PINGXIANG HUSHENG RUBBER PRODUCTS CO.,LTD

# S5M STD/STS Synchronous Belt — Specification & Complete Size Chart

5 mm Pitch STD/STS Modified Curvilinear Timing Belt · Conforms to ISO 13050 · Shusheng Brand

**Shusheng**

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# S5M STD/STS Synchronous Belt — Specification, Materials & Complete Size Chart

## 1. S5M STD Synchronous Belt Overview

A 5 mm pitch STD/STS modified curvilinear tooth belt for compact, high-speed precision drives in packaging, printing and light industrial machinery.

The S5M synchronous belt (also written S5M STD belt or STS belt) is the **5 mm pitch** member of the STD / STS (Super Torque Drive) belt family. It uses a **modified curvilinear (STS/STD) tooth** rounded at the root and transmits power by tooth-and-groove meshing rather than friction, so an S5M drive runs with no slip, no speed drift and no lubrication. The rounded root reduces stress concentration, so an S5M belt carries more load and runs more quietly than a same-pitch trapezoidal T5 belt.

An S5M belt delivers up to **98% transmission efficiency**, runs at line speeds up to **40 m/s** and holds a speed ratio up to **1:10**. Every belt here is manufactured to the STD/STS 5 mm profile and conforms to **ISO 13050**, so it is dimensionally interchangeable with equivalent-profile S5M (STD/STS) belts from other mainstream manufacturers. This document covers the belt code (section 2), the technical specification (section 3), the complete size list from **S5M-145** to **S5M-4360** (section 4), the materials (section 5) and contact details.




**Figure 1:** An S5M STD synchronous belt — 5 mm pitch, 1.91 mm tooth height, 3.4 mm belt thickness — with the moulded belt code (STD 300-S5M) 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 S5M profile is defined by four numbers: a **tooth pitch of 5 mm**, a **tooth height of about 1.91 mm**, a **belt total thickness of about 3.4 mm** and a **modified curvilinear (STS/STD) rounded tooth form**. The rounded root increases the contact area and cuts stress

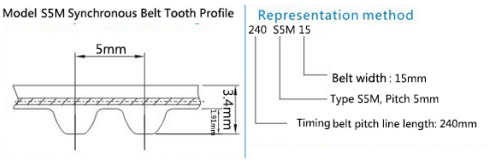



**Figure 2:** S5M tooth profile and representation method — a 5 mm tooth pitch, about a 1.91 mm tooth height and about a 3.4 mm belt total thickness, with the code read as pitch line length – type S5M – belt width.

### 2.2 How the code reads

An S5M belt is designated by its **pitch line length in millimetres** together with the profile code **S5M** and the width: **[Pitch Length] - [Pitch Code] - [Belt Width]**, for example **300-S5M-9** is an S5M belt with a **300 mm pitch line length** and a **9 mm width**. Our size list and purchase codes write the same belt as **S5M-300**; the codes **S5M-300 and 300-S5M are identical** and both mean an S5M belt with a 300 mm pitch line length. The size chart gives both forms side by side.

The number is the **pitch line length** measured at the cord line, not the outside or inside length. Since the pitch length is always a whole multiple of 5 mm, the tooth count follows directly: teeth = pitch length ÷ 5 mm. So **S5M-300** is **300 mm** / 60 teeth, while **S5M-145** is 145 mm and **S5M-4360** is 4360 mm.

### 2.3 Belt widths

Four standard widths are stocked; non-standard widths up to 300 mm and custom lengths are available on request.

