# MEGADYNE

# MEGAPOWER

## TECHNICAL HANDBOOK

# INDEX

MEGAPOWER

# INTRODUCTION

## MEGAPOWER BELTS

Megadyne began manufacturing transmission belts in 1957 and moulding MEGAPOWER belts in 1975.

MEGAPOWER timing belts are manufactured in thermoset polyurethane by a unique moulding process.

The thermoset polyurethane gives superior wear and abrasion resistance. Several type of cords, helically wound rolled up inside the belts, assure excellent dimensional stability and offer high performances in terms of flexibility and traction resistance.

MEGAPOWER belts are particularly suitable for power transmission applications.

### MEGAPOWER USE ADVANTAGES

MEGAPOWER timing belt drives represent a modern and efficient system of power transmission. They combine the advantages and properties of geared drives with those of Vee and Flat belts whilst eliminating the troubles typical of each of these types of transmission.

MEGAPOWER drives allow:

- Synchronous transmission
- Constant and high angular speed
- Excellent mechanical performance
- Dimensional stability
- Low noise
- Low installation tension
- Minimum drive dimensions
- Omega drive configuration
- Customised belt engineering

### MEGAPOWER APPLICATION AREAS

Thanks to their features, MEGAPOWER belts can be successfully used in a wide range of applications such as:

- Computers tape movement
- Office automation equipment
- Medical equipment
- Packaging machinery
- Motor vehicles
- Swimming pool cleaning robots
- Plotters
- Money changers
- Optical instruments
- Robotic arms
- Electric appliances
- Shower manual controls
- Vacuum systems
- Vending machines
- Food machinery
- Textile machinery
- Leisure and do-it-yourself equipment
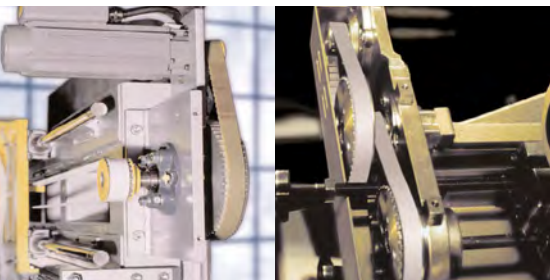
# MEGAPOWER

## BELT SYSTEM SPECIFICATIONS

To satisfy a wide range of loads, speeds and applications, MEGAPOWER belts and pulleys are made in a selection of sizes, capacities and dimensions.

The three most significant dimensions of a belt are:

1. **Pitch** is the distance in millimetres between two adjacent teeth centers as measured on the pitch line of the belt; the theoretical pitch line of a MEGAPOWER belt lies within the tensile member.

   It is indicated with abbreviations like T5, AT5, T10, AT10, H. The correspondence between abbreviations and pitches are indicated in the products pages.

2. **Length** is the total length (circumference) in millimetres as measured along the pitch line.

   On the pulley, the pitch line identifies the primitive diameter.

   The primitive diameters of the driver ($d_1$) and driven ($d_2$) pulleys are the ones to be used for calculating the transmission ratio.

$$i = \frac{d_2}{d_1}$$

3. **Width** can vary depending on driving system needs.
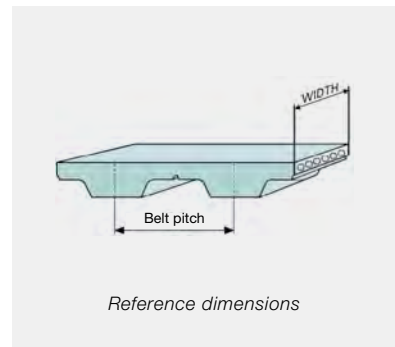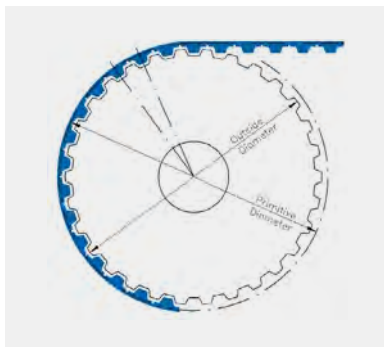


*Reference dimensions*

*The imperial pitch belts tooth profile follow ISO 5296-1 normative.*
*The T and AT series tooth profile follow the normative ISO 17396.*

A belt is constituted by two components: the body in polyurethane and a tension member represented by the cords in steel, fiberglass, polyester and Kevlar®.

## STANDARD RANGE
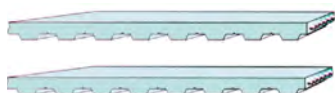
**MEGAPOWER**

MXL • XL • L • H

T2,5

**MEGAPOWER2**
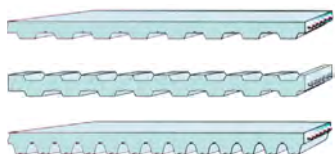
T5 • T10

T5DL • T10DL

AT5 • AT10
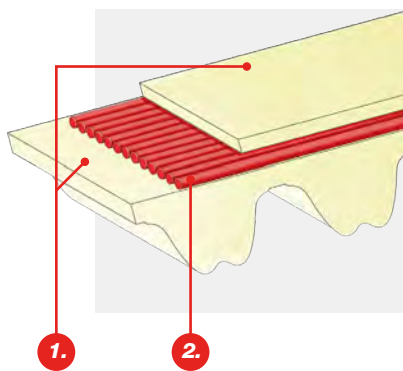
## CLASSIFICATIONS

MEGAPOWER timing belts are manufactured in thermoset polyurethane, with helically wound zinked steel. This type of belts, developed by our Research & Development, offers good running characteristics and high traction loads. They are especially suited for power transmission. An extra thickness of special coating is also possible on the back of the belt offering extra protection against aggressive or heavy products.

**1.** The body of the belts is grey/green thermoset polyurethane 88 ShA, characterized by high levels of wear resistance even in the presence of shock and surge loading. The thermoset polyurethane is obtained by mixing a prepolymer with a bonding compound and heating the mixture. After cooling down to ambient temperature, the result is a polyurethane with good chemical and mechanical characteristics giving the belt high performances and long lifetime.

**2.** High strength helically wound zinked steel tension members allow high breaking load and extremely low elongation.

The combination of these high grade materials improves belt performances which can be summarised as follows:

- Exceptional resistance to abrasion and tooth shear
- Low coefficient of friction
- High flexibility
- Ozone and temperature resistance (-25 °c / +80 °c)
- Oil, grease and gasoline resistance

## MECHANICAL AND CHEMICAL CHARACTERISTICS

- Constant dimensions
- Noiseless
- Free maintenance
- High flexibility
- High resistance steel traction cords, with little stretching and top flexibility
- Linear speeds up to 30 m/s
- Low pretension
- Constant length
- High abrasion resistance
- Ageing, Hydrolysis, Ozone resistant
- Working temperature -25 °C / +80 °C
- High resistance to Oils, Greases and Gasoline
- Fairly Acid-proof and Alkali-proof

## MECHANICAL AND CHEMICAL CHARACTERISTICS

### BODY

MEGAPOWER belts are manufactured with grey/green thermoset polyurethane 88 ShA as standard.

Special compounds (different hardnesses, special properties) are available on request. Here under some PU characteristics:

### WATER

No problem in normal or sea clean water, at room temperature. Over 60 °C there is a fast decrease of breaking strength.

### ACIDS

In acids diluted proportions, at room temperature, this PU is moderately attached. In high concentration acid solutions, this PU has a very short lifespan. Over 50 °C, acids are always dangerous for thermoset PU.

### ALKALIS

In alkalis diluted proportions, at room temperature, this PU is moderately attached. In high concentration alkaline solutions, this PU has a very short lifespan.

### SOLVENTS

Thermoset PU is insoluble in the greater part of solvents. Only the very polar solvents (same as tetrahydrofuran, dimethylformamide, n-methylpyrrolidone) can dissolve or tight damage PU. The esters or the ketons (same as ethylacetate or methylethylketene) can usually produce a bulge, decreasing mechanical characteristics. The aromatic hydrocarbons and the aliphatic hydrocarbons produce very high bulge.

### OILS

PU has a high resistance to mineral pure oils (lubrificants, engine oils, combustible oils). Usually, high performance syntetic oils, due to special addictives contained, can be incompatible with thermoset PU, especially at high temperature.

### GREASES

PU has a high resistance to pure mineral greases (lubrificants greases). Usually, high performance syntetic greases, due to special addictives contained, can be incompatible with thermoset PU, especially at high temperature.

### FUELS

Good resistance to petrol without alcohols. In presence of alcohols, thermoset PU can suffer deterioration. Fuels including aromatic stuffs can produce reversible bulges.

### MICROORGANISMS

In presence of grime, containing humidity, microorganisms can develop. In case that microbic attack can produce danger, you have to use a special kind of PU.

# CLASSIFICATIONS

## MECHANICAL AND CHEMICAL CHARACTERISTICS

**CORDS**

### STANDARD CORD
MEGAPOWER is manufactured with helicoidal zinked steel cords as standard.

### KEVLAR®
Kevlar® tension cords are suggested for non magnetic, precisely for use in drives with metal detectors, and they also are widely used in food industry.

### HP
High performance cords have 25% more strength capacity than standard cords. They are recommended for high repeatability applications.

### HF
High flexibility cords can accept smaller pulley and idler diameters than standard cords. They are suitable for multi-shaft drives with severe reverse bending.

### HPF
High performance and flexibility cords have 25% more strength capacity like the HP cords, but they are more flexible than the HP cords. They are suggested for high performance and multi-shaft drives.

### STAINLESS STEEL
Stainless steel cords have 25% less strength capacity than standard cords. They are recommended for water applications.

### FIBERGLASS AND POLYESTER CORDS
They combine particular mechanical characteristics, such as high flexibility, with resistance to water, polyester cord wet and humid environments.

Special compound and cords have to be tested and homologated on application. Megadyne is not responsable for wrong functioning of special products.

# CLASSIFICATIONS

## COATING

MEGAPOWER belts can be manufactured with special coatings, in order to fit many application with different requirements. For feasability see table at page 35 and for properties see page 36.

## IDENTIFICATION CODE

Using the information in the table below, it is possible to identify the correct belt for every application.

The code is composed of letters and numbers as the following example:

| 1 | | 2 | | 3 | | 4 | | 5 | | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| MPW | + | 50 | + | AT | + | 10 | + | 1500 | + | SPECIAL MANUFACTURES |

| | | |
|---|---|---|
| 1 | **MPW** | MEGAPOWER timing belt. |
| 2 | **50** | This number indicates the width of requested belt. The value is in mm for a belt with a pitch in mm, and in inches for a belt with a pitch in inches. |
| 3 | **AT** | This code composed by letters indicates the selection of profile. |
| 4 | **10** | This number indicates the standard pitch of the belt. It is expressed in mm. |
| 5 | **1500** | The last number indicates the length of the belt always in mm regardless of pitch. |
| 6 | **SPECIAL MANUFACTURES:** | Special cords as kevlar® or HP or HF or HPF or stainless steel or fiberglass or polyester |
| | | Special compound as different hardness or different colours |
| | | Extra coating |

## POWER TRANSMISSION CALCULATION PROCEDURE
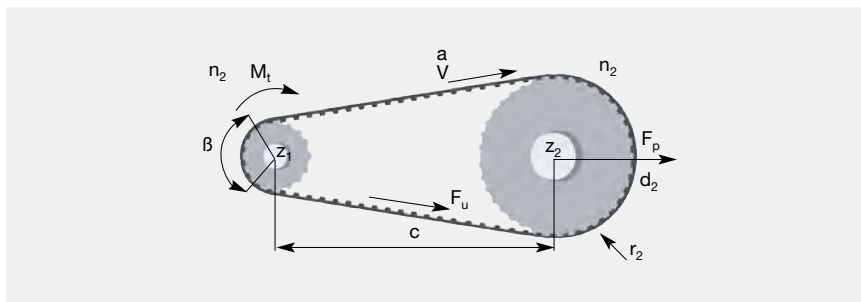


| SYMBOL | UNIT | DEFINITION |
|---|---|---|
| $t$ | mm | pitch |
| $b$ | mm | belt width |
| $L_w$ | mm | belt length |
| $c$ | mm | center distance |
| $\beta$ | | arc of contact |
| $C_1$, $C_2$, $C_3$, $C_{TOT}$ | | safety factors |
| $P$ | kW | power |
| $P_R$ | kW/cm | transmittable power each cm of tooth in mesh |
| $F_U$ | N | transmittable force |
| $F_P$ | N | pretension |
| $i$ | – | speed ratio |
| $n_1$, $n_2$ | RPM | speed of driver / driven pulley |
| $d_1$, $d_2$ | mm | pitch diameter of driver / driven pulley |
| $z_1$, $z_2$ | | no. of teeth of driver/ driven pulley |
| $z_m$ | | no. of teeth in mesh |
| $M_t$ | Nm | drive torque |
| $a$ | m/s$^2$ | acceleration |

### DETERMINATION OF BELT PITCH

The belt pitch can be determined with the belt selection chart at page 11 (for new applications we suggest AT profiles), referring to the speed of the small pulley.

### DETERMINATION OF SPEED RATIO

The speed ratio represents the ratio of pulley speed $n_1$ to $n_2$, or pulley pitch diameter $d_2$ to $d_1$ or of number of teeth $z_2$ to $z_1$.

$$i = \frac{n_1}{n_2} = \frac{d_2}{d_1} = \frac{z_2}{z_1}$$

### SELECTION OF REQUIRED TIMING PULLEYS

For the selection of the needed timing pulleys see belt data pages and pulleys catalogue.

## POWER TRANSMISSION CALCULATION PROCEDURE

### CALCULATION OF REQUIRED BELT LENGTH

The belt length can be determined replacing your values in the following formula:

$$L_w[mm] = 2 \cdot c \cdot \sin \frac{\beta}{2} + \frac{t}{2} \cdot \left[ z_1 + z_2 + \left( 1 - \frac{\beta}{180} \right) \cdot (z_2 - z_1) \right]$$

where

$$\beta = \arccos \left[ \frac{t \cdot (z_2 - z_1)}{2 \cdot \pi \cdot c} \right]$$

The actual belt length is to be taken from those available in the table (see belt page), the closest to the calculated $L_w$.

### CALCULATION OF CENTER DISTANCE

The approximate center distance can be determined replacing your values in the following formula:

$$c = \frac{1}{4} \left[ L_w - \frac{t}{2} (z_1 + z_2) + \sqrt{\left[ L_w - \frac{t}{2} (z_1 + z_2) \right]^2 - 2 \left[ \frac{t}{\pi} (z_1 - z_2) \right]^2} \right]$$

### CHOICE OF SAFETY FACTOR

The total safety factor $C_{TOT}$ is the correction coefficient for the power (to be transmitted) to obtain the design power.

$$C_{TOT} = C_1 + C_2 + C_3$$

**$C_1$** is the Acceleration Factor, used when the inverse of speed ratio i is > 1,24

| 1/i | 1,00÷1,24 | 1,25÷1,74 | 1,75÷2,49 | 2,50÷3,49 | >3,50 |
|-----|-----------|-----------|-----------|-----------|-------|
| $C_1$ | 0 | 0,1 | 0,2 | 0,3 | 0,4 |

**$C_2$** is the Service Factor depending on the number of the operational hours per day (operation time)

| h/day | 8÷10 | 10÷16 | 16÷24 | Intermittent | Seasonal |
|-------|------|-------|-------|--------------|----------|
| $C_2$ | 0 | +0,1 | +0,2 | -0,1 | -0,1 |

**$C_3$** is the Load Factor depending on the type of driver used by internal transmission of the driven machine.

For $C_3$ values see the table 1 at page 11.

