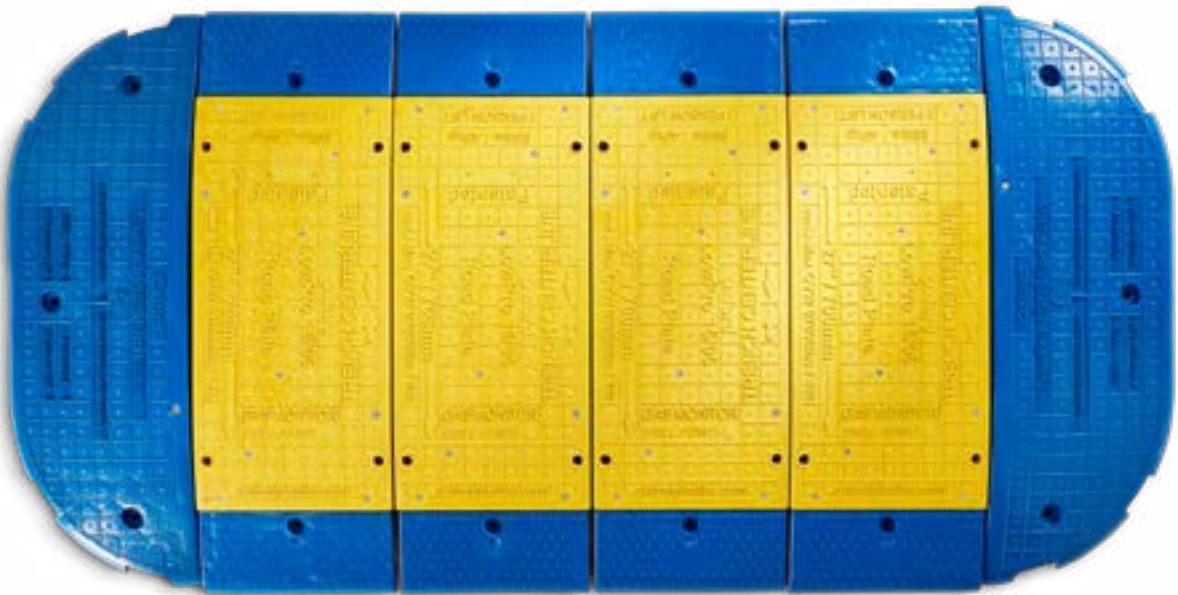




NEW LOWPRO 15/05 ROAD PLATE





CONTENTS

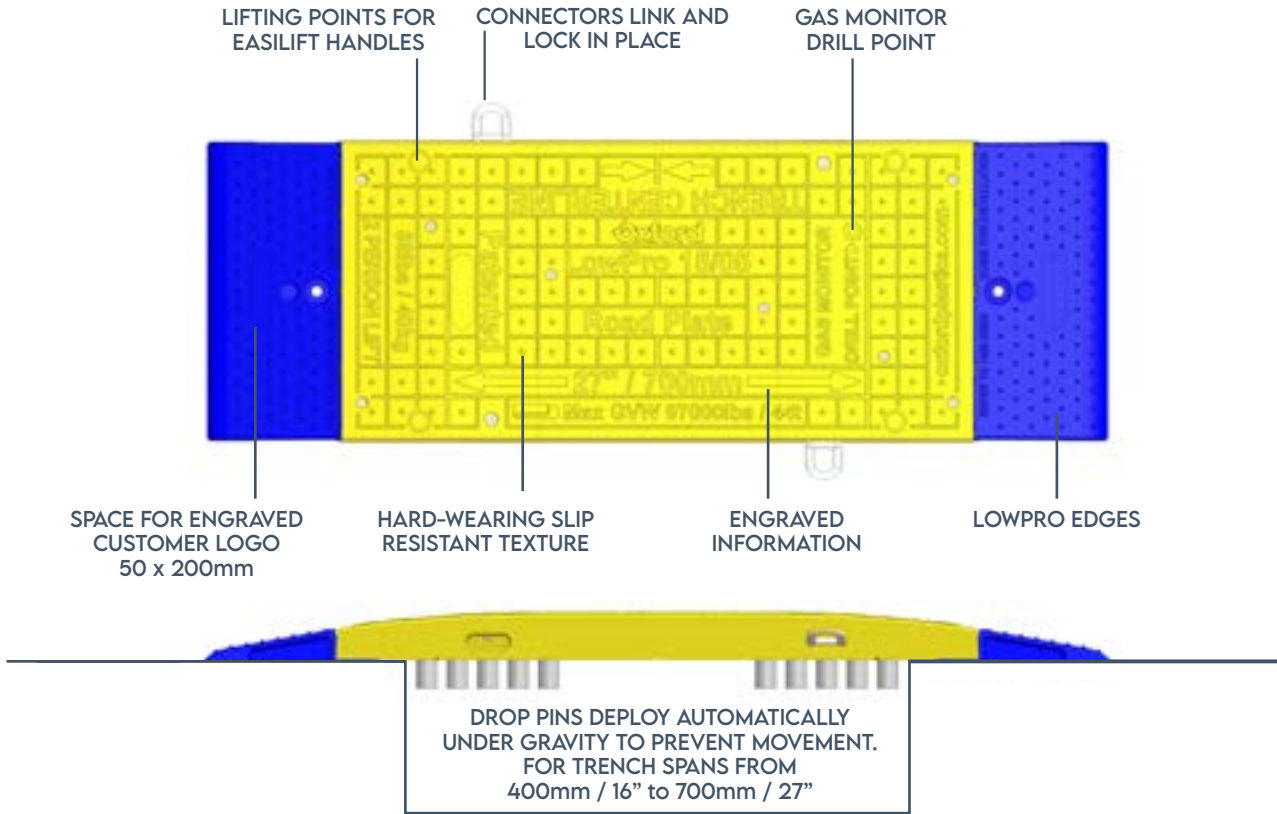
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7	Maximum axle weights
8	Slip resistance
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15	Overlap and soil conditions
16	Unattended sites
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FEATURES



