



BEARING & TOOL CENTRE



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Our Sister Concern : RELIEF SERVICE CENTRE

Repairs, Removal of Jaw Error, Bore Gauge Extension, Instrument Modifications & Spares

Quotation

27 | Vernier Caliper [Simple] | Least Count 0.02 Mm / 0.001 Inch

Range-mm	W	C	D %	0-450	0-600	0-1000	0-1500	0-2000	0-3000
Insize Rs.	6	N		8927	9192S	27195	74597	95005	
Code				1214-450	1214- 600	1214- 1000	1214-1500	1214-2000	
Catalog				Page No. - 2	Page No. - 2	Page No. - 2	Page No. - 2	Page No. - 2	
Aerospace Rs.		N	10	1700	1800	5000	16900	21900	65000
M & W Rs.	6	N		6500	6800	16000			
Code				VCF 450	VCF 600	VCF 1000			
Catalog				Page No. - 7	Page No. - 7	Page No. - 7			
Precision - Std. Rs.	12	Y	20	7000	8000	15500			
Mitutoyo Rs. - with fine	12	N	5	21380	21524	42905	94032	124535	
Code				160-119	160-103	160-106	160-112	160-115	
Catalog				Page No. - 3	Page No. - 3	Page No. - 3	Page No. - 3	Page No. - 3	
Mitutoyo Rs. - 0.05			5		21227				
Code					530-501				
Catalog					Page No. - 4,5				

Note:- Aerospace item once sold will not be taken back even if it is Faulty.

*** W - Warranty , C - Certificate , D- Discount / *

*** Calibration for 1500mm and 2000mm reading up to 1000mm will be provided.

Terms & Conditions -

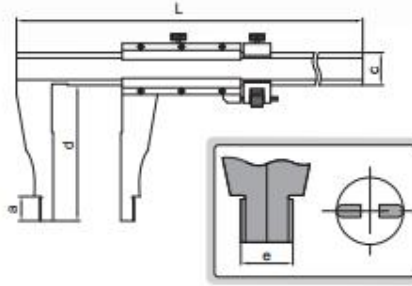
- Goods offered - Subject to Prior Sale
- Price Validity: "15 Days from Date of Quotation"
- C.S.T 2% extra against form C. Otherwise 5% without form C For Out of Gujarat Sales only.
- VAT 5% extra for Sales within Gujarat. Prices Ex-Godown Ahmedabad.
- Payment against Proforma Invoice, Packing, Forwarding & Freight extra.
- **Bank Detail** - Kotak Mahindra Bank Ltd.
- **Branch** - Shivranjini
- **Bank IFSC Code** - KKBK 0000 810
- **Bank Account No.** 08102 00000 2689
- Note - While making payment online do mention your Company's name.
- TIN NO 24070901229 , CST No. 24570901229
- We are looking forward to your valued orders.

INSIZE MAKE

VERNIER CALIPER



1214-500



- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Range	a	c	e	L
0-300mm	10	20	10	410
0-450mm	18	24	20	620
0-500mm	18	24	20	670
0-600mm	18	24	20	770
0-1000mm	24	32	20	1216
0-1500mm	24	42	20	1830
0-2000mm	24	42	20	2320

Graduation 0.02mm (mm)

Code	Range	Accuracy	d
1214-301	0-300mm	±0.05mm	75
1214-451	0-450mm	±0.05mm	100
1214-501	0-500mm	±0.05mm	100
1214-601	0-600mm	±0.05mm	100
1214-1001	0-1000mm	±0.08mm	140
1214-1501	0-1500mm	±0.12mm	180
1214-2001	0-2000mm	±0.14mm	200

Graduation 0.02mm/0.001" (mm)

Code	Range	Accuracy	d
1214-300	0-300mm/0-12"	±0.05mm	75
1214-450	0-450mm/0-18"	±0.05mm	100
1214-500	0-500mm/0-20"	±0.05mm	100
1214-600	0-600mm/0-24"	±0.05mm	100
1214-1000	0-1000mm/0-40"	±0.08mm	140
1214-1500	0-1500mm/0-60"	±0.12mm	180
1214-2000	0-2000mm/0-80"	±0.14mm	200

