

# Application Success Stories



Process Efficiency &  
Sustainability

Quality & Reliability

Super Quick Color  
Change Time

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## Installation Key Data

**Objects:** Sheet Metal for Data Centres

**Part Sizes:**

H	1,500mm
W	300mm
L	4,300mm

**Conveyor Speed:** 1.5m/min

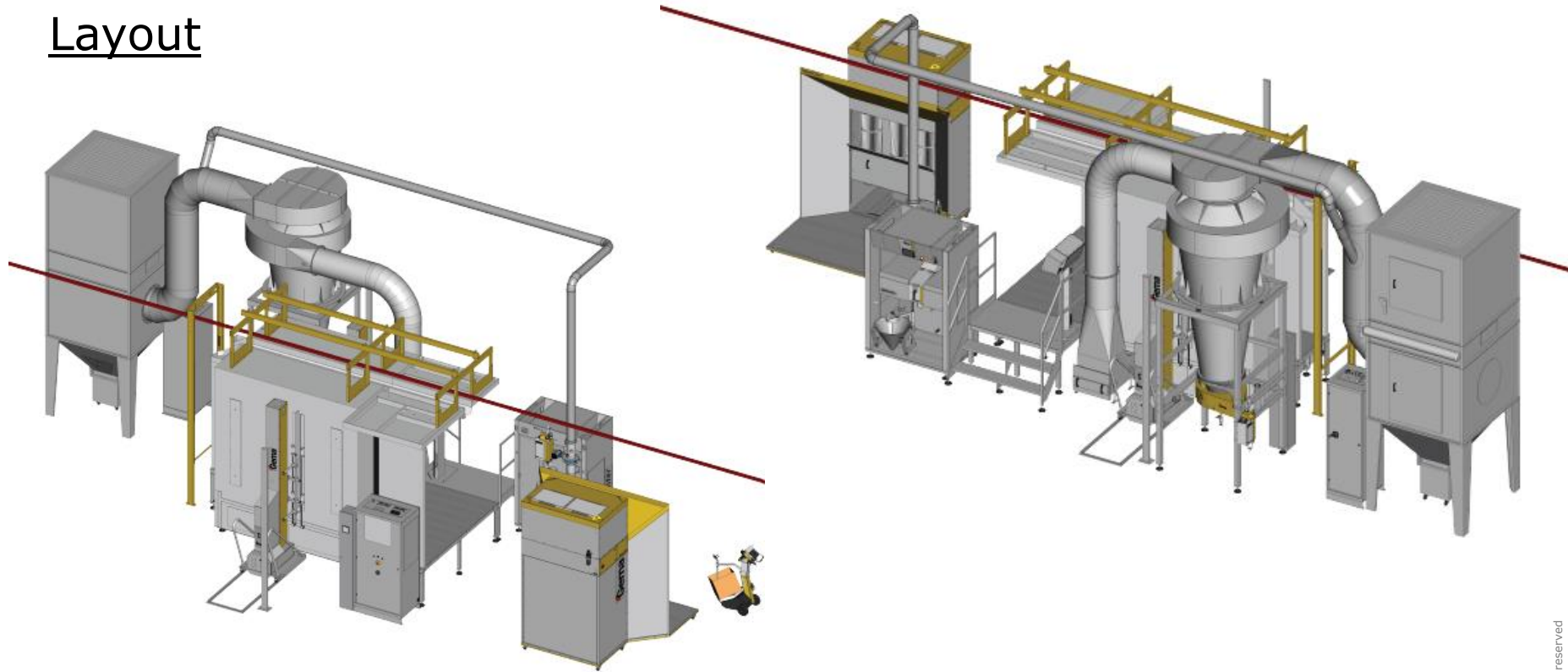
### Scope of Delivery:

- 1 x MagicCompact® EquiFlow® BA04 Booth
- 1 x MonoCyclone with OptiFeed 4.0 Pump
- 1 x Filter 12,000 m3/hr with ICS08 Control
- 2 x Reciprocators ZA07-18 and XT03 Carriages
- 1 x Basic Light Barrier to detect product height
- 1 x OptiCenter® All-in-One (OC06)
- 1 x ClassicLine Manual Booth
- 4 x OptiGun® GA03-AX Guns
- 1 x OptiSelect® Pro Manual Gun for automatic booth
- 1 x OptiSelect® Pro Manual Gun for manual booth



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## Layout



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From a standing start in 2012, Datalec Precision Installations (DPI) has grown into a substantial business delivering high quality and cost-effective design, supply, install, commissioning and managed services to the demanding data centre sector. Constantly in the pursuit of perfection, Datalec is always looking at ways to better service its customers and is continuously innovating and improving its portfolio.

The result is a 'one call, one team' solution for their customers that is designed

to deliver a seamless and integrated end-to-end result.

Datalec manufactures a wide range of aisle containment and caging solutions including security cage partitions, enclosures, and louvres plus a variety of other metal products to provide a complete end-to-end solution for the data centre industry.

Their brief included a focus on overall sustainability, scalable platform, quality, reliability and process repeatability combined with the lowest running costs.

The system was installed in Q4 of 2022 and the design includes a quick colour change facility with up to 60 standard colours being used in the business, with special finishes available upon request.



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The new system includes the latest Gema BA04 MagicCompact booth which is a double skinned enclosure with an EquiFlow self-cleaning floor. The whole booth is designed to minimise the amount of powder adhering to the structure and enables extremely quick colour changes with the minimum of operator input. When the unit is in operation, the majority of reclaimed powder is recovered automatically, recycled and fed back to the guns in a seamless flow.

We expect powder reclaim efficiency of up to 97%. This high efficiency is possible due to the powder flow circuit

being optimised to ensure that the powder is conveyed smoothly to reduce powder degradation whilst it is in transit. The powder pumps, ducting, cyclone and hoses are modelled using the latest fluid dynamic software which keeps the powder in 'tip top' condition.

The Gema OptiCenter OC06 All-in-One Powder Center keeps the powder flowing accurately.

The reclaimed powder is fed back into the main powder tank (OptiSpeeder) with incredible accuracy to maintain a consistent blend of virgin and reclaimed powder.

This keeps the finish uniform. The OptiCenter also has a facility to adjust the blend ratio of reclaimed powder which is particularly advantageous when processing metallic powders.





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The Gema MagicCompact booth has four OptiGun GA03 automatic guns fitted, two on each side of the booth to accurately coat the parts suspended on the overhead track. A manual gun is also fitted at the exit side of the booth which allows operators to manually touch-in complex parts

To comply with the ATEX and Health & Safety regulations, Gema systems are supplied with a zone map and fire suppression and detection equipment. Separate to the automatic booth, a smaller open fronted Classic Gema booth is also fitted in the conveyor line. "Making the change from using multiple outsourced suppliers to creating an in-house powder

coating facility required a detailed business plan. After a thorough evaluation we selected GEMA given their extraordinary reputation together with an impressive operational capability relating to useability, scalability, and reliability.

The plant has been fully operational for only a few months but has already proven to be a great investment for us. Our powder coating facility is highly sustainable, efficient and enables us to responsively deliver results to the same exacting standards and quality assurance we are already known for."



Brian Alexander, Quality Manager, ACCS (DPI)