

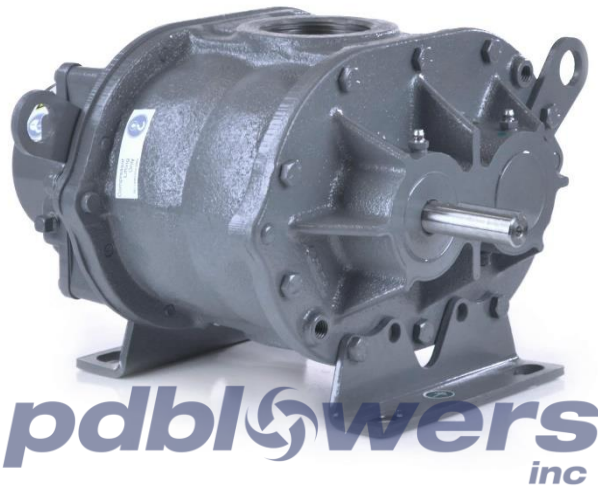
# 36 URAI

**pdbl**owers part #: 21016.C (LHC), 21017 (RHC), 21018 (BHC), 21019 (THC)

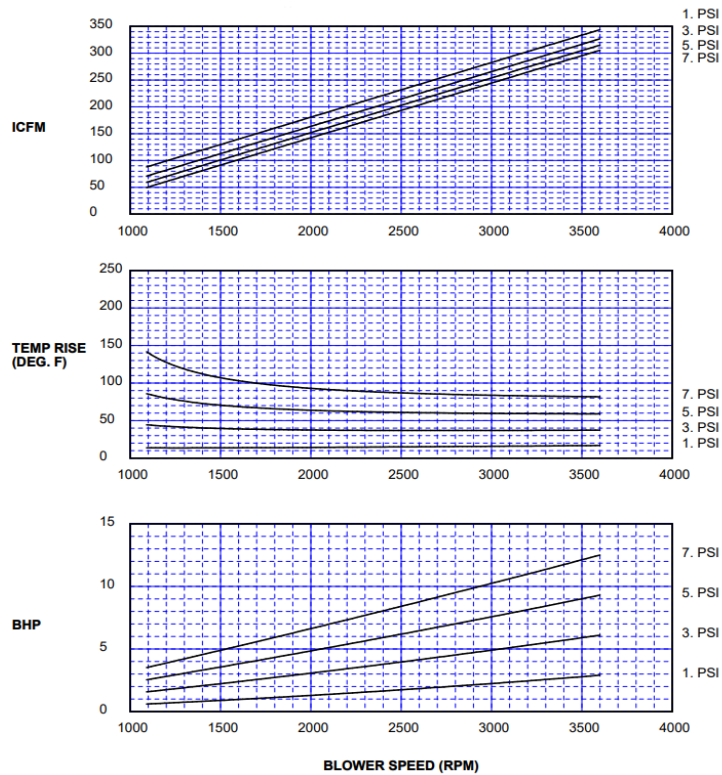
**Roots part #:** 6510602B, 6510602L, 6510602T, 6510602R

## Specifications

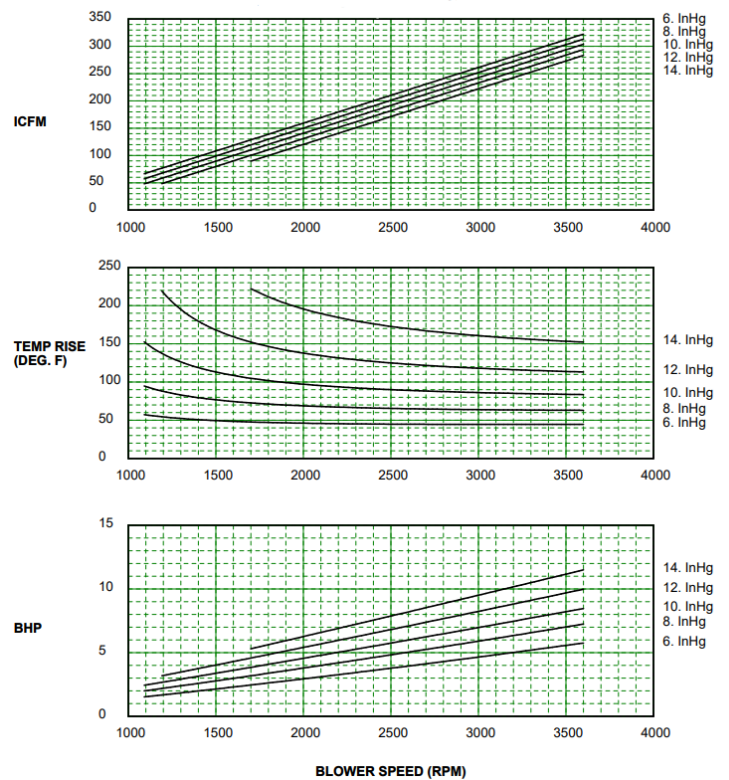
|               |          |                  |  |
|---------------|----------|------------------|--|
| Max Flow:     | 334 ACFM | Connection Size: | 2.5" FPT                                   |
| Min Flow:     | 78 ACFM  | Shaft Diameter:  | 0.750"                                     |
| Max Pressure: | 7 PSI    | Weight:          | 102 lb.                                    |
| Max Vacuum:   | 15" HG   | Shipping Weight: | 110 lb.                                    |
| Max RPM:      | 3600 RPM | Ship Dimensions: | 30x30x15"                                  |
| Min RPM:      | 1090 RPM | Drive End:       | Grease, Synthetic                          |
| Max ΔT:       | 225°F    | Gear End:        | Oil (8.5oz vertical,<br>10.5oz horizontal) |
| CFR:          | 0.102    |                  |  |
| 1 PSI Slip:   | 228 RPM  |                  |  |



