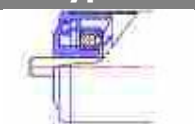



STARKLINE

Roller Design Manual



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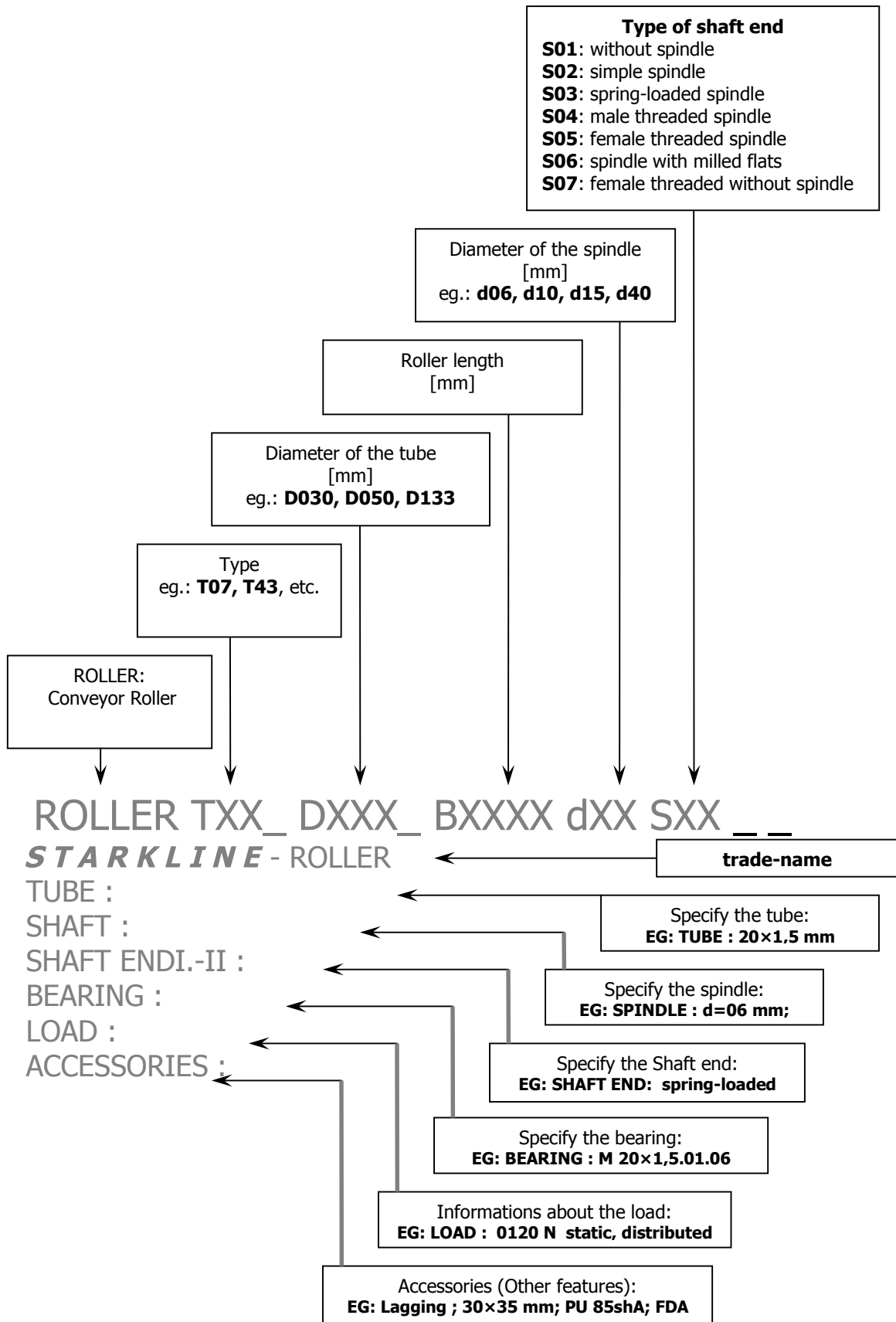
Type 0X		Roller wheel, Wheel track			
	Roller dia. (D; mm)	Bearing	Load capacity Max. (F; N)	Conveyor speed Max.(v; m/s)	Page
	15; 22; 28; 40; 48; 60; 80	Various	100	0,5	4 - 12
Type 1X		Light conveyor roller (Plastic ball bearing)			
	Roller dia. (D; mm)	Bearing	Load capacity Max. (F; N)	Conveyor speed Max.(v; m/s)	Page
	16; 20; 30; 40	Plastic with steel balls	200	0,3	13 - 19
Type 2X		Universal conveyor roller (Plastic house)			
	Roller dia. (D; mm)	Bearing	Load capacity Max. (F; N)	Conveyor speed Max.(v; m/s)	Page
	40; 50; 60	Plastic house with ball bearing	1600	2,0	21 - 32
Type 3X		Universal conveyor roller (Steel house)			
	Roller dia. (D; mm)	Bearing	Load capacity Max. (F; N)	Conveyor speed Max.(v; m/s)	Page
	30; 40; 48; 50; 60; 80	Steel house with ball bearing	2400	0,8	33 - 40
Type 4X		Heavy-duty conveyor roller (Steel house)			
	Roller dia. (D; mm)	Bearing	Load capacity Max. (F; N)	Conveyor speed Max.(v; m/s)	Page
	60; 63; 70; 76; 80; 89;108; 133; 159	Steel house with ball bearing (welded)	5000	2,0	41 - 47

ATTENTION!

- The load capacity of a conveyor rollers is depends on many of parameters. It's not just simply two times the load capacity of the bearing. (It depends on the material and thickness of the tube, the diameter, etc.)

Remark:

- You can choose any combinations of the parts, materials you find in this catalog. In this case please contact with us.

