



Pricelist 2025

VTT MIKES calibration and expert services

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Prices in this price list do not include VAT.

For information about addresses, delivery conditions and other conditions see the end of the price list.

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Weights					
1 mg - 500 mg					
OIML class E2			1121	117.00	x number of pieces
OIML class E1			1131	173.00	x number of pieces
Other weight classes			1141	83.00	x number of pieces
1 g - 5 kg					
OIML class E2			1161	98.00	x number of pieces
OIML class E1			1171	142.00	x number of pieces
Other weight classes			1181	70.00	x number of pieces
10 kg - 20 kg					
OIML class E2			1221	156.00	x number of pieces
OIML class E1			1231	234.00	x number of pieces
Other weight classes			1241	103.00	x number of pieces
Weight used in pressure balances (ring weights)					
Accuracy class 10 ppm			1411	66.00	x number of pieces
Accuracy class 5 ppm			1421	89.00	x number of pieces
Weights, basic charge	1480	235.00			
Density of weights					
Density of weights, 1 g - 2 kg	1510	319.00	1511	90.00	x number of pieces
Density standards, basic charge	1550	319.00	1551	90.00	x number of pieces
Hydrometers, 4 meas. points	1600	504.00			
Density of water sample at a single temperature	1620	608.00	1621	150.00	x number of extra temperature points
Gas flow					
Calibration using nitrogen, 5 ml/min ... 100 l/min					
Using primary method: 5 meas. points	1660	1 483.00	1661	209.00	x number of extra measurement points
Using an LFE-system: 5 meas. points	1680	1 141.00	1681	142.00	x number of extra measurement points
Pressure					
Calibration of oil-filled pressure balance, 0.5 MPa ... 500 MPa (5 measurement points)	4312	1 967.00	4313	380.00	x number of extra measurement points
Calibration of gas-filled pressure balance, 1 MPa ... 16 MPa (5 measurement points)	4314	1 760.00	4315	340.00	x number of extra measurement points
Calibration of a barometer by comparing it to a measurement standard at the prevailing air pressure (6 measurement points)	4400	515.00	4401	86.00	x number of extra measurement points
Pressure gauge and barometer calibration (price per measuring range includes 6 measurement points)	4440	753.00	4441	127.00	x number of extra measurement points
Negative gauge pressure calibration (price per measuring range includes 6 measurement points)	4460	903.00	4461	152.00	x number of extra measurement points
Vacuum gauge calibrations (price per measuring range includes 6 measurement points)	4500	677.00	4501	70.00	x number of extra measurement points
Spinning rotor gauge calibrations	4520	1 455.00			
Leak testing using helium	4550	case-specific			
Dynamic pressure measurements, 20 MPa ... 500 MPa	4552	case-specific			
Pressure calibrations with instrument adjustment: 1.5 x normal price (adjustment needs always to be agreed for each case)					
Expert services (mass, temperature, pressure, humidity, flow, density)	1990	case-specific			
Thermometers					
Fixed point calibrations					
Resistance thermometers ITS-90, -189 ...+660 °C					
Ar (-189 °C)	2110	1 566.00			
Hg (-38 °C)	2120	731.00			
Ga (29 °C)	2130	731.00			
Sn (232 °C)	2150	731.00			
Zn (419 °C)	2160	731.00			
Al (660 °C)	2170	1 107.00			
Triple point of water	2176	1 806.00			
Calibration by comparison					
Resistance thermometers in a liquid bath, -80 °C ... 280 °C	2210	220.00	2211	161.00	x measured point
Liquid-in-glass thermometers in a liquid bath, -80 °C ... 280 °C	2220	266.00	2221	189.00	x measured point
Digital thermometers, -80 °C ... 280 °C	2230	220.00	2231	161.00	x measured point
Thermometers in oven, < 660 °C	2240	275.00	2241	195.00	x measured point
Furnaces	2260	429.00	2261	177.00	x measured point
Calibration at the boiling point of nitrogen	2310	612.00			
Calibration by electrical simulation	2350	376.00			

