Introduction to Megaflat

Polyurethane flat belts
Product range

Rubber flat belts
Product range
MEGAFLAT belts are truly endless mandrel moulded without a single seam or splice. Special fabrics of Polyester, Polyamid, Aramide, Cotton yarn or Elastic yarn are manufactured in endless form on the most modern CNC knitting machines. The available coatings Polyurethane, Silicone and Natural Rubber are applied as an endless cover. This wide variety of basic materials and surface treatments guarantee the perfect belt for transmission and for conveying even at extreme speeds and in special environments.

**MAIN FEATURES**

- High flexibility
- Small pulley diameters
- Dimensional accuracy
- High speed
- Energy efficient
- Low noise and vibration
- Low maintenance
- Good chemical and ozone resistance
- High friction surface
- Uniform elongation values

MEGAFLAT is always a belt made exactly to customer requirements in endless form.

**MAIN COMPONENTS OF MEGAFLAT BELTS**

- **TENSILE REINFORCEMENT:**
  Special fabrics are available with:
  - **Elastic yarn**, high elastic elongation from 4-10% for fixed shaft centre distances.
  - **Polyamide**, medium elastic from 0,5-1,5% for fixed shaft centre distances.
  - **Polyester**, low elastic elongation.
  - **Cotton yarn**, low elongation and low coefficient of friction.
  - **Aramid**, extremely low elongation and temperature resistance up to 280°.

- **COATINGS:**
  Endless covers are available
  - **Foamed Polyurethane**, in colours yellow, grey, red and white, different hardness and thickness up to 10 mm, good coefficient of friction to paper
  - **Neoprene** Rubber, black with hardness approx. 75 Shore A, high resistance to abrasion, high coefficient of friction, rough on transport side and smooth on the reverse side
  - **Silicones**, in colours white, grey, red, blue, hardness approx. 30-35 ShA. High temperature resistant, FDA approved.
# POLYURETHANE FLAT BELTS

## PRODUCT RANGE

<table>
<thead>
<tr>
<th>TYPE</th>
<th>P0</th>
<th>P102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>No fabric</td>
<td>Elastic fabric</td>
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<tr>
<td>Coating for drive or transport side</td>
<td>Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)</td>
<td>Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)</td>
</tr>
<tr>
<td>Coating revers side</td>
<td>No</td>
<td>Polyurethane/Silicone</td>
</tr>
<tr>
<td>Colour (1)</td>
<td>Yellow &amp; Grey</td>
<td>Yellow &amp; Grey</td>
</tr>
<tr>
<td>Antistatic</td>
<td>No</td>
<td>Possible</td>
</tr>
</tbody>
</table>

### Coefficient of friction (µ)

<table>
<thead>
<tr>
<th></th>
<th>P0</th>
<th>P102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coated side smooth</td>
<td>0,4</td>
<td>0,4</td>
</tr>
<tr>
<td>Fabric side rough</td>
<td>-</td>
<td>0,2</td>
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### Breaking strength (N) per cm width in endless form

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>140</td>
<td></td>
<td>250</td>
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### Pretension (N) recommended per cm width in endless form

<table>
<thead>
<tr>
<th></th>
<th>P0</th>
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</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

### Elongation (%) at pretension recommended per cm

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>4 - 8</td>
<td></td>
<td>4</td>
</tr>
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</table>

### Minimum recommended pulley diameter (mm)

<table>
<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

### Size (mm) (2)

<table>
<thead>
<tr>
<th></th>
<th>P0</th>
<th>P102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>210 - 2500</td>
<td>210 - 2500</td>
</tr>
<tr>
<td>Width (length ≤ 460 mm)</td>
<td>6 - 330</td>
<td>6 - 330</td>
</tr>
<tr>
<td>Width (length &gt; 460 - 600 mm)</td>
<td>6 - 330</td>
<td>6 - 330</td>
</tr>
<tr>
<td>Width (length &gt; 600 - 750 mm)</td>
<td>6 - 550</td>
<td>6 - 600</td>
</tr>
<tr>
<td>Width (length &gt; 750 mm)</td>
<td>6 - 550</td>
<td>6 - 600</td>
</tr>
<tr>
<td>Thickness</td>
<td>0,9</td>
<td>1,8</td>
</tr>
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### Tolerances

