

STANDARD TYPES

Support Bracket



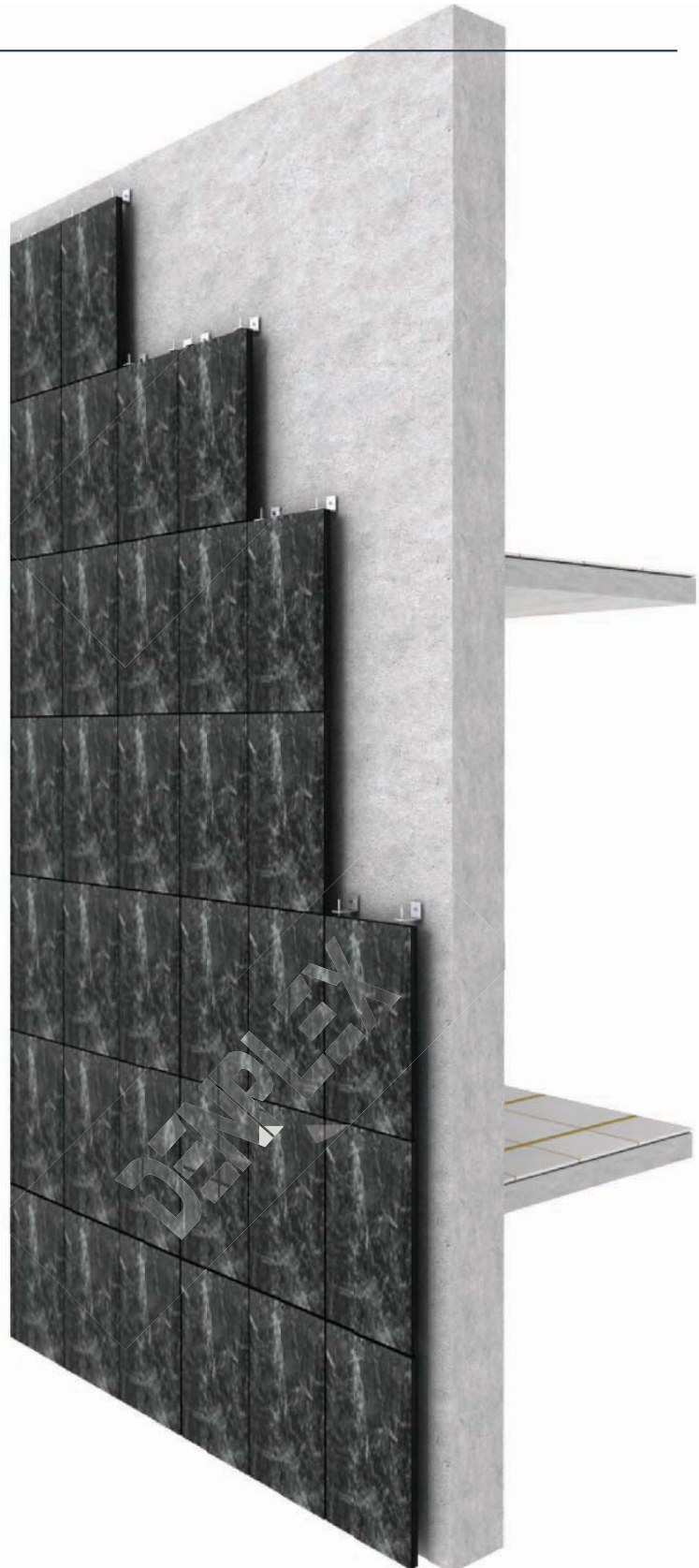
The structural analysis fully considers the dead load of panel ,imposed wind loads and thermal stresses in accordance with relevant DIN standards.

Loads caused by earthquakes can be transferred into the anchoring base.

The support and restraint brackets are fixed using expansion anchors ,chemical anchors ,etc.

