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transmission**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by the Japan Belting Manufacturers Association (JBMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS K 6323**:1995 is replaced with this Standard.

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Classical V-belts for power transmission

Introduction

This Japanese Industrial Standard was established in 1953, and after the establishment it has been revised 8 times up to the present. In this revision, the length among dimensions of V-belts has been reviewed in light of reality of the situation.

No corresponding International Standard has been established at this point.

1 Scope

This Standard specifies the seamless circular V-belts (hereafter referred to as “V-belts”) for power transmission in general. However, the V-belts for motor vehicles are excluded.

NOTE : Practice for use of V-belts is shown in Annex A.

2 Normative references

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) shall be applied.

JIS Z 8401 *Guide to the rounding of numbers*

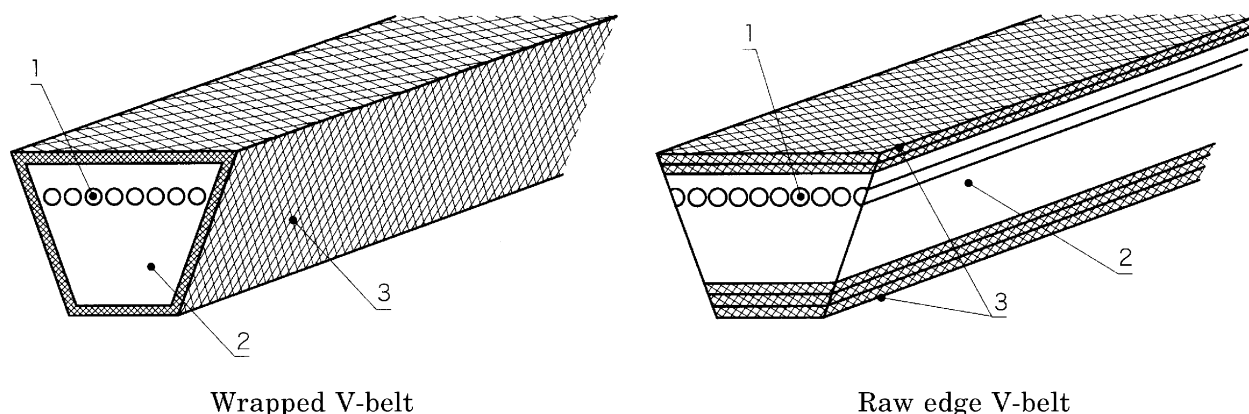
3 Types

The V-belts shall be classified into the following 5 types:

M, A, B, C and D.

4 Construction

The V-belts shall be constructed such that a trapezoidal section consisting of rubber and core wires are wrapped around with a rubber-coated cloth, or the upper and lower surfaces of the said trapezoidal section are overlaid with rubber-coated cloths (see figure 1).



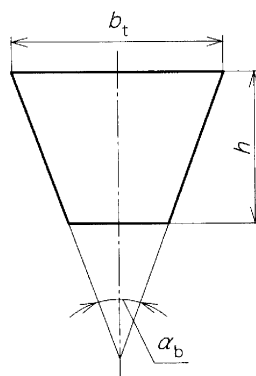
- 1: Core wire
2: Rubber
3: Canvas

Figure 1 Example of V-belt construction

5 Sectional shape and basic dimensions

The sectional shape and basic dimensions of V-belt shall be as shown in table 1.

Table 1 Sectional shape and basic dimensions



Unit: mm

Type	Upper width b_t	Belt thickness h	V angle α_b (°)
M	10.0	5.5	40
A	12.5	9.0	
B	16.5	11.0	
C	22.0	14.0	
D	31.5	19.0	

6 Length of V-belt and its tolerances

V-belts shall be measured in accordance with 8.1, and the measured length and its tolerances shall be as shown in table 2.

Table 2 Length of V-belt and tolerance thereof

Unit: mm

Nominal number	Length					Tolerances
	M	A	B	C	D	
20	508	508	—	—	—	+ 8 —16
21	533	533				
22	559	559				
23	584	584				
24	610	610	—	—	—	+ 9 —18
25	635	635				
26	660	660				
27	686	686				
28	711	711				
29	737	737				
30	762	762	762	—	—	+10 —20
31	787	787	787			
32	813	813	813			
33	838	838	838			
34	864	864	864			
35	889	889	889	—	—	+11 —22
36	914	914	914			
37	940	940	940			
38	965	965	965			
39	991	991	991			
40	1 016	1 016	1 016			
41	1 041	1 041	1 041			
42	1 067	1 067	1 067			
43	1 092	1 092	1 092			
44	1 118	1 118	1 118			
45	1 143	1 143	1 143	1 143	—	
46	1 168	1 168	1 168	—		
47	1 194	1 194	1 194			
48	1 219	1 219	1 219	1 219	—	+12 —24
49	1 245	1 245	1 245	—		
50	1 270	1 270	1 270	1 270		
51	—	1 295	1 295	—		
52		1 321	1 321	1 321		
53		1 346	1 346	—		
54		1 372	1 372	1 372		
55		1 397	1 397	1 397		
56		1 422	1 422	—		
57		1 448	1 448			
58		1 473	1 473	1 473		
59		1 499	1 499	—		
60		1 524	1 524	1 524		
61		1 549	1 549	—		
62		1 575	1 575	1 575		
63		1 600	1 600	—		