# TECHNICAL CALCULATION

## POWER TRANSMISSION
## CALCULATION PROCEDURE

### DETERMINATION OF NUMBER OF TEETH IN MESH

The number of the teeth in mesh can be determined replacing your values in the following formula:

$$z_m = \frac{z_1 \cdot \beta}{360}$$

If calculated $z_m$ is above 12, consider $z_m = 12$ (maximum number of teeth in mesh)

### DETERMINATION OF BELT WIDTH

The belt width is calculated using the transmittable power $P_R$ per tooth in mesh and per cm belt width (see table at belt page).

$$b[mm] = \frac{P \cdot C_{TOT} \cdot 10}{P_R \cdot z_m}$$

| TABLE 1 - LOAD FACTOR $C_3$ | | | |
|---|---|---|---|
| **Driven Machine** | **Driver** | | |
| | **Type A** | **Type B** | **Type C** |
| **Office machinery** | | | |
| Typewriters | 1 | 1,1 | 1,2 |
| Computers, printers | 1,1 | 1,2 | 1,3 |
| Teleprinters, photocopiers | 1,1 | 1,2 | 1,3 |
| Motion-picture projectors and cameras | 1 | 1,2 | 1,2 |
| **Domestic machinery** | | | |
| Centrifuges | 1 | 1,1 | 1,2 |
| Kitchen appliances, universal slicers | 1,1 | 1,2 | 1,3 |
| **Sewing machines** | | | |
| Domestic sewing machines | 1,1 | 1,2 | 1,3 |
| Industrial sewing machines | 1,2 | 1,3 | 1,4 |
| **Laundry machinery** | | | |
| Driers | 1,2 | 1,4 | 1,6 |
| Washing machines | 1,4 | 1,6 | 1,8 |
| Bakery machinery and dough mixers | 1,2 | 1,4 | 1,6 |
| **Conveyors** | | | |
| Light-duty belt conveyors | 1,1 | 1,2 | 1,3 |
| Belt conveyor for ore, coal, sand | 1,2 | 1,4 | 1,6 |
| Heavy duty conveyors | 1,4 | 1,6 | 1,8 |
| Elevators, screw conveyors | 1,4 | 1,6 | 1,8 |
| Bucket elevators | 1,4 | 1,6 | 1,8 |
| **Agitators** | | | |
| Mixers for liquids | 1,2 | 1,4 | 1,6 |
| Mixers for semi-liquids | 1,3 | 1,5 | 1,7 |

MEGAPOWER

# CALCULATION PARAMETERS

| TABLE 1 - LOAD FACTOR $C_3$ | | | |
|---|---|---|---|
| **Driven Machine** | **Driver** | | |
| | **Type A** | **Type B** | **Type C** |
| **Machine tools** | | | |
| Lathes | 1,2 | 1,4 | 1,6 |
| Drills and grinders | 1,3 | 1,5 | 1,7 |
| Millers and planers | 1,3 | 1,5 | 1,7 |
| **Woodworking machinery** | | | |
| Lathes and band saws | 1,2 | 1,3 | 1,5 |
| Planers and disk saws | 1,2 | 1,4 | 1,6 |
| Sawmill machinery | 1,4 | 1,6 | 1,8 |
| **Brick machinery** | | | |
| Mixers | 1,4 | 1,6 | 1,8 |
| Pug mills | 1,6 | 1,8 | 2 |
| **Textile machinery** | | | |
| Spoolers and warping machines | 1,2 | 1,4 | 1,6 |
| Spinning and twisting machines | 1,3 | 1,5 | 1,7 |
| **Paper machinery** | | | |
| Agitators, calenders, driers | 1,2 | 1,4 | 1,6 |
| Pumps, beaters, pulpers | 1,4 | 1,6 | 1,8 |
| **Printing machinery** | | | |
| Linotype machines, cutters, folders | 1,2 | 1,4 | 1,6 |
| Rotary presses | 1,3 | 1,5 | 1,7 |
| **Screens** | | | |
| Drum screens | 1,2 | 1,4 | 1,6 |
| Vibrating screens | 1,3 | 1,5 | 1,7 |
| **Fans, Blowers** | | | |
| Exhauster, radial blowers | 1,4 | 1,6 | 1,8 |
| Mine ventilators, axial blowers | 1,6 | 1,8 | 2 |
| **Compressors** | | | |
| Helical compressors | 1,4 | 1,5 | 1,6 |
| Piston compressors | 1,6 | 1,8 | 2 |
| **Pumps** | | | |
| Centrifugal and gear pumps | 1,2 | 1,4 | 1,6 |
| Reciprocating pumps | 1,7 | 1,9 | 2,1 |
| Generators and exciters | 1,4 | 1,6 | 1,8 |
| Elevators and hoists | 1,4 | 1,6 | 1,8 |
| Centrifuges | 1,5 | 1,7 | 1,9 |
| Rubber machinery | 1,5 | 1,7 | 1,9 |
| **Mills** | | | |
| Hammer mills | 1,5 | 1,7 | 1,9 |
| Ball, roller and gravel mills | 1,7 | 1,9 | 2,1 |

*Type A: electric motors with low starting torque (up to 1,5 times the rated torque).*
*Type B: electric motors with normal starting torque (1,5 to 2,5 times the rated torque).*
*Type C: electric motors with high starting and breaking torque (over 2,5 times the related torque).*

# CALCULATION EXAMPLE

## DETERMINATION OF BELT PITCH

According Belt selection chart at page 11, considering values of P = 2kW and n = 3000RPM, it is possible to choose T5 AT5 L T10 or AT10. We choose T10.

## DETERMINATION OF SPEED RATIO

$$i = \frac{n_1}{n_2} = \frac{3000}{900} = 3.33$$

## SELECTION OF REQUIRED TIMING PULLEYS

According page 28 we choose $z_2$ = 36 $d_2$ = 108.36mm

$$d_1 = \frac{d_2}{i} = \frac{108.36}{3.33} = 32.54mm$$

and from page 28 we choose pulley diameter is for $z_1$ = 12

Actual speed ratio:

$$i = \frac{z_2}{z_1} = \frac{36}{12} = 3$$

## CALCULATION OF REQUIRED BELT LENGTH

| ß = 166° | L = 845mm |
|----------|-----------|

From page 28, closest length to calculates is $L_w$ = 850mm.

## CALCULATION OF CENTER DISTANCE

The approximate center distance: c = 302,6mm

## CHOICE OF SAFETY FACTOR

From table page 9, we select C1 = 0,3 and C2 = 0.

From Table page 11, we select C3 = 1,2

So $C_{TOT}$ = 1,5

## DETERMINATION OF NUMBER OF TEETH IN MESH

The number of the teeth in mesh can be determined replacing your values in the following formula:

$$z_m = \frac{z*ß}{360} = 5$$

## DETERMINATION OF BELT WIDTH

From page 28, for z = 12 and n = 3000 PR = 0.133kW so:

$$b = \frac{P*C_{TOT}*10}{P_R*z_m} = 47.24mm$$

From page 28, closest width is 50mm

The choice for transmission is belt 50 T10 850, driver pulley 56T10 12 and driven pulley 56 T10 36

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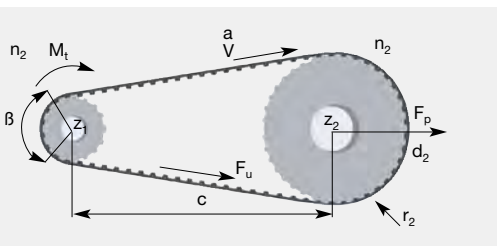
**DRIVER DATA**

electric motor P = 2kW
n = 3000RPM
Low starting torque

**MACHINE DATA**

Wood working machine
N = 900RPM
Max diameter driven pulley 110mm
c = 300mm

# BELT INSTALLATION
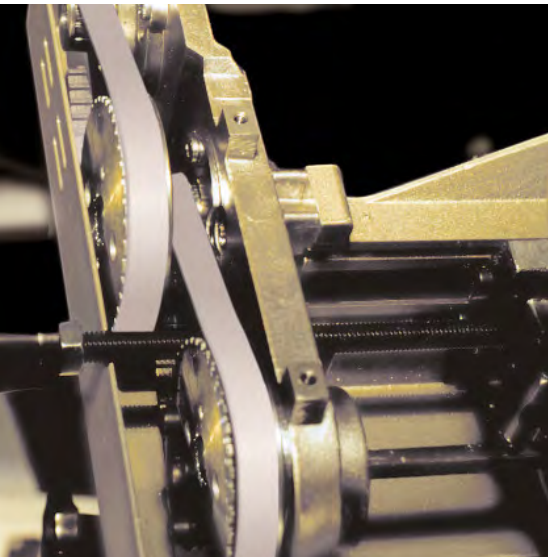
For a correct system functioning and to increase belt life, it is necessary a correct pulley installation: pulleys has to be parallel and aligned as shown in drawing 1 (correct configuration).

If pulleys are not parallel as in drawing 2, belt could fall during functioning and this can provoke damages to complete equipment.

To grant a correct belt running, α and Δx must be as smaller as possible. For more information, please contact our technical staff.
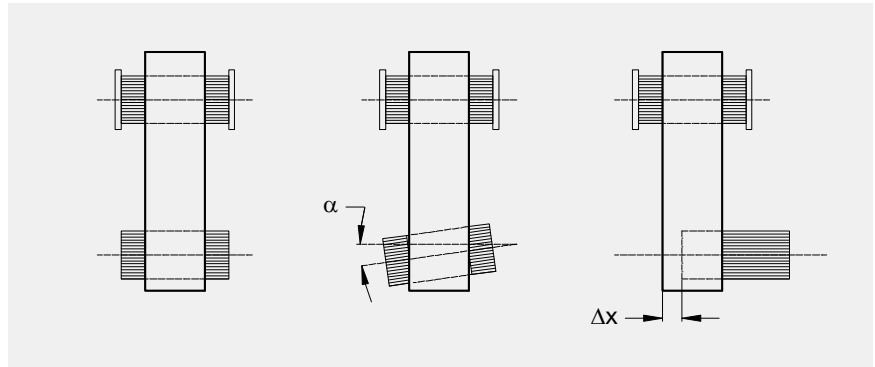


| Drawing 1 | Drawing 2 | Drawing 3 |
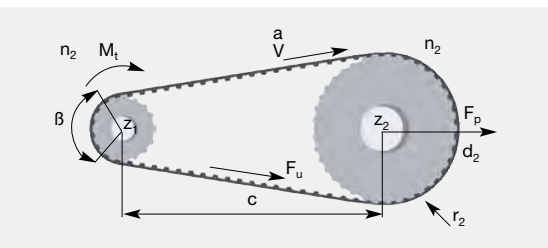
## CALCULATION OF PRETENSION FORCE $F_P$

The pretension force is the load which has to be applied to the center of one of the driving system's pulleys in static conditions to avoid the derailing of the belt.

for:

$$F_p = 2 \cdot F_v \cdot \sin \frac{\beta}{2}$$

where:

$$F_U = \frac{60 \cdot 10^6 \cdot P \cdot \sin \frac{\beta}{2}}{t \cdot n_1 \cdot z_1}$$

| | |
|---|---|
| $z < 60$ | $F_v = \frac{1}{3} \cdot F_u$ |
| $60 < z < 150$ | $F_v = \frac{1}{2} \cdot F_u$ |
| $z > 150$ | $F_v = \frac{2}{3} \cdot F_u$ |

## PROCEDURE TO MEASURE

The procedure to measure the tension of the belt is to use a Belt Tensioning Gauging Equipment. This device consists of a small sensing head which is held across the belt to be measured. The belt is then tapped to induce the belt to vibrate at its natural frequency. The vibrations are detected by the sensing head and the frequency of vibration is the displayed on the measuring unit. The relation between belt static tension ($T_s$) and frequency of vibration (f) may be calculated using the following formula:

$$f = \frac{1}{2t} \cdot \sqrt{\frac{T_s}{m}} \quad \text{or} \quad T_s = 4 \cdot m \cdot t^2 \cdot f^2$$

**WHERE :**

| | |
|---|---|
| $T_s$ = Static tension (N) | f = Frequency of vibration in Hertz (Hz) |
| m = Belt mass per unit length (kg/m) | t = Free belt span length in meters (m) |

# CAUSES

## OF BELT FAILURE

To ensure that the performance and durability of a toothed belt drive will fully meet requirements of a particular application, it is necessary firstly to accurately select the drive and then to make sure the drive is correctly installed. If this procedure is not followed, the drive life and efficiency may be considerably reduced. The most frequent problems encountered and their probable causes are listed in the table below.

| PROBLEMS | CAUSES | CORRECTIVE ACTION |
|---|---|---|
| Abnormal wear of the belt<br><br>1. On side of tooth | • Belt excessively taut<br>• Excessive overloading<br>• Incorrect contour or diameteter of pulley | • Reduce center distance<br>• Use a wider belt<br>• Replace pulley after checking contour or diameter |
| 2. On the bottom of the tooth | • Excessive installation tension | • Reduce center distance |
| 3. At the tooth root | • Incorrect diameter of pulley | • Replace pulley after checking diameter |
| 4. On the side of the belt | • Incorrect contour or diameter of pulley<br>• Misalignment or wrong setting of pulley<br>• Oscillation of axes and/or of bearing<br>• Flanges bent | • Replace pulley after checking contour or diameter<br>• Correct the positioning of the pulley and reinforce the bearing<br>• Straighten flanges |
| Failure through traction or laceration of teeth, indicating corrosion of the tension member | • Diameter of small pulley, i.e. below the minimum<br>• Excessive moisture | • Increase the diameter of the pulley or use belt and pulleys of smaller pitch<br>• Eliminate the moisture |
| Laceration of the belt | • Number of teeth in mesh less than six<br>• Excessive load | • Increase the number of teeth in mesh or use belts and pulley of smaller pitch<br>• Use a wider belt |
| Rupture of tensile member | • Excessive load<br>• Diameter of pulley below minimum | • Use a wider belt<br>• Increase the diameter of the pulleys |
| Breaks or cracks in the top surface of the belt | • Exposure to excessive low temperatures (below -25°C) | • Eliminate the low temperature |
| Softening of the surface of the belt | • Exposure to excessive temperatures (over +85°C) or operation with excessive amount of oil present | • Eliminate the high temperature or reduce the amount of oil present |
| Apparent elongation of the belt | • Reduction of center distance due to bearings not being firmly fixed | • Restore the initial center distance and strengthen the bearings |
| Belt overriding the flanges | • Faulty installation of the flanges<br>• Misalignment of pulley | • Reinstall the flanges properly<br>• Align pulley |
| Excessive wear of pulley teeth | • Excessive overloading<br>• Belt excessively taut<br>• Pulley material insufficiently hard | • Use a wider belt<br>• Reduce the center distance<br>• Harden the pulley surface |
| Drive excessively noisy | • Pulley out of line<br>• Excessive installation tension<br>• Excessive load<br>• Diameter of pulley below minimum | • Align pulley<br>• Reduce the center distance<br>• Harden the pulley surface<br>• Increase the diameter of the pulleys |

