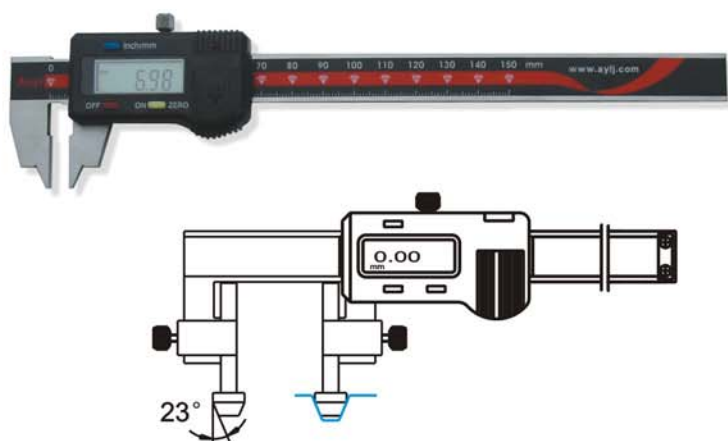
Features

- ◆ Used in the bearing industry.
- ◆ Designed for measuring the diameters of the theoretical center in large scale bearing raceway.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-200mm	118-702	0.01mm	±0.05mm
0-300mm	118-703	0.01mm	±0.06mm
0-500mm	118-705	0.01mm	±0.07mm

V槽径数显卡尺 / RTJ Ring Groove Digital Calipers



主要特点

- ◆ 用于阀门法兰密封槽和管道法兰密封槽的测量
- ◆ 可测量环形槽内外径尺寸
- ◆ 带预置数功能，使校对零位更方便
- ◆ 测量头可选锥形测头，及精密切割形测头
- ◆ 量爪角度：23°

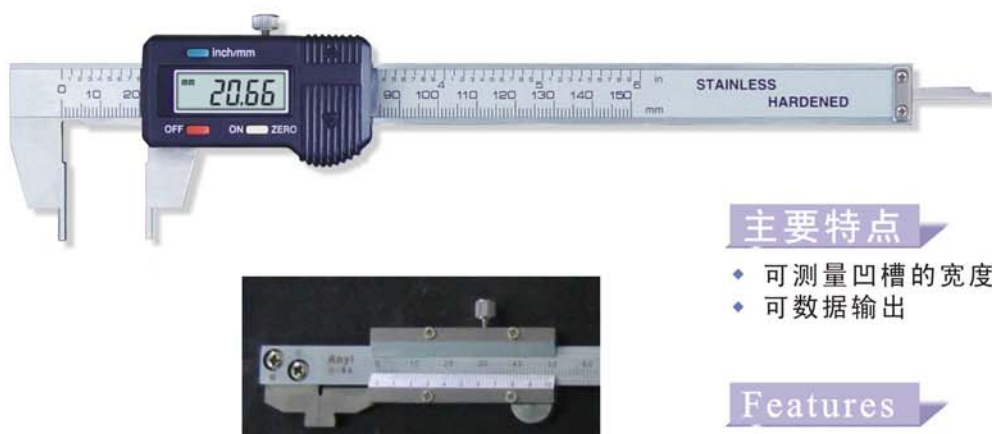
Features

- ◆ Used to measure the ring groove in valve flange and pipe flange.
- ◆ Can measure the outside diameter of the RTJ (Ring Type Joint) ring groove.
- ◆ With presetting function, easy for origin-setting.
- ◆ Available with conical and accurate cutting points.
- ◆ The angle of jaws: 23°

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	118-401	0.01mm	±0.03mm
0-200mm	118-402	0.01mm	±0.04mm
0-300mm	118-403	0.01mm	±0.05mm

钩式数显卡尺 / Hook Type Digital Calipers



主要特点

- ◆ 可测量凹槽的宽度并能够贴于内孔和凹进处
- ◆ 可数据输出

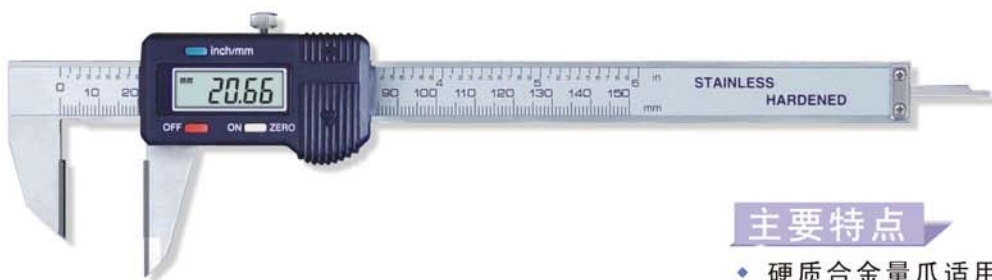
Features

- ◆ Can measure the width of groove and reach the inside wall of holes and concave portions.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limite Error
0-150mm	112-501	0.01mm	±0.03mm
0-200mm	112-502	0.01mm	±0.04mm
0-300mm	112-503	0.01mm	±0.05mm

划线数显卡尺 / Scribing Jaw Digital Calipers



主要特点

- ◆ 硬质合金量爪适用于测量工件上划线
- ◆ 公英制转换
- ◆ 任意位置清零
- ◆ 可数据输出

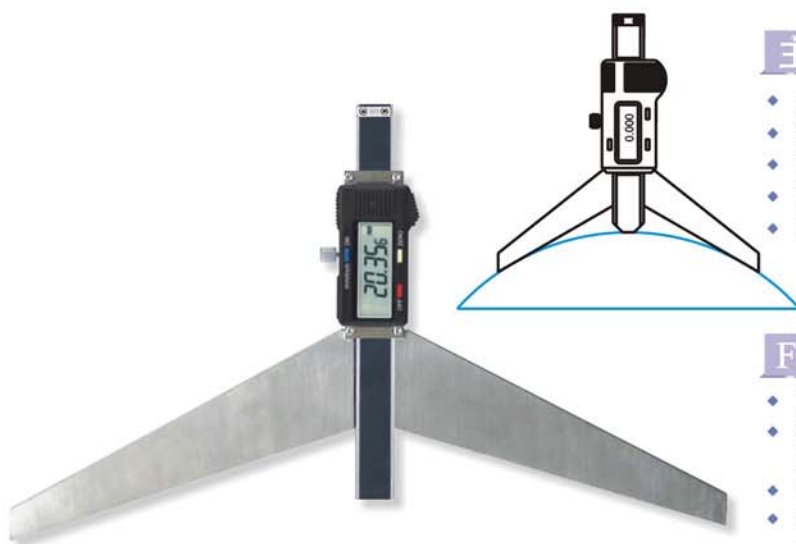
Features

- ◆ Carbide-tipped jaws for scribing.
- ◆ mm/inch conversion.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-150mm	111-221	0.01mm	±0.02mm
0-200mm	111-222	0.01mm	±0.03mm
0-300mm	111-223	0.01mm	±0.04mm

轴径仪 / Large Diameter Digital Gauges



主要特点

- ◆ 用于测量大型精加工的轴类直径
- ◆ 避免传统超长爪卡尺测量的误差
- ◆ 可检测大直径轴的圆柱度
- ◆ 厚度小，使用方便，一人可独立完成操作
- ◆ 高精度电子组件

Features

- ◆ Designed for measuring large accurate shaft diameter.
- ◆ Can greatly reduce the measurement error of conventional caliper with extral long jaws.
- ◆ Can check the cylindricity of large shaft.
- ◆ Suitable thickness and weight, easy for independent operation of one person.
- ◆ High accuracy of electronic components.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
Φ300-1000mm	118-501	0.001mm	±0.07mm
Φ1000-2000mm	118-502	0.001mm	±0.12mm
Φ2000-3000mm	118-503	0.001mm	±0.18mm

三沟(五沟)数显卡尺 / V-Anvil Digital Calipers



主要特点

- ◆ 用于测量奇数沟槽零件的直径，如立铣刀，丝锥、铰刀等 用于测量轴的不圆度
- ◆ 用于测量各种呈圆形阵列布置的零件的直径，如扇叶
- ◆ 用于三叶罗茨风机的直径测量
- ◆ 操作简单，测量工作效率高

Features

- ◆ Designed to measure the diameter of workpiece with odd flutes, such as end mills, taps, reamers and the like.
- ◆ Used to measure shafts for lobe-error (out of roundness)
- ◆ Used to measure the diameter of workpiece formed with circular arrays, such as fan blades.
- ◆ Used to measure the diameter of Roots Blower with 3 blades.
- ◆ Easy to operate with high efficiency.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
3-50mm	118-601	0.01mm	±0.03mm
50-100mm	118-602	0.01mm	±0.03mm
100-150mm	118-603	0.01mm	±0.03mm
150-200mm	118-604	0.01mm	±0.04mm
200-250mm	118-605	0.01mm	±0.04mm
250-300mm	118-606	0.01mm	±0.05mm

数显齿厚卡尺 / Digital Gear Tooth Calipers

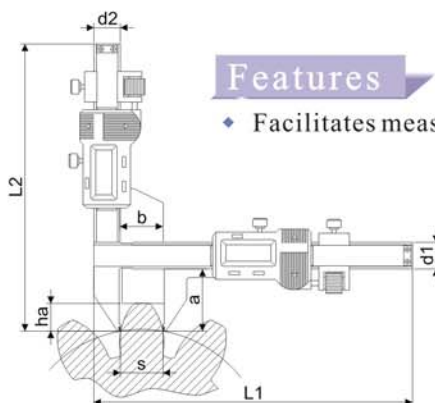


主要特点

- ◆ 测量齿轮齿厚的尺寸

Features

- ◆ Facilitates measurement of gear thickness.



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L1	L2	a	b	d1	d2
m1-25	118-311	0.01mm	±0.03mm	166	166	30.5	21	13	13
m5-50	118-312	0.01mm	±0.03mm	210	185.5	50.5	50.5	13	13

数显卡式千分尺 / Caliper Type Micrometers



常闭型
Close type



常开型
Open type

主要特点

- ◆ 分辨力0.001mm
有类似千分尺的弓形架量爪，从结构上看，像是卡尺和千分尺结合的产物
- ◆ 符合阿贝原理，具有数显微米尺的精确性
尺身与尺框组成直线运动副，具有卡尺测量方便快捷优点，克服了千分尺螺旋高副结构制造和维修难度高的缺点
- ◆ 该弯爪千分数显卡尺比（直爪）千分数显卡尺的测量误差更小

Features

- ◆ High Resolution 0.001mm.
- ◆ It looks like a micrometer, accords with the Abbe's principle. It is the combination of calipers and micrometers. However it is not operating like micrometers, you just operate it in a caliper form, quick, convenient and accurate than those micrometers.
- ◆ This caliper type micrometer has higher accuracy than micron digital calipers.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	119-001	0.001mm	±0.004mm

两点内径数显卡尺 / Two-point Internal Digital Calipers



主要特点

- ◆ 分辨力有0.001mm和0.01mm两种
- ◆ 类似用数显卡尺测量孔径的方式，但采用了可调节位置的双尺框结构，便于在测量孔径时保持尺体平衡，使定位自然准确，避免人为手动干涉
- ◆ 比三点内径千分尺的测量范围大，不仅能可测孔的圆度，还可测孔的锥度（借助垫块），测量的极限误差基本在同一级别上

