Material Handling Solutions

**Boston Gear QC 700 Series**

Long-Life Reliability and Leak-Free Operation

<table>
<thead>
<tr>
<th>Features</th>
<th>Existing common Worm Gearboxes supplied by many integrators</th>
<th>Advantages of upgrading to the Boston Gear QC 700 Series</th>
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</thead>
<tbody>
<tr>
<td><strong>Bearings</strong></td>
<td>3-bearing design; uses the motor bearings to support gearbox input shaft. If seal is damaged during the motor mounting process, premature leakage can occur.</td>
<td>4-bearing design; superior shaft support on both input and output shaft. The 4-bearing design keeps the high speed shaft steady during installation and during operation. The design can withstand heavier shock loads that may occur. No movement of input shaft and no premature leakage due to shaft wobble damaging the seals.</td>
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<tr>
<td><strong>Venting</strong></td>
<td>Industry standard is a simple vent to atmosphere. The simple vent permits contaminants to be sucked into the gearbox during cool down.</td>
<td>Unit is equipped with Boston Gear’s PosiVent® internal pressure equalization system. PosiVent® keeps pressure low in the gearbox and the unit is completely sealed keeping any contamination out of the gearbox. <strong>How?</strong> The PosiVent® bladder and seal system minimizes internal pressure build-up by expanding or collapsing based on pressure. <strong>Why?</strong> A sealed system keeps dirt and moisture out and thus increases life of the entire gearbox.</td>
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<td><strong>Flange</strong></td>
<td>Common flange designs use pry slots for motor removal or access holes for couplings.</td>
<td>The QC flange completely encloses the high speed seal. This prevents atmospheric dirt from accumulating under the seal lip and accelerating seal/shaft wear. Longer seal life is insured due to a cleaner operating environment.</td>
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<tr>
<td><strong>Seals</strong></td>
<td>Single input seal</td>
<td>Unit is provided with two input seals <strong>Why?</strong> Double sealing offers extra protection from wear on the high speed shaft extending the time for maintenance due to leakage. The smaller shaft diameter of the QC design creates less seal wear and therefore longer life due to a lower surface speed.</td>
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<tr>
<td><strong>Input Style</strong></td>
<td>Quill style hollow input is very common and is widely used in the distribution warehouse industry by integrators.</td>
<td>Coupling style input as used by Boston Gear in the QC700 series provides easy motor removal and replacement while minimizing space constraints. Most gearmotor failures (85%) are due to a motor failure and therefore a coupling style of gearbox facilitates quick and easy replacement.</td>
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<tr>
<td><strong>Upgrading</strong></td>
<td>Example of a three bearing worm gearbox.</td>
<td>Upgrading to the backward-compatible Boston Gear QC series with the above built-in features will provide longer, trouble free operation and virtually no maintenance. The QC flange is typically 1-2 inches longer than a quill style gearbox and causes the motor to stick out farther.</td>
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</table>
### WHICH GEARBOX IS RIGHT FOR YOUR APPLICATION?

#### Leak-Free Operation
- Works great for mounting Position #1 (As shown in picture).
- Works great for mounting Position #5 (Motor above gearbox).
- zWorks great for mounting Position #3 (worm under).
- Works great for mounting Position #6 (Motor below gearbox).

#### Contamination-Free Operation
- Works great for applications with periods of intense operation followed by long non-operating periods.
- Works great for applications with atmospheric contamination (i.e., humidity, dust).
- Works great for applications sensitive to contamination (i.e., food processing).

#### Easy motor removal after years of operation
- Works great for reversing load applications.
- Easy removal of motor from gearbox. No fretting corrosion between motor shaft and gearbox quill.

### BUILD YOUR 700 SERIES RIGHT ANGLE WORM GEARBOX - SINGLE REDUCTION PART NUMBER

<table>
<thead>
<tr>
<th>QC</th>
<th>7 – 700 Series</th>
<th>21</th>
<th>Exact Gear Ratio</th>
<th>K</th>
<th>Z</th>
<th>T</th>
<th>B5</th>
<th>G</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input Shaft Style</td>
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<td>Center Distance (inches)</td>
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<td></td>
<td>Blank – Solid Projecting Input Shaft</td>
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<td>10 – 1.00</td>
<td>75</td>
<td>200</td>
<td>50</td>
<td>100</td>
<td>100</td>
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<td></td>
<td>F – Quill Style Motor Flange</td>
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<td>13 – 1.33</td>
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<td></td>
<td>RF – Coupling Style Motor Flange</td>
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<td>15 – 1.54</td>
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<td></td>
<td>QC – Quick Connect Motor Flange (close coupled)</td>
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<td>18 – 1.75</td>
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<td>21 – 2.06</td>
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<td>24 – 2.38</td>
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<td>26 – 2.62</td>
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<td>30 – 3.00</td>
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<td>32 – 3.25</td>
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<td>38 – 3.75</td>
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<td>40 – 4.00</td>
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<td>52 – 5.13</td>
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<td></td>
<td>60 – 6.00</td>
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<td>Output Shaft Style</td>
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<td></td>
<td>Blank – Solid Output Shaft</td>
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<td></td>
<td>H – BostMount Hollow Output (setscrews both sides, bore size selectable)</td>
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<td></td>
<td>S – Hollow Output (setscrews one side, bore size fixed)</td>
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#### Lubrication
- Endcap or Fan (732-760 only)
- E – Endcap (standard)
- F – Fan

#### Oil Seal
- Blank – No lubrication
- X – Mobil SHC 634
- Y – Mobil 600W

#### Base/Mounting Attachment*
- Blank – No Base
- A – Horizontal base – Top Mount
- B – Horizontal base – Bottom Mount
- BRB – Vertical Low base – Right Mount
- C – Vertical High base – Right Mount
- D – Vertical Low base – Left Mount
- E – Vertical High base – Left Mount
- F – BostMount Bracket – Right Mount
- R – BostMount Bracket – Left Mount

#### NEMA Motor Mounting
- BORE BORE CODE MOUNTING INPUT KEYWAY
- B4 3/4SC 3/4SC 3/4 x 3/16 1/8 x 1/16
- B5 56C 56C .625 3/16 x 3/32
- B7 140TC/180C 180TC/180C .875 3/16 x 3/32
- B9 180TC/250UC 180TC/250UC 1.125 3/16 x 1/8
- B11 210TC/250UC 210TC/250UC 1.375 5/16 x 5/32
- B13 250TC 250TC 1.625 3/8 x 3/16
- Blank – Solid Input Shaft (No Flange)

#### Mounting Positions
- Blank – No Lubrication Supplied
- For Factory Prelubrication Indicate Mounting Position
- 1 – Standard Mounting (Worm over)
- 2-6 – Refer to Mounting Positions in Catalog

#### BostMount Output Bore Code
For H Series Only specified in 1/16” increments.

### Reducer Material/Paint
- Black – Cast Iron, Std. Gray paint
- BKC – Cast Iron, White BostKleen paint
- SBKC – Cast Iron, Stainless BostKleen paint
- SS – Stainless Steel material – no paint

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