

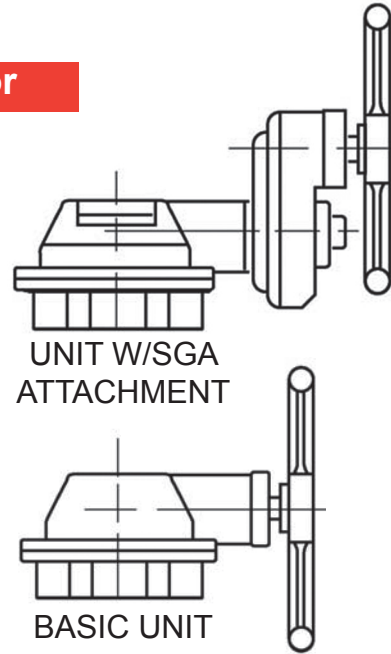
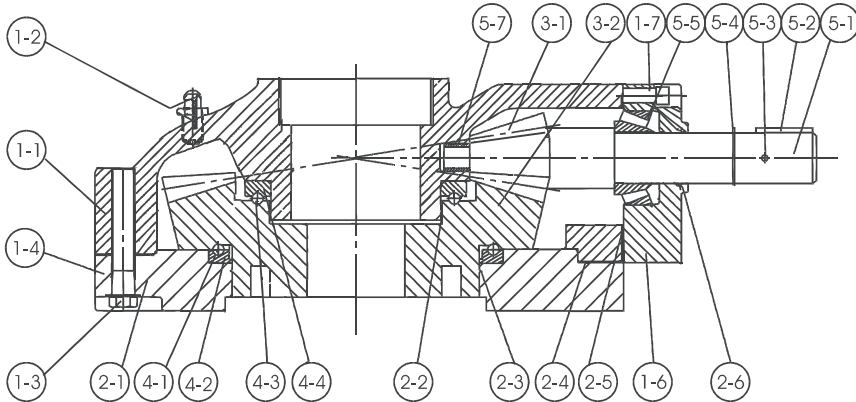


Xanik Bevel Gear Actuator are made with Ductile Iron water tight enclosure and Alloy Steel Bevel Gear and Pinion. Standard -4°F (-20°C) to 250°F (120°C) working temperature range for continuous operation. Special seals and lubricants can be furnished for temperatures beyond this range. Standard Gear Actuators are sized to seat or unseat the valve with a rimpull requirement of less than 250 lbs. **Unless otherwise specified the maximum differential pressure is assumed to be equal to 85% of the maximum working pressure.**

When the actual maximum differential pressure is known, or a maximum rimpull is specified which is less than 250 lbs, this information should be provided in your request for quotation:

- Maximum differential shut off pressure, temperature and type of fluid.
- Maximum allowable handwheel rimpull to seat or unseat valve

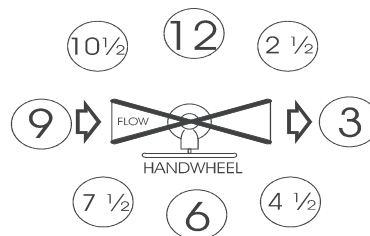
### Design & Bill of materials of a typical Gear Actuator



Part No	Name	Quantity	Material Specification
1-1	Housing	1	Ductile Iron ASTM A536 65-45-12
1-2	Grease Nipple	1	Commercial
1-3	Bolt		Carbon Steel
1-4	Retainer	1	Ductile Iron ASTM A536 65-45-12
1-6	Cap	1	Ductile Iron ASTM A536 65-45-12
1-7	Bolt		Carbon Steel
2-1	O-ring	1	Rubber
2-2	O-ring	1	Rubber
2-3	O-ring	1	Rubber
2-4	Gasket	1	Rubber
2-5	Gasket	1	Rubber
2-6	O-ring	1	Rubber
3-1	Bevel Pinion	1	Alloy Steel AISI 4140
3-2	Bevel Gear	1	Alloy Steel AISI 4140
4-1	Ball		Chrome Steel
4-2	Lower Race	1	Carbon Steel AISI 1144
4-3	Ball		Chrome Steel
4-4	Upper Race	1	Carbon Steel AISI 1144
5-1	Input Shaft	1	Carbon Steel 1045
5-2	Key	1	Carbon steel
5-3	Pin	1	Spring Steel
5-4	Snap Ring	1	Spring Steel
5-5	NSK Taper Roller Bearing	1	Commercial
5-7	Bearing	1	Lubricated Bronze

### Handwheel Orientation

Possible handwheel orientations are shown in the figure below.



UPPER VIEW

Low rimpull requirements often result in the selection of bevel gears with high gear ratios. This can result in high operating times due to the number of turns needed to cycle the valve. Keep this in mind when specifying a maximum rimpull. Air wrench operation speeds up cycle time or high gear ratio bevel gears however, the mechanical advantage can damage the valve if it is seated or back seated using the air wrench. Always manually seat or back seat the valves with caution.