Graduation 0.05mm (mm)

Code	Range	Accuracy	d
1214-303	0-300mm	±0.07mm	75
1214-453	0-450mm	±0.07mm	100
1214-503	0-500mm	±0.07mm	100
1214-603	0-600mm	±0.08mm	100
1214-1003	0-1000mm	±0.12mm	140
1214-1503	0-1500mm	±0.18mm	180
1214-2003	0-2000mm	±0.20mm	200

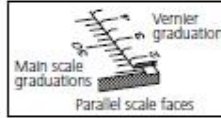
MITUTOYO MAKE

ABSOLUTE Digimatic & Vernier Caliper

SERIES 550, 160 — with Nib Style Jaws

FEATURES

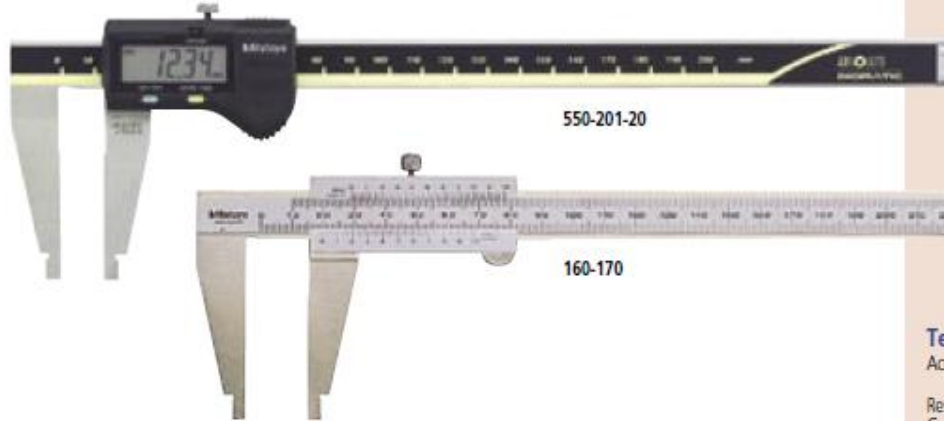
- The rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement.
- Inside and outside measurements can be directly read from the upper and lower slider graduations (series 160).
- With fine-adjustment carriage type is available (series 160).
- Parallax-free vernier scale type is available for easy and positive measurement (series 160).
- With SPC output (series 550).



SPC

ABSOLUTE[®]
Absolute System Patented by MITUTOYO

(Refer to the page 9 for details.)



SPECIFICATIONS

Metric		Digital model	
Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	550-201-20	±0.03mm	—
0 (10) - 300mm	550-231-10	±0.03mm	with offset/preset function for easy ID measurement
0 (20) - 450mm	550-203-10	±0.05mm	—
0 (20) - 600mm	550-205-10	±0.05mm	—
0 (20) - 1000mm	550-207-10	±0.07mm	—

* (): Minimum dimension in ID measurement

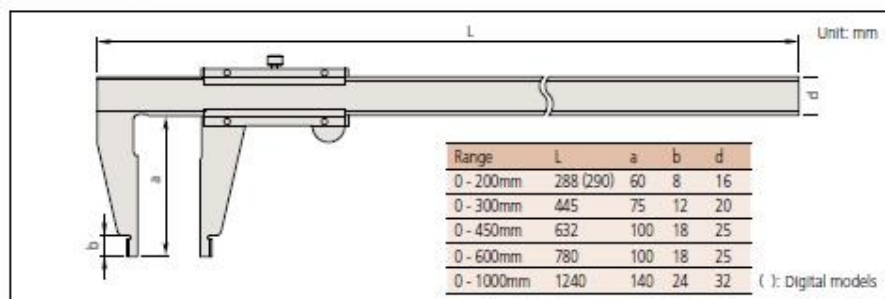
Inch/Metric		Digital model	
Range*	Order No.	Accuracy	Remarks
0 (.4") - 8"	550-201-20	±.001"	—
0 (.4") - 12"	550-231-10	±.0015"	with offset/preset function for easy ID measurement
0 (.5") - 18"	550-203-10	±.002"	—
0 (.5") - 24"	550-205-10	±.002"	—
0 (1") - 40"	550-207-10	±.003"	—

