

# **GUSHER<sup>®</sup>**

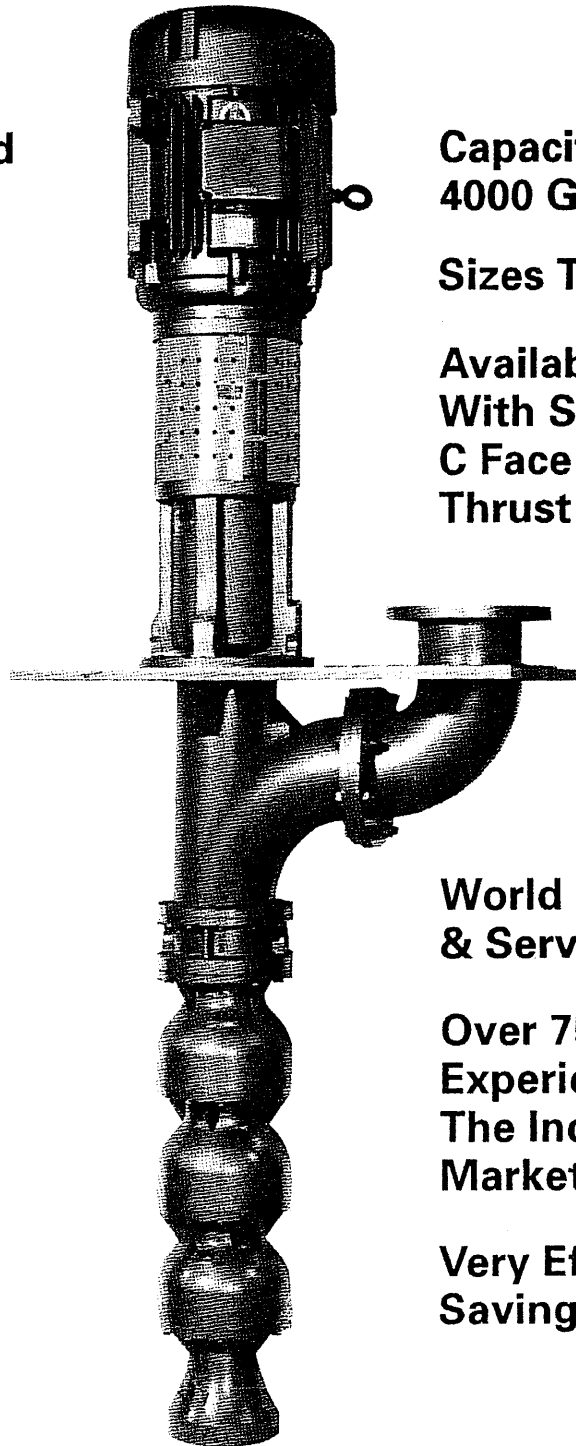


**Division of Ruthman Pump & Engineering**

**Mechanical Seal And  
Packing Problems  
Gone Forever.**

## **Design Features**

- 1. Automatic  
Deflector Sealing  
Of Pumpage**
- 2. Top Pull Out  
Design Available**
- 3. Extra Hard  
Bowl Bearings  
Available**
- 4. Below Plate  
Discharge  
Available**
- 5. Cast Iron Or  
Stainless  
Construction**
- 6. Oil, Grease Or  
Solution Lube**



