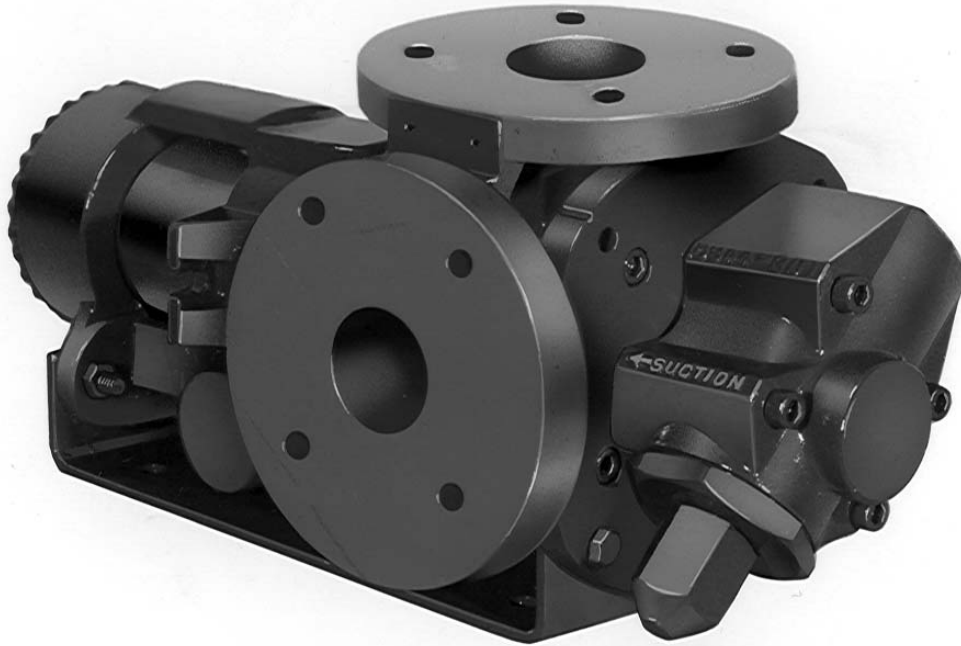


GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

This heavy duty series pump is ideal for refining, petrochemical and applications requiring extra strength or shock resistance. The steel construction conforms to ASTM designation A216 Grade WCB. Superior rotor shaft support and an integral, maintenance-free radial/thrust bearing, reduce deflection and wear.



The GHS steel series is designed for applications in the operating ranges noted below. These units are available with head and backhead jackets for temperature control, carbon graphite bushings for low viscosity liquids, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages.

FEATURES

400 PSI CAPABILITY
BALL BEARING THRUST CONTROL
ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE
HIGH STRENGTH, COMPUTER PROFILED GEARING FOR QUIET OPERATION
MULTIPLE PORT POSITIONS
FLEXIBLE SEAL DESIGN ALLOWS FOR A VARIETY OF INDUSTRIAL STANDARD SEALS OR PACKING
INTERNAL SEAL VENT

OPERATING RANGE

CAPACITY (GPM) : (3 TO 295)
 [LPM] : [11 TO 1116]

PRESSURE (PSI) : [0 TO 300]
 [BAR] : [0 TO 21]

VISCOSITY (SSU) : (28 TO 2,000,000)
 [cSt] : [1 TO 440,000]

TEMPERATURE (F) : (-20° TO 675°)
 [C] : [-29° TO 358°]

APPLICATIONS

USE WITH ANY CLEAN LIQUID COMPATIBLE WITH IRON/STEEL

- ★ BOOSTER SERVICE
- ★ CIRCULATING
- ★ FILTERING
- ★ LUBRICATING
- ★ TRANSFERRING

| EXTERIOR | BACKHD | ROTOR & IDLER | HOUSING PORTS | BUSHING | IDLER PIN | SHAFT | SHAFT SEALING | | ROTA-TION | INTERNAL RELIEF VALVE | |
|----------|--------------|--------------------|---------------------------------|---------|------------|-------|---------------|--------------|-----------|-----------------------|----------------|
| | | | | | | | MECH. SEAL ● | PACKING ■ | | MATERIAL | SETTING |
| STEEL ③ | DUCTILE IRON | HIGH STRENGTH IRON | 150# FLG GHC 180° GHS 90° | BRONZE | HARD STEEL | STEEL | VITON | CARBON FIBER | C.W. | STEEL | 75 PSI [5 BAR] |

