PINGXIANG HUSHENG RUBBER PRODUCTS CO.,LTD

H Synchronous Belt — Specification & Complete Size Chart

12.7 mm (0.500 in) Pitch Trapezoidal Timing Belt · Conforms to ISO 5296 · Shusheng Brand

Shusheng

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H Synchronous Belt — Specification, Materials & Complete Size Chart

1. H Synchronous Belt Overview

An inch-pitch trapezoidal timing belt with a 12.7 mm (0.500 in) tooth pitch, built for heavy-duty industrial drives.

The H synchronous belt is an inch-pitch synchronous belt with a **0.500 inch (12.7 mm) trapezoidal tooth profile**. Power is transmitted by the meshing of the belt teeth with the pulley grooves rather than by friction, so an H belt drive runs with **no slip and no speed fluctuation**, which is what makes the H profile a standard choice for heavy-duty industrial power transmission.

Because the tooth form is trapezoidal and the pitch is imperial, the H profile is fully interchangeable with standard H pulleys to **ISO 5296**. The deep, wide tooth gives the belt a large shear area, so the H profile transmits high torque in a compact drive without the excessive belt width a lighter profile would need. An H synchronous belt needs no lubrication, runs with little noise, reaches a transmission efficiency of **up to 98%**, holds a speed ratio of **up to 1:10** and runs at a maximum linear speed of **30 m/s**. The service life in standard industrial applications is **20,000 to 30,000 hours**.

Every belt in this catalogue is manufactured to the inch-pitch trapezoidal H profile, conforming to **ISO 5296** with a 12.7 mm (0.5 in) pitch, a 2.29 mm tooth height and a 40 degree pressure angle. This document covers the belt code (section 2), the technical specification (section 3), the complete size list from **H120** to **H2720** (section 4), the materials (section 5) and the contact details (section 6).

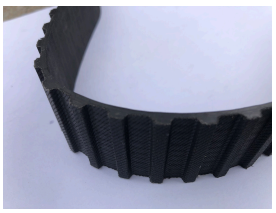


Figure 1: An H synchronous belt — 12.7 mm (0.500 in) tooth pitch, 2.29 mm tooth height, 4.3 mm belt thickness — with the trapezoidal teeth and the nylon tooth facing visible.

2. Belt Designation & Code Meaning

How the profile, the dimensions and the code on the belt are read.

2.1 Profile geometry

The H profile is defined by four numbers: a **tooth pitch of 12.7 mm (0.500 in)**, a **tooth height of 2.29 mm (0.090 in)**, a **belt total thickness of 4.3 mm (0.169 in)** and a **40 degree pressure angle** on a trapezoidal tooth. The wide, deep tooth gives a large shear area, so the H profile transmits high torque and keeps timing accurate under heavy and reversing loads.

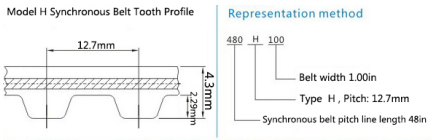


Figure 2: H tooth profile and representation method — a 12.7 mm tooth pitch, a 2.29 mm tooth height and a 4.3 mm belt total thickness, with the code read as pitch line length – type H – belt width.

2.2 How the code reads

An H belt is designated by its **pitch line length code**, the letter **H** for the profile and a **belt width code**: **[Pitch Length Code] - H - [Belt Width Code]**. Taking **480H100** as the example: **480** is the pitch line length code (48.0 inches), **H** is the profile (12.7 mm pitch) and **100** is the belt width code (1.00 inch).

The number in an H belt code is the **pitch line length in tenths of an inch**, measured at the cord line: **480H100** is an H synchronous belt with a pitch line length of **48.0 inches (1219.2 mm)**, an H trapezoidal tooth profile with a 12.7 mm pitch and a belt width of **1.00 inch (25.4 mm)**; the model number without the width code is **480H**.

