DYSTRYBUTOR

TECHNICAL

GRZEGORZ TĘGOS

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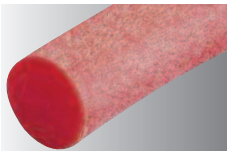
Pasy termozgrzewalne profilowe

mafdel

ø (mm)

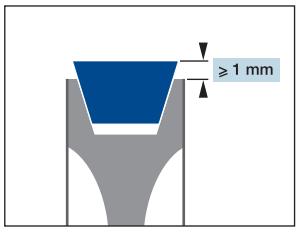
		mafdel		2	3	4	5	6	7	8	9	9.5	10	12	12.5	15	18
Standard	Rough	**POLY/FLEX** Rough	85 ShA	●	●	●	●	●	●	●	●		●	●		●	
		POLY/FLEX Rough	85 ShA		●	●	●	●		●			●				
	Smooth	**SOUPLEX**	85 ShA		●	●	●	●		●		●			●	●	●
		SOUPLEX	85 ShA		○	○	○	○									
		DEL/FLEX	90 ShA	●	●	●	●	●	●	●		●			●	●	●
		DEL/FLEX	90 ShA		●	●	●	●		●							
		DEL/ROC	100 ShA 55 ShD			●	●	●		●		○	●				
	Frosted	**SOUPLEX** Frosted	85 ShA					●		●		●			●	●	●
		DEL/FLEX Frosted	90 ShA					●	●	●		●			●	●	●
		DEL/FLEX Frosted	90 ShA					●		●							
Reinforced	Smooth	**POLY/FLEX** Aramid Reinforced	85 ShA					●		●			●	●		●	●
		DEL/SAN Aramid Reinforced	95 ShA										●		●	●	●
		DEL/ROC Polyester Reinforced	100 ShA 55 ShD									○	○		○	○	○
		DEL/ROC "DRW" Polyester Reinforced	63 ShD									○		○			
	Frosted	**POLY/FLEX** Aramid Reinforced - Frosted	85 ShA					●		●			●	●		●	●
		DEL/SAN Aramid Reinforced - Frosted	95 ShA										●		●	●	●
Tubular		**SOUPLEX** Tubular	85 ShA										◎				
		DEL/FLEX Tubular	90 ShA				◎	◎		◎			◎	◎		◎	

All our 6 to 18mm diameter round belts can be frosted.
Frosting improves belt sliding on its support and makes products accumulation easier.



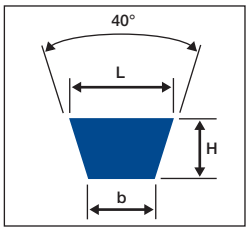
Patent nb 9912595

advice / recommendations

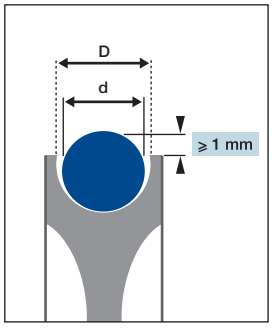


Belt section	Z	A	B	C	D
L x H (mm)	10 x 6	13 x 8	17 x 11	22 x 14	32 x 19
b (mm)	6	7.5	9	12	18

A V belt is driven by its sides. The belt must come off its pulley by 1mm, so that the product conveyed may not touch the pulley.



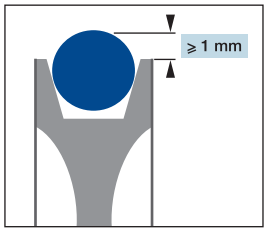
driving round belts



A round belt is driven by a round-groove pulley. The diameter of this round groove should be 1mm greater than the diameter of the belt for smaller round belts, and 2mm greater for round belts from diam. 12 mm on.

d < 12 mm D = d + 1 mm
d ≧ 12 mm D = d + 2 mm

If the belt runs in wet or greasy conditions, we recommend that the round belt be driven by a V-groove pulley. It will substantially improve the efficiency of the driving and will prevent the belt from slipping.



Diameter of the round belt d (mm)	3 à 6	8	10	12	15	18
V groove of the driving pulley L x H (mm)	-	10 x 6 (Z)	13 x 8 (A)	17 x 11 (B)	17 x 11 (B)	22 x 14 (C)

guiding round and V belts

We recommend the using of HDPE runners. They will improve the load capacity of your belts, thanks to a very low friction coeficient. For exemple, the friction coefficient on a HDPE runner is twice as low as on a steel runner. The belt would thus bear twice as much weight on a HDPE runner than on a steel runner.

The diameter of the round groove should be 1 to 2 mm greater than the diameter of the belt.

