

## DENSITY

### ASTM D287 API GRAVITY OF CRUDE PETROLEUM AND PETROLEUM PRODUCTS

This test method covers the determination by means of a glass hydrometer in conjunction with a series of calculations of the API gravity of crude petroleum and petroleum products normally handled as liquids and having a Reid vapor pressure (ASTM D323) of 101.325 kPa (14.696 psi) or less.

### ASTM D1298 IP 160 ISO 3675 DENSITY, RELATIVE DENSITY, OR API GRAVITY OF CRUDE PETROLEUM AND LIQUID PETROLEUM PRODUCTS BY HYDROMETER METHOD

This test method covers the laboratory determination using a glass hydrometer in conjunction with a series of calculations, of the density, relative density, or API gravity of crude petroleum, petroleum products, or mixtures of petroleum and nonpetroleum products normally handled as liquids, and having a Reid vapor pressure of 101.325 kPa (14.696 psi) or less.

Borosilicate glass jar with cover with 5 holes Ø55 mm. or 4 Ø66 mm, leakage protection vessel made of tempered glass, included with cork plate and stainless steel base. Stainless steel control box on the cover with digital thermoregulator PID with PT100 probe class A and overtemperature alarm, stainless steel heater, cooling coil, motor stirrer, safety internal level for low liquid with warning lamp, with test tubes blocking-system and stand-by stainless steel covers.

Technical specifications:

- Temperature: From ambient to +150°C (302°F)
- Stability: ±0.1°C
- Power supply: 230V ±10% 50/60Hz

#### 550/300 DENSITY BATH

For hydrometer cylinders Ø54x300 mm

- Capacity: 16 liters about
- Power: 1200W
- Dimensions: 35x35x55 cm
- Weight: 20 kg

#### 550/450 DENSITY BATH

For hydrometer cylinder Ø65x420 mm

- Capacity: 23 liters about
- Power: 2200W
- Dimensions: 35x35x70 cm
- Weight: 30 kg



550/300

2013

#### ACCESSORIES ON REQUEST

10-0485/20	CIRCULATION COOLER UP TO -20°C (-4°F)
10-0554	HYDROMETER CYLINDER Ø65x420 mm, pack of 4 pcs
10-0556	HYDROMETER CYLINDER Ø54x300 mm, pack of 5 pcs
10-0555	HYDROMETER CYLINDER Bench model with foot, 1000 ml.
T-AS12C	THERMOMETER ASTM 12C IP 64C
T-AS17C	THERMOMETER ASTM 17C
T-AS22C	THERMOMETER ASTM 22C
T-AS63C	THERMOMETER ASTM 63C

#### CONSUMABLES x 2 YEARS

10-0554	HYDROMETER CYLINDER Ø65x420 mm, pack of 4 pcs
10-0556	HYDROMETER CYLINDER Ø54x300 mm, pack of 5 pcs

#### SPARE PARTS

18-0001	JAR Ø270x330 mm., (for 550/300)
18-0002	JAR Ø270x450 mm., (for 550/450)
18-0003/CONT/330	LEAKAGE PROTECTION VESSEL, (for 550/300)
18-0003/CONT/450	LEAKAGE PROTECTION VESSEL, (for 550/450)
14-0002	PROBE PT100A L=200 mm
11-0012/19	HEATER (per 550/300)
11-0016	HEATER (per 550/450)
16-0005	DIGITAL THERMOREGULATOR
15-0015	STATIC RELAY
15-0004	BIPOLAR GREEN SWITCH
12-0001	MOTOR STIRRER

## DENSITY

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES L20

Without thermometer, div.0.0002 g/cm<sup>3</sup>, ref. temperature 20°C, length 430 mm

Art.	Type	Range g/cm <sup>3</sup>
550/L20/068	L20-068	0,6800-0,7000
550/L20/070	L20-070	0,7000-0,7200
550/L20/072	L20-072	0,7200-0,7400
550/L20/074	L20-074	0,7400-0,7600
550/L20/076	L20-076	0,7600-0,7800
550/L20/078	L20-078	0,7800-0,8000
550/L20/080	L20-080	0,8000-0,8200
550/L20/082	L20-082	0,8200-0,8400
550/L20/084	L20-084	0,8400-0,8600
550/L20/086	L20-086	0,8600-0,8800
550/L20/088	L20-088	0,8800-0,9000
550/L20/090	L20-090	0,9000-0,9200
550/L20/092	L20-092	0,9200-0,9400
550/L20/094	L20-094	0,9400-0,9600
550/L20/096	L20-096	0,9600-0,9800
550/L20/098	L20-098	0,9800-1,0000
550/L20/100	L20-100	1,0000-1,0200
550/L20/102	L20-102	1,0200-1,0400
550/L20/104	L20-104	1,0400-1,0600
550/L20/106	L20-106	1,0600-1,0800
550/L20/108	L20-108	1,0800-1,1000

