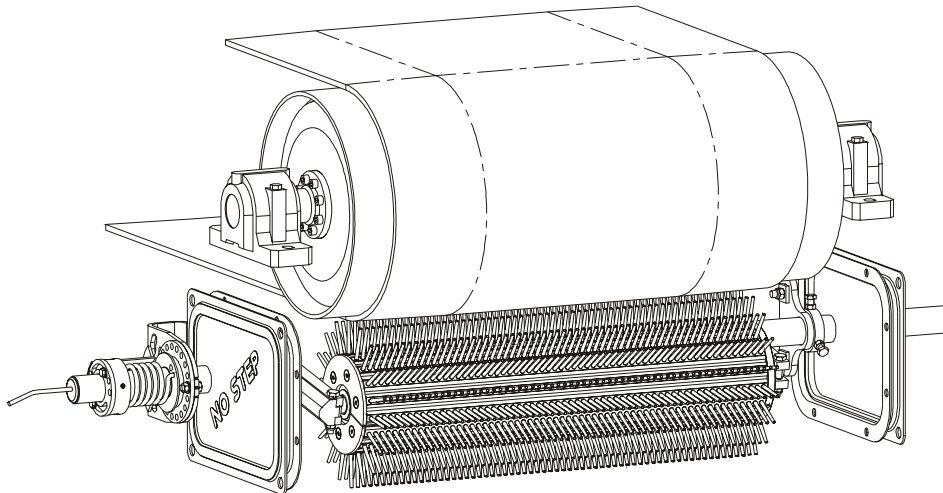


BELT BRUSH

MotoMax belt brush is used on nipper or rib belts for which the carving or ribbing cleaners are not always suitable. It can easily be fitted with other cleaners, on smooth belts, to guarantee an excellent cleaning result. Due to the low rotation speed, the it is also suitable for the board- and sawmill industries because, while brushing, the dusting is essentially reduced.

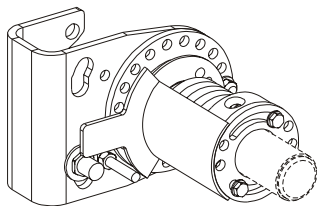
MOTOMAX

Installing a brush onto different structures is easy with diverse mounting parts. The rubber hatch allows the chute structures to be extremely tight. The hatch also facilitates maintenance of the brush and parts are easy to change without removing the brush using the hatch.



Adjustment

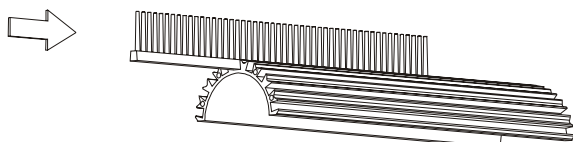
Constant-force torsion spring of the MotoMax-brush gives a constant, stable force to the brush elements. Thus the right and effective cleaning angle 85 - 90° between the brush elements and the belt is held during the whole lifetime of the brush. The brush's self-regulating CleverMax tightening device guarantees you continuous, excellent cleaning results without having to make adjustments by hand. The wear and tear of the brush can be checked directly from the service bridge. It is possible to install an inductive sensor onto the tightening device that will monitor the wear and tear of the brushes. The frame takes a $\varnothing 18$ sensor.



Brush elements

MotoMax -belt brush has plenty of brush elements (18 pcs) that are pushed radially into the dove tail -type grooves. A large quantity of brush elements ensure a good cleaning result, because it is directly proportionate to the number of brush element making contact. Radial fixing of the brush elements together with the aluminium frame transferring the heat from the pulley motor, guarantees the cleanness of the brush elements also in the winter. The brush element range is very wide. Suitable alternatives are provided for every operating condition and situation.

New wearable parts are easy to replace in the aluminium frame. The frames are fixed to the pulley motor with an end flange. Brush -and profile elements are also available in one package.

