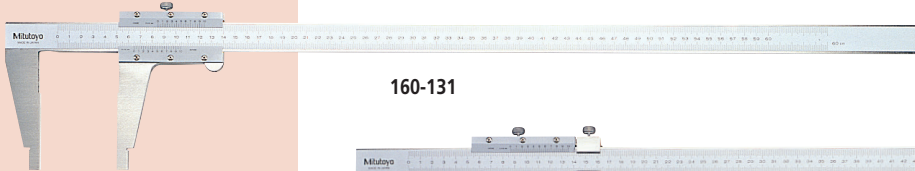
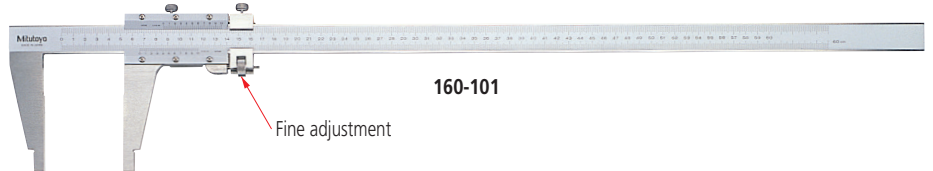


Vernier Caliper SERIES 160 — with Nib Style Jaws and Fine Adjustment

- Inside and outside measurements can be read directly from the upper and lower vernier scales.
- The jaws have radiused measuring faces for accurate inside diameter (ID) measurement.
- With fine adjustment (except for 160-130/131/132/133/134).

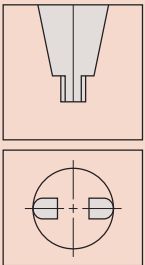
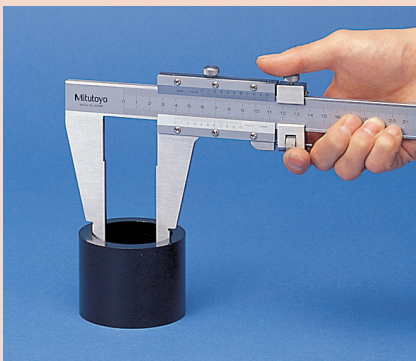


160-131



160-101

Fine adjustment



Radiused jaws for accurate ID measurement

SPECIFICATIONS

Metric _____ with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduations | Remarks |
|-----------|-------------------|----------|-------------|-------------------------|
| 160-130 | 0 (20.1) - 450mm | ±0.10mm | 0.05mm | without fine adjustment |
| 160-131 | 0 (20.1) - 600mm | | | |
| 160-132 | 0 (20.1) - 1000mm | | | |
| 160-133 | 0 (20.1) - 1500mm | | | |
| 160-134 | 0 (20.1) - 2000mm | | | |

* () : Minimum dimension in ID measurement

Metric _____ with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduations | Remarks |
|-----------|-------------------|----------|-------------|----------------------|
| 160-127 | 0 (10.1) - 300mm | ±0.04mm | 0.02mm | with fine adjustment |
| 160-128 | 0 (20.1) - 450mm | ±0.05mm | | |
| 160-101 | 0 (20.1) - 600mm | ±0.05mm | | |
| 160-104 | 0 (20.1) - 1000mm | ±0.07mm | | |
| 160-110 | 0 (20.1) - 1500mm | ±0.1mm | | |
| 160-113 | 0 (20.1) - 2000mm | ±0.12mm | | |

* () : Minimum dimension in ID measurement

Metric/Inch _____ with metric/inch double scale

| Order No. | Range* | Accuracy | Graduations | Remarks |
|-----------|-------------------|----------|--------------|--|
| 160-150 | 0 (10.1) - 300mm | ±0.04mm | 0.02mm/.001" | +10mm/.394" to reading in inside measurement |
| 160-151 | 0 (20.1) - 450mm | ±0.05mm | | |
| 160-153 | 0 (20.1) - 600mm | ±0.05mm | | |
| 160-155 | 0 (20.1) - 1000mm | ±0.07mm | | |
| 160-157 | 0 (20.1) - 1500mm | ±0.1mm | | |
| 160-159 | 0 (20.1) - 2000mm | ±0.12mm | | |

* () : Minimum dimension in ID measurement

Inch _____ with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduations | Remarks |
|-----------|------------------|----------|-------------|---------|
| 160-124 | 0 (.304") - 12" | ±.0015" | .001" | — |
| 160-116 | 0 (.504") - 18" | ±.002" | | |
| 160-102 | 0 (.504") - 24" | | | |
| 160-105 | 0 (1.004") - 40" | ±.003" | | |
| 160-111 | 0 (1.004") - 60" | ±.004" | | |
| 160-114 | 0 (1.004") - 80" | ±.005" | | |

