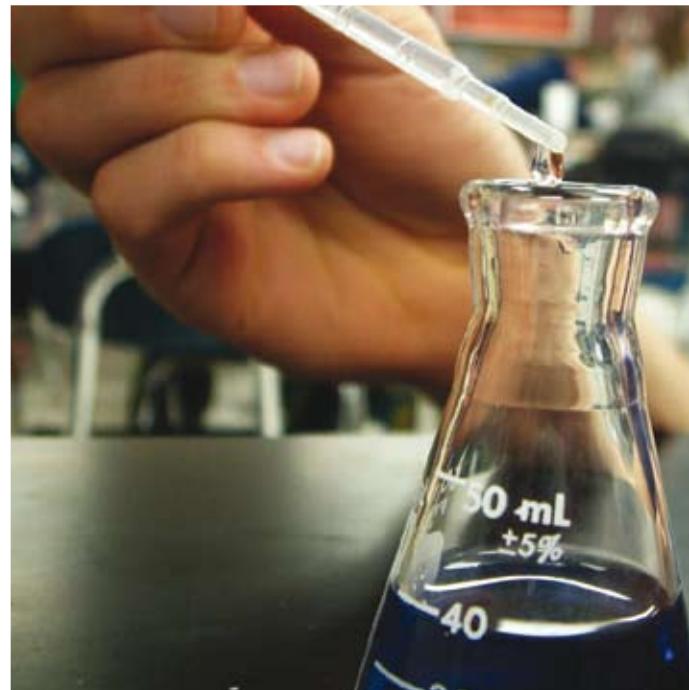
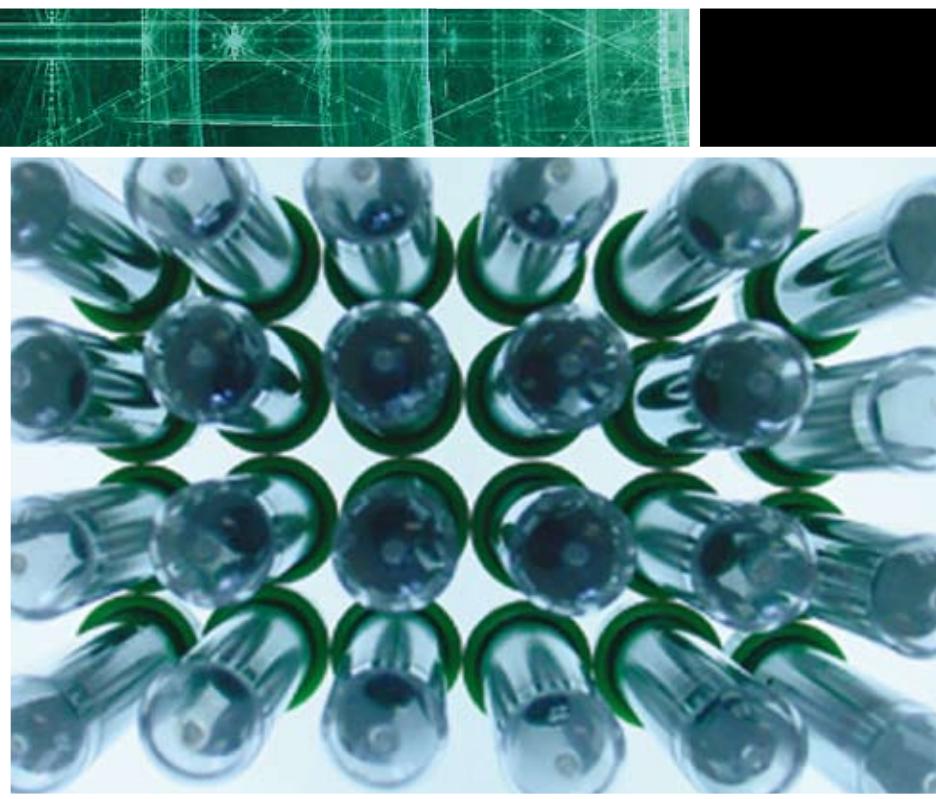


# 8

# GENERAL MATERIAL



## Dynamometric rings

### Dynamometric rings

PROETI dynamometric rings are made from specially treated chrome steel and are compression calibrated. They can be used both as instruments to verify the calibration of testing machinery and to measure strength. They are supplied complete with centesimal indicator with a 10 mm run and an ENAC calibration certificate, all in a convenient carrying case. On request, can be equipped with a millesimal indicator.



REFERENCE	Capacity in kN	Accuracy (mm)	Weight (kg)
V0001	0.50	0.001	1.2
V0002	1	0.01	1.3
V0003	2	0.01	1.8
V0004	5	0.01	1.9
V0005	10	0.01	2.1
V0006	30	0.01	3.6
V0007	50	0.01	4.5
V0008	100	0.01	6.4
V0009	200	0.01	11.8
V0010	2	0.001	1.4
V0011	1	0.001	1.3

## Dial indicators

### Dial indicators

Dial indicators used for a wide range of applications normally required by laboratories.

**V0024 Digital dial indicator**, with 12.7 mm capacity and 0.001 mm resolution.

#### Accessories:

**V0025** Indicator lock to retain the maximum reading.

**V0030** Adjustable magnetic base for attachment of indicators.



	Capacity (mm)	Accuracy (mm)
	0.50	0.001
V0014	5	0.001
V0016	10	0.01
V0017	30	0.01
V0018	50	0.01
V0019	100	0.01

### Immersion thermostats

Immersion thermostats to measure the temperature of the water in a bath.

#### Technical characteristics:

An electronic temperature control system with digital programming and display. Accuracy  $\pm 1\%$ .

Stirring pump with external circulation adjustable from 1 to 5 L/min.

External cooling coil to work at room temperature or lower.

Visual alarm in case of over-temperature. Fastening system for various types of buckets.

REFERENCE	CAPACITY	MEASUREMENTS (mm)		
		Height	Width	Bottom
V0105	9 litres	15	29	22
V0106	12 litres	15	31	29
V0107	20 litres	15	48	29
V0108	27 litres	20	48	29



## Thermostatic baths

### Thermostatic baths

Double body construction made of metal, anti-oxidant treatment on the outside, painted with epoxy and stainless steel 18/10 interior.

Heated electrically by resistors shielded with stainless steel.

Electronic temperature control with digital programmer and display.

Equipped with an alarm in case of over-temperature.

REFERENCE	CAPACITY (L)	MEASUREMENTS (mm)			TEMPERATURE °C
		Height	Width	Bottom	
V0115	5	22	29	22	100
V0116	5	22	31	29	200
V0117	12	31	48	29	100
V0118	12	31	48	29	200
V0119	20	48	48	29	100
V0120	20	48	48	29	200

#### Accessories:

V0115/1 Perforated lid and 80, 60 and 40 cm reducer discs, two pax. For 5 L baths.

V0117/1 Perforated lid and 80, 60 and 40 cm reducer discs, four pax. For 12 L baths.

V0120/1 Perforated lid and 80, 60 and 40 cm reducer discs, six pax. For 20 L baths.

V0115/2 Sloping lid, for 5 L baths.

V0117/2 Sloping lid, for 12 L baths.

V0120/2 Sloping lid, for 20 L baths.

V0115/3 Heating element cover tray, for 5 L baths.

V0117/3 Heating element cover tray, for 12 L baths.

V0120/3 Heating element cover tray, for 20 L baths.

V0123 Drain tap.



## Heating plates

### Rectangular heating plates

Made of non-warping steel, electronic settings, digital programming and display. Accuracy: 1%

REFERENCE	MEASUREMENTS (cm)	RANGE (°C)
V0125	20 x 40	40 - 400
V0126	25 x 50	40 - 400
V0127	20 x 40	30 - 200
V0128	25 x 50	30 - 200



### Circular heating plates

**V0130 Circular heating plate** measuring Ø 150 mm, made from non-warping steel. Temperature range up to 400°C. Includes a safety device that disconnects the current in the event of over-temperature. Electronic control with the option of attaching a contact thermometer or digital programmer.

#### Accessories:

- V0130/1** Support rod Ø 12 x 450 mm.
- V0130/2** Rear socket for contact thermometer.



## Magnetic stirring rods

### Magnetic stirring rods

Cabinet made of injected aluminium, painted in epoxy.

Circular stainless steel plate measuring Ø 150 mm.

Illuminated switches and settings controls for heating and stirring, located on the front panel.

**Stirring capacity:** 10 l.

**Speed:** adjustable between 30 - 1800 rpm.

**V0135 Magnetic stirrer with heating**, complete with device for connecting a contact thermometer.

**Heating power:** 500 W

**Plate temperature:** adjustable up to 350°C.

**V0136 Magnetic stirrer without heating.**

**Accessories:**

- V0130/1** Support rod Ø 12 x 450 mm.

**V0136/1** Cylindrical stirring rod Ø 3 x 6 mm

**V0136/2** Cylindrical stirring rod Ø 5 x 12 mm

**V0136/3** Cylindrical stirring rod Ø 6 x 20 mm

**V0136/4** Cylindrical stirring rod Ø 8 x 40 mm



# Temperature

## Fast action digital thermometers

### V0149 Maximum/Minimum temperature thermometer

**V0150 Digital thermometer display -50 +150°C**, complete with stainless steel probe, ON/OFF switch, LCD screen and battery.

**Resolution:** 0.1°C.



**B0211 Double range digital thermometer display -50 +250°C**, complete with stainless steel probe, ON/OFF switch, LCD screen and battery. Resolution: 0.1°C/150°C and 1°C/250°C.



### V0152 Digital thermometer with piercing probe, -50 +400°C.

Compact with many advantages, large display, "Hold" key and high precision. The measuring probe attached to the device is designed for a wide range of applications that require fast temperature measurement. It is supplied complete with piercing probe, battery, protective cover and instruction manual.

**Accuracy:** ±1°C.

**Resolution:** 0.1°C.

**Measurements:** 190 x 57 x 42 mm

**Weight:** 300 g



**V0153 Digital thermometer with interchangeable probe, -50 +1000°C.** Ideal for tough routine industrial temperature applications. The measurement probes (chosen with the order) are interchangeable. Supplied complete with battery, calibration report and instruction manual.

**Accuracy:** ±1°C.

**Resolution:** 0.1°C.

**Measurements:** 190 x 57 x 42 mm

**Weight:** 300 g

#### Accessories:

**V0153/1** Immersion/Piercing probe

**V0153/2** Surface measurement probe

**V0153/3** Protective cover

### **V0155 Humidity/Temperature measuring instrument and Dew Point calculator.**

Complete with separate humidity/temperature probe,  
1 m connecting cable,  
instruction manual and battery.

**Range of humidity:** 5 to 95%RH

**Temperature range:** 0 + 50°C.

**Accuracy:** ±3 %RH / ±0.4°C.

**Resolution:** 0.1°RH/ 0.1°C

**Display:** 2 LCD lines.

**Measurements:** 190 x 57 x 42 mm

**Weight:** 300 g

**Accessories:**

**V0155/1** Non-warping protective case.

**V0155/2** Adapter for surface humidity measurements.

**V0155/3** Battery charger.

**V0155/4** Flask for control and settings.

**V0155/5** Calibration certificate.



### **V0156 Compact electronic hygrothermograph.**

A "data logger" with integrated probe and memory storage capacity for up to 20,000 measurements. Built in a strong anodised aluminium box. Windows Software. Supplied complete with integrated humidity/temperature probe, battery, magnet, instruction manual and calibration report.

**Range of humidity:** 5 to 100%RH

**Temperature range:** -10 + 50°C.

**Accuracy:** ±3 %RH / ±0.6°C.

**Resolution:** 0.1°RH/ 0.1°C

**Measurements:** 131 x 68 x 72 mm

**Weight:** 320 g

**Accessories:**

**V0156/1** Confort software with interface.

**V0156/2** Carrying case.

### **V0157 Compact electronic hygrothermograph,**

similar to model V0156, but highly accurate, simultaneous measurement of dew point and memory storage capacity for up to 55,000 measurements. Supplied complete with integrated humidity/temperature probe, battery, magnet, instruction manual and calibration report.

**Range of humidity:** 0 to 100%RH

**Temperature range:** -20 + 70°C.

**Accessories:**

**V0157/1** Control and adjustment set.

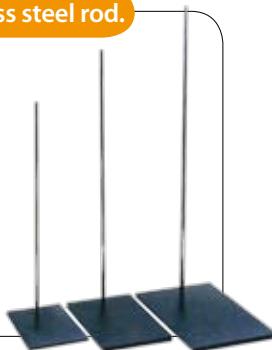
**V0157/2** Convenient professional software.

**V0157/3** Stainless steel head Sintered.

**V0157/4** Calibration certificate.

**Rectangular base with supporting legs and stainless steel rod.**

REF.	ROD (mm)	BASE (mm)
V0190	8 x 500	200 x 125
V0191	10 x 600	250 x 160
V0192	12 x 700	315 x 200
<b>V0193</b>	<b>12 x 800</b>	<b>315 x 200</b>


**Galvanised steel closed retort ring.**


REF.	COLLAR (mm)	MEASUREMENTS (mm)
V0195	60	180
V0196	80	195
V0197	100	200
V0198	120	215
<b>V0199</b>	<b>140</b>	<b>225</b>

**Metal fabrics with ceramic fibres**

REF.	MEASUREMENTS (mm)
V0205	100
V0206	120
V0207	140
V0208	160
V0209	180
<b>V0210</b>	<b>200</b>


**Tripod supporting legs and stainless steel rod.**

REF.	MEASUREMENTS (mm)
V0215	100
V0216	120
<b>V0217</b>	<b>140</b>


**Tripod supporting legs and stainless steel rod.**

REF.	MEASUREMENTS (mm)
V0230	80 x 210
V0231	100 x 210 mm
<b>V0232</b>	<b>120 x 210 mm</b>

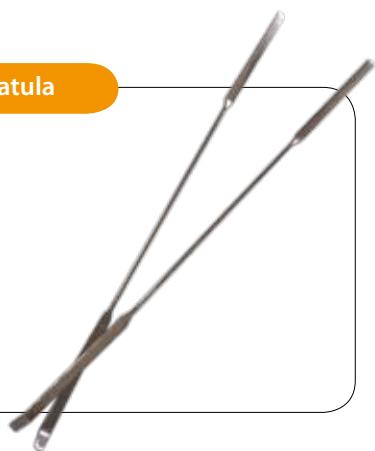

**Galvanised steel closed retort ring with bosshead.**

REF.	COLLAR (mm)	MEASUREMENTS
V0220	100	100
V0221	120	130
V0222	140	160
V0223	160	170
<b>V0224</b>	<b>180</b>	<b>180</b>



**Double-ended flat microspatula**

REF.	ROD (mm)
V0235	80 x 4
V0236	120 x 4
V0237	150 x 4
V0238	210 x 4


**Laboratory test tube racks**

REF.	ROD (mm)	MEASUREMENTS (mm)
V0260	160 x 125	160 x 125 x 80 x 65
V0261	235 x 180	235 x 180 x 110 x 95
V0262	160 x 125	160 x 125 x 80 x 65
V0263	235 x 180	235 x 180 x 110 x 95


**Curved double-ended spatulas**

REF.	ROD (mm)
V0240	120 x 15
V0241	150 x 25
V0242	180 x 25
V0243	210 x 25


**Wooden-handled spatulas**

REF.	ROD (mm)	REF.	BLADE MEASUREMENTS (mm)
V0246	80 x 14	V0250	160 x 24
V0247	100 x 16	V0251	200 x 29
V0248	120 x 18	V0252	240 x 34
V0249	140 x 22	V0253	280 x 34


**Other**

**V0255 Flat spoon spatula**, in stainless steel

**Total length:** 210 mm.

**VIBRATING SPATULAS**, with manual vibration device, in stainless steel

**Measurements:** 176 x 12 mm

**V0257 Curved tip**

**V0258 Grooved tip**

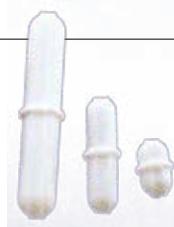



**Bunsen burner with air and gas control knob**

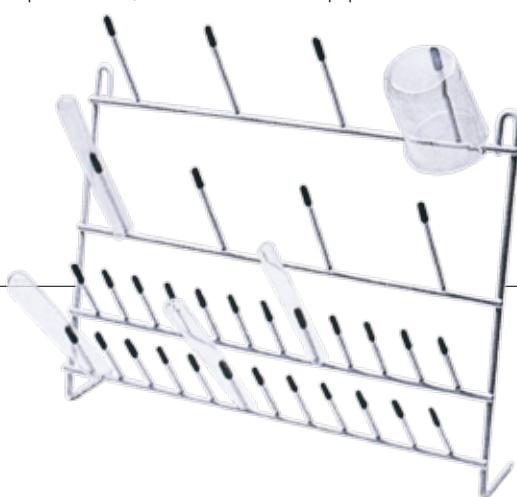
- V0285** Butane gas burner, measurements Ø 11 x 140 mm.
- V0286** Natural gas burner, measurements Ø 11 x 140 mm.
- V0287** Butane gas burner, measurements Ø 13 x 170 mm.
- V0288** Natural gas burner, measurements Ø 13 x 170 mm.


**Teflon magnets, with rotating pivot**

- V0310 Magnet-collecting rod**, flexible, teflon-coated.  
**Length:** 280 mm


**Hanging drying racks, made from PVC wire**

- V0315** Drying rack, with 32 hangers.
- V0316** Drying rack, with 48 hangers.
- V0317** Drying rack, with 88 hangers.
- V0320** Pipette rack, with room for 40 pipettes of different sizes.


