PREDATOR®

PREYS ON MAINTENANCE & DEVOURS DOWNTIME!

The Driving Force in Power Transmission®

Gates®

PREDATOR®

Built For Survival

Designed for the toughest, dirtiest and most aggressive applications and environments, Gates Predator's construction is what sets it apart from any other v-belt.

Predator v-belts are built with aramid fiber tensile cords for unparalleled shock and stretch resistance, whilst the double ply, specially treated fabric cover is designed to withstand debris, punctures, slippage and shearing forces. The outer ply of fabric which is non rubber impregnated handles slippage that would destroy any other belt.

Predator V-belts have the highest power density of any V-belt, and stretch only half as much as standard cross sections. Predator belts are excellent problem solvers that perform well in harsh environments and in extremely demanding applications where standard V-belts have performance issues.

With at least 30% higher power ratings and half the stretch of standard v-belts, Predator v-belts will reduce maintenance, wipeout downtime and save money, especially on the hardest of drives.

Two profiles available

Predator belts are manufactured in both the classical and narrow profiles.

Classical **Narrow**

Predator Matching System

Predator belts have a matching system which must be used on multiple belt drives. This applies to both single and powerband versions. Predator belts are marked with match number and each belt on a drive much have the same match/group number. Each matching number refers to a length tolerance range. The limited stretch characteristic of the Predator belts make it necessary to match them. If matched belts are not used then it will severely impact performance and life.

Predator V-belts

Gates Predator v-belts are the highest rated and most robust v-belts ever designed. Born and bred for the toughest applications and environments, Gates Predator v-belts prey on maintenance liabilities and devour downtime. The best v-belt solution to belt drive problems available today.

Predator Singles

Previously only available in Powerband construction, Gates now have a range of Predator single belts. Utilising a patent pending 3/4 flip belt construction and manufacturing process the addition of Predator singles offers a much wider range of problem solving solutions.

Predator Powerbands available in

- Classical section BP, CP
- RMA Narrow section 3VP, 5VP, 8VP
- ISO Narrow section SPB-P and SPC-P

Predator Singles available in

- Classical section AP, BP, CP
- RMA Narrow section 5VP, 8VP
- ISO Narrow section SPB-P and SPC-P

Predator Benefits

Reduce drive cost up to 35%

Reduce drive width up to 50%

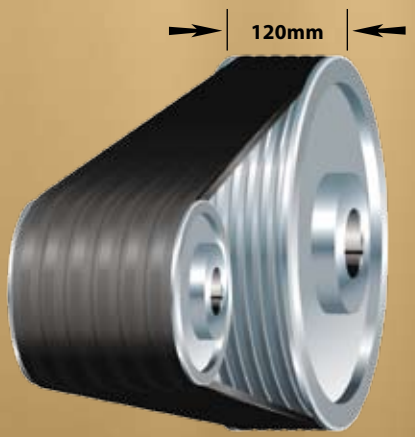
Reduce drive weight up to 50%

Compact drive saves space, weight and money

Predator V-belts can handle 1.4-2.2 times more power than the equivalent size standard V-belt. So you can design a more compact drive that weighs less, puts less strain on costlier components, and uses fewer belts. All of which saves you money. See the difference in the following example[1]:

Predator **- VS -** **Standard**

- 3 strand SPB-P drive
- Rated kW/Strand: 53.5
- Total weight: 72.2 kg



- 6 strand SPB drive
- Rated kW/Strand: 26.8
- Total weight: 114.6 kg

[1] Drive specifications include 120kW motor, 1750rpm, 1.3 service factor, Driver SPB315, Driven SPB800, centre distance 1100mm

Compared with a standard V-belt drive, the more compact Predator drive provides equal or greater power capacity in nearly half the width and weight, at a third of the cost.

Versatile too

Regardless of the industry, predator belts out perform the competition on heavy shock loaded drives. Challenge us with your toughest applications.

- **Wood Products**
  - Timber
  - Logging
  - Pulp and paper
  - Lumber and plywood manufacturing
- **Rock crushing / quarry operations**
  - Shaker screens
  - Conveyors
  - Crushers
- **Mining**
- **Oil field**
- **Agriculture**
- **Heavy construction**

Minimal need for retensioning due to stronger-than-steel Kevlar® tensile cords that reduce belt stretch by 50% over standard V-belts and provide extraordinary strength and durability.

The patented concave sidewalls provide a better fit in pulley for uniform loading and maximum life. Reduce friction and heat build up under shock load with abrasion and puncture-resistant bareback (non-rubber) double-layer fabric cover.