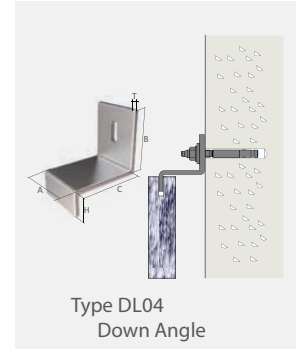
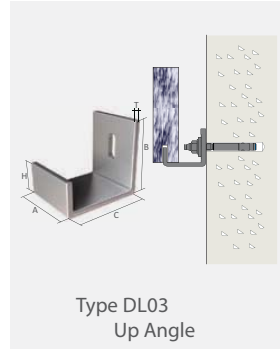
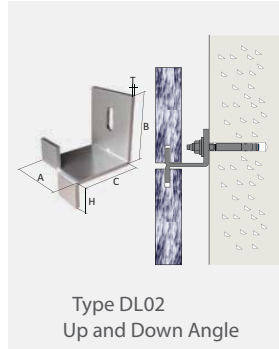
Using expansion bolts ,an installation of the facade is also possible during the winter months.

Due to the small drill hole dimensions of the expansion bolts ,the facade can be installed very quickly.



L -BRACKETS ST- 500

L - Brackets



Load Table for DL01/02/03/04/07.

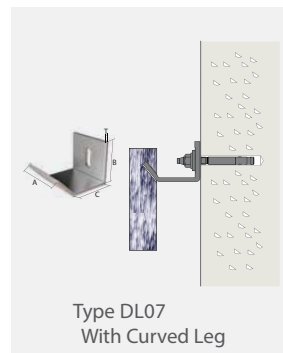
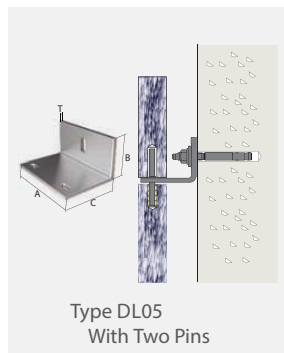
Materials :SS304 ,SS316 ,SS316L ,SS316TI ,S235JR-MG ,S235JR-HDG ≤ 50°C 24h average temperature

Leg B B mm	Cavity to Pin C mm	Dead load max DL kN	Wind load max WL± kN	Bracket Width A mm	Bracket Thickness T mm	Ø Pin mm	Anchor Comb .Force kN*
45	30	0.06	0.11	35	2	4	1.40
45	35			40	2	4	1.60
45	40			35	3	4	1.70
45	45			35	3	4	1.90
45	50			35	3	4	2.00
45	30	0.09	0.17	35	3	4	2.30
45	35			35	3	4	2.60
45	40			35	3	4	2.80
45	45			35	3	4	3.10
45	50			40	3	4	3.30
45	30	0.15	0.28	40	3	4	3.60
45	35			40	3	4	4.00
45	40			35	4	4	4.40
50	45			35	4	4	3.40
50	50			35	4	4	3.70
45	30	0.20	0.33	35	4	4	4.60
45	35			35	4	4	5.10
45	40			35	4	4	5.60
50	45			40	4	4	4.40
50	50			40	4	4	4.70

Loads per 1 bracket

If loads are bigger or dimensions are different ,individual calculation is necessary

*with safety 3.0



Load Table for DL05/06

Materials SS304 ,SS316 ,SS316L ,SS316TI ,S235JR-MG ,S235JR-HDG ≤ 50°C 24h average temperature

