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NL 4014 C / 002 - A 001, A 002 & A 003



NL 4013 X / 001 - A 002



NL 7009 X / 002 NL 7009 X / 001 – A 001



NL 4014 C / 002 - A 004



NL 4014 C / 002 - A 005



NL 4014 C / 002 - A 006



NL 4007 X



NL 4014 M / 001 - A 007 NL 4014 M / 001 - A 008



NL 7035 M / 001 NL 7035 M / 002



NL 4026 X / 002



NL 4014 C / 001 - A 009



NL 7040 X / 001

ACCESSORIES FOR MOULDS

Technical Specifications:

Model Number	Items Description	Approx.Weight
NL 4014 M / 002 – A 001	150 mm Cube Picker (Type A)	3.0 kg
NL 4014 M / 002 – A 002	150 mm Cube Picker (Type B)	2.5 kg
NL 4014 C / 002 - A 003	150 mm Cube Picker (Type C)	1.5 kg
NL 4013 X / 001 - A 002	Tamping Bar 25 mm sq. x 380 mm (L)	2.5 kg
NL 7009 X / 002	Mini Air Compressor c/w Flexible Hose & Connector	21.0 kg
NL 7009 X / 001 - A 001	Air Gun (For Extrude Plastic Mould)	0.3 kg
NL 4014 C / 002 - A 004	150 mm Cast Iron Cube Mould Extruder Jig	7.0 kg
NL 4014 C / 002 - A 005	150 mm Cast Iron Cube Mould Extruder Base Plate	6.0 kg
NL 4014 C / 002 - A 006	Cast Iron Cube Mould Tools Openner With Hex. Bolt No. 17 & 19	0.2 kg
NL 4007 X	All Type & Size of Curing Tank (Refer to NL 4007 X Series)	-
NL 4014 M / 001 - A 007	150 mm ABS Heavy Duty Plastic Demoulding Cradle	2.0 kg
NL 4014 M / 001 - A 008	100 mm ABS Heavy Duty Plastic Demoulding Cradle	1.6 kg
NL 7035 M / 001	Mild Steel Half Round Scoop	0.7 kg
NL 7035 M / 002	Mild Steel Full Round Scoop	0.9 kg
NL 4026 X / 002	Electrical Poker Vibrator	15.0 kg
NL 4014 C / 001 - A 009	Demoulding Oil Can of 10 kg	10.0 kg
NL 7040 X / 001	Rectangular Trowel	0.5 kg



Compression Machine Additional Accessories



Compression Accessories

To be used with compression machine for tested 100 mm cube specimen. Platen with polish surface & cube located guide indication, surface hardness over

Technical Specifications:

Model Number	NL 4000 X / 002 – A 005
Surface Hardened Value	< 55 HRC
Dimension	150 (L) x 150 (W) x 50 (H) mm
Approx. Weight	9 kg





Compression Machine Additional Accessories



Compression Accessories

To be used with 2000 kN compression machine equipped with rectangular platen 500×270 mm to test block specimen. Surface hardened over 55 HRC & finished with polish grinding.

Technical Specifications:

Model Number	NL 4000 X / 002 – A 006
Surface Hardened Value	< 55 HRC
Dimension	500 (L) x 270 (W) x 50 (H) mm
Approx. Weight	95 kg

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UNBONDED CAPPING PADS & RETAINERS

Standard: ASTM C1231, AASHTO T22, T851

Unbonded Capping Pad

Used as alternative method to the sulphur hot capping of concrete cylinder specimens. Two steel capping retainer are applied on cylinder top & bottom surface & two neoprene pads are place between specimen & retainer disc.

Technical Specifications:

Model Number	Parts Description
NL 4000 X / 002 – A 011	Capping Retainer For 4" & 100 mm Dia. Cylinder (Set of 2)
NL 4000 X / 002 – A 012	Capping Retainer For 6" & 150 mm Dia. Cylinder (Set of 2)
NL 4000 X / 002 – A 013	Capping Neoprene Pad 60 Shore For 4" & 100 mm Dia. Cylinder (Set of 2)
NL 4000 X / 002 – A 014	Capping Neoprene Pad 70 Shore For 4" & 100 mm Dia. Cylinder (Set of 2)
NL 4000 X / 002 – A 015	Capping Neoprene Pad 60 Shore For 6" & 150 mm Dia. Cylinder (Set of 2)
NL 4000 X / 002 – A 016	Capping Neoprene Pad 70 Shore For 6" & 150 mm Dia. Cylinder (Set of 2)

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GALVANIZED CURING TANK WITH DRAIN VALVE Standard: EN12390-2, ASTM C31/C192/ C511, AASTHO T23

Specimen Curing

Technical Specifications:

Model Number	Dimension (L x W x H) mm
NL 4007 GI / 002	1600 x 800 x 700 (144-200 nos 150 mm cube)
NL 4007 GI / 003	850 x 700 x 550 (60 nos 150 mm cube)
NL 4007 GI / 004	1220 x 1220 x 550 (108-192 nos 150 mm cube)
NL 4007 GI / 005	1440 x 1220 x 1000 (288-432 nos 150 mm cube)
NL 4007 GI / 006	2000 x 1550 x 550 (297-390 nos 150 mm cube)
NL 4007 GI / 007	2650 x 1300 x 850 (525-680 nos 150 mm cube)

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ECO-SMARTZ ANALOGUE COMPRESSION MACHINE 2000 kN

Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression Test

Newly upgraded model with brand new outlook. Old AC motor replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption.

FEATURES:-

- *Energy saving
- *Less vibration & noise
- *Simple operation system
- *Piston travel switch

ADDITIONAL FEATURE:-

- *Upgraded fully covered safety enclosed
- *Extended base frame for comfortable operation level
- *Load gauge with direct Mpa value



Technical Specifications:

Model Number	NL 4000 X / 009N
Max. Vertical Clearance	415 mm
Max. Horizontal Clearance	270 mm
Capacity	2000 kN x 5 kN / Div.
Compression Platen Diameter	295 mm
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Column Diameter	66.5 mm
Accuracy	Class 2
Product Dimension (mm)	965 (L) × 610 (W) × 1300 (H)
Packing Dimension (mm)	1020 (L) x 650 (W) x 1400 (H)
Approx. Product Weight	782.5 kg
Approx. Packing Weight	805 kg
Power	220 V, 2.5 Amp, 50 / 60 Hz, 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 002 – P 001	Standard Distance Piece Ø 195 x 50 mm	lno.
NL 4000 X / 002 – P 002	Standard Distance Piece Ø 195 x 100 mm	2nos.

^{*1} Copy of Manual Instruction

Optional Accessories :

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 002 – A 006	Block Test Compression Platen Set



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with Direct Reading Mpa Value

ECO-SMARTZ AUTOMATIC TOUCH SCREEN COMPRESSION MACHINE 2000 KN

Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression And Flexural

Newly upgraded model with brand new outlook. Old AC motor replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption.

FEATURES:-

- *Energy saving
- *Less vibration & noise
- *Auto result saving up to 450 specimen
- *Simple operation system
- *Dual channels ready for compression & flexural
- *Piston travel switch

ADDITIONAL FEATURE:-

- *Upgraded fully covered safety enclosed
- *Extended base frame for comfortable operation level
- *USB port to export test result

Touch Screen Smartz Controller V 1.1

Clear, easy to read, sensitive & large LCD touch screen display of 155mm(W) \times 85 mm(H)

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.





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Technical Specifications:

Model Number	NL 4000 X / 016U
Max. Vertical Clearance	415 mm
Max. Horizontal Clearance	270 mm
Capacity	2000 kN
Low Range Sensitivity	0 - 999 x 0.1 kN
High Range Sensitivity	1000 - 2000 x 1kN
Compression Platen Diameter	295 mm
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Column Diameter	66.5 mm
Accuracy	Class 1
Product Dimension (mm)	965 (L) x 610 (W) x 1300 (H)
Packing Dimension (mm)	1020 (L) x 650 (W) x 1400 (H)
Approx. Product Weight	783 kg
Approx. Packing Weight	805 kg
Power	220 V, 2.5 Amp, 50 / 60 Hz, 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 002 – P 001	Standard Distance Piece	lno.
	Ø 195 x 50 mm	
NL 4000 X / 002 – P 002	Standard Distance Piece	2nos.
	Ø 195 x 100 mm	

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 002 – A 006	Block Test Compression Platen Set
NL 4000 X / 016 – A 010	Portable Flexural Test Device
NL 4008 X / 001 - P 002	100/250 kN Hydraulic Flexural Frame
NL 4012 X / 003	Split Tensile Test Device
NL MMP - 100	Mini Micro Printer c/w Cable
NL 4000 X / 002 – A 008	Thermo Printer Paper (3 rolls / pack)





TOUCH SCREEN DISPLAY



CIVIL Engineering Testing Equipment

www.nl-test.com

ECO-SMARTZ AUTOMATIC TOUCH SCREEN COMPRESSION MACHINE 3000 kN

Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression & Flexural

Newly upgraded model with brand new outlook. Old AC motor replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption.

FEATURES:-

- *Energy saving
- *Less vibration & noise
- *Auto result saving up to 450 specimen
- *Simple operation system
- *Dual channels ready for compression & flexural
- *Piston travel switch

ADDITIONAL FEATURE :-

- *Upgraded fully covered safety enclosed
- *Extended base frame for comfortable operation level
- *USB port to export test result

Touch Screen Smartz Controller V1.1

Clear, easy to read, sensitive & large LCD touch screen display of $155 mm(W) \times 85 mm(H)$

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control.

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.





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Technical Specifications:

Model Number	NL 4000 X / 018U
Max. Vertical Clearance	370 mm
Max. Horizontal Clearance	320 mm
Capacity	3000 kN
Low Range Sensitivity	0 - 999 x 0.1 kN
High Range Sensitivity	1000 - 3000 x 1 kN
Compression Platen Diameter	295 mm
Piston Ram Diameter	290 mm
Piston Ram Travel	50 mm
Column Diameter	73 mm
Accuracy	Class 1
Product Dimension (mm)	1020 (L) x 650 (W) x 1300 (H)
Packing Dimension (mm)	1065 (L) x 700 (W) x 1450 (H)
Approx. Product Weight	905 kg
Approx. Packing Weight	972 kg
Power	220 V, 2.5 Amp, 50 / 60 Hz, 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 002 – P 001	Standard Distance Piece Ø 195 x 50 mm	2nos.
NL 4000 X / 002 – P 002	Standard Distance Piece Ø 195 x 100 mm	lno.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 012 – A 002	Block Test Compression Platen Set
	(510 x 320 x 55 mm)
NL 4008 X / 001 – P 002	100/250 kN Hydraulic Flexural Frame
NL 4012 X / 003	Split Tensile Test Device
NL MMP - 100	Mini Micro Printer c/w Cable
NL 4000 X / 002 – A 008	Thermo Printer Paper (3 rolls / pack)





TOUCH SCREEN DISPLAY

CIVIL Engineering Testing Equipment

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ECO-SMARTZ AUTOMATIC TOUCH SCREEN WELDED FRAME COMPRESSION MACHINE 2000 kN Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression & Flexural

NL Welded frame compression machine are using high tensile carbon steel material with precise engineering work skill to construct rigid and reliable frame structure. It equipped with imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption. Extra improvement on safety featured with fully protection cover & piston travel protection switch cover.

FEATURES:-

- *Energy saving
- *Less vibration & noise
- *Auto result saving up to 450 specimen
- *Simple operation system
- *Fully covered safety enclosed
- *Dual channels ready for compression & flexural

Touch Screen Smartz Controller 2.0

Clear, easy to read, sensitive & large LCD touch screen display of 155mm(W) x 85 mm(H)

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.



Technical Specifications:

Model Number	NL 4000 X / 023
Max. Vertical Clearance	340 mm
Max. Horizontal Clearance	340 mm
Capacity	2000 kN x 0.1 & 1.0 kN Sensitivity
Compression Platen Diameter	295 mm
Piston Ram Diameter	310 mm
Piston Ram Travel	80 mm
Column Thickness	32 mm
Accuracy	Class 1
Product Dimension (mm)	960 X 500 X 1200
Packing Dimension (mm)	1060 x 600 x 1400
Approx. Product Weight	950 kg
Approx. Packing Weight	1000 kg
Power	220 V,2.5 Amp,50/60 Hz,0.75 kW,1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 002 – P 001	Standard Distance Piece Ø 195 x 50 mm	lno.
NL 4000 X / 002 – P 002	Standard Distance Piece Ø 195 x 100 mm	2nos.
NL 4000 X / 002 - P 011	Standard Distance Piece Ø 195 x 25 mm	lno.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 012 - A 002	Block Test Compression Platen Set
	(510 x 320 x 55 mm)
NL 4000 X / 002 – A 008	Thermo Printer Paper (3 rolls / pack)
NL 4000 X / 012 – A 001	Extended Base Compartment
NL 4000 X / 002 – A 010	Portable Flexural Test Device
NL 4008 X / 001 - P 001	100 kN Hydraulic Flexural Frame
NL 4012 X / 001	Split Tensile Test Device
NL MMP – 100	Mini Micro Printer c/w Cable





TOUCH SCREEN DISPLAY

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NL 4000 X / 025 ECO SMARTZ AUTOMATIC COMPRESSION MACHINE (WELDED FRAME) 5000 kN Standard: EN 12390-3,-4,-12504-1,1354,1521,13161,1338 772-1, -6, 13286-41 196-1459-2. BS 3892-3, 187.

Compression And Flexural

Multi-purpose compression test machine with two compression frames using a single control unit. This machine provides an economic solution to test both concrete & mortar samples without having to purchase two separate machines. Dual channel system enables the calibration to be done independently for each frame. The 500kN frame may also be used as a flexural frame for testing of concrete beams by using the optional flexural attachment.





NL 4008 X / 001 - P002





Touch Screen Display



NL CD-201



NL CP-200



NL 4012 X / 001



NL 4000 X / 002 - A010



NL 4000 X / 002 - 006



NL 4000 X / 002 - A005



NL MMP-100

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Touch Screen Smartz Controller V 1.1

Clear, easy to read, sensitive & large LCD touch screen display of 155mm(W) x 85 mm(H) $\,$

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.

5000 kN Technical Specifications

Max. Vertical Clearance	435 mm
Max. Horizontal Clearance	580 mm
Capacity	5000 kN x 1.0 & 999kN x 0.1kg
	Sensitivity
Compression Platen Diameter	300 mm
Piston Ram. Diameter	440 mm
Piston Ram Travel	50 mm
Accuracy	Class 1
Frame Dimension (mm)	750 (L) x 660 (W) x 1500 (H)
Console Dimension (mm)	620 (L) x 500 (W) x 1300 (H)
Approx. Product Weight	2800 kg
Approx. Packing Weight	2950 kg
Power	220 V, 2.5 Amp, 50 / 60 Hz, 1 ph

5000 kN Main Frame Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 025 – P 001	Standard Distance Piece	4nos.
NL 4000 X / 025 – P 002	Bottom Platen	1pcs.

^{*1} Copy of Manual Instructions

Optional Accessories :

Model Number	Accessories Description
NL 4000 X / 002 – A 006	Block Test Compression Platen Set
NL MMP-100	Mini Micro Printer c/w Cable
NL CD- 201	Latest Compatible Version Computer come with Smartz Software
NL CP-200	Printer
NL 4008 X / 001 - P002	150kN Hydraulic Flexural Frame



ECO-SMARTZ ANALOGUE COMPRESSION MACHINE 2000kN (LIGHT WEIGHT FRAME) Standard: EN 12390-4, ASTM C93, AASHTO T22

Concrete Compression

Special design for brand new outlook. Replaced by new imported DC motor for more durability,low noise pollution, low oil temperature and lower power consumption. Extra improvement on safety featured.

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- Energy Saving
- Less Vibration and noise
- Simple operation system (user friendly)
- Fully covered safety enclosed

Optional Accessories:

Model Number	Parts Description
NL 4000 X / 002 - A005	100 mm Cube Lower
	Platen Piece
NL 4000 X / 002 - A006	Block Test Compression
	Platen Set
NL 4000 X / 002 - A010	Portable Flexural
	Test Device

Technical Specifications:

Model Number	NL 4000 X / 028
Max.Vertical Clearance	345 mm
Max.Horizontal Clearance	270 mm
Capacity	2000 kN x 5 kN/Div
Compression Platen	216 mm
Diameter	
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Main Frame Dimension	410 (L) x 440 (W) x 1280 (H) mm
Smartz Console Dimension	360 (L) x 400 (W) x 1430 (H) mm
Approx.Weight	600 kg
Power	220 V,2.5 Amp, 50/60 Hz, 750W,1 ph

Unit Consists of:

Model Number	Parts Description	Qty
NL 4000 X / 028 - P 001	Standard Distance Piece Ø165 x 30 mm	1 no.
NL 4000 X / 028 - P 002	Standard Distance Piece Ø165 x 50 mm	1 no.
NL 4000 X / 028 - P 003	Standard Distance Piece Ø165 x 100 mm	l no.





