'D' Series
SINGLE PUMP

Performance Data

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<th>MAXIMUM SPEED (RPM)</th>
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* CONSULT FACTORY WITH TYPE APPLICATION
PRESSURES MAY BE LIMITED TO SHAFT TYPE

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- SINGLE AND MULTI-STAGE CONFIGURATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
- PRECISION GEARS MACHINED FROM SOLID BAR STOCK
- COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
- CONTAMINANT RESISTANT
- COMPUTER DESIGNED AND MANUFACTURED
- QUALITY CERTIFIED
- FLEXIBLE DESIGN FOR NEW OR OEM REPLACEMENTS
- SERVICE SUPPORTED BY DEDICATION AND INVENTORY

P. O. BOX 2160, 1506 FULTON DR.
CORINTH, MISSISSIPPI 38835

Phone: 662/286-2252 Fax: 662/287-6580 E-mail: haisales@geartek.com Http: www.geartek.com
SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT./LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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REVISED MARCH 18, 2014
UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
**FLANGES AVAILABLE**

**SAE 2X4 BOLT 'B' FLANGE**

- 9/16" DIA, 6 HOLES
- 4.000
- 3.998
- PILOT DIA.
- 6.88

**SAE 2X4 BOLT 'C' FLANGE**

- 9/16" DIA, 4 HOLES
- 11/16" DIA, 2 HOLES
- 5.75
- 8.36

**DIMENSIONAL DATA**

- INLET FOR 'R' ROTATION
- OUTLET FOR 'L' ROTATION
- VIEWED FROM DRIVE END
- 2.50 R.
- 6.08 ±.06
- .50
- .43
- .25

**MOUNTING DIMENSIONS**

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FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

**MODEL EXAMPLE**

- **SERIES**
  - D 25
- **SHAFT**
  - R = CLOCKWISE
  - L = COUNTERCLOCKWISE

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

'D' SERIES PUMP FLOW OUTPUT @ 2500 PSI - SAE 10W OIL
@ 150 DEGREES FAHRENHEIT

'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI

GEARTEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.
'D' Series
2 SECTION PUMP

Performance Data

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- PRESSURES TO 4000 PSI
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SHAFTS AVAILABLE

1

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT.-LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050


2

1 1/2" STRAIGHT
TORQUE LIMIT 650 FT.-LBS.

3

7/8"-13 TOOTH SPLINE
AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 184 FT.-LBS.

SPLINE DATA
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 13
MINOR DIA. .733-.722

4

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT.-LBS.

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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REVISED MARCH 18, 2014

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
FLANGES AVAILABLE

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

INLET FOR 'R' ROTATION OUTLET FOR 'L' ROTATION VIEWED FROM DRIVE END

OVERALL 4.94 + B + H

BEARING PLATE LENGTH

OPTIONAL: SEE SHAFTS

OPTIONAL: SEE FLANGES

MOUNTING DIMENSIONS

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FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

MODEL EXAMPLE

D 25-25 R - 1 C

SERIES

SIZE

ROTATION

R=CLOCKWISE

L=COUNTERCLOCKWISE

OTHER PORT TYPES AVAILABLE

CONSULT FACTORY

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

'D' SERIES PUMP FLOW OUTPUT @ 2500 PSI - SAE 10W OIL @ 150 DEGREES FAHRENHEIT

'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI

GEARTEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.
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- PRESSURES TO 4000 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON Shaft Seals Standard
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
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SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

2" 1 1/2" 1 1/4" 1"

STD. SAE 4-BOLT CONNECTOR PORTS

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT/LBS

5/16"x5/16"x1 1/2" KEY

FLG. MTG. SURFACE

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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REVISED MARCH 18, 2014

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FLANGES AVAILABLE

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END

MOUNTING DIMENSIONS

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FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

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DIVISION OF HYDRAULIC ANALYSIS, INC.
'DB' Series

PIGGY-BACK

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<td>146.5</td>
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</table>

* CONSULT FACTORY WITH TYPE APPLICATION
PRESSURES MAY BE LIMITED TO SHAFT TYPE

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- SINGLE AND MULTI-STAGE CONFIGURATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
- PRECISION GEARS MACHINED FROM SOLID BAR STOCK
- COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
- CONTAMINANT RESISTANT
- COMPUTER DESIGNED AND Manufactured
- QUALITY CERTIFIED
- FLEXIBLE DESIGN FOR NEW OR OEM REPLACEMENTS
- SERVICE SUPPORTED BY DEDICATION AND INVENTORY