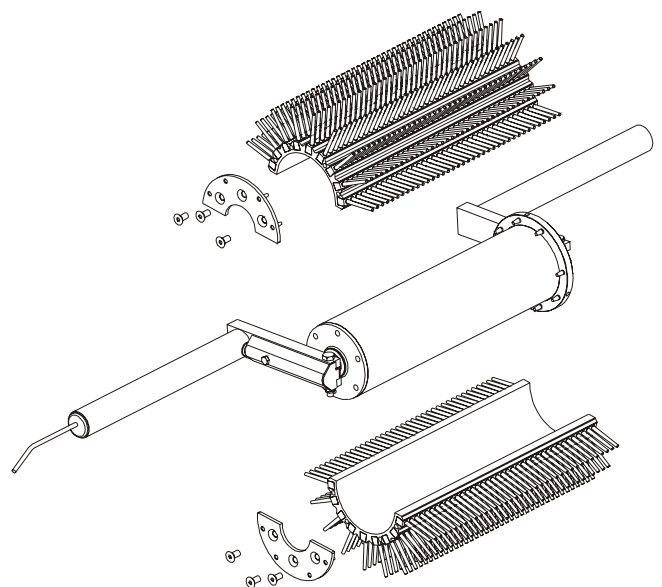


Drive motor

Compact drum motor drive is especially space saving and easy to maintain. Tight construction is reliable to operate, even in difficult conditions. Motor is 3-phased with the thermal protection which will protect the motor against over heating. The motor is CE-approved and fulfils the demands of the electric devices formulated in the directive 73/23/EEC. Protection class of the motor is IP67.

Construction

The cleaner brush does not have support structures going through it which would gather scavenging material and therefore prevent the brush from working properly. Because of its simple, space- saving structure, installing the brush onto even old conveyors is easy.



General information for choosing a belt brush

Take advantage of our expertise when considering the alternatives on the enclosed example order form, i.e. when choosing a suitable brush material. Our design engineer will locate the brush on your conveyor layout if necessary.

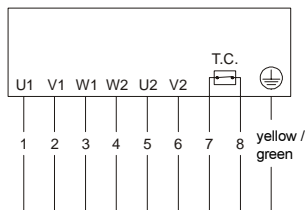
The service hatch model represents the fixing method we recommend most because maintenance and inspection of the brush can be carried out directly from the hatch. The Motomax belt brush guarantee is void if maintenance and inspection cannot be carried out due to an enclosed instalment.

Electrical connections

We do not recommend connecting the MotoMax belt brush to one circuit breaker or protective relay as with a traditional motor because they are not sufficient enough. The thermal protector (T.C.) inside the motor must also be used in addition to the circuit breaker and protective relay.

It is a heat-sensitive switch that measures the motor's temperature. When the motor over-heats, it disconnects the electricity from the contactor guiding the motor and the motor will shut off. Operations will automatically return to normal when the temperature has reached a safe degree.

The reason why the motor over-heated and switched off must be determined before turning the motor on again. Repeated over-heating will damage the motor if the reason for the over-heating is not fixed. The brush must be taken immediately off the belt if it has stopped while the conveyor is still operating. This will prevent it from filling up.

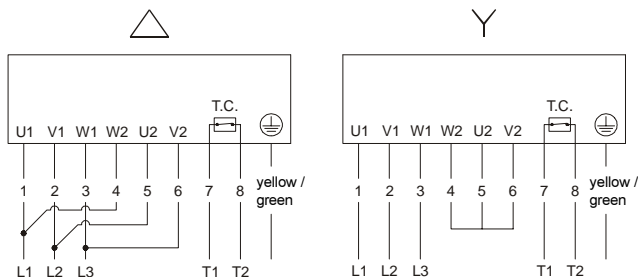


Wiring of motor by delivery

T.C. - switch
(Thermo Controller)

- Openable (normally closed)
- Voltage tolerance 230 V
- Current tolerance 2.5 A

r.p.m of motor $n_1 = 2750$ r/min
r.p.m of brush $n_2 = 140$ r/min



Motor wiring Δ or Y according to voltage (see motor plate and the table below)

