SALES AND SERVICE:
Putting the “customer first” is at the center of everything we do at National Pump. Our experienced sales, marketing, application engineers and branch managers offer many years of pump experience and are challenged to satisfy customer product and service needs. Challenge the National Pump team on your next API, agricultural, industrial and municipal application and discover how we can add value to your business.

PRODUCT & MANUFACTURING
National Pump Company manufactures a complete line of vertical turbine pumps and pump systems from an extensive inventory located in six (6) USA build centers. Pump capabilities range from 15 through 3,000 M³/Hr.
NPC also manufactures and stocks a complete line of VTP accessories, including: column, tube and shaft, standard and custom discharge heads, gear drives and VHS motors, and offers custom pump design, fabrication work, sandblasting and powder coating capabilities.

ENGINEERING & TECHNOLOGY:
National Pump Company’s Engineering Department is staffed with extremely experienced engineers and technicians. The team utilizes the latest technology for the design and application of pump products, which includes (CAD) computer aided design, 3D modeling, and realistic engineering programs. This technology and experience ensures that the final product is properly designed for optimum performance.

QUALITY CONTROL:
National Pump strives to deliver the highest quality products for complete customer satisfaction through continuous quality improvement initiatives. NPC has a published Quality Assurance program that integrates all facets of the business including: engineering, procurement, assembly, testing, shipping, receiving, and supplier inspections. Every employee at NPC understands they are responsible for the quality objectives of the organization but most importantly to our customers.

TESTING:
NPC offers full HYDRAULIC INSTITUTE certified pump testing, along with UL 508A electrical certification and custom panel building for our complete line of pumps and custom pump stations.

PRODUCT AVAILABILITY AND SUPPLY CHAIN:
National Pump markets it pumps and components in the USA and in over 40 countries globally. We operate six (6) Build and Service Centers in the USA in which we stock and utilize the best quality domestic and international components to insure a quality and reliable pump installation. Our forecasting tools and distribution system maintains thousands of pump parts to help achieve the best customer satisfaction with timely customer deliveries.
IN ORDER TO UPDATE YOU ON ANY CATALOG CHANGES, PLEASE COMPLETE THIS FORM AND MAIL OR FAX THIS INFORMATION TO:

National Pump Company
7706 N. 71st Avenue
Glendale, Arizona 85303-1703
Fax (623) 979-2177
www.nationalpumpcompany.com
Email: info@natlpump.com

We will mail updates and changes as they occur.

ATTN: MARKETING DEPARTMENT

CONTACT NAME: ____________________________________________

COMPANY NAME: __________________________________________

TYPE OF BUSINESS: _________________________________________

MAILING ADDRESS: _________________________________________

_______________________________________________

_______________________________________________

PHYSICAL ADDRESS: _______________________________________

_______________________________________________

_______________________________________________

PHONE NUMBER: __________________________________________

FAX NUMBER: ___________________________________________

EMAIL ADDRESS: _________________________________________

NUMBER OF CATALOGS: ___________________________________
At National Pump, pump technology is our business. From principals and engineers to sales and service personnel, our key staff members have more than three centuries of combined industry experience. We want to help you achieve your goals and objectives, and we’re big enough to meet your needs, yet small enough to provide the one-to-one service you deserve.

At every stage of our work, from research and development to design, production and testing, we use up-to-the-minute technologies and the most modern equipment available to ensure that every National Pump meets the highest possible standards of efficiency and reliability. Using conventional or special materials, we manufacture pumps for specific needs and conditions.

From gold mines to golf courses to grain fields, our pumps are hard at work around the world. Serving commercial, industrial, municipal, power, residential, mining, oil and gas and agricultural irrigation needs, each National Pump produced is an individual pumping system designed to do a specific pumping job. Precisely matched drivers, discharge heads, impellers, bowls and column/shaft assemblies deliver consistent pumping capacity.

We offer a full range of vertical turbine and submersible pumps, water or oil lubricated, of threaded or flanged construction, with capacities to 4,000 M³/HR and pressures up to 1,500 PSI. All pump models are in stock as standard materials, and they can be customized at the service center level. We also manufacture custom pumps, using special alloys and coatings to suit your specific needs. We have multiple patterns in order to meet special alloy requirements in a timely manner.

Even more important is the service we provide. We will be happy to provide pre-design information to help you develop the most efficient pumping system for your customer’s needs. Whatever your application, we know that having equipment down causes unacceptable delays so each of our offices is a complete service/warehouse/assembly/finishing center.

Our branches are strategically located throughout the United States and staffed by experienced managers who are all technical experts, ready to help solve your problems on the phone or on site. No matter what brand of pump you have, when you need service, you get it now - not a two month delay while parts are ordered, or a several-day wait for a visit from service personnel.

Before you design your next pumping system, talk with a National Pump expert and take advantage of the knowledge and experience we have to offer. We’re convinced you won’t find better quality or service anywhere!

Creating Quality Pump Systems and Satisfied Customers
Visit us on the web at: www.nationalpumpcompany.com
## MAIN OFFICE

**ARIZONA**  
7706 N. 71st Avenue  
Glendale, AZ 85303-1703  
(623) 979-3560 • Fax (623) 979-2177  
(800) 966-5240

---

## FACTORY BRANCH LOCATIONS

### CALIFORNIA

2790 S. Railroad Avenue  
Fresno, CA 93725  
(559) 497-5071 • Fax (559) 497-8816  
(800) 868-9755

### FLORIDA

195 E. 3rd Street  
Zolfo Springs, FL 33890  
(863) 735-8222 • Fax (863) 735-8202  
(800) 994-3045

### GEORGIA

902 East Union Street  
Vienna, GA 31092  
(229) 268-2921 • Fax (229) 268-7136  
(800) 741-2921

### MISSISSIPPI

11176 Green Valley Drive  
Olive Branch, MS 38654  
(662) 895-1110 • Fax (662) 895-5083  
(866) 668-4914

### TEXAS

3107 Slaton Highway  
Lubbock, TX 79404  
(806) 745-5396 • Fax (806) 745-6668  
(800) 745-5393

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Email: info@natlpump.com  
www.nationalpumpcompany.com
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2950 CURVES</td>
<td>PAGE 2-29</td>
</tr>
<tr>
<td>1475 CURVES</td>
<td>PAGE 30-97</td>
</tr>
<tr>
<td>985 CURVES</td>
<td>PAGE 98-127</td>
</tr>
<tr>
<td>735 CURVES</td>
<td>PAGE 128-141</td>
</tr>
<tr>
<td>WARRANTY</td>
<td>PAGE 142</td>
</tr>
<tr>
<td>TERMS AND CONDITIONS</td>
<td>PAGE 143</td>
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PLEASE REFER TO ENGINEERING CATALOG FOR TECHNICAL DATA.
**Performance Based on**
Pumping clear, fresh non-aerated water at 85°F maximum unless otherwise specified.

**Change Efficiency As Follows**

<table>
<thead>
<tr>
<th>Number of Stages</th>
<th>Design M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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**Number of Points**

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<thead>
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<th>( ) STG</th>
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<tbody>
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**Pump Data**

**Dimensions in Inches**

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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
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**Pump Installation and System Must Satisfy Both Values.**

**Performance Based on Cast Iron Enameled Bowls and Bronze Impeller Unless Otherwise Specified.**

**Curve Template 08.05.2011**
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED.

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES 1 3 4
NUMBER OF POINTS -2 -1 0

TOTAL HEAD PER STAGE (M) 3 (M)
TOTAL HEAD PER STAGE (FT) 0

DIMENSIONS IN INCHES
A 5.50 3.94 4.00 7.06 6.00 2.19 12.00 N/A N/A
B
C
ADD STG
E
F
G 1.50
H
J
K
L
M
N
15.00

IMPELLER: ENCLOSED
NO. OF VANES: 5
THRUST CONSTANT: 2.3
LATERAL (STD): 0.19
EYE AREA: 3.82
SHAFT DIA: 1.00

EFFECTIVENESS OF IMPPELLER
ADD STG WT LB: 46 1ST STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CVM6LC2P5CY
CURVE TEMPLATE 08.05.2011

09/01/2011

3
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
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<td>NUMBER OF POINTS</td>
<td>-2</td>
<td>-1</td>
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</table>

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

BOWL POWER (KW)

GPM

DIMENSIONS IN INCHES

IMPELLER: SEMI-OPEN BOWL CONNECTION: THREADED
NO. OF VANES: 5 DISCHARGE SIZE: 4"
THRUST CONSTANT: 2.3 SUCTION SIZE: 4"
LATERAL (STD): 0.19 STO. TUBE: 1.5"
EYE AREA IN²: 3.82 WPF LB-FT²: 0.14
SHAFT DIA: 1.00 1ST STG WT LB: 46 ADD STG WT LB: 16

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVM6LO2P5CY

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
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<tr>
<td>KW EFF</td>
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NUMBER OF POINTS

-2 -1 0

M6MC
2950 RPM

BOWL POWER (KHTML)

0 1 1.5 2 2.5 3 3.5

TOTAL HEAD PER STAGE (M)

0 3 6 9 12 15 18

TOTAL HEAD PER STAGE (FT)

0 100 200 300 400 500

GPM

0 25 50 75 100 125 150 200

M3/HR

0 25 50 75 100 125 150 200

PUMP DATA

DIMENSIONS IN

A 5.50
B 3.94
C 4.00
D 7.06
E 6.00
F 2.69
G 12.00
H+ 15.00
J N/A
K N/A
L N/A
M N/A
N 15.00

IMPELLER: ENCLOSED
BOWL CONNECTION: THREADED

NO. OF VANES: 6
DISCHARGE SIZE: 4"

THRUST CONSTANT: 2.3
SUCTION SIZE: 4"

LATERAL (STD): 0.19
STD. TUBE: 1.5"

EYE AREA IN2: 3.82
WR* LB* FT*: 0.14

SHAFT DIA: 1.00
1ST STG WT LB: 46
ADD STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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</tbody>
</table>

NUMBER OF POINTS

-2 -1 0

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

BOWL POWER (KW)

GPM

DIMENSIONS IN INCHES

A 5.50 3.94 4.00 7.06 6.00 2.69 12.00 N/A N/A N/A N/A 15.00

IMPELLER: SEMI-OPEN BOWL CONNECTION: THREADED

NO. OF VANES: 6 DISCHARGE SIZE: 4"
THRUST CONSTANT: 2.3 SUCTION SIZE: 4"
LATERAL (STD): 0.19 STD. TUBE: 1.5"
EYE AREA IN²: 3.82 WR/LB-FT²: 0.14
SHAFT DIA: 1.00 1ST STG WT LB: 46 ADD STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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CURVES

1 STG ( ) STG

PUMP DATA

- IMPELLER: ENCLOSED BOWL CONNECTION: THREADED
- NO. OF VANES: 7
- DISCHARGE SIZE: 4"
- THRUST CONSTANT: 2.3
- SUCTION SIZE: 4"
- LATERAL (STD): 0.19
- STD. TUBE: 1.5"
- EYE AREA IN²: 4.89
- WR'LB-FT²: 0.14
- SHAFT DIA: 1.00
- 1ST STG WT LB: 46
- ADD STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVM6HC2P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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CURVE TEMPLATE 08.05.2011

PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANES: 7
THRUST CONSTANT: 2.3
LATERAL (STD): 0.19
EYE AREA IN²: 1.00
*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMEL BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

A GORMAN-RUPP COMPANY

CVM6HO2P5CY

09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF STAGES

E6XHC

2950 RPM

BOWL POWER (KW)

GPM

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED

NO. OF VANES: 8

THRUST CONSTANT: 2.90

LATERAL (STD): 0.188

EYE AREA IN: 7.12

SHAFT DIA: 1.00

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVE6XHC2P5CY

ADD STG WT LB: 25

THRUST CONSTANT: 2.90

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVE6XHC2P5CY
**PERFORMANCE BASED ON**
PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

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**DIMENSIONS IN INCHES**

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</table>

**PUMP DATA**

- IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
- NO. OF VANES: 6
- DISCHARGE SIZE: 4"
- THRUST CONSTANT: 4.1
- SUCTION SIZE: 4"
- LATERAL (STD): 0.25
- STD. TUBE: 1.5"
- EYE AREA IN²: 7.50
- WR²LB-FT²: 0.16
- SHAFT DIA: 1.0
- 1ST STG WT LB: 75
- ADD STG WT LB: 15

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES. PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**CURVE TEMPLATE 08.06.2011**

**CVJ6HC2P5CY**
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

NUMBER OF
STAGES  1  3  5
NUMBER OF
POINTS  -2 -1  0

NUMBER OF
STAGES
1 STG  ( ) STG

BOWL POWER (KW)
TOTAL HEAD PER STAGE (M)
M3/HR
0  30  60  90  120  150  180
0  10  20  30  40  50  60  70
GPM
0  100  200  300  400  500  600  700
0  100  200  300  400  500  600  700

DIMENSIONS
INCHES
A**  B  C  ADD/STG  E  F  G  H*  J  K  L  M  N
7.00  5.50  6.75  8.25  6.56  1.12  16.50  8.75  N/A  N/A  N/A  20.50

IMPELLER: ENCLOSED  BOWL CONNECTION: FLANGED
NO. OF VANES: 5  DISCHARGE SIZE: 5", 6"
THRUST CONSTANT: 4.2  SUCTION SIZE: 5", 6"
LATERAL (STD): 0.75  STD. TUBE: 2"
EYE AREA IN": 9.07  WR’LB-FT*: 0.25
SHAFT DIA: 1.25  1ST STG WT LB: 95  ADD STG WT LB: 35

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**IF 6" DISCHARGE CASE OR 6" SUCTION CASE IS USED THIS DIMENSION IS 7.25"

CURVE TEMPLATE 08.05.2011

H7LC
2950 RPM

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M³/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
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<tbody>
<tr>
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H7HC

2950 RPM

CURVE TEMPLATE 08.05.2011

PUMP DATA

<table>
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<th>IMPELLER:</th>
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<th>BOWL CONNECTION:</th>
<th>FLANGED</th>
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<tbody>
<tr>
<td>NO. OF VANES:</td>
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<td>DISCHARGE SIZE:</td>
<td>5&quot;, 6&quot;</td>
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<tr>
<td>THRUST CONSTANT:</td>
<td>4.2</td>
<td>SUCTION SIZE:</td>
<td>5&quot;, 6&quot;</td>
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<tr>
<td>LATERAL (STD):</td>
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<td>STD. TUBE:</td>
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<tr>
<td>EYE AREA IN²:</td>
<td>9.09</td>
<td>WPS LB-FT¹:</td>
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<tr>
<td>SHAFT DIA:</td>
<td>1.25</td>
<td>1ST STG WT LB:</td>
<td>95</td>
</tr>
<tr>
<td>ADD STG WT LB:</td>
<td>35</td>
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¹ THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