**Capacities To  
4000 GPM**

**Sizes To 15" Bowl**

**Available For Use  
With Standard  
C Face Or High  
Thrust Motors**

**World Wide Repair  
& Service**

**Over 75 Years Of  
Experience Serving  
The Industrial  
Market Place**

**Very Efficient Energy  
Saving Design**

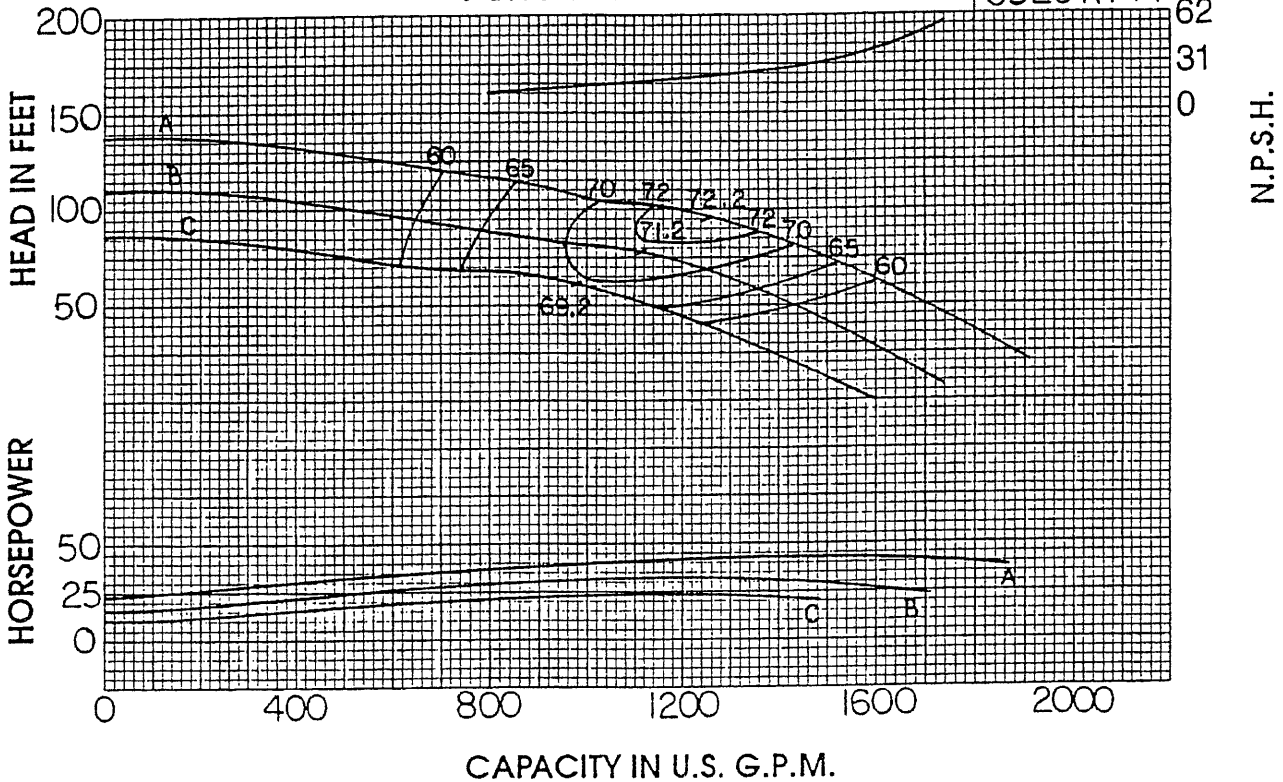
**World Wide Sales & Service**

# GUSHER®

Division of Ruthman Pump & Engineering

8HS-1200  
3520 RPM

## Performance Curves



Impeller Data	
Impeller Number	8HS-1200
Type	Enclosed
Diameter: A =	6.770 "
B =	6.270 "
C =	5.770 "
Thrust Constant (K)	4.90 pounds/foot of head
Impeller Weight	7.00 #
Number of Vanes	7
Specific Speed (Ns)	7509
Effective Eye Area	15.18 square inches
W(r sq.)	.295 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-XH
Connection Type	Threaded
Outside Diameter: nominal	7.950 "
minimum	7.625 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.25 "
maximum	1.25 "
Lateral: standard	.700 "
maximum	.800 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.500 "
Maximum No. Stages (std. const.)	5
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1300 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

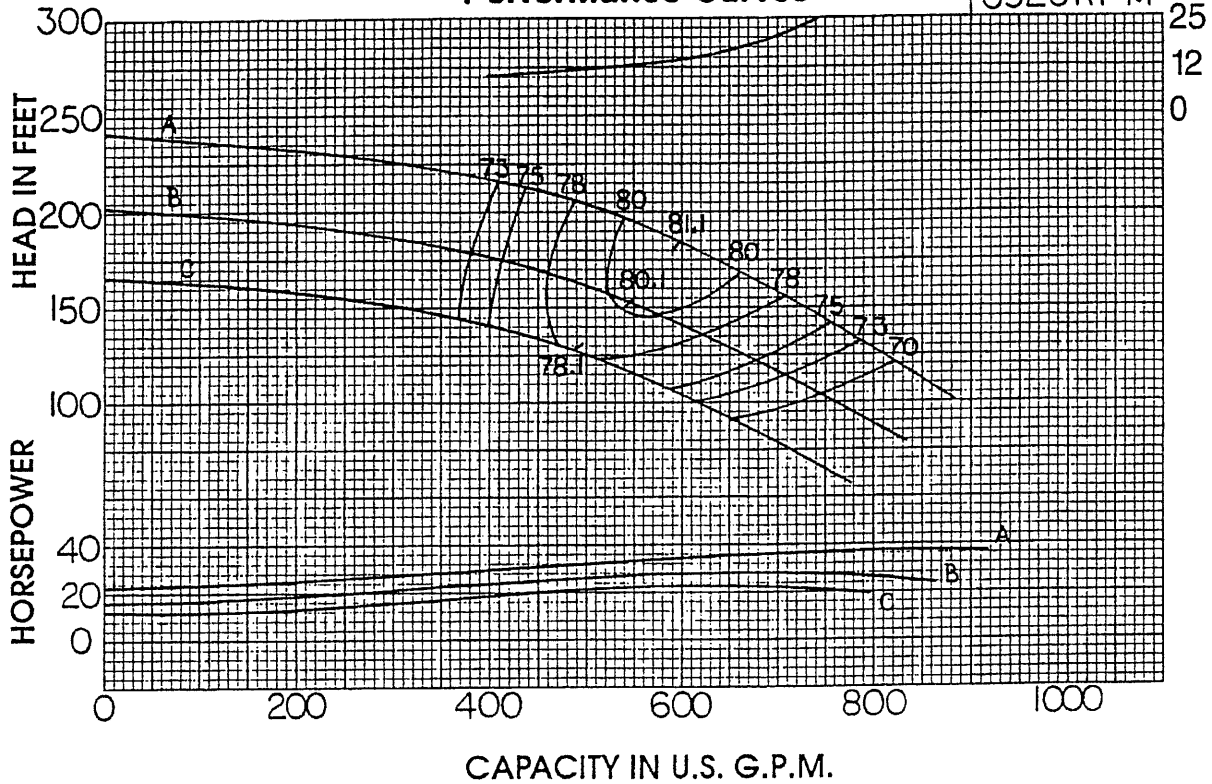
General Data	
<b>Lengths</b>	
Column Adapter	1.625 "
Discharge Case	3.937 "
Bowl	7.125 "
Suction Case	8.125 "
Suction Bell	6.750 "
Submersible Motor Adapter	10.375 "
<b>Approximate Shipping Weights</b>	
First Stage	125 #
Additional Stage	37 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	7.500 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

