FRANK | Technologies for the construction industry

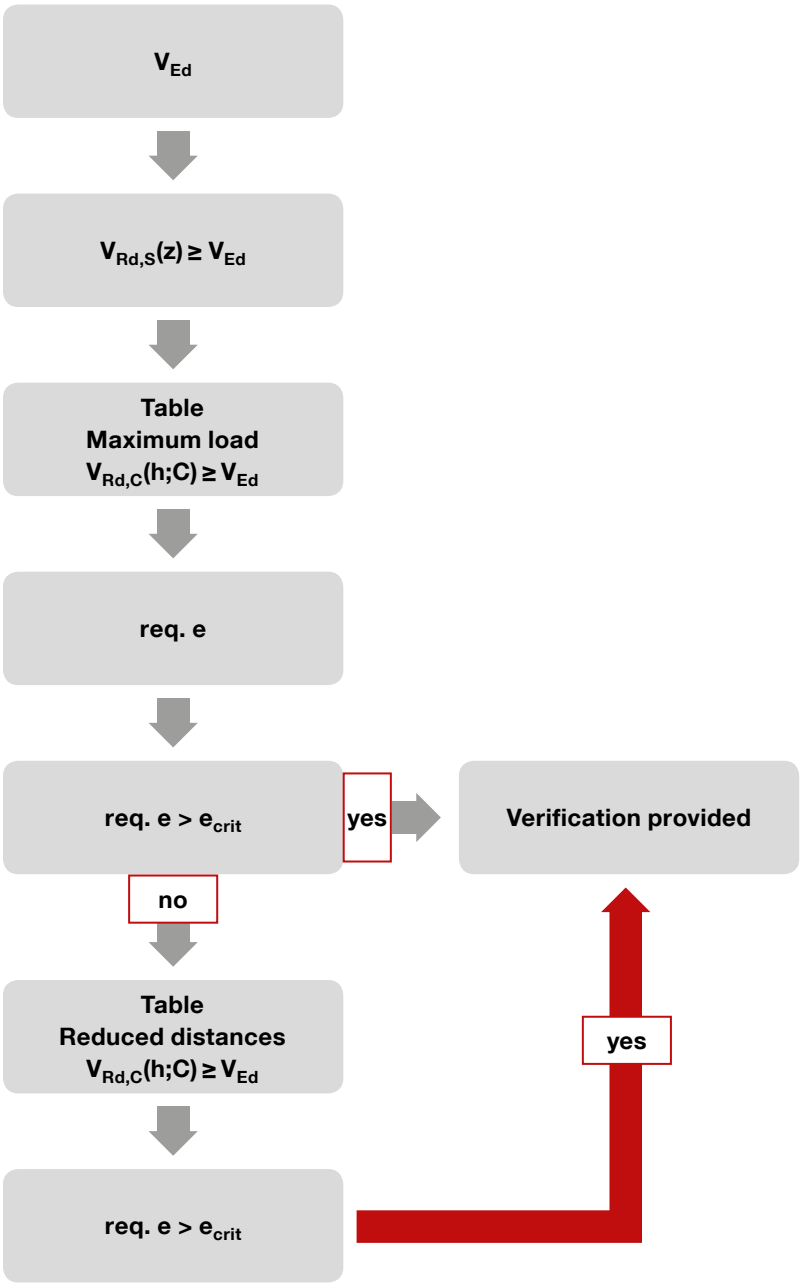
Egcodorn

Dimensioning values according to EC2

Egcodorn concrete bearing capacity and on-site reinforcement

Due to the smart design of the Egcodorn anchor body, the verification of the concrete edge failure resistance does not need to be performed by the civil engineer. It is however necessary to verify that the high locally concentrated forces are transmitted into the slab. According to the approval Z-15.7-301 “Shear connector Egcodorn”, this load transmission can be managed in a project-specific manner by the civil engineer.

Thus, maximum flexibility is granted for the design of the shear force dowel detail. In addition, this product documentation provides standardised dimensioning tables to support the user. The following flow diagram explains the individual dimensioning steps.



