

NEW
Products Included



Thermometers



Product Catalog

VEE GEE Brand Thermometers

The VEE GEE Brand Thermometer line consists of a large selection of high-quality instruments to meet the general and specific requirements for temperature analysis in today's laboratory and field applications.

ASTM and SAMA Liquid-In-Glass Thermometers have recently been added to our line to serve the needs of those requiring instruments for the demanding specifications of many laboratory applications.

We have also added a new dual-scale Digital Thermometer and 3" Dial Thermometers with extra-long stems for soil & compost testing.

Our line is always expanding. If you require a thermometer which is not found in this catalog, please contact us. We will do our best to satisfy your request.

The VEE GEE Brand name is your assurance of quality.



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ASTM Thermometers



VEE GEE Brand ASTM Thermometers are precision liquid-in-glass thermometers manufactured and guaranteed to meet ASTM E-1 Specifications in every detail. They have been designed and standardized for specific applications by ASTM (American Society for Testing and Materials), but may also be used for other methods where the ranges, subdivisions, and immersions are appropriate. All thermometers are mercury-filled and feature permanent markings, non-roll fittings, and yellow-backed tubing; they are also individually serialized to enable NIST traceability.



	Cat. No.	ASTM No.	Range	Subdivision	Length (mm)	Immersion (mm)
Partial Immersion	860001C	1C	-20° to 150°C	1.0°C	322	76
	860001F	1F	0° to 302°F	2.0°F	322	76
	860002C	2C	-5° to 300°C	1.0°C	390	76
	860002F	2F	20° to 580°F	2.0°F	390	76
	860003C	3C	-5° to 400°C	1.0°C	413	76
	860003F	3F	20° to 760°F	2.0°F	413	76
Acid Heat	860004C	4C	-1° to 105°C	0.5°C	381	152
	860004F	4F	30° to 220°F	1.0°F	381	152
Cloud and Pour Point	860005C	5C	-38° to 50°C	1.0°C	231	108
	860005F	5F	-36° to 120°F	2.0°F	231	108
	860006C	6C	-80° to 20°C	1.0°C	232	76
	860006F	6F	-112° to 70°F	2.0°F	232	76
Distillation	860007C	7C	-2° to 300°C	1.0°C	386	Total
	860007F	7F	30° to 580°F	2.0°F	386	Total
	860008C	8C	-2° to 400°C	1.0°C	386	Total
	860008F	8F	30° to 760°F	2.0°F	386	Total
Pensky-Martens	860009C	9C	-5° to 110°C	0.5°C	287	57
	860009F	9F	20° to 230°F	1.0°F	287	57
	860010C	10C	90° to 370°C	2.0°C	287	57
	860010F	10F	200° to 700°F	5.0°F	287	57
Open Flash	860011C	11C	-6° to 400°C	2.0°C	308	25
	860011F	11F	20° to 760°F	5.0°F	308	25
Gravity	860012C	12C	-20° to 102°C	0.2°C	420	Total
	860012F	12F	-5° to 215°F	0.5°F	420	Total
Loss On Heat	860013C	13C	155° to 170°C	0.5°C	169	Total
Paraffin Wax Melting Point	860014C	14C	38° to 82°C	0.1°C	377	79
	860014F	14F	100° to 180°F	0.2°F	377	79
Softening Point	860015C	15C	-2° to 80°C	0.2°C	397	Total
	860015F	15F	30° to 180°F	0.5°F	397	Total
	860016C	16C	30° to 200°C	0.5°C	397	Total
	860016F	16F	85° to 392°F	1.0°F	397	Total
Saybolt Viscosity	860017C	17C	19° to 27°C	0.1°C	275	Total
	860017F	17F	66° to 80°F	0.2°F	275	Total
	860018C	18C	34° to 42°C	0.1°C	275	Total
	860018F	18F	94° to 108°F	0.2°F	275	Total
	860019C	19C	49° to 57°C	0.1°C	275	Total
	860019F	19F	120° to 134°F	0.2°F	275	Total
	860020C	20C	57° to 65°C	0.1°C	275	Total
	860020F	20F	134° to 148°F	0.2°F	275	Total
	860021C	21C	79° to 87°C	0.1°C	275	Total
	860021F	21F	174° to 188°F	0.2°F	275	Total
	860022C	22C	95° to 103°C	0.1°C	275	Total
	860022F	22F	204° to 218°F	0.2°F	275	Total
Engler Viscosity	860023C	23C	18° to 28°C	0.2°C	212	90
	860024C	24C	39° to 54°C	0.2°C	237	90
	860025C	25C	95° to 105°C	0.2°C	212	90
Stability Test of Nitrocellulose	860026C	26C	130° to 140°C	0.1°C	463	Total