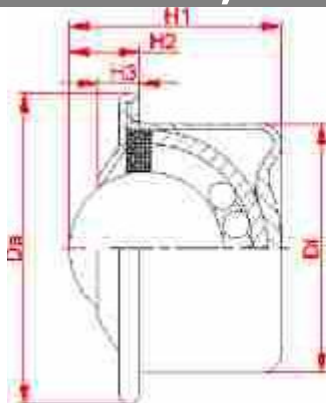


Roller wheel, Wheel track Type 0X



D=15;22 mm

Type 01



Ball (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	15,0 mm	N	S	N	N
	22,0 mm	N	S	O	N
	15,1 mm	N	S	N	N
	22,1 mm	N	S	O	N

Size

Type	Da	Di	H1	H2	H3
015 L	31,0	24,0	21,0	9,5	5,5
022 L	45,0	36,0	30,5	10,0	6,0
015	31,0	24,0	21,0	9,5	5,5
022	45,0	36,0	30,5	10,0	6,0

Bearing

Type	Load (F; N)	Type	Load (F; N)
015 L	500	015	1200
022 L	1200	022	3500

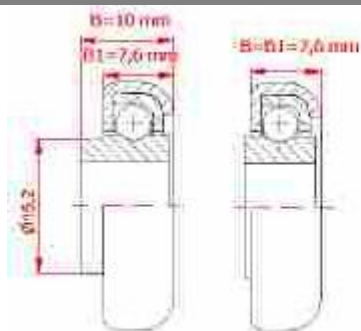
Use

- Conveyance in any direction possible
- Housing made of steel (Surface process or stainless steel available)
- Simple design
- Smooth-running balls
- Protection against dust and splashes of water
- Temperature range: -30° - 100°

S- Standard; **O**- Orderable; **N**- Not Available

D=28 mm

Type 02



Tube (D)



D (mm)	Steel	Surface process	Stainless steel	Plastic
28 mm	N	S	N	N

Spindle (d)



d (mm)	Steel	Surface process	Stainless steel	Without spindle
10 mm	O	O	O	S
12 mm	O	O	O	S
12,8 mm	O	O	O	S

Bearing



Type
F 28.15
Fmax= 100 N



Type
FM 28.15
Fmax= 70 N
Plastic inner ring

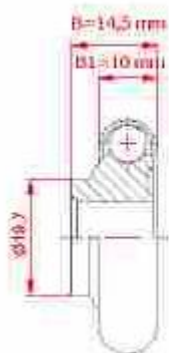
Use

- Universal element can be used for many applications
- Housing made of steel (Surface processed)
- Simple design
- Smooth-running ball bearing
- Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=40 mm

Type 03



Tube (D)



D (mm)	Steel	Surface process	Stainless steel	Plastic
40 mm	N	S	N	N

Spindle (d)



d (mm)	Steel	Surface process	Stainless steel	Without spindle
10 mm	O	O	O	S
12 mm	O	O	O	S

Bearing



Type	
FM 40.14	
Fmax= 70 N	
Plastic inner ring	

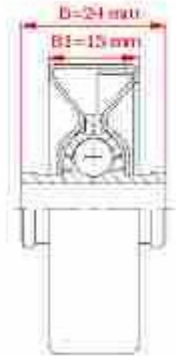
Use

- Universal element can be used for many applications
- Steel tube and plastic inner ring
- Simple design
- Smooth-running ball bearing
- Temperature range: 0° - 80°

S- Standard; **O-** Orderable; **N-** Not Available

D=48 mm

Type 04



Tube (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	48 mm	N	S	N	N

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	6 mm	O	O	O	S
	8 mm	O	O	O	S

Bearing

	Type	
	F 16	
	Fmax= 200 N	

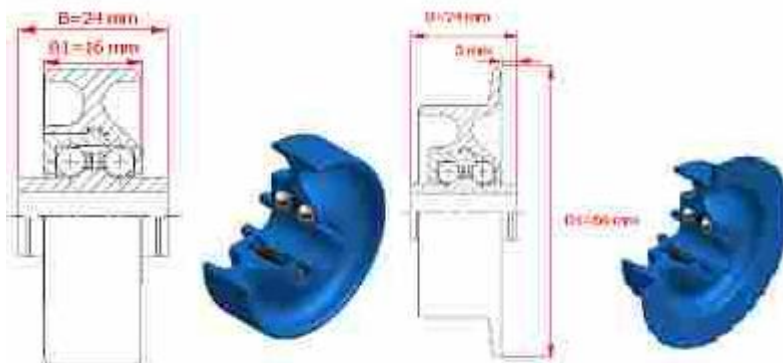
Use

- Universal element can be used for many applications
- Steel tube and inner ring (surface processed)
- Simple design
- Smooth-running ball bearing
- Temperature range: -30° - 100°

S- Standard; **O**- Orderable; **N**- Not Available

D=48 mm

Type 05



Tube (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	048 mm	N	N	N	S
	P48 mm	N	N	N	S

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	6 mm	O	O	O	S
	8 mm	O	O	O	S

Bearing

Accessories

	Type		Seal bonnet		
	M 48.02			PR M.02 (03)	
	Fmax= 100 N				
	M 48.03				
Fmax= 100 N NIRO					

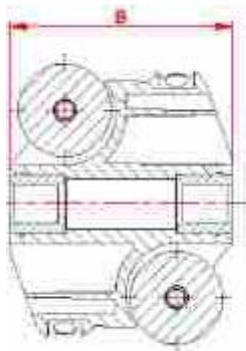
Use

- Universal element can be used for many applications
- Plastic tube and inner ring, with or without flange
- Simple design
- Smooth-running ball bearing, with seal bonnet if it is necessary
- Optionally with stainless steel balls
- Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=40;48;60;80 mm

Type 06



Tube (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	40 (B=29) mm	N	N	N	S
	48 (B=39) mm	N	N	N	S
	60 (B=48) mm	N	N	N	S
	80 (B=64) mm	N	N	N	S

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm *	O	O	O	S
	10 mm *	O	O	O	S
	12 mm	O	O	O	S
	15 mm	O	O	O	S
	SW9 mm *	O	O	O	S
	SW14 mm	O	O	O	S

*-only with D=40;48;60 mm diameter

Bearing

Load (Max F; N)

Six barrel-shaped roller with stainless steel spindle.	D=40 mm	100
	D=48 mm	150
	D=60 mm	200
	D=80 mm	400

Use

- Conveyance in two directions
- Simple design, plastic roller and inner ring
- Smooth-running sleeve bearings
- Temperature range: 0° - 80°

S- Standard; **O-** Orderable; **N-** Not Available

D=32 mm

Type 07



Tube (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	32 mm	N	N	N	S

Spindle (d)

Sizes (mm)

	d (mm)	Steel	Surface process	Length	4000	
	4 mm	N	S	Width	35,5	
	Spindle fastened with riveting				Height	27,5
	Bearing: Sleeve				Pitch	36,6

Roller load cap.

