Roller guides

FK + GG for counterweight and car
RFG + RFGK for spring loaded performance
RS for L-frames

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ETN-Roller guides GG + FK

The **roller guides GG and FK** were developed for counterweight and yoke guide respective centre guided rope and hydraulic elevators.

The roller trestle consists of a high-strength light metal alloy.

All our FK rollers have two ball bearings and a **running coating** out of **Vulkollan®**. The standard hardnesses are **93°** and **80° Shore A**.

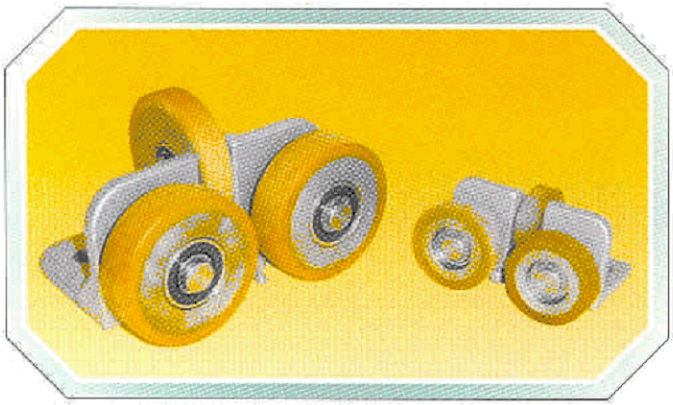
Vulkollan® has a small rolling resistance. It is noise and oscillation absorbing with the least settling phenomenon of all highly loadable elastomers and has an excellent resistance to wear. It is resistant to fat and oil.

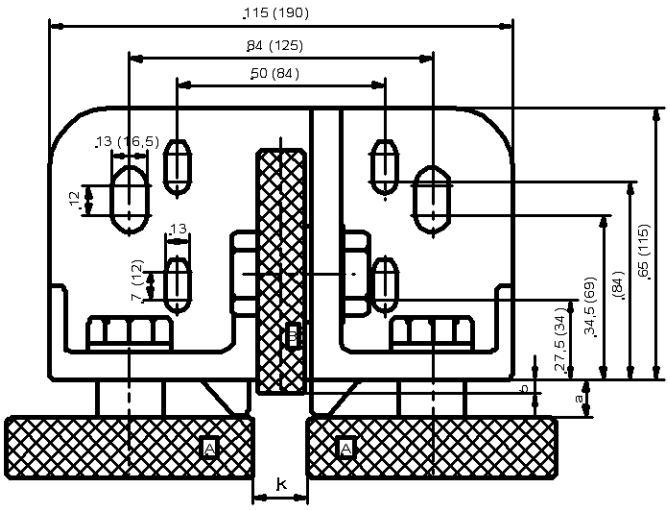
The rollers are adjustable with **oblong holes**. Compared to the version with the eccentric the front rollers are always parallel. **The rolling coatings can not be squeezed disproportionately** like during the eccentric adjusting. Thereby continuous deforming (flattening), erratically run and distortion in the roller trestle are prevented.

The guide face roller is adjusted by the oblong holes in the roller trestle.

The **dimensions** for the fixing holes are chosen for an easy replacement with guide shoes WSMK, WSM and WSML.

The guides are delivered pre-assembled according to your information. See table below for different variations.





Art.-no.	Type	VU-coating [° Shore A]	Roller A [mm]	Roller B [mm]	Total height [mm]	Length [mm]	Max. capacity at 2,5 m/s	a [mm]	k [mm]
Roller guide **GG** for counterweight and yoke guide									
300 050	GG 1	93	Ø 50 x 18	Ø 50 x 15	65	94	900 N	10	5 - 16
300 051	GG 2	93	Ø 60 x 18	Ø 50 x 15	70	94	1.050 N	10	5 - 16
300 052	GG 3	80	Ø 50 x 18	Ø 50 x 15	65	94	450 N	10	5 - 16
300 053	GG 4	80	Ø 60 x 18	Ø 50 x 15	70	94	550 N	10	5 - 16
300 054	GG 5	93	Ø 70 x 20/12	Ø 50 x 15	75	96	1.050 N	10	5 - 9
300 055	GG 6	80	Ø 70 x 20/12	Ø 50 x 15	75	96	450 N	10	5 - 9
Roller guide **FK** for car									
300 060	FK 1	93	Ø 100 x 25	Ø 100 x 20	125	155	2.100 N	6	5 - 20
300 061	FK 2	93	Ø 100 x 30	Ø 100 x 20	125	160	2.500 N	6	5 - 20
300 062	FK 3	93	Ø 100 x 40	Ø 100 x 20	125	163	3.100 N	6	5 - 20
300 063	FK 4	93	Ø 125 x 30	Ø 100 x 20	137,5	160	2.800 N	6	5 - 16
300 064	FK 5	93	Ø 125 x 40	Ø 100 x 20	137,5	163	3.700 N	6	5 - 16
300 065	FK 6	96 (93)	Ø 125 x 40	Ø 100 x 20	137,5	163	5.200 N	6	5 - 16