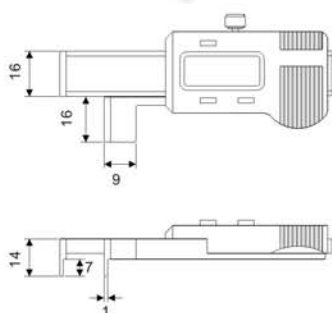
Features

- ◆ Two kinds of resolution: 0.001mm and 0.01mm
- ◆ It is convenient to keep the beam balance while measuring.
- ◆ The positioning is accurate which can avoid the manual interference.
- ◆ With force limit devices, it can avoid the error by manual operation.
- ◆ The measuring range is larger than those three-point internal micrometers.
- ◆ It can measure the diameters; even can measure the cone angle of small hole by the equal sizing blocks.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-100mm	119-031	0.001mm	±0.007mm
100-200mm	119-032	0.001mm	±0.008mm
200-300mm	119-033	0.001mm	±0.009mm

阶缝规 / Gap & Step Gauges



主要特点

- ◆ 多用于汽车外表面相互位置的检验
- ◆ 测量相邻两表面的高低差
- ◆ 测量相邻两表面之间的缝隙宽度
- ◆ 小巧，便于操作
- ◆ 可数据输出

Features

- ◆ Used for checking the mutual position of two adjacent surfaces of vehicles
- ◆ Can measure the gap between two adjacent surfaces.
- ◆ Portable and easy to operate.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-12.7mm	118-901	0.01mm	±0.03mm

附表内径卡尺 / Dial Inside Calipers



主要特点

- ◆ 适用于车间环境(冷却液、水或油)
- ◆ 游标卡尺与表结合, 精度高

Features

- ◆ Used in the workshops and can be exposed to coolant, water or oil.
- ◆ Made up of vernier caliper and dial indicator, this caliper has high accuracy.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
500mm	178-501	0.01mm	±0.04mm
600mm	178-502	0.01mm	±0.04mm

锯齿表 / Dial Saw Kerf Gauges



主要特点

- ◆ 测锯齿的分齿量
- ◆ 底部带磁，便于吸附工件
- ◆ 体积小，便于携带

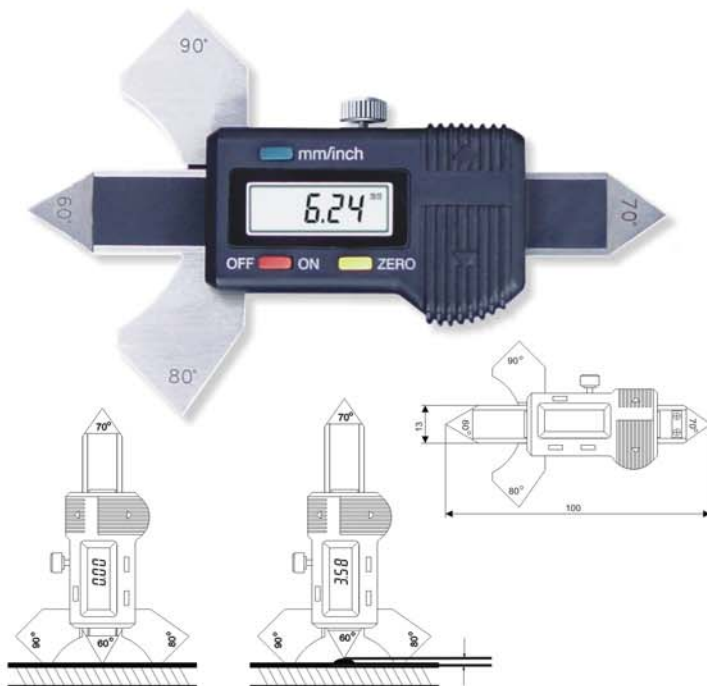
Features

- ◆ To measure the saw kerf of sawtooth.
- ◆ Magnetic disks in the bottom face are easy to absorb on the workpieces.
- ◆ Pocket size, easy to operate.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-2mm	178-601	0.01mm	±0.05mm

数显焊缝规 / Digital Welding Gauges

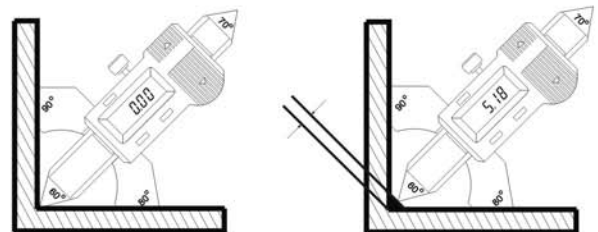


主要特点

- ◆ 广泛应用于各行业(汽车、造船、锅炉)焊接焊缝的检验
- ◆ 测量焊缝的凸起高度，平面凸起或直角凸起
- ◆ 检验坡口的角度（有60°，70°，80°，90°四种对比样板角度）

Features

- ◆ Widely used for checking the weld of various manufacturing industries such as auto industry, shipbuilding industry, boiler industry and the like.
- ◆ Can measure the height of the weld.
- ◆ Can check the angle of the groove (The gauge has four angular templates: 60°, 70°, 80° and 90° are provided).



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-12.5mm	118-201	0.01mm	±0.03mm
0-20mm	118-202	0.01mm	±0.03mm

单宽量面数显卡规 / Digital Snap Gauges



主要特点

- ◆ 轻巧便携, 使用方便, 高效率.
- ◆ 常用于测量较小工件尺寸.
- ◆ 任意位置清零
- ◆ 任意位置测量单位转换

Features

- ◆ Portable, easy to use and efficient.
- ◆ Usually used to measure dimensions of small workpieces.
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-30mm	315-121	0.01mm	±0.03mm
0-30mm	315-111	0.005mm	±0.020mm
0-30mm	315-101	0.001mm	±0.009mm

数显内外卡规 / Digital Inside and Outside Snap Gauges



主要特点

- ◆ 体积小, 重量轻, 便于携带, 单手操作
- ◆ 用于测量内外径尺寸, 容易在狭窄空间使用
- ◆ 任意位置清零
- ◆ 任意位置测量单位转换

Features

- ◆ Light, portable and easy to operate with one single hand.
- ◆ Can measure the inside and outside dimensions and easily reach the part in narrow interspace.
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-30mm	315-221	0.01mm	±0.03mm
0-30mm	315-211	0.005mm	±0.020mm
0-30mm	315-201	0.001mm	±0.009mm

横式数显卡规 / Digital Thickness Gauges(Horizontal Type)



主要特点

- ◆ 体积小, 重量轻, 便于携带, 单手操作
- ◆ 测量珠宝、皮革、金属薄板、纸张、薄膜、金属丝等材料的厚度
- ◆ 任意位置清零
- ◆ 任意位置测量单位转换

Features

- ◆ Portable, light weight, easy to operate with one single hand.
- ◆ It's fit for measuring the thickness of jewellery, leather, metal sheet, paper, film, wire, etc..
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-12mm	315-801	0.01mm	±0.03mm

微型三用数显卡表 / Mini Digital Thickness Gauges



主要特点

- ◆ 体积小, 重量轻, 便于携带, 单手操作
- ◆ 用于测量较小工作尺寸, 如珠宝、电子小零件等
- ◆ 任意位置清零
- ◆ 任意位置测量单位转换

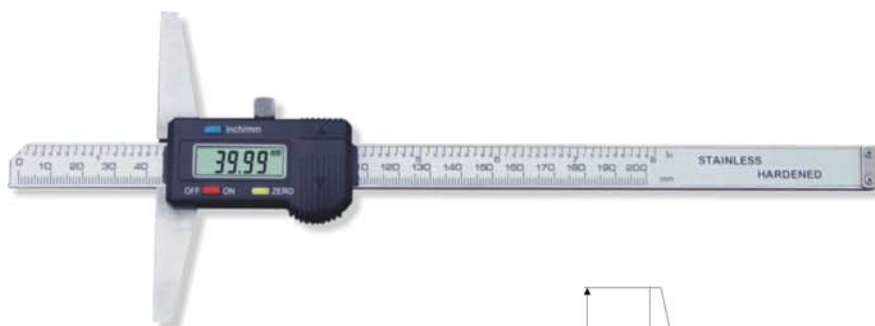
Features

- ◆ Portable, light and easy to operate with one single hand.
- ◆ For measuring small workpieces, such as jewelry, electronic components and the like.
- ◆ Zero-setting at any position.
- ◆ Inch/mm conversion at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b
0-15mm	315-340	0.01mm	±0.03mm	77	33.2	12.5
0-25mm	315-341	0.01mm	±0.03mm	87	33.2	12.5

数显深度卡尺 / Digital Depth Gauges

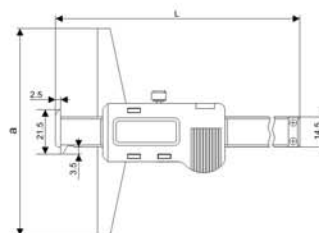
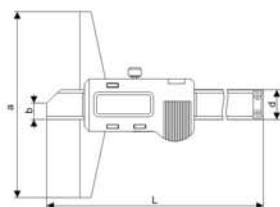
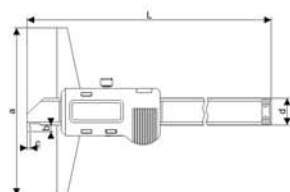


主要特点

- ◆ 用于深度测量
- ◆ 带钩头深度尺测量沟槽槽宽尺寸及沟槽位置尺寸
- ◆ 任意位置清零

Features

- ◆ Applied for depth measurement.
- ◆ Hook types can measure groove width and position of a groove.
- ◆ Zero-setting at any position.



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	d
0-150mm	121-101	0.01mm	±0.03mm	230	100	8.5	14.5
	121-101-1	0.01mm	±0.03mm	230	150	8.5	14.5
0-200mm	121-102	0.01mm	±0.03mm	280	100	8.5	14.5
	121-102-1	0.01mm	±0.03mm	280	150	8.5	14.5
0-300mm	121-103	0.01mm	±0.04mm	380	100	8.5	14.5
	121-103-1	0.01mm	±0.04mm	380	150	8.5	14.5
0-500mm	121-105	0.01mm	±0.04mm	580	100	7	15
	121-105-1	0.01mm	±0.04mm	580	150	7	15
	121-105-2	0.01mm	±0.05mm	580	200	7	15

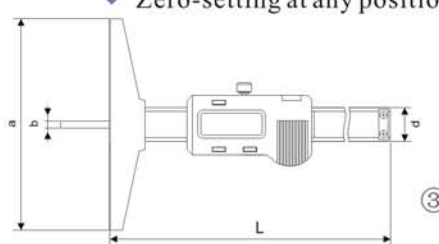
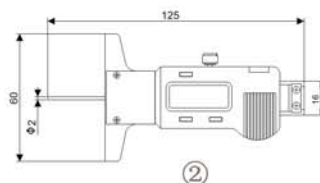
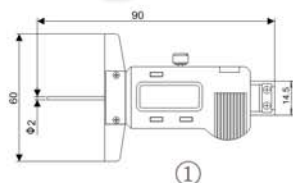
单钩头 Single Hook

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	c	d
0-150mm	123-101	0.01mm	±0.03mm	230	100	5	2	14.5
	123-101-1	0.01mm	±0.03mm	230	150	5	2	14.5
0-200mm	123-102	0.01mm	±0.03mm	280	100	5	2	14.5
	123-102-1	0.01mm	±0.03mm	280	150	5	2	14.5
0-300mm	123-103	0.01mm	±0.04mm	380	100	5	2	14.5
	123-103-1	0.01mm	±0.04mm	380	150	5	2	14.5
0-500mm	123-105	0.01mm	±0.04mm	580	100	8	3	15
	123-105-1	0.01mm	±0.04mm	580	150	8	3	15
	123-105-2	0.01mm	±0.05mm	580	200	8	3	15

双钩头 Double Hooks

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a
0-150mm	123-201	0.01mm	±0.03mm	232.5	100
	123-201-1	0.01mm	±0.03mm	232.5	150
0-200mm	123-202	0.01mm	±0.03mm	282.5	100
	123-202-1	0.01mm	±0.03mm	282.5	150
0-300mm	123-203	0.01mm	±0.04mm	382.5	100
	123-203-1	0.01mm	±0.04mm	382.5	150

