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Products and Applications

Oil Industry



Drive solutions with Optibelt

PCP pumps

Patagonia is an Argentine region that is located at the southernmost tip of South America. The elevated land to the East and the Andes to the West are the causes of the predominantly tough climate and scant vegetation that can be found here. The two most important oil sources in the country can be found in this region. Aside from the typical drilling instruments, PCP pumps ("Processing Cavity Pump") are also used here to extract oil. These pumps place a huge amount of strain upon the V-belts due to the small diameter of the pulley and the high level of power.

Optibelt RED POWER II

First choice on the oil fields in Argentina

In Patagonia, S. Uffenheimer S.A. – an Optibelt partner – has identified an important sales opportunity with PCP pumps that will be used by large companies such as Petrobras, Repsol YPF, Capsa-Capex as well as by others in order to tap oil fields that are low in pressure or fields where sand can be found.

During the course of co-operation, the RED POWER II V-belts appeared to be a particular innovative solution for the challenging requirements. Due to the fact that the reduced operational life of the 5VX V-Belts which had previously been used was well known, this type of situation lent itself to carrying out test runs with the Optibelt RED POWER II V-belts with the PCPs at the Weatherford, Netzsch and PCP Oil Tools Companies.

The end result was as follows:

The RED POWER II belts are extremely applicable for this planned intended use.



Here are some examples:

Where standard V-belts were used under normal conditions on oil fields, they had a life span of 9,580 hours. However more could be tested with the RED POWER II V-belts as they had a life span of 23,000 hours and more. This equates to almost triple the original life span. When used in oil fields under extreme conditions, the standard V-belts had a life span of between 1,000 and 2,200 hours. However the Optibelt RED POWER II managed a life span of over 16,000 hours. This equates to eight times the life span. The positive results lead to many companies changing their equipment so that Optibelt RED POWER II V-belts are now the standard V-belts which they now use in their oil pumps.



Pump jacks

Horse head pumps

3,000 oil pumps in use

Impressive fascination of technology

The giant “necks” of the oil pumps move up and down tirelessly and look like a huge herd of grazing dinosaurs. 3,000 pumps are in use 24 hours a day in the second largest oil field in the USA.

The oil field located in the West of the USA impressively demonstrates the fascination of technology. Up to 250 barrels of oil are pumped per day by every one of the pumps. The reliable continuous output of the pumps places the highest amount of demand upon the quality of the drive belts.

The use of the quality Optibelt VB S=C PLUS belt in B and C sections as well as the Optibelt TX M=S belt in CX section was able to substantially reduce pumping costs. Once again, this confirms the fact that quality always pays for itself.



The top-quality products from Optibelt are characterised by their power performances and long operational lives. The American subsidiary company, Optibelt Corporation, supplies one of the most important technical dealers, the McJunkin Corporation from California, a company that counts Texaco, Aera Energy (Shell & Exxon Mobil Company Group), amongst others, as their customers.





Drilling rigs



The oceans and seas of the world, whose water surfaces cover almost 71 % of the surface of the planet, play a decisive role in the search for raw materials, especially crude oil and natural gas. The construction of platforms for offshore use has benefited with the development of technology that has taken place since 1950. The most famous type of platform is the so-called drilling rig/oil rig.

The biggest production platform ever constructed is the Norwegian Sea Troll that belongs to the crude oil company Statoil. This construction can displace a million tonnes of water. From the base of the foundation to the top of the gas torch mast, this construction is 472 metres tall and stands on the sea floor at a depth of 303 metres. If a direct comparison with the Eiffel Tower in Paris was made, the Sea Troll would stand a full 172 metres taller.



Power Transmission



optibelt **RED POWER II**

High power wedge belts, maintenance-free

The 2nd generation of RED POWER II V-belts and kraftbands are producing results that can be seen for themselves: An increase of power amounting to up to 42% whilst at the same time making a cost saving of up to 20%.

Improved production procedures and the consistent further development of the base products have lead to this great result. The cost savings can be explained as follows:

Less belt + more narrow pulleys
+ saving of installation space

= lower costs

optibelt **SK S=C PLUS**

High power wedge belts DIN/ISO

The wrapped Optibelt SK was primarily developed for machine construction. The belt transfers substantially more power than classical V-belts that have a comparable upper width, e.g. SPB and B/17 sections.

The wrapped V-belt has the famous Optibelt S=C PLUS quality with an efficiency of 97% and is unmeasured and can be used in sets.

Sections: SPZ; SPA; SPB; SPC



optibelt **VB S=C PLUS**

Classical V-belts DIN 2215

Due to its multitude of application possibilities, the Optibelt VB is the classical model amongst the drive belts. The qualities of this product come into their own when dealing with difficult drives in agricultural machines just as well as when dealing with extraordinary drive solutions, for example with V-flat drives in machine construction.

Optibelt VB classical V-belts are S=C PLUS and are therefore unmeasured and can be used in sets.

Sections: 5; Y/6; Z/10; A/13; B/17; 20; C/22; 25; D/32; E/40

optibelt **Super X-POWER**

Raw edge, moulded cogg V-belts

Consistent further development of the production technique, improved materials, low-stretch polyester cords and an optimal moulded cog form the basis of this new generation of belt.

