CATALOGUE OF PRODUCTS

- PERFORATED SHEETS
- EXPANDED METAL
- WELDED MESHES
- WOVEN NETS
- WEDGE WIRE SCREENS
- LASER CUTTING
- COMPLETE METAL PROCESSING
Dear Sirs

Perfopol Company was founded in 1990 with 100% of Polish capital. From the very beginning, we focused on the dynamic development - the goal still remains valid.

Currently we are the largest Polish manufacturer of perforated sheets and wire meshes. Extensive experience and technological advancement allows us to offer to the ever-increasing range of customers the highest quality products. We really believe in people. Our employees and their commitment are our strength. Consequently, modernizing and expanding the technical background which enables us to constantly expand the range of items.

We are the company chasing for new challenges. Constantly are looking for the best solutions and new technologies helpful in creating products with better performance and more competitive prices. Our goal means meeting your expectations and preferences.

We combine the professionalism and high quality, which has been confirmed with certificates: the quality certificate ISO 9001:2009, ISO 14001:2005, Solid Company in 2012 or the Gazelle of business.

The current shape of the company is the production of perforated metal, all kinds of wire meshes and steel structures supplemented with a comprehensive and professional metalworking (CNC).

Another element of our business is production of work clothes and services for screen printing.

We put at your disposal qualified staff and modern technical facilities. In case of any question do not hesitate to contact us. We invite you to cooperation.

Yours faithfully

Chairman of the Board Krzysztof Chaja

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PERFORATED SHEETS

Technical parameters

Available grades: mild steel, pre-galvanized steel, high wear resistant steel, heat resistant steel, stainless steel, aluminum, copper, brass, bronze, plastic, rubber.

Dimensions: thickness up to 18 mm, width up to 2000 mm, length up to 6000 mm. For some products there is possibility to offer perforation in coils (coil width up to 1600 mm). For some types of perforation there is limitation for thickness and width of the sheet or necessity of making technological unperforated margins.

Standard services: straightening, cutting to length, packaging on pallets.

Further services: bending, rolling, punching, framing, welding, powder coating, galvanizing.

Hole structure

Hole consists of three zones:
1. Indentation zone
2. Cutting zone,
3. Pulling zone

Item’s description

Standard sheets are produced with typical unperforated longitudinal and traverse zones (margins). There is a possibility of making perforation according to client’s drawing or with full perforated area (without unperforated zone). Typically all sheets are flattened after perforation. Additionally we offer further fullmetalworking services allowing our customers receiving finished product.
Begining and the end of perforated area.

Because of shape of tool for small holes (up to 10 mm) or for high value of open area (%) there is a lack of one or two rows at beginning and the end of perforation zone.

(*) cutting through the holes

Tolerances and standards

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<thead>
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<th>Width (mm)</th>
<th>Length (mm)</th>
<th>Deviation</th>
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<tr>
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<td>+/-3</td>
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<td>25</td>
<td>+/-5</td>
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<tr>
<td>625</td>
<td>37</td>
<td>+/-8</td>
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<tr>
<td>750</td>
<td>37,5</td>
<td>+/-8</td>
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<tr>
<td>1000</td>
<td>50</td>
<td>+/-10</td>
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<td>1250</td>
<td>62,5</td>
<td>+/-13</td>
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<tr>
<td>1500</td>
<td>75</td>
<td>+/-15</td>
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</table>

Dimensions, distances among axes of holes and tolerances are carried out in accordance with PN 76/M-94060/01..10. Tolerances of thickness and dimensions of perforated plates according to above mentioned standard (PN). All projects can be made according to PN, DIN or customer’s design. The table shows the maximum size of non-perforated margins, depending on width of the sheet (PN).

Nomenclature and way of ordering

Example of order:

1. Perforated sheet
2. DC 01
3. 1x1000x2000 mm
4. Rv 6-10

Packaging: pallets + foil + strips
Transport: depends on project.

Notices

In case of ordering longitudinal or rectangular holes (marked with two values), it is necessary to specify which value of hole is expected to be parallel to the longer side of sheet. It is also important to provide information about final application of ordered items. All details are to be consulted with our sales department. For technical reasons there are some restrictions regarding perforation process of plates with thickness similar to the diameter of hole, or when the „bridge” (metal among the edges of holes) is smaller than the thickness of sheet.
Round holes in square arrangement

Type of perforation:
Rg a - t

Open area (%):
P = 0.785 \times \frac{a}{t} \times 100

<table>
<thead>
<tr>
<th>Rg a-t (mm)</th>
<th>P</th>
<th>Rg a-t (mm)</th>
<th>P</th>
<th>Rg a-t (mm)</th>
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<td>7-22</td>
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<td>13-30</td>
<td>14,7%</td>
<td>18,5-26</td>
<td>39,5%</td>
<td>25,4-41</td>
<td>30,1%</td>
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<td>5-10</td>
<td>19,6%</td>
<td>8-15</td>
<td>22,3%</td>
<td>14-30</td>
<td>17,1%</td>
<td>18,6-52</td>
<td>10%</td>
<td>30-40</td>
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Round holes (staggered) 45°

Type of perforation:
Rd a - t

Open area (%):
P = 1,57 \times \frac{a}{t} \times 100

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<th>Rd a-t (mm)</th>
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<th>Rd a-t (mm)</th>
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</tr>
</tbody>
</table>
### Round holes (staggered) 60°

**Type of perforation**

Rv a - t  

**Open area (%)**

\[ P = 0.91 \times \frac{a}{t} \times 100 \]

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</tr>
<tr>
<td>3-12</td>
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</tbody>
</table>

For the following patterns there is possibility to perforate in straight or staggered arrangement:

- 52; 60; 63; 65; 68; 70; 75; 80; 85; 90; 100; 105,5; 110; 115,5; 120; 130; 140; 156,3.

Tools for all across perforating press — suitable for perforation of coils and sheets (width up to 1600 mm).
Perforated sheets

Hexagonal holes

Type of perforation
Sv a-t
Open area (%)
P = \frac{a^2}{t^2} \times 100

<table>
<thead>
<tr>
<th>Sv a-t [mm]</th>
<th>P</th>
<th>Sv a-t [mm]</th>
<th>P</th>
<th>Sv a-t [mm]</th>
<th>P</th>
<th>Sv a-t [mm]</th>
<th>P</th>
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<td>8-12</td>
<td>44,4%</td>
<td>10-16</td>
<td>56,3%</td>
<td>18-25</td>
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<table>
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Square holes