* (): Minimum dimension in ID measurement

Metric		with metric/metric double scale	
Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	160-170	±0.03mm	High accuracy model with parallax-free vernier scale (0.02mm graduation)
0 (10) - 300mm	160-180	±0.04mm	High accuracy model with parallax-free vernier scale (0.02mm graduation)
0 (20) - 450mm	160-130	±0.10mm	—
0 (20) - 600mm	160-131	±0.10mm	—
0 (20) - 1000mm	160-132	±0.15mm	—

* (): Minimum dimension in ID measurement

DIMENSION



Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.02mm
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder

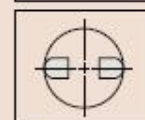
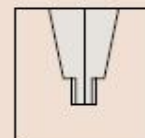
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), 938882
Battery life*: Approx. 3.5 years under normal use
*Digital models **Analog models

Function of Digital Model

Origin-set, Zero-setting, Data output, inch/mm conversion (inch/mm models)
Alarm: Low voltage, Counting value composition error

Optional Accessory for Digital Model

959143: Data hold unit
959149: SPC cable with data switch (1m)
959150: SPC cable with data switch (2m)



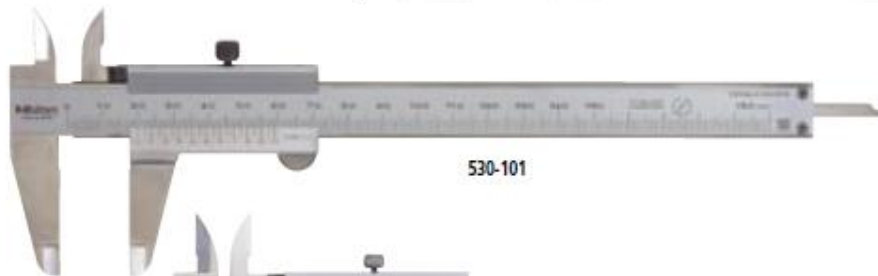
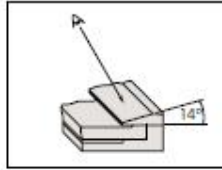
Round surface of jaws for accurate CD measurement

Vernier Caliper

SERIES 530 — Standard model

FEATURES

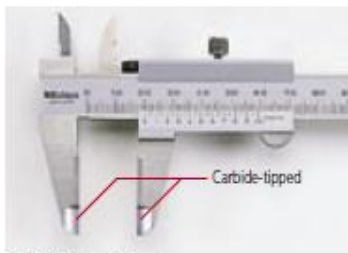
- Plain and basic design.
- Can measure OD (outside diameter), ID (inside diameter), depth, and steps.
- The small vernier face angle (14°) provides easy reading.
- Different reading scales on vernier. (metric/inch and inch models only)
- Clamping screw atop the slider.
- Carbide-tipped jaw type calipers are also available.



