

SKF TKBT 10



Table of contents

Safety precautions 3

EU Declaration of Conformity 4

UK Declaration of Conformity 4

1. Belt tension measurement overview 5

2. Principle of operation 6

3. Case content 6

4. Pre-measurement 6

5. Measurement7

 5.1 Key pad explanation:7

 5.2 Device screen explanation 8

 5.3 Menu explanation..... 9

 5.4 Steps for measurement 11

 5.5 Calculation of belt span length, belt weight and belt tension force..... 12

6. Technical specifications..... 13

7. Weights and tension values..... 14



READ THIS FIRST Safety precautions

To ensure safe and proper use of the SKF TKBT 10 Belt tension meter please follow these safety guidelines:

- **Read the manual:**
Always read and understand the full user manual before operating the device.
- **Qualified personnel only:**
The device should only be used and serviced by trained and authorized personnel.
- **Use as intended:**
Operate the TKBT 10 only as described in the manual. Misuse may result in injury or damage.
- **Avoid explosive environments:**
Do not use the device in areas with a risk of explosion.
- **Protect your eyes:**
The optical sensor emits a low-power beam. Never look directly into the sensor or point it at other's eyes.
- **Avoid extreme conditions:**
Do not expose the device to excessive heat, cold, moisture, or direct sunlight.
- **Handle with care:**
Avoid dropping or subjecting the device to strong impacts or vibrations.
- **Keep dry:**
Do not use the device with wet hands or in wet environments.
- **No unauthorized modifications:**
Do not open or modify the device. Repairs should only be performed by SKF-authorized service personnel.
- **Use approved accessories:**
Only use accessories and components recommended by SKF.

- **Battery safety:**
Use only the specified battery type. Replace batteries in a safe, dry environment.
This device comes with alkaline batteries.
- **To ensure safe and environmentally responsible disposal and replacement:**
 - Do not dispose of batteries in household - general waste.
 - Use designated battery collection points or recycling bins.
 - Do not attempt to recharge, dismantle, or incinerate alkaline batteries.
 - Remove batteries from the device if it will not be used for an extended period.
 - Use only the specified battery type. Replace batteries in a safe, dry environment.
 - Proper disposal helps prevent environmental harm and supports material recovery.
- **Calibration:** It is recommended to calibrate the device regularly or as specified in your quality procedures.
- **Secure the machine:**
Always ensure the machine is turned off and locked out before performing any measurements.
- **Personal protective equipment:**
Wear appropriate PPE such as safety glasses, safety shoes and gloves when working around machinery.

WARNING!:

- Failure to follow these recommendations may result in personal injury, equipment damage, or voiding of the warranty.

EU Declaration of Conformity TKBT 10

We, SKF MPT, Meidoornkade 14,
3992 AE Houten, The Netherlands herewith
declare under our sole responsibility that the
products described in these instructions for
use, are in accordance with the conditions of
the following legislations:
EMC DIRECTIVE 2014/30/EU
RoHS DIRECTIVE (EU) 2011/65/EU as amended
by 2015/863/EU and are in conformity with the
following standards:

- IEC 62321: 2013/2015/2017 –
Determination of certain substances in
electrotechnical products
EN 61000-6-3: 2007+A1: 2011 -
Electromagnetic compatibility (EMC) - Part
6-3: Generic standards - Emission standard
for residential, commercial and light-
industrial environments
EN 61000-6-1: 2007 -
Electromagnetic compatibility (EMC) -
Part 6-1: Generic standards - Immunity for
residential, commercial and light-industrial
environments

Houten, The Netherlands, December 2025



Jérôme Verrier
Manager Quality and Compliance



UK Declaration of Conformity TKBT 10

We, SKF MPT, Meidoornkade 14,
3992 AE Houten, The Netherlands herewith
declare under our sole responsibility that the
products described in these instructions for
use, are in accordance with the conditions of
the following legislations:
Electromagnetic Compatibility Regulations
2016 (2016 No. 1091)
The Restriction of the Use of Certain Hazardous
Substances in Electrical and Electronic
Equipment Regulations 2012
(2012 No. 3032) and are in conformity with the
following standards:

- IEC 62321: 2013/2015/2017 –
Determination of certain substances in
electrotechnical products
EN 61000-6-3: 2007+A1: 2011 -
Electromagnetic compatibility (EMC) - Part
6-3: Generic standards - Emission standard
for residential, commercial and light-
industrial environments
EN 61000-6-1: 2007 -
Electromagnetic compatibility (EMC) -
Part 6-1: Generic standards - Immunity for
residential, commercial and light-industrial
environments

The person authorised to compile the technical
documentation on behalf of the manufacturer
is SKF (U.K.) Limited, 2 Canada Close, Banbury,
Oxfordshire, OX16 2RT, GBR.

