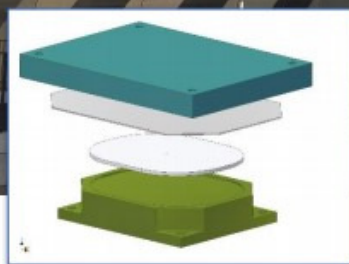
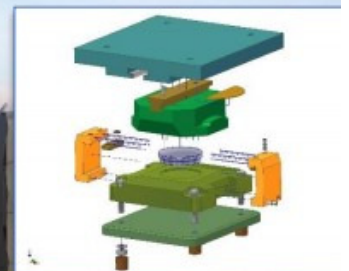
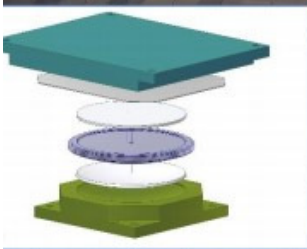
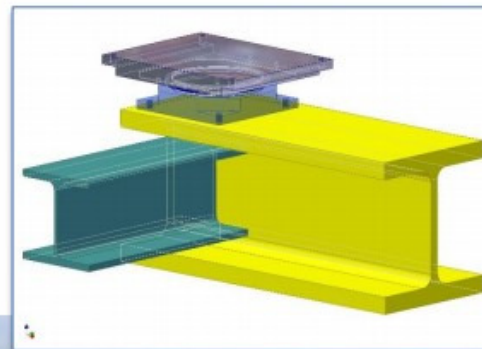


SLIDING BEARINGS PG FOR PIPELINES, BRIDGES, STEEL- AND CONCRETE CONSTRUCTIONS



Why use PTFE bearings?

Very Low Friction Constant

The friction constant is lower than for any other solid material. Since the static and dynamic sliding coefficient are very close, no so-called stick-slip effect occurs.

Differentiation is made between dry running bearings and lubricated bearings.

For lubricated bearings, pan-shaped recesses are pressed in the PTFE sliding plate and provided with depot lubrication (silicone grease 300 medium, bridge bearing quality).

The coefficient of friction of PTFE deteriorates in case of low temperatures, while it remains largely constant for high temperatures. The values stated by us therefore refer to the most unfavorable values of -35°C , which occur in the approval procedures.

For the sake of simplicity, the following friction constants may be assumed under optimum installation conditions:

PTFE bearing, not lubricated about max. $\mu = 0.1$

PTFE bearing, lubricated about max. $\mu = 0.04$

Corrosion Resistance

The PTFE sliding plates are absolutely corrosion resistant, resistant against chemicals and aging. The steel parts of the bearings are by standard sandblasted and provided with a zinc phosphate coating.

Upon request, all usual corrosion protection processes are offered, including hot galvanizing. Versions made of special steel alloys or stainless steel on request.

Temperature Resistance

The range of application of our bearings is limited to those temperature ranges which are secured by official friction tests under load.

Temperatures at the sliding plate:

up to $+48^{\circ}\text{C}$ = sliding pad PTFE bearing quality

up to $+100^{\circ}\text{C}$ = acc. to application PTFE or PTFE-K

up to $+180^{\circ}\text{C}$ = sliding pad PTFE K (reduced load)

up to $+500^{\circ}\text{C}$ = sliding pad PTFE K high temperature bearing with integrated insulation

- Use at temperatures of -60°C is ensured by tests.
- Use at temperatures of over 180°C requires custom tailored constructions / high temperature bearings.

Maintenance-Free

PTFE bearings are maintenance-free, this also applies to lubricated PTFE bearings; no subsequent lubrication is required.

Low Overall Height

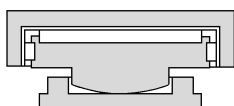
Compared with other bearing types, PTFE friction bearings require only very low form factors.



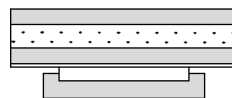
Flat PTFE sliding support



PTFE cupshaped support



PTFE pointed sliding support



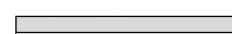
Flat PTFE sliding support for high contact temperature



Approved bearing for special constructions



PTFE standard support



Counter sliding support

1. Structure of PGslide® bearings

➤ **Supporting plate**

Steel or elastomeric with steel insert

➤ **Sliding pad**

PTFE embedded

PE embedded on request

Metal based sliding pads on request

➤ **Counter plate**

Steel plate with stainless steel sheet, welded all-around

Surface roughness (mirror grade) $\leq 1\mu$

➤ **Guidance**

- Steel / steel

- SST / CM1

- SST / PTFE

- SST / Bronze

➤ **Connection to sub-structure**

Acc. to specific design the bearings are either screwed or welded to the connection structure.

2. Determination of the suitable PGslide® bearing type

➤ **Flat sliding bearings TP and G series**

If no angular rotations can occur this cheap and simple type is mostly recommended.

- Type **TP** without counter-plate (can be supplied on request)

- Type **G** is a complete solution

➤ **Spherical bearings K series**

Spherical bearings are characterized by its low assembly height and restraint free design. Permissible angle of rotation α_{xy} is up to 13‰.

If angular rotations can occur during the assembly phase but not in operation so spherical bearings type **K11** / **K12** (one PTFE pad only) can be used. In case of expected angular rotations during operation a second PTFE disc (in the bottom part) is recommended (**K21** / **K22**).

The fixed spherical bearing type **KF** can only cover angular and rotational movements.

The series **K11**, **K12**, **K21** and **K22** are designed as far as possible in accordance with EN 1337 and are characterized by its compact construction. But please consult with our engineers if use at temperatures of above +48°C is planned.

In contrast the series **K..s** and **K..sb** are a long-term established industrial standard.

➤ **Pointed rocker bearings PK series**

Pointed rocker bearings have the advantage of high applicable loads with at the same time small junction area. Permissible angle of rotation α_{xy} is 13‰.

If angular and rotational movements occur at the same time fixed bearings type **PF** are to be used. In case of additional horizontal displacements, the pointed sliding bearing type **PK 1** / **PK 2** should be used.

➤ **Roller bearings R series**

- Type **R**

➤ **Pot bearings T series (Under preparation)**

- Fixed bearing type **TF**

- Sliding bearing type **TG**

➤ **Elastomeric bearings V series**

- Sliding bearing type **VG1** (guided) and **VG2** (loose)

➤ **Bearings suitable for high temperatures**

For connection temperatures up to 500°C nearly all bearings types can be combined with a thermal separation type **TT** in sandwich design.

➤ **Duct and pipe bearings RGL series**

Sliding bearing with pipe clamps one-piece / split type with or without lift-off device

➤ **Sliding bearings with lift-off device LD series**

- Guided bearing type **LD1**

- Loose bearing type **LD2**

- Spherical bearing type **LDK**

➤ **Special type bearings**

For temporarily fixings, adjustable heights and many other cases and applications we can design and produce special tailor made solutions. Please do not hesitate to contact us!

3. Corrosion protection

➤ Standard: 2-component zinc phosphate coating

➤ On request hot-dip galvanized

➤ Custom made coatings on request, e.g. acc. to EN 12944 up to corrosion class C5, or acc. to ZTV-ING, etc.

➤ On request all metal parts SST

4. Permissible temperatures

According to the EN for „structural bearings“ such bearings are designed for max. 48°C.

PG Systemtechnik offers bearings for connection temperatures up to 180°C by the use of modified PTFE sliding pads (Reduced loads may have to be considered).

Connection temperatures up to +500°C are possible by using a thermal insulation barrier type **TT**, as mentioned above.

5. Important notes

➤ **PGslide®** bearings which are designed acc. to EN 1337 have connecting plates to be flexurally rigid.

In all other cases the on-site connections are to be designed accordingly.

➤ Evenness and parallelism are to be built in accordance with EN, DIN and other applicable.

➤ Bearings are to be designed the way that counter plates cover sliding pads under all operation conditions.

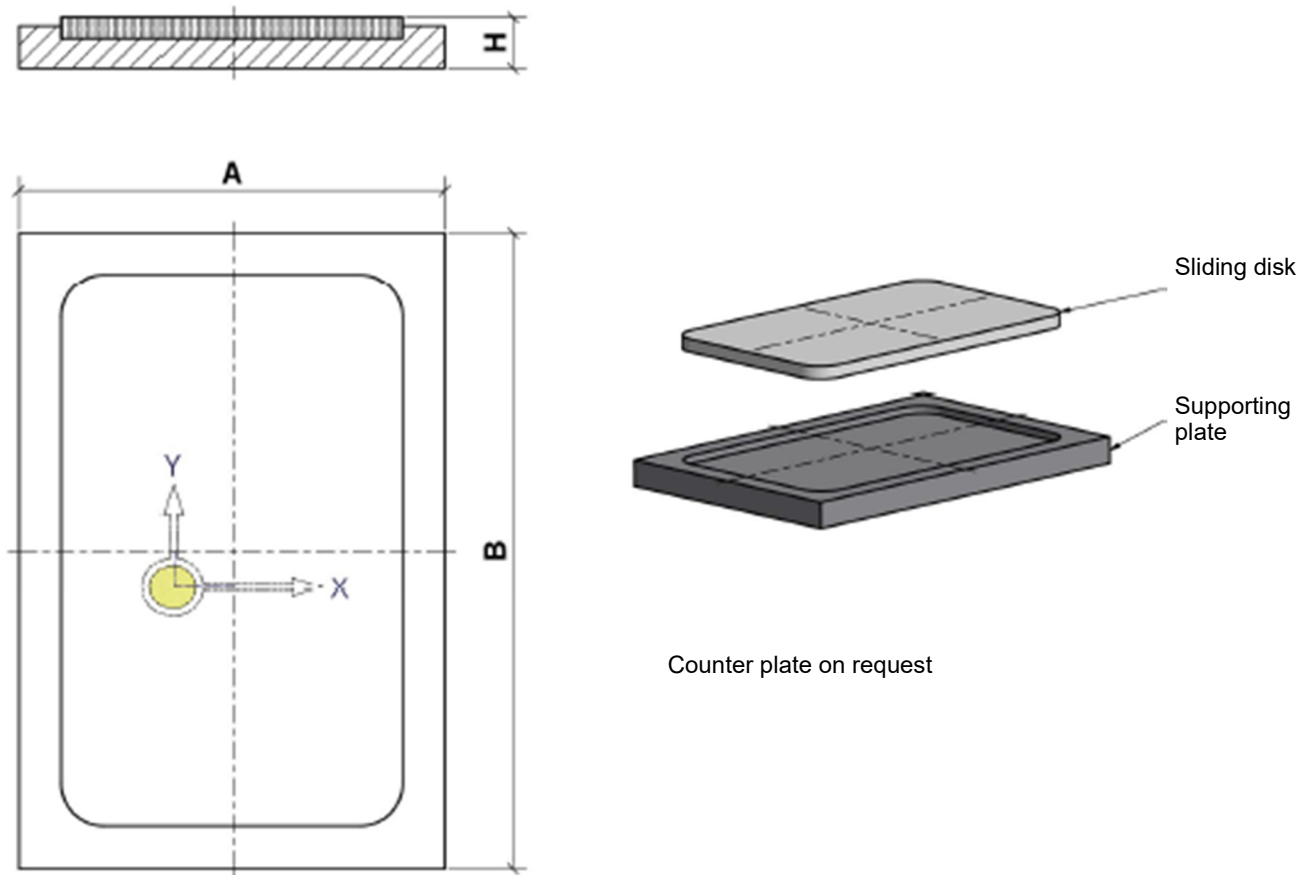
➤ Assembly and installation instructions are available on request.

➤ **PGslide®** bearings are designed for the γ -fold load and conform with EN and DIN where applicable.

➤ Details of design can vary from catalogue drawings. All technical data in the catalogue are subject to change and without obligation.

Sliding support Type TP1

For fixing by welding

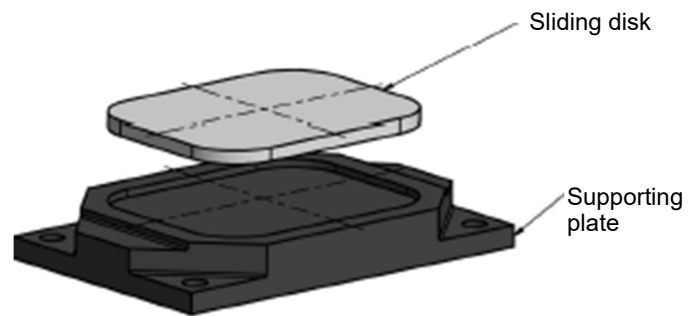
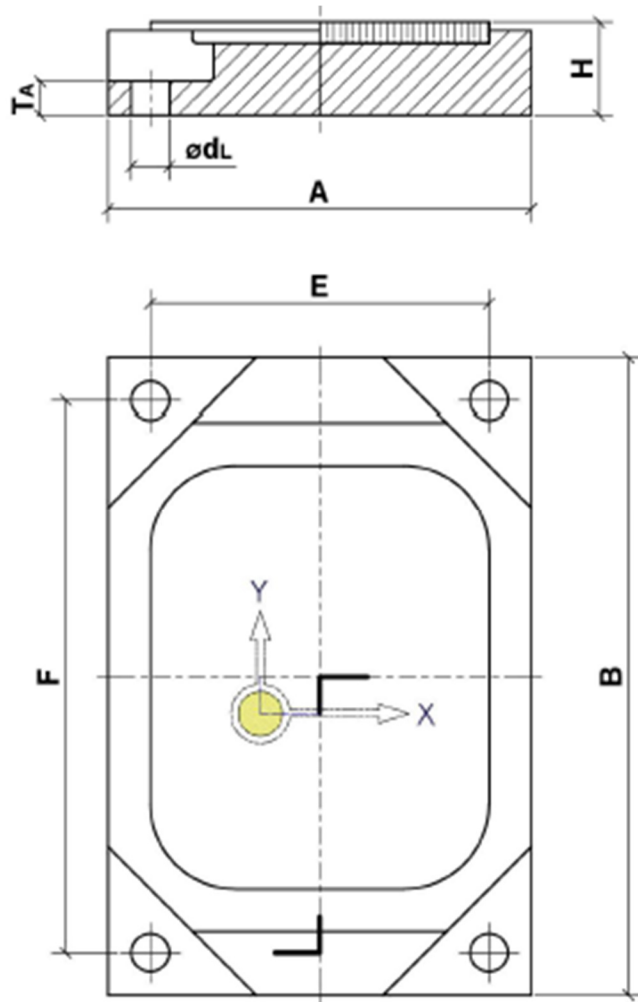


Type	Base plate	PTFE	Weight	Load
	A x B x H			Max N _{Sd}
	mm	mm	Kg	kN
TP1	50 x 50 x 10	Ø x 40 x 5	0,2	10
TP1	50 x 100 x 10	30 x 80 x 5	0,4	25
TP1	50 x 150 x 10	30 x 130 x 5	0,5	50
TP1	100 x 100 x 12	80 x 80 x 5	0,7	75
TP1	100 x 150 x 12	80 x 130 x 5	1,1	125
TP1	100 x 200 x 12	80 x 180 x 5	1,4	175
TP1	100 x 300 x 12	80 x 280 x 5	2,1	250
TP1	150 x 150 x 12	130 x 130 x 5	1,6	200
TP1	150 x 200 x 12	130 x 180 x 5	2,1	250
TP1	150 x 300 x 12	130 x 280 x 5	3,1	400
TP1	200 x 200 x 12	180 x 180 x 5	2,7	350
TP1	200 x 300 x 12	180 x 280 x 5	4,1	550
TP1	200 x 400 x 12	(2x)180 x 185 x 5	5,5	700
TP1	200 x 500 x 12	(2x)180 x 235 x 5	6,8	1000

- special sizes available on request, consider our design notes

Sliding support Type TP2

for fixing by bolting



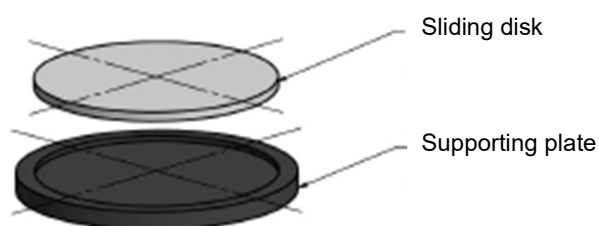
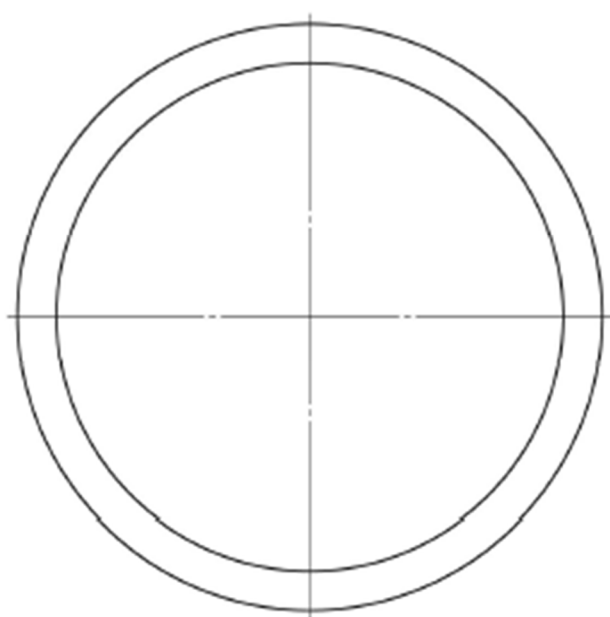
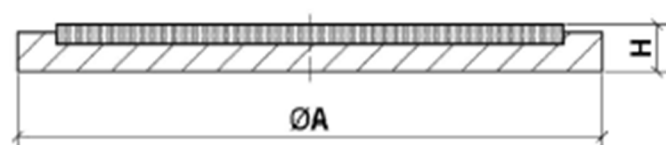
Counter plate on request

Type	Base plate		PTFE	Boreholes		Weight	Load Max N _{Sd}
	A x B x H mm	T _A mm		Ød _L mm	E x F mm		
TP2	100 x 100 x 22	8	80 x 50 x 5	9	80 x 80	1,2	50
TP2	100 x 150 x 22	8	80 x 100 x 5	9	80 x 130	2,0	100
TP2	100 x 200 x 22	8	80 x 150 x 5	9	80 x 180	2,7	150
TP2	100 x 300 x 22	8	80 x 250 x 5	9	80 x 280	4,2	200
TP2	150 x 150 x 22	8	80 x 100 x 5	9	130 x 130	3,1	150
TP2	150 x 200 x 22	8	80 x 150 x 5	9	130 x 180	4,2	200
TP2	150 x 300 x 22	8	80 x 250 x 5	9	130 x 280	6,4	300
TP2	150 x 400 x 22	8	80 x 350 x 5	9	130 x 380	8,6	500
TP2	200 x 200 x 22	8	80 x 150 x 5	9	180 x 180	5,7	300
TP2	200 x 300 x 22	8	80 x 250 x 5	9	180 x 280	8,6	500
TP2	200 x 400 x 22	8	80 x 350 x 5	9	180 x 380	11,5	700
TP2	200 x 500 x 22	8	80 x 450 x 5	9	180 x 480	14,4	1000

- special sizes available on request, consider our design notes

Sliding support Type TP3

For fixing by welding



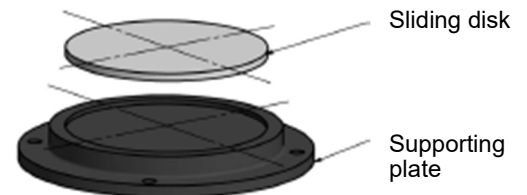
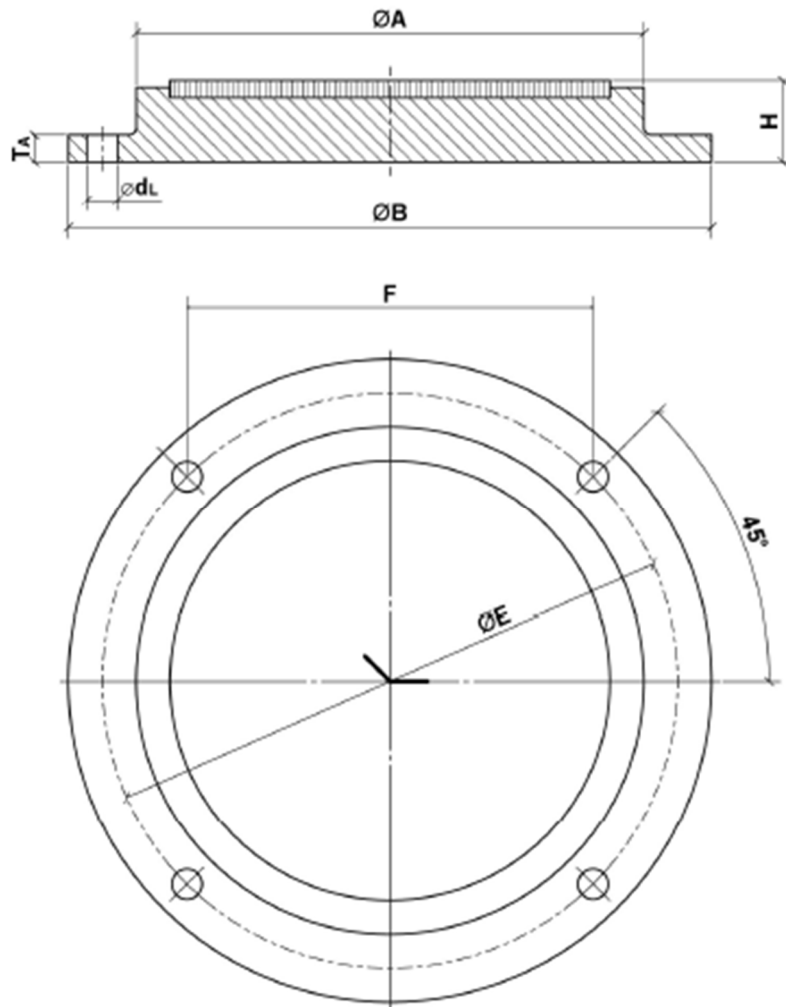
Counter plate on request

Type	Base plate	PTFE	Weight	Load
	ØA x H mm			Max N _{sd} kN
TP3	50 x 10	Ø40 x 5	0,1	15
TP3	80 x 12	Ø60 x 5	0,4	30
TP3	100 x 12	Ø80 x 5	0,6	50
TP3	120 x 12	Ø100 x 5	0,8	100
TP3	150 x 12	Ø130 x 5	1,2	150
TP3	180 x 12	Ø160 x 5	1,8	200
TP3	200 x 12	Ø180 x 5	2,2	250

- special sizes available on request, consider our design notes

Sliding support Type TP4

For fixing by bolting



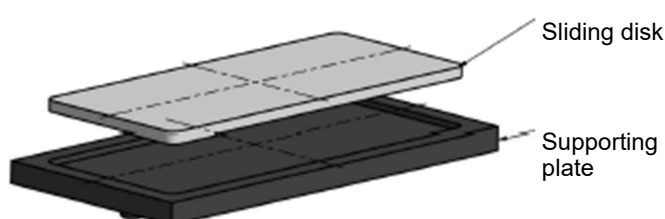
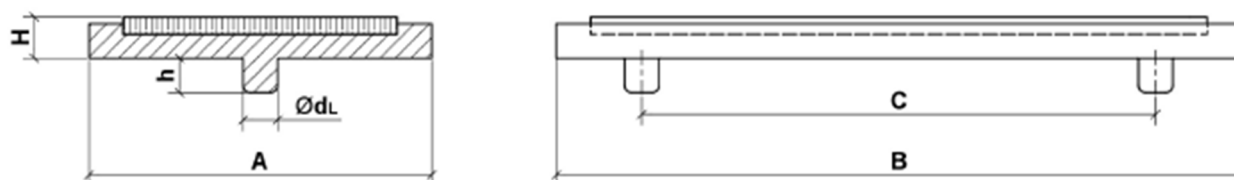
Counter plate on request

Type	Base plate		Flange			Boreholes	PTFE	Weight	Load Max N _{Sd}
	ØA x H mm	T _A mm	Ø B	Ø E	F	Ød _L mm			
TP4	50 x 22	8	90	70	49	9	Ø40 x 5	0,4	15
TP4	80 x 22	8	120	100	71	9	Ø60 x 5	0,8	30
TP4	100 x 22	8	140	120	85	9	Ø80 x 5	1,0	50
TP4	150 x 22	8	190	170	120	9	Ø130 x 5	1,9	150
TP4	200 x 22	8	240	220	156	9	Ø180 x 5	3,0	250
TP4	250 x 22	8	290	270	191	9	Ø230 x 5	4,4	500
TP4	300 x 22	8	340	320	226	9	Ø280 x 5	6,1	750

- special sizes available on request, consider our design notes

Sliding support Type TP5

with pins



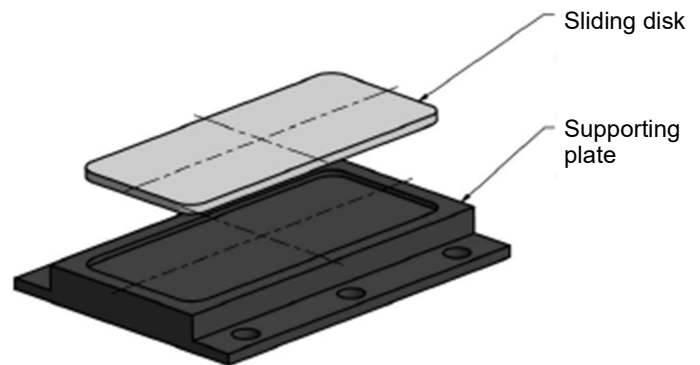
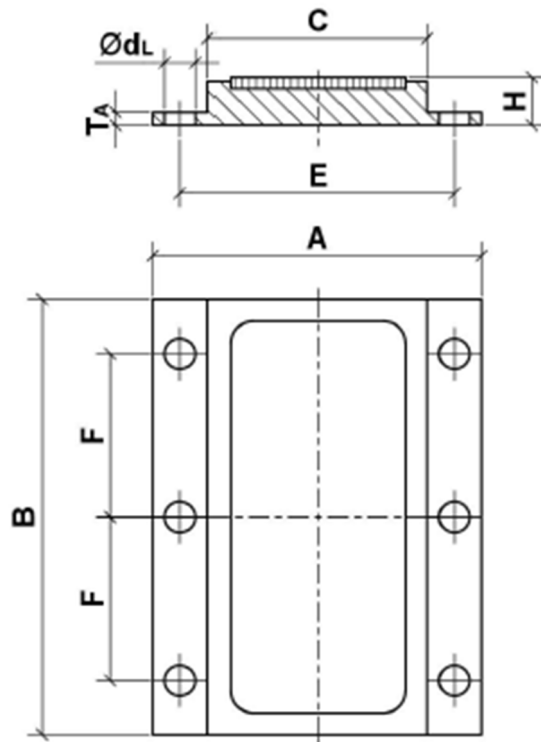
Counter plate on request