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, no need to bolt all Road Plate sections to the ground.

Drop Pins are automatically deployed underneath to prevent movement on trenches, without the need to bolt every unit.

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.

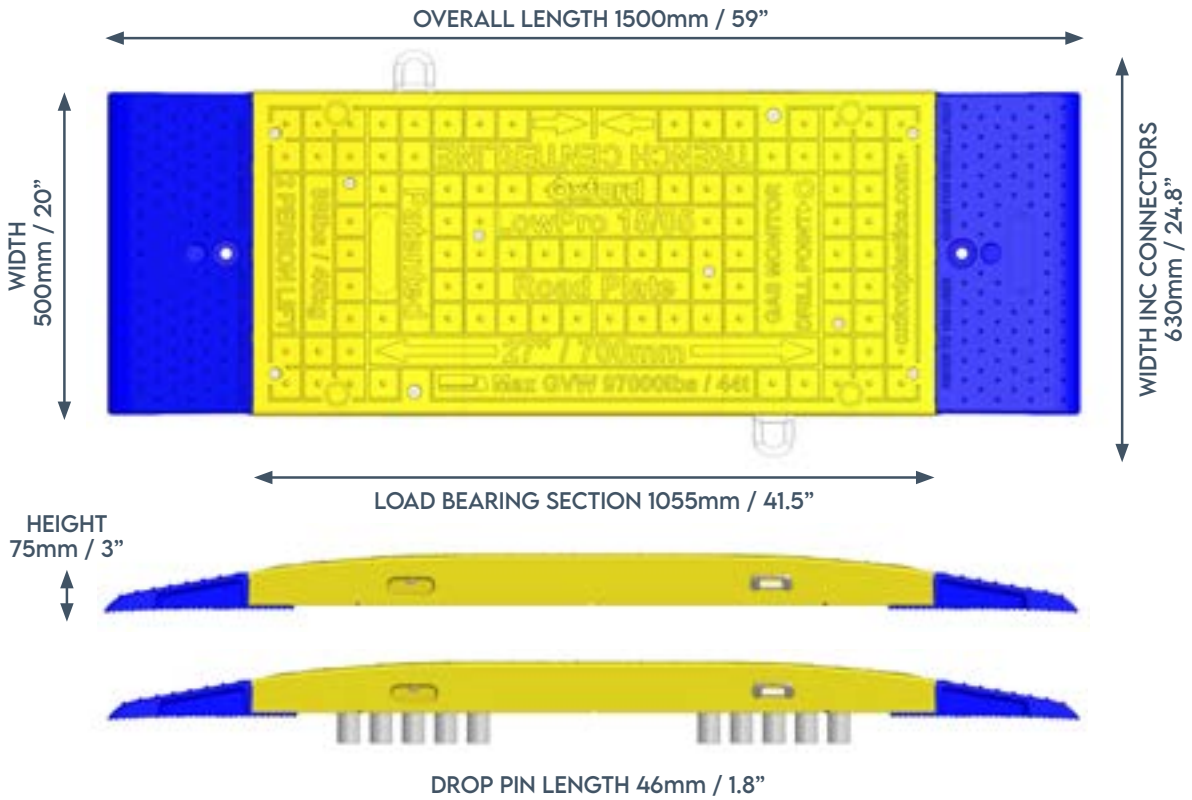
Supplied with EasiLift Handles to aid manual handling.



