

|   |                  |          |                  |             |                |                |   |   |   |     |   |  |   |   |   |   |   |   |       |  |  |                  |  |  |   |
|---|------------------|----------|------------------|-------------|----------------|----------------|---|---|---|-----|---|--|---|---|---|---|---|---|-------|--|--|------------------|--|--|---|
| <p><b>Order Code</b></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;"><b>Base Code</b></td> <td style="width:15%; text-align: center;">Gear Set</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">Drive Mount</td> <td style="width:15%;"></td> <td style="width:15%;"><b>Options</b></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">G</td> <td style="border: 1px solid black; text-align: center;">D</td> <td style="border: 1px solid black; text-align: center;">-</td> <td style="border: 1px solid black; text-align: center;">M35</td> <td style="border: 1px solid black; text-align: center;">5</td> <td style="border: 1px solid black;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td colspan="3" style="text-align: center;">Model</td> <td colspan="3" style="text-align: center;">Wetted Materials</td> </tr> </table> <p style="font-size: small;">O/C: Pump<br/>S/K: Service Kit</p> | <b>Base Code</b> | Gear Set |                  | Drive Mount |                | <b>Options</b> | G | D | - | M35 | 5 |  | 1 | 2 | 3 | 4 | 5 | 6 | Model |  |  | Wetted Materials |  |  | <p><b>Pump Construction</b></p> <p>Magnetic Drive Gear Pump<br/>Cavity Style<br/>Three Helical Gears/DP20<br/>Stationary Shafts<br/>O-Ring Seal (Qty 1)</p> |
| <b>Base Code</b>  | Gear Set         |          | Drive Mount      |             | <b>Options</b> |                |   |   |   |     |   |  |   |   |   |   |   |   |       |  |  |                  |  |  |   |
| G   | D                | -        | M35              | 5           |                |                |   |   |   |     |   |  |   |   |   |   |   |   |       |  |  |                  |  |  |   |
| 1   | 2                | 3        | 4                | 5           | 6              |                |   |   |   |     |   |  |   |   |   |   |   |   |       |  |  |                  |  |  |   |
| Model   |                  |          | Wetted Materials |             |                |                |   |   |   |     |   |  |   |   |   |   |   |   |       |  |  |                  |  |  |   |

## Product Options

**Base Code** Select a code character for each numbered position to configure the product.

| 1 | Code | Product Type                          | Specifications                                  | Notes   |
|---|------|---------------------------------------|---|---|
|   | G    | Gear Pump                             |   |   |
| 2 | D    | Series GD                             | Max System Pressure (MAWP)<br>See Drive Mount   | Ports<br>3/8-18 (F) NPT Side Ports  |
| 3 | -    | Standard Design                       |   |   |
| 4 | M35  | <b>Gear Set (Width/N°Gears/Pitch)</b> | Displacement<br>3.48 ml/rev (0.92 gal/1000*rev) | Max Differential Pressure<br>6.9 Bar (100 psi)<br>Driven Magnet (Standard)<br>Ferrite |
| 5 | 2    | <b>Gear Material</b>                  |   | Max Differential Pressure<br>Temp Range   |
|   | J    | PEEK (carbon fiber/ptfe)              |   | 5.2 Bar (75 psi)<br>-46/260°C (-50/500°F)   |
|   | P    | PPS (carbon fiber/ptfe)               |   | 8.7 Bar (125 psi)<br>-46/121°C (-50/250°F)  |
|   |      |                                       |   | 5.2 Bar (75 psi)<br>-46/121°C (-50/250°F)   |
| 6 | V    | <b>Static Seals</b>                   |   | Temp Range  |
|   | D    | Viton®                                |   | -29/204°C (-20/400°F)   |
|   | K    | EP                                    |   | -46/149°C (-50/300°F)   |
|   | F5   | Kalrez®                               |   | -29/260°C (-20/500°F)   |
|   |      | TEV (PTFE encap Viton®)               |   | -29/204°C (-20/400°F)   |
| 7 | C    | <b>Base Materials</b>                 |   |   |
|   | D    | Hast C-276®                           |   |   |
|   | S    | Alloy 20                              |   |   |
|   | T    | SS316                                 |   |   |
|   |      | Titanium                              |   |   |
| 8 | E    | <b>Drive Mount</b>                    | Max System Pressure (MAWP)                      | Weight (Pumphead)   |
|   | 4    | NEMA 56C                              | 103 Bar (1500 psi)                              | 2.7 kg (6.0 lbs)  |
|   | 6    | IEC 63-B14                            | 103 Bar (1500 psi)                              | 2.7 kg (6.0 lbs)  |
|   |      | IEC 71-B14                            | 103 Bar (1500 psi)                              | 2.7 kg (6.0 lbs)  |