10HS-600  
3520RPM

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	10HS-600
Type	Enclosed
Diameter: A =	7.700 "
B =	7.200 "
C =	6.700 "
Thrust Constant (K)	3.40 pounds/foot of head
Impeller Weight	8.70 #
Number of Vanes	5
Specific Speed (Ns)	1424
Effective Eye Area	8.19 square inches
W(r sq.)	.320 lbs. -ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-L
Connection Type	Bolted
Outside Diameter: nominal	9.650 "
minimum	9.500 "
Column Pipe Size: standard	4 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.5 "
maximum	1.75 "
Lateral: standard	.375 "
maximum	.500 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.550 "
Maximum No. Stages (std. const.)	12
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	663 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	7.250 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	170 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.688 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

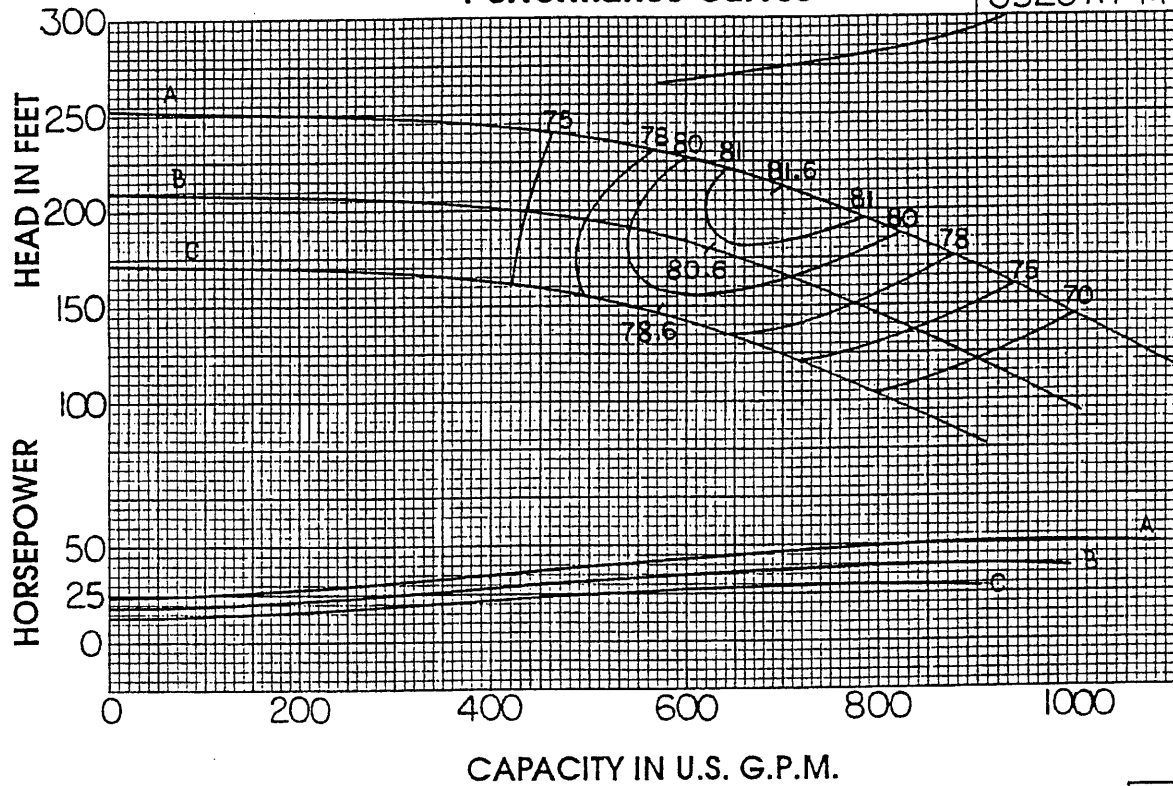
Division of Ruthman Pump & Engineering

## Performance Curves

10HS-700  
3520 RPM

62  
31  
0

N.P.S.H.



