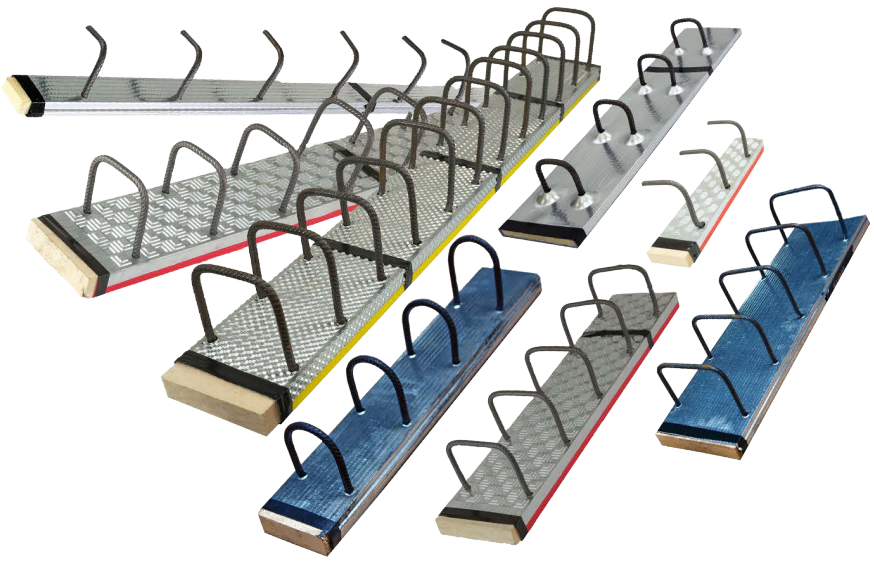
Summary of structural analysis according to Eurocode 2

REINFORCEMENT SYSTEMS PLEXUS®



SHEAR CAPACITY according to type testing in acc. with EC2

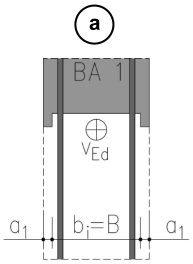
PLEXUS® Double leg U-bar Type B

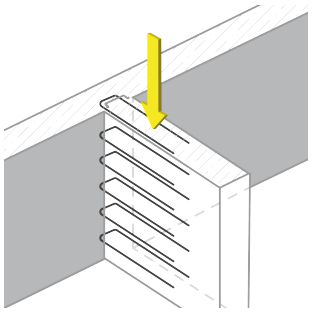
$V_{Rd,l}$ [kN/m] Shear capacity longitudinal to the joint – case a

(direct support in component 1)

Ø Iron [mm] / Stirrup distance „s“ [cm]	Box width B [mm] 85	115	145	175	205	225
Concrete quality C 20/25 (Part 2 – Page 1)						
Ø 8 / 10	96,33	130,33	164,33	198,33	232,33	249,74
Ø 8 / 15	96,33	130,33	164,33	170,66	175,66	178,99
Ø 8 / 20	96,33	125,39	130,39	135,39	140,39	143,73
Ø 8 / 25	96,33	104,06	109,06	114,06	119,06	122,40
Ø 10 / 10	96,33	130,33	164,33	198,33	232,33	255,00
Ø 10 / 15	96,33	130,33	164,33	194,06	199,06	202,40
Ø 10 / 20	96,33	130,33	147,80	152,80	157,80	161,13
Ø 10 / 25	96,33	118,07	123,07	128,07	133,07	136,41
Ø 12 / 10	- *	130,33	164,33	198,33	232,33	255,00
Ø 12 / 15	- *	130,33	164,33	198,33	232,33	255,00
Ø 12 / 20	- *	130,33	164,33	193,80	198,80	202,13
Ø 12 / 25	- *	130,33	155,90	160,90	165,90	169,23
Concrete quality C 25/30 (Part 2 - Page 3)						
Ø 8 / 10	120,42	162,92	205,42	247,92	287,09	291,09
Ø 8 / 15	120,42	162,92	193,06	199,06	205,06	209,66
Ø 8 / 20	120,42	146,17	152,17	158,17	164,17	168,17
Ø 8 / 25	115,44	121,44	127,44	133,44	139,44	143,44
Ø 10 / 10	120,42	162,92	205,42	247,92	290,42	318,75
Ø 10 / 15	120,42	162,92	205,42	226,20	232,20	236,20
Ø 10 / 20	120,42	162,92	172,35	178,35	184,35	188,35
Ø 10 / 25	120,42	137,68	143,68	149,68	155,68	159,68
Ø 12 / 10	- *	162,92	205,42	247,92	290,42	318,75
Ø 12 / 15	- *	162,92	205,42	247,92	290,42	299,52
Ø 12 / 20	- *	162,92	205,42	225,89	231,89	235,89
Ø 12 / 25	- *	162,92	181,74	187,74	193,74	197,74
Concrete quality C 30/37 (Part 2 - Page 5)						
Ø 8 / 10	144,50	195,50	246,50	297,50	323,75	328,20
Ø 8 / 15	144,50	195,50	217,69	224,35	231,02	235,46
Ø 8 / 20	144,50	164,65	171,32	177,99	184,65	189,10
Ø 8 / 25	130,13	136,80	143,47	150,13	156,80	161,24
Ø 10 / 10	144,50	195,50	246,50	297,50	348,50	374,21
Ø 10 / 15	144,50	195,50	246,50	254,96	261,63	266,07
Ø 10 / 20	144,50	187,56	194,22	200,89	207,56	212,00
Ø 10 / 25	144,50	155,16	161,82	168,49	175,16	179,60
Ø 12 / 10	- *	195,50	246,50	297,50	348,50	382,50
Ø 12 / 15	- *	195,50	246,50	297,50	333,19	337,63
Ø 12 / 20	- *	195,50	246,50	254,61	261,28	265,73
Ø 12 / 25	- *	195,50	204,84	211,51	218,17	222,62