**Table 1 S5M STD standard belt widths**

| Width (mm) | Typical Drive Duty |
|---|---|
| **9 mm** | Light-duty precision feeds, office and small appliance mechanisms |
| **15 mm** | General-purpose drives on packaging, printing and textile machinery |
| **20 mm** | Higher-torque conveyor and automated production line drives |
| **25 mm** | Widest standard width, highest torque capacity of the S5M range |

### 2.4 Marking & interchangeability

Each belt carries its pitch line length and the profile code S5M (or STD) on the back, so a belt in service can be re-ordered without measuring the drive. S5M (STD/STS) shares its 5 mm pitch

## 3. Technical Specifications

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

**Table 2 S5M STD Synchronous Belt — Profile & Dimensions**

| Property | Specification |
|---|---|
| **Profile / System** | Metric-pitch synchronous belt, STD / STS profile (S5M series) |
| **Tooth Pitch** | 5 mm |
| **Tooth Height** | ~1.91 mm |
| **Belt Total Thickness** | ~3.4 mm |
| **Tooth Profile** | Modified curvilinear, rounded semi-circular tooth (STD / STS) |
| **Standard Widths** | 9 / 15 / 20 / 25 mm; non-standard widths up to 300 mm on request |
| **Standard** | Conforms to ISO 13050 (synchronous belt drives, metric pitch, curvilinear tooth profile) |

**Table 3 S5M STD Synchronous Belt — Performance & Ordering Data**

| Property | Specification |
|---|---|
| **Tensile Member** | High-strength glass fiber cord with very low elongation |
| **Body Compound** | Premium synthetic chloroprene rubber (CR), blended with rubber additives |
| **Tooth Facing** | Specially treated high-elasticity Nylon 66 fabric |
| **Transmission Efficiency** | Up to 98% |
| **Maximum Linear Speed** | 40 m/s |
| **Speed Ratio** | Up to 1:10 (multi-shaft drives supported) |
| **Operating Temperature** | −30 °C to +90 °C |
| **Pitch Length Range** | S5M-145 to S5M-4360 — 145 mm to 4360 mm (280 standard models) |
| **Minimum Order Quantity** | 100 pcs per size (standard); custom sizes on request |
| **Indicative Price Range** | US$0.78 – US$65.40 per piece (varies by length and width) |
| **Lead Time** | 15–20 days |

Every code in the range maps directly to its dimensions: the **number in the code is the pitch line length in millimetres**, and the **tooth count is that length divided by the 5 mm pitch**. So S5M-145 is 145 mm / 29 teeth, S5M-300 is 300 mm / 60 teeth, and S5M-4360 is 4360 mm / 872 teeth.

## 4. Complete S5M Size Chart

The table below lists every stocked S5M STD belt with its pitch line length and tooth count, in both accepted code forms. The number in an S5M belt code is the pitch line length in millimetres — so **S5M-300 and 300-S5M are the same belt** — and the tooth count follows as pitch length divided by the 5 mm pitch.

