

Continental 
The Future in Motion



CONTI® V

安全强劲——满足严格传动要求的三角带

Safe and strong - V-belts for demanding drives

等长匹配三角带

Matched-set V-belts

等长匹配 L=L 三角带

免配组 L=L 三角带是采用一流技术和一步法高精度工艺生产的长度完全一致的三角带产品。康迪泰克 L=L 三角带长度公差遵照 ISO4184、BS3790、DIN2215、DIN7753/1 等标准，搭配时无需再次核对皮带装置。

Matched-set V-belts

Matched-set L=L V-belts are manufactured to be of exactly the same length in a one-stage, high-precision production process using state-of-the-art technology. ContiTech L=L V-belts can be fitted without the need for further checks in belt sets with belt length tolerances in accordance with standards ISO 4184, BS 3790, DIN 2215, DIN 7753/1 among others.

L=L 三角带

多槽传动中具备以下特性

- › 一致的负荷分布
- › 运行平稳
- › 高动力输出
- › 成效效益高

L=L V-belts

guarantee the following for multi-grooved drives

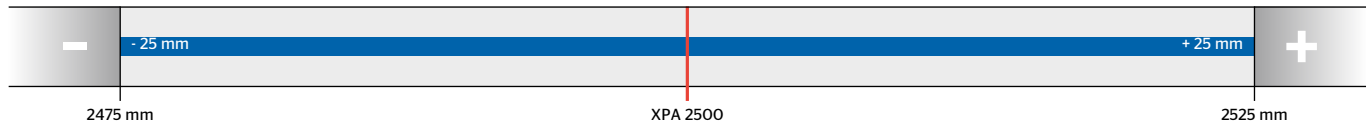
- › uniform load distribution
- › smooth operation
- › high power output
- › high cost-effectiveness

制作公差参照样品 XPA 2500 切边窄边三角带

Production tolerances using the example of an XPA 2500 raw-edge narrow-section V-belt

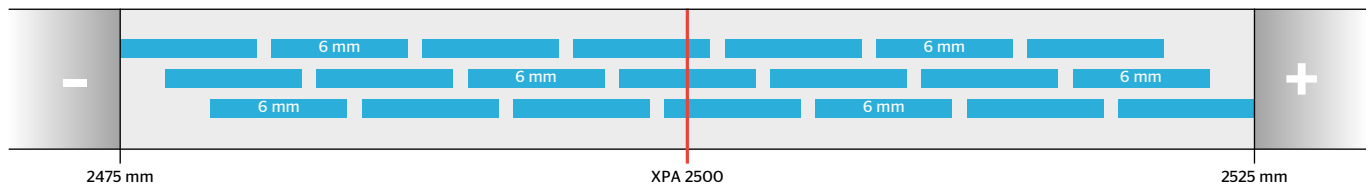
- › 单条传动带公差依照 DIN 7753 标准，为 +/- 25 毫米（长度：2475 - 2525 毫米）

The individual belt tolerance to DIN 7753 is +/- 25 mm (length: 2475 to 2525 mm)



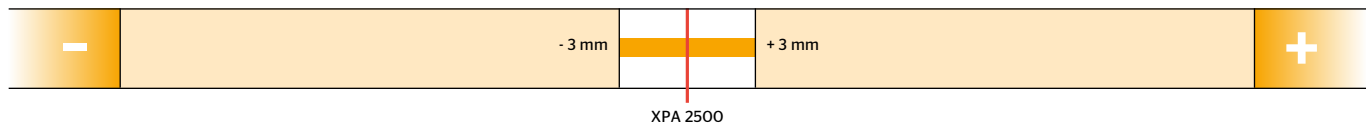
- › DIN 7753 设定配组公差为 6 毫米（长度在 2475 - 2525 毫米内即可）

The set tolerance to DIN 7753 is 6 mm (anywhere in the length range between 2475 and 2525 mm)