* IF 6" DISCHARGE CASE OR 6" SUCTION CASE IS USED THIS DIMENSION IS 7.25"
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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<tr>
<td>DESIGN M3/HR TDH KW EFF</td>
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<tr>
<td>NUMBER OF POINTS</td>
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<td>-1</td>
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</table>

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

GPM

M3/HR

DIMENSIONS INCHES

A B ADD/STG E F G H* J K L M N

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 5 DISCHARGE SIZE: 5", 6"

THRUST CONSTANT: 4.73 SUCTION SIZE: 5"

LATERAL (STD): 0.688 STD. TUBE: 2"

EYE AREA IN2: 7.742 WR\(^2\) LB-FT\(^2\): 0.32

SHAFT DIA: 1.25 1ST STG WT LB: 85 ADD STG WT LB: 36

*THIS DIMENSION TO BE USED WITH NPSH\(^3\). PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN2: 7.742 WR\(^2\) LB-FT\(^2\): 0.32

SHAFT DIA: 1.25 1ST STG WT LB: 85 ADD STG WT LB: 36

* THIS DIMENSION TO BE USED WITH NPSH\(^3\). PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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<tr>
<td>NUMBER OF POINTS</td>
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1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

GPM

M3/HR

DIMENSIONS IN INCHES

A  B  C  D  E  F  G  H*  J  K  L  M  N

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 4 DISCHARGE SIZE: 5", 6"

THRUST CONSTANT: 4.0 SUCTION SIZE: 5", 6"

LATERAL (STD): 0.75 STD. TUBE: 2"

EYE AREA IN²: 7.72 WR²LB-FT²: 0.32

SHAFT DIA: 1.25 1ST STG WT LB: 102 400 STG WT LB: 40

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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<td>M8MC 2950 RPM</td>
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</table>

1 STG ( ) STG

TOTAL HEAD PER STAGE (M): 6.688, 6.312, 6.000

TOTAL HEAD PER STAGE (FT): 0, 40, 80, 120, 160

BOWL POWER (KW): 0, 10, 20, 30, 40

BOWL POWER (HP): 0, 10, 20

DIMENSIONS IN INCHES:

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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
</table>

IMPELLER: ENCLOSED BOWL CONNNECTION: FLANGED

NO. OF VANES: 6
DISCHARGE SIZE: 5", 6"

THRUST CONSTANT: 4.0
SUCTION SIZE: 5", 6"

LATERAL (STD): 0.75
STD. TUBE: 2"

EYE AREA IN²: 8.74
WR' LB-FT²: 0.32

SHAFT DIA: 1.25
1ST STG WT LB: 102
ADD STG WT LB: 40

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
**Performance based on**

Pumping clear, fresh non-aerated water at 85° F maximum unless otherwise specified.

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
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<th>KW</th>
<th>EFF</th>
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<td>-2</td>
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Change efficiency as follows:

Number of stages 13

Number of points: -2, -1, -0

**Pump Data**

- ImPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 8
- DISCHARGE SIZE: 5", 6"
- THRUST CONSTANT: 4.0
- SUCTION SIZE: 5", 6"
- LATERAL (STD): 0.75
- STD. TUBE: 2"
- EYE AREA IN: 8.74
- WR*LB-FT*: 0.23
- SHAFT DIA: 1.25
- NET STD WT LB: 102
- ADD STG WT LB: 40

*This dimension to be used with NPSH3. Pump installation and system must satisfy both values.

Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.

**Curves**

- M3/HR
- TOTAL HEAD PER STAGE (M)
- BOWL POWER (KW)
- TOTAL HEAD PER STAGE (FT)
- BOWL POWER (HP)

**Dimensions**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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<tbody>
<tr>
<td>8.12</td>
<td>5.53</td>
<td>7.25</td>
<td>8.38</td>
<td>6.56</td>
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<td>14.50</td>
<td>6.50</td>
<td>6.12</td>
<td>5.63</td>
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</table>

**System Information**

- Eye area: 8.74
- WR*LB-FT*: 0.23
- Shaft dia: 1.25
- Net std wt lb: 102
- Add std wt lb: 40

**Notes:**

- 09/01/2011
- EY AREA IN²: 8.74
- WR² LB-FT²: 0.23
- SHAFT DIA: 1.25
- 1ST STG WT LB: 102
- THRUST CONSTANT: 4.0

**Curve Template:** 08.05.2011

---

**Gorman-Rupp Company**

A Gorman-Rupp Company

M8HC

2950 RPM

2.50 21.13 6.50
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
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<td>TDH</td>
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<td>KW</td>
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<tr>
<td>EFF</td>
<td></td>
<td></td>
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</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

DIMENSIONS INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: THREADED

NO. OF VANES: 6

DISCHARGE SIZE: 6"

THRUHT CONSTANT: 5.4

SUCTION SIZE: 6"

LATERAL (STD): 1.38

STD. TUBE: 2"

EYE AREA IN²: 12.81

WR'LB-FT²: 0.36

SHFT DIA: 1.25

1ST STG WT LB: 140

ADD STG WT LB: 62

*MIN. SUBMERGENCE: 16"
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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<td>-2</td>
<td>0</td>
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</tbody>
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PUMP DATA:

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 5
- THRUST CONSTANT: 5.1
- SUCTION SIZE: 6" (STD)
- DISCHARGE SIZE: 5".
- LATERAL (STD): 0.625
- STD. TUBE: 2"
- EYE AREA IN²: 9.69
- WFR LB-FT²: 0.47
- SHAFT DIA: 1.25
- STG WT LB: 138
- ADD STG WT LB: 56

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES | 1 | 2 | 3
NUMBER OF POINTS | -3 | -2 | 0

L10HC
2950 RPM

TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

DIMENSIONS IN INCHES

A 9.83 B 5.18 C 6.50 D 5.18 E N/A F N/A G 1.43 H* 16.00 J 4.00 K 4.13 L 3.75 M N/A

IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 4.60
LATERAL (STD): 0.50
EYE AREA IN: 8.33
SHAFT DIA: 1.50

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 6"
SUCTION SIZE: N/A
STD. TUBE: 2.5"
WR² LB-FT²: 0.44
STG WT LB: 175
ADD STG WT LB: 75

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

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<th>DIMENSIONS</th>
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<th>F</th>
<th>G</th>
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<td>1.43</td>
<td>16.00</td>
<td>4.00</td>
<td>4.13</td>
<td>3.75</td>
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IMPELLER: ENCLOSED
NO. OF VANES: 5
THrust CONSTANT: 8.80
LATERAL (STD): 0.50
EYE AREA IN²: 18.66
SHAFT DIA: 1.50

**ADDITIONAL INFORMATION**

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST STAGE ONLY***

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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<td>-1</td>
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</table>

M10LC
2950 RPM

PUMP DATA

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 5
- DISCHARGE SIZE: 6", 8"
- THRUST CONSTANT: 5.3
- SUCTION SIZE: 6"
- LATERAL (STD): 1.0
- STD. TUBE: 2.5"
- EYE AREA IN²: 13.25
- WR'LB-FT: 0.78
- SHAFT DIA: 1.50
- 1ST STG WT LB: 175
- ADD STG WT LB: 75

* THIS DIMENSION TO BE USED WITH NPSH R. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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</tr>
</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

BOWL POWER (HP)

DIMENSIONS IN INCHES

| A   | B   | C ADD/STG | D   | E   | F   | G   | H* | J | K | L | M | N |
|-----|-----|-----------|-----|-----|-----|-----|-----|---|---|---|---|---|---|
| 10.12 | 5.31 | 9.62 | 10.69 | 7.58 | 1.43 | 10.50 | 7.50 | 8.12 | 7.00 | 3.12 | 25.62 |

IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 5.4
LATERAL (STD): 1.0
EYE AREA IN²: 13.25
SHAFT DIA: 1.50

ADDITIONAL STG WT LBS: 75
SUCTION SIZE: 6"
LATERAL (STD): 2.5"
IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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<tr>
<td>4</td>
<td>4</td>
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</tbody>
</table>

NUMBER OF POINTS | -4 | -1 | 0 |

K10LC
2950 RPM

CURVES

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

GPM

DIMENSIONS IN INCHES

IMPELLER: ENCLODED
BOWL CONNECTION: FLANGED
NO. OF VANES: 6
THRUST CONSTANT: 6.8
LATERAL (STD): 1.0
EYE AREA IN: 13.8
SHAFT DIA: 1.50
1ST STG WT LB: 170
ADD STG WT LB: 68

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

EYE AREA IN2: 13.8
WR2 LB-FT2: 0.78
SHAFT DIA: 1.50
1ST STG WT LB: 170
ADD STG WT LB: 68

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

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CURVE TEMPLATE 08.05.2011

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WR2 LB-FT2: 0.78
SHAFT DIA: 1.50
1ST STG WT LB: 170
ADD STG WT LB: 68

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85 °F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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<td>1</td>
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1 STG ( ) STG

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DIMENSIONS
INCHES

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<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
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IMPELLER:
ENCLOSED

NO. OF VANES:
7

THRU ST RCNT:
6.8

LATERAL (STD):
1.0

EYE AREA IN²:
13.8

SHAFT DIA:
1.50

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

| NUMBER OF | 1   | 3   | 4   |
| STAGES    |     |     |     |
| NUMBER OF | -4  | -1  | 0   |

PUMP DATA

IMPELLER: ENCLODED BOWL CONNECTION: FLANGED
NO. OF VANES: 8 DISCHARGE SIZE: 8"
THRUST CONSTANT: 6.8 SUCTION SIZE: 6"
LATERAL (STD): 1.0 STD. TUBE: 2.5"
EYE AREA IN²: 13.8 WR'LB-FT²: 0.78
SHAFT DIA: 1.50 1ST STG WT LB: 170 ADD STG WT LB: 68

THIS DIMENSION TO BE USED WITH NPSH₃. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

GPM

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 6", 8"

THRUST CONSTANT: 6.9 SUCTION SIZE: 6"

LATERAL (STD): 1.25 STD. TUBE: 2.5"

EYE AREA IN²: 16.89 WR³ LB·FT²: 0.75

SHAFT DIA: 1.50 1ST STD WT LB: 210 ADD STD WT LB: 80

THIS DIMENSION TO BE USED WITH NPSH³. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

BOWL POWER (KW)  M3/HR  GPM

DIMENSIONS IN:

A B C ADD/STG E F G H* J K L M N

INCHES

9.75 5.31 9.62 8.19 7.56 1.43 12.50 8.50 N/A N/A N/A 23.12

PUMP DATA

IMPELLER: ENCLOSED  BOWL CONNECTION: FLANGED
NO. OF VANES: 7  DISCHARGE SIZE: 6", 8"
THRUST CONSTANT: 6.9  SUCTION SIZE: 6"
LATERAL (STD): 1.25  STD. TUBE: 2.5"
EYE AREA IN: 16.89  WR*LB-FT²: 0.75
SHAFT DIA: 1.50  1ST STG WT LB: 210  ADD STG WT LB: 80

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY

H10HC

2950 RPM

2950
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

-4.089 41%
-3.750 54%
-3.438 64%

NPSH3 (M): 0.5
NPSH3 (FT): 0

Suction Size: Bell
Lateral (Std): 0.19
Shaft Dia: 1.0
No. of Vanes: 5
Discharge Size: 4"

STG WT LB: 16
Thrust Constant: 1.20
EYE AREA IN²: 5.38
WR' LB-FT²: 0.14

PUMP DATA

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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
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DIMENSIONS IN INCHES

- THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
- PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08/05/2011

CURVES

L6LC
1475 RPM
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF POINTS

-2 -1 0

M6LC 1475 RPM

4,585

62% 65% 68% 70% 74% 68% 69%

NPSH3 (M)

TOTAL HEAD PER STAGE (M)

BOWL POWER (KW)

GPM

DIMENSIONS IN INCHES

A 5.50 3.94
B 4.00 6.00
C 7.06 2.69
D 6.00 12.00
E N/A
F N/A
G N/A
H N/A
J N/A
K N/A
L N/A
M N/A
N 15.00

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: THREADED
NO. OF VANES: 5 DISCHARGE SIZE: 4"
THRUST CONSTANT: 2.3 SUCTION SIZE: 4"
LATERAL (STD): 0.19 STD. TUBE: 1.5"
EYE AREA IN²: 3.82 WR*LB-FT²: 0.14
SHAFT DIA: 1.00 1ST STG WT LB: 46 ADD STG WT LB: 16

*THRUST CONSTANT TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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1 STG ( ) STG

1475 RPM

BOWL POWER (KW)

TOTAL HEAD PER STAGE (FT)

TOTAL HEAD PER STAGE (M)

M3/HR

GPM

DIMENSIONS IN INCHES

IMPELLER: SEMI-OPEN BOWL CONNECTION: THREADED
NO. OF VANES: 5 DISCHARGE SIZE: 4"
THRUST CONSTANT: 2.3 SUCTION SIZE: 4"
LATERAL (STD): 0.19 STD. TUBE: 1.5"
EYE AREA IN²: 3.82 WPT LB-FT": 0.14
SHAFT DIA: 1.00 1ST STG WT LB: 46 ADD STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES

NUMBER OF POINTS

1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED

NO. OF VANES: 6

THRUAT CONSTANT: 2.3

LATERAL (STD): 0.19

EYE AREA IN²: 3.82

SHAFT DIA: 1.00

DIMENSIONS

INCHES

A 5.50

B 3.94

C 4.00

E 7.06

F 6.00

G 2.69

H* 12.00

J N/A

K N/A

L N/A

M N/A

N 15.00

PORNAN-RUPP COMPANY

M6MC

1475 RPM

CURVE TEMPLATE 08.05.2011

N/A 15.00 N/A

SUCTION SIZE: 4"

LATERAL (STD): 0.19

IMPELLER: ENCLOSED BOWL CONNECTION: THREADED

NO. OF VANES: 6

THRUAT CONSTANT: 2.3

LATERAL (STD): 0.19

EYE AREA IN²: 3.82

SHAFT DIA: 1.00

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN²: 3.82

WR*LB-FT²: 0.14

SHUT WT LB: 16

1ST STG WT LB: 46

ADD STG WT LB: 16

* MIN. SUBMERGENCE

CVM6MCAPS6Y 09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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| NUMBER OF POINTS | -2 | -1 | 0 |

1 STG ( ) STG

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED 09/01/2011

BOWL POWER (KW) 0.5 0.25 0.125

TOTAL HEAD PER STAGE (M) 6 5 4 3 2 1

NPSH3 (M) 0.5 1

TOTAL HEAD PER STAGE (FT) 20 15 10 5 0

DIMENSIONS IN INCHES

| A | B (ADD/STG) | C | E | F | G | H* | J | K | L | M | N |
|---|-------------|---|---|---|---|----|---|---|---|---|---|---|
| 5.50 | 3.94 | 4.00 | 7.06 | 6.00 | 2.69 | 12.00 | N/A | N/A | N/A | N/A | 15.00 |

