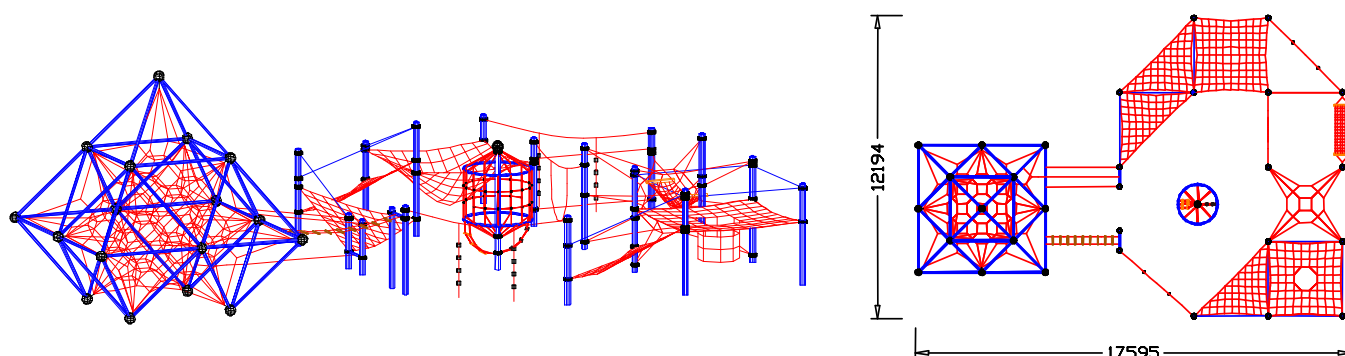




# Product Specification

Product Family	: CombiNation
Product name	: London
Item number	: 95.170.044
Children's age	: 5+
Fall Height (EN1176)	: 2.4 m (7'-11")
Dimensions: Length, width, height	: 17.6 x 12.2 x 5.6 m (57'-9" x 40'-1" x 18'-5")
Protective Surfacing Area required (EN1176)	: 21.8 x 15.2 m
Protective Surfacing Area required (ASTM 1487)	: 21.0 x 15.9 m (68'-11" x 52'-1")
Minimum space required	: EN1176: 239 m <sup>2</sup> / ASTM 1487: 253.5 m <sup>2</sup>
Number of foundations	: 22
Concrete Volume C20/25 (3.000 psi)	: 7.6 m <sup>3</sup>
Number of skilled installers required	: 2
Installation time without foundation	: 13 hours
Dimensions of largest part	: Ø 0.14 x 4.6 m (Ø 5 ½" x 15'-1")
Weight of heaviest part	: 140 kg
Freight volume	: 15 m <sup>3</sup>
Gross weight	: 3210 kg
Spare part guarantee	: Lifelong
Certificate according to EN 1176	: No.: Z2 05 10 10256 038 – TÜV Product Service



**CombiNation** includes the following elements from the **Univers** Net Structures, **Quadropolis** Play Constructions and the **Terranos** Netscape programs:

- 1 x Neptune net structure
- 1 x steel support 400 for balancing rope
- 1 x steel support 1800 for hand-over-hand ladder
- 13 x steel posts Jan
- 1 x hand-over-hand ladder between Neptune and steel support 1800
- 1 x balancing rope with two handrails between Neptune and steel support 400
- 2 x climbing rope diagonal
- 3 x triangular net
- 1 x net funnel
- 1 x space cell
- 1 x hammock
- 1 x swing rope
- 1 x balancing rope Terranos
- 1 x net sack
- 8 x railing cable
- 1 x Alberos "The Yellow"