Further details upon request

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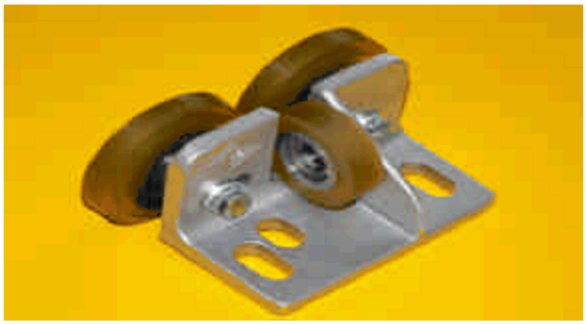
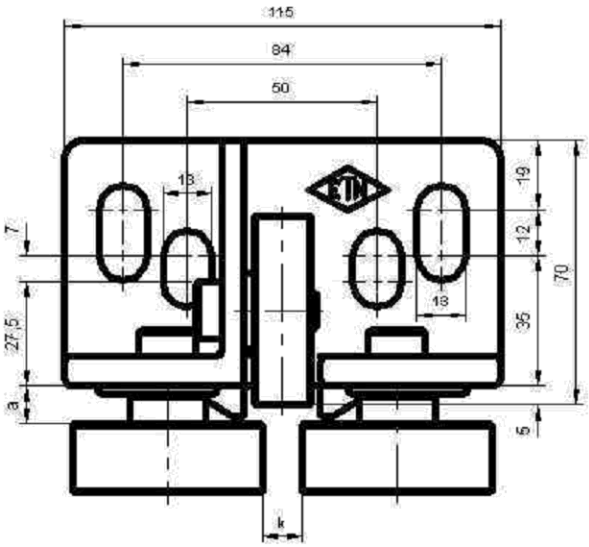
ETN – Roller guide GG

With covering out of Vulkollan® 65° Shore A





Our roller guides GG with 65° Shore A roller were developped specially for silent counter weight.

Like the others already well known versions of our GG roller guides the roller trestle is made out of a highly strong light metal alloy.

The rollers are fully adjustable through oblong holes. This system has been proven worthwhile since years.

In contrast to an adjustment with the eccentric, the rollers are always at the same high and the rolling coatings can not be squeezed.
Being very critical if this would happen to the 65° shore version

Vulkollan® has a small rolling resistance, it is noise and oscillation absorbing and had the lowest settling phenomenon of all highly loadable elastomers. To those characteristics we also add its excellent resistance to wear and tear and agains oils and grease.
All rollers have a running coating

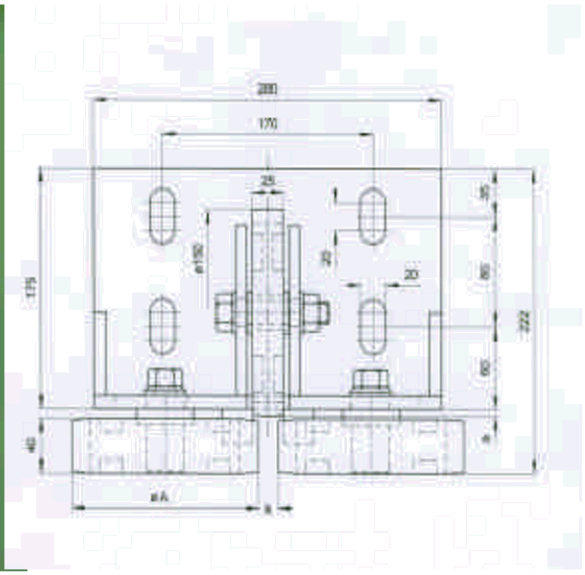
This softer version of Vulkollan VU 65° Shore A equalises roughnesses and has the effect of the spring loaded version

