

ROULEAUX

pack

LUMP LOADS

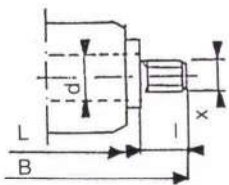


Spindle's holding up on the roller

B : held by internal hunches dimensionnally stable	VGS 32 - NS 22 - NS 32 - GL 42 - GL 47 - VBA 32
C : sliding, spindle delivered without assembly	P - VG - VGM - VGS - GS - G - GL - N - VN - NS
G : guiding way, spindle is in excess only on one side	All types
M : semi-sliding, spindle fixed held by internal hunches back in order to make it refractory	P - VG - VGM - VGS - GS - G - GL - N - VN - NS
N : held by clips, non-sliding spindle dimensionnally stable (to the re-assembly : change clips)	N 35 - VN 35 - LMP - VBA 35 - LM - BA - SL - GL 47
R : Springs, 1 or 2 springs according to the types of rollers	P - VG - VGM - VGS - GS - G - GL - N - VN - NS
S : without spindle	P - VG - VGM - VGS - GS - G - GL - N - NS - VN - SL

Current machining of spindle ends

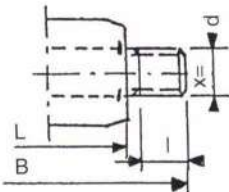
E = Shouldered – threaded



Standard Quotes for free rollers

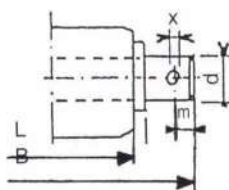
d	10	12	14	15	20	25	30	35
x	8	8	10	12	16	20	20	27
l	12	17	17	17	22	27	27	32
B=	L +30	L +40	L +40	L +40	L +50	L +60	L +60	L +70

F = threaded



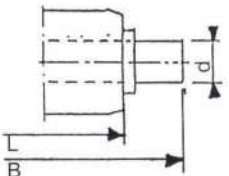
x = d	6-8	10-12-14	20
l	17	22	32
B=	L +40	L + 50	L + 70

G = cottered



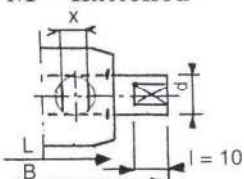
d	6	8-10-12-14-15	20
x	2,5	3,1	5
l	12	12	17
m	4	4	6
B=	L+30	L+30	L+40

L = smooth



$$B = L + 30$$

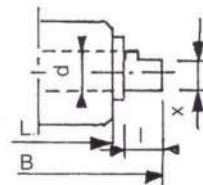
M = flattened



d	10	12	14	15	20	25	30	35
x	6	8	10 (8)	10 (8)	14	14 (8)	22	27

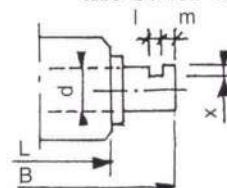
$$B = L + 26$$

S = Simple flattening



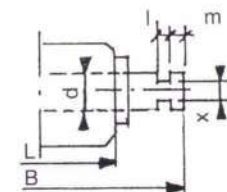
$$B = L + 26$$

V = Simple internal flattening the other end is smooth



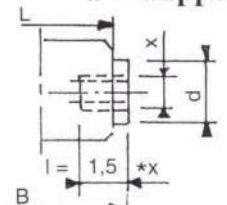
d	10-12-14-15	20
x m	4	5
B=	L + 30	L + 40

W = double internal flattening the other end is smooth



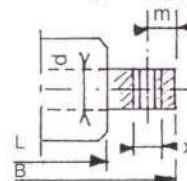
$$B = L + \dots$$

T = Tapped



d	(10)	12	14	15	20	25	30
x	6	8	8	10	12	14	13
B=	L+6						

U = radial tapping



$$B = L + \dots$$

After the choice of the spindle's diameter, mention in order : holding followed by machining (see boards above) : Ex $\varnothing 20$ NE 16 (proposed : spindle $\varnothing 20$ threaded to $x = 16$) or $\varnothing 20$ NE 14 (if wish different from the proposal : threaded to $x = 14$). If necessary, join a dimensioned sketch or a model to make sure of the possible interchangeability.

Rollers with plastic boxes			
Bear.	Type	Slaving	Tube's diam.
	Page	Page	Spindle's diam.
Plastic gravity Bearings	P		20 30 40 50
	12-13		6 8 10
	VG		28 30
	14		8
	VGM		50
	15		8 10
Gravity Bearings	VGS 28		40 50
	16		<u>10 11H 12</u>
	VGS 32		50 60
	17		<u>11H 12 14</u>
standardized Bear.	VN 22		28 30
	14		8
	VN 35	VNC VNFA VNFM	50 60 63
	25	36 to 39 41 42-43	<u>10 11H 12 15</u>
Standardized Bear. + outside wall joint	LMP 47		89
	34		20
	LMP 47		89
	35		20
	VBA 35		50 60 63
	31	page 36	<u>15</u>
	VBA 32		50 60
	30		<u>12</u>

Rollers with sheet steel boxes			
Bear.	Type	Slaving	Tube's diam.
	Page	Page	Spindle's diam.
Gravity bearings	GS 22		30 50
	18		8 8H 10
	GS 32		50 60
	19		<u>12 14</u>
	G 35	GFA	40 50 60 63,5 70
	20-21	40	<u>8 10 12 14</u>
Standardized Bearings	NS 22		50
	22		8
	NS 32		50 60
	23		<u>12</u>
	N 35	NCNFA NFM	40 50 60 63,5 70
	21-24	36 to 40 41 42-43	<u>12 15</u>
	GL 42		50 63,5
	26		20
	GL 47	GLC GLFA	55 70 80 89
	27	44-45 46	20
Standardized Bearings + outside wall joint	SL 62	SLC SLFA	70 89 102 108 133 159
	28	47 46	25 30
	LM 62	LMC	70 89 102 108 133 159
	33	49	25 30
	LM 52	LMC	89 133
	33	48	25
	LM 47	LMC	55 63,5 70 80 89 102 108 133
	33	48	20
	LMS 47		55 63,5 70 80 89 102 108 133
	35		20
Standardized Bearings + outside wall joint	BA 35		38 60 70
	32		<u>15</u>

DIFFERENT INFORMATION

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Choice and definition of a rollerpages 6-7

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DIFFERENT PRODUCTS

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Special Rollerspage 29

Driven conic rollerspage 40

Special driven rollerspage 50

Drumspage 50

ROULEAUX PACK SA

« ROULEAUX PACK SA » aims at making you share its experience and efficacy. Our most faithful customers check it daily.

We reach this aim by listening to our customers' sales and our engineering departments in order to help them choose or design the rollers most adapted to their needs. 30% of special products are thus designed in collaboration with our customers. This enables us to diversify our range of standard products and to adapt quickly and economically to various demands.

The development of this range has led to the publishing of this brochure : « Lumped loads ».

Furthermore, we offer rapid suggestions and fast manufacturing delays :

- * 80 % of suggestions are studied within 24 hours*
- * 70 % of orders are delivered within 15 days*

Thanks to this daily routine we have established a climate of trust which explains the increase in our share of the market for bulk as well as lumped loads and the fidelity of 60 % of our turnover have come from our regular customers during the last 10 years.

ROULEAUX PACK SA

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PREAMBLE

- ☐ This brochure presents our range of available rollers for lumped load.
- ☐ Thanks to the summary situated on the cover's flap (p. 3) and choice criteria (p. 6), you can do a preselection of products corresponding to your application.
This summary refers to a detailed card for each product. The general characteristics of each component are described on p. 8-9-10. (Generalities)
- ☐ Different spindle's executions allowing the roller's assembly on the engine frame are presented on the summary back page 2.
- ☐ For your need, you can photocopy the definition card of a roller (p. 7), complete it and send it to us with your requests.

example for the choice of a roller :

A conveyor is set in a sawmill for a hand feed of a 270 kgs load, on 3 rollers, with a 800 mm width. Loads are put on the conveyor by a lift-truck.

A - Choice criteria (p. 6)

1. Sawmill → dusty atmosphere → standardized Bearings RS or 2 RS
2. Hand feed → incompatible gravity bearings with the atmosphere, so keep 2 RS standardized bearings.
3. Load of 270 kgs on 3 rollers → unit load : 90 kgs per roller → medium load with diameter spindle 10 to 15
Shock possible with the lift-truck → sheet steel box.

B - Summary (p. 3)

Rollers types NS 32 and N 35 suit to choice criteria described above.

C - NS 32 Roller (p. 23)

In view of the roller length of 800 mm, NS 32 type can't suit because of a maximal load of 48 kg in tube Ø 50, or 60 kg in tube's Ø 60.

D - N 35 Roller (p. 24)

N 35 roller suits to a tube Ø 50 or 60 and with a spindle Ø 15.
In order to reduce the thrust effort of the load provoked by the RS tightness, it is advised to increase the tube's Ø in privileging Ø 60.

E - Spindle's execution (p. 2)

Choose spindle's execution compatible with the engine frame.

This document is not contractual and can be changeable without notice (see general sales conditions p. 53)

CHOICE CRITERIA

① - Atmosphere → tightness choice

Presence of liquid or fine particles →	external gaskets + standardized bearings
Dusty industrial atmosphere →	standardized bearings (R300) etc.
Current industrial atmosphere →	standardized bearings // or // // or
	gravity bearings

② - Way of working → Choice of the bearing's type

Belt or chain transmission →	standardized bearings
Fast or continuous working →	standardized bearings
Working provoked by the load's move →	gravity bearings

③ - Load per roller → Choice of spindle's diameter

Heavy (≥ 200 kg/roller) →	Spindle ≥ 20
Medium ($50 \leq \text{load} \leq 200$ kg/roller) →	Spindle 10 to 15
Light (≤ 50 kg/roller) →	Spindle 6 to 10

Check in boards of loads per type, the maximal admissible load according to the roller's length.

④ - Other criteria → Choice of the box material

Favorable criteria to sheet steel box	Favourable criteria to plastic box
Schock resistance	Prices
Shifting of the track resistance	Beautiful aspect
Important temperature	Protection against corrosion
Important load	low sonorous level
wear resistance in case of particles wedged between the engine frame and the roller	Food industry

⑤ - Anti-stationary charge of electricity → Precise it at the order to check if the roller is anti-static or not.

⑥ - Way of slaving

Positive slaving	Group	...C
Friction slaving (sprocket or steel pulley)	Group	...FA
Friction slaving (sprocket or plastic pulley)	Group	...FM

Definition card of a product

Customer	Your ref. Our Offer's ref.	Date Order	informatic code
Atmosphere unit load	Way of working Speed	Quantity	

a/ Type of roller :

b/ Bearings :

Protection : opened - Z - ZZ - RS - 2RS

Grease :

c/ Spindle Material :

d/ Tube material :

e/ Protection against corrosion

Tube :

Spindle :

Boxes :

Bearings :

Sprocket :

f/ Type of spindle's holding on the roller :

B	C	G	M	N	R	S

g/ Machining of spindle's end :

Side :	E	F	G	L	M	S	V	W	T	U
Left G										
Right D										
Left G	x =			l =				m =		
Right D	x =			l =				m =		

h/ Way of slaving :

Positive :

Friction : ...FA

...FM

Chain

timing belt

Type :

Type :

Pitch :

Pitch :

Toothing Nb :

Width :

Tooth Nb :

tooth pulley Nb :

I/ Throat :

Type :

Number :

I =

E =

J/ Assay crucible :

Type :

Number :

I =

X =

K/ Covering :

Material :

Hardness :

Width :

PAGE

10

8

8

9

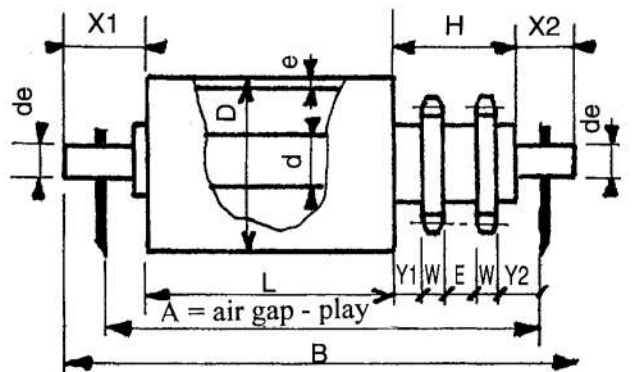
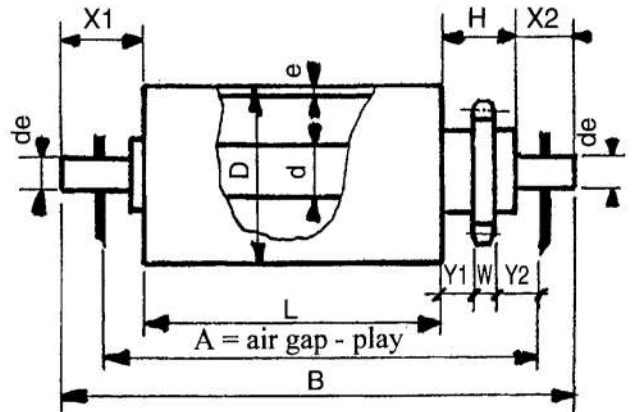
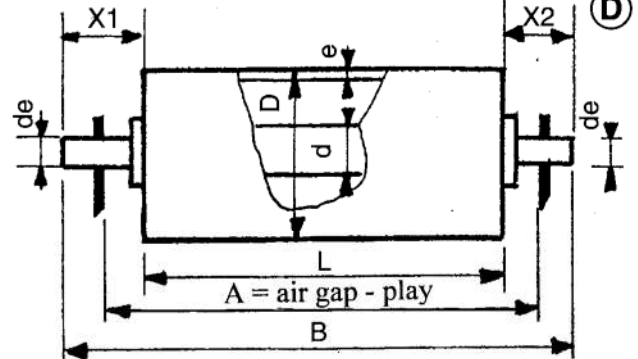
2

51

52

9

(G)



L =	
A =	
B =	
de =	
d =	
D =	
e =	
X1 =	
X2 =	

H =	
Y1 =	
Y2 =	
W =	
E =	

Generalities

A - TUBES

Stock

NATURE

On request

A 37 – rolled/welded - tariff 101
Lightly oiled, according to norm
N.F.A EN 102 04/2.2

A 37 – rolled/welded – galvanized
Zenzimir (15/20 µs)

Extruded – AGS shade

rolled/welded : shade 304
(non pickled/depressed)

PVC inflexible = white
Food

Steel :

A

Galvanized Steel :

GZ

Aluminium :

AL

Inox :

X

Plastic :

P

A37 – rolled/welded – tariff 102
hot or cold drawn (Tu 37b/52b)
in big thickness

white electro-zinc
or yellow bichromated } 10/12µs

Other shades (AG3, AU4G...)

without welding – 304 L, 316,
316 L (not pickled/depressed)

DIMENSIONS/NATURE : STOCKED

Dxe	A	GZ	AL	X	P
20 x 1,5	X			X	X
28 x 1	X			X	
30 x 1,5	X	X			
30 x 1,8					X
38 x 2	X				
40 x 1,5	X	X			
40 x 2,3					X
50 x 1,5	X	X		X	
50 x 2	X		X		
50 x 2,8					X
50 x 2,9	X				
50 x 5	X				
55 x 5	X				
57 x 2,2	X				

Dxe	A	GZ	AL	X	P
57 x 4					X
60 x 1,5	X				
60 x 2	X	X			
60 x 5	X				
60,3 x 1,6				X	
63 x 4,7					X
63,5 x 2,9	X				
70 x 2	X			X	
70 x 2,9	X				
70 x 5	X				
80 x 2	X				
80 x 2,9	X				
89 x 3	X			X	
89 x 5	X				

Dxe	A	GZ	AL	X	P
90 x 6,6					X
101,6 x 3,6	X				
108 x 3,6	X				
133 x 4	X				
133 x 6	X				
159 x 4	X				
159 x 6	X				

DIAM 159
and length 3500
are our maximal capacities

B - SPINDLES

Stock : Steel drawn A 37 or Inox 304

DIMENSIONS / NATURE : STOCKED

Nature diam.	6	8	8H	10	11H	12	14	15	(17)	20	25	30	(35)	(40)
Steel A 37	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inox 304	X	X		X		(X)		X		X				

() infrequent use

C - COVERING

ELASTOMER

RUBBER

by hot curing – normal width advised 5 mm

Hardness Shore A current 65

Possibility of hardness $45 < \text{Shore A} < 85$

Colors : - BLACK : for general applications

- WHITE : (clear, not staining) : for food industry or when products mustn't be stained.

Natural used for its resistance to abrasion. It improves the adhesion of carried products and chokes the noise they can provoke.

Don't use at the contact of hydrocarbon, oils and mineral, vegetable animal greases. $60 < T < 70^{\circ}\text{C}$

Nitrile remarkable resistance to hydrocarbon, greases and mineral, vegetable, animal oils.

Neoprene used for applications requiring contradictory properties – NON INFLAMMABLE – Resistant to warmth.

EPDM excellent resistance to warmth ($110^{\circ}/120^{\circ}\text{C}$) at water vapour and cold. Good chemic resistance to basis, acids, salts. Doesn't resist to hydrocarbon.

POLYURETHAN

Minimal advised thickness 5 mm and hardness Shore A current 90, other following specifications.

Good resistance to abrasion, to tearing and oils.

OTHER COVERINGS

Plast PVC coating (black in standard) medium thick 2 mm. Hardness Shore A80.

Rilsanisation hot polyamid covering, 0.2 to 0.3 mm thick (white in standard)

Teflon Anti-adhesive, 25 to 30 μs thick

Painting according to specifications

« Greponyl » rough covering (silica, melting) linked with a resin at the tube .

Electro-zincking white : 10/12 μs thick (resistance 180 hours)*.
Bichromated yellow, 10/12 μs thick (resistance 350 hours)*

Zenzimir galvanizing white (with fine bran) 15 to 20 μs (resistance 200 hours)*

Hot galvanizing white (with fine bran), 60 to 70 μs thick (resistance 800 hours)*

Hard plating electro deposit, 25 to 30 μs thick. Hardness 600 vickers, frosted, non polished (polished on request) in order to increase the superficial hardness of **thin tubes**, of **big length**

Carbonituration Hot treatment to increase the superficial hardness of **thick tubes** (in A37) and **short length** in order to limit deformations

Nota : *Resistance to salt spray at appearance of 5% rust, given as an indication.

D – BEARINGS – GREASES

Standard Assembly

standardized Bearings used are of 6000 serial, in steel, at chromium, play C3, opened or with Z or ZZ protection and lubricated with grease of lithium soaps grade NLGI 2, for working of -20° to $+100^{\circ}\text{C}$.
On request : protection RS or 2RS (80°C maxi)

Assembly for specific applications

Low temperatures : according to different cases, we can propose greases of usable quality from -50° to $+80^{\circ}\text{C}$

High temperatures : the general use of grease is applicable when working temperature doesn't exceed 100°C (120°C in point). Further : Tell us the maximal reached value, in order to foresee stabilized bearings, with adapted lubrication, and as the case may be, greasing canal in spindle's ends to allow a periodical lubrication. Extreme temperature : 250°C

Chemic atmosphere : tightness adapted to these products (precise us)
Examples : sulphur, fertilizer, acids, etc ...

Salin atmosphere : tightness adapted to this atmosphere.

Available inox bearings : shade Z100 CD17, martensitic, magnetic : 6202 (2RS) – 6204 (2RS). Others on request.

Bearings/free wheel : Possibility in serial 6000 of bearings assembly/combined free wheel. Consult us

E - SPROCKETS

Standard sprocket's material : XC 38

Best use sprockets proposed in this brochure in order to optimize cost and delivery time because they are all held in stock.

However, on request, with delivery time, all different execution (obstruction, pitch, tooth number) can be proposed. We can also guarantee hot treatment by high frequency hardening.

F - MAXIMAL ADMISSIBLE LOADS

Beyond 3 rollers engaged under the load, foresee a defection of the unit load to take into account the hyperstatism system.