Type	Base plate	PTFE	C	Boreholes	Weight	Load
	A x B x H mm			Ød _L / h mm		Max N _{Sd} kN
TP5	50 x 50 x 10	Ø40 x 5	0	10	0,15	13
TP5	50 x 100 x 10	30 x 80 x 5	50	10	0,30	22
TP5	50 x 150 x 10	30 x 130 x 5	100	10	0,45	37
TP5	50 x 200 x 10	30 x 180 x 5	150	10	0,60	52
TP5	50 x 300 x 10	30 x 280 x 5	250	10	0,90	82
TP5	50 x 400 x 10	(2x)30 x 185 x 5	350	10	1,00	112
TP5	50 x 500 x 10	(2x)30 x 235 x 5	450	10	1,40	142
TP5	100 x 100 x 12	80 x 80 x 5	50	10	0,75	59
TP5	100 x 150 x 12	80 x 130 x 5	100	10	1,10	98
TP5	100 x 200 x 12	80 x 180 x 5	150	10	1,50	138
TP5	100 x 300 x 12	80 x 280 x 5	250	12	2,50	219
TP5	100 x 400 x 12	(2x)80 x 185 x 5	350	12	2,90	286
TP5	100 x 500 x 12	(2x)80 x 235 x 5	450	12	3,60	366
TP5	150 x 150 x 12	130 x 130 x 5	100	12	1,60	163
TP5	150 x 200 x 12	130 x 180 x 5	150	12	2,20	228
TP5	150 x 300 x 12	130 x 280 x 5	250	12	3,20	358
TP5	150 x 400 x 12	(2x)130 x 185 x 5	350	12	4,30	471
TP5	150 x 500 x 12	(2x)130 x 235 x 5	450	12	5,30	600
TP5	200 x 200 x 12	180 x 180 x 5	150	12	2,80	318
TP5	200 x 300 x 12	180 x 280 x 5	250	12	4,30	498
TP5	200 x 400 x 12	(2x)180 x 185 x 5	350	12	5,70	656
TP5	200 x 500 x 12	(2x)180 x 235 x 5	450	12	7,10	835

- special sizes available on request, consider our design notes

Sliding support Type TP6

For fixing by bolting



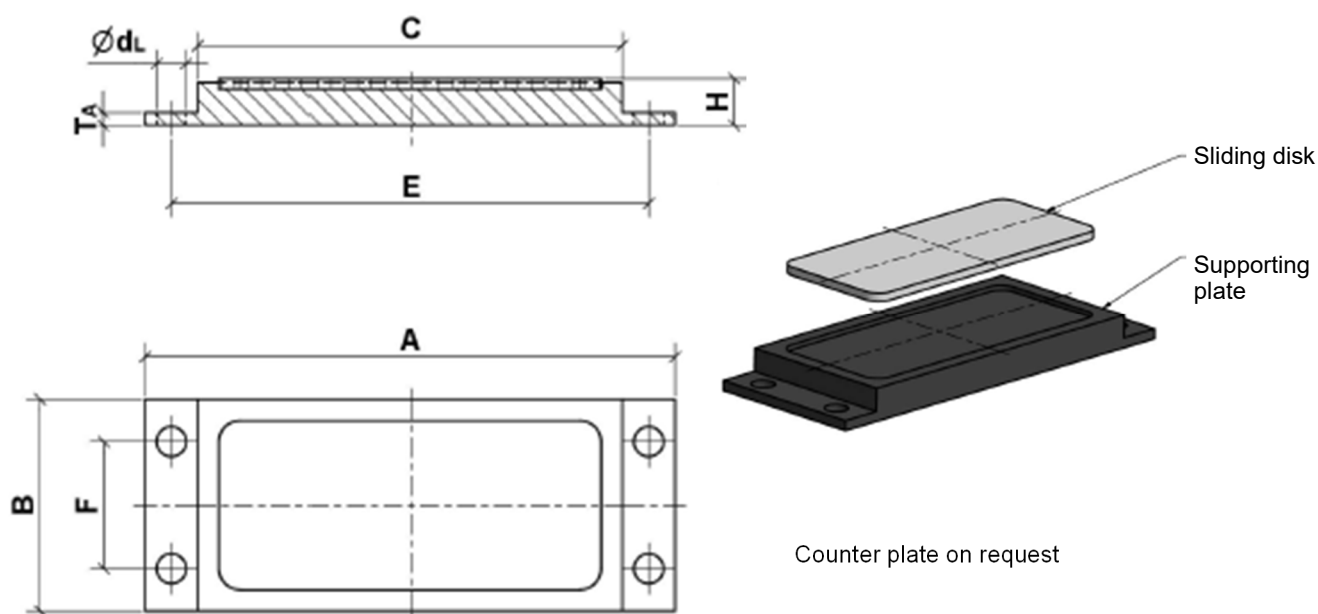
Counter plate on request

Type	A mm	Base plate		PTFE mm	Boreholes			Bore- holes	Weight kg	Load Max N _{sd} kN
		C x B x H mm	T _A mm		E mm	F mm	Ød _L mm			
TP6	100	50 x 50 x 22	6	Ø40 x 5	75	0	11,5	2	0,4	13
TP6	100	50 x 100 x 22	6	30 x 80 x 5	75	30	11,5	4	0,8	22
TP6	100	50 x 150 x 22	6	30 x 130 x 5	75	50	11,5	4	1,3	37
TP6	100	50 x 200 x 22	6	30 x 180 x 5	75	75	11,5	4	1,8	52
TP6	100	50 x 300 x 22	6	30 x 280 x 5	75	125	11,5	6	2,7	82
TP6	100	50 x 400 x 22	6	(2x)30 x 185 x 5	75	175	11,5	6	3,6	112
TP6	100	50 x 500 x 22	6	(2x)30 x 235 x 5	75	225	11,5	6	4,5	142
TP6	150	100 x 100 x 22	6	80 x 80 x 5	125	30	14,0	4	1,7	59
TP6	150	100 x 150 x 22	6	80 x 130 x 5	125	50	14,0	4	2,6	98
TP6	150	100 x 200 x 22	6	80 x 180 x 5	125	75	14,0	4	3,5	138
TP6	150	100 x 300 x 22	6	80 x 280 x 5	125	125	14,0	6	5,5	219
TP6	150	100 x 400 x 22	6	(2x)80 x 185 x 5	125	175	14,0	6	7,2	286
TP6	150	100 x 500 x 22	6	(2x)80 x 235 x 5	125	225	14,0	6	9,0	366
TP6	200	150 x 150 x 22	6	130 x 130 x 5	175	50	14,0	4	3,7	163
TP6	200	150 x 200 x 22	6	130 x 180 x 5	175	75	14,0	4	4,9	228
TP6	200	150 x 300 x 22	6	130 x 280 x 5	175	125	14,0	6	7,4	358
TP6	200	150 x 400 x 22	6	(2x)130 x 185 x 5	175	175	14,0	6	9,9	471
TP6	200	150 x 500 x 22	6	(2x)130 x 235 x 5	175	225	14,0	6	12,4	600
TP6	250	200 x 200 x 22	6	180 x 180 x 5	225	75	14,0	4	6,5	318
TP6	250	200 x 300 x 22	6	180 x 280 x 5	225	125	14,0	6	9,7	498
TP6	250	200 x 400 x 22	6	(2x)180 x 185 x 5	225	175	14,0	6	12,9	656
TP6	250	200 x 500 x 22	6	(2x)180 x 235 x 5	225	225	14,0	6	16,1	835

- special sizes available on request, consider our design notes

Sliding support Type TP7

for fixing by bolting

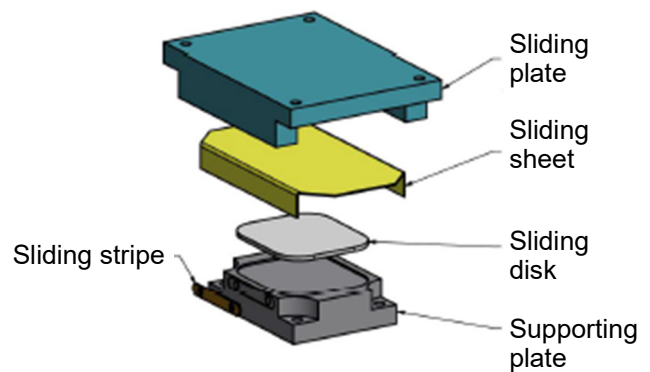
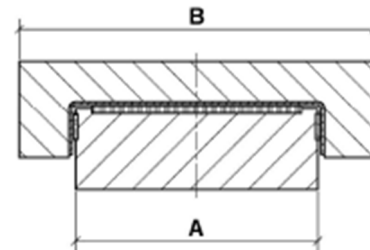
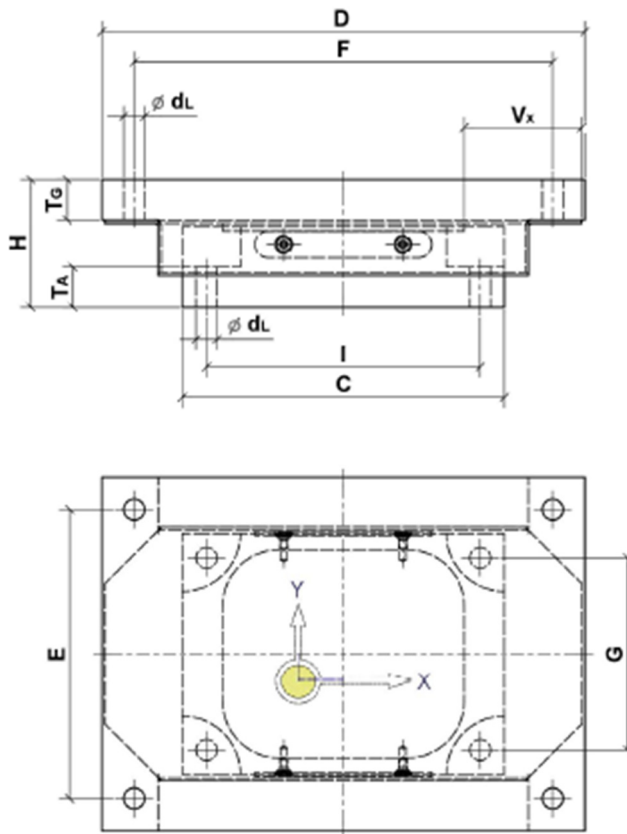


Type	Base plate			PTFE	Boreholes			Bore- holes mm	Weight kg	Load Max N _{sd} kN
	A mm	B x C x H mm	T _A mm		E mm	F mm	Ød _L mm			
TP7	150	50 x 100 x 22	6	30 x 80 x 5	125	0	11,5	2	0,85	22
TP7	200	50 x 150 x 22	6	30 x 130 x 5	175	0	11,5	2	1,2	37
TP7	250	50 x 200 x 22	6	30 x 180 x 5	225	0	11,5	2	1,5	52
TP7	350	50 x 300 x 22	6	30 x 280 x 5	325	0	11,5	2	2,2	82
TP7	450	50 x 400 x 22	6	(2x)30 x 185 x 5	425	0	11,5	2	2,9	112
TP7	550	50 x 500 x 22	6	(2x)30 x 235 x 5	525	0	11,5	2	3,5	142
TP7	200	100 x 150 x 22	6	80 x 130 x 5	175	60	14,0	4	2,5	98
TP7	250	100 x 200 x 22	6	80 x 180 x 5	225	60	14,0	4	3,2	138
TP7	350	100 x 300 x 22	6	80 x 280 x 5	325	60	14,0	4	4,7	219
TP7	450	100 x 400 x 22	6	(2x)80 x 185 x 5	425	60	14,0	4	6,2	286
TP7	550	100 x 500 x 22	6	(2x)80 x 235 x 5	525	60	14,0	4	7,7	366
TP7	250	150 x 200 x 22	6	130 x 180 x 5	225	100	14,0	4	4,8	228
TP7	350	150 x 300 x 22	6	130 x 280 x 5	325	100	14,0	4	7,1	358
TP7	450	150 x 400 x 22	6	(2x)130 x 185 x 5	425	100	14,0	4	9,3	471
TP7	550	150 x 500 x 22	6	(2x)130 x 235 x 5	525	100	14,0	4	11,5	600
TP7	350	200 x 300 x 22	6	180 x 280 x 5	325	150	14,0	4	9,4	498
TP7	450	200 x 400 x 22	6	(2x)180 x 185 x 5	425	150	14,0	4	12,4	656
TP7	550	200 x 500 x 22	6	(2x)180 x 235 x 5	525	150	14,0	4	15,4	835

- special sizes available on request, consider our design notes

Flat sliding support Type G1

with inserted PTFE pad, guided



Inserted sliding disk and stainless steel sheet welded

Load			Sl.dist	Base plate	PTFE			H	Boreholes			Weight
Max N _{Sd} T≤30°C	Max N _{Sd} T=48°C	V _{y, sd}	V _x *	A x C	B x D*	T _G	T _A		E x F*	G x I	Ød _L	
kN			±mm	mm	mm			mm	mm		mm	kg
700	500	125	50	150x150	220x250	25	25	80	180x210	120x120	13	22
1000	700	150	50	150x200	220x300	25	25	80	180x260	120x170	13	28
1500	1000	200	50	200x200	270x300	30	25	85	230x260	170x170	13	39
2000	1250	200	50	200x250	270x350	30	25	85	230x310	170x220	13	46
2750	1500	300	50	250x250	340x350	35	35	100	290x300	210x210	17	69
3500	2000	400	50	250x300	340x400	35	35	100	290x350	210x260	17	81
3750	2500	500	50	300x300	390x400	40	45	115	330x340	250x250	21	107
5000	3250	600	50	300x400	390x500	40	45	115	330x440	250x350	21	139
7250	4250	700	50	400x400	490x500	45	45	120	410x420	340x340	25	187
9250	5500	800	50	400x500	490x600	45	45	120	410x520	340x440	25	230

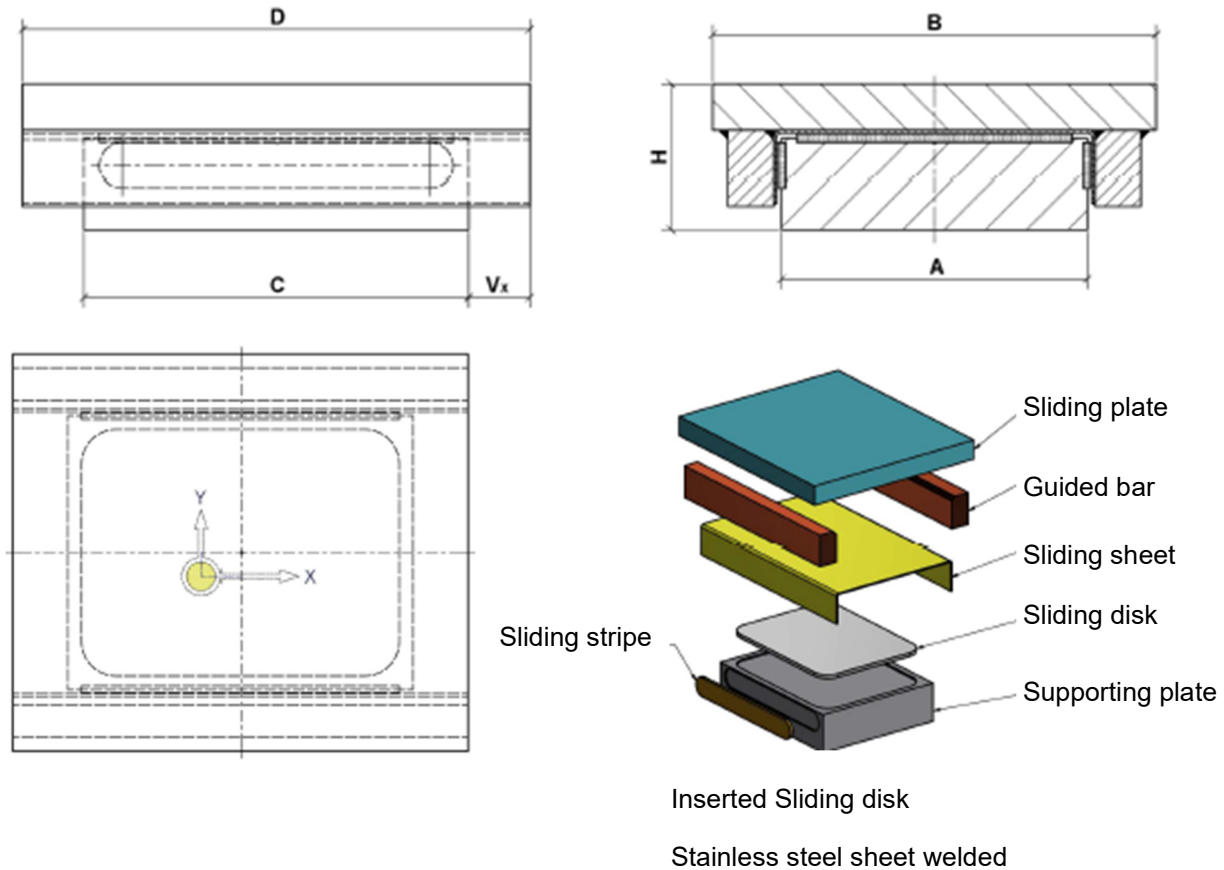
*in case of displacements V_x ≥ 50 mm D and F are enlarged accordingly

- special sizes available on request, consider our design notes

Design in accordance with EN and DIN

Flat sliding support Type G1s

with inserted PTFE pad, guided



Type	Load		Base plate	Sliding plate			H	Weight at D* ±40
	Max N _{Sd}	V _{y, sd}		B x D* ±20	D* ±40	D* ±80		
	kN		A x C mm	mm			mm	kg
G1s	100	40	80x100	140x140	180	260	55	6
G1s	250	90	100x150	170x190	230	310	70	13
G1s	500	150	150x180	230x220	260	340	90	26
G1s	750	240	150x250	240x290	330	410	95	37
G1s	1000	250	200x250	290x290	330	410	95	49
G1s	1500	350	250x250	360x290	330	410	125	79
G1s	2000	480	300x300	430x340	380	460	135	121
G1s	2500	600	340x340	480x380	420	500	140	161
G1s	3000	700	370x370	520x410	450	530	145	198
G1s	3500	800	370x420	540x460	500	580	145	227
G1s	4000	900	420x420	600x460	500	580	150	267
G1s	4500	1000	420x470	620x510	550	630	150	301
G1s	5000	1100	470x470	680x510	550	630	155	348

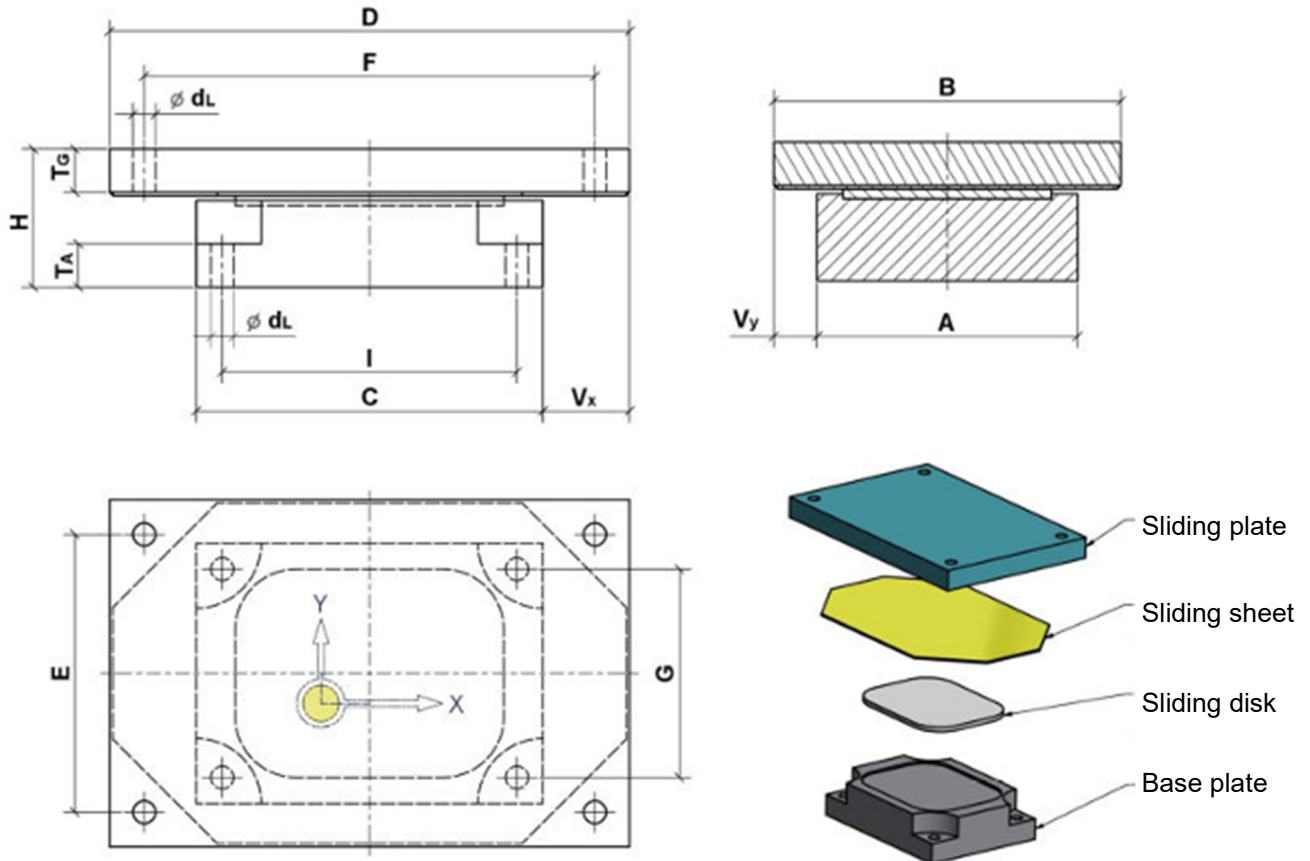
*at sliding path

special sizes on request, consider our design notes

Design in accordance with EN and DIN

Flat sliding support Type G2

with inserted PTFE pad, loose



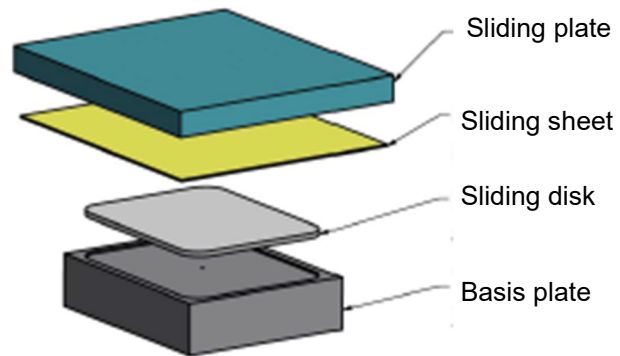
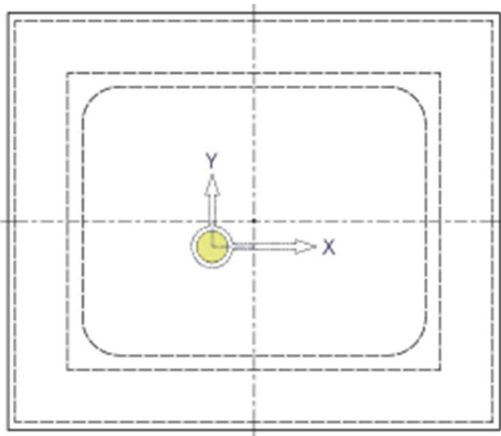
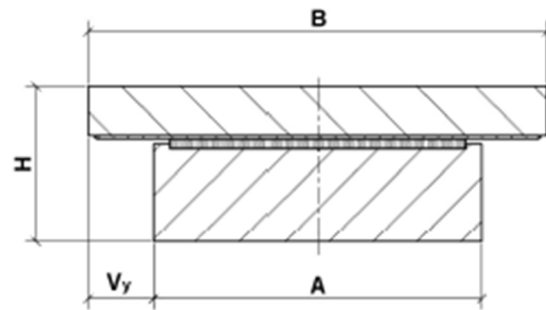
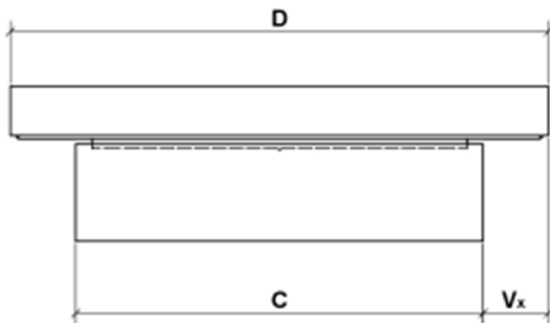
Inserted sliding disk
Stainless steel sheet welded

Type	Load		Sl.dist		Base plate	Sliding plate			H	Boreholes			Weight
	Max N _{Sd}		V _x *	V _y	A x C	B x D*	T _G	T _A		E x F*	G x I	Ød _L	
	T≤30°C	T=48°C											
	kN		±mm		mm	mm			mm	mm		mm	kg
G2	700	500	50	25	150x150	200x250	25	25	80	160x210	120x120	13	20
G2	1000	700	50	25	150x200	200x300	25	25	80	160x260	120x170	13	25
G2	1500	1000	50	25	200x200	250x300	30	25	85	210x260	170x170	13	35
G2	2000	1250	50	25	200x250	250x350	30	25	85	210x310	170x220	13	42
G2	2750	1500	50	25	250x250	300x350	35	35	100	250x300	210x210	17	61
G2	3500	2000	50	25	250x300	300x400	35	35	100	250x350	210x260	17	71
G2	3750	2500	50	25	300x300	350x400	40	45	115	290x340	250x250	17	97
G2	5000	3250	50	25	300x400	350x500	40	45	115	290x440	250x350	17	126
G2	7250	4250	50	25	400x400	450x500	45	45	120	370x420	340x340	17	174
G2	9250	5500	50	25	400x500	450x600	45	45	120	370x520	340x440	17	213

