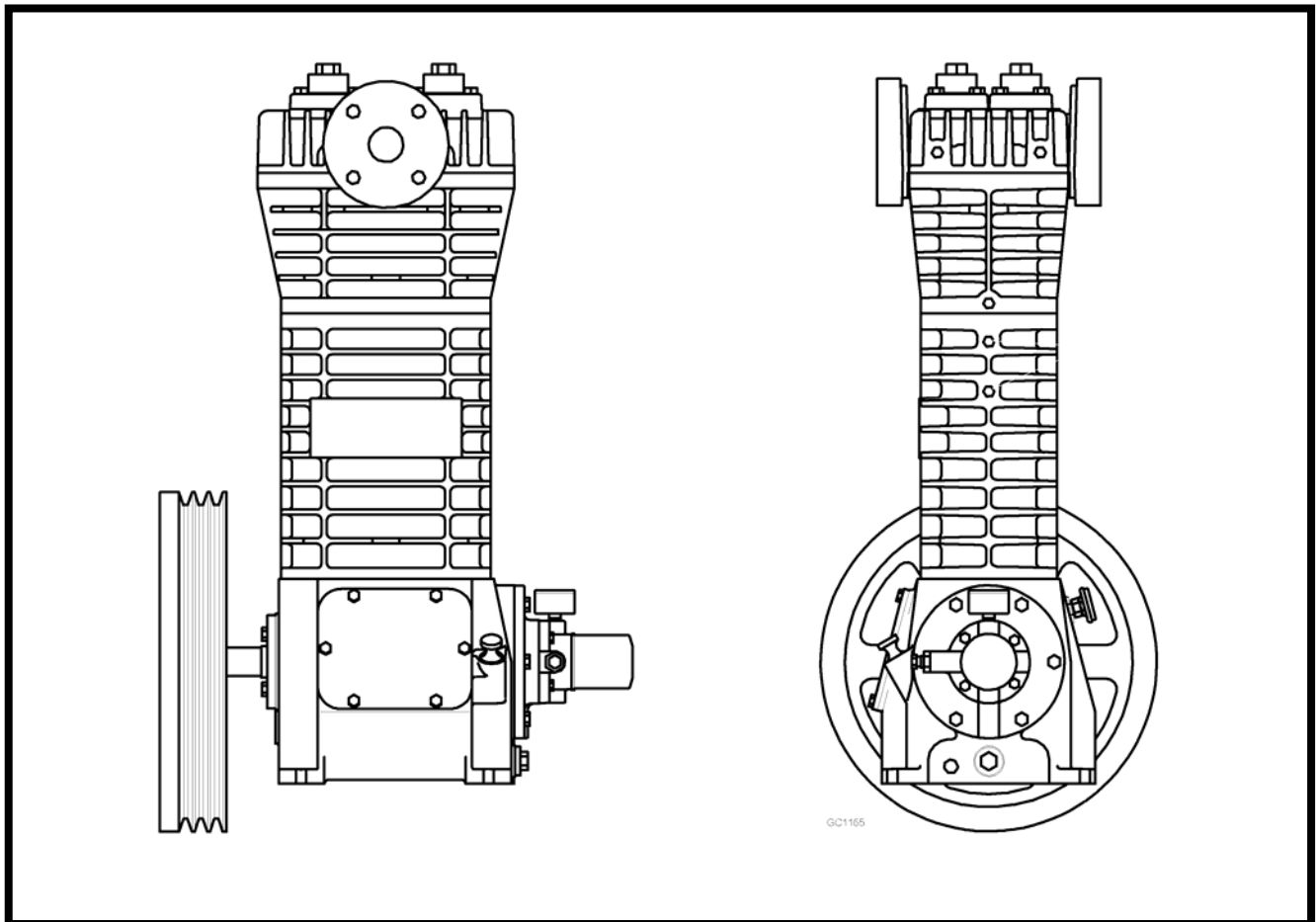


# **SOUR GAS COMPRESSORS**

**Single-Stage: HDS162C, HDS362C, HDS602C, HDS942B**

**Two-Stage: HDS172C, HDS372C, HDS612C**



**Non-Lube**

**Air-Cooled**

# SPECIFICATIONS

## Single-Stage Models

| Air-Cooled Double-Seal               | HDS162C     | HDS362C        | HDS602C      | HDS942B           |
|--------------------------------------|-------------|----------------|--------------|-------------------|
| Number of Cylinders                  | 2           | 2              | 2            | 2 (Double Acting) |
| Bore - in. (mm)                      | 3.0 (76.2)  | 4.0 (102)      | 4.625 (117)  | 4.625 (117)       |
| Stroke - in. (mm)                    | 2.5 (63.5)  | 3.0 (76)       | 4.0 (102)    | 4.0 (102)         |
| MAWP - psia (kPa)                    | 350 (2,413) | 350 (2,413)    | 350 (2,413)  | 350 (2,413)       |
| Piston rod dia. - in. (mm)           | 0.75 (19.1) | 0.75 (19.1)    | 1.25 (31.8)  | 1.25 (31.8)       |
| Minimum / Maximum RPM                | 350 / 825   | 350 / 825      | 350 / 825    | 350 / 825         |
| Piston Displacement                  |             |                |              |                   |
| @ 100 rpm - CFM (m <sup>3</sup> /hr) | 2.05 (3.48) | 4.36 (7.41)    | 7.78 (13.2)  | 14.99 (25.47)     |
| @ Min rpm - CFM (m <sup>3</sup> /hr) | 7.16 (12.2) | 15.3 (26.0)    | 27.2 (46.3)  | 52.46 (89.1)      |
| @ Max rpm - CFM (m <sup>3</sup> /hr) | 16.9 (28.7) | 36.0 (61.2)    | 64.2 (109.0) | 125.2 (212)       |
| Max. BHP (kw)                        | 10 (7.5)    | 15 (11)        | 40 (30)      | 50 (37)           |
| Wt. w/ Flywheel - lb. (kg)           | ~225 (102)  | ~375 (170)     | ~705 (320)   | ~905 (410)        |
| Inlet & Outlet Connections           | 0.75" NPT   | 1.5" ANSI 300# | 2" ANSI 300# | 2" ANSI 300#      |
| Maximum H <sub>2</sub> S             | 8%          | 8%             | 8%           | 8%                |

