

## TECHNICAL DATA SHEET FORM TDS-124 ROTARY GEAR POSITIVE DISPLACEMENT PUMPS PAGE 1 OF 1 SERIES 124 - HEAVY DUTY PUMPS ISSUE 1/1/2017



THE RUGGED, YET SIMPLE, DESIGN OF THE 124 SERIES PUMPS ASSURES LONG LIFE AND TROUBLE FREE OPERATION IN NORMAL-DUTY INSTALLATIONS AND OUTSTANDING PERFORMANCE WHEN HANDLING LIQUIDS AT GREATER PRESSURES.

THEY ARE DESIGNED TO WORK EQUALLY WELL IN BOTH DIRECTIONS AND POSSESS EXCELLENT VACUUM DEVELOPING CHARACTERISTICS.

THIS SERIES OF PUMPS PROVIDES A CONTINUOUS AND STEADY STREAM OF LIQUID WITHOUT FOAMING OR CHURNING.

INTEGRAL RELIEF VALVE SUPPLIED AS STANDARD.

SUITED FOR GEAR REDUCTION, V-BELT AND TIMING BELT ARRANGEMENTS WITHOUT ADDITIONAL SHAFT SUPPORT.

SERIES 124 PUMPS AVAILABLE IN A WIDE VARIETY OF MATERIALS OF CONSTRUCTION TO SUIT YOUR APPLICATION. CONSULT FACTORY FOR DETAILS.

CAPACITIES: TO 643 L/MIN (170 USGPM)

DIFFERENTIAL PRESSURES: to 1,380 kPa (200 PSI)

TEMPERATURES: to 343°C (650°F)

VISCOSITIES: to 440,000 cSt (2,000,000 SSU)

## CONSTRUCTION FEATURES

- RELIEF VALVE (STD.) TO PROTECT AGAINST EXCESSIVE PRESSURES, PUMPS ARE SUPPLIED WITH INTEGRAL, HEAD MOUNTED RELIEF VALVES. RETURN TO TANK VALVES IS AVAILABLE ON ALL MODELS.
- END CLEARANCE ADJUSTMENT THE 124 SERIES ARE MANUFACTURED WITH POSITIVE THRUST CONTROL ALLOWING ACCURATE END CLEARANCE ADJUSTMENT.
- STUFFING BOX MULTI RING PACKING (STD.) IS PROVIDED TO REDUCE POSSIBLE LEAKAGE TO AN ABSOLUTE MINIMUM. MECHANICAL SEALS (OPTIONAL) CAN BE PROVIDED. MATERIAL COMBINATIONS CAN BE SUPPLIED TO SUIT LIQUID BEING PUMPED.
- CASING THE 124 SERIES IS SUPPLIED WITH A HEAVY DUTY CASING THAT CAN BE REVOLVED TO EIGHT DIFFERENT POSITIONS.
- DRIVE ARRANGEMENTS (OPTIONAL) THE 124 SERIES PUMPS CAN BE PROVIDED WITH V-BELT, TIMING BELT, DIRECT DRIVE, GEAR REDUCER, AND GEAR MOTOR DRIVE ARRANGEMENTS TO SUIT YOUR APPLICATIONS.

## STANDARD CONSTRUCTION

| _ |                          |              |       |       |              |          |                      |              |                    |                                 |  |  |
|---|--------------------------|--------------|-------|-------|--------------|----------|----------------------|--------------|--------------------|---------------------------------|--|--|
|   | CASING,<br>HEAD, BRACKET | ROTOR<br>(2) | IDLER | SHAFT | IDLER<br>PIN |          | ACKET BUSHING<br>(3) | SHAFT<br>(4) |                    | INTEGRAL RELIEF<br>VALVE<br>(6) |  |  |
|   |                          |              |       |       |              | STANDARD | OPTION               | STANDARD     | OPTION             |                                 |  |  |
| Ī | IRON                     | IRON         | IRON  | STEEL | STEEL        | BRONZE   | CARBON<br>GRAPHITE   | PACKED       | MECHANICAL<br>SEAL | IRON / BRONZE<br>FITTED         |  |  |

## **SPECIFICATIONS**

| MODEL<br>NO. |            |                                      | NOMINAL PUMP<br>RATING AT |                                       |     | MOTOR POWER REQUIRED<br>BASED ON RATED SPEED<br>21 cSt (100 SSU) |                             |      | MAXIMUM<br>HYDRO-<br>STATIC<br>PRESSURE |      | MAX.REC.<br>DISCHARGE<br>PRESSURE |                      | MAXIMUM RECOMMENDED<br>TEMPERATURE |     |     |     | APPROX.<br>SHIPPING<br>WEIGHT |    |
|--------------|------------|--------------------------------------|---------------------------|---------------------------------------|-----|--|-----------------------------|------|---|------|-----------------------------------|----------------------|------------------------------------|-----|-----|-----|-------------------------------|----|
|              |            | 345 kPa (50 PSI)<br>21 cSt (100 SSU) |                           | 345 kPa 690 kPa<br>(50 PSI) (100 PSI) |     | _  | OVER 21 cSt PACKE (100 ssu) |      |   |      | KED                               | D MECHANICAL<br>SEAL |                                    |     |     |     |                               |    |
|              |            | GPM                                  | L/MIN                     | RPM                                   | HP  | kW   | HP                          | kW   | PSI                                     | kPA  | PSI                               | kPA                  | °F                                 | °C  | °F  | °C  | LB                            | KG |
| J-124        | 1½" NPT    | 30                                   | 114                       | 640                                   | 1.5 | 1.12   | 3                           | 2.24 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 90                            | 41 |
| K-124        | 2" NPT     | 63                                   | 238                       | 640                                   | 3   | 2.24   | 6                           | 4.48 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 105                           | 48 |
| KK-124       | 2" NPT     | 84                                   | 318                       | 640                                   | 4   | 2.98   | 7                           | 5.22 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 110                           | 50 |
| L-124        | 2" NPT     | 140                                  | 530                       | 640                                   | 7   | 5.22   | 12.5                        | 9.33 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 160                           | 73 |
| LQ-124       | 3" FLANGED | 140                                  | 530                       | 640                                   | 7   | 5.22   | 12.5                        | 9.33 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 170                           | 77 |
| LL-124       | 3" FLANGED | 138                                  | 522                       | 520                                   | 6   | 4.48   | 11.5                        | 8.58 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 195                           | 89 |
| IM-124       | 3" FLANGED | 170                                  | 643                       | 520                                   | 6.5 | 4.85   | 12                          | 8.95 | 400                                     | 2758 | 200                               | 1379                 | 450                                | 232 | 225 | 107 | 195                           | 89 |

- 1. FOR HIGHER TEMPERATURES CONSULT FACTORY RECOMMENDATIONS.
- 2. LM-124 ROTOR IS DUCTALLOY.
- 3. OTHER BUSHINGS AVAILABLE TO SUIT APPLICATION. MODEL LM-124 STANDARD BUSHINGS ARE CARBON GRAPHITE.
- 4. STANDARD PACKING IS C-1065 GRAPHITE/PTFE
- 5. STANDARD MECHANICAL SEAL IS BUNA. VITON OR PTFE ARE AVAILABLE AS OPTIONS.
- 6. STANDARD RELIEF VALVE IS IRON HOUSED, BRONZE FITTED. ALL IRON RV IS AVAILABLE UPON REQUEST.