Houten, The Netherlands, December 2025



Jérôme Verrier
Manager Quality and Compliance

**UK
CA**

1. Belt tension measurement overview

Belt tension adjustment refers to the process of setting the correct tension of industrial power transmission belts to ensure optimal performance. This involves applying the right amount of force to the belt so that it maintains proper contact with pulleys without slipping or being overly tight. The goal is to achieve a balance where the belt can efficiently transmit power while minimizing wear and energy loss.

Proper belt tensioning is essential for maintaining system efficiency, reducing energy consumption, and extending the lifespan of both the belt and associated components. Correct tension ensures smooth power transmission, prevents slippage, and reduces vibration and noise. It also minimizes the risk of premature belt failure, which can lead to costly downtime and maintenance.

Incorrect belt tension—either too loose or too tight—can lead to several operational issues. A loose belt may slip, causing loss of power transmission, overheating, and increased wear. On the other hand, an overly tight belt can strain bearings, shafts, and motors, leading to mechanical failures and reduced equipment life. Both scenarios can result in unplanned downtime and increased maintenance costs.

The **SKF TKBT 10** is an electronic belt tension meter designed to provide accurate and consistent tension measurements for power transmission belts.

Compared to manual methods, which can vary depending on user technique and experience, the TKBT 10 offers a more objective and repeatable approach. It uses sensor-based technology to measure the natural frequency of the belt, allowing technicians to quickly determine whether the tension is within the recommended range. This helps improve the reliability of belt installations and maintenance, supports optimal machine performance, and reduces the risk of premature wear or failure. The device is especially useful in environments where precision and consistency are important for operational efficiency.

2. Principle of operation

The SKF TKBT 10 is a belt tension measurement device that operates based on vibration analysis. When a belt is gently struck, it begins to oscillate at its natural frequency.

The TKBT 10 uses an optical sensor to detect these vibrations without physical contact. The sensor captures changes in light reflection caused by the belt's movement and converts them into frequency data. This frequency is directly related to the belt's tension.

To calculate the actual tension or belt tension, the device uses the measured frequency along with user-input parameters such as belt mass per meter and span length.

These values are processed internally to provide a precise tension reading, displayed in Hertz (Hz) or converted into Newtons (N) or pound-force (lbf) as needed. The non-contact nature of the optical sensor ensures accurate and repeatable measurements, even in hard-to-reach or narrow machine areas.

3. Case content

The TKBT-10 case contains:

1. **1 × SKF TKBT 10 Main Unit** – Belt tension meter with integrated display and keypad.
2. **1 × Short Gooseneck Optical Sensor** – Flexible sensor for easy access to tight spaces.
3. **3 × AA Batteries** – Power supply for the main unit.
4. **1 × Instruction for use card** – A QR code card for detailed documentation.
5. **1 × Rugged Carrying Case** – Protects the device and accessories during transport and storage.

4. Pre-measurement

Before performing a belt tension measurement with the TKBT 10, ensure that the machine is safely shut down and the belt is stationary. Lock out and tag out the equipment to prevent accidental startup during the procedure.

Check the following before starting:

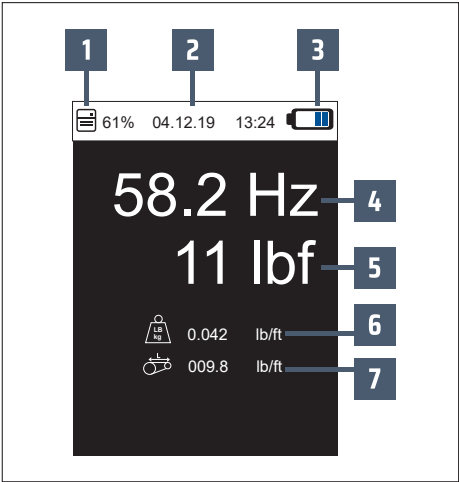
- **Belt accessibility:**
Ensure the belt span is visible and reachable for sensor placement and tapping.
- **Sensor mounting:**
Attach the short gooseneck optical sensor securely to the TKBT 10 device and position it above the center of the belt span, maintaining a distance of 10 - 25 mm (0.4 - 1 in).
- **Belt condition:**
Inspect the belt for visible damage, wear, or contamination that could affect vibration behavior.
- **Environmental conditions:**
Confirm that ambient temperature and humidity are within the operating range specified in the manual.
- **User inputs:**
Prepare the belt's technical data, including mass per meter and span length, if belt tension calculation is required.