ECO-SMARTZ AUTOMATIC COMPRESSION MACHINE 2000 kN (LIGHT WEIGHT FRAME)

Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression & Flexural

Newly upgraded model with brand new outlook. Old AC motor replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption.

FEATURES:-

- *Energy saving
- *Less vibration & noise
- *Auto result saving up to 450 specimen
- *Simple operation system
- *Dual channels ready for compression & flexural
- *Piston travel switch

ADDITIONAL FEATURE:-

- *Upgraded fully covered safety enclosed
- *Extended base frame for comfortable operation level
- *USB port to export test result

Touch Screen Smartz Controller V1.1

Clear, easy to read, sensitive & large LCD touch screen display of $155 \text{mm}(\text{W}) \times 85 \text{ mm}(\text{H})$

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control.

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.

Technical Specifications:

Model Number	NL 4000 X / 029
Max. Vertical Clearance	345 mm
Max. Horizontal Clearance	270 mm
Low Range Sensitivity	0 - 999 x 0.1 kN
High Range Sensitivity	1000 - 2000 x 1kN
Compression Platen Diameter	216 mm
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Main Frame Dimension	410 (L) x 44 (W) x 1280 (H)
Smart Console Dimension	360 (L) x 400 (W) x 1320 (H)
Approx. Product Weight	600 kg
Power	220 V, 2.5 Amp, 50 / 60 Hz,750W 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4000 X / 028 – P 001	Standard Distance Piece	lno.
	Ø 165 x 30 mm	
NL 4000 X / 028- P 002	Standard Distance Piece	lno.
	Ø 165 x 50 mm	
NL 4000 X / 028- P 003	Standard Distance Piece	lno.
	Ø 165 x 100 mm	

*1 Copy of Manual Instruction

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 002 – A 006	Block Test Compression Platen Set
NL 4000 X / 002 - A 010	Portable Flexural Test Device







TOUCH SCREEN DISPLAY





DIGIMATIC COMPRESSION MACHINE 2000KN

EN 12390-3/772-1/12390-5/12390-6 ASTM C39/C293,AASHTO T 22

Compression

New digimatic compression machine are special designed extremely strong and oversized to grant high rigidity and stability during testing. With a fixed upper head carring a ball-seated platen and base platen with 150 mm cube centering guide pin.

Unique Feature :-

- -Front and side safety enclosed
- -Rapid approach system for time saving
- -Grade 1.0 compression accuracy
- -Piston anti-over travel limit switch

Digimatic multi function controller:-

- -Force value in kN & Mpa
- -Max. force hold facility with real time force vs time graft display
- -Multiple testing program can be selected
- -Auto result saving up to 450 specimen
- -RS 232 port for instand result printing
- (Mini printer c/w cable **NEED order separately**)
- -115 x 65 mm high resolution LED screen

Technical Specifications:

Model Number	NL 4000 X / 032
Max. Vertical Clearance	335 mm
Max. Horizontal Clearance	275 mm
Capacity	2000 kN
Low Range Sensitivity	0 - 999 x 0.1kN
High Range Sensitivity	1000 - 2000 x 1kN
Compression Platen Diameter	216 mm
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Column Diameter	61 mm
Product Dimension (mm)	360 (L) x 950 (W) x 1330 (H)
Approx. Product Weight	625 kg
Power	AC220 V,1 ph,4.9 amp,50/60 Hz,





Main Screen Display



Retrieving Sample Result with Graph Display



NL 4000 X / 001 - A005



NL MMP-100

Set Consists Of:

Model Number	Accessories Description	Qty
NL 4000 X / 032 - P001	Distance Piece Ø160 x 30 mm	1 no.
NL 4000 X / 032 – P002	Distance Piece Ø160 x 50 mm	1 no.
NL 4000 X / 032 - P003	Distance Piece Ø160 x 100 mm	l no.

Optional Accessories :

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL MMP-100	Mini Printer
NL PPR-100	Printer Paper



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AUTOMATIC COMPUTERIZED COMPRESSION MACHINE 2000 kN

Standard: EN 12390-3, ASTM C39, AASHTO T22

Compression And Flexural

Newly upgraded model, rigid, compact & with brand new outlook. Old AC motor had replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption. Extra improvement on safety feature with fully protection cover & piston travel protection switch cover.

FEATURES:-

- *High energy saving up to 70% compare with conventional type
- *Extremely low sound & vibration during operation
- *User friendly computerised system
- *Original genius parts cost low maintenance
- *Free from foundation mounting
- *Fully covered safety enclosed

SOFTWARE SUPER TEST 7.2

- *User friendly one click RUN to operate & clear menu display indication
- *Options to select number of decimal points to display for Load, Strength & Speed.
- *Real time display of Load against Time curve & options to display curve in test report.
- *Number of samples per report can be added up to 10 samples
- *Unlimited savings of test result in huge computer storage memory.
- *User input of Test Number, Strength, Age, Sample Size (cube, block & cylinder) & Loading Speed
- *Test report can be printed immediately after test with a printer connected.
- *Test report header can be input manually for various information such as customer information, weight, mixing ratio, project, etc.
- *Simple automatic or manual loading for calibration with autocorrection function for load error.
- *Software consists of dual programes for compression & flexural tests.





Technical Specifications:

Model Number	NL 4000 X / 034
Max. Vertical Clearance	400 mm
Max. Horizontal Clearance	270 mm
Capacity	2000 kN
Compression Platen Diameter	295 mm
Piston Ram Diameter	300 mm
Piston Ram Travel Column Diameter	80 mm
Accuracy	Class 1
Relative Error	±1%
Repeatability Relative Error	1%
Zero Drift	±0.1%
Resolution	0.1 - 0.001 kN
Sensor Accuracy	0.1%
Max. Hydraulic Working Pressure	30 Mpa
Product Dimension (mm)	960 (L) x 500 (W) x 1200 (H)
Packing Dimension (mm)	1060 (L) x 600 (W) x 1450 (H)
Approx. Product Weight	900 kg
Approx. Packing Weight	1000 kg
Power	0.75 KW

Unit Consists Of:

Model Number	Parts Description	Qty
NL STS – 7.2	Super Test Software	lno.
NL 4000 X / 004 – P 001	Standard Distance Piece Ø 200 x 50 mm	lno.
NL 4000 X / 004 – P 002	Standard Distance Piece Ø 250 x 100 mm	2nos.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 002 – A 006	Block Test Compression Platen Set
NL 4000 X / 016 – A 010	Portable Flexural Test Device
NL 4008 X / 001 - P 002	100/250 kN Hydraulic Flexural Frame
NL 4012 X / 003	Split Tensile Test Device
NL 4000 X / 005 – A 002	Computer Printer





TOUCH SCREEN DISPLAY





AUTOMATIC COMPUTERIZED COMPRESSION MACHINE 2000KN AND 3000KN Standard: EN 12390-3, ASTM C39, AASHTO 122

Compression And Flexural

Newly upgraded model, rigid, compact & with brand new outlook. Old AC motor had replaced by new imported DC motor for more durability, low noise pollution, low oil temperature & low power consumption. Extra improvement on safety feature with fully protection cover & piston travel protection switch cover.

FEATURES:-

- *High energy saving up to 70% compare with conventional type
- *Extremely low sound & vibration during operation
- *User friendly computerised system
- *Original genius parts cost low maintenance
- *Free from foundation mounting
- *Fully covered safety enclosed

SOFTWARE SUPER TEST 7.2

- *User friendly one click RUN to operate & clear menu display indication
- *Options to select number of decimal points to display for Load, Strength & Speed.
- *Real time display of Load against Time curve & options to display curve in test report.
- *Number of samples per report can be added up to 10 samples.
- *Unlimited savings of test result in huge computer storage memory.
- *User input of Test Number, Strength, Age, Sample Size (cube, block & cylinder) & Loading Speed
- *Test report can be printed immediately after test with a printer connected.
- *Test report header can be input manually for various information such as customer information, weight, mixing ratio, project, etc.
- *Simple automatic or manual loading for calibration with auto correction function for load error.
- *Software consists of dual programes for compression & flexural tests.

2000 kN Technical Specifications:

Model Number	NL 4000 X / 034
Max. Vertical Clearance	450 mm
Max. Horizontal Clearance	270 mm
Capacity	2000 kN
Compression Platen Diameter	295 mm
Piston Ram Diameter	250 mm
Piston Ram Travel	50 mm
Column Diameter	Ø70 mm
Accuracy	Class 1
Relative Error	±1%
Repeatability Relative Error	1%
Resolution	0.1 - 0.001 kN
Sensor Accuracy	0.1%
Max, Hydraulic Working Pressure	50 Mpa
Product Dimension (mm)	970 (L) x 450 (W) x 1470 (H)
Packing Dimension (mm)	1070 (L) x 550 (W) x 1570 (H)
Approx. Product Weight	900 kg
Approx. Packing Weight	1000 kg
Power	0.75 KW,220 V,50/60 Hz,1ph,6Amp

Unit Consists Of:

Model Number	Parts Description	Qty
NL STS – 7.2	Super Test Software	lno.
NL 4000 X / 004 – P 001	Standard Distance Piece Ø 200 x 50 mm	lno.
NL 4000 X / 004 – P 002	Standard Distance Piece Ø 200 x 100 mm	2nos.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Accessories Description
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece
NL 4000 X / 002 – A 006	Block Test Compression Platen Set
NL 4000 X / 016 – A 010	Portable Flexural Test Device
NL 4008 X / 001 – P 002	100/250 kN Hydraulic Flexural Frame
NL 4012 X / 003	Split Tensile Test Device
NL 4000 X / 005 – A 002	Computer Printer



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3000 kN Technical Specifications :

Model Number	NL 4000 X / 035
Max. Vertical Clearance	410 mm
Max. Horizontal Clearance	320 mm
Capacity	3000 kN
Compression Platen Diameter	295 mm
Piston Ram Diameter	300 mm
Piston Ram Travel	80 mm
Column Diameter	Ø78 mm
Accuracy	Class 1
Relative Error	±1%
Repeatability Relative Error	1%
Resolution	0.1 - 0.001 kN
Sensor Accuracy	0.1%
Max. Hydraulic Working Pressure	50 Mpa
Product Dimension (mm)	1020 (L) x 520 (W) x 1470 (H)
Packing Dimension (mm)	1120 (L) x 620 (W) x 1570 (H)
Approx. Product Weight	1100 kg
Approx. Packing Weight	1150 kg
Power	0.75 KW,220 V,50/60 Hz,1ph,6Amp

Unit Consists Of:

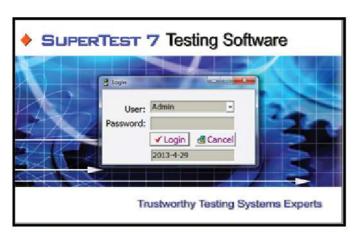
Model Number	Parts Description	Qty
NL STS – 7.2	Super Test Software	1no.
NL 4000 X / 004 – P 001	Standard Distance Piece Ø 200 x 50 mm	lno.
NL 4000 X / 004 – P 002	Standard Distance Piece Ø 200 x 100 mm	2nos.

^{*1} Copy of Manual Instruction

Optional Accessories :

Model Number	Accessories Description	
NL 4000 X / 002 – A 005	100 mm Cube Lower Platen Piece	
NL 4000 X / 002 – A 006	Block Test Compression Platen Set	
NL 4000 X / 016 – A 010	Portable Flexural Test Device	
NL 4008 X / 001 – P 002	100/250 kN Hydraulic Flexural Frame	
NL 4012 X / 003	Split Tensile Test Device	
NL 4000 X / 005 – A 002	Computer Printer	







TOUCH SCREEN DISPLAY



MISCELLANEDUS

Civil Engineering Testing Equipment

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BASIC DIGITAL DISPLAY

Control Panel Unit

NL basic type digital display unit provides a quick, simple & economy solution to connect conveniently to compression testing machines. Though simple, it comes with full calibration functions & error correction capability to enable user to test samples at the required accuracy. It also comes with password protection to prevent unauthorised personnel from altering the calibration accuracy. It's a perfect alternative to analogue gauge display & for budget - concerned users that prefer simple display type with less operation.

Basic Features :

Simple plug & play connection Calibration with password protection Powered by rechargeable battery Peak hold facility Clear & direct simple LED display

Technical Specifications:

Model Number	NL 4000 X / DLD
Resolution	1 kN / 0.1 kN
Dimension (WxLxH)	242 x 220 x 156 mm
Weight	3.8 kg
Power	220 V,50/60 Hz, 1 ph

Unit Consists Of:

ĺ	Model Number	Parts Description
	NL 4000 X / DLD-P001	NL 4000 X / X Pressure Transducer 50 Mpa



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COMPACTING FACTOR APPARATUS

Standard: EN 12350-8

Workability & Consistency

This apparatus uses for determination of the compacting factor of concretes with low, medium and high workability.

Technical Specifications:

Model Number	NL 4001 X / 001	
Dimension (mm)	350 (L) x 320 (W) x 1300 (H)	
Approx. Weight	25 kg	

Unit Consist Of:

Model Number	Parts Description	Qty
NL 4013 X / 001 – P 003	Tamping Rod	lno.

^{*1} Copy of Manual Instructions

Optional Accessories:

Model Number	Accessories Description	
NL 7013 GI / 004	Galvanized Tray 900 x 900 x 80 mm	
NL 7035 M / 001	Mild Steel Scoop	





COMPRESSOMETER APPARATUS Standard: ASTM C469, UNI 6556

Strain & Deformation

It is used to determine the strain and deformation characteristics of concrete and cylindrical specimens. It is comprises two lightweight metal castings for clamping to the specimens, two length gauge bars, a dial gauge 5 mm travel x 0.001 mm divisions. Compressometer for cylinder dia. 150×300 , $160 \times 320 \text{ mm}$. and $6" \times 12"$.

Technical Specifications:

Model Number	NL 4002 X / 003
Dimension (mm)	330 (L) x 330 (W) x 260 (H)
Packing Weight	5.5 kg
Approx. Weight	2.8 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4002 X / 002 – P 001	Clamping Ring Set	1set
NL 7020 X / 003	Dial Gauge 5 x 0.001 mm	2nos.
NL 4002 X / 002 – P 002	Carry Case	lno.

^{*1} Copy of Manual Instruction

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FLOW TABLE APPARATUS

Standard: UNI 8020-B, DIN 1048, BS 1881-105, EN 12350-5

Workability & Consistency

Used to determine the workability of fresh concrete. This apparatus comprises a steel flow table, conical mould and wooden tamper. NL offers 2 types material on table top which is mild steel with plated and fully stainless.



Technical Specifications:

Model Number	NL 4003 X / 003	NL 4003 SS / 003
Table Dimension (mm)	880 (L) × 700 (W) × 140 (H)	
Table Material	Steel Plated	Stainless Steel
Approx. Weight	30	kg



Unit Consists For NL 4003 SS / 003

Model Number	Parts Description	Qty
NL 4003 X / 001 – P 001	Conical Mould Dia. 130/200 x H 200 mm	lno.
NL 4003 X / 001 – P 002	Wooden Tamper	lno.
NL 4003 S / 001 - P 003	Stainless Steel Flow Table	lno.

Unit Consists For NL 4003 X / 003

Model Number	Parts Description	Qty
NL 4003 X / 001 – P 001	Conical Mould Dia. 130/200 x H 200 mm	lno.
NL 4003 X / 001 – P 002	Wooden Tamper	lno.
NL 4003 X / 001 – P 003	Plated Flow Table	lno.

^{*1} Copy of Manual Instruction

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CONCRETE PENETRATION APPARATUS Standard: ASTM C403, AASHTO 1197

Setting Time by Penetration

Used to determine the setting time of the mortar fraction in concrete mixes with slump greater than zero, by testing mortar sieved from mix.

