



**MITSUBOSHI**



Mitsubishi Belting Ltd. was founded in 1919 and is a Japanese company based in Kobe. Throughout its history, the company has become a global leader in the manufacturing and distribution of industrial belts and related products.

Over the years, Mitsubishi Belting has expanded its product lineup to cater to various industries, including automotive, industrial machinery, agriculture, construction, mining, and transportation. Their diverse range of belts includes power transmission belts, conveyor belts, timing belts, and specialty belts. The company has always prioritized research and development, aiming to develop innovative belt technologies that enhance performance, efficiency, and durability.

Their belts are used in a wide range of sectors and applications. Here are some of the sectors where Mitsubishi Belts are commonly used:



**AUTOMOTIVE INDUSTRY:**

Mitsubishi Belts are extensively used in the automotive industry for applications such as power transmission, air conditioning systems, engine timing, and accessory drives. They manufacture a range of automotive belts, including timing belts, V-belts, ribbed belts, and specialty belts, which are known for their high durability and performance.



**INDUSTRIAL MACHINERY:**

Many types of industrial machinery rely on belts for power transmission and conveying systems. Mitsubishi Belts are used in various industrial applications, including manufacturing equipment, conveyors, printing presses, textile machinery, and packaging machines.



**AGRICULTURE AND FARMING:**

In the agricultural sector, Mitsubishi Belts are utilized in equipment such as combine harvesters, tractors, and other farming machinery.



**CONSTRUCTION AND MINING:**

Construction and mining equipment often require robust and reliable belts for heavy-duty operations.



**HVAC AND REFRIGERATION:**

Heating, ventilation, air conditioning (HVAC), and refrigeration systems utilize belts for driving compressors, blowers, and fans.



**LOGISTICS AND MATERIAL HANDLING:**

Belts play a crucial role in logistics and material handling operations, such as conveyor systems in warehouses, distribution centers, and airports.



**POWER GENERATION:**

Power plants, including thermal, hydroelectric, and wind power plants, rely on belts for various applications.



**FOOD PROCESSING:**

Mitsubishi Belts are used in the food processing industry for conveying, sorting, and packaging applications.



**MARINE AND OFFSHORE:**

In the marine and offshore sectors, Mitsubishi Belts are employed in various applications, including propulsion systems, auxiliary machinery, and cargo handling equipment.



These are just a few examples of the sectors where Mitsubishi Belts find applications. Their belts are versatile and cater to a wide range of industries, providing durable and efficient power transmission solutions.

# AUTOMOTIVE



## AUTOMOTIVE

In the **AUTOMOTIVE SECTOR**, Mitsubishi Belts are widely used for various applications due to their high performance, reliability, and durability. Here are some specific types of Mitsubishi Belts used in the automotive industry:

**V-BELTS:** V-Belts are commonly used in automotive engines to transmit power from the crankshaft to various engine accessories, such as the alternator, water pump, power steering pump, and air conditioning compressor. Mitsubishi V-Belts are engineered with high-quality materials, including chloroprene rubber, to deliver optimal power transmission and long-lasting performance.



**RIBBED BELTS:** Ribbed belts, also known as serpentine belts, are used in modern automotive engines to drive multiple engine accessories simultaneously. They have a flat, ribbed surface that engages with corresponding grooved pulleys, enabling efficient power transmission. Mitsubishi Ribbed Belts are designed with advanced materials, such as EPDM (Ethylene Propylene Diene Monomer), which provide excellent flexibility, heat resistance, and extended service life.



**TIMING BELTS:** Timing belts are crucial components in the engine's internal combustion system. They synchronize the rotation of the camshaft and crankshaft, ensuring precise valve timing and efficient engine operation. Mitsubishi Timing Belts are designed with high-strength materials, such as rubber with fiberglass reinforcement, to withstand the demanding conditions of engine operation. They have precise tooth profiles and excellent resistance to heat, oil, and abrasion.



Mitsubishi Belts in the automotive sector undergo rigorous testing and quality control processes to meet the industry's stringent requirements.

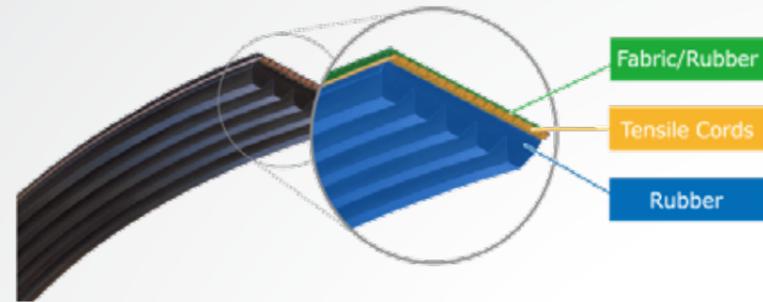
POPULAR BELT RANGE UNDER THIS SECTOR:

AUTOMOTIVE

1 - RIBSTAR BELTS (PK)



They are used in a wide range of engines from small cars to automobiles, trucks, buses, and construction machinery.

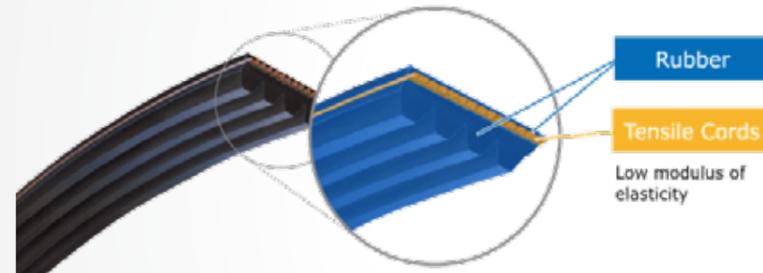


- EPDM material is used, which has superior heat, cold, and ozone resistance compared to conventional CR (chloroprene).
- Rubber compound with excellent quietness.

2 - STAR FIT™ (SF PK)



Used in engines of small cars and automobiles.



- The belt itself is elastic.
- Standard rib star belts require a tension pulley, but the use of tensile cords with a low modulus of elasticity eliminates the need for a tension pulley, making maintenance unnecessary.