# MEGAPOWER

## MXL

| Belt width (mm) | 3,2 (012") | 4,8 (019") | 6,4 (025") |
|---|---|---|---|
| Pulley width B2 (mm) | 5,6 | 7,1 | 8,9 |
| Belt weight (gr/cm) | 0,035 | 0,053 | 0,073 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+ 0,50 / - 0,80 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,20 mm** |

*Special version belts on request, see page 37*
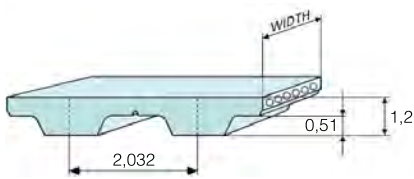


| BELT LENGTHS AND TOLERANCES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Code** | **45,6** | **48** | **57,6** | **60** | **60,8** | **63,2** | **64** | **65,6** | **70,4** | **72,8** | **73,6** | **76,8** |
| **Length (mm)** | 115,8 | 121,9 | 146,3 | 152,4 | 154,4 | 160,5 | 162,5 | 166,6 | 178,8 | 184,9 | 186,9 | 195,1 |
| **No. of teeth** | 57 | 60 | 72 | 75 | 76 | 79 | 80 | 82 | 88 | 91 | 92 | 96 |
| **Length tolerance (mm)** | | | | | | ± 0,42 | | | | | | |

| **Code** | **80,8** | **81,6** | **82,4** | **84** | **88** | **91,2** | **94,4** | **96** | **104** | **105,6** | **108** | **112** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 205,2 | 207,2 | 209,2 | 213,4 | 223,5 | 231,6 | 239,8 | 243,8 | 264,1 | 268,2 | 274,3 | 284,4 |
| **No. of teeth** | 101 | 102 | 103 | 105 | 110 | 114 | 118 | 120 | 130 | 132 | 135 | 140 |
| **Length tolerance (mm)** | | | | ± 0,42 | | | | | ± 0,46 | | | |

| **Code** | **116** | **120** | **124** | **140** | **152** | **160** | **176,8** | **204,8** | **224** | **228** | **246,4** | **252** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 294,6 | 304,8 | 314,9 | 355,6 | 386,1 | 406,4 | 449,1 | 520,1 | 568,9 | 579,1 | 625,8 | 640 |
| **No. of teeth** | 145 | 150 | 155 | 175 | 190 | 200 | 221 | 256 | 280 | 285 | 308 | 315 |
| **Length tolerance (mm)** | | ± 0,46 | | | | ± 0,51 | | | ± 0,61 | | | |

| **Code** | **260** | **265,6** | **281,6** | **288** | **316** | **329,6** | **345,6** | **363,2** | **388** |
|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 660,4 | 674,6 | 715,2 | 731,5 | 802,6 | 837,1 | 877,8 | 922,5 | 985,5 |
| **No. of teeth** | 325 | 332 | 352 | 360 | 395 | 412 | 432 | 454 | 485 |
| **Length tolerance (mm)** | | ± 0,61 | | | | ± 0,66 | | | |

# MEGAPOWER

## MXL

| TRANSMITTABLE POWER (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N\Z | 10 | 12 | 14 | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 32 | 36 | 40 |
| 600 | 0,00137 | 0,00164 | 0,00191 | 0,00218 | 0,00246 | 0,00273 | 0,00328 | 0,00355 | 0,00382 | 0,00410 | 0,00437 | 0,00491 | 0,00546 |
| 800 | 0,00172 | 0,00206 | 0,00240 | 0,00275 | 0,00309 | 0,00343 | 0,00412 | 0,00446 | 0,00481 | 0,00515 | 0,00549 | 0,00618 | 0,00686 |
| 1000 | 0,00204 | 0,00245 | 0,00286 | 0,00327 | 0,00368 | 0,00409 | 0,00491 | 0,00532 | 0,00573 | 0,00613 | 0,00654 | 0,00736 | 0,00818 |
| 1400 | 0,00265 | 0,00318 | 0,00371 | 0,00424 | 0,00477 | 0,00530 | 0,00636 | 0,00689 | 0,00742 | 0,00795 | 0,00848 | 0,00954 | 0,01060 |
| 1800 | 0,00320 | 0,00384 | 0,00448 | 0,00513 | 0,00577 | 0,00641 | 0,00769 | 0,00833 | 0,00897 | 0,00961 | 0,01025 | 0,01153 | 0,01281 |
| 2000 | 0,00346 | 0,00416 | 0,00485 | 0,00554 | 0,00624 | 0,00693 | 0,00831 | 0,00901 | 0,00970 | 0,01039 | 0,01109 | 0,01247 | 0,01386 |
| 3000 | 0,00465 | 0,00558 | 0,00651 | 0,00744 | 0,00837 | 0,00930 | 0,01115 | 0,01208 | 0,01301 | 0,01394 | 0,01487 | 0,01673 | 0,01859 |
| 4000 | 0,00568 | 0,00681 | 0,00795 | 0,00908 | 0,01022 | 0,01136 | 0,01363 | 0,01476 | 0,01590 | 0,01703 | 0,01817 | 0,02044 | 0,02271 |
| 5000 | 0,00659 | 0,00791 | 0,00923 | 0,01055 | 0,01187 | 0,01319 | 0,01583 | 0,01715 | 0,01846 | 0,01978 | 0,02110 | 0,02374 | 0,02638 |
| 8000 | 0,00886 | 0,01063 | 0,01240 | 0,01417 | 0,01594 | 0,01771 | 0,02125 | 0,02302 | 0,02480 | 0,02657 | 0,02834 | 0,03188 | 0,03542 |

## PULLEYS
### (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
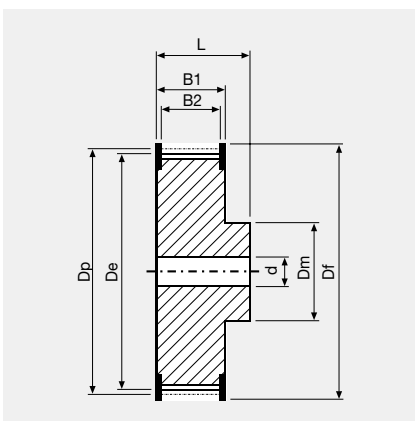


| N° TEETH | DP | DE |
|---|---|---|
| 10 | 6,47 | 5,96 |
| 12 | 7,76 | 7,25 |
| 13 | 8,41 | 7,90 |
| 14 | 9,06 | 8,55 |
| 15 | 9,70 | 9,19 |
| 16 | 10,35 | 9,84 |
| 17 | 11,00 | 10,49 |
| 18 | 11,64 | 11,13 |
| 19 | 12,29 | 11,78 |
| 20 | 12,94 | 12,43 |
| 21 | 13,58 | 13,07 |
| 22 | 14,23 | 13,72 |
| 24 | 15,52 | 15,01 |

| N° TEETH | DP | DE |
|---|---|---|
| 26 | 16,81 | 16,30 |
| 28 | 18,11 | 17,60 |
| 30 | 19,40 | 18,89 |
| 32 | 20,70 | 20,19 |
| 34 | 21,99 | 21,48 |
| 36 | 23,29 | 22,78 |
| 40 | 25,87 | 25,36 |
| 42 | 27,17 | 26,66 |
| 44 | 28,46 | 27,95 |
| 48 | 31,05 | 30,54 |
| 60 | 38,81 | 38,30 |
| 65 | 42,04 | 41,53 |
| 72 | 46,57 | 46,06 |

MEGAPOWER

# MEGAPOWER

## XL

| Belt width (mm) | 6,4 (025") | 7,9 (031") | 9,4 (037") |
|---|---|---|---|
| Pulley width B2 (mm) | 8,9 | 10,4 | 12,2 |
| Belt weight (gr/cm) | 0,121 | 0,153 | 0,182 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+ 0,50 / - 0,80 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,25 mm** |

*Special version belts on request, see page 37*
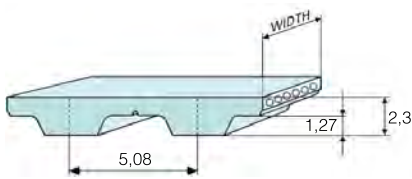
| BELT LENGTHS AND TOLERANCES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Code** | 60 | 70 | 76 | 80 | 90 | 100 | 110 | 120 | 130 | 134 | 140 |
| **Length (mm)** | 152,4 | 177,8 | 193 | 203,2 | 228,6 | 254 | 279,4 | 304,8 | 330,2 | 340,3 | 355,6 |
| **No. of teeth** | 30 | 35 | 38 | 40 | 45 | 50 | 55 | 60 | 65 | 67 | 70 |
| **Length tolerance (mm)** | ± 0,41 | | | | | | ± 0,46 | | | | |

| **Code** | 150 | 160 | 170 | 180 | 190 | 194 | 200 | 210 | 220 | 230 | 240 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 381 | 406,4 | 431,8 | 457,2 | 482,6 | 492,7 | 508 | 533,4 | 558,8 | 584,2 | 609,6 |
| **No. of teeth** | 75 | 80 | 85 | 90 | 95 | 97 | 100 | 105 | 110 | 115 | 120 |
| **Length tolerance (mm)** | ± 0,46 | ± 0,51 | | | | | ± 0,61 | | | | |

| **Code** | 250 | 260 | 270 | 288 | 290 | 300 | 356 | 414 | 450 | 566 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 635 | 660,4 | 685,8 | 731,5 | 736,6 | 762 | 904,2 | 1051,5 | 1143 | 1437,6 |
| **No. of teeth** | 125 | 130 | 135 | 144 | 145 | 150 | 178 | 207 | 225 | 283 |
| **Length tolerance (mm)** | ± 0,61 | | | | | | ± 0,66 | ± 0,76 | ± 0,81 | |

# MEGAPOWER

## XL

| TRANSMITTABLE POWER (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N\Z | 10 | 12 | 14 | 16 | 18 | 20 | 24 | 28 | 32 | 40 | 48 | 60 | 72 |
| 100 | 0,0016 | 0,0019 | 0,0022 | 0,0026 | 0,0029 | 0,0032 | 0,0038 | 0,0045 | 0,0051 | 0,0064 | 0,0077 | 0,0096 | 0,0115 |
| 200 | 0,0029 | 0,0035 | 0,0041 | 0,0047 | 0,0053 | 0,0059 | 0,0070 | 0,0082 | 0,0094 | 0,0117 | 0,0141 | 0,0176 | 0,0211 |
| 600 | 0,0075 | 0,0091 | 0,0106 | 0,0121 | 0,0136 | 0,0151 | 0,0181 | 0,0211 | 0,0241 | 0,0302 | 0,0362 | 0,0453 | 0,0543 |
| 1000 | 0,0116 | 0,0139 | 0,0162 | 0,0186 | 0,0209 | 0,0232 | 0,0278 | 0,0325 | 0,0371 | 0,0464 | 0,0557 | 0,0696 | 0,0835 |
| 1500 | 0,0162 | 0,0195 | 0,0227 | 0,0260 | 0,0292 | 0,0325 | 0,0390 | 0,0455 | 0,0520 | 0,0650 | 0,0780 | 0,0975 | 0,1170 |
| 2000 | 0,0206 | 0,0247 | 0,0288 | 0,0329 | 0,0370 | 0,0411 | 0,0494 | 0,0576 | 0,0658 | 0,0823 | 0,0988 | 0,1234 | 0,1481 |
| 3000 | 0,0286 | 0,0343 | 0,0400 | 0,0457 | 0,0514 | 0,0571 | 0,0685 | 0,0799 | 0,0914 | 0,1142 | 0,1370 | 0,1713 | 0,2056 |
| 4000 | 0,0359 | 0,0431 | 0,0502 | 0,0574 | 0,0646 | 0,0718 | 0,0861 | 0,1005 | 0,1148 | 0,1435 | 0,1722 | 0,2153 | 0,2584 |
| 5000 | 0,0427 | 0,0513 | 0,0598 | 0,0684 | 0,0769 | 0,0855 | 0,1026 | 0,1197 | 0,1368 | 0,1710 | 0,2051 | 0,2564 | 0,3077 |
| 8000 | 0,0612 | 0,0735 | 0,0857 | 0,0980 | 0,1102 | 0,1225 | 0,1470 | 0,1715 | 0,1960 | 0,2450 | 0,2940 | 0,3675 | 0,4410 |

## PULLEYS
### (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
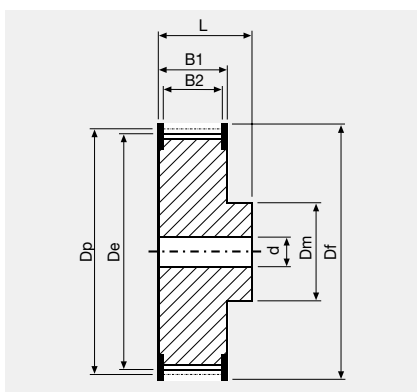
| N° TEETH | DP | DE |
|---|---|---|
| 10 | 16,17 | 15,66 |
| 11 | 17,79 | 17,28 |
| 12 | 19,40 | 18,89 |
| 13 | 21,02 | 20,51 |
| 14 | 22,64 | 22,13 |
| 15 | 24,26 | 23,75 |
| 16 | 25,87 | 25,36 |
| 17 | 27,49 | 26,98 |
| 18 | 29,11 | 28,60 |
| 20 | 32,34 | 31,83 |
| 22 | 35,57 | 35,07 |
| 24 | 38,81 | 38,30 |

| N° TEETH | DP | DE |
|---|---|---|
| 26 | 42,04 | 41,53 |
| 28 | 45,28 | 44,77 |
| 30 | 48,51 | 48,00 |
| 32 | 51,74 | 51,23 |
| 36 | 58,21 | 57,70 |
| 40 | 64,68 | 64,17 |
| 42 | 67,91 | 67,40 |
| 44 | 71,15 | 70,64 |
| 48 | 77,62 | 77,11 |
| 56 | 90,55 | 90,04 |
| 60 | 97,02 | 96,51 |
| 72 | 116,43 | 115,92 |

# MEGAPOWER

## L

| Belt width (mm) | 12,7 (050") | 19,1 (075") | 25,4 (100") |
|---|---|---|---|
| Pulley width B2 (mm) | 19 | 25,4 | 29,7 |
| Belt weight (gr/cm) | 0,437 | 0,661 | 0,878 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,80 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,30 mm** |