Max. load capacity of the track (F; N)

Fmax; N		Clear span	1 m	1,5 m	2,0 m	2,5 m
190		Load capacity	1500	1000	750	600

Use

- Conveyance of light weight boxes
- Simple design, plastic rollers and surface processed „U” section
- Smooth-running sleeve bearings

With or without brake

- Temperature range: 0° - 80°


S- Standard; **O**- Orderable; **N**- Not Available

D=32 (42)mm

Type 08




Tube (D)

	D (mm)	Steel	Surface process	Stainless steel	Plastic
	32 mm	N	N	N	S
	With 5 mm high flange on either side				


Spindle (d)

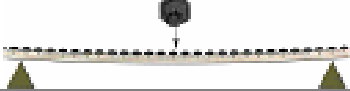
Profil Méretei (mm)

	d (mm)	Steel	Surface process	Length	4000
	4 mm	N	S	With	35,5
	Spindle fastened with riveting			Height	27,5
	Bearing: Sleeve			Pitch	36,6

Roller load cap.

Max. load capacity of the track (Fmax; N)

Fmax; N		Clear span	1 m	1,5 m	2,0 m	2,5 m
190		Load capacity	1500	1000	750	600



Use

- Conveyance of light weight boxes
- Simple design, plastic rollers and surface processed „U” section
- Smooth-running sleeve bearings
- Flange on either side for guiding
- Temperature range: 0° - 80°

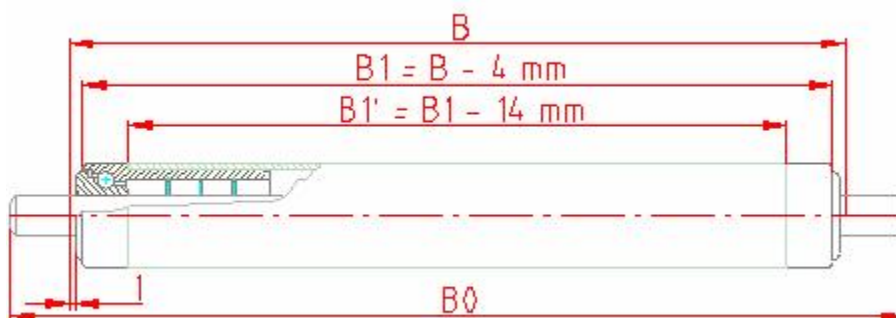
S- Standard; **O-** Orderable; **N-** Not Available

Light conveyer roller (plastic ball bearing) Type 1X



D=16 mm

Type 11



Bmin = 61 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	16 x 1,0 mm	S	S	S	S

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	5 mm	O	O	O	O
	6 mm	S	S	S	S

Bearing

	Type	
	M 16.00	
	Fmax= 50 N	
	M 16.01	
	Fmax= 50 N	
	NIRO	

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			B0=B+(2× shaft end)mm		B0=B+20 mm

S- Standard; **O-** Orderable; **N-** Not Available

D=16 mm

Type 11

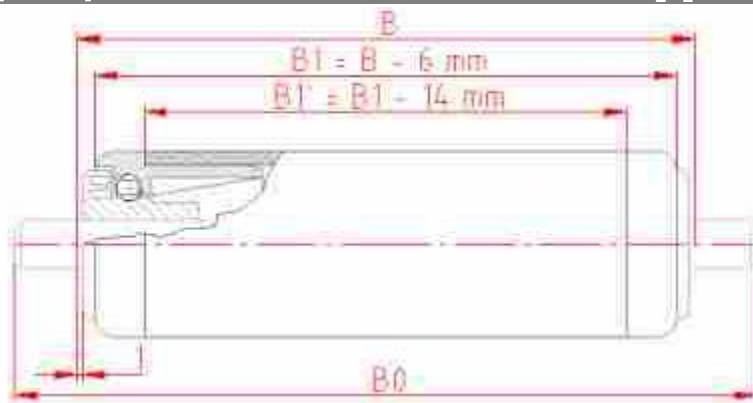
Use

- **Special bearing especially for gravity systems**
- **Steel (00) or stainless steel (01) balls between the plastic outer and inner rings**
- **Extremely smooth-running ball bearings**
- **Stainless version for foodstuff-compatibility at a low price.**
- **Simple design**
- **Temperature range: 0° - 80°**

S- Standard; **O-** Orderable; **N-** Not Available

D=20;30;40 mm

Type 12



Bmin = 60 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	20 x 1,0 mm	O	O	O	O
	20 x 1,5 mm	S	S	S	S
	30 x 1,0 mm	O	O	S	O
	30 x 1,5 mm	S	S	S	S
	40 x 1,5 mm	O	S	S	N
	40 x 2,3 mm	N	N	N	O

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	6 mm	O *	O *	O *	O *
	8 mm	S	S	S	S
	10 mm	O	O	O	O
*- only with D= 20 mm					

Bearing

	Type		Type		Type
	M 20.00		M 30.00		M 40.00
	Fmax= 50 N		Fmax= 70 N		Fmax= 70 N
	M 20.01		M 30.01		M 40.01
Fmax= 50 N NIRO	Fmax= 70 N NIRO	Fmax= 70 N NIRO			

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			B0=B+(2x Shaft end) mm		B0=B+20 mm

S- Standard; **O-** Orderable; **N-** Not Available



D=20;30;40 mm

Type 12

Shaft end

	Type (S04)		Type (S5)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M6; M8; M10		d=10 mm;M6		Flat with:
B0=B+(2× thread)		B0=B - 1 mm		4;5;6; 8 mm	
				B0=B+(2× flat)	

Accessories

Deflector		Tube Coating	
	BS 30		RCS 30×35 mm
	BS 40		RCS 40×45 mm
			PU; 85shA ; FDA