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Hygrometers					
Dew point calibrations					
Dew-point temperature, -80 °C ... -61 °C	3100	856.00	3101	451.00	x measured point
Dew-point temperature, -60 °C ... +84 °C	3150	687.00	3151	226.00	x measured point
Humidity and temperature calibrations					
10 %rh ... 95 %rh, +10 °C ... +85 °C	3502	398.00	3503	189.00	x measured point
10 %rh ... 95 %rh, -20 °C ... +10 °C	3504	856.00	3505	345.00	measured point
Length					
Laser Radiations					
Stabilized laser of the mise en pratique					
532 nm			5111	165.00	x working hours (h)
543,5 nm			5121	165.00	x working hours (h)
633 nm	5130	950.00			
Other wavelength standards					
Fibre optic source	5140	176.00	5141	165.00	x working hours (h)
Optical spectrum analyzer	5142	176.00	5143	165.00	x working hours (h)
Linear dimensions					
Length instruments					
Laser interferometer					
Basic system	5210	176.00	5211	1 261.00	x number of pieces
Angle measurement option			5215	663.00	x number of pieces
Straightness measurement option			5219	663.00	x number of pieces
Air sensor			5223	663.00	x number of pieces
Adjustment of air sensor			5227	165.00	x working hours (h)
Wave length calibration	5230	950.00			
EDM instrument					
0 - 30 m	5234	176.00	5235	324.00	x number of pieces
1-D measuring machine					
0 - 500 mm	5238	176.00	5239	789.00	x number of pieces
501 - 1000 mm	5240	176.00	5241	987.00	x number of pieces
1001 - 3000 mm	5242	176.00	5243	1 449.00	x number of pieces
Additional scale of same machine	5244	176.00	5245	349.00	x number of pieces
Scale compensation			5247	165.00	x working hours (h)
Height measuring instrument	5248	176.00	5249	1 451.00	x number of pieces
1-D displacement					
Piezo etc.	5252	176.00	5253	201.00	x number of pieces
1-D sensor					
Measuring range < 10 mm	5256	176.00	5257	195.00	x number of pieces
Measuring range 10 mm - 25 mm	5258	176.00	5259	387.00	x number of pieces
Measuring range > 25 mm	5260	176.00	5261	469.00	
Additional range			5271	100.00	x number of pieces
Reduced uncertainty (u< 0,3 µm)			5263	1 077.00	x number of pieces
Gauge block comparator	5264	176.00	5265	987.00	x number of pieces
Dial-indicator tester	5268	176.00	5269	451.00	x number of pieces
End standards					
Gauge blocks					
0,5 - 100 mm	5272	176.00	5273	31.00	x number of pieces
> 100 ... 1000 mm	5276	176.00	5277	129.00	x number of pieces
Special gauge block	5280	176.00	5281	74.00	x number of pieces
Gauge block, interferometral calibration					
0 - 100 mm	5284	176.00	5285	100.00	x number of pieces
101 - 200 mm	5286	176.00	5287	189.00	x number of pieces
201 - 400 mm	5288	176.00	5289	309.00	x number of pieces
401 - 1000 mm	5290	176.00	5291	451.00	x number of pieces
Gauge block set M88	5320	176.00	5321	5 452.00	x number of pieces
Gauge block set M112	5322	176.00	5323	6 779.00	x number of pieces
Gauge block set M122	5324	176.00	5325	7 326.00	x number of pieces
Air gap standard	5294	176.00	5295	369.00	x number of pieces
Sheet gauge, thickness	5296	176.00	5297	100.00	x number of pieces
Sheet gauge, diameter	5298	176.00	5299	118.00	x number of pieces
Length bar (long gauge block)	5310	176.00	5311	566.00	x number of pieces
Micrometer setting rod					
0 - 100 mm	5314	176.00	5315	63.00	x number of pieces
101 - 500 mm	5316	176.00	5317	154.00	x number of pieces
> 500 mm	5318	176.00	5319	235.00	x number of pieces
Step gauge, normal accuracy (0.3 µm/m)					
0 - 250 mm	5030	176.00	5031	910.00	x number of pieces
251 - 350 mm	5032	176.00	5033	1 151.00	x number of pieces
351 - 500 mm	5034	176.00	5035	1 397.00	x number of pieces
501 - 700 mm	5036	176.00	5037	1 616.00	x number of pieces
701 - 1100 mm	5038	176.00	5039	1 836.00	
1101 - 1600 mm	5040	176.00	5041	2 231.00	
1601 - 2020 mm	5042	176.00	5043	2 431.00	