Standard Models

G H C 3 JG 32 - B
G H S 3 JG 32 - B
 | | | | | | | | | | | |
 GEAR DUTY DESIGN PORT SIZE HYDRAULIC SEAL STYLE

| MODEL NUMBER | | NOM. CAPACITY - SPEED | | | | MAXIMUM | | | | SHIPPING DATA | | |
|------------------------|--|-----------------------|-------------------|-------------|-------------------|----------------------------|------------------------|---------------------------------|--------------------|---------------|------------|------------|
| | | MAXIMUM | | ALTERNATIVE | | DIFF. PRESSURE - PSI [BAR] | | | TEMP | Wt. | Vol. | |
| | | GPM [LPM] | RPM 60 Hz [50 HZ] | GPM [LPM] | RPM 60 Hz [50 HZ] | BELOW 38 SSU [4 cSt] | 38 TO 100 SSU [21 cSt] | 100 TO 250,000 SSU [55,000 cSt] | °F [°C] | LBS [KG] | CU. FT. | |
| GHC | GHS | | | | | | | | | | | |
| GHC 1 DC32-B ① ● † | | 9 [28] | | 6 [19] | | | | | | 39 [17,7] | 0.6 | |
| GHC 1 DE32-B ① ● † | | 11 [35] | | 7 [22] | | | | | | 39 [17,7] | 0.6 | |
| GHC 1-1/2 GC32-B ● † | GHS 1-1/2 GC32-B ● † GHS 1-1/2 GC38-B ■ † | 16 [50] | 1750 [1460] | 10 [32] | 1150 [960] | | | 300 [21] | GHC ● 350 [177] | 71 [32,2] | 2.9 | |
| GHC 1-1/2 GF32-B ● † | GHS 1-1/2 GF32-B ● † GHS 1-1/2 GF38-B ■ † | 23 [73] | | 15 [47] | | | | | | | 71 [32,2] | 2.9 |
| GHC 1-1/2 GH32-B ● † | GHS 1-1/2 GH32-B ● † GHS 1-1/2 GH38-B ■ † | 31 [98] | | 20 [63] | | | | | | | 71 [32,2] | 2.9 |
| GHC 1-1/2 GJ32-B ② ● † | GHS 1-1/2 GJ32-B ② ● † GHS 1-1/2 GJ38-B ② ■ † | 38 [120] | | 25 [79] | | 100 [7] | 150 [10] | | | | 400 [204] | 71 [32,2] |
| GHC 3 JG32-B ● † | GHS 3 JG32-B ● † GHS 3 JG38-B ■ † | 40 [126] | 1150 [960] | 30 [95] | 870 [725] | | | | GHS ● 500 [260] | 154 [69,8] | 5.3 | |
| GHC 3 JJ32-B ● † | GHS 3 JJ32-B ● † GHS 3 JJ38-B ■ † | 56 [177] | | 36 [114] | | | | 300 [21] | | | 154 [69,8] | 5.3 |
| GHC 3 JL32-B ● † | GHS 3 JL32-B ● † GHS 3 JL38-B ■ † | 77 [243] | | 58 [183] | | | | | | | 154 [69,8] | 5.3 |
| GHC 3 JP32-B ② ● † | GHS 3 JP32-B ② ● † GHS 3 JP38-B ② ■ † | 107 [338] | | 81 [256] | | | | | | | 200 [14] | 154 [69,8] |

STANDARD MODELS CONTINUED

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 3 JG32-B, GHS 3 JG32-B**

- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

- ① 3450 [2875] RPM PERMISSIBLE TO 1,000 SSU [220 cSt] AND 100 PSI [7 BAR]
- ② PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.
- ③ REFER TO REFERENCE SECTION FOR SPECIFIC CONSTRUCTION DETAILS.

THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO
GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

| MODEL NUMBER | | NOM. CAPACITY - SPEED | | | | MAXIMUM | | | SHIPPING DATA | | |
|--------------|--|-----------------------|--------------|--------------|--------------|----------------------------|-------------|--------------|--------------------------|---------|------|
| | | MAXIMUM | | ALTERNATIVE | | DIFF. PRESSURE - PSI [BAR] | | | TEMP. | Wt. | Vol. |
| | | GPM | RPM | GPM | RPM | BELOW | 38 TO | 100 TO | ° F | LBS | CU. |
| GHC | GHS | [LPM] | 60 Hz | [LPM] | 60 Hz | 38 SSU | 100 SSU | 250,000 SSU | [° C] | [KG] | FT. |
| | | | [50 HZ] | | [50 HZ] | [4 cSt] | [21 cSt] | [55,000 cSt] | | | |
| | GHS 2 NK32-B ● † GHS 2 NK38-B ■ † | 99 [375] | | 60 [189] | | | | 300 [21] | | 200 | 5.3 |
| | | | | | | | | | | [90,7] | |
| | GHS 3 NK32-B ● † GHS 3 NK38-B ■ † | 132 [500] | 960 [960] | 80 [252] | 580 [480] | | | | | 200 | 5.3 |
| | | | | | | | | | | [90,7] | |
| | GHS 2 NM32-B ● † GHS 2 NM38-B ■ † | 165 [624] | | 99 [312] | | | | | | 200 | 5.3 |
| | | | | | | | | | | [90,7] | |
| | GHS 3 NP32-B ① ● † GHS 3 NP38-B ① ■ † | 172 [542] | 720 [600] | 115 [362] | 480 [400] | 100 [7] | 150 [10] | 300 [21] | GHS ● 400 [204] | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 3 RM32-B ● † GHS 3 RM38-B ■ † | 215 [678] | | 143 [451] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 4 RM32-B ● † GHS 4 RM38-B ■ † | 255 [804] | 720 [600] | 170 [536] | 480 [400] | 100 [7] | 150 [10] | 300 [21] | ● 500 [260] | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 2-1/2 RP32-B ● † GHS 2-1/2 RP38-B ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 3 RP32-B ● † GHS 3 RP38-B ■ † | 255 [804] | 720 [600] | 170 [536] | 480 [400] | 100 [7] | 150 [10] | 300 [21] | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 4 RP32-B ● † GHS 4 RP38-B ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 3 RR32-B ● † GHS 3 RR38-B ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 4 RR32-B ● † GHS 4 RR38-B ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |
| | GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ † | 295 [930] | | 196 [618] | | | | | | 302 | 10.7 |
| | | | | | | | | | | [136,9] | |