PUMP DATA

IMPELLER: SEMI-OPEN BOWL CONNECTION: THREADED
NO. OF VANES: 6 DISCHARGE SIZE: 4" THRU STG WT LB: 46
THRU STG WT LB: 46
THRU STG WT LB: 16

SHFT DIA: 1.00
SHFT DIA: 1.00
SHFT DIA: 1.00

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

NPSH3 (M)

TOTAL HEAD PER STAGE (FT)

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: THREADED
NO. OF VANES: 7 DISCHARGE SIZE: 4"
THRUST CONSTANT: 2.3 SUCTION SIZE: 4"
LATERAL (STD): 0.19 STD. TUBE: 1.5"
EYE AREA IN²: 3.82 WR'LB'-FT²: 0.14
SHAFT DIA: 1.00 1ST STG WT LB: 46 ADD STG WT LB: 16

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011 CVM6HC4P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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BOWL POWER (KW)

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<tr>
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DIMENSIONS IN INCHES

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<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANE: 7
THRUSTR CTNST: 1.1
LATERAL (ST): 0.19
EYE AREA IN: 3.82
SHAFT DIA: 1.00

BOWL CONNECTION: THREADED
DISCHARGE SIZE: 4"
SUCTION SIZE: 4"
STD. TUBE: 1.5"
WR2 LB-F: 0.14

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CURVE DATA 09.01.2011

CVM6HO4P5CV
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF POINTS

0

BOWL POWER (KW)

BOWL POWER (HP)

DIMENSIONS

INCHES

A B C D E F G H J K L M N

IMPELLER: ENCLOSED BOWL CONNECTION: THREADED

NO. OF VANES: 8 DISCHARGE SIZE: 4"

THRUST CONSTANT: 2.90 SUCTION SIZE: 4"

LATERAL (STD): 0.188 STD. TUBE: 1.5"

EYE AREA IN²: 7.12 WR’LB-FT²: 0.14

SHAFT DIA: 1.00 1ST STG WT LB: 60 ADD STG WT LB: 25

* THIS DIMENSION TO BE USED WITH NPSH R. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

** PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011 CVE6XHC4P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

BOWL POWER (HP)

GPM

M3/HR

DIMENSIONS

INCHES

A  B  C  D  E  F  G  H*  J  K  L  M  N

5.62  3.00  4.75  6.00

IMPELLER: ENCLOSED

NO. OF VANES: 6

THRU CST: 4.1

LATERAL (STD): 0.25

EYEA IN: 7.50

SHAFT DIA: 1.0

* THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

DIMENSIONS IN INCHES

A** B C ADP/STG E F G H* J K L M N

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 5 DISCHARGE SIZE: 5", 6"
THRUXT CONSTANT: 4.2 SUCTION SIZE: 5", 6"
LATERAL (STD): 0.75 STD. TUBE: 2"
EYE AREA IN²: 9.07 WR*LB-FT*: 0.25
SHAFT DIA: 1.25 1ST STG WT LB: 95 ADD STG WT LB: 35

* THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
** IF 6" DISCHARGE CASE OR 6" SUCTION CASE IS USED, THIS DIMENSION IS 7.25"

A GORMAN-RUPP COMPANY

CURVE TEMPLATE 08.05.2011

CVH7LC4P5C5Y

ADD/STG WTM:

8.75 16.5 20.5 1.12 16.5 8.75 N/A N/A N/A 09/01/2011

C 20.5

0 20 40 60 80 100

M3/HR 0 50 100 150 200 250 300 350 400

GPM 0 0.5 1 1.5

BOWL POWER (KW)

E Y AREA: 9.07 WR: LB-FT: 0.25
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF POINTS:

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1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 4.2
LATERAL (STD): 0.75
EYE AREA IN2: 9.09
SHAFT DIA: 1.25

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 5", 6"
SUCTION SIZE: 5", 6"
STD. TUBE: 2"

EYE AREA LB-FT2: 0.25

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
** IF 6" DISCHARGE CASE OR 6" SUCTION CASE IS USED, THIS DIMENSION IS 7.25"

CURVE TEMPLATE 08.05.2011

09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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PUMP DATA

- IMPELLER: ENCLOSED
- BOWTIE CONNECTION: FLANGED
- NO. OF VANES: 6
- THRUST CONSTANT: 4.2
- LATERAL (STD): 0.75
- EYE AREA IN²: 10.7
- SHAFT DIA: 1.25

* THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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<th>F</th>
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<td>THRUST CONSTANT:</td>
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<td>LATERAL (STD):</td>
<td>STD. TUBE: 2&quot;</td>
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<td>EYE AREA (IN²):</td>
<td>WR' LB-FT*: 7.742</td>
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<td>SHAFT DIA: 1.25</td>
<td>ADD STG WT LB: 85</td>
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*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES. PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.*
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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CHANGE EFFICIENCY AS FOLLOWS

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BOWL POWER (KW)

M3/HR

GPM

DIMENSIONS IN INCHES

A  B  ADD/STG  C  D  E  F  G  H*  J  K  L  M  N

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

THRU CTNT: 8.73 NO. OF VANES: 8

DISCHARGE SIZE: 5", 6"

SUCTION SIZE: 5"

LATERAL (STD): 0.688

STD. TUBE: 2"

EYE AREA IN²: 7.742

WR² LB·FT²: 0.32

SHAFT DIA: 1.25

MIN. STD WT LB: 85

ADD/STG WT LB: 36

* THIS DIMENSION TO BE USED WITH NPSH3.- PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
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1 STG ( ) STG

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**PUMP DATA**

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<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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</table>

**IMPELLER:** ENCLOSED  
**BOWL CONNECTION:** FLANGED

**NO. OF VANECS:** 4  
**DISCHARGE SIZE:** 5", 6"

**THRUST CONSTANT:** 4.0  
**SUCTION SIZE:** 5", 6"

**LATERAL (STD):** 0.75  
**STD. TUBE:** 2"

**EYE AREA IN2:** 7.72  
**WR-FT²:** 0.32

**SHAFT DIA:** 1.25  
**STG WT LB:** 40

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

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CURVE TEMPLATE 08/05/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FARMS

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PUMP DATA

IMPELLER: ENCLOSURE
NO. OF VANES: 6
THRUST CONSTANT: 4.0
LATERAL (STD): 0.75
EYE AREA IN: 8.74
SHAFT DIA: 1.25

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

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PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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CHANGE EFFICIENCY AS FOLLOWS:

NUMBER OF STAGES: 1
NUMBER OF POINTS: -2

TOTAL HEAD PER STAGE (M):

TOTAL HEAD PER STAGE (FT):

DIMENSIONS IN INCHES:

IMPELLER: ENCLOSED
BOWL CONNECTION: FLANGED

NO. OF VANES: 6
DISCHARGE SIZE: 5", 6"

THRUST CONSTANT: 4.9
SUCTION SIZE: 5", 6"

LATERAL (STD): 0.62
STD. TUBE: 2"

EYE AREA IN: 10.7
WR* LB-FT*: 0.32

SHAFT DIA: 1.25
STD STD WT LB: 102
ADD STD WT LB: 40

*THIS DIMENSION TO BE USED WITH NP3H3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN2: 10.7
WR2 LB-FT2: 0.32
SHAFT DIA: 1.25
1ST STG WT LB: 102
THRUST CONSTANT: 4.9

M8XHC4P5CY

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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| NUMBER OF POINTS | -3 | -2 | -1 | 0 |

BOWL POWER (KW)

NUMBER OF STAGES

1 STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

NPSH3 (M)

BOWL POWER (HP)

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED  BOWL CONNECTION: THREADED

NO. OF VANES: 6  DISCHARGE SIZE: 6"
THRUST CONSTANT: 5.4  SUCTION SIZE: 6"
LATERAL (STD): 1.38  STD. TUBE: 2"
EYE AREA IN²: 12.81  WH' LB-FT²: 0.36
SHAFT DIA: 1.25  LB WT LB: 62

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVJ8XHC4P5CY

ADDITIONAL STG WT LB: 62
THRUHT CONSTANT: 5.4
SUCTION SIZE: 6"
LATERAL (STD): 1.38  STD. TUBE: 2"
EYE AREA IN²: 12.81  WH' LB-FT²: 0.36
SHAFT DIA: 1.25  LB WT LB: 62

*MIN. SUBMERGENCE 09/01/2011

CVJ8XHC4P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

M3/HR 0 20 40 60 80 100

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

GPM 0 50 100 150 200 250 300 350 400

DIMENSIONS IN

INCHES

A 9.83
B 5.18
C 6.50
D N/A
E N/A
F 1.43
G 16.00
H 4.00
J 4.13
K 3.75
L N/A

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 7 DISCHARGE SIZE: 6"

THRU STS CONSTANT: 4.60 SUCTION SIZE: N/A

LATERTAL (STD): 0.50 STD. TUBE: 2.5"

EYE AREA INF: 8.53 WR^2 LB-FT^2: 0.44

SHAFT DIA: 1.50 IST STG WT LB: 175 ADD STG WT LB: 75

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVL10HC4P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

NUMBER OF STAGES: -
NUMBER OF POINTS: -

DESIGN M3/HR TDH KW EFF
- - - -

CHANGE EFFICIENCY AS FOLLOWS

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 5 DISCHARGE SIZE: 6"
THRUST CONSTANT: 8.80 SUCTION SIZE: N/A
LATERAL (STD): 0.50 STD. TUBE: 2.5"
EYE AREA IN²: 18.66 WR² LB-FT²: 0.44
SHAFT DIA: 1.50 1ST STG WT LB: 175 ADD STG WT LB: 75

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.**

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST STAGE ONLY***

CURVE TEMPLATE 08.05.2011

L10HC-S 1475 RPM

A GORMAN-RUPP COMPANY

EYE AREA IN²: 18.66 WR² LB-FT²: 0.44
SHAFT DIA: 1.50 1ST STG WT LB: 175 ADD STG WT LB: 75

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.**

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST STAGE ONLY***

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85° F MAXIMUM UNLESS
OTHERWISE SPECIFIED

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<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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</table>

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 5
THURST CONSTANT: 5.3
LATERAL (STD): 1.0
EYE AREA IN²: 13.25

DIMENSIONS IN INCHES

A 10.12 5.19 9.62 10.69 7.56 1.43 10.50

ADDS/STG E 16.12 5.19 9.62 10.69 7.56 1.43 10.50

F 7.56 1.43 10.50

G 7.56 1.43 10.50

H* 7.56 1.43 10.50

J 7.56 1.43 10.50

K 7.56 1.43 10.50

L 7.56 1.43 10.50

M 7.56 1.43 10.50

N 7.56 1.43 10.50

* THIS DIMENSION TO BE USED WITH NPSH₃. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVM10LC4P5CCH
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
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<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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<td>-1</td>
<td>0</td>
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PUMP DATA

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 7
- DISCHARGE SIZE: 6", 8"
- THRUST CONSTANT: 5.4
- SUCTION SIZE: 6"
- LATERAL (STD): 1.0
- STD. TUBE: 2.5"
- EYE AREA IN²: 13.25
- WR'LB-FT²: 0.78
- SHAFT DIA: 1.50
- 1ST STG WT-LB: 175
- ADD STG WT-LB: 75

*THIS DIMENSION TO BE USED WITH NPSH₃. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>EFF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NUMBER OF POINTS | -4 | -1 | 0 |

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH₃ (M)

BOWL POWER (HP)

DIMENSIONS IN INCHES

A | B | C | E | F | G | H* | J | K | L | M | N
<table>
<thead>
<tr>
<th></th>
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</tr>
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<tbody>
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<td>8.88</td>
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<td>7.56</td>
<td>1.43</td>
<td>12.50</td>
<td>8.50</td>
<td>8.12</td>
<td>7.00</td>
<td>3.121</td>
<td>22.25</td>
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</tbody>
</table>

IMPELLER: ENCLOSED

NO. OF VANES: 6

THRAST CONSTANT: 6.8

LATERAL (STD): 1.0

EYE AREA IN²: 13.8

SHMT DIA: 1.50

* THIS DIMENSION TO BE USED WITH NPSH₃. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FARWELL NUMBER OF STAGES NUMBER OF POINTS
1 3 4 DESIGN M3/HR TDH KW EFF
-4 -1 0

NUMBER OF STAGES 1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

DIMENSIONS

INCHES
A 9.75 B 5.19 ADD/STG E F G H* J K L M N

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 8"
THRUST CONSTANT: 6.8 SUCTION SIZE: 6"
LATERAL (STD): 1.0 STD. TUBE: 2.5"
EYE AREA IN": 13.8 WR’LB-FT": 0.78
SHAFT DIA: 1.50 1ST STG WT-LB: 170 ADD STG WT-LB: 68

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN</th>
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<tbody>
<tr>
<td>1</td>
<td>M3/HR</td>
</tr>
<tr>
<td>3</td>
<td>TDH</td>
</tr>
<tr>
<td>4</td>
<td>KW</td>
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<td>-4</td>
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<tr>
<td>-1</td>
<td></td>
</tr>
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</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH (M)

BOWL POWER (HP)

GPM

DIMENSIONS

INCHES

<table>
<thead>
<tr>
<th>A</th>
<th>9.75</th>
<th>5.19</th>
<th>8.88</th>
<th>8.19</th>
<th>7.56</th>
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<th>7.00</th>
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<th>22.25</th>
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<tr>
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</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSLED  BOWL CONNECTION: FLANGED

NO. OF VANES: 8  DISCHARGE SIZE: 8"

THRUPT CONSTANT: 6.8  SUCTION SIZE: 6"

LATERAL (STD): 1.0  STD TUBE: 2.5"

EYE AREA IN²: 13.8  WLF LB-FT²: 0.78

SHAFT DIA: 1.50  1ST STG WT LB: 170  ADD STG WT LB: 68

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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<td>5</td>
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NUMBER OF POINTS

<table>
<thead>
<tr>
<th>1 STG</th>
<th>( ) STG</th>
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</thead>
</table>

1 STG

BOWL POWER (KW)

GPM

DIMENSIONS

INCHES

IMPELLER: ENCLOSURED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 6", 8"

THRUST CONSTANT: 6.9 SUCTION SIZE: 6"

LATERAL (STD): 1.25 STD. TUBE: 2.5"

EYE AREA IN: 16.89 WR'LB'-FT*: 0.75

SHAFT DIA: 1.50 1ST STG WT-LB: 210 ADD STG WT-LB: 80

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVH10MC4P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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<tr>
<th>NUMBER OF STAGES</th>
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<th>3</th>
<th>5</th>
<th>DESIGN M3/HR TDH KW EFF</th>
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<td>-1</td>
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</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

DIMENSIONS IN INCHES

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>ADJUST</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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<tbody>
<tr>
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<td>8.19</td>
<td>7.56</td>
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<td>23.12</td>
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IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 6.9
LATERAL (STD.): 1.25
EYE AREA IN²: 16.89
SHAFT DIA: 1.50

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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BOWL POWER (KW)

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<td>1200</td>
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PUMP DATA

IMPELLER: ENCLOSED  BOWL CONNECTION: FLANGED
NO. OF VANES: 6  DISCHARGE SIZE: 8"
THRUST CONSTANT: 8.2  SUCTION SIZE: 8"
LATERAL (STD): 0.750  STD. TUBE: 2.5", 3.0"
EYE AREA IN": 21.8  WR'LB-FT": 0.68
SHAFT DIA: 1.50  1ST STG WT-LB: 175  ADD STG WT-LB: 70

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
 PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

<p>|
| NUMBER OF | NUMBER OF |</p>
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<th>POINTS</th>
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<tr>
<td>3</td>
<td>4</td>
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<tr>
<td>4</td>
<td>5</td>
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</tbody>
</table>

E10HC
1475 RPM

CHANGE EFFICIENCY
AS FOLLOWS

NUMBER OF STAGES
NUMBER OF POINTS

1 STG ( ) STG

PUMP DATA
IMPELLER: ENCLOSED
NO. OF VANES: 7
THRU ST CONSTANT: 10.7
LATERAL (STD): 0.75
EYE AREA IN²: 1.50

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 8"
STD. TUBE: 2.50"
WH LBL-FT" 0.69
1ST STG WT LB: 175
ADD STG WT LB 70

DIMENSIONS
INCHES
A 9.75
B 6.50
C 9.62
D 8.19
E 9.44
F 1.43
G 22.00
H 10.62
K N/A
L N/A
M N/A
N 24.31

EYE AREA IN²: 26.50
WR² LB-FT² 0.59
SHAFT DIA 1.50
1ST WT LB 175
ADD WT LB 70

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVE10HC4P5C1
**Performance Based On:**
Pumping clear, fresh non-aerated water at 85°F maximum unless otherwise specified.