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Step gauge, better accuracy (0.15 µm/m)					
0 - 250 mm	5044	176.00	5045	1 345.00	
251 - 350 mm	5046	176.00	5047	1 683.00	
351 - 500 mm	5048	176.00	5049	1 946.00	
501 - 700 mm	5050	176.00	5051	2 333.00	
701 - 1100 mm	5052	176.00	5053	2 642.00	
1101 - 1600 mm	5054	176.00	5055	3 192.00	
1601 - 2020 mm	5056	176.00	5057	3 473.00	
Gap gauge	5334	176.00	5335	122.00	x number of pieces
Feeler (thickness) gauge	5338	176.00	5339	35.00	x number of pieces
Line standards					
Precision line scale, stage micrometer					
Max 50 lines					
0 - 100 mm	5342	176.00	5343	349.00	x number of pieces
101-500 mm	5344	176.00	5345	486.00	x number of pieces
501 - 1000 mm	5346	176.00	5347	649.00	x number of pieces
Additional scale at same substrate					
0 - 100 mm			5349	175.00	x number of pieces
101-500 mm			5351	349.00	x number of pieces
501 - 1000 mm			5353	486.00	x number of pieces
Reduced uncertainty, u<200 nm			5177	case-specific	
2D scale	5354	176.00	5355	421.00	x number of pieces
1-D and 2-D gratings and other microscope calibration standards, see Microscope calibration standards					
Tape, wire					
0 - 30 (60, 90, ...) m	5356	176.00	5357	219.00	x number of 30 m (beginnings)
Tape measure	5362	176.00	5363	109.00	x number of pieces
Plumb tape					
0 - 30 (60, 90, ...) m	5358	176.00	5359	271.00	x number of 30 m (beginnings)
Electronic plumb tape	5372	176.00	5373	324.00	x number of pieces
Circometer	5360	176.00	5361	324.00	x number of pieces
Machinist scale					
0 - 1 m	5364	176.00	5365	324.00	x number of pieces
>1 - 2 m	5366	176.00	5367	405.00	x number of pieces
>2 - 3 m	5368	176.00	5369	486.00	x number of pieces
>3 - 5 m	5370	176.00	5371	649.00	x number of pieces
Additional scale			5377	163.00	x number of pieces
Diameter standards					
External cylinder (plug, piston)	5380	176.00	5381	144.00	x number of pieces
Reduced uncertainty, u<500 nm on diameter			5383	272.00	x number of pieces
Micrometer setting ring	5386	176.00	5387	79.00	x number of pieces
External cylinder (tapered)	5384	176.00	5385	272.00	x number of pieces
Internal cylinder (ring)	5388	176.00	5389	144.00	x number of pieces
Reduced uncertainty u<500 nm on diameter			5379	272.00	x number of pieces
Internal cylinder (tapered)	5390	176.00	5391	272.00	x number of pieces
Sphere (ball): diameter	5394	176.00	5395	293.00	x number of pieces
Roundness			5399	398.00	x number of pieces
Reduced uncertainty u<300 nm on diameter			5397	409.00	x number of pieces
Angle					
Angle by Circle Dividers					
Optical polygons (12 faces)	5410	176.00	5411	782.00	x number of pieces
Index table	5414	176.00	5415	848.00	x number of pieces
Rotary table, rotary encoder scale	5418	176.00	5419	848.00	x number of pieces
Reduced uncertainty, u<0,2"			5421	1 451.00	x number of pieces
Small-angle Generators					
Sine (bar, table)	5422	176.00	5423	709.00	x number of pieces
Angle instruments					
Autocollimator	5426	176.00	5427	603.00	x number of pieces
Reduced uncertainty u<0,02"			5429	1 320.00	x number of pieces
Electronic level (frame type)	5430	176.00	5431	1 208.00	x number of pieces
Electronic level	5434	176.00	5435	391.00	x number of pieces
Clinometers	5438	176.00	5439	391.00	x number of pieces
Sprit (bubble) level	5442	176.00	5443	244.00	x number of pieces
Sprit (bubble) level (frame type)	5446	176.00	5447	967.00	x number of pieces
Theodolite (see Form/ Tachymeter/ Angular scales)					
Optical level	5454	176.00	5455	603.00	x number of pieces
(bevel) protractor	5458	176.00	5459	411.00	x number of pieces
Squareness tester	5462	176.00	5463	941.00	x number of pieces

