# 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 mmSurface: powder-coated sim. to RAL 9016 or optionally to  RAL … colourHole pattern: optionally  L1 smooth,  RD-L30 or  RG-L15  optionally  acoustic fleece blackCan be folded down and removed individually, without tools.Undulating joints.Module length: 966 mmModule width: 1115.44 mmUnit price: … €/m²Total 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 mmSurface: powder-coated sim. to RAL 9016 or optionally to  RAL … colourHole pattern: optionally  L1 smooth,  RD-L30 or  RG-L15Module length: 966 mm Module width: 1115.44 mm1 PUNTEO-J incl. mounting accessories and drivers [on-site integration]Light colour: 4000 KUnit price: … €/m²Total 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: … €/m²Total price: … € |