**E10HO**
1475 RPM

**Change Efficiency As Follows**

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<tr>
<td>3</td>
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<td>76%</td>
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<td>72%</td>
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</table>

**Bowl Power (KW)**

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<th>10</th>
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<td>8.062</td>
<td>10.62</td>
<td>15</td>
<td>20</td>
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</tbody>
</table>

**Number of Stages**

- 1 STG ( ) STG

**Pump Data**

- Impeller: Semi-Open
- Bowl Connection: Flanged
- No. of Vanes: 7
- Thrust Constant: 10.7
- Lateral (STD): 0.75
- Eye Area in": 26.50
- Shaft Dia: 1.50

**Dimensions**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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<tr>
<td>9.75</td>
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<td>1.43</td>
<td>22.00</td>
<td>10.62</td>
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</table>

**Notes:**

- This dimension to be used with NPSH.
- Pump installation and system must satisfy both values.
- Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.

**Curve Template:** 08.05.2011

**CVE10HO4P5CY**

**Add STG WT LB:** 70
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>DESIGN M3/HR TDH KW EFF</td>
<td>-4</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN2: 15.9 WR2 LB-FT2: 1.02
SHAFT DIA: 1.6875 1ST STG WT LB: 183 ADD STG WT LB: 91

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08/05/2011

J11LC
1475 RPM

CURVE TEMPLATE 08/05/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-4</td>
</tr>
<tr>
<td>3</td>
<td>-1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

1 STG ( ) STG

PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANES: 6
THRUXT CONSTANT: 7.8
LATERAL (STD): 1.00
EYE AREA IN²: 15.9
SHAFT DIA: 1.6875

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 8"
SUCTION SIZE: 8"
STD. TUBE: 2.5", 3.0"
WR² LB-FT²: 1.02
1ST STG WT LB: 183
ADD STG WT LB: 91

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVJ11LO4P5CY
Performance based on pumping clear, fresh non-aerated water at 85°F maximum unless otherwise specified.

Change efficiency as follows:

<table>
<thead>
<tr>
<th>Number of Stages</th>
<th>1</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design M³/hr TDH KW Eff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Points</td>
<td>-4</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

1 STG ( ) STG

<table>
<thead>
<tr>
<th>BOWL POWER (KW)</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>M³/hr</td>
<td>0</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
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</table>

**PUMP DATA**

<table>
<thead>
<tr>
<th>IMPELLER: ENCLOS</th>
<th>BOWL CONNECTION: FLANGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF VANES: 7</td>
<td></td>
</tr>
<tr>
<td>THRUST CONSTANT: 7.8</td>
<td>SUCTION SIZE: 8&quot;</td>
</tr>
<tr>
<td>LATERAL (STD): 1.00</td>
<td>STD. TUBE: 2.5&quot;, 3.0&quot;</td>
</tr>
<tr>
<td>SHAFT DIA.: 15.9</td>
<td>WP' LB-FT': 1.02</td>
</tr>
<tr>
<td>SHOE AREA IN²: 11.13</td>
<td>(1ST STG WT LB: 183) (ADD STG WT LB: 91)</td>
</tr>
</tbody>
</table>

*This dimension to be used with NPSH. Pump installation and system must satisfy both values.*

Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-4</td>
<td>1475</td>
<td></td>
<td>0</td>
<td>86%</td>
</tr>
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<td>3</td>
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<td>84%</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>82%</td>
</tr>
</tbody>
</table>

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (MW)

BOWL POWER (HP)

DIMENSIONS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D/D STG</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.13</td>
<td>6.81</td>
<td>9.88</td>
<td>10.00</td>
<td>9.44</td>
<td>1.56</td>
<td>24&quot;</td>
<td>10.75</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>26.69</td>
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PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANES: 7
THURST CONSTANT: 7.8
LATERAL (STD): 1.00
EYE AREA IN": 15.9
SHAFT DIA: 1.6875

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN M3/HR</td>
<td>1475 RPM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDH</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KW</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFF</td>
<td>110</td>
<td></td>
<td></td>
</tr>
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CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF POINTS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-4</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

BOWL POWER (KW)

<table>
<thead>
<tr>
<th>BOWL POWER (KW)</th>
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</thead>
<tbody>
<tr>
<td>8.813</td>
</tr>
<tr>
<td>8.250</td>
</tr>
<tr>
<td>7.688</td>
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TOTAL HEAD PER STAGE (M)

<table>
<thead>
<tr>
<th>TOTAL HEAD PER STAGE (M)</th>
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<tbody>
<tr>
<td>86%</td>
</tr>
<tr>
<td>85%</td>
</tr>
<tr>
<td>83%</td>
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NPSH3 (M)

<table>
<thead>
<tr>
<th>NPSH3 (M)</th>
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<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>2.5</td>
</tr>
</tbody>
</table>

BOWL POWER (HP)

<table>
<thead>
<tr>
<th>BOWL POWER (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

DIMENSIONS IN INCHES

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>A</th>
<th>B</th>
<th>ADD/STG</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>INCHES</td>
<td>11.13</td>
<td>6.81</td>
<td>9.88</td>
<td>10.00</td>
<td>9.44</td>
<td>1.56</td>
<td>24&quot;</td>
<td>10.75</td>
<td>10.06</td>
<td>7.25</td>
<td>3.75</td>
<td>26.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PUMP DATA

<table>
<thead>
<tr>
<th>IMPELLER:</th>
<th>ENCLOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF VANES:</td>
<td>8</td>
</tr>
<tr>
<td>THRUST CONSTANT:</td>
<td>7.8</td>
</tr>
<tr>
<td>DISCHARGE SIZE:</td>
<td>8&quot;</td>
</tr>
<tr>
<td>SUCTION SIZE:</td>
<td>8&quot;</td>
</tr>
<tr>
<td>LATERAL (STD):</td>
<td>1.00</td>
</tr>
<tr>
<td>STD. TUBE:</td>
<td>2.5&quot;</td>
</tr>
<tr>
<td>EYE AREA IN²:</td>
<td>15.9</td>
</tr>
<tr>
<td>WPF LB-FT²:</td>
<td>1.02</td>
</tr>
<tr>
<td>SHAFT DIA:</td>
<td>1.6875</td>
</tr>
<tr>
<td>1ST STG WT LB:</td>
<td>183</td>
</tr>
<tr>
<td>ADD STG WT LB:</td>
<td>91</td>
</tr>
</tbody>
</table>

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-4</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

J11HO
1475 RPM

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN²: 15.9 WR² LB-FT²: 1.02
SHAFT DIA: 1.6875 1ST STG WT LB: 91
SUCTION SIZE: 8"
LATERAL (STD): 1.00 STD. TUBE: 2.5", 3.0"
IMPELLER: SEMI-OPEN
NO. OF VANES: 8
THRUST CONSTANT: 7.8

BOWL POWER (KW)
0 5 10 15 20 25 30
0 50 100 150 200 250 300
GPM

DIMENSIONS IN INCHES
A 11.13 B 6.81 ADJUST E 9.88 F 10.00 G 9.44 H 1.56 J 24" K 10.75 L N/A M N/A N/A 26.69

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

E F G H* J KDIMENSIONS
INCHES 26.69 11.13 6.81 9.88 10.00 9.44 1.56

BOWL SIZE PER STAGE (M)
0 5 10 15 20 25 30
0 50 100 150 200 250 300
GPM

BOWL POWER (HP)
0 5 10 15 20 25 30
0 50 100 150 200 250 300
GPM
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>5</th>
<th>DESIGN</th>
<th>M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 5 DISCHARGE SIZE: 8", 10"
THRUST CONSTANT: 7.9 SUCTION SIZE: 8"
LAT. (STD): 1" STD. TUBE: 2.50" 3.00"
EYE AREA IN2: 18.39 WPT LB-FT2: 1.51
SHAFT DIA: 1.687 1ST STG WT LB: 315 ADD STG WT LB: 125

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
This is a page from the National Pump Company catalog, featuring performance data for the M12MC pump model. The data is based on pumping clear, fresh, non-aerated water at 85°F maximum unless otherwise specified. The pump's performance is given based on the number of stages, with efficiency change as follows:

<table>
<thead>
<tr>
<th>Number of Stages</th>
<th>Design M3/hr</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The chart on the page illustrates the performance of the pump, showing the relationship between total head per stage, bowl power (KW), and M3/HR. The dimensions provided include:

- Suction size: 8"
- Lateral (STD): 1" STD. TUBE: 2.50", 3.00"
- Impeller: Enclosed Bowl
- Connection: Flanged
- No. of vanes: 6
- Thrust constant: 7.9
- Discharge size: 8" inches
- Suction size: 8"
- Standard tube: 2.50", 3.00"
- Eye area in²: 18.39
- WR²LB·FT²: 1.51
- Shaft dia: 1.687

Additional information includes:

- NPSH3 (M) and NPSH3 (FT)
- BOWL POWER (KW)
- BOWL POWER (HP)

The pump data is designed to be used with NPSH3. Pump installation and system must satisfy both values. Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT
85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-2</td>
</tr>
<tr>
<td>3</td>
<td>-1</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

1 STG (  ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

DIMENSIONS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>CADD/STG</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.12</td>
<td>6.94</td>
<td>11.31</td>
<td>11.38</td>
<td>9.44</td>
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<td>21.00</td>
<td>8.00</td>
<td>10.06</td>
<td>7.25</td>
<td>3.75</td>
<td>29.63</td>
</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSED  BOWL CONNECTION: FLANGED
NO. OF VANES: 7  DISCHARGE SIZE: 8", 10"
THRUST CONSTANT: 7.9  SUCTION SIZE: 8"
LATERAL (STD): 1"  STD. TUBE: 2.5", 3"
EYE AREA IN²: 18.39  WPF LB-FT²: 1.51
SHAFT DIA: 1.687  1ST STG WT LB: 315  ADD STG WT LB: 125

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

1475 RPM

CVM12HC4P5CY

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>5</th>
<th>DESIGN</th>
<th>M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 STG ( ) STG

PUMP DATA

IMPELLER: ENCIRCLED BOWL CONNECTION: FLANGED

NO. OF VANEs: 4
THRUIST CONSTANT: 7.2
LATERAL (STD): 1.0"
EYE AREA IN2: 14.07
SHAFT DIA: 1.687
ADDS STG WT LB: 197

ADD STG WT LB: 98

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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<td>-1</td>
<td>0</td>
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</table>

1 STG ( ) STG

1475 RPM

CURVE DATA

<table>
<thead>
<tr>
<th>M3/HR</th>
<th>0</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
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<tbody>
<tr>
<td>GPM</td>
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<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
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<tr>
<td>BOWL POWER (KW)</td>
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<td>60</td>
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<tr>
<td>BOWL POWER (HP)</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>TOTAL HEAD PER STAGE (M)</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>TOTAL HEAD PER STAGE (FT)</td>
<td>0</td>
<td>16.4</td>
<td>32.8</td>
<td>49.2</td>
<td>65.6</td>
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<td>98.4</td>
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<tr>
<td>NPSH3 (M)</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>NPSH3 (FT)</td>
<td>0</td>
<td>16.4</td>
<td>32.8</td>
<td>49.2</td>
<td>65.6</td>
<td>82</td>
<td>98.4</td>
</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 6
THrust CONSTANT: 7.9
LATERAL (STD): 1.0
EYE AREA IN2: 18.39
SHAFT DIA: 1.687
DISCHARGE SIZE: 8"
SUCTION SIZE: 8"
STD. TUBE: 2.5", 3.0"
WR LBF-T*: 18.39
LST STG WT LB: 197
MIN. SUBMERGENCE: 98

* THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 06.05.2011

CVE12XMC4P5CV
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
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<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
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E12MC
1475 RPM

BOWL POWER (KW)

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

DIMENSIONS

<table>
<thead>
<tr>
<th>INCHES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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<td>4.56</td>
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PUMPS DATA

IMPELLER: ENCLOSED
NO. OF VANES: 5
DISCHARGE SIZE: 8"
THRUXTON CONSTANT: 7.3
SUCTION SIZE: 8"
LATERAL (STD): 0.94
STD. TUBE: 2.5", 3.0"
EYE AREA IN: 14.07
W/F/LB-FT: 1.2
SHAFT DIA: 1.687
STG WT-LB: 197
ADD STG WT-LB: 98

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

DIMENSIONS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
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<td>7.25</td>
<td>3.50</td>
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IMPELLER: ENCLOSED
NO. OF VANES: 6
THRUST CONSTANT: 7.3
LATERAL (STD): 0.94
EYE AREA IN²: 14.07
SHAFT DIA: 1.687

PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CVE12HC4P5CY

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH, NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

Change efficiency as follows:

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<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

Bowl data:

- Eye Area: 21.5 in²
- WR-FT²: 1.2
- Shaft Dia: 1.6875 in
- Weight (STG): 197 lb

Dimensions (in):

- A: 11.63
- B: 6.06
- C ADD/STG: 10.50
- D ADD/STG: 10.88
- E: 9.44
- F: 1.56
- G: 26.00
- H: 8.25
- J: 10.06
- K: 7.25
- L: 3.50
- M: 26.00
- N: 26.00

Pump installation and system must satisfy both values.

Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.

Curve Template: 08.05.2011

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

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A Gorman-Rupp Company
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

BOWL POWER (HP)

GPM

M3/HR

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 5 DISCHARGE SIZE: 8", 10"

THRUST CONSTANT: 15.4 SUCTION SIZE: 10"

LATERAL (STD): 1.0" STD. TUBE: 2.5", 3"

EYE AREA IN²: 33.4 WR² LB-FT²: 2.32

SHAFT DIA: 1.687 LST STG WT LB: 375 ADD STG WT LB: 150

* THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

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PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 15.4
LATERAL (STD): 1"
EYE AREA IN": 13.4
SHAFT DIA: 1.687

BOWL POWER (KW)

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 8", 10"
SUCTION SIZE: 10"
STD. TUBE: 2.5", 3"

EYE AREA IN": 33.4
WR/LB-FT: 2.32

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVES

CURVE TEMPLATE 08.05.2011

EYE AREA IN2: 33.4
WR2 LB-FT2: 2.32
SHAFT DIA: 1.687
1ST STG WT LB: 375
ADD STG WT LB: 150

NATIONAL PUMP COMPANY
A GORMAN-RUPP COMPANY
H12HC
1475 RPM

THRUWT: 150
SUCTION SIZE: 10"
LATERAL (STD): 1" STD. TUBE: 2.5", 3"
IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 8", 10"
THRUST CONSTANT: 15.4 SUCTION SIZE: 10"
EYE AREA IN": 33.4 WR/LB-FT: 2.32
SHAFT DIA: 1.687 1ST STG WT LB: 375 ADD STG WT LB: 150

* MIN. SUBMERGENCE

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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BOWL POWER (KW)

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES

NUMBER OF POINTS

1 STG ( ) STG

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

DIMENSIONS

INCHES

A 11.62
B 6.06
C 12.50
D 12.50
E 11.25
F 1.31
G 28.00
H 13.50
J N/A
K N/A
L N/A
M N/A
N 31.06

PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANES: 7
THRUST CONSTANT: 15.4
LATERAL (STD): 1"
EYE AREA IN²: 1.687
SHFT DIA: 16"

THRU STL WT LB: 375
ADJ STL WT LB: 150

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 09.01.2011

CVH12HO4PSCH
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 6
THRUST CONSTANT: 15.6
LATERAL (STD): 1.375
EYE AREA IN": 36.2
SHAFT DIA: 1.9375

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 10"
SUCTION SIZE: 10"
STD. TUBE: 3" ADD STG WT LB: 395
1ST STG WT LB: 395

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

DIMENSIONS IN INCHES

A 11.75
B 5.81
ADD/STG 12.38
C 10.00
E 11.25
F 1.62
G 24.00
H* N/A
J N/A
K N/A
L N/A
M N/A
N 28.19

IMPELLER: SEMI-OPEN

NO. OF VANES: 15.6

THrust CONSTANT: 15.6

LATERAL (STG): 1.375

EYE AREA IN²: 1.9375

SHaFT DIA: 36.2

* THIS DIMENSION TO BE USED WITH NPSH3.

PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

BOWL POWER (HP)

GPM

M3/HR

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

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<td>BOWL CONNECTION: FLANGED</td>
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<td>NO. OF VANES: 6</td>
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<td>DISCHARGE SIZE: 10&quot;, 12&quot;</td>
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<td>THRUST CONSTANT: 12.5</td>
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<td>EYE AREA IN: 25.32</td>
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<td>WRF/LB/FT²: 3.62</td>
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<td>SHAFT DIA: 1.937</td>
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<td>1ST STD WT LB: 420</td>
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<td>ADD STG WT LB: 170</td>
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*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
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PERFORMANCE BASED ON
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<p>| NUMBER OF | NUMBER OF |</p>
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CHANGE EFFICIENCY
AS FOLLOWS

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</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

DIMENSIONS IN

INCHES

A

B

ADSTG

C

E

F

G

H*

J

K

L

M

N

IMPELLER: ENCLOSED
NO. OF VANES: 7
DISCHARGE SIZE: 10", 12"
THRUZT CONSTANT: 12.5
SUCTION SIZE: 10"
LATERAL (STD): 1.12
STD. TUBE: 3"
EYE AREA IN²: 25.32
1ST STG WT LB: 420
ADD STG WT LB: 170

*MIN. SUBMERGENCE

09/01/2011

CVM14HC4P5C

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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1 STG ( ) STG

BOWL POWER (KW)

M3/HR

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 10", 12"
THRUST CONSTANT: 12.5 SUCTION SIZE: 10"
LATERAL (STD): 0.88" STD. TUBE: 3"
EYE AREA IN²: 25.32 WR² LB-FT²: 3.62
SHAFT DIA: 1.937 1ST STG WT-LB: 420 ADD STG WT-LB: 170

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PUMP DATA

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.09.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

BOWL POWER (KW)  TOTAL HEAD PER STAGE (M)  NPSH3 (M)  TOTAL HEAD PER STAGE (FT)  BOWL POWER (HP)

PUMP DATA
IMPELLER:  ENCLOSED  BOWL CONNECTION:  FLANGED
NO. OF VANES:  7  DISCHARGE SIZE:  10", 12"
THRUST CONSTANT:  12.5  SUCTION SIZE:  10"
LATERAL (STD):  0.88"  STD. TUBE:  3"
EYE AREA IN²:  25.32  WPR LB-FT²:  3.62
SHAFT DIA:  1.937  STD STD WT LB:  420  ASO. STD WT LB:  170

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
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<td>4</td>
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1 STG ( ) STG

**PUMP DATA**

- IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
- NO. OF VANE(S): 5 DISCHARGE SIZE: 10", 12"
- THRUST CONSTANT: 20.3 SUCTION SIZE: 10"
- LATERAL (STD): 1.25 STD. TUBE: 3.5"
- EYE AREA IN²: 25.00 25.00
- SHAFT DIA: 2.187 2.187 1ST STD WT LB: 540 ADD STG WT LB: 200

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**1.81 WITH 12" DISCHARGE**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-4</td>
<td>-2</td>
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</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

NPSH3 (M)

TOTAL HEAD PER STAGE (FT)

GPM

M3/HR

DIMENSIONS IN INCHES

NO. OF VANES: 5
THRUSt CONSTANT: 20.3
LATERAL (STD): 1.25
EYE AREA IN²: 38.96
SHAFT DIA: 2.187

IMPELLER: ENCLOSED
BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 10", 12"
SUCTION SIZE: 10"
STD. TUBE: 3.5"

PUMP DATA

0 250 500 750 1000 1250 1500 1750 2000 2500 2750 3000 GPM

0 120 240 360 480 600 720 M3/HR

0 250 500 750 1000 1250 1500 1750 2000 2250 2500 2750 3000 GPM

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

** 1.81 WITH 12" DISCHARGE

1475 RPM

H14MC

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

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CHANGE EFFICIENCY AS FOLLOWS

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<tr>
<td>POINTS</td>
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1 STG ( ) STG

PUMP DATA

IMPELLER: SEMI-OPEN
NO. OF VANES: 5
THRUST CONSTANT: 20.3
LATERAL (STD): 1.25
EYE AREA IN²: 38.96
SHAFT DIA: 2.187

BOWEL CONNECTION: FLANGED
DISCHARGE SIZE: 10", 12"
SUCTION SIZE: 10"
STD. TUBE: 3.5"
WR* LB-FT²: 4.15

DIMENSIONS IN INCHES

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>ADD/STG</th>
<th>E</th>
<th>F</th>
<th>G**</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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TOTAL HEAD PER STAGE (M)
TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)
BOWL POWER (HP)

EYE AREA IN²: 38.96
WR* LB-FT²: 4.15
SHAFT DIA: 2.187

**1.81 WITH 12" DISCHARGE

100% SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

NATIONAL PUMP COMPANY
A GORMAN-RUPP COMPANY

H14MO
1475 RPM
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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<td></td>
</tr>
<tr>
<td>TDH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KW</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>EFF</td>
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<tr>
<td>NUMBER OF POINTS</td>
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<td>-2</td>
<td>0</td>
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</tbody>
</table>

1 STG (  ) STG

BOWL POWER (KW)

GPM

0 400 800 1200 1600 2000 2400 2800 3200 3600 4000

BOWL POWER (HP)

DIMENSIONS IN

INCHES

A  B  C  ADD STG  E  F  G**  H*  J  K  L  M  N

IMPELLER: ENCLOSED  BOWL CONNECTION: FLANGED

NO. OF VANES: 8  DISCHARGE SIZE: 10”, 12”

THRUST CONSTANT: 20.3  SUCTION SIZE: 10”

LATERAL (STD): 1.12”  STD. TUBE: 3.5”

EYE AREA IN²: 38.96  WP* LB-FT*: 4.52

SHAFT DIA: 2.187  1ST STG WT LB: 540  ADD STG WT LB: 200

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

"1.81 WITH 12" DISCHARGE.

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
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<td>3</td>
<td>0</td>
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</tbody>
</table>

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

- IMPELLER: ENCLOSED
- NO. OF VANES: 7
- THRUST CONSTANT: 27.80
- LATERAL (STD): 0.94
- EYE AREA IN²: 58.7
- SHAFT DIA: 2.19

- BOWL CONNECTION: FLANGED
- DISCHARGE SIZE: 12"
- SUCTION SIZE: BELL
- STD. TUBE: 3.5"
- WR² LB-FT²: 9.15

- THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
CURVES
A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

<table>
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<th>CHANGE EFFICIENCY AS FOLLOWS</th>
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<th>NUMBER OF POINTS</th>
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<tr>
<td></td>
<td>DESIGN</td>
<td>M3/HR</td>
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</table>

1 STG ( ) STG

**PUMP DATA**

- **IMPELLER:** ENCLOSED
- **NO. OF VANELS:** 6
- **THURST CONSTANT:** 26.5
- **LATERAL (STD):** 0.62"
- **EYE AREA IN**: 63.88
- **SHAFT DIA:** 2.187

**DIMENSIONS IN INCHES**

<table>
<thead>
<tr>
<th>ADD/STG</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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<tbody>
<tr>
<td></td>
<td>17.50</td>
<td>6.44</td>
<td>15.00</td>
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<td>N/A</td>
<td>0.81</td>
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<td>13.88</td>
<td>10.50</td>
<td>2.50</td>
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</table>

**PROPERTIES**

- **NPSH3 (M):**
- **BOWL POWER (KW):**
- **TOTAL HEAD PER STAGE (M):**
- **TOTAL HEAD PER STAGE (FT):**
- **BOWL POWER (HP):**
- **GPM:**

**NOTE:** PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**DIMENSIONS:**

- 1ST STG WT LB: 492
- ADD STG WT LB: 315

**MIN. SUBMERSION:** 9.01

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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1 STG ( ) STG

**PUMP DATA**

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 7
- THRUST CONSTANT: 26.5
- LATERAL (STD): 0.62
- EYE AREA IN²: 63.88
- SHAFT DIA: 2.187
- DISCHARGE SIZE: 12" (STD. TUBE: 3.5"

**DIMENSIONS IN INCHES**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
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<td>13.88</td>
<td>10.50</td>
<td>2.50</td>
<td>N/A</td>
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</tbody>
</table>

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
K20LC

1475 RPM

PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85° F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

NUMBER OF
STAGES
1 2
NUMBER OF
POINTS
-2 0

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER
UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

PUMP DATA

IMPELLER: ENCLOSED    BOWL CONNECTION: FLANGED
NO. OF VANES: 5    DISCHARGE SIZE: 12", 14"
THRUST CONSTANT: 33.0    SUCTION SIZE: BELL
LATERAL (STD): 1.00    STD. TUBE: N/A
EYE AREA IN": 72.6    WR* LB-FT*: 20.26
SHAFT DIA: 2.438    1ST STG WT LB: 730 ADD STG WT LB: 510

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST
SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER
UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>-2</td>
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<tr>
<td>2</td>
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</table>

1 STG ( ) STG

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 6 DISCHARGE SIZE: 12", 14"
THRAST CONSTANT: 33.0 SUCTION SIZE*: BELL
LATERAL (STD): 1.00 STD. TUBE: N/A
EYE AREA IN²: 72.6 WPT LB-FT*: 20.26
SHAFT DIA.: 2.438 1ST STG WT LB: 730 ADD STG WT LB: 510

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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<tr>
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K20HC
1475 RPM

NUMBER OF STAGES

1 STG ( ) STG

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<tr>
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<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
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<td>1200</td>
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<td>4200</td>
<td>4800</td>
<td>5400</td>
<td>6000</td>
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<tr>
<th>TOTAL HEAD PER STAGE (M)</th>
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<th>20</th>
<th>30</th>
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<th>50</th>
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<th>70</th>
<th>80</th>
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<th>100</th>
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PUMP DATA

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<td>NO. OF VANES:</td>
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<td>DISCHARGE SIZE:</td>
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<td>SUCTION SIZE:</td>
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<td>STD. TUBE:</td>
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<td>1ST STG WT LBS:</td>
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<td>1ST STG WT LBS:</td>
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<td>WR'L:FT²:</td>
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<td>THRUST CONSTANT:</td>
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DIMENSIONS IN INCHES

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<th>C</th>
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<th>G</th>
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*THIS DIMENSION TO BE USED WITH NPShL PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08/05/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
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<tbody>
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</table>

DESIGN M3/HR TDH KW EFF

1 STG ( ) STG

PUMP DATA

<table>
<thead>
<tr>
<th>DIMENSIONS IN INCHES</th>
<th>A**</th>
<th>B</th>
<th>ADD/STG</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
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<th>L</th>
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<td>18.25</td>
<td>N/A</td>
<td>N/A</td>
<td>1.81</td>
<td>48.00</td>
<td>11.25</td>
<td>13.88</td>
<td>10.50</td>
<td>5.13</td>
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</table>

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 8 DISCHARGE SIZE: 12", 14"
THRUST CONSTANT: 35.2 SUCTION SIZE: BELL
LATERAL (STD): 1.00 STD. TUBE: N/A
EYE AREA IN²: 83.91 WR²LB-FT²: 20.26
SHAFT DIA: 2.438 1ST STG WT LB: 730 ADD STG WT LB: 510

**BELL DIAMETER IS 20.65
**LOW NPSH IMPELLER FOR 1ST STG ONLY***

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

1475 RPM

K20HC-S

GORMAN-RUPP COMPANY

CURVE TEMPLATE 08.05.2011

CVK20HC-S4P5CY

09/01/2011

EYE AREA IN²: 83.91 WR² LB-FT²: 20.26
SHAFT DIA: 2.438 1ST STG WT LB: 730 ADD STG WT LB: 510

**BELL DIAMETER IS 20.65
**LOW NPSH IMPELLER FOR 1ST STG ONLY***

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

96
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>3</th>
<th>5</th>
<th>DESIGN M3/HR TDH KW EFF</th>
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<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

