

# Fact Sheet

## XRE-D pro 100

# BIZERBA

*Discover the new XRE-D pro! The intelligent X-ray system for the inspection of packaged products sets standards in terms of detection accuracy and application flexibility.*



**More information**  
High performance  
with a wide range of  
solutions and options.

| Specifications          | Facts  | Details   |
|-------------------------|--|---|
| <b>Inspection area</b>  | 330/200<br>450/250<br>600/120                              | All dimensions in mm  |
| <b>Use</b>              | Foreign body detection<br><br>Detection of product defects | <ul style="list-style-type: none"> <li>– Magnetic, non-magnetic metals</li> <li>– Glass</li> <li>– Nonmetallic minerals</li> <li>– Bones</li> <li>– Rubber</li> <li>– PVC</li> <li>– Masking functions (hiding of disturbing effects from packaging components such as clips)</li> <li>– Completeness check / fill level check</li> <li>– Total weight (accuracy depending on the product)</li> <li>– Breakage control</li> <li>– Deformation</li> <li>– Air pockets</li> <li>– Clumping</li> </ul> |
| <b>Product</b>          |  |   |
| <b>Shape</b>            | Packaged   | e.g. plastic or aluminum tray, films  |
| <b>Temperature</b>      | -20 °C to +70 °C<br>-4 °F to +158 °F                       |   |
| <b>Weight</b>           | Maximum belt load:<br>– 15 kg<br>– 529.1 oz                |   |
| <b>Minimum weight</b>   | 20 g   | Note: Minimum weight required to open the radiation protective curtains   |
| <b>Throughput</b>       | approx. 300 ppm  | Depending on product dimensions and product distance  |
| <b>Minimum distance</b> | Single product length                                      |   |
| <b>Maximum length</b>   | 250 mm<br><br>300 mm                                       | In case of deviating product length > 250 mm – max. 300 mm product test necessary<br><br>At a conveyor belt speed of up to 0.5 m/s  |
| <b>Maximum width</b>    | 300 mm<br>450 mm<br>600 mm                                 | Inspection area<br>330/200<br>450/250<br>600/120  |

### Mechanical design

|                               |   |   |
|-------------------------------|---|---|
| <b>Surfaces</b>               | Covers and conveyor belt frame made of stainless steel 1.4301 (AISI 304)<br>Drive, guide and tension rollers made of stainless steel 1.4301 (AISI 304)  | Glass beaded finish   |
| <b>Conveyor belt height</b>   | 900 mm ± 50 mm<br>35.43 in ± 1.97 in  |   |
| <b>Guide roller diameter</b>  | Ø 34 mm<br>Ø 1.34 in  |   |
| <b>Material</b>               | Conveyor belt in white FDA quality made of polyester (PES)<br>Conveying side made of polyurethane (PUR)<br>Running side made of impregnated polyester fabric<br>Wedge bar for belt guidance on running side |   |
| <b>Belt width</b>             | 360 mm<br>660 mm  | 330/200<br>450/250<br>600/120   |
| <b>Drive</b>                  | 3-phase drum motor including thermal contact monitoring   | 140 W<br><br>IP rating: IP69  |
| <b>Conveyor belt speed</b>    | 0.8 m/sec (0.32-1.04 m/sec = 19.2-62.4 m/min)<br>157.5 ft/min (63.0-204.7 ft/min)   | Optional: 1.05 m/s (0.42 – 1.37 m/s = 25.2 - 81.9 m/min)<br>Optional: 206.7 ft/min (82.7 – 268.7 ft/min)<br>Adjustable via frequency converter from -60 % to +30 % of the nominal speed (more speeds upon request).<br>(depending on the product, product test necessary)<br>Maximum belt load: 12 kg; 423.3 oz |
| <b>Electrical design</b>      |   |   |
| <b>Operating voltage</b>      | 230 VAC (± 10 %)<br>50/60 Hz<br>single phase  | US/CAN 208-240 VAC (±10%)   |
| <b>Power consumption</b>      | Max. 8 A/230 VAC  | US/CAN max. 10 A  |
| <b>External fusing</b>        | 10 A, delay-action  |   |
| <b>Mains cable</b>            | 3 pin CEE connector   | Blue (L1 + N + PE)  |
| <b>Cooling</b>                | Filter fan  | Optionally cooling device   |
| <b>Signal elements</b>        | Horn  | BK  |
| <b>Signal lamp</b>            | X-rays ON<br>System failure<br>Normal Operation<br>Audit check  | Red<br>Orange<br>Green<br>Blue  |
| <b>Operating elements</b>     | Combined control and operating unit for conveyor belt and X-ray system  | Rotary main switch<br><br>Key switch<br>Emergency stop  |
| <b>Potential-free outputs</b> | „Machine Inspecting“<br>„Machine Error“<br>„Machine X-Ray ON“   | Ready to operate<br>Error status<br>X-rays ON   |