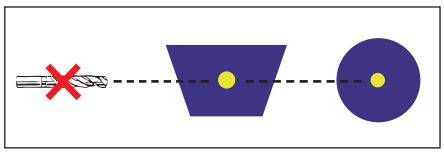
V belts slip on their small base. The V groove of the runner should be 1 mm wider than the belt. This will prevent the V belt from being blocked into its runner.

We recommend that the extremities of the runner be chamfered. This avoids any risk of fits and starts as the belt arrives on its runner. This recommendation is even more important if your belt is cogged.

parallel belts

For belts mounted in parallel, it is strongly recommended that the return pulleys run independently.This compensates for differences in linear speed between the belts, thus avoiding abnormal tension which might cause jerky operation.

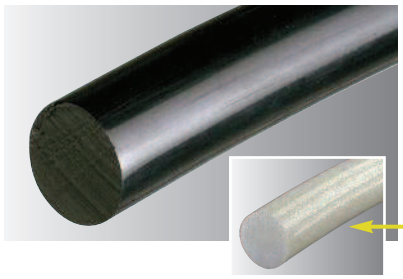
welding reinforced belts



Our reinforced belts are welded in the same way as the other non-reinforced belts, **WITHOUT REMOVING THE REINFORCEMENT**. This avoids all the problems associated with drilling. Our special reinforcement does not fuse at the welding temperature of our thermostated irons (260°C). There is therefore no danger of contaminating the weld.

mafdel

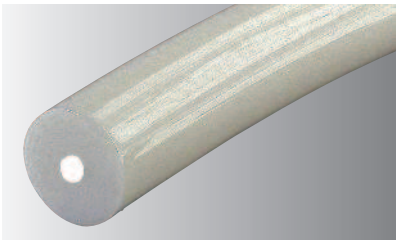
DEL/ROC black



Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DRRN4	4	6.3	2%	50	40
DRRN5	5	9	2%	60	50
DRRN6	6	13	2%	80	70
DRRN8	8	25	2%	100	90
DRRW9.5	9.5	35	2%	140	120
DRRN10	10	39	2%	160	140

Hardness **100 ShA/55 ShD**
Pretension **1 - 2%**
Temperature range **-30°C/+90°C**
Friction coefficient HDPE : **0.15 - 0.2** Steel : **0.35 - 0.4** Stainless steel : **0.5**
Rolllength **30 m**

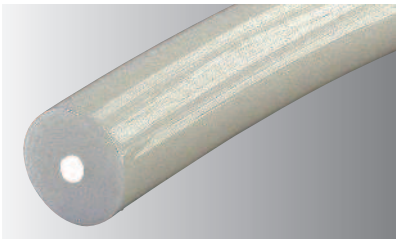
DEL/ROC ivory polyester reinforced



Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DRRIAP9.5	9.5	54	2%	160	140
DRRIAP10	10	56	2%	180	160
DRRIAP12.5	12.5	98	2%	250	200
DRRIAP15	15	140	2%	300	250
DRRIAP18	18	200	2%	360	300

Hardness **100 ShA/55 ShD**
Pretension **1 - 2%**
Temperature range **-30°C/+90°C**
Friction coefficient HDPE : **0.15 - 0.2** Steel : **0.35 - 0.4** Stainless steel : **0.5**
Rolllength **100 m**

DEL/ROC DRW ivory polyester reinforced



Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DRWRIAP9.5	9.5	67	2%	180	160
DRWRIAP12	12	120	2%	260	220

Hardness **63 ShD**
Pretension **1 - 2%**
Temperature range **-30°C/+90°C**
Friction coefficient HDPE : **0.15 - 0.2** Steel : **0.35 - 0.4** Stainless steel : **0.5**
Rolllength **100 m**

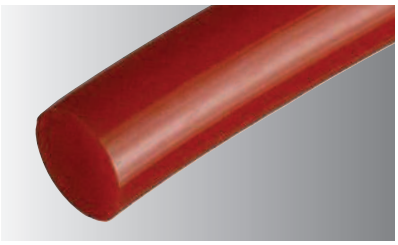
DEL/ROC blue steel reinforced*

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DRRBST9.5/1.8	9.5	166	-	250	
DRRBST9.5/2.36	9.5	200	-	270	

Hardness **100 ShA/55 ShD**
Pretension **0%**
Temperature range **-30°C/+90°C**
Friction coefficient HDPE : **0.15 - 0.2** Steel : **0.35 - 0.4** Stainless steel : **0.5**
Rolllength **X m**

*Stainless steel reinforcement on request.