Type of perforation
Qg a-t
Open area (%)
P = \frac{a^2}{t^2} \times 100

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<tr>
<th>Qg a-t [mm]</th>
<th>P</th>
<th>Qg a-t [mm]</th>
<th>P</th>
<th>Qg a-t [mm]</th>
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<td>13,7%</td>
<td>25-35</td>
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</tr>
<tr>
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<td>28,4%</td>
<td>16-38</td>
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<td>16-127</td>
<td>49,8%</td>
<td>26-30</td>
<td>44,4%</td>
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</tr>
<tr>
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<td>8-29</td>
<td>7,6%</td>
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<td>26-32</td>
<td>39,1%</td>
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</tr>
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<td>16-123</td>
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<td>10-12</td>
<td>69,4%</td>
<td>16-138</td>
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<td>16,0%</td>
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<tr>
<td>5-15</td>
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<td>10-13</td>
<td>59,2%</td>
<td>16-20</td>
<td>56,3%</td>
<td>26-52</td>
<td>14,8%</td>
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</tr>
<tr>
<td>5-16</td>
<td>9,8%</td>
<td>10-13,5</td>
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<td>16-21</td>
<td>51,0%</td>
<td>26-56</td>
<td>12,8%</td>
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<td>5-20</td>
<td>6,3%</td>
<td>10-14</td>
<td>51,0%</td>
<td>16-23</td>
<td>42,5%</td>
<td>26-28</td>
<td>61,7%</td>
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</tr>
<tr>
<td>5-5-8</td>
<td>47,3%</td>
<td>10-15</td>
<td>44,4%</td>
<td>16-24</td>
<td>39,1%</td>
<td>26-30</td>
<td>53,8%</td>
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<td>6-7</td>
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<td>39,1%</td>
<td>16-32</td>
<td>22,0%</td>
<td>26-56</td>
<td>15,4%</td>
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<td>6-9</td>
<td>44,4%</td>
<td>10-20</td>
<td>25,0%</td>
<td>16-45</td>
<td>11,1%</td>
<td>26-4-28</td>
<td>64,0%</td>
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<tr>
<td>6-10</td>
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<td>10-24</td>
<td>17,4%</td>
<td>16-60</td>
<td>64,0%</td>
<td>26-28-5</td>
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</tr>
</tbody>
</table>

For the following patterns there is possibility to perforate in straight or staggered arrangement: 54, 55, 60, 63, 65, 70, 75, 80, 90, 100, 120.

Tools for all across perforating press – suitable for perforation of coils and sheets (width up to 1600 mm)
**Square holes (staggered)**

Type of perforation
Qv a - t

Open area (%)
P = \( \frac{t^2}{a^2} \times 100 \)

<table>
<thead>
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<th>Qv a-t (mm)</th>
<th>P</th>
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<td>4-8</td>
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<td>5-10</td>
<td>25%</td>
</tr>
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<td>6,3-12,5</td>
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</tr>
<tr>
<td>8-12</td>
<td>44,5%</td>
</tr>
<tr>
<td>8-14</td>
<td>33%</td>
</tr>
<tr>
<td>10-16</td>
<td>39%</td>
</tr>
<tr>
<td>11-24</td>
<td>21%</td>
</tr>
<tr>
<td>12-18</td>
<td>44%</td>
</tr>
<tr>
<td>15-21</td>
<td>51%</td>
</tr>
<tr>
<td>18-24</td>
<td>56%</td>
</tr>
<tr>
<td>20-28</td>
<td>50,5%</td>
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<tr>
<td>25-36</td>
<td>48%</td>
</tr>
<tr>
<td>30-40</td>
<td>56%</td>
</tr>
<tr>
<td>31,5-40</td>
<td>62%</td>
</tr>
<tr>
<td>35-45</td>
<td>60%</td>
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</table>

For the following patterns there is a possibility to perforate in straight or staggered arrangement: 54; 55; 60; 63; 70; 75; 80; 90; 100; 120.

**Square holes 45°**

Type of perforation
Qd a - t

Open area (%)
P = \( 2 \times \frac{t^2}{a^2} \times 100 \)

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<tr>
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<th>P</th>
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<td>32,0%</td>
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</tr>
<tr>
<td>6-16</td>
<td>28,1%</td>
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<tr>
<td>6,3-16</td>
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<td>30,2%</td>
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<td>8-20</td>
<td>32,0%</td>
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<tr>
<td>8-24</td>
<td>22,2%</td>
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<tr>
<td>10-22,5</td>
<td>39,5%</td>
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<tr>
<td>10-24</td>
<td>34,7%</td>
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<td>12-24</td>
<td>50,0%</td>
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<tr>
<td>12-25,5</td>
<td>44,3%</td>
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<td>12-27</td>
<td>39,5%</td>
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<td>50,0%</td>
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<td>14-28,3</td>
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<td>14-31</td>
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<td>14-32</td>
<td>38,3%</td>
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<td>120-230</td>
<td>54,4%</td>
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</table>

For the following patterns there is possibility to perforate in straight or staggered arrangement: 38; 65; 70; 75; 80; 90; 125; 130.

Tools for all across perforating press – suitable for perforation of coils and sheets (width up to 1600 mm).
Rectangular holes

![Rectangular holes diagram]

**Type of perforation**
\[ P_g \ \text{a x b - t x t}_1 \]

**Open area (%)**
\[ P = \frac{a \times b}{t \times t_1} \times 100 \]

First value of the hole indicates which parameter is parallel to the longer side of the perforated sheet.

<table>
<thead>
<tr>
<th>( P_g \ \text{a x b - t x t}_1 [\text{mm}] )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,2x16-7x20</td>
<td>48,0%</td>
</tr>
<tr>
<td>9,5x76,2-14x81</td>
<td>63,8%</td>
</tr>
<tr>
<td>11x60-28x92</td>
<td>25,6%</td>
</tr>
<tr>
<td>15x25-18x28</td>
<td>74,4%</td>
</tr>
<tr>
<td>16x4,2-20x14</td>
<td>24,0%</td>
</tr>
<tr>
<td>16x5,4-20x16</td>
<td>27,0%</td>
</tr>
<tr>
<td>18x4-25x8</td>
<td>36,0%</td>
</tr>
<tr>
<td>21x3,5-30x7</td>
<td>35,0%</td>
</tr>
<tr>
<td>21x3,5-30x14</td>
<td>17,5%</td>
</tr>
<tr>
<td>25,2x10,2-50x30</td>
<td>17,1%</td>
</tr>
<tr>
<td>50x15-60x18</td>
<td>69,4%</td>
</tr>
<tr>
<td>60x11-92x28</td>
<td>25,6%</td>
</tr>
<tr>
<td>76,2x9,5-81x14</td>
<td>63,8%</td>
</tr>
<tr>
<td>100x20-200x80</td>
<td>3,6%</td>
</tr>
</tbody>
</table>

For the holes: 0,6x15; 0,8x20; 8x25; 15x50; 50x60; 60x14 there is a possibility to perforate in various pitch parameter (distance among axis of holes).

