V623-C

MITSUBOSHI

New lineup for MEGA TORQUE series

PRIMESTARS

MegaTorque

High-Accuracy Positioning Timing Belt

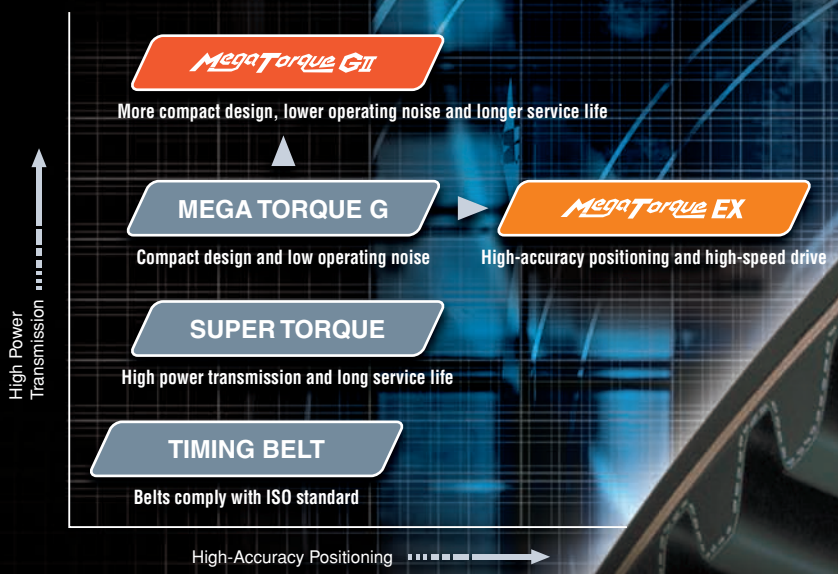
NEW MegaTorque EX

High Torque Timing Belt

NEW MegaTorque GII

MITSUBOSHI

CONCEPT



Newly-Evolved MEGA TORQUE!!!

MegaTorque EX / GII

MegaTorque EX

- To improve positioning accuracy
- Utilization with quick acceleration, slowdown and high-speed drive
- To improve efficiency of system by increasing the weight of conveying goods
- To reduce the cost of using ball screws and linear motors

Application ● Semiconductors / LC manufacturing facilities ● Industrial robots ● Actuators etc.

MegaTorque GII

- To narrow the width of belts and pulleys
- To reduce the operating noise
- To reduce the frequency of maintenance

Application ● Injection molding machines ● Machine tools ● Press machines etc.

Product lineup

Belt type	SUPER TORQUE	MEGA TORQUE G	MegaTorque EX	MegaTorque GII
(MT)S3M	○		○	
(MT)S5M	○	○	○	
(MT)S8M	○	○		○
(MT)S14M	○	○		○

MegaTorque EX

High Jumping Torque

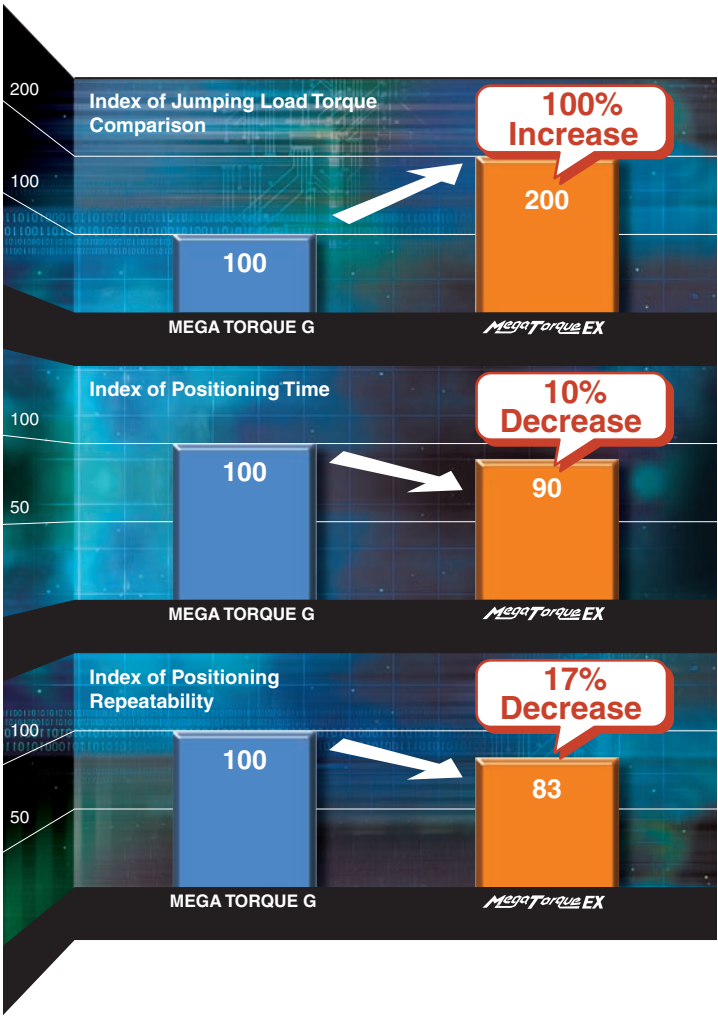
Adopting an ultrahigh-modulus special cord, it has a high jumping torque and prevents tooth jumping at quick acceleration and slowdown.