5. Measurement

5.1 Key pad explanation:

Key	Description	Function
	Power button	Turns the device on or off
	Menu button	Opens the main menu for configuration
	Back/Cancel button	Cancels the current action or returns to previous screen
	Confirm button	Confirms selections or saves a measurement
	Measuring mode	Activates the vibration detection mode
	Navigation up	Scrolls up through menu options or memory entries
	Navigation down	Scrolls down through menu options or memory entries
	Navigation right	Moves right in menus or views additional data
	Navigation left	Moves left in menus or views previous data

5.2 Device screen explanation



Key Display Elements		
1.	Memory Capacity:	Shows current and total saved measurements (e.g., 15/750)
2.	Date & Time:	Timestamp for traceability
3.	Battery Level:	Indicates remaining power
4.	Belt Tension (Hz):	Real-time frequency reading
5.	Belt tension (N or lbf):	Calculated belt tension in force units
6.	Set Belt Weight (kg/m or lb/ft):	User-defined belt mass per meter or feet
7.	Set Belt span length (m or in):	User-defined span length

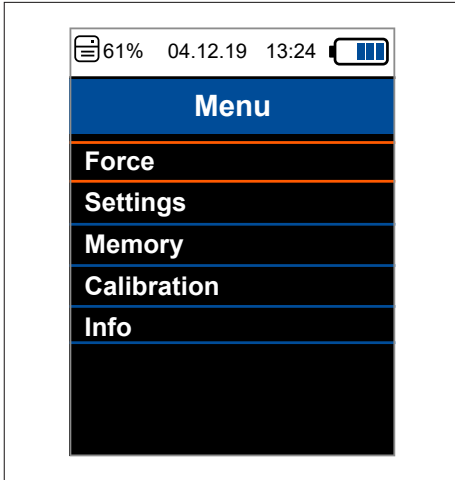
5.3 Menu explanation

Menu Navigation – SKF TKBT 10

The TKBT 10 features a structured menu system accessible via the **Menu** key.

Use the arrow keys to navigate and the **OK** key to confirm selections.

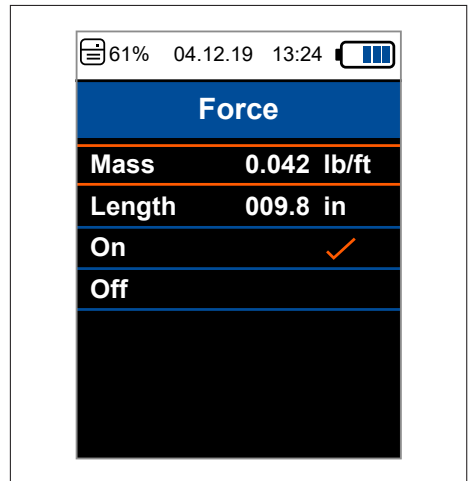
The **Back** key returns to the previous screen.



1. Force

This submenu allows you to enter the parameters required to calculate the belt tension.

- **Mass per meter (kg/m or lb/ft):**
Enter the linear mass of the belt.
Refer to the appendix for standard values.
- **Belt span length (m or in):**
Enter the span length between the two pulleys. This can be measured directly or calculated (see Appendix).
- **Display toggle:**
Choose whether the belt tension should be shown during measurement.



2. Units

Select the preferred unit system:

- **SI (International System):**
Displays force in Newtons (N), mass in kg/m, and length in meters.
- **US (Imperial System):**
Displays force in pound-force (lbf), mass in lb/ft, and length in inches or feet.

3. Date & Time

- **Date & Time:**
Set the current date and time for accurate timestamping of measurements.
- **Format:**
Choose between different date formats (e.g., DD-MM-YY, MM-DD-YY or YY-MM-DD).