**Options** Add Option codes after the Base Code to modify features or enhance the product.

**Driving Magnet (PC13)**  
N3 NdFeB Driving (Ring)

Notes  
1 price adder for service kit includes cavity plate  
2 Available only with Hybrid/Abrasive Modifier PC3 R

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# Technical Data

# Series GD

|                   |   |   |                  |   |                 |   |   |                    |  |                               |  |
|-------------------|---|---|------------------|---|-----------------|---|---|--------------------|--|-------------------------------|--|
| <b>Order Code</b> |   |   | <b>Base Code</b> |   | <b>Gear Set</b> |   |   | <b>Drive Mount</b> |  | <b>Options</b>                |  |
| 1                 | 2 | 3 | 4                | 5 | 6               | 7 | 8 |                    |  |                               |  |
| Model             |   |   | Wetted Materials |   |                 |   |   |                    |  | O/C: Pump<br>S/K: Service Kit |  |

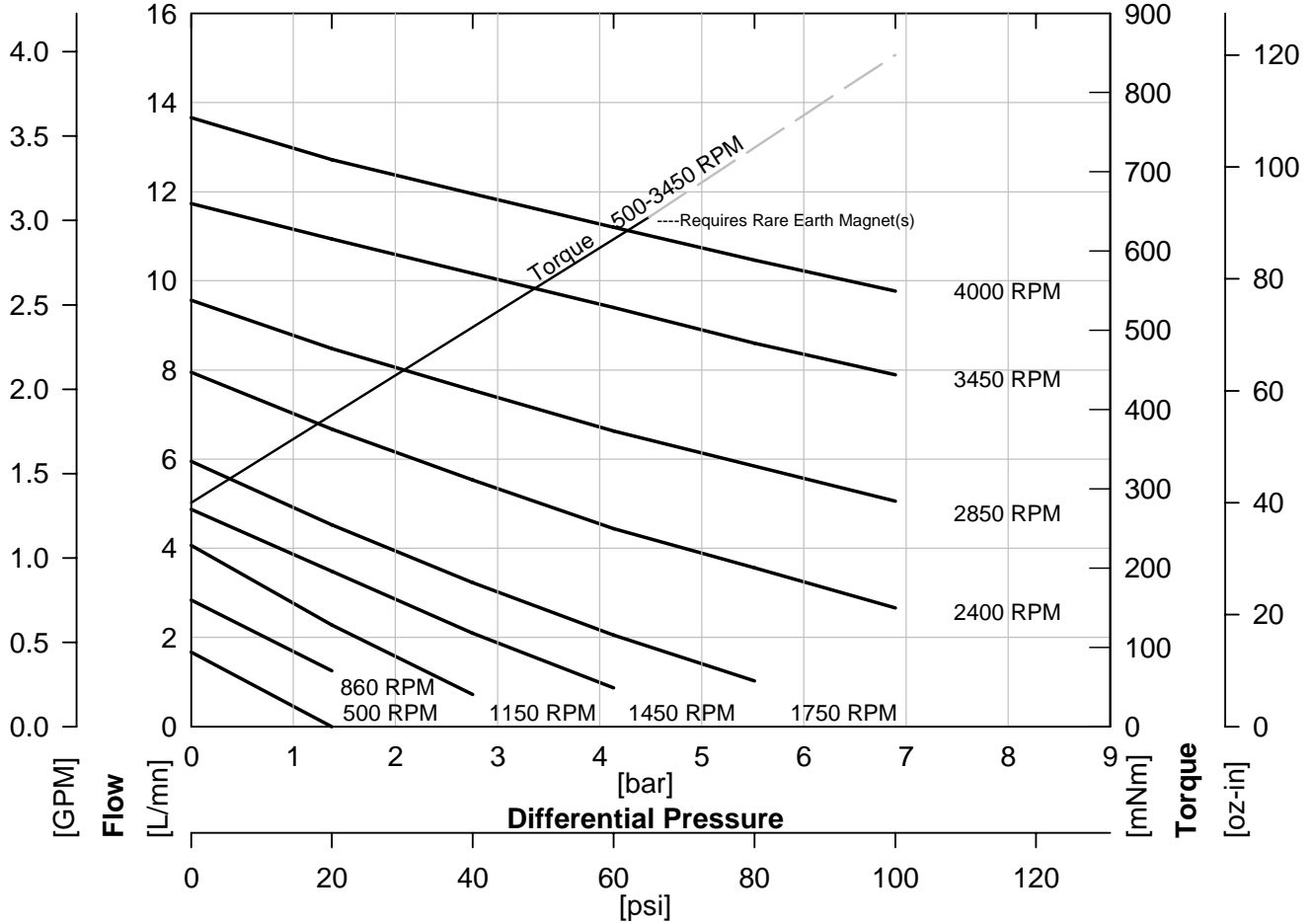
**Pump Construction**  
 Magnetic Drive Gear Pump  
 Cavity Style  
 Three Helical Gears/DP20  
 Stationary Shafts  
 O-Ring Seal (Qty 1)