DEL/FLEX red

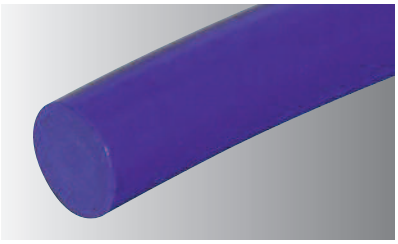


Hardness **90 ShA**
Pretension **3 - 6%**
Temperature range **-20°C/+70°C**
Friction coefficient HDPE : **0.25** Steel : **0.5** Stainless steel : **0.6**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DFRR2	2	0.77	5%	20	12
DFRR3	3	1.7	5%	30	20
DFRR4	4	2.5	5%	40	30
DFRR5	5	4	5%	50	40
DFRR6	6	6.5	5%	60	50
DFRR7	7	9.6	5%	70	55
DFRR8	8	12	5%	80	65
DFRR9.5	9.5	17	5%	100	85
DFRR12.5	12.5	30	5%	140	120
DFRR15	15	43	5%	170	140
DFRR18	18	63	5%	220	180
*DFRR20	20	78	5%	280	250

*Manufactured on request depending on quantities.

DEL/FLEX blue



Hardness **90 ShA**
Pretension **3 - 6%**
Temperature range **-20°C/+70°C**
Friction coefficient HDPE : **0.25** Steel : **0.5** Stainless steel : **0.6**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DFRB2	2	0.77	5%	20	12
DFRB3	3	1.7	5%	30	20
DFRB4	4	2.5	5%	40	30
DFRB5	5	4	5%	50	40
DFRB6	6	6.5	5%	60	50
DFRB8	8	12	5%	80	65

DEL/SAN blue Aramid reinforced

Hardness **95 ShA**
Pretension **see table**
Temperature range **-20°C/+70°C**
Friction coefficient HDPE : **0.2** Steel : **0.4** Stainless steel : **0.5**
Rolllength **50 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
*DSRBAR6	6	-	-	-	-
*DSRBAR8	8	-	-	-	-
DSRBAR10	10	40	1.5%	140	120
DSRBAR12.5	12.5	65	1.5%	160	140
DSRBAR15	15	93	1.5%	220	180
DSRBAR18	18	125	1.5%	250	210

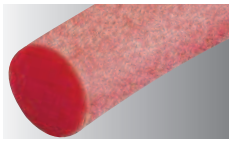
*Manufactured on request depending on quantities.

All our 6 to 18 mm diameter round belts can be frosted.

Frosting improves belt sliding on its support and makes products accumulation easier :

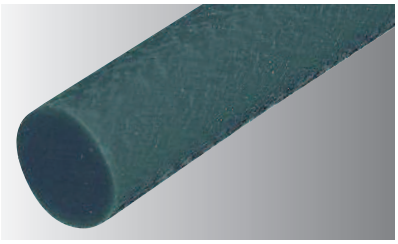
- reduction of friction coeff on steel and stainless steel : **0.1**
- reduction of friction coeff on HDPE : **0.05**.

Reference : complete the belt refererence with **DE**.



Patent nb 9912595

POLY/FLEX green rough

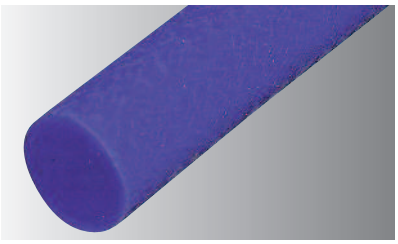


Hardness **85 ShA**
Pretension **5 - 8%**
Temperature range **-20°C/+60°C**
Friction coefficient HDPE : **0.25** Steel : **0.45** Stainless steel : **0.55**
Rolllength **30 m** ø 2 to 10 mm : **100 m** ø 12 to 18 mm : **50 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
PFRG2	2	0.47	8%	15	10
PFRG3	3	1	8%	20	15
PFRG4	4	1.9	8%	35	25
PFRG5	5	2.9	8%	40	30
PFRG6	6	4.2	8%	50	40
PFRG7	7	5.7	8%	60	50
PFRG8	8	7.5	8%	70	55
PFRG9	9	9.5	8%	80	65
PFRG10	10	11.8	8%	90	75
PFRG12	12	17	8%	100	90
PFRG15	15	26.5	8%	140	120
*PFRG18	18	38.1	8%	190	150

*Manufactured on request depending on quantities.

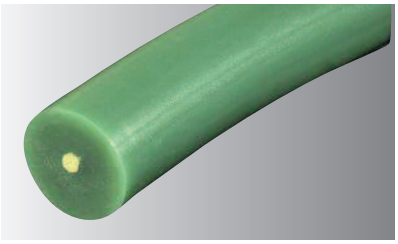
POLY/FLEX blue rough



Hardness **85 ShA**
Pretension **5 - 8%**
Temperature range **-20°C/+60°C**
Friction coefficient HDPE : **0.25** Steel : **0.45** Stainless steel : **0.55**
Rolllength **100 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
PFRB2	2	0.47	8%	15	10
PFRB3	3	1	8%	20	15
PFRB4	4	1.9	8%	35	25
PFRB5	5	2.9	8%	40	30
PFRB6	6	4.2	8%	50	40
PFRB8	8	7.5	8%	70	55
PFRB10	10	11.8	8%	90	75

