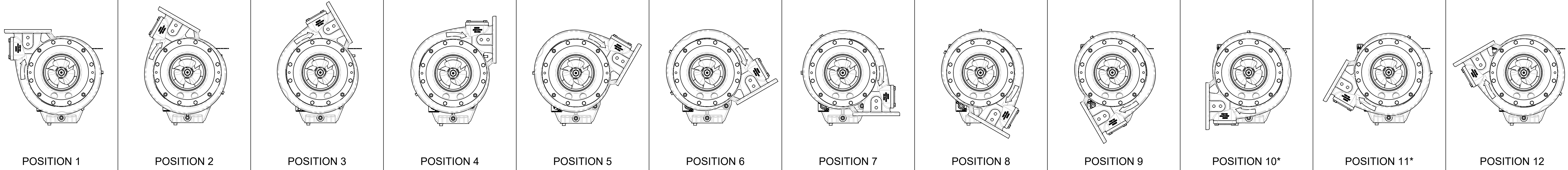


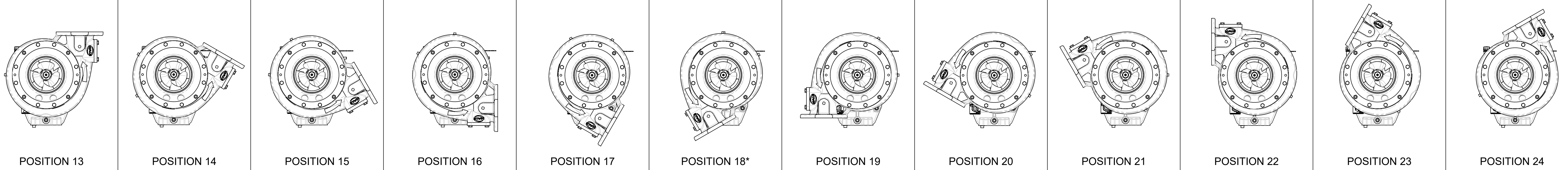




## ENGINE ROTATION VOLUTE POSITION

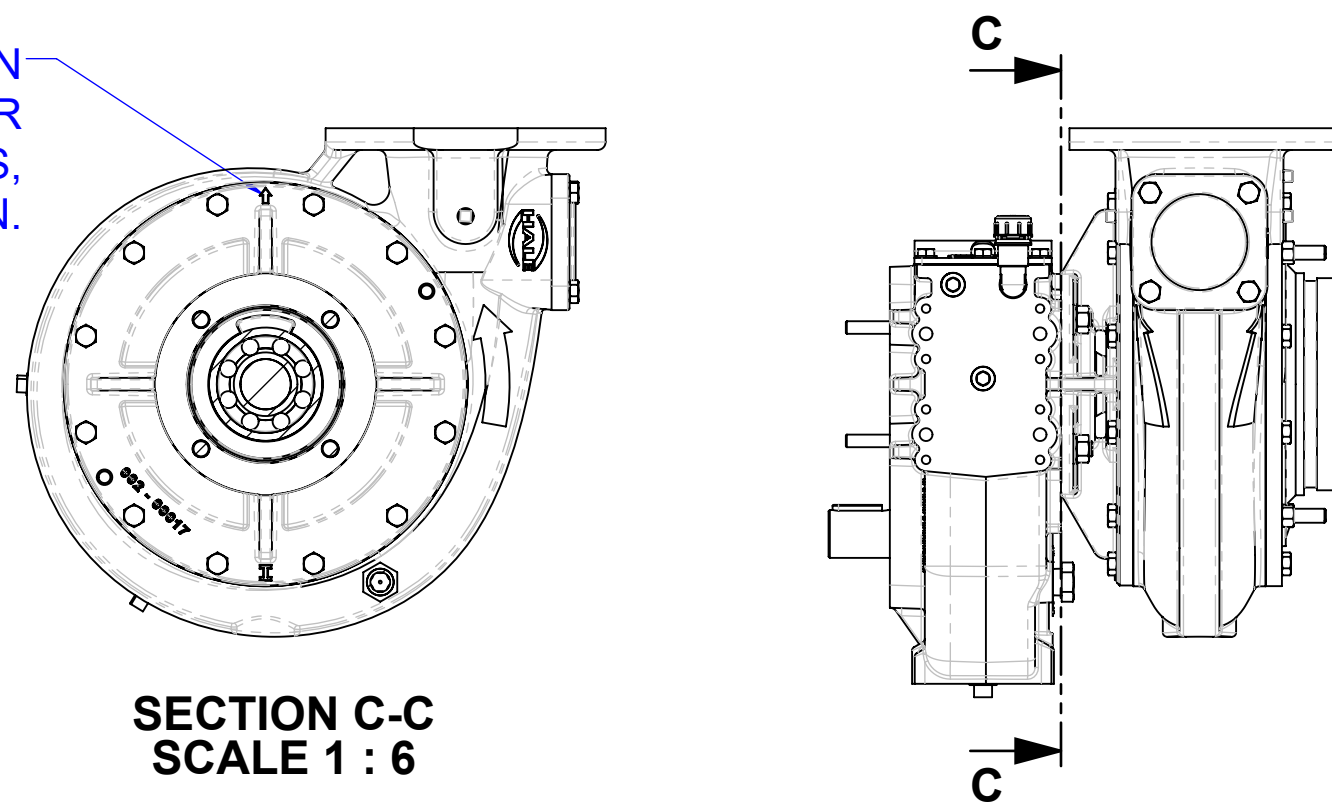


## OPPOSITE ENGINE ROTATION VOLUTE POSITION

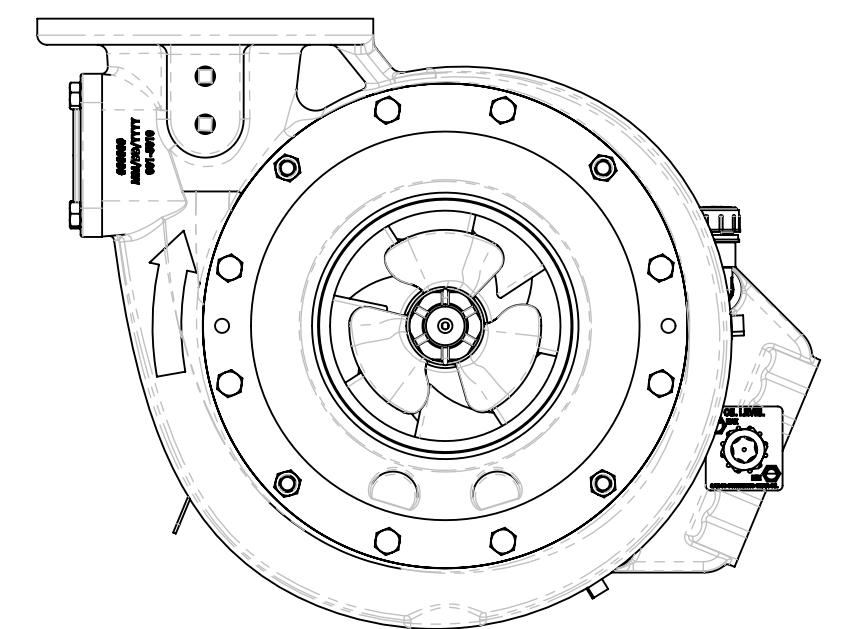
