

API SCALE FOR PETROLEUM PRODUCTS

Manufactured strictly in accordance with all applicable ASTM specifications, these units have become the industry standard for close, accurate readings. All instruments in this series are suitable for certification and as such serve as primary reference standards in many governmental and private laboratories.

ASTM API HYDROMETERS

Without thermometer

Cat No	ASTM	API Range	Div	Length
7000 +	1H	-1 to 11	0.1	330mm
7002 +	2H	9 to 21	0.1	330mm
7004 +	3H	19 to 31	0.1	330mm
7006 +	4H	29 to 41	0.1	330mm
7008 +	5H	39 to 51	0.1	330mm
7010 +	6H	49 to 61	0.1	330mm
7012 +	7H	59 to 71	0.1	330mm
7014 +	8H	69 to 81	0.1	330mm
7016 +	9H	79 to 91	0.1	330mm
7018 +	10H	89 to 101	0.1	330mm
7020		10 to 100	1.0	330mm

ASTM API THERMO-HYDROMETERS

380mm length - thermometer in body

Cat No	ASTM*	API Range	Div	Temp Range	Div	Length
7050 +	51HH	-1 to 11	0.1	60 to 220F	2	380mm
7050L	51HL	-1 to 11	0.1	0 to 150F	2	380mm
7052 +	52HH	9 to 21	0.1	60 to 220F	2	380mm
7052L	52HL	9 to 21	0.1	0 to 150F	2	380mm
7054 +	53HM	19 to 31	0.1	30 to 180F	2	380mm
7054L	53HL	19 to 31	0.1	0 to 150F	2	380mm
7056 +	54HM	29 to 41	0.1	30 to 180F	2	380mm
7056L	54HL	29 to 41	0.1	0 to 150F	2	380mm
7058 +	55HL	39 to 51	0.1	0 to 150F	2	380mm
7060 +	56HL	49 to 61	0.1	0 to 150F	2	380mm
7062 +	57HL	59 to 71	0.1	0 to 150F	2	380mm
7064 +	58HL	69 to 81	0.1	0 to 150F	2	380mm
7066 +	59HL	79 to 91	0.1	0 to 150F	2	380mm
7068	60HL	89 to 101	0.1	0 to 150F	2	380mm
7076		10 to 30	0.2	0 to 150F	2	380mm
7078 +		20 to 40	0.2	0 to 150F	2	380mm
7080		30 to 50	0.2	0 to 150F	2	380mm
7082 +		40 to 60	0.2	0 to 150F	2	380mm
7084 +		50 to 70	0.2	0 to 150F	2	380mm
7092		29 to 45	0.1	0 to 150F	2	380mm
7094		33 to 48	0.1	0 to 150F	2	380mm
7096		19 to 45	0.1	0 to 150F	2	380mm
7098		30 to 90	0.5	0 to 150F	2	380mm

* ASTM DESIGNATIONS FOR TEMPERATURE RANGES INDICATED: H (HIGH) 60/220F
M (MEDIUM) 30/180F L (LOW) 0/150F ANY OF THESE RANGES CAN BE FURNISHED
WITH THE HYDROMETERS LISTED ABOVE UPON REQUEST

ASTM API THERMO-HYDROMETERS WITH THERMOMETER IN STEM

Useful for testing of heavy oils where dark color prevents reading the thermometer in the body of a conventional thermohydrometer.

Cat No	ASTM	API Range	Div	Temp Range	Div	Length
7100	71H	-1 to 11	0.1	30 to 220F	2	380mm
7102	72H	9 to 21	0.1	30 to 220F	2	380mm
7104	73H	19 to 31	0.1	30 to 220F	2	380mm
7106	74H	29 to 41	0.1	30 to 220F	2	380mm
7108	---	39 to 51	0.1	30 to 220F	2	380mm
7110	---	49 to 61	0.1	30 to 220F	2	380mm
7112	---	59 to 71	0.1	30 to 220F	2	380mm
7114	---	69 to 81	0.1	30 to 220F	2	380mm