Egcodorn WN40 / WQ40

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN40 / WQ40 Longitudinal or transverse movement	62.0	58.9	54.5	40.9	32.7	27.3
WQ40 Longitudinal and transverse movement	62.0	58.9	49.1	36.8	29.5	24.5

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
140	38.8	41.7	44.4	38.8	41.7	44.4	6Ø10	3Ø12	500	500
150	43.4	46.8	49.7	43.4	46.8	49.7	6Ø10	3Ø12	540	540
160	48.2	51.9	55.2	48.2	51.9	55.2	6Ø10	3Ø12	580	580
180	58.1	62.6*	66.5*	58.1	62.6*	66.5*	6Ø10	3Ø12	660	660
200	68.4*	73.7*	78.4*	68.4*	73.7*	78.4*	6Ø10	3Ø12	740	740
220	79.2*	85.3*	90.7*	79.2*	85.3*	90.7*	6Ø10	3Ø12	820	820
250	94.8*	102.2*	108.6*	94.8*	102.2*	108.6*	6Ø10	3Ø12	940	940
280	108.6*	117.0*	124.3*	108.6*	117.0*	124.3*	6Ø10	3Ø12	1060	1060
300	117.9*	127.1*	135.0*	117.9*	127.1*	135.0*	6Ø10	3Ø12	1140	1140
350	141.7*	152.7*	162.2*	141.7*	152.7*	162.2*	6Ø10	3Ø12	1340	1340

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
140	24.7	26.6	28.2	25.8	27.8	29.6	6Ø10	-	425	455
150	26.2	28.2	30.0	27.4	29.6	31.4	6Ø10	-	425	455
160	27.7	29.9	31.7	29.0	31.2	33.2	6Ø10	-	425	455
180	32.7	35.2	37.5	34.1	36.7	39.3	6Ø10	-	470	500
200	37.9	42.1	46.1	39.8	44.5	48.8	6Ø10	-	515	545
220	45.9	51.3	56.2	48.3	54.0	59.2	6Ø10	-	560	590
250	64.4*	72.0*	78.9*	67.2*	75.1*	82.3*	6Ø10	-	695	725
280	79.1*	88.4*	96.8*	82.1*	91.8*	100.5*	6Ø10	-	785	815
300	89.5*	100.1*	109.7*	92.7*	103.7*	113.6*	6Ø10	-	845	875
350	118.2*	132.1*	144.7*	121.7*	136.1*	149.1*	6Ø10	-	995	1025

* *Steel bearing capacity is decisive*

Egcodorn WN50 / WQ50

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN50/WQ50 Longitudinal or transverse movement	89.4	85.3	72.2	54.5	43.6	36.3
WQ50 Longitudinal and transverse movement	89.4	83.7	65.0	49.0	39.2	32.7

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
160	50.2	54.1	57.4	50.2	54.1	57.4	6Ø12	3Ø12	572	572
180	60.7	65.4	69.5	60.7	65.4	69.5	6Ø12	3Ø12	652	652
200	71.6	77.1	82.0	71.6	77.1	82.0	6Ø12	3Ø12	732	732
220	83.0	89.4*	95.0*	83.0	89.4*	95.0*	6Ø12	3Ø12	812	812
250	99.8*	107.5*	114.3*	99.8*	107.5*	114.3*	6Ø12	3Ø12	932	932
280	114.4*	123.3*	131.0*	114.4*	123.3*	131.0*	6Ø12	3Ø12	1052	1052
300	124.3*	133.9*	142.3*	124.3*	133.9*	142.3*	6Ø12	3Ø12	1132	1132
350	149.6*	161.1*	171.2*	149.6*	161.1*	171.2*	6Ø12	3Ø12	1332	1332

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
160	30.9	33.3	35.3	32.6	35.1	37.3	6Ø12	-	420	455
180	36.8	39.6	42.1	38.3	41.3	43.9	6Ø12	-	470	500
200	42.6	45.9	48.8	44.3	47.7	50.7	6Ø12	-	515	545
220	48.7	52.4	55.9	50.4	54.3	58.9	6Ø12	-	560	590
250	63.7	71.3	78.1	67.0	74.9	82.0	6Ø12	-	690	725
280	78.3	87.6	96.0*	81.9	91.5*	100.3*	6Ø12	-	780	815
300	88.8	99.3*	108.7*	92.5*	103.4*	113.3*	6Ø12	-	840	875
350	117.3*	131.2*	143.7*	121.5*	135.8*	148.8*	6Ø12	-	990	1025

* *Steel bearing capacity is decisive*

Egcodorn WN70 / WQ70

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN70 / WQ70 Longitudinal or transverse movement	122.3	117.4	102.9	79.9	63.9	53.3
WQ70 Longitudinal and transverse movement	122.3	113.9	92.6	71.9	57.5	47.9