* Not possible for production reasons.





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

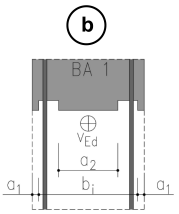
NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

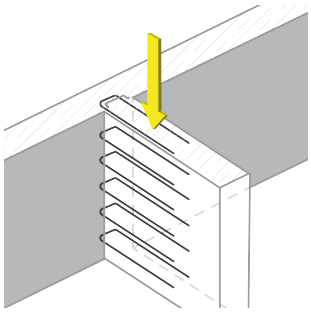
SHEAR CAPACITY according to type testing in acc. with EC2

PLEXUS® Single leg bar Type A, Type I and Special type M

$V_{Rd,l}$ [kN/m] Shear capacity longitudinal to the joint – case b

Ø Iron [mm] / Stirrup distance „s“ [cm]	Measurement width of the wall (= Wall thickness – $2a_1$) b_i [mm]							
	200	250	275	300	325	350	375	400
Concrete quality C 20/25 (Part 2 - Page 7)								
Ø 8 / 10	174,83	183,16	187,33	191,49	195,66	199,83	203,99	208,16
Ø 8 / 15	127,66	136,00	140,16	144,33	148,50	152,66	156,83	161,00
Ø 8 / 20	104,15	112,48	116,65	120,82	124,98	129,15	133,32	137,48
Ø 8 / 25	89,93	98,26	102,43	106,60	110,76	114,93	119,10	123,26
Ø 10 / 10	198,28	206,62	210,78	214,95	219,12	223,28	227,45	231,62
Ø 10 / 15	143,26	151,60	155,76	159,93	164,10	168,26	172,43	176,60
Ø 10 / 20	115,76	124,09	128,26	132,42	136,59	140,76	144,92	149,09
Ø 10 / 25	99,27	107,60	111,77	115,94	120,10	124,27	128,44	132,60
Ø 12 / 10	226,67	261,18	265,34	269,51	273,68	277,84	282,01	286,18
Ø 12 / 15	179,67	188,01	192,17	196,34	200,51	204,67	208,84	213,01
Ø 12 / 20	143,09	151,42	155,59	159,75	163,92	168,09	172,25	176,42
Ø 12 / 25	121,16	129,49	133,66	137,82	141,99	146,16	150,32	154,49
Concrete quality C 25/30 (Part 2 - Page 8)								
Ø 8 / 10	204,06	214,06	219,06	224,06	229,06	234,06	239,06	244,06
Ø 8 / 15	149,37	159,37	164,37	169,37	174,37	179,37	184,37	189,37
Ø 8 / 20	122,11	132,11	137,11	142,11	147,11	152,11	157,11	162,11
Ø 8 / 25	105,62	115,62	120,62	125,62	130,62	135,62	140,62	145,62
Ø 10 / 10	231,26	241,26	246,26	251,26	256,26	261,26	266,26	271,26
Ø 10 / 15	167,46	177,46	182,46	187,46	192,46	197,46	202,46	207,46
Ø 10 / 20	135,57	145,57	150,57	155,57	160,57	165,57	170,57	175,57
Ø 10 / 25	116,45	126,45	131,45	136,45	141,45	146,45	151,45	156,45
Ø 12 / 10	283,33	304,52	309,52	314,52	319,52	324,52	329,52	334,52
Ø 12 / 15	209,68	219,68	224,68	229,68	234,68	239,68	244,68	249,68
Ø 12 / 20	167,26	177,26	182,26	187,26	192,26	197,26	202,26	207,26
Ø 12 / 25	141,83	151,83	156,83	161,83	166,83	171,83	176,83	181,83
Concrete quality C 30/37 (Part 2 - Page 9)								
Ø 8 / 10	229,85	240,96	246,52	252,07	257,63	263,18	268,74	274,30
Ø 8 / 15	168,05	179,16	184,72	190,27	195,83	201,38	206,94	212,49
Ø 8 / 20	137,24	148,35	153,91	159,46	165,02	170,57	176,13	181,68
Ø 8 / 25	118,61	129,72	135,27	140,83	146,39	151,94	157,50	163,05
Ø 10 / 10	260,59	271,70	277,25	282,81	288,36	293,92	299,47	305,03
Ø 10 / 15	188,49	199,60	205,16	210,71	216,27	221,83	227,38	323,94
Ø 10 / 20	152,45	163,56	169,11	174,67	180,22	185,78	191,33	196,89
Ø 10 / 25	130,85	141,96	147,51	153,07	158,62	164,18	169,73	175,29
Ø 12 / 10	332,08	343,19	348,74	354,30	359,86	365,41	370,97	376,52
Ø 12 / 15	236,20	247,31	252,87	258,42	263,98	269,53	275,09	280,64
Ø 12 / 20	188,26	199,37	204,93	210,48	216,04	221,59	227,15	232,71
Ø 12 / 25	159,52	170,63	176,19	181,75	187,30	192,86	198,41	203,97