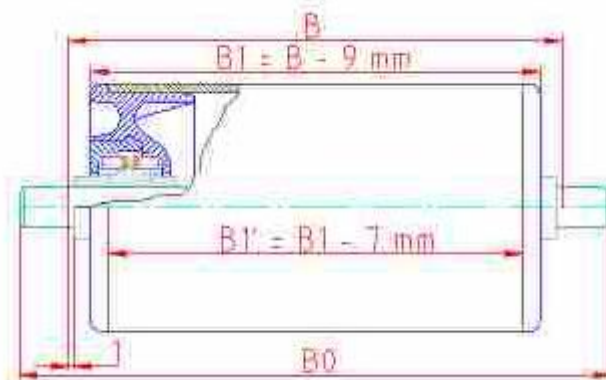
Use

- Special bearing especially for gravity systems
- Steel (00) or stainless steel (01) balls between the plastic outer and inner rings
- Extremely smooth-running ball bearings
- Stainless version for foodstuff-compatibility at a low price.
- Tube with deflector or with coating
- Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=50 mm

Type 13



Bmin = 51 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	50 x 1,5 mm	S	S	S	N
	50 x 2,0 mm	O	O	O	S
	50 x 2,4 mm	N	N	N	S

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm	O	O	O	O
	10 mm	S	S	S	S
	12 mm	O	O	O	O

Bearing

	Type	
	M 50.02	
	Fmax= 100 N	
	M 50.03	
Fmax= 100 N		
NIRO		

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			B0=B+(2x Shaft end) mm		B0=B+20mm (on-demand)

S- Standard; **O-** Orderable; **N-** Not Available

D=50 mm

Type 13

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10; M12		d=10 mm;M6 d=12 mm;M8		Flat with: 4;5;6;8;10 mm
B0=B+(2× thread)		B0=B - 1 mm		B0=B+(2× flat)	

Accessories

Seal bonnet		Tube Coating	
	PR M.02 (03)		RCS 80×85 mm
			RCS 90×95 mm
			PU; 85shA ; FDA

Use

- Special bearing especially for gravity systems
- Steel (00) or stainless steel (01) balls between the plastic outer and inner rings
- Extremely smooth-running ball bearings
- Stainless version for foodstuff-compatibility at a low price
- Bearing with seal bonnet or with coating
- Temperature range: 0° - 80°

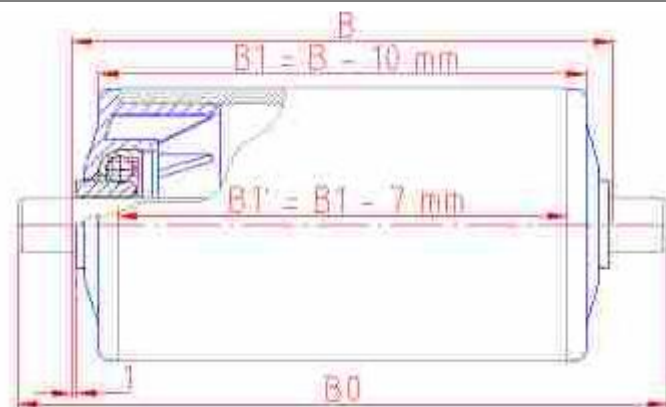
S- Standard; **O**- Orderable; **N**- Not Available

Universal conveyor roller (Plastic house) Type 2X



D=40;50 mm

Type 21



Bmin = 55 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	40 x 3,0 mm	O	O	O	O
	50 x 1,5 mm	S	S	S	S
	50 x 2,4 mm	N	N	N	S

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm	S	S	S	O
	10 mm	S	S	S	O
	12 mm	O	O	O	O

Bearing

	Type	
	M 40.25	
	Fmax= 500 N	
	M 50.25	
	Fmax= 500 N	

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			B0=B+(2× Shaft end) mm		B0=B+(2× (10- 15mm))

S- Standard; **O**- Orderable; **N**- Not Available

D=40;50 mm

Type 21

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10; M12		d=10 mm;M6 d=12 mm;M8		Flat with: 4;5;6;8;10 mm
B0=B+(2× thread)		B0=B - 1 mm		B0=B+(2× flat)	

Accessories

Tube Coating	
	RCS 40×55 mm
	RCS 50×55 mm
	PU; 85shA ; FDA

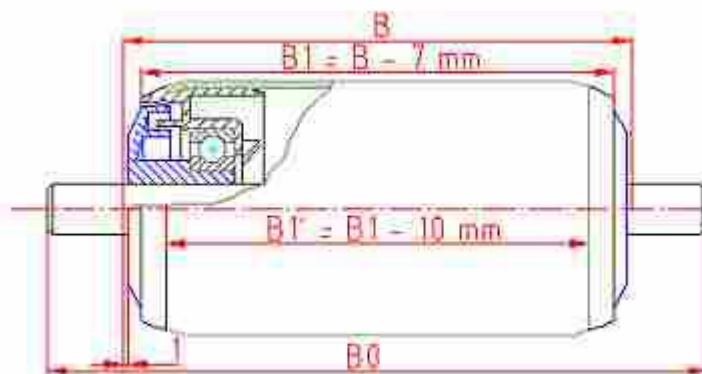
Use

- Special bearing especially for gravity systems
- Rollers with ball bearing in plastic housing
- Extremely smooth-running ball bearings commonly in plastic tube
- Simple roller at a low price
- Tube with or without coating
- Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=50 mm

Type 22



Bmin = 55 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	50 x 1,5 mm	O	S	S	N

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm	S	S	S	S
	10 mm	S	S	S	S
	12 mm	S	S	S	S
	14 mm	S	S	S	S
	11SW mm	S	S	S	S

Bearing

	Type		Type	
	MS 50.30		MS50.6002 2RS C3	
	Fmax= 800 N		Fmax= 800 N	
	MS 50.31			
	Fmax= 250 N NIRO			

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
		B0=B+ (2x Shaft end) mm		B0=B+20mm (on-demand)	

S- Standard; **O**- Orderable; **N**- Not Available

D=50 mm

Type 22

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10; M12;M14		d=10 mm;M6 d=12 mm;M8 d=14 mm;M10		Flat with: 4;5; 6;8;10;12 mm
B0=B+(2× thread)		B0=B - 1 mm		B0=B+(2× flat)	

