**Base plate with strain relief

twisterband segment

4 sizes available

Some types available with interior separation*

Snap-open with film-hinge or openable with "easy" design

**Base plate with strain relief

**Base plates are delivered by standard. They are part of the twisterband-module!

Compact, modular and cost effective - twisterband

Rotary movements in small spaces - up to 20 times its own axis. With the very compact igus® twisterband rotations can be implemented economically and with low wear and low maintenance in a confined space. Energy, data and media are kept secure.

- Available in 4 sizes
- Rotary movements up to 7000° (Installation position, vertical: up to 3.000°, horizontal: 7.000° and more possible)
- Rotary speeds up to 360°/s possible
- Compact, modular and lightweight
- Ribbons can be shortened easily
- Minimum installation space, fits very closely around the rotary axis
- Can be reliably used in various installation positions (horizontal or vertical)
- Cost effective
- Easy filling
- chainflex® cables in very limited spaces

Typical industries and applications
● Cable reels ● Robots (robot arms, 1/6 axis, scara robots) ● Tooling machines ● Leisure rides ● Medical equipment ● Radar and telescope equipment ● Aerospace, test, measurement, handling, lifting and installation equipment ● Wind turbines (e.g. blade adjustment) ● Wherever rotary unions are used

iF product design award 2011

reddot design award winner 2011

More information ▶ www.igus.eu/twisterband

twisterband (7000° rotation) | Selection table

Seriew	Inner height hi [mm]	Inner width Bi [mm]	Ø X₁ [mm]	Ø X₂ [mm]	R min. [mm]	R max. [mm]	Interior separation	Opening principle	Page
TB12.23.09	9	23	40	140	24	35	–	"easy" design	652
TB20.44.12	12	44	50	220	34	57	–	"easy" design	652
TB20.44.18	18	44	50	220	34	57	yes	film-hinge	652
TB29.27.22	22	27	200	320	69	82	yes	film-hinge	652
TB30.75.22	22	75	90	330	44	77	yes	film-hinge	652

twisterband
rotary movements in
small spaces -
up to 20 times its own axis

Installation position, vertical: up to 3.000°,
horizontal: 7.000° and more possible

More sizes available upon request! X_1 = inner machine construction space X_2 = outer machine construction space

twisterband features

360°... 3000°

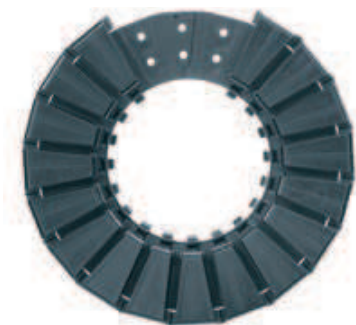A shaft must be centrally installed for angles of rotation from 1500° rotating and horizontal

Max. rotation angle: as a rule of thumb: Each section gives 180° = 360° more rotation

Film hinge: easy access and quick filling with cables and hoses

igus® twisterband, minimum installation space, fits very closely around the rotary axis