ASTM Thermometers

	Cat. No.	ASTM No.	Range	Subdivision	Length (mm)	Immersion (mm)
Terpentine Distillation	860027C	27C	147° to 182°C	0.5°C	301	76
Kinematic Viscosity	860028C	28C	36.6° to 39.4°C	0.05°C	305	Total
	860028F	28F	97.5° to 102.5°F	0.1°F	305	Total
	860029C	29C	52.6° to 55.4°C	0.05°C	305	Total
	860029F	29F	127.5° to 132.5°F	0.1°F	305	Total
	860030F	30F	207.5° to 212.5°F	0.1°F	305	Total
Reid Vapor Test	860031F	31F	-30° to 120°F	1.0°F	305	Total
Aniline Point	860033C	33C	-38° to 42°C	0.2°C	419	50
	860033F	33F	-36.5° to 107.5°F	0.5°F	419	50
	860034C	34C	25° to 105°C	0.2°C	419	50
	860034F	34F	77° to 221°F	0.5°F	419	50
	860035C	35C	90° to 170°C	0.2°C	419	50
	860035F	35F	194° to 338°F	0.5°F	419	50
Titer Test	860036C	36C	-2° to 68°C	0.2°C	405	45
Solvents Distillation	860037C	37C	-2° to 52°C	0.2°C	395	100
	860038C	38C	24° to 78°C	0.2°C	395	100
	860039C	39C	48° to 102°C	0.2°C	395	100
	860040C	40C	72° to 126°C	0.2°C	395	100
	860041C	41C	98° to 152°C	0.2°C	395	100
	860042C	42C	95° to 255°C	0.5°C	395	100
Kinematic Viscosity	860043C	43C	-51.6° to -34°C	0.1°C	420	Total
	860043F	43F	61° to 29°F	0.2°F	420	Total
	860044C	44C	18.6° to 21.4°C	0.05°C	305	Total
	860044F	44F	66.5° to 71.5°F	0.1°F	305	Total
	860045C	45C	23.6° to 26.4°C	0.05°C	305	Total
	860045F	45F	74.5° to 79.5°F	0.1°F	305	Total
	860046C	46C	48.6° to 51.4°C	0.05°C	305	Total
	860046F	46F	119.5° to 124.5°F	0.1°F	305	Total
	860047C	47C	58.6° to 61.4°C	0.05°C	305	Total
	860047F	47F	137.5° to 142.5°F	0.1°F	305	Total
	860048C	48C	-19.4° to -16.6°C	0.05°C	305	Total
	860048F	48F	177.5° to 182.5°F	0.1°F	305	Total
Stormer Viscosity	860049C	49C	20° to 70°C	0.2°C	305	65
Gas Calorimeter	860050F	50F	54° to 101°F	0.1°F	468	Total
	860051F	51F	69° to 116°F	0.1°F	468	Total
	860052F	52F	54° to 101°F	1.0°F	209	Total
Butadiene Boiling Point	860052C	52C	-10° to 5°C	0.1°C	162	Total
Benzene Freezing Point	860053C	53C	-0.6° to 10.4°C	0.1°C	189	Total
Congeaing Point	860054C	54C	20° to 100°C	0.2°C	312	Total
	860054F	54F	68° to 213°F	0.5°F	312	Total
Bomb Calorimeter	860056C	56C	19° to 35°C	0.02°C	585	Total
	860056F	56F	66° to 95°F	0.05°F	585	Total
Tag Closed Tester	860057C	57C	-20° to 50°C	0.5°C	287	57
	860057F	57F	-4° to 122°F	1.0°F	287	57
Tank	860058C	58C	-34° to 49°C	0.5°C	303	Total
	860058F	58F	-30° to 120°F	1.0°F	303	Total
	860059C	59C	-18° to 82°C	0.5°C	303	Total
	860059F	59F	0° to 180°F	1.0°F	303	Total
	860060C	60C	77° to 260°C	1.0°C	303	Total
	860060F	60F	170° to 500°F	2.0°F	303	Total
Petrolatum Melting Point	860061C	61C	32° to 127°C	0.2°C	381	79
	860061F	61F	90° to 260°F	0.5°F	381	79
Precision	860062C	62C	-38° to 2°C	0.1°C	379	Total
	860062F	62F	-36° to 35°F	0.2°F	379	Total
	860063C	63C	-8° to 32°C	0.1°C	379	Total
	860063F	63F	18° to 89°F	0.2°F	379	Total
	860064C	64C	25° to 55°C	0.1°C	379	Total
	860064F	64F	77° to 131°F	0.2°F	379	Total
	860065C	65C	50° to 80°C	0.1°C	379	Total
	860065F	65F	122° to 176°F	0.2°F	379	Total
	860066C	66C	75° to 105°C	0.1°C	379	Total
	860066F	66F	167° to 221°F	0.2°F	379	Total

NOTE: A Tolerance Certificate is included with each Precision ASTM Thermometer.



ASTM Thermometers

	Cat. No.	ASTM No.	Range	Subdivision	Length (mm)	Immersion (mm)
Precision NOTE: A Tolerance Certificate is included with each Precision ASTM Thermometer.	860067C	67C	95° to 155°C	0.2°C	379	Total
	860067F	67F	203° to 311°F	0.5°F	379	Total
	860068C	68C	145° to 205°C	0.2°C	379	Total
	860068F	68F	293° to 401°F	0.5°F	379	Total
	860069C	69C	195° to 305°C	0.5°C	379	Total
	860069F	69F	383° to 581°F	1.0°F	379	Total
	860070C	70C	295° to 405°C	0.5°C	379	Total
	860070F	70F	563° to 761°F	1.0°F	379	Total
Oil in Wax	860071C	71C	-37° to 21°C	0.5°C	355	76
	860071F	71F	-35° to 70°F	1.0°F	355	76
Kinematic Viscosity	860072C	72C	-19.4° to -16.6°C	0.05°C	305	Total
	860072F	72F	-2.5° to 2.5°F	0.1°F	305	Total
	860073C	73C	-41.4° to 38.6°C	0.05°C	305	Total
	860073F	73F	-42.5° to 37.5°F	0.1°F	305	Total
	860074C	74C	-55.4° to -52.6°C	0.05°C	305	Total
	860074F	74F	-67.5° to 62.5°F	0.1°F	305	Total
Antifreeze Freezing Point	860075F	75F	-35° to 35°F	0.5°F	408	100
	860076F	76F	-65° to 5°F	0.5°F	408	100
Saybolt Viscosity	860077F	77F	245° to 265°F	0.5°F	275	Total
	860078F	78F	295° to 315°F	0.5°F	275	Total
	860079F	79F	345° to 365°F	0.5°F	275	Total
	860080F	80F	395° to 415°F	0.5°F	275	Total
	860081F	81F	445° to 465°F	0.5°F	275	Total
Fuel Rating, Engine	860082C	82C	-15° to 105°C	1.0°C	162	30
	860082F	82F	0° to 220°F	2.0°F	162	30
Fuel Rating, Air	860083C	83C	15° to 70°C	1.0°C	171	40
	860083F	83F	60° to 160°F	1.0°F	171	40
Fuel Rating, Orifice Tank	860084C	84C	25° to 80°C	1.0°C	382	249
	860084F	84F	75° to 175°F	1.0°F	382	249
Fuel Rating, Surge	860085C	85C	40° to 150°C	1.0°C	310	181
	860085F	85F	100° to 300°F	2.0°F	310	181
Fuel Rating, Mix	860086C	86C	95° to 175°C	1.0°C	167	35
	860086F	86F	200° to 350°F	2.0°F	167	35
Fuel Rating, Coolant	860087C	87C	150° to 205°C	1.0°C	172	40
	860087F	87F	300° to 400°F	1.0°F	172	40
Vegetable Oil Flash	860088C	88C	10° to 200°C	1.0°C	287	57
	860088F	88F	50° to 392°F	2.0°F	287	57
Solidification Point	860089C	89C	-20° to 10°C	0.1°C	370	76
	860090C	90C	0° to 30°C	0.1°C	370	76
	860091C	91C	20° to 50°C	0.1°C	370	76
	860092C	92C	40° to 70°C	0.1°C	370	76
	860093C	93C	60° to 90°C	0.1°C	370	76
	860094C	94C	80° to 110°C	0.1°C	370	76
	860095C	95C	100° to 130°C	0.1°C	370	76
	860096C	96C	120° to 150°C	0.1°C	370	76
Tank Gauging	860097C	97C	-18° to 49°C	0.5°C	303	Total
	860097F	97F	0° to 120°F	1.0°F	303	Total
	860098C	98C	16° to 82°C	0.5°C	303	Total
	860098F	98F	60° to 180°F	1.0°F	303	Total
Weathering Test	860099F	99F	-55° to 40°F	0.5°F	302	35
Solidification Point	860100C	100C	145° to 205°C	0.2°C	370	76
	860101C	101C	195° to 305°C	0.5°C	370	76
Solvents Distillation	860102C	102C	123° to 177°C	0.2°C	395	100
	860103C	103C	148° to 202°C	0.2°C	395	100
	860104C	104C	173° to 227°C	0.2°C	395	100
	860105C	105C	198° to 252°C	0.2°C	395	100
	860106C	106C	223° to 277°C	0.2°C	395	100
	860107C	107C	248° to 302°C	0.2°C	395	100
Saybolt Viscosity	860108F	108F	270° to 290°F	0.5°F	275	Total
	860109F	109F	320° to 340°F	0.5°F	275	Total
Kinematic Viscosity	860110C	110C	133.6° to 136.4°C	0.05°C	305	Total
	860110F	110F	272.5° to 277.5°F	0.1°F	305	Total