Optibelt Super X-POWER M=S enables complex drive solutions in the whole machine construction sector in the most difficult of conditions and extreme operational demands.

Sections: XPZ; XPA; XPB; XPC; 3VX/9NX; 5VX/15NX





optibelt TT 3

Frequency tension tester for the universal measurement of the belt tension of V-belts, timing belts and ribbed belts

The Optibelt TT 3 frequency tension tester provides safety for your drives. The consistent further development of frequency tension testing technology enables an individual data recording of all belt drives. The display is in Hertz [Hz] and is given in Newton [N] when the belt parameters have been inputted.

optibelt TT mini S

The new, compact frequency tension tester with a flexible swan neck for trouble-free measuring at spots

The Optibelt TT mini S frequency tension tester is an appliance that is used to check the tension of drive belts by means of measuring frequency.

The Optibelt TT mini S can even be used in difficult-to-reach places. V-belts, ribbed belts and timing belts can be simply and quickly reached in order to check their tension values.

optibelt Service-Box

... for quick on-site help

The service box from Optibelt is meant to support many application areas on site. Centre distances, belt lengths and pulley diameters can be established quickly and without problems by means of the flexible measuring tape.

V-belts and pulleys can be identified quickly and effortlessly with the V-belt and pulley groove gauges. In particular, the pulley groove flanks of V-grooved pulleys can be checked for angular deviation and wear.

Where necessary, marks may be made on the belts such as measurements, reference marks etc. which are clearly readable using the special ball point pen with silver refill.

The obligatory magic thumb method for setting belt tension is made redundant thanks to the Optikrik belt tension gauge.

The application and control of belt tension with the Optikrik facilitates the maintenance work of the fitter and increases the safety of drives.



optibelt laser pointer //

An indispensable aid for belt drives

The simple to use Optibelt laser pointer II is a device which particularly proves its value in daily usage.

The Optibelt laser pointer II facilitates the alignment of belt drives.

The belt helps in recognising the three most common causes of drive problems:

- the axial offset of the pulleys
- the horizontal angle deviation
- the vertical angle deviation

optibelt CAP 6.0

Drive calculation program in new form

The Optibelt CAP drive calculation program has been used for many years on a worldwide basis for the calculation and design of belt drives. Now Optibelt would like to present the next generation: CAP 6.0.

The new visual appearance displays the drive design in a clear illustration and facilitates a quick and well laid out drive design/drive calculation.





Lieferprogramm Product Range



1 5	optibelt RED POWER II optibelt KB RED POWER II Hochleistungs-Schmalkeilriemen, wartungsfrei High performance wedge belts, maintenance-free	1		2		3		4		14	optibelt OMEGA HL optibelt OMEGA HP optibelt OMEGA FanPower optibelt OMEGA linear Zahnriemen aus Chloropren Chloroprene timing belts
2 6	optibelt BLUE POWER optibelt KB BLUE POWER Hochleistungs-Schmalkeilriemen High performance wedge belts	5		6		7		8		15	optibelt ALPHA Power optibelt ALPHA optibelt ALPHA linear / V optibelt ALPHAflex Zahnriemen aus Polyurethan Polyurethane timing belts
3 7	optibelt SK optibelt KB SK Schmalkeilriemen Wedge belts	9		10		11		12		16	optibelt ALPHA linear / V optibelt ALPHAflex Zahnriemen aus Polyurethan Polyurethane timing belts
4 8	optibelt VB optibelt KB VB Klassische Keilriemen Classical V-belts	13		14		15		16		17	optibelt DK Doppelkeilriemen Double section V-belts
9	optibelt Super X-POWER M-S Keilriemen, flankenoffen, formgezahnt V-belts, raw edge, moulded cogged	17		18		19		20		18	optimat OE Endliche Keilriemen DIN 2216, gelocht Open-ended V-belt, punched
10	optibelt Super KBX-POWER Kraftbänder, flankenoffen Kraftbands, raw edge	21		22		23		24		19	optibelt RB Rippenbänder Ribbed belts
11	optibelt SUPER VX Breitkeilriemen, flankenoffen, formgezahnt Variable speed belts, raw edge, moulded cogged	25		26		27		28		20	optibelt RR / RR PLUS Kunststoffrundriemen Plastic round section belting
12	optibelt SUPER DVX Doppel-Breitkeilriemen, flankenoffen, formgezahnt Double section variable speed belts, raw edge, moulded cogged	29		30		31		32		21	optibelt KK Kunststoffkeilriemen Plastic V-belt
13	optibelt ZR optibelt ZR linear Zahnriemen aus Chloropren Chloroprene timing belts	33		34		35		36		22	optibelt K5 Keilrillenscheiben V-grooved pulleys
		37		38		39		40		23	optibelt ZR5 Zahnriemenscheiben Timing belt pulleys
		41		42		43		44		24	optibelt RB5 Rippenbandscheiben Ribbed belt pulleys
		45		46		47		48		25	optibelt SERVICE KIT

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