

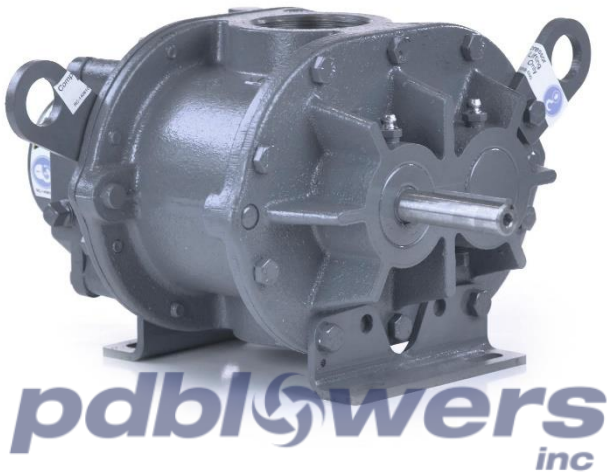
# 24 URAI

**pdbl**owers part #: 21004.C (LHC), 21005(RHC), 21006 (BHC), 21007 (THC)

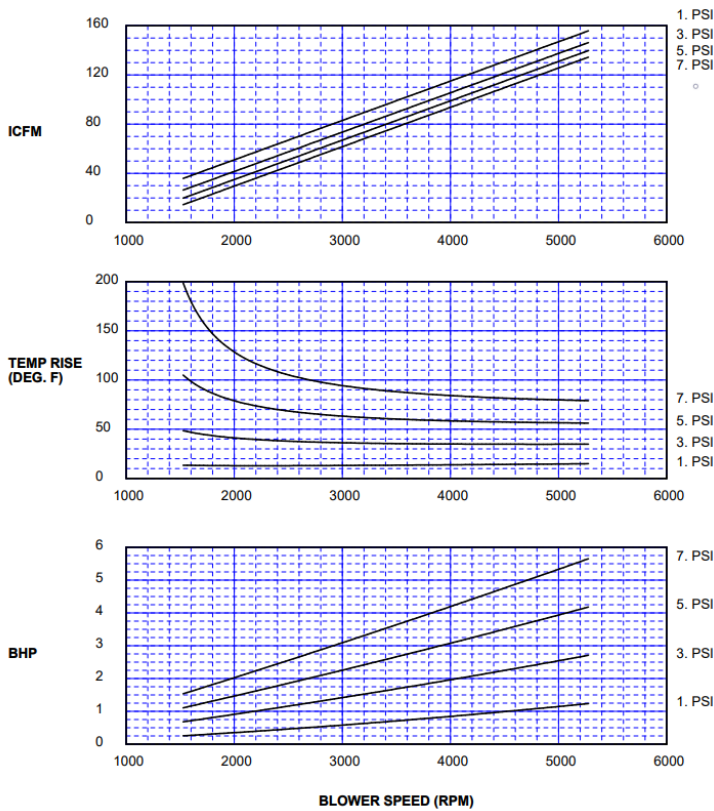
**Roots part #:** 6510302L, 6510302R, 6510302B, 6510302T

