PINGXIANG HUSHENG RUBBER PRODUCTS CO.,LTD

STD / STS S2M Synchronous Belt — Specification & Complete Size Chart

2.00 mm Pitch Curvilinear Timing Belt · Conforms to ISO 13050 · Shusheng Brand

Shusheng

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S2M Synchronous Belt — Specification, Materials & Complete Size Chart

1. S2M Synchronous Belt Overview

The 2.00 mm pitch member of the STD / STS curvilinear timing belt family, built for micro-precision drives.

The S2M synchronous belt is a **2.00 mm pitch** timing belt with a **flat-top semi-circular (modified curvilinear) tooth**. It belongs to the STD / STS profile system and is defined by a **0.76 mm tooth height** and a **1.36 mm belt thickness**. Power is transmitted by tooth-and-groove meshing rather than by friction, so an S2M drive has no slip and no speed drift — the property that miniature servo stages and precision positioning axes need.

Every S2M belt in this catalogue is manufactured to conform to the ISO 13050 standard for metric-pitch curvilinear synchronous belts and pulleys. Transmission efficiency reaches 98% or more, the speed ratio extends to 1:10, and the permissible line speed reaches 50 m/s.

This document keeps to the four things a buyer needs: how to read the S2M belt code (section 2), the complete technical specification (section 3), the materials and construction (section 5), and the full size list from **S2M52** to **S2M3000** (section 4). Contact and ordering information follows.



Figure 1: An S2M synchronous belt set — 2.00 mm pitch, 0.76 mm tooth height, 1.36 mm belt thickness — with the moulded belt code on the back.

2. Belt Designation & Code Meaning

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

2.1 Profile geometry

The tooth is a flat-top semi-circular form, the shape that gives the STD / STS system its low backlash.

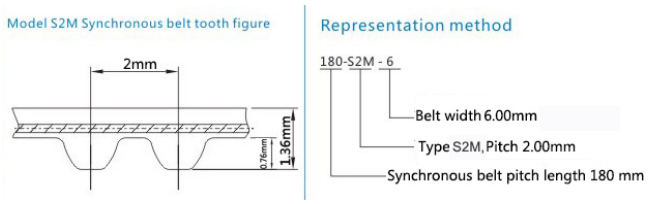


Figure 2: S2M tooth figure and representation method — 2.00 mm pitch and 0.76 mm tooth height, with the code read as pitch length (mm) – profile – belt width (mm).

2.2 How the code reads

A complete S2M ordering code has three parts joined by dashes: the **pitch length in millimetres**, the **profile designation S2M** and the **belt width in millimetres**. The code **400-S2M-6** therefore means an S2M synchronous belt with a pitch length of **400 mm**, an STD / STS S2M tooth profile and a belt width of **6 mm**. Because the pitch is 2.00 mm, that belt carries **200 teeth**.

In this catalogue the profile prefix is written first, so the same 400 mm belt appears in the size chart as **S2M400**; S2M400, 400-S2M and the full ordering code 400-S2M-6 all describe the same pitch length. The shortest belt listed, **S2M52**, has a pitch length of 52 mm and 26 teeth, and the longest, **S2M3000**, has a pitch length of 3000 mm and 1500 teeth.

The number is the **pitch length** — the length measured at the cord line of the belt — not the outside circumference and not the inside length. For any S2M belt the tooth count follows directly: teeth = pitch length / 2 mm.

2.3 Marking on the belt

Each belt is marked on the back with the full code — pitch length, profile and width — together with a production code. A belt already in service can therefore be identified and re-ordered without measuring the drive.

2.4 Interchangeability

The S2M belt shares its 2.00 mm pitch with the HTD 2M profile but not its tooth geometry, so the two are **not interchangeable**: an S2M belt must run on an S2M / STS pulley and an HTD 2M belt on an HTD 2M pulley. Match the pulley marking before fitting. Within the STD / STS system, S2M belts are dimensionally interchangeable with equivalent-profile S2M belts from other mainstream manufacturers, as both are made to ISO 13050.

