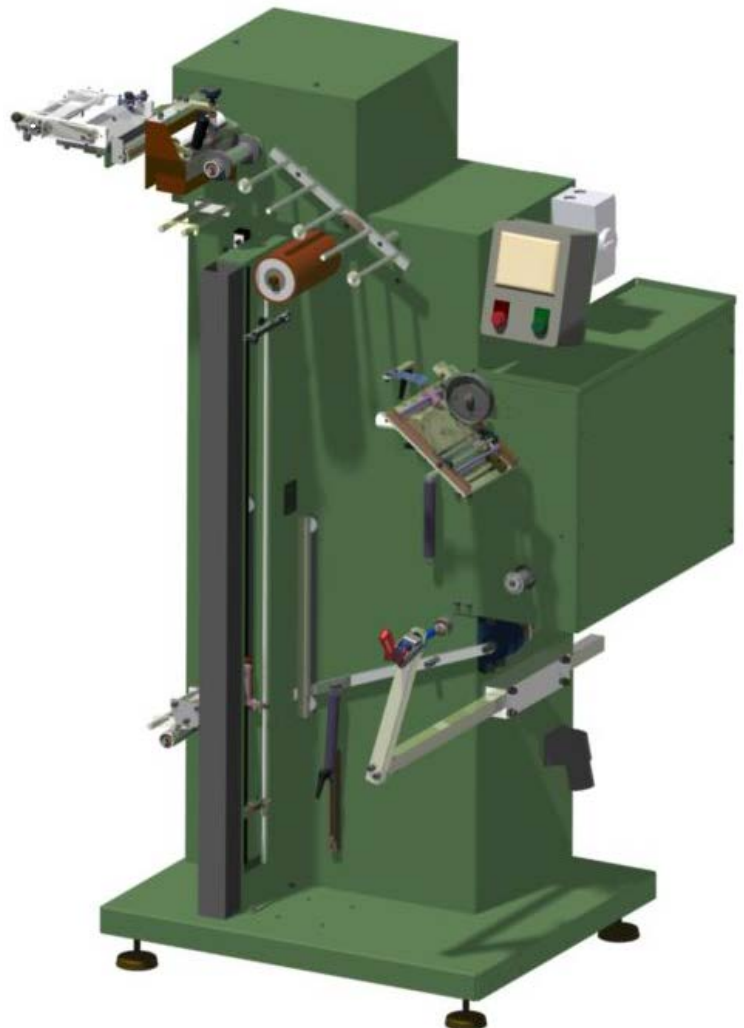


## “USA” WINDING MACHINE

### **SEMI-AUTOMATIC MACHINE FOR STIFF AND ELASTIC RIBBON AND TAPE WINDING INTO ROLLS WITH CORES, WITHOUT CORES AND INTO BOBBINS**

- In its complete configuration, this very versatile machine is engineered to wind a variety of medium weight, stiff tapes and ribbons as well as very light elastic ribbons onto rolls and spools, with easily adjustable and complete winding tension and length measurement control.
- The machine can be ordered for tapes and ribbons with the following maximum widths: 100, 150 and 200mm.
- The roll and spool changeover, hook-up and cutting operations of the tape and ribbon are the only operations to be done by the operator. No other operator intervention is necessary during the winding process because tension control and machine stops when the required length is reached, are managed automatically.
- A very efficient overload control system provides for machine stops in case of knots or tangling of the ribbon or tape in the cases without there being any risk of damaging the roll pack.
- The linear winding speed can be adjusted from 40 to 200 m/min.
- The measurement system is extremely accurate and reliable with any possible ribbon or tape thickness and is perfectly synchronised with machine starts and stops. The maximum admissible error tolerance amounts to  $\pm 0.5\%$  of measured tape. It is possible to measure packages of up to 9999,9m accordingly.
- A counter unit is provided for setting the machine to stop once the number of packages set and entered and selectable from 1 to 9999, has been reached.
- Process automation is provided via PLC controls with an operator panel displaying the various messages and commands for safe and smooth system operation.



