



**The Timken Company**

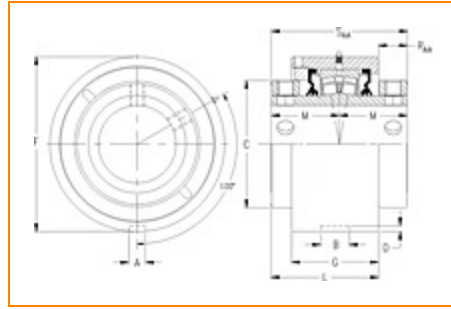
4500 Mt Pleasant St. NW

N. Canton, OH 44720

**Phone:** (234) 262-3000

**E-Mail:** [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • **Web site:** [www.timken.com](http://www.timken.com)

Part Number QAAMC22A407S, Double Concentric Cartridge Block



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Specifications

|                                |  |
|--------------------------------|--|
| <b>Engineering Group</b>       | Mounted Bearing  |
| <b>Bearing Number</b>          | 22222  |
| <b>Shaft Size</b>              | 4 7/16 in  |
| <b>Shaft Size Type</b>         | Imperial   |
| <b>Full Timken Part Number</b> | QAAMC22A407SB<br>QAAMC22A407SC<br>QAAMC22A407SEB<br>QAAMC22A407SEC<br>QAAMC22A407SEM<br>QAAMC22A407SEN<br>QAAMC22A407SEO<br>QAAMC22A407SET<br>QAAMC22A407SM<br>QAAMC22A407SN<br>QAAMC22A407SO<br>QAAMC22A407ST |



|                      |                   |
|----------------------|-------------------|
| <b>Locking Style</b> | Double Concentric |
|----------------------|-------------------|

|                             |           |
|-----------------------------|-----------|
| <b>Housing Construction</b> | Cartridge |
|-----------------------------|-----------|

|                 |               |
|-----------------|---------------|
| <b>UPC Code</b> | 0883450025102 |
|                 | 0883450025119 |
|                 | 0883450025133 |
|                 | 0883450025140 |
|                 | 0883450025157 |
|                 | 0883450025164 |
|                 | 0883450025171 |
|                 | 0883450025188 |
|                 | 0883450194976 |
|                 | 0883450195140 |
|                 | 0883450272148 |
|                 | 0883450272315 |

## Dimensions

|                    |                    |
|--------------------|--------------------|
| <b>Dimension A</b> | 0.78 in<br>19.8 mm |
|--------------------|--------------------|

|                    |                   |
|--------------------|-------------------|
| <b>Dimension B</b> | 1.5 in<br>38.1 mm |
|--------------------|-------------------|

|                    |                  |
|--------------------|------------------|
| <b>Dimension C</b> | 6.3 in<br>160 mm |
|--------------------|------------------|

|                    |                   |
|--------------------|-------------------|
| <b>Dimension D</b> | 0.31 in<br>7.9 mm |
|--------------------|-------------------|

|                    |                      |
|--------------------|----------------------|
| <b>Dimension F</b> | 8-3/4 in<br>222.3 mm |
|--------------------|----------------------|

|                    |                     |
|--------------------|---------------------|
| <b>Dimension G</b> | 4.27 in<br>108.5 mm |
|--------------------|---------------------|

|                        |                     |
|------------------------|---------------------|
| <b>Dimension L Exp</b> | 5.34 in<br>135.6 mm |
|------------------------|---------------------|

|                        |                     |
|------------------------|---------------------|
| <b>Dimension L Fix</b> | 5.26 in<br>133.6 mm |
|------------------------|---------------------|

|                      |                     |
|----------------------|---------------------|
| <b>Dimension M</b>   | 3.13 in<br>79.5 mm  |
| <b>Dimension RAA</b> | 0.99 in<br>25.1 mm  |
| <b>Dimension SAA</b> | 6.25 in<br>158.8 mm |

### Radial and Thrust Factors

|                                 |                        |
|---------------------------------|------------------------|
| <b>C0 - Static Load</b>         | 147000 lbf<br>653000 N |
| <b>C - Dynamic Load (Basic)</b> | 125000 lbf<br>555000 N |
| <b>e - Geometry Factor</b>      | 0.24                   |
| <b>Y1 - Geometry Factor</b>     | 2.73                   |
| <b>Y2 - Geometry Factor</b>     | 4.06                   |

### Engineering Seal Speed

|  |          |
|--|----------|
| <b>Oil Lubrication - M/N Seal</b>      | 900 rpm  |
| <b>Oil Lubrication - T Seal</b>        | 1700 rpm |
| <b>Oil Lubrication - B/C/O Seal</b>    | 600 rpm  |
| <b>Grease Lubrication - M/N Seal</b>   | 900 rpm  |
| <b>Grease Lubrication - T Seal</b>     | 1200 rpm |
| <b>Grease Lubrication - B/C/O Seal</b> | 600 rpm  |

### Engineering Bearing Attributes

|              |                      |
|--------------|----------------------|
| <b>Float</b> | 0.083 in<br>2.108 mm |
|--------------|----------------------|

|                        |                       |
|------------------------|-----------------------|
| <b>Shaft Tolerance</b> | 0.0050 in<br>0.127 mm |
|------------------------|-----------------------|

