



# LOWPRO 15/05 ROAD PLATE



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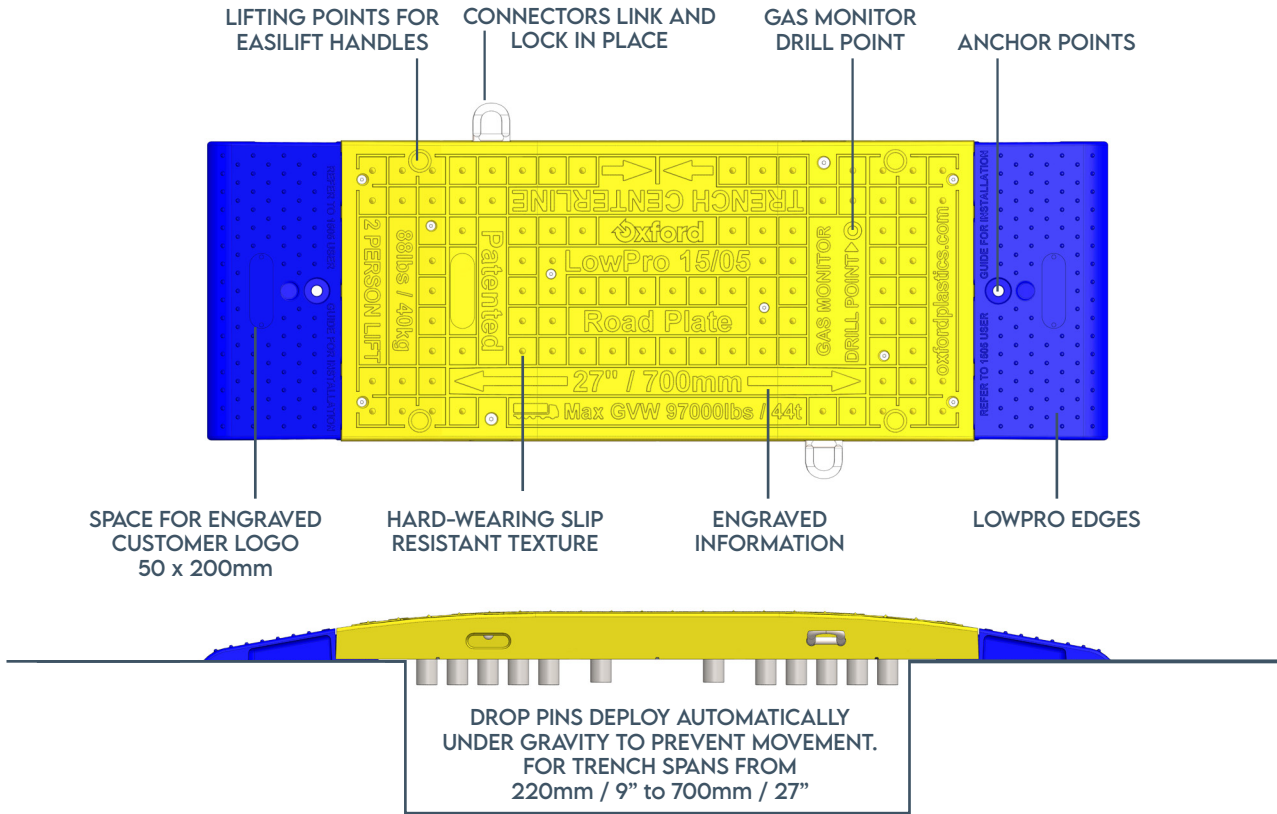
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## INTENDED USAGE

A site safety risk assessment (SSRA) must be carried out before installation and use of the product. This product has been designed and tested in the following scenarios using controlled conditions.

- Up to 700mm / 27" trench width with the distributed load of a 44t / 97,000lb vehicle.
- Up to 700mm / 27" trench width with pedestrian foot traffic.
- The product is installed on a trench with rigid and secure walls, and the plate is secured to the ground via the anchor points and bolts suitable to the ground conditions, should the SSRA prescribe this.
- The product is static while in use.
- Slip resistance has been tested in both wet and dry conditions.
- The product is installed centrally over a trench by an experienced operator and is installed and manoeuvred using the EasiLift Handles.
- The product is clean and fully functioning.

# FEATURES



## ROBUST AND SAFE

Advanced composite technology construction, robust and durable.

Integral slip resistant texture.

Inclined rubberised LowPro Edges prevent damage to road and reduce impact on vehicles. No need to 'cold patch'.

Proven to work in ambient temperatures of +50°C / 120°F to -30°C / -20°F.

## QUICK INSTALLATION

Can be manually handled without the need for heavy lifting equipment.

Quick to Install, with In-built linking and locking system.

Drop Pins are automatically deployed underneath to prevent movement on trenches.

All parts are replaceable.

Backwards compatible with legacy Low Pro 15/05 Road Plates.

## EXTRAS

Use Road Plate End Pieces to create a ramp at both ends.

Spare parts are available to extend the life of your LowPro.

Non-metal construction reduces theft.