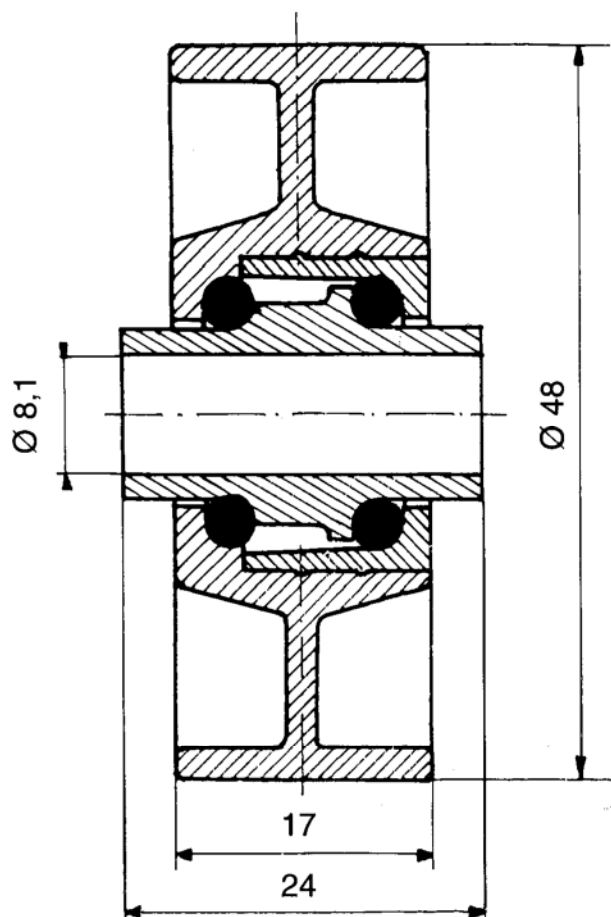
For each type of roller, the maximal admissible loads are considered, uniformly divided, without shocks, on the tube's generator, and for a spindle's deformation acceptable by bearings and boxes used.

When loads supports are of weak reaching on the roller tube, it's important to check that the crush value at touch is inferior to the elastic limit of the roller tube's material (hertz pressure) in order to avoid its matesside.

PLASTIC GALET Ø 48

Code 70

GA Type : with steel balls



GAX Type : with inox balls

Admissible load per Galet : 8 kgs

Polypropylene : Red (Black on request)

Use : from 0°C to + 60°C

Weight : 20°C

On request : Cutting at brace level in PVC tube and spindle supplying for « skewers » achievement.

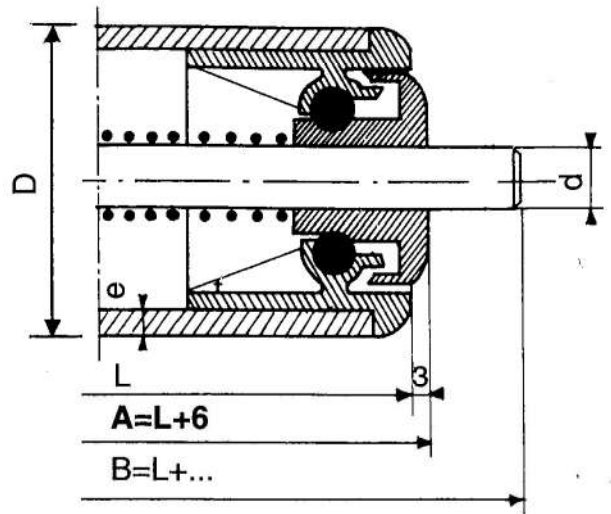
Plastic Roller P/EB type...

TUBES/SPINDLES COMBINATIONS

d	D			
	20 PVC	30 PVC	40 PVC	50 PVC
6	X	X		
8		X	X	X
10			X	X

Material / Covering : p. 8 - 9

Code 31



DESCRIPTION :

PVC Rollers with black polypropylene ends and meeting balls

P/EBA Type : with steel balls
P/EBX Type : with inox balls
 and Inox springs

Possible minimum Length « L » : $\varnothing 20 = 66 \text{ mm}$
 $\varnothing 30-40-50 = 60 \text{ mm}$

USE : ECONOMIC BATCH SIZE

Gravity Handling, flow storage of low lumped loads. For industries with cleanliness requirements
 (No Corrosion)
 $- 20^{\circ}\text{C} < T < + 60^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / weight (Kg) / maxi advised L

D	d	L	100	200	300	400	500	600	700
20	6	4		3	2	1			
			0,05	0,09	0,13	0,16			
30	6	5		4	3	2	1		
			0,10	0,16	0,23	0,29	0,35		
30	8	7		6	5	4	2,5	2	
			0,12	0,18	0,25	0,31	0,38	0,44	
40	8	10		9	8	6	5	4	3
			0,12	0,20	0,28	0,36	0,44	0,52	0,60
40	10	14		13	11	9	7	6	5
			0,15	0,25	0,35	0,46	0,56	0,66	0,77
50	8	11		10	9	7	6	5	4
			0,15	0,25	0,35	0,45	0,55	0,65	0,75
50	10	15		14	12	10	8	7	6
			0,18	0,30	0,42	0,54	0,66	0,78	0,90

PLASTIC ROLLER P/EBM TYPE

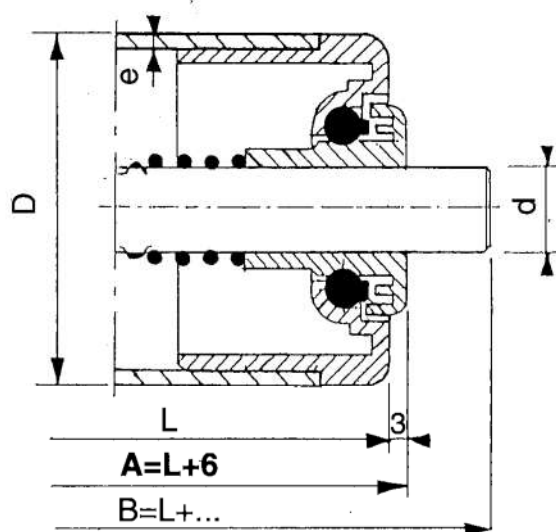
TUBES/SPINDLES COMBINATIONS

d	D			
	**20x1,5	20 PVC	30 PVC	40 PVC
6	X	X	X	
8	X	X	X	X
10				X

* * Steel or inox tube

Material / Covering : p. 8 - 9

Code 31



DESCRIPTION :

PVC Rollers with ends in grey polypropylene equipped with **balls cage** and internal ring in nylon

P/EBMA Type : with steel balls

P/EBMX Type : with inox balls

} and Inox springs

Possible minimum Length « L » : $\varnothing 20 = 60 \text{ mm}$

$\varnothing 30-40 = 54 \text{ mm}$

USE :

- Noiseless Working
- Gravity Handling and flow storage of low lumped loads
- For industries with cleanliness requirement
- $20^{\circ}\text{C} < T < +60^{\circ}\text{C}$

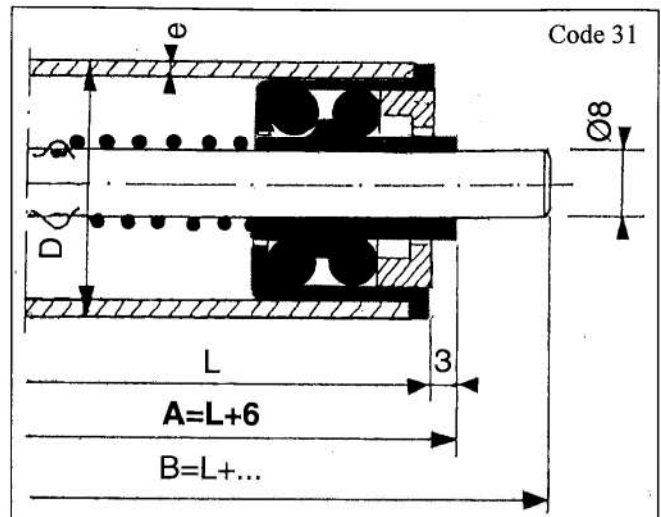
Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

D	d	L	100	200	300	400	500	600	700
**20x1,5	6	10	0,11	0,20	0,29	0,38	0,47	0,56	0,65
	8	10	0,13	0,24	0,34	0,45	0,56	0,67	0,77
20 PVC	6	5	0,05	0,09	0,13	0,16	0,19		
	8	5	0,07	0,13	0,18	0,23	0,29		
30 PVC	6	8	0,10	0,16	0,23	0,29	0,35	0,40	0,46
	8	8	0,12	0,18	0,25	0,31	0,37	0,43	0,49
40 PVC	8	14	0,12	0,20	0,28	0,36	0,44	0,52	0,60
	10	14	0,15	0,25	0,35	0,46	0,56	0,66	0,76

Gravity roller VG type...

TUBES/SPINDLES COMBINATIONS		
d	D	
	** 28 x 1	30 PVC
8	X	X

** Steel or inox tube
Material / Covering : p. 8 - 9



DESCRIPTION :

Acetal ends with a double range of meeting balls

VGA Type : with steel balls
VGX Type : with inox balls

} Inox springs

Possible minimum Length « L » : 44 mm

NOTA : Possibility of assembly in steel or inox on 608 Z, ZZ, RS, 2RS Bearings (Rollers VN22 type = code 34)

USE :

Gravity and flow storage of lumped loads more important than on P/EB... and P/EBM... type

- 20°C < T < + 60 °C

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

L	100	200	300	400	500	600	700	800
**28x1	20	20	20	20	15	12	10	8
	0,190	0,250	0,320	0,380	0,440	0,490	0,560	0,620
30 PVC	7	6	5	4	2,5	2	1	
	0,125	0,185	0,255	0,315	0,375	0,435	0,495	

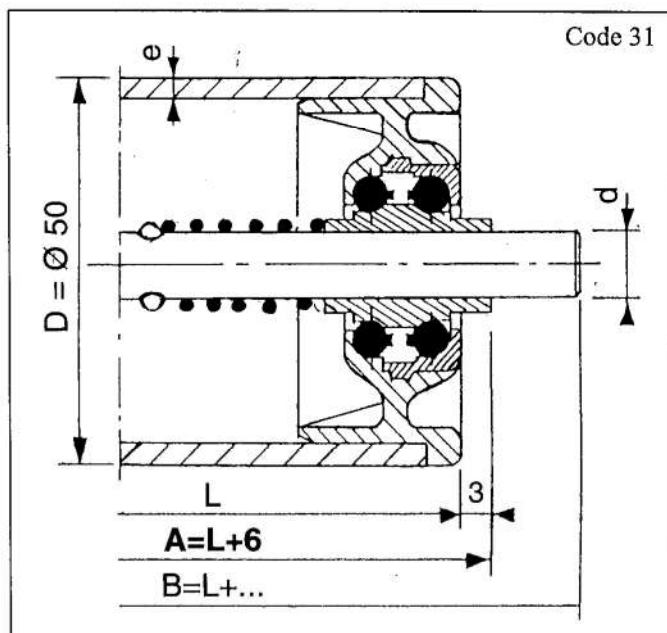
Gravity roller VGM type...

TUBES/SPINDLES COMBINATIONS

d	D	
	50x1,5	30 PVC
8	X	X
10	X	X

* * Steel or inox tube

Material / covering : p. 8 - 9



DESCRIPTION :

Ends in blue polypropylene with a double range of balls, **with cage** and internal ring in nylon

VGMA Type : with steel balls, Ø 50 PVC only

VGMX Type : with inox balls, Ø 50x1,5 and Ø 50 PVC

Inox springs

USE :

Noiseless Working

lumped load more important than on **P/EB** type : Gravity – flow storage

- 20°C < T < + 60 °C

Food industry and other industries with cleanliness requirement

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

D	d	L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
**50x1,5	8		20 0,28	20 0,51	20 0,74	20 0,97	20 1,20	20 1,43	18 1,66	16 1,89	14 2,11	12 2,34					
	10		20 0,31	20 0,56	20 0,81	20 1,06	20 1,32	20 1,57	20 1,82	20 2,07	18 2,32	18 2,57	18 2,82	18 3,08	16 3,33	14 3,58	12 3,83
50 PVC	8		20 0,16	18 0,26	14 0,37	11 0,48	9 0,58	8 0,69	6 0,80	5 0,90							
	10		20 0,19	18 0,32	16 0,44	14 0,57	12 0,70	10 0,83	8 0,96	6 1,09							

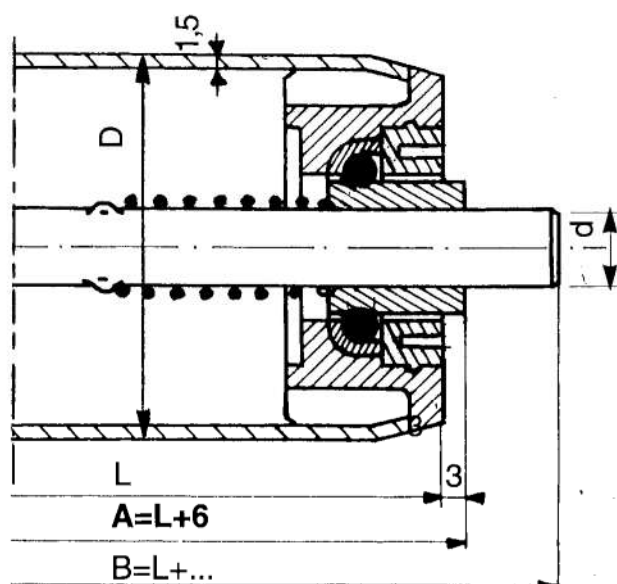
GRAVITY ROLLER VGS 28 TYPE

TUBES/SPINDLES COMBINATIONS

d	D	
	40 x 1,5	50 x 1,5
10	X	X
Hexa 11/flat	X	X
12	X	X

Material / Covering : p. 8 - 9

Code 32



DESCRIPTION :

Black polypropylene ends. Bearing with cup and nut in case-hardened steel, with meeting balls and deflector in black polypropylene

NOTA : the end piece is **not frictional electric conductor**

USE :

Medium lumped loads : Gravity, flow storage
 $-20^{\circ}\text{C} < T < +60^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

D	d	L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
40x1,5	10	60	60	60	65	52	43	37	32	28	25	23	22				
		0,35	0,56	0,76	0,97	1,17	1,37	1,58	1,78	1,98	2,18	2,38	2,58				
	11H	60	60	60	60	60	57	45	40	35	32	30	27				
		0,36	0,57	0,77	0,98	1,18	1,38	1,59	1,79	1,99	2,19	2,39	2,59				
	12	60	60	60	60	60	57	46	40	35	32	30	27				
		0,38	0,62	0,85	1,09	1,32	1,55	1,79	2,02	2,25	2,48	2,71	2,94				
50x1,5	10	80	80	80	65	52	43	37	32	28	25	23	22				
		0,44	0,68	0,92	1,16	1,40	1,64	1,88	2,13	2,36	2,61	2,85	3,00				
	11H	80	80	80	80	63	57	46	40	35	32	30	27				
		0,45	0,69	0,93	1,17	1,41	1,65	1,89	2,14	2,37	2,62	2,86	3,01				
	12	80	80	80	80	63	57	46	40	35	32	30	27	25	23	21	
		0,47	0,74	1,00	1,27	1,54	1,81	2,08	2,34	2,65	2,85	3,15	3,41	3,68	3,95	4,22	

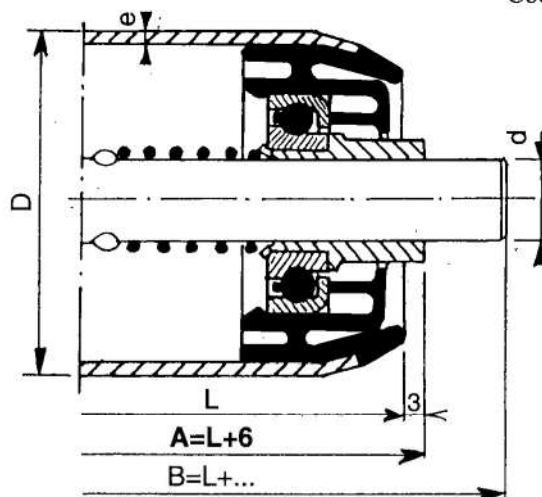
GRAVITY ROLLER VGS 32 TYPE

TUBES/SPINDLES COMBINATIONS,

d	D	
	50 x 1,5	60 x 1,5
11H	X	X
12	X	X
14	X	X

Possibility of steel tubes 2 thick
Material / Covering : p 8 - 9

Code 32



DESCRIPTION :

Polypropylene ends and reducing braces **FRictional Electric Conductor**

Bearing with ball cage, cup and nut in case-hardened steel VGS 32 type

Bearing with ball cage, cup, nut and inox balls : **VGSX 32** type

Maximal admissible load of this inox bearing : 15 kg

USE :

- medium lumped loads by Gravity. Few resistance to bearing (oiled bearings)
- medium lumped loads with a round or plate **transmission belt** (page 51)
- (**Precise** for bearings greasing). Best use in this case hexagonal spindle 11 H
- $20^{\circ}\text{C} < T < + 60^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

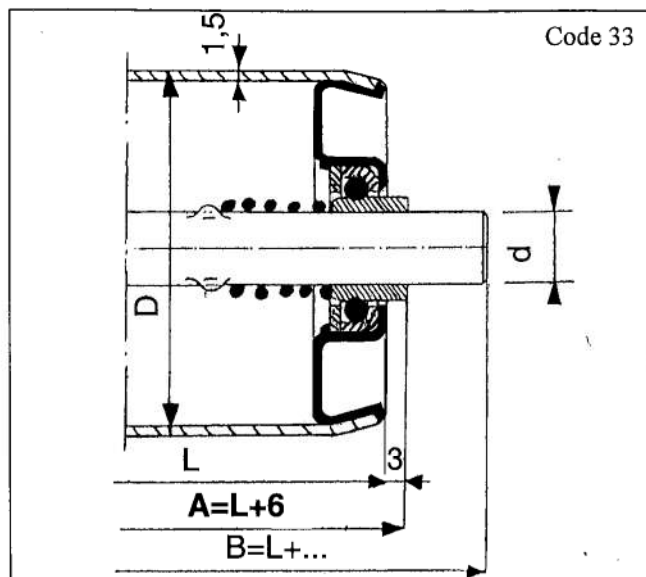
D	d \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
50x1,5	11H	80 0,49	80 0,76	80 1,03	80 1,30	63 1,57	57 1,85	45 2,12	40 2,39	35 2,66	32 2,93	30 3,21	27 3,48	25 3,75	22 4,02	20 4,29
	12	80 0,50	80 0,77	80 1,05	80 1,33	63 1,61	57 1,89	45 2,17	40 2,44	35 2,72	32 3,00	30 3,28	27 3,56	25 3,84	22 4,12	20 4,39
	14	100 0,54	100 0,85	100 1,16	100 1,47	80 1,78	70 2,09	56 2,40	50 2,71	44 3,02	40 3,33	37 3,64	34 3,95	31 4,26	28 4,57	25 4,88
60x1,5	11H	90 0,53	90 0,84	90 1,15	90 1,46	72 1,77	63 2,08	51 2,39	45 2,71	40 3,02	36 3,33	33 3,64	31 3,95	28 4,26	25 4,57	22 4,88
	12	90 0,53	90 0,85	90 1,17	90 1,49	72 1,81	63 2,12	51 2,44	45 2,76	40 3,08	36 3,39	33 3,71	31 4,03	28 4,35	25 4,67	22 4,98
	14	100 0,58	100 0,93	100 1,28	100 1,63	80 1,98	70 2,33	56 2,67	50 3,02	44 3,37	40 3,72	37 4,07	34 4,42	31 4,77	28 5,12	25 5,47

NOTA : Possibility of rollers with tube $\varnothing 57 \times 2,2$ (steel) and $\varnothing 57 \times 4$ (PVC), plastic box is not frictional electric conductor, steel bearing gravity type and ball cage, with plastic deflector – Spindle $\varnothing 12$

GRAVITY ROLLER GS 22 TYPE

TUBES/SPINDLES COMBINATIONS		
d	D	
	30 x 1,5	50 x 1,5
8	X	X
Hexa 8/flat		X
10	X	X

Material / Covering : p. 8 - 9



DESCRIPTION :

Steel ends with cup, washer, nut in case-harden steel, with meeting balls ($\varnothing 50$) or with ball cage, in nylon ($\varnothing 30$)
very low resistance to bearing