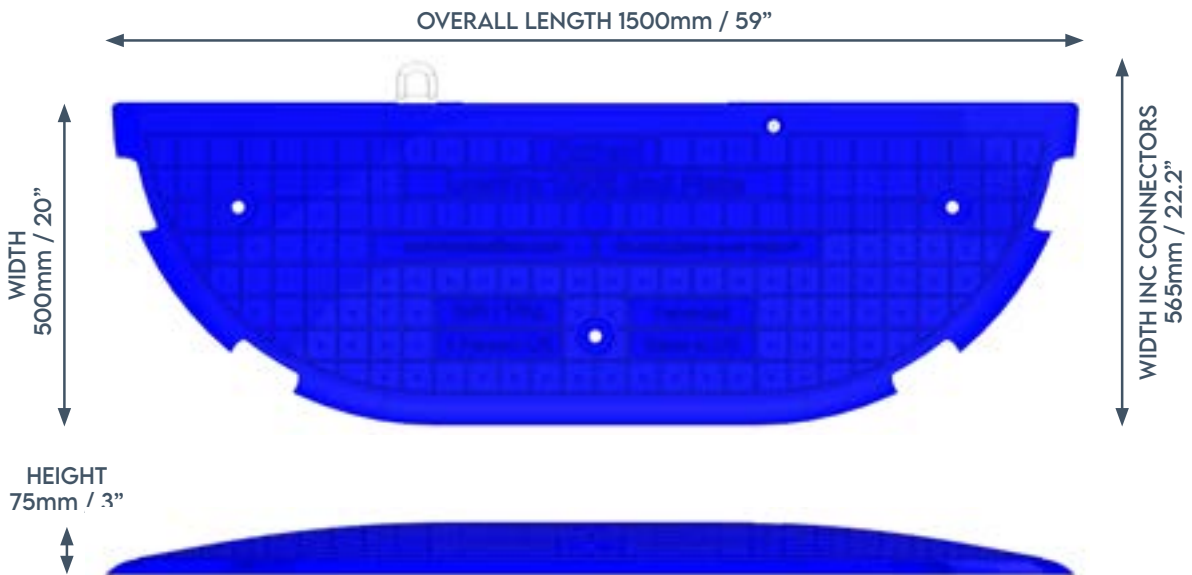


DIMENSIONS AND WEIGHTS

NEW LOWPRO 15/05 ROAD PLATE - INNER PIECE 35kg / 77.2lb



NEW LOWPRO 15/05 ROAD PLATE - END PIECE 9.6kg / 21lb

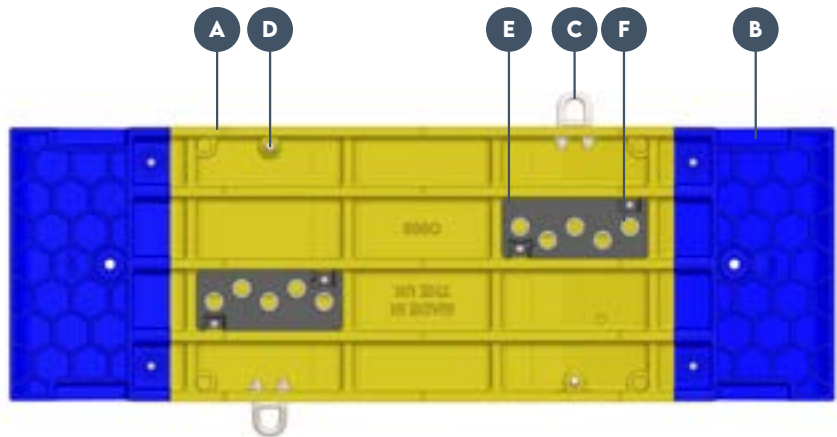




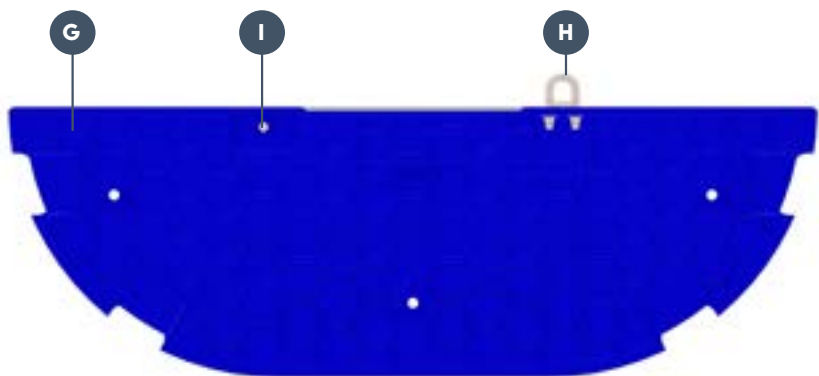
MATERIAL COMPOSITION AND PRODUCT LIFE

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

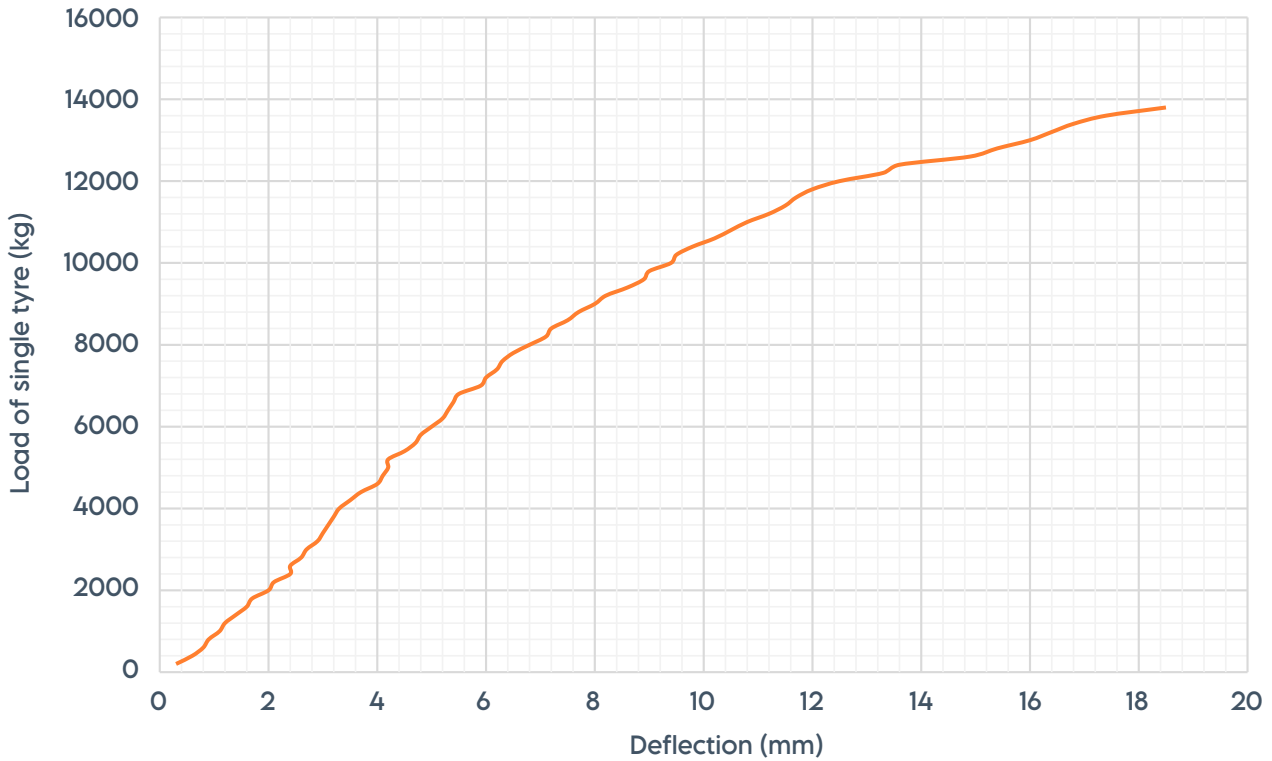


END PIECE	Part Name	Material
G	Main Body	5% Elastomer, 95 % LDPE
H	Male Connector	Galvanised mild steel
I	Female Connector	Stainless steel





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.





MAXIMUM AXLE WEIGHTS

TERRITORY	Max single axle weight	Max single tyre weight
EU	11.0t	5.50t
Australia	8.2t	4.1t
New Zealand	10.0t	5.0t
Japan	7.7t	3.85t
Canada	7.3t	3.65t
USA	32,000lb	16,000lb

For more detailed data on:

Multiple axle loads,
Axle loads for different vehicles types,
Or territories not listed,
please consult and confirm with your
relevant transit authority.





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.



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

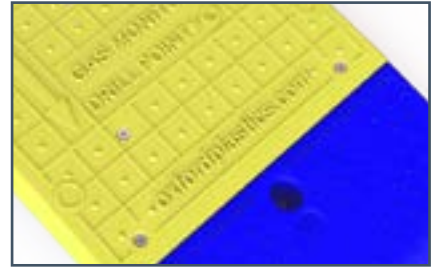
Products should be inspected and cleaned between every installation as follows.



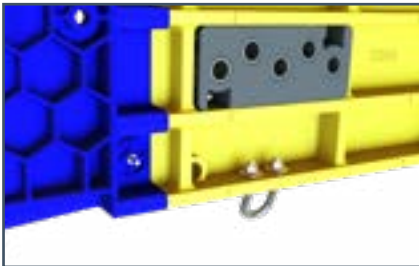
Inspect each product for signs of damage. See next page for signs of damage.