Compact, modular, cost effective - up to 7.000° rotary* motions in smallest spaces (*Installation position, vertical: up to 3.000°, horizontal: 7.000° and more possible)
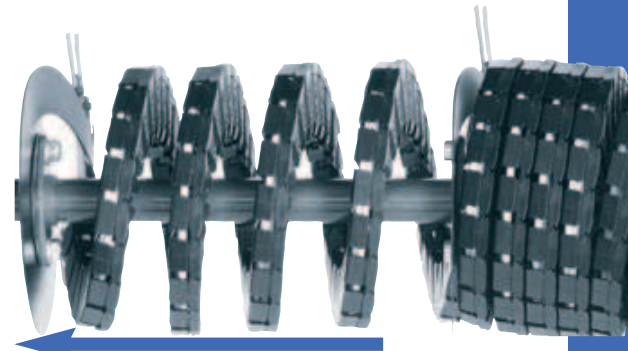
Can be reliably used in various installation positions (horizontal: 7.000° and more possible). Limited length compensation possible
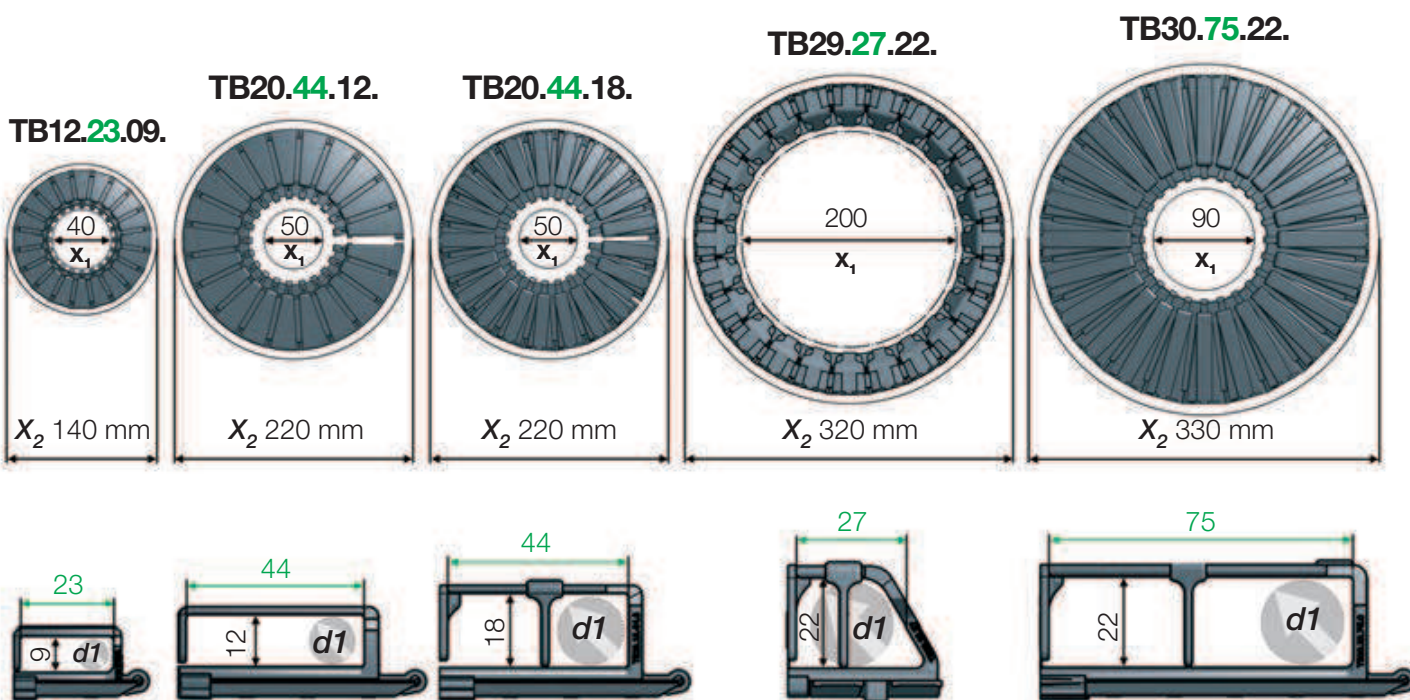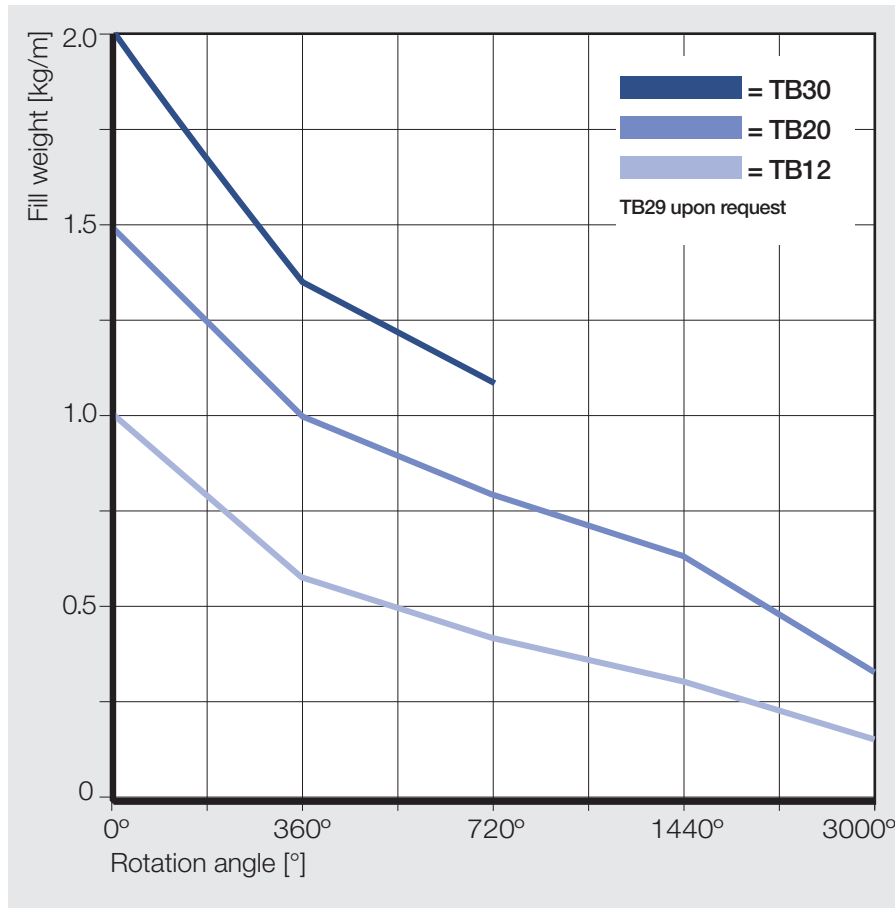
twisterband | Product range | Dimensions
Compact, modular and cost effective