USE : ECONOMIC BATCH SIZE

lumped loads : low or medium, gravity or possibility of a round transmission belt (p.51)

$-20^{\circ}\text{C} < T^{\circ}\text{C} < +80^{\circ}\text{C}$

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L											
D	d \ L	100	200	300	400	500	600	700	800	900	1000
30x1,5	8	60 0,24	60 0,38	40 0,53	30 0,67	24 0,82	19 0,96	15 1,11			
	10	60 0,27	60 0,43	60 0,60	60 0,76	55 0,94	35 1,10	45 1,27	25 1,44	20 1,60	
50x1,5	8 / 8H	80 0,32	80 0,55	50 0,78	34 1,01	28 1,24	20 1,47	15 1,70			
	10	80 0,35	80 0,60	80 0,85	80 1,10	65 1,36	45 1,61	35 1,86	30 2,11	25 2,36	20 2,61

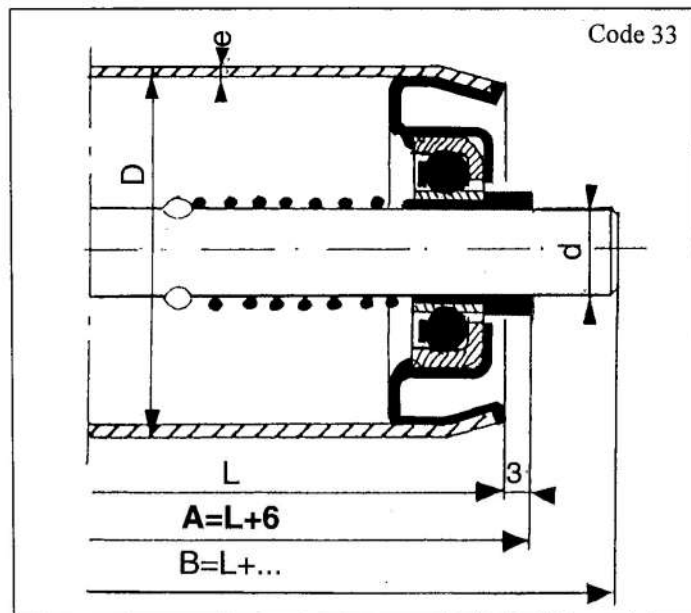
GRAVITY ROLLER GS 32 TYPE

TUBES/SPINDLES COMBINATIONS

d	D	
	*50 x 1,5	60 x 1,5
12	X	X
14	X	X

* Possibility of strengthened tube Ø 50x2,9

Material / Covering : p. 8 - 9



DESCRIPTION :

Steel ends, gravity bearings with ball cage, cup and nut in case-hardened steel
nylon (Ø 30)

Braces rings in polypropylene **FRICTIONAL ELECTRIC CONDUCTOR**

USE : ECONOMIC BATCH SIZE

Medium lumped loads : gravity or driven by a round or plate transmission belt (p.51) (greased bearings)

- 20°C < T < + 80 °C

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

D	d	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
50x1,5	12	100 0,46	100 0,73	100 0,99	100 1,26	75 1,53	68 1,80	56 1,98	48 2,33	42 2,64	38 2,87	35 3,14	32 3,40	29 3,67	27 3,90	25 4,21
	14	120 0,49	120 0,79	120 1,08	120 1,38	95 1,68	85 1,98	70 2,19	60 2,57	53 2,91	48 3,17	44 3,47	40 3,76	37 4,06	34 4,32	32 4,66
60x1,5	12	120 0,55	120 0,77	120 1,15	120 1,46	95 1,76	85 2,07	70 2,37	60 2,68	53 2,98	48 3,29	44 3,59	40 3,90	37 4,20	34 4,51	32 4,81
	14	150 0,58	150 0,83	150 1,24	150 1,58	95 1,91	97 2,25	84 2,58	74 2,92	67 3,25	62 3,59	55 3,92	51 4,26	47 4,59	44 4,93	40 5,26

GRAVITY ROLLER G 35 TYPE

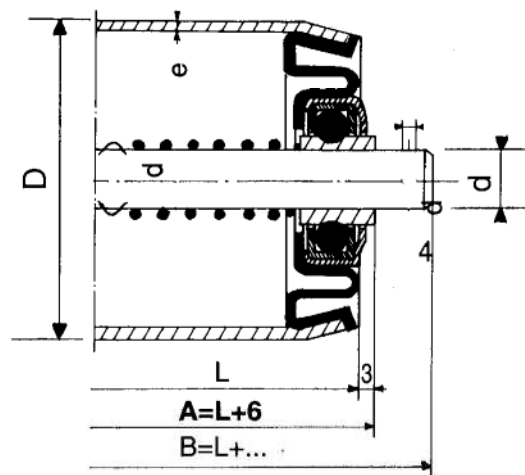
TUBES/SPINDLES COMBINATIONS

d	D						
	40 x 1,5	50 x 1,5	50 x 2*	60 x 1,5	60 x 2*	63,5 x 2,9	70 x 2*
8	X						
10	X	X		X			
12		X	X	X	X	X	X
14			X		X	X	X

* Possibility of strenghtened tubes 2,9 thick

Material / Covering : p 8 - 9

Code 33



DESCRIPTION :

steel ends and bearings with meeting balls , crimped over, with cup, washer and nut in case-hardn steel, with a little grease.

Minimal length : 100-maxi : 3400

USE :

Important loads for tube $\varnothing 60 \times 2$

Lumped load : gravity – flow storage

Possibility of anti-deflection ring of spindle p.52 for $\varnothing 63,5$ and $\varnothing 70$ and $L \geq 1800$

- 20°C < T < + 60 °C

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L

D	d	L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
40x1,5	8		46 0,35	46 0,53	40 0,71	30 0,90	24 1,08	20 1,26	17 1,44	15 1,62	13 1,80	12 1,98					
	10		85 0,37	85 0,58	85 0,78	70 0,99	55 1,19	45 1,39	38 1,60	33 1,80	29 2,00	26 2,20	23 2,41	21 2,61			
50x2	12		130 0,55	130 0,87	130 1,20	130 1,52	110 1,85	92 2,18	79 2,50	69 2,83	62 3,15	55 3,48	50 3,80	46 4,13	42 4,46	39 4,78	37 5,10
	14		130 0,58	130 0,94	130 1,30	130 1,65	130 2,00	130 2,37	120 2,73	105 3,10	93 3,44	85 3,80	76 4,16	70 4,51	65 4,87	60 5,23	56 5,59
60x2	12		160 0,65	160 1,02	160 1,39	160 1,77	125 2,14	107 2,52	94 2,90	84 3,27	78 3,64	72 4,02	65 4,39	61 4,77	57 5,14	54 5,52	50 5,90
	14		215 0,68	215 1,09	215 1,49	215 1,90	195 2,30	163 2,71	140 3,12	122 3,52	108 3,93	96 4,34	87 4,75	80 5,15	74 5,56	69 5,97	63 6,37
63,5 x 2,9	12		170 0,80	170 1,32	170 1,85	170 2,37	135 2,89	117 3,41	104 3,93	94 4,54	88 4,98	82 5,50	75 6,02	71 6,54	67 7,06	64 7,59	60 8,10
	14		230 0,82	230 1,38	230 1,93	230 2,49	210 3,04	178 3,60	155 4,15	137 4,70	123 5,25	111 5,80	102 6,36	95 6,92	89 7,47	84 8,02	75 8,58
70x2	12		170 0,72	170 1,15	170 1,57	170 2,00	135 2,42	117 2,84	104 3,27	94 3,70	88 4,11	82 4,54	75 4,96	71 5,39	67 5,09	64 6,23	60 6,66
	14		230 0,75	230 1,20	230 1,66	230 2,11	210 2,57	178 3,03	155 3,48	137 3,94	123 4,39	111 4,85	102 5,30	95 5,76	89 6,21	84 6,67	75 7,13

GRAVITY CONIC ROLLER GK 35 TYPE

Steel **roller tube** $\varnothing 60 / \varnothing 42$ with conicity on all the length for $L = 300, 350, 400, 450, 500, 550, 600, 650$; cylindrical extension $\varnothing 60$ for $L > 650$ (on request).

Fabricated materials with a beautiful aspect in steel E24 and obtained by necking.

Spindle : $d = 8 - 10 - 12 - 14$

Bearings : with balls ,the same bearings as rollers G35 type .

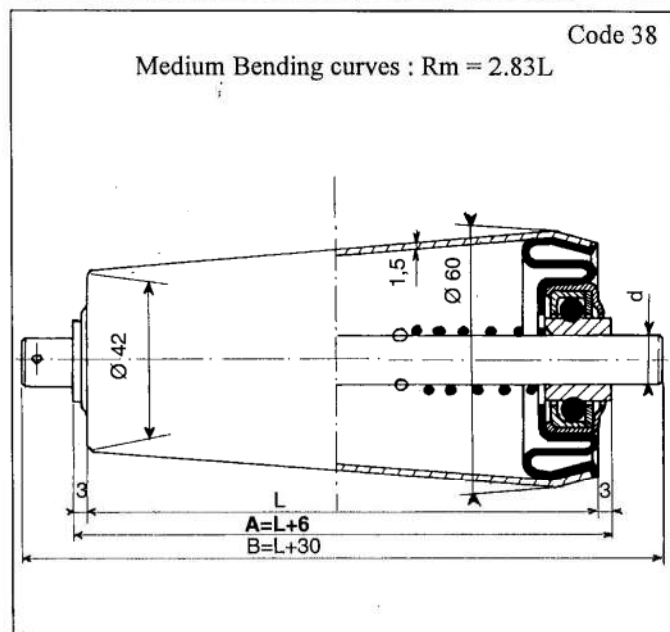
USE :

Lumped loads : gravity

$-30^{\circ}\text{C} < T^{\circ}\text{C} < +80^{\circ}\text{C}$

Possibility of inox tube on request

Covering : p.9



«NORMAL» CONIC ROLLER NK 35 TYPE

Roller tube : see above

Spindle : $\varnothing 15$ with 6202 Z bearings.
 $\varnothing 12 - \varnothing 10 - \varnothing 8$ with 6202 Z Bearings
 equiped with reducing rings in nylon.

USE : lumped loads

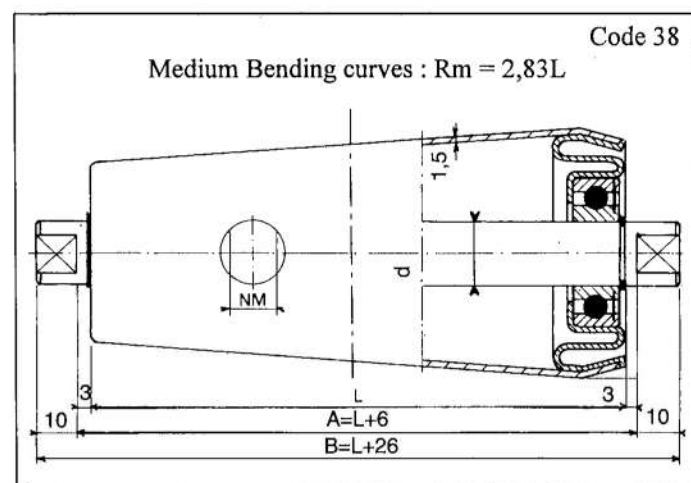
$-20^{\circ}\text{C} < T^{\circ}\text{C} < +80^{\circ}\text{C}$

Possibility of inox tube on request

6202 ZZ, RS, 2RS Bearings on request

Driven rollers p. 40

Covering : p.9



Possibility of conic COVERING in ELASTOMER on cylindrical rollers.

OTHER POSSIBILITIES OF ROLLED/WELDED FABRICATED MATERIAL (2 or 3mm thick)
on request in GK, NK, GLK type. Aspect and out of round in a worse quality than above.

Dxd	L	Medium Bending curves													
		300	350	400	450	500	550	600	650	700	800	850	900	1000	1300
60x50				2200	2475	2750									
70x40							1008	1100							2383
70x50		900	1050	1200	1350	1500	1650	1800	1950	2100	2400		2700	3000	
80x50				866		1083		1300			1733		1950		
80x60				1400				2100					3150		
89x60		770		1027	1156	1285	1413	1540		1798	2055	2184			

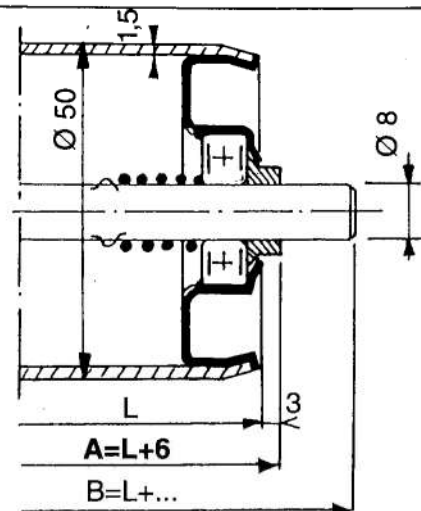
«NORMAL» ROLLER NS 22 TYPE

TUBES/SPINDLES COMBINATIONS

d	D
8	50 x 1,5

Material/Covering : p. 8-9

Code 35



DESCRIPTION :

Economic batch size – Steel ends – 608 2RS Bearings

Nylon braces closed in the box.

USE :

Round or plate transmission belt (p. 51) for a fast and noiseless handling of low lumped loads

- 20°C < T°C < + 80°C

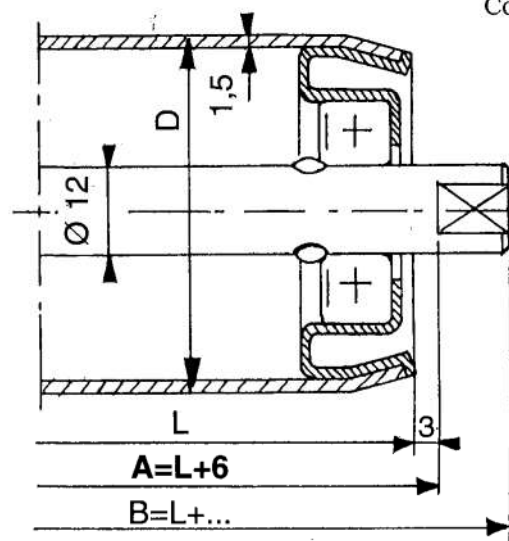
Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

L	100	200	300	400	500	600	700	800
diam. 8	80 0,32	43 0,55	28 0,78	21 1,01	17 1,24	14 1,47	12 1,70	10 1,93

ROLLER with precision Bearing NS 32 TYPE

TUBES/SPINDLES COMBINATIONS		
d	Dxe	
	50 x 1,5	60 x 1,5
12	X	X

Material/Covering : p. 8-9



DESCRIPTION : ECONOMIC BATCH SIZE

Sheet steel box – 6201 Z Bearings (ZZ, RS, 2RS on request)

Spindle held by hunches

USE :

Medium lumped load – Gravity handling – Best use for rollers driven by round or plate transmission belt (p.51)

- 20°C < T°C < + 80°C

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L																
Dxe \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	
50x1,5	100	100	100	100	75	68	56	48	42	38	35	32	29	27	25	
	0,46	0,73	0,99	1,26	1,53	1,80	1,98	2,33	2,64	2,87	3,14	3,40	3,67	3,90	4,21	
60x1,5	120	120	120	120	95	85	70	60	53	48	44	40	37	34	32	
	0,55	0,77	1,15	1,46	1,76	2,07	2,37	2,68	2,98	3,29	3,59	3,90	4,20	4,51	4,81	

«Normal» ROLLER N 35 TYPE

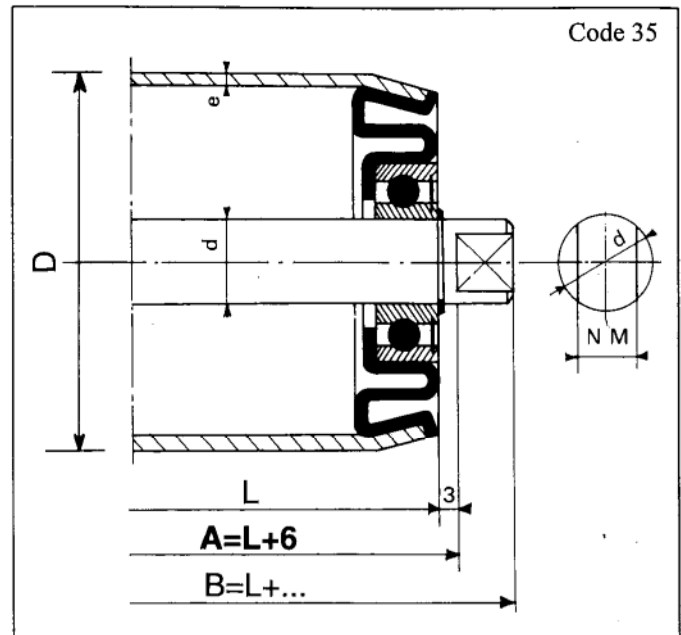
TUBES/SPINDLES COMBINATIONS							
d	D						
	40	50	50	60	60	63,5	70
	x	x	x	x	x	x	x
	1,5	1,5	2*	1,5	2*	2,9	2*
12	X	X	X	X	X		
15	X	X	X	X	X	X	X

* Possibilities of tube 2,9 thick

Driving rollers NC type : p. 36-37-38-39

Friction Driving rollers : p. 41-42-43

Material/Covering : p. 8-9



DESCRIPTION :

Steel ends – 6202Z Bearing for spindle Ø15 – 6201Z Bearing and nylon cage or 6202Z Bearing and Reducing ring in nylon for spindle Ø12.