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



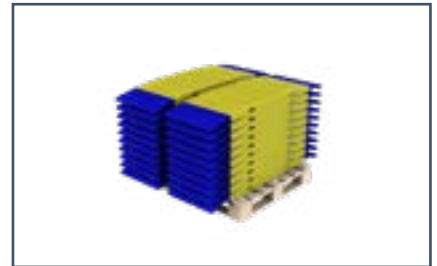
Ensure bolts on top surface are tight.



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.

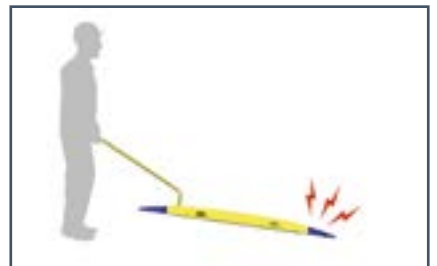
Care for the product by following the below guidance:



Do not drag the product.



Do not lift the product as shown.



Do not drop the product.





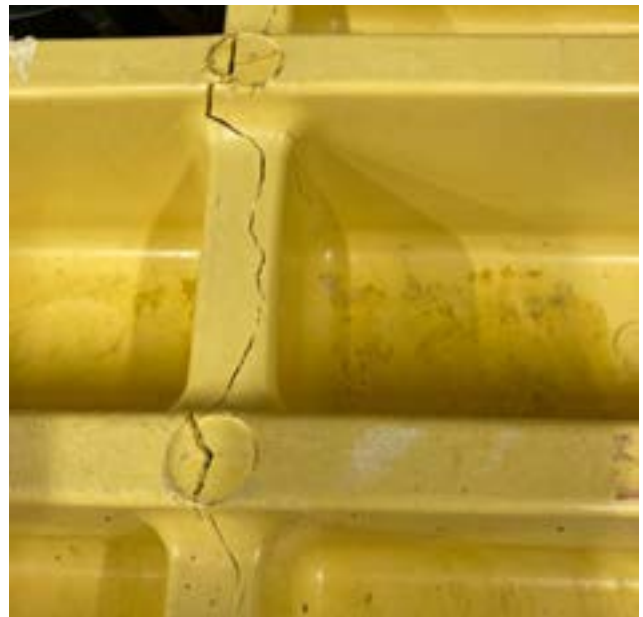
INSPECTION AND MAINTENANCE

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

Cracks or a bent product indicate it has been damaged through improper use. These products need to 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.





INSPECTION SAFETY CHECKLIST

New LowPro 15/05 Road Plate		Yes	No	If no:
1	Is the underside of the yellow section flat?			Do not use product.
2	Is the top of the yellow part free from cracks?			Do not use product.
3	Is the underside of the yellow part free from cracks?			Do not use product.
4	Are all bolts on top surface tight?			Tighten bolts.
5	Are all bolts on underside tight?			Tighten bolts.
6	Are all bolts in good condition?			Order replacement bolts
7	Is the top surface of the product clean?			Brush product clean.
8	Are the drop pins free of damage?			Order replacement drop pins
9	Are the Drop pins dropping down freely under gravity?			Check for debris that may prevent drop pins moving.





REPLACEMENT PARTS AND TRACING

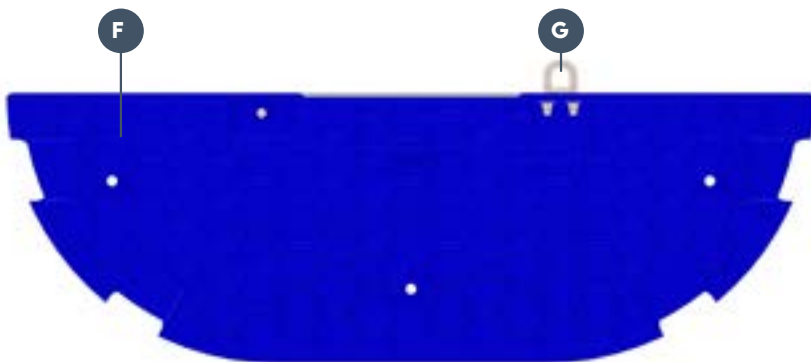
Parts are bolted together, enabling elements to be replaced easily in the unlikely event of damage.