Technical Specifications:

Model Number	NL 4004 X / 001
Case Dimension (mm)	580 (L) x 250 (W) x 60 (H)
Approx. Weight	5 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4004 X / 001 - P 001	Needle Point Set: 645, 323, 161,	1set
	65, 32 & 16mm2 area	
NL 4004 X / 001 – P 002	Spring Loading Device	lno.
	(1 – 100 kgf)	
NL 4004 X / 001 - P 003	Penetration Needle with Tool	1set
NL 4004 X / 001 – P 004	Carrying Case	lno.

^{*1} Copy of Manual Instruction

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VEBE CONSISTOMETER APPARATUS (BS)

Standard: BS 1881/104, EN 12350/3, UNI 9419

Workability & Consistency

This test method is a variation of the simple slump test and subjects the concrete to vibration after removal from the slump cone. The time taken for the concrete to be recompacted is taken as a measure of workability. The small vibrating table operates at a fixed amplitude and frequency, and in the test a plastic disc is placed into contact with the upper surface of the concrete. The test is completed when the lower surface of the disc has been completely coated with cement grout.

Technical Specifications:

Model Number	NL 4005 X / 001
Dimension (mm)	480 (L) x 410 (W) x 830 (H)
Approx. Weight	62 kg
Power	240 V, 50 / 60 Hz, 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4005 X / 001 – P 001	Mounting Drum	lno.
NL 4005 X / 001 – P 002	Vebe Slump Cone	lno.
NL 4005 X / 001 – P 003	Funnel with Measuring Disc Set	1set
NL 4013 X / 001 – P 003	Tamping Rod	lno.

^{*1} Copy of Manual Instruction





VEBE CONSISTOMETER APPARATUS (ASTM) Standard: ASTM C1170, ASTM C1176

Workability & Consistency

NL 4005 X / 002 series Vebe Consistometer is designed for use in determining the consistency and density of roller-compacted concrete. The test can be performed on both laboratory and field prepared freshly mixed concrete with a maximum aggregate aggregate size 22" (50mm) or less. In addition to roller compacted concrete, the device can be on cement treated, aggregates & soil cement type mixer. Meets ASTM C1170 Test Method for consistency and density determinations of roller-compacted concrete. Can be used on both laboratory and filed prepared mixes.

Technical Specifications:

Model Number	NL 4005 X / 002
Dimension (mm)	480 (L) x 430 (W) x 880 (H)
Desk Area (mm)	380 (L) x 250(W)
Amplitude (mm)	0.43 ± 0.08
Cylindical Mould (mm)	Ø240 x 200 (H)
Approx. Weight	110 kg
Power	220 V, 50 / 60 Hz, 1 ph

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4005 X / 002 – P 001	Cylindrical Mould	1set
NL 4005 X / 001 – P 002	Surcharge (22.7 kg) c/w Acrylic Disc	1set
NL 4005 X / 002 – P 003	Swivel Arm c/w Guide Sleeve	lno.
NL 4005 X / 002 - P 004	Foot Switch	1unit
NL 7031 X / 001	Stop Watch	lno.
NL 4013 X / 001 – P 004	Tamping Rod	lno.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Parts Description	Qty
NL 4005 X / 002 – A 001	Surcharge (12.5 kg)	1set







CORING MACHINE 5.5HP 4-STROKE PETROL ENGINE Standard: EN 12390-4, ASTM C39, AASHTO T22

Drilling & Coring

Portable petrol engine coring unit. Special cast aluminium main frame solid vertical movement pole and strong steel base with 4" Delrin wheels. Built-in water swivel for cooling the diamond bit.

*Supplied WITHOUT core bit set.

Technical Specifications :

Model Number	NL 4006 P / 002
Max. Drilling Diameter	150 mm
Engine	Briggs & Stratton, USA, Series 750, 5.5Hp
Product Dimension	770 (L) x 470 (W) x 1030 (H) mm
Packing Dimension	880 (L) x 570 (W) x 1200 (H) mm
Approx. Product Weight	78 kg
Approx. Packing Weight	88 kg

^{*1} Copy of Manual Instruction

Supplied With:

Model Number	Parts Description	Qty
NL 4006 P / 002 - P001	Expander Coupling	1pc
NL 4006 P / 002 - P002	Strap Wrench & Spanner	1 set

Optional Accessories:

Model Number	Parts Description	Qty
NL 7018 X Serial	Core Bit Set (Refer to NL 7018 X Group)	1pc
NL 4006 X / 002 - A001	Core Extractor	lset













Briggs & Stratton Series 750 5.5HP

Civil Engineering Testing Equipment

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HANDHELD CORING MACHINE

Sample Preparation (Cutting)

The Handheld Electrical Core Drilling machine specially used in laboratory and site cutting core sample such as rock or other material. Features include with safety friction clutch, it is easy, safe and reliable to use. Include a drainage water outlet. A clamp provided to firmly secure the material during the cutting cycle, a sliding front allows to access to the specimen clamp. The motor incorporated water swivel to cool diamond bit. (CORE BIT NEED TO ORDER SEPARATELY)

Technical Specifications :

Model Number	NL 4006 X / 001
Alternate Code	CF02-80
Max.Drilling Diameter	80 mm
Rated Input Power	1500 W
Rated Frequency	50/60 Hz
No Load Speed	950/2100/ min
Weight	7 kg
Approx. Dimension	530(L)x100(W)x375(H) mm

^{*1} Copy of Manual Instruction





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Drilling & Coring

Electrical Coring Machine are extremely practical, lightweight easy to use. The base from aluminium alloy. The motor support is fixed on roller and ball bearing. The motor incorporated a water swivel to cool the diamond bit. Supplied without core bit set.

Technical Specifications:

Model Number	NL 4006 X / 006
Drill Capacity	Ø 25 mm Core – Ø 150 mm Core
Application	Concrete / Granite
Max. Drilling Diameter	160 mm
No Load Speed	750 r.p.m.
Rated Input Power	2000 W
Power	220 - 240 , 50 / 60 Hz, 1 ph
Approx. Weight	30 kg

Optional Accessories:

Model Number	Accessories Description
NL 7018 X	Core Bit Set (Refer to NL 7018 X Group)



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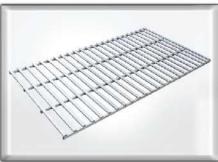
GALVANIZED CURING TANK WITH DRAIN VALVE Standard: EN12390-2, ASTM C31/C192/ C511, AASTHO T23

Specimen Curing

Technical Specifications:

Model Number	Dimension (L x W x H) mm
NL 4007 GI / 002	1600 x 800 x 700 (144-200 nos 150 mm cube)
NL 4007 GI / 003	850 x 700 x 550 (60 nos 150 mm cube)
NL 4007 GI / 004	1220 x 1220 x 550 (108-192 nos 150 mm cube)
NL 4007 GI / 005	1440 x 1220 x 1000 (288-432 nos 150 mm cube)
NL 4007 GI / 006	2000 x 1550 x 550 (297-390 nos 150 mm cube)
NL 4007 GI / 007	2650 x 1300 x 850 (525-680 nos 150 mm cube)





Grid Piece

PLASTIC CURING TANK

Specimen Curing

Made from superior gade durable with seamless on-piece construction, stress-free and leak-poor, lightweight and strong.

Technical Specifications:

Model	Alternate	Inte	Internal Dimension (mm)		Capacity	
Number	Code	LxW (Top)	LxW (Bottom)	Overall Height	(Base On 150 mm Cube)	
NL 4007 P / 008	K400 L-1	880 x 660	810 x 590	730	Approx. 60 nos.	
NL 4007 P / 009	K500 L	1210 x 700	1020 x 670	650	Approx. 96 nos.	
NL 4007 P / 010	K700 L	1410 x 1080	1270 x 990	550	Approx. 144 nos.	
NL 4007 P / 011	K 1000 K	1430 x 1070	1340 x 990	730	Approx. 192 nos.	
NL 4007 P / 012	K 1400 L	1600 x 1200	1530 x 1130	740	Approx. 280 nos.	

Optional Accessories:

Model Number	Description
NL 4007 P / 008 - A001	Specimen Support Grid Piece
NL 4007 P / 009 - A001	Specimen Support Grid Piece
NL 4007 P / 010 - A001	Specimen Support Grid Piece
NL 4007 P / 011 - A001	Specimen Support Grid Piece
NL 4007 P / 012 - A001	Specimen Support Grid Piece



CURING TANK HEAVY DUTY PLASTIC 550 LITRES Standard: EN 12390-9, ASTM C31, ASTM C192, ASTM C511, AASHTO T23, BS 1881:111, UNE 7240

Specimen Curing

Made from polyethylene material, extremely robust and stable, ideal for site laboratories.

Technical Specifications :

Model Number	NL 4007 P / 007
Capacity	550 litres (90 pcs.150mm Cubes)
Internal Dimension	1000(L) x 900(W) x 610(H)mm
External Dimension	1200(L) x 1000(W) x 775(H)mm

Optional Accessories :

Model Number	Description	
NL 4007 X / 007 - A001	Specimen Support Grip Piece	



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THERMOSTATIC CONTROL CURING TANK

CURING TANK Standard: BS 1881/104,BS EN 12390-5, UNI 9419

Specimen Curing

Made from galvanized steel sheet on tank body, rest of accessories fully hot – deep galvanized coated against corrosion.

Technical Specifications:

Model Number	NL 4007 X / 001A	
Internal Dimension (mm)	1000 (W) x 2000 (L) x 800 (D) Clear Depth 770 mm	
Temperature Range	Ambient to 70°C	
Approx. Weight	80 kg	
Power	220 V, 1 ph, 50 / 60 Hz, 2000 W	

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4007 X / 001 – P 001	Digital Thermostatic Controller Unit	1 set
NL 4007 X / 001 – P 002	Circulation Water Pump	lno.
NL 4007 X / 001 – P 003	Thermostatic Heater	lno.
NL 4007 X / 001 – P 004	Base Shelves – 1 pair	1set

^{*1} Copy of Manual Instructions







Stainless Steel Shelves

ACCELERATED CONCRETE CURING TANK

Standard: ASTM C684,BS1881:112



Concrete Curing

Applicable for accelerating curing for concrete at construction site and scientific research institute for prefabricate. It predicts the strengths of rupture and resistance to compression of concrete for 7 days and 28 days for concrete molding by means of accelerating curing. It is a kind of special device for quality control of concrete.

Technical Specifications:

Model Number	NL 4007 X / 011
Range of Temperature	Ambient ~ 90°C
Accelerated Temperature	15 - 30°C/hour (Adjustable)
Material	Fully Stainless Steel (G304)
Number of Speciment	54 nos. 150x150x150mm Cube
Working Space (mm)	955 (L) x 725 (W) x 620 (H)
Overall Dimension (mm)	1660 (L) x 890 (W) x 900 (H)
Approx. Weight	250 kg
Power	220 V, 50 / 60 Hz, 1 ph, 4 KW

^{*1} Copy of Manual Instruction

Unit Consists Of:

Model Number	Descriptions	Qty
NL 4007 X / 001 - P001	Stainless Steel Shelves	2nos.

^{*1} Copy of Manual Instruction

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100/250 kN HYDRAULIC FLEXURAL FRAME

Standard: EN 12390-5, ASTM C78 & C293

Flexural Test

Our flexural frame has been designed to achieved minimum deflection at maximum pressures resulting in very high accuracy. Overall structure are rigid & compact. Supply with hydraulic hose with attachment kit to connect with NL 4000X/018 Eco-Smartz 3000kN Compression Machine.

Technical Specifications:

Model Number	NL 4008 X / 001 - P002
Max. Capacity	100/250 kN
Roller Size (mm)	38 Dia. x 160 mm Lg.
Max. Vertical Clearance	157 mm
Ma. Horizontal Clearance	209 mm
Ma. Piston Travel	150 mm
Distance Between Upper Roller	100 - 150 mm
Distance Between Lower Roller	300 - 450 mm
Product Dimension (mm)	690 (L) x 450 (W) x 1260 (H)
Packing (Dimension)	740 (L) × 500 (W) × 1210 (H)
Approx. Product Weight	261 kg
Approx. Packing Weight	278 kg

^{*1} Copy of Manual Instruction



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DIGIMATIC CONCRETE FLEXURAL/ MORTAR COMPRESSION MACHINE 100/300kN

Standard: EN 12390-5, EN 196-1/ ASTM C 39, ASTM C 109, ASTM C348/AASHTO T22

Flexural and Low Strength Compression

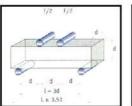
A simple and practical frame design for testing concrete beam and with additional optional device for testing mortar specimen, two prestress coulmn design include pressure transducer, loading rate control knob and digimatic control unit.

Digimatic multi function controller:-

- With kN and Mpa force value display
- Max force hold facility with real time force vs timegraph display
- Auto result saving up to 450 specimens
- RS 232 port for instand result printing (Mini printer c/w cable **NEED ORDER SEPARATELY**)

Unique Feature :-

- Rapid approach system for the time saving
- Loading speed control knob
- Grade 1.0 accuracy result
- 5 elements injection hydraulic pump



Two Point Loading

d d



Centre Point Loading

Mortar Compression Jig

Technical Specification:

Model Number	NL 4008 X / 005	
Capacity & Sensitivity	100 kN Flexural & 300 kN Compression x 0.1 kN	
Max. Vertical Clearance	230 mm (with compression Platen)	
Ma. Horizontal Clearance	198 mm	
Piston Ram Diameter & Travel	150 mm & 50 mm	
Appx. Dimension (mm)	785 (L) x 580 (W) x 1160 (H)	
Appx. Weight	550 kg	
Power	AC 220 V,1 ph, 0.75 kW, 4.9 A, 50/60 Hz	

Unit Consists Of:

Model Number	Description
NL 4008 X / 005 - P001	Concrete Beam Flexural Device
NL 4008 X / 005 - P002	158 mm Dia. Compression Ball Head & Lower Platen
NL 4008 X / 005 - P003	Distance Piece Ø89 x 89 mm
NL 4008 X / 005 - P004	Distance Piece Ø93 x 39.5 mm





Main Screen Display



Retrieving Sample Result with Graph Display

Optional Accessories :

Model Number	Description
NL 3027 X / 002 - P001	Mortar Prism Flexural Device
NL 3027 X / 002 - P002	Mortar Cube Compression Device
NL 3027 X / 002 - P003	Mortar Prism Compression Device
NL MMP-100	Mini Printer
NL PPR-100	Mini Printer Paper



Mortar Prism Flexural Device



Mortar Prism Compression Device



Mortar Cube Compression Device



NL MMP-100

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ECO-SMARTZ HYDRAULIC FLEXURAL MACHINE

Standard: EN 12390-5, ASTM C78 & C293

Flexural Test

Our flexural frame has been designed to achieved minimum deflection at maximum pressures resulting in very high accuracy. Overall structure are rigid & compact. Using DC motor for more durability, low noise pollution, low oil temperature & low power consumption.



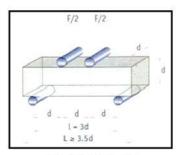
Technical Specifications :

Model Number	NL 4008 X / 001	NL 4008 X / 002
Max. Capacity	100 kN x 0.1 kN	250 kN x 0.1 kN
	Sensitivity	Sensitivity
Load Sensor Capacity	30 kPa	50 kPa
Roller Size (mm)	38 Dia. x 160 mm Lg.	
Max. Vertical Clearance	165 mm	
Max. Horizontal Clearance	160 mm	
Max. Piston Travel	80 mm	
Distance Between Upper Roller	100 - 260 mm or Single	
Distance Between Lower Roller	160 - 750 mm	
Frame Dimension	830 (L) × 745 (W) × 955 (H) mm	
Conso Unit Dimension	495 (L) x 475 (W) x 1040 (H) mm	
Approx. Product Weight	324 kg	330 kg
Power	220 V, 2.5 Amp, ½ ph, 50 / 60 Hz	

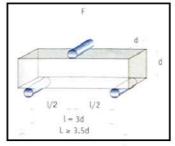
^{*1} Copy of Manual Instruction

Unit Consists Of:

Model Number	Parts Description	Qty
NL DCC – 2K	DC Power Control Console	1no.
NL 4008 X / 001 - P 001	100 / 250 kN Hydraulic Flexural Frame	Ino.



Two Point Loading



Centre Point Loading





NL 4009 X / 001



NL 4009 X / 002



NL 4009 X / 008



NL 4009 X / 003



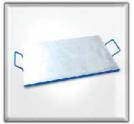
NL 4009 X / 004



NL 4009 X / 005



NL 4009 X / 006



NL 4009 X / 007



NL 7054 X / 001

Standard: ASTM C617/C31/C192, AASHTO T23/T126, EN12390-3,BS 1881-120

Sample Preparation for the Compression Test

Used to assure plane end surfaces perpendicular to the axis of the cylinder during the capping.