<table>
<thead>
<tr>
<th></th>
<th>P0</th>
<th>P102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (%)</td>
<td>+/-2,0</td>
<td>+/-2,0</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>+/-0,50</td>
<td>+/-0,50</td>
</tr>
<tr>
<td>Thickness (mm)</td>
<td>+/-0,05</td>
<td>+/-0,05</td>
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### Working temperature (intermittent)

<table>
<thead>
<tr>
<th></th>
<th>P0</th>
<th>P102</th>
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</thead>
<tbody>
<tr>
<td>-10°C / +60°C (+80)</td>
<td></td>
<td></td>
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</tbody>
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### Applications

<table>
<thead>
<tr>
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<th>P102</th>
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</table>
## POLYURETHANE FLAT BELTS

### PRODUCT RANGE

<table>
<thead>
<tr>
<th>Type</th>
<th>Fabric</th>
<th>Coating</th>
<th>Colour</th>
<th>Antistatic</th>
<th>Coefficient of friction (µ)</th>
<th>Breaking strength (N) per cm width in endless form</th>
<th>Pretension (N) recommended per cm width in endless form</th>
<th>Elongation (%) at pretension recommended per cm</th>
<th>Minimum recommended pulley diameter (mm)</th>
<th>Size (mm) (1)</th>
<th>Tolerances Length (%)</th>
<th>Tolerances Width (mm)</th>
<th>Tolerances Thickness (mm)</th>
<th>Working temperature (intermittent)</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>P0</td>
<td>Polyester</td>
<td>Polyurethane/Silicone</td>
<td>Yellow &amp; Grey</td>
<td>Possible</td>
<td>0.4, 0.2</td>
<td>480, 30, 0.8, 8</td>
<td>-10°C / +60°C</td>
<td>++/-0,50, +/-0,50, +/-0,05</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P105</td>
<td>Polyester/Cotton</td>
<td>Polyurethane/Silicone</td>
<td>Yellow &amp; Grey</td>
<td>Possible</td>
<td>0.4, 0.2</td>
<td>480, 30, 0.8, 8</td>
<td>-10°C / +60°C</td>
<td>++/-0,50, +/-0,50, +/-0,05</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.</td>
<td></td>
<td></td>
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<tr>
<td>P107</td>
<td>Polyester/Cotton</td>
<td>Polyurethane/Silicone</td>
<td>Yellow &amp; Grey</td>
<td>Possible</td>
<td>0.4, 0.2</td>
<td>480, 30, 0.8, 8</td>
<td>-10°C / +60°C</td>
<td>++/-0,50, +/-0,50, +/-0,05</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P108</td>
<td>Polyester/Cotton</td>
<td>Polyurethane/Silicone</td>
<td>Yellow &amp; Grey</td>
<td>Possible</td>
<td>0.4, 0.2</td>
<td>480, 30, 0.8, 8</td>
<td>-10°C / +60°C</td>
<td>++/-0,50, +/-0,50, +/-0,05</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.</td>
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<tr>
<td>P110</td>
<td>Polyester</td>
<td>Polyurethane/Silicone</td>
<td>Yellow &amp; Grey</td>
<td>Possible</td>
<td>0.4, 0.2</td>
<td>480, 30, 0.8, 8</td>
<td>-10°C / +60°C</td>
<td>++/-0,50, +/-0,50, +/-0,05</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>-10°C / +60°C (+80)</td>
<td>Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Notes
- (1) Additional colours on request
- (2) Additional dimensions on request
- (3) Increase of thickness by about 0.3/0.5 mm for belts coated both sides
# POLYURETHANE FLAT BELTS