细杆数显深度卡尺 / Digital Depth Gauges with Thin Rod



主要特点

- ◆ 根据被测空间大小，可选细长量杆，尖测头、平测头或球面测头
- ◆ 任意位置清零

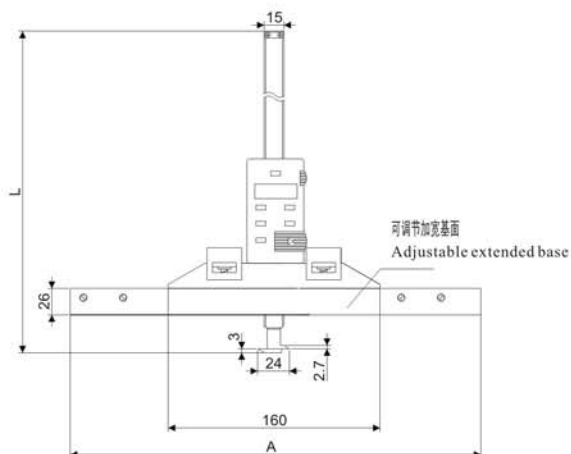
Features

- ◆ Thin and long rod, pointed contact, flat contact or spherical contact is available for different needs.
- ◆ Zero-setting at any position.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	a	b	d	备注 Remarks
0-25mm	121-002	0.01mm	$\pm 0.02\text{mm}$	90	60	2	14.5	①
0-30mm	121-003	0.01mm	$\pm 0.02\text{mm}$	125	60	2	14.5	②
0-50mm	121-005	0.01mm	$\pm 0.02\text{mm}$	130	100	3	14.5	②
0-100mm	121-010	0.01mm	$\pm 0.03\text{mm}$	180	100	3	14.5	③
0-150mm	121-015	0.01mm	$\pm 0.03\text{mm}$	230	100	3	14.5	③

可调加宽基面深度卡尺 / Digital Depth Gauges with Adjustable Extended Base



主要特点

- ◆ 测量沟槽宽尺寸及沟槽位置尺寸
- ◆ 可调节加宽基面

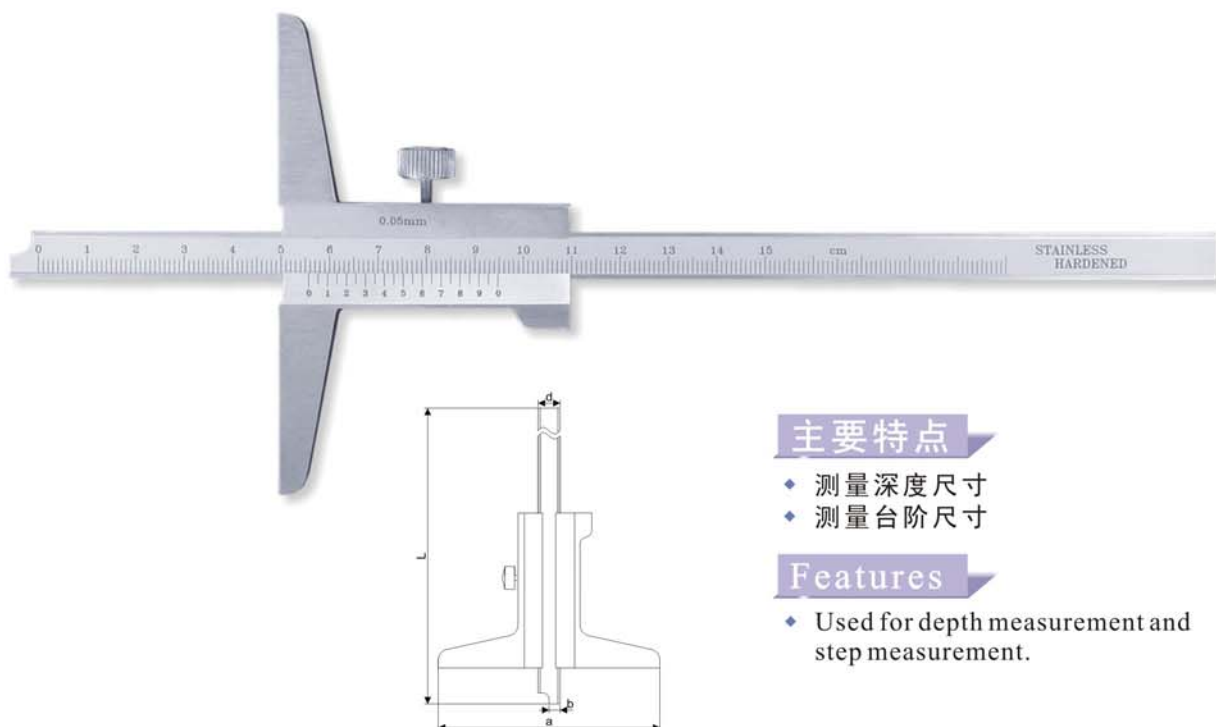
Features

- ◆ Can measure the width of groove and position of groove.
- ◆ The extra long base can be adjusted to the left and right.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	L	A
0-300mm	122-201	0.01mm	$\pm 0.04\text{mm}$	460	300, 400 或 or 500
0-400mm	122-202	0.01mm	$\pm 0.05\text{mm}$	560	300, 400 或 or 500
0-500mm	122-203	0.01mm	$\pm 0.05\text{mm}$	660	300, 400 或 or 500
0-600mm	122-204	0.01mm	$\pm 0.07\text{mm}$	760	300, 400 或 or 500

游标深度卡尺 / Vernier Depth Gauges



主要特点

- ◆ 测量深度尺寸
- ◆ 测量台阶尺寸

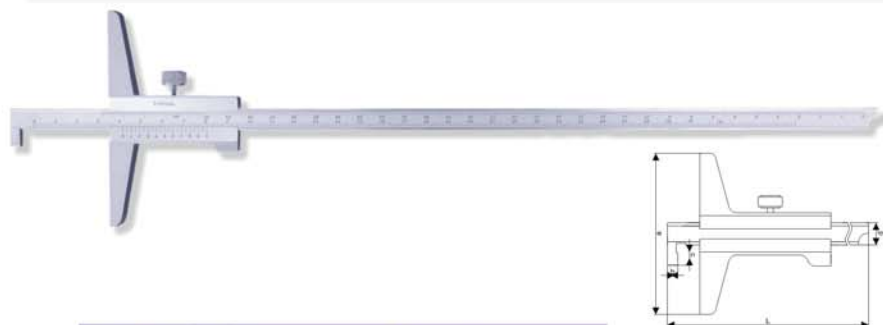
Features

- ◆ Used for depth measurement and step measurement.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数值 Vernier Reading	极限误差 Limit Error	L	a	b	d
0-150mm	151-100	151-300	0.02mm	±0.03mm	250	100	5	10
	151-100-1	151-300-1	0.02mm	±0.03mm	250	150	5	10
0-200mm	151-102	151-302	0.02mm	±0.03mm	300	100	5	10
	151-102-1	151-302-1	0.02mm	±0.03mm	300	150	5	10
0-250mm	151-104	151-304	0.02mm	±0.04mm	350	100	5	10
	151-104-1	151-304-1	0.02mm	±0.04mm	350	150	5	10
0-300mm	151-106	151-306	0.02mm	±0.04mm	400	100	5	10
	151-106-1	151-306-1	0.02mm	±0.04mm	400	150	5	10
0-400mm	151-106-2	151-306-2	0.02mm	±0.04mm	400	200	5	10
	151-108	151-308	0.02mm	±0.05mm	505	150	4	11
0-500mm	151-108-1	151-308-1	0.02mm	±0.05mm	505	200	4	11
	151-108-2	151-308-2	0.02mm	±0.05mm	505	250	4	11
0-600mm	151-110	151-310	0.02mm	±0.05mm	605	150	4	11
	151-110-1	151-310-1	0.02mm	±0.05mm	605	200	4	11
0-800mm	151-110-2	151-310-2	0.02mm	±0.05mm	605	250	4	11
	151-112	151-312	0.02mm	±0.07mm	768	150	6	11
0-1000mm	151-112-1	151-312-1	0.02mm	±0.07mm	768	200	6	11
	151-112-2	151-312-2	0.02mm	±0.07mm	768	250	6	11
0-1000mm	151-114	151-314	0.02mm	±0.07mm	968	150	6	18
	151-114-1	151-314-1	0.02mm	±0.07mm	968	200	6	18
0-1000mm	151-114-2	151-314-2	0.02mm	±0.07mm	968	250	6	18
	151-116	151-316	0.02mm	±0.07mm	1168	150	6	18
0-1000mm	151-116-1	151-316-1	0.02mm	±0.07mm	1168	200	6	18
	151-116-2	151-317-2	0.02mm	±0.07mm	1168	250	6	18

单钩头深度游标卡尺 / Vernier Depth Gauges(Hook Type)



主要特点

- ◆ 测量深度尺寸
- ◆ 测量沟槽槽宽尺寸及沟槽位置尺寸

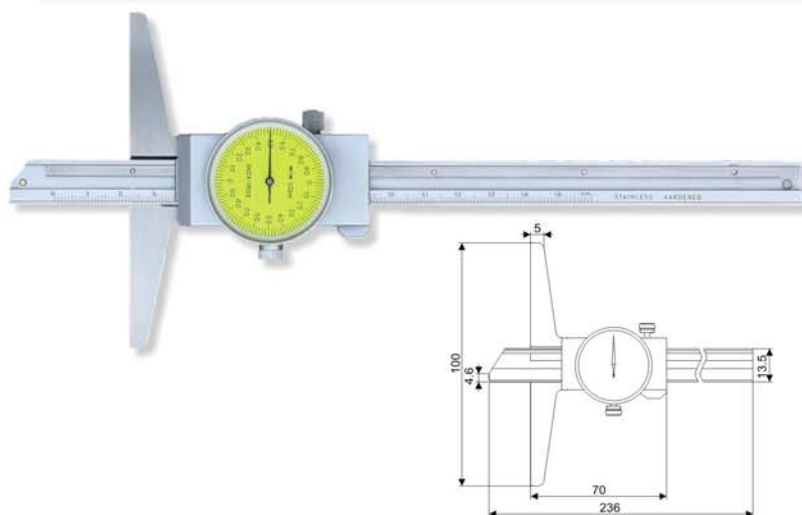
Features

- ◆ Used for depth measurement.
- ◆ Can measure the width of groove and position of groove.

