

Storage and Handling of Process and Conveyor Belts



Introduction

The International Standard ISO 2584 gives guidelines for creating the most suitable conditions for the storage and handling of process and conveyor belts.

Ammeraal Beltech has compiled this information as a guideline only.

Packing

- » Belting may be protected by paper, plastic sheeting, rubberized fabric or any other suitable covering material.
- » Heavy rolls (and rolls which have to be shipped over large distances) may be contained in timber-sided drums or crates.
- » If the packaging completely covers the belt, all relevant details of the belt should be written clearly on the outer wrapping.
- » Endless belts may be dispatched in roll form or in crates, depending on size, but it is essential that the loop ends be protected from crushing by the insertion of suitable sized cores.

Storage • Environmental conditions

- » Storage indoors is usually preferable. If storage outdoors is unavoidable, the belting should be protected by covering with tarpaulin or other suitable material.
- » Belts with 100% synthetic carcasses and protected by ozone- and weather-resistant compounds, may be stored outdoors, unless storage time is measured in years or if ambient conditions are extreme.
- » Avoid temperature extremes. Store away from direct sources of heat such as boilers, radiators or direct sunlight.

- » If stored at temperatures below 0°C, it may be necessary before handling or unrolling to condition the belt at least 24 hours at a temperature above 10°C in order to improve flexibility and reduce the risk of belt damage.
- » Belting should be kept dry and any packaging used should not cause internal condensation. This is particularly important for belting containing fabric made from natural fibres.
- » Belts (particularly containing rubber) should be protected from light, especially direct sunlight and strong artificial light with a high ultra-violet content.
- » Belting should be protected from contact with other potentially harmful materials such as acids, oils, caustic solutions or solvents.

Storage • Forms of storage

- » Coils of belting should be stored with the central axis horizontal.
- » Belting stored outdoors should be raised off the ground for protection from damage by water, mud, grit etc. Pallets are preferable to wooden battens, which may cut into the surface of the belts if the area of battens in contact with the belt is insufficient. The ground surface should be hard and level.
- » Belts stored indoors may be placed directly onto hard standing. They should be securely wedged to prevent rolling. Belt rolls of up to 1 m diameter may be stacked several rolls high in nesting tiers, provided that the resultant pressure does not cause the centres to collapse or distort. The largest diameter rolls should be placed in the first tier and an adequate proportion of them should be securely wedged. Stacks should be only one belt deep and there should be no contact between the stacks.
- » Belting not coiled on centre cores and to be stored for a significant length of time in stacks should have suitable lengths of steel tubing (or similar) inserted into the centres to prevent coil centre collapse and subsequently difficulty in handling.

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Handling • Lifting

- » To lift a roll of belting, the preferred method is to insert a steel bar of suitable size through the centre hole and attach rope or chain slings hanging down from the spreader bar of a lifting apparatus to the protruding ends of the bar.
- » The spreader bar attachments should be wider apart than the belt width to avoid damage to the edges of the belt edges by the ropes or chains.
- » If a textile or plastic sling of sufficient strength and length is available as a lifting means, this may be fed through the core hole and used without a spread bar.
- » For double coiled belts, it is necessary to insert two steel bars through the central cores and for the slings to be of sufficient length to pass around both bars. Unequal load distribution, and/or telescoping of the coils, might cause the roll to fall out sideways risking serious injury to personnel.

Handling • Transport over short distance

- » A conventional truck of adequate load capacity may be used, provided that care is taken not to damage the outer laps of belting with the forks. Regard should be paid to any such documents before operating fork lift trucks.
- » If no mechanical handling facilities are available, belting may be rolled along the floor, provided that the floor surface is not likely to damage the belting.

Handling • Running belt onto structure

- » The roll of belting to be installed should be mounted in line with the conveyor structure on a bar supported by two A frames in such a manner that the top cover is correctly presented to the structure.
- » The roll should be capable of turning easily, and being braked as necessary.
- » It is usually convenient to attach the end of the new roll to the belt being removed, by means of a temporary joint, and then to draw the new belt on by pulling off the old belting.

LIABILITY

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