## Performance

GD-M35

Water @ 1 CP



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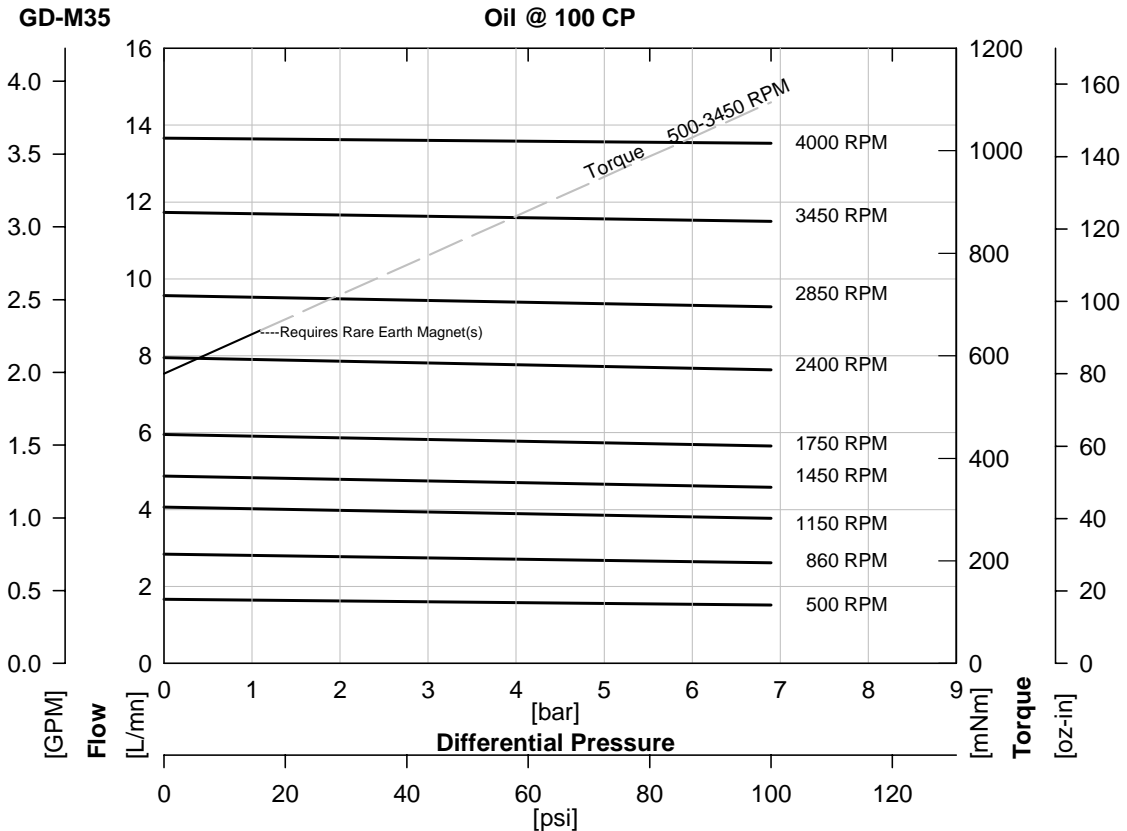
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Page 1

