The Timken Company
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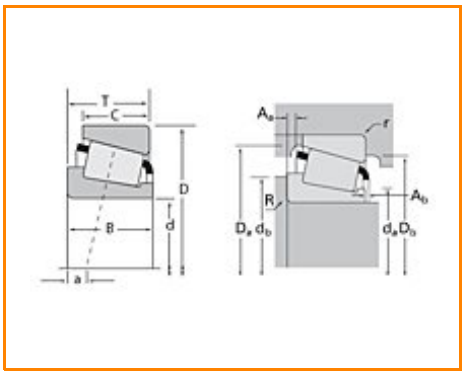
Timken Part Number 2796 - 2729, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	2700
Cone Part Number	2796
Cup Part Number	2729
Design Units	Imperial
Bearing Weight	0.500 Kg 1.20 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	34.925 mm 1.3750 in

D - Cup Outer Diameter	76.2 mm 3 in
B - Cone Width	25.654 mm 1.0100 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	23.813 mm 0.9375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	0.76 mm 0.030 in
da - Cone Frontface Backing Diameter	40.89 mm 1.61 in
db - Cone Backface Backing Diameter	47.50 mm 1.87 in
Da - Cup Frontface Backing Diameter	71.10 mm 2.80 in
Db - Cup Backface Backing Diameter	68.07 mm 2.68 in
Ab - Cage-Cone Frontface Clearance	1.5 mm 0.06 in
Aa - Cage-Cone Backface Clearance	1 mm 0.04 in
a - Effective Center Location[3]	-8.1 mm -0.32 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	22500 N 5060 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	86900 N 19500 lbf
C0 - Static Radial Rating	102000 N 23000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	11700 N 2630 lbf

Factors

K - Factor[7]	1.93
e - ISO Factor[8]	0.3
Y - ISO Factor[9]	1.98
G1 - Heat Generation Factor (Roller-Raceway)	28.7
G2 - Heat Generation Factor (Rib-Roller End)	12.2
Cg - Geometry Factor	0.0725

[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.
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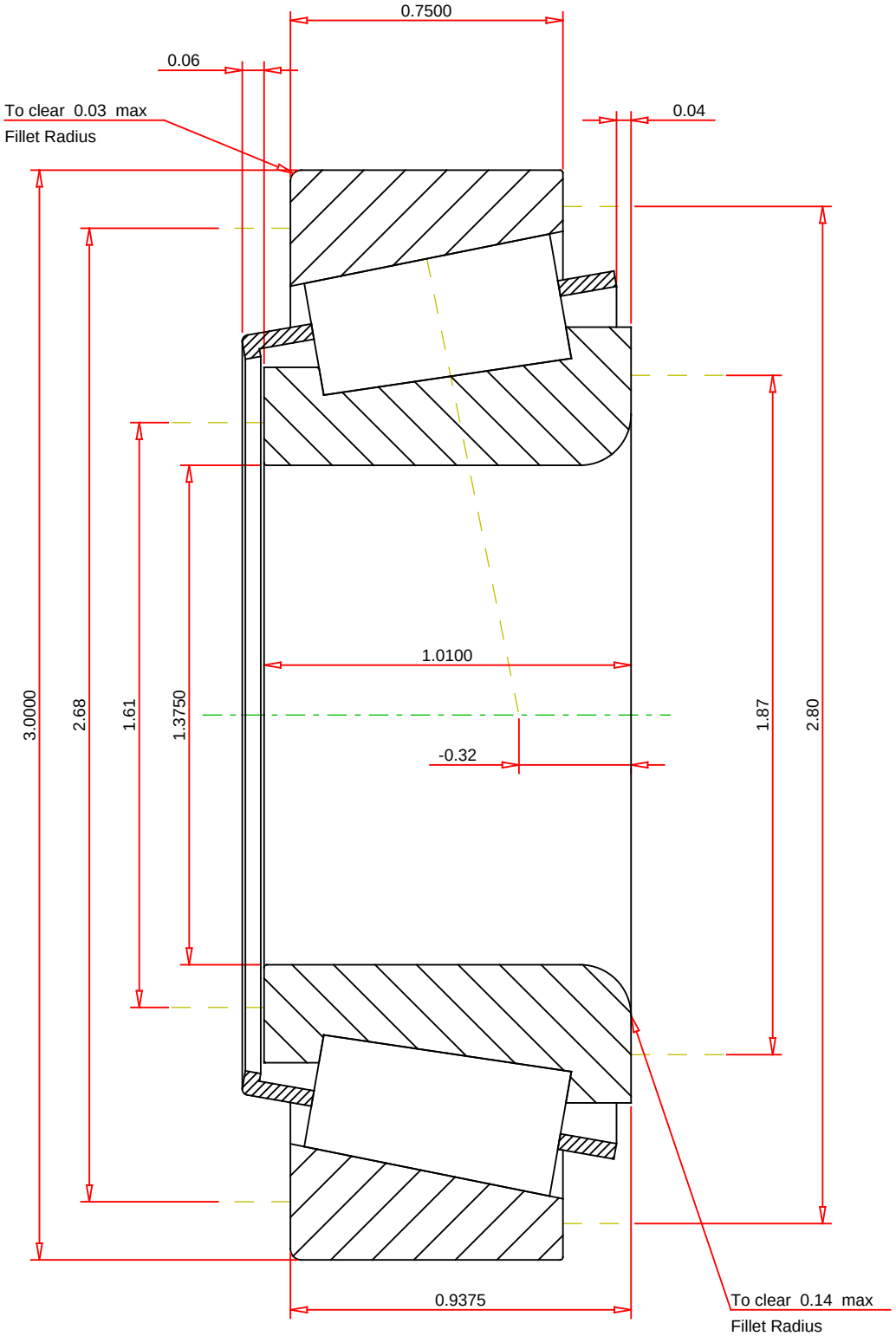

IMPERIAL UNITS

ISO Factor - e	0.3	
ISO Factor - Y	1.98	
Bearing Weight	1.2	lb
Number of Rollers Per Row	17	
Effective Center Location	-0.32	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

2796 - 2729
TS BEARING ASSEMBLY

K Factor	1.93	
Dynamic Radial Rating - C90	22500	lbf
Dynamic Thrust Rating - Ca90	11700	lbf
Static Radial Rating - C0	102000	lbf
Dynamic Radial Rating - C1	86900	lbf

FOR DISCUSSION ONLY