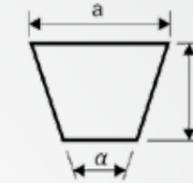
WE'VE GOT YOUR ENGINE'S BACK



AUTOMOTIVE

3 - RAW EDGE V-BELTS (RECMF / MPMF / REMF)

They are used in a wide range of engines from small cars to automobiles, trucks, buses, and construction machinery.

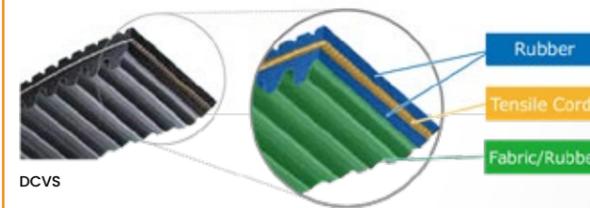


| Product Name | Sign/Type | HM   | A    | B    | BC   | C    |      |      |      |      |
|--------------|-----------|------|------|------|------|------|------|------|------|------|
| REMF         | a         | -    | -    | 17.3 | 18.8 | -    |      |      |      |      |
|              | b         | -    | -    | 8.9  | 8.9  | -    |      |      |      |      |
|              | α         | -    | -    | 38   | 38   | -    |      |      |      |      |
| MPMF         | a         | 10.7 | 10.7 | 13.3 | 13.9 | -    |      |      |      |      |
|              | b         | 6.5  | 7.7  | 7.7  | 8.0  | -    |      |      |      |      |
|              | α         | 36   | 38   | 38   | 36   | -    |      |      |      |      |
| RECMF        | a         | 10.7 | 10.7 | 13.3 | 13.3 | 17.3 | 17.3 | 18.8 | 10.7 | 10.7 |
|              | b         | 8.0  | 8.6  | 8.5  | 9.0  | 9.5  | 10.3 | 10.3 | 8.0  | 8.6  |
|              | α         | 36   | 38   | 36   | 38   | 36   | 36   | 36   | 36   | 38   |
| WMP/WFC      | a         | -    | 13.7 | 14.3 | 17.8 | -    | -    |      |      |      |
|              | b         | -    | 8.0  | 8.5  | 9.5  | -    | -    |      |      |      |
|              | α         | -    | 50   | 52   | 52   | -    | -    |      |      |      |

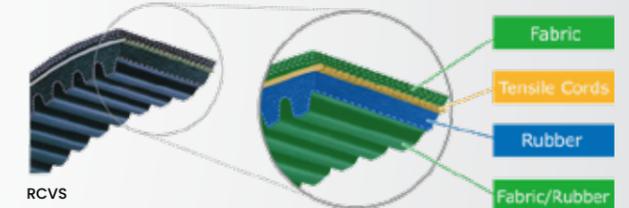
- Used in harsh load fluctuation and high temperature environments, they have excellent heat resistance, abrasion resistance, and deformation resistance.

4 - VARIABLE SPEED BELT - (SCOOTER BELT)

These are CVT\* drive belt, which is often used in scooters and snowmobiles.



dcvs

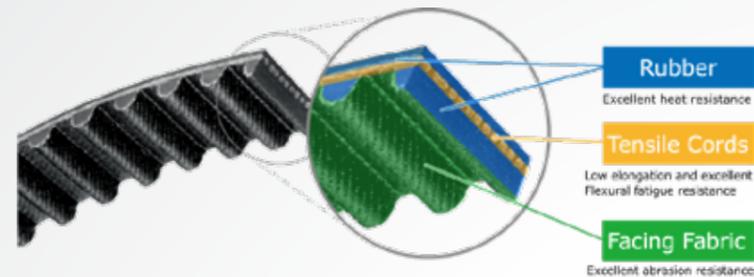


rcvs

- Variable speed transmission Belts
- Excellent deformation resistance and flexibility, allowing smooth speed changes.
- V-belt with cog shape on one side only.
- Our unique compounding technology allows us to offer a lineup of products for a variety of use environments.
- V-belt with cog shape on both sides.
- In addition to improved deformation resistance, the back cog shape ensures flexibility.

**AUTOMOTIVE**

**5 - OHC TIMING BELTS (MR / MY / S8M / XR / XY / ZA / ZB-S)**



Synchronous transmission belts with high transmission efficiency used in cam drives for automobile engines.

- It has excellent durability in the high-temperature environment characteristic of engine rooms and is quieter than gears and chains.

| TRAPEZOID   | STD        | HTD   |
|---|------------|---|
| <p>ZA (Pitch 9.525)</p> <p>ZA S (Pitch 9.525)</p> <p>ZB S (Pitch 9.525)</p> | <p>S8M</p> | <p>MY (Pitch 8.000)</p> <p>MR (Pitch 9.525)</p> <p>XY (Pitch 8.000)</p> <p>XR (Pitch 9.525)</p> |



**MITSUBOSHI BELTS:  
POWERING PROGRESS  
SINCE DAY ONE**

# INDUSTRY

## INDUSTRY

In the industrial sector, Mitsubishi Belts play a vital role in powering machinery and facilitating material handling processes. They offer a wide range of belts designed for industrial applications, ensuring efficient power transmission, durability, and reliability. Here are some types of Mitsubishi Belts used in the industry sector:

### V-BELTS OR POWER TRANSMISSION BELTS

Mitsubishi manufactures a variety of power transmission belts used in industrial machinery and equipment. These belts are designed to transmit power from the motor to the driven components, such as pulleys, gears, and sprockets.



### TIMING BELTS

Timing belts find applications in various industrial machinery, including manufacturing equipment, printing presses, and packaging machines. Mitsubishi Timing Belts are used for precise motion control, ensuring accurate timing and synchronization between rotating components.



Mitsubishi Belts in the industrial sector are known for their durability, efficiency, and compatibility with a wide range of machinery and equipment. They undergo strict quality control processes to ensure they meet the demanding requirements of industrial applications, providing reliable performance and minimizing downtime.