+ ITEMS MARKED WITH + AVAILABLE IMMEDIATELY FROM STOCK WITH NIST
TRACEABLE CERTIFICATE OF CALIBRATION. ADD '-C' TO CAT. NO



PETROLEUM HYDROMETERS

KESSLER

ASTM LPG (LIQUIFIED PETROLEUM GAS) HYDROMETER

For testing of LPG in accordance with ASTM Method D-1657

Cat No	ASTM	Scale Range	Div	Temp Range	Div	Length
8814 +	101H	.500 to .650 SG	.001	30 to 90F	1	355mm

API HYDROMETERS - SHORT FORM

Popular in many applications due to small amount of product sample required to take a reading, these instruments are manufactured to strict ASTM specifications and to KESSLER'S own demanding quality control standards.

ASTM HYDROMETERS - API - 6" LGTH

Cat No	ASTM	API Range	Div	Cat No	ASTM	API Range	Div
7500 +	21H	0 to 6	0.1	7530	36H	75 to 81	0.1
7502 +	22H	5 to 11	0.1	7532	37H	80 to 86	0.1
7504 +	23H	10 to 16	0.1	7534	38H	85 to 91	0.1
7506 +	24H	15 to 21	0.1	7536	39H	90 to 96	0.1
7508 +	25H	20 to 26	0.1	7539	---	89 to 101	0.2
7510 +	26H	25 to 31	0.1	7550	---	-1 to 11	0.2
7512	27H	30 to 36	0.1	7552	---	9 to 21	0.2
7514	28H	35 to 41	0.1	7554	---	19 to 31	0.2
7516 +	29H	40 to 46	0.1	7556	---	29 to 41	0.2
7518	30H	45 to 51	0.1	7558	---	39 to 51	0.2
7520	31H	50 to 56	0.1	7560	---	49 to 61	0.2
7522	32H	55 to 61	0.1	7562	---	59 to 71	0.2
7524	33H	60 to 66	0.1	7564	---	69 to 81	0.2
7526	34H	65 to 71	0.1	7566	---	79 to 91	0.2
7528	35H	70 to 76	0.1				

HYDROMETERS - API - 4" LENGTH

Allow accurate testing with an even smaller sample (4oz) than above units.

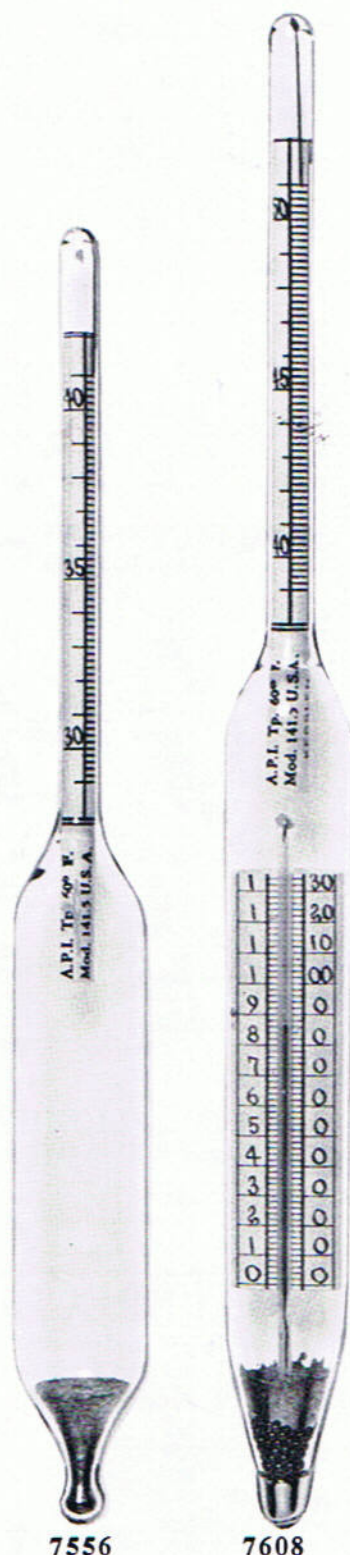
Cat No	ASTM	API Range	Div	Cat No	ASTM	API Range	Div
7500-4		0 to 6	0.1	7528-4		70 to 76	0.1
7502-4		5 to 11	0.1	7530-4		75 to 81	0.1
7504-4		10 to 16	0.1	7532-4		80 to 86	0.1
7506-4		15 to 21	0.1	7534-4		85 to 91	0.1
7508-4		20 to 26	0.1	7539-4		89 to 101	0.2
7510-4		25 to 31	0.1	7550-4		-1 to 11	0.2
7512-4		30 to 36	0.1	7552-4		9 to 21	0.2
7514-4		35 to 41	0.1	7554-4		19 to 31	0.2
7516-4		40 to 46	0.1	7556-4		29 to 41	0.2
7518-4		45 to 51	0.1	7558-4		39 to 51	0.2
7520-4		50 to 56	0.1	7560-4		49 to 61	0.2
7522-4		55 to 61	0.1	7562-4		59 to 71	0.2
7524-4		60 to 66	0.1	7564-4		69 to 81	0.2
7526-4		65 to 71	0.1	7566-4		79 to 91	0.2