P. O. BOX 2160, 1506 FULTON DR.
CORINTH, MISSISSIPPI 38835

Phone: 662/286-2252  Fax: 662/287-6580  E-mail: haisales@geartek.comHttp: www.geartek.com
SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

1.229
1.223
1.30
1.04
2.19
FLG. MTG. SURFACE

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT/LBS

5/16"x5/16"x1 1/2" KEY

1.250
1.248
2.19
FLG. MTG. SURFACE

REAR COUPLINGS AVAILABLE

7/8"-13 TOOTH INTERNAL SPLINE
SEE INSTRUCTION SHEET 110102
WHEN MOUNTING GEARTEK 'D/HD' ON REAR

1.95
1.22
.65
1.22 MIN.
FULL SPLINE
1.66
MAX. SHAFT EXT.

5/8"-9 TOOTH INTERNAL SPLINE

1.75
.65
1.28
MIN.
FULL SPLINE
MAX. SHAFT EXT.

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>INLET SIZE</th>
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<tbody>
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4-BOLT CONNECTOR CHART

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<td>1.031</td>
<td>1.03</td>
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<td>3/8-16NC</td>
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<tr>
<td>1 1/4&quot;</td>
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<td>1.188</td>
<td>1.15</td>
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<td>7/16-14NC</td>
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<td>1.406</td>
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<td>2.750</td>
<td>1/2-13NC</td>
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<tr>
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<td>.84</td>
<td>1.688</td>
<td>1.53</td>
<td>3.062</td>
<td>1/2-13NC</td>
</tr>
</tbody>
</table>

REVISED MARCH 18, 2014
UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
SAE 2X4 BOLT 'B' FLANGE

9/16" DIA. 6 HOLES

9/16" DIA. 4 HOLES

11/16" DIA. 2 HOLES

SAE 2X4 BOLT 'C' FLANGE

SAE 'A' REAR ADAPTER PLATE

3/8-16NC DEPTH .50 2 PLACES

3/8-16NC DEPTH .280

SAE 'B' REAR ADAPTER PLATE

1/2-13NC DEPTH .50 2 PLACES

1/2-13NC DEPTH .400

Revised: January 23, 2009

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
### MOUNTING DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
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<tr>
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<td>3.31</td>
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<td>DB25</td>
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<tr>
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<tr>
<td>DB40</td>
<td>1.85</td>
<td>4.44</td>
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<tr>
<td>DB45</td>
<td>2.16</td>
<td>4.73</td>
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</table>

FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE CONSULT FACTORY

### MODEL EXAMPLE

DB 25 R - 1 C - B - 78

SERIES SIZE FLANGE REAR ADAPTER COUPLING

ROTATION R=CLOCKWISE L=COUNTERCLOCKWISE
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

'D' SERIES PUMP FLOW OUTPUT @ 2500 PSI - SAE 10W OIL
@ 150 DEGREES FAHRENHEIT

'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI
**'DTC' Series**

- **TANDEM PUMP**

### Performance Data

<table>
<thead>
<tr>
<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVO (THEORETICAL)</th>
<th>MAXIMUM NORMAL PRESSURE RATINGS</th>
<th>MAXIMUM SPEED (RPM)</th>
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<tbody>
<tr>
<td>D15</td>
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<tr>
<td>D30</td>
<td>0.0258, 5.96, 97.6</td>
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<tr>
<td>D35</td>
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<td>D40</td>
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</table>

* *CONSULT FACTORY WITH TYPE APPLICATION*

**WHEN USING C200 ON REAR - MAXIMUM SPEED FOR UNIT IS LIMITED TO 2200 RPM**

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- MULTI-STAGE CONFIGURATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
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Phone: 662/286-2252  Fax: 662/287-6580  E-mail: haisales@geartek.com  Http: www.geartek.com
SHAVTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT./LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

2 1/2" 1.00 2.000 1.75 3.500 1/2-13NC
1 1/4" 5/8" 1.688 1.75 3.500 1/2-13NC
1 1/2" 7/8" 1.37 1.75 3.500 1/2-13NC
2" .84 1.53 3.062 1/2-13NC
2 1/2" 1.00 1.53 3.062 1/2-13NC

4-BOLT CONNECTOR CHART

SAE 4-BOLT CONN. PORTS

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<th>OUTLET SIZE</th>
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<td>1 1/4&quot;</td>
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<td>1 1/4&quot;</td>
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<tr>
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<tr>
<td>C200</td>
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7/8"-13 TOOTH SPLINE
AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 184 FT./LBS.

