

## Secco Sistemi

### Steel



### THE MATERIAL

Steel is the name given to an iron alloy containing carbon.

Its properties and uses are countless; without steel in large quantities and at low costs the Industrial Revolution would have been impossible.

Simple and tough, perfect for everyday life, steel enjoys a great tradition and has always played an irreplaceable role in the building sector. Most of all its far greater resistance to external stress than any of the other materials has allowed architects and designers to create buildings with more glass and therefore light, thanks to the slimmer yet sturdier window and door frames.

### ADVANTAGES OF STEEL

- Very high structural resistance, resolves any design requirements, modulus of elasticity 3 times higher than aluminium and absolute maintenance of shape over the years
- Thermal conductivity 4 times less than aluminium: steel 55 w/mk - aluminium 220 w/mk
- Reduced coefficient of expansion, close to that of concrete and twice below that of aluminium
- High aesthetic value in terms of elegance and slenderness
- Possibility of customising the surfaces with a wide choice of finishes and colours
- Natural and essentially ecological material, 100% recyclable without limit

### TRANSFORMATION PROCESS

Steel in the form of slabs or blooms are cold rolled into coils, which then go through the hot-dip galvanising process with the Sendzimir system, when they are coated with zinc on both sides to ensure a high protection against corrosive agents.

The resulting strips are finished with a surface passivation and lastly cold rolled without removing the layer of zinc

### FINISH

After the transformation process the semi-finished or finished products are completed with the application of a top coat in any RAL colour or using special paints for guaranteeing a high aesthetic quality and excellent weathering resistance (thanks to the pre-treatment-cataphoresis-polyester powders cycle).