

Netting Installation Specialists



Netting solutions customised to meet your specific needs

Environmental • Industrial • Animal & Bird Control • Sports & Leisure









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Richard Connolly Managing Director



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Welcome

Huck Tek - your netting installation specialist.

Huck Tek is the fusion of two companies; Huck Nets with its broad manufacturing and sales base and the contract and technical support of specialist netting contractor Geotex.

The company specialises in netting solutions individually customised to suit our customers specific requirements, these range from specialist sales to complete supply & installation packages. Huck Tek provides this support over the complete Huck Net product range for the following markets:

Environmental



Industrial



Animal & Bird Control



Sports & Leisure



Meet the team...



Ian Spencer Contracts Director



Jon Legg-Bagg Sales Director



Rick Foster Operations Manager



John Loney Commercial Director



Les Whitehouse Technical Manager

Information and examples of installations that can be undertaken are contained within this brochure.

If you require further information or would like to discuss a particular project with one of the team please do call us on 0114 288 9550. They will be happy to help you with the selection, design, installation and on-going maintenance of your netting solution.

Environmental

Total Enclosure Systems

Current environmental constraints often necessitate the requirement to exclude feral birds and control airborne litter and waste on open landfill and restoration sites. This frequently dictates that the site be totally encapsulated in netting and be designed to cope with the natural effects of wind, snow and ice. Huck Tek offer bespoke designs supplied and installed working in conjunction with reputable structural engineers to produce operational enclosures that facilitate phased tipping to final restoration levels under a complete net canopy. Working with site owners / operators and consultants we can provide the complete installation of cables and netting and the erection of complete steel structural support systems involving multiple grid-pattern cabling with masts, towers and ground anchors.



Aughrim Marquee Enclosure



Mullaghglass Marquee Enclosure

Marquee Cable Structures

High level cable grid structures that use steel perimeter towers and internal masts to support a complete landfill cover net that allows the operator to tip to the planned restoration level in one single operation without the need to move or lift the netting system; typically 12-50m high.

Mullaghglass & Aughrim - Marquee Enclosures

Huck Tek have recently installed over 55,000m² of netting for the Lagan Group at their new Mullaghglass Landfill Site in Lisburn and have just completed a second 54,000m² installation for Clearway at their Aughrim Landfill Site near Belfast. The company supports these projects with a complete maintenance and routine inspection programme to monitor and maintain the integrity of these structures.



Mullaghglass Marquee Enclosure



Single Span Cable Structures

Where the restriction or encapsulation requirements involve the fill of a deep guarry type excavation, the Marguee Systems may be simplified by the use of Single Span Cable Structures. In these systems parallel cables are positioned across the cell hung from masts at opposite sides of the cell. This structure is used to carry a pre-structured net system on a designed grid plan, which is assembled and launched across the quarry. The grid system is designed to fail-safe under excessive loading to protect the main structures integrity.





In recent years Huck Tek have provided numerous Single Span Cable Structures. The first system comprised a 50.000m2 installation at Scabba Wood Landfill near Doncaster. This has been followed by a 15,000m² moving project at Highmoor Landfill, Oldham and more recently a 22,000m² phased installation at Deerplay Landfill near Burnley.

Anti-litter Fencing

Where fencing is required to be over 3-4m high there are no existing standards in the BS1722 range. Litter Fencing above these heights tends to be based on bespoke manufacture to consultants or Huck Tek proposals. Huck Tek is able to advise customers on solutions and to provide structural engineer backed design calculations if required.

Post & Socket Systems

Light Post and Socket fences can be provided from a range of standards up to 4m high. These systems are designed to be supported within a ground socket either earth driven or cast in concrete to facilitate removal, replacement or relocation, designed to lean or bend under excessive wind load yet allow for easy replacement if required.

Light Duty Tripod Fencing (LDTF)

Light readily portable tubular fencing formed into a single bolt tripod so that it stands in a tee-pee manner with light litter netting hung on to the longest leg. Ground stakes are provided and additional cable guying with stakes are available. Again the fencing is designed to blow over in excessive winds and is suitable for light duty on long runs of catchments or as local cover adjacent to a tipping or sorting area which requires frequent movement about the site.