4. Sound

Control audio feedback:

- **Key sound:**
Enable or disable beeps when pressing buttons.
- **Measurement sound:**
Enable or disable sound when a measurement is recorded.

5. Brightness

Adjust the display brightness from 10% to 100% to suit ambient lighting conditions.

6. Language

Choose the display language.

Available options include:

- English
- German
- Spanish
- French
- Italian
- Dutch

7. Auto Power Off

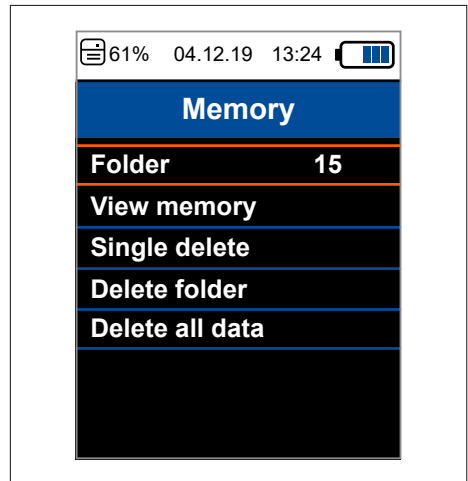
Set the automatic shutdown timer to conserve battery life:

- **Options:**
1 to 5 minutes, or disable the feature entirely.

8. Memory

Manage stored measurements:

- **Select Folder:**
Choose one of 15 folders for saving new measurements.
- **View Memory:**
Browse saved data.
- **Single Delete:**
Remove individual entries.
- **Delete Folder:**
Clear all entries in a selected folder.
- **Delete All Data:**
Erase all stored measurements across all folders.



9. Calibration

Perform a zero-point calibration:

- Place the device and sensor on a flat, bright surface.
- Select **Calibration** and wait for the process to complete.

10. Info

Displays firmware version and device information for support or troubleshooting.

5.4 Steps for measurement



ATTENTION!:

- Tool should be parallel to the belt for better results.



Step 1: Preparation

- Ensure the machine is turned off and secured against accidental startup.
- Mount the short gooseneck optical sensor onto the TKBT 10 device.
- Insert fresh AA batteries if needed and power on the device using the On/Off key.

Step 2: Initial Setup

- After startup, set the date and time via the menu.
- Navigate to the Force menu and input:
 - Belt mass per meter (kg/m or lb/ft) – Refer to the appendix.
 - Belt span length (m or in) – Measure directly or calculate using pulley diameters (see Appendix).
- Confirm each entry with the OK key.

Step 3: Calibration (Recommended)

- Place the device on a flat surface.
- Hold the sensor above a bright, flat surface.
- In the Calibration menu, select Zero-point calibration and wait for confirmation.

Step 4: Entering Measurement Mode

- Press the Measuring Mode key twice to activate vibration detection.
- The device will now wait for belt movement.

Step 5: Initiating Vibration

- Position the sensor 10 - 25 mm (0.4 - 1 in) above the center of the belt span.
- Gently tap the top of the belt span with your finger to initiate vibration.
- Ensure the sensor is aligned parallel to the belt and remains stable during measurement.

Step 6: Reading the Result

- The display will show:
 - Belt tension in Hertz (Hz)
 - Belt tension in Newtons (N)
 - Set values for belt weight and belt span length
- If only frequency is needed, belt tension input is optional.

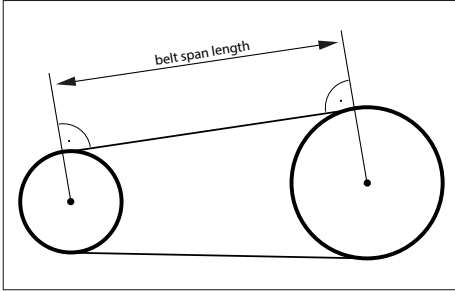
Step 7: Saving the Measurement

- Press the OK key to save the result.
- The device will display the folder and entry number.
- Wait 4 seconds before taking the next measurement.

5.5 Calculation of belt span length, belt weight and belt tension force

Accurate calculation of trum force requires correct input of the belt's physical parameters. These values can be entered in the Force menu of the TKBT 10.

