



# Coil Coating Line No. 1

## Coaters

The coating stations, or simply "coaters", are the most important element of a coating line. As already described overleaf, the paint is applied on the strip by the pickup roll and the applicator roll. In general, the line is comprised of three coaters, two for painting the top and the bottom side, and one for painting the top side only.

## Curing ovens

The curing ovens are arranged downstream of the coaters and serve to cure the paint. They are heated by hot air.

## Cleaning – Pre-treatment

After having left the entry looper the strip passes the cleaning and pre-treatment section. This section includes three different zones:

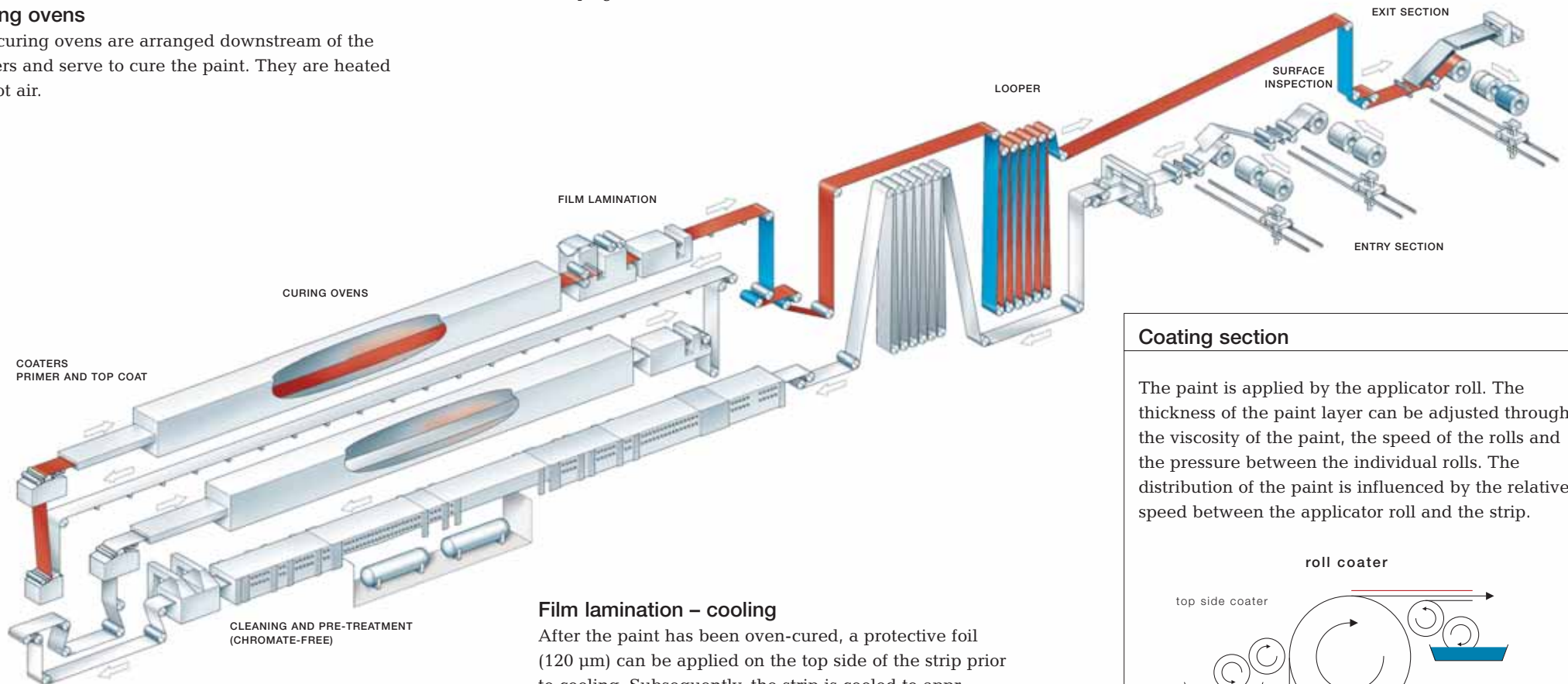
- Zones 1,3: degreasing of the strip at app. 50 – 70 °C
- Zone 2: brushing (if required)
- Zone 4: cascade rinsing with demineralised water
- Zone 6: chromate-free pre-treatment with Ti, Mn, phosphate, polymer
- Drying: hot air

## Entry section – looper

The individual steel strips are joined into an endless strip by means of a strip stitcher. The short downtime caused by stitching is compensated by the looper in the entry section.

## Surface inspection – exit section

After the strip has been cooled it is transported to the exit looper. Upon request, the strip is marked and/or oiled. Following inspection, the trip is wound to a coil.



## Film lamination – cooling

After the paint has been oven-cured, a protective foil (120 µm) can be applied on the top side of the strip prior to cooling. Subsequently, the strip is cooled to appr. 40 °C. The difference in temperature is roughly 200 °C.

## Coating section

The paint is applied by the applicator roll. The thickness of the paint layer can be adjusted through the viscosity of the paint, the speed of the rolls and the pressure between the individual rolls. The distribution of the paint is influenced by the relative speed between the applicator roll and the strip.

