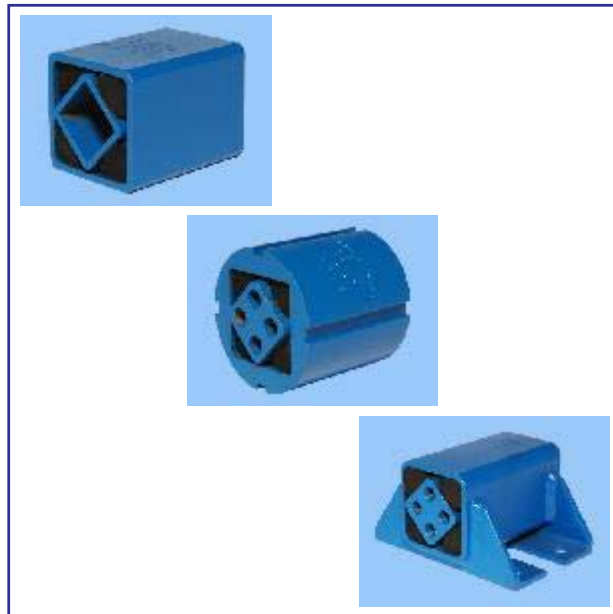


Townsend Bearings



Rosta Rubber Suspension Units



Product Range "Modules"



ROSTA Rubber Suspension Unit Type DR-S

Page 19

Housing made out of steel, inner square section made out of steel tube for mounting "plug-in" lever arms on one or both sides. The inserted part should be at least three times longer than the clearance "C". Up to type DR-S 18 the lever arms can be mounted by one through-bolt and the levers are then fixed by frictional force at any position within 360°. Both ways of fixation are particularly well suited for motions at the plus **or** minus angular range (no alternating motions across the neutral axis = play). All metal parts are paint-finished.



ROSTA Rubber Suspension Unit Type DR-A/C

Pages 20/21

Steel housing with inner square section made of light alloy with four small bores or one big through bore. Levers can be mounted on one or on both sides by means of bolts. Type **DR-A** with two or four through bores, especially constructed for transmitting alternating motions by passing the neutral axis in either direction. Type **DR-C** with central bore. The frictional force of this type assures a safe fixation of the lever arms in any position. All metal parts are paint-finished.



ROSTA Rubber Suspension Unit Type DK-S

Page 22

Round housing made of light alloy profile, inner square section made out of steel tube, the "plug-in" lever arms can be mounted on one or both sides. The inserted part should be at least three times longer than the clearance "C". This kind of connection is particularly well suited for angular motions at the plus **or** minus range (no alternating motions across the neutral axis = play). All metal parts are paint-finished.



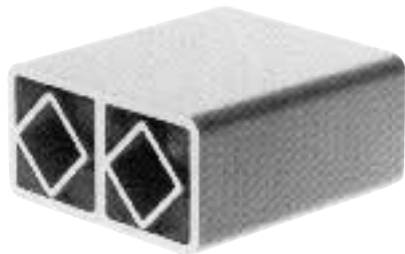
ROSTA Rubber Suspension Unit Type DK-A

Page 23

Round housing and inner square section made of light alloy profiles, inner square section with four "through-bores", the lever arms can be bolted on and, if necessary, the bores can be tapped, too. Both ways provide an excellent connection without play which is necessary in order to transmit alternating motions by passing the neutral position in either direction. All metal parts are paint-finished.



Product Range



ROSTA Rubber Suspension Unit Type DO-S

Page 24

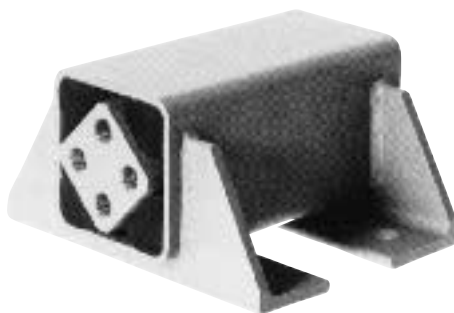
Housing up to size 45 made out of light alloy profile, size 50 made out of spheroidal graphite cast iron, inner square section made out of steel, the "plug-in" lever arms are to be attached on one or both sides. Please note, the inserted length should be at least three times longer than the clearance "C". Up to size DO-S 18 the lever arms can also be mounted by one "through-bolt", the levers are held by the resulting frictional force. Thereby, the positioning of the levers at any position within 360° is admissible. Both ways are particularly well suited for alternating motions at the plus **or** minus angular range. All metal parts are paint-finished.



ROSTA Rubber Suspension Unit Type DO-A

Page 25

Housing up to size 45 made out of light alloy profile, size 50 made out of spheroidal graphite cast iron, inner square section made out of light alloy profile with four "through-bores". The levers can be mounted on one or both sides by means of bolts. It provides an excellent attachment without play which is most important in order to transmit alternating motions by passing the neutral axis in either direction. All metal parts are paint-finished.



ROSTA Rubber Suspension Unit Type DW-A

Page 26

Housing with welded-on brackets and inner square section made out of steel, inner square section with four threaded holes on both sides, suitable for mounting lever arms and attachments clearance-free. The unit has to be bolted on machine part through the welded-on brackets. These units are designed to transmit alternating motions which occur in either direction, by passing the neutral position. All metal parts are paint-finished.



Product Range

ROSTA modules should be connected on machine parts/structures by means of the standardized clamps and brackets. Relevant welded connections would affect (overheat) the rubber inserts and damage the entire suspension device!



ROSTA Clamp Type BR (fitting all DR-elements)

Page 27

The clamps are supplied separately without bolts. They are standardized to fit exactly for the fixation and positioning of the ROSTA rubber suspension units type DR-S, DR-A and DR-C without any welding. For longer units two or more clamps are recommended. The clamps are paint-finished.



ROSTA Clamp Type BK (fitting all DK-elements)

Page 27

The clamps are supplied separately without bolts. They are standardized to fit exactly for the fixation and positioning of the ROSTA rubber suspension units type DK-S and DK-A by frictional force created by the bolted double clamp. For longer units two or more clamps are recommended. All clamps are paint-finished.



ROSTA Bracket Type WS

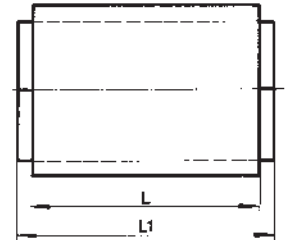
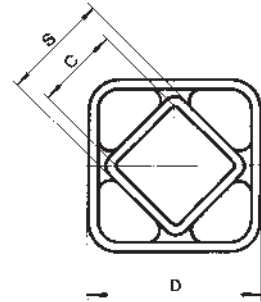
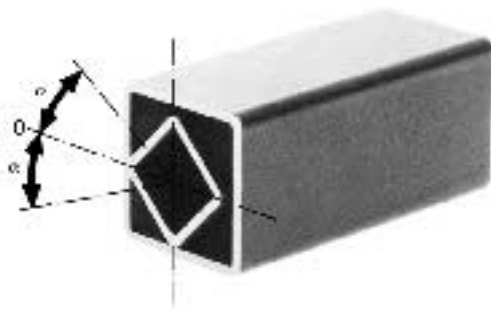
Page 27

This multi-purpose brackets make an easy screw connection possible on the inner squares of the ROSTA rubber suspension units type DR-A, DK-A and DO-A (as well as a housing fixation of the tensioner devices type SE). The base of the angle section can be positioned in both directions and offers together with the different clamps many combination possibilities of the element assembling. The brackets are paint-finished.