1. Belt span length (l_{beltspan})



The belt span length is the free span of the belt between two pulleys. It can be measured directly using a tape measure, or calculated using the following formula if direct measurement is not possible:

$$l_{\text{beltspan}} = \frac{1}{2} \times \sqrt{(l_{\text{belt}})^2 - [\pi \times (d_1 + d_2) / 2]^2}$$

Where:

- l_{belt} = total belt length
- d_1, d_2 = diameters of the two pulleys

2. Belt Weight (m_{meter})

If the belt's mass per meter is not provided by the manufacturer, it can be calculated manually using the formula:

$$m_{\text{meter}} = m_{\text{belt}} / l_{\text{belt}}$$

Where:

- m_{belt} = total mass of the belt (kg)
- l_{belt} = total length of the belt (m)
- m_{meter} of SKF belts are provided in the appendix

3. Belt tension (F_{trum})

Once the belt's frequency is measured by the TKBT 10, the belt tension is calculated using the following formula:

$$F_{\text{belttension}} = 4 \times m_{\text{meter}} \times l_{\text{beltspan}}^2 \times f^2$$

Where:

- F_{trum} = belt tension (N)
- m_{meter} = belt mass per meter (kg/m)
- l_{beltspan} = belt span length (m)
- f = measured frequency (Hz)

6. Technical specifications

Designation	SKF TKBT 10
Description	Belt tension meter
Measurement Range	10 to 900 Hz
Resolution	< 100 Hz: 0.1 Hz > 100 Hz: 1 Hz
Accuracy	±(1% of reading + 4 digits)
Sensor Type	Belt tension meter probe - short (TKBT 10-PS) (Optical sensor with gooseneck)
Display	LCD with backlight, shows frequency (Hz), Belt tension (N or lbf), and input parameters
Memory	15 folders, 50 measurements per folder (750 total)
Power Supply	3 × 1.5V AA batteries (LR6)
Battery Life	Approx. 20 hours of operation
Operating Temperature	0 °C to +50 °C (32 °F to 122 °F)
Storage Conditions	-20 °C to +65 °C (-4 °F to 149 °F), 10–95% RH (non-condensing)
Dimensions (H × W × D)	150 × 80 × 38 mm (5.9 × 3.2 × 1.5 in)
Weight	300 g (0.66 lb) (including batteries)
Languages	English, German, Spanish, French, Italian, Dutch
Optional Accessories	Belt tension meter probe - long (TKBT 10-PL)



For hard to reach areas, optional accessory TKBT 10-PL can be purchased separately.

7. Weights and tension values

The values listed in the tables on following pages provide a guideline for belt tensioning. More accurate values for your specific belt drive can be obtained from belt drive calculations on beltcalculator.skf.com.

Timing Belts				
Family	Belt Type	Belt Tension (N)		Mass (kg/m)
		New belt	Run in belt	
HiTD	5M 9	99	71	0.037
	5M 15	174	124	0.061
	5M 25	311	222	0.102
	8M 20	372	266	0.128
	8M 30	593	424	0.192
	8M 50	1037	741	0.320
	8M 85	2044	1460	0.545
	14M 40	1297	926	0.429
	14M 55	1912	1366	0.590
	14M 85	3142	2244	0.911
	14M 115	4480	3200	1.233
	14M 170	7139	5099	1.823
STPD	S8M20	390	279	0.111
	S8M30	620	443	0.167
	S8M50	1110	793	0.278
	S8M85	2030	1450	0.473
	S14M40	1340	957	0.462
	S14M55	1925	1375	0.634
	S14M85	3165	2261	0.981
	S14M115	4465	3189	1.327
	S14M170	6975	4982	1.962
Timing Belts	XL 025	13	11	0.014
	XL 037	24	20	0.02
	LO50	51	41	0.043
	LO75	87	70	0.065
	L100	122	98	0.087
	H075	220	176	0.084
	H100	311	249	0.112
	H150	485	388	0.168
	H200	667	534	0.223
	H300	1045	836	0.335
	XH 200	907	726	0.572
	XH 300	1428	1142	0.858
	XH 400	2019	1615	1.144
	XXH 200	1130	904	0.809
	XXH 300	1748	1398	1.213
	XXH 400	2478	1982	1.617
	XXH 500	3198	2558	2.022