Leg B B mm	Cavity to Pin C mm	Dead load max DL kN	Wind load max WL ± kN	Bracket Width A mm	Bracket Thickness T mm	Ø Pin mm	Anchor Comb .Force kN *
50	30	0.40	0.56	120	3	2 x 4	5.80
50	35			120	3	2 x 4	6.30
50	40			120	3	2 x 4	6.80
50	45			140	3	2 x 4	7.30
50	50			120	4	2 x 4	8.90
50	30	0.50	0.70	120	3	2 x 4	8.10
50	35			130	3	2 x 4	8.90
50	40			120	4	2 x 4	9.60
50	45			120	4	2 x 4	10.40
50	50			120	4	2 x 4	11.10
60	30	0.60	0.84	140	3	2 x 4	7.00
60	35			120	4	2 x 4	7.90
60	40			120	4	2 x 4	8.40
60	45			120	4	2 x 4	8.90
60	50			120	4	2 x 4	9.40
60	30	0.70	0.98	120	4	2 x 4	8.60
60	35			120	4	2 x 4	9.20
60	40			120	4	2 x 4	9.80
60	45			130	4	2 x 4	10.40
60	50			140	4	2 x 4	11.00

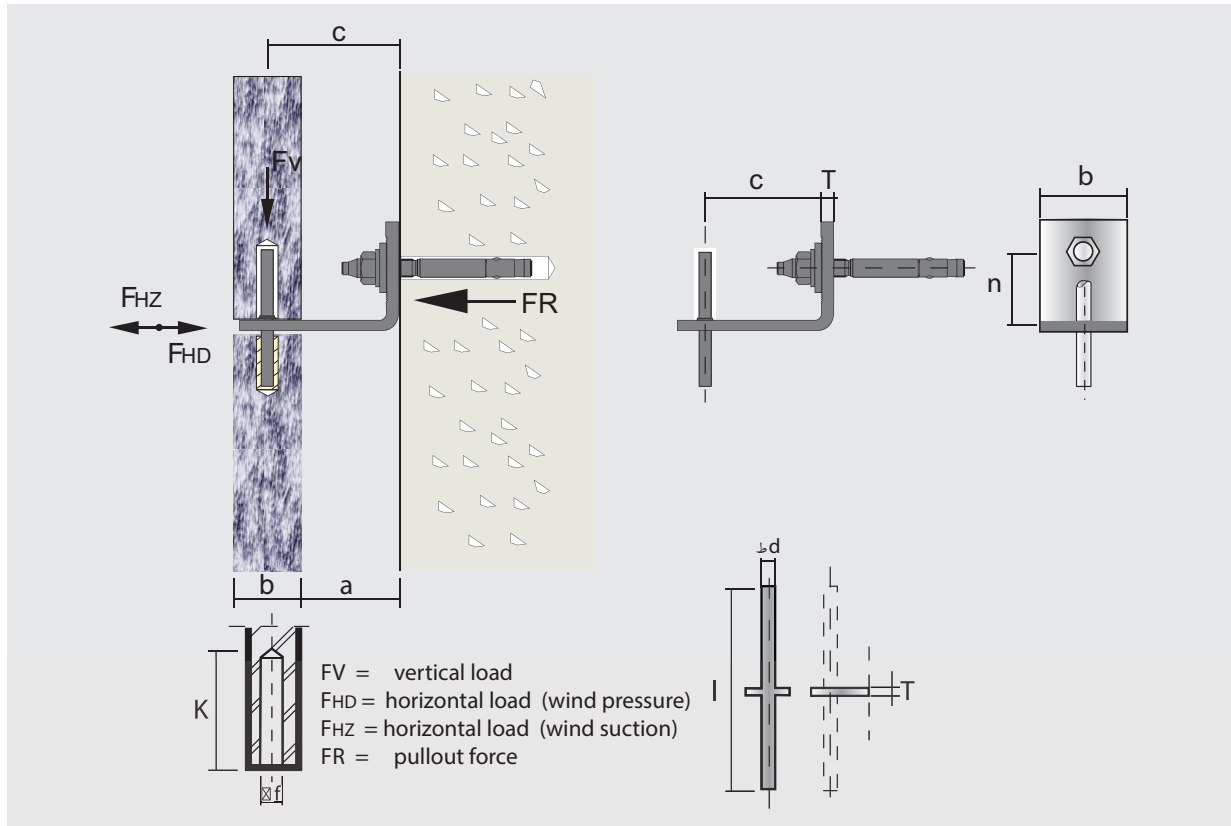
Loads per 1 bracket

If loads are bigger or dimensions are different ,individual calculation is necessary