Operating voltage (V)	Current (A)	Wiring	Frequency (Hz)	Power (kW)
290 - 300	2.4	Δ	50	0.75
500 - 525	1.4	Y		
380 - 400	2.1	Δ	50	0.75
660 - 690	1.2	Y		

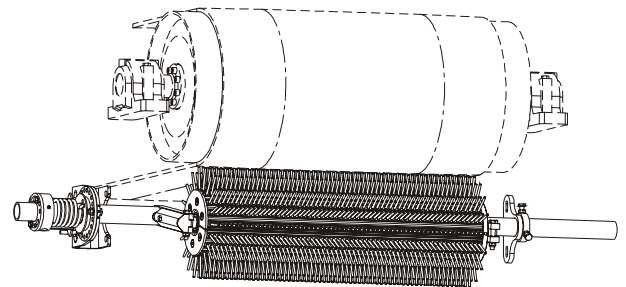
Technical information for standard motors. Motors for other voltages/frequencies are also available.

ORDERING EXAMPLE: MOTOMAX - 1200 - P - X A C

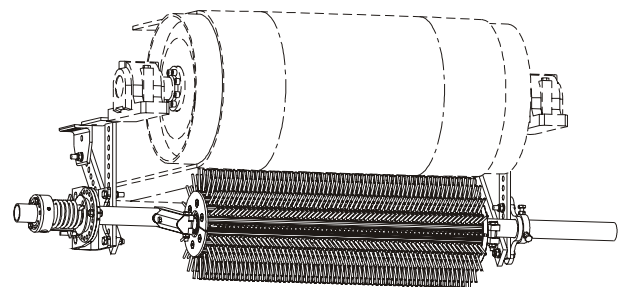
Type code	
Belt width B (mm)	
Brush material	P = POLYPROPHEEN N = POLYAMID (NYLON) T = STEEL U = POLYURETHANE
Fixing method	X = BASIC FIXINGS E = UNIVERSAL FIXINGS L = SERVICE HATCH
Profile bar for brush elements	A = ALUMINIUM
Tightening alternative	C = CLEVERMAX TORSION SPRING

Please inform the voltage and frequency by ordering.

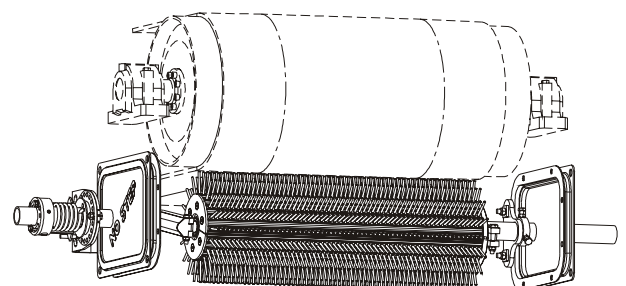
Fixing method X



Fixing method E

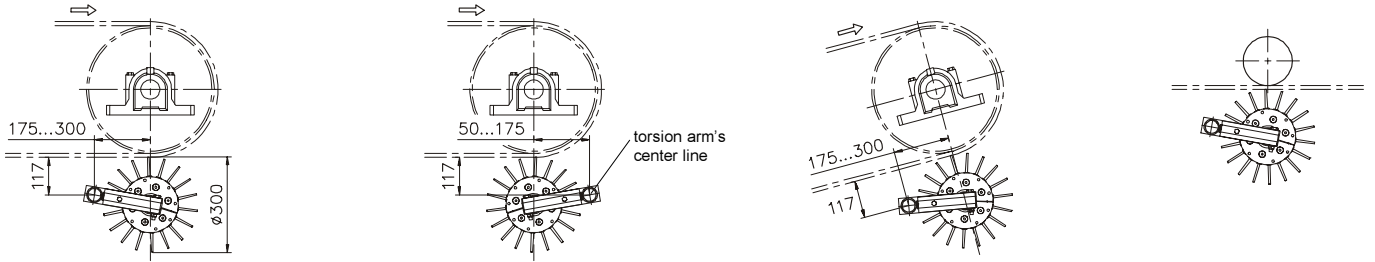


Fixing method L



We reserve the right for modifications without prior notice.

