

## Software solutions for the braiding world

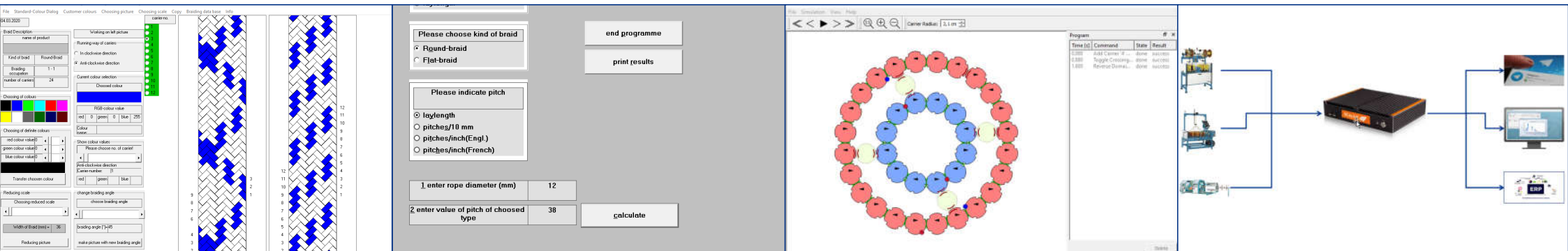


The textile industry – although it is one of the oldest industries in human history - has always been a leader in innovation. The same applies for the braiding world and Herzog. To help you stay at the top, we support you with various software solutions.

# Standard and custom-made software solutions

The Herzog software family **Computer Aided Braiding** offers solutions for various tasks in your braiding business.

If you would like to take a closer look at your braiding process, we offer individual solutions for process data acquisition.



# The Herzog software family Computer Aided Braiding

Under Computer Aided Braiding we offer three software programs



## **CAB Calculation**

All the calculations you need  
for rope design and machine  
operation



## **CAB Design**

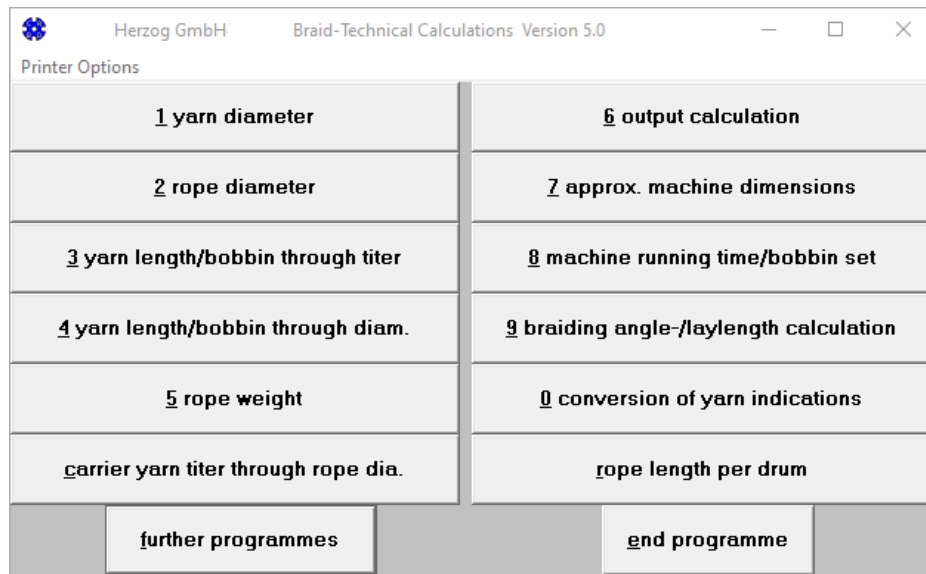
Simply prepare images of all  
types of different rope designs  
Design your braid with a vast  
choice of colors



## **CAB Soft**

Simulation of carrier paths on  
advanced braiding machines

# CAB Calculation



CAB Calculation offers all necessary calculation tools for running a braiding production.