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES L50

Without thermometer, div.0.0005 g/cm<sup>3</sup>, ref. temperature 20°C, length 335 mm

Art.	Type	Range g/cm <sup>3</sup>
550/L50/060	L50-060	0,600-0,650
550/L50/065	L50-065	0,650-0,700
550/L50/070	L50-070	0,700-0,750
550/L50/075	L50-075	0,750-0,800
550/L50/080	L50-080	0,800-0,850
550/L50/085	L50-085	0,850-0,900
550/L50/090	L50-090	0,900-0,950
550/L50/095	L50-095	0,950-1,000
550/L50/100	L50-100	1,000-1,050
550/L50/105	L50-105	1,050-1,100
550/L50/110	L50-110	1,100-1,150
550/L50/115	L50-115	1,150-1,200
550/L50/120	L50-120	1,200-1,250
550/L50/125	L50-125	1,250-1,300
550/L50/130	L50-130	1,300-1,350
550/L50/135	L50-135	1,350-1,400
550/L50/140	L50-140	1,400-1,450
550/L50/145	L50-145	1,450-1,500
550/L50/150	L50-150	1,500-1,550
550/L50/155	L50-155	1,550-1,600
550/L50/160	L50-160	1,600-1,650
550/L50/165	L50-165	1,650-1,700
550/L50/170	L50-170	1,700-1,750
550/L50/175	L50-175	1,750-1,800
550/L50/180	L50-180	1,800-1,850
550/L50/185	L50-185	1,850-1,900
550/L50/190	L50-190	1,900-1,950
550/L50/195	L50-195	1,950-2,000

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES L50 SP

Without thermometer, div.0.0005 g/cm<sup>3</sup>, ref. temperature 15°C, length 335 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/L50BS/060	L50-060	0,600-0,650
550/L50BS/065	L50-065	0,650-0,700
550/L50BS/070	L50-070	0,700-0,750
550/L50BS/075	L50-075	0,750-0,800
550/L50BS/080	L50-080	0,800-0,850
550/L50BS/085	L50-085	0,850-0,900
550/L50BS/090	L50-090	0,900-0,950
550/L50BS/095	L50-095	0,950-1,000
550/L50BS/100	L50-100	1,000-1,050
550/L50BS/105	L50-105	1,050-1,100

## DENSITY

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES M50

Without thermometer, div.0.001 g/cm<sup>3</sup>, ref. temperature 20°C, length 270 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/M50/060	M50-060	0,600-0650
550/M50/065	M50-065	0,650-0,700
550/M50/070	M50-070	0,700-0,750
550/M50/075	M50-075	0,750-0,800
550/M50/080	M50-080	0,800-0,850
550/M50/085	M50-085	0,850-0,900
550/M50/090	M50-090	0,900-0,950
550/M50/095	M50-095	0,950-1,000
550/M50/100	M50-100	1,000-1,050
550/M50/105	M50-105	1,050-1,100
550/M50/110	M50-110	1,100-1,150
550/M50/115	M50-115	1,150-1,200
550/M50/120	M50-120	1,200-1,250
550/M50/125	M50-125	1,250-1,300
550/M50/130	M50-130	1,300-1,350
550/M50/135	M50-135	1,350-1,400
550/M50/140	M50-140	1,400-1,450
550/M50/145	M50-145	1,450-1,500
550/M50/150	M50-150	1,500-1,550
550/M50/155	M50-155	1,550-1,600
550/M50/160	M50-160	1,600-1,350
550/M50/165	M50-165	1,650-1,700
550/M50/170	M50-170	1,700-1,750
550/M50/175	M50-175	1,750-1,800
550/M50/180	M50-180	1,800-1,850
550/M50/185	M50-185	1,850-1,900
550/M50/190	M50-190	1,900-1,950
550/M50/195	M50-195	1,950-2000

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES M100

Without thermometer, div.0.002 g/cm<sup>3</sup>, ref. temperature 20°C, length 250 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/M100/060	M100-060	0,600-0,700
550/M100/070	M100-070	0,700-0,800
550/M100/080	M100-080	0,800-0,900
550/M100/090	M100-090	0,900-1,000
550/M100/100	M100-100	1,000-1,100
550/M100/110	M100-110	1,100-1,200
550/M100/120	M100-120	1,200-1,300
550/M100/130	M100-130	1,300-1,400
550/M100/140	M100-140	1,400-1,500
550/M100/150	M100-150	1,500-1,600
550/M100/160	M100-160	1,600-1,700
550/M100/170	M100-170	1,700-1,800
550/M100/180	M100-180	1,800-1,900
550/M100/190	M100-190	1,900-2,000