性能参数 Specifications

测量范围 Measuring Range	货号(开式) Order No.(Open Type)	货号(闭式) Order No.(Close Type)	游标读数 Vernier Reading	极限误差 Limit Error	L	a	b	d
0-150mm	153-100	153-300	0.02mm	±0.03mm	250	100	5	10
	153-100-1	153-300-1	0.02mm	±0.03mm	250	120	5	10
0-200mm	153-102	153-302	0.02mm	±0.03mm	300	100	5	10
	153-102-1	153-302-1	0.02mm	±0.03mm	300	150	5	10
0-250mm	153-104	153-304	0.02mm	±0.04mm	350	100	5	10
	153-104-1	153-304-1	0.02mm	±0.04mm	350	150	5	10
	153-104-2	153-304-2	0.02mm	±0.04mm	350	200	5	10
0-300mm	153-106	153-306	0.02mm	±0.04mm	400	100	5	10
	153-106-1	153-306-1	0.02mm	±0.04mm	400	150	5	10
	153-106-2	153-306-2	0.02mm	±0.04mm	400	200	5	10
0-400mm	153-108	153-308	0.02mm	±0.05mm	505	150	4	11
	153-108-1	153-308-1	0.02mm	±0.05mm	505	200	4	11
	153-108-2	153-308-2	0.02mm	±0.05mm	505	250	4	11
0-500mm	153-110	153-310	0.02mm	±0.05mm	605	150	4	11
	153-110-1	153-310-1	0.02mm	±0.05mm	605	200	4	11
	153-110-2	153-310-2	0.02mm	±0.05mm	605	250	4	11

带表深度卡尺 / Dial Depth Gauges



主要特点

- ◆ 尺身、尺框均用不锈钢制造
- ◆ 闭式结构，定位面孔周围闭合，定位更可靠

Features

- ◆ Both the slider and beam are made of hardened stainless steel.
- ◆ Mono-block structure for more reliability.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	表盘读数 Dial Reading	极限误差 Limit Error
		分度值 Graduation	
0-150mm	181-101	0.02mm	±0.03mm
0-200mm	181-102	0.02mm	±0.03mm
0-300mm	181-103	0.02mm	±0.04mm

数显高度卡尺 / Digital Height Gauges



主要特点

- ◆ 划线爪尖镶硬质合金
- ◆ 能简便地测量小零件的高度
- ◆ 带微调
- ◆ 底面淬硬不锈钢

Features

- ◆ Carbide-tipped scriber.
- ◆ Can easily measure height of small workpieces.
- ◆ With fine adjustment.
- ◆ The base bottom is made of hardened stainless steel.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-300mm	131-103	0.01mm	±0.04mm
0-500mm	131-105	0.01mm	±0.05mm
0-600mm	131-106	0.01mm	±0.06mm
0-800mm	131-108	0.01mm	±0.07mm
0-1000mm	131-110	0.01mm	±0.07mm
0-1500mm	131-115	0.01mm	±0.11mm
0-2000mm	131-120	0.01mm	±0.15mm

手摇轮数显高度卡尺/Single-Column Digital Height Gauge with Hand Wheel



主要特点

- ◆ 划线爪尖焊硬质合金
- ◆ 不锈钢制造，立柱钢性高，稳定可靠
- ◆ 微调架使尺身能够实现微进给

Features

- ◆ Carbide-tipped scriber.
- ◆ Made of stainless steel, high rigid vertical column permits highly stable measurement.
- ◆ Fine-adjustment carriage to feed slider finely.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-300mm	131-203	0.01mm	±0.04mm
0-500mm	131-205	0.01mm	±0.05mm
0-600mm	131-206	0.01mm	±0.06mm

数显双柱高度卡尺 / Twin-Beam Digital Height Gauges



主要特点

- ◆ 刻线爪尖焊硬质合金
- ◆ 不锈钢制造，立柱钢性高，稳定可靠

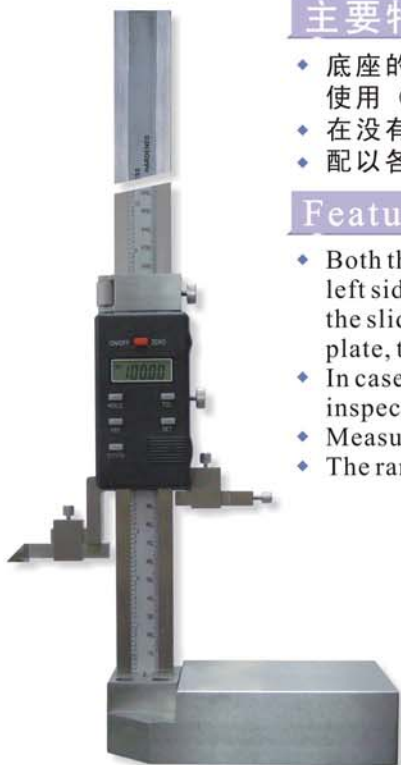
Features

- ◆ Carbide-tipped scriber.
- ◆ Made of stainless steel, high rigid vertical columns permit highly stable measurement.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-300mm	132-103	0.01mm	±0.04mm
0-500mm	132-105	0.01mm	±0.05mm
0-600mm	132-106	0.01mm	±0.06mm

双基面数显高度卡尺 / Digital Height Gauge with Double Datum Surfaces



主要特点

- ◆ 底座的上下两平面均为测量基准面，尺框上有左右两个量爪，分别与底座两平面配合使用（底座放在平板工作面上，平板工作面可视为底座底面的延伸）进行测量或划线
- ◆ 在没有平板配合的情况下，仍可用底座上表面和右侧量爪，单独进行测量工件
- ◆ 配以各种附件，使用范围更加扩大

Features

- ◆ Both the upside and the underside of the base are datum surfaces. The slider has two jaws on its left side and right side. The jaw on the slider's left is for the bottom measuring face. The jaw on the slider's right is for the upside measuring face. (When the base is on the inspection surface plate, the surface of the plate is regarded as the extension of bottom measuring face.)
- ◆ In case the inspection surface plate is unavailable, the upside of the base can be used as an inspection surface plate.
- ◆ Measurement can still be done with the slider's right jaw.
- ◆ The range of application can be widened with some attachments.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-125mm	130-300	0.01mm	±0.03mm
0-150mm	130-301	0.01mm	±0.03mm
0-200mm	130-302	0.01mm	±0.03mm
0-300mm	130-303	0.01mm	±0.04mm
0-500mm	130-305	0.01mm	±0.05mm
0-600mm	130-306	0.01mm	±0.06mm

游标高度卡尺 / Vernier Height Gauges



主要特点

- ◆ 刻线爪尖焊硬质合金
- ◆ 微调架使尺身能实现微进给
- ◆ 底面淬硬不锈钢

Features

- ◆ Carbide-tipped scriber.
- ◆ Fine-adjustment carriage to feed the slider finely.
- ◆ Made of stainless steel.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	游标读数 Vernier Reading	极限误差 Limit Error
0-200mm	161-101	0.02mm	±0.03mm
0-250mm	161-102	0.02mm	±0.04mm
0-300mm	161-103	0.02mm	±0.04mm
0-400mm	161-104	0.02mm	±0.05mm
0-500mm	161-105	0.02mm	±0.05mm
0-600mm	161-106	0.02mm	±0.07mm
0-800mm	161-108	0.02mm	±0.07mm
0-1000mm	161-110	0.02mm	±0.07mm
0-1500mm	161-115	0.02mm	±0.10mm
0-2000mm	161-120	0.02mm	±0.14mm

带表双柱高度卡尺 / Twin-Beam Dial Height Gauges



主要特点

- ◆ 读数清晰、直观
- ◆ 划线爪尖镶硬质合金
- ◆ 带微调轮和紧固螺钉
- ◆ 双柱不锈钢制造
- ◆ 底面淬火精研磨，高平面度

Features

- ◆ Easy reading dial.
- ◆ Carbide-tipped scriber.
- ◆ With fine adjustment wheel and lock.
- ◆ Stainless steel beams
- ◆ Bottom surface of the base is hardened, ground and lapped for maximum flatness.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	表盘读数 分度值 Graduation	Dial Reading 示值/周 Range/rev.	极限误差 Limit Error
0-300mm	192-103	0.01mm	1 mm	±0.04mm
0-500mm	192-105	0.01mm	1 mm	±0.05mm
0-600mm	192-106	0.01mm	1 mm	±0.06mm

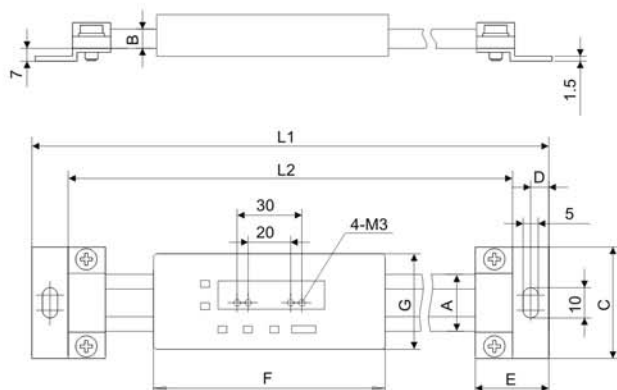
横式数显标尺 / Digital Scale Units (Horizontal Type)



300mm以上用此罩壳
For range above 300mm

主要特点

- ◆ 广泛用于各行业, 与机床配合使用
- ◆ 可外接大型数字显示仪, 使读数更方便
- ◆ 任意位置清零
- ◆ 可数据输出



Features

- ◆ Designed to be installed on the machines and fixtures to measure the axial movement.
- ◆ Can be connected with large LCD display unit for easy reading.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	A	B	C	D	E	F	G	L1	L2
100mm	812-100	0.01mm	±0.02mm	16	4	36	6	24	58	34	209	185
150mm	812-101	0.01mm	±0.03mm	16	4	36	6	24	58	34	259	235
200mm	812-102	0.01mm	±0.03mm	16	4	36	6	24	58	34	310	286
300mm	812-103	0.01mm	±0.04mm	16	4	36	6	24	58	34	444	420
400mm	812-104	0.01mm	±0.05mm	16	4	36	6	24	58	34	594	570
500mm	812-105	0.01mm	±0.05mm	24	5.5	45	8	32	92	40	682	650
600mm	812-106	0.01mm	±0.08mm	24	5.5	45	8	32	92	40	782	750
700mm	812-107	0.01mm	±0.08mm	24	5.5	45	8	32	92	40	882	850
800mm	812-108	0.01mm	±0.10mm	24	5.5	45	8	32	92	40	982	950
900mm	812-109	0.01mm	±0.10mm	24	5.5	45	8	32	92	40	1082	1050
1000mm	812-110	0.01mm	±0.10mm	31	10.5	60	10	40	124.5	54	1240	1200
1200mm	812-112	0.01mm	±0.12mm	31	10.5	60	10	40	124.5	54	1440	1400
1500mm	812-115	0.01mm	±0.14mm	31	10.5	60	10	40	124.5	54	1740	1700
2000mm	812-120	0.01mm	±0.20mm	31	10.5	60	10	40	124.5	54	2240	2200

竖式数显标尺 / Digital Scale Units (Vertical Type)



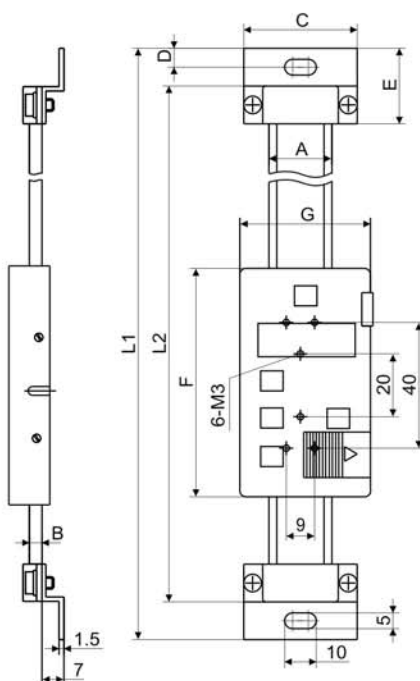
可选组件
Optional

主要特点

- ◆ 广泛用于各行业, 与机床配合使用
- ◆ 可外接大型数字显示仪, 使读数更方便
- ◆ 任意位置清零
- ◆ 可数据输出

Features

- ◆ Designed to be installed on the machines and fixtures to measure the axial movement.
- ◆ Can be connected with large LCD display unit for easy reading.
- ◆ Zero-setting at any position.
- ◆ Data output.



