Highlights

Standard Parts
Made of Detectable Plastics
Knobs

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Detectable
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Introduction

It is essential in many areas of industrial production to guarantee the purity of raw materials and end products. Expensive recalls, such as for contaminated food, can severely damage a company’s reputation and regularly show how important it is to identify foreign bodies as early as possible before they become a problem for production and packaging machines or even a risk to consumers.

Contamination frequently occurs in the form of chips and pieces of plastic or metal from the production equipment itself. In the event of problems, damaged parts or lost fasteners can enter into the production process.

To help prevent such instances, JW Winco offers standard parts with materials that are easy to detect. The two available options are explained below.

Standard parts with visual detectability (VD)

Visually detectable standard parts are made of blue plastic. The blue color makes them especially visible to the human eye and, perhaps more importantly, to optical monitoring systems. Especially in milk, dairy, and meat products, but also in most other areas of food production, blue colors are rarely encountered and therefore stand out well.

Complete standard parts or only pieces of them that mistakenly end up in the food production can then be easily and reliably detected. In addition, contaminants and residues of food on standard parts and operating elements are also easier to identify thanks to the color contrast.

All visually detectable plastic standard parts are made of FDA compliant plastic granulate as per FDA CFR.21 and EU 10/2011 and can therefore be used safely in contact with food and in pharmaceutical production.

Standard parts with metal detectability (MD)

Metal detectable standard parts are made of dark blue plastics that contain additives such as iron oxide. As a result, they are detected by metal detectors as of a particle volume of 0.125 cm³, meaning that even hidden plastic chips can be detected. The blue color also improves visual detectability. It is always important to calibrate the metal detector since products at risk of contamination and the moisture they contain can influence the detection performance.

Also the metal detectable plastic standard parts are made of FDA compliant plastic granulate as per FDA CFR.21 and EU 10/2011 and can therefore be used safely in contact with food and in pharmaceutical production.
EN 519.2 Cylindrical Handles
FDA Compliant Plastic, Detectable

How to order

1. Handle diameter \( d_1 \)
2. Thread \( d_2 \)
3. Material / Finish

EN 519.2-26-M10-VDB

Metric table

<table>
<thead>
<tr>
<th>( d_1 +0.5 )</th>
<th>( d_2 )</th>
<th>( d_3 )</th>
<th>( l_1 )</th>
<th>( l_2 )</th>
<th>( l_3 )</th>
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<td>1.02</td>
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<td>2.17</td>
<td>0.28</td>
<td></td>
</tr>
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</table>

Information

EN 519.2 cylindrical handles are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

see also...
- Cylindrical Handles EN 519.2 (Technopolymer Plastic) → www.jwwinco.com
- Softline Cylindrical Handles EN 519.6 → www.jwwinco.com

Information

- Plastic
  - Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 230 °F (110 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable
- Plastic
  - Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 230 °F (110 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5001, matte finish
  - Metal detectable
- Plastic Characteristics
  → Standard Parts Handbook page 2135
- RoHS compliant
EN 676 Knurled Knobs
FDA Compliant Plastic, Detectable, with Stainless Steel Tapped Insert, Ergostyle®

Metric table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>h₁</th>
<th>h₂</th>
<th>t min.</th>
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<tr>
<td>21</td>
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<td>10</td>
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<td>0.83</td>
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<tr>
<td>31</td>
<td>M 8</td>
<td>18.5</td>
<td>27</td>
<td>17</td>
<td>15</td>
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<td>0.73</td>
<td>1.06</td>
<td>0.67</td>
<td>0.59</td>
<td></td>
</tr>
</tbody>
</table>

Information

EN 676 knurled knobs are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

see also...

• Product Family Ergostyle® → Standard Parts Handbook page 18
• Knurled Knobs EN 676 (Plastic) → Standard Parts Handbook page 73
• Push / Pull Knobs GN 676.1 (Steel, Blackened Finish) → page 77
• Push / Pull Knobs GN 676.2 (Steel, Zinc Plated) → www.jwwinco.com
• Push / Pull Knobs GN 676.5 (Stainless Steel) → Standard Parts Handbook page 77
• Mushroom Shaped Knobs GN 76 → Standard Parts Handbook page 70

Specification

• Body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable

• Body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Metal detectable additives
  - Blue, RAL 5001, matte finish
  - Metal detectable

• Tapped insert
  Stainless steel AISI 303

• Plastic Characteristics
  → Standard Parts Handbook page 2135
• Stainless Steel Characteristics
  → Standard Parts Handbook page 2143
• RoHS compliant

How to order

EN 676-31-M8-MDB

1 Knob diameter d₁
2 Thread d₂
3 Material / Finish
EN 725 | Cabinet U-Handles
FDA Compliant Plastic, Detectable, with Tapped Inserts

Metric table

<table>
<thead>
<tr>
<th>Length l</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>h</th>
<th>t min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>117 ±0.5</td>
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<td>25</td>
<td>49</td>
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<td>179 ±1</td>
<td>7.05 ±0.04</td>
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<td>16</td>
<td>27</td>
<td>57</td>
</tr>
</tbody>
</table>

Dimensions in: millimeters - inches

Information

EN 725 cabinet U-handles are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

see also...