**Rectangular holes (staggered)**

![Rectangular holes (staggered) diagram]

**Type of perforation**
\[ P_v \ \text{a x b - t x t}_1 \]

**Open area (%)**
\[ P = \frac{a \times b}{t \times t_1} \times 100 \]

* Staggered arrangement (Pv) available by using punches from straight arrangement (Pg).

<table>
<thead>
<tr>
<th>( P_v \ \text{a x b - t x t}_1 [\text{mm}] )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>10x5 - 20x14</td>
<td>35,7%</td>
</tr>
<tr>
<td>16x5,4 - 20x16</td>
<td>54,0%</td>
</tr>
<tr>
<td>21x3,5 - 30x14</td>
<td>35,0%</td>
</tr>
<tr>
<td>25,2x2,6 - 30x13</td>
<td>33,6%</td>
</tr>
</tbody>
</table>

**Long. holes (staggered) 45°**

![Long. holes (staggered) 45° diagram]

**Type of perforation**
\[ L_d \ \text{a x b - t x t}_1 \]

**Open area (%)**
\[ P = \frac{a \times b - 0,215 \times a^2}{t \times t_1} \times 100 \]

<table>
<thead>
<tr>
<th>( L_d \ \text{a x b - t x t}_1 [\text{mm}] )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>8x40 - 44x22</td>
<td>31,6%</td>
</tr>
<tr>
<td>8x45 - 44x22</td>
<td>35,8%</td>
</tr>
<tr>
<td>8x50 - 54x54</td>
<td>14,9%</td>
</tr>
<tr>
<td>10x25 - 26x26</td>
<td>33,8%</td>
</tr>
<tr>
<td>10x30 - 25x25</td>
<td>44,6%</td>
</tr>
<tr>
<td>10x30 - 30x30</td>
<td>30,9%</td>
</tr>
<tr>
<td>10x56 - 54x27</td>
<td>36,9%</td>
</tr>
<tr>
<td>12x39 - 38x38</td>
<td>30,3%</td>
</tr>
<tr>
<td>16x60 - 80x50</td>
<td>22,6%</td>
</tr>
<tr>
<td>20x45 - 42x42</td>
<td>46,1%</td>
</tr>
</tbody>
</table>
### Long. holes (a<b)

**Type of perforation**

\[ Lg \ a \times b - t \times t_1 \]

Open area (%) for a<b

\[ P = \frac{a \times b - 0.215 \times a^2}{t \times t_1} \times 100 \]

First value of the hole indicates which parameter is parallel to the longer side of the perforated sheet.

<table>
<thead>
<tr>
<th>Lg a x b - t x t₁ [mm]</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lg 2x20 - 8x26</td>
<td>18,8%</td>
</tr>
<tr>
<td>Lg 3x25 - 8x29</td>
<td>31,5%</td>
</tr>
<tr>
<td>Lg 4x12 - 8x16</td>
<td>34,8%</td>
</tr>
<tr>
<td>Lg 4x25 - 16x50</td>
<td>12,1%</td>
</tr>
<tr>
<td>Lg 4x28 - 10x34</td>
<td>31,9%</td>
</tr>
<tr>
<td>Lg 5x25 - 10x29</td>
<td>41,3%</td>
</tr>
</tbody>
</table>

* Lg 12x76 – pitch parameter and open area are adjustable.

### Long. holes (a>b)

**Type of perforation**

\[ Lg \ a \times b - t \times t_1 \]

Open area (%) for a>b

\[ P = \frac{a \times b - 0.215 \times b^2}{t \times t_1} \times 100 \]

First value of the hole indicates which parameter is parallel to the longer side of the perforated sheet.

<table>
<thead>
<tr>
<th>Lg a x b - t x t₁ [mm]</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lg 18x4 - 25x8</td>
<td>34,3%</td>
</tr>
<tr>
<td>Lg 20x4 - 25x20</td>
<td>15,3%</td>
</tr>
<tr>
<td>Lg 20x5 - 25x17</td>
<td>22,3%</td>
</tr>
<tr>
<td>Lg 20x7 - 23x23</td>
<td>24,5%</td>
</tr>
<tr>
<td>Lg 20x7 - 25x22</td>
<td>23,5%</td>
</tr>
<tr>
<td>Lg 20x7 - 30x34</td>
<td>12,7%</td>
</tr>
<tr>
<td>Lg 20x12 - 30x18</td>
<td>38,7%</td>
</tr>
<tr>
<td>Lg 25x4 - 30x10</td>
<td>32,2%</td>
</tr>
<tr>
<td>Lg 25x7 - 40x24</td>
<td>17,1%</td>
</tr>
</tbody>
</table>

* Lg 60x10 – pitch parameter and open area are adjustable
Long.holes (staggered) \((a<b)\)

Type of perforation

\(Lv \ ax\ b - t \times t1\)

Open area (%) for \(a-b\)

\[ P = \frac{2 \times a \times b - 0.215 \times a^2 \times 100}{t \times t1} \]

First value of the hole indicates which parameter is parallel to the longer side of the perforated sheet.

![Diagram](PerforatedSheets.png)

---

Long.holes (staggered) \((a>b)\)

Type of perforation

\(Lv \ ax\ b - t \times t1\)

Open area (%) for \(a-b\)

\[ P = \frac{2 \times a \times b - 0.215 \times b^2 \times 100}{t \times t1} \]

First value of the hole indicates which parameter is parallel to the longer side of the perforated sheet.

![Diagram](PerforatedSheets.png)
**Round flared holes in straight arrangement**

Type of perforation
- **Mg** a - t

Open area (%)
\[ P = 0.785 \times \frac{a^2}{t^2} \times 100 \]

<table>
<thead>
<tr>
<th>Mg a-t (mm)</th>
<th>Mg a-t (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mg 6 - 20</td>
<td>Mg 10 - 50</td>
</tr>
<tr>
<td>Mg 6 - 30</td>
<td>Mg 12 - 50</td>
</tr>
<tr>
<td>Mg 6 - 40</td>
<td>Mg 12 - 100</td>
</tr>
<tr>
<td>Mg 8 - 30</td>
<td>Mg 18 - 30</td>
</tr>
<tr>
<td>Mg 10 - 30</td>
<td>Mg 25 - 80</td>
</tr>
<tr>
<td>Mg 10 - 40</td>
<td></td>
</tr>
</tbody>
</table>

* Height of flared hole 2-3 mm

---

**Round flared holes in staggered arrangement 45°**

Type of perforation
- **Md** a - t

Open area (%)
\[ P = 1.57 \times \frac{a^2}{t^2} \times 100 \]

<table>
<thead>
<tr>
<th>Md a-t (mm)</th>
<th>Md a-t (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Md 6 - 20</td>
<td>Md 10 - 40</td>
</tr>
<tr>
<td>Md 6 - 30</td>
<td>Md 10 - 50</td>
</tr>
<tr>
<td>Md 6 - 40</td>
<td>Md 12 - 50</td>
</tr>
<tr>
<td>Md 8 - 30</td>
<td>Md 12 - 100</td>
</tr>
<tr>
<td>Md 10 - 30</td>
<td>Md 18 - 30</td>
</tr>
<tr>
<td>Md 12 - 100</td>
<td>Md 25 - 80</td>
</tr>
<tr>
<td>Md 18 - 30</td>
<td></td>
</tr>
</tbody>
</table>

* Height of flared hole 2-3 mm

---

**Round flared / drainage holes**

Type of perforation
- **Mdo** a - b - t

<table>
<thead>
<tr>
<th>Mdo a-b-t (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mdo 10 - 8 - 30</td>
</tr>
</tbody>
</table>

* Height of flared hole 2-3 mm

---

* Height of flared hole 2-3 mm
Longitudinal flared holes in straight arrangement

Main application - automotive LOHR platforms
suggested pitch parameter (distance among axes of holes)
t–60 mm; t1–105 mm.