530-101



530-109



Carbide-tipped jaw type

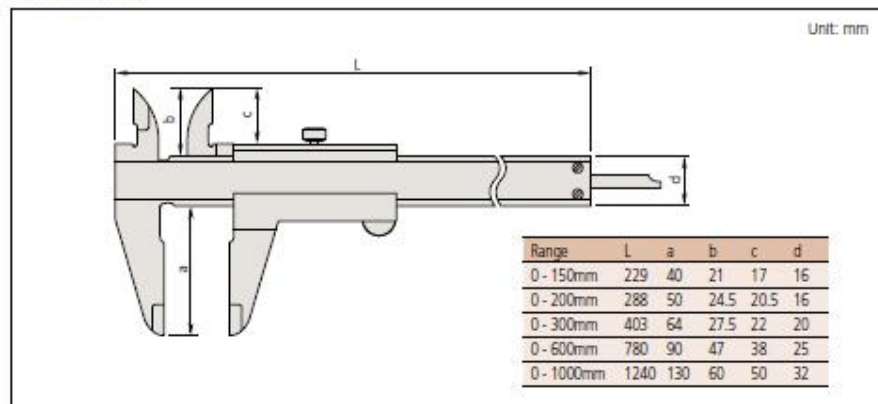


Round depth bar type

Technical Data

Accuracy: $\pm 0.05\text{mm}$ ($\leq 200\text{mm}$), $\pm 0.08\text{mm}$ ($\leq 300\text{mm}$)
 $\pm 0.10\text{mm}$ ($\leq 600\text{mm}$), $\pm 0.15\text{mm}$ ($\leq 1000\text{mm}$)
 High accuracy type:
 $\pm 0.03\text{mm}$ ($\leq 200\text{mm}$), $\pm 0.04\text{mm}$ ($\leq 300\text{mm}$)
 Graduation: 0.05mm, 0.05mm (1/128") or .001" (1/128")
 High accuracy type:
 0.02mm or 0.02mm (.001")

DIMENSION



Measurement Applications



OD measurement



ID measurement



Step measurement



Depth measurement

SPECIFICATIONS

Metric

Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 150mm	530-102	∅1.9mm rod	—	—
0 - 150mm	530-101	Blade	—	—
0 - 150mm	530-320	Blade	—	Carbide-tipped jaws for OD measurement
0 - 150mm	530-335	Blade	—	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	530-319	Blade	—	Clamping screw below the slider
0 - 150mm	530-122*	Blade	—	High accuracy model: ±0.03mm
0 - 200mm	530-108	Blade	—	—
0 - 200mm	530-321	Blade	—	Carbide-tipped jaws for OD measurement
0 - 200mm	530-123*	Blade	—	High accuracy model: ±0.03mm
0 - 300mm	530-109	Blade	—	—
0 - 300mm	530-322	Blade	—	Carbide-tipped jaws for OD measurement
0 - 300mm	530-124*	Blade	—	High accuracy model: ±0.04mm
0 - 600mm	530-501	—	—	—
0 - 1000mm	530-502	—	—	—

*Graduation: 0.02mm

Metric/Inch with metric/inch double scale

Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 150mm	530-104	Blade	1/128"	—
0 - 150mm	530-316	Blade	1/128"	Clamping screw below the slider
0 - 150mm	530-125	Blade	1/128"	—
0 - 150mm	530-312*	Blade	.001"	High accuracy model: ±0.03mm
0 - 200mm	530-114	Blade	1/128"	—
0 - 200mm	530-118*	Blade	.001"	High accuracy model: ±0.03mm
0 - 300mm	530-115	Blade	1/128"	—
0 - 300mm	530-119*	Blade	.001"	High accuracy model: ±0.04mm