STANDARD MODELS CONTINUED

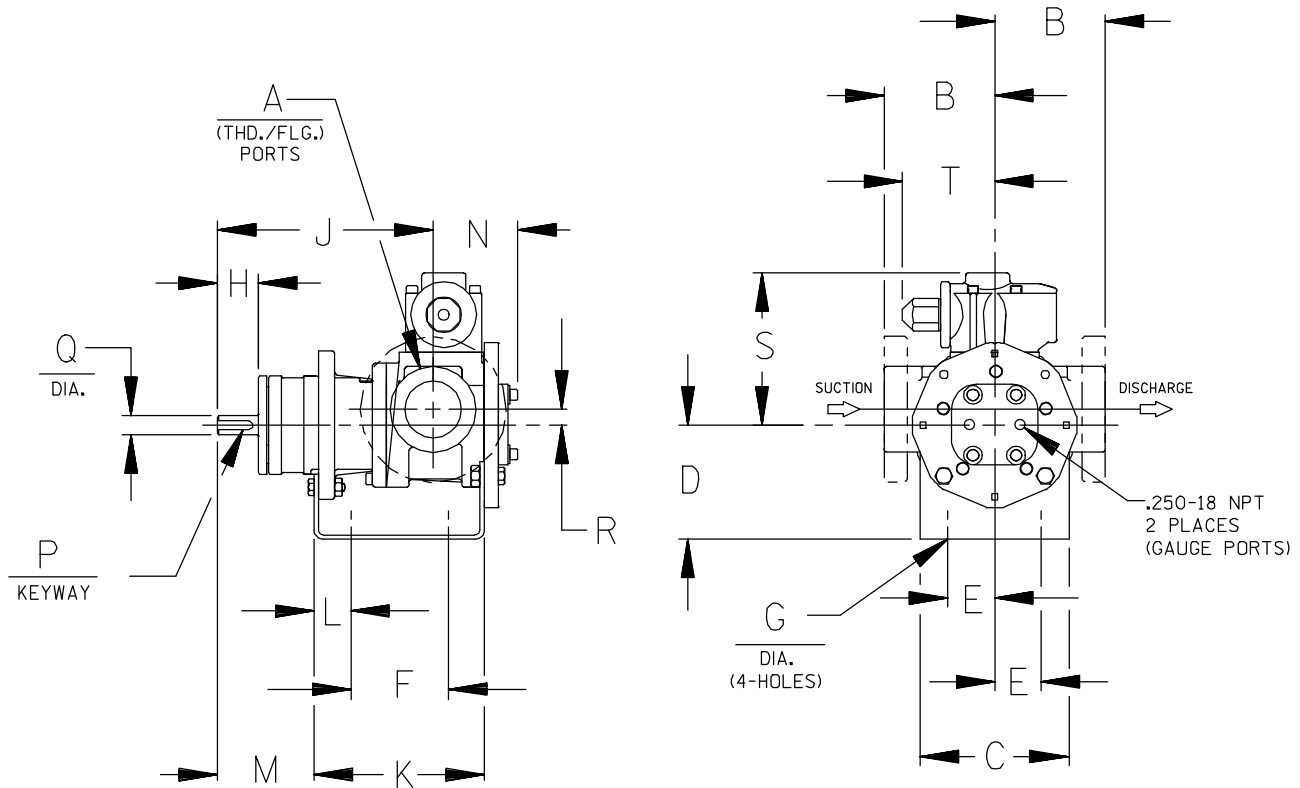
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.

THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO
GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

| APPLICATION RECOMMENDATIONS: | | |
|-------------------------------------|--|--|
| APPLICATION | OPTIONS REQUIRED (Select One From Each Row) | OPERATING LIMITATIONS |
| GHS ONLY HIGH TEMPERATURE | 25U, 25V, OR 25W 35J – 35M (AS REQ'D) 40M, 40W 61H, OR 65Q 70K | TEMPERATURE: 675° F MAX. PRESSURE: 200 PSI MAX. |
| ASPHALT | 35J–35M (AS REQ'D) 40M, 40W, 40G 41R, 41W 65S 70, 70K, 71K | TEMPERATURE: 500° MAX. |
| JACKETED | 40G, 40J, 40K, 40W, 41U, 41W | LIMIT JACKET PRESSURE TO 150 PSIG |

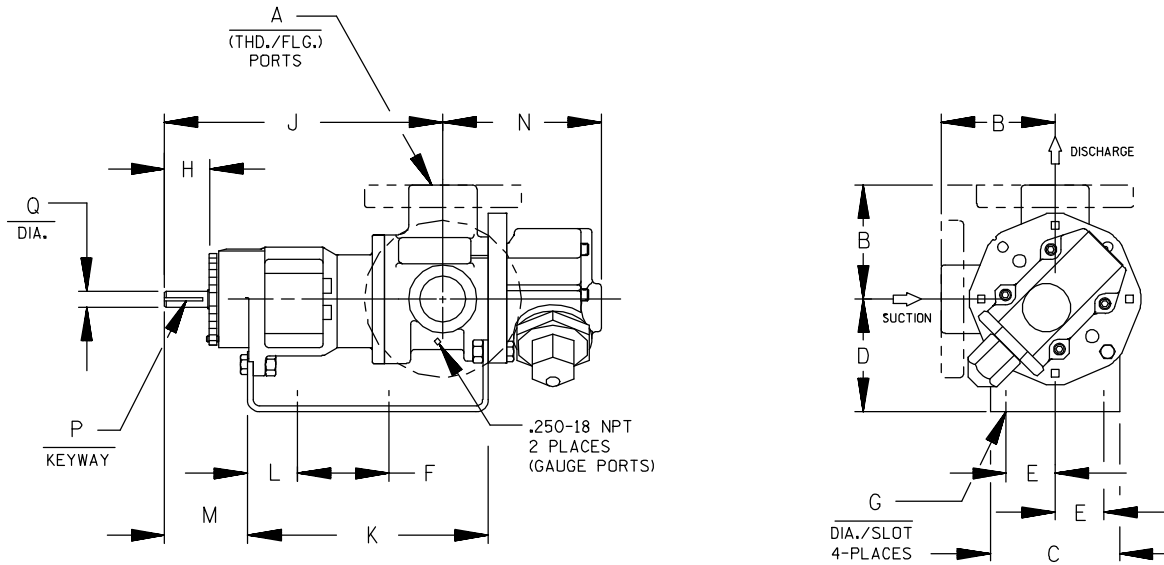
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