I - V BELT SERIES

INDUSTRY

1 - CLASSICAL V-BELTS - (K/M/A/B/C/D/E)

a. WRAPPED V- BELTS

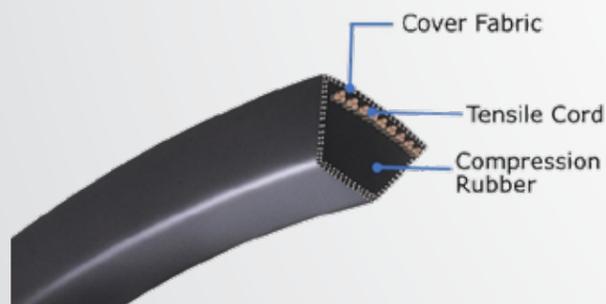


- It is a set-free belt that has low elongation and shrinkage over time during use and is suitable for multiple hanging.
- These belts are highly versatile and are available in abundance at dealers nationwide.

b. RED LABEL V-BELTS



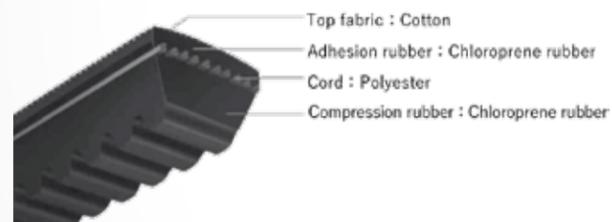
- The tensile cord is made of high-strength polyester rope with high stretch treatment. Suitable for high-horsepower transmission, it has excellent performance such as heat resistance, oil resistance, flame retardance, and antistatic.
- When maintenance is difficult, the Red Label V-belts offer superior durability even under harsh conditions.



c. TRIPLEX: (AX / BX / CX)



- TRIPLEX is basically a raw-edge cogged type and is the most typical form of power transmission belts.
- It is known for its reliability and is used in many fields of mechanical power transmission.



- Raw Edge V-belts have no fabric on the belt sides.
- The special rubber compound ensures, greater wear resistance than Wrapped V-belts.

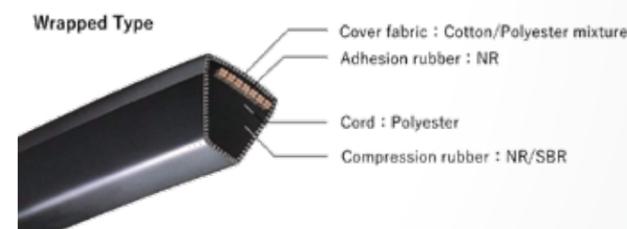
2 - NARROW V BELT SERIES: (SPZ / SPA / SPB/ SPC)



a. NARROW V-BELTS - ( SPZ / SPA / SPB/ SPC)

b. NARROW COGGED RAW EDGE BELTS - ( SPZX / SPAX / SPBX/ SPCX )

- These were developed to transmit higher torques in small assembly areas and enable a space-saving layout, high-speed drive and reduce operating and maintenance costs compared to classical V-belts.
- Features oil/heat resistance and electrical conductivity.



c. MAXSTAR SERIES:



This belt has a narrower upper width than the V-belt, which reduces the belt's own weight and equalizes the tension on the tensile cord, thereby increasing the wedge effect and enhancing grip.

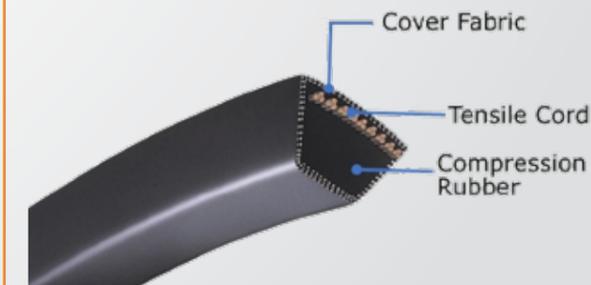
1. **WRAPPED type: MAXSTAR WEDGE V-belts (3V / 5V / 8V)**
2. **RAW-EDGE cogged type: MAXSTAR WEDGE SUPREME (3VX / 5VX)**
3. **HIGH POWER type: MAXSTAR POWER EP-X - ( SPZX / SPAX / SPBX / SPCX / 3VX / 5VX ) & SUPER WEDGE (5VK / 8VK)**

i. MAXSTAR WEDGE V-BELTS

- The upper width is narrower than that of the V-belt to reduce the belt's own weight and equalize the tension on the tensile cord, thereby increasing the wedge effect and enhancing grip.
- It also has excellent performance in terms of strength, durability, and antistatic

ii. MAXSTAR WEDGE SUPREME

- It has a cog shape and has excellent flexibility.
- Therefore, compared to the standard V-belt, there is less power loss due to bending, and there is an energy saving effect.



INDUSTRY

**MAXSTAR WEDGE PULLEY/MB BUSHING**

- For more effective use of the MAXSTAR WEDGE belts, we have adopted a bushing system and standardized the pulleys.
- It can be easily attached to and detached from the shaft with a single wrench.

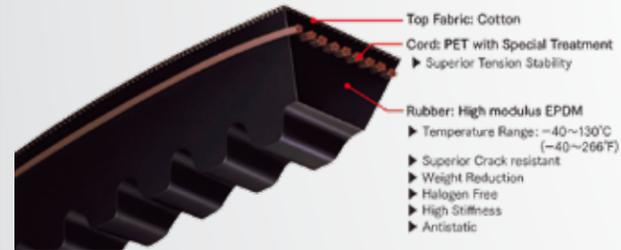


**FEATURES**

- Easy to install and remove from shaft
- No damage to shaft or shaft hole
- No shaft hole processing is required
- Easy centering of rotating body.

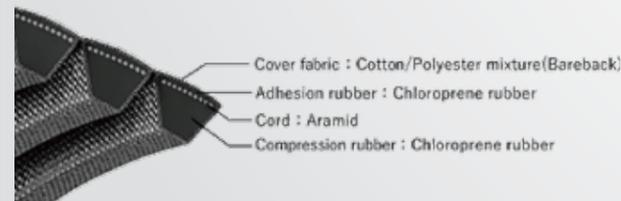
**iii. MAXSTAR POWER EP-X**

- MAXSTAR POWER EP-X is developed to reduce downtime of re-tensioning by tension stability improvement, and demonstrates its capability when used under high loads such as HVAC, compressor, construction equipment, and industrial pump.