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
180	66.8	71.9	76.4	66.8	71.9	76.4	6Ø14	3Ø14	659	659
200	78.9	85.0	90.3	78.9	85.0	90.3	6Ø14	3Ø14	739	739
220	91.5	98.6	104.7	91.5	98.6	104.7	6Ø14	3Ø14	819	819
250	110.4	118.9	126.4*	110.4	118.9	126.4*	6Ø14	3Ø14	939	939
280	126.6*	136.4*	144.9*	126.6*	136.4*	144.9*	6Ø14	3Ø14	1059	1059
300	137.5*	148.2*	157.5*	137.5*	148.2*	157.5*	6Ø14	3Ø14	1139	1139
350	165.5*	178.3*	189.5*	165.5*	178.3*	189.5*	6Ø14	3Ø14	1339	1339

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
180	41.1	44.3	47.1	43.1	46.4	49.4	6Ø14	-	480	515
200	48.0	51.7	54.9	50.0	53.9	57.3	6Ø14	-	530	565
220	54.7	58.9	62.6	56.9	61.3	65.1	6Ø14	-	575	610
250	64.3	69.3	73.6	66.3	71.4	76.2	6Ø14	-	645	675
280	78.1	87.4	95.7	81.6	91.3	100.0	6Ø14	-	780	815
300	88.6	99.0	108.5	92.3	103.2	113.0	6Ø14	-	840	875
350	117.1	130.9*	143.4*	121.2	135.5*	148.4*	6Ø14	-	990	1025

* *Steel bearing capacity is decisive*

Egcodorn WN95 / WQ95

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN95 / WQ95 Longitudinal or transverse movement	154.7	149.1	138.7	112.2	89.8	74.8
WQ95 Longitudinal and transverse movement	154.7	148.6	124.8	100.9	80.8	67.4

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
200	76.6	82.5	87.7	76.6	82.5	87.7	8Ø12	3Ø12	762	762
220	88.6	95.4	101.4	88.6	95.4	101.4	8Ø12	3Ø12	842	842
250	106.3	114.5	121.7	106.3	114.5	121.7	8Ø12	3Ø12	962	962
280	121.7	131.1	139.3	121.7	131.1	139.3	8Ø12	3Ø12	1082	1082
300	132.1	142.3	151.2	132.1	142.3	151.2	8Ø12	3Ø12	1162	1162
350	158.6*	170.8*	181.5*	158.6*	170.8*	181.5*	8Ø12	3Ø12	1362	1362

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
200	49.0	52.8	56.1	51.1	55.0	58.5	8Ø12	-	550	585
220	55.8	60.1	63.8	57.9	62.4	66.3	8Ø12	-	595	630
250	65.0	70.0	74.7	67.3	72.5	78.6	8Ø12	-	660	695
280	73.5	82.0	89.8	76.8	85.9	94.1	8Ø12	-	730	765
300	89.8	100.5	110.0	93.5	104.6	114.6	8Ø12	-	850	885
350	118.5	132.5	145.1	122.7	137.1	150.2	8Ø12	-	1000	1035
400	130.9	146.4	160.3*	135.5	151.5	165.9*	8Ø12	-	1000	1035
500	154.8*	173.1*	189.6*	160.3*	179.2*	196.3*	8Ø12	-	1000	1035
600	177.9*	198.9*	217.9*	184.1*	205.9*	225.5*	8Ø12	-	1000	1035

* *Steel bearing capacity is decisive*

Egcodorn WN100 / WQ100

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN100 / WQ100 Longitudinal or transverse movement	155.8	150.6	145.7	136.9	110.5	92.0
WQ100 Longitudinal and transverse movement	155.8	150.6	145.7	123.2	99.4	82.8

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
210	100.8	108.5	115.3	100.8	108.5	115.3	10Ø16	3Ø16	786	786
230	116.0	125.0	132.8	116.0	125.0	132.8	10Ø16	3Ø16	866	866
250	131.1	141.2	150.1	131.1	141.2	150.1	10Ø16	3Ø16	946	946
280	150.4	162.0*	172.1*	150.4	162.0*	172.1*	10Ø16	3Ø16	1066	1066
300	163.4*	176.0*	187.1*	163.4*	176.0*	187.1*	10Ø16	3Ø16	1146	1146
350	196.7*	211.9*	225.2*	196.7*	211.9*	225.2*	10Ø16	3Ø16	1346	1346

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
210	77.5	83.5	88.8	79.7	85.9	91.3	10Ø16	-	700	730
230	83.4	89.9	95.5	85.8	92.4	98.2	10Ø16	-	700	730
250	87.9	94.7	100.6	90.4	97.3	103.4	10Ø16	-	700	730
280	98.6	106.2	112.9	101.2	109.0	115.8	10Ø16	-	765	795
300	106.0	114.2	121.4	108.6	117.0	124.3	10Ø16	-	810	840
350	125.0	134.7	143.1	127.7	137.6	146.2	10Ø16	-	925	955
400	133.7	144.0	153.0	136.6	147.1	156.3*	10Ø16	-	925	955
450	141.8	152.8	162.4*	144.9	156.1*	166.7*	10Ø16	-	925	955
600	164.1*	183.5*	201.0*	169.5*	189.5*	207.6*	10Ø16	-	925	955