性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	A	B	C	D	E	F	G	L1	L2
100mm	812-200	0.01mm	±0.02mm	20	4	40	6	24	70	40	244	220
150mm	812-201	0.01mm	±0.03mm	20	4	40	6	24	70	40	294	270
200mm	812-202	0.01mm	±0.03mm	20	4	40	6	24	70	40	344	320
300mm	812-203	0.01mm	±0.04mm	20	4	40	6	24	70	40	444	420
400mm	812-204	0.01mm	±0.05mm	20	4	40	6	24	70	40	594	570
500mm	812-205	0.01mm	±0.05mm	20	4/5.5	40/45	6/8	24/32	70/90	40/51	682	650
600mm	812-206	0.01mm	±0.08mm	20	4/5.5	40/45	6/8	24/32	70/90	40/51	782	750
700mm	812-207	0.01mm	±0.08mm	24	5.5	45	8	32	90	51	882	850
800mm	812-208	0.01mm	±0.10mm	24	5.5	45	8	32	90	51	982	950
900mm	812-209	0.01mm	±0.10mm	24	5.5	45	8	32	90	51	1082	1050
1000mm	812-210	0.01mm	±0.10mm	31	10.5	60	10	40	90	51	1240	1200
1200mm	812-212	0.01mm	±0.12mm	31	10.5	60	10	40	90	51	1440	1400
1500mm	812-215	0.01mm	±0.14mm	31	10.5	60	10	40	90	51	1740	1700
2000mm	812-220	0.01mm	±0.20mm	31	10.5	60	10	40	90	51	2240	2200

微分头 / Micrometer Heads



主要特点

- ◆ 用于机床、固定装置、特殊量具、工具和其他设备上可调控部位需要有千分精度的地方
- ◆ 测量面带硬质合金(不包括球面测头)
- ◆ 对XY工作台上的线性位移进行高精度测量

Features

- ◆ Used on machine tools, fixtures, special gauges and tools, and other equipment where micrometer accuracy in setting and adjustment is required.
- ◆ Carbide-tipped measuring faces (excluding spherical heads).
- ◆ Applied to accurate measuring of linear displacement on XY worktable.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-5mm	242-002	0.01mm	±0.004mm
0-6.5mm	242-003	0.01mm	±0.004mm
0-13mm	242-004	0.01mm	±0.004mm
0-15mm	242-005	0.01mm	±0.004mm
0-25mm	242-006	0.01mm	±0.004mm
0-50mm	242-007	0.01mm	±0.005mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	212-001	0.001mm	±0.003mm
0-50mm	212-002	0.001mm	±0.005mm

外径千分尺 / Outside Micrometers



主要特点

- ◆ 喷漆尺架
- ◆ 硬质合金量面
- ◆ 带棘轮测力和丝杆紧固锁

Features

- ◆ Baked enamel frame.
- ◆ Carbide-tipped measuring faces.
- ◆ With ratchet stop and spindle lever lock.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-25mm	241-101	0.01mm	±0.004mm
25-50mm	241-102	0.01mm	±0.004mm
50-75mm	241-103	0.01mm	±0.005mm
75-100mm	241-104	0.01mm	±0.005mm

数显外径千分尺 / Digital Outside Micrometers



主要特点

- ◆ 大屏幕液晶显示读数
- ◆ 硬质合金量面
- ◆ 带电源开关
- ◆ 任意位置清零

Features

- ◆ Extra large LCD for easy reading.
- ◆ Carbide-tipped measuring faces.
- ◆ Manual power on/off
- ◆ Zero setting at any position

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	211-101	0.001mm	±0.003mm
25-50mm	211-102	0.001mm	±0.003mm
50-75mm	211-103	0.001mm	±0.004mm
75-100mm	211-104	0.001mm	±0.004mm
100-125mm	211-105	0.001mm	±0.004mm
125-150mm	211-106	0.001mm	±0.004mm
150-175mm	211-107	0.001mm	±0.005mm
175-200mm	211-108	0.001mm	±0.005mm
200-225mm	211-109	0.001mm	±0.005mm
225-250mm	211-110	0.001mm	±0.005mm
250-275mm	211-111	0.001mm	±0.006mm
275-300mm	211-112	0.001mm	±0.006mm

板式千分尺 / Outside Micrometers



主要特点

- ◆ 板式喷漆尺架
- ◆ 硬质合金量面

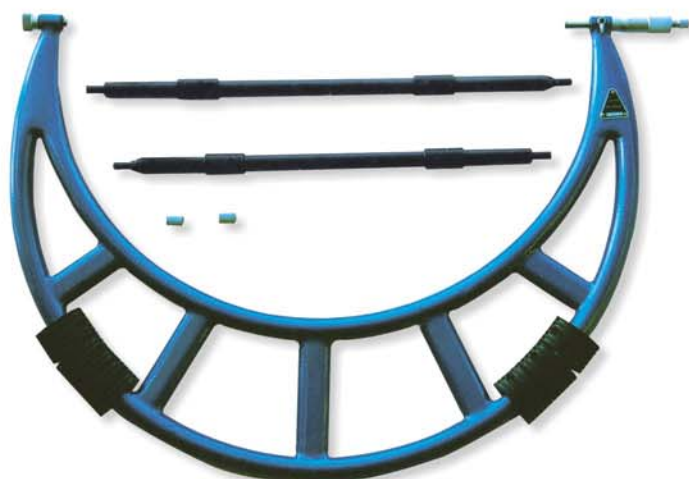
Features

- ◆ Baked enamel frame.
- ◆ Carbide tipped measuring faces.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
100-125mm	241-181	0.01mm	±0.006mm
125-150mm	241-182	0.01mm	±0.006mm
150-175mm	241-183	0.01mm	±0.007mm
175-200mm	241-184	0.01mm	±0.007mm
200-225mm	241-185	0.01mm	±0.008mm
225-250mm	241-186	0.01mm	±0.008mm
250-275mm	241-187	0.01mm	±0.009mm
275-300mm	241-188	0.01mm	±0.009mm

管式千分尺 / Outside Micrometers with Adjustable Anvil



主要特点

- ◆ 带可换标准套
- ◆ 测量范围大，精度高
- ◆ 硬质合金量面
- ◆ 管式喷漆尺架，重量轻，刚性好

Features

- ◆ With interchangeable standard anvils.
- ◆ Wide measuring range, high accuracy.
- ◆ Carbide-tipped measuring faces.
- ◆ Baked enamel tubular frame, light weight, good rigidity.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
300-400mm	241-191	0.01mm	±0.011mm
400-500mm	241-192	0.01mm	±0.013mm
500-600mm	241-193	0.01mm	±0.014mm
600-700mm	241-194	0.01mm	±0.016mm
700-800mm	241-195	0.01mm	±0.018mm
800-900mm	241-196	0.01mm	±0.020mm
900-1000mm	241-197	0.01mm	±0.020mm

尖头千分尺 / Point Micrometers



主要特点

- ◆ 适用于测量钻头沟槽等不易测量的尺寸
- ◆ 硬质合金测量面

Features

- ◆ Pointed anvil and spindle are ideal for measuring the wall thickness of drills, small grooves and other hard-to-reach dimensions.
- ◆ Carbide-tipped measuring faces.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-25mm	241-501	0.01mm	±0.004mm
25-50mm	241-502	0.01mm	±0.004mm
50-75mm	241-503	0.01mm	±0.005mm
75-100mm	241-504	0.01mm	±0.005mm
100-125mm	241-505	0.01mm	±0.006mm
125-150mm	241-506	0.01mm	±0.006mm
150-175mm	241-507	0.01mm	±0.007mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	211-501	0.001mm	±0.003mm
25-50mm	211-502	0.001mm	±0.003mm
50-75mm	211-503	0.001mm	±0.004mm
75-100mm	211-504	0.001mm	±0.004mm
100-125mm	211-505	0.001mm	±0.005mm
125-150mm	211-506	0.001mm	±0.005mm
150-175mm	211-507	0.001mm	±0.006mm

球头千分尺 / Spherical Micrometers



主要特点

- ◆ 适用于测量轴承，管件，轴套，活塞环，汽缸的壁厚，及孔到边的尺寸

Features

- ◆ For measuring wall thickness of bearings, tubing, sleeves, rings, cylinders and from a hole to an edge.

性能参数 Specifications

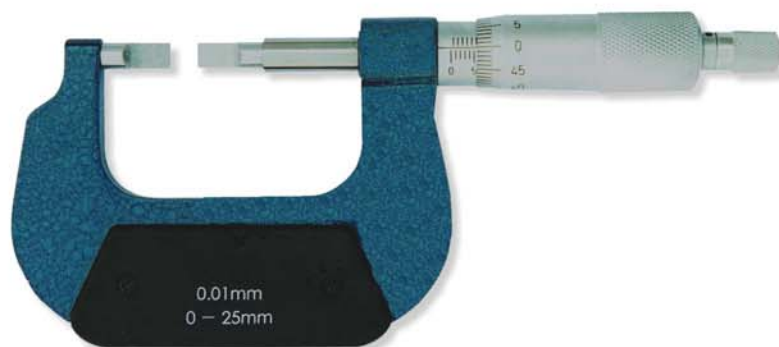
机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-25mm	242-101	0.01mm	±0.004mm
25-50mm	242-102	0.01mm	±0.004mm
50-75mm	242-103	0.01mm	±0.005mm
75-100mm	242-104	0.01mm	±0.005mm
100-125mm	242-105	0.01mm	±0.006mm
125-150mm	242-106	0.01mm	±0.006mm
150-175mm	242-107	0.01mm	±0.007mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	212-101	0.001mm	±0.003mm
25-50mm	212-102	0.001mm	±0.003mm
50-75mm	212-103	0.001mm	±0.004mm
75-100mm	212-104	0.001mm	±0.004mm
100-125mm	212-105	0.001mm	±0.005mm
125-150mm	212-106	0.001mm	±0.005mm
150-175mm	212-107	0.001mm	±0.006mm

薄片千分尺 / Blade Micrometers



主要特点

- ◆ 丝杆直进式，叶片式测量面
- ◆ 主要用于测量轴体窄沟槽的直径及其它窄槽

Features

- ◆ Non-rotating spindle, blade anvil and spindle.
- ◆ Typically used to measure groove diameter on shafts or other narrow recess.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-25mm	241-301	0.01mm	±0.004mm
25-50mm	241-302	0.01mm	±0.004mm
50-75mm	241-303	0.01mm	±0.005mm
75-100mm	241-304	0.01mm	±0.005mm
100-125mm	241-305	0.01mm	±0.006mm
125-150mm	241-306	0.01mm	±0.006mm
150-175mm	241-307	0.01mm	±0.007mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-25mm	211-301	0.001mm	±0.003mm
25-50mm	211-302	0.001mm	±0.003mm
50-75mm	211-303	0.001mm	±0.004mm
75-100mm	211-304	0.001mm	±0.004mm
100-125mm	211-305	0.001mm	±0.005mm
125-150mm	211-306	0.001mm	±0.005mm
150-175mm	211-307	0.001mm	±0.006mm

深弓架千分尺 / Deep Throat Micrometers



主要特点

- ◆ 适用于测量钢板、纸张、塑料板等板材的厚度
- ◆ 硬质合金测量面

Features

- ◆ Deep throat frame for measuring thickness of sheet metal, paper and sheet plastic.
- ◆ Carbide-tipped measuring faces.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error	弓深 Throat Depth
0-25mm	241-401	0.01mm	±0.004mm	50mm
0-25mm	241-402	0.01mm	±0.004mm	100mm
0-25mm	241-403	0.01mm	±0.005mm	150mm
25-50mm	241-404	0.01mm	±0.004mm	50mm
25-50mm	241-405	0.01mm	±0.004mm	100mm
25-50mm	241-406	0.01mm	±0.005mm	150mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨率 Resolution	极限误差 Limit Error	弓深 Throat Depth
0-25mm	211-401	0.001mm	±0.003mm	50mm
0-25mm	211-402	0.001mm	±0.003mm	100mm
0-25mm	211-403	0.001mm	±0.004mm	150mm
25-50mm	211-404	0.001mm	±0.003mm	50mm
25-50mm	211-405	0.001mm	±0.003mm	100mm
25-50mm	211-406	0.001mm	±0.004mm	150mm