**iv. SUPER WEDGE: ( 5VK / 8VK )**

- The SUPER WEDGE is one of our development for heavy-duty applications where high torques have to be transmitted and shock loads can occur easily. By using a special chloroprene rubber mixture together with an aramid cord and a special cover fabric we succeeded to develop the strongest belt for applications like Crushers and Shredders.



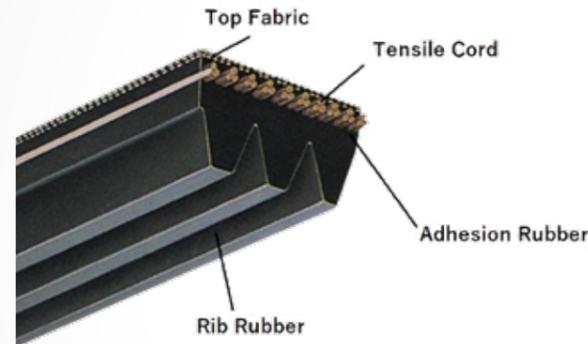
INDUSTRY

**3 - MULTIRIB V-BELTS**

**i. RIBSTAR BELTS G TYPE ( J / PK / L )**



The RIBSTAR Belts is a high-performance belt designed by combining the features of the high transmission of the V-belts and the flexibility of the flat belt. High-speed, high- load transmission with less vibration and noise is possible. It is also possible to make the entire system lighter, more compact, and more energy-efficient.

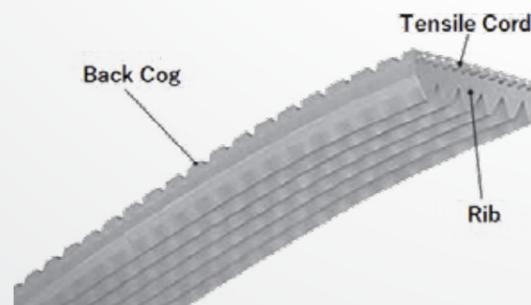


**ii. RIBSTAR Belts U TYPE ( JT / JBT / HB )**



It is designed to take advantage of each of the V-belts with high transmission efficiency and the flat belt with good flexibility.

The main material, polyurethane, has excellent wear resistance and oil resistance.



**4 - FLEXSTAR BELTS**

**FL / FM / FH**

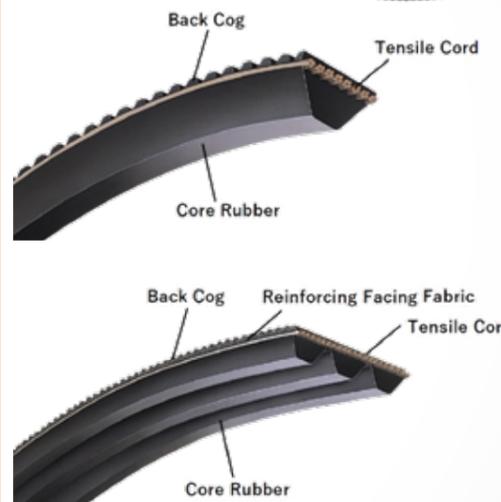


It is a flexstar belt that can be compactly designed because the belt is thin, has excellent flexibility, and can be used with small diameter pulleys. In addition, the uniform thickness of the belt reduces vibration and allows transmission at high speeds.

**5 - POLYMAX & MULTI - POLYMAX BELTS ( 3M / 5M / 7M / 11M )**

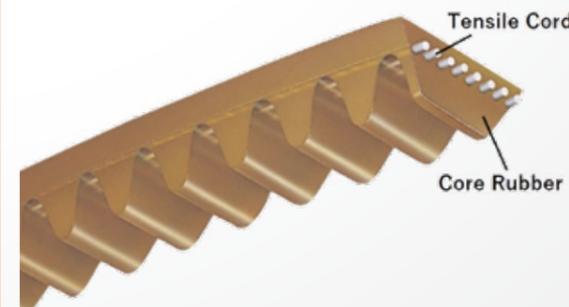


By setting the belt angle to a high angle of 60°system, the vertical pressure between the belt and the side wall surface of the pulley is kept small. This results in less deformation of the belt, more uniform force on the tensile cord, and less friction for both the belt and pulley.



| No. of Ribs | 2   |      |      | 3    |      |      |
|-------------|-----|------|------|------|------|------|
| Belt Type   | 5M  | 7M   | 11M  | 5M   | 7M   | 11M  |
| W           | 9.8 | 15.6 | 24.4 | 15.1 | 24.1 | 37.6 |
| H           | 3.4 | 5.3  | 7.0  | 3.4  | 5.3  | 7.0  |
| P           | 5.3 | 8.5  | 13.2 | 5.3  | 8.5  | 13.2 |
| Dimensions  |     |      |      |      |      |      |

**6 - MB BELTS**



- A small V-belt with a beautiful appearance for light load transmission.