- › 康迪泰克 L=L 要求的设定公差为 6 毫米，以公称尺寸分组

The restricted ContiTech L=L set tolerance is 6 mm, grouped around the nominal size



基准长度 Ld (公称尺寸) 依照 DIN 标准
Datum length Ld (nominal size) to DIN

导电性

带有 EL 标志的康迪泰克三角带导电性依照 ISO 1813 的规定。

导电性能可安全地消散静电电荷，防止产生火花。因此，康迪泰克三角带可用于存在由可燃气体与灰尘/空气混合而造成爆炸危险的区域。前提是运行机械经过适当的接地处理。

Electrically conductive

ContiTech V-belts bearing the EL mark are electrically conductive to ISO 1813.

The electrical conductivity safely dissipates electrostatic charges and prevents the risk of sparking. ContiTech V-belts can therefore be used in areas where there is an explosion hazard as a result of the ignition of combustible gas and dust/air mixtures. A precondition for this is that the working machine is properly grounded.



动力比较

Power comparison

在设计皮带传动时，往往有多种类型的皮带可供选择。为确保达到理想的传动效果，延长皮带寿命并降低维护成本，选择正确的三角带至关重要。

使用前，应始终先行测试切边窄边三角带是否可用。该类三角带动力输出、效率最高，使用寿命最长。可用于带轮直径较小、高带速、大传动比的装置。由此传动装置的设计可更加紧凑，同时也降低总体成本。

Several belt types are often possible when designing a belt drive. The correct choice of V-belt is key in ensuring the ideal power transmission and belt life and reduces maintenance costs.

The use of raw-edge narrow-section V-belts should always be examined first. These belts have the highest power transmission, the best efficiency and the longest service life.

They can be used with smaller pulley diameters, a high belt speed and a large transmission ratio. Drives can therefore be designed to be more compact and have lower overall costs.

您想设计您自己的三角带传动吗？

使用 CONTI® 专业设计软件，您可轻松地计算您的三角带传动。或者更简单的方式，直接联系我们经验丰富的工程师，我们更希望与您直接沟通。

Do you want to design your own V-belt drive?

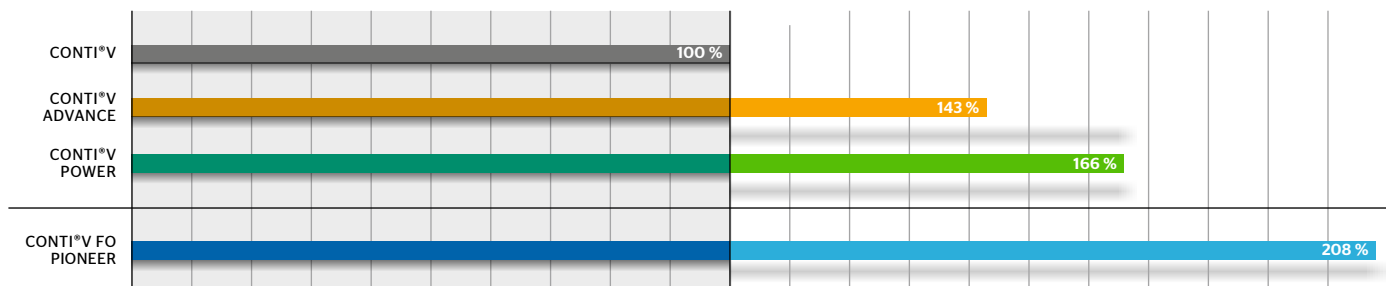
With CONTI® Professional design software you easily can calculate your individual V-belt drive. Or simply ask our experienced engineers for help, because we prefer the personal contact.