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

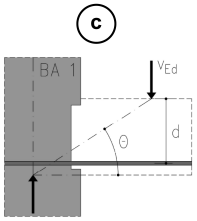
SHEAR CAPACITY according to type testing in acc. with EC2

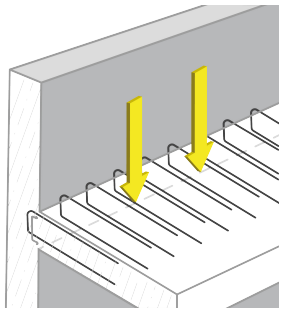
PLEXUS® Double leg U-bar Type B

V_{Rd} [kN/m] Shear force transverse to the joint – case c

(with shear reinforcement in the slab)

Ø Iron [mm] / Stirrup distance „s“ [cm]	Static effective height d [mm] 140	160	180	200	220	240	260	280
Concrete quality C 20/25 (Part 2 - Page 11)								
Ø 8 / 10	94,06	119,14	144,22	169,30	194,39	208,33	208,33	208,33
Ø 8 / 15	94,06	119,14	138,88	138,88	138,88	138,88	138,88	138,88
Ø 8 / 20	94,06	104,16	104,16	104,16	104,16	104,16	104,16	104,16
Ø 8 / 25	83,33	83,33	83,33	83,33	83,33	83,33	83,33	83,33
Ø 10 / 10	94,06	119,14	144,22	169,30	194,39	219,47	244,55	260,41
Ø 10 / 15	94,06	119,14	144,22	169,30	173,61	173,61	173,61	173,61
Ø 10 / 20	94,06	119,14	130,20	130,20	130,20	130,20	130,20	130,20
Ø 10 / 25	94,06	104,16	104,16	104,16	104,16	104,16	104,16	104,16
Ø 12 / 10	94,06	119,14	144,22	169,30	194,39	219,47	244,55	269,63
Ø 12 / 15	94,06	119,14	144,22	169,30	194,39	219,47	236,10	236,10
Ø 12 / 20	94,06	119,14	144,22	169,30	177,08	177,08	177,08	177,08
Ø 12 / 25	94,06	119,14	141,66	141,66	141,66	141,66	141,66	141,66
Concrete quality C 25/30 (Part 2 - Page 13)								
Ø 8 / 10	117,57	148,92	180,28	211,63	241,74	241,74	241,74	241,74
Ø 8 / 15	117,57	148,92	161,16	161,16	161,16	161,16	161,16	161,16
Ø 8 / 20	117,57	120,87	120,87	120,87	120,87	120,87	120,87	120,87
Ø 8 / 25	96,70	96,70	96,70	96,70	96,70	96,70	96,70	96,70
Ø 10 / 10	117,57	148,92	180,28	211,63	242,98	274,33	302,18	302,18
Ø 10 / 15	117,57	148,92	180,28	201,45	201,45	201,45	201,45	201,45
Ø 10 / 20	117,57	148,92	151,09	151,09	151,09	151,09	151,09	151,09
Ø 10 / 25	117,57	120,87	120,87	120,87	120,87	120,87	120,87	120,87
Ø 12 / 10	117,57	148,92	180,28	211,63	242,98	274,33	305,39	337,04
Ø 12 / 15	117,57	148,92	180,28	211,63	242,98	273,97	273,97	273,97
Ø 12 / 20	117,57	148,92	180,28	205,48	205,48	205,48	205,48	205,48
Ø 12 / 25	117,57	148,92	164,38	164,38	164,38	164,38	164,38	164,38
Concrete quality C 30/37 (Part 2 - Page 15)								
Ø 8 / 10	141,09	178,71	216,33	253,95	272,99	272,99	272,99	272,99
Ø 8 / 15	141,09	178,71	181,99	181,99	181,99	181,99	181,99	181,99
Ø 8 / 20	136,49	136,49	136,49	136,49	136,49	136,49	136,49	136,49
Ø 8 / 25	109,19	109,19	109,19	109,19	109,19	109,19	109,19	109,19
Ø 10 / 10	141,09	178,71	216,33	253,95	291,58	329,20	341,23	341,23
Ø 10 / 15	141,09	178,71	216,33	227,49	227,49	227,49	227,49	227,49
Ø 10 / 20	141,09	170,62	170,62	170,62	170,62	170,62	170,62	170,62
Ø 10 / 25	136,49	136,49	136,49	136,49	136,49	136,49	136,49	136,49
Ø 12 / 10	141,09	178,71	216,33	253,95	291,58	329,20	366,82	404,45
Ø 12 / 15	141,09	178,71	216,33	253,95	291,58	309,38	309,38	309,38
Ø 12 / 20	141,09	178,71	216,33	232,04	232,04	232,04	232,04	232,04
Ø 12 / 25	141,09	178,71	185,63	185,63	185,63	185,63	185,63	185,63





