Investment offer for $\mathbf{3}$ self-construction sets for a flywheel tower for the extraction of long fibres and shives from bast fibre plants (winter hemp, linen, nettles).
Local Device for Long Fibres \& Shives



## Demand for sustainably produced yarns requires the extraction of LONG fibres from bast fibre plants such as utility hemp, linen, nettles

For durable fashion and technical textiles (ropes, canvas, decorative fabrics, awnings, tent fabrics, luggage fabrics, ...) that meet market expectations, it is absolutely necessary to obtain the fibres of the bast fibre plants uncut in their entire length

It makes sense for the raw fibres to always be obtained "on the farm", i.e. close to the fields where the bast fibres are grown, cut, roasted and harvested.

Farmers are able to offer a high-quality semi-finished product ex-farm with the long fibres. Thanks to the refinement of their work, they achieve higher added value.

The long fibres can be further processed into everyday products in nearby regional workshops, as listed in the graphic above right.

The long fibres can

- unwashed damp spun into traditional hemp yarns and traditional hemp fabrics,
- used unwashed in rope mills for the production of cords, ropes, cords, ropes,
- washed and then dry-spun into hard-wearing, fashionable fabrics that feel like cotton, but are not made from the now frowned upon and increasingly shunned cotton.


## Functional principle of the flywheel tower

The whole system is mounted like a marble run in a supporting tower of iron girders, as shown in the sketch at the top left. The straw stalks, which are always placed parallel to each other and guided by toothed rollers, are fed from the top to the bottom of two flywheels (flying wheels) and two carder belts. The shives are scraped off the roasted straw on the first flywheel equipped with iron plates and on the second flywheel equipped with scraping surfaces made of hard rubber. The stalks are only brought up to the wheels and then immediately led away from the wheels so that they are only scraped and not cut. On the two belts further down, the remaining shives are combed out of the stalks that have been stripped of their wood, on the first belt with nails, on the second belt with needles.

At the foot of the tower and thus at the end of this simple section, debarked, combed long fibres of original length or stem length are taken.

Depending on the possibilities of the users, the tower can

- purely manual with at least 6 employees per assignment or
- of hydro/wind power or electric motors supported with 2 employees
be operated.


## Cost/price calculation for a manually operated self-assembly set

The starter set "manual" contains all the necessary components for successful operation even under the simplest conditions (costs in CHF, manufactured in Switzerland):