|   |  |   |
|---|--|---|
| <b>Prepared for connection of</b>       | Rejection system incl. preparation for Higher Level Compliance   | Max. 2 rejection systems  |
| <b>Inspection system</b>                |  |   |
| <b>X-ray tube</b>                       | 50 kV/2.0 mA   | 100 W   |
| <b>Detection accuracy</b>               | High resolution X-ray detector   | Accuracy: as from Ø 0.6 mm (product-specific)   |
| <b>Peripherals</b>                      | Industrial PC with 15" touch screen  | Resolution 16:9   |
| <b>Radiation protection</b>             | Radiation protection curtains (0.125 mm Pb equivalent value) including wear protection   | Light grid (option specified in drawing), for special legal requirements, on request<br>IP65<br>Temperature range -26 °C to +65 °C  |
| <b>Safety switch</b>                    | All housing parts required for radiation protection are secured with magnetic safety switches.   |   |
| <b>Weight</b>                           | Approx. 450-590 kg   |   |
| <b>IP rating</b>                        | IP54   | Filter fan  |
|   |  | Optionally IP55 cooling device  |
|   | IP65   | Housing, operating elements, etc.   |
|   | IP66   | Conveyor belt with drum motor   |
| <b>Storage / transport conditions</b>   |  |   |
| <b>Temperature</b>                      | -10 °C to +40 °C<br>+14 °F to +104 °F  |   |
| <b>Humidity</b>                         | 5-90%, non-condensing  | Relative humidity   |
| <b>Ambient conditions</b>               |  |   |
| <b>Place of installation</b>            | Indoor areas, no direct sunlight   |   |
| <b>Temperature</b>                      | +5 °C to +30 °C<br>+41 °F to +95 °F<br>+5 °C to +40 °C<br>+41 °F to +104 °F<br>+5 °C to +30 °C<br>+41 °F to +86 °F<br>+5 °C to +35 °C<br>+41 °F to +95 °F                      | 330/200 with filter fan<br>Country set USA, Canada: only with filter fan<br>330/200 with cooling device<br><br>450/250; 600/120 with filter fan<br>Country set USA, Canada: only with filter fan<br>450/250; 600/120 with cooling device<br><br>The maximum and typical temperature indications correspond to an indication at 500 meters above sea level. Derating of the maximum/typical ambient temperature typically 1 °C per 1000 meters as from 500 meters above sea level. |
| <b>Cleaning conditions</b>              |  |   |
| <b>Complete device</b>                  | Dry cleaning   | Wiping/dusting, vacuuming, drying etc.<br>IP rating: IP55<br>Pmax< 0.3 bar; 30 kPa at a distance of 3 m   |
| <b>Discharge conveyor</b>               | Dry cleaning and water jet cleaning  | IP rating: IP66   |
| <b>Water jet pressure</b>               | Pmax< 1.0 bar; 100 kPa at a distance of 3 m  |   |
| <b>Cleaning and disinfection agents</b> | Cleaning agent must be suitable for cleaning of stainless steel 1.4301, stainless steel 1.4305, stainless steel 1.4057, PTFE, POM, polyamide, PE-UHMW, TPU, silicone and EPDM. |   |