Art-Nr.	Type	VU-covering (°Shore A)	Roller A (mm)	Roller B (mm)	Total high (mm)	Lenght (mm)	Max. load. at 2,5 m/s	a (mm)	k (mm)
300053-W	GG 7	65	Ø 60 x 18	Ø 50 x 15	70	93	385	10	5-16
300055-W	GG 8	65	Ø 70 x 20/12	Ø 50 x 15	75	95	315	10	5-9

GG-Rollenführungen.doc 25.02.07

ETN –Roller guides Type FK

For stronger cable and hydraulic lifts



They are a complement to the already since years proven programme of our **GG- and FK guides**
The roller trestle is made of steel in a zinc version. Upon request we can lack it in almost any colour shade
All rollers are equiped with two ball bearings and have a slightly rounded and running coating out of Vulkollan®
Vulkollan® has a low rolling resistance, it is noise and oscillation obsorbing with the least setting phenomenon of all highly loadable elastomers and has an excellent resistance to wear and tear. It is resistent to grease and oils.

The rollers can be graduated throught oblong holes in the roller trestle.
In contrast to the version with the eccentric, ther rollers are always on the same level one to another. Because of the lower pressure the covering can not be deformed manually.

A lasting deformation, a noisy run of the rollers and distortion in the trestle are this way prevented.

The guide face roller can be graduated through oblong holes in the roller trestle.

The roller guides are delivered pre-assembled accoriding to your wishes

Art-N°.	Type	VU-Cover (Shore A)	Roller A (mm)	Roller B (mm)	Total high (mm)	Depth (mm)	max. load at 2,5 m/sec	a (mm)	k (mm)
300 066	FK 7	93°	150 x 40	150 x 25	180	222	4900 N	5	9-20
300 067	FK 8	93°	180 x 40	150 x 25	180	222	5800 N	5	9-20
300 068	FK 9	93°	200 x40	150 x 25	200	222	6400 N	5	9-19

FK 7-9 14.02.2007

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ETN-Spring-loaded Roller Guide RFGK + RFG

The **spring-loaded roller guides RFGK** and **RFG** are developed for centre guided rope and/or high speed cable elevators (v? 5 m/s).
Our rollers have a **running coating** from **Vulkollan** and offer a excellent running confort. The standard hardness is **85° shore A**.

Like all our rollers here was also choosen **Vulkollan®** because of its ideal caracteristics as roller coating (see GG + FK).

Vulkollan® has a small rolling resistance. It is noise and oscillation absorbing with the least settling phenomenon of all highly loadable elastomers and an excellent resistance to wear. It is **resistant to fat and oil**.

The damping of guide face and guide roller will be ensured by a **combination of Vulkollan homogeneous and cellular** with very good springing qualities.

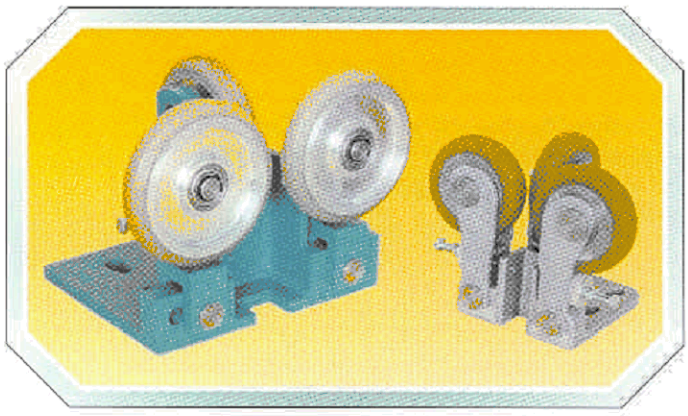
The main advantage over steel spring is the nonlinear load deflection curve for spring of the absorbing material.

