SLOVENSKI STANDARD
SIST ISO 5296:2013

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Nadomešča:
SIST ISO 5296-1:1997
SIST ISO 5296-2:1997

Jermenski pogoni - Zobati jermenski pogoni - Jermeni z oznakami MXL, XXL, XL, L, H, XH in XXH - Mere v milimetrih in colah

Synchronous belt drives - Belts with pitch codes MXL, XXL, XL, L, H, XH and XXH - Metric and inch dimensions

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Transmissions synchrones par courroies - Courroies de symboles de pas MXL, XXL, XL, L, H, XH et XXH - Dimensions métriques et en inches

Ta slovenski standard je istoveten z: **ISO 5296:2012**

ICS:

21.220.10	Jermenski pogoni in njihovi deli	Belt drives and their components

SIST ISO 5296:2013 **en**

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INTERNATIONAL STANDARD

ISO
5296

Second edition
2012-05-15

Synchronous belt drives — Belts with pitch codes MXL, XXL, XL, L, H, XH and XXH — Metric and inch dimensions

Transmissions synchrones par courroies — Courroies de symboles de pas MXL, XXL, XL, L, H, XH et XXH — Dimensions métriques et en inches

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ISO 5296:2012(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also

 take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5296 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 4, *Synchronous belt drives*.

This second edition of ISO 5296 cancels and replaces the first editions of ISO 5296-1:1989 and ISO 5296-2:1989.

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INTERNATIONAL STANDARD

ISO 5296:2012(E)

Synchronous belt drives — Belts with pitch codes MXL, XXL, XL, L, H, XH and XXH — Metric and inch dimensions

1 Scope

This International Standard specifies the principal characteristics of synchronous endless belts for use in synchronous belt drives for mechanical power transmission and where positive indexing or synchronization is required.

NOTE   Synchronous belt drives have been known by various titles, for example timing belt drives, positive belt drives, and gear belt drives.

The principal characteristics include:

a)   nominal tooth dimensions;

b)   length and width dimensions;

c)   tolerances on these dimensions;

d)   length-measurement specifications.

This International Standard is applicable to synchronous belt drives with pitch codes MXL, XXL, XL, L, H, XH and XXH, in both metric and inch dimensions.

2 Pitch codes

The pitch codes and the corresponding belt pitches are given in Table 1.

Table 1 — Pitch codes

Pitch code	Belt pitch[a]	
	mm	in
MXL	2,032	0,080
XXL	3,175	0,125
XL	5,080	0,200
L	9,525	0,375
H	12,700	0,500
XH	22,225	0,875
XXH	31,750	1,250
[a] Carried to the third decimal place because belt pitch is a defined value.		

3 Dimensions and tolerances

3.1 Tooth dimensions

The nominal belt tooth dimensions are the same for one-sided and double-sided belts; they are given in Table 2 and are shown in Figures 1, 2 and 3.

Two types of double-sided synchronous belts are standardized. Type A (see Figure 2) has symmetrical teeth and Type B (see Figure 3) has staggered teeth.
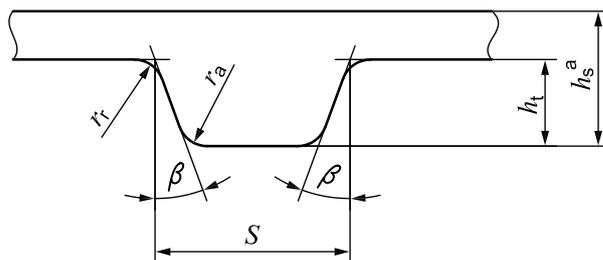
^a See Table 5.