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Angle artifacts					
Angle block	5464	176.00	5465	135.00	x number of pieces
90° square					
Knife edge square	5470	176.00	5471	144.00	x number of pieces
Steel square	5474	176.00	5475	603.00	x number of pieces
Granite square	5478	176.00	5479	914.00	x number of pieces
Frame square	5480	176.00	5481	1 828.00	x number of pieces
Cylinder square	5482	176.00	5483	789.00	x number of pieces
Cone (taper) gauge	5486	176.00	5487	616.00	x number of pieces
Angle Prisms	5490	176.00	5491	411.00	x number of pieces
Optical square (pent prism)	5494	176.00	5495	411.00	x number of pieces
Retro reflector	5496	176.00	5497	135.00	x number of pieces
Form					
Shaft alignment instrument	5510	176.00	5511	1 135.00	x number of pieces
Flatness standards					
Optical flat < 150 mm	5514	176.00	5515	162.00	x number of pieces
Optical flat (paralel, wedge)	5518	176.00	5519	100.00	x number of pieces
Surface plate (granite)					
Surface plate < 1000 mm	5522	176.00	5523	822.00	x number of pieces
Surface plate > 1000 mm	5526	176.00	5527	987.00	x number of pieces
Flatness standard for SPMs	5528	176.00	5529	359.00	x number of pieces
Roundness standards					
External cylinder	5530	176.00	5531	217.00	x number of pieces
External cylinder (arbor)	5534	176.00	5535	502.00	x number of pieces
Internal cylinder	5538	176.00	5539	217.00	x number of pieces
Sphere (hemisphere)	5542	176.00	5543	383.00	x number of pieces
Magnification standard	5546	176.00	5547	244.00	x number of pieces
Straightness Standards					
Straight edge	5550	176.00	5551	270.00	x number of pieces
Cylindrical straightness standards (granite)	5554	176.00	5555	411.00	x number of pieces
0 - 1000 mm	5564	176.00	5565	759.00	x number of pieces
> 1000 mm	5568	176.00	5569	886.00	x number of pieces
(steel)					
0 - 1000 mm	5572	176.00	5573	309.00	x number of pieces
> 1000 mm	5576	176.00	5577	603.00	x number of pieces
Cylindricity Standards					
External cylinder	5580	176.00	5581	272.00	x number of pieces
Internal cylinder	5584	176.00	5585	272.00	x number of pieces
Complex Geometry					
Surface Texture Standards					
(Groove) depth (step height) standard, e.g. ISO 5436-1 Type A	5610	176.00	5611	222.00	x number of grooves
Tip-condition standard	5614	176.00	5615	165.00	x working hours (h)
Spacing standard	5618	176.00	5619	165.00	x working hours (h)
Roughness standard	5624	176.00	5625	222.00	x number of pieces
Profile coordinate standard	5626	176.00	5627	165.00	x working hours (h)
Screw Standards					
Setting standard for thread micrometer	5632	176.00	5633	292.00	x number of pieces
Thread plug, plain	5636	176.00	5637	313.00	x number of pieces
Thread plug, tapered	5640	176.00	5641	410.00	x number of pieces
Thread ring, plain	5644	176.00	5645	331.00	x number of pieces
Thread ring, tapered	5648	176.00	5649	442.00	x number of pieces
2-D, 3-D Instruments					
Surface roughness measuring machine	5652	176.00	5653	478.00	x number of pieces
Additional tip			5655	256.00	x number of pieces
Measuring projector	5656	176.00	5657	987.00	x number of pieces
Measuring microscope	5660	176.00	5661	987.00	x number of pieces
Coordinate measuring machine					
length scale	5690	176.00	5691	165.00	x working hours (h)
Straightness <1000 mm	5696	176.00	5697	165.00	x working hours (h)
Coordinate measuring machine, inspection 10360-2	5698	176.00	5699	2 094.00	x number of pieces
Tachymeter					
Length scale	5704	176.00	5705	324.00	x number of pieces
Angular scales: (also theodolite)	5706	176.00	5707	1 294.00	x number of pieces
Motion (translation, angle) stage	5670	176.00	5671	249.00	x number of pieces
Roundness measuring machine	5674	176.00	5675	822.00	x number of pieces
Cylindricity measuring machine	5676	176.00	5677	987.00	x number of pieces
Form-measuring machine	5678	176.00	5679	987.00	x number of pieces
Hardness					
Hardness indenter	5688	176.00	5689	224.00	x number of pieces

Service	Service number	Basic fee EUR	Service number	Additional/hourly fee EUR	
Microscope callbration standards					
1-D grating, SPM calibration standard (diffraction measurement) Pitch	5150	176.00	5151	358.00	x number of pieces
2-D grating, SPM calibration standard (diffraction measurement) Pitch, x&y Orthogonality (to the same grating)	5152	176.00	5153 5155	537.00 182.00	x number of pieces x number of pieces
1-D grating, SPM calibration standard (AFM measurement) Pitch Step height by AFM	5180	176.00	5181 5183	487.00 182.00	x number of pieces x number of pieces
2-D grating, SPM calibration standard Pitch, x&y Othrogonality (to the same grating) Step height by AFM Flatness (to the same grating)	5190	176.00	5191 5193 5195 5197	652.00 182.00 235.00 182.00	x number of pieces x number of pieces x number of pieces x number of pieces
Step height standard for SPMs Step height	5612	176.00	5613	487.00	x number of pieces
Flatness standard for SPMs	5528	176.00	5529	359.00	x number of pieces
Other microscope standards, see line scales above					
Various dimensional					
Hand instruments					
External micrometer					
0 - 50 mm	5710	176.00	5711	155.00	x number of pieces
51 - 500 mm	5714	176.00	5715	189.00	x number of pieces
501 - 3000 mm	5718	176.00	5719	780.00	x number of pieces
Micrometer head	5724	176.00	5725	249.00	x number of pieces
Depth micrometer	5728	176.00	5729	162.00	x number of pieces
Depth micrometer setting device	5730	176.00	5731	939.00	x number of pieces
Caliper					
0 - 150 mm	5734	176.00	5735	155.00	x number of pieces
151 - 500 mm	5738	176.00	5739	244.00	x number of pieces
> 500 mm	5742	176.00	5743	377.00	x number of pieces
Depth gauge	5746	176.00	5747	155.00	x number of pieces
Internal two-point (bore) micrometer					
Basic equipment	5750	176.00	5751	162.00	x number of pieces
Extra part(s)	5754	176.00	5755	100.00	x number of pieces
Internal three-point micrometer	5760	176.00	5761	380.00	x number of pieces
Dial gauge, dial test indicator					
0 - 10 mm	5762	176.00	5763	109.00	x number of pieces
10 - 25 mm	5764	176.00	5765	132.00	x number of pieces
> 25 mm	5768	176.00	5769	144.00	x number of pieces
Diameter gauge	5766	176.00	5767	100.00	x number of pieces
Thickness gauge	5770	176.00	5771	155.00	x number of pieces
Tachometer, contact type	5772	176.00	5773	163.00	x number of pieces
Melt viscosity instrument nozzle	5774	176.00	5775	489.00	x number of pieces
Measuring services					
Surface roughness measurements	5810	176.00	5811	165.00	x working hours (h)
Flatness measurements					
interferometric	5814	176.00	5815	109.00	x number of pieces
mechanical	5818	176.00	5819	165.00	x working hours (h)
Machine tool measurements					
-Position accuracy measurements According to VDI/GDO-3441 or to ISO 230/2	5822	176.00	5823	249.00	x number of axes
-Positioning during adjustment	5826	176.00	5827	165.00	x working hours (h)
-Geometrical measurements	5830	176.00	5831	165.00	x working hours (h)
-Test piece measurements	5834	176.00	5835	165.00	x working hours (h)
-Angular deviations of movement	5840	176.00	5841	100.00	x number of axes
Roundness measurements	5844	176.00	5845	117.00	x number of pieces
Cylindricity measurements	5848	176.00	5849	142.00	x number of pieces
Form measurements	5852	176.00	5853	162.00	x number of pieces
Atomic force microscopic measurements					
Electronic force microscopy measurements	5854	176.00	5855 5851	186.00 186.00	x working hours (h) x working hours (h)
3-D measurements with CMM					
contact probe (Legex)	5856	176.00	5857	175.00	x machine/working hours (h)
optical probe (Quick Vision)	5858	176.00	5859	175.00	x machine/working hours (h)
XCT measurements for industrial artefacts					
Orifice plate	5862	176.00	5863	437.00	x number of pieces
Other measuring services	5860	176.00	5861	165.00	x working hours (h)