**Table 4 Complete S5M STD/STS Size Chart — 280 models, S5M-145 to S5M-4360**

| Belt Code | Equivalent Code | Pitch Length (mm) | Teeth (n) | Belt Code | Equivalent Code | Pitch Length (mm) | Teeth (n) | Belt Code | Equivalent Code | Pitch Length (mm) | Teeth (n) | Belt Code | Equivalent Code | Pitch Length (mm) | Teeth (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S5M-145 | 145-S5M | 145 | 29 | S5M-515 | 515-S5M | 515 | 103 | S5M-910 | 910-S5M | 910 | 182 | S5M-1390 | 1390-S5M | 1390 | 278 |
| S5M-150 | 150-S5M | 150 | 30 | S5M-520 | 520-S5M | 520 | 104 | S5M-920 | 920-S5M | 920 | 184 | S5M-1400 | 1400-S5M | 1400 | 280 |
| S5M-155 | 155-S5M | 155 | 31 | S5M-525 | 525-S5M | 525 | 105 | S5M-925 | 925-S5M | 925 | 185 | S5M-1410 | 1410-S5M | 1410 | 282 |
| S5M-160 | 160-S5M | 160 | 32 | S5M-530 | 530-S5M | 530 | 106 | S5M-930 | 930-S5M | 930 | 186 | S5M-1420 | 1420-S5M | 1420 | 284 |
| S5M-165 | 165-S5M | 165 | 33 | S5M-535 | 535-S5M | 535 | 107 | S5M-935 | 935-S5M | 935 | 187 | S5M-1460 | 1460-S5M | 1460 | 292 |
| S5M-170 | 170-S5M | 170 | 34 | S5M-540 | 540-S5M | 540 | 108 | S5M-940 | 940-S5M | 940 | 188 | S5M-1470 | 1470-S5M | 1470 | 294 |
| S5M-180 | 180-S5M | 180 | 36 | S5M-545 | 545-S5M | 545 | 109 | S5M-945 | 945-S5M | 945 | 189 | S5M-1475 | 1475-S5M | 1475 | 295 |
| S5M-185 | 185-S5M | 185 | 37 | S5M-550 | 550-S5M | 550 | 110 | S5M-950 | 950-S5M | 950 | 190 | S5M-1490 | 1490-S5M | 1490 | 298 |
| S5M-200 | 200-S5M | 200 | 40 | S5M-555 | 555-S5M | 555 | 111 | S5M-960 | 960-S5M | 960 | 192 | S5M-1495 | 1495-S5M | 1495 | 299 |
| S5M-205 | 205-S5M | 205 | 41 | S5M-560 | 560-S5M | 560 | 112 | S5M-965 | 965-S5M | 965 | 193 | S5M-1500 | 1500-S5M | 1500 | 300 |
| S5M-210 | 210-S5M | 210 | 42 | S5M-565 | 565-S5M | 565 | 113 | S5M-970 | 970-S5M | 970 | 194 | S5M-1525 | 1525-S5M | 1525 | 305 |
| S5M-220 | 220-S5M | 220 | 44 | S5M-570 | 570-S5M | 570 | 114 | S5M-975 | 975-S5M | 975 | 195 | S5M-1530 | 1530-S5M | 1530 | 306 |
| S5M-225 | 225-S5M | 225 | 45 | S5M-575 | 575-S5M | 575 | 115 | S5M-980 | 980-S5M | 980 | 196 | S5M-1550 | 1550-S5M | 1550 | 310 |
| S5M-230 | 230-S5M | 230 | 46 | S5M-580 | 580-S5M | 580 | 116 | S5M-985 | 985-S5M | 985 | 197 | S5M-1575 | 1575-S5M | 1575 | 315 |
| S5M-235 | 235-S5M | 235 | 47 | S5M-585 | 585-S5M | 585 | 117 | S5M-990 | 990-S5M | 990 | 198 | S5M-1585 | 1585-S5M | 1585 | 317 |
| S5M-240 | 240-S5M | 240 | 48 | S5M-590 | 590-S5M | 590 | 118 | S5M-1000 | 1000-S5M | 1000 | 200 | S5M-1595 | 1595-S5M | 1595 | 319 |
| S5M-245 | 245-S5M | 245 | 49 | S5M-595 | 595-S5M | 595 | 119 | S5M-1010 | 1010-S5M | 1010 | 202 | S5M-1600 | 1600-S5M | 1600 | 320 |