* Height of flared holes ca. 3mm

Longitudinal flared holes in staggered arrangement

Main application - automotive LOHR platforms
suggested pitch parameter (distance among axes of holes)
t–60 mm; t1–105 mm.

* Height of flared holes ca. 3mm

Elliptical flared holes

Main application anti slip platforms.
Suggested width of the platform 250 mm

* Height of flared holes ca. 7mm
Vents holes in square and staggered arrangement

- Perforated sheets
- Vents holes in square and staggered arrangement
- "Clover" holes
- Decorative holes - "Fir" holes

* t and t1 - minimum values, other (bigger) available.

Type of perforation Dd a x b - t x t,
Dg a x b - t x t,

Pattern OF 17-24 with cut edges (round shape not available)

Type of perforation Oz a x t

- Oz  8 - 12
- Oz  8 - 20
- Oz  11 - 16
- Oz  11 - 18
- Oz  17 - 24*

Type of perforation Ozj a x b - t x t,

- Ozj 2,2x23 - 6,3x36
- Ozj 2,5x23 - 7x36

Type of perforation Ozj a x b - t x t,
**“Grain” holes**

- Height of flared area: \( h \)
- Thickness of the plate: \( g \)
- Slot parameter: \( s = 0.5 \) to \( 3 \) mm

<table>
<thead>
<tr>
<th>a (mm)</th>
<th>b (mm)</th>
<th>t (mm)</th>
<th>t₁ (mm)</th>
<th>g (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>5</td>
<td>40</td>
<td>24</td>
<td>2.3</td>
</tr>
<tr>
<td>52</td>
<td>6</td>
<td>72</td>
<td>34</td>
<td>3.6</td>
</tr>
</tbody>
</table>

**Other patterns of perforation**

- **Slot holes**
- **Cone holes in staggered arrangement (45 and 60 degrees)**
- **Mixed patterns**
- **Embossed plates.**

**Embossed patterns:** round 10 mm and square 15x15 mm
EXPANDED METAL

Raw material: mild steel, pre-galvanized, aluminum, stainless, cooper, brass

Dimensions: thickness of material from 0.5 - 4mm, width up to 1500mm, bridge - "c" value - up to 20 mm (depends on mesh and thickness of raw material). Bridge „C“ value ≥ 5 mm after consultation with our team.

Way of ordering (quide): expanded metal, pre-galvanized - 1000x2000 mm - 20x62x3x2 - 50 pcs

Size of meshes, parameters: we assume that the length of the mesh „t“ value is constant, while the width of the „t1“ value is an adjustable parameter, which depends on the size of the bridge „c“, thickness of material „s“ and the tool cavity. Internal dimensions of the meshes in the following tables are theoretical.

Mesh arrangement: we assume that the longer dimension of the mesh is parallel to the width of plate. Max value of width must not exceed 1500mm.

<table>
<thead>
<tr>
<th>aXb [mm]</th>
<th>t,xt [mm]</th>
<th>thickness of material „s“ [mm]</th>
<th>max. width [mm]</th>
<th>bridge „c“ value +/- 0.3 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2x2</td>
<td>2x4</td>
<td>0.5</td>
<td>500</td>
<td>0.5-0.6</td>
</tr>
<tr>
<td>2x3</td>
<td>3x6</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.2</td>
</tr>
<tr>
<td>4.5x7</td>
<td>7,6x11</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>4.5x7,5</td>
<td>6x10</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>4.5x9</td>
<td>6x12</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>4.5x12</td>
<td>6x16</td>
<td>0.5-1,2</td>
<td>1000</td>
<td>0.5-1.2</td>
</tr>
<tr>
<td>4.5x24</td>
<td>7x29</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.2</td>
</tr>
<tr>
<td>5.5x9,5</td>
<td>7x12,5</td>
<td>0.5-1,5</td>
<td>550</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>6x11</td>
<td>7,5x14</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>6x30</td>
<td>10x42</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>7x13,5</td>
<td>10x18</td>
<td>0.5-2</td>
<td>1000</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>7x15</td>
<td>10x20</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>7x24</td>
<td>10x30</td>
<td>0.5-2</td>
<td>1500</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>7x42</td>
<td>10x50</td>
<td>0.5-1,5</td>
<td>1000</td>
<td>0.5-2</td>
</tr>
<tr>
<td>8,5x13,5</td>
<td>12x18</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>10x16</td>
<td>12x20</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>10x42</td>
<td>12,5x50</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>11x16,5</td>
<td>12,5x20</td>
<td>0.5-1,3</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>12x42</td>
<td>15x50</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-3</td>
</tr>
<tr>
<td>14x25</td>
<td>16,5x30</td>
<td>0.5-3</td>
<td>1500</td>
<td>0.5-3.5</td>
</tr>
<tr>
<td>14x37</td>
<td>21x50</td>
<td>0.5-3*</td>
<td>1250</td>
<td>0.5-3</td>
</tr>
<tr>
<td>14x52</td>
<td>23x62,5</td>
<td>0.5-3</td>
<td>1500</td>
<td>0.5-3</td>
</tr>
<tr>
<td>17x52</td>
<td>20x62</td>
<td>0.5-3</td>
<td>1250</td>
<td>0.5-5</td>
</tr>
<tr>
<td>17x52</td>
<td>20x62,5</td>
<td>0.5-3</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>18x42</td>
<td>22,5x50</td>
<td>0.5-3</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>21x65</td>
<td>25x75</td>
<td>0.5-4</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>33x88</td>
<td>37,5x100</td>
<td>0.5-4</td>
<td>1500</td>
<td>0.5-12**</td>
</tr>
</tbody>
</table>