High-damping Property

Adopting an ultrahigh-modulus special cord, it has a high-damping torque and reduces the convergence time of belt vibration. Thus, also reducing positioning time.

High Positioning Repeatability

With its small belt elongation and use of an anti backlash special pulley, positioning accuracy and positioning repeatability are significantly improved.
※A dedicated pulley required.



THE BEST APPLICATION AND EFFECTS

Linear drive application

Speed-up of conveyance
Increase in conveyance amount

Speed-up of system

Stoppage at a specific target position

Time reduction for positioning

Robot arm

Reduction of robot arm vibration

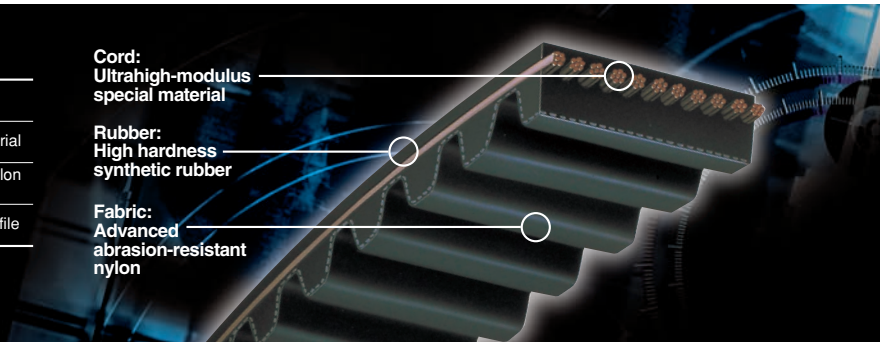
Speed-up of system

Stoppage at a specific target position

Time reduction for arm stoppage

Construction Material

Rubber	High hardness synthetic rubber
Cord	Ultrahigh-modulus special material
Fabric	Advanced abrasion-resistant nylon fabric
Pulley tooth profile	Anti backlash special pulley profile



