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Gear to Gear Conversion Instructions, all sizes

The following instructions outline the procedure to convert any size Mueller® Resilient Wedge Gate Valve from a bevel gear unit to a spur gear unit or from a spur gear to a bevel gear unit. Note that Mueller recommends that this change should be performed by qualified Mueller personnel. If non-Mueller personnel perform this conversion, Mueller will not be responsible for any leakage or future problems that may occur.

Procedure

1. Remove pipe plug from top of old gear unit.
2. For 14" – 48" only. Remove hold-down cap screw and washer from the top of the stem.
3. Remove bolts holding adapter plate to stuffing box. Sizes 4"- 12" (2 bolts), sizes 14" - 48" (4 bolts). Remove adapter plate / gear assembly from valve.
4. Remove four (4) cap screws securing gear assembly to adapter plate. Set old gear unit aside. Remove flat gearing gasket.
5. For 14" – 48" only. Ensure drive key has been removed from slot in stem. Key should remain in the stem for 4"- 12".
6. Place flat gearing gasket on adapter plate. Place new gear unit on flat gasket. Secure gear to adapter plate using four (4) cap screws. See recommended torque table below.
7. Remove pipe plug from new gearing unit.
8. Place adapter plate / gear assembly on stuffing box. On the 4" – 12" valves, drive sleeve must be aligned to stem key before assembly. Attach adapter plate to stuffing box using 2 bolts for sizes 4"- 12" and 4 bolts 14"- 48". See recommended torque table below.
9. For 14" – 48" only. Align the drive sleeve key slot to the stem key slot by rotating the operating nut. When aligned, insert the drive key in the slot until it is flush with the top of the drive sleeve.
10. For 14" – 48" only. Install hold-down cap screw and washer onto the top of the stem. See recommended torque table below.
11. Install pipe plug onto new gearing unit.

Recommended Torque Values

Bolt Connection	Torque (ft-lb)													
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
Stuffing Box to bonnet	90	90	90	90	90	150	150	150	150	150	200	200	300	300
Stuffing box to adapter plate	90	90	90	90	90	90	90	150	150	150	150	150	150	150
Adapter Plate to Gear Unit	20	20	20	20	20	90	90	90	90	90	90	90	150	150
Cap Screw on Stem & Key	NA	NA	NA	NA	NA	45	45	45	45	45	45	45	45	45