ASTM Thermometers

	Cat. No.	ASTM No.	Range	Subdivision	Length (mm)	Immersion (mm)
Tar Acids Distillation	860111C	111C	170° to 250°C	0.2°C	395	100
Benzene Freezing Point	860112C	112C	4° to 6°C	0.02°C	215	Total
Bituminous Softening Point	860113C	113C	-1° to 175°C	0.5°C	406	Total
	860113F	113F	30° to 350°F	1.0°F	406	Total
Aviation Fuel Frz. Pt.	860114C	114C	-80° to 20°C	0.5°C	300	Total
Bomb Calorimeter	860116C	116C	18.9° to 25.1°C	0.01°C	609	Total
	860117C	117C	23.9° to 30.1°C	0.01°C	609	Total
Kinematic Viscosity	860118C	118C	28.6° to 31.4°C	0.05°C	305	Total
	860118F	118F	83.5° to 88.5°F	0.1°F	305	Total
Freezing Point	860119C	119C	-38.3° to -30°C	0.1°C	420	100
	860119F	119F	-37° to -22°F	0.2°F	420	100
Kinematic Viscosity	860120C	120C	38.6° to 41.4°C	0.05°C	305	Total
	860121C	121C	98.6° to 101.4°C	0.05°C	305	Total
Brookfield Viscosity	860122C	122C	-45° to -35°C	0.1°C	300	Total
	860123C	123C	-35° to -25°C	0.1°C	300	Total
	860124C	124C	-25° to -15°C	0.1°C	300	Total
	860125C	125C	-15° to -5°C	0.1°C	300	Total
Kinematic Viscosity	860126C	126C	-27.4° to 24.6°C	0.05°C	305	Total
	860126F	126F	-17.5° to 12.5°F	0.1°F	305	Total
	860127C	127C	-21.4° to 18.6°C	0.05°C	305	Total
	860128C	128C	-1.4° to 1.4°C	0.05°C	305	Total
	860128F	128F	29.5° to 34.5°F	0.1°F	305	Total
	860129C	129C	91.6° to 94.4°C	0.05°C	305	Total
Tank	860129F	129F	197.5° to 202.5°F	0.1°F	305	Total
	860130C	130C	-7° to 105°C	0.5°C	303	Total
	860130F	130F	20° to 220°F	1.0°F	303	Total

Calibration Services

Please refer to pages 13-14, regarding Calibration Services for VEE GEE Brand ASTM Thermometers.



Thermometer Armor Cases

VEE GEE Brand Thermometer Armor Cases are constructed of Nickel-Plated Brass and protect liquid-in-glass thermometers from rough handling and shock during use. Feature a threaded screw cap with ring top for suspension where necessary. Available in a wide range of sizes.



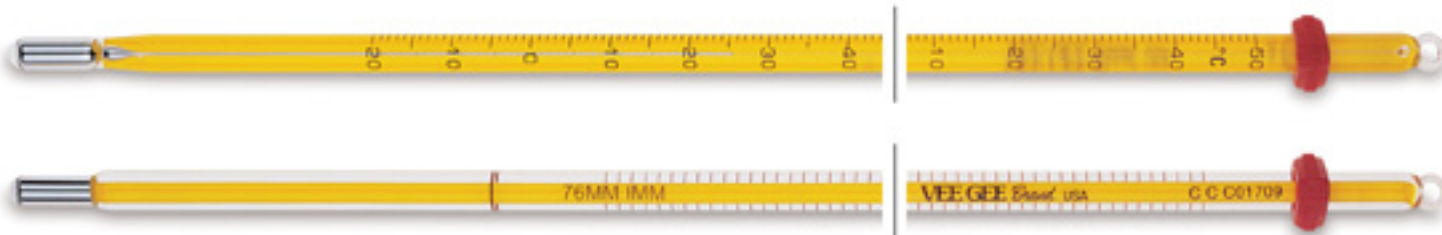
Cat. No.	For Thermometer Length	Outside Diameter	Inside Diameter
83025A	305mm / 12"	9.5mm / 0.374"	7.5mm / 0.295"
83025B	152mm / 6"	9.5mm / 0.374"	7.5mm / 0.295"
83025C	178mm / 7"	9.5mm / 0.374"	7.5mm / 0.295"
83025D	203mm / 8"	9.5mm / 0.374"	7.5mm / 0.295"
83025E	229mm / 9"	9.5mm / 0.374"	7.5mm / 0.295"
83025F	356mm / 14"	9.5mm / 0.374"	7.5mm / 0.295"
83025G	381mm / 15"	9.5mm / 0.374"	7.5mm / 0.295"
83025H	406mm / 16"	9.5mm / 0.374"	7.5mm / 0.295"
83025J	457mm / 18"	9.5mm / 0.374"	7.5mm / 0.295"
83025M	610mm / 24"	9.5mm / 0.374"	7.5mm / 0.295"



SAMA Thermometers



VEE GEE Brand SAMA Thermometers are precision liquid-in-glass thermometers meeting SAMA (Scientific Apparatus Makers Association) requirements. SAMA Thermometers are recognized as a national standard and meet NIST requirements for accuracy; they are also individually serialized to enable NIST traceability. All thermometers are mercury-filled and feature permanent markings, non-roll fittings, and yellow-backed tubing (thermometers 860CT35, 860FT35, 860CP35, & 860FP35 feature white-backed, borosilicate tubing due to their high ranges).