High Power Transmission Capacity

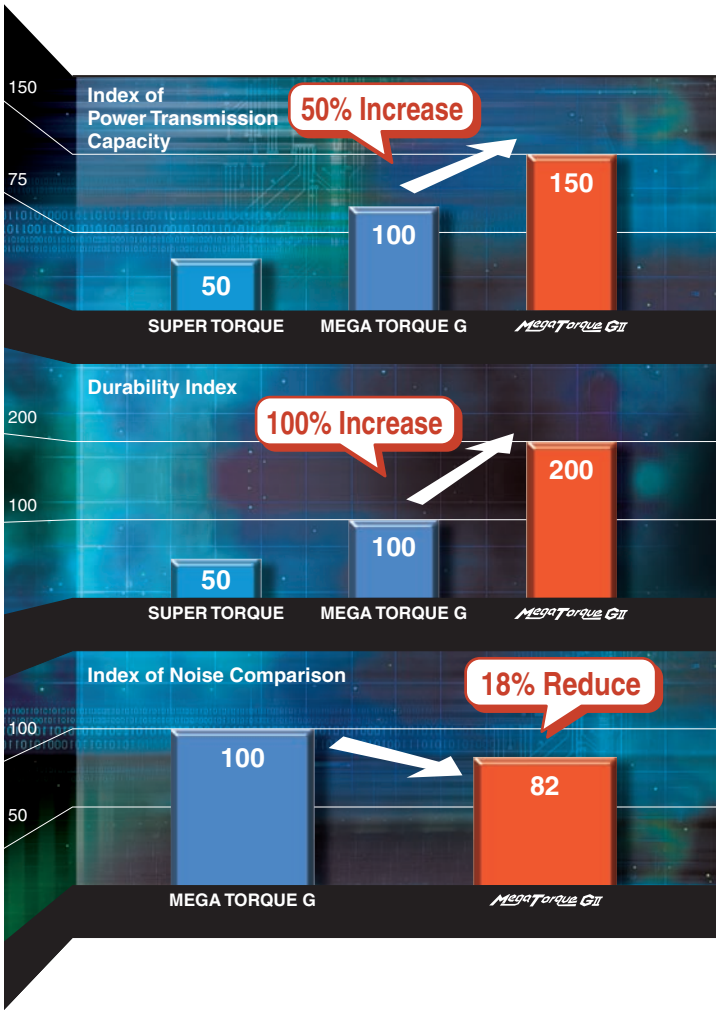
New material for cord reduces belt elongation, thus allowing high-load transmission. Since the power transmission capacity increases 50% compared to MEGA TORQUE G, it allows a compact design.

Long Service Life

By using abrasion resistant and low friction processed fabric, durability under high-load condition has been improved. Therefore, use of MegaTorque GII, which has twice as much durability as MEGA TORQUE G, reduces the replacement frequency.

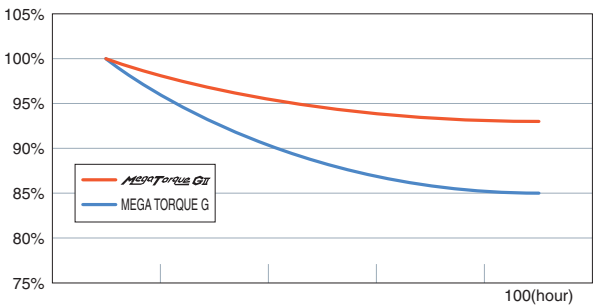
Low Operating Noise

It reduces the operating noise about 18% when tested under the same condition by narrowing the belt width, using a special pulley and increasing the power transmission capacity.
※A dedicated pulley required.

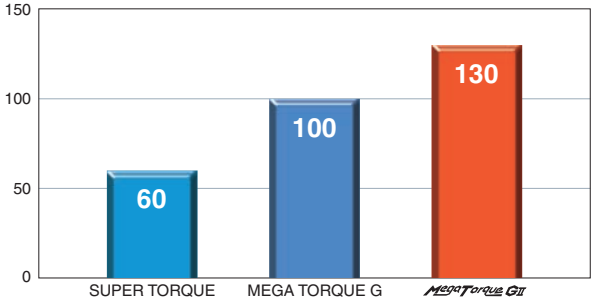


DATA

Index of Decrease of Tension

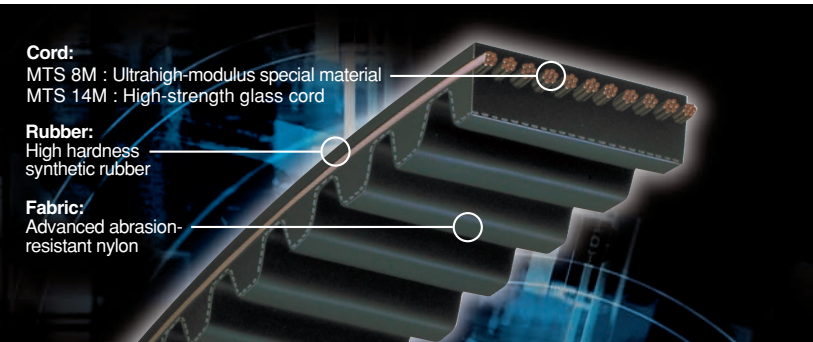


Index of Jumping Torque



Construction Material

Rubber	High hardness synthetic rubber	
Cord	MTS8M	Ultrahigh-modulus special material
	MTS14M	High-strength glass cord
Fabric	Advanced abrasion-resistant nylon fabric	
Pulley tooth profile	Special pulley profile	



MegaTorque EX

Product code

150 MTS5M 500 EX

150	MTS5M	500	EX
Nominal width (15mm)	Belt type	Nominal length (500mm)	EX Spec.

Pulley code

EX 24 MTS5M 0250 -A

EX	24	MTS5M	0250	-A
EX Spec.	Number of teeth	Belt type	Nominal pulley width	Pulley type

* Pulley is customized (order-made).