## Pressure Curve



## Vacuum Curve



## Oil recommendations

| Ambient Temp              | ISO Viscosity | pdbl  |       |        |         |       |
|---------------------------|---------------|-------|-------|--------|---------|-------|
|                           |               | 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

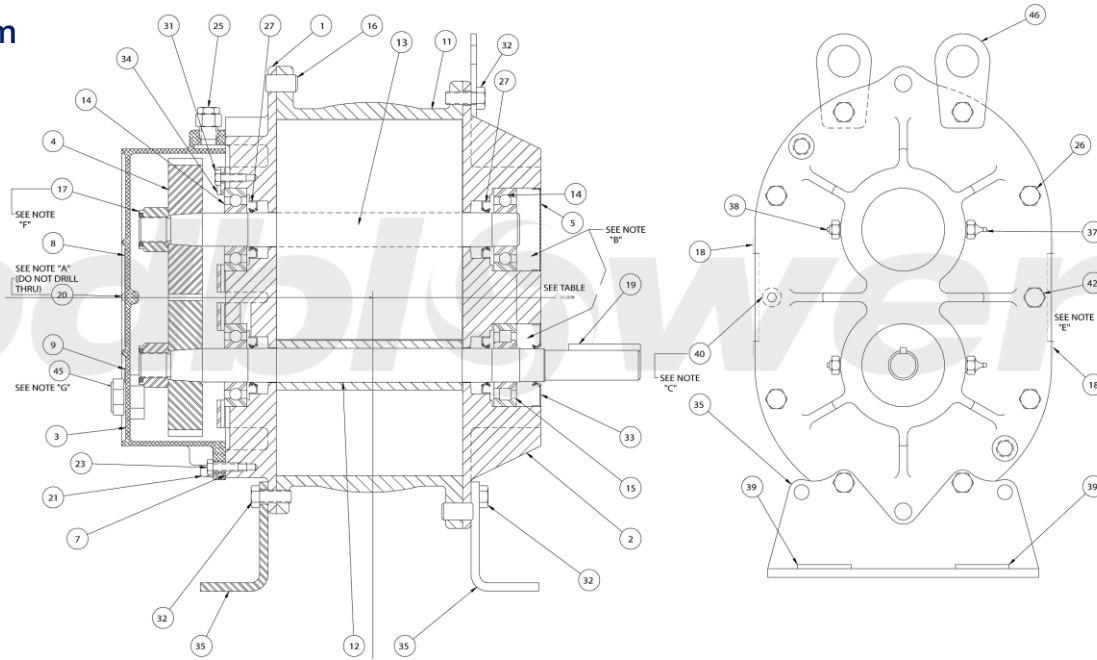
Grease is used for URAI blowers for lubrication on the drive end bearings. Blowers manufactured before 10/2016 typically use Shell Gadus grease (pdblowers part #: 54649). All blowers produced after 10/2016 use Roots synthetic grease (pdblowers part #: 25673).