Width up to 1500 mm
<table>
<thead>
<tr>
<th>axb [mm]</th>
<th>t,xt [mm]</th>
<th>thickness of material „c“ [mm]</th>
<th>max. width [mm]</th>
<th>bridge „c“ value +/- 0.3 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-galvanized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2x2</td>
<td>2x4</td>
<td>0.5</td>
<td>500</td>
<td>0.5-0.6</td>
</tr>
<tr>
<td>2x3</td>
<td>3x6</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.2</td>
</tr>
<tr>
<td>4.5x7</td>
<td>7.6x11</td>
<td>0.5-1</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>4.5x7.5</td>
<td>6x10</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>4.5x9</td>
<td>6x12</td>
<td>0.5-1</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>4.5x12</td>
<td>6x16</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>4.5x24</td>
<td>7x29</td>
<td>0.5-1</td>
<td>1000</td>
<td>0.5-1.2</td>
</tr>
<tr>
<td>5.5x9.5</td>
<td>7x12.5</td>
<td>0.5-1.5</td>
<td>550</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>6x11</td>
<td>7.5x14</td>
<td>0.5-1.5</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>6x30</td>
<td>10x42</td>
<td>0.5-1.5</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>7x13.5</td>
<td>10x18</td>
<td>0.5-1.5</td>
<td>1000</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>7x15</td>
<td>10x20</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2</td>
</tr>
<tr>
<td>7x24</td>
<td>10x30</td>
<td>0.5-2</td>
<td>1500</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>7x42</td>
<td>10x50</td>
<td>0.5-1.5</td>
<td>1000</td>
<td>0.5-2</td>
</tr>
<tr>
<td>8.5x13.5</td>
<td>12x18</td>
<td>0.5-1.5</td>
<td>1000</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>10x16</td>
<td>12x20</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>10x42</td>
<td>12.5x50</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>11x16.5</td>
<td>12.5x20</td>
<td>0.5-1.5</td>
<td>1250</td>
<td>0.5-2.5</td>
</tr>
<tr>
<td>12x42</td>
<td>15x50</td>
<td>0.5-1.5</td>
<td>1250</td>
<td>0.5-3</td>
</tr>
<tr>
<td>14x25</td>
<td>16.5x30</td>
<td>0.5-2</td>
<td>1500</td>
<td>0.5-3.5</td>
</tr>
<tr>
<td>14x37</td>
<td>21x50</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-3</td>
</tr>
<tr>
<td>14x52</td>
<td>23x62.5</td>
<td>0.5-2</td>
<td>1250</td>
<td>0.5-3</td>
</tr>
<tr>
<td>17x52</td>
<td>20x62</td>
<td>0.5-4</td>
<td>1250</td>
<td>0.5-5</td>
</tr>
<tr>
<td>18x42</td>
<td>22.5x50</td>
<td>0.5-4</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>21x65</td>
<td>25x75</td>
<td>0.5-2</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>33x88</td>
<td>37.5x100</td>
<td>0.5-2</td>
<td>1500</td>
<td>0.5-5</td>
</tr>
<tr>
<td>48x115</td>
<td>80x200</td>
<td>0.5-3</td>
<td>1500</td>
<td>0.5-25</td>
</tr>
</tbody>
</table>

**Width up to 1500 mm**
we assume that the length of the mesh \(t\) value is constant, while the width of the \(t_1\) value is an adjustable parameter, which depends on the size of the bridge \(c\), thickness of material \(s\) and the tool cavity. Internal dimensions of the meshes in the following tables are theoretical. Expanded metals are available in sheets, coils or cut to the final dimension (according to the client’s request). Additionally we offer flattening process.

\[\begin{array}{|c|c|c|c|c|}
\hline
a \times b \text{ [mm]} & t \times t_1 \text{ [mm]} & \text{thickness of material \(s\) [mm]} & \text{max. width [mm]} & \text{bridge \(c\) value} \\
\pm 0.3 \text{ mm} \\
\hline
2 \times 3 & 3 \times 6 & 0.5-0.8 & 600 & 0.5-1.2 \\
4.5 \times 7 & 7.5 \times 11 & 0.5-1 & 1250 & 0.5-2 \\
4.5 \times 7.5 & 6 \times 10 & 0.5-1 & 1000 & 0.5-1.5 \\
4.5 \times 9 & 6 \times 12 & 0.5-1 & 1000 & 0.5-2 \\
4.5 \times 12 & 6 \times 16 & 0.5-1 & 1000 & 0.5-1.2 \\
4.5 \times 24 & 7 \times 29 & 0.5-1 & 1000 & 0.5-1.2 \\
5.5 \times 9.5 & 7 \times 12.5 & 0.5-1.5 & 550 & 0.5-1.5 \\
6 \times 11 & 7.5 \times 14 & 0.5-1.5 & 1000 & 0.5-2 \\
6 \times 30 & 10 \times 42 & 0.5-1 & 1250 & 0.5-2 \\
7 \times 13.5 & 10 \times 18 & 0.5-2 & 1000 & 0.5-2.5 \\
7 \times 15 & 10 \times 20 & 0.5-1.5 & 1200 & 0.5-2 \\
7 \times 24 & 10 \times 30 & 0.5-2 & 1500 & 0.5-2.5 \\
7 \times 42 & 10 \times 50 & 0.5-1.5 & 1000 & 0.5-2 \\
8.5 \times 13.5 & 12 \times 18 & 0.5-1.5 & 1000 & 0.5-2.5 \\
10 \times 16 & 12 \times 20 & 0.5-1.5 & 1250 & 0.5-2.5 \\
10 \times 42 & 12.5 \times 50 & 0.5-2 & 1250 & 0.5-2.5 \\
11 \times 16.5 & 12.5 \times 20 & 0.5-1 & 1250 & 0.5-2.5 \\
12 \times 42 & 15 \times 50 & 0.5-1.5 & 1250 & 0.5-3 \\
14 \times 25 & 16.5 \times 30 & 0.5-2 & 1250 & 0.5-3.5 \\
14 \times 37 & 21 \times 50 & 0.5-2 & 1250 & 0.5-3 \\
14 \times 52 & 23 \times 62.5 & 0.5-3 & 1500 & 0.5-3 \\
17 \times 52 & 20 \times 62 & 0.5-3 & 1250 & 0.5-5 \\
17 \times 52 & 20 \times 62.5 & 0.5-3 & 1500 & 0.5-5 \\
18 \times 42 & 22.5 \times 50 & 0.5-2 & 1500 & 0.5-5 \\
21 \times 65 & 23 \times 75 & 0.5-3 & 1500 & 0.5-5 \\
33 \times 88 & 37.5 \times 100 & 0.5-3 & 1500 & 0.5-5 \\
\hline
\end{array}\]

Width up to 1500 mm

** for the thickness of 3mm max. width 1000mm;
**. \(c\) parameter up to 12mm (for thickness of material up to 2 mm), max. width 1250mm;
*** \(c\) parameter up to 15mm (for thickness of material up to 2 mm), max. width 1250mm;

