Substance-saving coating removal
Health-friendly removal of contaminated material
Powerful subsurface preparation
Large-scale design
The new WDS 530
Manual work on walls and ceilings is a thing of the past

The WDS 530 is a global first and finalist in the Bauma Innovation Award 2019 competition. Stripping, renovation and design work which previously had to be realised by hand can now be mastered mechanically with this Schwamborn development using professional grinding technology – achieving phenomenal surface quality.

The demands associated with stripping, renovation and design are also continuously increasing, both in ergonomic and efficiency terms, and the same applies to disposal costs, not least with regard to contaminated wall and ceiling coatings. With the new wall and ceiling grinder, the research and development department at Schwamborn has developed an innovative, user-oriented solution to tackle these challenges. We would like to present the most significant highlights:

Innovative, efficient and ergonomic

The WDS 530 incorporates over 50 years of experience in professional grinding technology for walls and ceilings. The WDS 530 has a hydraulic drive which can be operated through remote control of the robot. For the first time, this enables efficient grinding and refurbishing of extensive wall and ceiling areas, achieving an outstanding surface finish. Moreover, the WDS 530 considerably simplifies work and relieves stress.

Prior to this, work was primarily realised through manual labour – with all the familiar disadvantages associated with labour costs and the ramifications for health.

Mechanical processes which were employed relatively infrequently were, on the one hand, not very gentle on the building fabric and, on the other, incapable of achieving coating removal results of even approximate precision. This was not the only reason the WDS 530 gained such admiration in the BAUMA Innovation Award 2019 competition.

Uniformly high contact pressure

The WDS 530 is designed for working with BROKK demolition robots. It enables the achievement of uniformly high contact pressure on walls and ceilings, with Cardan technology ensuring that the grinding head lies flat at all times on the surface, even on slopes of up to 6%. The machine can, depending on the task involved, be equipped with a variety of tools such as grinding diamonds for stripping during subsurface preparation. Tools for polishing walls and ceilings and bush hammering tools for subsurface preparation or surface design round off the range of accessories available.

New creative and, now, efficient design options are opened up in architecture and wall and ceiling construction. Design with concrete can, similar to floor construction, now be realised over a broad area in numerous different ways using a variety of tools – achieving highly polished to glossy surfaces or a roughened finish with the appropriate tools. Natural stone walls can be ground with different grit types to achieve extraordinary design results.

Healthy and environmentally friendly

The targeted machine removal of materials and optimised dust extraction now employed minimise the risk of damage to health. Disposal is safer, simpler and less cost-intensive as a result, with operators and the environment now protected to a degree that was previously inconceivable.

Cost-effectiveness

The cost-effectiveness of this innovation is obvious: phenomenal surface quality, simultaneous protection of building fabric and unique ergonomic performance through robot technology and remote control.

Options for use

This makes the WDS 530 ideal for a variety of application areas:

- The excellent surface machining rate of the WDS 530 enables the efficient, rapid, thorough and safe removal of coatings – including those containing harmful substances such as asbestos. Paint, plaster or tile adhesive applied over a broad area can now be efficiently removed. The WDS 530 facilitates targeted removal of the surface (including contaminated material) with little additional erosion. This reduces disposal costs.

- Subsurface preparation: Grinding and bush hammering
  Another area of use is in subsurface preparation during new construction and refurbishing through grinding or bush hammering. This enhances surface tensile strength, increasing the durability and economic efficiency of the walls and ceilings created.

- Surface design
  New creative and, now, efficient design options are opened up in architecture and wall and ceiling construction. Design with concrete can, similar to floor construction, now be realised over a broad area in numerous different ways using a variety of tools – achieving highly polished to glossy surfaces or a roughened finish with the appropriate tools. Natural stone walls can be ground with different grit types to achieve extraordinary design results.

Cardan technology ensuring that the grinding head lies flat at all times on the surface, even on slopes of up to 6%.
WDS 530

WDS 530 – manual work is a thing of the past

Innovative, efficient and ergonomic for stripping, renovation and design work on walls and ceilings with professional grinding technology, consistently high contact pressure and the achievement of phenomenal surface quality.

Options for use

Stripping of plaster, contaminated material, tile adhesive, paint; scarifying and bush hammering during subsurface preparation; grinding and polishing of concrete and natural stone on walls and ceilings.

Technical data

| Reference N° | 715700 |
| Hydraulic operating pressure | bar | 70 – 120 |
| Hydraulic volume flow | l | > 45 |
| extension stroke | mm | 250 |
| Power output | kW | 4 |
| No. of tools | mm | 3 x 200 |
| Grinding pressure wall | N | 1000 |
| Grinding pressure ceiling | N | 800 |
| Operating weight | kg | 220 |
| Tool speed | min⁻¹ | 400 – 1000 |
| Dimensions LxWxH | cm | 145 x 61 x 69,3 |
| Ø Dust control | mm | 1 – 4 x 76 |
| Tool mount | | ETX1 / ETX2 |
| Noise level | dB(A) | 84 |

Special characteristics

- ETX easy tool exchange
- Cardan mounting of grinding head
- Careful stripping preserves building fabric
- Motor overload protection
- Contra-rotating tools
- Adjustable grinding pressure
- Speed adjustment
- Large selection of tools
- Remote robot/grinding head control
- Outstanding surface machining
- Precision removal of material
- Switching from wall to ceiling
- Multiple dust extraction option
- Working height up to 6.5 m
- Multiple dust extraction option
- Working height up to 6.5 m
- Cardan mounting for plan loops on slopes of up to 6 %
- With remote control

TECHNOLOGY

TECHNOLOGY
The WDS 530 has a hydraulic drive which can be operated through remote control of the robot. For the first time, this enables efficient grinding and refurbishing of extensive wall and ceiling areas, achieving an outstanding area performance.

Unique ergonomics thanks to robot technology, remote control and optimized dust extraction, which can also be connected several times to the grinding head.

Targeted removal of coatings reduces the disposal costs - especially of contaminated material such as asbestos, paint or glue. The WDS and the matching vacuum cleaners and dust collectors ensure safe, cost-reduced and simplified disposal.

Targeted removal of materials and optimized dust extraction minimize the risk of damage to health. The wall and ceiling grinding machine enables protection of the operators and the environment that was previously unthinkable.

The cost-effectiveness of this innovation is obvious: Outstanding area performance, simultaneous protection of building fabric and a maximum degree of ergonomic performance through robot technology and remote control.

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