## Performance Data

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<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>PRESSURE RATINGS</th>
<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 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
SHAFTS AVAILABLE

1

1 1/4"-14 TOOTH SPLINE

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

FLG. MTG. SURFACE

2

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

1/4"x1/4"x1 1/2" KEY

FLG. MTG. SURFACE

3

1 1/4" STRAIGHT

FLG. MTG. SURFACE

4

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

FULL SPLINE

FLG. MTG. SURFACE

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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

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

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

**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**

D 25 R - 1 C

SERIES
SHAFT
FLANGE

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.
Performance Data

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SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE

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

2 1/4" STRAIGHT

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

3 7/8"-13 TOOTH SPLINE

AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 184 FT.-LBS.

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

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

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4-BOLT CONNECTOR CHART

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

SAE 2X4 BOLT 'B' FLANGE

DIMENSIONAL DATA

SAE 2X4 BOLT 'C' FLANGE

MOUNTING DIMENSIONS

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FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE CONSULT FACTORY

MODEL EXAMPLE

D 25-25 R - 1 C

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
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'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI

GEARTEK FLUID POWER PUMPS AND MOTORS
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SHAFTS AVAILABLE

1

1 1/4"-14 TOOTH SPLINE

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

DIA. 1.30
1.229
1.223
DIA. 1.04

FLG. MTG. SURFACE

2.19

2

1 1/4" STRAIGHT

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

DIA. 1.250
1.248
DIA. 2.19
FLG. MTG. SURFACE

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS
SIZE INLET SIZE OUTLET SIZE
D15 1 1/4" 1"
D20 1 1/4" 1"
D25 1 1/2" 1 1/4"
D30 1 1/2" 1 1/4"
D35 1 1/2" 1 1/4"
D40 2" 1 1/4"
D45 2" 1 1/4"

4-BOLT CONNECTOR CHART
SIZE C D E F G
1" .51 1.031 1.03 2.062 3/8-16NC
1 1/4" .59 1.188 1.15 2.313 7/16-14NC
1 1/2" .70 1.406 1.37 2.750 1/2-13NC
2" .84 1.688 1.53 3.062 1/2-13NC

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

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

OPTIONAL: SEE SHAFTS

OPTIONAL: SEE FLANGES

MOUNTING DIMENSIONS

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MODEL EXAMPLE

D 25-25-25 R - 1 C

FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

SERIES SIZE SHAFT

ROTATION
R=CLOCKWISE
L=COUNTERCLOCKWISE

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

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'SPEED, RPM'

FLOW, GPM

HORSEPOWER IN @ 2500 PSI

'HORSEPOWER INPUT'

SPEED, RPM
Performance Data

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MINOR DIA. 1.082-1.050

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FLG. MTG. SURFACE

1/4" STRAIGHT

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

1.248
2.19
FLG. MTG. SURFACE

REAR COUPLINGS AVAILABLE

7/8"-13 TOOTH INTERNAL SPLINE

SEE INSTRUCTION SHEET 110102 WHEN MOUNTING GEARTEK 'D/H/1' ON REAR

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

5/8"-9 TOOTH INTERNAL SPLINE

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: November 1, 2002

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

B  SAE 2X4 BOLT 'B' FLANGE

C  SAE 2X4 BOLT 'C' FLANGE

REAR ADAPTERS AVAILABLE

A  SAE 'A' REAR ADAPTER PLATE

B  SAE 'B' REAR ADAPTER PLATE

Revised February 2, 2004

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

**MODEL EXAMPLE**

DB 25 R - 1 C - B - 78

SERIES SIZE

REAR ADAPTER SHAFT FLANGE

REAR ADAPTER SHAFT FLANGE

COUPLING

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.
## 'DTC' Series

**TANDEM PUMP**

### Performance Data

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<th>MODEL SIZE</th>
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<th>MAXIMUM NORMAL PRESSURE RATINGS</th>
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* *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
- 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
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

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<th>PRESSURE RATINGS</th>
<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 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
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Phone: 662/286-2252  Fax: 662/287-6580  E-mail: haisales@geartek.com  Http: www.geartek.com
FLANGES AVAILABLE

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

MOUNTING DIMENSIONS

<table>
<thead>
<tr>
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<th>B</th>
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FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

MODEL EXAMPLE

HD 25 R - 1 C

SERIES
SIZE
ROTATION
R=CLOCKWISE
L=COUNTERCLOCKWISE

FLANGE
SHAFT

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

'HD' SERIES PUMP HORSEPOWER IN @ 2500 PSI

GEARTEK © FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.
### 'HD' Series

**2 SECTION PUMP**

---

#### Performance Data

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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
DOUBLE VITON® SHAFT SEALS STANDARD
PRESSURE COMPENSATED THRUST PLATES
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SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE
TORQUE LIMIT 655 FT.-LBS.