June 1991

Impeller Data	
Impeller Number	10HS-700
Type	Enclosed
Diameter: A =	7.700 "
B =	7.200 "
C =	6.700 "
Thrust Constant (K)	3.27 pounds/foot of head
Impeller Weight	8.70 #
Number of Vanes	8
Specific Speed (Ns)	1629
Effective Eye Area	7.24 square inches
W(r sq.)	.325 lbs. -ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-L
Connection Type	Bolted
Outside Diameter: nominal	9.650 "
minimum	9.500 "
Column Pipe Size: standard	4 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.5 "
maximum	1.75 "
Lateral: standard	.375 "
maximum	.500 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.550 "
Maximum No. Stages (std. const.)	9
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	613 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

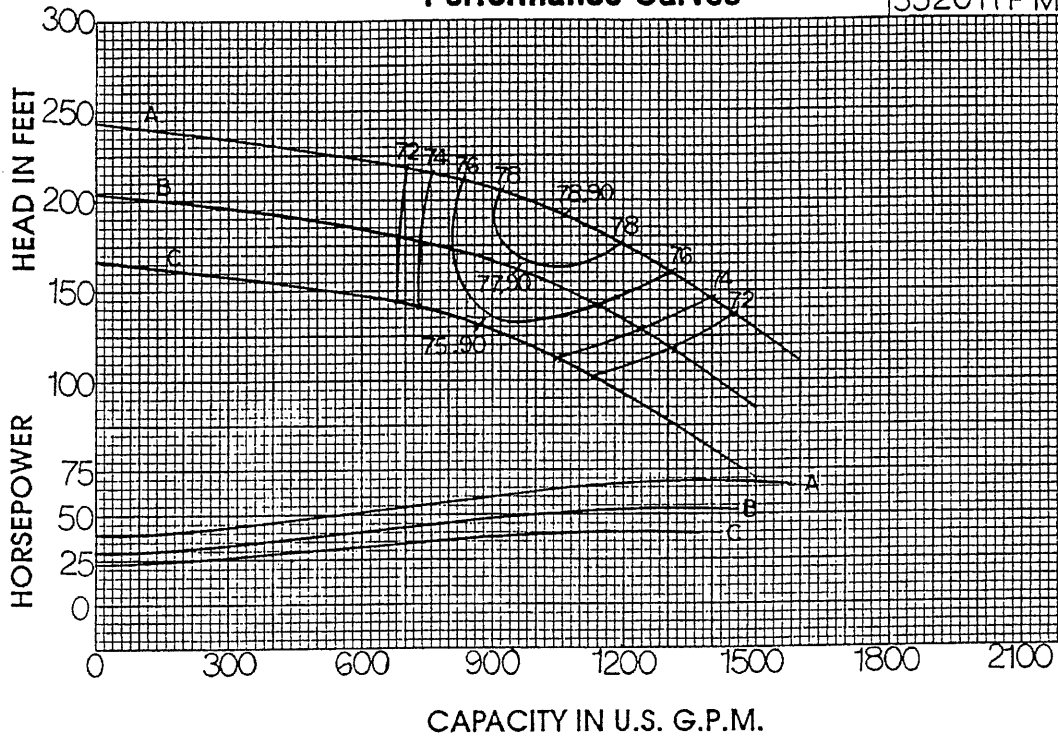
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	7.250 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	170 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.688 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

10HS-1100  
3520 RPM

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	10HS-1100
Type	Enclosed
Diameter: A =	0.000 "
B =	0.000 "
C =	0.000 "
Thrust Constant (K)	0.00 pounds/foot of head
Impeller Weight	0.00 #
Number of Vanes	0
Specific Speed (Ns)	0
Effective Eye Area	0 square inches
W(r sq.)	.000 lbs. -ft. sq.
Eye Fluid Velocity	0.00 ft./sec./g.p.m.
Peripheral Velocity	0 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-M
Connection Type	Bolted
Outside Diameter:	nominal 0.000 "
	minimum 0.000 "
Column Pipe Size:	standard 0 "
	maximum 0 "
Suction Pipe Size:	standard 0 "
	maximum 0 "
Shaft Size:	standard 0 "
	maximum 0 "
Lateral:	standard .000 "
	maximum .000 "
Shaft Bearing Clearance	.000 "
Impeller Skirt Clearance	.000 "
Maximum Sphere Size	.000 "
Maximum No. Stages (std. const.)	0
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	0 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

