

**GHA SERIES
 EXTREME DUTY ABRASIVE
 G, J, N, R & S HYD SIZE
 ROTARY GEAR PUMP**



The GHA series is designed for applications in the operating ranges noted below. These units are available with head and backhead jackets for temperature control, and packing or carbide mechanical seal options described on the following pages.

This abrasive handling, extreme duty series, provides superior wear resistance. The design also provides superior rotor shaft support and an integral, maintenance-free radial/thrust bearing for reduced deflection and wear. Reduced speeds enable service over extended periods. Information such as percentage, size and hardness of solids present in the liquid are useful to estimate pump life.

FEATURES

- HARDENED, WEAR RESISTANT GEARS, HOUSING, HEAD, PIN, AND BUSHING*
- HARD FACE, WEAR RESISTANT MECHANICAL SEAL*
- OVERSIZED TAPERED SEAL CAVITY*
- HEAVY DUTY NEEDLE ROLLER BEARING*
- ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE*
- FLEXIBLE SEAL DESIGN ALLOWS FOR A VARIETY OF INDUSTRY STANDARD SEALS OR PACKING*
- BALL BEARING THRUST CONTROL*

OPERATING RANGE

| | | |
|-------------|---------|-----------------|
| CAPACITY | (GPM) : | (8 TO 325) |
| | [LPM] : | [25 TO 1020] |
| PRESSURE | (PSI) : | [0 TO 200] |
| | [BAR] : | [0 TO 14] |
| VISCOSITY | (SSU) : | (28 TO 250,000) |
| | [cSt] : | [1 TO 55,000] |
| TEMPERATURE | (F) : | (-60° TO 500°) |
| | [C] : | [-51° TO 260°] |

APPLICATIONS

- USE WITH ANY LIQUID COMPATIBLE WITH CAST IRON
- ★ PAINTS
- ★ INKS
- ★ ADHESIVES
- ★ WASTE LIQUIDS
- ★ EMULSIONS
- ★ FILTERING

| EXTER- IOR | ROTOR & IDLER | HSG PORTS | IDLER BUSHING | BACKHD BEARING | IDLER PIN | SHAFT | SHAFT SEALING | | ROTA- TION | INTERNAL RELIEF VALVE | |
|---------------|---------------------|--------------------------|--------------------|------------------------|---------------------|----------------|---|----------------------------|---------------|--------------------------|-------------------|
| | | | | | | | MECHANICAL SEAL ● | PACKING ■ | | MATERIAL | SETTING |
| CAST IRON | HARD IRON | 90° TAPPED/ FLNG'D | SILICON CARBIDE | ① NEEDLE BEARING | TUNGSTEN CARBIDE | HARD. STEEL | SILICON CARB. SILICON CARB. VITON | ARAMID FIBER W/GRAPHITE | C.W. | DUCTILE IRON | 75 PSI [5 BAR] |

Standard Models

G H A 2 NK 3 - B
 | | | | | | |
 GEAR DUTY DESIGN PORT SIZE HYDRAULIC SEAL STYLE
 SIZE SIZE

| MODEL NUMBER | NOM. CAPACITY-SPEED | | MAXIMUM | | | | SHIPPING DATA | | |
|--|---------------------|-------------------------|-----------------------------------|------------------------------|---------------------------------------|-------------------|-------------------|---------------|-------------|
| | MAXIMUM | | DIFFERENTIAL PRESSURE - PSI [BAR] | | | TEMP. | ② Weight | Volume | |
| | 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] |
| GHA 1-1/2 GC 3-B ● GHA 1-1/2 GC 4-B ■ | 8 [25] | 870 [720] | | | | | ● 250 [119] | 57 [25,9] | 2.9 |
| GHA 1-1/2 GF 3-B ● GHA 1-1/2 GF 4-B ■ | 11 [36] | | | | | | | 57 [25,9] | |
| GHA 1-1/2 GH 3-B ● GHA 1-1/2 GH 4-B ■ | 15 [49] | | | | | | | 57 [25,9] | |
| GHA 1-1/2 GJ 3-B ● GHA 1-1/2 GJ 4-B ■ | 19 [60] | | | | | | | 57 [25,9] | |
| GHA 2 JJ 3-B ● GHA 2 JJ 4-B ■ | 28 [88] | 580 [480] | 100 [7] | 150 [10] | 200 [14] | ● 250 [119] | 144 [65,5] | 144 [65,5] | 5.3 |
| GHA 2 JL 3-B ● GHA 2 JL 4-B ■ | 38 [121] | | | | | | | 144 [65,5] | |
| GHA 2 JP 3-B ● GHA 2 JP 4-B ■ | 54 [169] | | | | | | | 144 [65,5] | |
| GHA 2 NK 3-B ● GHA 2 NK 4-B ■ | 60 [188] | 580 [480] | 100 [7] | 150 [10] | 200 [14] | ■ 500 [260] | 180 [81,6] | 180 [81,6] | 5.3 |
| GHA 3 NK 3-B ● GHA 3 NK 4-B ■ | | | | | | | | 180 [81,6] | |
| GHA 2 NM 3-B ● GHA 2 NM 4-B ■ | 80 [251] | | | | | | | 180 [81,6] | |
| GHA 3 NM 3-B ● GHA 3 NM 4-B ■ | | | | | | | | 180 [81,6] | |
| GHA 2 NP 3-B ● GHA 2 NP 4-B ■ | 99 [313] | | | | | | | 180 [81,6] | |
| GHA 3 NP 3-B ● GHA 3 NP 4-B ■ | | | | | | | | 180 [81,6] | |

STANDARD MODELS CONT.