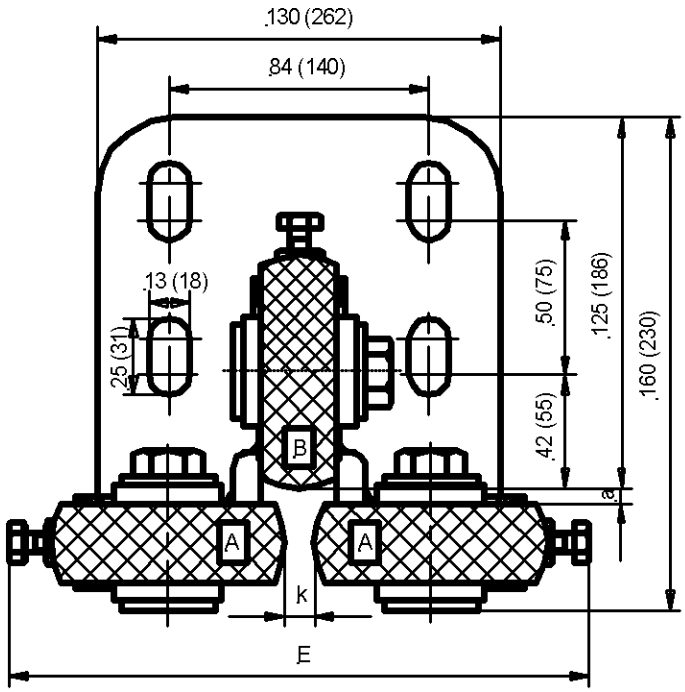
Because of the typical progressive attenuation characteristic curve, **a break down is impossible** – there is no vibration afterwards. Moreover the **absorption is absolutely noiseless**.

The spring deflection and the damping action are **infinitely variable**.

The dimensions for the fixing holes are chosen for an **easy replacement** with comparable roller guides.

The guides are delivered pre-assembled according to your information. See table below for different variations.





Art.-No.	Type	VU-coating [° Shore A]	Roller A [mm]	Roller B [mm]	Hight [mm]	Depht [mm]	Widht E [mm]	max. car load [kg]	a [mm]	k [mm]
RFGK spring loaded roller guide, small										
300 090	RFGK 1	85	Ø 75 x 25	Ø 75 x 25	153	160	˜ 175	2.000 *)	1	5 - 16
300 090-A	RFGK 1A ***)	85	Ø 75 x 25	Ø 100 x 25	180	160	˜ 215	2.000 *)	1	5 - 16
300 091	RFGK 2	85	Ø 100 x 25	Ø 100 x 25	180	160	˜ 215	2.500 *)	1	5 - 16
300 091-A	RFGK 2A***)	85	Ø 100 x 25	Ø 100 x 25	180	160	˜ 215	2.500 *)	1	5 - 16
RFG spring loaded roller guide										
300 080	RFG 1	85	Ø 150 x 30	Ø 150 x 30	255	230	˜ 320	2.500 **)	14	9 – 20
300 082	RFG 3	85	Ø 200 x 30	Ø 200 x 30	280	230	˜ 430	3.500 **)	14	9 – 20
300 080-A	RFG 5****)	85	Ø 150 x 30	Ø 200 x 30	280	230	˜ 430	2.500 **)	14	9 – 20

*) max. car load at 4 m/s;
**) max. car load at 5 m/s
) for short rail heads as i.e. rail measurement 50,0 x 50,0 x 5,0 mm – roller coating at RFGK 1A and RFGK 2A recordered*) for short rail heads