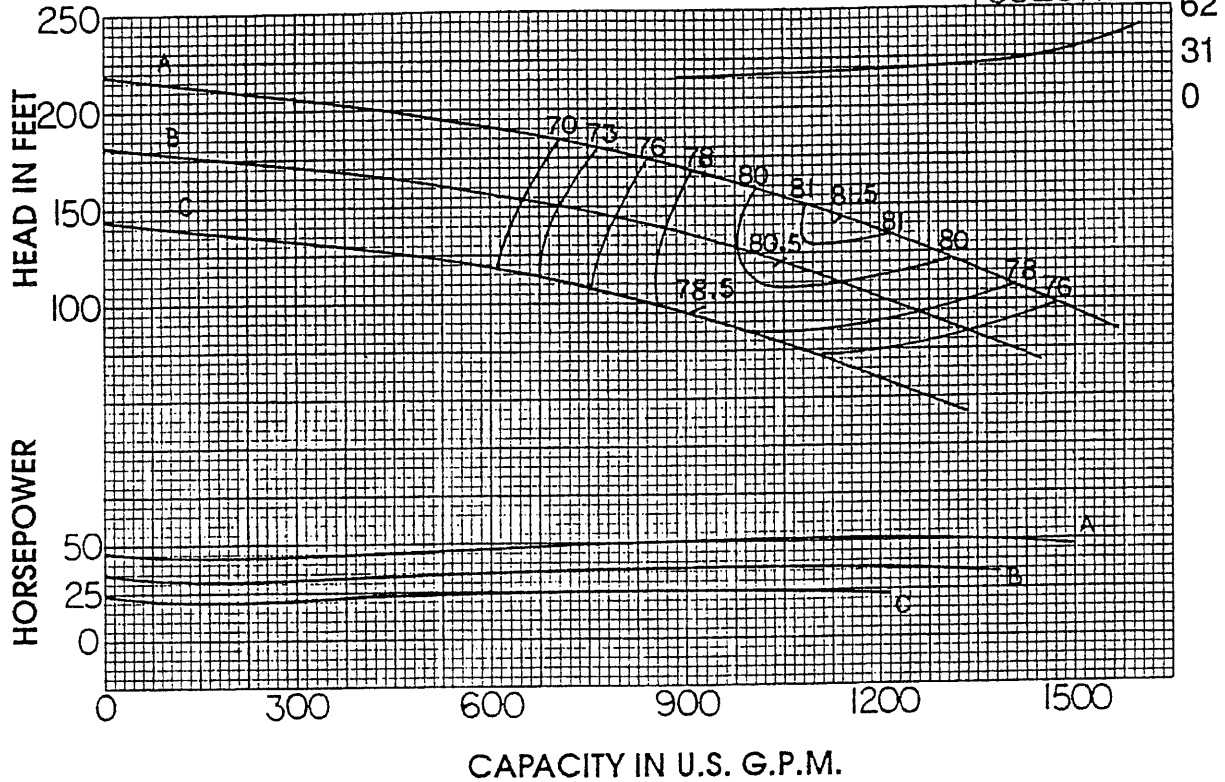
General Data	
<b>Lengths</b>	
Column Adapter	0.000 "
Discharge Case	0.000 "
Bowl	0.000 "
Suction Case	0.000 "
Suction Bell	0.000 "
Submersible Motor Adapter	0.000 "
<b>Approximate Shipping Weights</b>	
First Stage	0 #
Additional Stage	0 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.000 "
Distance From Impeller Eye to Bottom of Bell Suction	0.000 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10HS-1125  
3520RPM



N.P.S.H.

Impeller Data	
Impeller Number	10HS-1125
Type	Enclosed
Diameter: A =	7.750 "
B =	7.250 "
C =	6.650 "
Thrust Constant (K)	5.32 pounds/foot of head
Impeller Weight	8.90 #
Number of Vanes	6
Specific Speed (Ns)	1629
Effective Eye Area	15.18 square inches
W(r sq.)	.369 lbs.-ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-H
Connection Type	Bolted
Outside Diameter:	nominal 9.800 "
	minimum 9.562 "
Column Pipe Size:	standard 6 "
	maximum 8 "
Suction Pipe Size:	standard 6 "
	maximum 6 "
Shaft Size:	standard 1.5 "
	maximum 1.75 "
Lateral:	standard .625 "
	maximum .750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.550 "
Maximum No. Stages (std. const.)	9
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	613 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

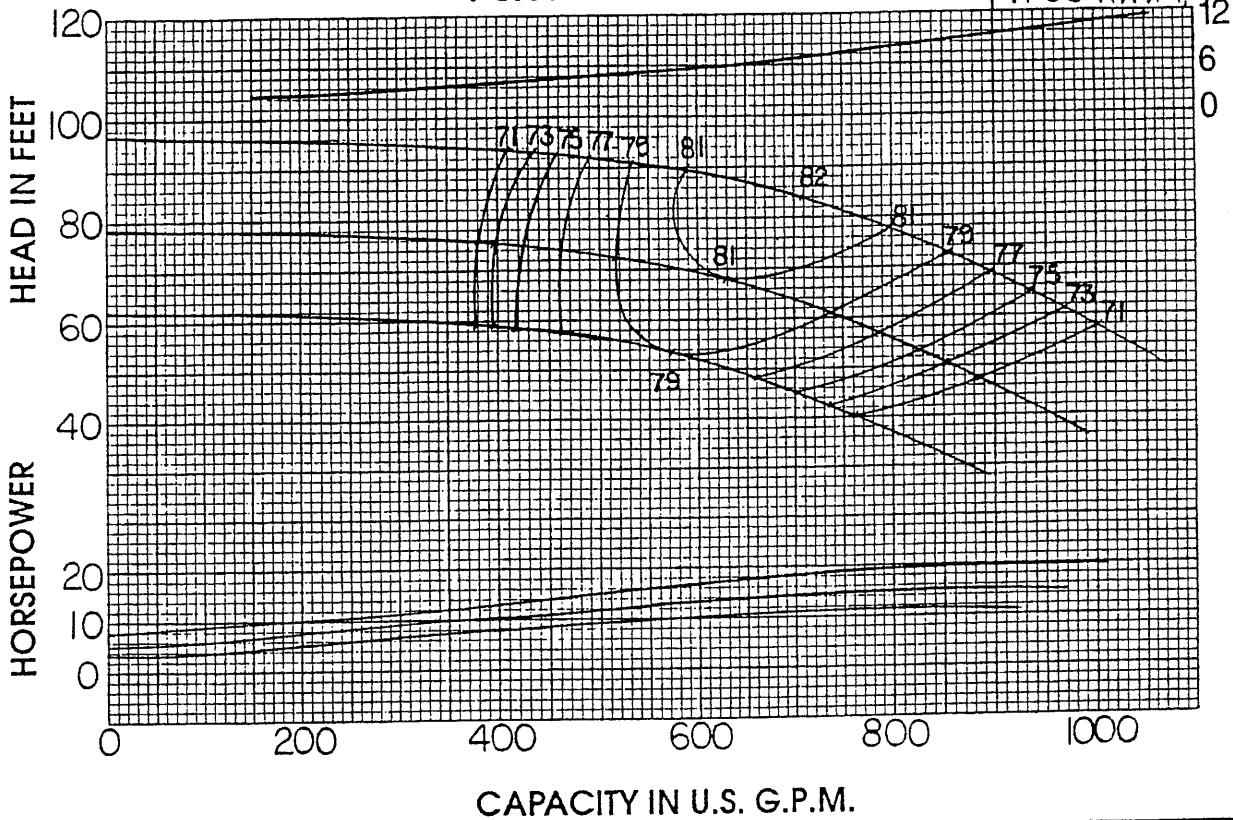
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	8.750 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	175 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.625 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