|                   |   |          |                  |                          |   |   |                     |
|-------------------|---|----------|------------------|--------------------------|---|---|---------------------|
| <b>Order Code</b> |   |          |                  | <b>Pump Construction</b> |   |   |                     |
| <b>Base Code</b>  |   | Gear Set | Drive Mount      | Magnetic Drive Gear Pump |   |   |                     |
| G                 | D | -        | M35              | Cavity Style             |   |   |                     |
| 1                 | 2 | 3        | 4                | Three Helical Gears/DP20 |   |   |                     |
| Model             |   |          | 5                | 6                        | 7 | 8 | Stationary Shafts   |
|                   |   |          | Wetted Materials |                          |   |   | O-Ring Seal (Qty 1) |
|                   |   |          |                  |                          |   |   | Options             |
|                   |   |          |                  |                          |   |   | O/C: Pump           |
|                   |   |          |                  |                          |   |   | S/K: Service Kit    |



## Performance-High Viscosity



$$\text{Watts} = \frac{\text{Torque [mNm]} \times \text{Speed [RPM]}}{9555}$$

$$\text{HP} = \frac{\text{Torque [oz-in]} \times \text{Speed [RPM]}}{1.008 \times 10^6}$$


To calculate torque, multiply correction factor by torque from viscosity curve above.

| <b>Torque Correction Factors: For Higher Viscosity Liquids</b> |       |      |      |      |
|--|-------|------|------|------|
| Viscosity [cp]   |       | 1    | 100  | 1500 |
| Max Speed [RPM]  |       | 3450 | 3450 | 200  |
| [Bar]  | [psi] |      |      |      |
| 0.3  | 5     | 0.5  | 1    | 0.8  |
| 1.4  | 20    | 0.6  | 1    | 0.8  |
| 2.8  | 40    | 0.6  | 1    | 0.9  |
| 4.1  | 60    | 0.7  | 1    | 0.9  |
| 5.5  | 80    | 0.7  | 1    | 0.9  |
| 6.9  | 100   | 0.8  | 1    | 1.0  |

| <b>Magnet Decouple Torque</b> |             |              |                |
|-------------------------------|-------------|--------------|----------------|
| Driven Magnet                 | Driving Hub | Torque [mNm] | Torque [oz.in] |
| Ferrite                       | Ferrite     | 643          | 91             |
| Ferrite                       | SmCo        | 819          | 116            |
| Ferrite                       | NdFeB       | 1073         | 152            |
| SmCo                          | Ferrite     | 1222         | 173            |
| SmCo                          | SmCo        | 1483         | 210            |
| SmCo                          | NdFeB       | 1780         | 252            |

