



OPTIKRIK TENSION GAUGES FOR OPTIBELT V-BELTS AND RIBBED BELTS

This simplified method for static tension measuring should be used for installation and maintenance tensioning of the belt when the important technical data is unavailable and the optimum tension cannot be calculated. This method requires only knowledge of the small pulley diameter and the belt section and construction. The gauges may also be used to set tensions when the optimum tension has been calculated from known technical data.

OPTIBELT TENSION GAUGES – INSTRUCTIONS FOR USE –



Tension Gauges:

- OPTIKRIK 0** range: 70 - 150 N
- OPTIKRIK I** range: 150 - 600 N
- OPTIKRIK II** range: 500 - 1400 N
- OPTIKRIK III** range: 1300 - 3100 N



1. Select the gauge appropriate to the belt section and construction being tensioned. See notes below the simplified tensioning table.
2. The illustration above (A, B or C) shows three ways to hold the gauge so that pressure is applied to the pad only.
3. Position the gauge on one of the belts on the drive in the middle of an accessible span length. Take care to ensure that the gauge is only in contact with one of the belts, and that the indicator arm is pushed down into the gauge body. Align the gauge so that its body is parallel with the sides of the belt.
4. Push down on the pressure pad slowly and firmly with one finger in one of the ways illustrated above (A, B or C). When a "click" is heard and/or felt, stop immediately and remove the gauge carefully to avoid disturbing the indicator arm.
5. Read the gauge to judge the tension as follows and as illustrated in the sketch above.
6. Turn the gauge sideways to ascertain the exact point where the top surface of the indicator arm crosses the scale.
7. Mark this point mentally or with a thumbnail and turn the gauge to read the scale.
8. Check the tension found against the simplified tensioning table or the calculated tension. Tighten or slacken the belt, if necessary.

TENSION VALUES – INDUSTRIAL V-BELTS

Belt section	Diameter of the small pulley [mm]	Standard (wrapped)		SUPER X-POWER M=5 SUPER TX M=5		RED POWER 3		BLUE POWER •	
		Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation up new belts	New installation existing belts	Diameter of the small pulley [mm]	Initial installation up new belts
SPZ; 3V/9N; XPZ; 3VX/9NX	> 71 ≤ 90 > 90 ≤ 125 > 125	200 300 350	150 200 250	250 300 400	200 250 300	250 300 400	200 250 300	— — —	— — —
SPA; XPA	> 100 ≤ 140 > 140 ≤ 200 > 200	350 400 500 600	250 300 400 450	400 500 600	300 400 450	400 500 600	300 400 450	— — —	— — —
SPB; 5V/15N; XPB; SVX/15NX	> 160 ≤ 200 > 200 ≤ 250 > 250	650 900	500 700	700 850 1000	550 650 800	700 850 1000	550 650 800	> 180 ≤ 236 > 236 ≤ 400 > 400*	780 1100 1500
SPC; XPC	> 250 ≤ 300 > 300 ≤ 350 > 350	1000 1400 1600 1800	800 1100 1400	1400 1600 1900	1100 1200 1500	1400 1600 1900	1100 1200 1500	> 280 ≤ 375 > 375 ≤ 700 > 700*	1600 2500 3100
Z/10; ZX/X10	> 80 ≤ 90 > 90 ≤ 110 > 110	90 130 140	70 90 110	120 140 160	90 110 130	— — —	— — —	— — —	— — —
A/13; AX/X13	> 80 ≤ 100 > 100 ≤ 130 > 130	130 160 200	110 150 250	200 250 400	150 200 300	— — —	— — —	— — —	— — —
B/17; BX/X17	> 100 ≤ 150 > 150 ≤ 200 > 200	800 900	250 300 400	450 500 600	350 400 450	— — —	— — —	— — —	— — —
C/22; CX/X22	> 100 ≤ 150 > 150 ≤ 200 > 200	700 800 900	500 600 700	800 900 1000	600 700 800	— — —	— — —	— — —	— — —

BV Check of the belt tension with help of the length addition value

* Tension values for these pulleys and belt types must be calculated, please consult Optibelt. * No OPTIKRIK measurement. Reference values only.

TENSION VALUES – AUTOMOTIVE INDUSTRY

Belt section	Initial installation		Tension after 30-120 min. running in		Minimum tension	
	Static tension [N]	Static tension [N]	Static tension [N]	Static tension [N]	Static tension [N]	Static tension [N]
AVX 10 MARATHON 1, MARATHON 2	550 ± 50		350 ± 50		≥ 200	
AVX 13 MARATHON 1, MARATHON 2	650 ± 50		400 ± 50		≥ 300	
KB - 2 AVX 10	1100 ± 50		700 ± 50		≥ 400	
KB - 3 AVX 10	1650 ± 50		1050 ± 50		≥ 600	
KB - 2 AVX 13	1300 ± 50		800 ± 50		≥ 600	
KB - 3 AVX 13	1950 ± 50		1200 ± 50		≥ 900	
RB - 3 PK	400 ± 50		250 ± 50		≥ 200	
RB - 4 PK	500 ± 50		350 ± 50		≥ 250	
RB - 5 PK	600 ± 50		400 ± 50		≥ 300	
RB - 6 PK	750 ± 50		500 ± 50		≥ 350	

TENSION VALUES – INDUSTRIAL RIBBED BELTS

Belt section	Diameter of the small pulley d_b [mm]	Statische Trumkraft T_{max} [N]		Initial installation		Operating after running in		Initial installation		Operating after running in		Initial installation	
		4 PH	8 PH	4 PJ	8 PJ	10 PK	12 PK	6 PL	8 PL	10 PL	12 PL	16 PH	20 PH
PH	> 25 ≤ 71	90 110	70 90	200 250	150 130	250 300	200 250	300 350	200 250	300 350	250 300	400 450	
PJ	> 40 ≤ 80 > 80 ≤ 132 > 132	200 250	150 200	400 450	350 350	500 700	400 550	700 900	500 700	600 800	550 700	1000 1200	
PK	> 63 ≤ 100 > 100 ≤ 140 > 140	300 400 450	250 300 350	600 800 900	450 500 700	700 1000 1100	600 700 800	1000 1300	700 1000 1100	900 1200 1300	700 1000 1300	1200 1500	
PL	> 90 ≤ 140 > 140 ≤ 200 > 200	800 1000 1100	600 700 800	1000 1300 1400	800 1100 1100	1300 1600 1900	1000 1200 1400	1300 1600 2100	1000 1300 1400	1200 1500 1600	1200 1500 1600	1900 2500	