9-22

twisterband | Crossbars snap-open with film-hinge or openable with "easy" design

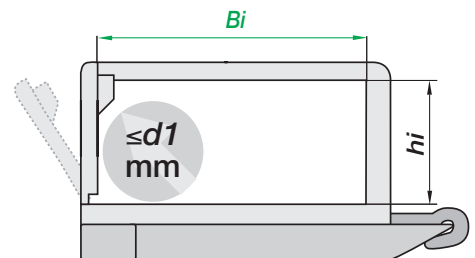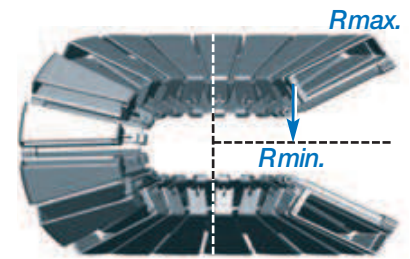| Part No. twisterband	Inner width Bi [mm]	Inner height hi [mm]	X_1 = inner machine construction space [mm]	X_1 = outer machine construction space [mm]	R min. [mm]	≤R [mm]	Opening principle	≤d1 [mm]
TB12.23.09.X.01.0	23	9	Ø 40	Ø 140	24	35	"easy" design	7
TB20.44.12.X.01.0	44	12	Ø 50	Ø 220	34	57	"easy" design	9
TB20.44.18.X.01.0	44	18	Ø 50	Ø 220	34	57	film-hinge	14
TB29.27.22.X.01.0	27	22	Ø 200	Ø 320	69	82	film-hinge	17
TB30.75.22.X.01.0	75	22	Ø 90	Ø 330	44	77	film-hinge	17

Supplement Part No. with required number of ribbons **X** (see calculation box) e.g. **TB20.44.12.6.01.0**

*Base plates are delivered by standard. They are part of the twisterband-module!   more twisterband sizes upon request!

TB12.23.09.

TB20.44.12.

TB20.44.18.

TB29.27.22.

TB30.75.22.

40 x_1 — X_2 140 mm

50 x_1 — X_2 220 mm

50 x_1 — X_2 220 mm

200 x_1 — X_2 320 mm

90 x_1 — X_2 330 mm

23 — 9 — d1

44 — 12 — d1

44 — 18 — d1

27 — 22 — d1

75 — 22 — d1

twisterband | Technical data | Calculation

Fill weights depending of the rotation angle

Series	Speed max.
TB12.23.	180°/s
TB20.44.	180°/s
TB20.44.	180°/s
TB29.27.	upon request
TB30.75.	180°/s

Calculation: number of ribbons depending on rotation angle
(please always round up number of ribbons)