Figure 1 — Tooth profile, one-sided

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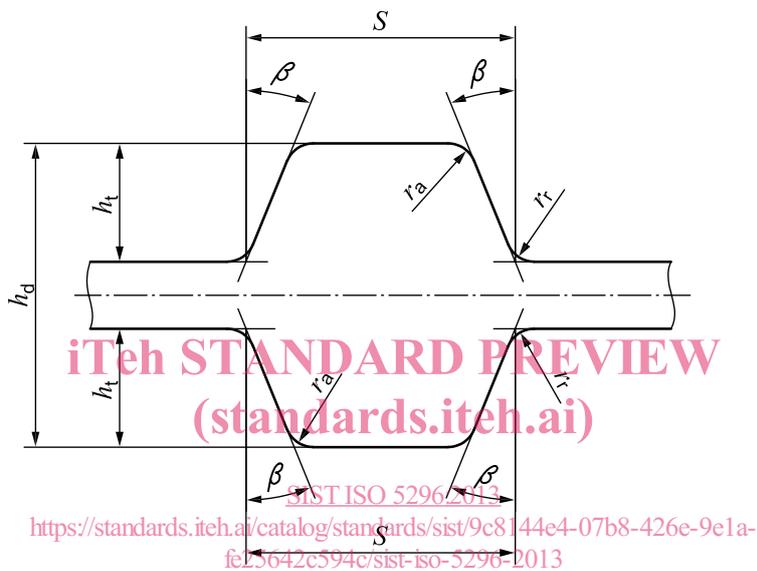
Figure 2 — Tooth profile, double-sided — Type A
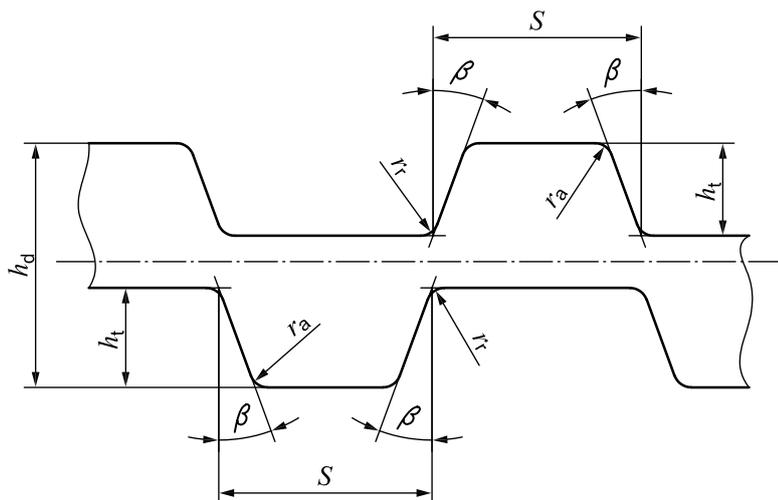
Figure 3 — Tooth profile, double-sided — Type B

**Table 2 — Nominal tooth dimensions**

Pitch code	2β degrees	s		h_t		r_r		r_a	
		mm	in	mm	in	mm	in	mm	in
MXL	40	1,14	0,045	0,51	0,02	0,13	0,005	0,13	0,005
XXL	50	1,73	0,068	0,76	0,03	0,2	0,008	0,3	0,012
XL	50	2,57	0,101	1,27	0,05	0,38	0,015	0,38	0,015
L	40	4,65	0,183	1,91	0,075	0,51	0,020	0,51	0,02
H	40	6,12	0,241	2,29	0,09	1,02	0,040	1,02	0,04
XH	40	12,57	0,495	6,35	0,25	1,57	0,062	1,19	0,047
XXH	40	19,05	0,750	9,53	0,375	2,29	0,090	1,52	0,06

3.2 Belt pitch lengths and tolerances

3.2.1 Single-sided belts

The belt pitch lengths and tolerances are given in Tables 3 and 4.

Table 3 — Pitch lengths and tolerances — XL, L, H, XH, XXH belt sections

Belt length designation	Pitch length		Tolerance		Number of teeth for standard lengths				
	mm	in	mm	in	XL (0,200)	L (0,375)	H (0,500)	XH (0,875)	XXH (1,250)
60	152,40	6,000	±0,41	±0,016	30				
70	177,80	7,000	±0,41	±0,016	35				
80	203,20	8,000	±0,41	±0,016	40				
90	228,60	9,000	±0,41	±0,016	45				
100	254,00	10,000	±0,41	±0,016	50				
110	279,40	11,000	±0,46	±0,018	55				
120	304,80	12,000	±0,46	±0,018	60				
124	314,33	12,375	±0,46	±0,018		33			
130	330,20	13,000	±0,46	±0,018	65				
140	355,60	14,000	±0,46	±0,018	70				
150	381,00	15,000	±0,46	±0,018	75	40			
160	406,40	16,000	±0,51	±0,020	80				
170	431,80	17,000	±0,51	±0,020	85				
180	457,20	18,000	±0,51	±0,020	90				
187	476,25	18,750	±0,51	±0,020		50			
190	482,60	19,000	±0,51	±0,020	95				
200	508,00	20,000	±0,51	±0,020	100				
210	533,40	21,000	±0,61	±0,024	105	56			
220	558,80	22,000	±0,61	±0,024	110				
225	571,50	22,500	±0,61	±0,024		60			