SmartTwist

YARN WINDING & PROCESSING MACHINES

Gilbos

CONVENTIONAL PROCESS

Extrusion

Cabling

Storage - Relaxation

Heatsetting

Tufting - Weaving

SMART PROCESS

Extrusion

↓

SmarTwist + Heatsetting
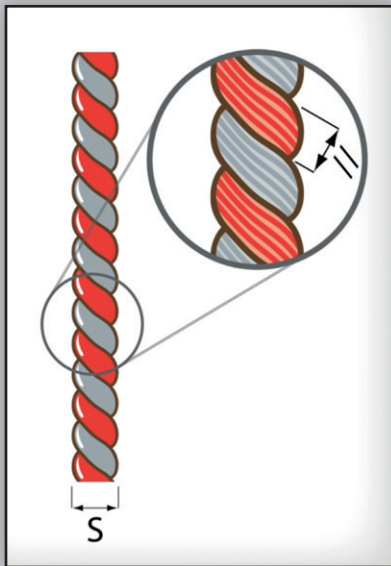
Tufting - Weaving

PAYBACK < 1,5 YEARS

SmartTwist
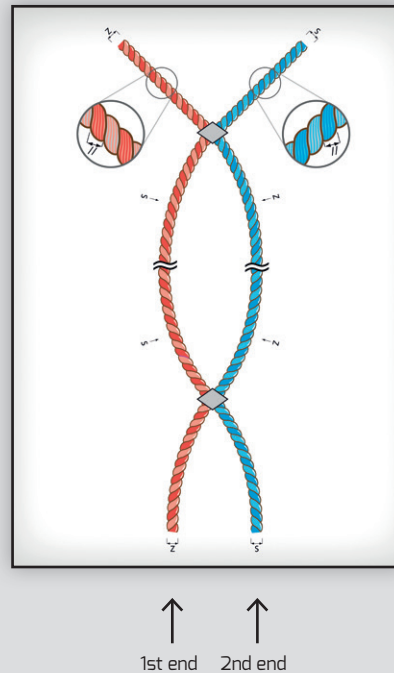
INLINE TWISTING FOR HEATSETTING

CONVENTIONAL TWISTING AND HEATSETTING

2 operations
NO singles twist
Maximum Bulk
Good Tip Definition

SMARTWISTING

1 operation
NO singles twist
Maximum Bulk
Good Tip Definition

1st end   2nd end

Multi-purpose twisting system for carpet BCF yarns; each module produces **2 ends of 2 ply** or **2 ends of 3 ply** yarn in 1 single step.

Alternate twist direction S/Z with small tack point between the twisted zones.
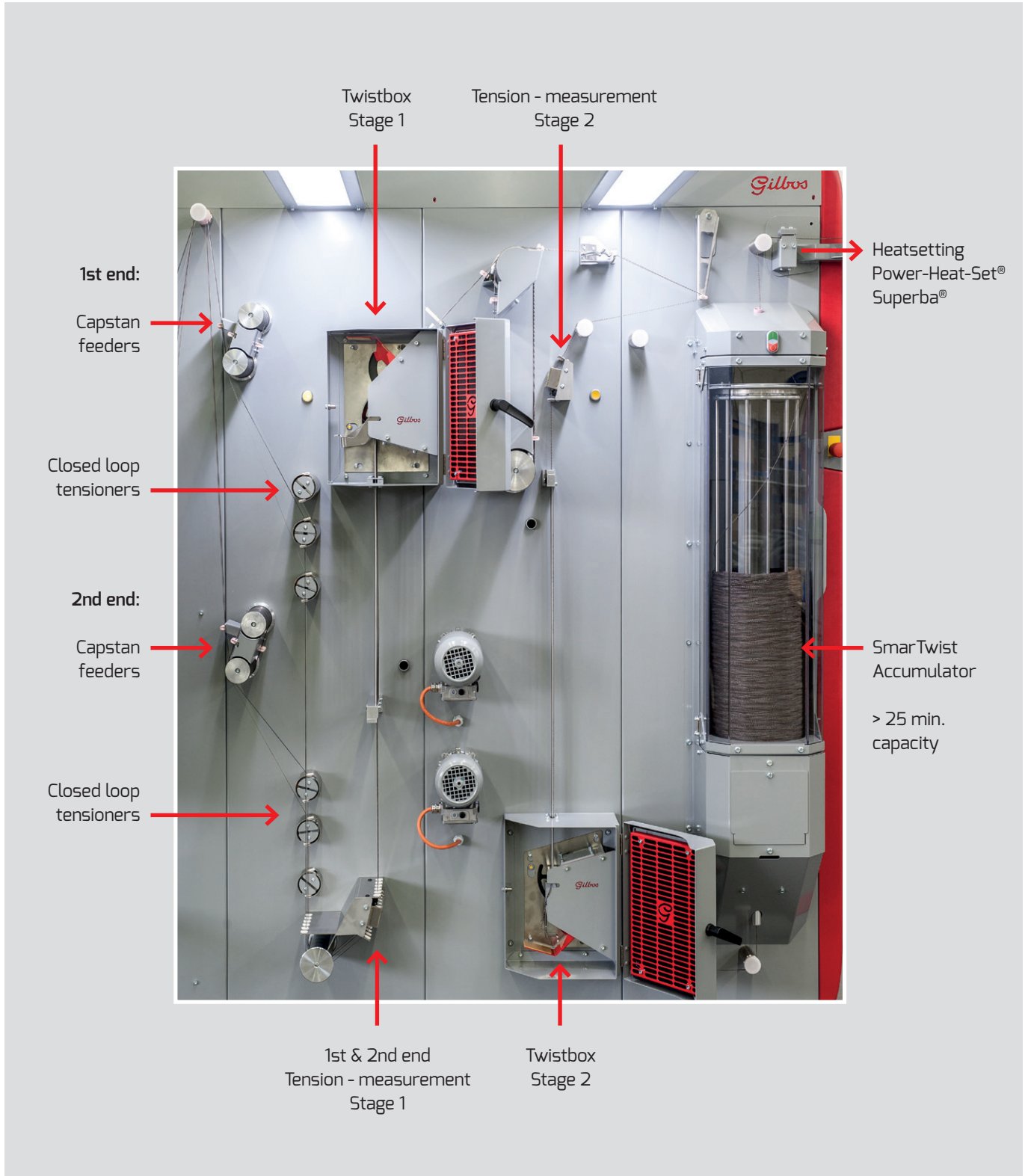
High speed twisting with maximum bulk and no singles twist.