On request protection ZZ, RS, 2RS

USE :

Important lumped load – Manual or mechanized transfer by round or plate transmission belt (p.51) –

Best use : driven rollers

- 20°C < T < + 80°C

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L																	
D	d	L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
40x1,5	12		64 0,37	64 0,63	64 0,84	64 1,07	64 1,30	53 1,52	46 1,76	40 1,99	36 2,21	32 2,45	29 2,68	26 2,91	24 3,14	22 3,37	20 3,60
	15		77 0,43	77 0,74	77 0,90	77 1,28	77 1,56	64 1,83	55 2,12	48 2,40	43 2,67	38 2,96	35 3,27	31 3,52	29 3,80	26 4,08	24 4,36
50x2	12		130 0,52	130 0,84	130 1,17	130 1,49	110 1,82	92 2,15	79 2,47	69 2,80	62 3,12	55 3,45	50 3,75	46 4,10	42 4,42	39 4,75	37 5,08
	15		130 0,58	130 0,95	130 1,33	130 1,70	130 2,08	130 2,45	120 2,83	105 3,21	93 3,58	85 3,96	76 4,33	70 4,71	65 5,08	60 5,46	56 5,84
60x2	12		160 0,61	160 0,99	160 1,36	160 1,74	125 2,11	107 2,49	94 2,86	84 3,24	77 3,61	72 3,99	65 4,36	61 4,74	57 5,11	54 5,49	50 5,86
	15		215 0,68	215 1,10	215 1,52	215 1,96	195 2,37	163 2,80	140 3,22	122 3,65	108 4,07	96 4,50	87 4,92	80 5,35	74 5,77	69 6,20	63 6,62
63,5x2,9	15		250 0,82	250 1,39	250 1,97	250 2,54	250 3,11	206 3,68	178 4,25	156 4,82	140 5,40	127 5,96	116 6,54	107 7,11	100 7,68	94 8,25	88 8,83
70x2	15		250 0,74	250 1,22	250 1,69	250 2,17	250 2,64	206 3,11	178 3,59	156 4,06	140 4,53	127 5,00	116 5,48	107 5,95	100 6,43	94 6,90	88 7,37

ROLLER with precision Bearing VN 35 TYPE

TUBES/SPINDLES COMBINATIONS				
d	D			
	50x1,5	60x2*	50 PVC	63 PVC
10	X	X	X	X
11H	X	X	X	X
12	X	X	X	X
15	X	X	X	X

Boxes and reducing rings are not frictional electric conductor

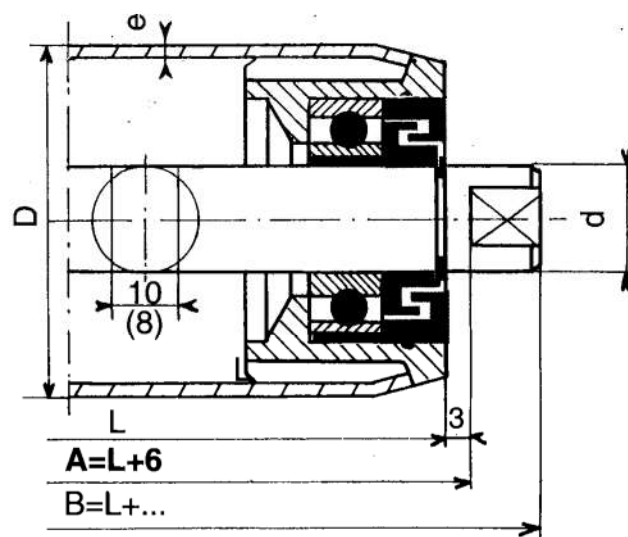
* inox tube possible

Driving rollers VNC type : p. 36-37-38-39

Friction driving rollers : p. 41-42-43

Material/Covering : p. 8-9

Code 34



DESCRIPTION :

Box in black polypropylene – Deflectors and reducing rings in red polypropylene

Bearings : 6202 greased or on request Z, ZZ, RS, 2RS

USE :

Slaving by PVC belt of lumped load in industry food with PVC or inox tube. Possibility of inox bearings (6202 2RS)

- 20°C < T°C < + 60°C

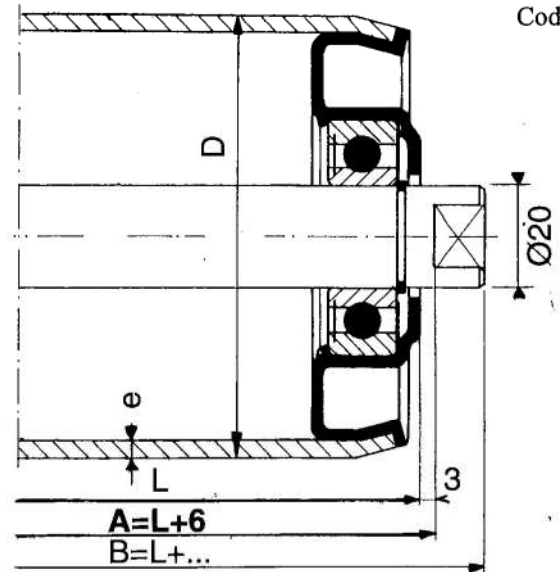
Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L																
Dxe \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	
50x1,5	80	80	80	80	70	64	50	45	39	36	33	30	28	26	24	
	0,45	0,72	1,00	1,28	1,56	1,84	2,12	2,39	2,67	2,95	3,23	3,51	3,79	4,07	4,34	
60x2	100	100	100	100	81	71	57	51	45	41	37	34	31	28	25	
	0,54	0,92	1,29	1,67	2,04	2,42	2,79	3,17	3,54	3,91	4,29	4,66	5,04	5,41	5,79	
50PVC	70	50	40	30	14	9										
	0,32	0,48	0,63	0,79	0,95	1,10										
63PVC	80	80	70	40	23	13	9									
	0,39	0,61	0,83	1,06	1,28	1,50	1,72									

Heavy gravity roller GL 42 TYPE

TUBES/SPINDLES COMBINATIONS

d	Dxe	
	*50 x 1,5	60 x 1,5
12	X	X

** Possibility of tube $\varnothing 50 \times 2,9$
Material/Covering : p. 8-9



DESCRIPTION :

$\varnothing 50 \times 5$: 6004 ZZ Bearings (2RS on request) directly in the bored tube
 $\varnothing 63,5 \times 2,9$: sheet steel box and 6004 ZZ Bearings (2RS on request)

USE :

Handling of heavy lumped loads (pallets...)
- $20^{\circ}\text{C} < T^{\circ}\text{C} < + 80^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

D	d	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
50x5	20	400	400	400	320	320	270	235	205	180	162	150	137	126	117	110
		1,07	1,93	2,78	3,64	4,49	5,35	6,21	7,06	7,92	8,78	9,63	10,49	11,35	12,20	13,06
63,5x2,9	20	300	300	300	250	250	250	235	205	180	162	150	137	126	117	110
		1,18	1,86	2,54	3,22	3,90	4,58	5,26	5,94	6,62	7,30	7,98	8,66	9,34	10,02	10,70

Heavy gravity roller GL 47 TYPE

TUBES/SPINDLES COMBINATIONS

d	D			
	**50x1,5	70x2,9	**80x2	89x3,2
20	X	X	X	X

** on request $\varnothing 80 \times 2,9$

$\varnothing 50 \times 2,9$

Driving rollers GLC type

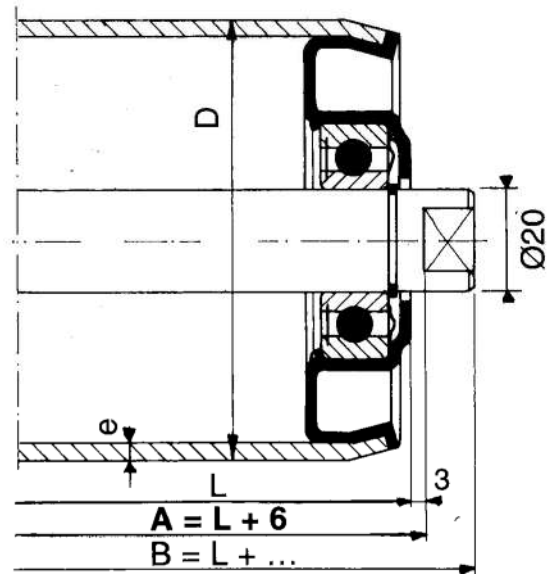
p. 44 - 45

Friction driving rollers

GLFA type : p.46

Material / Covering p. 8 - 9

Code 51



DESCRIPTION :

$\varnothing 55 \times 5$: 6204 ZZ Bearings (or 2RS on request) directly in the bored tube. Other tube's diameters : sheet steel boxes and 6204 Z Bearings protected by a meeting ring (ZZ or 2RS on request)

On request : Spindle $\varnothing 17$ and 6303 ZZ, 2RS bearings

Spindle $\varnothing 15$ and bearings 6204 ZZ, 2RS and reducing rings in nylon

USE :

Handling of heavy lumped loads (pallets...)

Guiding assay crucible for $\varnothing 70$ and $\varnothing 89$ (see p. 52)

Possibility of anti-deflection ring on spindle (p. 52) for $L \geq 1800$

Best use in driven rollers

$-20^{\circ}\text{C} < T^{\circ}\text{C} < +80^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L

Dxe	d	L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
55x5	20		600	600	600	600	600	500	425	375	330	300	270	250	230	210	200
			1,14	2,00	2,85	3,70	4,55	5,40	6,25	7,10	7,95	8,80	9,65	10,50	11,35	12,20	13,05
70x2,9	20		320	320	320	320	320	270	235	205	180	162	150	137	126	117	110
			1,25	1,97	2,70	3,43	4,15	4,88	5,61	6,33	7,06	7,79	8,53	9,24	9,97	10,69	11,42
80x2	20		320	320	320	320	320	270	235	205	180	162	150	137	126	117	110
			1,20	1,82	2,44	3,06	3,68	4,30	4,92	5,54	6,16	6,78	7,40	8,02	8,64	9,26	9,88
89x3,2	20		500	500	500	500	500	500	425	375	330	300	270	250	230	210	200
			1,54	2,46	3,38	4,30	5,23	6,15	7,07	7,99	8,92	9,84	10,76	11,68	12,61	13,53	14,45

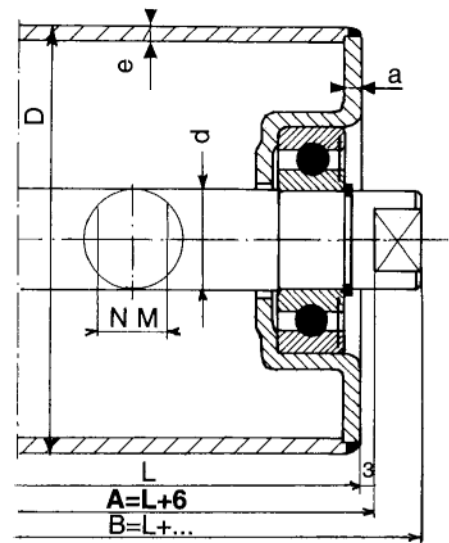
Nota : for rollers until length 500 mm $\varnothing 55$ and $\varnothing 89$, consider maximal load from 500 and 600 kgs only for a uniform distribution of these loads on the tube's generator.

Super heavy roller SL 62 TYPE

TUBES/SPINDLES COMBINATIONS						
d	Dxe					
	70	89	102	108	133	159
	x	x	x	x	x	x
	5	3	3,6	3,6	4	4
25	X	X	X	X	X	
30	X	X	X	X	X	X

Possibilities : spindles $\varnothing 35 - \varnothing 40$
between bearings
Massiv boxes and very thick tubes
Driven rollers by sprocket : p. 5 - 7
Material / Covering p. 8 - 9

Code 52



DESCRIPTION :

Boxes in very thick dished sheet steel ($a = 4\text{mm}$) centered and welded on the tube (welding is not shaved)
contain 6305 Z (spindle $\varnothing 25$) or 6206 Z bearings (spindle $\varnothing 30$)
On request : ZZ, RS, 2RS protection – Maxi length : 4000

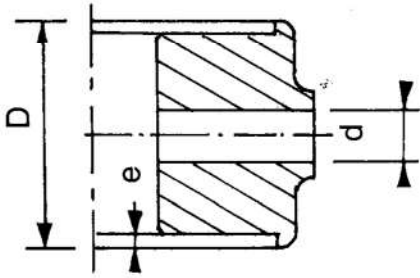
USE :

Handling of heavy or very heavy lumped loads.
Best use in carried along rollers
- $20^{\circ}\text{C} < T^{\circ}\text{C} < + 80^{\circ}\text{C}$

Maximal advised loads (Kg) to 20° / Weight (Kg)																
L		100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Loads for diam. 25		1050	1050	1050	1050	900	755	645	565	500	450	410	375	345	320	300
WEIGHT	70X5	1,76	2,95	4,14	5,32	6,51	7,70	8,89	10,07	11,26	12,45	13,64	14,82	16,01	17,20	18,39
	89X3	2,16	3,18	4,21	5,24	6,27	7,30	8,32	9,35	10,37	11,40	12,43	13,45	14,48	15,51	16,54
	133X4	3,13	4,66	6,19	7,72	9,24	10,77	12,30	13,83	15,36	16,88	18,41	19,94	21,45	23,00	24,52
	159X4	3,66	5,41	7,17	8,92	10,67	12,43	14,18	15,93	17,68	19,44	21,19	22,94	24,70	26,45	28,20
Loads for diam. 30		1500	1500	1500	1500	1365	1365	1280	1130	1000	900	820	750	700	640	600
WEIGHT	70X5	1,92	3,28	4,64	5,99	7,35	8,71	10,06	11,42	12,78	14,14	15,49	16,85	18,21	19,56	20,92
	89X3	2,32	3,52	4,72	5,92	7,12	8,32	9,52	10,72	11,92	13,12	14,32	15,52	16,72	17,92	19,12
	133X4	3,29	5,00	6,70	8,40	10,10	11,80	13,50	15,20	16,90	18,60	20,30	22,00	23,70	25,40	27,10
	159X4	3,82	5,74	7,67	9,59	11,51	13,44	15,36	17,28	19,20	21,13	23,05	24,97	26,90	28,82	30,74

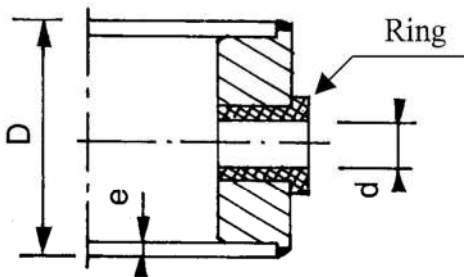
Special Rollers

Rollers with plastic ends, with friction :



TUBES/SPINDLES COMBINATIONS				
Dxe	50x1,5 St./Inox	50x2 Alu	40x1,5 Steel	40x2,3 PVC
d	10	12	10	12
Ends	Acetal	Acetal	Nylon	Nylon

Rollers with steel massiv box and self-lubricated rings :



Sintered box

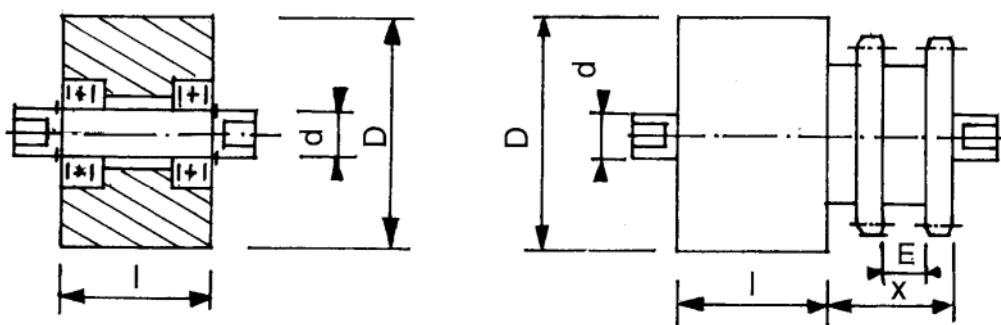
complex material non metallic with a low friction coefficient (0,05/0,1), constant, from -40° to $+250^{\circ}$ C, Indifference to sea water, good resistance to compression.

Rollers with steel massiv boxes with possibility of static balancing (precision 80 grs), on rollers $\varnothing 133$ and $\varnothing 159$
Consult us

Rollers for weighing installation in continous :

On request, machining of the roller tube for concentricity $\pm 0,1$

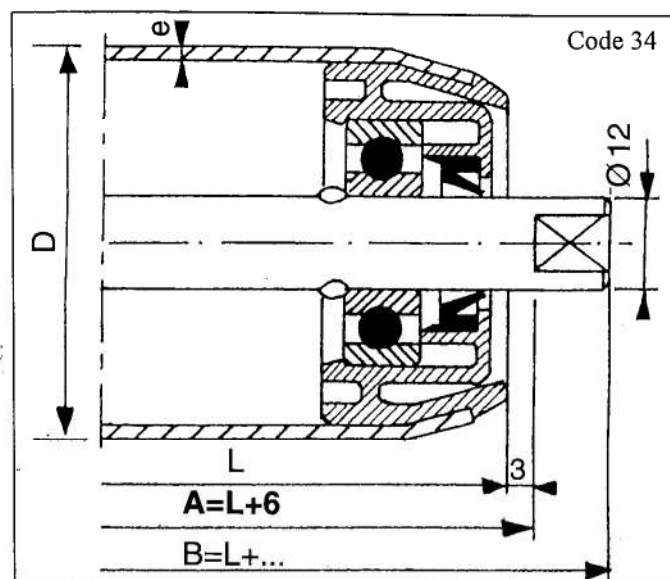
Short massiv galets : free or driven by sprocket



Roller with precision bearings VBA 32 TYPE

TUBES/SPINDLES COMBINATIONS		
d	Dxe	
	50 x 1,5	60 x 1,5
12	X	X

Tubes possibilities : spindle $\varnothing 2$
or inox $\varnothing 1,5$
Material / Covering p. 8 - 9



DESCRIPTION :

Spindle always held by hunches (non sliding).

Black polypropylene ends. FRICTIONAL ELECTRIC CONDUCTOR

6201 greased bearings, protected by lip seal in polyurethane.

On request : 6201 Z, ZZ, RS, 2RS bearings

In standard : steel spindle. On request inox spindle for a better gasket resistance , in corrosive or cleaning places under pressure.

USE :

Noiseless handling of lumped loads in dusty or wet places.

Round or plate transmission belt (p. 51).

Light belt conveyors for industry food

- 20°C < T < + 60°C

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L																
D \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	
50x1,5	80	80	80	80	63	57	45	40	35	32	30	27	25	22	20	
	0,43	0,71	0,99	1,27	1,55	1,83	2,10	2,38	2,66	2,94	3,22	3,50	3,78	4,05	4,33	
60x1,5	90	90	90	90	72	63	51	45	40	36	33	31	28	25	22	
	0,49	0,81	1,13	1,45	1,77	2,08	2,40	2,72	3,03	3,35	3,67	3,99	4,31	4,63	4,94	

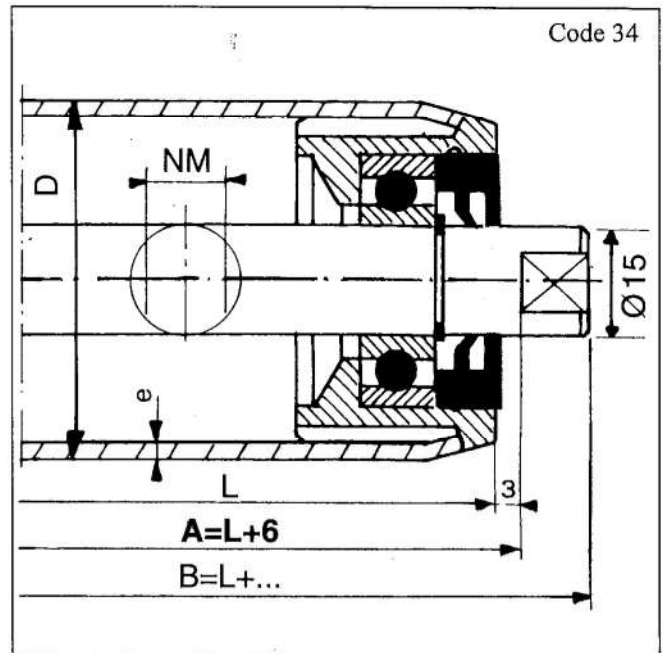
Roller with precision bearings VBA 35 TYPE

TUBES/SPINDLES COMBINATIONS				
d	D			
	50x1,5	60x2	50PVC	63PVC
15	X	X	X	X

- Ends are not frictional electric conductors
Tubes possible in inox : Ø 50x1,5 - Ø 60,3x1,6

Driving rollers **VBAC** Type
p. 36-37-38-39
Friction driving rollers p. 42-43

Material / Covering p. 8 - 9



DESCRIPTION :

Ends in black polypropylene – 6202 greased bearings.

On request : Z - ZZ - RS - 2RS or 6202 2RS inox. Lip seal in polyurethane and deflector in red polyamide. Non sliding spindle (clips)

On request : inox spindle Ø 15 for a better gasket resistance in corrosive places or cleaning under pressure.

USE :

lumped loads : dusty-wet atmosphere

Conveyors with light belt (food industry...), Use in dairy with inox 316t tube and spindle

- 20°C < T < + 60°C

Maximal advised loads (Kg) / Weight (Kg) / maxi. advised L																
D	d \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
50x1,5	15	80	80	80	80	70	64	50	45	39	36	33	30	28	26	24
		0,53	0,85	1,18	1,51	1,84	2,17	2,50	2,82	3,15	3,48	3,81	4,14	4,47	4,80	5,12
60x2	15	100	100	100	100	81	71	57	51	45	41	37	34	31	28	25
		0,62	1,05	1,47	1,90	2,32	2,75	3,17	3,60	4,02	4,44	4,87	5,29	5,72	6,14	6,57
50PVC	15	70	50	40	30	14	9									
		0,40	0,61	0,81	1,02	1,23	1,43									
63PVC	15	80	80	70	40	23	13	9								
		0,47	0,74	1,01	1,29	1,56	1,83	2,10								

Roller BA 35 TYPE

TUBES/SPINDLES COMBINATIONS			
d	Dxe		
	38x2	60x2	70x2
15	X	X	X

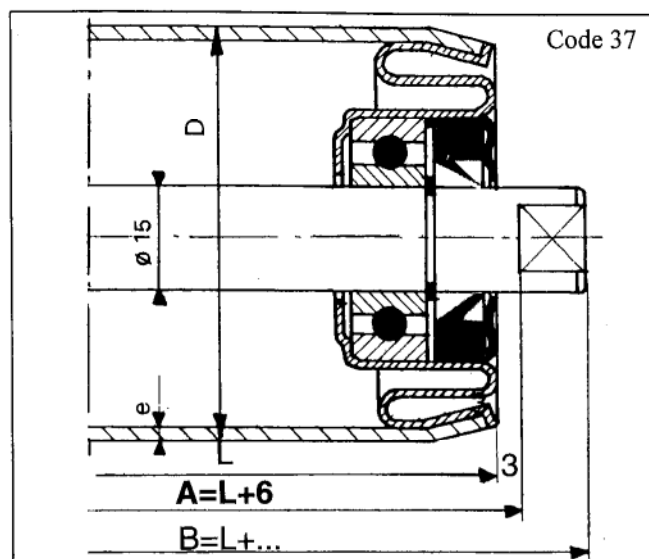
Possibilities on request :

Inox tube : Ø 38x2 ; Ø 60,3x1,6

Ø 60x2 ; Ø 70x2

Inox spindle (better gasket resistance)

Material / Covering p. 8 - 9



DESCRIPTION :

Roller with sheet steel box, crimped over, 6202 Bearings protected by a polyurethane lip seal in a deflector in galvanized zenzimir steel.

