MEGAFLAT

MEGADYNE

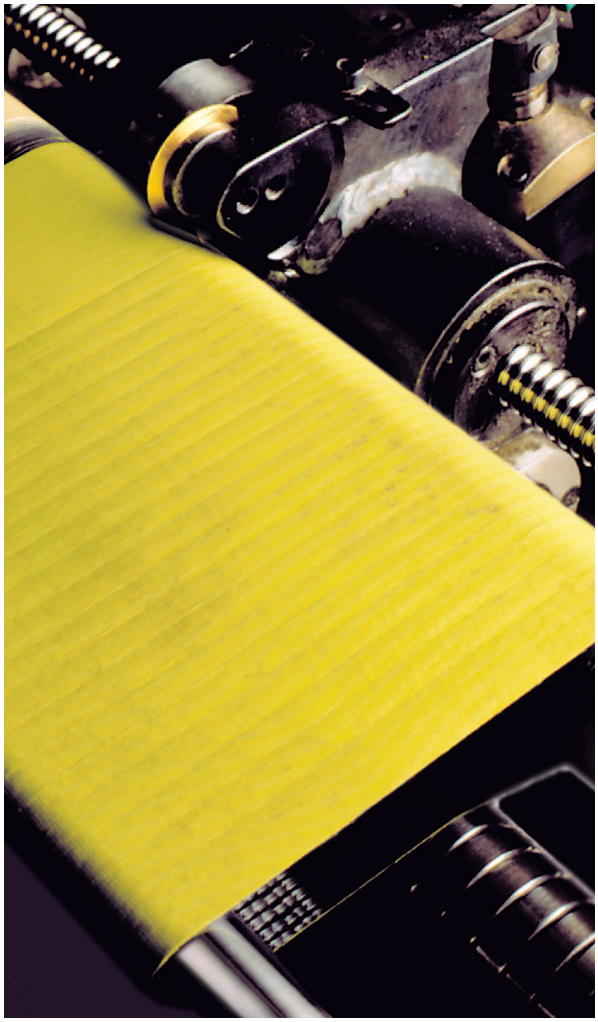
INDEX

Introduction to Megaflat *3*

Polyurethane flat belts
Product range *4*

Rubber flat belts
Product range *8*

INTRODUCTION TO MEGAFLAT



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 guarentee the perfect belt for transmission and for conveying even at extreme speeds and in special environments.

MAIN FEATURES

- High flexibility
- Small pulley diameters
- Dimensional accurancy
- 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.
  Aramide, 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

TYPE	P0	P102
Fabric	No fabric	Elastic fabric
Coating for drive or transport side	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)
Coating revers side	No	Polyurethane/Silicone
Colour [1]	Yellow & Grey	Yellow & Grey
Antistatic	No	Possible

Coefficient of friction (μ)		
• Coated side smooth	0,4	0,4
• Fabric side rough	-	0,2

Breaking strength (N) per cm width in endless form	140	250
Pretension (N) recommended per cm width in endless form	-	10
Elongation (%) at pretension recommended per cm	4 - 8	4
Minimum recommended pulley diameter (mm)	8	25

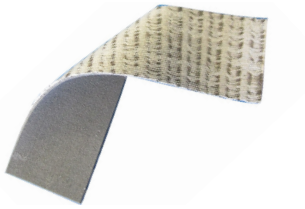
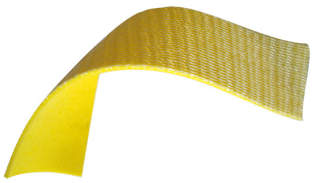
Size (mm) [2]		
• Length	210 - 2500	210 - 2500
• Width (length </= 460 mm)	6 - 330	6 - 330
• Width (length > 460 - 600 mm)	6 - 330	6 - 330
• Width (length > 600 - 750 mm)	6 - 550	6 - 600
• Width (length > 750 mm)	6 - 550	6 - 600
• Thickness	0,9	1,8 [3]

Tolerances		
• Length (%)	+/-2,0	+/-2,0
• Width (mm)	+/-0,50	+/-0,50
• Thickness (mm)	+/-0,05	+/-0,05

Working temperature (intermittent)	-10°C / +60°C (+80)	-10°C / +60°C (+80)
Applications	Suitable for fixed center distance drive system like copying machines. Highly elastic.	Suitable for fixed center distance drive systems like machinery for paper transport. Elastic.

[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

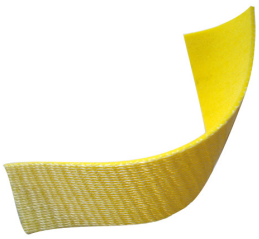
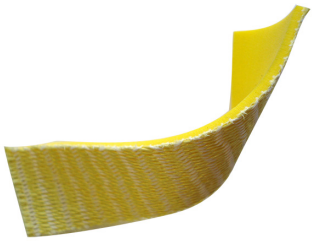
PRODUCT RANGE

TYPE	P108	P110
		
Fabric	Polyester/Cotton	Polyester
Coating for drive or transport side	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)
Coating revers side	Polyurethane/Silicone	Polyurethane/Silicone
Colour [1]	Yellow & Grey	Yellow & Grey
Antistatic	Possible	Possible
Coefficient of friction (μ)		
• Coated side smooth	0,4	0,4
• Fabric side rough	0,1	0,3
Breaking strength (N) per cm width in endless form	900	1250
Pretension (N) recommended per cm width in endless form	200	150
Elongation (%) at pretension recommended per cm	1,2	0,8
Minimum recommended pulley diameter (mm)	8	12
Size (mm) [2]		
• Length	210 - 3850	210 - 3850
• 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	0,8 [3]	1,0 [3]
Tolerances		
• Length (%)	+/-0,50	+/-0,50
• Width (mm)	+/-0,50	+/-0,50
• Thickness (mm)	+/-0,05	+/-0,05
Working temperature (intermittent)	-10°C / +60°C (+80)	-10°C / +60°C (+80)
Applications	Suitable for knife edge transport. Low coefficient of friction on textile side. Thin, highly flexible band.	Suitable for flexible drive and transport systems like grinding machines. Very good running performance. Universal applications.

