PINGXIANG HUSHENG RUBBER PRODUCTS CO.,LTD

# HTD 20M Synchronous Belt — Specification & Complete Size Chart

20 mm Pitch Curvilinear (HTD) Timing Belt · Conforms to ISO 13050 · Shusheng Brand

**Shusheng**

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# HTD 20M Synchronous Belt — Specification, Materials & Complete Size Chart

## 1. HTD 20M Synchronous Belt Overview

The largest-pitch, highest-load-capacity member of the HTD curvilinear tooth belt family.

The HTD 20M synchronous belt (also written 20M timing belt) is a **curvilinear tooth** timing belt with an exact **20 mm pitch**, built for the most demanding heavy-duty industrial power transmission. Power is transmitted by tooth-and-groove meshing rather than by friction, so a 20M drive runs with no slip, no lubrication and no speed variation. The rounded HTD tooth engages progressively and spreads stress evenly, which is why the 20M profile carries far higher torque than the smaller-pitch HTD belts (3M, 5M, 8M and 14M).

A 20M belt delivers up to **98% transmission efficiency**, runs at line speeds up to **20 m/s** and transmits up to approximately **600 HP**, making it the preferred drive for high-torque, low-to-medium speed machinery. Every HTD 20M belt in this catalogue is manufactured to conform to **ISO 13050**, the standard for metric-pitch curvilinear (HTD) synchronous belt drives, so it is dimensionally interchangeable with equivalent-profile 20M belts from other mainstream manufacturers.

This document covers the four things a buyer needs: how to read a 20M belt code (section 2), the complete technical specification (section 3), the materials and construction (section 5), and the full size list from **20M-1160** to **20M-6560** (section 4). Contact and ordering information follows.

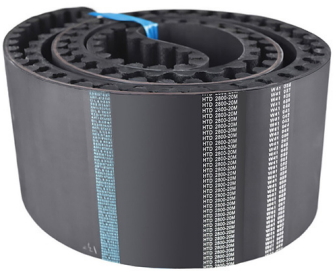


**Figure 1:** An HTD 20M synchronous belt — 20 mm pitch, 8.4 mm tooth height, 13.2 mm belt thickness — with the moulded belt code on the back.

## 2. Belt Designation & Code Meaning

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

### 2.1 Profile geometry

The 20M profile is defined by four numbers: a **tooth pitch of 20 mm**, a **tooth height of 8.4 mm**, a **belt total thickness of 13.2 mm** and a **curvilinear (HTD) tooth form**. The rounded tooth flank gives smooth, progressive meshing with uniform stress distribution and minimal backlash under heavy load.

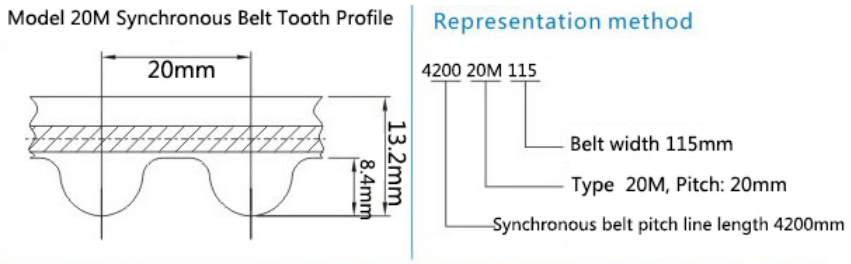



**Figure 2:** HTD 20M tooth profile and representation method — the diagram gives the true 20M dimensions (a 20 mm tooth pitch, an 8.4 mm tooth height and a 13.2 mm belt total thickness) and shows the designation method on the sample code 4200 20M 115, which is the same belt written 4200-20M-115 with the width, or 20M-4200 in the size chart below.

### 2.2 How the code reads

An HTD 20M belt is designated by its **pitch line length**, the profile code **20M** and, where needed, the **belt width**: the full ordering code reads **[Pitch Length] - [Pitch Code] - [Belt Width]**. So the code **4200-20M-115** means a 20M belt with a **4200 mm pitch line length**, a 20M profile (20 mm pitch) and a **115 mm belt width**. Where the width is omitted the designation reads **4200-20M**. Purchasing lists, drawings and our product page may also write the belt the other way round, as **1160-20M** or **1160-20M-15**: the codes **20M-1160** and **1160-20M** are identical and both mean a 20M belt with a 1160 mm pitch line length. In the size chart of this catalogue the belt is written **20M-4200**, with its equivalent form **4200-20M** given next to it.