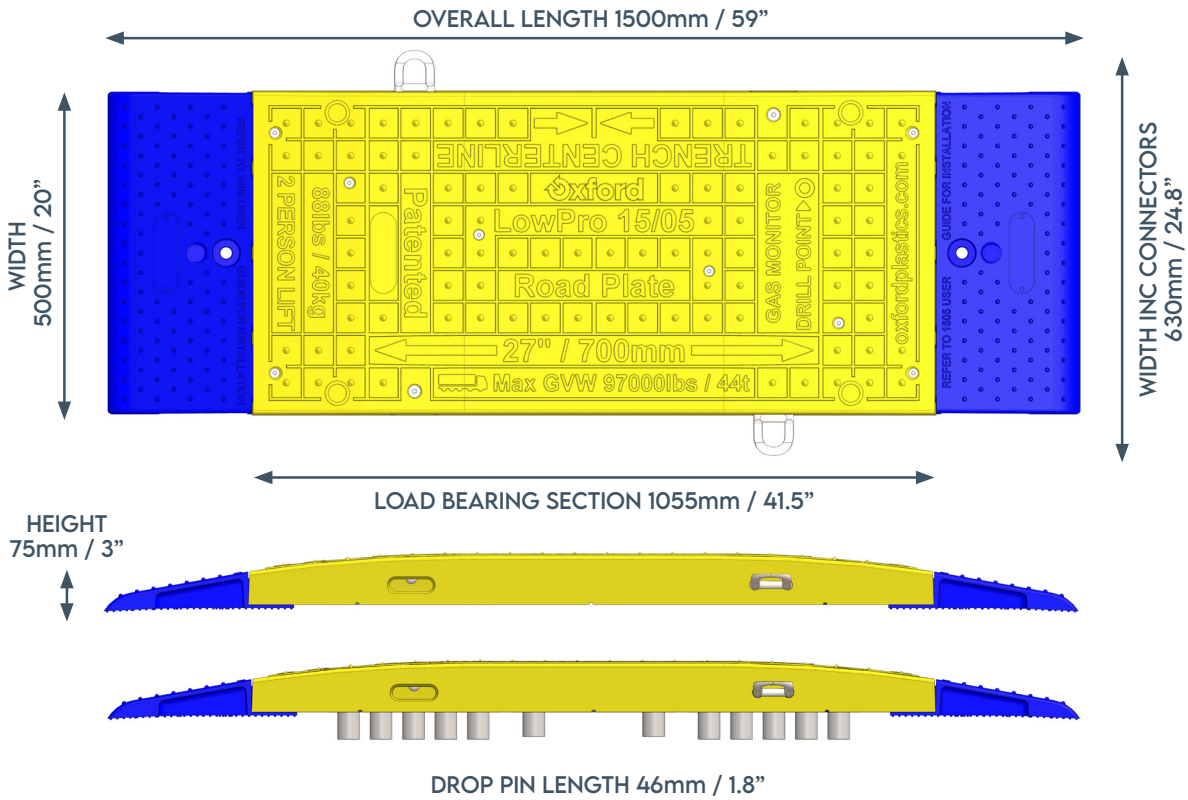
LowPro Edges can be customised with Customer Logos. MOQ 40 off for inner, 20 off for outer.

Stillages can be supplied for transit and storage.

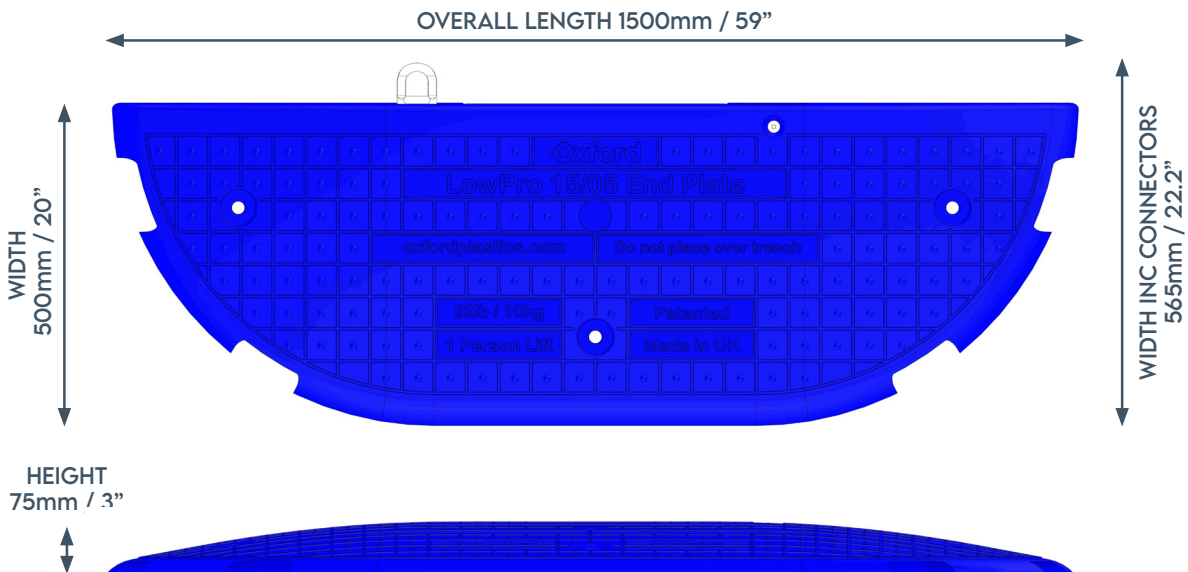
Supplied with EasiLift Handles to aid manual handling.