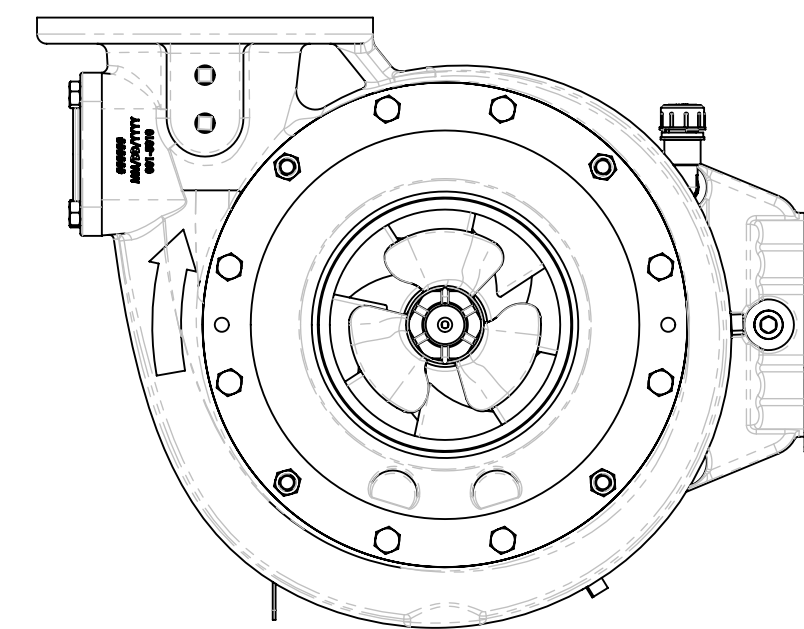
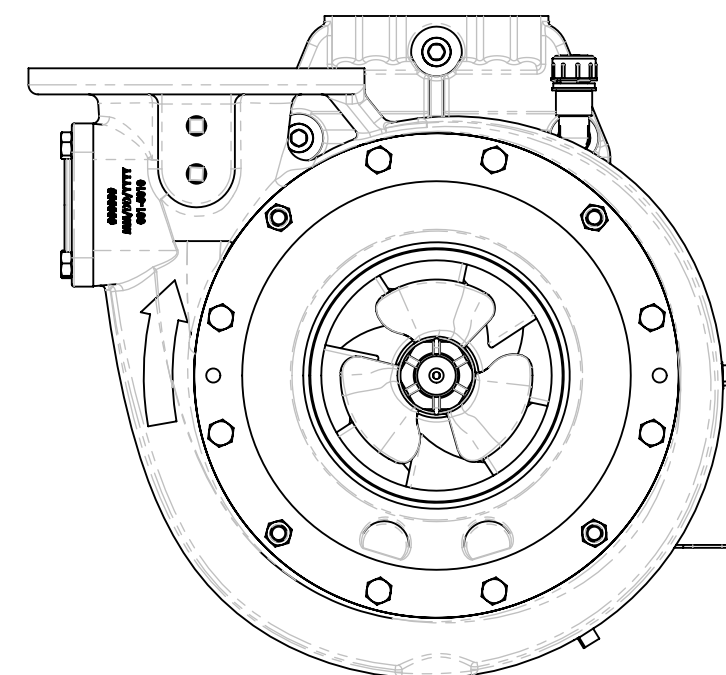
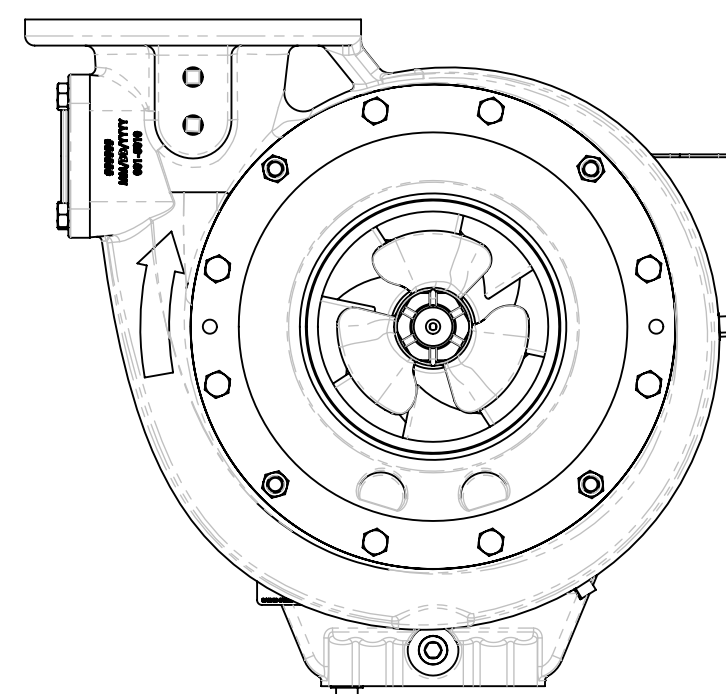
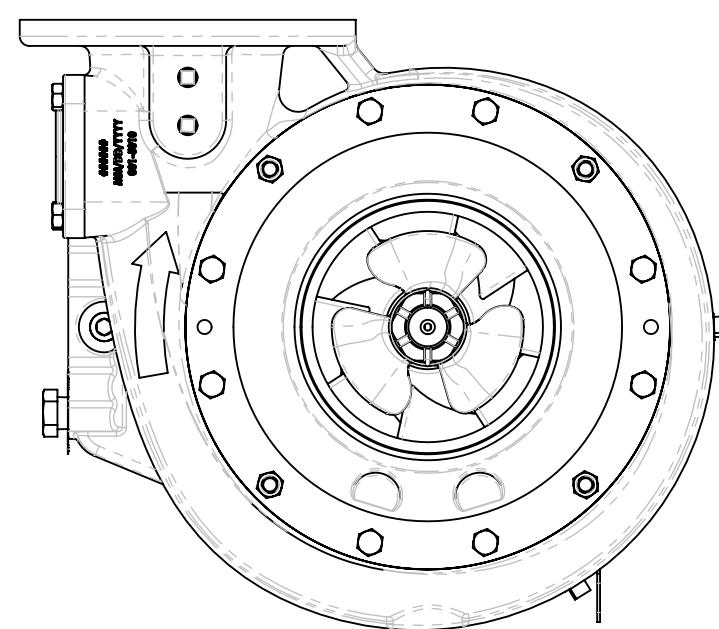
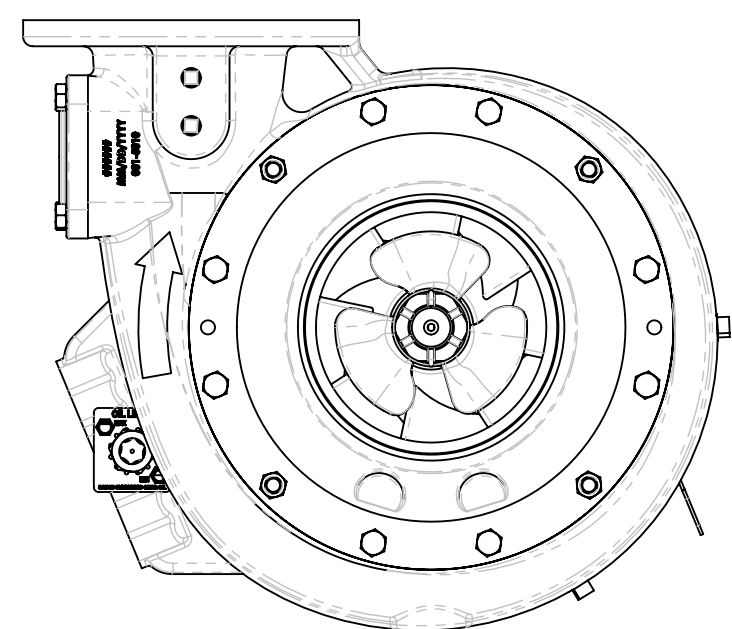
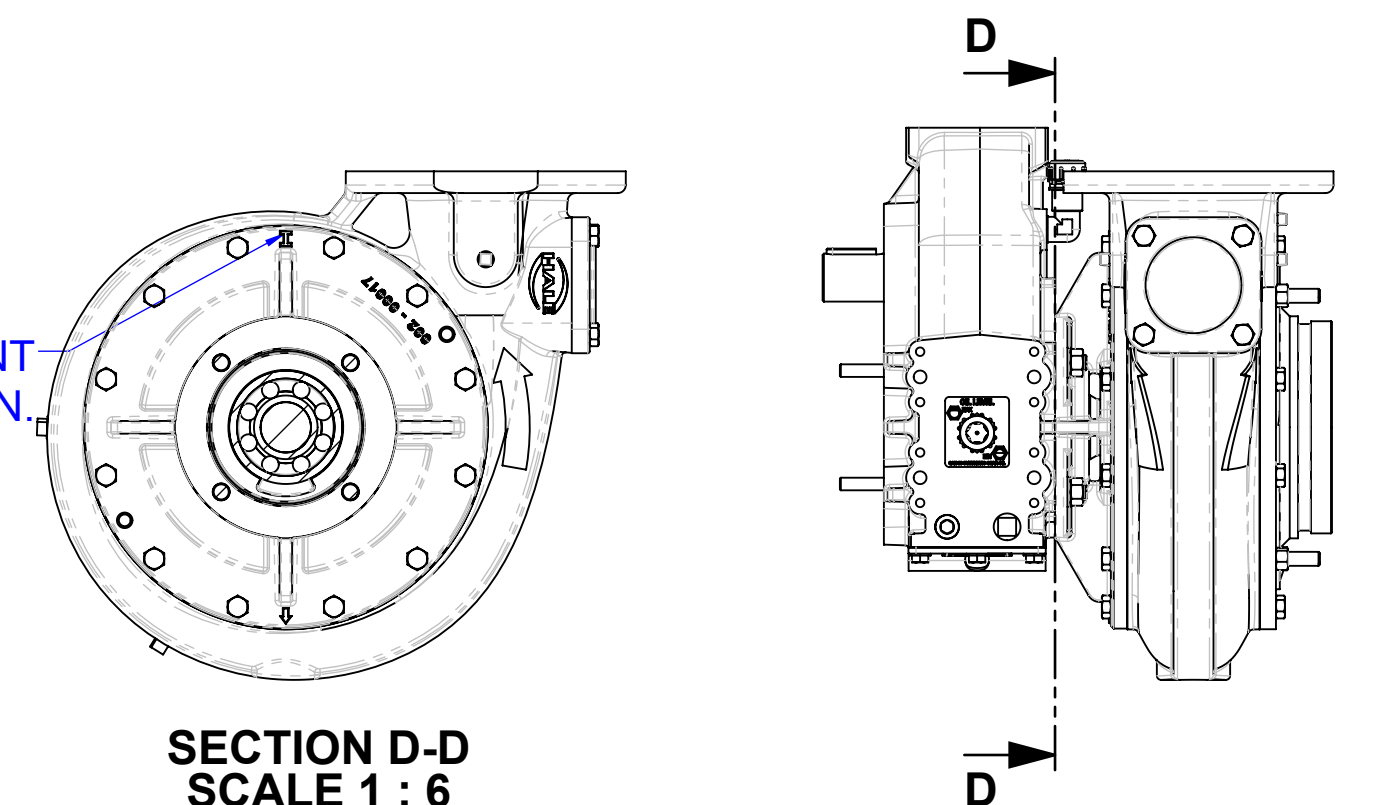