计算实例 / Sample calculation

风机传动	Fan drive
$P = 10 \text{ kW}$	$P = 10 \text{ kW}$
$n_k = 1.500 \text{ rpm/min}$	$n_k = 1,500 \text{ rpm/min}$
$c_o = 1,6$	$c_o = 1.6$
$d_k = 100 \text{ mm}$	$d_k = 100 \text{ mm}$
$i = 5$	$i = 5$

	A/13	SPA	XPA
皮带数量 No. of belts	8	6	4
P_r [kW] P_r [kW]	2,51	3,4	5,73
带轮宽 (毫米) Pulley face width [mm]	125	95	65
每套带轮成本 Cost per belt	100	141	166
每套成本 Cost per set	800	846	664
每套带轮成本 Cost per pulley set	7876	4869	3826
总成本 Total cost	8676	5715	4490
每套成本 Cost per set	100 %	66 %	52 %

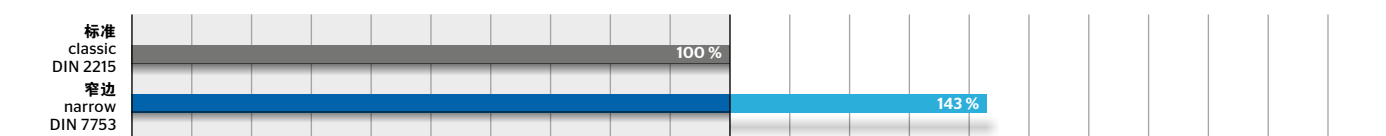
不同性能的窄边三角带平均动力等级 / Average power ratings of different qualities for narrow V-belts



示例：带长1500毫米；转速=1450转/分；dw=180毫米 / Example: Belt length 1500 mm; n = 1450 rpm, dw = 180 mm

P% [kw]

标准三角带vs窄边三角带 / Classical-section V-belt vs. narrow-section V-belt



P% [kw]