12-700  
1760 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	12-700
Type	Enclosed
Diameter: A =	10.000 "
B =	9.250 "
C =	8.500 "
Thrust Constant (K)	5.80 pounds/foot of head
Impeller Weight	17.00 #
Number of Vanes	9
Specific Speed (Ns)	1687
Effective Eye Area	15.114 square inches
W(r sq.)	9.500 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.679 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-L
Connection Type	Bolted
Outside Diameter:	nominal 11.875 "
	minimum 11.750 "
Column Pipe Size:	standard 8 "
	maximum 10 "
Suction Pipe Size:	standard 8 "
	maximum 8 "
Shaft Size:	standard 1.687 "
	maximum 1.687 "
Lateral:	standard .750 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.600 "
Maximum No. Stages (std. const.)	17
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1025 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data																													
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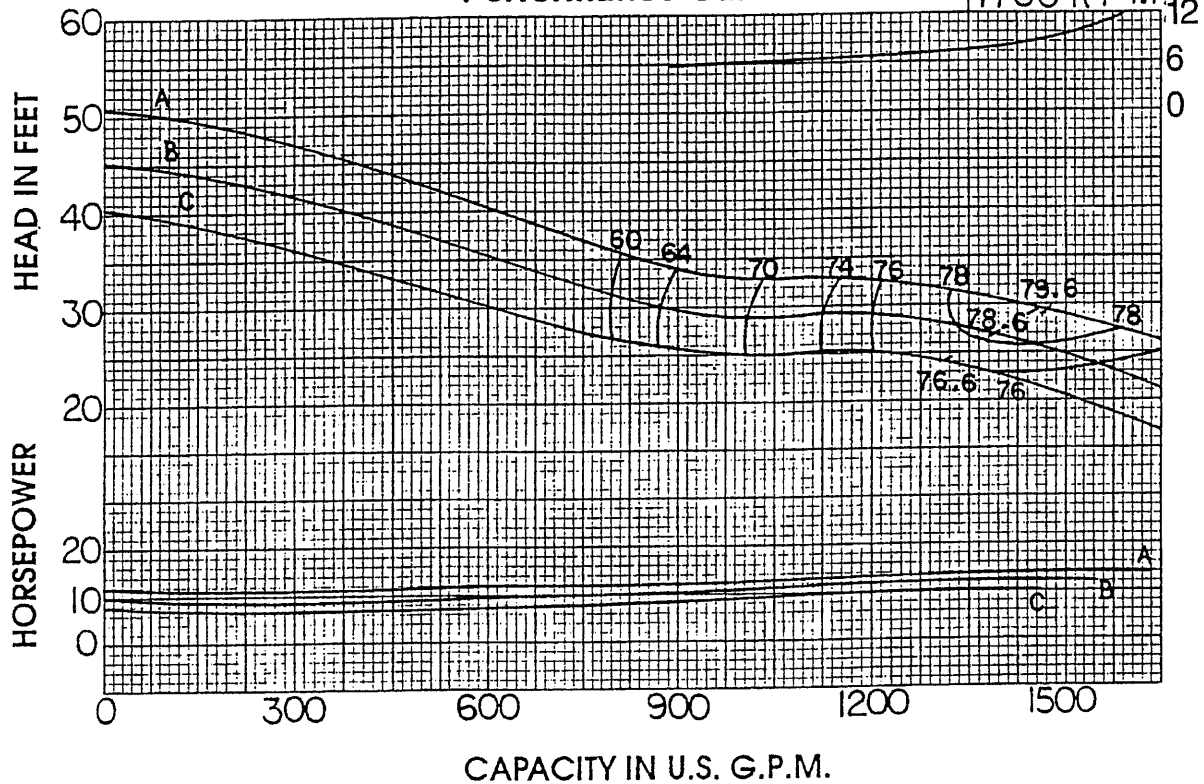


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10-1425  
1760 R.P.M.