*in case of displacements $V_x \geq 50$ mm L and F are enlarged accordingly
- special sizes on request, consider our design notes
- design in accordance with EN and DIN

Flat sliding support Type G2s

with inserted PTFE pad, loose
Standard Series



Inserted sliding disk
Stainless steel sheet welded

Type	Load	Base plate	Sliding plate						H	Weight at ±40
	Max N _{Sd}	A x C	B* ±20	B* ±40	B* ±80	D* ±20	D* ±40	D* ±80		
	kN	mm	mm						mm	kg
G2S	100	80x100	120	160	240	140	180	260	55	7
G2S	250	100x150	140	180	260	190	230	310	70	13
G2S	500	150x180	190	230	310	220	260	340	90	26
G2S	750	150x250	190	230	310	290	330	410	95	37
G2S	1000	200x250	240	280	360	290	330	410	95	49
G2S	1500	250x250	290	330	410	290	330	410	125	76
G2S	2000	300x300	340	380	460	340	380	460	135	115
G2S	2500	340x340	380	420	500	380	420	500	95	110
G2S	3000	370x370	410	450	530	410	450	530	95	131
G2S	3500	370x420	410	450	530	460	500	580	125	184
G2S	4000	420x420	460	500	580	460	500	580	125	209
G2S	4500	420x470	460	500	580	510	550	630	135	248
G2S	5000	470x470	510	550	630	510	550	630	135	278

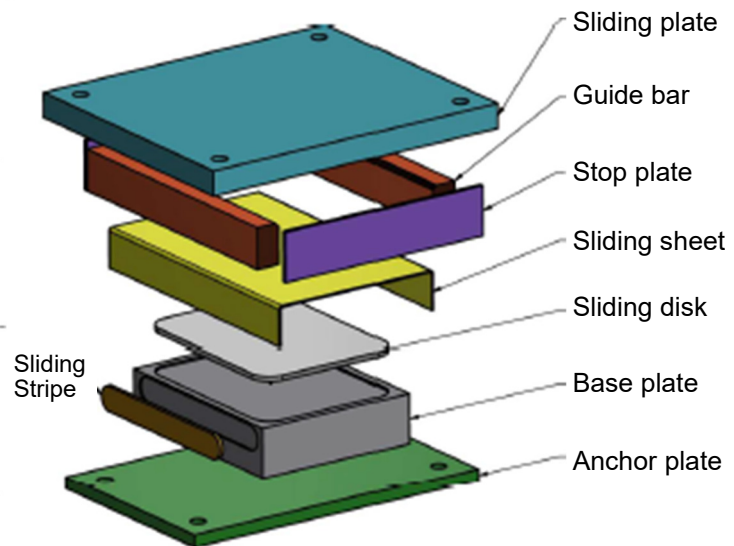
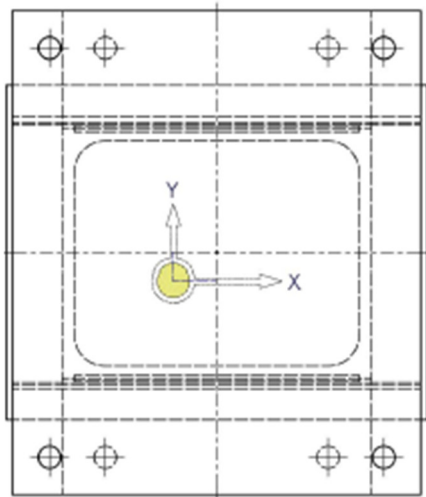
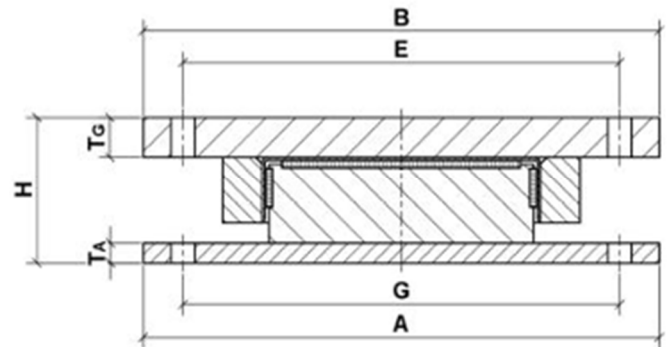
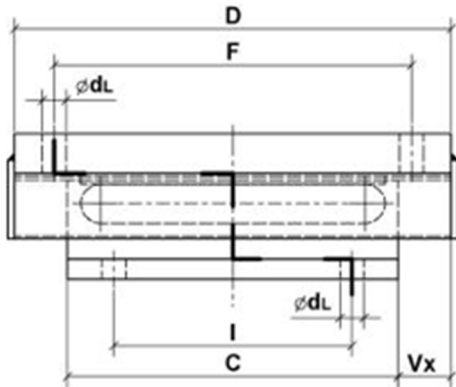
* at sliding path

- special sizes available on request, consider our design notes

- The standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Flat sliding support Type G1sb

with inserted PTFE pad, guided
Standard Series



Inserted sliding disk
Stainless steel sheet welded

Type	Load		Dimensions														Weight at D/F ±40
	Max N _{sd}	V _{y, sd}	A=B	C	E=G	I	D			F			H	T _G	T _A	Ø _{dL}	
							±20*	±40*	±80*	±20*	±40*	±80*					
	kN	mm	mm	mm	mm	mm											
G1sb	20	15	170	50	130	≠/	90	130	210	50	90	170	70	15	15	14	5,4
G1sb	50	30	180	100	140	60	140	180	260	100	140	220	70	15	15	14	8,7
G1sb	100	30	210	100	170	60	140	180	260	100	140	220	70	15	15	14	10,8
G1sb	250	75	250	150	200	100	190	230	310	140	180	260	85	20	15	18	22,3
G1sb	500	125	310	180	260	130	220	260	340	180	220	300	110	25	20	18	43,8
G1sb	750	200	340	250	280	180	290	330	410	230	270	350	115	30	20	23	66,6
G1sb	1000	200	390	250	330	180	290	330	410	230	270	350	115	30	20	23	78,9
G1sb	1250	300	450	250	380	180	290	330	410	200	240	320	150	40	25	27	121,5
G1sb	1500	300	470	250	400	180	290	330	410	200	240	320	150	40	25	27	127,6
G1sb	1750	400	520	300	430	200	340	380	460	250	290	370	165	50	30	33	187,2
G1sb	2000	400	570	300	480	200	340	380	460	250	290	370	165	50	30	33	204,9

* at sliding path

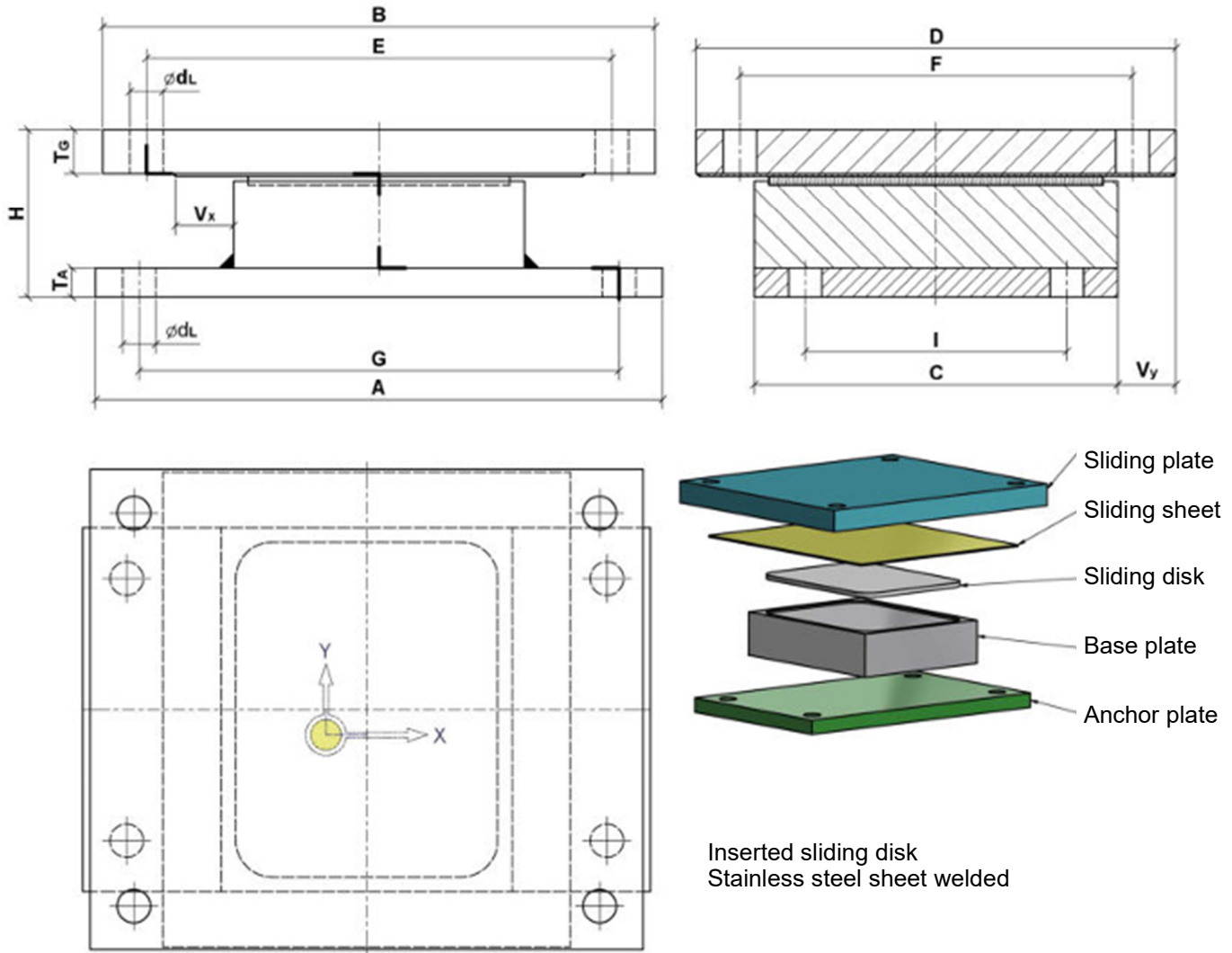
- special sizes available on request, consider our design notes

- stop plate and sliding strips optional

- The std. series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Flat sliding support Type G2sb

with inserted PTFE pad, loose



Type	Load	Dimensions																			Weight at ±40	
	Max N _{Sd} kN	A	C	G	I	B*			E*			D*			F*			H	T _G	T _A		Ød _L
						±20	±40	±80	±20	±40	±80	±20	±40	±80	±20	±40	±80					
						mm				mm												
G2sb	20	170	50	130	-/-	160	200	280	120	160	240	90	130	210	50	90	170	70	15	15	14	5
G2sb	50	180	100	140	60	160	200	280	120	160	240	140	180	260	100	140	220	70	15	15	14	7,9
G2sb	100	210	100	170	60	190	230	310	150	190	270	140	180	260	100	140	220	70	15	15	14	9,9
G2sb	250	250	150	200	100	220	260	340	170	210	290	190	230	310	140	180	260	85	20	15	18	19,4
G2sb	500	310	180	260	130	270	310	390	220	260	340	220	260	340	180	220	300	110	25	20	18	37,7
G2sb	750	340	250	280	180	290	330	410	230	270	350	290	330	410	230	270	350	115	30	20	23	55,8
G2sb	1000	390	250	330	180	340	380	460	280	320	400	290	330	410	230	270	350	115	30	20	23	69,1
G2sb	1250	450	250	380	180	380	420	500	310	350	430	290	330	410	200	240	320	150	40	25	27	102
G2sb	1500	470	250	400	180	400	440	520	330	370	450	290	330	410	200	240	320	150	40	25	27	108
G2sb	1750	520	300	430	200	480	520	600	390	430	510	340	380	460	250	290	370	165	50	30	33	161,1
G2sb	2000	570	300	480	200	530	570	650	440	480	560	340	380	460	250	290	370	165	50	30	33	181,6

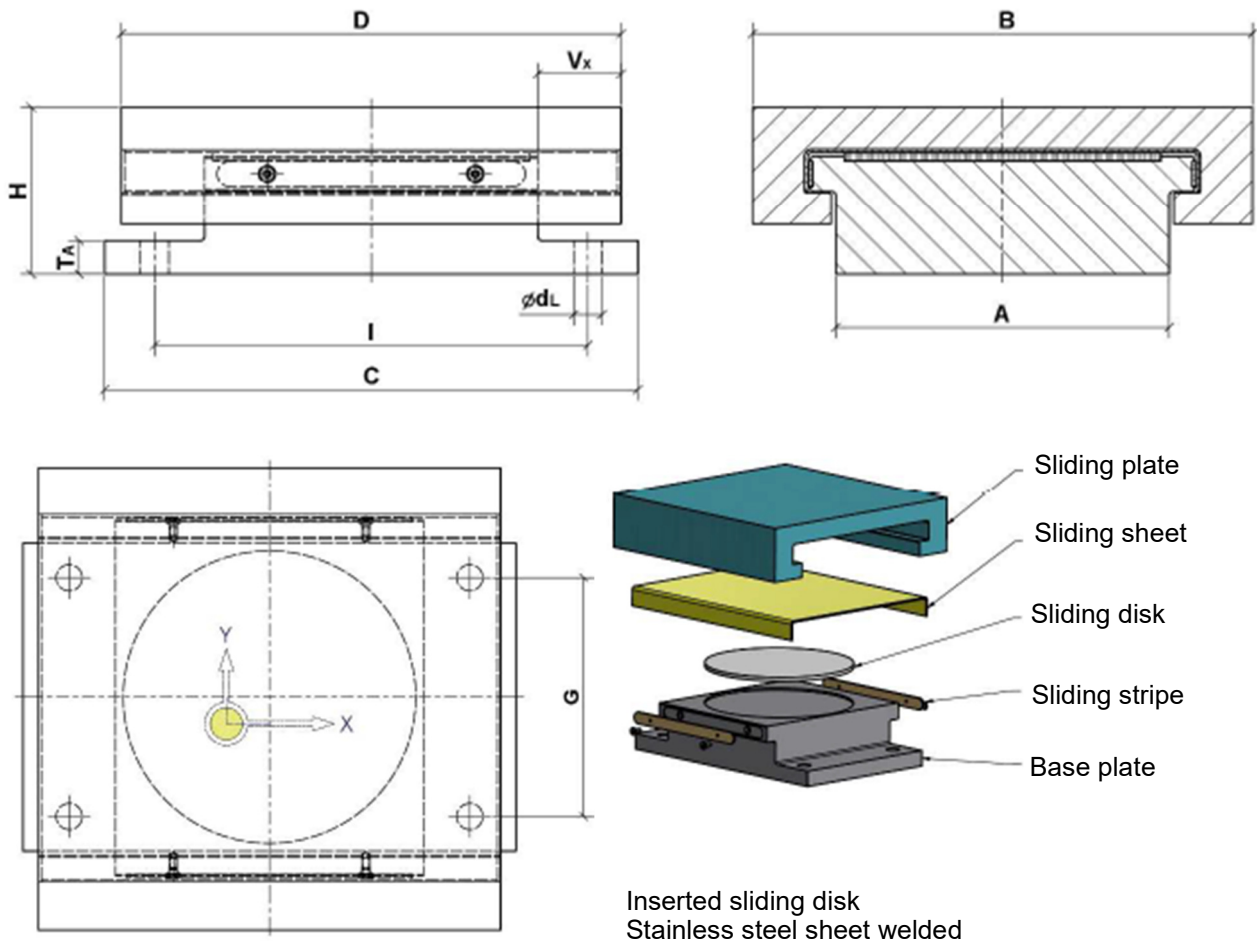
*at sliding path

special sizes available on request, consider our design notes

The standard series does not comply in all technical details with actual EN standards and regulations but is a proven solution in many applications

Flat sliding support Type LD1

with lift-up device, Guided



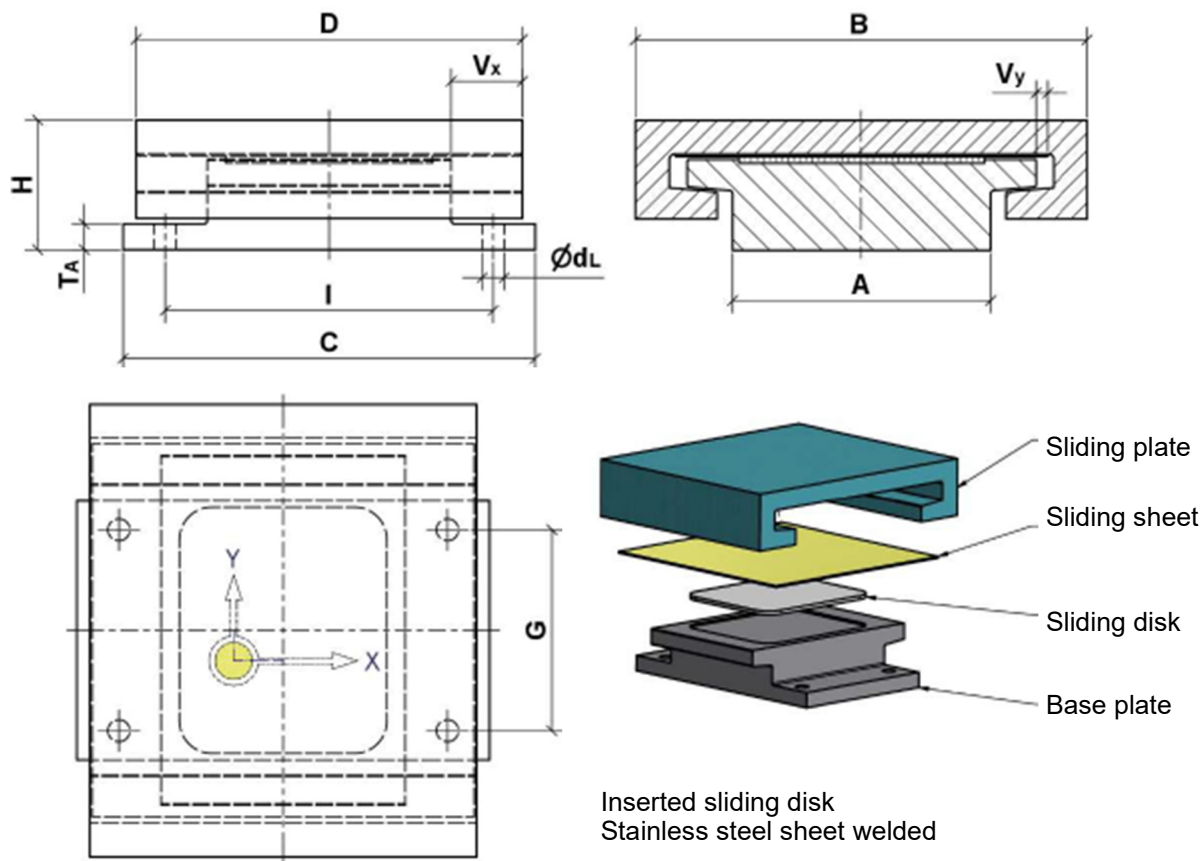
Type	Load			Slip	Base plate				Sliding plate	H	Weight
	Max N _{Sd}	Min N _{S,d}	V _{y, sd}	V _x *	A x C	G x I	T _A	Ød _L	B x D		
	kN			mm	mm				mm		
LD1	500	-100	100	50	150 x 250	100 x 200	20	17	250 x 250	100	40
LD1	1000	-200	200	50	200 x 320	140 x 260	25	21	300 x 300	100	60
LD1	2000	-250	400	50	250 x 400	180 x 330	30	28	370 x 350	110	100

*at sliding path

- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Flat sliding support Type LD2

with lift-up device, Loose



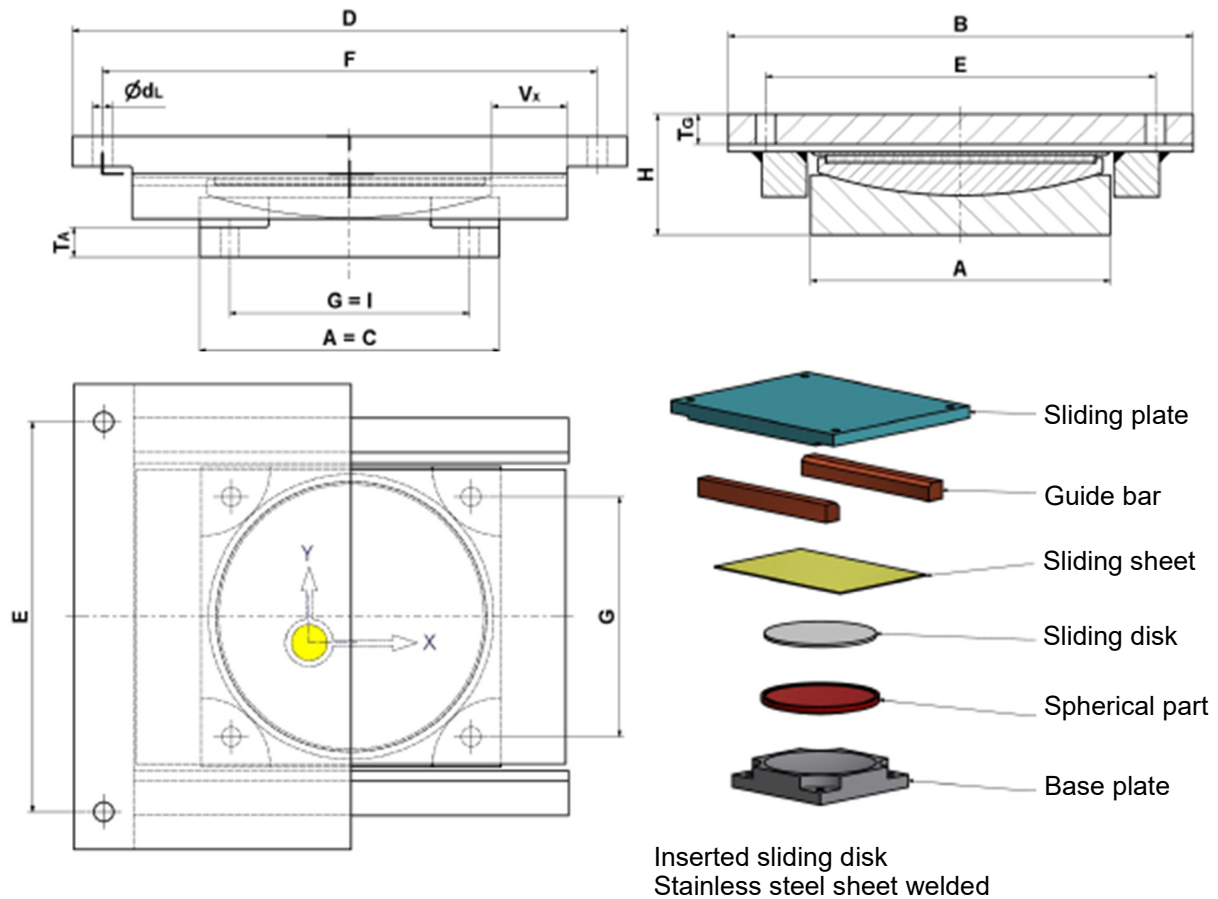
Type	Load		Slip		Base plate				Sliding plate	H	Weight
	Max N _{Sd}	Min N _{S,d}	V _x *	V _y *	A x C	G x I	T _A	Ød _L	B x D		
	kN		±mm		mm	mm	mm	mm	mm	mm	kg
LD2	500	-100	50	10	150 x 250	100 x 200	20	17	300 x 250	100	45
LD2	1000	-200	50	10	200 x 320	140 x 260	25	21	350 x 300	100	70
LD2	2000	-250	50	10	250 x 370	190 x 310	25	21	420 x 350	110	110