**Iron mortar with grey steel pestle**

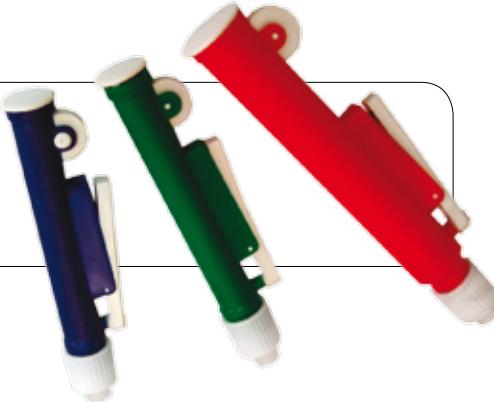
- V0340** Iron mortar with grey steel pestle  
**Measurements:** Ø 130 x 65 mm

- V0341** Iron mortar with grey steel pestle.  
**Measurements:** Ø 150 x 75 mm



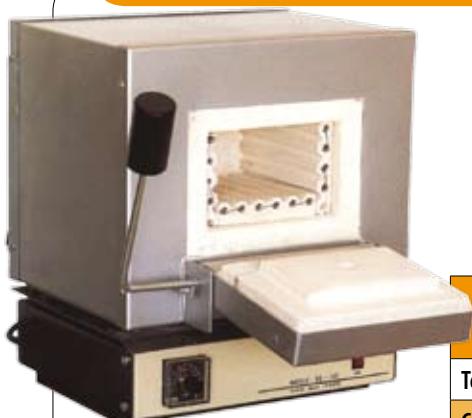
**Pipette pump filler**

**V0350** Pipette pump filler, 0 - 2 mL, blue.  
**V0351** Pipette pump filler, 0 - 10 mL, green.  
**V0352** Pipette pump filler, 0 - 25 mL, red.


**Brush for cleaning laboratory material**


**V0355** Beaker brush.  
**V0356** Probe cylinder brush.  
**V0357** Flask brush.  
**V0358** Burette brush.  
**V0359** Test tube brush.

## Benchtop muffle furnaces

**Muffle furnaces capable of 1200 °C**


AP (Automatic Pyrometer) feature, equipped with automatic temperature control.  
 Excellent temperature uniformity.  
 Quick heating and cooling.  
 Analogue or digital temperature display.

**Technical characteristics:**

DIGITAL		V0370	V0372
ANALOGUE		V0371	V0373
<b>Temperature resistant chamber temperature control</b>			Low density refractory KANTHAL 1200°C automatic
<b>Chamber</b>	Height Width Bottom	80 mm 130 mm 150 mm	160 mm 200 mm 230 mm
<b>Dimensions</b>	Height Width Bottom	430 mm 300 mm 330 mm	490 mm 430 mm 450 mm
<b>Power</b>		1.700 W	3.800 W
<b>Weight</b>		20 kg	41 kg

### High temperatures muffle furnaces

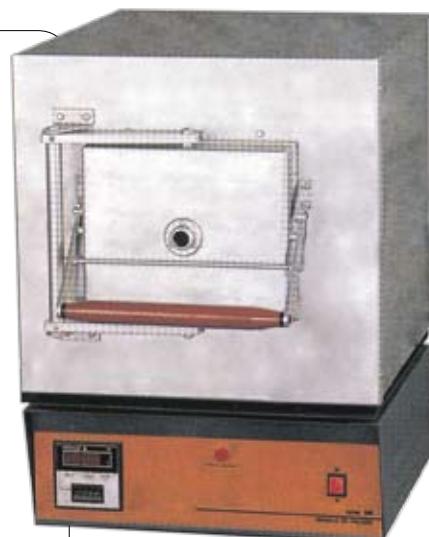
Built with state-of-the-art technology, the most advanced insulating fibres and thermal insulation elements. Automatic digital control equipment. For use in high temperature tests, cement, metallurgy.

Model	Temp.	Chamber (mm)	MEASUREMENTS(mm)	Power	Weight
<b>V0385</b>	1800°C	140 x 135 x 150	680 x 600 x 650	5000 W	90 kg
<b>V0386</b>	1650°C	100 x 130 x 250	550 x 870 x 670	5700 W	110 kg
<b>V0387</b>	1525°C	100 x 130 x 250	550 x 870 x 670	4600 W	100 kg
<b>V0388</b>	1450°C	120 x 172 x 250	560 x 750 x 720	4600 W	100 kg
<b>V0389</b>	1450°C	140 x 170 x 300	680 x 600 x 640	7200 W	70 kg
<b>V0390</b>	1375°C	140 x 170 x 300	680 x 600 x 640	6500 W	65 kg
<b>V0391</b>	1350°C	100 x 140 x 154	620 x 500 x 600	3500 W	58 kg



### Muffle ovens capable of 1000 and 1200 °C

Model	Temperature	Chamber (mm)	MEASUREMENTS (mm)	Power	Weight
<b>V0375</b>	1000°C	100 x 150 x 200	505 x 460 x 560	2200 W	90 kg
<b>V0376</b>		150 x 200 x 300	650 x 480 x 650	3300 W	98 kg
<b>V0377</b>		200 x 280 x 390	700 x 620 x 760	5500 W	185 kg
<b>V0378</b>	1200°C	100 x 150 x 200	505 x 460 x 560	3300 W	90 kg
<b>V0379</b>		150 x 200 x 300	650 x 480 x 650	5300 W	98 kg
<b>V0380</b>		200 x 280 x 390	700 x 620 x 760	8000 W	185 kg



A reinforced design, insulated with top quality fibres. Automatic digital control equipment.

Excellent temperature uniformity.

Quick heating and cooling.

Digital control and display

### Pumps

#### V0410 Vacuum pump

**Rated flow:** 4m<sup>3</sup>/h (65 L/m)

**Vacuum limit:** 3

**Oil capacity:** 0.2

**Weight (kg):** 9.5

**Rotating speed (rpm):** 1450

**Motor power (kW):** 0.150

**Power supply (1 ph):** 220 V/50 Hz

**Noise level (dBA):** 57

**Measurements (mm):** 184 x 150 x 322

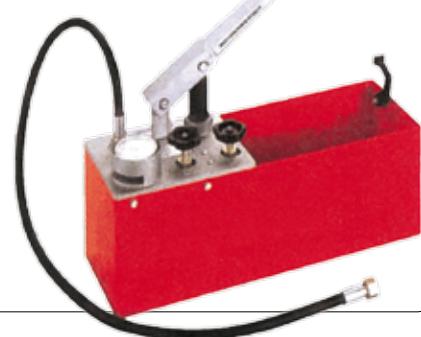


#### V0411 Verifying pump

For fast, accurate checks of pressure or airtightness in plumbing and heating installations.

Supplied complete with certified pressure gauge

**Approx. pressure:** 50 bar.



# Chemical products

All types of chemical products are delivered on request



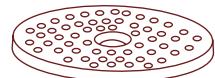
# Thermometers

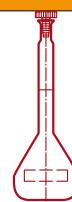
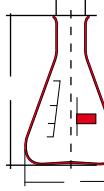
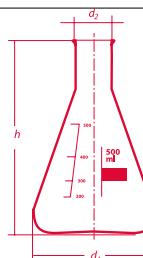
REF	ASTM	RANGE	IMMER (mm)
V1001	01C	-20 + 150 1°C	76
V1002	02C	-5 + 300 1 °C	76
V1003	03C	-5 + 400 1 °C	76
V1005	05C	-38 +50 1°C	108
V1006	06C	-80 +20 1°C	76
V1007	07C	-2 + 300 1 °C	TOTAL
V1008	08C	2 + 400 1 °C	TOTAL
V1009	09C	-7 + 110 0.05°C	57
V1010	10C	+ 90 + 370 2°C	57
V1011	11C	-6 + 400°C 2°C	25
V1012	12C	-20 +102 0.2°C	TOTAL
V1013	13C	+155 +170 0.5°C	TOTAL
V1014	14C	+38 +82 0.10C	79
V1015	15C	-2 +80 0.2°C	TOTAL
V1016	16C	-30 +200 0.5°C	TOTAL
V1017	17C	+19 +27 0.1°C	TOTAL
V1018	78C	+34 +42 0.1°C	TOTAL
V1019	19C	+49 +57 0.1°C	TOTAL
V1020	20C	57 +65 0.1°C	TOTAL
V1021	21C	+79 +87 0.1°C	TOTAL
V1022	22C	+95 + 103 0.1°C	TOTAL
V1023	23C	+ 18 + 28 0.2°C	90
V1024	24C	+ 39 + 54 0.2°C	90
V1025	25C	+95 +105 0.2°C	90
V1026	26C	+130 +140 0.1°C	TOTAL
V1027	27C	+ 147 + 182 0.2°C	76
V1033	33C	-38 +42 0.2°C	50
V1034	34C	+25 +105 0.2°C	50
V1035	35C	+90 +170 0.2°C	51
V1036	36C	-2 +68 0.2°C	45
V1037	37C	-2 +52 0.2°C	100
V1038	38C	+24 +78 0.2°C	100
V1039	39C	+48 + 102 0.2°C	100
V1040	40C	+ 72 + 126 0.2°C	100
V1041	41C	+98 +152 0.2°C	100
V1042	42C	+95 +255 0.2°C	100
V1044	44C	+18.5 +21.5 0.05°C	TOTAL
V1045	45C	+ 23.6 + 26.4 0.05°C	TOTAL
V1046	46C	+48.6 +51.4 0.05°C	TOTAL
V1047	47C	+58.6 +61.4 0.05°C	TOTAL
V1049	49C	+20 +70 0.2°C	65
V1052	52C	-10 +5 0.1°C	TOTAL
V1054	54C	+20 +100.6 0.2°C	TOTAL
V1056	56C	+ 19 + 35 0.02°C	TOTAL

REF	ASTM	RANGE	IMMER (mm)
V1057	57C	-20 +50 0.5°C	57
V1058	58C	-34 +49 0.5°C	TOTAL
V1059	59C	-18 +82 0.5°C	TOTAL
V1060	60C	+77 +260 1°C	TOTAL
V1061	67C	+32 +127 0.2°C	79
V1062	62C	-38 +2 0.1°C	TOTAL
V1063	63C	-8 +32 0.1°C	TOTAL
V1064	64C	+25 +55 0.1°C	TOTAL
V1065	65C	+50 +80 0.1°C	TOTAL
V1066	66C	+75 +105 0.1°C	TOTAL
V1067	67C	+ 95 + 155 0.2°C	TOTAL
V1068	68C	+145 +205 0.2°C	TOTAL
V1069	69C	+195 +305 0.5°C	TOTAL
V1070	70C	+295 +405 0.5°C	TOTAL
V1071	71C	-37 +21 2°C	76
V1073	73C	-41.4 -38.6 0.05°C	TOTAL
V1082	82C	-15 +105 1°C	30
V1083	83C	+15 +70 1°C	40
V1084	84C	+25 +80 1°C	249
V1085	85C	+40 +150 1°C	181
V1086	86C	+95 +175 1°C	35
V1087	87C	+150 +205 1°C	40
V1088	88C	+10 +200 1°C	57
V1089	89C	-20 +10 0.1°C	76
V1090	90C	0 +30 0.1°C	76
V1091	91C	+20 +50 0.1°C	76
V1092	92C	+40 +70 0.1°C	76
V1093	93C	+60 +90 0.1°C	76
V1094	94C	+80 +110 0.1 °C	76
V1095	95C	+100 +130 0.1°C	76
V1096	96C	+120 +150 0.1°C	76
V1097	97C	-18 +49 0.5°C	TOTAL
V1098	98C	+16 +82 0.5°C	TOTAL
V1100	100C	+145 +205 0.2°C	76
V1101	101C	+195 +305 0.5°C	76
V1102	102C	+123 +177 0.2°C	100
V1103	103C	+148 +202 0.2°C	100
V1104	104C	+173 +227 0.2°C	100
V1105	105C	+198 +252 0.2°C	100
V1106	106C	+223 +277 0.2°C	100
V1107	107C	+248 +302 0.2°C	100
V1110	110C	+133.6 +136.4 0.05°C	TOTAL
V1111	111C	+170 +250 0.2°C	100
V1112	112C	+4 +6 0.02°C	TOTAL

REF	ASTM	RANGE	IMMER (mm)
V1113	113C	-1 +175 0.5°C	TOTAL
V1114	114C	-80 +20 0.5°C	TOTAL
V1116	116C	+18.9 +25.1 0.5°C	TOTAL
V1117	117C	+23.9 +30.1 0.01°C	TOTAL
V1118	118C	+28.6 +31.4 0.05°C	TOTAL
V1119	119C	+ -38 -30 0.1°C	100
V1120	120C	+38.5 +41.5 0.05°C	TOTAL
V1121	121C	+98.6 +101.4 0.05°C	TOTAL
V1122	122C	-45 -35 0.1°C	TOTAL
V1123	123C	-35 -25 0.1°C	TOTAL
V1124	124C	-25 -15 0.1°C	TOTAL
V1125	125C	-15 -5 0.05°C	TOTAL
V1126	126C	-27.4 -24.6 0.05°C	TOTAL
V1127	127C	-21.45 -18.6 0.05°C	TOTAL
V1128	128C	-1.4 +1.4 0.05	TOTAL
V1129	129C	+91.6 +94.40.05°C	TOTAL

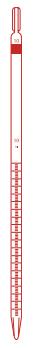
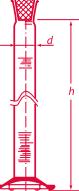
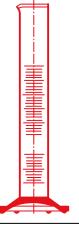
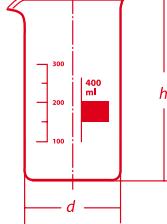
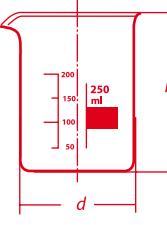


	Reference	Diameter	Drying	
<b>PORCELAIN DISCS</b>	V6200 V6201 V6202 V6203 V6204	90 140 190 240 290	100 150 200 250 300	

	Reference	Capacity mL	
<b>VOLUMETRIC FLASKS, WITH POLYETHYLENE STOPPERS - ISO 1042, DIN 12.664</b>	V6358 V6359 V6360 V6361 V6362 V6363 V6364 V6365	10 25 50 100 250 500 1000 2000	
<b>VOLUMETRIC FLASKS WITHOUT STOPPERS ISO 1042, DIN 12.664</b>	V6378 V6379 V6380 V6381 V6382 V6383 V6384 V6385	10 25 50 100 250 500 1000 2000	
<b>ERLENMEYER FLASKS, GRADUATED NORMAL NECK - ISO 1773</b>	V6420 V6421 V6422 V6423 V6424 V6425 V6426 V6427 V6428	25 50 100 250 500 1000 2000 3000 5000	
<b>ERLENMEYER FLASKS, GROUND GLASS NECK</b>	V6430 V6431 V6432 V6433 V6434 V6435 V6436 V6437 V6438 V6439	25 50 100 100 250 500 1000 1000 2000 2000	
<b>VOLUMETRIC PIPETTES, 1 LINE, QUALICOLOR CLASS B - ISO 648</b>	V6560 V6561 V6562 V6563 V6564 V6565 V6566 V6567	1 2 5 10 20 25 50 100	
<b>VOLUMETRIC PIPETTES, 1 LINE, QUALICOLOR CLASS A - ISO 648</b>	V6560/A V6561/A V6562/A V6563/A V6564/A V6565/A V6566/A V6567/A	1 2 5 10 20 25 50 100	

# Laboratory glass and porcelain

<b>WEIGHING BOTTLE INNER LID</b>	32 x 40 mm	V2320 Complete V2320/1 Lid - 29/10 V2320/2 Body - 29/10	
<b>WEIGHING BOTTLE INNER LID</b>	40 x 25 mm	V2325 Complete V2325/1 Lid - 34/12 V2325/2 Body - 34/12	
<b>WEIGHING BOTTLE INNER LID</b>	44 x 20 mm	V2330 Complete V2330/1 Lid - 40/12 V2330/2 Body - 40/12	
<b>WEIGHING BOTTLE INNER LID</b>	50 x 40 mm	V2340 Complete V2340/1 Lid - 45/12 V2340/2 Body - 45/12	
<b>WEIGHING BOTTLE INNER LID</b>	60 x 40 mm	V2350 Complete V2350/1 Lid - 55/12 V2350/2 Body - 55/12	
<b>WEIGHING BOTTLE OUTER LID</b>	22 x 35 mm	V2360 Complete V2360/1 Lid - 24/10 V2360/2 Body - 24/10	
<b>WEIGHING BOTTLE OUTER LID</b>	28 x 35 mm	V2370 Complete V2370/1 Lid - 29/10 V2370/2 Body - 29/10	
<b>WEIGHING BOTTLE OUTER LID</b>	44 x 40 mm	V2380 Complete V2380/1 Lid - 45/12 V2380/2 Body - 45/12	
<b>WEIGHING BOTTLE OUTER LID</b>	54 x 40 mm	V2390 Complete V2390/1 Lid - 55/12 V2390/2 Body - 55/12	
<b>GAY-LUSSAC LIQUID PYCNOMETER</b>	Reference	Capacity mL	
GAY-LUSSAC LIQUID PYCNOMETER	V5560 V5561 V5562 V5563	10 25 50 100	
<b>RENAULT SOLID PYCNOMETER</b>	Reference	Capacity mL	
RENAULT SOLID PYCNOMETER	V5570 V5571 V5572 V5573	10 25 50 100	
<b>LIQUID AND SOLID PYCNOMETER WITH POLYTHENE STOPPER</b>	Reference	Capacity mL	
LIQUID AND SOLID PYCNOMETER WITH POLYTHENE STOPPER	V5580 V5581 V5582 V5583	10 25 50 100	
<b>DESICCATOR WITH SCREW-ON KNOB LID</b>	Reference	Capacity mL	
DESICCATOR WITH SCREW-ON KNOB LID	V6160 V6161 V6162 V6163 V6164	100 150 200 250 300	
<b>DESICCATORS WITH STOPCOCK</b>	Reference	Capacity mL	
DESICCATORS WITH STOPCOCK	V6180 V6181 V6182 V6183 V6184	100 150 200 250 300	
<b>GLASS FUNNELS</b>	Reference	Capacity mL	
GLASS FUNNELS	V6620 V6622 V6623 V6624 V6625 V6626 V6627 V6628 V6629 V6630	45 55 75 85 100 125 150 200 250 300	
<b>RAPID FILTER FUNNELS</b>	Reference	Capacity mL	
RAPID FILTER FUNNELS	V6260 V6261 V6262	55 75 105	