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

SHEAR CAPACITY according to type testing in acc. with EC2

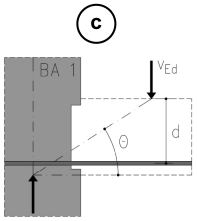
PLEXUS® Double leg U-bar Type B

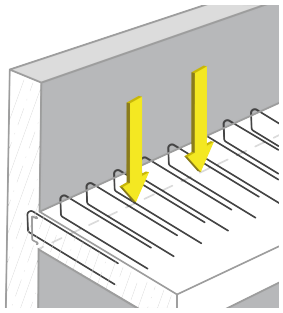
V_{Rd} [kN/m] Shear force transverse to the joint – case c

(without shear reinforcement in the slab)

Ø Iron [mm] / Stirrup distance „s“ [cm]	Static effective height d [mm]									
	100	120	140	160	180	200	220	240	260	280
Concrete quality C 20/25 (Part 2 - Page 10)										
Ø 8 / 10	44,27	49,42	52,97	56,51	60,05	63,59	57,78	67,93	70,04	72,11
Ø 8 / 15	44,27	49,42	52,97	56,51	60,05	63,59	65,78	67,93	70,04	72,11
Ø 8 / 20	44,27	49,42	52,97	56,25	56,25	56,25	56,25	56,25	56,25	56,25
Ø 8 / 25	44,27	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
Ø 10 / 10	50,09	56,43	58,88	62,14	65,69	69,23	71,42	73,56	75,67	77,75
Ø 10 / 15	44,27	53,13	58,60	62,14	65,69	69,23	71,42	73,56	75,67	77,75
Ø 10 / 20	44,27	53,13	58,60	62,14	65,69	69,23	70,31	70,31	70,31	70,31
Ø 10 / 25	44,27	53,13	56,25	56,25	56,25	56,25	56,25	56,25	56,25	56,25
Ø 12 / 10	- *	59,36	62,12	64,76	67,29	69,72	71,42	73,56	75,67	77,75
Ø 12 / 15	- *	55,80	58,60	62,14	65,69	69,23	71,42	73,56	75,67	77,75
Ø 12 / 20	- *	53,13	58,60	62,14	65,69	69,23	71,42	73,56	75,67	77,75
Ø 12 / 25	- *	53,13	58,60	62,14	65,69	69,23	71,42	73,56	75,67	76,50
Concrete quality C 25/30 (Part 2 - Page 12)										
Ø 8 / 10	49,50	56,45	60,41	64,37	68,33	72,29	74,74	77,14	79,50	81,82
Ø 8 / 15	49,50	56,45	60,41	64,37	68,33	72,29	74,74	77,14	79,50	81,82
Ø 8 / 20	49,50	56,45	60,41	64,37	65,27	65,27	65,27	65,27	65,27	65,27
Ø 8 / 25	49,50	52,22	52,22	52,22	52,22	52,22	52,22	52,22	52,22	52,22
Ø 10 / 10	53,96	60,93	66,95	70,91	74,87	78,83	81,28	83,68	86,04	88,36
Ø 10 / 15	49,50	59,40	66,95	70,91	74,87	78,83	81,28	83,68	86,04	88,36
Ø 10 / 20	49,50	59,40	66,95	70,91	74,87	78,83	81,28	81,59	81,59	81,59
Ø 10 / 25	49,50	59,40	65,27	65,27	65,27	65,27	65,27	65,27	65,27	65,27
Ø 12 / 10	- *	66,75	69,73	72,57	75,30	78,83	81,28	83,68	76,04	88,36
Ø 12 / 15	- *	60,11	66,95	70,91	74,87	78,83	81,28	83,68	76,04	88,36
Ø 12 / 20	- *	59,40	66,95	70,91	74,87	78,83	81,28	83,68	76,04	88,36
Ø 12 / 25	- *	59,40	66,95	70,91	74,87	78,83	81,28	83,68	76,04	88,36
Concrete quality C 30/37 (Part 2 - Page 14)										
Ø 8 / 10	54,22	62,95	67,28	71,62	75,96	80,30	82,98	85,61	88,19	90,73
Ø 8 / 15	54,22	62,95	67,28	71,62	75,96	80,30	82,98	85,61	88,19	90,73
Ø 8 / 20	54,22	62,95	67,28	71,62	73,71	73,71	73,71	73,71	73,71	73,71
Ø 8 / 25	54,22	58,96	58,96	58,96	58,96	58,96	58,96	58,96	58,96	58,96
Ø 10 / 10	57,34	65,07	74,67	79,00	83,34	87,68	90,36	92,99	95,57	98,12
Ø 10 / 15	54,22	65,07	74,67	79,00	83,34	87,68	90,36	92,99	95,57	98,12
Ø 10 / 20	54,22	65,07	74,67	79,00	83,34	87,68	90,36	92,13	92,13	92,13
Ø 10 / 25	54,22	65,07	73,71	73,71	73,71	73,71	73,71	73,71	73,71	73,71
Ø 12 / 10	- *	73,12	76,71	79,73	83,34	87,68	90,36	92,99	95,57	98,12
Ø 12 / 15	- *	65,07	74,67	79,00	83,34	87,68	90,36	92,99	95,57	98,12
Ø 12 / 20	- *	65,07	74,67	79,00	83,34	87,68	90,36	92,99	95,57	98,12
Ø 12 / 25	- *	65,07	74,67	79,00	83,34	87,68	90,36	92,99	95,57	98,12

* Not possible for production reasons.





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

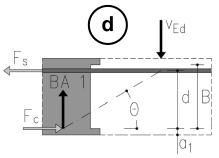
NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

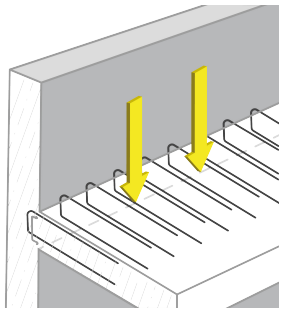
SHEAR CAPACITY according to type testing in acc. with EC2