# DIMENSIONS AND WEIGHTS

## NEW LOWPRO 15/05 ROAD PLATE - INNER PIECE 40kg / 88lb



## NEW LOWPRO 15/05 ROAD PLATE - END PIECE 10kg / 22lb

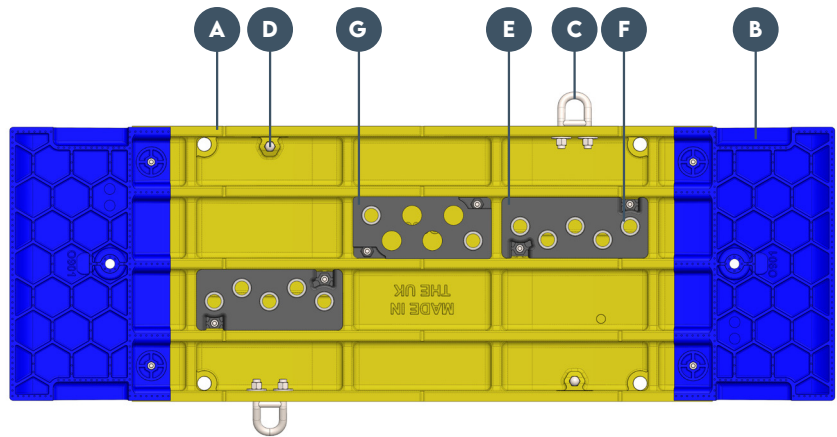




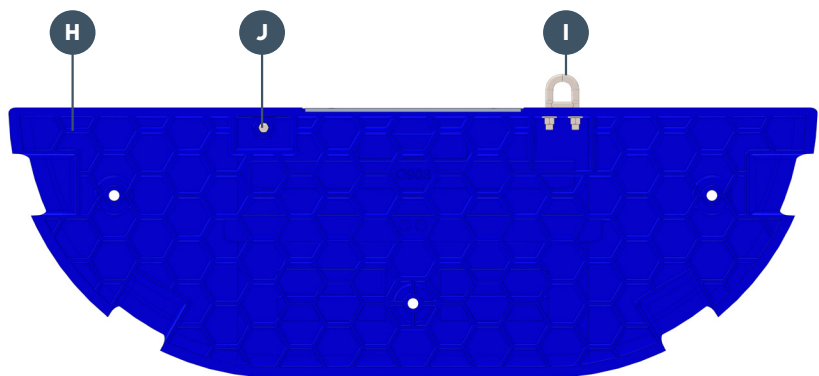
# MATERIAL COMPOSITION AND PRODUCT LIFE

All elements use materials that if maintained correctly will not structurally degrade in UV light, in the presence of water or salts, and are stable in ambient temperatures from +50°C / 120°F to -30°C / -20°F.

Batches are regularly load tested in the Oxford Plastics test facility as part of the quality control process.



INNER PIECE	Part Name	Material
A	Main Body	Glass fibre reinforced polyester resin sheet moulding compound + Mild Steel encapsulated rebar grid
B	LowPro Edge	5% Elastomer, 95% LDPE
C	Male Connector	Galvanised mild steel
D	Female Connector	Stainless steel
E	Drop Pin Tray	PP/PE
F	Drop Pins	Zinc-plated Steel
G	Central Drop Pin Tray	PP/PE

