

## Selection table of ROSTA Motorbases

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	449T	250-300	250-300	MB 70 × 800		
315M 315L	90 / 110 110-160	132-160 160-200	449T	200-300	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			

In case of possibly not mentioned motor frame sizes, please contact **ROSTA**.

Represented by:



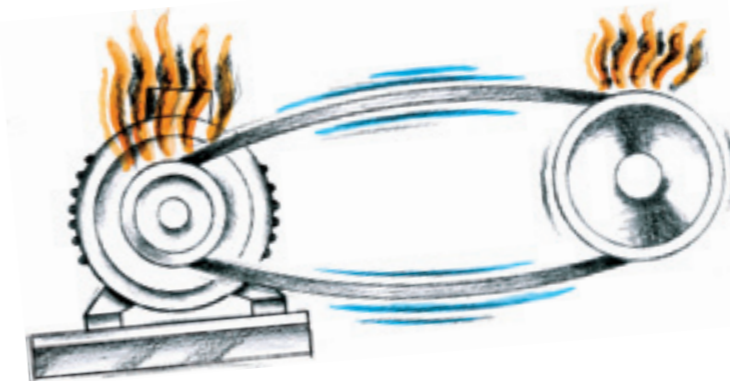
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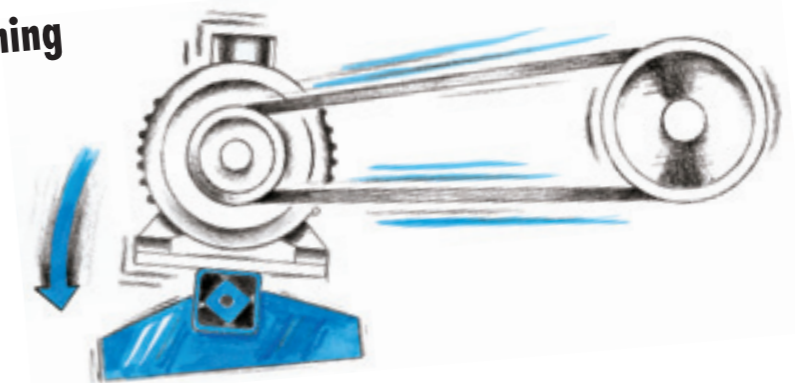
Most belt drives are

# Energy Guzzlers

5-15% of the electrical energy vanishes in belt slippage



if such symptoms persist in your drive consult ROSTA for automatic tensioning



The ROSTA Motorbase offers:

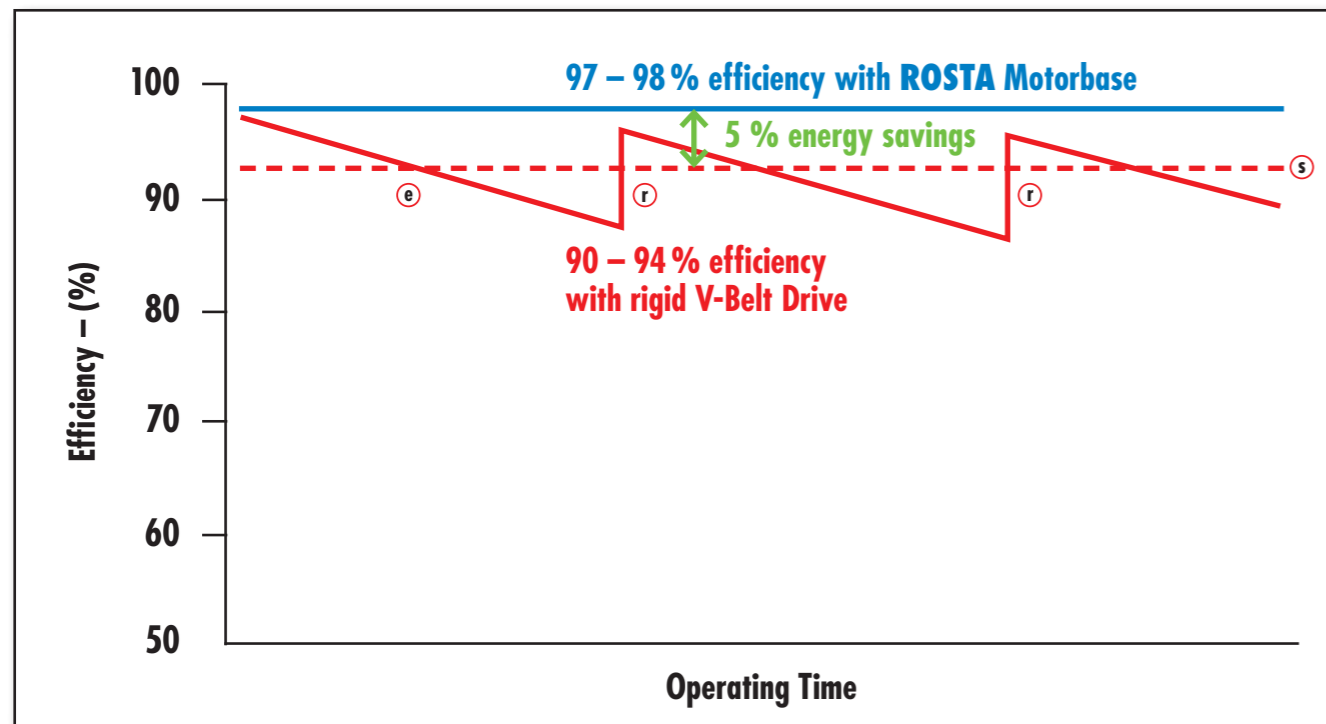
- ideal belt tension
- constant transmission of nominal torque
- less energy consumption
- up to 3 times belt life