Accessories

Tube Coating	
	RCS 50×55 mm
	PU; 85shA ; FDA

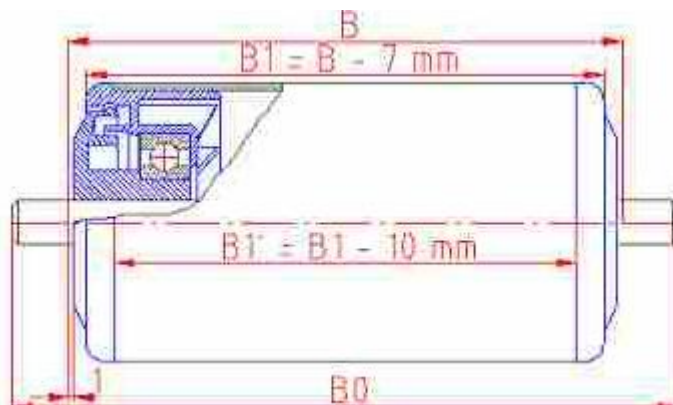
Use

- Steel bearing (6002 2RS C3) especially for gravity systems
- Ball bearing in plastic housing with flange
- Smooth-running ball bearings
- Simple but effective roller at a low price
- One of the most popular rollers, foodstuff-compatibility on-demand
- Tube with or without coating, Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available


D=50;60 mm

Type 23




Bmin = 55 mm


Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	50 x 1,5 mm	O	S	S	S
50 x 2,0 mm	O	S	S	S	O
50 x 2,8 mm	N	N	N	N	S
60 x 1,5 mm	O	S	S	S	N
60 x 2,0 mm	S	S	S	S	N




Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm	S	S	S	S
10 mm	S	S	S	S	S
12 mm	S	S	S	S	S
14 mm	S	S	S	S	S
11SW mm	S	S	S	S	S

Bearing

	Type		Type		
	MS 50.30 Fmax= 800 N		MS50. 6002 2RS C3 Fmax= 800 N		
MS 50.31 Fmax= 250 N NIRO					

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple B0=B+ (2x Shaft end) mm		Spring B0=B+20mm (on-demand)

S- Standard; **O-** Orderable; **N-**Not Available


D=50;60 mm

Type 23

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10; M12;M14 B0=B+(2× thread)		d=10 mm;M6 d=12 mm;M8 d=14 mm;M10 B0=B - 1 mm		Flat with: 4;5; 6;8;10;12 mm B0=B+(2× flat)

Accessories

Tube flange		Tube Coating	
	PP F.50-130		RCS 50×55 mm
	PP F.60-130		RCS 60×65 mm
	Available only if the load is tiny		PU; 85shA ; FDA

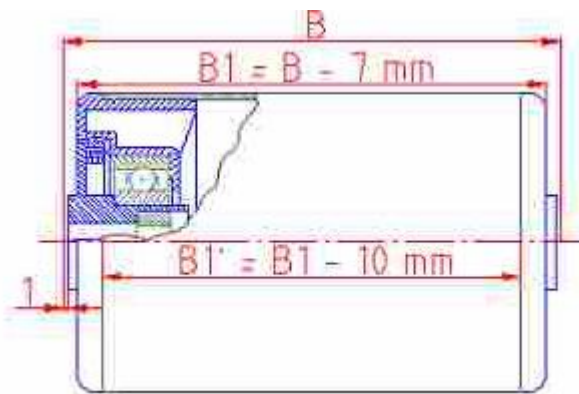
Use

- Steel bearing (6002 2RS C3) especially for gravity systems
- Ball bearing in plastic housing with simple sealing
- Smooth-running ball bearings
- Simple but effective roller at a low price
- One of the most popular rollers, foodstuff-compatibility on-demand
- Tube with or without coating, Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=50;60 mm

Type 24



Bmin = 55 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	50 x 1,5 mm	O	S	S	N
	60 x 1,5 mm	S	S	S	O

Bearing

	Type		Type
	MS50. 6202 2RS C3		MS60. 6202 2RS C3
	Fmax= 600 N		Fmax= 600 N

Shaft end

	Type (S07)
	Without; M8-nut

Accessories

Tube flange	Tube Coating		
		PP F.50-130	RCS 50x55 mm
		PP F.60-130	RCS 60x65 mm
Available only if the load is tiny	PU; 85shA ; FDA		

S- Standard; **O-** Orderable; **N-** Not Available

D=50;60 mm

Type 24

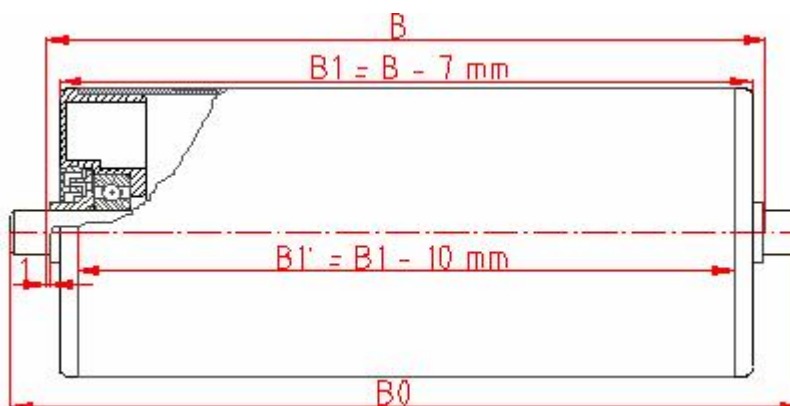
Use

- Steel bearing (6002 2RS C3) especially for gravity systems
- Ball bearing in plastic housing with simple sealing
- M8 nut into the plastic inner ring (WITHOUT SHAFT)
- Simple but effective roller at a low price
- To build standalone conveyor roller tracks or manage conveyor belts as well
- Tube with or without coating, Temperature range: 0° - 80°

S- Standard; **O**- Orderable; **N**- Not Available

D=63;80;89 mm

Type 25



Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	63,5 x 2,9 mm	S	S	S	N
	80 x 2,0 mm	S	S	S	N
	80 x 3,0 mm	S	S	S	N
	89 x 3,0 mm	S	S	S	N

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	12 mm	S	S	S	O
	15 mm	S	S	S	O
	11SW mm	S	S	S	O
	20 mm	S	S	S	O

Bearing

	Type		Type		Type
	MS80.30 Fmax= 800 N		MS80. 6002 2RS C3 Fmax= 1500 N		MS63(80;89). 6204 2RS C3 Fmax= 1500 N
	MS80.31 Fmax= 250 N NIRO		d=12;15; 11SW mm		d=20 mm