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|---|------------------|-------------|----------------|------------------|---|---|---|---|-----|---|---|---|---|---|---|---|-------|---|---|---|------------------|-------|--|--|--|------------------|--|-----------|------------------|--|--|--|-----------|------------------|---|
| <p><b>Order Code</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>Base Code</b></td> <td style="text-align: center;">Gear Set</td> <td style="text-align: center;">Drive Mount</td> <td style="text-align: center;"><b>Options</b></td> </tr> <tr> <td style="text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">G</td> <td style="width: 15%; text-align: center;">D</td> <td style="width: 15%; text-align: center;">-</td> <td style="width: 15%; text-align: center;">M35</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> </tr> <tr> <td colspan="4" style="text-align: center;">Model</td> <td colspan="4" style="text-align: center;">Wetted Materials</td> </tr> </table> </td> <td></td> <td></td> <td style="text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">O/C: Pump</td> </tr> <tr> <td style="text-align: center;">S/K: Service Kit</td> </tr> </table> </td> </tr> </table> | <b>Base Code</b> | Gear Set    | Drive Mount    | <b>Options</b>   | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">G</td> <td style="width: 15%; text-align: center;">D</td> <td style="width: 15%; text-align: center;">-</td> <td style="width: 15%; text-align: center;">M35</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> </tr> <tr> <td colspan="4" style="text-align: center;">Model</td> <td colspan="4" style="text-align: center;">Wetted Materials</td> </tr> </table> | G | D | - | M35 |   |   |   |   | 1 | 2 | 3 | 4     | 5 | 6 | 7 | 8                | Model |  |  |  | Wetted Materials |  |           |                  |  |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">O/C: Pump</td> </tr> <tr> <td style="text-align: center;">S/K: Service Kit</td> </tr> </table> | O/C: Pump | S/K: Service Kit | <p><b>Pump Construction</b></p> <p>Magnetic Drive Gear Pump<br/> Cavity Style<br/> Three Helical Gears/DP20<br/> Stationary Shafts<br/> O-Ring Seal (Qty 1)</p>  |
| <b>Base Code</b>  | Gear Set         | Drive Mount | <b>Options</b> |                  |   |   |   |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |
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| G   | D                | -           | M35            |                  |   |   |   |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |
| 1   | 2                | 3           | 4              | 5                | 6   | 7 | 8 |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |
| Model   |                  |             |                | Wetted Materials |   |   |   |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |
| O/C: Pump   |                  |             |                |                  |   |   |   |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |
| S/K: Service Kit  |                  |             |                |                  |   |   |   |   |     |   |   |   |   |   |   |   |       |   |   |   |                  |       |  |  |  |                  |  |           |                  |  |  |  |           |                  |   |

## Specifications

|                               | SI                        | US                         |
|-------------------------------|---------------------------|----------------------------|
| Displacement                  | 3.48 ml/rev               | 0.92 gal/1000*rev          |
| Max Flow (4 Pole Speed)       | 5.1 L/mn 1450 RPM (50Hz)  | 1.7 gal/mn 1750 RPM (60Hz) |
| Max Flow (2 Pole Speed)       | 10.0 L/mn 2850 RPM (50Hz) | 3.2 gal/mn 3450 RPM (60Hz) |
| Max Differential Pressure     | 1 6.9 Bar                 | 100 psi                    |
| Max System Pressure (MAWP)    | See Drive Mount           | See Drive Mount            |
| NIPR (Absolute)               | 180 mBar                  | 2.5 psia                   |
| Wet Lift (Typical)            | 2 51 cm.H2O (1450 RPM)    | 24 in.H2O (1750 RPM)       |
| Temp Range                    | 3 See Gear Material       | See Gear Material          |
| Viscosity Range               | 4 0.2 to 1500 cp          | 0.2 to 1500 cp             |
| Max Speed                     | 4,000 RPM                 | 4,000 RPM                  |
| Rotation (Facing Motor Shaft) | CW                        | CW                         |
| Weight (Pumphead)             | 1.7 kg                    | 3.7 lbs                    |
| Dimensions (LxWxH)            | See Drawing               | See Drawing                |
| Ports                         | 3/8-18 (F) NPT Side Ports | 3/8-18 (F) NPT Side Ports  |
| Driven Magnet (Standard)      | Ferrite                   | Ferrite                    |
| Optional Internal Bypass      | No                        | No                         |

