# durlum BUBBLE

The durlum BUBBLE system is a closed metal ceiling which gains its three-dimensional look thanks to characteristic convex shapes. The bubbles are arranged in offset rows [RV-50-40]. The S-shaped edges of the ceiling elements are made by a by-pass of the bubbles, thus, interlocking similar to a puzzle both the longitudinal and front-side joint. The BUBBLE standard module is 966 x1115.44 mm.

The substructures consist of a form punched L-shaped primary carrier [U1040] as a lateral grid which is suspended from the bare ceiling with nonius adjustable upper and lower parts or with threaded rods using officially approved dowel plugs. The L-shaped primary carriers are to be connected [screwed together] by means of longitudinal connectors [U 1041] at the lengthwise joints. The spacing of the L-shaped primary carriers depends on the requirements of DIN EN 13964 and the statics of the system and must be proven and established by the contractor. The L-shaped primary carriers are attached to the walls with [U 1042] wall brackets.

C-profiles with module stamping are mounted as length profiles onto the L-shaped primary carriers using primary carrier module adapters and fix-clips. The longitudinal connection of the C-profiles is performed using longitudinal connectors. The BUBBLE elements are snap-fitted into the module stampings using the torsion springs. Revision without tools and folding of the BUBBLE elements is ensured. Only construction parts approved by the manufacturer may be used.

**Acoustics**

To improve the absorption behaviour, the BUBBLE elements can be perforated and integrated with acoustic fleece.

**Cooling**

The BUBBLE elements can be activated with cooling meanders, thus, functioning as a chilled ceiling.

**Integration artificial light**

The curves of the BUBBLE are suitable for integration of LED-based PUNTEO®-J and PUNTEO®-N built-in luminaires which can be mounted into the bulgings. This means that normally no separate suspension is necessary. All luminaires will be equipped with a flexible connection and can be dismounted with the ceiling panel. The drivers are located in the ceiling void.

Leading brand system durlum BUBBLE with PUNTEO®-J or equivalent. Consisting of:

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| Item  m² | **Delivery and installation of BUBBLE** **ceiling elements**  Material: Sheet steel 1.0 mm  Surface: powder-coated sim. to RAL 9016  or optionally to  RAL … colour  Hole pattern: optionally  L1 smooth,  RD-L30 or  RG-L15  optionally  acoustic fleece black  Can be folded down and removed individually, without tools.  Undulating joints.  Module length: 966 mm  Module width: 1115.44 mm  Unit price: … €/m²  Total price: … € |
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| Item  m² | **Delivery and installation of BUBBLE ceiling elements with built-in luminaire PUNTEO®-J60**  Material: Sheet steel 1.0 mm  Surface: powder-coated sim. to RAL 9016  or optionally to  RAL … colour  Hole pattern: optionally  L1 smooth,  RD-L30 or  RG-L15  Module length: 966 mm  Module width: 1115.44 mm  1 PUNTEO-J incl. mounting accessories and drivers [on-site integration]  Light colour: 4000 K  Unit price: … €/m²  Total price: … € |
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| Item  Pcs. | **Retrofitting costs per format, version and call-off** |
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| Item  m² | **Delivery and installation of a substructure for the BUBBLE****torsion spring system**  C-profile with module stamping for the torsion spring and connector.  Suspension with vernier suspension or threaded rod over grid angles and connection using wall brackets.  Technically approved dowel plugs.  Unit price: … €/m²  Total price: … € |