BOWL POWER (HP)

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 4 DISCHARGE SIZE: 8"

THRUST CONSTANT: 7.3 SUCTION SIZE: 8"

LATERAL (STD): 1.0" STD. TUBE: 2.5", 3.0"

EYE AREA IN²: 14.07 WH' LB-FT": 1.2

SHUNT DIA: 1.687

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

E12XMC
985 RPM

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M³/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>-1</td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td></td>
<td></td>
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<td></td>
</tr>
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</table>

1 STG ( ) STG

BOWL POWER (KW) vs M³/HR

BOWL POWER (HP) vs GPM

TOTAL HEAD PER STAGE (M) vs M³/HR

TOTAL HEAD PER STAGE (FT) vs GPM

BOWL POWER (KW) vs TOTAL HEAD PER STAGE (M)

BOWL POWER (HP) vs TOTAL HEAD PER STAGE (FT)

NPSh3 (M) vs DIMENSIONS

DIMENSIONS IN INCHES

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.62</td>
<td>4.56</td>
<td>10.50</td>
<td>10.88</td>
<td>9.44</td>
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<td>10.06</td>
<td>7.25</td>
<td>3.50</td>
<td>25.94</td>
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</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 6
DISCHARGE SIZE: 8"
THRUHT CONSTANT: 7.9
SUCTION SIZE: 8"
LATERAL (STD): 1.0"
STD. TUBE: 2.5" 3.0"
EYE AREA IN²: 14.07
WR' LB-FT: 1.2
SHAFT DIA: 1.687
1ST STG WT LB: 197
ADD STG WT LB: 98

*THIS DIMENSION TO BE USED WITH NPSh3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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<tbody>
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<td>900</td>
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<td>5</td>
<td>900</td>
<td>2</td>
<td>9.375</td>
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**PUMP DATA**

- **IMPELLER:** ENCLOSED
- **BOWL CONNECTION:** FLANGED
- **NO. OF VANES:** 5
- **THRUST CONSTANT:** 7.3
- **LATERAL (STD):** 0.94
- **EYE AREA IN²:** 14.07
- **SHAFT DIA:** 1.687
- **DIMENSIONS IN INCHES:**
  - A: 11.62
  - B: 4.56
  - C: 10.50
  - D: 10.88
  - E: 9.44
  - F: 1.56
  - G: 26.00
  - H*: 8.25
  - J: 10.06
  - K: 7.25
  - L: 3.50
  - M: 25.94

*This dimension to be used with NPSH3. Pump installation and system must satisfy both values. Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.

**EYE AREA IN2:** 14.07
**WR2 LB-FT²:** 1.2
**SHAFT DIA:** 1.687
**1ST STG WT LB:** 197
**ADD STG WT LB:** 98
**DIMENSIONS IN INCHES:**

**Caveats:**
- THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
- PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**Curve Template:** 08.05.2011

**CVE12MC6P5CY**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-1</td>
<td>0</td>
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</tr>
</tbody>
</table>

NUMBER OF POINTS: 1

BOWL POWER (KW)

GPM 0 100 200 300 400 500 600 700 800 900 1000

DIMENSIONS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>ADD STG</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.62</td>
<td>4.56</td>
<td>10.50</td>
<td>10.88</td>
<td>9.44</td>
<td>1.56</td>
<td>26.00</td>
<td>8.25</td>
<td>10.06</td>
<td>7.25</td>
<td>3.50</td>
<td>25.94</td>
</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLODED
NO. OF VANES: 6
THRUSt CONSTANT: 7.3
LATERAL (STD): 1.0
EYE AREA IN²: 14.07
SHATF DI: 1.687

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
CVE12HC6P5CY

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-2</td>
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<td>0</td>
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</table>

BOWL POWER (KW)

<table>
<thead>
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<th>M³/HR</th>
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<th>100</th>
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<td>800</td>
<td>900</td>
<td>1000</td>
<td>1100</td>
<td>1200</td>
<td>1300</td>
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</tbody>
</table>

DIMENSIONS IN INCHES

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.62</td>
<td>6.06</td>
<td>10.50</td>
<td>10.88</td>
<td>9.44</td>
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<td>8.25</td>
<td>10.06</td>
<td>7.25</td>
<td>3.50</td>
<td>25.94</td>
</tr>
</tbody>
</table>

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 7
DISCHARGE SIZE: 8" (5/8"
Suction Size: 8"
1ST STG WT LB: 197
ADD STG WT LB: 98
THRUCT CONSTANT: 11.20
16" LB-Ft: 1.2
LAT. STD: 2.5", 3.0"
EYE AREA IN²: 21.5
SHAFT DIA: 1.6875

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVK12HC06PSCH
CURVES PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
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</tbody>
</table>

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 7 DISCHARGE SIZE: 8", 10"

THRUXT CONSTANT: 15.4 SUCTION SIZE: 10"

LATERAL (STD): 1.0" STD. TUBE: 2.5", 3.0"

EYE AREA IN²: 33.4 WR'LB-FT²: 2.32

SHAFT DIA: 1.687 1ST STG WT LB: 375 ADD STG WT LB: 150

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
<td></td>
<td></td>
</tr>
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</tbody>
</table>

1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 6 DISCHARGE SIZE: 10"
THRUST CONSTANT: 15.6 SUCTION SIZE: 10"
LATERAL (STD): 1.375 STD. TUBE: 3"
EYE AREA IN": 11.75 WR' LB-FT": 36.2 2.71
SHAFT DIA.: 1.9375 SET STG WT LB: 385 ADD STG WT LB: 170

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN M3/HR TDH KW EFF</td>
<td>11.563</td>
<td>11.000</td>
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</tr>
<tr>
<td>NUMBER OF POINTS</td>
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<td>-1</td>
<td>0</td>
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BOWL POWER (KW):

<table>
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<th>M3/HR</th>
<th>0</th>
<th>100</th>
<th>200</th>
<th>300</th>
<th>400</th>
<th>500</th>
<th>600</th>
<th>700</th>
<th>800</th>
<th>900</th>
<th>1000</th>
<th>1100</th>
<th>1200</th>
<th>1300</th>
<th>1400</th>
<th>1500</th>
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<tbody>
<tr>
<td>BOWL POWER (KW)</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>18</td>
<td>20</td>
<td>22</td>
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<td>28</td>
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PUMP DATA:

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<tr>
<th>DIMENSIONS</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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<tbody>
<tr>
<td>INCHES</td>
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<td>5.44</td>
<td>13.25</td>
<td>10.00</td>
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<td>12.06</td>
<td>6.88</td>
<td>2.75</td>
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</tbody>
</table>

IMPELLER:

ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6
DISCHARGE SIZE: 10", 12"
THRUST CONSTANT: 12.5
SUCTION SIZE: 10"
LATERAL (STD): 1.12
STD. TUBE: 3"
EYE AREA IN²: 25.32
WR*: LB-FT: 3.62
SHAFT DIA: 1.937
1ST STG WT LB: 420
ADD STG WT LB: 170

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

* MIN. SUBMERGENCE

CURVE TEMPLATE 08.05.2011

CVM14MO6PSCY

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

<table>
<thead>
<tr>
<th>CHANGE EFFICIENCY AS FOLLOWS</th>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 STG</td>
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<td>106</td>
<td>985</td>
<td>985 RPM</td>
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</tbody>
</table>

BOWL POWER (KW) vs. M3/HR

PUMP DATA

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 7
- THRUST CONSTANT: 12.5
- LATERAL (STD.): 11.22
- SHFT DIA: 1.937
- SUCTION SIZE: 10"
- TOTAL HEAD PER STAGE (M): 11.563
- TOTAL HEAD PER STAGE (FT): 37.97
- NPSH3 (M): 0
- BOWL POWER (KW): 11.000
- BOWL POWER (HP): 14.13

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED. 09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>NUMBER OF POINTS</th>
<th>DESIGN</th>
<th>M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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<tbody>
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<td>76.3%</td>
<td>83%</td>
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</tr>
<tr>
<td>3</td>
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<td>11.000</td>
<td>76%</td>
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</table>

BOWL POWER (KW)

<table>
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<tr>
<th>M3/HR</th>
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<th>0.56</th>
<th>1.00</th>
<th>1.25</th>
<th>1.50</th>
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<th>2.00</th>
<th>2.25</th>
<th>2.50</th>
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<th>3.00</th>
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<tbody>
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<td>1200</td>
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<td>1800</td>
<td>2100</td>
<td>2400</td>
<td>2700</td>
<td>3000</td>
<td>3300</td>
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BOWL POWER (HP)

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<tr>
<th>GPM</th>
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<th>150</th>
<th>300</th>
<th>450</th>
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<tbody>
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<td>8400</td>
<td>9600</td>
<td>10800</td>
<td>12000</td>
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</tbody>
</table>

DIMENSIONS

| INCHES | A | B | C | D | E | F | G | H | J | K | L | M | N |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|        | 14.13 | 5.44 | 13.25 | 10.00 | 11.25 | 0.56 | 24.00 | 9.25 | 12.08 | 6.88 | 2.75 | 28.69 |

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 10", 12"
THRU STAGE CTN: 12.5 SUCTION SIZE: 10"
LATERAL (STD): 0.88" STD TUBE: 3"
EYE AREA IN²: 25.32 WT LB FT²: 3.62
SHAFT DIA: 1.937 1ST STG WT LB: 420 ADD STG WT LB: 170

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH NPSH3.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES | 1 | 2 | 3 | DESIGN | M3/HR | TDH | KW | EFF
NUMBER OF POINTS  | -2 | -1 | 0

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

BOWL POWER (HP)

GPM

M3/HR

DIMENSIONS IN INCHES

A
B
C ADD/STG
E
F
G
H*
J
K
L
M
N

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 7
THRUST CONSTANT: 12.5
LATERAL (STD): 0.88
EYE AREA IN*: 25.32
SHAFT DIA: 1.937

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: 10", 12"
SUCTION SIZE: 10"
STD. TUBE: 3"
WR-LB-FT*: 3.62
STG STD WT LB: 420
ASD STD WT LB: 170

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08/05/2011

CVM14XXHC6P5CY

108
**Performance Based on**

Pumping clear, fresh non-aerated water at 85°F maximum unless otherwise specified.

<table>
<thead>
<tr>
<th>Change Efficiency As Follows</th>
<th>Number of Stages</th>
<th>Number of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

**Number of Points**

- 4
- 2
- 0

**H14LC**

985 RPM

**Bowl Power (KW)**

<table>
<thead>
<tr>
<th>M3/HR</th>
<th>0</th>
<th>200</th>
<th>400</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
<th>1600</th>
<th>1800</th>
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<tbody>
<tr>
<td>BOWL POWER (KW)</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>14</td>
<td>18</td>
<td>22</td>
<td>26</td>
<td>30</td>
<td>34</td>
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</table>

**Total Head per Stage (M)**

<table>
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<tr>
<th>M3/HR</th>
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<th>200</th>
<th>400</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
<th>1600</th>
<th>1800</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOWL POWER (KW)</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>14</td>
<td>18</td>
<td>22</td>
<td>26</td>
<td>30</td>
<td>34</td>
</tr>
</tbody>
</table>

**Pump Data**

- **Dimensions in Inches**
  - A: 14.12
  - B: 6.44
  - ADD STG: 14.12
  - E: 12.25
  - F: 11.25
  - G**: 0.56
  - H*: 25.00
  - J: 8.75
  - K: 12.06
  - L: 7.38
  - M: 2.81
  - N: 32.81

- **Enclosed Bowl Connection**

- **Impeller**
  - No. Of Vanes: 5
  - Discharge Size: 10", 12"
  - Thrust Constant: 20.3
  - Suction Size: 10"
  - Lateral (STD): 1.25
  - Standard Tube: 3.5"
  - Eye Area in²: 39.0
  - WR" Lb Ft" : 4.15
  - Shaft Dia: 2.187
  - 1ST STD WT LB: 540
  - ADD STD WT LB: 200

**Note:**

This dimension to be used with NPSH3. Pump installation and system must satisfy both values.

Performance based on cast iron enameled bowls and bronze impeller unless otherwise specified.

**1.81 With 12" Discharge**

**Curve Template 08.05.2011**

**A Gorman-Rupp Company**
**Performance Based on Pumping Clear, Fresh Non-Aerated Water at 85°F Maximum Unless Otherwise Specified**

### Change Efficiency

<table>
<thead>
<tr>
<th>Number of Stages</th>
<th>Design M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>Eff</th>
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<tr>
<td>1</td>
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<td>84%</td>
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</tr>
<tr>
<td>3</td>
<td>12</td>
<td></td>
<td></td>
<td>80%</td>
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</table>

### Pump Data

**Dimensions (Inches):**
- A: 14.13
- B: 6.44
- C: 14.12
- D: 12.25
- E: 11.25
- F: 0.56
- G**: 25.00
- H*: 8.75
- J: 12.06
- K: 7.38
- L: 2.81
- M: 32.81
- N: 32.81

**Performance Based on Cast Iron Enamelled Bowls and Bronze Impeller Unless Otherwise Specified.**

**1.81 with 12" Discharge**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
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<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NUMBER OF POINTS

-4 -2 0

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN</th>
<th>M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</tr>
<tr>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHANGE EFFICIENCY AS FOLLOWS

| NUMBER OF POINTS | 4 | -2 | 0 |

PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

TOTAL HEAD PER STAGE (M) 10 20 30 40
TOTAL HEAD PER STAGE (FT) 30 60 90 120

DIMENSIONS
IN
INCHES

PUMP DATA
IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 12"
THRU Constant: 27.80 SUCTION SIZE: BELL
LATERAL (STD): 0.94 STD. TUBE: 3.5"
EYE AREA IN²: 56.7 WR² LB-F:
SHAFT DIA: 2.19 STG WT LB: 540 ADD STG WT LB: 200

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN M3/HR</td>
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<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KW</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>NUMBER OF POINTS</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
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</tbody>
</table>

1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 6 DISCHARGE SIZE: 12"
THRUXT CONSTANT: 26.5 SUCTION SIZE: BELL
LATERAL (STD): 0.62" STD. TUBE: 3.5"
EYE AREA IN²: 63.88 WB: LB-FY: 9.01
SHAFT DIA: 2.187 STG WT LB: 492 ADD STG WT LB: 315

* THIS DIMENSION TO BE USED WITH NPShL. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011
CVE18LC6P5CY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>2</th>
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<tbody>
<tr>
<td>DESIGN M3/HR</td>
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<td></td>
</tr>
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<td>TDH</td>
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<tr>
<td>KW</td>
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<td></td>
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</tr>
<tr>
<td>POINTS</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
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</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

NPSH3 (M)

DIMENSIONS

<table>
<thead>
<tr>
<th>INCHES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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<td>17.50</td>
<td>6.44</td>
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<td>N/A</td>
<td>0.81</td>
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<td>13.88</td>
<td>10.50</td>
<td>2.50</td>
<td>N/A</td>
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</table>

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 7 DISCHARGE SIZE: 12"

THRUST CONSTANT: 26.5 SUCTION SIZE: BELL

LATERAL (STD): 0.62" STD. TUBE: 3.5"

EYE AREA IN": 63.88 WR'LB-FT": 9.26

SHAFT DIA: 2.187 1ST STG WT-LB: 492 ADD STG WT-LB: 315

*THIS DIMENSION TO BE USED WITH NPSH3 PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
**K20LC**

**985 RPM**

**Performance Based on**

- Pumping clear, fresh, non-aerated water at 85° F maximum unless otherwise specified.

