

42 URAI

pdblowers part #: 21020.C (LHC), 21021 (RHC), 21022 (BHC), 21023 (THC)

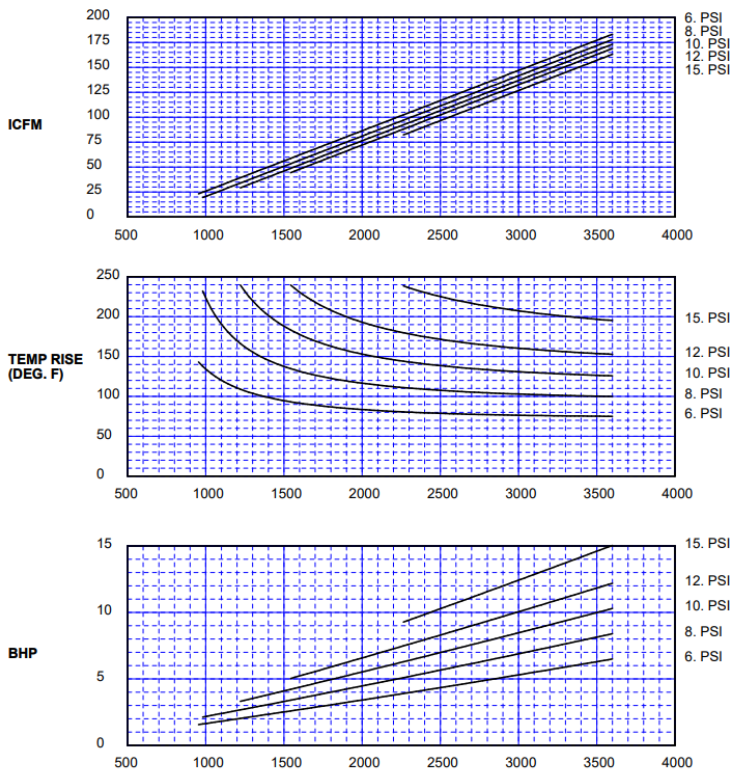
Roots part #: 6510802B, 6510802L, 6510802T, 6510802R

Specifications

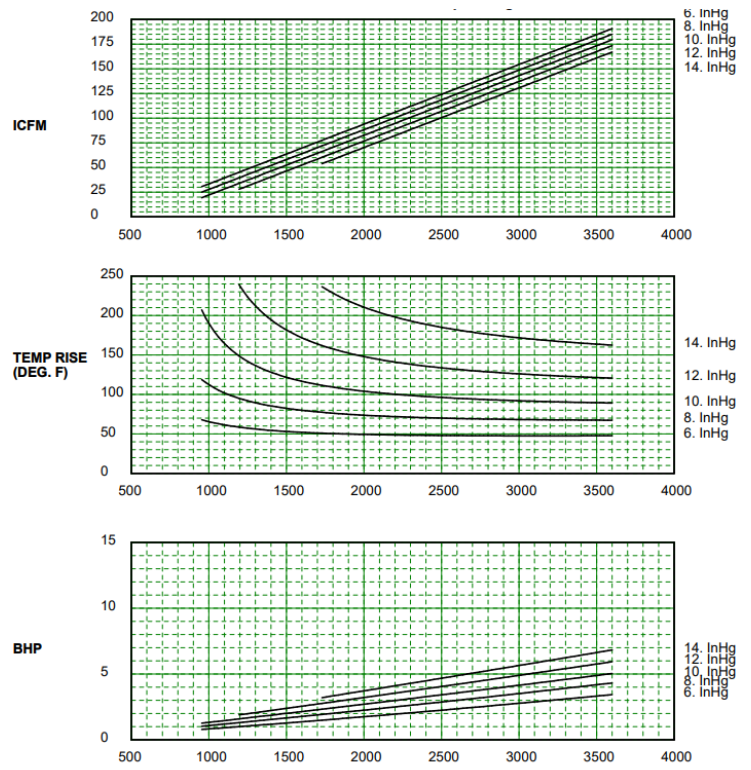
Max Flow:	198 ACFM	Connection Size:	1.5" FPT
Min Flow:	38 ACFM	Shaft Diameter:	0.875"
Max Pressure:	15 PSI	Weight:	88 lb
Max Vacuum:	16 "HG	Shipping Weight:	112 lb
Max RPM:	3600 RPM	Ship Dimensions:	30x15x15"
Min RPM:	954 RPM	Drive End:	Grease, Synthetic
Max ΔT:	240°F	Gear End:	Oil (12.7 oz vertical, 14.5 oz horizontal)
CFR:	0.0605		
1 PSI Slip:	233 RPM		