*Special version belts on request, see page 37*
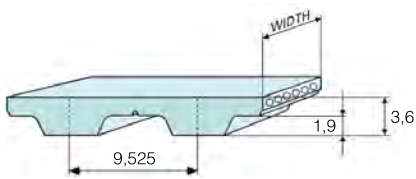


| **BELT LENGTHS AND TOLERANCES** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Code** | 86 | 124 | 150 | 173 | 187 | 202 | 210 | 225 | 240 | 255 | 270 | 285 | 300 |
| **Length (mm)** | 218,6 | 314,3 | 381 | 438,2 | 476,2 | 514,4 | 533,4 | 571,5 | 609,6 | 647,7 | 685,8 | 723,9 | 762 |
| **No. of teeth** | 23 | 33 | 40 | 46 | 50 | 54 | 56 | 60 | 64 | 68 | 72 | 76 | 80 |
| **Length tolerance (mm)** | ± 0,41 | ± 0,46 | | ± 0,51 | | ± 0,61 | | | | | | | |

| **Code** | 322 | 345 | 367 | 390 | 420 | 450 | 480 | 510 | 540 | 570 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 819,2 | 876,3 | 933,4 | 990,6 | 1066,8 | 1143 | 1219,2 | 1295,4 | 1371,6 | 1447,8 | 1524 |
| **No. of teeth** | 86 | 92 | 98 | 104 | 112 | 120 | 128 | 136 | 144 | 152 | 160 |
| **Length tolerance (mm)** | ± 0,66 | | | | ± 0,76 | | | ± 0,81 | | | |

# MEGAPOWER

## L

| TRANSMITTABLE POWER (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N\Z | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 28 | 30 | 32 | 36 | 40 |
| 100 | 0,0050 | 0,0060 | 0,0070 | 0,0079 | 0,0089 | 0,0099 | 0,0109 | 0,0119 | 0,0139 | 0,0149 | 0,0159 | 0,0179 | 0,0199 |
| 200 | 0,0089 | 0,0107 | 0,0125 | 0,0143 | 0,0161 | 0,0178 | 0,0196 | 0,0214 | 0,0250 | 0,0268 | 0,0285 | 0,0321 | 0,0357 |
| 600 | 0,0219 | 0,0263 | 0,0307 | 0,0351 | 0,0394 | 0,0438 | 0,0454 | 0,0482 | 0,0530 | 0,0568 | 0,0606 | 0,0681 | 0,0757 |
| 1000 | 0,0328 | 0,0393 | 0,0459 | 0,0524 | 0,0590 | 0,0655 | 0,0721 | 0,0786 | 0,0917 | 0,0983 | 0,1048 | 0,1179 | 0,1311 |
| 1500 | 0,0447 | 0,0536 | 0,0625 | 0,0715 | 0,0804 | 0,0894 | 0,0983 | 0,1072 | 0,1251 | 0,1340 | 0,1430 | 0,1608 | 0,1787 |
| 2000 | 0,0553 | 0,0664 | 0,0775 | 0,0885 | 0,0996 | 0,1107 | 0,1218 | 0,1328 | 0,1550 | 0,1660 | 0,1771 | 0,1992 | 0,2214 |
| 3000 | 0,0741 | 0,0889 | 0,1037 | 0,1185 | 0,1333 | 0,1482 | 0,1630 | 0,1778 | 0,2074 | 0,2222 | 0,2370 | 0,2667 | 0,2963 |
| 4000 | 0,0903 | 0,1084 | 0,1264 | 0,1445 | 0,1626 | 0,1806 | 0,1987 | 0,2168 | 0,2529 | 0,2709 | 0,2890 | 0,3251 | 0,3613 |
| 5000 | 0,1047 | 0,1256 | 0,1466 | 0,1675 | 0,1885 | 0,2094 | 0,2303 | 0,2513 | 0,2932 | 0,3141 | 0,3350 | 0,3769 | 0,4188 |
| 8000 | 0,1399 | 0,1679 | 0,1958 | 0,2238 | 0,2518 | 0,2798 | 0,3078 | 0,3357 | 0,3917 | 0,4197 | 0,4477 | 0,5036 | 0,5596 |

## PULLEYS
## (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
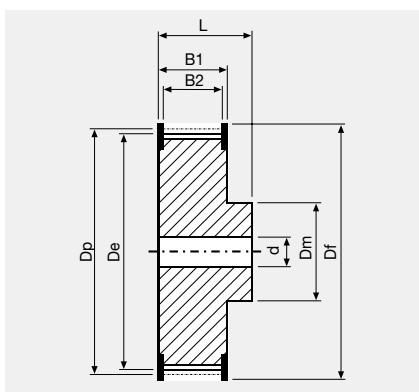


| N° TEETH | DP | DE |
|---|---|---|
| 10 | 30,32 | 29,56 |
| 11 | 33,35 | 32,59 |
| 12 | 36,38 | 35,62 |
| 13 | 39,41 | 38,65 |
| 14 | 42,45 | 41,69 |
| 16 | 48,51 | 47,75 |
| 18 | 54,57 | 53,81 |
| 20 | 60,64 | 59,88 |
| 22 | 66,70 | 65,94 |
| 24 | 72,77 | 72,01 |
| 26 | 78,83 | 78,07 |
| 28 | 84,89 | 84,13 |

| N° TEETH | DP | DE |
|---|---|---|
| 30 | 90,96 | 90,20 |
| 32 | 97,02 | 96,26 |
| 34 | 103,08 | 102,32 |
| 36 | 109,15 | 108,39 |
| 40 | 121,28 | 120,52 |
| 42 | 127,34 | 126,58 |
| 44 | 133,40 | 132,64 |
| 48 | 145,53 | 144,76 |
| 52 | 157,66 | 156,90 |
| 56 | 169,79 | 169,03 |
| 60 | 181,91 | 181,15 |
| 72 | 218,30 | 217,54 |

# MEGAPOWER

## H

| Belt width (mm) | 19,1 (075") | 25,4 (100") | 38,1 (150") | 50,8 (200") | 76,2 (300") |
|---|---|---|---|---|---|
| Pulley width B2 (mm) | 25,4 | 29,7 | 46 | 59 | 85 |
| Belt weight (gr/cm) | 0,745 | 1,059 | 1,594 | 2,121 | 3,194 |

| Standard compound | **Thermoset PU 88 ShA grey/green** |
|---|---|
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,80 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,30 mm** |

*Special version belts on request, see page 37*

WIDTH
2,29   4,3
12,7
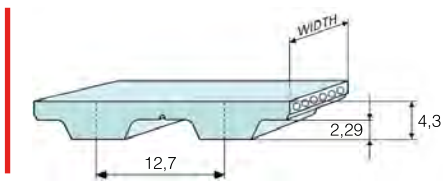
| BELT LENGTHS AND TOLERANCES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Code | 230 | 240 | 270 | 300 | 330 | 360 | 390 | 420 | 450 | 480 | 510 |
| Length (mm) | 584,2 | 609,6 | 685,8 | 762 | 838,2 | 914,4 | 990,6 | 1066,8 | 1143 | 1219,2 | 1295,4 |
| No. of teeth | 46 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 |
| Length tolerance (mm) | ± 0,61 | | | | ± 0,66 | | | ± 0,76 | | | |

# MEGAPOWER

H

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TRANSMITTABLE POWER** (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
| N\Z | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 36 | 40 | 44 |
| **100** | 0,0128 | 0,0142 | 0,0163 | 0,0185 | 0,0199 | 0,0213 | 0,0234 | 0,0255 | 0,0277 | 0,0293 | 0,0341 | 0,0362 | 0,0394 |
| **200** | 0,0229 | 0,0255 | 0,0293 | 0,0331 | 0,0357 | 0,0382 | 0,0421 | 0,0459 | 0,0497 | 0,0526 | 0,0611 | 0,0650 | 0,0709 |
| **600** | 0,0563 | 0,0626 | 0,0720 | 0,0814 | 0,0876 | 0,0939 | 0,1033 | 0,1127 | 0,1221 | 0,1291 | 0,1502 | 0,1596 | 0,1741 |
| **1000** | 0,0842 | 0,0936 | 0,1077 | 0,1217 | 0,1311 | 0,1404 | 0,1545 | 0,1685 | 0,1826 | 0,1931 | 0,2247 | 0,2387 | 0,2603 |
| **1500** | 0,1149 | 0,1276 | 0,1468 | 0,1659 | 0,1787 | 0,1915 | 0,2107 | 0,2298 | 0,2490 | 0,2633 | 0,3064 | 0,3256 | 0,3550 |
| **2000** | 0,1423 | 0,1581 | 0,1818 | 0,2056 | 0,2214 | 0,2372 | 0,2609 | 0,2846 | 0,3084 | 0,3262 | 0,3795 | 0,4032 | 0,4397 |
| **3000** | 0,1905 | 0,2116 | 0,2434 | 0,2751 | 0,2963 | 0,3175 | 0,3493 | 0,3810 | 0,4128 | 0,4366 | 0,5080 | 0,5398 | 0,5886 |
| **4000** | 0,2322 | 0,2580 | 0,2968 | 0,3355 | 0,3613 | 0,3871 | 0,4258 | 0,4645 | 0,5032 | 0,5322 | 0,6193 | 0,6580 | 0,7176 |
| **5000** | 0,2692 | 0,2991 | 0,3440 | 0,3889 | 0,4188 | 0,4487 | 0,4936 | 0,5384 | 0,5833 | 0,6170 | 0,7179 | 0,7628 | 0,8319 |
| **8000** | 0,3597 | 0,3997 | 0,4597 | 0,5196 | 0,5596 | 0,5995 | 0,6595 | 0,7194 | 0,7794 | | | | |

## PULLEYS
### (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
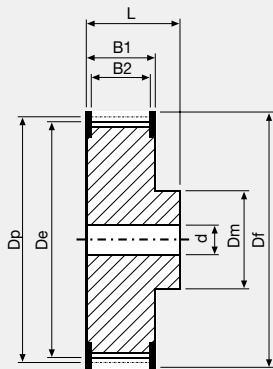


| N° TEETH | DP | DE |
|---|---|---|
| 14 | 56,60 | 55,23 |
| 15 | 60,64 | 59,27 |
| 16 | 64,68 | 63,31 |
| 18 | 72,77 | 71,40 |
| 20 | 80,85 | 79,48 |
| 21 | 84,89 | 83,52 |
| 22 | 88,94 | 87,57 |
| 23 | 92,98 | 91,61 |
| 24 | 97,02 | 95,65 |
| 25 | 101,06 | 99,69 |
| 26 | 105,11 | 103,74 |
| 28 | 113,19 | 111,82 |

| N° TEETH | DP | DE |
|---|---|---|
| 30 | 121,28 | 119,91 |
| 32 | 129,36 | 127,99 |
| 34 | 137,45 | 136,08 |
| 36 | 145,53 | 144,16 |
| 38 | 153,62 | 152,25 |
| 40 | 161,70 | 160,33 |
| 44 | 177,87 | 176,50 |
| 48 | 194,04 | 192,67 |
| 52 | 210,21 | 208,84 |
| 58 | 234,47 | 233,10 |
| 60 | 242,55 | 241,18 |
| 72 | 291,06 | 289,69 |

# MEGAPOWER

## T2,5

| Belt width (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| Pulley width B2 (mm) | 8 | 10 | 12 | 14 | 16 |
| Belt weight (gr/cm) | 0,046 | 0,070 | 0,093 | 0,120 | 0,143 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,30 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,15 mm** |

*Special version belts on request, see page 37*
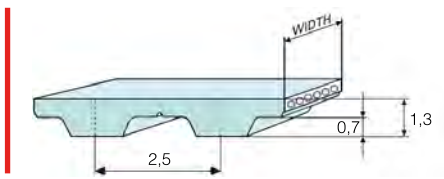
<table>
<tr><th colspan="12">BELT LENGTHS AND TOLERANCES</th></tr>
<tr><td>Length (mm)</td><td>120</td><td>145</td><td>160</td><td>177,5</td><td>180</td><td>182,5</td><td>200</td><td>210</td><td>230</td><td>245</td><td>265</td><td>277,5</td></tr>
<tr><td>No. of teeth</td><td>48</td><td>58</td><td>64</td><td>71</td><td>72</td><td>73</td><td>80</td><td>84</td><td>92</td><td>98</td><td>106</td><td>111</td></tr>
<tr><td>Length tolerance (mm)</td><td colspan="11" align="center">± 0,28</td></tr>
<tr><td>Length (mm)</td><td>285</td><td>290</td><td>305</td><td>317,5</td><td>330</td><td>342,5</td><td>380</td><td>395</td><td>420</td><td>480</td><td>500</td></tr>
<tr><td>No. of teeth</td><td>114</td><td>116</td><td>122</td><td>127</td><td>132</td><td>137</td><td>152</td><td>158</td><td>168</td><td>192</td><td>200</td></tr>
<tr><td>Length tolerance (mm)</td><td colspan="3" align="center">± 0,28</td><td colspan="4" align="center">± 0,32</td><td colspan="4" align="center">± 0,36</td></tr>
<tr><td>Length (mm)</td><td>540</td><td>600</td><td>620</td><td>650</td><td>680</td><td>700</td><td>780</td><td>880</td><td>915</td><td>950</td><td>1185</td></tr>
<tr><td>No. of teeth</td><td>216</td><td>240</td><td>248</td><td>260</td><td>272</td><td>280</td><td>312</td><td>352</td><td>366</td><td>380</td><td>474</td></tr>
<tr><td>Length tolerance (mm)</td><td colspan="3" align="center">± 0,42</td><td colspan="3" align="center">± 0,48</td><td colspan="4" align="center">± 0,56</td><td align="center">± 0,64</td></tr>
</table>

# MEGAPOWER

## T2,5

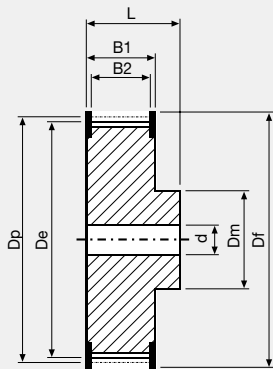| TRANSMITTABLE POWER (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N\Z | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 36 | 40 |
| 800 | 0,00195 | 0,00234 | 0,00273 | 0,00312 | 0,00351 | 0,00390 | 0,00429 | 0,00468 | 0,00507 | 0,00546 | 0,00585 | 0,00702 | 0,0078 |
| 600 | 0,00245 | 0,00294 | 0,00343 | 0,00392 | 0,00441 | 0,00490 | 0,00539 | 0,00588 | 0,00637 | 0,00686 | 0,00736 | 0,00883 | 0,00981 |
| 1000 | 0,00292 | 0,00351 | 0,00409 | 0,00467 | 0,00526 | 0,00580 | 0,00642 | 0,00700 | 0,00759 | 0,00817 | 0,00877 | 0,01052 | 0,01169 |
| 1400 | 0,00379 | 0,00454 | 0,00530 | 0,00606 | 0,00681 | 0,00757 | 0,00833 | 0,00909 | 0,00984 | 0,01060 | 0,01136 | 0,01363 | 0,01514 |
| 1500 | 0,00419 | 0,00503 | 0,00586 | 0,00670 | 0,00754 | 0,00838 | 0,00922 | 0,01005 | 0,01089 | 0,01173 | 0,01257 | 0,01508 | 0,01676 |
| 2000 | 0,00495 | 0,00594 | 0,00693 | 0,00742 | 0,00891 | 0,00990 | 0,01089 | 0,01188 | 0,01287 | 0,01386 | 0,01485 | 0,01782 | 0,01980 |
| 3000 | 0,00664 | 0,00797 | 0,00930 | 0,01062 | 0,01195 | 0,01328 | 0,01461 | 0,01594 | 0,01726 | 0,01859 | 0,01992 | 0,02390 | 0,02656 |
| 4000 | 0,00811 | 0,00973 | 0,01136 | 0,01298 | 0,01460 | 0,01622 | 0,01785 | 0,01947 | 0,02109 | 0,02271 | 0,02433 | 0,02920 | 0,03245 |
| 5000 | 0,00942 | 0,01130 | 0,01319 | 0,01507 | 0,01696 | 0,01884 | 0,02073 | 0,02261 | 0,02449 | 0,02638 | 0,02826 | 0,03391 | 0,03768 |
| 8000 | 0,01265 | 0,01518 | 0,01771 | 0,02024 | 0,02277 | 0,02530 | 0,02783 | 0,03036 | 0,03289 | 0,03542 | 0,03795 | 0,04554 | 0,05060 |