**Change Efficiency as Follows**

<table>
<thead>
<tr>
<th>Number of Stages</th>
<th>Number of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Curve Template 08.05.2011**

**Pump Data**

- **No. of Vanes:** 5
- **Discharge Size:** 12", 14"
- **Suction Size:** Bell
- **Shaft Dia.:** 2.438
- **Lateral (STD):** 1.00
- **Eye Area In²:** 72.6

**Dimensions in Inches**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>ADD/STG</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.25</td>
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<td>N/A</td>
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<td>11.25</td>
<td>13.88</td>
<td>10.50</td>
<td>5.125</td>
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</table>

**Notes:**

- Thrust Constant: 33.0
- Shaft LB-FT: 20.26
- Eye Area: 72.6

**Min. Submergence:** 09/01/2011

**Curve Template:** CVK20LC08PSCH

---

**Design M3/HR**

- **Number of Points:** -2 0
- **Number of Stages:** 1 ( ) STG

**Bowl Power (KW)**

- **Total Head per Stage (M):**
  - 13.938
  - 12.750

**Bowl Power (HP)**

- **Total Head per Stage (FT):**
  - 0

**NPSH3 (M):**

- 0

---

**EHG**

- **LMN:** 19.25 6.44 18.25 N/A N/A 1.81 48.00 11.25 13.88 10.50 5.125 N/A

---

**Performance Based on Cast Iron Enamel Bowls and Bronze Impeller unless otherwise specified.**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS:

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
<th>TDH</th>
<th>KW</th>
<th>EFF</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>2</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

K20MC
985 RPM

1 STG ( ) STG

PUMP DATA

IMPELLER:
ENCLOSED: BOWL CONNECTION: FLANGED
NO. OF VANES: 6 DISCHARGE SIZE: 12", 14"
THRUST CONSTANT: 33.0 SUCTION SIZE: BELL
LATERAL (STD): 1.00 STD. TUBE: 4"
EYE AREA IN²: 72.6 WR²/LB-FT²: 20.26
SHAFT DIA: 2.438 1ST STG WT LB: 730 ADD STG WT LB: 510

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVK20MC6P5CY

ADD STG WT LB: 510
THRUST CONSTANT: 33.0

* MIN. SUBMERGENCE

09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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<th>NUMBER OF STAGES</th>
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<tbody>
<tr>
<td>DESIGN M3/HR TDH KW EFF</td>
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</tr>
<tr>
<td>NUMBER OF POINTS</td>
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<td>0</td>
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</tbody>
</table>

1 STG ( ) STG

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 8 DISCHARGE SIZE: 12", 14"
THRUST CONSTANT: 33.0 SUCTION SIZE: BELL
LATERAL (STD): 1.00 STD. TUBE: N/A
EYE AREA IN²: 72.6 WR² LB-FT²: 20.26
SHAFT DIA: 2.438 1ST STG WT LB: 510

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>DESIGN M3/HR</th>
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<tbody>
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<td>-</td>
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</tbody>
</table>

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

DIMENSIONS

INCHES

A** | B | C | D | E | F | G | H* | J | K | L | M | N

**IMPELLER: ENCLOSED**

**NO. OF VANES:** 8

**THRUHS CONSTANT:** 35.2

**LATERAL (STD):** 1.00

**EYE AREA IN:** 83.91

**SHAFT DIA:** 2.438

**ADD STG WT LB:** 730

**ADD STG WT LB:** 610

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.**

**PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.**

**BELL DIAMETER IS 20.65**

**LOW NPSH IMPELLER FOR 1ST STG ONLY**

CURVE TEMPLATE 08.05.2011

119
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
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<th>NUMBER OF STAGES</th>
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</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
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<td>0</td>
</tr>
</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

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<tr>
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<th>800</th>
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<th>4000</th>
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<td>8000</td>
<td>8800</td>
<td>9600</td>
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DIMENSIONS IN INCHES

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<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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</thead>
<tbody>
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<td>N/A</td>
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<td>16.00</td>
<td>11.50</td>
<td>5.63</td>
<td>N/A</td>
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</tr>
</tbody>
</table>

PUMP DATA

| IMPELLER:       | ENCLOSED | BOWL CONNECTION: | FLANGED |
| NO. OF VANES:   | 5        | STD. IMPELLER:   | N/A     |
| THRUST CONSTANT:| 53.0     | SUCTION SIZE:    | BELL    |
| LATERAL (STD):  | 1.25     | STD. TUBE:       | N/A     |
| EYE AREA IN²:   | 128.00   | NPT LB-FT*:      | 51.1    |
| SHAFT DIA:      | 2.688    | STD STG WT LB:   | 762     |

*MIN. SUBMERGENCE: 16 IN

THESE DIMENSIONS TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN M3/HR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDH</td>
<td></td>
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<tr>
<td>KW</td>
<td></td>
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<tr>
<td>EFF</td>
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</tr>
</tbody>
</table>

1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

PUMP DATA

DIMENSIONS

<table>
<thead>
<tr>
<th>INCHES</th>
<th>A</th>
<th>B</th>
<th>ADD/STG</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
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<th>L</th>
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<td>11.75</td>
<td>16.00</td>
<td>11.50</td>
<td>5.63</td>
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</table>

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 5 DISCHARGE SIZE: FLANGED

THRUST CONSTANT: 53.0 SUCTION SIZE: BELL

LATERAL (STD): 1.25 STD. TUBE: N/A

EYE AREA IN²: 128.00 WR'LB-FT²: 51.1

SHAFT DIA: 2.688 1ST STG WT LB: 762 ADD STG WT LB: 541

*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVH4M06PSCV 09/01/2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS:

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<th>KW</th>
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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

NPSH3 (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (HP)

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED
NO. OF VANES: 6
THRUST CONSTANT: 78.1
LATERAL (STD): 1.25
SHAFT DIA: 2.688
EYE AREA IN²: 146.50
ADD STG WT LB: 762

PUMP DATA

LMN
INCHES
23.25 N/A 21.75 N/A N/A N/A 48.00 11.75 16.00 11.50 5.63 N/A

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
** BELL DIAMETER IS 28.75. *** LOW NPSH IMPELLER FOR 1ST STAGE ONLY.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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BOWL POWER (KW)

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TOTAL HEAD PER STAGE (M)

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PUMP DATA

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<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
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IMPELLER: ENCLOSED
NO. OF VANES: 8
THRUST CONSTANT: 53.0
LATERAL (STD): 1.25
EYE AREA IN²: 128.00
SHAFT DIA: 2.688
ADD STG WT LB: 541

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

*MIN. SUBMERGENCE 09/01/2011

CURVE TEMPLATE 08.05.2011
H30LC

PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85° F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

NUMBER OF STAGES
-1

NUMBER OF POINTS
0

TEMPORARY CURVE, CONTACT FACTORY

CURVE TEMPLATE 08.05.2011

PUMP DATA

IMPELLER: ENCLOSED
NO. OF VANES: 5
THRUXT CONSTANT: 85.0
LATERAL (STD): 1.50
EYE AREA IN²: 187.0
SHAFT DIA: 3.50

BOWL CONNECTION: FLANGED
DISCHARGE SIZE: N/A
SUCTION SIZE: N/A
STD. TUBE: N/A
WR' LB-FT*: 101
ADD STG WT LB: 1472

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 5 DISCHARGE SIZE: N/A
THRUST CONSTANT: 85.0 SUCTION SIZE: N/A
LATERAL (STD): 1.50 STD. TUBE: N/A
EYE AREA IN²: 187.0 WR* LB·F²: 101
SHAFT DIA: 3.50 1ST STG WT LB: 20.20 ADD STG WT LB: 1472

*THIS DIMENSION TO BE USED WITH NPSH3.
PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVH30MC6P5C1

A GORMAN-RUPP COMPANY

125
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

- IMPELLER: ENCLOSLED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 8
- DISCHARGE SIZE: N/A
- THRUST CONSTANT: 85.0
- SUCTION SIZE: N/A
- LATERAL (STD): 1.50
- STD. TUBE: N/A
- EYE AREA IN": 187.0
- WR* LB-FT": 101
- SHAFT DIA: 3.50
- ※STG WT LB: 2020
- ※STG WT LB: 1472

*NPSH: PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

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CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF POINTS

-1

0

1 STG  ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST ONLY***

PUMP DATA

IMPELLER: ENCLOSURE: BOWL CONNECTION: FLANGED
NO. OF VANES: 8 DISCHARGE SIZE: N/A
THRUST CONSTANT: 85.0 SUCTION SIZE: N/A
LATERAL (STD): 1.50 STD. TUBE: N/A
EYE AREA IN: 187.0 WR LB FT: N/A
SHAFT DIA: 3.50 1ST STG WT LB: 2020 2ND STG WT LB: 1472

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.**

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST ONLY***

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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**NUMBER OF POINTS**

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**PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED. 09/01/2011**

**DIMENSIONS IN INCHES**

- A: 17.50
- B: 6.44
- C: 15.00
- E: N/A
- F: N/A
- G: 0.81
- H*: 48.00
- J: 11.25
- K: 13.88
- L: 10.50
- M: 2.50
- N: N/A

**PUMP DATA**

- IMPELLER: ENCLOSED
- BOWL CONNECTION: FLANGED
- NO. OF VANES: 6
- THRUST CONSTANT: 26.5
- SUCTION SIZE: BELL
- LATERAL (STD): 0.62" STD. TUBE: 3.5"
- EYE AREA IN²: 63.88
- FRFT LB-FT²: 9.01
- SHAFT DIA: 2.187
- 1ST STG WT LB: 492
- ADD STG WT LB: 315

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**CURVE TEMPLATE 09/05/2011**

A GORMAN-RUPP COMPANY

E18LC

735 RPM
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES | 1 | 2 | 3
---|---|---|---
DESIGN M3/HR TDH KW EFF
-2 | -1 | 0

NUMBER OF POINTS

1 STG ( ) STG

BOWL POWER (KW)

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<th>550</th>
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<td>400</td>
<td>800</td>
<td>1200</td>
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<td>4000</td>
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DIMENSIONS

| INCHES | A | B | C | ADD/STG | E | F | G | H | J | K | L | M | N |
|--------|---|---|---|--------|---|---|---|---|---|---|---|---|---|---|
| INCHES | 17.50 | 6.44 | 15.00 | N/A | N/A | 0.81 | 48.00 | 11.25 | 13.88 | 10.50 | 2.50 | N/A |

PUMP DATA

IMPELLER: ENCLODED BOWL CONNECTION: FLANGED
NO. OF VANES: 7 DISCHARGE SIZE: 12"
THRUST CONSTANT: 26.5 SUCTION SIZE: BELL
LATERAL (STD): 0.62" STD. TUBE: 3.5"
EYE AREA IN": 63.88 WRT LB-F'T': 9.26
SHAFT DIA: 2.187 1ST STG WT LB: 492 ADD STG WT LB: 315

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85°F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

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1 STG ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

BOWL POWER (HP)

GPM

DIMENSIONS

INCHES

A  19.25  B  6.44  ADD/STG  18.25  E  N/A  F  N/A  G  1.81  H*  48.00  J  11.25  K  13.88  L  10.50  M  5.125  N  N/A

IMPELLER: ENCLOSED
NO. OF VANES: 5
THRUST CONSTANT: 33.0
LATERAL (STD): 1.00
EYE AREA IN²: 72.6
SHAFT DIA: 2.438

ADD STG WT LB: 510

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

EYE AREA IN²: 72.6
WS ⋅ LB ⋅ FT*: 20.26

AB  5.125  INACT: N/A

16"  16"  16"

120  240  360  480  600  720

0  5  10  15  20  25  30  35  40

0  5  10  15  20  25  30  35  40

0  300  600  900  1200  1500  1800  2100  2400  2700  3000

M3/HR

PERIODIC DESIGN LTD.
A GORMAN-RUPP COMPANY
K20LC
735 RPM

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CURVE TEMPLATE 09/01/2011

CURVES
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF POINTS

K20MC
735 RPM

BOWL POWER (KW)

INCHES

DIMENSIONS

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 12", 14" THRU TUBE: 1.00 INCHES

SUCTION SIZE: BELL LATERAL (STD): W1.00 INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 12", 14" THRU TUBE: 1.00 INCHES

SUCTION SIZE: BELL LATERAL (STD): W1.00 INCHES

SEAL: 1ST STG WT LB: 730 ADD STG WT LB: 510

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE: 08.05.2011

CVK20MCDBPSCY

A GORMAN-RUPP COMPANY

PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF POINTS

K20MC
735 RPM

BOWL POWER (KW)

INCHES

DIMENSIONS

PUMP DATA

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 12", 14" THRU TUBE: 1.00 INCHES

SUCTION SIZE: BELL LATERAL (STD): W1.00 INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 6 DISCHARGE SIZE: 12", 14" THRU TUBE: 1.00 INCHES

SUCTION SIZE: BELL LATERAL (STD): W1.00 INCHES

SEAL: 1ST STG WT LB: 730 ADD STG WT LB: 510

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

* PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE: 08.05.2011

CVK20MCDBPSCY

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85 °F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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PUMP DATA

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<td>NO. OF VANES: 8</td>
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<tr>
<td>THRUST CONSTANT: 33.0</td>
<td>SUCTION SIZE: BELL</td>
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<td>LATERAL (STD): 1.00</td>
<td>STD. TUBE: N/A</td>
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<td>EYE AREA IN²: 72.6</td>
<td>WF LB-FT²: 20.26</td>
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<tr>
<td>SHAFT DIA: 2.438</td>
<td>1ST STG WT LB: 730</td>
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<td>ADD STG WT LB: 510</td>
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*THIS DIMENSION TO BE USED WITH NPSH. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVK20HC8P5CY

13.938
12.750

80% 83% 84% 85% 86% 87% 88% 89% 90%
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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NUMBER OF STAGES

NUMBER OF POINTS

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

DIMENSIONS

INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED

NO. OF VANES: 8 DISCHARGE SIZE: 12", 14"

THRUST CONSTANT: 35.2 SUCTION SIZE: BELL

LATERAL (STD): 1.00 STD. TUBE: N/A

EYE AREA IN²: 83.91 WR² LB-FT²: 20.26

SHAFT DIA: 2.438 1ST STG WT LB: 730 ADD STG WT LB 510

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

**BELL DIAMETER IS 20.65

**LOW NPSH IMPELLER FOR 1ST STG ONLY**
**CURVES**

**DESIGN M3/HR**

**PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED**

**CHANGE EFFICIENCY AS FOLLOWS**

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-1</td>
<td>0</td>
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</tbody>
</table>