SPLINE DATA
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 13
MINOR DIA. .733-722

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT./LBS.
5/16"x5/16"x1 1/2" KEY

STANDARD SAE 4-BOLT CONNECTOR PORTS
FLANGES AVAILABLE

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

For metric dimensions, multiply 25.4 x IN. = mm

Consult factory for other port types that may be available.

Model example:

DT 25 C 65 R - 1 C

Mounting dimensions:

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<thead>
<tr>
<th>Size</th>
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<th>H</th>
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</tbody>
</table>

OVERALL:

4.87 + B + H

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
FOR TYPICAL PERFORMANCE DATA
FOR FRONT SECTION OF "DTC' SERIES
USE THE 'D' SERIES STANDARD CURVES

FOR TYPICAL PERFORMANCE DATA
FOR REAR SECTION OF "DTC' SERIES
USE THE 'C' SERIES STANDARD CURVES
'HD' Series

SINGLE PUMP

Performance Data

<table>
<thead>
<tr>
<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>PRESSURE RATINGS</th>
<th>MAXIMUM SPEED (RPM)</th>
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<tr>
<td>HD45</td>
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<td>8.94</td>
<td>146.5</td>
</tr>
</tbody>
</table>

* CONSULT FACTORY WITH TYPE APPLICATION
PRESSURES MAY BE LIMITED TO SHAFT TYPE

CAST IRON THROUGHOUT
PRESSURES TO 4000 PSI
FLOWS TO 87 GPM
HEAVY DUTY SLEEVE TYPE BEARINGS
DOUBLE VITON® SHAFT SEALS STANDARD
PRESSURE COMPENSATED THRUST PLATES
DESIGNED FOR HEAVY DUTY APPLICATIONS
SINGLE AND MULTI-STAGE CONFIGURATIONS

VARIABLE SHAFT, FLANGE AND PORT OPTIONS
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COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
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SHAFTS AVAILABLE

1

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT./LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

2

1" STRAIGHT
AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 341 FT./LBS.

3

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT./LBS.

STANDARD SAE 4-BOLT CONNECTOR PORTS

<table>
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<tr>
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<th>INLET SIZE</th>
<th>OUTLET SIZE</th>
</tr>
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<tr>
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<td>HD20</td>
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<td>1 1/2&quot;</td>
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<td>1 1/2&quot;</td>
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<tr>
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</table>

4-BOLT CONNECTOR CHART

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<th>SIZE</th>
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<th>F</th>
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<td>1.688</td>
<td>1.53</td>
<td>3.062</td>
<td>1/2-13NC</td>
</tr>
</tbody>
</table>

REVISED MARCH 18, 2014

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
FLANGES AVAILABLE

SAE 2X4 BOLT 'B' FLANGE

- 9/16" DIA.
- 6 HOLES
- 4.000 PILOT DIA.
- 5.750
- 3.536
- 1.768
- 4.62
- 3.536
- 1.768

SAE 2X4 BOLT 'C' FLANGE

- 9/16" DIA.
- 4 HOLES
- 11/16" DIA
- 2 HOLES
- 5.000 PILOT DIA.
- 7.125
- 4.506
- 2.253

DIMENSIONAL DATA

VIEWED FROM DRIVE END

INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION

OVERALL 3.20 + B

MOUNTING DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
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<th>B</th>
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<tbody>
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MODEL EXAMPLE

HD 25 R - 1 C

SERIES
SIZE
FLANGE SHAFT

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

FOR METRICDIMENSIONS
MULTIPLY 25.4 X IN. = mm

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

HD SERIES PUMP FLOW OUTPUT @ 2500 PSI - SAE 10W OIL
@ 150 DEGREES FAHRENHEIT

'SD' SERIES PUMP HORSEPOWER IN @ 2500 PSI
## 'HD' Series

### 2 SECTION PUMP

**Performance Data**

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<th>PRESSURE RATINGS</th>
<th>MAXIMUM SPEED (RPM)</th>
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* CONSULT FACTORY WITH TYPE APPLICATION

**Additional Features**

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 87 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- SINGLE AND MULTI-STAGE CONFIGURATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
- PRECISION GEARS MACHINED FROM SOLID BAR STOCK
- COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
- CONTAMINANT RESISTANT
- COMPUTER DESIGNED AND MANUFACTURED
- QUALITY CERTIFIED
- FLEXIBLE DESIGN FOR NEW OR OEM REPLACEMENTS
- SERVICE SUPPORTED BY DEDICATION AND INVENTORY

P. O. BOX 2160, 1506 FULTON DR.
CORINTH, MISSISSIPPI 38835

Phone: 662/286-2252   Fax: 662/287-6580   E-mail: haisales@geartek.com   Http: www.geartek.com
1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT./LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT./LBS.