Impeller Data	
Impeller Number	10-1425
Type	Enclosed
Diameter: A =	8.200 "
B =	7.900 "
C =	7.600 "
Thrust Constant (K)	9.53 pounds/foot of head
Impeller Weight	9.50 #
Number of Vanes	8
Specific Speed (Ns)	5238
Effective Eye Area	29.2 square inches
W(r sq.)	.790 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-XH
Connection Type	Bolted
Outside Diameter: nominal	9.750 "
minimum	9.720 "
Column Pipe Size: standard	8 "
maximum	10 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.5 "
maximum	1.687 "
Lateral: standard	.875 "
maximum	1.000 "
Shaft Bearing Clearance	.015 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.250 "
Maximum No. Stages (std. const.)	17
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	577 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data			
<b>Lengths</b> Column Adapter 1.500 " Discharge Case 4.000 " Bowl 8.750 " Suction Case 9.250 " Suction Bell 8.875 " Submersible Motor Adapter 11.125 "		<b>Operational</b> Minimum Required Submergence CONSULT FACTORY	
		<b>Standard Construction Materials</b>	
<b>Approximate Shipping Weights</b> First Stage 175 # Additional Stage 60 #		Bowl	A48-30 c. i. (porcelain)
		Impeller	C83800 br.
<b>Miscellaneous</b> Hub Projection on Bell Suction 0.375 " Cable Guard Height .500 " Distance From Impeller Eye to Bottom of Bell Suction 9.156 "		Bowl Shaft	416 stainless steel
		Shaft Coupling	C1215 steel
		Lock Collet	C1215 steel
		Cap Screw	grade 5
		Bowl Bearing	C84400 br./buna-N A40
		Suction/Submersible Motor Adapter Bearing	C84400 br.
		Throttle Bearing	C84400 br.
		Sand Collar	polyethylene
		Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