Because the pitch is exactly 12.7 mm, the tooth count follows directly: **teeth = pitch line length in inches × 2**. So **480H** has **96 teeth**, **120H** (12.0 in) has 24 teeth and **2720H** (272.0 in) has 544 teeth.

> Spelling of the code: the size list in section 4 writes the same belt as **H480**, and the forms **H480** and **480H** are identical — both mean an H belt with a 48.0 inch (1219.2 mm) pitch line length.

2.3 Belt widths

Six standard belt widths are stocked; non-standard widths and custom lengths are available on request.

Table 1 H synchronous belt standard widths

Width Code	Width (in)	Width (mm)	Typical Drive Duty
075	0.75	19.1	Light-duty, compact drives
100	1.00	25.4	General-purpose industrial drives
150	1.50	38.1	Medium-heavy industrial drives
200	2.00	50.8	Heavy-duty machinery
300	3.00	76.2	High-torque applications
400	4.00	101.6	Maximum torque capacity of the H range

2.4 Marking & interchangeability

Each belt carries its pitch line length and the profile code H on the back, so a belt in service can be re-ordered without measuring the drive. An H belt runs only on an H pulley and is **not interchangeable** with the larger XH profile (22.225 mm pitch) or with metric-pitch profiles.

3. Technical Specifications

All sizes share the same profile, materials and performance; only the pitch length and tooth count change.

Table 2 H Synchronous Belt — Profile & Dimensions

Property	Specification
Profile / System	Inch-pitch synchronous belt, H profile (trapezoidal tooth)
Tooth Pitch	12.7 mm / 0.500 in
Tooth Height	2.29 mm / 0.090 in
Belt Total Thickness	4.3 mm / 0.169 in
Pressure Angle	40°
Tooth Form	Trapezoidal, inch pitch (H series)
Standard Widths	075 / 100 / 150 / 200 / 300 / 400 (0.75 in to 4.00 in); other widths on request
Standard	Conforms to ISO 5296 (synchronous belt drives, inch pitch, trapezoidal tooth profile)

Table 3 H Synchronous Belt — Performance & Ordering Data

Property	Specification
Tensile Member	High-strength glass fiber cord with very low elongation
Body Compound	Premium chloroprene rubber (CR), blended with rubber additives
Tooth Facing	Specially treated high-elasticity Nylon 66 fabric
Transmission Efficiency	Up to 98%
Maximum Linear Speed	30 m/s
Speed Ratio	Up to 1:10 (multi-shaft drives supported)
Operating Temperature	−30 °C to +90 °C
Service Life	20,000 to 30,000 hours in standard industrial applications
Pitch Length Range	120H to 2720H — 12.0 in to 272.0 in (304.8 mm to 6908.8 mm), 230 standard models
Tooth Count Range	24 to 544 teeth
Minimum Order Quantity	100 pcs per size (standard); custom sizes on request
Indicative Price Range	US$2.44 – US$210.03 per piece (varies by length and width)
Lead Time	15–20 days

Every code maps to its dimensions: the **number is the pitch line length in tenths of an inch** and the **tooth count is that length divided by the 12.7 mm pitch**, so 120H is 12.0 in with 24 teeth and 2720H is 272.0 in with 544 teeth.

4. Complete H Size Chart

The table below lists every stocked H synchronous belt with its pitch line length and tooth count, in both accepted code forms. The number in an H belt code is the pitch line length in tenths of an inch — so **H480 and 480H are the same belt**, 48.0 in (1219.2 mm) — and the tooth count follows as the pitch line length in inches multiplied by 2.