PLEXUS® Special type DD

V_{Rd} [kN/m] Shear force transverse to the joint – case d

Ø Iron [mm] / Stirrup distance „s“ [cm]	Box width B [mm] 85	115	145	175	205	225
	Static effective height d [mm] 72,5	102,5	132,5	162,5	192,5	212,2
Concrete quality C 20/25 (Part 2 - Page 16)						
Ø 8 / 10	13,93	18,15	23,46	28,78	34,09	36,79
Ø 8 / 15	12,84	18,15	23,46	28,78	34,09	36,79
Ø 8 / 20	12,84	18,15	23,46	28,78	34,09	36,79
Ø 8 / 25	12,84	18,15	23,46	28,78	34,09	36,79
Ø 10 / 10	16,17	20,37	24,17	28,78	34,09	36,79
Ø 10 / 15	14,13	18,15	23,46	28,78	34,09	36,79
Ø 10 / 20	12,84	18,15	23,46	28,78	34,09	36,79
Ø 10 / 25	12,84	18,15	23,46	28,78	34,09	36,79
Ø 12 / 10	18,26	23,00	27,29	31,27	35,01	36,84
Ø 12 / 15	15,95	20,09	23,84	28,78	34,09	36,79
Ø 12 / 20	14,49	18,26	23,46	28,78	34,09	36,79
Ø 12 / 25	13,45	18,15	23,46	28,78	34,09	36,79
Concrete quality C 25/30 (Part 2 - Page 17)						
Ø 8 / 10	15,01	20,29	26,23	32,17	38,11	41,13
Ø 8 / 15	14,35	20,29	26,23	32,17	38,11	41,13
Ø 8 / 20	14,35	20,29	26,23	32,17	38,11	41,13
Ø 8 / 25	14,35	20,29	26,23	32,17	38,11	41,13
Ø 10 / 10	17,42	21,94	26,23	32,17	38,11	41,13
Ø 10 / 15	15,22	20,29	26,23	32,17	38,11	41,13
Ø 10 / 20	14,35	20,29	26,23	32,17	38,11	41,13
Ø 10 / 25	14,35	20,29	26,23	32,17	38,11	41,13
Ø 12 / 10	19,67	24,78	29,40	33,69	38,11	41,13
Ø 12 / 15	17,18	21,64	26,23	32,17	38,11	41,13
Ø 12 / 20	15,61	20,29	26,23	32,17	38,11	41,13
Ø 12 / 25	14,49	20,29	26,23	32,17	38,11	41,13
Concrete quality C 30/37 (Part 2 - Page 18)						
Ø 8 / 10	15,95	22,23	28,74	35,24	41,75	45,06
Ø 8 / 15	15,72	22,23	28,74	35,24	41,75	45,06
Ø 8 / 20	15,72	22,23	28,74	35,24	41,75	45,06
Ø 8 / 25	15,72	22,23	28,74	35,24	41,75	45,06
Ø 10 / 10	18,51	23,32	28,74	35,24	41,75	45,06
Ø 10 / 15	16,17	22,23	28,74	35,24	41,75	45,06
Ø 10 / 20	15,72	22,23	28,74	35,24	41,75	45,06
Ø 10 / 25	15,72	22,23	28,74	35,24	41,75	45,06
Ø 12 / 10	20,90	26,33	31,24	35,80	41,75	45,06
Ø 12 / 15	18,26	23,00	28,74	35,24	41,75	45,06
Ø 12 / 20	16,59	22,23	28,74	35,24	41,75	45,06
Ø 12 / 25	15,75	22,23	28,74	35,24	41,75	45,06





Stirrup height „h“:
Ø 8 mm = 35 cm
Ø 10 mm = 43 cm
Ø 12 mm = 51 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

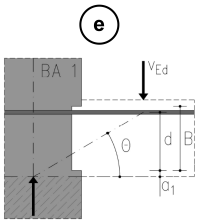
SHEAR CAPACITY according to type testing in acc. with EC2

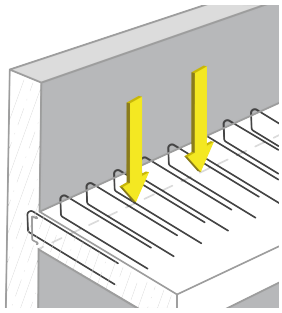
PLEXUS® Double leg U-bar Type B

V_{Rd} [kN/m] Shear force transverse to the joint – case e

(with shear reinforcement in the slab)