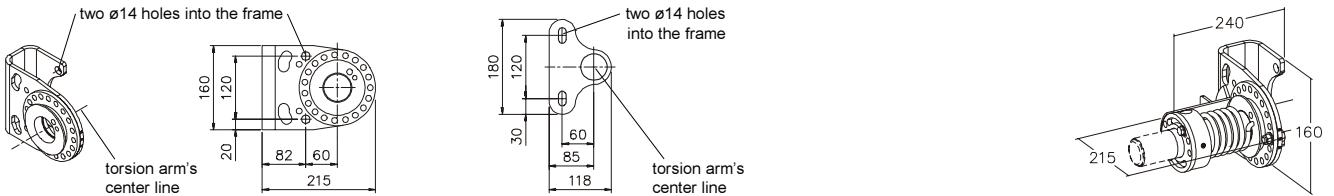
Motomax -belt brush measurements to the conveyor



The distance of the torsion arm's center line from the surface of the belt should be 117 mm. Torsion arms can be turned to face other directions if the need for space so demands. It is recommended that the brush will be located directly under the drive pulley in a way that it is possible to guide the brushed material to the discharging chute.

With inclined conveyors, dimensioning acc. to direction of the belt.

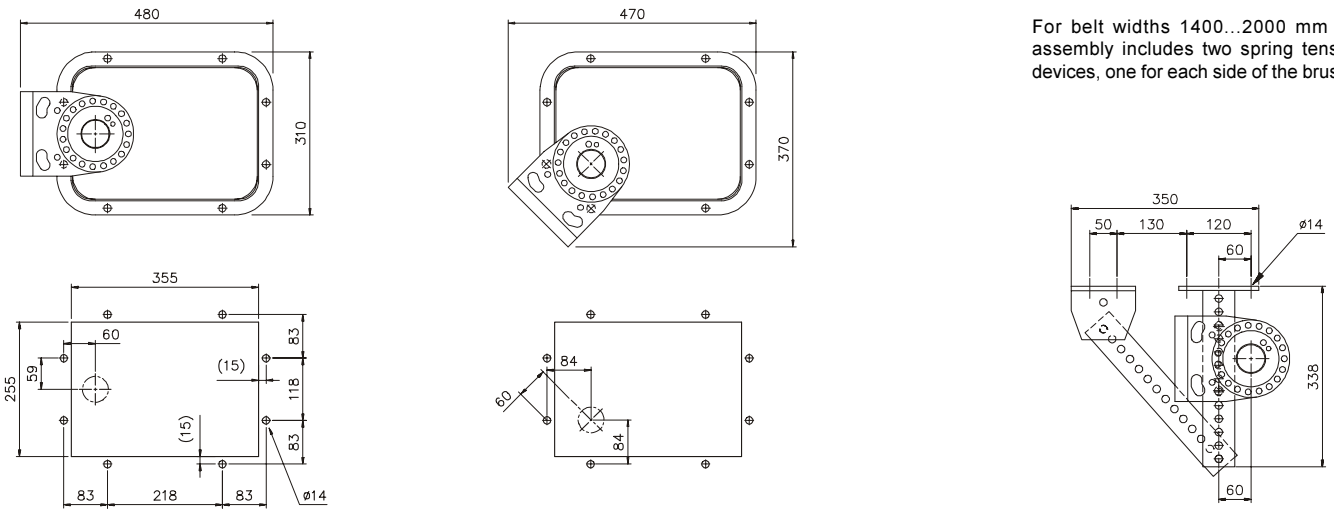
When MotoMax is not located on vertical line of the drive pulley, the belt is supported by counter roller above the belt.



The spring frame and the brace can be turned to the desired position in relation to the torsion arm's center line. If necessary, a through hole (Ø52) can be made into the conveyor structure for the torsion arm.