CYLINDER CAPPING EQUIPMENT

Technical Specifications:

Model Number	Parts Description	A. Weight
NL 4009 X / 001	Vertical Cylinder Capper Ø 150 x 300 mm	5.3 kg
	& Ø 6" x 12" Sample	
NL 4009 X / 002	Vertical Cylinder Capper For Ø 100 x 200 mm Sample	3.2 kg
NL 4009 X / 008	Multiple Size Cylinder Capper	15 kg
NL 4009 X / 003	Cylinder Carrier Ø 150 mm & Ø 6"	0.6 kg
NL 4009 X / 004	Melting Pot 5 Litres - 220 V, 1 ph, 1.3 KW	3.8 kg
NL 4009 X / 005	Melting Pot 5 Litres (Budget Model) - 220 V, 1 ph, 1.5 KW	2.8 kg
NL 4009 X / 006	Capping Compound	25 kg / Pack
NL 4009 X / 007	Steel Capping Plate 20 x 300 x 500 mm	24 kg
NL 7054 X / 001	Ladle 13" Length	0.2 kg



MELTING POT 5 LITRES Standard: ASTM C617, AASHTO T23

Compound Melting

Designed for melting capping compound, paraffin and similar materials, compound melting pots feature adjustable thermostat to deliver close temperature control automatically.

Inner pot is non-stick encased in a metal jacket with fibreglass and air insulation, keeping heat loss to a minimun. Replaceable heating elements are securely clamped to the bottom and sides of the crucible for even heat distribution.

Technical	Specifications:	
recillicul	specifications.	

Model Number	NL 4009 X / 004
Capacity	5 Litres
Dimensions	370 (L) X 190 (W) X 370 (H)
Approx.Weight	3.5 kg
Power	220 V, 1 ph, 1.3 kW



Features:

- Adjustable Temperature Control
- Tranparent Glass Cover
- With Non-Stick Inner Pot





CAPPING GYPSUM COMPOUND Standard: ASTM C617/AASHTO T231

Capping Compound

Gypsum capping compound for high strength capping preparation, it can achieve strength from 5000 - 9000 psi (350~630 kgf/cm²) after mixing with water for 30 mins. Gypsum is a fast, safer, easier and cheaper method compound with sulfure capping, rubber pad capping and grinding process.

Technical Specifications:

Model Number	NL 4009 X / 006A	NL 4009 X / 006B
Packing Code	S-350	S-630
Compressive Strength	350 kgf/cm²/5000 psi	630 kgf/cm²/9000 psi
Water Mix Ratio	23 ~ 24 %	15.5 ~ 16 %
Curing Time	30 min	30 min
Pack Weight	25 kg/pack	25 kg/pack

Optional Accessories:

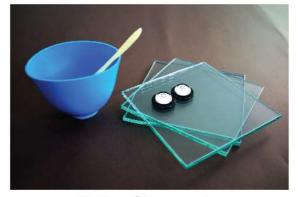
Model Number	Parts Description	Qty
NL 4009 X / 006 – P 001	Glass Plater 200 X 200 X 8 mm	lno.
NL 4009 X / 006 – P 001	Mixing Bowl come with Spatula	lno.
NL 4009 X / 006 – P 001	Levelling Device	lno.







S-630



Optional Accessories





CYLINDER CAPPING: SANDBOX METHOD

Standard: EN 12390-3: 2009 (E)

Cylinder Capping Sample

Used for cylinder capping sample preparation compression strength without limitation. This apparatus able to perform perpendicularity of 0.5 mm accuracy. With two box centering stopper intergral with horizontal plane of the frame, mechanical locking system specimen guide system and some with small vibrating platform.

Technical Specifications:

Model Number	NL 4009 X / 009	
Dimension (mm)	380 (L) x 400 (W) x 560 (H) mm	
Approx. Weight	34.5 kg	
Power	220 V, 50/60 Hz,1ph	

Set Consists Of:

NL 4009 X / 009 - P 002	Steel Boxes Retainer Plate (Set of 2)	1set
NL 4009 X / 009 - P 003	Calibration Container	lno

Optional Accessories :

NL 7072 X / 001	Silica Sand 250/125 µm (25 kg / pack)
NL 7070 X / 001	Paraffin Wax (10 kg / pack)
NL 4009 X / 004	Melting Pot 5 Litres
NL 7054 X / 001	Ladle 13' Length
NL 7031 X / 001	Digital Stop Watch









NL 7073 X / 001



NL 7054 X / 001



NL 7070 X / 001



NL 7031 X / 001

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CONCRETE FLOW TABLE APPARATUS

Standard: ASTM C124, UNI 8020-A, AASHTO T120

Workability & Consistency

Used to determine the workability & consistency of fresh concrete.

Technical Specifications :

Model Number	NL 4010 X / 001	NL 4010 X / 002
Dimension LxWxH	700 x 762 x 650 mm	1050 x 762 x 650 mm
Diameter of Table	Ø 762 mm	Ø 762 mm
Height of Drop	12.5 mm	12.5 mm
Approx. Weight	100 kg	115 kg
Power	-	220 V, 1 ph, 1 Hp
Туре	Manual	Motorized

Unit Consists Of:

Model Number	Parts Description	Parts Description
NL 4010 X / 001 – P 001	Flow Mould	Flow Mould
NL 4013 X / 001 – P 003	Tamping Rod	Tamping Rod
NL 4010 X / 002 - P 001	5 .	Rotation Motor 220 V, 1 Hp
NL DTC - 100	-	Digimatic Timer Controller

^{*1} Copy of Manual Instruction



SPLITTING TENSILE DEVICE Standard: EN 12390-6, ASTM C496

Splitting Tensile Test

To perform tests on cylindrical specimens of various diameter.

Technical Specifications:

Model Number	NL 4012 X / 001
Specimen Size (mm)	Ø 100 x 200 (Ø 4"x 8") to Ø 150 x 300
	(Ø 6" x 12") & Ø 160 x 320
Packing Size	3 x 15 x 350 mm
Approx. Weight	18 kg

Set Consists Of:

Model Number	Parts Description	Qty
NL 4012 X / 001 – P 001	Top Loading Plate	lno.
NL 4012 X / 001 – P 002	Packer Base with Spring Guide	Ino.

Optional Accessories :

Model Number	Accessories Description	
NL 4012 X / 001 - A 001	Packing Strips 4x10x350 mm (100 pcs pack)	



SLUMP CONE TEST APPARATUS

Standard: BS 1881, pr EN 12350-2, ASTM C143

Workability & Consistency

Used to determine the workability & consistency of fresh concrete.

Technical Specifications:

Model Number	NL 4013 X / 001
Approx. Weight	7 kg

Set Consists Of:

Model Number	odel Number Parts Description	
NL 4013 X / 001 – P 001	L 4013 X / 001 – P 001 Slump Cone (Chrome Plated)	
NL 4013 X / 001 – P 005	Base Plate (Chrome Plated)	lno.
NL 4013 X / 001 – P 003 Tamping Rod (Chrome Plated)		lno.

^{*1} Copy of Manual Instructions

Optional Accessories :

Model Number	Accessories Description	
NL 4013 X / 001 – A 004	Slump Cone Funnel (Chrome Plated)	
NL 4013 X / 001 – A 006	Slump Measuring Ruler Set	
NL 7035 M / 001	Mild Steel Scoop (Half Round)	
NL 7035 M / 002	Mild Steel Scoop (Full Round)	







NL 4013 X / 001 - A 004

NL 4013 X / 001 - A 006





NL 7035 M / 002

NL 7035 M / 001





PORTABLE SLUMP CONE TEST APPARATUS

Standard: EN 12350-2, BS 1881:102, ASTM C143, AASHTO T119

Workability & Consistency

Used to determine the consistency of concrete mixes having medium & high workability. Manufactured from sheet steel with chrome plated again corrosion. 100 mm Diameter top 200 mm x dia. base plate 300 mm height.

Technical Specifications:

Model Number	NL 4013 X / 002	
Dimension (mm)	380 (L) × 410 (W) × 640 (H)	
Approx. Weight	6.3 kg	

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4013 X / 001 – P 001	Slump Cone (Chrome)	1set
NL 4013 X / 002 – P 001	Base with Clamps & Measuring	2nos.
	Bridge (Chrome)	
NL 4013 X / 001 – P 003	Tamping Rod	lno.

^{*1} Copy of Manual Instruction

Optional Accessories:

Model Number	Parts Description
NL 4013 P / 001 - P 001	ABS Plastic Cone
NL 4013 P / 001 - P 002	ABS Plastic Cone Funnel
NL 4013 P / 001 - P 003	Plastic Base Plate
NL 4013 P / 001 - A 004	Galvanized Cone Funnel
NL 7055 X / 002	Steel Ruler 300 mm Length
NL 7035 M / 002	Mild Steel Scoop 75 x 150 x 208 mm Lg.
NL 7035 M / 003	Mild Steel Scoop Ø 120 x 250 mm Lg.
NL 4013 X / 001 - A005	Graduated Tamping Rod

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CAST IRON BEAM MOULDS

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH) mm	Approx. Weight
NL 4014 C / 032	100 x 100 x 400 mm Cast Iron Beam Mould	480 x 250 x 115	19.0 kg
NL 4014 C / 010	100 x 100 x 500 mm Cast Iron Beam Mould	580 x 250 x 115	27.5 kg
NL 4014 C / 033	150 x 150 x 600 mm Cast Iron Beam Mould	680 x 290 x 180	37.0 kg
NL 4014 C / 011	150 x 150 x 750 mm Cast Iron Beam Mould	830 x 290 x 180	50.8 kg





NL 4014 C / 025

CONCRETE MOULDS

We provide wide range of high quality concrete specimens mould such as cube, cylinder & beam with difference kind of size. Mould material such as HEAVY DUTY ABS PLASTIC, HIGH DENSITY PLASTIC, CAST IRON & MILD STEEL are available.

CAST IRON CUBE MOULDS (L-SHAPE) Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH) mm	Approx. Weight
NL 4014 C / 025	100 mm Cast Iron Cube Mould (L-Shape)	230 x 165 x 110	8.0 kg
NL 4014 C / 003	150 mm Cast Iron Cube Mould (L-Shape)	285 x 215 x 160	15.6 kg

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CONCRETE MOULDS

We provide wide range of high quality concrete specimens mould such as cube, cylinder & beam with difference kind of size. Mould material such as HEAVY DUTY ABS PLASTIC, HIGH DENSITY PLASTIC, CAST IRON & MILD STEEL are available.

CAST IRON CUBE MOULDS

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Unit	Cor	ารเรา	SC	: זע
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Model Number	Items Description	Dimension (LxWxH) mm	Approx.Weight
NL 4014 C / 001	100 mm Cast Iron Cube Mould (Standard)	240 x 160 x 110	8.0 kg
NL 4014 C / 002	150 mm Cast Iron Cube Mould (Standard)	285 x 215 x 160	15.6 kg
NL 4014 C / 014	100 mm Cast Iron Cube Mould (Light Duty)	165 x 160 x 115	4.2 kg
NL 4014 C / 016	150 mm Cast Iron Cube Mould (Light Duty)	235 x 225 x 170	8.5 kg
NL 4014 C / 004	200 mm Cast Iron Cube Mould (Light Duty)	285 x 275 x 220	19.5 kg









NL 4014 C / 007

NL 4014 C / 008

CAST IRON CYLINDER MOULDS

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications :

Model Number	Items Description	Dimension (LxWxH) mm	Approx.Weight
NL 4014 C / 007	Ø 100 x 200 mm Cast Iron Cylinder Mould	200 x 190 x 220	10.5 kg
NL 4014 C / 009	Ø 150 x 150 mm Cast Iron Cylinder Mould	255 x 240 x 170	12.8 kg
NL 4014 C / 008	Ø 150 x 300 mm Cast Iron Cylinder Mould	255 x 240 x 320	16.7 kg



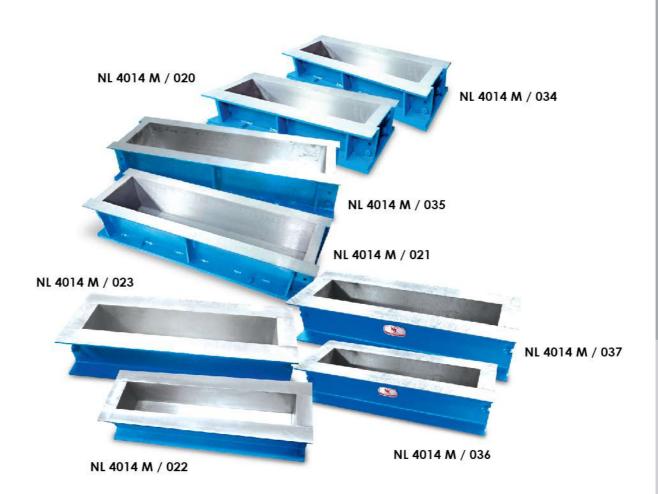


MILD STEEL BEAM MOULDS Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH)	Approx. Weight
NL 4014 M / 034	100 x 100 x 400 mm Mild Steel Beam Mould (Welded Type)	485 x 190 x115 mm	19.0 kg
NL 4014 M / 020	100 x 100 x 500 mm Mild Steel Beam Mould (Welded Type)	585 x 190 x115 mm	24.5 kg
NL 4014 M / 035	150 x 150 x 600 mm Mild Steel Beam Mould (Welded Type)	700 x 235 x160 mm	32.0 kg
NL 4014 M / 021	150 x 150 x 750 mm Mild Steel Beam Mould (Welded Type)	850 x 235 x160 mm	43.0 kg
NL 4014 M / 036	100 x 100 x 400 mm Mild Steel Beam Mould ('C' Channel Type)	500 x 200 x120 mm	10.0 kg
NL 4014 M / 022	100 x 100 x 500 mm Mild Steel Beam Mould ('C' Channel Type)	600 x 200 x120 mm	15.0 kg
NL 4014 M / 037	150 x 150 x 600 mm Mild Steel Beam Mould ('C' Channel Type)	730 x 285 x180 mm	34.0 kg
NL 4014 M / 023	150 x 150 x 750 mm Mild Steel Beam Mould ('C' Channel Type)	880 x 285 x180 mm	44.0 kg





MILD STEEL CUBE MOULDS Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH) mm	Approx.Weight
NL 4014 M / 018	100 mm Mild Steel 3 Gang Cube Mould	415 x 205 x 120	13.0 kg
NL 4014 M / 019	150 mm Mild Steel 3 Gang Cube Mould	605 x 280 x 180	33.5 kg
NL 4014 M / 038	100 mm Mild Steel 4 Gang Cube Mould	600 x 200 x 120	25.0 kg
NL 4014 M / 039	150 mm Mild Steel 4 Gang Cube Mould	730 x 230 x 160	47.0 kg





MILD STEEL CYLINDER MOULDS
Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH) mm	Approx. Weight
NL 4014 M / 014	Ø 100 x 200 mm Mild Steel Cylinder Mould	140 x 140 x 210	5.5 kg
NL 4014 M / 016	Ø 150 x 150 mm Mild Steel Cylinder Mould	185 x 185 x 160	8.1 kg
NL 4014 M / 015	Ø 150 x 300 mm Mild Steel Cylinder Mould	185 x 185 x 310	13.2 kg
NL 4014 M / 040	Ø 250 x 500 mm Mild Steel Cylinder Mould	350 x 350 x 515	28 kg







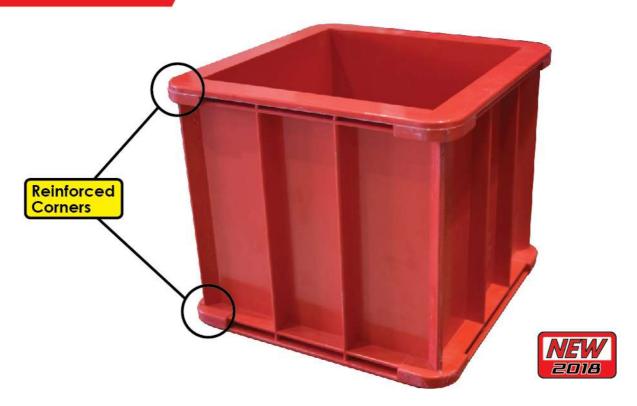
NL 4014 M / 016



NL 4014 M / 040

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150 mm HYBRID FIBRE CUBE MOULD (EXTRUDED TYPE)

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

One piece moulded from a robust plastic material which is light, resistant to vibrations shocks and wear due to additional reinforced corners designed. Require a simple clean and demould oil before being ready to use. The specimen can be expelled by using air gun or demoulding cradle.