POLY/FLEX green Aramid reinforced



Hardness **85 ShA**
Pretension **see table**
Temperature range **-20°C/+60°C**
Friction coefficient HDPE : **0.35** Steel : **0.6** Stainless steel : **0.7**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
PFRGAR6	6	7	0.5%	60	50
*PFRGAR7	7	10	0.5%	70	60
PFRGAR8	8	12	0.5%	90	75
*PFRGAR9	9	17	1%	100	85
PFRGAR10	10	23	1%	110	90
PFRGAR12	12	33	1.5%	130	110
PFRGAR15	15	50	1.5%	150	130
PFRGAR18	18	68	1.5%	220	180

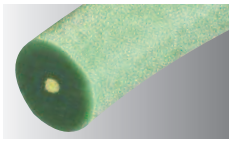
*Manufactured on request depending on quantities.

All our 6 to 18 mm diameter round belts can be frosted.

Frosting improves belt sliding on its support and makes products accumulation easier :

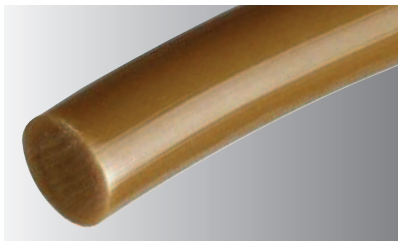
- reduction of friction coeff on steel and stainless steel : **0.1**
- reduction of friction coeff on HDPE : **0.05**.

Reference : complete the belt refererence with **DE**.



Patent nb 9912595

SOUPLEX brown

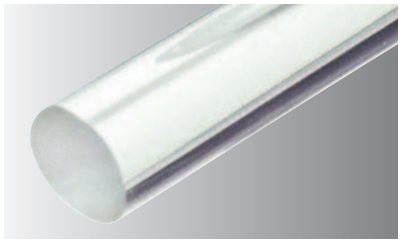


Hardness **85 ShA**
Pretension **5 - 8%**
Temperature range **-20°C/+60°C**
Friction coefficient HDPE : **0.35** Steel : **0.6** Stainless steel : **0.7**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
SXRM3	3	0.9	8%	20	15
SXRM4	4	1.5	8%	35	25
SXRM5	5	2.5	8%	40	30
SXRM6	6	4	8%	50	40
SXRM8	8	7	8%	70	55
SXRM9.5	9.5	10	8%	80	65
SXRM12.5	12.5	18	8%	110	95
SXRM15	15	25	8%	140	120
SXRM18	18	38	8%	200	150
*SXRM20	20	47	8%	240	190

*Manufactured on request depending on quantities.

SOUPLEX translucent



Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
SXRT3	3	0.9	8%	20	15
SXRT4	4	1.5	8%	35	25
SXRT5	5	2.5	8%	40	30
SXRT6	6	4	8%	50	40

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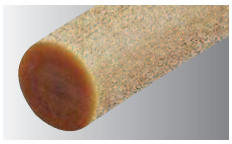
- reduction of friction coeff on steel and stainless steel : **0.1**
- reduction of friction coeff on HDPE : **0.05**.

Reference : complete the belt refererence with **DE**.



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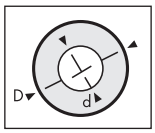


Fast on-site fastening without welding tools.

DEL/FLEX red tubular

Hardness **90 ShA**
Pretension **3 - 6%**
Temperature range **-20°C/+70°C**
Friction coefficient HDPE : **0.25** Steel : **0.5** Stainless steel : **0.6**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
DFTR5	5/2.5	3	5%	60	50
DFTR6	6/2.5	5	5%	70	60
DFTR8	8/3	10	5%	90	70
DFTR10	10/4	16	5%	100	85
DFTR12	12/4	22	5%	140	125
DFTR15	15/5	35	5%	170	140
*DFTR18	18/5	50	5%	220	190

*Manufactured on request depending on quantities.

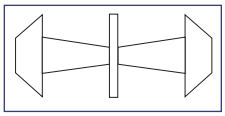
SOUPLEX brown tubular

Hardness **85 ShA**
Pretension **5 - 8%**
Temperature range **-20°C/+70°C**
Friction coefficient HDPE : **0.35** Steel : **0.6** Stainless steel : **0.7**
Rolllength **30 m**

Reference	Diameter (mm)	Traction force (daN)	Pretension	Pulley diameter (mm) Recommended	Mini
SXTM10	10/4	9	8%	80	70

Aluminium fasteners

N°	Belt dia.
4	5 & 6 mm
6	8 mm



N°	Belt dia.
7	10 & 12 mm
9	15 & 18 mm

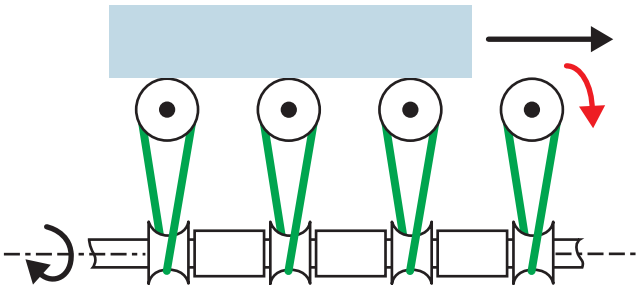
Supplied in pack of 10.