Twisting directly from extrusion packages, thereby avoiding intermediate storage and handling.
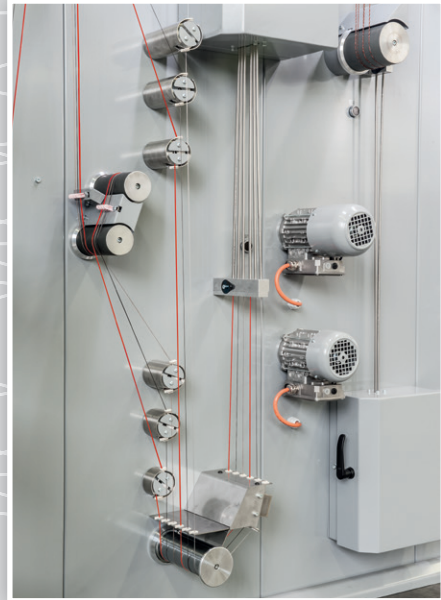
Endless styling possibilities.

SmarTwist

WORKING PRINCIPLE

Twistbox
Stage 1

Tension - measurement
Stage 2

Heatsetting
Power-Heat-Set®
Superba®

1st end:

Capstan
feeders

Closed loop
tensioners

2nd end:

Capstan
feeders

SmarTwist
Accumulator

> 25 min.
capacity

Closed loop
tensioners

1st & 2nd end
Tension - measurement
Stage 1

Twistbox
Stage 2

SmartTwist

FEATURES

EASY SWITCH FROM 2 TO 3 PLY YARNS

RFID IN TWISTJETS TO GUARANTEE PROPER JET USE AND EASY CHANGE OF TWIST JETS

CHARACTERISTICS OF THE SMARTWIST PROCESS

Larger heatsetting creel,
but no space for cablers required.