Technical Specifications:

Model Number	NL 4014 P / 042
Material	Hybrid Fibre Plastic (HBP)
Approx. Weight	1 kg
Dimension	190 x 190 x 164 mm (LxWxH)

Optional Accessories:

Model Number	Description
NL 4014 M / 001 - A007	150 mm ABS Heavy Duty Plastic Demoulding Cradle
NL 7009 X / 002	Mini Air Compressor c/w Flexible Hose & Connector
NL 7009 X / 001 - A001	Air Gun (for extrude plastic mould)
NL 4013 X / 001 - A002	Tamping Bar 25 mm sq. x 380 mm (L)

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100 mm HYBRID FIBRE CUBE 3 GANG MOULD (EXTRUDED TYPE)

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Plastic cube mould, 100 mm side, heavy duty plastic material. The inside surface are vervy smoothed, easier the specimen ejection to come out of the mould.

Technical Specifications:

Model Number	NL 4014 P / 043
Approx. Weight	1.4 kg
Dimension	134 x 340 x 117 mm (LxWxH)

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NL 4014 P / 013

NL 4014 P / 012

NL 4014 P / 027

NL 4014 P / 028



NL 4014 P / 015

NL 4014 P / 029

NL 4014 P / 024

CONCRETE MOULDS

We provide wide range of high quality concrete specimens mould such as cube, cylinder & beam with difference kind of size. Mould material such as HEAVY DUTY ABS PLASTIC, HIGH DENSITY PLASTIC, CAST IRON & MILD STEEL are available.

PLASTIC MOULDS

Standard: EN 12390-1, ASTM C39/C192, AASHTO T23/T126, BS 1881:108

Making Concrete Specimens

Technical Specifications:

Model Number	Items Description	Dimension (LxWxH) mm	Approx. Weight
NL 4014 P / 012	100 mm Heavy Duty ABS Plastic Cube Mould (Extruded Type)	140 x 140 x 120	0.45 kg
NL 4014 P / 013	150 mm Heavy Duty ABS Plastic Cube Mould (Extruded Type)	185 x 185 x 170	0.90 kg
NL 4014 P / 015	150 mm Heavy Duty ABS Plastic Cube Mould (L-Shape)	195 x 195 x 170	1.0 kg
NL 4014 P / 029	150 mm High Density Plastic Cube Mould (Extruded Type)	200 x 200 x 170	2.60 kg
NL 4014 P / 024	Ø 150 x 300 mm Heavy Duty ABS Plastic Cylinder Mould	190 x 190 x 320	1.06 kg
NL 4014 P / 027	Ø 100 x 200 mm Heavy Duty ABS Plastic Spliting Cylinder Mould	150 x 150 x 220	0.90 kg
NL 4014 P / 028	Ø 150 x 300 mm Heavy Duty ABS Plastic Spliting Cylinder Mould	200 x 200 x 320	1.80 kg

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VIBRATING TABLE Standard: EN 12390-1, BS 1881-108, UNI 6127

Concrete Compaction

For use in laboratory to vibrate cylinder and cube specimens or compaction of concrete specimens. Robustly manufactured to operate with minimum noise level. Equipped with motor having 3000 / 3600 r.p.m. vibration per minutes. The vibrating table fitted with clamping device and timer control up to 60 minutes.

Technical Specifications:

Model Number	NL 4015 X
Vibrating Frequency	3000 / 3600 r.p.m.
Power	220 V, 1 ph, 50 / 60 Hz

Available Modes:

Model Number	Table Size	Weight	No. Mould
NL 4015 X / 001	700 x 400 mm	70 kg	2
NL 4015 X / 002	1000 X 400 mm	74.5 kg	4
NL 4015 X / 004	1300 x 1000 mm	159 kg	12
NL 4015 X / 005	610 x 1000 mm	90 kg	6

^{*1} Copy of Manual Instructions





PULL-OUT TEST APPARATUS Standard: ASTM C900, BS 1881-207, EN 1542

Strength Evaluation

Used to evaluate the concrete resistance as per the strength applied to extract an insert in concrete. A keyhole slot for easy linkage to fix a bearing ring. The load application is achieved via a hand operated hydraulic pump. Maximum load capacity 100 kN (10 tons). An integral movement indication is provided allowing "First Movement" to be identified as well as total displacement before failure. A precise loading provides smoother operation eliminating hydraulics backlash.

Technical Specifications:

Model Number	NL 4016 X / 002
Capacity	100 kN
Case Dimension (mm)	800 (L) × 200 (W) × 230 (H)
Approx. Weight	22 kg

Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 001 – P 001	Hydraulic Extraction Unit, Hand Pump, Hose with Connector & Puller Cylinder	1set
NL DLG X / 100	Digital Load Gauge	lno.
NL 4016 X / 001 – P 003	Bearing Ring Set	1set
NL 4016 X / 001 – P 004	Pull Out Insert Ø 30 mm – 20 pcs / pck	lpck.
NL 4016 X / 001 – P 005	Carrying Case	lno.

*1 Copy of Manual Instruction





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DIGITAL PULL OFF TESTER 25 kN (BOND STRENGTH)

Standard: EN 1542, EN 1348, EN 1015-12

Strength Evaluation

Used to determine the bonding strength of concrete overlay adhesion. Also suitable for measuring the strength of applied coatings such as plastic, mortars, plasters, tiles, bituminous coats as well as paint & other coatings on metal. It tests at any measuring point on the component, without requiring specimen preparation. However, a suitable depth of coring diameter same as the test disc is prepared prior to pulling off the surface bonding. Supplied Without accessories.

ACCESSORIES NEED TO ORDER SEPARATELY.





Technical Specifications:

Model Number	NL 4016 X / 004N
Max. Load Capacity	25 X 0.001 kN sensitivity
Accuracy & Repeatibility	≤1.0% F.S
Piston Travel	8 mm
LED Display	Ø85 mm LED Screen
Adjustable Feel Distance	120 mm
Data Memory	500 Test Result
Power Source	200 V,1pH (Rechargeable)
Tester Weight	6 kg
Tester Dimension (LxWxH)	270 X 220 X 270 mm
Carry Case Dimension (LxWxH)	400 X 330 X 220 mm

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 004 - P 004	Puller Rod c/w Knob	lno.
NL 4016 X / 004 - P 005	Cranked Handle	lno.
NL 4016 X / 004 - P 006	Power Charger	lno.

^{*1} Copy of Manual Instruction

Optional Accessories :

Opilolidi Accessories .	
Model Number	Accessories Description
NL 4016 X / 003 – A 001	Adhesion Test Aluminium Disc 20 mm
	dia. by 20 mm thick (n. 10 pieces)
NL 4016 X / 003 – A 002	Adhesion Test Aluminium Disc 50 mm
	dia. by 20 mm thick (n. 10 pieces)
NL 4016 X / 003 – A 003	Adhesion Test Stainless Steel Disc
	50 mm dia. by 20 mm thick (n. 10 pieces)
	It confirms to EN 1015-12 Specification.
NL 4016 X / 003 – A 004	Adhesion Test Aluminium Disc,
	square, 50 x 50 mm, 20 mm thick
	(n. 10 pieces) Standard: EN 1348
NL 4016 X / 003 – A 005	Cylindrical ring, having truncated
	cone shape, inside dia. 50 mm
	Standard: EN 1015-12
NL 4016 X / 003 – A 006	High Performance Epoxy Adhesive 30 ml
NL 7018 X / 002	Core Bit Set 50 mm I.D
NL 7018 X / 007	Core Bit Set 20 mm I.D (With Adaptor)
NL 4006 X / 001	Hand Held Coring Machine
	220 V, 50 / 60 Hz, 1900 W
	(Max: Ø100 mm)





DIGITAL PULL-OUT TESTER Standard: ASTM C 900,BS 1881-207,EN 1542

Strength Evaluation

The Pull Out Test Apparatus is used for determining the bond strength between anchored reinforcing steel bar (rebar) and concrete and for checking anchorage performance in-situ. The Pull Out Test Apparatus are available in Digital Load Gauge, has 30 tons capacity hydraulic jack and hand pump. Supplied complete with six different of Specimen Wedge (12 mm, 14 mm, 16 mm, 20 mm, 25 mm, 32 mm) which allows user to test anchorage rebar with different diameters made of high strength steel. It is suitable up to 32 mm sample.

Technical Specifications :

Model Number	NL 4016 X / 005	NL 4016 X / 006	NL 4016 X / 007	NL 4016 X / 008	NL 4016 X / 009
Max. Force Pressure	300 kN	100 kN	200 kN	500 kN	1000 kN
Dimension (mm)	800 (L) × 250 (W) × 212 (H)				
Approx. Weight	25 kg	15 kg	23 kg	35 kg	68 kg

Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 005 - P 001	300 kN (30 tons) Single Acting Hyraulic Cylinder	lno.
NL 4016 X / 005 - P 002	Hand Operated Pump c/w 4 m Hydraulic Hose	lno.
NL 4016 X / 005 - P 003	Carrying Case	lno.
NL 4016 X / 005 - A 001	Specimen Wedge 6 mm dia.	lno.
NL 4016 X / 005 - A 002	Specimen Wedge 12 mm dia.	1 no.
NL 4016 X / 005 – A 003	Specimen Wedge 14 mm dia.	1 no.
NL 4016 X / 005 - A 004	Specimen Wedge 16 mm dia.	1 no.
NL 4016 X / 005 - A 005	Specimen Wedge 20 mm dia.	1 no.
NL 4016 X / 005 - A 006	Specimen Wedge 25 mm dia.	1 no.
NL 4016 X / 005 – A 007	Specimen Wedge 32 mm dia.	1 no.
NL DLG 100	Digital Load Gauge	1 no.

Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 006 - P 001	100 kN (10 tons) Single Acting Hyraulic Cylinder	lno.
NL 4016 X / 006 - P 002	Hand Operated Pump c/w 4 m Hydraulic Hose	lno.
NL 4016 X / 006 - P 003	Carrying Case	lno.
NL 4016 X / 006 - A 001	Specimen Wedge 12 mm dia.	lno.
NL 4016 X / 006 - A 002	Specimen Wedge 14 mm dia.	1 no.
NL 4016 X / 006- A 003	Specimen Wedge 16 mm dia.	1 no.
NL 4016 X / 006 - A 004	Specimen Wedge 20 mm dia.	1 no.
NL DLG 100	Digital Load Gauge	1 no.

Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 007 - P 001	200 kN (20 tons) Single Acting Hyraulic Cylinder	lno.
NL 4016 X / 007 – P 002	Hand Operated Pump c/w 4 m Hydraulic Hose	lno.
NL 4016 X / 007 - P 003	Carrying Case	1no.
NL 4016 X / 007 - A 001	Specimen Wedge 12 mm dia.	lno.
NL 4016 X / 007 - A 002	Specimen Wedge 14 mm dia.	1 no.
NL 4016 X / 007 – A 003	Specimen Wedge 16 mm dia.	1 no.
NL 4016 X / 007 - A 004	Specimen Wedge 20 mm dia.	1 no.
NL 4016 X / 007 – A 005	Specimen Wedge 25 mm dia.	1 no.
NL DLG 100	Digital Load Gauge	1 no.



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Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 008 - P 001	500 kN (50 tons) Single Acting Hyraulic Cylinder	lno.
NL 4016 X / 008 - P 002	Hand Operated Pump c/w 4 m Hydraulic Hose	lno.
NL 4016 X / 008 - P 003	Carrying Case	lno.
NL 4016 X / 008 - A 001	Specimen Wedge 12 mm dia.	lno.
NL 4016 X / 008 - A 002	Specimen Wedge 14 mm dia.	l no.
NL 4016 X / 008 - A 003	Specimen Wedge 16 mm dia.	1 no.
NL 4016 X / 008 - A 004	Specimen Wedge 20 mm dia.	1 no.
NL 4016 X / 008 - A 005	Specimen Wedge 25 mm dia.	1 no.
NL 4016 X / 008 - A 006	Specimen Wedge 32 mm dia.	1 no.
NL 4016 X / 008 - A 007	Specimen Wedge 36 mm dia.	1 no.
NL DLG 100	Digital Load Gauge	1 no.

Set Consists Of:

Model Number	Parts Description	Qty
NL 4016 X / 009 - P 001	1000 kN (100 tons) Single Acting Hyraulic Cylinder	lno.
NL 4016 X / 009 - P 002	Hand Operated Pump c/w 4 m Hydraulic Hose	lno.
NL 4016 X / 009 - P 003	Carrying Case	Ino.
NL 4016 X / 009 - A 001	Specimen Wedge 12 mm dia.	lno.
NL 4016 X / 009 - A 002	Specimen Wedge 14 mm dia.	1 no.
NL 4016 X / 009 - A 003	Specimen Wedge 16 mm dia.	1 no.
NL 4016 X / 009 - A 004	Specimen Wedge 20 mm dia.	1 no.
NL 4016 X / 009 - A 005	Specimen Wedge 25 mm dia.	1 no.
NL 4016 X / 009 - A 006	Specimen Wedge 32 mm dia.	1 no.
NL 4016 X / 009 - A 007	Specimen Wedge 36 mm dia.	1 no.
NL 4016 X / 009 - A 008	Specimen Wedge 40 mm dia.	1 no.
NL DLG 100	Digital Load Gauge	1 no.



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L-BOX Standard: EN 12350-10

Passing Ability

Used to asses the passing ability of self-compacting concrete to flow through without segregation on specified gaps of steel bars blocking.

Technical Specifications:

Model Number	NL 4017 S / 002
Dimension (mm)	702 (L) x 312 (W) x 660 (H)
Approx. Weight	18.5 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4017 S / 002 – P 001	'L' Box (Stainless Steel)	lno.
NL 4017 S / 002 – P 002	Vertical Bar Set (2 Types)	1set
NL 4017 S / 002 - P 003	Hopper	lno.
NL 5001 X / 001 – A 023	Straight Edge (300 x 30 x 3 mm)	lno.

^{*1} Copy of Manual Instruction

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PORTABLE SPECIMEN CUTTING MACHINE

Sample Preparation for the Compression Test

This unit machine has been specially developed to cut rock and core samples. It comes together with special design solid clamping device to allow all kind of irregular specimens to be held firmly position during the cutting operation.



Technical Specifications:

Model Number	NL 4018 X / 002
Blade Diameter	14" (350 mm)
Max. Cutting Height	100 mm
Table Size	470 (L) x 267 (W)
Product Dimension (mm)	1020 (L) x 660 (W) x 1350 (H)
Packing Dimension (mm)	1120 (L) x 760 (W) x 1550 (H)
Approx. Product Weight	62 kg
Approx. Packing Weight	83 kg
Power	220 V, 2 Hp, 50 / 60 Hz, 1 ph

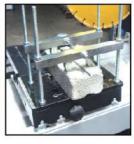
Unit Consists Of:

Model Number	Parts Description	Qty
NL 4018 X / 002 - P 001	Diamond Cutting Blade	lno.
	Ø 14" (350 mm)	
NL 4018 X / 002 – P 002	Sliding Table Top with Clamp	lset
NL 4018 X / 002 – P 003	Circulating Water Pump	lno.
NL 4018 X / 002 – A 001	Cylinder Shape Clamping Device	lno.

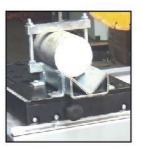
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Optional Accessories :

Model Number	Accessories Description
NL 4018 X / 002 – A 002	Irregular Shape Clamping Device



Irregular Shape Clamping Device



Cylinder Shape Clamping Device

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PORTABLE SPECIMEN CUTTING MACHINE (450 mm Dia.Blade)

Sample Preparation (Cutting)

This unit machine has been specially developed to cut rock flagstones and core samples. It comes together with special design solid clamping device to allow all kind of irregular specimens to be held firmly position during the cutting operation.



Technical Specifications:

Model Number	NL 4018 X / 004
Blade Diameter	18" (450 mm)
Max. Cutting Height x Length	150 mm x 600 mm
Table Size	465 (L) x 405 (W)
Product Dimension (mm)	1100 (L) x 600 (W) x 1500 (H)
Packing Dimension (mm)	1200 (L) x 660 (W) x 900 (H)
Approx. Product Weight	125 kg
Approx. Packing Weight	130 kg
Power	220 V, 4 Hp, 50 / 60 Hz, 1 ph

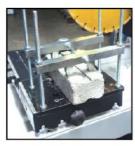
Unit Consists Of:

Model Number	Parts Description	Qty
NL 4018 X / 004 – P 001	Diamond Cutting Blade Ø 450 mm (18")	lno.
NL 4018 X / 004 – P 002	Sliding Table Top with Clamp	1set
NL 4018 X / 004 – P 003	Circulating Water Pump	lno.
NL 4018 X / 004 – A 001	Cylinder Shape Clamping Device	lno.