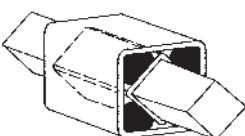


Rubber Suspension Unit

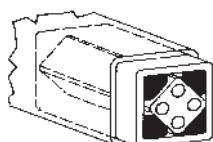
Type DR-S



Art. No.	Type	L	L1-0.3	C*	D**	S	Torque M in Nm at $\Delta \alpha$						Weight in kg
							5°	10°	15°	20°	25°	30°	
01 021 001	DR-S 11 x 20	20	25	8 ^{+0.25}	20 ^{+0.1}	11	0.3	0.8	1.3	2.0	2.9	4.0	0.04
01 021 002	DR-S 11 x 30	30	35	8 ^{+0.25}	20 ^{+0.1}	11	0.4	1.2	2.0	3.1	4.3	6.0	0.05
01 021 003	DR-S 11 x 50	50	55	8 ^{+0.25}	20 ^{+0.1}	11	0.7	2.0	3.4	5.1	7.2	10.0	0.08
01 021 004	DR-S 15 x 25	25	30	11 ^{+0.25}	27 ^{+0.2}	15	0.7	1.6	2.6	4.0	5.7	8.2	0.07
01 021 005	DR-S 15 x 40	40	45	11 ^{+0.25}	27 ^{+0.2}	15	1.1	2.5	4.2	6.4	9.2	13.2	0.12
01 021 006	DR-S 15 x 60	60	65	11 ^{+0.25}	27 ^{+0.2}	15	1.6	3.8	6.3	9.6	13.8	19.8	0.18
01 021 007	DR-S 18 x 30	30	35	12 ^{+0.25}	32 ^{+0.1}	18	1.9	4.5	7.5	11.0	15.0	20.6	0.12
01 021 008	DR-S 18 x 50	50	55	12 ^{+0.25}	32 ^{+0.1}	18	3.2	7.5	12.5	18.3	25.0	34.4	0.20
01 021 009	DR-S 18 x 80	80	85	12 ^{+0.25}	32 ^{+0.1}	18	5.1	12.0	20.0	29.3	40.0	55.0	0.32
01 021 010	DR-S 27 x 40	40	45	22 ^{+0.25}	45 ^{+0.2}	27	4.7	10.7	17.5	26.9	39.5	57.0	0.26
01 021 011	DR-S 27 x 60	60	65	22 ^{+0.25}	45 ^{+0.2}	27	7.0	16.0	26.3	40.3	59.3	85.5	0.39
01 021 012	DR-S 27 x 100	100	105	22 ^{+0.25}	45 ^{+0.2}	27	11.7	26.7	43.8	67.2	98.8	142.5	0.65
01 021 013	DR-S 38 x 60	60	70	30 ^{+0.25}	60 ^{+0.15}	38	13.0	30.4	50.6	78.0	113.0	162.0	0.67
01 021 014	DR-S 38 x 80	80	90	30 ^{+0.25}	60 ^{+0.15}	38	17.3	40.5	67.5	104.0	151.0	216.0	0.90
01 021 015	DR-S 38 x 120	120	130	30 ^{+0.25}	60 ^{+0.15}	38	26.0	60.8	101.2	156.0	226.0	324.0	1.32
01 021 016	DR-S 45 x 80	80	90	35 ^{+0.25}	72 ^{+0.15}	45	27.6	62.4	104.0	160.0	222.0	320.0	1.17
01 021 017	DR-S 45 x 100	100	110	35 ^{+0.25}	72 ^{+0.15}	45	34.5	78.0	130.0	200.0	278.0	400.0	1.45
01 021 018	DR-S 45 x 150	150	160	35 ^{+0.25}	72 ^{+0.15}	45	51.8	117.0	195.0	300.0	420.0	600.0	2.15
01 021 019	DR-S 50 x 120	120	130	40 ^{+0.25}	78 ^{+0.15}	50	51.0	133.0	250.0	395.0	570.0	780.0	2.10
01 021 020	DR-S 50 x 200	200	210	40 ^{+0.25}	78 ^{+0.15}	50	102.0	260.0	475.0	745.0	1070.0	1450.0	3.46
01 021 021	DR-S 50 x 300	300	310	40 ^{+0.25}	78 ^{+0.15}	50	150.0	385.0	700.0	1100.0	1590.0	2160.0	5.12



"inserted lever core"



"outer square plug-in connection"

Plug-in Connections

An easy and cost-effective connecting variant, if the unit is under pretension and acts in **only one direction**. Alternating oscillations in both directions would cause noise due to play compensation.

* "inserted lever core":

The connection square has to be of polished quality with tolerance from h 9 to 11. According to the specific connection, edge radius the squares might have to be machined.

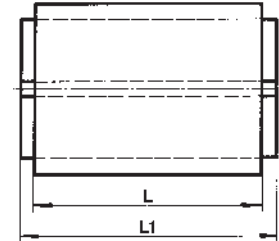
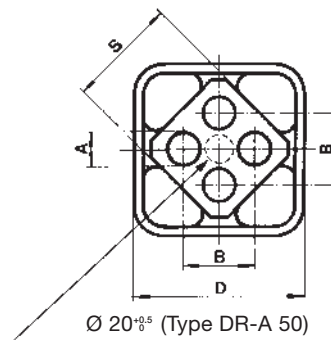
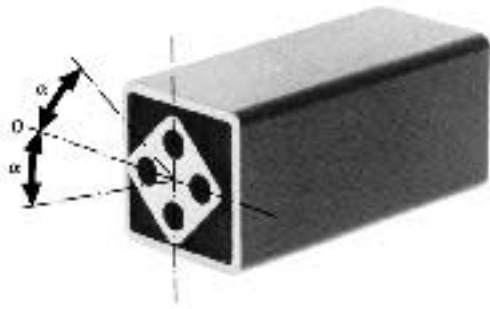
** "outer square plug-in connection":

The tolerance of the outer housing corresponds to commercial square tubes. The thickness of the additional protection paint of 40 to 80 μm has to be taken in consideration.

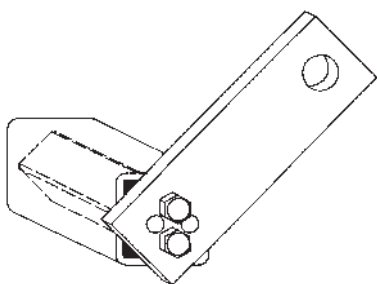


Rubber Suspension Unit

Type DR-A



Art. No.	Type	L	L1-0.3	A+0.5	B	D	S	Torque M in Nm at α						Weight in kg
								5°	10°	15°	20°	25°	30°	
01 011 001	DR-A 15 x 25	25	30	5	10 ^{±0.2}	27 ^{+0.2} _{-0.1}	15	0.7	1.6	2.6	4.0	5.7	8.2	0.06
01 011 002	DR-A 15 x 40	40	45	5	10 ^{±0.2}	27 ^{+0.2} _{-0.1}	15	1.1	2.5	4.2	6.4	9.2	13.2	0.10
01 011 003	DR-A 15 x 60	60	65	5	10 ^{±0.2}	27 ^{+0.2} _{-0.1}	15	1.6	3.8	6.3	9.6	13.8	19.8	0.15
01 011 004	DR-A 18 x 30	30	35	6	12 ^{±0.3}	32 ^{+0.1} _{-0.2}	18	1.9	4.5	7.5	11.0	15.0	20.6	0.10
01 011 005	DR-A 18 x 50	50	55	6	12 ^{±0.3}	32 ^{+0.1} _{-0.2}	18	3.2	7.5	12.5	18.3	25.0	34.4	0.16
01 011 006	DR-A 18 x 80	80	85	6	12 ^{±0.3}	32 ^{+0.1} _{-0.2}	18	5.1	12.0	20.0	29.3	40.0	55.0	0.25
01 011 007	DR-A 27 x 40	40	45	8	20 ^{±0.4}	45 ^{+0.2} _{-0.1}	27	4.7	10.7	17.5	26.9	39.5	57.0	0.25
01 011 008	DR-A 27 x 60	60	65	8	20 ^{±0.4}	45 ^{+0.2} _{-0.1}	27	7.0	16.0	26.3	40.3	59.3	85.5	0.36
01 011 009	DR-A 27 x 100	100	105	8	20 ^{±0.4}	45 ^{+0.2} _{-0.1}	27	11.7	26.7	43.8	67.2	98.8	142.5	0.60
01 011 010	DR-A 38 x 60	60	70	10	25 ^{±0.4}	60 ^{+0.15} _{-0.3}	38	13.0	30.4	50.6	78.0	113.0	162.0	0.60
01 011 011	DR-A 38 x 80	80	90	10	25 ^{±0.4}	60 ^{+0.15} _{-0.3}	38	17.3	40.5	67.5	104.0	151.0	216.0	0.79
01 011 012	DR-A 38 x 120	120	130	10	25 ^{±0.4}	60 ^{+0.15} _{-0.3}	38	26.0	60.8	101.2	156.0	226.0	324.0	1.16
01 011 013	DR-A 45 x 80	80	90	12	35 ^{±0.5}	72 ^{+0.15} _{-0.3}	45	27.6	62.4	104.0	160.0	222.0	320.0	1.00
01 011 014	DR-A 45 x 100	100	110	12	35 ^{±0.5}	72 ^{+0.15} _{-0.3}	45	34.5	78.0	130.0	200.0	278.0	400.0	1.22
01 011 015	DR-A 45 x 150	150	160	12	35 ^{±0.5}	72 ^{+0.15} _{-0.3}	45	51.8	117.0	195.0	300.0	420.0	600.0	1.83
01 011 016	DR-A 50 x 120	120	130	M12x40	40 ^{±0.5}	78 ^{+0.15} _{-0.3}	50	51.0	133.0	250.0	395.0	570.0	780.0	1.80
01 011 017	DR-A 50 x 200	200	210	M12x40	40 ^{±0.5}	78 ^{+0.15} _{-0.3}	50	102.0	260.0	475.0	745.0	1070.0	1450.0	3.00
01 011 018	DR-A 50 x 300	300	310	M12x40	40 ^{±0.5}	78 ^{+0.15} _{-0.3}	50	150.0	385.0	700.0	1100.0	1590.0	2160.0	4.47



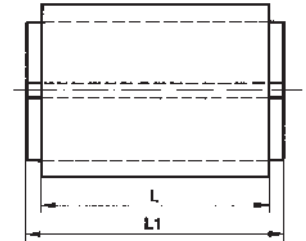
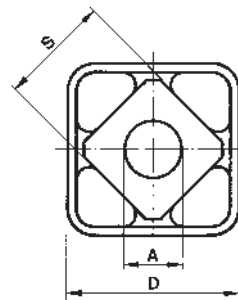
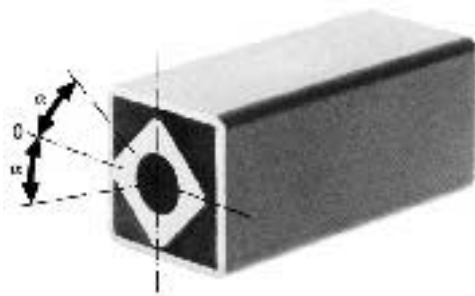
Bolted Lever Arm on Inner Square

Connection by means of 2 or 4 shaft screws across the inner square profile; or by means of set screws directly on the square profile (the customer-side thread tapping is required).