## Specifications

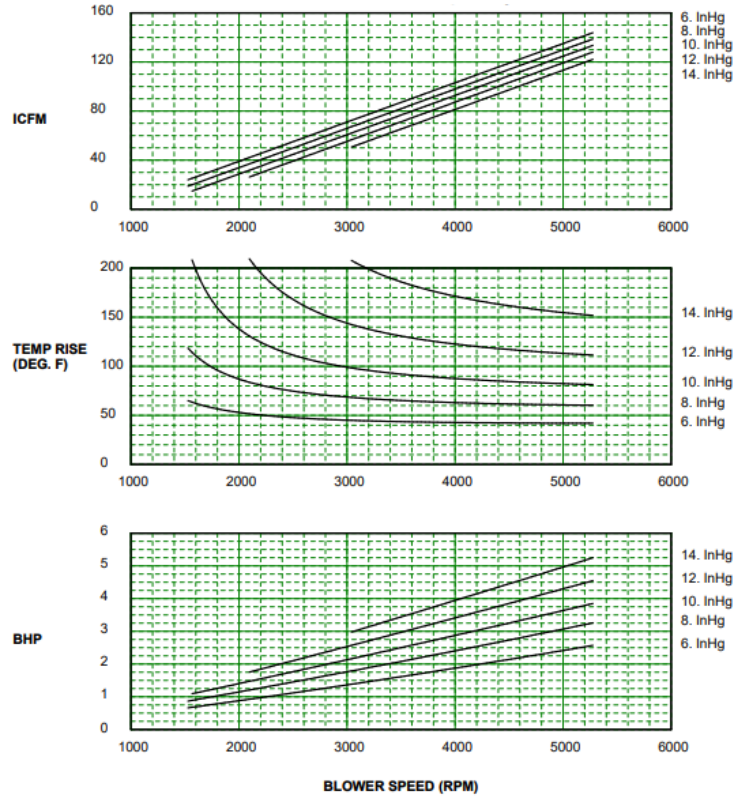
Max Flow:	150 ACFM	Connection Size:	2" FPT
Min Flow:	31 ACFM	Shaft Diameter:	0.625"
Max Pressure:	7 PSI	Weight:	43 lb
Max Vacuum:	15 "HG	Shipping Weight:	50 lb
Max RPM:	5275 RPM	Ship Dimensions:	18x16x12"
Min RPM:	1527 RPM	Drive End:	Grease, Synthetic
Max ΔT:	210°F	Gear End:	Oil (3.4oz vertical, 6.1oz horizontal)
CFR:	0.032		
1 PSI Slip:	405 RPM		



## Pressure Curve



## Vacuum Curve



## Oil recommendations

Ambient Temp	ISO Viscosity	pdblowers 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

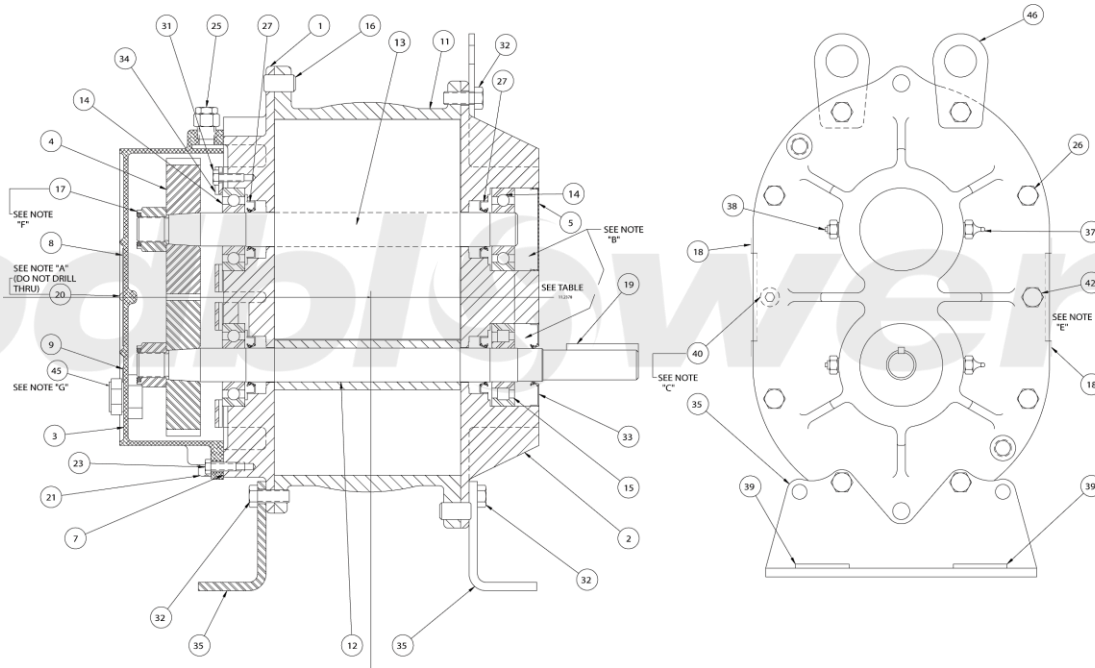
Grease is used in URAI blowers for lubrication on the drive end bearings. Blowers manufactured before 10/2016 typically use Shell Gadus grease (pdblowers part #: 54649). All blowers produced after 10/2016 use Roots synthetic grease (pdblowers part #: 25673).

Note: the two can NOT be mixed.