TB12: $X \approx \dfrac{\text{Rotation angle}}{360} + 2$ = Example: $X \approx \dfrac{1200°}{360} + 2$ = Result: $X \approx$ **6 ribbons**
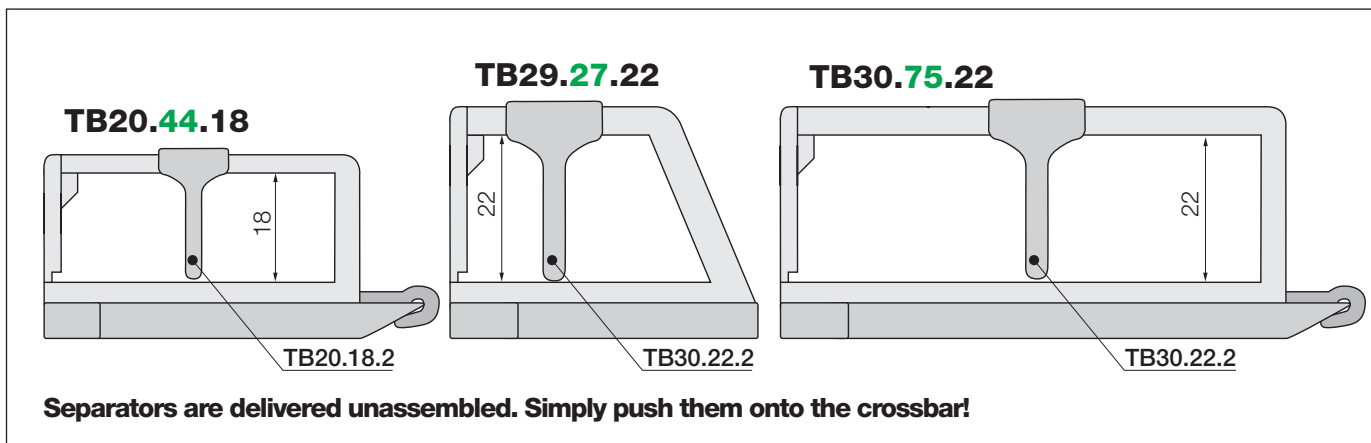
TB20: $X \approx \dfrac{\text{Rotation angle}}{340} + 2$ = Example: $X \approx \dfrac{1200°}{340} + 2$ = Result: $X \approx$ **6 ribbons**

TB29: $X \approx \dfrac{\text{Rotation angle}}{180} + 6$ = Example: $X \approx \dfrac{1200°}{180} + 6$ = Result: $X \approx$ **13 ribbons**

TB30: $X \approx \dfrac{\text{Rotation angle}}{180} + 6$ = Example: $X \approx \dfrac{1200°}{180} + 6$ = Result: $X \approx$ **13 ribbons**

Bi = inner width e-chain® X_1 = inner machine construction space $R\,min.$ = min. bend radius $d1$ = max. cable diameter
hi = inner height e-chain® X_2 = outer machine construction space $R\,max.$ = max. bend radius X = number of ribbons

twisterband (7000° rotation) │Accessories

Interior separation

TB29.27.22

TB30.75.22

TB20.44.18

18

22

22

TB20.18.2

TB30.22.2

TB30.22.2

Separators are delivered unassembled. Simply push them onto the crossbar!

9	Separator for TB20.44.18
2	unassembled **TB20.18.2**

9	Separator for TB29.27.22+TB30.75.22
2	unassembled **TB30.22.2**

TB20.18.2

TB30.22.2

Separators

For series TB20 with an inner height of 18 mm and series TB29 and TB30 (inner height: 22 mm). For installation simply open the e-chain®, insert a cable and push the separator onto the crossbar. Then add more cables. The separators provide a clear, cablefriendly interior separation.