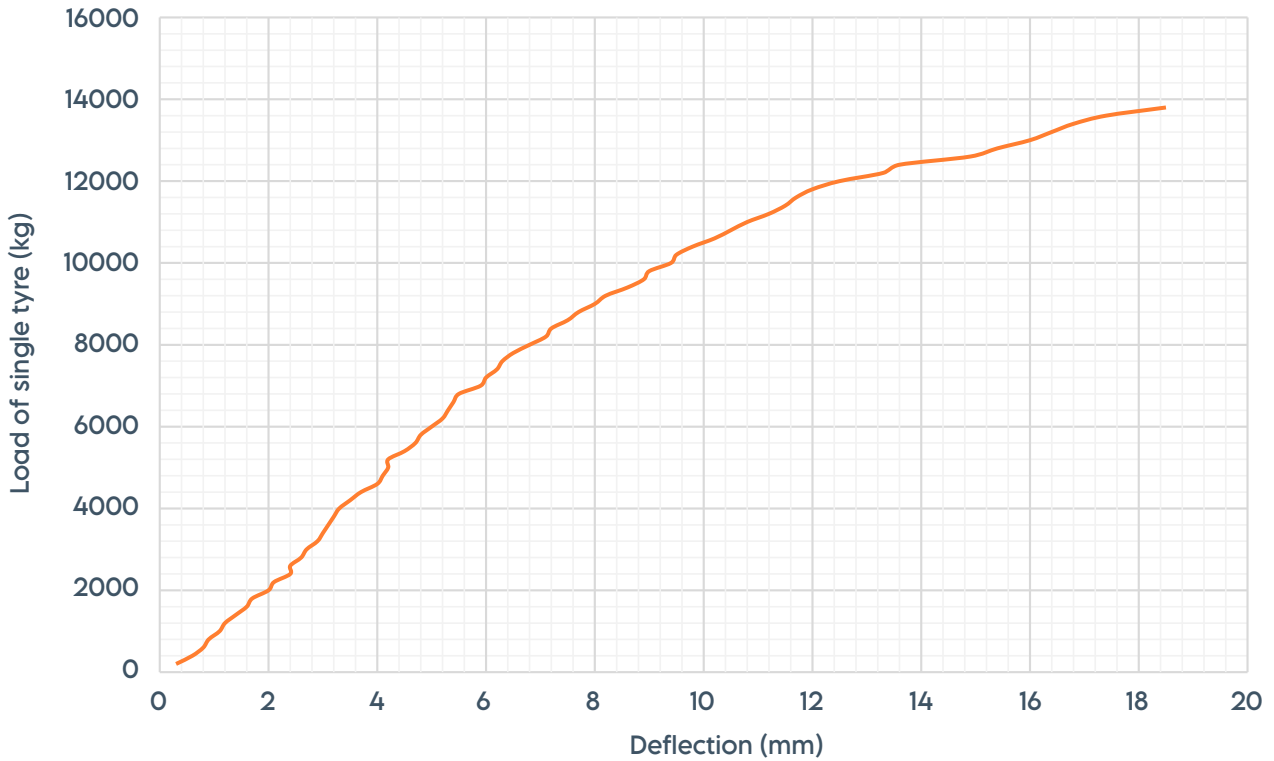


END PIECE	Part Name	Material
H	Main Body	5% Elastomer, 95 % LDPE
I	Male Connector	Galvanised mild steel
J	Female Connector	Stainless steel





# LOAD DEFLECTION DATA



**Deflection at 6000kg / 13,228lb**

5mm / 0.04"

**Ultimate load at failure**

14,000kg / 30,865lb

Destructive testing has been carried out on the product to simulate deflection under the working load, and ultimate failure.

The testing is carried out by trained staff at Oxford Plastics' specialist testing facility.

Complies with HAUC 2018/01 Advice Note.

### PRODUCT RATING

The product is rated for use over spans of maximum 700mm / 27" by vehicles with a GVW of up to

**44t /  
97,000lb**

### TEST SPECIFICATION

**Span**  
700mm / 27"

**Load Footprint**  
250mm / 9.8" diameter pad with rubber base to simulate single tyre.

**Load Location**  
Centre of product.



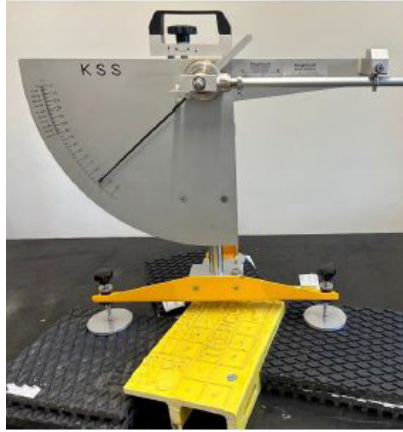


# SLIP RESISTANCE

Slip resistance testing has been carried out by an independent test house, in line with the requirements of UK HSE 2012 document 'Testing the slip resistance of flooring'.

Testing was carried out in 4 directions in wet and dry conditions, using a calibrated Munro slip tester using Slider 55 and Slider 96.

Tests align also with ASTM Standard and AS/NZS Standard.



## CLASSIFICATIONS

High Slip Potential  
0-24

Moderate Slip Potential  
25-35

Low Slip Potential  
36+

### SLIDER 96 TEST RESULTS - DRY

	Median Result	Classification
Parallel to traffic	86	LOW SLIP POTENTIAL
Perpendicular to traffic	80	LOW SLIP POTENTIAL
45 degrees to traffic	86	LOW SLIP POTENTIAL
80 degrees to traffic	78	LOW SLIP POTENTIAL

### SLIDER 96 TEST RESULTS - WET

	Median Result	Classification
Parallel to traffic	65	LOW SLIP POTENTIAL
Perpendicular to traffic	70	LOW SLIP POTENTIAL
45 degrees to traffic	50	LOW SLIP POTENTIAL
80 degrees to traffic	54	LOW SLIP POTENTIAL

### SLIDER 55 TEST RESULTS - DRY

	Median Result	Classification
Parallel to traffic	98	LOW SLIP POTENTIAL
Perpendicular to traffic	100	LOW SLIP POTENTIAL
45 degrees to traffic	97	LOW SLIP POTENTIAL
80 degrees to traffic	103	LOW SLIP POTENTIAL

### SLIDER 55 TEST RESULTS - WET

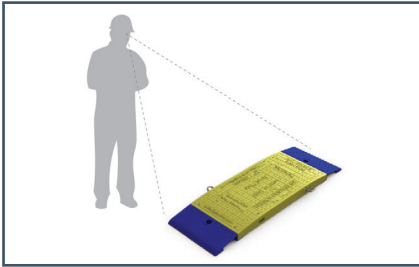
	Median Result	Classification
Parallel to traffic	68	LOW SLIP POTENTIAL
Perpendicular to traffic	69	LOW SLIP POTENTIAL
45 degrees to traffic	64	LOW SLIP POTENTIAL
80 degrees to traffic	53	LOW SLIP POTENTIAL



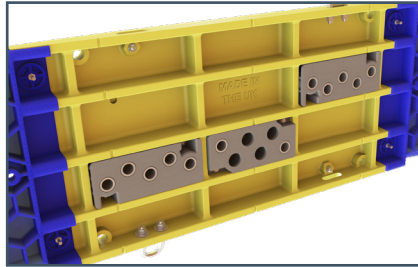


# INSPECTION AND MAINTENANCE

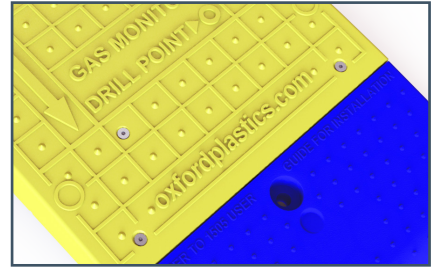
Products should be inspected and cleaned between every installation as follows. This includes but is not limited to:



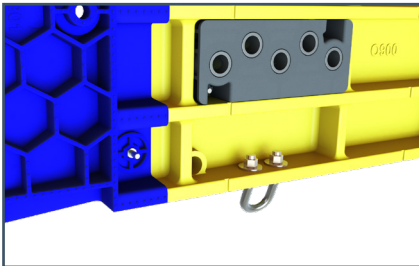
Inspect each product for signs of damage. See next page for signs of damage.