CAD FILE NO.: 16458D

| MODEL NUMBERS | PUMP DIMENSIONS - INCHES [MILLIMETERS] | | | | | | | | | | | | | | | | | |
|---------------|--|---|---------------|--|--------------|---------------|-------------|--------------|----------------|---------------|--------------|---------------|---------------|---------------------------------|--------------|--------------|---------------|---------------|
| | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | T |
| GHC D | 1" | 4.00 † [102] | 4.00 [102] | 3.50* [89] 4.50 [114] 5.25 [133] | 1.62 [41] | 3.12 [79] | .41 [10] | 1.16 [30] | 6.19 [157] | 5.04 [128] | .76 [19] | 2.62 [66] | 2.74 [70] | .12 [3] x .75 [19] | .50 [13] | .62 [16] | 5.19 [132] | 3.58 [91] |
| GHC G | 1-1/2" | 4.00 † [102] | 5.88 [149] | 3.50* [89] 4.50 [114] 5.25 [133] 6.25 [159] | 1.62 [41] | 4.00 [102] | .41 [10] | 1.62 [41] | 8.50 [216] | 6.71 [170] | 1.06 [27] | 3.82 [97] | 3.35 [85] | .19 [5] x 1.25 [32] | .75 [19] | .62 [16] | 6.00 [152] | 3.62 [92] |
| GHC J | 3" | 6.00* [152] † 6.31 † [160] | 6.88 [175] | 4.50 [114] 5.25* [133] 6.25 [159] 7.00 [178] 8.00 [203] | 2.88 [73] | 4.25 [108] | .44 [11] | 2.50 [64] | 12.12 [308] | 9.75 [248] | 1.75 [44] | 5.50 [140] | 4.66 [118] | .25 [6] x 2.00 [51] | 1.00 [25] | 1.12 [28] | 9.06 [230] | 6.75 [171] |

* STANDARD DIMENSION
 PORTS ARE COMPATIBLE WITH 150# OR 300# ANSISTEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT
 † FOR ANSIPipe. OPTIONAL [DIN FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.
 NPT FOR ANSIPipe. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.
 ‡ 90° HOUSING



CAD FILE NO.: 16669F

| MODEL NUMBERS | PUMP DIMENSIONS - INCHES [MILLIMETERS] | | | | | | | | | | | | | | |
|---------------|--|---------------------------------|----------------|--|--------------|----------------|-------------|--------------|----------------|----------------|--------------|---------------|--------------------|----------------------------------|--------------|
| | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q |
| GHS G | 1-1/2" | 4.00 [102] | 4.88 [124] | 3.50* [89] 4.50 [114] 5.25 [133] 6.25 [159] | 1.62 [41] | 8.00 [203] | .41 [10] | 1.62 [41] | 12.06 [306] | 10.72 [272] | 1.52 [39] | 3.35 [85] | 5.70 [145] | .19 [5] x 1.25 [32] | .75 [19] |
| GHS J | 3" | 6.00† [152] 6.31 [160] | 6.88 [175] | 5.25* [133] 6.25 [159] 7.00 [178] 8.00 [203] | 2.88 [73] | 10.00 [254] | .44 [11] | 2.50 [64] | 15.68 [398] | 14.31 [363] | 2.77 [70] | 4.48 [114] | 8.50 [216] | .25 [6] x 2.00 [51] | 1.00 [25] |
| GHS N | 2" | 5.25* [133] 5.38 [137] | 8.00 [203] | 4.50 [114] 5.25* [133] 6.25 [159] 7.00 [178] 8.00 [203] | 2.88 [73] | 10.00 [254] | .44 [11] | 2.58 [66] | 16.37 [416] | 15.14 [385] | 2.69 [68] | 4.56 [116] | 7.59 [193] | .25 [6] x 2.00 [51] | 1.12 [32] |
| | 3" | 7.19 [183] | | | | | | | | | | | 8.72 [221] * | | |
| GHS R | 2-1/2" | | | | | | | | | | | | | | |
| | 3" | 7.19 [183] | 10.50 [267] | 7.00 [178] | 3.75 [95] | 13.75 [349] | .52 [13] | 2.25 [57] | 17.87 [454] | 17.36 [441] | 1.80 [46] | 4.70 [119] | 11.31 [287] | .38 [10] x 1.88 [48] | 1.44 [37] |
| | 4" | | | | | | | | | | | | | | |

* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 150* OR 300* ANSISTEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 180° HOUSING

GHC/GHS

FOR GHC DRIVE OPTIONS

AND DIMENSIONS

SEE

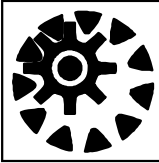
SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

