DIVISION 01 . SB-HNG

Aviation & Aircraft Hangars

ICAO Code A-E clear-span hangars

A hangar is a door with a building behind it. We size the door first (clear width and height for the tail), then span the roof from the door columns, so the aircraft can be towed in on the centreline without shunting.

CLEAR SPAN **18 - 75 m**	BAY **3 / 4 / 5 / 6 m**	MEMBRANE **1,050 g/m2 PVDF**
FRAME **Q355B tube truss**	DOORS **Sliding / Megadoor**	SNOW **L1 - L3**

Structure

· Two-chord or three-chord tubular truss arch, Q355B, hot-dip galvanised to ISO 1461.
· Span is set by the door opening plus 1.5 m each side for the door track and wind post.
· Door columns are independent of the arch, so door deflection is not transferred into the membrane.
· Bay modules of 3, 4, 5 or 6 m; length is unlimited in whole bays.

Membrane & envelope

· 1,050 g/m2 PVDF-polyester, translucent, blue-white as standard; blackout and higher GSM on request.
· Membrane is tensioned over the arch with keder rail at the eaves and lacing at the crown.
· End walls: membrane, sandwich panel or segmented door leaves, depending on the door type.
· Gutters and downpipes sized for the roof catchment at the design rainfall intensity.

Openings & options

· Megadoor, sliding leaf, bi-fold or fabric roll-up door; manual or electric drive.
· Aircraft ground power, compressed air and fuel separator points coordinated with the MEP design.
· LED high-bay lighting to the lux level in your maintenance task card.
· Fire detection and foam suppression interfaces, on request.

What we need in order to quote

Site location and altitude drives snow and wind, not just the tier	**Clear span and length** whole bays; whole containers for DIV-07	**Opening size** door or end wall clear width and height
Largest machine or aircraft sets the door, not the span	**Floor and foundations** slab by others, or our anchor design	**Services** lighting, power, ventilation, fire strategy



Aircraft maintenance bay: nose-in access, clear span to the door line.

Size and price matrix

EXW price per square metre of covered area, standard configuration, excluding installation, freight, concrete and VAT. The three columns are the snow-load packages L1 to L3; steel weight is the L2 column.

Clear span x length	Area	Steel	L1 0.5 kN/m2	L2 2.0 kN/m2	L3 3.5 kN/m2
18 x 36 m	648 m2	47 kg/m2	$154	$162	$196
30 x 60 m	1800 m2	58 kg/m2	$158	$169	$210
40 x 72 m	2880 m2	68 kg/m2	$169	$182	$230
50 x 80 m	4000 m2	78 kg/m2	$182	$196	$252
60 x 100 m	6000 m2	87 kg/m2	$192	$209	$271
75 x 120 m	9000 m2	101 kg/m2	$211	$230	$302

Load basis

Tier	Snow load	Equivalent snow depth	Typical use
L1	**0.5 kN/m2**	**250 mm at 200 kg/m3**	**Sheltered sites, temporary cover, low-altitude temperate**
L2	**2.0 kN/m2**	**900 mm at 220 kg/m3**	**Central and northern Europe, most of North America**
L3	**3.5 kN/m2**	**1,250 mm at 280 kg/m3**	**Alpine, Nordic, Canadian prairie, heavy drift sites**

Wind: designs are checked against the basic wind speed for the site, up to 180 km/h at the lightest tier. Snow and wind are always recalculated for the project; the tier is a commercial package, not the site load.

Typical applications

MRO and line maintenance, private and corporate hangars, helicopter and UAV shelters, GSE storage.

Notes, exclusions and basis of quotation

- Snow and wind are calculated per site to ASCE 7-16 or EN 1991; the tier in the price table is a package, not the site load.
- Slab, foundations, doors beyond the standard leaf, MEP and erection labour are excluded unless quoted separately.
- Door clear height must be confirmed against the tail height of the largest aircraft in your fleet.

Design basis: ASCE 7-16 or EN 1991-1-3 / 1-4 as applicable; steel to Q235B / Q355B; hot-dip galvanising to ISO 1461; membrane PVDF-polyester, PVC on request. Certification documents, mill certificates and membrane test reports are issued with the shipping documents. Warranty: 25 years on the structure, membrane per manufacturer's data.