Speed In RPM	Operating Hours Per Day		
	8	16	24
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

# 24 URAI

## Part Diagram



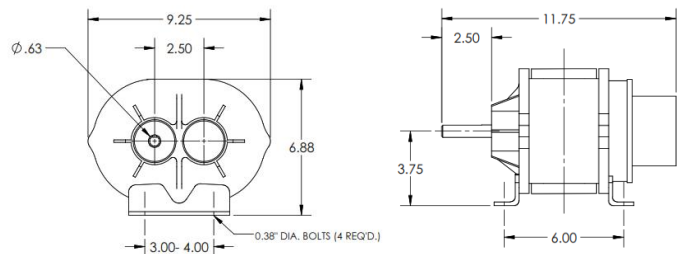
## Part Listing

Ref	Description	Qty	Mfg PN	pdb PN
001	HDPL GE 2-1/2" URAI	1	64899022	26404.01
002	HDPL DE 2-1/2" URAI	1	64898022	26404.01
003	GRBX,2-1/2" URAI	1	65331022	26404.03
004	GEAR,ASSY 2-1/2" URAI T/B	1	64905021	26404.04
005	PLUG,OPENING FOR 1.575" BORE	1	12957001	26404.05
007	GSKT,GRBX 2-1/2"URAI TS9003	1	62791021	26404.07
011	CYL 24 URAI, Cylinder	1	63691022	
012	Drive End Impeller	1	65007022	26404.13.24
013	Driven End Impeller	1	65007S22	26404.13.24
014	BRG,BALL FAG #6203	3	10987010	26404.14
015	BRG,ROLLER FAG #NJ203E	1	10222032	26404.15
016	PIN,DOWEL 1/2X1.00	4	10226001	26408.16
017	NUT,HEX ESNA 1/2-20	2	10319022	26404.17
019	KEY,SQ 3/16"X 3/16"X 1-3/4"	1	10825022	26404.19
020	SCR,SELF-TPNG RNDH 8-32X.25	1	10815002	26404.20
021	PLG,PIPE 1/4 STL	3	10008002	26408.21
023	SCR, Hex-SCREW	6	10011003	26404.23
025	PLUG,VENT 1/4"	1	13005001	26400.25
026	SCR, HEX-SCREW	16	10012001	26404.26
027	SEAL,LIP(VITON) 11/16" SFT	4	10005171	26404.27
031	SCR,CAP HEXH NYL 1/4-20X.50	4	11540003	26404.31
032	SCR,HEX- SCREW	6	12467009	26404.32
033	SEAL,LIP(BUNA-N) 5/8" SFT	1	12091008	26404.33
034	BRG,CLAMP PLT 2-1/2" URAI	2	65520020	26404.34
035	BLWR,FOOT 2-1/2" URAI	2	64998021	26404.35
037	FITTING,GREASE 1/8"MPT	2	10007001	26414.37
038	PLUG,VENT 1/8"	2	13002001	26400.38
039	WASHER, FLAT	4	10181003	26404.39
040	SCR, SCREW SOCKET	4	10285012	26404.40
046	URAI LIFTING, LUG	2	64361020	26414.42

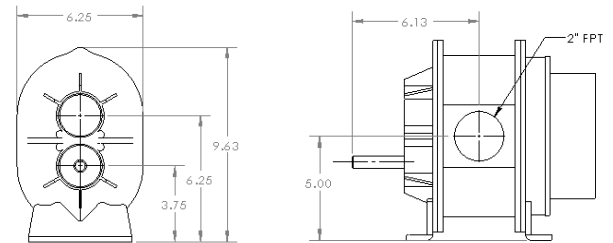
Standard Repair Kit (651020RK / 26404) includes blue highlighted items

Standard Repair Kit with Gears (651010RK / 26403) includes blue & green items

## Dimensional Drawings – Horizontal



## Dimensional Drawings – Vertical



## Clearances

Impeller/Impeller: 0.007-0.010"  
 Impeller End to Headplate  
 DE & GE: 0.003-0.007"  
 GE w/ Spring Installed: 0.003"  
 Impeller Tips to Cylinder:  
 Inlet & Discharge: 0.004-0.006"  
 Center: 0.002-0.003"

## Critical Dimensions

Impeller Width: 3.9903-3.9904"  
 Shaft Dia. at Bearing Bore:  
 1.5748-1.5753"  
 Bearing Bore Dia.: 0.6694-0.6698"

## 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