“Rasper” Meshes
**WELDED MESHES / REINFORCEMENT MATS**

**Raw material:** mild steel, stainless steel

**Width:** up to 2500 mm

**Length:** up to 6000 mm

**Way of ordering (guide):**
- Welded mesh mild steel ø4 x 1000 x 2000 mesh 50 x 50

**Basic parameters of meshes**

<table>
<thead>
<tr>
<th>ød</th>
<th>axb (mm)</th>
<th>ød</th>
<th>axb (mm)</th>
<th>ød</th>
<th>axb (mm)</th>
<th>ød</th>
<th>axb (mm)</th>
<th>ød</th>
<th>axb (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>20x20</td>
<td>2,5</td>
<td>47,5x47,5</td>
<td>3</td>
<td>20x30</td>
<td>3</td>
<td>40x20</td>
<td>4</td>
<td>60x20</td>
</tr>
<tr>
<td>2,5</td>
<td>22,5x22,5</td>
<td>3</td>
<td>30x30</td>
<td>4</td>
<td>50x20</td>
<td>4</td>
<td>70x20</td>
<td>5</td>
<td>35x35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>40x20</td>
<td>4</td>
<td>96x96</td>
<td>5</td>
<td>35x35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>40x40</td>
<td>4,5</td>
<td>40x40</td>
<td>5</td>
<td>40x40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,5</td>
<td>45x45</td>
<td>5</td>
<td>50x50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*In case of rectangular shape of mesh its arrangement must be indicated.

**WOVEN NETS**

**Raw material:** mild steel, pre-galvanized, stainless, cooper, brass

**Width:** up to 2000 mm

**Way of ordering (guide):** woven nets pre-galvanized ø3 x 1000 x 2000, mesh 20x20 multi-notch, or: woven nets mild steel ø2 x 1000 x 2000, mesh 4x4 one-notch.

**Dimensions:** available in standard sheets, coils

<table>
<thead>
<tr>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
<th>ød</th>
<th>a (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2</td>
<td>2*</td>
<td>1,5</td>
<td>4*</td>
<td>2,0</td>
<td>6*</td>
<td>3,0</td>
<td>8*</td>
<td>3,5</td>
<td>15*</td>
<td>4,0</td>
<td>17*</td>
<td>4,5</td>
<td>19*</td>
<td>5,0</td>
<td>21*</td>
</tr>
<tr>
<td></td>
<td>3*</td>
<td></td>
<td>5*</td>
<td></td>
<td>7*</td>
<td></td>
<td>10*</td>
<td></td>
<td>22*</td>
<td></td>
<td>30*</td>
<td></td>
<td>32*</td>
<td></td>
<td>34*</td>
</tr>
<tr>
<td></td>
<td>4*</td>
<td></td>
<td>6*</td>
<td></td>
<td>8*</td>
<td></td>
<td>11*</td>
<td></td>
<td>35*</td>
<td></td>
<td>40*</td>
<td></td>
<td>36*</td>
<td></td>
<td>42*</td>
</tr>
<tr>
<td></td>
<td>5*</td>
<td></td>
<td>9*</td>
<td></td>
<td>12*</td>
<td></td>
<td>13*</td>
<td></td>
<td>45*</td>
<td></td>
<td>50*</td>
<td></td>
<td>45*</td>
<td></td>
<td>50*</td>
</tr>
<tr>
<td>1,4</td>
<td>7*</td>
<td>1,6</td>
<td>9*</td>
<td>2,0</td>
<td>10*</td>
<td>3,0</td>
<td>11*</td>
<td>4,0</td>
<td>12*</td>
<td>5,0</td>
<td>13*</td>
<td>6,0</td>
<td>15*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8*</td>
<td></td>
<td>12*</td>
<td></td>
<td>14*</td>
<td></td>
<td>14*</td>
<td></td>
<td>17*</td>
<td></td>
<td>17*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9*</td>
<td></td>
<td>15*</td>
<td></td>
<td>20*</td>
<td></td>
<td>18*</td>
<td></td>
<td>19*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* one-notch version, other- multi-notch version.
**WEDGE WIRE SCREENS**

Wedge wire screens are produced by welding stainless wires profile (type Sb) and support profile (Type Q).

The product is used in the process of sifting, sorting, drainage, filtering... Wedge wire screens are the result of highest technology production. High precision, huge durability and smooth surface allows to use it in efficient way in mining industry (coal or stone mining), chemical or food industry (sugar mills).

Because of really wide potential application of product we propose to create wedge wire screens according to individual projects. There is a possibility to create finished product (for example whole sorter) framed strictly according to the technical sketch.

**Basic technical parameters:**

**Dimensions:** up to 2000 x 2500 mm*

*2500 mm – max length of support profile (Q)

**Suggested grades of profiles:**
0H18N9 - (1.4301), 1H18N9T - (1.4541), 1H13 - (1.4006)

**Profile’s parameters - Sb type**

<table>
<thead>
<tr>
<th>Profile</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>R [mm]</th>
<th>α [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Sb</td>
<td>2,2</td>
<td>4,5</td>
<td>0,3 max</td>
<td>23 ± 1</td>
</tr>
<tr>
<td>34 Sb</td>
<td>2,8</td>
<td>5,0</td>
<td>0,3 max</td>
<td>23 ± 1</td>
</tr>
<tr>
<td>42 Sb</td>
<td>3,4</td>
<td>6,5</td>
<td>0,3 max</td>
<td>23 ± 1</td>
</tr>
</tbody>
</table>

**Support profile’s parameters - Q type**

<table>
<thead>
<tr>
<th>Profile</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>C [mm]</th>
<th>α [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 35</td>
<td>3,0</td>
<td>5,0</td>
<td>3,7</td>
<td>20 ± 2</td>
</tr>
<tr>
<td>Q 55</td>
<td>4,0</td>
<td>8,0</td>
<td>5,0</td>
<td>20 ± 2</td>
</tr>
</tbody>
</table>

There is a possibility to make wedge wire screens with other steel grades according to individual project.

**Dimenions of wegdge wire screens**

<table>
<thead>
<tr>
<th>Profile/ support profile</th>
<th>h [mm]</th>
<th>Qt [mm]</th>
<th>s min. [mm]**</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Sb / Q 55</td>
<td>10,0</td>
<td>40; 50*</td>
<td>0,1</td>
</tr>
<tr>
<td>34 Sb / Q 55</td>
<td>10,3</td>
<td>40; 50*</td>
<td>0,1</td>
</tr>
<tr>
<td>42 Sb / Q 55</td>
<td>11,5</td>
<td>40; 50*</td>
<td>0,2</td>
</tr>
</tbody>
</table>

* optional value of Qt*

** table contains minimal values for “s” parameter (bigger values of “s” according to projects)
Open area (%) of wedge wire screens

The percentage ratio of the slots to the total area of the screen.

\[ F_o = \frac{s}{s+A} \times 100 \%
\]

where: \( A \) – width of profile [mm]; \( s \) – width of slot [mm]

Table of open area [%]

<table>
<thead>
<tr>
<th>Profile</th>
<th>width of slot (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0,1</td>
</tr>
<tr>
<td>28 sb</td>
<td>4,3 %</td>
</tr>
<tr>
<td>34 sb</td>
<td>3,4 %</td>
</tr>
<tr>
<td>42 sb</td>
<td>2,9 %</td>
</tr>
</tbody>
</table>

TUBE (ROUND AND SQUARE) BENDING

CNC tube bending machine is the latest acquisition in our machinery. This is the highest class, fully automatic (round and square) tube bender with six axes of control.