Easy opening and filling of the twisterbandes with a click or with the "easy" design. Simply push separators on and add more cables. The separators provide a clear, cable-friendly interior separation.
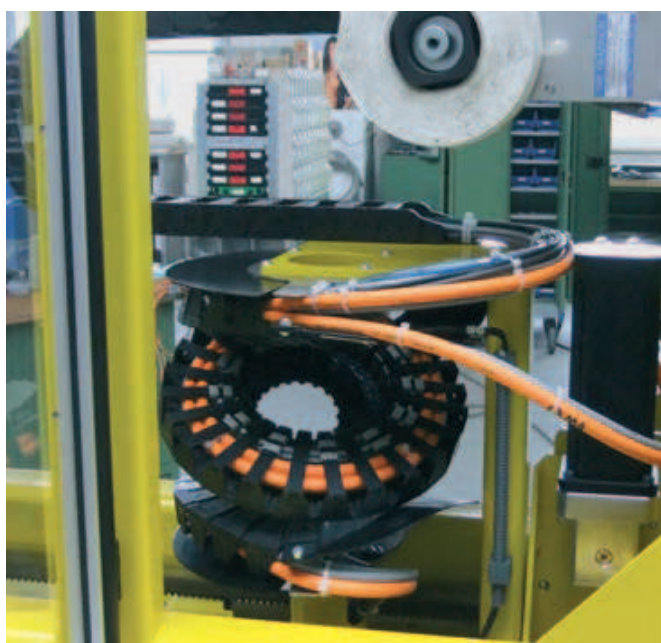
igus® twisterband TB30 for rotations of 360° and E2 mini and E2/000 e-chains® in an un- and loading unit
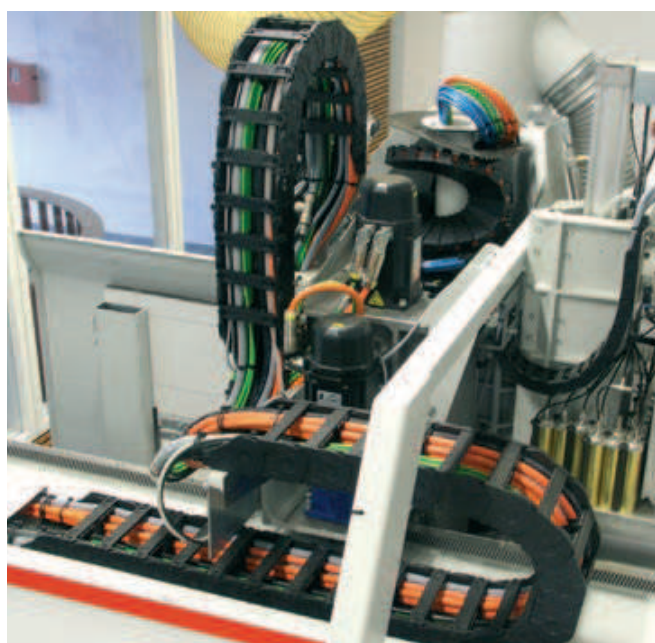
An igus® twisterband guides the energy of the 5-axis cutting heat in this wood working machine, safe and cost effective

twisterband (7000° rotation) | Accessories
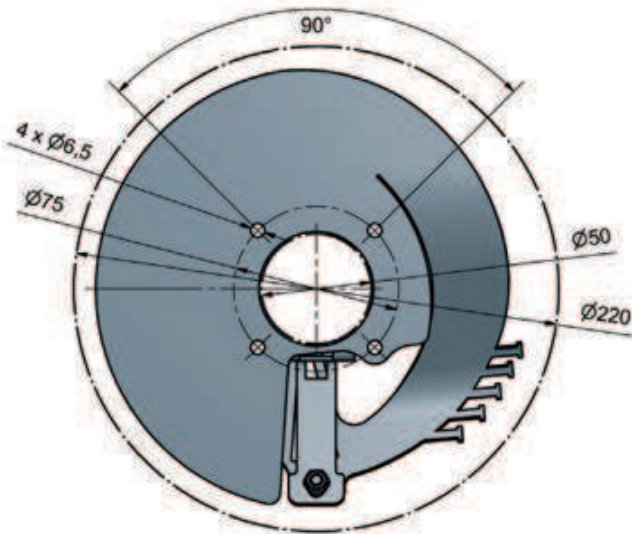
Base plates with strain relief