* at sliding path

- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Kalotte sliding support Type K11

with 1 PTFE pad, guided

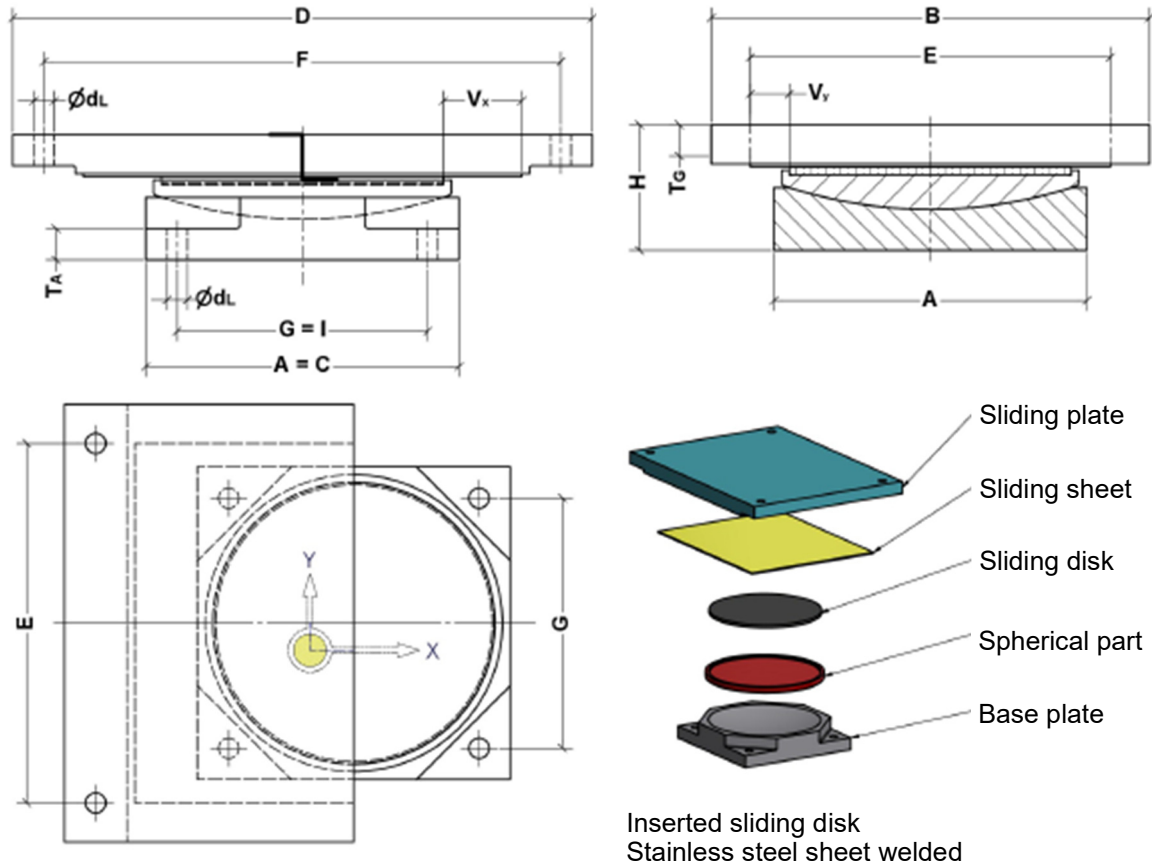


Type	Loads			Sl.dist	Base plate	Sliding plate			H	Boreholes			Weight		
	Max. N _{S,d} T≤30°C	Max. N _{S,d} T=48°C	V _{y,sd}			V _x [*]	A = C	B x D [*]		T _A	T _G	ød _L		E x F [*]	G=I
	kN					±mm	mm	mm			mm	mm			kg
K11	450	250	100	50	160	260 x 320	15	25	80	13	210 x 280	120	34		
K11	1000	500	100	50	200	310 x 370	20	25	80	13	260 x 330	160	48		
K11	1750	1000	200	50	250	360 x 440	20	30	85	17	300 x 390	200	75		
K11	2750	1750	350	50	300	410 x 490	20	35	100	17	350 x 440	250	118		
K11	4000	2500	450	50	350	470 x 560	20	40	110	21	400 x 500	290	176		
K11	5250	3500	600	50	400	520 x 630	20	45	115	25	440 x 560	330	234		
K11	7000	4500	750	50	450	580 x 680	20	50	125	25	500 x 610	380	322		
K11	8750	5500	900	50	500	630 x 750	25	50	130	28	540 x 670	420	396		
K11	11000	7000	1000	50	550	680 x 800	30	60	145	28	590 x 720	470	516		
K11	15750	10000	1500	50	670	820 x 930	30	85	175	31	720 x 840	580	908		

*in case of displacements $V_x \geq 50$ mm [L and F] are enlarged accordingly
- special sizes available on request, consider our desing note
- design in accordance with EN and DIN

Kalotte sliding support Type K12

with 1 PTFE pad, loose

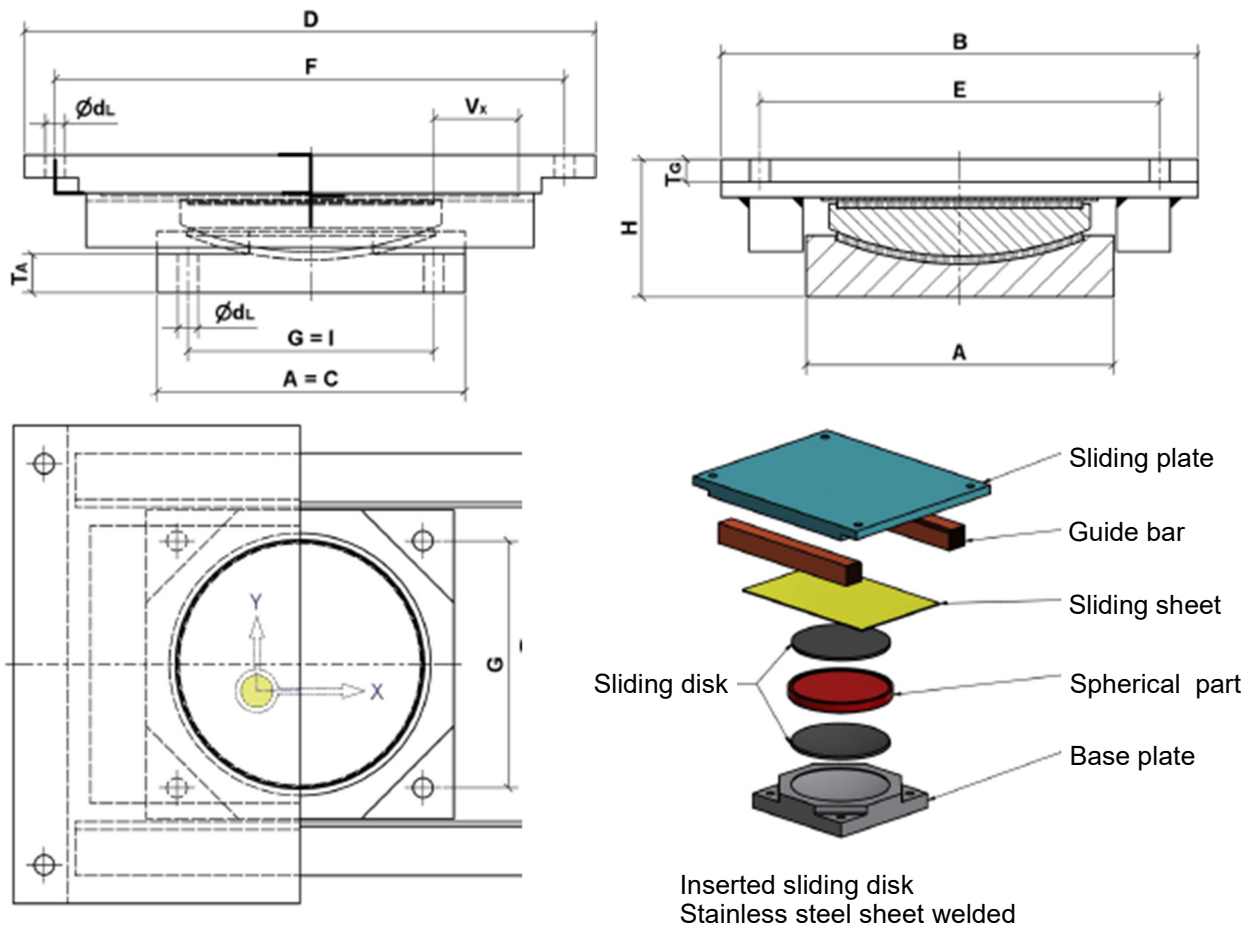


Type	Load		Slide		Base plate	Sliding plate				H	Boreholes			Weight
	Max. N _{S,d} T≤30°C	Max. N _{S,d} T=48°C	V _x *	V _y	A = C	B x D*	T _A	T _G	Ød _L		E x F*	G = I		
	kN		±mm		mm	mm					mm	mm		
K12	450	250	50	25	160	240 x 320	15	25	80	13	190 x 280	120	25	
K12	1000	500	50	25	200	280 x 370	20	25	80	13	230 x 330	160	36	
K12	1750	1000	50	25	250	330 x 440	20	30	85	17	270 x 390	200	60	
K12	2750	1750	50	25	300	380 x 490	20	35	100	17	320 x 440	250	93	
K12	4000	2500	50	25	350	430 x 540	20	40	110	17	370 x 490	300	133	
K12	5250	3500	50	25	400	480 x 590	20	45	115	17	420 x 540	350	175	
K12	7000	4500	50	25	450	530 x 640	20	50	125	17	470 x 590	400	241	
K12	8750	5500	50	25	500	580 x 710	25	50	130	21	510 x 650	440	299	
K12	11000	7000	50	25	550	630 x 760	30	60	145	21	560 x 700	490	401	
K12	15750	10000	50	25	670	750 x 870	30	85	175	21	680 x 810	610	711	

*in case of displacements $V_x \geq 50$ mm D and F are enlarged accordingly
- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Kalotte sliding support Type K21

with 2 PTFE pads, guided

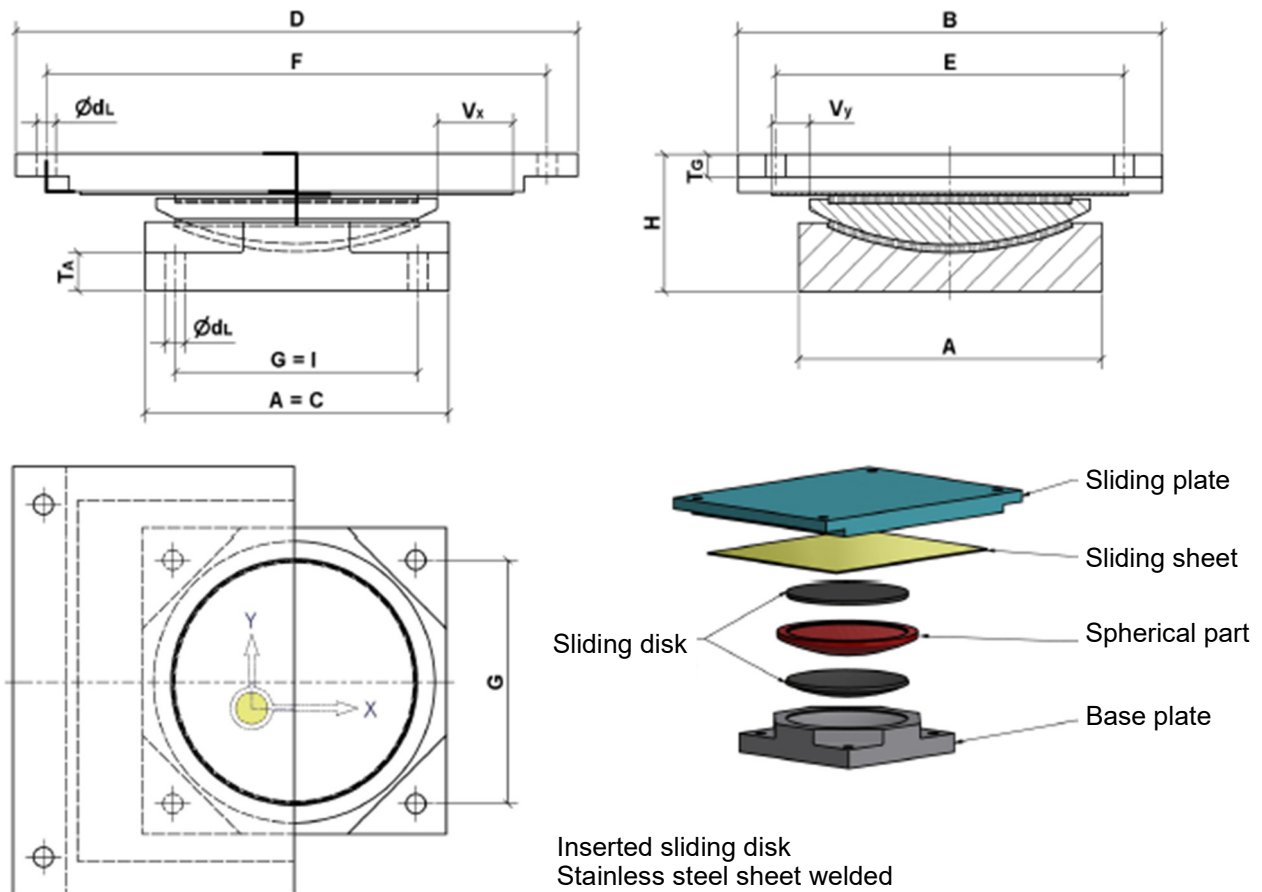


Type	Load			Sl.disk	Base plate	Sliding plate			H	Boreholes			Weight
	Max. N _{S,d} T≤30°C	Max. N _{S,d} T=48°C	V _{y,sd}	V _x *	A = C	B x D*	T _A	T _G		Ød _L	E x F*	G = I	
	kN			±mm	mm	mm				mm	mm		
	K21	450	250	100	50	160	260 x 320	25		15	90	13	210 x 280
K21	1000	500	100	50	200	310 x 370	25	15	90	13	260 x 330	160	40
K21	1750	1000	200	50	250	360 x 440	25	15	95	17	300 x 390	200	70
K21	2750	1750	350	50	300	410 x 490	25	15	115	17	350 x 440	250	105
K21	4000	2500	450	50	350	470 x 560	25	20	130	21	400 x 500	290	155
K21	5250	3500	600	50	400	520 x 630	25	20	140	25	440 x 560	330	215
K21	7000	4500	750	50	450	580 x 680	25	20	150	25	500 x 610	380	290
K21	8750	5500	900	50	500	630 x 750	25	25	160	28	540 x 670	420	365
K21	11000	7000	1000	50	550	680 x 800	35	25	170	28	590 x 720	470	480
K21	15750	10000	1500	50	670	820 x 930	35	35	200	31	720 x 840	580	830

*in case of displacements $V_x \geq 50$ mm D and F are enlarged accordingly
- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Kalotte sliding support Type K22

with 2 PTFE pads, loose

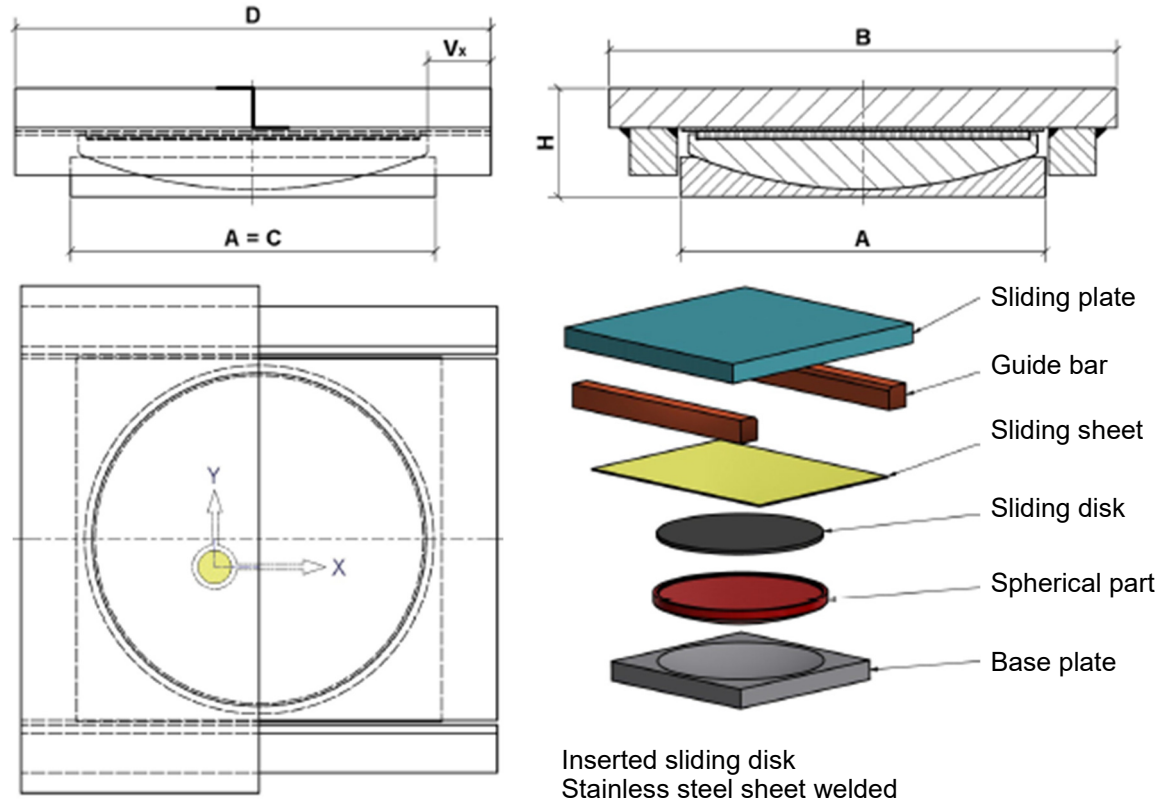


Type	Load		Slide disk		Base plate	Sliding plate			H	Boreholes			Weight	
	Max. N _{S,d} T≤30°C	Max. N _{S,d} T=48°C	V _x *	V _y	A = C	B x D*	T _A	T _G		Ød _L	E x F*	G = I		
	kN		±mm		mm	mm				mm	mm			kg
K22	450	250	50	25	160	240 x 320	10	25	90	13	190 x 280	120	26	
K22	1000	500	50	25	200	280 x 370	15	30	90	13	230 x 330	160	38	
K22	1750	1000	50	25	250	330 x 440	15	35	95	17	270 x 390	200	62	
K22	2750	1750	50	25	300	380 x 490	20	40	115	17	320 x 440	250	100	
K22	4000	2500	50	25	350	430 x 540	20	45	130	17	370 x 490	300	147	
K22	5250	3500	50	25	400	480 x 590	25	55	140	17	420 x 540	350	200	
K22	7000	4500	50	25	450	530 x 640	25	60	150	17	470 x 590	400	271	
K22	8750	5500	50	25	500	580 x 710	25	60	160	21	510 x 650	440	346	
K22	11000	7000	50	25	550	630 x 760	25	85	170	21	560 x 700	490	446	
K22	15750	10000	50	25	670	750 x 870	25	85	200	21	680 x 810	610	778	

*in case of displacements $V_x \geq 50$ mm [D and F] are enlarged accordingly
- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Kalotte sliding support Type K11s

with 1 PTFE pads, guided



Type	Load		Base plate	Sliding plate			H	Weight at ±40
	Max. N _{S,d}	V _{y, sd}	A = C	B x D* ±20	D* ±40	D* ±80		
	kN		mm	mm				
K11s	100	20	90	140 x 120	160	240	45	5
K11s	250	50	130	190 x 160	200	280	50	10
K11s	500	100	170	250 x 200	240	320	57	19
K11s	750	150	200	290 x 230	270	350	65	27
K11s	1000	200	230	320 x 260	300	380	70	39
K11s	1500	300	280	400 x 310	350	430	75	60
K11s	2000	400	320	460 x 350	390	470	87	90
K11s	2500	500	360	510 x 390	430	510	103	136
K11s	3000	600	390	540 x 420	460	540	103	157
K11s	3500	700	420	600 x 450	490	570	120	217
K11s	4000	800	440	620 x 470	510	590	123	245
K11s	4500	900	470	680 x 500	540	620	130	300
K11s	5000	1000	490	700 x 520	560	640	130	323

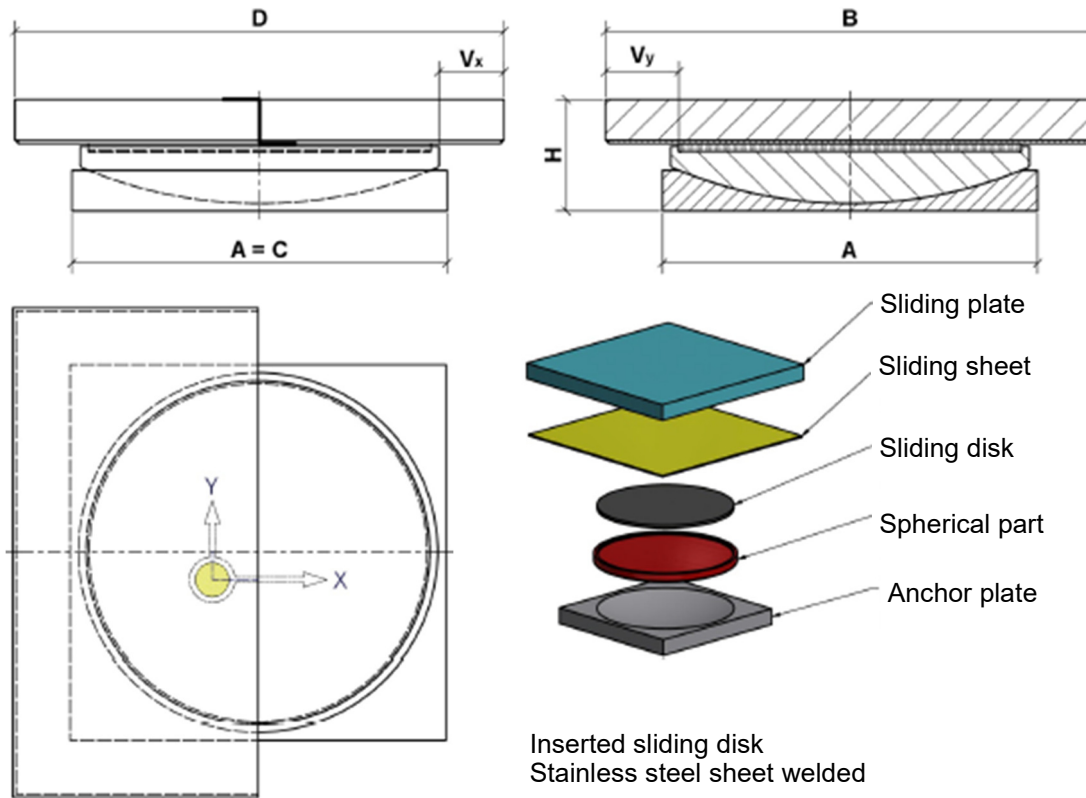
*at sliding path (mm)

- special sizes available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K12s

with 1 PTFE pads, loose



Type	Load	Base plate	Sliding plate						H	Weight at ± 40
	Max. $N_{S,d}$	A = C	B* ± 10	B* ± 40	B* ± 80	D* ± 10	D* ± 40	D* ± 80		
	kN	mm	mm						mm	kg
K12s	100	90	100	160	240	100	160	240	45	5
K12s	250	130	160	200	280	160	200	280	50	10
K12s	500	170	200	240	320	200	240	320	57	18
K12s	750	200	230	270	350	230	270	350	65	27
K12s	1000	230	260	300	380	260	300	380	70	38
K12s	1500	280	310	350	430	310	350	430	75	56
K12s	2000	320	350	390	470	350	390	470	87	84
K12s	2500	360	390	430	510	390	430	510	103	125
K12s	3000	390	420	460	540	420	460	540	103	145
K12s	3500	420	450	490	570	450	490	570	120	195
K12s	4000	440	470	510	590	470	510	590	123	220
K12s	4500	470	500	540	620	500	540	620	130	264
K12s	5000	490	520	560	640	520	560	640	130	285

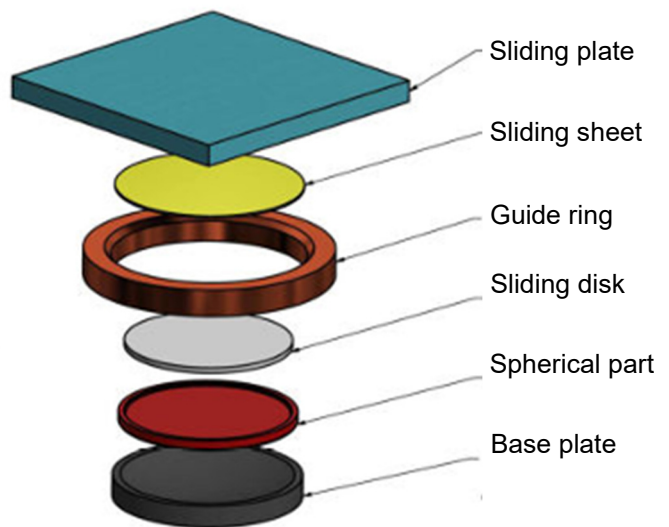
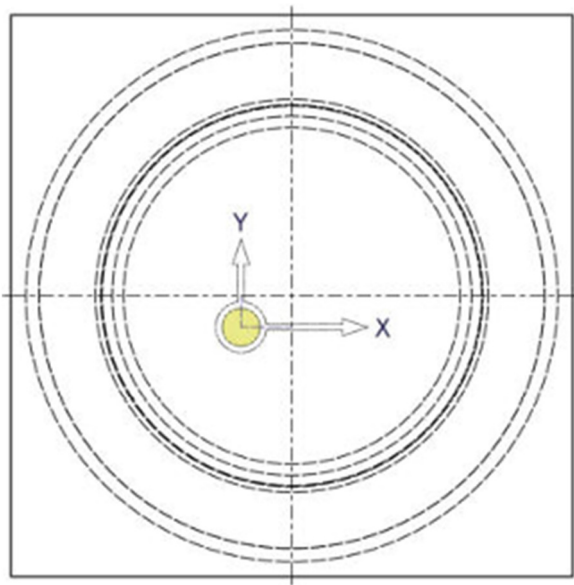
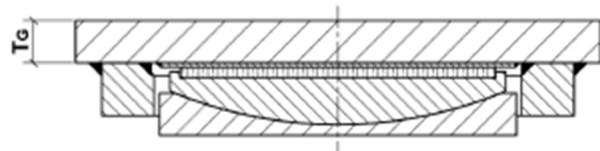
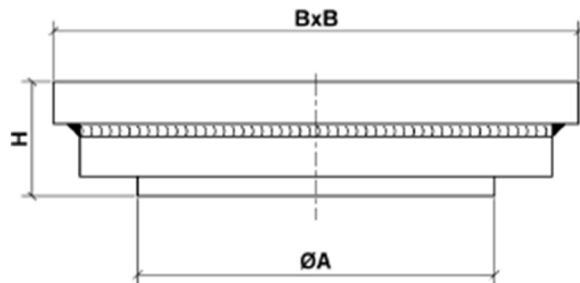
*at sliding path (mm)