USE :

Conveyors with light belt :

Lumped loads – dusty and wet atmosphere

- 20°C < T°C < + 80°C

Maximal advised loads (Kg) to 20° / Weight (Kg) / maxi. advised L															
Dxe \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
38x2	80	80	80	80	80	65	55	48	43	38	35	31	29	26	24
	0,46	0,77	1,09	1,40	1,72	2,03	2,34	2,66	2,97	3,29	3,60	3,92	4,23	4,55	4,86
60x2	120	120	120	120	110	91	78	68	60	54	49	45	41	38	35
	0,73	1,15	1,58	2,00	2,43	2,85	3,27	3,70	4,12	4,55	4,97	5,40	5,82	6,25	6,67
70x2	140	140	140	140	140	115	100	87	78	71	65	60	56	52	49
	0,78	1,25	1,72	2,20	2,67	3,14	3,62	4,09	4,56	5,04	5,51	5,99	6,46	6,93	7,41

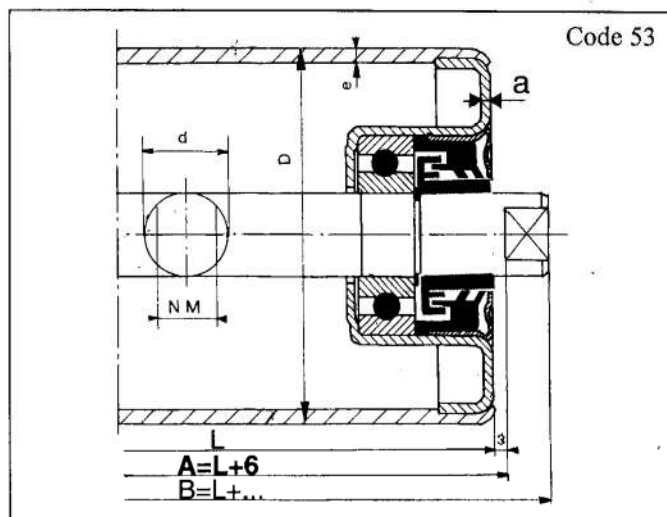
Heavy Roller – tightness «MINES» LM TYPE

TUBES/SPINDLES COMBINATIONS	
d	Dxe
20	55x5 - 63,5x2,9 - 70x2,9 - 80x2,9 - 89x3 - 102x3,6 - 108x3,6 - 133x4
25 et 30	70x5 - 89x3 - 102x3,6 - 108x3,6 - 133x4 159x4

Driven rollers LMC type

p. 48-49

Material / Covering p. 8 - 9



DESCRIPTION :

Bearings protected by a tightness gasket composed of a gasket with double lip in nitrile, situated in a steel deflector and of a red plastic ring fixed on the spindle and constituting a chicane with the gasket, the whole put in the sheet steel box, crimped over or welded (Welding not shaved).

T Y P E	d	Tube/box assembly a. thick : Crimping (S) or Welding (SD)									
	Bear.	55x5	63,5x2,9	70x2,9	70x5	80x2,9	89x3**	102x3,6	108x3,6	133x4	159x4
LM 47	20	without	2	2		2	2	2,5	2,5	3	
	6204	box	S	S		S	S	S	S	S	
LM 52	25						3			3	
	6205						SD			S	
LM 62	25				without box		3	3	3	3	4
	6305						SD	SD	SD	SD	SD
LM 62	30				without box		3	3	3	3	4
	6206						SD	SD	SD	SD	SD

USE : Band Conveyors

Handling of heavy lumped loads in dusty and wet atmosphere

** Possibility of inox tube Ø 89x3 with boxes, deflectors, spindle, inox bearings : on request

Maximal advised loads (Kg) to 20° by spindle's diam.

d/Bear \ L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
diam.20/6204	350	350	350	350	350	330	280	250	220	200	180	165	150	140	130
diam.25/6205	500	500	500	500	450	425	370	330	290	260	240	215	200	185	170
diam.25/6305	700	700	700	700	650	540	465	405	360	325	295	270	250	230	215
diam.30/6206	1100	1100	1100	1100	1100	1100	930	810	720	650	600	550	500	460	430

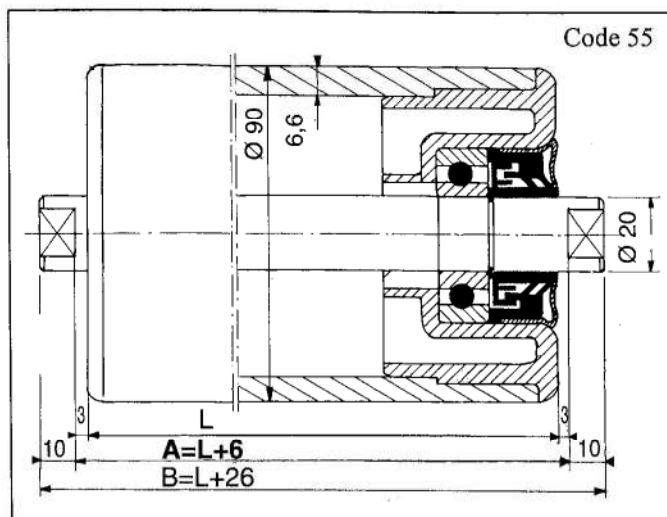
«MINES» Roller LMP TYPE

Tube : Ø 90x6,6 PVC

Spindle : Ø 20

NOTA : strong tightness for very agressiv
Atmosphere :

LMPS type p.35



DESCRIPTION :

First version : box in black plastic, non frictional electric conductor, 6204 bearing, gasket with double lip in nitrile and chicane, friction ring in red plastic, deflector and steel spindle.

Other possibility : tight bearings in steel or inox (2RS). Deflector and spindle in zinc steel or inox.

Length : mini. 90mm – maxi 900mm – Beyond : uncertain uprightness

Limited advised speed : 1,5 m/s

USE :

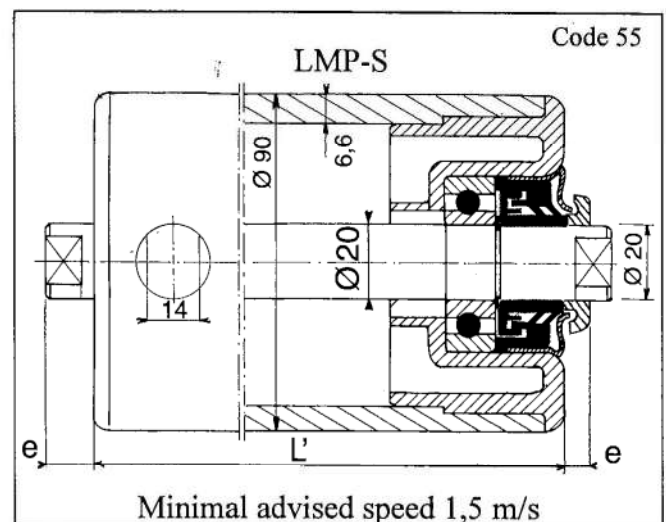
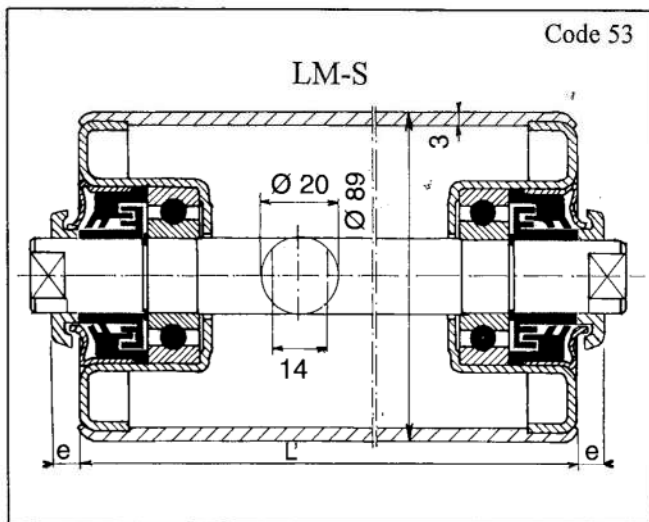
Medium lumped loads in food industry or in industries with cleanliness requirements.

- 20°C < T < + 60°C

Maximal advised loads (Kg) to 20°

L	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
Q/kg	200	200	200	200	180	160	140	125	110	85	70	60	50	40	35	30	25

«MINES» Roller for corrosiv places



DESCRIPTION :

- These rollers are : - equipped with 6204 RS bearings, gaskets with double lip, chicanes and supplementary deflector.
- lubricated with an **adapted grease** (p. 10)
- For «carrying rollers», the « e » space of 3 mm in PNE 53300 norm, and 4 mm in NFE 53301 norm **goes through 8 mm**. Roller tubes « L » are **shortened** by the respective difference. Other dimensions are respected in order to keep the interchanging.

USE :

- in salin atmosphere
- in an atmosphere which can provoke a chemical attack (examples : sulphur, fertilizer, phosphate, potash...)
- cleaning under installation's pressure with decontaminating means.

OTHER POSSIBILITIES :

LM-S

(steel boxes and tubes)

- **Tube** : raw or zinc steel, galvanized, rilsanized ; INOX
- **Boxes** : raw or zinc steel, rilsanized (with tube) ; INOX
- **Deflectors** : raw or zinc steel ; INOX
- **Spindle** : raw or zinc steel ; INOX
- **Bearings** : INOX Z100 CD 17

LMP-S

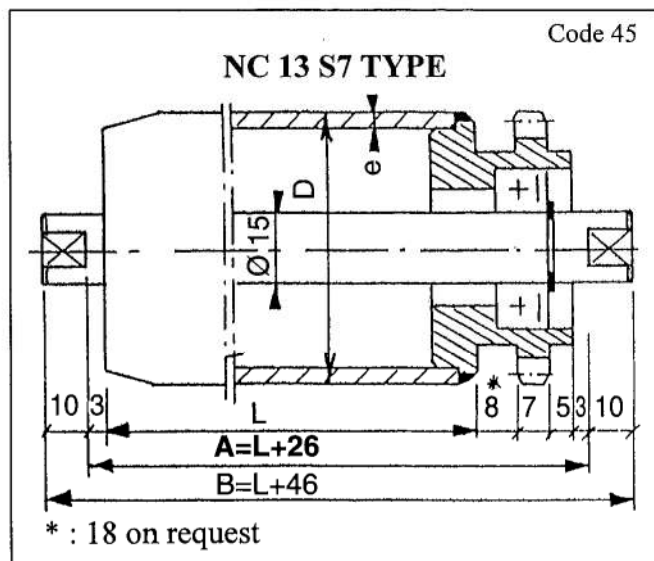
(Tubes and boxes in box material)

- **Deflectors** : raw or zinc steel ; INOX
- **Spindle** : raw or zinc steel ; INOX
- **Bearings** : INOX Z100 CD17

Driven Rollers : NC...VNC...VBAC...type

SPROCKET 13 tooth – 12,7 Pitch (Chain ISO 08B1)

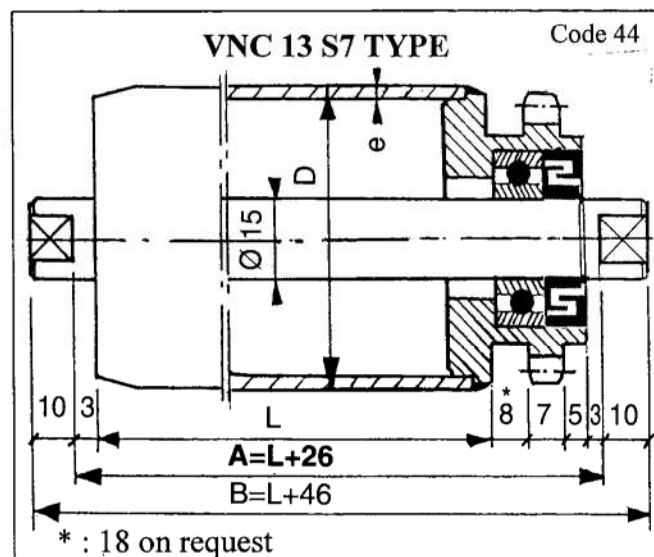
in medium hard steel XC 38 not treated : primitive \varnothing 53,06 - \varnothing on chain : 65



TUBES/SPINDLES COMBINATIONS				
d	Dxe			
diam.15	50x2	60x2	63,5x2,9	70x2

Basic roller N35 type : p.24

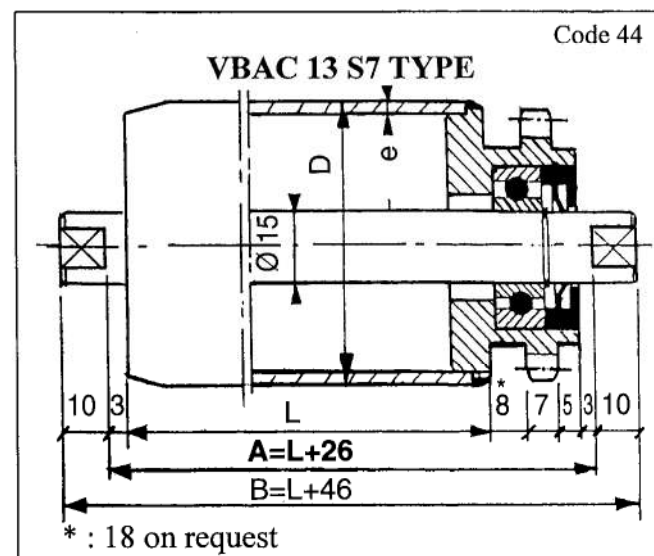
The sprocket's welding is not shaved.
Bearing 6202 Z in standard. Steel box
- 20°C < T° < + 80°C



TUBES/SPINDLES COMBINATIONS		
d	Dxe	
diam.15	50x2	60x2

Basic roller VN 35 type : p.25

The sprocket's welding is not shaved
Bearing 6202 in standard in standard and
protection by chicanes. Polypropylene box.
-20°C < T°C < + 60°



TUBES/SPINDLES COMBINATIONS		
d	Dxe	
diam.15	50x2	60x2

Basic roller VBA 35 type : p.31

The sprocket's welding is not shaved.
Bearing 6202 in standard, and protection by
lip seal in polyurethane . Polypropylene box.
- 20°C < T°C < +60°C

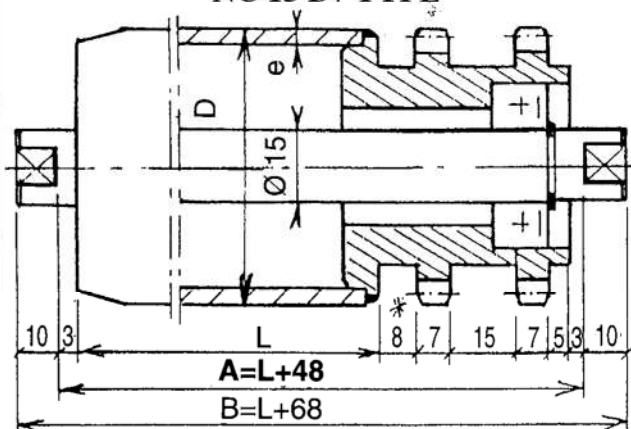
Driven Rollers : NC...VNC...VBAC...type

SPROCKET 13 tooth – 12,7 Pitch (Chain ISO 08B1)

in medium hard steel XC 38 not treated : primitive \varnothing 53,06 - \varnothing on chain : 65

Code 45

NC 13 D7 TYPE



* : 18 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe			
diam.15	50x2	60x2	63,5x2,9	70x2

Basic roller N35 type : p.24

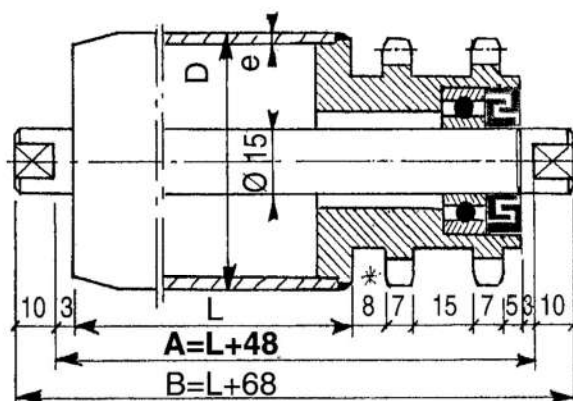
The sprocket's welding is not shaved
6202Z Bearing in standard

Steel box

$-20^{\circ}\text{C} < T^{\circ}\text{C} < +100^{\circ}\text{C}$

Code 44

VNC 13 D7 TYPE



* : 18 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.15	50x2	60x2

Basic roller VN35 type : p. 25

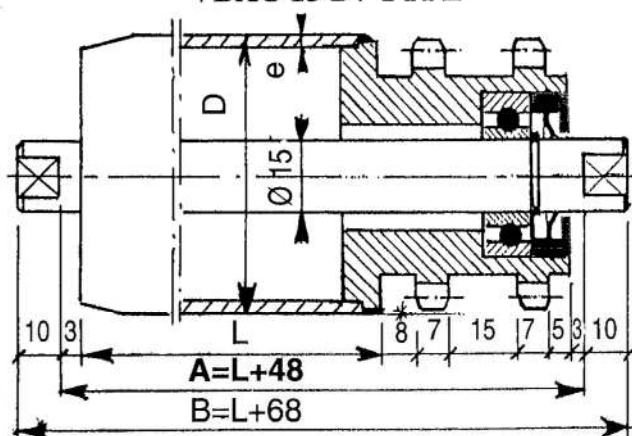
The sprocket's welding is not shaved
6202 Bearing in standard and protection by
lip chicanes.

Polypropylene box.