① EXCEPT "S" SIZE AND 4-B MODELS (SILICON CARBIDE BUSHING).

② FOR 4-B UNIT WEIGHT, REFER TO GHS SECTION

● MECHANICAL SEAL
■ PACKING

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

| MODEL NUMBER | NOM. CAPACITY-SPEED | | MAXIMUM | | | | SHIPPING DATA | | |
|--|---------------------|-------------------------|-----------------------------------|------------------------------|---------------------------------------|--|---------------|------------|--------------|
| | MAXIMUM | | DIFFERENTIAL PRESSURE - PSI [BAR] | | | TEMP. | Weight | Volume | |
| | 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. | |
| GHA 2 RM 3-B ● GHA 2 RM 4-B ■ | 85 [271] | 350 [290] | 100 [7] | 150 [10] | 200 [14] | ● 250 [119] ■ 500 [260] | 357 [162] | 10.7 | |
| GHA 2-1/2 RM 3-B ● GHA 2-1/2 RM 4-B ■ | | | | | | | 357 [162] | | |
| GHA 3 RM 3-B ● GHA 3 RM 4-B ■ | | | | | | | 357 [162] | | |
| GHA 3 RP 3-B ● GHA 3 RP 4-B ■ | | | | | | | 105 [339] | | 357 [162] |
| GHA 3 RR 3-B ● GHA 3 RR 4-B ■ | | | | | | | 125 [402] | | 357 [162] |
| GHA 3 RS 3-B ● GHA 3 RS 4-B ■ | | | | | | | 146 [465] | | 357 [162] |
| GHA 4 RS 3-B ● GHA 4 RS 4-B ■ | | | | | | | 146 [465] | | 357 [162] |
| GHA 3 SR 3-B ● GHA 3 SR 4-B ■ | 210 [660] | 350 [290] | 100 [7] | 150 [10] | 200 [14] | ● 400 [204] ■ 500 [260] | 530 [240] | 17.3 | |
| GHA 4 SR 3-B ● GHA 4 SR 4-B ■ | | | | | | | 530 [240] | | |
| GHA 3 SU 3-B ● GHA 3 SU 4-B ■ | 325 [1020] | | | | | | 530 [240] | | |
| GHA 4 SU 3-B ● GHA 4 SU 4-B ■ | | | | | | | 530 [240] | | |

PORTS ARE COMPATIBLE WITH 125# ANSI CAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE.

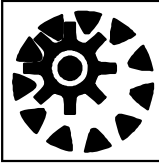
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.

