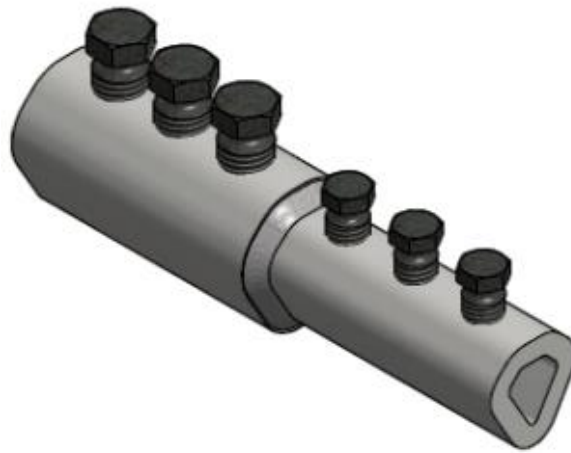


MOUNTING INSTRUCTIONS

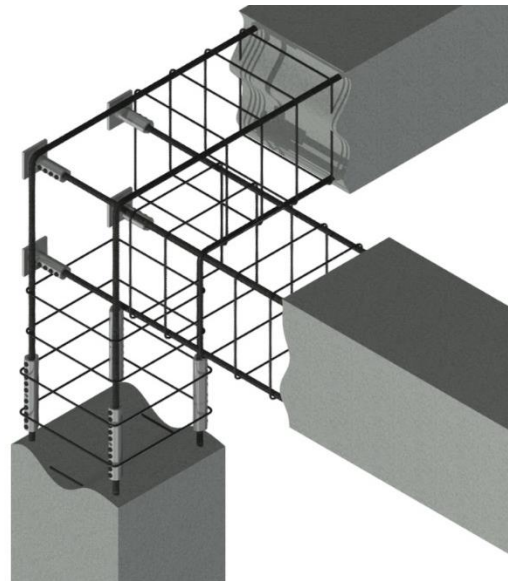
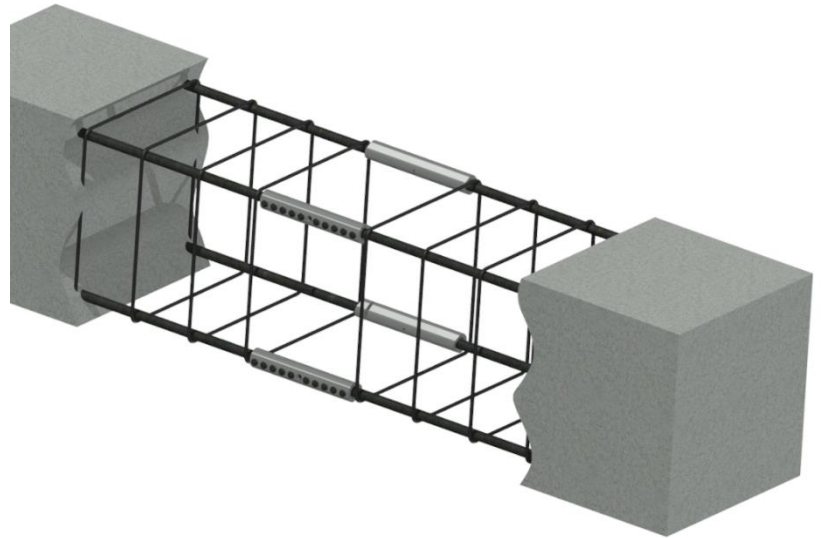
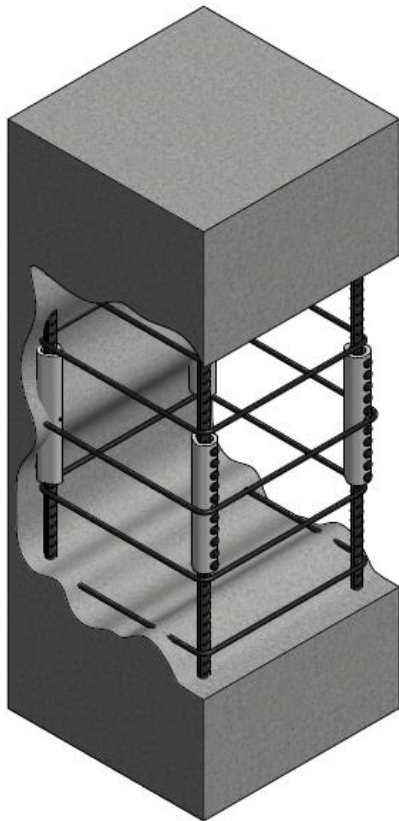