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES M50 SP

Without thermometer, div.0.001 g/cm<sup>3</sup>, ref. temperature 15°C, length 270 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/M50SP/060	M50-060	0,600-0,650
550/M50SP/065	M50-065	0,650-0,700
550/M50SP/070	M50-070	0,700-0,750
550/M50SP/075	M50-075	0,750-0,800
550/M50SP/080	M50-080	0,800-0,850
550/M50SP/085	M50-085	0,850-0,900
550/M50SP/090	M50-090	0,900-0,950
550/M50SP/095	M50-095	0,950-1,000
550/M50SP/100	M50-100	1,000-1,050
550/M50SP/105	M50-105	1,050-1,100

## DENSITY

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES S50

Without thermometer, div.0.002 g/cm<sup>3</sup>, ref. temperature 20°C, length 190 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/S50/060	S50-060	0,60-0,65
550/S50/065	S50-065	0,65-0,70
550/S50/070	S50-070	0,70-0,75
550/S50/075	S50-075	0,75-0,80
550/S50/080	S50-080	0,80-0,85
550/S50/085	S50-085	0,85-0,90
550/S50/090	S50-090	0,90-0,95
550/S50/095	S50-095	0,95-1,00
550/S50/100	S50-100	1,00-1,05
550/S50/105	S50-105	1,05-1,10
550/S50/110	S50-110	1,10-1,15
550/S50/115	S50-115	1,15-1,20
550/S50/120	S50-120	1,20-1,25
550/S50/125	S50-125	1,25-1,30
550/S50/130	S50-130	1,30-1,35
550/S50/135	S50-135	1,35-1,40
550/S50/140	S50-140	1,40-1,45
550/S50/145	S50-145	1,45-1,50
550/S50/150	S50-150	1,50-1,55
550/S50/155	S50-155	1,55-1,60
550/S50/160	S50-160	1,60-1,65
550/S50/165	S50-165	1,65-1,70
550/S50/170	S50-170	1,70-1,75
550/S50/175	S50-175	1,75-1,80
550/S50/180	S50-180	1,80-1,85
550/S50/185	S50-185	1,85-1,90
550/S50/190	S50-190	1,90-1,95
550/S50/195	S50-195	1,95-1,00

### DENSITY HYDROMETER BS 718 DIN 12791 SERIES S50 SP

Without thermometer, div.0.001 g/cm<sup>3</sup>, ref. temperature 15°C, length 190 mm.

Art.	Type	Range g/cm <sup>3</sup>
550/S50SP/060	S50-060	0,60-0,65
550/S50SP/065	S50-065	0,65-0,70
550/S50SP/070	S50-070	0,70-0,75
550/S50SP/075	S50-075	0,75-0,80
550/S50SP/080	S50-080	0,80-0,85
550/S50SP/085	S50-085	0,85-0,90
550/S50SP/090	S50-090	0,90-0,95
550/S50SP/095	S50-095	0,95-1,00
550/S50SP/100	S50-100	1,00-1,05
550/S50SP/105	S50-105	1,05-1,10

## DENSITY

### HYDROMETER API ASTM

Without thermometer, div.0,1°API, ref. temperature 60°F

Art.	Type	Range °API	Lenght mm.
550/1H/62	1H-62	-1 +11	330
550/2H/62	2H-62	9 +21	330
550/3H/62	3H-62	19 +31	330
550/4H/62	4H-62	29 +41	330
550/5H/62	5H-62	39 +51	330
550/6H/62	6H-62	49 +61	330
550/7H/62	7H-62	59 +71	330
550/8H/62	8H-62	69 +81	330
550/9H/62	9H-62	79+ 91	330
550/10H/62	10H-62	89 +101	330
550/21H/62	21H-62	0 +6	163
550/22H/62	22H-62	5 +11	163
550/23H/62	23H-62	10 +16	163
550/24H/62	24H-62	15 +21	163
550/25H/62	25H-62	20 +26	163
550/26H/62	26H-62	25 +31	163
550/27H/62	27H-62	30 +36	163
550/28H/62	28H-62	35 +41	163
550/29H/62	29H-62	40 +46	163
550/30H/62	30H-62	45 +51	163
550/31H/62	31H-62	50 +56	163
550/32H/62	32H-62	55 +61	163
550/33H/62	33H-62	60 +66	163
550/34H/62	34H-62	65 +71	163
550/35H/62	35H-62	70 +76	163
550/36H/62	36H-62	75 +81	163
550/37H/62	37H-62	80 +86	163
550/38H/62	38H-62	85 +91	163
550/39H/62	39H-62	90 +96	163
550/40H/62	40H-62	95 +101	163