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

STD
1 1/4" STRAIGHT
TORQUE LIMIT 655 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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UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
### Flanges Available

#### SAE 2x4 Bolt 'B' Flange

- **PILOT DIA.**: 6.88
- **9/16" DIA. 6 HOLES**: 4.62
- **11/16" DIA. 4 HOLES**: 3.536
- **3.536**: 1.768

#### SAE 2x4 Bolt 'C' Flange

- **PILOT DIA.**: 8.36
- **9/16" DIA.**: 4.506
- **11/16" DIA.**: 2.253

### 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*

### Model Example

- **HD 25 - 25 R - 1 C**
  - 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)

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

'H'D SERIES PUMP HORSEPOWER IN @ 2500 PSI
'HDB' Series
__PIGGY-BACK__

Performance Data

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<th>PRESSURE RATINGS</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 87 GPM
- HEAVY DUTY SLEEVE TYPE BEARINGS
- DOUBLE VITON® SHAFT SEALS STANDARD
- PRESSURE COMPENSATED THRUST PLATES
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SHAFTS AVAILABLE

1 1/4"-14 TOOTH SPLINE

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

1.229
1.223
1.30
1.34

2.19
FLG. MTG. SURFACE

REAR COUPLINGS AVAILABLE

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

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

5/8"-9 TOOTH INTERNAL SPLINE

1.75
FULL SPLINE .65 MIN.

STANDARD SAE 4-BOLT CONNECTOR PORTS

SAE 4-BOLT CONN. PORTS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>INLET SIZE</th>
<th>OUTLET SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB15</td>
<td>1 1/4&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
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<td>1&quot;</td>
</tr>
<tr>
<td>DB25</td>
<td>1 1/2&quot;</td>
<td>1 1/4&quot;</td>
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<tr>
<td>DB30</td>
<td>1 1/2&quot;</td>
<td>1 1/4&quot;</td>
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<td>DB35</td>
<td>1 1/2&quot;</td>
<td>1 1/4&quot;</td>
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<tr>
<td>DB40</td>
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</tr>
<tr>
<td>DB45</td>
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</table>

4-BOLT CONNECTOR CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tbody>
<tr>
<td>1&quot;</td>
<td>.51</td>
<td>1.031</td>
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<td>3/8-16NC</td>
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<tr>
<td>1 1/4&quot;</td>
<td>.59</td>
<td>1.188</td>
<td>1.15</td>
<td>2.313</td>
<td>7/16-14NC</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>.70</td>
<td>1.406</td>
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</table>

Revised: November 1, 2002

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

SAE 2X4 BOLT 'B' FLANGE

REAR ADAPTERS AVAILABLE

SAE 'A' REAR ADAPTER PLATE

SAE 'B' REAR ADAPTER PLATE

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

MOUNTING DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDB15</td>
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<td>4.95</td>
</tr>
<tr>
<td>HDB45</td>
<td>2.16</td>
<td>5.23</td>
</tr>
</tbody>
</table>

FOR METRIC DIMENSIONS MULTIPLY 25.4 X IN. = mm

MODEL EXAMPLE

HDB 25 R - 1 C - B - 78

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)

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

'H'D' SERIES PUMP HORSEPOWER IN @ 2500 PSI
# 'MD/RD' Series

**SINGLE MOTOR**

**SINGLE REVERSIBLE PUMP**

## Performance Data

<table>
<thead>
<tr>
<th>MODEL SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>PUMPS</th>
<th>MOTORS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>U.S. GALLONS</td>
<td>CUBIC INCHES</td>
<td>CUBIC CENT.</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 GEAR 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**

<table>
<thead>
<tr>
<th>SPLINE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAMETRAL PITCH</td>
</tr>
<tr>
<td>PRESSURE ANGLE</td>
</tr>
<tr>
<td>NO. OF TEETH</td>
</tr>
<tr>
<td>MINOR DIA.</td>
</tr>
</tbody>
</table>

![Diagram of 1 1/4"-14 TOOTH SPLINE](image1)

**1" STRAIGHT**

AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 341 FT.-LBS.

<table>
<thead>
<tr>
<th>SPLINE DATE</th>
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</thead>
<tbody>
<tr>
<td>DIAMETRAL PITCH</td>
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<td>PRESSURE ANGLE</td>
</tr>
<tr>
<td>NO. OF TEETH</td>
</tr>
<tr>
<td>MINOR DIA.</td>
</tr>
</tbody>
</table>

![Diagram of 1" STRAIGHT](image2)

**7/8"-13 TOOTH SPLINE**

AVAILABLE ON 15 THRU 35 SIZES
TORQUE LIMIT 184 FT.-LBS.