ALLIGATOR COUPLERS | **ALC-VK TRANSITION COUPLER**



THE MAIN APPLICATIONS FOR ALLIGATOR COUPLERS

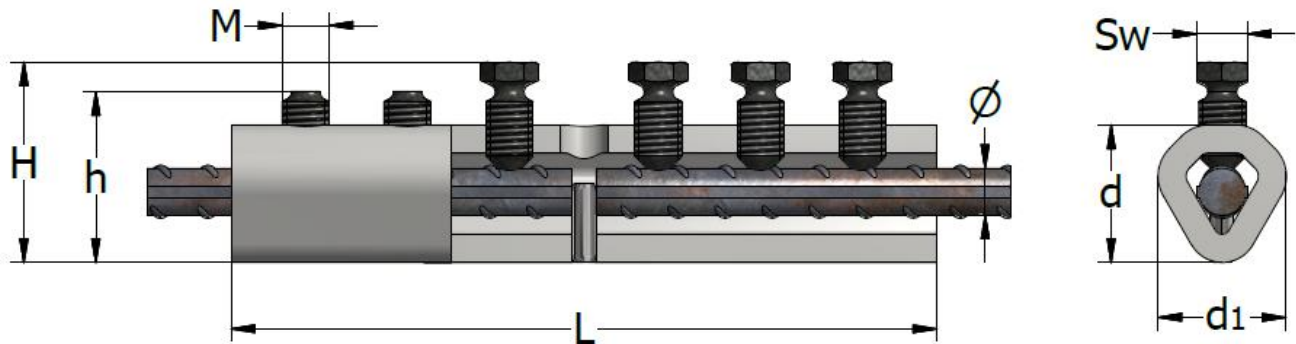
- for column construction
- to extend or repair existing structures
- to connect precast element to precast element
- to close access openings
- for the pre-fabrication of the reinforcing bar cage
- for fatigue applications



ALLIGATOR COUPLING – ALC

The ALLIGATOR COUPLING ALC is used for the connection of reinforcing bars of the same size. The product has a pin and an inspection hole in the middle for correct installation. The breaking bolts are designed to shear off at the torque moment specified in the table below.

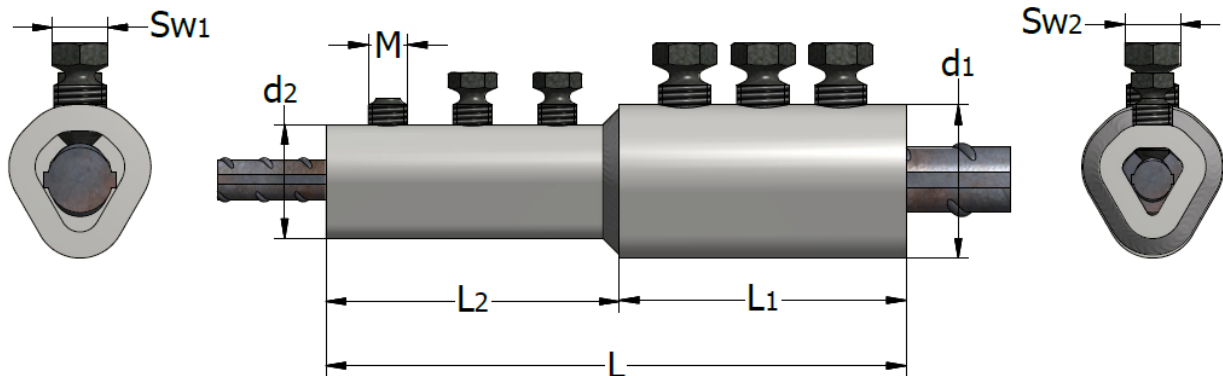
Tighten the bolts using a torque wrench, an impact, electric or pneumatic wrench. Please see page 6-7.