Ø Iron [mm] / Stirrup distance „s“ [cm]	Box width B [mm] 85	115	145	175	205	225
	Static effective height d [mm] 72,5	102,5	132,5	162,5	192,5	212,2
Concrete quality C 20/25 (Part 2 - Page 20)						
Ø 8 / 10	- **	47,03	84,65	122,27	159,90	184,98
Ø 8 / 15	- **	47,03	84,65	122,27	138,88	138,88
Ø 8 / 20	- **	47,03	84,65	104,16	104,16	104,16
Ø 8 / 25	- **	47,03	83,33	83,33	83,33	83,33
Ø 10 / 10	- **	47,03	84,65	122,27	159,90	184,98
Ø 10 / 15	- **	47,03	84,65	122,27	159,90	173,61
Ø 10 / 20	- **	47,03	84,65	122,27	130,20	130,20
Ø 10 / 25	- **	47,03	84,65	104,16	104,16	104,16
Ø 12 / 10	- *	47,03	84,65	122,27	159,90	184,98
Ø 12 / 15	- *	47,03	84,65	122,27	159,90	184,98
Ø 12 / 20	- *	47,03	84,65	122,27	159,90	177,08
Ø 12 / 25	- *	47,03	84,65	122,27	141,66	141,66
Concrete quality C 25/30 (Part 2 - Page 22)						
Ø 8 / 10	- **	58,79	105,81	152,84	199,87	231,22
Ø 8 / 15	- **	58,79	105,81	152,84	161,16	161,16
Ø 8 / 20	- **	58,79	105,81	120,87	120,87	120,87
Ø 8 / 25	- **	58,79	96,70	96,70	96,70	96,70
Ø 10 / 10	- **	58,79	105,81	152,84	199,87	231,22
Ø 10 / 15	- **	58,79	105,81	152,84	199,87	201,45
Ø 10 / 20	- **	58,79	105,81	151,09	151,09	151,09
Ø 10 / 25	- **	58,79	105,81	120,87	120,87	120,87
Ø 12 / 10	- *	58,79	105,81	152,84	199,87	231,22
Ø 12 / 15	- *	58,79	105,81	152,84	199,87	231,22
Ø 12 / 20	- *	58,79	105,81	152,84	199,87	205,48
Ø 12 / 25	- *	58,79	105,81	152,84	164,38	164,38
Concrete quality C 30/37 (Part 2 - Page 24)						
Ø 8 / 10	- **	70,54	126,98	183,41	239,85	272,99
Ø 8 / 15	- **	70,54	126,98	181,99	181,99	181,99
Ø 8 / 20	- **	70,54	126,98	136,49	136,49	136,49
Ø 8 / 25	- **	70,54	109,19	109,19	109,19	109,19
Ø 10 / 10	- **	70,54	126,98	183,41	239,85	277,47
Ø 10 / 15	- **	70,54	126,98	183,41	227,49	227,49
Ø 10 / 20	- **	70,54	126,98	170,62	170,62	170,62
Ø 10 / 25	- **	70,54	126,98	136,49	136,49	136,49
Ø 12 / 10	- *	70,54	126,98	183,41	239,85	277,47
Ø 12 / 15	- *	70,54	126,98	183,41	239,85	277,47
Ø 12 / 20	- *	70,54	126,98	183,41	232,04	232,04
Ø 12 / 25	- *	70,54	126,98	183,41	185,63	185,63





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

* Not possible for production reasons. // ** A shear force reinforcement does not increase the load-bearing capacity.

NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

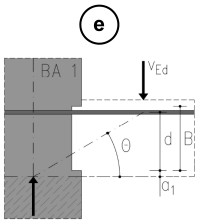
SHEAR CAPACITY according to type testing in acc. with EC2

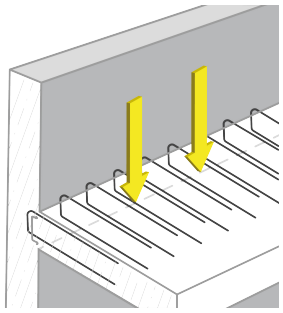
PLEXUS® Double leg U-bar Type B

V_{Rd} [kN/m] Shear force transverse to the joint – case e

(without shear reinforcement in the slab)