## OPTION SELECTIONS WHEN PLACING THE ORDER, BASED ON THE TYPE OF PACKED ROLLS TO BE PRODUCED

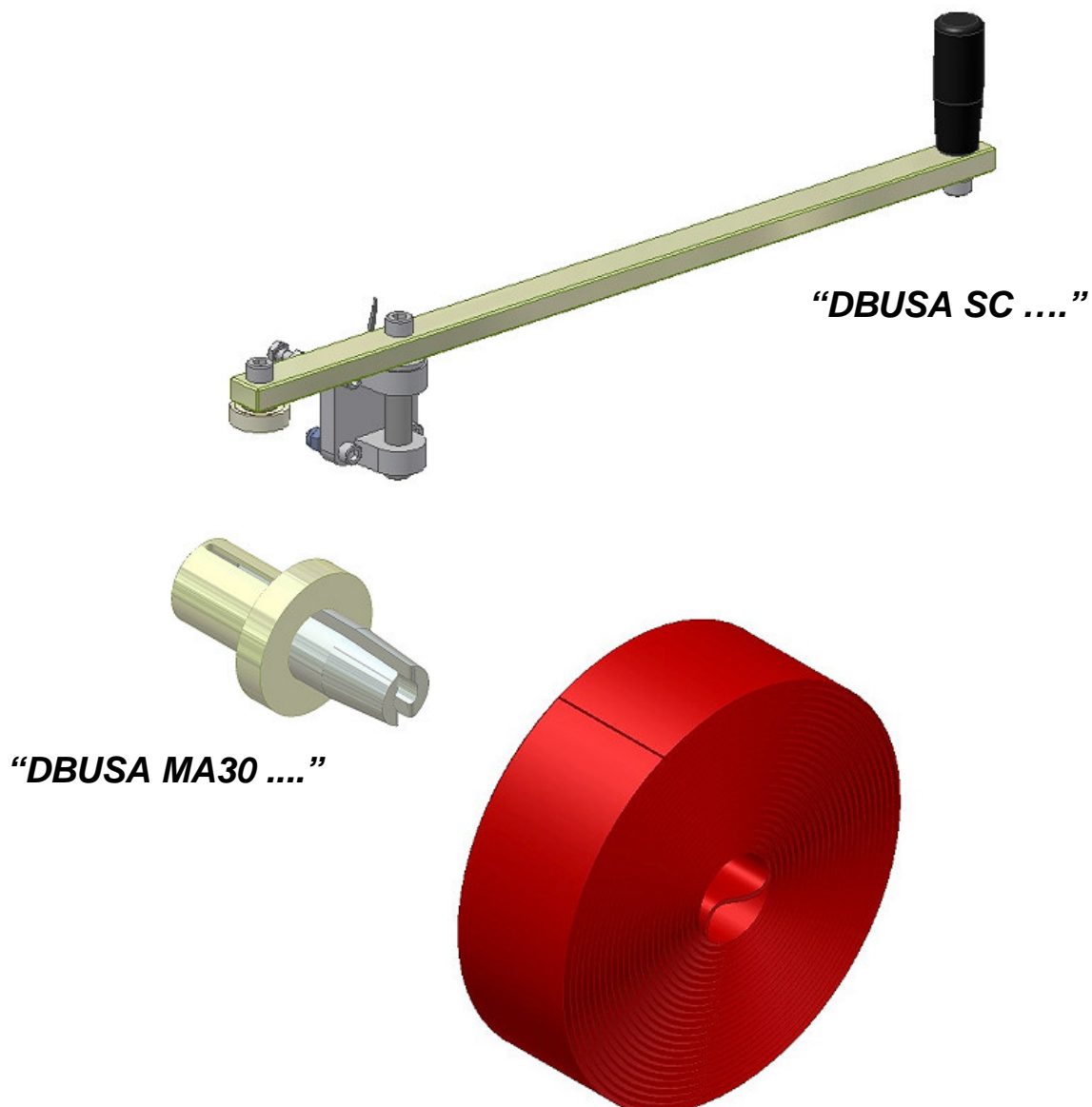
### PRODUCTION OF ROLLS WITHOUT CORES

➤ **DBUSA MA30 ....** *“CHUCK FOR ROLLS WITHOUT CORES”*

For the production of only rolls without cores, it is necessary to order the special notched chuck having the required diameter and with the maximum width of ribbon or tape to be used (i.e. 100, 150 and 200mm).