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| Pos. | Component/s | Quantity Pcs. | Costs /pc. | Costs /Pos. |
| :---: | :---: | :---: | :---: | :---: |
|  | Tower scaffolding (fall-protected) |  |  |  |
| T-1 | Angle iron with plinth/front plates as elements of the vertical main supports to accommodate the rollers, wheels and carding belts <br> $140 \times 140 \times 2000$, pre-drilled for screwing | 8 | 300 | 3'200 |
| T-2 | Angle iron for the struts and to hold the sheet metal channels, $60 \times 60 \times 4500$, pre-drilled for screwing | 18 | 75 | 1'350 |
| T-3 | Angle iron frame for the working platforms $1500 \times 1000 \times 40$, welded and pre-drilled, wooden inserts | 5 | 400 | 2'000 |
| T-4 | Angle iron as vertical auxiliary supports to hold the working platforms, stairs and railings, 60x60x3500, drilled | 16 | 50 | 800 |
| T-5 | Prefabricated stair elements | 5 | 1000 | 5'000 |
| T-6 | Angle iron as railing supports for the working platforms and stairs, $50 \times 50 \times 1500$, pre-drilled | 20 | 30 | 600 |
| T-7 | Angle iron as railing, 50x50x1500, pre-drilled | 35 | 30 | 1'050 |
| T-8 | Fencing mesh for railings on platforms, stairs | 50 m | 10 | 500 |
| T-9 | Screws, nuts, washers, tools, small material | div. |  | 1'500 |
|  | Total tower scaffolding (fall-protected) |  |  | 16'000 |
|  | Factory equipment: flywheels, cards, channel, conveyor rollers |  |  |  |
| $\begin{aligned} & \mathrm{W}- \\ & 1 \\ & \hline \end{aligned}$ | Cast iron flywheels $D=1200$ with axles and hubs including fittings | 2 | 3'000 | 6'000 |
| $\begin{aligned} & \text { W- } \\ & 2 \end{aligned}$ | Card sliver modules each with 2 rolls and stretched felt slivers 1 m wide, $2 \times 1 \mathrm{~m}$ long, lateral pull chains and with flywheel for manual drive, <br> $1 x$ equipped with nails, $1 x$ equipped with needles, | 2 | 8'000 | 16'000 |
| $\begin{aligned} & \hline \text { W- } \\ & 3 \end{aligned}$ | Sheet metal channel 1 m wide, 2 m long, 0.2 m high | 5 | 300 | 1'500 |
| $\begin{aligned} & \mathrm{W}- \\ & 4 \end{aligned}$ | T-iron for external bracing of the sheet metal channels, predrilled 10 times $30 \times 30 \times 2000$, 10 times $30 \times 30 \times 1000$, 5 times $30 \times 30 \times 3000$ | div. | 500 | 500 |
| $\begin{aligned} & \mathrm{W}- \\ & 5 \end{aligned}$ | Toothed conveyor rollers with hubs 1 m wide, $\mathrm{D}=$ approx. 120 with angled gear drives to the downstream flywheels and card drive flywheels | 4 | 2'000 | 8'000 |
| $\begin{aligned} & \text { W- } \\ & 6 \end{aligned}$ | Toothed conveyor rollers with hubs 1 m wide, $\mathrm{D}=$ approx. 120 with angled gear drives to the upstream flywheels and card drive flywheels | 4 | 2'000 | 8'000 |
|  | Total plant equipment (manual operation) |  |  | 40'000 |
| C-1 | Packaging container, later possibly useful crew room |  |  | 4'000 |
| TOT | Total set costs with tower, factory, container ready for shipment |  |  | 60'000 |
|  | Sales price ex Swiss factory incl. hotline and support |  |  | 90'000 |

## Short-term sales expectation



The Glärnisch Textil cooperative is faced with a large number of enquiries for straw wood processing and the preparation of fibres and shiver. What is special is that with this relatively simple production plant and its relatively quickly available operation, not only long, combed fibres with a high value can be obtained, but also clean shives. For relatively little money, producers of bast fibre plants can quickly find yields, absolutely suitable semi-finished products and increased profitability.

With the enquiries, we realise that the acquisition costs of several hundred thousand CHF or EUR are an obstacle. With an entry price of the previously identified CHF 90,000, business transactions can be achieved much more low-threshold and easily.

The current expressions of interest come from Allgäu, South Tyrol, Croatia, Serbia, the whole of Germany, the whole of Austria, Western Switzerland, Bulgaria.

## Invitation to finance 3 do-it-yourself kits

We are looking for investors for the production and sale of the first three self-build sets under the following conditions:

- Purchase of share certificates in the amount of the required capital of $3 \times$ CF $60,000=$ CF 180,000, to be held until at least 30.9.2022, transfer to IBAN CH42 06807710063232676 at the Glarner Regionalbank, in the name of Genossenschaft Glärnisch Textil, Holenstein 7, 8750 Glarus.
- As of 30.9.2022, these share certificates will be redeemed in the amount of CHF 225,000, which can be resolved from the proceeds of the sales made.
- Negotiable option to finance and participate in further production of self-build sets possibly from international sourcing.


## Contact

For further information and negotiations, please do not hesitate to contact me by phone on +4179 4056933 or by e-mail at martin.kloeti@glaernischtextil.ch.

We thank you very much for your attention, your interest and your willingness to make this business possible.

Kind regards


## Martin Klöti

Glärnisch Textile Cooperative