## GEARBOX POSITIONS

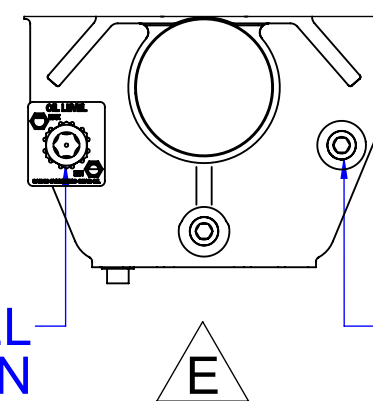
THE CAST "ARROW" ON  
PUMP HEAD TO POINT UP FOR  
ALL GEARBOX POSITIONS,  
EXCEPT INVERTED POSITION.



THE CAST "I" ON PUMP HEAD TO POINT  
UP FOR INVERTED GEARBOX POSITION.



## GEARBOX AND DISCHARGE POSITIONS



\*FOR SPECIFIC VOLUTE POSITIONS, OIL  
LEVEL INDICATOR TO BE LOCATED HERE

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X:  $\pm 0.04$   
X.X:  $\pm 0.02$   
X.XX:  $\pm 0.01$   
X.XXX:  $\pm 0.005$   
ANGLES:  $\pm 0.25^\circ$   
SURFACE TEXTURE IN  $\mu\text{m Ra}$   
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX

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FSG OF  
**IDEX**  
IDEX CORPORATION

MATERIAL

MADE FROM

FINISH

PROJECT

**HALE** **GODIVA**  **Class 1**

|  | TITLE |
|--|-------|
|--|-------|

PUMP ASSEMBLY, RSD FLEX SERIES

[illegible]