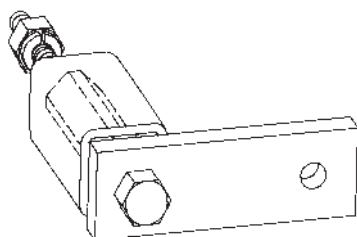


Rubber Suspension Unit

Type DR-C



Art. No.	Type	L	L1- ± 0.3	A	D	S	Torque M in Nm at $\pm \alpha$						Weight in kg
							5°	10°	15°	20°	25°	30°	
01 031 010	DR-C 15 x 25	25	30	10 ± 0.4	27 ± 0.2	15	0.7	1.6	2.6	4.0	5.7	8.2	0.06
01 031 011	DR-C 15 x 40	40	45	10 ± 0.4	27 ± 0.2	15	1.1	2.5	4.2	6.4	9.2	13.2	0.10
01 031 012	DR-C 15 x 60	60	65	10 ± 0.4	27 ± 0.2	15	1.6	3.8	6.3	9.6	13.8	19.8	0.15
01 031 001	DR-C 18 x 30	30	35	13 ± 0.2	32 ± 0.1	18	1.9	4.5	7.5	11.0	15.0	20.6	0.10
01 031 002	DR-C 18 x 50	50	55	13 ± 0.2	32 ± 0.2	18	3.2	7.5	12.5	18.3	25.0	34.4	0.16
01 031 003	DR-C 18 x 80	80	85	13 ± 0.2	32 ± 0.2	18	5.1	12.0	20.0	29.3	40.0	55.0	0.25
01 031 004	DR-C 27 x 40	40	45	16 ± 0.5	45 ± 0.1	27	4.7	10.7	17.5	26.9	39.5	57.0	0.25
01 031 005	DR-C 27 x 60	60	65	16 ± 0.5	45 ± 0.1	27	7.0	16.0	26.3	40.3	59.3	85.5	0.36
01 031 006	DR-C 27 x 100	100	105	16 ± 0.5	45 ± 0.1	27	11.7	26.7	43.8	67.2	98.8	142.5	0.60
01 031 007	DR-C 38 x 60	60	70	20 ± 0.5	60 ± 0.15	38	13.0	30.4	50.6	78.0	113.0	162.0	0.60
01 031 008	DR-C 38 x 80	80	90	20 ± 0.5	60 ± 0.15	38	17.3	40.5	67.5	104.0	151.0	216.0	0.79
01 031 009	DR-C 38 x 120	120	130	20 ± 0.5	60 ± 0.15	38	26.0	60.8	101.2	156.0	226.0	324.0	1.16
01 031 013	DR-C 45 x 80	80	90	24 ± 0.5	72 ± 0.15	45	27.6	62.4	104.0	160.0	222.0	320.0	1.00
01 031 014	DR-C 45 x 100	100	110	24 ± 0.5	72 ± 0.15	45	34.5	78.0	130.0	200.0	278.0	400.0	1.22
01 031 015	DR-C 50 x 120	120	130	30 ± 0.5	78 ± 0.15	50	51.0	133.0	250.0	395.0	570.0	780.0	1.80
01 031 016	DR-C 50 x 200	200	210	30 ± 0.5	78 ± 0.15	50	102.0	260.0	475.0	745.0	1070.0	1450.0	3.00

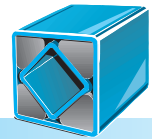


Bolted Lever Arm on Inner Square

Positioning of the lever arm by means of central shaft screw and resulting frictional connection. Ideal for continuous positioning of the lever arm.

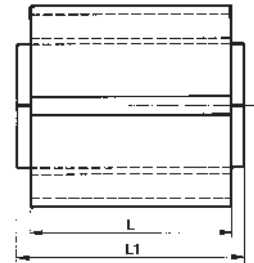
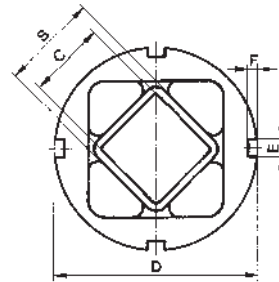
This connection should not be applied at alternating oscillations by big angular motions ($> \pm 10^\circ$).

In order to get the most best frictional connection, the paint cover on the core front should be removed prior bolting any connection part.



Rubber Suspension Unit

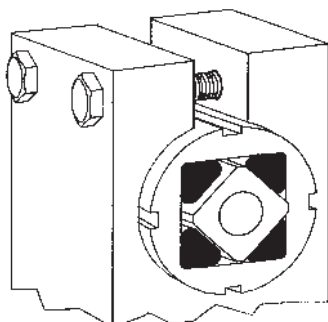
Type DK-S



Rubber Suspension Units

Art. No.	Type	L	L1-0.3	C*	D**	E	F	S	Torque M in Nm at α						Weight in kg
									5°	10°	15°	20°	25°	30°	
01 081 001	DK-S 11 x 20	20	25	8 ^{+0.25}	28 ^{+0.3}	4	2.5	11	0.3	0.8	1.3	2.0	2.9	4.0	0.03
01 081 002	DK-S 11 x 30	30	35	8 ^{+0.25}	28 ^{+0.3}	4	2.5	11	0.4	1.2	2.0	3.1	4.3	6.0	0.05
01 081 003	DK-S 11 x 50	50	55	8 ^{+0.25}	28 ^{+0.3}	4	2.5	11	0.7	2.0	3.4	5.1	7.2	10.0	0.07
01 081 004	DK-S 15 x 25	25	30	11 ^{+0.25}	36 ^{+0.3}	5	2.5	15	0.7	1.6	2.6	4.0	5.7	8.2	0.06
01 081 005	DK-S 15 x 40	40	45	11 ^{+0.25}	36 ^{+0.3}	5	2.5	15	1.1	2.5	4.2	6.4	9.2	13.2	0.10
01 081 006	DK-S 15 x 60	60	65	11 ^{+0.25}	36 ^{+0.3}	5	2.5	15	1.6	3.8	6.3	9.6	13.8	19.8	0.14
01 081 007	DK-S 18 x 30	30	35	12 ^{+0.25}	45 ^{+0.4}	5	2.5	18	1.9	4.5	7.5	11.0	15.0	20.6	0.13
01 081 008	DK-S 18 x 50	50	55	12 ^{+0.25}	45 ^{+0.4}	5	2.5	18	3.2	7.5	12.5	18.3	25.0	34.4	0.20
01 081 009	DK-S 18 x 80	80	85	12 ^{+0.25}	45 ^{+0.4}	5	2.5	18	5.1	12.0	20.0	29.3	40.0	55.0	0.33
01 081 010	DK-S 27 x 40	40	45	22 ^{+0.25}	62 ^{+0.5}	6	3	27	4.7	10.7	17.5	26.9	39.5	57.0	0.27
01 081 011	DK-S 27 x 60	60	65	22 ^{+0.25}	62 ^{+0.5}	6	3	27	7.0	16.0	26.3	40.3	59.3	85.5	0.40
01 081 012	DK-S 27 x 100	100	105	22 ^{+0.25}	62 ^{+0.5}	6	3	27	11.7	26.7	43.8	67.2	98.8	142.5	0.66
01 081 013	DK-S 38 x 60	60	70	30 ^{+0.25}	80 ^{+0.6}	7	3.5	38	13.0	30.4	50.6	78.0	113.0	162.0	0.72
01 081 014	DK-S 38 x 80	80	90	30 ^{+0.25}	80 ^{+0.6}	7	3.5	38	17.3	40.5	67.5	104.0	151.0	216.0	0.94
01 081 015	DK-S 38 x 120	120	130	30 ^{+0.25}	80 ^{+0.6}	7	3.5	38	26.0	60.8	101.2	156.0	226.0	324.0	1.37
01 081 016	DK-S 45 x 80	80	90	35 ^{+0.25}	95 ^{+0.8}	8	4	45	27.6	62.4	104.0	160.0	222.0	320.0	1.35
01 081 017	DK-S 45 x 100	100	110	35 ^{+0.25}	95 ^{+0.8}	8	4	45	34.5	78.0	130.0	200.0	278.0	400.0	1.65
01 081 018	DK-S 45 x 150	150	160	35 ^{+0.25}	95 ^{+0.8}	8	4	45	51.8	117.0	195.0	300.0	420.0	600.0	2.44
01 081 019	DK-S 50 x 120	120	130	40 ^{+0.25}	108 ⁺¹	8	4	50	51.0	133.0	250.0	395.0	570.0	780.0	2.55
01 081 020	DK-S 50 x 200	200	210	40 ^{+0.25}	108 ⁺¹	8	4	50	102.0	260.0	475.0	745.0	1070.0	1450.0	4.21
01 081 021	DK-S 50 x 300	300	310	40 ^{+0.25}	108 ⁺¹	8	4	50	150.0	385.0	700.0	1100.0	1590.0	2160.0	6.45

* Plug-in connection "inserted" see page 19.



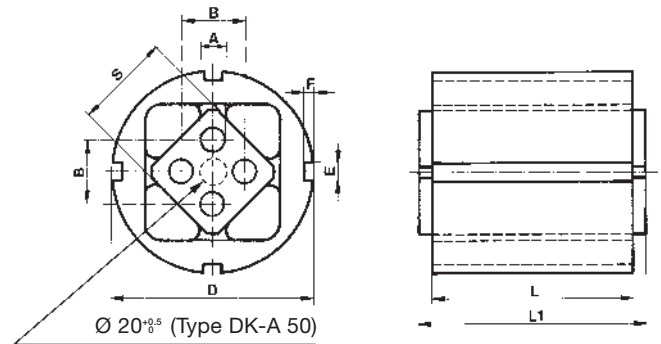
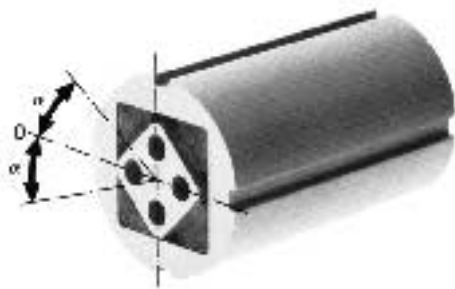
** Frictional "Fist" Connection on Outer Housing

The round outer housing can be either positioned by means of a clamping jaw or inserted into a "fist"-bracket. The tolerances of the outer housing diameter as well as the thickness of the protection paint (40 to 80 μm) have to be taken in consideration.