3. Technical Specifications

The values below are the same for every size in the range, from the shortest S2M52 to the longest S2M3000.

Table 1 S2M Synchronous Belt — Technical Specifications

Property	Specification
Profile / System	STD / STS (Super Torque Drive) curvilinear synchronous belt
Tooth Shape	Flat-top semi-circular (modified curvilinear)
Tooth Pitch	2.00 mm
Tooth Height	0.76 mm
Belt Thickness	1.36 mm
Tooth Flank Angle	40° approx. at the root
Standard Widths	4 / 5 / 6 / 8 / 10 mm (custom widths up to 200 mm on request)
Tensile Member	High-strength glass fiber cord, very low elongation
Body Compound	Chloroprene rubber (CR); HNBR compound available on request
Tooth Facing	Specially treated Nylon 66 elastic fabric
Standard	Conforms to ISO 13050 (metric pitch curvilinear synchronous belts, STD / STS profile)
Transmission Efficiency	98% or more
Speed Ratio	Up to 1:10
Maximum Line Speed	50 m/s
Operating Temperature	−30 °C to +90 °C
Pitch Length Range	S2M52 to S2M3000 — 52 mm to 3000 mm
Number of Standard Codes	255
Minimum Order Quantity	300 pcs per size
Standard Delivery	15–20 days from order confirmation
Indicative Price Range	US$0.50 – US$40.70 per piece (varies by size and quantity)

In plain terms, the S2M belt has a 2.00 mm pitch, a 0.76 mm tooth height and a 1.36 mm belt thickness, and runs at up to 50 m/s between −30 °C and +90 °C with 98% or more transmission efficiency.

3.1 Reading an S2M belt code

Three worked examples show how a code maps to the dimensions. **S2M52** has a pitch length of 52 mm and 26 teeth, **S2M400** has a pitch length of 400 mm and 200 teeth, and **S2M3000** has a pitch length of 3000 mm and 1500 teeth; every S2M belt shares the same 2.00 mm pitch, 0.76 mm tooth height and 1.36 mm thickness.

Table 2 Worked examples — how an S2M belt code reads

Belt Code	Pitch Length (mm)	Teeth (n)	Tooth Pitch	Tooth Height
S2M52	52	26	2.00 mm	0.76 mm
S2M400	400	200	2.00 mm	0.76 mm
S2M3000	3000	1500	2.00 mm	0.76 mm

