



**The Timken Company**

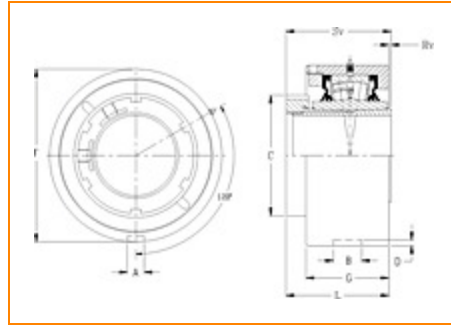
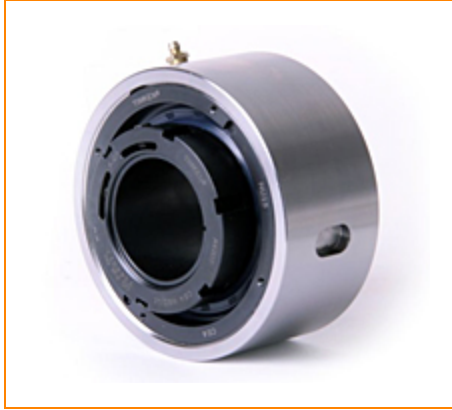
4500 Mt Pleasant St. NW

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 QVMC20V090S, Single V-Lock Cartridge Block



[Specifications](#) | [Dimensions](#) | [Radial and Thrust Factors](#) | [Engineering Seal Speed](#) | [Engineering Bearing Attributes](#) | [Engineering Internal Radial Clearance](#)

### Specifications

**Engineering Group** Mounted Bearing

**Bearing Number** 22220

**Shaft Size** 90 mm

**Shaft Size Type** Metric

**Full Timken Part Number**

- QVMC20V090SB
- QVMC20V090SC
- QVMC20V090SEB
- QVMC20V090SEC
- QVMC20V090SEM
- QVMC20V090SEN
- QVMC20V090SEO
- QVMC20V090SET
- QVMC20V090SM
- QVMC20V090SN
- QVMC20V090SO
- QVMC20V090ST



<b>Locking Style</b>	Single V-Lock
<b>Housing Construction</b>	Cartridge
<b>UPC Code</b>	0883450046725 0883450046794 0883450207997 0883450208147 0883450220415 0883450220569 0883450232845 0883450232999 0883450241588 0883450241731 0883450246545 0883450246699

## Dimensions

<b>Dimension A</b>	0.781 in 19.8 mm
<b>Dimension B</b>	1.281 in 32.5 mm
<b>Dimension C</b>	4.9 in 124.5 mm
<b>Dimension D</b>	0.313 in 8 mm
<b>Dimension F</b>	8.1250 in 206.4 mm
<b>Dimension G</b>	3.37 in 85.6 mm
<b>Dimension L Exp</b>	4.1 in 104.1 mm
<b>Dimension L Fix</b>	4.02 in 102.1 mm

<b>Dimension RV</b>	0.27 in 6.9 mm
---------------------	-------------------

<b>Dimension SV</b>	3.75 in 95.3 mm
---------------------	--------------------

## Radial and Thrust Factors

<b>C0 - Static Load</b>	113000 lbf 502000 N
-------------------------	------------------------

<b>C - Dynamic Load (Basic)</b>	97700 lbf 435000 N
---------------------------------	-----------------------

<b>e - Geometry Factor</b>	0.24
----------------------------	------

<b>Y1 - Geometry Factor</b>	2.85
-----------------------------	------

<b>Y2 - Geometry Factor</b>	4.24
-----------------------------	------

## Engineering Seal Speed

<b>Oil Lubrication - M/N Seal</b>	1200 rpm
-----------------------------------	----------

<b>Oil Lubrication - T Seal</b>	2000 rpm
---------------------------------	----------

<b>Oil Lubrication - B/C/O Seal</b>	900 rpm
-------------------------------------	---------

<b>Grease Lubrication - M/N Seal</b>	1200 rpm
--------------------------------------	----------

<b>Grease Lubrication - T Seal</b>	1600 rpm
------------------------------------	----------

<b>Grease Lubrication - B/C/O Seal</b>	900 rpm
--	---------

## Engineering Bearing Attributes

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

<b>Shaft Tolerance</b>	0.0030 in 0.076 mm
------------------------	-----------------------