The number is the **pitch line length** measured at the cord line, not the outside circumference and not the inside length. Because the pitch length is always a whole multiple of 20 mm, the tooth count follows directly: teeth = pitch length divided by the 20 mm pitch. So **20M-3200** has a pitch line length of **3200 mm** and 160 teeth; the shortest belt listed, **20M-1160**, has a pitch line length of 1160 mm, and the longest, **20M-6560**, 6560 mm.

### 2.3 Belt widths

Seven standard widths are stocked, selected separately from the pitch length to suit the torque to be transmitted; custom widths up to 400 mm are available on request.

**Table 1 HTD 20M standard belt widths**

| Width (mm) | Typical Drive Duty |
|---|---|
| **100 mm** | Smallest standard heavy-duty width, moderate-torque drives |
| **115 mm** | Compact heavy-duty industrial drives |
| **150 mm** | General heavy-duty industrial drives |
| **170 mm** | Medium-to-heavy drives on larger machinery |
| **230 mm** | Heavy drives, large conveyors and mill equipment |
| **290 mm** | Very heavy drives under sustained high torque |
| **340 mm** | Widest standard width, highest torque capacity |

### 2.4 Marking & interchangeability

Each belt carries its pitch line length and the profile code 20M on the back, so a belt in service can be re-ordered without measuring the drive. A 20M belt must run on a 20M pulley — not on a trapezoidal-pitch pulley, whose different tooth form will not mesh — and belts of the same code are dimensionally interchangeable between makers, as all conform to ISO 13050.

## 3. Technical Specifications

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

**Table 2 HTD 20M Synchronous Belt — Profile & Dimensions**

| Property | Specification |
|---|---|
| **Profile / System** | Metric-pitch curvilinear synchronous belt (HTD 20M series) |
| **Tooth Pitch** | 20 mm |
| **Tooth Height** | 8.4 mm |
| **Belt Total Thickness** | 13.2 mm |
| **Tooth Profile** | Curvilinear (HTD) |
| **Standard Widths** | 100 / 115 / 150 / 170 / 230 / 290 / 340 mm; custom widths up to 400 mm on request |
| **Standard** | Conforms to ISO 13050 (synchronous belt drives, metric pitch, curvilinear tooth profile) |

**Table 3 HTD 20M Synchronous Belt — Performance & Ordering Data**

| Property | Specification |
|---|---|
| **Tensile Member** | High-strength glass fiber cord; aramid cord optional |
| **Body Compound** | Premium synthetic chloroprene rubber (CR) |
| **Tooth Facing** | Wear-resistant nylon fabric bonded to the tooth surface |
| **Transmission Efficiency** | Up to 98% |
| **Maximum Linear Speed** | 20 m/s |
| **Maximum Power Transmission** | Approximately 600 HP |
| **Operating Temperature** | −30 °C to +90 °C |
| **Pitch Length Range** | 20M-1160 to 20M-6560 — 1160 mm to 6560 mm (24 standard models) |
| **Minimum Order Quantity** | 5 pcs per size; custom lengths on request |
| **Indicative Price Range** | US$150.80 – US$2,899.52 per piece (varies by length and width) |
| **Lead Time** | 15–20 days |

Three worked examples show how a code maps to the dimensions: **20M-1160** has a pitch line length of 1160 mm and 58 teeth, **20M-3200** has 3200 mm and 160 teeth, and **20M-6560** has 6560 mm and 328 teeth. Every HTD 20M belt shares the same 20 mm pitch, 8.4 mm tooth height and 13.2 mm thickness, and runs at up to 20 m/s between −30 °C and +90 °C with up to 98% transmission efficiency.

## 4. Complete HTD 20M Size Chart

The table below lists every stocked HTD 20M belt code with its pitch line length and tooth count. The number in a 20M belt code is the pitch line length in millimetres, and the tooth count follows as pitch length divided by the 20 mm pitch.