TAM

APPROVED

DLM

|      |  |
|------|--|
| DATE |  |
|------|--|

01DEC20

SIZE

D

SCALE  
1:0

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DRAWING NUMBER

ESG-PI -01487

REV

# E

SHEET  
OF 6

OF 6

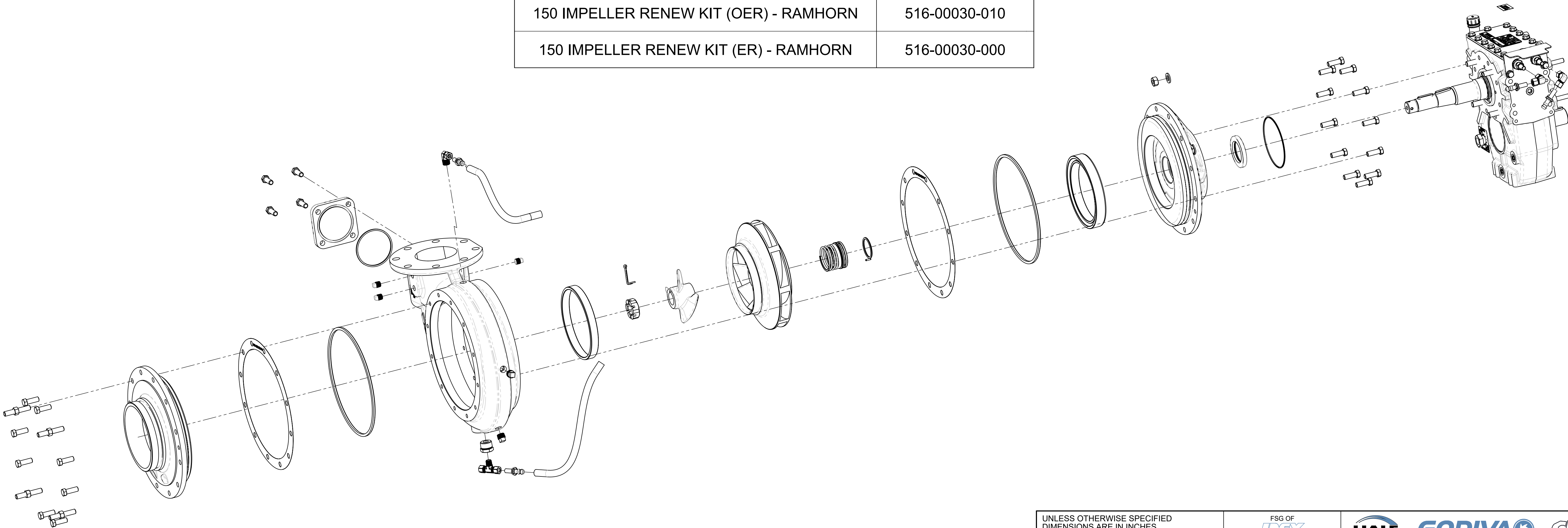


## NOTES:

1. LEVEL 1 REPAIR KIT PROVIDES EVERYTHING NEEDED TO CHANGE SEALS.
2. LEVEL 2 REPAIR KIT PROVIDES LEVEL 1 AND ITEMS NEEDED FOR BEARINGS.
3. LEVEL 3 REPAIR KIT PROVIDES LEVEL 1 & 2 AND ITEMS TO REPLACE GEARS.
4. IMPELLER RENEW KIT PROVIDES LEVEL 1 REPAIR KIT AND ITEMS TO REPLACE IMPELLER.
5. REFER TO TECHNICAL MANUAL (FSG-MNL-00184) AND "MAXIMUM TORQUE VALUES" AND "THREAD LOCKS & SEALANTS" TABLES ON SHEET 1 WHEN INSTALLING THREADED COMPONENTS, OIL SEALS/CAPS, OR CLEARANCE RINGS.

| REPAIR KIT PART NUMBERS |            |                        |                        |                        |
|-------------------------|------------|------------------------|------------------------|------------------------|
| RATIO NAME              | GEAR RATIO | LEVEL 1 REPAIR KIT P/N | LEVEL 2 REPAIR KIT P/N | LEVEL 3 REPAIR KIT P/N |
| -29F                    | 2.91       | 546-00068-100          | 546-00068-200          | 546-00068-329          |
| -26F                    | 2.60       |                        |                        | 546-00068-326          |
| -23F                    | 2.33       |                        |                        | 546-00068-323          |
| -19F                    | 1.90       |                        |                        | 546-00068-319          |
| -16F                    | 1.64       |                        |                        | 546-00068-316          |
| -13F                    | 1.31       |                        |                        | 546-00068-313          |
| -11F                    | 1.14       |                        |                        | 546-00068-311          |

| IMPELLER RENEW KIT PART NUMBERS        |               |
|----------------------------------------|---------------|
| DESCRIPTION                            | PART NUMBER   |
| 75-125 IMPELLER RENEW KIT (OER)        | 516-00028-010 |
| 75-125 IMPELLER RENEW KIT (ER)         | 516-00028-000 |
| 150 IMPELLER RENEW KIT (OER) - 6" VIC  | 516-00029-010 |
| 150 IMPELLER RENEW KIT (ER) - 6" VIC   | 516-00029-000 |
| 150 IMPELLER RENEW KIT (OER) - RAMHORN | 516-00030-010 |
| 150 IMPELLER RENEW KIT (ER) - RAMHORN  | 516-00030-000 |



# REPAIR PART KITS IDENTIFICATION

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X:  $\pm 0.04$   
X.X:  $\pm 0.02$   
X.XX:  $\pm 0.01$   
X.XXX:  $\pm 0.005$   
ANGLES:  $\pm 0.25^\circ$   
SURFACE TEXTURE IN  $\mu\text{m Ra}$   
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX

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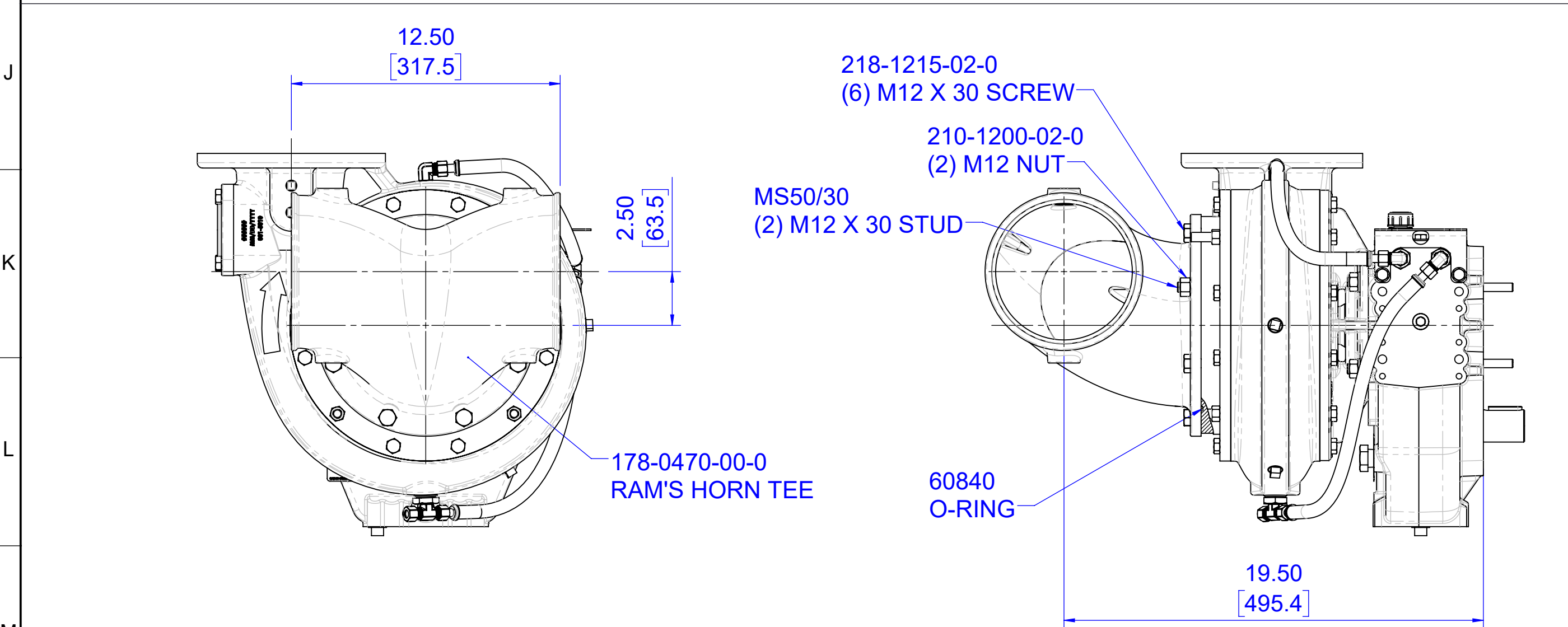
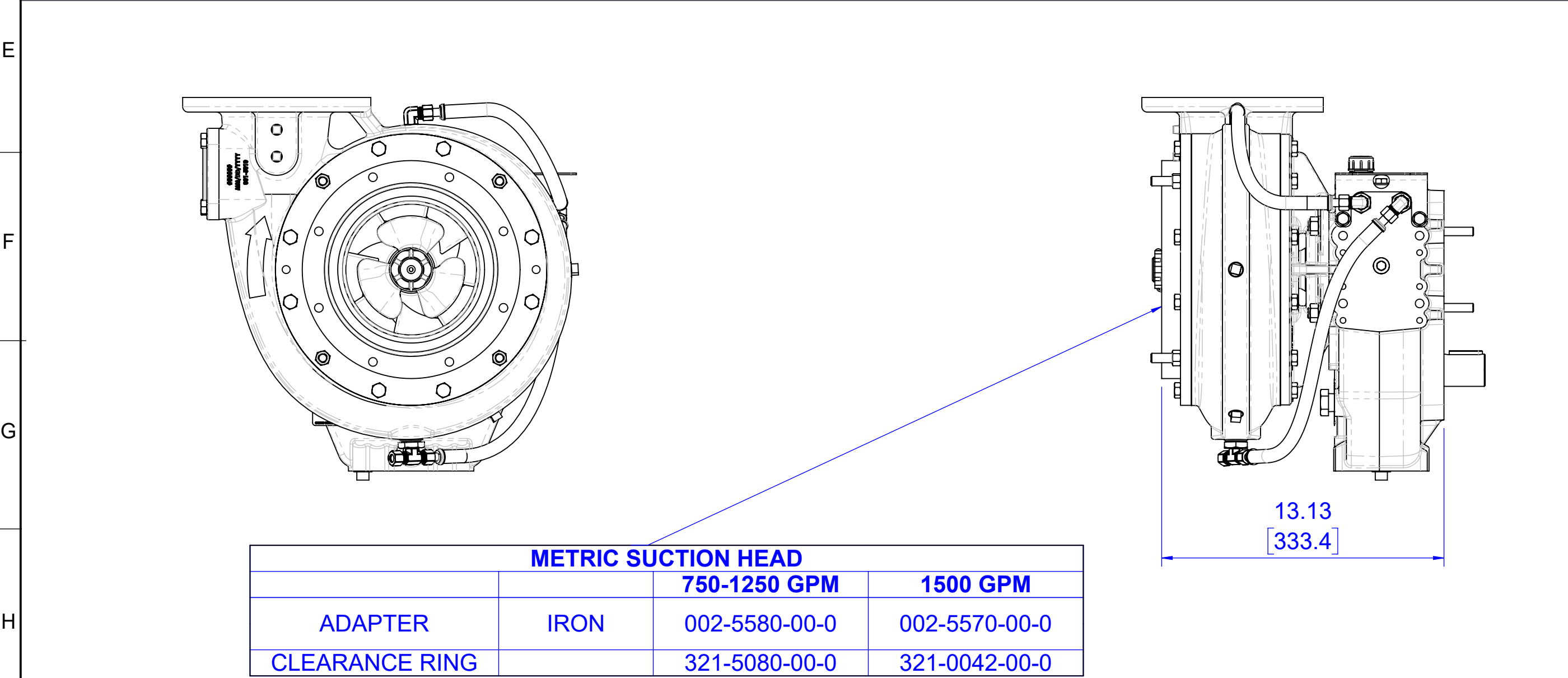
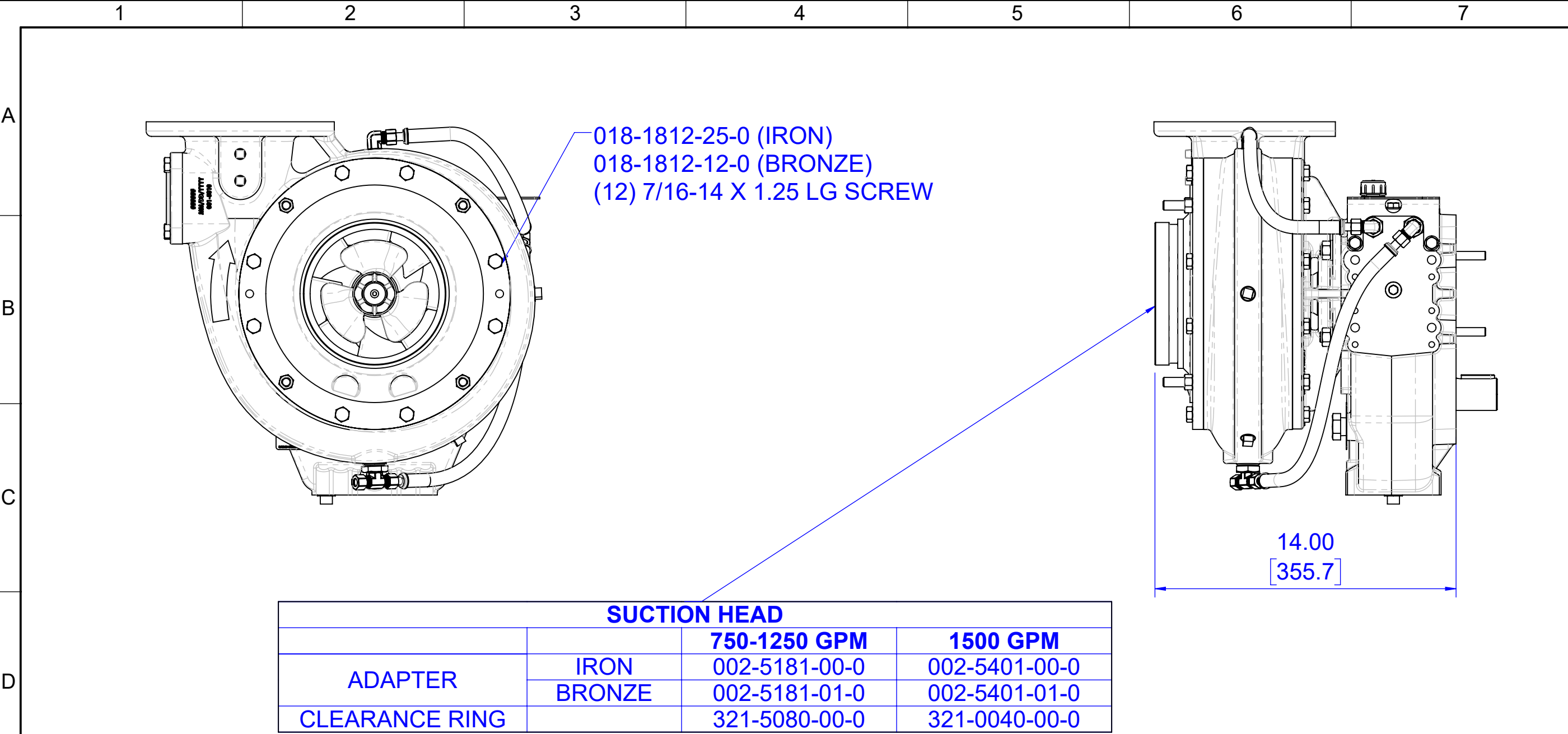

## PUMP ASSEMBLY, RSD FLEX SERIES

|          |           |                  |                |                 |
|----------|-----------|------------------|----------------|-----------------|
| DRAWN    | TAM       | SIZE<br><b>D</b> | DRAWING NUMBER | REV<br><b>E</b> |
| APPROVED | DLM       | SCALE<br>1:5     | FSG-PL-01487   | SHEET<br>3 OF 6 |
| DATE     | 01DEC2017 |                  |                |                 |