High performance combined with the flexibility of production ensures the implementation of both huge, standard and short non typical series.

Technical parameters:

- Y max. bending speed .................. 80 °/1" (tolerance 0,1°/+/-)
- X max. movement speed ............. 650 mm 1 ° (tolerance 0,1°/+/- mm)
- Z max. speed of clamp rotation ........ 360 °/1" (tolerance 0,1°/+/-)
- direction of rotation acc .................. to the clockwise

Dimension of tubes:

- max. diameter ........................................ 65x4 mm
- max. diameter for variable radius ................. 60x2 mm
- efficient length of tube .......................... 5100 mm
### Laser cutting

We invite you to take advantage of our offer in the field of cutting and shaping sheet metal by using laser technology. We hope that also in this area will be able to assist you. Here are the basic parameters of machines:

**The advantages of laser cutting technology:**
- any shape of cut pieces,
- 100% repeatability,
- perfect edge quality and surface,
- optimal use of raw materials.

---

### Basic parameters:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>BYSTAR 4025</th>
<th>BYSPRINT 3015</th>
<th>SALVAGININI L3 fiber laser technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working area [mm]</td>
<td>2500 x 4000</td>
<td>1500 x 3000</td>
<td>1500 x 4000</td>
</tr>
<tr>
<td>Depth of cut (raw) element:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild steel</td>
<td>0.5 – 25</td>
<td>0.5 – 15</td>
<td>0.5 – 20</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td>0.5 – 20</td>
<td>0.5 – 6</td>
<td>0.5 – 12</td>
</tr>
<tr>
<td>Aluminium</td>
<td>0.5 – 12</td>
<td>0.5 – 5</td>
<td>0.5 – 8</td>
</tr>
<tr>
<td>Rated power [kW]</td>
<td>4.4</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Software supported in formats:</td>
<td>DWG lub DXF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### CNC punching

Technical possibilities given by CNC punching presses are almost unlimited. Our machines have an extensive library of tools. This enables to offer various types of production starting from the simplest to really modern and technically complicated. In one production cycle several different stamps can be used what in combination with the lack of restrictions regarding spacing among the holes gives a huge production capacities.

---

### Basic parameters:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>FINN POWER C6</th>
<th>FINN POWER F5</th>
<th>EUROMAC MTX FLEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working area [mm]</td>
<td>1500 x 3000</td>
<td>1270 x 2530</td>
<td>1500 x 2250</td>
</tr>
<tr>
<td>Press force [T]</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Max thickness of raw material [mm]</td>
<td>8</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Punching speed</td>
<td>up to 3000 strokes/minute (high marking mode)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max diameter of punches [mm]</td>
<td>89</td>
<td>89</td>
<td>89</td>
</tr>
</tbody>
</table>
CNC bending process

Our bending machines meet the highest requirements regarding quality, speed, accuracy and repeatability of production.

<table>
<thead>
<tr>
<th>Basic parameters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters</td>
</tr>
<tr>
<td>Bending length [mm]</td>
</tr>
<tr>
<td>Press power [T]</td>
</tr>
</tbody>
</table>

CNC MACHINING

The machinery for machining processes consists of the highest class of numerically controlled centers. By these units all items requiring turning, milling or electro-erosion machining can be precisely made.

High performance combined with the flexibility of production ensure the implementation of huge, standard or short and non typical series.

<table>
<thead>
<tr>
<th>Basic parameters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACHINING</td>
</tr>
<tr>
<td>Lathe CNC controlled type TUR MN 630x3000</td>
</tr>
<tr>
<td>• Length between centers 3000 mm</td>
</tr>
<tr>
<td>• Maximum diameter over bed 630 mm</td>
</tr>
<tr>
<td>• Maximum diameter over cross slide 360 mm</td>
</tr>
<tr>
<td>• Maximum workpiece weight between centers 2500 kg</td>
</tr>
<tr>
<td>• Maximum weight of workpiece (clamping the handle) 600 kg</td>
</tr>
<tr>
<td>• Distance between centers 4000 mm mounting</td>
</tr>
<tr>
<td>CNC milling machining center CME type FS - 4</td>
</tr>
<tr>
<td>• Workspace 3100x1000 mm</td>
</tr>
<tr>
<td>• Shifts X = 3000 mm; Y = 1200 mm; Z = 1500 mm</td>
</tr>
<tr>
<td>• Maximum workpiece weight 6500 kg</td>
</tr>
<tr>
<td>• Work head swivel double indexed at 2.5 degrees</td>
</tr>
<tr>
<td>• The accuracy of the machine:</td>
</tr>
<tr>
<td>Positioning +/- 0.005 mm</td>
</tr>
<tr>
<td>Positioning +/- 0.005 mm</td>
</tr>
<tr>
<td>Vertical machining centre VMC 800</td>
</tr>
<tr>
<td>• Workspace 1000x540 mm</td>
</tr>
<tr>
<td>• Max weight of item 750 kg</td>
</tr>
<tr>
<td>• Movement X = 800 mm; Y = 540 mm; Z = 620 mm</td>
</tr>
<tr>
<td>• Speed of movement:</td>
</tr>
<tr>
<td>Axes X, Y, Z / iTNC 530 35 m/min.</td>
</tr>
<tr>
<td>Axes X, Y, Z / 0I-MC 32 m/min.</td>
</tr>
</tbody>
</table>

ELECTRO EROSION MACHINING

Wire Electro Erosion unit
- Work area X = 350 mm; Y = 250 mm; Z = 220 mm
- Max dimension of item 765x535x215 mm
- Max weight up to 300 kg
- Max. cutting degree / thickness 22.5° / 80 mm

Electro Erosion unit
- Work area X = 300 mm; Y = 250 mm; Z = 200 mm
- Max dimension of item 400x400x200 mm
- Max weight up to 300 kg
**Metal furniture**

We invite you to study our offer regarding metal furniture. Below there are the most popular solutions as the result of combining your expectations and work of our designers. The proposed products are the perfect solution for comfort and safety equipment of stores, warehouses, public buildings.

Due to the high production flexibility, we are ready to create new furniture designs according to your suggestions and expectations.