工业应用产品系列

The product range for industrial applications

三角带 V-belts

超强型

三角带 · V-belts

- › CONTI®V POWER
- › CONTI®V FO PIONEER

联组三角带 · Banded V-belts

- › CONTI®V MULTIBELT POWER

六角带 · Double-V-belts

- › CONTI®V DUAL POWER

变速带 · Variable speed belts

- › CONTI®V VARISPEED POWER

加强型

三角带 · V-belts

- › CONTI®V ADVANCE
- › CONTI®V GARDEN

联组三角带 · Banded V-belts

- › CONTI®V MULTIBELT ADVANCE

六角带 · Double-V-belts

- › CONTI®V DUAL ADVANCE

变速带 · Variable speed belts

- › CONTI®V VARISPEED ADVANCE

多楔带 · V-ribbed belts

- › CONTI®V MULTIRIB POWER

标准型

三角带 · V-belts

- › CONTI®V
- › CONTI®V FO

联组三角带 · Banded V-belts

- › CONTI®V MULTIBELT
- › CONTI®V MULTIBELT FO

六角带

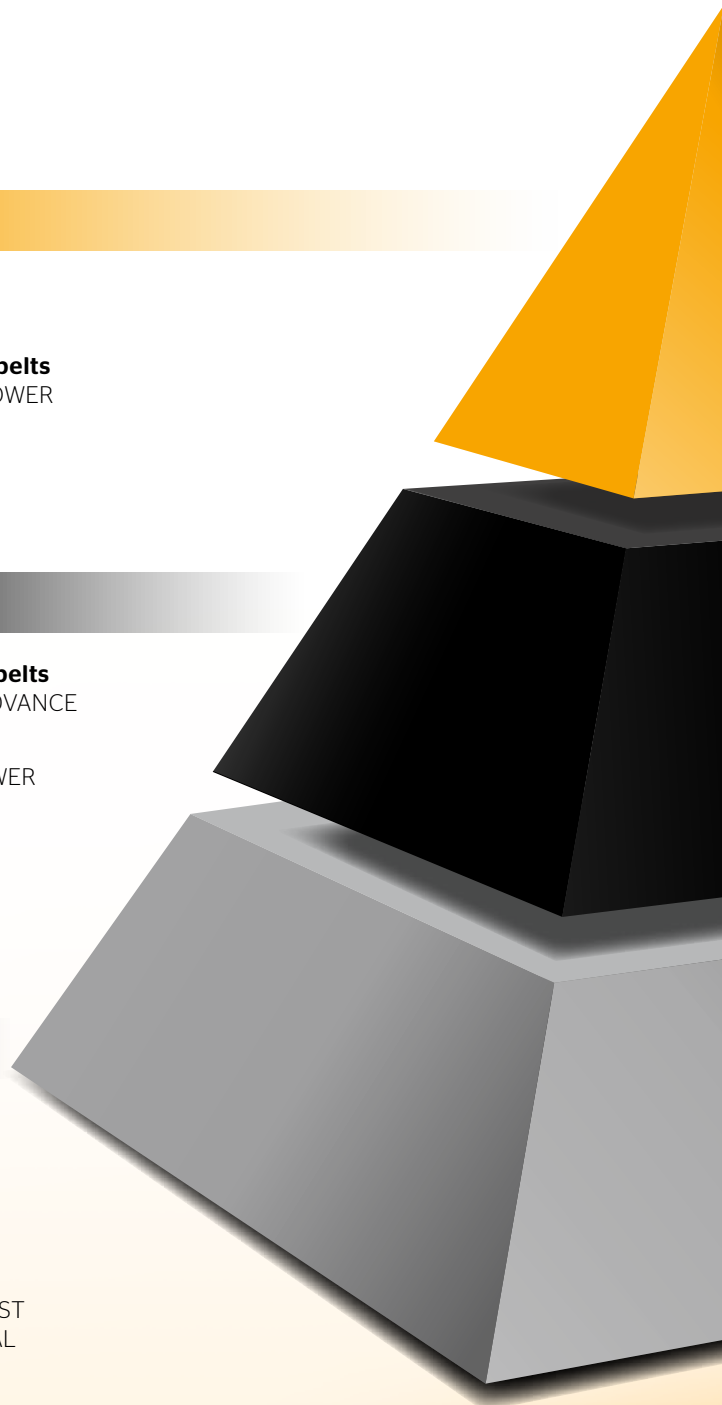
Double-V-belts

- › CONTI®V DUAL

多楔带

V-ribbed belts

- › CONTI®V MULTIRIB
- › CONTI®V MULTIRIB ELAST
- › CONTI®V MULTIRIB DUAL



产品系列结构

The structure of the product range

超强型

无与伦比的材料和设计质量。这些传动带可在具有个性化要求的复杂驱动系统中确保极长的使用寿命，并在整个使用周期内实现显著的效率优势。

Uncompromising material and design quality. These belts ensure extremely long service lives in complex drive systems with individual requirements - and achieve significant efficiency gains over the entire life cycle in doing so.

加强型

即使在高动力输出、高速运行或存在介质、污垢、灰尘和温度等严苛环境要素的情况下，该解决方案也可实现可靠的动力传输。

The solution for reliable power transmission even at high power outputs and speeds and for applications in demanding environments in terms of media, dirt, dust or temperature.

标准型

对于标准应用，它是可靠和高性价比的动力传输方案的理想选择。

The first choice for reliable and, at the same time, cost-effective power transmission in standard applications.