## Two-Stage Models

| Air-Cooled Double-Seal               | HDS172C                  | HDS372C                | HDS612C               |
|--------------------------------------|--------------------------|------------------------|-----------------------|
| Number of Cylinders                  | 2                        | 2                      | 2                     |
| Bore - in. (mm)                      | 3.0 (76.2) x 1.75 (44.5) | 4.63 (117) x 2.69 (68) | 6 (152) x 3.25 (83)   |
| Stroke - in. (mm)                    | 2.5 (63.5)               | 3.0 (76)               | 4.0 (102)             |
| MAWP - psia (kPa)                    | 615 (4,241)              | 615 (4,241)            | 415 (2,862)           |
| Piston rod dia. - in. (mm)           | 0.75 (19.1)              | 0.75 (19.1)            | 1.25 (31.8)           |
| Minimum / Maximum RPM                | 350 / 825                | 350 / 825              | 350 / 825             |
| Piston Displacement                  |                          |                        |                       |
| @ 100 rpm - CFM (m <sup>3</sup> /hr) | 1.02 (1.73)              | 2.92 (4.96)            | 6.54 (11.1)           |
| @ Min rpm - CFM (m <sup>3</sup> /hr) | 3.57 (6.07)              | 10.2 (17.3)            | 22.9 (38.9)           |
| @ Max rpm - CFM (m <sup>3</sup> /hr) | 8.42 (14.3)              | 24.1 (40.8)            | 53.7 (91.2)           |
| Max. BHP (kw)                        | 10 (7.5)                 | 15 (11)                | 40 (30)               |
| Wt. w/ Flywheel - lb. (kg)           | ~245 (111)               | ~405 (184)             | ~775 (352)            |
| Inlet & Outlet Connections           | 0.75" NPT                | 1.25" x 1" NPT         | 2" x 1.5" NPT or Weld |
| Maximum H <sub>2</sub> S             | 8%                       | 8%                     | 8%                    |