Type ALC	Product no.	Rebar Ø [mm]	Breaking bolt		Breaking bolt thread M	L [mm]	d [mm]	d1 [mm]	H Unruptured Bolt [mm]	h [mm]	SW [mm]	Torque moment [Nm]
			n	Product no.								
10	44633	10	6	50685-1	M12	160	33	34	Max. 46	36	13	95-115
12	44634	12	6	50685-1	M12	180	33	34	Max. 49	39	13	95-115
14-16	43071	14/16	8	50685-1	M12	230	37	38	Max. 55/57	45/47	13	95-115
18	43072	18	10	50685-1	M12	280	44	42	Max. 59	49	13	95-115
20-22	65681	20/22	10	50686-1	M16	290	50	50	Max. 63/67	51/55	17	190-215
25	43075	25	12	50686-1	M16	390	55	54	Max. 72	60	17	190-215
26	63079	26	12	52295	M20	420	63	62	Max. 83	68	22	355-415
28	43076	28	12	52295	M20	420	63	62	Max. 85	70	22	355-415
30	63080	30	14	52295	M20	480	70	69	Max. 87	72	22	355-415
32	43077	32	14	52295	M20	480	70	69	Max. 92	77	22	355-415
36	43078	36	16	52295	M20	540	77	74	Max. 99	84	22	355-415
40	43079	40	18	52295	M20	580	76	74	Max. 101	86	22	355-415

TRANSITION COUPLER – ALC-VK

The ALLIGATOR TRANSITION COUPLER connects two different diameters of re-bar steel. This coupler can help the designer optimise the structure in a safe and economical manner.

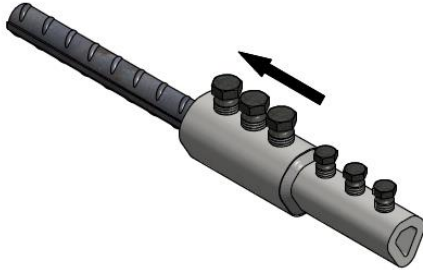


Type ALC-VK	Product no.	Rebar Ø [mm]	Breaking bolt number n	Breaking bolt thread M	L [mm]	L1 [mm]	L2 [mm]	d1 [mm]	d2 [mm]	SW1/SW2 [mm]	Max. Torque moment [Nm]
16/10-12	46210	16/10-12	4/3	M12/M12	205	115	90	37	33	13/13	115/115
20/12	44731	20/12	3/3	M16/M12	178	88	90	50	33	17/13	215/115
20/14	43593	20/14	4/4	M16/M12	227	112	115	50	37	17/13	215/115
20/16	44732	20/16	4/4	M16/M12	227	112	115	50	37	17/13	215/115
25/16	44733	25/16	3/4	M16/M12	221	106	115	55	37	17/13	215/115
25/20	44734	25/20	5/5	M16/M16	296	166	130	55	50	17/17	215/215
25/22	48255	25/22	5/5	M16/M16	331	166	165	55	50	17/17	215/215
28/25	48254	28/25	6/6	M20/M20	396	200	196	63	55	22/22	415/415
32/20	44735	32/20	4/5	M20/M16	276	140	136	70	50	22/17	415/215
32/25	44736	32/25	7/6	M20/M16	426	238	188	70	55	22/17	415/215
32/28	48253	32/28	7/6	M20/M20	446	238	208	70	63	22/22	415/415
36/32	61001	36/32	8/7	M20/M20	498	268	230	77	70	22/22	415/415
40/28	48252	40/28	7/6	M20/M20	430	230	200	76	63	22/22	415/415
40/32	44737	40/32	7/7	M20/M20	460	230	230	76	70	22/22	415/415

For the dimensions H (unruptured bolts), please see the table on *page 3*.

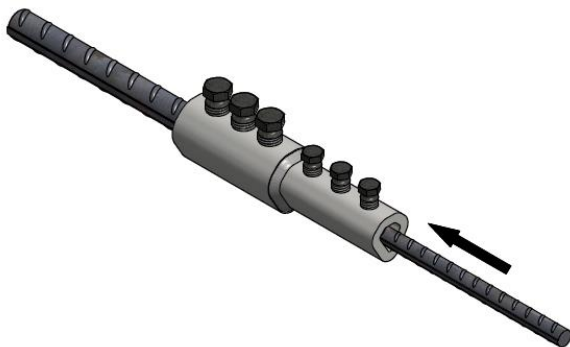
MOUNTING INSTRUCTIONS FOR ALC-VK COUPLER

- Mount the ALLIGATOR COUPLING to the reinforcement steel from one side.

