The Timken Company
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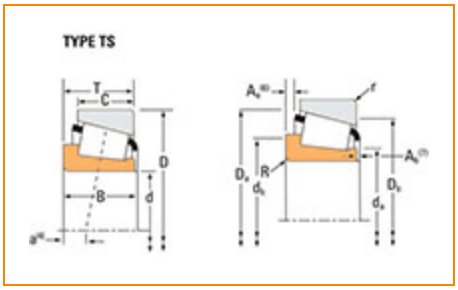
Part Number X32205, Tapered Roller Bearings - Single Cones - Metric

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	32205
Cone Part Number	X32205
Design Units	METRIC
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[1]	86600 N 19500 lbf
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[2]	22500 N 5050 lbf
Full Timken Part Number	32205

Dimensions

d - Cone Bore	25 mm 0.9843 in
B - Cone Width	18 mm 0.7087 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[3]	1.020 mm 0.04 in
da - Cone Frontface Backing Diameter	31 mm 1.22 in
db - Cone Backface Backing Diameter	34 mm 1.34 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location[4]	-5.3 mm -0.21 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[5]	12900 N 2900 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[6]	49800 N 11200 lbf
C0 - Static Radial Rating	42100 N 9470 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[7]	7950 N 1790 lbf

Factors

K - Factor[8]	1.62
G1 - Heat Generation Factor (Roller-Raceway)	9.4
G2 - Heat Generation Factor (Rib-Roller End)	7.3
Cg - Geometry Factor[9]	0.0528

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[2] 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.

[3] These maximum fillet radii will be cleared by the bearing corners.

[4] Negative value indicates effective center inside cone backface.

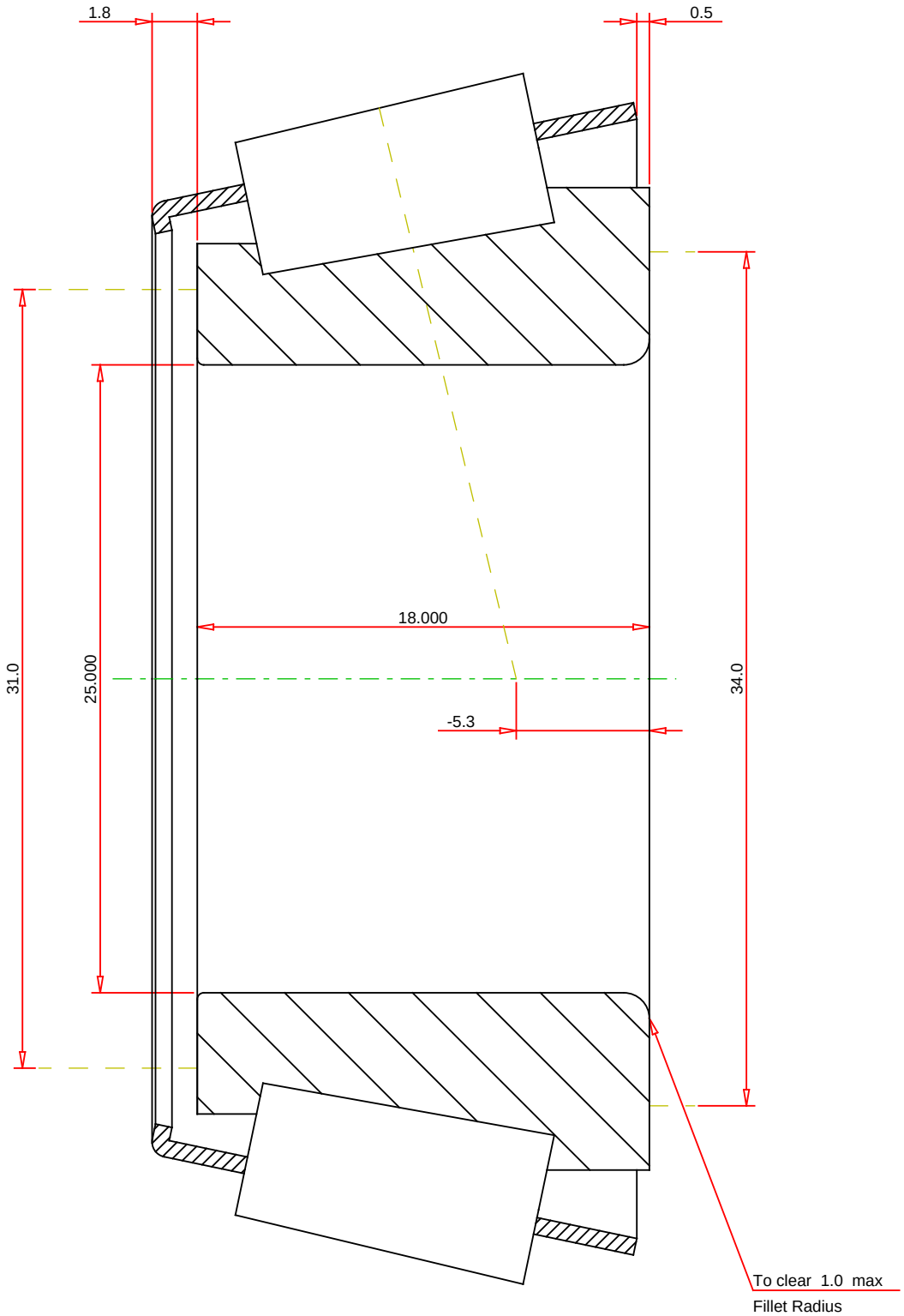
[5] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

[6] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[7] 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.

[8] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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



METRIC UNITS

Number of Rollers Per Row	15

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32205
Tapered Roller Bearings - Single Cones - Metric

K Factor	1.62	
Dynamic Radial Rating - C90	12900	N
Dynamic Thrust Rating - Ca90	7950	N
Dynamic Radial Rating - C1	49800	N

FOR DISCUSSION ONLY