2 ends in each tufting needle,
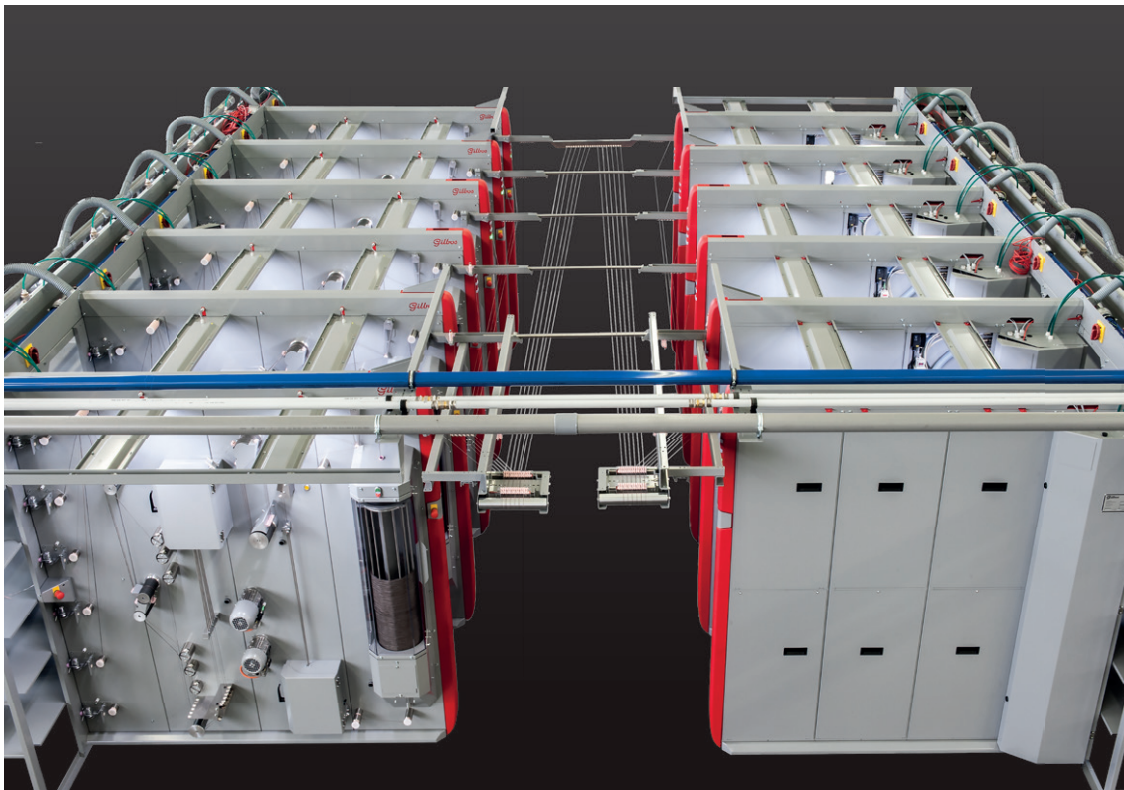so only half the tufting creel required.

2 ends per finished package,
so only half the take-up winder required.

2 ends per finished package,
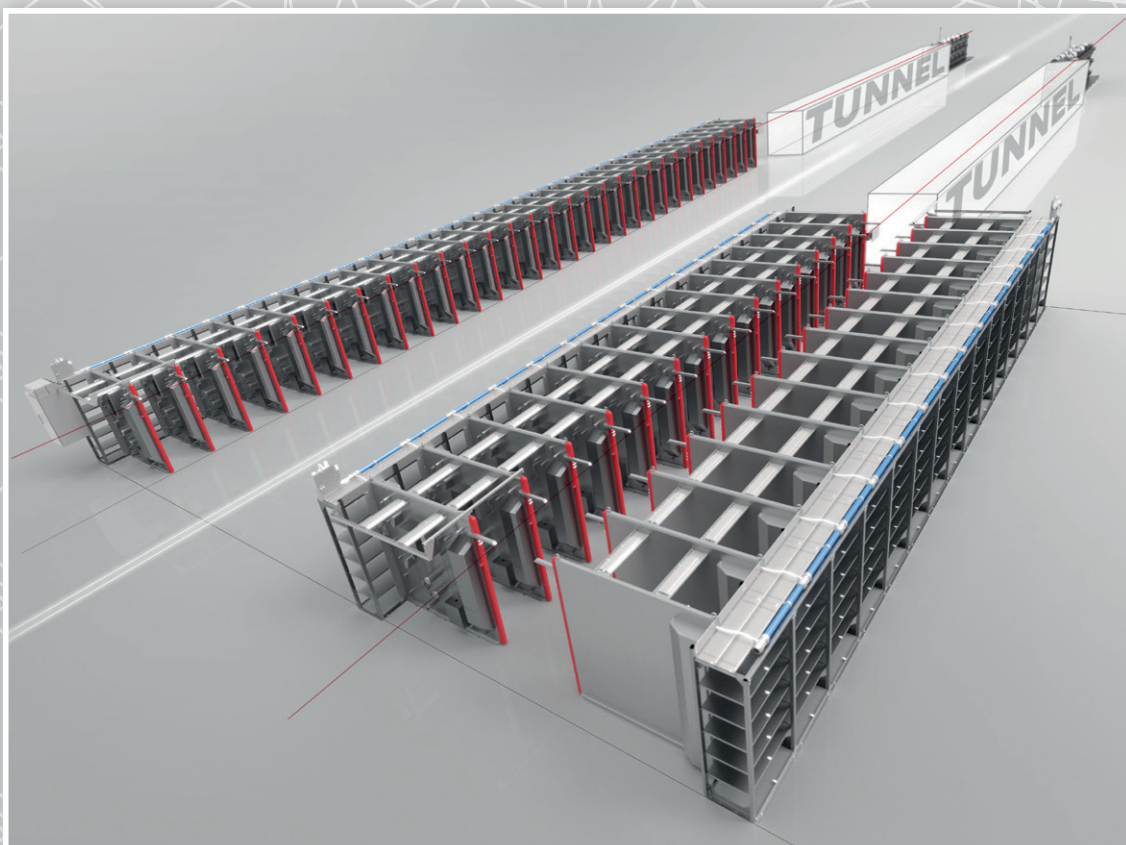so no length differences and no yarn waste.