- special sizes available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K1Fs

with 1 PTFE pads, fixed



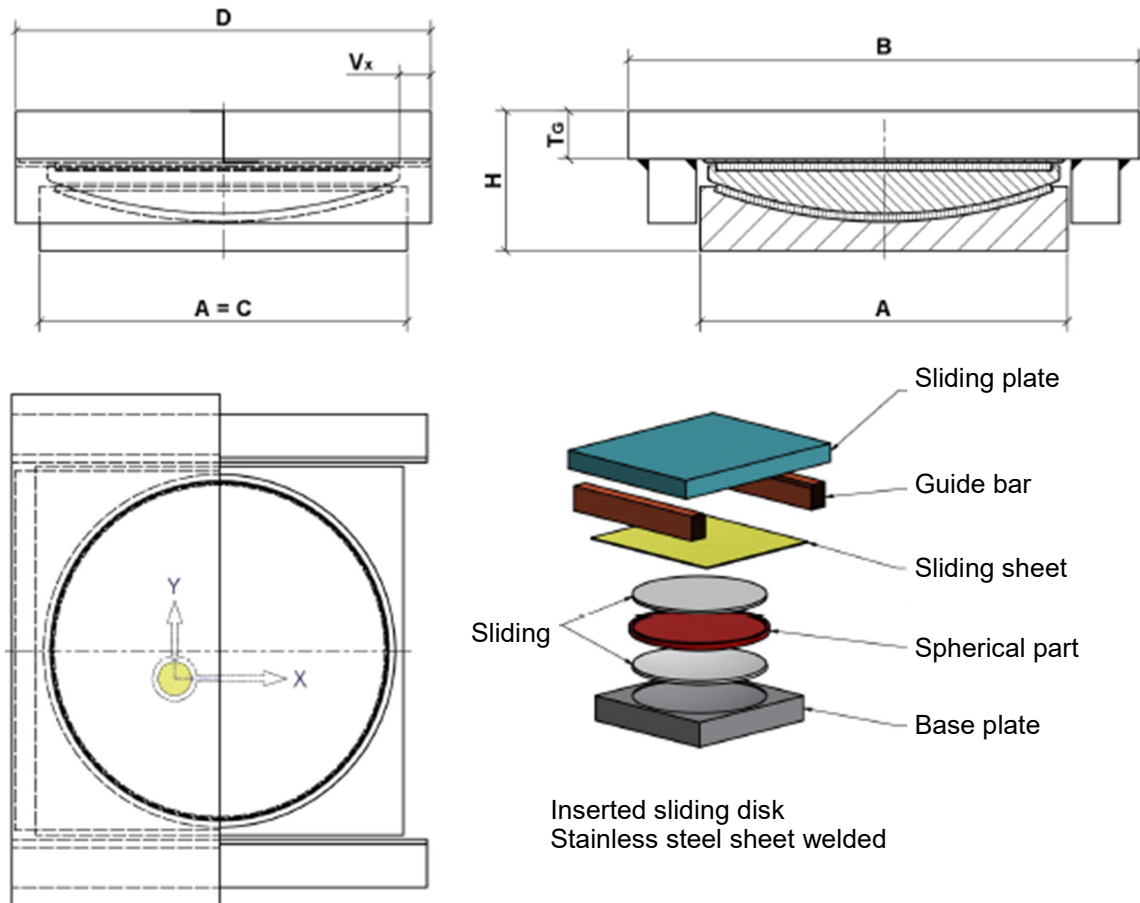
Inserted sliding disk
Stainless steel sheet welded

Type	Load		Dimensions				Weight
	Max. N _{s,d}	V _{y,sd}	ØA	B	H	T _G	
	kN		mm				kg
K1Fs	100	20	90	140	45	15	4,3
K1Fs	250	50	130	190	50	15	10,2
K1Fs	500	100	170	250	57	20	18,1
K1Fs	750	150	200	290	65	20	31,3
K1Fs	1000	200	230	320	70	25	38,6
K1Fs	1500	300	280	390	75	25	63,7
K1Fs	2000	400	320	430	87	35	118,5

- special sizes available on request, consider our design notes
- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K21s

with 2 PTFE pads, guided



Type	Load		Base plate	Sliding plate			H	Weight D at ± 40
	Max $N_{S,d}$	$V_{y,sd}$	A = C	B x D* ± 20	D* ± 40	D* ± 80		
	kN		mm	mm			mm	mm
K21s	250	50	130	190 x 160	200	280	67	12
K21s	500	100	170	250 x 200	240	320	73	22
K21s	750	150	200	300 x 230	270	350	86	35
K21s	1000	200	230	320 x 260	300	380	86	45
K21s	1500	300	280	400 x 310	350	430	91	71
K21s	2000	400	320	460 x 350	390	470	103	110
K21s	2500	450	360	510 x 390	430	510	118	159
K21s	3000	500	390	540 x 420	460	540	122	180
K21s	3500	550	420	580 x 450	490	570	142	244
K21s	4000	600	470	630 x 500	540	620	146	311
K21s	5000	700	510	700 x 540	580	660	148	320

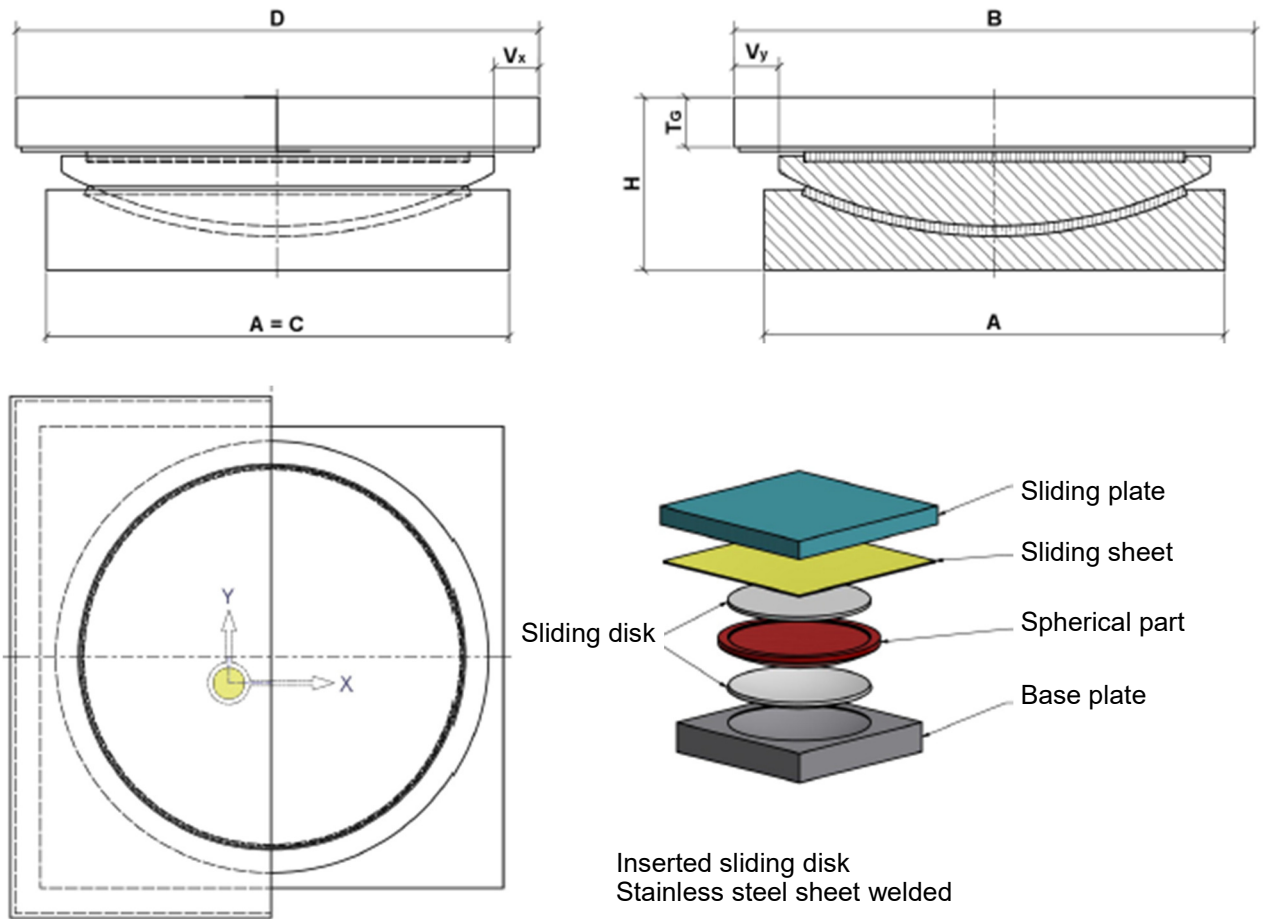
*at sliding path

- special sizes available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K22s

with 2 PTFE pads, loose



Type	Load	Base plate	Sliding plate						H	Weight B,D at ±40
	Max N _{s,d}	A = C	B* ±20	B* ±40	B* ±80	D* ±20	D* ±40	D* ±80		
	kN	mm	mm						mm	kg
K22s	250	130	160	200	280	160	200	280	67	11
K22s	500	170	200	240	320	200	240	320	73	22
K22s	750	200	230	270	350	230	270	350	86	33
K22s	1000	230	260	300	380	260	300	380	86	38
K22s	1500	280	310	350	430	310	350	430	91	58
K22s	2000	320	350	390	470	350	390	470	103	87
K22s	2500	360	390	430	510	390	430	510	118	129
K22s	3000	390	420	460	540	420	460	540	122	156
K22s	3500	420	450	490	570	450	490	570	142	211
K22s	4000	470	500	540	620	500	540	620	146	275
K22s	5000	510	540	580	660	540	580	660	148	327

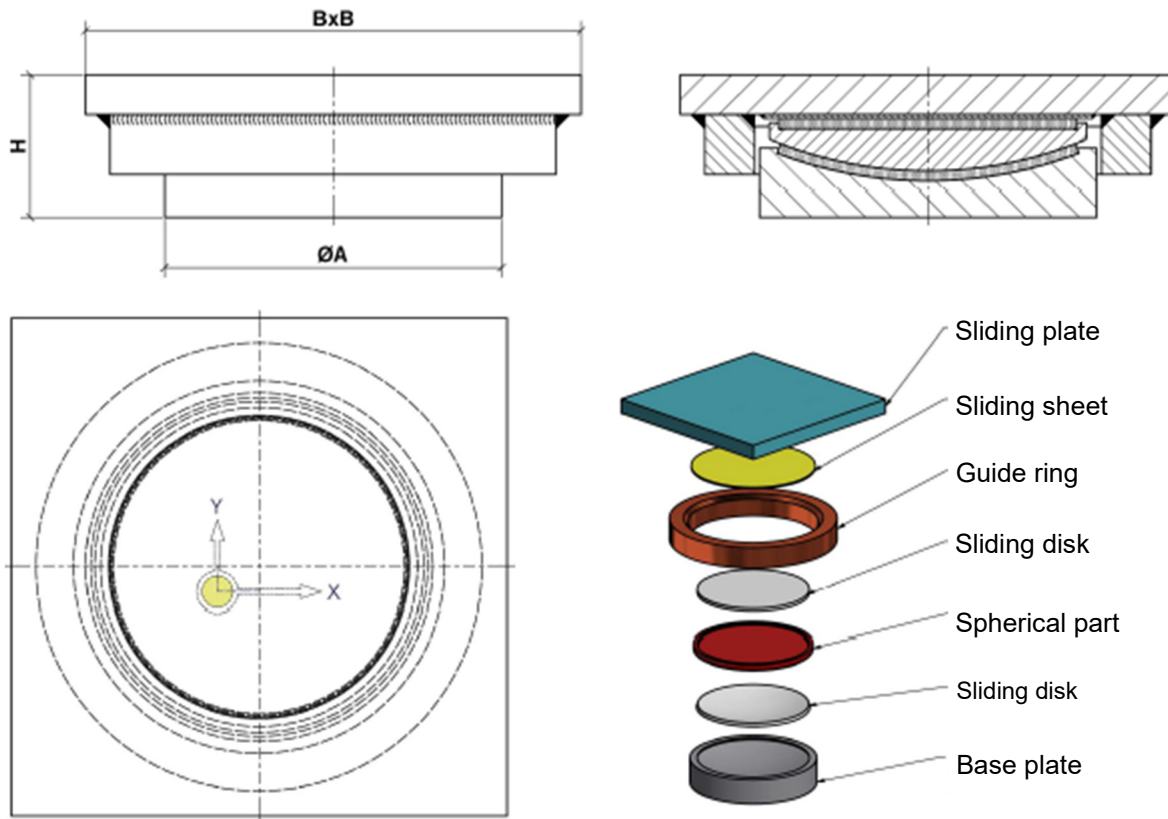
*at sliding path

- special sizes available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications.

Kalotte sliding support Type K2Fs

with 2 PTFE pads, fixed



Inserted sliding disk
Stainless steel sheet welded

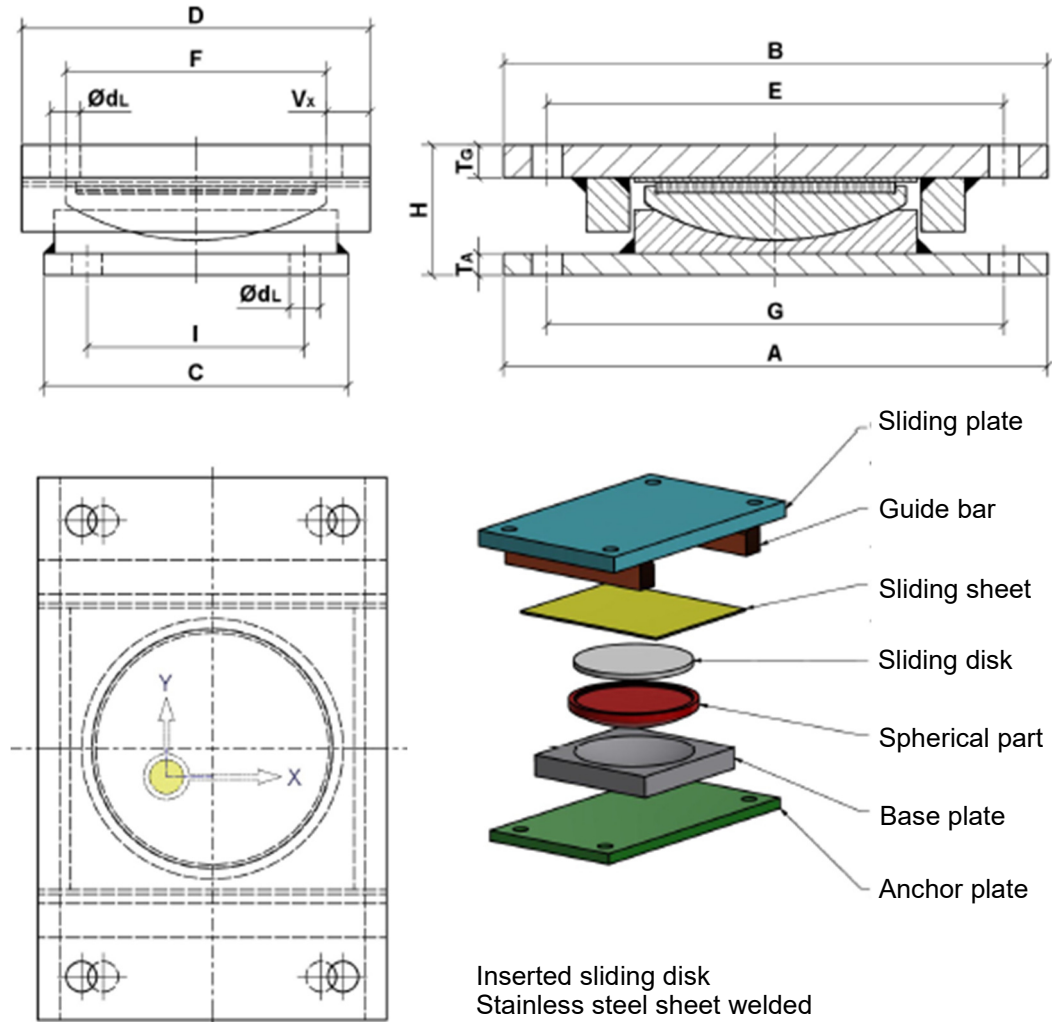
Type	Load		Dimensions		
	Max $N_{S,d}$	$V_{y,sd}$	ØA	B	H
	kN		mm		
K2Fs	250	50	130	190	67
K2Fs	500	100	170	250	73
K2Fs	750	150	200	300	86
K2Fs	1000	200	230	320	86
K2Fs	1500	300	280	400	91
K2Fs	2000	400	320	460	103
K2Fs	2500	450	360	510	118
K2Fs	3000	500	390	540	122
K2Fs	3500	550	420	580	142
K2Fs	4000	600	470	630	146
K2Fs	5000	700	510	700	148

- special sizes is available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K11sb

with 1 PTFE pad, guided



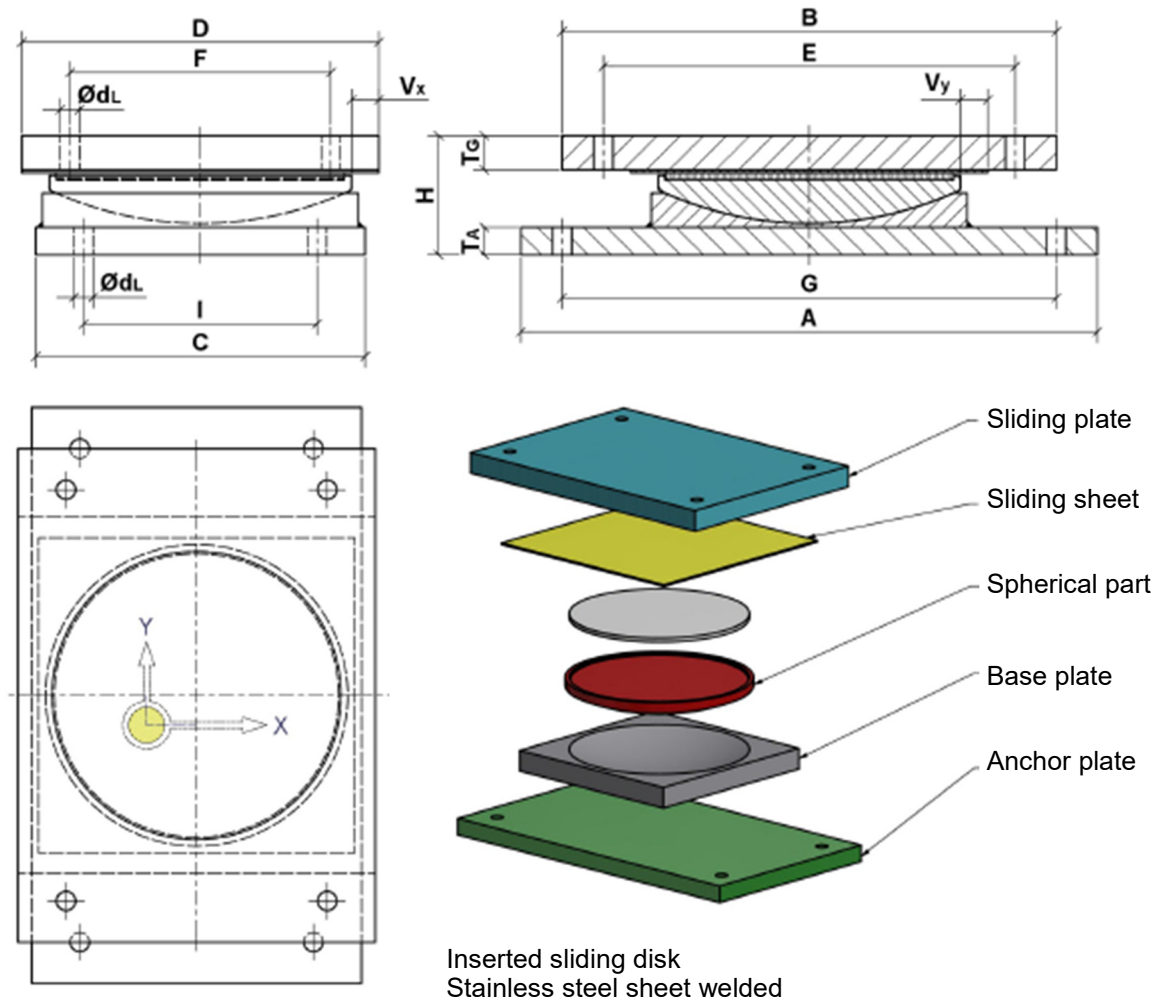
Type	Load		Anchor plate						Bore-holes	Sliding plate										H
	Max N _{S,d}	V _{y,sd}	A	C	G	I	T _A	Ød _L		T _G	B	D ±20	D ±40	D ±80	E	F ±20	F ±40	F ±80		
	kN		mm							mm	mm									
K11sb	100	20	200	100	160	60	10	14	10	200	120	160	240	160	80	120	200	55		
K11sb	250	50	250	140	210	100	10	14	15	250	160	200	280	210	120	160	240	65		
K11sb	500	100	330	180	280	120	15	18	20	330	200	240	320	280	150	190	270	77		
K11sb	750	150	370	210	320	150	15	18	20	370	230	270	350	320	180	220	300	85		
K11sb	1000	200	420	240	360	170	20	22	25	420	260	300	380	360	190	230	310	95		
K11sb	1500	300	520	290	440	200	20	26	25	520	310	350	430	440	230	270	350	100		
K11sb	2000	400	620	330	520	230	30	32	30	620	350	390	470	520	250	290	370	117		
K11sb	2500	500	670	370	570	270	30	32	40	670	390	430	510	570	290	330	410	133		
K11sb	3000	600	700	400	600	300	30	32	40	700	420	460	540	600	320	360	440	133		
K11sb	3500	700	760	430	660	330	30	32	50	760	450	490	570	660	350	390	470	150		
K11sb	4000	800	810	450	690	330	35	38	55	810	470	510	590	690	350	390	470	158		
K11sb	4500	900	870	480	750	360	35	38	55	870	500	540	620	750	380	420	500	165		
K11sb	5000	1000	890	500	770	380	35	38	55	890	520	560	640	770	400	440	520	164		

- special sizes is available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type K12sb

with 1 PTFE pad, loose



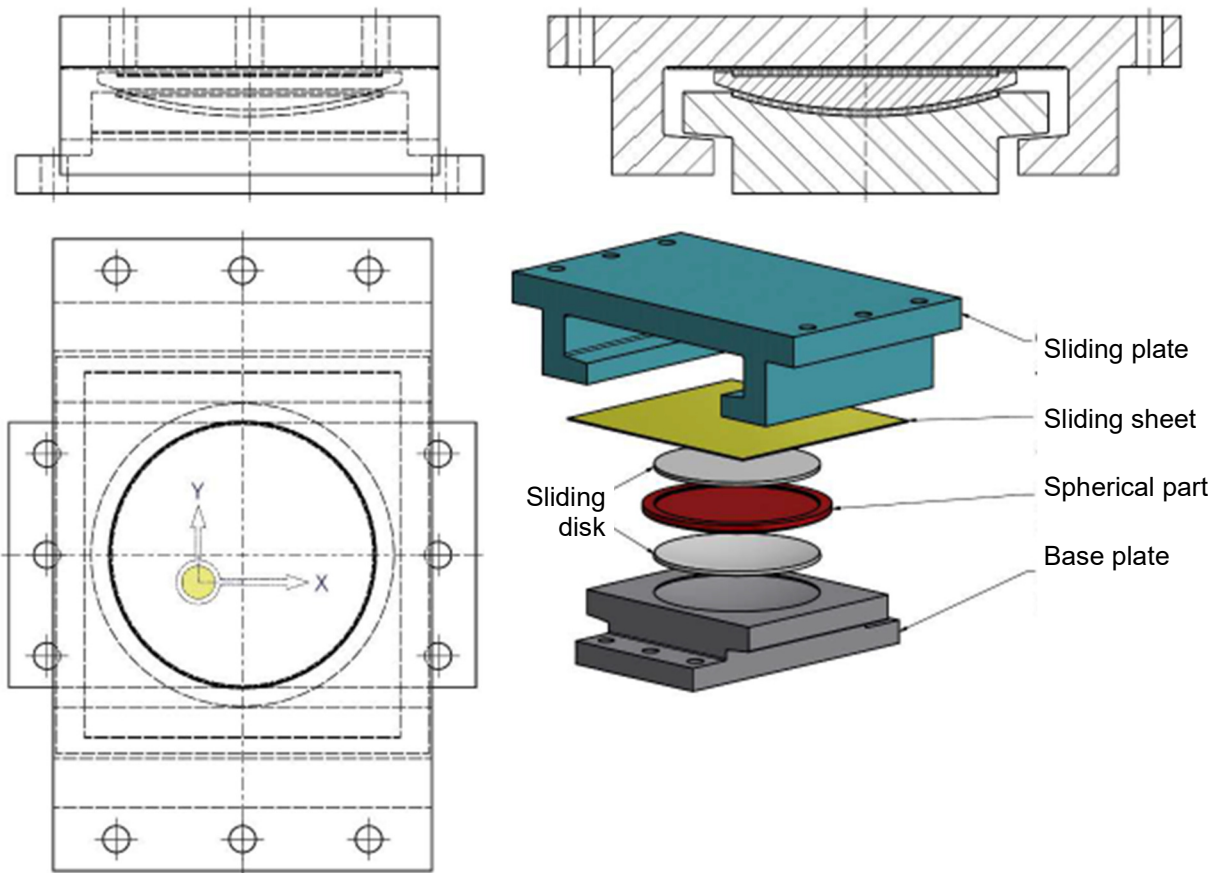
Type	Load	Anchor plate					Bore-holes	Sliding plate														H	
	Max N _{S,d}	A	C	G	I	T _A	Ød _L	T _G	B ±20	B ±40	B ±80	E ±20	E ±40	E ±80	D ±20	D ±40	D ±80	F ±20	F ±40	F ±80			
	kN	mm					mm	mm															mm
K12sb	100	200	100	160	60	10	14	10	190	230	310	150	190	270	120	160	240	80	120	200	55		
K12sb	250	250	140	210	100	10	14	15	230	270	350	190	230	310	160	200	280	120	160	240	65		
K12sb	500	330	180	280	120	15	18	20	290	330	410	240	280	360	200	240	320	150	190	270	77		
K12sb	750	370	210	320	150	15	18	20	320	360	440	270	310	390	230	270	350	180	220	300	85		
K12sb	1000	420	240	360	170	20	22	25	360	400	480	300	340	420	260	300	380	190	230	310	95		
K12sb	1500	520	290	440	200	20	26	25	430	470	550	360	400	480	310	350	430	230	270	350	100		
K12sb	2000	620	330	520	230	30	32	30	500	540	620	410	450	530	350	390	470	250	290	370	117		
K12sb	2500	670	370	570	270	30	32	40	540	580	660	450	490	570	390	430	510	290	330	410	133		
K12sb	3000	700	400	600	300	30	32	40	570	610	690	480	520	600	420	460	540	320	360	440	133		
K12sb	3500	760	430	660	330	30	32	50	600	640	720	510	550	630	450	490	570	350	390	470	150		
K12sb	4000	810	450	690	330	35	38	55	650	690	770	540	580	660	470	510	590	350	390	470	158		
K12sb	4500	870	480	750	360	35	38	55	680	720	800	570	610	690	500	540	620	380	420	500	165		
K12sb	5000	890	500	770	380	35	38	55	700	740	820	590	630	710	520	560	640	400	440	520	164		