---

**SHOP SHELVING RS-2P3**

- **raw material**
  - mild steel 1 mm
- **colors**
  - acc. to RAL
- **dimensions**
  - width: 960 mm
  - height: 2300 mm
  - depth: 1160 mm
- **body** – perforated
- **legs**
  - square profile, "I" 3x30x70
- **max. weight / shelf** – 100 kg
- **commodity space**
  - double
- **easy and fast mounting system**
- **company logo available as an option**

**SALES STAND SE-2**

- **raw material**
  - mild steel 4 mm, mesh 50mm
- **colors**
  - acc. to RAL
- **dimensions**
  - width: 960 mm
  - height: 2300 mm
  - depth: 1160 mm
- **body** – welded meshes
- **legs**
  - square profile, "I" 3x30x70
- **commodity space**
  - double
- **set of hangers**
- **company logo available as an option**

**STORAGE RACK RM-6**

- **raw material**
  - mild steel 1 mm
- **colors**
  - acc. to RAL
- **dimensions**
  - width: 900 mm
  - height: 2000 mm
  - depth: 400 mm
- **legs**
  - square profile 2,5x40x60
- **max. weight / shelf** – 100 kg
- **company logo available as an option**

**SHOP SHELVING RS-2Z5**

- **raw material**
  - mild steel 4 mm
- **colors**
  - acc. to RAL
- **dimensions**
  - width: 960 mm
  - height: 2300 mm
  - depth: 580 mm
- **legs**
  - square profile, "I" 3x30x70
- **max. weight / shelf** – 100 kg
- **company logo available as an option**

---

**24 Perfopol catalogue of Products**
**Other Products and Services**

**Grids (mats) rubber**

<table>
<thead>
<tr>
<th>Mesh</th>
<th>arrangement</th>
<th>a [mm]</th>
<th>b [mm]</th>
<th>t [mm]</th>
<th>t₁ [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>3,5</td>
<td>27,0</td>
<td>6,0</td>
<td>31,0</td>
</tr>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>4,5</td>
<td>27,0</td>
<td>7,0</td>
<td>31,0</td>
</tr>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>6,3</td>
<td>26,0</td>
<td>10,0</td>
<td>31,0</td>
</tr>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>8,0</td>
<td>25,0</td>
<td>12,0</td>
<td>31,0</td>
</tr>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>9,0</td>
<td>31,0</td>
<td>14,0</td>
<td>37,5</td>
</tr>
<tr>
<td>longitudinal</td>
<td>square</td>
<td>12,0</td>
<td>16,0</td>
<td>16,0</td>
<td>22,0</td>
</tr>
<tr>
<td>round</td>
<td>60°</td>
<td>4,2</td>
<td>–</td>
<td>5,5</td>
<td>9,5</td>
</tr>
<tr>
<td>round</td>
<td>60°</td>
<td>4,5</td>
<td>–</td>
<td>7,0</td>
<td>12,0</td>
</tr>
</tbody>
</table>

* Other patterns of perforation: longitudinal, rectangular, round and square are listed in tables on previous pages of catalogue.
* In our offer you can find LIWELL’s sieves as well.

**Protective clothes**

- Gloves:
  - Denim
  - Canvas
  - Reinforced gloves
  - Welding gloves
  - Rubber gloves
- Flannel shirts
- Clothes
- Swedish clothes
- Aprons
- Caps
- Towels
- Tissues
- Chustki
- Footwear

We also offer services in the production of other textiles, which are made strictly according to the individual customer’s pattern. Offer includes the option of placing company logo as well.
SOME PATTERNS OF PERFORATION IN 1:1 SCALE

Rv 0,8-1,5
Rv 1-2
Rv 1,2-2,5
Rv 1,6-3
Rv 1,8-3
Rv 2-3
Rv 2-4
Rv 2,5-4
Rv 3-4
Rv 3-5
Rv 3,2-5
Rv 4-6
Rv 4-7
Rv 5-7
Rv 5-8
Rv 5-10
Rv 6-7
Rv 6-8
Rv 6-10
Rv 6,3-12
Rv 8-10
Rv 8-12
Rv 8-15
Rv 10-12
Rv 12-16
Rv 12-18
Rv 15-20
Rg 1-1,5
Rg 2-3
Rg 2-6
Rg 4-8
Rg 5-8
Rg 5-10
Rg 5-15
Rg 6-10
Rg 6-14
Some patterns of perforation in 1:1 scale.

- Rg 10-15
- Rg 12-15
- Rg 12-18
- Rd 0.8-2.5
- Rd 2-6
- Rd 3-8
- Rd 4-12
- Rd 8-30
- Rd 10-30
- Rd 12-27
- Rd 5-12
- Rd 5-20
- Rd 6-16
- Qg 2-4
- Qg 4-7
- Qg 4-8
- Qg 5-7
- Qg 5-8
- Qg 5-10
- Qg 5-15
- Qg 6-9
- Qg 6-10
- Qg 8-10
- Qg 8-12
- Qg 8-15
- Qg 10-12
- Qg 10-13
- Qg 10-14
- Qg 10-15

Europerforacja
Some patterns of perforation in 1:1 scale:

- Qg 12-18
- Qg 15-20
- Qg 15-23
- Qd 3-7.5
- Qd 5-12
- Qd 6-14
- Qd 7-18
- Qd 8-20
- Qd 10-22.5
- Qd 12-24
- Qd 15-30
- Lv 1x15-6x24
- Lv 2.5x25-10x30
- Lv 3x30-15x40
- Lv 4x28-35x35
- Lv 5x15-20x20
- Lv 5x35-15x40
- Lv 10x30-32x35
- Lv 10x3-15x14
- Lv 10x5-14x20
- Lv 20x3-25x14
- Lv 15x1.2-18x6
- Lv 20x2-24x8.6
- Lv 25x5-30x20
- Lv 20x10-24x30
OUR PRODUCTS

Wedge wire screens (framed)

Wedge wire screens
OUR PRODUCTS

Wedge wire screens

Metal elements made with CNC presses
Electroerosion and machining processing.

Industrial knifes
OUR PRODUCTS

Metal screen made with perforated sheet.

Elevation panels

Interior decorative system
OUR PRODUCTS

- Internal perforated elevation panels
- Stairs
- Balustrades
- Acoustic panels
- Perforated panels

Perfopol
CATALOGUE OF PRODUCTS

35
Metal furniture

Non-slip platforms (elements)
OUR PRODUCTS

- Metal furniture
- Non-slip platforms (elements)
- Rollers and aerators
- Shop shelving
- Industrial boxes
- Containers
- Self dumping hoppers

Perfopol
CATALOGUE OF PRODUCTS
OUR PRODUCTS

Raw material - HARDOX 450, 500

Sorter and filtering elements

Complete waste sorting line

Sorting and filtering elements
Sorting and filtering elements