About the Micro-Precision Level

The Micro-Precision horizontal level from In-Place Machining Company, Inc. is a high accuracy/ precision metrology instrument that is used to determine the orientation of any flat surface relative to gravity. The Micro-Precision Level is:

- Self-Calibrating
- Self-Contained
- Easy to set up
- Simple to Operate
- Highly accurate and repeatable
- Capable of spanning areas up to 15 feet
- Durable steel and aluminum construction
- Free of electronic parts and does not require a power source

Many Satisfied Users

Researched and developed specifically for today's machine tools to enable them to meet the METROLOGY demand. They have been successful in major companies in the machine erection field, metal working industries, machine tool manufacturers, the aerospace industry, aluminum and steel rolling mills and automotive parts manufacturers.

For more information about the Micro-Precision Level or to order a set, please contact:
414.562.2000
www.microprecisionlevel.com

ADDRESS LABEL

MICRO-PRECISION LEVEL
By In-Place Machining Company, Inc.
www.microprecisionlevel.com

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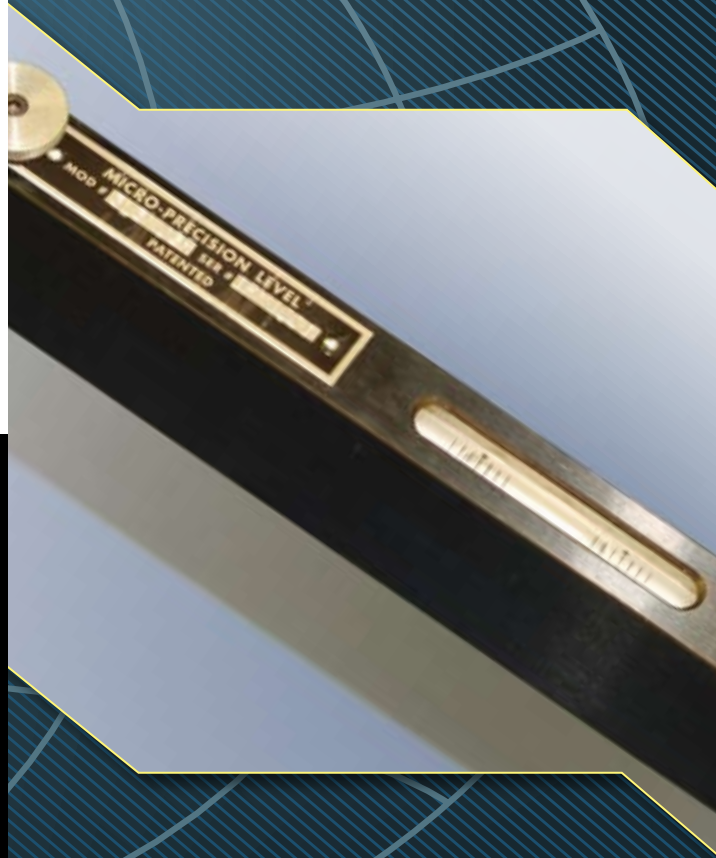
IN-PLACE MACHINING COMPANY

MICRO-PRECISION LEVEL
By In-Place Machining Company, Inc.

ADDING A NEW DIMENSION TO MACHINE TOOL METROLOGY



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ASSURED METROLOGY

Extra Sensitive Zero-Set Vial Type Level Indicator

This precision Spirit Level has long been known and accepted as a standard for determining "True Level". Used by precision machinists throughout the industry, spirit levels can yield readings accurate to within 0.001" (0.0254mm) per foot. No external reference point is needed. Micro-Precision Vial–Micrometer levels are self-contained and self-calibrating. Level to earth gives an automatic natural reference plane, with a high degree of accuracy in any environment regardless of temperature or climate, and no power is required.

Micrometer Head Assembly

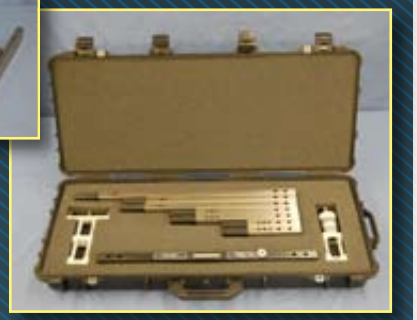
The large diameter, high accuracy micrometer head for the Micro-Precision Level is available in Metric or English units of measure. Adjustments as small as 0.0001" (0.003mm) can be made due to the accuracy of these large diameter micrometer heads. The Micro-Precision Level has inherent built-in precision as it utilizes large thimble Micrometer heads.

Expandable Level Beam System

These expandable and scaleable box beam segments form the main structural support of the level system. The box beam design provides rigid structural integrity, while the nickel plated construction provides resistance against rust. Fully extended, the beam sections enable the Micro-Precision Level to span up to 14 feet.

One Complete Kit Contains the Following:

Description	Qty
Micrometer Thimble Heads	3
Foot Assemblies	3
Beam Segments w/Integral Vial 24"	3
Beam Segments 6"	5
Beam Segments 12"	3
Beam Segments 18"	3
Beams Segments 24"	2
Beam Segments 30"	2
Storage Box	1



One Starter Kit Contains the Following:

Description	Qty
Micrometer Thimble Head	1
Foot Assembly	1
Beam Segment w/Integral Vial 24"	1
Beam Segments 6"	2
Beam Segments 12"	2
Beam Segment 18"	2
Beams Segment 24"	1
Storage Box	1

Setting the Zero-Set Indicator

Step 1

- Assemble the micrometer head on one end of the extension and the foot assembly on the opposite side
- The surface to be measured should be as flat and smooth as possible
- Mark the location of the micrometer/foot locations to be used for leveling
- Set the micrometer head at 0.500" as the base figure to work from later
- Place the micrometer head on the left-hand mark and center point of the foot assembly on the right-hand mark
- Turn the aluminum knob on the level beam segment to zero the bubble in the vial
- Rotate level assembly 180° and position the micrometer on the right-hand mark and the foot assembly on the left-hand mark
- The vial bubble will move slightly

Step 2

- Adjust the micrometer thimble so the bubble moves back to zero: 0.566" for the sake of this example (Bubble in vial is centered between the lines)
- At this point you can pick the level up to read the micrometer or read as is
- Subtract 0.500" (the original micrometer setting) from the adjusted number: 0.566" - 0.500" = 0.066"
- The points are out of level by half of this number or 0.033" (0.066" / 2 = 0.033")
- Set the micrometer to 0.533" and place the micrometer point on the right-hand mark and place the foot on the right-hand mark (second position)
- Adjust the knob to make the vial read zero

Step 3

- Rotate the level assembly 180° once again (original position)
- Adjust the micrometer head is to zero the vial
- The micrometer should read 0.467": no matter which way the level is turned, the two points are out of level by 0.033"
- The vial is now calibrated to zero for any additional measurements
- To further verify 0.033" out of level, set thimble back to 0.500", Place 0.033" shim beneath the thimble or foot on the low point
- The vial should read zero
- Rotate the level assembly 180° and the level vial should still read zero