- special sizes is available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations, but is a proven solution in many applications

Kalotte sliding support Type LDK

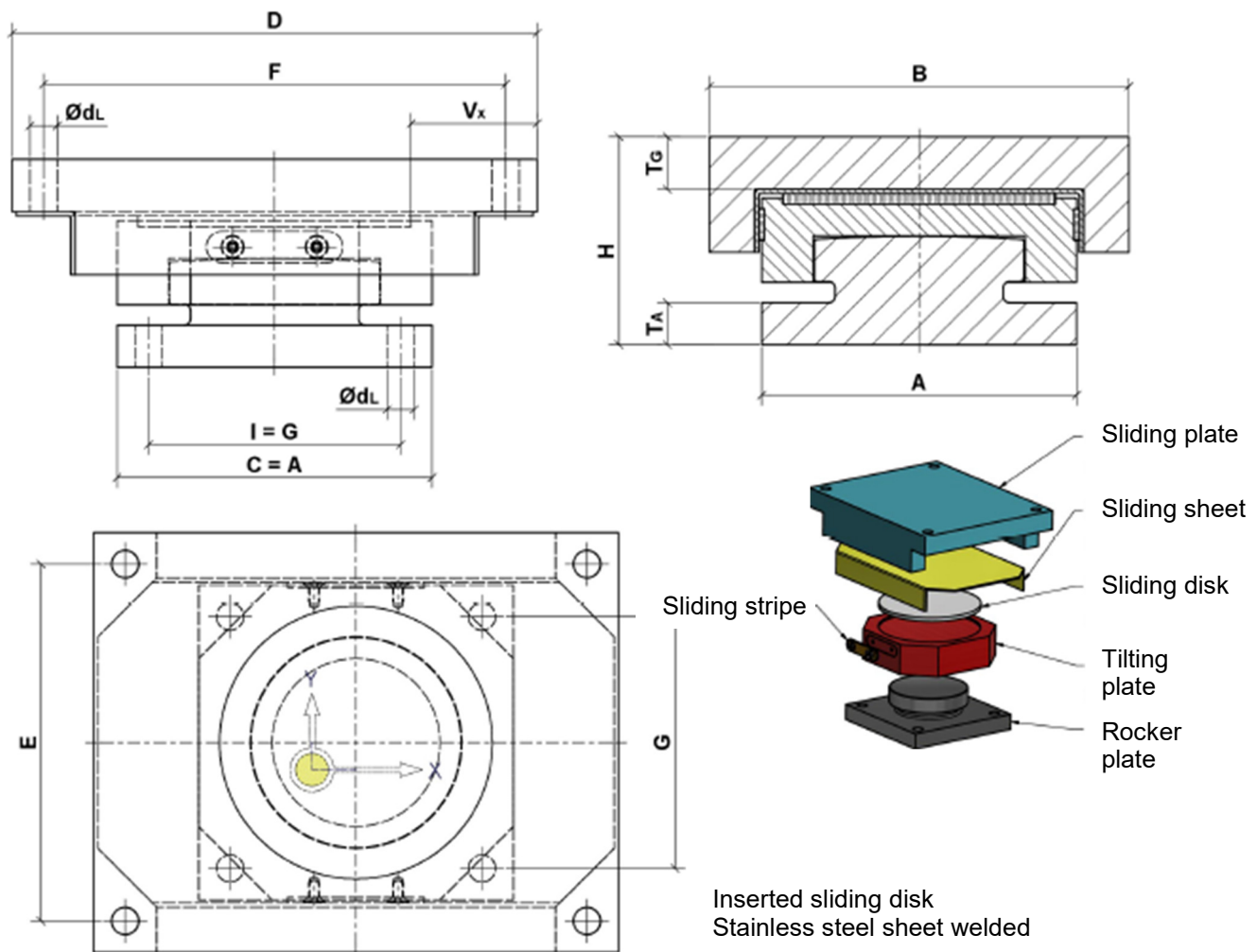
with lift-up device



- Loads and dimensions on request
- Consider our design notes

Point Rocker bearing Type PK1

with inserted PTFE pad, guided



Type	Load			Sl.dist. V_x^*	Rocker plate			Sliding plate			Boreholes $\varnothing d_L$	H	Weight
	Max $N_{S,d}$ $T \leq 30^{\circ}C$	Max $N_{S,d}$ $T = 48^{\circ}C$	$V_{y, sd}$		A = C	G = I	T_A	B x D*	E x F*	T_G			
	kN				$\pm mm$	mm			mm				
PK1	550	350	80	50	150	120	15	200 x 250	170 x 220	25	13	110	25
PK1	1200	750	150	50	200	170	15	250 x 300	220 x 270	25	17	125	46
PK1	2000	1250	200	50	250	220	20	300 x 350	270 x 320	25	17	150	82
PK1	3000	2000	350	50	300	250	25	360 x 400	310 x 350	30	25	175	138
PK1	4250	2750	450	50	350	290	25	410 x 450	350 x 390	35	25	220	229
PK1	5750	3500	600	50	400	340	25	460 x 500	400 x 440	40	28	250	338
PK1	7250	4750	750	50	450	380	30	520 x 550	450 x 480	40	32	270	457
PK1	9250	6000	850	50	500	430	30	570 x 600	500 x 530	45	38	300	625
PK1	11500	7250	1000	50	550	470	30	630 x 650	550 x 570	45	38	330	823
PK1	13750	8750	1100	50	600	520	30	680 x 700	600 x 620	50	38	365	1078

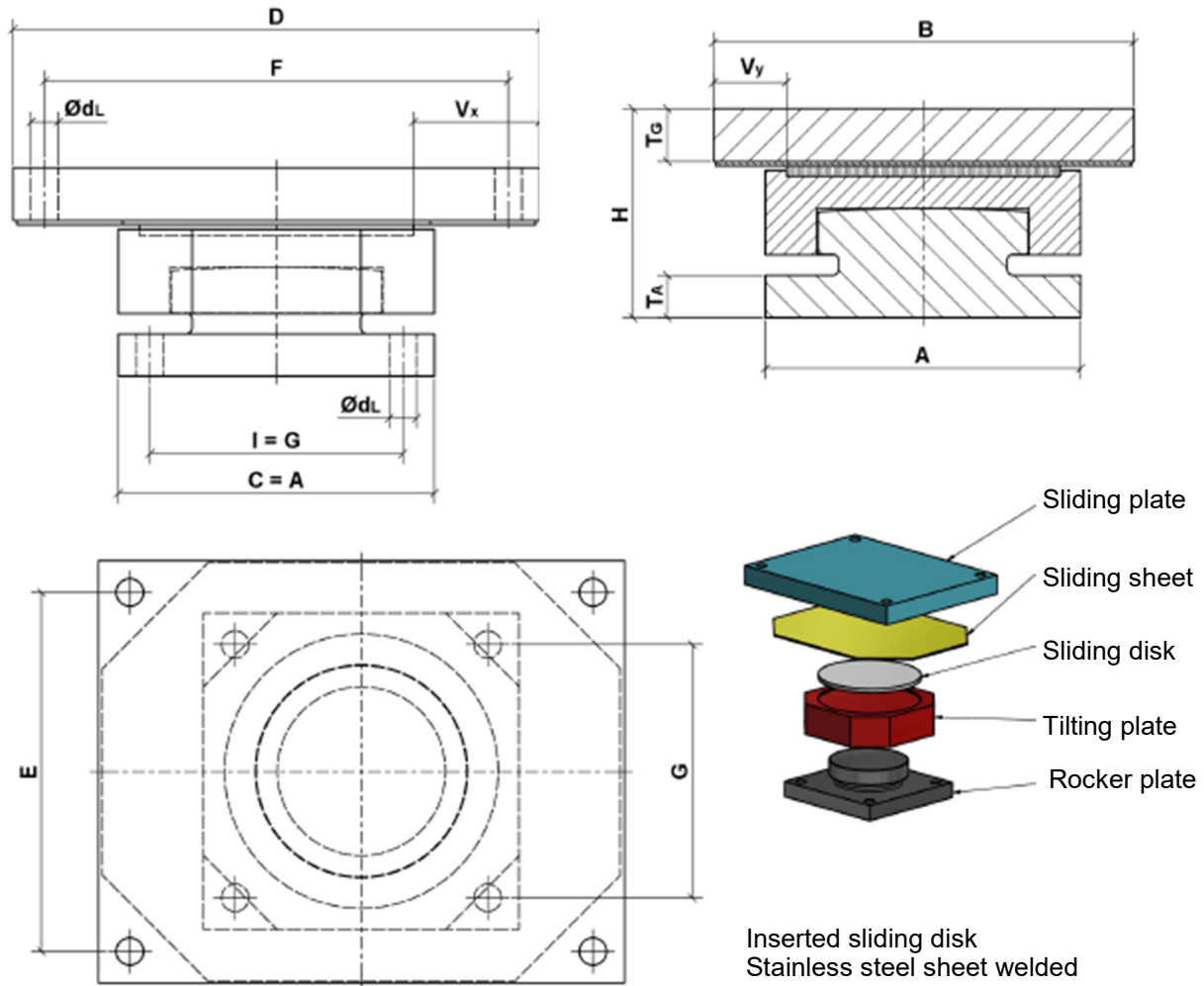
*in case of displacements $V_x \geq 50$ mm L and F are enlarged accordingly

- special sizes available on request, consider our design notes

- design in accordance with EN and DIN

Point Rocker bearing Type PK2

with inserted PTFE pad, loose

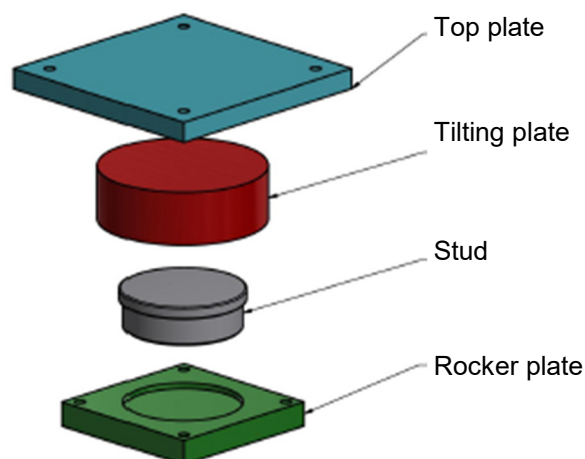
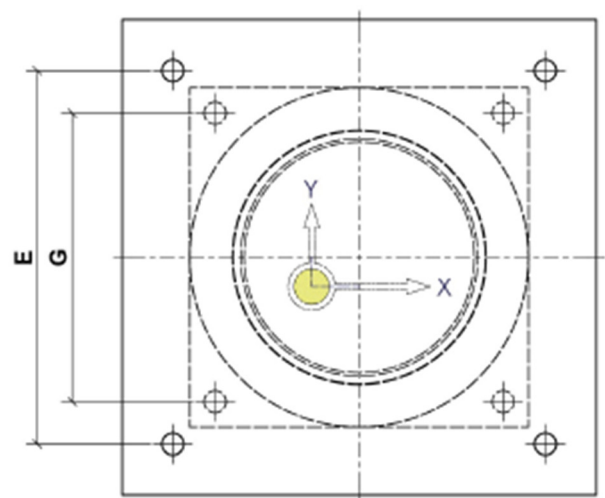
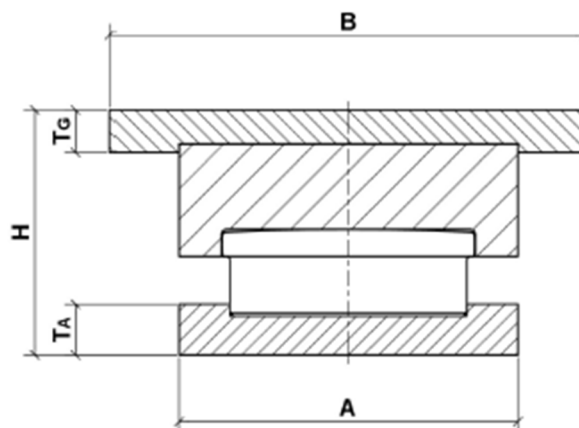
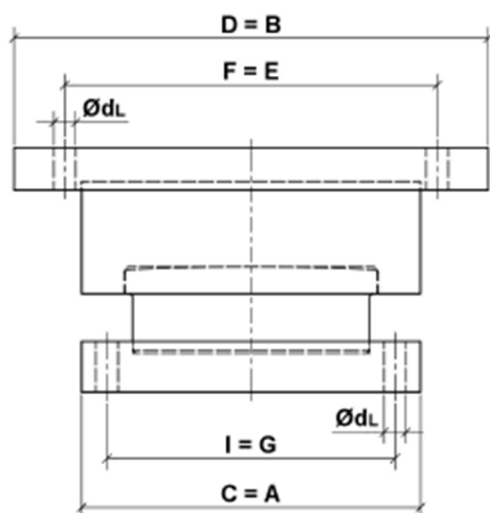


Type	Load		Sl.dist		Rocker plate			Sliding plate			Boreholes Ød _L	H	Weight
	Max N _{s,d} T≤30°C	Max N _{s,d} T=48°C	V _x *	V _y	A = C	G = I	T _A	B x D*	E x F*	T _G			
	kN		± mm		mm			mm			mm	mm	kg
PK2	550	350	50	25	150	120	15	200 x 250	170 x 220	25	13	110	25
PK2	1200	750	50	25	200	170	15	250 x 300	220 x 270	25	13	125	46
PK2	2000	1250	50	25	250	220	15	300 x 350	270 x 320	25	13	150	82
PK2	3000	2000	50	25	300	250	20	360 x 400	310 x 350	30	17	175	138
PK2	4250	2750	50	25	350	290	20	410 x 450	350 x 390	35	17	220	229
PK2	5750	3500	50	25	400	340	20	460 x 500	400 x 440	40	17	250	338
PK2	7250	4750	50	25	450	380	25	520 x 550	450 x 480	40	20	270	457
PK2	9250	6000	50	25	500	430	25	570 x 600	500 x 530	45	20	300	625
PK2	11500	7250	50	25	550	470	30	630 x 650	550 x 570	45	25	330	823
PK2	13750	8750	50	25	600	520	30	680 x 700	600 x 620	50	25	365	1078

*in case of displacements $V_x \geq 50$ mm [L and F] are enlarged accordingly
- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Point Rocker bearing Type PF

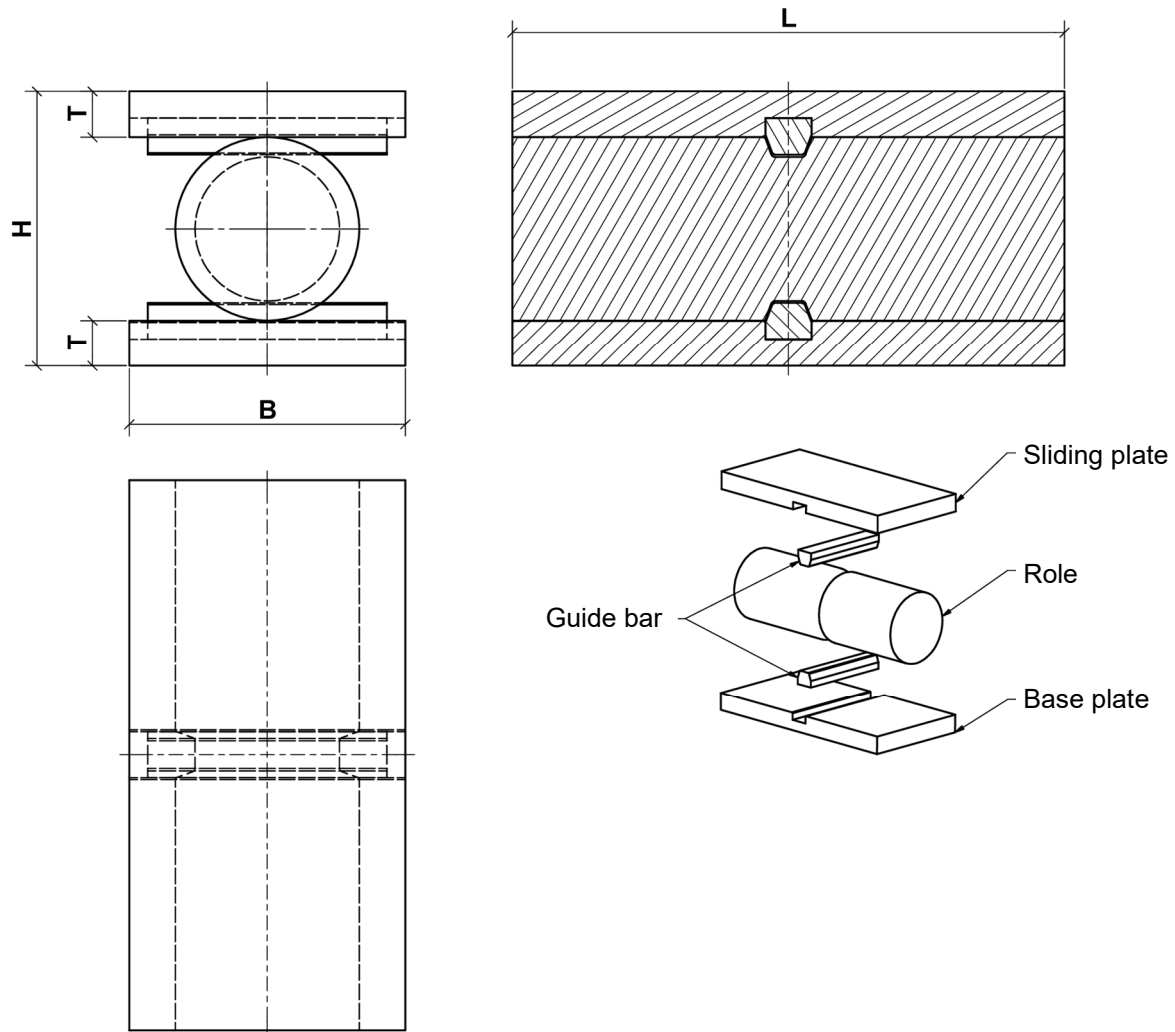
fixed



Type	Load		Rocker plate			Top plate			Boreholes	H	Weight
	Max $N_{S,d}$	$V_{xy,sd}$	A = C	G = I	T_A	B = D	E = F	T_G	$\varnothing d_L$		
	kN		mm			mm			mm	mm	kg
PF	550	80	150	120	15	200	170	25	13	110	25
PF	1200	150	200	170	15	250	220	25	17	125	46
PF	2000	200	250	220	20	300	270	25	17	150	82
PF	3000	350	300	250	25	360	310	30	25	175	138
PF	4250	450	350	290	25	410	350	35	25	220	229
PF	5750	600	400	340	25	460	400	40	28	250	338
PF	7250	750	450	380	30	520	450	40	32	270	457
PF	9250	850	500	430	30	570	500	45	38	300	625
PF	11500	1000	550	470	30	630	550	45	38	330	823
PF	13750	1100	600	520	30	680	600	50	38	365	1078

- special sizes on request, consider our design notes
- design in accordance with EN and DIN

Roller bearing Type R

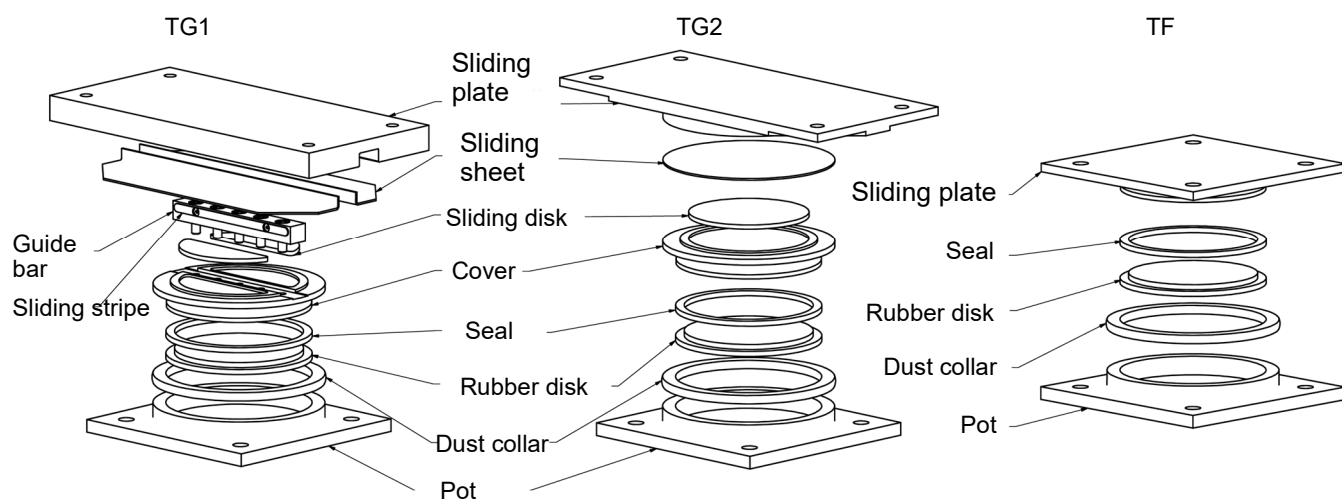
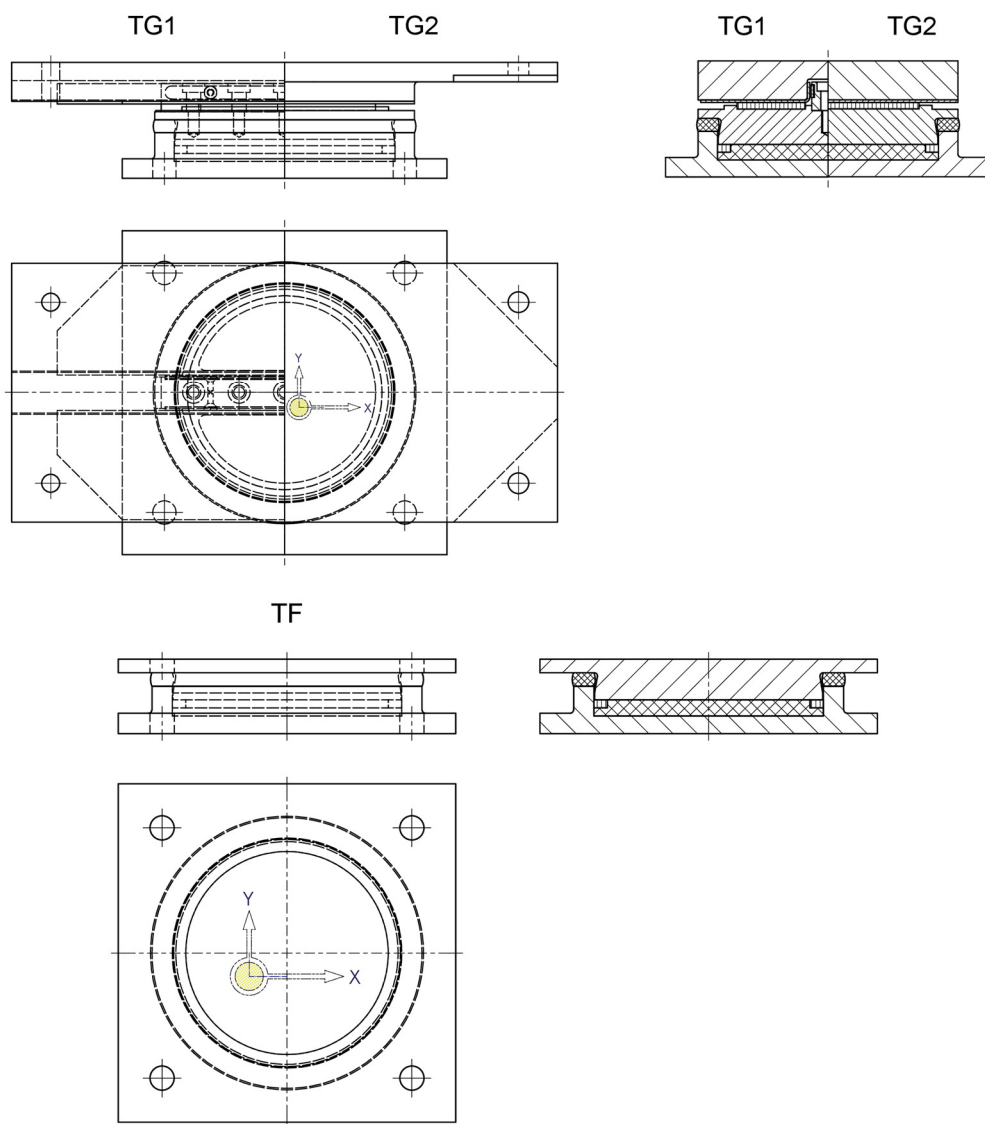


Load		Slip	Role	Baseplate		Weight	Role	Baseplate		Weight	Role	Baseplate		Weight
Max $N_{s,d}$	Max $V_{y,sd}$	V_x^*	D x L	T/B*	H		D x L	T/B*	H		D x L	T/B*	H	
kN		±mm	mm	mm		kg	mm	mm		kg	mm	mm		kg
250	25	50	100x250	25/150	150	23								
500	50	50	100x400	25/150	150	37								
750	75	50	100x600	25/150	150	56	170x400	40/200	250	98				
1000	100	50					170x500	40/200	250	123				
1500	150	50					170x700	40/200	250	172	230x600	50/250	330	259
2000	200	50					170x900	40/200	250	221	230x750	50/250	330	324
2250	225	50					170x1000	40/200	250	246	230x850	50/250	330	368
3000	300	50									230x1100	50/250	330	476
4000	400	50									230x1400	50/250	330	605

*in case of displacements $V_x \geq 50$ mm B is enlarged accordingly
- special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Pot bearing Type T