SHORT FORM THERMO-HYDROMETERS

Approximately 190mm (7-1/2") Length. Thermometer in body.

Cat No	ASTM	API Range	Div	Temp Range	Div	Length
7600	---	-1 to 11	0.2	0 to 130F	2	190mm
7602	---	9 to 21	0.2	0 to 130F	2	190mm
7604 +	---	19 to 31	0.2	0 to 130F	2	190mm
7606 +	---	29 to 41	0.2	0 to 130F	2	190mm
7608 +	---	39 to 51	0.2	0 to 130F	2	190mm
7610 +	---	49 to 61	0.2	0 to 130F	2	190mm
7612	---	59 to 71	0.2	0 to 130F	2	190mm
7614	---	69 to 81	0.2	0 to 130F	2	190mm
7616	---	79 to 91	0.2	0 to 130F	2	190mm
7618	---	89 to 101	0.2	0 to 130F	2	190mm

+ ITEMS MARKED WITH + AVAILABLE IMMEDIATELY FROM STOCK WITH NIST TRACEABLE CERTIFICATE OF CALIBRATION. ADD '-C' TO CAT. NO



ASTM METRIC DENSITY HYDROMETERS

Developed jointly with ISO (International Standards Organization) standards to serve those users involved in the international transport of petroleum products, this series has been adopted by ASTM and their use sanctioned as the metric standard for petroleum hydrometers. All comply with the demanding specifications set forth in ASTM E-100-91.

Graduated in Kg/M3 (Kilograms per cubic meter) @ 15 Deg C for petroleum products.

ASTM METRIC DENSITY HYDROMETERS

Cat No	ASTM	Density Range	Div	Length
7702	311H	600 to 650	0.5	330mm
7704	312H	650 to 700	0.5	330mm
7706	313H	700 to 750	0.5	330mm
7708	314H	750 to 800	0.5	330mm
7710	315H	800 to 850	0.5	330mm
7712	316H	850 to 900	0.5	330mm
7714	317H	900 to 950	0.5	330mm
7716	318H	950 to 1000	0.5	330mm
7718	319H	1000 to 1050	0.5	330mm
7720	320H	1050 to 1100	0.5	330mm

ASTM METRIC THERMOHYDROMETERS

Thermometer in body.

