Stainless Steel - Performance and aesthetics for your projects
Metallic cladding and angular shapes provide a unique, distorted reflection of the surrounding landscape.

The Philharmonie de Paris, designed by Ateliers Jean Nouvel, is a glittering hill culminating at 52 meters with a giant screen displaying its programme, an eye-catching feature visible from the Périphérique and surrounding suburbs. Its location to the north-east of the capital, in the heart of the metropolis, made it a landmark of Greater Paris from the outset and affirmed a desire to popularize the music it represents. It marks the culmination of the cultural metamorphosis of this sector in the 19th arrondissement that was formerly dedicated to slaughterhouses - the transformed Grande Halle bears witness to this - that started over 30 years ago. With its national and international dimension, the Philharmonie crowns all the facilities that dot Parc de La Villette, and in particular its opposite number Cité de la Musique, completed in 1995 by the architect Christian de Portzamparc. These two buildings now form a pair known as Philharmonie 1 and 2. In addition to the large philharmonic hall named after Pierre Boulez with 2400 seats (3600 standing) set out over five levels, the Philharmonie comprises two large orchestra rehearsal rooms, six rehearsal rooms, work studios, an administrative centre, an educational centre, exhibition spaces, catering areas and shops. Concerts as well as exhibitions, educational activities and residences bring life to the building. There are several different ways of entering the building. Firstly, you can go 'under' the building from Parc de La Villette on the ground floor level. Alternatively, you can climb a very wide staircase that brings you into the foyer of the great hall. A gentle ramp from Porte de Pantin also leads to this foyer. You can zigzag up the northern slope of the building, like a hillside, to reach the belvedere, 37 meters above the ground, that offers a panoramic viewpoint of the city. The various paths offer freedom to users, inviting them to appropriate the site without preconceptions. A “living space for music”, its singular plasticity reflects the fluidity sought between spaces and people be they artists, technicians, the public, or merely shoppers.

Mirror of movement

Outside, the metallic cladding of its angular shapes and, conversely, curves provides a distorted reflection of the landscape and the movements around it, confusing distance and scale. Elements collide. The main design of the façades, in a nod to M.C. Escher, assembles seven different models of a stylized bird to form the aluminium coating in four shades of matte grey: flocks of birds form as the light changes.

Tourbillon

Overflowing from these flat, sharp-edged façades, the heart of the building is covered with bright stainless steel plate (Uginox Bright). Called the Tourbillon (whirlpool) and developed by Bureau HDA, this volume, highlighted in this manner, seems to escape from inside. It corresponds to the spaces of the foyer of the great hall. This curved wall is built in such a way as to form two distinct skins - the outer cladding and a watertight inner wall - each defined according to distinct geometric principles. The space between the two allows access for maintenance. With a surface area of nearly 7000m², the cladding is a collection of stainless steel scales laid out in a freeform manner determined by the architects. The geometry follows a NURBS (Non-uniform rational B-spline) model. It is characterized by a mixture of zones of double convex, concave and, in some places, almost flat curves. With a thickness of 1.5 mm, the stainless steel sheets are fixed on a three-dimensional structural system combining flat sheets for the frames and curved tubes. These are connected to the edges of the floor with rods. In contrast to the matt outer layer, the shiny appearance of the stainless steel exaggerates the surrounding landscape. Besides its aesthetic appearance, the smoothness of its surface helps to limit the deposition of dust and pollution residues. The particularly aggressive atmosphere near the Périphérique justified the choice of grade of austenitic stainless steel (Aperam 316L).