*Graduation: 0.02mm

Inch with inch/inch double scale

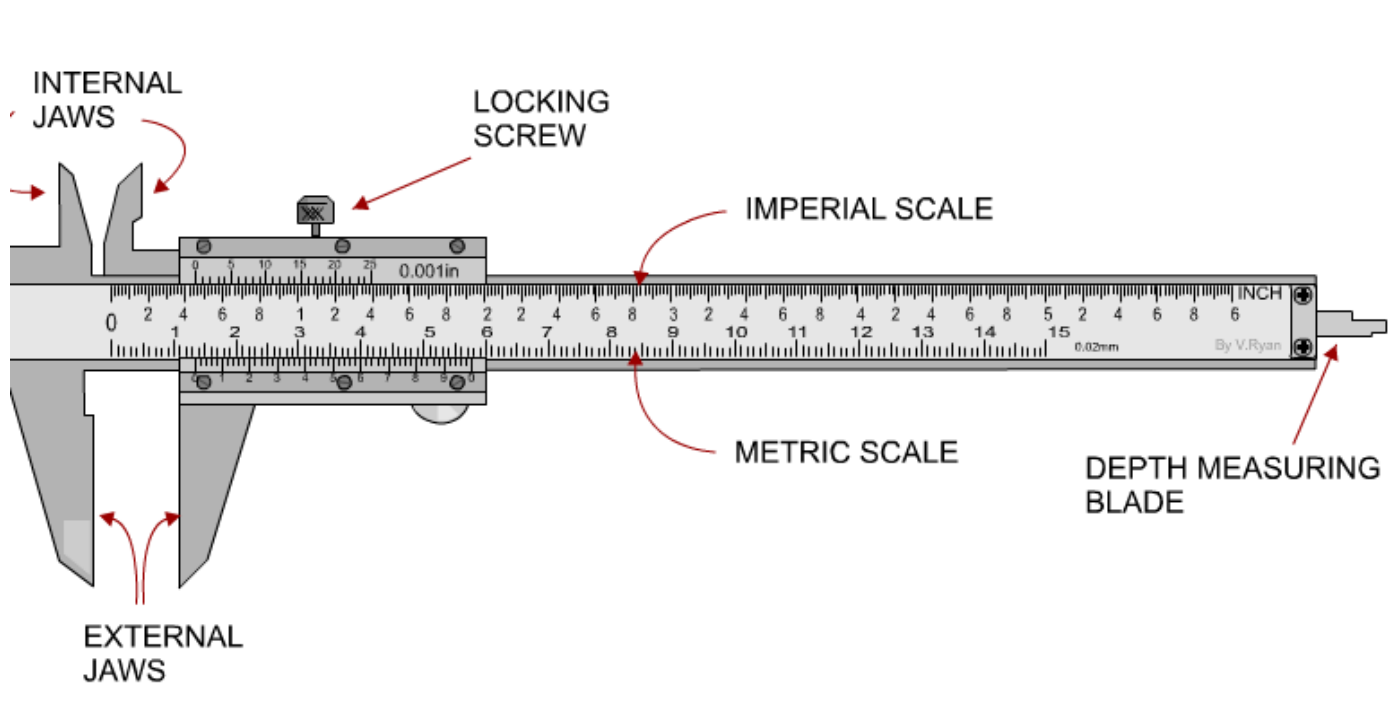
Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 6"	530-105	Blade	1/128"	—
0 - 6"	530-314	Blade	1/128"	Carbide-tipped jaws for OD measurement
0 - 8"	530-116	Blade	1/128"	—

THE VERNIER CALIPER - MANUAL VERSION

V. Ryan © 2004 - 2010

The Vernier Caliper is a precision instrument that can be used to measure internal and external distances extremely accurately. The example shown below is a manual caliper. Measurements are interpreted from the scale by the user. This is more difficult than using a digital vernier caliper which has an LCD digital display on which the reading appears. The manual version has both an imperial and metric scale.

Manually operated vernier calipers can still be bought and remain popular because they are much cheaper than the digital version. Also, the digital version requires a small battery whereas the manual version does not need any power source.



HOW TO READ A MEASUREMENT FROM THE SCALES

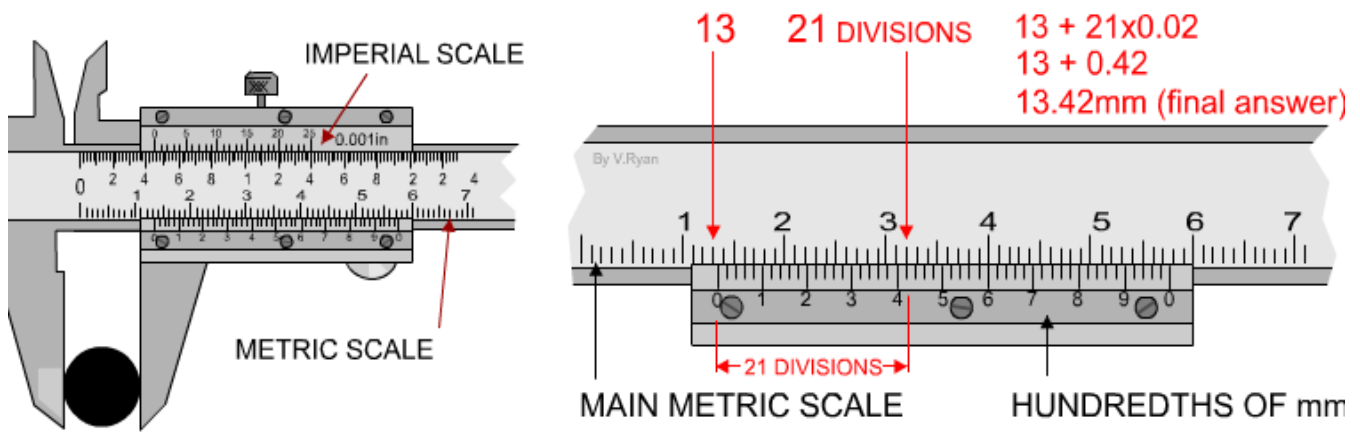
EXAMPLE 1: The external measurement (diameter) of a round section piece of steel is measured using a vernier caliper, metric scale.