Cat No	ASTM*	Density Range	Div	Temp Range	Div	Length
7802	300HL	600 to 650	0.5	-20 to 65C	1	380mm
7804	301HL	650 to 700	0.5	-20 to 65C	1	380mm
7806	302HL	700 to 750	0.5	-20 to 65C	1	380mm
7806M	302HM	700 to 750	0.5	0 to 85C	1	380mm
7808	303HL	750 to 800	0.5	-20 to 65C	1	380mm
7808M	303HM	750 to 800	0.5	0 to 85C	1	380mm
7810	304HL	800 to 850	0.5	-20 to 65C	1	380mm
7810M	304HM	800 to 850	0.5	0 to 85C	1	380mm
7812L	305HL	850 to 900	0.5	-20 to 65C	1	380mm
7812	305HM	850 to 900	0.5	0 to 85C	1	380mm
7814L	306HL	900 to 950	0.5	-20 to 65C	1	380mm
7814	306HM	900 to 950	0.5	0 to 85C	1	380mm
7816L	307HL	950 to 1000	0.5	-20 to 65C	1	380mm
7816	307HM	950 to 1000	0.5	+20 to 105C	1	380mm
7818	308HL	1000 to 1050	0.5	+20 to 105C	1	380mm
7818L	308HL	1000 to 1050	0.5	-20 to 65C	1	380mm
7820	309HL	1050 to 1100	0.5	+20 to 105C	1	380mm
7820L	309HL	1050 to 1100	0.5	-20 to 65C	1	380mm

ASTM SPECIFIC GRAVITY SERIES

Specific Gravity hydrometers 60/60F as specified in ASTM E-100-91.

Cat No	ASTM	Gravity Range	Div	Length
8001		.600 to .650	.0005	330mm
8000	82H	.650 to .700	.0005	330mm
8002	83H	.700 to .750	.0005	330mm
8003		.650 to .750		
8004	84H	.750 to .800	.0005	330mm
8005		.750 to .850		
8006	85H	.800 to .850	.0005	330mm
8008	86H	.850 to .900	.0005	330mm
8010	87H	.900 to .950	.0005	330mm
8012	88H	.950 to 1.000	.0005	330mm
8014	89H	1.000 to 1.050	.0005	330mm
8016	90H	1.050 to 1.100	.0005	330mm
8020	98H	.950 to 1.000	.0005	330mm

+ ITEMS MARKED WITH + AVAILABLE IMMEDIATELY FROM STOCK WITH NIST TRACEABLE CERTIFICATE OF CALIBRATION. ADD '-C' TO CAT. NO



7708

7816

ASTM SPECIFIC GRAVITY SERIES (CONTINUED)

Specific gravity hydrometers 60/60F as specified in ASTM E-100-91. All suitable for certification.

Cat No	ASTM	Gravity Range	Div	Length
8030	102H	.650 to .700	.001	260mm
8032	103H	.700 to .750	.001	260mm
8034 +	104H	.750 to .800	.001	260mm
8036	105H	.800 to .850	.001	260mm
8038	106H	.850 to .900	.001	260mm
8040	107H	.900 to .950	.001	260mm
8042	108H	.950 to 1.000	.001	260mm

Cat No	ASTM	Gravity Range	Div	Length
8200 +	111H	1.000 to 1.050	.0005	330mm
8202 +	112H	1.050 to 1.100	.0005	330mm
8204 +	113H	1.100 to 1.150	.0005	330mm
8206 +	114H	1.150 to 1.200	.0005	330mm
8208 +	115H	1.200 to 1.250	.0005	330mm
8210 +	116H	1.250 to 1.300	.0005	330mm
8212 +	117H	1.300 to 1.350	.0005	330mm
8214 +	118H	1.350 to 1.400	.0005	330mm
8216	119H	1.400 to 1.450	.0005	330mm
8218	120H	1.450 to 1.500	.0005	330mm