SEE

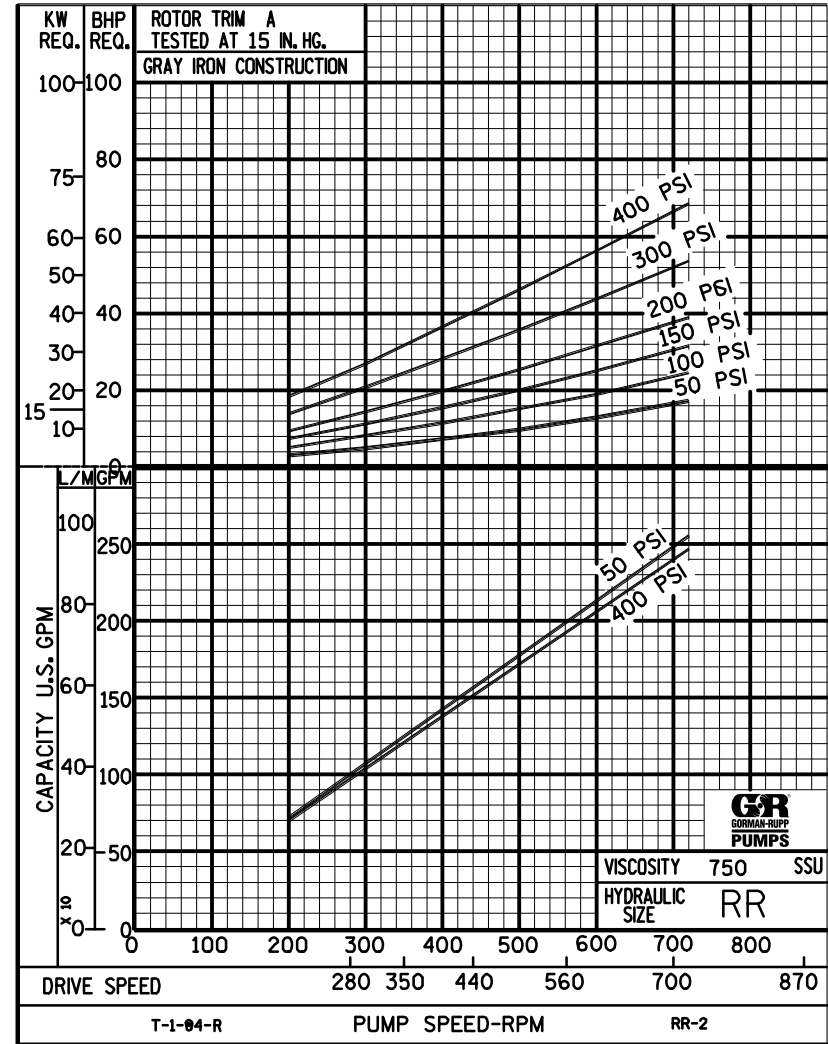
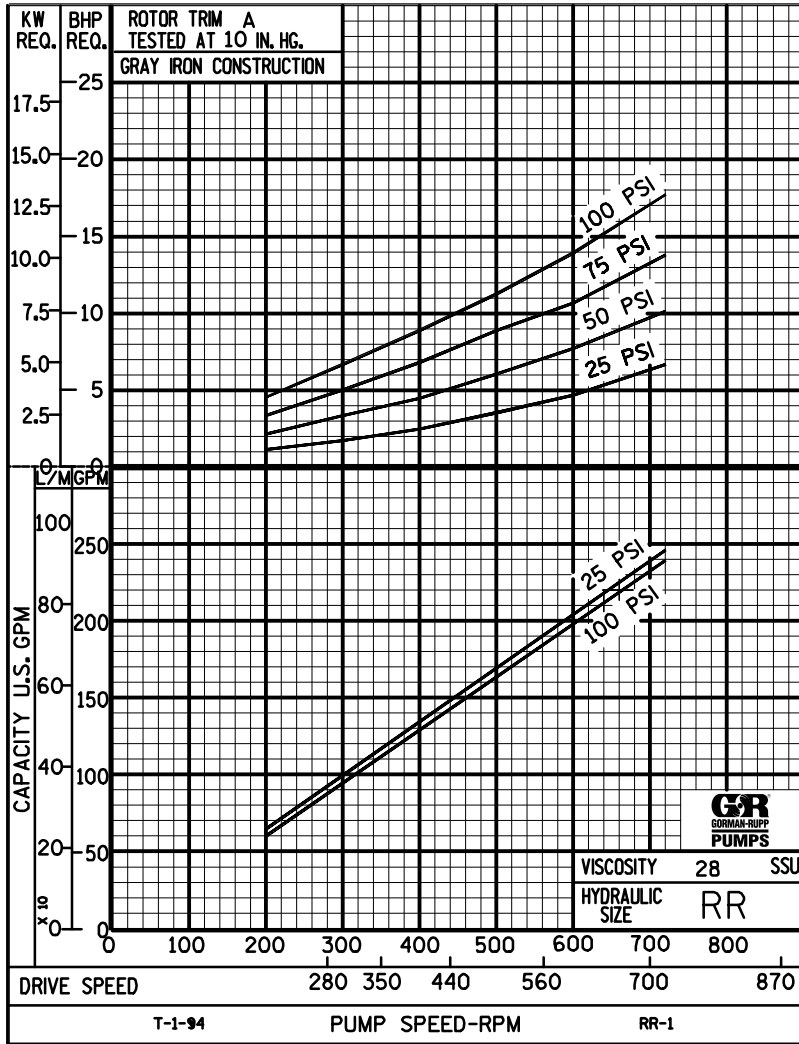
SECTION 545



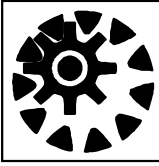
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RR Hydraulic Size