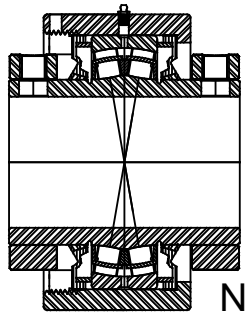
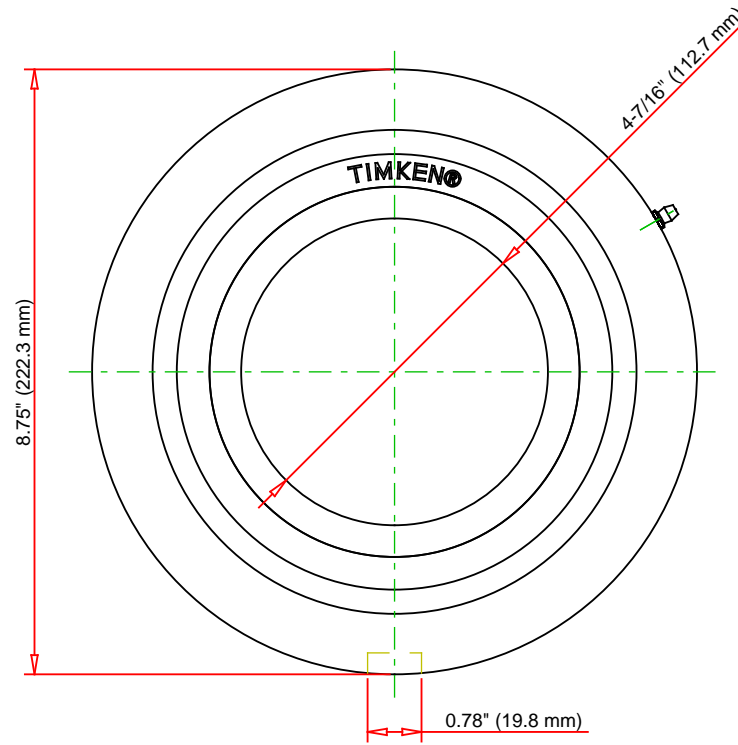
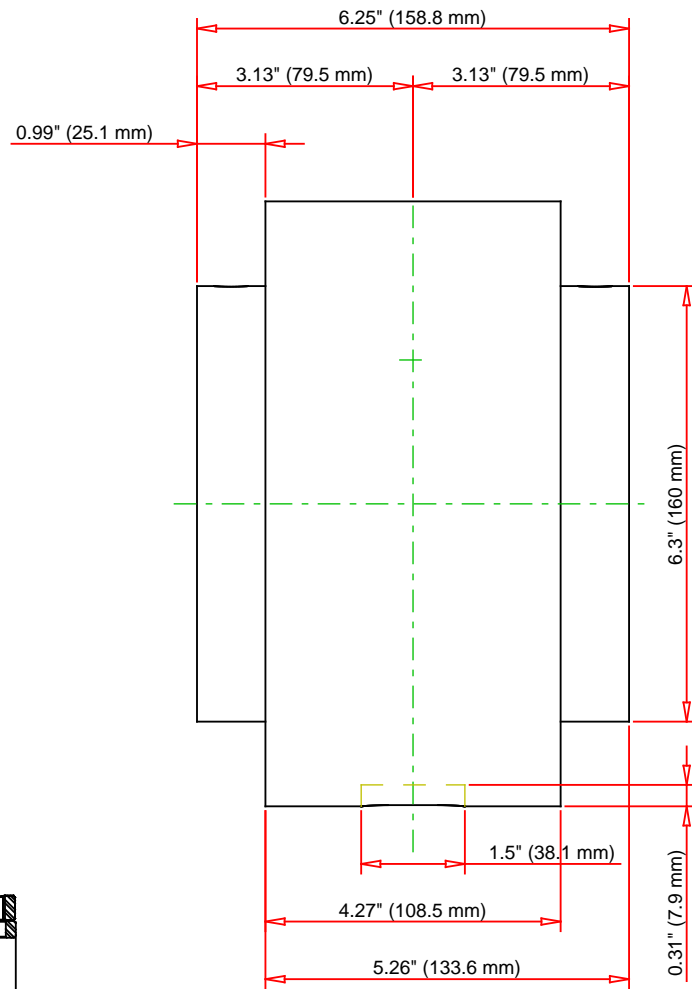
## Engineering Internal Radial Clearance

|  |        |
|--|--------|
| <b>Eng Internal Radial Clearance - Min</b> | 0.0030 |
|--|--------|

|  |        |
|--|--------|
| <b>Eng Internal Radial Clearance - Max</b> | 0.0047 |
|--|--------|

|                                  |                       |
|----------------------------------|-----------------------|
| <b>Pre Install Clearance Min</b> | 0.0030 in<br>0.075 mm |
|----------------------------------|-----------------------|

|                                  |                       |
|----------------------------------|-----------------------|
| <b>Pre Install Clearance Max</b> | 0.0047 in<br>0.120 mm |
|----------------------------------|-----------------------|



Note: Section View not to Scale

|                             |        |     |        |    |
|-----------------------------|--------|-----|--------|----|
| C - Dynamic Load            | 125000 | lbf | 555000 | N  |
| C0 - Static Load            | 147000 | lbf | 653000 | N  |
| Weight                      | 40     | lb  | 18.1   | kg |
| Max. Speed T-Seals & Grease | 1200   | rpm |        |    |
| Rad. Clearance - Max.       | 0.0047 |     |        |    |

**TIMKEN**

THE TIMKEN COMPANY  
NORTH CANTON, OHIO USA

**QAAMC22A407S**  
Double Concentric Cartridge Block

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**FOR DISCUSSION ONLY**