[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

TYPE	P120	P155
		
Fabric	Polyester	Aramid/ Polyester
Coating for drive or transport side	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)	Standard: 50 ShA (+/-7) Special: 30-40 ShA (soft foam), 60-75 ShA (hard)
Coating revers side	Polyurethane/Silicone	Polyurethane/Silicone
Colour [1]	Yellow & Grey	Yellow & Grey
Antistatic	Possible	Possible

Coefficient of friction (μ)		
• Coated side smooth	0,4	0,4
• Fabric side rough	0,2	0,2

Breaking 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]

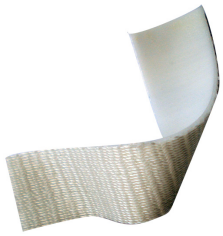
Tolerances		
• Length (%)	+/-0,50	+/-1,0
• Width (mm)	+/-0,50	+/-0,50
• Thickness (mm)	+/-0,05	+/-0,05

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

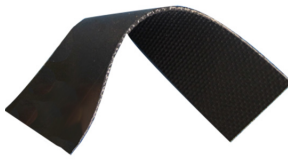
PRODUCT RANGE

S108	S110	S120	S155
			
Polyester/Cotton	Polyester	Polyester	Aramid/Polyester
Silicone 30-35 ShA	Silicone 30-35 ShA	Silicone 30-35 ShA	Silicone 30-35 ShA
Polyurethane/Silicone	Polyurethane/Silicone	Polyurethane/Silicone	Polyurethane/Silicone
White & Grey	White & Grey	White & Grey	White & Grey
Possible	Possible	Possible	Possible
0,6	0,6	0,6	0,6
0,1	0,2	0,4	0,2
800	1000	3400	5900
180	125	350	400
0,8	0,8	0,8	0,5
8	12	20	25
210 - 3850	210 - 3850	210 - 4300	210 - 3800
6 - 330	6 - 330	6 - 330	6 - 330
6 - 330	6 - 330	6 - 330	6 - 330
6 - 600	6 - 600	6 - 600	6 - 600
6 - 600	6 - 600	6 - 600	6 - 600
0,8[3]	1,0 [3]	1,5 [3]	2,0 [3]
+/-0,50	+/-0,50	+/-0,50	+/-1,0
+/-0,50	+/-0,50	+/-0,50	+/-0,50
+/-0,05	+/-0,05	+/-0,05	+/-0,05
-50°C / +120°C (+160)	-50°C / +150°C (+180)	-50°C / +150°C (+180)	-60°C / +280°C (+300)
Transport belt, heat and cold resistant. Knife edge transport. Food contact.	Transport belt, heat and cold resistant. Suitable for food transpor.	Universal transport belt, also for drive applications.	Transport belt, high strength and high temperature extremes.

[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

TYPE	T75	T108	T110
			
Fabric	Polyester	Polyester/Cotton	Polyester
Coating for drive or transport side	Neoprene rough	Neoprene rough	Neoprene rough
Coating revers side	Neoprene smooth	Neoprene smooth	Neoprene smooth
Colour [1]	Black	Black	Black
Antistatic	Yes	Yes	Yes
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]			
• Length	200 - 3850	200 - 3850	200 - 3850
• Width (length </= 470 mm)	6 - 330	6 - 330	6 - 300
• Width (length > 470 - 600 mm)	6 - 430	6 - 430	6 - 430
• Width (length > 600 - 750 mm)	6 - 430	6 - 430	6 - 430
• Width (length > 750 mm)	6 - 430	6 - 430	6 - 430
• Thickness	0,5	0,65	0,9
Tolerances			
• Length (%) *(</= 600 mm: +/- 5mm)	+/-*0,50	+/-*0,50	+/-*0,50
• Width (mm) for cut belt	+/-0,50	+/-0,50	+/-0,50
• Thickness (mm)	+/-0,15	+/-0,15	+/-0,15
Working temperature	-30°C / +110°C	-25°C / +100°C	-25°C / +100°C
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

PRODUCT RANGE

T120	T150	T155	T200
Polyester	Polyester	Aramid/ Polyester	Polyester
Neoprene rough	Neoprene rough	Neoprene rough	Neoprene rough
Neoprene smooth	Neoprene smooth	Neoprene smooth	Neoprene smooth
Black	Black	Black	Black
Yes	Yes	Yes	Yes
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
470- 3850	200 - 3850	470 - 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
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	-25°C / +100°C	-25°C / +100°C	-30°C / +110°C
Suitable for medium-duty drives for wood or metal working.	Suitable for textile machinery. Higth belt running speed and medium torque drive	Suitable for low stretch demanding drive conditions. Heavy-duty drives.	Suitable for high torque, high speed drives such as machine tools.

[1]Additional colours on request - [2]Additional dimensions on request

NOTES