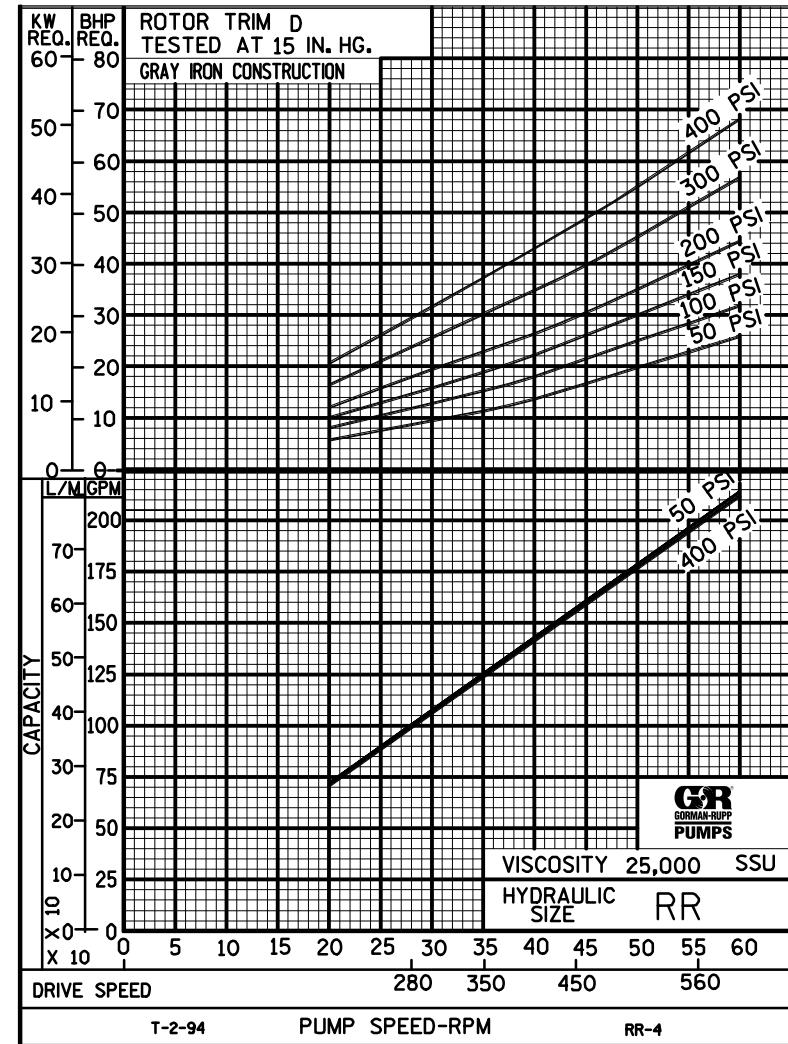
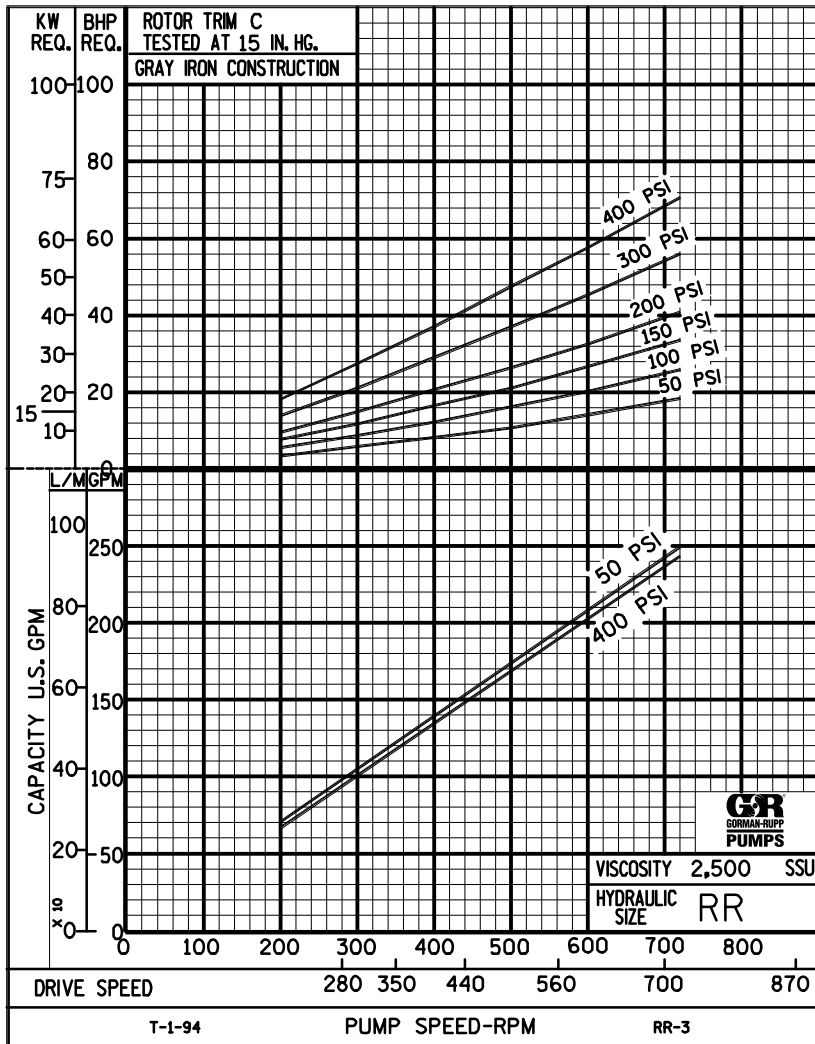
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PERFORMANCE CURVES