GHA

**FOR GHA DRIVE OPTIONS
AND DIMENSIONS**

SEE

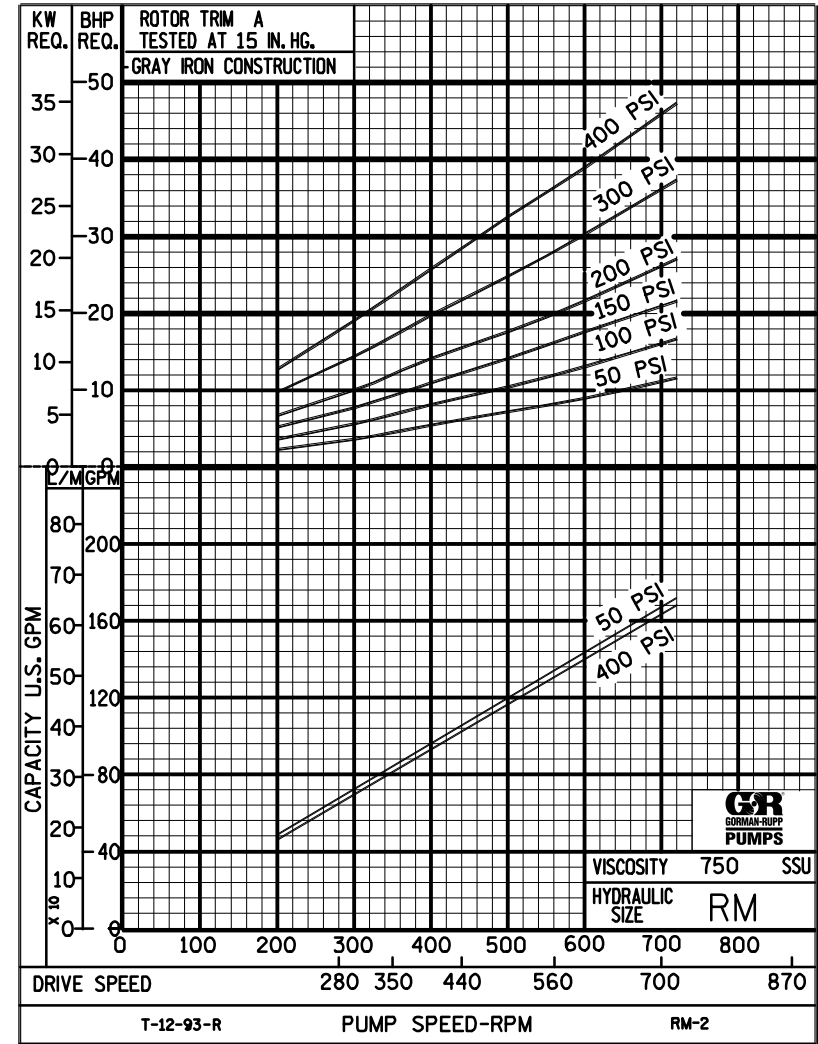
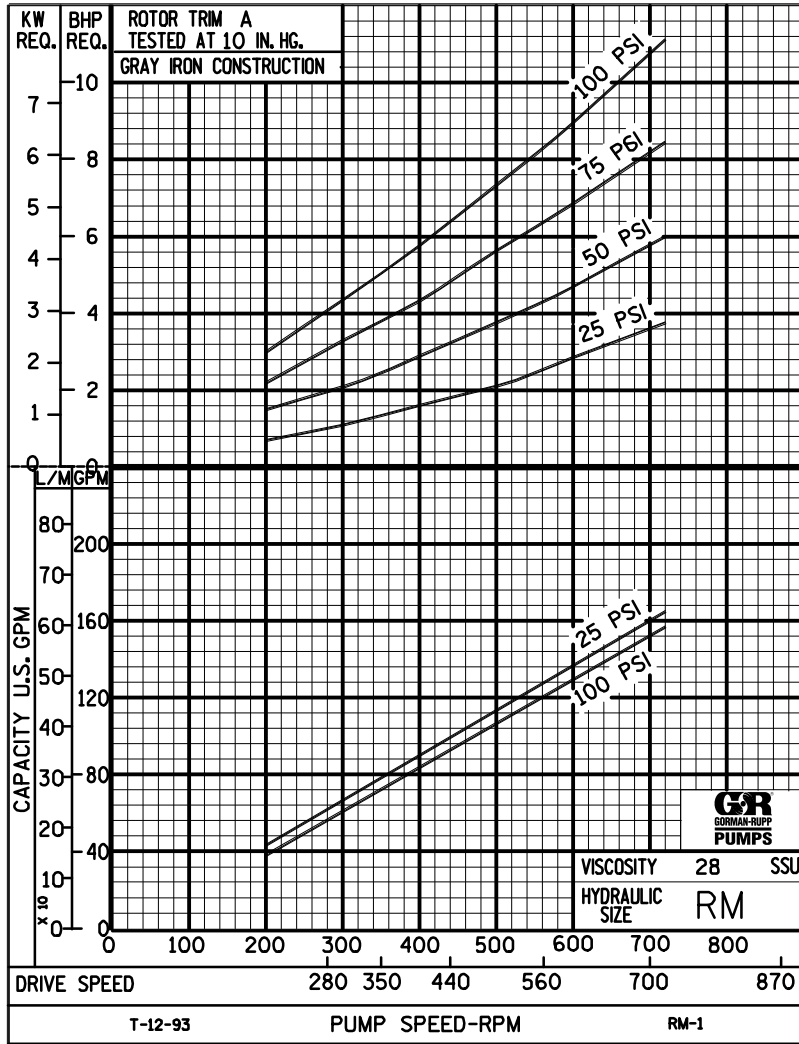
SECTION 545



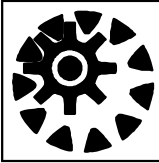
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RM Hydraulic Size