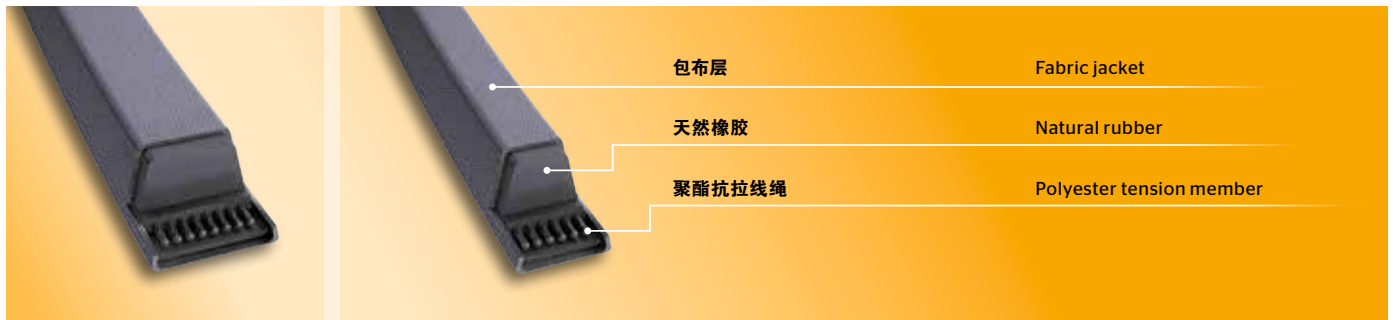


CONTI®V



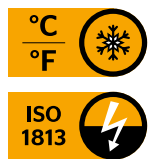
包布三角带, 适合机械工程所有领域中要求苛刻的传动 (标准三角带参照 DIN 2215 标准, 窄边三角带参照 DIN 7753 标准)
 Wrapped classical-section V-belts to DIN 2215 & DIN 7753 for demanding drives in every mechanical engineering field.

齿型/Section		10/Z	13/A	17/B	22/C	32/D	40/E	SPZ/3V/9N	SPA	SPB/5V/15N	SPC	8V/25N
顶宽 Top belt width	$b_o \approx$ (mm)	10	13	17	22	32	40	9,7	12,7	16,3	22	25,4
带高 Belt height	$h \approx$ (mm)	6	8	11	14	20	25	8	10	13	18	23,1
节宽 Pitch width	b_d (mm)	8,5	11	14	19	27	32	8,5	11	14	19	25,4
长度范围 Length ranges	L_d (mm)	468 - 2523	487 - 6335	629 - 12034	1100 - 10727	2076 - 12576	4093 - 12593	512 - 3750	732 - 6000	1250 - 9000	2000 - 16500	4318 - 12700
最小带轮直径 Minimum pulley diameter	$d_{d\min}$ (mm)	45	71	112	180	315	450	63	90	140	224	315



CONTI®V 符合 DIN 2215&DIN 7753 标准, 适用于一般机械工程应用的高强度传动。尤其适用于小带轮直径的传动装置。典型应用领域包括诸如园艺和农业机械等。包布标准三角带也可作为 V- 平带传动使用。

The CONTI®V to DIN 2215&DIN 7753 was developed for tough drives in general mechanical engineering applications. It is especially suitable for drives with small pulley diameters. Typical application fields are gardening and agricultural machinery, for example. The wrapped classical-section V-belt can also be used as a V-flat drive.



特性

- 中等抗油性
- 适用于热带气候
- 防尘
- 温度范围: -55 °C 到 +70 °C
- 导电性符合 ISO 1813 标准
- 等长匹配 L=L (1000 毫米起)

Properties

- moderately oil-resistant
- suitable for tropical climates
- unaffected by dust
- temperature-resistant from -55 °C to +70 °C
- electrically conductive to ISO 1813
- matched-set L=L (from 1,000 mm)

从成效益的角度考虑, 应始终检查是否能够使用窄边三角带 (DIN 7753)

The use of narrow-section V-belts to DIN 7753 should always be examined from a cost-effectiveness perspective.



CONTI®V ADVANCE



包布强力窄边三角带，符合 DIN7753 标准，使用高强度抗拉线绳和升级复合材料，适用于高动力输出的安全传动。

Wrapped heavy-duty narrow-section V-belts to DIN 7753 with a reinforced tension member and upgraded compound for safe transmission of high power outputs.