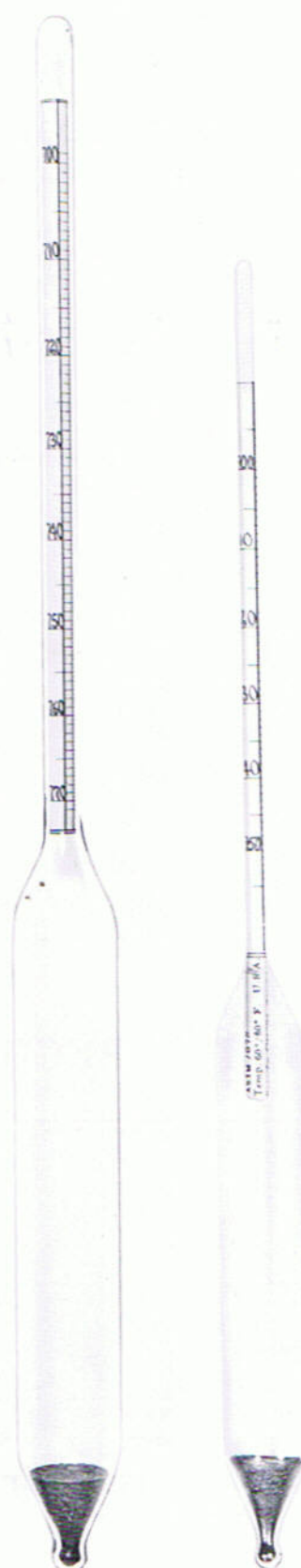
Cat No	ASTM	Gravity Range	Div	Length
8230 +	125H	1.000 to 1.050	.001	260mm
8232 +	126H	1.050 to 1.100	.001	260mm
8234 +	127H	1.100 to 1.150	.001	260mm
8236 +	128H	1.150 to 1.200	.001	260mm
8238 +	129H	1.200 to 1.250	.001	260mm
8240 +	130H	1.250 to 1.300	.001	260mm
8242 +	131H	1.300 to 1.350	.001	260mm
8244	132H	1.350 to 1.400	.001	260mm
8246 +	133H	1.400 to 1.450	.001	260mm
8248 +	134H	1.450 to 1.500	.001	260mm
8250 +	135H	1.500 to 1.550	.001	260mm
8252	136H	1.550 to 1.600	.001	260mm
8254	137H	1.600 to 1.650	.001	260mm
8256 +	138H	1.650 to 1.700	.001	260mm
8258 +	139H	1.700 to 1.750	.001	260mm
8260 +	140H	1.750 to 1.800	.001	260mm
8262	141H	1.800 to 1.850	.001	260mm
8264 +	142H	1.850 to 1.900	.001	260mm
8266	143H	1.900 to 1.950	.001	260mm
8268	144H	1.950 to 2.000	.001	260mm

6" SPECIFIC GRAVITY HYDROMETERS SEQUENTIAL RANGES 60/60F

6" HYDROMETERS in .070 SG RANGES

Cat No	Gravity Range	Div	Cat No	Gravity Range	Div
8140	.590 to .660	0.001	8291	1.300 to 1.370	0.001
8141	.650 to .710	0.001	8292	1.360 to 1.430	0.001
8142	.700 to .770	0.001	8293	1.420 to 1.490	0.001
8143	.760 to .830	0.001	8294 +	1.480 to 1.550	0.001
8144	.820 to .890	0.001	8295	1.540 to 1.610	0.001
8145	.880 to .950	0.001	8296	1.600 to 1.670	0.001
8146	.940 to 1.010	0.001	8297	1.660 to 1.730	0.001
8286 +	1.000 to 1.070	0.001	8298	1.720 to 1.790	0.001
8287	1.060 to 1.130	0.001	8299	1.780 to 1.850	0.001
8288	1.120 to 1.190	0.001	8301	1.840 to 1.920	0.001
8289	1.180 to 1.250	0.001	8303	1.910 to 1.980	0.001
8290	1.240 to 1.310	0.001			

+ ITEMS MARKED WITH + AVAILABLE IMMEDIATELY FROM STOCK WITH NIST TRACEABLE CERTIFICATE OF CALIBRATION. ADD '-C' TO CAT. NO