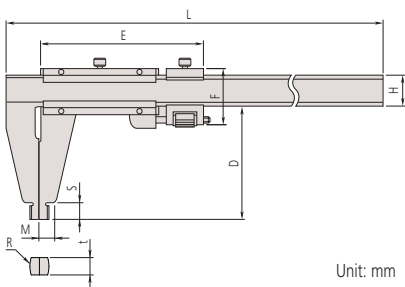
* () : Minimum dimension in ID measurement

Inch/Metric _____ with inch/metric double scale

| Order No. | Range* | Accuracy | Graduations | Remarks |
|-----------|------------------|----------|--------------|---|
| 160-125 | 0 (.304") - 12" | ±.0015" | .001"/0.02mm | +3"/7.62mm to reading in inside measurement |
| 160-119 | 0 (.504") - 18" | ±.002" | | |
| 160-103 | 0 (.504") - 24" | ±.002" | | |
| 160-106 | 0 (1.004") - 40" | ±.003" | | |
| 160-112 | 0 (1.004") - 60" | ±.004" | | |
| 160-115 | 0 (1.004") - 80" | ±.005" | | |

* () : Minimum dimension in ID measurement

DIMENSIONS



Unit: mm

| Range | D | E | F | H | L | M | R | S | t |
|----------------|-----|-----|------|----|------|------|-----|----|-----|
| 0-300mm/0-12" | 75 | 103 | 38 | 20 | 445 | 10 | R 5 | 12 | 3.8 |
| 0-450mm* | 100 | 89 | — | 25 | 630 | 14.8 | R10 | 18 | 6 |
| 0-450mm/0-18" | 100 | 112 | 51 | — | — | — | R10 | 18 | 6 |
| 0-600mm* | 100 | 89 | — | 25 | 780 | 14.8 | R10 | 18 | 6 |
| 0-600mm/0-24" | 100 | 112 | 51 | — | — | — | R10 | 18 | 6 |
| 0-1000mm* | 140 | 111 | — | 32 | 1240 | 17 | R10 | 24 | 8 |
| 0-1000mm/0-40" | 140 | 150 | 62.5 | — | — | — | R10 | 24 | 8 |
| 0-1500mm* | 180 | 129 | — | 32 | 1800 | 19 | R10 | 30 | 8 |
| 0-1500mm/0-60" | 180 | 170 | 62.5 | — | — | — | R10 | 30 | 8 |
| 0-2000mm* | 180 | 129 | — | 40 | 2300 | 23 | R10 | 30 | 12 |
| 0-2000mm/0-80" | 180 | 180 | 78 | — | — | — | R10 | 30 | 12 |

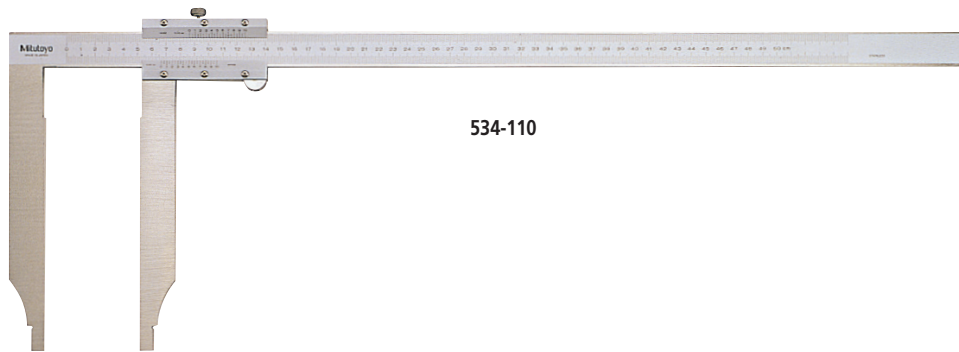
*: without fine adjustment

Calipers

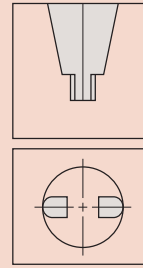
An industry standard in measuring tools

Long Jaw Vernier Caliper SERIES 534

- Long jaws for measuring hard-to-reach workpiece features.
- Inside and outside measurements can be read directly from the upper and lower vernier scales.