	Reference	Capacity mL		
<b>VOLUMETRIC PIPETTES, 2 LINES, QUALICOLOR CLASS B - ISO 648</b>	V6580 V6581 V6582 V6583 V6584 V6585 V6586 V8687	1 2 5 10 20 25 50 100		
<b>VOLUMETRIC PIPETTES, 2 LINES, QUALICOLOR CLASS A - ISO 648</b>	V6580/A V6581/A V6582/A V6583/A V6584/A V6585/A V6586/A V8687/A	1 2 5 10 20 25 50 100		
<b>GRADUATED CLOSED PIPETTES QUALICOLOR, CLASS B - ISO 835h</b>	V6660 V6661 V6662 V6663 V6664 V6665 V6666 V6667 V6668 V6669 V6670	1 1 2 2 5 5 10 20 25 50 100	1/100 1/10 1/100 1/10 1/10 1/20 1/10 1/10 1/10 1/10 1/5	
<b>GRADUATED CLOSED PIPETTES QUALICOLOR, CLASS A - ISO 835</b>	V6660/A V6662/A V6665/A V6666/A V6667/A V6668/A V6669/A V6670/A	1 2 5 10 20 25 50 100	1/100 1/50 1/20 1/10 1/10 1/10 1/10 1/5	
<b>GRADUATED TEST TUBES WITH PO- LYETHYLENE STOPPER, HEXAGONAL BASE ISO 4788; DIN 12685-1</b>	V6720 V6721 V6722 V6723 V6724 V6725 V6726 V6727 V6728	5 10 25 50 100 250 500 1000 2000		
<b>GRADUATED TEST TUBES WITH SPOUT, HEXAGONAL BASE ISO 4788; DIN 12685-1</b>	V6740 V6741 V6742 V6743 V6744 V6745 V6746 V6747 V6748	5 10 25 50 100 250 500 1000 2000		
<b>GRADUATED TALL BEAKERS WITH SPOUT ISO 3819; DIN 12331-1</b>	V6780 V6781 V6782 V6783 V6784 V6785 V6786 V6787 V6788 V6789 V6790	25 50 100 150 250 400 600 800 1000 2000 3000		
<b>GRADUATED SHORT BEAKERS WITH SPOUT ISO 3819; DIN 12331-1</b>	V6799 V6800 V6801 V6802 V6803 V6804 V6805 V6806 V6807 V6808 V6809 V6810 V6811	10 25 50 100 150 250 400 600 800 1000 2000 3000 5000		

	Reference	Capacity mL	Female	
<b>KITASATO VACUUM FLASKS, GROUND GLASS NECK</b>	V6470 V6471 V6473 V6474 V6475 V6476	250 500 1000 1000 2000 2000	29/32 29/32 29/32 45/40 29/32 45/40	

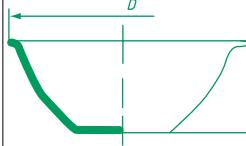
	Reference	Diameter mm		
<b>WATCH GLASSES</b>	V6799 V6800 V6801 V6802 V6803 V6804 V6805 V6806 V6807 V6808 V6809 V6810	30 40 50 60 70 80 80 100 120 150 200 250		

	Reference	Capacity mL	Female	
<b>GRADUATED BURETTES, glass stopcock with strip ISO 835</b>	V7750 V7751 V7752 V7753	10 25 50 100	1/10 1/10 1/10 1/5	
<b>GRADUATED BURETTES, glass stopcock without strip ISO 835</b>	V7755 V7756 V7757 V7758	10 25 50 100	1/10 1/10 1/10 1/5	

## Porcelain

---

	Reference	Measurements Ø x h	Capacity mL.	
<b>SHORT PORCELAIN CRUCIBLES</b>	V8001/30 V8001/35 V8001/40 V8001/45 V8001/50	30 x 19 35 x 22 40 x 25 45 x 28 50 x 32	5 10 17 21 24	
<b>MEDIUM PORCELAIN CRUCIBLES</b>	V8002/35 V8002/40 V8002/45 V8002/50 V8002/60 V8002/70	35 x 28 40 x 32 45 x 36 50 x 40 60 x 48 70 x 56	12 20 30 45 80 120	
<b>TALL PORCELAIN CRUCIBLES</b>	V8003/30 V8003/35 V8003/40 V8003/45 V8003/50	30 x 38 35 x 44 40 x 45 45 x 56 50 x 62	15 26 35 50 72	
<b>LIDS FOR CRUCIBLES</b>	V8030 V8035 V8040 V8045 V8050 V8060 V8070	30 x 34 35 x 39 40 x 44 45 x 49 50 x 54 60 x 64 70 x 74	30 x 34 35 x 39 40 x 44 45 x 49 50 x 54 60 x 64 70 x 74	
<b>PORCELAIN MORTARS WITH PESTLE</b>	V8212/0 V8212/1 V8212/1a V8212/1b V8212/2 V8212/2a V8212/3 V8212/3a V8212/4 V8212/5 V8212/6 V8212/7 V8212/8	60 x 32 70 x 37 81 x 42 91 x 46 100 x 50 113 x 56 125 x 64 144 x 71 163 x 82 183 x 90 215 x 104 257 x 127 298 x 150	25 30 50 75 110 150 220 325 500 730 1135 2250 4300	

	Reference	Measurements Ø x h	Capacity ml.	
<b>FLAT BOTTOM PORCELAIN DISHES</b>	V8274/1	55 x 22	18	
	V8274/1a	70 x 30	45	
	V8274/2	85 x 32	75	
	V8274/3	97 x 40	120	
	V8274/4	110 x 50	200	
	V8274/5	125 x 52	275	
	V8274/6	140 x 55	375	
	V8274/7	150 x 63	475	
	V8274/8	167 x 68	660	
	V8274/9	195 x 75	1000	
<b>SHORT, FLAT BOTTOM PORCELAIN DISHES</b>	V8208/1	205 x 105	2500	
	V8208/2			
	V8208/3			
	V8208/4			
	V8208/5			

## Laboratory furniture

Laboratory furniture for industrial research and application development in laboratories. Made of steel, wood or laminated plastic. All construction types are available in a wide range of sizes and internal configurations. Our technical staff will contact you to assess your needs in the light of the space available. This will allow us to draw up a floor design with specifications and drawings to give you a realistic idea of how your laboratory will look.



## Mobile laboratories

The procedures required to perform a proper inspection covering large areas and achieve proper material control and testing is especially inconvenient for activities such as road construction. The PROETI mobile lab is the best solution for this kind of situation.

### Typical equipment in the booth can consist of:

- Electrical and lighting installation.
- Cold/Hot air conditioning.
- Aluminium windows.
- Water tank.
- Furniture.
- Concrete, soil and asphalt testing equipment, etc.



NAME	PAGE	NAME	PAGE
• "In situ" density	• 249	• Dynamometric rings	• 358
• 501 – 502 – 503 DR	• 256	• Electro-mechanical universal testing machines	• 337
• Abrasion test	• 31	• Electronic scales	• 6
• Abrasive wear resistance test	• 33	• Erosionability	• 261
• Accelerated aggregate polishing	• 36	• ETIMATIC	• 114
• Adherence test – Beam Test	• 140	• Falling ball consistency	• 59
• Adhesion test with a Vialit plate	• 289	• Fatigue test	• 298
• Aggregate consistency	• 31	• Flakiness index and particle shape	• 25
• Air trapped in fresh concrete	• 90	• Flash point and ignition point	• 303
• Analysis of bitumen samples	• 272	• Flash point and ignition point	• 308
• Apparent and relative density. Absorption and specific weight	• 27	• Friability coefficient. Fragmentation resistance	• 35
• Automatic compaction	• 221	• Gilmore method	• 57
• Automatic computer-controlled machines	• 120	• Gravel-cement test	• 220
• Automatic extraction	• 279	• H0206/PLUS electromechanical multitest presses with digital display	• 239
• Ballast tests	• 49	• Hardness test	• 351
• Benchtop muffle furnaces	• 366	• Heating plates	• 13
• Bitumen distillation	• 304	• Heating plates	• 360
• Bitumens and bitumen binders	• 306	• Hoek cells for triaxial tests on rocks	• 47
• Bituminous grout abrasion	• 289	• Hubbard - Field method	• 287
• Bituminous grout consistency	• 289	• Immersion compression / simple compression	
• Carbonate content of aggregates	• 30	bituminous mixtures	• 288
• CBR (California Bearing Ratio) test	• 225	• Impact test method	• 246
• CBR tests "in situ"	• 246	• Indentation tests in cubic or Marshall specimens	• 290
• Centrifuging	• 277	• Laboratory furniture	• 373
• Change in soil volume	• 184	• Laboratory glass and porcelain	• 370
• Chemical products	• 368	• Large capacity electronic scales	• 8
• Chemical soil analysis	• 179	• Load plate test	• 265
• Chemical tests	• 52	• Machines have display of force on a pressure gauge	• 106
• Classification of samples	• 167	• Machines with digital display of force	• 108
• Collecting specimens to test consistency and workability	• 84	• Machines with speed servo-control and digital force display	• 112
• Compaction	• 94	• Magnetic stirring rods	• 360
• Compaction and CBR	• 217	• Marking and folding	• 344
• Compaction and moisture	• 248	• Marshall compaction	• 281
• Compression machines	• 103	• Marshall test presses	• 283
• Compression/Bending and Tensile tests	• 233	• MCM-2 Hydrotector	• 257
• Computer-controlled electromechanical multitest presses	• 240	• MC-S-24 Strata	• 255
• Computerised universal testing machines	• 324	• Mean coat thickness	• 321
• Computerised universal testing machines	• 329	• Measuring skid resistance on roads - Grytester	• 320
• Computerised universal testing machines	• 332	• Mechanical precision scales	• 9
• Concrete contraction test	• 140	• Mechanical properties	• 32
• Concrete permeability and water absorption	• 139	• Mixing and temperature	• 280
• Consistency	• 54	• Mixing, molding, curing and breaking	• 69
• Consistency	• 55	• Mobile laboratories	• 373
• Contraction limit	• 175	• Moisture density – Nuclear method	• 255
• CV/PC electromechanical multitest presses with digital speed selector and display	• 238	• Moisture density – Nuclear method	• 256
• Cylinder specimen facing	• 102	• Moisture density – Nuclear method	• 257
• Density - Nuclear method	• 314	• Moisture density – Nuclear method	• 250
• Density moisture-Nuclear method-MC-1-DRP	• 254	• Multitest electromechanical presses	• 233
• Determination of linear contraction	• 175	• Non-destructive tests	• 141
• Determination of liquid limit	• 173	• Occluded air and density	• 64
• Determination of particle density	• 175	• Optional triaxial test settings	• 212
• Determination of particle density	• 176	• Particle size distribution	• 178
• Determination of plastic limit	• 174	• Pavement tests	• 318
• Determination of sand equivalent	• 177	• Penetration	• 306
• Determining cement fineness	• 53	• Platform scales	• 9
• Determining cement strength	• 75	• Porcelain	• 372
• Determining clay, silt and dust content in aggregates	• 26	• Potential alkali reactivity of cement aggregates	• 30
• Determining indirect tensile strength	• 286	• Presses for CBR tests	• 227
• Determining moisture content	• 171	• Presses for compression tests	• 104
• Determining water sensitivity of bitumen mixtures	• 287	• Pressure and distributor display panels	• 201
• Determining weight loss	• 302	• Pressure filter method	• 273
• Dial indicators	• 358	• Pressure regulation panels:	• 203
• Direct shear test and Vane test	• 185	• Proetisa Nuclear Area	• 258
• Drying ovens	• 11	• Quantitative extraction	• 275
• Drying ovens	• 12	• Quick drying methods	• 14
• Ductility and rupture point	• 312	• Resilience test	• 347
• Duriez test	• 288	• Resistance to plastic deformation	• 291
• Dynamic penetration test	• 267	• Resistance to water	• 290
		• Rock classification	• 46

NAME	PAGE
• Rock mechanics	• 41
• Rock samples	• 38
• Roller compaction	• 299
• Rotating compactor	• 301
• Sample curing	• 74
• Sample extraction	• 318
• Sample extractors	• 169
• Sample preparation	• 16
• Sample preparation	• 168
• Samples, preparation and tests	• 302
• Sampling	• 52
• Sampling	• 166
• Servo-pneumatic Testing System	• 293
• Sets of weights	• 10
• Sieving machines	• 23
• Skid resistance coefficient	• 37
• Softening point	• 305
• Software for CBR and Marshall tests	• 232
• Software for geotechnical tests	• 209
• Software for geotechnical tests	• 211
• Soil consolidation	• 182
• Soil permeability	• 259
• Soil-cement test	• 220
• Solvent recovery	• 280
• Specific weight	• 89
• Specimen curing	• 95
• Specimen cutting and grinding	• 101
• Specimen preparation	• 91
• Specimen preparation	• 92
• Specimen recovery method using volume calculation	• 290
• Specimen removal	• 100
• Stability and expansion	• 60
• Stirrers	• 181
• Temperature	• 313
• Temperature	• 361
• Temperature control during the test	• 295
• Tests to determine the geometric properties of aggregates.	
Flow assessment	• 26
Texture	• 321
• Thermometers	• 368
• Thermostatic baths	• 359
• Triaxial press	• 193
• Triaxial test	• 191
• Triaxial test pressure systems	• 207
• Trimming machines	• 170
• Ultrasound	• 345
• Unconfined compression test	• 264
• Universal servo-hydraulic systems	• 296
• Vibrating hammer compaction	• 225
• Viscosity and consistency	• 309
• Weld control	• 346
• Wet sieving	• 20
• Wheel Tracker Machine	• 291

