

# General Information



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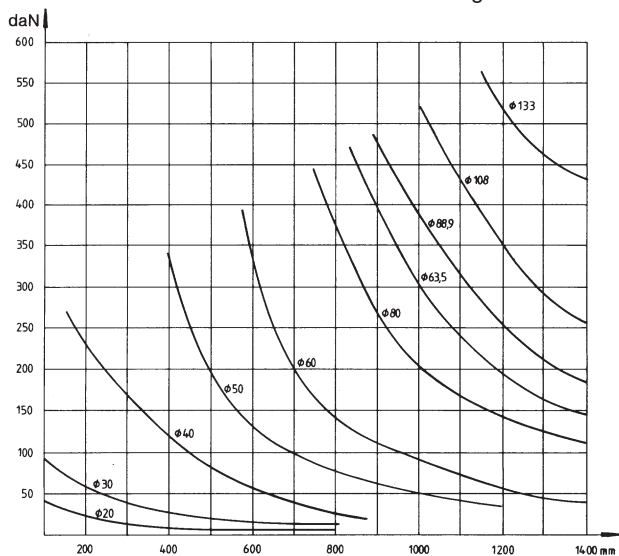


# Load capacity diagrams

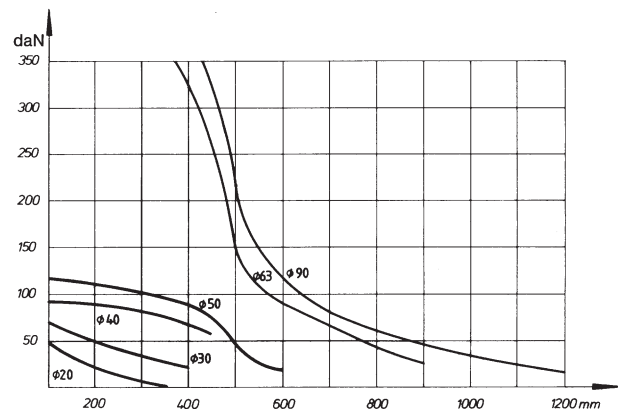


A conveyor roller consists of three elements: bearing, shaft and tube. To determine the load capacity of a conveyor roller the following diagrams and the specification of bearing for the described type should be studied. The weakest element provides the load capacity of the roller.

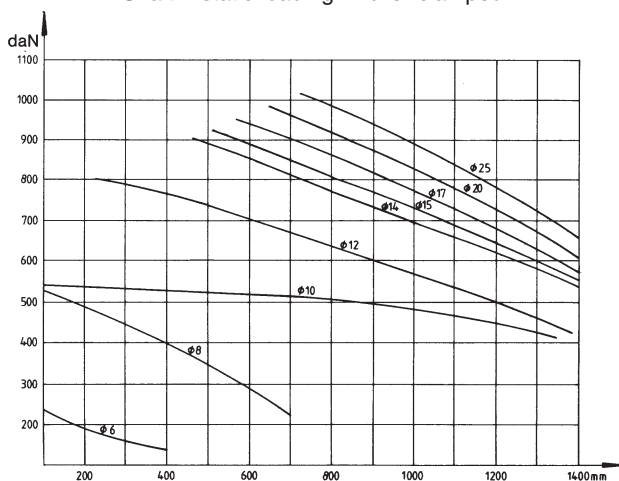
Steel tube – static surface loading



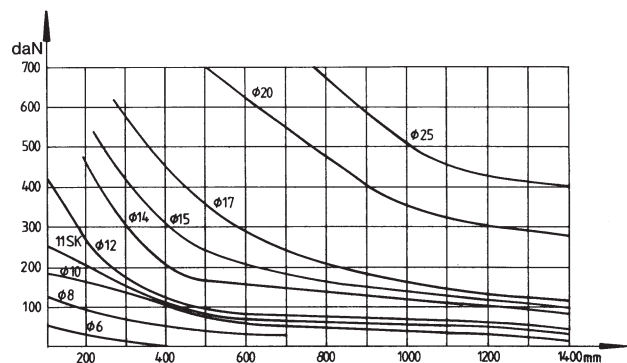
Plastic tube – static surface loading



Shaft – static loading – roller clamped



Shaft – static loading – roller not clamped



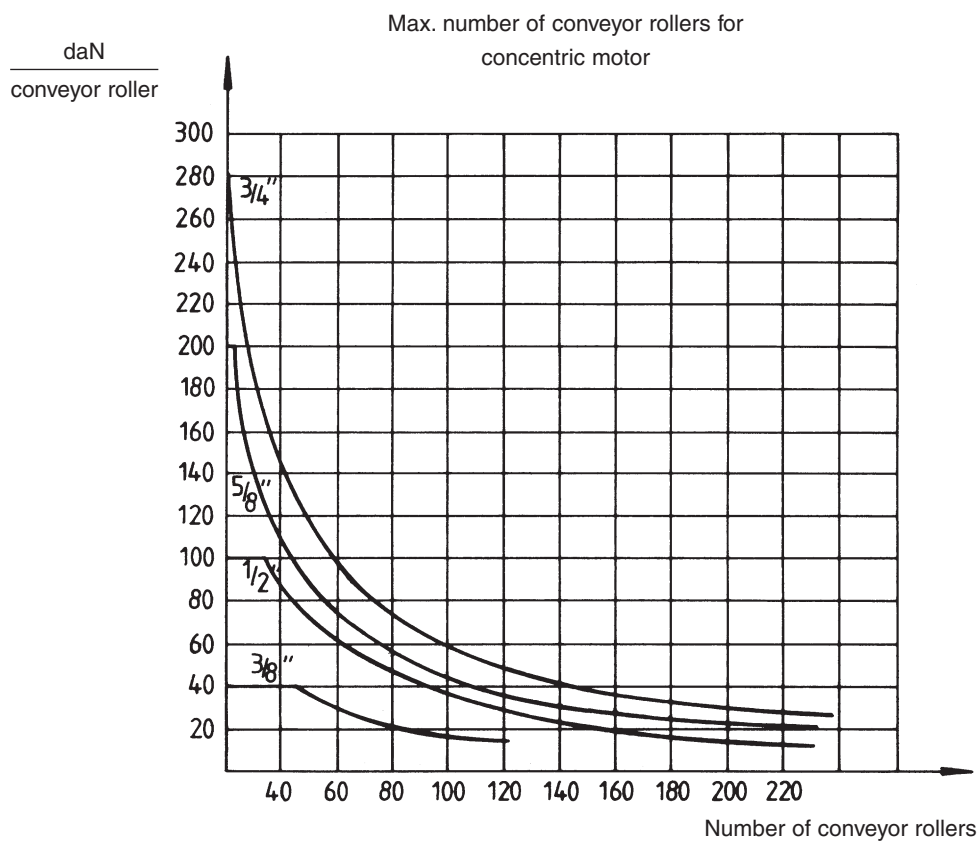




## Centre distance table

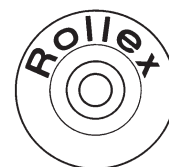
Centre distance  $^{+0}_{-0,3}$

Chain links	$\frac{3}{8} \times \frac{7}{32}'' z = 12$	$\frac{1}{2} \times \frac{5}{16}'' z = 14$	$\frac{5}{8} \times \frac{3}{8}'' z = 15$	$\frac{3}{4} \times \frac{7}{16}'' z = 13$
22	47,6			
24	57,2			
26	66,7	76,2		123,8
28	76,2	88,9	103,2	142,9
30	85,8	101,6	119,1	161,9
32	95,3	114,3	134,9	181,0
34	104,8	127,0	150,8	200,0
36	114,3	139,7	166,7	219,1
38	123,9	152,4	182,6	238,1
40	133,4	165,1	198,5	257,2
42	142,9	177,8	214,3	276,2
44	152,4	190,5	230,2	295,3
46		203,2	246,1	314,3
48		215,9	261,9	333,4
50		228,6	277,8	352,4
52		241,3	293,7	371,5
54		254,0	309,6	390,5
56		266,7	325,4	409,6
58		279,4	341,3	428,6
60		292,1	357,2	447,7





# Types of conveyor roller tubes

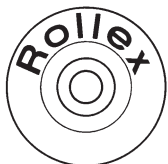


Material		Ref. when ordering
Steel tube		ST
Steel tube	galvanized	STI
Steel tube	coated with epoxy resin	STR
Steel tube	rubberised	STG
Steel tube	with PVC-hose	STP
Steel tube	nitrided	STH
Plastic tube	PVC grey RAL 7011	KG
	PVC shockproof RAL 5010	KB
	PVC shockproof RAL 7032	KGH
Aluminium tube	ALMgSi 0,5	Alu
Niro-steel tube	W.Nr. 1.4301	N 2
	W.Nr. 1.4571	N 4

Pos	tube Ø	ST	STI	STR	STG	KG	KB KGH	Alu	Niro
1	16 x 1	X	X					X	X
2	20 x 1,5	X	X		X		X	X	X
3	30 x 1	X	X		X				X
4	30 x 1,5	X	X		X				X
5	30 x 1,8					X	X		
6	32 x 2	X	X					X	X
7	40 x 1,5	X	X		X			X	X
8	40 x 2,3					X	X		
9	50 x 1,5	X	X	X	X			X	X
10	50 x 2,8					X	X		
11	50 x 2	X	X	X	X				X
12	50 x 3	X	X	X	X				X
13	60 x 1,5	X	X	X	X				
14	60 x 2	X	X	X	X				
15	60 x 3	X	X	X	X				
16	60,3 x 1,65								X
17	63 x 3						X		
18	63,5 x 2,9	X	X	X	X				
19	70 x 2	X	X	X	X			X	
20	80 x 2	X	X	X	X				X
21	80 x 3	X	X	X	X				
22	88,9 x 2,9	X	X	X	X				X
23	88,9 x 5	X	X	X	X				
24	90 x 7						X		
25	108 x 3,25	X	X	X	X				X
26	133 x 3,6	X	X	X	X				

Special dimensions upon request





## Shafts

Rollex conveyor rollers are available for different types of shaft; this is a guarantee for the optimal compatibility in your kinds of utilisation. The shafts consist of cold-drawn steel. Upon request we also deliver the shafts either galvanized (Al) or made from stainless-materials **1.4305 (AN)**.

Order-Specification	A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
shaft-Ø						
5				6		6
6	M 6 x 15			8		8
8	M 8 x 15		M 5 x 10	10		10
hexagon S 8						10
10	M 10 x 15	M 8 x 15	M 6 x 10	10	SW 8 x 10	10
hexagon S 11						10
12	M 12 x 15	M 10 x 15	M 8 x 10	10	SW 10 x 10	10
14	M 14 x 20	M 12 x 15	M 8 x 15 M 10 x 15	10	SW 12 x 10	10
15	M 14 x 20		M 8 x 15 M 10 x 15		SW 12 x 10	
17	M 16 x 20	M 12 x 15	M 10 x 15 M 12 x 18		SW 14 x 10	
20	M 20 x 25	M 16 x 20	M 10 x 15 M 12 x 18		SW 14/15 x 10 SW 14/15 x 13	
25		M 16 x 20	M 16 x 24		SW 18 x 10/13	
30		M 16 x 20	M 16 x 24		SW 20 x 10/13	

Special dimensions upon request

## Slip-on caps

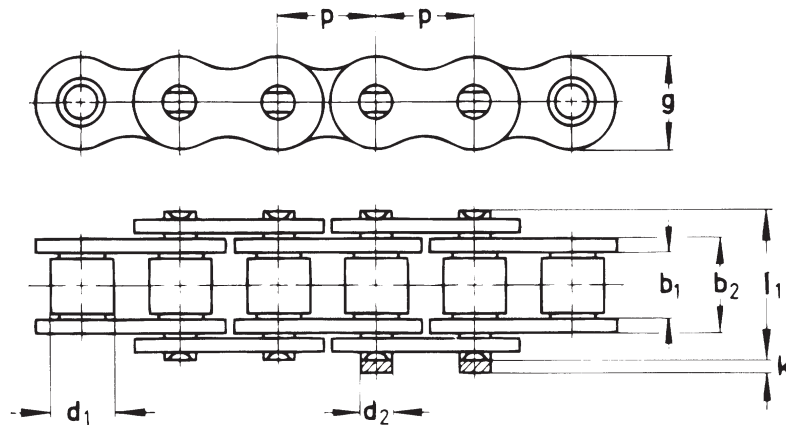
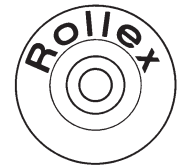
Shaft-slip-on caps made from thermoplastic synthetic material are useful as a protection against corrosion and they reduce noise.

shaft-Ø				
8	SW 10 x 10 D = 12 SW 14 x 10 D = 16	SK 11 x 11 SK 11 x 11 FA	SK 11 x 17	
10	SW 14 x 10 D = 16 SW 12 x 10 D = 16			
12	SW 14 x 10 D = 16			
14	SW 17 x 10 D = 21			
20				SW 30 x 12 D = 36 In plastic and sintered metal



# Chains

European standard DIN 8187



DIN/ISO chain-no.	p x b <sub>1</sub>	p	b <sub>1</sub>		b <sub>2</sub>		d <sub>1</sub>		d <sub>2</sub>		k		g		k		fragility	
			min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	L <sub>1</sub>	N
06 B-1	3/8" x 7/32"	9,525	5,72	8,53	6,35	3,28	3,33	8,2	3,3	13,5	9000							
08 B-1	1/2" x 5/16"	12,7	7,75	11,3	8,51	4,45	3,9	11,8	3,9	17	18000							
10 B-1	5/8" x 3/8"	15,88	9,65	13,28	10,16	5,08	4,1	14,7	4,1	19,6	22400							
12 B-1	3/4" x 7/16"	19,05	11,68	15,62	12,07	5,72	4,6	16,1	4,6	22,7	29000							
16 B-1	1" x 0,67"	25,4	17,02	25,4	15,88	8,28	5,4	21	5,4	36,1	60000							

## Single roller chains re DIN 8187 (European standard)

Equivalent ISO 606 – 1982





## Tube coatings

PVC-Hose table

60° Shore, grey

tube diameter	PVC 2 mm	PVC 3 mm	PVC 5 mm
30	X		
40	X	X	X
50	X	X	X
60	X	X	X
80	X	X	X
88,9	X	X	X
108		X	X

even in antistatic, upon request

PVC-Hose table

88° Shore, black

tube diameter	PVC 2 mm	PVC 3 mm	PVC 5 mm
50		X	X
60		X	

Coating from 3 mm

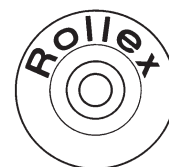
1. Rubber NBR-black, glued and grinded, 60° Shore hardness
2. Rubber Neopren white, glued and grinded, Linatex 60° Shore hardness, even for food industry
3. PU-Baytec 70-90° Shore hardness, hot vulkonized, Color: nature, grinded
4. PU-Baytec 73° Shore hardness, hot vulkonized, Color: black, grinded

For epoxy resin coating please mention RAL-Color

Other coatings upon request



# Weight table



	Pos.	Ø (mm)	Weight kg/m
<b>Shafts</b>		5	0,154
		6	0,222
		8	0,395
	SK	8	0,435
		10	0,617
	SK	11	0,823
		12	0,888
		14	1,208
		15	1,387
		17	1,782
		20	2,466
		25	3,853
		30	5,549
<b>Steel + Niro-tube</b>			
	1	16 x 1	0,370
	2	20 x 1,5	0,684
	3	30 x 1	0,715
	4	30 x 1,5	1,054
	6	32 x 2	1,480
	7	40 x 1,5	1,425
	9	50 x 1,5	1,794
	11	50 x 2	2,368
	12	50 x 3	3,477
	13	60 x 1,5	2,164
	14	60 x 2	2,861
	15	60 x 3	4,217
	16	60,3 x 1,65	2,385
	18	63,5 x 2,9	4,334
	19	70 x 2	3,354
	20	80 x 2	3,847
	21	80 x 3	5,696
	22	88,9 x 2,9	6,151
	23	88,9 x 5	10,360
	25	108 x 3,25	8,396
	26	133 x 3,6	11,488
<b>Plastic tube</b>			
	2	20 x 1,5	0,137
	5	30 x 1,8	0,245
	8	40 x 2,3	0,419
	10	50 x 2,8	0,640
	17	63 x 3	0,870
	24	90 x 7	2,809
<b>Aluminium tube</b>			
	2	20 x 1,5	0,240
	6	32 x 2	0,509
	9	50 x 1,5	0,617
	19	70 x 2	1,154





## Ordering advice

ROLLEX conveyor rollers are produced specially to clients requirements. In order to meet these requirements we need an exact specification of the required conveyor roller. The structure of our order standard is a guarantee for this. For an accurate size-production we especially need the size EL=length of installation.

### Examples:

Type 300 – 50 x 1,5 STI A 12 IGM 8 **EL 500**



Type 500/300 – 60 x 2 STI A 14 IGM 10 **EL 500**



### Illustration:

- 1 Specification of the type
- 2 Specification of the bearing, for driven and conical conveyor rollers
- 3 Conveyor roller tube diameter
- 4 Strength of the wall of the conveyor roller tube
- 5 Material of the conveyor roller tube, page I.3
- 6 Diameter and material of the shaft, page I.4
- 7 Type of shaft, page I.4
- 8 Length of installation, this example 500 mm

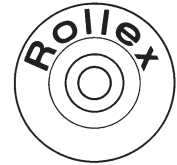
Further sizes, like RO = length of tube, RL = length of roller and AL = length of shaft are not necessary, as they result from EL. Only for standard roller. For specials those sizes have to be mentioned for correct production.

## Technical advice

- Parallelity of shafts
- Identical level of rollers
- Parallelity of the roller conveyor profile
- Friction rollers not in change with non-driven rollers
- Environmental factors (dust, temperature, wetness etc.)
- Different running resistance of bearings (lubrication packing)
- Tube tolerance (DIN)
- Max. length of roller for plastic tubes
- Max. length of roller for steel tubes
- Electrostatic charge
- Bolt tooth form only for tangential drive
- Welding seams may be more than tube-ø
- Pressfit drive only when moving continuously
- Plastic parts of roller not for use with higher temperatures
- For unplain transport goods and low weights use adjustable friction
- Keep tolerance of chains and tooth-belts
- Note breakload of chains
- For unplain transport goods not all roller are in use
- Place motor concentric



# Gravity Roller Conveyor Roller



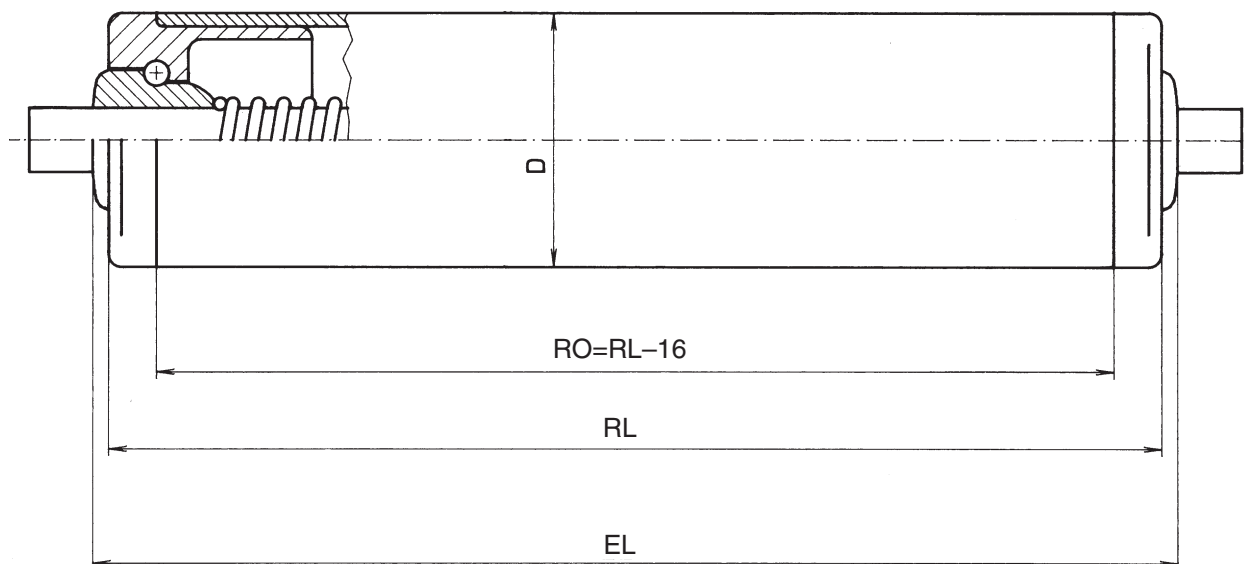
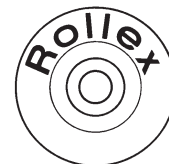
<b>Type</b>		<b>page</b>
50	Plastic roller housing	1
60	Plastic roller housing	2
100	Plastic roller housing	3
150	Plastic roller housing	4
151	Steel plate roller housing	5
200	Steel plate roller housing	6
220	Steel plate roller housing	7
250	Steel plate roller housing	8
260	Steel plate roller housing	9
270	Steel plate roller housing	10
290	Steel plate roller housing	11
300	Plastic roller housing	12
301	Plastic roller housing	13
302	Plastic roller housing	14
306	Round-belt drive	15
320	Plastic roller	16
400	Plastic roller housing	17-18
400ST	Lathed steel housing, inner ball bearing	19
401	Plastic roller housing	20
402	Plastic roller housing	21
402K	Bearing site lathed into tube	22
402ST	Lathed steel housing, outer ball bearing	23
402WT	Steel plate roller housing	24
402WS	Steel plate roller housing	25
402WST	Steel plate roller housing	26
402WO	Steel plate roller housing	27

Please note ordering advice on page I.8



# Conveyor Roller Type 50

Tube Ø 16, 20, 30, 32, 40



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
5	RL +				5		5
6	RL +	15			5		5
8	RL +	18		5	5		5
10	RL +	17		5	5		5

Type 50 - 16 and Type 51 - 16 only for shaft A 5.

Type 50 - 20 and Type 51 - 20 only for shaft A 6 and A 8.

The conveyor roller bearings consist of thermoplastic synthetic material with single ball row.

Load capacity: tube Ø 20 5 daN/bearing  
tube Ø 30–40 7 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 50-20 x 1,5 KB A 6 FA **EL** ...

The choice of balls provides the type of order:

Steel balls

**Type 50**

Stainless steel balls  
W-Nr. 4034

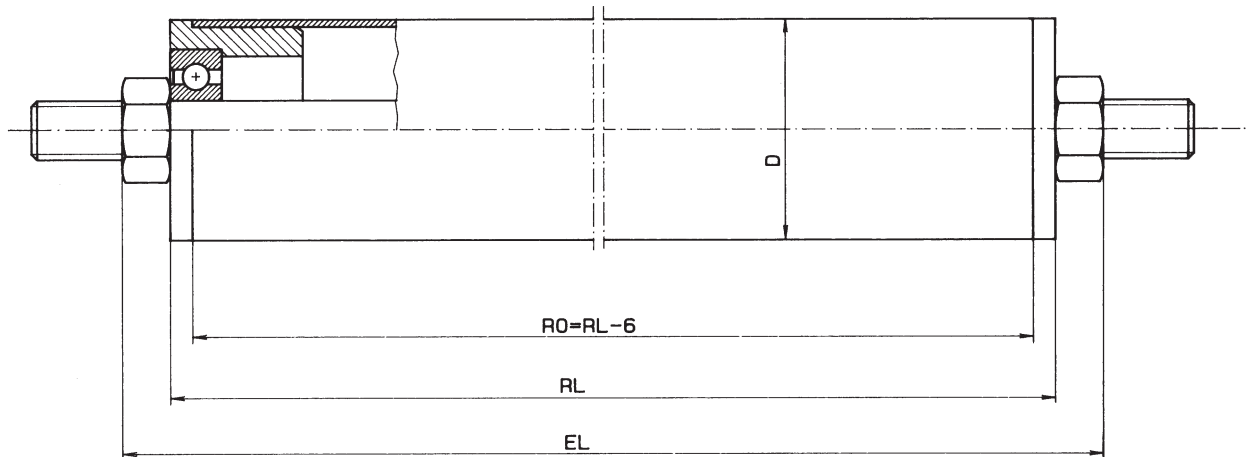
**Type 51**





# Conveyor Roller Type 60

Tube Ø 30, 32



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
8	RL +	13			5		5
10	RL +	12			5		5

The conveyor roller bearings consist of thermoplastic synthetic material with grooved ball-bearing.

Load capacity: 30 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 60-30 x 11 STI A 8 M 8 EL ...

Shaft with internal thread only with circlip (circlip/starlock)

A 8 only IGM 5

A10 only IGM 6

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 608 Z or 6000 Z

**Type 60**

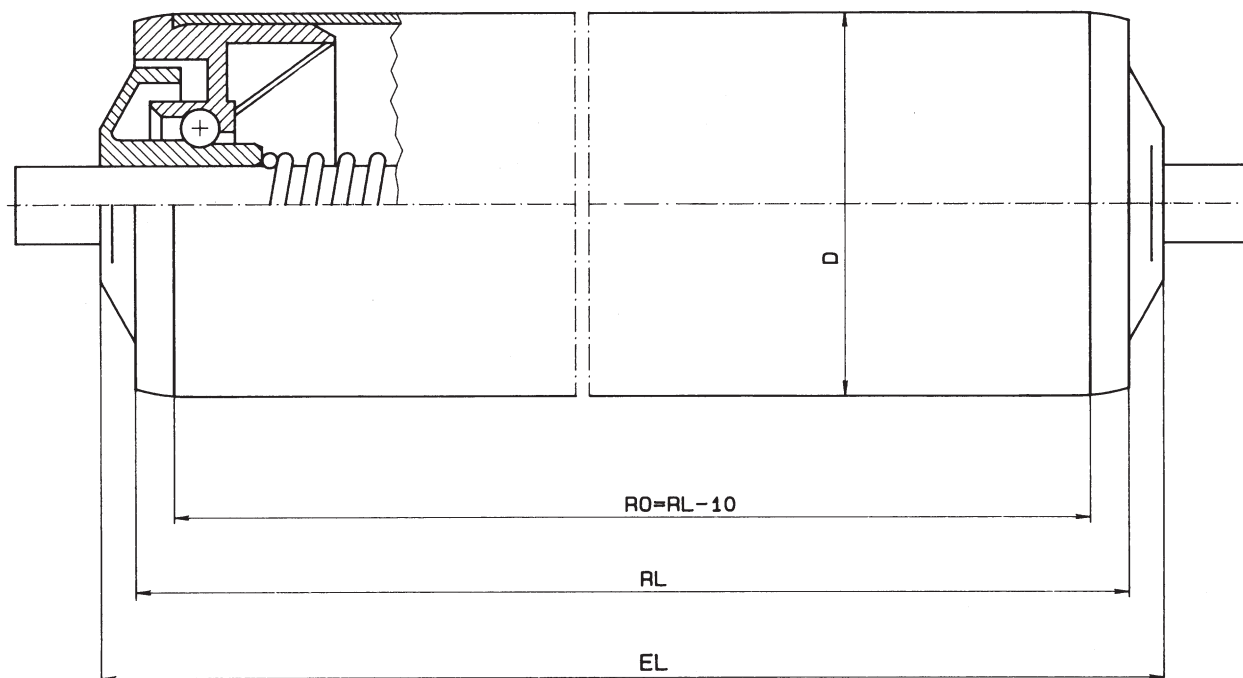
Grooved ball-bearing 608 RS or 6000 RS

**Type 60 RS**



# Conveyor Roller Type 100

Tube Ø 50, 60, 60.3, 63, 70, 80



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
6	RL +	20					10
8	RL +	23		10	10		10
S 8	RL +						10
10	RL +	22	10	10	10	10	10
S 11	RL +						10
12	RL +	24	10	10	10	10	10

The conveyor roller bearings consist of thermoplastic synthetic material with single ball row.

Load capacity: 12 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 100-50 x 1,5 STI A 10 FA EL ...

The choice of balls provides the type of order:

Steel balls **without** cage **Type 100**

Steel balls **with** cage **Type 101**

Stainless steel balls W-Nr. 4034/4571 **without** cage **Type 102**

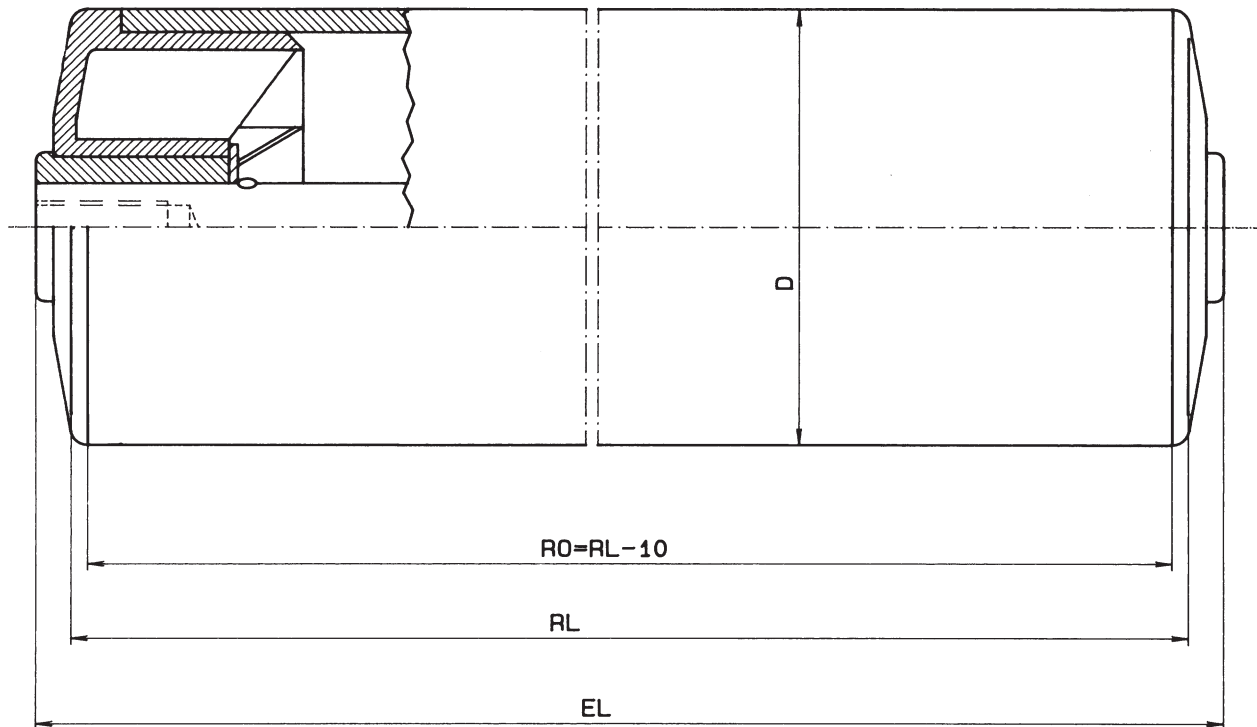
Stainless steel balls W-Nr. 4034/4571 **with** cage **Type 103**

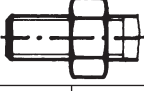
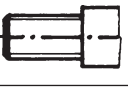
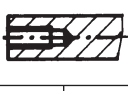
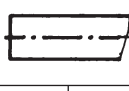
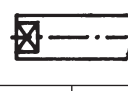





# Conveyor Roller Type 150

Tube Ø 50, 60, 60.3, 63, 70, 80, 90



Order specification		A... M...		A... AGM...		A... IGM...		A... glatt		A... SW...		A... FA...	
Shaft-Ø	EL =												
		A	B			A	B	A	B	A	B	A	B
8	RL +	19	23					6	10			6	10
10	RL +	18	22			6	10	6	10	6	10	6	10
12	RL +	20	24			6	10	6	10	6	10	6	10
14	RL +	22	26			6	10	6	10	6	10	6	10

A: Steel tube B: Plastic tube

The conveyor roller bearings consist of thermoplastic synthetic material with slide bearing bushes.

Load capacity: 20 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

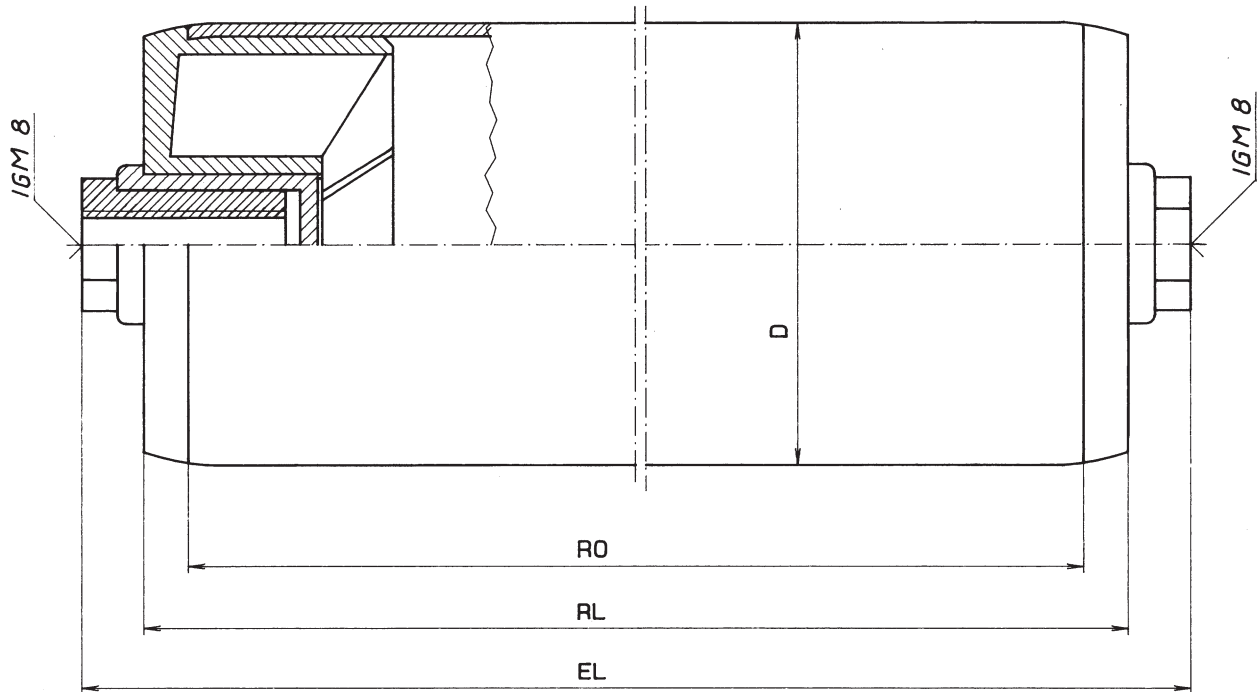
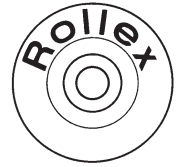
Example how to order:

Type 150-50 x 2,8 KB A 12 IGM 8 EL ...



# Conveyor Roller Type 151

Tube Ø 50, 60, 60.3, 63, 70, 80, 90



Steel-tube:  $EL = RL + 20$

Plastic tube:  $EL = RL + 16$

The conveyor roller bearings consist of thermoplastic synthetic material. The sealed slide bearing bushes prevent the ingress of wetness into the roller.

Load capacity: 20 daN/bearing

Type of tube: page I.3

Example how to order:  
Type 151-50 x 2,8 KB **EL** ...

Type of order:

Plastic journal bearing with  
slide bearing bushes made from  
stainless steel

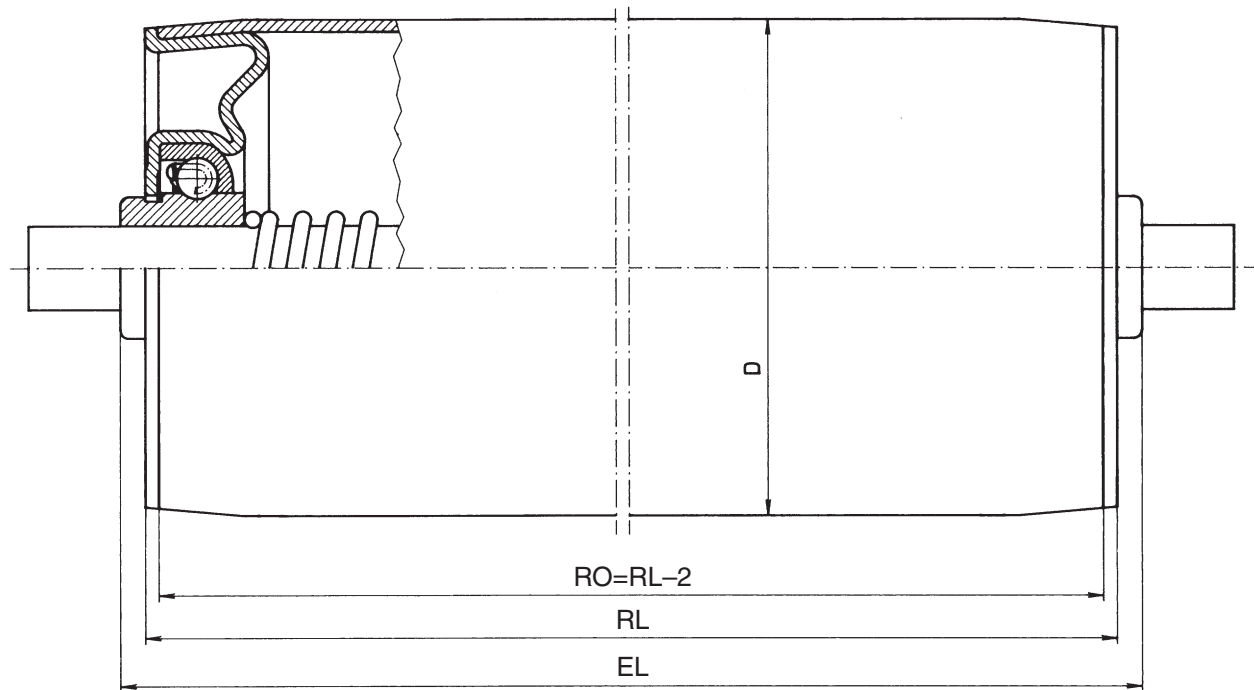
**Type 151**





# Conveyor Roller Type 200

Tube Ø 30, 40, 50, 60, 80



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
6	RL +	16			6		6
8	RL +	19			6		6
10	RL +	18		6	6	6	6
S 11	RL +						6
10	RL +	20		6	6	6	6

Type 200 – 30 only for shaft A 6, A8 and A 10 deliverable

The conveyor roller bearings consist of pressed steel with single ball row and cage.

Load capacity: 80 daN/bearing  
tube Ø 30 30 daN/bearing

Type of tube: page I.3

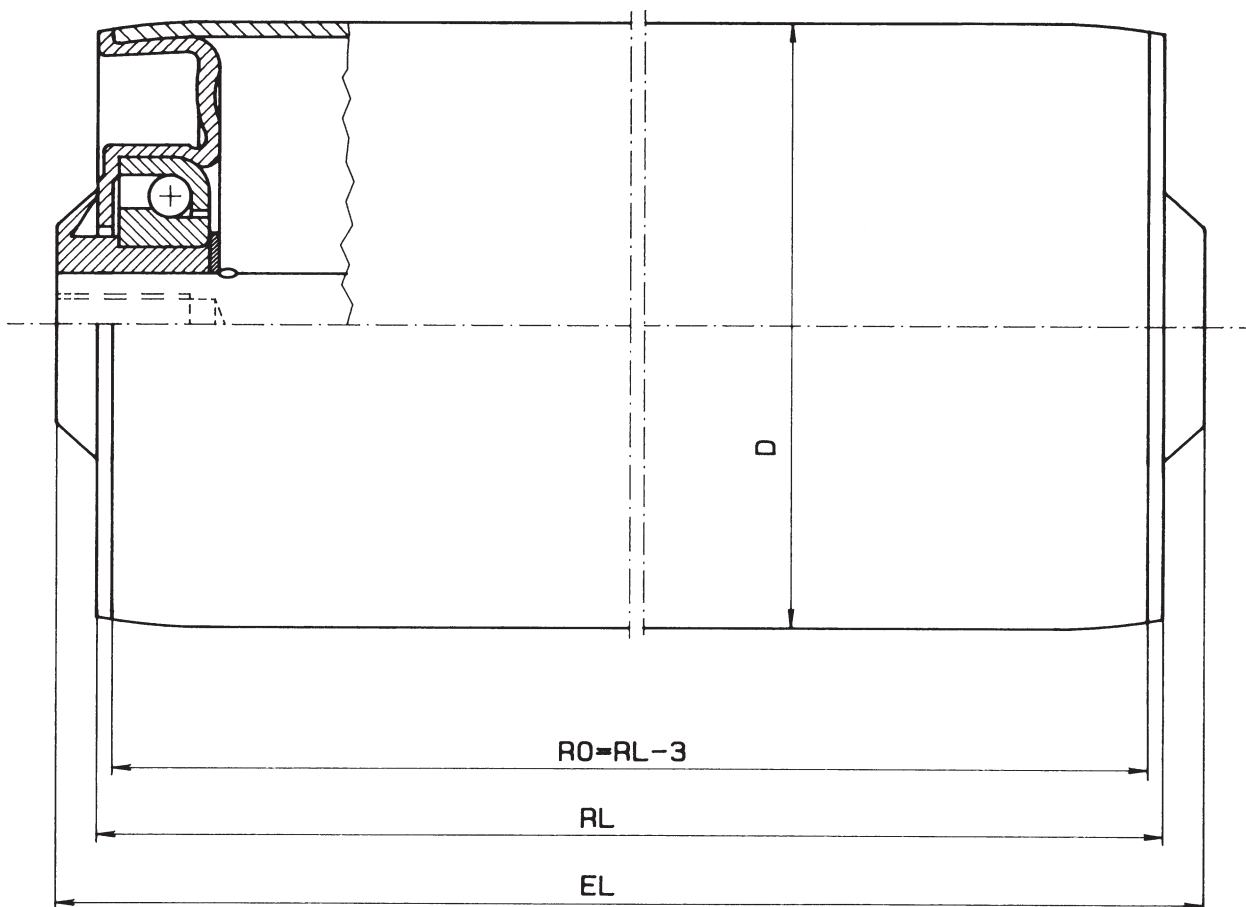
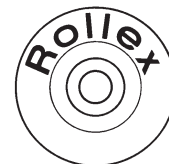
Type of shaft: page I.4

Example how to order:  
Type 200-50 x 1,5 STI A 10 FA **EL** ...



# Conveyor Roller Type 220

Tube Ø 50, 60, 80



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
10	RL +	22	10	10	10	10	10
12	RL +	24		10	10	10	10
15	RL +	26		10	10		

The conveyor roller bearings consist of pressed steel with conus ball-bearing.

The distance bushes for the various shaft diameters consist of synthetic material. (Shaft A 15 without distance bushes)

Load capacity: 120 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

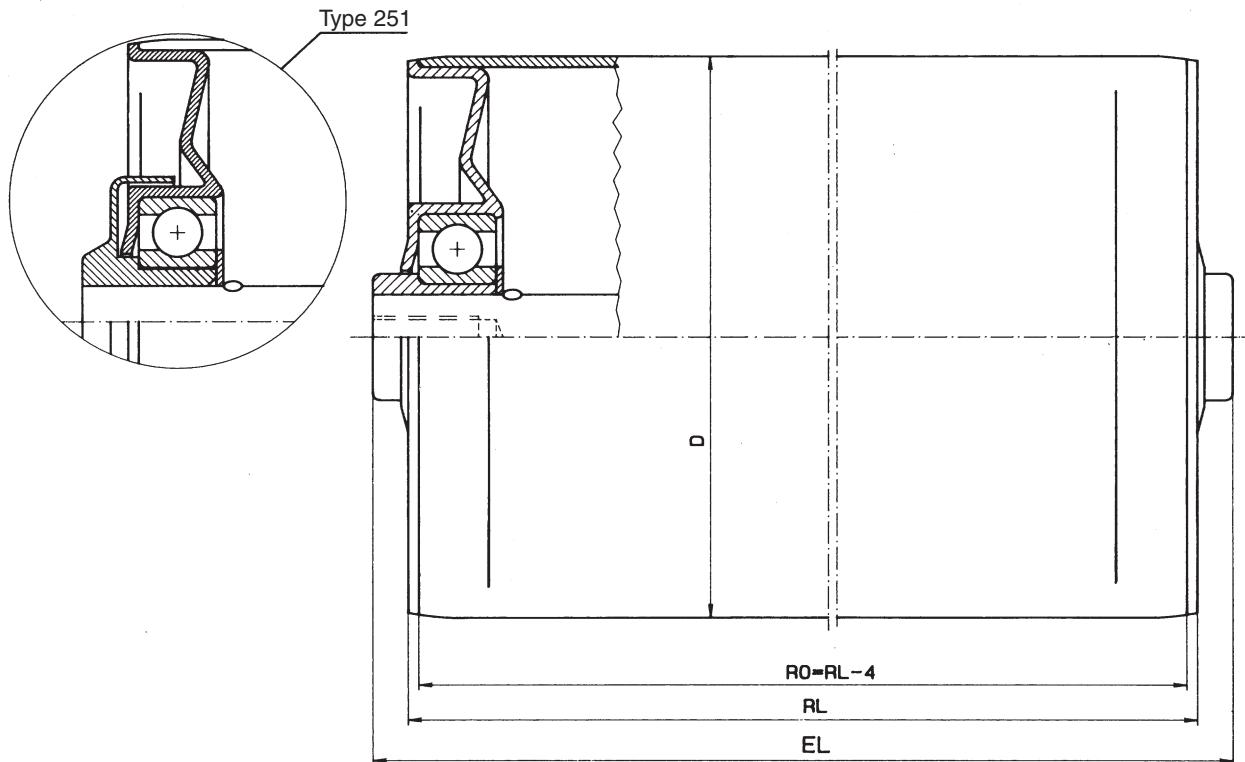
Example how to order:  
Type 220-50 x 1,5 ST A 12 IGM 8 **EL** ...





# Conveyor Roller Type 250

Tube Ø 40, 50, 60, 80



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
8	RL +	23			10		10
10	RL +	22	10	10	10	10	10
12	RL +	24	10	10	10	10	10
14	RL +	26	10	10	10	10	10
15	RL +		10	10		10	
17	RL +	26		10		10	

The conveyor roller bearings consist of pressed steel with grooved ball-bearing.

The distance bushes for the various shaft diameters consist of synthetic material.

Shaft 15 + 17 without distance bush

Tube 40 mm only shaft 12 without distance bush

Type 251 not possible with shaft 17

Load capacity: 120 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 250-50 x 1,5 ST A 12 IGM 8 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing  
6001, 6003 or 6202

**Type 250**

Grooved ball-bearing  
6001 Z, 6003 Z or 6202 Z

**Type 250 Z**

Grooved ball-bearing  
6001 RS, 6003 RS or 6202 RS

**Type 250 RS**

Grooved ball-bearing  
6003 or 6202  
with plastic flooring

**Type 251**

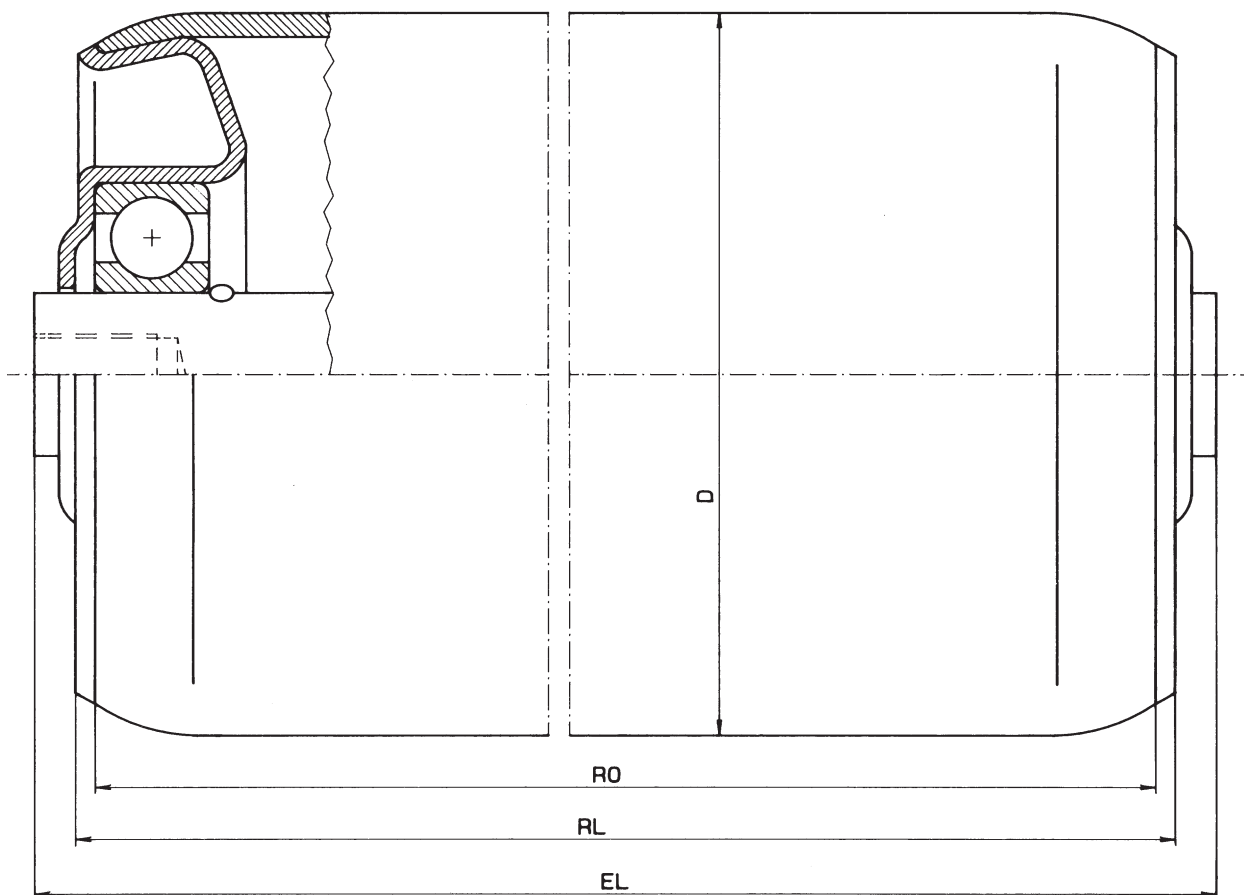
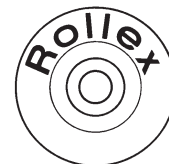
Grooved ball-bearing  
6003 RS or 6202 RS  
with plastic flooring

**Type 251 RS**



# Conveyor Roller Type 260

Tube Ø 63.5, 80, 88.9, 108



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
17	RL +	22		6		6	
20	RL +	24		6		6	
25	RL +			6		6	

Tube Ø 63.5 only with shaft A 20

The conveyor roller bearings consist of pressed steel with grooved ball-bearing.