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Other service					
Identification marks	5910	31.00			
Ultrasound cleaning	5920	63.00			
Burr removing	5930	31.00			
Evaluation of measuring results	5940	31.00			
Expert service	5990	case-specific			
Time and Frequency					
df/f, dT/T, uncertainty < 0.001 ppm Rubium and cesium oscillators, GPS timing receivers, etc.	0720	887.00			
df/f, dT/T, uncertainty 0.001-1 ppm TCXO etc.	0722	709.00			
df/f, dT/T, uncertainty over 1 ppm Tachometers, stroboscopes, electronic watches, etc.	0724	446.00			
Point frequency adjustment			0731	226.00	x measured point
NTP service	0780	case-specific			
Expert services	0590	case-specific			
Electricity					
DC voltage					
DC voltage standards, single voltage level	0500	1 157.00	0501	396.00	x additional voltage
DV current					
Basic fee includes one measuring range					
10 fA – 100 nA	0520	662.00	0521	122.00	x measuring range
100 µA – 1 A see also multimeters and calibrators	0522	381.00	0523	51.00	x measuring range
1 A – 20 A	0524	446.00	0525	91.00	x measuring range
20 A – 600 A	0526	637.00	0527	116.00	x measuring range
Resistance					
DC calibrations					
10 mohm - 1 Mohm (< 150 mA, < 100 mW, <100 V)	0530	753.00			
0,1 mohm - 1 ohm (150 mA - 100 A, < 100 W)	0570	1 000.00			
1 Mohm - 100 Mohm (< 100 V)	0540	836.00			
1 Mohm - 100 Tohm (< 1 kV, < 10 mW)	0550	929.00			
Power dependence of resistance standards			0551	122.00	x additional voltage / current
Temperature dependence of resistance standards 20...25 °C			0561	180.00	x additional temperature
AC voltage					
Thermal converters, 45-60 Hz					
Uncertainty < 400 ppm					
Current transformers 0,1 A - 2500 A	0616	884.00	0617	81.00	x additional range/burden (with 5 measure
Current transformers over 2500 A	0618	1 241.00	0619	81.00	x additional range/burden (with 5 measure
Current transformers, uncertainty under 400 ppm	0602	case-specific			
High voltage					
DC voltage					
DC voltage measuring system					
1 kV - 50 kV	0410	783.00			
50 kV - 200 kV	0412	1 177.00			
200 kV - 1200 kV	0414	case-specific			outside official CMC range
DC linearity test	0416	case-specific			in connection with system calibration
AC voltage					
AC voltage measuring system					
1 kV - 40 kV	0420	783.00			
40 kV - 100 kV	0422	984.00			
100 kV - 200 kV	0424	1 373.00			
200 kV - 500 kV	0426	case-specific			outside official CMC range
AC linearity test	0428	396.00			in connection with system calibration
High voltage probe (ac or dc / ac and dc)					
ac or dc	0430	783.00			
ac and dc	0432	984.00			
Voltage transformer					
1 kV - 40 kV	0434	783.00			
40 kV - 100 kV	0436	984.00			
100 kV - 200 kV	0438	1 278.00			

