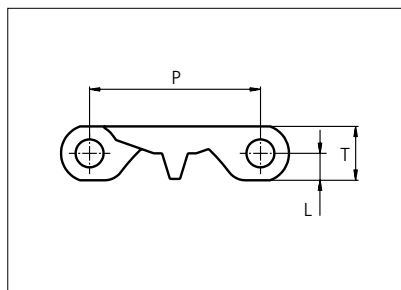




# Plastic Modular Belt

Series **uni MPB** Type **22% Open**



Straight running belt  
Nominal pitch: 50.8 mm (2.00 in)  
Surface type: Flat  
Surface opening: 22%  
Backflex radius: 65.0 mm (2.6 in)  
Pin diameter: 8.0 mm (0.31 in)

| Belt material<br>& color | PP <b>W</b>                                                                                   | PE-I  <b>B</b> |                        | mm   | in   |          | mm   | in   |
|--------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------|------|------|----------|------|------|
|                          |                                                                                               |                                                                                                 | <b>P<br/>(Nominal)</b> | 50.8 | 2.00 | <b>T</b> | 16.0 | 0.63 |
| Pin material<br>& color  |  PP <b>W</b> |  PE <b>W</b>   |                        |      |      |          |      |      |
|                          |                                                                                               |                                                                                                 | <b>L</b>               | 8.0  | 0.31 | -        | -    | -    |

Non standard material and color: See uni Material and Color Overview.

| Belt width |      | Permissible tensile force<br>(Belt/pin material) |      |         |      | Belt weight<br>(Belt/pin material) |       |         |       | *Min. No.<br>drive<br>sprocket<br>per shaft | Number of wear strips<br>(Min. No.) |                   |
|------------|------|--------------------------------------------------|------|---------|------|------------------------------------|-------|---------|-------|---------------------------------------------|-------------------------------------|-------------------|
|            |      | PP/PP                                            |      | PE-I/PE |      | PP/PP                              |       | PE-I/PE |       |                                             | **Carry<br>(pcs)                    | **Return<br>(pcs) |
| mm         | in   | N                                                | lbf  | N       | lbf  | kg/m                               | lb/ft | kg/m    | lb/ft |                                             |                                     |                   |
| 84         | 3.3  | 1341                                             | 302  | 1090    | 245  | 0.6                                | 0.41  | 0.6     | 0.43  | 2                                           | 2                                   | 2                 |
| 151        | 5.9  | 2416                                             | 543  | 1963    | 441  | 1.1                                | 0.73  | 1.1     | 0.77  | 2                                           | 2                                   | 2                 |
| 185        | 7.3  | 2953                                             | 664  | 2399    | 539  | 1.3                                | 0.89  | 1.4     | 0.94  | 2                                           | 2                                   | 2                 |
| 202        | 8.0  | 3232                                             | 727  | 2626    | 590  | 1.5                                | 0.98  | 1.5     | 1.03  | 2                                           | 2                                   | 2                 |
| 252        | 9.9  | 4032                                             | 906  | 3276    | 736  | 1.8                                | 1.22  | 1.9     | 1.29  | 2                                           | 2                                   | 2                 |
| 302        | 11.9 | 4832                                             | 1086 | 3926    | 883  | 2.2                                | 1.46  | 2.3     | 1.54  | 3                                           | 3                                   | 2                 |
| 353        | 13.9 | 5648                                             | 1270 | 4589    | 1032 | 2.5                                | 1.71  | 2.7     | 1.80  | 3                                           | 3                                   | 2                 |
| 403        | 15.9 | 6448                                             | 1450 | 5239    | 1178 | 2.9                                | 1.95  | 3.1     | 2.06  | 3                                           | 3                                   | 2                 |
| 453        | 17.8 | 7248                                             | 1629 | 5889    | 1324 | 3.3                                | 2.19  | 3.4     | 2.31  | 4                                           | 4                                   | 2                 |
| 504        | 19.8 | 8064                                             | 1813 | 6552    | 1473 | 3.6                                | 2.44  | 3.8     | 2.57  | 4                                           | 4                                   | 2                 |
| 554        | 21.8 | 8864                                             | 1993 | 7202    | 1619 | 4.0                                | 2.68  | 4.2     | 2.83  | 4                                           | 4                                   | 2                 |
| 604        | 23.8 | 9664                                             | 2172 | 7852    | 1765 | 4.3                                | 2.92  | 4.6     | 3.08  | 5                                           | 5                                   | 3                 |
| 655        | 25.8 | 10480                                            | 2356 | 8515    | 1914 | 4.7                                | 3.17  | 5.0     | 3.35  | 5                                           | 5                                   | 3                 |