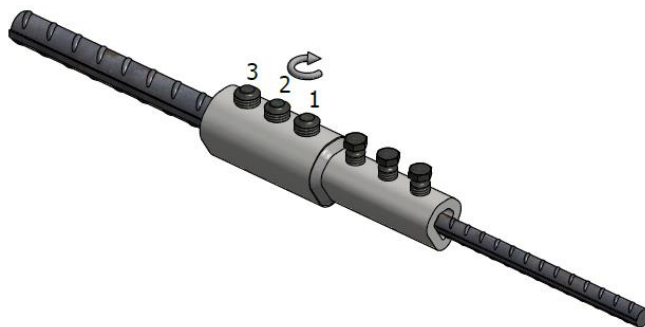


-Place the ALC-VK coupler over the end of first rebar and tighten the breaking bolt by hand.

- Mount the second reinforcement bar in the ALLIGATOR COUPLER and tighten the breaking bolts until they shear off.



*-Insert the second rebar into the coupler until it reaches the first rebar.
-Do not lubricate the bolt connection.
-Tighten the breaking bolt by hand.*



Tighten the breaking bolts completely using an electric or pneumatic wrench as described on page 6-7. The bolts must be tightened from the centre outwards (1 to 3) until the heads of all the breaking bolts shear off.

- The ALLIGATOR COUPLER in mounted state.

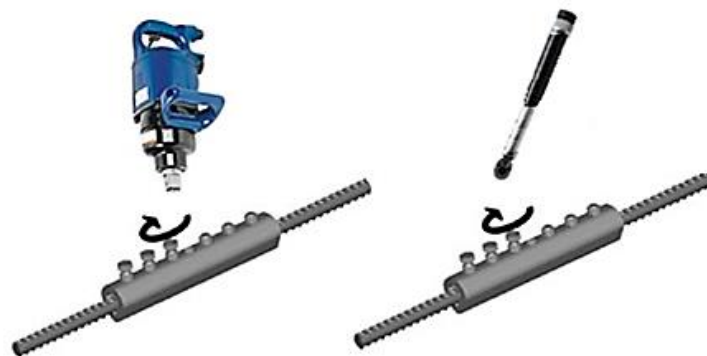


*Completed ALC-VK coupler installation after all bolts have been sheared off.
Not removing/shearing of a bolt during installation is acceptable provided the appropriate bolt torque is attained as detailed in the table on page 3. However, the installation is only considered satisfactory if the height H as in the table on page 3 is not exceeded. This must be measured to ensure satisfactory penetration and grip of the reinforcing bar.*

TOOLS FOR ALLIGATOR COUPLERS

- Use a high-speed, high-impact electric torque wrench or pneumatic wrench – we recommend a minimum of 1000 Nm.
- Try to prevent additional momentum when mounting/shearing off the bolts.
- When using an air impact wrench, check the air pressure, torque rating and air flow requirements before starting the installation process.
- Removing/shearing off bolt heads is not required if appropriate bolt torque is attained. In this case, please consult the table on page 3; the minimum height “H” has to be reached.
- When there is not enough space in the element to use a pneumatic or electric wrench, a handheld torque wrench can be used to shear the bolt or to attain the torque momentum according to the table on page 3. The wrench momentum has to be a minimum of 2x the breaking bolt torque.
- Using hardened, heavy-duty sockets with a maximum external diameter is recommended; see the table below.

Type ALC	Breaking bolt Thread M	SW / [mm]	Maximum socket wrench diameter /[mm]		
10	M12	13	Ø 26		
12, 14-16, 18	M12	13	Ø 36		
20	M16	17	Ø 27		
22, 25	M16	17	Ø 39		
28, 32, 36, 40	M20	22	Ø 33		



The above-mentioned wrenches with the tooling necessary for shearing off bolts M12, M16 and M20 are available in boxes.



60627

ALC Electric Mounting Kit



60626

ALC Pneumatic Mounting Kit

Aluminium box	Product no.	Type wrench	Torque moment (NM)
1	60627	Electric	1000
2	60626	Pneumatic	1000-1898



CONTACT



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