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Capacitance and inductance					
Capacitance					
High voltage capacitance and tand	0440	772.00			
Inductance					
Inductance and losses	0442	772.00			
Calibration of capacitance bridge	0444	case-specific			
High voltage on-site calibrations	0448	case-specific			
Pulse calibrations					
LI measuring system					
1 kV - 10 kV	0450	783.00			
10 kV - 200 kV	0452	case-specific			
200 kV - 400 kV	0454	case-specific			
Step response measurement	0456	396.00			in connection with system calibration
Linearity test	0458	396.00			in connection with system calibration
SI measuring system					
1 kV - 200 kV	0460	case-specific			
Step response measurement	0462	396.00			
Linearity test	0464	396.00			in connection with system calibration
Impulse calibration					
Digital recorder	0470	589.00	0471	27.00	x measured point
Impulse calibrator	0474	1 066.00	0475	57.00	x measured point
Step response measurement	0472	98.00	0473	20.00	x measured point
PD-calibrator, 5 measurement points	0480	783.00	0481	26.00	x additional point
Surge-tester calibration	0482	1 669.00			
Impulse current	0484	783.00			
ESD-tester calibration	0486	case-specific			
On-site pulse calibrations	0498	case-specific			
Callibrators					
Examples of calibrated devices: Fluke 5700 A, Fluke 5500 A					
Basic calibration at about 80 measurement points	0620	3 305.00	0621	1 104.00	oscilloscope calibrators, e.g. SC300, SC
Calibration at specific points	0630	863.00	0631	59.00	x measured point
Calibrator, basic calibration	0636	2 296.00			
Tester callibrators					
Examples of calibrated deivices: Fluke 5320A, 5322A	0638	4 387.00			
Multimeters					
Fees include basic functions (DCV, ACV, DCI, ACI,R)					
Additional functions (temperature, capacitance, etc.)					
according to a separate offer					
Reference multimeters, e.g. Keysight 3458 A, Fluke 8508A					
basic calibration at about 80 measurement points	0640	1 522.00			
Mid-level devices, e.g. Keysight 34450A	0652	890.00			
Basic devices, e.g. Fluke 79	0654	446.00			
Insulation resistance meters					
up to 100 GOhm	0656	640.00			
up to 100 TOhm	0658	872.00			
Oscilloscopes					
Single channel	0662	988.00	0663	165.00	x additional channel
Laboratory power sources					
Single output	0664	553.00	0665	165.00	x additional output
Electronic loads					
Single channel	0666	820.00	0667	165.00	x additional channel
Amplifiers					
Transconductance amplifiers					
Examples of calibrated devices: Datron 4600, Fluke 5220 A					
Basic calibration at about 30 measurement points	0660	1 787.00			
Calibration at specific points	0670	863.00	0671	182.00	x measured point
Voltage amplifiers					
Examples of calibrated devices: Fluke 5205 A					
Basic calibration at about 20 measurement points	0680	1 309.00			
Calibration at specific points	0690	753.00	0691	151.00	x measured point
Electric power					
Basic fees include ca. 20 measurement points					
Electric power, 1-phase unc. 0,005%-0,05%	0700	1 882.00			
Electric power, 1-phase unc. 0,05%-0,5%	0710	1 029.00			
Electric power, 1-phase unc. over 0,5%	0712	687.00			
Electric power, 3-phase unc. 0,01%-0,05%	0714	case-specific			
Electric power, 3-phase unc. 0,05%-0,5%	0716	1 029.00			
Electric power, 3-phase unc. over 0,5%	0718	687.00			
Electric power, additional measuring points			0719	165.00	x working hours (h)