$-20^{\circ}\text{C} < T^{\circ}\text{C} < +60^{\circ}\text{C}$

Code 44

VBAC 13 D7 TYPE



* : 18 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.15	50x2	60x2

Basic roller VBA35 type : p. 31

The sprocket's welding is not shaved
6202 Bearing in standard and protection by
lip seal in polyurethane

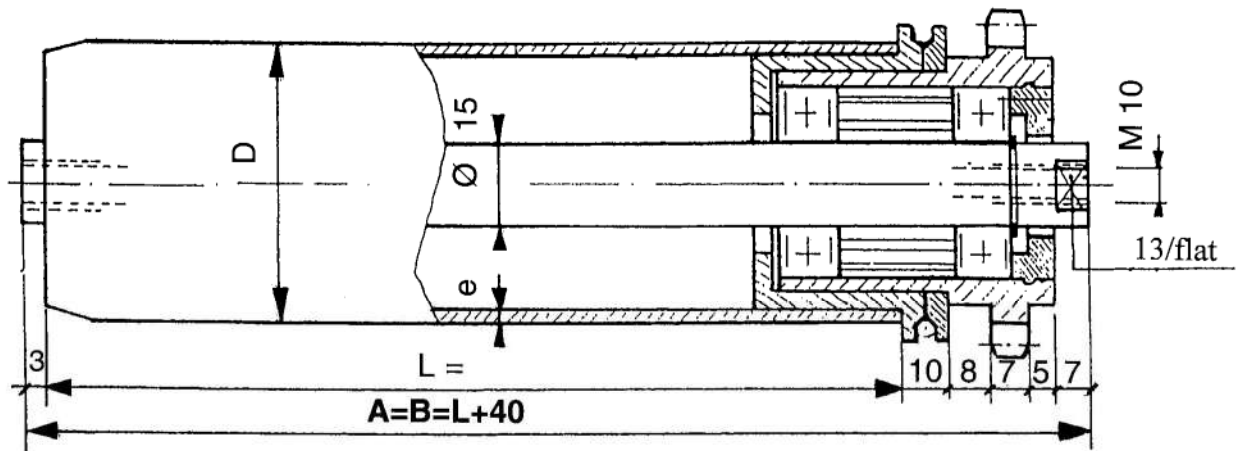
Polypropylene box

$-20^{\circ}\text{C} < T^{\circ}\text{C} < +60^{\circ}\text{C}$

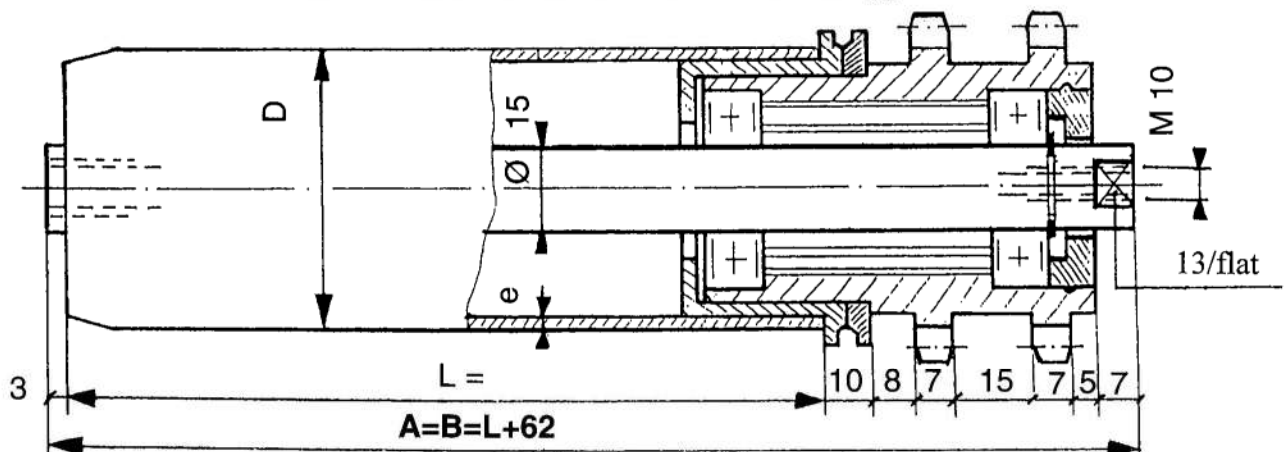
Driven Rollers C14S7PL...and C14D7PL...type

NYLON SPROCKET 14 tooth
12,7 Pitch (ISO 08B1 Chain)

SIMPLE SPROCKET : C14 S7 PL ... type



DOUBLE SPROCKET : C14 D7 PL ... type



Types / Tube's Ø / Basic roller

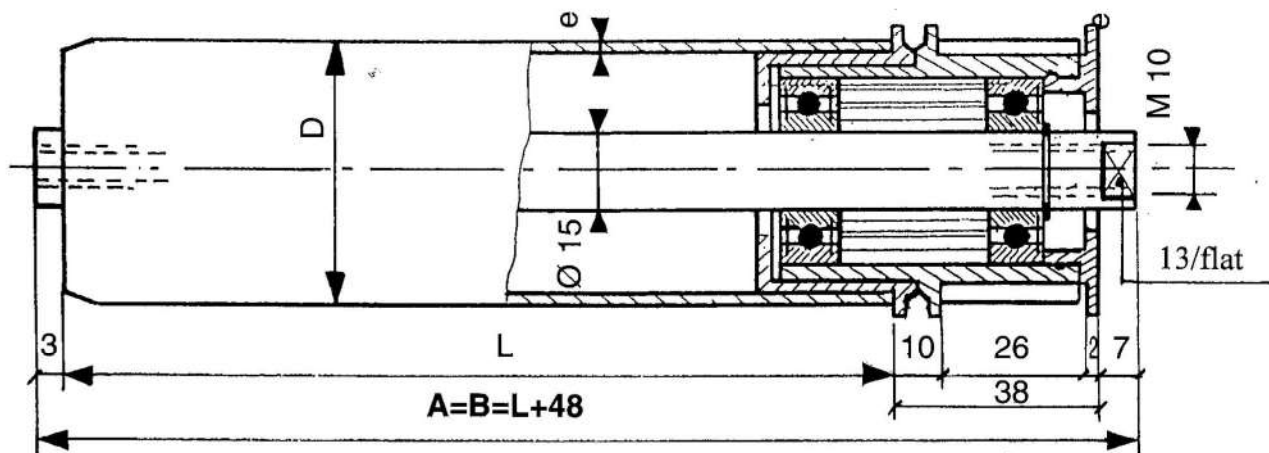
Driven roller type	Basis : page	Dxe	Box
NC 14 S7 PL or NC 14 D7 PL Code 45	N : 24	50x2 - 60x2 - 50x1,5 inox	Steel
VNC14 S7 PL or VNC 14 D7 PL Code 44	VN : 25	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC* - 63x4,7 PVC*	Plastic*
VBAC 14 S7 PL or VBAC 14 D7 PL Code 44	VBA : 31	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC* - 63x4,7 PVC*	Plastic*

DESCRIPTION-USE : Rollers equipped in standard with bearings, protection, spindle, like corresponding basic rollers, with spindle execution like above. Other propositions and 6202 2RS inox on request.
ECONOMIC ROLLERS for handling of lumped loads, from -20°C to +60°C in normal or corrosiv Places. (*)

Driven Rollers C20E8PL...type

NYLON PULLEY 20 tooth – 8mm pitch

For timing chain POLY CHAIN GT ® width 12 mm



TYPES / TUBE'S Ø / BASIC ROLLER

Driven roller type	Basis : page	Dxe	Box
NC 20 E8 PL Code 45	N : 24	50x2 - 60x2 - 50x1,5 inox	Steel
VNC 20 E8 PL Code 44	VN : 25	50x2 - 60x2 - 50x1,5 inox 50x2,8 PVC - 63x4,7 PVC	Plastic
VBAC 20 E8 PL Code 44	VBA : 31	50x2 - 60x2 - 50x1,5 inox 50x2,8 PVC - 63x4,7 PVC	Plastic

DESCRIPTION-USE : – 20°C to +60°C

Rollers equipped in standard with bearings, protection, spindle, like corresponding basic rollers, with spindle execution like above. Other propositions and 6202 2RS inox on request.
ECONOMIC ROLLERS – CLEAN – NOISELESS – WITHOUT MAINTENANCE. Ideal use in food industry : VBAC 20 E8 PL.

Maximal Load (kg) / Nb of training rollers

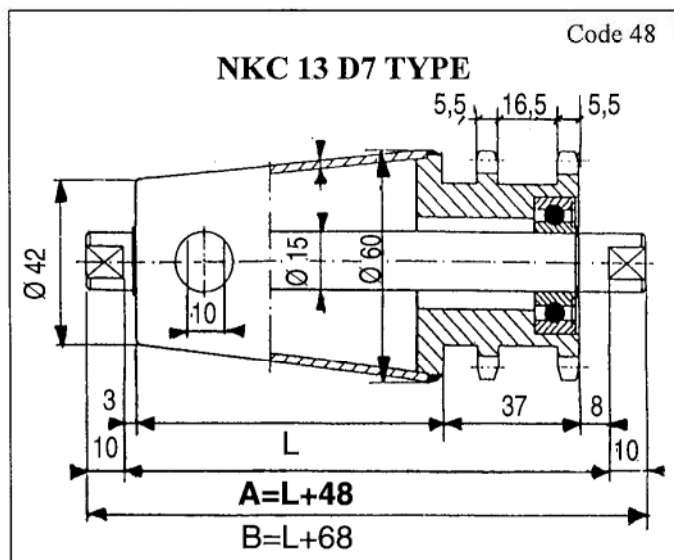
NB/Rollers	USE	
	CONTINUOUS	INTERMITTENT
25	1000	520
30	800	400
35	580	300
40	450	225
45	340	175
50	250	125

LENGTH OF BELTS IN STOCK	CENTER DISTANCE OF AXES
288	64 -0 -0,3
352	96 -0 -0,3
416	128 -0 -0,3

Other possible length on request :
456 – 480 – 544 – 608- 640 – 720...

Driven Conic Roller NKC type...

Sprocket 13 tooth – 12,7 pitch (chain ISO 08B1)
in medium hard steel XC 38 not treated ; Ø primitive : 53,06 ; Ø on chain : 65



Roller tube : Basic roller NK 35 type, p. 21

Spindle : Ø 15 and 6202Z bearings

Sprocket : the welding is not shaved

ON REQUEST : inox roller tube – ZZ, RS, 2RS or 6202 2RS inox protection

Other pitch or number of tooth or rolled/ welded fabricated materials p.21

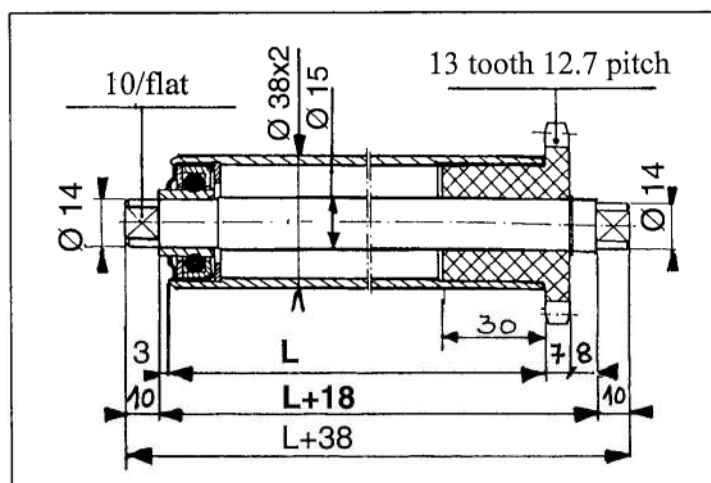
USE : medium lumped loads in curves at medium bending curves

$R_m = 2,83 \times L$ (with roller tube Ø 60 x Ø 42)

NOTA : the above roller can be equipped on request with the friction slaving system of the friction roller NFA 13D7 type, p.41

Friction Driven Roller GFA type...

Sprocket 13 tooth – 12,7 pitch in « acetal » (chain ISO 08B1)



DESCRIPTION :

Basic roller G35 type (p.20)

Sprocket in acetal, with friction on spindle Ø 15 and in the boring of the tube

USE :

Conveyor for accumulation of light loads -
 $V = 6m/mn$

Material/Coverings : p. 8-9

Maximal advised loads (Kg) to 20° / Weight (kg)

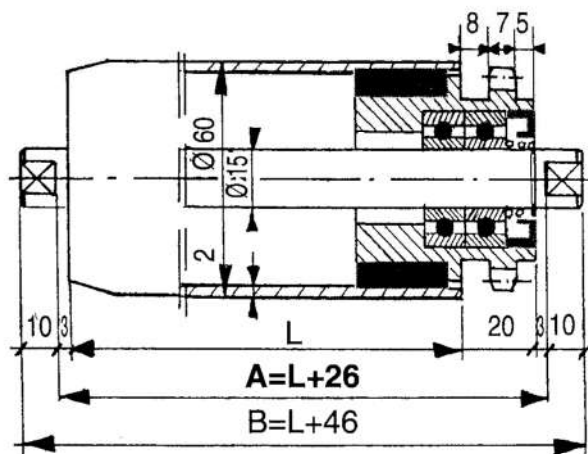
L	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Q/kg	25	25	25	25	20	20	20	15	15	15	15	10	10	10	10
Weight	0,48	0,79	1,10	1,43	1,75	2,06	2,39	2,70	3,02	3,34	3,66	3,97	4,29	4,60	4,93

Driven Rollers NFA type...

Sprocket 13 tooth – 12,7 pitch (Chain ISO 08B1)
in medium hard steel XC 38 not treated ; Ø primitive : 53,06 ; Ø on chain : 65

SIMPLE SPROCKET NFA 13 S7 TYPE

Code 45



Tube : Ø 60x2 – Spindle : Ø 15

Basic roller N35 type : p.24

Sprocket equipped with 2 6202 bearings and with a plastic and spring deflector.

The friction ring in « thermodur » material (not plastic), is frictional electric conductor, with a low friction coefficient (very weak wear).

Friction happens when there's a load accumulation (or stop). The residual effort of thrust is proportional to the importance of accumulated loads : about 6% of these ones.

The tape speed must be inclusive between 6 and 18 mm.

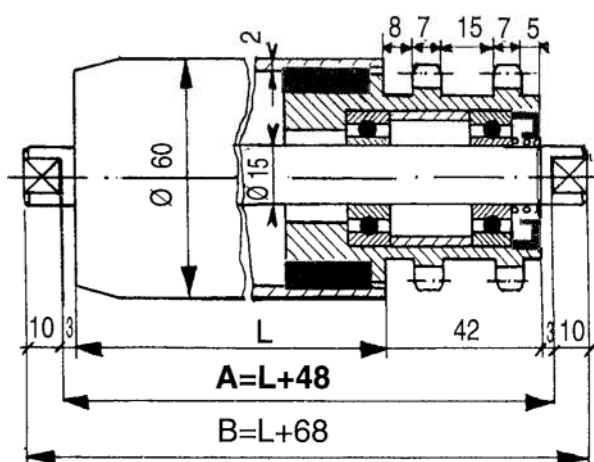
Loads must be uniformly divided on the roller for a satisfying slaving.

USE :

Best use NFA 13S7 type (tangential slaving) NFA 13 D7 type will be reserved to light loads as well as conic rollers for accumulation in curves (see type NKC, p. 40). These rollers are very used in car industry for routing of pieces in exit of machining center or subsystem in the process of the assembly.

SIMPLE SPROCKET NFA 13 D7 TYPE

Code 45



Indications of maximal admissible loads (kg)

L	200	300	400	500	600	700	800
NFA 13 S7	80	80	80	70	60	55	50
NFA 13 D7	50	50	50	45	40	35	30

STUDY/ADVISE

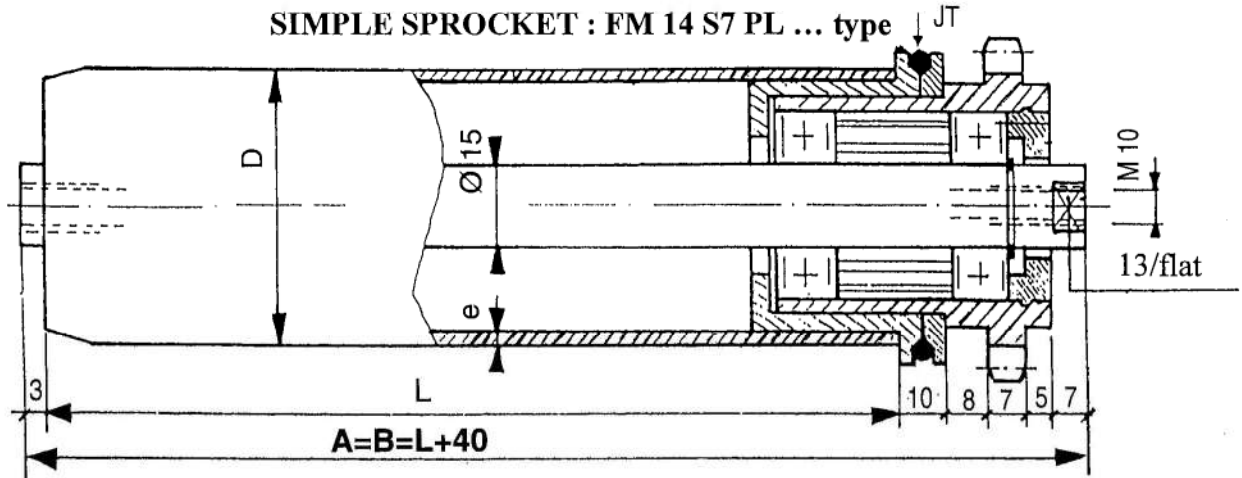
Consult us in indicating us maximum datas : nature, dimensions and product's weight, unwinding speed, atmosphere etc...

Friction Driven Roller

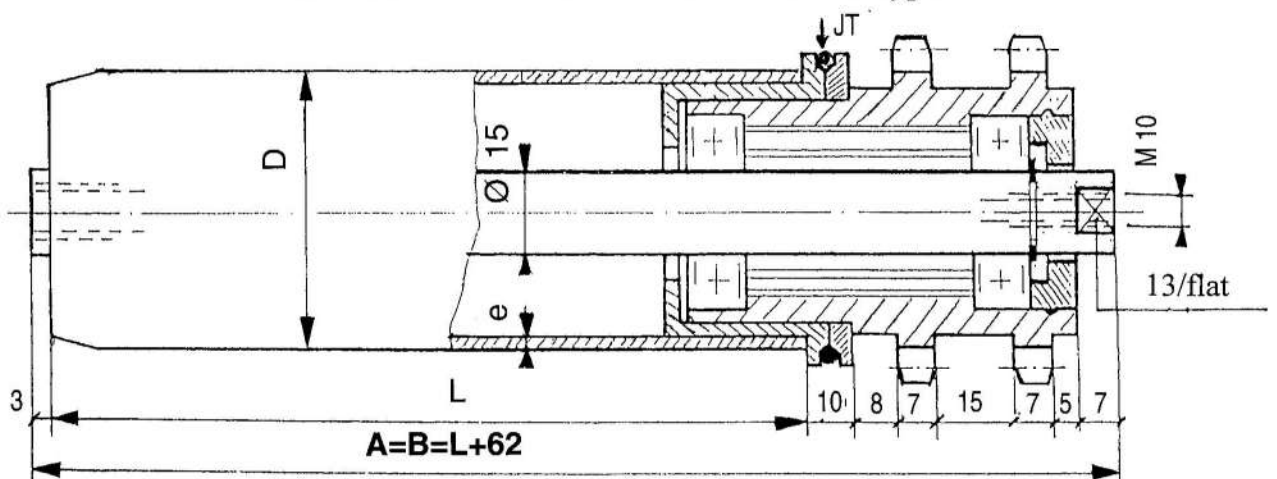
NYLON SPROCKET 14 tooth – 12,7 pitch (CHAIN ISO 08B1)

Ø primitive : 57,07 - Ø on chain : 69

SIMPLE SPROCKET : FM 14 S7 PL ... type



DOUBLE SPROCKET : FM 14 D7 PL ... type



Type's / Tube's Ø / Basis roller

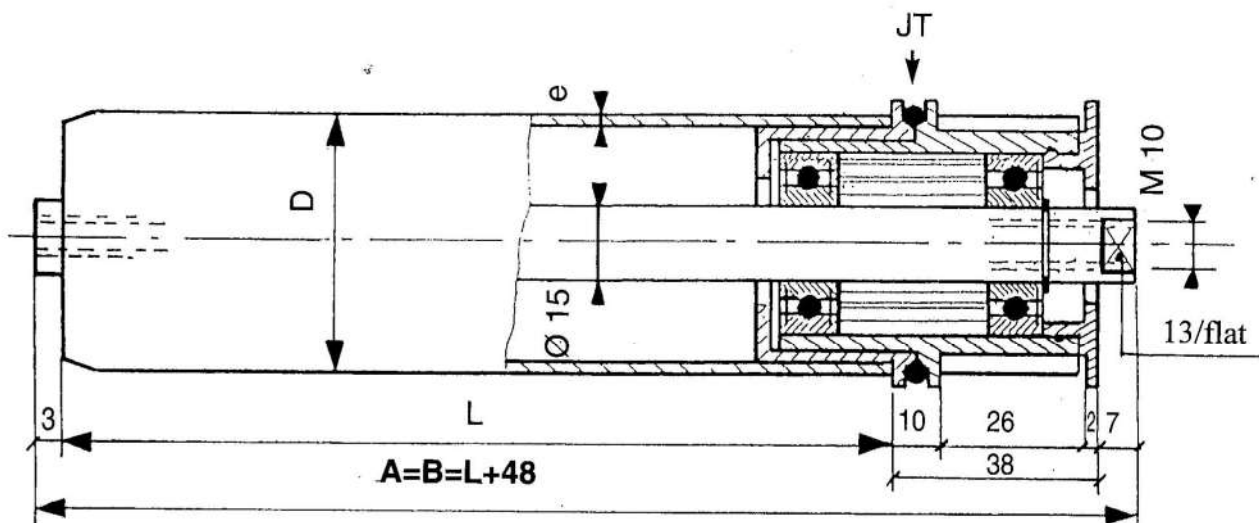
Type of driven roller	Basis : page	Dxe	Box
NFM 14 S7 PL or NFM 14D7 PL Code 45	N : 24	50x2 - 60x2 - 50x1,5 inox	Steel
VNFM 14 S7 PL or VNFM 14 D7 PL Code 44	VN : 25	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC* - 63x4,7 PVC*	Plastic*
VBAFM 14 S7 PL or VBAFM 14 D7 PL Code 44	VBA : 31	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC* - 63x4,7 PVC*	Plastic*

DESCRIPTION-USE : Rollers equipped in standard with bearings, protection, spindle, like corresponding basic rollers, with spindle execution like above. Other propositions and 6202 2RS inox on request.
ECONOMIC ROLLERS for handling and accumulation of lumped loads. Protection of the friction zone (tightness) by type sealing ring JT on request, $-20^{\circ}\text{C} < T^{\circ} < +60^{\circ}\text{C}$

Friction Driven Roller FM 20 E8 PL...type

NYLON PULLEY 20 tooth – 8 mm pitch

For timing belt POLY CHAIN GT ® 12 mm width - Ø primitive : 50,93



Type's / Tube's Ø / Basis roller

Type of driven roller	Basis : page	Dxe	Box
NFM 20 E8 PL Code 45	N : 24	50x2 - 60x2 - 50x1,5 inox	Steel
VNFM 20 E8 PL Code 44	VN : 25	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC - 63x4,7 PVC*	Plastic*
VBAFM 20 E8 PL Code 44	VBA : 31	50x2 - 60x2 - 50x1,5 inox* 50x2,8 PVC - 63x4,7 PVC*	Plastic*

DESCRIPTION-USE : - 20°C to + 60°C

Rollers equipped in standard with bearings, protections, spindle like corresponding basic rollers and spindle execution like above. Other propositions and 6202 2RS inox on request. **ECONOMIC ROLLERS CLEAN – NOISELESS – WITHOUT MAINTENANCE.** Ideal use in food industries. On request : Protection of friction by type sealing ring JT.