Ensure all drop pins are moving freely and drop pin trays are secure before use.



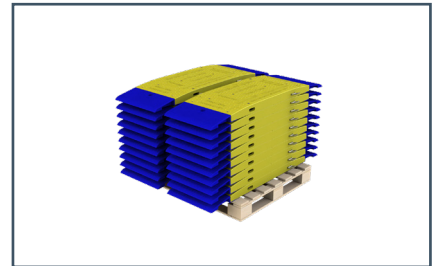
Ensure bolts on top surface are tight.



Ensure bolts on underside are tight.



Clean product to remove debris, to maintain slip resistance properties.



Stack 20 LowPro 15/05 Inners or Ends onto a pallet for storage and transportation.

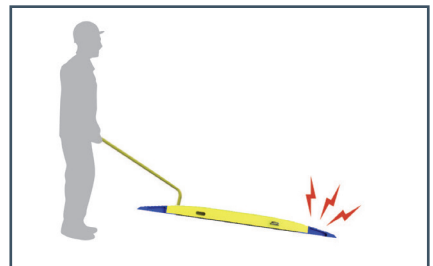
Care for the product by following the below guidance:



Do not drag the product.



Do not lift the product as shown.



Do not drop the product.



## INSPECTION AND MAINTENANCE

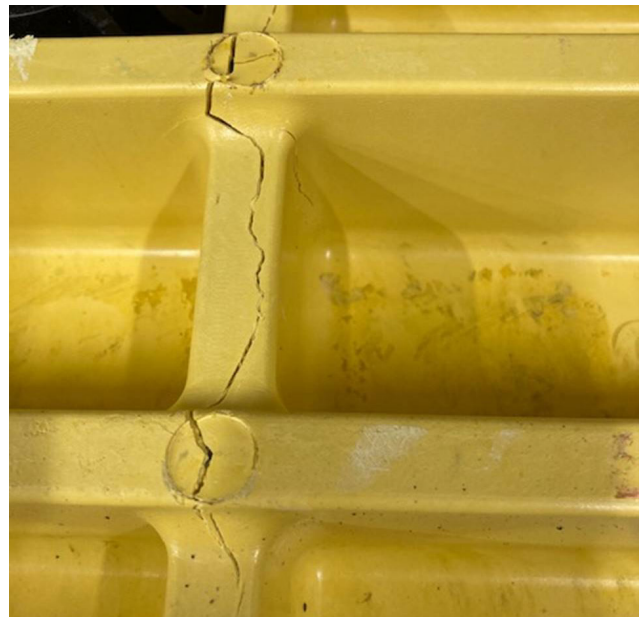
The images below show some signs to check for during inspection. 23/05 Road Plate shown as example.

This list is not exhaustive.

Cracks or a bent product indicate it has been damaged through improper use. These products must be disposed of.



Crack along rib



Close up of crack

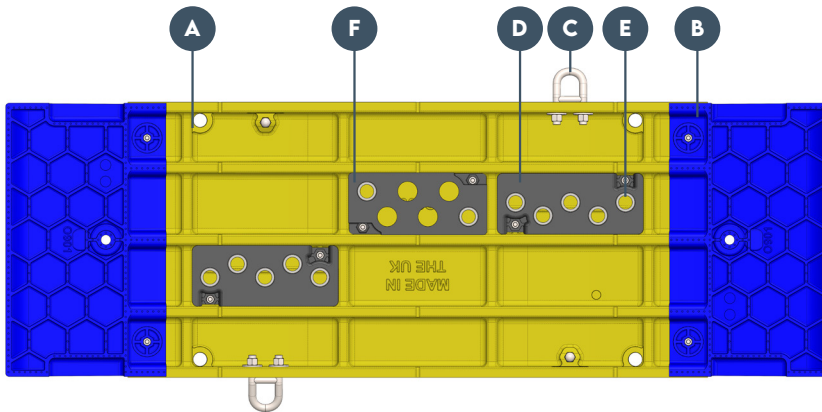


The underside of the yellow section of the product is visibly bent. It should be flat.



# REPLACEMENT PARTS AND TRACING

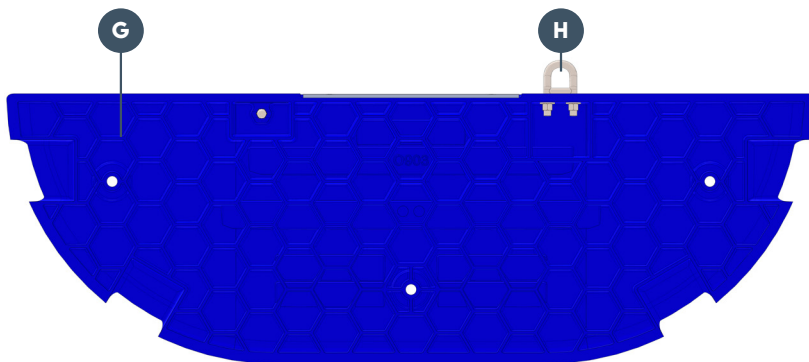
Parts are bolted together, enabling elements to be replaced easily in the unlikely event of damage.