**7 - STAR ROPE / SUPER STAR ROPE / PLAIN V-ROPE / PLAIN HEXAGONAL-ROPE**

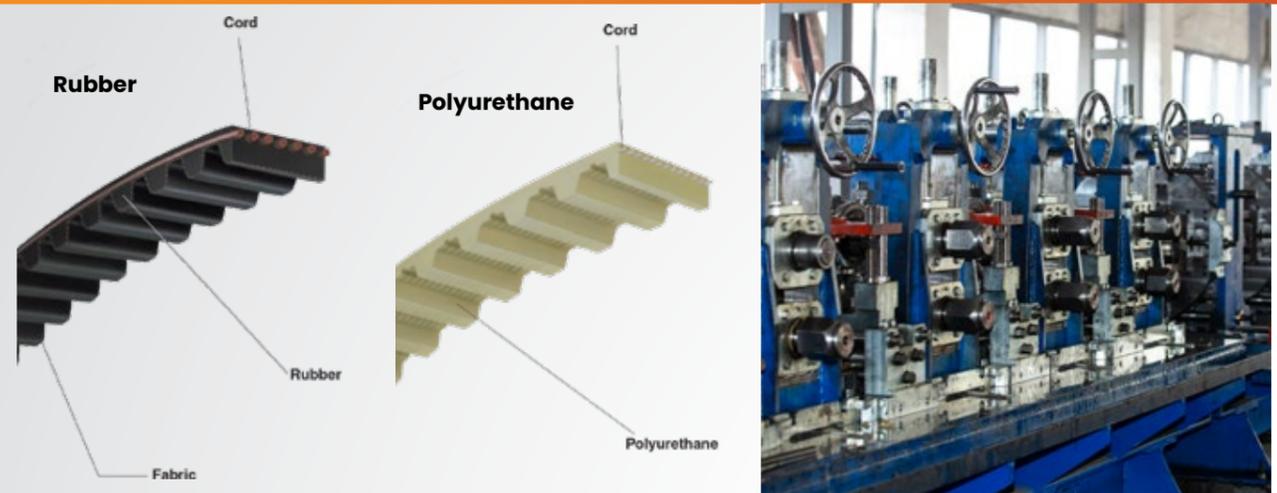


- Consisting only of polyurethane, simple heat welding allows you to get the belt of the required length when you need it.
- It also complies with the Food Sanitation Law.

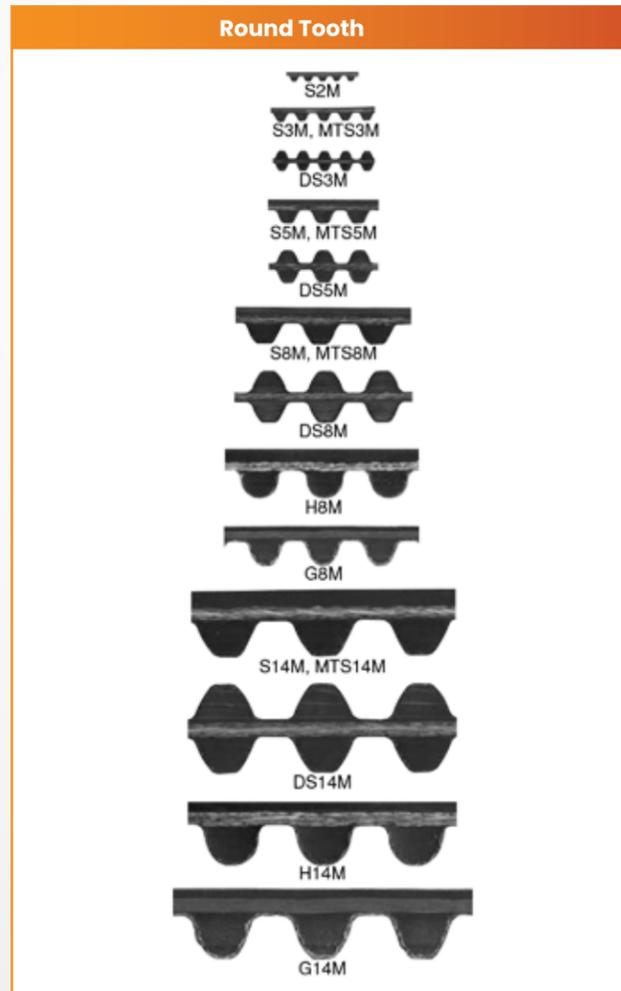
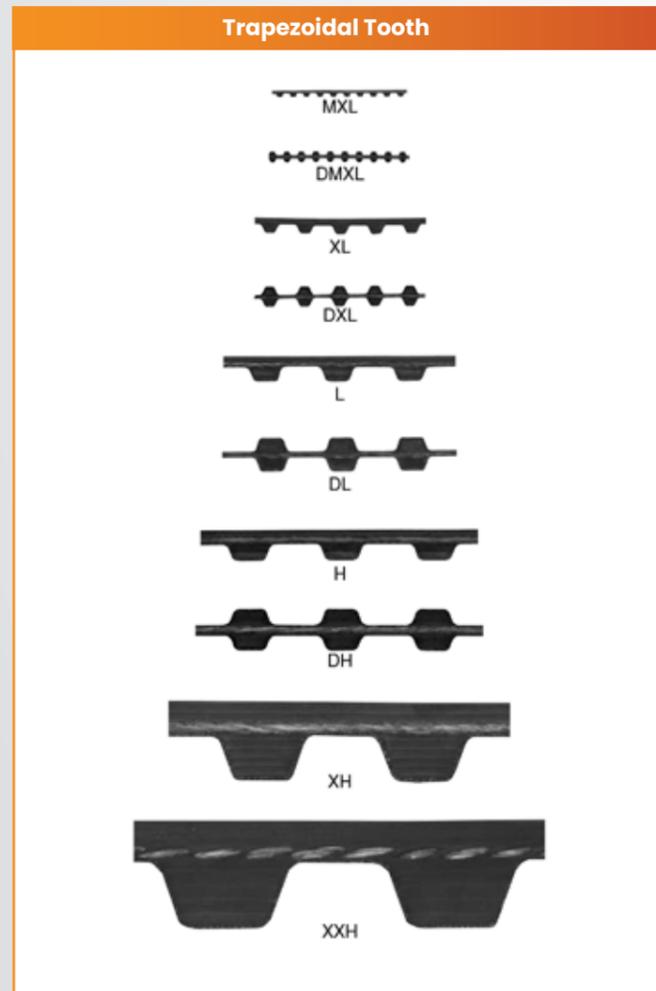
II - TIMING BELT SERIES

INDUSTRY

TYPES OF INDUSTRIAL BELTS



TYPES OF PROFILE UNDER TIMING BELTS



INDUSTRY

SPECIFICATION LINE-UP OF RUBBER TIMING BELT

CONCEPT



I - ROUND TOOTH TIMING BELTS

1 - H SERIES TIMING BELTS (H5M / H8M / H14M)



This round tooth belt enables distribution of load stress uniformly over the entire belt tooth. Since the belt tooth engages with the pulley groove without any interference, stress concentration at the root of the belt tooth can be eliminated. This belt can be used as an alternative for chains and gears.

2 - SUPER TORQUE TIMING BELTS (S2 / S3 / S5 / S8 / S14)



A wide variety of tooth profiles and sizes are available, making these products highly versatile and readily available.

Small pitch belts are used for applications requiring high precision and smooth rotation such as office automation equipment, while large pitch belts provide high transmission and can be used in a wide range of applications such as chains and gears.