Environmental

Heavy Duty Tripod Fencing (HDTF)

The heavy duty relocatable fencing system designed for 5-7m height range. This system is based on the original Huck tripod support providing an adjustable front mast leg and fixed articulating backstay tubes, used typically around the perimeter of landfill sites or on the landfill to form temporary netted litter enclosures. The three legs are bolted to a base frame during erection and additional stability is provided by placing concrete kentledge blocks or fines filled IBC bags onto the base frame. A fixed cable guy provides support to the end tripods with the intermediate supports retained by a tensioned cable system, the netting is directly attached to the cable grid. HDTF may be dismantled and moved to new locations as the site requirements change.



Skelton Grange - HDTF



Skelton Grange - HDTF



Telegraph Pole Fencing



Attlebridge - Telegraph Pole Fencing

For higher fences 6-8m above ground, the telegraph pole option is frequently cost-effective since poles are available both new and second hand. The poles are obviously made from natural material so both load capacity and quality vary considerably. Pole sizes are selected to suit the fence height and potential loading requirements for each particular site location. Dependant on location and ground conditions posts can be set into concrete to provide additional ground support. but this is not a recommended long term solution as the timber and concrete can react and affect the poles integrity. The netting is attached directly onto steel cabling secured directly onto the timber.



Steel Post Fencing

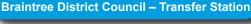
Steel Post Fencing to BS1722 standards or specialist fencing for higher containment systems are always possible. Huck Tek offer bespoke systems which are not available "off the shelf" from fencing specialists, so we can provide netted fencing which provides cover above and beyond the limits of traditional boundary fencing systems.

If your existing fence line needs netting or the net catchments height is no longer sufficient for your needs, Huck Tek are pleased to discuss the potential options with you.

Transfer Station Netting / Netting Systems For Storage Bays

Huck Tek produces bespoke netting systems to suit new and existing storage bays. Free standing post and net systems are used where the existing bay construction is not suitable for the potential net loadings. Mounted post extension systems are used where sturdy up stands or reinforced concrete walls are available. All systems are sized to suit the existing environment and customer requirements, supplied and installed from one source. Where new bays are being designed, Huck Tek can co-operate and advise designers on ideas to interface the push walls with netted structures.









Braintree District Council – Transfer Station

Cover Nets

If net supply or old net replacement is your only problem, Huck Tek can measure up, dismantle and replace your old cover net system with new Huck polypropylene knotless netting or an alternative netting of your choice.

Skip Nets

A wide range of skip nets are available to provide protection against load loss. For complete range of materials and sizes please contact us directly:

Email: info@hucktek.co.uk Telephone: 0114 288 9550 Fax: 0114 288 0012

Portable Netting Systems

Small netting enclosures are frequently needed at different locations during the life of a project, or need to be temporary installed for a couple of years and removed. A whole range of options are available to suit the needs of any customer.

GeoNet™ Portable Enclosures

The "Somernet" style tow able compound system is in use on many sites. Huck Tek supply replacement netting and components to maintain your existing system. We can manufacture and supply a complete new system, based on roller or skid mounted frames. Any damage repairs, re-cabling, re-netting can be carried out by Huck Tek engineers.



GeoNet™ Portable Enclosure

Heavy Duty Tripod Enclosures

Improvements and revisions based upon the original Huck Heavy Duty Tripod (HDT) system to provide a complete, roofed and netted tipping enclosure of specified size with suitable base anchorage and load backstays. The HDT system is easily pre-spaced in the dimensions you require. Side nets may be specified to run within the tripod line or the net can be pre-made to suspend from roof cables to hang inside the line of tripods. Common enclosure heights are 6-7m. 10m tripods are possible (subject to suitable ground fixing or sufficient base loading).

Huck Tek is able to supply, erect, dismantle and re-site HDT enclosures and has a lifting frame available to move tripods about your site without the need to wholly dismantle an erect tripod.





Portable Litter Containment Barrier

"First Stop" containment is sometimes needed close to the tipping point on large open sites to prevent light litter or papers being rapidly blown out of reach before cover can be applied. Huck Tek has a range of designed containment barriers based upon the popular rigid "goal net" principle. These barriers are designed to be picked up and moved to suitable locations by site vehicles as tipping progresses. Polypropylene netting or sturdy rigid steel mesh coverings are available.

