### MANUFACTURERS SPECIFICATIONS

#### PUMP HEAD
- **PLUNGER**: 1.000” (25.4 mm) DIA.
- **CHECK VALVES**: BALL TYPE WITH TEFLOM SEAT
- **INLET**: ¾” NPT (M) VERTICAL
- **DISC**: ½” NPT (F) 100 PSIG (6.9 BARG)
- **VALVE BALL**: 316SS (STANDARD)  CERAMIC (OPTIONAL)
- **VALVE SPRING**: ELGILOY
- **PACKING**: DUAL PLUNGER SEAL  MECHANICAL  O-RING
- **BLEED PORT**: INTERGRAL WITH 0.25” (6.3mm) DIA. HOSE BARB

#### MOTOR CYLINDER
- **CYLINDER MATERIAL**: 316SS
- **PISTON DIAMETER**: 4.00” (101.6mm) DIA.  6.00” (152.4mm) DIA.  8.00” (203.2mm) DIA.
- **PISTON MATERIAL**: 2024 ALUM. (STANDARD)  316SS (OPTIONAL)
- **PISTON SEAL**: U-CUP  BUNA-N (STANDARD)  VITON (OPTIONAL)
- **GUIDE RING**: TEFLOM

### PERFORMANCE
- **STROKE ADJUSTMENT**: MICROMETER
- **LENGTH OF STROKE**: 0” TO 1.0” (25mm)  OTHER
- **PLUNGER STROKE RATE**: 0 TO 45 SPM  OTHER
- **RATE CAPACITY**:
  - 400 9.08 GPH/34.36 LPH@ 0 PSI (0 BARG)
  - 8.92 GPH/33.76 LPH@ 1200 PSIG (82.0 BARG)
  - 600 9.08 GPH/34.36 LPH@ 0 PSI (0 BARG)
  - 8.75 GPH/33.11 LPH@ 2500 PSIG (172 BARG)
  - 800 8.81 GPH/33.34 LPH@ 0 PSI (0 BARG)
  - 8.43 GPH/31.90 LPH@ 5500 PSIG (329 BARG)
- **RATED MAXIMUM DISCHARGE PRESS.**:
  - 400 1520 PSIG (104 BARG)@ 100 PSIG (6.9 BARG)
  - 2300 PSIG (158 BARG)@ 150 PSIG (10.3 BARG)
  - 600 3400 PSIG (234 BARG)@ 100 PSIG (6.9 BARG)
  - 4700 PSIG (324 BARG)@ 150 PSIG (10.3 BARG)
  - 800 6300 PSIG (434 BARG)@ 100 PSIG (6.9 BARG)
  - 9100 PSIG (627 BARG)@ 150 PSIG (10.3 BARG)

### NOTE
- **ALL UNITS REQUIRE CONTROLLER RELAY COMBINATION**
- **SUCTION REQUIREMENTS**: FLOODED (MAX 100 PSI OR 7 BARG)
- **REPEATABILITY**: +/- 1.5%
# CONTROLLED VOLUME PUMP DATA SHEET
## CRP1000V SERIES

### MATERIAL OF CONSTRUCTION

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Construction Type</th>
<th>Pressure Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plunger</td>
<td>(A) 17-4 PH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(B) 316SS</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(CR) CERAMIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing Type</td>
<td>MECHANICAL</td>
<td>TC (TEFLON COMPOSITE)</td>
<td>100-5,000 PSIG</td>
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<tr>
<td></td>
<td></td>
<td>PE (UHMW POLYETHYLENE)</td>
<td>100-5,000 PSIG</td>
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<td></td>
<td></td>
<td>TG (TEFLON GRAPHITE)</td>
<td>1,000-10,000 PSIG</td>
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<tr>
<td></td>
<td>O-RING</td>
<td>BR (BUNA-N OR NITRILE)</td>
<td>100-750 PSIG</td>
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<td></td>
<td>V (VITON OR FLUOROCARBON RUBBER)</td>
<td>100-750 PSIG</td>
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<tr>
<td></td>
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<td>K (KALREZ OR PERFLUORDELASTROMER)</td>
<td>100-750 PSIG</td>
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<td>EPR (ETHYLENE PROPYLENE)</td>
<td>100-750 PSIG</td>
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<tr>
<td>Pump Head</td>
<td>316SS</td>
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<td></td>
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<tr>
<td>Check Valve Body</td>
<td>316SS</td>
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<tr>
<td>Pump Body</td>
<td>316SS</td>
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<tr>
<td>Controller</td>
<td>MARK XII - ALL 316SS</td>
<td>Neoprene Diaphragms</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>OTHER</td>
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</tr>
</tbody>
</table>

### PNEUMATIC RELAY

- AIR @ 50 PSIG (3.4 BARG) TO 150 PSIG (10.3 BARG)
- PO3-6S SINGLE ACTION RELAY (USED ON 4” & 6” MOTOR CYLINDER)
- PO4-6S DOUBLE ACTION RELAY (USED ON 8” MOTOR CYLINDER)

### PUMP WEIGHT WITH MARK XII

- 400: 29.0 LB/13.2KG
- 600: 35.5 LB/16.1KG
- 800: 47.0 LB/21.6KG

### LUBRICATION FLUID

- PUMP: SYNTHETIC WITH TEFLOK
- CONTROLLER: SILICONE SSP-1208
- RELAY: SILICONE SSP-1208

### INSPECTIONS & TESTS

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Required</th>
<th>Witnessed**</th>
<th>Non-Witnessed</th>
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</thead>
<tbody>
<tr>
<td>Shop Test</td>
<td>Standard</td>
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<td></td>
</tr>
<tr>
<td>Hydrostatic Test</td>
<td>Upon Request</td>
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</tr>
<tr>
<td>Performance Test</td>
<td>Upon Request</td>
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<td></td>
</tr>
<tr>
<td>Repeatability/Linearity</td>
<td>+/- 1.5% (DIAL: 40-100)*</td>
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<tr>
<td>Steady State Accuracy</td>
<td>+/- 1% Min.*</td>
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</tbody>
</table>

* WITH MARK XII CONTROLLER, AIR CLEAN & DRY

** ALL WITNESSED TESTS ARE UPON REQUEST ONLY AND MUST BE NOTED ON THE PURCHASE ORDER AT THE TIME OF ORIGINAL ORDER. FOR PURPOSES OF THIS DOCUMENT “WITNESSED” MEANS BY SOMEONE OTHER THAN A WILLIAMS EMPLOYEE.

### NOTES:

- WITNESSED
- NON-WITNESSED
- SHOP TEST
- HYDROSTATIC TEST
- PERFORMANCE TEST
- REPEATABILITY/LINEARITY
- STEADY STATE ACCURACY

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