MB 50

ROSTA  
swinging solutions

## Energy savings



All V-belt drives are submitted to a continuous elongation  $\textcircled{e}$  generating slippage on the power transmission between motor and driven gear. To avoid energy consuming slippage it requires periodical retensioning of the belt sets  $\textcircled{r}$ . However, most of the belt drives are **wasting at least 5 % of**

**the costly energy** due to inefficient torque transmission of loose belts  $\textcircled{s}$ . **The spring loaded ROSTA Motorbase is automatically compensating the belt slack and is saving an important annual amount of energy costs!**

### Annually wasted money by a slippage rate of 5 %

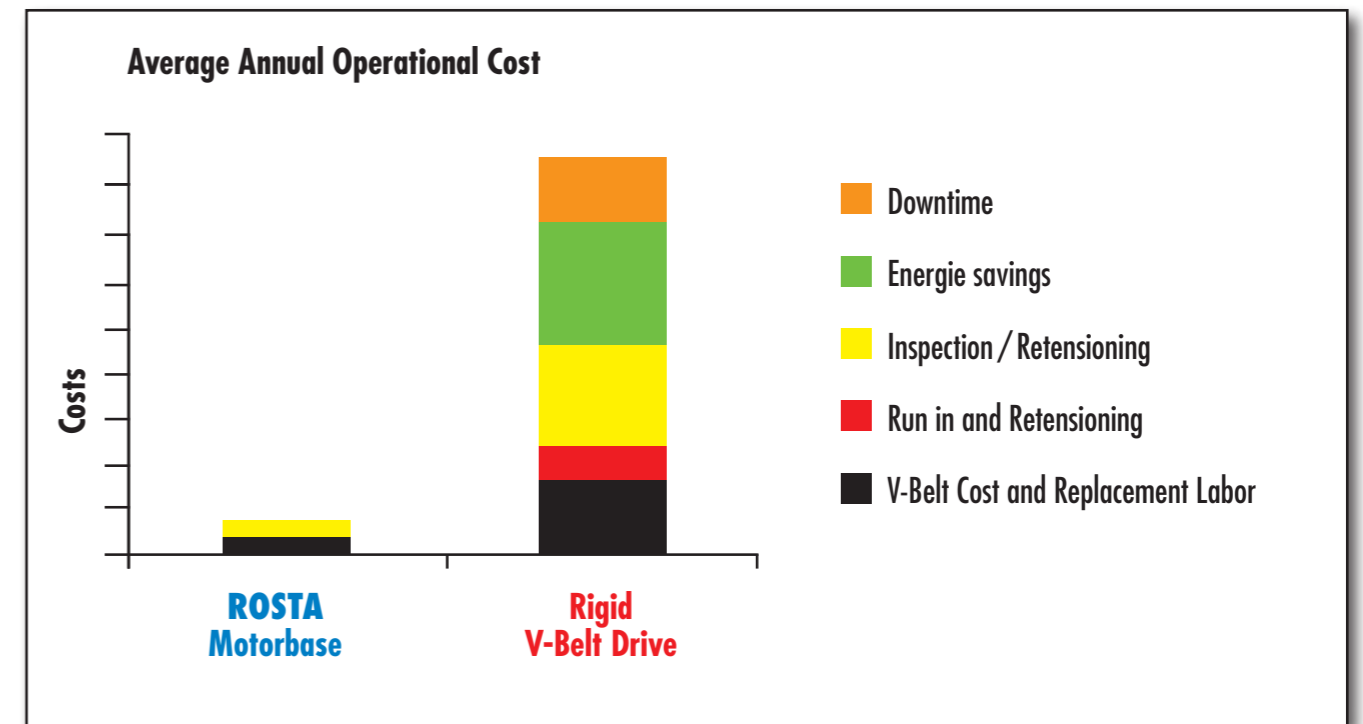
Motor hp	40 hours / week (2,080 hours / year)		80 hours / week (4,160 hours / year)		24 hours / day (8,760 hours / year)	
	\$ 0,05 / KWH	\$ 0,10 / KWH	\$ 0,05 / KWH	\$ 0,10 / KWH	\$ 0,05 / KWH	\$ 0,10 / KWH
7,5	\$ 35	\$ 70	\$ 70	\$ 140	\$ 148	\$ 296
10	\$ 47	\$ 94	\$ 94	\$ 188	\$ 197	\$ 394
15	\$ 68	\$ 136	\$ 136	\$ 272	\$ 288	\$ 576
20	\$ 90	\$ 180	\$ 180	\$ 360	\$ 380	\$ 760
25	\$ 110	\$ 220	\$ 220	\$ 440	\$ 464	\$ 928
30	\$ 131	\$ 262	\$ 262	\$ 524	\$ 550	\$ 1 100
40	\$ 174	\$ 348	\$ 348	\$ 696	\$ 734	\$ 1 468
50	\$ 215	\$ 430	\$ 430	\$ 860	\$ 907	\$ 1 814
60	\$ 259	\$ 518	\$ 518	\$ 1 036	\$ 1 089	\$ 2 178
75	\$ 320	\$ 640	\$ 640	\$ 1 280	\$ 1 346	\$ 2 692
100	\$ 426	\$ 852	\$ 852	\$ 1 704	\$ 1 795	\$ 3 590
125	\$ 527	\$ 1 054	\$ 1 054	\$ 2 108	\$ 2 219	\$ 4 438