|                                    |   |   |
|------------------------------------|---|---|
| <b>Temperature range</b>           | max. +50 °C<br>max. +122 °F   |   |
| <b>Options</b>                     | <b>Facts</b>  | <b>Details</b>  |
| <b>Integrated rejection system</b> | Product weight up to 5 kg   | Only for 330/200  |
| <b>Version</b>                     | Conveyor belt extension +500 mm<br>Total length therefore 1,900 mm  | Package length 250 mm max.  |
| <b>Rejection system</b>            | Pusher<br>Pusher shield<br>Higher Level   |   |
| <b>Reject bin</b>                  | Plastic reject bin  | Removable   |
| <b>Maximum product weight</b>      | 5 kg  |   |
| <b>Minimum height</b>              | ≥ 6 mm  |   |
| <b>IP rating</b>                   | IP65  |   |
| <b>Electrical design</b>           | Supply and control happen via plug connection to the inspection system  | No additional control required  |
| <b>Pneumatic version</b>           |   |   |
| <b>Compressed air supply</b>       | 6-8 bar   | Coupling plug NW 7.2  |
| <b>Compressed air quality</b>      | Minimum requirements must be met by customer  | Residual dust: Class 1<br>Residual moisture: Class 7<br>Residual oil: Class 2 |
| <b>FRL unit</b>                    | Main switch (lockable)<br>Filter regulator with manometer (lockable)<br>Switch-on valve<br>Pressure build-up valve<br>Pressure switch<br>Safety switch-on valve |   |
| <b>Rejection system separated</b>  | Long products   | 330/200   |
| <b>Version</b>                     | Conveyor belt extension +800 mm<br>Total length therefore 2,200 mm  | Package length 400 mm max.  |
| <b>Rejection system</b>            | Pusher<br>Pusher shield<br>Higher Level   |   |
| <b>Reject bin</b>                  | Plastic reject bin  | Removable   |
| <b>Maximum product weight</b>      | 5 kg  |   |
| <b>Minimum height</b>              | ≥ 6 mm  |   |
| <b>IP rating</b>                   | IP65  |   |
| <b>Electrical design</b>           | Supply and control happen via plug connection to the inspection system  | No additional control required  |
| <b>Pneumatic version</b>           |   |   |
| <b>Compressed air supply</b>       | 6-8 bar   | Coupling plug NW 7.2  |