5/16"x5/16"x1 1/2" KEY

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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<tr>
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<th>OUTLET SIZE</th>
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4-BOLT CONNECTOR CHART

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<td>3.062</td>
<td>1/2-13NC</td>
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</table>

REVISED MARCH 18, 2014

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
FLANGES AVAILABLE

B SAE 2X4 BOLT 'B' FLANGE

C SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END

OPTIONAL:
SEE FLANGES

OPTIONAL:
SEE SHAFTS

MOUNTING DIMENSIONS

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<tr>
<th>SIZE</th>
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<td>HD45</td>
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<td>5.23</td>
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FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

MODEL EXAMPLE

HD 25 - 25 R - 1 C

SERIES  SIZE  SHAFT

ROTATION
R=CLOCKWISE
L=COUNTERCLOCKWISE

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

HD SERIES PUMP FLOW OUTPUT @ 2500 PSI - SAE 10W OIL
@ 150 DEGREES FAHRENHEIT

'H'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI

GEARTEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.
'HDB' Series

**PIGGY-BACK**

**Performance Data**

<table>
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<tr>
<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>PRESSURE RATINGS</th>
<th>MAXIMUM SPEED (RPM)</th>
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<tr>
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* CONSULT FACTORY WITH TYPE APPLICATION

PRESSURES MAY BE LIMITED TO SHAFT TYPE

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 87 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
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Phone: 662/286-2252   Fax: 662/287-6580   E-mail: haisales@geartek.com   Http: www.geartek.com
SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

1.239 DIA.
1.293
1.30
1.274 DIA.
2.19 FLG. MTG. SURFACE

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT/LBS

5/16"x5/16"x1 1/2" KEY

DIA.
1.239
1.293
1.30
1.274
2.19 FLG. MTG. SURFACE

REAR COUPLINGS AVAILABLE

7/8"-13 TOOTH INTERNAL SPLINE
SEE INSTRUCTION SHEET 110102
WHEN MOUNTING GEARTEK 'D/HD' ON REAR

INTERNAL SPLINE DATE
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 13
MAJOR DIA. .901-.906
MINOR DIA. .754-.759
SPACE WIDTH .1008-.1035

1.95 FULL SPLINE
1.22 MIN.
1.66 MAX. SHAFT EXT.

5/8"-9 TOOTH INTERNAL SPLINE

INTERNAL SPLINE DATE
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 9
MAJOR DIA. .680-.690
MINOR DIA. .500-.510
SPACE WIDTH .1008-.1035

1.75 FULL SPLINE
.65 MIN.
1.28 MAX. SHAFT EXT.

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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REVISED MARCH 18, 2014
UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
DIMENSIONAL DATA

MOUNTING DIMENSIONS

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FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

MODEL EXAMPLE

HDB 25 R - 1 C - B - 78

SERIES SIZE SHAFT
REAR ADAPTER FLANGE
ROTATION
R=CLOCKWISE
L=COUNTERCLOCKWISE

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
Performance Data

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<td>45</td>
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<td>146.5</td>
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*CONSULT FACTORY WITH TYPE APPLICATION*, *PRESSURES MAY BE LIMITED TO SHAFT TYPE*

- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
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Phone: 662/286-2252   Fax: 662/287-6580   E-mail: haisales@geartek.com   Http: www.geartek.com
SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 13
MINOR DIA. .733-.722

7/8"-13 TOOTH SPLINE
TORQUE LIMIT 184 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

<table>
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<th>INLET SIZE</th>
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4-BOLT CONNECTOR CHART

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</tbody>
</table>

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FLANGES AVAILABLE

**SAE 2X4 BOLT 'B' FLANGE**

9/16" DIA. 6 HOLES

**SAE 2X4 BOLT 'C' FLANGE**

9/16" DIA. 4 HOLES

DIMENSIONAL DATA

INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END

OPTIONAL: SEE SHAFTS

OPTIONAL: SEE FLANGES

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

UNLESS HIGH PRESSURE SEAL IS USED
TAIL DRAIN MUST BE USED IF BACK
PRESSURE EXCEEDS 100 PSI ON MOTOR
9/16-18UNF-2B ON CENTERLINE
NO. 6 PORT
STEEL PLUG USED ON 'RD' PUMPS
OTHERWISE: LEAVE BLANK

MOUNTING DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
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</table>

PUMP MODEL EXAMPLE

RD 25 - 1 C

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.