3 - MEGA TORQUE TIMING BELTS (MT G / EP / G2)



The MEGA TORQUE G series is the most suitable series for high load transmission due to its high transmission capacity and jumping torque

Constituent Materials

|                      | MEGA TORQUE G      |       |                                |          | MEGA TORQUE G II               | MEGA TORQUE G IIP | MEGA TORQUE G III                    |        |
|----------------------|--------------------|-------|--------------------------------|----------|--------------------------------|-------------------|--------------------------------------|--------|
| Belt Type            | MTS3M              | MTS5M | MTS8M                          | MTS14M   | MTS8M                          | MTS14M            | MTS8M                                | MTS14M |
| Rubber               | Chloroprene        |       | High Hardness Synthetic Rubber |          | High Hardness Synthetic Rubber |                   | Super High Hardness Synthetic Rubber |        |
| Tensile Cord         | Glass Fibre        |       |                                |          | Carbon                         |                   | Carbon                               |        |
| Fabric               | Nylon (* Bareback) |       | Nylon                          |          | Nylon /Aramid                  | Nylon /Teflon     | Nylon/Teflon                         |        |
| Pulley Tooth Profile | Standard           |       | Special                        | Standard | Special                        |                   | Special                              |        |

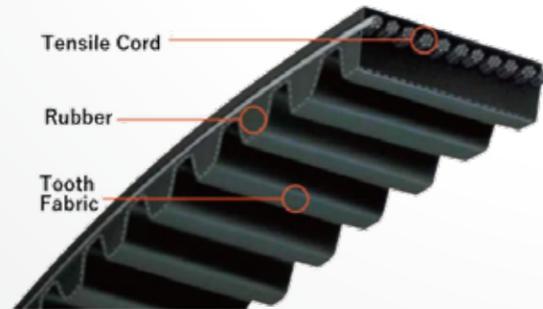
\*Bareback : Clean specifications with minimal rubber splattering.

4 - GIGA TORQUE (GX)



Construction Material

| Tooth Profile        | G8M                                  | G14M |
|----------------------|--------------------------------------|------|
| Rubber               | Super high hardness synthetic rubber |      |
| Tensile Cord         | Carbon                               |      |
| Tooth Fabric         | Nylon/Fluorine fiber                 |      |
| Pulley Tooth Profile | Special pulley profile               |      |



Highly rigid and flexible carbon fiber is used for the tensile cords to pursue strength and flexibility. Since the belt width can be made even more compact, the performance of machinery and equipment can be improved due to space-saving, lightweight, and compact driven.

II - TRAPEZOIDAL TOOTH TIMING BELTS

1 - TIMING BELT TYPE G & TYPE U - (MXL / XL / L / H / XH / XXH)



BARE BACK SPECIFICATION

These belts have a bareback specification that suppresses dust emissions as standard.

STANDARD SPECIFICATION

This belt conforms to ISO and JIS standards. It has excellent versatility and availability.

A wide variety of tooth profiles and sizes are available, making these products highly versatile and readily available.

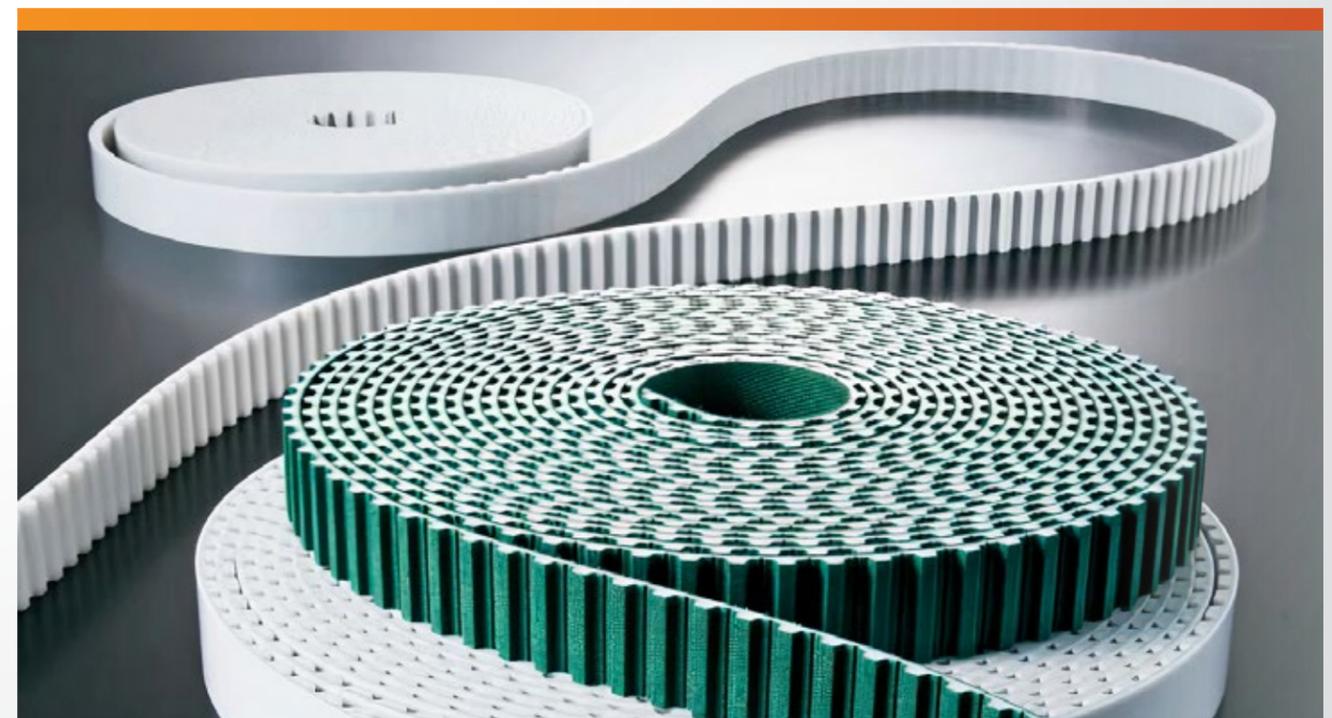
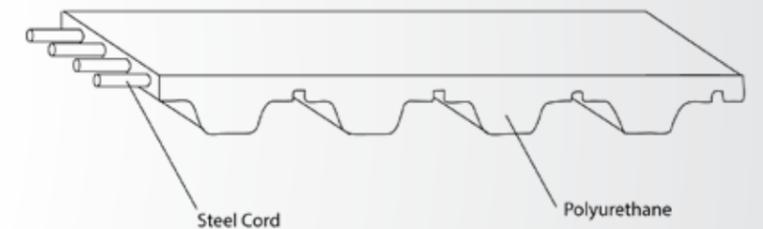
FOR CLEAN SPECIFICATION

Urethane timing belt that can be used for clean purposes with less rubber powder scattering.