Additional standard belt widths are available in steps of 50.3 mm (1.98 in.) Additional non-standard belt widths are available in steps of 16.8 mm (0.66 in).

|      |      |       |      |       |      |      |      |      |       |    |    |   |
|------|------|-------|------|-------|------|------|------|------|-------|----|----|---|
| 1963 | 77.3 | 31408 | 7061 | 25519 | 5737 | 14.1 | 9.50 | 14.9 | 10.03 | 14 | 14 | 7 |
|------|------|-------|------|-------|------|------|------|------|-------|----|----|---|

Additional standard belt widths are available in steps of 50.3 mm (1.98 in.) Additional non-standard belt widths are available in steps of 16.8 mm (0.66 in).

|      |       |       |       |       |      |      |       |      |       |    |    |    |
|------|-------|-------|-------|-------|------|------|-------|------|-------|----|----|----|
| 2970 | 116.9 | 47520 | 10682 | 38610 | 8680 | 21.4 | 14.37 | 22.6 | 15.17 | 20 | 20 | 10 |
|------|-------|-------|-------|-------|------|------|-------|------|-------|----|----|----|

General belt tolerance is +0/-0.4% at 23°C/73°F and 50% RH. For exact belt width contact Customer Service. Non standard belt width on request.

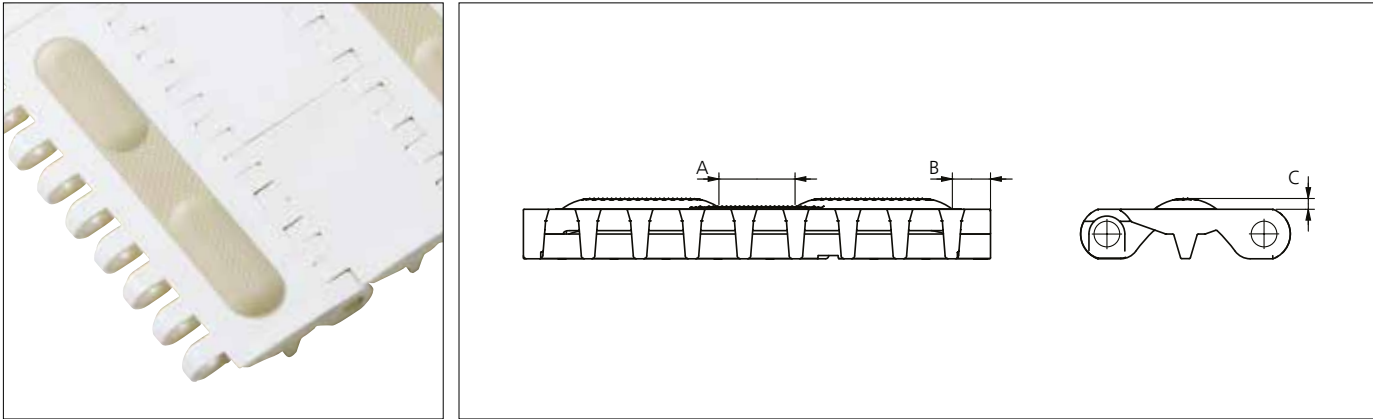
\*Max. Load per Drive Sprocket. Belt material: PP with snub roller 2000 N (450 lbf) without snub roller 1250 N (281 lbf)

\*\*Max. Spacing between wear strips, Carry: 152.0 mm (6.00 in); return: 304.0 mm (12.00 in).

= Single Link

Accessories

Rubber Top



| Type            | Belt<br>Material & color | Rubber<br>Material & color | A    |      | B    |      | C   |      | Link<br>size | Width |      |
|-----------------|--------------------------|----------------------------|------|------|------|------|-----|------|--------------|-------|------|
|                 |                          |                            | mm   | in   | mm   | in   | mm  | in   |              | mm    | in   |
| Curved<br>Rough | POM-DI <b>W</b>          | 01 <b>N</b>                | 24.0 | 0.94 | 10.0 | 0.39 | 3.5 | 0.14 | K600         | 151.0 | 5.94 |

Non Standard material and color: See uni Material and Color Overview.

