

SELECTION

DODGE®



DODGE®

BALDOR®
MEMBER OF THE ABB GROUP

Dodge SLEEVOIL Application Inquiry Form

Please provide application data by mail, phone or fax:
 SLEEVOIL Bearing Application Engineering
 Germaine Grant - glgrant@baldor.com (864-281-2253 phone)
 Yogi Sharma - ysharma@baldor.com (864-281-2273 phone)

Company Name: _____
 Address: _____
 Contact Name: _____
 Customer Reference: _____
 Installation and Arrangement: _____

Date: _____
 Response Required By: _____
 Phone (_____) _____
 Fax: (_____) _____

Bearing Size in Inches:

Shaft Speed: ☐ Constant _____ RPM
☐ Variable Speed - Max RPM _____ Min RPM _____
☐ Turning Gear _____

Type of Coolant:

☐ Plain (None) ☐ Water ☐ Air ☐ Plain - Circ Oil ☐ Water Cooled - Circ Oil

Preferred Lubricant: ☐ SAE10 ☐ SAE 20 ☐ SAE30 ☐ Other _____
☐ ISO 32 ☐ ISO 68 ☐ ISO 100

Expected Temperature:

Ambient Max _____ °F Min _____ °F Water Inlet Max _____ °F Min _____ °F
 Air Inlet Max _____ °F Min _____ °F Oil Inlet Max _____ °F Min _____ °F
 Air Velocity over Bearing Housing (FPM): _____

Fixed Bearing (Non-Expansion)

☐ RTL ☐ STL ☐ RXT
 Loading: ☐ Base ☐ Cap

Fixed Bearing Radial Load: _____ Lbs
 Fixed Bearing Thrust Load: _____ Lbs

Cooling Wheel: ☐ Yes ☐ No

External Heat Source (Fan Temperature): _____ °F
 Closest Part of Bearing to Heat Source: Fixed Bearing _____ Inches

Direction of resultant load: Fixed Bearing 


Free Bearing (Expansion)

☐ RTL ☐ STL ☐ SSL ☐ RXT
☐ Base ☐ Cap

Free Bearing Radial Load: _____ Lbs.

☐ Yes ☐ No

Free Bearing _____ Inches

Free Bearing 

Please state any unusual conditions such as shock loads changes in thrust loads, low speed requirements, hot shaft start-ups, environmental conditions (dust, chemicals gases etc):

Dodge / P.O. Box 499 / 6040 Ponders Ct. / Greenville, S.C. 29602 - 0499 / 864-297-4800

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SLEEVOIL

Baldor Electric

P.O. Box 499 Greenville SC 29602 -0499 (864) 297-4800
 SLEEVOIL Program Release 9.0.0 14: 32: 35 03/11/2001
 SLEEVOIL Bearing Selection Program Serial No. Page 1

Filename: Sleeve Bearing Eng / Data Sheets / 2011 / GG110311. UNV

Customer Name GG Fan
 Attention Dean King
 Phone (589) 258-2365
 Email dking@ggfan.com
 Reference Copper Power ID Fan

Selection 1 of 4 Comment:

①	3.4375 inch SLEEVOIL RTL	②	Oil Ring Lubrication	③	Non-Expansion Bearing	
	Shaft speed				1780.0 RPM	1603.1 FPM
	Radial load				1771.0 Lbs.	95.9 PSI
	Thrust load				1596.0 Lbs.	177.3 PSI
	Ambient temperature				100.0 Deg F	
	External heat gases with cooling wheel				752.0 Deg F	
	External heat source to bearing face				6.0 Inches	
	Average horizontal clearance				0.01350 Inches STD	
	Average vertical clearance				0.00600 Inches STD	

⑤ >>>>>>>> Application satisfactory with ISO VG 68 <<<<<<<<<
 Calculations based on base loading
 With water cooling at 100.0 Deg F and 2.00 GPM.

⑥	Heat generation	Total	3.860 HP	9827.6 BTU / HR
	Radial		0.657 HP	
	Thrust		2.460 HP	
	Heat gases		0.743 HP	
	Heat dissipation by water cooling		3.226 HP	8214.9 BTU / HR
	Heat dissipation by cooling wheel		0.365 HP	930.4 BTU / HR
	Maximum operating temperature		165.0 Deg F	
	Radial bearing film thickness		1.54 Mils	
	Thrust bearing film thickness		0.72 Mils	
	Attitude angle		44.1 Deg	

⑦	Dynamic coefficients (X=horizontal direction, Y=vertical direction)			
	KXX =	361864.3 LB / IN	CXX =	1894.2 LB-S / IN
	KXY =	95775.3 LB / IN	CXY =	-1332.8 LB-S / IN
	KYX =	-1025270.0 LB / IN	CYX =	-1332.8 LB-S / IN
	KYY =	19400013.0 LB / IN	CYY =	12178.8 LB-S / IN

RIGID ROTOR INSTABILITY THRESHOLD IS UNBOUNDED

1. Bore size and name of SLEEVOIL bearing.
2. Method of lubrication.
3. States whether bearing is non-expansion or expansion
4. Application input data

5. Acceptance of performance per input
6. Performance output data
7. Oil film dynamic coefficients