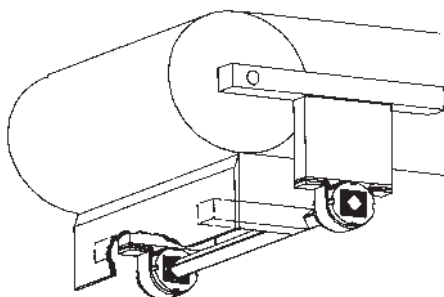


Rubber Suspension Unit

Type DK-A

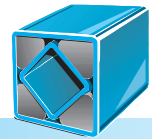


Art. No.	Type	L	L1 ^{-0.3}	A ^{+0.5}	B	D	E	F	S	Torque M in Nm at ↯ α						Weight in kg
										5°	10°	15°	20°	25°	30°	
01 071 001	DK-A 15 x 25	25	30	5	10 ^{±0.2}	36 ^{+0.3}	5	2.5	15	0.7	1.6	2.6	4.0	5.7	8.2	0.05
01 071 002	DK-A 15 x 40	40	45	5	10 ^{±0.2}	36 ^{+0.3}	5	2.5	15	1.1	2.5	4.2	6.4	9.2	13.2	0.08
01 071 003	DK-A 15 x 60	60	65	5	10 ^{±0.2}	36 ^{+0.3}	5	2.5	15	1.6	3.8	6.3	9.6	13.8	19.8	0.12
01 071 004	DK-A 18 x 30	30	35	6	12 ^{±0.3}	45 ^{+0.4}	5	2.5	18	1.9	4.5	7.5	11.0	15.0	20.6	0.10
01 071 005	DK-A 18 x 50	50	55	6	12 ^{±0.3}	45 ^{+0.4}	5	2.5	18	3.2	7.5	12.5	18.3	25.0	34.4	0.16
01 071 006	DK-A 18 x 80	80	85	6	12 ^{±0.3}	45 ^{+0.4}	5	2.5	18	5.1	12.0	20.0	29.3	40.0	55.0	0.26
01 071 007	DK-A 27 x 40	40	45	8	20 ^{±0.4}	62 ^{+0.5}	6	3	27	4.7	10.7	17.5	26.9	39.5	57.0	0.25
01 071 008	DK-A 27 x 60	60	65	8	20 ^{±0.4}	62 ^{+0.5}	6	3	27	7.0	16.0	26.3	40.3	59.3	85.5	0.37
01 071 009	DK-A 27 x 100	100	105	8	20 ^{±0.4}	62 ^{+0.5}	6	3	27	11.7	26.7	43.8	67.2	98.8	142.5	0.62
01 071 010	DK-A 38 x 60	60	70	10	25 ^{±0.4}	80 ^{+0.6}	7	3.5	38	13.0	30.4	50.6	78.0	113.0	162.0	0.63
01 071 011	DK-A 38 x 80	80	90	10	25 ^{±0.4}	80 ^{+0.6}	7	3.5	38	17.3	40.5	67.5	104.0	151.0	216.0	0.83
01 071 012	DK-A 38 x 120	120	130	10	25 ^{±0.4}	80 ^{+0.6}	7	3.5	38	26.0	60.8	101.2	156.0	226.0	324.0	1.22
01 071 013	DK-A 45 x 80	80	90	12	35 ^{±0.5}	95 ^{+0.8}	8	4	45	27.6	62.4	104.0	160.0	222.0	320.0	1.15
01 071 014	DK-A 45 x 100	100	110	12	35 ^{±0.5}	95 ^{+0.8}	8	4	45	34.5	78.0	130.0	200.0	278.0	400.0	1.44
01 071 015	DK-A 45 x 150	150	160	12	35 ^{±0.5}	95 ^{+0.8}	8	4	45	51.8	117.0	195.0	300.0	420.0	600.0	2.12
01 071 016	DK-A 50 x 120	120	130	M12x40	40 ^{±0.5}	108 ⁺¹	8	4	50	51.0	133.0	250.0	395.0	570.0	780.0	2.35
01 071 017	DK-A 50 x 200	200	210	M12x40	40 ^{±0.5}	108 ⁺¹	8	4	50	102.0	260.0	475.0	745.0	1070.0	1460.0	3.75
01 071 018	DK-A 50 x 300	300	310	M12x40	40 ^{±0.5}	108 ⁺¹	8	4	50	150.0	385.0	700.0	1100.0	1590.0	2160.0	5.60



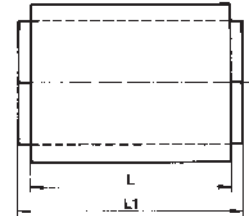
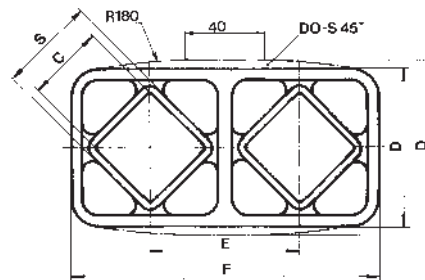
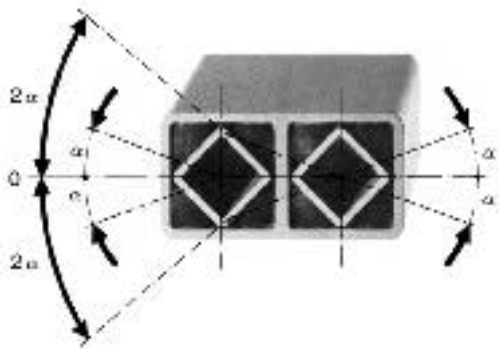
Fixation by Clamp Type BK

The fixation of the outer housing by means of the standardized clamp type BK makes the continuous and individual pretension of the unit in both directions easy and adjustable (clamp type BK on page 27).



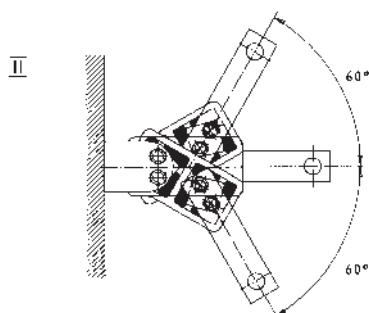
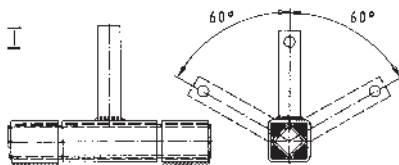
Rubber Suspension Unit

Type DO-S



Art. No.	Type	L	L1-0.3	C	D	E	F	S	Torque M in Nm at $\pm\alpha$						Weight in kg
									5°	10°	15°	20°	25°	30°	
01 051 001	DO-S 15 x 25	25	30	11 ^{+0.25} ₀	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	0.7	1.6	2.6	4.0	5.7	8.2	0.10
01 051 002	DO-S 15 x 40	40	45	11 ^{+0.25} ₀	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	1.1	2.5	4.2	6.4	9.2	13.2	0.14
01 051 003	DO-S 15 x 60	60	65	11 ^{+0.25} ₀	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	1.6	3.8	6.3	9.6	13.8	19.8	0.21
01 051 004	DO-S 18 x 30	30	35	12 ^{+0.25} ₀	34 ^{±0.15}	31	65 ^{+0.2} ₀	18	1.9	4.5	7.5	11.0	15.0	20.6	0.17
01 051 005	DO-S 18 x 50	50	55	12 ^{+0.25} ₀	34 ^{±0.15}	31	65 ^{+0.2} ₀	18	3.2	7.5	12.5	18.3	25.0	34.4	0.29
01 051 006	DO-S 18 x 80	80	85	12 ^{+0.25} ₀	34 ^{±0.15}	31	65 ^{+0.2} ₀	18	5.1	12.0	20.0	29.3	40.0	55.0	0.45
01 051 007	DO-S 27 x 40	40	45	22 ^{+0.25} ₀	47 ^{±0.15}	44	91 ^{+0.2} ₀	27	4.7	10.7	17.5	26.9	39.5	57.0	0.35
01 051 008	DO-S 27 x 60	60	65	22 ^{+0.25} ₀	47 ^{±0.15}	44	91 ^{+0.2} ₀	27	7.0	16.0	26.3	40.3	59.3	85.5	0.52
01 051 009	DO-S 27 x 100	100	105	22 ^{+0.25} ₀	47 ^{±0.15}	44	91 ^{+0.2} ₀	27	11.7	26.7	43.8	67.2	98.8	142.5	0.86
01 051 010	DO-S 38 x 60	60	70	30 ^{+0.25} ₀	63 ^{±0.2}	60	123 ^{+0.3} ₀	38	13.0	30.4	50.6	78.0	113.0	162.0	1.03
01 051 011	DO-S 38 x 80	80	90	30 ^{+0.25} ₀	63 ^{±0.2}	60	123 ^{+0.3} ₀	38	17.3	40.5	67.5	104.0	151.0	216.0	1.35
01 051 012	DO-S 38 x 120	120	130	30 ^{+0.25} ₀	63 ^{±0.2}	60	123 ^{+0.3} ₀	38	26.0	60.8	101.2	156.0	226.0	324.0	2.00
01 051 013	DO-S 45 x 80	80	90	35 ^{+0.25} ₀	85	73	149.4 ^{+1.6} _{-0.4}	45	27.6	62.4	104.0	160.0	222.0	320.0	2.20
01 051 014	DO-S 45 x 100	100	110	35 ^{+0.25} ₀	85	73	149.4 ^{+1.6} _{-0.4}	45	34.5	78.0	130.0	200.0	278.0	400.0	2.65
01 051 015	DO-S 45 x 150	150	160	35 ^{+0.25} ₀	85	73	149.4 ^{+1.6} _{-0.4}	45	51.8	117.0	195.0	300.0	420.0	600.0	3.96
01 051 016	DO-S 50 x 120	120	130	40 ^{+0.25} ₀	89	78	167	50	51.0	133.0	250.0	395.0	570.0	780.0	5.67

