DIVISION 06 . SB-ARC

Frameless Steel Arch Canopies

Roll-formed AZ150 arch, no internal truss

The cheapest covered square metre we make: a corrugated AZ150 steel coil is roll-formed on site into a self-supporting arch, with no internal truss and no membrane.

CLEAR SPAN **10 - 40 m**	BAY **1.0 - 1.5 m**	ROOF **AZ150 steel**
FRAME **Self-supporting**	TRUSS **None**	ERECTION **On-site roll form**

Structure

· AZ150 aluminium-zinc coated steel coil, roll-formed on site to the arch radius.
· Corrugated section acts as structure and roof: no purlins, no internal truss.
· Base angle anchored to a continuous kerb or to the slab edge.
· Length is unlimited; each 1.0-1.5 m arch is a separate ring.

Membrane & envelope

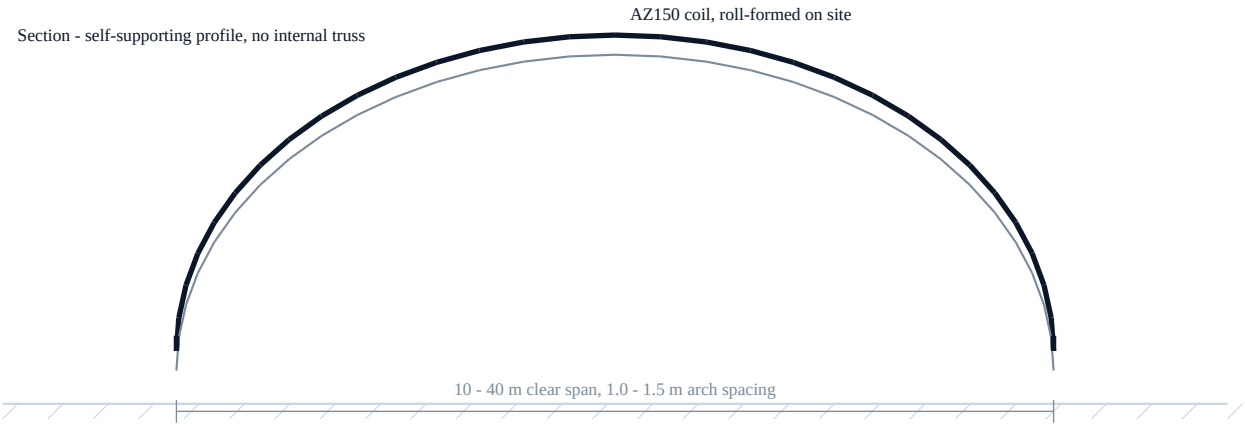
· No membrane. Roof is the profiled steel sheet, AZ150 coating for rural and coastal exposure.
· End walls in corrugated sheet, shutter or open with a wind beam.
· Optional translucent skylight rings for daylight.
· Condensation control by anti-drip coating on the underside.

Openings & options

· Open ends, roller doors, or full end wall with personnel door.
· Grain wall, partition walls, and bulkhead for material separation.
· Skylight rings and ventilation slots at the crown.
· Galvanised or colour-coated finish to the client's RAL.

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



Section - schematic, not to scale. Dimensions are confirmed on the project drawing. Site photographs of delivered buildings are available on request.

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
10 x 20 m	200 m2	12 kg/m2	$33	$35	$42
15 x 30 m	450 m2	14 kg/m2	$28	$31	$39
20 x 40 m	800 m2	15 kg/m2	$28	$30	$39
28 x 56 m	1568 m2	17 kg/m2	$29	$32	$43
36 x 72 m	2592 m2	20 kg/m2	$31	$34	$47
40 x 80 m	3200 m2	21 kg/m2	$32	$36	$49

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

Grain and fertiliser storage, hay and straw, machinery parking, livestock shelter, temporary bulk cover.

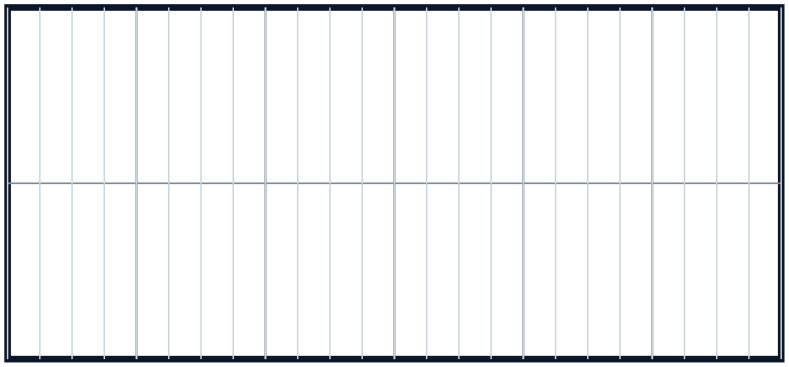
Notes, exclusions and basis of quotation

- Not insulated and not intended for occupied workspace without a separate lining.
- Site roll-forming needs a level working area of about 30 x 10 m and a power supply.
- Wind uplift governs the anchor design; the anchor detail is project specific.

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.

Plan

1.0 - 1.5 m arch spacing



Plan - self-supporting rings, no purlins

Plan - schematic, not to scale. Bay module and anchor positions as described above.