Industrial



Protection Netting

Protection netting is a term used to define nets which provide protection to personnel but are not necessarily "Construction Safety Nets" as defined in the European Standard BS EN 1263-1 and 1263-2 for temporary fall protection nets (A separate Huck Nets brochure is available covering this netting in detail).

Factory Pallet Rack Netting

Protection to personnel from pallets and boxes becoming dislodged from racking during placement or removal is essential, particularly in high bay racking systems. Huck Tek installs protection net systems which prevent material falls, protecting personnel and expensive materials from damage.





Helipad Netting

Helipad netting helps prevent personnel from falling if they inadvertently step over the edge of the landing pad when disorientated by the helicopter rotor blast.

On some buildings polymer netting is used, supported in a framework to provide no-step protection at the raised helipad edge.

As an alternative to polymer netting, pad overhangs may be protected in the same manner with galvanized or stainless steel netting such as Huck "Dralo" or Huck-Torimex "X-Tor". Metal nets may lack the energy absorption in comparison to polymer netting, but they provide a stronger solution offering reduced maintenance and increased longevity.







Catch Netting

Netting the undersides and sides of conveyor systems prevents loss of materials onto personnel below by catching materials from sliding off the sides. Huck Tek specialises in netting overhead conveyors, sharp turns in transport conveyors and roller docking bays.



Conveyor - Catch Netting



Monorail - Catch Netting

Rockfall Netting

In mountainous areas, rail / road cuttings and on exposed quarry faces rock fall is always a potential hazard as faces erode under the natural action of the weather and the environment. Using specialist access teams or powered access equipment in suitable areas, Huck Tek has carried out numerous activities involving rock face dentition, rock bolting and the installation of rock fall protection nets and rock fall fencing systems of all types. Periodic inspection, maintenance and repair of protected areas are also undertaken.



Rockfall Netting



Tank - Catch Netting

Tanks and Silos

Open Tanks and Silos are a constant attraction for the unauthorised public and operatives alike. Falling in is a permanent hazard unless the access areas are netted. Nets can be polypropylene or steel with steel netting offering the more robust low maintenance solution particularly if intruders are likely to try walking on the netting or damaging it with heat or sharp implements. Huck Tek provides netted systems or nets for self installation complete with suitable fixings and advice.



Fall Protection Nets

Huck Tek provide a range of construction and fall protection nets that can be supplied direct or within a complete installation and maintenance package. Netting to open stairwells, balconies, both on land and on vessels at sea have been undertaken worldwide. Netting of buildings and roofing to prevent loss of unstable masonry and tiles is a temporary alternative to major repair work and reconstruction, particularly where the buildings are of historic interest and more time is often needed for planning and financing the permanent solution.





Lagoon Netting

Lagoon Netting

Netting of lagoons, carrying water run-off from motorways and hardstandings have been carried out for a number of years. This type of netting used to deter nesting and wading birds, is particularly necessary in the vicinity of airport runways where birds can present a threat to aircraft during take-off and landing. Huck Tek have installed a variety of netting systems at key UK airports such as Heathrow's T5, Newcastle International and the new Robin Hood Airport at Doncaster.



Animal & Bird Control

Pest Control

Huck Tek survey and install the complete range of Huck bird deterrent products to suit your requirements.

Bird Spiking

Huck Tek have the expertise to install bird spikes on susceptible and historic buildings, churches and cathedrals in a manner which prevents damage to the material structure and is fully removable and replaceable if fabric repairs are required in the future.



Pin & Wire Systems



Pin & Wire Systems

Pin & Wire systems are a favourite on window ledges and overhangs (along with bird spikes) to deter feral birds from landing and roosting.

Bird Netting

Netting roof structures and gutter systems externally is employed to prevent birds from landing. Enclosure netting keeps birds off flat roof spaces and out of environmental conditioning systems. Huck Tek can advise and installs to suit the customer particular requirements.





Insect Netting

Sealing areas with fine porous net materials to prevent insect invasion and nesting is possible using the numerous materials in the Huck range. Huck Tek have sealed roof spaces by covering external roof areas, vents, soffits in air permeable mesh.