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  |

# 36 URAI

## Part Diagram



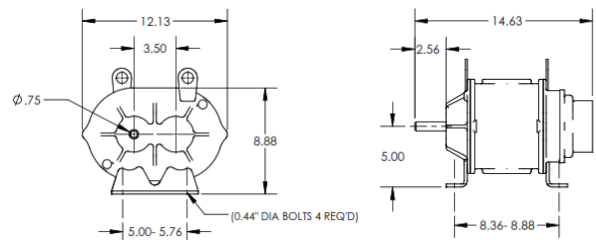
## Part Listing

| Ref  | Description                     | Qty | Mfg PN    | pdb PN      |
|------|---------------------------------|-----|-----------|-------------|
| 001  | Headplate Gear End 3-1/2" URAI  | 1   | 64860022  | 26406.01    |
| 002  | Headplate Drive End 3-1/2" URAI | 1   | 64855022  | 26406.02    |
| 003  | GEARBOX, 3-1/2" URAI            | 1   | 65332022  | 26406.03    |
| 004  | TIMING GEARS, 3-1/2" URAI T/F   | 1   | 63889021  | 26406.04    |
| 005  | PLUG, Opening for 2.0474" BORE  | 1   | 12957003  | 26406.05    |
| 007  | GASKET, GEARBOX, TS9003         | 1   | 62752021  | 26406.07    |
| 008  | NPL BLOWER                      | 1   | T20034001 | 26400.08    |
| 009  | NPL LUBE URAI UNITS             | 1   | 62043020  | 26414.09    |
| 011  | CYL 36 URAI, Cylinder           | 1   | 38993022  |             |
| 012  | DRIVE END IMPELLER              | 1   | 64865022  | 26406.12.36 |
| 013  | DRIVEN END IMPELLER             | 1   | 64865522  | 26406.13.36 |
| 014  | BEARING, BALL #6304             | 3   | 10987002  | 26406.14    |
| 015  | BEARING, ROLLER #NJ304E         | 1   | 10222035  | 26406.15    |
| 016  | PIN,DOWEL 1/2X1.00              | 4   | 10226001  | 26406.16    |
| 017  | NUT,HEX ESNA 5/8-18             | 2   | 10319007  | 26406.17    |
| 019  | KEY,SQ 3/16"X 3/16"X 1-5/8"     | 1   | 10825005  | 26406.19    |
| 020  | SCR,SELF-TPNG RNDH 8-32X.25     | 1   | 10815002  | 26406.20    |
| 021  | PLG,PIPE 1/4 STL                | 3   | 10008002  | 26400.21    |
| 025  | PLUG,VENT 1/4"                  | 1   | 13005001  | 26400.25    |
| 027  | SEAL,LIP(VITON) 13/16"SFT       | 4   | 10005157  | 26406.27    |
| 031  | SCR,CAP HEXH NYL 1/4-20X.50     | 4   | 11540003  | 26406.31    |
| 033  | SEAL,LIP (BUNA-N) 3/4" SHAFT    | 1   | 10005172  | 26406.33    |
| 033A | SEAL DE LIP BUNA-N 3/4" (DSL)   | 1   | T20082001 | 26406.33A   |
| 034  | PLT,CLAMP 3-1/2" UNIT           | 2   | 64449020  | 26406.34    |
| 035  | BLWR,FOOT 3-1/2 URAI            | 2   | 64999021  | 26406.35    |
| 037  | FITTING,GREASE 1/8"MPT          | 2   | 10007001  | 26406.37    |
| 038  | PLUG,VENT 1/8"                  | 2   | 13002001  | 26400.38    |
| 039  | WSHR,OBLONG 1 1/2 SLOT          | 4   | 12892001  | 26406.39    |
| 046  | LIFTING, LUG 6" URAI 400 SERIES | 2   | 64361020  | 26312.63    |

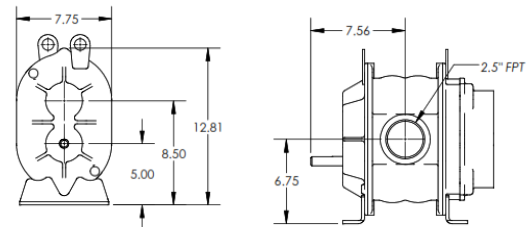
Standard Repair Kit (651050RK / 26406) includes blue highlighted items

Standard Repair Kit with Gears (651040RK/ 26405) includes blue & green items

## Dimensional Drawings – Horizontal



## Dimensional Drawings – Vertical



## Clearances

Impeller/Impeller: 0.010-0.012"  
 Impeller End to Headplate  
 DE & GE: 0.003-0.008"  
 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: 5.675-5.676"  
 Shaft Dia. at Bearing Bore:  
 0.7875-0.7879"  
 Bearing Bore Dia.: 2.0472-2.0473"

## 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