## PULLEYS
### (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)



| N° TEETH | DP | DE | N° TEETH | DP | DE |
|---|---|---|---|---|---|
| 10 | 7,96 | 7,45 | 22 | 17,51 | 17,00 |
| 11 | 8,75 | 8,25 | 24 | 19,10 | 18,55 |
| 12 | 9,55 | 9,00 | 26 | 20,69 | 20,15 |
| 13 | 10,34 | 9,80 | 28 | 22,28 | 21,75 |
| 14 | 11,14 | 10,60 | 30 | 23,87 | 23,35 |
| 15 | 11,94 | 11,40 | 32 | 25,46 | 24,95 |
| 16 | 12,73 | 12,20 | 36 | 28,65 | 28,10 |
| 17 | 13,53 | 13,00 | 40 | 31,83 | 31,30 |
| 18 | 14,32 | 13,80 | 44 | 35,01 | 34,50 |
| 19 | 15,12 | 14,60 | 48 | 38,20 | 37,70 |
| 20 | 15,92 | 15,40 | 60 | 47,75 | 47,25 |
| 21 | 16,71 | 16,20 | 72 | 57,30 | 55,20 |

# MEGAPOWER 2

## T5 - T5DL

| Belt width (mm) | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|
| Pulley width B2 (mm) | 12 | 13 | 15 | 17 | 21 | 25 | 30 |
| Belt weight (gr/cm) | 0,116 | 0,152 | 0,194 | 0,237 | 0,249 | 0,390 | 0,497 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,50 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,15 mm** (for single layer only) |

*Special version belts on request, see page 37*
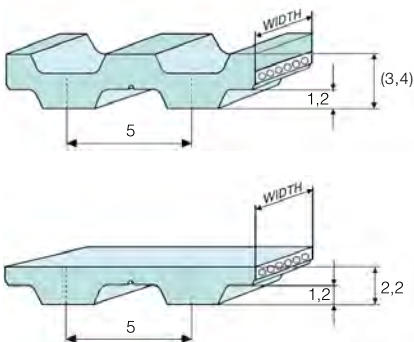
| BELT LENGTHS AND TOLERANCES | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 120 | 150 | 165 | 180 | 185 | 200 | 210 | 215 | 220 | 225 | 245 | 250 | 255 | 260 | 270 | 275 | 280 | 295 | 300 | 305 |
| No. of teeth | 24 | 30 | 33 | 36 | 37 | 40 | 42 | 43 | 44 | 45 | 49 | 50 | 51 | 52 | 54 | 55 | 56 | 59 | 60 | 61 |
| Length tolerance (mm) | | | | | | | | | | ± 0,28 | | | | | | | | | | |

| Length (mm) | 330 | 340 | 350 | 355 | 365 | 375 | 390 | 395 | 400 | 410 | 420 | 425 | 440 | 445 | 450 | 455 | 460 | 475 | 480 | 500 | 510 | 515* | 525* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 66 | 68 | 70 | 71 | 73 | 75 | 78 | 79 | 80 | 82 | 84 | 85 | 88 | 89 | 90 | 91 | 92 | 95 | 96 | 100 | 102 | 103 | 105 |
| Length tolerance (mm) | | ± 0,32 | | | | | | | | | ± 0,36 | | | | | | | | | | | | |

| Length (mm) | 545 | 550 | 560* | 575 | 590 | 600 | 610 | 620 | 630 | 640 | 650 | 660 | 675 | 690 | 700 | 720 | 725 | 750 | 765 | 780 | 800 | 815 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 109 | 110 | 112 | 115 | 118 | 120 | 122 | 124 | 126 | 128 | 130 | 132 | 135 | 138 | 140 | 144 | 145 | 150 | 153 | 156 | 160 | 163 |
| Length tolerance (mm) | | | ± 0,42 | | | | | | | | ± 0,48 | | | | | | | | | | | |

| Length (mm) | 830 | 840 | 850 | 860 | 885 | 900 | 920 | 940 | 990 | 1000 | 1075 | 1100 | 1130 | 1160 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 166 | 168 | 170 | 172 | 177 | 180 | 184 | 188 | 198 | 200 | 215 | 220 | 226 | 232 |
| Length tolerance (mm) | | ± 0,56 | | | | | | | | | ± 0,64 | | | |

| Length (mm) | 1200 | 1215 | 1275 | 1280 | 1315 | 1355 | 1380 | 1440 | 1470 | 1500 | 1580 | 1955 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 240 | 243 | 255 | 256 | 263 | 271 | 276 | 288 | 294 | 300 | 316 | 391 |
| Length tolerance (mm) | | ± 0,76 | | | | | | | | | ± 0,88 | |

*\*Available also without GAP*

| DOUBLETOOTHED BELT LENGTHS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 410 | 460 | 515 | 525 | 550 | 590 | 620 | 650 | 685 | 700 | 750 | 815 | 840 | 860 | 940 | 1075 | 1100 |
| No. of teeth | 82 | 92 | 103 | 105 | 110 | 118 | 124 | 130 | 137 | 140 | 150 | 163 | 168 | 172 | 188 | 215 | 220 |
| Length tolerance (mm) | | ± 0,36 | | | ± 0,42 | | | ± 0,48 | | | | ± 0,56 | | | ± 0,64 | | |

MEGAPOWER

# MEGAPOWER 2

## T5 - T5DL

| TRANSMITTABLE POWER (kW/cm of tooth in mesh) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **N\Z** | **10** | **12** | **14** | **16** | **18** | **20** | **24** | **28** | **36** | **42** | **48** | **54** | **60** |
| **100** | 0,0018 | 0,0022 | 0,0025 | 0,0029 | 0,0032 | 0,0036 | 0,0043 | 0,0050 | 0,0065 | 0,0076 | 0,0086 | 0,0097 | 0,0108 |
| **200** | 0,0034 | 0,0041 | 0,0047 | 0,0054 | 0,0061 | 0,0068 | 0,0081 | 0,0095 | 0,0122 | 0,0142 | 0,0162 | 0,0183 | 0,0203 |
| **600** | 0,0087 | 0,0104 | 0,0122 | 0,0139 | 0,0157 | 0,0174 | 0,0209 | 0,0244 | 0,0313 | 0,0365 | 0,0418 | 0,0470 | 0,0522 |
| **1000** | 0,0132 | 0,0159 | 0,0185 | 0,0212 | 0,0238 | 0,0265 | 0,0318 | 0,0370 | 0,0476 | 0,0556 | 0,0635 | 0,0714 | 0,0794 |
| **1500** | 0,0183 | 0,0219 | 0,0256 | 0,0292 | 0,0329 | 0,0365 | 0,0438 | 0,0511 | 0,0657 | 0,0767 | 0,0876 | 0,0986 | 0,1096 |
| **2000** | 0,0228 | 0,0274 | 0,0319 | 0,0365 | 0,0410 | 0,0456 | 0,0547 | 0,0638 | 0,0821 | 0,0958 | 0,1094 | 0,1231 | 0,1368 |
| **3000** | 0,0309 | 0,0371 | 0,0433 | 0,0494 | 0,0556 | 0,0618 | 0,0742 | 0,0865 | 0,1112 | 0,1298 | 0,1483 | 0,1669 | 0,1854 |
| **4000** | 0,0381 | 0,0457 | 0,0533 | 0,0610 | 0,0686 | 0,0762 | 0,0914 | 0,1067 | 0,1372 | 0,1600 | 0,1829 | 0,2057 | 0,2286 |
| **5000** | 0,0450 | 0,0540 | 0,0630 | 0,0720 | 0,0810 | 0,0900 | 0,1080 | 0,1260 | 0,1620 | 0,1889 | 0,2159 | 0,2429 | 0,2699 |
| **8000** | 0,0645 | 0,0774 | 0,0903 | 0,1032 | 0,1160 | 0,1289 | 0,1547 | 0,1805 | 0,2321 | 0,2708 | 0,3095 | 0,3481 | 0,3868 |

## PULLEYS
## (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
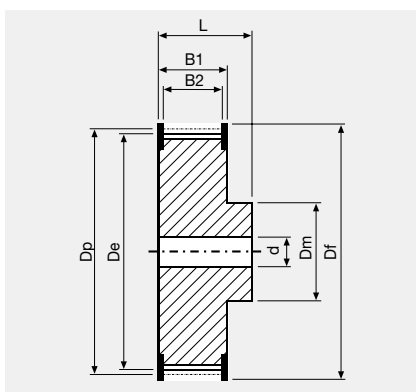


| N° TEETH | DP | DE |
|---|---|---|
| 10 | 15,92 | 15,09 |
| 12 | 19,10 | 18,27 |
| 14 | 22,28 | 21,45 |
| 15 | 23,87 | 23,04 |
| 16 | 25,46 | 24,64 |
| 18 | 28,65 | 27,82 |
| 19 | 30,24 | 29,41 |
| 20 | 31,83 | 31,00 |
| 22 | 35,01 | 34,19 |
| 24 | 38,20 | 37,37 |
| 25 | 39,79 | 38,96 |
| 26 | 41,38 | 40,55 |

| N° TEETH | DP | DE |
|---|---|---|
| 27 | 42,97 | 42,14 |
| 28 | 44,56 | 43,73 |
| 30 | 47,75 | 46,92 |
| 32 | 50,93 | 50,10 |
| 36 | 57,30 | 56,47 |
| 40 | 63,66 | 62,93 |
| 42 | 66,85 | 66,02 |
| 44 | 70,03 | 69,20 |
| 48 | 76,39 | 75,57 |
| 54 | 85,94 | 85,09 |
| 60 | 95,49 | 94,67 |

MEGAPOWER

# MEGAPOWER 2

## T10 - T10DL

| Belt width (mm) | 10 | 12 | 16 | 20 | 25 | 32 | 50 | 75 |
|---|---|---|---|---|---|---|---|---|
| Pulley width B2 (mm) | 15 | 17 | 21 | 25 | 30 | 37 | 56 | 80 |
| Belt weight (gr/cm) | 0,494 | 0,504 | 0,683 | 0,861 | 1,082 | 1,386 | 2,174 | 3,276 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,50 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,30 mm** (for single layer only) |

*Special version belts on request, see page 37*



| BELT LENGTHS AND TOLERANCES | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 260 | 320 | 340 | 370 | 390 | 400 | 410 | 440 | 450 | 480 | 500 | 530 | 550 | 560 | 600* | 610 | 630* | 650 | 660 | 680 | 690 |
| No. of teeth | 26 | 32 | 34 | 37 | 39 | 40 | 41 | 44 | 45 | 48 | 50 | 53 | 55 | 56 | 60 | 61 | 63 | 65 | 66 | 68 | 69 |
| Length tolerance (mm) | 0,28 | ± 0,32 | | | | ± 0,36 | | | | | ± 0,42 | | | | | | | | ± 0,48 | | |

| Length (mm) | 700 | 720* | 730 | 750 | 780 | 800* | 810 | 840 | 850 | 880 | 890 | 900 | 910 | 920* | 950 | 960 | 970 | 980 | 1000 | 1010 | 1050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 70 | 72 | 73 | 75 | 78 | 80 | 81 | 84 | 85 | 88 | 89 | 90 | 91 | 92 | 95 | 96 | 97 | 98 | 100 | 101 | 105 |
| Length tolerance (mm) | ± 0,48 | | | | | ± 0,56 | | | | | | | | | | | | | ± 0,64 | | |

| Length (mm) | 1080 | 1100 | 1110 | 1140 | 1150 | 1200 | 1210 | 1240 | 1250 | 1300 | 1320 | 1350 | 1390 | 1400 | 1420 | 1440 | 1450 | 1460 | 1500 | 1560 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 108 | 110 | 111 | 114 | 115 | 120 | 121 | 124 | 125 | 130 | 132 | 135 | 139 | 140 | 142 | 144 | 145 | 146 | 150 | 156 |
| Length tolerance (mm) | ± 0,64 | | | | | | | | | ± 0,76 | | | | | | | | | | |

| Length (mm) | 1600 | 1610 | 1700 | 1750 | 1780 | 1800 | 1880 | 1960 | 2250 |
|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 160 | 161 | 170 | 175 | 178 | | 188 | 196 | 225 |
| Length tolerance (mm) | ± 0,88 | | | | | | | | ± 1,04 |

*Available also without GAP*

| DOUBLETOOTHED BELT LENGTHS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 260 | 530 | 660 | 700 | 720 | 800 | 840 | 900 | 920 | 980 | 1010 | 1080 |
| No. of teeth | 26 | 53 | 66 | 70 | 72 | 80 | 84 | 90 | 92 | 98 | 101 | 108 |
| Length tolerance (mm) | ± 0,28 | ± 0,42 | ± 0,48 | | | ± 0,56 | | | | | ± 0,64 | |

| Length (mm) | 1100 | 1150 | 1210 | 1240 | 1250 | 1320 | 1350 | 1420 | 1500 | 1610 | 1800 | 1880 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 110 | 115 | 121 | 124 | 125 | 132 | 135 | 142 | 150 | 161 | 180 | 188 |
| Length tolerance (mm) | ± 0,64 | | | | | ± 0,76 | | | | ± 0,88 | | |