### HYDROMETER API ASTM

With thermometer 0 +150°F, div.0,1°API, ref. temperature 60°F

Art.	Type	Range °API	Lunghezza mm.
550/51H/62	51H-62	-1 +11	380
550/52H/62	52H-62	9 +21	380
550/53H/62	53H-62	19 +31	380
550/54H/62	54H-62	29 +41	380
550/55H/62	55H-62	39 +51	380
550/56H/62	56H-62	49 +61	380
550/57H/62	57H-62	59 +71	380
550/58H/62	58H-62	69 +81	380
550/59H/62	59H-62	79 +91	380
550/60H/62	60H-62	89 +101	380

## DENSITY

### HYDROMETER ASTM

Without thermometer, div.0,0005 sp gr, ref. temperature 60/60°F, length 330 mm.

Art.	Type	Range
550/82H/62	82H-62	0.650-0.700
550/83H/62	83H-62	0.700-0.750
550/84H/62	84H-62	0.750-0.800
550/85H/62	85H-62	0.800-0.850
550/86H/62	86H-62	0.850-0.900
550/87H/62	87H-62	0.900-0.950
550/88H/62	88H-62L	0.950-1.000
550/89H/62	89H-62L	1.000-1.050
550/90H/62	90H-62L	1.050-1.100
550/98H/62	98H-62 alcohol	0.950-1.000
550/111H/62	111H-62H	1.000-1.050
550/112H/62	112H-62H	1.050-1.100
550/113H/62	113H-62	1.100-1.150
550/114H/62	114H-62	1.150-1.200
550/115H/62	115H-62	1.200-1.250
550/116H/62	116H-62	1.250-1.300
550/117H/62	117H-62	1.300-1.350
550/118H/62	118H-62	1.350-1.400
550/119H/62	119H-62	1.400-1.450
550/120H/62	120H-62	1.450-1.500

### HYDROMETER ASTM

Without thermometer, div.0,001 sp gr, ref. temperature 60/60°F, length 260 mm.

Art.	Type	Range
550/102H/62	102H-62	0.650-0.700
550/103H/62	103H-62	0.700-0.750
550/104H/62	104H-62	0.750-0.800
550/105H/62	105H-62	0.800-0.850
550/106H/62	106H-62	0.850-0.900
550/107H/62	107H-62	0.900-0.950
550/108H/62	108H-62	0.950-1.000
550/125H/62	125H-62	1.000-1.050
550/126H/62	126H-62	1.050-1.100
550/127H/62	127H-62	1.100-1.150
550/128H/62	128H-62	1.150-1.200
550/129H/62	129H-62	1.200-1.250
550/130H/62	130H-62	1.250-1.300
550/131H/62	131H-62	1.300-1.350
550/132H/62	132H-62	1.350-1.400
550/133H/62	133H-62	1.400-1.450
550/134H/62	134H-62	1.450-1.500
550/135H/62	135H-62	1.500-1.550
550/136H/62	136H-62	1.550-1.600
550/137H/62	137H-62	1.600-1.650
550/138H/62	138H-62	1.650-1.700
550/139H/62	139H-62	1.700-1.750
550/140H/62	140H-62	1.750-1.800
550/141H/62	141H-62	1.800-1.850

### HYDROMETER ASTM

With thermometer -20 +65°C div.1°, div.0.5 kg/m<sup>3</sup>, ref. temperature 15°C, length 380 mm

Art.	Type	Range
550/300H/82	300H-82	600-650
550/301H/82	301H-82	650-700
550/302H/82	302H-82	700-750
550/303H/82	303H-82	750-800
550/304H/82	304H-82	800-850
550/305H/82	305H-82	850-900
550/306H/82	306H-82	900-950
550/307H/82	307H-82	950-1000
550/308H/82	308H-82	1000-1050
550/309H/82	309H-82	1050-1100

### HYDROMETER ASTM

Without thermometer, div.0.5 kg/m<sup>3</sup>, ref. temperature 15°C, length 330 mm

Art.	Type	Range
550/311H/82	311H-82	600-650
550/312H/82	312H-82	650-700
550/313H/82	313H-82	700-750
550/314H/82	314H-82	750-800
550/315H/82	315H-82	800-850
550/316H/82	316H-82	850-900
550/317H/82	317H-82	900-950
550/318H/82	318H-82	950-1000
550/319H/82	319H-82	1000-1050
550/320H/82	320H-82	1050-1100