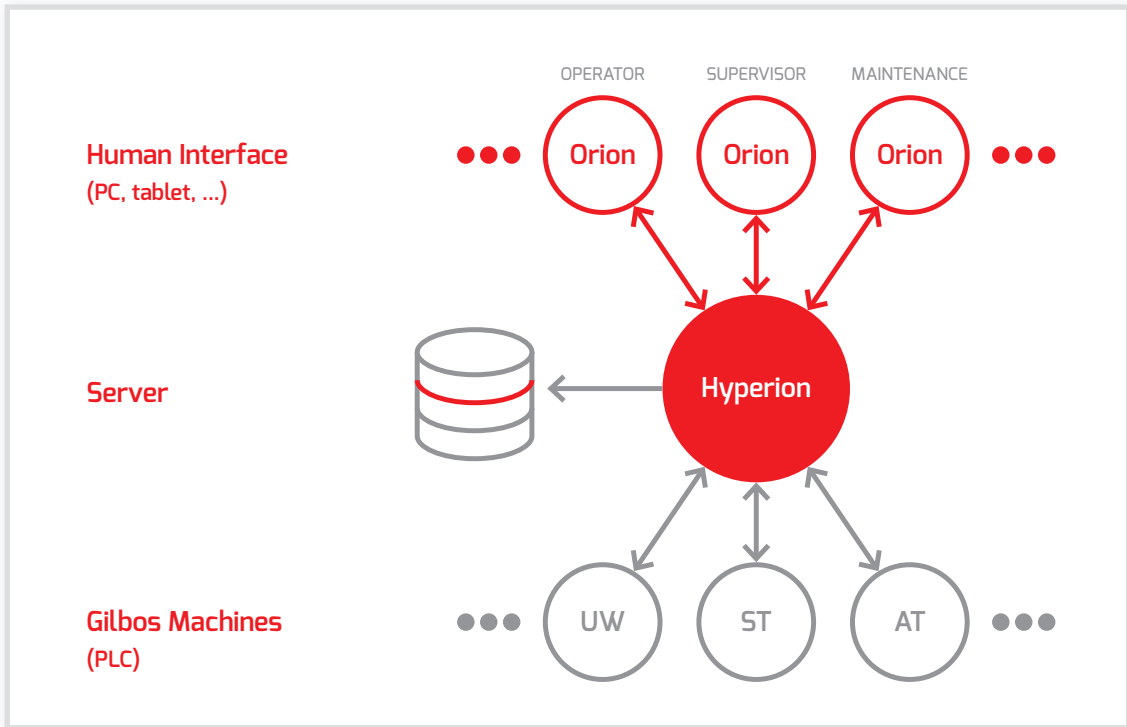2 ends per finished package,
so 2 ends in each tufting needle.

No intermediate storage of cabled yarns.

MACHINE AND PROCESS CONTROL
BY MEANS OF THE HYPERION AND ORION SYSTEM

72 ENDS = 36 SMARTWIST MODULES SUPERBA® LAYOUT

Human Interface
(PC, tablet, …)

OPERATOR   SUPERVISOR   MAINTENANCE

Orion   Orion   Orion

Server

Hyperion

Gilbos Machines
(PLC)

UW   ST   AT

The Gilbos Hyperion control system controls all the vital entanglement parameters such as speed, air pressure and yarn tension.

Also the production parameters such as length, number of packages, production and efficiency are monitored by the Hyperion control system.

All the parameters are stored on the Hyperion control system in easily adjustable recipes. Transferring recipes and adjusting machine configurations can be done within a matter of seconds.

Access to the Hyperion control system is protected by passwords with different security levels.