Total Immersion

Cat. No.	SAMA No.	Range	Subdivision	Length	Backing
860CT10	CT10	-35° to 50°C	1°C	305mm / 12"	Yellow
860CT15	CT15	-20° to 110°C	1°C	305mm / 12"	Yellow
860CT20	CT20	-20° to 150°C	1°C	305mm / 12"	Yellow
860CT25	CT25	-10° to 260°C	1°C	405mm / 16"	Yellow
860CT30	CT30	-10° to 400°C	2°C	405mm / 16"	Yellow
860CT35	CT35	-10° to 500°C	2°C	405mm / 16"	White
860FT10	FT10	-30° to 120°F	1°F	305mm / 12"	Yellow
860FT15	FT15	0 to 230°F	2°F	305mm / 12"	Yellow
860FT20	FT20	0 to 300°F	2°F	305mm / 12"	Yellow
860FT25	FT25	20 to 500°F	2°F	405mm / 16"	Yellow
860FT30	FT30	20 to 750°F	5°F	405mm / 16"	Yellow
860FT35	FT35	20 to 930°F	5°F	405mm / 16"	White
860CT40	CT40	-1 to 51°C	0.1°C	460mm / 18"	Yellow
860CT45	CT45	-1 to 101°C	0.1°C	610mm / 24"	Yellow
860CT50	CT50	-1 to 201°C	0.2°C	610mm / 24"	Yellow
860FT40	FT40	30 to 124°F	0.2°F	460mm / 18"	Yellow
860FT45	FT45	30 to 214°F	0.2°F	610mm / 24"	Yellow
860FT50	FT50	30 to 394°F	0.5°F	610mm / 24"	Yellow

Partial Immersion (76mm)

Cat. No.	SAMA No.	Range	Subdivision	Length	Backing
860CP10	CP10	-35° to 50°C	1°C	305mm / 12"	Yellow
860CP15	CP15	-20° to 110°C	1°C	305mm / 12"	Yellow
860CP20	CP20	-20° to 150°C	1°C	305mm / 12"	Yellow
860CP25	CP25	-10° to 260°C	1°C	405mm / 16"	Yellow
860CP30	CP30	-10° to 400°C	2°C	405mm / 16"	Yellow
860CP35	CP35	-10° to 500°C	2°C	405mm / 16"	White
860FP10	FP10	-30° to 120°F	1°F	305mm / 12"	Yellow
860FP15	FP15	0 to 230°F	2°F	305mm / 12"	Yellow
860FP20	FP20	0 to 300°F	2°F	305mm / 12"	Yellow
860FP25	FP25	20 to 500°F	2°F	405mm / 16"	Yellow
860FP30	FP30	20 to 750°F	5°F	405mm / 16"	Yellow
860FP35	FP35	20 to 930°F	5°F	405mm / 16"	White
860CP40	CP40	-1 to 51°C	0.1°C	460mm / 18"	Yellow
860CP45	CP45	-1 to 101°C	0.1°C	610mm / 24"	Yellow
860CP50	CP50	-1 to 201°C	0.2°C	610mm / 24"	Yellow
860FP40	FP40	30 to 124°F	0.2°F	460mm / 18"	Yellow
860FP45	FP45	30 to 214°F	0.2°F	610mm / 24"	Yellow
860FP50	FP50	30 to 394°F	0.5°F	610mm / 24"	Yellow

Calibration Services

Please refer to pages 13-14, regarding Calibration Services for VEE GEE Brand ASTM Thermometers.



Glass Thermometers

VEE GEE Brand Glass Thermometers are highly suitable for general lab use, schools, and testing. They are available with white or yellow backing, mercury or spirit-filled (red), and in a variety of ranges to meet any application. Feature permanent markings and non-roll fittings. Weight: 20g.



Mercury-Filled

Cat. No.	Range	Subdivision	Length	Immersion (mm)	Backing
80102	-20° to 110°C	1°C	305mm / 12"	Total	White
80202	-20° to 110°C	1°C	305mm / 12"	76	White
80203	-20° to 150°C	1°C	305mm / 12"	76	White
80204	-10° to 260°C	2°C	305mm / 12"	76	White
80302	-20° to 110°C	1°C	305mm / 12"	Total	Yellow
80402	-20° to 110°C	1°C	305mm / 12"	76	Yellow
80403	-20° to 150°C	1°C	305mm / 12"	76	Yellow
80404	-10° to 260°C	2°C	305mm / 12"	76	Yellow

Spirit-Filled

Cat. No.	Range	Subdivision	Length	Immersion (mm)	Backing
80501	-20° to 110°C	1°C	305mm / 12"	Total	White
80502	-20° to 150°C	1°C	305mm / 12"	Total	White
80503	0° to 230°F	2°F	305mm / 12"	Total	White
80504	0° to 300°F	2°F	305mm / 12"	Total	White
80521	-20° to 110°C /	1°C	305mm / 12"	76	White
	0° to 230°F	2°F			
80601	-20° to 110°C	1°C	305mm / 12"	76	White
80602	-20° to 150°C	1°C	305mm / 12"	76	White
80603	0° to 230°F	2°F	305mm / 12"	76	White
80604	0° to 300°F	2°F	305mm / 12"	76	White
80621	-20° to 110°C /	1°C	305mm / 12"	Total	White
	0° to 230°F	2°F			
80802	-20° to 110°C	No Markings	305mm / 12"	Total	White



Thermometer Armor Cases

VEE GEE Brand Thermometer Armor Cases are constructed of Nickel-Plated Brass and protect liquid-in-glass thermometers from rough handling and shock during use. Feature a threaded screw cap with ring top for suspension where necessary. Available in a wide range of sizes.



Cat. No.	For Thermometer Length	Outside Diameter	Inside Diameter
83025A	305mm / 12"	9.5mm / 0.374"	7.5mm / 0.295"
83025B	152mm / 6"	9.5mm / 0.374"	7.5mm / 0.295"
83025C	178mm / 7"	9.5mm / 0.374"	7.5mm / 0.295"
83025D	203mm / 8"	9.5mm / 0.374"	7.5mm / 0.295"
83025E	229mm / 9"	9.5mm / 0.374"	7.5mm / 0.295"
83025F	356mm / 14"	9.5mm / 0.374"	7.5mm / 0.295"
83025G	381mm / 15"	9.5mm / 0.374"	7.5mm / 0.295"
83025H	406mm / 16"	9.5mm / 0.374"	7.5mm / 0.295"
83025J	457mm / 18"	9.5mm / 0.374"	7.5mm / 0.295"
83025M	610mm / 24"	9.5mm / 0.374"	7.5mm / 0.295"



Armored Glass Thermometers

VEE GEE Brand Armored Glass Thermometers are spirit-filled (red) and feature white backing and permanently fused markings printed vertically for easy reading. Complete with protective plastic sheath and ring top. The armor casing has inlets around the thermometer bulb so measurements can be taken without removing the thermometer. Weight: 15g.



Cat. No. 84050

Cat. No.	Range	Subdivision	Length	Immersion (mm)	Backing
84050	0° to 50°C	1°C	152mm / 6"	Total	White
84125	25° to 125°F	2°C	152mm / 6"	Total	White
83030A	Plastic Armor Only (For 6" Liquid-In-Glass Thermometers)				



Digital Thermometers

VEE GEE Brand Digital Thermometers are ideal for temperature monitoring in essentially any setting -- the laboratory (easily monitor test tubes, reagents, beakers, flasks), food processing, refrigeration, green houses, etc.

Model 83210 features a dual scale (-50° to 150°C / -58° to 302°F), fast 1-second update time, and a swiveling head that can be moved a full 180° for easy reading in any position. Both the ON/OFF switch and the Scale Selection switch are located on the face for simple access.