Multiple-layer tie band joins belts together into a Predator PowerBand® that provides lateral rigidity for reduced vibration and belt turn-over on multi-groove pulleys.

Extend drive life with the patented curved sidewall that allows belt to enter the pulley groove cleanly and smoothly, reducing sidewall wear on belt and pulley.

High quality chloroprene compound body specifically engineered for Predator belts, provide oil and heat resistance; rated for 82°C, out performs other rubbers in harsh operating conditions.

Strands are precision matched to maximise power absorption and belt life, especially on longer belts. (Powerband construction).

SINGLE AP

PART NO. RMA	PART NO. RMA
AP31	AP54
AP33	AP55
AP35	AP56
AP38	AP58
AP40	AP59
AP42	AP60
AP44	AP61
AP45	AP62
AP46	AP63
AP47	AP64
AP48	AP66
AP50	AP68
AP51	AP70
AP52	AP71
AP53	AP91

SINGLE BP

PART NO. RMA	PART NO. RMA	PART NO. RMA
BP32	BP60	BP93
BP38	BP61	BP95
BP40	BP62	BP97
BP42	BP63	BP100
BP44	BP64	BP103
BP46	BP65	BP105
BP48	BP66	BP108
BP50	BP68	BP112
BP51	BP70	BP120
BP52	BP71	BP124
BP53	BP75	BP128
BP54	BP78	BP136
BP55	BP80	BP144
BP56	BP81	BP158
BP57	BP83	BP173
BP58	BP85	BP195
BP59	BP90	

SINGLE CP

PART NO. RMA	PART NO. RMA
CP85	CP136
CP90	CP144
CP96	CP158
CP100	CP162
CP105	CP173
CP112	CP180
CP120	CP195
CP128	CP240

SINGLE 5VP

PART NO. RMA	PART NO. RMA
5VP800	5VP1800
5VP850	5VP1900
5VP900	5VP2000
5VP950	5VP2120
5VP1000	5VP2240
5VP1060	5VP2360
5VP1120	5VP2500
5VP1180	5VP2650
5VP1250	5VP2800
5VP1320	5VP3000
5VP1400	5VP3150
5VP1500	5VP3350
5VP1600	5VP3550
5VP1700	

SINGLE 8VP

PART NO. RMA	PART NO. RMA
8VP1600	8VP2500
8VP1700	8VP2650
8VP1800	8VP2800
8VP1900	8VP3000
8VP2000	8VP3150
8VP2120	8VP3350
8VP2240	8VP3550
8VP2360	

SINGLE SPB

PART NO. ISO	PART NO. ISO
SPB1260P	SPB3550P
SPB1500P	SPB3750P
SPB1600P	SPB4000P
SPB1700P	SPB4250P
SPB1800P	SPB4500P
SPB1900P	SPB4750P
SPB2000P	SPB5000P
SPB2120P	SPB5300P
SPB2240P	SPB5600P
SPB2360P	SPB6000P
SPB2500P	SPB6300P
SPB2650P	SPB6700P
SPB2800P	SPB7100P
SPB3000P	SPB7500P
SPB3150P	SPB8000P
SPB3350P	

SINGLE SPC

PART NO. ISO	PART NO. ISO
SPC2000P	SPC4500P
SPC2120P	SPC4750P
SPC2240P	SPC5000P
SPC2360P	SPC5300P
SPC2500P	SPC5600P
SPC2650P	SPC6000P
SPC2800P	SPC6300P
SPC3000P	SPC6700P
SPC3150P	SPC7100P
SPC3350P	SPC7500P
SPC3550P	SPC8000P
SPC3750P	SPC8500P
SPC4000P	SPC9000P
SPC4250P	

POWERBAND 3VP

PART NO. RMA	PART NO. RMA
3VP450	3VP850
3VP475	3VP900
3VP500	3VP950
3VP530	3VP1000
3VP560	3VP1060
3VP600	3VP1120
3VP630	3VP1180
3VP670	3VP1250
3VP710	3VP1320
3VP750	3VP1400
3VP800	

AVAILABLE UP TO 12 RIBS

POWERBAND 5VP

PART NO. RMA	PART NO. RMA
5VP600	5VP1500
5VP630	5VP1600
5VP670	5VP1700
5VP710	5VP1800
5VP750	5VP1900
5VP800	5VP2000
5VP850	5VP2120
5VP900	5VP2240
5VP950	5VP2360
5VP1000	5VP2500
5VP1060	5VP2650
5VP1120	5VP2800
5VP1180	5VP3000
5VP1250	5VP3150
5VP1320	5VP3350
5VP1400	5VP3550

