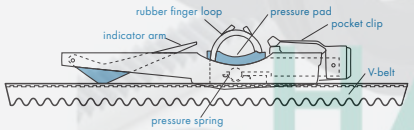
OPTIKRIK
TENSION GAUGES
FOR OPTIBELT V-BELTS AND RIBBED BELTS

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]	Static belt tension [N]							
		Standard (wrapped)		SUPER X-POWER M=S SUPER TX M=S		SUPER XE-POWER PRO		RED POWER 3	
		Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation	Operating after running in
SPZ; 3V/9N; XPZ; 3VX/9NX	≤ 71	200	150	250	200	300	250	250	200
	> 71 ≤ 90	250	200	300	250	350	300	300	250
	> 90 ≤ 125	350	250	400	300	500	400	400	300
	> 125*								
SPA; XPA	≤ 100	350	250	400	300	500	400	400	300
	> 100 ≤ 140	400	300	500	400	600	500	500	400
	> 140 ≤ 200	500	400	600	450	700	550	600	450
	> 200*								
SPB; 5V/15N; XPB; 5VX/15NX	≤ 160	650	500	700	550	850	650	700	550
	> 160 ≤ 224	700	550	850	650	1000	800	850	650
	> 224 ≤ 355	900	700	1000	800	1200	950	1000	800
	> 355*								
SPC; XPC	≤ 250	1000	800	1400	1100	1700	1300	1400	1100
	> 250 ≤ 355	1400	1100	1600	1200	1900	1550	1600	1200
	> 355 ≤ 560	1800	1400	1900	1500	2300	1800	1900	1500
	> 560*								
Z/10; ZX/X10	≤ 50	90	70	120	90				
	> 50 ≤ 71	120	90	140	110	–	–	–	–
	> 71 ≤ 100	140	110	160	130				
	> 100*								
A/13; AX/X13	≤ 80	150	110	200	150				
	> 80 ≤ 100	200	150	250	200	–	–	–	–
	> 100 ≤ 132	300	250	400	300				
	> 132*								
B/17; BX/X17	≤ 125	300	250	450	350				
	> 125 ≤ 160	400	300	500	400	–	–	–	–
	> 160 ≤ 200	500	400	600	450				
	> 200*								
C/22; CX/X22	≤ 200	700	500	800	600				
	> 200 ≤ 250	800	600	900	700	–	–	–	–
	> 250 ≤ 355	900	700	1000	800				
	> 355*								
8V	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.

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]
AVX 10 MARATHON X, MARATHON 2	550 ± 50	350 ± 50	≥ 200
AVX 13 MARATHON X, 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]	Static tension T_{max} [N]									
		Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation	Operating after running in	Initial installation	Operating after running in
PH		4 PH		8 PH		12 PH		16 PH		20 PH	
	≤ 25	90	70	150	130	250	200	300	250	400	300
	> 25 ≤ 71	110	90	200	150	300	250	350	300	450	350
	> 71 *										
PJ		4 PJ		8 PJ		12 PJ		16 PJ		24 PJ	
	≤ 40	200	150	350	300	500	400	700	550	1000	800
	> 40 ≤ 80	200	150	400	350	600	500	800	650	1200	1000
	> 80 ≤ 132	250	200	450	350	700	550	900	700	1300	1000
	> 132 *										
PK		4 PK		8 PK		10 PK		12 PK		16 PK	
	≤ 63	300	250	600	450	700	600	900	700	1200	900
	> 63 ≤ 100	400	300	800	600	1000	700	1200	900	1500	1200
	> 100 ≤ 140	450	350	900	700	1100	800	1300	1000	1600	1300
	> 140 *										
PL		6 PL		8 PL		10 PL		12 PL		16 PL	
	≤ 90	800	600	1000	800	1300	1000	1500	1200	1900	1500
	> 90 ≤ 140	1000	700	1300	1000	1600	1300	1900	1500	2500	1900
	> 140 ≤ 200	1100	800	1400	1100	1900	1400	2100	1600	2800	2100
	> 200 *										