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Capacitance standards					
Basic calibration	0740	772.00			
Inductance standards					
Basic calibration	0770	772.00			
High frequencies					
Cal. factor of RF & MW power sensor 10 MHz - 18 GHz, 1 mW, 25 points, reflection coefficients	0750	1 693.00	0751	21.00	x additional point
Reference supply of a power sensor	0754	565.00			
Attenuation 10 MHz - 6 GHz, 0 - 80 dB, 6 GHz - 18 GHz, 0 - 60 dB, 40 points, reflection coefficients	0756	1 129.00	0757	21.00	x additional point
Other services in electricity					
Adjustment of measuring devices	0760	340.00	0761	165.00	x working hours (h)
Expert services	0790	case-specific			
Measurement services, working time (h)			0795	165.00	x working hours (h)
Acoustics					
Sound calibrators: single frequency calibrators	0800	361.00	0801	151.00	x additional point
Sound calibrators, e.g. B&K 4226	0810	1 473.00	0811	151.00	x additional point
Microphones LS1P or LS2P Reciprocity calibration, 31,5 Hz - 10 (20) kHz, including 26 frequencies or more	0820	2 406.00	0821	151.00	x additional point
Comparison method, 31,5 Hz - 16 kHz, including 11 frequencies, for LS2P only	0830	1 147.00	0831	151.00	x additional point
Accelerometers, 10 Hz - 10 kHz Sensitivity and phase, including 31 frequencies	0840	584.00	0841	31.00	x additional point
Accelerometers, 0,4 Hz - 160 Hz Sensitivity and phase, including 27 frequencies	0842	584.00	0843	31.00	x additional point
Portable vibration loggers	0846	564.00	0847	31.00	x additional point
Portable vibration calibrators, e.g. PCB 394C06	0848	473.00	0849	151.00	x additional point
Other vibration measurement devices	0850	case-specific			
Vibration measurement of constructions	0860	case-specific			
Expert services	0890	case-specific			
High Capacity Weight *					
High capacity weight M1-M2, 20 kg - 2000 kg			6217	1 137.00	
Force *					
Calibrations according to standard					
EN ISO 376 calibration one direction					
0,1 - 1,1 MN			6311	1 488.00	x number of pieces
10 - 100 kN			6313	1 264.00	x number of pieces
1 - 10 kN			6315	992.00	x number of pieces
0,1 - 1 kN			6317	830.00	x number of pieces
< 0,1 kN			6319	830.00	x number of pieces
EN ISO 376 calibration two directions					
0,1 - 1,1 MN			6325	2 790.00	x number of pieces
10 - 100 kN			6327	2 360.00	x number of pieces
1 - 10 kN			6329	1 806.00	x number of pieces
0,1 - 1 kN			6331	1 477.00	x number of pieces
< 0,1 kN			6333	1 477.00	x number of pieces
Applied calibration EN ISO 376, 2 posit. 1-direction					
0,1 - 1,1 MN			6341	872.00	x number of pieces
10 - 100 kN			6343	676.00	x number of pieces
1 - 10 kN			6345	578.00	x number of pieces
0,1 - 1 kN			6347	578.00	x number of pieces
< 0,1 kN			6349	578.00	x number of pieces
Applied calibration EN ISO 376, 2 posit. 2-direction					
0,1 - 1,1 MN			6461	1 558.00	x number of pieces
10 - 100 kN			6463	1 206.00	x number of pieces
1 - 10 kN			6465	1 027.00	x number of pieces
0,1 - 1 kN			6467	1 027.00	x number of pieces
< 0,1 kN			6469	1 027.00	x number of pieces

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Charge of standards/hour					
0,1-1,1 MN, FSTM no 4			6551	case-specific	x working hours (h)
10-100 kN, FSTM no 3			6553	case-specific	x working hours (h)
1-10 kN, FSTM no 2			6555	case-specific	x working hours (h)
0,1-1kN, FSTM no 1			6557	case-specific	x working hours (h)
< 0,1 kN, FSTM no 5			6559	case-specific	x working hours (h)
Scale calibration in the force standard (crane scales, aircraft scales and all types of scales which are similar to these, single point load)					
Calibr. of weighing instrument in FSM m > 11 t			6611	case-specific	x working hours (h)
Calibr. of weighing instrument in FSM m = 1,2 t - 11 t			6613	case-specific	x working hours (h)
Calibr. of weighing instrument in FSM m = ≤ 1,1 t			6615	case-specific	x working hours (h)
Axle load weighing instrument 6 t or 10 t			6625	case-specific	x working hours (h)
Special devices					
Calibration of adhesiotester			6637	578.00	x number of pieces
Torque *					
Torque wrenches					
Calibration of wrench, 1-dir, M ≤ 2 kNm/piece			6677	235.00	x number of pieces
Add charge for second direction, M ≤ 2 kNm/piece			6679	319.00	x number of pieces
Additional charge for electrical tools/piece			6693	34.00	x number of pieces
Charge for measurement points more than 3			6695	72.00	x number of pieces
Tools with actuator					
One measuring point					
M ≤ 2 kNm			6709	447.00	number of pieces
Additional points					
M ≤ 2 kNm			6719	70.00	number of pieces
Torque wrench calibration devices					
Devices with torque transducers					
M ≤ 2 kNm					
one direction			6747	637.00	x number of pieces
two directions			6749	1 019.00	x number of pieces
Cal. of tool torque tester with rider beam			6781	868.00	x number of pieces
Torque transducer calibration					
According to EURAMET cg-14 (EA-10/14)					
M ≤ 50 Nm 1-direction			6851	777.00	x number of pieces
M ≤ 50 Nm 2-directions			6853	1 139.00	x number of pieces
50 Nm ≤ M ≤ 2 kNm 1-direction			6865	907.00	x number of pieces
50 Nm ≤ M ≤ 2 kNm 2-directions			6867	1 373.00	x number of pieces
2 kNm < M ≤ 20 kNm 1-direction			6871	1 114.00	x number of pieces
2 kNm < M ≤ 20 kNm 2-directions			6873	1 625.00	x number of pieces
If two measuring bridges are calibrated from the same transducer at the same time the price is multiplied by 1.25					
Liquid Flow*					
Liquid flow meter calibration, reference standard D100, 15 < DN ≤ 50			6841	1 711.00	x number of pieces
Liquid flow meter calibration, reference standard D500, 150 < DN ≤ 500			6831	2 568.00	x number of pieces
Liquid flow meter calibration, national standard D200, 10 < DN ≤ 200			6821	3 140.00	x number of pieces
Charge of liquid flow standards/hour					
Reference standard D100, 15 < DN ≤ 50			6879	case-specific	x working hours (h)
Reference standard D500, 150 < DN ≤ 500			6881	case-specific	x working hours (h)
Reference standard D200, 10 < DN ≤ 200			6883	case-specific	x working hours (h)
VTT MIKES Kajaani, other services*					
Expert service	6990	case-specific			
Comparison	6960	case-specific			
Other basis of charge (shipment)					
Shipment costs within Finland (not insured)					
m < 7,5 kg			7561	23.00	
7,5 kg < m < 15 kg			7563	26.00	
15 kg < m < 30 kg			7565	46.00	
30 kg < m < 70 kg			7567	71.00	
Large package surcharge (in addition to shipment costs)			7569	50.00	
- package's length plus girth [(2 x width) + (2 x height)] combined exceeds 330 cm, but does not exceed 419 cm					
Special shipment (package over maximum limits)			7571	case-specific	
- actual weight > 70 kg, or length exceeds 270 cm, or length plus girth [(2 x width) + (2 x height)] combined exceeds 419 cm					
Shipment cost according to an agreement			7551	case-specific	