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Optional Accessories:

Model Number	Accessories Description
NL 4018 X / 004 – A 002	Irregular Shape Clamping Device



Irregular Shape Clamping Device



Cylinder Shape Clamping Device



GRINDING MACHINE

Sample Preparation

Technical Specifications:

Model Number	NL 4018 X / 005
Cutting Height (mm)	200 mm
Diamond Cutter	500 dia.
Forms of works	Single, Double-Knife cutting two planes
Main Motor	Y112M-4 4kw
1 Cutter Speed	33 – 45 m/s
Working Speed	Adjustable
Feeder Motor	DC180
Fast forward and Retreat Motor	DC180
Operating Hours	Continuous
Ambient Temperature	0 - 40°C
Noise	< 80db
Dimensions	1450 (L) x 820 (W) x 1060 (H) mm
Approx. Weight	500 Kg

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V-FUNNEL Standard: EN12350-9

Filling Ability

Used to asses the filling ability of self-compacting concrete to flow through narrow opening without segregation or blocking.

Technical Specifications:

Model Number	NL 4019 S / 001
Dimension (mm)	640 (L) x 770 (W) x 1050 (H)
Approx. Weight	17 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4019 S / 001 – P 001	V-Funnel (Stainless Steel)	lno.
NL 4019 S / 001 – P 002	Funnel Stand	lno.
NL 4019 S / 001 – P 003	Receiver Container	lno.
NL 5001 X / 001 – A 023	Straight Edge (300 x 30 x 3 mm)	lno.











SHRINKAGE MOULD 75 x 75 x 300 mm

Standard: BS 1881:5

Shrinkage / Restrained Expansion

Used for the determination of linear shrinkage of concrete specimen.

Technical Specifications:

Model Number	NL 4020 X / 001
Dimension (mm)	347(L) x 97(W) x 86(H)
Specimen Dimension (mm)	75 x 75 x 300 mm
Material	Polish Surface Mild Steel
Approx. Weight	7.5 kg

Unit Consists Of:

Model Number	Parts Descriptions	Qty
NL 4020 X / 001 – P001	Brass Insert (10 pcs / pack)	lpck.
NL 4020 X / 001 - P002	Gauge Stud Holder	2 pcs.

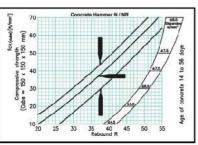
Optional Accessories:

Model Number	Model Number
NL 3024 X / 002	Length Comparator
NL 3024 X / 001 - A010	Reference Rod 315 mm (BS)



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Conversion Chart





Soft Silicone End Cap for comfort operation.



NL 4021 X / 001-A001

CONCRETE TEST HAMMER

Standard: ASTM C805, BS 1881-202, DIN 1048, UNI 9198, pr EN12504-2

Compression

Used to determine the compressive strength of concrete. Fully aluminium casing, high quality internal mechanism, extra durability up to 50,000 test cycle and with additional soft silicone cap for comfortable usage.

Technical Specifications:

Model Number	NL 4021 X / 003
Impact Energy	0.225 mkg (2.207 Joule)
Casing Dimension (mm)	320 (L) x 190 (W) x 90 (H)
Measurement Range	10 to 70 N/mm²
Total Approx. Weight	1.8 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4021 X / 003- P 001	Concrete Hammer	lno.
NL 4021 X / 001 – P 002	Grinding Stone	lno.

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Optional Accessories:

Model Number	Accessories Description
NL 4021 X / 001 - A 001	Concrete Hammer Anvil



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DIGIMATIC CONCRETE IMPERMEABILITY APPARATUS

Standard: EN 12390/8, DIN 1048, ISO 7031

Water Penetration Under Pressure

Used to determine the depth that water under pressure penetrates into concrete specimens. The unit accepts concrete cubic, cylindrical or prismatic specimens having dimension of 200 x 200 x 200 mm. The specimen is located between to quick clamping chamber, clamped with special circular gaskets. The water under controlled pressure by fully automatic digital control panel with high precision pressure tranducer for fined and precision pressure conctrols. The water penetrated is measured by breaking the specimen. The unit come with standard 6 pieces version and able to up-graded to 6 pieces version by saparately order.

Technical Specifications:

Model Number	NL 4022 X / 002	
Standard of Test Chamber	6 Chamber	
Maximum Size of Specimen	150 mm and 200 mm Cube Specimens, Ø 100 x 200 and 150 x 300 mm Cylinder Specimen	
Maximum Pressure	20 Mpa (200 bar)	
Dimension (LxWxH)	770 x 1050 x 1450 mm	
Wight	150 kg	
Power	220 V, 1 ph, 50/60 Hz, 375 W	

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Unit Consists Of:

Model Number	Parts Description	Qty
NL 4022 X / 002 - P001	Test Chamber c/w Gasket Seal	3 Units

Optional Accessories:

Model Number	Parts Description	
NL 4022 X / 002 - A001	Test Chamber c/w Gasket Seal (Extended Type)	
NL 4022 X / 002 - A002	Gasket Seal	



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AIR ENTRAINMENT METER APPARATUS (WATER COLUMN TYPE)

Standard: EN 12350-7 / BS 1881:106, ASTM C231 / NF P18-353 / UNE 7141

Concrete Air Content

Made from cast aluminium alloy. With 5 litres capacity, transparance scale tube & pressure indicator. It is used to determining the air content in fresh concrete.

Technical Specifications:

Model Number	NL 4023 X / 001
Air Content Range	0 to 8% x 0.1% Div.
Dimension (mm)	250 Dia. x 700 (H)
Approx. Weight	13 kg

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4023 X / 001 – P 001	Calibration Container	lno.
NL 4023 X / 001 – P 002	Hand Pump	lno.
NL 4013 X / 001 – P 003	Tamping Rod	lno.
NL 4023 X / 001 – P 003	Rubber Bulb	lno.

^{*1} Copy of Manual Instruction





AIR ENTRAINMENT METER (8 Litres)

Standard: EN 12350-7, ASTM C231, DIN 1048, AASHTO T152

Concrete Air Content

Used to determining the air content in fresh concrete. An aluminium vassel connected to the measuring gauge showing directly the air content in percentage. Come with two types operation, manually & electrical operated.

Technical Specifications:

Model Number	NL 4023 X / 002	NL 4023 X / 003
Туре	Manually Operated Electrical Operated	
Air Content Range	0-10% div. 0.1%, up to & 0.5% over	
Dimension	Ø 250 (D) x 450 (H) mm	
Approx. Weight	12 kg 14 kg	
Power	– 230 V, 1 ph, 50 / 60 Hz	

Optional Accessories

Model Number	Parts Description	Qty
NL 4023 X / 002 – A 001	Filling Ring	lno.

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AIR ENTRAINMENT METER (7 Litres)

Standard: EN 12350-7, ÁSTM C231 Type B, AASHTO T152

Concrete Air Content

Used to measure the air content in fresh mix concrete. The test procedure equalizes a known volume of air in the pressure chamber. With aluminium cast vassel & designed for easy disassembly in order to replace worn or damaged parts in the field.

Technical Specifications:

Model Number	NL 4023 X / 004
Alternate Code	LA-0316
Air Content Range	0-100%
Gauge Graduations	0.1% up to 6%, 0.2% from 6 to 10%
Approx. Product Weight	7.5 kg
Approx. Total Weight	21 kg
Product Dimension	Ø 250 (D) x 500 (H) mm
Case Dimension	660 (L) x 450 (W) x 310 (H) mm

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4023 X / 004 – P 001	Air Meter Kit	lno.
NL 4023 X / 004 – P 002	Calibration Tube Set	lset
	(Ben & Straight)	
NL 4023 X / 004 - P 003	Strike off Bar	lno.
NL 4023 X / 004 – P 004	Calibration Vessel (Brass)	lno.
NL 4023 X / 004 – P 005	Rubber Teats	lno.
NL 4013 X / 001 – P 003	Tamping Rod	lno.
NL 4023 X / 004 – P 006	Carry Case	lno.

^{*1} Copy of Manual Instruction



AIR ENTRAINMENT METER 7 Litres(E-Version)

Standard: EN 12350-7, ASTM C231 Type B, AASHTO T152

Concrete Air Content

Used to measure the air content in fresh mix concrete. The test procedure equalizes a known volume of air in the pressure chamber. With aluminium cast vassel & designed for easy disassembly in order to replace worn or damaged parts in the field.

It consists of an aluminum vessel with built in hand operated pressure pump, a precision pressure gauge with 95 mm Dia. for easy display of reading, it come with standard self calibration accessories and solid carrying case.

Technical Specifications:

Model Number	NL 4023 X / 005
Alternate Code	LA-0316
Air Content Range	0-100%
Gauge Graduations	0.1% up to 6%, 0.2% from 6 to 10%
Approx. Product Weight	7.3 kg
Approx. Total Weight	20 kg
Product Dimension	Ø 212 (D) x 540 (H) mm
Case Dimension	660 (L) x 450 (W) x 310 (H) mm

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4023 X / 004 – P 001	Air Meter Kit	lno.
NL 4023 X / 004 – P 002	Calibration Tube Set	lset
	(Ben & Straight)	
NL 4023 X / 004 – P 003	Strike off Bar	lno.
NL 4023 X / 004 – P 004	Calibration Vessel (Brass)	lno.
NL 4023 X / 004 – P 005	Rubber Teats	lno.
NL 4013 X / 001 – P 003	Tamping Rod	lno.
NL 4023 X / 004 – P 006	Carry Case	lno.

^{*1} Copy of Manual Instruction



INITIAL SURFACE ABSORPTION APPARATUS

Standard: BS 1881-208

Surface Water Absorption

To asses the concrete surface absorption characteristics. The rate of flow of water per unit area into a concrete surface when subjected to a constant head of 200 mm is measured.

Technical Specifications:

Model Number	NL 4024 X / 002
Dimension (mm)	660 (L) x 250 (W) x 200 (H)
Approx. Weight	13 kg

Set Consists Of:

Model Number	Parts Description	Qty
NL 4024 X / 002 - P 001	Support Board c/w Stand 1	
NL 4024 X / 002 – P 002	Reservoir Set 1no.	
NL 4024 X / 002 – P 003	Cap Clamp Set (Set of 2 pcs)	
NL 4024 X / 002 – P 004	Rubber Hose Pack	1pck.
NL 4024 X / 002 – P 005	Clear Transparent Acrylic Cap	1set
	Set (Set of 2)	
NL 4024 X / 002 – P 006	Carrying Case	1no.
NL 4024 X / 002 – P 007	Soft Clay	2nos.
NL 7033 X / 001	Rubber Hose Clip	1no.
NL 7000 P / 001	Plastic Measuring Cylinder	1no.

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ELECTRICAL DRUM MIXER

Making Concrete Specimens

The characteristics of concrete mixer:

- *Suitable for field mixes of low / medium strength concrete.
- *Steering system and reinforced tow bar for safe and easy movement.
- *Device for absorbing vibrations: it reduces to the least the vibrations produced by electrical motor, for a more noiseless machine that has a long duration in time.
- *Telescopic legs for an absolute stability of the machine.

Technical Specifications:

Model Number	NL 4025 X / 007	NL 4025 X / 011
Drum Capacity	115 L	192 L
Max. Mixing Capacity	85 L	160 L
Drum Rotation Speed	35 ~ 42 RPM	28 ~ 34 RPM
Power	240 V, 50 / 60 Hz, 550 W, 1Ph	240 V, 50 / 60 Hz, 750 W, 1Ph
Dimension (mm)	1330 (L) x 710 (W) x 1260 (H)	1550 (L) x 800 (W) x 1400 (H)
Packing Dimension (mm)	920 (L) x 710 (W) x 440 (H)	790 (L) x 760 (W) x 480 (H)
Gross Weight / Net Weight	49 / 47 kg	63.5 / 70.3 kg





CONCRETE PAN TYPE MIXER (FORCED SPEED) Standard: EN 12390-2

Making Concrete Specimens

Used to prepare concrete specimens or mixtures, these pan type mixers ensure an uniform efficient fast mixture action. They are of easy & practical utilisation; suitable for laboratory & field purposes. The mixers are equipped with a manually controlled dischardge opening situated on the bottom part of the pan, for direct unloading of the mixture into a wheelbarrow or suitable container. The mixing blades & paddle can be adjusted in height; they are manufactured from special quality hardened steel to resist wear. The pan & the mixing gears have big thickness ratio, the gears are from hardened & rectified steel, the motor reducer is in oil-bath with Gleason conical coupling. Controls through magneto-thermic switch & release automatic coil contained in IP67 box.

Technical Specifications:

Model Number	NL 4025 X / 008	NL 4025 X / 009	NL 4025 X / 010
Mixture Capacity	40-53 Liters	60-80 Liters	100-200 Liters
Pan Capacity (Volume)	80 Liters	120 Liters	300 Liters
Pan Dimension	Ø 577 x 316 (H) mm	Ø 715 x 310 (H) mm	Ø 1016 x 402 (H) mm
Rotation Speed	30 - 47 RPM		
Packing Dimension	650 (L) x 1010 (W) x 1200 (H) mm	750 (L) x 1050 (W) x 1230 (H) mm	1090 (L) x 1300 (W) x 1390 (H) mm
Overall Approx. Weight	80 kg	128 kg	273 kg
Absorbed Power	1.5 Hp	2 Hp	4 Hp
Power	415 V, 3 ph,1.13 kW, 50 / 60 Hz	415 V, 3 ph,1.5 kW, 50 / 60 Hz	415 V, 3 ph, 3 KW, 50 / 60 Hz

^{*1} Copy of Manual Instructions









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DIESEL ENGINE POKER VIBRATOR

Concrete Compaction

Ideal for internal compaction of concrete specimens.

Technical Specifications:

Model Number	NL 4026 X / 001
Alternate Code	TCV-38*Robin EY-20D
Vibrating Frequency	9,000 - 12,500 VPM
Source	5 Hp Petrol Engine
Amplitude	1.6 mm
Vibration Head Diameter & Length	38 x 6000 mm
Approx. Weight	34 kg





ELECTRICAL POKER VIBRATOR

Concrete Compaction

Ideal for internal compaction of concrete specimens.

Technical Specifications:

Model Number	NL 4026 X / 002
Alternate Code	TK-N
Vibrating Frequency	14,000 VPM
Source	220 V ~ 50 / 60 Hz
Power	1600 W
Current	8 A
Revolution	3000 VPM
Vibrator Head Diameter & Length	29 x 2000 mm
Approx. Weight	15 kg

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NL 4027 X / 002

NL 4027 X / 001

CRACK DETECTION MICROSCOPE METER

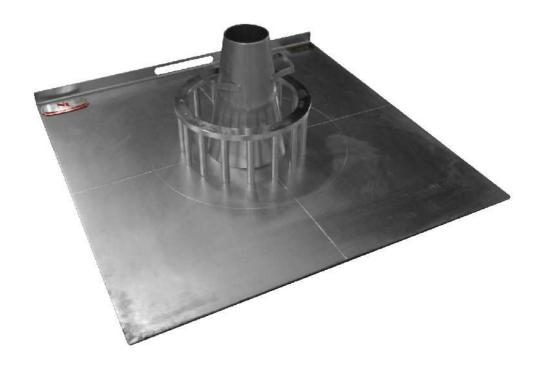
Concrete Crack Detector

Simple yet useful instrument for measuring crack width in concrete and other materials. This high definition microscope operates with an adjustable light source powered by batteries provides a well illuminated scale under all working conditions. Supplied in a convenient sized carrying case.

Technical Specifications:

Model Number	NL 4027 X / 001	NL 4027 X / 002
Alternate Code	-	MG 10085-1
Magnification	35 Times	40 times
Scale	4 mm x 0.02 mm per division	4 mm x 0.05 mm per division
Dimension (mm)	40 (L) x 90 (W) x 150 (H) mm (case)	150 x 50 x 30mm
Approx. Weight	600 g	200 g





J-RING APPARATUS For Self-Compacting Concrete (SCC) Standard: EN 12350-12

Self Compacting Concrete

Used to determine the passing ability of self-sompacting concrete to flow through obstructions, tight openings and spaces between reinforcing bars without segregation or blocking. The time required (t500) for concrete to flow to a diameter of 500 mm is also measured.