| S5M-250 | 250-S5M | 250 | 50 | S5M-600 | 600-S5M | 600 | 120 | S5M-1015 | 1015-S5M | 1015 | 203 | S5M-1605 | 1605-S5M | 1605 | 321 |
| S5M-255 | 255-S5M | 255 | 51 | S5M-605 | 605-S5M | 605 | 121 | S5M-1020 | 1020-S5M | 1020 | 204 | S5M-1620 | 1620-S5M | 1620 | 324 |
| S5M-260 | 260-S5M | 260 | 52 | S5M-610 | 610-S5M | 610 | 122 | S5M-1025 | 1025-S5M | 1025 | 205 | S5M-1630 | 1630-S5M | 1630 | 326 |
| S5M-265 | 265-S5M | 265 | 53 | S5M-615 | 615-S5M | 615 | 123 | S5M-1030 | 1030-S5M | 1030 | 206 | S5M-1650 | 1650-S5M | 1650 | 330 |
| S5M-270 | 270-S5M | 270 | 54 | S5M-625 | 625-S5M | 625 | 125 | S5M-1035 | 1035-S5M | 1035 | 207 | S5M-1680 | 1680-S5M | 1680 | 336 |
| S5M-275 | 275-S5M | 275 | 55 | S5M-630 | 630-S5M | 630 | 126 | S5M-1040 | 1040-S5M | 1040 | 208 | S5M-1685 | 1685-S5M | 1685 | 337 |
| S5M-280 | 280-S5M | 280 | 56 | S5M-635 | 635-S5M | 635 | 127 | S5M-1050 | 1050-S5M | 1050 | 210 | S5M-1690 | 1690-S5M | 1690 | 338 |
| S5M-285 | 285-S5M | 285 | 57 | S5M-640 | 640-S5M | 640 | 128 | S5M-1055 | 1055-S5M | 1055 | 211 | S5M-1695 | 1695-S5M | 1695 | 339 |
| S5M-290 | 290-S5M | 290 | 58 | S5M-645 | 645-S5M | 645 | 129 | S5M-1060 | 1060-S5M | 1060 | 212 | S5M-1700 | 1700-S5M | 1700 | 340 |
| S5M-295 | 295-S5M | 295 | 59 | S5M-650 | 650-S5M | 650 | 130 | S5M-1065 | 1065-S5M | 1065 | 213 | S5M-1715 | 1715-S5M | 1715 | 343 |
| S5M-300 | 300-S5M | 300 | 60 | S5M-655 | 655-S5M | 655 | 131 | S5M-1070 | 1070-S5M | 1070 | 214 | S5M-1720 | 1720-S5M | 1720 | 344 |
| S5M-305 | 305-S5M | 305 | 61 | S5M-660 | 660-S5M | 660 | 132 | S5M-1075 | 1075-S5M | 1075 | 215 | S5M-1750 | 1750-S5M | 1750 | 350 |
| S5M-310 | 310-S5M | 310 | 62 | S5M-665 | 665-S5M | 665 | 133 | S5M-1080 | 1080-S5M | 1080 | 216 | S5M-1770 | 1770-S5M | 1770 | 354 |
| S5M-315 | 315-S5M | 315 | 63 | S5M-670 | 670-S5M | 670 | 134 | S5M-1085 | 1085-S5M | 1085 | 217 | S5M-1780 | 1780-S5M | 1780 | 356 |
| S5M-320 | 320-S5M | 320 | 64 | S5M-675 | 675-S5M | 675 | 135 | S5M-1090 | 1090-S5M | 1090 | 218 | S5M-1800 | 1800-S5M | 1800 | 360 |
| S5M-325 | 325-S5M | 325 | 65 | S5M-680 | 680-S5M | 680 | 136 | S5M-1100 | 1100-S5M | 1100 | 220 | S5M-1820 | 1820-S5M | 1820 | 364 |
| S5M-330 | 330-S5M | 330 | 66 | S5M-685 | 685-S5M | 685 | 137 | S5M-1110 | 1110-S5M | 1110 | 222 | S5M-1830 | 1830-S5M | 1830 | 366 |
| S5M-335 | 335-S5M | 335 | 67 | S5M-690 | 690-S5M | 690 | 138 | S5M-1115 | 1115-S5M | 1115 | 223 | S5M-1875 | 1875-S5M | 1875 | 375 |
| S5M-340 | 340-S5M | 340 | 68 | S5M-695 | 695-S5M | 695 | 139 | S5M-1120 | 1120-S5M | 1120 | 224 | S5M-1880 | 1880-S5M | 1880 | 376 |
| S5M-345 | 345-S5M | 345 | 69 | S5M-700 | 700-S5M | 700 | 140 | S5M-1125 | 1125-S5M | 1125 | 225 | S5M-1885 | 1885-S5M | 1885 | 377 |