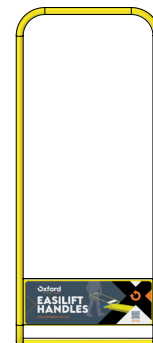
## TRACING

Products have a waterproof label with a unique bar code and ID number, enabling tracing to the batch and date of manufacture.

INNER PIECE	Part Name	Product Code
A	Main Body	O900
B	LowPro Edge	O901
C	Male Connector	O703
D	Drop Pin Tray	O902
E	Drop Pins	O831
F	Central Drop Pin Tray	O807



END PIECE	Part Name	Product Code
G	Main Body	O903
H	Male Connector	O703

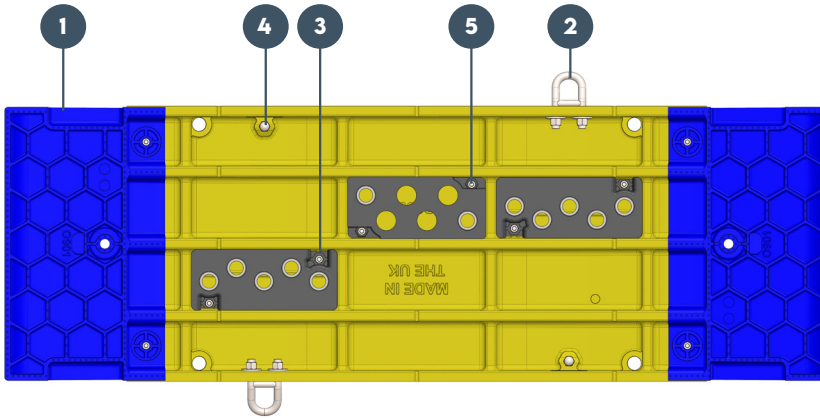


**EASILIFT HANDLE**  
Product Code  
O730



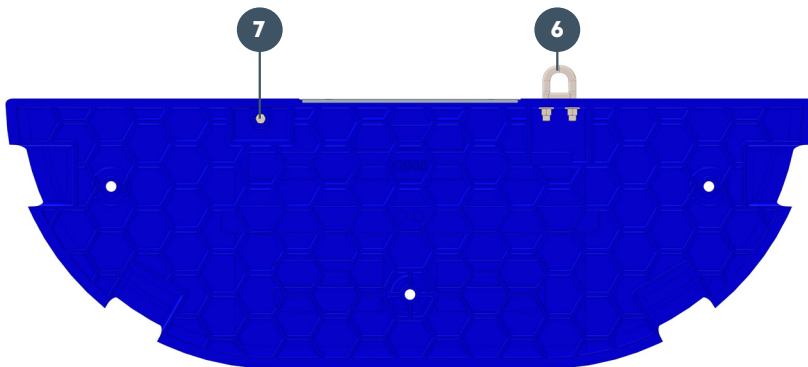


# REPLACEMENT PARTS AND TRACING



All fixings  
Stainless Steel

Fixings for	Metric	Imperial
1 LowPro Edge	FOUR M8 CSNK MACHINE SCREW x 40 LNG FOUR M8 WASHERS x 50 OD FOUR M8 LOCK NUTS	FOUR 5/16" CSNK MACHINE SCREW X 1 1/2" LNG FOUR 5/16" WASHERS x 2" OD FOUR 5/16" LOCK NUTS
2 Male Connector	FOUR M14 LOCK NUTS FOUR M14 WASHERS x 40 OD	FOUR 9/16" LOCK NUTS FOUR 9/16" WASHERS x 1 1/2" OD
3 Drop Pin Tray	FOUR M8 CSNK MACHINE SCREW x 40 LNG FOUR M8 LOCK NUTS	FOUR 5/16" CSNK MACHINE SCREW X 1 1/2" LNG FOUR 5/16" LOCK NUTS
4 Female Connector	ONE M10 CSNK SOC HD MACHINE SCREW x 30 LNG ONE M10 HEX DOME NUTS	ONE 3/8" CSNK SOC HD MACHINE SCREW x 1 3/16" LNG ONE 3/8" HEX DOME NUTS
5 Central Drop Pin Tray	TWO M8 CSNK MACHINE SCREW x 60 LNG TWO M8 LOCK NUTS	TWO 5/16" CSNK MACHINE SCREW X 2 1/2" LNG TWO 5/16" LOCK NUTS



Fixings for	Metric	Imperial
6 Male Connector	TWO M14 LOCK NUTS TWO M14 WASHERS x 40 OD	TWO 9/16" LOCK NUTS TWO 9/16" WASHERS x 1 1/2" OD
7 Female Connector	ONE M10 CSNK SOC HD MACHINE SCREW x 30 LNG ONE M10 HEX DOME NUTS	ONE 3/8" CSNK SOC HD MACHINE SCREW x 1 3/16" LNG ONE 3/8" HEX DOME NUTS





# INSTALLATION AND SAFE HANDLING

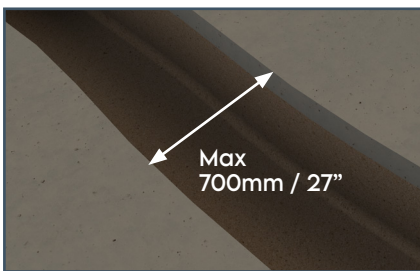
Follow the process below for safe and effective installations.

