## Structure/Properties

optibelt BLUE POWER wedge belts:


The aramid tension cord has extremely low stretch compared to common materials such as polyester. The breaking strength is almost twice as high with the same cord diameter. Nevertheless, the fibre is extremely flexible.
The high quality specially prepared aramid tension cord is embedded in a rubber compound. It is supported by the top and bottom structures. These consist of a polychloroprene rubber compound with tranverse fibres.
The abrasion-proof cover fabric is coated with a special rubber compound and covers the whole belt. The V-belt is electrically conductive according to ISO 1813

## Application areas

optibelt BLUE POWER belts are mainly used when

- highest power transmission levels are required
- there are limited design dimensions
- there is only little installation and tensioning space
- high temperature influences occur

This way. a much better performance is guaranteed e.g. with the same number of belts. Even the operation of once critical drives is now largely free of risk. Higher load limits are now safety zones. Thus optibelt BLUE POWER belts are mainly implemented in heavily loaded drives:

- in critical drives in mechanical engineering
- in special machines
- in agricultural machinery


## Application

Attention: When retro-fitting existing drives please let Optibelt check the tension. As part of this description not all criteria can be dealt with. Please consult our Application Engineering Department.

## Standardisation/Dimensions

optibelt BLUE POWER wedge belts in the profiles SPZ, SPA, SPB, SPC, $3 \mathrm{~V} / 9 \mathrm{~N}, 5 \mathrm{~V} / 15 \mathrm{~N}$ and $8 \mathrm{~V} / 25 \mathrm{~N}$ are standardised according to DIN 7753 Part 1, ISO 4184 and ARPM/MPTA.


Table 3

| Profile |  |  | SPB | SPC |
| :--- | :--- | :--- | :--- | :--- |
| Belt top width | $b_{0}$ | $\approx$ | 16.3 | 22 |
| Datum width | $b_{d}$ | $\approx$ | 14 | 19 |
| Belt height | $h$ | $\approx$ | 13 | 18 |
| Distance | $h_{d}$ | $\approx$ | 3.5 | 4.8 |
| Recommended minimum <br> datum pulley diameter | $d_{d \text { min }}$ | 180 | 280 |  |
| Weight per meter $(\mathrm{kg} / \mathrm{m})$ | $\approx$ | 0.206 | 0.389 |  |
| Flex rate $\left(\mathrm{s}^{-1}\right)$ | $\mathrm{f}_{\mathrm{B} \text { max }} \approx$ |  | 100 |  |
| Belt speed $(\mathrm{m} / \mathrm{s})$ | $\mathrm{v}_{\text {max }} \approx$ |  | 50 * |  |

* $v>50 \mathrm{~m} / \mathrm{s}$. Please consult our Application Engineering Department.


## Table 4

| Profile |  |  | $5 \mathrm{~V} / 15 \mathrm{~N}$ | $8 \mathrm{~V} / 25 \mathrm{~N}$ |
| :--- | :--- | :--- | :--- | :--- |
| Datum width | $\mathrm{b}_{\circ}$ | $\approx$ | 15 | 25 |
| Belt height | h | $\approx$ | 13 | 23 |
| Recommended minimum <br> outside pulley diameter | $\mathrm{d}_{\mathrm{a} \text { min }}$ | 191 | 315 |  |
| Weight per meter $(\mathrm{kg} / \mathrm{m})$ | $\approx$ | 0.204 | 0.603 |  |
| Flex rate $\left(\mathrm{s}^{-1}\right)$ | $\mathrm{f}_{\mathrm{B} \text { max }} \approx$ |  | 100 |  |
| Belt speed $(\mathrm{m} / \mathrm{s})$ | $\mathrm{v}_{\text {max }}$ | $\approx$ |  | $50^{*}$ |

* $\mathrm{v}>50 \mathrm{~m} / \mathrm{s}$. Please consult our Application Engineering Department.