Wrapped V, wedge and banded belts								
Belt Type	Smaller pulley diameter (mm)		Speed range (rpm)		Belt tension per single belt* (N)		Mass (kg/m)	
	from	including	from	including	New belt	Run in belt	Single belt	Belt in a band**
Z	40	60	1000	2500	104	69	0.051	n/a
			2501	4000	121	81		
			1000	2500	174	116		
			2501	4000	174	116		
A	75	90	1000	2500	332	222	0.115	0.150
			2501	4000	254	169		
	91	120	1000	2500	391	261		
			2501	4000	332	222		
	121	175	1000	2500	469	313		
			2501	4000	411	274		
B	105	140	860	2500	469	313	0.193	0.26
			2501	400	391	261		
	141	220	860	2500	567	378		
			2501	400	528	352		
C	175	230	500	1740	1017	678	0.320	0.417
			1741	3000	841	561		
	231	400	500	1740	1251	834		
			1741	3000	1115	743		
D	305	400	200	850	2210	1473	0.669	0.870
			851	1500	1877	1251		
	401	510	200	850	2698	1799		
			851	1500	2268	1512		
SPZ	56	79	1000	2500	338	226	0.076	n/a
			2501	4000	262	175		
	80	95	1000	2500	383	255		
			2501	4000	415	276		
	96 over		1000	2500	477	318		
			2501	4000	438	292		
SPA	71	105	1000	2500	575	383	0.134	0.155
			2501	4000	524	349		
	106	140	1000	2500	696	464		
			2501	4000	628	418		
	141 over		1000	2500	872	581		
			2501	4000	876	584		
SPB	107	159	860	2500	978	652	0.223	0.272
			2501	4000	941	627		
	160	250	860	2500	1255	837		
			2501	4000	1116	744		
	251 over		860	2500	1496	997		
			2501	4000	1275	850		

Wrapped V, wedge and banded belts								
Belt Type	Smaller pulley diameter (mm)		Speed range (rpm)		Belt tension per single belt* (N)		Mass (kg/m)	
	from	including	from	including	New belt	Run in belt	Single belt	Belt in a band**
SPC	200	355	500	1740	2026	1350	0.354	0.394
			1741	3000	2043	1362		
	356 over		500	1740	2305	1537		
			1741	3000	2671	1781		
3V	61	90	1000	2500	313	209	0.076	0.099
			2501	4000	274	182		
	91	175	1000	2500	430	287		
			2501	4000	391	261		
5V	171	275	500	1740	1134	756	0.223	0.272
			1741	3000	997	665		
	276	500	500	1740	1369	912		
			1741	3000	1291	860		
8V	315	430	200	850	2933	1955	0.504	0.654
			851	1500	2386	1590		
	431	570	200	850	3520	2346		
			851	1500	3129	2086		

* Multiply the belt tension required for a single belt by the number of the belts in the banded belt unit to get total tension to apply.

** Multiply the mass of one belt in a band by the number of the belts in the banded belt unit to get total mass to apply.

Wrapped and narrow wedge belts								
Belt Type	Smaller pulley diameter (mm)		Speed range (rpm)		Belt tension per single belt* (N)		Mass (kg/m)	
	from	including	from	including	New belt	Run in belt	Single belt	Belt in a band**
SPZ-XP	56	79	1000	2500	372	249	0.079	n/a
			2501	4000	288	193		
	80	95	1000	2500	421	281		
			2501	4000	457	304		
	96 over		1000	2500	525	350		
			2501	4000	482	321		
SPA-XP	71	105	1000	2500	633	421	0.122	n/a
			2501	4000	576	384		
	106	140	1000	2500	766	510		
			2501	4000	691	460		
	141 over		1000	2500	959	639		
			2501	4000	964	642		
SPB-XP	107	159	860	2500	1076	717	0.202	n/a
			2501	4000	1035	690		
	160	250	860	2500	1381	921		
			2501	4000	1228	818		
	251 over		860	2500	1646	1097		
			2501	4000	1403	935		
SPC-XP	200	355	500	1740	2229	1485	0.350	n/a
			1741	3000	2247	1498		
	356 over		500	1740	2536	1691		
			1741	3000	2938	1959		
3V-XP	61	90	1000	2500	344	230	0.079	n/a
			2501	4000	301	200		
	91	175	1000	2500	473	316		
			2501	4000	430	287		
5V-XP	171	275	500	1740	1247	832	0.202	n/a
			1741	3000	1097	732		
	276	500	500	1740	1506	1003		
			1741	3000	1420	946		
8V-XP	315	430	200	850	3226	2151	0.520	n/a
			851	1500	2625	1749		
	431	570	200	850	3872	2581		
			851	1500	3442	2295		

* Multiply the belt tension required for a single belt by the number of the belts in the banded belt unit to get total tension to apply.