Accessories

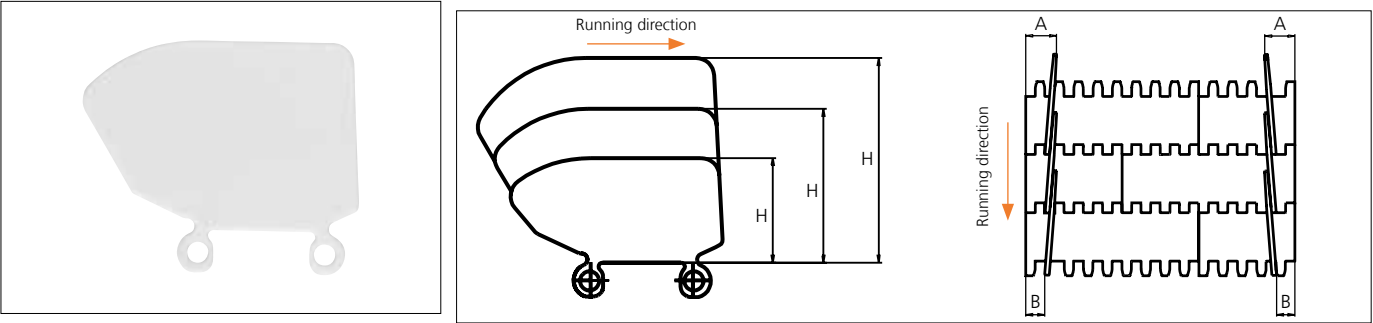
Flight



See seperate uni MPB series Flight datasheet.

Accessories

Side Guard

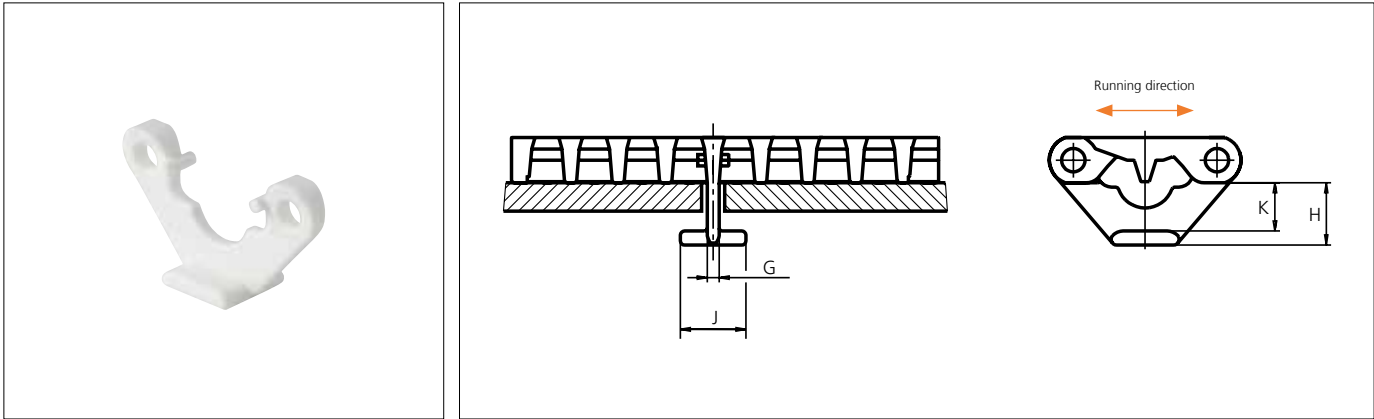


| Type   | Side Guard<br>Material & color | H     |      | A    |      | B    |      |
|--------|--------------------------------|-------|------|------|------|------|------|
|        |                                | mm    | in   | mm   | in   | mm   | in   |
| Closed | PE-I <b>B</b> <b>N</b>         | 50.8  | 2.00 | 32.0 | 1.26 | 16.0 | 0.63 |
|        | PP-I <b>W</b> <b>B</b>         | 76.2  | 3.00 |      |      |      |      |
|        |                                | 101.6 | 4.00 |      |      |      |      |

\*34.0 mm (1.34 in) combined with flight. Increment: 8.4 mm (0.33 in).  
Note: Backflex radius when Side Guard are used: 200.0 mm (7.90 in)

## Accessories

### Tab



| Type                   | Tab<br>Material & color | G   |      | J    |      | K    |      | H    |      |
|------------------------|-------------------------|-----|------|------|------|------|------|------|------|
|                        |                         | mm  | in   | mm   | in   | mm   | in   | mm   | in   |
| Bottom<br>Hold<br>Down | POM-DI <b>W</b>         | 4.2 | 0.17 | 23.2 | 0.91 | 17.0 | 0.67 | 22.0 | 0.87 |