48 ENDS = 24 SMARTWIST MODULES POWER-HEAT-SET® LAYOUT
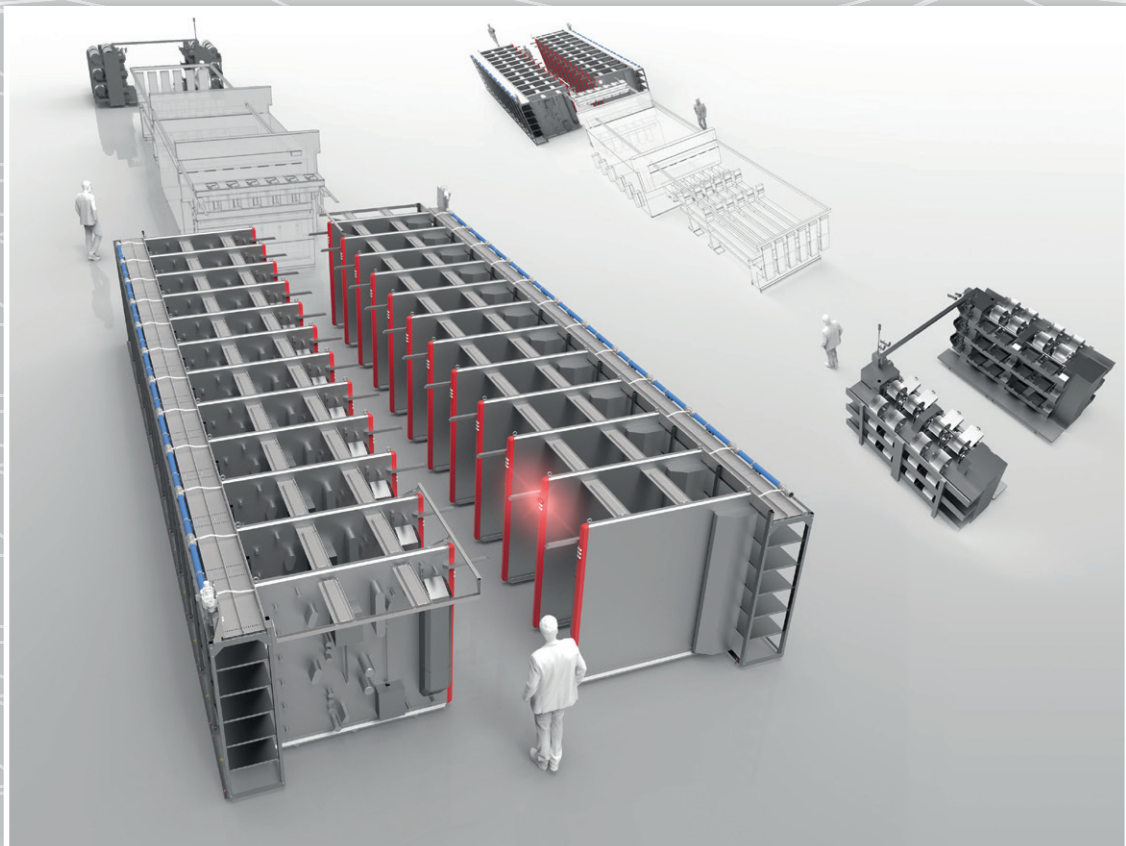
SmarTwist

TECHNICAL SPECIFICATIONS

Material	PP, PA & PES BCF yarns
Count range	600 to 20.000 dTex or 540 up to 18.000 den
Layout gauge	800, 900 or 1000 mm
N°modules	4 to 36 per heatset line
Twisting speed	up to 450 m / min. or 500 yds / min.
Twistlevel	50 to 250 tpm or 1.25 to 6.25 tpi
Electrical supply	3x400V or 3x480V+PE–50 or 60Hz
Total connected load	2.5 kVA per module
Air consumption	14 Nm³/h/module
Compressed air supply	min. 12 bar or min. 175 psi
Compressed air quality	clean, dry & oil free air
Air connection	2" for 10 SmarTwist modules
Machine and process control	Hyperion and Orion control system

GILBOS winding and processing machines for:
Rewinding
Rewinding + CMS
Assembly winding
AirEntangling
AirTwisting
SmarTwisting
Heatset winding

GILBOS nv
Grote Baan 10
BE-9310 Herdersem - Aalst
Belgium
Tel. +32 53 78 18 78
Fax +32 53 78 24 70
info@gilbos.com
www. gilbos.com

GILBOS of AMERICA, Inc.
1812 Antioch Road
Dalton GA 30720
USA
Tel. +1 706 529 3600
Fax +1 706 529 3595
info@gilbos.com
www. gilbos.com

Geographics.be

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YARN WINDING & PROCESSING MACHINES

BELGIAN QUALITY
Textile Technology