Load capacity: 300 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 260-88.9 x 2,9 ST A 20 IGM 10 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing  
6004, 6005, 6204 or 6303

**Type 260**

Grooved ball-bearing  
6004 Z, 6005 Z, 6204 Z or 6303 Z

**Type 260 Z**

Grooved ball-bearing  
6004 RS, 6005 RS, 6204 RS or 6303 RS

**Type 260 RS**

Grooved ball-bearing  
6004, 6005, 6204 or 6303  
with felt-ring packing

**Type 261**

Grooved ball-bearing  
6004 Z, 6005 Z, 6204 Z or 6303 Z  
with felt-ring packing

**Type 261 Z**

Grooved ball-bearing  
6004 RS, 6005 RS, 6204 RS or 6303 RS  
with felt-ring packing

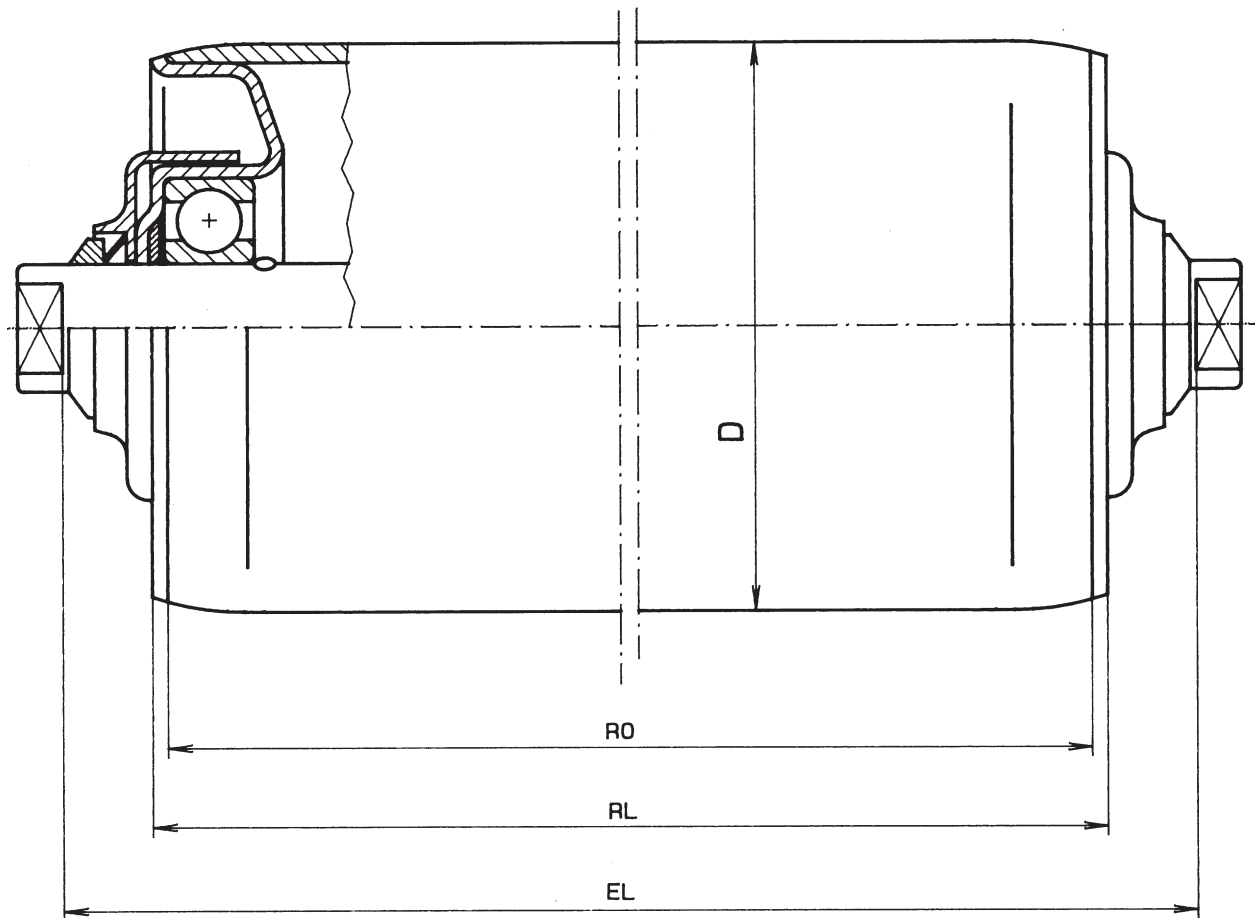
**Type 261 RS**





# Conveyor Roller Type 270

Tube Ø 80, 88.9, 108



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
20	RL +	39		21		21	
25	RL +			21		21	

The conveyor roller bearings consist of pressed steel with grooved ball-bearing, felt-ring packing, plastic-flooring and V-ring.

Load capacity: 300 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 270-80 x 2 STI A 20 SW 15 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6204

**Type 270**

Grooved ball-bearing 6204 Z

**Type 270 Z**

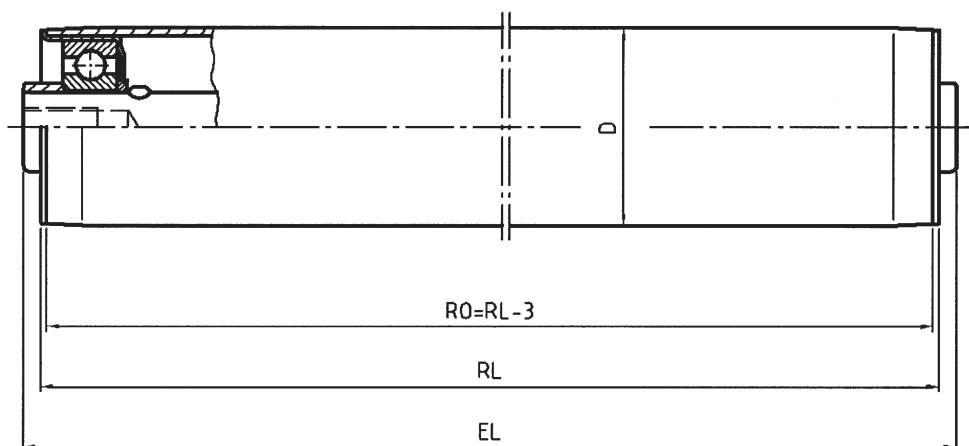
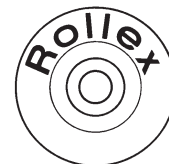
Grooved ball-bearing 6204 RS

**Type 270 RS**



# Conveyor Roller Type 290

Tube Ø 40



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
8	RL +				7		7
10	RL +	19	7	7	7	7	7
S 11	RL +						7
12	RL +	21	7	7	7	7	7
14	RL +	23	7	7	7	7	7
15	RL +		7	7	7	7	

The conveyor roller bearings consist of pressed steel with grooved ball-bearing and plastic-flooring. The conveyor roller bearings are also in thermoplastic synthetic material deliverable.

Load capacity: 60 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 290I-40 x 1,5 STI A 12 IGM 8 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202

**Type 290**

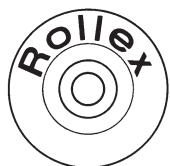
Grooved ball-bearing 6202 Z

**Type 290 Z**

Grooved ball-bearing 6202 RS

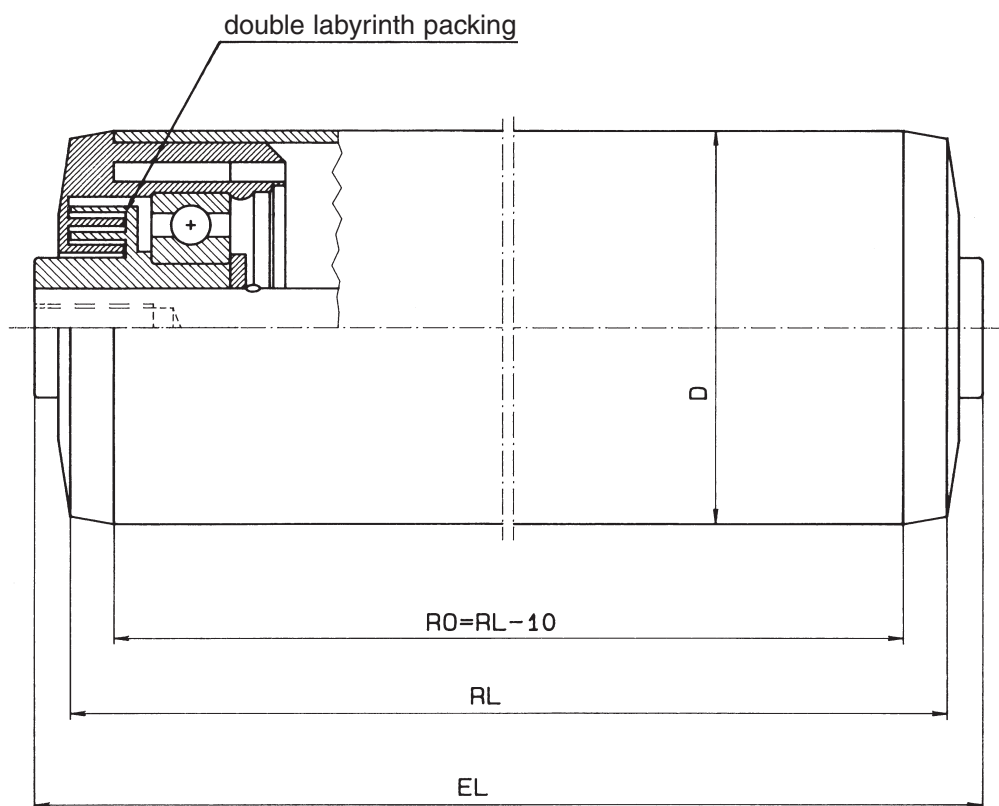
**Type 290 RS**





## Conveyor Roller Type 300

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
8	RL +	23			10		10
10	RL +	22	10	10	10	10	10
S 11	RL +						10
12	RL +	24		10	10	10	10
14	RL +	26		10	10	10	10

The conveyor roller bearings consist of thermoplastic synthetic material with grooved ball-bearing.

Load capacity: 120 daN/bearing  
Type 300 D 30 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 300-50 x 1,5 ST A 12 IGM 8 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202 **Type 300**

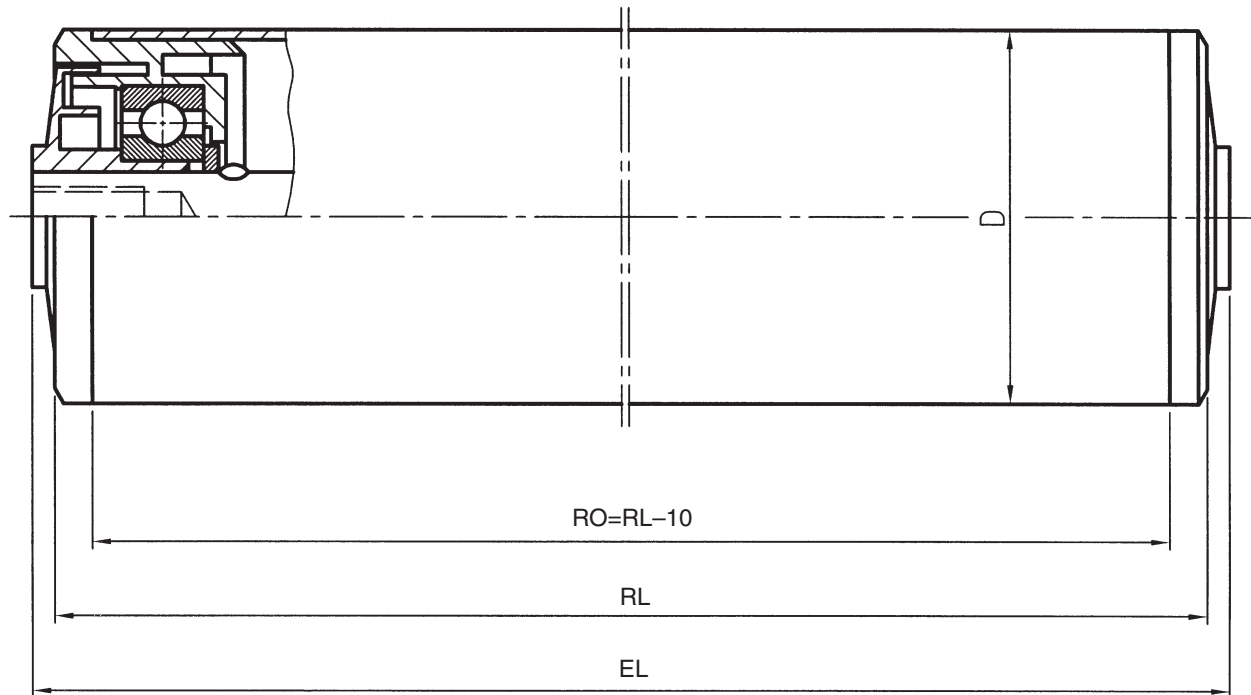
Grooved ball-bearing 6202 RS **Type 300 RS**

Grooved ball-bearing 6202 made from plastic with stainless steel balls W-Nr. 4401 **Type 300 D**



# Conveyor Roller Type 301

Tube Ø 50, 60, 63, 63.5, 70, 80, 88.9



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
10	RL +	18	6	6	6	6	
12	RL +	22	8	8	8	8	
14	RL +	24	8	8	8	8	
15	RL +	23	7	7	7	7	
17	RL +	21	5	5	5	5	

The conveyor roller bearings consist of thermoplastic synthetic material with grooved ball-bearing.

Load capacity: 120 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 301-50 x 1,5 ST A 12 IGM 8 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202

**Type 301**

Grooved ball-bearing 6202 RS

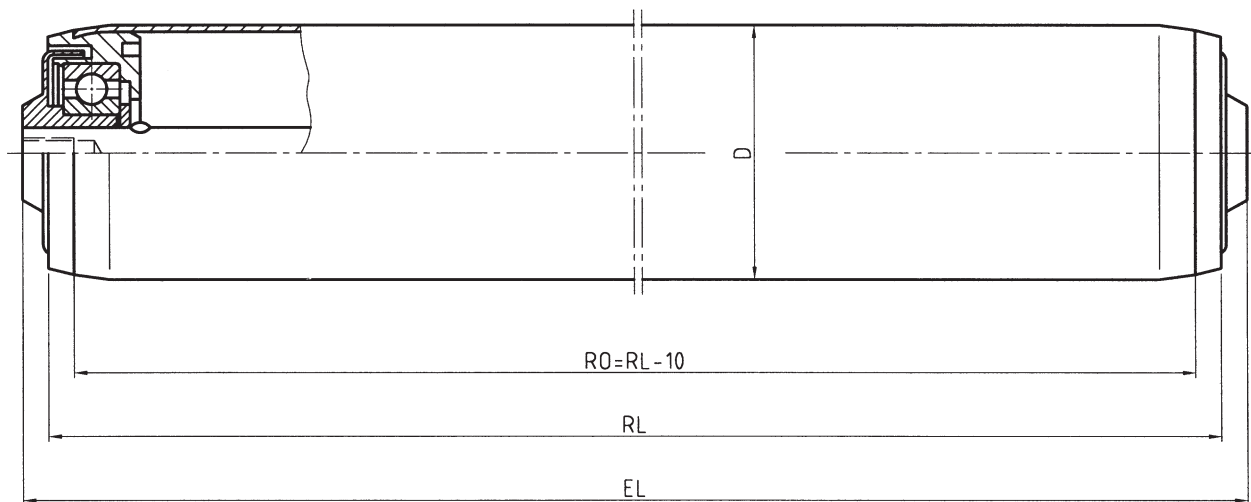
**Type 301 RS**





# Conveyor Roller Type 302

Tube Ø 50, 60



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
10	RL +	22	10	10	10	10	10
S 11	RL +						10
12	RL +	24	10	10	10	10	10
14	RL +	26	10	10	10	10	10
15	RL +	26	10	10	10	10	

The conveyor roller bearings (antistatic) consist of thermo-plastic synthetic material with grooved ball-bearing and plastic-flooring.

Load capacity: 80 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 302-50 x 1,5 STI A 12 IGM 8 **EL** ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202

**Type 302**

Grooved ball-bearing 6202 Z

**Type 302 Z**

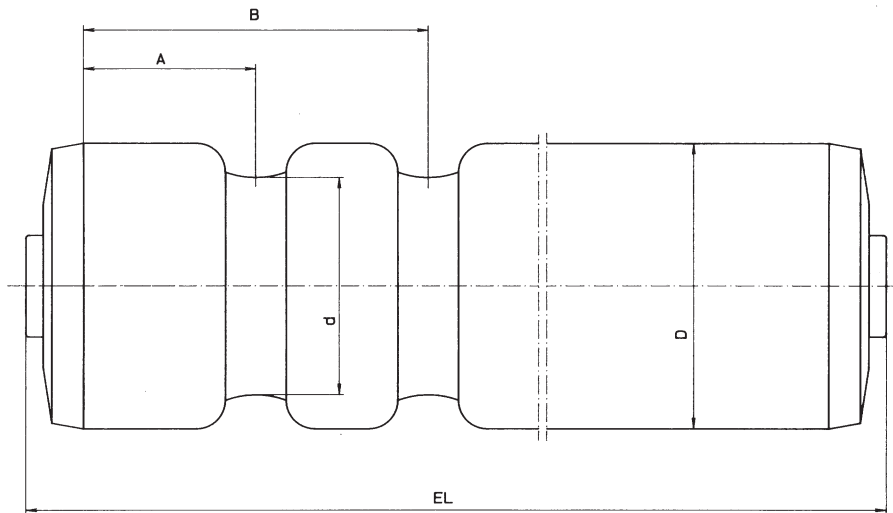
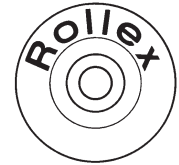
Grooved ball-bearing 6202 RS

**Type 302 RS**

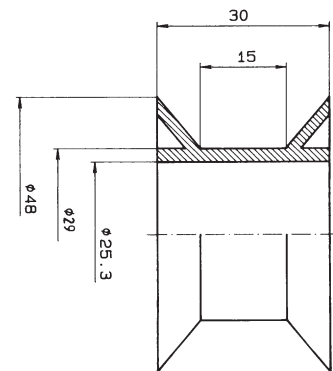


# Conveyor Roller Type 306

Tube Ø 30, 40, 48, 50, 60, 63, 63.5, 80, 88.9, 108



round belt wheel



wheel even for  
shaft Ø 35 mm  
available

Steel tube									Plastic tube				
Belt Ø	4	4	5	6	6	6	6	8	8	4	4	5	5
Tube Ø	30	40	48	50	60	63.5	80	88.9	108	30	40	50	63
A min	30	30	30	30	35	35	35	35	35	35	35	30	35
(B – A) min	30	30	30	30	35	35	35	35	35	30	30	30	35
d min	22	32	38	38	48	51	68	73	92	22	32	40	53

Special sizes upon request. These conveyor rollers are protected against electrostatic charges. Niro tubes on request.

Conveyor roller for round belt drives available for round belts  
Ø 4, 5, 6 or 8 mm with one or several grooves.

Load capacity see corresponding types.

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 306/300-50 x 1,5 STI A 12 IGM 8 **EL** ...  
A = ..., d = ...

Type 307/300-50 x 1,5 STI A 12 IGM 8 **EL** ...  
A = ..., B = ..., d = ...

Type 307 with 2 grooves

Type 308 with 3 grooves

Type 309 with 4 or more grooves

The choice of bearing provides the type of order:

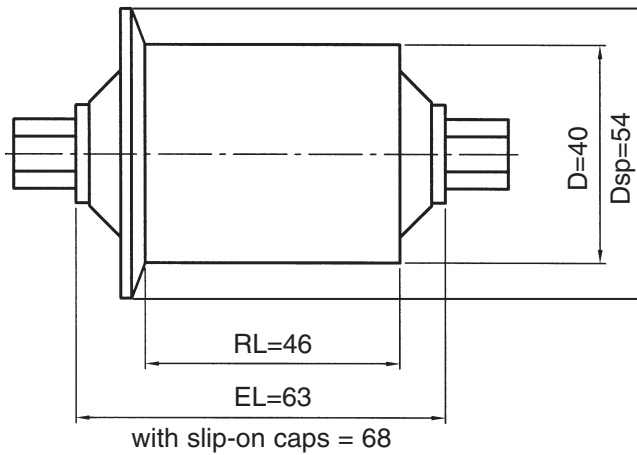
Bearing	Type
Type 200	<b>306/200</b>
Type 250	<b>306/250</b>
Type 260	<b>306/260</b>
Type 300	<b>306/300</b>
Type 302	<b>306/302</b>
Type 400	<b>306/400</b>
Type 401	<b>306/401</b>



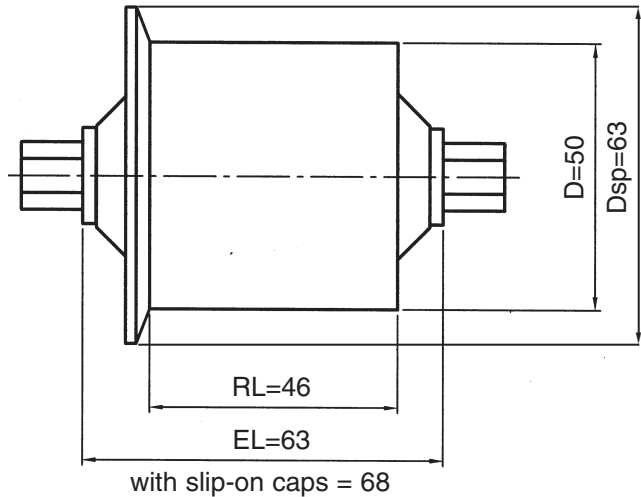


# Conveyor Roller Type 320

## Type 320-40 KS



## Type 320-50 KS



The roller type 320 is usable as roller in a pallet-rail as well as for flat-belt guidance.

Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
8	RL +			17	17	17	
10	RL +			17	17	17	
S 11	RL +				17		
12	RL +			17	17	17	
14	RL +			17	17	17	

The conveyor roller bearings consist of thermoplastic synthetic material with ball bearing and plastic-flooring. The tube consists of black plastic with one guide flange.

Load capacity: 60 daN/bearing

Type of shaft: page I.4

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202

**Type 320**

Grooved ball-bearing 6202 Z

**Type 320 Z**

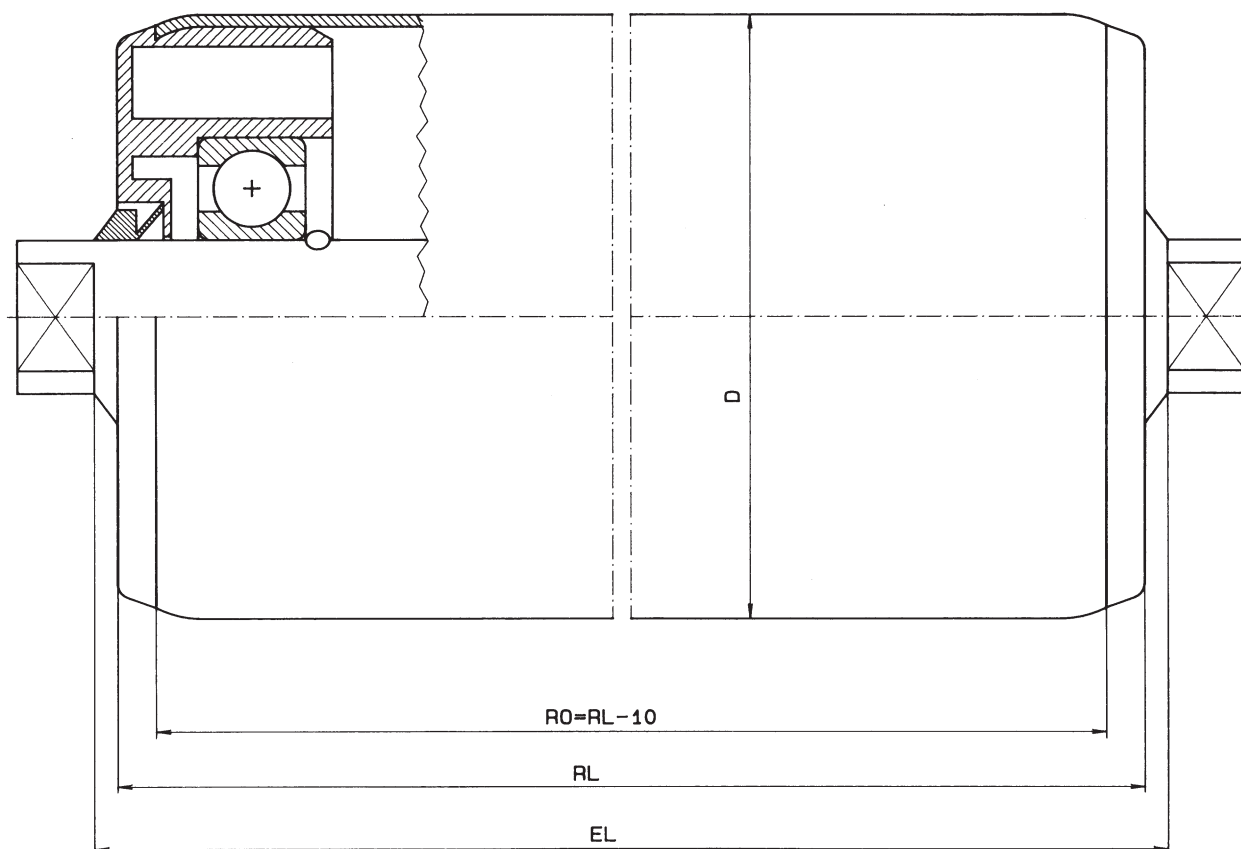
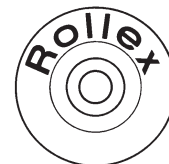
Grooved ball-bearing 6202 RS

**Type 320 RS**



# Conveyor Roller Type 400

Tube Ø 50, 60, 63.5, 80, 88.9, 90, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	24	6	6		6	
25	RL +		6	6		6	

Shaft Ø 25 mm available for tube from Ø 88.9 mm.

The conveyor roller bearings consist of thermoplastic synthetic material sealed with V-rings.

The end of shaft are available with plastic or sintered metal slip-on caps.

Load capacity: 180 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 400-88,9 x 2,9 ST A 20 SW 15 x 10 EL ...

The choice of ball-bearing provides the type of order:

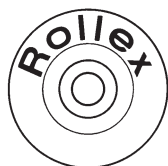
Grooved ball-bearing  
6004, 6005, 6204 or 6205

**Type 400**

Grooved ball-bearing  
6004 RS, 6005 RS, 6204 RS or 6205 RS

**Type 400 RS**





# Conveyor Roller Type 400

for belt conveyor DIN 15207 with length of tube DIN 22107

**End of shaft construction:** Ø 20 old standard SW 15 x 10/13  
 Ø 25 old standard SW 18 x 10/13  
 Ø 20 new standard SW 14 x 10/13

Order without specification will be delivered to the old standard.

Upper conveyor roller									
Tube-Ø	Shaft-Ø	Roller length mm, EL = RL + 6 mm							
63,5	20	132	165	200	250	315	380	465	530
80	20		165	200	250	315	380	465	530
88,9	20 + 25		165	200	250	315	380	465	530
108	20 + 25		165	200	250	315	380	465	530
133	20 + 25				250	315	380	465	530
Lower conveyor roller									
63,5	20	400	500	600	750	950	1150	1400	
80	20	400	500	600	750	950	1150	1400	
88,9	20 + 25	400	500	600	750	950	1150	1400	1600
108	20 + 25	400	500	600	750	950	1150	1400	1600
133	20 + 25	400	500	600	750	950	1150	1400	1600

Guide pulley will be delivered with one end closed roller housing.

Various shaft-sizes or tube-sizes and shafts with different external thread and internal thread available.

Selection table	Roller length DIN 22107 mm							
Width of belt mm	300	400	500	650	800	1000	1200	1400
Lower conveyor roller	400	500	600	750	950	1150	1400	1600
Upper conveyor roller two-piece	200	250	315	380	465	600	700	—
Upper conveyor roller three-piece	132	165	200	250	315	380	465	530

Conveyor roller stations (page VII.2) upon request.

SW 30 as plastic slip-on cap for shaft Ø 20 SW 15 (page I.4).

Back-up rings and buffer rings available in all sizes and constructions (page IX.3).

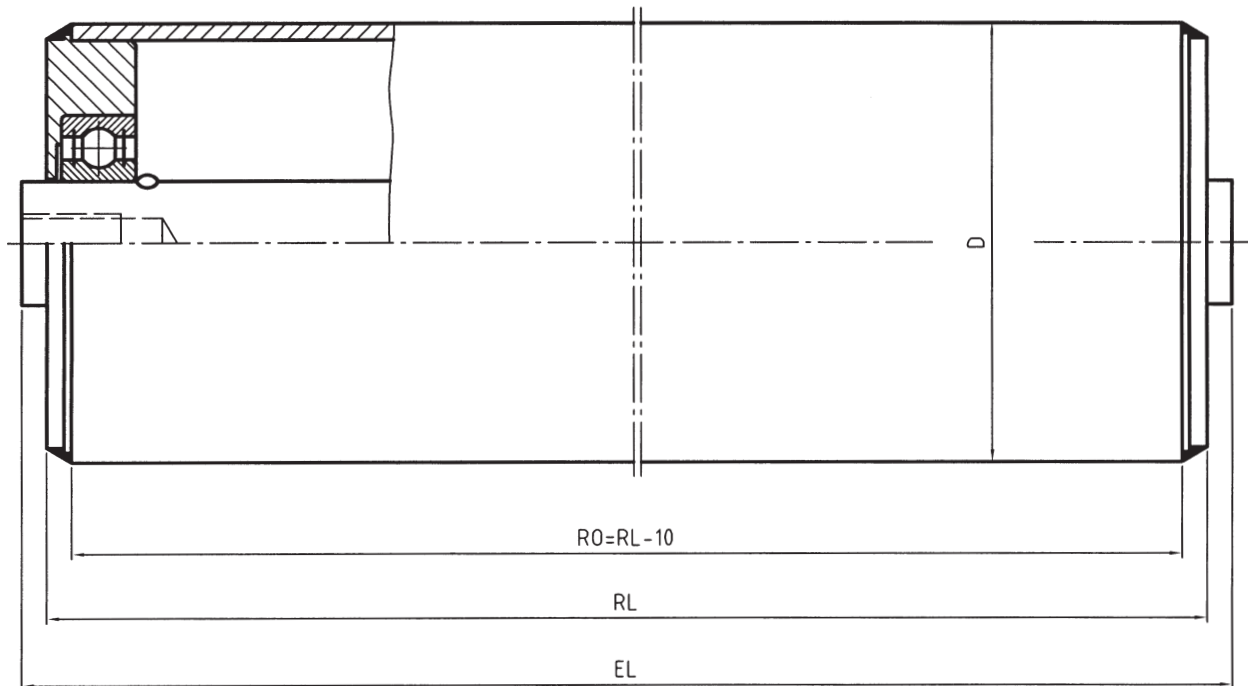
Example how to order:  
 Type 400-88.9 x 2,9 ST A 20 SW 15 x 10 **EL** ...

Length of roller: RL = 500 mm  
 Length of installation: EL = 506 mm



# Conveyor Roller Type 400 ST

Tube Ø 63.5, 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	26	6	6		6	
25	RL +		6	6		6	

The conveyor roller bearings consist of a lathed steel bearing with ball bearing site. The steel bearing is welded to the tube. This bearing is also available in stainless steel, W.-No.: 1.4305.

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 400 ST-133 x 3,6 STI A 20 SW14 x 13, EL...

Specials available upon request

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6204, 6005

**Type 400 ST**

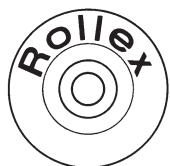
Grooved ball-bearing 6204 Z, 6005 Z

**Type 400 ST Z**

Grooved ball-bearing 6204 RS, 6005 RS

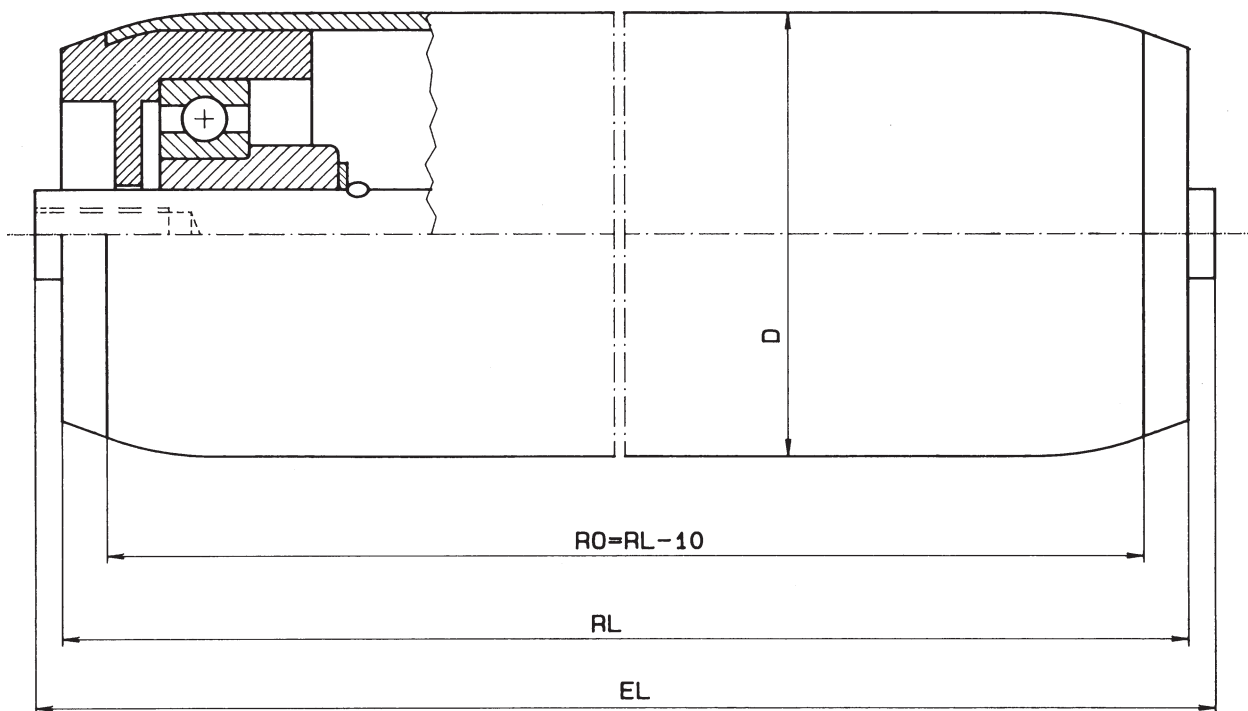
**Type 400 ST RS**





# Conveyor Roller Type 401

Tube Ø 40, 50



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
8	RL +	19					
10	RL +	18		6		6	
12	RL +	20		6		6	
14	RL +	22		6		6	
17	RL +	22		6		6	

The conveyor roller bearings consist of thermoplastic synthetic material with grooved ball-bearing and can be sealed with V-rings.

Load capacity: 120 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 401 RS-40 x 1,5 STI A 12 IGM 8 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6003 or 6202

**Type 401**

Grooved ball-bearing 6003 Z or 6202 Z

**Type 401 Z**

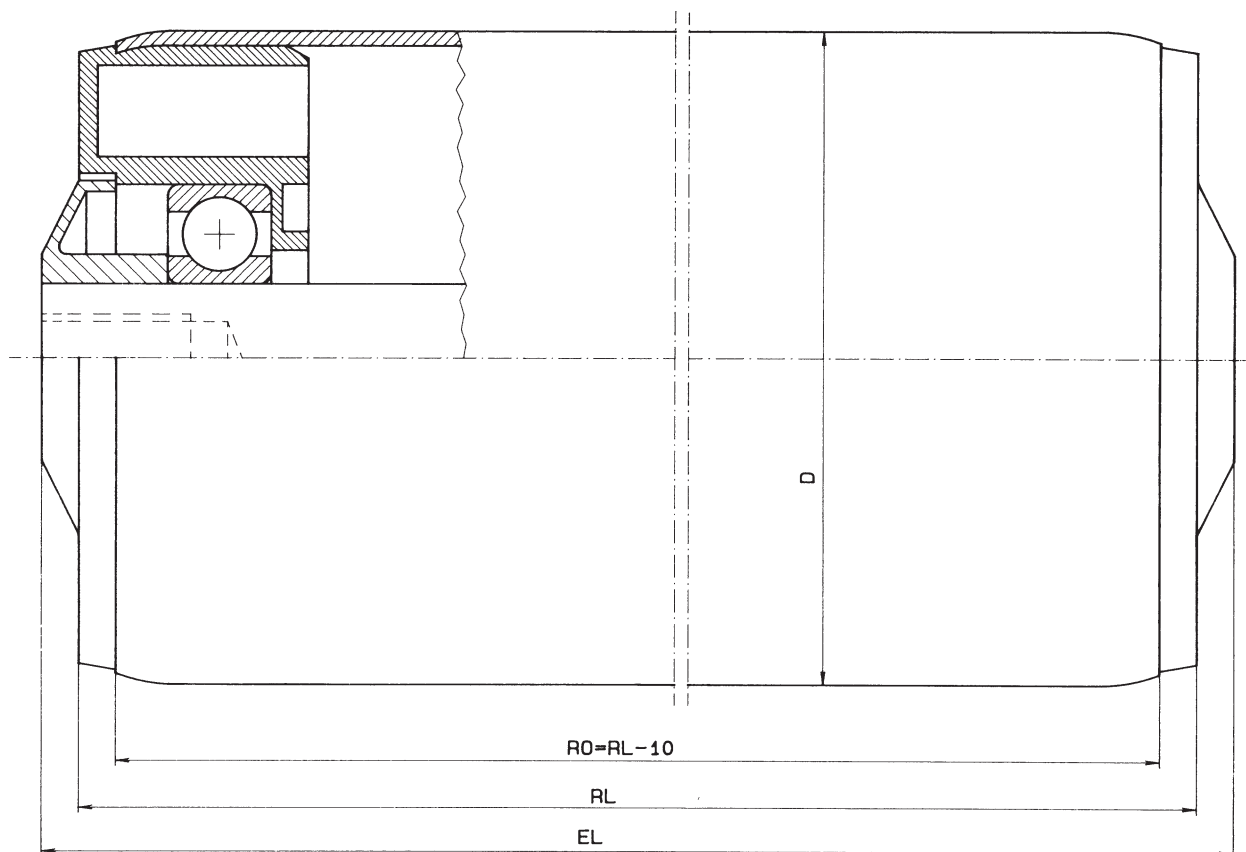
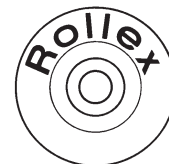
Grooved ball-bearing  
6003 RS or 6202 RS

**Type 401 RS**



# Conveyor Roller Type 402

Tube Ø 40, 60, 63.5, 80, 88.9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
8	RL +	23			10		
10	RL +	22		10	10	10	
12	RL +	24		10	10	10	
14	RL +	26		10	10	10	
17	RL +	26		10	10	10	
20	RL +	28		10	10	10	

Shaft A 8-14 only with tube Ø 40, without cover cap.

The conveyor roller bearings consist of thermoplastic synthetic material with grooved ball-bearing and cover cap.

Load capacity: 180 daN/bearing  
Tube Ø 40 mm 40 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 402-80 x 2 ST A 20 IGM 10, EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing  
6002 Z, 6204 or 6303

**Type 402**

Grooved ball-bearing  
6002 RS, 6204 RS or 6303 RS

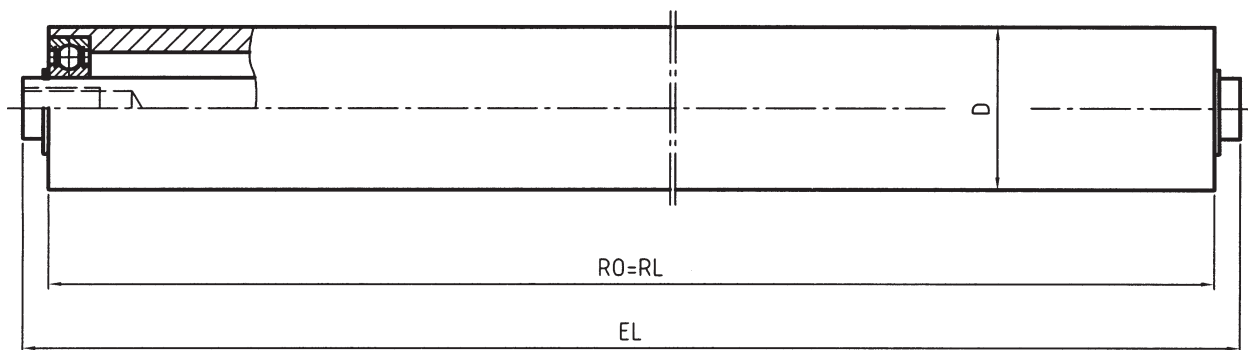
**Type 402 RS**





# Conveyor Roller Type 402 K

Tube Ø 40, 50



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
15	RL +		6	6		6	
17	RL +		6	6		6	

The conveyor roller bearings will be lathed into a thick-wall tube. Ball bearings pressed into and secured with a safety ring (circlip) on the shaft.

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 K-50x3 STI A20 SW14x13, **EL ...**

Specials upon request

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202 Z, 6003 Z

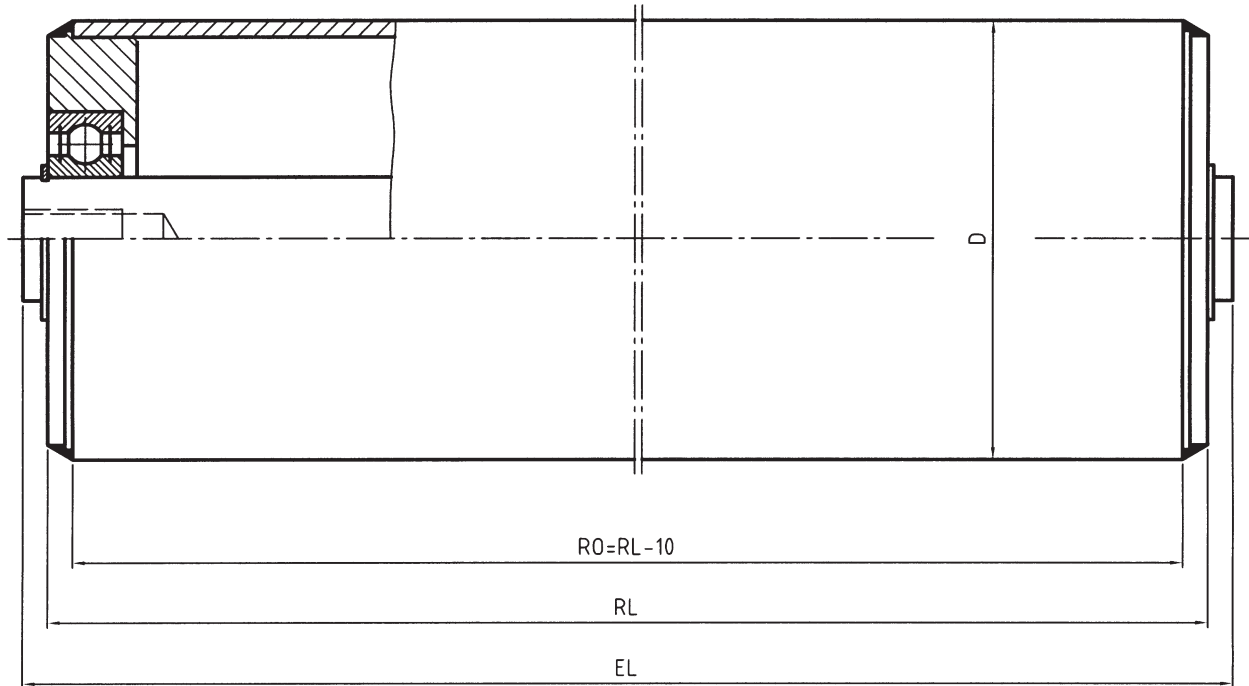
**Type 402 K**

Grooved ball-bearing RS 6202 RS, 6003 RS **Typ 402 K RS**



# Conveyor Roller Type 402 ST

Tube Ø 63.5, 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	26	6	6		6	
25	RL +		6	6		6	

The conveyor roller bearings consist of a lathed steel bearing with ball bearing site. The steel bearing is welded to the tube. This bearing is also available in Stainless steel, W.-No.: 1.4305.

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 ST-133 x 3,6 STI A 20 SW14x13 EL ...

Specials upon request

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6204 Z, 6005 Z **Type 402 ST**

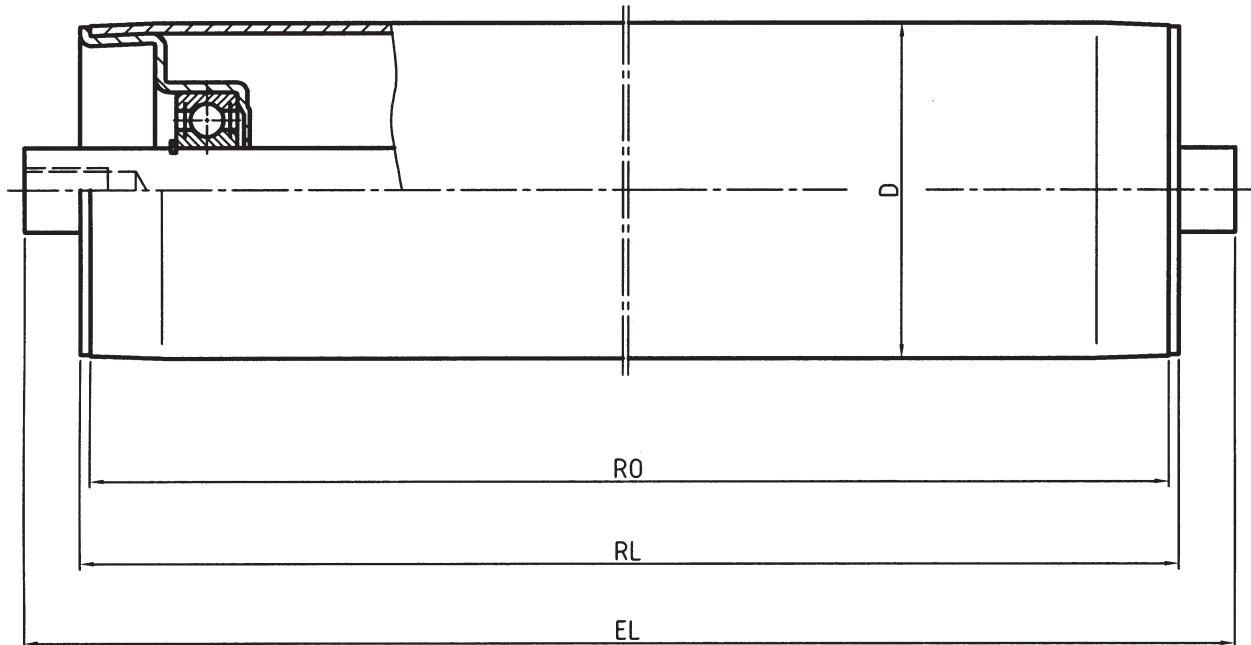
Grooved ball-bearing 6204 RS, 6005 RS **Type 402 ST RS**





# Conveyor Roller Type 402 WT

Tube Ø 50, 60, 63.5, 80, 88.9



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
15	RL +		10	10		10	
17	RL +		10	10		10	
20	RL +		10	10		10	

Shaft 20 mm only with tube dia. 80 and 88,9 mm

The conveyor roller bearings consist of pressed steel with grooved ball bearing

Load capacity: 120 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 WT-60 x 2 STI A20 SW14 x 13 **EL ...**

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6202 Z, 6204 Z

**Type 402 WT Z**

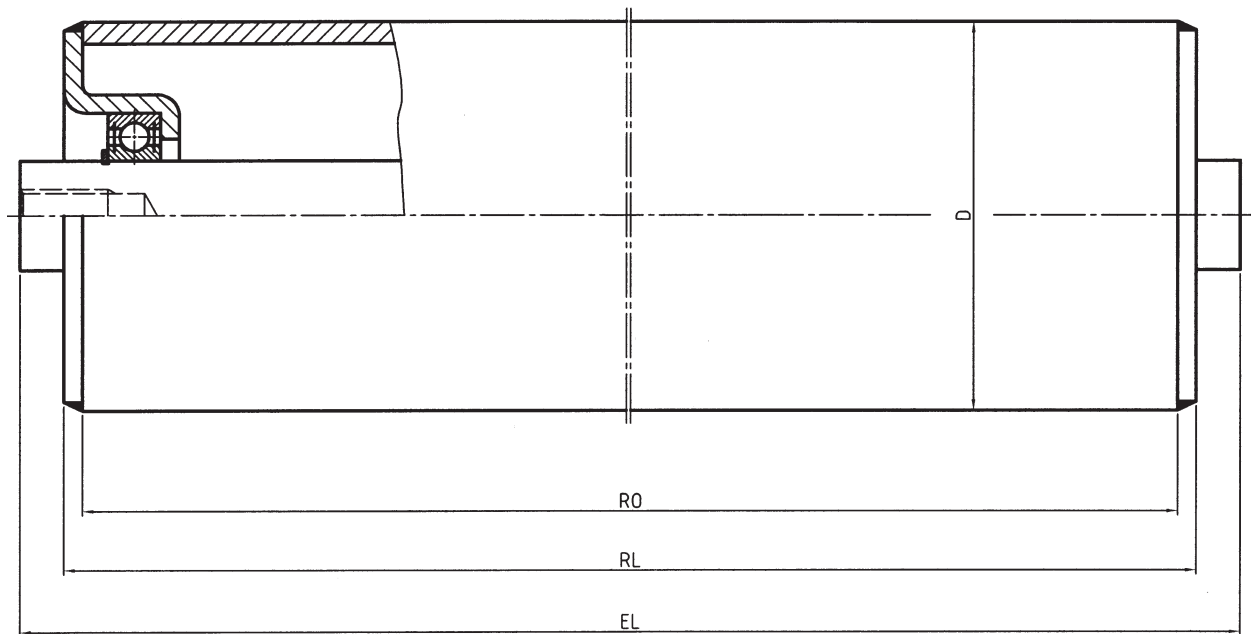
Grooved ball-bearing 6202 RS, 6204 RS


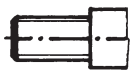

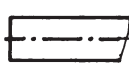


**Type 402 WT RS**



# Conveyor Roller Type 402 WS

Tube Ø 63.5, 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			10		10	
25	RL +			10		10	

The conveyor roller bearings consist of pressed steel with grooved ball bearing.