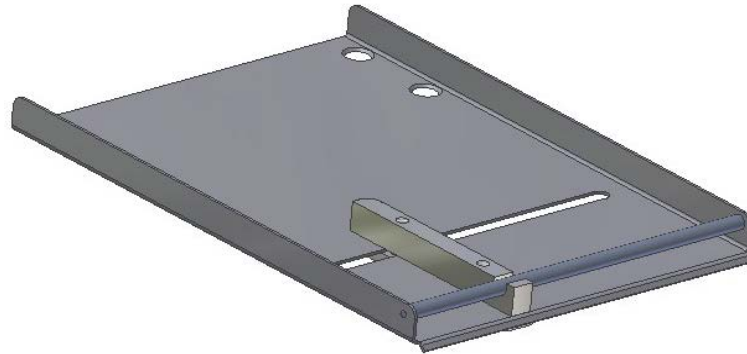
➤ **DBUSA SC ....** *“EXPULSION LEVER”*

This chuck must be used combined with the finished roll pack expulsion lever.



➤ **GDUR 3/105 - GDUR 3/150 - GDUR 3/200** “ADJUSTABLE RIBBON OR TAPE GUIDE”

The "GDUR 3/...." adjustable ribbon or tape guide with the "LGDUR 3/...." pressure plate are necessary to guide the ribbon or tape towards the winding point, but they can only be used to wind rolls without flanges.

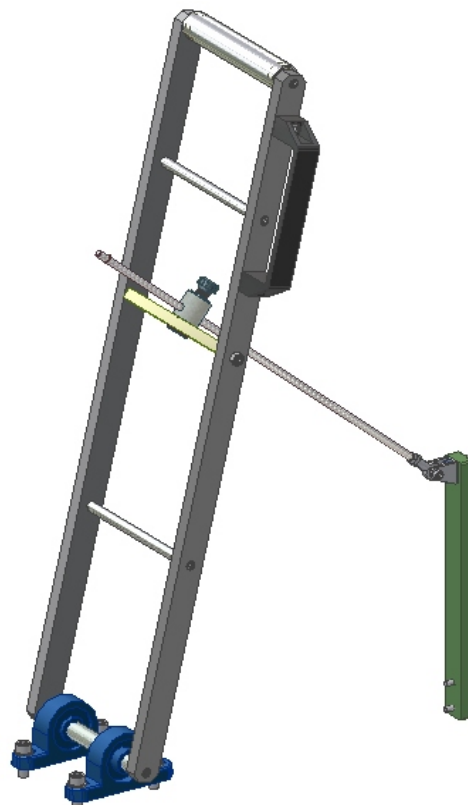


➤ **DBUSA RP ...** “COUNTER PRESSURE ROLLER”

The pressure roller serves to compact the rolls wound using tapes or ribbons having uneven edges.

The pressure to be exerted on the roll is adjustable via a precision clutch system which must be adapted to the various ribbon or tape qualities and sizes.

This device needs to be ordered based on the maximum width of the tape to be wound into rolls (i.e. 100, 150 and 200mm).