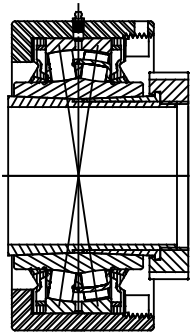
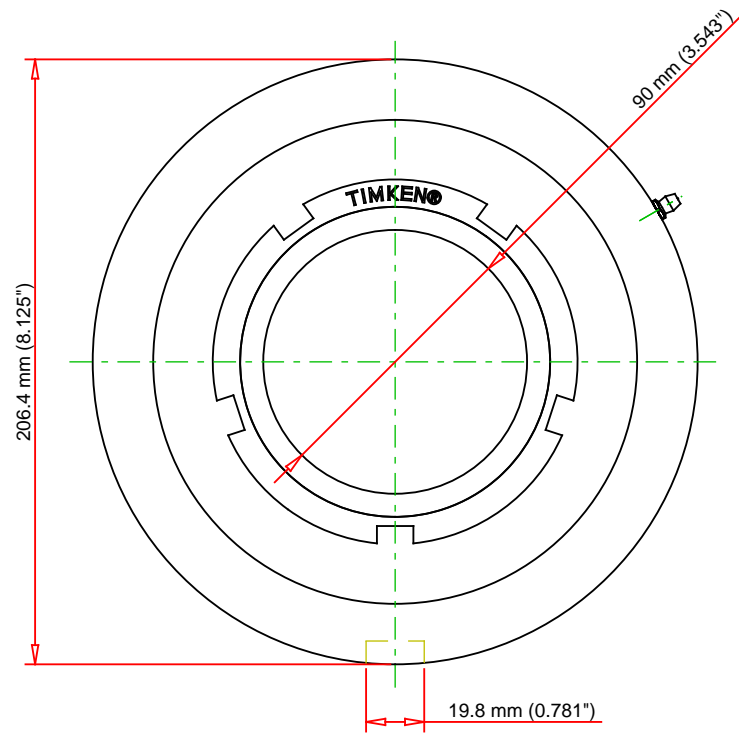
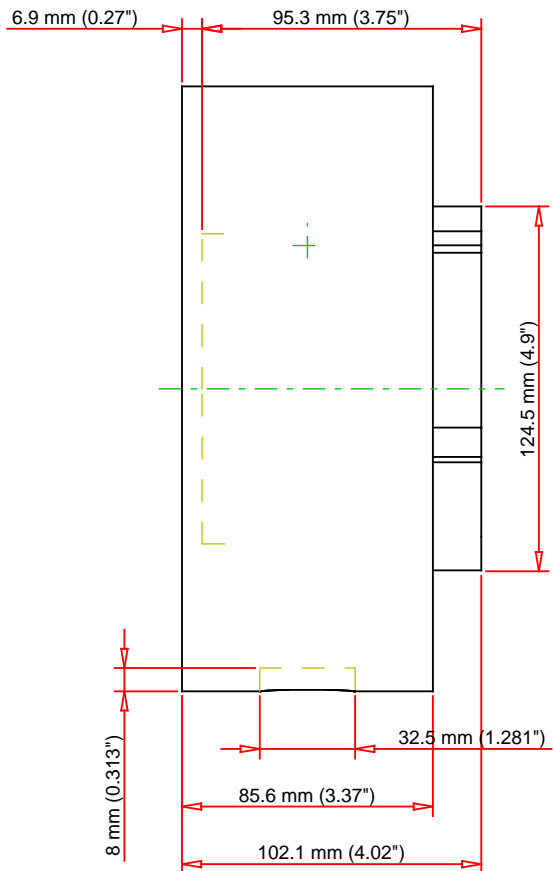
## Engineering Internal Radial Clearance

<b>Eng Internal Radial Clearance - Min</b>	0.0043
--	--------

<b>Eng Internal Radial Clearance - Max</b>	0.0055
--	--------

<b>Pre Install Clearance Min</b>	0.0043 in 0.109 mm
----------------------------------	-----------------------

<b>Pre Install Clearance Max</b>	0.0055 in 0.140 mm
----------------------------------	-----------------------



Note: Section View not to Scale

C - Dynamic Load	97700	lbf	435000	N
C0 - Static Load	113000	lbf	502000	N
Weight	32	lb	14.5	kg
Max. Speed T-Seals & Grease	1600	rpm		
Rad. Clearance - Max.	0.0055			



THE TIMKEN COMPANY  
NORTH CANTON, OHIO USA

**QVMC20V090S**  
Single V-Lock Cartridge Block

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

**FOR DISCUSSION ONLY**