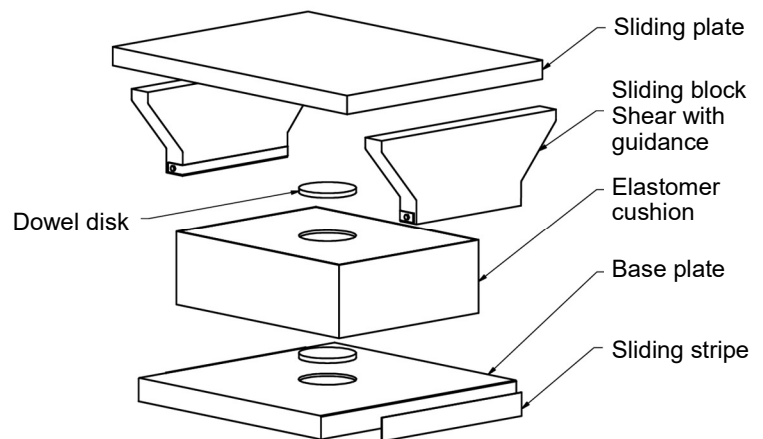
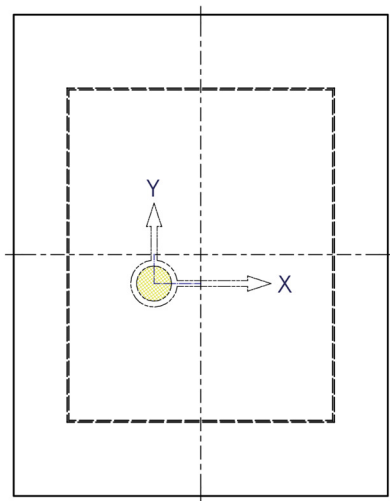
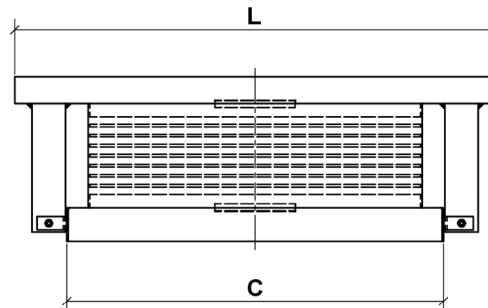
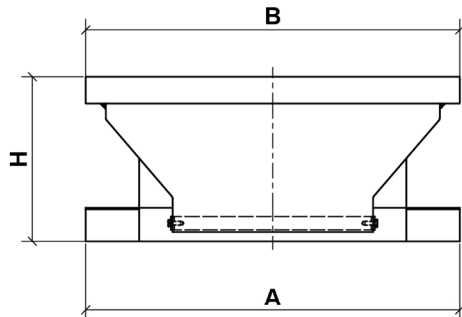
Guided/loose/fixed



- loads and dimensions on request
- special sizes available on request, consider our design notes

Deformation slide bearing Type VG1

Guided

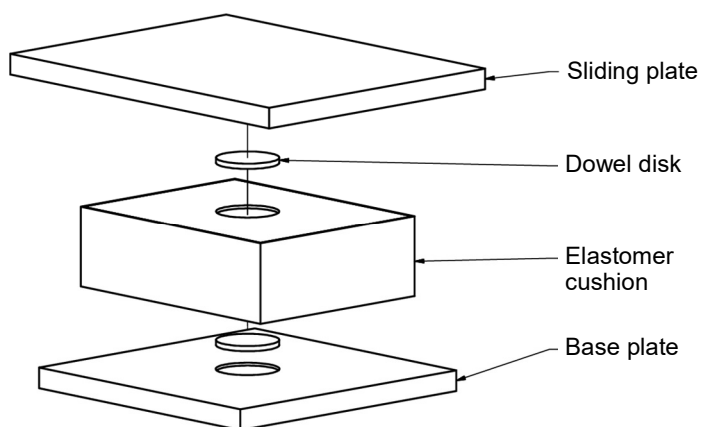
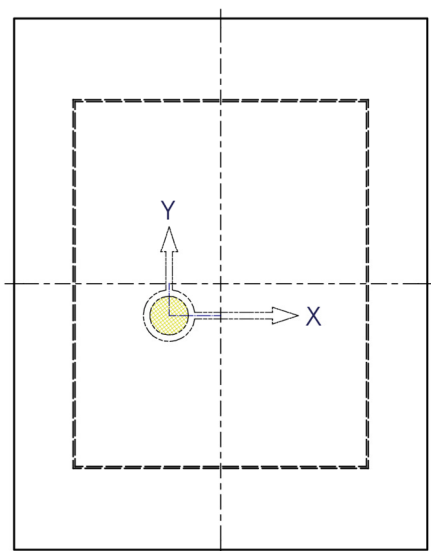
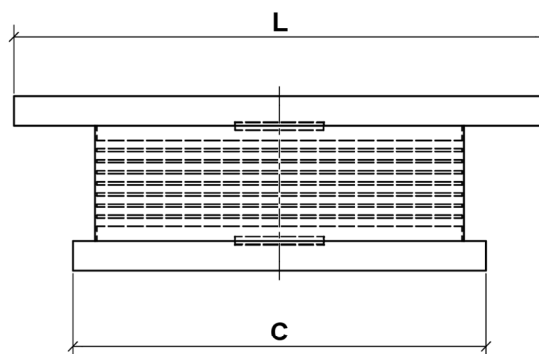
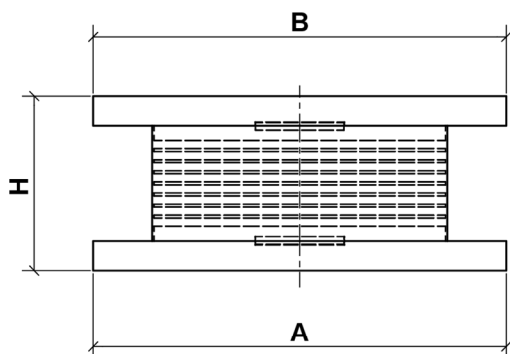


Type	Load		Rotation		Slip	Baseplate	Sliding plate	H	Weight
	Max $N_{s,d}$	$V_{y,sd}$	a_x	a_y	V_x^*	A x C	B x L*		
	kN		mrad / ‰		±mm	mm	mm		
VG1	250	100	5	3	50	150 x 250	250 x 350	80	50
VG1	1500	150	5	3	50	250 x 350	350 x 450	90	80
VG1	2500	200	5	3	50	350 x 450	450 x 550	100	120
VG1	4000	300	5	3	50	400 x 500	500 x 650	130	150
VG1	5000	350	5	3	50	450 x 550	550 x 700	150	180

*in case of displacements $V_x \geq 50$ mm L are enlarged accordingly
- Special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Deformation slide bearing Type VG2

Loose



Type	Load	Rotation		Slip		Base plate	Sliding plate	H	Weight
	Max $N_{S,d}$ kN	a_x mrad / ‰	a_y mrad / ‰	V_x^* ±mm	V_y ±mm	A x C mm	B x L* mm		
VG2	250	5	3	50	25	150 x 250	300 x 250	100	25
VG2	1250	5	3	50	25	250 x 350	400 x 350	100	55
VG2	2500	5	3	50	25	350 x 450	500 x 450	125	110
VG2	4000	5	3	50	25	400 x 500	550 x 500	135	165
VG2	5000	5	3	50	25	450 x 550	600 x 550	140	215

*in case of displacements $V_x \geq 50$ mm L are enlarged accordingly
- Special sizes available on request, consider our design notes
- design in accordance with EN and DIN

Thermal separation Type TT

Guided/loose

1. Thermal separation

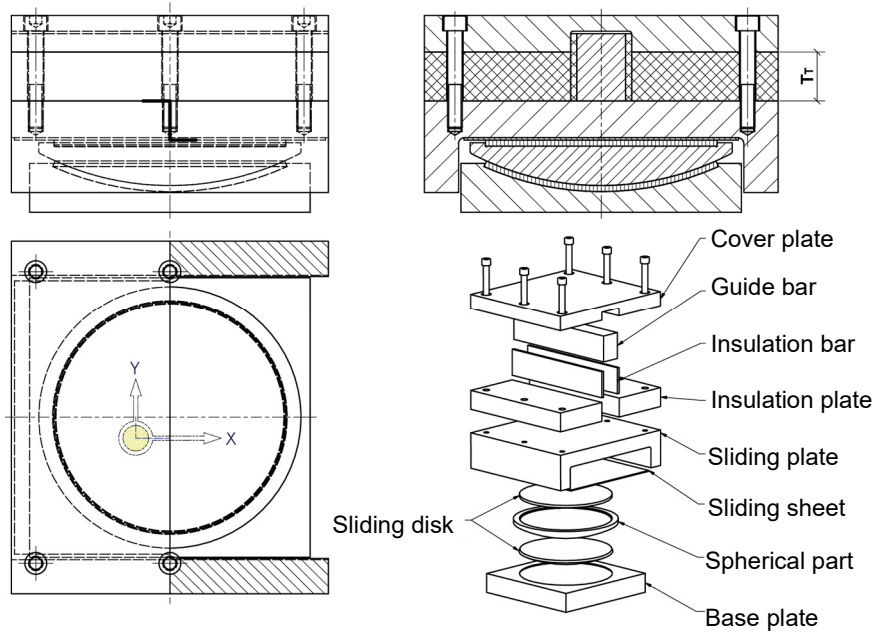
By thermal insulation sheets type PGslide therm

Class I = for connection temperature $\leq 250^{\circ}$ thickness of insulation sheet T = 20 mm

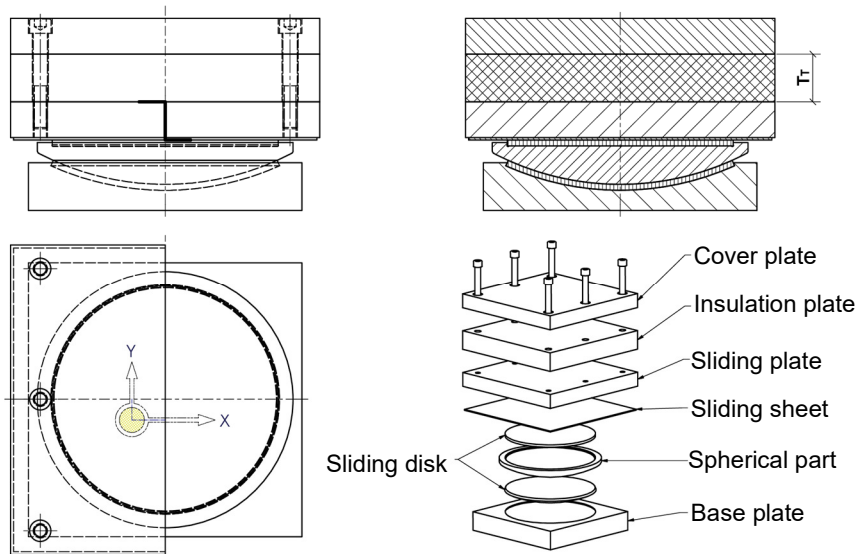
Class II = for connection temperature $\leq 500^{\circ}$ thickness of insulation sheet T = 40 mm

2. Design of bearings

Guided bearings



Loose bearings

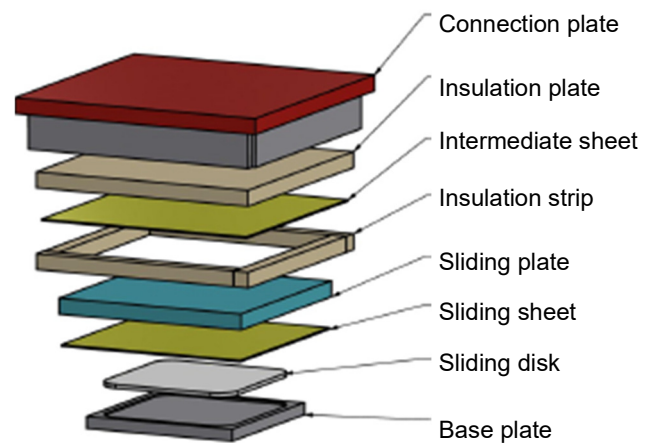
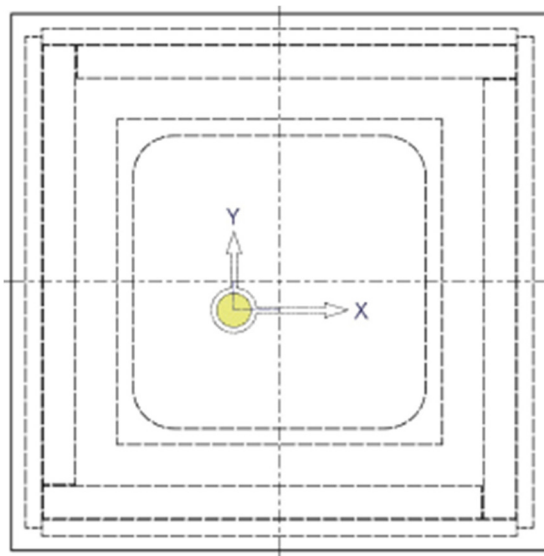
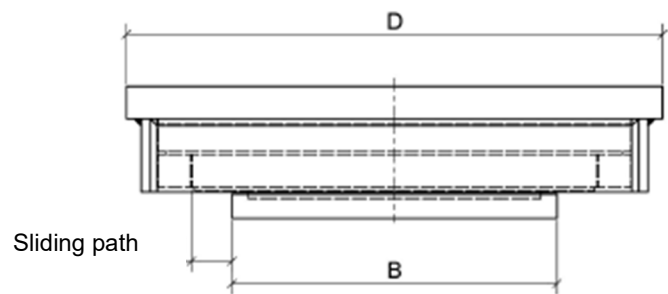
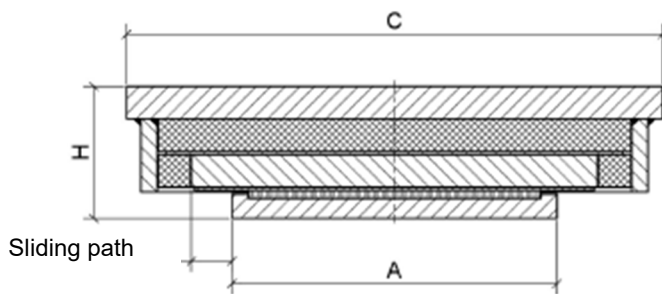


The TT-package can be combined with all bearing types. Based on the basic dimensions of the upper bearing plates the TT-package is designed.

Here thickness of the insulation sheet and static requirements are considered. Above shown bearing combination is the TT-package combined with spherical bearings type K21 and resp. K22

High Temperature bearing Type G2si

Loose



Load	Base plate		Connection plate				H	
Max $N_{S,d}$	A	B	C*		D*		300°C	550°C
kN	mm		±25	±50	±25	±50	mm	
100	100	100	240	290	240	290	82	102
250	150	150	290	340	290	340	82	102
500	200	200	340	390	340	390	82	102
750	200	250	350	400	400	450	87	107
1000	250	250	400	450	400	450	87	107

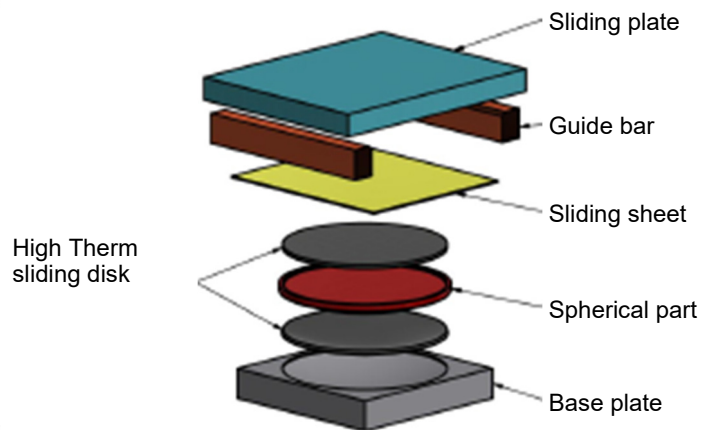
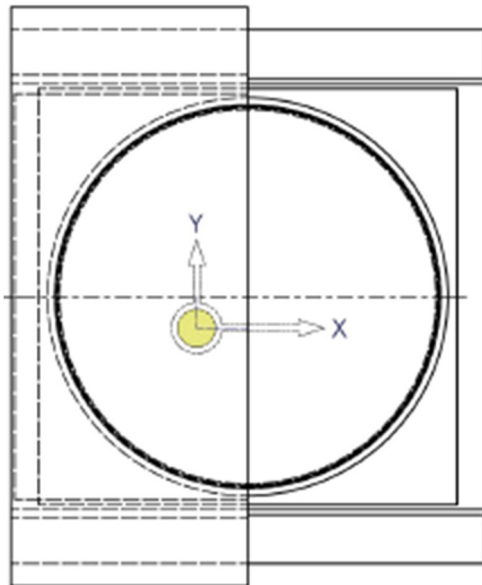
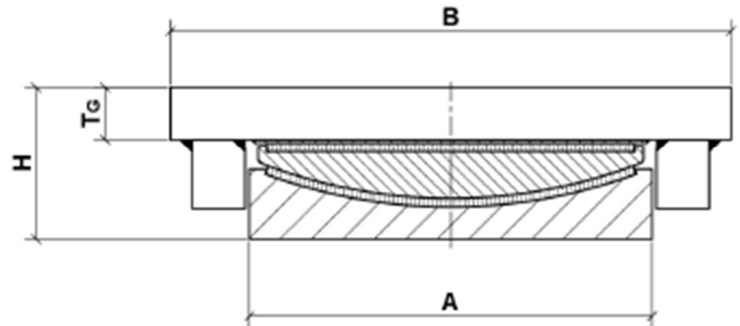
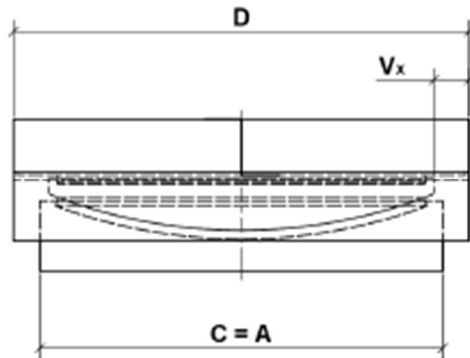
*at sliding path

- special sizes available on request, consider our design notes

- the standard series does not comply in all technical details with actual EN standards and regulations but is a proven solution in many applications

High Temperature spherical slide bearing Type HTK21s

With two optimized High Therm slide pads, Guided



Inserted sliding disk
Stainless steel sheet welded

Load		Base plate A = C	Sliding plate				H
Max N _{S,d}	V _{y,sd}		B	D* ±40	D* ±80	T _G	
kN		mm		mm			mm
250	50	130	200	200	280	20	77
500	100	170	250	240	320	25	88
1000	200	230	320	300	380	35	106
1500	300	280	400	350	430	40	111
2000	400	320	460	390	470	50	123
3000	500	390	540	460	540	60	142

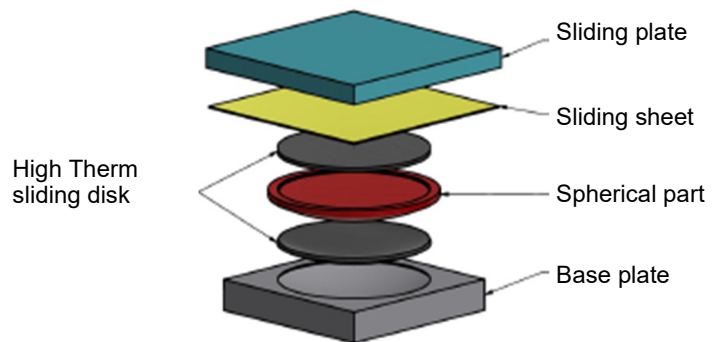
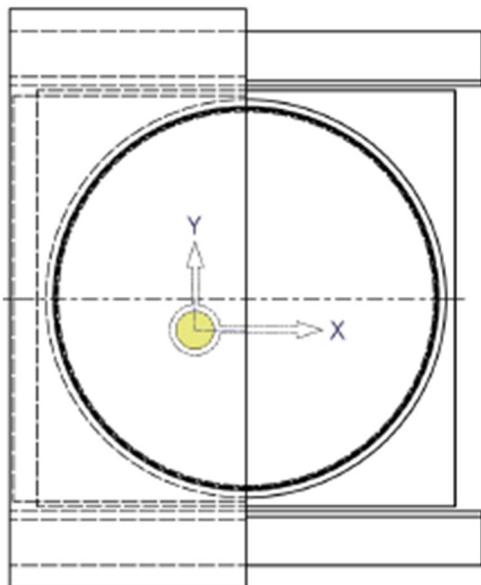
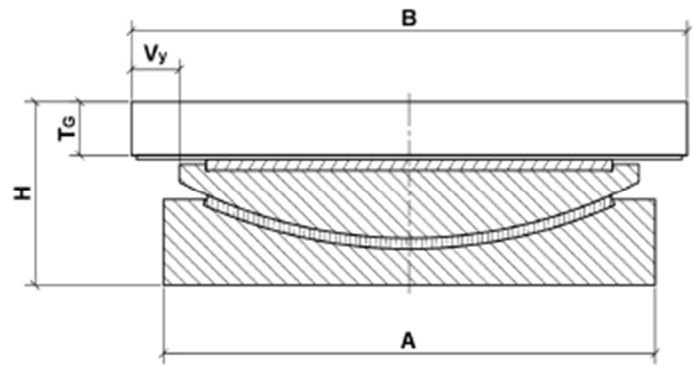
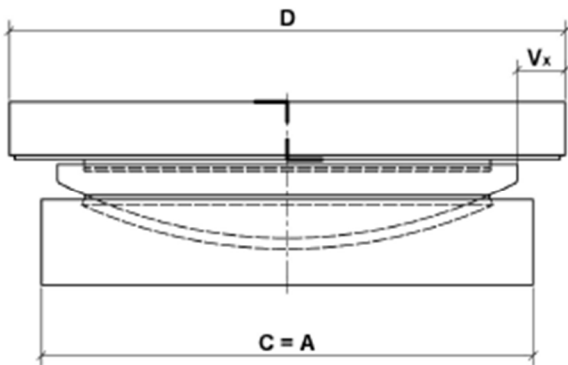
Applicable for connection temperatures up to 200°C

*at sliding path

- special sizes available on request, consider our design notes

High Temperature spherical slide bearing Type HTK22s

With two optimized High Therm slide pads, Loose



High Therm sliding disk
Stainless steel sheet welded
Applicable for connection temperatures up to 200°C

Load	Base plate	Sliding plate					H
Max N _{s,d}	A = C	B* ±40	B* ±80	D* ±40	D* ±80	T _G	
kN	mm			mm			mm
250	130	200	280	200	280	20	77
500	170	240	320	240	320	25	88
1000	230	300	380	300	380	35	106
1500	280	350	430	350	430	40	111
2000	320	390	470	390	470	50	123
3000	390	460	540	460	540	60	142

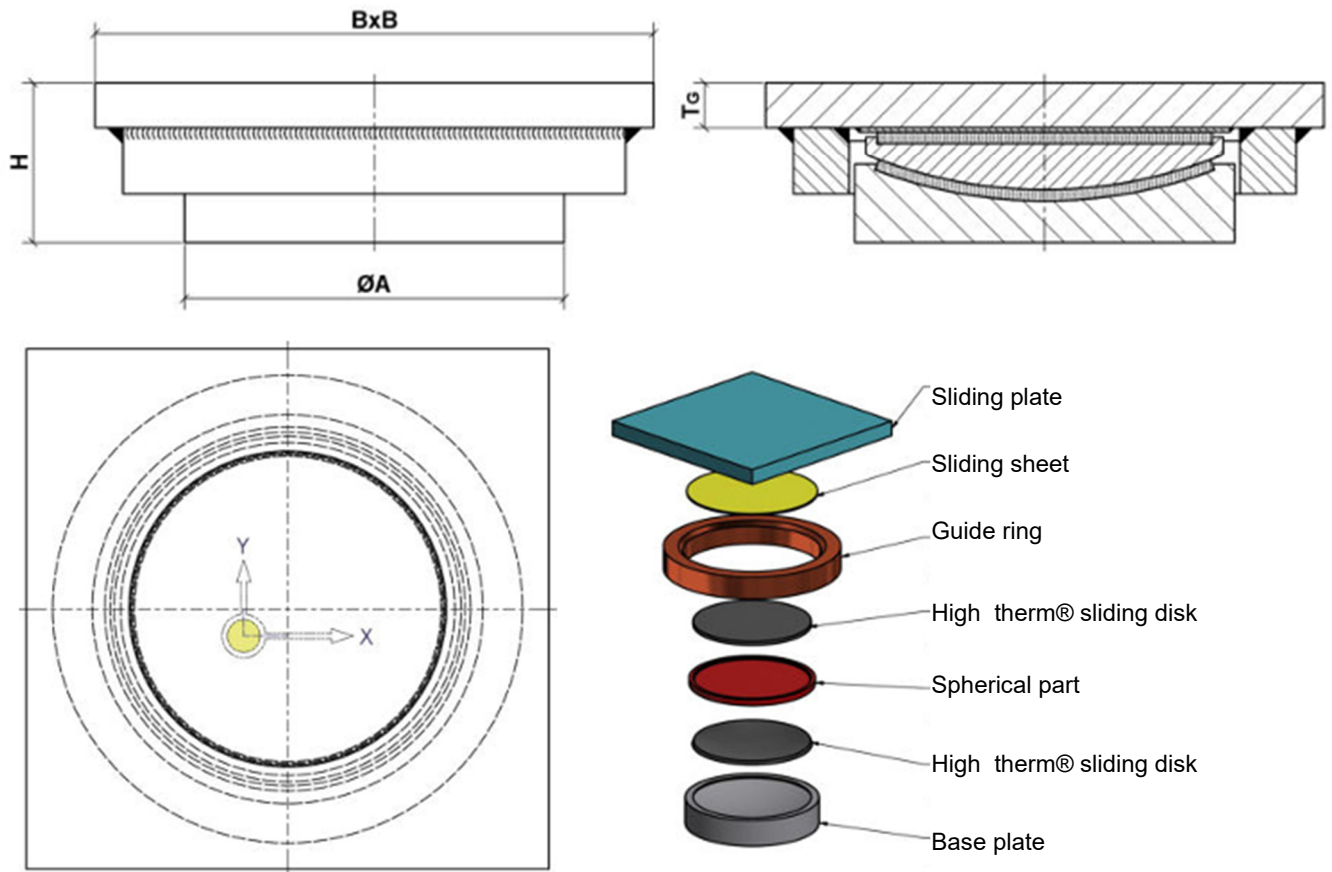
Applicable for connection temperatures up to 200°C