Shaft end

	Type (S02)		Type (S03)		Type (S04)
	Simple B0=B+ (2x Shaft end) mm		Spring B0=B+20mm (d=12; 15; with 11Sw; 10-15 mm)		Male Thread M12; M14; M16; M18; M20 B0=B+(2x thread)

S- Standard; **O-** Orderable; **N-** Not Available


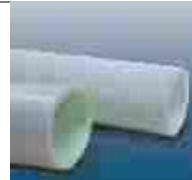
D=63;80;89 mm

Type 25

Shaft end

	Type (S05)		Type (S06)
	Female Thread		Milled Flats
	d=12 mm;M8		Flat with: 8;10;
	d=15 mm;M10		12;14;15 mm
	d=20 mm;M12		B0=B+(2× flat)
B0=B - 1 mm			

Accessories

Tube flange		Tube Coating	
	PP F.80-150		RCS 80×85 mm
	PP F.89-150		RCS 90×95 mm
	Available only if the load is tiny		PU; 85shA ; FDA

Use

- Steel bearing (6002 2RS C3) especially for gravity systems
- Ball bearing in plastic housing with simple sealing
- Larger diameters to manage average loads
- Simple but effective roller at a low price
- To build standalone conveyor roller tracks or manage conveyor belts as well
- Tube with or without coating, Temperature range: 0° - 80°

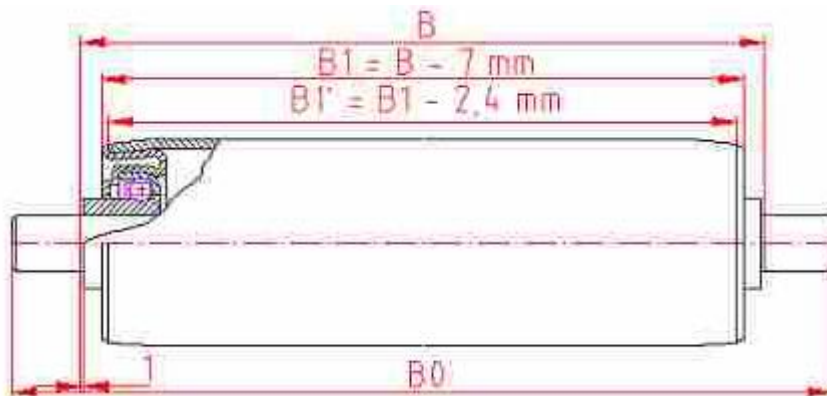
S- Standard; **O-** Orderable; **N-** Not Available

Universal conveyor roller (Steel House) Type 3X



D=30 mm

Type 31



Bmin = 27 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	30 x 1,2 mm	O	O	O	N
	30 x 1,5 mm	S	S	S	N

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm	S	S	S	S
	10 mm	S	S	S	S

Bearing

	Type	
	F 30.16	
	Fmax= 300 N	

Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			B0=B+ (2x Shaft end) mm		

S- Standard; **O-** Orderable; **N-** Not Available

D=30 mm

Type 31

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10		d=10 mm; M6		Flat with: 4;5;6;8 mm
B0=B+(2× thread)		B0=B - 1 mm		B0=B+(2× flat)	

Accessories

Tube Coating	
	RCS 30×35 mm
	PU; 85shA ; FDA

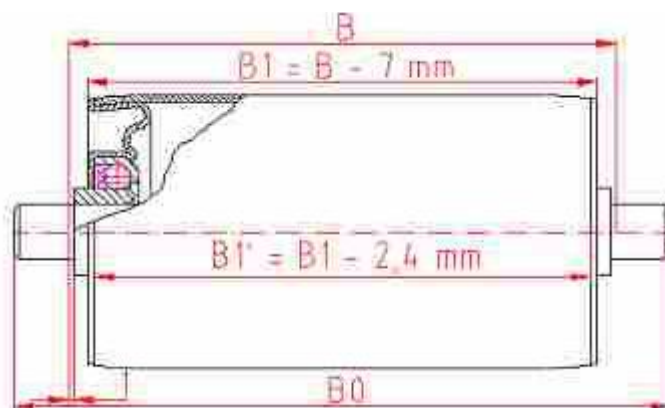
Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing in a deep drawn surface processed steel housing
- Small diameters to manage average loads
- Simple but effective roller at a low price
- To build standalone conveyor roller tracks or manage conveyor belts as well
- Tube with or without coating, Temperature range: 0° - 100°

S- Standard; **O**- Orderable; **N**- Not Available


D=40;48;50;60;80 mm

Type 32



Bmin = 30 mm

Tube (D)

	Dxs (mm)	Steel	Surface process	Stainless steel	Plastic
	40 × 1,5 mm *	O	S	S	N
	40 × 2,0 mm *	O	O	O	N
	48 × 1,5 mm *	O	O	O	N
	50 × 1,5 mm	O	S	S	N
	50 × 2,0 mm	O	O	O	N
	60 × 1,5 mm	O	S	S	N
	60 × 2,0 mm	O	O	O	N
	80 × 2,0 mm	O	O	O	N

* - Only with F .20 bearing

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	8 mm *	S	S	S	S
	10 mm *	S	S	S	S
	12 mm	S	S	S	S
	11SW mm	S	S	S	S
	14 mm	S	S	S	S
	15 mm	S	S	S	S

* - Only with F .20 bearing

Bearing




	Type		Type		Type
	F 40(48).20		F 80.20		F 50.30-2
	Fmax= 800 N		Fmax= 800 N		Fmax= 1200 N
	F 50(60).20				F 60.30-2
Fmax= 800 N		Fmax= 1200 N			

S- Standard; **O**- Orderable; **N**- Not Available

D=40;48;50;60;80 mm

Type 32




Shaft end

	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
			$B0=B+(2 \times \text{Shaft end})$ mm		$B0=B+20$ mm (on-demand)

Shaft end

	Type (S04)		Type (S05)		Type (S06)
	Male Thread		Female Thread		Milled Flats
	M8; M10; M12; M14		d=10 mm;M6 d=12 mm;M8 d=15 mm;M10		Flat with: 4; 5; 6; 8; 10 mm
	$B0=B+(2 \times \text{thread})$		$B0=B - 1$ mm		$B0=B+(2 \times \text{flat})$

Accessories

Seal bonnet		Flange		Tube Coating	
	PR F.20		PP F.50-130		RCS 40×45 mm
	PR F.30-2		PP F.60-130		RCS 48×53 mm
			PP F.80-150		RCS 50×55 mm
			RCS 60×65 mm		
					RCS 80×85 mm