Animal & Bird Control



Zoos and Aviaries

Huck Tek have worked with zoos and aviaries to provide light and airy containment compounds for various birds and animals. Exciting new netting materials are always being researched and developed into workable systems, to provide aesthetically pleasing and safer containment areas for the visitor and exhibit alike.

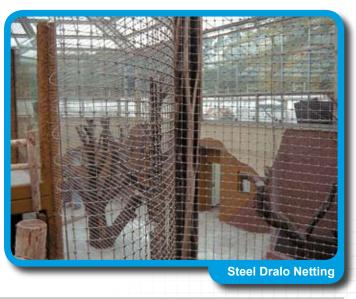
Polymer Netting

Polymer netting is commonly utilised for area demarcation keeping harmless animals such as Lemurs and Monkeys within a specific area without providing a threatening barrier to their location. Various types of net are available including special wire core types for netting in aviaries where birds could potentially bite through normal polymer strands.

Steel (Dralo) Netting

Steel 'Huck Dralo' netting is formed from conventional multistrand cables with closed slug joints at each cable crossover point locking the cables into a preformed grid. This type of netting material provides a high strength solution for containment of larger and predatory animals.





Steel (X-TOR) Netting

Steel 'X-Tor' netting from the Huck Torimex range provides a diamond pattern mesh with crimped ferrule joints. This is used extensively for containments of larger animals, but development in new manufacturing techniques using smaller gauge cables has allowed us to produce a range of finer weave nets that are particularly suitable for many bird applications and aviaries. The material is flexible and robust making it ideally suitable for contoured and irregular shaped apertures and spaces.





Sports & Leisure

Sports

Netting systems provide the ideal way to control boundaries for ball games while still allowing spectators to watch safely. Huck Tek can provide the whole system designed and installed to suit the variations of your particular site. Permanent or temporary (retractable) installations are all possible.

Ball Stop Nets

Huck Tek provides ball stop netting systems to prevent balls striking fragile surfaces such as windows or plasterwork internally and netted fencing systems to protect neighbouring gardens, children's play areas and sensitive environmental locations from inadvertent stray balls.





Cricket - Ball Stop Netting

Ball stop systems include a range of divider nets to temporarily split recreational areas such as playing fields or sports halls into individual smaller areas for training purposes or to downsize from association football to 5-a-side for example.



Sports & Leisure



Roof Protection Nets

Ball stop netting should not necessarily cease at a set height. Interior roof protection prevents balls becoming stuck in the rafters or damaging lighting, air vents or suspended ceiling panels. Huck Tek has also supplied netting and support cabling to prevent unstable ceiling components from falling on the public below where repairs cannot be immediately affected.





Play Equipment

Play equipment is covered in the UK and Europe by the international standards series BS EN 1176. All Huck play equipment is designed and installed in conformance with those standards.

Huck Seiltechnik Play Equipment

Huck Tek supply and install the Huck Seiltechnik range of standard play equipment, components can be selected and tailored to satisfy a customer's specific needs & budget. Please contact us for a copy of the complete Huck Seiltechnik product brochure: Email: info@hucktek.co.uk; Telephone: 0114 288 9550; Fax: 0114 288 0012



Lantern Climbing Nest - Art: 4530-20



Sports & Leisure

Huck Seiltechnik Leisure Systems

Projects combining standard Huck Seiltechnik components and Huck Tek's construction experience have been used to develop larger bespoke leisure projects. For example the main play areas for Monkeyworld; Wareham and the construction of a special themed viewing bridge for Paignton Zoo; Torquay.

The Huck Team are pleased to work with you to provide the leisure solution you require.