534-110



Round jaws for accurate ID measurement

SPECIFICATIONS

Metric _____ with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduation | Remarks |
|-----------|------------------|----------|------------|-------------------------|
| 534-109 | 0 (10.1) - 300mm | ±0.07mm | 0.05mm | without fine adjustment |
| 534-110 | 0 (20.1) - 500mm | ±0.13mm | | |

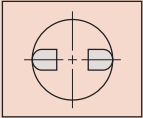
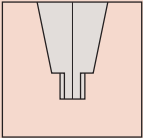
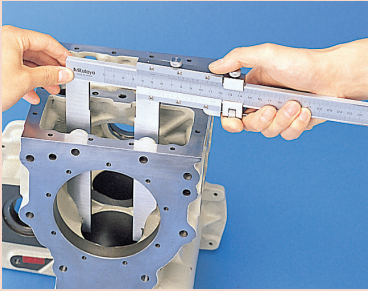
* (): Minimum dimension in inside measurement

Metric/Inch _____ with metric/inch double scale

| Order No. | Range* | Accuracy | Graduation | Remarks |
|-----------|-------------------|----------|----------------|---|
| 534-101 | 0 (10.1) - 300mm | ±0.07mm | 0.05mm/ 1/128" | +10mm/.394" to reading in inside measurement without fine adjustment |
| 534-105 | | ±0.04mm | 0.02mm/.001" | |
| 534-102 | 0 (20.1) - 500mm | ±0.13mm | 0.05mm/ 1/128" | +20mm/.787" to reading in inside measurement without fine adjustment |
| 534-106 | | ±0.06mm | 0.02mm/.001" | |
| 534-103 | 0 (20.1) - 750mm | ±0.16mm | 0.05mm/ 1/128" | |
| 534-107 | | ±0.08mm | 0.02mm/.001" | |
| 534-104 | 0 (20.1) - 1000mm | ±0.20mm | 0.05mm/ 1/128" | |
| 534-108 | | ±0.10mm | 0.02mm/.001" | |

* (): Minimum dimension in inside measurement

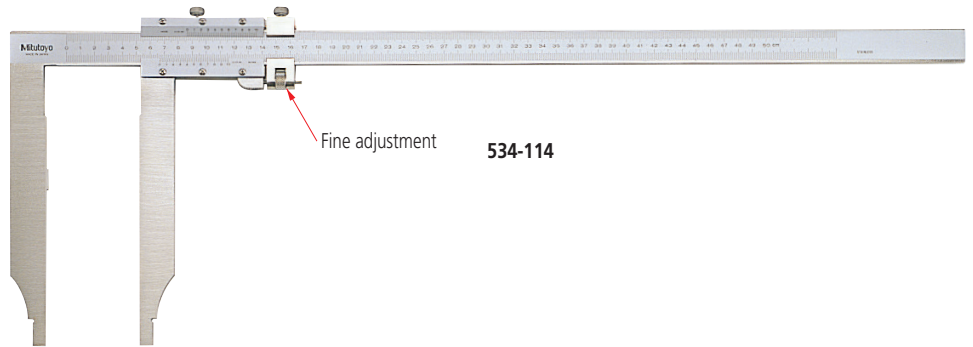
Long Jaw Vernier Caliper SERIES 534



Radiused jaws for accurate ID measurement

- Long jaws for measuring hard-to-reach workpiece features.

- Inside and outside measurements can be read directly from the upper and lower vernier scales.



SPECIFICATIONS

Metric with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduation | Remarks |
|-----------|-------------------|----------|------------|----------------------|
| 534-113 | 0 (10.1) - 300mm | ±0.04mm | 0.02mm | with fine adjustment |
| 534-114 | 0 (20.1) - 500mm | ±0.06mm | | |
| 534-115 | 0 (20.1) - 750mm | ±0.08mm | | |
| 534-116 | 0 (20.1) - 1000mm | ±0.10mm | | |

* (): Minimum dimension in inside measurement

Inch with inside measurement vernier scale

| Order No. | Range* | Accuracy | Graduation | Remarks |
|-----------|-----------------|----------|------------|----------------------|
| 534-117 | 0 (.304") - 12" | ±.002" | .001" | with fine adjustment |
| 534-118 | 0 (.804") - 20" | ±.003" | | |
| 534-119 | 0 (.804") - 30" | ±.004" | | |
| 534-120 | 0 (.804") - 40" | | | |

* (): Minimum dimension in inside measurement

DIMENSIONS

Unit: mm

| Range | D | E | F | H | L | M | R | S | t |
|----------------|-----|------|----|----|------|----|-----|------|-----|
| 0-300mm* | 90 | 76.5 | — | 20 | 445 | 7 | R5 | 12 | 3.8 |
| 0-300mm/0-12" | | 103 | 38 | | | | R5 | | 3.8 |
| 0-500mm* | 112 | 89 | — | 25 | 682 | 12 | R10 | 18.5 | 6 |
| 0-500mm/0-20" | | — | — | | | | R10 | | 6 |
| 0-750mm* | 150 | — | — | 32 | 995 | 12 | R10 | 18.5 | 6 |
| 0-750mm/0-30" | | 62.5 | — | | | | R10 | | 8 |
| 0-1000mm* | 150 | — | — | 32 | 1230 | 12 | R10 | 18.5 | 8 |
| 0-1000mm/0-40" | | 62.5 | — | | | | R10 | | 8 |

* Without fine adjustment