*at sliding path

- special sizes available on request, consider our design notes

High Temperature spherical slide bearing Type HTK2Fs

With two optimized High Therm slide pads, Fixed



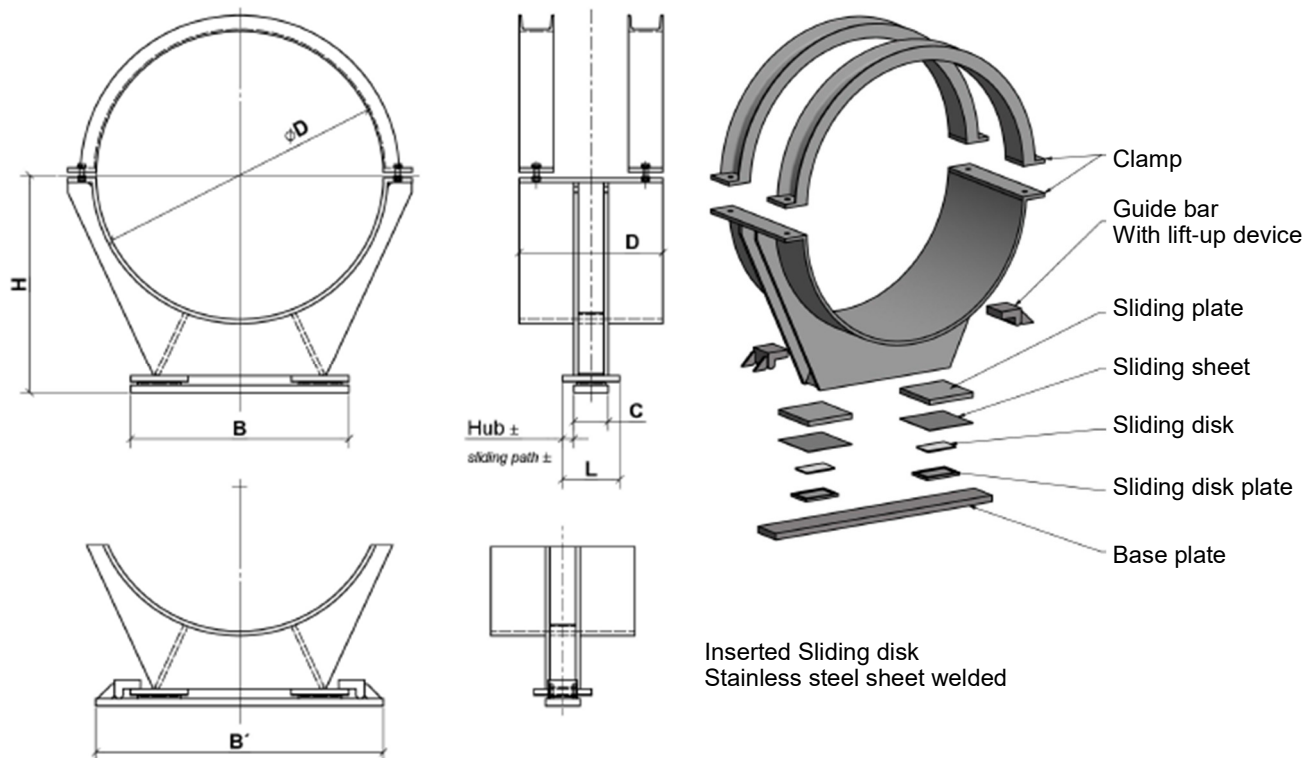
Inserted sliding disk
Stainless steel sheet welded
Applicable for connection temperatures up to 200°C

Load		Dimensions			
Max $N_{S,d}$	Max $V_{y,sd}$	Ø A	B	H	T_g
kN			mm		
250	50	130	200	77	20
500	100	170	250	88	25
1000	200	230	320	106	35
1500	300	280	400	111	40
2000	400	320	460	123	50
3000	500	390	540	142	60

- special sizes available on request, consider our design notes

**Pipe Sliding Support Type RGLV
DN600 - 1000**

With inserted PTFE pad



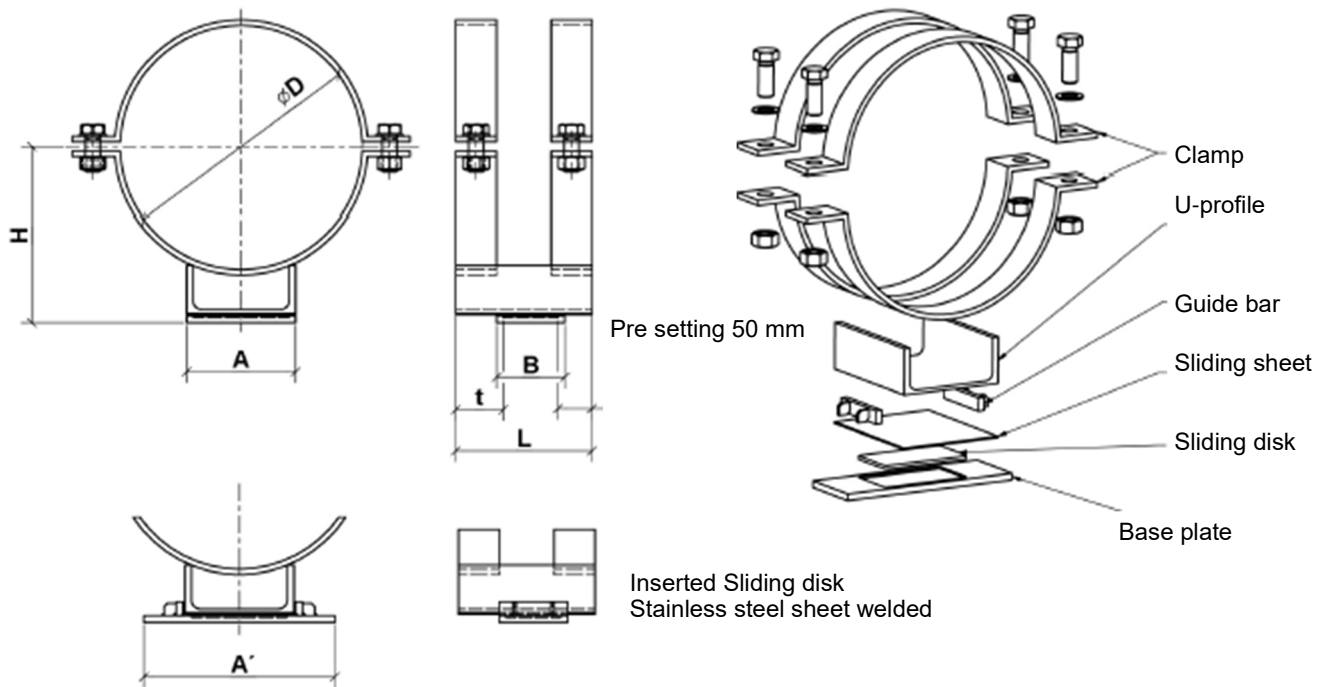
Type	Pipe bracket	Base plate		D	H	L-steel		
	$\varnothing D$	B	B' x C			L' ± 25	L' ± 50	L' ± 75
	mm	mm		mm	mm	mm		
DN 600	610	500	660 x 120	300	552	200	250	300
DN 700	712	600	760 x 120		602			
DN 750	762	650	810 x 120		628			
DN 800	813	700	860 x 120	500	654			
DN 900	915	800	960 x 120		708			
DN 1000	1016	900	1060 x 120		758			

*at sliding path

- special sizes available on request, consider our design notes

**Pipe Sliding Support Type RGLU
DN40 - 600**

With inserted PTFE pad



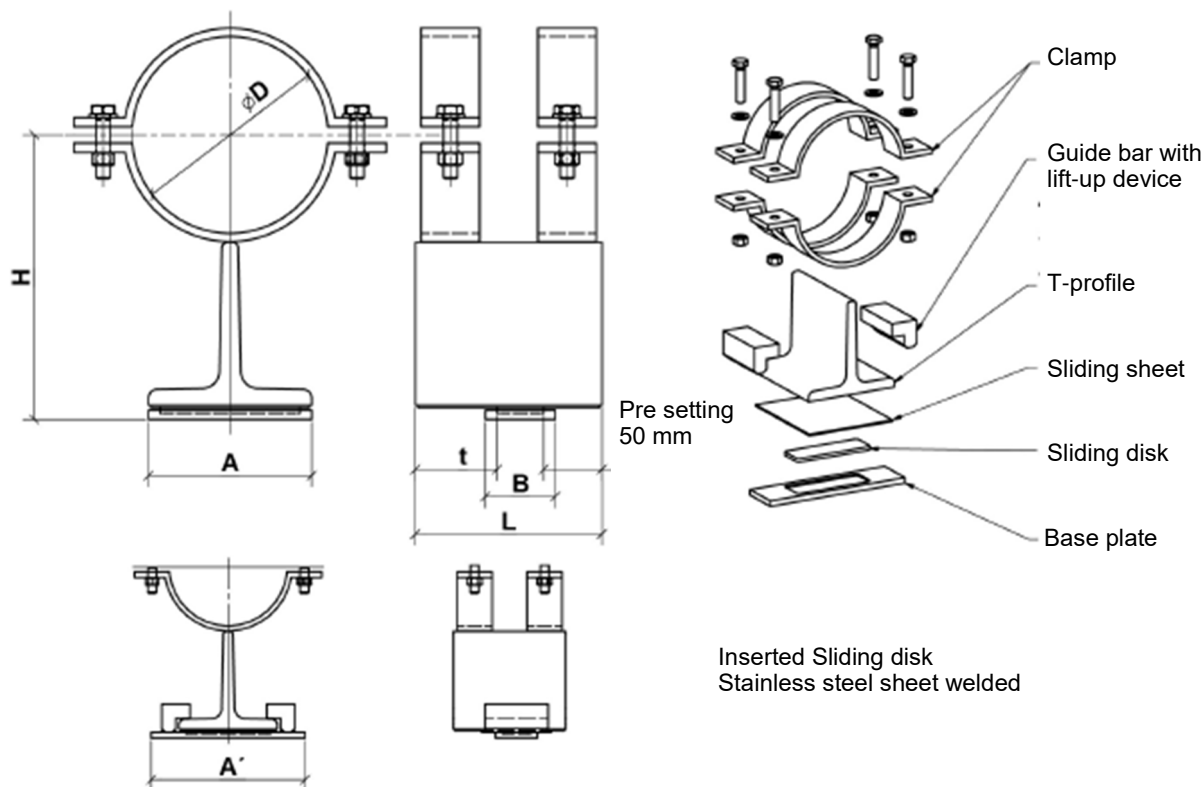
Type	Pipe bracket	Base plate		H	U-steel	
	ØD	A	A´ x B		t* ±70	t* ±150
	mm	mm			mm	
DN 40	48,3	50	120 x 50	74	150	230
DN 50	61,0	50	120 x 50	81	150	230
DN 65	77,0	50	120 x 50	93	150	230
DN 80	88,9	50	120 x 50	97	150	230
DN 100	114,3	80	160 x 50	111	150	230
DN 125	139,7	100	180 x 60	128	160	240
DN 150	168,3	100	180 x 60	145	160	240
DN 200	219,1	120	220 x 100	168	200	280
DN 250	273,0	120	220 x 100	202	200	280
DN 300	323,9	160	280 x 100	233	200	280
DN 350	355,6	160	280 x 100	256	200	280
DN 400	406,4	200	320 x 100	276	200	280
DN 500	508,0	240	360 x 100	338	200	280
DN 600	610,0	240	360 x 100	400	200	280

*at sliding path

- Special sizes available on request, consider our design notes

**Pipe Sliding Support Type RGLT
DN80 - 150**

With inserted PTFE pad



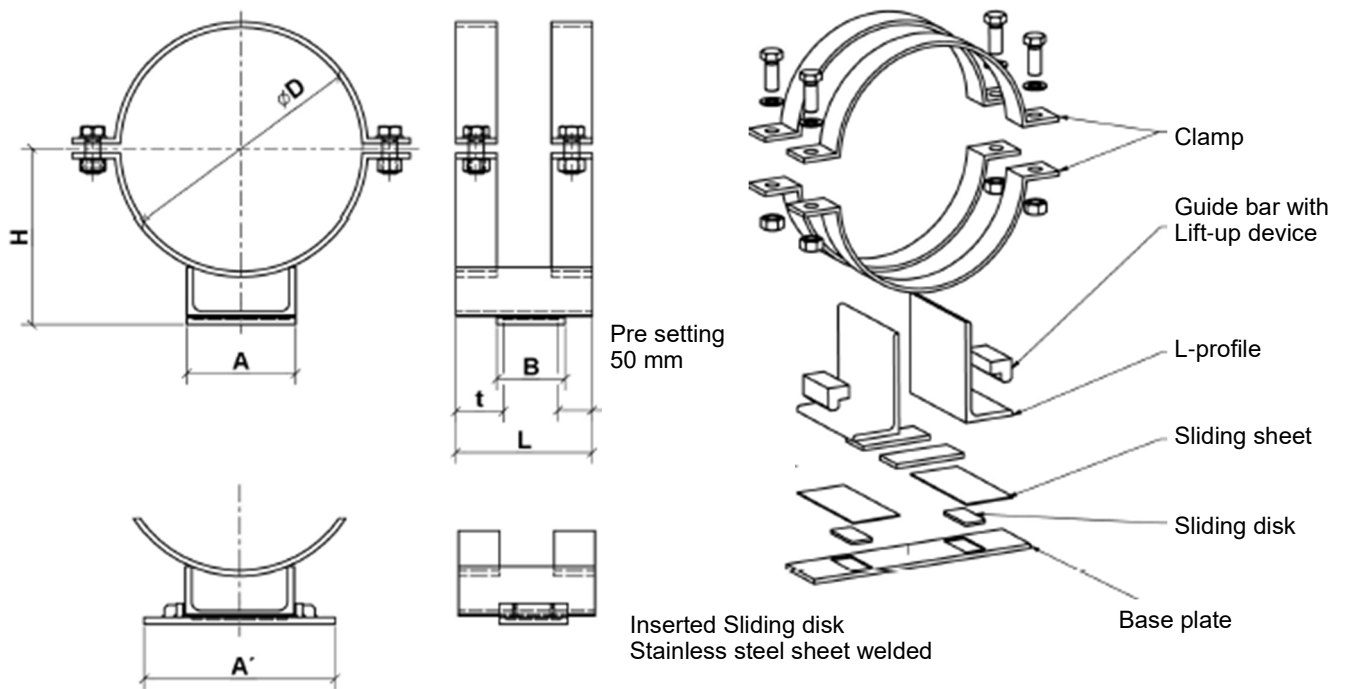
Type	Pipe bracket	Base plate		H	T-steel	
	ØD	A	A' x B		t* ±70	t* ±150
	mm	mm	mm		mm	
DN 80	88,9	120	200 x 50	183	150	230
DN 100	114,3	120	200 x 50	197	150	230
DN 125	139,7	140	220 x 60	230	160	240
DN 150	168,3	140	220 x 60	244	160	240

*at sliding path

- special sizes available on request, consider our design notes

**Pipe sliding Support Type RGLL
DN200 - 500**

With inserted PTFE pad



Type	Pipe bracket	Base plate		H	L-steel	
	ØD	A	A´ x B		t* ±70	t* ±150
	mm	mm			mm	
DN 200	219,1	260	370 x 100	280	200	280
DN 250	273,0	260	370 x 100	308	200	280
DN 300	323,9	275	385 x 100	332	200	280
DN 350	355,6	310	420 x 100	367	200	280
DN 400	406,4	325	455 x 100	392	200	280
DN 500	508,0	330	460 x 100	444	200	280

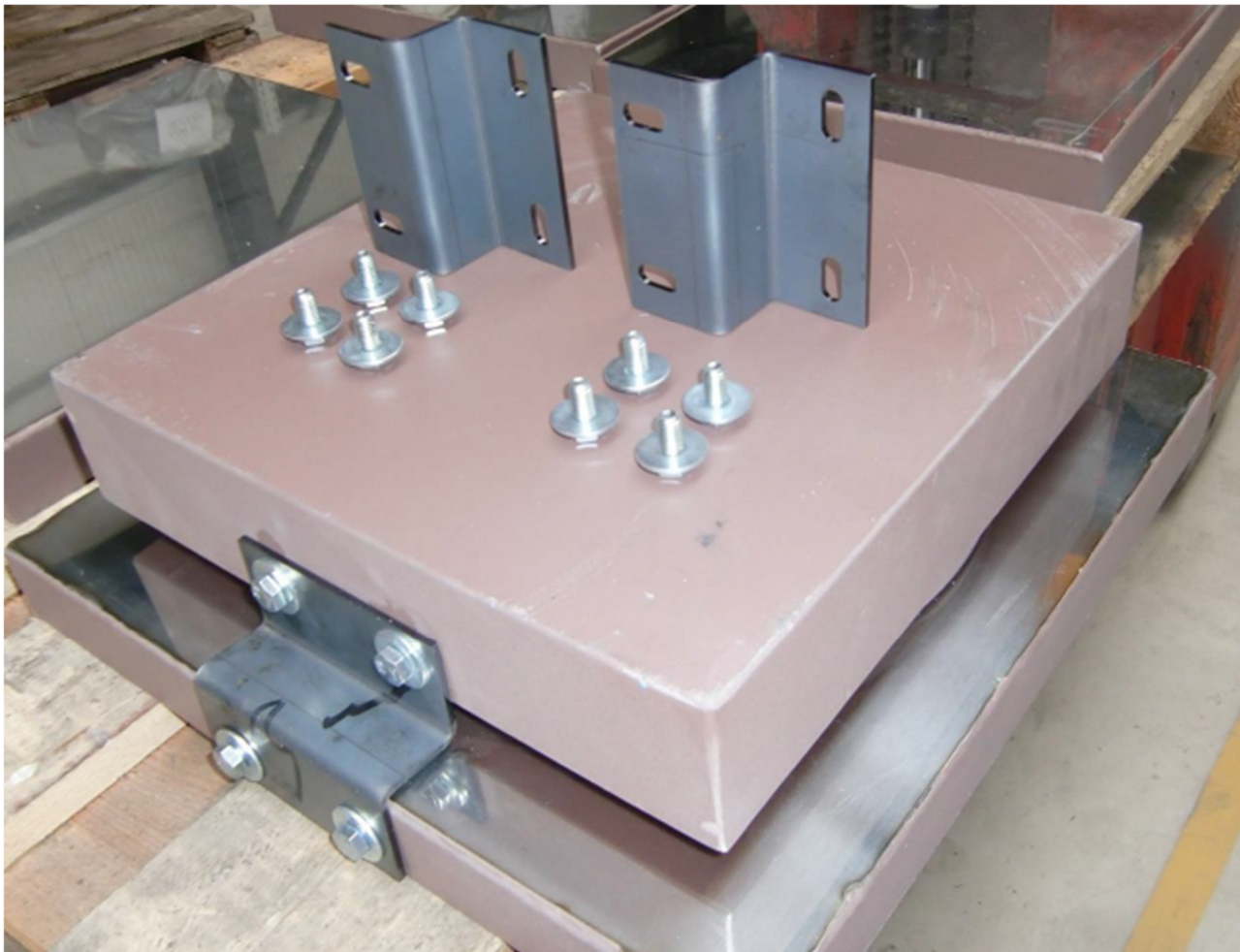
*at sliding path

- special sizes available on request, consider our design notes

Help / Fixation for assembly

The PG multi-part bearings (top part and bottom part) are generally secured for transport, either with tape or in case of bigger bearings with PE strap, and fixed accordingly.

However as bigger bearings obviously have higher weights we recommend to additionally order **PG Fixation for assembly**. This device consists of 2 steelbrackets (see below picture) to allow assembly of the bearings in one step. These brackets can stay in place until bearings are finally assembled, and only then have to be removed.



Pipe Rack Jack (PRJ)

Easy Pipe lifting tool

Description:

The Pipe Rack Jack® is a new, patented, revolutionary, simple and yet highly cost effective unit in the pipe lifting technology.

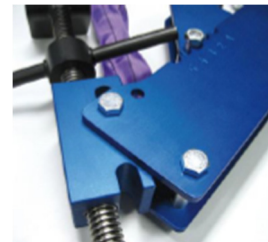
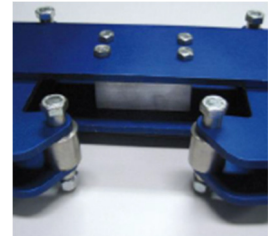
Beelen and Rombouts developed this unit so expensive cranes and scaffolding become unnecessary.

Lifting pipes in pipe racks by means of the PRJ is very easy and safe, just by mounting the PRJ on the bottom of the I-beam and pushing the pipe upwards.

Inspection of ppes, replacing or refurbishing of supports can be done on a very cheap and easy way.

The PRJ is indispensable for any job where time and money wants to be saved

Welcome to the age of innovation!



Technical specifications type: PRJ-MS1

Base Material	Anodized aluminium
Pipe diameter (max)	DN400 (16")
Profile range (beam)	Height: 100 - 320 mm Width: 100 - 320 mm
Max. Load	2500 kg
Lifting range 150 mm	with beam Height 320 mm
Own weight	24,3 kg
Outer dimensions	926 x 278 x 120 mm

Benefits:

- Cost effective
- Saves time
- Simple
- No hoisting device = No periodic inspection
- Solid
- Corrosion resistant
- CE approved
- Conform acc. to 2006/42/EG standard
- Multifunctional
- Purely mechanical device

Accessories:

- Attachments to lift in function of the pipeline material
- Multiple wire lengths
- Handy storage case
- For larger quantities, the colour can be chosen

CERTIFICATE



The Certification Body Attest QA TECHNIC International Technical Inspection Certification Survey GmbH hereby certifies that the company

PG Systemtechnik GmbH & Co. KG

Brüsseler Allee 21e
41812 Erkelenz, Germany

has established and applies a Quality Management System.

Scope of the company:
Manufacture and sale of plain bearings

An audit was performed, documented in Report No. 210107-QM-ZA-PO. whereby proof was provided that the requirements are fulfilled in accordance with the following standard:

ISO 9001:2015

Certificate Registration No.: QA-05601/0218
Valid from: 20-01-2021
Valid until: 25-01-2024

[Signature]

General Manager
Stuttgart, 19.01.2021

ALBERT QA TECHNIC International Technical Inspection Certification Survey GmbH
Thunderrücken Strasse 4
71734 Göttingen, Germany
Tel.: +49 51 1 1000-1000 Fax: +49 51 1 1000-1000
www.qatechnik.de



Notified Body No. 0032

Certificate of constancy of performance

No. 0672-CPR-071 3

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the

Construction Product(s):
Spherical Bearing
with trade name:
PGSider/Spherical Bearing K-PGS

placed on the market
under the name or trade
mark of:
PG Systemtechnik GmbH & Co. KG
Brüsseler Allee 21 e
41812 Erkelenz
Germany

produced in the
manufacturing plant(s):
PG Systemtechnik GmbH & Co. KG
Brüsseler Allee 21 e
41812 Erkelenz, Germany

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in

Annex ZA
of the standard(s):
EN 1327-2:2004
under system(s):
1

for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate was first issued on 2017-04-10 and will remain valid as long as neither the harmonized standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

This document has been translated for informative purpose only. Original version is issued in German. In any case of doubt the German version is valid.



S.G.U.

Prof. Ing. Siegfried Gerber
Head of Certification Body



Materialprüfungsanstalt Universität Stuttgart - Notified Body No. 0032 - Pfaffenwaldring 28 - 70569 Stuttgart - Germany

CERTIFICATE

Conformity of the Factory Production Control
0035-CPR-1090-1.01332.TÜVRh.2021.004

In compliance with Regulation 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the following construction product:

Construction product: Structural components and kits for steel structures to EN1090-2

Intended use: for load-bearing structures in all types of buildings

CE - marking method: ZA.3.2 and ZA.3.4 acc. to EN 1090-2:2009+A2:2013

Manufacturer: PG Systemtechnik GmbH & Co. KG
Brüsseler Allee 21e
41812 Erkelenz
GERMANY

Manufacturing plant: PG Systemtechnik GmbH & Co. KG
Brüsseler Allee 21e
41812 Erkelenz
GERMANY

Confirmation: This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the harmonized standard EN 1090-2:2009+A2:2013 under system 2+ are applied, and that the factory production control fulfils all the prescribed requirements stated therein.

Date of first issue: 03.08.2020

Validity end: 02.08.2024

Period of validity: This certificate will remain valid as long as the test methods under the factory production control requirements included in the harmonized standard used to assess the performance of the declared characteristics do not change, and the product and the manufacturing conditions in the plant are not modified significantly.

Remarks: SEE REPORT

Place and date of issue: Erk., 27.12.2021
H. Jäpf



www.tuv.com



Zulassungsstelle für Bauprodukte und Bauarten
Einzeltechnisches Fachamt
Binn- und Seefahrt und der Länder
gemeinsam getragener Anstalt des öffentlichen Rechts
Mitglied der DIBt, der DIBt und der DIBt

Erstellt: 10.04.2018
Gezeichnet: 1.12.1.15.1-1015

Allgemeine
bauaufsichtliche
Zulassung /
Allgemeine
Bauartgenehmigung

Nummer:
Z-10.7-484

Antwortschrift:
PG Systemtechnik GmbH
Brüsseler Allee 21e
41812 Erkelenz

Gegenstand dieses Bauzeichens:
Ausgewählte PG Brückentechnik Brückenlager

Ordnungsnummer:
vom 10. April 2018
bis: 10. April 2023

Der oben genannte Zulassungsgegenstand wird gemäß allgemein bauaufsichtlich
zugelassen/ genehmigt.
Dieser Bescheid umfasst 13 Seiten und sechs Anlagen.



DIBt | Kollonnenstraße 40-42 | D-10623 Berlin | Tel.: +49 30 10930-0 | Fax: +49 30 10930-1000 | E-Mail: info@dibt.de | www.dibt.de