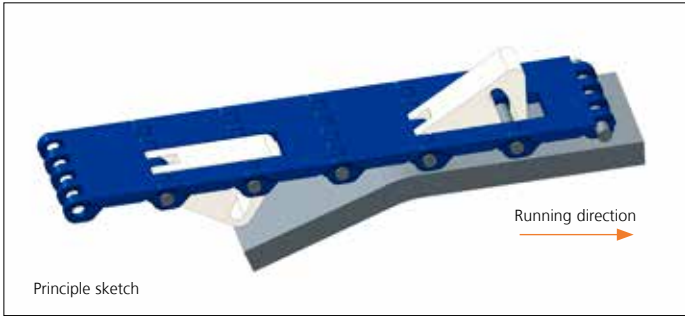
Note: When using taps, please verify sufficient clearance to the shaft. Max. shaft diameter = Sprocket pitch diameter - 63.5 mm (2.50 in). When using square shafts, please verify that the diagonal does not exceed max. diameter. Example: Sprocket z = 6: Max. shaft diameter 101.6 - 63.5 = ø38.1 mm (4.00 - 2.50 = ø1.4 in).

Note: When using a belt system with tabs, the temperature should be constant. Please note that the tabs are not always placed in the middle of the belt.

Non Standard material and color: See uni Material and Color Overview.

## Accessories

### Non standard uni AmFlight



Other non standard option: See uni Amflight Overview.

## Sprocket

| No of teeth | Bore size  |    |                                  |                                  |                                    |                                    |                                  |                                  |                | Overall diameter |       | Pitch-diameter |       | Hub-diameter                                                   |                                                             | Dimension A  |              | Dimension B    |              | Single row/One way | Double row/Two way | Molded | Machined |
|-------------|------------|----|----------------------------------|----------------------------------|------------------------------------|------------------------------------|----------------------------------|----------------------------------|----------------|------------------|-------|----------------|-------|----------------------------------------------------------------|-------------------------------------------------------------|--------------|--------------|----------------|--------------|--------------------|--------------------|--------|----------|
|             | Pilot bore | in | 1.00                             | 1.18                             | 1.25                               | 1.50                               | 1.57                             | 2.36                             | 2.50           |                  |       |                |       |                                                                |                                                             |              |              |                |              |                    |                    |        |          |
|             |            |    | mm                               | 25.4                             | 30.0                               | 31.8                               | 38.1                             | 40.0                             | 60.0           | 63.5             | 90.0  | mm             | in    | mm                                                             | in                                                          | mm           | in           | mm             | in           | mm                 | in                 |        |          |
| Z06         | ✔          |    | ●                                | ●                                | ●                                  | ■                                  | ●■                               |                                  |                | 99.5             | 3.92  | 101.6          | 4.00  | 65.0                                                           | 2.56                                                        | 36.0         | 1.42         | 59.3           | 2.33         | ✔                  |                    | ✔      |          |
| Z08         | ✔          |    | <sup>1</sup> ●                   | <sup>1</sup> ●                   | <sup>1</sup> ●                     | <sup>1</sup> ■                     | <sup>1</sup> ●<br><sup>2</sup> ■ |                                  |                | 132.9            | 5.23  | 132.8          | 5.23  | <sup>1</sup> 65.0<br><sup>2</sup> 77.0                         | <sup>1</sup> 2.56<br><sup>2</sup> 3.03                      | 53.3         | 2.10         | 74.9           | 2.94         | ✔                  | ✔                  | ✔      |          |
| Z10         | ✔          |    | <sup>1</sup> ●                   | <sup>1</sup> ●                   | <sup>1</sup> ●■                    | <sup>1</sup> ●■                    | <sup>2</sup> ■<br><sup>2</sup> ■ |                                  |                | 166.3            | 6.55  | 164.4          | 6.47  | <sup>1</sup> 70.0<br><sup>2</sup> 120.0                        | <sup>1</sup> 2.75<br><sup>2</sup> 4.72                      | 70.2         | 2.76         | 90.7           | 3.57         | ✔                  | ✔                  | ✔      |          |
| Z12         | ✔          |    | <sup>1</sup> ●                   | <sup>1</sup> ●                   | <sup>1</sup> ●■                    | <sup>1</sup> ●■                    | <sup>2</sup> ■<br><sup>3</sup> ■ | <sup>2</sup> ■<br><sup>3</sup> ■ | <sup>3</sup> ■ | 198.6            | 7.82  | 196.3          | 7.73  | <sup>1</sup> 70.0<br><sup>2</sup> 120.0<br><sup>3</sup> 164.0  | <sup>1</sup> 2.75<br><sup>2</sup> 4.72<br><sup>3</sup> 6.45 | 86.8<br>86.8 | 3.42<br>3.42 | 106.6<br>106.6 | 4.19<br>4.19 | <sup>1+2</sup> ✔   | <sup>2+3</sup> ✔   | ✔      |          |
| Z16         | ✔          |    | <sup>2</sup> ●<br><sup>1</sup> ● | <sup>2</sup> ●<br><sup>1</sup> ● | <sup>2</sup> ●■<br><sup>1</sup> ●■ | <sup>2</sup> ●■<br><sup>1</sup> ●■ | <sup>3</sup> ■<br><sup>1</sup> ■ | <sup>2</sup> ■<br><sup>1</sup> ■ | <sup>3</sup> ■ | 263.8            | 10.39 | 260.4          | 10.25 | <sup>1</sup> 150.0<br><sup>2</sup> 164.0<br><sup>3</sup> 200.0 | <sup>1</sup> 5.90<br><sup>2</sup> 6.45<br><sup>3</sup> 7.87 | 119.7        | 4.71         | 138.7          | 5.46         | <sup>1</sup> ✔     | <sup>2+3</sup> ✔   | ✔      | ✔        |

