

Clinical data

Based on the present readability data, e.g. a risk assessment, safety-related test reports and biocompatibility tests, as well as the fact that this is a non-active,

non-motorized, risk-1 medical device that does not need to be sterilized, may require a clinical trial for this product be waived.

Market evaluation

Based on the targeted user group and the specific needs of this this group we estimate the world market to be 10.000-20.000 chairs annually but since this is a unique design this is just a qualified guess.

Similar products

As far as our market research we can not find any other similar product.

We can find other products with vacuum formed seats made from carbon or plastic and also ultra-lightweight

products but not a standardized product using an integrated carbon seat together with a lightweight frame ready for delivery within 2 weeks after order with a straightforward order-form suitable for worldwide sales.

Design criteria

- Correct seating ergonomics to create a better posture for the user.
- Pressure relief to avoid pressure soars.
- Very good body balance in the chair.
- Correct driving ergonomics, this both increase possibility to control the chair and put less stress on shoulder, arms and spine of the user.
- Stable seat settings over time, after adjusting the seating it should not change over time due to slack and other changes in material used in the construction of the chair.
- Light weight.
- Long service life.
- Easy to recondition.
- Good recycling capability.

Our evaluation regarding different user groups show the need for specific products meeting the requirements from each user group, trying to cover to many user groups with one product will not give a satisfying result. The Z-line is designed to meet the requirements from users with lower type of injuries, typical with functions from th10 and lower. This groups in general want to open up the hip angle for a more ergonomically posture while maintaining a good balance in the chair. In addition to above the chairs is also ultra-light and suitable for both indoor and outdoor use.

Typical type of user:

- Paraplegia with injury level below th10.
- Spinal bifida.
- Amputees.

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