

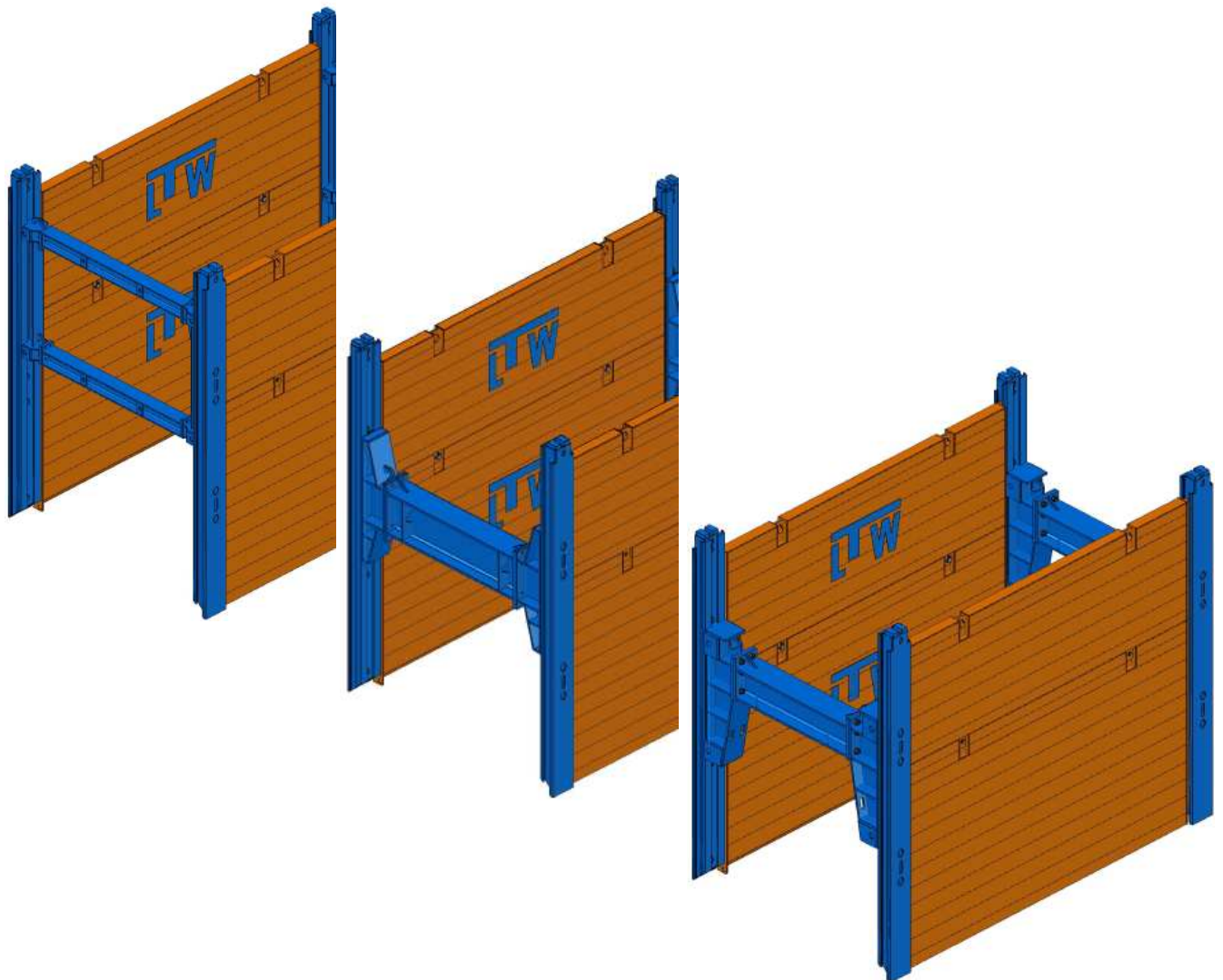
TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV



SYSTEM VIEW

Single Slide Rail System - Type EG PV



Standard Shoring Frame
brace extension HEB 160

H-Shoring Frame
brace extension HEA 500

U-Shoring Frame
brace extension HEB 360

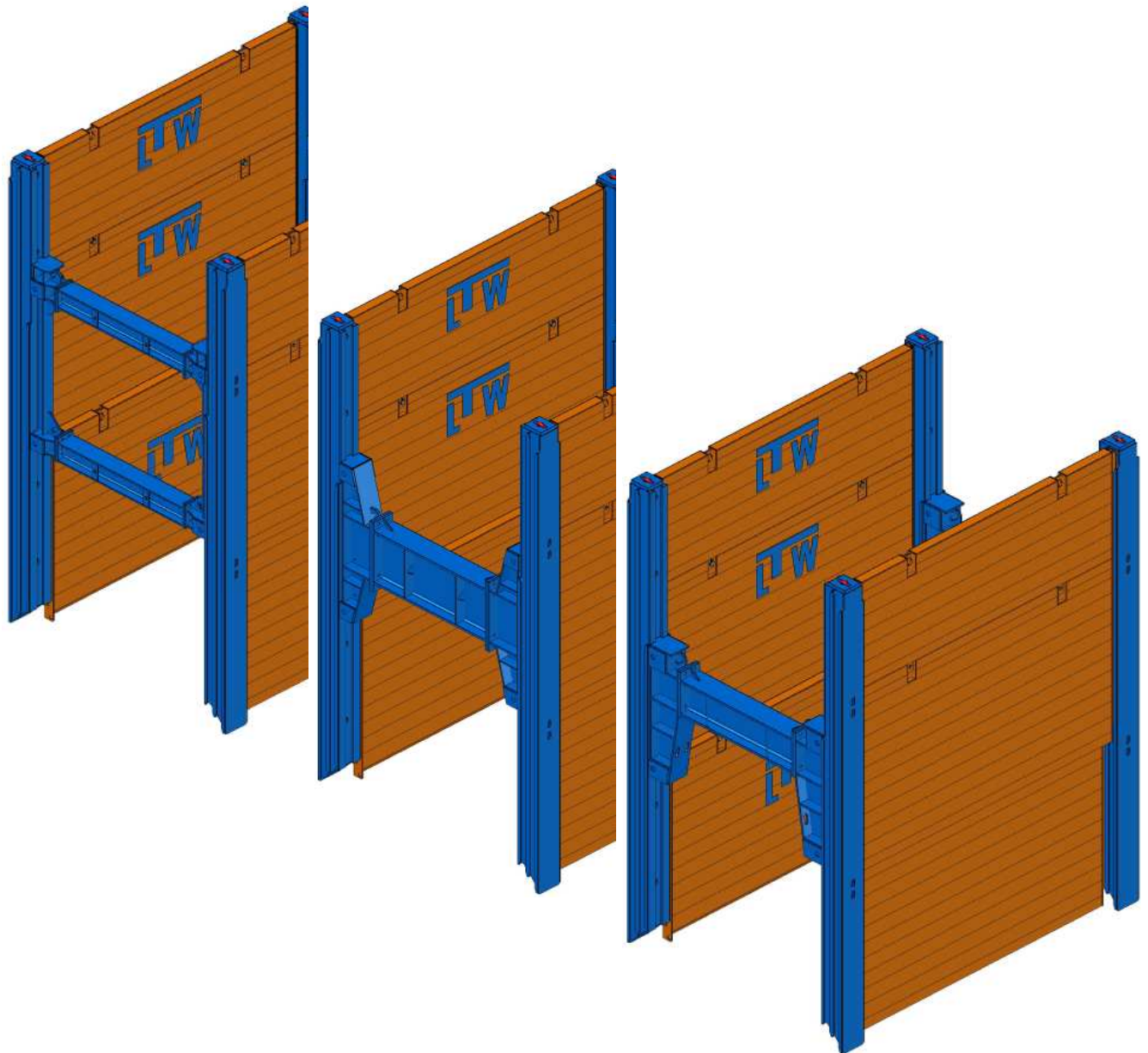
TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV



SYSTEM VIEW

Double Slide Rail System - Type DG PV



Standard Shoring Frame
brace extension HEB 240

H-Shoring Frame
brace extension HEA 700

U-Shoring Frame
brace extension HEB 450

TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV



SLIDE RAIL SHORING PLATES

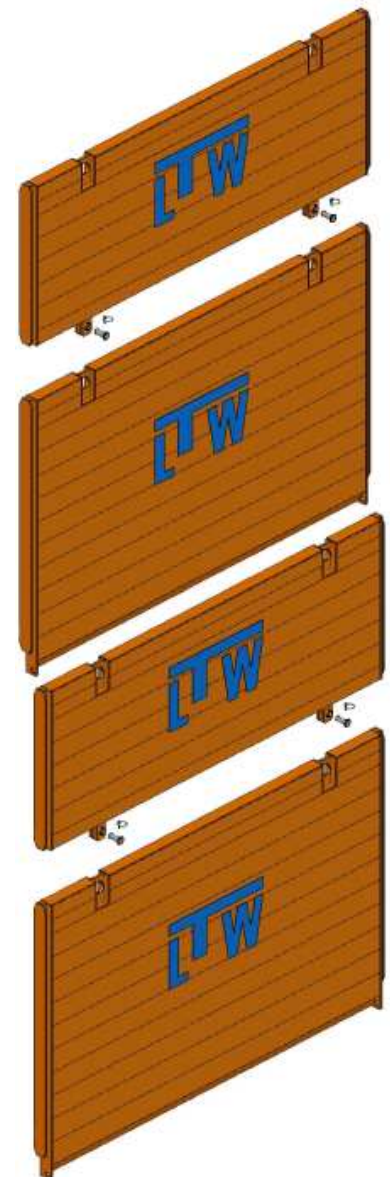
Off-the-shelf, the Slide Rail Plates are designed - **VSI** -; i.g. Rails and Plates are **flush inside** (for use with in-situ ducts). On demand the plates can also be supplied - **VSA** -; i.g. Rails and plates are **flush outside** (for inner city shoring, allowing a straight blacktop cut).

Plates VS 100

Plate length L [m]	Plate height H [m]	Plate thickness t_{PI} [mm]	Pipe culvert length L_C [m]	Limit state design load e_d [kN / m ²]	Plate weight G_{PL} [kg]
2,00	2,40	100	~2,00	171,6	510
	1,40				335
	1,60				370
2,50	2,40	100	~2,50	110,4	605
	1,40				400
	1,60				440
3,00	2,40	100	~3,00	81,1	690
	1,40				450
	1,60				500
3,50	2,40	100	~3,50	56,6	805
	1,40				525
	1,60				580

Plates VS 120

Plate length L [m]	Plate height H [m]	Plate thickness t_{PI} [mm]	Pipe culvert length L_C [m]	Limit state design load e_d [kN / m ²]	Plate weight G_{PL} [kg]
4,00	2,40	120	~4,00	71,0	1170
	1,40				745
	1,60				835
4,50	2,40	120	~4,50	56,2	1305
	1,40				830
	1,60				930
5,00	2,40	120	~5,00	72,1	1635
	1,40				1020
	1,60				1150



TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV



SLIDE RAILS

Single Slide Rail - Type EG PV

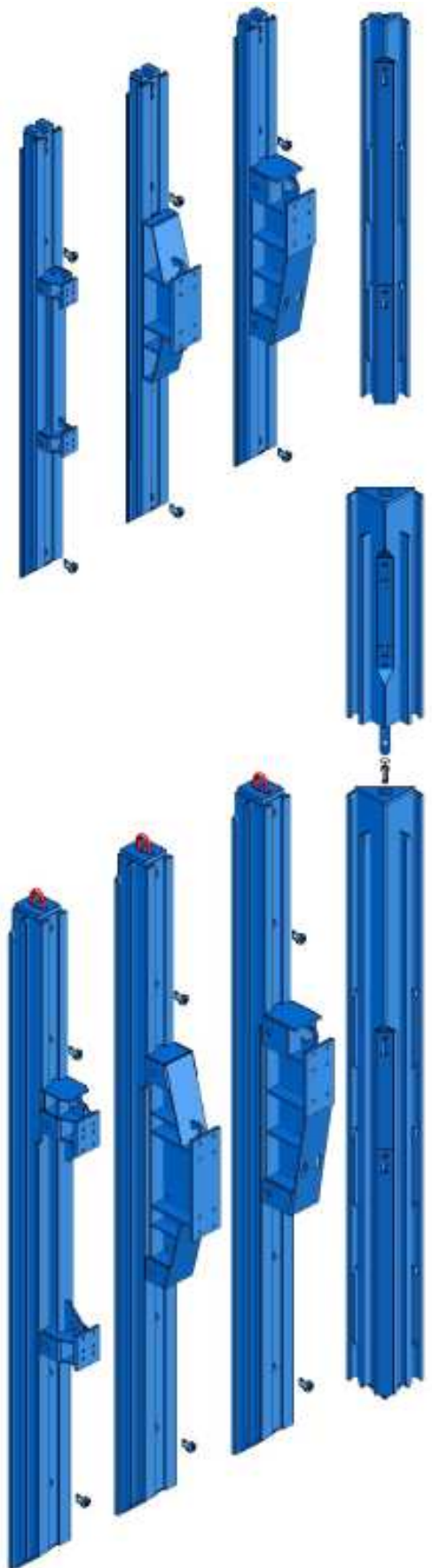
Description	Rail length	Rail thickness	Limit state design moment M_d	Weight
	[m]	t_{Tr} [mm]		G_{Tr} [kg]
EG PV	4,00	177	338	495
Corner - EG	3,00	218	147	310
Corner - EG	3,50			355
Corner - EG	4,00			400