Manufacturing on demand of small round endless belts in small, medium or large series, in qualities

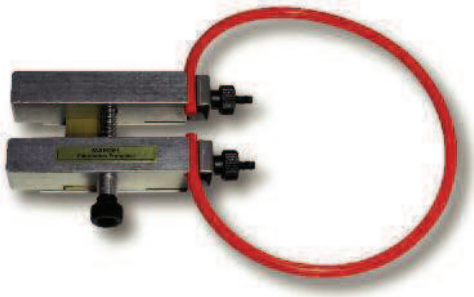
SOUPLEX POLY/FLEX DEL/FLEX DEL/ROC

- Wide choice in length.
- Possibility to produce moulded belts for very large series (consult us for moulds quotation).

rollers driven by semi-crossed round belts

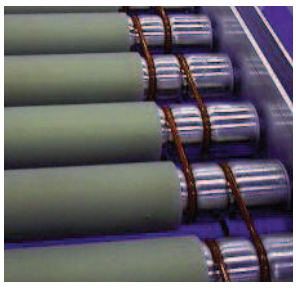


- Direct transmission from a perpendicular drive shaft to each roller with SOUPLEX, POLY/FLEX or DEL/FLEX round belts.
- Noiseless and maintenance-free system.

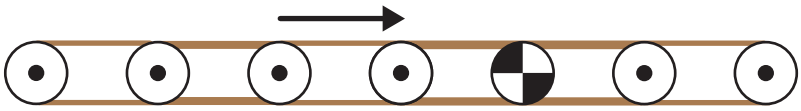


- Accumulation and full-load start possible, due to resistance of tensionned belts. Instant restart of rollers.
- Easy welding of belt on site with **J15 clamp**.
- We recommend to keep diabolos and rollers set in line.

roller-to-roller driving

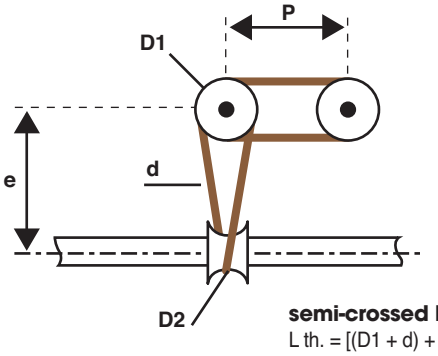


- Set of several rollers driven by round belts from a drive roller.



- It is recommended to drive a maximum of 6 rollers : 4 pulled and 2 pushed by the drive roller.
- Recommended minimum pretension : SOUPLEX or POLY/FLEX : 8%, DEL/FLEX : 6%.

belt length calculation



D1 : roller bottom groove diameter
D2 : diabolo bottom groove diameter
d : belt diameter
e : center distance
p : rollers step

