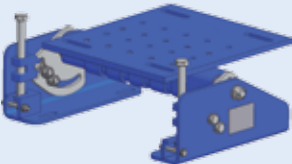


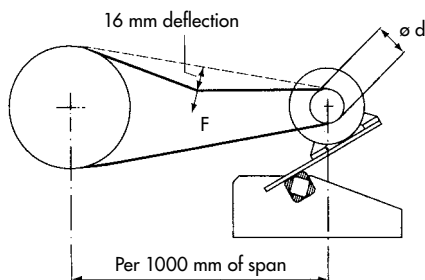
# Selection table of ROSTA-Motorbases according to the motor frame sizes

IEC			NEMA			Type of Motorbase	Details	Standard Design
Motor Frame Size	P [kW] 1000 min <sup>-1</sup> 6-pole motor	P [kW] 1500 min <sup>-1</sup> 4-pole motor	Motor Frame Size	P [HP] 1200 min <sup>-1</sup> 6-pole motor	P [HP] 1800 min <sup>-1</sup> 4-pole motor			
90S 90L	0.75 1.1	1.1 1.5	143T 145T	0.75 1	1 1.5 / 2	MB 27 × 120	Pages 6–7	MB 27 
100L	1.5	2.2 / 3	182T	1.5	3			
112M	2.2	4	184T	2	5			
132S 132M	3 4 / 5.5	5.5 7.5	213T 215T	3 5	7.5 10	MB 38 × 300	Pages 6–7	MB 38 
160M 160L	7.5 11	11 15	254T 256T	7.5 10	15 20			
160M 160L	7.5 11	11 15	254T 256T	7.5 10	15 20	MB 50 × 270-1	Pages 8–9	MB 50 
180M 180L	– 15	18.5 22	284T 286T	15 20	25 30	MB 50 × 270-2		
200L	18.5 / 22	30	324T 326T	25 30	40 50	MB 50 × 400		
225S 225M	– 30	37 45	364T 365T	40 50	60 75	MB 50 × 500		
250M	37	55	404T	60	100	MB 70 × 400	Pages 10–11	MB 70 
280S 280M	45 55	75 90	405T 444T	75 100	100 / 125 125 / 150	MB 70 × 550		
315S	75	110	445T	125 / 150	150 / 200	MB 70 × 650		
315M 315L	90 / 110 110–160	132–160 160–200	447T 449T	150–200 200–300	200–250 250–300	MB 70 × 800		
315M 315L	90 / 110 110–160	132–160 160–200	447T 449T	150–200 200–300	200–250 250–300	MB 100 × 750	Pages 12–13	MB 100 
355S 355M 355L	132–160 200–250 200–250	200–250 250 250	586/7	250–350	300–350			

Directions regarding customized designs of motorbases on pages 14/15.  
In case of possibly not mentioned motor frame sizes, please contact **ROSTA**.

## Test forces for ideal belt tensioning

The ROSTA-Motorbase is offering with its mechanical pretensioning device the ideal calibration of the relevant belt tension, based on the test force recommendations of the belt suppliers. These recommended test forces for the most common V-belt sizes are mentioned in the test force table on the right.



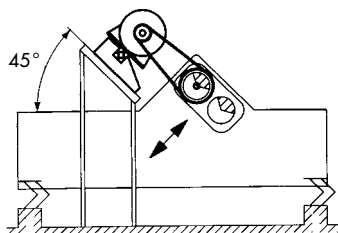
## Test force table by initial V-belt installation

(standard values for the most common types of V-belts)

V-belt type	Width [mm]	Height [mm]	Diam. of smaller pulley [mm]	Initial operation test-force $F_i^*$ [N]	Operational test-force $F_o^*$ [N]
XPZ, SPZ	10	8	56–71	20	16
			75–90	22	18
			95–125	25	20
			$\geq 125$	28	22
XPA, SPA	13	10	80–100	28	22
			106–140	38	30
			150–200	45	36
			$\geq 200$	50	40
XPB, SPB	16	13	112–160	50	40
			170–224	62	50
			236–355	77	62
			$\geq 355$	81	65
XPC, SPC	22	18	224–250	87	70
			265–355	115	92
			$\geq 375$	144	115
Z	10	6	56–100	5–7.5	
A	13	8	80–140	10–15	
B	17	10	125–200	20–30	
C	22	12	200–400	40–60	
D	32	19	355–600	70–105	

\* Test force for V-belts. By ideal belt tensioning a deflection of 16 mm per 1000 mm pulley center distance shall occur. (By shorter or longer span, the value 16 mm has to be interpolated.)

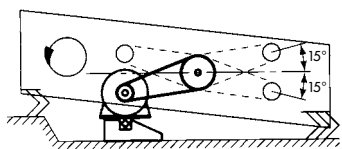
## Usual positioning of the ROSTA Motorbase in screen drive applications



Linear Motion Screen  
"Low-Head" Types

### 1. "Overhead" Configuration

Base plate "center mounted" on ROSTA element. Plate position horizontally on base. Installation of the entire base 45° inclined (aligned to exciter).



