



## DIGITAL PULL-OUT TESTER

Standard: ASTM C 900, BS 1881-207

### 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 variety of capacities and size of wedges & adapter for selection. Specimen wedges are sold separately and user have to select the desired size (refer Optional Accessories).

### Technical Specifications :

| Model Number    | Capacity | Cylinder (Hollow Ø) | Piston Travel | Cylinder Weight | Hand Pump     | Display Resolution | Specimen Wedges | Puller Rod | Threaded Adapter |
|-----------------|----------|---------------------|---------------|-----------------|---------------|--------------------|-----------------|------------|------------------|
| NL 4016 X / 005 | 100 kN   | 27 mm               | 60 mm         | 5.5 kg          | Single Acting | 0.01 kN            | Ø6 - Ø20        | M18        | M6 - 20          |
| NL 4016 X / 006 | 200 kN   | 35 mm               | 80 mm         | 13 kg           | Single Acting |                    | Ø6 - Ø25        | M24        | M6 - 24          |
| NL 4016 X / 007 | 300 kN   | 45 mm               | 80 mm         | 15 kg           | Single Acting |                    | Ø6 - Ø32        | M30        | M6 - 30          |
| NL 4016 X / 008 | 500 kN   | 60 mm               | 120 mm        | 25 kg           | Double Acting |                    | Ø6 - Ø40        | M39        | M6 - 36          |
| NL 4016 X / 009 | 1000 kN  | 85 mm               | 150 mm        | 58 kg           | Double Acting |                    | Ø25 - Ø40       | M45        | M20 - 39         |

### Digital Pull-Out Tester 100 kN

### Set Consists Of :

| Model Number            | Parts Description                                                                         | Qty    |
|-------------------------|-------------------------------------------------------------------------------------------|--------|
| NL 4016 X / 005 – P 001 | 100 kN (10 Tons) Single Acting Hydraulic Cylinder                                         | 1 set  |
| NL 4016 X / 005 – P 002 | Single Acting Hand Operated Pump, Digital Display unit c/w 2m Hydraulic Hose & Carry Case | 1 set  |
| NL 4016 X / PCA         | Power Charger Adapter                                                                     | 1 Unit |

### Optional Accessories :

| Model Number         | Parts Description         |                                     |
|----------------------|---------------------------|-------------------------------------|
| NL 4016 X / SW6      | Specimen Wedge 6 mm Dia.  | NL 4016 X / PR18 – S                |
| NL 4016 X / SW8      | Specimen Wedge 8 mm Dia.  | NL 4016 X / PR18 – 6                |
| NL 4016 X / SW10     | Specimen Wedge 10 mm Dia. | NL 4016 X / PR18 – 8                |
| NL 4016 X / SW12     | Specimen Wedge 12 mm Dia. | NL 4016 X / PR18 – 10               |
| NL 4016 X / SW14     | Specimen Wedge 14 mm Dia. | NL 4016 X / PR18 – 12               |
| NL 4016 X / SW16     | Specimen Wedge 16 mm Dia. | NL 4016 X / PR18 – 14               |
| NL 4016 X / SW18     | Specimen Wedge 18 mm Dia. | NL 4016 X / PR18 – 16               |
| NL 4016 X / SW20     | Specimen Wedge 20 mm Dia. | NL 4016 X / PR18 – 18               |
| NL 4016 X / PR – M18 | M18 Puller Rod c/w Washer | NL 4016 X / PR18 – 20               |
|                      |                           | Puller Adaptor Set (M6 - 20, 8 pcs) |
|                      |                           | M18 Puller Rod Adaptor M6           |
|                      |                           | M18 Puller Rod Adaptor M8           |
|                      |                           | M18 Puller Rod Adaptor M10          |
|                      |                           | M18 Puller Rod Adaptor M12          |
|                      |                           | M18 Puller Rod Adaptor M14          |
|                      |                           | M18 Puller Rod Adaptor M16          |
|                      |                           | M18 Puller Rod Adaptor M18          |
|                      |                           | M18 Puller Rod Adaptor M20          |