## PRODUCT RANGE

<table>
<thead>
<tr>
<th>TYPE</th>
<th>P120</th>
<th>P155</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>Polyester</td>
<td>Aramid/ Polyester</td>
</tr>
<tr>
<td>Coating for drive or transport side</td>
<td>Standard: 50 ShA (+/- 7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)</td>
<td>Standard: 50 ShA (+/- 7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)</td>
</tr>
<tr>
<td>Coating reverse side</td>
<td>Polyurethane/Silicone</td>
<td>Polyurethane/Silicone</td>
</tr>
<tr>
<td>Colour (1)</td>
<td>Yellow &amp; Grey</td>
<td>Yellow &amp; Grey</td>
</tr>
<tr>
<td>Antistatic</td>
<td>Possible</td>
<td>Possible</td>
</tr>
</tbody>
</table>

### Coefficient of friction (μ)
- Coated side smooth: 0.4
- Fabric side rough: 0.2
- Break strength (N) per cm width in endless form: 3500, 6500
- Pretension (N) recommended per cm width in endless form: 300, 350
- Elongation (%) at pretension recommended per cm: 0.8, 0.5
- Minimum recommended pulley diameter (mm): 20, 30

### Size (mm) (2)
- Length: 210 - 4300, 210 - 4300
- Width (length ≤ 460 mm): 6 - 330, 6 - 330
- Width (length > 460 - 600 mm): 6 - 330, 6 - 330
- Width (length > 600 - 750 mm): 6 - 600, 6 - 600
- Width (length > 750 mm): 6 - 600, 6 - 600
- Thickness: 1.5 (3), 2.0 (3)

### Tolerances
- Length (%): +/-0.50, +/-1.0
- Width (mm): +/-0.50, +/-0.50
- Thickness (mm): +/-0.05, +/-0.05

### Working temperature (intermittent)
- -10°C / +60°C (+80)

### Applications
- Suitable for heavy drive conditions. Universal applications. Medium-duty drives.
- Suitable for conveyor system. Extremely low elongation. Heavy-duty drives.

(1) Additional colours on request
(2) Additional dimensions on request
(3) Increase of thickness by about 0,3/0,5 mm for belts coated both sides
## POLYURETHANE FLAT BELTS

### PRODUCT RANGE

<table>
<thead>
<tr>
<th></th>
<th>S108</th>
<th>S110</th>
<th>S120</th>
<th>S155</th>
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</thead>
<tbody>
<tr>
<td>Polyester/Cotton</td>
<td>Polyester</td>
<td>Polyester</td>
<td>Aramid/Polyester</td>
<td></td>
</tr>
<tr>
<td>Silicone</td>
<td>Silicone</td>
<td>Silicone</td>
<td>Silicone</td>
<td></td>
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<tr>
<td>30-35 ShA</td>
<td>30-35 ShA</td>
<td>30-35 ShA</td>
<td>30-35 ShA</td>
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</table>

<table>
<thead>
<tr>
<th>Polyurethane/Silicone</th>
<th>Polyurethane/Silicone</th>
<th>Polyurethane/Silicone</th>
<th>Polyurethane/Silicone</th>
</tr>
</thead>
<tbody>
<tr>
<td>White &amp; Grey</td>
<td>White &amp; Grey</td>
<td>White &amp; Grey</td>
<td>White &amp; Grey</td>
</tr>
<tr>
<td>Possible</td>
<td>Possible</td>
<td>Possible</td>
<td>Possible</td>
</tr>
</tbody>
</table>

### Additional colours on request:
- (1) Additional colours on request
- (2) Additional dimensions on request
- (3) Increase of thickness by about 0.3/0.5 mm for belts coated both sides

### Coating:
- Drive or transport side:
  - Standard: 50 ShA (+/-7)
  - Special: 30-40 ShA (soft foam), 60-75 ShA (hard)
- Silicone:
  - 30-35 ShA

### Colour:
- (1) Yellow & Grey
- (2) White & Grey

### Application:
- Suitable for heavy drive conditions.
- Universal applications.
- Medium-duty drives.
- Suitable for conveyor system.
- Extremely low elongation.
- Heavy-duty drives.
- Transport belt, heat and cold resistant.
- Knife edge transport.
- Food contact.