深度千分尺 / Depth Micrometers



主要特点

- ◆ 测量范围大
- ◆ 高精度测杆

Features

- ◆ Wide measuring range.
- ◆ High precision depth rod.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-25mm	251-101	0.01mm	±0.004mm
0-50mm	251-102	0.01mm	±0.004mm
0-100mm	251-103	0.01mm	±0.005mm
0-150mm	251-104	0.01mm	±0.005mm
0-200mm	251-105	0.01mm	±0.006mm
0-300mm	251-106	0.01mm	±0.007mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨率 Resolution	极限误差 Limit Error
0-25mm	221-101	0.001mm	±0.003mm
0-50mm	221-102	0.001mm	±0.003mm
0-75mm	221-103	0.001mm	±0.004mm
0-100mm	221-104	0.001mm	±0.004mm
0-150mm	221-105	0.001mm	±0.005mm
0-200mm	221-106	0.001mm	±0.006mm

单杆内径千分尺 / Inside Micrometers(Single Rod)



主要特点

- ◆ 硬质合金测量面

Features

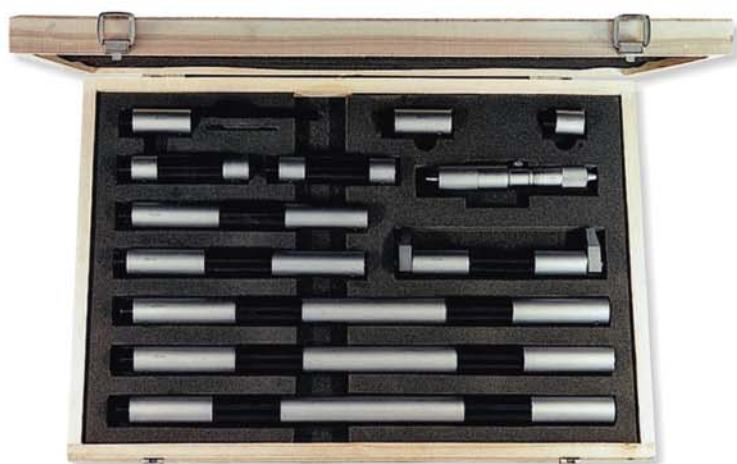
- ◆ Carbide-tipped measuring faces.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
50-75mm	243-101	0.01mm	±0.005mm
75-100mm	243-102	0.01mm	±0.005mm
100-125mm	243-103	0.01mm	±0.006mm
125-150mm	243-104	0.01mm	±0.006mm
150-175mm	243-105	0.01mm	±0.007mm
175-200mm	243-106	0.01mm	±0.007mm
200-225mm	243-107	0.01mm	±0.008mm
225-250mm	243-108	0.01mm	±0.008mm

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
250-275mm	243-109	0.01mm	±0.009mm
275-300mm	243-110	0.01mm	±0.009mm
300-325mm	243-111	0.01mm	±0.010mm
325-350mm	243-112	0.01mm	±0.010mm
350-375mm	243-113	0.01mm	±0.011mm
375-400mm	243-114	0.01mm	±0.011mm
400-425mm	243-115	0.01mm	±0.012mm
425-450mm	243-116	0.01mm	±0.012mm

内径千分尺 / Inside Micrometers



主要特点

- ◆ 组合接杆测量范围大
- ◆ 硬质合金测量面
- ◆ 精度: $(3+n+L/50) \mu m$
(n=接杆数, L=最大测量长度)

Features

- ◆ The combining of extension rods provides a wide measuring range.
- ◆ Carbide-tipped measuring faces.
- ◆ Accuracy: $(3+n+L/50) \mu m$
(n=number of rod, L=maximum measuring length).

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	接杆 Extension Rods
150-175mm	243-131	0.01mm	微分头 Micrometer head
150-1400mm	243-132	0.01mm	25mm, 50mm(2件/pcs.), 100mm, 200mm, 400mm(2件/pcs.)
150-2000mm	243-133	0.01mm	25mm, 50mm(2件/pcs.), 100mm, 200mm(2件/pcs.), 400mm(3件/pcs.)
150-2100mm	243-134	0.01mm	25mm, 50mm(2件/pcs.), 100mm(2件/pcs.), 200mm(2件/pcs.), 400mm(3件/pcs.)

内测千分尺 / Inside Micrometers(Caliper Type)



主要特点

- ◆ 用于各种内尺寸的测量

Features

- ◆ Ideal for measuring various inside dimensions.

性能参数 Specifications

机械 Mechanical Type

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
5-30mm	243-201	0.01mm	±0.005mm
25-50mm	243-202	0.01mm	±0.006mm
50-75mm	243-203	0.01mm	±0.007mm
75-100mm	243-204	0.01mm	±0.008mm
100-125mm	243-205	0.01mm	±0.009mm
125-150mm	243-206	0.01mm	±0.009mm
150-175mm	243-207	0.01mm	±0.010mm
175-200mm	243-208	0.01mm	±0.010mm

数显 Digital Type

测量范围 Measuring Range	货号 Order No.	分辨率 Resolution	极限误差 Limit Error
5-30mm	213-201	0.001mm	±0.005mm
25-50mm	213-202	0.001mm	±0.006mm
50-75mm	213-203	0.001mm	±0.007mm
75-100mm	213-204	0.001mm	±0.008mm
100-125mm	213-205	0.001mm	±0.009mm
125-150mm	213-206	0.001mm	±0.009mm
150-175mm	213-207	0.001mm	±0.010mm
175-200mm	213-208	0.001mm	±0.010mm

三点内径千分尺 / Three Point Internal Micrometers



主要特点

- ◆ 硬质合金测量表面确保高耐磨度，三爪硬质合金圆柱不易磨损
- ◆ 可接近盲孔底端进行测量
- ◆ 带棘轮测力

Features

- ◆ Carbide-tipped contact points and three lateral protruding fingers for highly wear-resistance.
- ◆ Measurement can be taken close to the bottom of a blind bore.
- ◆ With Ratchet Stop for constant force.

性能参数 Specifications

机械 Mechanical Type			数显 Digital Type		
测量范围 Measuring Range	货号 Order No.	分辨率 Resolution	货号 Order No.	分辨率 Resolution	极限误差 Limit Error
6-8mm	243-301	0.001mm	213-301	0.001mm	±0.004mm
8-10mm	243-302	0.001mm	213-302	0.001mm	±0.004mm
10-12mm	243-303	0.001mm	213-303	0.001mm	±0.004mm
12-16mm	243-304	0.005mm	213-304	0.001mm	±0.004mm
16-20mm	243-305	0.005mm	213-305	0.001mm	±0.004mm
20-25mm	243-306	0.005mm	213-306	0.001mm	±0.004mm
25-30mm	243-307	0.005mm	213-307	0.001mm	±0.004mm
30-40mm	243-308	0.005mm	213-308	0.001mm	±0.004mm
40-50mm	243-309	0.005mm	213-309	0.001mm	±0.005mm
50-63mm	243-310	0.005mm	213-310	0.001mm	±0.005mm
62-75mm	243-311	0.005mm	213-311	0.001mm	±0.005mm
75-88mm	243-312	0.005mm	213-312	0.001mm	±0.005mm
87-100mm	243-313	0.005mm	213-313	0.001mm	±0.005mm

机械百分表 / Dial Indicators



主要特点

- ◆ 主要运动部件采用不锈钢制造，并经过热处理，防锈性能、耐磨性能好
- ◆ 带表圈紧固装置
- ◆ 防震产品采用宝石轴承，具有良好的灵敏度
- ◆ 根据用户要求选带耳后盖

Features

- ◆ The main moving components are made of stainless steel and have been heat treated, which have good performance in anti-rust and wear-resistance.
- ◆ With lock screw for locking the bezel.
- ◆ Shock-proof type uses jeweled bearing for good sensitiveness.
- ◆ Back cover with lug is optional.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(带耳后盖) Order No.(Lugback Type)	分度值 Graduation	极限误差 Limit Error
0-3mm	321-111	321-111D	0.01mm	$\pm 0.014\text{mm}$
0-10mm	321-112	321-112D	0.01mm	$\pm 0.020\text{mm}$
0-30mm	321-113	321-113D	0.01mm	$\pm 0.030\text{mm}$
0-50mm	321-114	321-114D	0.01mm	$\pm 0.040\text{mm}$

机械千分表 / Dial Micron Indicators



主要特点

- ◆ 用于更高精度的测量
- ◆ 测量几何形状误差及相互位置偏差
- ◆ 量杆上部有防尘帽
- ◆ 带公差指示器
- ◆ 带表圈紧固装置
- ◆ 根据用户要求选带耳后盖

Features

- ◆ Used for more accurate measurement.
- ◆ To measure errors and relative position deviations of geometric shapes.
- ◆ With anti-dirt cap on the upper end of the measuring spindle.
- ◆ With tolerance indicator.
- ◆ With lock screw for locking the bezel.
- ◆ Back cover with lug is optional.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(带耳后盖) Order No.(Lugback Type)	分度值 Graduation	极限误差 Limit Error
0-1mm	320-101	320-101D	0.001mm	$\pm 0.005\text{mm}$

杠杆表 / Dial Test Indicators



主要特点

- ◆ 小巧轻便
- ◆ 可准确方便的测量狭长或凹进物体, 以及难以测量的内外直径尺寸
- ◆ 高灵敏度和快速反应
- ◆ 可选多种材料测头

Features

- ◆ Small and lightweight.
- ◆ Can easily and accurately measure the long-narrow or concave portions and the inside and outside diameters which are hard to reach.
- ◆ High sensitivity and quick response.
- ◆ Steel and ruby style are optional.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-0.8mm	323-201	0.01mm	$\pm 0.013\text{mm}$
0-0.12mm	323-001	0.001mm	$\pm 0.004\text{mm}$
0-0.2mm	323-101	0.002mm	$\pm 0.004\text{mm}$

数显百分表 / Digital Indicators



①



②

主要特点

- ◆ 大型清晰读数液晶显示
- ◆ 任意位置清零
- ◆ 任意位置公英制转换
- ◆ 可选数据保持功能, 快速寻找测量中最大/最小值
- ◆ 可数据输出

Features

- ◆ Large LCD for easy-reading.
- ◆ Zero-setting at any position.
- ◆ Inch/Metric system conversion at any position.
- ◆ Data hold function and fast tracing of MAX/MIN value are optional.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(带耳后盖) Order No.(Lugback Type)	分度值 Graduation	极限误差 Limit Error	备注 Remarks
0-12.7mm	312-101	312-101D	0.01mm	$\pm 0.02\text{mm}$	①
0-25.4mm	312-102	312-102D	0.01mm	$\pm 0.03\text{mm}$	①
0-50mm	312-103	312-103D	0.01mm	$\pm 0.04\text{mm}$	①
0-12.7mm	312-104	312-104D	0.01mm	$\pm 0.02\text{mm}$	② 表盘可320° 旋转 Rotating Dial 320°

数显千分表 / Micron Digital Indicators



主要特点

- ◆ 用于更高精度测量
- ◆ 大型清晰读数液晶显示
- ◆ 任意位置清零
- ◆ 任意位置公英制转换
- ◆ 可选最大/最小值跟踪, 公差带设置功能
- ◆ 数据输出

Features

- ◆ High resolution for more accurate measurement.
- ◆ Large LCD for easy-reading.
- ◆ Zero-setting at any position.
- ◆ Inch/Metric system conversion at any position.
- ◆ Fast tracing MAX/MIN value, tolerance setting are optional.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	货号(带耳后盖) Order No.(Lugback Type)	分辨力 Resolution	极限误差 Limit Error
0-12.7mm	310-102	310-102D	0.001mm	±0.007mm
0-25.4mm	310-103	310-103D	0.001mm	±0.009mm
0-50.8mm	310-104	310-104D	0.001mm	±0.013mm