**Notes**

- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

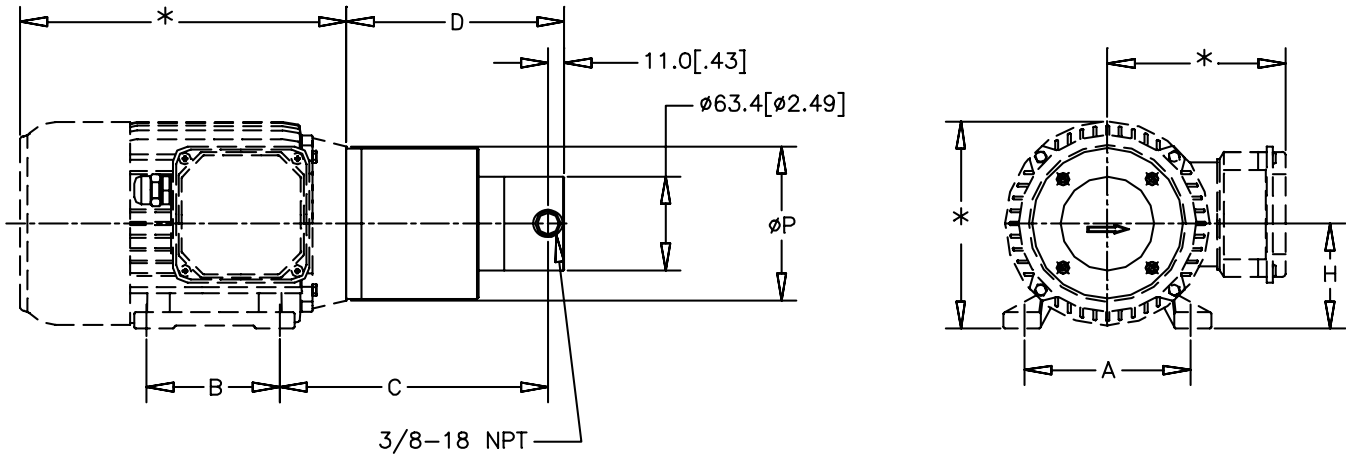
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|                   |   |          |     |   |   |                |   |
|-------------------|---|----------|-----|---|---|----------------|---|
| <b>Order Code</b> |   |          |     | <b>Pump Construction</b>  |   |                |   |
| <b>Base Code</b>  |   | Gear Set |     | Drive Mount   |   | <b>Options</b> |   |
| G                 | D | -        | M35 | 4   | 6 | 4/6            |   |
| 1                 | 2 | 3        | 4   | 5   | 6 | 7              | 8 |
| Model             |   |          |     | Wetted Materials  |   |                |   |
|                   |   |          |     | O/C: Pump<br>S/K: Service Kit   |   |                |   |
|                   |   |          |     | <b>Magnetic Drive Gear Pump</b><br>Cavity Style<br>Three Helical Gears/DP20<br>Stationary Shafts<br>O-Ring Seal (Qty 1) |   |                |   |



## Dimensions



| PUMP   | MOUNT           | A<br>mm [in] | B<br>mm [in] | C<br>mm [in] | D<br>mm [in] | H<br>mm [in] | P<br>mm [in] |
|--------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| GD-M35 | 4<br>IEC63B14B3 | 100 [3.94]   | 80 [3.15]    | 168.9 [6.65] | 139.9 [5.51] | 63 [2.48]    | 90 [3.54]    |
|        | 6<br>IEC71B14B3 | 112 [4.41]   | 90 [3.54]    | 180.9 [7.12] | 139.9 [5.51] | 71 [2.80]    | 105 [4.13]   |

### NOTES:

1. \*THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION.
2. ALL DIMENSIONS ARE NOMINAL.