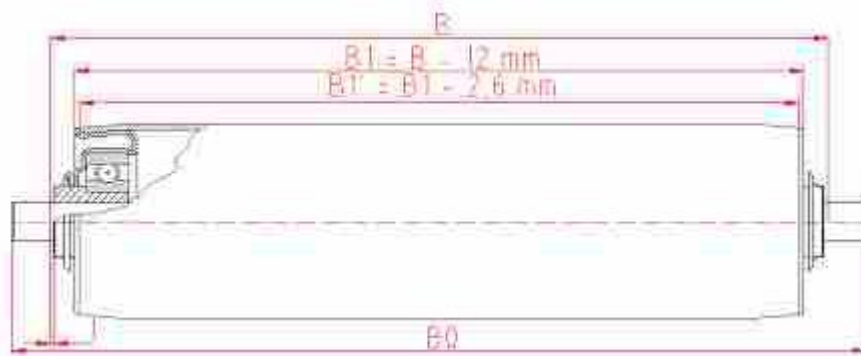
Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing in a deep drawn surface processed steel housing
- Small diameters to manage average loads
- Simple but effective roller at a low price with or without seal bonnet or flange
- Can be used under bad circumstances (eg. cold storage, agricultural use)
- With or without tube coating, Temperature range: 0° - 100°

S- Standard; **O**- Orderable; **N**-Not Available

D=50;60;80 mm

Type 33



Bmin = 45 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	50 x 1,5 mm	O	S	S	S
50 x 2,0 mm	O	O	O	O	N
50 x 3,0 mm *	O	O	O	O	N
60 x 1,5 mm	O	S	S	S	N
60 x 2,0 mm	S	S	S	S	N
60 x 3,0 mm**	O	O	O	O	N
80 x 2,0 mm	O	O	O	O	N

* - Only with F 50.30 bearing; ** - Only with F 60.6202 bearing

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	10 mm	S	S	S	S
12 mm	S	S	S	S	S
11SW mm	S	S	S	S	S
15 mm	S	S	S	S	S
17 mm	S	S	S	S	S

Bearing

	Type		Type		Type
	F 50.30		FS 50.6202		FS 80.6202
Fmax= 1200 N	Fmax= 1200 N	Fmax= 1200 N			
F 60(80).30	FS 60.6202				
Fmax= 1200 N	Fmax= 1200 N				

Shaft end




	Type (S01)		Type (S02)		Type (S03)
	Without		Simple		Spring
	B0=B+ (2x Shaft end) mm	B0=B+20mm (on-demand)			

S- Standard; **O-** Orderable; **N-** Not Available



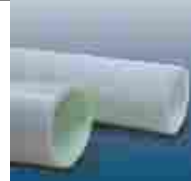
D=50;60;80 mm

Type 33

Shaft end

Type (S04)		Type (S05)		Type (S06)	
	Male Thread		Female Thread		Milled Flats
	M10; M12; M14		d=10 mm;M6 d=12 mm;M8 d=15 mm;M10		Flat with: 6; 8; 10; 12; 14 mm
	B0=B+(2× thread)		B0=B - 1 mm		B0=B+(2× flat)

Accessories

Seal bonnet		Tube Flange		Tube Coating	
	PR F.30		PP F.50-130		RCS 50×55 mm
			PP F.60-130		RCS 60×65 mm
			PP F.80-150		RCS 80×85 mm
			PU; 85shA ; FDA		

Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing in a deep drawn surface processed steel housing
- Small diameters to manage average loads
- Simple but effective roller at a low price with or without seal bonnet or flange
- Can be used under bad circumstances (eg. cold storage, agricultural use)
- With or without tube coating, Temperature range: 0° - 100°

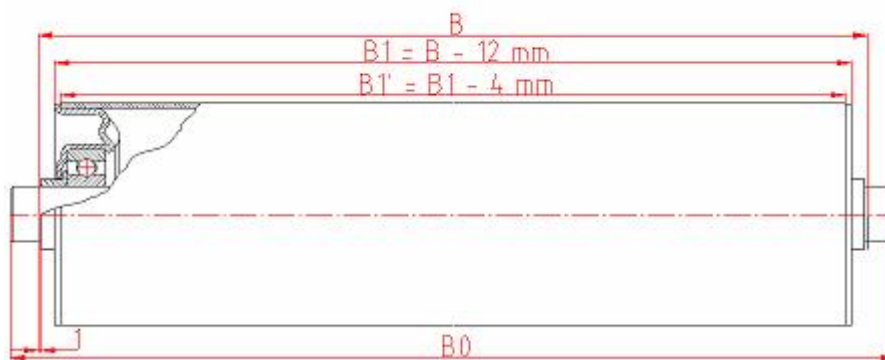
S- Standard; **O**- Orderable; **N**- Not Available

Heavy-duty conveyor roller (Steel house) Type 4X




D=63;80;89;108 mm

Type 41



Bmin = 60 mm




Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	63,5 x 2,9 mm	S	S	O	N
	80 x 2,0 mm	O	O	O	N
	80 x 3,0 mm	O	O	O	N
	89 x 3,0 mm	S	S	O	N
	89 x 3,25 mm	O	O	O	N
	108 x 3,25 mm	S	S	O	N




Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	16 mm	O	O	O	O
	17 mm	O	O	O	O
	14SW mm	O	O	O	O
	20 mm	S	S	S	S
	25 mm *	O	O	O	O

Bearing

	Type		Type		Type
	FS63.6004		FS80.6204		FS108.6204
	Fmax= 2000 N		Fmax= 2500 N		Fmax= 2500 N
			FS89.6204		FS108.6205
	Fmax= 2500 N	Fmax= 2500 N			

Shaft end


	Type (S02)		Type (S04)		Type (S05)
	Simple		Male Thread		Female Thread
	B0=B+ (2x Shaft end) mm		M16; M20		d=16 mm;M10 d=20 mm;M12 d=25 mm;M14 B0=B - 1 mm
	B0=B+(2x thread)				

S- Standard; **O**- Orderable; **N**- Not Available



D=63;80;89;108 mm

Type 41

Shaft end

	Type (S06)	
	Milled Flats	
	Flat with:10;12 14; 16; 18 mm	
	B0=B+(2× flat)	