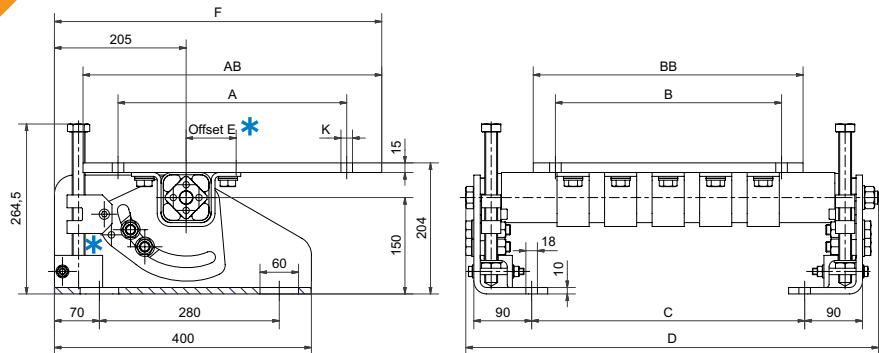
Circular Motion Screen  
"Ripple-Flow" Types

### 2. "Along-Side" Configuration

Base plate "center mounted" on ROSTA element. Plate position horizontally on base. Motor shaft min. 15° above or below the driven eccentric shaft.



## Motorbase Type MB 50



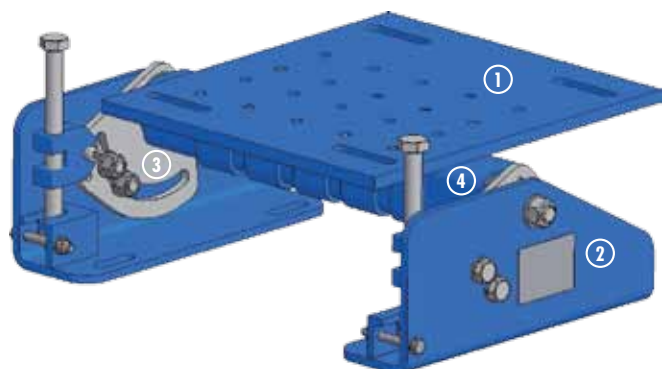
Art.-No.	Type	IEC				NEMA										Weight [kg]
		Motor Frame Size	A	B	K	Motor Frame Size	A	B	K							
02 200 506	MB 50×270-1	160M 160L	254 254	210 254	14 14	254T 256T	254 254	210 254	14 14	320	315	245	463	72	437	40
02 200 507	MB 50×270-2	180M 180L	279 279	241 279	14 14	284T 286T	279 279	241 279	14 14	350	350	245	463	72	452	43
02 200 508	MB 50×400	200L	318	305	18	324T 326T	318 318	267 305	18 18	405	390	345	563	55	463	53
02 200 509	MB 50×500	225S 225M	356 356	286 311	18 18	364T 365T	356 356	286 311	18 18	465	420	425	643	72	510	60

Details regarding special designs, see pages 14/15.

\* All ROSTA-Motorbases MB 50 will be supplied with motor plate installed in **"off-set"** configuration. According to the final positioning of the base, the operating angle of the belts and the required tensioning travel, the motor plate can be altered in **"centered"** position on top of the element axis (recommendable by screen drive applications). Relevant threaded fixation holes are existent in plate.

- 1 Motor plate
- 2 Side supports
- 3 Pretensioning device  
(MB 50×270-1 and MB 50×270-2: 1 device /  
MB 50×400 and MB 50×500: 2 devices)
- 4 Rubber suspension element with axial-guide bearings  
and clamps (depending on size = 2–5 clamps)

For possibly required additional tensioning travel of the motor plate, the adjusting block of the pretensioning device can be set in the second hole-position of the friction plate (3).



# Mounting instructions for MB 50

## 1 Ascertainment of the ideal motorbase position

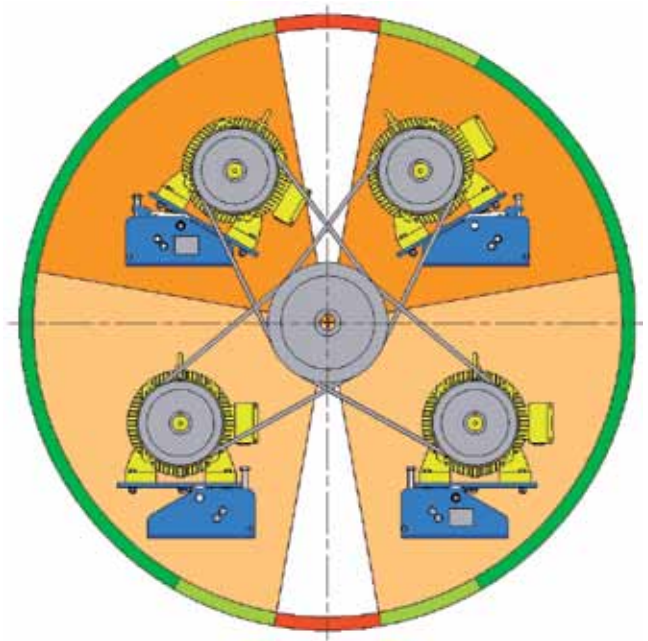
### Operation area "above"