Table 4 Complete H Synchronous Belt Size Chart — 230 models, H120 to H2720 (pitch length 12.0 in to 272.0 in)

Size List Code	Belt Code	Pitch Length (in)	Pitch Length (mm)	Teeth (n)	Size List Code	Belt Code	Pitch Length (in)	Pitch Length (mm)	Teeth (n)	Size List Code	Belt Code	Pitch Length (in)	Pitch Length (mm)	Teeth (n)	Size List Code	Belt Code	Pitch Length (in)	Pitch Length (mm)	Teeth (n)
H120	120H	12.0	304.8	24	H465	465H	46.5	1181.1	93	H830	830H	83.0	2108.2	166	H1405	1405H	140.5	3568.7	281
H145	145H	14.5	368.3	29	H470	470H	47.0	1193.8	94	H840	840H	84.0	2133.6	168	H1440	1440H	144.0	3657.6	288
H185	185H	18.5	469.9	37	H475	475H	47.5	1206.5	95	H850	850H	85.0	2159.0	170	H1450	1450H	145.0	3683.0	290
H190	190H	19.0	482.6	38	H480	480H	48.0	1219.2	96	H860	860H	86.0	2184.4	172	H1460	1460H	146.0	3708.4	292
H195	195H	19.5	495.3	39	H485	485H	48.5	1231.9	97	H870	870H	87.0	2209.8	174	H1500	1500H	150.0	3810.0	300
H200	200H	20.0	508.0	40	H490	490H	49.0	1244.6	98	H880	880H	88.0	2235.2	176	H1510	1510H	151.0	3835.4	302
H205	205H	20.5	520.7	41	H495	495H	49.5	1257.3	99	H890	890H	89.0	2260.6	178	H1520	1520H	152.0	3860.8	304
H210	210H	21.0	533.4	42	H500	500H	50.0	1270.0	100	H900	900H	90.0	2286.0	180	H1535	1535H	153.5	3898.9	307
H215	215H	21.5	546.1	43	H505	505H	50.5	1282.7	101	H910	910H	91.0	2311.4	182	H1540	1540H	154.0	3911.6	308
H220	220H	22.0	558.8	44	H510	510H	51.0	1295.4	102	H920	920H	92.0	2336.8	184	H1550	1550H	155.0	3937.0	310
H225	225H	22.5	571.5	45	H515	515H	51.5	1308.1	103	H930	930H	93.0	2362.2	186	H1560	1560H	156.0	3962.4	312
H230	230H	23.0	584.2	46	H520	520H	52.0	1320.8	104	H940	940H	94.0	2387.6	188	H1600	1600H	160.0	4064.0	320
H235	235H	23.5	596.9	47	H525	525H	52.5	1333.5	105	H950	950H	95.0	2413.0	190	H1610	1610H	161.0	4089.4	322
H240	240H	24.0	609.6	48	H530	530H	53.0	1346.2	106	H960	960H	96.0	2438.4	192	H1620	1620H	162.0	4114.8	324
H245	245H	24.5	622.3	49	H535	535H	53.5	1358.9	107	H970	970H	97.0	2463.8	194	H1630	1630H	163.0	4140.2	326
H250	250H	25.0	635.0	50	H540	540H	54.0	1371.6	108	H980	980H	98.0	2489.2	196	H1645	1645H	164.5	4178.3	329
H255	255H	25.5	647.7	51	H550	550H	55.0	1397.0	110	H985	985H	98.5	2501.9	197	H1650	1650H	165.0	4191.0	330
H260	260H	26.0	660.4	52	H555	555H	55.5	1409.7	111	H1000	1000H	100.0	2540.0	200	H1660	1660H	166.0	4216.4	332
H265	265H	26.5	673.1	53	H560	560H	56.0	1422.4	112	H1020	1020H	102.0	2590.8	204	H1680	1680H	168.0	4267.2	336
H270	270H	27.0	685.8	54	H565	565H	56.5	1435.1	113	H1030	1030H	103.0	2616.2	206	H1690	1690H	169.0	4292.6	338
H275	275H	27.5	698.5	55	H570	570H	57.0	1447.8	114	H1040	1040H	104.0	2641.6	208	H1700	1700H	170.0	4318.0	340
H280	280H	28.0	711.2	56	H575	575H	57.5	1460.5	115	H1050	1050H	105.0	2667.0	210	H1740	1740H	174.0	4419.6	348
H285	285H	28.5	723.9	57	H580	580H	58.0	1473.2	116	H1060	1060H	106.0	2692.4	212	H1750	1750H	175.0	4445.0	350
H290	290H	29.0	736.6	58	H585	585H	58.5	1485.9	117	H1070	1070H	107.0	2717.8	214	H1765	1765H	176.5	4483.1	353
H295	295H	29.5	749.3	59	H590	590H	59.0	1498.6	118	H1080	1080H	108.0	2743.2	216	H1775	1775H	177.5	4508.5	355
H300	300H	30.0	762.0	60	H600	600H	60.0	1524.0	120	H1085	1085H	108.5	2755.9	217	H1800	1800H	180.0	4572.0	360
H305	305H	30.5	774.7	61	H605	605H	60.5	1536.7	121	H1100	1100H	110.0	2794.0	220	H1855	1855H	185.5	4711.7	371