Table 2 (continued)

Unit: mm

Nominal number	Length					Tolerances			
	M	A	B	C	D				
64	—	1 626	1 626	—	—	+12 —24			
65		1 651	1 651	1 651					
66		1 676	1 676	—					
67		1 702	1 702						
68		1 727	1 727	1 727					
69		1 753	1 753	—					
70		1 778	1 778	1 778					
71		1 803	1 803	—					
72		1 829	1 829	1 829					
73		1 854	1 854	—					
74		—	1 880	1 880			—	—	+13 —26
75			1 905	1 905			1 905		
76	1 930		1 930	—					
77	1 956		1 956						
78	1 981		1 981	1 981					
79	2 007		2 007	—					
80	2 032		2 032	2 032					
81	2 057		2 057	—					
82	2 083		2 083	2 083					
83	2 108		2 108	—					
84	2 134		2 134						
85	2 159		2 159	2 159					
86	2 184		2 184	—					
87	2 210		2 210						
88	2 235		2 235	2 235					
89	2 261		2 261	—					
90	2 286		2 286	2 286					
91	2 311		2 311	—					
92	2 337		2 337	2 337					
93	2 362		2 362	—					
94	2 388		2 388						
95	—	2 413	2 413	2 413	—	+14 —28			
96		2 438	2 438	—					
97		2 464	2 464						
98		2 489	2 489	2 489					
99		2 515	2 515	—					
100		2 540	2 540	2 540			2 540		
102		2 591	2 591	2 591			—		
105		2 667	2 667	2 667			2 667		
108	2 743	2 743	2 743	—	+15 —30				
110	—	2 794	2 794	2 794		2 794			
112		2 845	2 845	2 845		—			
115		2 921	2 921	2 921		2 921			
118		2 997	2 997	2 997		—			

Table 2 (concluded)

Unit: mm

Nominal number	Length					Tolerances
	M	A	B	C	D	
120	—	3 048	3 048	3 048	3 048	+16
122		3 099	3 099	3 099	—	−32
125		3 175	3 175	3 175	3 175	
128	—	3 251	3 251	3 251	—	+17
130		3 302	3 302	3 302	3 302	−34
132		—	3 353	3 353	—	
135		3 429	3 429	3 429	3 429	
138		—	3 505	3 505	—	
140	—	3 556	3 556	3 556	3 556	+18
142		—	—	3 607	—	−36
145		3 683	3 683	3 683	3 683	
148		—	—	3 759	—	
150	—	3 810	3 810	3 810	3 810	+19
155		3 937	3 937	3 937	3 937	−38
160	—	4 064	4 064	4 064	4 064	+20
165		—	4 191	4 191	4 191	−40
170	—	4 318	4 318	4 318	4 318	+22
180		4 572	4 572	4 572	4 572	−45
190		—	4 826	4 826	4 826	
200	—	—	5 080	5 080	5 080	+25
210			5 334	5 334	5 334	−50
220			—	5 588	5 588	
230			—	5 842	5 842	
240	—	—	—	6 096	6 096	+27
250				6 350	6 350	−55
260				—	6 604	
270	—	—	—	—	6 858	+30
280					7 112	−60
300	—	—	—	—	7 620	+35
310					7 874	−70
330					8 382	

7 Performances

7.1 Tensile strength and elongation

The tensile strength and elongation of the V-belt per piece shall be as given in table 3 when the test is performed in accordance with 8.2.

Table 3 Tensile strength and elongation of V-belt per piece

Test item			Types				
			M	A	B	C	D
Tensile test	Tensile strength per piece	kN	1.2 min.	2.4 min.	3.5 min.	5.9 min.	10.8 min.
	Elongation ^{a)}	%	7 max.	7 max.	7 max.	8 max.	8 max.
Note ^{a)} It shall be taken as the elongation generated when forces given in table 6 of 8.2 are applied.							

7.2 Number of flexures and rate of change in distance between shafts of pulleys

The number of flexures and rate of change in distance between shafts of pulleys in flexural fatigue test of V-belts shall be, when the test is conducted according to 8.3, in accordance with the requirements in table 4.

The flexural fatigue test shall be applied to V-belts of Class A and Class B.

Table 4 Number of flexures and rate of change in distance between shafts of pulleys

Test item			Class	
			A	B
Flexural fatigue test	Number of flexures		10 ⁷ min.	10 ⁷ min.
	Rate of change in distance between shafts of pulleys after 24 h %		2 max.	2 max.

8 Test methods

8.1 Measurement of length

The length of V-belts shall be measured using the equipment given in figure 2.

Set a V-belt on two V-pulleys for length measurement as given in table 5, and after applying the force (F) given in table 5, measure the distance between shafts of V-pulleys, and calculate the length of the V-belt with the following formula (1).

$$L = 2C + K \dots\dots\dots (1)$$

where, L : length of V-belt (mm)
 C : distance between shafts (mm)
 K : constant (mm) (see table 5)