Double Slide Rail - Type DG PV

Description	Rail length	Rail thickness	Limit state design moment M_d	Weight
	[m]	t_{Tr} [mm]		G_{Tr} [kg]
DG PV	4,80	320	1020	1075
DG PV	6,00			1355
DG PV	7,00			1555
DG PV	7,50	325	1106	1780
Corner - DG	4,50	305	363	715
Corner - DG	5,00			780
Corner - DG	5,50			840
Corner-DG-A	2,00	236	322	315

Shoring Frame

working for	Roller spacing	Flange dimension	minimum working width $b_{c, min}$	Weight
	[m]			[mm]
EG LW	1,39	160 * 205	0,45	107
EG H-LW	1,40	300 * 660	0,70	234
EG U-LW	1,25	300 * 480	0,82	404
DG LW	2,00	240 * 305	0,73	308
DG LW	2,80			343
DG H-LW	1,80	300 * 900	1,10	470
DG U-LW	1,45	300 * 580	0,92	488



TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV

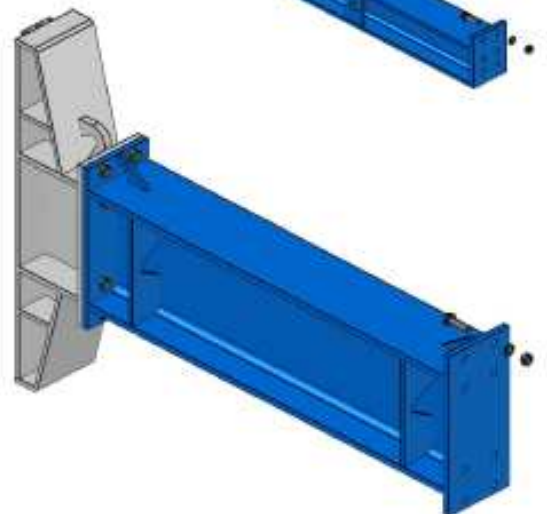
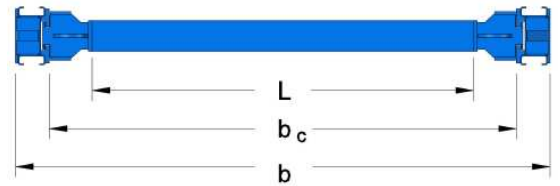


BRACE EXTENSIONS - EG PV

Flange 160 * 205 - HEB 160

Screw Set M16*70 HV - Torque moment 250 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	0,45	0,80	-
0,25	0,70	1,05	19
0,50	0,95	1,30	32
0,75	1,20	1,55	43
1,00	1,45	1,80	54
1,50	1,95	2,30	75
2,00	2,45	2,80	98
2,50	2,95	3,30	120



Flange 300 * 660 - HEA 500

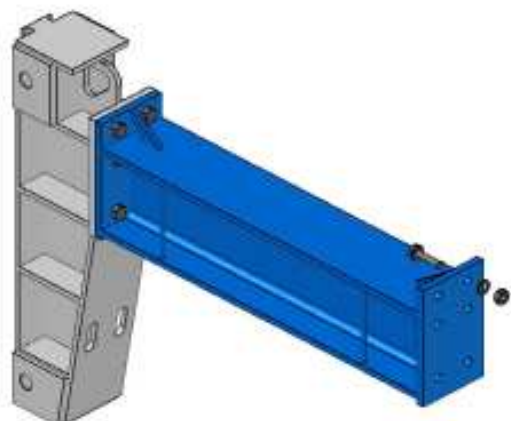
Screw Set M24*85 HV - Torque moment 800 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	0,70	1,05	-
0,25	0,95	1,30	112
0,50	1,20	1,55	163
0,75	1,45	1,80	202
1,00	1,70	2,05	255
1,50	2,20	2,55	334
2,00	2,70	3,05	414
2,50	3,20	3,55	493

Flange 300 * 480 - HEB 360

Screw Set M30*105 HV - Torque moment 1650 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	0,82	1,17	-
0,25	1,07	1,42	95
0,50	1,32	1,67	133
0,75	1,57	1,92	169
1,00	1,82	2,17	206
1,50	2,32	2,67	279
2,00	2,82	3,17	353
2,50	3,32	3,67	426



TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV

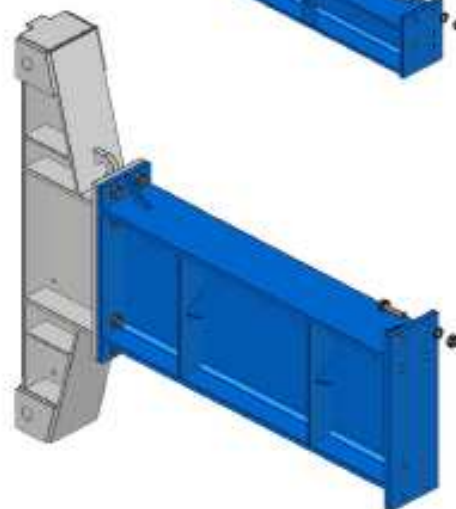
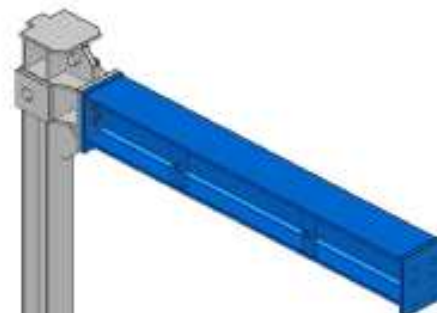
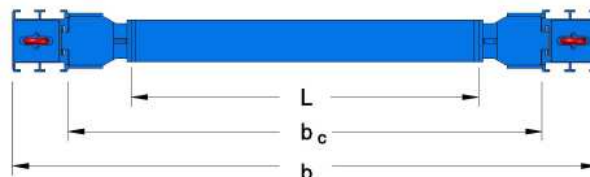


BRACE EXTENSIONS - DG PV

DG PV - Flange 240 * 305 - HEB 240

Screw Set M24*85 HV - Torque moment 800 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	0,73	1,36	-
0,25	0,98	1,61	45
0,50	1,23	1,86	69
0,75	1,48	2,11	90
1,00	1,73	2,36	112
1,50	2,23	2,86	154
2,00	2,73	3,36	199
2,50	3,23	3,86	242



DG PV - Flange 300 * 900 - HEA 700

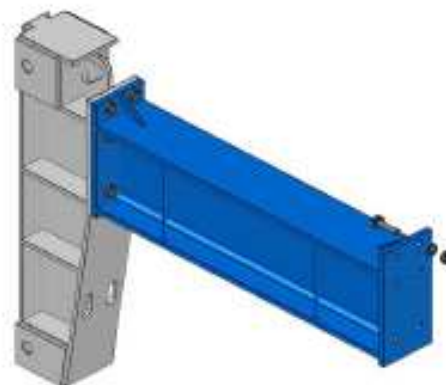
Screw Set M30*105 HV - Torque moment 1650 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	1,10	1,74	-
0,50	1,60	2,24	231
0,75	1,85	2,49	290
1,00	2,10	2,74	361
1,50	2,60	3,24	465
2,00	3,10	3,74	570
2,50	3,60	4,24	674

DG PV - Flange 300 * 580 - HEB 450

Screw Set M30*105 HV - Torque moment 1650 Nm

Brace Extension [m]	Working width b _c [m]	Shoring width b [m]	Weight G [kg]
-	0,92	1,56	-
0,50	1,42	2,06	161
0,75	1,67	2,31	204
1,00	1,92	2,56	248
1,50	2,42	3,06	336
2,00	2,92	3,56	425
2,50	3,42	4,06	513



TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV

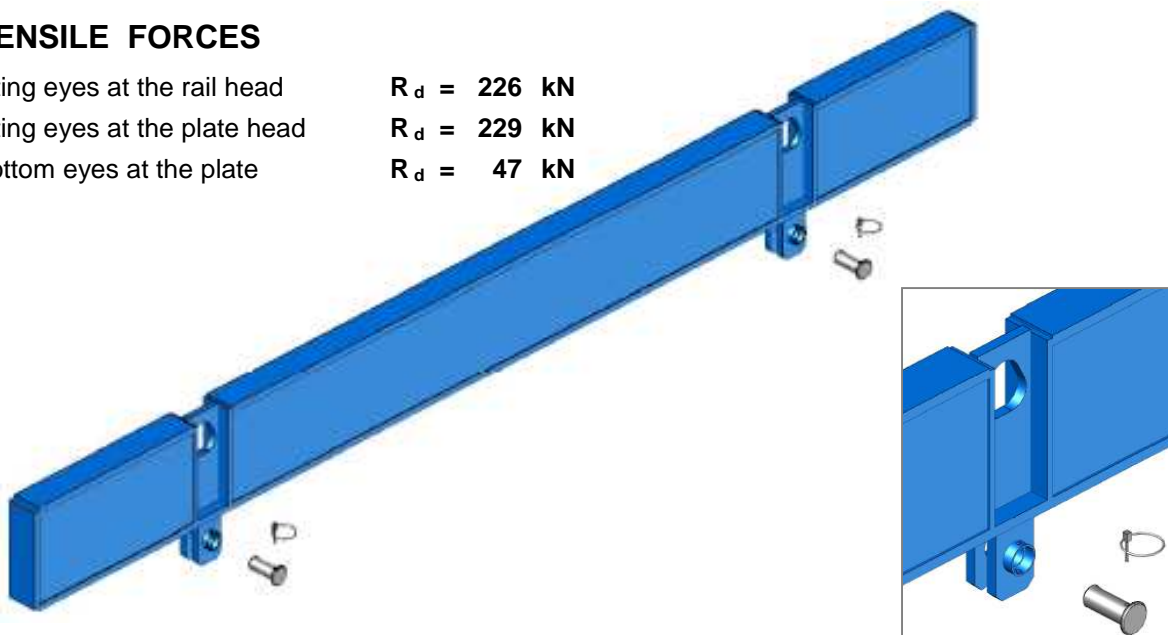


ACCESSORIES

Description	Dimension	specified use for	Weight [kg]
locking bolt	Ø50 * 114	locking feature for shoring frame	2,1
bolt	Ø40 * 128	connection between Base and Extension Plates	1,4
bolt	Ø40 * 198	connection Base and Extension Corner Slide Rails	2,2
locking clip [R]	Ø6	locking clip for connecting bolt at plates	0,05
hexagon screw	M16*70 HV	for flange 160 * 205 EG PV	0,14
hex-nut	M16 HV		0,04
washer	for M16		0,02
hexagon screw	M24*85 HV	for flange 300 * 660 EG PV & for flange 240 * 305 DG PV	0,57
hex-nut	M24 HV		0,17
washer	für M24		0,03
hexagon screw	M30*105 HV	for flange 300 * 480 EG PV for flange 300 * 580 DG PV for flange 300 * 900 DG PV	0,9
hex-nut	M30 HV		0,2
washer	für M30		0,05
protection rail	L = 1800	for Plate length 2,00m	151
protection rail	L = 2300	for Plate length 2,50m	188
protection rail	L = 2500	for Plate length 3,00m	203
protection rail	L = 3300	for Plate length 3,50m	264
protection rail	L = 3800	for Plate length 4,00m	304
protection rail	L = 4300	for Plate length 4,50m	341
protection rail	L = 4800	for Plate length 5,00m	378
clamping device		for strut free pits (long pipes etc.)	220

TENSILE FORCES

lifting eyes at the rail head $R_d = 226 \text{ kN}$
 lifting eyes at the plate head $R_d = 229 \text{ kN}$
 bottom eyes at the plate $R_d = 47 \text{ kN}$



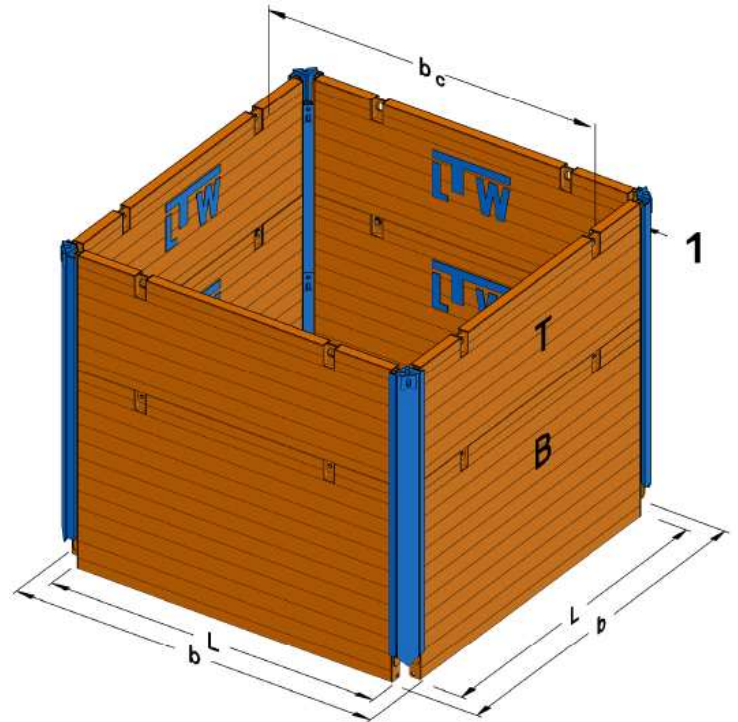
TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV

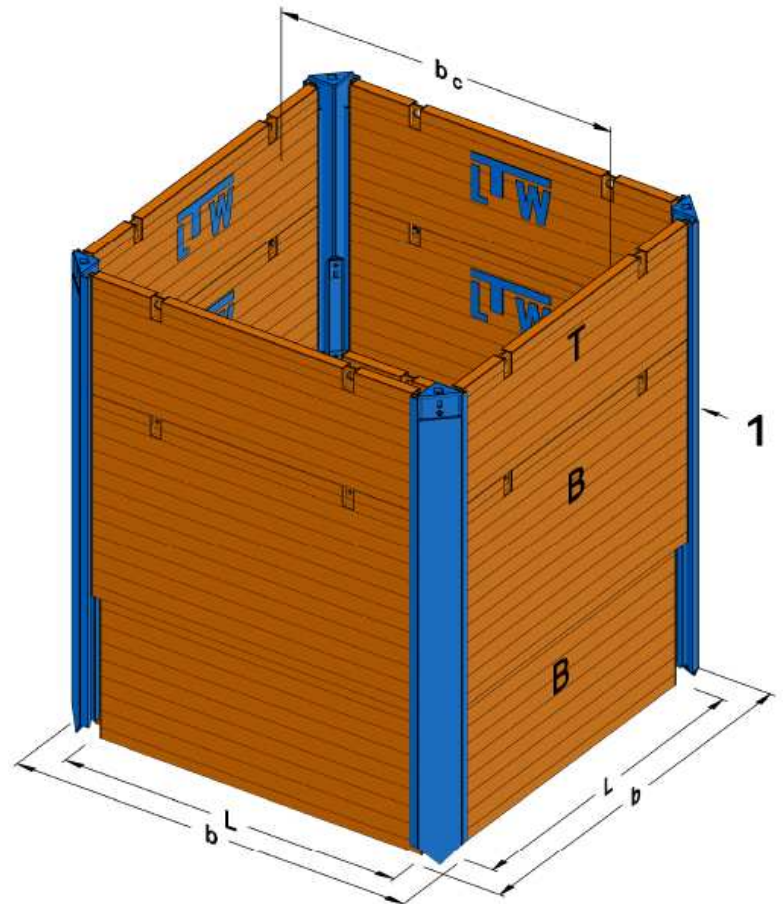


PITS

Corner Single Slide Rails



Corner Double Slide Rails



1 Corner slide rail
B Base Plate

T Top Plate
b Shoring Width

b_c Inner Working Width
L Plate Length

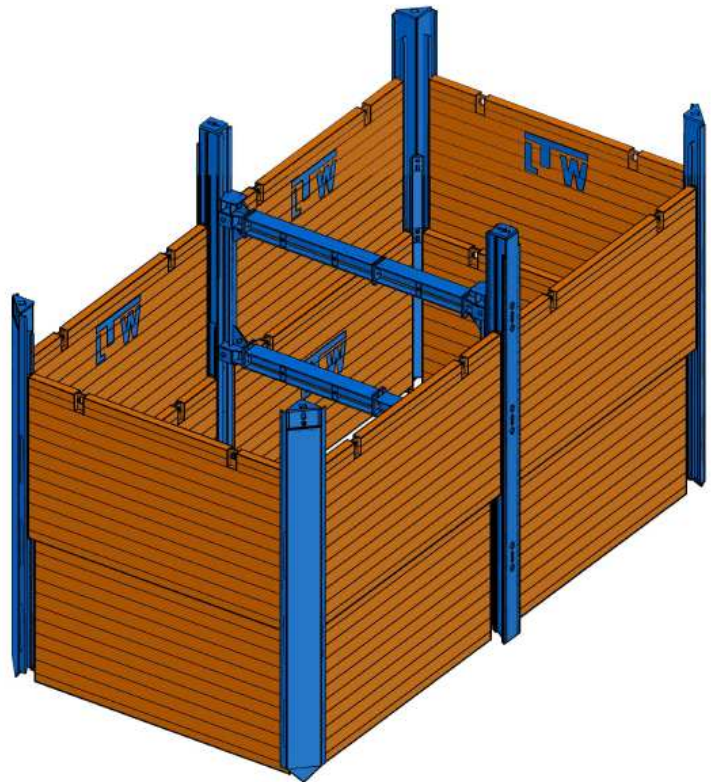
TECHNICAL CHARACTERISTICS

LTW SLIDE RAIL SYSTEM - Type PV



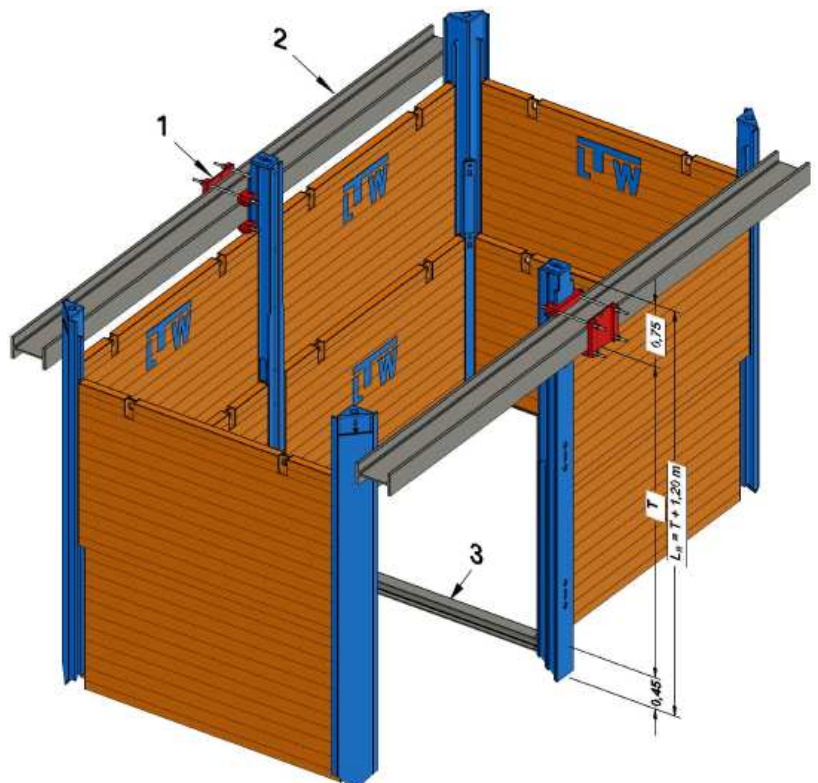
2 BAY PIT

Corner Slide Rails & DG PV



CLAMPING DEVICE - Strut free 2 Bay Pit

Corner Slide Rails & DG PV



- 1 Clamping Device
- 2 upper waler H-Beam
- 3 bottom support or concrete floor

- T trench depth
