Powder coated bulk parts for agricultural machinery

Premium, robust and competitive

Continuous productivity improvement paired with cost cuttings is a recurring topic in the agricultural machinery industry. Delivering these objectives requires the use of efficient high-quality agricultural engineering. Only cultivation techniques with the highest profits will survive in the highly competitive global agricultural market.

KEYWORDS

Huge parts, Agricultur, MagicPlus, OptiMatic, OptiStar

THE COMPANY

Since the 1980s, the Schwandorf-based company Horsch has demonstrated its competence in the farming sector and has significantly contributed to the trends in soil cultivation and seeding techniques.

Today the Horsch technology is used in farming regions all over the world and under the most varied conditions.

THE SITUATION

With the company's growth in the last few years, the production site in Schwandorf reached its capacity.

Further growth required additional capacity, which had been created with a state-of-the-art site in Ronneburg close to Gera in Thuringia. Directly off the A4 motorway near the Hermsdorfer Kreuz intersection, Horsch invested 15.6 million euros in an area of 9.5 ha for production, coating technology and final assembly of the machinery. In January 2007, production started after a construction and training period of just 4 months.

POWDER COATING, A NEW TERRITORY

Best finishing quality is key at Horsch and therefore is permanently monitored by means of quality controls between the different production steps. To further meet the high standards, Horsch chose to use powder coating technology. Frank Kneisel, Head Paintwork, remembers: "We couldn't fall back on any practical values. We trained ourselves by talking to powder suppliers and equipment manufacturers. In addition, we visited as often as possible existing plants to acquire the necessary know-how. Just after 4 months, we were ready to start production."

With success. Only 4 months later, 25 racks with an average of 1'000 kg pass through the powder coating installation per shift. The factory has already switched to 2 shifts, since then the volume has massively increased.

Die zwei Kabinen sind mit jeweils 18 Automatikpistolen und einer Handpistole bestückt

The high-quality polyester powder is applied without any priming onto the 20 to 30 mm thick steel parts. For heavy-duty agricultural equipment, the edges are the weak spot, as extreme strain is put on these parts of the machine. Thanks to a close collaboration with the powder supplier and using especially optimized powder, we achieved a perfect flow and protection of the edges.

"The new coating plant allows us a cost-effective and extremely flexible production", explains Frank Kneisel. "This flexibility guarantees to meet the strongly increasing demand in the future. For our company, it was also important to be able to fully meet the VOC legislation. As a supplier to the agricultural industry, we feel obligated to put a special focus onto these topics. Thanks to emission-free application as well as recycling and reuse of excess powder, powder coating technology is definitely the best solution to comply with the VOC directive."

Another big issue in the manufacturing of agricultural or building machinery is the repair of assembly damages. These can be repaired without any trouble by means of 2K material", says Frank Kneisel. "However, powder paint in itself is by far less prone to assembly damage."

Amongst the agricultural machinery manufacturers, the new powder coating installation at Horsch in Ronneburg creates a stir. Horsch readily shows its latest acquisition and exchanges gained experience with its competitors. "In our business, we do not fear any contacts with competitors", concludes Frank Kneisel. "Because our experience contributes to further developments in our industry and offers the users in general improved quality for the future."

OBJECT TYPES:

Parts for agricultural machinery,
weight per rack 1'000 kg on average

OBJECT SIZES:

max. height 3'000 mm
max. width 1'400 mm
max. length 5'500 mm

OptiMatic AS02 equipped with 26 control modules OptiStar

Kontakt:
Horsch Maschnenbau GmbH
Frank Kneisel
Am Horsch Werk 6
D-07580 Ronneburg
f.kneisel@horsch.com

Finishing Brands
Justus-von-Liebig-Str. 31
D-63128 Dietzenbach

INSTALLATION:

Quick color change system type MagicPlus from ITW Gema GmbH

- Powder coating appliance type OptiMatic AS02-26P equipped with 26 control modules OptiStar CG02 witht CANBus
- 24 automatic and 2 manual guns. 12 automatic guns vertically positioned on each of the 2 reciprocators
- Width, height and gap control managed via fully programmable CM10 control module
- 2 person-lifts with 2300mm stroke for touch-ups
- 2 monocyclone units and afterfilter units, aspiration volume 16'000 [Nm3/h] each
- Powder center with fresh powder supply per main color from 300 l powder containers
- Integrated fire suppression system