## Digital Pull-Out Tester 200 kN

### Set Consists Of :

| Model Number            | Parts Description                                                                         | Qty    |
|-------------------------|-------------------------------------------------------------------------------------------|--------|
| NL 4016 X / 006 – P 001 | 200 kN (20 Tons) Single Acting Hydraulic Cylinder                                         | 1set   |
| NL 4016 X / 006 – P 002 | Single Acting Hand Operated Pump, Digital Display unit c/w 2m Hydraulic Hose & Carry Case | 1set   |
| NL 4016 X / PCA         | Power Charger Adapter                                                                     | 1 Unit |

### Optional Accessories :

| Model Number         | Parts Description         |                       |                                      |
|----------------------|---------------------------|-----------------------|--------------------------------------|
| NL 4016 X / SW6      | Specimen Wedge 6 mm Dia.  | NL 4016 X / PR24 – S  | Puller Adaptor Set (M6 - 24, 10 pcs) |
| NL 4016 X / SW8      | Specimen Wedge 8 mm Dia.  | NL 4016 X / PR24 – 6  | M24 Puller Rod Adaptor M6            |
| NL 4016 X / SW10     | Specimen Wedge 10 mm Dia. | NL 4016 X / PR24 – 8  | M24 Puller Rod Adaptor M8            |
| NL 4016 X / SW12     | Specimen Wedge 12 mm Dia. | NL 4016 X / PR24 – 10 | M24 Puller Rod Adaptor M10           |
| NL 4016 X / SW14     | Specimen Wedge 14 mm Dia. | NL 4016 X / PR24 – 12 | M24 Puller Rod Adaptor M12           |
| NL 4016 X / SW16     | Specimen Wedge 16 mm Dia. | NL 4016 X / PR24 – 14 | M24 Puller Rod Adaptor M14           |
| NL 4016 X / SW18     | Specimen Wedge 18 mm Dia. | NL 4016 X / PR24 – 16 | M24 Puller Rod Adaptor M16           |
| NL 4016 X / SW20     | Specimen Wedge 20 mm Dia. | NL 4016 X / PR24 – 18 | M24 Puller Rod Adaptor M18           |
| NL 4016 X / SW22     | Specimen Wedge 22 mm Dia. | NL 4016 X / PR24 – 20 | M24 Puller Rod Adaptor M20           |
| NL 4016 X / SW25     | Specimen Wedge 25 mm Dia. | NL 4016 X / PR24 – 22 | M24 Puller Rod Adaptor M22           |
| NL 4016 X / PR – M24 | M24 Puller Rod c/w Washer | NL 4016 X / PR24 – 24 | M24 Puller Rod Adaptor M24           |

## Digital Pull-Out Tester 300 kN

### Set Consists Of :

| Model Number            | Parts Description                                                                         | Qty    |
|-------------------------|-------------------------------------------------------------------------------------------|--------|
| NL 4016 X / 007 – P 001 | 300 kN (30 Tons) Single Acting Hydraulic Cylinder                                         | 1set   |
| NL 4016 X / 007 – P 002 | Single Acting Hand Operated Pump, Digital Display unit c/w 2m Hydraulic Hose & Carry Case | 1set   |
| NL 4016 X / PCA         | Power Charger Adapter                                                                     | 1 Unit |