* DO-S 45 with convex housing shape



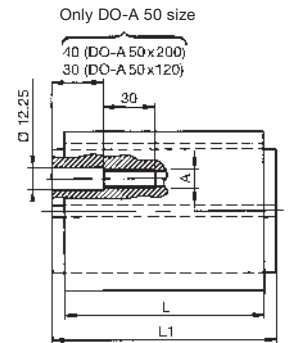
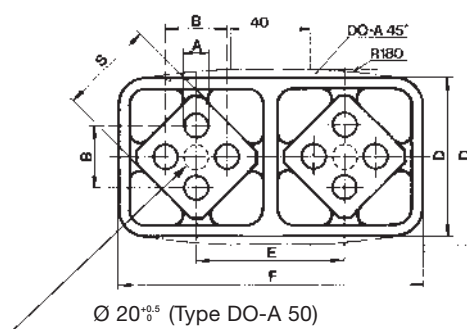
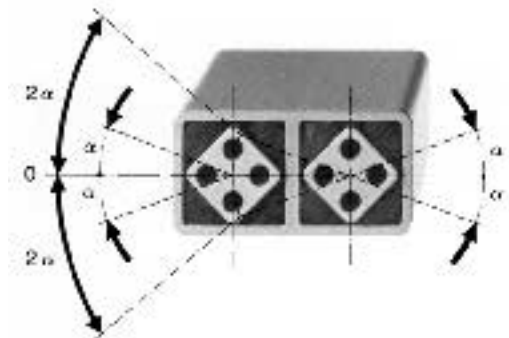
Serial Connection

Arrangements according to fig. I and II offer a doubled oscillating angle ($\pm 60^\circ$) at constant torque of a single unit.



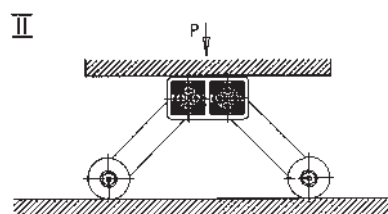
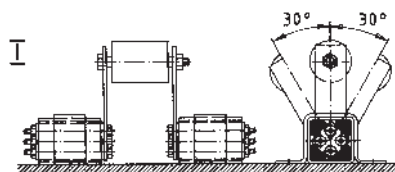
Rubber Suspension Unit

Type DO-A



Art. No.	Type	L	L1-0.3	A ^{+0.5}	B	D	E	F	S	Torque M in Nm at $\pm \alpha$						Weight in kg
										5°	10°	15°	20°	25°	30°	
01 041 001	DO-A 15 x 25	25	30	5	10 ^{±0.2}	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	0.7	1.6	2.6	4.0	5.7	8.2	0.07
01 041 002	DO-A 15 x 40	40	45	5	10 ^{±0.2}	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	1.1	2.5	4.2	6.4	9.2	13.2	0.10
01 041 003	DO-A 15 x 60	60	65	5	10 ^{±0.2}	28 ^{±0.15}	25.5	53.5 ^{±0.2}	15	1.6	3.8	6.3	9.6	13.8	19.8	0.15
01 041 004	DO-A 18 x 30	30	35	6	12 ^{±0.3}	34 ^{±0.15}	31	65 ^{±0.2}	18	1.9	4.5	7.5	11.0	15.0	20.6	0.12
01 041 005	DO-A 18 x 50	50	55	6	12 ^{±0.3}	34 ^{±0.15}	31	65 ^{±0.2}	18	3.2	7.5	12.5	18.3	25.0	34.4	0.20
01 041 006	DO-A 18 x 80	80	85	6	12 ^{±0.3}	34 ^{±0.15}	31	65 ^{±0.2}	18	5.1	12.0	20.0	29.3	40.0	55.0	0.30
01 041 007	DO-A 27 x 40	40	45	8	20 ^{±0.4}	47 ^{±0.15}	44	91 ^{±0.2}	27	4.7	10.7	17.5	26.9	39.5	57.0	0.32
01 041 008	DO-A 27 x 60	60	65	8	20 ^{±0.4}	47 ^{±0.15}	44	91 ^{±0.2}	27	7.0	16.0	26.3	40.3	59.3	85.5	0.47
01 041 009	DO-A 27 x 100	100	105	8	20 ^{±0.4}	47 ^{±0.15}	44	91 ^{±0.2}	27	11.7	26.7	43.8	67.2	98.8	142.5	0.78
01 041 010	DO-A 38 x 60	60	70	10	25 ^{±0.4}	63 ^{±0.2}	60	123 ^{±0.3}	38	13.0	30.4	50.6	78.0	113.0	162.0	0.87
01 041 011	DO-A 38 x 80	80	90	10	25 ^{±0.4}	63 ^{±0.2}	60	123 ^{±0.3}	38	17.3	40.5	67.5	104.0	151.0	216.0	1.15
01 041 012	DO-A 38 x 120	120	130	10	25 ^{±0.4}	63 ^{±0.2}	60	123 ^{±0.3}	38	26.0	60.8	101.2	156.0	226.0	324.0	1.68
01 041 013	DO-A 45 x 80	80	90	12	35 ^{±0.5}	85	73	149.4 ^{+1.6/-0.4}	45	27.6	62.4	104.0	160.0	222.0	320.0	1.85
01 041 014	DO-A 45 x 100	100	110	12	35 ^{±0.5}	85	73	149.4 ^{+1.6/-0.4}	45	34.5	78.0	130.0	200.0	278.0	400.0	2.25
01 041 015	DO-A 45 x 150	150	160	12	35 ^{±0.5}	85	73	149.4 ^{+1.6/-0.4}	45	51.8	117.0	195.0	300.0	420.0	600.0	3.35
01 041 016	DO-A 50 x 120	120	130	M12	40 ^{±0.5}	89	78	167	50	51.0	133.0	250.0	395.0	570.0	780.0	5.50
01 041 017	DO-A 50 x 200	200	210	M12	40 ^{±0.5}	89	78	167	50	102.0	260.0	475.0	745.0	1070.0	1450.0	8.50

* DO-A 45 with convex housing shape



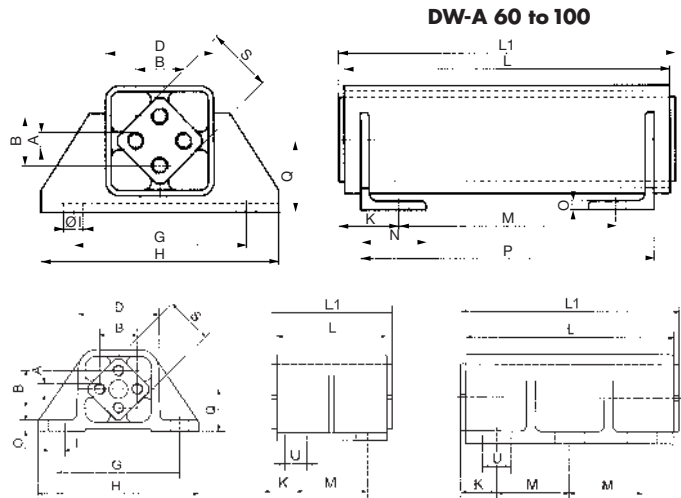
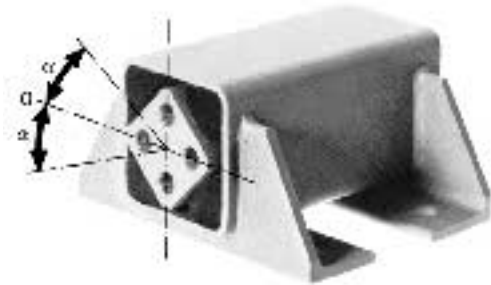
Parallel Connection

Arrangements according to fig. I and II offer the doubled torque momentum at constant oscillating angle of $\pm 30^\circ$.



Rubber Suspension Unit

Type DW-A



DW-A 45 x 100
DW-A 50 x 120

DW-A 50 x 200

(Outer housing made out of spheroidal graphite cast iron)

Art. No.	Type	L	L1-0.3	A	B	D	G	H	I	K	M	N	O	P	Q	S	T	U	Weight in kg
01 101 015	DW-A 45 x 100	100	110	Ø12	35 ^{±0.5}	78	115	145	-	22.5	65	-	8	-	41	45	13	20	2.9
01 101 013	DW-A 50 x 120	120	130	M12x40	40 ^{±0.5}	87	130	170	17x27	35	60	-	12	-	45	50	17	27	3.7
01 101 014	DW-A 50 x 200	200	210	M12x40	40 ^{±0.5}	87	130	170	17x27	35	70	-	12	-	45	50	17	27	6.1
01 101 001	DW-A 60 x 150	150	160	M16x22	45	100	160	220	Ø18	50	60	60	8	130	65	60	-	-	9.5
01 101 002	DW-A 60 x 200	200	210	M16x22	45	100	160	220	Ø18	55	100	60	8	170	65	60	-	-	11.8
01 101 003	DW-A 60 x 300	300	310	M16x22	45	100	160	220	Ø18	55	200	60	8	270	65	60	-	-	16.6
01 101 004	DW-A 70 x 200	200	210	M20x28	50	120	200	260	Ø22	55	100	65	9	170	80	70	-	-	16.6
01 101 005	DW-A 70 x 300	300	310	M20x28	50	120	200	260	Ø22	55	200	65	9	270	80	70	-	-	23.0
01 101 006	DW-A 70 x 400	400	410	M20x28	50	120	200	260	Ø22	55	300	65	9	370	80	70	-	-	29.5
01 101 007	DW-A 80 x 200	200	210	M20x28	60	136	220	280	Ø22	65	80	80	10	170	85	80	-	-	22.9
01 101 008	DW-A 80 x 300	300	310	M20x28	60	136	220	280	Ø22	65	180	80	10	270	85	80	-	-	31.7
01 101 009	DW-A 80 x 400	400	410	M20x28	60	136	220	280	Ø22	65	280	80	10	370	85	80	-	-	40.6
01 101 010	DW-A 100 x 250	250	260	M24x32	75	170	300	380	Ø26	75	110	100	12	220	110	100	-	-	45.7
01 101 011	DW-A 100 x 400	400	410	M24x32	75	170	300	380	Ø26	75	260	100	12	370	110	100	-	-	66.7
01 101 012	DW-A 100 x 500	500	510	M24x32	75	170	300	380	Ø26	75	360	100	12	470	110	100	-	-	80.7

