



## TECHNICAL DATA Xmatic

|                                   |                                       | Xmatic  |
|-----------------------------------|---------------------------------------|---|
| Capacity                          | Individual specimens                  | No  |
|                                   | Specimen holder                       | Diameter: 140 mm for 250 mm MD disc               |
|                                   |                                       | Diameter: 160 mm for 300 mm MD disc               |
| High speed plane grinding station | Diameter                              | 270 mm  |
|                                   | Speed                                 | 1450 rpm  |
|                                   | Material removal                      | 0.05 mm - 6 mm, variable in steps of 0,05 mm      |
|                                   | Rotational direction                  | Clockwise   |
|                                   | Recirculation system                  | Yes   |
|                                   | Motor power                           |   |
|                                   | Continuous (s1)                       | 2.2 kW  |
| MD grinding and polishing station | Diameter                              | 250 mm or 300 mm                                  |
|                                   | Rotational speed                      | 50 - 600 rpm (1000 rpm when spin-drying the disc) |
|                                   | Rotational direction                  | Clockwise   |
|                                   | Motor power                           |   |
|                                   | Continuous (s1)                       | 1.5 k W   |
| Specimen mover                    | Specimen holder                       | Only applicable with RFID-tag holders             |
|                                   | Max. weight                           | 4 kg (8.8 lbs) incl. specimens                    |
|                                   | Max. specimen height                  | 40 mm   |
|                                   | Max. specimen protrusion under holder | 6 mm  |
|                                   | Force                                 | 50 - 500 N in steps of 10 N                       |
|                                   | Force accuracy                        | +/-10% up to 100N, +/-10N on higher values        |
|                                   | Rotational speed                      |   |
|                                   | in process                            | 50 - 300 rpm, variable in steps of 10             |
|                                   | when drying                           | 1200 rpm  |
|                                   | Rotational direction                  | Counter-clockwise, Clockwise                      |
|                                   | Motor                                 | 1.1 kW  |
|                                   | Torque                                | 7.3 Nm @ 150 rpm                                  |
| Vertical conveyor                 | Number of specimen holders            | 8   |
| MD elevator                       | Number of MD surfaces                 | 8   |
| Cleaning station                  | High pressure water                   | 40 bar  |
|                                   | Alcohol and soap                      | Yes   |
|                                   |                                       |   |





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| Features                                   | Material removal  | 0.05 mm - 6 mm on MD grinding and polishing station |  |
|  | Dressing of high removal grinding stone                         | Automatic diamond tip                               |  |
|  | Dressing of MD surfaces   | Automatic (diamond tip/aluminum oxide stick)        |  |
|  | Automatic dosing  | 7 pumps for OP or DP suspension                     |  |
|  |   | 1 alcohol ejector for cleaning station              |  |
|  |   | 1 soap ejector for cleaning station                 |  |
|  |   | Automatic cleaning of dosing tubes                  |  |
|  | High speed plane grinding station                               | Yes   |  |
| Options                                    | Ultrasonic cleaning   | Yes   |  |
|  | Recirluation for MD grinding/polishing station                  | Yes   |  |
| Software and electronics                   | Touchscreen   | Capacitive  |  |
|  | Display   | LCD, 12.1" (1280 x 800)                             |  |
| Safety<br>standards/directives/legislation | See the Declaration of Conformity/Instruction manual.           |   |  |
| REACH                                      | For information about REACH, contact your local Struers office. |   |  |
| Operating environment                      | Surrounding temperature   |   |  |
|  | During operation  | 5 - 40°C (41 - 104°F)                               |  |
|  | During transport  | -25°C - 55°C (transport)                            |  |
|  |   | -25°C - 70°C (max. 24 hours during transport)       |  |
|  | Humidity  | 35 - 85 % RH non-condensing                         |  |
| Water supply (tap water)                   | Flow  | Min. 10 l/m (2.6 gmp)                               |  |
|  | Water inlet, connection   | 3/4"  |  |
|  | Pressure  | 2 - 9.9 bar (29 - 143 psi)                          |  |
| Waste water outlet                         | Diameter  | 50 mm (1.97")                                       |  |
|  | Outlet height   | 50 cm (19.7") above the floor                       |  |
|  | Max. distance to drain  | 600 cm  |  |
|  | Slope   | Min. 8%   |  |
| Compressed air supply                      | Pressure  | 6 - 9.9 bar (87 - 143 psi)                          |  |
|  | Flow  | Min. 200 l/m (53 gpm)                               |  |
|  | Recommended quality   | Class-3, as specified in ISO 8573-1                 |  |