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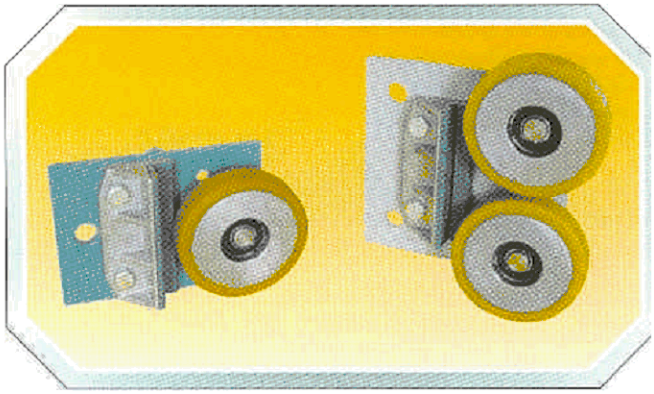
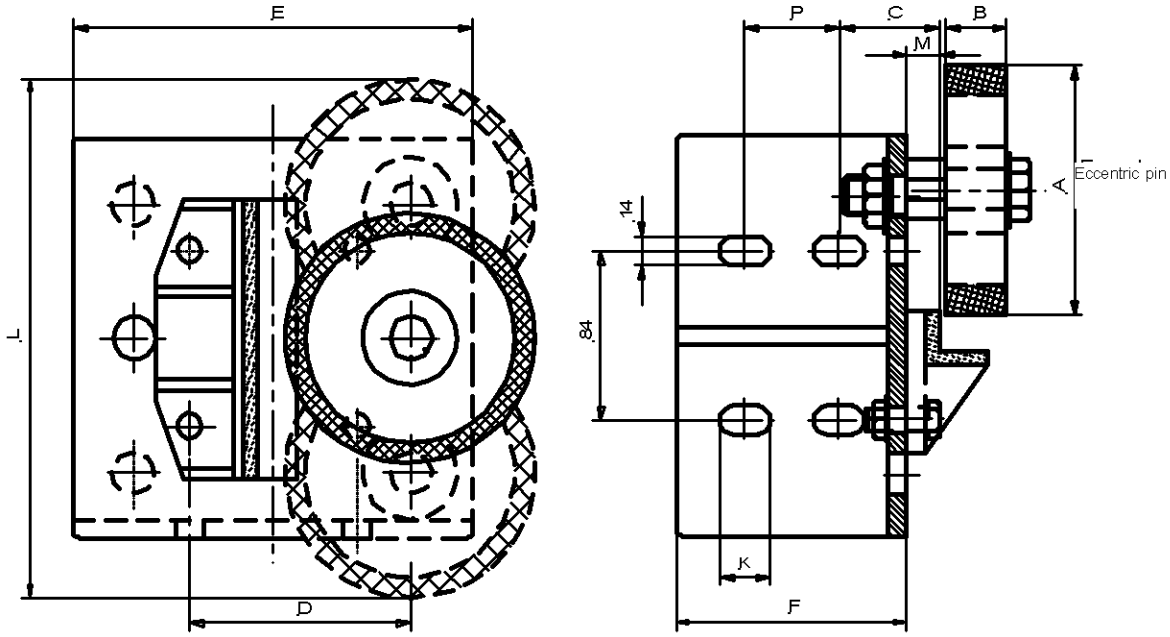
ETN – Roller guides RS for L-frames

The roller guides RS consist of a steel trestle and depending on the load, of one or two rollers with **Vulkollan** coating and eccentric pin.

For the face guiding and against possible uneven moviments we use a divided guide shoe HSMG with inlay from ETN-HM-1000-S so that it can be run without oil.





Type	Art.no.	Roller	A	B	C	D	E	F	K	L	M	P	VU-coating	Max capacity **)
		[pcs]	[mm]										[° Shore A]	[N]
RS I roller guide for L-frame														
RS 1	300 070	1	125	30	50	111	200	75	35	150	16,5	-	93	2.800
RS 3	300 072	1	100	40	50	98,5	200	75	35	150	16,5	-	93	3.300
RS 4	300 073	1	125	40	50	111	200	75	35	150	16,5	-	93	3.750
RS 5	300 074	1	150	40	50	123,5	220	75	35	150	16,5	-	93	4.900
RS 7	300 076	1	150	40	50	123,5	220	75	35	150	16,5	-	96	6.400
RS II roller guide for L-frame														
RS 2	300 071	2	125	30	50	111	200	115	25	260±4 *)	16,5	47	93	5.600
RS 6	300 075	2	125	40	50	111	200	115	25	260±4 *)	16,5	47	93	7.500
RS 8	300 077	2	125	40	50	111	200	115	25	260±4 *)	16,5	47	96	9.800

*) according to adjustment of the eccentric pin
**) load at 1 m/s; at higher speed reduced load carrying ability

Our roller guides are designed for guide rails up to 16 mm width – for other guide rail widths on request
Data should only give you basic information, however there is no legally binding on these data.