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



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



EASILIFT HANDLE
Product Code
O730



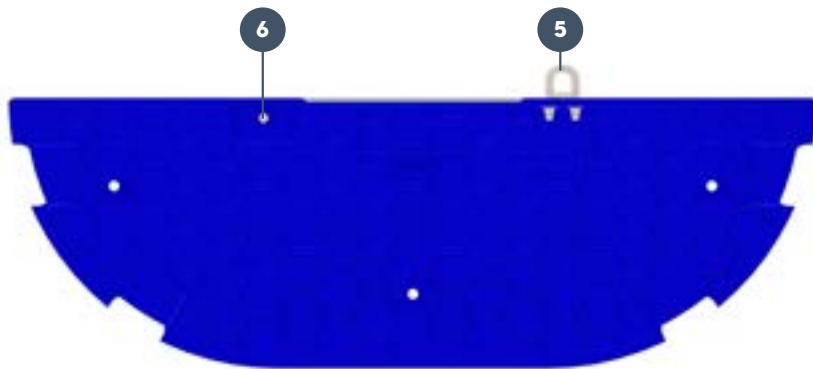


REPLACEMENT PARTS AND TRACING



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 5/16" CSNK MACHINE SCREW X 1 1/2" LNG
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



Fixings for	Metric	Imperial
5 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
6 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



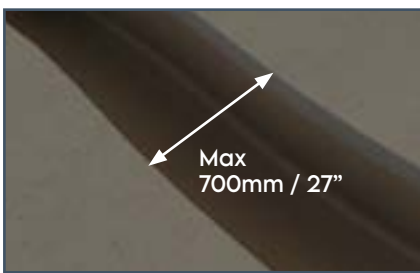


INSTALLATION AND SAFE HANDLING

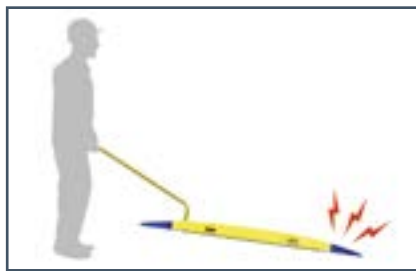
Follow the process below for safe and effective installations.

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

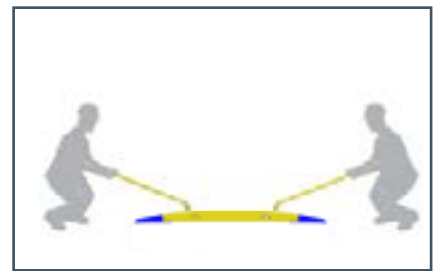
In the USA, Road Plate installations must conform with Departments of Transport requirements in the local city. The minimum overlap can be as much as 15”.



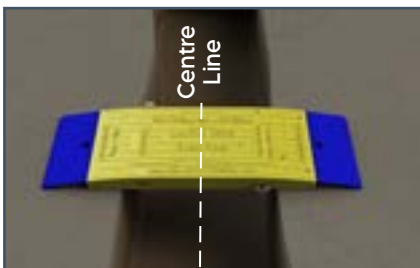
Ensure trench width less than 700mm / 27”. Assess trench stability prior to install.



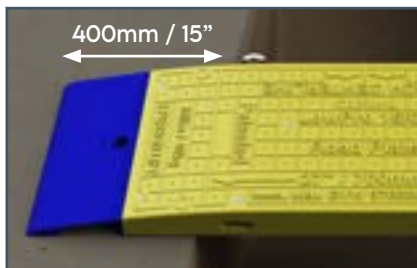
Two person lift at all times. Use the EasiLift Handles, insert into the holes at each end of the inner pieces.



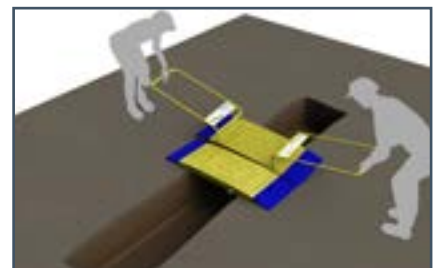
Bend at the knees in line with best practice.



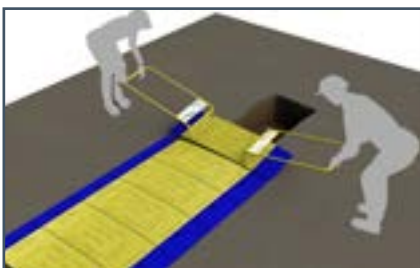
Position the first Inner Piece, using the centreline as a guide.



Check there is a minimum overlap of 400mm / 15”. Do this for every piece.



Move the next piece so that the connectors fit into the slots. 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 must be entirely on solid ground.

Road Plates are designed for vehicles to travel across in a straight line. In situations where traffic will be turning on the plates, plates should be securely bolted down.





OVERLAP AND SOIL CONDITIONS

Ensure the product is centred on the trench, with a minimum overlap as shown below.



SOIL CONDITIONS

The soil or other substrates at the trench edges must be capable of supporting the maximum weight of vehicle for the particular install.