NAME	PAGE	NAME	PAGE
• 932/1; UNE EN 196-2	• 52	• BS 812	• 28
• ASTM C 117; BS 812	• 26	• BS 812; NF P18-574	• 32
• ASTM C 403; AASHTO T 197	• 87	• D3148, D2938, D5407, D2664	• 41
• ASTM C109	• 80	• EN 10002-1; DIN 50.125 y UNE 7184	• 324
• ASTM C109; AASHTO T132	• 72	• EN 10045/1 – UNE 7475 – ASTME E23 – DIN 50115	• 347
• ASTM C1362	• 87	• EN 101	• 46
• ASTM C141, C151; UNE 80113.	• 61	• EN 1015-19, UNE EN 1015-21	• 68
• ASTM C185 – AASHTO T 137	• 64	• EN 1015-3; EN 459-2	• 58
• ASTM C215, C666; BS 1881:209; NF P18-414	• 152	• EN 1015-9	• 66
• ASTM C230; BS 4551	• 58	• EN 1097-1; UNE 83.115; AFNOR P18.572; NF P18-576	• 35
• ASTM C230; BS 4551	• 58	• EN 1097-2; NLT 325; ASTM C131, C535; AASHTO T 96; NF P18-573	• 31
• ASTM C360	• 87	• EN 1097-3; NLT 156; ASTM C29; BS 812	• 28
• ASTM C426, BS 1881	• 144	• EN 1097-4; NLT 177; BS 812	• 29
• ASTM C490, C348; BS1 881, 6073; NF P 18-427; UNE 80113.	• 61	• EN 1097-6; UNE 7140, 7083, 83.133; ASTM C128, C127; AASHTO T84; BS 812; NLT 154; DIN 12039	• 27
• ASTM C684, BS 1881-112	• 96	• EN 1097-7; NF P18-558; BS 812; NLT 155	• 27
• ASTM C70; AASHTO T142	• 29	• EN 1097-8; EN 13036-4; NLT 175; ASTM E303; BS 812:114; NF P15-578	• 37
• ASTM C70; AASHTO T142	• 172	• EN 1097-8; NLT 174; BS 812:114; NF P18-575; ASTM E303	• 36
• ASTM C803; BS 1881	• 143	• EN 1097-8; UNE EN 1342; ASTM C131, C535; BS 812-3	• 34
• ASTM C91, C110	• 68	• EN 12350-10	• 85
• ASTM C91, C141, C266; AASHTO T 154	• 57	• EN 12350-12	• 85
• ASTM D 140; AASHTO T40	• 302	• EN 12350-2; INFORME RILEM N°23	• 84
• ASTM D 1558	• 248	• EN 12350-2; UNE 7103, 83.313; ASTM C143; AASHTO T119; BS 1881; DIN 1048; NF P18.305	• 84
• ASTM D 2167; AASHTO T205	• 248	• EN 12350-3; UNE 83.314; NLT-308; BS 1881:104	• 86
• ASTM D 2172; AASHTO T164	• 276	• EN 12350-4; DIN 1048	• 86
• ASTM D 2172; AASHTO T164	• 276	• EN 12350-5; BS 1881-105; DIN 1048	• 86
• ASTM D 5873	• 46	• EN 12350-7; UNE 7141, ASTM C231; BS 1881-106; DIN 1048	• 90
• ASTM D 5873	• 47	• EN 12350-9	• 85
• ASTM D 940, D 1655 – AASHTO T54 – BS 2000 – CNR N° 102 – NF T66-020	• 309	• EN 12390/3	• 101
• ASTM D1310, D3143	• 308	• EN 12390-1; EN 196-1	• 79
• ASTM D1883; AASHTO T193; BS1377,1924; LCPC	• 246	• EN 12390-2	• 91
• ASTM D2573; BS 1377	• 264	• EN 12390-5; EN 1340, UNE 83305; ASTM C78; AASHTO T97; BS 1881; NF P18-407; DIN 5 1227	• 137
• ASTM D2937; CNR N°22; BS 1377:9	• 166	• EN 12390-6; ASTM C446; NF P18-408	• 127
• ASTM D3148, D2938, D5407, D2664	• 130	• EN 12504-1	• 100
• ASTM D36, E28; IP58; DIN 52011; EN 1427; NFT 66008; ISO 4625	• 305	• EN 12504-3	• 148
• ASTM D4123; BS DD 226; EN 12697 -26; BS DD 213; EN 12697-24; ASTM D3497; AASHTO TP31; EN 12697 -25; AASHTO TP8; ASTM D3999; AASHTO P46; ASTM D5311; AASHTO T307	• 296	• EN 12607-1	• 303
• ASTM D420, D1452; AASHTO T86, T202	• 166	• EN 12697- 24, 12697- 25, EN 12697- 26; ASTM D4123, D3497; AASHTO TP31, TP8, TP62, TP46, T307; BS DD 226; NCHRP 1-28A	• 293
• ASTM D4428-D4428M-00	• 163	• EN 12697-1, EN 13108 - LPC - CNR N.38	• 277
• ASTM D4429; BS 1377	• 246	• EN 12697-22; BS 598: Part 110: 1996; Austroads 01:2004	• 291
• ASTM D4944; AASHTO T217; UNE 7804; BS 6576	• 171	• EN 12697-23; ASTM D4123	• 242
• ASTM D5607 – ISRM	• 45	• EN 12697-24, EN 12697-26; AASTHO TP8	• 298
• ASTM D6938; D2922; D2950; D3017; BS 1377	• 314	• EN 12697-34; ASTM D1559; BS 598; NF P 98-251	• 242
• ASTM D6938; D2922; D2950; D3017; BS 1377	• 316	• EN 1290, EN 12.062-02	• 346
• ASTM D6938-08, D2922, D2950, D3017; BS 1377	• 252	• EN 13075-1	• 306
• ASTM D6938-08, D2922, D2950, D3017; BS 1377	• 254	• EN 13286-2; UNE 7365, 7255, 103-501/94; NLT-107/91, 107/98, 108/91, 108/98 ; ASTM D698, D1557, D1833; AASHTO T99, T180, T193; BS 1377:4, 1994 ; NF P94-093, P94-066 ; DIN 18127; DUTCH RAW, EPP	• 217
• ASTM D698, D1587, D1883; BS 598, 1377.	• 169	• EN 13286-2; UNE 7365, 7255, 103-501/94; NLT-107/98, 108/98; ASTM D698, D1557, D1833; CNR N° 29,69; AASHTO T99, T180, T193; BS 1377:4, 1994 ; NF P94-093, P94-066 ; DIN 18127; DUTCH RAW, EPP	• 221
• ASTM D698, D1587, D1883; BS 598, 1377.	• 169	• EN 13286-46; BS 1377	• 247
• ASTM D88, D244 - AASHTO T72 - UNE 7066, 51021- NLT-133, 138	• 310	• EN 13286-47, EN 13286-4 ; UNE 103-502; NLT-111/87; ASTM D1883/73; AASHTO T193; BS 1377:4, 1924:2 ; NF P94-078, P94-093, P98-231	• 221
• ASTM DZ166; BS 1377; AASHTO T208	• 264	• EN 13286-47, UNE 103-502; NLT-111/87; ASTM D1883/73; AASHTO T193; BS 1377:4, 1924:2 ; NF P94-078	• 225
• ASTM E11	• 24	• EN 13286-47; EN 13286-4 ; UNE 103-502; NLT-111/87; ASTM D1883/73; AASHTO T193; BS 1377:4, 1924:2 ; NF P94-078	• 242
• BS 1191; UNE 6782	• 63	• EN 13286-47; EN 196-1 UNE 103-502, 67100-85, 7035, 7060, 7090-73, 7184, 7194; NLT-111/87, 150/73, 202/72, 160/73; ASTM D1833; AASHTO T193; BS 1377:4; NF P94-078	• 233
• BS 1377	• 178	• EN 13286-47; UNE 103-502; NLT-111/87; ASTM D1883/73; AASHTO T193; BS 1377:4; NF P94-078	• 227
• BS 1377	• 179	• EN 13286-5	• 247
• BS 1377	• 189		
• BS 1377, 1924	• 176		
• BS 1377, 1924	• 249		
• BS 1377:2	• 175		
• BS 1377:2	• 176		
• BS 1377; ASTM D1067	• 180		
• BS 1377; ASTM D2850	• 243		
• BS 1881 part 103, 5075	• 86		
• BS 4550	• 73		
• BS 4551-1, 6463-4	• 59		
• BS 812	• 25		

NAME	PAGE	NAME	PAGE
• EN 13395-2	• 66	• NLT 207/98; ASTM D4647; BS 1377	• 261
• EN 1341, 1342, 1343; UNE EN 1339, 10545-6; UNE 13748-2	• 33	• NLT 335; ASTM E965; BS 598: Part 105	• 321
• EN 1367-2; NLT 158; ASTM C86	• 31	• NLT 354; BS 812	• 29
• EN 1367-4, 12617-4; ASTM C151; C490; NF P15-433; P18-427; BS 1881:5, 6073, 812: 102; DIN 1164	• 62	• NLT 356; AASHTO T256: S.N.V.	• 319
• EN 1367-4; BS 812:102	• 29	• NLT 371; ASTM D 3910-84	• 289
• EN 1542, 12504-3; ASTM C900; BS 1881:207	• 146	• NLT-107, 108, 111, 59; AASHTO T-99; ASTM D698, D1557, D1883	• 224
• EN 196/1, 196/3, 413/2, 459/2; ISO 679; ASTM C305; AASHTOT 162	• 69	• NLT-117/72	• 180
• EN 196/1, 196/3, 413/2, 459/2; ISO 679; NF P15-413, P18-401; ASTM C109, 348; AASHTO T 106; BS 4550	• 72	• NLT-118/72	• 180
• EN 196/1; ASTM C109; BS 3892; DIN 1164; NF P18-411; AS 2350	• 75	• NLT-124; BS 1377; NF P94-052/1	• 174
• EN 196/1; ASTM C348	• 243	• NLT-125; ASTM D36, E28; AASHTO T53; DIN 52011; EN 1427	• 305
• EN 196/1; ASTM C349; NF P15-451; PR EN/ISO 679	• 79	• NLT-185, 186; ASTM D2872; AASHTO T240	• 303
• EN 196/1; ASTM C87, C109, C190, C191; UNE 80102	• 74	• NLT-189	• 304
• EN 196/1; ISO 679	• 74	• NLT-301/72, 302/72, 303/72	• 220
• EN 196/1; NF P15-413; ISO 679; BS 3892; D.M. 3/6/68	• 73	• NLT-310, 311; BS 1377, 1924	• 225
• EN 196/3; D.M. 3/6/68; ASTM C191; DIN 1164 1168; BS 4550; NF P15-414; P15-431; AASHTO T131	• 55	• NLT-310/90	• 220
• EN 196/6; NLT 157; ASTM C91, C110	• 67	• Norma Método francés LPCC	• 88
• EN 196/6; UNE 83.103; NLT 155; ASTM C188; AASHTO T 133; BS 4550	• 66	• TP 68-04; ASTM D 7113-05	• 317
• EN 196/7; UNE 80.401; ASTM C 183; AASHTO T127	• 52	• UNE 102032	• 67
• EN 196/8 – ASTM C 186 – BS 4550, 1370 – DIN 1164	• 63	• UNE 103.807	• 266
• EN 196; ASTM C190, C348, C349; DIN 1164.	• 81	• UNE 103.200; NLT 116	• 30
• EN 196-3; ASTM C187, 191; BS 4550; AASHTO T131; NF P15-414 P15-431; DIN 1168	• 54	• UNE 103.302; ASTM 854; ASTHO T100; BS 1377:2	• 28
• EN 196-3; UNE 80.103; EN ISO 9597; BS 6463; NF P15-4362	• 60	• UNE 103.400; ASTM D698, D1587, D1883; BS 598, 1377	• 170
• EN 196-6; UNE 80.122; ASTM C 204; BS 4359; NF P-15 442; AASHTO T153	• 53	• UNE 103102; ASTM D422; AASHTO T88; BS 1377	• 178
• EN 22719 – ASTM D93 – AASHTO T73, IP 34, 35 – ISO 2719	• 310	• UNE 103-103/94; NLT-105/91; ASTM D4318; BS 1377:2; AASHTO T89; NF P94-051	• 173
• EN 413-2, 459-2, 1015-4.	• 57	• UNE 103108; ASTM D427; BS 1377; AASHTO T92; NF P94-060-1	• 175
• EN 413-2; AFNOR P18-452	• 59	• UNE 103-204-93	• 180
• EN 455; NF P18-358, P18-507	• 67	• UNE 103308, 7391	• 265
• EN 459/1 – BS 890, 1191	• 62	• UNE 103-400	• 170
• EN 459/2	• 62	• UNE 103401; 103405	• 189
• EN 459/2	• 63	• UNE 103401; ASTM D3080; BS 1377	• 185
• EN 459/2	• 57	• UNE 103403; BS 1377	• 259
• EN 933/1, 933/2 – UNE 7050/3, 7050/4 –	• 16	• UNE 103-403; BS 1377:5; ASTM D2434; AASHTO T215	• 259
• EN 933-3; NF P18-561	• 25	• UNE 103-405; ASTM D2435, D4546; BS 1377:5; AASHTO T216; NF P94090-1, P94-091	• 182
• EN 933-4	• 29	• UNE 103-503; NLT 109; ASTM D 1556; AASHTO T191; NF P94061-3	• 249
• EN 933-4; DIN 4226; CNR 95	• 29	• UNE 103600	• 184
• EN 933-6	• 26	• UNE 127.005	• 33
• EN 933-9; NF P94-068; NF P18-592	• 26	• UNE 51023; NLT-127; ASTM D92; AASHTO 48; BS 4689; IP 36/67	• 308
• EN 933-9; NLT-171/86; NF P18-592	• 261	• UNE 7045/32	• 176
• EN 938-8, UNE 103109; NLT-113/72; ASTM D2419; BS 1924; AASHTO T176; AFNOR P18-598	• 177	• UNE 7134; ASTM C235	• 32
• EN 96; UNE 146.507, 146.507-1; ASTM C289	• 30	• UNE 7308; ASTM D3550, D1587; NI-ISSMFE	• 267
• EN UNE 1097-6; NLT 153/92	• 27	• UNE 77305; BS 1377; ASTM D1067	• 179
• ISO 3310/1. 3310/2, 9044 - BS 410 DIN 4187 – NF	• 16	• UNE 83.311; ASTM C 403; AASHTO T 197	• 88
• NF P15-434	• 68	• UNE 83112; BS 812:110	• 32
• NF P18-401	• 73	• UNE 83120	• 38
• NF P18-452	• 88	• UNE 83318; ASTM 490; BS 1881	• 140
• NF P18-577	• 36	• UNE EN 1015/7; EN 413/2, 459/2, - UNE 83.815 - DIN 18.555	• 64
• NF P94-061-2	• 248	• UNE EN 12272-1; BS 594	• 321
• NLT – 155	• 282	• UNE EN 12272-3; NLT 313; LPCC	• 289
• NLT – 251; ASTM D 4644	• 39	• UNE EN 12274-5; NLT 320/87; ASTM D 3910	• 289
• NLT – 252; ASTM D5731	• 40	• UNE EN 12350-5; ASTM C124; AASHTO T120	• 89
• NLT – 327	• 321	• UNE EN 12350-6; UNE 7286, 83.317; ASTM C29, C138; BS 812, 1881; AASHTO T19	• 89
• NLT 122; ASTM D70; AASHTO T22; ISO 3838; BS 4699	• 302	• UNE EN 12390-1; UNE EN 12390-2; UNE 7240; DIN 51.229; ASTM C31, C192; AASHTO T23, T97; BS 1881-108; NF 18-401	• 92
• NLT 155; ASTM C188, C189; BS 812	• 302	• UNE EN 12390-2; ASTM C31, C192; AASHTO T23, T126; BS 1881:108	• 94
• NLT 160; ASTM D 1138; AASHTO T 169	• 287	• UNE EN 12390-2; EN 196; AASHTO T23; ASTM C31, C192; BS 1881-111	• 95
• NLT 162, 160; ASTM D 1047; AASHTOT 167	• 288	• UNE EN 12390-2; EN 196; ASTM C31, C192	• 96
• NLT 162, 160; ASTM D 1047; AASHTOT 167	• 288	• UNE EN 12390-3, 12390-4; UNE 7281, UNE 83304; ASTM C39, E4, BS 1610; AASHTO T22, T71; DIN 51.220, 51.223; NF P18-411; BS 1610	• 104
• NLT 169/72	• 277		
• NLT 183; ASTM D139; AASHTO T50	• 311		
• NLT 196/84, 321/84/89	• 290		
• NLT 197	• 311		

NAME	PAGE
• UNE EN 12390-3, UNE 7240, 83303; ASTM C617; NF P18-416; BS 1881; AASHTO T23, T126	• <b>102</b>
• UNE EN 12390-8, EN 12364; DIN 1048; ISO 7031; ENV 206	• <b>139</b>
• UNE EN 12504-2; DIN 1048; ASTM C805; BS 1881; NF P18-417	• <b>141</b>
• UNE EN 12593; NLT 182; CNR IP-80; DIN 5201	• <b>312</b>
• UNE EN 12607-2; 13303; NLT-128, 147; UNE 104.281; ASTM D6, D1754; AASHTO T179; BS 2000	• <b>302</b>
• UNE EN 12607-3, 12697-3; NTL 347	• <b>274</b>
• UNE EN 12618-2; EN 1542; UNE EN 12504-3	• <b>147</b>
• UNE EN 12697-1, 12697-14; NLT-137; BS 598	• <b>274</b>
• UNE EN 12697-1; BS 598	• <b>273</b>
• UNE EN 12697-1; BS 598, 5284	• <b>272</b>
• UNE EN 12697-1; DIN 1996	• <b>273</b>
• UNE EN 12697-1; DIN 1996; CNR a. Vil. 38	• <b>279</b>
• UNE EN 12697-1; NLT 164; ASTM D2172; AASHTO T164	• <b>275</b>
• UNE EN 12697-1; NLT 164; DIN 196; CNR a. VII N.38.	• <b>276</b>
• UNE EN 12697-10, 12697-30; NLT 159; ASTM D 1559; BS 598	• <b>281</b>
• UNE EN 12697-10, 12697-31	• <b>301</b>
• UNE EN 12697-12	• <b>287</b>
• UNE EN 12697-18 - EN 13108	• <b>287</b>
• UNE EN 12697-20	• <b>290</b>
• UNE EN 12697-20	• <b>290</b>
• UNE EN 12697-23; ASTM D4123; CNR N.134	• <b>286</b>
• UNE EN 12697-32	• <b>282</b>
• UNE EN 12697-33	• <b>299</b>
• UNE EN 12697-34, UNE 103-502; NLT-111; ASTM D1559; AASHTO T245; NF P98/251/2 CNR N°30	• <b>283</b>
• UNE EN 12697-39; AASHTO T164; NLT384/00; ASTM T 308-99	• <b>278</b>
• UNE EN 12697-5, 12697-12; ASTM D 2041	• <b>274</b>
• UNE EN 1289/1M:2002	• <b>347</b>
• UNE EN 13036-7	• <b>318</b>
• UNE EN 13302; NLT 375; ASTM D3205, 4402; CEN TC 19	• <b>311</b>
• UNE EN 13358; NLT 134; UNE 7.112; ASTM D402; AASHTO T78	• <b>304</b>
• UNE EN 13398; NLT 329	• <b>313</b>
• UNE EN 13589; 13398; NLT 126; UNE 7093; ASTM D113; AASHTO T51; CNR N.44 PR-EN	• <b>312</b>
• UNE EN 1367-1; UNE EN 10345-12	• <b>99</b>
• UNE EN 13748-1	• <b>87</b>
• UNE EN 1426; NLT 124; UNE 104281-1-4; ASTM D5, D217; AASHTO T49; BS 2000	• <b>306</b>
• UNE EN 1430; NLT 194; ASTM D 244; AASHTO T59	• <b>313</b>
• UNE EN 1431; NLT-139; ASTM D244; AASHTO T59	• <b>304</b>
• UNE EN 1714	• <b>345</b>
• UNE EN 1744-1	• <b>38</b>
• UNE EN 1744-1	• <b>40</b>
• UNE EN 196-2:1996	• <b>65</b>
• UNE EN 451-2; DM 3/6/68	• <b>53</b>
• UNE EN 932-1; NLT 148/91; ASTM C136, C702, D271, D421, D492; AASHTO T27, T87; BS 1377, 812	• <b>167</b>
• UNE EN 933-1	• <b>21</b>
• UNE EN 933-1	• <b>22</b>
• UNE EN 933-10	• <b>23</b>
• UNE EN ISO 10545-2	• <b>34</b>
• UNE EN ISO 10545-7/1996	• <b>34</b>
• UNE EN ISO 6506-1; ASTM E10-66; AFNOR NF-A03; ISO R156	• <b>354</b>
• UNE EN ISO 6508	• <b>351</b>
• UNE EN ISO 6508	• <b>352</b>
• UNE EN ISO 7438, UNE 36068; ASTM A615	• <b>344</b>
• UNE103-104/93; NLT-106/72; ASTM D 427;BS 1377; AASHTO T9	• <b>174</b>
• UNE103-104/93; NLT-106/72;ASTM D4318;BS 1377; AASHTO T90	• <b>175</b>
• X11-504 – AASHTO T27 - ASTM E11	• <b>16</b>