The 127mm (5") stem is stainless steel and has a 3.5mm (0.138") diameter. Provided with a protective case featuring a pocket clip. Also includes a 1.5V alkaline coin cell battery (Type LR44) and features automatic power-off after 10 minutes of idle use.



Cat. No.	Range	Resolution	Accuracy	Face Dimensions	Stem Length	Stem Diameter	Weight
83210	-50° to 150°C	0.1°C	±1.0°C	36 x 17mm / 1.4 x 0.7"	127mm / 5"	3.5mm / 0.138"	14.2g / 0.5 oz.
	-58° to 302°F	0.1°F	±2.0°F				



Dial Thermometers

VEE GEE Brand Dial Thermometers are an excellent choice for many applications including food & beverage quality control, general lab use, asphalt/concrete testing, and soil & compost testing. A wide variety of ranges are available in the three separate sizes. The smaller stem and face of the standard unit fits nicely into a shirt pocket or holder while the face and stem of the large unit allow for deeper penetration into the sample. The large faces and long stems of the NEW 3" Dial models are perfect for soil & compost testing. *Cat. no.'s 81550G, 82550DG, 82160-6, 82160-12, 82200-36, 82200-48, & 82200-72 feature glass faces.*

1" Dial (Standard)

Cat. No.	Range	Subdivision	Accuracy	Face Diameter	Stem Length	Stem Diameter	Weight (g)
81070	-40° to 70°C	1°C	±1°C	25mm / 1"	127mm / 5"	3.5mm / 0.138"	10
81125	25° to 125°F	1°F	±1°F	25mm / 1"	127mm / 5"	3.5mm / 0.138"	10
81160	-40° to 160°F	2°F	±2°F	25mm / 1"	127mm / 5"	3.5mm / 0.138"	10
81220	0° to 220°F	2°F	±2°F	25mm / 1"	127mm / 5"	3.5mm / 0.138"	10
81550	50° to 550°F	5°F	±5°F	25mm / 1"	127mm / 5"	3.5mm / 0.138"	10
81550G	50° to 550°F	5°F	±5°F	25mm / 1"	127mm / 5"	3.5mm / 0.138"	15

Note: A plastic sheath is included with all standard-sized dial thermometers. Weight: 5.5g

1.75" / 2" Dial (Large)

Cat. No.	Range	Subdivision	Accuracy	Face Diameter	Stem Length	Stem Diameter	Weight (g)
82125	25° to 125°F	1°F	±1°F	44.5mm / 1.75"	203mm / 8"	3.5mm / 0.138"	19
82220	0° to 220°F	2°F	±2°F	44.5mm / 1.75"	203mm / 8"	3.5mm / 0.138"	19
82550	50° to 550°F	5°F	±5°F	44.5mm / 1.75"	203mm / 8"	3.5mm / 0.138"	19
82550DG	10° to 290°C	5°C	±2.5°C	51mm / 2"	203mm / 8"	3.5mm / 0.138"	36
	50° to 550°F	5°F	±5°F				

3" Dial (Soil & Compost Testing)

Cat. No.	Range	Subdivision	Accuracy	Face Diameter	Stem Length	Stem Diameter	Weight (g)
82160-6	-40° to 160°F	2°F	±2°F	76mm / 3"	152mm / 6"	6.4mm / 0.25"	156
82160-12	-40° to 160°F	2°F	±2°F	76mm / 3"	305mm / 12"	6.4mm / 0.25"	170
82200-36	0° to 200°F	2°F	±2°F	76mm / 3"	914mm / 36"	7.9mm / 0.313"	255
82200-48	0° to 200°F	2°F	±2°F	76mm / 3"	122cm / 48"	7.9mm / 0.313"	284
82200-72	0° to 200°F	2°F	±2°F	76mm / 3"	183cm / 72"	7.9mm / 0.313"	354



Cat. No. 82550DG

Cat. No. 82220

Cat. No. 81550G

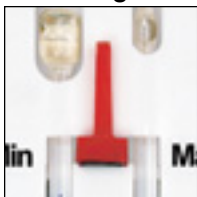


Min/Max Thermometers

This VEE GEE Brand Thermometer registers maximum and minimum temperatures in both Celsius and Fahrenheit scales. Used for recording temperature differentials. The U-shaped scale displays high temperature at the top of the right side, and low at the top of the left side. The metal floats rise with the mercury column to indicate the most recent high/low reading. The supplied reset magnet quickly returns the indicators back to the current temperature. The hard plastic frame (no metal) allows for use either indoors or out.

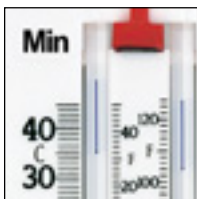
Cat. No.	Range	Subdivision	Accuracy	Dimensions	Weight (g)
84001	-50° to 55°C	1°C	±1°C	240 x 65 x 8mm / 9.45 x 2.56 x 0.315"	59.5
	-60° to 130°F	2°F	±2°F		

Reset Magnet



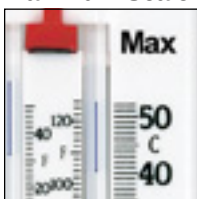
The reset magnet is used to slide the blue floats back to current temperature.

Minimum Scale



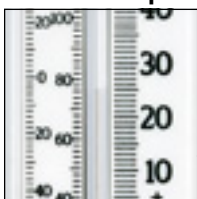
The minimum scale reading is indicated by the bottom point of the blue floating bar.

Maximum Scale



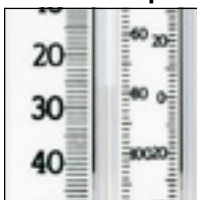
The maximum scale reading is indicated by the bottom point of the blue floating bar.