4. Complete S2M Size Chart

Table 3 Complete S2M Synchronous Belt Size Chart — 255 codes, S2M52 to S2M3000

Belt Code	Pitch Length (mm)	Teeth (n)	Belt Code	Pitch Length (mm)	Teeth (n)	Belt Code	Pitch Length (mm)	Teeth (n)	Belt Code	Pitch Length (mm)	Teeth (n)	Belt Code	Pitch Length (mm)	Teeth (n)	Belt Code	Pitch Length (mm)	Teeth (n)
S2M52	52	26	S2M152	152	76	S2M242	242	121	S2M344	344	172	S2M506	506	253	S2M800	800	400
S2M56	56	28	S2M154	154	77	S2M244	244	122	S2M348	348	174	S2M516	516	258	S2M810	810	405
S2M66	66	33	S2M156	156	78	S2M246	246	123	S2M350	350	175	S2M518	518	259	S2M824	824	412
S2M70	70	35	S2M158	158	79	S2M248	248	124	S2M354	354	177	S2M520	520	260	S2M840	840	420
S2M72	72	36	S2M160	160	80	S2M250	250	125	S2M356	356	178	S2M530	530	265	S2M848	848	424
S2M74	74	37	S2M162	162	81	S2M252	252	126	S2M360	360	180	S2M534	534	267	S2M852	852	426
S2M76	76	38	S2M164	164	82	S2M254	254	127	S2M362	362	181	S2M550	550	275	S2M872	872	436
S2M78	78	39	S2M166	166	83	S2M256	256	128	S2M364	364	182	S2M556	556	278	S2M888	888	444
S2M80	80	40	S2M168	168	84	S2M258	258	129	S2M366	366	183	S2M558	558	279	S2M890	890	445
S2M82	82	41	S2M170	170	85	S2M260	260	130	S2M368	368	184	S2M560	560	280	S2M900	900	450
S2M84	84	42	S2M172	172	86	S2M262	262	131	S2M370	370	185	S2M570	570	285	S2M906	906	453
S2M86	86	43	S2M174	174	87	S2M264	264	132	S2M372	372	186	S2M578	578	289	S2M910	910	455
S2M90	90	45	S2M176	176	88	S2M266	266	133	S2M376	376	188	S2M582	582	291	S2M928	928	464
S2M92	92	46	S2M178	178	89	S2M268	268	134	S2M380	380	190	S2M600	600	300	S2M930	930	465
S2M94	94	47	S2M180	180	90	S2M270	270	135	S2M384	384	192	S2M604	604	302	S2M960	960	480
S2M96	96	48	S2M182	182	91	S2M274	274	137	S2M386	386	193	S2M606	606	303	S2M976	976	488
S2M98	98	49	S2M184	184	92	S2M276	276	138	S2M388	388	194	S2M610	610	305	S2M1000	1000	500
S2M100	100	50	S2M186	186	93	S2M280	280	140	S2M392	392	196	S2M616	616	308	S2M1040	1040	520
S2M102	102	51	S2M188	188	94	S2M282	282	141	S2M394	394	197	S2M622	622	311	S2M1068	1068	534
S2M104	104	52	S2M190	190	95	S2M286	286	143	S2M400	400	200	S2M630	630	315	S2M1100	1100	550
S2M106	106	53	S2M192	192	96	S2M288	288	144	S2M404	404	202	S2M632	632	316	S2M1140	1140	570
S2M108	108	54	S2M194	194	97	S2M290	290	145	S2M406	406	203	S2M634	634	317	S2M1142	1142	571
S2M110	110	55	S2M196	196	98	S2M292	292	146	S2M410	410	205	S2M636	636	318	S2M1150	1150	575
S2M112	112	56	S2M198	198	99	S2M294	294	147	S2M412	412	206	S2M640	640	320	S2M1164	1164	582
S2M114	114	57	S2M200	200	100	S2M296	296	148	S2M420	420	210	S2M646	646	323	S2M1190	1190	595
S2M116	116	58	S2M202	202	101	S2M298	298	149	S2M428	428	214	S2M650	650	325	S2M1200	1200	600
S2M118	118	59	S2M204	204	102	S2M300	300	150	S2M430	430	215	S2M656	656	328	S2M1210	1210	605
S2M120	120	60	S2M206	206	103	S2M302	302	151	S2M436	436	218	S2M660	660	330	S2M1220	1220	610
S2M122	122	61	S2M208	208	104	S2M304	304	152	S2M440	440	220	S2M670	670	335	S2M1250	1250	625
S2M124	124	62	S2M210	210	105	S2M306	306	153	S2M450	450	225	S2M676	676	338	S2M1272	1272	636
S2M126	126	63	S2M212	212	106	S2M310	310	155	S2M460	460	230	S2M686	686	343	S2M1350	1350	675
S2M128	128	64	S2M214	214	107	S2M312	312	156	S2M468	468	234	S2M690	690	345	S2M1444	1444	722
S2M130	130	65	S2M216	216	108	S2M320	320	160	S2M470	470	235	S2M702	702	351	S2M1474	1474	737
S2M132	132	66	S2M218	218	109	S2M322	322	161	S2M476	476	238	S2M710	710	355	S2M1500	1500	750
S2M134	134	67	S2M220	220	110	S2M324	324	162	S2M478	478	239	S2M726	726	363	S2M1508	1508	754
S2M136	136	68	S2M224	224	112	S2M326	326	163	S2M480	480	240	S2M730	730	365	S2M1510	1510	755
S2M138	138	69	S2M226	226	113	S2M328	328	164	S2M486	486	243	S2M744	744	372	S2M1520	1520	760
S2M140	140	70	S2M228	228	114	S2M330	330	165	S2M488	488	244	S2M750	750	375	S2M1524	1524	762
S2M142	142	71	S2M230	230	115	S2M334	334	167	S2M490	490	245	S2M752	752	376	S2M1572	1572	786
S2M144	144	72	S2M232	232	116	S2M336	336	168	S2M492	492	246	S2M760	760	380	S2M2000	2000	1000
S2M146	146	73	S2M234	234	117	S2M338	338	169	S2M494	494	247	S2M770	770	385	S2M2270	2270	1135
S2M148	148	74	S2M236	236	118	S2M340	340	170	S2M500	500	250	S2M782	782	391	S2M3000	3000	1500
S2M150	150	75	S2M240	240	120	S2M342	342	171									