**Table 4 Worked examples — how an HTD 20M belt code reads**

| Belt Code | Pitch Length (mm) | Teeth (n) | Tooth Pitch |
|---|---|---|---|
| **20M-1160** | 1160 | 58 | 20 mm |
| **20M-3200** | 3200 | 160 | 20 mm |
| **20M-6560** | 6560 | 328 | 20 mm |

**Table 5 Complete HTD 20M Size Chart — 24 standard models, 20M-1160 to 20M-6560 • both code forms are given (20M-1160 = 1160-20M)**

| Belt Code | Equivalent Code | Pitch Line Length (mm) | Teeth (n) |
|---|---|---|---|
| 20M-1160 | 1160-20M | 1160 | 58 |
| 20M-1740 | 1740-20M | 1740 | 87 |
| 20M-2000 | 2000-20M | 2000 | 100 |
| 20M-2140 | 2140-20M | 2140 | 107 |
| 20M-2500 | 2500-20M | 2500 | 125 |
| 20M-2660 | 2660-20M | 2660 | 133 |
| 20M-2800 | 2800-20M | 2800 | 140 |
| 20M-2840 | 2840-20M | 2840 | 142 |
| 20M-3000 | 3000-20M | 3000 | 150 |
| 20M-3040 | 3040-20M | 3040 | 152 |
| 20M-3200 | 3200-20M | 3200 | 160 |
| 20M-3220 | 3220-20M | 3220 | 161 |
| 20M-3400 | 3400-20M | 3400 | 170 |
| 20M-3800 | 3800-20M | 3800 | 190 |
| 20M-4200 | 4200-20M | 4200 | 210 |
| 20M-4600 | 4600-20M | 4600 | 230 |
| 20M-4800 | 4800-20M | 4800 | 240 |
| 20M-5000 | 5000-20M | 5000 | 250 |
| 20M-5200 | 5200-20M | 5200 | 260 |
| 20M-5400 | 5400-20M | 5400 | 270 |
| 20M-5500 | 5500-20M | 5500 | 275 |
| 20M-5600 | 5600-20M | 5600 | 280 |
| 20M-6000 | 6000-20M | 6000 | 300 |
| 20M-6560 | 6560-20M | 6560 | 328 |

Every size in the range — **24 belt codes** from **20M-1160** to **20M-6560** — is listed above, and every row gives both code forms: **20M-1160 and 1160-20M are the same belt**, the first being the catalogue form used in this PDF and the second the form used on many purchase lists and on our product page. The number is the pitch line length in millimetres, so 20M-4200 is 4200 mm with 210 teeth; intermediate lengths and custom widths up to 400 mm are supplied on request.

> All HTD 20M belts in this catalogue conform to ISO 13050, which fixes the tooth dimensions, the pitch spacing and the length tolerances, so a belt of the same code is dimensionally interchangeable with equivalent-profile 20M belts from other manufacturers.

**Download the HTD 20M Synchronous Belt Specification PDF** from the product page: https://drive-belt.com/timing-belts/20m-timing-belt

## 5. Materials & Construction

Every HTD 20M synchronous belt is built with a three-layer composite structure using premium, industry-grade materials for long service life and reliable performance under extreme loads.

**Table 6 HTD 20M Synchronous Belt — Three-layer Construction**

| Layer | Material | Function |
|---|---|---|
| **Tensile member (backbone)** | High-strength glass fiber cord; aramid cord optional | Delivers exceptional tensile strength, minimal elongation and outstanding length stability under sustained heavy loads. |
| **Belt body** | Premium chloroprene rubber (CR) | Bonds and protects the cord, transmits load, and resists heat, oil, ozone and flex fatigue across a wide temperature range. |
| **Tooth facing** | Wear-resistant nylon fabric | Reduces friction and tooth wear and lowers running noise, extending belt service life under high load. |

### 5.1 Applications

HTD 20M belts drive heavy-duty industrial machinery such as ball mills, crushers, rotary kiln drives, cement and steel plant equipment, large paper machines and long-span conveyors.

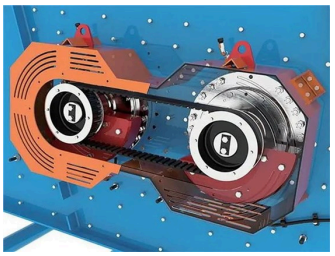


**Figure 3:** An HTD 20M belt on a heavy-duty industrial drive — the 20 mm pitch suits high-torque, low-to-medium speed machinery.

## 6. Contact & Ordering Information

Send the belt code, the pitch line length and the belt width in millimetres — for example 4200-20M-115, or 20M-4200 at 115 mm. We confirm stock, pulley compatibility and quote, and ship within 15–20 days (MOQ 5 pcs per size).

**Company:** Pingxiang Husheng Rubber Products Co.,Ltd • **Brand:** Shusheng
**Website:** https://drive-belt.com • **HTD 20M Timing Belt page:** https://drive-belt.com/timing-belts/20m-timing-belt
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