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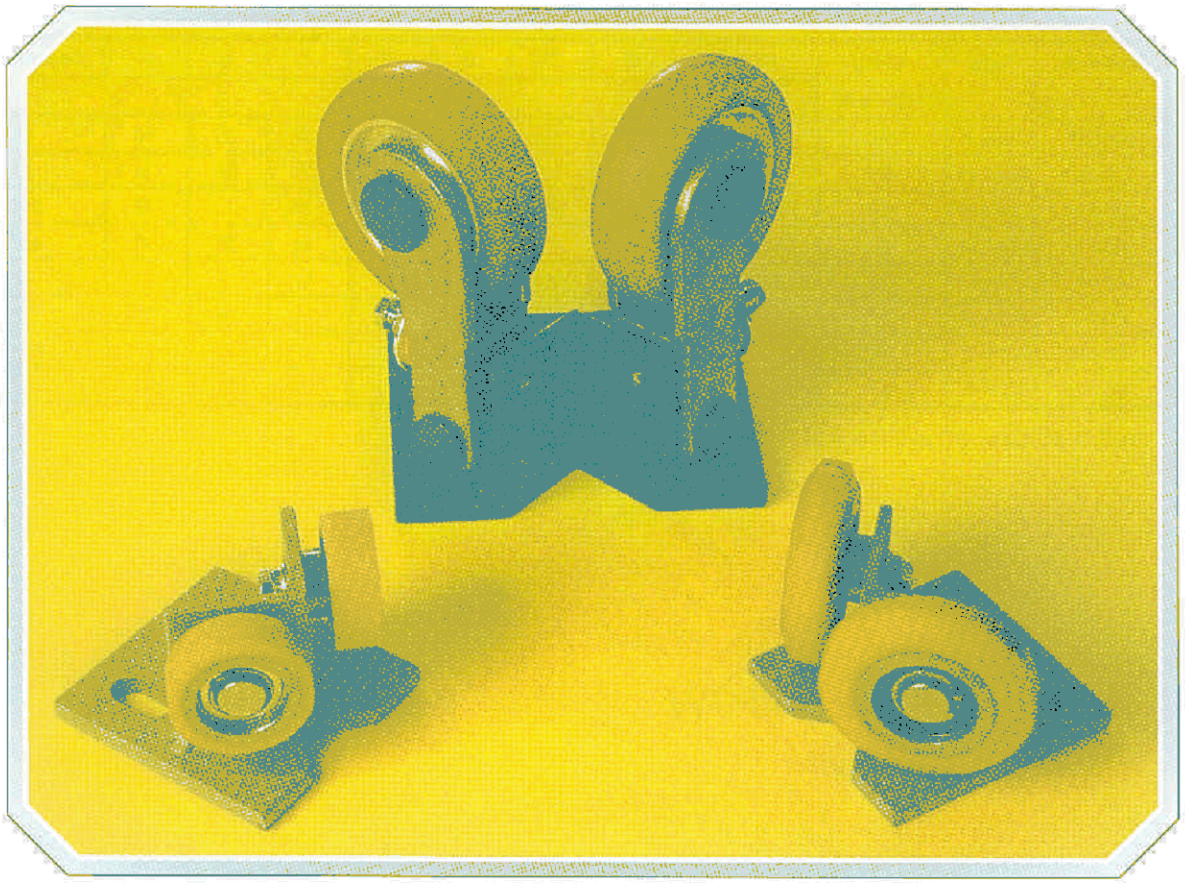
ETN[?] - Spring loaded roller guide at right angles GGW and RFGW



ETN - spring loaded roller guide at right angles RFGW

Our **spring-loaded roller guide at right angles RFGW** was developed for confortable elevators with rails at right angles.

The springing occurs like the rollers RFG + RFGK through an **elastic spring out of Vulkollan® cell and homogeneous.**

Both materials are ideal for this use. There is **no oscilation** as in the case of steel so that the **rollers run extremely calm.** A **metal noise** is therefore also **out of question**.

The material is resistent to oils and grease and can be put in use constantly without a break.

The spring deflection and the damping action can be regulated easily.