*with safety 3.0

L-BRACKETS DL

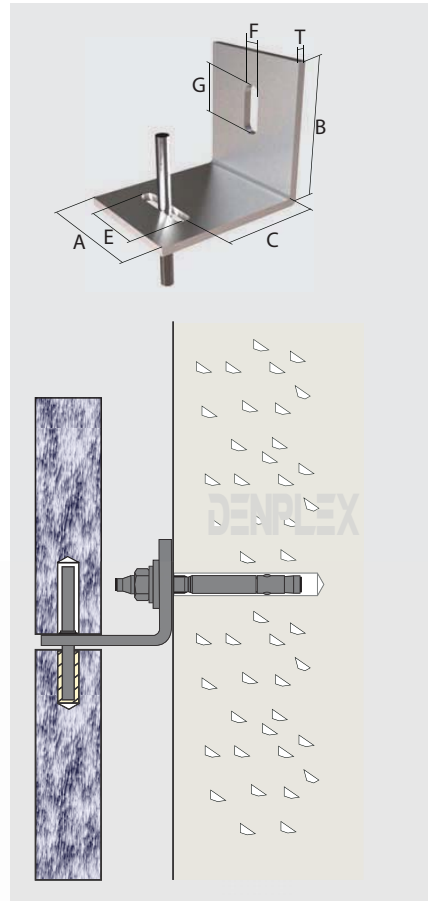
System Type DL01 with Pin



L-Bracket with Pin Type DL01

Materials SS304, SS316, SS316L, SS316TI, S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	Pin	Slot F x G
DL01-35.45.30.2	2	35	45	30	4	6.5 x 22
DL01-40.45.35.2	2	40	45	35	4	6.5 x 22
DL01-35.45.30.3	3	35	45	30	4	6.5 x 22
DL01-40.45.30.3	3	40	45	30	4	8.5 x 22
DL01-35.45.35.3	3	35	45	35	4	6.5 x 22
DL01-40.45.35.3	3	40	45	35	4	8.5 x 22
DL01-35.45.40.3	3	35	45	40	4	6.5 x 22
DL01-35.45.30.4	4	35	45	30	4	8.5 x 22
DL01-35.45.35.4	4	35	45	35	4	8.5 x 22
DL01-35.45.40.4	4	35	45	40	4	8.5 x 22
DL01-35.50.45.4	4	35	50	45	4	8.5 x 22
DL01-40.50.45.4	4	40	50	45	4	8.5 x 22