REVISED: APRIL 22, 2003

THE OPTIONAL HIGH PRESSURE SEAL MAY BE USED WHEN DRAIN LINES ARE NOT PRACTICAL.
FOR SYSTEMS TOLERATING A DRAIN LINE, ELIMINATE THE 'H' FROM THE MODEL CODE.
GEARTEK MD45 MOTOR PERFORMANCE
SAE 10W oil @ 150 degrees F

(Typical) PRESSURE, PSI

HORSEPOWER

RPM

GEARTEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.
**GEARTEK 'SMD' TWO SPEED MOTOR**

Geartek two-speed motors consist of two hydraulic gear motor units with built in shift valving. Either, high speed or high torque can be obtained, thereby improving the efficiency of winch drives, track drives, hydrostatic transmissions and other drive applications.

The internal valving controls input flow through both gear sets for low speed-high torque mode, or controls the input flow through the front section only to provide high speed-low torque mode. Displacements of each section can be mixed relative to one another to give ideal application speed and torques between high and low modes.

Advantages of these units are:

Optional automatic kick-down valve, adjustable 400-3000 psi. Unit stays in high-speed mode until preset pressure is reached. After shifting into low-speed mode, the unit shifts automatically back to high-speed mode when input flow is stopped.

Optional extreme high pressure seal, which eliminates required case drain line. (Model becomes SMDH)

Compact envelope size, designed for limited space requirements.

Standard shift by remote hydraulic pilot line to tank pressure. No external pressure required. Merely opening or closing pilot port to tank shifts motor.

---

**Performance Data**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>MOTORS</th>
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<tr>
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<td>U.S. GALLONS</td>
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<tr>
<td>SMD45</td>
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<td>.0387</td>
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* Consult Factory with Type Application

- CAST IRON
- PRESSURES TO 3300 PSI
- FLOWS TO 97 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- HIGH PRESSURE VITON® SHAFT SEALS
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
- PRECISION GEARS MACHINED FROM SOLID BAR STOCK
- COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
- CONTAMINANT RESISTANT
- COMPUTER DESIGNED AND MANUFACTURED
- FLEXIBLE DESIGN FOR NEW OR OEM REPLACEMENTS
- SERVICE SUPPORTED BY DEDICATION AND INVENTORY

P. O. BOX 2160, 1506 FULTON DR.
CORINTH, MISSISSIPPI 38835

Phone: 662/286-2252  Fax: 662/287-6580  E-mail: haisales@geartek.com  Http: www.geartek.com
SHAFTS AVAILABLE

1

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

2.19
FLG. MTG.
SURFACE

1.250
DIA.

1.223

1.229

1.248

2.19
FLG. MTG.
SURFACE

3

1 1/4" STRAIGHT
TORQUE LIMIT 650 FT/LBS

5/16"x5/16"x1 1/2" KEY

1.250
DIA.

1.248

1.223

1.229

2.19
FLG. MTG.
SURFACE

SCHEMATIC

INLET / OUTLET PORT

PILOT PORT

SEQUENCE VALVE

INLET / OUTLET PORT

SCHEMATIC SHOWN WITH SEQUENCE VALVE

REVISED MARCH 18, 2014

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

9/16" DIA.
6 HOLES

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

MOUNTING DIMENSIONS

BI-ROTATIONAL
OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

MODEL EXAMPLE
SM D H 25-25-1 C-S-TT

THE OPTIONAL HIGH PRESSURE SEAL MAY BE USED WHEN DRAIN LINES ARE NOT PRACTICAL.
FOR SYSTEMS TOLERATING A DRAIN LINE, ELIMINATE THE 'H' FROM THE MODEL CODE.