NAME	PAGE	NAME	PAGE
• "L" box test	• 85	• Brick facing machine	• 128
• "In situ" density test using the sand method	• 249	• Brinell hardness testing machines	• 354
• "In situ" density test using the sand replacement method	• 249	• Brush for cleaning laboratory material	• 366
• "J" ring test	• 85	• Bunsen burner with air and gas control knob	• 365
• Abrams cone	• 84	• Cabinet type ovens	• 12
• Abrasion meter	• 34	• Calibrated volumetric containers	• 89
• Accessories for nuclear equipment	• 258	• Calibration instruments	• 138
• Accessories for testing machines	• 119	• Calorimeter	• 63
• Accessories needed to computerise the consolidation equipment	• 184	• Casagrande method	• 173
• Accessories needed to computerise the direct shear equipment	• 188	• CBR (California Bearing Ratio) test	• 242
• Aggregate consistency	• 32	• CBR /Marshall motor-driven press, 50 kN capacity. Version ASTM – two speeds 1.27 - 50.8 mm/min	• 228
• Aggregate Density – Non-nuclear Method	• 317	• CBR /Marshall motor-driven press, 50 kN capacity. Version BS – two speeds 1 - 50.8 mm/min	• 228
• Air /Water cell tray	• 200	• CBR "in-situ" testing equipment	• 246
• Air / water system	• 207	• CBR moulds	• 225
• Air jet sieving machine	• 23	• CBR press displays	• 230
• Alkalinity, chlorides and water hardness	• 180	• CBR test	• 232
• Analytical scales	• 6	• CD - Consolidated, drained test.	• 192
• Anti-vibration table for scales	• 8	• Cement bending test	• 234
• Apparatus for determining fly ash by wet method	• 53	• Cement compression test	• 234
• Apparatus for measuring hydraulic contraction in concrete	• 140	• CENT - 0 - GRAM SCALES	• 9
• Apparatus for testing the slump of paste	• 66	• Centrifuge extracting machine with 1500 g capacity	• 275
• Apparatus for testing tile impact resistance	• 87	• Centrifuge extracting machine with capacity for 3000 g	• 275
• Apparatus to determine apparent density	• 62	• Certified triple mold for 40 x 40 x 160 mm specimens	• 72
• Apparatus to determine moisture conditions and crushing value	• 247	• Charpy pendulums	• 348
• Apparatus to determine residue by means of water flow	• 53	• Circular bath equipped with thermostat	• 168
• Apparatus to determine the roughness coefficient	• 41	• Circular heating plates	• 13
• Apparatus to determine water permeability.	• 68	• Circular heating plates	• 360
• Apparent density of aggregates	• 28	• Cleveland Apparatus	• 308
• Asphalt emulsion distillation residue	• 304	• Coarse aggregate density using the water displacement	• 28
• Autoclave	• 61	• Coarse aggregate relative density test	• 27
• Autographic device for non-confined simple compression tests	• 264	• Compact machine of 2000 kN capacity, controlled by ETIMATIC	• 117
• Automatic ball and ring apparatus	• 305	• Compact machine with 1500 kN capacity, controlled by ETIMATIC	• 116
• Automatic bitumen extractor	• 279	• Compact machine with 3000 kN capacity, controlled by ETIMATIC	• 117
• Automatic laboratory mixer	• 70	• Compact machine with 5000 kN capacity, controlled by ETIMATIC	• 118
• Automatic mortar compactor	• 73	• Compaction factor equipment	• 86
• Automatic press of 6000 kN capacity	• 125	• Compaction hammer	• 198
• Automatic press with 2000 kN capacity	• 124	• Complete ball and ring apparatus	• 305
• Automatic press with 3000 kN capacity	• 124	• Complete workability period unit	• 66
• Automatic press with 5000 kN capacity	• 125	• Compression and bending test in mortar specimens	• 243
• Automatic scales	• 9	• Compression test for prefabricated materials	• 234
• Automatic servo-controlled press with double piston test frame of 300/15 kN capacity for compression and bending strength tests.	• 76	• Compression test machine for pipes	• 137
• Automatic Vicat apparatus	• 55	• Compression test machines, capacity 1200 kN	• 106
• Bacon sampler	• 302	• Compression test machines, capacity 1500 kN	• 106
• Ballast sieves	• 49	• Compression test machines, capacity 1500 kN	• 108
• Bar bending machine with auto-programmable automaton	• 344	• Compression test machines, capacity 1500, 2000 and 3000 kN	• 109
• Bar cutter	• 344	• Compression test machines, capacity 2000 kN	• 106
• Baroid Kit	• 262	• Compression test machines, capacity 2000 kN	• 108
• Baroid mud pressure filter	• 263	• Compression test machines, capacity 3000 kN	• 107
• Baroid scale	• 262	• Compression test machines, capacity 3000 kN	• 108
• Barton perthometer	• 46	• Compressometer	• 126
• Base adapter	• 196	• Compressometer-extensometer	• 126
• Baskets and accessories	• 31	• Computer control via ETIWIN software	• 236
• Bending device	• 127	• Computerised direct shear equipment	• 188
• Bending test machine	• 128	• Computerised universal testing machine, 10 kN capacity	• 335
• Bending tests for terrazos, roof tiles, floor tiles, curbs, soil-cement specimens, clay blocks, prism specimens, natural rocks and prefabricated elements	• 243	• Computerised universal testing machine, 100 kN capacity	• 336
• Benkelman beam	• 319	• Computerised universal testing machine, 1000 kN capacity	• 327
• Bernard calcimeter	• 30	• Computerised universal testing machine, 1000 kN capacity	• 331
• BH rebar detector	• 150	• Computerised universal testing machine, 20 kN capacity	• 335
• Bitumen measuring instruments	• 272	• Computerised universal testing machine, 200 kN capacity	• 336
• Bituminous grout abrasion machine	• 289	• Computerised universal testing machine, 2000 kN capacity	• 327
• Blaine Permeability Meter	• 53	• Computerised universal testing machine, 300 kN capacity	• 336
• Bolt removal equipment	• 146	• Computerised universal testing machine, 400 kN capacity	• 327
		• Computerised universal testing machine, 5 kN capacity	• 334

NAME	PAGE	NAME	PAGE
• Computerised universal testing machine, 50 kN capacity	• 335	• Devices for rocks	• 45
• Computerised universal testing machine, 600 kN capacity	• 327	• Dial indicators	• 358
• Computerised universal testing machine, 600 kN capacity	• 331	• Diameter deformation measuring device	• 126
• Computerised, programmable automatic mixer	• 71	• DI-CPA/2 testing frame	• 325
• Concrete esclerometer	• 141	• Dietrich - Fröhling calcimeter	• 30
• Concrete penetrometer	• 88	• Digilert 100 radiation monitor	• 251
• Concrete pocket penetrometer	• 87	• Digital Display Module UDI 14/2	• 77
• Concrete water penetration test	• 139	• Digital display with microprocessor	• 105
• Cone penetrometer method	• 174	• Digital esclerometer	• 142
• Cone pycnometer method	• 175	• Digital Force Display Module with Microprocessor UDI 16/4 PLUS	• 77
• Consistency of bituminous grout with cone	• 289	• Digital Force Display Module with Microprocessor UDI 16/4 PLUS	• 231
• Consolidation cells	• 182	• Digital hardness testing machines	• 355
• Consolidation cells	• 182	• Digital Pensky-Martens Viscometer	• 310
• Consolidation workbench	• 189	• Digital point load unit	• 40
• Constant and variable load combination permeameter, with 6 work stations	• 260	• Direct/residual shear apparatus	• 185
• Constant and variable load combination permeameter, with four work stations	• 260	• Distiller for the recovery of the solvent	• 280
• Constant load permeameter	• 259	• Dorry Machine	• 34
• Constant load spray device	• 290	• Double-ended flat microspatula	• 364
• Constant pressure hydraulic system for Hoek cells	• 48	• Drainage kit	• 199
• Continuous flow centrifuge	• 276	• Ductility and rupture point	• 313
• Contraction limit equipment	• 175	• Ductilometer	• 312
• Control and adjustment of speed, force and displacement speed	• 236	• Duriez test	• 288
• Control and measurement system	• 326	• Dynamic load plate test.	• 266
• Conversion frame for the CBR test in a laboratory.	• 246	• Dynamometers	• 9
• Corer with petrol motor	• 100	• Dynamometric rings	• 358
• Cover and bottom	• 20	• Elasticity software	• 44
• Crack measurements	• 143	• Electric air entrainment meter, capacity 1 l	• 64
• Crushing resistance	• 32	• Electric sample extractor probe	• 318
• CU - Consolidated, undrained test	• 192	• Electric vessel for melting sulphur	• 102
• Cubic mold for 70.7mm samples	• 73	• Electrical corer	• 100
• Cubic specimen trimming machine	• 170	• Electrical laboratory mixer	• 69
• Culatti micro-whisk mill	• 39	• Electromagnetic sieve shaker	• 22
• Curved double-ended spatulas	• 364	• Electromechanical multitest press, 100 kN capacity	• 238
• Cylinder method	• 176	• Electromechanical multitest press, 100 kN capacity	• 240
• Cylinder specimen trimming machine	• 170	• Electromechanical multitest press, 200 kN capacity	• 238
• Data acquisition unit with 16 channels	• 208	• Electromechanical multitest press, 200 kN capacity	• 239
• Data collection application	• 209	• Electromechanical multitest press, 200 kN capacity	• 239
• Data collection application (continued)	• 210	• Electromechanical multitest press, 200 kN capacity	• 241
• Data control and processing by PROETI computer (CPC)	• 330	• Electromechanical multitest press, 200 kN capacity	• 241
• Data storage system	• 97	• Electromechanical multitest press, 300 kN capacity	• 241
• Densitometer sedimentation method	• 178	• Electromechanical multitest press, 300 kN capacity	• 241
• Density - Nuclear method	• 314	• Electromechanical multitest press, 50 kN capacity	• 238
• Density – Nuclear method – MC – 1 – DRP	• 316	• Electromechanical multitest press, 50 kN capacity	• 239
• Density method for determining air content in mortar mixtures	• 64	• Electromechanical multitest press, 50 kN capacity	• 240
• Determination of drying shrinkage	• 29	• Electro-mechanical universal testing machines	• 332
• Determination of pH	• 179	• Electronic measurement systems and digital displays for CBR, CBR/Marshall and Multispeed presses	• 230
• Determination of soil porosity	• 176	• Electronic scale. Humidity determination. 200 g Sensitivity 0.001g.	• 14
• Determination of the sulphate content by the ion exchange method	• 179	• Electronic scales I	• 6
• Determination of voids in filler	• 29	• Electronic scales II	• 7
• Determining flakiness index	• 25	• Electronic scales III	• 7
• Determining moisture content	• 28	• Engler Digital Viscometer	• 309
• Determining particle density and water absorption	• 27	• Engler Digital Viscometer, 2 specimens	• 309
• Determining particle shape	• 25	• EPOCH ultrasound fracture and defect detector.	• 346
• Determining the elasticity modulus, Poisson coefficient and shear modulus	• 41	• Equipment for distilling fluidified bitumen	• 304
• Determining water sensitivity of bitumen mixtures	• 287	• Equipment for manual determination of cationic emulsion rupture values	• 306
• Determining weight loss	• 302	• Equipment for measuring skid resistance	• 320
• Deval machine	• 36	• Equipment for measuring the apparent density of cement	• 67
• Device for bending tests	• 80	• Equipment for the mix test	• 262
• Device for compression tests on cubes measuring 50 mm with 2" sides	• 80	• Equipment required	• 132
• Device for kerb bending tests	• 128	• Equipment to determine relative density.	• 247
• Device for testing removal of electrowelded wire mesh	• 331	• Equipment to determine sand equivalent	• 177
• Devices for compression tests on specimens measuring 40 x 40 x 160 mm	• 79	• ETI concrete mixers	• 91
		• ETIWIN control software	• 341

NAME	PAGE	NAME	PAGE
• Expansion test molds	• 61	• Kleine apparatus to determine the carbon dioxide level	• 63
• Expansion test table	• 86	• K-Slump test	• 87
• EXT-502/100 extensometer for diameters up to 100 mm	• 331	• Kumagawa Extractor (Soxhlet) capacity 1 L	• 277
• EXT-502/35 extensometer for diameters up to 35 mm	• 331	• Laboratory core barrel probe	• 47
• Extensometer (deformation transducer)	• 328	• Laboratory mixer	• 280
• Extraction bottle method	• 272	• Laboratory test tube racks	• 364
• Falling ball apparatus	• 59	• Laboratory vibrosieve shaker	• 21
• Fast action digital thermometers	• 361	• Lambe apparatus	• 184
• Fast triaxial test	• 234	• Large capacity electronic scales	• 8
• Fast triaxial test	• 243	• Large capacity jaw crusher	• 38
• Fatigue testing equipment	• 298	• Large CRT-WTENLD Wheel Tracker Machine	• 292
• Filler relative density test	• 27	• Large curing cabinet	• 74
• Filter paper	• 197	• Large-capacity sieve shaker	• 24
• Flakiness and elongation index of road aggregates	• 29	• LCL Plasticimeter	• 88
• Flame photometer	• 52	• LCL Plasticity meter	• 59
• Flexure strength test frame with capacity for 1500 kN	• 137	• LDVT displacement sensors (2 mm)	• 128
• Float tester	• 311	• Le Chatelier Flask	• 66
• Floor tile bending test	• 234	• Le Chatelier water bath	• 60
• Folding/bending cross-head with rollers, for machines with 1000/2000 kN capacity	• 331	• Lightweight, small thermal printer.	• 80
• Folding/bending cross-head with rollers, for machines with 400/600 kN capacity	• 331	• Linear displacement transducers	• 194
• Force transducers	• 194	• Linear variation measurement	• 144
• Four-way pressure regulation panel	• 203	• Load plate, 100 kN capacity	• 265
• Four-way pressure regulation panel with digital pressure gauges	• 206	• Load plate, 200 kN capacity	• 265
• Four-way pressure regulation panel with pressure gauge	• 205	• Load plate, 200 kN capacity	• 266
• FRAAS Apparatus	• 312	• Load plate, 600 kN capacity	• 266
• Freeze-thaw test	• 99	• Long roller compactor	• 300
• Funnel viscosity meter	• 67	• Los Angeles machine	• 31
• Galvanised steel closed retort ring with bosshead.	• 363	• Low percussion energy esclerometers	• 142
• Galvanised steel closed retort ring.	• 363	• Machine for flexural testing of roof tiles, floor tiles and plaster boards	• 136
• Geologist's hammer	• 46	• Machine to determine the accelerated polishing coefficient (A.P.C.)	• 36
• Gilmore Apparatus	• 57	• Magnetic heated stirrer	• 181
• Gravel/cement mould with hinges	• 220	• Magnetic particle weld testing.	• 346
• Grips	• 330	• Magnetic stirring rods	• 360
• Hand-operated direct/residual shear	• 189	• Manual air entrainment meter, capacity 1 l	• 64
• Hand-operated light dynamic penetrometer	• 268	• Manual core-head bits	• 166
• Hanging drying racks, made from PVC wire	• 365	• Manual hydraulic sample extractor	• 169
• Harvard miniature test	• 219	• Manual vibrating table	• 89
• Harvard Mould	• 219	• Manual Vicat needle	• 54
• High temperatures muffle furnaces	• 367	• Manually operated jolting table	• 57
• HM-V rack	• 337	• Manually operated jolting table for mortar.	• 58
• Horizontal extractor	• 48	• Marsh Cone	• 262
• Horizontal mechanical sample extractor	• 169	• Marshall automatic compactor	• 281
• Hot air dryer	• 14	• Marshall manual compacting base	• 281
• Hot extraction device	• 274	• Marshall press accessories	• 284
• Hot extraction method	• 273	• Marshall specimen curing	• 282
• Hot reflux extractors	• 276	• Marshall stability	• 283
• Hubbard - Field method	• 287	• Marshall stability test	• 242
• Humidifying systems	• 97	• Marshall test	• 232
• Hydration container	• 62	• Marshall test software	• 285
• Hydraulic dynamic penetrometer	• 267	• Masonry materials. Determination of dimensions and surface quality.	• 34
• Hydraulic power pack	• 105	• Measurement software	• 342
• Hydrostatic weighing frame	• 8	• Membrane holder	• 197
• Ignition oven	• 278	• Membrane volume meter, capacity 1600 mL	• 248
• Immersion thermostats	• 359	• Membrane volume meter, capacity 3000 mL	• 248
• Impact resistance	• 32	• Membrane volume meter, capacity 6000 mL	• 248
• Indentation tests in cubic or Marshall specimens	• 290	• Metal basket measuring 100 x 100 x 100 mm	• 287
• Indirect tensile device.	• 286	• Metal cutting machine	• 356
• Indirect tensile test	• 234	• Metal fabrics with ceramic fibres	• 363
• Indirect tensile test device	• 127	• Metal presses	• 356
• Indirect tensile test device (Brazilian test)	• 127	• Methylene blue test	• 26
• Indirect tensile test for Marshall specimens	• 242	• Methylene blue test	• 261
• Iron mortar with grey steel pestle	• 365	• Micro-deval machine	• 35
• IT-System Equipment	• 158	• Microlance moisture meter	• 172
• Jaw Crusher	• 38	• Microwave oven	• 14
• Joisel apparatus	• 88	• Mobile beam equipment	• 319
• Kelly ball penetrometer	• 87	• Models	• 253
• Kerosene centrifuge	• 277	• Modified Proctor moulds	• 218

