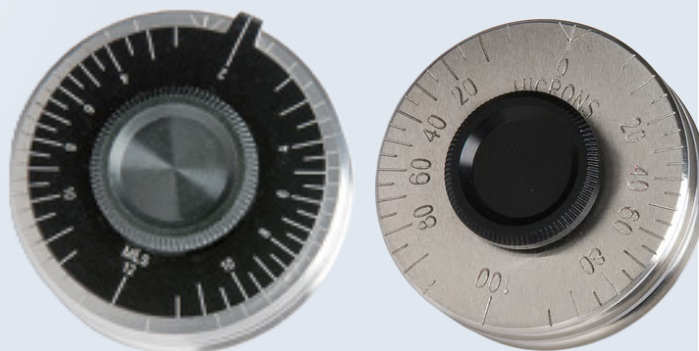




Paul N. Gardner Company

INMONT GAUGE THICKNESS GAUGES

Instructions for measuring wet
film thickness with Inmont
Gauge Models S, R, and L.



Inmont Gauges



Inmont Gauges have long been a standard instruments for measuring wet film thickness in the coatings industry. They measure wet film thickness with an accuracy of ± 0.0001 in. ($2.5 \mu\text{m}$) or 2.5% of full scale, whichever is greater. The stainless-steel gauges are suitable for thin-film applications, can be used on moving surfaces, and is easy to clean.

These gauges consist of an eccentric inner wheel supported by two larger, concentric outer wheels. As the gauge is rolled across the freshly coated surface, the inner wheel contacts and picks up the wet film at a specific point. The wet film thickness is then read from the rotating scale. Select a gauge model and range appropriate for the expected wet film thickness

Inmont Gauges are designed for wet film thickness measurement in accordance with applicable coating-inspection standards, including ASTM D1212 and ISO 2808.

Optional Inmont Gauge Holder sold separately.



Inmont Gauge Models



Model S — General Use

Design and Use

- For general use (original Interchemical design)
- The scale is stamped on the outside of the metal wheel; no rotating scale is used

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Model R* — Rotating Scale

Design and Use

- For critical measurements
 - Has a rotating scale to facilitate accurate gauge reading
 - No black plate is present on the opposite side of the wheel
- * U.S. Patent No. 3,128,558

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Inmont Gauge Models (continued)



Model L* — Low Inertial with Rotating Scale

Design and Use

- For very thin coatings and accurate measurements on moving surfaces
 - The inner wheel is hollowed out and very lightweight—only 0.3 lb
 - Black rotating scale minimizes reading errors.
 - For identification purposes, this model has a black plate pressed into the wheel on the side opposite the scale
- * U.S. Patent No. 3,128,558

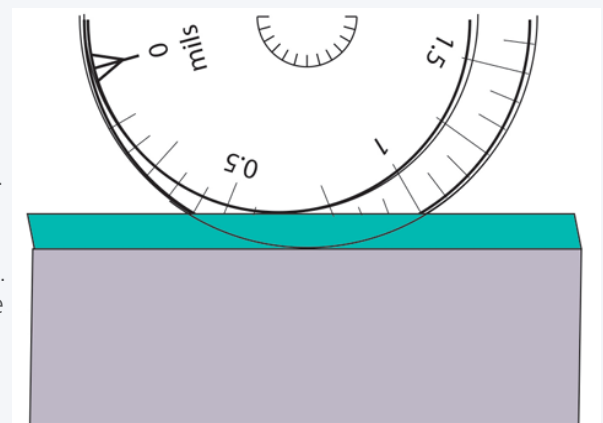
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Note: Select the gauge model and range marked on the instrument that best match the expected wet film thickness. The conversion table on the next page is provided as a general unit-reference guide.

Instructions for Use

The gauge may be held between the thumb and forefinger during measurement or inserted into the optional Inmont Gauge Holder. The holder is commonly used to measure coatings safely on moving surfaces, such as high-speed press rollers. It can also be used on stationary, flat, or curved surfaces, where it helps the operator apply steady, even pressure to the gauge.

1. Select a gauge model and measurement range appropriate for the expected wet-film thickness.
2. Hold the gauge between the thumb and forefinger, or place it in the optional Inmont Gauge Holder. Position the outer wheels squarely on the freshly applied wet coating.
3. Roll the gauge smoothly across the surface in one continuous motion. Keep the gauge aligned with the direction of travel and avoid rocking or applying excessive downward pressure.
4. Remove the gauge from the wet film and inspect the wheel markings.
5. Identify the point on the scale at which the inner wheel contacted the wet coating. This value indicates the wet film thickness.
6. Take measurements at several locations across the coated surface to verify application uniformity.
7. Clean the gauge promptly after use to prevent coating residue from affecting future measurements.



Inmont Gauges



Wet Film Thickness Conversion Table

Use this table to convert wet film thickness values amount mils, microns (µm), and millimeters (mm).