Load capacity: 300 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 WS-133 x 3,6 STI A20 SW14x13 **EL** ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6204 Z, 6005 Z

**Type 402 WS**

Grooved ball-bearing 6204 RS, 6005 RS

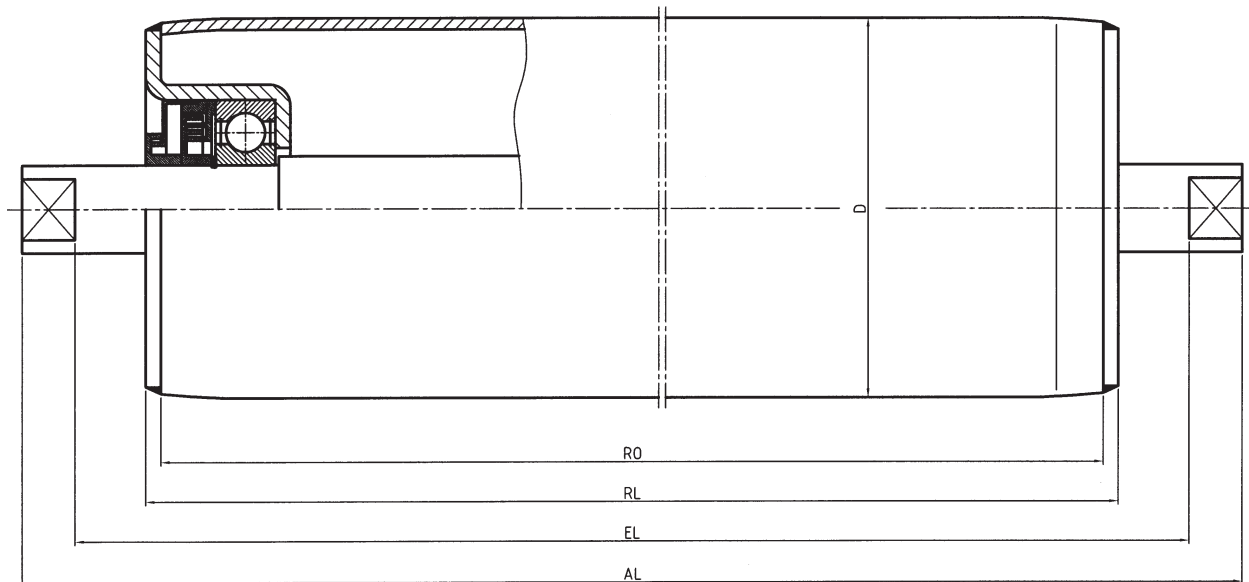
**Type 402 WS RS**





# Conveyor Roller Type 402 WST

Tube Ø 80, 88.9, 108, 133



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
20	RL +			10		10	
25	RL +			10		10	

The conveyor roller bearings consist of pressed steel with grooved ball bearing.

Upon request even available with labyrinth packing.

Load capacity: 180 daN/bearing

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 WST-133x3,6 STI A20 SW14x13 **EL** ...

The choice of ball-bearing provides the type of order:

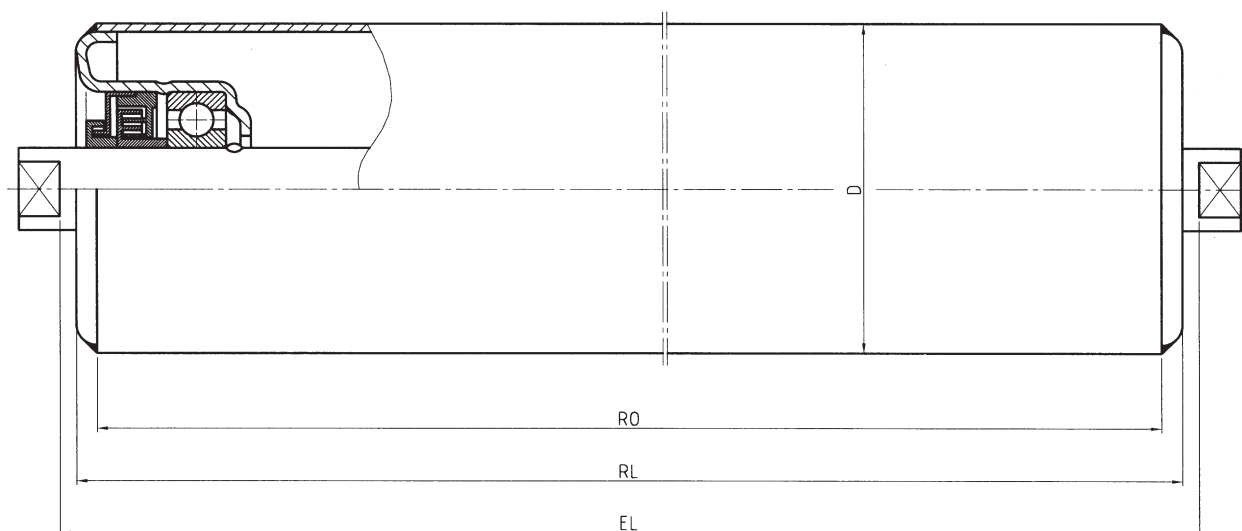
Grooved ball-bearing 6204 Z, 6005 Z **Type 402 WST Z**

Grooved ball-bearing 6204 RS, 6005 RS **Type 402 WST RS**



# Conveyor Roller Type 402 WO

Tube Ø 80, 88.9, 108, 133



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
20	RL +					6	
25	RL +					6	

The conveyor roller bearings consist of pressed steel with grooved ball-bearing and labyrinth packing.

Load capacity: 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 402 WO-88.9 x 2,9 STI A 20 IGM 10 EL ...

The choice of ball-bearing provides the type of order:

Grooved ball-bearing 6204, 6205

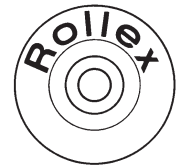
**Type 402 WO**

Grooved ball-bearing 6204 RS, 6205 RS

**Type 402 WO RS**



# Driven Conveyor Roller



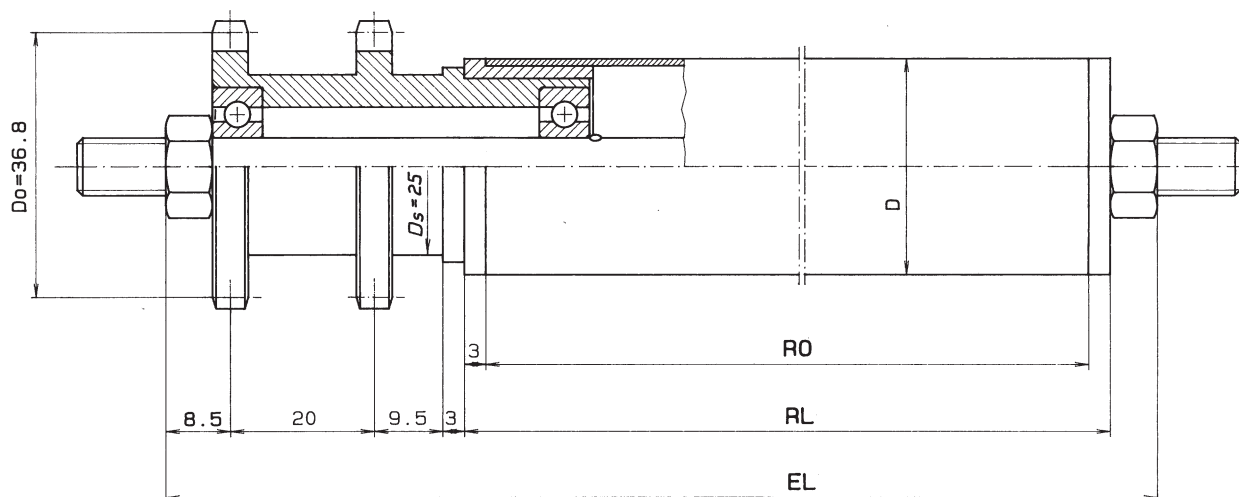
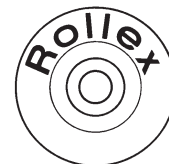
Type		Page
432	Steel double chain sprocket $\frac{3}{8} \times \frac{7}{32}$ " z = 12	1
435	Steel single chain sprocket $\frac{3}{8} \times \frac{7}{32}$ " z = 10	2
437	Steel single chain sprocket $\frac{3}{8} \times \frac{7}{32}$ " z = 10	3
445	Plastic tooth belt wheel 8 M z = 20	4
445 R ST	Steel tooth belt wheel 8 M z = 20	5
447	Steel tooth belt wheel 8 M z = 20	6
450	Plastic single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 11 or z = 9	7
452	Plastic single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 11	8
454	Steel single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 11	9
454 R	Steel single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 11	10
457	Steel single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 11	11
460	Plastic single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 12	12
462	Steel single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 12	13
462 R	Steel single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 12	14
470	Plastic single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	15
480	Plastic double chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	16
500	Steel double chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	17
500 R	Steel double chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	18
502	Steel double chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	19
506	Steel single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	20
506 R	Steel single chain sprocket $\frac{1}{2} \times \frac{5}{16}$ " z = 14	21
510	Steel double chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15 or z = 13	22
511	Steel single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15 or z = 13	23
512	Steel double chain sprocket $\frac{3}{4} \times \frac{7}{16}$ " z = 13	24
513	Steel single chain sprocket $\frac{3}{4} \times \frac{7}{16}$ " z = 13	25
516	Plastic tooth belt wheel with steel core 8 M z = 30	26
517	Plastic tooth belt wheel 8 M z = 30/34	27
517	Plastic tooth belt wheel 8 M z = 24/25	28
518	Plastic double chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 18	29
519	Plastic single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 18	30
520	Steel double chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	31
520 R	Steel double chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	32
521	Steel single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	33
521 R	Steel single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	34
522	Plastic double chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	35
523	Plastic single chain sprocket $\frac{5}{8} \times \frac{3}{8}$ " z = 15	36
533	Steel tooth belt wheel 8 M z = 30/34	37
534	Steel tooth belt wheel 8 M z = 30/34	38

Please note ordering advice on page I.8.



# Conveyor Roller Type 432

Tube Ø 30, 32



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
		Type 50	Type 60	Type 50	Type 60		
8	RL +	51	48	51	48		

The bearing fitting consists of a steel driving element  $\frac{3}{8} \times \frac{7}{32}$  " z = 12 and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

Load capacity: Type 50 14 daN/roller  
Type 60 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Driving element galvanized 432 I ...  
Driving element Niro 432 N ...  
Tube Ø 40 or Ø 50

Example how to order:  
Type 432/60-30 x 1 ST A 8 M 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

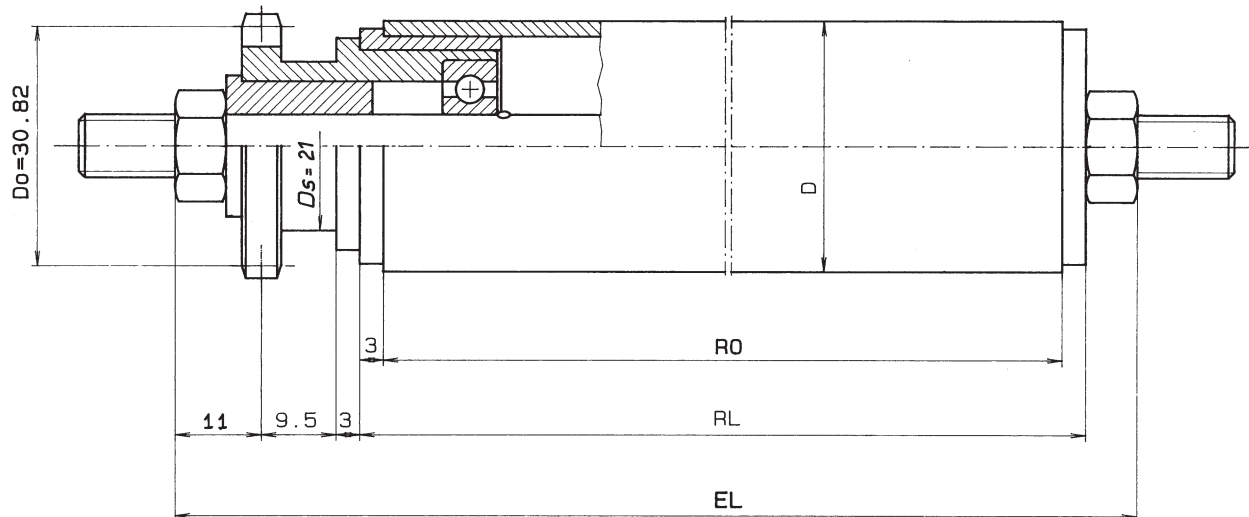
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 608 Z	<b>432</b>	50 / 60
Accumulation drive with grooved ball-bearing 608 RS	<b>432 RS</b>	51 / 60 RS
Positive drive with grooved ball-bearing 608 Z	<b>433</b>	50 / 60
Positive drive with grooved ball-bearing 608 RS	<b>433 RS</b>	51 / 60 RS





# Conveyor Roller Type 435

Tube Ø 30, 32



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...		A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =							
		Type 50	Type 60	Type 50	Type 60			
8	RL +	33	30	33	30			

The bearing fitting consists of a steel driving element  $\frac{3}{8} \times \frac{7}{32}$  z = 10 and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

Load capacity: Type 50 14 daN/roller  
Type 60 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Driving element galvanized 435 I ...  
Driving element Niro 435 N ...  
Tube Ø 40 or Ø 50

Example how to order:  
Type 435/60-30 x 1 STI A 8 M 8 EL ...

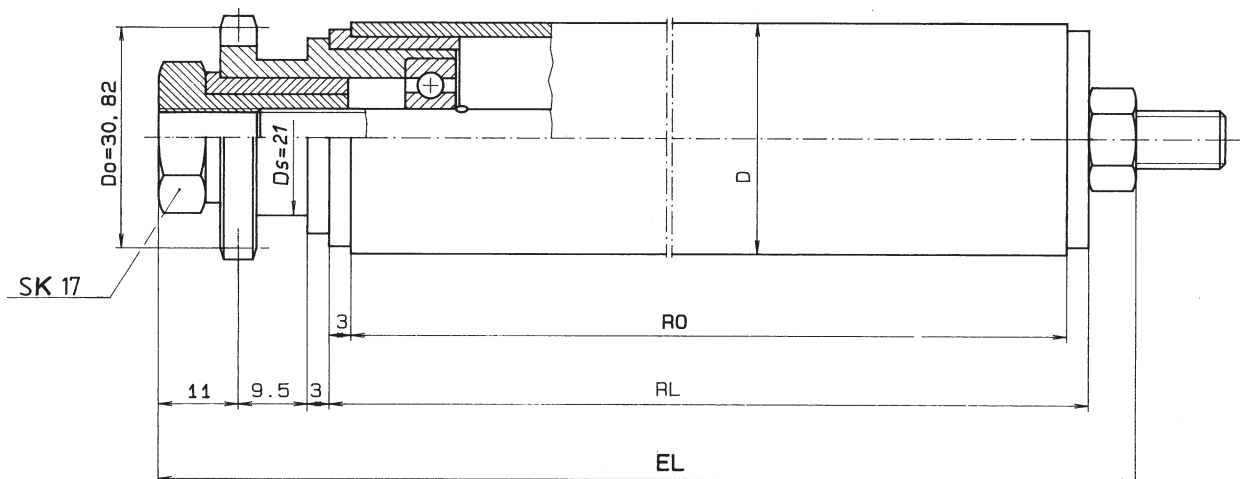
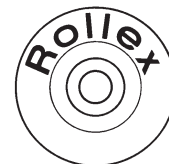
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 608 Z	<b>435</b>	50 / 60
Accumulation drive with grooved ball-bearing 608 RS	<b>435 RS</b>	51 / 60 RS
Positive drive with grooved ball-bearing 608 Z	<b>436</b>	50 / 60
Positive drive with grooved ball-bearing 608 RS	<b>436 RS</b>	51 / 60 RS



# Conveyor Roller Type 437

Tube Ø 30, 32



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
		Type 50	Type 60				
8	RL +	33	30				

The bearing fitting consists of a steel driving element  $\frac{3}{8} \times \frac{7}{32}$  z = 10 and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

Load capacity: Type 50 14 daN/roller  
Type 60 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Driving element galvanized 437 I ...  
Driving element Niro 437 N ...  
Tube Ø 40 or Ø 50

Example how to order:  
Type 437/60-30 x 1 STI A 8 M 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

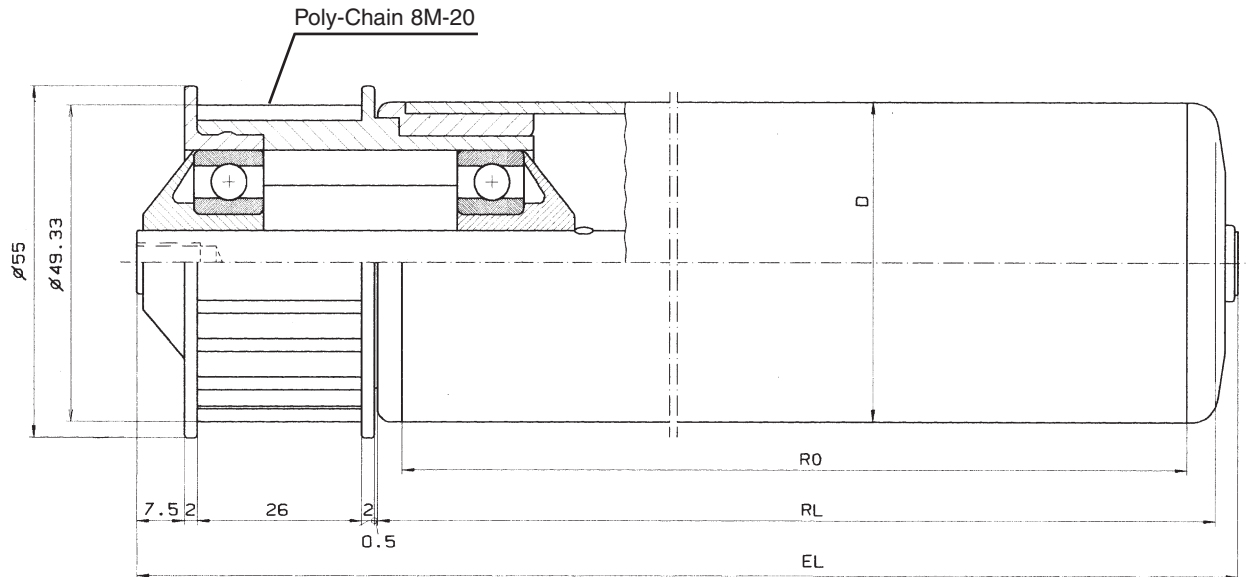
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 608 Z	<b>437</b>	50 / 60
Accumulation drive with grooved ball-bearing 608 RS	<b>437 RS</b>	51 / 60 RS
Positive drive with grooved ball-bearing 608 Z	<b>438</b>	50 / 60
Positive drive with grooved ball-bearing 608 RS	<b>438 RS</b>	51 / 60 RS





# Conveyor Roller Type 445

Tube Ø 50, 60, 63, 63.5, 80



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
12	RL +	58		44			
14	RL +	60		44			
15	RL +	60		44			

The bearing fitting consists of a driving element 8 M z = 20 for tooth belt b = 12, made of thermoplastic synthetic material, and counter bearing.

Load capacity: max. 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belt: page IX.8

Special design:  
Driving element steel Type 445 ST

Example how to order:  
Type 445/300-50 x 1,5 STI A 12 IGM 8 EL ...

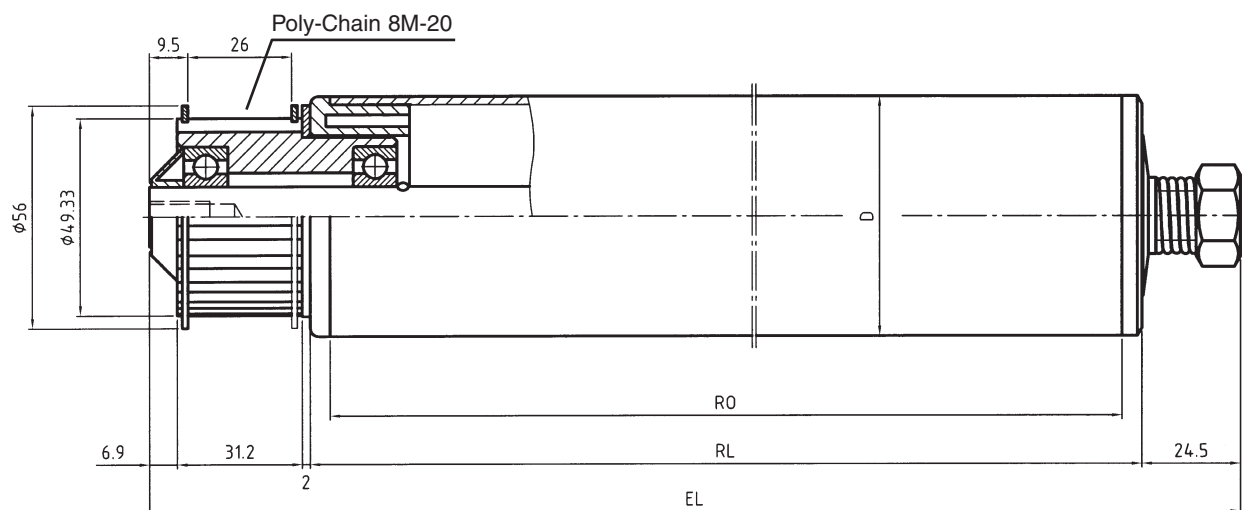
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>445</b>	250 / 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>445 RS</b>	250 RS / 300 RS 302 RS 300 D / 302 D
Positive drive (pressfit) grooved ball-bearing 6202	<b>446</b>	250 / 300 / 302
Positive drive (pressfit) grooved ball-bearing 6202 RS	<b>446 RS</b>	250 RS / 300 RS 302 RS 300 D / 302 D



# Conveyor Roller Type 445 R ST

Tube Ø 50, 60, 63, 63.5, 80



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
15	RL +			64			

The bearing fitting consists of a steel driving element 8 M z 20 for tooth belt b=12, and counter bearing

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belt: page IX.8

Example how to order:

Type 445R ST/301-50 x 1,5 STI A 15 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

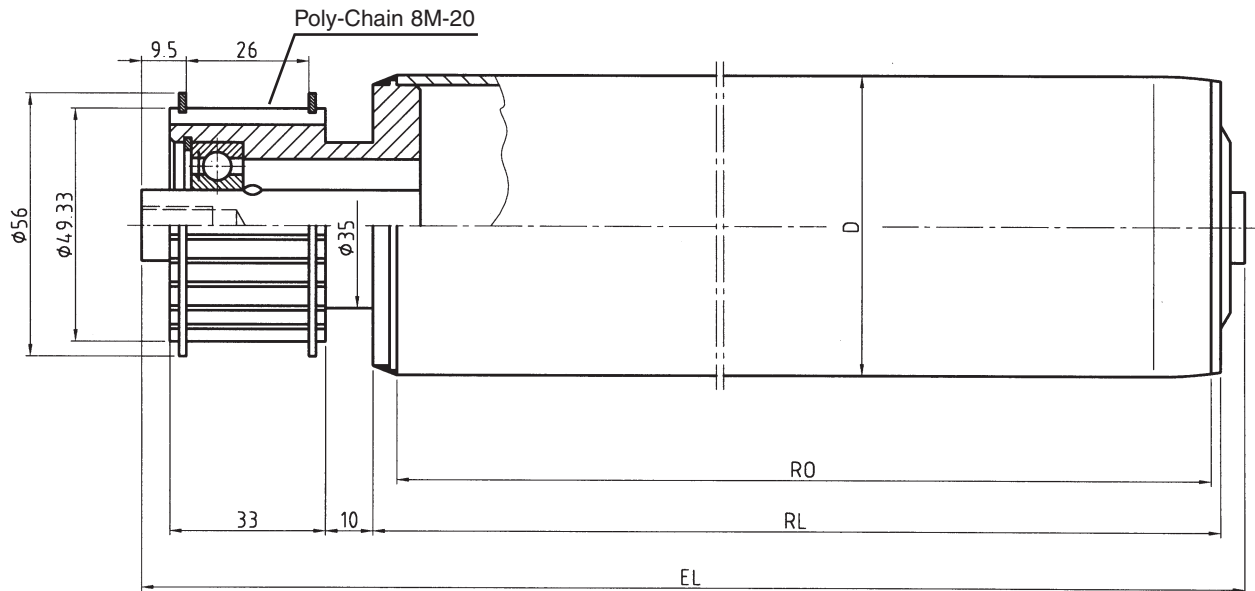
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>445 RST</b>	301 / 402 WT
Accumulation drive with grooved ball-bearing 6202 RS	<b>445 RST RS</b>	301 RS / 402 WT RS





# Conveyor Roller Type 447

Tube Ø 50, 60, 63.5, 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
15	RL +	70		54			
17	RL +	70		54			

The bearing fitting consists of a steel driving element 8 M z = 20 for tooth belt b = 12, and counter bearing.

Load capacity: max. 150 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belt: page IX.8

Special design:  
Driving element galvanized Type 447 I...

Example how to order:  
Type 447/250-80 x 2 ST A 15 IGM 10 **EL** ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order.

Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball- bearing 6202	<b>447</b>	250 / 260 / 302
Positive drive (welded) with grooved ball- bearing 6202 RS	<b>447 RS</b>	250 RS / 260 RS 302 RS



# Conveyor Roller Type 450

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90

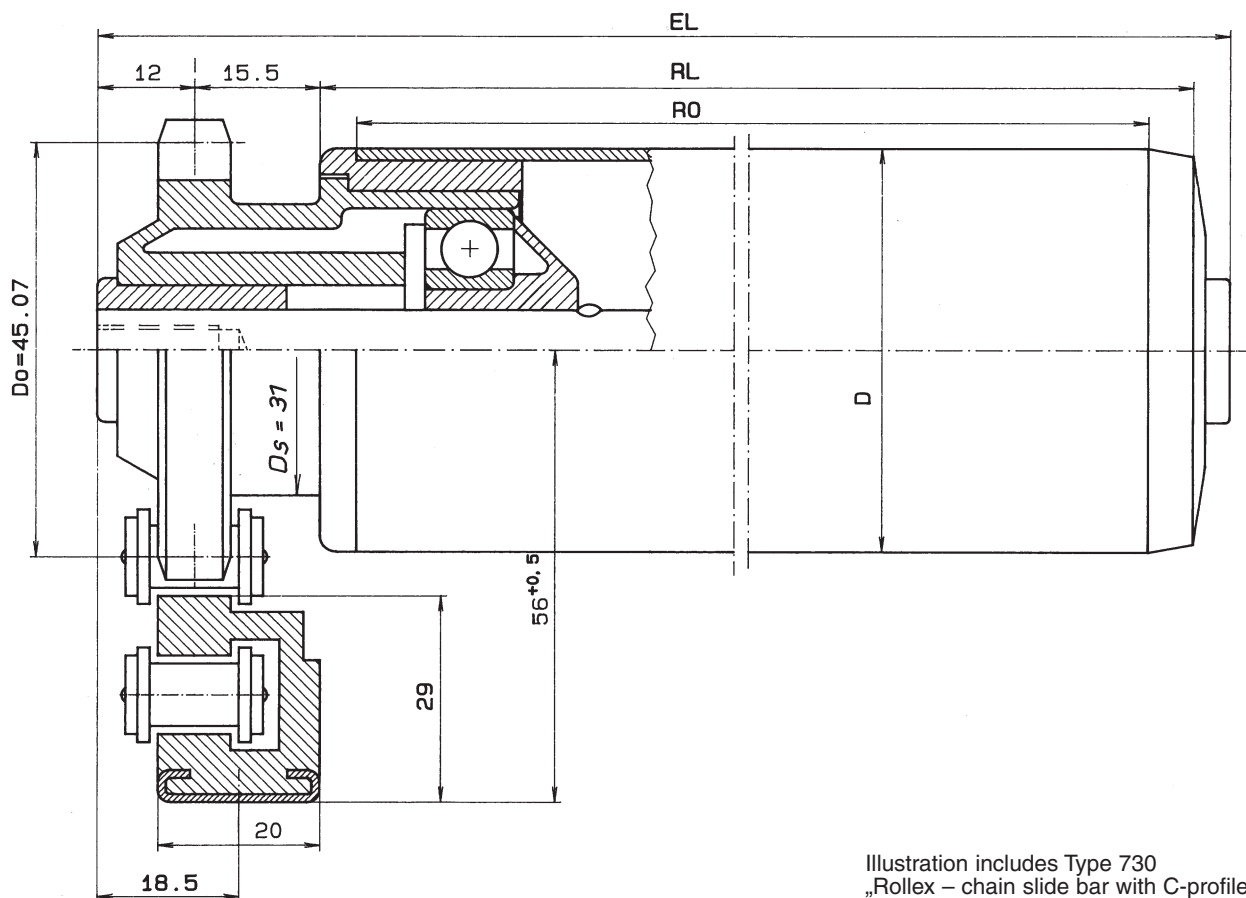
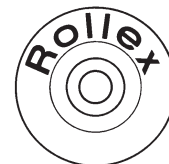


Illustration includes Type 730  
„Rollex – chain slide bar with C-profile“

Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	45					
12	RL +	47		33			
14	RL +	49		33			

The bearing fitting consists of a driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 11 (bolt tooth form) made from thermoplastic synthetic material, and counter bearing.

This type is also available with plastic driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 9 KM-EL = 15,5

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 451 should only be used for continuous transport. As tail sheave conveyor for this type 457 can be used.

Load capacity: max. 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 451/300-63 x 3 KB A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>450</b>	200 / 250 / 280 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>450 RS</b>	250 RS / 300 RS 302 RS
Accumulation drive with grooved ball-bearing 6202 synthetic material with stainless steel balls W-Nr. 4401	<b>450 D</b>	300 D / 302 D
Positive drive (pressfit) with grooved ball-bearing 6202	<b>451</b>	200 / 250 / 280 300 / 302
Positive drive (pressfit) grooved ball-bearing 6202 RS	<b>451 RS</b>	250 RS / 300 RS 302 RS
Positive drive (pressfit) with grooved ball-bearing 6202, synthetic material with stainless steel balls W-Nr. 4401	<b>451 D</b>	300 D / 302 D





# Conveyor Roller Type 452

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90

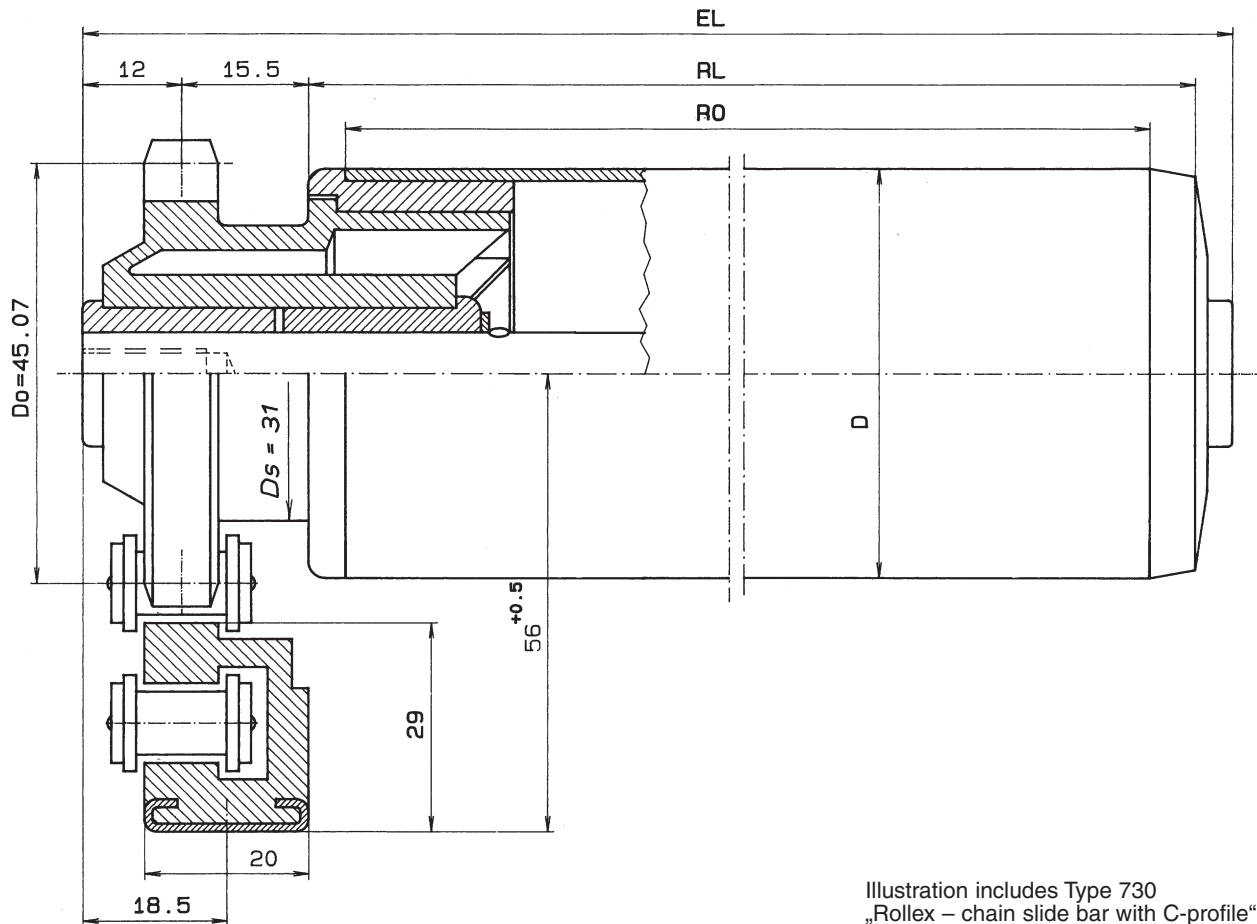


Illustration includes Type 730  
„Rollex – chain slide bar with C-profile“

Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	45					
12	RL +	47		33			
14	RL +	49		33			

The bearing fitting consists of a driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 11 (bolt tooth form) with slide bearing, made from thermoplastic synthetic material and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 453 should only be used for continuous transport.

Load capacity: max. 40 daN/roller  
with outboard bearing type 100/102 24 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 452/150-50 x 2,8 KB A 12 IGM 8 EL ...

The type of drive and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive	<b>452</b>	102 / 150 / 300 D / 302 D
Positive drive (pressfit)	<b>453</b>	150



# Conveyor Roller Type 454

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90

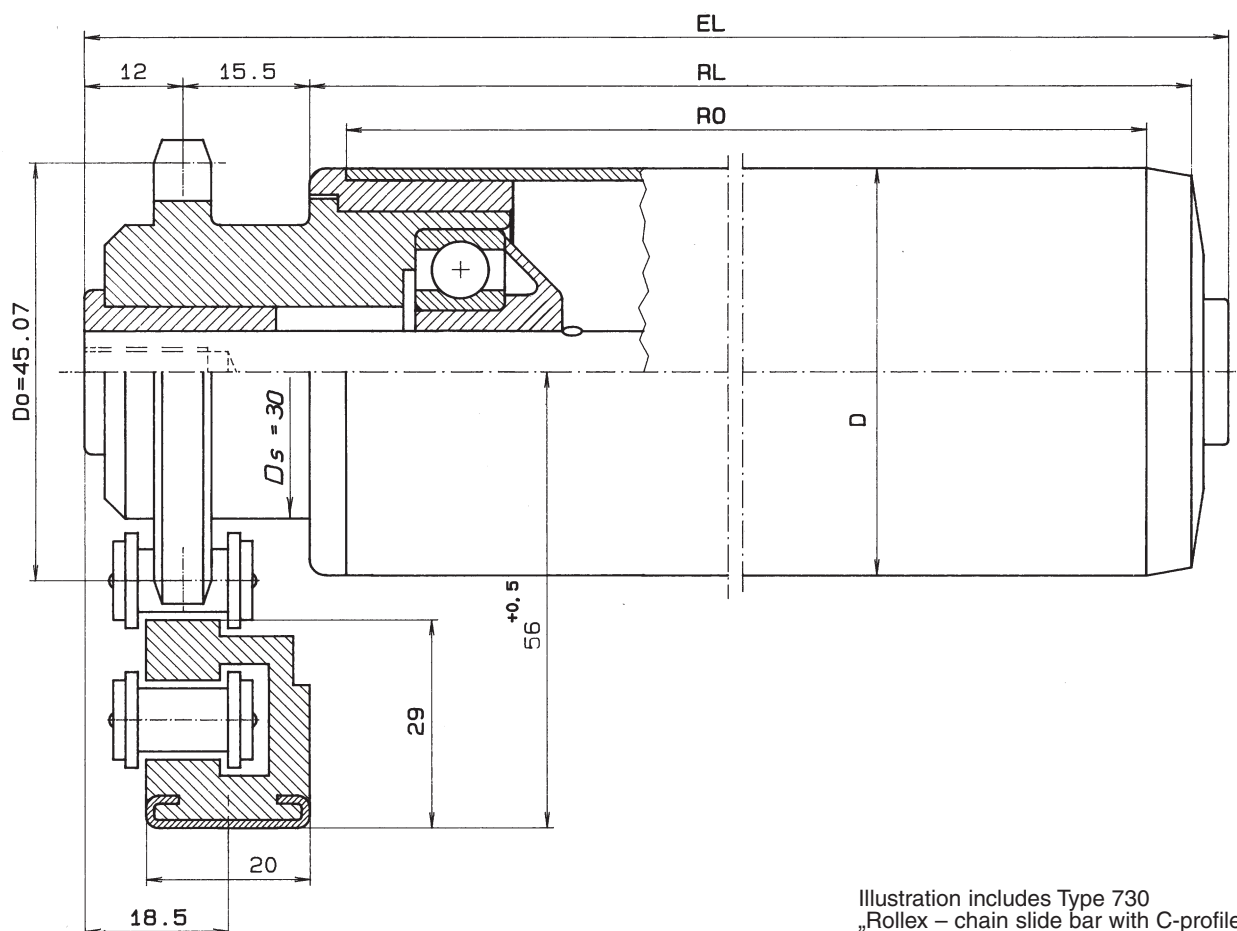
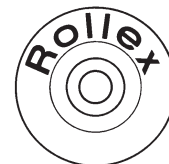


Illustration includes Type 730  
„Rollex – chain slide bar with C-profile“

Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	45					
12	RL +	47		33			
14	RL +	49		33			
17	RL +	49		33			

The bearing fitting consists of a steel driving element  $1\frac{1}{2} \times \frac{5}{16}$  " z = 11 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive should only be used for continuous transport. As tail-roller Type 457 should be used.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 454 I...

Driving element Niro 454 N...

Type 456 with tube Ø 40

Example how to order:

Type 454/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

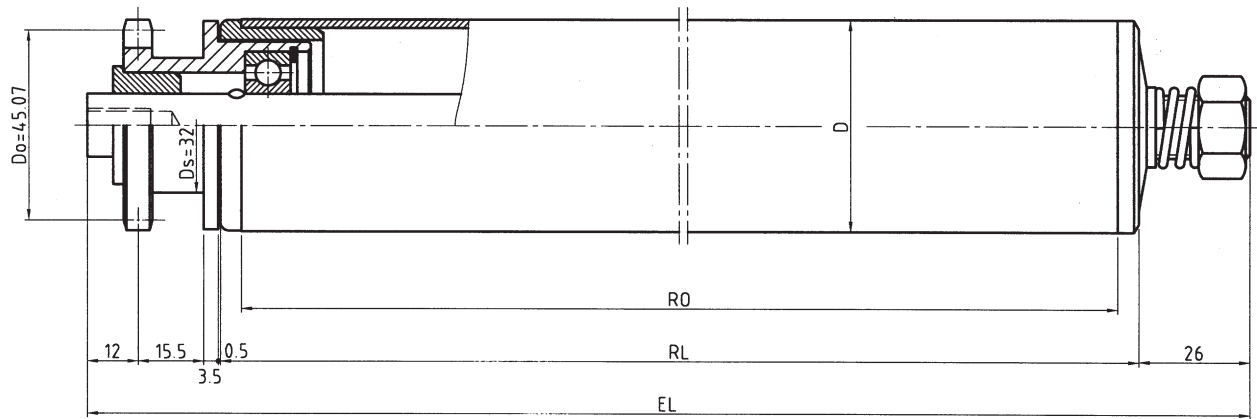
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>454</b>	200 / 250 / 300 / 302 / 402
Accumulation drive with grooved ball-bearing 6202 RS	<b>454 RS</b>	250 RS / 300 RS 302 RS / 402 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>455</b>	200 / 250 / 300 302 / 402
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>455 RS</b>	250 RS / 300 RS 302 RS / 402 RS
Positive drive (welded) with grooved ball-bearing 6202	<b>456</b>	200 / 250 / 260 300 / 302 / 400
Positive drive (welded) with grooved ball-bearing 6202 RS	<b>456 RS</b>	250 RS / 260 RS 300 RS / 302 RS 400 RS





# Conveyor Roller Type 454 R

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
15	RL +			58			

The bearing fitting consists of a steel driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 11 (bolt tooth form) and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max. 150 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 454 R/300-50 x 1,5 STI A 15 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>454 R</b>	251 / 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>454 R RS</b>	251 RS / 300 RS 302 RS



# Conveyor Roller Type 457

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90

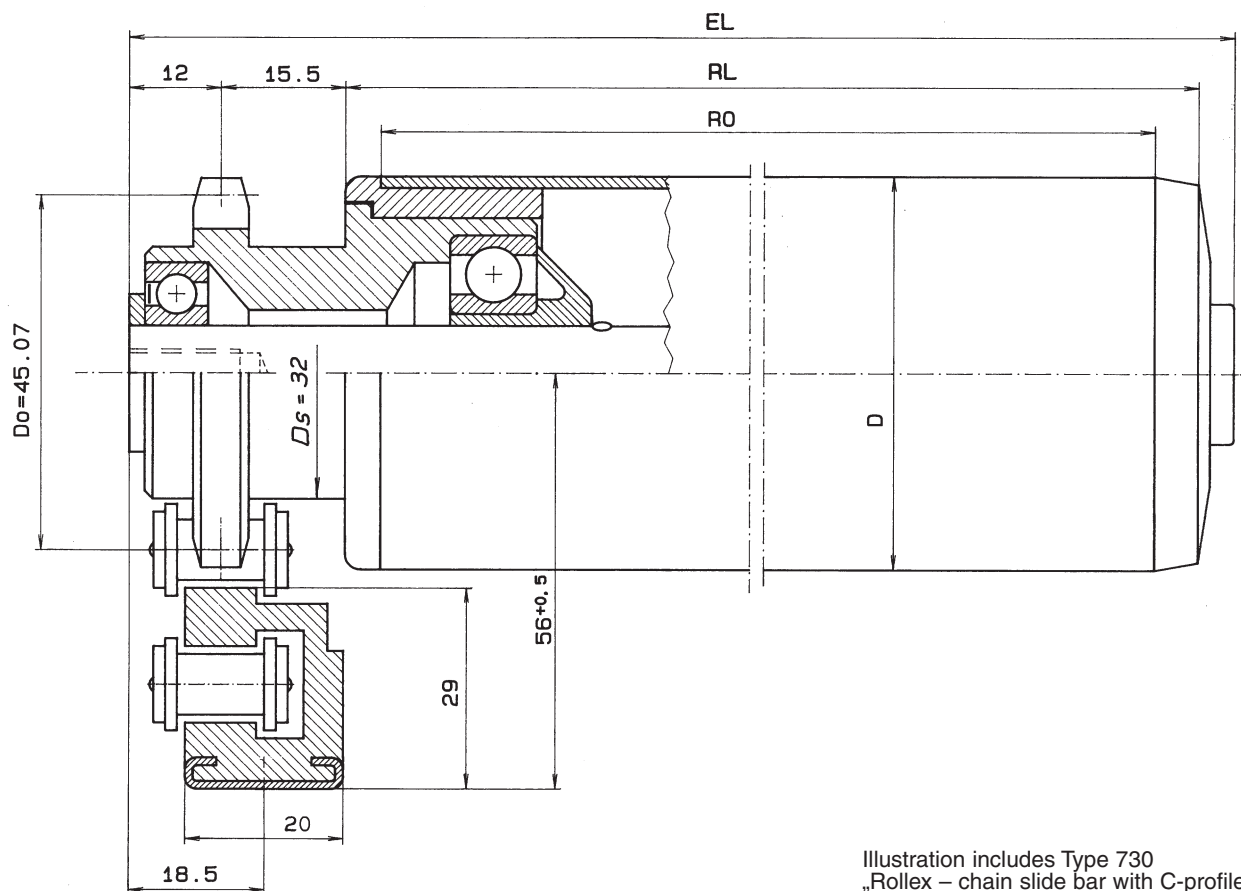
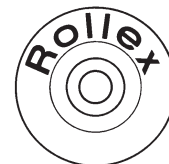


Illustration includes Type 730  
„Rollex – chain slide bar with C-profile“

Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
12	RL +	47		33			

The bearing fitting consists of a steel driving element  $1/2 \times 5/16$  " z = 11 and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive should only be used for continuous transport. This type of roller is suitable as tail.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 457 I...

Driving element Niro 457 N...