** Multiply the mass of one belt in a band by the number of the belts in the banded belt unit to get total mass to apply.

Cogged raw edge V, wedge and banded belts								
Belt Type	Smaller pulley diameter (mm)		Speed range (rpm)		Belt tension per single belt* (N)		Mass (kg/m)	
	from	including	from	including	New belt	Run in belt	Single belt	Belt in a band**
ZX	40	60	1000	2500	119	80	0.051	n/a
			2501	4000	139	93		
			1000	2500	199	133		
			2501	4000	199	133		
AX	75	90	1000	2500	372	248	0.115	0.153
			2501	4000	293	196		
	91	120	1000	2500	450	300		
			2501	4000	391	261		
	121	175	1000	2500	508	339		
			2501	4000	450	300		
BX	85	105	860	2500	430	287	0.193	0.225
			2501	4000	372	248		
	106	140	860	2500	626	417		
			2501	4000	547	365		
	141	220	860	2500	763	508		
			2501	4000	645	430		
CX	175	230	500	1740	1310	873	0.32	0.398
			1741	3000	1056	704		
	231	400	500	1740	1408	939		
			1741	3000	1291	860		
XPZ	56	79	1000	2500	362	241	0.076	n/a
			2501	4000	299	199		
	80	95	1000	2500	438	292		
			2501	4000	418	279		
	96 over		1000	2500	499	332		
			2501	4000	469	313		
XPA	71	105	1000	2500	657	438	0.134	0.156
			2501	4000	598	399		
	106	140	1000	2500	796	531		
			2501	4000	718	478		
	141 over		1000	2500	997	665		
			2501	4000	897	598		
XPB	107	159	860	2500	1116	744	0.223	0.279
			2501	4000	1075	717		
	160	250	860	2500	1435	957		
			2501	4000	1330	886		
	251 over		860	2500	1596	1064		
			2501	4000	1455	970		

Cogged raw edge V, wedge and banded belts								
Belt Type	Smaller pulley diameter (mm)		Speed range (rpm)		Belt tension per single belt* (N)		Mass (kg/m)	
	from	including	from	including	New belt	Run in belt	Single belt	Belt in a band**
XPC	200	355	500	1740	2313	1542	0.354	0.548
			1741	3000	2333	1555		
	356 over		500	1740	2632	1755		
			1741	3000	3050	2034		
3VX	55	60	1000	2500	293	196	0.076	0.102
			2501	4000	254	169		
	61	90	1000	2500	372	248		
			2501	4000	332	222		
	91	175	1000	2500	469	313		
			2501	4000	430	287		
5VX	110	170	1000	2500	899	600	0.223	0.252
			2501	4000	489	326		
	171	275	500	1740	1310	873		
			1741	3000	1212	808		
	276	400	500	1740	1525	1017		
			1741	3000	1486	991		

* Multiply the belt tension required for a single belt by the number of the belts in the banded belt unit to get total tension to apply.

** Multiply the mass of one belt in a band by the number of the belts in the banded belt unit to get total mass to apply.

Ribbed Belts					
Belt Type	Smaller pulley diameter (mm)	Speed range (rpm)	Belt tension per one rib* (N)		Mass (kg/m)**
	from	from including	New belt	Run in belt	Single belt
PJ	<80	n/a	67	45	0.010
	>80	90	60		
PK	<95	n/a	139	93	0.018
	>95	178	119		
PL	<150	n/a	216	144	0.057
	>150	312	208		
PM	<250	n/a	672	448	0.120
	>250	912	608		

* Multiply the belt tension required for one rib by the number of the ribs in the ribbed belt unit to get total tension to apply.

** Multiply the mass of one rib by the number of the ribs in the ribbed belt to get total mass to apply.



skf.com • skf.com/mapro

® SKF is a registered trademark of the SKF Group.

© SKF Group 2025

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

MP5538 EN · 2025/12