6" HYDROMETERS - .100 SG RANGES

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8100	.600	to .710	.002	8306	1.300	to 1.410	.002
8102	.700	to .810	.002	8308	1.400	to 1.510	.002
8104 +	.800	to .910	.002	8310	1.500	to 1.610	.002
8106 +	.900	to 1.010	.002	8312	1.600	to 1.710	.002
8300	1.000	to 1.110	.002	8314	1.700	to 1.810	.002
8302	1.100	to 1.210	.002	8316	1.800	to 1.910	.002
8304	1.200	to 1.310	.002	8318	1.900	to 2.010	.002

6" HYDROMETERS - .200 SG RANGES

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8320	1.000	to 1.220	.005	8326	1.600	to 1.820	.005
8322	1.200	to 1.420	.005	8328	1.800	to 2.000	.005
8324	1.400	to 1.620	.005	8321	1.100	to 1.300	.005

LONG SPECIFIC GRAVITY HYDROMETERS SEQUENTIAL RANGES 60/60F

13" HYDROMETERS - .070 SG RANGES

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8147	.600	to .660	.0005	8275 +	1.300	to 1.370	.0005
8148	.650	to .710	.0005	8276 +	1.360	to 1.430	.0005
8149	.700	to .770	.0005	8277 +	1.420	to 1.490	.0005
8150	.760	to .830	.0005	8278 +	1.480	to 1.550	.0005
8151	.820	to .890	.0005	8279	1.540	to 1.610	.0005
8152	.880	to .950	.0005	8280 +	1.600	to 1.670	.0005
8153	.940	to 1.010	.0005	8281	1.660	to 1.730	.0005
8270 +	1.000	to 1.070	.0005	8282	1.720	to 1.790	.0005
8271 +	1.060	to 1.130	.0005	8283 +	1.780	to 1.850	.0005
8272 +	1.120	to 1.190	.0005	8284	1.840	to 1.920	.0005
8273	1.180	to 1.250	.0005	8285	1.910	to 1.980	.0005
8274	1.240	to 1.310	.0005				

12" HYDROMETERS - .100 SG RANGES

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8130	.600	to .710	.001	8356 +	1.300	to 1.410	.001
8132 +	.700	to .810	.001	8358 +	1.400	to 1.510	.001
8134 +	.800	to .910	.001	8360 +	1.500	to 1.610	.001
8136 +	.900	to 1.000	.001	8362 +	1.600	to 1.710	.001
8350 +	1.000	to 1.110	.001	8364 +	1.700	to 1.810	.001
8352 +	1.100	to 1.210	.001	8366 +	1.800	to 1.910	.001
8354 +	1.200	to 1.310	.001	8368 +	1.900	to 2.010	.001

12" HYDROMETERS - .200 SG RANGES

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8369	.900	to 1.100	.002	8378	1.800	to 2.010	.002
8370	1.000	to 1.220	.002	8382	2.000	to 2.200	.002
8371	1.100	to 1.300	.002	8384	2.200	to 2.400	.002
8372	1.200	to 1.420	.002	8386	2.400	to 2.600	.002
8373	1.300	to 1.500	.002	8388	2.600	to 2.800	.002
8374	1.400	to 1.620	.002	8390	2.800	to 3.000	.002
8376 +	1.600	to 1.820	.002				

12" HYDROMETERS - SPINDLE (very long) RANGES

A spindle hydrometer allows the user to easily ascertain the gravity of an unknown solution, so that a more precise hydrometer can be used for the actual measurement.

Cat No	Gravity	Range	Div	Cat No	Gravity	Range	Div
8379	1.000	to 1.600	.005	8396	.650	to 1.000	0.1
8380 +	1.000	to 2.000	.010	8398	.700	to 1.000	.005
8392	2.000	to 3.000	.010				

+ ITEMS MARKED WITH + AVAILABLE IMMEDIATELY FROM STOCK WITH NIST TRACEABLE CERTIFICATE OF CALIBRATION. ADD '-C' TO CAT. NO



8271

8370

DUAL SCALE - SPECIFIC GRAVITY & BAUME

SPECIFIC GRAVITY, perhaps the most commonly used scientific scale, is expressed as the ratio of the mass (weight) of a given volume of liquid to the identical volume of water, both liquids usually at an equal temperature, most often 60F (15.56C).