Maximal **Loads** (kg)/ **Nb** of driven rollers

NB/Rollers	USE	
	CONTINUOUS	INTERMITTENT
25	1000	520
30	800	400
35	580	300
40	450	225
45	340	175
50	250	125

LENGTH OF BELTS IN STOCK	CENTER DISTANCE OF AXES
288	64 -0 -0,3
352	96 -0 -0,3
416	128 -0 -0,3

Other possible length on request :
456 - 480 - 544 - 608 - 640 - 720...

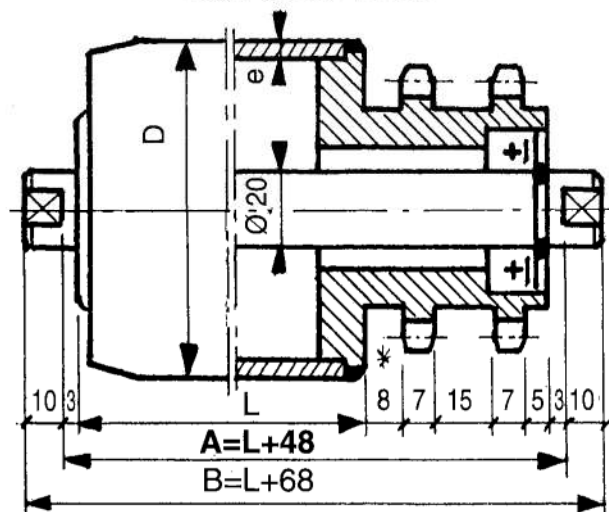
Driven rollers GLC type...

Sprocket 17 tooth – 12,7 pitch (Chain 08B1)

In medium hard steel XC 38 not treated ; \varnothing primitive : 69,11 ; \varnothing on chain : 81

Code 61

DOUBLE SPROCKET GLC 17 D7 TYPE



* : 18 on request
 \varnothing HUB : 56

TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.20	70x2,9	89x3,2

Basic roller GL47 type : p. 27

The sprocket's welding is not shaved
sprocket has a 6204 Z bearing and a steel
box equipped with a 6204Z bearing in
standard.

Protection ZZ, RS, 2RS on request.

- 20°C < T° < + 100°C

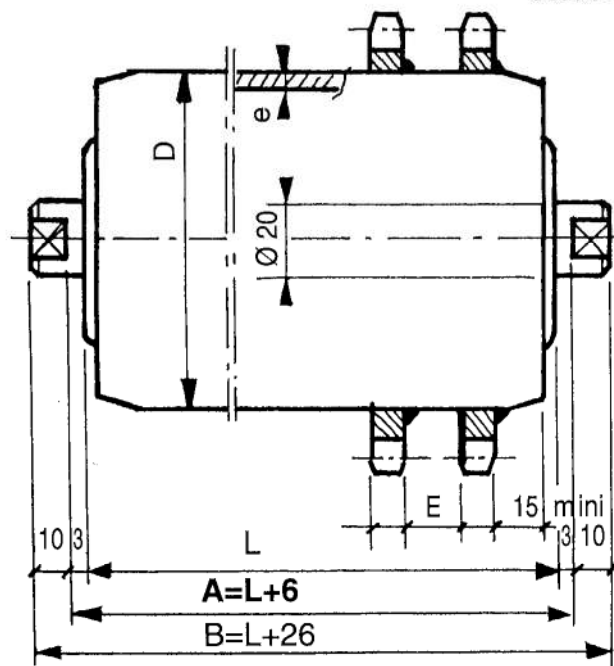
Mini L : 100 ; maxi L : 3400

Driven Roller GLC type...

DISK 23 tooth – 12,7 pitch (chain 08B1)

15,875 pitch (chain 10B1)

Code 51



TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.20	70x2,9	89x3,2
Discs	12,7 pitch	15,875 pitch
E	15**	18**

** Others, on request

Basis roller GL 47 type :
page 27

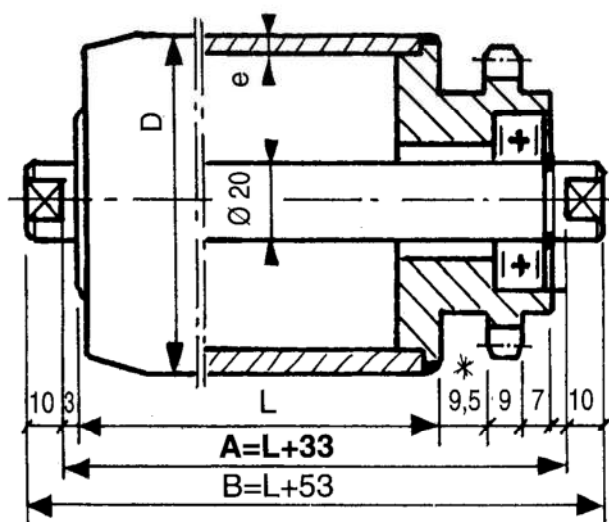
Driven Roller GLC... type

PULLEY 13 or 15 tooth – 15,875 pitch (Chain ISO 10B1) in medium hard steel XC 38 not treated
 13 tooth : primitive \varnothing 66,34 - \varnothing on chain 80 – 15 tooth : primitive \varnothing 76,34 - \varnothing on chain 90

Code 61

SIMPLE SPROCKET

13 tooth : GLC 13 S 11 type
 15 tooth : GLC 15 S11 type



\varnothing hub : 50 (13 tooth) ; 60 (15 tooth)

* 19.5 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.20	70x2,9	89x3,2

Basic roller GL 47 type : page 27

The sprocket's welding is not shaved.
 sprocket has a 6004 Z Bearing (13 tooth)
 or a 6204 Z Bearing (15 tooth) and a steel box
 equipped with a 6204 Z Bearing in standard.
 Protection ZZ, RS, 2RS on request

$-20^{\circ}\text{C} < T^{\circ} < +100^{\circ}\text{C}$

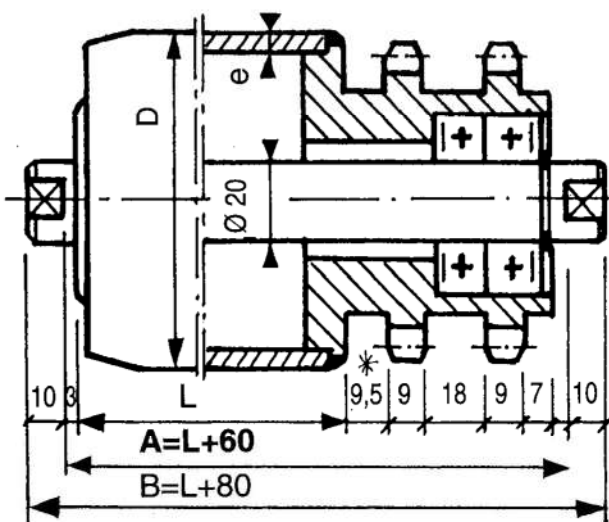
Length L : mini 100
 maxi : 3400

Possibility of tube 5 thick and strenghtened
 Spindle (\varnothing 25, \varnothing 30) between bearings

Code 61

DOUBLE SPROCKET

13 tooth : GLC 13 D 11 type
 15 tooth : GLC 15 D 11 type



\varnothing hub : 50 (13 tooth) ; 60 (15 tooth)

* 19,5 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
diam.20	70x2,9	89x3,2

Basic roller GL 47 type, page 27

The sprocket's welding is not shaved.
 Sprocket with 2 Bearings 6004 Z (13
 tooth) or 2 bearings 6204 Z (15 tooth) and
 a steel box equipped with a 6204 Z bearing,
 in standard.

Protection ZZ, RS, 2RS on request.

$-20^{\circ}\text{C} < T^{\circ} < +100^{\circ}\text{C}$

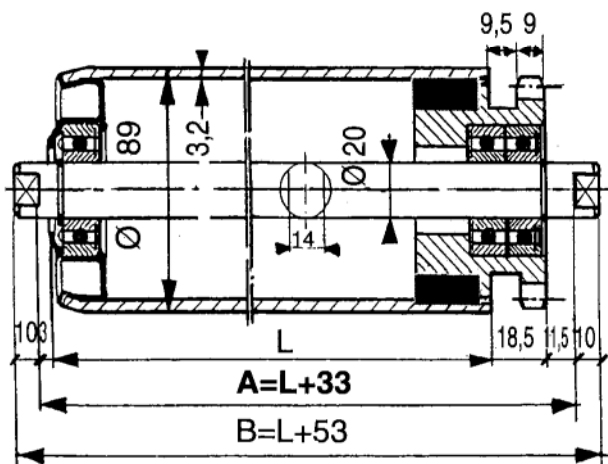
Length L : mini 100
 maxi 3400

Tube's 5 thick possible and spindle
 strenghtened (\varnothing 25, \varnothing 30) between bearings

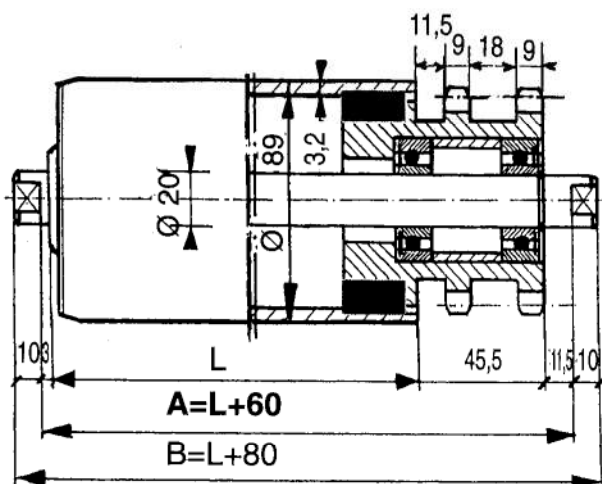
SPROCKET 15 tooth – 15,875 pitch (Chain ISO 10B1)
in medium hard steel XC 38 not treated ; primitive $\varnothing 76,34$ - \varnothing on chain 90

in medium hard steel XC 38 not treated ; primitive Ø 76,34 - Ø on chain 90

Code 61



Code 61



Basic roller GL47 type : page 27.

Friction ring in material «thermodur» (not plastic), friction electric conductor, with a low friction coefficient (very low wear).

The friction appears when there's a load accumulation (or stop). The residual effort of thrust is proportional to the importance of total accumulated loads : about 6% of these ones.

Loads must be uniformly divided on the roller for a satisfying slaving.

Best use GLFA 15 S11 type (tangential slaving).
GLFA 15 D11 type will be reserved to lighter
loads (see loads table).

Accumulation of palletized loads.

Indications of maximal admissible loads (kg)						
L	500	700	900	1100	1300	1500
GLFA 15 S11	200	180	150	120	100	80
GLFA 15 D11	140	100	75	60	50	40

Possibility of loads more important for rollers
with $L > 800$, assembly on spindle $\varnothing 25$;
SLFA type... (code 62)

Indications of maximal admissible loads (kg)						
L	500	700	900	1100	1300	1500
SLFA 15 S11	220	220	220	200	180	160
SLFA 15 D11	200	200	180	150	120	100

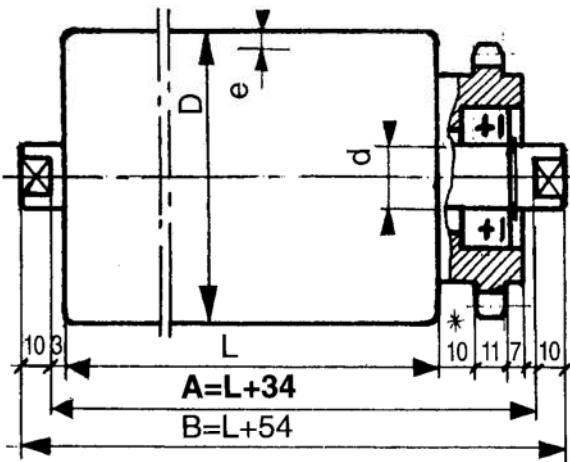
Super heavy roller SLC type

Sprocket 17 tooth – 19,05 pitch (Chain ISO 12B1)

in medium hard steel XC 38 not treated - primitive \varnothing 112,5 - \varnothing on chain 130

Code 62

SIMPLE SPROCKET SLC 17 S 13 type



\varnothing hub : 85

* 20 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
	133x4	159x4
diam.25	X	X
diam.30	X	X

See Basic roller SL 62 type : page 28

Sheet steel box 4 mm thick. Welded.

Bearings in standard :

6305 Z (\varnothing 25)

6206 Z (\varnothing 30)

Weldings are not shaved.

- 20°C < T° < + 100°C

On request : D x e different

Tube's thick . ≥ 6 – spindle ≥ 35

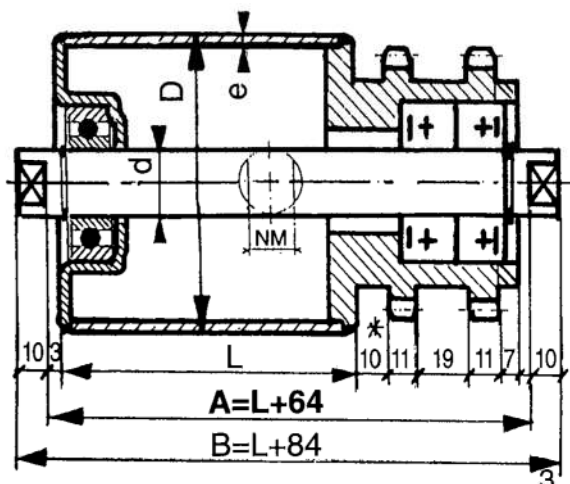
Different pitch and tooth number

Massiv box

Protection : ZZ, RS, 2RS

Code 62

DOUBLE SPROCKET SLC 17 D 13 type



\varnothing hub : 85

* 20 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
	133x4	159x4
diam.25	X	X
diam.30	X	X

See basic roller SL 62 type, page 28

Sheet steel box 4mm thick. Welded.

Bearings in standard :

6305 Z (\varnothing 25)

6206 Z (\varnothing 30)

Weldings are not shaved.

- 20°C < T° < + 100°C

On request :

(see SLC 17 S13 above)

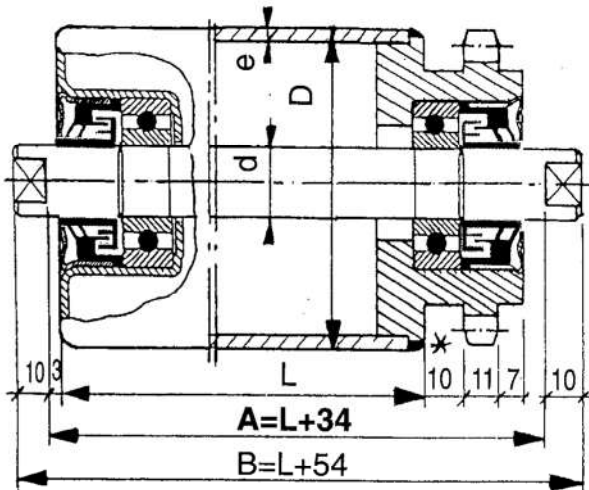
Driven roller LMC type

Sprocket 17 tooth – 19,05 pitch (Chain ISO 12B1)

in medium hard steel XC 38 not treated ; primitive \varnothing : 112,5 - \varnothing on chain 130

SIMPLE SPROCKET LMC 17 S 13 type

Code 63



\varnothing hub : 85

* 20 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
	133x4	159x4
diam.25	X	X
diam.30	X	X
Box	Crimped over	Welded
Sprocket	Welded	Welded

Bearings :

6305 (\varnothing 25) – 6206 (\varnothing 30)

Weldings are not shaved

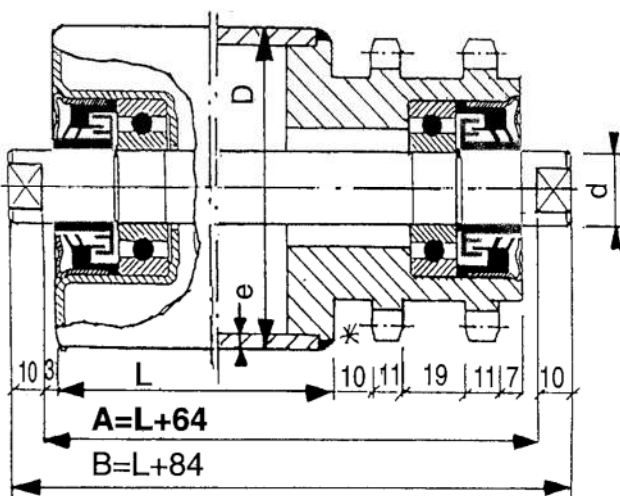
- 20°C < T° < + 80°C

Handling of heavy lumped loads in dusty and wet places.

See basic rollers LM type p. 33

DOUBLE SPROCKET LMC 17 D 13 type

Code 63



\varnothing hub : 85

*

* 20 on request

TUBES/SPINDLES COMBINATIONS

d	Dxe	
	133x4	159x4
diam.25	X	X
diam.30	X	X
Box	Crimped over	Welded
Sprocket	Welded	Welded

Bearings :

6305 (\varnothing 25) – 6206 (\varnothing 30)

Weldings are not shaved.

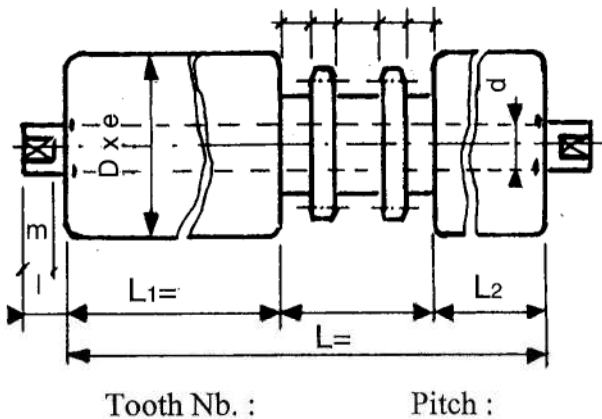
- 20°C < T° < + 80°C

Handling of heavy lumped loads in dusty and wet places.