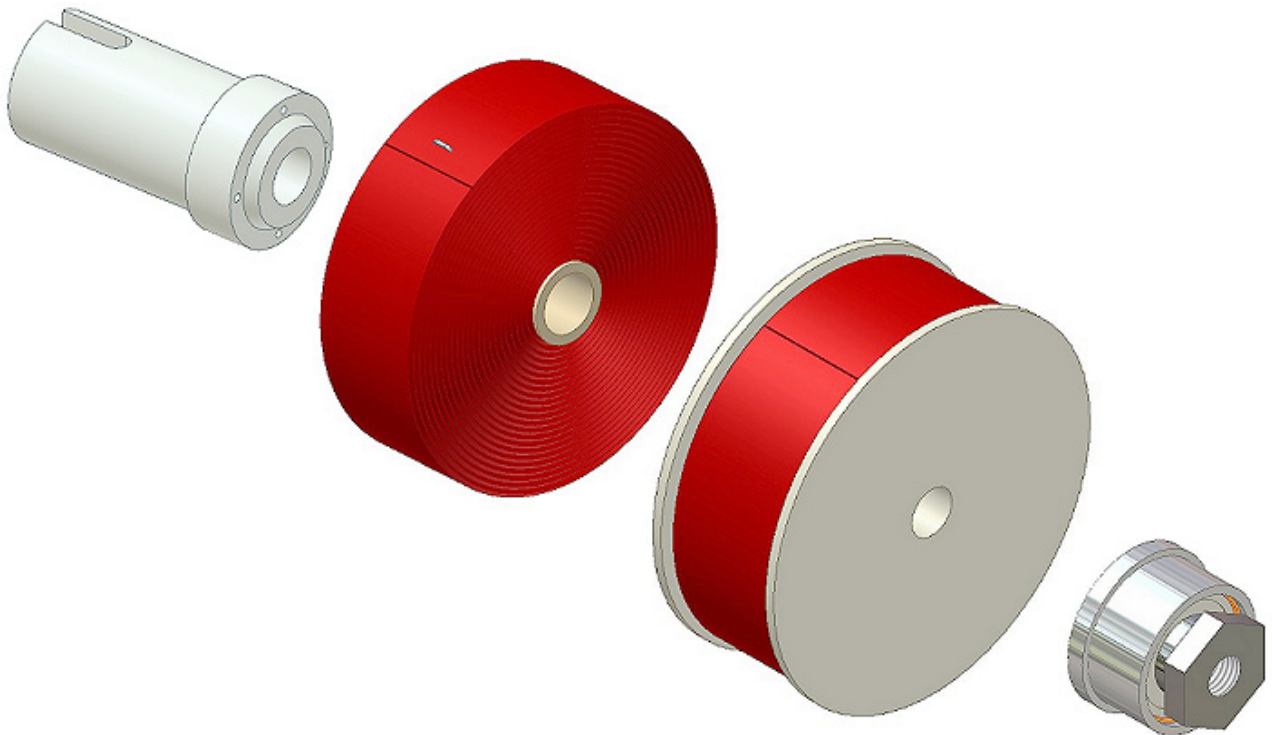
“DBUSA RP ...”

## PRODUCTION OF ROLLS ON CORES, WITH OR WITHOUT FLANGES

- **USA MAN ....** “CHUCK FOR ROLLS WITH CORES”
- **DBUSA CPT ....** “TAILSTOCK FOR ROLLS WITH CORES”

For rolls with cores, it is necessary to order the chucks and tailstocks having the internal diameter of the cores to be used, plus the tailstock support.

“**DBUSA MAN .....**”



“**DBUSA CPT .....**”