| S5M-350 | 350-S5M | 350 | 70 | S5M-710 | 710-S5M | 710 | 142 | S5M-1135 | 1135-S5M | 1135 | 227 | S5M-1890 | 1890-S5M | 1890 | 378 |
| S5M-355 | 355-S5M | 355 | 71 | S5M-720 | 720-S5M | 720 | 144 | S5M-1145 | 1145-S5M | 1145 | 229 | S5M-1940 | 1940-S5M | 1940 | 388 |
| S5M-360 | 360-S5M | 360 | 72 | S5M-725 | 725-S5M | 725 | 145 | S5M-1150 | 1150-S5M | 1150 | 230 | S5M-1945 | 1945-S5M | 1945 | 389 |
| S5M-365 | 365-S5M | 365 | 73 | S5M-730 | 730-S5M | 730 | 146 | S5M-1155 | 1155-S5M | 1155 | 231 | S5M-2000 | 2000-S5M | 2000 | 400 |
| S5M-370 | 370-S5M | 370 | 74 | S5M-735 | 735-S5M | 735 | 147 | S5M-1160 | 1160-S5M | 1160 | 232 | S5M-2015 | 2015-S5M | 2015 | 403 |
| S5M-375 | 375-S5M | 375 | 75 | S5M-740 | 740-S5M | 740 | 148 | S5M-1165 | 1165-S5M | 1165 | 233 | S5M-2050 | 2050-S5M | 2050 | 410 |
| S5M-380 | 380-S5M | 380 | 76 | S5M-745 | 745-S5M | 745 | 149 | S5M-1170 | 1170-S5M | 1170 | 234 | S5M-2100 | 2100-S5M | 2100 | 420 |
| S5M-385 | 385-S5M | 385 | 77 | S5M-750 | 750-S5M | 750 | 150 | S5M-1175 | 1175-S5M | 1175 | 235 | S5M-2140 | 2140-S5M | 2140 | 428 |
| S5M-390 | 390-S5M | 390 | 78 | S5M-755 | 755-S5M | 755 | 151 | S5M-1180 | 1180-S5M | 1180 | 236 | S5M-2145 | 2145-S5M | 2145 | 429 |
| S5M-395 | 395-S5M | 395 | 79 | S5M-760 | 760-S5M | 760 | 152 | S5M-1190 | 1190-S5M | 1190 | 238 | S5M-2160 | 2160-S5M | 2160 | 432 |
| S5M-400 | 400-S5M | 400 | 80 | S5M-765 | 765-S5M | 765 | 153 | S5M-1195 | 1195-S5M | 1195 | 239 | S5M-2255 | 2255-S5M | 2255 | 451 |
| S5M-405 | 405-S5M | 405 | 81 | S5M-770 | 770-S5M | 770 | 154 | S5M-1200 | 1200-S5M | 1200 | 240 | S5M-2300 | 2300-S5M | 2300 | 460 |
| S5M-410 | 410-S5M | 410 | 82 | S5M-775 | 775-S5M | 775 | 155 | S5M-1210 | 1210-S5M | 1210 | 242 | S5M-2350 | 2350-S5M | 2350 | 470 |
| S5M-415 | 415-S5M | 415 | 83 | S5M-780 | 780-S5M | 780 | 156 | S5M-1220 | 1220-S5M | 1220 | 244 | S5M-2450 | 2450-S5M | 2450 | 490 |
| S5M-420 | 420-S5M | 420 | 84 | S5M-785 | 785-S5M | 785 | 157 | S5M-1225 | 1225-S5M | 1225 | 245 | S5M-2480 | 2480-S5M | 2480 | 496 |
| S5M-425 | 425-S5M | 425 | 85 | S5M-790 | 790-S5M | 790 | 158 | S5M-1230 | 1230-S5M | 1230 | 246 | S5M-2525 | 2525-S5M | 2525 | 505 |
| S5M-430 | 430-S5M | 430 | 86 | S5M-800 | 800-S5M | 800 | 160 | S5M-1250 | 1250-S5M | 1250 | 250 | S5M-2550 | 2550-S5M | 2550 | 510 |
| S5M-435 | 435-S5M | 435 | 87 | S5M-810 | 810-S5M | 810 | 162 | S5M-1260 | 1260-S5M | 1260 | 252 | S5M-2655 | 2655-S5M | 2655 | 531 |
| S5M-440 | 440-S5M | 440 | 88 | S5M-815 | 815-S5M | 815 | 163 | S5M-1265 | 1265-S5M | 1265 | 253 | S5M-2725 | 2725-S5M | 2725 | 545 |
| S5M-445 | 445-S5M | 445 | 89 | S5M-820 | 820-S5M | 820 | 164 | S5M-1270 | 1270-S5M | 1270 | 254 | S5M-2730 | 2730-S5M | 2730 | 546 |