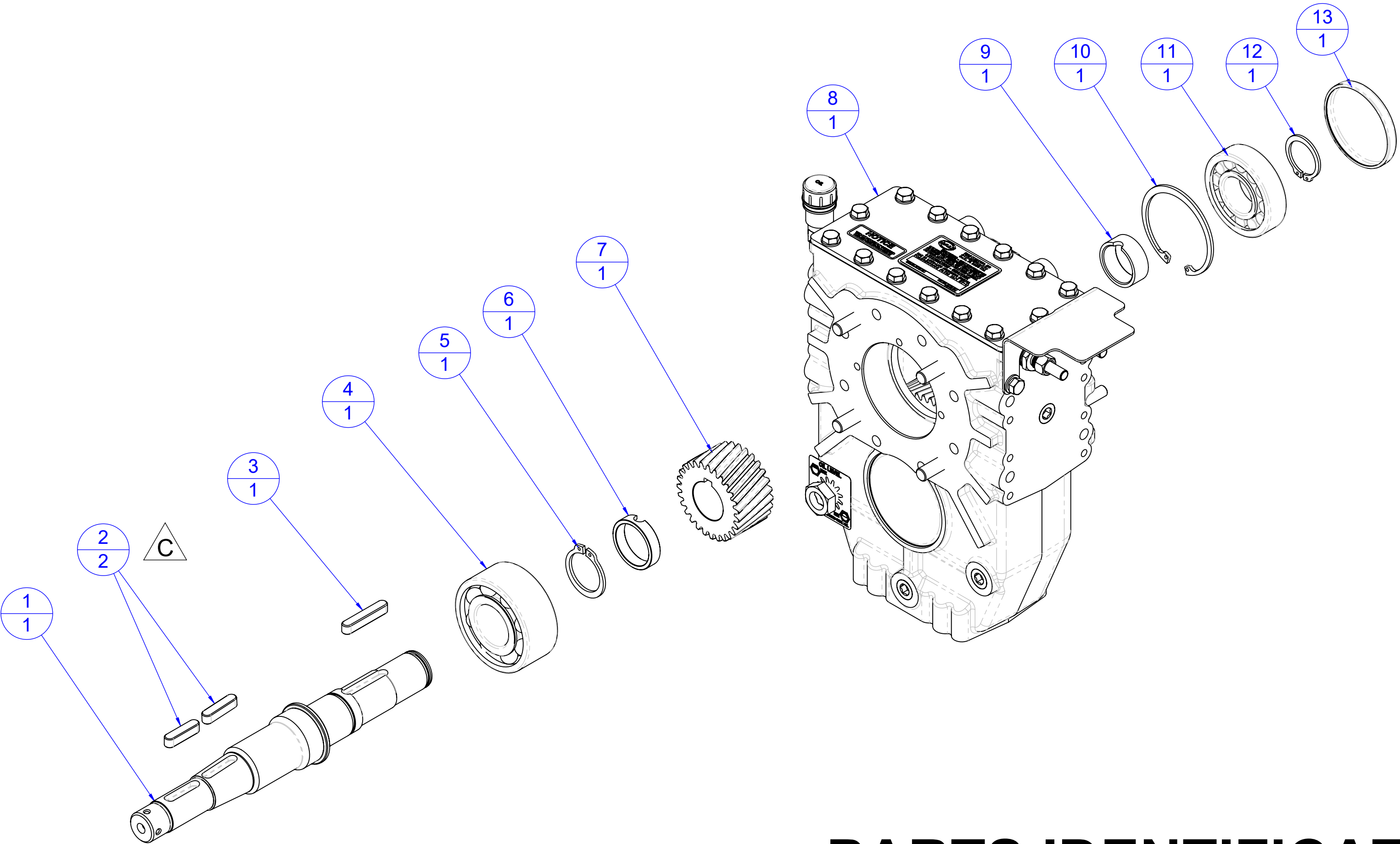
SUCTION POSITIONS

IF IN DOUBT ASK

| ITEM NO. | PART NUMBER   | DESCRIPTION                               | QTY. |
|----------|---------------|-------------------------------------------|------|
| 1        | 037-00026-000 | SHAFT, PUMP, RSD-F                        | 1    |
| 2        | 017-0110-00-0 | KEY                                       | 2    |
| 3        | 017-00015-000 | KEY, 3/8 x 3/8 x 2.07, RE                 | 1    |
| 4        | 250-00010     | BEARING, 5308CS, ANGULAR CONTACT, DBL ROW | 1    |
| 5        | 077-1560-05-0 | RETAINING RING                            | 1    |
| 6        | 159-00059-000 | SPACER, GEAR                              | 1    |
| 7        | SEE TABLE D   | GEAR, PUMP                                | 1    |
| 8        | FSG-PL-01481  | HALE FLEX SERIES GEARBOX                  | 1    |
| 9        | 159-2250-00-0 | SPACER, GEARBOX, BORG                     | 1    |
| 10       | 077-3150-00-0 | RETAINING RING                            | 1    |
| 11       | 250-8307-00-0 | ROLLER BEARING (SKF RN307ECP)             | 1    |
| 12       | 077-1370-05-0 | RETAINING RING                            | 1    |
| 13       | 217-1300-00-0 | ENDCAP, 80X10EC                           | 1    |

| TABLE "D"<br>DRIVE GEAR PART NUMBER |            |                             |                              |
|-------------------------------------|------------|-----------------------------|------------------------------|
| RATIO NAME                          | GEAR RATIO | DRIVE GEAR P/N (GEAR TEETH) | MATING GEAR P/N (GEAR TEETH) |
| -29F                                | 2.91       | 031-2260-00-0 (67T)         | 031-2190-00-0 (23T)          |
| -26F                                | 2.60       | 031-2270-00-0 (65T)         | 031-2200-00-0 (25T)          |
| -23F                                | 2.33       | 031-2280-00-0 (63T)         | 031-2210-00-0 (27T)          |
| -19F                                | 1.90       | 031-2290-00-0 (59T)         | 031-2220-00-0 (31T)          |
| -16F                                | 1.64       | 031-2300-00-0 (56T)         | 031-2230-00-0 (34T)          |
| -13F                                | 1.31       | 031-2310-00-0 (51T)         | 031-2240-00-0 (39T)          |
| -11F                                | 1.14       | 031-2320-00-0 (48T)         | 031-2250-00-0 (42T)          |

- NOTES:
- REFER TO TECHNICAL MANUAL (FSG-MNL-00184) AND "MAXIMUM TORQUE VALUES" AND "THREAD LOCKS & SEALANTS" TABLES ON SHEET 1 WHEN INSTALLING THREADED COMPONENTS OR OIL SEALS/CAPS.



