

Bronx Representation Worldwide



*Colour
Coating Lines*



Bronx Group Products

- Continuous Galvanising Line - Unique Wet Flux 'Tight Coat' Process
- Continuous Galvanising Line - Non-oxidising Furnace Process
- Galvanising Lines with In-Line Painting
- Continuous Colour Coat Lines
- Colour Coat Lines - Small Service Centre - Stop/Start Satellite Lines
- Tension Level Lines
- Cut-to-length Lines
- Slitting Lines
- Galvanising Coating Control Jets
- Paint and Chemical Coaters
- Strip Joiners
- Equipment Upgrades
- Edge Trim Lines



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*"Sharing
Your Vision"*

Coil Coating

Coil coating is a term used to describe the application of a decorative and/or protective organic coating to metal supplied in coil form.

The finished product is known as 'pre-painted' steel or aluminium and is recoiled at the exit end of the coating line.

Pre-painted stock then undergoes subsequent forming and fabrication operations to produce a finished attractive painted product.

The type of metals coated include:

- Steel
- Galvanised steel
- Aluminium
- Steel/Aluminium composites

Metal thicknesses vary from 0.3-1.5mm in widths from 600-1,550mm. Coils of pre-painted steel weigh up to 20 tonnes.

The type of products typically made from pre-painted steel include:

- roofing and wall cladding
- guttering
- fences and walls
- whitegoods (appliances)
- cool room panels
- roofing tiles
- drum ends
- housings and casings
- industrial furniture and racking
- office furniture

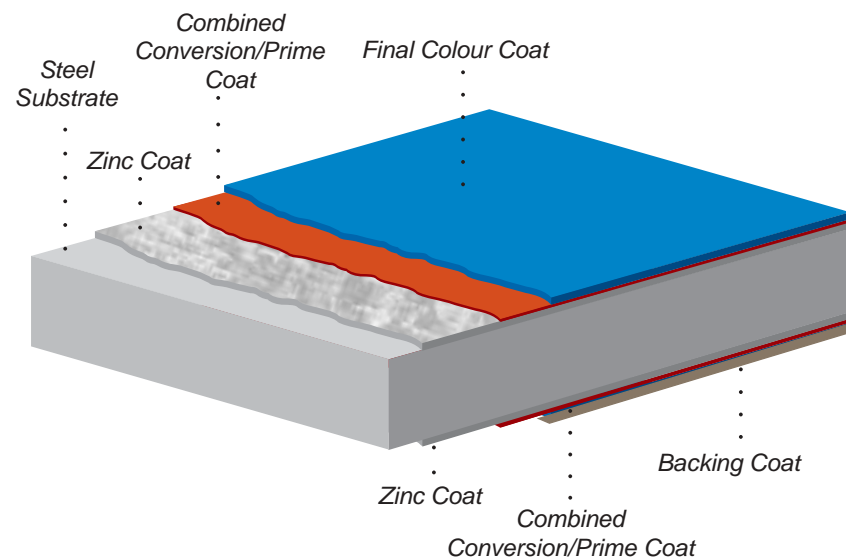
Bronx has designed and built organic coating lines for over 30 years. There have been significant advances made in coating technology since the mid 1970's that have enhanced conventional coating systems. It is now possible to achieve a long-life, high-quality paint finish with two coats instead of the traditional three coats. (shown opposite)

Bronx has worked with paint suppliers in designing production equipment to take advantage of this exciting development.



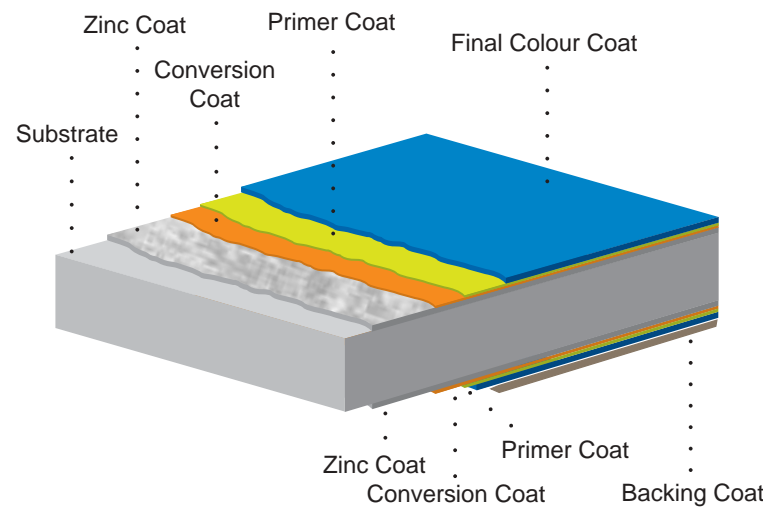
Entry section of a coil coating line

2 Coat System



3 Coat System

Conventional painted layers sees separate Conversion, Primer and Final Coats applied on a continuous Paint line. This applies to both black (uncoated) and galvanized (zn or zn-al) coated.



Selecting a Paint Line

Capacity

Coil Paint lines range in production output from 10,000-150,000 tonnes per annum. It is possible to install a low capacity line, requiring a corresponding low capital investment, and upgrade the line to output higher volumes as market demand increases. By designing a new line to easily accept later retrofitted equipment, future modifications can be made with minimal downtime to the existing line.

Once the maximum strip width and thickness has been determined, capacity depends upon:

- i) the thermal capacity of the oven and the strip contact time in the oven and/or
- (ii) the maximum process section line speed

Line output is usually restricted on medium and heavy gauges by the thermal capacity of curing ovens where to exceed the rated oven throughput will result in the oven being incapable of maintaining the desired metal temperature. On lighter gauges, the maximum line speed of the process section will determine output.

The initial selection of these parameters must be suited to the

desired output because to purchase a line with excess capacity means over-capitalising, and one with insufficient capacity means losing market share.

Ovens

In recent years, major advances have been made in curing oven technology and this is one of the reasons Bronx has been able to develop one of the most sophisticated, flexible and acclaimed painting lines available -

The Bronx Satellite Paint System.

Traditional wisdom states that curing ovens will be of convection type, with a curing time of 15-25 seconds. In recent years, electric infrared ovens are being accepted with curing times of 7 seconds, and sometimes less. The use of a well-designed infrared oven provides many cost and production benefits to coating lines that include:

- Virtually no heat up or cool down time
- Very short length
- The ability to vary line speed and follow variations with altered oven power, thus enabling proper paint curing under altered conditions
- The ability to stop and start the line producing only small amounts of scrap

- A heavy gauge coil can immediately follow a light gauge coil and the oven will immediately adjust thermal output to suit.

Services Offered by Bronx

Bronx engineers pride themselves on their ability to provide professional entry-level support to customers who have no coating experience. The level of technical assistance provided depends on the individual needs of the customer.

Some clients require a full turnkey contract with a high degree of technical intervention once the line is installed; while more experienced operators require less assistance. To this end, Bronx will provide the following assistance:

- Project Feasibility
- Site Selection
- Equipment Design
- Installation & Commissioning
- Training of Operators and Production Personnel
- Product Testing
- Downstream Equipment
- Ongoing Technical Support



Coater Room & IR Oven