



Construction Advice/Load Data

Common Construction Advice

- for straight and quiet running of the goods please look for parallelism of shafts, institutional roller level and parallelism of the roller track.
- look for environmental conditions (dust, wetness, acidics etc.)
- electrostatic charging
- maximum roller length/loads of the different materials (steel-or plastic-tube)
- tolerance of the tube (page 7)
- different rolling resistance of the bearings
- no plastic parts for higher temperatures
- for uneven surfaces note different load distribution
- installation length that are longer than listed upon request
- colour deviations possible

Construction advice driven roller

- do not alternate accumulation roller with positive drives
- for uneven surfaces use adjustable accumulation roller
- do not screw the nut too tightly with accumulation rollers, the spring may not be completely compressed (use alternatively the fixed drive)
- bolt tooth form only for tangential drive
- pressfit permanent drive only for continuous conveying, welded sprockets for stop and go
- welding seam perhaps higher than tube level
- look for the maximum speed for the drive elements
- look for tolerance of chains and drive belts
- breaking load of the chains
- motor placed central
- In accumulating roller the accumulation bush should be covered.
This is to prevent contamination between the drive element and accumulation bush.

General abbreviations

A	axle
AGM	male thread metric
AL	axle length
ASK	hexagonal shaft
EL	installation length
IGM	female thread metric
RL	roller length
RO	tube length
SK	hexagonal
ST	steel
STI	steel galv.
SW	width across flat

Steel tube - Area loading in N

Tube diameter in mm	Clamping length						
	200 mm	400 mm	600 mm	800 mm	1000 mm	1200 mm	1400 mm
16 x 1	80	60					
20 x 1,5	150	100	80				
30 x 1	200	150	120				
30 x 1,5	250	200	160				
32 x 2	300	250	200				
40 x 1,5	1000	800	550	450			
40 x 2	1100	900	650	500			
40 x 3	1400	1300	1200	800	400		
50 x 1,5	1600	1500	1400	900	600		
50 x 2	1800	1700	1600	1000	700	450	
50 x 3	2500	2400	2000	1300	750	550	
60 x 2	2800	2700	2300	1500	800	600	350
60 x 3	3000	2800	2700	2300	1600	700	500
63,5 x 2,9	3500	3400	3300	3200	3000	2000	1800
70 x 2	1700	1700	1700	1500	1100	800	500
70 x 2,9	3500	3500	3500	3200	3000	2000	1800
80 x 2	2000	1800	1700	1600	1400	600	400
80 x 3	3600	3500	3400	3300	3000	2200	1900
88,9 x 2,9	4200	4000	3800	3700	3600	2500	2000
108 x 3,25	4500	4500	4500	4200	4000	3500	2600
133 x 3,6	4600	4500	4500	4300	4300	4200	4000

Plastic tube - Area loading in N

Tube diameter in mm	Clamping length						
	200 mm	400 mm	600 mm	800 mm	1000 mm	1200 mm	1400 mm
20 x 1,5	80	40					
30 x 1,8	200	100					
40 x 2,3	300	200					
50 x 2,8	400	300	100				
63 x 3	500	400	350	300			
90 x 7	800	700	500	400	350	200	100

Shaft - attached fixing - static loading in N

Tube diameter in mm	Clamping length						
	200 mm	400 mm	600 mm	800 mm	1000 mm	1200 mm	1400 mm
A6	1600	1100	1000				
A8	2400	2200	2000				
A10	3800	3600	3400	3200	3000		
A12	4200	4000	3800	3600	3400	3200	
A14	4600	4400	4200	4000	3800	3600	
A15	4800	4600	4400	4200	4000	3800	
A17	5100	5100	5100	5100	5000	4900	4800
A20	5600	5600	5600	5600	5400	5200	5000
A25	6200	6200	6200	6200	6000	5800	5600

Shaft - loose fixing - static loading in N

Tube diameter in mm	Clamping length						
	200 mm	400 mm	600 mm	800 mm	1000 mm	1200 mm	1400 mm
A6	400	100					
A8	700	500	250				
A8 SK	800	600	400				
A10	1400	1000	800	500	350		
A11 SK	1600	1100	900	600	400		
A12	1800	1200	900	600	400	200	
A14	2400	2000	1500	1200	1100	1000	
A15	2800	2400	2000	1700	1300	1200	
A17	3200	3000	2600	2100	1800	1600	1400
A20	4400	4200	4000	3800	3400	3000	2500
A25	4800	4300	4500	4400	4100	3500	3000

Weight

Shaft	Dimension in mm	Weight in kg/m
	5	0,154
	6	0,222
	8	0,395
	ASK 8	0,435
	10	0,617
	11	0,823
	ASK 11	0,823
	12	0,888
	14	1,208
	15	1,387
	17	1,782
	20	2,466
	25	3,853

Plastic tube	Dimension in mm	Weight in kg/m
	20 x 1,5	0,137
	30 x 1,8	0,245
	40 x 2,3	0,419
	50 x 2,8	0,64
	63 x 3	0,87
	90 x 7	2,809

Steel- and Stainless Steel tube	Dimension in mm	Weight in kg/m
	16 x 1	0,37
	20 x 1,5	0,684
	30 x 1	0,715
	30 x 1,5	1,054
	32 x 2	1,48
	40 x 1,5	1,425
	50 x 1,5	1,794
	50 x 2	2,368
	50 x 3	3,477
	60 x 2	2,861
	60 x 3	4,217
	60,3 x 1,65	2,385
	63,5 x 2,9	4,334
	70 x 2	3,354
	70 x 2,9	4,83
	80 x 2	3,847
	80 x 3	5,696
	88,9 x 2,9	6,151
	88,9 x 5	10,36
	108 x 3,25	8,396
	133 x 3,6	11,488