- L_R Rail Length = $T + 1,20$ m

TECHNICAL CHARACTERISTICS

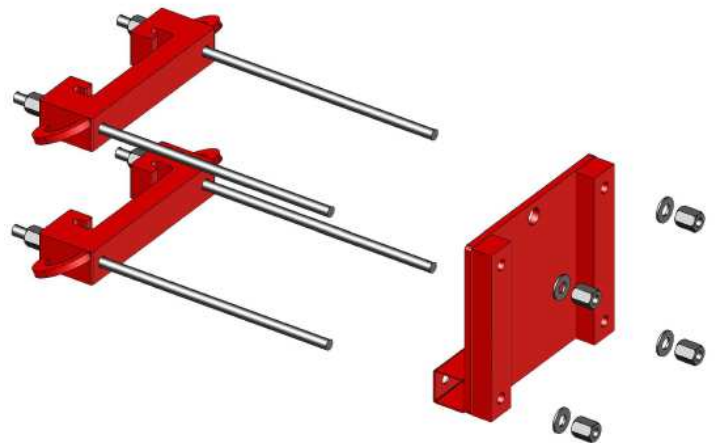
LTW SLIDE RAIL SYSTEM - Type PV



CLAMING DEVICE

consisting of:

Description	Qty.	Weight [kg/pce.]
<i>Socket</i>	2	50,9
<i>End Plate</i>	1	94,2
<i>threaded rod</i>	4	4,5
<i>hex-nut</i>	8	0,5
<i>washer</i>	8	0,1
complete kid	1	220



The clamping device engages behind the outer rail guidance and clamps the outside horizontal upper waler (e.g. HEB 500). It creates a load-carrying connection which enables the forces that arise being discharged into the outer Slide Rails.