Rope Bridge Paignton Zoo







Monkey World - Climbing Net

Netting Data



Polypropylene Netting

Art. No.	Description	Colour	Material Width (mm)	Mesh Size (mm)	Weight g/sq.m.	Max Tensile strength of mesh (kN)	Usage
200- 020	PP high tenacity, knotless	000	2.3	20	180	0.80	Golf / Debris
200- 040	PP high tenacity, knotless	••••	2.3	40	90	0.80	Anti Litter
200- 100	PP high tenacity, knotless	•••	2.3	100	50	0.80	Sport
200- 120	PP high tenacity, knotless	••0	2.3	120	35	0.80	Sport
201- 025	PP high tenacity, knotless	•	1.8	25	100	0.60	Golf / Debris
1202- 020	PP high tenacity, knotless	000	1.0	20	50	0.20	Bird
1202- 030	PP high tenacity, knotless	000	1.0	30	30	0.20	Bird
1202- 050	PP high tenacity, knotless	000	1.0	50	20	0.20	Bird
1203- 010	PP high tenacity, knotless	(diamond mesh)	1.5	10	150	0.25	Industrial
203- 075	PP high tenacity, knotless	•	1.5	75	12	0.25	Bird
203- 100	PP high tenacity, knotless	•	1.5	100	15	0.25	Bird
207- 045	PP high tenacity, knotless	•	3.5	45	200	1.40	Play
209- 045	PP high tenacity, knotless	000000	3.0	45	150	1.25	Play / Lorry
209- 075	PP high tenacity, knotless	•	3.0	75	75	1.25	Anti Litter
209- 100	PP high tenacity, knotless	0000	3.0	100	75	1.25	Sport
209- 120	PP high tenacity, knotless	0000	3.0	120	65	1.25	Sport
218- 045	PP high tenacity, knotless	00000	5.0	45	400	3.20	Cargo / Safety
218- 060	PP high tenacity, knotless	•	5.0	60	300	3.20	Safety / Walk On
218- 100	PP high tenacity, knotless	000000	5.0	100	200	3.20	Safety
212- 300	PP high tenacity, knotless	•	5.0	300	55	3.50	Line Crossing
215- 045	PP high tenacity, knotless	00000	4.0	45	210	1.60	Lifting
215- 100	PP high tenacity, knotless	0000	4.0	100	110	1.60	Sport
215- 120	PP high tenacity, knotless	00000	4.0	120	90	1.60	Sport / Safety

All dimensions are approximate values; we reserve the right to make slight modifications.

Colour table

= 01 = Green

= 015 = Dark Green

O = 02 = White

= 03 = Orange

= 04 = Blue

○ = 05 = Yellow

● = 06 = Black

= 07 = Red

= 08 = Hemp coloured

= 09 = Violet

X-Tor Netting

X-TOR Stainless Steel Cable Mesh

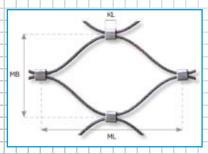
X-TOR netting is made from stainless steel cable crimped together to form a mesh structure. This type of webbing enables designs in not only rectangular sections, but also in various two- and three-dimensional shapes as the shape of the individual meshes can vary. This makes the material very suitable for high-end architectural applications in balustrades, fences and art works. The strength and durability characteristics make it also increasingly being applied in the design of aviaries, animal cages etc. The possibility to make very large tailor made sections enables this too and for that reason it is becoming more and more popular as design barriers in large public spaces, such as airports, stadiums and so on.

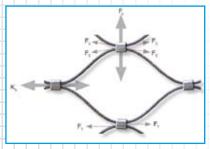
Material specifications

The stainless steel cable used in X-TOR is in aisi-316 quality and of 7x7 construction. The ferrules are standard in tin plated copper (CT) and alternatively in X-TOR/SS in stainless steel. Though mesh openings can vary, it is recommended that the center-to-center diagonal distance between ferrules equals the mesh size in balustrades. In non-rectangular panels such openings vary between 80% and 120% of the mesh size. The X-TOR Birdmesh program is made with stainless steel ferrules.

XTOR Product Specifications								
Production code	вм	1,5 CT	1,5 SS	2,0 SS	2,0 CT	2,0 CTX	3,0 CT	4,0 CT
Steel cable diameter (mm)	0,72	1,5	1,5	2,0	2,0	2,0	3,0	4,0
Stainless steel quality	316	316	316	316	316	316	316	316
Construction	7x7	7x7	7x7	7x7	7x7	7x7	7x7	7x7
KL - Ferrule length (mm)	4	7	7	7	7	9	10	13
Ferrule material	SS	СТ	SS	ss	СТ	СТ	СТ	CT
Breaking strength cable (kN)	0,41	1,3	1,3	2,2	2,2	2,2	5,0	8,3
Ft - Shearing force clamp (kN)	0,32	0.2	0.9	1.4	0.2	0.3	0.5	0.7
Fk - Ferrule breaking strength (kN)	0,34	2,1	2,6	2,6	2,9	3,3	5,9	9,2
Cable tension ratio (%)	70%	100%	100%	100%	100%	100%	100%	100%