It also has excellent oil resistance.

2 - FREESPAN

The FREESPAN Belt is a polyurethane timing belt which consists of thermoplastic polyurethane and steel cords. This belt type is suitable for synchronous transportation and power transmission which requires an accurate positioning, such as automatic door systems of elevators or industrial robots.



# AGRICULTURAL



## AGRICULTURAL

In the agricultural and farming sector, Mitsubishi Belts are used in a variety of applications to support the operations and machinery used in agricultural practices. These belts are designed to withstand the demanding conditions encountered in farming environments. Here are some types of Mitsubishi Belts used in the agricultural and farming sector:

- **COMBINE HARVESTER BELTS**
- **TRACTOR BELTS**
- **HAY BALER BELTS**
- **FARM MACHINERY BELTS**
- **SPECIALITY BELTS**

Mitsubishi Belts in the agricultural and farming sector are built to withstand the challenging conditions encountered in agricultural operations. They are designed to deliver reliable power transmission, minimize downtime, and contribute to the efficient and productive functioning of farming machinery.



### 1 - WRAPPED V-BELTS

#### i. ORANGE LABEL



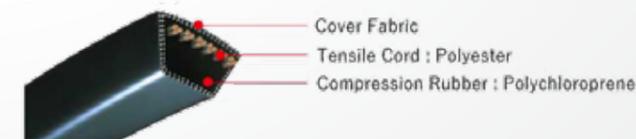
- Compared to general industrial belts, this thin belt is designed to withstand severe conditions of use, such as high impacts, small pulley diameter, bending in the opposite direction, and use under high temperatures.
- Heat resistance, bending resistance, and crack resistance are also superior to those of general industrial belts.

#### ii. SUPER AG-X

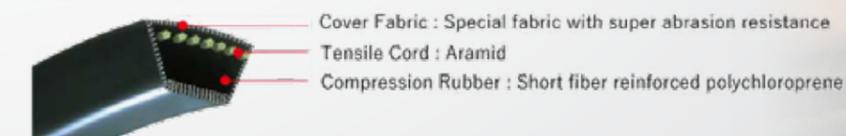


- Using a special fabric, it has excellent wear resistance.
- High elasticity / short fiber reinforced rubber gives this belt high impact resistance.
- It has high durability to withstand use in large agricultural machinery and other heavy load areas, and is the best of belts for agricultural machinery.

#### i. Structure



#### ii. Structure



AGRICULTURAL

2 - RAW EDGE V-BELTS

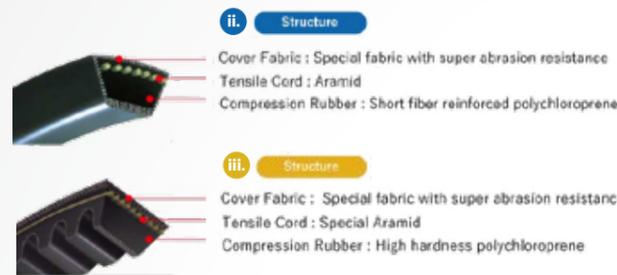
i. ORANGE LABEL COGGED V-BELTS

- The cog type has low heat generation and excellent heat and crack resistance.
- Because of the raw-edge specification without fabric on the side, the grip power is large and high horsepower can be transmitted.
- Compared to general V-belts, it is thinner and has excellent bending resistance.



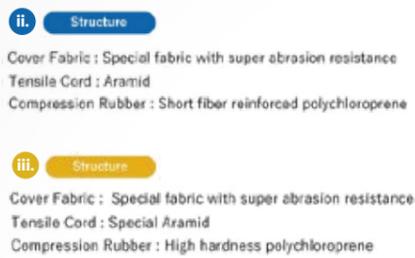
ii. SUPER AG-COG 4

- Compared to Orange Label Cogged V-belts and Super AG Cog 4, it has excellent flexibility and durability.
- By using high hardness chloroprene rubber, wear resistance is further improved compared to Super AG Cog 4.
- By using a special aramid tensile cord, it has excellent impact resistance.



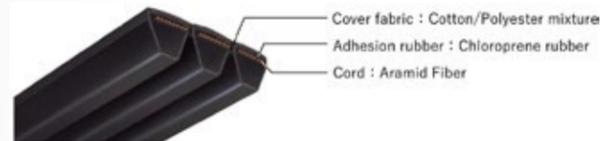
iii. SUPER AG-COG 20

- Compared to Orange Label Cogged V-belts, this belt has even higher heat resistance and crack resistance.
- It is designed to withstand use in the driving parts of all agricultural machinery.



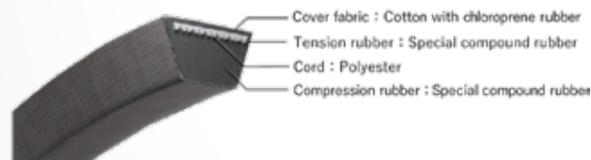
3 - MAXSTAR POWER GREEN

- Designed for Large Agricultural Machine.
- It has properties required for agricultural machinery such as impact, bending, reverse bend and heat resistance.



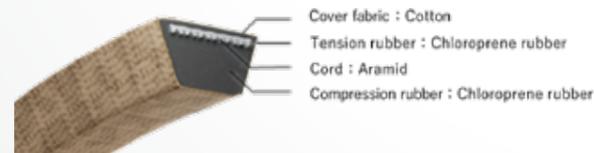
4 - FHP V-BELTS

- Designed for light duty, fractional horsepower drives.
- Capable of handling drives with backside idler.
- External wrapping provides a smooth and quiet operation with minimum vibration.