Current Temperature

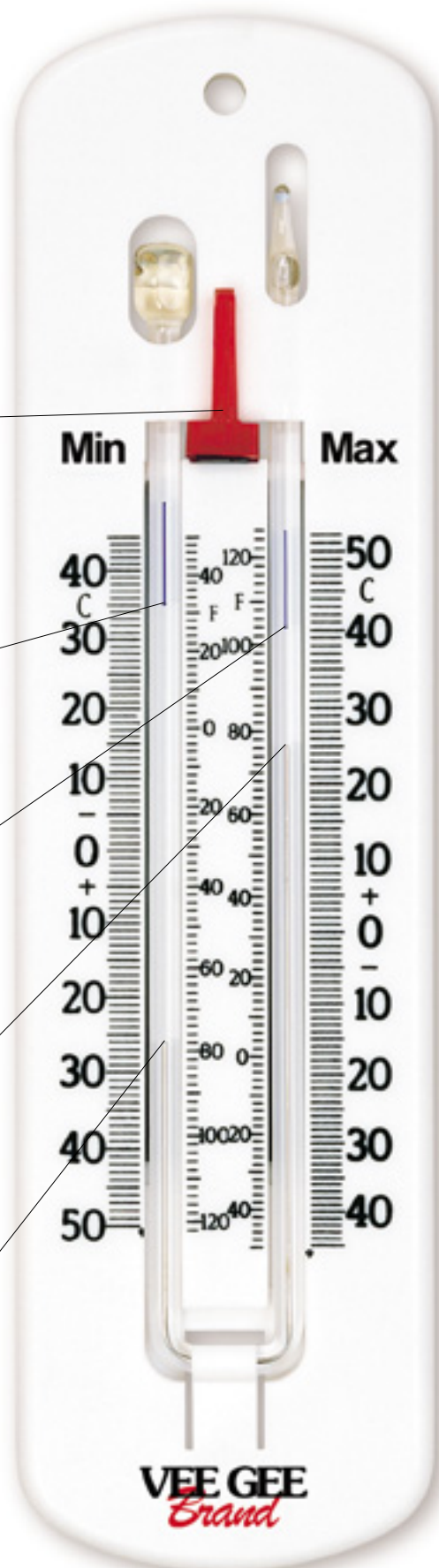


Current temperature is read at the top point of the mercury column.

Current Temperature



Current temperature is read at the top point of the mercury column.





Wall-Mount Thermometers

VEE GEE Brand Wall-Mount Thermometers are large-sized instruments suitable for the laboratory or the home. They feature all-black backing with bright, permanently-fused markings. Three different styles are available with combinations of clocks, thermometers, and hygrometers. Cat. No. 85001 requires one AA battery -- not included. Diameter: 248mm (9.75"); Depth: 40mm (1.6"); Weight: 487g.



Cat. No. 85001



Cat. No. 85002



Cat. No. 85003

Cat. No: 85001

Description: Thermometer-Hygrometer-Clock

	Range	Subdivision	Accuracy
Thermometer:	-20° to 140°F	5°F	±5°F
Hygrometer:	0-100%	2%	±2%

Cat. No: 85002

Description: Thermometer-Hygrometer

	Range	Subdivision	Accuracy
Thermometer:	-40° to 50°C	2°C	±2°C
	-40° to 120°F	2°F	±1°F
Hygrometer:	0-100%	2%	±2%

Cat. No: 85003

Description: Thermometer

	Range	Subdivision	Accuracy
Thermometer:	-40° to 50°C	2°C	±2°C
	-40° to 120°F	2°F	±1°F



Calibration Services

ASTM Thermometers

VEE GEE Brand Calibration Services offer both Tolerance and Calibration Certificates for VEE GEE Brand ASTM Thermometers.

Tolerance Certificates state that the thermometer has been tested by comparison with standards traceable to NIST, at each point stated in ASTM E1 for the given thermometer, and the accuracy is within the tolerances specified by ASTM. Tolerance Certificates do not include calibration points.

Cat. No.	Description	Calibration Points
86-TC01	Tolerance Certificate	None

Calibration Certificates are documents showing corrections for calibration points, as stated in ASTM E1 for the given thermometer, to the nearest tenth of a scale division traceable to NIST. All calibration points are incorporated on one Calibration Certificate for each thermometer. The Calibration Certificate catalog numbers listed below do NOT include the corresponding VEE GEE Brand ASTM Thermometer.

	Cat. No.	Calibration Points
Partial Immersion	860001C-CC	-20, 0, 50, 100, 150°C
	860001F-CC	0, 32, 122, 212, 302°F
	860002C-CC	0, 75, 150, 225, 300°C
	860002F-CC	32, 150, 300, 450, 580°F
	860003C-CC	0, 100, 200, 300, 370°C
	860003F-CC	32, 200, 370, 540, 700°F
Acid Heat	860004C-CC	N/A
	860004F-CC	N/A
Cloud and Pour Point	860005C-CC	-35, 0, 50°C
	860005F-CC	-30, 32, 120°F
	860006C-CC	-70, -35, 0, 20°C
	860006F-CC	-94, -30, 32, 70°F
Distillation	860007C-CC	0, 50, 100, 150, 200, 250, 300°C
	860007F-CC	32, 100, 200, 300, 400, 500, 570°F
	860008C-CC	0, 100, 200, 300, 370°C
	860008F-CC	32, 200, 370, 540, 700°F
Pensky-Martens	860009C-CC	0, 35, 70, 105°C
	860009F-CC	32, 100, 160, 220°F
	860010C-CC	100, 200, 300, 370°C
	860010F-CC	212, 390, 570, 700°F
Open Flash	860011C-CC	0, 100, 200, 300, 370°C
	860011F-CC	32, 200, 370, 540, 700°F
Gravity	860012C-CC	-20, -10, 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100°C
	860012F-CC	-5, 15, 32, 60, 85, 110, 135, 160, 185, 210°F
Loss On Heat	860013C-CC	155, 163, 170°C
Paraffin Wax Melting Point	860014C-CC	40, 50, 60, 70, 80°C
	860014F-CC	100, 120, 140, 160, 180°F
Softening Point	860015C-CC	0, 20, 40, 60, 80°C
	860015F-CC	32, 70, 100, 140, 180°F
	860016C-CC	30, 60, 90, 120, 150, 180, 200°C
	860016F-CC	90, 140, 190, 240, 290, 340, 390°F
	860017C-CC	21, 25°C
Saybolt Viscosity	860017F-CC	70, 77°F
	860018C-CC	38, 41°C
	860018F-CC	100, 107°F
	860019C-CC	50, 54°C
	860019F-CC	122, 130°F
	860020C-CC	60, 64°C
	860020F-CC	140, 147°F
	860021C-CC	82, 86°C
	860021F-CC	180, 187°F
	860022C-CC	99, 102°C
	860022F-CC	210, 212°F
	860023C-CC	20, 25°C
	860024C-CC	40, 50°C
	860025C-CC	95, 100°C