M/ MB x ML Mesh Openings (mm)	Weight estimates (kg per sq. meter)							
20/ 24 x 32	0,49	-	-	-	-	-	-	-
25/ 30 x 40	0,41	-	-	-	-	-	-	-
30/ 36 x 48	0,35	-	-	-	-	-	-	-
35 x 60	0,24	1.58	1.58	-	-		-	-
40 x 69	0,20	1.28	1.28	1.70	1.70	2.30	-	-
50 x 86	0,15	0.91	0.91	1.25	1.25	1.63	3.17	-
60 x 103	1-	0.70	0.70	0.99	0.99	1.26	2.47	4.10
70 x 120	1-	0.56	0.56	0.80	0.80	1,00	1.99	3.31
75 x 129		0.51	0.51	0.74	0.74	0.91	1.83	3.04
80 x 137	1	0.47	0.47	0.69	0.69	0.84	1.68	2.81
90 x 155		0.39	0.39	0.58	0.58	0.70	1.41	2.36
100 x 172	1-	0.34	0.34	0.52	0.52	0.62	1.26	2.11
200 x 344	-	0.15	0.15	0.25	0.25	0.27	0.57	0.97





XTOR Strength considerations

The netting requires to be designed in such way that it will fit to carefully planned boundary cables or stainless steel tubes or rods. Onto such boundary constructions the meshes can be connected with spiraling stainless steel cables. For correct installation the netting will always be required to have a certain tension. The production is designed to reach shear strength as specified in above table.

Netting Data



Dralo Netting

Dralo nets are made of galvanised steel wire or alternatively of stainless steel wires (Specification DIN 14401)

The nets form a loop on the outer border at every second row of mesh. Every net is custom-made according to requirements. The max obtainable width is 5 m, although larger widths can be reached by attaching several panels to one another by hand.

The lengths of panels is theoretically unlimited, however in order to facilitate handling these are best limited to:					
Wire 2mm	100 meshes wide	approx. 300m long			
Wire 3mm	50 meshes wide	approx. 100m long			

Nets of more than 800kg weight are to be avoided.

The mesh is made by our patented wire ball, which can be in stainless 1.4401 steel or in aluminum AlMgSi 0,5.

LOADING CAPACITY / BURST STRENGTH:

Depending on the end use of every net, the maximum load must be carefully checked. This is especially important when the net is used as a safety net.

It is not possible to make any statement as far as the burst strength is concerned. When used as a safety net the loads are not equal on every single mesh, this contrary to the textile safety nets where the load due to the high elasticity of the net is diverted almost equally to all meshes. This does not occur with steel mesh nets. For that reason we can only supply a theoretical figure. This figure is the sum of the surrounding loops, fixed in a cross-like bolted manner with a minimum diameter of 15 mm.

Wire Diameter mm	Mesh Width	Net Size m	Number of Loops around Perimeter	Burst Strength per Loop kn	Theoretical Burst
2.0	50	2x2	150	2.0	30
2.0	100	2x2	80	2.0	16
4.0	50	2x2	150	9.0	135
4.0	100	2x2	80	9.0	72
4.0	125	2x2	110	9.0	99
5.0	125	2x2	110	14.0	154
6.0	125	2x2	110	20.0	220

The figures are almost identical for nets in galvanised steel wire and stainless steel wire.

When requesting quotes or ordering nets with a minimum loading capacity or precise burst strength, please supply us with a drawing or at least information about the maximum possible loading.

Similar burst strengths to the fixing points on the loops are obtained when working with adapted fittings all around.

BURST STRENGTH OF THE STEEL STRAND CABLES:

Stainless Steel sp	ecification 1.0441	Galvanised Steel		
Diameter mm	Breaking load	Diameter mm	Breaking load	
1.5	1.7	1.5	1.6	
2.0	2.5	2.0	2.3	
2.5	3.9	2.5	4.0	
3.0	5.6	3.0	5.3	
4.0	9.6	4.0	9.4	
5.0	14.9	5.0	13.6	
6.0	20.9	6.0	19.6	







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