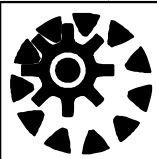
SPEED VS. CAPACITY/HORSEPOWER

RR Hydraulic Size



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RR

PUMP HYDRAULIC SIZE CHART

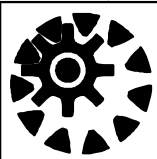
SEC. 500

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228 GPM
640 RPM

| NOMINAL | | ROTOR TRIM | VISCOSITY (SSU) | N.I.P.R. (PSIA) | FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe) | | | | | FULL BYPASS RELIEF VALVE PRESSURE (PSI) | | | | | CAPACITY (GPM) / H.P. REQUIRED | | | | | | | | | |
|----------|-----------|------------|-----------------|-----------------|---|--------|------|-----|-----|---|-----|-----|-------------|-----|--------------------------------|-----|-----|-----|-----------------|-----|-----|-----|--|--|
| CAP. GPM | SPEED RPM | | | | PIPE DIAMETER | | | | | CRACKING PRESS. (PSI) | | | | | DIFFERENTIAL PRESSURE (PSI) | | | | | | | | | |
| | | | | | 2" | 2 1/2" | 3" | 4" | 6" | LOW PRES R/V | | | HI PRES R/V | | MEDIUM DUTY AND HEAVY DUTY | | | | HEAVY DUTY ONLY | | | | | |
| 228 | 640 | STD | 28 | 3.7 | .37 | .15 | .05 | .01 | - | 64 | 88 | 125 | 187 | | 218 | 216 | 214 | 212 | | | | | | |
| | | | 32 | | .39 | .16 | .05 | .01 | - | | | | | | 5.9 | 8.6 | 12 | 15 | | | | | | |
| | | | 38 | 3.7 | .41 | .17 | .06 | .02 | - | 67 | 91 | 128 | 190 | | 220 | 216 | 216 | 214 | 212 | | | | | |
| | | | 50 | | .45 | .19 | .06 | .02 | - | | | | | | 6.9 | 10 | 13 | 17 | 23 | | | | | |
| | | | 70 | 3.7 | .49 | .21 | .07 | .02 | - | 72 | 96 | 132 | 194 | 254 | 222 | 220 | 218 | 218 | 216 | 212 | | | | |
| | | | 100 | | .54 | .23 | .08 | .02 | - | | | | | | 8.8 | 11 | 15 | 19 | 24 | 31 | | | | |
| | | | 150 | 3.7 | .60 | .26 | .09 | .02 | - | 77 | 101 | 137 | 199 | 261 | 224 | 224 | 222 | 222 | 220 | 216 | 212 | 206 | | |
| | | | 200 | | .64 | .28 | .10 | .03 | - | | | | | | 10 | 13 | 16 | 20 | 25 | 33 | 45 | 58 | | |
| | | | 300 | 3.7 | .72 | .31 | .11 | .03 | - | 83 | 107 | 143 | 204 | 271 | 226 | 226 | 224 | 224 | 222 | 220 | 218 | 214 | | |
| | | | 500 | | .83 | .36 | .13 | .03 | - | | | | | | 11 | 14 | 17 | 21 | 27 | 34 | 47 | 60 | | |
| | | 750 | 3.8 | .95 | .27 | .11 | .04 | .01 | 87 | 112 | 147 | 209 | 279 | 228 | 228 | 226 | 226 | 224 | 224 | 222 | 220 | | | |
| | | 1,000 | | .74 | .36 | .15 | .05 | .01 | | | | | | 12 | 15 | 18 | 21 | 28 | 35 | 48 | 61 | | | |
| | | 2,000 | 4.3 | 1.48 | .73 | .31 | .10 | .02 | 95 | 121 | 155 | 216 | 293 | 224 | 222 | 222 | 222 | 220 | 220 | 218 | 216 | | | |
| | | 3,500 | | 2.59 | 1.27 | .53 | .18 | .04 | | | | | | 14 | 17 | 21 | 23 | 30 | 36 | 50 | 63 | | | |
| | | 5,000 | 4.7 | 3.71 | 1.82 | .76 | .26 | .05 | 101 | 126 | 160 | 221 | 301 | 224 | 224 | 224 | 224 | 222 | 220 | 220 | 216 | | | |
| | | 7,500 | | 5.56 | 2.73 | 1.15 | .39 | .08 | | | | | | 15 | 19 | 24 | 26 | 33 | 36 | 51 | 65 | | | |
| | | 10,000 | 5.3 | 7.41 | 3.64 | 1.53 | .52 | .10 | 105 | 131 | 165 | 225 | 309 | 224 | 222 | 222 | 222 | 222 | 220 | 220 | 218 | | | |
| | | 15,000 | | 11.1 | 5.46 | 2.29 | .77 | .15 | | | | | | 17 | 21 | 26 | 29 | 35 | 41 | 55 | 68 | | | |
| | | 20,000 | 6.2 | 14.8 | 7.28 | 3.05 | 1.03 | .20 | 108 | 135 | 169 | 228 | 315 | 224 | 224 | 222 | 222 | 222 | 222 | 220 | 220 | | | |
| | | 25,000 | | 18.5 | 9.10 | 3.82 | 1.29 | .25 | | | | | | 19 | 23 | 28 | 32 | 37 | 43 | 57 | 71 | | | |
| 50,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 75,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 100,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 250,000 | | | | | | | | | | | | | | | | | | | | | | | | |