### CHARACTERISTICS OF THE ROLLS WOUND ONTO THE CORES

Maximum tape or ribbon width = 100 - 150 - 200mm

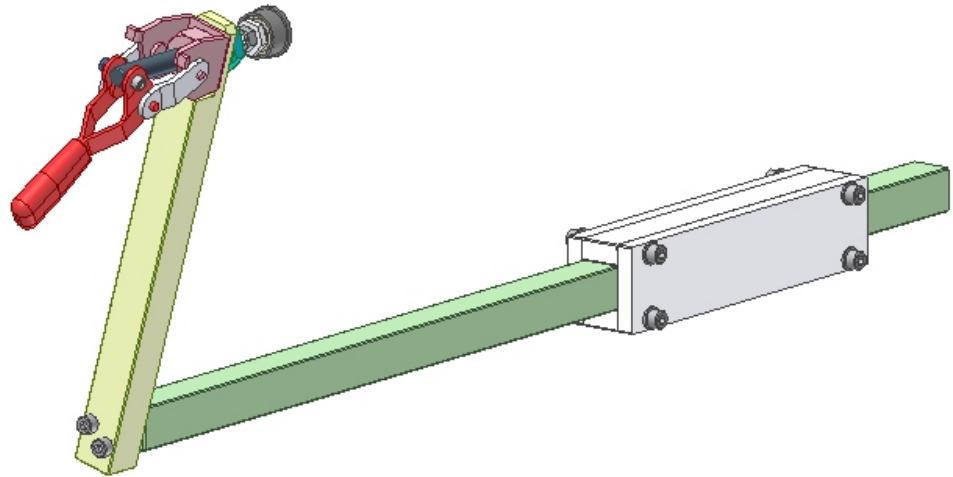
Tape or ribbon thickness = 0,5÷3mm

Minimum core diameter = 30÷80mm

Maximum roll diameter = 720mm

➤ **DBUSA CA .... "TAILSTOCK SUPPORT"**

The tailstock support option is required for winding rolls onto cores or spools.  
It comes complete with a quick-lock handle and a tailstock assembly pin.



**"DBUSA CA ...."**

## **PRODUCTION OF BOBBINS**

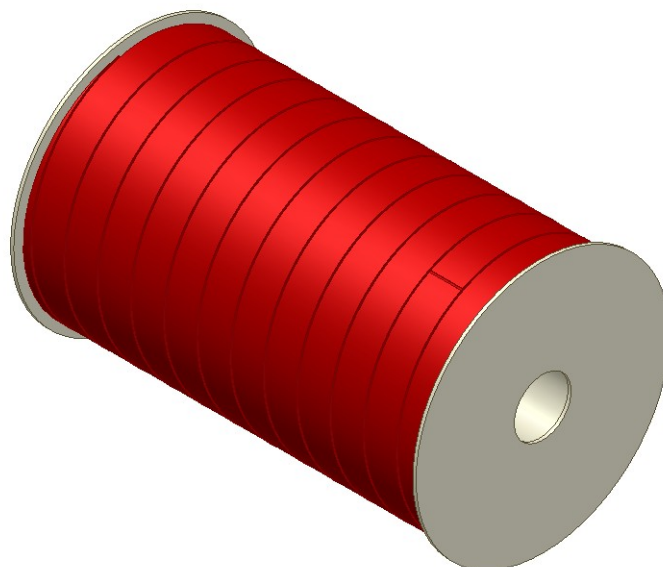
➤ **DBUSA VV .... "TRAVERSE MOTION"**

This "traverse motion" option serves to produce parallel coil bobbins, having a 0,5 to 30mm winding step.

Said step parameters can be set via the keyboard.

The guide motion is provided via a specific, PLC-controlled step motor.

This warrants high-quality roll packages, whilst the stroke is adjustable by way of 3 to 400mm electronic stroke-end feelers.





For this device it is also necessary to order the "DBUSA MAN ...." chuck and the "DBUSA CPT ...." tailstock customized to the spools, plus the "DBUSA CA ...." tailstock support.

## CHARACTERISTICS OF THE SPOOLS

Maximum spool diameter = 400mm

Maximum bobbin length = 400mm

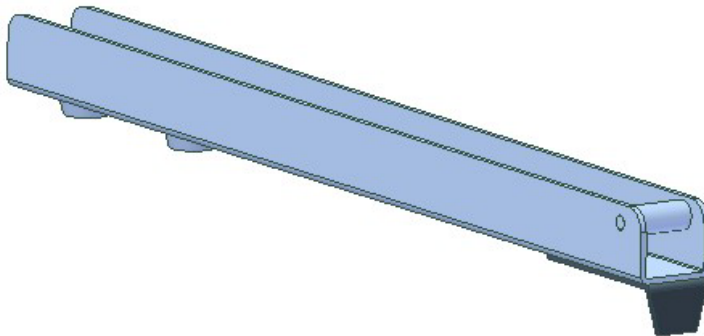
Winding step = 0,5÷30mm

Tape or ribbon thickness = 0,5÷3mm

Inversion adjustment factor = 0÷999

### ➤ **GDU ....** "RIBBON OR TAPE GUIDE"

We hereby recommend that a ribbon or tape guide is ordered for each ribbon or tape width, considering that for optimised packaging, the guide needs to move internally to the bobbin flanges.