<b>NAME</b>	<b>PAGE</b>	<b>NAME</b>	<b>PAGE</b>
• Mold	• 68	• Polishing machine	• 38
• Molding tank	• 57	• Porous disc	• 196
• Monitor-4 radiation monitor	• 251	• Portable equipment for direct shear test on rocks	• 45
• Motor-driven bending strength scale	• 81	• Portable sample extraction probe	• 318
• Motor-driven CBR press, 50 kN capacity. Version ASTM – 1.27 mm/min.	• 228	• Pressure display panel	• 202
• Motor-driven CBR press, 50 kN capacity. Version BS – 1 mm/min.	• 228	• Pressure filter	• 273
• Motor-driven dynamic penetrometer, DPM 30-20	• 269	• Pressure gauge	• 105
• Motor-driven jolting table	• 58	• Pressure multiplier block 1/12	• 202
• Motor-driven jolting table for mortar	• 58	• Pressure multiplier block 2/6	• 202
• Motor-driven press with 250 kN capacity and H0206/1 digital display	• 75	• Pressure transducers	• 194
• Motor-driven press with double piston test frame of 300/15 kN capacity for compression and bending strength tests.	• 76	• Principal characteristics of the shear apparatus	• 185
• Motor-driven vibrating table	• 89	• Proctor hammers	• 219
• Motorised bar marker	• 344	• Proctor Penetrometer	• 248
• Motor-powered core-head bit	• 166	• Proctor/CBR automatic compactor	• 221
• Mould	• 140	• Proctor/CBR automatic compactor	• 224
• Mould for determining linear contraction	• 175	• Pump pressure display panel	• 201
• Moulds for specimen preparation	• 92	• Pumps	• 367
• Moulds for specimen preparation	• 93	• Pycnometer method	• 175
• Muffle furnaces capable of 1200 °C	• 366	• Quick connectors	• 200
• Muffle ovens capable of 1000 and 1200 °C	• 367	• Radioactive facility accessories	• 258
• Multispeed press with variable speeds, 50 kN capacity. Variable speed range between 0.1 and 63 mm/min	• 229	• Radiology	• 253
• Multitest machine software	• 244	• Rapid curing tank	• 96
• NDE 360 Equipment	• 153	• Reactivity container	• 30
• NDE 360 IE	• 156	• Rebar detectors	• 151
• NDE 360 PS	• 157	• Rectangular base with supporting legs and stainless steel rod.	• 363
• NDE 360 SASW-G	• 155	• Rectangular digital heating plates	• 13
• NDE 360 SASW-S	• 155	• Rectangular heating plates	• 360
• NDE 360 SE-1, H0484/2 NDE 360 IR-1, H0484/3 NDE 360 SE/IR	• 157	• Reducing plate	• 128
• NDE 360 SIR	• 156	• Reflux extractor, capacity 1000 g	• 276
• NDE 360 US	• 158	• Relative density	• 302
• NDE360 UPV	• 149	• Relative density of the filler	• 302
• Needle vibrator	• 94	• Resonant frequency meter	• 152
• No change indicator	• 198	• Ring Penetrometer	• 248
• No change indicator with pressure sensor	• 198	• Rock esclerometer	• 141
• Non-destructive welded joint test.	• 346	• Rocking sieve shaker	• 21
• Non-destructive welded joint test. Penetrating liquid welding test. Detects cracks by introduction of penetrating liquids	• 347	• Rockwell and Super-Rockwell hardness testing machines	• 351
• Non-porous disc	• 196	• Rockwell, Brinell, Vickers universal hardness testing machine	• 353
• Nuclear Area courses	• 258	• Roller compactor	• 299
• O ring assembly tool	• 197	• Roof tile bending test	• 234
• Oil / water system	• 207	• Rotating compactor	• 301
• One-way vibrating table	• 94	• Rotating viscometer	• 311
• Operations	• 253	• RTFOT - ASTM Oven	• 303
• Optional accessories and spare parts for Universal Machines	• 338	• RTFOT - EN Oven	• 303
• Other software characteristics	• 211	• Rubber membrane	• 196
• Ovens with analogue indicator and control.	• 11	• S0150 Digital triaxial machine with a microprocessor with 50 kN capacity	• 193
• Ovens with electronic - digital control	• 12	• Safety protection	• 128
• Panel stand	• 199	• Safety systems	• 235
• Partitionable chamber for curing concrete specimens	• 98	• Sample cradle, 38.1 mm	• 198
• PAT Test	• 62	• Sample cutter	• 40
• Penetration	• 306	• Sample dividers	• 167
• Penetration (accessories)	• 307	• Sample mixing	• 168
• Penetration plunger device	• 57	• Sampling cutting device (38.1mm)	• 199
• Percentage of coat spread	• 321	• Sampling device	• 52
• Permeability	• 321	• Sampling equipment	• 166
• Pinhole apparatus for scatter test	• 261	• Sampling equipment for cement in sacks	• 52
• Pipette pump filler	• 366	• Sampling spoon with handle	• 52
• Pipette sedimentation method	• 178	• Saybolt Digital Viscometer	• 310
• Piston braking device	• 198	• Saybolt Digital Viscometer, 2 specimens	• 310
• Plaster extensometer	• 63	• Saybolt viscometer for high temperatures	• 311
• Plastic limit equipment	• 174	• Sclerometer for rocks	• 46
• Plastic permeameter	• 260	• Sealing rings	• 196
• Pocket Penetrometer	• 263	• Servo-controlled unit	• 79
• Pocket Penetrometer with dial	• 263	• Servo-hydraulic universal testing machines	• 324
		• Servo-hydraulic universal testing machines (DI-CP/S series rack)	• 329
		• Set of minerals as per the Mohs hardness scale	• 46
		• Set of weights	• 10
		• Shape coefficient	• 29

NAME	PAGE	NAME	PAGE
• Shrinkage measuring device	• 62	• Triaxial six or four-pressure system	• 215
• Sieve brushes	• 20	• Triaxial six or four-pressure system	• 216
• Sieve for wet sieving fine materials	• 20	• Triaxial six-pressure system	• 214
• Sieves made of perforated sheet metal	• 19	• Triaxial two-pressure system	• 212
• Sieves with steel mesh	• 16	• Triple beam mechanical scales	• 9
• Signal converters	• 128	• Triple mold for 40 x 40 x 160 mm specimens	• 72
• Single axis tests with extensometric bands	• 131	• Triple mold for 50x50x50 mm samples	• 72
• Single axis tests with LVDT sensors	• 133	• Triple mold for 70 x 70 x 280 mm specimens	• 73
• Six-way pressure regulation panel	• 203	• Tripod supporting legs and stainless steel rod.	• 363
• Six-way pressure regulation panel with digital pressure gauges	• 206	• Tripod supporting legs and stainless steel rod.	• 363
• Six-way pressure regulation panel with pressure gauges	• 204	• TRRL Pendulum skid resistance tester	• 37
• Slake durability tester	• 39	• U box test	• 85
• Slump flow test	• 84	• Ultrasound bath for sieve cleaning	• 20
• Software	• 297	• Ultrasound equipment	• 41
• Software displays	• 231	• Ultrasound equipment	• 148
• Software for concrete	• 129	• Ultrasound fracture and defect detector. RP 3000	• 345
• Software for Data Control and Acquisition	• 245	• Unaltered terrain sampling equipment	• 166
• Software for direct shear tests	• 187	• Unconfined compression test	• 234
• Software for oedometric tests	• 183	• Universal machine for servo-pneumatic asphalt tests	• 293
• Software Proeti TCSofT2004Plus	• 78	• Universal machine for servo-pneumatic asphalt tests	• 294
• Software PROETI UDI16/4	• 77	• Universal servo-hydraulic systems	• 296
• Soil-cement mould with hinges	• 220	• UU - Non-consolidated, undrained test	• 192
• Soundproof cabin	• 24	• V funnel test	• 85
• Specific weight of aggregates	• 28	• Vacuum pump method recovery equipment	• 290
• Specimen cutting devices	• 101	• Vane test	• 189
• Specimen grinder	• 101	• Vane Test apparatus, ASTM D2573	• 263
• Speed control and regulation CV/PC	• 236	• Vane Test in situ	• 264
• Speedy moisture meter	• 171	• Variable load permeameter	• 259
• Split mould	• 197	• Vebe consistometer	• 86
• Stand for Compression/Bending Test Machines	• 80	• Vialit test equipment	• 289
• Standard Digital Viscometer (TAR, BRTA)	• 309	• Vibrating hammer	• 282
• Standard Digital Viscometer (TAR, BRTA), 2 specimens	• 309	• Vibrating hammer	• 225
• Standard Proctor moulds	• 217	• Vibrating laboratory table	• 94
• Steel plates	• 219	• Vibrating machine for 70.7 mm molds	• 73
• Sulphate stirrer	• 181	• Vicat manual needle for plaster	• 54
• Surface irregularity	• 318	• Volume change transducers	• 194
• Surface moisture in fine aggregate	• 172	• Walz Consistometer	• 86
• Surface moisture of fine aggregate	• 29	• Water bath for curing concrete specimens	• 95
• Surface sampler with cutting ring	• 166	• Water bath for curing mortar specimens	• 74
• System with air / water membrane cell	• 208	• Water bath with thermostatic coil included	• 307
• TAG Viscometer	• 308	• Water displacement method	• 176
• Tar distillation	• 304	• Water level probes	• 269
• Technical specifications:	• 223	• Water retention equipment	• 68
• Teflon magnets, with rotating pivot	• 365	• Wear resistance	• 33
• Temperature and humidity control for concrete specimen curing chambers	• 96	• Wear resistance	• 33
• Temperature control chamber	• 295	• Wheel Tracker machines according to European standards	• 291
• Template for aciculars	• 49	• Wheel Tracker machines according to European standards	• 292
• Test Frame	• 235	• Windsor probe	• 143
• Testing area	• 105	• Wood esclerometer	• 142
• Testing for materials finer than 75 µm	• 26	• Wooden-handled spatulas	• 364
• Texture	• 321	• Yale pycnometer	• 274
• Thermo-cement spectrophotometer system	• 65		
• Thermometers	• 313		
• Thermostat controlled heating and cooling unit	• 57		
• Thermostatic baths	• 359		
• Thick plastic curing tank	• 95		
• Thickness meter	• 321		
• Thin film rotating evaporator	• 274		
• Three part mould	• 198		
• Tools for "in situ" density tests	• 249		
• Top head with drainage	• 196		
• Top head without drainage	• 196		
• Torvane shear tester	• 264		
• Training course	• 251		
• Trapped air meters	• 90		
• Trays	• 16		
• Triaxial cells with five ports	• 195		
• Triaxial four-pressure system	• 213		

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A0001	• 16	• A0515/20	• 24	• A0560	• 27
• A0002	• 16	• A0515/21	• 24	• A0561	• 27
• A0003	• 16	• A0515/22	• 24	• A0561/2	• 27
• A0004	• 16	• A0515/23	• 24	• A0562	• 175
• A0005	• 16	• A0515/24	• 24	• A0562	• 27
• A0006	• 16	• A0515/25	• 24	• A0563	• 27
• A0010	• 16	• A0515/26	• 24	• A0564	• 27
• A0011	• 16	• A0515/27	• 24	• A0565	• 8
• A0012	• 16	• A0515/3	• 24	• A0565	• 27
• A0013	• 16	• A0515/4	• 24	• A0566	• 27
• A0014	• 16	• A0515/5	• 24	• A0568	• 172
• A0015	• 16	• A0515/6	• 24	• A0570	• 28
• A0460	• 20	• A0515/7	• 24	• A0570/1	• 28
• A0461	• 20	• A0515/8	• 24	• A0576	• 28
• A0462	• 20	• A0515/9	• 24	• A0577	• 28
• A0463	• 20	• A0518	• 26	• A0578	• 28
• A0464	• 20	• A0520	• 25	• A0579	• 28
• A0465	• 20	• A0521	• 25	• A0580	• 28
• A0466	• 20	• A0522	• 25	• A0597	• 29
• A0467	• 20	• A0523	• 25	• A0600	• 29
• A0468	• 20	• A0524	• 25	• A0601	• 29
• A0469	• 20	• A0525	• 25	• A0605	• 29
• A0500	• 20	• A0526	• 25	• A0606	• 29
• A0501	• 20	• A0530	• 25	• A0607	• 29
• A0501/1	• 20	• A0530/I	• 49	• A0607/1	• 29
• A0502	• 20	• A0531	• 25	• A0607/2	• 29
• A0502/1	• 20	• A0531/I	• 49	• A0610	• 30
• A0503	• 20	• A0532	• 25	• A0615	• 30
• A0503/1	• 20	• A0532/I	• 49	• A0616	• 30
• A0503/2	• 20	• A0533	• 25	• A0621	• 31
• A0504	• 23	• A0533/I	• 49	• A0622.	• 31
• A0504/1	• 23	• A0534	• 25	• A0623	• 31
• A0504/2	• 23	• A0534/I	• 49	• A0624	• 31
• A0504/3	• 23	• A0535	• 25	• A0624/1	• 31
• A0504/4	• 23	• A0535/I	• 49	• A0624/2	• 31
• A0504/5	• 23	• A0536	• 25	• A0624/3	• 31
• A0504/6	• 23	• A0536/I	• 49	• A0624/4	• 31
• A0504/7	• 23	• A0537	• 25	• A0625	• 31
• A0505	• 21	• A0537/I	• 49	• A0625/1 J	• 31
• A0506	• 21	• A0538	• 25	• A0625/2	• 31
• A0507	• 22	• A0538/I	• 49	• A0625/4	• 31
• A0508	• 22	• A0539	• 25	• A0630	• 32
• A0509	• 21	• A0539/I	• 49	• A0631	• 32
• A0510	• 22	• A0540	• 25	• A0635	• 32
• A0511	• 21	• A0540/I	• 49	• A0635/1	• 32
• A0512	• 24	• A0541	• 25	• A0635/2	• 32
• A0515	• 24	• A0541/I	• 49	• A0636	• 32
• A0515/1	• 24	• A0542	• 25	• A0636/1	• 32
• A0515/10	• 24	• A0542/I	• 49	• A0640	• 32
• A0515/11	• 24	• A0543	• 25	• A0645	• 33
• A0515/12	• 24	• A0543/I	• 49	• A0645/1	• 33
• A0515/13	• 24	• A0545	• 26	• A0650/1	• 33
• A0515/14	• 24	• A0550	• 26	• A0650/2	• 33
• A0515/15	• 24	• A0552	• 261	• A0650/3	• 33
• A0515/17	• 24	• A0552	• 26	• A0651	• 34
• A0515/18	• 24	• A0553	• 261	• A0651/1	• 34
• A0515/19	• 24	• A0553	• 26	• A0651/2	• 34
• A0515/19	• 24	• A0555	• 261	• A0652/1	• 34
• A0515/2	• 24	• A0555	• 26	• A0652/2	• 34