PORT CODES
STANDARD PORTING OPTIONS

OPTIONAL: SEQUENCE
(KICK-DOWN) VALVE
400-3000 PSI ADJUSTMENT

OPTIONAL: MANUAL PILOT PORT
#4 SAE O-RING BOSS
GEARTEK SMD15 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F

HORSEPOWER vs. RPM

GEARTEK SMD20 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F

HORSEPOWER vs. RPM

GEARTEK SMD25 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F

HORSEPOWER vs. RPM
The ‘SLD’ & ‘SED’ Series limits the hydraulic horsepower which in turn limits the horsepower required from the prime mover.

Both units can supply flow from either both sections of the tandem pump, or from only the front section of the unit.

With the ‘SLD’, when the operating pressure exceeds a predetermined setting, an integral pilot operated relief valve opens which moves the spool and redirects the rear section flow from the common discharge to the common suction.

Once the system pressure is reduced to the same predetermined setting, the flow from the rear section reverts back to the common discharge.

The ‘SED’ model allows flow through both sections until an external 12V or 24V DC electrical signal actuates a solenoid valve to divert flow in the rear section similar to the ‘SLD’. The pump resets to both sections when the electrical signal is turned off.

Both models can be manually unloaded independently of the pilot valve or solenoid.

### Performance Data

<table>
<thead>
<tr>
<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>PRESSURE RATINGS</th>
<th>MAXIMUM SPEED (RPM)</th>
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</table>

* CONSULT FACTORY WITH TYPE APPLICATION.

### Key Features
- CAST IRON THROUGHOUT
- PRESSURES TO 4000 PSI
- FLOWS TO 140 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- HIGH PRESSURE VITON® SHAFT SEALS
- PRESSURE COMPENSATED THRUST PLATES
- DESIGNED FOR HEAVY DUTY APPLICATIONS
- VARIOUS SHAFT, FLANGE AND PORT OPTIONS
- PRECISION GEARS MACHINED FROM SOLID BAR STOCK
- COMPATIBLE WITH MOST FIRE RESISTANT FLUIDS
- CONTAMINANT RESISTANT
- COMPUTER DESIGNED AND MANUFACTURED
- FLEXIBLE DESIGN FOR NEW OR OEM REPLACEMENTS
- SERVICE SUPPORTED BY DEDICATION AND INVENTORY

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SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 650 FT/LBS

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

FLANGES AVAILABLE

SAE 2X4 BOLT ‘B’ FLANGE

SAE 2X4 BOLT ‘C’ FLANGE

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

<table>
<thead>
<tr>
<th>SIZE</th>
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<th>OUTLET SIZE</th>
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<td>2&quot;</td>
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<tr>
<td>D30</td>
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<td>D35</td>
<td>2 1/2&quot;</td>
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<tr>
<td>D40</td>
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<td>D45</td>
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</table>

4-BOLT CONNECTOR CHART

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<th>D</th>
<th>E</th>
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<td>3.500</td>
<td>1/2-13NC</td>
</tr>
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</table>

REVISED MARCH 18, 2014

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
### DIMENSIONAL DATA

#### UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.

#### MOUNTING DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
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**NOTE:** FOR STANDARD PORTS:

- **SED 25 - 25 L - 1 C - 18**
- **SERIES**
- **PRESSURE UNLOADING PUMP**
- **SECTION SIZES**
- **NOTE FOR STANDARD PORTS**
- **REAR SECTION MUST BE EQUAL TO OR LARGER THAN FRONT SECTION**

- **PRESSURE SETTING**
  - **CODE EXAMPLES:** SI = 150 PSI, 30 = 3000 PSI

- **ELECTRICAL UNLOADING PUMP**
- **SERIES**
- **SECTION SIZES**
- **NOTE FOR STANDARD PORTS**
- **REAR SECTION MUST BE EQUAL TO OR LARGER THAN FRONT SECTION**

**FOR METRIC DIMENSIONS**

- **MULTIPLY 25.4 x IN. = mm**

---

**CONSULT FACTORY FOR METRIC DIMENSIONS**

**OTHER PORT TYPES AVAILABLE**

**CONSULT FACTORY**

---

**SLD SERIES SCHEMATIC**

---

**UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.**
TYPICAL PERFORMANCE DATA
SAE 10W oil @ 150 DEGREES FAHRENHEIT
(150 SSU)

'SLD' / 'SED' SERIES PUMP FLOW PER SECTION @ 2500 PSI - SAE 10W OIL
@ 150 DEGREES FAHRENHEIT

'SLD' / 'SED' SERIES PUMP HORSEPOWER PER SECTION @ 2500 PSI

GEARTEK FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.