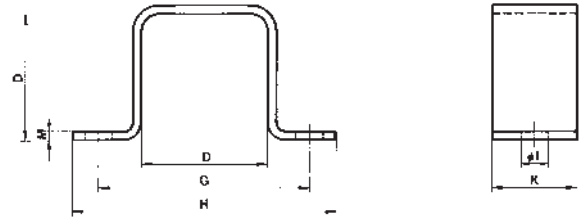
Art. No.	Type	Torque M in Nm at α					
		5°	10°	15°	20°	25°	30°
01 101 015	DW-A 45 x 100	34.5	78	130	200	278	400
01 101 013	DW-A 50 x 120	51	133	250	395	570	780
01 101 014	DW-A 50 x 200	102	260	475	745	1070	1450
01 101 001	DW-A 60 x 150	75	170	300	460	700	1010
01 101 002	DW-A 60 x 200	95	220	385	610	930	1380
01 101 003	DW-A 60 x 300	140	365	630	995	1550	2240
01 101 004	DW-A 70 x 200	140	380	650	1040	1490	2120
01 101 005	DW-A 70 x 300	190	525	910	1470	2160	3150
01 101 006	DW-A 70 x 400	250	765	1315	2160	3175	4750
01 101 007	DW-A 80 x 200	200	500	850	1300	1900	2700
01 101 008	DW-A 80 x 300	300	800	1300	2000	2900	4100
01 101 009	DW-A 80 x 400	400	1060	1800	2800	3900	5600
01 101 010	DW-A 100 x 250	400	1080	1800	2800	4100	6300
01 101 011	DW-A 100 x 400	640	1700	2900	4500	6600	10000
01 101 012	DW-A 100 x 500	800	2160	3600	5600	8200	12000



Rubber Suspension Unit

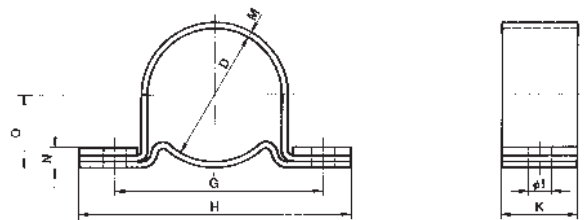
Accessories

Clamp Type BR



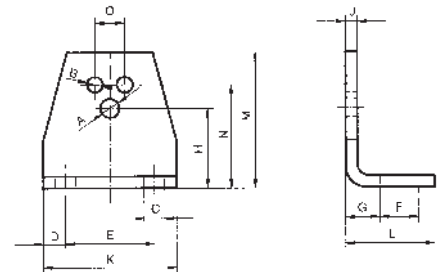
Art. No.	Type	D	G	H	I	K	M	Weight in kg
01 500 001	BR 11	20	37	50	6	20	2	0.03
01 500 002	BR 15	27	50	65	7	25	2	0.04
01 500 003	BR 18	32	60	80	9	30	2.5	0.08
01 500 004	BR 27	45	80	105	11	35	3	0.15
01 500 005	BR 38	60	100	125	13	40	4	0.27
01 500 006	BR 45	72	115	145	13	45	5	0.45
01 500 007	BR 50	78	130	170	18	50	6	0.66

Clamp Type BK



Art. No.	Type	D	G	H	I	K	M	N	O	Weight in kg
01 520 001	BK 11	28	45	60	6.5	20	1.5	6	15.5	0.04
01 520 002	BK 15	36	55	75	6.5	25	2	7	20	0.09
01 520 003	BK 18	45	68	90	8.5	30	2	8	24.5	0.14
01 520 004	BK 27	62	92	125	10.5	35	2.5	10	33.5	0.29
01 520 005	BK 38	80	115	150	12.5	40	3	11	43	0.45
01 520 006	BK 45	95	130	165	12.5	45	3.5	13	51	0.68
01 520 007	BK 50	108	152	195	16.5	50	4	15	58	0.93

Bracket Type WS



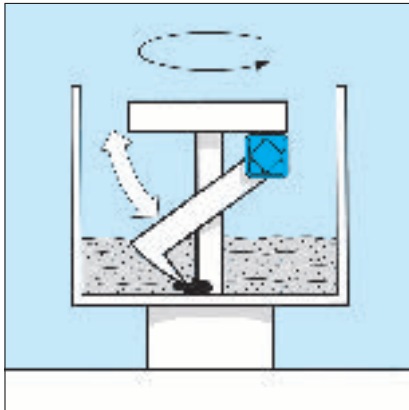
Art. No.	Type	fit for		A	B	C	D	E	F	G	H	J	K	L	M	N	O	Weight in kg
		SE-	DR-A, ...															
06 590 001	WS 11-15	11	15	6.5	5.5	7	7.5	30	13	11.5	27	4	45	30	46	35	10	0.08
06 590 002	WS 15-18	15	18	8.5	6.5	7	7.5	40	13	13.5	34	5	55	32	58	44	12	0.15
06 590 003	WS 18-27	18	27	10.5	8.5	9.5	10	50	15.5	16.5	43	6	70	38	74	55	20	0.28
06 590 004	WS 27-38	27	38	12.5	10.5	11.5	12.5	65	21.5	21	57	8	90	52	98	75	25	0.70
06 590 005	WS 38-45	38	45	16.5	12.5	14	15	80	24	21	66	8	110	55	116	85	35	0.90
06 590 006	WS 45-50	45	50	20.5	12.5	18	20	100	30	26	80	10	140	66	140	110	40	1.80

Bore A is designed for the fixation of the ROSTA tensioner devices type SE. Bores B are designed for the fixation of the ROSTA rubber suspension units type DR-A, DK-A, DO-A.