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



RR

PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

185 GPM
520 RPM

| NOMINAL | | ROTOR TRIM | VISCOSITY (SSU) | N.I.P.R. (PSIA) | FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small> | | | | | FULL BYPASS RELIEF VALVE PRESSURE (PSI) | | | | | CAPACITY (GPM) / H.P. REQUIRED | | | | | | | | | |
|----------|-----------|------------|-----------------|-----------------|--|--------|------|-----|-----|---|-----|-----|-------------|-----|--------------------------------|-----|-----|-----|-----------------|-----|-----|-----|--|--|
| CAP. GPM | SPEED RPM | | | | PIPE DIAMETER | | | | | CRACKING PRESS. (PSI) | | | | | DIFFERENTIAL PRESSURE (PSI) | | | | | | | | | |
| | | | | | 2" | 2 1/2" | 3" | 4" | 6" | LOW PRES R/V | | | HI PRES R/V | | MEDIUM DUTY AND HEAVY DUTY | | | | HEAVY DUTY ONLY | | | | | |
| | | | | | | | 50 | 75 | 100 | 150 | 200 | 25 | 50 | 75 | 100 | 150 | 200 | 300 | 400 | | | | | |
| 185 | 520 | STD | 28 | 2.6 | .24 | .10 | .03 | .01 | - | 59 | 85 | 122 | 179 | | 177 | 173 | 172 | 171 | | | | | | |
| | | | 32 | | .26 | .10 | .04 | .01 | - | | | | | | 3.9 | 6.5 | 9.4 | 12 | | | | | | |
| | | | 38 | 2.6 | .27 | .11 | .04 | .01 | - | 62 | 88 | 124 | 182 | | 178 | 174 | 174 | 173 | 169 | | | | | |
| | | | 50 | | .30 | .13 | .04 | .01 | - | | | | | | 4.9 | 7.3 | 11 | 14 | 18 | | | | | |
| | | | 70 | 2.6 | .33 | .14 | .05 | .01 | - | 66 | 91 | 127 | 186 | 247 | 181 | 178 | 177 | 176 | 173 | 170 | | | | |
| | | | 100 | | .37 | .16 | .06 | .02 | - | | | | | | 6.1 | 8.6 | 12 | 15 | 20 | 24 | | | | |
| | | | 150 | 2.6 | .41 | .17 | .06 | .02 | - | 70 | 96 | 131 | 190 | 252 | 183 | 181 | 180 | 179 | 177 | 175 | 171 | 166 | | |
| | | | 200 | | .44 | .19 | .07 | .02 | - | | | | | | 6.9 | 9.2 | 13 | 17 | 21 | 25 | 35 | 46 | | |
| | | | 300 | 2.6 | .49 | .21 | .08 | .02 | - | 76 | 101 | 135 | 195 | 259 | 185 | 183 | 182 | 182 | 180 | 178 | 177 | 173 | | |
| | | | 500 | | .58 | .25 | .06 | .02 | - | | | | | | 7.8 | 10 | 14 | 18 | 22 | 26 | 37 | 48 | | |
| | | 750 | 2.7 | .45 | .22 | .09 | .03 | .01 | 80 | 106 | 139 | 199 | 264 | 186 | 185 | 184 | 184 | 182 | 180 | 179 | 177 | | | |
| | | 1,000 | | .60 | .29 | .12 | .04 | .01 | | | | | | 7.9 | 11 | 14 | 18 | 22 | 27 | 38 | 49 | | | |
| | | 2,000 | 3.5 | 1.19 | .59 | .25 | .08 | .02 | 87 | 113 | 145 | 206 | 274 | 182 | 181 | 181 | 181 | 180 | 179 | 177 | 175 | | | |
| | | 3,500 | | 2.09 | 1.03 | .43 | .15 | .03 | | | | | | 10 | 12 | 16 | 18 | 23 | 29 | 40 | 50 | | | |
| | | 5,000 | 4.1 | 2.98 | 1.46 | .61 | .21 | .04 | 92 | 118 | 149 | 210 | 280 | 183 | 183 | 182 | 182 | 182 | 180 | 179 | 177 | | | |
| | | 7,500 | | 4.47 | 2.20 | .92 | .31 | .06 | | | | | | 13 | 15 | 18 | 20 | 26 | 31 | 42 | 52 | | | |
| | | 10,000 | 4.7 | 5.96 | 2.93 | 1.23 | .41 | .08 | 96 | 122 | 153 | 214 | 285 | 185 | 184 | 184 | 183 | 183 | 182 | 181 | 179 | | | |
| | | 15,000 | | 8.94 | 4.39 | 1.84 | .62 | .12 | | | | | | 16 | 19 | 22 | 24 | 29 | 35 | 45 | 55 | | | |
| | | 20,000 | 5.2 | 11.9 | 5.86 | 2.46 | .83 | .16 | 99 | 125 | 156 | 217 | 289 | 186 | 186 | 185 | 185 | 185 | 184 | 184 | 181 | | | |
| | | 25,000 | | 14.9 | 7.32 | 3.07 | 1.04 | .20 | | | | | | 19 | 21 | 24 | 26 | 32 | 37 | 48 | 58 | | | |
| 50,000 | 7.2 | 29.8 | 14.7 | 6.14 | 2.07 | .40 | 106 | 132 | 161 | 223 | 297 | 186 | 186 | 185 | 185 | 185 | 184 | 184 | 181 | | | | | |
| 75,000 | | 44.8 | 22.0 | 9.21 | 3.11 | .60 | | | | | | 26 | 29 | 31 | 34 | 39 | 45 | 56 | 66 | | | | | |
| 100,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 250,000 | | | | | | | | | | | | | | | | | | | | | | | | |

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



RR

SEC. 500

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36 GPM
100 RPM

| NOMINAL | | VISCOSITY | | N.I.P.R. | FRICTION PIPE LOSS (PSI/FT) <small>(Schedule 40 Steel Pipe)</small> | | | | | CAPACITY (GPM) | | | | H.P. REQUIRED | | | | | | | |
|-----------|------------|------------|---------|----------|--|-----|------|------|-----|-----------------------------|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|--|--|
| GPM | RPM | ROTOR TRIM | (SSU) | (PSIa) | PIPE DIAMETER | | | | | MEDIUM-DUTY & HEAVY-DUTY | | | | HEAVY-DUTY ONLY | | | | | | | |
| | | | | | 2½" | 3" | 4" | 5" | 6" | DIFFERENTIAL PRESSURE (PSI) | | | | | | | | | | | |
| | | | | | | 25 | 50 | 75 | 100 | 150 | 200 | 300 | 400 | | | | | | | | |
| 36 | 100 | STD | | | | | | | | | | | | | | | | | | | |
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| | | | | "D" | | | | | | | | | | | | | | | | | |
| | | | | | 200,000 | 2.9 | 11.4 | 4.8 | 1.6 | 0.7 | 0.3 | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 34 | | |
| | | | | | 399,999 | | 22.8 | 9.6 | 3.2 | 1.3 | 0.6 | 4.2 | 4.7 | 5.2 | 5.7 | 6.8 | 7.8 | 8.8 | 9.8 | | |
| | | | | | 400,000 | 3.2 | | | | | | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 34 | | |
| | | | | | 599,999 | | NR | 14.3 | 4.8 | 2 | 0.9 | 4.5 | 5.0 | 5.6 | 6.1 | 7.1 | 8.2 | 9.2 | 10 | | |
| | | | | | 600,000 | 3.9 | | | | | | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 34 | | |
| | | | 799,999 | NR | 19 | | 6.5 | 2.6 | 1.3 | 4.8 | 5.3 | 5.9 | 6.4 | 7.4 | 8.5 | 9.5 | 11 | | | | |
| | | | 800,000 | 4.3 | | | | | | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 34 | | | | |
| | | | 1M | | NR | 24 | 8.1 | 3.3 | 1.6 | 5.1 | 5.6 | 6.2 | 6.7 | 7.7 | 8.8 | 9.9 | 11 | | | | |

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.