Risk assessments must be carried out prior to installation.





UNATTENDED SITES

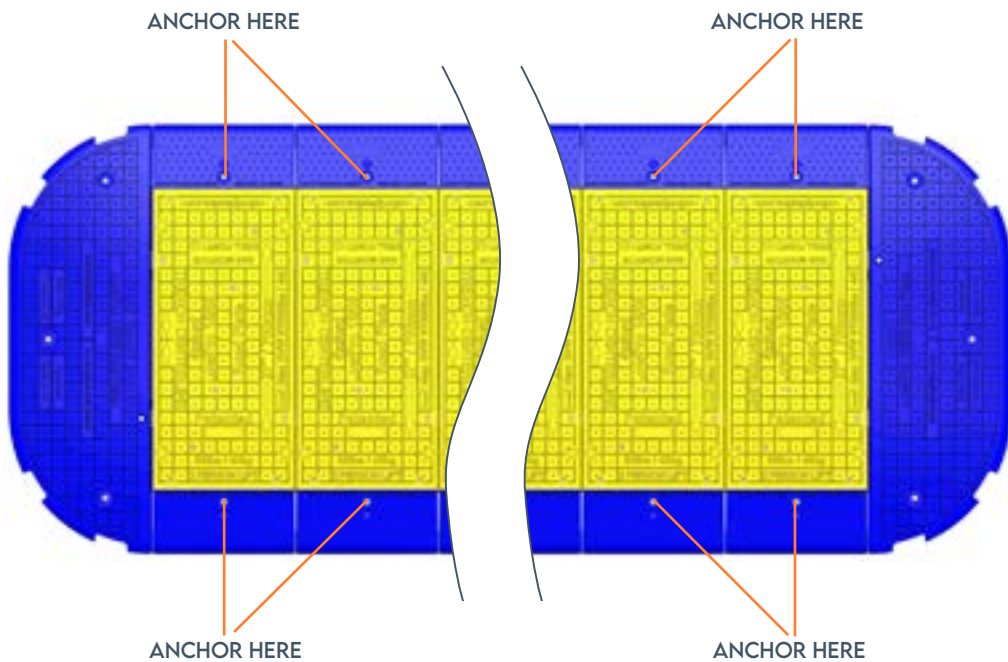
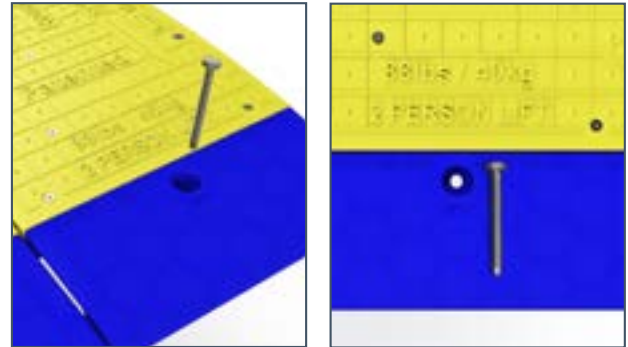
When a site is unattended it is recommended that the outer sections are bolted securely to the road surface through the hole in the LowPro Edges.

An M16 x 150mm / 5/8" x 6" Masonry Anchor Bolt is typically used.

The installers must ensure the fixing used is suitable for the substrate conditions.

Risk assessments must be carried out prior to installation.

This set-up is also recommended at installations where traffic speeds exceed 30 mph / 48kph.



ADDITIONAL SECURITY

Drop pins deploy automatically under gravity as an additional safety measure.

This does not replace the need to anchor down.





SAFE SPEEDS AND CLEARANCE HEIGHT

CLEARANCE HEIGHT
75mm / 3"



SAFE SPEEDS

The product is designed for use in urban areas, for a maximum carriageway speed of

30mph / 48kph

Where traffic speeds exceed 30 mph / 48kph it is recommended to additionally bolt as per recommendations on the Unattended Sites page.





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

PRODUCT CODE	O757
WEIGHT	90kg / 198lb (Laden 390kg / 860lb)
HEIGHT	1000mm / 39.4"
LENGTH	1150mm / 45.3"
WIDTH	1300mm / 51.2"
MATERIAL	Mild steel
FINISH	Galvanised
CUSTOMISE	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.

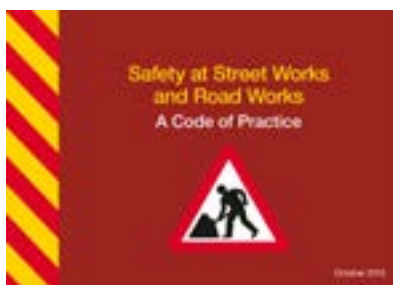
- ▶ A Site Safety Risk Assessment must be carried out before installation, only install on compacted surfaces such as concrete or asphalt. Always place the trench cover centrally over the excavation.
- ▶ In some instances, road plates and trench covers must be bolted for safety, refer to the installation 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?