The rollers have a coating out of Vulkollan® with approx. 80° Shore A.
Among all elastic materials Vulkollan® is the one that has the highest resistance and at the same time best capacity to recover after loading.

The roller guides are made pre-assembled and delivered according to your request. Special versions with larger rollers (ø100 mm) are also possible.

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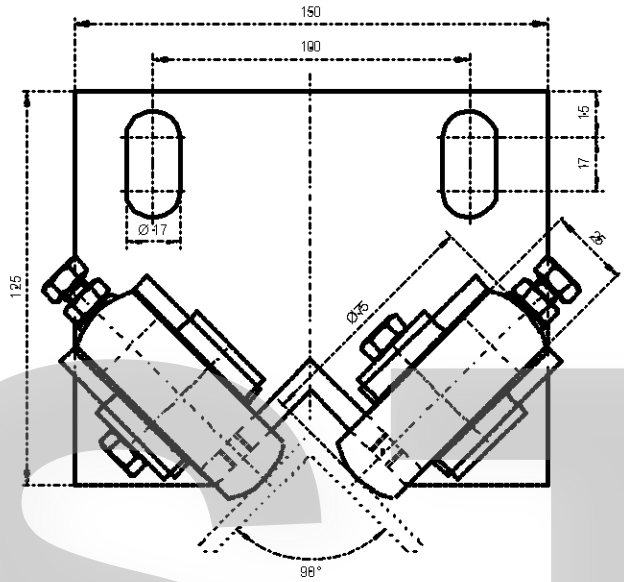
Stiff roller guides at right angles GGW
Dimensions

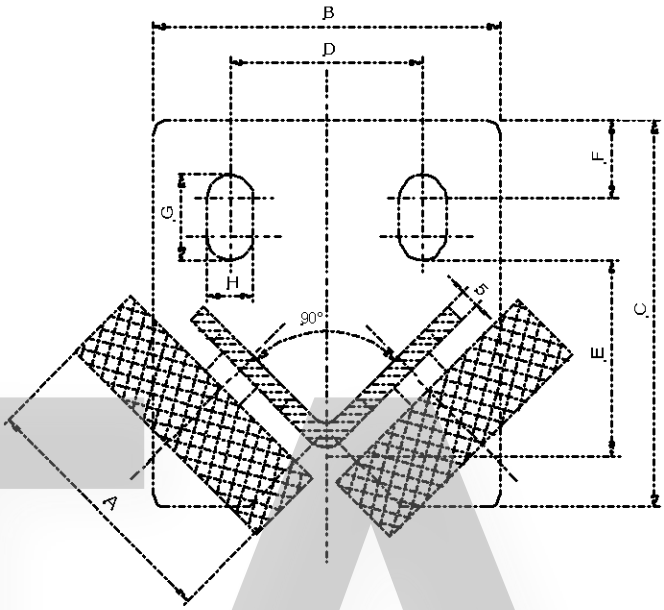
Art.no.	Type	Coating	Roller A	B	C	D	E	F	G	H	Total height
		[shore A]	[mm]								
300 057	GGW 1*	93°	50 Ø x 18	90	100	50/60	45	20	25	13	75
300 058	GGW 2*	93°	60 Ø x 18	90	100	50/60	45	20	25	13	80
300 059	GGW 3*	93°	75 Ø x 20/10	90	100	50/60	45	20	25	13	87,5
300 056	GGW 4*	80°	75 Ø x 20/10	90	100	50/60	45	20	25	13	87,5
300 046	GGW 5	93°	50 Ø x 18	115	125	80,5	70	15	36	17	77
300 047	GGW 6	93°	60 Ø x 18	115	125	80,5	70	15	36	17	82
300 048	GGW 7	93°	75 Ø x 20/10	115	125	80,5	70	15	36	17	89,5
300 049	GGW 8	80°	75 Ø x 20/10	115	125	80,5	70	15	36	17	89,5

* dimensions D 50 and/or 60 mm possible

Roller guide RFGW
(spring-loaded)

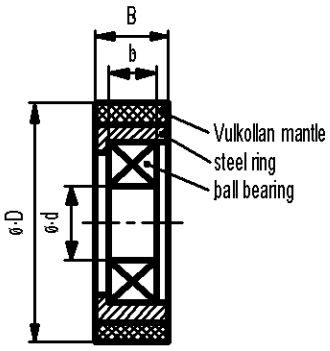


Roller guide GGW
(stiff)



