

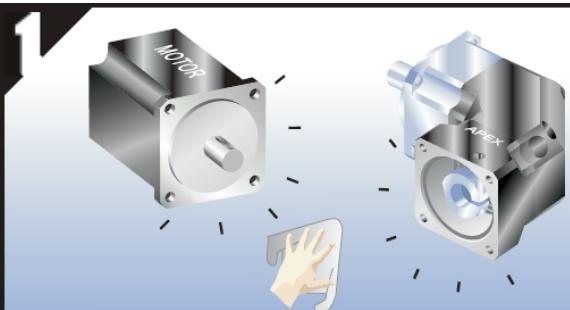


APEX DYNAMICS

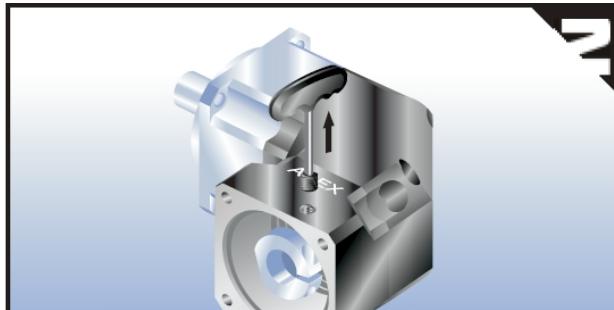
ABR / AFR / AER - Series

APEX.ABR-AFR-AER.EN.2012.001

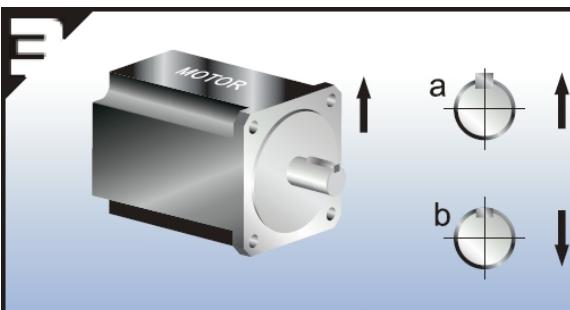
MOTOR MOUNTING INSTRUCTION



Double-check the motor and gearbox size
Clean the mounting surface



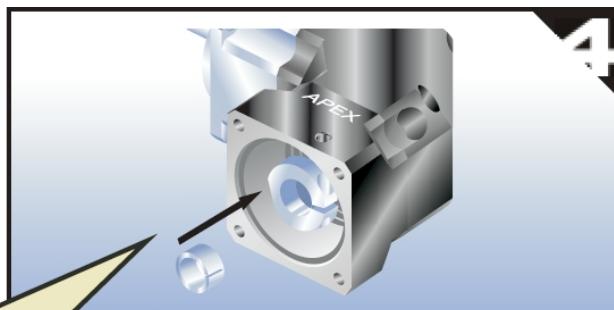
Remove the plug on the adapter plate
Rotate the set collar till the bolt is line up



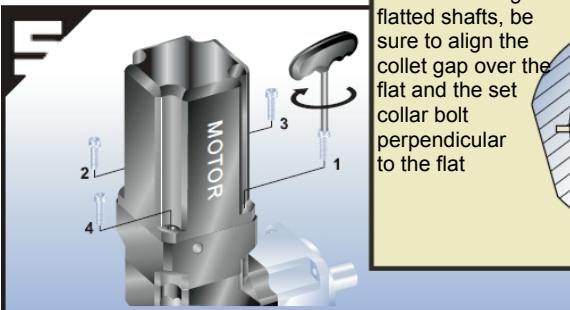
a Remove motor key
b Insert balance key, if necessary

Correct Installation

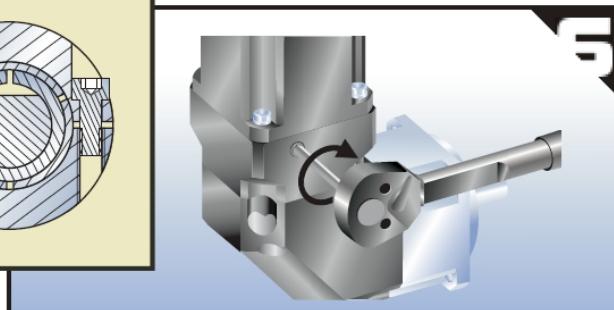
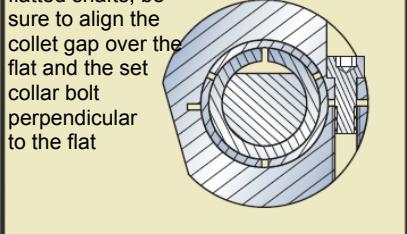
When installing on flatted shafts, be sure to align the collet gap over the flat and the set collar bolt perpendicular to the flat