The Street Works manual, or red book tells contractors how to set up their street works site in a compliant manner. HAUC tell manufactures how to make compliant products. Oxford Plastics design composite trench covers that are 100% compliant with HAUC 2018/01 advice note - SPECIFICATION AND OPERATIONAL REQUIREMENTS FOR FOOTWAY BOARDS, DRIVEWAY BOARDS, FOOTWAY RAMPS AND ROAD PLATES, Department for Transport - Safety At Street Works And Road Works – A Code Of Practice, Department for Transport TAL 6/14 - Using road plates at road works.

The New 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

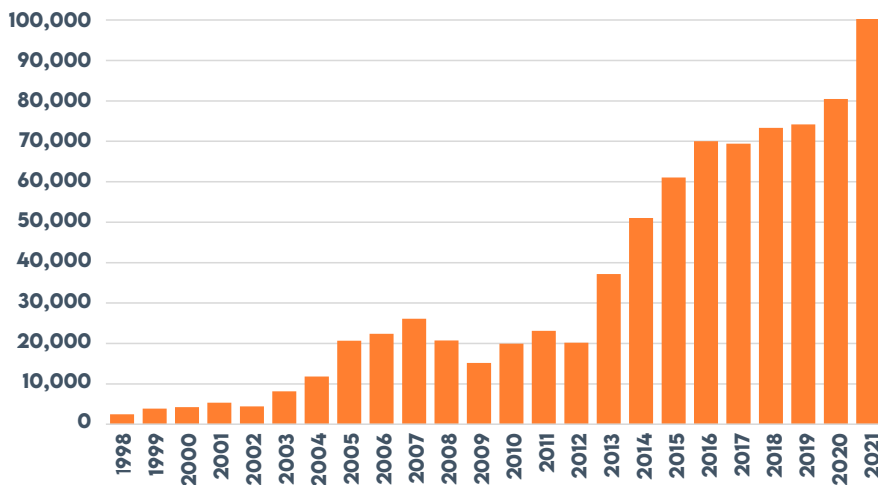


UTILITY USERS

- Gas
- Water
- Telecoms
- Electricity



COMPOSITE ROAD PLATE & TRENCH COVER SALES



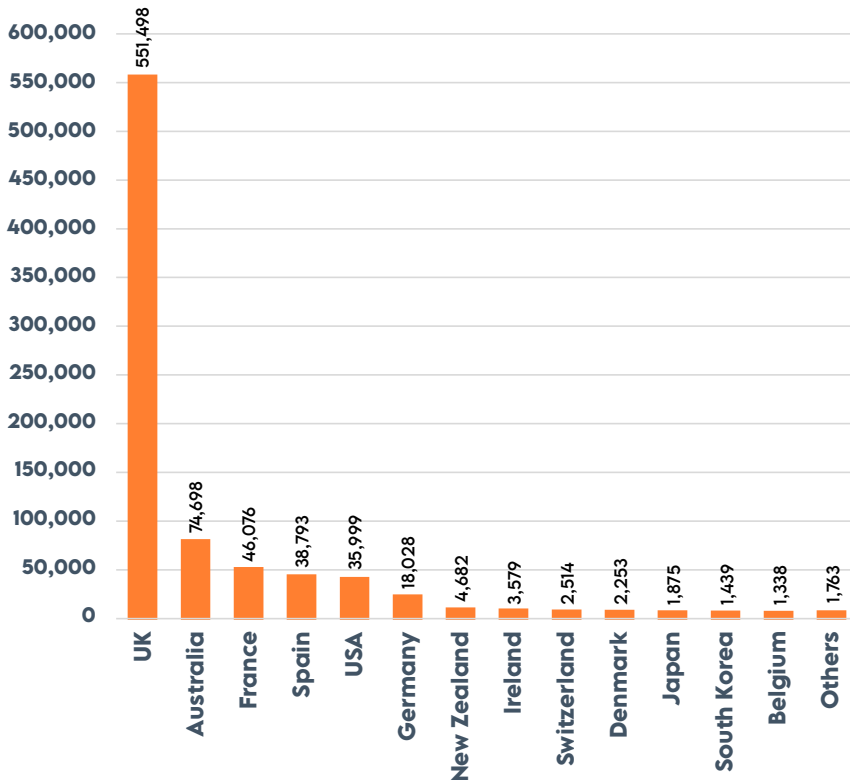
UNIT SALES

First concepts and products launched

1998

Worldwide sales since launch

+£54m



UNIT SALES BY COUNTRY

Countries using composite Road Plates and Trench Covers

42

Installations globally

+784k



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