EXAMPLE :
SOUPLEX round belt dia. 5 mm

D1 = 38 mm
D2 = 28 mm
d = 5 mm
e = 120 mm
p = 100 mm

roller-to-roller driving

L th. = (D1 + d) x pi + 2 x p
L belt = L th. - pretension

L th. = (38 + 5) x 3.14 + 2 x 100 = 335 mm
L belt = 335 - 8% = **308 mm**

semi-crossed belt driving

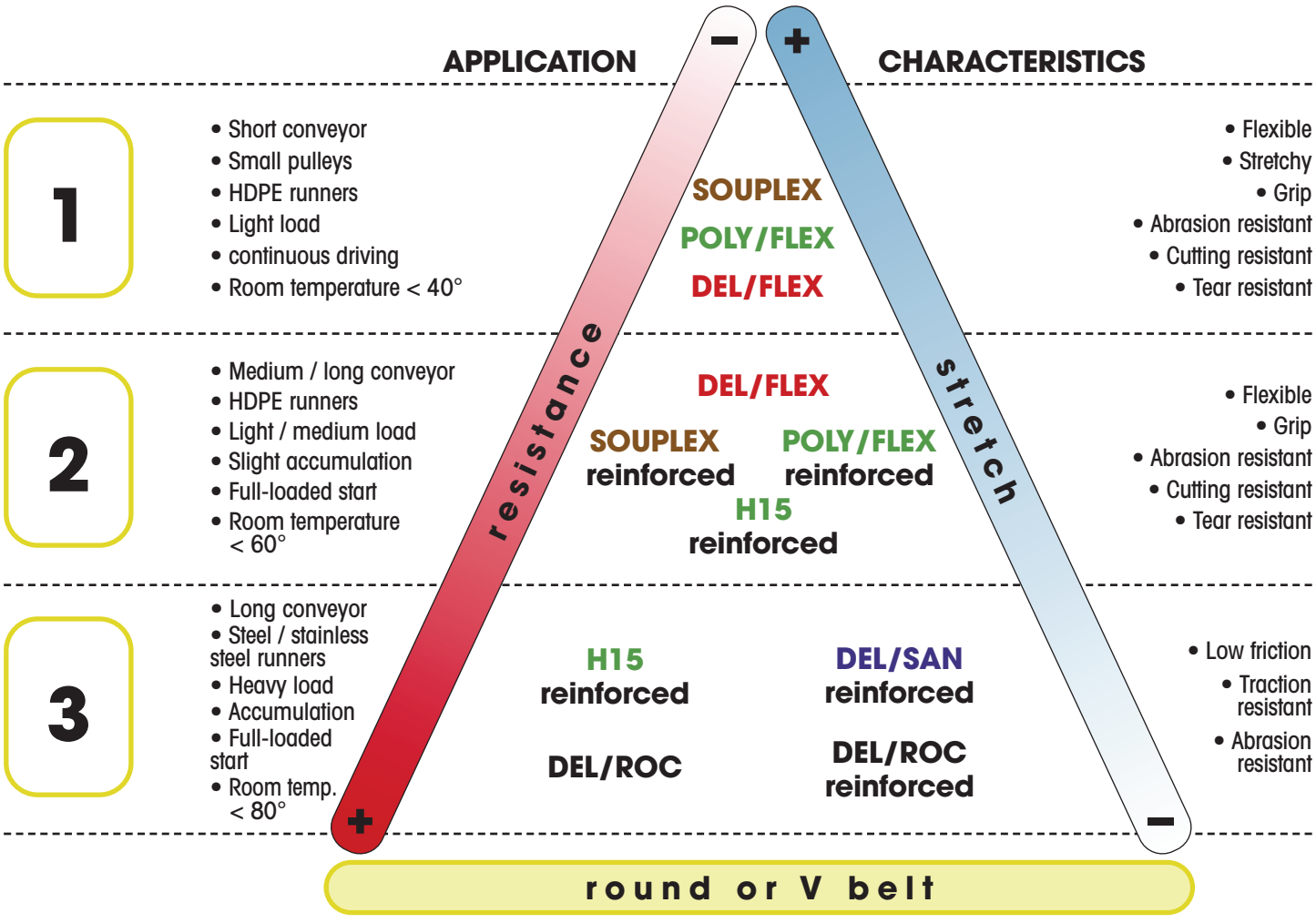
L th. = $[(D1 + d) + (D2 + d)] \times pi / 2 + 2 \times \sqrt{[(D1+d)^2/4 + e^2]}$
L belt = L th. - pretension

L th. = $[(38+5)+(28+5)]x3.14/2+2\sqrt{[(38+5)^2 /4+120^2]}$ = 363 mm
L belt = 363 - 8% = **334 mm**

To choose the right belt, you need to know the characteristics of the conveyor on which it will run, its working conditions and the product it will convey.

CONVEYOR	PRODUCT TRANSPORTED	WORKING CONDITIONS
length of the conveyor	maximum transported weight	continuous or stop-and-go driving
diameter of the pulleys	nature of the product	accumulation
type of support	spreading of the weight along the conveyor	other efforts, pressure, etc.
length of the tensioning system	temperature of the product	room temperature
number of belts		
inclination		

Choose up, amongst the 3 following categories, which one best matches to your application :



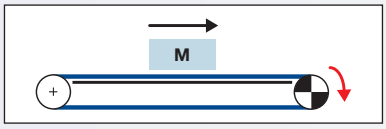
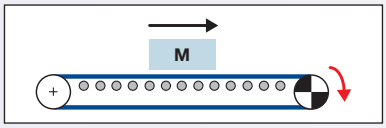
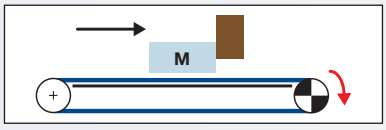
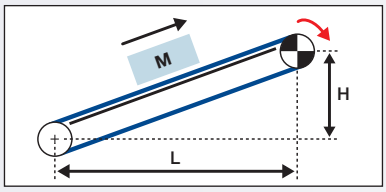
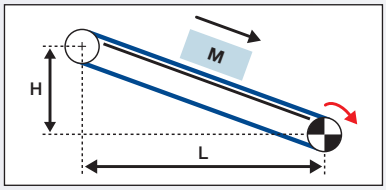
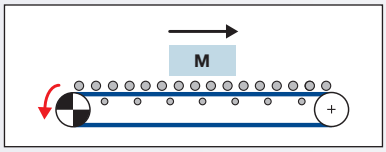
Into the selected category, choose the quality of belt whose general caracteristics, such as **resistance, hardness, friction coefficient, stretch, operating temperature**... are the closest to the ones your are looking for.