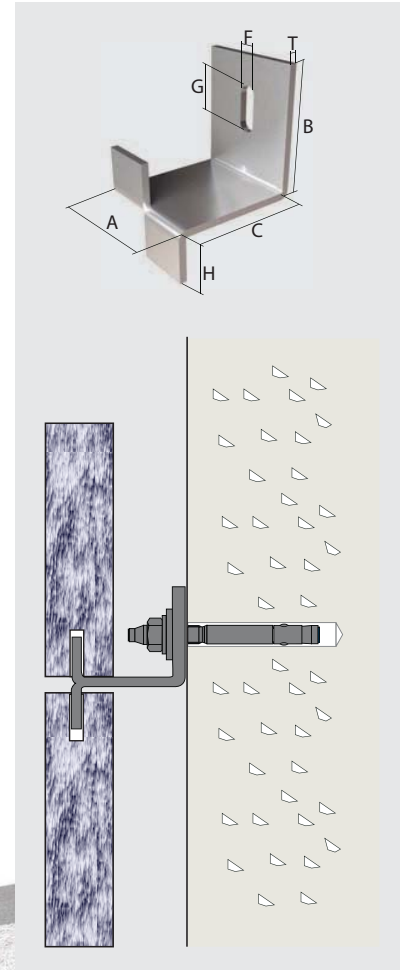


SYSTEM TYPE DL02 WITHUP & DOWN LEGS

L-Bracket Up and Down Type DL02

Materials SS304, SS316, SS316L, SS316TI, S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	H	Slot
DL02-35.45.30.2	2	35	45	30	15	6.5 x 22
DL02-40.45.35.2	2	40	45	35	15	6.5 x 22
DL02-35.45.30.3	3	35	45	30	15	6.5 x 22
DL02-40.45.30.3	3	40	45	30	15	8.5 x 22