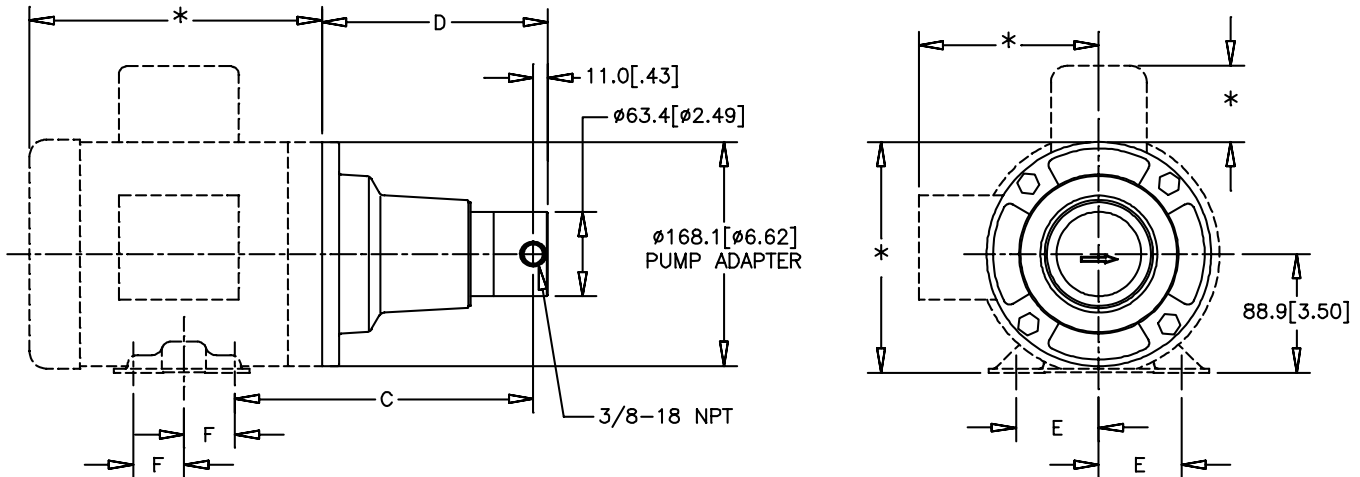
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|   |   |                 |                  |                          |   |                               |   |
|---|---|-----------------|------------------|--------------------------|---|-------------------------------|---|
| <b>Order Code</b>   |   |                 |                  | <b>Pump Construction</b> |   |                               |   |
| <b>Base Code</b>  |   | <b>Gear Set</b> |                  | <b>Drive Mount</b>       |   | <b>Options</b>                |   |
| G   | D | -               | M35              |                          |   | E                             |   |
| 1   | 2 | 3               | 4                | 5                        | 6 | 7                             | 8 |
| Model   |   |                 | Wetted Materials |                          |   | O/C: Pump<br>S/K: Service Kit |   |
| <b>Magnetic Drive Gear Pump</b><br>Cavity Style<br>Three Helical Gears/DP20<br>Stationary Shafts<br>O-Ring Seal (Qty 1) |   |                 |                  |                          |   |                               |   |



## Dimensions



| PUMP                 | MOUNT           | C<br>mm [in] | D<br>mm [in] | E<br>mm [in] | F<br>mm [in] |
|----------------------|-----------------|--------------|--------------|--------------|--------------|
| GC-M23               | E<br>NEMA 56C   | 206.4 [8.13] | 152.1 [5.99] | 61.9 [2.44]  | 38.1 [1.50]  |
|                      | K               | 201.5 [7.94] | 152.1 [5.99] | 69.9 [2.75]  | 50.8 [2.00]  |
|                      | K<br>NEMA 145TC | 201.5 [7.94] | 152.1 [5.99] | 69.9 [2.75]  | 63.5 [2.50]  |
| GC-M25/M35<br>GD-M35 | E<br>NEMA 56C   | 223.5 [8.80] | 169.2 [6.66] | 61.9 [2.44]  | 38.1 [1.50]  |
|                      | K<br>NEMA 143TC | 218.7 [8.61] | 169.2 [6.66] | 69.9 [2.75]  | 50.8 [2.00]  |
|                      | K<br>NEMA 145TC | 218.7 [8.61] | 169.2 [6.66] | 69.9 [2.75]  | 63.5 [2.50]  |

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