Exemples :

- In case of accumulation of the products transported on the belt, choose the quality with the lowest friction coefficient.
- To convey heavy loads, choose the strongest and less stretchy quality.

NB: The stretch of low-hardness belts (85 and 90 shA), such as SOUPLEX, POLY/FLEX and DEL/FLEX, allows you to mount them with pretension (shortened of a length that corresponds to the elongation that the belt would need to work properly), and in some cases to avoid the using of a tensioning system.
The mounting of the hardest belts (95 and 100 shA) and/or reinforced belts requires the using of a tensioning system or tensioning tools (page 34).

SYMBOLE	MEASURES	DESIGNATION	BELT CHARACTERISTIC (in catalogue)
M	Kg	Transported load	
Mmax	Kg	Maximum load limit per belt	
Mtotal	Kg	Maximum load limit on all the belts	
Mr	Kg	Weight of all the tangentially driven rollers	
L	m	Conveyor length	
H	m	Conveyor height	
F	daN	Minimum traction force for the continuous driving of the load **M**	
F'	daN	Minimum traction force for full-loaded starts with the load **M**	
Ft	daN	Traction force of the chosen belt	**X**
t	%	Stretch corresponding to the traction force of the belt **Ft**	**X**
Cfp		Friction coefficient on the transported product on the belt	
Cf		Friction coefficient of the belt on its runner	**X**
Cr		Rolling coefficient of the belt on its support (0.05 to 0.1 according to the conditions: smooth support, bearings,...)	
Cs		Safety coefficient	

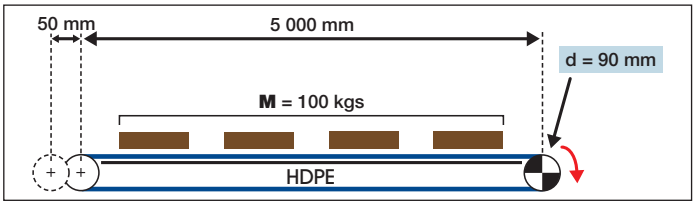
type of conveyor	simplified calculation of the needed traction force to drive a specific load	simplified calculation of the maximum load limit per belt
 CONVEYOR WITH RUNNERS	**F = M x Cf**	**Mmax = Ft / Cf**
 CONVEYOR WITH SUPPORT PULLEYS	**F = M x Cr**	**Mmax = Ft / Cr**
 CONVEYOR WITH ACCUMLULATION	In case of accumulation, take into account the friction coefficient of the product to convey on the belt. You will add this data to the friction coefficient of the belt on its runner : **F = M x (Cf + Cfp)**	**Mmax = Ft / (Cf + Cfp)**
 UPWARD CONVEYOR	If your conveyor is inclined, consider the difference in height : **F = M x Cf + M x (H / L)**	**Mmax = Ft / (Cf + H / L)**
 DOWNWARD CONVEYOR	**F = M x Cf - M x (H / L)**	**Mmax = Ft / (Cf - H / L)**
 CONVEYOR WITH TANGENTIALLY DRIVEN ROLLERS	Always take into account the weight of all the tangentially driven rollers in your calculations. **F = (M + Mr) x Cr**	**Mmax = (Ft / Cr) - Mr**
For all type of conveyors, in case of **STOP-AND-GO DRIVING** (full-loaded starts) :	The traction force **F** determined above must be multiplicated by 2. **F' = F x 2**	As you calculate **Mmax**, only take into account half the traction force of the selected belt. Replace **Ft** by **Ft/2**

1 / EXISTING MACHINE

CONSIDER THE CHARACTERISTICS OF THE CONVEYOR, OF THE TRANSPORTED PRODUCT, AS WELL AS THE GENERAL WORKING CONDITIONS.

CHOOSING THE MOST ADEQUATE BELT.

Continuous conveying of wood boards on two parallel 17 x 11 mm V belts sliding on HDPE runners.



Choosing the belt category (page 41)

Medium length
Medium Load
Small pulleys compared to the conveyor's length

→ **CATEGORY 2**

Choosing the quality of the belt

Long belt > 10 metres →
Small pulleys →
Short tensioning system : 50 mm maxi →

reinforced belt
cogged belt
SOUPLEX reinforced or H16

Checking the pulley diameter out

d = 90 mm

We strongly recommend to respect the recommended pulley diameter. Too small pulleys would damage the belt and reduce its life time.

