The new trade-fair hall north of Paris constitutes the first phase of a 300,000 m² expansion. Since such spaces are only in use periodically, the new building is designed to host a variety of other events and to adhere to high environmental standards. Thus, the higher, free-span wing of the bi-partite hall can be transformed as needed: for example, an auditorium structure accommodating an audience of eight hundred to two thousand can be set up within it. A double-skin facade made of corrugated polycarbonate sheets surrounds the steel construction and furnishes the hall with daylight and facilitates natural ventilation. In this interstitial space, which is two metres wide, climbing plants have already occupied the steel structure. During the warm months, these leaves provide additional protection from the sun by blocking out some of its rays. This greenhouse creates a buffer zone which links or separates the outer and inner zones as needed via ventilating sashes. In winter, warmed air is directed into the hall; in summer, the inner facade and the sun protection (aluminium-lined roller blinds in the interstitial space) remain closed during the day, while at night the cool air is allowed to flow into the hall. The watering system for the plants, the heat pump and the illuminaires are fully automated and regulated by a central system.
1. Sealing, two layers:
   120 mm thermal insulation
   40 mm corrugated steel sheet, perforated

2. Galvanized steel: 250 mm steel T-section
diagonal, 120 mm steel T-section lower chord

3. 18 mm corrugated aluminium 90 mm thermal insulation
   substructure, 600/50 mm sheet steel, bent, galvanized, perforated

4. 300 mm galvanized-steel, 1-section column

5. Ventilating slots: 120/100 mm galvanized-steel (SHS) frame
   with coggled wheel, motorized

6. 50 mm corrugated polycarbonate sheet, transparent
   on substructure: 140/60 mm sheet steel bent to shape

7. 120 mm galvanized steel, 1-section post

8. 60/50 mm galvanized steel RHS

9. Ø 100 mm galvanized steel RHS

10. Polyurethane filler

11. Heating pipes for tempering, at steel 10°C

12. 25 mm galvanized steel grating
    on substructure: 100 mm steel T-section

13. Sealing, two layers:
    40 mm thermal insulation

14. Fixed glazing in aluminium frame
    4 mm toughened glass + 6 mm
double + 4 mm toughened glass

15. 220 mm fibre-reinforced concrete