方形数显指示表 / Rectangle Digital Indicators



主要特点

- ◆ 装夹结构方便可靠
- ◆ 多用于大行程的测量
- ◆ 任意位置清零
- ◆ 数据输出

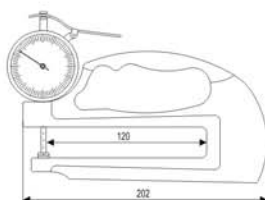
Features

- ◆ Easy and convenient to clamp.
- ◆ Wide measuring range.
- ◆ Zero-setting at any position.
- ◆ Data output.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-10mm	311-101	0.01mm	±0.02mm
0-20mm	311-102	0.01mm	±0.03mm
0-30mm	311-103	0.01mm	±0.03mm
0-50mm	311-104	0.01mm	±0.04mm
0-100mm	311-105	0.01mm	±0.05mm
0-10mm	311-011	0.001mm	±0.007mm
0-25mm	311-012	0.001mm	±0.009mm
0-50mm	311-013	0.001mm	±0.012mm

机械测厚表 / Dial Thickness Gauges



主要特点

- ◆ 测量珠宝、皮革、金属薄板、纸张、薄膜、金属丝等材料的厚度
- ◆ 测头在不使用时自动合拢
- ◆ 可根据客户要求提供各形式的测头

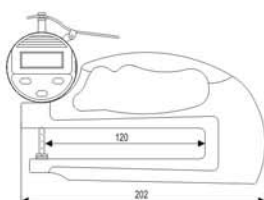
Features

- ◆ Fit for measuring the thickness of paper, film, wire, sheet metal, jewelry, leather and similar materials.
- ◆ Contact points automatically close when not using.
- ◆ Various kinds of contacts can be customized.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error	测量深度 Probe Depth
0-10mm	326-301	0.01mm	$\pm 0.02\text{mm}$	袖珍型 Pocket Type
0-10mm	326-101	0.01mm	$\pm 0.02\text{mm}$	30mm
0-10mm	326-201	0.01mm	$\pm 0.03\text{mm}$	120mm

数显测厚表 / Digital Thickness Gauges



主要特点

- ◆ 测量珠宝、皮革、金属薄板、纸张、薄膜、金属丝等材料的厚度
- ◆ 测头在不使用时自动合拢
- ◆ 可根据客户要求提供各形式的测头

Features

- ◆ Fit for measuring the thickness of paper, film, wire, sheet metal, jewelry, leather and similar materials.
- ◆ Contact points automatically close when not using.
- ◆ Various kinds of contacts can be customized.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	测量深度 Probe Depth
0-10mm	316-101	0.01mm	$\pm 0.02\text{mm}$	30mm
0-10mm	316-201	0.01mm	$\pm 0.03\text{mm}$	120mm
0-10mm	316-001	0.001mm	$\pm 0.009\text{mm}$	30mm

带表内卡规 / Dial Internal Caliper Gauges



主要特点

- ◆ 可用于内部孔径、沟槽的测量

Features

- ◆ Can measure the inside diameter of holes and inside grooves.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
15-35mm	325-801	0.01mm	±0.04mm
35-55mm	325-802	0.01mm	±0.04mm
55-75mm	325-803	0.01mm	±0.04mm
75-95mm	325-804	0.01mm	±0.04mm
95-115mm	325-805	0.01mm	±0.04mm
115-135mm	325-806	0.01mm	±0.04mm
135-155mm	325-807	0.01mm	±0.04mm

带表外卡规 / Dial Outside Caliper Gauges



主要特点

- ◆ 可用于外部孔径、沟槽的测量

Features

- ◆ Can measure the outside diameter of holes and outside grooves.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-20mm	325-811	0.01mm	±0.04mm
20-40mm	325-812	0.01mm	±0.04mm
40-60mm	325-813	0.01mm	±0.04mm
60-80mm	325-814	0.01mm	±0.04mm
80-100mm	325-815	0.01mm	±0.04mm
100-120mm	325-816	0.01mm	±0.04mm

内径量表 / Dial Bore Gauges



主要特点

- ◆ 可用于测量内径尺寸
- ◆ 不锈钢淬火测头
- ◆ 带可换测头，测量范围大
- ◆ 配机械百分表

Features

- ◆ For internal measurement.
- ◆ Stainless steel contacts hardened.
- ◆ With changeable contacts, wide measuring range.
- ◆ With dial indicator.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
10-18mm	327-101	0.01mm	±0.012mm
18-35mm	327-102	0.01mm	±0.015mm
35-50mm	327-103	0.01mm	±0.015mm
50-100mm	327-104	0.01mm	±0.018mm
50-160mm	327-105	0.01mm	±0.018mm
100-160mm	327-106	0.01mm	±0.018mm
160-250mm	327-107	0.01mm	±0.018mm
20-200mm	327-108	0.01mm	±0.018mm
250-450mm	327-109	0.01mm	±0.018mm

深度表 / Dial Depth Indicators



主要特点

- ◆ 高硬度和高平面的基准
- ◆ 可换测杆

Features

- ◆ Bottom surface of the base is hardened, ground and lapped for high degree of flatness.
- ◆ With interchangeable rods.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分度值 Graduation	极限误差 Limit Error
0-50mm	328-501	0.01mm	±0.012mm
0-100mm	328-502	0.01mm	±0.012mm

数显倾角仪 / Inclinometers



451-101



451-101A

主要特点

- ◆ 4×90° 完全测量
- ◆ 广泛用于汽车、建筑、钻探机械等行业的角度测量
- ◆ 当倾角仪倒置，液晶显示的角度读数会自动翻转朝上便于阅读
- ◆ 可以不需要任何特别的工具和设备进行重新校正
- ◆ 多用途测量工具，量角器、倾角仪和水平尺三合一
- ◆ 3V锂电池 (CR2032)

Features

- ◆ 4×90° measurement.
- ◆ Widely used in angle measurement in auto industry, building industry and drilling machinery, etc..
- ◆ Display always reads upright, no matter which way the level is turned.
- ◆ Simple calibration requires no special fixtures.
- ◆ Versatile measuring tool, angle finder, protractor and level three in one.
- ◆ One 3V Cr2032 lithium battery.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	备注 Remarks
4×90°(0-360°)	451-101	0.1°	0.2°	不锈钢量面 Stainless steel measuring faces.
4×90°(0-360°)	451-101H	0.1°	0.2°	不锈钢量面, 底部带2个M4螺纹底孔 Stainless steel measuring faces with 2×M4 holes in bottom.
4×90°(0-360°)	451-101M	0.1°	0.2°	不锈钢量面, 底部带磁 Stainless steel measuring faces with magnetic disks in bottom.
4×90°(0-360°)	451-101W	0.1°	0.2°	不锈钢量面, 底部加宽 Stainless steel measuring faces with large measuring face in bottom.
4×90°(0-360°)	451-101WM	0.1°	0.2°	不锈钢量面, 底部加宽带磁 Stainless steel measuring faces with large bottom and magnetic disks in the bottom.
4×90°(0-360°)	451-101VM	0.1°	0.2°	不锈钢量面, V型槽底座 Stainless steel measuring faces with V measuring face in bottom.
4×90°(0-360°)	451-101A	0.1°	0.2°	铝合金量面, 上下宽量面 Large Aluminum-alloy measuring faces.
4×90°(0-360°)	451-101AM	0.1°	0.2°	铝合金量面, 上下宽量面, 底部带磁 Large Aluminum alloy measuring faces with magnetic disks in the bottom.

数显倾角盒 / Bevel Boxes



451-102



451-102M



451-102W



451-102WM

主要特点

- ◆ 超大液晶显示，易于读数
- ◆ 体积小，重量轻，方便携带和使用
- ◆ 底面带有磁片，便于吸附于被测工件上

Features

- ◆ Large LCD display for easy reading.
- ◆ Small size, light weight, easy to carry and operate.
- ◆ With magnetic disks in the bottom measuring face, it can be stuck to the workpiece to be measured.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	尺寸 Size	备注 Remarks
0±180°	451-102	0.1°	0.2°	50.8×33×50.8mm	塑料罩壳 Plastic frame house
0±180°	451-102M	0.1°	0.2°	50.8×33×50.8mm	金属罩壳 Metal frame house
0±180°	451-102W	0.1°	0.2°	50.8×33×62.5mm	塑料罩壳、带水泡 Plastic frame house with bubbles
0±180°	451-102WM	0.1°	0.2°	50.8×33×62.5mm	金属罩壳、带水泡 Metal frame house with bubbles

数显水平尺 / Digital Levels



主要特点

- ◆ 0°、45°、90° 声音提示
- ◆ 数值保持功能
- ◆ 当水平尺倒置，液晶显示的角度读数会自动翻转朝上便于阅读
- ◆ 通过镭射（选购）可进行激光远距离定位
- ◆ 具有斜率转换功能
- ◆ 背光功能（选购），方便夜间读数
- ◆ 上下平面均可做为测量面

Features

- ◆ Beeper will sound at: 0°, 45°, 90°.
- ◆ Data hold.
- ◆ Display always reads upright, no matter which way the level is turned.
- ◆ The laser(optional attachment) can be used for long range position.
- ◆ Gradient conversion.
- ◆ Backlight, optional easy to read in darkness.
- ◆ Both top surface and bottom surface can be used as measuring surface.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-360°	461-101	0.1°	0.2°

便携式数显角度尺 / Angle Finders



主要特点

- ◆ 方便测量所有角度及画线功能
- ◆ 相对测量和绝对测量转换
- ◆ 数显倒置功能
- ◆ 校正，清零操作简单
- ◆ 象限显示功能
- ◆ 高精度水泡检测垂直和水平位置
- ◆ 431-112实现任何角度锁定动尺

Features

- ◆ Easy to measure all kinds of angles and draw lines.
- ◆ Absolute and relative measurement conversion.
- ◆ Display always reads upright, no matter which way is turned.
- ◆ Easy calibration and zero setting.
- ◆ Analogue quadrant showing for easy reading.
- ◆ High accurate level bubble for measuring horizontal and vertical levels easily.
- ◆ Type 431-112 can lock the movable blade at any angle.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-360°	431-112	0.05°/3'	0.2°

数显万能角度尺 / Digital Universal Bevel Protractors



主要特点

- ◆ 带预置数功能
- ◆ 可移动直尺
- ◆ 可转换方向
- ◆ 1×360° 和2×180° 及4×90°
(四象限) 三种模式测量

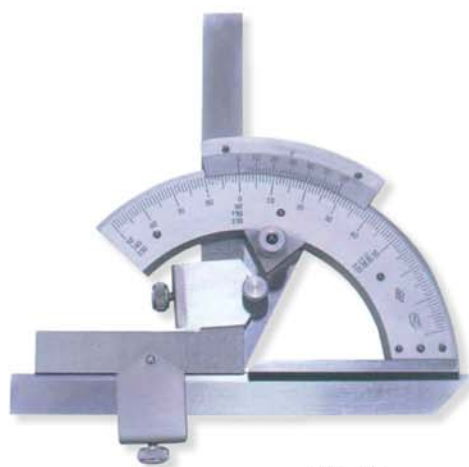
Features

- ◆ With presetting function.
- ◆ Removable blade.
- ◆ Blades can be rotated to the desired angle.
- ◆ Three modes of measurement: 1×360°, 2×180° and 4×90° (four-quadrant).