Motor plate standing ~ 30° inclined

### Operation area "below"

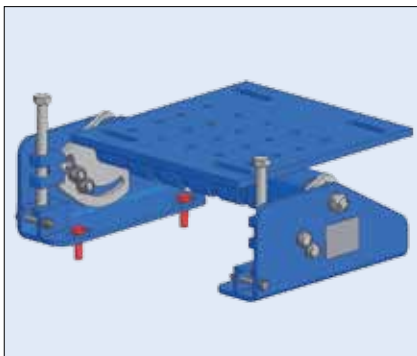
Motor plate standing ~ horizontal

- longest tensioning travel, ideal position of the MB
- sufficient travel of the MB
- in this position, insufficient travel is given (contact **ROSTA**)



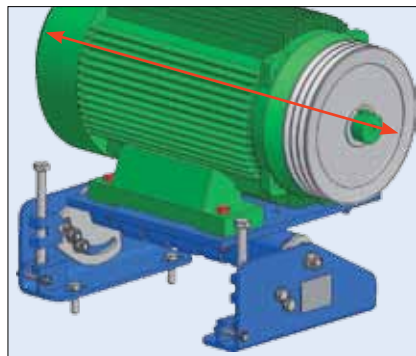
## 2 Support fixations

4 oblong holes 18×60 mm



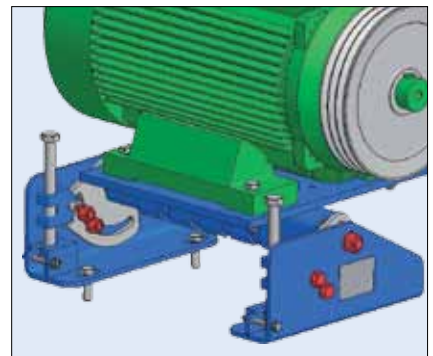
## 3 Alignment of pulleys and motor fixation

4 screws according relevant motor size



## 4 Loosen of the shaft screw (element axis) and of the screws on friction plate(s)

M20 and M16



## 5 Insert and tension the belts, control belt test force

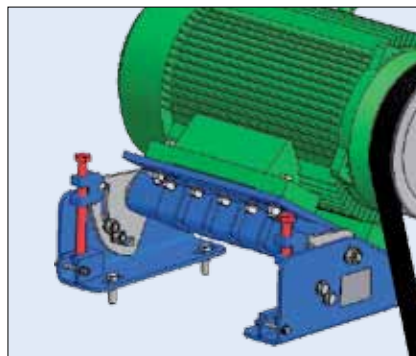
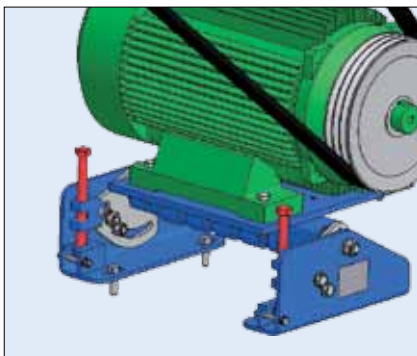
Tensioning of the belts according to belt suppliers recommended test force (table on page 5).

### Operation area "below":

adjust with M20×1.5 screw  
(for tightening = screw block upwards)

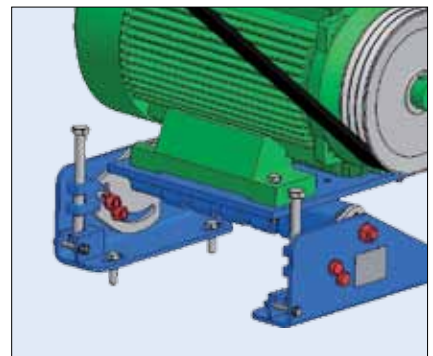
### Operation area "above":

adjust with M20×1.5 screw  
(for tightening = screw block downwards)



## 6 Tighten of the shaft and fixing screws on friction plate(s), start of operation

M20 (locking torque 410 Nm),  
M16 (locking torque 210 Nm)



### Retention:

Generally retensioning is not necessary, however, we recommend to control the belt tension after a few days of operation (after "running-in" of the belts).