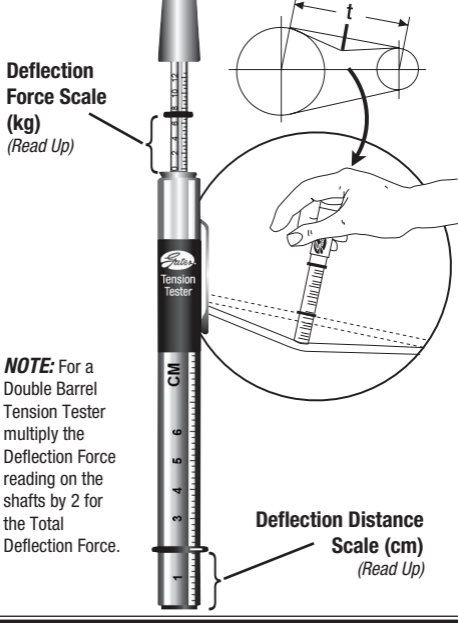


Single Tension Tester


Table A – NEW INSTALLATIONS for Classical V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Classical V-belts. Hi-Power® / Tri-Power®			
Z / ZX	50 - 75	0.9	1.0
	80 - 100	1.1	1.2
	106 - 150	1.3	1.4
	160 - 200	1.4	1.5
	224 - 400	1.6	1.7
A / AX	63 - 112	1.5	1.6
	118 - 150	1.7	1.9
	160 - 200	2.0	2.1
	212 - 300	2.2	2.3
	315 - 560	2.5	2.6
B / BX	100 - 150	2.1	2.2
	160 - 200	2.5	2.6
	212 - 250	2.8	3.0
	280 - 355	3.2	3.4
	400 - 560	3.6	3.8
C / CX	200 - 212	3.0	3.2
	224 - 280	3.6	3.9
	300 - 375	4.3	4.6
	400 - 475	4.7	5.0
	500 - 560	5.0	5.4
D	300 - 335	5.8	6.2
	400 - 450	7.5	8.0
	500 - 600	9.3	10.0

Table B – NEW INSTALLATIONS for Narrow V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Narrow V-belts. Super HC® Wrapped V-belts			
SPZ / 3V	71 - 100	1.5	1.6
	106 - 150	1.8	1.9
	160 - 200	2.0	2.1
	224 - 355	2.2	2.4
	400 - 630	2.4	2.6
SPA	100 - 140	2.3	2.4
	150 - 190	2.7	2.9
	200 - 250	3.1	3.3
	265 - 355	3.4	3.6
	400 - 630	3.9	4.1
SPB / 5V	160 - 190	3.4	3.7
	200 - 250	4.1	4.4
	280 - 355	4.8	5.2
	400 - 630	5.9	6.3
SPC	250 - 300	6.2	6.6
	315 - 400	7.6	8.2
	425 - 500	8.5	9.1
	530 - 630	9.5	10.2
8V	315 - 350	8.2	8.8
	400 - 450	10.2	11.0
	500 - 600	12.5	13.4

Table C – NEW INSTALLATIONS for Narrow V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Narrow V-belts. Quad-Power® Notched V-belts			
XPZ / 3VX	56 - 75	1.4	1.5
	80 - 100	1.7	1.9
	106 - 140	2.0	2.1
	150 - 200	2.2	2.3
	224 - 500	2.5	2.7
XPA	80 - 95	2.1	2.2
	100 - 125	2.6	2.8
	132 - 170	3.1	3.3
	180 - 224	3.4	3.6
	236 - 300	3.6	3.9
	315 - 450	3.9	4.2
	500 - 630	4.3	4.6
XPB / 5VX	112 - 132	3.3	3.5
	140 - 170	4.1	4.4
	180 - 212	4.6	5.0
	224 - 300	5.3	5.7
	315 - 450	6.0	6.4
	500 - 630	6.6	7.1
XPC	200 - 236	7.0	7.5
	250 - 300	8.1	8.7
	315 - 375	9.1	9.7
	400 - 475	10.0	10.7
	500 - 530	10.4	11.2
	560 - 630	11.2	12.0

