



The Timken Company

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N. Canton, OH 44720

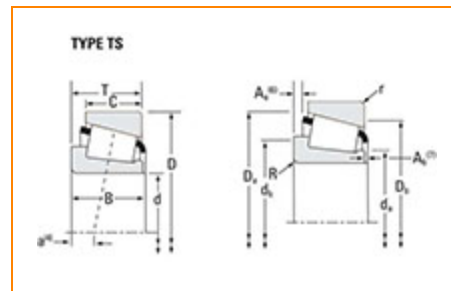
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Timken Part Number XUB-30216 - Y30216, Tapered Roller Bearings - TS (Tapered Single)

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.



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Specifications

Series	30216
Cone Part Number	XUB-30216
Cup Part Number	Y30216
Design Units	METRIC
Bearing Weight	1.8 Kg 3.9 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	80 mm 3.1496 in
D - Cup Outer Diameter	140.000 mm 5.5118 in
B - Cone Width	28.000 mm 1.1024 in
C - Cup Width	22.000 mm 0.8661 in
T - Bearing Width	30.250 mm 1.1909 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.510 mm 0.02 in
r - Cup Backface "To Clear" Radius²	2.03 mm 0.08 in
da - Cone Frontface Backing Diameter	89.92 mm 3.54 in
db - Cone Backface Backing Diameter	89.92 mm 3.54 in
Da - Cup Frontface Backing Diameter	133.35 mm 5.25 in
Db - Cup Backface Backing Diameter	127.00 mm 5.00 in
Ab - Cage-Cone Frontface Clearance	4.3 mm 0.17 in
Aa - Cage-Cone Backface Clearance	3 mm 0.12 in
a - Effective Center Location³	-2 mm -0.08 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	42400 N 9530 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	164000 N 36800 lbf
C0 - Static Radial Rating	187000 N 42000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	30500 N 6860 lbf

Factors

K - Factor⁷	1.39
e - ISO Factor⁸	0.42
Y - ISO Factor⁹	1.43
G1 - Heat Generation Factor (Roller-Raceway)	80.7
G2 - Heat Generation Factor (Rib-Roller End)	28.4
C_g - Geometry Factor¹⁰	0.0771

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 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁶ Based on 90×10^6 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.

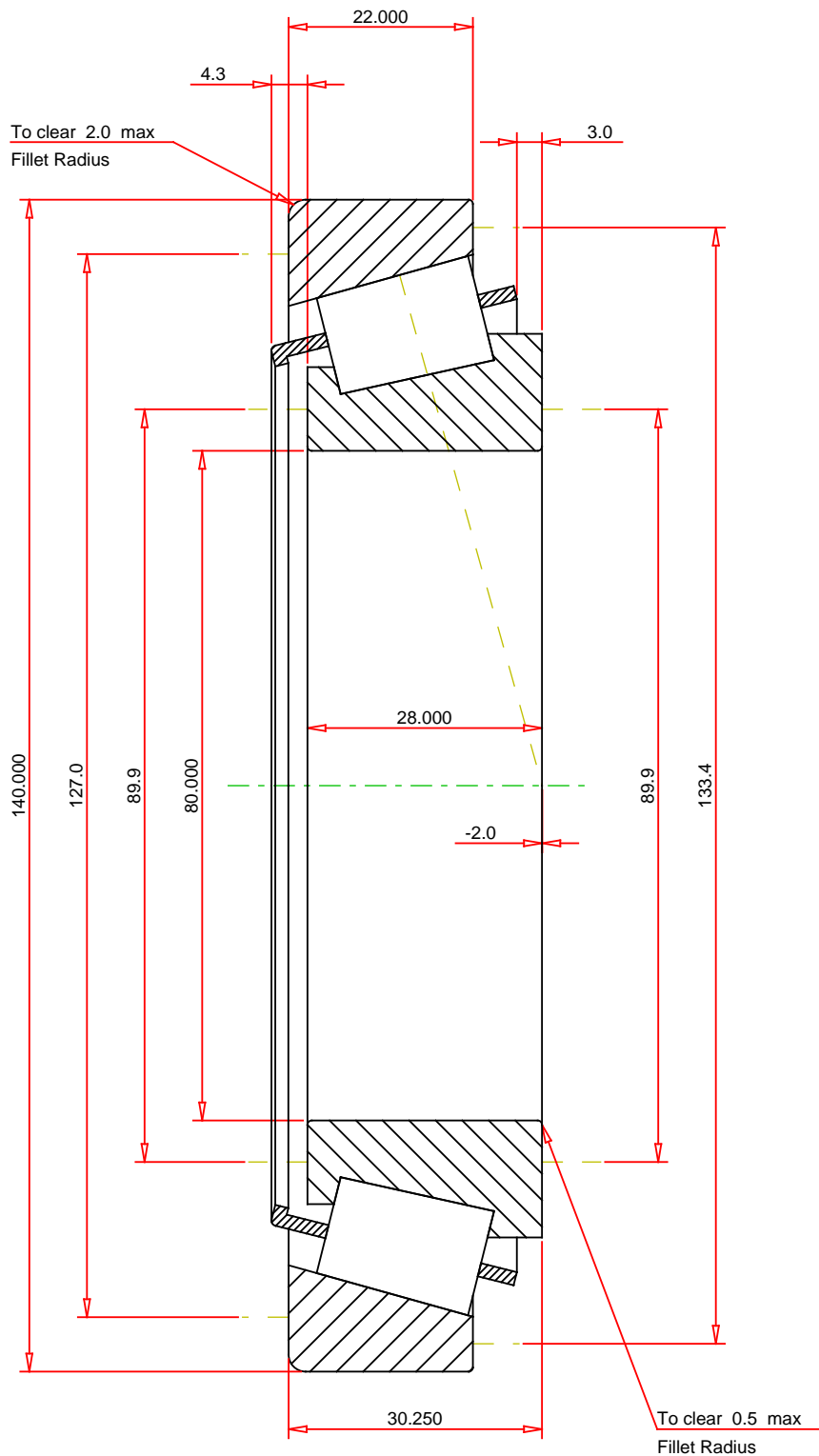
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



METRIC UNITS

ISO Factor - e	0.42
ISO Factor - Y	1.43
Bearing Weight	1.8 kg
Number of Rollers Per Row	18
Effective Center Location	-2 mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

XUB-30216 - Y30216
TS BEARING ASSEMBLY

K Factor	1.39
Dynamic Radial Rating - C90	42400 N
Dynamic Thrust Rating - Ca90	30500 N
Static Radial Rating - C0	187000 N
Dynamic Radial Rating - C1	164000 N

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.

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