- Conversions between yarn value counts and lay length definitions
- Calculations around different yarn types to determine titers based on geometries or geometries based on titers
- Possible braid production based on sizes and machine models

# CAB Calculation

Choosing size of bobbin for core

AFD 120    AFZ 432  
 AFD 140    AFZ 528  
 AFD 160    AFZ 660  
 AFD 180    AFZ 720  
 AFD 210    AFZ 1088  
 AFD 224L    AFZ 1500  
 AFD 266L    AFZ 2000  
 AFZ 336

Special bobbin

Da=	87
Di=	26
WtL=	320

Choosing size of bobbin for cover

AFD 120    AFZ 432  
 AFD 140    AFZ 528  
 AFD 160    AFZ 660  
 AFD 180    AFZ 720  
 AFD 210    AFZ 1088  
 AFD 224L    AFZ 1500  
 AFD 266L    AFZ 2000  
 AFZ 336

Special bobbin

Da=	78
Di=	24
WtL=	280

Choosing material core

PA  
 PP  
 PES  
 PE  
 Dyneema  
 Aramid  
 Bw  
 Vectran  
 other density

Rho\_S= 1.14

Choosing material cover

PA  
 PP  
 PES  
 PE  
 Dyneema  
 Aramid  
 Bw  
 Vectran  
 other density

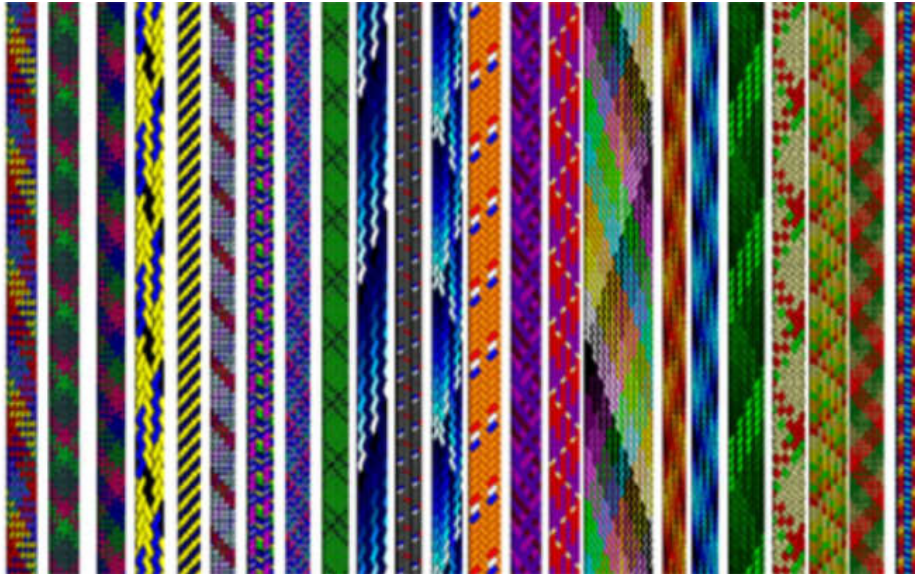
Rho\_M= 1.14

Input field		Result field	
Input outer diameter (mm)	16	core diameter (mm)	11,3
Input percentage core (%)	50	strand diameter core(mm)	,9
percentage cover (%)	50	strand diameter cover(mm)	,8
Input braiding angle core (°)	55	strand core in tex	647
Input braiding angle cover (°)	45	strand cover in tex	591
Input number of bobbin core	24	Meter/bobbin core	576,6
Input number of ends / bobbin (core)	4	Meter/bobbin cover	906,5
Input number of bobbin cover	48	Meter braid core	472,3
Input number of ends / bobbin (cover)	2	Meter braid cover	641,
horn gear revolution core braider(rpm)	200	reduction core (%)	22,1
horn gear revolution cover braider(rpm)	235	reduction cover (%)	41,4
filling grade of rope(%)	70		
		laylength core (mm)	49,4
		laylength cover (mm)	50,3
		Produktion core(m/h)	98,7
		Produktion cover (m/h)	59,1
		Braiding time core(h)	4,8
		Braiding time cover(h)	10,9
		rope weigh core (kg/100m)	7,5
		rope weigh total (kg/100m)	15,1
		Production core (kg/h)	7,4
		Production total (kg/h)	8,9

CAB Calculation offers many functions

- Production output and runtimes of machines
- Productivity of different bobbin winders in combination with braiding machines
- Detailed calculations on core cover ropes
- Hose and preform cover calculation