### Optional Accessories :

| Model Number     | Parts Description         |                       |                                               |
|------------------|---------------------------|-----------------------|-----------------------------------------------|
| NL 4016 X / SW6  | Specimen Wedge 6 mm Dia.  | NL 4016 X / SW25      | Specimen Wedge 25 mm Dia.                     |
| NL 4016 X / SW8  | Specimen Wedge 8 mm Dia.  | NL 4016 X / SW28      | Specimen Wedge 28 mm Dia.                     |
| NL 4016 X / SW10 | Specimen Wedge 10 mm Dia. | NL 4016 X / SW32      | Specimen Wedge 32 mm Dia.                     |
| NL 4016 X / SW12 | Specimen Wedge 12 mm Dia. | NL 4016 X / PR – M30  | M30 Puller Rod c/w Washer                     |
| NL 4016 X / SW14 | Specimen Wedge 14 mm Dia. | NL 4016 X / PR30 – S  | M30 Puller Rod Adaptor Set (M6 - 30 , 12 pcs) |
| NL 4016 X / SW16 | Specimen Wedge 16 mm Dia. | NL 4016 X / PR30 – 6  | M30 Puller Rod Adaptor M6                     |
| NL 4016 X / SW18 | Specimen Wedge 18 mm Dia. | NL 4016 X / PR30 – 8  | M30 Puller Rod Adaptor M8                     |
| NL 4016 X / SW20 | Specimen Wedge 20 mm Dia. | NL 4016 X / PR30 – 10 | M30 Puller Rod Adaptor M10                    |
| NL 4016 X / SW22 | Specimen Wedge 22 mm Dia. | NL 4016 X / PR30 – 12 | M30 Puller Rod Adaptor M12                    |
|                  |                           | NL 4016 X / PR30 – 14 | M30 Puller Rod Adaptor M14                    |

|                       |                            |
|-----------------------|----------------------------|
| NL 4016 X / PR30 – 16 | M30 Puller Rod Adaptor M16 |
| NL 4016 X / PR30 – 18 | M30 Puller Rod Adaptor M18 |
| NL 4016 X / PR30 – 20 | M30 Puller Rod Adaptor M20 |
| NL 4016 X / PR30 – 22 | M30 Puller Rod Adaptor M22 |
| NL 4016 X / PR30 – 24 | M30 Puller Rod Adaptor M24 |
| NL 4016 X / PR30 – 27 | M30 Puller Rod Adaptor M27 |
| NL 4016 X / PR30 – 30 | M30 Puller Rod Adaptor M30 |

## Digital Pull-Out Tester 500 kN

### Set Consists Of :

| Model Number            | Parts Description                                                                         | Qty    |
|-------------------------|-------------------------------------------------------------------------------------------|--------|
| NL 4016 X / 008 – P 001 | 500 kN (50 Tons) Double Acting Hydraulic Cylinder                                         | 1set   |
| NL 4016 X / 008 – P 002 | Double Acting Hand Operated Pump, Digital Display unit c/w 2m Hydraulic Hose & Carry Case | 1set   |
| NL 4016 X / PCA         | Power Charger Adapter                                                                     | 1 Unit |

### Optional Accessories :

| Model Number          | Parts Description                            |
|-----------------------|----------------------------------------------|
| NL 4016 X / SW6       | Specimen Wedge 6 mm Dia.                     |
| NL 4016 X / SW8       | Specimen Wedge 8 mm Dia.                     |
| NL 4016 X / SW10      | Specimen Wedge 10 mm Dia.                    |
| NL 4016 X / SW12      | Specimen Wedge 12 mm Dia.                    |
| NL 4016 X / SW14      | Specimen Wedge 14 mm Dia.                    |
| NL 4016 X / SW16      | Specimen Wedge 16 mm Dia.                    |
| NL 4016 X / SW18      | Specimen Wedge 18 mm Dia.                    |
| NL 4016 X / SW20      | Specimen Wedge 20 mm Dia.                    |
| NL 4016 X / SW22      | Specimen Wedge 22 mm Dia.                    |
| NL 4016 X / SW25      | Specimen Wedge 25 mm Dia.                    |
| NL 4016 X / SW28      | Specimen Wedge 28 mm Dia.                    |
| NL 4016 X / SW32      | Specimen Wedge 32 mm Dia.                    |
| NL 4016 X / SW36      | Specimen Wedge 36 mm Dia.                    |
| NL 4016 X / SW38      | Specimen Wedge 38 mm Dia.                    |
| NL 4016 X / SW40      | Specimen Wedge 40 mm Dia.                    |
| NL 4016 X / PR – M39  | M39 Puller Rod c/w Washer                    |
| NL 4016 X / PR50 – S  | M39 Puller Rod Adaptor Set (M6 - 36 ,14 pcs) |
| NL 4016 X / PR50 – 6  | M39 Puller Rod Adaptor M6                    |
| NL 4016 X / PR50 – 8  | M39 Puller Rod Adaptor M8                    |
| NL 4016 X / PR50 – 10 | M39 Puller Rod Adaptor M10                   |

