


The Timken Company

4500 Mt Pleasant St. NW

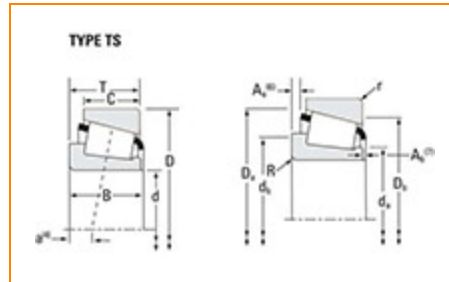
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Part Number 387A - 382-S, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



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Specifications

Series	385
Cone Part Number	387A
Cup Part Number	382-S
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	2 1/4 in
D - Cup Outer Diameter	3.8125 in
B - Cone Width	0.8640 in



C - Cup Width	0.7982 in
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T - Bearing Width	1.0000 in
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Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius ¹	0.14 in
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r - Cup Backface "To Clear" Radius ²	0.090 in
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da - Cone Frontface Backing Diameter	2.48 in
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db - Cone Backface Backing Diameter	2.76 in
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Da - Cup Frontface Backing Diameter	3.62 in
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Db - Cup Backface Backing Diameter	3.43 in
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Ab - Cage-Cone Frontface Clearance	0.11 in
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Aa - Cage-Cone Backface Clearance	0.03 in
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a - Effective Center Location ³	-0.12 in
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions) ⁴	6280 lbf 28000 N
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C1 - Dynamic Radial Rating (1 million revolutions) ⁵	24200 lbf 108000 N
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C₀ - Static Radial Rating	24100 lbf 107000 N
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	3810 lbf 16900 N
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Factors

K - Factor⁷	1.65
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e - ISO Factor⁸	0.35
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Y - ISO Factor⁹	1.69
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G1 - Heat Generation Factor (Roller-Raceway)	42
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G2 - Heat Generation Factor (Rib-Roller End)	15.7
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C_g - Geometry Factor¹⁰	0.0859
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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.

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.