# MEGAPOWER 2

## T10 - T10DL

| N\Z | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 36 | 48 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TRANSMITTABLE POWER** (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
| 100 | 0,0090 | 0,0104 | 0,0119 | 0,0134 | 0,0149 | 0,0164 | 0,0179 | 0,0194 | 0,0209 | 0,0224 | 0,0269 | 0,0358 | 0,0403 |
| 200 | 0,0166 | 0,0193 | 0,0221 | 0,0249 | 0,0276 | 0,0304 | 0,0331 | 0,0359 | 0,0387 | 0,0414 | 0,0497 | 0,0663 | 0,0746 |
| 600 | 0,0413 | 0,0482 | 0,0550 | 0,0619 | 0,0688 | 0,0757 | 0,0826 | 0,0894 | 0,0963 | 0,1032 | 0,1238 | 0,1651 | 0,1858 |
| 1000 | 0,0614 | 0,0717 | 0,0819 | 0,0922 | 0,1024 | 0,1126 | 0,1229 | 0,1331 | 0,1434 | 0,1536 | 0,1843 | 0,2458 | 0,2765 |
| 1500 | 0,0829 | 0,0967 | 0,1106 | 0,1244 | 0,1382 | 0,1520 | 0,1658 | 0,1797 | 0,1935 | 0,2073 | 0,2488 | 0,3317 | 0,3731 |
| 2000 | 0,1015 | 0,1184 | 0,1354 | 0,1523 | 0,1692 | 0,1861 | 0,2030 | 0,2200 | 0,2369 | 0,2538 | 0,3046 | 0,4061 | 0,4568 |
| 3000 | 0,1330 | 0,1551 | 0,1773 | 0,1994 | 0,2216 | 0,2438 | 0,2659 | 0,2881 | 0,3102 | 0,3324 | 0,3989 | 0,5318 | 0,5983 |
| 4000 | 0,1589 | 0,1854 | 0,2118 | 0,2383 | 0,2648 | 0,2913 | 0,3178 | 0,3442 | 0,3707 | 0,3972 | 0,4766 | 0,6355 | 0,7150 |
| 5000 | 0,1806 | 0,2107 | 0,2408 | 0,2709 | 0,3010 | 0,3311 | 0,3612 | 0,3913 | 0,4214 | 0,4515 | 0,5418 | 0,7224 | 0,8127 |
| 8000 | 0,2398 | 0,2798 | 0,3198 | 0,3597 | 0,3997 | 0,4397 | 0,4796 | 0,5196 | 0,5596 | 0,5995 | 0,7194 | | |

## PULLEYS
### (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
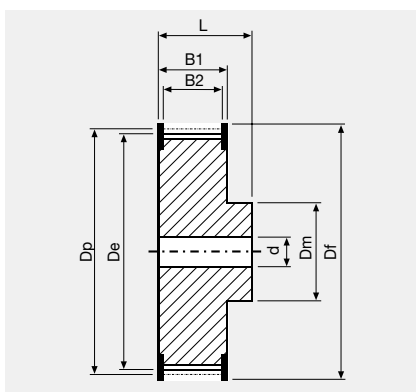


| N° TEETH | DP | DE |
|---|---|---|
| 12 | 38,20 | 36,25 |
| 14 | 44,56 | 42,71 |
| 15 | 47,75 | 45,90 |
| 16 | 50,93 | 49,08 |
| 18 | 57,30 | 55,45 |
| 19 | 60,48 | 58,63 |
| 20 | 63,66 | 61,81 |
| 22 | 70,03 | 68,18 |
| 24 | 76,39 | 74,55 |
| 25 | 79,58 | 77,73 |
| 26 | 82,76 | 80,91 |
| 27 | 85,94 | 84,10 |

| N° TEETH | DP | DE |
|---|---|---|
| 28 | 89,13 | 87,28 |
| 30 | 95,49 | 93,65 |
| 32 | 101,86 | 100,01 |
| 36 | 114,59 | 112,74 |
| 40 | 127,32 | 125,48 |
| 44 | 140,06 | 138,21 |
| 48 | 152,79 | 150,94 |
| 54 | 171,89 | 170,03 |
| 60 | 190,99 | 189,14 |

MEGAPOWER

# MEGAPOWER 2

## AT5

| Belt width (mm) | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|
| Pulley width B2 (mm) | 12 | 13 | 15 | 17 | 21 | 25 | 30 |
| Belt weight (gr/cm) | 0,185 | 0,253 | 0,316 | 0,378 | 0,508 | 0,640 | 0,800 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,50 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,15 mm** |

*Special version belts on request, see page 37*
*S and Z torsion zinked steel on request*
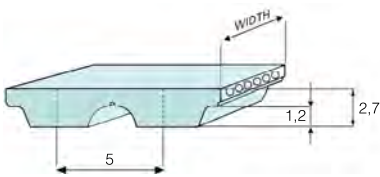
| BELT LENGTHS AND TOLERANCES | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 225 | 255 | 275 | 280 | 300 | 330 | 340 | 375 | 390 | 420 | 450 | 455 | 480 | 500 | 525 | 545 | 600 | 610 | 620 | 630 |
| **No. of teeth** | 45 | 51 | 55 | 56 | 60 | 66 | 68 | 75 | 78 | 84 | 90 | 91 | 96 | 100 | 105 | 109 | 120 | 122 | 124 | 126 |
| **Length tolerance (mm)** | | ± 0,28 | | | | ± 0,32 | | | | ± 0,36 | | | | | ± 0,42 | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length (mm)** | 660 | 670 | 710 | 720 | 750 | 780 | 825 | 860 | 975 | 1050 | 1125 | 1500 | 2000 |
| **No. of teeth** | 132 | 134 | 142 | 144 | 150 | 156 | 165 | 172 | 195 | 210 | 225 | 300 | 400 |
| **Length tolerance (mm)** | | | ± 0,48 | | | | | ± 0,56 | | ± 0,64 | | ± 0,76 | ± 1,04 |

# MEGAPOWER 2

## AT5

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TRANSMITTABLE POWER** (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
| N\Z | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 32 | 44 | 60 | 68 |
| 100 | 0,0042 | 0,0049 | 0,0056 | 0,0063 | 0,0070 | 0,0077 | 0,0084 | 0,0091 | 0,0098 | 0,0112 | 0,0154 | 0,0210 | 0,0238 |
| 200 | 0,0080 | 0,0094 | 0,0107 | 0,0121 | 0,0134 | 0,0147 | 0,0161 | 0,0174 | 0,0188 | 0,0214 | 0,0295 | 0,0322 | 0,0456 |
| 600 | 0,0211 | 0,0246 | 0,0282 | 0,0317 | 0,0352 | 0,0387 | 0,0422 | 0,0458 | 0,0493 | 0,0563 | 0,0774 | 0,0845 | 0,1197 |
| 1000 | 0,0322 | 0,0375 | 0,0429 | 0,0482 | 0,0536 | 0,0590 | 0,0643 | 0,0697 | 0,0750 | 0,0858 | 0,1179 | 0,1286 | 0,1822 |
| 1500 | 0,0442 | 0,0515 | 0,0589 | 0,0662 | 0,0736 | 0,0810 | 0,0883 | 0,0957 | 0,1030 | 0,1178 | 0,1619 | 0,1766 | 0,2502 |
| 2000 | 0,0547 | 0,0638 | 0,0730 | 0,0821 | 0,0912 | 0,1003 | 0,1094 | 0,1186 | 0,1277 | 0,1459 | 0,2006 | 0,2189 | 0,3101 |
| 3000 | 0,0727 | 0,0848 | 0,0970 | 0,1091 | 0,1212 | 0,1333 | 0,1454 | 0,1576 | 0,1697 | 0,1939 | 0,2666 | 0,2909 | 0,4121 |
| 4000 | 0,0881 | 0,1028 | 0,1174 | 0,1321 | 0,1468 | 0,1615 | 0,1762 | 0,1908 | 0,2055 | 0,2349 | 0,3230 | 0,3523 | 0,4991 |
| 5000 | 0,1012 | 0,1180 | 0,1349 | 0,1517 | 0,1686 | 0,1855 | 0,2023 | 0,2192 | 0,2360 | 0,2698 | 0,3709 | 0,4046 | 0,5732 |
| 8000 | 0,1312 | 0,1530 | 0,1749 | 0,1967 | 0,2186 | 0,2405 | 0,2623 | 0,2842 | 0,3060 | 0,3498 | 0,4809 | 0,5246 | 0,7432 |

## PULLEYS
## (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
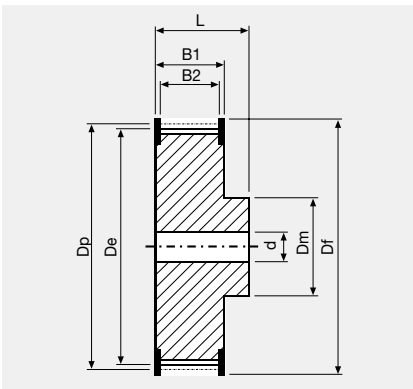


| N° TEETH | DP | DE |
|---|---|---|
| 12 | 19,10 | 17,87 |
| 14 | 22,28 | 21,05 |
| 15 | 23,87 | 22,64 |
| 16 | 25,46 | 24,24 |
| 18 | 28,65 | 27,42 |
| 19 | 30,24 | 29,01 |
| 20 | 31,83 | 30,60 |
| 22 | 35,01 | 33,79 |
| 24 | 38,20 | 36,97 |
| 25 | 39,79 | 38,56 |
| 26 | 41,38 | 40,15 |
| 27 | 42,97 | 41,74 |

| N° TEETH | DP | DE |
|---|---|---|
| 28 | 44,56 | 43,33 |
| 30 | 47,75 | 46,52 |
| 32 | 50,93 | 49,70 |
| 36 | 57,30 | 56,07 |
| 40 | 63,66 | 62,43 |
| 42 | 66,85 | 65,62 |
| 44 | 70,03 | 68,80 |
| 48 | 76,39 | 75,17 |
| 60 | 95,49 | 94,27 |
| 68 | 108,23 | 107,01 |

# MEGAPOWER 2

## AT10

| Belt width (mm) | 10 | 12 | 16 | 20 | 25 | 32 | 50 | 75 |
|---|---|---|---|---|---|---|---|---|
| Pulley width B2 (mm) | 15 | 17 | 21 | 25 | 30 | 37 | 56 | 80 |
| Belt weight (gr/cm) | 0,578 | 0,707 | 0,952 | 1,184 | 1,469 | 1,905 | 3,005 | 4,344 |

| | |
|---|---|
| Standard compound | **Thermoset PU 88 ShA grey/green** |
| Standard cords | **Twisted Zinked Steel** |
| Standard belt width tolerance | **+/- 0,50 mm** |
| Standard sleeve width tolerance | **+/- 10 mm** |
| Standard thickness tolerance | **+/- 0,30 mm** |

*Special version belts on request, see page 37*
*S and Z torsion zinked steel on request*
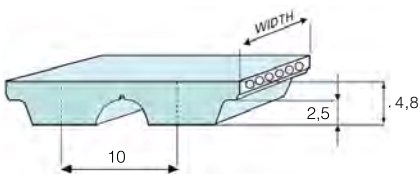
| BELT LENGTHS AND TOLERANCES | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 370 | 500 | 560 | 580 | 600 | 610 | 630 | 660 | 700 | 730 | 780 | 800 | 810 | 840 | 880 | 890 | 920 | 960 | 980 |
| No. of teeth | 37 | 50 | 56 | 58 | 60 | 61 | 63 | 66 | 67 | 73 | 78 | 80 | 81 | 84 | 88 | 89 | 92 | 96 | 98 |
| Length tolerance (mm) | ± 0,32 | ± 0,36 | | | ± 0,42 | | | | ± 0,48 | | | | | ± 0,56 | | | | | |

| Length (mm) | 1000 | 1010 | 1050 | 1080 | 1100 | 1150 | 1190 | 1200 | 1210 | 1220 | 1230 | 1240 | 1250 | 1280 | 1300 | 1320 | 1350 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 100 | 101 | 105 | 108 | 110 | 115 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 128 | 130 | 132 | 135 |
| Length tolerance (mm) | | | | | | ± 0,64 | | | | | | | | ± 0,76 | | | |

| Length (mm) | 1360 | 1400 | 1420 | 1480 | 1500 | 1600 | 1630 | 1700 | 1720 | 1800 | 1860 | 1940 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of teeth | 136 | 140 | 1142 | 1148 | 1150 | 160 | 163 | 170 | 172 | 180 | 186 | 194 |
| Length tolerance (mm) | | | ± 0,76 | | | | ± 0,88 | | | | | |

# MEGAPOWER 2

## AT10

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TRANSMITTABLE POWER** (kW/cm of tooth in mesh) | | | | | | | | | | | | | |
| N\Z | 15 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 38 | 42 | 48 | 54 | 60 |
| 100 | 0,0215 | 0,0257 | 0,0286 | 0,0315 | 0,0343 | 0,0372 | 0,0400 | 0,0429 | 0,0543 | 0,0601 | 0,0686 | 0,0772 | 0,0858 |
| 200 | 0,0407 | 0,0488 | 0,0542 | 0,0596 | 0,0650 | 0,0705 | 0,0759 | 0,0813 | 0,1030 | 0,1138 | 0,1301 | 0,1463 | 0,1626 |
| 600 | 0,1041 | 0,1249 | 0,1388 | 0,1527 | 0,1666 | 0,1804 | 0,1943 | 0,2082 | 0,2637 | 0,2915 | 0,3331 | 0,3748 | 0,4164 |
| 1000 | 0,1547 | 0,1856 | 0,2062 | 0,2268 | 0,2474 | 0,2681 | 0,2887 | 0,3093 | 0,3918 | 0,4330 | 0,4949 | 0,5567 | 0,6186 |
| 1500 | 0,2076 | 0,2491 | 0,2768 | 0,3045 | 0,3322 | 0,3598 | 0,3875 | 0,4152 | 0,5259 | 0,5813 | 0,6643 | 0,7474 | 0,8304 |
| 2000 | 0,2520 | 0,3024 | 0,3360 | 0,3696 | 0,4032 | 0,4368 | 0,4704 | 0,5040 | 0,6384 | 0,7056 | 0,8064 | 0,9072 | 1,0080 |
| 3000 | 0,3239 | 0,3886 | 0,4318 | 0,4750 | 0,5182 | 0,5613 | 0,6045 | 0,6477 | 0,8204 | 0,9068 | 1,0363 | 1,1659 | 1,2954 |
| 4000 | 0,3788 | 0,4545 | 0,5050 | 0,5555 | 0,6060 | 0,6565 | 0,7070 | 0,7575 | 0,9595 | 1,0605 | 1,2120 | 1,3635 | 1,5150 |
| 5000 | 0,4220 | 0,5063 | 0,5626 | 0,6189 | 0,6751 | 0,7314 | 0,7876 | 0,8439 | 1,0689 | | | | |
| 8000 | 0,4950 | 0,5940 | 0,6600 | 0,7260 | 0,7920 | 0,8580 | 0,9240 | 0,9900 | | | | | |