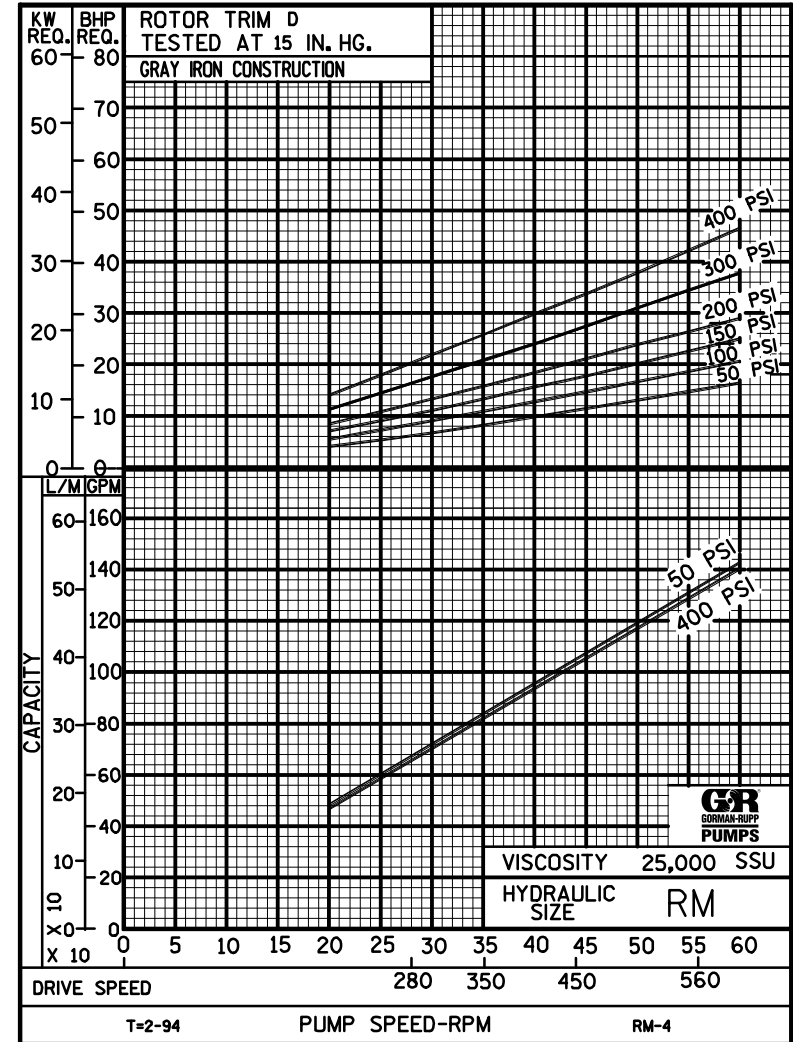
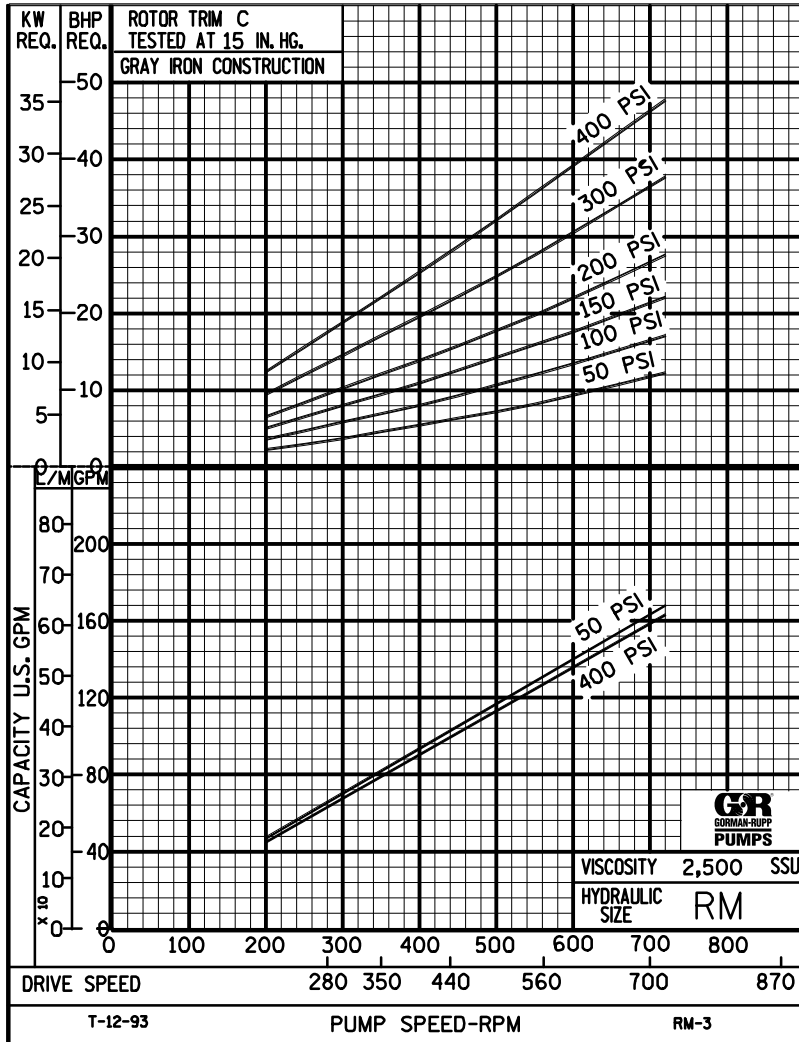
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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RM Hydraulic Size