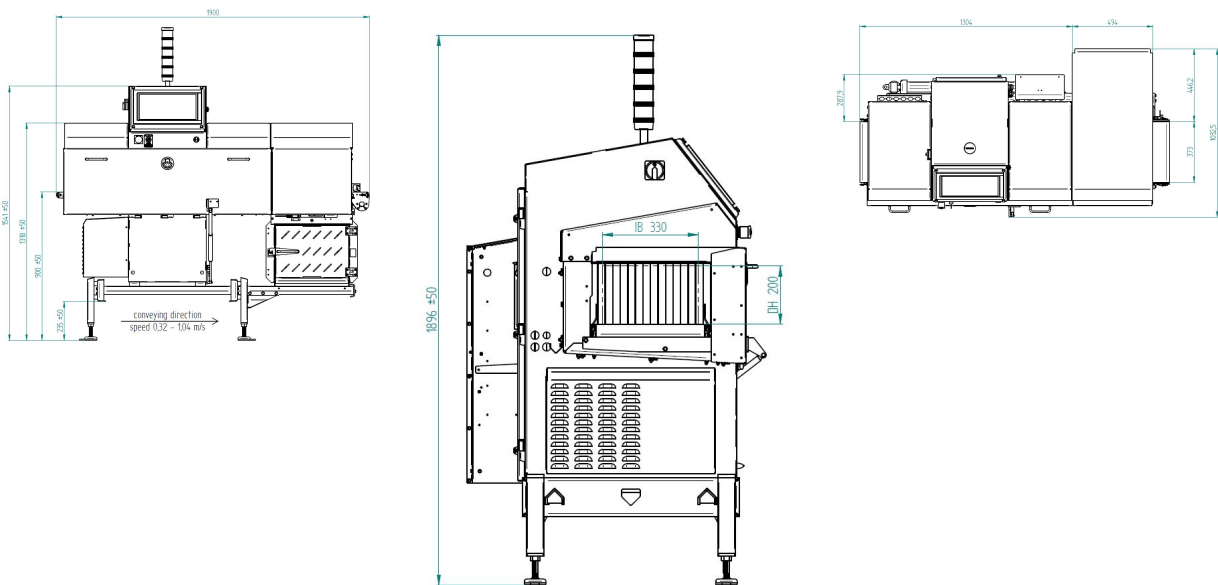
|                                   |   |   |
|-----------------------------------|---|---|
| <b>Compressed air quality</b>     | Minimum requirements must be met by customer  | Residual dust: Class 1<br>Residual moisture: Class 7<br>Residual oil: Class 2 |
| <b>FRL unit</b>                   | Main switch (lockable)<br>Filter regulator with manometer (lockable)<br>Switch-on valve<br>Pressure build-up valve<br>Pressure switch<br>Safety switch-on valve |   |
| <b>Rejection system separated</b> | Long products   | 450/250<br>600/120  |
| <b>Version</b>                    | Conveyor belt extension +800 mm<br>Total length therefore 2,200 mm  | Package length 400 mm max.  |
| <b>Rejection system</b>           | Pusher<br>Pusher shield<br>Higher Level   |   |
| <b>Reject bin</b>                 | Plastic reject bin  | Removable   |
| <b>Maximum product weight</b>     | 5 kg  |   |
| <b>Minimum height</b>             | ≥ 6 mm  |   |
| <b>IP rating</b>                  | IP65  |   |
| <b>Electrical design</b>          | Supply and control happen via plug connection to the inspection system  | No additional control required  |
| <b>Pneumatic version</b>          |   |   |
| <b>Compressed air supply</b>      | 6-8 bar   | Coupling plug NW 7.2  |
| <b>Compressed air quality</b>     | Minimum requirements must be met by customer  | Residual dust: Class 1<br>Residual moisture: Class 7<br>Residual oil: Class 2 |
| <b>FRL unit</b>                   | Main switch (lockable)<br>Filter regulator with manometer (lockable)<br>Switch-on valve<br>Pressure build-up valve<br>Pressure switch<br>Safety switch-on valve |   |
| <b>Quick belt change system</b>   | Conveyor belt frame and quick belt tensioner for fast belt change   | Only in combination with option rejection system separated                    |
| <b>Rejection system separated</b> | Heavy products  | 450/250<br>600/120  |
| <b>Version</b>                    | Conveyor belt extension +800 mm<br>Total length therefore 2,200 mm  | Package length 400 mm max.  |
| <b>Rejection system</b>           | Pusher<br>Pusher shield<br>Higher Level   | Roller conveyor<br>Modular belt   |

|                                 |   |   |
|---------------------------------|---|---|
| <b>Maximum product weight</b>   | 15 kg   |   |
| <b>Minimum height</b>           | ≥ 6 mm  |   |
| <b>IP rating</b>                | IP65  |   |
| <b>Electrical design</b>        | Supply and control happen via plug connection to the inspection system  | No additional control required  |
| <b>Pneumatic version</b>        |   |   |
| <b>Compressed air supply</b>    | 6-8 bar   | Coupling plug NW 7.2  |
| <b>Compressed air quality</b>   | Minimum requirements must be met by customer  | Residual dust: Class 1<br>Residual moisture: Class 7<br>Residual oil: Class 2                           |
| <b>FRL unit</b>                 | Main switch (lockable)<br>Filter regulator with manometer (lockable)<br>Switch-on valve<br>Pressure build-up valve<br>Pressure switch<br>Safety switch-on valve |   |
| <b>Quick belt change system</b> | Conveyor belt frame and quick belt tensioner for fast belt change   | Only in combination with option rejection system separated  |
| <b>0.4 mm detector</b>          |   |   |
| <b>Cooling device</b>           | For ambient temperatures between 5 °C and +40 °C  | IP55  |
| <b>Software package 1</b>       | Completeness check<br>Weight deviation<br>Clip detection<br>Shape deviations  |   |
| <b>Software package 2</b>       | Multi Lane-Software<br>Multi Product-Software<br>Zone Analyser-Software   |   |
| <b>Login package</b>            | User login with RFID chip   | Compatible with Mifare ISO 14443 and ISO 15639<br>inclusive 4 RFID transponder chips (Mifare ISO 14443) |

## Info graphics



## Dimensional drawings



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