How to order

<table>
<thead>
<tr>
<th>EN 725-179-M8-MDB</th>
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</thead>
<tbody>
<tr>
<td>1 Length l</td>
</tr>
<tr>
<td>2 Thread d</td>
</tr>
<tr>
<td>3 Material / Finish</td>
</tr>
</tbody>
</table>
EN 237.1 | Hinges
FDA Compliant Plastic, Detectable, with Countersunk Bores

**Metric table**

<table>
<thead>
<tr>
<th>l₁</th>
<th>l₂</th>
<th>d₁</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>h₃</th>
<th>h₄</th>
<th>l₃</th>
<th>m₁ ±0.2</th>
<th>m₂ ±0.2</th>
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<tbody>
<tr>
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<tr>
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<td>1.97</td>
<td>6</td>
<td>0.24</td>
<td>11.5</td>
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<td>13</td>
<td>0.51</td>
<td>18</td>
<td>0.71</td>
<td>30</td>
</tr>
</tbody>
</table>

**Specification**

- **Body**
  - Plastic Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 176 °F (80 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable

- **Pin**
  - Stainless steel AISI 303

**Information**

EN 237.1 hinges are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

**How to order**

EN 237.1-50-50-A-VDB

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**WARNING:** Cancer and Reproductive Harm — www.P65Warnings.ca.gov
EN 604.1 Adjustable Levers
FDA Compliant Plastic, Detectable, Tapped Type, with Stainless Steel Components, Ergostyle®

Inch table

<table>
<thead>
<tr>
<th>l₁</th>
<th>d₁</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>h₃</th>
<th>h₄</th>
<th>Stroke</th>
<th>t min.</th>
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<tbody>
<tr>
<td>2.48</td>
<td>1/4 x 20</td>
<td>0.53</td>
<td>0.75</td>
<td>1.22</td>
<td>0.14</td>
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<tr>
<td>3.07</td>
<td>5/16 x 18</td>
<td>0.63</td>
<td>0.91</td>
<td>1.42</td>
<td>0.14</td>
<td>1.83</td>
<td>0.16</td>
<td>4</td>
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</table>

Metric table

<table>
<thead>
<tr>
<th>l₁</th>
<th>d₁</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>h₃</th>
<th>h₄</th>
<th>Stroke</th>
<th>t min.</th>
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<tbody>
<tr>
<td>63</td>
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<td>19</td>
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<td>38.5</td>
<td>4</td>
</tr>
<tr>
<td>78</td>
<td>M 8</td>
<td>M 10</td>
<td>M 12</td>
<td>16</td>
<td>0.63</td>
<td>23</td>
<td>0.91</td>
<td>36</td>
</tr>
</tbody>
</table>

Information

EN 604.1 adjustable levers are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

see also...
- Product Family Ergostyle® → Standard Parts Handbook page 18
- Adjustable Levers EN 604.1 (Plastic, with Stainless Steel Insert) → Standard Parts Handbook page 493
- Adjustable Levers EN 604 (Plastic, with Steel Insert) → Standard Parts Handbook page 492
- Adjustable Levers EN 602.1 (Zinc Die-Cast, with Stainless Steel Insert) → Standard Parts Handbook page 487

Specification

- Lever body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable

- Lever body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Metal detectable additives
  - Blue, RAL 5001, matte finish
  - Metal detectable

- Serrated inlay
  Zinc die-cast

- Tapped insert / retaining screw
  Stainless steel AISI 303

- Plastic Characteristics
  → Standard Parts Handbook page 2135

- Stainless Steel Characteristics
  → Standard Parts Handbook page 2143

- RoHS compliant

How to order (Inch)
EN 604.1-63-1/4X20-VDB
1 Lever length l₁
2 Thread d₁
3 Material / Finish

How to order (Metric)
EN 604.1-78-M10-MDB
1 Lever length l₁
2 Thread d₁
3 Material / Finish
**EN 604.1** Adjustable Levers

FDA Compliant Plastic, Detectable, Threaded Stud Type, with Stainless Steel Components

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![Diagram of Adjustable Lever](https://www.jwwinco.com/images/discrepancy.jpg)