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RM

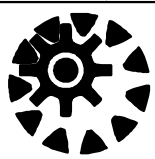
PUMP HYDRAULIC SIZE CHART

SEC. 500

172 GPM
720 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 | | HEAVY DUTY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 172 | 720 | STD | 28 | 3.1 | .21 | .08 | .03 | .01 | - | 58 | 84 | 121 | 178 | 165 | 161 | 159 | 157 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 32 | | .22 | .09 | .03 | .01 | - | | | | | | | | | | | | | | | 61 | 87 | 123 | 181 | 4.1 | 6.2 | 9.1 | 11 | | | | | | | | | | | | | | | | | |
| | | | 38 | 3.1 | .23 | .10 | .03 | .01 | - | 65 | 90 | 126 | 185 | 245 | 166 | 163 | 160 | 159 | 155 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 50 | | .26 | .11 | .04 | .01 | - | | | | | | 69 | 94 | 130 | 188 | 250 | | | | | 5.2 | 7.8 | 10 | 13 | | 18 | | | | | | | | | | | | | | | | | | | |
| | | | 70 | 3.1 | .29 | .12 | .04 | .01 | - | 74 | 100 | 134 | 193 | 256 | | | | | | 168 | 166 | 164 | 162 | 160 | 158 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 100 | | .32 | .14 | .05 | .01 | - | | | | | | 78 | 104 | 137 | 197 | 260 | 6.8 | 9.2 | 12 | 14 | 20 | 25 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 150 | 3.1 | .35 | .15 | .05 | .01 | - | 85 | 111 | 143 | 203 | 269 | | | | | | 170 | 168 | 167 | 166 | 164 | 163 | 161 | 158 | | | | | | | | | | | | | | | | | | | | | |
| | | | 200 | | .38 | .16 | .06 | .02 | - | | | | | | 89 | 115 | 147 | 207 | 273 | 7.8 | 10 | 13 | 15 | 21 | 26 | 36 | 47 | | | | | | | | | | | | | | | | | | | | | |
| | | | 300 | 3.1 | .43 | .19 | .07 | .02 | - | 93 | 119 | 150 | 211 | 278 | | | | | | 171 | 170 | 170 | 169 | 168 | 166 | 166 | 165 | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | | .50 | .22 | .06 | .02 | - | | | | | | 99 | 125 | 157 | 217 | 284 | 8.9 | 11 | 14 | 16 | 22 | 27 | 37 | 47 | | | | | | | | | | | | | | | | | | | | | |
| | | 750 | 3.2 | .41 | .20 | .08 | .03 | .01 | 104 | 131 | 180 | 241 | 260 | 172 | | | | | | 172 | 172 | 171 | 170 | 169 | 169 | 168 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1,000 | | .55 | .27 | .11 | .04 | .01 | | | | | | 110 | 137 | 188 | 249 | 269 | 9.4 | 12 | 14 | 17 | 22 | 27 | 37 | 48 | | | | | | | | | | | | | | | | | | | | | | |
| | | 2,000 | 3.4 | 1.10 | .54 | .23 | .08 | .01 | 116 | 143 | 193 | 259 | 269 | | | | | | 169 | 168 | 168 | 168 | 167 | 167 | 165 | 163 | | | | | | | | | | | | | | | | | | | | | | |
| | | 3,500 | | 1.92 | .94 | .40 | .13 | .03 | | | | | | 122 | 149 | 199 | 269 | 273 | 11 | 13 | 16 | 18 | 23 | 28 | 38 | 49 | | | | | | | | | | | | | | | | | | | | | | |
| | | 5,000 | 3.6 | 2.74 | 1.35 | .56 | .19 | .04 | 128 | 155 | 209 | 279 | 273 | | | | | | 169 | 169 | 168 | 168 | 167 | 167 | 166 | 164 | | | | | | | | | | | | | | | | | | | | | | |
| | | 7,500 | | 4.11 | 2.02 | .85 | .29 | .06 | | | | | | 134 | 161 | 215 | 279 | 278 | 11 | 14 | 17 | 19 | 24 | 29 | 39 | 50 | | | | | | | | | | | | | | | | | | | | | | |
| | | 10,000 | 3.9 | 5.48 | 2.69 | 1.13 | .38 | .07 | 140 | 167 | 221 | 279 | 278 | | | | | | 170 | 169 | 169 | 168 | 168 | 168 | 167 | 165 | | | | | | | | | | | | | | | | | | | | | | |
| | | 15,000 | | 8.22 | 4.04 | 1.69 | .57 | .11 | | | | | | 146 | 173 | 227 | 279 | 273 | 13 | 15 | 17 | 21 | 26 | 31 | 41 | 52 | | | | | | | | | | | | | | | | | | | | | | |
| | | 20,000 | D | | | | | | 152 | 179 | 233 | 279 | 273 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 25,000 | | | | | | | | | | | | 158 | 185 | 239 | 279 | 273 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 50,000 | | | | | | | | | | | | | | | | | 164 | 191 | 245 | 279 | 273 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 75,000 | | | | | | | | | | | | | | | | | | | | | | 170 | 197 | 251 | 279 | 273 | | | | | | | | | | | | | | | | | | | | |
| 100,000 | | | | | | | 176 | 203 | | | | | | | | | | | | | | | | | | | | | 257 | 279 | 273 | | | | | | | | | | | | | | | | | |
| 150,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 182 | 209 | 263 | 279 | 273 | | | | | | | | | | | | |
| 200,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 188 | 215 | 269 | 279 | 273 | | | | | | | |
| 250,000 | | | | | | 194 | | | 221 | 275 | 279 | 273 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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