DL02-35.45.35.3	3	35	45	35	15	6.5 x 22
DL02-40.45.35.3	3	40	45	35	15	8.5 x 22
DL02-35.45.40.3	3	35	45	40	15	6.5 x 22
DL02-35.45.30.4	4	35	45	30	15	8.5 x 22
DL02-35.45.35.4	4	35	45	35	15	8.5 x 22
DL02-35.45.40.4	4	35	45	40	15	8.5 x 22
DL02-35.50.45.4	4	35	50	45	15	8.5 x 22
DL02-40.50.45.4	4	40	50	45	15	8.5 x 22

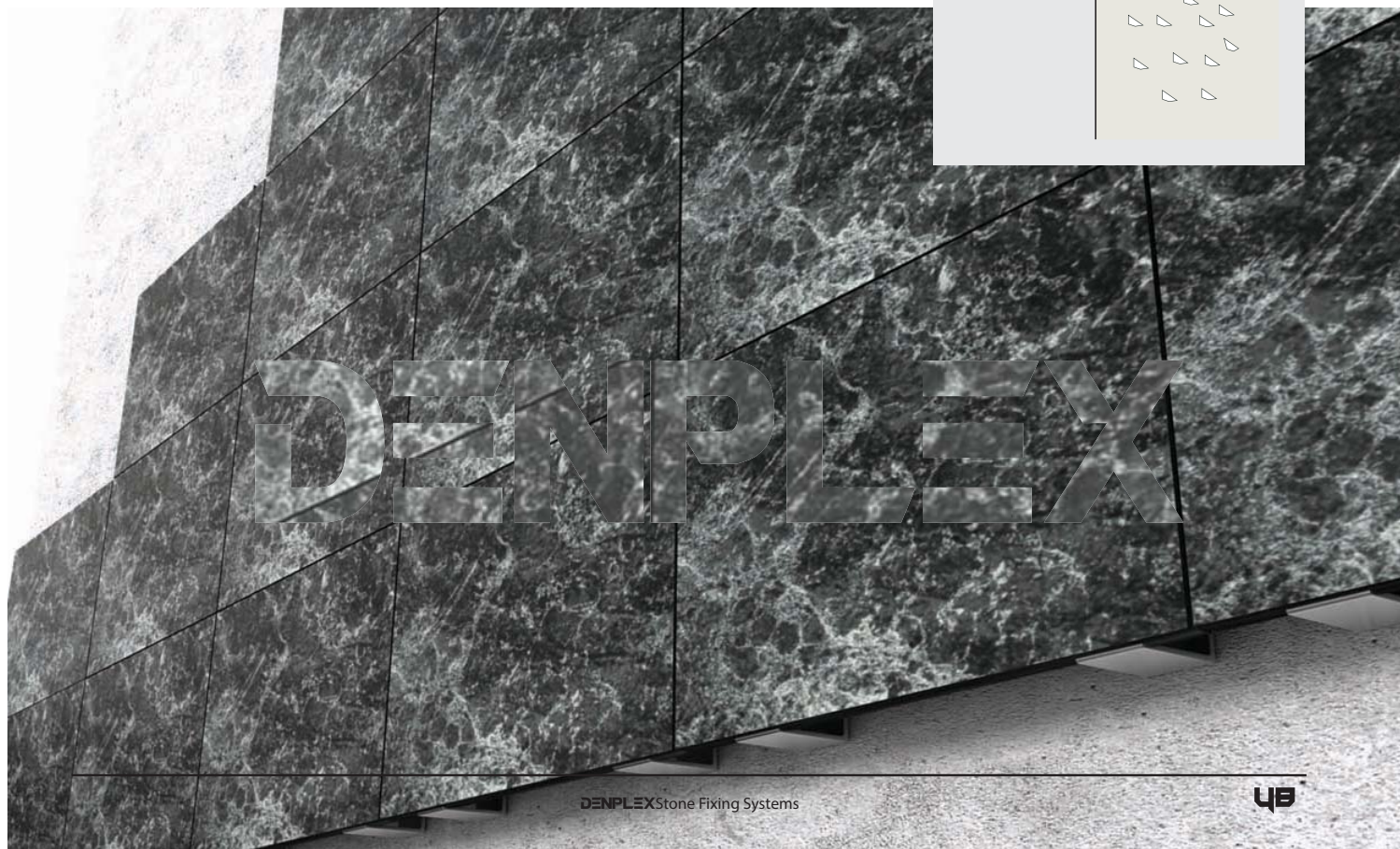
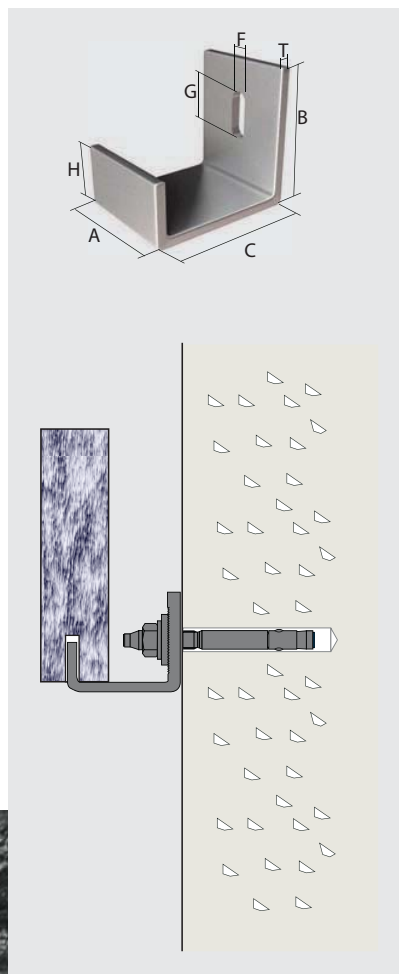