**"GDU ...."**

*In the order, simply add the size in millimeters on after the "GDU...." item code initials.  
(Please consult the "CUSTOMER PRODUCT DATASHEET")*

- **DBUSA TR ...** "FORWARD FEED UNIT"
- **DBUSA ANSA ...** "COMPENSATOR DEVICE"

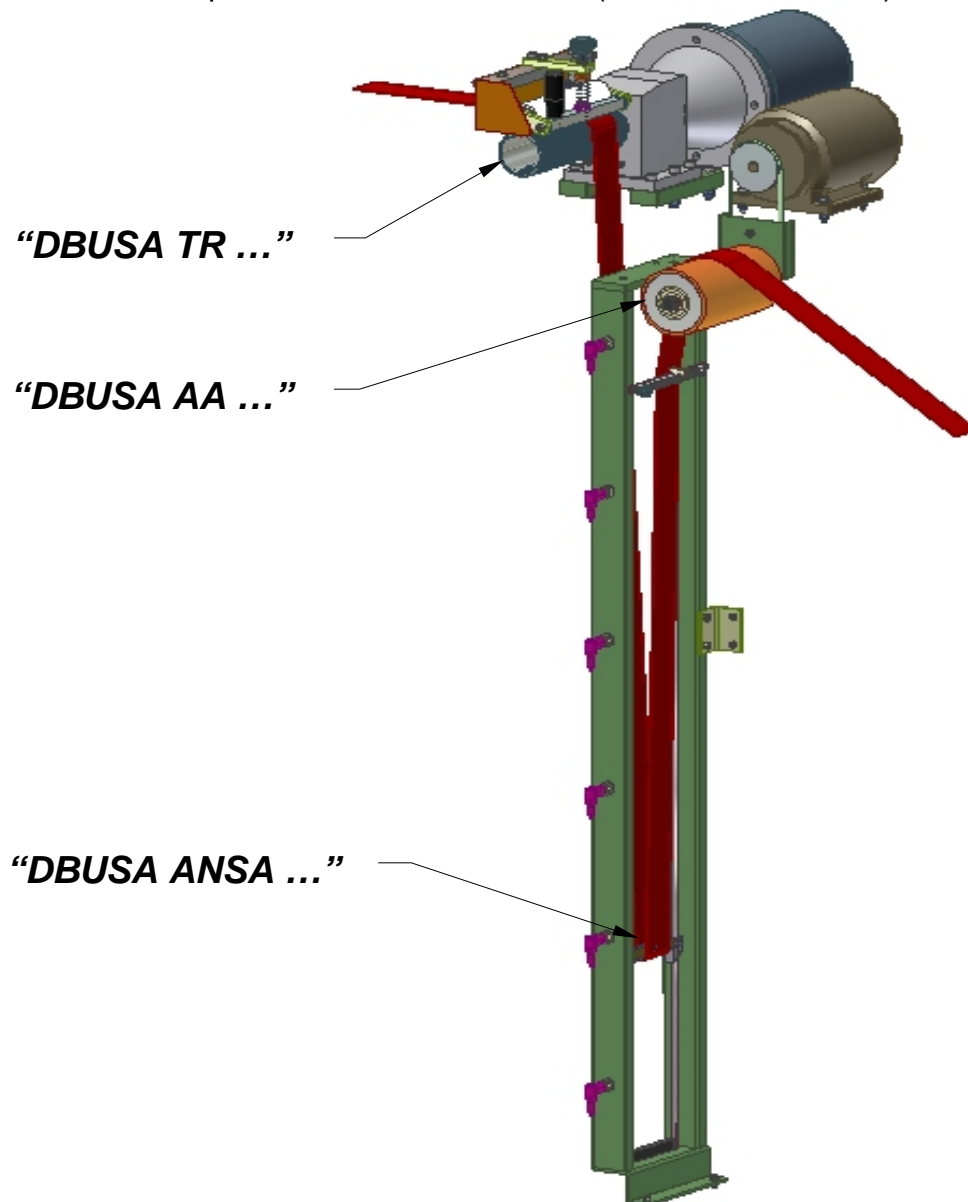
Both of these options serve to ensure constant winding tension control, regardless of the force necessary to retrieve the tape or ribbon from the cases.