RM

PUMP HYDRAULIC SIZE CHART

SEC. 500

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153 GPM
640 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 | | | | | |
| 153 | 640 | STD | 28 | 2.5 | .16 | .07 | .02 | .01 | - | 57 | 84 | 120 | 178 | | 145 | 142 | 139 | 137 | | | | | | |
| | | | 32 | | .17 | .07 | .02 | .01 | - | | | | | | | 3.3 | 6.1 | 7.9 | 10 | | | | | |
| | | | 38 | 2.5 | .19 | .08 | .03 | .01 | - | 60 | 86 | 122 | 180 | | 146 | 144 | 141 | 140 | 137 | | | | | |
| | | | 50 | | .20 | .09 | .03 | .01 | - | | | | | | | 4.5 | 6.8 | 9.1 | 11 | 16 | | | | |
| | | | 70 | 2.5 | .23 | .10 | .03 | .01 | - | 63 | 89 | 124 | 183 | 242 | | 148 | 146 | 144 | 143 | 141 | 139 | | | |
| | | | 100 | | .25 | .11 | .04 | .01 | - | | | | | | | 5.9 | 8.1 | 10 | 12 | 17 | 23 | | | |
| | | | 150 | 2.5 | .28 | .12 | .04 | .01 | - | 66 | 93 | 127 | 186 | 246 | | 150 | 149 | 148 | 147 | 145 | 144 | 142 | 139 | |
| | | | 200 | | .31 | .13 | .05 | .01 | - | | | | | | | 6.7 | 9.2 | 11 | 13 | 18 | 23 | 32 | 41 | |
| | | | 300 | 2.5 | .35 | .15 | .05 | .01 | - | 72 | 98 | 131 | 190 | 251 | | 152 | 151 | 150 | 150 | 149 | 148 | 146 | 145 | |
| | | | 500 | | .41 | .12 | .05 | .02 | - | | | | | | | 7.8 | 10 | 12 | 14 | 19 | 24 | 33 | 42 | |
| | | 750 | 2.6 | .36 | .18 | .07 | .03 | - | 75 | 101 | 134 | 193 | 254 | | 153 | 152 | 152 | 152 | 151 | 150 | 150 | 149 | | |
| | | 1,000 | | .48 | .24 | .10 | .03 | .01 | | | | | | | 7.9 | 10 | 12 | 14 | 19 | 24 | 33 | 42 | | |
| | | 2,000 | 2.7 | .97 | .47 | .20 | .07 | .01 | 82 | 110 | 139 | 199 | 260 | | 151 | 150 | 150 | 149 | 149 | 148 | 147 | 146 | | |
| | | 3,500 | | 1.69 | .83 | .35 | .12 | .02 | | | | | | | 8.8 | 11 | 13 | 15 | 20 | 24 | 33 | 43 | | |
| | | 5,000 | 2.9 | 2.42 | 1.19 | .50 | .17 | .03 | 86 | 112 | 142 | 202 | 264 | | 151 | 150 | 150 | 150 | 149 | 148 | 147 | 146 | | |
| | | 7,500 | | 3.63 | 1.78 | .75 | .25 | .05 | | | | | | | 10 | 13 | 15 | 16 | 21 | 26 | 35 | 45 | | |
| | | 10,000 | 3.2 | 4.83 | 2.37 | 1.00 | .34 | .07 | 89 | 115 | 145 | 205 | 268 | | 151 | 151 | 150 | 150 | 150 | 149 | 148 | 147 | | |
| | | 15,000 | | 7.25 | 3.56 | 1.49 | .50 | .10 | | | | | | | 12 | 14 | 16 | 18 | 23 | 28 | 36 | 47 | | |
| | | 20,000 | 3.5 | 9.67 | 4.75 | 1.99 | .67 | .13 | 92 | 118 | 147 | 207 | 270 | | 152 | 151 | 151 | 150 | 150 | 150 | 149 | 148 | | |
| | | 25,000 | | 12.1 | 5.94 | 2.49 | .84 | .16 | | | | | | | 14 | 16 | 18 | 20 | 25 | 30 | 39 | 50 | | |
| 50,000 | "D" | | | | | | | | | | | | | | | | | | | | | | | |
| 75,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 100,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 250,000 | | | | | | | | | | | | | | | | | | | | | | | | |