SYSTEM TYPE DL03 WITH UP LEG

L-Bracket Up Type DL03

Materials SS304, SS316, SS316L, SS316TI, S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	H	Slot
DL03-35.45.30.2	2	35	45	30	15	6.5 x 22
DL03-40.45.35.2	2	40	45	35	15	6.5 x 22
DL03-35.45.30.3	3	35	45	30	15	6.5 x 22
DL03-40.45.30.3	3	40	45	30	15	8.5 x 22
DL03-35.45.35.3	3	35	45	35	15	6.5 x 22
DL03-40.45.35.3	3	40	45	35	15	8.5 x 22
DL0335.45.40.3	3	35	45	40	15	6.5 x 22
DL03-35.45.30.4	4	35	45	30	15	8.5 x 22
DL03-35.45.35.4	4	35	45	35	15	8.5 x 22
DL03-35.45.40.4	4	35	45	40	15	8.5 x 22
DL03-35.50.45.4	4	35	50	45	15	8.5 x 22
DL03-40.50.45.4	4	40	50	45	15	8.5 x 22

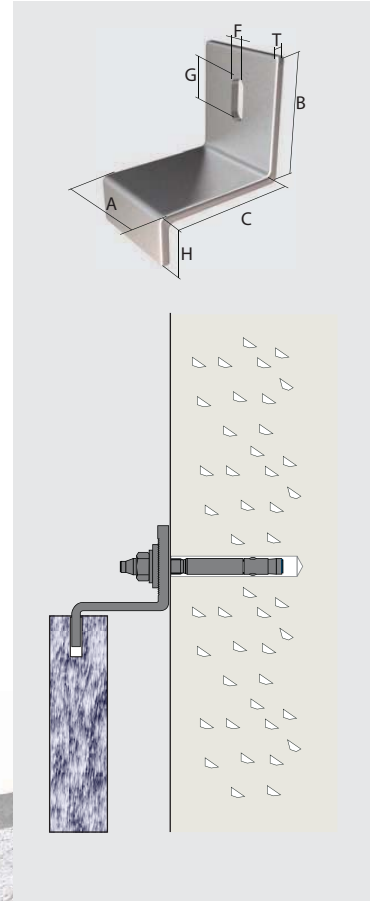


SYSTEM TYPE DL04 WITH DOWN LEG

L-Bracket Down Type DL04

Materials SS304,SS316,SS316L ,SS316TI ,S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	H	Slot
DL04-35.45.30.2	2	35	45	30	20	6.5 x 22
DL04-40.45.35.2	2	40	45	35	20	6.5 x 22
DL04-35.45.30.3	3	35	45	30	20	6.5 x 22
DL04-40.45.30.3	3	40	45	30	20	8.5 x 22
DL04-35.45.35.3	3	35	45	35	20	6.5 x 22
DL04-40.45.35.3	3	40	45	35	20	8.5 x 22
DL04-35.45.40.3	3	35	45	40	20	6.5 x 22
DL04-35.45.30.4	4	35	45	30	20	8.5 x 22
DL04-35.45.35.4	4	35	45	35	20	8.5 x 22
DL04-35.45.40.4	4	35	45	40	20	8.5 x 22
DL04-35.50.45.4	4	35	50	45	20	8.5 x 22
DL04-40.50.45.4	4	40	50	45	20	8.5 x 22

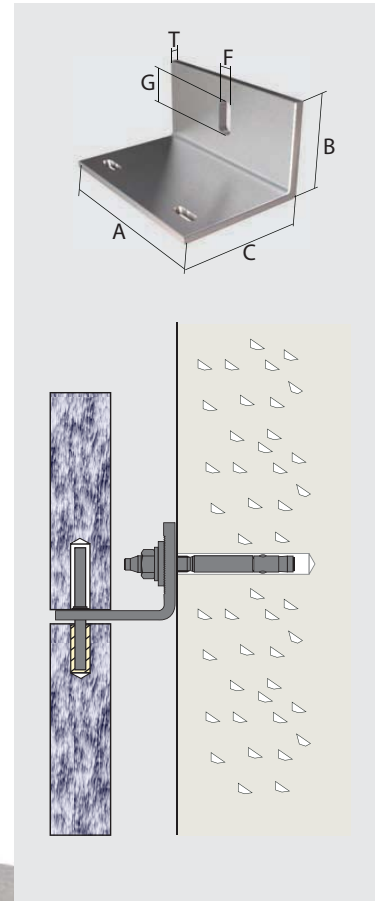


SYSTEM TYPE DL05 WITH DOUBLE PIN

L-Bracket with Two Pins Type DL05

Materials SS304,SS316,SS316L,SS316TI,S235JR-MG,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	Pin	Slot
DL05-120.50.30.3	3	120	50	30	2x 4	8,5 x 22
DL05-120.50.35.3	3	120	50	35	2x 4	8,5 x 22
DL05-120.50.40.3	3	120	50	40	2x 4	8,5 x 22
DL05-140.60.30.3	3	140	60	30	2x 4	8,5 x 22
DL05-140.50.45.3	3	140	50	45	2x 4	8,5 x 22
DL05-120.60.30.4	4	120	60	30	2x 4	8,5 x 22
DL05-120.60.35.4	4	120	60	35	2x 4	8,5 x 22
DL05-120.50.40.4	4	120	50	40	2x 4	10,5 x 22
DL05-120.50.45.4	4	120	50	45	2x 4	10,5 x 22
DL05-120.50.50.4	4	120	50	50	2x 4	8,5 x 22
DL05-120.60.50.4	4	120	60	50	2x 4	10,5 x 22
DL05-140.60.50.4	4	140	60	50	2x 4	10,5 x 22