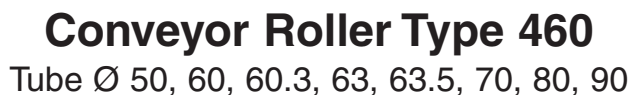
Example how to order:

Type 457/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202 Z	<b>457</b>	250 / 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>457 RS</b>	250 RS / 300 RS 302 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>458</b>	250 / 300 / 302
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>458 RS</b>	250 RS / 300 RS 302 RS





Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>460</b>	200 / 250 / 300 / 302 / 303
Accumulation drive with grooved ball-bearing 6202 RS	<b>460 RS</b>	250 RS / 300 RS 302 RS
Accumulation drive with grooved ball-bearing 6202 synthetic material with stainless steel balls W.-Nr. 4401	<b>460 D</b>	300 D / 302 D
Positive drive (pressfit) with grooved ball-bearing 6202	<b>461</b>	200 / 250 / 300 302 / 303
Positive drive (pressfit) grooved ball-bearing 6202 RS	<b>461 RS</b>	250 RS / 300 RS 302 RS
Positive drive (pressfit) grooved ball-bearing 6202 synthetic material with stainless steel balls W.-Nr. 4401	<b>461 RS</b>	300 D / 302 D



# Conveyor Roller Type 462

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90

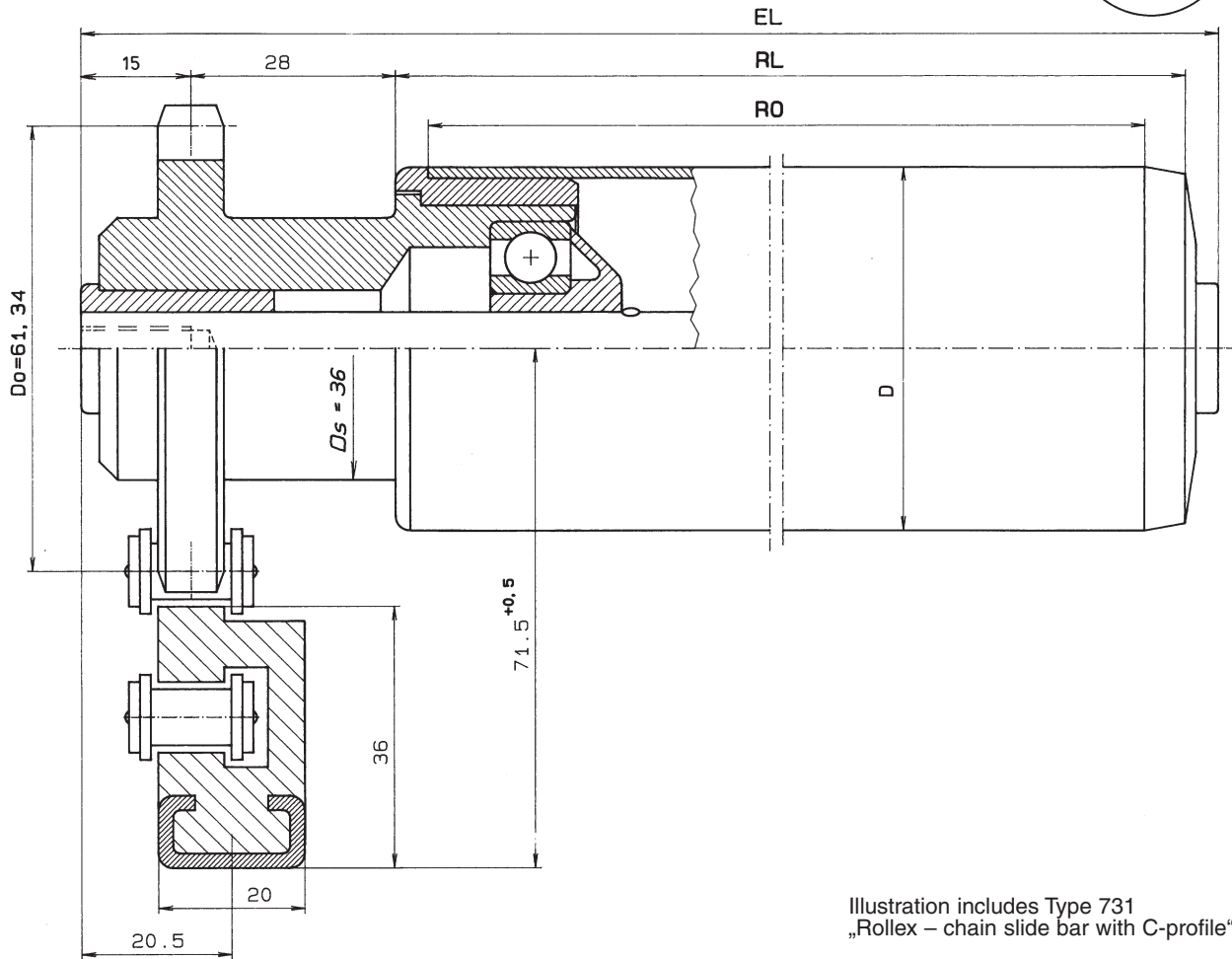


Illustration includes Type 731  
„Rollex – chain slide bar with C-profile“

Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	61					
12	RL +	63		49			
14	RL +	65		49			
17	RL +	65		49			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8} \text{ " } z = 12$  (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 463 should only be used for continuous transport.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 462 I...

Driving element Niro 462 N...

Example how to order:

Type 462/300-80 x 2 ST A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

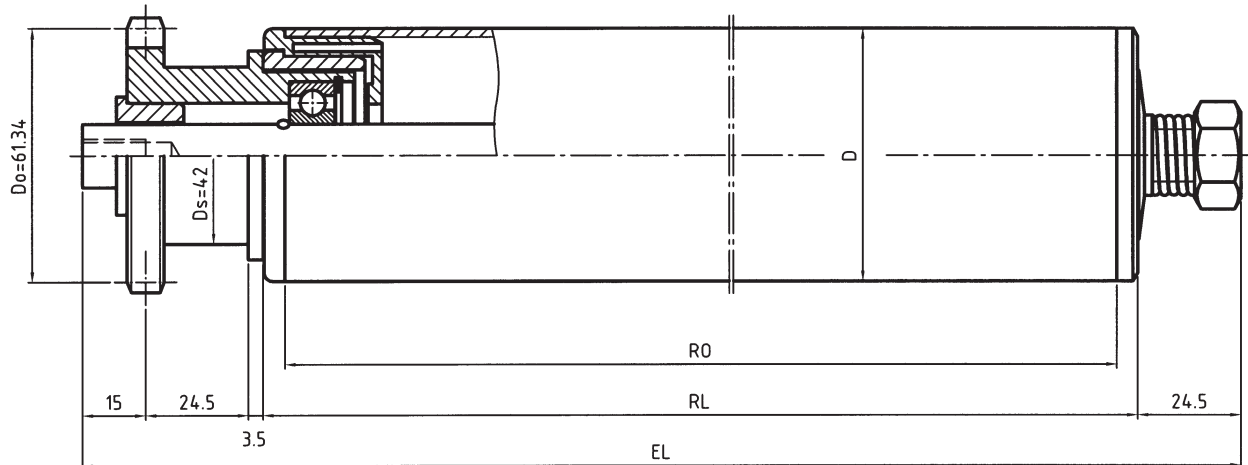
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6003, 6202, 6303	<b>462</b>	250 / 300 / 302 402
Accumulation drive with grooved ball-bearing 6003 RS, 6202 RS, 6303 RS	<b>462 RS</b>	250 RS / 300 RS 302 RS / 402 RS
Positive drive (pressfit) with grooved ball-bearing 6003, 6202, 6303	<b>463</b>	250 / 300 / 302 402
Positive drive (pressfit) with grooved ball-bearing 6003 RS, 6202 RS, 6303 RS	<b>463 RS</b>	250 RS / 300 RS 302 RS / 402 RS
Positive drive (welded) with grooved ball-bearing 6003, 6202, 6303	<b>464</b>	250 / 260 / 300 302 / 400
Positive drive (welded) with grooved ball-bearing 6003 RS, 6202 RS, 6303 RS	<b>464 RS</b>	250 RS / 260 RS 300 RS / 302 RS 400 RS





# Conveyor Roller Type 462 R

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Bestell-Bezeichnung		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Achs-Ø	EL =						
15	RL +			69			
17	RL +			69			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}$ "  $z = 12$  (bolt tooth form) and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Driving element galvanized 462 R I...  
Driving element Niro 462 R N...

Example how to order:  
Type 462 R/301-50 x 1,5 STI A 12 IGM 8 EL ...

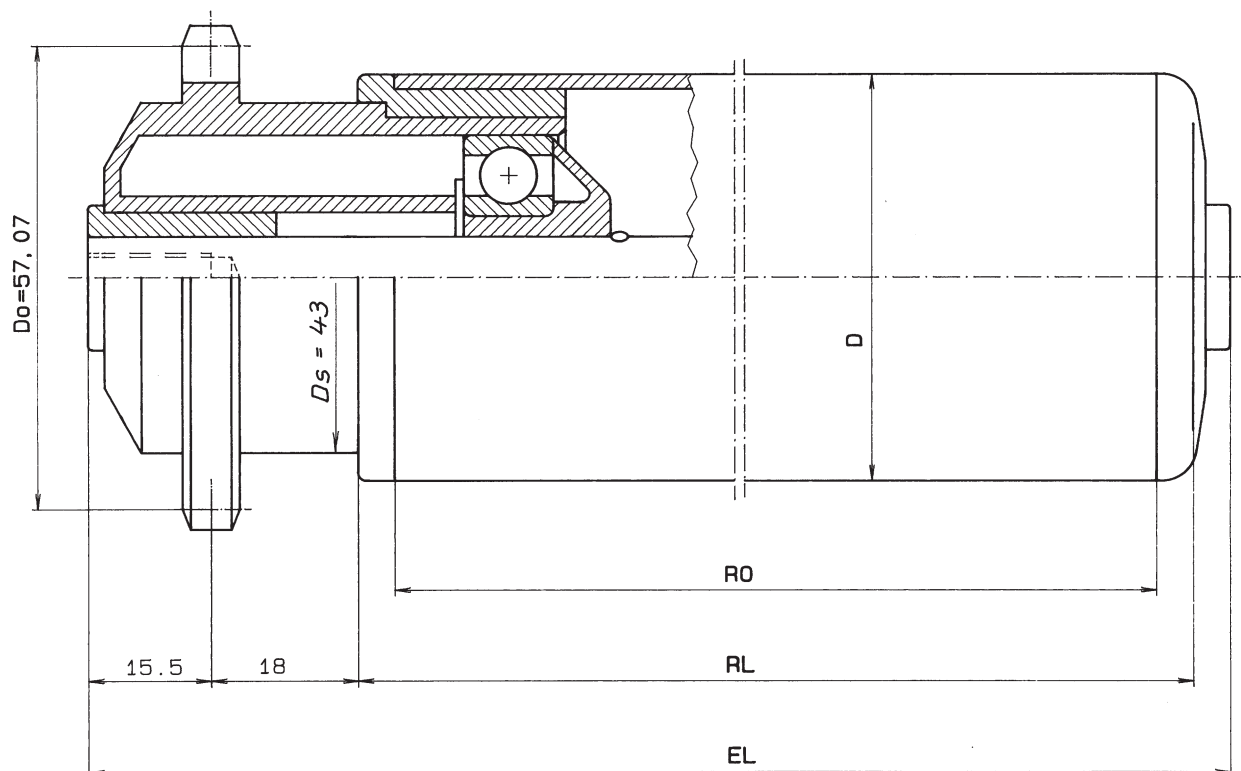
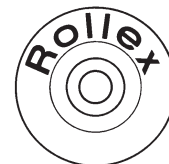
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6003, 6202, 6204	<b>462 R</b>	301 / 402
Accumulation drive with grooved ball-bearing 6003 RS, 6202 RS, 6204 RS	<b>462 R RS</b>	301 RS / 402 RS



# Conveyor Roller Type 470

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	51					
12	RL +	53		39			
14	RL +	55		39			

The bearing fitting consists of a synthetic material driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 14 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 471 should only be used for continuous transport.

Load capacity: max. 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Driving element with double bearing  
Spring shaft

Example how to order:  
Type 470/300-60 x 2 ST A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

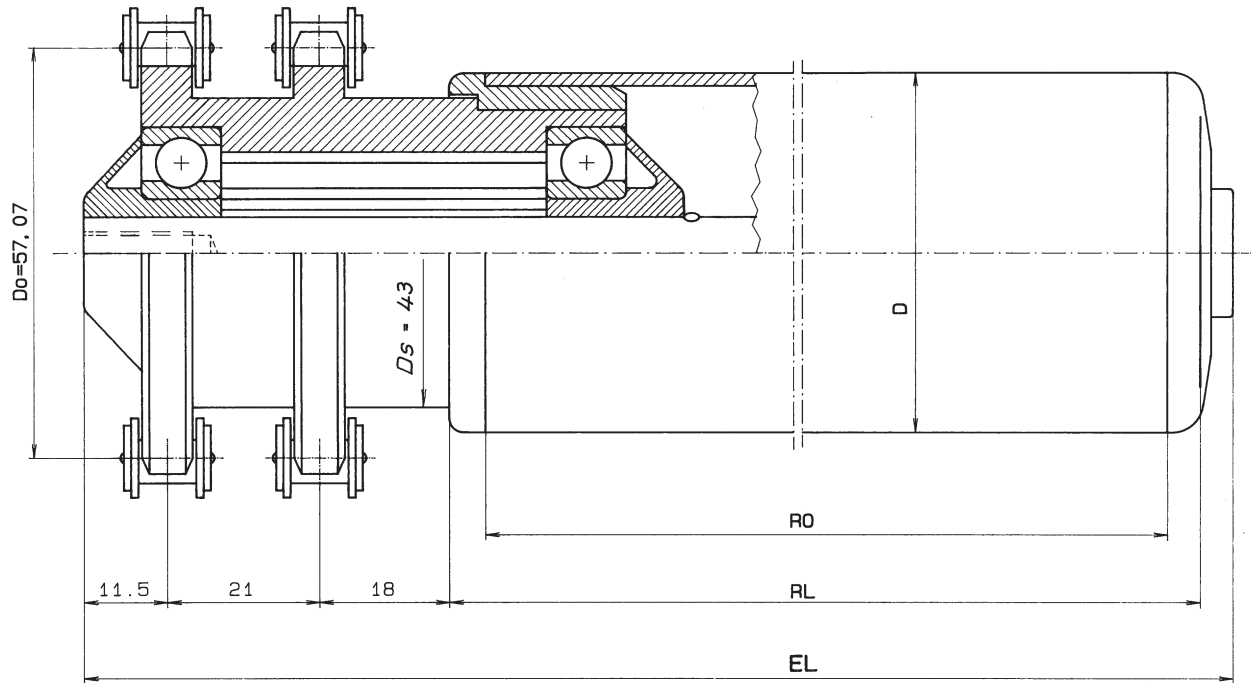
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>470</b>	200 / 250 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>470 RS</b>	250 RS / 300 RS 302 RS
Accumulation drive with grooved ball-bearing 6202 synthetic material with stainless steel balls W.-Nr. 4401	<b>470 D</b>	300 D
Positive drive (pressfit) with grooved ball-bearing 6202	<b>471</b>	200 / 250 300 / 302
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>471 RS</b>	250 RS / 300 RS 302 RS
Positive drive (pressfit) with grooved ball-bearing 6202 synthetic material with stainless steel balls W.-Nr. 4401	<b>471 D</b>	300 D / 302 D





# Conveyor Roller Type 480

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	69					
12	RL +	71		57			
14	RL +	73		57			

The bearing fitting consists of a synthetic material driving element  $1/2 \times 5/16''$   $z = 14$  and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 481 should only be used for continuous transport.

Load capacity: max. 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:  
Conus ball bearing

Example how to order:  
Type 480/300-50 x 1,5 STI A 12 IGM 8 EL ...

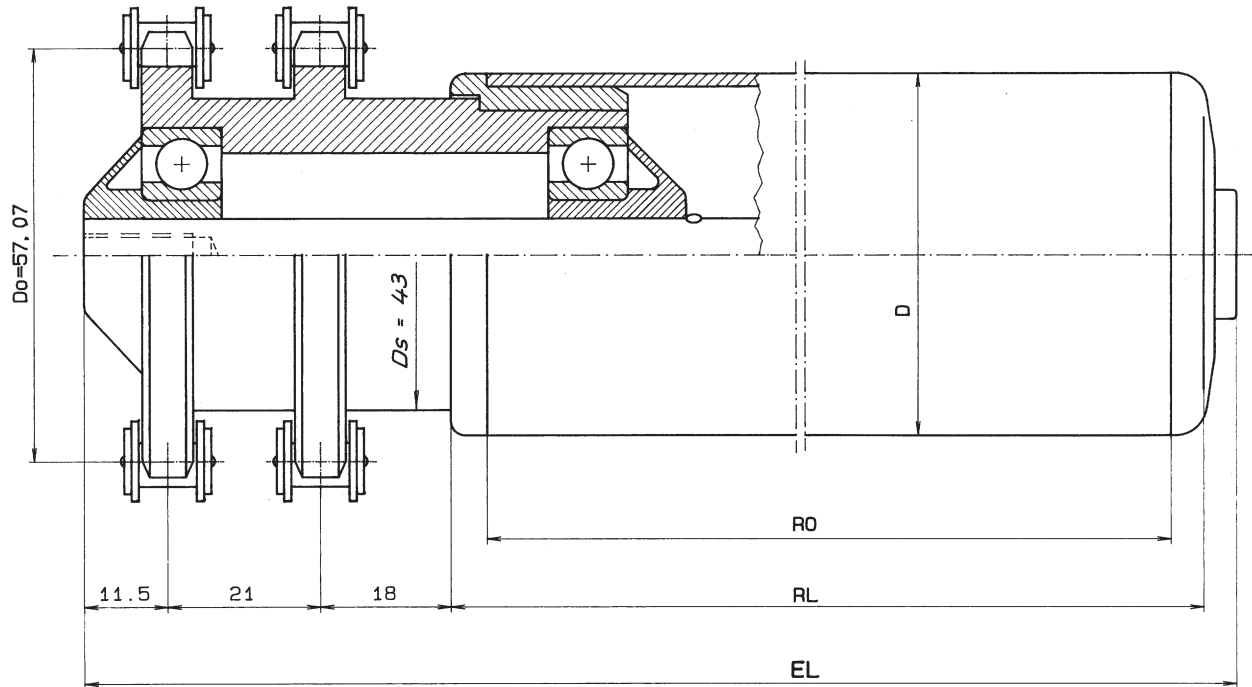
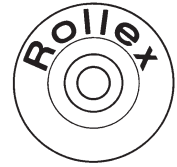
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>480</b>	200 / 250 / 300 302 / 303
Accumulation drive with grooved ball-bearing 6202 RS	<b>480 RS</b>	250 RS / 300 RS 302 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>481</b>	200 / 250 / 300 302 / 303
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>481 RS</b>	250 RS / 300 RS 302 RS



# Conveyor Roller Type 500

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	69					
12	RL +	71		57			
14	RL +	73		57			
15	RL +	73		57			
17	RL +	73		57			

The bearing fitting consists of a steel driving element  $1/2 \times 5/16''$  z = 14 and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 501 should only be used for continuous transport.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 500 I ...

Driving element Niro 500 N ...

Example how to order:

Type 500/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

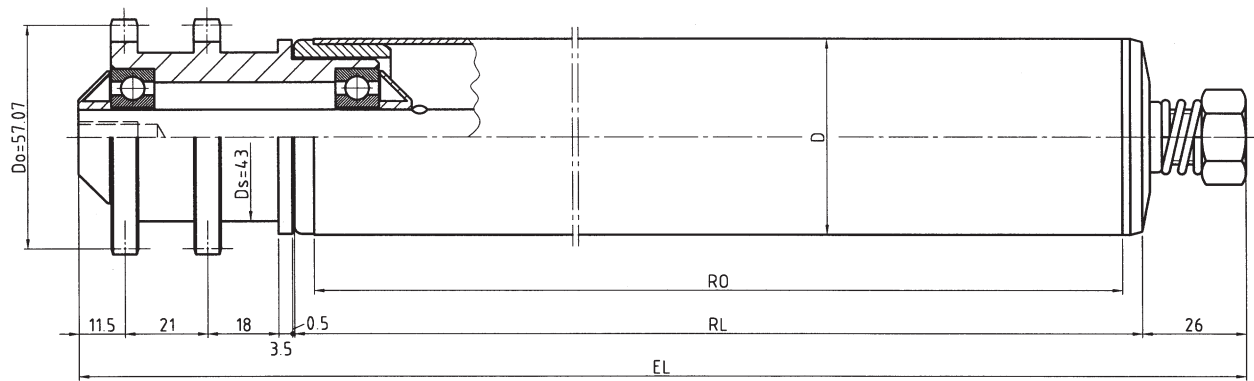
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6003, 6202	<b>500</b>	250 / 300 / 302 402
Accumulation drive with grooved ball-bearing 6003 RS, 6202 RS	<b>500 RS</b>	250 RS / 300 RS 302 RS / 402 RS
Positive drive (pressfit) with grooved ball-bearing 6003, 6202	<b>501</b>	250 / 300 / 302 402
Positive drive (pressfit) with grooved ball-bearing 6003 RS, 6202 RS	<b>501 RS</b>	250 RS / 300 RS 302 RS / 402 RS





# Conveyor Roller Type 500 R

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
14	RL +			80			
15	RL +			80			

The bearing fitting consists of a steel driving element  $\frac{1}{2} \times \frac{5}{16}'' z = 14$  and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 500 R/300-50 x 1,5 STI A 14 IGM 8 EL ...

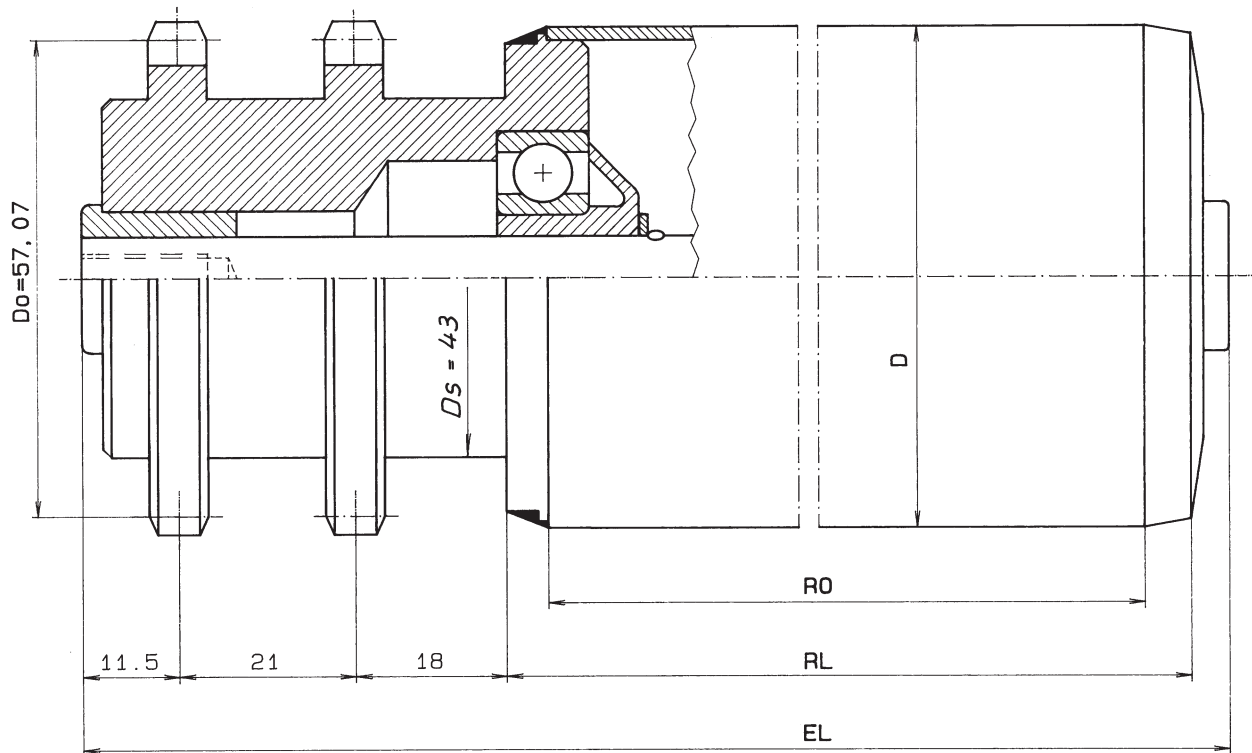
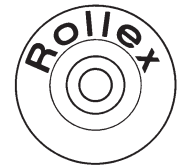
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>500 R</b>	301
Accumulation drive with grooved ball-bearing 6202 RS	<b>500 R RS</b>	301 RS



# Conveyor Roller Type 502

Tube Ø 50, 60, 60.3, 63.5, 70, 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	69					
12	RL +	71		57			
14	RL +	73		57			
15	RL +	73		57			
17	RL +	73		57			

The bearing fitting consists of a steel driving element  $1/2 \times 5/16$  " z = 14 and counter bearing.

Load capacity: max. 150 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 502 I ...

Driving element Niro 502 N ...

Tube Ø 40

Shaft Ø 20 available for tube from Ø 63,5

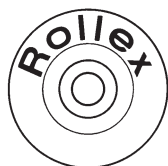
Example how to order:

Type 502/250-80 x 2 ST A 14 IGM 10 EL ...

The bearing inside the driving element and the counter bearing provide the type of order:

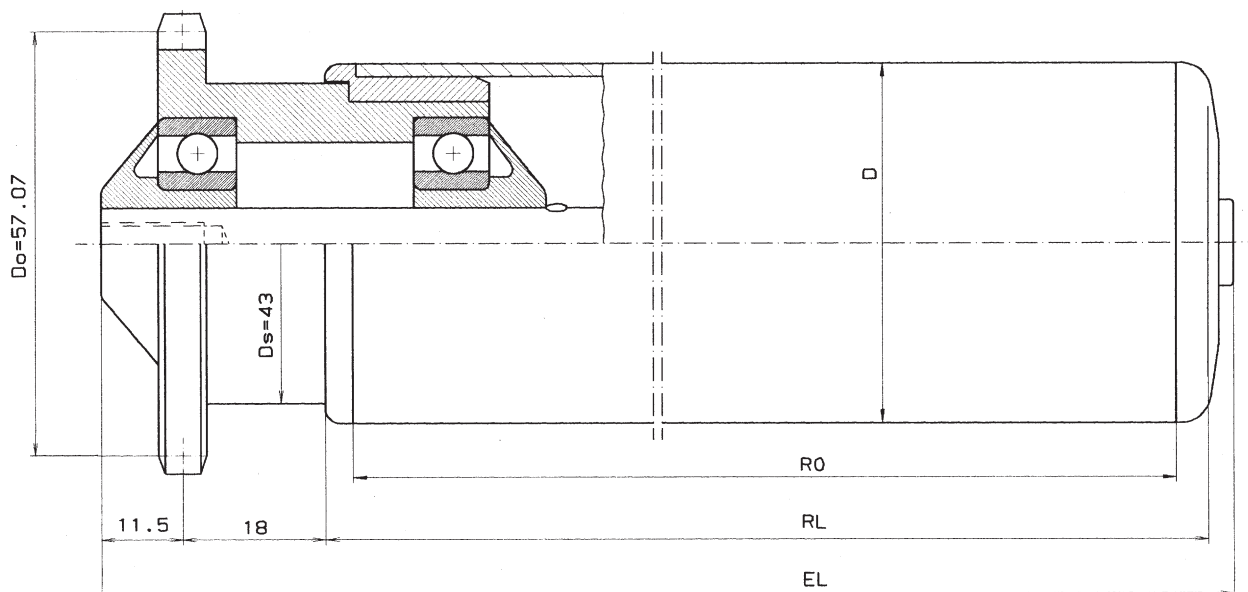
Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6003, 6202, 6204	<b>502</b>	200 / 250 / 260 300 / 302 / 400
Positive drive (welded) with grooved ball-bearing 6003 RS, 6202 RS, 6204 RS	<b>502 RS</b>	250 RS / 260 RS 300 RS / 302 RS 400 RS





# Conveyor Roller Type 506

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	48					
12	RL +	50		36			
14	RL +	52		36			
15	RL +	52		36			
17	RL +	52		36			

The bearing fitting consists of a steel driving element  $\frac{1}{2} \times \frac{5}{16}''$  z = 14 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 507 should only be used for continuous transport.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Special design:

Driving element galvanized 506 I...  
Driving element Niro 506 N...  
Type 508 tube Ø 40

Example how to order:

Type 506/300-50 x 1,5 STI A 12 IGM 8 EL ...

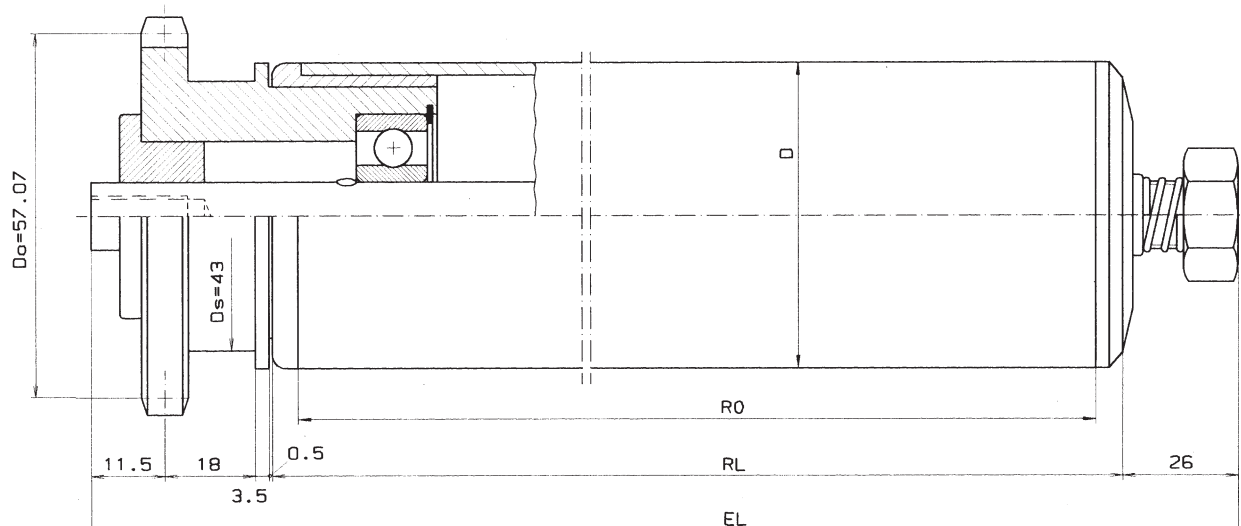
The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6003, 6202, 6303	<b>506</b>	200 / 250 / 260 300 / 302 / 402
Accumulation drive with grooved ball-bearing 6003 RS, 6202 RS, 6303 RS	<b>506 RS</b>	250 RS / 260 RS 300 RS / 302 RS 402 RS
Positive drive (pressfit) with grooved ball-bearing 6003, 6202, 6303	<b>507</b>	200 / 250 / 260 300 / 302 / 402
Positive drive (pressfit) with grooved ball-bearing 6003 RS, 6202 RS, 6303 RS	<b>507 RS</b>	250 RS / 260 RS 300 RS / 302 RS 402 RS
Positive drive (welded) with grooved ball-bearing 6003, 6202, 6204, 6303	<b>508</b>	200 / 250 / 260 300 / 302 / 400
Positive drive (welded) with grooved ball-bearing 6003 RS, 6202 RS, 6204 RS, 6303 RS	<b>508 RS</b>	250 RS / 260 RS 300 RS / 302 RS 400 RS



# Conveyor Roller Type 506 R

Tube Ø 50, 60, 60.3, 63, 63.5, 70, 80, 88.9, 90



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
14	RL +			59			
15	RL +			59			

The bearing fitting consists of a steel driving element  $\frac{1}{2} \times \frac{5}{16}'' z = 14$  (bolt tooth form) and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max. 100 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 506 R/302-50 x 1,5 STI A 15 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

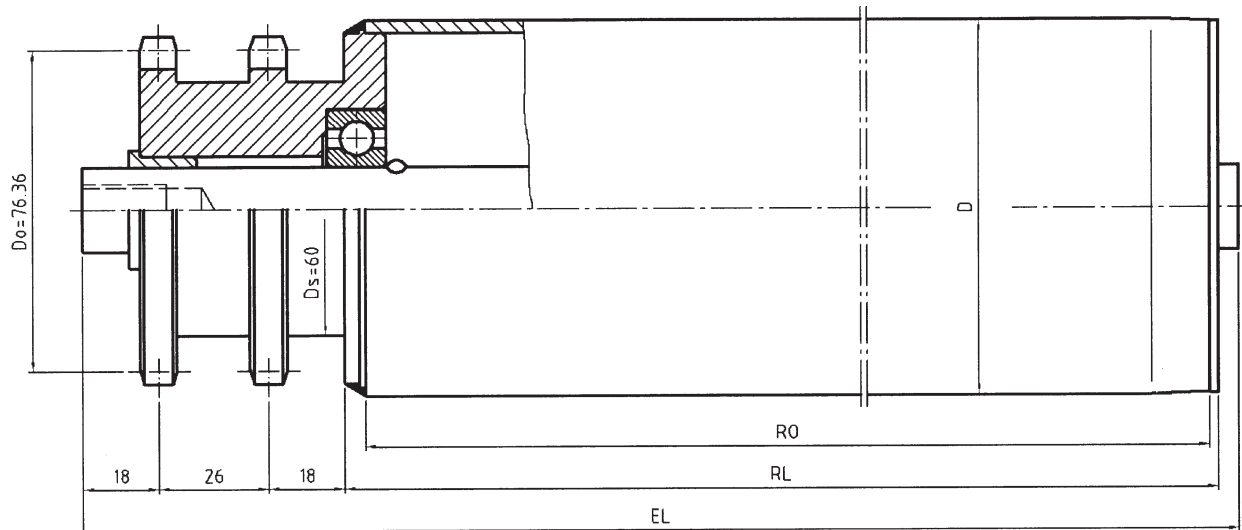
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6202	<b>506 R</b>	251 / 300 / 302
Accumulation drive with grooved ball-bearing 6202 RS	<b>506 R RS</b>	251 RS / 300 RS 302 RS





# Conveyor Roller Type 510

Tube Ø 63.5, 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	85		67			
25	RL +			67			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}'' z = 15 / z = 13$  and counter bearing.

Load capacity:  
e. g.

Type 510/260- 80 x 2 ST A 20 IGM 10 **EL** 967 : 200 daN/roller  
Type 510/260-88,9 x 2,9 ST A 20 IGM 10 **EL** 967 : 340 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 510/260-80 x 2 STI A 20 IGM 10 **EL** ...

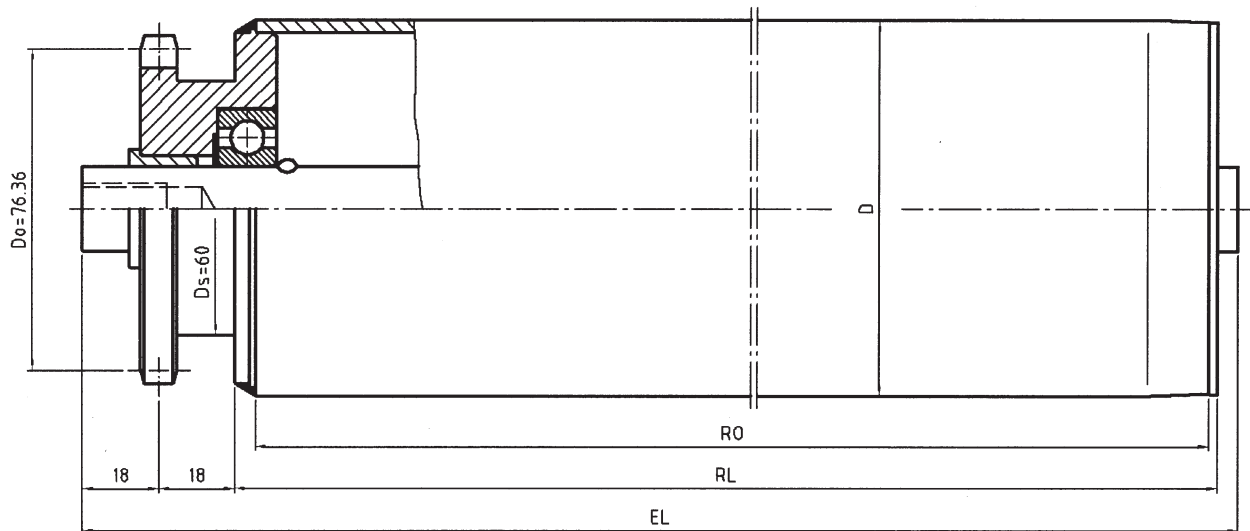
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6004, 6005 or 6204	<b>510</b>	260 / 261 / 400
Positive drive (welded) with grooved ball-bearing 6004 RS, 6005 RS or 6204 RS	<b>510 RS</b>	260 RS / 261 RS 400 RS



# Conveyor Roller Type 511

Tube Ø 63.5, 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	59		41			
25	RL +			41			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}$  z = 13 / z = 15 (both bolt tooth form) and counter bearing.

Load capacity:

e. g.

Type 511/260- 80 x 2 ST A 20 IGM 10 **EL** 967 : 200 daN/roller  
Type 511/260-88,9 x 2,9 ST A 20 IGM 10 **EL** 967 : 340 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 511/260-80 x 2 STI A 20 IGM 10 **EL** ...

The bearing inside the driving element and the counter bearing provide the type of order:

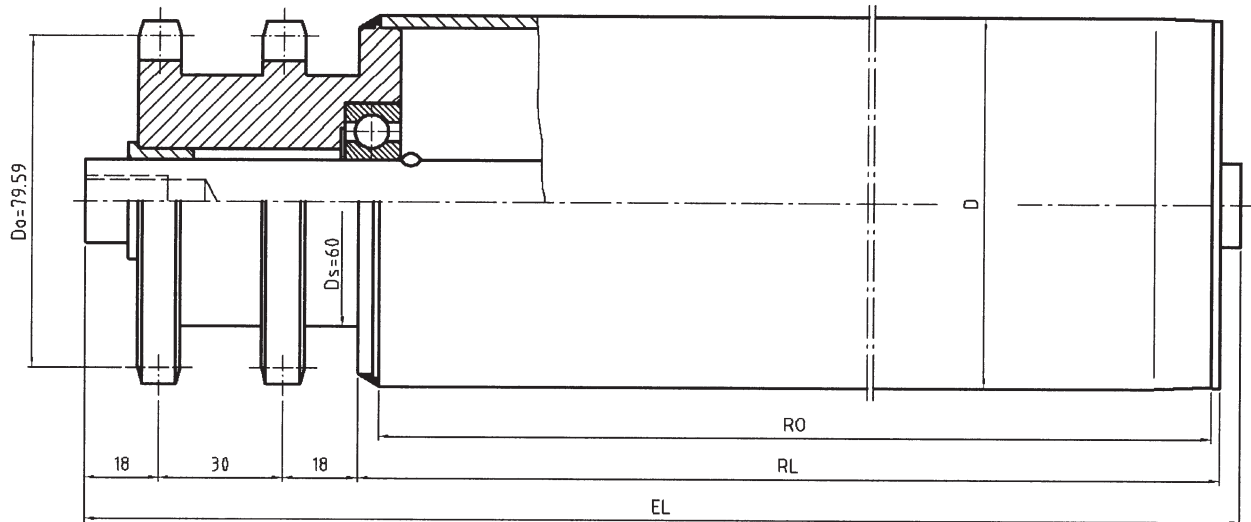
Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6004, 6005 or 6204	<b>511</b>	260 / 261 / 400
Positive drive (welded) with grooved ball-bearing 6004 RS, 6005 RS or 6204 RS	<b>511 RS</b>	260 RS / 261 RS 400 RS





# Conveyor Roller Type 512

Tube Ø 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	89		71			
25	RL +			71			

The bearing fitting consists of a steel driving element  $\frac{3}{4} \times \frac{7}{16}$  " z = 13 and counter bearing.

Load capacity:  
e. g.

Type 512/260-88,9 x 2,9 ST A 20 IGM 10 **EL** 967 : 340 daN/roller  
Type 512/260-108 x 3,25 ST A 20 IGM 10 **EL** 967 : 400 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 512/260-108 x 3,25 ST A 20 IGM 10 **EL** ...

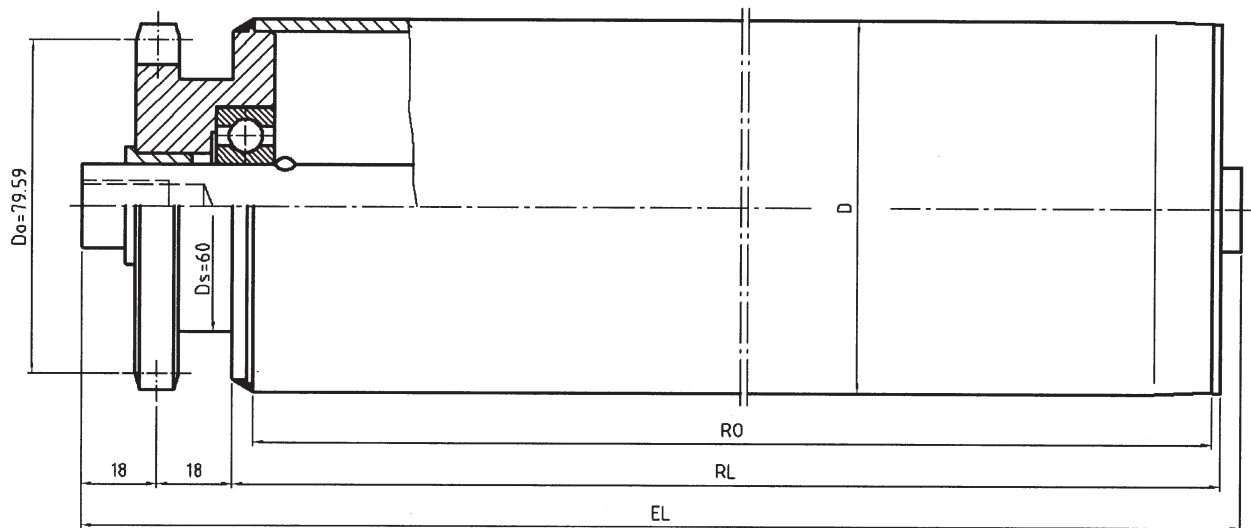
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6005, 6204	<b>512</b>	260 / 261 / 400
Positive drive (welded) with grooved ball-bearing 6005 RS, 6204 RS	<b>512 RS</b>	260 RS / 261 RS 400 RS



# Conveyor Roller Type 513

Tube Ø 80, 88.9, 108, 133



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	59		41			
25	RL +			41			

The bearing fitting consists of a steel driving element  $\frac{3}{4} \times \frac{7}{16}'' z = 13$  (bolt tooth form) and counter bearing.

Load capacity:  
e. g.

Type 513/260-88,9 x 2,9 ST A 20 IGM 10 **EL 967** : 340 daN/roller  
Type 513/260-108 x 3,25 ST A 20 IGM 10 **EL 967** : 400 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 513/260-108 x 3,25 ST A 20 IGM 10 **EL ...**

The bearing inside the driving element and the counter bearing provide the type of order:

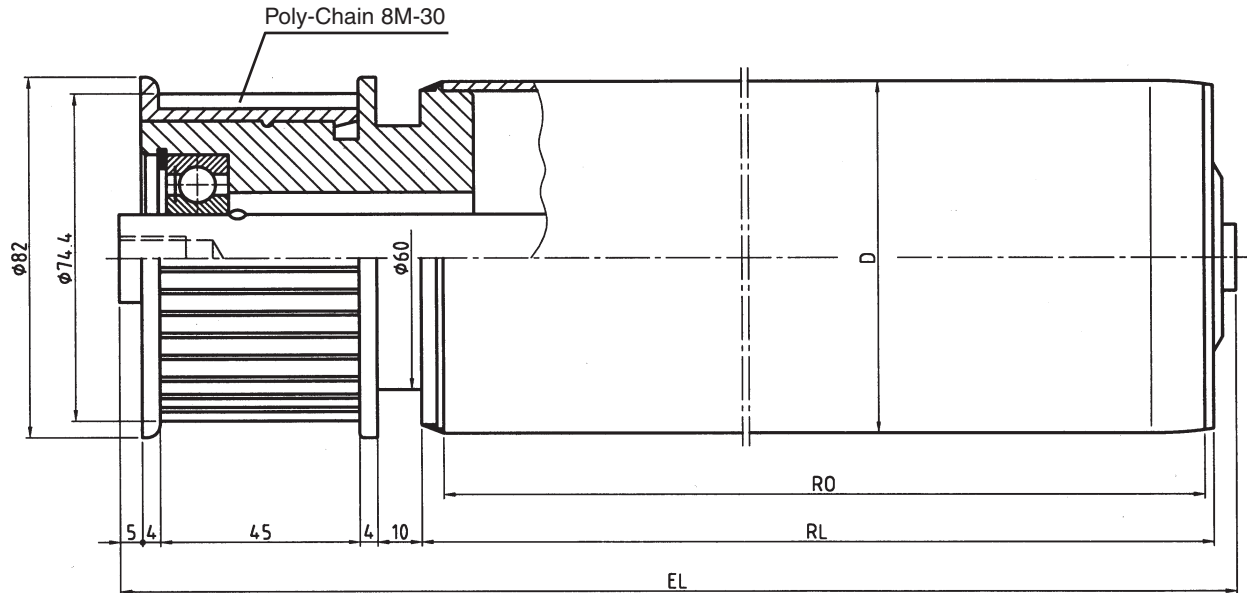
Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6005, 6204	<b>513</b>	260 / 261 / 400
Positive drive (welded) with grooved ball-bearing 6005 RS, 6204 RS	<b>513 RS</b>	260 RS / 261 RS 400 RS





# Conveyor Roller Type 516

Tube Ø 80, 88.9, 108



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
20	RL +			73			

The bearing fitting consists of a thermoplastic synthetic material driving element 8 M z = 30 for tooth belt b = 21 with steel core and counter bearing.

Load capacity:

e. g.

Type 516/260-88,9 x 2,9 ST A 20 IGM 12 **EL** 989 : 340 daN/roller

Type 516/260-108 x 3,25 ST A 20 IGM 12 **EL** 989 : 400 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts: page IX.8

Special design:

Driving element z = 40 e.g. type 516 z40

Example how to order:

Type 516/260I-88,9 x 2,9 STI A 20 IGM 12 **EL** ...

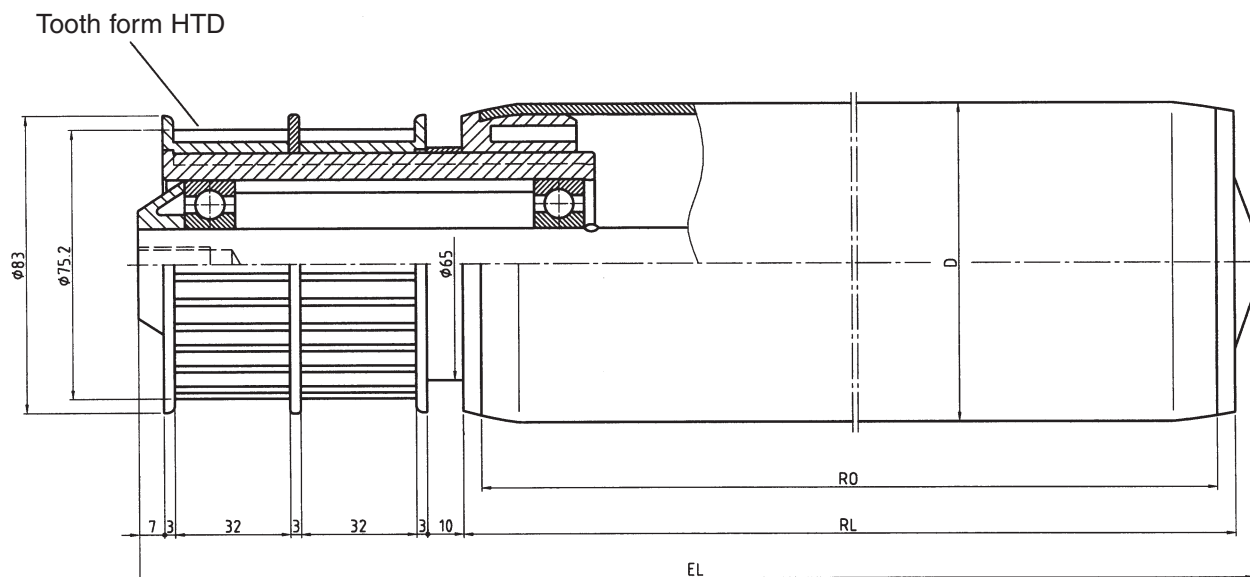
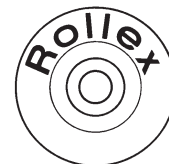
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive (welded) with grooved ball-bearing 6204	<b>516</b>	260 / 261
Positive drive (welded) with grooved ball-bearing 6204 RS	<b>516 RS</b>	260 RS / 261 RS



# Conveyor Roller Type 517 z 30 / z 34

Tube Ø 80, 88.9, 108



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
20	RL +			95			
25	RL +			95			

The bearing fitting consists of a thermoplastic synthetic material driving element 8 M z = 30 or z = 34 for tooth belt b = 30 and counter bearing.

Load capacity: 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts: page IX.8

Example how to order:

Type 517z30/402-88,9 x 2,9 STI A 20 IGM 10 EL ...

The bearing inside the driving element and the counter bearing provide the type of order:

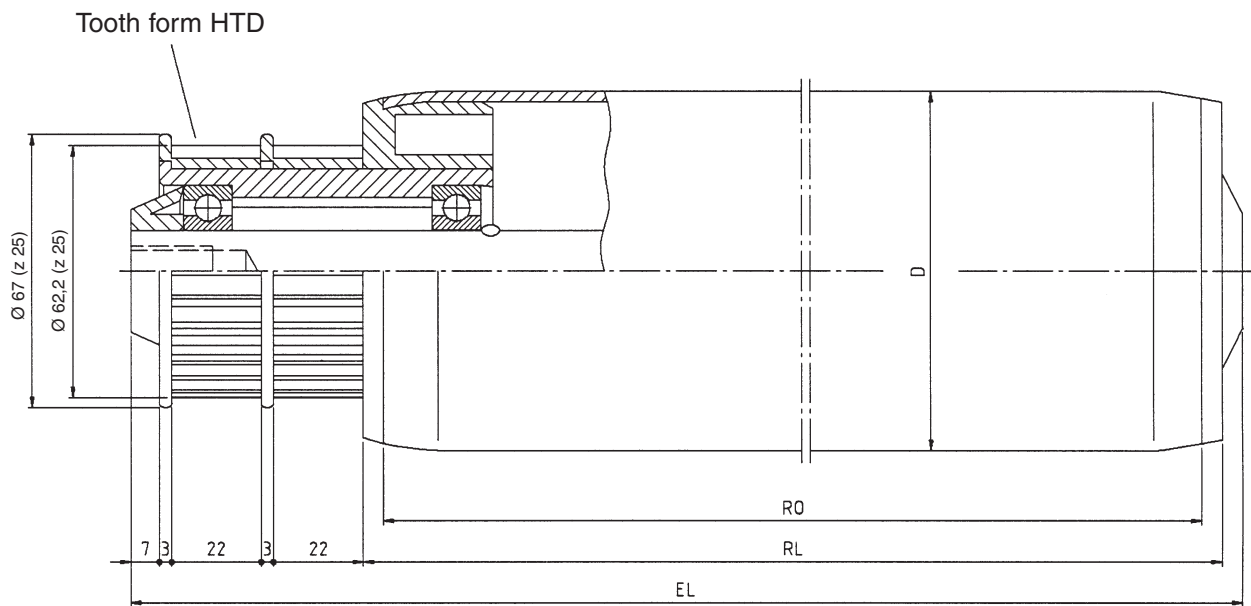
Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6204 or 6005	<b>517 z 30/z 34</b>	402
Positive drive with grooved ball-bearing 6204 RS or 6005 RS	<b>517 RS z 30/z 34</b>	402 RS





# Conveyor Roller Type 517 z 24/z 25

Tube Ø 80, 88.9



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
20	RL +			62			

The bearing fitting consists of a thermoplastic synthetic material driving element 8 M z = 24 or z = 25 for tooth belt b = 20 and counter bearing.