H310	310H	31.0	787.4	62	H610	610H	61.0	1549.4	122	H1110	1110H	111.0	2819.4	222	H1890	1890H	189.0	4800.6	378
H315	315H	31.5	800.1	63	H615	615H	61.5	1562.1	123	H1120	1120H	112.0	2844.8	224	H1900	1900H	190.0	4826.0	380
H320	320H	32.0	812.8	64	H620	620H	62.0	1574.8	124	H1125	1125H	112.5	2857.5	225	H1920	1920H	192.0	4876.8	384
H325	325H	32.5	825.5	65	H625	625H	62.5	1587.5	125	H1130	1130H	113.0	2870.2	226	H1950	1950H	195.0	4953.0	390
H330	330H	33.0	838.2	66	H630	630H	63.0	1600.2	126	H1135	1135H	113.5	2882.9	227	H1995	1995H	199.5	5067.3	399
H335	335H	33.5	850.9	67	H640	640H	64.0	1625.6	128	H1140	1140H	114.0	2895.6	228	H2000	2000H	200.0	5080.0	400
H340	340H	34.0	863.6	68	H645	645H	64.5	1638.3	129	H1145	1145H	114.5	2908.3	229	H2010	2010H	201.0	5105.4	402
H345	345H	34.5	876.3	69	H650	650H	65.0	1651.0	130	H1150	1150H	115.0	2921.0	230	H2050	2050H	205.0	5207.0	410
H350	350H	35.0	889.0	70	H660	660H	66.0	1676.4	132	H1160	1160H	116.0	2946.4	232	H2090	2090H	209.0	5308.6	418
H355	355H	35.5	901.7	71	H670	670H	67.0	1701.8	134	H1170	1170H	117.0	2971.8	234	H2100	2100H	210.0	5334.0	420
H360	360H	36.0	914.4	72	H675	675H	67.5	1714.5	135	H1175	1175H	117.5	2984.5	235	H2120	2120H	212.0	5384.8	424
H365	365H	36.5	927.1	73	H680	680H	68.0	1727.2	136	H1180	1180H	118.0	2997.2	236	H2145	2145H	214.5	5448.3	429
H370	370H	37.0	939.8	74	H690	690H	69.0	1752.6	138	H1200	1200H	120.0	3048.0	240	H2160	2160H	216.0	5486.4	432
H375	375H	37.5	952.5	75	H695	695H	69.5	1765.3	139	H1230	1230H	123.0	3124.2	246	H2200	2200H	220.0	5588.0	440
H380	380H	38.0	965.2	76	H700	700H	70.0	1778.0	140	H1250	1250H	125.0	3175.0	250	H2210	2210H	221.0	5613.4	442
H385	385H	38.5	977.9	77	H710	710H	71.0	1803.4	142	H1260	1260H	126.0	3200.4	252	H2260	2260H	226.0	5740.4	452
H390	390H	39.0	990.6	78	H720	720H	72.0	1828.8	144	H1270	1270H	127.0	3225.8	254	H2320	2320H	232.0	5892.8	464
H395	395H	39.5	1003.3	79	H725	725H	72.5	1841.5	145	H1280	1280H	128.0	3251.2	256	H2355	2355H	235.5	5981.7	471
H400	400H	40.0	1016.0	80	H730	730H	73.0	1854.2	146	H1285	1285H	128.5	3263.9	257	H2360	2360H	236.0	5994.4	472
H405	405H	40.5	1028.7	81	H740	740H	74.0	1879.6	148	H1300	1300H	130.0	3302.0	260	H2385	2385H	238.5	6057.9	477
H410	410H	41.0	1041.4	82	H750	750H	75.0	1905.0	150	H1320	1320H	132.0	3352.8	264	H2390	2390H	239.0	6070.6	478
H415	415H	41.5	1054.1	83	H755	755H	75.5	1917.7	151	H1325	1325H	132.5	3365.5	265	H2440	2440H	244.0	6197.6	488
H420	420H	42.0	1066.8	84	H760	760H	76.0	1930.4	152	H1340	1340H	134.0	3403.6	268	H2475	2475H	247.5	6286.5	495
H425	425H	42.5	1079.5	85	H770	770H	77.0	1955.8	154	H1345	1345H	134.5	3416.3	269	H2500	2500H	250.0	6350.0	500
H430	430H	43.0	1092.2	86	H775	775H	77.5	1968.5	155	H1350	1350H	135.0	3429.0	270	H2600	2600H	260.0	6604.0	520
H435	435H	43.5	1104.9	87	H780	780H	78.0	1981.2	156	H1360	1360H	136.0	3454.4	272	H2640	2640H	264.0	6705.6	528
H440	440H	44.0	1117.6	88	H785	785H	78.5	1993.9	157	H1375	1375H	137.5	3492.5	275	H2680	2680H	268.0	6807.2	536
H445	445H	44.5	1130.3	89	H790	790H	79.0	2006.6	158	H1380	1380H	138.0	3505.2	276	H2695	2695H	269.5	6845.3	539
H450	450H	45.0	1143.0	90	H800	800H	80.0	2032.0	160	H1390	1390H	139.0	3530.6	278	H2700	2700H	270.0	6858.0	540
H455	455H	45.5	1155.7	91	H810	810H	81.0	2057.4	162	H1400	1400H	140.0	3556.0	280	H2720	2720H	272.0	6908.8	544
H460	460H	46.0	1168.4	92	H820	820H	82.0	2082.8	164										