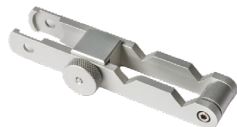
1 mil = 0.0254 mm = 25.4 µm

Mils	Millimeters	Microns	Mils	Millimeters	Microns	Mils	Millimeters	Microns
0.1	0.0025	2.5	4.00	0.102	102.0	15.5	0.394	394.0
0.2	0.0051	5.1	4.25	0.108	108.0	16.0	0.406	406.0
0.3	0.0076	7.6	4.50	0.114	114.0	16.5	0.419	419.0
0.4	0.0102	10.2	4.75	0.121	121.0	17.0	0.432	432.0
0.5	0.0127	12.7	5.00	0.127	127.0	17.5	0.445	445.0
0.6	0.0152	15.2	5.25	0.133	133.0	18.0	0.457	457.0
0.7	0.0178	17.8	5.50	0.140	140.0	18.5	0.470	470.0
0.8	0.0203	20.3	5.75	0.146	146.0	19.0	0.483	483.0
0.9	0.0229	22.9	6.00	0.152	152.0	19.5	0.495	495.0
1.0	0.0254	25.4	6.25	0.159	159.0	20.0	0.508	508.0
1.1	0.0279	27.9	6.50	0.165	165.0	20.5	0.521	521.0
1.2	0.0305	30.5	6.75	0.171	171.0	21.0	0.533	533.0
1.3	0.0330	33.0	7.00	0.178	178.0	21.5	0.546	546.0
1.4	0.0356	35.6	7.25	0.184	184.0	22.0	0.559	559.0
1.5	0.0381	38.1	7.50	0.191	191.0	22.5	0.572	572.0
1.6	0.0406	40.6	7.75	0.197	197.0	23.0	0.584	584.0
1.7	0.0432	43.2	8.00	0.203	203.0	23.5	0.597	597.0
1.8	0.0457	45.7	8.25	0.210	210.0	24.0	0.610	610.0
1.9	0.0483	48.3	8.50	0.216	216.0	24.5	0.622	622.0
2.0	0.0508	50.8	8.75	0.222	222.0	25.0	0.635	635.0
2.1	0.0533	53.3	9.00	0.229	229.0	25.5	0.648	648.0
2.2	0.0559	55.9	9.25	0.235	235.0	26.0	0.660	660.0
2.3	0.0584	58.4	9.50	0.241	241.0	26.5	0.673	673.0
2.4	0.0610	61.0	9.75	0.248	248.0	27.0	0.686	686.0
2.5	0.0635	63.5	10.00	0.254	254.0	27.5	0.699	699.0
2.6	0.0660	66.0	10.25	0.260	260.0	28.0	0.711	711.0
2.7	0.0686	68.6	10.50	0.267	267.0	28.5	0.724	724.0
2.8	0.0711	71.1	10.75	0.273	273.0	29.0	0.737	737.0
2.9	0.0737	73.7	11.00	0.279	279.0	29.5	0.749	749.0
3.0	0.0762	76.2	11.25	0.286	286.0	30.0	0.762	762.0
3.1	0.0787	78.7	11.50	0.292	292.0	31.0	0.787	787.0
3.2	0.0813	81.3	11.75	0.298	298.0	32.0	0.813	813.0
3.3	0.0838	83.8	12.0	0.305	305.0	33.0	0.838	838.0
3.4	0.0864	86.4	12.5	0.318	318.0	34.0	0.864	864.0
3.5	0.0889	88.9	13.0	0.330	330.0	35.0	0.889	889.0
3.6	0.0914	91.4	13.5	0.343	343.0	36.0	0.914	914.0
3.7	0.0940	94.0	14.0	0.356	356.0	37.0	0.940	940.0
3.8	0.0965	96.5	14.5	0.368	368.0	38.0	0.965	965.0
3.9	0.0991	99.1	15.0	0.381	381.0	39.0	0.991	991.0

Wet Film Thickness Conversion Table (continued)

Mils	Millimeters	Microns	Mils	Millimeters	Microns
40.0	1.016	1016.0	51.0	1.295	1295.0
41.0	1.041	1041.0	52.0	1.321	1321.0
42.0	1.067	1067.0	53.0	1.346	1346.0
43.0	1.092	1092.0	54.0	1.372	1372.0
44.0	1.118	1118.0	55.0	1.397	1397.0
45.0	1.143	1143.0	56.0	1.422	1422.0
46.0	1.168	1168.0	57.0	1.448	1448.0
47.0	1.194	1194.0	58.0	1.473	1473.0
48.0	1.219	1219.0	59.0	1.499	1499.0
49.0	1.245	1245.0	60.0	1.524	1524.0
50.0	1.270	1270.0			

Available Accessories



Holder for Inmont Gauge

Holder for Inmont Gauges that helps the operator apply steady, even pressure during measurement. It is especially useful for safely measuring coatings on moving surfaces, such as high-speed press rollers, and can also be used on stationary, flat, or curved surfaces.

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Inmont Gauge Case

Protective case for storing and transporting Inmont Gauges. Helps protect the precision wheels and measuring surfaces from damage, contamination, and handling wear between measurements.

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