MTS3M (3mm pitch)

Product code	Number of teeth	Product code	Number of teeth
MTS3M 240	80	MTS3M 510	170
MTS3M 270	90	MTS3M 540	180
MTS3M 300	100	MTS3M 570	190
MTS3M 330	110	MTS3M 600	200
MTS3M 360	120	MTS3M 660	220
MTS3M 390	130	MTS3M 720	240
MTS3M 420	140	MTS3M 780	260
MTS3M 450	150	MTS3M 1035	345
MTS3M 480	160	MTS3M 1521	507

MTS5M (5mm pitch)

Product code	Number of teeth	Product code	Number of teeth
MTS5M 300	60	MTS5M 650	130
MTS5M 325	65	MTS5M 690	138
MTS5M 350	70	MTS5M 700	140
MTS5M 400	80	MTS5M 750	150
MTS5M 435	87	MTS5M 800	160
MTS5M 450	90	MTS5M 850	170
MTS5M 500	100	MTS5M 900	180
MTS5M 525	105	MTS5M 950	190
MTS5M 550	110	MTS5M 1000	200
MTS5M 575	115	MTS5M 1780	356
MTS5M 600	120	MTS5M 3835	767

MegaTorque GII

Product code

600 MTS8M 1000 G2

600	MTS8M	1000	G2
Nominal width (60mm)	Belt type	Nominal length (1000mm)	G2 Spec.

Pulley code

G2 24 MTS8M 0600 -A

G2	24	MTS8M	0600	-A
G2 Spec.	Number of teeth	Belt type	Nominal pulley width	Pulley type

* Pulley is customized (order-made).

MTS8M (8mm pitch)

Product code	Number of teeth	Product code	Number of teeth
MTS8M 632	79	MTS8M 1640	205
MTS8M 720	90	MTS8M 1648	206
MTS8M 800	100	MTS8M 1680	210
MTS8M 848	106	MTS8M 1696	212
MTS8M 896	112	MTS8M 1728	216
MTS8M 912	114	MTS8M 1760	220
MTS8M 920	115	MTS8M 1776	222
MTS8M 944	118	MTS8M 1800	225
MTS8M 952	119	MTS8M 1816	227
MTS8M 984	123	MTS8M 1832	229
MTS8M 1000	125	MTS8M 1880	235
MTS8M 1056	132	MTS8M 1912	239
MTS8M 1080	135	MTS8M 1960	245
MTS8M 1120	140	MTS8M 2000	250
MTS8M 1128	141	MTS8M 2040	255
MTS8M 1136	142	MTS8M 2048	256
MTS8M 1160	145	MTS8M 2064	258
MTS8M 1184	148	MTS8M 2104	263
MTS8M 1200	150	MTS8M 2120	265
MTS8M 1216	152	MTS8M 2160	270
MTS8M 1224	153	MTS8M 2240	280
MTS8M 1248	156	MTS8M 2272	284
MTS8M 1256	157	MTS8M 2304	288
MTS8M 1280	160	MTS8M 2376	297
MTS8M 1296	162	MTS8M 2400	300
MTS8M 1304	163	MTS8M 2496	312
MTS8M 1320	165	MTS8M 2600	325
MTS8M 1360	170	MTS8M 2800	350
MTS8M 1384	173	MTS8M 2920	365
MTS8M 1400	175	MTS8M 2944	368
MTS8M 1424	178	MTS8M 3048	381
MTS8M 1440	180	MTS8M 3200	400
MTS8M 1480	185	MTS8M 3272	409
MTS8M 1488	186	MTS8M 3440	430
MTS8M 1520	190	MTS8M 3680	460
MTS8M 1552	194	MTS8M 3904	488
MTS8M 1600	200	MTS8M 4400	550

MTS14M (14mm pitch)