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



RM

PUMP HYDRAULIC SIZE CHART

SEC. 500

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125 GPM
520 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 | | | | | |
| | | | | | | | 50 | 75 | 100 | 150 | 200 | 25 | 50 | 75 | 100 | 150 | 200 | 300 | 400 | | | | | |
| 125 | 520 | STD | 28 | 1.9 | .11 | .05 | .02 | - | - | 55 | 83 | 119 | 176 | | 116 | 113 | 112 | 109 | | | | | | |
| | | | 32 | | .12 | .05 | .02 | - | - | | | | | | 2.3 | 4.1 | 7.1 | 9.8 | | | | | | |
| | | | 38 | 1.9 | .13 | .05 | .02 | .01 | - | 57 | 85 | 121 | 177 | | 118 | 115 | 113 | 111 | 108 | | | | | |
| | | | 50 | | .15 | .06 | .02 | .01 | - | | | | | | 3.5 | 5.1 | 7.9 | 10 | 14 | | | | | |
| | | | 70 | 1.9 | .16 | .07 | .02 | .01 | - | 60 | 88 | 123 | 180 | 236 | 120 | 118 | 117 | 115 | 113 | 110 | | | | |
| | | | 100 | | .18 | .08 | .03 | .01 | - | | | | | | 4.5 | 6.1 | 8.9 | 11 | 15 | 18 | | | | |
| | | | 150 | 1.9 | .21 | .09 | .03 | .01 | - | 64 | 91 | 125 | 182 | 239 | 122 | 121 | 120 | 119 | 117 | 115 | 113 | 111 | | |
| | | | 200 | | .22 | .10 | .03 | .01 | - | | | | | | 5.2 | 6.8 | 9.3 | 11 | 15 | 18 | 26 | 34 | | |
| | | | 300 | 1.9 | .25 | .11 | .02 | .01 | - | 68 | 95 | 128 | 185 | 242 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | | |
| | | | 500 | | .20 | .10 | .04 | .01 | - | | | | | | 5.6 | 7.4 | 9.4 | 11 | 15 | 18 | 26 | 34 | | |
| | | 750 | 2.0 | .30 | .15 | .06 | .02 | - | 72 | 98 | 130 | 187 | 244 | 125 | 124 | 124 | 123 | 123 | 122 | 122 | 121 | | | |
| | | 1,000 | | .40 | .20 | .08 | .03 | .01 | | | | | | 5.9 | 7.6 | 9.6 | 11 | 15 | 18 | 26 | 34 | | | |
| | | 2,000 | 2.3 | .81 | .40 | .17 | .06 | .01 | 78 | 104 | 134 | 191 | 249 | 123 | 122 | 122 | 121 | 120 | 120 | 118 | 118 | | | |
| | | 3,500 | | 1.41 | .69 | .29 | .10 | .02 | | | | | | 6.7 | 8.4 | 11 | 12 | 16 | 19 | 26 | 34 | | | |
| | | 5,000 | 2.6 | 2.01 | .99 | .42 | .14 | .03 | 81 | 107 | 136 | 194 | 252 | 123 | 123 | 122 | 122 | 121 | 121 | 119 | 119 | | | |
| | | 7,500 | | 3.02 | 1.48 | .62 | .21 | .04 | | | | | | 8.4 | 10 | 12 | 14 | 17 | 21 | 28 | 35 | | | |
| | | 10,000 | 2.9 | 4.03 | 1.98 | .83 | .28 | .05 | 85 | 110 | 139 | 196 | 254 | 124 | 123 | 123 | 122 | 122 | 122 | 120 | 120 | | | |
| | | 15,000 | | 6.04 | 2.97 | 1.25 | .42 | .08 | | | | | | 10 | 12 | 14 | 16 | 19 | 23 | 30 | 37 | | | |
| | | 20,000 | 3.2 | 8.06 | 3.96 | 1.66 | .56 | .11 | 87 | 112 | 140 | 197 | 256 | 124 | 124 | 123 | 123 | 123 | 123 | 122 | 121 | | | |
| | | 25,000 | | 10.1 | 4.95 | 2.08 | .70 | .14 | | | | | | 12 | 13 | 16 | 17 | 21 | 25 | 32 | 39 | | | |
| 50,000 | 4.6 | 20.1 | 9.90 | 4.15 | 1.40 | .27 | 93 | 117 | 143 | 202 | 260 | 124 | 124 | 123 | 123 | 123 | 123 | 122 | 121 | | | | | |
| 75,000 | | 30.2 | 14.8 | 6.23 | 2.10 | .41 | | | | | | 16 | 18 | 20 | 22 | 26 | 30 | 38 | 45 | | | | | |
| 100,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200,000 | | | | | | | | | | | | | | | | | | | | | | | | |
| 250,000 | | | | | | | | | | | | | | | | | | | | | | | | |