Risk assessments should be carried out to ensure the usage is suitable for the scenario.

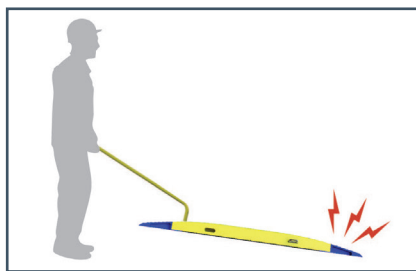
Every section has the facility to be bolted down individually.

The product is designed to be used in the following scenarios.

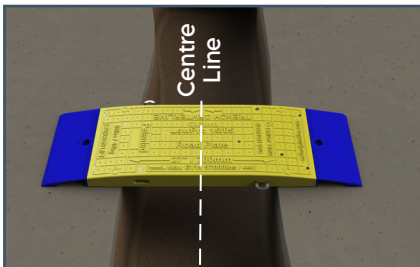
In the USA, Road Plate installations must conform with Departments of Transport requirements in the local city. The minimum overlap can be as much as 15”.



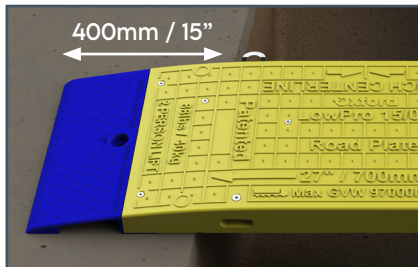
Trench width less than 700mm / 27”. Trench walls are stable.



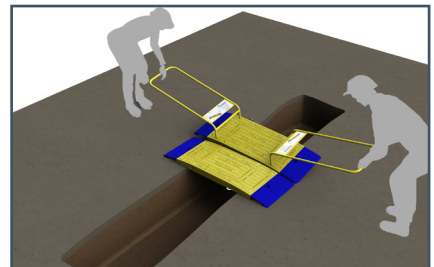
Two person lift at all times. EasiLift Handles are inserted into the holes at each end of the inner pieces.



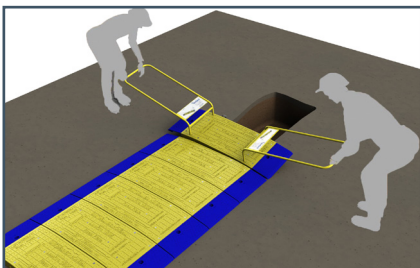
The first Inner Piece is positioned using the centreline as a guide.



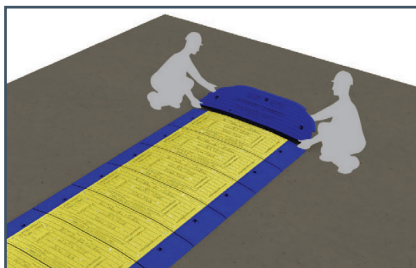
There is a minimum overlap of 400mm / 15” for every piece.



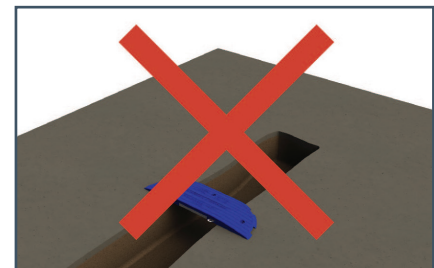
Each piece connects into the next piece, when engaged, gently lower the piece.



Repeat until the entire trench is covered with Inner Pieces.



If required - Connect the End Piece. It is light enough to be installed without the EasiLift handles



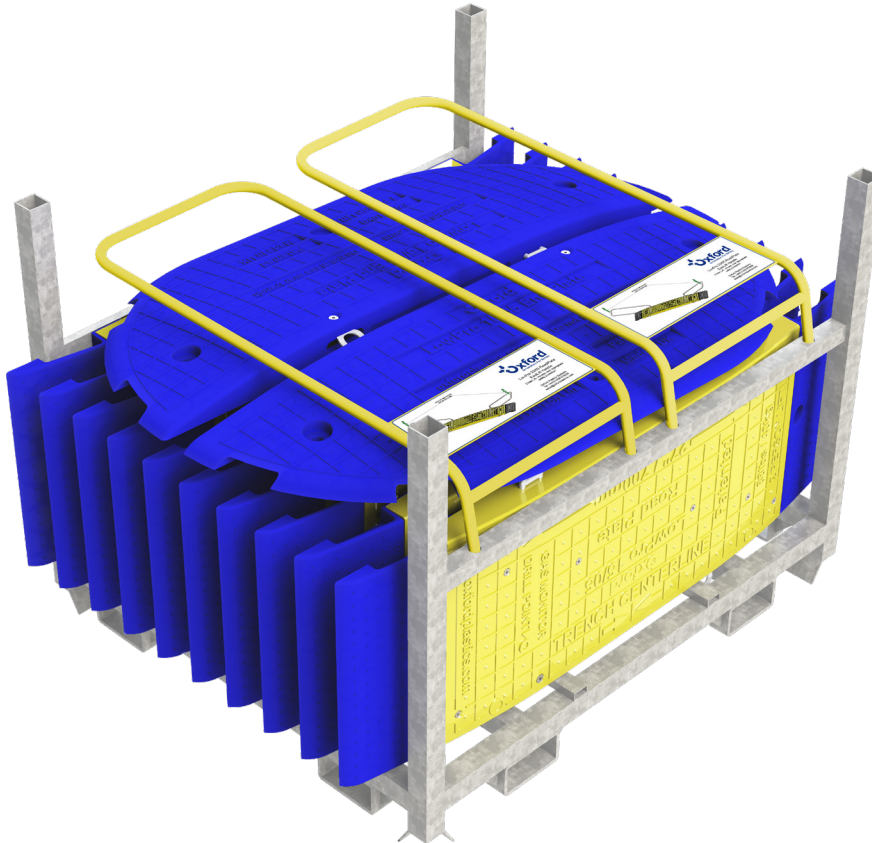
The End Piece is not load bearing and is not installed over an excavation.