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A0652/2	• 34	• A0691	• 47	• A1105	• 16
• A0653	• 34	• A0691/1	• 47	• A1106	• 16
• A0655	• 35	• A0691/2	• 47	• A1107	• 16
• A0655/1	• 35	• A0691/3	• 47	• A1108	• 16
• A0655/1/2	• 35	• A0691/5	• 48	• A1109	• 16
• A0655/1/3	• 35	• A0692	• 47	• A1110	• 16
• A0655/2	• 35	• A0692/1	• 47	• A1111	• 16
• A0655/3	• 35	• A0692/2	• 47	• A1112	• 16
• A0655/4	• 35	• A0692/3	• 47	• A1113	• 16
• A0655/5	• 35	• A0692/5	• 48	• A1114	• 16
• A0656	• 36	• A0693	• 47	• A1114	• 16
• A0656/2	• 36	• A0693/1	• 47	• A1115	• 16
• A0660	• 36	• A0693/2	• 47	• A1116	• 16
• A0660/1	• 36	• A0693/3	• 47	• A1117	• 16
• A0660/2	• 36	• A0693/5	• 48	• A1118	• 16
• A0660/3	• 36	• A0694	• 47	• A1119	• 17
• A0660/4	• 36	• A0694/1	• 47	• A1120	• 17
• A0660/5	• 36	• A0694/2	• 47	• A1121	• 17
• A0660/6	• 36	• A0694/3	• 47	• A1122	• 17
• A0660/7	• 36	• A0694/5	• 48	• A1123	• 17
• A0661	• 37	• A0705	• 47	• A1124	• 17
• A0661/1	• 37	• A0705/1	• 47	• A1125	• 17
• A0661/2	• 37	• A0705/2	• 47	• A1126	• 17
• A0661/3	• 37	• A0705/3	• 47	• A1127	• 17
• A0661/5	• 37	• A0705/4	• 47	• A1128	• 17
• A0661/6	• 37	• A0706	• 48	• A1129	• 17
• A0668	• 38	• A0706/1	• 48	• A1130	• 17
• A0668/1	• 38	• A0706/2	• 48	• A1131	• 17
• A0668/2	• 38	• A0706/3	• 48	• A1132	• 17
• A0668/3	• 38	• A0706/4	• 48	• A1133	• 17
• A0668/4	• 38	• A0707	• 48	• A1134	• 17
• A0670	• 38	• A0707/1	• 48	• A1135	• 17
• A0670/1	• 38	• A0708	• 48	• A1136	• 17
• A0670CE	• 38	• A0710	• 48	• A1137	• 17
• A0671	• 39	• A0710/1	• 48	• A1138	• 17
• A0671/4	• 39	• A0715	• 46	• A1139	• 17
• A0671/6	• 39	• A0715/1	• 46	• A1140	• 17
• A0671/7	• 39	• A0718	• 46	• A1141	• 17
• A0671/8	• 39	• A0718/1	• 46	• A1142	• 17
• A0671/9	• 39	• A0722	• 38	• A1143	• 17
• A0675	• 39	• A0732	• 49	• A1144	• 17
• A0675/1	• 39	• A0732	• 49	• A1145	• 17
• A0678	• 40	• A0735	• 49	• A1146	• 17
• A0679	• 40	• A0736	• 49	• A1147	• 177
• A0680	• 40	• A0737	• 49	• A1147	• 17
• A0680/1	• 40	• A0738	• 49	• A1148	• 17
• A0680/2	• 40	• A0742	• 49	• A1149	• 17
• A0680/3	• 40	• A0743	• 49	• A1150	• 17
• A0680/4	• 40	• A0744	• 49	• A1151	• 17
• A0680/5	• 40	• A0745	• 49	• A1152	• 17
• A0680/6	• 40	• A0746	• 49	• A1153	• 17
• A0681	• 45	• A0747	• 49	• A1154	• 17
• A0682	• 45	• A0750	• 41	• A1155	• 17
• A0683	• 45	• A0766	• 49	• A1156	• 17
• A0685	• 45	• A1100	• 16	• A1157	• 17
• A0685/1	• 45	• A1101	• 16	• A1158	• 17
• A0685/2	• 45	• A1102	• 16	• A1159	• 17
• A0685/3	• 45	• A1103	• 16	• A1160	• 17
• A0685/4	• 45	• A1104	• 16	• A1161	• 17

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A1162	• 17	• A1221	• 17	• A1280	• 18
• A1163	• 17	• A1222	• 17	• A1281	• 18
• A1164	• 18	• A1223	• 17	• A1282	• 18
• A1165	• 18	• A1224	• 17	• A1284	• 18
• A1166	• 18	• A1225	• 17	• A1285	• 18
• A1167	• 18	• A1226	• 17	• A1286	• 18
• A1168	• 18	• A1227	• 17	• A1287	• 18
• A1169	• 18	• A1228	• 17	• A1288	• 18
• A1170	• 18	• A1229	• 17	• A1289	• 18
• A1171	• 18	• A1230	• 17	• A1290	• 18
• A1172	• 18	• A1231	• 17	• A1291	• 18
• A1173	• 18	• A1232	• 17	• A1292	• 18
• A1174	• 18	• A1233	• 17	• A1293	• 18
• A1175	• 18	• A1234	• 17	• A1294	• 18
• A1176	• 18	• A1235	• 17	• A1295	• 18
• A1177	• 18	• A1236	• 17	• A1296	• 18
• A1178	• 18	• A1237	• 17	• A1298	• 18
• A1179	• 18	• A1238	• 17	• A1299	• 18
• A1180	• 18	• A1239	• 17	• A1300	• 16
• A1181	• 18	• A1240	• 17	• A1301	• 16
• A1182	• 18	• A1241	• 17	• A1302	• 16
• A1183	• 18	• A1242	• 17	• A1303	• 16
• A1184	• 18	• A1243	• 17	• A1304	• 16
• A1185	• 18	• A1244	• 17	• A1305	• 16
• A1186	• 18	• A1245	• 17	• A1306	• 16
• A1187	• 18	• A1246	• 17	• A1307	• 16
• A1188	• 18	• A1247	• 17	• A1308	• 16
• A1189	• 18	• A1248	• 17	• A1309	• 16
• A1190	• 18	• A1249	• 17	• A1310	• 16
• A1191	• 18	• A1250	• 17	• A1311	• 16
• A1192	• 18	• A1251	• 17	• A1312	• 16
• A1193	• 18	• A1252	• 17	• A1313	• 16
• A1194	• 18	• A1253	• 17	• A1314	• 16
• A1195	• 18	• A1254	• 17	• A1315	• 16
• A1196	• 18	• A1255	• 17	• A1316	• 16
• A1198	• 18	• A1256	• 17	• A1317	• 16
• A1199	• 18	• A1257	• 17	• A1318	• 16
• A1200	• 16	• A1258	• 17	• A1319	• 17
• A1201	• 16	• A1259	• 17	• A1320	• 17
• A1202	• 16	• A1260	• 17	• A1321	• 17
• A1203	• 16	• A1261	• 17	• A1322	• 17
• A1204	• 16	• A1262	• 17	• A1323	• 17
• A1205	• 16	• A1263	• 17	• A1324	• 17
• A1206	• 16	• A1264	• 18	• A1325	• 17
• A1207	• 16	• A1265	• 18	• A1326	• 17
• A1208	• 16	• A1266	• 18	• A1327	• 17
• A1209	• 16	• A1267	• 18	• A1328	• 17
• A1210	• 16	• A1268	• 18	• A1329	• 17
• A1211	• 16	• A1269	• 18	• A1330	• 17
• A1212	• 16	• A1270	• 18	• A1331	• 17
• A1213	• 16	• A1271	• 18	• A1332	• 17
• A1214	• 16	• A1272	• 18	• A1333	• 17
• A1215	• 16	• A1273	• 18	• A1334	• 17
• A1215	• 16	• A1274	• 18	• A1335	• 17
• A1216	• 16	• A1275	• 18	• A1336	• 17
• A1217	• 16	• A1276	• 18	• A1337	• 17
• A1218	• 16	• A1277	• 18	• A1338	• 17
• A1219	• 17	• A1278	• 18	• A1339	• 17
• A1220	• 17	• A1279	• 18	• A1340	• 17

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A1341	• 17	• A1402	• 16	• A1462	• 17
• A1342	• 17	• A1403	• 16	• A1463	• 17
• A1343	• 17	• A1404	• 16	• A1464	• 18
• A1344	• 17	• A1405	• 16	• A1465	• 18
• A1345	• 17	• A1406	• 16	• A1466	• 18
• A1346	• 17	• A1407	• 16	• A1467	• 18
• A1347	• 17	• A1408	• 16	• A1468	• 18
• A1348	• 17	• A1409	• 16	• A1469	• 18
• A1349	• 17	• A1410	• 16	• A1470	• 18
• A1350	• 17	• A1411	• 16	• A1471	• 18
• A1351	• 17	• A1412	• 16	• A1472	• 18
• A1352	• 17	• A1413	• 16	• A1473	• 18
• A1353	• 17	• A1415	• 16	• A1474	• 18
• A1354	• 17	• A1416	• 16	• A1475	• 18
• A1355	• 17	• A1417	• 16	• A1476	• 18
• A1356	• 17	• A1418	• 16	• A1477	• 18
• A1357	• 17	• A1419	• 17	• A1478	• 18
• A1358	• 17	• A1420	• 17	• A1479	• 18
• A1359	• 17	• A1421	• 17	• A1480	• 18
• A1360	• 17	• A1422	• 17	• A1481	• 18
• A1361	• 17	• A1423	• 17	• A1482	• 18
• A1362	• 17	• A1424	• 17	• A1483	• 18
• A1363	• 17	• A1425	• 17	• A1484	• 18
• A1364	• 18	• A1426	• 17	• A1485	• 18
• A1365	• 18	• A1427	• 17	• A1486	• 18
• A1366	• 18	• A1428	• 17	• A1487	• 18
• A1367	• 18	• A1429	• 17	• A1488	• 18
• A1368	• 18	• A1430	• 17	• A1489	• 18
• A1369	• 18	• A1431	• 17	• A1490	• 18
• A1370	• 18	• A1432	• 17	• A1491	• 18
• A1371	• 18	• A1433	• 17	• A1492	• 18
• A1372	• 18	• A1434	• 17	• A1493	• 18
• A1373	• 18	• A1435	• 17	• A1494	• 18
• A1374	• 18	• A1436	• 17	• A1495	• 18
• A1375	• 18	• A1437	• 17	• A1496	• 18
• A1376	• 18	• A1438	• 17	• A1498	• 18
• A1377	• 18	• A1439	• 17	• A1499	• 18
• A1378	• 18	• A1440	• 17	• A1500	• 16
• A1379	• 18	• A1441	• 17	• A1501	• 16
• A1380	• 18	• A1442	• 17	• A1502	• 16
• A1381	• 18	• A1443	• 17	• A1503	• 16
• A1382	• 18	• A1444	• 17	• A1504	• 16
• A1383	• 18	• A1445	• 17	• A1505	• 16
• A1384	• 18	• A1446	• 17	• A1506	• 16
• A1385	• 18	• A1447	• 17	• A1507	• 16
• A1386	• 18	• A1448	• 17	• A1508	• 16
• A1388	• 18	• A1449	• 17	• A1509	• 16
• A1389	• 18	• A1450	• 17	• A1510	• 16
• A1390	• 18	• A1451	• 17	• A1511	• 16
• A1391	• 18	• A1452	• 17	• A1512	• 16
• A1392	• 18	• A1453	• 17	• A1513	• 16
• A1393	• 18	• A1454	• 17	• A1514	• 16
• A1394	• 18	• A1455	• 17	• A1516	• 16
• A1395	• 18	• A1456	• 17	• A1517	• 16
• A1396	• 18	• A1457	• 17	• A1518	• 16
• A1398	• 18	• A1458	• 17	• A1519	• 17
• A1399	• 18	• A1459	• 17	• A1520	• 17
• A1400	• 16	• A1460	• 17	• A1521	• 17
• A1401	• 16	• A1461	• 17	• A1522	• 17

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A1523	• 17	• A1582	• 18	• A1642	• 17
• A1524	• 17	• A1583	• 18	• A1643	• 17
• A1525	• 17	• A1584	• 18	• A1644	• 17
• A1526	• 17	• A1585	• 18	• A1645	• 17
• A1527	• 17	• A1586	• 18	• A1646	• 17
• A1528	• 17	• A1587	• 18	• A1647	• 17
• A1529	• 17	• A1588	• 18	• A1648	• 17
• A1530	• 17	• A1589	• 18	• A1649	• 17
• A1531	• 17	• A1590	• 18	• A1650	• 17
• A1532	• 17	• A1591	• 18	• A1651	• 17
• A1533	• 17	• A1592	• 18	• A1652	• 17
• A1534	• 17	• A1593	• 18	• A1653	• 17
• A1535	• 17	• A1594	• 18	• A1654	• 17
• A1536	• 17	• A1595	• 18	• A1655	• 17
• A1537	• 17	• A1596	• 18	• A1656	• 17
• A1538	• 17	• A1598	• 18	• A1657	• 17
• A1539	• 17	• A1599	• 18	• A1658	• 17
• A1540	• 17	• A1600	• 16	• A1659	• 17
• A1541	• 17	• A1601	• 16	• A1660	• 17
• A1542	• 17	• A1602	• 16	• A1661	• 17
• A1543	• 17	• A1603	• 16	• A1662	• 17
• A1544	• 17	• A1604	• 16	• A1663	• 17
• A1545	• 17	• A1605	• 16	• A1664	• 18
• A1546	• 17	• A1606	• 16	• A1665	• 18
• A1547	• 17	• A1607	• 16	• A1666	• 18
• A1548	• 17	• A1608	• 16	• A1667	• 18
• A1549	• 17	• A1609	• 16	• A1668	• 18
• A1550	• 17	• A1610	• 16	• A1669	• 18
• A1551	• 17	• A1611	• 16	• A1670	• 18
• A1552	• 17	• A1612	• 16	• A1671	• 18
• A1553	• 17	• A1613	• 16	• A1672	• 18
• A1554	• 17	• A1614	• 16	• A1673	• 18
• A1555	• 17	• A1615	• 16	• A1674	• 18
• A1556	• 17	• A1616	• 16	• A1675	• 18
• A1557	• 17	• A1617	• 16	• A1676	• 18
• A1558	• 17	• A1618	• 16	• A1677	• 18
• A1559	• 17	• A1619	• 17	• A1678	• 18
• A1560	• 17	• A1620	• 17	• A1679	• 18
• A1561	• 17	• A1621	• 17	• A1680	• 18
• A1562	• 17	• A1622	• 17	• A1681	• 18
• A1563	• 17	• A1623	• 17	• A1682	• 18
• A1564	• 18	• A1624	• 17	• A1683	• 18
• A1565	• 18	• A1625	• 17	• A1684	• 18
• A1566	• 18	• A1626	• 17	• A1685	• 18
• A1567	• 18	• A1627	• 17	• A1686	• 18
• A1568	• 18	• A1628	• 17	• A1687	• 18
• A1569	• 18	• A1629	• 17	• A1688	• 18
• A1570	• 18	• A1630	• 17	• A1689	• 18
• A1571	• 18	• A1631	• 17	• A1690	• 18
• A1572	• 18	• A1632	• 17	• A1691	• 18
• A1573	• 18	• A1633	• 17	• A1692	• 18
• A1574	• 18	• A1634	• 17	• A1693	• 18
• A1575	• 18	• A1635	• 17	• A1694	• 18
• A1576	• 18	• A1636	• 17	• A1695	• 18
• A1577	• 18	• A1637	• 17	• A1696	• 18
• A1578	• 18	• A1638	• 17	• A1698	• 18
• A1579	• 18	• A1639	• 17	• A1699	• 18
• A1580	• 18	• A1640	• 17	• A1700	• 16
• A1581	• 18	• A1641	• 17	• A1701	• 16

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A1702	• 16	• A1761	• 17	• A1821	• 17
• A1703	• 16	• A1762	• 17	• A1822	• 17
• A1704	• 16	• A1763	• 17	• A1823	• 17
• A1705	• 16	• A1764	• 18	• A1824	• 17
• A1706	• 16	• A1765	• 18	• A1825	• 17
• A1707	• 16	• A1766	• 18	• A1826	• 17
• A1708	• 16	• A1767	• 18	• A1827	• 17
• A1709	• 16	• A1768	• 18	• A1828	• 17
• A1710	• 16	• A1769	• 18	• A1829	• 17
• A1711	• 16	• A1770	• 18	• A1830	• 17
• A1712	• 16	• A1771	• 18	• A1831	• 17
• A1713	• 16	• A1772	• 18	• A1832	• 17
• A1714	• 16	• A1773	• 18	• A1833	• 17
• A1715	• 16	• A1774	• 18	• A1834	• 17
• A1716	• 16	• A1775	• 18	• A1835	• 17
• A1717	• 16	• A1776	• 18	• A1836	• 17
• A1718	• 16	• A1777	• 18	• A1837	• 17
• A1719	• 17	• A1778	• 18	• A1838	• 17
• A1720	• 17	• A1779	• 18	• A1839	• 17
• A1721	• 17	• A1780	• 18	• A1840	• 17
• A1722	• 17	• A1781	• 18	• A1841	• 17
• A1723	• 17	• A1782	• 18	• A1842	• 17
• A1724	• 17	• A1783	• 18	• A1843	• 17
• A1725	• 17	• A1784	• 18	• A1844	• 17
• A1726	• 17	• A1785	• 18	• A1845	• 17
• A1727	• 17	• A1786	• 18	• A1846	• 17
• A1728	• 17	• A1787	• 18	• A1847	• 17
• A1729	• 17	• A1788	• 18	• A1848	• 17
• A1730	• 17	• A1789	• 18	• A1849	• 17
• A1731	• 17	• A1790	• 18	• A1850	• 17
• A1732	• 17	• A1791	• 18	• A1851	• 17
• A1733	• 17	• A1792	• 18	• A1852	• 17
• A1734	• 17	• A1793	• 18	• A1853	• 17
• A1735	• 17	• A1794	• 18	• A1854	• 17
• A1736	• 17	• A1795	• 18	• A1855	• 17
• A1737	• 17	• A1796	• 18	• A1856	• 17
• A1738	• 17	• A1798	• 18	• A1857	• 17
• A1739	• 17	• A1799	• 18	• A1858	• 17
• A1740	• 17	• A1800	• 16	• A1859	• 17
• A1741	• 17	• A1801	• 16	• A1860	• 17
• A1742	• 17	• A1802	• 16	• A1861	• 17
• A1743	• 17	• A1803	• 16	• A1862	• 17
• A1744	• 17	• A1804	• 16	• A1863	• 17
• A1745	• 17	• A1805	• 16	• A1864	• 18
• A1746	• 17	• A1806	• 16	• A1865	• 18
• A1747	• 17	• A1807	• 16	• A1866	• 18
• A1748	• 17	• A1808	• 16	• A1867	• 18
• A1749	• 17	• A1809	• 16	• A1868	• 18
• A1750	• 17	• A1810	• 16	• A1869	• 18
• A1751	• 17	• A1811	• 16	• A1870	• 18
• A1752	• 17	• A1812	• 16	• A1871	• 18
• A1753	• 17	• A1813	• 16	• A1872	• 18
• A1754	• 17	• A1814	• 16	• A1873	• 18
• A1755	• 17	• A1815	• 16	• A1874	• 18
• A1756	• 17	• A1816	• 16	• A1875	• 18
• A1757	• 17	• A1817	• 16	• A1876	• 18
• A1758	• 17	• A1818	• 16	• A1877	• 18
• A1759	• 17	• A1819	• 17	• A1878	• 18
• A1760	• 17	• A1820	• 17	• A1879	• 18