Technical Specifications:

Model Number	NL 4028 X / 001

Unit Consists Of:

Model Number	Parts Description
NL 4028 X / 001 - P001	J-Ring Apparatus
NL 4013 X / 001 - P001	Slump Cone
NL 4028 X / 001 - P002	Plate

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SIEVE SEGREGATION TEST SET

Standard: EN 12350-11

Sieves Segregation

Used to determining the sieve segregation resistance of self-compacting concrete (Not applicable for concrete containing fibres or lightweight aggregate).

Technical Specifications:

Model Number	NL 4029 X / 001
Approx. Weight	4 kg

Unit Consist Of:

Model Number	Parts Description	Qty
NL 4029 X / 001 – P 001	Plastic Bucket 11 Litres	lno.
NL 1010 S 300 Q - B 005	5 mm Perforated, 300 mm Dia. Sieve	lno.
NL 1010 S 300 P - B 001	300 mm Dia. Lid & Pan	1set

CIVIL ENGINEERING TESTING EQUIPMENT

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DIGIMATIC LOAD CELL

Load & Force Verification

The load cell is suitable for the calibration of compression testing machine. It consists of high quality steel block, named sensitive element, where strains have been fitted: the whole is housed in sheathing. While the load is applied, strains are transmitted to an amplifier which gives a load digital reading.

Technical Specifications:

Model Number	NL 4031 X / 002
Capacity	2000 x 0.01 kN
Load Cell Dimension (mm)	Ø130 x 170 (H)
Working Temp.	0 - 45°C, Moisture ≤ 80% RH
Accuracy	Class ±1 %
Approx. Weight	19 kg
Power	Nicd AC Adaptor as charging source

Unit Consists Of:

Model Number	Accessories Description	Qty
NL 4031 x / 004 - P001	Cell c/w Top Cap	1set.
NL 7068 x / 002	Handheld Digital Readabout	1unit.
NL 4031 x / 004 - P003	Power Charger Adapter	lno.
NL 4031 x / 004 - P004	Heavy Duty Carry Case	lno.

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DIGIMATIC LOAD CELL 100kN

Load & Force Verification

The load cell is suitable for the calibration of compression testing machine. It consists of high quality steel block, named sensitive element, where strains have been fitted: the whole is housed in sheathing. While the load is applied, strains are transmitted to an amplifier which gives a load digital reading.

Technical Specifications:

Model Number	NL 4031 X / 005
Capacity	100 x 0.01 kN
Load Cell Dimension	Ø60 x 178 (H)mm
Working Temp.	28.4 - 31.3°C,
	Moisture 68-72 %RH
Accuracy	Class ±1 %
Approx. Weight	3.2 kg
Power	Nicd AC Adaptor as
	charging source

Unit Consists Of:

Model Number	Accessories Description	Qty
NL 4031 x / 005 - P001	Cell	1set.
NL 7068 x / 002	Handheld Digital Readabout	lunit.
NL 4031 x / 005 - P003	Power Charger Adapter	lno.
NL 4031 x / 005 - P004	Heavy Duty Carry Case	lno.

^{*1} copy of Manual Instruction



















DIGIMATIC LOAD CELL

Load & Force Verification

The load cell is suitable for the calibration of compression testing machine. It consists of high quality steel block, named sensitive element, where strains have been fitted: the whole is housed in sheathing. While the load is applied, strains are transmitted to an amplifier which gives a load digital reading.

Technical Specifications:

Model Number	NL 4031 X / 006
Capacity	5000 x 0.01 kN
Load Cell Dimension (mm)	Ø180 x 375 (H)
Working Temp.	0 - 45°C, Moisture ≤ 80% RH
Accuracy	Class ±1 %
Approx. Weight	28 kg
Power	Nicd AC Adaptor as charging source

Unit Consists Of:

Model Number	Accessories Description	Qty
NL 4031 x / 004 - P001	Cell c/w Top Cap	1set.
NL 7068 x / 002	Handheld Digital Readabout	lunit.
NL 4031 x / 004 - P003	Power Charger Adapter	lno.
NL 4031 x / 004 - P004	Heavy Duty Carry Case	lno.

^{*1} copy of Manual Instruction

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ACRYLIC FLOW TABLE For Self-Compacting Concrete (SCC)

Standard: EN 12350-8

Self Compacting Concrete

Used to determine the slump flow and time needed to spread a 500 mm diameter (t500) for self compacting concrete. Suitable for aggregate with maximum particle size of less tahn 40 mm. Base plate made of special durable acrylic with better visible circles.

Technical Specifications:

Model Number	NL 4032 AR / 001
Approx. Weight	9.5 kg

Technical Specifications:

Model Number	Parts Description	Qty
NL 4032 AR / 001	Acrylic Base Plate With Handle	lno.
	(850 x 850 mm)	
NL 4013 X / 001 - P 001	Slump Cone (Chrome Plated)	lno.
NL 4013 X / 001 - P003	Tamping Rod	lno.





K. SLUMP TESTER

Standard: ASTM C 1362, EN 933-8

Concrete Evaluation

Used for rapid assessment of the flow & consistancy of freshly mixed concrete. Test results can be correlated again the slump values.

Technical Specifications:

Model Number	NL 4033 X / 001	
Dimension (mm)	90 Dia. x 390 (L)	
Approx. Weight	1.3 kg	

^{*1} Copy of Manual Instruction





SPECIMEN GRINDING MACHINE Standard: EN 12390 - 2, ASTM D 4543

Specimen Flat Polishing

For flat polishing both ends of the specimen after cutting to make samples with high accuracy. The machine is equipped with Ø 200 diamond grinding wheels on two power heads. The specimen is mounted on a workbench and reciprocated automatically during grinding. The grinding head can advance automatically or manually for grinding. The auto forward speed is adjustable. The parts touching water are made of high quality stainless steel, against rust and corrosion.

Technical Specifications :

Model Number	NL 4034 X / 001
Workbench motor power	0.75kW
Grinding Head Power	Y80 - 4 1.1KW x 2 tables 2800 r/m
Forms of work	Grinding both ends in parallel at the same time
Mode of work	Automatic or manual grinding
Automatic grinding feed	0.04-0.17mm(Adjustable)
Grinding range	square shape: 40x40x40-150x150mm; cylindrical shape: Ø 50-Ø 150
Surface smoothness	According to smoothness standard in mechanical machining: Ra3.2
Flatness in standard precision	\pm 0.05mm in 50, Verticality \leq 0.11mm
Grinding wheel specifications	Ø200 x ¢ 19 x 40mm
Cooling device	Tap water cooling. if liquid nitrogen cooling is required, it shall be specified in the order.
External Dimensions	Length 1400 x Width 1450 x Height 1200mm
Weight	600kg
Power	415V , 3PH , 50/60 Hz, 1.5KW





SPECIMEN GRINDING MACHINE (FULLY ENCLOSE VERSION)

Standard: EN 12390-1, EN 12390-3, EN 12504-1, ASTM D4543 , ASTM C31, ASTM C39, ASTM C192, ASTM C617

Specimen Flat Polishing

Used to grind and polish concrete specimens, natural stones, ceramic materials, etc. The cube or cylinder are mounted horizontally on top sliching moveable table move toward horizontal grinding wheel for fine polishing process. The machine are fully enclose design for maximum safety protected again abrasive dust and noise polution. This machine are mad from rugged material and supplied with control panel and with built-in water cooling system.

Technical Specifications :

Model Number	NL 4034 X / 002
Grinding Wheel Dia.	200mm
Max. Specimen Size	150mm Cube X 2nos.
	ø 160 x 320mm Cylinder X 3nos
Sliding Table Movement	Min. 800mm Forward & Reverse Mode
Grinding Wheel Speed	2800 RPM
Mode of Work	Automatic or Manual Grinding
Automatic Grinding Feed	0.04 - 0.17mm (Adjustable)
Cooling Method	Tap Water
Dimension(LxWxH)	1450 x 1400 x 1200mm
Weight	630kg
Power	415V, 3PH, 1.1kW & 0.75kW

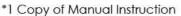
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NL 4034 X / 002 - P001	ø150 Cylinder	lno.
	Jig & Clamp	
NL 4034 X / 002 - P002	Grinding Wheel	lno.

Optional Accessories:

1 1000	
NL 4034 X / 002 - A001	ø100 Cylinder Jig & Clamp
NL 4034 X / 002 - A002	100 x 100 mm Cube
	Specimen Jig & Clamp
NL 4034 X / 002 - A003	150 x 150 mm Cube
	Specimen Jig & Clamp

^{*}Other kind of specimen size,can request customize jig.







DOUBLE SURFACE GRINDING MACHINE

Standard: EN 12390-1, EN 12390-3, EN 12504-1, ASTM D4543 , ASTM C31, ASTM C39, ASTM C192, ASTM C617

Specimen Flat Polishing

The grinding is designed for medium production laboratories, who need a fast and method of preparing cylinders and cubes for compression testing. The machine comes complete with a simple and reliable water recirculation system. The machine requires minimal maintenance. It is suggested that water/coolant be changed and debris being removed from the debris outlet every other day.

Technical Specifications:

Model Number	NL 4034 X / 003
Max. Specimen Size	150 cube,ø150 mm Cylinder
Dimension(LxWxH)	1310 x 1250 x 1170 mm (LxWxH)
Grinding Wheel Diameter	ø200 mm x ø19 x 40 mm
Grinding Wheel Speed	2830 r/min
Mode of work	Automatic or Manual Grinding
Grinding Range	Square Shape;50x50,100x100,150x150 mm Cylindrical Shape : ø 25 mm - ø150 mm
Auto Grinding Feed	0 - 0.05 mm (Adjustable)
Motor Power	415V, 3PH, 1.1kW,50/60 Hz & 2.6 Amp
Approx. Weight	316 kg

^{*1} Copy of Manual Instruction



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CONCRETE POCKET PENETROMETER Standard: ASTM C 780

Concrete Evaluation

Lightweight, spring-reaction type concrete pentrometer for field and lab evaluation of the initial set of concrete.

Technical Specifications:

Model Number	NL 4036 X / 001
Dimension (mm)	19 x 162
Approx. Weight	300 g
Range	0.25 to 4.5 kg/cm2
Scale Divisions	0.25 kg/cm2
Load Piston	6 mm Dia.

^{*1} Copy of Manual Instructions





WALTZ CONTAINER

Standard: EN 12350-4, DIN 1048, UNI 9420

Used for measure the consistency of fresh concrete. It consist of metal box with powder coating with internal dimnesions of 200 X 200 X 400mm height.

Fresh Concrete Consistency

Technical Specifications:

Model Number	NL 4037 X / 001
Dimension (mm)	300 (L) x 205 (W) x 403 (H)
Approx. Weight	4.6 kg

^{*1} Copy of Manual Instructions



ADMIXTURES TANK (For Concrete, Mortar & Grout)

Standard: EN 480-4

Mixtures of Elements

Used to determine the bleeding of concrete, mortar and grout. Made of fully stainless steel material complete with top corner and tamper.

Technical Specifications:

Model Number	NL 4038 S / 001
Internal Diameter	250 mm
Depth	280 mm
Approx. Weight	6 kg



U-SHAPE BOX Standard: UNI 11044

Concrete Density Test

The U-Shape Box "Stainless Steel" made with inside smooth walls, equipped of a flow obstacle formed by four vertical reinforcement bars. The bars have dia. 10 mm and the light between them is 35 mm. A gate in guillotine from splits the vertical portion of the box from horizontal one.

Technical Specifications:

Model Number	NL 4039 S / 001	
Dimension	480(L) x 250(W) x 680(H)	
Approx. Weight	20 kg	

Set Consists Of:

NL 5001 X / 001 - A023	Straightedge	1no.
NL 3001 A / 001 - A023	Siraignieuge	IIIO.

Optional Accessories:

Model Number	Description	
NL 7035 M / 001	Mild Steel Scoop	
NL 7031 X / 001	Digital Stop Watch	





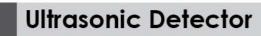
NL 7035 M / 001



NL 7031 X / 001







Concrete Detector

Quick detection of integrity of foundation pile continous wall with Ultrasonic penetration method.

Application:

- For testing the integrity of foundation pile ("Pile Test")
- For testing compressive strength of concrete ("Strength Test")
- For testing defect and cavity in cultural member ("Defect Test")
- For testing crack depth of concrete surface ("Crack Test")

Features:

- The test result is available and the graphic distribution of abnormal points in each profile is shown at any time.
- Sampling delay and amplification factor may be adjusted at any time.
- With true color highlight LCD, waveform, wave speed and amplitude of multiple tested profiles maybe clearly observed on site data, curve, wave train figure and schematic graph of pile integrity of all test points in all profiles may be checked at any time, the quality of whole pile in the test is very clear.
- It adopts WinCE operation system with press screen and user-friendly interface, which is simply, easy to learn and convenient to operate.
- With high-capacity SD Card, there is no need to worry about the storage space of test data
- Built in high-performance and capacity lithium battery may satisfy fieldwork for long time.
- Various USB ports may be used for data transmission or software update within the instrument or external units such as mouse or keyboard.
- Test data of the same project is saved under the folder created with the title of the project for easy and reliable management.

Technical Specifications:

Model Number	NL 4040 X / 001
Operational Environment Temperature	-10°C ~ + 40°C
Humidity	<90 % RH
Battery Time	>5 h
Dimensions	210 (L) x 149 (W) x 60 (H)
Weight	1.36 kg (Lithium Battery Included)

^{*1} Copy of Manual Instruction

Set Consists Of:

Model Number	Specifications
NL 4040 X / 001 - P 001	Plane Probe
NL 4040 X / 001 - P 002	Signal Wire
NL 4040 X / 001 - P 003	Waterproof Case

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NL 4040 X / 001



NL 4040 X / 001 - P 001



NL 4040 X / 001 - P 002



NL 4040 X / 001 - P 003







REBAR SCANNER

Testing Layer Thickness

This instrument is used to measure the cover thickness of concrete over steel reinforcement bars (rebars) and metal pipes. It can also identify the location, orientation and diameter of rebars. It is extremely useful to determine the compliance in construction & avoidance of rebars during coring of concrete structure.

Features

- Locate rebar, measure cover thickness and identify rebar orientation
- Quick determination of rebar diameter mode
- Dustproof & waterproof wheel probe ensures ease of measurement with optimum accuracy
- Auto alert of detected rebar by beeping sound
- Selectable Low & High range for measurement of different cover thickness
- Selectable bar sizes and test number
- Signal strength with sensitivity value alert user of rebar proximity
- Large graphic display with backlight for easy viewing
- Data logging with memory function for easy retrieval
- Connect USB thumb drive for data transfer to computer with designated software

Technical Specifications :

Model Number	NL 4041 X 001
Alternate Code	ZBL - R603A
Applicable Change	Ø6mm ~ Ø50mm
Protective Layer Thickness Range	First Stage : 3 - 98 mm, Second Stage : 3 - 196 mm
Max. Allowed Error	1 Rebar Standard
Data Transmission	GPRS Wireless Transmission (Thumb drive storage available)
Battery Lifetime	38 Hours
Power	Built in Chargaable Lithium Battery
Size	212 x 134 x 50 mm (LxWxH)
Approx.Weight	0.9 kg

^{*1} Copy of Manual Instructions

Set Consists Of:

Model Number	Description
NL 4041 X / 001 - P001	Controller Device
NL 4041 X / 001 - P002	Multi-parameter Probe
NL 4041 X / 001 - P003	Waterproof Case







INTEGRATED REBAR SCANNER

Concrete Inspection

Bridge, tunnel, wall and other concrete structures in the location of steel, steel distribution and direction, the thickness of the protective layer, the detection of steel bar diameter. But also for non-ferromagnetic media in the ferromagnetic and electrical conductivity (such as wires, pipelines) to the detection and distribution of detection. Inspection and acceptance of construction quality of concrete structures. Evaluate the safety and durability of the building under construction. The old structure to assess the transformation of the amount of reinforcement detection. The floor or wall pf the cable, plumbing pipes and other distribution and direction to detect.