5 - SUPER KB

- The SUPER KB is mainly used for light duty applications, but has more resistance to heavy shock loads than FHP belts.
- The special outer covering is suitable for backside idler usage.
- This belts has high resistance to heat, high humidity, oil, and cracking.

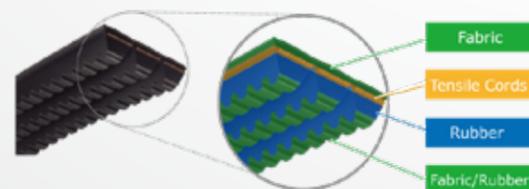


6 - BANDED RAW EDGE V-BELTS (2R / 3R)

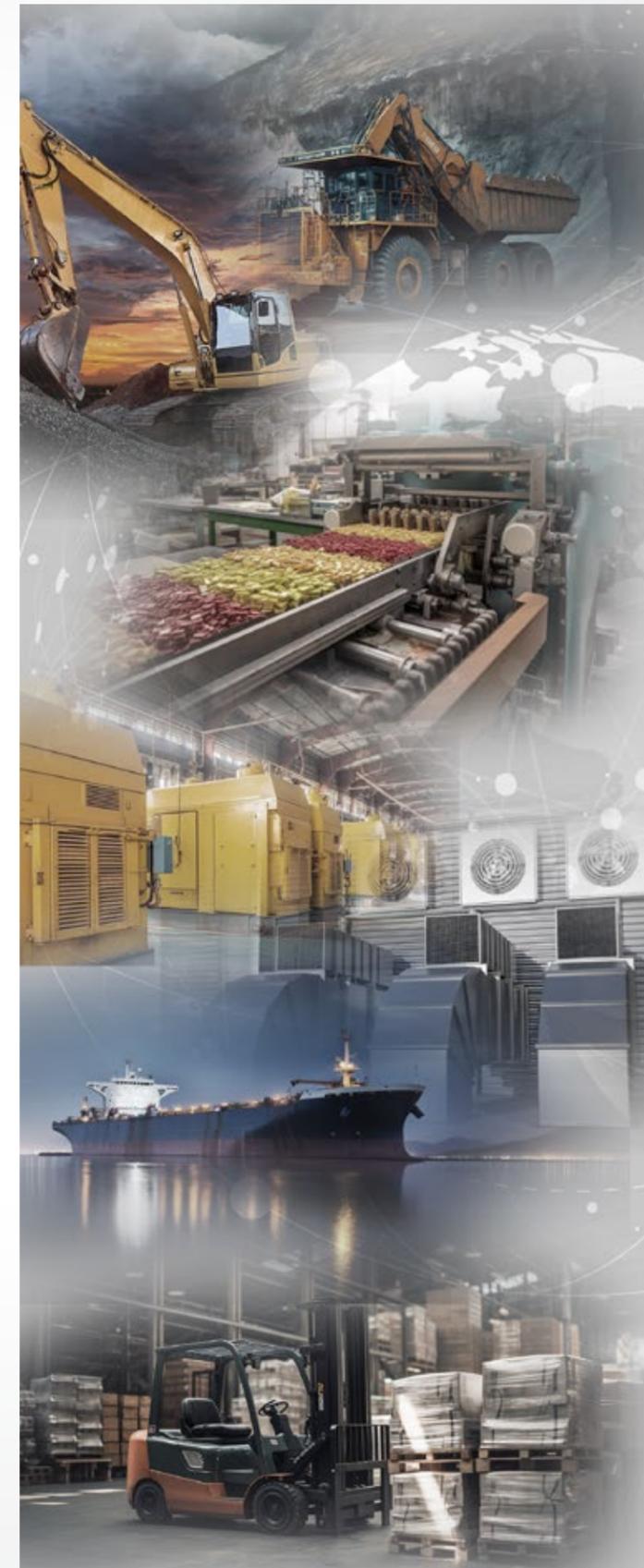


Mainly used in high-load engines for trucks and buses.

- Multiple multi-ply belts or cog belts are joined together.
- Compared to multi-stripping, vibration, loss of tension, and overturning of the belt are suppressed, and its service life is improved.



APART FROM AUTOMOTIVE / INDUSTRIAL & AGRICULTURAL – BELOW IS A BRIEF OVERVIEW OF MITSUBOSHI BELTS APPLICANTS IN OTHER SECTOR:



**CONSTRUCTION AND MINING:** Mitsubishi Belts are used in conveyor systems, crushing and screening equipment, excavators, bulldozers, and other mining machinery. These belts are designed to withstand heavy loads, resist abrasion, and ensure efficient power transmission in rugged conditions.

**POWER GENERATION:** In power generation plants, Mitsubishi Belts are utilized in generators, turbines, fans, and pumps. They offer belts capable of transmitting high power efficiently and reliably, contributing to the smooth operation of thermal, hydroelectric, and wind power plants.

**HVAC AND REFRIGERATION:** Belts play a vital role in HVAC and refrigeration systems by driving compressors, blowers, and fans. Mitsubishi Belts are used in these applications to ensure reliable power transmission, efficient operation, and climate control.

**FOOD PROCESSING:** Mitsubishi Belts are employed in the food processing industry for conveying, sorting, and packaging applications. They provide belts with food-grade materials and designs, ensuring compliance with safety and hygiene standards.

**LOGISTICS AND MATERIAL HANDLING:** In the logistics and material handling sector, Mitsubishi Belts are used in conveyor systems, warehouses, distribution centers, and airports. These belts facilitate the efficient and reliable transportation of goods, contributing to streamlined logistics operations.

**MARINE AND OFFSHORE:** Mitsubishi Belts find applications in marine and offshore sectors, including propulsion systems, auxiliary machinery, and cargo handling equipment. They offer belts that are resistant to water, salt, and extreme weather conditions, ensuring reliable power transmission and operation.

In each of these sectors, Mitsubishi Belts are designed and manufactured to meet the specific demands and challenges of the respective sectors. They undergo stringent quality control measures to ensure durability, reliability, and optimal performance.



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