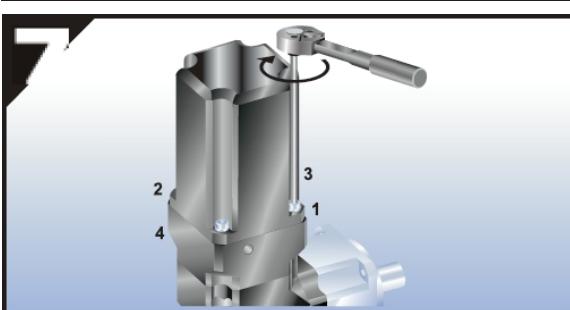
Check motor shaft size and insert bushing if necessary



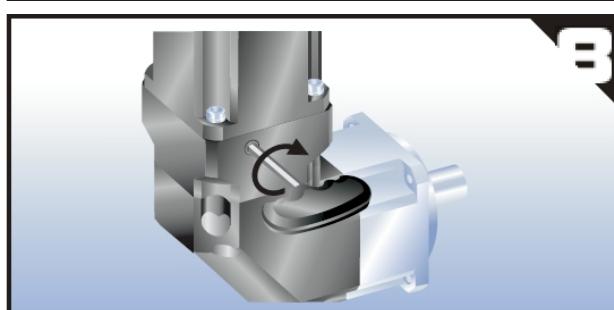
Set at vertical position, tighten the mounting bolts (including washer) in 1~4 order with wrench to 5% specified torque (see table 1)



Tighten the set collar bolt with torque wrench to specified torque (see table 2)



Tighten the mounting bolts in 1~4 order with torque wrench to specified torque (see table 1)



Tighten back the screw plug

For more information, please visit our website: www.apexdyna.nl

High Precision Planetary Gearboxes



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MOTOR MOUNTING INSTRUCTION

Table 1

Tightening torque recommended for motor mounting bolt

Boutgrootte	Width Across Flats	Strength 8.8 Tightening Torque		Strength 10.9 Tightening Torque		Strength 12.9 Tightening Torque	
		[mm]	[Nm]	[In-lbs]	[Nm]	[In-lbs]	[Nm]
M3 x 0.5P	2.5	1.3	12	1.8	16	2.1	19
M4 x 0.7P	3	3	27	4.1	37	4.9	44
M5 x 0.8P	4	6.1	55	8.2	73	9.8	87
M6 x 1P	5	11	98	14	124	17	151
M8 x 1.25P	6	25	222	34	302	41	364
M10 x 1.5P	8	49	434	67	594	80	709
M12 x 1.75P	10	85	753	116	1028	139	1232
M14 x 2P	12	137	1214	186	1648	223	1976
M16 x 2P	14	210	1860	286	2534	343	3038

Table 2

Tightening torque recommended for set collar bolt

Gearbox size	Motor shaft diameter	Bolt size	Width across flats	Tightening torque		
				[mm]	[mm]	
ABR042 AFR042 AER050	1-stage	≤ 11	M3 x 0.5P x 8L	2.5	2.1	19
	2-stage	≤ 11	M3 x 0.5P x 8L	2.5	2.1	19
ABR060 AFR060 AER070	1-stage	≤ 14	M4 x 0.7P x 12L	3	4.9	44
	2-stage	≤ 11	M3 x 0.5P x 8L	2.5	2.1	19
ABR090 AFR075 AER090	1-stage	≤ 19	M5 x 0.8P x 14L	4	9.8	87
	2-stage	≤ 14	M4 x 0.7P x 12L	3	4.9	44
ABR115 AFR100 AER120	1-stage	≤ 32	M6 x 1P x 16L	5	17	151
	2-stage	≤ 19	M5 x 0.8P x 14L	4	9.8	87
ABR142 AFR140 AER155	1-stage	≤ 38	M8 x 1.25P x 20L	6	41	364
	2-stage	≤ 32	M6 x 1P x 16L	5	17	151
ABR180 AFR180 AER205	1-stage	≤ 48	M10 x 1.5P x 25L	8	80	709
	2-stage	≤ 38	M8 x 1.25P x 20L	6	41	364
ABR220 AFR220 AER235	1-stage	≤ 55	M12 x 1.75P x 30L	10	139	1232
	2-stage	≤ 48	M10 x 1.5P x 25L	8	80	709

Note: Holding torques must be bigger than values shown above. Bolts can be tightened up to 20% higher for increased holding torques.

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High Precision Planetary Gearboxes