Ø Iron [mm] / Stirrup distance „s“ [cm]	Box width B [mm] 85	115	145	175	205	225
	Static effective height d [mm] 72,5	102,5	132,5	162,5	192,5	212,2
Concrete quality C 20/25 (Part 2 - Page 19)						
Ø 8 / 10	13,93	18,15	23,46	28,78	34,09	36,79
Ø 8 / 15	12,84	18,15	23,46	28,78	34,09	36,79
Ø 8 / 20	12,84	18,15	23,46	28,78	34,09	36,79
Ø 8 / 25	12,84	18,15	23,46	28,78	34,09	36,79
Ø 10 / 10	16,17	20,37	24,17	28,78	34,09	36,79
Ø 10 / 15	14,13	18,15	23,46	28,78	34,09	36,79
Ø 10 / 20	12,84	18,15	23,46	28,78	34,09	36,79
Ø 10 / 25	12,84	18,15	23,46	28,78	34,09	36,79
Ø 12 / 10	- *	23,00	27,29	31,27	35,01	36,84
Ø 12 / 15	- *	20,09	23,84	28,78	34,09	36,79
Ø 12 / 20	- *	18,26	23,46	28,78	34,09	36,79
Ø 12 / 25	- *	18,15	23,46	28,78	34,09	36,79
Concrete quality C 25/30 (Part 2 - Page 21)						
Ø 8 / 10	15,01	20,29	26,23	32,17	38,11	41,13
Ø 8 / 15	14,35	20,29	26,23	32,17	38,11	41,13
Ø 8 / 20	14,35	20,29	26,23	32,17	38,11	41,13
Ø 8 / 25	14,35	20,29	26,23	32,17	38,11	41,13
Ø 10 / 10	17,42	21,94	26,23	32,17	38,11	41,13
Ø 10 / 15	15,22	20,29	26,23	32,17	38,11	41,13
Ø 10 / 20	14,35	20,29	26,23	32,17	38,11	41,13
Ø 10 / 25	14,35	20,29	26,23	32,17	38,11	41,13
Ø 12 / 10	- *	24,78	29,40	33,69	38,11	41,13
Ø 12 / 15	- *	21,64	26,23	32,17	38,11	41,13
Ø 12 / 20	- *	20,29	26,23	32,17	38,11	41,13
Ø 12 / 25	- *	20,29	26,23	32,17	38,11	41,13
Concrete quality C 30/37 (Part 2 - Page 23)						
Ø 8 / 10	15,95	22,23	28,74	35,24	41,75	45,06
Ø 8 / 15	15,72	22,23	28,74	35,24	41,75	45,06
Ø 8 / 20	15,72	22,23	28,74	35,24	41,75	45,06
Ø 8 / 25	15,72	22,23	28,74	35,24	41,75	45,06
Ø 10 / 10	18,51	23,32	28,74	35,24	41,75	45,06
Ø 10 / 15	16,17	22,23	28,74	35,24	41,75	45,06
Ø 10 / 20	15,72	22,23	28,74	35,24	41,75	45,06
Ø 10 / 25	15,72	22,23	28,74	35,24	41,75	45,06
Ø 12 / 10	- *	26,33	31,24	35,80	41,75	45,06
Ø 12 / 15	- *	23,00	28,74	35,24	41,75	45,06
Ø 12 / 20	- *	22,23	28,74	35,24	41,75	45,06
Ø 12 / 25	- *	22,23	28,74	35,24	41,75	45,06





Stirrup height „h“:
Ø 8 mm = 15 cm
Ø 10 mm = 15 cm
Ø 12 mm = 17 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

* Not possible for production reasons.

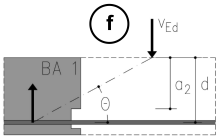
NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.

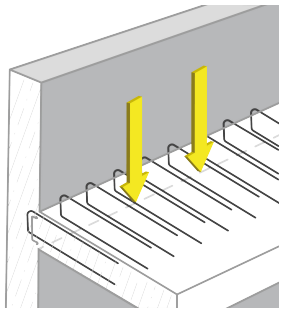
SHEAR CAPACITY according to type testing in acc. with EC2

PLEXUS® Special type D

V_{Rd} [kN/m] Shear force transverse to the joint – case f

Ø Iron [mm] / Stirrup distance „s“ [cm]	Static effective height d [mm]									
	200	240	250	270	290	320	330	350	370	400
Concrete quality C 20/25 (Part 2 - Page 25)										