齿型 / Section		SPZ	SPA	SPB	SPC
顶宽 Top belt width	$b_o \approx$ (mm)	9,7	12,7	16,3	22
带高 Belt height	$h \approx$ (mm)	8	10	13	18
节宽 Pitch width	b_d (mm)	8,5	11	14	19
长度范围 Length ranges	L_d (mm)	1202 - 3550	1207 - 4500	1250 - 9000	2000 - 9500
最小带轮直径 Minimum pulley diameter	$d_{d \min}$ (mm)	63	90	140	224

其他长度可由客户指定。
Other sections on request.



CONTI®V ADVANCE 专门为一般机械工程应用中的高性能传动而研制。典型的应用领域包括压缩机、风机、建筑机械和广泛的园艺机器。适用于离合器带和反向弯折。CONTI® V ADVANCE 具备更长的使用寿命，因此长期使用可有效地节约成本。

The CONTI®V ADVANCE was specially developed for high-performance drives in general engineering applications. Typical application fields are compressors, fans, construction machinery and a wide range of gardening machines. The belt is suitable as a clutch belt and for reverse flexing. Thanks to its extended lifetime, the CONTI®V ADVANCE ensures long-term cost savings.



特性

- 采用低拉伸聚酯线绳，动力输出更高
- 免维护
- 中等抗油性
- 适用于热带气候
- 防尘
- 温度范围：-30 °C 到 +80 °C
- 抗静电性符合 ISO 1813 要求
- 等长匹配 L=L (1000 毫米起)

Properties

- increased power output as a result of low-stretch polyester cord
- maintenance-free
- moderately oil-resistant
- suitable for tropical climates
- unaffected by dust
- temperature-resistant from -30 °C to +80 °C
- antistatic to ISO 1813
- matched-set L=L (from 1,000 mm)



可按要求提供高性能型号 / Heavy-duty type available on request

> CONTI®V POWER



CONTI®V FO



切边标准三角带符合 DIN 2215 和 DIN 7753 标准，能够满足严格的传动要求。

Raw-edge classical-section V-belts to DIN 2215 & DIN 7753 for demanding drives

齿型 / Section		ZX	AX	BX	CX	XPZ/3VX	XPA	XPB/5VX	XPC
顶宽 Top belt width	$b_o \approx$ (mm)	10	13	17	22	9,7	12,7	16,3	22
带高 Belt height	$h \approx$ (mm)	6	8	11	14	8	9	13	18
节宽 Pitch width	b_d (mm)	8,5	11	14	19	8,5	11	14	19
长度范围 Length ranges	L_d (mm)	505 - 2333	513 - 4602	627 - 4615	1056 - 5018	512 - 2840	590 - 2932	1000 - 2900	1900 - 2900
最小带轮直径 Minimum pulley diameter	$d_{d \min}$ (mm)	40	63	90	140	50	63	100	160



CONTI®V FO 适合小型带轮传动工况，专为高速的工业传动系统而设计。适用于轻型传动系统，如：干燥器和园艺设备。

The CONTI®V FO was developed for high-speed industrial drives with small belt pulleys. It is suitable for light-duty drives, e.g. in dryers and for gardening machinery.



特性

- 带有模压齿，保证了极佳的柔韧性
- 一定条件下具有耐油性
- 适用于热带气候
- 防尘
- 温度范围：-30 °C 到 +70 °C
- 导电性符合 ISO 1813 标准
(长度 3500mm 以上的应进行导电性测试)
- 等长匹配 L=L (1000 毫米起)

Properties

- very good flexibility thanks to molded teeth
- moderately oil-resistant
- suitable for tropical climates
- unaffected by dust
- temperature-resistant from -30 °C to +70 °C
- electrically conductive to ISO 1813
(above length of 3,500 mm conductivity test required)
- matched-set L=L (from 1,000 mm)

从成效效益的角度考虑，应始终检查是否能够使用窄边三角带 (DIN 7753)

The use of raw-edge narrow-section V-belts to DIN 7753 should always be examined from a cost-effectiveness perspective.