● Molded sprocket

■ Molded sprocket

■ Machined sprocket



Other sprocket sizes are available upon request.  
Other bore sizes on sprockets are available upon request.  
Round bores are always delivered with keyway.  
Max. load per sprocket shown does not take bore size into account.  
Please also ensure that sufficient size shaft is chosen for corresponding load.

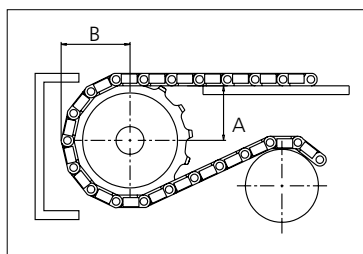
Width of tooth = Single row: 9.5 mm (0.37 in)  
= Double row: 17.8 mm (0.70 in)  
Width of One-part sprocket = Single row: 42.3 mm (1.66 in)  
= Double row: 42.3 mm (1.66 in)  
= <sup>3</sup>Double row: 50.0 mm (1.96 in)

## uni UltraClean One-Part and Two-Part Sprocket

| No. of teeth | Bore size |                                     |                                     |                         | Overall diameter |      | Pitch-diameter |      | Hub-diameter                        |                                     | Dimension A |      | Dimension B |      | Single row/One way | Moulded      | PAG <div>W</div> |
|--------------|-----------|-------------------------------------|-------------------------------------|-------------------------|------------------|------|----------------|------|-------------------------------------|-------------------------------------|-------------|------|-------------|------|--------------------|--------------|------------------|
|              | in        | 1.50                                | 1.57                                | 2.36                    |                  |      |                |      |                                     |                                     |             |      |             |      |                    |              |                  |
|              | mm        | 38.1                                | 40.0                                | 60.0                    | mm               | in   | mm             | in   | mm                                  | in                                  | mm          | in   | mm          | in   |                    |              |                  |
| Z8           |           | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> |                         | 132.9            | 5.23 | 132.8          | 5.23 | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> | 53.3        | 2.10 | 74.9        | 2.94 | <div>✓</div>       | <div>✓</div> |                  |
| Z10          |           | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> | <div><div>2</div></div> | 166.3            | 6.55 | 164.4          | 6.47 | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> | 70.2        | 2.76 | 90.7        | 3.57 | <div>✓</div>       | <div>✓</div> |                  |
| Z12          |           | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> | <div><div>2</div></div> | 198.6            | 7.82 | 196.3          | 7.73 | <div><div>1</div><div>2</div></div> | <div><div>1</div><div>2</div></div> | 86.8        | 3.42 | 106.6       | 4.19 | <div>✓</div>       | <div>✓</div> |                  |

■ Moulded uni UltraClean OnePart Sprocket

■ Moulded uni UltraClean TwoPart Sprocket



Width of UltraClean Two-part sprocket = Single row: 44.0 mm (1.73 in)  
Width of UltraClean Two-part sprocket, tooth = Single row: 9.5 mm (0.37 in)

uni Retainer Rings: See uni Retainer Ring datasheet.  
For correct sprocket position:  
See uni Assembly instructions for uni MPB.  
More detailed sprocket information:  
contact Customer Service.



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**Ammeraal Beltech Modular**  
Hjulgagervej 21  
DK-7100 Vejle  
T +45 7572 3100

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