* *Steel bearing capacity is decisive*

Egcodorn WN120 / WQ120

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN120 / WQ120 Longitudinal or transverse movement	241.5	224.4	194.1	163.9	134.1	111.7
WQ120 Longitudinal and transverse movement	229.2	201.9	174.7	147.4	120.6	100.5

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
230	124.0	133.6	142.0	124.0	133.6	142.0	10Ø16	4Ø16	901	901
250	140.0	150.8	160.2	140.0	150.8	160.2	10Ø16	4Ø16	981	981
300	173.9	187.4	199.1	173.9	187.4	199.1	10Ø16	4Ø16	1181	1181
350	208.9	225.0	239.1	208.9	225.0	239.1*	10Ø16	4Ø16	1381	1381
400	244.8*	263.7*	280.2*	244.8*	263.7*	280.2*	10Ø16	4Ø16	1581	1581
450	281.6*	303.3*	322.3*	281.6*	303.3*	322.3*	10Ø16	4Ø16	1781	1781

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
230	97.2	104.7	111.3	99.8	107.5	114.2	10Ø16	-	880	915
250	102.3	110.3	117.2	105.0	113.2	120.2	10Ø16	-	880	915
300	112.0	120.7	128.2	115.0	123.9	131.6	10Ø16	-	880	915
350	134.3	144.7	153.8	137.4	148.0	157.2	10Ø16	-	1030	1065
450	152.4	164.1	179.8	155.8	169.7	185.9	10Ø16	-	1030	1065
600	182.8	204.4	223.9	189.0	211.3	231.5	10Ø16	-	1030	1065
700	190.9	205.6	218.5	195.2	210.3	223.5	10Ø16	-	1030	1065
800	204.6	220.4	234.2	209.2	225.4	239.5*	10Ø16	-	1030	1065
1000	230.1	247.9*	263.4*	235.3*	253.5*	269.3*	10Ø16	-	1030	1065

* *Steel bearing capacity is decisive*

Egcodorn WN150 / WQ150

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN150 / WQ150 Longitudinal or transverse movement	243.8	236.8	230.3	208.4	175.3	146.2
WQ150 Longitudinal and transverse movement	243.8	236.8	217.3	187.5	157.7	131.5

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
250	140.0	150.8	160.2	140.0	150.8	160.2	10Ø16	4Ø16	981	981
300	173.9	187.4	199.1	173.9	187.4	199.1	10Ø16	4Ø16	1181	1181
350	208.9	225.0	239.1	208.9	225.0	239.1	10Ø16	4Ø16	1381	1381
400	244.8*	263.7*	280.2*	244.8*	263.7*	280.2*	10Ø16	4Ø16	1581	1581
450	281.6*	303.3*	322.3*	281.6*	303.3*	322.3*	10Ø16	4Ø16	1781	1781

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
250	102.3	110.3	117.2	105.0	113.2	120.2	10Ø16	-	880	915
300	112.0	120.7	128.2	115.0	123.9	131.6	10Ø16	-	880	915
350	134.3	144.7	153.8	137.4	148.0	157.2	10Ø16	-	1030	1065
400	143.6	154.7	164.5	146.8	158.2	170.1	10Ø16	-	1030	1065
450	152.4	164.1	179.8	155.8	169.7	185.9	10Ø16	-	1030	1065
500	160.7	177.8	194.7	164.4	183.8	201.4	10Ø16	-	1030	1065
600	182.8	204.4	223.9	189.0	211.3	231.5	10Ø16	-	1030	1065
800	204.6	220.4	234.2	209.2	225.4	239.5	10Ø16	-	1030	1065
1000	230.1	247.9*	263.4*	235.3	253.5*	269.3*	10Ø16	-	1030	1065

* *Steel bearing capacity is decisive*

Egcodorn WN210 / WQ210

Shear force bearing capacities according to approval

	$V_{Rd,s}$ [kN]					
Joint width z [mm]	**10**	**20**	**30**	**40**	**50**	**60**
WN210 / WQ210 Longitudinal or transverse movement	380.3	369.5	331.6	293.8	255.9	218.2
WQ210 Longitudinal and transverse movement	366.6	332.6	298.5	264.4	230.3	196.4