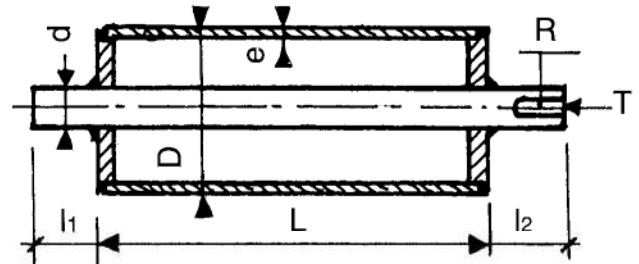
See basic roller LM type p. 33

Special driven rollers - drums

CENTRAL SLAVING by double sprocket

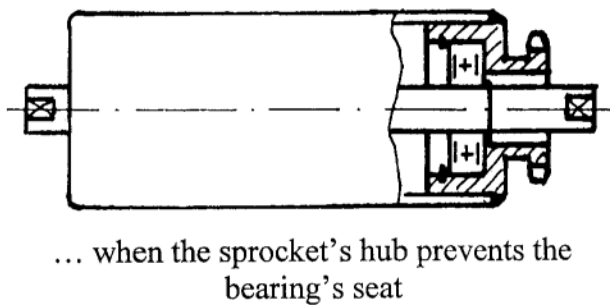


Drums with crossing spindle for light or medium conveyor.



$$D = 60 \text{ to } 159 - d = 15 \text{ to } 30$$

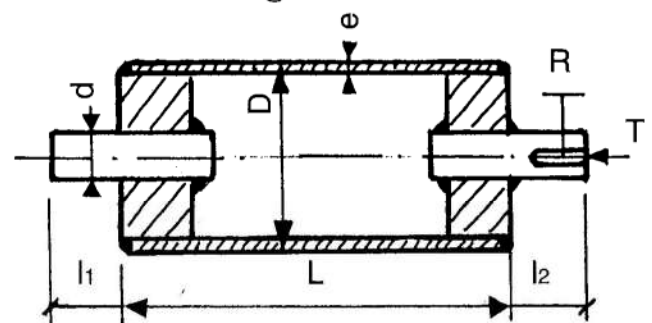
Deported bearing dimensionally stable



... when the sprocket's hub prevents the bearing's seat

With or without {
- slots «R» and tapping «T»
- conic cylindrical turning
of the roller tube.

« Bearing neck » drums

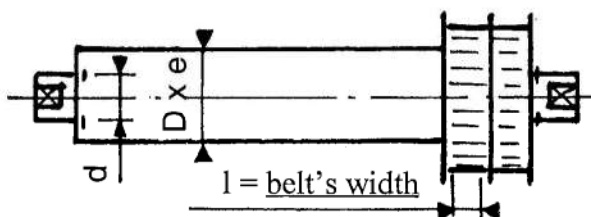


$$D = 108 \text{ to } 159$$

$$d = 30 \text{ to } 40$$

for heavy loads and big dimensions : $L \leq 3500$

Timing pulley 34 tooth – 8mm pitch for belt HT D8

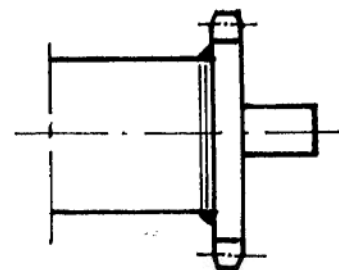


$l = \text{belt's width}$

d	Dx2					l
	*50x2	*60x2	50x5	60x5	89x3	
15	X	X				20
20			X	X	X	30

- Possibility of friction rollers (settling by tapped spindle)

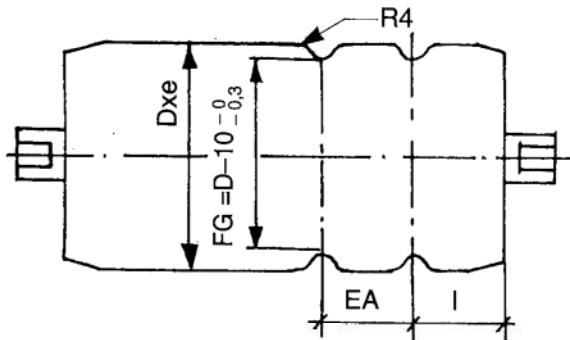
Other slaving : by toothed disk



Different solutions in comparison with those presented above can be studied according to datas that you will supply.

Roller with throats

Driven rollers by round belt : ($\varnothing 4 - 5 - 6$)

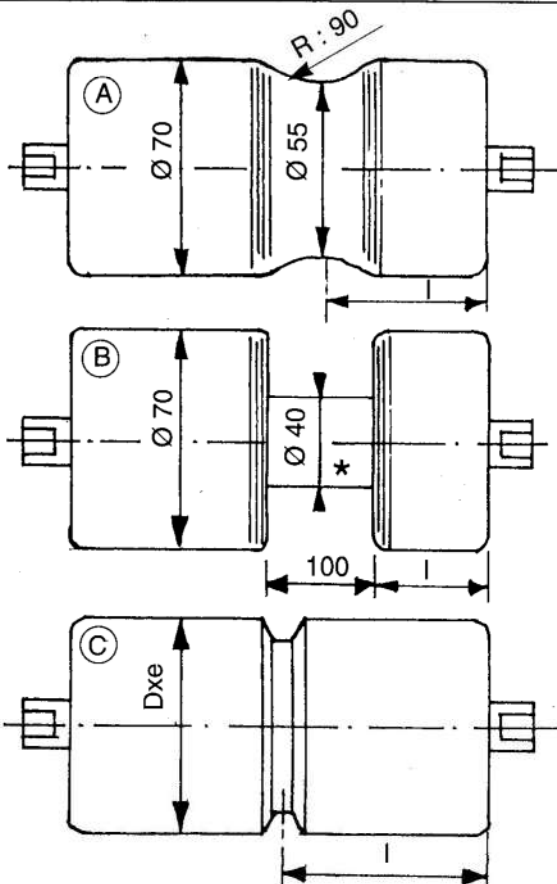


Slaving of rollers for light lumped loads – with 1 throat (with a drive shaft) or with 2 throats (slaving in cascade).
Best use on rollers equipped with standardized bearings, so series N-VN-NS GL or on gravity rollers of G, VGS, GS series on steel or electro-zinc tubes.

Types	D	38x2	40x1,5	50x1,5 (*)	50x2	60x2	70x2	70x2,9
N - NS...	I mini	25	25	25	25	25	25	25
G... - GS...	EA mini	25	25	25	25	25	25	25
VN... - GL...	I mini			35	35	35		35
- VGS	EA mini			25	25	25		25

Consult us for I/EA different – Possibility of inox tube (*)

Roller with « necking » or « insert »



Opposite : used forms to facilitate the articles' detection by cell situated between 2 screwed pitch rollers (very used in cardboard mills).

(A) necking on tube (economic)
obviously circular

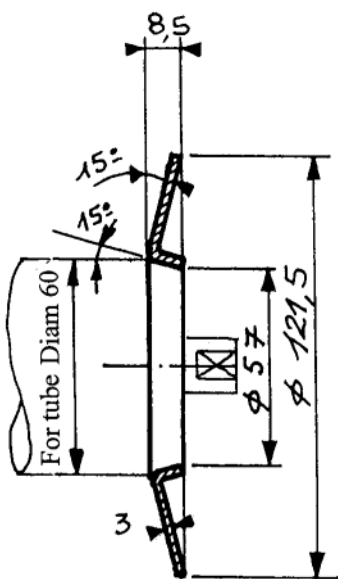
(B) massiv insert welded on tubes
obviously cylindrical

* Other forms and dimensions on request.

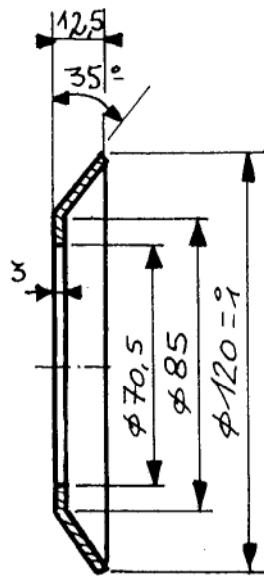
(C) on request :
massiv insert welded for :
- guide of flat band, with a trapezoid V-belt section, situated in the middle or on the verge of the band,
- V-belt slaving

Precise : location, dimensions and use you wish.

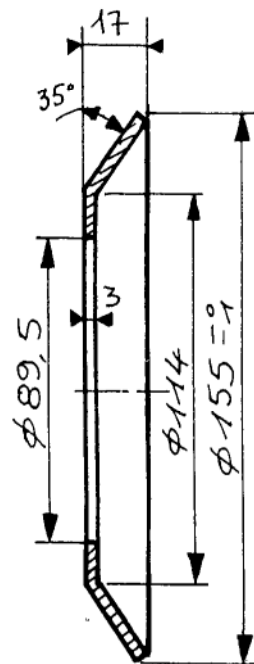
Guiding assay crucible



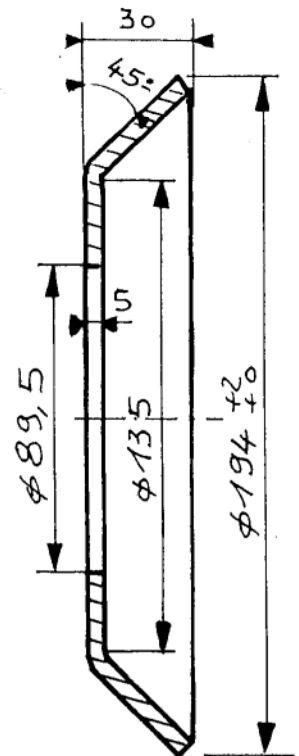
type 60/120/15°



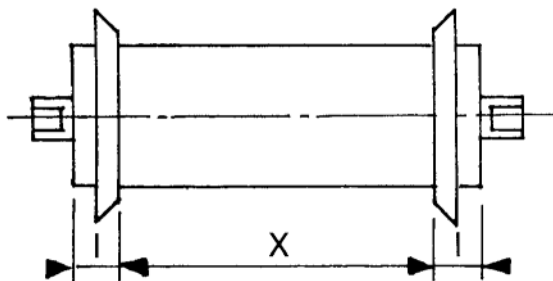
type 70/120/35°



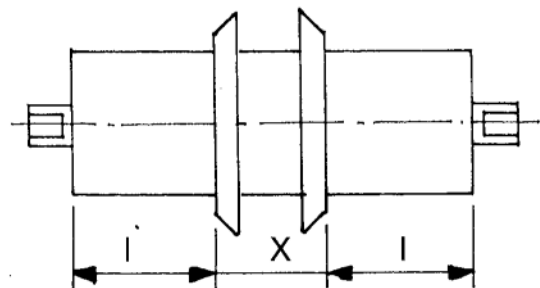
type 89/155/35°



type 89/200/45°



« external » guiding



« internal » guiding

Spindle's anti-deflection ring

- Used on rollers of length higher or equal to 1800 when the spindle's arrow is over the acceptable limit value under the load. Rings are available on stock for tubes/spindle :
 $\varnothing 63,5 \times 2,9 / \varnothing 20 - \varnothing 70 \times 2,9 / \varnothing 15 / \varnothing 20 - 89 \times 3,2 / \varnothing 20$

Other possibilities on request.

GENERAL SALES CONDITIONS

General Sales conditions below make the parties' law. They are systematically known by the customer and they apply to our sales or manufactures, they prevail over all purchase conditions, except formal and express derogations by us.

LEGISLATION AND JURISDICTION

In case of any kind of dispute regarding to the execution or the understanding of the general sales conditions of ROULEAUX PACK SA, the head office's jurisdiction is the only competent one.

These provisions are applicable even if the customer is of foreign nationality and this, in accordance with the article 17 of Bruxelles 27 Sept. 1968 agreement. This clause is applicable even in the case of refer, of incidental requests or whatever the means and terms of payment.

Whatever the nationality of the customer and its residence, the French law is the one applicable to contractual relations between the customer and ROULEAUX PACK SA.

In accordance with the article 3 of the Rome's agreement of 19 June 1980, contractual relations are set by French law.

OUR OFFERS

They are valid for 15 days only. Our « on availability » offers depend on any further sales in the meantime. Prices and conditions stipulated by our representatives are subject to our written acceptance. The responsibility of the material's choice is incumbent to the customer, our recommendations are given as an indication according to the working conditions which are communicated to us.

ORDERS

They are definitively accepted by ROULEAUX PACK SA after the receipt of the purchase order and the confirmation from ROULEAUX PACK SA by acknowledgement of receipt. This confirmation will constitute the particular conditions, especially concerning payment. For any change, an extra charge will be calculated and communicated to the customer for agreement. No order will be cancelled, partially or totally, when it is carried out.

DELIVERY DATE

They concern date of shipment, they are given as an indication and without warranty. A late delivery can't be refused by the customer, it will not lead to a compensation, or cancelling of the order unless otherwise stated in writing on our acknowledgement of receipt.

ROULEAUX PACK SA can deliver totally or partially.

If the delay comes from the buyer, items will be invoiced on a placing at disposal at the time of the contractual delivery date.

In any case, the delivery can only take place if the customer is up to date in its obligations to ROULEAUX PACK SA, whatever the reason of the delay.

All commitments by ROULEAUX PACK SA are suspended in case of circumstances outside our control : war, riots, fire, flood, strike, accident, impossibility of supplying, carriage break, partial or total unemployment... ROULEAUX PACK SA will keep the customer informed of events enumerated above when the time comes.

TRANSPORT

It is carried out in agreed places and conditions, according to references appearing on the acknowledgement of receipt. Unless otherwise stated in the acknowledgement of receipt, goods can be delivered ex-works. In any case, it is always carried out addressee's risk. In case of defect or missing, the addressee must make necessary contests and he must confirm these reserves by an extra-judicial act or a letter sent by recorded delivery within 3 days of reception of goods.

ANY DISPUTES concerning conspicuous defect, quality or conformity of supplied materials must be done within 8 working days following the delivery by a letter sent by recorded delivery with an Acknowledgement of receipt.

In any of these cases, duly acknowledged by ROULEAUX PACK SA, the buyer will be able to obtain the free replacement of faulty parts, excluding indemnity or damages. The normal wear, the incorrect use or the wrong choice of the product's type hamper our warranty.

Anyway, ROULEAUX PACK SA refuses readjusted or repairing invoicing made by the buyer without his previous agreement. If the buyer doesn't put in a claim officially within 8 days, it will be assumed that the buyer has accepted the quality and quantity of the goods delivered.

RETURN

If there's not a formal and previous agreement between ROULEAUX PACK SA and the buyer, no return is accepted without this agreement. Any returned material will be at the buyer's disposal and wouldn't give rise to a replacement or a repairing of rejects. Expenses and return risks are always payable by the buyer.

GUARANTEE

Goods sold are guaranteed against any faulty malfunction due to a fault in the material, manufacturing or in the design, or a latent defect within the normal use of the goods, for a maximal period of one year after delivery, except particular provision. The warranty is not applicable in places not adapted (excessive corrosion, high temperature, etc...), except if ROULEAUX PACK SA has given its preliminary agreement toward to the element furnished by the customer at receipt of the order.

Deteriorations and defects due to the natural wear, to a wrong assembly, to a deficient maintenance, to an unusual use, to a wrong choice of the customer, or to a material's modification not allowed and not specified by ROULEAUX PACK SA are excluded from the warranty.

In order to benefit from this warranty, the buyer should inform ROULEAUX PACK SA with a recorded letter within a maximum period of a year from the delivery date. After having duly acknowledged the malfunction defect, as specified above, ROULEAUX PACK SA promises to replace the rejects free excluding damages.

PRICES

Unless otherwise indicated prices quoted in our tariffs, our offers, our acknowledgements of receipt, our invoices are in French Francs.

Prices of our tariffs can be changed without notice. Prices of our offers are quoted firm for an order placed before the expiry date and within the proposed delivery date, except particular agreement. The invoiced prices have been precised in the Acknowledgement of receipt. They are valid only for detailed works, any supplementary and modifying request is invoiced extra. Land packing expenses are inclusive in prices, unless otherwise instructed. Maritime packing are quoted separately. The Acknowledgement of receipt will state whether it is ex-works price or carriage paid.

The invoiced prices are exclusive of VAT : any tax or other allowances payable to implement French payment or those of an importing country or transit are payable by the buyer. In case of order's cancelling, the customer will have to pay ROULEAUX PACK SA for all goods specially supplied or in the process of being supplied following the order.

PAYMENT

They are agreed by the customer. Whatever the bank procedure invoices must be paid to the head office of the seller ROULEAUX PACK SA – BP 17 – 42130 BOEN – FRANCE. Unless otherwise stipulated in the Acknowledgement of receipt, our invoices must be paid at 60 days end of month. In case of draft payment, the latter must be returned to ROULEAUX PACK SA within 8 days of its receipt. The remittance of a simple commercial paper or a cheque implying an obligation of payment doesn't constitute a payment but means their effective payment at the agreed expiry date. A 0.5% discount per month is made on the amount excluding VAT, the VAT amount is changed accordingly.

DELAY OR NON –PAYMENT

Failure return, the bill of exchange in the legal delivery time for acceptance may lead to the suspension of delivery. The non-payment of an invoice at its expiry date make payable all our debts, even not outstanding. Moreover, in application of the law 92-1442 of 31 December 1992 modified, if the sum is not paid at the expiry date written on the invoice, the customer, complying with the right of the company and without prior formal notice, will owe a penalty calculated in comparison with the whole of the rest of the owing sums of the rate equal to one time and a half the legal interest rate, these interest within the expiry date until its payment.

Any change in the situation of the customer allows us to change payment's conditions, to require warranties, to suspend deliveries. In case of non-payment at the expiry date, the sale will be in its own right solved in favour of ROULEAUX PACK SA 15 days after the sending under registered cover with Acknowledgement of receipt of an injunction mentioning the intention to use the cancelling clause and this without damage of another right.

EXPORT

All the above conditions are applying to materials for export with reservation of the following provisions :

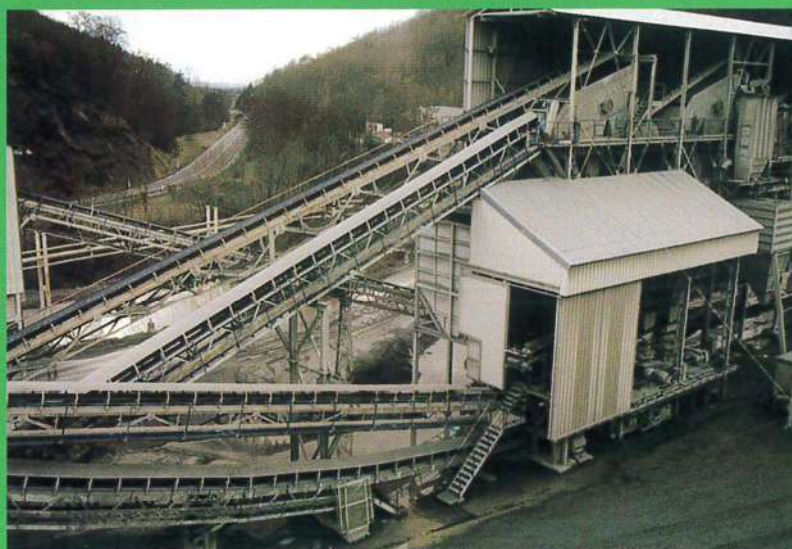
- For some reason, if those present sales conditions were translated in another language, the French translation attests in case of doubt.
- The language used for the execution and the cancellation of sales agreements between ROULEAUX PACK SA company and the customer is the language used by ROULEAUX PACK SA to establish its price discount, its order's acknowledgement of receipt and its invoice. In case of disagreement, the French translation is the authentic one.
- Except particular agreement, invoices of ROULEAUX PACK SA can be paid in the currency used by ROULEAUX PACK SA to establish its price discount, its acknowledgement of receipt of order and its invoice.
- Any tax, duty or other allowances payable in application of French laws or the laws of the country of import are payable by the customer.

ROULEAUX

pack



pack that is also
rollers - garlands - supports
for the bulk



LUMP LOADS