Service	Service number	Basic fee EUR	Service number	Additional/ hourly fee EUR	
Expert services, guides					
Expert service for measurement problems	5950	case-specific			
RR-test for measurement process	5954	case-specific			
Expert service for setting up calibration system	5956	case-specific			
Calibration instruction CD for dimensional measuring instruments	5960	3 040.00			
Calibration instructions, no. pc.			5961	182.00	x number of pieces
S. Saxholm, M. Rantanen, Measurement of pressure, 38 pp. (in Finnish)	5980	case-specific			
Other services					
Certificates and document copies			7401	82.00	x working hours (h)
Publications			7501	34.00	x number of pieces
Travel costs	7600	case-specific			
Kilometer allowance	7622	case-specific			
Daily allowance	7624	case-specific			
Travelling time	7626	165.00			
Expert services	7690	case-specific			
Other services, metrology	7700	case-specific			
MIKES-AALTO, Metrology Research Institute, calibrations	7720	case-specific			
Meeting fee	7730	case-specific			
Other products (metrology)	7740	case-specific			
Rent of premises	7800	case-specific			

* performed in VTT MIKES Kajaani

ADDRESSES

VTT MIKES (Espoo, Otanlempi)

Post address: PL 1000
FI-02044 VTT
Finland

Street and cargo address: Tekniikantie 1
FI-02150 ESPOO
Finland

VTT MIKES Kajaani

Post address: Tehdaskatu 15
Puristamo 9P19
FI-87100 KAJAANI
Finland

Street address: Tehdaskatu 15
Puristamo 9D17
FI-87100 KAJAANI
Finland

Cargo address: Sokajarventie 9
Puristamo 9D3
FI-87100 KAJAANI
Finland

Other contact informati

Email: kalibroinnit@vtt.fi
Tel. Exchange: +358 20 722 111

TERMS OF CONTRACT AND DELIVERY

The calibration will be performed in accordance with the valid scope of competence.
However, the total measurement uncertainty of the calibration may be larger than indicated in our valid scope of competence due to the device being calibrated.

Terms of payment

The calibration shall be invoiced after the work has been completed unless otherwise agreed. Invoices shall be paid within 21 days of the date of the invoice.
Interest on overdue payments shall be charged in accordance with the Finnish Interest Act (633/1982).

Other terms

VTT has a right to mention the Commission and the name of the Client as a reference.

The VTT General Terms of Contract* will apply to the Commission with the following exceptions:

- Section 7 does not apply to calibration commissions.
- Failure of the measurement standard shall be considered as Force Majeure and VTT shall be released from its obligations under the Contract.

* the general terms of contract of the VTT Technical Research Centre of Finland: https://www.vttresearch.com/sites/default/files/files/vtt_general_terms.pdf

Unless otherwise agreed upon, an electronically signed calibration certificate or measurement report is delivered to the client.

Field calibration costs are always case-specific.

The adjustment of the measurement instrument is not included in calibration; the adjustment of the instrument must be separately agreed.

Sales tax, VAT

Value added tax (VAT) and any other taxes and fees imposed by foreign authorities shall be added to the price, when applicable.

Urgency fee

If a calibration is performed urgently as per the client's request thereby bypassing other jobs in queue, the calibration fee may be charged in double.

Delivery

Before delivering the measurement instruments to VTT MIKES the client has to agree with VTT MIKES about the calibration and its delivery time.

An accompanying letter must be sent with the device/devices detailing:

- instrument to be calibrated, the scales to be measured, measuring points etc.
- contact information including invoicing and delivery addresses.

The client must also include the preferred return method for the device. VTT MIKES will return the devices sent for calibration

in the client's packaging and will insure the shipment if specifically requested by the client.

VTT MIKES is not responsible for any instrument damage during transportation or shipment.

Possible transportation and shipment costs will be charged from the customer.