Dimensions - base plates made of steel with strain relief for the following series:
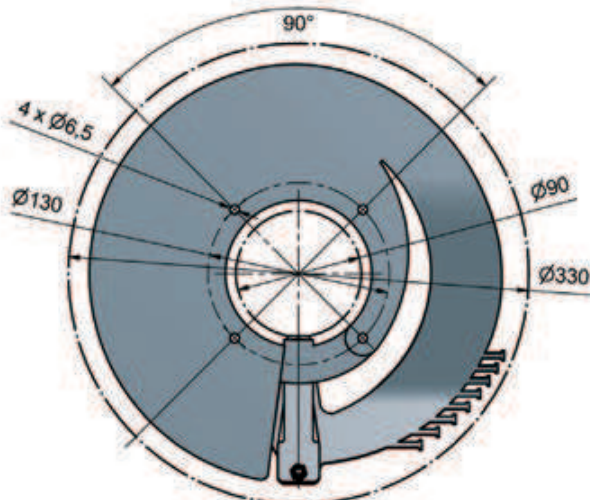
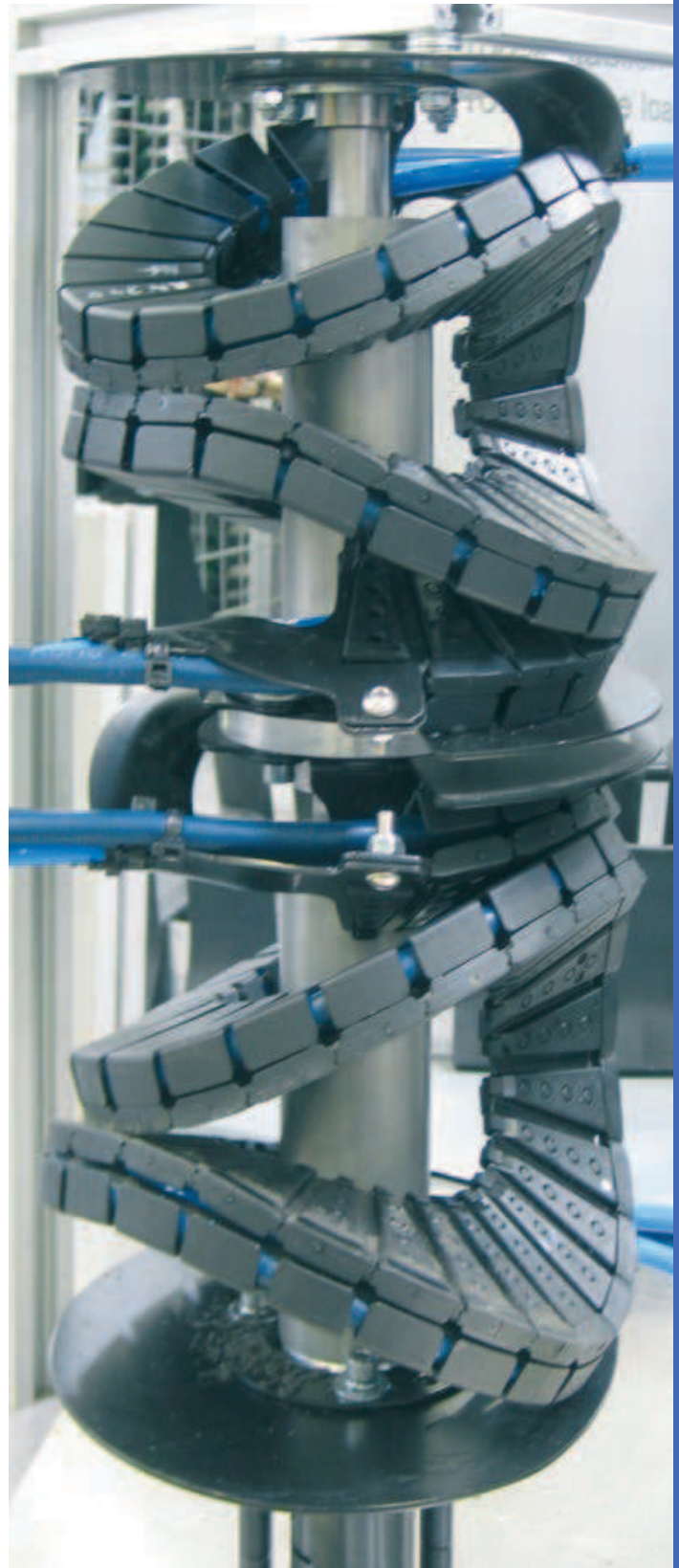(for TB29.27.22 upon request)

TB12.23.09.
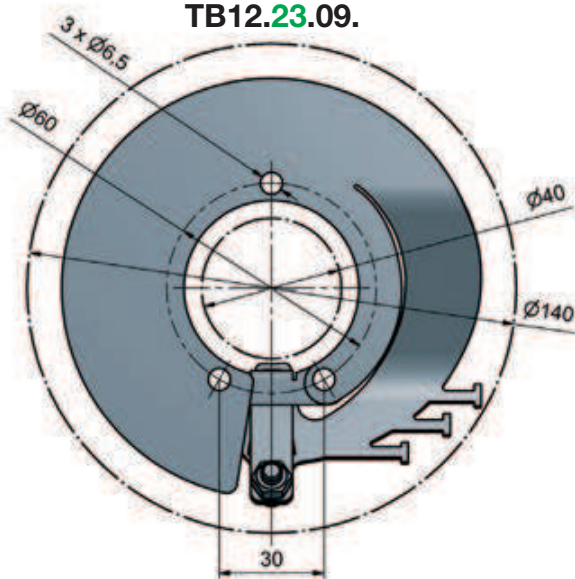
TB20.44.12. / TB20.44.18.

TB30.75.22.

Base plates are delivered by standard. They are part of the twisterband-module!

twisterband application of two systems mounted above one another. This space-saving solution allows double filling space with a constant outer diameter of the system