# Product Specification

Members:	<b>Frameworkx</b> -steel pipes, $\varnothing$ 60.3 mm (2 3/8"); anticorrosion treatment and color finish: sandblasting and zinc-/ epoxy-/ polyester-process.
Nodes:	<b>Frameworkx</b> -aluminum ball connectors, $\varnothing$ 250mm (9-13/16"); anticorrosion treatment and color finish: sandblasting and zinc-/ epoxy-/ polyester-process; incorporating an ASTEM TT net tensioning system, securely closed with durable ebonite caps.
Ropes:	<b>U-Rope</b> -round strand ropes with galvanized steel cores, $\varnothing$ 16mm (5/8") – unless otherwise noted; external strands are covered with non-abrasive UV-resistant Polyamide-yarn (no Polypropylene!).
Spatial netting:	Rope crossing points localized by durable, drop forged aluminum-cloverleaf rings; in situ-replaceable rope lines (no special tools required).
Planar netting:	Rope crossing points localized by durable, drop forged aluminum-ballknots (no plastic)
Steel posts Jan:	Steel pipes $\varnothing$ 133 mm (5 1/4") with rounded cast aluminum post top, minimum wall thickness 7,1mm (1/4"); anticorrosion treatment and color finish: sandblasting and zinc-/ epoxy-/ polyester-process.
Steel supports:	Uprights comprised of steel pipes $\varnothing$ 133 mm (5 1/4") with rounded cast aluminum post tops, minimum wall thickness 7.1mm (1/4"); horizontal members comprised of <b>Frameworkx</b> -steel pipes, $\varnothing$ 60.3 mm (2 3/8"); All connections to upright posts are with cast aluminum Terranos clamps; anticorrosion treatment and color finish: sandblasting and zinc-/ epoxy-/ polyester-process.
Terranos clamps:	Two-part cast aluminum clamps for the height-adjustable connection between rope elements or steel pipes to Terranos steel posts.
Frox-rope connections:	All connections for Terranos-rope elements in Terranos-grid dimension 3000mm (standard linear dimension; 9'- 10 1/8") or 4243mm (diagonal dimension; 13'- 11-1/16") are equipped with Frox-Rope connections that are fully enclosed and free from any entrapment risks.
Triangular net:	A triangular planar net, mesh size 300 x 300mm (11-13/16"x11-13/16"), fastened at three points.
Hammock:	Hammock net with mesh width 100 x 130mm (3-15/16" x 5 1/8"), with two in situ-replaceable square rungs; rungs out of stainless steel profile AISI304 (DIN 1.4301) with aluminum end caps; The short sides are suspended from cables and hinged between the node of the net structure and a steel support. The swivel joints are attached to the suspension cables at two flexible points, thus preventing the netting from rolling over.
Hand-over-hand-ladder:	Width 290mm (11-7/16"), distance between rungs 250-300mm (9-13/16" to 11-13/16"), rungs comprised of American ash (alternatively Nylon 6.6.)
Climbing rope:	All ropes $\varnothing$ 21mm (13/16"), vertical ropes with worked-in ebonite cylinders, distance between cylinders 250-300mm (9-13/16" to 11-13/16")
Balancing rope:	Ropes $\varnothing$ 16mm (5/8"), height of handrail approx. 900mm (2- 7 1/2') rope ends are fixed with cast aluminum <b>Terranos</b> clamps (to the outer steel support) or with 600kg-shackles (to the net structure).
Swing rope:	All ropes $\varnothing$ 21mm (13/16"), width of the swing loop 1000mm (3- 3 3/8'), ground clearance 400mm (15 3/4").
Net funnel:	A 3 x 3m quad net with a funnel opening in the center, fastened at four points.
Net sack:	A relaxed 3 x 3m quad net, fastened at four points.
Space cell:	Twelfold suspended 3d-net cell, all suspension cables connected to steel posts with cast aluminum Terranos clamps.
The Yellow:	Rotatable climbing tree, central mast $\varnothing$ 133 mm (5 1/4") with an aluminum ball $\varnothing$ 250mm (9-13/16") as post top, 2 x steel ring 48,3 x 3,25 D=1600 (63"), 3 x polyamide slide bearing with machined Terranos-clamp, 1 x surrounding wall net between two steel rings, 1 x climbing rope and 1 x rope ladder for access, 4 x upper suspension cable, 4 x lower suspension cable