## PULLEYS
## (FOR MORE DETAILS PLEASE SEE OUR PULLEYS CATALOGUE)
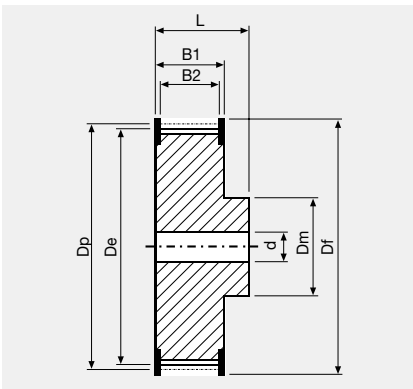


| N° TEETH | DP | DE |
|---|---|---|
| 15 | 47,75 | 45,90 |
| 16 | 50,93 | 49,08 |
| 18 | 57,30 | 55,45 |
| 19 | 60,48 | 58,63 |
| 20 | 63,66 | 61,81 |
| 22 | 70,03 | 68,18 |
| 24 | 76,39 | 74,55 |
| 25 | 79,58 | 77,73 |
| 26 | 82,76 | 80,91 |
| 27 | 85,94 | 84,10 |
| 28 | 89,13 | 87,28 |
| 30 | 95,49 | 93,65 |

| N° TEETH | DP | DE |
|---|---|---|
| 32 | 101,86 | 100,01 |
| 36 | 114,59 | 112,74 |
| 38 | 120,96 | 119,14 |
| 40 | 127,32 | 125,48 |
| 42 | 133,69 | 131,87 |
| 44 | 140,06 | 138,21 |
| 48 | 152,79 | 150,94 |
| 54 | 171,89 | 170,07 |
| 60 | 190,99 | 189,14 |
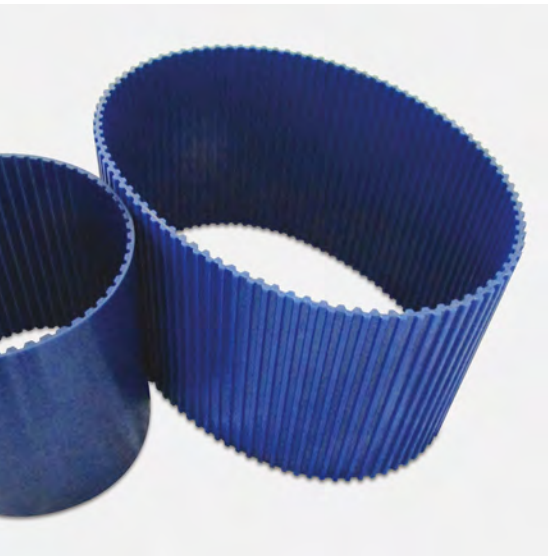
# MEGAPOWER 2

## FC

| Pitch | H | L | T5 | T5DD | T10 | T10DD | AT5 | AT10 |
|-------|---|---|----|----|-----|-------|-----|------|

For profile shape and dimensions tolerances see  previous pitches profile pages

| | |
|---|---|
| Standard compound | **Thermoset PU 81 +- 4 ShA dark blue RAL 5002** |
| Standard cords | **Z Twisted stainless Steel AISI 304** |
| Teeth cover (NFT) | **Not available** |
| Back cover | **Not available** |
| Thermal working range (C°) | **- 25 / + 80** |
| Thermal working range tollerance (C°) | **+/- 5** |
| Food contact features (materials components) | **Produced and certified according EU 10/2011 and 174/2015 with food contact approved components** |

*Tooth shear resistance 25 % less of values declared on previous pitches pages*
*Transmittable power 25 % less of values declared on previous pitches pages*

| CHEMICAL RESISTANCE | | | | | | | | |
|------------------------|-----------|-----------|-------------------|--------------------|-------------|--------------|--------------|------------------|
| *Chemical agent | Tap water | Sea water | Mineral oil/ grase | Syntetic oil/ grease | Strong acids | Strong alkali | Solvent/fuels | Outdoor ageing |
| **Concentration %** | pure | pure | pure | pure | max 3% | max 30% | pure | n.a. |
| **Temperature (C°)** | max 60° | max 60° | max 60° | max 60° | max 40° | max 40° | r.t. | -25°/+80° |
| **Belt body resistance** | very good | good | good | medium | good | good | medium | very good |
| **Cord insert resistance** | very good | good | very good | very good | medium good | medium good | good | good |

*\*Chemical are too wide range and general rules are not always valid. In case of any doubt please contact our techinical team.*

### KEY FEATURES AND BENEFITS

- Good chemical resistance
- Good corrosion resistance
- Good humidity and hydrolysis resistance
- Inox cords
- Food contact approved components
- Special designs for food conveyance on request
- Additional backing profiles to evaluate on request

*Food contact features (materials components): Produced with food contact approved components according to European regulations EU 1935/2004, EU 10/2011 and subsequantly updates according to EU 174/2015.*

# MEGAPOWER FEASIBILITY TABLE

| | MXL | XL | L | H | T2 | T2,5 | T5 | T10 | T5DL | T10DL | AT5 | AT10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Min no. teeth pulley st. cords** | 10 | 10 | 15 | 14 | 10 | 10 | 10 | 12 | 10 | 12 | 15 | 15 |
| **Min outside idler dia** | 18 | 30 | 60 | 80 | 18 | 18 | 30 | 60 | 30 | 60 | 60 | 120 |
| **Min inside idler dia** | 20 | 30 | 60 | 60 | 20 | 20 | 30 | 60 | 30 | 60 | 25 | 50 |
| **Min no. teeth pulley HF cords** | - | - | - | - | - | - | 10 | 12 | 10 | 12 | 12 | 15 |
| **Min outside idler dia** | - | - | - | - | - | - | 30 | 50 | 30 | 50 | 40 | 80 |
| **Min inside idler dia** | - | - | - | - | - | - | 30 | 50 | 30 | 50 | 25 | 50 |
| **Min no. teeth pulley HP cords** | - | - | - | - | - | 15 | 15 | 15 | - | - | 25 | 25 |
| **Min outside idler dia** | - | - | - | - | - | 30 | 40 | 100 | - | - | 60 | 150 |
| **Min inside idler dia** | - | - | - | - | - | 30 | 60 | 100 | - | - | 40 | 80 |
| **Min no. teeth pulley HPF cords** | - | - | - | - | - | - | 12 | 14 | - | - | 20 | 16 |
| **Min outside idler dia** | - | - | - | - | - | - | 30 | 80 | - | - | 40 | 100 |
| **Min inside idler dia** | - | - | - | - | - | - | 30 | 80 | - | - | 40 | 60 |
| **Min no. teeth pulley kevlar cords** | 12 | 10 | 15 | 14 | 12 | 12 | 12 | 15 | 12 | 15 | 15 | 15 |
| **Min outside idler dia** | 20 | 30 | 60 | 80 | 20 | 20 | 30 | 60 | 30 | 60 | 60 | 120 |
| **Min inside idler dia** | 20 | 20 | 60 | 60 | 20 | 20 | 30 | 60 | 30 | 60 | 25 | 50 |
| **Min no. teeth pulley fiberglass cords** | - | 13 | 18 | 18 | - | - | 15 | 15 | - | - | - | - |
| **Min outside idler dia** | - | 35 | 65 | 90 | - | - | 40 | 70 | - | - | - | - |
| **Min inside idler dia** | - | 35 | 65 | 65 | - | - | 40 | 70 | - | - | - | - |
| **Min no. teeth pulley polyester cords** | 12 | - | - | - | - | 12 | - | - | - | - | - | - |
| **Min outside idler dia** | 20 | - | - | - | - | 20 | - | - | - | - | - | - |
| **Min inside idler dia** | 20 | - | - | - | - | 20 | - | - | - | - | - | - |
| **Min no. teeth pulley stainless steel cords** | - | 13 | 18 | 18 | - | - | 15 | 15 | 15 | 15 | 15 | 19 |
| **Min outside idler dia** | - | 35 | 65 | 80 | - | - | 40 | 70 | 40 | 70 | 65 | 110 |
| **Min inside idler dia** | - | 35 | 65 | 65 | - | - | 40 | 70 | 40 | 70 | 60 | 110 |
| | | | | | | | | | | | | |
| **Steel cords** | O | O | O | O | O | O | O | O | O | O | O | O |
| **High Flexibility cords** | X | X | X | X | X | X | M | M | M | M | M | M |
| **High Performance cords** | X | X | X | X | X | M | M | M | X | X | M | M |
| **High Performance Flexibility** | X | X | X | X | X | X | M | M | X | X | M | M |
| **Kevlar cords** | M | M | M | M | M | M | M | M | M | M | M | M |
| **Fiberglass cords** | X | M | M | M | X | X | M | M | X | X | X | X |
| **Polyester cords** | M | X | X | X | X | M | X | X | X | X | X | X |
| **Stainless steel cords** | X | M | M | M | X | X | M | M | M | M | M | M |
| | | | | | | | | | | | | |
| **Pu Yellow, Grey, Red cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Porol Black cover** | R | R | R | R | R | R | R | R | X | X | R | R |
| **Linatex cover** | R | R | R | R | R | R | R | R | X | X | R | R |
| **Tenax standard cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Red Natural rubber 40 cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Black Neoprene cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Gummy Correx Ambra Parablond cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **NBR cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Linaplus FG** | R | R | R | R | R | R | R | R | X | X | R | R |
| **Honeycomb cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **Durataq® cover** | M | M | M | M | M | M | M | M | X | X | M | M |
| **FDA compound** | M | M | M | M | M | M | M | M | M | M | M | M |

*O: Ex stock | R: On request without minimum quantity | M: On request with Minimum Quantity | X: Not available*

TIMING BELTS

# COVER PROPERTIES

MEGAPOWER timing belts can be coated with several materials on the back side to obtain specific properties required (higher friction coefficient, higher abrasion reistance, higher oil resistance, etc.).

| COVER TYPE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COVER TYPE** | HONEYCOMB | LINATEX TM | RED NATURAL RUBBER 40 | DURATAQ® | TENAX STANDARD | GUMMY CORREX AMBRA PARABLOND | BLACK NEOPRENE | NBR | LINAPLUS FG | POROL BLACK | PU YELLOW, GREY, RED |
| **Raw material** | natural rubber | natural rubber | natural rubber | natural rubber | natural rubber | natural rubber | neoprene | nitrile caoutchouc | natural rubber | natural cellular rubber foam | foamed polyurethane |
| **Hardness (ShA)** | 50 | 38 \| 40 | 40 | 45 | 45 | 48 | 50 70 (VUC) | 50 65-70 (VUC) | 38 | 290 kg/m³ | 35-40 50 60-70 |
| **Colour** | red | red | red | orange | red | beige | black | black/white | white | black | yellow/grey/red |
| **Coating and belt cohesion method** | lamination | lamination; vulcanization | vulcanization | vulcanization | vulcanization | vulcanization | vulcanization; lamination | lamination; vulcanization | lamination | lamination | spraying |
| **Thickness range (mm)** | 4,5 to 15 | 1 to 10 3 to 12,7 (VUC) | 2,4 to 14 | 2,4 to 14 | 0,8 to 15 | 0,8 to 15 | 3 to 12; 0,8 to 15 | 2 to 6; 0,8 to 15 | 1 to 3 | 2 to 20 | 1 to 10 |
| **Tolerance on coating thickness** | +/– 0,5 | +/– 1 (*) | +/– 0,3 | +/– 0,3 | +/– 0,3 | +/– 0,3 | +/– 0,3 | +/– 0,5+/– 0,3 | +/– 1 (*) | +/– 0,5 | +/– 0,3 |
| **Working temperature range (°C)** | −20 +60 | −40 +70 | −20 +80 | −20 +100 | −20 +60 | −20 +60 | −20 +60; -10 +100 | -35 +70; 0 +120 | −40 +70 | −40 +70 | −10 +60 |
| **Friction coefficient (1)** | 0,60 | 0,9 | 0,50 | 1,1 | 0,70 | 0,60 | 0,60 | 0,70 0,60 | 0,75 | 1,2 | 0,4 |
| **Water resistance** | very good | good | good | good | very good | very good | good | very good; good | good | very good | fair |
| **Abrasion resistance** | very good | good | fair | very good | very good | very good | good | poor; good | fair | fair | very good |
| **Oil resistance** | poor | poor | poor | poor | poor | poor | good | good | poor | fair | good |
| **FDA approved** | no | no | no | no | no | no | no | no | yes | no | no |
| **Min. pulley dia 5 coating thickness fl ... (2)** | x 30 | x 20 | x 20 | x 20 | x 30 | x 30 | x 30 | x 30 x 35 | x 25 | x 15 | x 25 |
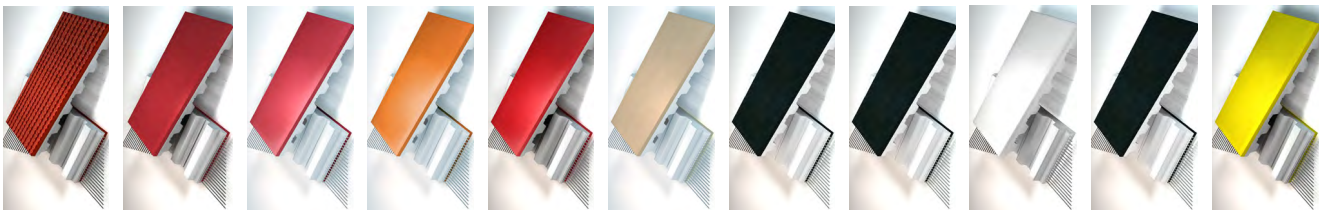
*(1) Static Average values for steel guides*
*(2) Suggested diameter is bigger value between this calculated value and minimum pulley diameter on belt data page*

# SPECIAL EXECUTION

## COLOUR

On customer request and with a minimum quantity is possibile to produce MEGAPOWER with several colours.

Different colour doesn't influence belt technical properties so mechanical features are same as standard grey/green belt.

## MECHANICAL REWORK

Megadyne have been producing specialized belting for many years. Our in-house facilities enable us to produce belts with special holes for vacuum applications, belts with special backings/grounds finishes for high tolerance applications. We can remove individual teeth and perforate the timing belt as required.

## BACK GRINDING

A belt back can be ground to achieve a precise belt thickness as an adjunct to precision drives. When belt back grinding to a tolerance is required, the total thickness, including the tooth, must be specified. A grinding tolerance of +/- 0,2 mm is achievable with a level finish (i.e. thickness will not vary greatly around the belt).

## LONGITUDINAL REWORK

Longitudinal rework along the belt back is possibile on covered and uncovered belts. The profile can be machined precisely for required function. The measurement is given as the depth on the belt back. Most widths and lengths are available.

## REWORK ON BELT TEETH

The rework of the tooth profile can be very useful, i.e. improving the steering effect with guide rails. The rework dimension is given from the top of the tooth.

## HOLES IN TIMING BELTS

Holes in timing belts can be for vacuum or air film conveying or as clearance for assembly mechanisms. Stops and cams can be attached through the holes. Customized tooling may be required depending on the layout and dimensions of holes required.

## ANTISTATIC\ELECTRICAL CONDUCTIVE BELTS (MEGAPOWER EC)

On customer request and with minimum quantity, it is possible to produce antistatic\electrical conductive MEGAPOWER belts complies with ISO 9563 standard, and limited to the following configuration with respect standard belts:

- 89 +- 4 ShA special grade polyurethane, black colour (RAL 9011 reference)
- Transmittable power and tooth resistance 25 % less of values declared for standard version

## SINGLE TOOTH REMOVAL

Single and multiple tooth removal is available to your requirement, for applications in handling and conveying technology

MEGAPOWER

# SPECIAL EXECUTION

## PHOTOS



**BELTS AND SLEEVES**

Customer can choose the right MEGAPOWER depending on his business features: belts are finished and ready to use, while sleeves can be stored and cut at requested width by end-users.



**SPECIAL PROFILES**

MEGAPOWER belts can be manufactured on customer request also with pitch T2, RPP3, RPP8, STD3, MTD5.