Accessories

Tube flange		Tube Coating	
	PP F.80-150		RCS 80×85 mm
	PP F.89-150		RCS 90×95 mm
	PP F.108-150		PU; 85shA ; FDA

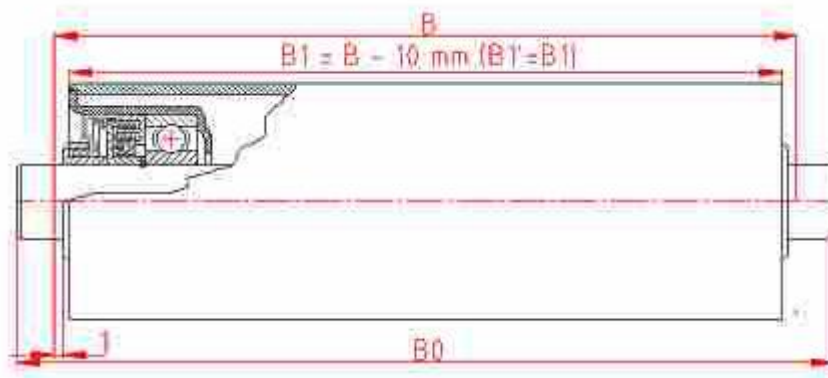
Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing (6004 2RS C3; 6204 2RS C3) in a deep drawn surface processed steel housing
- Suitable for heavy conveyed items, tube flange is available
- Extraordinarily robust design
- Can be used under bad circumstances (eg. cold storage, agricultural use)
- With or without tube coating, Temperature range: 0° - 100°

S- Standard; **O**- Orderable; **N**- Not Available


D=60;63;70;76 mm

Type 42




Bmin = 85 mm

Tube (D)

	D x s (mm)	Steel	Surface process	Stainless steel	Plastic
	60 x 3,0 mm	S	S	O	N
	63,5 x 2,9 mm	S	S	S	N
	70 x 2,0 mm	O	O	O	N
	70 x 3,0 mm	S	S	O	N
	76 x 2,0 mm	O	O	O	N
	76 x 2,9 mm	S	S	O	N

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	20 mm	S	O	S	N

Bearing

	Type		Type
	FH60.6204		FH70.6204
	Fmax= 2000 N		Fmax= 2500 N
	FH63.6204		FS76.6204
Fmax= 2000 N	Fmax= 1200 N		

Shaft end


	Type (S02)		Type (S04)		Type (S05)
	Simple		Male Thread		Female Thread
	B0=B+ (2x Shaft end) mm		M16; M18; M20		M10; M12; M14
	B0=B+(2x thread)		B0=B - 1 mm		

S- Standard; **O**- Orderable; **N**- Not Available

D=60;63;70;76 mm

Type 42

Shaft end

	Type (S06)	
	Milled Flats	
	Flat with:10;12 14; 16; 18 mm	
	B0=B+(2× flat)	

Accessories

Tube Flange		Tube Coating	
	PP F.60-130		RCS 60×65 mm
			RCS 70×75 mm
			PU; 85shA ; FDA

Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing (6204 2RS C3) in a deep drawn surface processed steel housing
- Labyrinth sealing
- Suitable for heavy conveyed items, tube flange is available
- Extraordinarily robust welded design
- Can be used under bad circumstances (eg. cold storage, agricultural use, mine industry)
- With or without tube coating, Temperature range: 0° - 100°


S- Standard; **O**- Orderable; **N**- Not Available

D=63;80;89;108;133;159 mm Type 43




Bmin = 92 mm

Tube (D)

	Dxs (mm)	Steel	Surface process	Stainless steel	Plastic
	63,5 × 1,5 mm	O	O	O	N
80 × 2,0 mm	O	O	O	N	
80 × 3,0 mm	O	O	O	N	
89 × 3,0 mm	S	S	O	N	
108 × 2,5 mm	O	O	O	N	
108 × 3,25 mm	S	S	O	N	
133 × 3,6 mm	S	S	O	N	
159 × 4,5 mm	S	S	N	N	

* if D=133; 159 mm Bmin=130 mm

Spindle (d)

	d (mm)	Steel	Surface process	Stainless steel	Without spindle
	20 mm	S	O	S	N
25 mm	S	O	S	N	
30 mm	S	O	S	N	
40 mm	S	O	S	N	

Bearing

	Type		Type		Type
	FH63.6204		FH89.6204		FH133.6204
	Fmax= 2000 N		Fmax= 2500 N		Fmax= 2500 N
	FH80.6204		FH108.6204		FH89.6205
	Fmax= 2000 N		Fmax= 2000 N		Fmax= 2000 N
*FH63.6204 NIRO		*FH89.6204 NIRO		*FH108.6204 NIRO	

Bearing

	Type		Type		Type
	FH108.6205		FH108.6306		FH133.6308
	Fmax= 2000 N		Fmax= 2500 N		Fmax= 2500 N
	FH133.6205		FH133.6306		FH159.6308
	Fmax= 2000 N		Fmax= 1200 N		Fmax= 1200 N


D=63;80;89;108;133;159 mm

Type 43

Shaft end

	Type (S02)		Type (S04)		Type (S05)
	Simple		Male Thread		FemaleThread
	B0=B+ (2× Shaft end) mm		M16; M20; M24		M10; M12; M14
			B0=B+(2× thread)		B0=B - 1 mm

Shaft end

	Type (S06)	
	Milled Flats	
	Flat with:12; 14;16;18;20mm	
	B0=B+(2× flat)	

Accessories

Tube Flange		Tube Coating	
	PP F.80-150		RCS 80×85 mm
	PP F.89-150		RCS 90×95 mm
	PP F.108-150		PU; 85shA ; FDA

Use

- Roller with steel bearing for gravity systems or for conveyor belts
- Ball bearing (6204 2RSC3; 6205 2RSC3; 6306 2RSC3; 6308 2RSC3) in a deep drawn surface processed steel housing
- Labyrinth sealing
- Suitable for heavy conveyed items, tube flange is available
- Extraordinarily robust welded design
- Can be used under bad circumstances (eg. cold storage, agricultural use, mine industry)
- With or without tube coating, Temperature range: 0° - 100°

S- Standard; O- Orderable; N- Not Available

