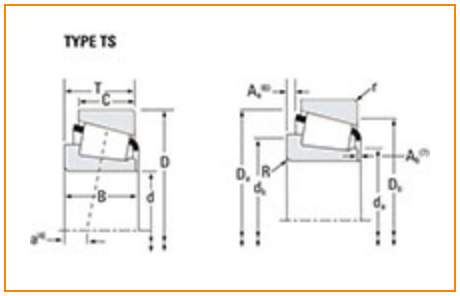
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 3775 - 3720, Tapered Roller Bearings - TS (Tapered Single) Imperial

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	3700
Cone Part Number	3775
Cup Part Number	3720
Design Units	Imperial
Bearing Weight	0.8 Kg 1.900 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	50.8 mm 2 in

D - Cup Outer Diameter	93.264 mm 3.6718 in
B - Cone Width	30.302 mm 1.1930 in
C - Cup Width	23.813 mm 0.9375 in
T - Bearing Width	30.163 mm 1.1875 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.760 mm 0.03 in
r - Cup Backface "To Clear" Radius[2]	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	57.91 mm 2.28 in
db - Cone Backface Backing Diameter	57.91 mm 2.28 in
Da - Cup Frontface Backing Diameter	87.90 mm 3.50 in
Db - Cup Backface Backing Diameter	82.04 mm 3.23 in
Ab - Cage-Cone Frontface Clearance	1.5 mm 0.06 in
Aa - Cage-Cone Backface Clearance	1.5 mm 0.06 in
a - Effective Center Location[3]	-8.1 mm -0.32 in

Basic Load Ratings

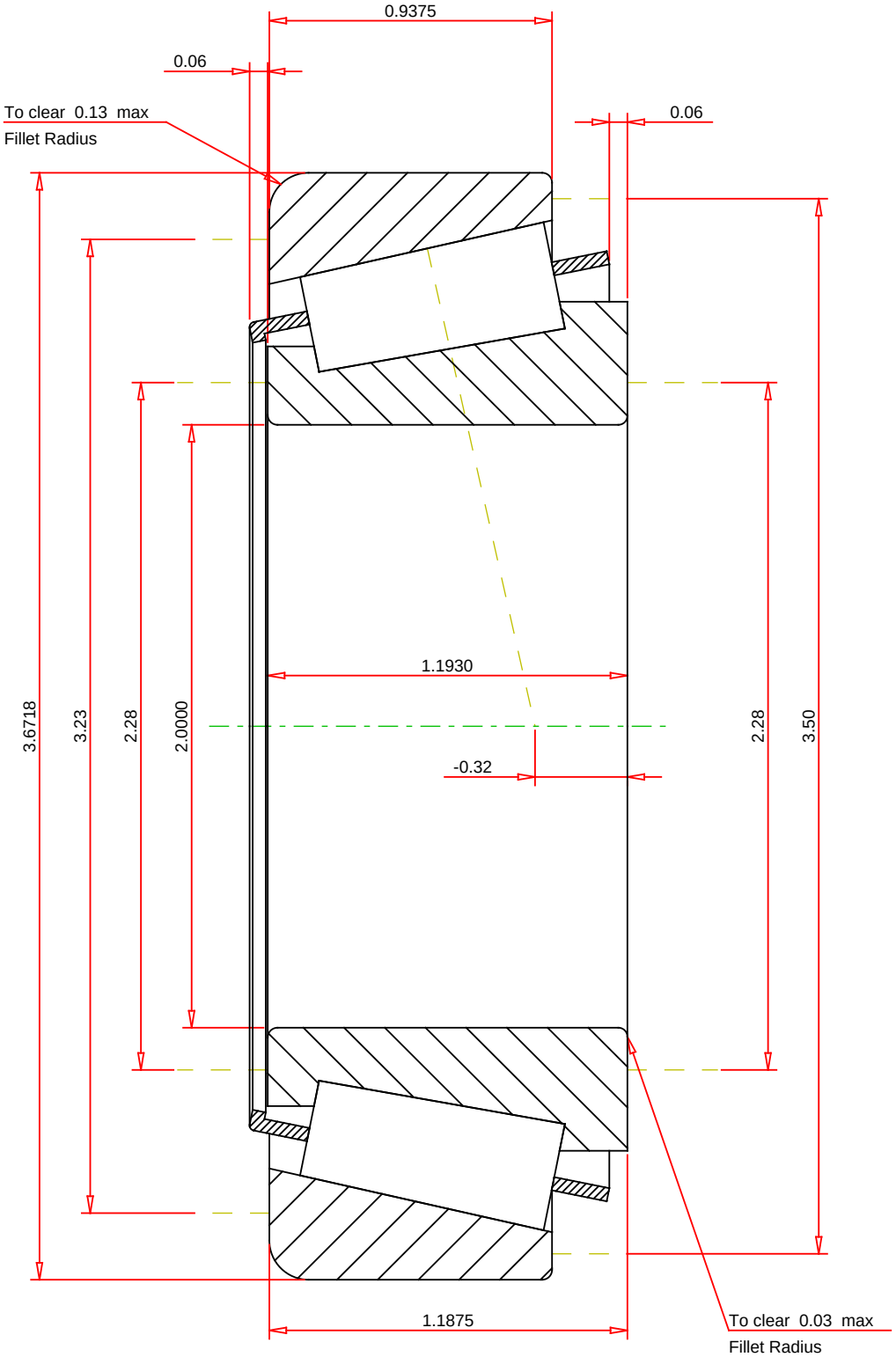
C90 - Dynamic Radial Rating (90 million revolutions)[4]	7120 lbf 31700 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	27500 lbf 122000 N
C0 - Static Radial Rating	34300 lbf 153000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	4120 lbf 18300 N

Factors

K - Factor[7]	1.73
e - ISO Factor[8]	0.34
Y - ISO Factor[9]	1.77
G1 - Heat Generation Factor (Roller-Raceway)	49.9
G2 - Heat Generation Factor (Rib-Roller End)	14.5
Cg - Geometry Factor[10]	0.0903

[1] These maximum fillet radii will be cleared by the bearing corners.
[2] These maximum fillet radii will be cleared by the bearing corners.
[3] Negative value indicates effective center inside cone backface.
[4] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.
[5] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[6] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.
[7] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.
[8] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[10] Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e	0.34	
ISO Factor - Y	1.77	
Bearing Weight	1.9	lb
Number of Rollers Per Row	18	
Effective Center Location	-0.32	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

3775 - 3720
TS BEARING ASSEMBLY

K Factor	1.73	
Dynamic Radial Rating - C90	7120	lbf
Dynamic Thrust Rating - Ca90	4120	lbf
Static Radial Rating - C0	34300	lbf
Dynamic Radial Rating - C1	27500	lbf

FOR DISCUSSION ONLY