### Technical Specifications:

#### Coating:
- Polyurethane/Silicone
  - Polyurethane/Silicone
  - Polyurethane/Silicone
  - Polyurethane/Silicone

#### Colour:
- (1) Yellow & Grey
- (2) White & Grey

#### Additional Features:
- Antistatic
- Possible
- Possible
- Possible
- Possible

#### Coefficient of friction (µ):
- Coated side smooth:
  - 0.4
  - 0.6

- Fabric side rough:
  - 0.2

#### Breaking strength (N) per cm width in endless form:
- 3500
- 6500
- 800
- 1000
- 3400
- 5900

#### Pretension (N) recommended per cm width in endless form:
- 300
- 350
- 180
- 125
- 350
- 400

#### Elongation (%):
- 0.8
- 0.5
- 0.8
- 0.8
- 0.8
- 0.5

#### Minimum recommended pulley diameter (mm):
- 20
- 30
- 8
- 12
- 20
- 25

#### Size (mm):
- Length:
  - 210 - 4300
  - 210 - 3850
  - 210 - 3850
  - 210 - 4300
  - 210 - 3800

- Width (mm):
  - 6 - 330
  - 6 - 330
  - 6 - 330
  - 6 - 330
  - 6 - 330

- Thickness (mm):
  - 1,5 (3)
  - 2,0 (3)
  - 0,8(3)
  - 1,0 (3)

#### Tolerances:
- Length (%):
  - +/-0,50
  - +/-0,50
  - +/-0,50
  - +/-0,50

- Width (mm):
  - +/-0,50
  - +/-0,50
  - +/-0,50
  - +/-0,50

- Thickness (mm):
  - +/-0,05
  - +/-0,05
  - +/-0,05
  - +/-0,05

#### Working temperature (intermittent):
- -10°C / +60°C (+80)
- -50°C / +120°C (+160)
- -60°C / +280°C (+300)

#### Applications:
- Suitable for heavy drive conditions.
- Universal applications.
- Medium-duty drives.
- Suitable for conveyor system.
- Extremely low elongation.
- Heavy-duty drives.
- Transport belt, heat and cold resistant.
- Knife edge transport.
- Food contact.

(1) Additional colours on request
(2) Additional dimensions on request
(3) Increase of thickness by about 0.3/0.5 mm for belts coated both sides
# RUBBER FLAT BELTS

## PRODUCT RANGE

<table>
<thead>
<tr>
<th>Type</th>
<th>T75</th>
<th>T108</th>
<th>T110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>Polyester</td>
<td>Polyester/Cotton</td>
<td>Polyester</td>
</tr>
<tr>
<td>Coating for drive or transport side</td>
<td>Neoprene rough</td>
<td>Neoprene rough</td>
<td>Neoprene rough</td>
</tr>
<tr>
<td>Coating revers side</td>
<td>Neoprene smooth</td>
<td>Neoprene smooth</td>
<td>Neoprene smooth</td>
</tr>
<tr>
<td>Colour (1)</td>
<td>Black</td>
<td>Black</td>
<td>Black</td>
</tr>
<tr>
<td>Antistatic</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Coefficient of friction (µ)