Load capacity: 120 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts: page IX.8

Example how to order:

Type 517z25/402-88,9 x 2,9 STI A 20 IGM 10 **EL**...

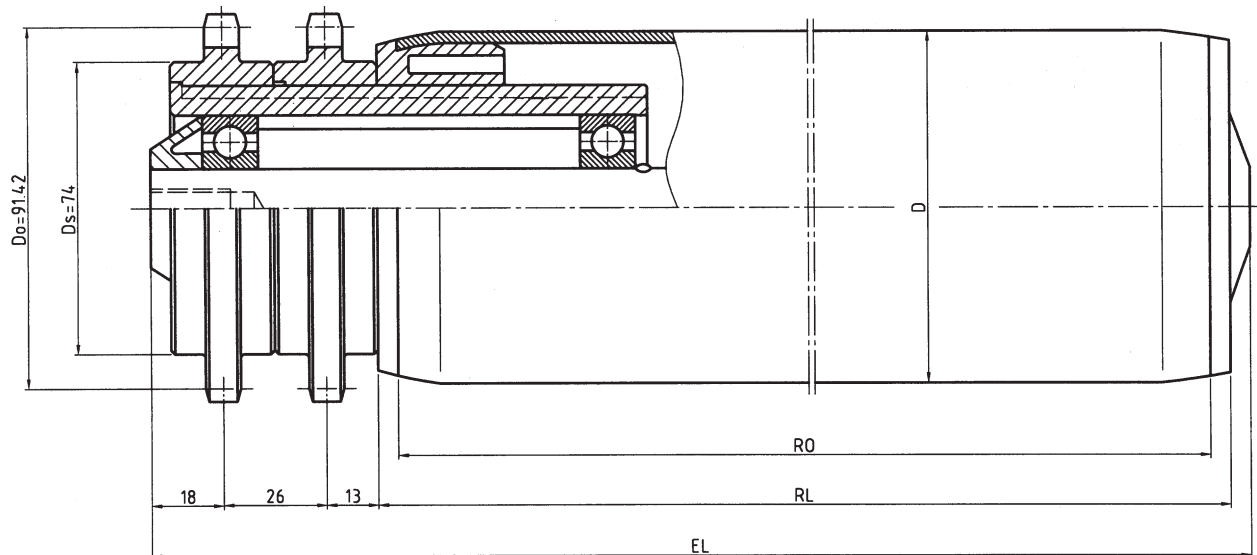
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6204	<b>517 z 24 / z 25</b>	402
Positive drive with grooved ball-bearing 6204 RS	<b>517 RS z 24/z 25</b>	402 RS



# Conveyor Roller Type 518

Tube Ø 80, 88.9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			62			
25	RL +			62			

The bearing fitting consists of a thermoplastic synthetic material driving element  $\frac{5}{8} \times \frac{3}{8}$  z = 18 and counter bearing.

Load capacity: 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 518/402-88,9 x 2,9 STI A 20 IGM 10 EL ...

The bearing inside the driving element and the counter bearing provide the type of order:

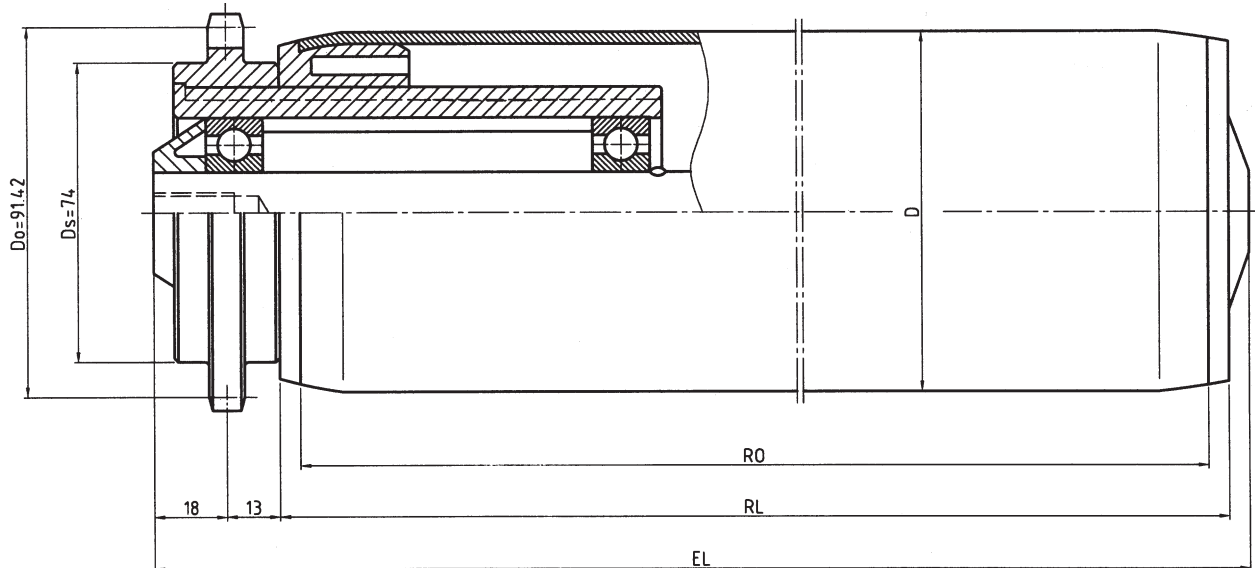
Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6005, 6204	<b>518</b>	402
Positive drive with grooved ball-bearing 6005 RS, 6204 RS	<b>518 RS</b>	402 RS





# Conveyor Roller Type 519

Tube Ø 80, 88.9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			36			
25	RL +			36			

The bearing fitting consists of a thermoplastic synthetic material driving element  $\frac{5}{8} \times \frac{3}{8}$ "  $z = 18$  and counter bearing.

Load capacity: 120 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 519/402-88,9 x 2,9 STI A 20 IGM 10 EL ...

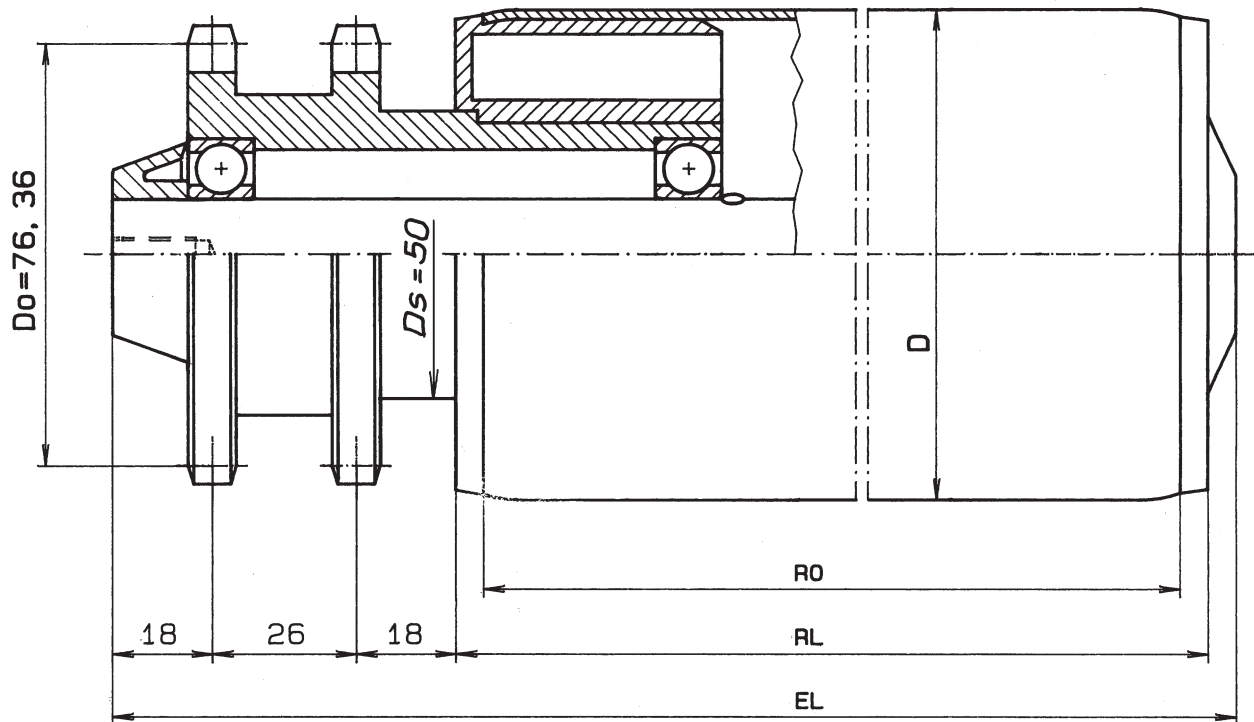
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6005, 6204	<b>519</b>	402
Positive drive with grooved ball-bearing 6005 RS, 6204 RS	<b>519 RS</b>	402 RS



# Conveyor Roller Type 520

Tube Ø 80, 88,9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	85		67			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}$  " z = 15 and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max. 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 520/402-88,9 x 2,9 ST A 20 IGM 10 EL ...

The bearing inside the driving element and the counter bearing provide the type of order:

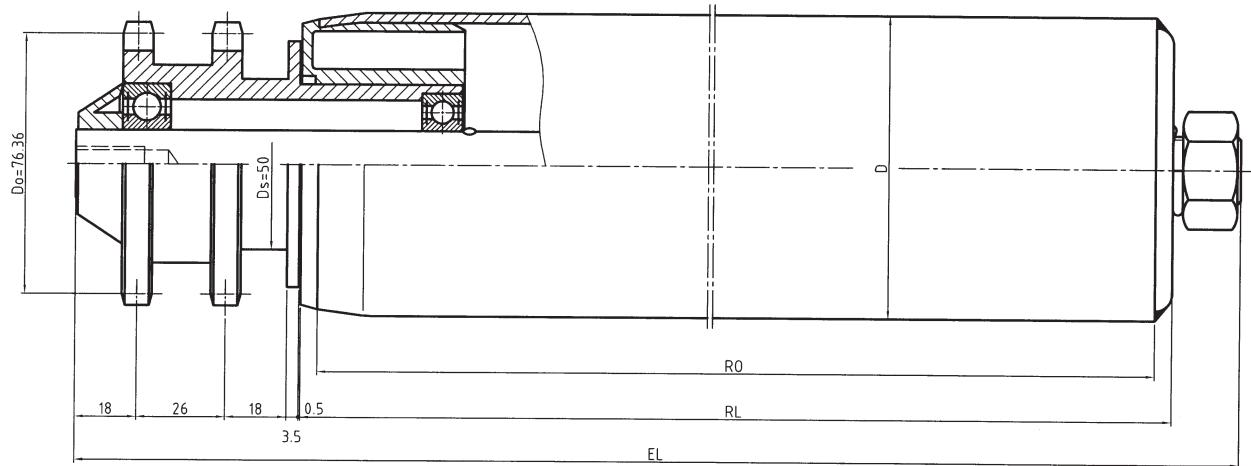
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6004/6204	<b>520</b>	402
Accumulation drive with grooved ball-bearing 6004 RS/6204 RS	<b>520 RS</b>	402 RS





# Conveyor Roller Type 520 R

Tube Ø 80, 88.9, 108



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...
Shaft-Ø	EL =						
20	RL +			86			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}$  z = 15 and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 520 R/402 WO-88,9 x 2,9 ST A 20 IGM 10 **EL**...

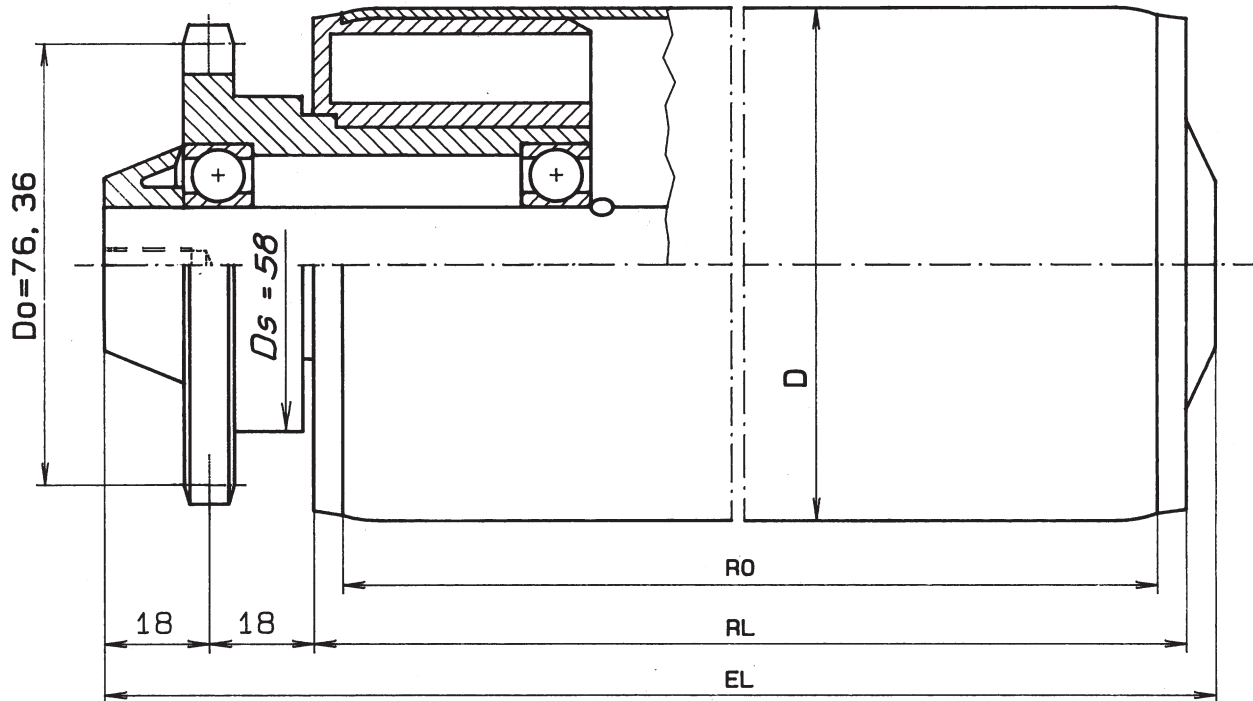
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6004/6204	<b>520 R</b>	402 WO/WT
Accumulation drive with grooved ball-bearing 6004 RS/6204 RS	<b>520 R RS</b>	402 RS WO/WT



# Conveyor Roller Type 521

Tube Ø 80, 88,9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +	59		41			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8}$  " z = 15 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

Load capacity: max. 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 521/402-88,9 x 2,9 ST A 20 IGM 10 EL ...

The bearing inside the driving element and the counter bearing provide the type of order:

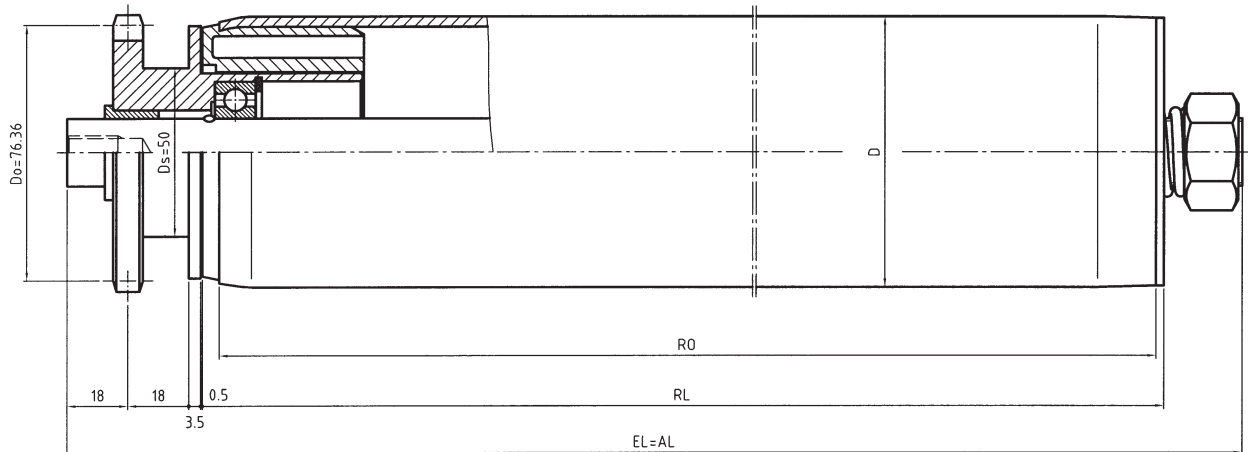
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6004/6204	<b>521</b> 402	
Accumulation drive with grooved ball-bearing 6004 RS/6204 RS	<b>521 RS</b>	402 RS





# Conveyor Roller Type 521 R

Tube Ø 80, 88.9, 108



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			60			

The bearing fitting consists of a steel driving element  $\frac{5}{8} \times \frac{3}{8} \text{ " } z = 15$  (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

Load capacity: max. 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 521 R/402 WO-88,9 x 2,9 ST A 20 IGM 10 **EL...**

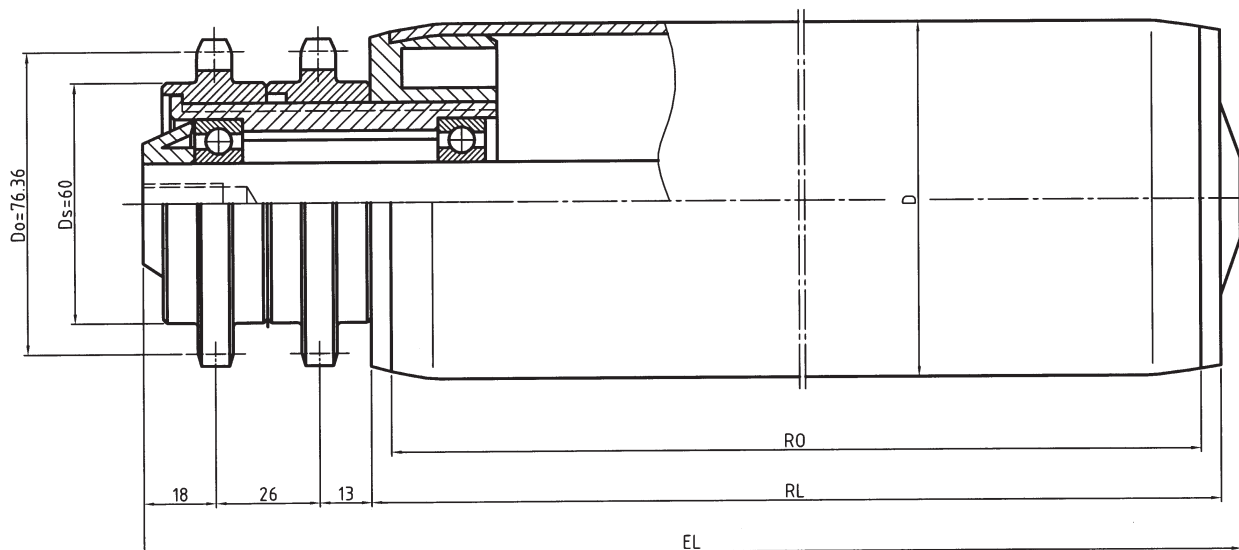
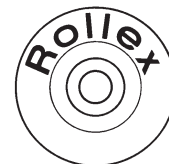
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 6004/6204	<b>521 R</b>	402 WO/WT
Accumulation drive with grooved ball-bearing 6004 RS/6204 RS	<b>521 R RS</b>	402 WO/WT RS



# Conveyor Roller Type 522

Tube Ø 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			62			

The bearing fitting consists of a thermoplastic synthetic material driving element  $\frac{5}{8} \times \frac{3}{8}$  z = 15 and counter bearing..

Load capacity: max. 120 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 522/402-88,9 x 2,9 STI A 20 IGM 10 EL...

The bearing inside the driving element and the counter bearing provide the type of order:

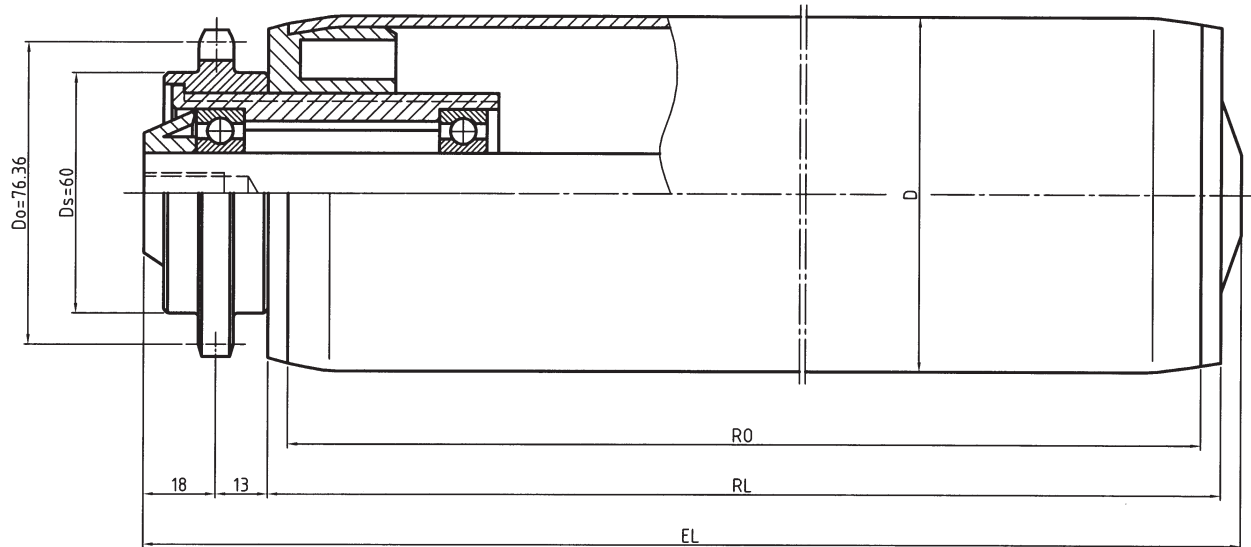
Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6004	<b>522</b>	402
Positive drive with grooved ball-bearing 6004 RS	<b>522 RS</b>	402 RS





# Conveyor Roller Type 523

Tube Ø 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			36			

The bearing fitting consists of a thermoplastic synthetic material driving element  $\frac{5}{8} \times \frac{3}{8}'' z = 15$  and counter bearing.

Load capacity: 80 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts page IX.9

Example how to order:

Type 523/402-88,9 x 2,9 STI A 20 IGM 10 EL...

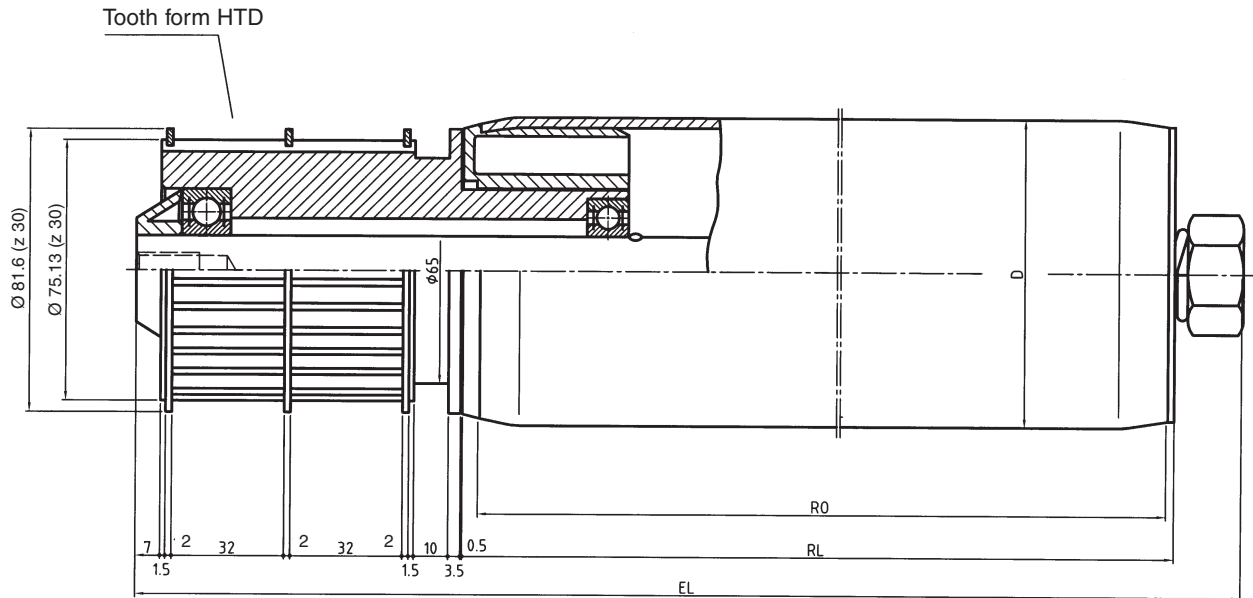
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6004	<b>523</b>	402
Positive drive with grooved ball-bearing 6004 RS	<b>523 RS</b>	402 RS



# Conveyor Roller Type 533 R z 30 / z 34

Tube Ø 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			114			

The bearing fitting consists of a steel driving element 8 M z=30 or z=34 for tooth belt b=30 and counter bearing.

The take-along strength is adjustable in consideration of the spring deflection.

Load capacity: max 180 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts: page IX.9

Example how to order:

Type 533 Rz30/402WT-88,9 x 2,9 STI A 20 IGM 10 **EL**...

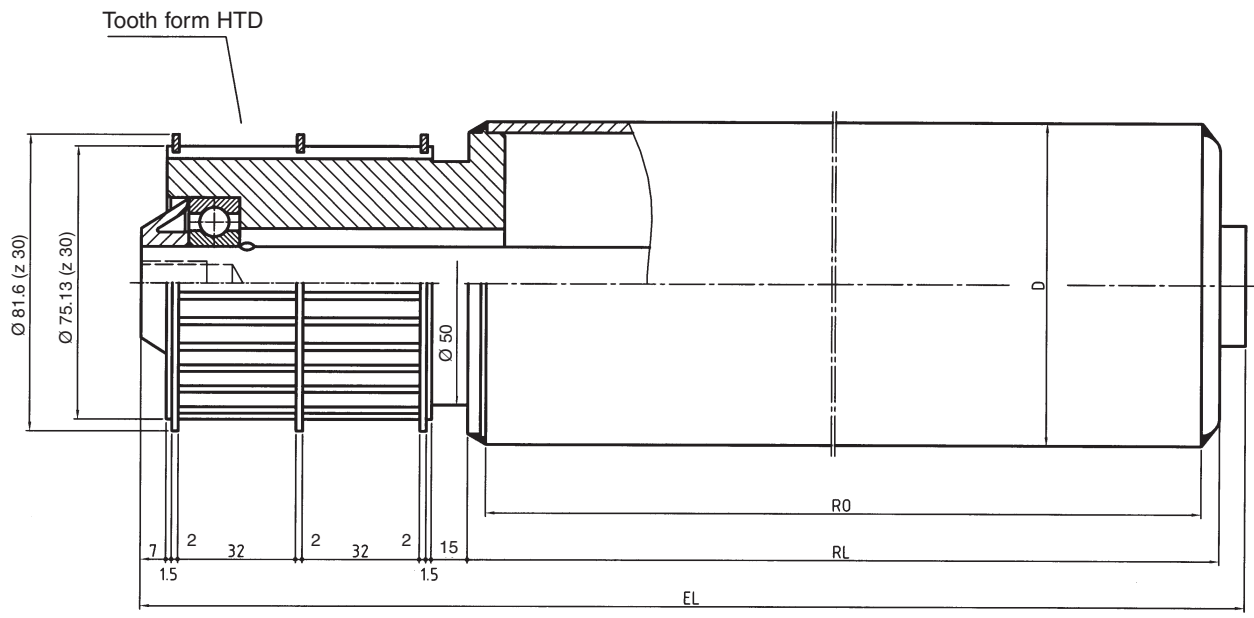
The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Accumulation drive 533 R z 30 / z 34 with grooved ball-bearing 6204		402 WT
Accumulation drive 533 R z 30 / z 34 RS with grooved ball-bearing 6204 RS		402 WT RS





# Conveyor Roller Type 534 z 30 / z 34 Tube Ø 80, 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
20	RL +			101			
25	RL +			101			

The bearing fitting consists of a steel driving element 8 M z = 30 or z = 34 for tooth belt b = 30 and counter bearing.

Load capacity: max 200 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Type of tooth belts: page IX.9

Example how to order:  
Type 534 z30/260-88,9 x 2,9 STI A 20 IGM 10 EL...

The bearing inside the driving element and the counter bearing provide the type of order:

Driving element	Type	Counter bearing
Positive drive with grooved ball-bearing 6204 or 6005	<b>534 z 30 / z 34</b>	260/402 WO 402 ST
Positive drive with grooved ball-bearing 6204 RS or 6005 RS	<b>534 z 30 / z 34 RS</b>	260/402 WO RS 402 ST RS



# Zero Pressure Conveying

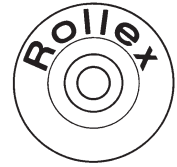


Type		Page
530	Clutch, zero pressure	1-2
531	Clutch, zero pressure	3
530/531	Construction Advice	4
535	Plastic single sprocket $1\frac{1}{2} \times \frac{5}{16}$ " z = 11 zero pressure	5
535	Construction Advice	6
530 Z / 531 Z	Pneumatic Cylinder	7
530 S	Light-Barrier	8
536E-89	Magnet-Roller with Brake	9
	Rollex Drive System Basics	10
	Rollex Drive System Control Board	11
	Rollex Drive System Construction Advice	12



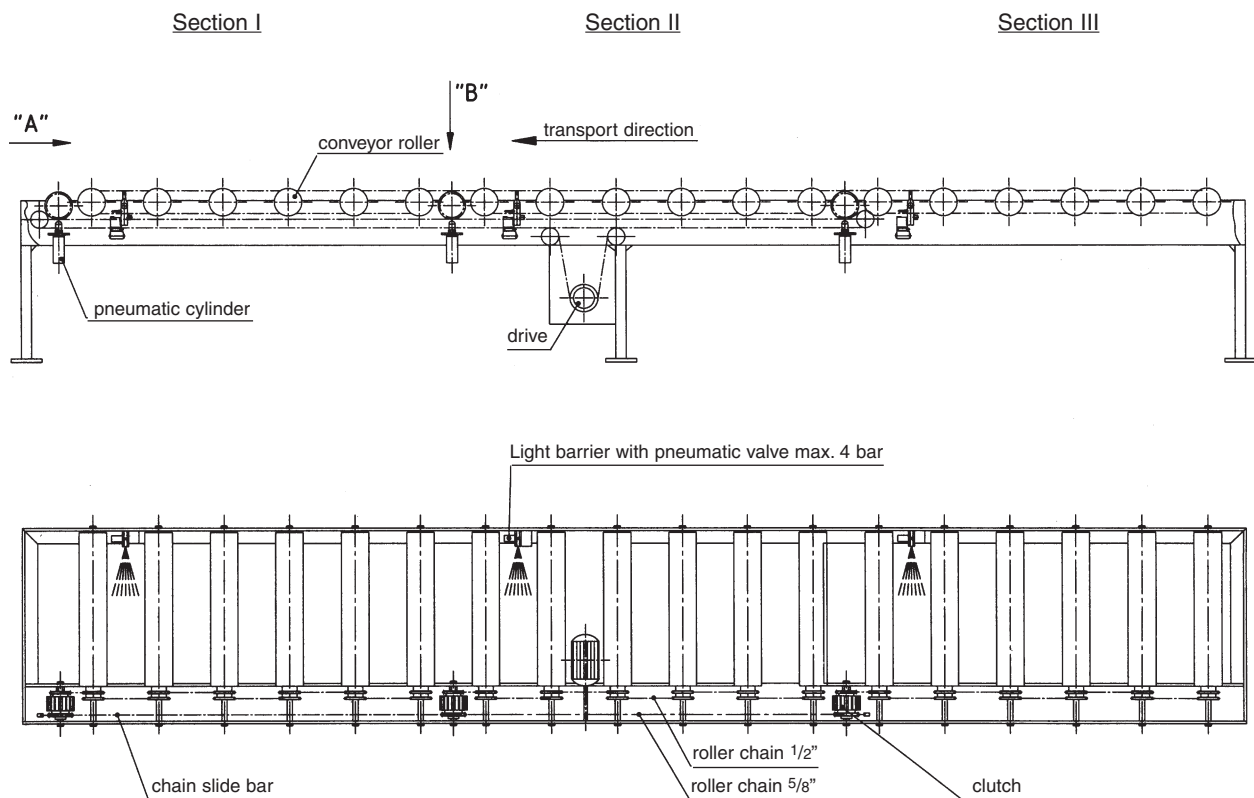
# Clutch Type 530

for non-impact transport



The system is primarily driven tangentially by a single steel sprocket-wheel  $\frac{5}{8} \times \frac{3}{8}$ "  $z = 13$ . This drives a secondary sprocket-wheel  $\frac{1}{2} \times \frac{5}{16}$ "  $z = 14$  which drives a section of rollers.

If goods are backed-up on the rollers, the clutch engages and the primary to secondary drive is interrupted, thus stopping the whole section.



The drive should be positioned near the station of origin.

## Example:

Goods are loaded on to the empty conveyor. These travel over all sections until the light barrier of section 1 is activated. The section 1 drive is thus disengaged and the section 2 control valve activated, the same process being repeated for section 3 etc.

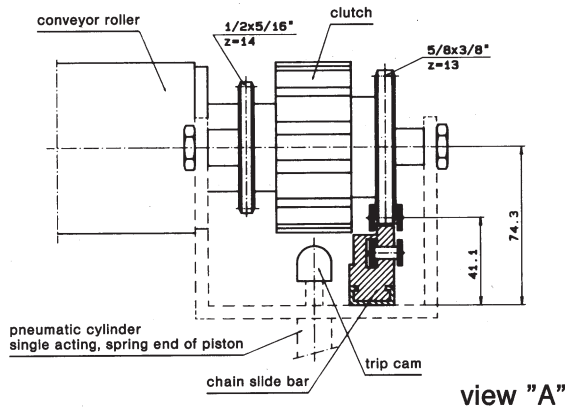
To re-activate the system, goods may be removed from the conveyor at any stage and the backed-up goods all move forward one section. On automatic conveyors, a switch can be used with the same effect. The switch is placed so that goods can be removed from any section.





## Type 530

### Construction advice



The minimum weight of the loaded-goods is so low so that empty pallets can also be transported. The section-length should be laid-out according to the goods-length, plus the required gap between sections (min. 200 mm). The light barrier should be positioned according to the weight and speed of the loaded goods.

The conveyor-length is to be laid-out so that a maximum weight of 4 000 da/N will be transported. To this effect, the following factors must be considered:

- loaded-goods weight
- loaded-goods speed
- function frequency

#### Calculation example:

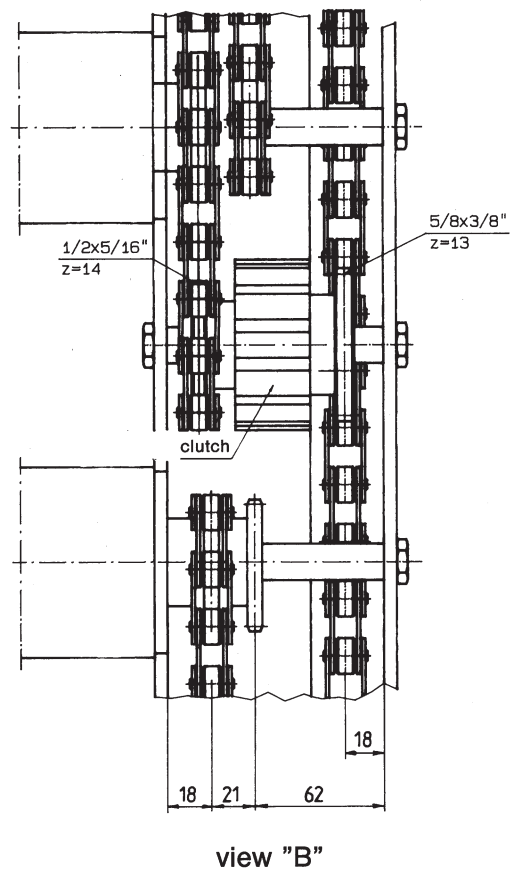
loaded-goods weight: 1000 da/N

loaded-goods speed: 12 m/min

function frequency: 2 pcs/min

Four goods (4000 da/N) may be transported at the same time. If a fifth good is placed on the conveyor after 2 minutes, the first good has travelled 24 meters, this being, in this example, the maximum conveyor-length per drive.

This calculation is only relevant to the loading on an empty conveyor, as only two goods are in movement when the backed-up capacity is reached, or when goods are removed.



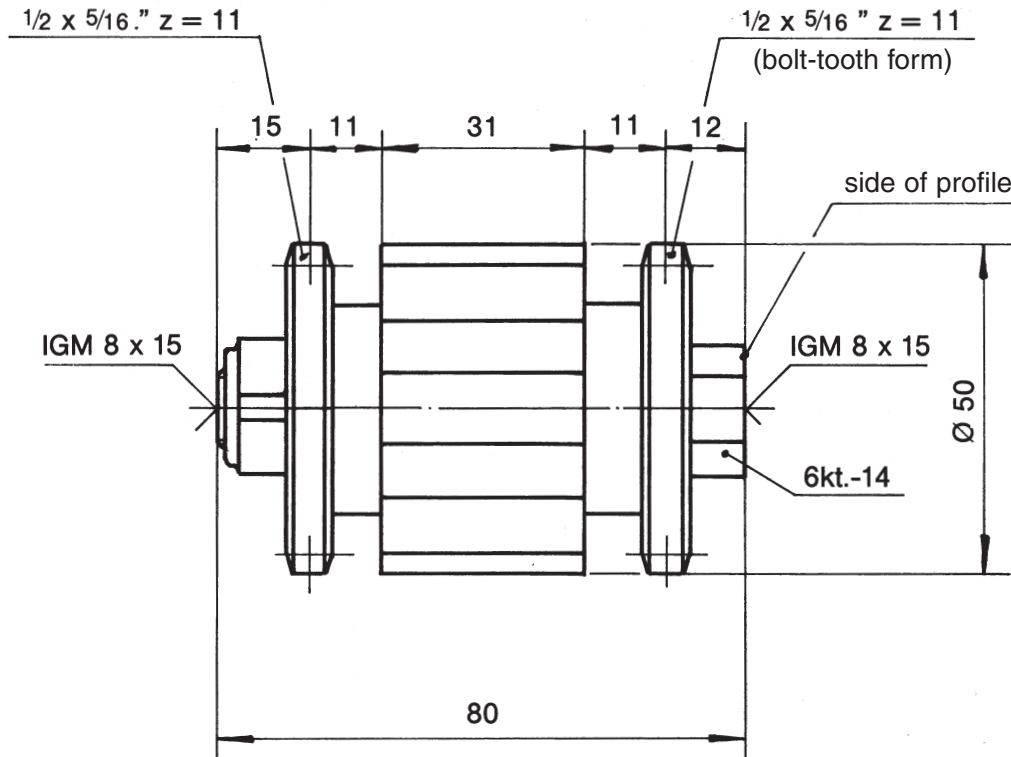
In the ROLLEX-Programme you will find the following components:

Clutch, pneumatic cylinder with trip cam, light barrier with pneumatic valve, conveyor rollers and chain slide bar with C-profile.



# Clutch Type 531

for non-impact transport



The system is primarily driven tangential by chain or tooth belt and drives secondary a section of positive drive conveyor rollers by chain or tooth belt.

If the goods are backed up, the clutch engages and interrupts the power between primary and secondary drive, so stopping the whole section.

Loaded goods weight:

1 - 120 daN (depends on the drive)

Loaded goods speed:

max. 0,6 m/sec. (depends on drive and loaded goods weight)

Clutch types:

single 1/2" x 5/16" z 11 - single 1/2" x 5/16" z 11

single 1/2" x 5/16" z 14 - single 1/2" x 5/16" z 14

double 1/2" x 5/16" z 14 - single 1/2" x 5/16" z 14

double tooth-belt 8 M z 20 - single tooth-belt M 8 z 20

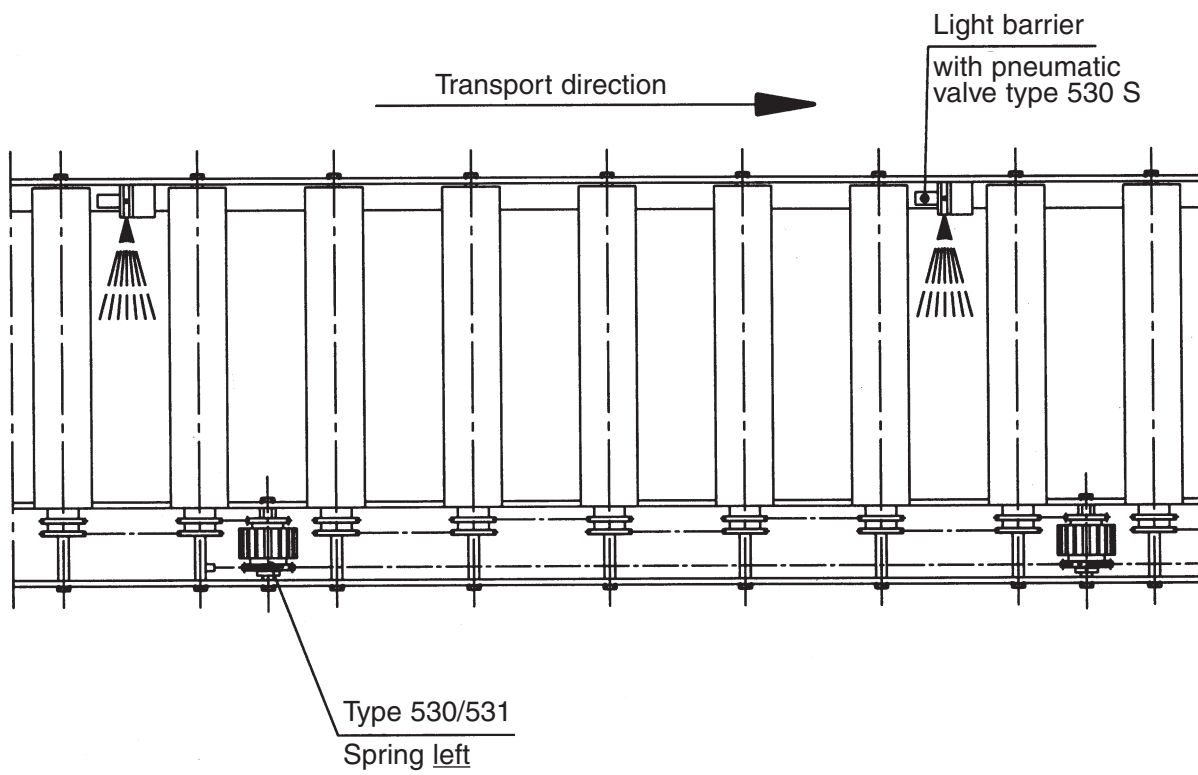
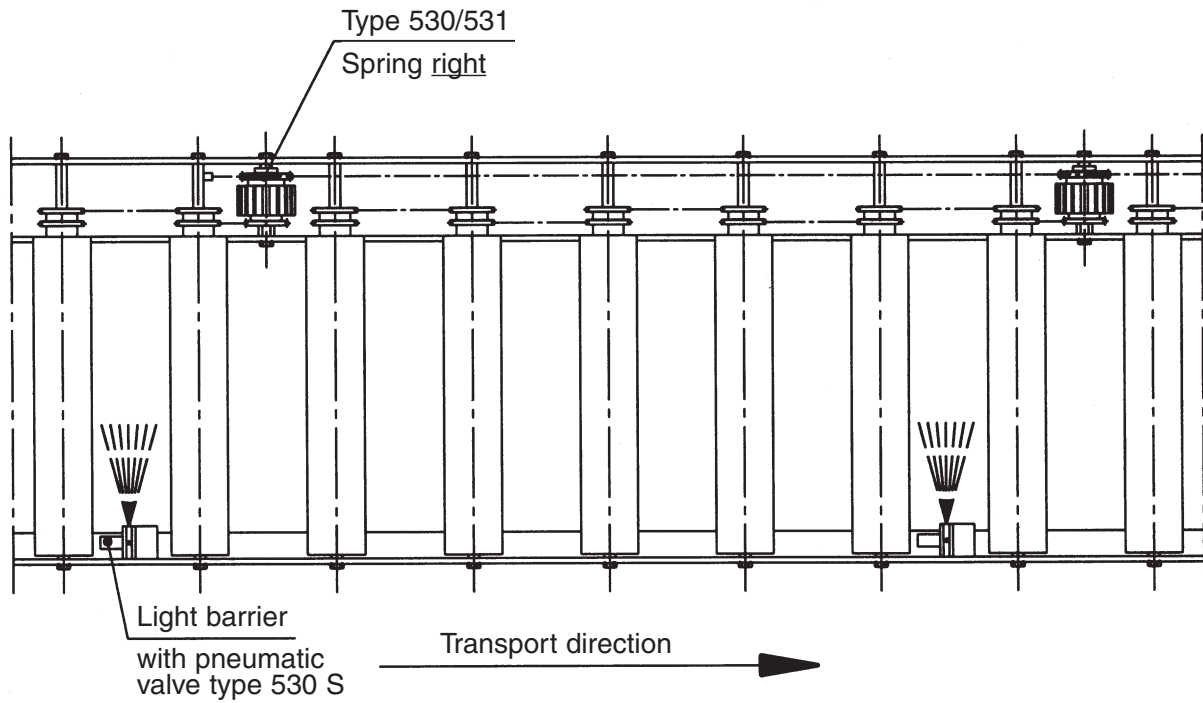
This will be made by the goods that meets a light barrier with pneumatic valve and so engages the Pneumatic Cylinder.





# Type 530/531

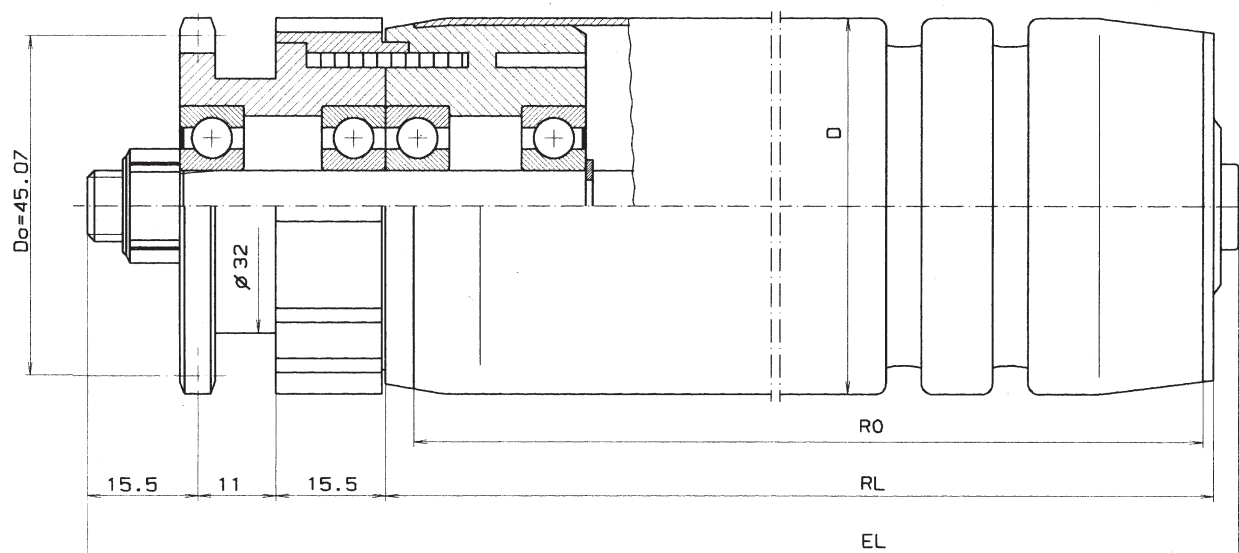
## Construction advice





# Conveyor Roller Type 535

with clutch for non-impact transport  
Tube Ø 50



The conveyor roller type 535 is driven tangential with a plastic-single chain wheel 1/2" x 5/16" z 11. This drives a section of rollers by belt, chain or tooth-belt.

If the goods are back-up the drive will be interrupted and the section stopped.

This will be made by the goods, passing a light-barrier with pneumatic-valve actuating the pneumatic cylinder.