The amount of space needed for an assembled spring tension device. If necessary, the excess part of the torsion arm can be cut off.

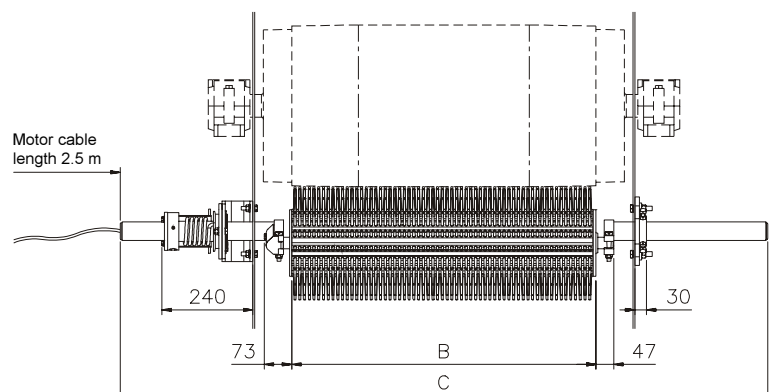
For belt widths 1400..2000 mm the assembly includes two spring tension devices, one for each side of the brush.



Alternatives for installing the hatch and spring frame and perforation of the chute's wall for the hatch.

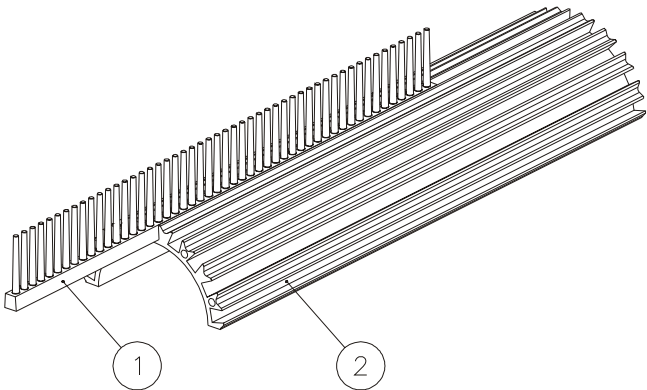
Universal clamp with spring frame.

B	C	Weight (kg)		
		Type X	Type E	Type L
400	1290	53	58	56
500	1390	56	61	59
650	1540	62	67	65
800	1690	67	72	70
1000	1890	74	79	77
1200	2090	81	86	84
1400	2290	94	99	97
1600	2490	101	105	104
1800	2690	108	112	111
2000	2890	115	119	118



We reserve the right for modifications without prior notice.

Ordering codes for spare parts



Belt width B (mm)	400	500	650	800	1000	1200	1400	1600	1800	2000
Quantity of brush elements (m)	7.5	9	11.5	14.5	18	22	25	29	32.5	36

1. Brush elements

ORDERING EXAMPLE: MM135 - U

Type code

Brush material

- P = POLYPROPHEEN
- N = POLYAMID (NYLON)
- T = STEEL
- U = POLYURETHANE

Quantity of brush elements from table

2. Profile bar for brush elements

ORDERING EXAMPLE: MM135 - S - 800

Type code

Belt width B (mm)

Order 2 pcs for each belt brush. Profile material aluminium.

THE BELT BRUSH'S CONTROL BOX

We do not recommend connecting the MotoMax belt brush to one circuit breaker or protective relay as with a traditional motor because they are not sufficient enough. The thermal protector inside the motor must also be used in addition to the circuit breaker and protective relay.

The MM135-ELE control box has a contactor already in it where the thermal protector may be connected. When the motor over-heats, the thermal protector disconnects the electricity from the contactor guiding the motor and the motor will shut off. Operations will automatically return to normal when the temperature has reached a safe degree.

There is a signal light on the top of the box that notifies the user of a 'malfunction'. This information may be directed to the control room also.

ORDERING EXAMPLE: MM135 - ELE - 400

Type code

Operating voltage (V)

- 400
- 690