PARTS IDENTIFICATION  
PUMP SHAFT GROUP

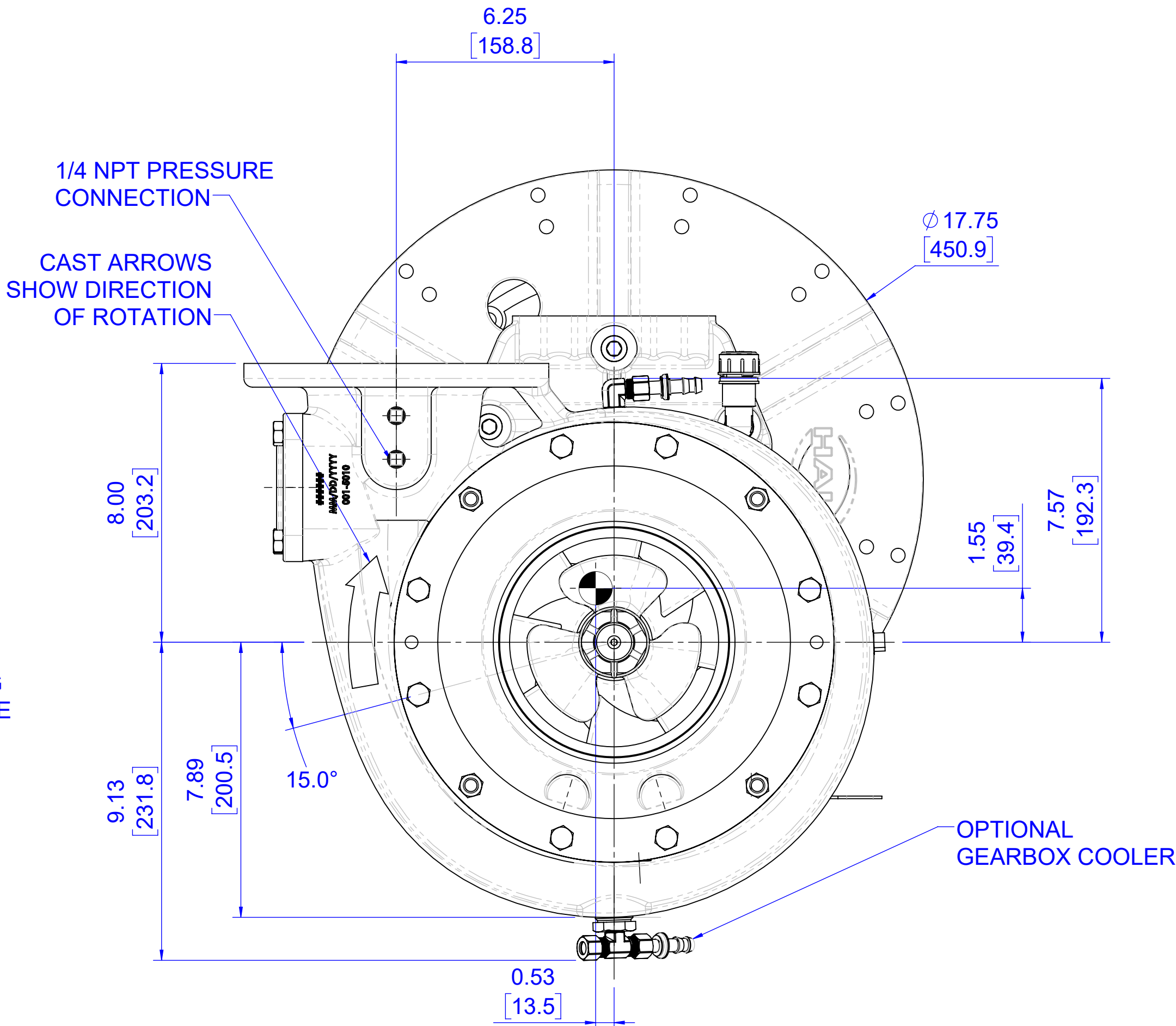
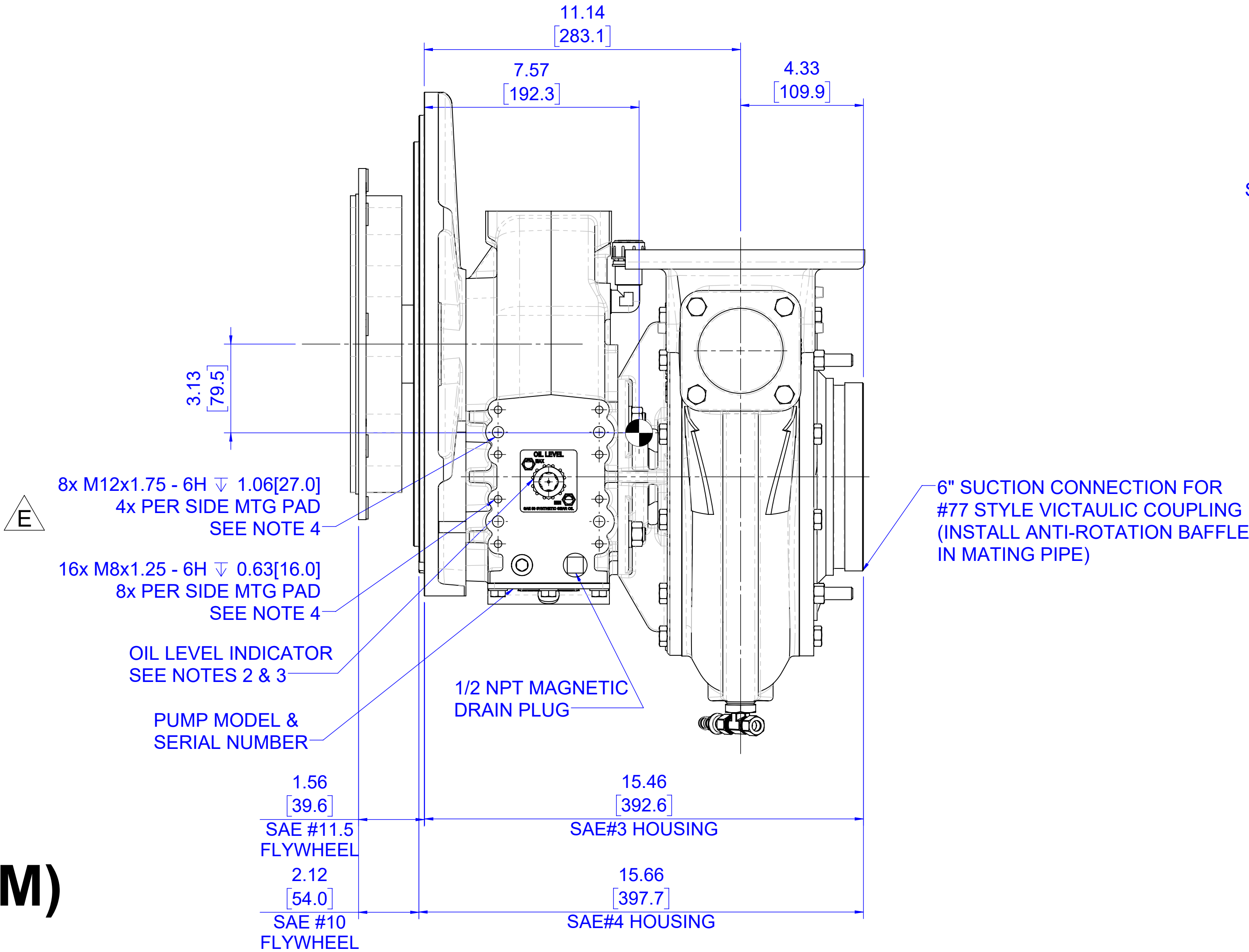
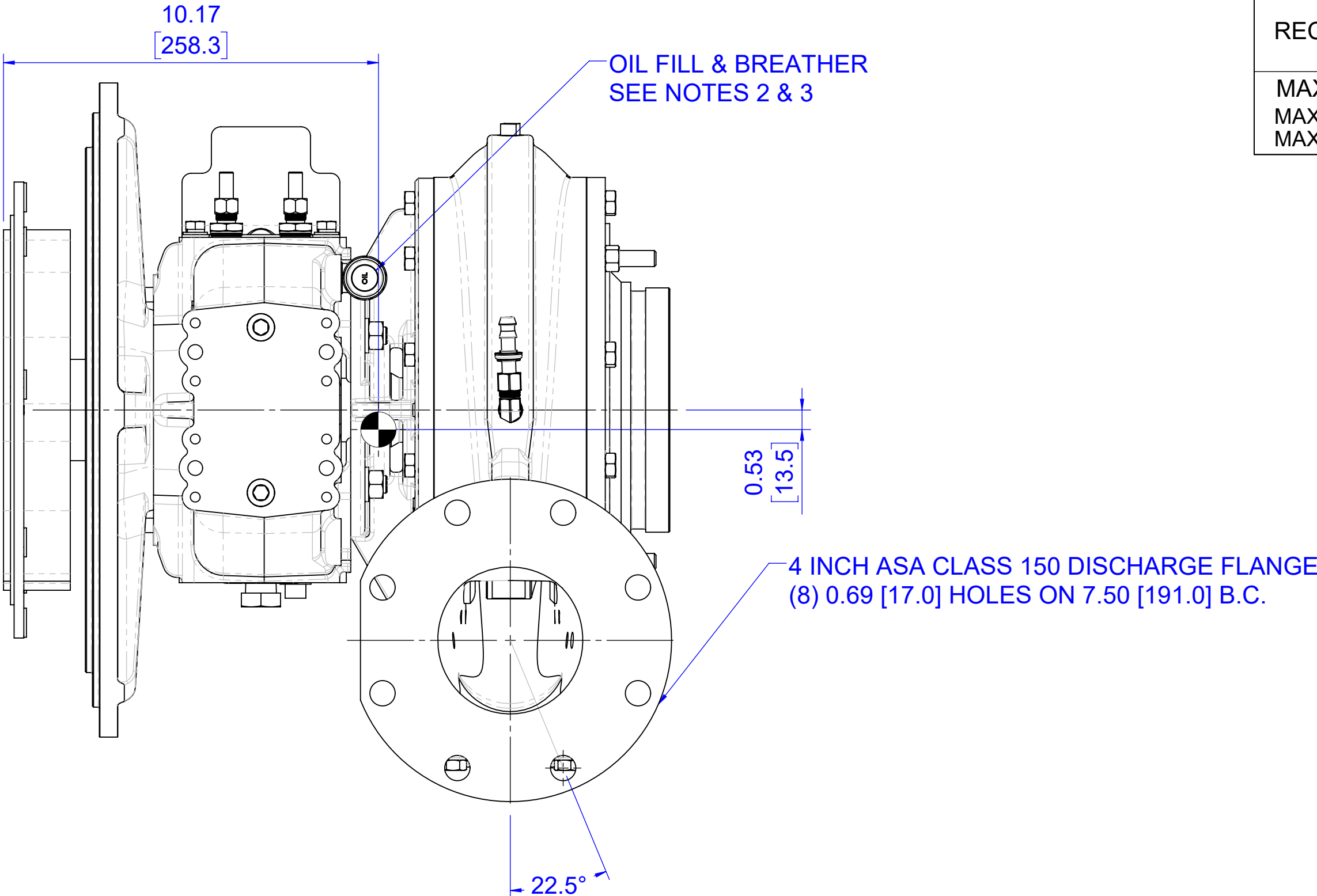
|                                                                                                                                                                                                                                                    |  |                                           |  |                                                                                    |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------|--|------------------------------------------------------------------------------------|--|
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCE FOR INCHES DIMENSIONS:<br>X: ±0.04<br>X.X: ±0.02<br>X.XX: ±0.01<br>X.XXX: ±0.005<br>ANGLES: ±0.25°<br>SURFACE TEXTURE IN µm Ra<br>REMOVE ALL BURRS AND SHARP<br>EDGES, 0.01MAX |  | FSG OF<br><b>IDEX</b><br>IDEX CORPORATION |  | TITLE<br><b>HALE</b> <b>GODIVA</b> <b>Class1</b><br>PUMP ASSEMBLY, RSD FLEX SERIES |  |
| MATERIAL                                                                                                                                                                                                                                           |  | MADE FROM                                 |  | FINISH                                                                             |  |
| PROJECT                                                                                                                                                                                                                                            |  | DATE                                      |  | APPROVED                                                                           |  |
| COPYRIGHT ©<br>NOT TO BE REPRODUCED OR USED TO<br>MAKE OTHER DRAWINGS OR MACHINERY                                                                                                                                                                 |  | 01DEC2017                                 |  | DLM                                                                                |  |
| SIZE<br><b>D</b><br>SCALE<br>1:5                                                                                                                                                                                                                   |  | DRAWING NUMBER<br><b>FSG-PL-01487</b>     |  | REV<br><b>E</b><br>SHEET<br>5 OF 6                                                 |  |