TENSIONING PROCEDURE

1. Measure the span length (**t**) in cm.
2. Determine the Deflection Distance by dividing span length (**t**) by 100, e.g. for a span of 100cm, the Deflection Distance = 1cm.
3. Move the bottom edge of the large O-ring to the determined Deflection Distance (each mark is 0.2cm).
4. Move the small O-ring to the zero (0) position of the Deflection Force scale.
5. Place the tension tester in the middle of the span and perpendicular to the belt. Place pressure on top of the tension tester to deflect the belt by the Deflection Distance (as indicated by the large O-ring). A straight edge laid across the pulleys can help the reading.
6. The small O-ring will slide up the scale to indicate the Deflection Force (read the scale at the bottom edge of the O-ring). Increase the belt tension if below the Min. value from the table and decrease if above the Max. value. Always reset the small O-ring to zero before taking another reading.

For more accurate tensioning details or Predator® V-belt tensioning, please contact Gates on (03) 9797 9666 or gatestech@gates.com

www.GatesAustralia.com.au/PTMaintenance

Table D – RE-TENSIONING for Classical V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Classical V-belts. Hi-Power® / Tri-Power®			
Z / ZX	50 - 75	0.8	0.9
	80 - 100	1.0	1.1
	106 - 150	1.1	1.2
	160 - 200	1.2	1.3
	224 - 400	1.3	1.5
A / AX	63 - 112	1.3	1.4
	118 - 150	1.5	1.6
	160 - 200	1.7	1.8
	212 - 300	1.9	2.0
	315 - 560	2.1	2.3
B / BX	100 - 150	1.8	1.9
	160 - 200	2.1	2.3
	212 - 250	2.4	2.6
	280 - 355	2.7	3.0
	400 - 560	3.1	3.3
C / CX	200 - 212	2.5	2.8
	224 - 280	3.1	3.4
	300 - 375	3.7	4.0
	400 - 475	4.0	4.4
	500 - 560	4.3	4.6
D	300 - 335	5.0	5.4
	400 - 450	6.5	7.0
	500 - 600	8.0	8.7

Table E – RE-TENSIONING for Narrow V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Narrow V-belts. Super HC® Wrapped V-belts			
SPZ / 3V	71 - 100	1.3	1.4
	106 - 150	1.6	1.7
	160 - 200	1.7	1.8
	224 - 355	1.9	2.0
	400 - 630	2.1	2.3
SPA	100 - 140	2.0	2.1
	150 - 190	2.4	2.5
	200 - 250	2.6	2.8
	265 - 355	2.9	3.1
	400 - 630	3.3	3.6
SPB / 5V	160 - 190	2.9	3.2
	200 - 250	3.6	3.8
	280 - 355	4.2	4.5
	400 - 630	5.0	5.4
SPC	250 - 300	5.4	5.8
	315 - 400	6.6	7.1
	425 - 500	7.3	7.9
	530 - 630	8.2	8.9
8V	315 - 350	7.1	7.6
	400 - 450	8.8	9.5
	500 - 600	10.7	11.6

Table F – RE-TENSIONING for Narrow V-belts.

V-belt Cross Section	Small Pulley Diameter (mm)	Recommended Deflection Force (kg)	
		Min.	Max.
Narrow V-belts. Quad-Power® Notched V-belts			
XPZ / 3VX	56 - 75	1.2	1.3
	80 - 100	1.5	1.6
	106 - 140	1.7	1.9
	150 - 200	1.9	2.0
	224 - 500	2.1	2.3
XPA	80 - 95	1.8	1.9
	100 - 125	2.3	2.4
	132 - 170	2.6	2.9
	180 - 224	2.9	3.1
	236 - 300	3.1	3.4
	315 - 450	3.4	3.7
	500 - 630	3.7	4.0
XPB / 5VX	112 - 132	2.8	3.1
	140 - 170	3.5	3.8
	180 - 212	4.0	4.3
	224 - 300	4.6	4.9
	315 - 450	5.1	5.6
	500 - 630	5.7	6.1
XPC	200 - 236	6.0	6.5
	250 - 300	7.0	7.6
	315 - 375	7.8	8.5
	400 - 475	8.6	9.3
	500 - 530	9.0	9.7
	560 - 630	9.6	10.4