**Inch table**

<table>
<thead>
<tr>
<th>l₁</th>
<th>d₁</th>
<th>l₂</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>h₃</th>
<th>h₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.48</td>
<td>5/16 x 18</td>
<td>0.79</td>
<td>1.26</td>
<td>1.57</td>
<td>2.48</td>
<td>-</td>
<td>0.53</td>
</tr>
<tr>
<td>3.07</td>
<td>3/8 x 16</td>
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<td>1.26</td>
<td>1.57</td>
<td>1.97</td>
<td>2.48</td>
<td>0.63</td>
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**Metric table**

<table>
<thead>
<tr>
<th>l₁</th>
<th>d₁</th>
<th>l₂</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>h₃</th>
<th>h₄</th>
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</thead>
<tbody>
<tr>
<td>63</td>
<td>-</td>
<td>0.79</td>
<td>1.26</td>
<td>1.57</td>
<td>2.48</td>
<td>0.53</td>
<td>0.75</td>
</tr>
<tr>
<td>78</td>
<td>-</td>
<td>0.98</td>
<td>1.57</td>
<td>1.97</td>
<td>2.48</td>
<td>0.63</td>
<td>0.91</td>
</tr>
</tbody>
</table>

**Information**

EN 604.1 adjustable levers are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

**Specification**

- Lever body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable
  - Metal detectable

- Serrated inlay
  Zinc die-cast

- Threaded stud / retaining screw
  Stainless steel AISI 303

- Plastic Characteristics
  ➔ Standard Parts Handbook page 2135

- Stainless Steel Characteristics
  ➔ Standard Parts Handbook page 2143

- RoHS compliant

**How to order (Inch)**

EN 604.1-78-3/8X16-50-MDB

1. Lever length l₁
2. Thread d₁
3. Thread length l₂
4. Material / Finish

**How to order (Metric)**

EN 604.1-63-M8-25-VDB

1. Lever length l₁
2. Thread d₁
3. Thread length l₂
4. Material / Finish
Three-Lobed Knobs
FDA Compliant Plastic, Detectable, with Stainless Steel Tapped Insert

EN 5342

Metric table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>h₁</th>
<th>h₂</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>M 8</td>
<td>16</td>
<td>27</td>
<td>13.5</td>
<td>13</td>
</tr>
<tr>
<td>50</td>
<td>M 10</td>
<td>19</td>
<td>30</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

Dimensions in: millimeters - inches

 Specification

• Body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable

• Body
  Plastic
  Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Metal detectable additives
  - Blue, RAL 5001, matte finish
  - Metal detectable

• Tapped insert
  Stainless steel AISI 303

Information

EN 5342 three-lobed knobs are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

see also...
• Three-Lobed Knobs EN 5342 (Plastic, with Stainless Steel Tapped Insert) ➔ Standard Parts Handbook page 643

How to order

EN 5342-40-M8-MDB

1. Knob diameter d₁
2. Thread d₂
3. Material / Finish
Three-Lobed Knobs
FDA Compliant Plastic, Detectable, with Stainless Steel Threaded Stud

EN 5342

Metric table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>Length l</th>
<th>d₃</th>
<th>h₁</th>
<th>h₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
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<td>20</td>
<td>0.79</td>
<td>30</td>
<td>1.18</td>
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<td>50</td>
<td>1.97</td>
<td>30</td>
<td>1.18</td>
<td>40</td>
<td>1.57</td>
</tr>
</tbody>
</table>

Specification

- **Body**
  - Plastic
  - Technopolymer (Polyamide PA)
  - Glass fiber reinforced
  - Temperature resistant up to 266 °F (130 °C)
  - FDA compliant plastic granulate
  - Blue, RAL 5005, matte finish
  - Visually detectable

- **Threaded stud**
  - Stainless steel AISI 303

- **Plastic Characteristics**
  - Standard Parts Handbook page 2135

- **Stainless Steel Characteristics**
  - Standard Parts Handbook page 2143

- **RoHS compliant**

Information

EN 5342 three-lobed knobs are made of blue plastic granulate that is FDA compliant as per FDA CFR.21 and EU 10/2011 as well as visually detectable or metal detectable.

The blue color is especially easy to see with the human eye and is also easy to detect with optical monitoring systems. This allows monitoring of the production process, such as in food production, so that the process can be interrupted if foreign bodies are detected.

The plastic of version MDB contains metal detectable additives. Metal detectors will be triggered by this material from a particle volume of about 0.007628 in³ (0.125 cm³), meaning that even hidden plastic chips can be detected.

*see also...*
- Three-Lobed Knobs EN 5342 (Plastic, with Stainless Steel Threaded Stud) ➔ Standard Parts Handbook page 646

How to order

EN 5342-50-M10-30-VDB

1. Knob diameter d₁
2. Thread d₂
3. Length l
4. Material / Finish

WARNING: Cancer and Reproductive Harm — www.P65Warnings.ca.gov