## **MATERIALS of CONSTRUCTION**

|                           |                               |
|---------------------------|-------------------------------|
| Cylinder, Head & Guide    | Ductile Iron (A536 Nodular)   |
| Pistons                   | Steel                         |
| Piston Rings              | Glass & Moly Filled PTFE      |
| Piston Rods               | BSR Annealed Alloy Steel      |
| Valves                    | Ductile Iron with PEEK Plates |
| Rod Packing               | PTFE                          |
| Packing Springs           | Stainless Steel               |
| Packing Box               | Steel                         |
| Crankshaft                | Ductile Iron (A536 Nodular)   |
| Connecting Rods           | Ductile Iron (A536 Nodular)   |
| Wrist Pin                 | Steel                         |
| Bearing, Wrist Pin        | Steel Needle Bearing          |
| Bearings, Rod             | Babbitt Lined Steel Backed    |
| Bearings, Crank           | Tapered Roller                |
| O-rings                   | PTFE                          |
| Cylinder & Head Fasteners | Stainless Steel               |
| Retainer Rings            | Stainless Steel               |
| Metal Gaskets             | Iron                          |
| Other Gaskets             | Fiber (non Asbestos)          |
| Crankcase, Crosshead      | Gray Iron                     |

## **FEATURES**

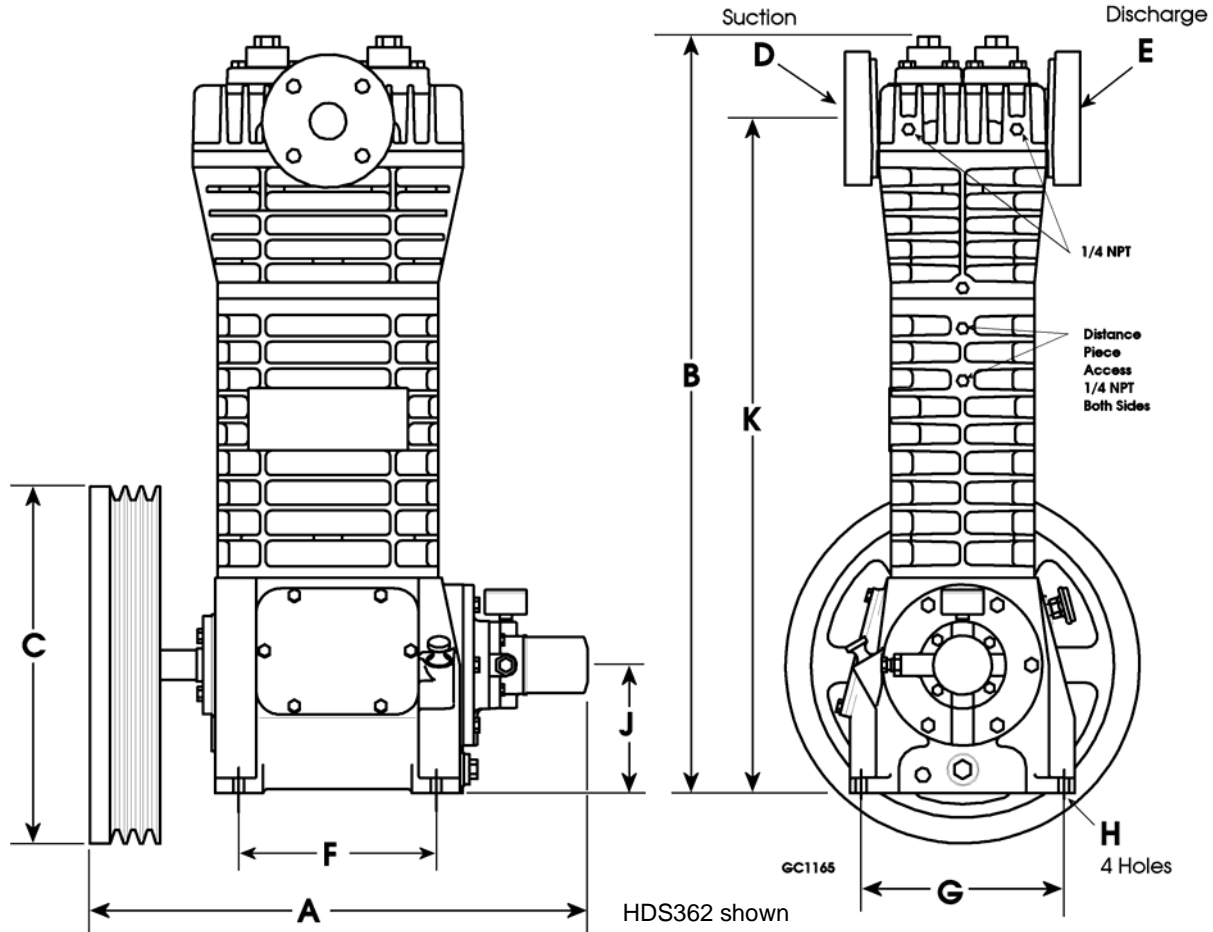
- Stainless Steel fasteners in all gas containment areas.
- Select parts of reduced hardness material for sour gas application compatibility.
- Ductile Iron Head & Cylinder provide toughness & strength unmatched by cast iron.
- Extra thick piston rings provide more wear surface to provide greater ring life.
- O-ring head gaskets provide positive sealing under all operating conditions. No asbestos to worry about, and materials are available to suit any application.
- Double-Seal (single distance piece) construction.
- One piece steel pistons are attached to the piston rod via one positive locking nut.
- Flanged Connections (most models) allow maximum piping flexibility.
- Self-adjusting PTFE piston rod seals provide maximum sealing & minimum friction.
- Steel wrist pins ride on steel needle bearings for extra life under severe conditions.
- Iron crossheads feature special machined lube channels and porting for maximum lubrication and wear resistance.
- Pressure lubricated crankcase via a self reversing oil pump directly driven by the crankshaft. Oil is fed to all bearing surfaces, including the crosshead. A spin-on oil filter is standard.