**DIRECTLY MOULDED SPECIAL CLEATS**

Special cleats and flat profiles can be directly moulded with the belt, being a part of it and giving higher mechanical characteristics.



**TRACKING BELTS FOR LIFTS**

Custom design moulded belt, with high strength capacity and helical special teeth, high coefficient of friction and very low noise level, used as tracking belts in lift applications.

## PHOTOS



### VACUUM APPLICATIONS

MEGAPOWER belts for vacuum applications, coated with Tenax or other coatings, with ground teeth, holes and slots (perpendicular or sloping) for vacuum transmission.
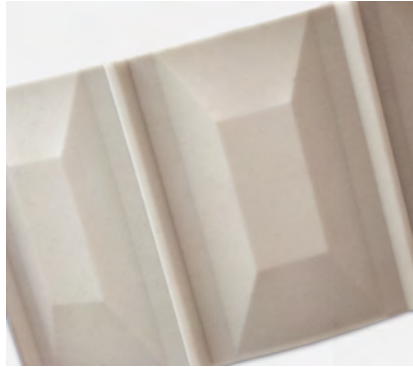


### PACKING INDUSTRY

Particular MEGAPOWER with directly moulded carriers and pushers, engineered to meet very special customer requests.
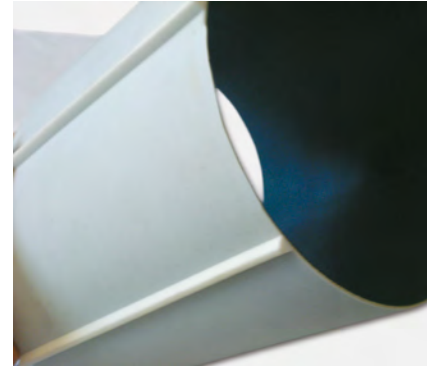


### SPECIAL CARRIERS

MEGAPOWER customised belt with directly moulded carriors, developed following customer design.



### AT20 FOR HIGH POWER

MEGAPOWER belts are available also in AT20 pitch, with standard or special cords, to work in very high power transmission applications.
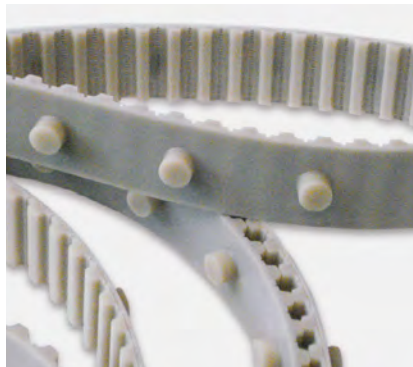


### CARDING MACHINES

Special moulded belt with cylindrical cleats, used in textile industry.

MEGAPOWER

# PULLEYS AND TIMING BARS

Pulleys can be provided both in standard design, according to ISO specifications, and engineered on customer requests.

Manufactured in aluminium, steel and cast iron, Megadyne pulleys are available with or without steel flanges and surface treatment.

| Imperial | MXL - XL - L - H - XH - XXH - HG |
|---|---|
| HTD profile | 3M - 5M - 8M - 14M |
| Metric | T2,5 - T5 - T10 - T20 - AT3 - AT5 - AT10 - AT20 - TG5 - TG10 - TG20 - ATG10 |
| RPP | RPP5 - RPP8 - RPP14 |
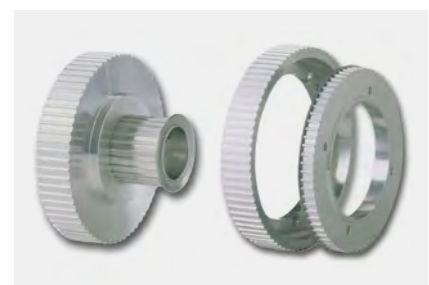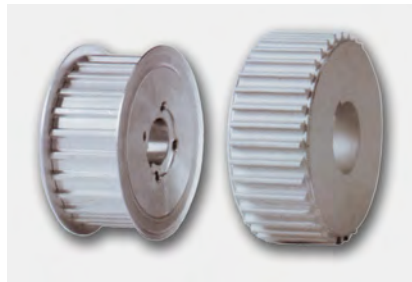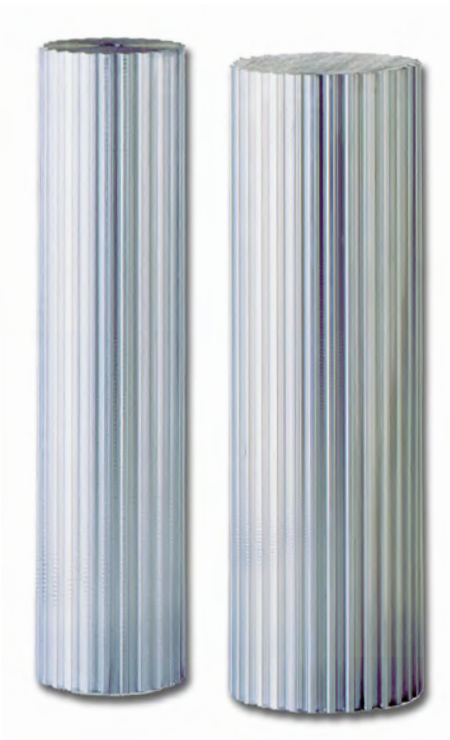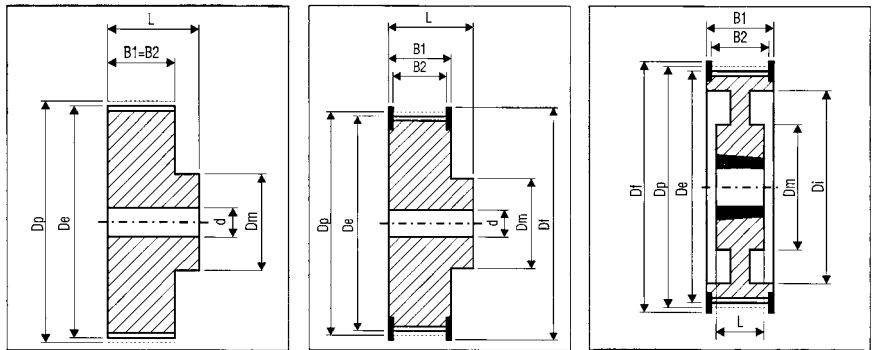
# USEFUL FORMULAS

## AND CONVERSION TABLE

| SPEED | | |
|---|---|---|
| $V = \dfrac{d_1 \cdot n_1}{19100}$ | $n_1 = \dfrac{V \cdot 19100}{d_1}$ | $d_1 = \dfrac{V \cdot 19100}{n_1}$ |

*V: peripheral speed [m/s]* | *n1: rotation speed [RPM]* | *d1: pulley diameter [mm]*

| FORCES AND TORQUE | | |
|---|---|---|
| $F_u = \dfrac{19{,}1 \cdot 10^6 \cdot P}{d_1 \cdot n_1}$ | $F_u = \dfrac{2000 \cdot M}{d_1}$ | $F_u = \dfrac{P \cdot 10^3}{d_1}$ |
| $M_t = \dfrac{P \cdot 9550}{n_1}$ | $M_t = \dfrac{F_u \cdot d_1}{2000}$ | $M_t = \dfrac{P \cdot d_1}{2 \cdot V}$ |

*Fu: peripheral force [N]* | *Mt: drive torque [Nm]* | *P: power [kW]*
*n1: rotation speed [RPM]* | *d1: pulley diameter [mm]* | *V: peripheral speed [m/s]*

| SPEED | | |
|---|---|---|
| $P = \dfrac{F_u \cdot d_1 \cdot n_1}{19{,}1 \cdot 10^6}$ | $P = \dfrac{M_t \cdot n_1}{9550}$ | $P = \dfrac{F_u \cdot V}{1000}$ |

*P: power [kW]* | *Fu: peripheral force [N]* | *Mt: drive torque [Nm]*
*n1: rotation speed [RPM]* | *d1: pulley diameter [mm]*

| TO CONVERT FROM | TO | MULTIPLY BY |
|---|---|---|
| CV | HP | 0,9863201 |
| CV | kcal/h | 63,24151 |
| CV | W | 735,4988 |
| CV | kW | 0,7354988 |
| CV | kgf • m/s | 75 |
| CV | lbf • ft/s | 542,476 |
| HP | CV | 1,01387 |
| HP | kcal/h | 641,1865 |
| HP | W | 745,6999 |
| HP | kW | 0,7456999 |
| HP | kgf • m/s | 76,04022 |
| HP | lbf • ft/s | 550 |
| in | m | 0,0254 |
| in | cm | 2,54 |
| in | mm | 25,4 |
| in | ft | 0,083 |
| in$^2$ | m$^2$ | 0,00064516 |
| in$^2$ | cm$^2$ | 6,4516 |
| in$^2$ | mm$^2$ | 645,16 |
| in$^2$ | ft$^2$ | 0,006944444 |
| in$^3$ | m$^3$ | $1{,}63871 \cdot 10^{-5}$ |
| in$^3$ | cm$^3$ | 16,38706 |
| in$^3$ | mm$^3$ | 16387,06 |
| in$^3$ | ft$^3$ | 0,000578704 |
| J | CV • h | $3{,}77673 \cdot 10^{-7}$ |

| TO CONVERT FROM | TO | MULTIPLY BY |
|---|---|---|
| J | HP • h | $3{,}72506 \cdot 10^{-7}$ |
| J | kWh | $2{,}77778 \cdot 10^{-7}$ |
| kg | lb | 2,204623 |
| kgf | N | 9,80665 |
| kgf | lbf | 2,204623 |
| kgf • m/s | CV | 0,01333333 |
| kgf • m/s | W | 9,80665 |
| kgf • m/s | kW | 0,00980665 |
| kW | CV | 1,359622 |
| kW | kcal/h | 859,8452 |
| kW | W | 1000 |
| kW | kgf • m/s | 101,9716 |
| kW | lbf • ft/s | 737,5621 |
| lb | kg | 0,4535924 |
| lb | kgf | 0,4535924 |
| lb | N | 4,448222 |
| N | kgf | 0,1019716 |
| N | lbf | 0,2248089 |
| W | CV | 0,001359622 |
| W | HP | 0,001341022 |
| W | kcal/h | 0,8598452 |
| W | kW | 0,001 |
| W | kgf • m/s | 0,1019716 |
| W | lbf • ft/s | 0,7375621 |

MEGAPOWER

## CUSTOMER DATA
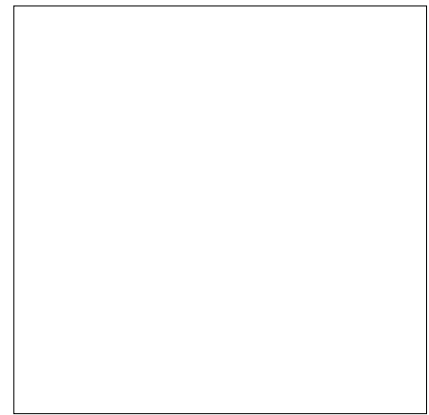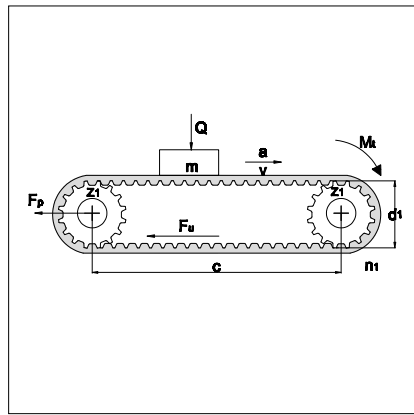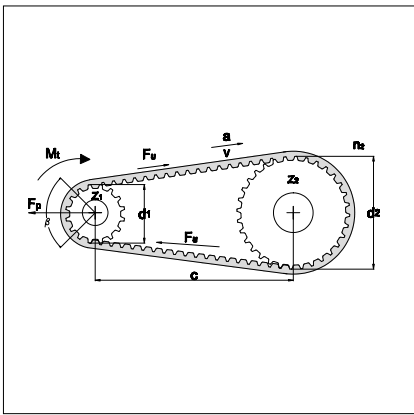
Company Name _____ Date _____

Address _____ Zip Code _____

City _____ State _____ Country _____

Customer Name/Surname _____

Office _____ Tel. _____ e-mail _____

## DRIVE INFORMATION TRANSMISSION LAYOUT



☐ Power transmission     ☐ Conveyor     ☐ Other (If layout is different please sketch it above)

## DRIVE INFORMATION (FOR POWER TRANSMSSION)

☐ AC     ☐ DC     ☐ Soft Start     ☐ Inverter

Power _____ Speed _____

Torque _____ Acceleration _____

Working time ☐ < 8h ☐ From 8h up to 16h ☐ 24h

Driver pulley's diameter _____ Driven pulley's diameter _____

Center distance _____ Minimum safety factor needed _____

Are there any size limitation? ☐ Yes ☐ No

(if yes, please indicate *Max diameter*, *Max width* and *Max center distance*):

Max diameter _____ Max width _____ Max center distance _____

Linear speed _____ Acceleration _____ Mass _____

**DRIVE INFORMATION (FOR CONVEYOR)**

Driver pulley's diameter _____     Driven pulley's diameter _____

Center distance _____     Minimum safety factor needed _____

Are there any size limitation?     ☐ Yes     ☐ No

(if yes, please indicate *Max diameter*, *Max width* and *Max center distance*):

Max diameter _____     Max width _____     Max center distance _____

Linear speed _____     Acceleration _____     Mass _____

Is there any sliding surface?     ☐ Yes     ☐ No     (if yes please indicate friction coefficient): _____

Is there any cover on the back?     ☐ Yes     ☐ No     (if yes please indicate the type) _____

Are cleats required?     ☐ Yes     ☐ No     (if yes please indicate cleats code, otherwise attach drawings) _____

Working time     ☐ < 8h     ☐ From 8h up to 16h     ☐ 24h

**WORK'S ENVIRONMENT INFORMATION (FOR ALL LAYOUT TRANSMISSION SYSTEM)**

Work Temperature ( please indicate constant temperature and in case peaks) _____

_____

Humidity     ☐ Standard     ☐ No standard     ☐ Other _____

Chemical agents: (oils, grass, aggressive compounds)     ☐ Yes     ☐ No

In case please indicate type and  percentage _____

The data and information contained in the present catalogue are updated to the date of the catalogue's printing. Ammega Italia S.p.A. reserves the right to modify the specifications, performances and other information relating to the belts described in the present catalogue, at any time at its own discretion, without any prior notice.

For updating refer to our website www.megadynegroup.com.

Technical specifications, performances and other information provided in the present catalogue are indicative and do not bound Ammega Italia S.p.A. 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 on our web site www.megadynegroup.com:

• Ammega Italia S.p.A. General Conditions of Sale (comprising the warranty)
• Theoretical Belt Life.
• Drive Components: Storage, Installation, Maintenance and Troubleshooting Handbook
• Belts standard use condition and temperature.

MEGADYNE S.p.A.
ITALY - MATHI

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and find your local
contact

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