BAUME is most often used in the chemical industry. The Baume Scale is expressed as 'Light' for liquids with a gravity below 1.000 SG, or 'Heavy' for liquids with a gravity heavier than 1.000 SG. In the absence of the designation 'light' or 'heavy', it is assumed to be heavy. Baume Light (BL) is defined as $BL = (140/SG) - 130$

Baume Heavy (BH) is defined as $BH = 145 - (145/SG)$

SPECIFIC GRAVITY & BAUME LIGHT

Cat No	Specific Gravity	Baume Light	Div, S.G.	Div, Baume	Length
8799.6	.600 to 1.000	100 to 10	.005	1.0	12"
8799.8	.650 to 1.000	85 to 10	.005	1.0	12"
8800	.700 to .810	70 to 45	.001	0.5	12"
8801	.700 to .860	70 to 35	.002	0.5	12"
8805	.700 to 1.000	70 to 10	.005	1.0	12"
8804	.800 to 1.000	45 to 10	.005	1.0	12"
8802	.800 to .910	45 to 25	.001	0.2	12"
8802.5	.840 to 1.000	37 to 10	.002	0.5	12"
8803	.900 to 1.010	25 to 10	.001	0.2	12"

6" LENGTH SPECIFIC GRAVITY & BAUME HEAVY

Cat No	Specific Gravity	Baume Heavy	Div, S.G.	Div, Baume	Length
8806-6	1.000 to 1.220	0 to 26	.005	0.5	6"
8810.5-6	1.000 to 1.400	0 to 41	.010	1.0	6"
8813-6	1.000 to 2.000	0 to 70	.020	1.0	6"
8807-6	1.200 to 1.420	24 to 43	.005	0.5	6"
8808-6	1.400 to 1.620	42 to 55	.005	0.5	6"
8812-6	1.400 to 2.000	40 to 72	.010	1.0	6"
8809-6	1.600 to 1.820	54 to 65	.005	0.5	6"
8810-6	1.800 to 2.020	64 to 73	.005	0.5	6"

12" LENGTH SPECIFIC GRAVITY & BAUME HEAVY

Cat No	Specific Gravity	Baume Heavy	Div, S.G.	Div, Baume	Length
8806	1.000 to 1.220	0 to 26	.002	0.2	12"
8807	1.200 to 1.420	24 to 43	.002	0.2	12"
8808	1.400 to 1.620	42 to 55	.002	0.2	12"
8809	1.600 to 1.820	54 to 65	.002	0.2	12"
8810	1.800 to 2.020	64 to 73	.002	0.2	12"
8810.5	1.000 to 1.450	0 to 45	.005	0.5	12"
8811	1.000 to 1.600	0 to 55	.010	1.0	12"
8812	1.400 to 2.000	40 to 72	.010	0.5	12"
8813	1.000 to 2.000	0 to 70	.010	1.0	12"

SPINDLE HYDROMETER - (very long) RANGE

A spindle hydrometer allows the user to easily ascertain the gravity of an unknown solution, so that a more precise hydrometer can be used for the actual measurement.

Cat No	Specific Gravity	Baume Heavy	Div, S.G.	Div, Baume	Length
8815	.700 to 2.000	70 Lt to 70 Hvy	.010	1.0	18"

SPINDLE THERMOHYDROMETERS - (very long) RANGES

A spindle hydrometer allows the user to easily ascertain the gravity of an unknown solution, so that a more precise hydrometer can be used for the actual measurement.

Cat No	Specific Gravity	Baume Heavy	Div, S.G.	Div, Baume	Temp Range
8819	.650 to 1.000	85 Lt to 10 Lt	.005	0.5	0 to 120F
8820	1.000 to 2.000	0 to 72	.010	1.0	0 to 120F
8821	1.000 to 2.000		.010		0 to 120F
8822	.650 to 1.000		.005		0 to 120F