	Cat. No.	Calibration Points
Stability Test of Nitrocellulose	860026C-CC	130, 135, 140°C
Terpentine Distillation	860027C-CC	155, 165, 175°C
Kinematic Viscosity	860028C-CC	0, 37.8, 39°C
	860028F-CC	32, 100, 102°F
	860029C-CC	0, 54.4, 55°C
	860029F-CC	32, 130, 132°F
	860030F-CC	32, 210, 212°F
Reid Vapor Test	860031F-CC	N/A
Aniline Point	860033C-CC	-35, -20, 0, 20, 40°C
	860033F-CC	-31, -4, 32, 68, 104°F
	860034C-CC	25, 45, 65, 85, 100°C
	860034F-CC	77, 113, 149, 185, 212°F
	860035C-CC	100, 120, 140, 160, 170°C
Titler Test	860035F-CC	212, 250, 285, 320, 338°F
	860036C-CC	0, 15, 30, 45, 65°C
Solvents Distillation	860037C-CC	0, 15, 30, 50°C
	860038C-CC	25, 40, 55, 75°C
	860039C-CC	50, 65, 80, 100°C
	860040C-CC	75, 90, 105, 125°C
	860041C-CC	100, 115, 130, 150°C
	860042C-CC	100, 150, 200, 250°C
Kinematic Viscosity	860043C-CC	-50, -45, -40, -35, 0°C
	860043F-CC	-60, -50, -40, -30, 32°F
	860044C-CC	0, 20, 21°C
	860044F-CC	32, 68, 70°F
	860045C-CC	0, 25, 26°C
	860045F-CC	32, 77, 79°F
	860046C-CC	0, 50, 51°C
	860046F-CC	32, 122, 124°F
	860047C-CC	0, 60, 61°C
	860047F-CC	32, 140, 142°F
Stormer Viscosity	860048C-CC	0, 82.2, 83°C
	860048F-CC	32, 180, 182°F
	860049C-CC	20, 35, 50, 70°C
Gas Calorimeter	860050F-CC	Every 5° from 55°F (10 Points)
	860051F-CC	Every 5° from 70°F (10 Points)
	860052F-CC	N/A
Butadiene Boiling Point	860052C-CC	-10, 0, 5°C
Benzene Freezing Point	860053C-CC	N/A
Congeeing Point	860054C-CC	20, 50, 75, 100°C
	860054F-CC	70, 120, 170, 210°F
Bomb Calorimeter	860056C-CC	Every 2° from 19°C (8 Points)
	860056F-CC	Every 4° from 66°F (9 Points)
Tag Closed Tester	860057C-CC	-20, 0, 25, 50°C
	860057F-CC	-3, 32, 77, 122°F
Tank	860058C-CC	-30, 0, 25, 45°C



Calibration Services

	Cat. No.	Calibration Points
Tank	860058F-CC	-20, 32, 80, 120°F
	860059C-CC	0, 25, 55, 80°C
	860059F-CC	32, 80, 130, 180°F
	860060C-CC	100, 175, 255°C
	860060F-CC	212, 350, 490°F
Petrolatum Melting Point	860061C-CC	40, 60, 80, 100, 120°C
	860061F-CC	100, 150, 200, 250°F
Precision	860062C-CC	-37, -30, -20, -10, 0°C
	860062F-CC	-35, -15, 0, 15, 32°F
	860063C-CC	-7, 0, 10, 20, 30°C
	860063F-CC	20, 32, 50, 70, 88°F
	860064C-CC	0, 25, 35, 45, 55°C
	860064F-CC	32, 80, 95, 115, 130°F
	860065C-CC	0, 50, 60, 70, 80°C
	860065F-CC	32, 125, 145, 160, 175°F
	860066C-CC	0, 75, 85, 95, 105°C
	860066F-CC	32, 168, 185, 200, 220°F
Precision	860067C-CC	0, 100, 110, 130, 150°C
	860067F-CC	32, 205, 240, 275, 310°F
	860068C-CC	0, 150, 170, 190, 205°C
	860068F-CC	32, 300, 340, 370, 400°F
	860069C-CC	0, 200, 235, 270, 305°C
	860069F-CC	32, 400, 460, 520, 580°F
	860070C-CC	0, 300, 335, 370, 400°C
	860070F-CC	32, 570, 640, 700, 760°F
Oil in Wax	860071C-CC	-35, -18, 0, 20°C
	860071F-CC	-30, 0, 32, 70°F
Kinematic Viscosity	860072C-CC	-19, -17.8, 0°C
	860072F-CC	-2, 0, 32°F
	860073C-CC	-41, -40, 0°C
	860073F-CC	-42, -40, 32°F
	860074C-CC	-55, -53.9, 0°C
	860074F-CC	-67, -65, 32°F
Antifreeze Freezing Point	860075F-CC	-35, 0, 32°F
	860076F-CC	-65, -30, 5°F
Saybolt Viscosity	860077F-CC	250, 260°F
	860078F-CC	300, 310°F
	860079F-CC	350, 360°F
	860080F-CC	400, 410°F
	860081F-CC	450, 460°F
Fuel Rating, Engine	860082C-CC	0, 50, 100°C
	860082F-CC	32, 100, 200°F
Fuel Rating, Air	860083C-CC	25, 70°C
	860083F-CC	85, 135°F
Fuel Rating, Orifice Tank	860084C-CC	30, 80°C
	860084F-CC	100, 150°F
Fuel Rating, Surge	860085C-CC	50, 150°C
	860085F-CC	150, 250°F
Fuel Rating, Mix	860086C-CC	100, 175°C
	860086F-CC	225, 325°F
Fuel Rating, Coolant	860087C-CC	160, 200°C
	860087F-CC	300, 400°F
Vegetable Oil Flash	860088C-CC	40, 100, 150, 200°C
	860088F-CC	110, 212, 300, 392°F

	Cat. No.	Calibration Points
Solidification Point	860089C-CC	-20, -10, 0, 10°C
	860090C-CC	0, 10, 20, 30°C
	860091C-CC	20, 30, 40, 50°C
	860092C-CC	40, 50, 60, 70°C
	860093C-CC	60, 70, 80, 90°C
	860094C-CC	80, 90, 100, 110°C
	860095C-CC	100, 110, 120, 130°C
	860096C-CC	120, 130, 140, 150°C
Tank Gauging	860097C-CC	-15, 0, 20, 45°C
	860097F-CC	0, 32, 70, 110°F
	860098C-CC	20, 40, 60, 80°C
	860098F-CC	60, 100, 140, 180°F
Weathering Test	860099F-CC	-50, -25, 0, 32°F
Solidification Point	860100C-CC	145, 165, 185, 205°C
	860101C-CC	200, 250, 300°C
Solvents Distillation	860102C-CC	125, 140, 155, 175°C
	860103C-CC	150, 165, 180, 200°C
	860104C-CC	175, 190, 205, 225°C
	860105C-CC	200, 215, 230, 250°C
	860106C-CC	225, 240, 255, 275°C
	860107C-CC	250, 265, 280, 300°C
Saybolt Viscosity	860108F-CC	275, 285°F
	860109F-CC	325, 335°F
Kinematic Viscosity	860110C-CC	0, 135, 136°C
	860110F-CC	32, 275, 277°F
Tar Acids Distillation	860111C-CC	170, 200, 250°C
Benzene Freezing Point	860112C-CC	0, 4, 5, 6°C
Bituminous Softening Point	860113C-CC	0, 50, 100, 150, 175°C
	860113F-CC	32, 122, 212, 302, 347°F
Aviation Fuel Frz. Pt.	860114C-CC	-75, -60, -40, 0°C
Bomb Calorimeter	860116C-CC	Every 1° from 19.0°C (7 Points)
	860117C-CC	Every 1° from 24.0°C (7 Points)
Kinematic Viscosity	860118C-CC	0, 30, 31°C
	860118F-CC	32, 86, 88°F
Freezing Point	860119C-CC	-38, -30, 0°C
	860119F-CC	-36, -22, 32°F
Kinematic Viscosity	860120C-CC	0, 40, 41°C
	860121C-CC	0, 100, 101°C
Brookfield Viscosity	860122C-CC	-45, -40, -35°C
	860123C-CC	-35, -30, -25°C
	860124C-CC	-25, -20, -15°C
	860125C-CC	-15, -10, -5°C
Kinematic Viscosity	860126C-CC	-27, -26.1, 0°C
	860126F-CC	-17, -15, 32°F
	860127C-CC	-21, -20, 0°C
	860128C-CC	0, 1°C
	860128F-CC	32, 34°F
	860129C-CC	0, 93.3, 94°C
Tank	860129F-CC	32, 200, 202°F
	860130C-CC	0, 35, 70, 105°C
	860130F-CC	32, 100, 180, 220°F