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



RM

PUMP HYDRAULIC SIZE CHART

SEC. 500

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85 GPM
350 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 | | | | | |
| 85 | 350 | STD | 28 | 1.3 | .05 | .02 | .01 | - | - | 54 | 81 | 117 | 171 | | 78 | 74 | 72 | 70 | | | | | | |
| | | | 32 | | .06 | .02 | .01 | - | - | | | | | | | 1.3 | 3.1 | 4.1 | 5.2 | | | | | |
| | | | 38 | 1.3 | .06 | .03 | .01 | - | - | 55 | 82 | 118 | 172 | | 79 | 75 | 74 | 72 | 70 | | | | | |
| | | | 50 | | .07 | .03 | .01 | - | - | | | | | | | 2.1 | 3.1 | 4.8 | 6.1 | 7.9 | | | | |
| | | | 70 | 1.3 | .08 | .04 | .01 | - | - | 58 | 85 | 119 | 173 | 227 | | 80 | 78 | 77 | 76 | 74 | 73 | | | |
| | | | 100 | | .09 | .04 | .01 | - | - | | | | | | | 2.8 | 3.8 | 5.3 | 6.6 | 8.6 | 11 | | | |
| | | | 150 | 1.3 | .11 | .05 | .02 | - | - | | | | | | | 82 | 80 | 79 | 79 | 78 | 78 | 77 | 76 | |
| | | | 200 | | .12 | .05 | .02 | - | - | 61 | 87 | 121 | 174 | 228 | | 3.3 | 4.1 | 5.8 | 6.9 | 9.1 | 12 | 17 | 22 | |
| | | | 300 | 1.3 | .13 | .04 | .02 | .01 | - | | | | | | | 83 | 82 | 81 | 81 | 80 | 80 | 80 | 79 | |
| | | | 500 | | .14 | .07 | .03 | .01 | - | 65 | 90 | 123 | 176 | 230 | | 3.4 | 4.2 | 5.9 | 7.1 | 9.3 | 12 | 17 | 22 | |
| | | 750 | 1.4 | .21 | .10 | .04 | .01 | - | | | | | | | 84 | 83 | 83 | 82 | 82 | 82 | 82 | 81 | | |
| | | 1,000 | | .27 | .13 | .06 | .02 | - | 67 | 93 | 124 | 177 | 231 | | 3.4 | 4.3 | 6.0 | 7.2 | 9.4 | 12 | 17 | 22 | | |
| | | 2,000 | 1.6 | .55 | .27 | .11 | .04 | .01 | | | | | | | 83 | 82 | 82 | 81 | 81 | 80 | 80 | 79 | | |
| | | 3,500 | | .96 | .47 | .20 | .07 | .01 | 73 | 97 | 127 | 179 | 233 | | 3.6 | 5.1 | 6.2 | 7.9 | 9.8 | 12 | 17 | 22 | | |
| | | 5,000 | 1.8 | 1.37 | .67 | .28 | .10 | .02 | | | | | | | 83 | 83 | 83 | 82 | 82 | 81 | 80 | 80 | | |
| | | 7,500 | | 2.05 | 1.01 | .42 | .14 | .03 | 75 | 100 | 128 | 181 | 235 | | 4.6 | 5.8 | 7.1 | 9.1 | 11 | 13 | 19 | 23 | | |
| | | 10,000 | 2.2 | 2.74 | 1.35 | .56 | .19 | .04 | | | | | | | 83 | 83 | 82 | 82 | 82 | 82 | 81 | 81 | | |
| | | 15,000 | | 4.11 | 2.02 | .85 | .29 | .06 | 78 | 102 | 130 | 182 | 236 | | 5.6 | 7.1 | 8.2 | 10 | 12 | 14 | 20 | 25 | | |
| | | 20,000 | 2.6 | 5.48 | 2.69 | 1.13 | .38 | .07 | | | | | | | 84 | 83 | 83 | 83 | 83 | 82 | 82 | 82 | | |
| | | 25,000 | | 6.85 | 3.36 | 1.41 | .48 | .09 | 80 | 104 | 131 | 183 | 237 | | 6.8 | 8.1 | 9.5 | 11 | 13 | 16 | 21 | 26 | | |
| 50,000 | 4.1 | 13.7 | 6.73 | 2.82 | .95 | .18 | | | | | | | 84 | 83 | 83 | 83 | 83 | 82 | 82 | 82 | | | | |
| 75,000 | | 20.6 | 10.0 | 4.23 | 1.43 | .28 | 85 | 108 | 133 | 185 | 239 | | 10 | 12 | 14 | 15 | 17 | 19 | 25 | 30 | | | | |
| 100,000 | 5.6 | 27.4 | 13.5 | 5.64 | 1.90 | .37 | | | | | | | 84 | 83 | 83 | 83 | 83 | 82 | 82 | 82 | | | | |
| 150,000 | | 41.0 | 20.2 | 8.47 | 2.86 | .55 | 87 | 110 | 134 | 186 | 240 | | 13 | 15 | 17 | 18 | 22 | 24 | 30 | 35 | | | | |
| 200,000 | 7.5 | 54.8 | 27.0 | 11.3 | 3.81 | .74 | | | | | | | 84 | 83 | 83 | 83 | 83 | 82 | 82 | 82 | | | | |
| 250,000 | | 68.5 | 33.7 | 14.1 | 4.76 | .92 | 89 | 112 | 135 | 187 | 241 | | 15 | 17 | 19 | 20 | 26 | 27 | 33 | 39 | | | | |

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