Road Plates are designed for vehicles to travel across in a straight line. Plates are securely bolted down, the bolt holes accept M16 x 150mm & 5/8” x 6” Masonry Anchor bolts. Oxford Plastics has driven over the products at 30mph/48kph, they are designed to use on low speed roads.





## STILLAGE



The New LowPro 15/05 Road Plate can be supplied with a specially designed stillage.

The stillage can carry 10 x Inner Pieces, 2 x End Pieces and 2 x EasiLift handles.

The stillage can be lifted with a forklift using the forklift pockets.

Stacking feet on the stillage allow two stillages to be stacked.

### NEW 1505 STILLAGE

<b>PRODUCT CODE</b>	O757
<b>WEIGHT</b>	90kg / 198lb (Laden 516kg / 1138lb)
<b>HEIGHT</b>	1000mm / 39.4"
<b>LENGTH</b>	1150mm / 45.3"
<b>WIDTH</b>	1300mm / 51.2"
<b>MATERIAL</b>	Mild steel
<b>FINISH</b>	Galvanised
<b>CUSTOMISE</b>	Custom sizes on request, subject to MOQ



## SUSTAINABILITY

Oxford Plastics are dedicated to sustainability. We build the circular economy into our products by designing them to be easy to use, long-lasting, repairable and recyclable.

The LowPro Road Plates, a direct replacement for steel plates, are a much more sustainable solution when compared.



**LowPro Road Plates reduce up to 78% of CO2e compared with heavy steel road plates\*.**

\*Please refer to Oxford Plastics Carbon Footprint & Product Report for more information

## ASSOCIATED PRODUCTS

When setting up a street works site, other Oxford Plastics solutions can be used to ensure compliance is achieved. Browse our Chapter 8 solutions; including advanced barrier systems, trench covers, road plates, wheelchair ramps and street works signs.



**ADVANCED  
BARRIER SYSTEMS**



**PORTABLE  
GATE BARRIERS**



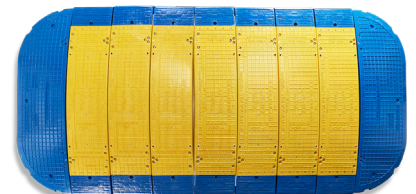
**STREET WORKS  
SIGNS**



**WHEELCHAIR  
RAMPS**



**TRENCH  
COVERS**





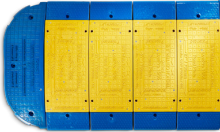
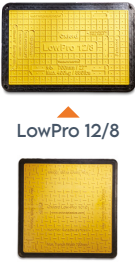








**ROAD  
PLATES**



# TRENCH COVER GUIDE

## COMPOSITE TRENCH COVERS CAN BE INSTALLED IN THE FOLLOWING SCENARIOS.

- ▶ A Site Safety Risk Assessment must be carried out before installation, only install on compacted surfaces such as concrete or asphalt. Always place the trench cover centrally over the excavation.
- ▶ In some instances, road plates and trench covers must be bolted for safety, refer to the installation guide for more details.
- ▶ Trench covers have a maximum width allowance.
- ▶ Trench covers can be linked together to safely cover any length of excavation.
- ▶ The LowPro range is HAUC Compliant.
- ▶ LowPro 15/05 and LowPro 23/05 are HS20-44 load rated.
- ▶ Trench covers must be installed centrally over the trench.

MAXIMUM TRENCH WIDTH	WHAT TYPE OF TRAFFIC WILL CROSS THE TRENCH?		
	FOOTWAY 400KG / 880LBS	DRIVEWAY 3.5T / 7715LBS VEHICLE	ROADWAY 44T / 97000LBS VEHICLE
100MM 4"	 LowPro 100	 LowPro 100	 LowPro 15/05
700MM 2FT	 LowPro 12/8 LowPro 11/11	 LowPro 15/10	 LowPro 15/05
900MM 3FT	 LowPro 15/10	 LowPro 15/10	 LowPro 23/05
1200MM 4FT	 LowPro 15/10	 LowPro 23/05	 LowPro 23/05



# CODE COMPLIANCE



## WHAT IS REGULATORY COMPLIANCE?

UK: The Street Works manual, HAUC 2018/01 advice note, Department for Transport TAL 6/14 and BS7976.

Germany: Entspricht den Vorgaben der RSA21/ZTV-SA 97

USA: HS20-44, AASHTO H25 and HS25 Loading Compliant

The LowPro 15/05 Road Plate is compliant with the above regulations for streetworks use.



# HISTORY OF USE

Our composite Road Plates and Trench Covers have been used extensively:



## METROPOLITAN USERS

- London
- New York
- Paris
- Munich
- Seoul
- Madrid
- San Francisco
- Tokyo
- Sydney



## UTILITY USERS

- Gas
- Water
- Telecoms
- Electricity





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