Pressure Curve



Vacuum Curve



Oil recommendations

Ambient Temp	ISO Viscosity	pdbl'owers part #:				
		Quart	12 Qt	Gallon	4 Gal	5 Gal
90° to 120° (32°C)	320	54525	54529	53204	53204.C	54532
32° to 90° (10°C to 32°C)	220	54524	54528	54527	54527.C	54531
0° to 32° (-18°C to 0°C)	150	54585	54586	54049	54049.C	57229
Below 0° (-18°C)	100	57060	54048	50754	50754.C	54584

Oil service interval is approximately 6000 hours with an oil temp of 180°F or less. Oil life is reduced by half for each 15°F increase in oil Temp.

Grease Recommendations

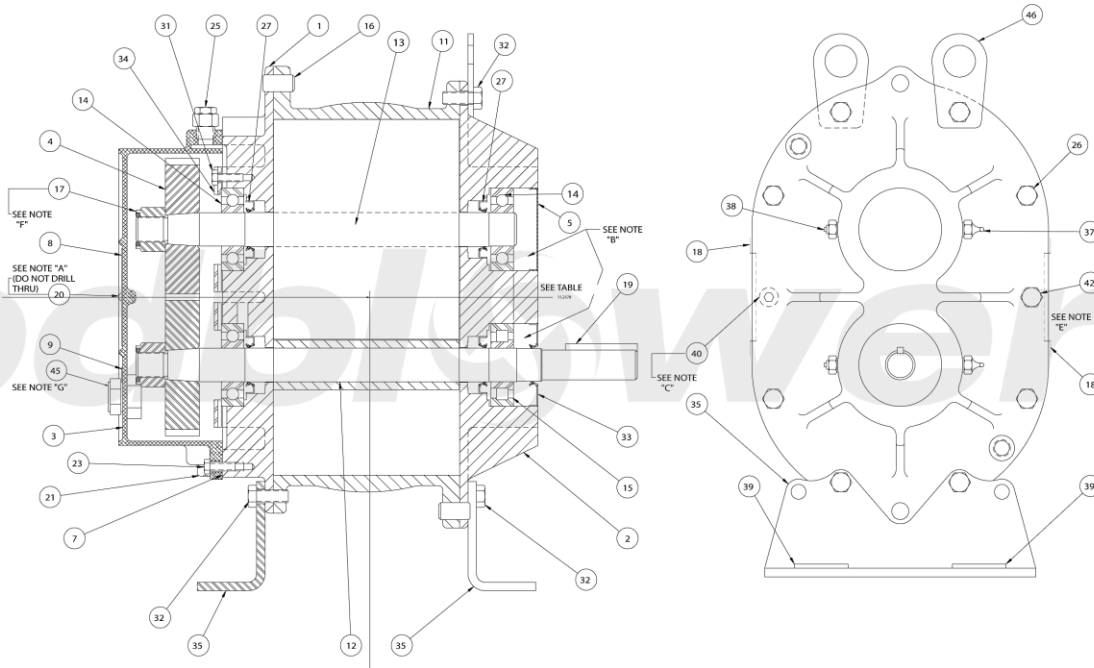
Grease is used for URAI blowers for lubrication on the drive end bearings. Blowers manufactured before 10/2016 typically use Shell Gadus grease (pdbl'owers part #: 54649). All blowers produced after 10/2016 use Roots synthetic grease (pdbl'owers part #: 25673).

Note: the two can NOT be mixed.

