Metso:Outotec

Steel Belt



The Metso Outotec Steel Belt is a cost-efficient and reliable solution for conveying pellets through the Metso Outotec Steel Belt Sintering furnace. We support customers with a comprehensive range of operation and maintenance services that ensure optimal steel belt performance and a long operational lifespan. We are continuously improving our steel belt offering based on our strong in-house R&D expertise.

Carefully selected materials for a wide range of operating conditions

Metso Outotec steel belt solutions are manufactured using proven, high quality steel grades and are available in various specifications depending on your requirements. We offer the following belt types:

Metso Outotec Steel Belt 4003 (ferritic EN 1.4003) provides a good combination of corrosion resistance and mechanical strength, and is our most cost-effective steel belt solution.

Metso Outotec Steel Belt 4521 (ferritic EN 1.4521) provides good weldability and excels in corrosive environments.

Metso Outotec Steel Belt 4462 (duplex EN 1.4462) is designed for highly demanding conditions. Duplex steel combines the advantages of austenitic and ferritic microstructures to provide excellent corrosion resistance and superior mechanical strength.

Benefits

- Cost-efficient and reliable solution for steel belt sintering plants
- Proven, high quality steel grades for a wide variety of operating conditions
- Local manufacturing ensures short lead times and low delivery costs
- Full range of training services for operators and maintenance personnel



High quality manufacturing

Because our steel belts are manufactured close to our customers, we can ensure competitive pricing and short delivery lead times. Our manufacturing processes follow industry best practices and use proven, high quality materials.

Comprehensive range of support services

Typically, steel belts in sintering plants are replaced during the annual maintenance shutdown period. We can support you with a complete range of services for steel belt replacement and maintenance, including training of operators and maintenance personnel, as well as plant audit and inspection services.

Specifications and typical material properties

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|-----------------------------|--------------|----------|------|
| Steel grade | 4003 (3Cr12) | 4521 | 4462 |
| C [wt%] | 0.02 | 0.02 | 0.02 |
| Cr [wt%] | 11.5 | 18 | 22 |
| Ni [wt%] | 0.5 | _ | 5.7 |
| Mo [wt%] | _ | 2-1 | 3.1 |
| N [wt%] | _ | _ | 0.17 |
| Ti + Nb [wt%]" | 3Cr12: 0.6 | 0.5 | _ |
| Corrosion resistance [PRE]* | 12 | 25 | 35 |
| Yield strength [MPa] | 360 | 360 | 510 |
| Tensile strength [MPa] | 570 | 540 | 750 |

^{*)} Pitting Resistance Equivalent (PRE) is calculated using the following formula: %Cr + 3.3 x %Mo + 16 x %N. In general, the higher the PRE value, the better the corrosion resistance.

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