Every size in the range — **255 belt codes** from **S2M52** to **S2M3000** — is listed above with its pitch length in millimetres and its tooth count. The figure after the S2M prefix is the pitch length in millimetres, measured at the cord line in accordance with ISO 13050; the tooth count follows as pitch length divided by the 2.00 mm pitch. Codes run from 52 mm to 3000 mm; the profile prefix appears first in this chart, while the full ordering code places the width last, for example S2M400 = 400-S2M-4 or 400-S2M-6. Lengths between the listed steps and outside the range are supplied as custom items.

> All S2M belts in this catalogue conform to the ISO 13050 standard for metric-pitch curvilinear synchronous belts and pulleys, which fixes the tooth dimensions, pitch spacing and length tolerances so that an S2M belt of the same code is dimensionally

> interchangeable with equivalent-profile STD / STS belts from other mainstream manufacturers.

Download the S2M Timing Belt Specification PDF from the product page:
https://drive-belt.com/timing-belts/s2m-timing-belt

5. Materials & Construction

A three-layer composite: tensile cord, rubber body and wear-resistant tooth facing.

> **Layer 01 — Tensile member**
> High-strength glass fiber cord. The cord has very low elongation and keeps the pitch length stable under load, so the drive does not lose indexing accuracy as the torque rises.

> **Layer 02 — Body compound**
> Premium synthetic chloroprene rubber (CR). It holds the tooth form under repeated meshing load and resists heat, oil and ageing. HNBR compounds are available on request for high-temperature or oil-resistant applications.

> **Layer 03 — Tooth facing**
> Specially treated Nylon 66 elastic fabric. Its low friction and high wear resistance protect the flat-top tooth profile and keep meshing quiet through the life of the belt.

5.1 Applications

S2M belts drive 3D printers, plotters, micro linear modules, pick-and-place heads, medical and diagnostic equipment, office printers and copiers, small CNC routers, robotics, ATMs and vending machines.

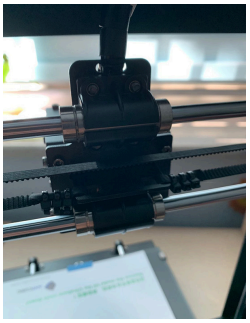


Figure 3: An S2M belt driving the linear axis of a 3D printer — the 2.00 mm pitch suits compact, high-precision motion systems.

6. Contact & Ordering Information

Company: Pingxiang Husheng Rubber Products Co.,Ltd • **Brand:** Shusheng
Website: https://drive-belt.com
S2M Timing Belt page: https://drive-belt.com/timing-belts/s2m-timing-belt
Email: panhusheng@zohomail.cn
Tel / WhatsApp: +86 151 0799 3145
Address: No. 132 Xihuan Road, Anyuan District, Pingxiang City, Jiangxi Province, China

When ordering, give the pitch length, the profile (S2M) and the belt width, for example 400-S2M-6. We confirm STD / STS compatibility and quote from stock lengths.

S2M Timing Belt — Specification, Materials & Complete Size Chart • version 2026.1, October 2026 • STD / STS S2M, 2.00 mm pitch • conforms to ISO 13050 • Shusheng / Pingxiang Husheng Rubber Products Co.,Ltd.