<table>
<thead>
<tr>
<th>SPLINE DATE</th>
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</thead>
<tbody>
<tr>
<td>DIAMETRAL PITCH</td>
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<tr>
<td>MINOR DIA.</td>
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</table>

![Diagram of 7/8"-13 TOOTH SPLINE](image3)

### STANDARD SAE 4-BOLT CONNECTOR PORTS

**SAE 4-BOLT CONN. PORTS**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>INLET SIZE</th>
<th>OUTLET SIZE</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>45</td>
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<td>1 1/2&quot;</td>
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</tbody>
</table>

**4-BOLT CONNECTOR CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>.51</td>
<td>1.031</td>
<td>1.03</td>
<td>2.062</td>
<td>3/8-16NC</td>
</tr>
<tr>
<td>1 1/4&quot;</td>
<td>.59</td>
<td>1.188</td>
<td>1.15</td>
<td>2.313</td>
<td>7/16-14NC</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
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<td>1.406</td>
<td>1.37</td>
<td>2.750</td>
<td>1/2-13NC</td>
</tr>
</tbody>
</table>

Revised: January 9, 2003

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

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

PUMP MODEL EXAMPLE

REVERSIBLE PUMP

RD 25 - 1 C

SIZE FLANGE SHAFT

MD * 25 - 1 C

BI-DIRECTIONAL MOTOR

OPTIONAL: SPECIFY
CODE 'H' THIS AREA FOR
HIGH PRESSURE SEAL
OTHERWISE: LEAVE BLANK

* 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.

REVISED: APRIL 22, 2003

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
GEARTEK MD45 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F

(Typical)  PRESSURE, PSI

<table>
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<th>RPM</th>
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<td>900</td>
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<td>2100</td>
<td>100.00</td>
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<td>2400</td>
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</tbody>
</table>

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

TWO SPEED MOTOR

COMPACT SIZE

AUTOMATIC DOWNSHIFT OPTION

HYDRAULIC SHIFT ON THE GO

GEARTEK 'SMD' TWO SPEED MOTOR

Geartek two-speed motors consist of two hydraulic gear motor units with built-in shiftvalving. 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 SIZE</th>
<th>DISPLACEMENT/REVOLUTION (THEORETICAL)</th>
<th>MOTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. GALLONS</td>
<td>CUBIC INCHES</td>
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<tr>
<td>SMD15</td>
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<td>SMD25</td>
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<td>SMD40</td>
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</tr>
<tr>
<td>SMD45</td>
<td>.0387</td>
<td>8.94</td>
</tr>
</tbody>
</table>

* 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

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

3 1 1/4" STRAIGHT

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

SCHEMATIC

SCHEMATIC SHOWN WITH
SEQUENCE VALVE

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

SAE 2X4 BOLT 'B' FLANGE

SAE 2X4 BOLT 'C' FLANGE

DIMENSIONAL DATA

FOR METRIC DIMENSIONS
MULTIPLY 25.4 X IN. = mm

<table>
<thead>
<tr>
<th>MOUNTING DIMENSIONS</th>
<th>SIZE</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD15</td>
<td>3.02</td>
<td>1.25</td>
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</table>

BI-ROTATIONAL
OTHER PORT TYPES AVAILABLE
CONSULT FACTORY

SAE #20 O-RING BOSS CONNECTOR
1 5/8-12UNF-2B

UNLESS HIGH PRESSURE SEAL IS USED
TAIL DRAIN MUST BE USED IF BACK
PRESSURE EXCEEDS 100 PSI ON MOTOR
9/16-18UNF-2B NO. 6 PORT

HIGH SPEED SECTION

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

OPTIONAL: MANUALLY PILOT PORT
#4 SAE O-RING BOSS

MODEL EXAMPLE

SM D X 25-25 - 1 C - S

TWO-SPEED MOTOR

SERIES

OPTIONAL: SPECIFY CODE 'H' THIS
AREA FOR HIGH PRESSURE SEAL
OTHERWISE: LEAVE BLANK

VALVE OPTIONS
S = SEQUENCE
B = NO VALVE

FLANGE

SECTION SIZES

DRIVE SHAFT

* 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.

June 3, 2005

UNLESS OTHERWISE SPECIFIED, ALL LINEAR DIMENSIONS ARE IN INCHES.
GEARTEK SMD15 MOTOR PERFORMANCE
SAE 10W oil @ 150 degrees F

GEARTEK SMD20 MOTOR PERFORMANCE
SAE 10W oil @ 150 degrees F

GEARTEK SMD25 MOTOR PERFORMANCE
SAE 10W oil @ 150 degrees F
GEARTEK SMD30 MOTOR PERFORMANCE

GEARTEK SMD35 MOTOR PERFORMANCE

GEARTEK SMD40 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F (Typical)

PRESSURE, PSI

- 500
- 1000
- 1500
- 2000
- 2500
- 3000
GEARTEK SMD45 MOTOR PERFORMANCE

SAE 10W oil @ 150 degrees F

PRESURE, PSI

HORSEPOWER

RPM

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