Loaded goods weight:  
0,1 - 60 daN (depends on the drive)

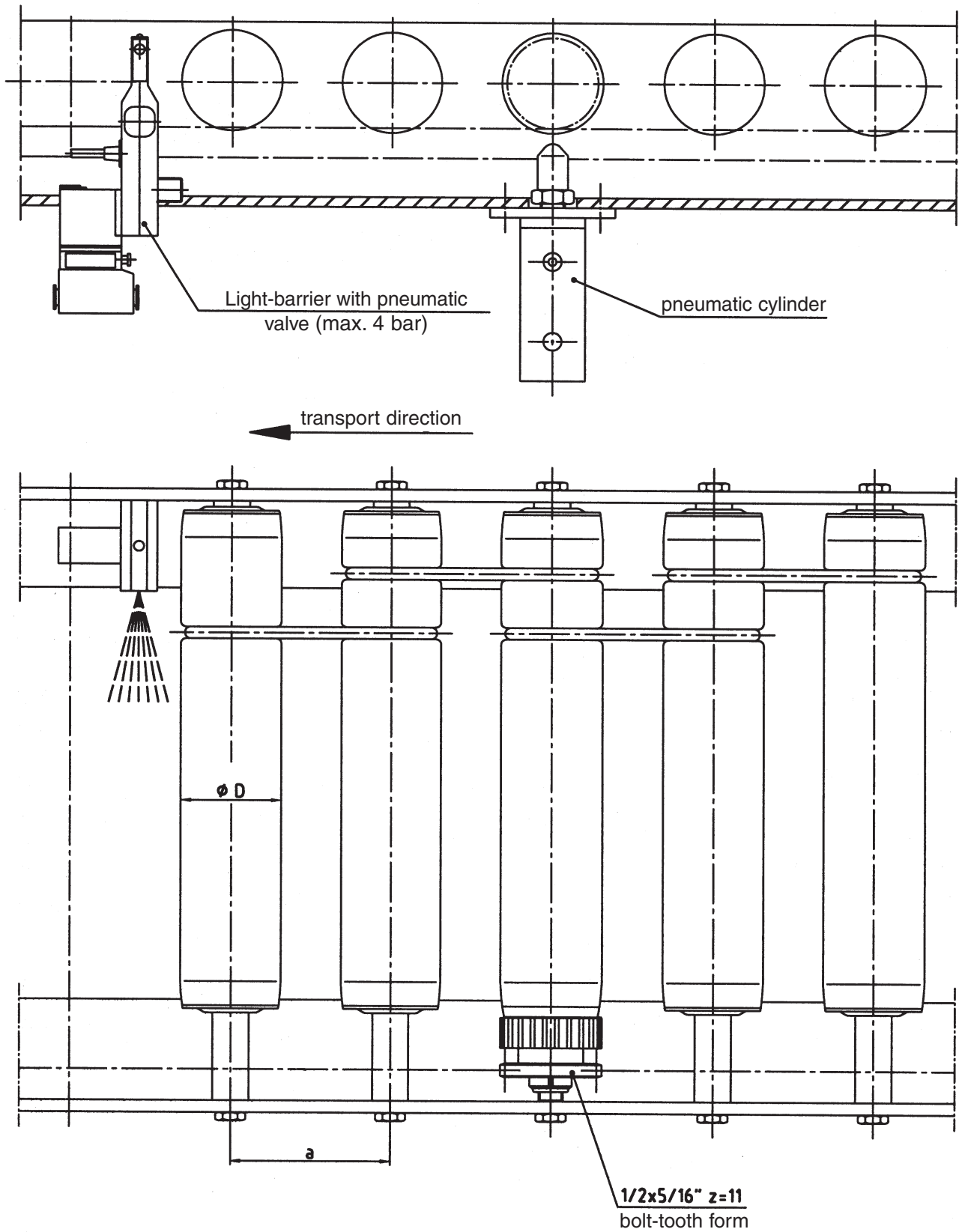
Loaded goods speed:  
max. 0,6 m/sec. (depends on drive and loaded goods weight)





## Type 535

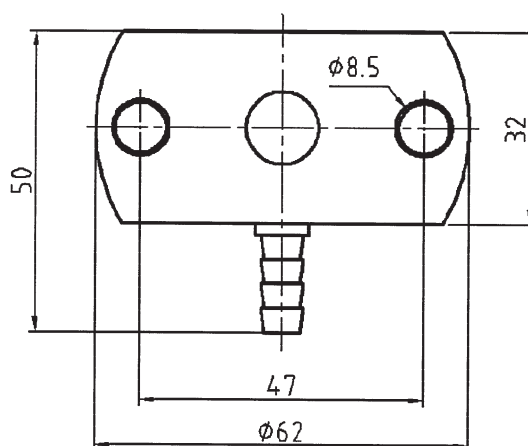
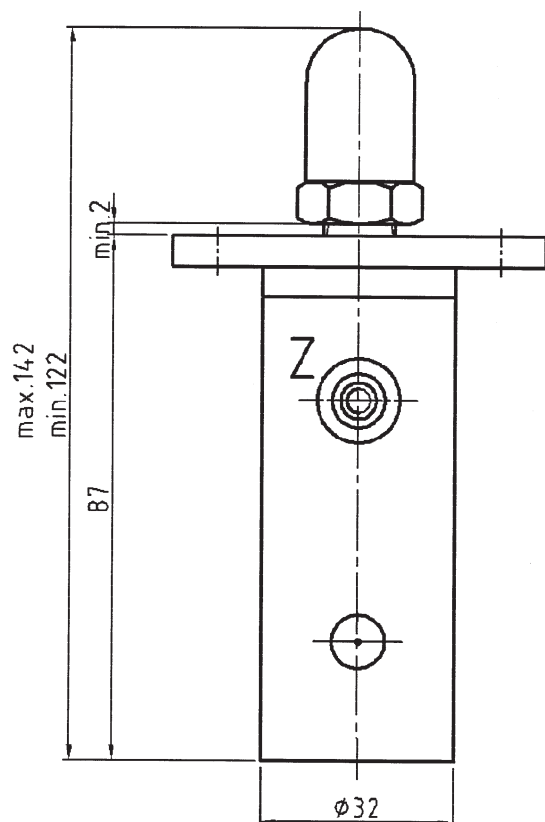
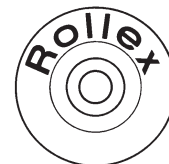
### Construction advice





# Type 530 Z / 531 Z

## Pneumatic Cylinder



**530 Z - 20 x 4 KS A12**  
with release spring  
lift 20 mm / 4 bar

### Datas:

Material: Plastic black  
Cylinder rod: Steel with shift cam  
Connector: Plastic tube

Connecting to Light-Barrier by reducing from 6 to 4 mm

Lift: 20 mm

Max. Pressure: 4 bar

### Function:

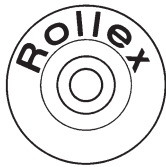
Resting position without air:

- Cylinder rod out
- Clutch latched off
- Section standing

With air:

- Cylinder rod in
- Clutch latched in
- Section running

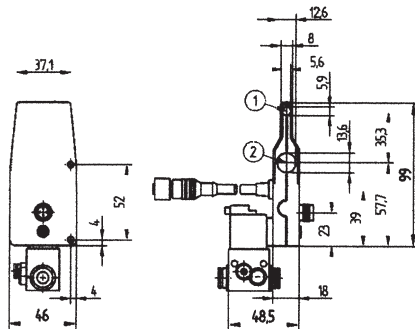




# Type 530 Light Barrier

## Reflex Sensors for Roller Conveyor Systems

All dimensions in mm (1 mm = 0,03937 Inch)



1 = Transmitter Diode  
2 = Receiver Diode

- Integrated Logic
- Electronic Background Suppression
- Scaled switching Distance Adjuster
- Fully Encapsulated

### Technical Data

#### Optical Data

Range	550 mm
Potentiometer min	220...270 mm
Potentiometer centre	320...400 mm
Potentiometer max	550...630 mm
Switching Hysteresis	< 15%
Light Source	Infrared Light
Wave Length	880nm
Service Life (TU = +25°)	100000 h
max. Ambient Light	10000 Lux
Opening Angle	5 °

#### Electrical Data

Supply Voltage	10..30 V DC
Current Consumption Sensor (Ub = 24V)	< 30 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-15...50° C
Switching Outputs	1
Switching Output Voltage Drop	< 0,8 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Logic	yes
Block Discharge	yes
Valve Control	yes

#### Mechanical Data

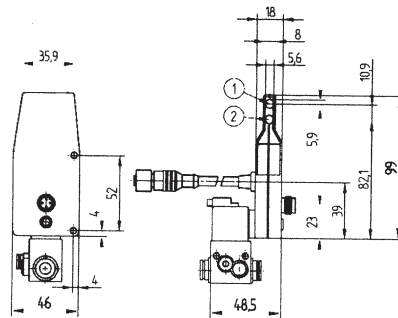
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 65
Connection	M 12x1
Cable Length	88 cm

#### Pneumatic Solenoid Valve Unit

Valve No.	K04
Supply Voltage Valve	19,2...28,8 V
Current Consumption Valve	86 mA
Operating Pressure	0,5...7 bar
Nominal Width	0,8 mm
Nominal flow rate 1-> 2	20 NL/min
Nominal flow rate 2-> 3	100 NL/min
Supply line connector pipe	2x 8x1
Working line connector pipe	4x1
Switching function	NC

## Retro-Reflex Sensors for Conveyor Systems

All dimensions in mm (1 mm = 0,03937 Inch)



1 = Transmitter Diode  
2 = Receiver Diode

- Integrated Logic
- Recognition of high-gloss and jet black objects
- Large Working Range
- Fully Encapsulated

### Technical Data

#### Optical Data

Range	6500 mm
Reference Reflector	RQ100BA
Max. Distance on Reflector	100 mm
Switching Hysteresis	< 15%
Light Source	Red Light
Polarization Filter	yes
Service Life (T= +25° C)	100000 h
max. Ambient Light	10000 Lux
Opening Angle	5 °

#### Electrical Data

Supply Voltage	18..30 V DC
Current Consumption Sensor (Ub=24V)	< 25 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-15...50° C
Switching Outputs	1
Switching Output Voltage Drop	< 0,8 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
Overload Protection	Yes
Logic	Yes
Block Discharge	Yes
Valve Control	Yes

#### Mechanical Data

Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 65
Connection	M 12x1
Cable Length	88 cm

#### Pneumatic Solenoid Valve Unit

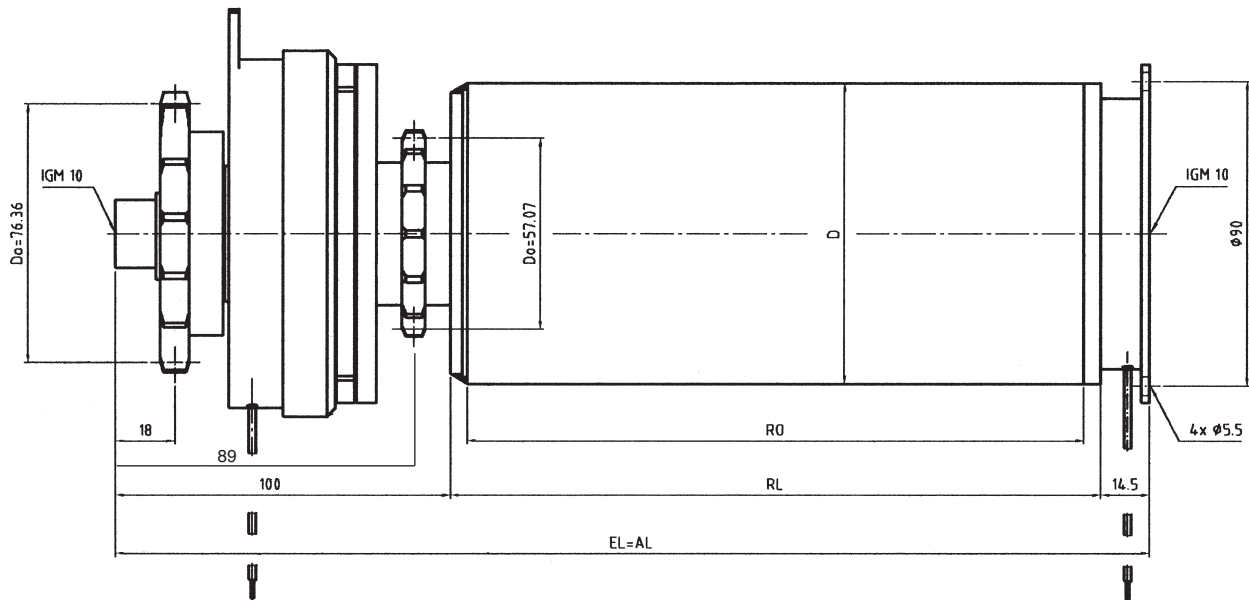
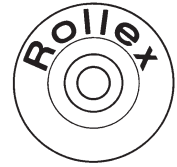
Valve No.	K04
Supply Voltage Valve	19,2...28,8 V
Current Consumption Valve	86 mA
Operating Pressure	0,5...7 bar
Nominal Width	0,8 mm
Nominal flow rate 1-> 2	20 NL/min
Nominal flow rate 2-> 3	100 NL/min
Supply line connector pipe	2x 8x1
Working line connector pipe	4x1
Switching function	NC



# Type 536 E

## Magnetic Roller with Brake

Tube Ø 88.9



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
25	RL+			115			

Magnetic clutch data				
max. paletten weight in kg	max. torque in Nm	voltage in V DC	max. torque in W	clutch diameter in mm
1200	40	24	32	108

### Design details:

- less wear and temperature resistant friction surface
- unlimited duty cycles
- insulation group B
- torsion free
- quiet operating system no noise development
- short contact time
- easy mounting features

### Installation instructions:

- avoid contact with oil and grease on the clutch
- nominal power: 24 VDC
- min. power requirement: 24 VDC
- do not exceed max. power by more than 10%
- ensure that the shafts are installed parallel
- the max. load for each Magnet-Roller is 200 kg





# Rollex Drive System

## Basics

The Rollex Drive System has been developed for use of Zero-Pressure Systems. It operates with all 24V Drive-Systems from our Product Range.

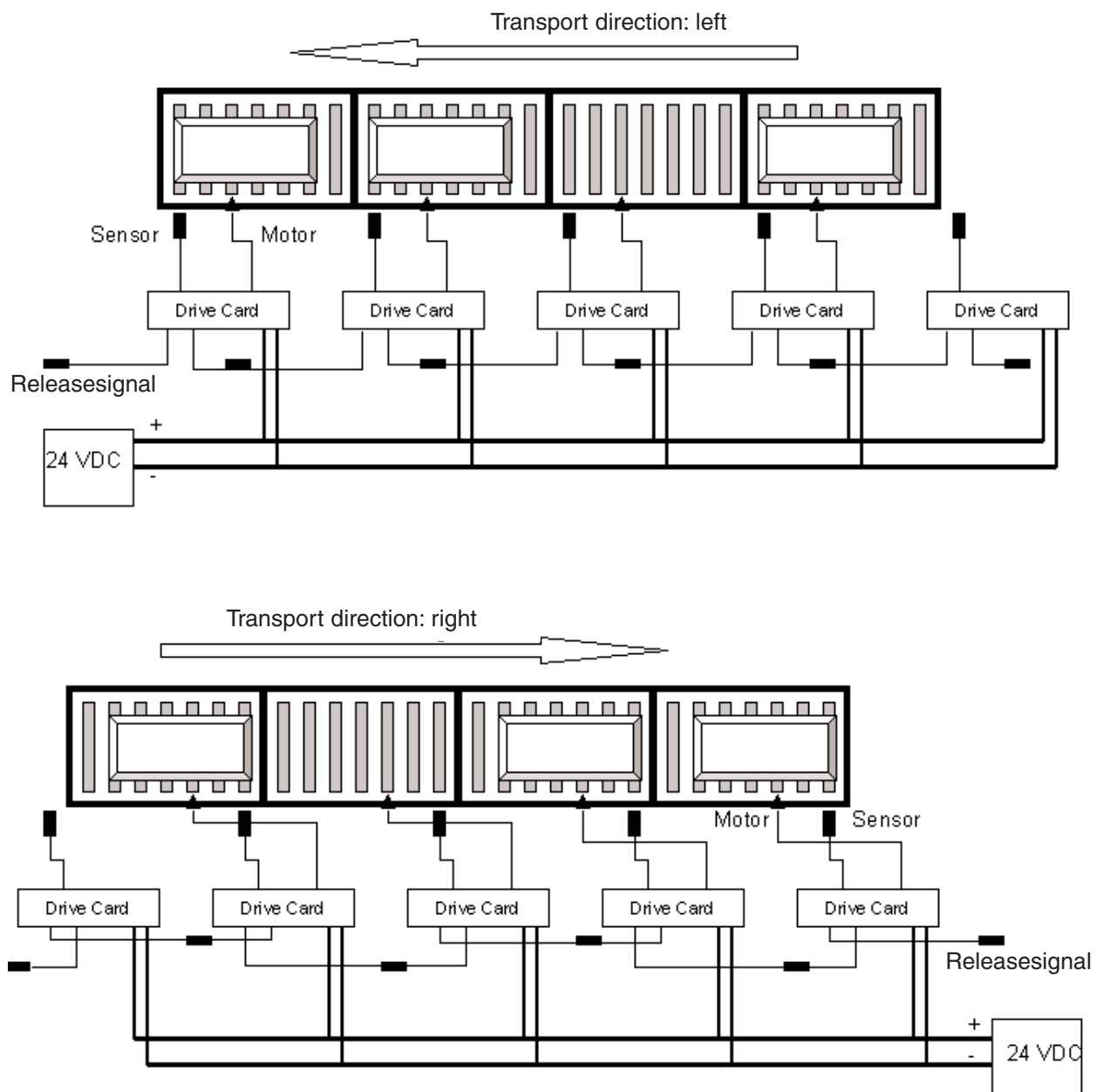
The Zero-Pressure Switch has an integrated logic, that communicates with the switches of the pre- and after-sections.

The basic advantage is that the drive is only switched on, if the loaded good runs in the section, and is switched off, if it leaves the section.

With the sectional switching of the electro magnetic clutch system (Type 536E) a break can be activated to stop the goods fast and smooth.

The Rollex Drive System is activated by a Light-Barrier.

Basic plan of the Zero-Pressure System:





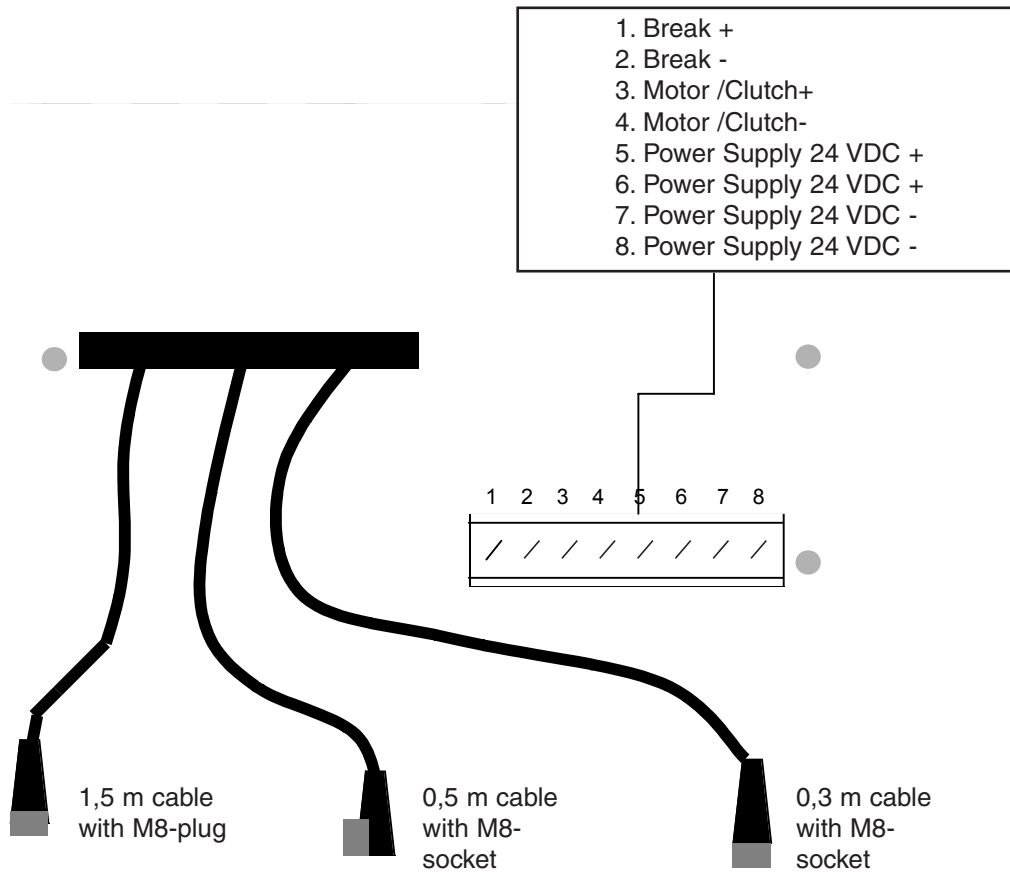
# Rollex Drive System

## Basics



Plug-in of this Control Board will happen by connecting the M8-Clamp to the pre- and after-section. The Power Supply can be made separately. For power supply through the Card all 14 to 20 Cards have to be feed new, re the drive concept.

Plan of the Card:



Technical Datas:

Power Supply	24 V DC +/- 10%		
Temperature	+ 5° C to +40° C		
Fuse	3,15 A		
Current Limiter	Motor/Clutch	Starting Current	1,8A / 200 ms
		Continuous Load	1,8 A
	Break	Starting Current	1,8A / 200 ms
		Continuous Load	1,2 A







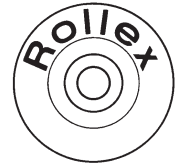
# Conical Conveyor Roller



Type		page
	Conicities	1
541	Synthetic material double chain sprocket-wheel $1/2 \times 5/16$ " $z = 14$	2
543	Synthetic material single chain sprocket-wheel $1/2 \times 5/16$ " $z = 14$	3
551	Steel double chain sprocket-wheel $1/2 \times 5/16$ " $z = 14$	4
553	Steel single chain sprocket-wheel $1/2 \times 5/16$ " $z = 14$	5
563	Steel double chain sprocket-wheel $3/8 \times 7/32$ " $z = 12$	6
566	Steel double chain sprocket-wheel $3/8 \times 7/32$ " $z = 12$	7
600	Synthetic material roller housing	8
601	Synthetic material roller housing	9
602	Synthetic material roller housing	10

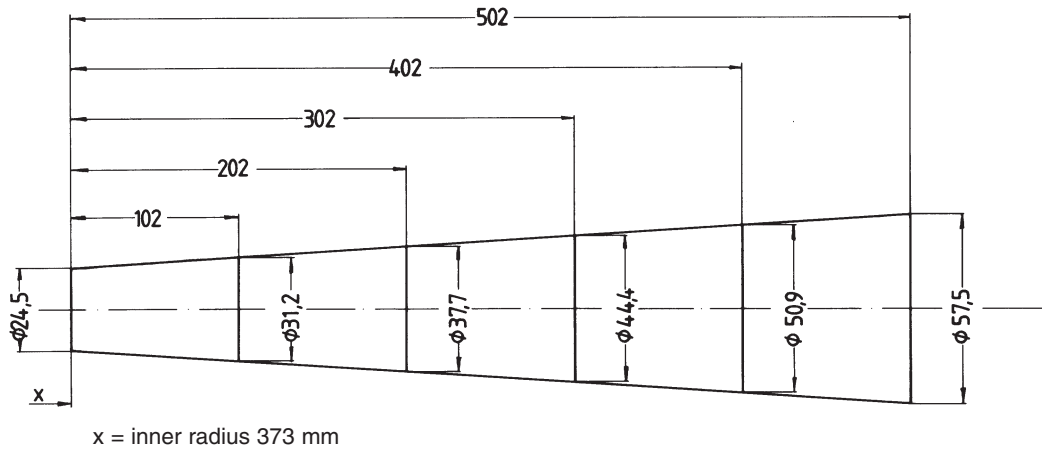


# Conicities

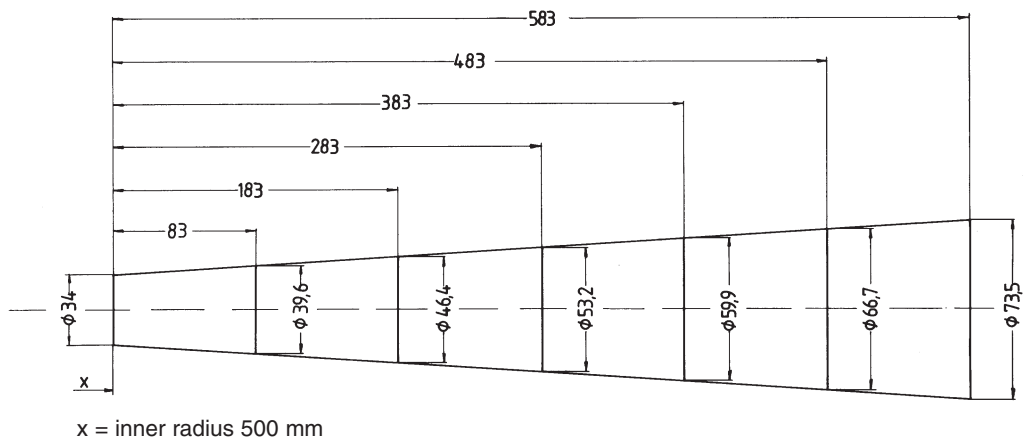


## 1. Conical elements

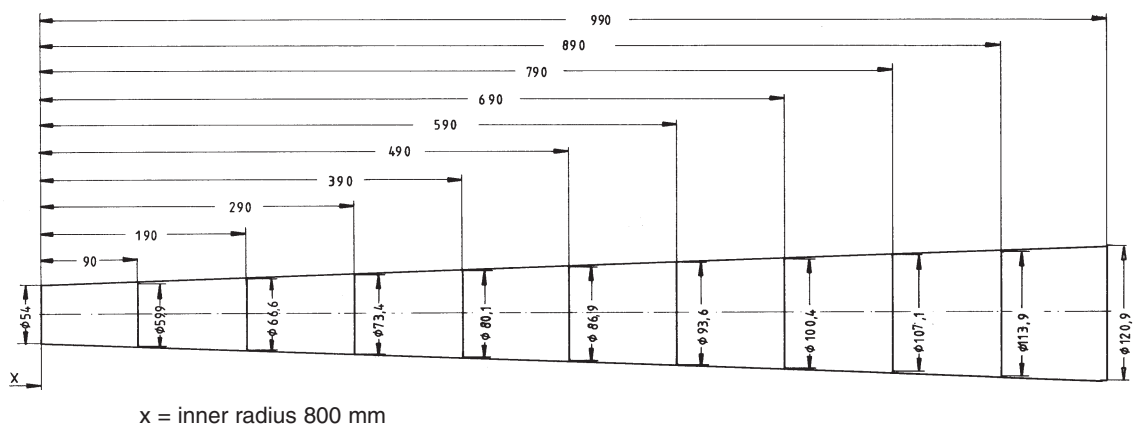
**Types 563, 601**



**Types 566, 602**



**Types 541, 543, 551, 553, 600**



## 2. Conical Roller with PUR-RIM coating, 73° Shore D upon cylindrical roller

The available conicities of the coating you will receive upon request.

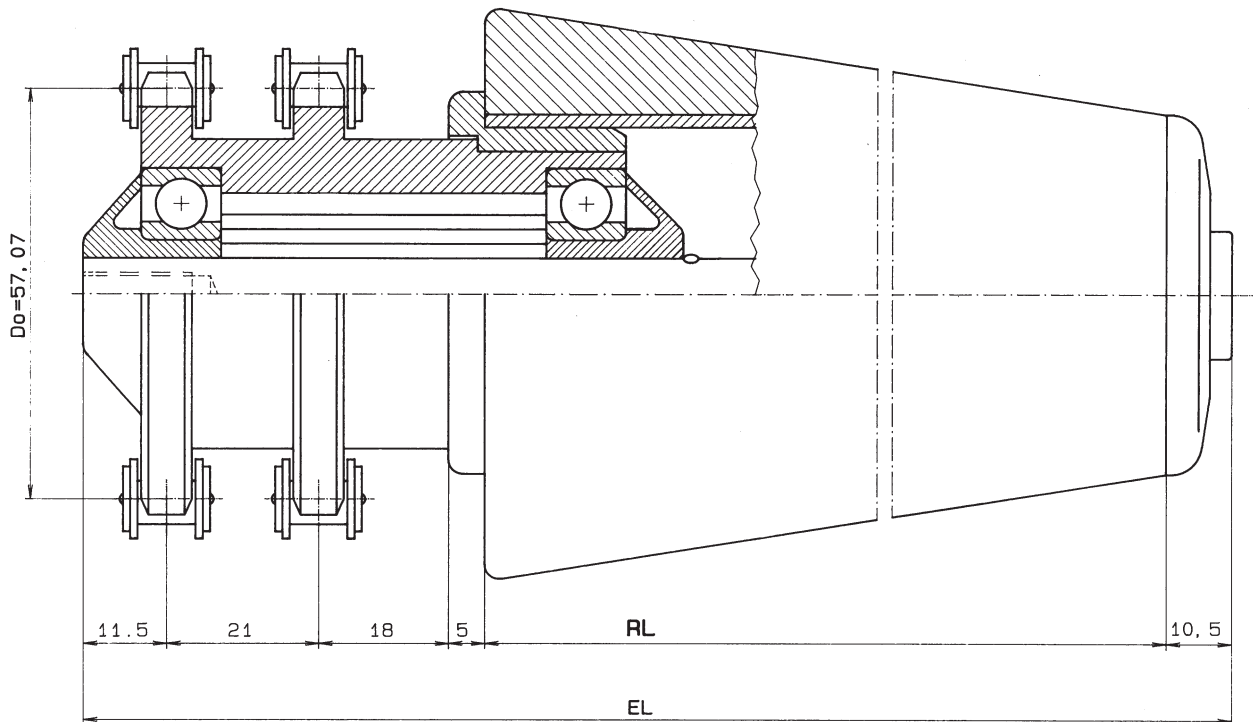
The coating is not antistatic and not heat resistant.





# Conveyor Roller Type 541

Tube Ø 50



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	79					
12	RL +	81		67			
14	RL +	83		67			

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

The bearing fitting consists of a synthetic material driving element  $1/2 \times 5/16$  " z = 14 and counter bearing.

The accumulation pressure is 5-7 % of the loaded capacity weight.

The positive drive type 541 should only be used for continuous transport.

Load capacity: 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

The type is also available with GFK-coating for different inner radius.

Example how to order:

Type 541/300-50 x 1,5 STI A 12 IGM 8 EL ...

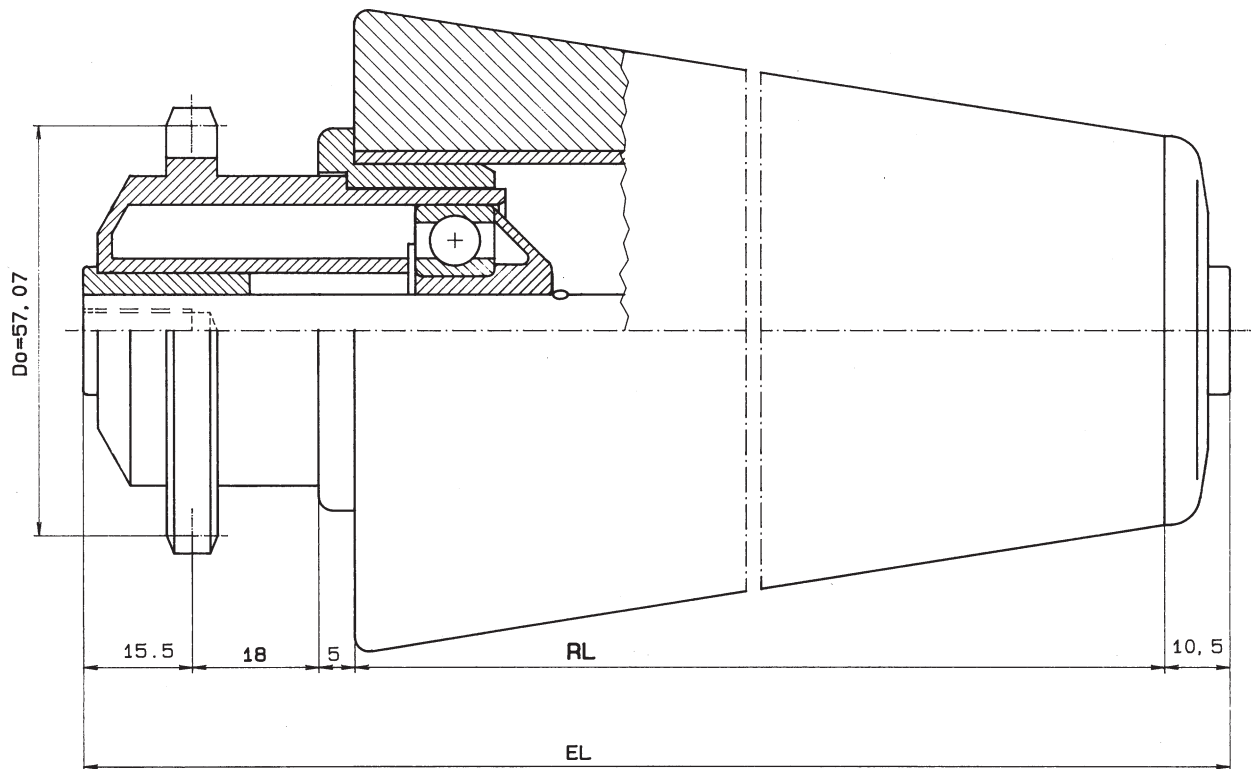
The type of drive, the bearing inside the driving element and the conicity provide the type of order:

Driving element	Type	Counter bearing
<b>Conical elements</b>		
Accumulation drive with grooved ball-bearing 6202	<b>540</b>	300
Accumulation drive with grooved ball-bearing 6202 RS	<b>540 RS</b>	300 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>541</b>	300
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>541 RS</b>	300 RS



# Conveyor Roller Type 543

Tube Ø 50



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	62					
12	RL +	64		50			
14	RL +	66		50			

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

The bearing fitting consists of a synthetic material driving element  $\frac{1}{2} \times \frac{5}{16}$  " z = 14 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive type 543 should be used for continuous transport.

Load capacity: 40 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

The type is also available with GFK-coating for different inner radius.

Example how to order:

Type 543/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element and the conicity provide the type of order:

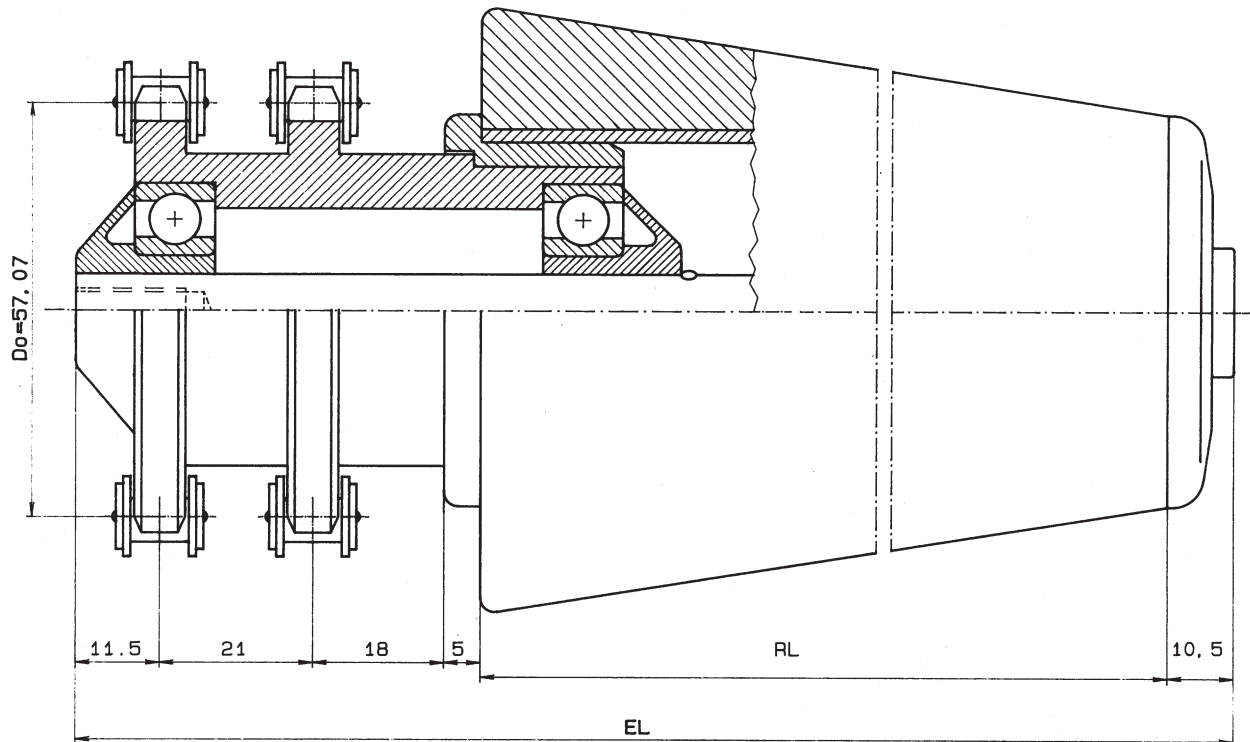
Driving element	Type	Counter bearing
<b>Conical elements</b>		
Accumulation drive with grooved ball-bearing 6202	<b>542</b>	300
Accumulation drive with grooved ball-bearing 6202 RS	<b>542 RS</b>	300 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>543</b>	300
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>543 RS</b>	300 RS





# Conveyor Roller Type 551

Tube Ø 50



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	79					
12	RL +	81		67			
14	RL +	83		67			

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1) or from conical steel tube.

The bearing fitting consists of a steel driving element  $\frac{1}{2} \times \frac{5}{16}'' z = 14$  and counter bearing.

The accumulation pressure is 5-7 % of the loaded capacity weight.

The positive drive type 551 should only be used for continuous transport.

Load capacity: 80 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

The type is also available with GFK-coating for different inner radius.

Example how to order:

Type 551/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element, the counter bearing and the conicity provide the type of order:

Driving element	Type	Counter bearing
-----------------	------	-----------------

## Conical elements

Accumulation drive with grooved ball-bearing 6202	<b>550</b>	300
Accumulation drive with grooved ball-bearing 6202 RS	<b>550 RS</b>	300 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>551</b>	300
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>551 RS</b>	300 RS

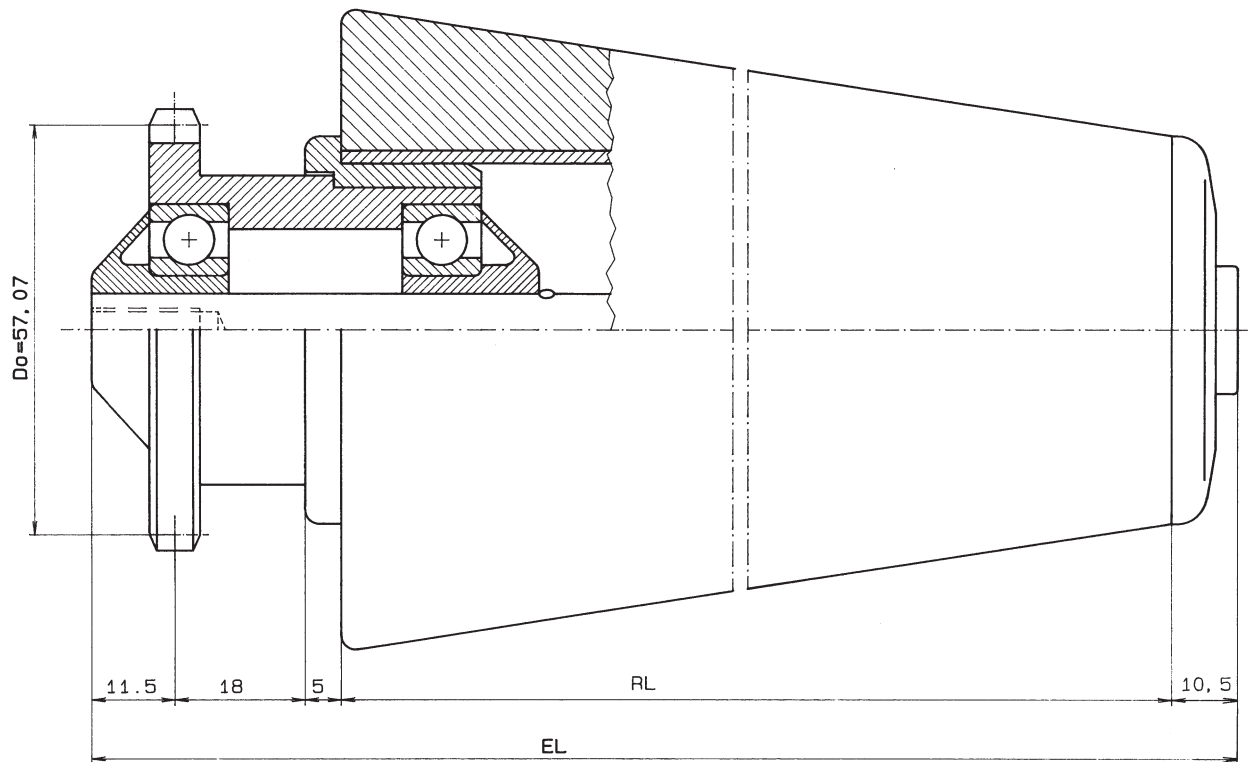
## Conical PUR-RIM coating – special design

Accumulation drive with grooved ball-bearing 6202	<b>555</b>	
Accumulation drive with grooved ball-bearing 6202 RS	<b>555 RS</b>	
Positive drive (welded) with grooved ball-bearing 6202	<b>556</b>	
Positive drive (welded) with grooved ball-bearing 6202 RS	<b>556 RS</b>	



# Conveyor Roller Type 553

Tube Ø 50



Order specification		A... M...	A... AGM...	A... IGM...	A... glatt	A... SW...	A... FA...
Shaft-Ø	EL =						
10	RL +	58					
12	RL +	60		46			
14	RL +	62		46			

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1) or from conical steel tube.

The bearing fitting consists of a steel driving element  $1/2 \times 5/16''$  z = 14 (bolt tooth form) and counter bearing.

The accumulation pressure is 5-7 % of the loaded capacity weight.

The positive drive type 553 should only be used for continuous transport.

Load capacity: 80 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

The type is also available with GFK-coating for different inner radius.

Example how to order:

Type 553/300-50 x 1,5 STI A 12 IGM 8 EL ...

The type of drive, the bearing inside the driving element, the counter bearing and the conicity provide the type of order:

Driving element      Type      Counter bearing

## Conical elements

Accumulation drive with grooved ball-bearing 6202	<b>552</b>	300
Accumulation drive with grooved ball-bearing 6202 RS	<b>552 RS</b>	300 RS
Positive drive (pressfit) with grooved ball-bearing 6202	<b>553</b>	300
Positive drive (pressfit) with grooved ball-bearing 6202 RS	<b>553 RS</b>	300 RS

## Conical PUR-RIM coating – special design

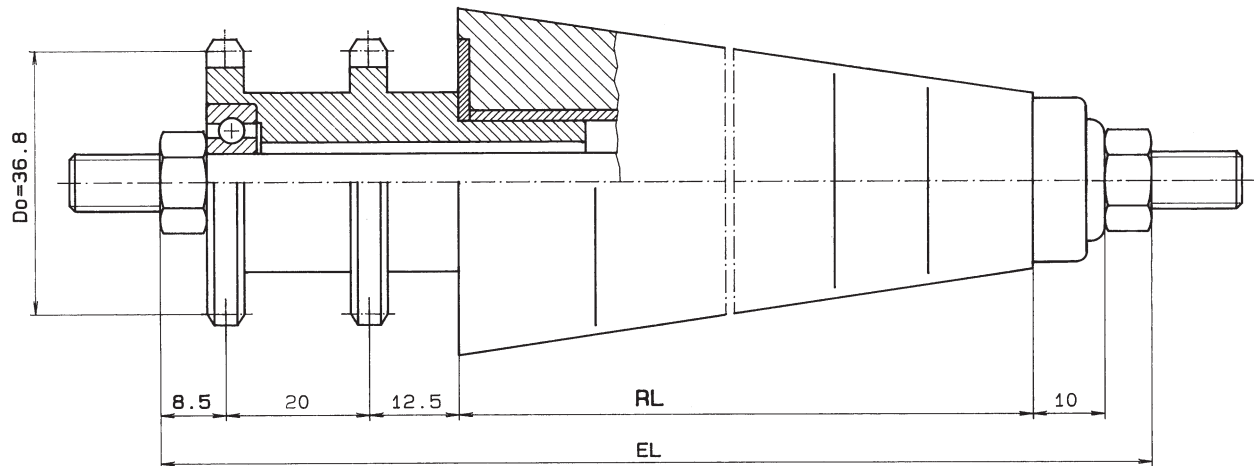
Accumulation drive with grooved ball-bearing 6202	<b>557</b>	
Accumulation drive with grooved ball-bearing 6202 RS	<b>557 RS</b>	
Positive drive (welded) with grooved ball-bearing 6202	<b>558</b>	
Positive drive (welded) with grooved ball-bearing 6202 RS	<b>558 RS</b>	





# Conveyor Roller Type 563

Tube Ø 20



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
8	RL +	59					59

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

The bearing fitting consists of a steel driving element  $\frac{3}{8} \times \frac{7}{32}'' z = 12$  and counter bearing.

The type should only be used for continuous transport.

Load capacity: 10 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 563/51 B-20 x 1,5 STI A 8 M 8 EL ...

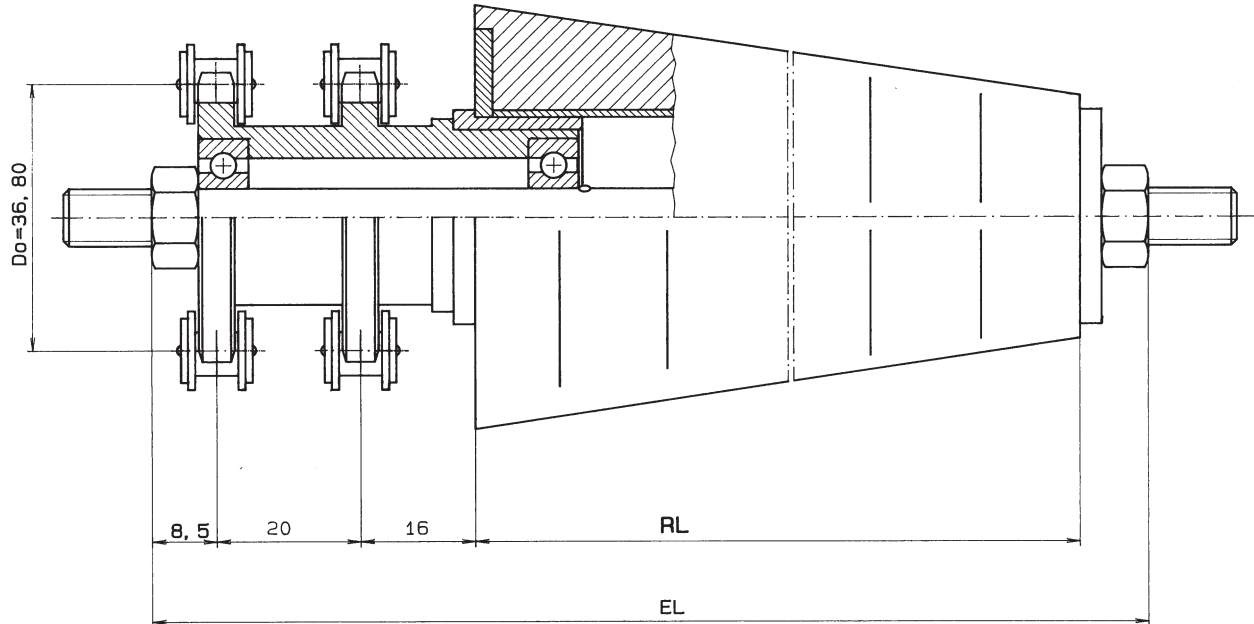
The bearing inside the driving element provides the type of order:

Driving element	Type	Counter bearing
Positive drive (pressfit) with grooved ball-bearing 608	<b>563</b>	51 B
Positive drive (pressfit) with grooved ball-bearing 608 RS	<b>563 RS</b>	51 B



# Conveyor Roller Type 566

Tube Ø 30



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...	
Shaft-Ø	EL =							
		Type 51	Type 60				Type 51	Type 60
8	RL +	62	55				62	55

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

The bearing fitting consists of a steel driving element  $\frac{3}{8} \times \frac{7}{32}'' z = 12$  and counter bearing.

The accumulation pressure is 5-7 % of the loaded material weight.

The positive drive should only be used for continuous transport.

Load capacity: max. 20 daN/roller  
with counter bearing type 50/51 14 daN/roller

Type of tube: page I.3

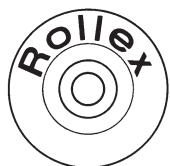
Type of shaft: page I.4

Example how to order:  
Type 566/51-30 x 1 STI A 8 M 8 EL ...