	SOUPLEX reinforced & cogged 17 x 11 mm	H16 reinforced & cogged 17 x 11 mm
ø recommended (mm)	110	130
ø mini (mm)	**90**	110

Calculating the maximum load limit

Total load on the conveyor (kgs) **M = 100 kgs**

	SOUPLEX reinforced & cogged 17 x 11 mm	H16 reinforced & cogged 17 x 11 mm
Traction force of the selected belt **Ft** (daN)	40	50
Corresponding elongation **t** (%)	1	1.5
Friction coefficient on HDPE **Cf**	0.35	0.25
Maximum load limit per belt **Mmax** (Kgs) = **Ft / Cf**	114	200
Maximum load limit on 2 belts **Mtotal** (Kgs) = **2 x Mmax**	**228**	**400**
Safety factor **Cs = Mtotal / M**	**2.3**	**4**

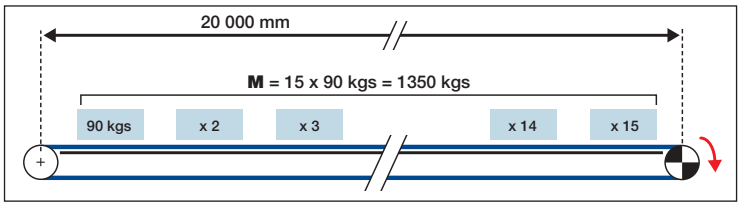
SOLUTIONS

Both selected belts could easily convey this load of 100 kgs. Nevertheless, the H16 17 x 11 mm V belt requires much bigger pulleys than the 90 mm of the described conveyor. On the other hand, the reinforced and cogged 17 x 11 mm SOUPLEX can bend around pulleys down to 85 mm diameter.
The most apropriate belt for this application is our **reinforced and cogged 17x11mm SOUPLEX, mounted with 1% pretension.**

2/ PROTOTYPE

CHOOSING THE RIGHT BELT ACCORDING TO CONVEYOR DESIGNER'S SPECIFICATIONS.
DESIGNING A CONVEYOR IN ACCORDANCE WITH THE CHARACTERISTICS OF A PARTICULAR BELT.

Conveyor for an industrial cheese-dairy conveying 15 round cheeses of 90 kgs each along 20m. Stop-and-go driving.



choosing the belt category (page 41)

Long conveyor
Heavy load
Full-loaded starts
→ **CATEGORY 3**

choosing the quality of the belt

High traction force →
Low friction coefficient →
Easy to clean →
reinforced belt DEL/ROC or DEL/SAN round belt

calculating the traction force to drive this load

Total load on the conveyor (kgs) **M = 1350 kgs**

		reinforced & round DEL/ROC			reinforced & round DEL/SAN		
		on runner stain. steel	on runner HDPE	on support pulleys	on runner stain. steel	on runner HDPE	on support pulleys
Friction coefficient of the belt	**Cf**	0.5	0.15	0.1	0.55	0.2	0.1
Continuous traction force	**F** (daN) = **M x CF**	675	203	135	743	270	135
Traction force for full-loaded start	**F'** (daN) = **F x 2**	**1350**	**405**	**270**	**1486**	**540**	**270**

choosing the section and the number of belt(s)

Choosing, among the selected category, how many belts and of which section are necessary to reach the necessary traction force, taking into account safety factor of about **1.5**.

		reinforced & round DEL/ROC ø 18 mm Traction force : Ft = 200 daN			reinforced & round DEL/SAN ø 18 mm Traction force : Ft = 125 daN		
traction force for full-loaded starts	**F'** (daN)	**1350**	**405**	**270**	**1486**	**540**	**270**
Necessary number of belts	**Nbre = F' / Ft**	7	**3**	**2**	12	5	**3**
Total traction force	**Ftotal** (daN) = **Nbre x Ft**	1400	**600**	**400**	1500	625	**375**
Safety coefficient	**Cs = Ftotal / F'**	1.04	**1.5**	**1.5**	1.01	1.16	**1.4**

SOLUTIONS

Several options are possible →
3 reinforced DEL/ROC round belts d.18mm on HDPE runner
2 reinforced DEL/ROC round belts d.18mm on support pulleys
3 reinforced DEL/SAN round belts d.18mm on support pulleys

Consider the recommended pulley diameters →

Reinforced DEL/ROC D.18 mm	Reinforced DEL/SAN D.18 mm
ø 360 mm	ø 250 mm

The traction forces of the belts selected through our example (200 daN for reinforced DEL/ROC diam. 18 mm and 125 daN for reinforced DEL/FLEX diam. 18 mm) are indicated in our catalogue at the following respective elongations: 2% and 1,5%. We strongly recommend to consider these tensions while mounting the belts on the machine, for the conveyor to work properly.