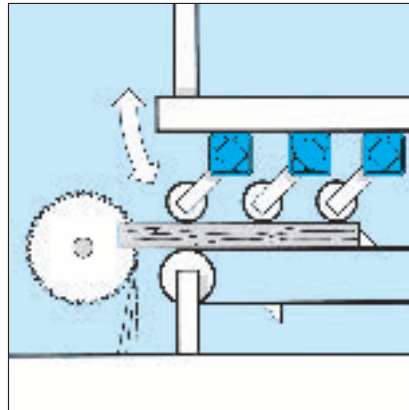


Installations

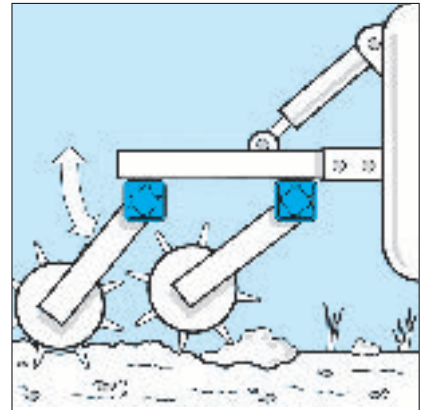
Rubber Suspension Units



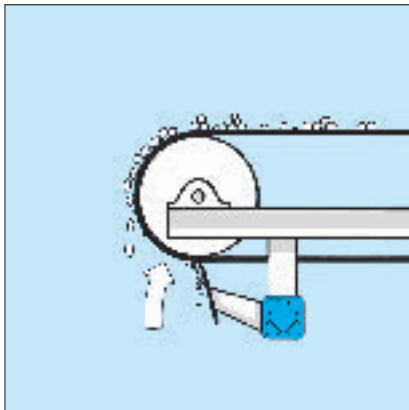
Lever bearing in concrete mixer



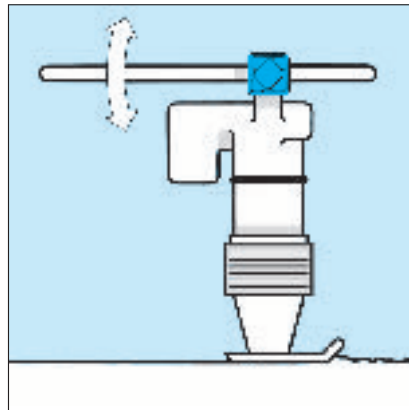
Pressure rollers in saw device



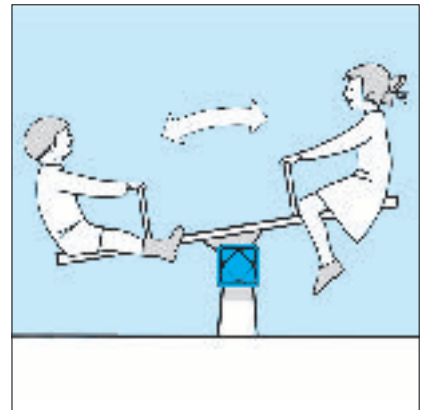
Pendulum on harrow rollers



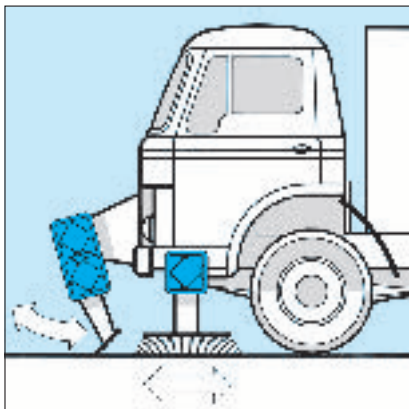
Conveyor-belt scraper



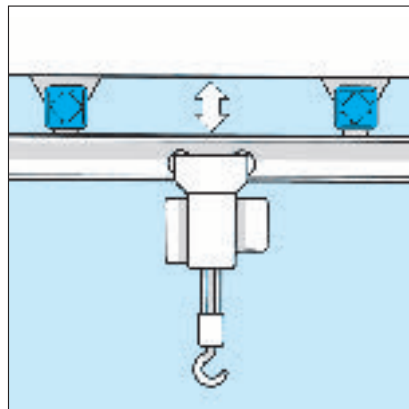
Handle-bar insulation



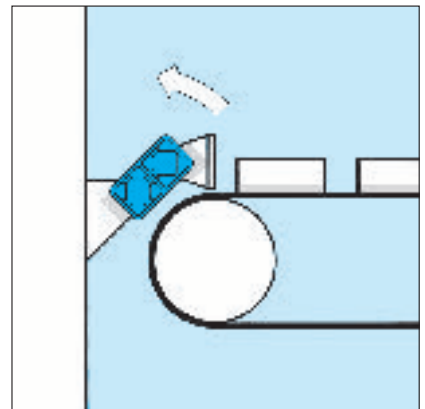
See-saw support



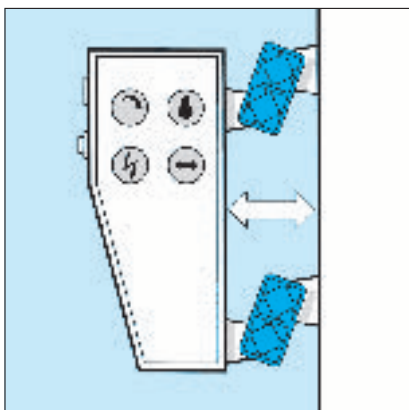
Elastical brush and scraper suspension



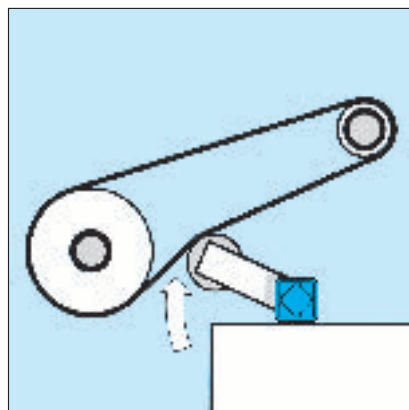
Suspended crane rail



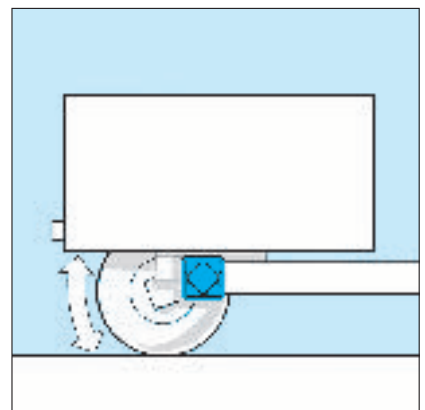
Shock absorber



Control unit insulation



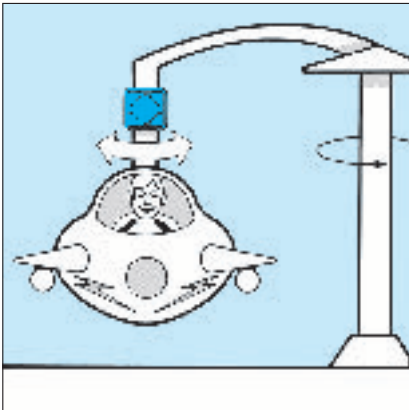
Chain and belt tensioner



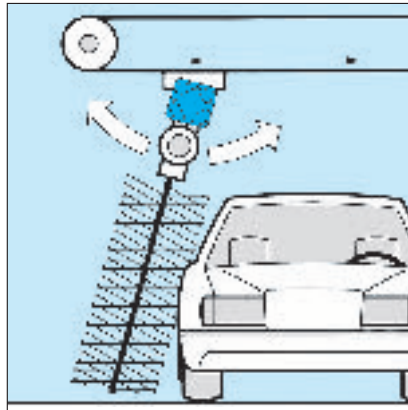
Independent wheel suspension



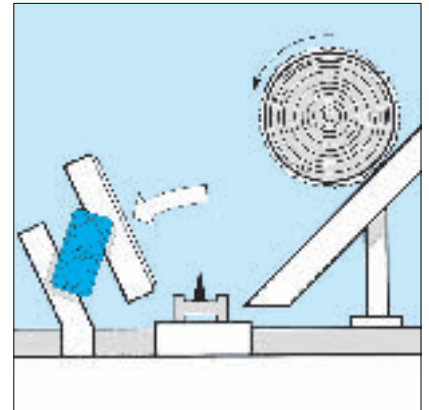
Installations



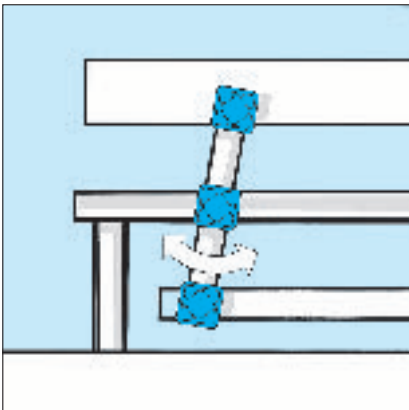
Pendulum on amusement ride



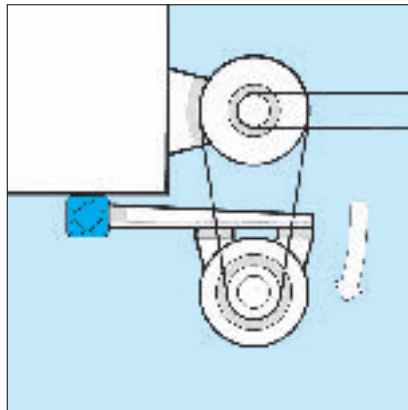
Compensation bearing for car brush



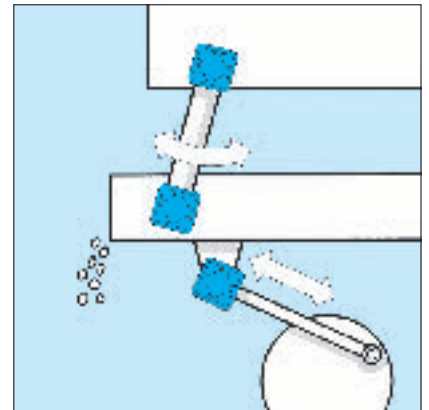
Impact suspension in feeder



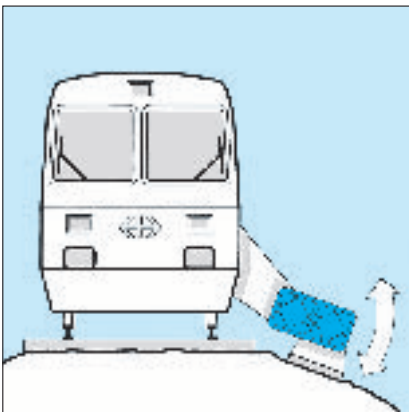
Double suspension



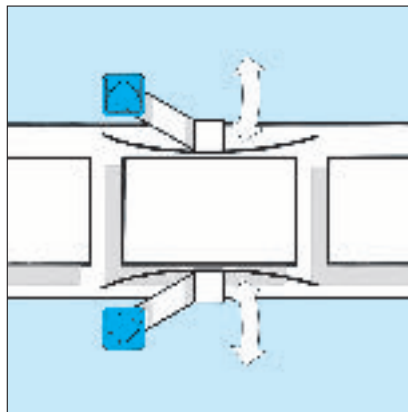
Motor base



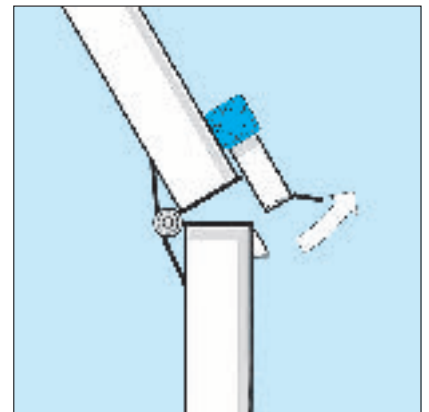
Shaker conveyor



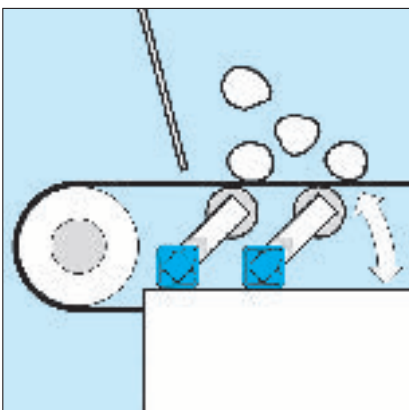
Compactor-suspension



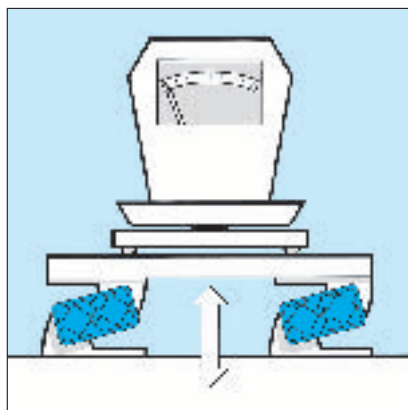
Guide rail



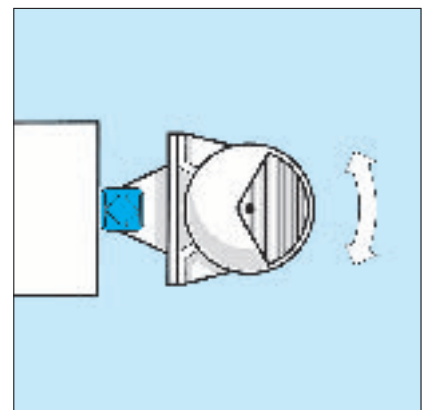
Suspended pawl



Impact-idler suspension



Passive insulation



Suspended unbalanced motor



Fixation and Connecting Recommendations

Fixations to Housing

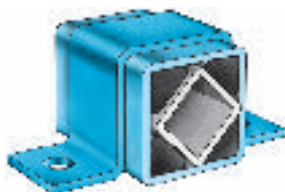


Fig. 1 Square tubular housing with clamp BR

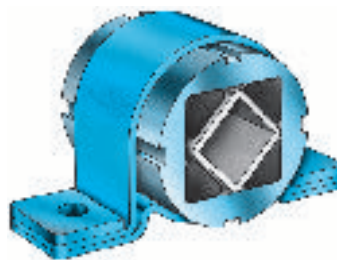


Fig. 2 Round housing with clamp BK

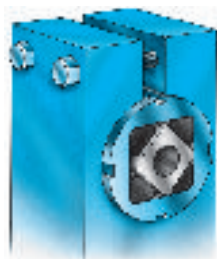


Fig. 3 Outer housing in clamping jaw



Fig. 4 Double bracket welded on housing

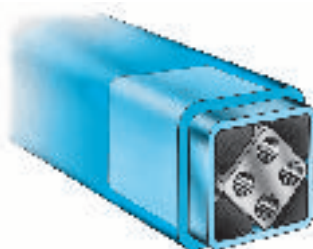


Fig. 5 Plug-in connection (also see page 19)



Fig. 6 Dual-thread welded on housing