# HALE RSD FLEX SERIES PUMP

GEARBOX POSITION - INVERTED, DISCHARGE POSITION - 1,  
ENGINE ROTATION AND OPTIONAL GEARBOX COOLER SHOWN

NOTES:  
1. REFER TO "MAXIMUM TORQUE VALUES" AND "THREAD LOCKS & SEALANTS" TABLES ON SHEET 1 WHEN INSTALLING THREADED COMPONENTS.



## ENGINE MOUNT (M) INSTALLATION

|                                                                                                                                                                             |  |                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------|
| MAXIMUM INPUT RPM                                                                                                                                                           |  | PROJECTION:                                                                              |
| WARNING<br>EXCEEDING THESE LIMITS OR FAILURE TO FOLLOW THE RECOMMENDATIONS OUTLINED ON THIS DRAWING COULD DAMAGE THE PUMP AND RESULT IN PERSONAL INJURY.                    |  | PUMP WEIGHT (DRY):<br>IRON VERSION: 250 LBS [113 kg]<br>BRONZE VERSION: 268 LBS [122 kg] |
| MAXIMUM ALLOWABLE ENGINE SPEED: 4000 RPM (DRIVE CPLNG)<br>MAXIMUM ALLOWABLE HYDRODYNAMIC PRESSURE: 400 PSIG; **340 PSIG<br>MAXIMUM ALLOWABLE HYDROSTATIC PRESSURE: 500 PSIG |  | REPRESENTS CENTER OF GRAVITY                                                             |

|                                                                                                                                                                                                                                                                               |  |                                         |  |              |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------|--|--------------|--------------------------------|
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCE FOR INCHES DIMENSIONS:<br>X: $\pm$ 0.04<br>X.X: $\pm$ 0.02<br>X.XX: $\pm$ 0.01<br>X.XXX: $\pm$ 0.005<br>ANGLES: $\pm$ 0.25°<br>SURFACE TEXTURE IN $\mu$ m Ra<br>REMOVE ALL BURRS AND SHARP EDGES, 0.01MAX |  | FSG OF<br>                              |  |              |                                |
| MATERIAL                                                                                                                                                                                                                                                                      |  | TITLE<br>PUMP ASSEMBLY, RSD FLEX SERIES |  |              |                                |
| MADE FROM                                                                                                                                                                                                                                                                     |  | DRAWN<br>TAM                            |  |              |                                |
| FINISH                                                                                                                                                                                                                                                                        |  | APPROVED<br>DLM                         |  | SIZE<br>D    | DRAWING NUMBER<br>FSG-PL-01487 |
| PROJECT                                                                                                                                                                                                                                                                       |  | DATE<br>01DEC2017                       |  | SCALE<br>1:3 | REV<br>E<br>SHEET<br>6 OF 6    |