Remal Thorid Powder Coating Plant Complete With 3 Stage On-Line Pre-Treatment

Second Hand Powder Coating Plant from the well respected OEM, Remal Thorid.

This used Powder Coating plant is presented in superb running condition, having been used sparingly (client advises) since commissioning & is now presented to the market as a Direct From Site Sale opportunity, fully operational.

As as the exclusive agents of this part used powder coating facility, we are also able to offer a full decommissioning and reinstallation service by way of separate negotiation/quotuation.

Our client advises that they would be prepared to demonstrate the plant working, to any interested parties.

Notable features of this 2002 - Remal Thorid Powder Coating Plant - Drg No - RTC/94380-007H (see att) is that it features a 3 STAGE, ON-LINE PRE-TREATMENT PLANT (presently using Paintbond 310-MPO215 Iron Phosphate, from Trimite) although this could be changed to an alternative Phosphate to suit a particular product specification, as the plant will be fully drained/flushed, prior to decommissioning.

Plant Particulars - Please note that a superbly presented FULLY DOCUMENTED OPERATING MANUAL/FOLDER IS AVAILABLE WITH THIS PLANT

The Pre-Treatment stage (spray application) is manufactured from 2.5mm Fully Stainless Steel Plate throughout and has been expertly designed so as to affect easy dismantling, as at each internal flange the sections are bolted together using a closed cell Neoprene sealing system. This makes for ease of removal, transportation away from site and re-installation.
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The fully 304 Stainless Steel pre-treatment canopy is mounted on a 3 Stage chemical holding tank arrangement, these being manufactured from 6mm Steel, fully welded inside and out, with rolled steel angles & channels for extra strength. The tanks are fully insulated with 50mm thick mineral wool (45Kg Density) and further clad with 1.2mm Zintec (painted) for additional corrosion protection. Tank heating stages, (1 & 3) are by Gas, each tank has a capacity of 1500 Gallons, with a pump capacity given as nominal 388 Gallons per minute to 426 Gallons per minute Maximum, with a pump pressure of 1Bar giving a spray pressure of 1 Bar.

The overall 3 Stage Pre-Treatment Sequence is:

Stage 1 - Spray De-grease/Iron Phosphate - Heated Stage - GAS BURNER BY LANEMARK - TX60N (2,000,000 Btu/Hr)

Stage 2 - Spray Cold Water Rinse - Ambient

Stage 3 - Spray Hot Water Rinse - Heated Stage - GAS BURNER BY LANEMARK - TX60N (2,000,000 Btu/Hr)

Note that the hot rinse improves Powder adhesion, due to the retention of latent heat of product, before entering powder coat application stage.

Solution application is by way of 11 spray rings (cPvc material) each housing 16 flat vee spray jets (GRP material), having a spray capacity of 2.2 Gallons per minute. The spray rings were designed and installed so as to envelope the parts being pre-treated and this feature is particularly important where parts with recesses, sharp changes in section, or blind holes are a concern.

Following the 3 Stage Pre-Treatment, the parts are conveyed (conveyor is a used Amber Industries, MCM 100 Powertrack, with a running length of approx 70M - 14 support legs at 3M & 4.2M heights from floor and central lube point) to the powder coating enclosure/cabin (aperture 1.8M Drop x 1.4M Wide) where parts are manually powder coated via two operators working diagonally opposite to one another.

The powder coating application arrangement since inception, has been that it has only had the need, for one operator, due in part to the sparing use of the equipment and the clients product mix, but with the inclusion of another operator the production rates would be markedly increased.

Powder application is by way of a second hand ITW Gema Optistar, housing the Optiflex B powder box vibratory platform that and dust extraction is managed by a used DCE Donaldson Torrit - UNICELL C90-4K18 - 15KW -Reverse Jet Cartridge Type - YOM 2001.

Colour changes in the Powder Coating stage have been declared by our client at a conservative 20 Minutes.
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Following the Powder Coating application stage, parts are conveyed to the curing oven, which is by way of gas fired, into the internal chamber. The oven is expertly manufactured and features high level explosion relief throughout the whole oven and positioned outside of it, is a LANEMARK INTERNATIONAL - TYPE FD10EN-3 Gas Burner, that fires into the interior ductwork, where heat is conducted onto the parts for curing to take place. The curing oven is configured to provide "double-pass" curing to the components, thereby ensuring that the powder has fully thermoset/cured. High & Low level Air blowers by Fan Engineering compliment the heat transfer into the curing chamber and the expertly designed and manufactured interior of the oven, featuring high, mid & low level ducting ensures an even heat distribution for the avoidance of hot-spots.

Additional salient features of this part used Remal Thorid Powder Coating plant is that it features two Saxon 3000Kg Scissor lifts (only one shown on images, but another is available, that has never been used), auto dosing and pH correction on the Pre-Treatment stage, IBC storage stand for close proximity of dosing chemistry and expertly designed and manufactured door closing mechanisms on air seals, throughout the plant for efficient heat/chemical retention.

The whole plant is controlled from a central free-standing enclosure cabin, with process flow diagram of the plant displayed on the front, LCD temperature monitors for the heated stages and ON/OFF switches for the pumps on the pre-treatment stages.

A particular noteworthy point is that the plant features a facility, so as if the conveyor is stopped due to any reason, the pumps & heaters de-energise proportionally and on start-up of the conveyor again they re-energise. This is an energy saving feature that should not be overlooked. Furthermore, a timer allows for solution heat up and oven start up to be programmed, so as the plant is ready for immediate production, on start of the working day, so as to avoid down-time.

The attention to detail, expert design & engineering, use of top OEM items and a particular focus on Health & Safety features integrated into this powder coating plant, should not be underestimated & it is now offered to the market at a fraction of a comparable new plant.

Note - The comprehensive Operating Instruction Manual is comprises:

Section 1) Health & Safety
Section 2) General Description
Section 3) List Of Major Parts
Section 4 Operating Instructions
Section 5) Manuals Of Standard Items
Section 6) Electrical Diagrams
Section 7) Recommended Spares
Section 8) Maintenance Instructions
Section 9) Technical Service
Section 10) General Arrangement Drawing

Addendum-
The pendant weight on the used overhead conveyor, given on the technical data is given as 60Kg, which we would advise any interested party to check, as there is the possibility that it is 100Kg.
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Stock Code: JGS009
Manufacturer: Remal Thorid
Model: REMAL THORID POWDER COATING PLANT
Year of Manufacture: 2002
Serial: DRG NO - RTC/94380-007H
New or Used: Used
Work Envelope (WxDxH): 1.1 x 4.3 x 1.6 Metres - Work Pitch 5.6
Process Stages: 3 Stage Pre-treat + Powder Coat + Cure
Other Info: On Line Iron Phosphate Pre-treatment
External Dimensions: 29.1 x 14.9 x 5 Metres

View Remal Thorid Powder Coating Plant Complete With 3 Stage On-Line Pre-Treatment on our web site at http://www.rileysurfaceworld.co.uk/machines/24409.htm

PHOTOGRAPHS TAKEN PRIOR TO REFURBISHMENT.