Technical Specifications:

Model Number NL 4041 X / 002		
Alternate Code	ZBL R660	
Protective Layer Thickness Range (mm)	4 ~ 50	
Max Range	First Range	1 ~ 80
	Second Range	1 ~ 180
Max Allowed Range (mm)	±1 mm	1~ 59
	±2 mm	50 ~ 78
	±4 mm	70 ~ 180
Application Range (mm)	6~32	
Max Allowed Error for Diameter Measurement	±1	
Signal Wave	Real Time Display	
Scan Range	Borderless	
Data Correction	n Automatic	
Data Transfer	Wi-Fi/USB	
LCD	320 x 240	
Power	Built-in Battery	
Dimension (mm)	240 x 93 x 110 mm (LxWxH)	
Approx. Weight	0.67 kg	

Unit Consists Of :	
Model Number	Description
NL 4041 X / 002 - P001	Strap Holder
NL 4041 X / 002 - P002	USB Adapter
NL 4041 X / 002 - P003	USB Cable
NL 4041 X / 002 - P004	Waterproof Case







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CONCRETE PIPE TESTER Standard: EN 14636-1

Compression & Flexural

Designed and manufactured to test concrete sewer and drain pipes used in drainage works, water and irrigation supply system etc.

The Machine is composed of two parts:

- Hydraulic control loading come with Eco Smartz console
- Testing frame;steel made

Features:

- Robust testing frame for seamless testing
- Data can be printed and transfer using specified data transfer installer, great field for work
- Powerful professional analysis-process software allows for the automatic of test reports





Technical Specifications:

Model Number	NL 4042 X / 001
Load Sensor	Max Capacity : 500 kN x 0.1kN Sensitivity
Control System	NL Smartz Console Unit come with
	Touch Screen Display
Compression System	Double acting cylinder with 500 mm
	ram travel
Max. Pipe Dimension	Dia.3200 x 2900 mm length
Frame Dimension	3(L) x 4(W) x 4.5(H) meter
Total Weight Approx.	4500 kg
Power	220 VAC, 1 ph, 50/60 Hz, 6Amp,750 W
Cross Beam Movement	Electrical gear motor control

Unit Consists Of :

Model Number	Parts Description	Qty
NL 4042 X / 001 - P 001	Smartz Console Double Acting Power Unit	1unit.
NL 4042 X / 001 - P 002	5 meter Hydraulic Hose	2length.
NL 4042 X / 001 – P 003	50 Tons x 500 mm Travel Double Acting Cylinder	lunit.
NL 4042 X / 001 – P 004	Upper Compression Bearer 3000mm Length	1unit.
NL 4042 X / 001 – P 005	Bottom Pipe Located Bearer 3000mm Length	lunit.

^{*1} Copy of Manual Instruction

Optional Accessories :

Model Number	Accessories Description	
NL DTS-100	Data transfer Software c/w Transfer Cable	
NL 4007 X / 007 - P002	Latest Version Laptop Unit	
NL 4000 X / 005 - A002	Computer Printer	

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CONCRETE CULVERTS TESTER

Standard: MS 1293:Part 1:1992

Compression

Designed and manufactured to test concrete culverts, sewer and drain pipes used in drainage works, water and irrigation supply system etc.

The Tester is composed of two parts:

MAIN FRAME

Frame designed through structural steel, bottled together witg high strength bolts. So it can be easily assembled or disassembled for delivery or site displacements. The frame base is come with SAND-BED-Compartment and able to fill up to 75 mm of sand as request by standard. The compression bearer can be raised or lowered by motorized system.

SMART CONSOLE UNIT

Moveable hydraulic control unit equipped with DC motor and 5 element high pressure pump and come with latest touch screen Smartz controller V 1.1 with following feature.

Touch Screen Smartz Controller V 1.1

Clear, easy to read, sensitive & large LCD touch screen display of 155mm(W) x 85 mm(H)

Maximum force hold facility with real time Force vs Time graph display.

User input test number, age, weight & density for complete sample information.

Real time speed indicator bar for better current speed reference for better control

Manual loading & conditional automatic loading for compression machines with suitable DC motor control system.

Automatic conversion from kN to Mpa according to the chosen sample types.

Auto save up to 450 test results.

Test result able to transfer through pen-drive.





TOUCH SCREEN DISPLAY

Technical Specifications:

Model Number	NL 4042 X / 002
Max Capacity	500 kN x 0.1kN Sensitivity
Control System	NL Smartz Console Unit come with
	Touch Screen Display
Compression System	Double acting cylinder with 500 mm
	ram travel
Max. Specimen Dimension	2.1(L)x1.2(W)x3(H) meter
Cross Beam Movement	Electrical gear motor control
Frame Dimension	2.2(L) x 2(W) x 4(H) meter
Total Weight Approx.	3800 kg
Accuracy	Class 1
Power	220 VAC, 1 ph, 50/60 Hz, 6Amp,750 W

Unit Consists Of:

Model Number	Parts Description	Qty
NL 4042 X / 001 - P 001	Smartz Console Double Acting	lunit.
	Power Unit	
NL 4042 X / 001 - P 002	5 meter Hydraulic Hose	2length.
NL 4042 X / 001 – P 003	50 Tons x 500 mm Travel Double	lunit.
	Acting Cylinder	
NL 4042 X / 002 – P 001	Compression Bearer	lunit.
	1200 mm Length	
NL 4042 X / 002 – P 002	Timber Bearing Block	lpc.
	(320 x 320 x 100 mm)	
NL 4042 X / 002 – P 003	Rubber Pad (12 x 320 x 100 mm)	1pc.
NL 4042 X / 002 – P 004	Channel Support Base	lpc.





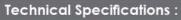


FLEXURAL TESTING MACHINE

Standard: BS EN 491, EN 538, BS 6073:1

Breaking & Compression Strength

The machine is equipped with a DC motor. Flexural, breaking and compression strength. tests can be perform under load or displacement control by using suitable accessories up to the machine capacity. Supplied with 50 kN Capacity Load Cell. Consist with two layer rounded metal bearers in a horizontal plane whose centers are spaced of the hanging length of the specimen to be tested, and a single rounded metal upper bearer positioned centrally between the two lower bearers. The Testing Machine consist of base containing the transmission components and holds two robust columns connected by upper cross head and digital graphics data acquisition and control system. The upper cross head can be adjusted to set the vertical test space for different tests.



Model Number	NL 4043 X / 001	
Max. Capacity	50 x 0.01 kN sensitivity	
Display Unit	Eco-Smartz Controller with Touch Screen Display	
Max, Vertical Test Space	300 mm (H) x 550 mm (W)	
Load Rate	0.02 kN/s - 2 kN/s (Depend on Specimen Stiffness)	
Memory Storage	550 Test Result	
Dimensions Apporx.	830 (L) x 663 (W) x 1135 (H)	
Power	240 V,0.37 kW,3 A, 50/60 Hz,1ph	
Approx. Weight	225 kg	

Set Consists Of :

Model Number	Descriptions	Qty
NL 4043 X / 001 - P 001	50 kN 'S' Type Load Cell	1 pc.
NL 4043 X / 001 - P 002	Single Upper Bearer (Ø 38 mm)	1 pc.
NL 4043 X / 001 - P 003	Double Lower Bearer (Ø 38 mm)	2 pcs.
NL 4043 X / 001 - P 004	Cranked Handle (Calibration Adjustment)	1 no.
NL 4043 X / 001 - P 005	Hard Rubber Piece	1 pc.

^{*1} copy of Instruction Manual

Optional Accessories:

Model Number	Descriptions	
NL MMP - 100	Mini Micro Printer c/w cable	
NL 4043 X / 001 - A001	Thermo Printer Paper (3 rolls/pack)	









NL MMP-100

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HORIZONTAL DRUM MIXER 60 L

Concrete Mixing

This machine is suitable for construction and research institutes and constructions companies and concrete components unit laboratory. Can be mixed with ordinary concrete and dry hard concrete, can also be applied to other industries in the laboratory for different material mixing. The machine is simple, high efficiency stirring, residual small, easy to clean and ideal for laboratory mixer with concrete.

Technical Specifications:

Model Number	NL 4044 X / 002
Feed Capacity	96 litres
Discharge Capacity	60 litres
Mixing Time	45 second
Speed	47 rev/min
Dimension (mm)	1440 (L) x 550 (W) x 850 (H)
Packing Dimension (mm)	1600 (L) x 650 (W) x 1050 (H)
Approx. Weight	180 kg
Approx. Packing Weight	210 kg
Power	415 V, 3pH, 50/60 Hz, 1.5 kW





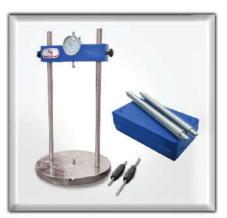
SHRINKAGE MOULD Standard: BS ISO 1920-8

Expansion of Portland Concrete

Used for determination of linear shrinkage of concrete.

Characteristic:

- Internal surface;smooth finished
- Substantially leak proof
- Substantially enough to hold their from without distortion



Technical Specifications:

Model Number	NL 4046 X / 001	NL 4046 X / 002
Specimen Dimension	75x75x280 mm	100x100x400mm
Material	Polish Surface Mild Steel	
Mould Dimension	347(L)x97(W)x86(H)mm 445(L)x144(W)x113(
Mould Appx. Weight	8 kg	18 kg

Set Consists for NL 4046 X / 001

Model Number	Parts Description	Qty
NL 4046 X / 001 - P 001	Brass Insert (10pcs/pck)	1 pck.
NL 4046 X / 001 - P 002	Gauge Stud Holder	2 nos.
NL 4046 X / 001 - P 003	Length Gauge 250 mm	1 no.

Set Consists for NL 4046 X / 002

Model Number	Parts Description	Qty
NL 4046 X / 002 - P 001	Brass Insert (10pcs/pck)	1 pck.
NL 4046 X / 002 - P 002	Gauge Stud Holder	2 nos.
NL 4046 X / 002 - P 003	Length Gauge 360 mm	1 no.



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PILE INTEGRITY TESTER

Integral Testing

The Pile Integrity Tester (PIT) gives a pile or shaft is free of major cracks and voids, prior to construction of the superstructure. It may be used on most concrete or wood foundations. The PIT may also be used to test piles integral in the structure, such as those supporting existing bridges or towers, and may assess their length. The PIT performs wave equation-based non-destructive foundation investigation known as Low Strain Impact Integrity Tests or Low Strain Dynamic Tests. These test may be performed by the Pulse (or Sonic) Echo or Transient Response Methods. With the PIT, any form of the test is performed fast, potentially making it possible to test every pile on a job site.

Technical Specifications :

Model Number	NL 4047 X / 001
Noise Voltage of The System (mV)	≤2
Dynamic Range (dB)	≥184
Amplifier Frequency Band (Hz)	1 - 10 k
A/D Resolution	24 bit A/D
Sampling Time Intervals	1 μs - 6400 μs
Max. Length of Sampling	≥4096
Amplitude Nonlinear Degree	≤10%
Error of Time Indication	≤1%
Gain Error	≤1 dB
Fixed Point Magnification	1,2,5,10,20,50,100
Number Of Channels	2
Phase Position Consistency of Two Channels	±3° 0.05 ms
Inter-channel Interference	±3% ≤±0.2dB
Triggering Mode	≤1%
Acceleration Transducer Sensitivity (mV/g)	≥100 mV/g
Frequency Range of Acceleration Transducer	0.5 - 9000 Hz
Continuous Operating Hours	> 5 hrs
Power Supply Mode	Rechargeable Lithium
	Battery Inside DC 9V
Weight	1.3 kg
Dimension	300 (L) x 500(W) x 950(H)
Display	5.7 inch, TFT True Color LCD
Operation Mode	Touch Screen & Keys

Unit Consists Of:

Model Number	Description	Qty
NL 4047 X / 001 - P001	Detector	lunit
NL 4047 X / 001 - P009	Charger	1unit
NL 4047 X / 001 - P002	Sensor	lunit
NL 4047 X / 001 - P003	Hammer	lunit
NL 4047 X / 001 - P004	Metal Hammerhead	lpc.
NL 4047 X / 001 - P005	Nylon Hammerhead	lpc.
NL 4047 X / 001 - P006	Plastic Hammerhead	lpc.
NL 4047 X / 001 - P007	USB Flash Disk	lpc.
NL 4047 X / 001 - P008	Touch Pen	lpc.
NL 4047 X / 001 - P010	Carrying Case	lunit

^{*1} copy of Instruction Manual



DIGIMATIC CONCRETE FLEXURAL/ MORTAR COMPRESSION MACHINE 100/300kN

Standard: EN 12390-5, EN 196-1/ ASTM C 39, ASTM C 109, ASTM C348/AASHTO T22

Flexural and Low Strength Compression

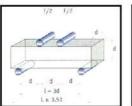
A simple and practical frame design for testing concrete beam and with additional optional device for testing mortar specimen, two prestress coulmn design include pressure transducer, loading rate control knob and digimatic control unit.

Digimatic multi function controller:-

- With kN and Mpa force value display
- Max force hold facility with real time force vs timegraph display
- Auto result saving up to 450 specimens
- RS 232 port for instant result printing (Mini printer c/w cable **NEED ORDER SEPARATELY**)

Unique Feature :-

- Rapid approach system for the time saving
- Loading speed control knob
- Grade 1.0 accuracy result
- 5 elements injection hydraulic pump



Two Point Loading

//2 _____/2 L = 3.5 d

Centre Point Loading

Mortar Compression Jig

Technical Specification:

Model Number	NL 4048 X / 001
Capacity & Sensitivity	100 kN Flexural & 300 kN Compression x 0.1 kN
Max. Vertical Clearance	230 mm (with compression Platen)
Ma. Horizontal Clearance	198 mm
Piston Ram Diameter & Travel	150 mm & 50 mm
Appx. Dimension (mm)	785 (L) x 580 (W) x 1160 (H)
Appx. Weight	550 kg
Power	AC 220 V,1 ph, 0.75 kW, 4.9 A, 50/60 Hz

Unit Consists Of:

Model Number	Description
NL 4048 X / 001 - P001	Concrete Beam Flexural Device
NL 4048 X / 001 - P002	158 mm Dia. Compression Ball Head & Lower Platen
NL 4048 X / 001 - P003	Distance Piece Ø89 x 89 mm
NL 4048 X / 001 - P004	Distance Piece Ø93 x 39.5 mm





Main Screen Display



Retrieving Sample Result with Graph Display

Optional Accessories:

Model Number	Description
NL 3027 X / 002 - P001	Mortar Prism Flexural Device
NL 3027 X / 002 - P006	50 mm Mortar Cube Compression Device
NL 3027 X / 002 - P007	40.1 x 40 x 160 mm Mortar Prism Compression Device
NL MMP-100	Mini Printer
NL PPR-100	Mini Printer Paper



Mortar Prism Flexural Device



Mortar Prism Compression Device



Mortar Cube Compression Device



NL MMP-100







REBAR CORROSION TESTER

Concrete Corrosion Testing

The Rebar Corrosion Tester is specialized apparatus, it is designed according to the electrochemical testing method (natural potential method) of "construction testing technical standard". The steel corrosion on the structure of concrete reduces the effective section area of steel and increases in volume, which leads to the expansion of concrete, spalling, reinforcement of steel and concrete, and the reduction of bearing capacity, directly affect the safety and durability of concrete structure.

Features:

- High detection accuracy (accuracy of corrosion voltage is ±0.1 mv)
- The test result are displayed in hierarchical graphics
- Two working modes of single and double electrode

Technical Specifications :

Model Number	NL 4049 X / 001
Alternate Code	ZBL-C310A
Accuracy	0.1 mV
Power	Built in chargeable lithium battery,
	standby time >40 hours
Data Storage	234 points
Screen	160 mm x 128 mm LCD
Electrode Size	Ø 30 mm x 180 mm
Test Area	234 m²
Size	212 mm x 134 mm x 50 mm
Weight	0.9 kg

Unit Consists Of:

Model Number	Descriptions
NL 4049 x / 001 - P001	
NL 4049 x / 001 - P002	Electrode
NL 4049 x / 001 - P003	Signal Wire
NL 4049 x / 001 - P004	Waterproof case

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CONCRETE CARBONATION TEST CHAMBER

Standard: ISO 1920-12

Carbonation Testing

Special equipment for cement long term durability testing for the carbonation. For the determination of the required temperature and humidity conditions, at a certain (20% or less) of carbon dioxide gas in a concrete specimens carbonation depth.

Technical Specifications:

Model Number	NL 4050 X / 001
Control Temperature	20± 1°C
Uniformity	1°C
Control Humidity	70± 5%
CO ² Concentration	0 - 20 ± 3% 0 - 100%
Precision	1%
Voltage Dimension	220± 22V 50± 1hZ
Chamber Size (mm) & Capacity	800 (L) x 600 (W) x 1530 (H) mm / 734 litres
Net Size	1240(L) x 800(W) x 1750(H)