Speed In RPM	Operating Hours Per Day		
	8	16	24
	Greasing Interval in Weeks		
750-1000	7	4	2
1000-1500	5	2	1
1500-2000	4	2	1
2000-2500	3	1	1
2500-3000	2	1	1
3000+	1	1	1

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Part Diagram



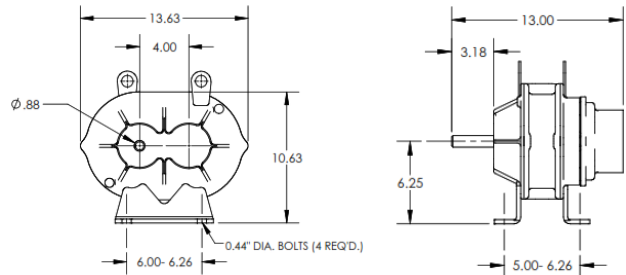
Part Listing

Ref	Description	Qty	Mfg PN	pdb PN
001	HDPL GE 4" URAI	1	64607022	26408.01
002	HDPL DE 4" URAI	1	64849022	26408.02
003	GRBX, 4" URAI	1	65333022	26408.03
004	GEAR,ASSY 4" URAI T/B	1	63865021	26408.04
005	PLUG,OPENING FOR 2.4411" BORE	1	12957004	26408.05
007	GSKT,GRBX 4"URAI TS9003	1	62757021	26408.07
011	CYL 42 URAI, Cylinder	1	38995022	
012	Drive End Impeller	1	64870022	26408.12.42
013	Driven End Impeller	1	64870522	26408.13.42
014	BRG,BALL FAG #6304	3	10987040	26408.14
015	BRG,ROLLER FAG #NJ304E	1	10222036	26408.15
016	PIN,DOWEL 1/2X1.00	4	10226001	26408.16
017	NUT,HEX ESNA 5/8-18	2	10319009	26408.17
019	KEY,SQ 3/16"X 3/16"X 1-5/8"	1	10825023	26408.19
020	SCR,SELF-TPNG RNDH 8-32X.25	1	10815002	26408.20
021	PLG,PIPE 1/4 STL	3	10008002	26408.21
025	PLUG,VENT 1/4"	1	13005001	26400.25
027	SEAL,LIP(VITON) 13/16"SFT	4	10005158	26408.27
031	SCR,CAP HEXH NYL 1/4-20X.50	4	11540003	26408.31
033	SEAL,LIP(BUNA-N) 3/4" SFT	1	12091010	26408.33
034	PLT,CLAMP 4" UNIT	2	64399020	26408.34
035	BLWR,FOOT 4"URAI	2	65000021	26408.35
037	FITTING,GREASE 1/8"MPT	2	10007001	26408.37
038	PLUG,VENT 1/8"	2	13002001	26400.38
039	WSHR,OBLONG 1 1/2 SLOT	4	12892001	26408.39
046	URAI LIFTING, LUG	2	64361020	26412.42

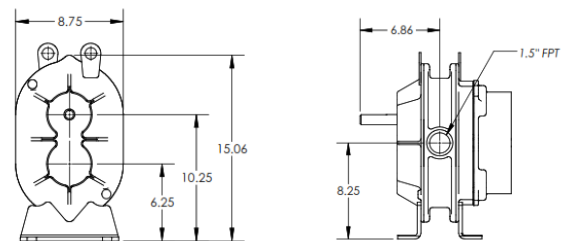
Standard Repair Kit (651080RK / 26408) includes blue highlighted items

Standard Repair Kit with Gears (651070RK/ 26407) includes blue & green items

Dimensional Drawings – Horizontal



Dimensional Drawings – Vertical



Clearances

Impeller/Impeller: 0.009-0.012"
 Impeller End to Headplate
 DE & GE: 0.004-0.007"
 GE w/ Spring Installed: 0.004"
 Impeller Tips to Cylinder:
 Inlet & Discharge: 0.005-0.007"
 Center: 0.003-0.004"

Critical Dimensions

Impeller Width: 6.487-6.488"
 Shaft Dia. at Bearing Bore:
 0.9844-0.9848"
 Bearing Bore Dia.: 2.4409-2.4414"

Materials of Construction

HEADPLATE MATERIAL: CAST IRON ASTM A48 CLASS 30B
 CYLINDER MATERIAL: CAST IRON ASTM A48 CLASS 30B
 IMPELLER MATERIAL: CAST IRON ASTM A48 CLASS 30B

SHAFT MATERIAL: STEEL, PRESS THRU ASTM 108-90 & 311-90
 HEADPLATE SEAL (4): LABYRINTH - INTEGRAL W/ SHAFT FLANGE
 BEARING SEAL (4): RADIAL LIP VITON

DRIVE SHAFT SEAL: RADIAL LIP BUNA-N
 GEAR MATERIAL: SAE 8620 STEEL CARBURIZED, HT 58-62 Rc
 GEAR RATING: AGMA -#11