The ribbon or tape is pulled by the forward feed unit in positive motion controlled by a 1,1kW gear reducer and then wound, via the compensator device electronic controls.

Via this system the operator is not forced to hold the tape down by hand, but only needs to change the pack over by hand once the set and entered ribbon or tape length has been reached. The same machine can be used to wind stiff tapes and ribbons and/or medium-weight tapes and ribbons and/or extremely fragile and elastic tapes and ribbons.

The winding tension can be adjusted from a minimum of 27 grams for ribbons or tapes with up to a 100mm width and a minimum of 700 grams for ribbons or tapes over 100mm width.

The forward feed unit and the compensator device must be ordered based on the maximum width of the tape that needs to be wound (100, 150 or 200mm).



➤ **DBUSA AA ... “MOTOR DRIVEN ROLLER”**

This motor driven roller option serves to remove all tension from the tape or ribbon upon its exit from the compensator device, thereby guaranteeing that the final packages will be very soft. It is particularly recommended for very fragile and delicate elastic ribbons and tapes as it provides for improved size and length repetition.

Via the keyboard controls, it is possible to set whether the roller driven by a specific motor must be implemented for the process in question, or not.

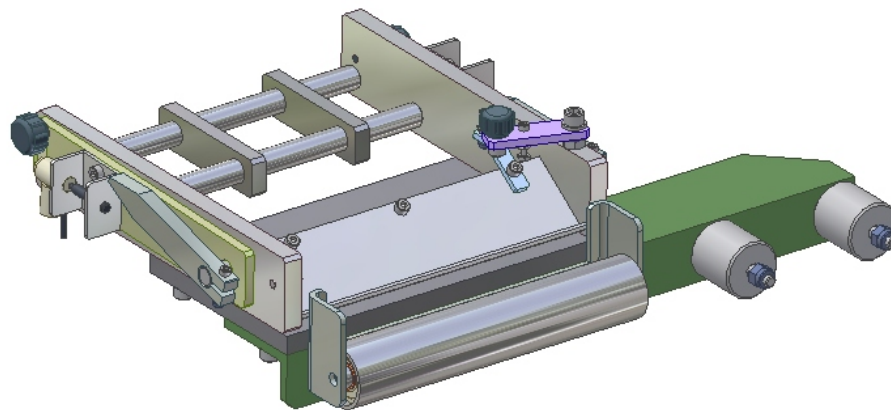
This roller option must be ordered based on the maximum width of the tape that needs to be wound (100, 150 or 200mm).

➤ **DBUSA DIF1 ... “DEFECT CONTROL DEVICE”**

This option serves to prevent that any possible ribbon joints, coils or other defects are included into the finished packs.

After the maximum tape or ribbon length has been processed, the machine will stop.

This device must be ordered based on the maximum width of the tape that needs to be wound (100, 150 or 200mm).



➤ **DBUSA DIF2 “MINIMUM THICKNESS”**

Via the additional device, it is also possible to control the minimum thickness.

Minimum detectable thickness = 0,5mm

## TECHNICAL FEATURES

POWER SUPPLY VOLTAGE	2x230V+T	50÷60Hz	2,2kW
OVERALL MACHINE DIMENSIONS	1200 x 830 x h 1700mm		
NET WEIGHT	220Kg		

*The features described above may vary and must be confirmed based on your products.*