The type of drive, the bearing inside the driving element and the counter bearing provide the type of order:

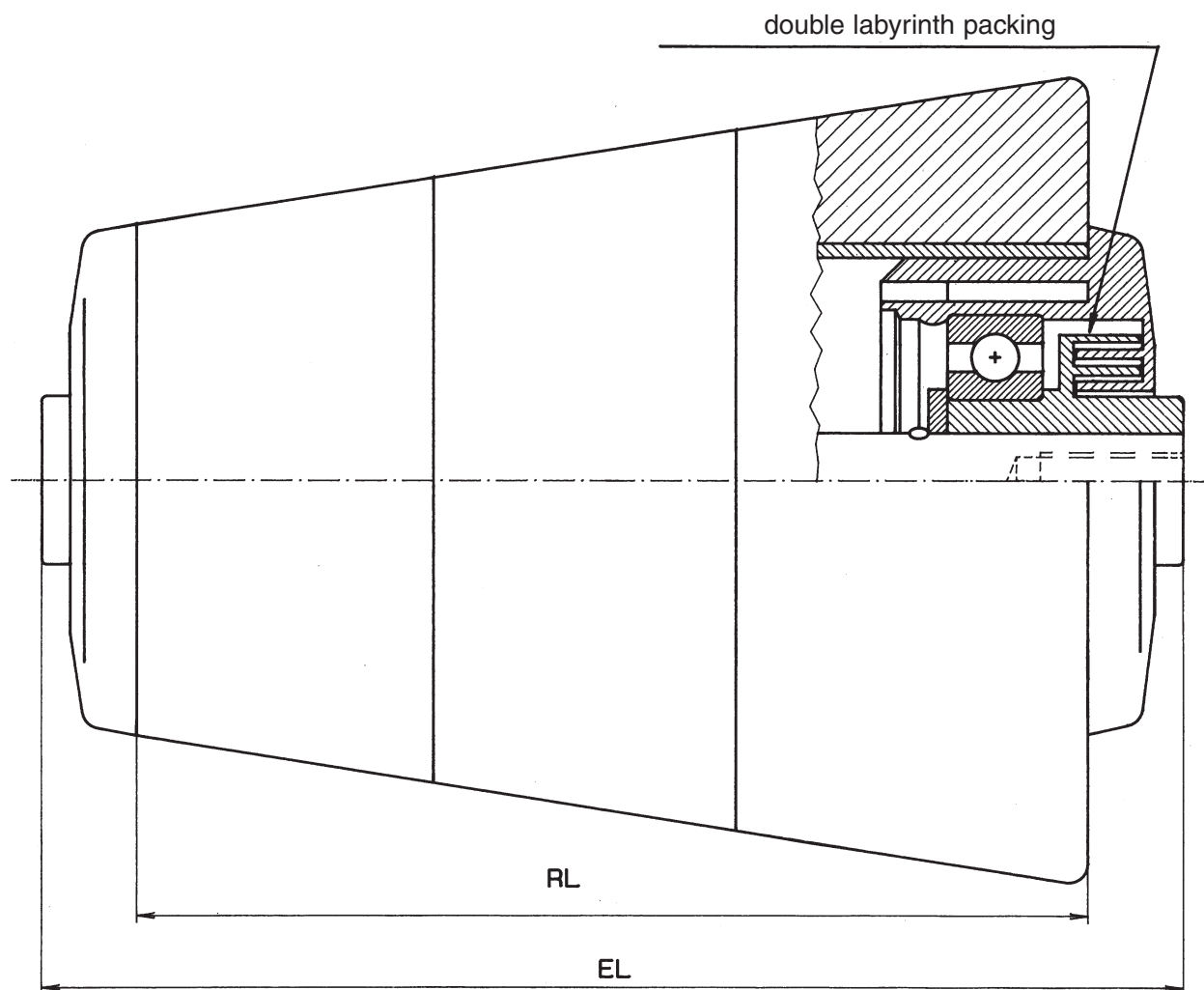
Driving element	Type	Counter bearing
Accumulation drive with grooved ball-bearing 608	<b>566</b>	50/60
Accumulation drive with grooved ball-bearing 608 RS	<b>566 RS</b>	51/60 RS
Positive drive (pressfit) with grooved ball-bearing 608	<b>567</b>	50/60
Positive drive (pressfit) with grooved ball-bearing 608 RS	<b>567 RS</b>	51/60 RS


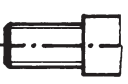

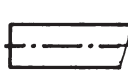






# Conveyor Roller Type 600

Tube Ø 50



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
10	RL +	32		20			
12	RL +	34		20			
14	RL +	36		20			

This conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1) or from conical steel tube.

Load capacity:                      80 daN/roller  
     Type 100            24 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 600/300-50 x 1,5 STI A 12 IGM 8 EL ...

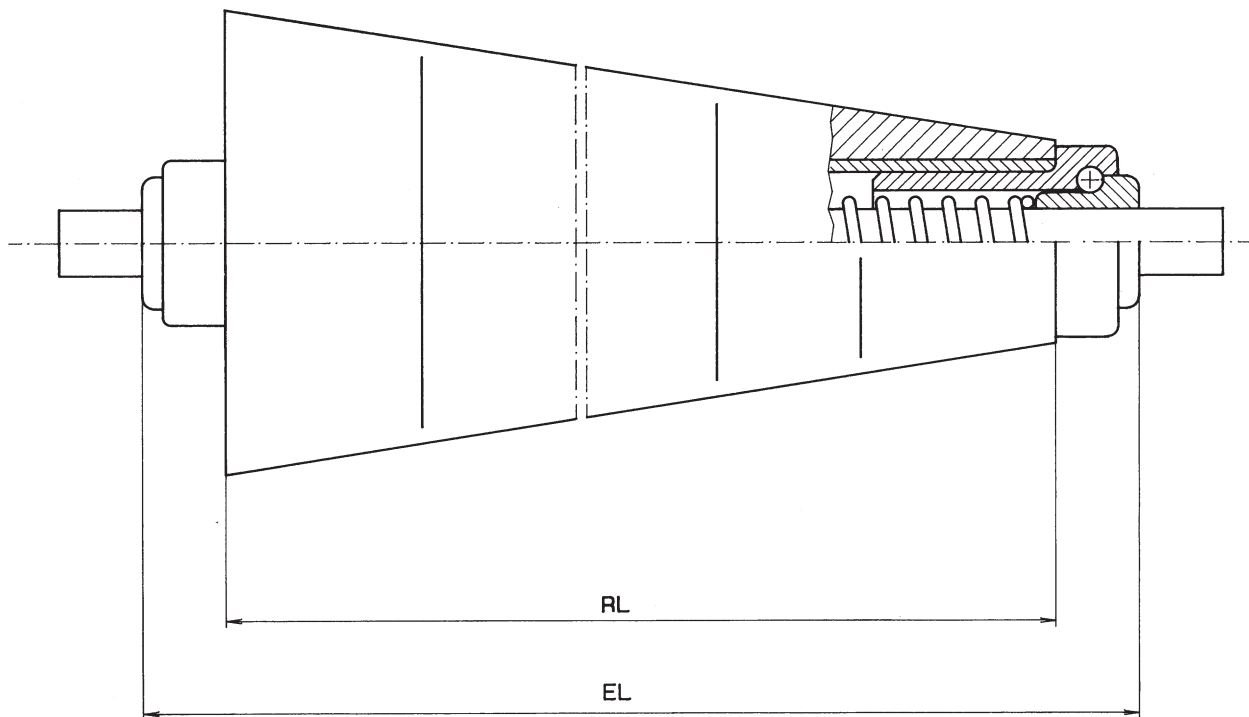
The type of conicity and the choice of the bearing provide the type of order:

Bearing	Type
<b>Conical elements</b>	
Type 100	<b>600/100</b>
Type 300	<b>600/300</b>
<b>Conical PUR-RIM coating – special design</b>	
Type 100	<b>605</b>
Type 300	<b>605</b>



# Conveyor Roller Type 601

Tube Ø 20



Order specification		A ... M ...	A ... AGM ...	A ... IGM ...	A ... glatt	A ... SW ...	A ... FA ...
Shaft-Ø	EL =						
8	RL +	33		20			20

This conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

Load capacity: 10 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:

Type 601/51-20 x 1,5 STI A 8 M 8 EL ...

Type of order:

Bearing

Type 51

Type

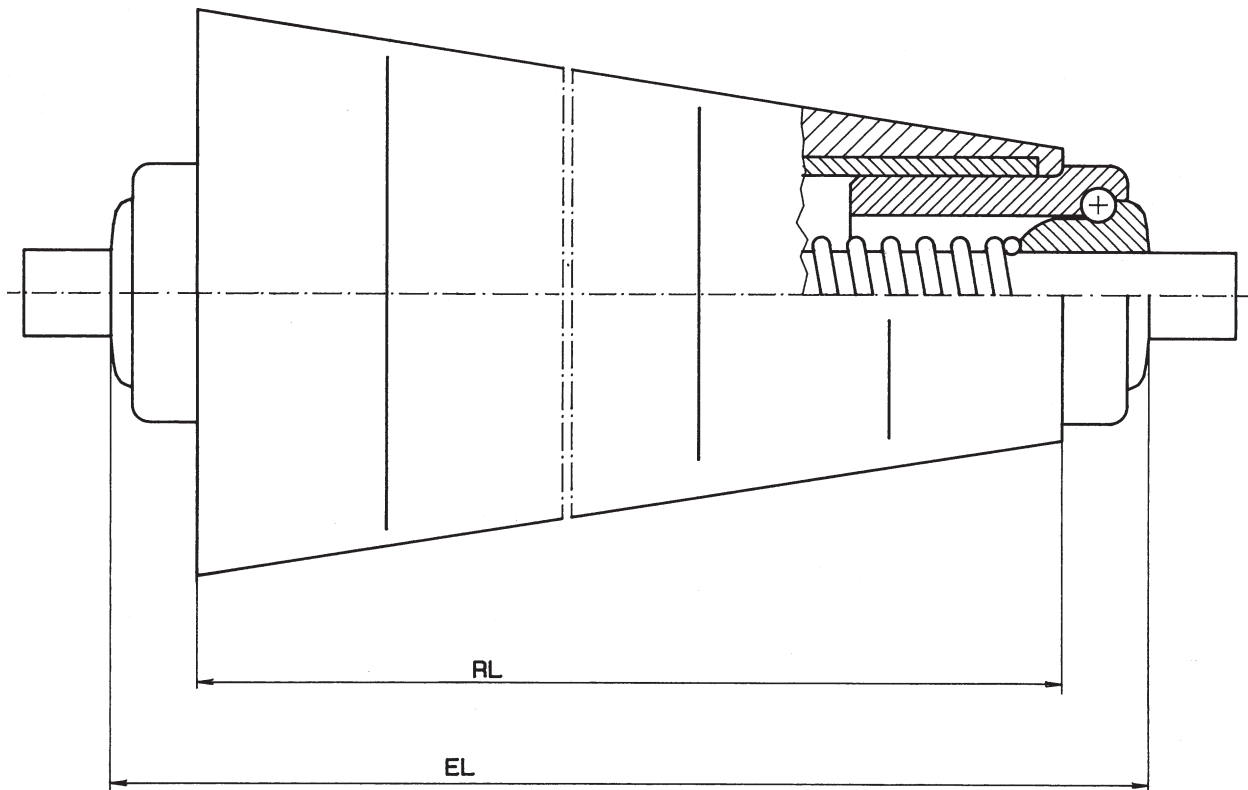
601/51





# Conveyor Roller Type 602

Tube Ø 30



Order specification		A ... M...	A ... AGM...	A ... IGM...	A ... glatt	A ... SW...	A ... FA...	
Shaft-Ø	EL =							
		Type 51	Type 60				Type 51	Type 60
·8	RL +	34	20				21	–
10	RL +	33	–				21	–

The conveyor roller is available with conical elements made from thermoplastic synthetic material (Dimensions page IV.1).

Load capacity: Type 51 20 daN/roller  
10 daN/roller

Type of tube: page I.3

Type of shaft: page I.4

Example how to order:  
Type 602/51-30 x 1 STI A 8 M 8 EL ...

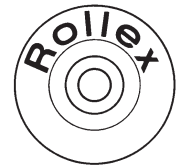
The choice of the bearing provides the type of order:

Bearing	Type
Type 51	<b>602/51</b>
Type 60	<b>602/60</b>
Type 60 RS	<b>602/60 RS</b>



# Motor drums

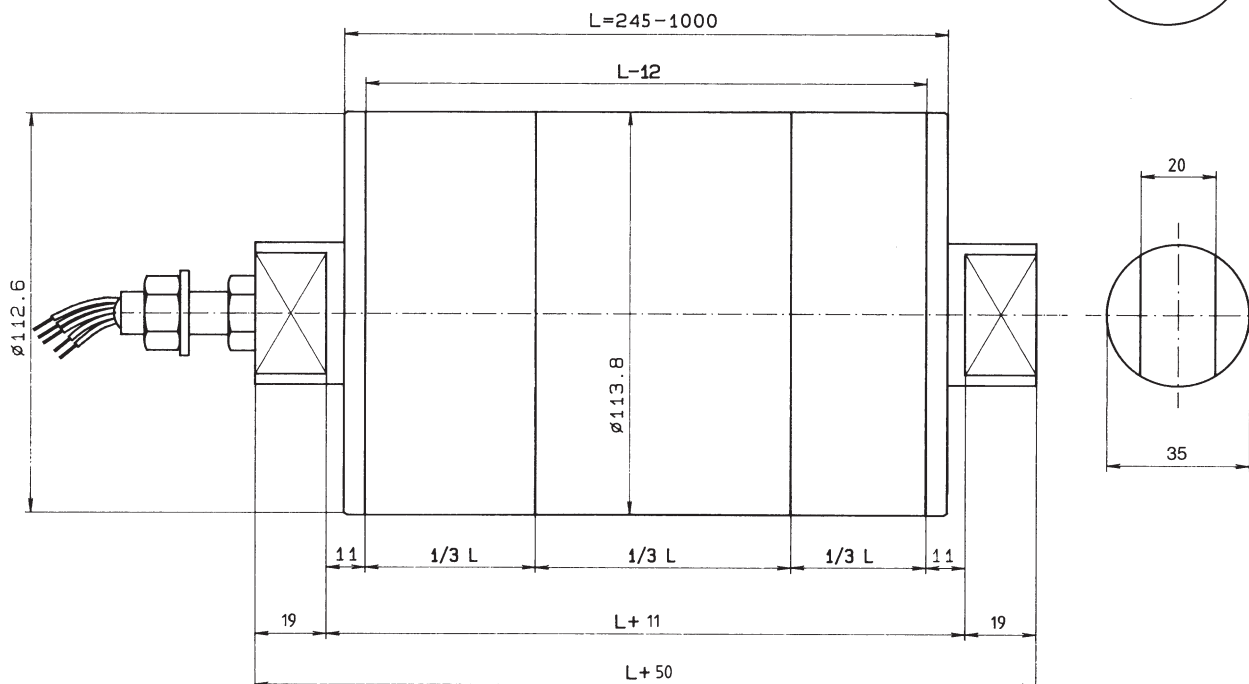
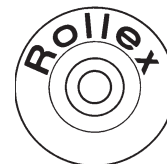
## Motor-Roller



Type	page
Motor drum TM 114	1
Motor-Roller Type 840-50	2-4
Motor drum Type 850-89	5-6



# Type TM 114



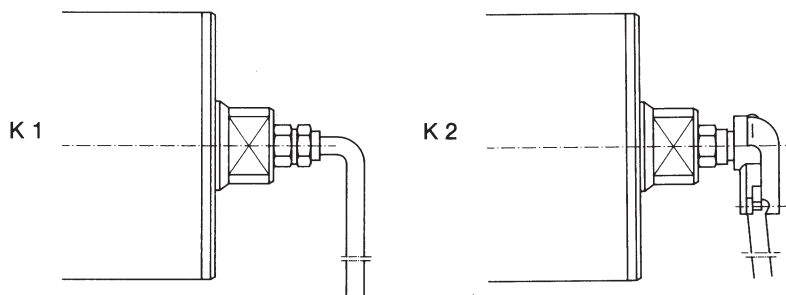
The drum motors type TM 114 are especially for small belt conveyors. The construction with slightly crowned aluminium fitting and plastic planetary gear guarantees an efficient and also silent running unit. The integrated thermoprotector prevents damage to the motor.

## Technical facts

Speed m/s		0,13	0,16	0,20	0,28	0,33	0,38	0,53	0,73	0,85	0,96	1,10
Torque daN	0,06 kw	50	41	31	22	18	14	—	—	—	—	—
	0,12 kw	—	75	60	43	35	29	23	15	13	—	—
	0,18 kw	—	—	99	65	53	48	33	29	20	18	16

Ø: 114 mm  
 Voltage/Power: 220 V/0,06 – 0,18 kw  
 380 V/0,12 – 0,18 kw  
 Length of roller: 245 – 1000 mm  
 max. train conveyor: 17 – 90 daN  
 kind of protection: IP 66

## Cable run



## Connections

**Driving voltage:**  
 black, brown, red  
**Thermoprotection:**  
 white, blue  
**Earthing:**  
 green/yellow

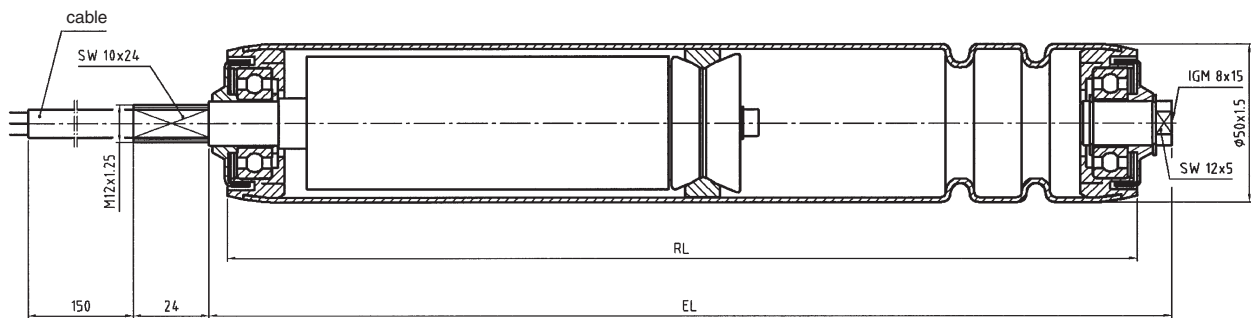
Example how to order:  
 TM 114-380 V/0,12 kw-15,6 m/min-K1-EL ...

TM 135 with power 0,37 kw upon request.





## Motor-Roller Type 840 – 50



The Motor-Roller Type 840 is available with three different gears:

Motor Variation	Gear	Stage	Speed in m/s	Torque in Nm	Engine Revolution in RPM
I	13 : 1	2	0,20 - 0,48	1,8	1000 - 2400
II	8 : 1	1	0,51 - 0,77	1,1	1600 - 2400
III	4 : 1	1	0,76 - 1,30	0,5	1400 - 2400

### Construction Details

**Tube of Motor-Roller:** Galvanized Steel Tube 50x1,5 STI. Upon request the Motor-Roller can be supplied with stainless steel tube. Further tubes with coating can be quoted, e.g. PVC-Hose or Rubberising.

**Electrical Supply:** In all Motor-Roller the cables go out through the shafts.

**Gear:** Depending on the revolution single- or twin-stage gear. The gears are made from high quality steel.

**Bearing:** Precision Ball Bearing 6202 2RS

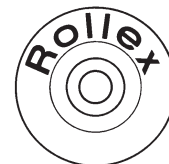
**Nominal Power:** The Motor is build for a nominal power of 24VDC. Max. power should not exceed by more than 10%.

**Insulation:** All motors are build re insulation group F (IP 54).

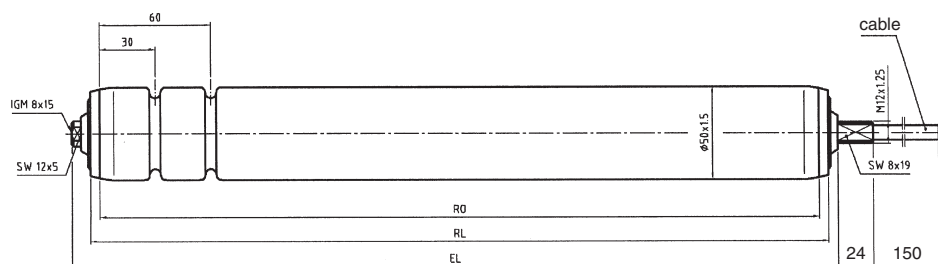
**Power Supply:** Please note, there will be a loss in power supply, that is proportional to the length of the cables and the motor power. The loss should not be more than 3%.



# Motor-Roller Type 840-50

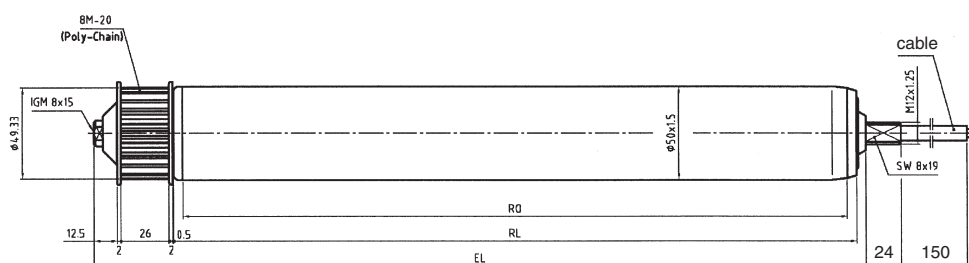


Type 840 can be equipped with different drive solutions.



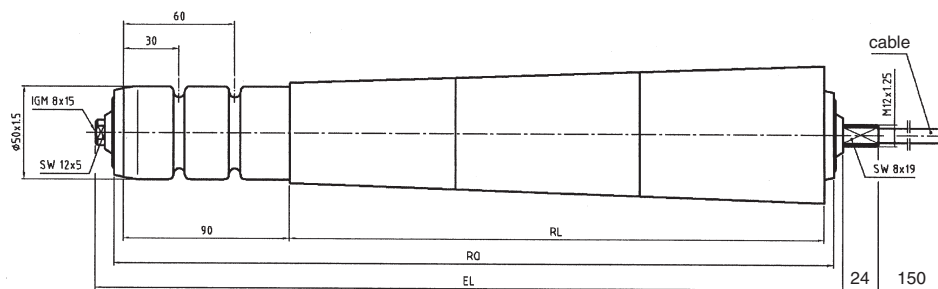
Round-belt drive

EL min: 300 single-stage gear  
320 twin-stage gear



Tooth-belt drive

EL min: 300 single-stage gear  
320 twin-stage gear



Conical roller with round-belt drive

EL min: 300 single-stage gear  
320 twin-stage gear

Technical Details:

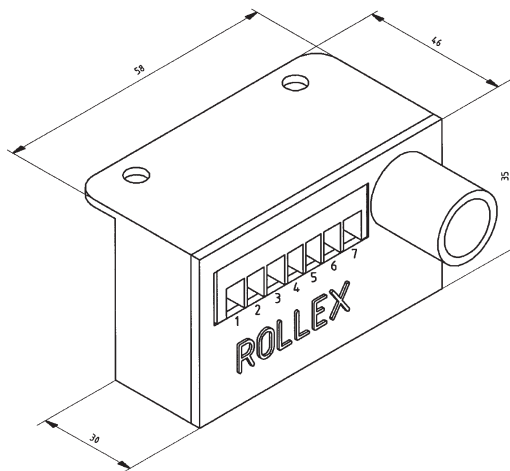
Nominal voltage	24 V DC
Rated current	4 A
Voltage	18 - 28 V
Fuse	5 A slow to blow
Temperature	0 - 40° C





## Type 840 - 50

### Control-Card Motor



The brush less Motor-Roller is used with control card. With that card the Motor-Roller is connected to the power supply as well as to a SPS control. Further with this card the direction and the speed can be controlled.

Switch	Speed (m/s)			Direction	Revolution
	i = 4,84	i = 8,14	i = 13,17		
0	1,30	0,77	0,48	left- turn	2400
1	1,19	0,71	0,44		2200
2	1,08	0,64	0,40		2000
3	0,97	0,58	0,36		1800
4	0,87	0,51	0,32		1600
5	0,76	0,45	0,28		1400
6	0,65	0,39	0,24		1200
7	0,54	0,32	0,20		1000
8	1,30	0,77	0,48	right- turn	2400
9	1,19	0,71	0,44		2200
A	1,08	0,64	0,40		2000
B	0,97	0,58	0,36		1800
C	0,87	0,51	0,32		1600
D	0,76	0,45	0,28		1400
E	0,65	0,39	0,24		1200
F	0,54	0,32	0,20		1000

Connections on the card:

1 Fault exit -  
 2 Fault exit +  
 3 GND (entry direction and start)  
 4 Entry direction

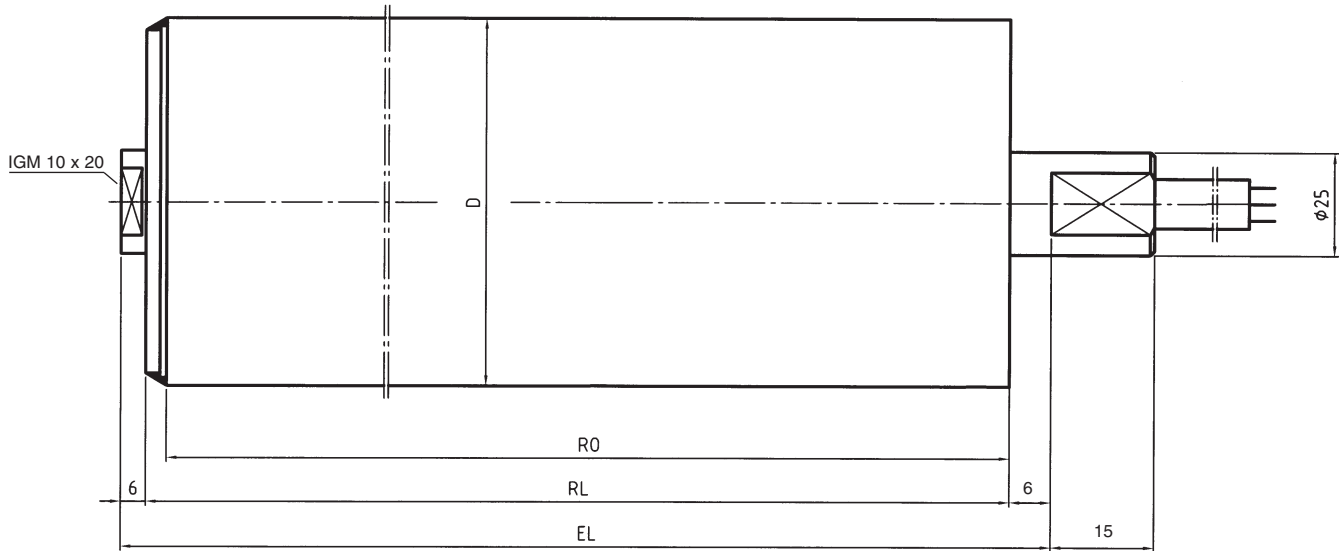
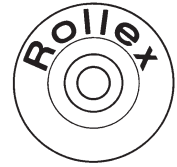
5 Entry start  
 6 Nominal Voltage GND (-24 V)  
 7 Nominal Voltage +24 V

Entries:

Input resistor	5,6 K
Low	0 - 5 V DC
High	15 - 24 V DC
U-max	30 V DC
Fault exit + (2)	24 V DC
Fault exit - (1)	Entry SPS



## Type 850 - 89



The Rollex-Drum-Motor Type 850 - 89 can be used for all pallet-transportations.

The Drum-Motor has following specifications:

Motor Variation	Voltage in V	Rated Current in A	Frequency in Hz	Power in kW	Speed in m/s	Torque Nm	Peripheral Force N
Variante I	230/400	0,59/0,34	50	0,12	0,24	21,1	475
Variante II	230/400	0,59/0,34	50	0,12	0,34	14,7	331

The different variations result from the two Speed-Variations.

The Drum-Motor is an Asynchronous Motor, that is available for the following voltages:

3 x 400V/50Hz ( Motor is Star(Y) connected)

3 x 230V/50Hz (Motor is Delta( $\Delta$ ) connected)

Cables can be supplied with straight- or angled screw coupling.

### Break:

The Drum-Motor can be supplied with an internal Break, that is prepared for Start-Stop.

The Starting Torque depends on the oil volume, temperature of the surrounding and working temperature of the Motor.

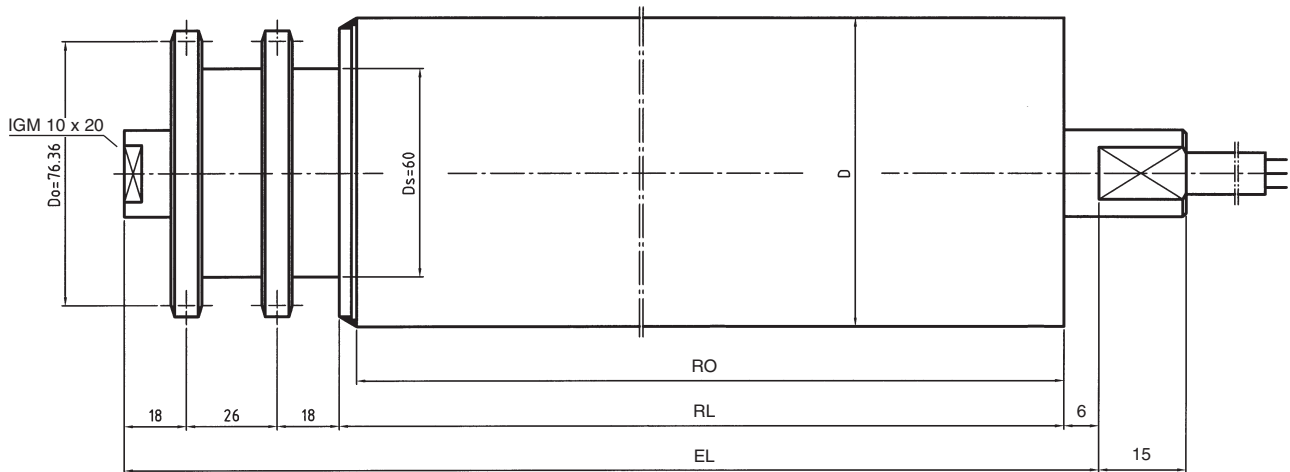
The Drum-Motor can be used in Deep-Freeze Areas of  $-30^{\circ}\text{C}$ , if the Motor is equipped with an anti-condensation heating.



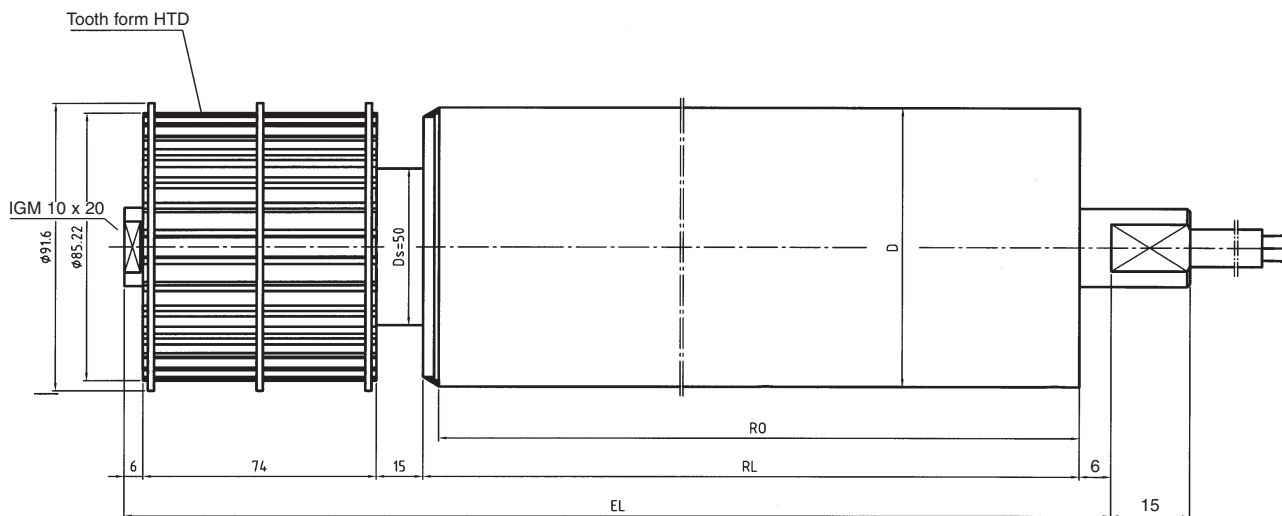


## Type 850 - 89

The Rollex-Drum-Motor can certainly be equipped with driving elements to move single sections of the conveyor track.



Example with Sprocket Type 510 (5/8" z15)



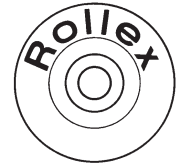
Example Tooth-Belt Wheel Type 534 z34 (8M HTD)

Cables and connections will be attached to the delivery, but can also be ordered separately.



# Conveyor belt drums

## Conveyor belt stations

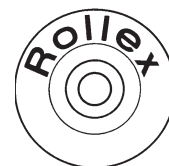


Type	page
Conveyor belt drums	1
Conveyor belt stations	2
Roller for Conveyor Stations	3

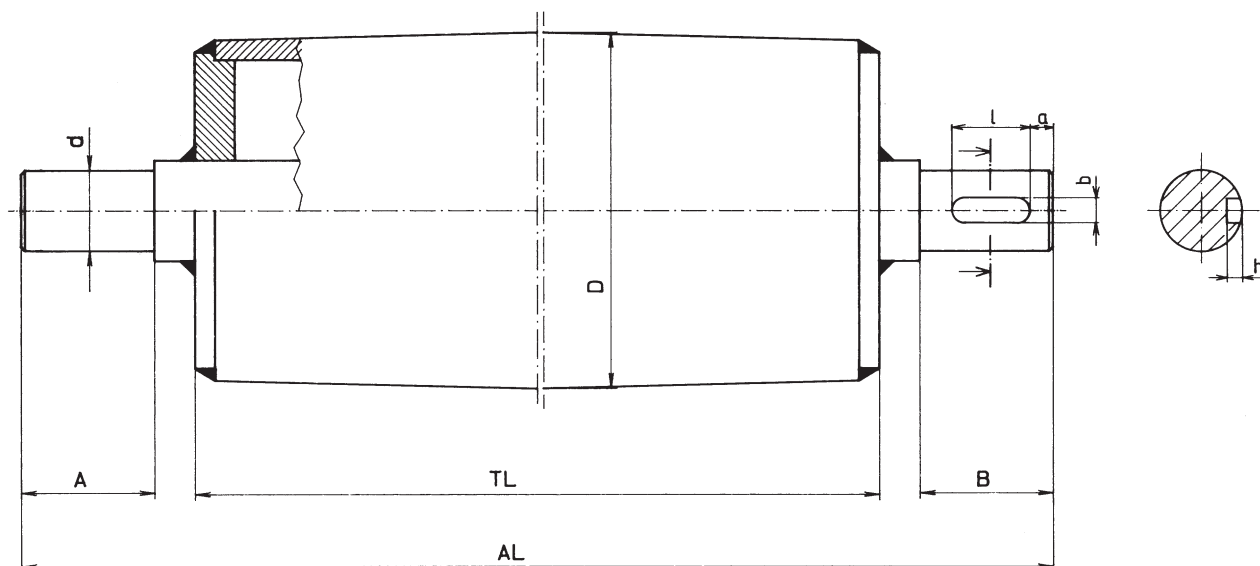


# Conveyor belt drums

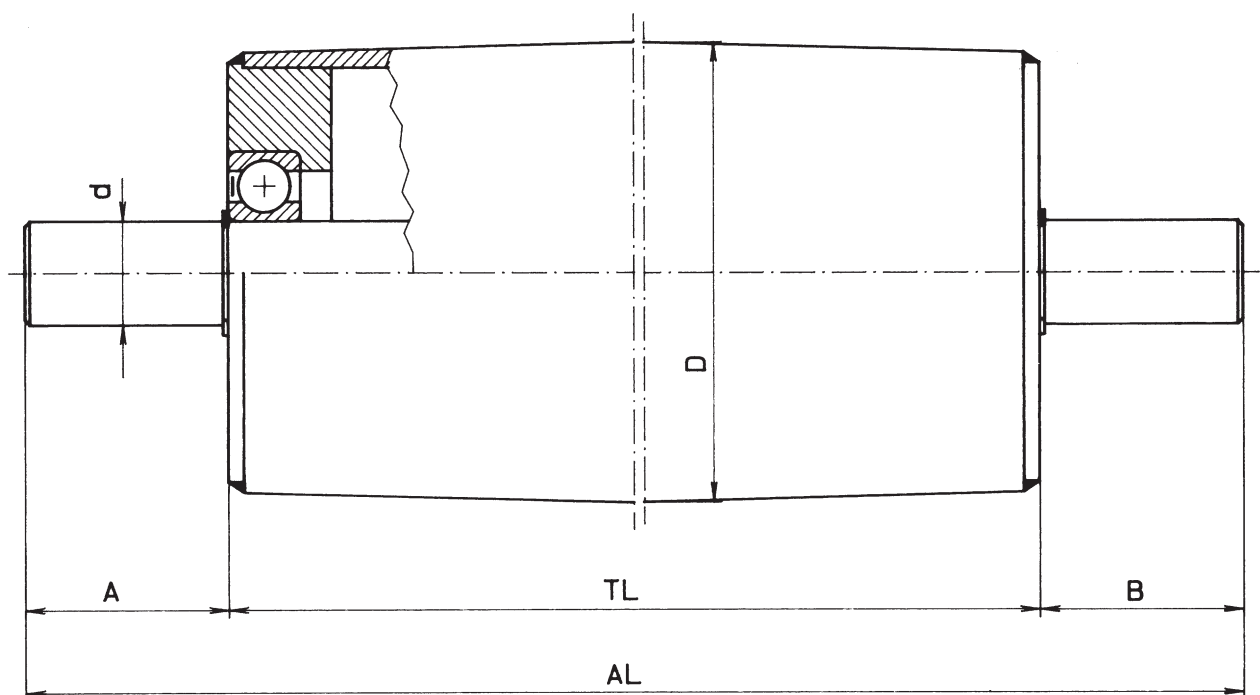
Manufacturing only regarding to drawings



**Type 400 A**



**Type 402 ST**



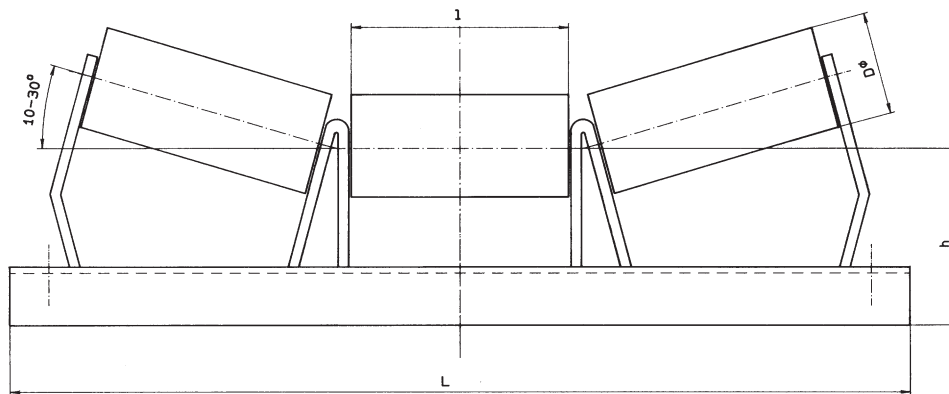
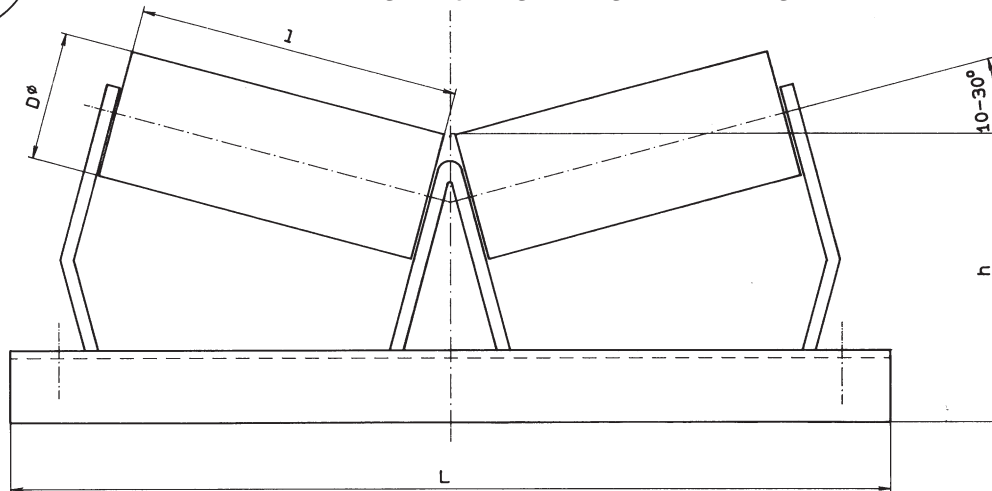
Available designs: – Polyurethane  
– glass-fibre Polyester  
– Niro-steel  
– Cylindrical or crowned



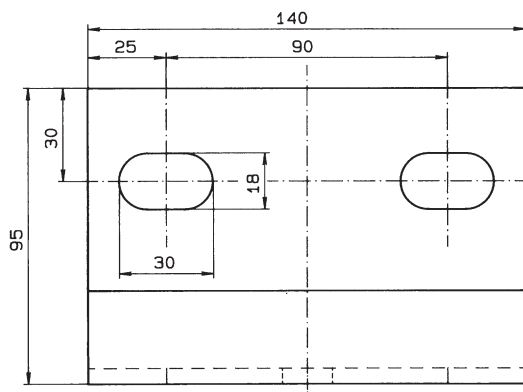
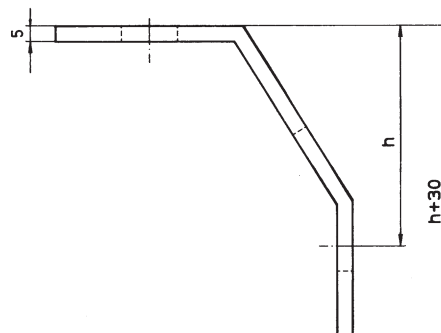
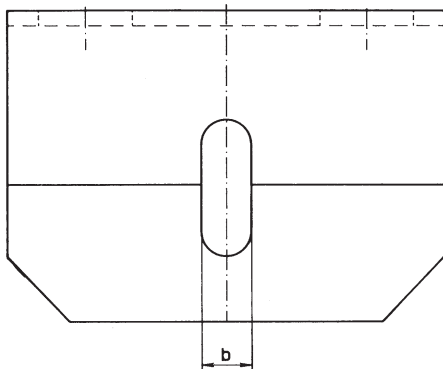


# Conveyor Roller Stations

Manufacturing only regarding to drawings



Made from U-structural steel DIN 59413

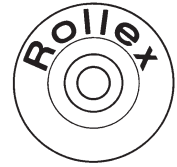


## Re customers information!

Various constructions and dimensions as well as steering and flat belt stations upon request.

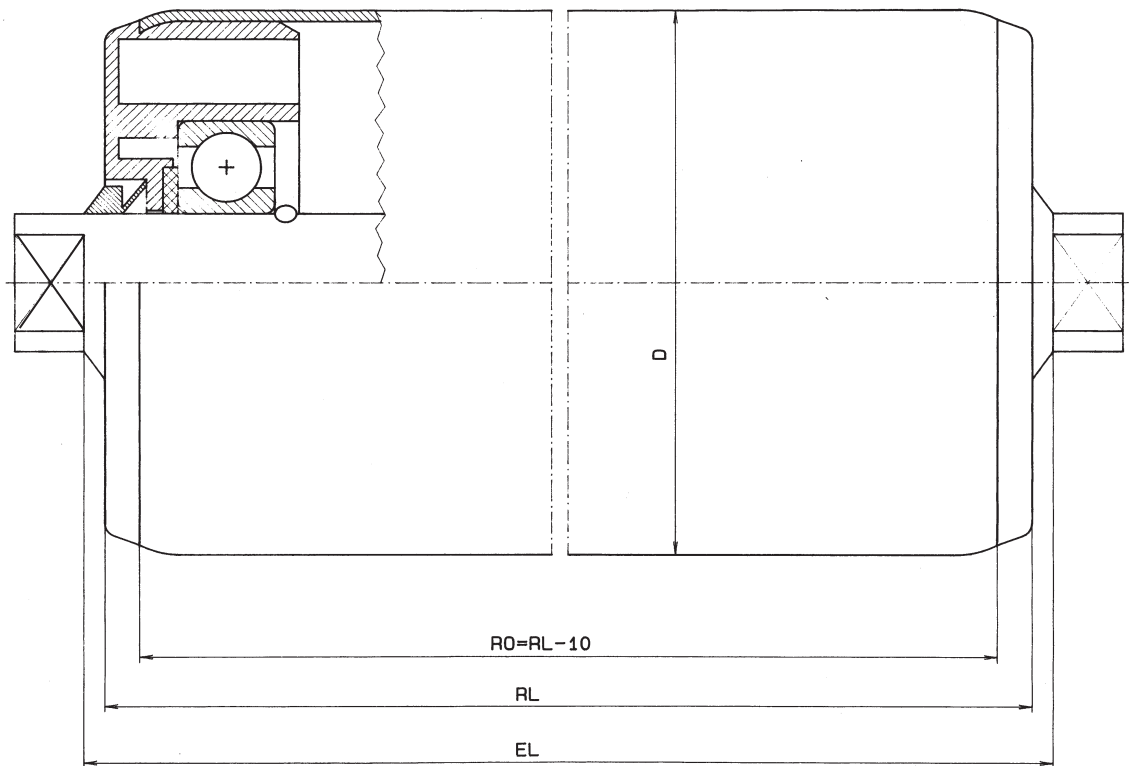


# Roller for Conveyor Stations



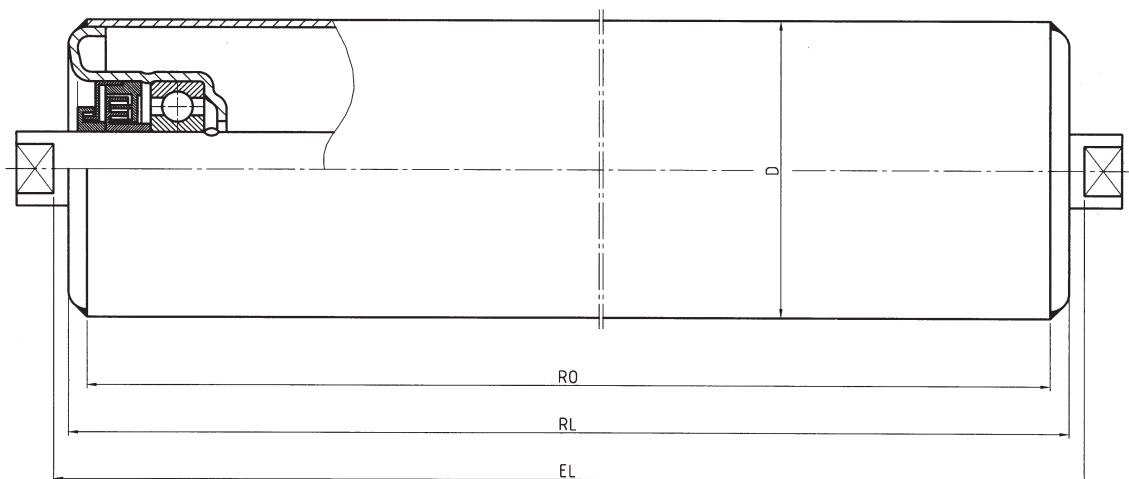
## Conveyor Roller Type 400

Tube Ø 50, 60, 63.5, 80, 88.9, 90, 108, 133



## Conveyor Roller Type 402 WO

Tube Ø 80, 88.9, 108, 133



The above mentioned Roller Types are best for use as Conveyor Station Roller. Details please see Chapter II „Gravity Roller / Conveyor Roller“ on Page 17 and 27.





# Conveyor Roller Type 400

for belt conveyor DIN 15207 with length of tube DIN 22107

**End of shaft construction:** Ø 20 old standard SW 15 x 10/13  
 Ø 25 old standard SW 18 x 10/13  
 Ø 20 new standard SW 14 x 10/13

Order without specification will be delivered to the old standard.

Upper conveyor roller									
Tube-Ø	Shaft-Ø	Roller length mm, EL = RL + 6 mm							
63,5	20	132	165	200	250	315	380	465	530
80	20		165	200	250	315	380	465	530
88,9	20 + 25		165	200	250	315	380	465	530
108	20 + 25		165	200	250	315	380	465	530
133	20 + 25				250	315	380	465	530
Lower conveyor roller									
63,5	20	400	500	600	750	950	1150	1400	
80	20	400	500	600	750	950	1150	1400	
88,9	20 + 25	400	500	600	750	950	1150	1400	1600
108	20 + 25	400	500	600	750	950	1150	1400	1600
133	20 + 25	400	500	600	750	950	1150	1400	1600

Guide pulley will be delivered with one end closed roller housing.

Various shaft-sizes or tube-sizes and shafts with different external thread and internal thread available.

Selection table	Roller length DIN 22107 mm							
Width of belt mm	300	400	500	650	800	1000	1200	1400
Lower conveyor roller	400	500	600	750	950	1150	1400	1600
Upper conveyor roller two-piece	200	250	315	380	465	600	700	—
Upper conveyor roller three-piece	132	165	200	250	315	380	465	530

Conveyor roller stations (page VII.2) upon request.

SW 30 as plastic slip-on cap for shaft Ø 20 SW 15 (page I.4).

Back-up rings and buffer rings available in all sizes and constructions (page IX.3).

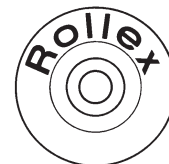
Example how to order:  
 Type 400-88.9 x 2,9 ST A 20 SW 15 x 10 **EL** ...

Length of roller: RL = 500 mm  
 Length of installation: EL = 506 mm



# **Brake roller**

## **Brake conveyor roller**



	<b>Page</b>
Technical details	1
Type 700-80      Brake conveyor roller	2
Type 710-86 / 120   Brake roller	3
Type 710-86 / 120   Construction advice	4



# Brake roller Brake conveyor roller



These regulate the speed on gravitational force roller belts; the shunting speed of the loaded material is constant. This is possible because the planetary gear pressures with every turn the centrifugal brake-shoe against the roller, with proportional braking force to used braking torque.