AVAILABLE UP TO 16 RIBS

POWERBAND 8VP

PART NO. ISO	PART NO. ISO
8VP1000	8VP2500
8VP1060	8VP2650
8VP1120	8VP2800
8VP1180	8VP3000
8VP1250	8VP3150
8VP1320	8VP3350
8VP1400	8VP3550
8VP1500	8VP3750
8VP1600	8VP4000
8VP1700	8VP4250
8VP1800	8VP4500
8VP1900	8VP4750
8VP2000	8VP5000
8VP2120	8VP5600
8VP2240	8VP6000
8VP2360	

AVAILABLE UP TO 12 RIBS

POWERBAND SPB

PART NO. ISO	PART NO. ISO
SPB2120P	SPB4250P
SPB2240P	SPB4500P
SPB2360P	SPB4750P
SPB2500P	SPB5000P
SPB2650P	SPB5300P
SPB2800P	SPB5600P
SPB3000P	SPB6000P
SPB3150P	SPB6300P
SPB3350P	SPB6700P
SPB3550P	SPB7100P
SPB3750P	SPB7500P
SPB4000P	SPB8000P

AVAILABLE UP TO 16 RIBS

POWERBAND SPC

PART NO. ISO	PART NO. ISO
SPC3000P	SPC6000P
SPC3150P	SPC6300P
SPC3350P	SPC6700P
SPC3550P	SPC7100P
SPC3750P	SPC7500P
SPC4000P	SPC8000P
SPC4250P	SPC8500P
SPC4500P	SPC9000P
SPC4750P	SPC9500P
SPC5000P	SPC10000P
SPC5300P	SPC10600P
SPC5600P	SPC11200P

AVAILABLE UP TO 12 RIBS

CLASSICAL B & C

AVAILABLE UPON REQUEST
MADE TO ORDER

PREDATOR®

Tough applications are PREY!

CASE STUDY 1

The Hogger drive pictured is in an Australian timber mill and has devoured competitive belts ever since it was put in service. Large amounts of slippage and the shock and impulse loads experienced by the drive had belts lasting 2-3 months at best. They took 1-2 hours to replace when they failed and to maintain their tension during their life. In short the 5 x 5V850 (SPB2150) belts were a maintenance liability and caused a great deal of downtime for the mill.

However, this is the type of drive Predator was born for and so 5 x 5VP850 were installed on the troublesome drive. The huge improvement in stretch resistance eliminated the re-tensioning problems and coupled with the robust construction of Predator it has proved a great success after 6 months service without maintenance. The belts have coped so well that they are showing no signs of the wear and tear usually associated with this belt drive even after 2-3 times the normal service life. The belts are continuing into service and show all the signs of completing 12 months service without any need of maintenance for belt tensioning.

CASE STUDY 2

Cone crushers are widely used in the construction and road building industry. Cone crushers are suitable for hard and soft rocks and ores. In this case the cone crusher is used in hard rock crushing. A major Australian Quarry was faced with a problem with their current drive system. The belts and pulleys were badly worn and the drive required full replacement.

Original Drive = 12 groove 8V1600
Power = 150 kW @ 990rpm x 2 motors
Driver = 6/8V570
Driven = 12/8V625

After observation of the drive, the Gates engineer recommended a more cost effective alternative to the current 8V pulleys. As the 8V pulleys are rare and not standard off the shelf items, the more commonly available SPC pulleys were chosen.

Standard SPC belts would fail on this new design, so the high power minimal stretch Predator belts were selected. The pulleys went from 355mm wide to only 213mm wide. A 40% reduction in pulley width, reduced the weight of the drive system and also reduced wear on costlier components such as bearings and shafts. The decrease in weight of pulleys from 206kg to 102kg also reflected in the plant's energy cost savings.

DRIVE	CAPACITY
6 x 8V1400 Standard	412kW
4 x SPC4000P Predator	430kW

Since the Predator belts have been installed maintenance inspections have been less frequent. Due to the Kevlar cords inside the Predator belt, shock loads are easily dealt with and tension is maintained to provide constant crushing.

This more compact drive now weighs less and places less strain on costlier components, providing an increased efficiency which has lead to a 10% decrease in energy consumption. Due to narrower pulleys and a decreased number of belts the quarry saved over $8000 on installing this new Predator belt drive.

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