Maximum load

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
280	186.4	200.8	213.4	186.4	200.8	213.4	10Ø20	4Ø20	1130	1130
350	242.9	261.7	278.1	242.9	261.7	278.1	10Ø20	4Ø20	1410	1410
400	284.6	306.5	325.8	284.6	306.5	325.8	10Ø20	4Ø20	1610	1610
450	327.2	352.5	374.6	327.2	352.5	374.6*	10Ø20	4Ø20	1810	1810
500	370.8	399.5*	424.5*	370.8*	399.5*	424.5*	10Ø20	4Ø20	2010	2010

Reduced distances

h	Egcodorn WN $V_{Rd,c}$ [kN]			Egcodorn WQ $V_{Rd,c}$ [kN]			On-site reinforcement		$e_{crit,WN}$	$e_{crit,WQ}$
[mm]	C20/25	C25/30	C30/37	C20/25	C25/30	C30/37	A_{sx}	A_{sy}	[mm]	[mm]
280	139.5	150.3	159.7	143.1	154.1	163.8	10Ø20	-	1035	1075
350	155.9	168.0	178.5	159.9	172.3	183.1	10Ø20	-	1035	1075
400	166.8	179.6	190.9	171.0	184.2	195.8	10Ø20	-	1035	1075
450	177.0	190.6	202.6	181.5	195.5	207.8	10Ø20	-	1035	1075
500	186.7	201.1	213.7	191.5	206.3	219.2	10Ø20	-	1035	1075
600	204.9	220.8	234.6	210.2	226.4	240.6	10Ø20	-	1035	1075
800	237.9	256.3	272.3	244.0	262.8	279.3	10Ø20	-	1035	1075
1000	267.6	288.3	306.3	274.5	295.6	314.2	10Ø20	-	1035	1075
1200	295.0	317.8	337.7	302.5	325.9	346.3	10Ø20	-	1035	1075

* *Steel bearing capacity is decisive*

Egcodorn WN300 / WQ300

Shear force bearing capacities according to approval

Joint width z [mm]	$V_{Rd,s}$ [kN] 10	20	30	40	50	60
WN300 / WQ300 Longitudinal or transverse movement	382.1	373.0	364.4	331.9	292.1	252.4
WQ300 Longitudinal and transverse movement	382.1	370.2	334.4	298.7	262.9	227.1

Maximum load

h [mm]	Egcodorn WN $V_{Rd,c}$ [kN] C20/25	C25/30	C30/37	Egcodorn WQ $V_{Rd,c}$ [kN] C20/25	C25/30	C30/37	On-site reinforcement A_{sx}	A_{sy}	$e_{crit,WN}$ [mm]	$e_{crit,WQ}$ [mm]
300	202.3	218.0	231.6	202.3	218.0	231.6	10Ø20	4Ø20	1210	1210
350	242.9	261.7	278.1	242.9	261.7	278.1	10Ø20	4Ø20	1410	1410
400	284.6	306.5	325.8	284.6	306.5	325.8	10Ø20	4Ø20	1610	1610
450	327.2	352.5	374.6	327.2	352.5	374.6	10Ø20	4Ø20	1810	1810
500	370.8	399.5*	424.5*	370.8	399.5*	424.5*	10Ø20	4Ø20	2010	2010
550	415.3*	447.4*	475.4*	415.3*	447.4*	475.4*	10Ø20	4Ø20	2210	2210

Egcodorn WN350 / WQ350

Shear force bearing capacities according to approval

Joint width z [mm]	$V_{Rd,s}$ [kN] 10	20	30	40	50	60
WN350 / WQ350 Longitudinal or transverse movement	388.0	380.2	372.7	365.6	358.7	352.0
WQ350 Longitudinal and transverse movement	388.0	380.2	372.7	365.6	358.7	352.0

Maximum load

h [mm]	Egcodorn WN $V_{Rd,c}$ [kN] C20/25	C25/30	C30/37	Egcodorn WQ $V_{Rd,c}$ [kN] C20/25	C25/30	C30/37	On-site reinforcement A_{sx}	A_{sy}	$e_{crit,WN}$ [mm]	$e_{crit,WQ}$ [mm]
350	242.9	261.7	278.1	242.9	261.7	278.1	10Ø20	4Ø20	1410	1410
400	284.6	306.5	325.8	284.6	306.5	325.8	10Ø20	4Ø20	1610	1610
450	327.2	352.5	374.6	327.2	352.5	374.6	10Ø20	4Ø20	1810	1810
500	370.8	399.5*	424.5*	370.8	399.5*	424.5*	10Ø20	4Ø20	2010	2010
550	415.3*	447.4*	475.4*	415.3*	447.4*	475.4*	10Ø20	4Ø20	2210	2210

* *Steel bearing capacity is decisive*

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