



# High performance heald frames suitable for healds with J- and C-shaped end loops

High performance heald frames from Groz-Beckert are suitable for all conventional rapier and air jet weaving machines.

# GROZ-BECKERT

## Groz-Beckert KG

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### ALtop Hybrid

ALtop Hybrid is a carbon fiber-reinforced high performance heald frame based on an innovative lightweight design concept. The most important performance feature is the high bending strength of frame staves. ALtop Hybrid is available for nominal widths up to 4,600 mm.



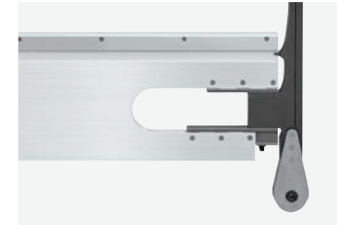
ALtop Hybrid



ALtop Hybrid corner connection



ALtop Hybrid heald frame



ALtop Hybrid driving connector link

### ALtop Hybrid+

ALtop Hybrid+ is based on ALtop Hybrid. Bending resistance of heald frames can be further increased though carbon fiber reinforcement in the frame staves. ALtop Hybrid+ is available for nominal widths up to 4,600 mm.



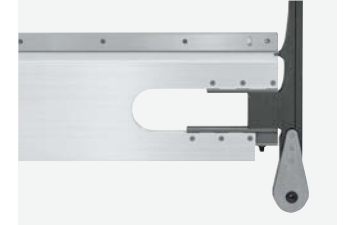
ALtop Hybrid+



ALtop Hybrid+ corner connection



ALtop Hybrid+ heald frame



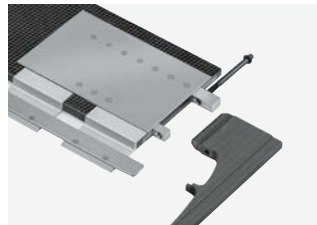
ALtop Hybrid+ driving connector link

### litespeed® Carbon

Material composition of the frame staves of litespeed® Carbon is a bundle of carbon fibers. As a result, this heald frame is very lightweight and the frame staves have a very high bending strength. litespeed® Carbon is available up to nominal width of 2,400 mm. Applications on wider nominal widths are evaluated on an individual basis.



litespeed® Carbon



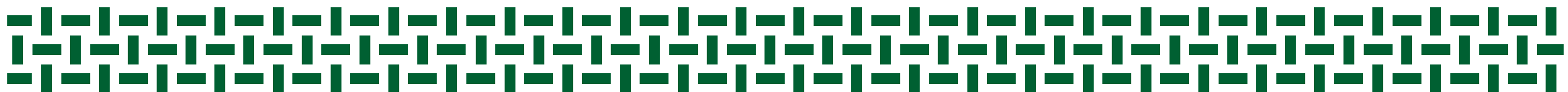
litespeed® Carbon corner connection



litespeed® Carbon heald frame



litespeed® Carbon driving connector link



## ALtop Hybrid

### Advantages:

- High level of bending strength of frame staves
- Innovative design with two high-performance carbon fiber profiles in the frame stave
- Can be used without intermediate support for large nominal widths

## ALtop Hybrid+

### Advantages:

- High degree of bending strength of frame staves
- Reduced wear of the end loops
- Can also be used without intermediate support for large nominal widths

## litespeed® Carbon

### Advantages:

- High level of bending strength of frame staves
- Frame staves made of carbon
- Innovative lightweight design
- Maximum flexibility of application range