## **OPTIONS**

- TNT-12 Corrosion/Wear Resistant Treatment
- Baseplates – Formed or Structural Steel
- Repair tool kits
- Belt guards: Steel, Aluminum or Stainless



# DIMENSIONS



In. (mm)

| Model   | A              | B                | C              | D                 | E                 | F             | G             | H              | J             | K                |
|---------|----------------|------------------|----------------|-------------------|-------------------|---------------|---------------|----------------|---------------|------------------|
| HDS162C | 21.9<br>(556)  | 29.7<br>(755)    | 16.35<br>(415) | 3/4"<br>NPT       | 3/4"<br>NPT       | 7.5<br>(191)  | 7.38<br>(187) | 0.44<br>(11)   | 5.37<br>(136) | 27.34<br>(694)   |
| HDS362C | 23.4<br>(594)  | 34.7<br>(880)    | 16.35<br>(415) | 1.5" ANSI<br>300# | 1.5" ANSI<br>300# | 9.12<br>(232) | 9.37<br>(238) | 0.5<br>(12.7)  | 5.88<br>(149) | 30.79<br>(782)   |
| HDS602C | 25.6<br>(650)  | 41.0<br>(1,042)  | 20.35<br>(517) | 2" ANSI<br>300#   | 2" ANSI<br>300#   | 10.5<br>(267) | 12.0<br>(305) | 0.56<br>(14.2) | 8.25<br>(210) | 37.0<br>(940)    |
| HDS942B | 25.56<br>(649) | 45.23<br>(1,149) | 21.2<br>(538)  | 2" ANSI<br>300#   | 2" ANSI<br>300#   | 10.5<br>(267) | 12.0<br>(305) | 0.56<br>(14.2) | 8.25<br>(210) | 37.63<br>(956)   |
| HDS172C | 21.9<br>(556)  | 29.7<br>(755)    | 16.35<br>(415) | 3/4"<br>NPT       | 3/4"<br>NPT       | 7.5<br>(191)  | 7.38<br>(187) | 0.44<br>(11)   | 5.37<br>(136) | 27.37<br>(695)   |
| HDS372C | 23.4<br>(594)  | 34.7<br>(880)    | 16.35<br>(415) | 1 1/4"<br>NPT     | 1"<br>NPT         | 9.12<br>(232) | 9.37<br>(238) | 0.5<br>(12.7)  | 5.88<br>(149) | 30.79<br>(782)   |
| HDS612C | 26.4<br>(671)  | 41.3<br>(1,204)  | 20.35<br>(517) | 2**               | 1.5**             | 10.5<br>(267) | 12.0<br>(305) | 0.56<br>(14.2) | 8.25<br>(210) | 37.22<br>(1,101) |

\*\* 2"NPT, 1.5"NPT, 2"WELD, & 1.5"WELD Available



1809 Century Avenue, Grand Rapids, MI 49503 U.S.A. ph: 616-241-1611 fx: 616-241-3752

CB-311 Page 4/4

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