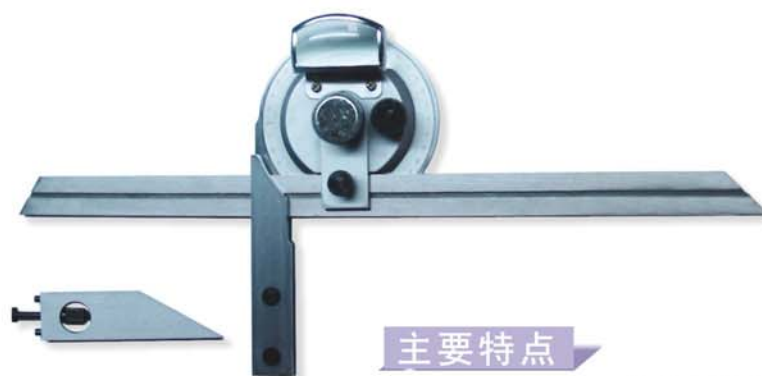
性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error	重复性 Repeatability
0-360°	421-101	30"	±5'	1'

机械万能角度尺 / Universal Bevel Protractors



423-101



423-111

主要特点

- ◆ 运用于机械加工中的内外角度测量
- ◆ 测量范围有0-320°及0-360°两种

Features

- ◆ Used for measuring inside and outside angles in machining.
- ◆ Measuring range : 0-320° or 0-360°.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution	极限误差 Limit Error
0-320°	423-101	2'	±2'
0-360°	423-111	5'	±5'

磁力表座 / Magnetic Stands



723-101



723-102



723-104

主要特点

- ◆ 磁力表座是制造业用途最广泛的器具
- ◆ 用于夹持百分表、千分表、杠杆百分表等，如配划线针还可以对零件进行划线
- ◆ 能任意调节工作时所需的角速度，是理想的检验工具
- ◆ 带磁力开关的坚固底座

Features

- ◆ Widely used in the manufacturing industry.
- ◆ Used for clamping dial indicators, micron dial indicators and dial test indicators, etc. It can scribe on workpiece if it's attached with a scriber.
- ◆ Can be adjusted to any angle needed. It's an ideal checking device.
- ◆ This strong stand is with ON/OFF switch.

性能参数 Specifications

货号 Order No.	备注 Remarks
723-101	带微调 Magnetic Stand with fine adjustment
723-102	机械万向 Mechanical Universal Magnetic Stand
723-104	柔性杆 Flexible Stem Magnetic Stand

千分尺座 / Micrometer Stands



723-111



723-112

主要特点

- ◆ 台式支架，专门设计用于夹持千分尺和其他量具

Features

- ◆ These micrometer stands are specially designed clamping micrometers and other measuring tools.

性能参数 Specifications

货号 Order No.	备注 Remarks
723-111	常规型 General Type
723-112	可调型 Adjustable Type

花岗岩测量台 / Granite Measuring Stands



主要特点

- ◆ 台式支架，专门设计用于夹持指示表和其他量具

Features

- ◆ This granite measuring stand is specially designed for clamping dial indicators and other measuring tools.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	平面度 Flatness	平台尺寸(长×宽×高) Size(L×W×H)
0-100mm	741-111	0.002mm	150×100×40mm
0-200mm	741-112	0.002mm	200×150×50mm
0-250mm	741-113	0.002mm	300×200×50mm

花岗岩平台 / Granite Inspection Surface Plates



主要特点

- ◆ 硬度高，性能稳定，使用寿命长
- ◆ 不易受腐蚀，无扭曲变形，尺寸受温度影响小
- ◆ 表面不会产生毛刺或者表面凸起现象，即使长期使用也可确保很高的平面度，不会损坏工件或仪器

Features

- ◆ With high hardness, stable function, long working life.
- ◆ Free from deterioration and wringing, minimal changes in dimension due to temperature changes.
- ◆ The surface is free from burrs or protrusions which ensures high degree of flatness over a long service life and causes no damage to other work pieces or instruments.

性能参数 Specifications

尺寸(长×宽×高) Size(L×W×H)	货号 Order No.	00级精度 Graduation 00 Precision	0级精度 Graduation 0 Precision
160×100×50mm	521-101	0.0025mm	0.005mm
160×160×50mm	521-102	0.0025mm	0.005mm
250×160×50mm	521-103	0.003mm	0.0055mm
300×200×50mm	521-104	0.003mm	0.0055mm
250×250×50mm	521-105	0.003mm	0.0055mm
300×300×70mm	521-106	0.003mm	0.006mm
400×250×70mm	521-107	0.003mm	0.006mm
400×400×100mm	521-108	0.0035mm	0.0065mm

靠尺 / Strightness Gauges



主要特点

- ◆ 用于检验工件的平面度
- ◆ 不用借助塞尺，可直接读数

Features

- ◆ Used for measuring the flatness and straightness of the workpieces.
- ◆ Direct reading without using any feeler gauges.

性能参数 Specifications

测量范围 Measuring Range	货号 Order No.	分辨力 Resolution
600mm	726-106	0.01mm
800mm	726-108	0.01mm
1000mm	726-110	0.01mm
1200mm	726-112	0.01mm
1500mm	726-115	0.01mm
600mm	726-006	0.001mm
800mm	726-008	0.001mm
1000mm	726-010	0.001mm
1200mm	726-012	0.001mm
1500mm	726-015	0.001mm

数据接口 / Computer Interfaces



主要特点

- ◆ 电子数显量具的专用接口，用于连接数显量具和计算机

Features

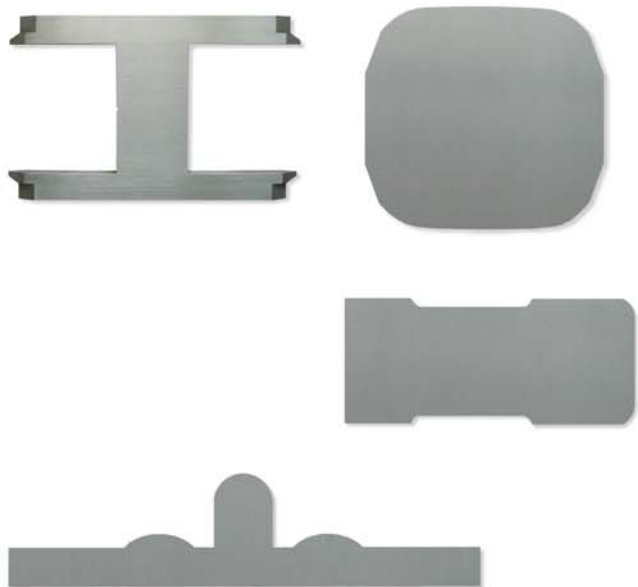
- ◆ Special interface for digital instrument, used to connect with computer.



性能参数 Specifications

货号 Order No.	电脑接口 Computer Port	量具接口 Instrument Port
711-201	USB端口 USB Com Port	专用四芯 Special plug with four pins
711-202	USB端口 USB Com Port	迷你USB Mini USB
711-203	USB端口 USB Com Port	专用三芯 Special plug with three pins
711-204	串口RS232端口 Serial Port RS232 Com Port	专用四芯 Special plug with four pins
711-205	串口RS232端口 Serial Port RS232 Com Port	迷你USB Mini USB
711-206	串口RS232端口 Serial Port RS232 Com Port	专用三芯 Special plug with three pins

卡规 / Gauge Templates

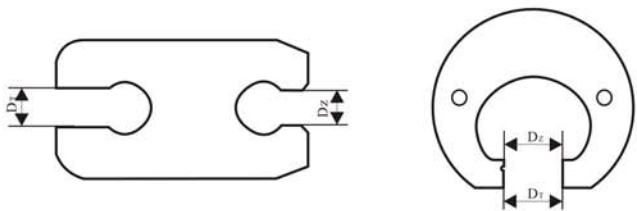


主要特点

- ◆ 卡规、卡板、样板、长度校对块等
- ◆ 快速进行工件尺寸综合形状、尺寸判定
- ◆ 检验效率高

Features

- ◆ Snap Gauges, Gauge Template, Length Master Gauges are available.
- ◆ Quickly and high efficiently check the overall shapes and dimensions of the workpieces.



D_T:通端 Go

D_Z:止端 No Go

现场检验坐标测量机和高档数控机床，使用步距规 ——更准确、更实用、更经济

数控机床的优点是精度效率高，定期检验并修正其定位精度十分重要。数控机床的原始精度在出厂前进行检验，有的企业用双频激光进行检验，有的用步距规进行检验。多数人认为双频激光更现代、更精确。其实不然，多数情况下是步距规更准确，也更实用。理由如下：

步距规，是由中国计量科学研究院主持起草的JJF 1064-2004《坐标测量机校准规范》强烈推荐的用于校准坐标测量机的实物长度标准器（步距规或量块组），只有在实物标准器最大长度无法达到空间对角线的66%时，可以考虑使用双频激光干涉仪作为补充测量。该法定文件强烈推荐标准器与被测对象有相近的热膨胀系数，步距规符合推荐要求而双频激光干涉仪不是。步距规因温度变化（即使每小时0.2℃的微小变化）所引入的测量不确定度显著小于用双频激光测量引入的测量不确定度，而测量不确定度才是判定某种具体测量方法是否适宜的依据。高档数控机床各坐标的位移精度要求与坐标测量机位移精度要求比较接近，检验方法也类似，因此一般情况下用步距规检验数控机床的位移精度更准确。那特殊情况是什么呢？特殊情况是在极其严格的国家级实验室条件下（极其严格的温度、湿度、气压、CO₂含量、气流扰动、隔振等条件），或被测对象膨胀系数接近于零时（如熔融石英、铂铱合金等），双频激光才派上了用场。事实上，能满足这样条件的情况极少。

在大多数情况下，双频激光因其膨胀系数等于零，与被测对象膨胀系数相差较大，故在一般环境下使用双频激光校准坐标测量机所引入的不确定度往往大于使用步距规校准校准引入的不确定度，难以发挥其应有作用，好似“英雄无用武之地”。而步距规足以满足多数使用要求。因其有着精度高、尺寸稳定、适应环境能力强、价格低廉等一系列优点，所以说检验数控机床尤其是高档数控机床的各坐标位移精度，步距规更准确、更实用。英国国家物理实验室对于步距规的介绍如下：步距规，对三坐标测量机长度测量性能评定提供价廉而高效的方法。步距规尤其适合用于国家或国际标准里的正常性能检定，如2009年版国际标准——坐标测量机校准规范EN BS ISO

10360 也明确推荐使用步距规。

在用户现场验收数控机床及对数控机床进行维护保养，均需检验其定位精度。理由很明显：经过运输（震动是不可避免的）、安装、调试和数个月的生产现场实际运行，由于现实使用条件及机床关键件的应力状况与出厂检验时的环境条件及应力状况常有差异，原始定位精度出现变化是常有之事。为此，更需用步距规而不是双频激光对数控机床进行检验。下面仅举两个实例说明步距规的应用。

桂林安一量具有限公司曾购买过美国某著名公司生产的立式加工中心二台，使用中发现其中一台加工精度已超出原有技术要求。经用本公司生产的高精度步距规检测，发现其Y轴定位精度超差。该公司派人来现场用步距规检验后并进行误差补偿处理，校准后该台加工中心的精度明显高于另一台，供需双方都比较满意。为提高电火花线切割机床的加工精度，行业内知名的上海某精密数控机床有限公司，使用桂林安一量具有限公司生产的高精度步距规对出厂的中走线切割机床进行检验和校正，并在用户现场再次用步距规进行安装调试，使该类机床的加工精度显著提高，成为中走线切割机床同行业中的佼佼者。

高精度步距规，特别适用于坐标测量机和高档数控机床生产厂家的安装调试人员及用户的维修人员使用。与价格几十万元的双频激光干涉仪比较，步距规对现场环境适应性强、综合精度更高、使用方便、价格便宜，是国内外权威部门和专家们一致推荐的用于检验坐标测量机和高档数控机床的最佳工具。

经中国计量科学研究院检测，2010年7月给出的安一量具公司0-1000mm规格的高精度步距规校准报告书，令世人信服地说明中国已能生产高精度步距，且精度等级居世界前列。

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