Ø 8 / 10	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 8 / 15	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 8 / 20	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 8 / 25	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 10 / 10	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 10 / 15	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 10 / 20	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 10 / 25	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 12 / 10	35,91	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 12 / 15	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 12 / 20	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Ø 12 / 25	35,42	39,75	40,81	42,91	44,97	48,00	49,00	50,99	52,95	55,86
Concrete quality C 25/30 (Part 2 - Page 26)										
Ø 8 / 10	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 8 / 15	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 8 / 20	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 8 / 25	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 10 / 10	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 10 / 15	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 10 / 20	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 10 / 25	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 12 / 10	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 12 / 15	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 12 / 20	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Ø 12 / 25	39,60	44,45	45,63	47,97	50,27	53,67	54,79	57,01	59,20	62,45
Concrete quality C 30/37 (Part 2 - Page 27)										
Ø 8 / 10	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 8 / 15	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 8 / 20	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 8 / 25	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 10 / 10	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 10 / 15	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 10 / 20	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 10 / 25	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 12 / 10	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 12 / 15	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 12 / 20	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41
Ø 12 / 25	43,38	48,69	49,99	52,55	55,07	58,79	60,02	62,45	64,85	68,41





Stirrup height „h“:
Ø 8 mm = 35 cm
Ø 10 mm = 43 cm
Ø 12 mm = 51 cm

Pull out length "lü":
Ø 8 mm = 32 cm
Ø 10 mm = 39 cm
Ø 12 mm = 46 cm

The information in the type test must be observed! Higher values may be possible with individual values for the stirrup height "h" and the pull-out length "lü".

NEVOGA does not guarantee the values given in the table. The calculations must be checked and assessed for plausibility by the responsible structural engineer. The calculations are based on product-specific values; an exchange with similar products is only permissible in combination with a new static calculation.