CONTI®V FO PIONEER



符合 DIN 7753 标准的横向高刚性重型切边三角带, 适合持续高负载的驱动系统, 同时提升了运行平稳性。

Transversely stiff raw-edge heavy-duty narrow-section V-belts to DIN 7753 for high, sustained and also very smooth power transmission.

齿型 / Section		XPZ/3VX	XPA	XPB/5VX	XPC
顶宽 Top belt width	$b_o \approx$ (mm)	9,7	12,7	16,3	22
带高 Belt height	$h \approx$ (mm)	8	9	13	18
节宽 Pitch width	b_d (mm)	8,5	11	14	19
长度范围 Length ranges	L_d (mm)	512 - 3550	590 - 4000	1000 - 5000	1900 - 5000
最小带轮直径 Minimum pulley diameter	$d_{d \min}$ (mm)	50	63	100	160



CONTI®V FO PIONEER 可替代任何与包布三角带匹配的传动系统。典型应用领域包括: 压缩机、施工机械、电动切割机、排气扇、石油工业专用泵。三角带十分耐用, 竞争优势在于它的系统成本比包布窄边三角带节省 50%。其优化后的齿面能够保证运行顺畅, 并起到减小振动的作用。

The CONTI®V FO PIONEER can replace almost any drive which is fitted with wrapped V-belts. Typical application fields include compressors, construction machinery, power cutters, exhaust air extractor fans and pumps in the oil industry. The V-belt is particularly durable, and one of its winning benefits is the reduction in system costs by up to 60 % compared with wrapped narrow-section V-belts. Its optimized flanks ensure very smooth running properties and reduce vibrations as a result.



特性

- 更广的可耐受温度范围: -40 °C 到 +130 °C
- 符合“2014 AfPS GS:01 PAK”的 2 类 PAH 规定
- 更耐磨的 EPDM 橡胶提升了皮带的耐久性能。
- 免维护
- 同第 1 代相比, 功率提高 5.5%
- 带有模压齿, 保证了极佳的柔韧性
- 增强了运行平稳性
- 免配组 L=L
- 抗静电性符合 ISO 1813 要求
- 一定条件下具有耐油性
- 适用于热带气候

Properties

- improved temperature resistance from -40 °C to +130 °C
- PAH category 2 acc. to “2014 AfPS GS:01 PAK”
- enhanced durability thanks to more abrasion-resistant compound
- maintenance-free
- power increased by 5.5 % compared to 1st generation
- very good flexibility thanks to molded teeth
- enhanced running smoothness
- matched-set L=L serial production
- electrically conductive to ISO 1813
- conditionally resistant to oil
- dust-proof and suitable for tropical climates



CONTI®V MULTIBELT



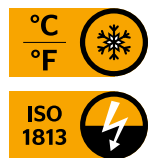
联组带适用于动态载荷变化频繁的传动系统。
Banded V-belts for drives with highly irregular load changes

齿型 / Section		3V (9J)	5V (15J)	8V (25J)	A/HA	B/HB	C/HC	SPZ	SPA	SPB	SPC
顶宽 Top belt width	$b_o \approx$ (mm)	9	15	25	13	17	22	9,7	12,7	16,3	22,3
带高 Belt height	$H \approx$ (mm)	10	16	25,5	11	14,3	18	11	13	16,5	22
齿高 Section height	h (mm)	8	13	23	8	11	14	9	11	13	18
节距 Section pitch	e (mm)	10,3	17,5	28,6	15,88	19,05	25,4	12	15	19	25,5
长度范围 Length ranges	L_d (mm)	1181 - 3556	1702 - 9017	2540 - 14224	1486 - 2276	1168 - 6580	2575 - 12220	1250 - 3000	1000 - 4000	1590 - 7500	2650 - 11200
最小带轮直径 Minimum pulley diameter	$d_{d \min}$ (mm)	71	160	315	85	118	190	71	100	160	265



CONTI®V MULTIBELT 通常用于中心距较大和灰尘较多的环境中, 如碎石机和冷铣刨机。同时, 也适用于农业应用中。横向刚性背部可有效防止单条传动带的扭转和过度振动。

The CONTI®V MULTIBELT is typically used with large center distances and in dusty environments, e.g. in stone crushers and cold planers. It is also suitable for agricultural applications. The transversely stiff cover plate prevents twisting and excessive vibration in individual belts.