Roller programme VSL

Rollers consisting of steel ring, ball bearing and Vulkollan mantle



Main characteristics of rollers:

- low roller friction resistance
- hard wearing materials
- extremely smooth running
- suitable for heavy loads
- excellent resistance to wear and tear
- resistance to oil, fat and ozon

Applications:

- support rollers for conveyors
- rollers for lifts
- guide roller for sliding doors
- rolls for escalators and moving walkways

D [mm]	d [mm]	B [mm]	b [mm]	Coating-hardness [° shore A]	Ball bearing DIN 625	Load bearing (kp) at v = 1 m/s	Art.-no.
40	10	15	8	93°	6000-ZZ	60	450 002*
40	10	27	8	93°	6000-ZZ	75	450 001*
50	10	15	8	93° / 80°	6000-ZZ	85 / 50	450 004* / 452 004*
50	17	18	10	93° / 80°	6003-ZZ	95 / 60	450 003* / 452 003*
60	17	18	10	93° / 80°	6003-ZZ	110 / 65	450 005* / 452 005*
60	20	20	12	93°	6004-ZZ	120	450 006*
70	20	15	12	93°	6004-ZZ	110	450 007*
70	20	20	12	93°	6004-ZZ	130	450 024*
70	25	25	15	93°	6205-ZZ	150	450 025
75	17	20/10**	12	93° / 80°	6203-2RS	100 / 60	450 028* / 452 007*
80	20	25	15	93°	6304-ZZ	170	450 043*
80	25	20	15	93°	6205-ZZ	150	450 009*
80	25	25	15	93°	6205-ZZ	170	450 008*
90	25	20	15	93°	6205-ZZ	170	450 010
90	25	25	15	93°	6205-ZZ	190	450 011*
100	20	20	14	93° / 80°	6204-ZZ	170 / 100	450 056* / 450 067*
100	20	25	15	93°	6304-ZZ	210	450 032*
100	20	30	14	93°	6204-ZZ	250	450 055*
100	20	40		93° / 80°	2 x 6204-ZZ	330 / 200	450 058* / 450 061*
100	25	20	15	93°	6205-ZZ	190	450 012*
100	25	25	15	93°	6205-ZZ	210	450 013*
120	25	25	15	93°	6205-ZZ	250	450 019*
120	25	35	15	93°	6205-2RS	350	450 063
125	20	30	14	93°	6204-2RS	280	450 031*
125	20	40		96° / 93°	2 x 6204-ZZ	525 / 375	450 077* / 450 054*
125	25	20	15	93°	6205-ZZ	240	450 021*
125	25	25	15	93°	6205-ZZ	260	450 022*
125	25	30	12	93°	6005-ZZ	280	450 035*
125	30	30	19	93°	6306-ZZ	280	450 034*
125	30	40		93°	2 x 6006-2RS	375	450 036
125	35	22/12**	14	93°	6007-2RS	130	450 065*
145	30	40		93°	2 x 6006-2RS	470	450 037
150	20	30/10**	24	93°	2 x 6004-ZZ	140	450 042*
150	20	30***		93° / 80°	2 x 6004-ZZ	250 / 150	450 072* / 450 069*
150	20	40 / 44		96° / 93°	2 x 6204-ZZ	680 / 490	450 075* / 450 053*
150	25	40		93°	2 x 6005-ZZ	490	450 040*
155	25	19**	17	65°	6305-ZZ	20	450 041*
180	20	35	14	93°	6204-2RS	510	450 033*
200	20	30***		93° / 80°	2 x 6004-ZZ	350 / 210	450 074* / 450 073*
200	35	35/27**		93°	2 x 6007-ZZ	520	450 068*
250	25	40		93°	2 x 6204-ZZ	880	450 060*

* in stock ** mantle conic *** mantle round; aluminium ring 19.04.00 VSL_TAB.XLS

The indicated values for load bearing have been empirically determined and are only intended as a guide to size selection.

For further sizes please send us your request

The data is to be taken as based on our best information, but it is in no way legally binding

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