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| Power supply                 | Voltage/frequency                                    | 220 V/430 V +/-10% (50/60Hz)     |
|                              | Power inlet  | 15 A                             |
|                              | Power  |                                  |
|                              | Nominal load   | 1.5 KW                           |
|                              | Idle   | 195 W                            |
|                              | Current  |                                  |
|                              | Nominal  | 6 A/4 A                          |
|                              | Max.   | 15 A/7.5 A                       |
|                              | Current, largest load                                | 4.6 A                            |
| Exhaust                      | Diameter   | 100 mm (2")                      |
|                              | Recommended capacity                                 | 250 m³/h (8830 ft³/h)            |
| Dimensions and weight        | Width  | 242.5 cm (95.5")                 |
|                              | Depth  | 75.0 cm (29.5")                  |
|                              | Height   | 189.0 cm (74.4")                 |
|                              | Height (with open cover)                             | 244.0 cm (96.0")                 |
|                              | Weight   | 960 kg (2116.4 lbs)              |
| Safety Circuit               | SF-1   | PL c, Category 1                 |
| Categories/Performance Level | Emergency stop                                       | Stop category 0                  |
|                              | SF-2   | PL d, Category 3                 |
|                              | Abrasive guard interlock                             | Stop category 0                  |
|                              | SF-3   | PL d, Category 3                 |
|                              | Limited speed function, stone                        | Stop category 0                  |
|                              | SF-4   | PL d, Category 3                 |
|                              | Limited speed function, specimen holder mover        | Stop category 0                  |
|                              | SF-5   | PL d, Category 1                 |
|                              | Main safety cover interlock, hazardous movements     | Stop category 0                  |
|                              | SF-5A  | PL c, Category 3                 |
|                              | Main safety cover interlock, water and ethanol       | Stop category 0                  |
|                              | 05.0   |                                  |
|                              | SF-6 Main safety cover interlock with locking device | PL a, Category b Stop category 0 |
|                              |  |                                  |
|                              | SF-7 MD-changer door locking device                  | PL c, Category 3                 |
|                              | - J  | Stop category 0                  |
|                              | SF-8<br>MD-changer door locking device               | PL c, Category 1                 |
|                              |  | Stop category 0                  |





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|                 | SF-9<br>Vertical conveyor doors interlock   | PL d, Category 3 Stop category 0                        |  |
|                 | SF-10<br>Recirculation unit doors interlock, MD station   | PL b, Category 1 Stop category 0                        |  |
|                 | SF-11<br>Recirculation unit doors interlock, grinding stone station   | PL b, Category 1 Stop category 0                        |  |
|                 | SF-12<br>Exhaust timer  | PL b, Category 1 Stop category 0                        |  |
| Noise level     | A-weighted sound emission pressure level at workstations  | LpA = 64.4 dB(A) (measured value). Uncertainty K = 4 dB |  |
| Noise level     | Equivalent ultrasound sound pressure level (equivalent level of ultrasound)   | Lteq, T=95.2 dB (measured value). Uncertainty K = 2 dB  |  |
| Noise level     | The figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc., i.e. the number of machines and other adjacent processes.  Also, the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk. |   |  |
| Vibration level | Declared vibration emission   | N/A   |  |

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