特性

- 传动顺畅
- 适中耐油性
- 适用于热带气候
- 防尘
- 可耐受温度范围: -30 °C 到 +80 °C
- 导电性符合 ISO 1813 标准

Properties

- especially smooth running
- moderately oil-resistant
- suitable for tropical climates
- unaffected by dust
- temperature-resistant from -30 °C to +80 °C
- electrically conductive to ISO 1813



可按要求提供高性能型号 / Heavy-duty type available on request

› CONTI®V MULTIBELT ADVANCE › CONTI®V MULTIBELT POWER



安全驱动的保证

Security for every drive

CONTI® VSM-1 / VSM-3 / VSM Mini

皮带张力电子测量仪

正确而有效的初始张力，正确的皮带张紧固定，是确保皮带在工业应用中长时间正确运作的先决条件。CONTI®VSM-1, VSM-3和 VSM MINI 张力仪是为测量同步带、多楔带和三角带初始张力而特别设计的电子测量仪。用于精确调整皮带在静态条件下的安装张力，而不用考虑它们的张力层。测量方法简捷、结果精确。

特性:

VSM-1

- › 非接触测量
- › 灵活的传感器臂可监测任一方位
- › 用光电测量方法获取精确数据

VSM-3

- › 非接触测量
- › 造型小巧，方便易用
- › 光电精确测量
- › 外壳坚固耐用

VSM Mini

- › 安装在皮带背面
- › 加速度传感器测量频率
- › 节省空间、便于携带
- › 可替代传统的仪表

光电测量初始张力，确保皮带的安全运转。

CONTI® 激光校正仪- 监测和对齐皮带轮

轻松实现高精度:

CONTI® 激光准直仪是一款专业工具，可最大程度延长各类传动皮带的使用寿命。

- › 德国制造质量
- › 可立即使用，操作简单直观
- › 超高精度
- › 获得用于食品行业的 FDA 批准
- › 包含 CONTI® 皮带轮对齐建议

Electronically measurable belt tension

The right initial tension in force- and form-locked belt drives is a prerequisite for trouble-free, long-term operation of drives in industrial applications. The CONTI® VSM-1, VSM-3 and VSM Mini tension gauges are fully electronic measuring instruments designed specially to measure the initial tension of timing belts, multiple V-ribbed belts and V-belts. They can be used to set the static strand force of belt drives, irrespective of their tension members, simply and precisely.

Properties:

VSM-1

- › Non-contact measurement
- › Flexible sensor arm permits monitoring even where access is difficult
- › Precise readings using optoelectronic measurement method

VSM-3

- › Non-contact measurement
- › Exceptionally compact design for reliable measurements, even in hard-to-reach areas
- › Precise measurements by means of optoelectronic measurement process
- › Sturdy and durable housing

VSM Mini

- › Attached to back of belt
- › Frequency measurement by acceleration sensor
- › Space-saving, easily portable device
- › Alternative to conventional gauges

The electronically measurable initial belt tension ensures that every industrial drive is operating safely.

CONTI® LASER ALIGNER - for monitoring and aligning belt pulleys

Precision can be this easy:

The CONTI® LASER ALIGNER is the professional tool to maximize service life in belt drives of every kind.

- › German-made quality
- › Ready to use immediately and intuitively
- › Ultra-precise
- › FDA-approved for the food industry
- › CONTI® recommendation for pulley alignment included in the box



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