SAMA Thermometers

VEE GEE Brand Calibration Services offer both Tolerance and Calibration Certificates for VEE GEE Brand SAMA Thermometers.

Tolerance Certificates state that the thermometer has been tested by comparison with standards traceable to NIST and the accuracy is within the tolerances specified by ASTM. Tolerance Certificates do not include calibration points.

Calibration Certificates are documents showing corrections for the requested calibration point(s) to the nearest tenth of a scale division traceable to NIST. Each calibration point incurs a separate charge, but all calibration points are incorporated on one Calibration Certificate for each thermometer.

Cat. No.	Description	Calibration Point(s)
86-TC01	Tolerance Certificate	None
86-CC02	Calibration Certificate	From -80°C to -31°C / -112°F to -23°F
86-CC03	Calibration Certificate	From -30°C to -1°C / -22°F to 31°F
86-CC04	Calibration Certificate	From 0°C to 100°C / 32°F to 212°F
86-CC05	Calibration Certificate	From 101°C to 300°C / 213°F to 600°F
86-CC06	Calibration Certificate	From 301°C to 400°C / 601°F to 750°F

Proper Care and Use of Liquid-In-Glass Thermometers

Thermometers are one of the most important instruments used in the laboratory and are a relatively inexpensive means of reliably measuring temperature, provided they are properly used and not abused. It is essential that the instruments be used in the manner prescribed if true temperatures are to be ascertained. The following are some terms that should be understood and adhered to when true temperatures are to be obtained.

Total Immersion: Such a thermometer is designed to indicate temperatures correctly when the bulb and the entire liquid column are exposed to the temperature being measured, except for a minimal length emergent to be visible. Therefore, the thermometer is immersed into the medium up to the point of reading.

Partial Immersion: Such a thermometer has a line around it at the immersion distance from the bottom. It indicates correctly when the bulb and liquid column to that line are exposed to the temperature being measured and the emergent stem is at ambient temperature. Therefore, the thermometer is immersed only up to the immersion line.

Full Immersion: No VEE GEE Brand Thermometers feature full immersion. However, it is important to make the distinction between "full" and "total" immersion. With full immersion thermometers, the complete thermometer (including the expansion chamber) is immersed in the medium. These instruments are generally read through a window or port in the bath.

Column Separation

The largest single cause for failure of liquid-in-glass thermometers in the lab is due to separated columns. This can occur in transit or in the lab. The separated column can be reunited by adhering to the following methods.

Mercury Columns

1) **Cooling** -- With the thermometer in an upright position, gradually immerse ONLY the bulb in a solution of solid CO₂ (Dry-Ice) and alcohol so that the mercury column retreats slowly into the bulb. Do not cool the stem or mercury column. Keep the bulb in the solution until the main column as well as the separated portion retreats into the bulb. Remove and carefully swing the thermometer in a short arc, forcing all of the mercury into the bulb. Most mercury thermometers can be reunited using this method regardless of range provided ONLY THE BULB is immersed in the CO₂ and alcohol solution. CAUTION: Do not touch the bulb until it has warmed sufficiently for the mercury to emerge from bulb into the capillary. Never subject the stem or mercury column to the CO₂ and alcohol solution as it will freeze the mercury column in the capillary and may cause the bulb to fracture.

2) **Heating** -- This method applies to thermometers with a maximum range of 260°C or 500°F, and equipped with expansion chambers sufficiently large enough to accommodate the separation plus a portion of the main column. Immerse as much of the bulb and stem as possible in a large beaker containing a liquid with a boiling point well above the highest indication of the thermometer being united. Heat the beaker, stirring the liquid with the thermometer, until the separation and a portion of the main column enter the chamber. Tap the thermometer in the palm of gloved hand reuniting the column. Allow to cool slowly. CAUTION: Never use an open flame on the bulb. Never fill the expansion chamber more than 2/3 full. Make certain the boiling point of the liquid is well above the highest temperature indicated on the thermometer. Thermometers whose ranges exceed 260°C or 500°F CANNOT be reunited using heat without damaging the instrument.

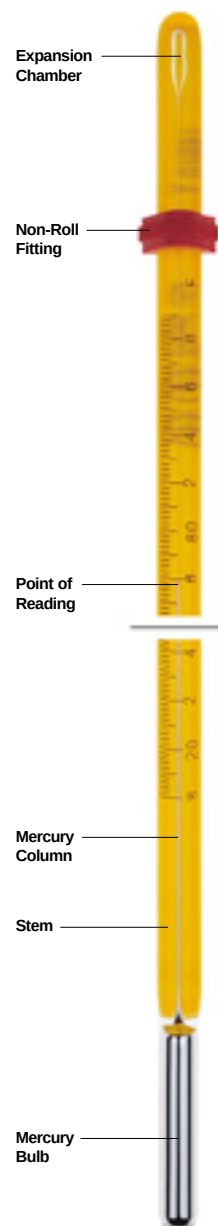
Spirit-Filled Columns

Separated columns in spirit-filled thermometers require a somewhat different technique in order to be reunited. The simplest and safest method is to force the liquid down the capillary tube by using a centrifuge, if one is available, with a cup deep enough to ensure that the centrifugal force is below the liquid column. Carefully insert the thermometer, bulb down, in the centrifuge. Place some cotton wadding at the bottom of the cup to prevent any damage to the bulb. Turn on the centrifuge -- in just a few seconds all of the liquid will be forced past the separation. If the cup is not deep enough and all of the centrifugal force is not below the column, the column will split, forcing part of the liquid down. The remainder will be forced up, filling the expansion chamber. If a centrifuge is not available, the column can be reunited by holding the thermometer in an upright position and gingerly tapping the stem above the separation against the palm of your hand. As you gently tap the thermometer, observe the liquid above the separation until it breaks away from the wall of the capillary and runs down to join the main column.

Temperature Conversion

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) / 1.8$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$





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