NAME	PAGE	NAME	PAGE	Z	PAGE
• A1880	• 18	• A2040	• 19	• A2215	• 19
• A1881	• 18	• A2040	• 19	• A2216	• 19
• A1882	• 18	• A2100	• 19	• A2217	• 19
• A1883	• 18	• A2101	• 19	• A2218	• 19
• A1884	• 18	• A2102	• 19	• A2219	• 19
• A1885	• 18	• A2103	• 19	• A2220	• 19
• A1886	• 18	• A2104	• 19	• A2221	• 19
• A1887	• 18	• A2105	• 19	• A2222	• 19
• A1888	• 18	• A2106	• 19	• A2223	• 19
• A1889	• 18	• A2107	• 19	• A2224	• 19
• A1890	• 18	• A2108	• 19	• A2225	• 19
• A1891	• 18	• A2109	• 19	• A2226	• 19
• A1892	• 18	• A2110	• 19	• A2227	• 19
• A1893	• 18	• A2111	• 19	• A2228	• 19
• A1894	• 18	• A2112	• 19	• A2229	• 19
• A1895	• 18	• A2113	• 19	• A2230	• 19
• A1896	• 18	• A2114	• 19	• A2231	• 19
• A1898	• 18	• A2115	• 19	• A2232	• 19
• A1899	• 18	• A2116	• 19	• A2233	• 19
• A2000	• 19	• A2117	• 19	• A2234	• 19
• A2001	• 19	• A2118	• 19	• A2235	• 19
• A2002	• 19	• A2119	• 19	• A2236	• 19
• A2003	• 19	• A2120	• 19	• A2237	• 19
• A2004	• 19	• A2121	• 19	• A2238	• 19
• A2005	• 19	• A2122	• 19	• A2239	• 19
• A2006	• 19	• A2123	• 19	• A2240	• 19
• A2007	• 19	• A2124	• 19	• A2240	• 19
• A2008	• 19	• A2125	• 19	• A2300	• 19
• A2009	• 19	• A2126	• 19	• A2301	• 19
• A2010	• 19	• A2127	• 19	• A2302	• 19
• A2011	• 19	• A2128	• 19	• A2303	• 19
• A2012	• 19	• A2129	• 19	• A2304	• 19
• A2013	• 19	• A2130	• 19	• A2305	• 19
• A2014	• 19	• A2131	• 19	• A2306	• 19
• A2015	• 19	• A2132	• 19	• A2307	• 19
• A2016	• 19	• A2133	• 19	• A2308	• 19
• A2017	• 19	• A2134	• 19	• A2309	• 19
• A2018	• 19	• A2135	• 19	• A2310	• 19
• A2019	• 19	• A2136	• 19	• A2311	• 19
• A2020	• 19	• A2137	• 19	• A2312	• 19
• A2021	• 19	• A2138	• 19	• A2313	• 19
• A2022	• 19	• A2139	• 19	• A2314	• 19
• A2023	• 19	• A2140	• 19	• A2315	• 19
• A2024	• 19	• A2140	• 19	• A2316	• 19
• A2025	• 19	• A2200	• 19	• A2317	• 19
• A2026	• 19	• A2201	• 19	• A2318	• 19
• A2027	• 19	• A2202	• 19	• A2319	• 19
• A2028	• 19	• A2203	• 19	• A2320	• 19
• A2029	• 19	• A2204	• 19	• A2321	• 19
• A2030	• 19	• A2205	• 19	• A2322	• 19
• A2031	• 19	• A2206	• 19	• A2323	• 19
• A2032	• 19	• A2207	• 19	• A2324	• 19
• A2033	• 19	• A2208	• 19	• A2325	• 19
• A2034	• 19	• A2209	• 19	• A2326	• 19
• A2035	• 19	• A2210	• 19	• A2327	• 19
• A2036	• 19	• A2211	• 19	• A2328	• 19
• A2037	• 19	• A2212	• 19	• A2329	• 19
• A2038	• 19	• A2213	• 19	• A2330	• 19
• A2039	• 19	• A2214	• 19	• A2331	• 19

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A2332	• 19	• A2507	• 19	• A2624	• 19
• A2333	• 19	• A2508	• 19	• A2625	• 19
• A2334	• 19	• A2509	• 19	• A2626	• 19
• A2335	• 19	• A2510	• 19	• A2627	• 19
• A2336	• 19	• A2511	• 19	• A2628	• 19
• A2337	• 19	• A2512	• 19	• A2629	• 19
• A2338	• 19	• A2513	• 19	• A2630	• 19
• A2339	• 19	• A2514	• 19	• A2631	• 19
• A2340	• 19	• A2515	• 19	• A2632	• 19
• A2340	• 19	• A2516	• 19	• A2633	• 19
• A2400	• 19	• A2517	• 19	• A2634	• 19
• A2401	• 19	• A2518	• 19	• A2635	• 19
• A2402	• 19	• A2519	• 19	• A2636	• 19
• A2403	• 19	• A2520	• 19	• A2637	• 19
• A2404	• 19	• A2521	• 19	• A2638	• 19
• A2405	• 19	• A2522	• 19	• A2639	• 19
• A2406	• 19	• A2523	• 19	• A2640	• 19
• A2407	• 19	• A2524	• 19	• A2640	• 19
• A2408	• 19	• A2525	• 19	• A2700	• 19
• A2409	• 19	• A2526	• 19	• A2701	• 19
• A2410	• 19	• A2527	• 19	• A2702	• 19
• A2411	• 19	• A2528	• 19	• A2703	• 19
• A2412	• 19	• A2529	• 19	• A2704	• 19
• A2413	• 19	• A2530	• 19	• A2705	• 19
• A2414	• 19	• A2531	• 19	• A2706	• 19
• A2415	• 19	• A2532	• 19	• A2707	• 19
• A2416	• 19	• A2533	• 19	• A2708	• 19
• A2417	• 19	• A2534	• 19	• A2709	• 19
• A2418	• 19	• A2535	• 19	• A2710	• 19
• A2419	• 19	• A2536	• 19	• A2711	• 19
• A2420	• 19	• A2537	• 19	• A2712	• 19
• A2421	• 19	• A2538	• 19	• A2713	• 19
• A2422	• 19	• A2539	• 19	• A2714	• 19
• A2423	• 19	• A2540	• 19	• A2715	• 19
• A2424	• 19	• A2540	• 19	• A2716	• 19
• A2425	• 19	• A2600	• 19	• A2717	• 19
• A2426	• 19	• A2601	• 19	• A2718	• 19
• A2427	• 19	• A2602	• 19	• A2719	• 19
• A2428	• 19	• A2603	• 19	• A2720	• 19
• A2429	• 19	• A2604	• 19	• A2721	• 19
• A2430	• 19	• A2605	• 19	• A2722	• 19
• A2431	• 19	• A2606	• 19	• A2723	• 19
• A2432	• 19	• A2607	• 19	• A2724	• 19
• A2433	• 19	• A2608	• 19	• A2725	• 19
• A2434	• 19	• A2609	• 19	• A2726	• 19
• A2435	• 19	• A2610	• 19	• A2727	• 19
• A2436	• 19	• A2611	• 19	• A2728	• 19
• A2437	• 19	• A2612	• 19	• A2729	• 19
• A2438	• 19	• A2613	• 19	• A2730	• 19
• A2439	• 19	• A2614	• 19	• A2731	• 19
• A2440	• 19	• A2615	• 19	• A2732	• 19
• A2440	• 19	• A2616	• 19	• A2733	• 19
• A2500	• 19	• A2617	• 19	• A2734	• 19
• A2501	• 19	• A2618	• 19	• A2735	• 19
• A2502	• 19	• A2619	• 19	• A2736	• 19
• A2503	• 19	• A2620	• 19	• A2737	• 19
• A2504	• 19	• A2621	• 19	• A2738	• 19
• A2505	• 19	• A2622	• 19	• A2739	• 19
• A2506	• 19	• A2623	• 19	• A2740	• 19

NAME	PAGE	NAME	PAGE	NAME	PAGE
• A2740	• 19	• B0037	• 282	• B0100/1	• 289
• A3187	• 18	• B0038	• 280	• B0100/2	• 289
• B0001	• 272	• B0038/1	• 280	• B0100/3	• 289
• B0001/1	• 272	• B0038/2	• 280	• B0105	• 289
• B0001/2	• 272	• B0038/3	• 280	• B0107	• 290
• B0003	• 272	• B0040	• 281	• B0110	• 292
• B0004	• 272	• B0040/1	• 281	• B0110	• 292
• B0007	• 273	• B0041	• 281	• B0110	• 292
• B0007/1	• 273	• B0041/1	• 281	• B0111	• 292
• B0007/2	• 273	• B0041/2	• 281	• B0111	• 292
• B0010	• 273	• B0043	• 281	• B0111	• 292
• B0010/1	• 273	• B0044	• 281	• B0112	• 292
• B0010/1	• 274	• B0045	• 281	• B0115	• 293
• B0010/1	• 276	• B0046	• 281	• B0116	• 296
• B0010/1	• 276	• B0048	• 286	• B0118	• 298
• B0010/2	• 273	• B0050	• 282	• B0120	• 299
• B0010/3	• 273	• B0051	• 282	• B0120/1	• 299
• B0011	• 274	• B0052	• 287	• B0120/2	• 299
• B0011/1	• 274	• B0055	• 283	• B0120/3	• 299
• B0013	• 274	• B0055	• 286	• B0120/4	• 299
• B0013/1	• 274	• B0056	• 283	• B0120/5	• 299
• B0014	• 274	• B0056	• 229	• B0120/6	• 299
• B0015	• 274	• B0056	• 242	• B0121	• 300
• B0020	• 275	• B0057	• 283	• B0121/1	• 300
• B0020/1	• 275	• B0058	• 229	• B0121/2	• 300
• B0020/2	• 275	• B0058	• 242	• B0121/3	• 300
• B0020/5	• 275	• B0059	• 287	• B0121/4	• 300
• B0021	• 275	• B0059/1	• 290	• B0121/5	• 300
• B0021/1	• 275	• B0059/2	• 290	• B0122/1	• 301
• B0021/2	• 275	• B0059/3	• 290	• B0122/10	• 301
• B0022	• 275	• B0059/4	• 290	• B0122/11	• 301
• B0023	• 275	• B0063	• 290	• B0122/2	• 301
• B0024	• 276	• B0064	• 290	• B0122/3	• 301
• B0024/1	• 276	• B0065	• 287	• B0122/4	• 301
• B0024/2	• 276	• B0066	• 287	• B0122/5	• 301
• B0024/3	• 276	• B0067	• 287	• B0122/6	• 301
• B0025	• 276	• B0068	• 287	• B0122/7	• 301
• B0025/1	• 276	• B0069	• 287	• B0122/8	• 301
• B0026	• 276	• B0070	• 287	• B0122/9	• 301
• B0027	• 276	• B0070/1	• 287	• B0125	• 295
• B0028	• 277	• B0070/2	• 287	• B0130	• 302
• B0028/1	• 277	• B0071	• 287	• B0135	• 302
• B0029	• 277	• B0075	• 288	• B0138	• 302
• B0029/1	• 277	• B0076	• 288	• B0139	• 302
• B0030	• 277	• B0077	• 288	• B0150	• 302
• B0031	• 278	• B0078	• 288	• B0150/1	• 302
• B0031/1	• 278	• B0079	• 288	• B0150/3	• 302
• B0031/2	• 278	• B0080	• 288	• B0151	• 303
• B0031/3	• 278	• B0085	• 288	• B0151/1	• 303
• B0031/4	• 278	• B0086	• 288	• B0152	• 303
• B0032	• 279	• B0087	• 288	• B0155	• 304
• B0032/1	• 279	• B0088	• 288	• B0155/1	• 304
• B0032/2	• 279	• B0090	• 288	• B0155/2	• 304
• B0032/3	• 279	• B0091	• 288	• B0155/2	• 304
• B0032/4	• 279	• B0092	• 288	• B0155/3	• 304
• B0032/5	• 279	• B0093	• 288	• B0155/4	• 304
• B0032/6	• 279	• B0097	• 289	• B0155/5	• 304
• B0032/7	• 279	• B0097/1	• 289	• B0155/5	• 304
• B0035	• 280	• B0097/2	• 289	• B0155/5	• 304

NAME	PAGE	NAME	PAGE	NAME	PAGE
• B0155/6	• 304	• C0015/4	• 54	• C0040	• 61
• B0157	• 304	• C0015/5.	• 54	• C0040/1	• 61
• B0157/1	• 304	• C0015/6	• 54	• C0040/1	• 61
• B0157/2	• 304	• C0015/6	• 56	• C0040/1	• 61
• B0157/3	• 304	• C0015/7	• 54	• C0041	• 61
• B0157/4	• 304	• C0015/7	• 56	• C0042	• 61
• B0157/5	• 304	• C0015/8	• 54	• C0043	• 61
• B0159	• 304	• C0015/9	• 54	• C0044	• 61
• B0159/1	• 304	• C0015/9	• 56	• C0045	• 63
• B0159/1	• 304	• C0015/Y	• 54	• C0045/1	• 63
• B0159/2	• 304	• C0015/Y/1	• 54	• C0045/2	• 63
• B0159/3	• 304	• C0015Y//2	• 54	• C0045/3	• 63
• B0160	• 305	• C0016	• 55	• C0045/4	• 63
• B0160/1	• 305	• C0016/1	• 56	• C0045/5	• 63
• B0160/2	• 305	• C0016/10.	• 56	• C0050	• 64
• B0160/3	• 305	• C0016/11	• 56	• C0050/2	• 64
• B0160/4	• 305	• C0016/12	• 56	• C0051	• 64
• B0160/5	• 305	• C0016/13.	• 56	• C0056	• 64
• B0160/6	• 305	• C0016/14	• 56	• C0057	• 64
• B0161	• 305	• C0016/15	• 56	• C0058	• 62
• B0162	• 306	• C0016/16	• 56	• C0059	• 63
• B0165	• 174	• C0016/17	• 57	• C0060	• 64
• B0165	• 306	• C0016/18	• 57	• C0061	• 64
• B0166	• 174	• C0016/2	• 56	• C0062	• 62
• B0166/2	• 174	• C0016/3	• 56	• C0063	• 66
• B0166/5	• 174	• C0016/4	• 56	• C0064	• 66
• B0166/5	• 174	• C0016/5	• 56	• C0065	• 66
• B0166/5	• 302	• C0016/6.	• 56	• C0067	• 67
• B0211	• 361	• C0016/7	• 56	• C0067/1	• 67
• C0001	• 52	• C0017	• 57	• C0068	• 67
• C0002	• 52	• C0018	• 57	• C0068/1	• 67
• C0003	• 52	• C0019	• 57	• C0068/2	• 67
• C0005	• 52	• C0019/1	• 58	• C0070	• 68
• C0005/1	• 52	• C0019/2	• 58	• C0071	• 68
• C0005/2	• 52	• C0019/3	• 58	• C0072	• 68
• C0005/3	• 52	• C0020	• 58	• C0073	• 68
• C0005/4	• 52	• C0021	• 58	• C0075	• 68
• C0005/5	• 52	• C0021/1	• 58	• C0085	• 69
• C0010	• 53	• C0021/2	• 58	• C0085/1	• 70
• C0010/1	• 53	• C0022	• 58	• C0085/2	• 70
• C0010/2	• 53	• C0023	• 59	• C0085/3	• 70
• C0010/3	• 53	• C0023/1	• 59	• C0085/4	• 70
• C0010/4	• 53	• C0023/2	• 59	• C0085/5	• 70
• C0010/5	• 53	• C0024	• 59	• C0086	• 70
• C0010/6	• 53	• C0030	• 60	• C0087	• 71
• C0010/7	• 53	• C0031	• 60	• C0087/1	• 71
• C0010/8	• 53	• C0032	• 60	• C0087/2	• 71
• C0012	• 53	• C0033	• 60	• C0087/3	• 71
• C0012/1	• 53	• C0033/1	• 60	• C0087/4	• 71
• C0012/2	• 53	• C0034	• 60	• C0089	• 72
• C0013	• 53	• C0035	• 61	• C0089/1	• 72
• C0015	• 54	• C0037	• 62	• C0090	• 72
• C0015/1	• 54	• C0037	• 29	• C0090	• 73
• C0015/10	• 54	• C0037/1	• 62	• C0091	• 72
• C0015/10	• 56	• C0037/2	• 62	• C0091	• 73
• C0015/11	• 54	• C0037/3	• 62	• C0092	• 72
• C0015/12	• 54	• C0037/4	• 62	• C0092	• 73
• C0015/2	• 54	• C0038	• 62	• C0092/1	• 72
• C0015/3	• 54	• C0039	• 63	• C0095	• 72





