MATHEMATICAL METHOD

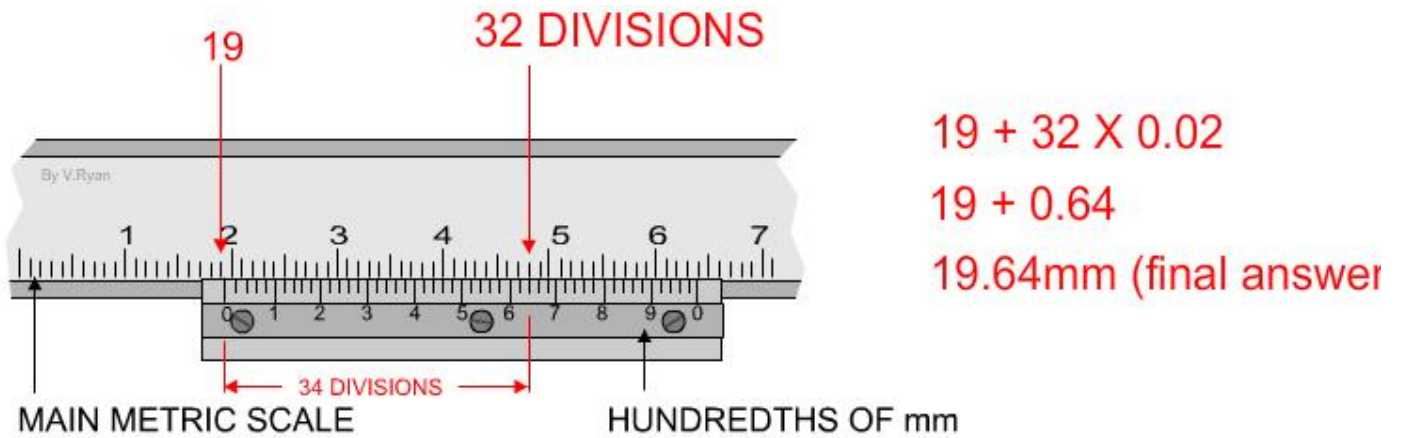
- The main metric scale is read first and this shows that there are 13 whole divisions before the 0 on the hundredths scale. Therefore, the first number is 13.
- The 'hundredths of mm' scale is then read. The best way to do this is to count the number of divisions until you get to the division that lines up with the main metric scale. This is 21 divisions on the hundredths scale.
- This 21 is multiplied by 0.02 giving 0.42 as the answer (each division on the hundredths scale is equivalent to 0.02mm)
- The 13 and the 0.42 are added together to give the final measurement of 13.42mm (the diameter of the piece of round section steel)

COMMONSENSE METHOD

Alternatively, it is just as easy to read the 13 on the main scale and 42 on the hundredths scale. The correct measurement being 13.42mm.



EXAMPLE 2: (To zoom in to see the scale - right click mouse and select zoom)



M&W MAKE



CODE	RANGE	PRICE
VCF 450	0-450 mm / 18"	6,500/-
VCF 600	0-600 mm / 24"	6,800/-
VCF 1000	0-1000 mm / 40"	16,000/-