150	\$ 632	\$ 1 264	\$ 1 264	\$ 2 528	\$ 2 663	\$ 5 326
200	\$ 842	\$ 1 685	\$ 1 685	\$ 3 370	\$ 3 550	\$ 7 101
250	\$ 1 053	\$ 2 106	\$ 2 106	\$ 4 213	\$ 4 438	\$ 8 876

In first view, an energy loss of 5 % sounds not dramatic to most people. In displaying the effective costs of the annual energy guzzling of an improper maintained belt drive most entrepreneurs are becoming alerted by the high and needless waste of money.

**The automatic ROSTA Motorbase avoids excessive belt slippage and therefore, its costs are amortised within a short period!**



## Annual cost comparison



To avoid useless energy wasting it requires the periodical retensioning of the belts. The respective maintenance outlay for a 50 HP motor is thereby at least one man-hour each time, five to six times per year. **Maintenance works are very**

**expensive** and stopping e.g. a crusher for an hour means all the downstream machinery in the production process are also unproductive!



With the ROSTA Motorbase maintenance work is getting a basic control, once or twice per year.

Possible belt changing is a matter of minutes with the Motorbase, its setting mechanism allows a safe belt change without re-alignment of the pulley parallelism.

Taking into consideration that the life expectancy of a V-belt set with automatic retensioning is **at least threefold** compared to belt sets submitted to continuous heat generating

slippage the rather low investment-costs for a ROSTA Motorbase are fully justified and depreciated within short period.