The distance between the braking roller and the right braking roller type is influenced by many factors:

- Construction and function of the roller track
- Inclination of the roller track
- Behaviour of the loaded material (size, weight, material of skid sensitivity)
- Inherent resistance of the brake roller
- Environmental factors (wetness, cold, heat)

Per pallet position, one braking roller is necessary, as then there will be a controlled speed. The shunting speed should never be more than 0,3 m/sec. When the braking roller has the right position, the shunting speed is only 0,1-0,2 m/sec.

## Brake roller

The brake roller has direct contact to the loaded material when the **direct** brake is used. It is suspended spring-loaded and stands 2 mm above the level of the roller.

The **indirect** brake is preferable, because the contact to the pallet is transmitted over two conveyor rollers.

Four springs effect the contact, two hook bolts, which are installed loose, lock the brake roller.

To improve the contact of brake roller, conveyor roller and pallet a self-adhesive rubbing coating on the conveyor roller in the area of the brake roller is necessary.

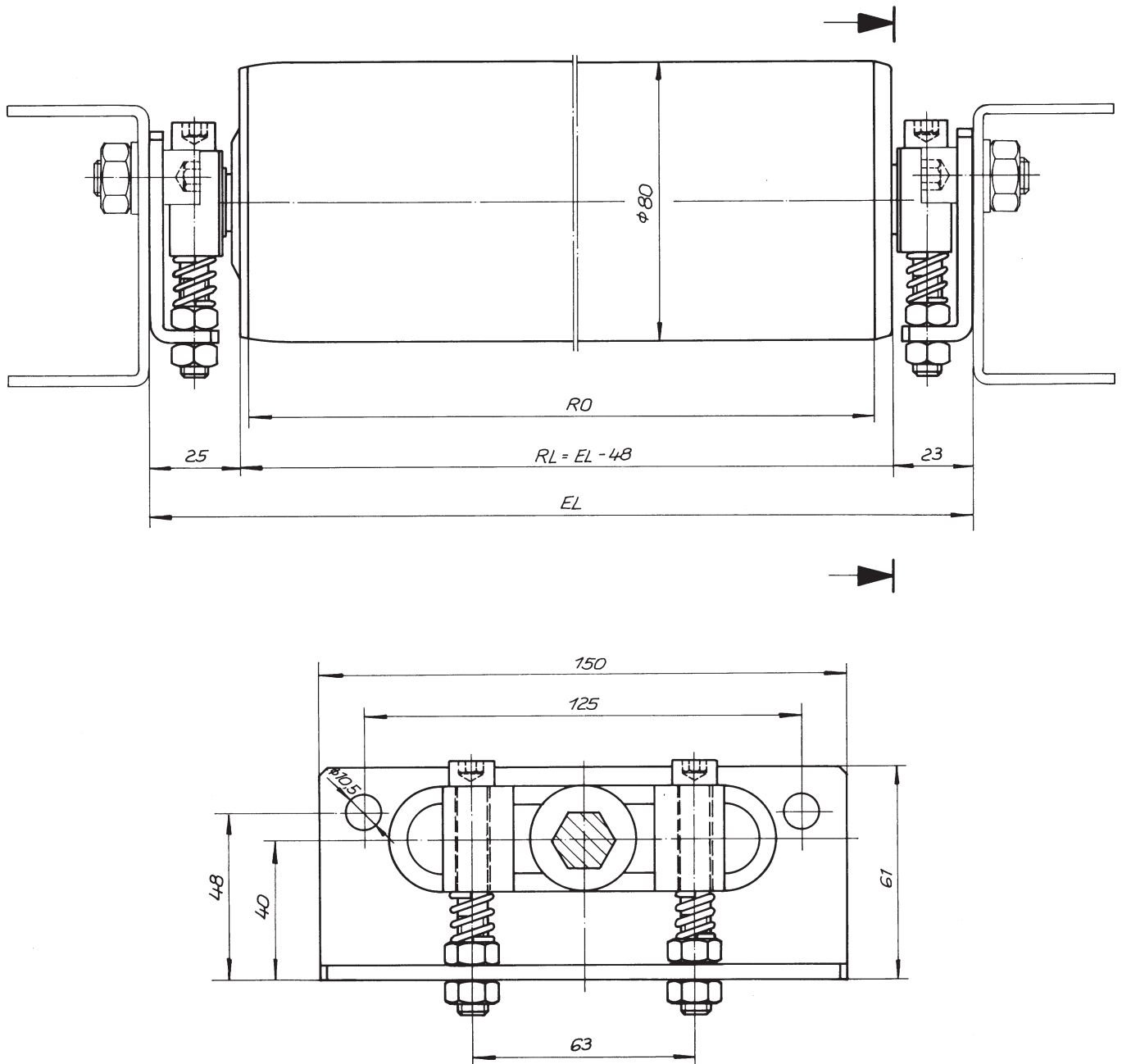
## Brake conveyor roller

The brake conveyor roller is attached with two suspension strips spring loaded 2 mm above the level of the roller. The brake conveyor roller will be delivered with these suspension parts.





## Brake Conveyor Roller Type 700-80



max. braking capacity  
on a 3,75 % inclination:

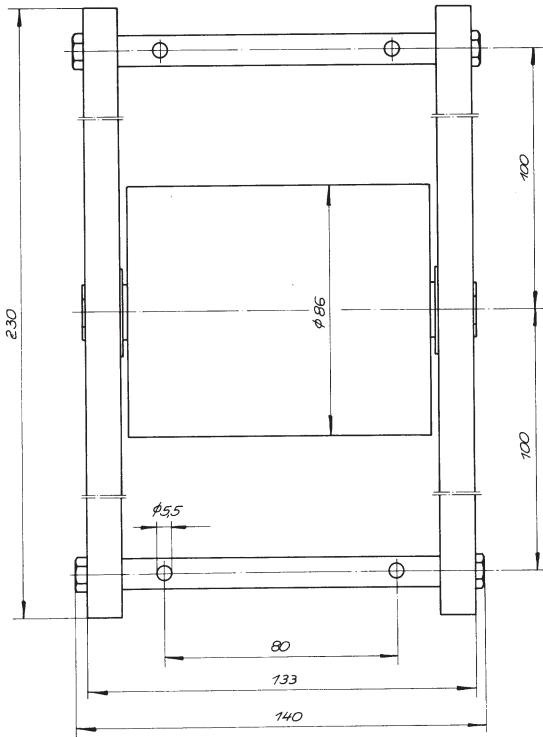
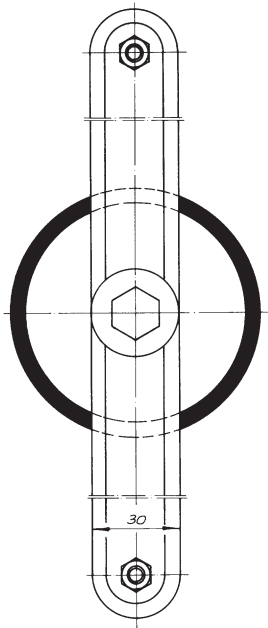
Type	F (da/N)
<b>700-80</b>	1000



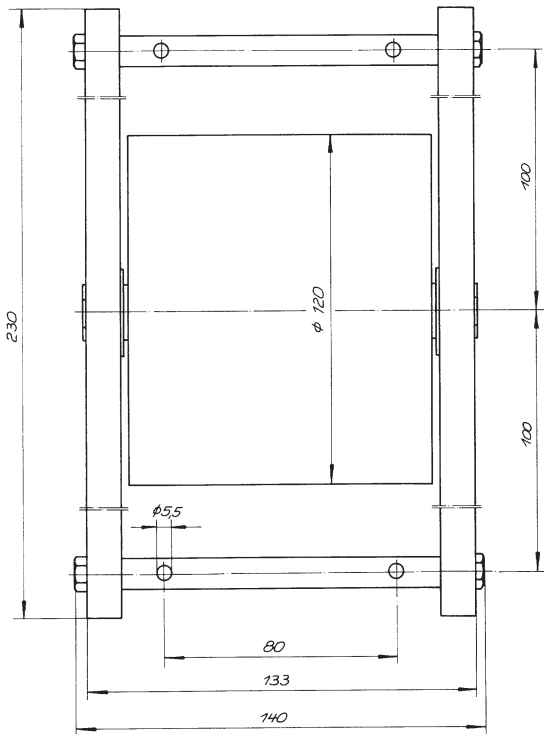
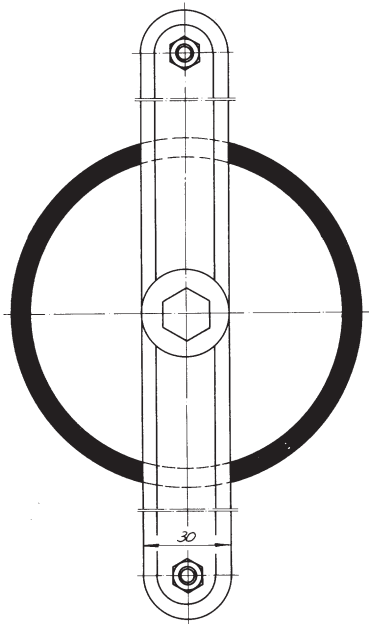
Brake Roller Type 710



710-86



710-120



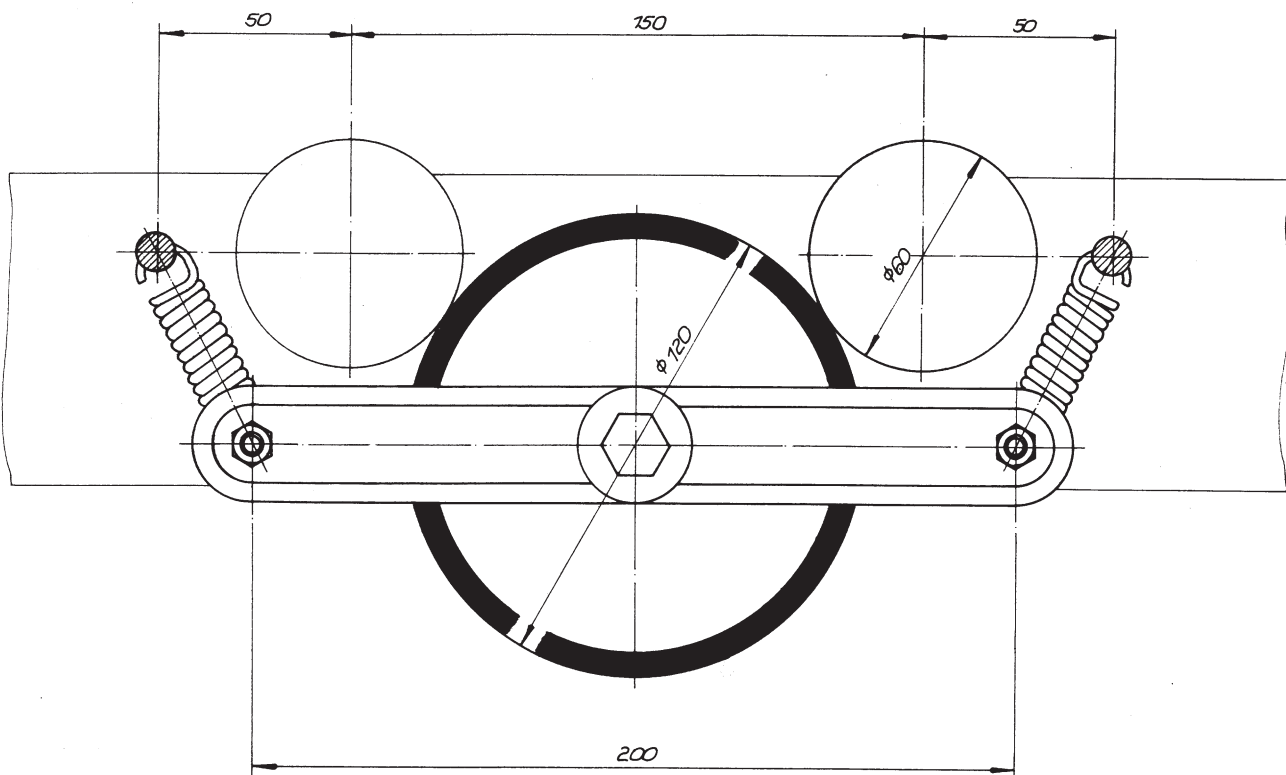
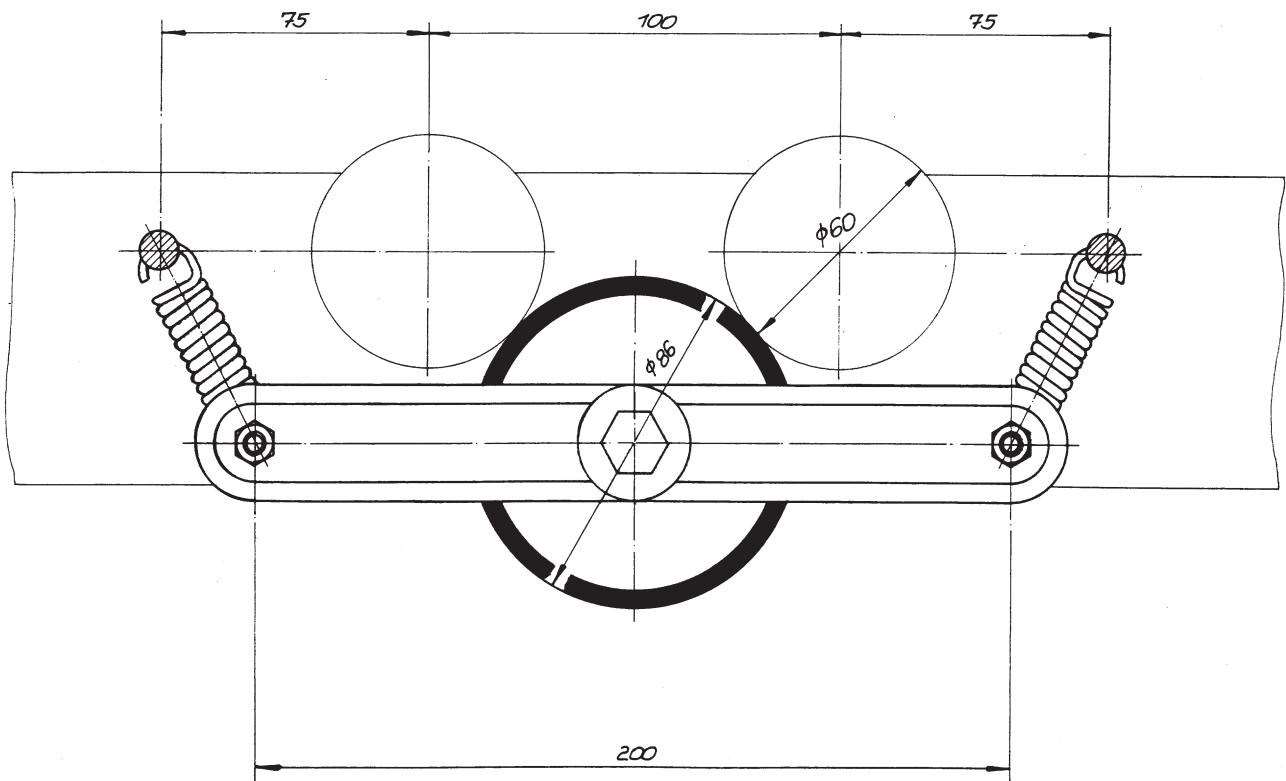
max. braking capacity  
on a 3,75 % inclination:

Type	F (da/N)
710-86	500
710-120	1000



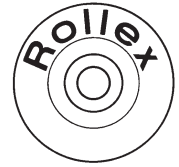


## Brake Roller Type 710 Construction Advice





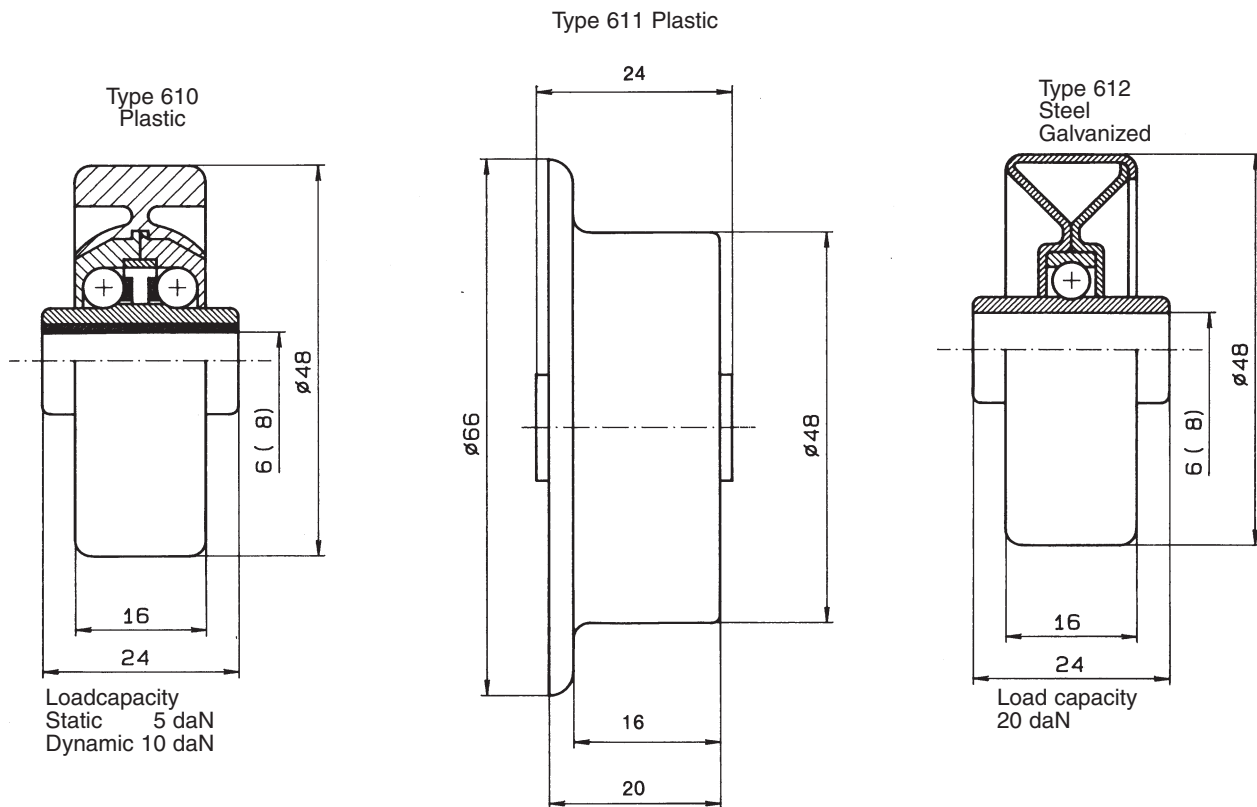
# **Skate Wheels, Universal Roller Guide Flanges, Buffer Rings Pallet Rails, Tooth Belts**



	<b>Page</b>
Skate Wheels	1
Universal Roller	2
Guide Flanges, Buffer Rings	3
Pallet Rail Type 720	4
Accessories for Type 720	5
Pallet Rail Type 723	6
Pallet Rail Type 726	7
Tooth Belts Poly Chain	8
Tooth Belts HTD/RPP	9



# Skate Wheels



Plastic Wheels Type 610 and 611 (guide flange) have a load capacity of 10 daN(kg). Steel Wheels Type 612 with or without guide flange = Load capacity 20 daN (kg).

Wheels of the Types 610/611/612 are used in all areas of conveyor- and storage-technology for

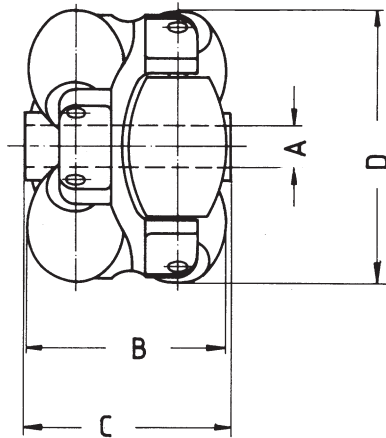
- Flow-Trough Tracks
- Guide tracks, side deflector and load tracks in conveying systems
- Roller tracks for the combination of two workstations
- Packing machines
- Guide for driving belts





# Universal Roller

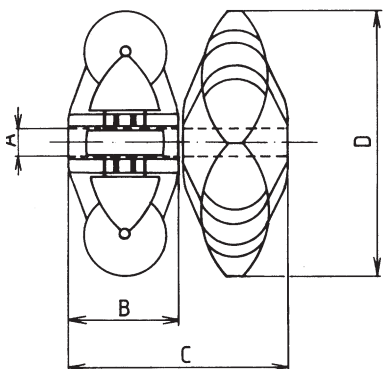
## Type 620



Plastic, one piece

D	40	48	60	80
A	8	8	8	8
B	26	37	47	60
C	29	39	48	64

## Type 625



Plastic, two piece

D	50	60	80
A	8	8	8
B	19,5	25	30
C	39	51	60

Universal roller are used where packing drums, load carrier, packages, cartons or work pieces have to be turned, assorted, diverted, supplied or commissioned. The size and the weight of the load regulate the pitch. Table surfaces of any sizes can be equipped with Universal Roller. Following individual load capacities each roller should not be exceeded:

- Ø 50 mm 100 daN (kg)
- Ø 60 mm 200 daN (kg)
- Ø 80 mm 400 daN (kg)

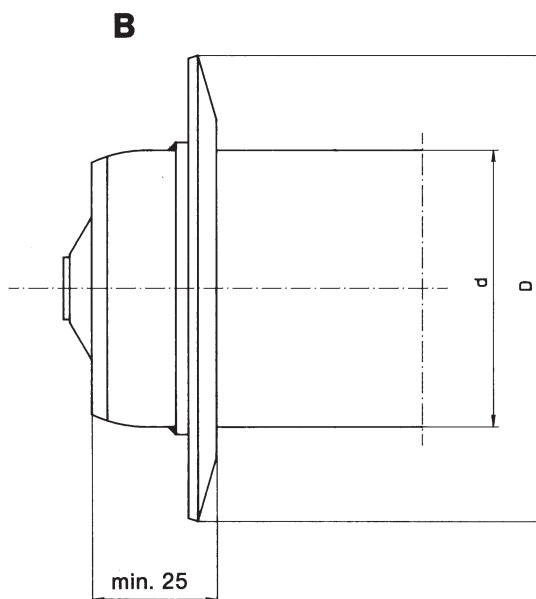
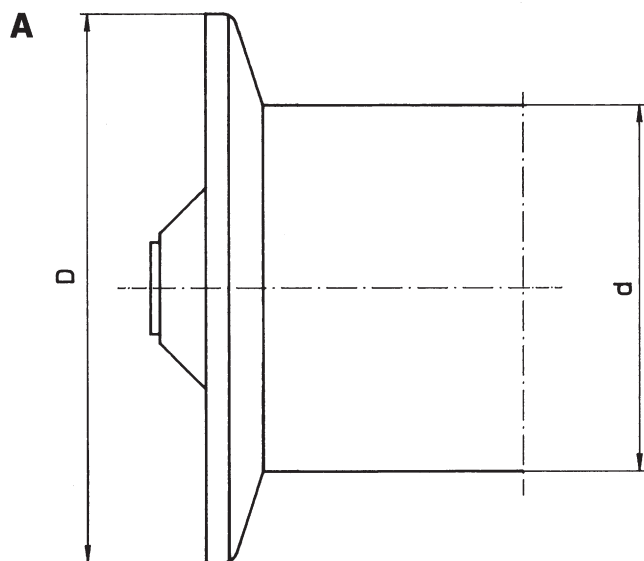
The universal roller can be used at a temperature range between -12° C and +80°C.

The universal rollers always have to be installed in main transport direction, as the resistance of the other roller is slightly higher.

If equal resistances should be received in all directions, wheels have to be mounted staggered at 90°



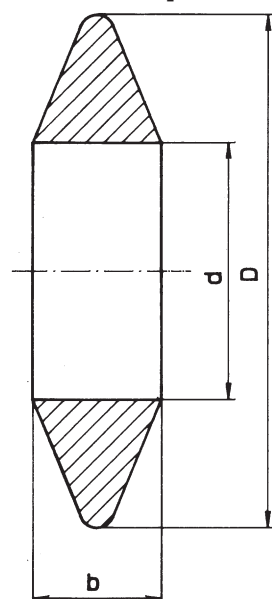
# Guide Flanges



	d	D			
A	30	60			
	40	60			
	50	70			
B	50	70			
	60	95	110	120	
	63,5	130			
	80	130	135	140	150
	88,9	130	135	140	150
	108	160			

Specials lathed upon request

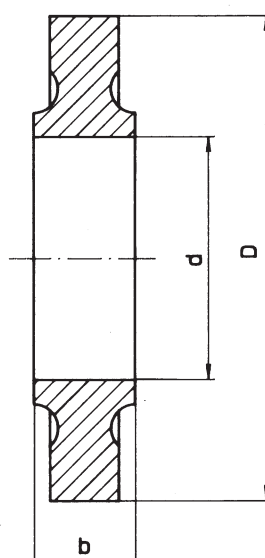
## Back-Up Rings



Tube-Ø	D	d	b
63,5	108	60	25
63,5	133	60	30
88,9	133	85	30
88,9	159	85	30
108	159	104	30

Various dimensions upon request

## Buffer Rings

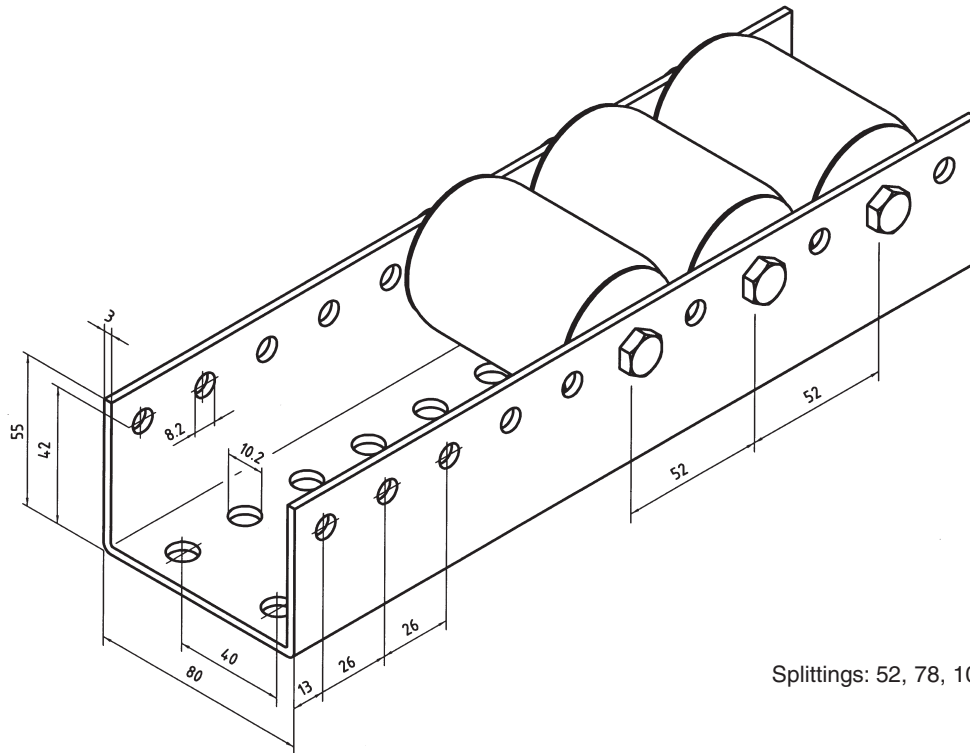


Tube-Ø	D	d	b
50	89	48	30
63,5	89	60	25
63,5	108	60	30
88,9	133	86	35
88,9	159	86	35





## Palletrail Type 720



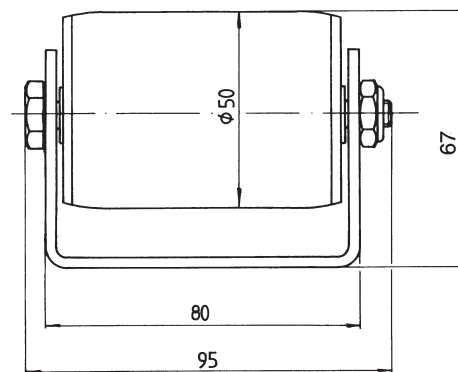
Splittings: 52, 78, 104, 130, 156 ...

The palletrail type 720 is a universal unit for the transport of pallets. It is also possible to construct simple roller conveyors or straight-through shelves. It is also adapted for transports inside your factory, linking of work-places and as a sidewise guide rail.

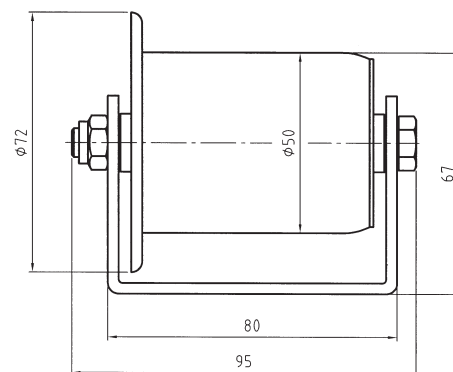
The palletrail consists of galvanized steel, 55 mm high and 80 mm wide. These profiles are suitable with roller Ø 50 mm in splittings of 52, 78, 104, 130, 156.

Two further bolt-holes in the housing are useful for the fixing of the rail on the under-construction.

Wy: 4,6 cm<sup>3</sup>  
 ly: 17 cm<sup>4</sup>  
 length of profile: 6006 mm



**Conveyor Roller Type 200  
without guide rail**



**Conveyor Roller Type 200  
with guide rail**

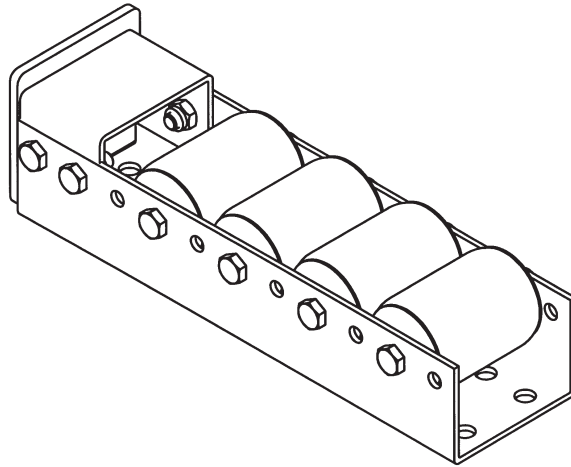
The channel section is suitable for accepting nearly all rollers in our programme.



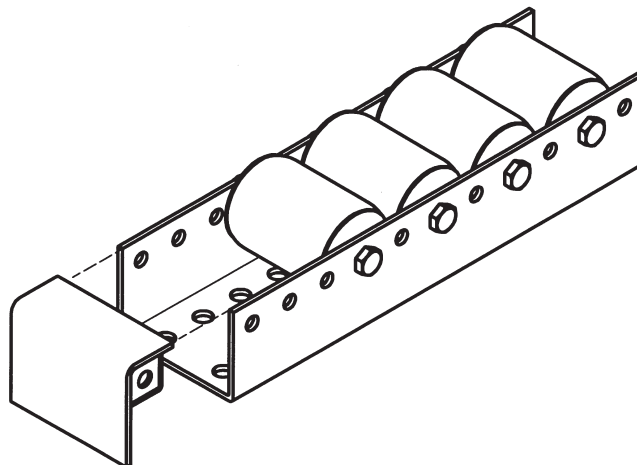
# Accessories for Palletrails



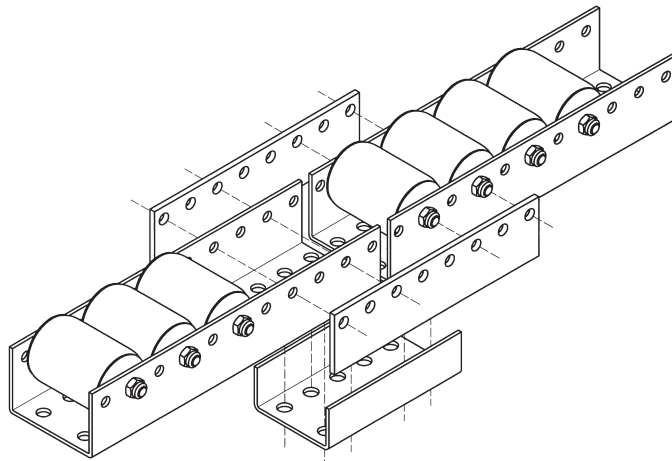
**End Stop**



**Roller Guard**  
on entry side



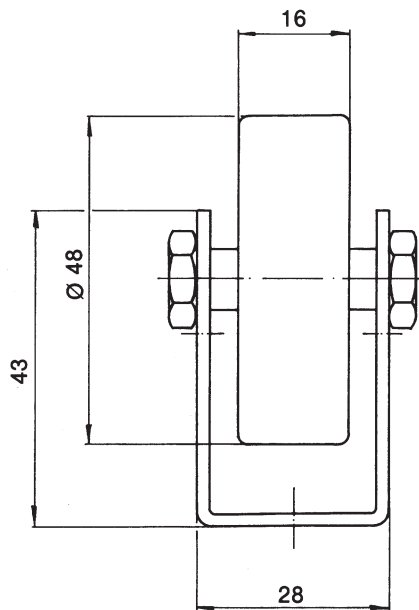
**Connector**



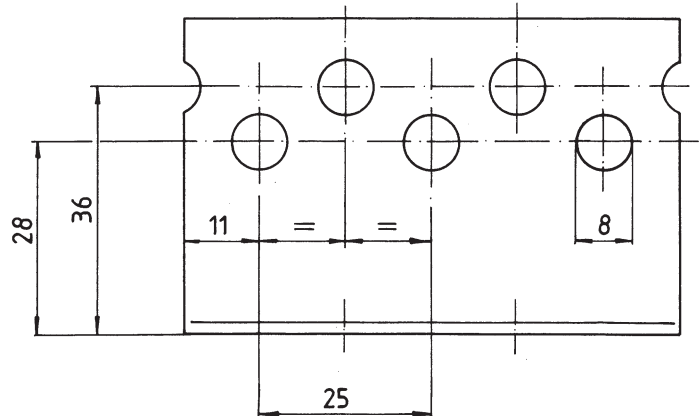




## Pallet Rail Type 723



$W_y: 4,6 \text{ cm}^3$



Type 723 with steel roller, screwed or riveted.  
Mounting in upper or low holes possible.

Type 724 with plastic roller, screwed or riveted.  
Mounting in upper or low holes possible.

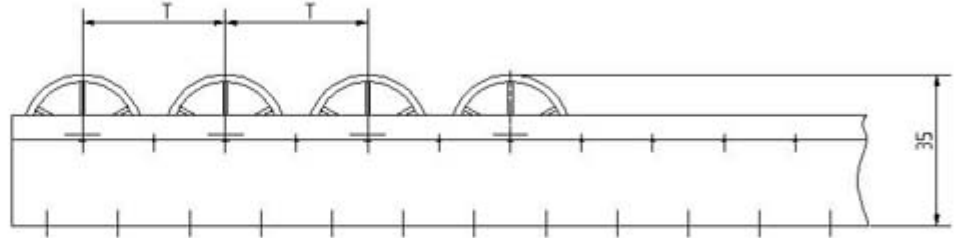
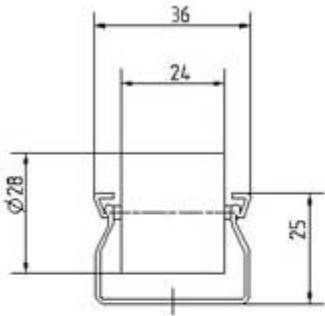
Pallet Rails consist of cold-drawn, galvanized steel profile, 2 mm thick. The profile has two sets of lateral perforations at different heights, pitch 25 mm and the base is also punched with a hole row, even pitch 25 mm. Hole dia. is 8,1 mm.

The construction of the profile makes it possible to fit 48 mm diameter wheels with screws or hollow rivets in pitches of 50 mm, 75 mm, 100 mm and so on.

Several wheels can be fitted next to each other in one, two, three or more channels. Further you can combine different wheels, with or without flange, steel or plastic.



## Pallet Rail Type 726



T = 33, 50, 66, 83, 100

T = 50, 66, 83, 100 with guide flange wheels

W<sub>y</sub>: 0,6 cm<sup>3</sup>

Main purpose of the above pallet rails are flow through racks. The absolute safe run of load carriers and cartons allows many more possibilities.

- guide rails for conveyor systems
- roller rails and roller carpets as link between two work stations
- packing and despatch tables
- installation help, e.g. in wood and glass industry

Wheels running on steel shafts guarantee a high load capacity (6 daN[kg]) and very low coefficient of friction. The wheels are made of high-quality thermoplastic, which is impact resistant and does not brittle. The material is resistant against acids and alkali and does not attract moisture.

The channel profile is made of bright zinc-plated sheet with rounded edges on all sides. Changing of the wheels is very easy. Several Wheel pitches can be obtained (33 mm, 50 mm, 66 mm, 83 mm, 100 mm etc. with either normal or flanged wheels.

The pallet rail with steel shaft for smooth and silent running of material flow is:

- strong and tough
- economical and inexpensive
- variable as no other wheel system

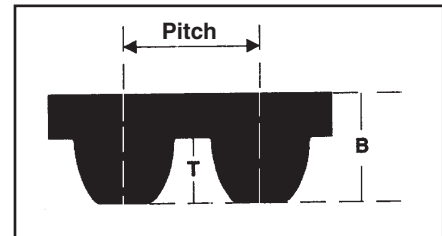




## Tooth Belt Poly Chain GT

The Poly Chain® GT is a aramid supported Polyurethan Synchro-Belt. It opens new dimensions for Roller Drives and has the following advantages against chains:

- no greasing
- no re-stretching
- low noise, even with high speeds
- high shearing resistance of the teeth allows fixed centre to centre axle distances
- resistant against aggressive surroundings (Dust, Oil, etc.)
- high resistant against abrasion and therefor extremely long life
- full use with temperatures from + 10° to + 60° C
- low weight
- specially constructed for long life



Poly Chain®

Poly Chain tooth belts have to be used for 445 / 445ST / 445RST und 447.

### Roller – Distances Centre to Centre

Tooth-Belt Drive  $z = 20$

Centre Distance (mm)	Poly Chain® GT Types
64	PCGT - 8M - 288 - 11.2
96	PCGT - 8M - 352 - 11.2
128	PCGT - 8M - 416 - 11.2
148	PCGT - 8M - 456 - 11.2
160	PCGT - 8M - 480 - 11.2
192	PCGT - 8M - 544 - 11.2
224	PCGT - 8M - 608 - 11.2
240	PCGT - 8M - 640 - 12
280	PCGT - 8M - 720 - 12
320	PCGT - 8M - 800 - 12
368	PCGT - 8M - 896 - 12
420	PCGT - 8M - 1000 - 12

Centre Distance Tolerance: 0/- 0,3 mm

Maximum Trail Length for continuous transport, concentric motor ( $< 0,5$  kW) and maximum load capacity of 720 da/N.

Centre Distance (mm)	max. Trail-Length
64	3840
96	5760
128	7680
148	8880
160	9600
192	11520
224	13440
240	14400

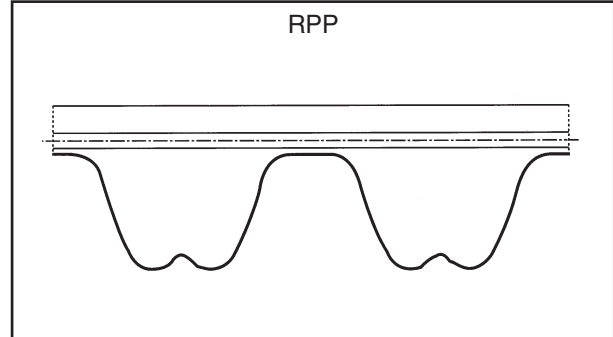
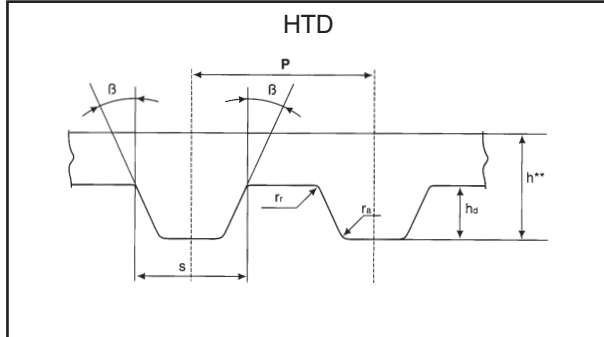


# Tooth-Belt HTD/RPP



HTD belts have to be used for Roller Types 516 / 517 / 533 R and 534.

The mentioned RPP Belts can be used without problems in HTD sprockets.



**The RPP Belt System has been developed as alternative system against loud, greasy chains, RPP belts offer hi-performance with the possibility to use an extern tension pulley, better heat-resistance and lower noise.**

- **maximum drive efficiency**  
The RPP drive system offer an efficiency of nearly 98% for a large rpm-areas.
- **soft running**  
The drive systems absorb shocks and damps vibrations better than chains.
- **constant tension**  
will be kept the whole life of the drive system
- **high shock resistance**  
The RPP belt used ARAMID cords that combine the tension of steel with the stability and flexibility of glass fibre. Excellent for shock resist and drive vibrations.
- **low noise**  
The RPP belt uses the same soft running, parabolic tooth profile that has been very effective with the RPP HPR belt. Tests in laboratories have shown, that RPP belts move definitely more quiet than comparable Polyurethane-Belts.

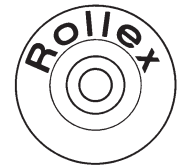
- **use of extern tension pulleys**  
Synchronous drives often work with fixed centre distances and are often used with extern tension pulleys to get the right belt tension. The flat, precise rubber back is excellent for those pulleys.
- **better heat resistance**  
Polyurethane melts if heat is too big, RPP belts work up to a temperature of 100° C.  
This is 100% more than similar Polyurethane belts.
- **no maintenance**  
RPP drives work clean and reduce maintenance costs

## Available Tooth-Belts:

HTD - 8M - 288 - 20 / 30
HTD - 8M - 352 - 20 / 30
HTD - 8M - 408 - 20 / 30
HTD - 8M - 456 - 20 / 30
HTD - 8M - 480 - 20 / 30
HTD - 8M - 536 - 20 / 30
HTD - 8M - 608 - 20 / 30
HTD - 8M - 640 - 20 / 30
HTD - 8M - 720 - 20 / 30
HTD - 8M - 800 - 20 / 30
HTD - 8M - 896 - 20 / 30
HTD - 8M - 1000 - 20 / 30



# Conditions of sale and delivery



## § 1 General

1. Our terms and conditions of business shall apply exclusively:

These conditions of supply and payment apply for all deliveries. Any different conditions on the part of the customer only apply in so far as they are expressly recognised by us in writing. A contract is established when Rollex issues the written confirmation of order, unless otherwise agreed.

Written order confirmation of Rollex is decisive as regards the scope of delivery. Changes and additions must be made in writing. This also applies if this requirement for written form is to be waived.

Rollex retains title and copyright in samples, cost estimates, drawings and other information, both tangible and intangible, including in electronic form; such items may not be made accessible to third parties. Rollex undertakes only to make information and documents which are marked as confidential by the customer available to third parties with the agreement of the customer.

## § 2 Price and payment

The prices named in the order confirmation apply ex works in the absence of express agreement to the contrary, without packaging, free on truck or rail, without transport insurance. The valid legal rate of VAT is to be added. In the absence of agreement to the contrary, payment shall be made on account without any deduction, due on delivery. The right to withhold payment or to offset counterclaims is only available to the customer in so far as his counterclaims are undisputed or legally established.

## § 3 Time of delivery, Delay in delivery

The time and period of delivery result from the agreements between the contractual partners. Fulfilment of the agreements on the part of Rollex assume that all commercial and technical questions between the parties have been clarified and the customer has also fulfilled all his obligations, such as for example provision of the necessary official approvals or certificates and payment of a deposit if so agreed. If this is not the case, the delivery period shall be prolonged correspondingly, or alternatively by an appropriate period. This does not apply if the delay is due to the supplier.

Fulfilment of the period of delivery is subject to correct and timely supply of goods by the supplier's subcontractors. Any delays which are anticipated must be communicated by Rollex as soon as possible.

The delivery period is considered fulfilled if the object of the delivery has left Rollex's factory by the end of the period. If despatch or acceptance of the object of the delivery is delayed for reasons which are due to the customer any costs accruing from the delay shall be charged to the customer, starting one month after reporting of the readiness for despatch or acceptance.

If non-fulfilment of the delivery period is due to force majeure, labour conflicts or other events outside the sphere

of influence of the supplier, the period of delivery shall be prolonged accordingly. Rollex will inform the customer of the start and end of such circumstances.

The customer can withdraw from the contract if the entire performance becomes impossible for Rollex before transfer of risk. The customer can also withdraw from the contract in case execution of a part of the delivery becomes impossible, and he has a justified interest in refusing the partial delivery. If this is not the case, the customer must pay the contractual price which is due for the partial delivery. The same applies if Rollex cannot supply the performance.

## § 4 Transfer of risk, acceptance

The risk is transferred to the customer when the object of delivery has left the factory, even if partial deliveries take place or Rollex has taken over other performance, e.g. despatch costs or delivery and erection. If an acceptance procedure has to be implemented, acceptance is decisive for transfer of risk. It must be carried out immediately at the acceptance date or alternatively after report by the supplier that the item is ready for acceptance. The customer may not refuse acceptance in the case of non-serious fault. Partial deliveries are permissible in so far as reasonable for the customer.

## § 5 Retention of title

Rollex retains the title to the object of delivery until all payments arising from the supply contract have been met. The customer may neither sell nor pledge the object of delivery nor offer it as security. The customer must inform the supplier immediately in case of pledge or seizure or other similar actions affecting the goods on the part of third parties. If the customer behaves in such a way as to infringe the contract, in particular in case of delay of payment, Rollex is entitled to take back the object of delivery after issuing a warning and the customer must return the goods. Based on his retention of title, the supplier can only demand return of the goods when he has withdrawn from the contract. Application for opening of insolvency proceedings on the part of the customer entitles Rollex to withdraw from the contract and to request immediate return of the object of delivery.

## § 6 Claims resulting from defects

Rollex provides warranty for defects as to the quality of the goods or for defect of title, excluding further claims.

### Defects in quality

All parts which prove defective as a result of circumstances lying before the time of acceptance must be repaired or replaced by perfect goods at the discretion of the supplier. Any faults which are discovered must be communicated to Rollex immediately in writing. The customer must agree on the time needed for repairs and replacement and accord Rollex such time and also opportunity; otherwise Rollex is freed from liability for any resulting consequences. Only in cases where operational safety is at stake or in order to prevent disproportionate damage, has the customer the right



to repair defects himself or have them repaired by third parties and to demand compensation for the resulting costs. The supplier must be informed immediately.

Any immediate costs resulting from the repair or replacement shall be borne by Rollex, in so far as the complaint proves to be justified, including costs of the replacement and despatch. Rollex shall not bear the cost for dismantling and installing the part or costs for supply of the necessary operators and auxiliary workers, including travel costs.

Within the framework of the legal regulations, the customer has the right to withdraw from the contract if Rollex allows a suitable period for repair or replacement of an item which exhibits quality defects to pass without action, taking legal exceptions into consideration. If only a slight defect is present, the customer only has the right to reduction of the contractual price. The right to reduce the contractual price is otherwise excluded.

In particular, no warranty is accepted in the following cases: unsuitable or improper use, incorrect assembly or commissioning by the customer or a third party, natural wear and tear, incorrect or careless treatment, improper maintenance or repair, use of unsuitable operating materials, unsuitable construction work, unsuitable building land, chemical, electro-chemical or electrical influences in so far as they do not lie within the sphere of responsibility of Rollex. If the customer or third party carries out unsuitable repairs, Rollex shall not be responsible for any consequences which may result. The same applies for changes to the object of delivery carried out without the prior agreement of the supplier.

## **§ 7 Liability**

In case of liability which is legally specified and which does not depend on blame or fault, in particular for liability resulting from guarantee or from product liability law, Rollex shall accept unlimited liability. In the case of other infringements of obligations, Rollex shall only be liable for deliberate intent and gross negligence. This limitation shall

also apply for legal representatives, employees, staff and vicarious representatives of Rollex. In so far as any obligation is infringed which is of particular significance for fulfilment of the contractual goals (cardinal duty), Rollex shall also accept liability in cases of slight negligence. However, liability for indirect and unforeseeable damages as well as for damages consequential upon defects and loss of profit, savings which have not been achieved, damage to assets because of claims of third parties or other consequential damage, Rollex shall only be liable for infringement of a cardinal obligation in cases of intent and gross negligence. The liability of Rollex is limited to three times the net invoiced amount of the goods or services giving rise to the claim.

## **§ 8 Period of limitation**

All claims of the customer based on any legal grounds whatsoever, lapse after 12 months. Legal periods of limitation apply for claims for damages resulting from § 7.2 a-e. They also apply for defects in a building or for objects of delivery which are used corresponding to their general use for a building and which have caused defects in the building.

## **§ 9 Governing law, legal venue**

All legal and contractual relationships between Rollex and the customer shall be regulated by the governing law of the Federal Republic of Germany. The Uniform Law regarding International Sale of Goods of 17.07.1973, BGBlI856-EKAG is excluded. The legal venue shall be the court responsible for the registered office of Rollex. Rollex is also entitled to bring charges at the registered office of the customer.

## **§ 10 Validity of Contract**

If any provision of this contract should be currently invalid or incapable of implementation or should prove so in future, the validity of the remaining provisions shall not be affected.