|                       |                            |
|-----------------------|----------------------------|
| NL 4016 X / PR50 – 12 | M39 Puller Rod Adaptor M12 |
| NL 4016 X / PR50 – 14 | M39 Puller Rod Adaptor M14 |
| NL 4016 X / PR50 – 16 | M39 Puller Rod Adaptor M16 |
| NL 4016 X / PR50 – 18 | M39 Puller Rod Adaptor M18 |
| NL 4016 X / PR50 – 20 | M39 Puller Rod Adaptor M20 |
| NL 4016 X / PR50 – 22 | M39 Puller Rod Adaptor M22 |
| NL 4016 X / PR50 – 24 | M39 Puller Rod Adaptor M24 |
| NL 4016 X / PR50 – 27 | M39 Puller Rod Adaptor M27 |
| NL 4016 X / PR50 – 30 | M39 Puller Rod Adaptor M30 |
| NL 4016 X / PR50 – 33 | M39 Puller Rod Adaptor M33 |
| NL 4016 X / PR50 – 36 | M39 Puller Rod Adaptor M36 |

## Digital Pull-Out Tester 1000 kN

### Set Consists Of :

| Model Number            | Parts Description                                                                         | Qty    |
|-------------------------|-------------------------------------------------------------------------------------------|--------|
| NL 4016 X / 009 – P 001 | 1000 kN (100 Tons) Double Acting Hydraulic Cylinder                                       | 1set   |
| NL 4016 X / 009 – P 002 | Double Acting Hand Operated Pump, Digital Display unit c/w 2m Hydraulic Hose & Carry Case | 1set   |
| NL 4016 X / PCA         | Power Charger Adaptor                                                                     | 1 Unit |

### Optional Accessories :

| Model Number           | Parts Description                            |
|------------------------|----------------------------------------------|
| NL 4016 X / SW25       | Specimen Wedge 25 mm Dia.                    |
| NL 4016 X / SW28       | Specimen Wedge 28 mm Dia.                    |
| NL 4016 X / SW32       | Specimen Wedge 32 mm Dia.                    |
| NL 4016 X / SW36       | Specimen Wedge 36 mm Dia.                    |
| NL 4016 X / SW38       | Specimen Wedge 38 mm Dia.                    |
| NL 4016 X / SW40       | Specimen Wedge 40 mm Dia.                    |
| NL 4016 X / PR – M45   | M45 Puller Rod c/w Washer                    |
| NL 4016 X / PR100 – S  | M45 Puller Rod Adaptor Set (M20 - 39, 8 pcs) |
| NL 4016 X / PR100 – 20 | M45 Puller Rod Adaptor M20                   |
| NL 4016 X / PR100 – 22 | M45 Puller Rod Adaptor M22                   |
| NL 4016 X / PR100 – 24 | M45 Puller Rod Adaptor M24                   |
| NL 4016 X / PR100 – 27 | M45 Puller Rod Adaptor M27                   |
| NL 4016 X / PR100 – 30 | M45 Puller Rod Adaptor M30                   |
| NL 4016 X / PR100 – 33 | M45 Puller Rod Adaptor M33                   |
| NL 4016 X / PR100 – 36 | M45 Puller Rod Adaptor M36                   |
| NL 4016 X / PR100 – 39 | M45 Puller Rod Adaptor M39                   |



Specimen Wedges



Puller Rod & Adapter