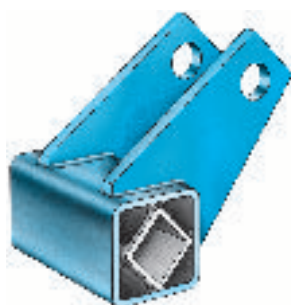


Fig. 7 Dual-levers welded on housing

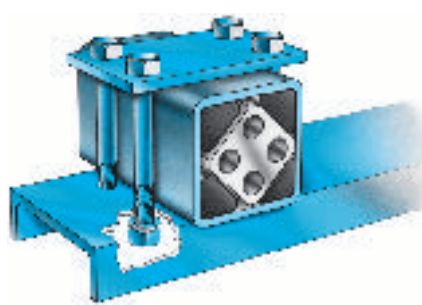


Fig. 8 Bridge-clamp over housing

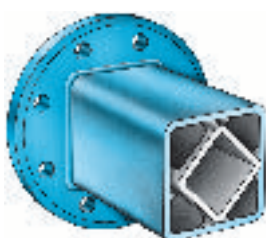


Fig. 9 Flange welded on housing

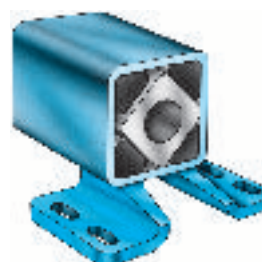


Fig. 10 Housing in cast iron



Fixation and Connecting Recommendations

Fixations to Inner Square Section

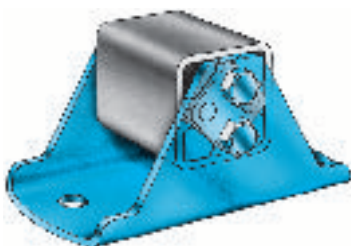


Fig. 11 Inner square section with four through bores and bracket UV

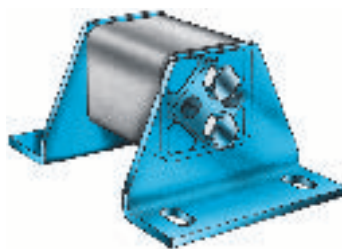


Fig. 12 Inner square section with four through bores and brackets WS

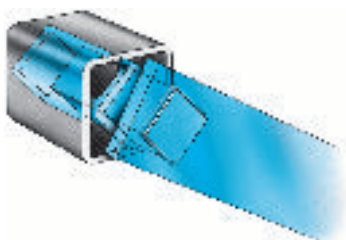


Fig. 13 Plug-in connection with lever and welded-on square steel piece

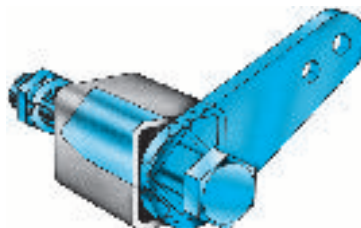


Fig. 14 Lever connection with one through bolt

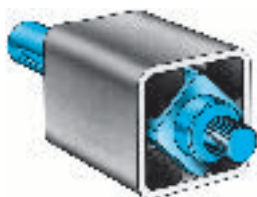


Fig. 15 Inner square section made of solid metal and machined threads on both sides

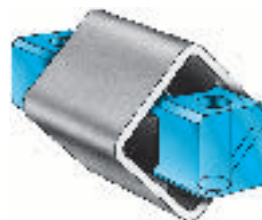


Fig. 16 Inner square section made of solid metal and cross bores on both protruding sides

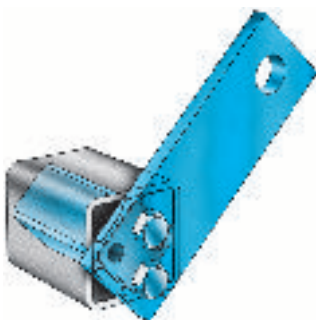


Fig. 17 Inner square section with four through bores and bolted-on lever (see page 20)

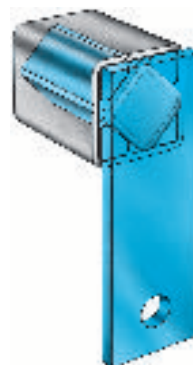


Fig. 18 Inner square section made of solid steel and welded-on bracket

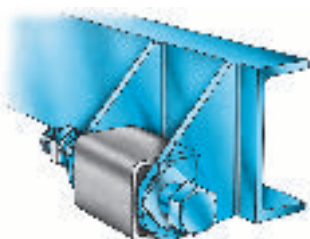


Fig. 19 Inner square section with a central through bore (see page 21)

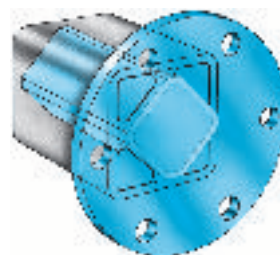
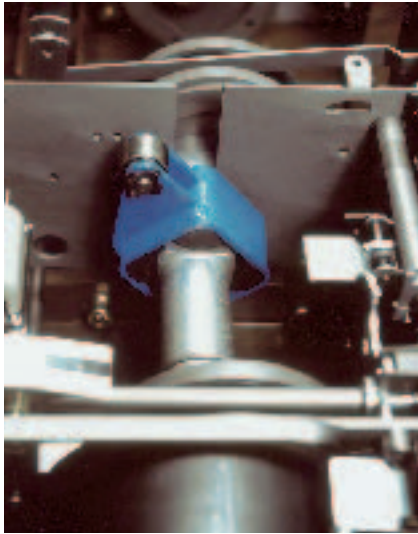


Fig. 20 Inner square section made of solid steel and welded-on flange



Applications

Rubber Suspension Units



Elastic stop to absorb high impacts



Elastic suspension of a rake in potato harvester



Suspension of a brush in road sweeper



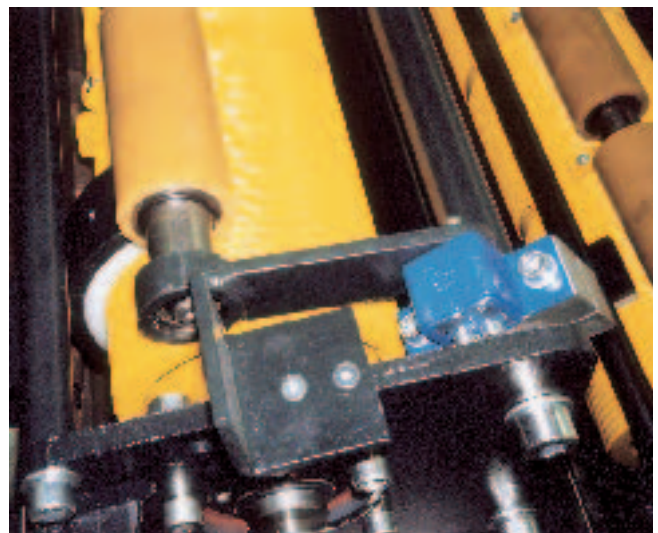
Elastic suspension of caliper roll in elevator



"Floating" suspension of weighing device in belt conveyor



Elastic suspension of shaping knife in baler



Elastic caliper roll suspension in cardboard rolling machine

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