- Coated side smooth: 0.6, 0.6, 0.6
- Fabric side rough: 0.5, 0.5, 0.5

### Breaking strength (N) per cm width in endless form

- 1500, 950, 1750

### Pretension (N) recommended per cm width in endless form

- 150, 260, 270

### Elongation (%) at pretension recommended per cm

- 0.8, 0.8, 0.8

### Minimum recommended pulley external diameter (mm)

- 6, 10, 15

### Size (mm) (2)

<table>
<thead>
<tr>
<th></th>
<th>T75</th>
<th>T108</th>
<th>T110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (%) *(&lt;= 600 mm: +/-0.50)</td>
<td>+/-0.50</td>
<td>+/-0.50</td>
<td>+/-0.50</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>+/-0.50</td>
<td>+/-0.50</td>
<td>+/-0.50</td>
</tr>
<tr>
<td>Thickness (mm)</td>
<td>+/-0.15</td>
<td>+/-0.15</td>
<td>+/-0.15</td>
</tr>
</tbody>
</table>

### Tolerances

- Suitable for low stretch demanding drive conditions.
- Heavy-duty drives.
- Suitable for high torque, high speed drives such as machine tools.
- Suitable for textile machinery.
- Suitable for medium-duty drives for wood or metal working.
- Suitable for universal applications and textile machines.
- Very flexible.
- Drivers for office equipments.

### Applications

- Suitable for light-load transmission or conveying. Drivers for office equipments.
- Particularly suitable for applications in office equipment. Very flexible.
- Suitable for universal applications and textile machines.
- High belt running speed.

(1) Additional colours on request  
(2) Additional dimensions on request
# RUBBER FLAT BELTS

## PRODUCT RANGE

<table>
<thead>
<tr>
<th>T120</th>
<th>T150</th>
<th>T155</th>
<th>T200</th>
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<tbody>
<tr>
<td>Polyester</td>
<td>Polyester</td>
<td>Aramid/ Polyester</td>
<td>Polyester</td>
</tr>
<tr>
<td>Neoprene rough</td>
<td>Neoprene rough</td>
<td>Neoprene rough</td>
<td>Neoprene rough</td>
</tr>
<tr>
<td>Neoprene smooth</td>
<td>Neoprene smooth</td>
<td>Neoprene smooth</td>
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<tr>
<td>Black</td>
<td>Black</td>
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<td>Black</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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| 0,6 | 0,6 | 0,6 | 0,6 |
| 0,5 | 0,5 | 0,5 | 0,5 |
| 3450 | 3000 | 8000 | 4000 |
| 350 | 300 | 500 | 400 |
| 0,8 | 0,7 | 0,3 | 0,8 |
| 20 | 15 | 30 | 20 |

| 200 - 4300 | 200 - 3850 | 200 - 3850 | 200 - 3850 |
| 6 - 330 | 6 - 330 | 6 - 330 | 6 - 330 |
| 6 - 430 | 6 - 430 | 6 - 430 | 6 - 430 |
| 6 - 430 | 6 - 430 | 6 - 430 | 6 - 430 |
| 1,4 | 0,9 | 1,6 | 1,1 |

| +/-0,5 | +/-0,5 | +/-1,00 | +/-0,50 |
| +/-0,50 | +/-0,50 | +/-0,50 | +/-0,50 |
| +/-0,15 | +/-0,15 | +/-0,15 | +/-0,15 |

-25°C / +100°C
Suitable for medium-duty drives for wood or metal working.

-25°C / +100°C
Suitable for textile machinery. High belt running speed and medium torque drive

-25°C / +100°C
Suitable for low stretch demanding drive conditions. Heavy-duty drives.

-30°C / +110°C
Suitable for high torque, high speed drives such as machine tools.

• Additional colours on request - • Additional dimensions on request
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Technical specifications, performances and other information provided in the present catalogue are indicative and do not bound Megadyne unless such specifications, performances or other information are expressly agreed in the agreement with the customer.

We also recommend to read carefully the following documents in our web site www.megadynegroup.com:
- Megadyne General Conditions of Sale (comprising the warranty)
- Theoretical Belt Life
- Drive Components: Storage, Installation, Maintenance and Troubleshooting Handbook - Belts standard use condition and temperature.

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