All **230** codes from **H120** to **H2720** are listed above; custom lengths and widths on request. Conforms to ISO 5296. Download this specification PDF from the product page: drive-belt.com/timing-belts/h-synchronous-belt.

5. Materials & Construction

> **Layer 01 — Tensile member**
> High-strength glass fiber cord carries the full tensile load with very low elongation, keeping the pitch length stable under load.

> **Layer 02 — Body compound**
> Premium chloroprene rubber (CR) blended with rubber additives; bonds and protects the cord and resists heat, cold, oil, water, acid, alkali and flex fatigue.

> **Layer 03 — Tooth facing**
> Specially treated high-elasticity Nylon 66 fabric; low friction and high wear resistance preserve the tooth form and keep the drive quiet.

5.1 Application

H synchronous belts drive heavy-duty industrial equipment such as machine tools, pumps, compressors, fans, blowers, conveyors, printing and packaging machinery and textile machinery, and serve as direct replacements on existing H pulley drives.

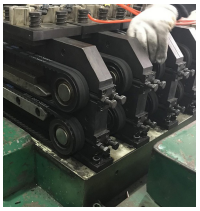


Figure 3: An H synchronous belt on an industrial machine drive — machine tools, pumps, compressors, fans and conveyors.

6. Contact & Ordering Information

All standard H synchronous belts are supplied as endless belts; OEM customisation and private labelling are available for distributors. When requesting a quote, please specify the belt length code, the belt width code, the quantity and any special material requirement.

Company: Pingxiang Husheng Rubber Products Co.,Ltd • **Brand:** Shusheng
Website: https://drive-belt.com • **H Synchronous Belt page:** https://drive-belt.com/timing-belts/h-synchronous-belt
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