L-Bracket Type DL06 Double Up and Down

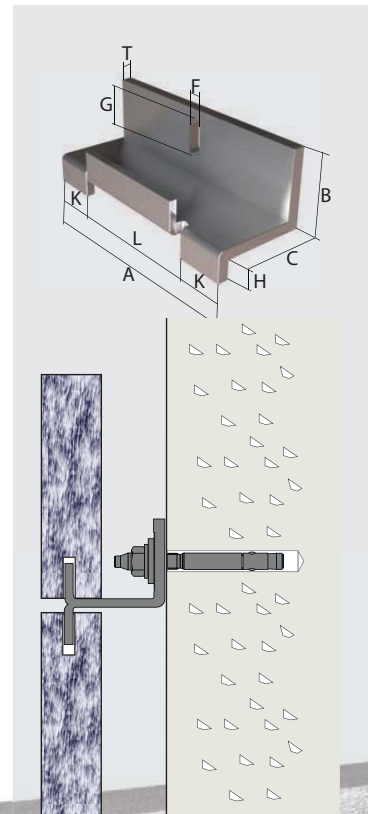
L-Bracket Double Up and Down Type DL06

Materials SS304,SS316,SS316L ,SS316TI ,S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	H	L	K	Slot
DL06-120.50.30.3	3	120	50	30	15	A/2	A/4	8.5 x 22
DL06-120.50.35.3	3	120	50	35	15	A/2	A/4	8.5 x 22
DL06-120.50.40.3	3	120	50	40	15	A/2	A/4	8.5 x 22
DL06-140.60.30.3	3	140	60	30	15	A/2	A/4	8.5 x 22
DL06-140.50.45.3	3	140	50	45	15	A/2	A/4	8.5 x 22
DL06-120.60.30.4	4	120	60	30	15	A/2	A/4	8.5 x 22
DL06-120.60.35.4	4	120	60	35	15	A/2	A/4	8.5 x 22
DL06-120.50.40.4	4	120	50	40	15	A/2	A/4	10.5 x 22
DL06-120.50.45.4	4	120	50	45	15	A/2	A/4	10.5 x 22
DL06-120.50.50.4	4	120	50	50	15	A/2	A/4	8.5 x 22
DL06-120.60.50.4	4	120	60	50	15	A/2	A/4	10.5 x 22
DL06-140.60.50.4	4	140	60	50	15	A/2	A/4	10.5 x 22

L =A/2

K=A/4



SYSTEM TYPE DL07 WITH CURVED LEG

L-Bracket with Curved Leg Type DL07

Materials SS304,SS316,SS316L ,SS316TI ,S235JR-MG ,S235JR-HDG 50°C 24h average temperature
Standard items:

Item No .	T	A	B	C	H	Slot
DL07-35.45.30.2	2	35	45	30	20	6.5 x 22
DL07-40.45.35.2	2	40	45	35	20	6.5 x 22
DL07-35.45.30.3	3	35	45	30	20	6.5 x 22
DL07-40.45.30.3	3	40	45	30	20	8.5 x 22
DL07-35.45.35.3	3	35	45	35	20	6.5 x 22
DL07-40.45.35.3	3	40	45	35	20	8.5 x 22
DL07-35.45.40.3	3	35	45	40	20	6.5 x 22
DL07-35.45.30.4	4	35	45	30	20	8.5 x 22
DL07-35.45.35.4	4	35	45	35	20	8.5 x 22
DL07-35.45.40.4	4	35	45	40	20	8.5 x 22
DL07-35.50.45.4	4	35	50	45	20	8.5 x 22
DL07-40.50.45.4	4	40	50	45	20	8.5 x 22