| S5M-450 | 450-S5M | 450 | 90 | S5M-825 | 825-S5M | 825 | 165 | S5M-1285 | 1285-S5M | 1285 | 257 | S5M-2765 | 2765-S5M | 2765 | 553 |
| S5M-455 | 455-S5M | 455 | 91 | S5M-830 | 830-S5M | 830 | 166 | S5M-1290 | 1290-S5M | 1290 | 258 | S5M-2800 | 2800-S5M | 2800 | 560 |
| S5M-460 | 460-S5M | 460 | 92 | S5M-835 | 835-S5M | 835 | 167 | S5M-1295 | 1295-S5M | 1295 | 259 | S5M-2835 | 2835-S5M | 2835 | 567 |
| S5M-465 | 465-S5M | 465 | 93 | S5M-840 | 840-S5M | 840 | 168 | S5M-1300 | 1300-S5M | 1300 | 260 | S5M-2985 | 2985-S5M | 2985 | 597 |
| S5M-470 | 470-S5M | 470 | 94 | S5M-845 | 845-S5M | 845 | 169 | S5M-1305 | 1305-S5M | 1305 | 261 | S5M-3020 | 3020-S5M | 3020 | 604 |
| S5M-475 | 475-S5M | 475 | 95 | S5M-850 | 850-S5M | 850 | 170 | S5M-1310 | 1310-S5M | 1310 | 262 | S5M-3070 | 3070-S5M | 3070 | 614 |
| S5M-480 | 480-S5M | 480 | 96 | S5M-860 | 860-S5M | 860 | 172 | S5M-1320 | 1320-S5M | 1320 | 264 | S5M-3090 | 3090-S5M | 3090 | 618 |
| S5M-485 | 485-S5M | 485 | 97 | S5M-870 | 870-S5M | 870 | 174 | S5M-1330 | 1330-S5M | 1330 | 266 | S5M-3280 | 3280-S5M | 3280 | 656 |
| S5M-490 | 490-S5M | 490 | 98 | S5M-875 | 875-S5M | 875 | 175 | S5M-1350 | 1350-S5M | 1350 | 270 | S5M-3340 | 3340-S5M | 3340 | 668 |
| S5M-495 | 495-S5M | 495 | 99 | S5M-880 | 880-S5M | 880 | 176 | S5M-1360 | 1360-S5M | 1360 | 272 | S5M-3375 | 3375-S5M | 3375 | 675 |
| S5M-500 | 500-S5M | 500 | 100 | S5M-890 | 890-S5M | 890 | 178 | S5M-1365 | 1365-S5M | 1365 | 273 | S5M-4000 | 4000-S5M | 4000 | 800 |
| S5M-505 | 505-S5M | 505 | 101 | S5M-895 | 895-S5M | 895 | 179 | S5M-1370 | 1370-S5M | 1370 | 274 | S5M-4145 | 4145-S5M | 4145 | 829 |
| S5M-510 | 510-S5M | 510 | 102 | S5M-900 | 900-S5M | 900 | 180 | S5M-1380 | 1380-S5M | 1380 | 276 | S5M-4360 | 4360-S5M | 4360 | 872 |

All **280** codes from **S5M-145** to **S5M-4360** are listed above; custom lengths and widths on request. Download the specification PDF from the product page: drive-belt.com/timing-belts/s5m-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 synthetic chloroprene rubber (CR) blended with additives; bonds and protects the cord and resists heat, cold, oil, water, acid, alkali, ozone 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

S5M STD belts drive compact, high-speed precision equipment such as packaging and printing machinery, CNC equipment, conveyors, textile machinery, printers, copiers and small automation units.

## 6. Contact & Ordering Information

**Company:** Pingxiang Husheng Rubber Products Co.,Ltd • **Brand:** Shusheng
**Website:** https://drive-belt.com • **S5M Belt page:** https://drive-belt.com/timing-belts/s5m-belt
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