Product code	Number of teeth	Product code	Number of teeth
MTS14M 1008	72	MTS14M 2100	150
MTS14M 1120	80	MTS14M 2198	157
MTS14M 1190	85	MTS14M 2240	160
MTS14M 1246	89	MTS14M 2310	165
MTS14M 1288	92	MTS14M 2380	170
MTS14M 1400	100	MTS14M 2450	175
MTS14M 1470	105	MTS14M 2506	179
MTS14M 1540	110	MTS14M 2590	185
MTS14M 1610	115	MTS14M 2660	190
MTS14M 1652	118	MTS14M 2800	200
MTS14M 1708	122	MTS14M 3150	225
MTS14M 1750	125	MTS14M 3500	250
MTS14M 1778	127	MTS14M 3556	254
MTS14M 1806	129	MTS14M 3850	275
MTS14M 1890	135	MTS14M 4004	286
MTS14M 1932	138	MTS14M 4508	322
MTS14M 2002	143	MTS14M 5012	358

※ MegaTorque EX and MegaTorque GII require a dedicated pulley NOT compatible with other pulley designs.

※When making a belt selection, contact our company.

MITSUBOSHI BELTING LTD.

Safety Precautions

Please read all the warnings!

- **Please take all necessary precautions when using our products. Also, please review relevant product catalog and design documents, etc.**

Use

⚠ Danger

- If you expect that a belt will fail and idle, free-run, or stop the system, thus causing a fatal or severe accident, please provide an extra safety device.
- Do not use a belt as a lifting or towing tool.

⚠ Warning

- If you expect that static electricity will come from the power transmission belt system, thus causing fire or malfunction of the controller, set a neutralization apparatus in the system.

⚠ Caution

- Do not use a belt as an insulator. Contact us for information on insulation properties, which vary in belt type.
- For a belt that touches food directly, use one that complies with the applicable food hygiene law of your country
- Do not modify a belt, or its quality and performance could deteriorate.

Function & Performance

⚠ Caution

- Do not use a belt beyond its capacity or for an application other than that specified by the catalog, design documents, etc. This can cause premature failure of the belt.
- If water, oil, chemical, paint, dust, etc. sticks to a belt or pulley, its power transmission could deteriorate and the belt may fail.
- A synchronous (toothed) belt makes louder noise during high-speed rotation. If this occurs, use a soundproof cover.

Storage & Transportation

⚠ Warning

- To store a heavy belt, use a suitable jig or stopper to prevent accidents such as belt toppling or tumbling.

⚠ Caution

- Use suitable equipment to carry/handle a heavy belt or pulley. Otherwise, back injury may result.
- Do not put weight on or bend a belt forcibly to carry or store it. Otherwise, it will produce defects or scratches to the belt, resulting in damage.
- Store the belt in low humidity and a temperature range of -10°C to 40°C. Do not expose belts to direct sunlight.

Mounting & Operation

⚠ Danger

- Install a safety cover over rotating components including belt and pulley. Otherwise, hair, gloves and clothing can become entangled in the belt or pulley. If a belt or pulley breaks, fragments may cause injuries.
- Take the following precautions to maintain, inspect and replace a belt.
  1)Turn off power and wait until the belt and pulley have stopped completely.
  2)Secure machinery so that it may not move during belt removal.
  3)Use caution : Do not unintentionally turn on power.

⚠ Caution

- Use the same type of belts or pulleys per OEM specification. Use of a different type may cause premature failure.
- Misalignment of the pulleys can damage the belt and result in flange failure. Make proper adjustments to system.
- Loosen the belt tension when changing belts. Do not force or stretch a belt over the flange. Do not use a screw driver or other sharp objects into when replacing the belt as this will result in damage.
- Apply the appropriate belt tension as specified by the relevant catalog and design documents, etc. Inappropriate tension could result in damage of the belt and shaft.
- Take the following precautions to modify the pulley in use:
  1) Remove burrs and maintain proper pulley angle; 2)Secure accurate dimensions after modification;
  3) Maintain the pulley strength after modification.
- Before assembling the flange with the pulley, check for foreign materials between the pulley and flange. Fasten the flange with a caulking tool and so on. Inappropriate installation could result in the flange coming off.

Handling of Used items

⚠ Caution

- Do not burn belt, or hazardous gas could be produced.