## CAB Design



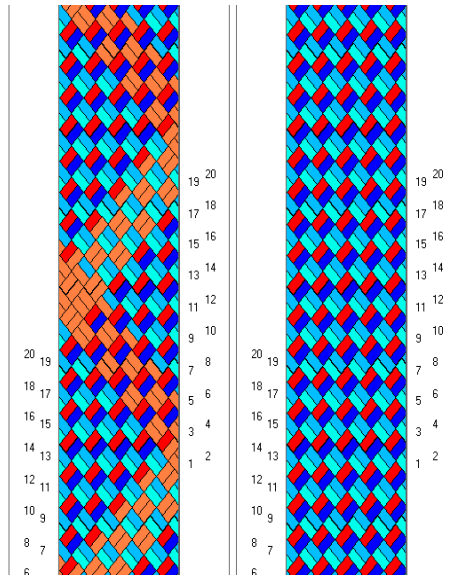
It used to be a lot of work to make a rope sample for your customer

- Making braid samples for customers is a labor-intensive and costly business
- Getting short amounts of yarn with the correct color or dye it yourself
- Setting up the machine to braid a short piece
- Sending the sample to the customer only to learn that he wants it just a little bit different

With CAB Design you can create any kind of braid design simply on your computer

# CAB Design

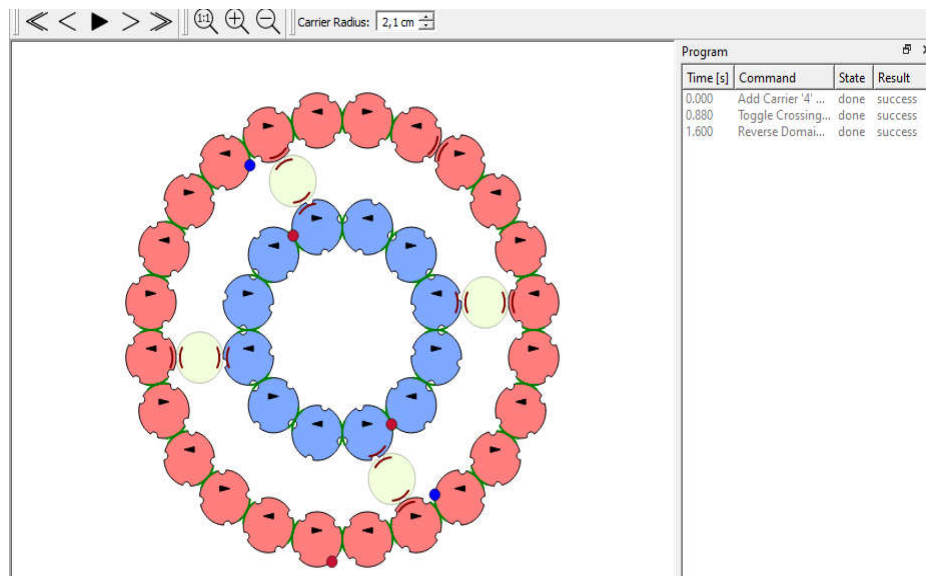
Braid Description		
name of product Ru_40_22		
Kind of braid	Round-Braid	
Brading occupation	2-2	
number of carriers	40	
Choosing of colours		
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Choosing of definite colours		
red colour value	0	
green colour value	0	
blue colour value	0	
Transfer choosen colour		
Reducing scale		
Choosing reduced scale		
Width of Braid (mm) = 36		
Working on left picture		
Running way of carriers		
<input type="radio"/> In clockwise direction <input checked="" type="radio"/> Anti-clockwise direction		
Current colour selection		
Chooosed colour		
RGB-colour value		
red	255	
green	128	
blue	64	
Colour name:		
Show colour values		
Please choose no. of carrier		
<input type="text"/>		
Anti-clockwise direction		
Carrier-number: 1		
red	green	blue
change braiding angle		
choose braiding angle		
braiding angle [°]=50		



CAB Design offers many functions

- Round braids
- Flat / Lace braids
- One over two constructions
- Tandem constructions
- Half occupied constructions
- Variable braiding angles
- Standard and customer color database
- Cut and copy your images into all regular office programs

# CAB Soft



CAB Soft helps to create and simulate step sequences for all advanced Herzog braiding machines

- Placing, deleting and color changing of carriers
- Switching of crossings
- Enabling, disabling and direction change of horn gear domains
- Anti-collision testing



# Machine data acquisition supported by Herzog



Machine data acquisition is (becoming more) increasingly important for a production in the modern digital world.

MDA is not the core business for Herzog, but we can support you on your way:

- Installation of sensors at the machine
- Installation of the Herzog Connect Box at your machine
- Systems for gathering the data of several machines with SCADA or ScaleIT



## For more information please contact us



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