**H24LC**

**735 RPM**

**PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED**

**ADD STG WT LB: 541**

**THRUST CONSTANT: 53.0**

**EYE AREA IN²: 128.00**

**WR2 LB-FT²: 51.1**

**SHAFT DIA: 2.688**

**1ST STG WT LB: 762**

**IMPELLER: ENCLOSED**

**BOWL CONNECTION: FLANGED**

**NO. OF VANES: 5**

**DISCHARGE SIZE: FLANGED**

**THRUST CONSTANT: 53.0**

**SUCTION SIZE: BELL**

**LATERAL (STD): 1.25**

**STD. TUBE: N/A**

**EYE AREA IN²: 128.00**

**WT FB-LF²: 51.1**

**SHAFT DIA: 2.688**

**1ST STG WT LB: 762**

**ADD STG WT LB: 541**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>INCHES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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<tbody>
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<td>N/A</td>
<td>48.00</td>
<td>11.15</td>
<td>16.00</td>
<td>11.50</td>
<td>5.63</td>
<td>N/A</td>
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**PUMP DATA**

**IMPELLER:**

**ENCLOSED**

**BOWL CONNECTION:**

**FLANGED**

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<thead>
<tr>
<th>INCHES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
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<th>L</th>
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<td>21.75</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>48.00</td>
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<td>16.00</td>
<td>11.50</td>
<td>5.63</td>
<td>N/A</td>
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</table>

**DIMENSIONS**

<table>
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<tr>
<th>INCHES</th>
<th>A</th>
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<th>C</th>
<th>E</th>
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<td>N/A</td>
<td>21.75</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>16.00</td>
<td>11.50</td>
<td>5.63</td>
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<td></td>
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</table>

**PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.**

**CURVE TEMPLATE 08.09.2011**

**CVH24LC8P5CY**

**A GORDAN-RUPP COMPANY**

**134**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°C MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

1 STG  ( ) STG

BOWL POWER (KW)

TOTAL HEAD PER STAGE (M)

Bowl Power (HP)

NUMBER OF STAGES: 1
NUMBER OF POINTS: 0

CROSSFLOW DESIGN M3/HR

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

GORMAN-RUPP COMPANY

CURVE TEMPLATE 08.05.2011
PERFORMANCE BASED ON
PUMPING CLEAR, FRESH
NON-AERATED WATER AT
85° F MAXIMUM UNLESS
OTHERWISE SPECIFIED

CHANGE EFFICIENCY
AS FOLLOWS

NUMBER OF
STAGES
— — — —

NUMBER OF
POINTS
— — — —

DESIGN M3/HR TDH KW EFF
— — — —

1 STG ( ) STG

TOTAL HEAD PER STAGE (M)

BOWL POWER (KW)

M3/HR

GPM

DIMENSIONS
IN INCHES

A** B C ADD/STG E F G H* J K L M N

THRU ST STG WT LB: 762
ADD STG WT LB: N/A

SHFT DIA: 2.688

EYE AREA IN²: 146.50

WR FT-LB: 51.1

**THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST
SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER
UNLESS OTHERWISE SPECIFIED.

**BELL DIAMETER IS 28.75.

***LOW NPSH IMPELLER FOR 1ST STAGE ONLY.

136
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
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<th>2</th>
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<td>DESIGN M3/HR</td>
<td>TDH</td>
<td>KW</td>
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<tr>
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CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES

NUMBER OF POINTS

<table>
<thead>
<tr>
<th>NUMBER OF STAGES</th>
<th>1 STG (   ) STG</th>
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<tbody>
<tr>
<td>BOWL POWER (KW)</td>
<td>TOTAL HEAD PER STAGE (M)</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2.5</td>
<td>19.230</td>
</tr>
<tr>
<td>3.6</td>
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</tr>
<tr>
<td>5.5</td>
<td>84%</td>
</tr>
<tr>
<td>7.6</td>
<td>86%</td>
</tr>
<tr>
<td>9.6</td>
<td>82%</td>
</tr>
<tr>
<td>11.7</td>
<td>86%</td>
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</tbody>
</table>

EYE AREA IN²: 128.00 WR² LB-FT²: 51.1

SHAFT DIA: 2.688 STG WT LB: 762 ADD STG WT LB: 541

THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY

H24XHC

735 RPM

DIMENSIONS IN INCHES

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 8 DISCHARGE SIZE: FLANGED
THRUSTR CONSTANT: 57.80 SUCTION SIZE: BELL
LATERAL (STD): 1.25 STD. TUBE: N/A
YE ARE IN: 128.00 WR² LB-FT²: 51.1

0 460 920 1380 1840 2300 M3/HR

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 GPM

0 120 240 360 480 600 720 840 960 1080 1200 BOWL POWER (HP)

CURVES
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES

1 2

NUMBER OF POINTS

-1 0

NUMBER OF STAGES 

H30LC 735 RPM

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

M3/HR

GPM

DIMENSIONS IN INCHES

A B ADD STG E F G H J K L M N

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 5 DISCHARGE SIZE: N/A
THRUST CONSTANT: 85.0 SUCTION SIZE: N/A
LATERAL (STD): 1.50 STD. TUBE: N/A
EYE AREA IN²: 187.0 WRT LB-FT*: 101
SHAFT DIA: 3.50 1ST STG WT LB: 2020 ADD STG WT LB: 1472

* THIS DIMENSION TO BE USED WITH NPSH3, PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

CVH30LCBPSCY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85°F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

<table>
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<tr>
<th>NUMBER OF STAGES</th>
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<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF POINTS</td>
<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

**CURVE TEMPLATE 08.05.2011**
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED

CHANGE EFFICIENCY AS FOLLOWS

NUMBER OF STAGES 1 2
NUMBER OF POINTS -1 0

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

TOTAL HEAD PER STAGE (M)

TOTAL HEAD PER STAGE (FT)

BOWL POWER (KW)

BOWL POWER (HP)

BOWL POWER (KW)

DIMENSIONS IN INCHES

A 29.10 N/A
B 21.75 N/A
C N/A N/A N/A 60.00
D N/A N/A 14.00 18.00
E 14.50 14.00 1500
F 7.00 2500
G 0 3000
H* 3500
J 4000
K 4500
L 5000
M 5500
N 6000

IMPELLER: ENCLOSED BOWL CONNECTION: FLANGED
NO. OF VANES: 8 DISCHARGE SIZE: N/A
THRUST CONSTANT: 85.0 SUCTION SIZE: N/A
LATERAL (STD): 1.50 STD. TUBE: N/A
EYE AREA IN²: 187.0 WR' LB-FT²: 101
SHAFT DIA: 3.50 1ST STG WT LB: 2020 ADD STG WT LB: 1472

* THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

CURVE TEMPLATE 08.05.2011

A GORMAN-RUPP COMPANY
PERFORMANCE BASED ON PUMPING CLEAR, FRESH NON-AERATED WATER AT 85° F MAXIMUM UNLESS OTHERWISE SPECIFIED.

CHANGE EFFICIENCY AS FOLLOWS

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<tbody>
<tr>
<td>-1</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

1 STG ( ) STG

TEMPORARY CURVE, CONTACT FACTORY

PUMP DATA

<table>
<thead>
<tr>
<th>DIMENSIONS (IN)</th>
<th>A</th>
<th>B</th>
<th>ADD STG</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H*</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
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</thead>
<tbody>
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<td></td>
<td>29.10</td>
<td>N/A</td>
<td>21.75</td>
<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
<td>60.00</td>
<td>14.00</td>
<td>18.00</td>
<td>14.50</td>
<td>7.00</td>
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IMPELLER:

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<tr>
<th>NO. OF VANES:</th>
<th>8</th>
<th>DISCHARGE SIZE:</th>
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<tbody>
<tr>
<td>THRUST CONSTANT:</td>
<td>85.0</td>
<td>SUCTION SIZE:</td>
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<td>LATERNAR (STD):</td>
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<td>STD. TUBE:</td>
<td>N/A</td>
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<td>EYE AREA IN²:</td>
<td>187.0</td>
<td>WR* LB-FT*:</td>
<td>101</td>
</tr>
<tr>
<td>SHAFT DIA:</td>
<td>3.50</td>
<td>1ST STG WT LB:</td>
<td>2200</td>
</tr>
<tr>
<td>2ND STG WT LB:</td>
<td>1472</td>
<td></td>
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</tbody>
</table>

*THIS DIMENSION TO BE USED WITH NPSH3. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.

PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLER UNLESS OTHERWISE SPECIFIED.

***LOW NPSH IMPELLER FOR 1ST ONLY***

CURVE TEMPLATE 08.05.2011
Subject to the terms and conditions set forth below, NATIONAL PUMP COMPANY ("National") warrants that its manufactured equipment is free from defects in workmanship and materials USING ITS SPECIFICATIONS AS A STANDARD. This warranty does not extend to anyone except the first purchaser to whom the goods are shipped from National.

National’s obligation under this warranty is expressly limited to replacing or repairing, free of charge, F.O.B. point of manufacture, any defective part or parts of its manufactured equipment; however, NATIONAL SHALL HAVE NO SUCH LIABILITY EXCEPT WHERE IT IS SHOWN TO THE SATISFACTION OF NATIONAL THAT THE DAMAGE OR CLAIM RESULTED FROM BREACH OF THIS WARRANTY. All parts claimed defective must be delivered to National at its factory or any factory branch, freight or express thereon PREPAID.

Every claim under this warranty SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING AND RECEIVED BY NATIONAL WITHIN THIRTY (30) DAYS OF THE DATE THE DEFECT WAS DISCOVERED OR SHALL HAVE BEEN DISCOVERED, and within one year of the date of installation. The installation date must be within six months of the date the pump was purchased from National.

This Warranty does not cover those parts of the manufactured equipment which are not manufactured by National except to extend to the purchaser the same warranty, if any which is given to National by the manufacturers of said parts.

National makes no other representation of warranty of any kind, express or implied, in fact or in law, including without limitation, the warranty of merchantability or the warranty of fitness for a particular purchase, other than the limited warranty set forth herein. In no event shall National be liable for any consequential or incidental damages resulting directly or indirectly from the use or loss of use of the manufactured equipment. National shall not be liable for any alleged negligence, breach of warranty, strict liability, or any other theory other than the limited liability set forth herein.

THIS WARRANTY CONTAINS THE ENTIRE WARRANTY RELATING TO THE MANUFACTURED GOODS OF NATIONAL, AND NO CONDUCT, ORAL STATEMENTS OR REPRESENTATIONS NOT CONTAINED IN THIS WARRANTY SHALL HAVE ANY FORCE OR EFFECT OR BE DEEMED A WAIVER THEREOF, THIS WARRANTY SHALL NOT BE MODIFIED IN ANY WAY EXCEPT IF IN WRITING AND SIGNED BY AN AUTHORIZED REPRESENTATIVE OF NATIONAL.

This Warranty, and any liability of National hereunder, shall be governed by, construed, and enforced in accordance with the laws of the State of Ohio.
STANDARD TERMS AND CONDITIONS OF SALE

1. ACCEPTANCE OF ORDERS: All orders are subject to acceptance by an Officer of the Company and orders and deliveries are subject to the Company’s regular credit policy. The Company reserves the right to refuse any order based on a quotation containing a gross error.

2. PRICES: List prices and discount schedules are to be maintained at all times. Prices are for merchandise F.O.B. shipping points, freight collect or prepaid, and added to the invoice. Prices, discounts, quotations, and specifications are subject to change without notice and will be applied as in effect at time of shipment.

3. TERMS: Except as otherwise indicated, payment is due 30 days after date of invoices. Interest at the maximum legal rate will be charged on all overdue amounts.

4. TAXES: Taxes imposed by any Federal, State, County, or Municipal law on the sale will be added to the invoice, unless a fully executed tax exemption certificate is received with the order.

5. ORDER CHANGES: No changes in orders will be accepted from the Purchaser except by special written arrangement with the executive office of National.

6. RETURN OF GOODS: Written permission from the factory must be obtained before returning any merchandise. All transportation charges must be borne by the Customer. New material of current design accepted by the Company for credit is subject to a restocking charge of at least 15 percent.

7. CLAIMS: All goods shall be deemed delivered to purchaser at the time they are placed in the hands of carrier and consigned to purchaser.

8. ROUTING: If routing of shipment is specified on Customer’s order, it will be followed whenever practical.

9. SUBSTITUTION: The Company reserves the right to substitute materials and modify specification to the extent required in order to comply with any Government law or regulation.

10. MINIMUM ORDER AMOUNT: The minimum order amount to be charged on customer account is $50.00. All orders for less than this amount will be billed at the minimum of $50.00 not including tax or freight charges.
SALES AND SERVICE:
Putting the "customer first" is at the center of everything we do at National Pump. Our experienced sales, marketing, application engineers and branch managers offer many years of pump experience and are challenged to satisfy customer product and service needs. Challenge the National Pump team on your next API, agricultural, industrial and municipal application and discover how we can add value to your business.

PRODUCT & MANUFACTURING
National Pump Company manufactures a complete line of vertical turbine pumps and pump systems from an extensive inventory located in six (6) USA build centers. Pump capabilities range from 15 through 3,000 M³/HR. NPC also manufactures and stocks a complete line of VTP accessories, including: column, tube and shaft, standard and custom discharge heads, gear drives and VHS motors, and offers custom pump design, fabrication work, sandblasting and powder coating capabilities.

ENGINEERING & TECHNOLOGY:
National Pump Company’s Engineering Department is staffed with extremely experienced engineers and technicians. The team utilizes the latest technology for the design and application of pump products, which includes (CAD) computer aided design, 3D modeling, and realistic engineering programs. This technology and experience ensures that the final product is properly designed for optimum performance.

QUALITY CONTROL:
National Pump strives to deliver the highest quality products for complete customer satisfaction through continuous quality improvement initiatives. NPC has a published Quality Assurance program that integrates all facets of the business including: engineering, procurement, assembly, testing, shipping, receiving, and supplier inspections. Every employee at NPC understands they are responsible for the quality objectives of the organization but most importantly to our customers.

TESTING:
NPC offers full HYDRAULIC INSTITUTE certified pump testing, along with UL 508A electrical certification and custom panel building for our complete line of pumps and custom pump stations.

PRODUCT AVAILABILITY AND SUPPLY CHAIN:
National Pump markets its pumps and components in the USA and in over 40 countries globally. We operate six (6) Build and Service Centers in the USA in which we stock and utilize the best quality domestic and international components to insure a quality and reliable pump installation. Our forecasting tools and distribution system maintains thousands of pump parts to help achieve the best customer satisfaction with timely customer deliveries.