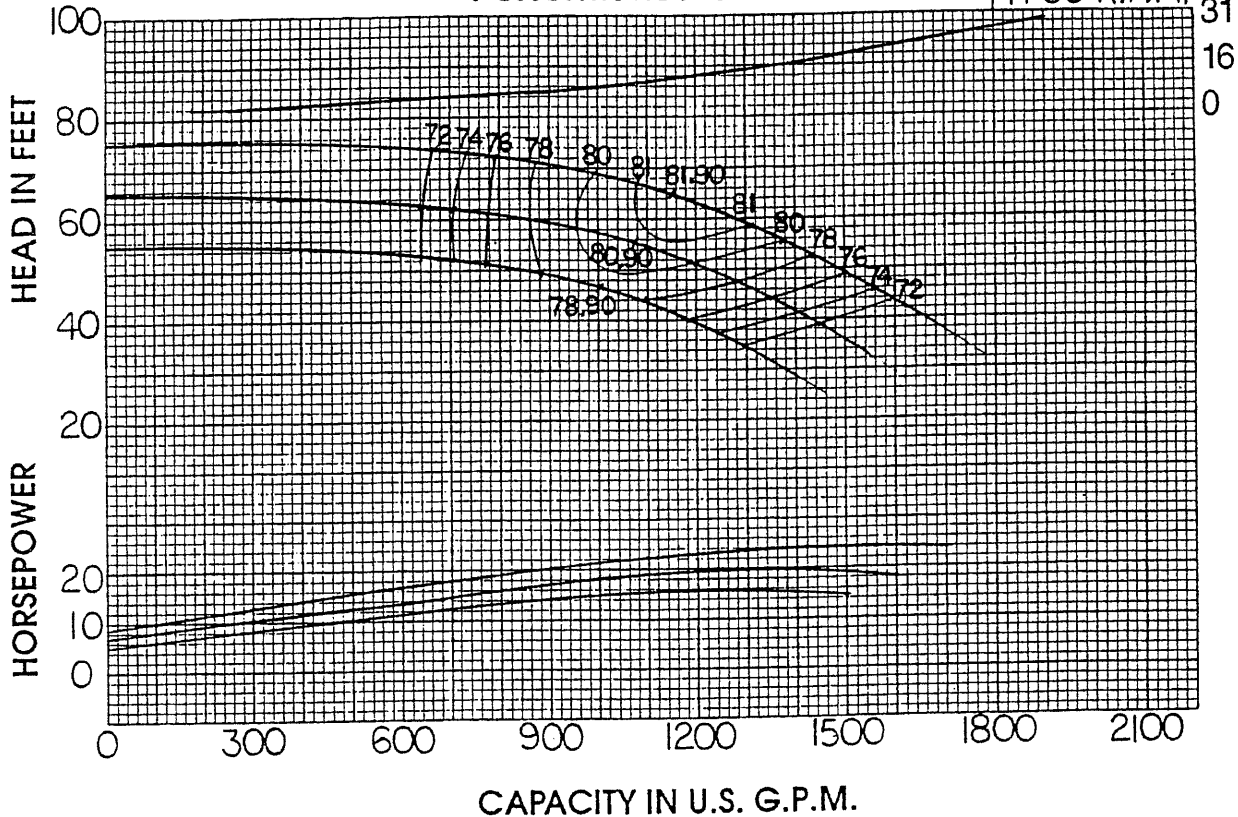


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

11-1200  
1760 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	11-1200
Type	Enclosed
Diameter: A =	9.200 "
B =	8.700 "
C =	8.200 "
Thrust Constant (K)	5.83 pounds/foot of head
Impeller Weight	17.00 #
Number of Vanes	8
Specific Speed (Ns)	2607
Effective Eye Area	17.009 square inches
W(r sq.)	9.500 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.679 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	11-H
Connection Type	Bolted
Outside Diameter: nominal	11.000 "
minimum	11.875 "
Column Pipe Size: standard	8 "
maximum	10 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.687 "
maximum	1.687 "
Lateral: standard	1.000 "
maximum	1.125 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.500 "
Maximum No. Stages (std. const.)	14
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	780 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

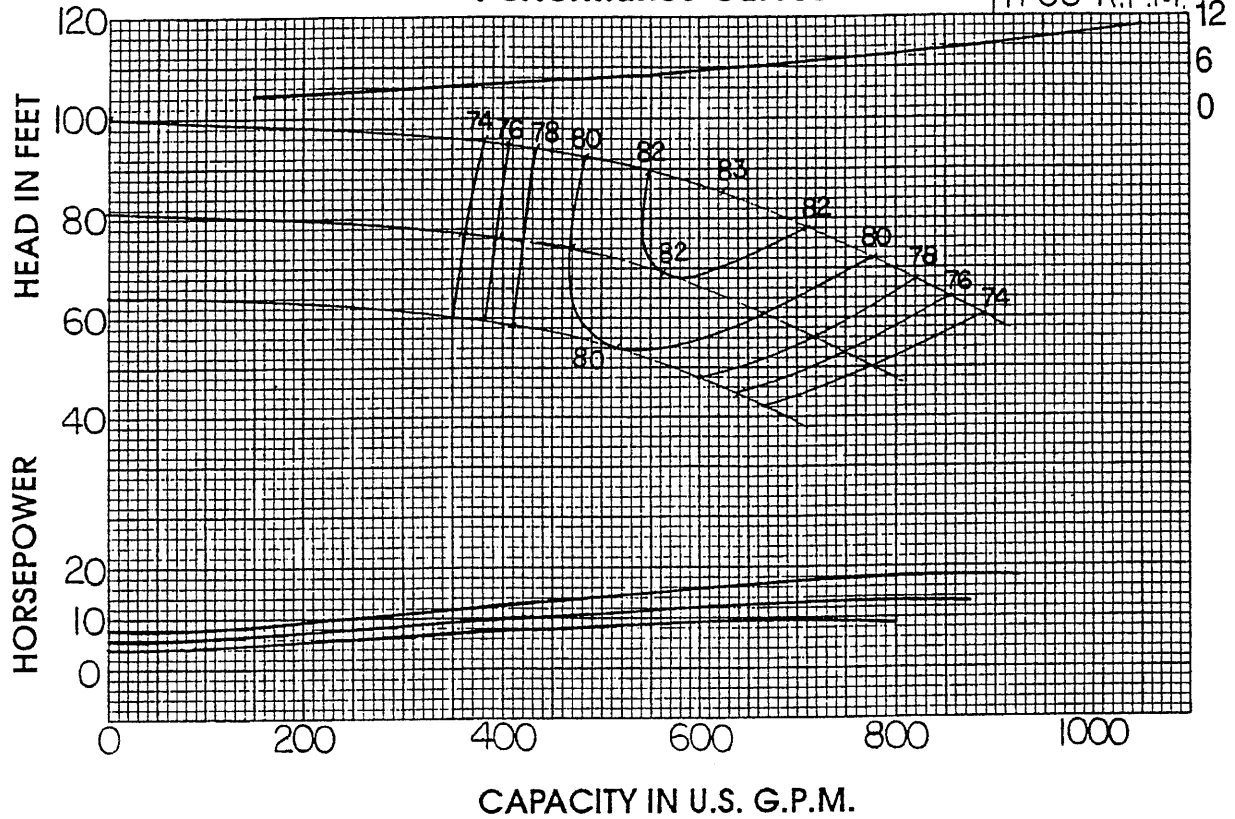
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.750 "
Bowl	10.125 "
Suction Case	10.062 "
Suction Bell	8.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	135 #
Additional Stage	90 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.562 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	0.000 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

12-600  
1760 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	12-600
Type	Enclosed
Diameter: A =	10.000 "
B =	9.250 "
C =	8.500 "
Thrust Constant (K)	5.90 pounds/foot of head
Impeller Weight	17.00 #
Number of Vanes	7
Specific Speed (Ns)	1572
Effective Eye Area	15.747 square inches
W(r sq.)	9.500 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.679 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-L
Connection Type	Bolted
Outside Diameter:	nominal 11.875 "
	minimum 11.750 "
Column Pipe Size:	standard 8 "
	maximum 10 "
Suction Pipe Size:	standard 8 "
	maximum 8 "
Shaft Size:	standard 1.687 "
	maximum 1.687 "
Lateral:	standard .750 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.600 "
Maximum No. Stages (std. const.)	19
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1025 ft.

Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

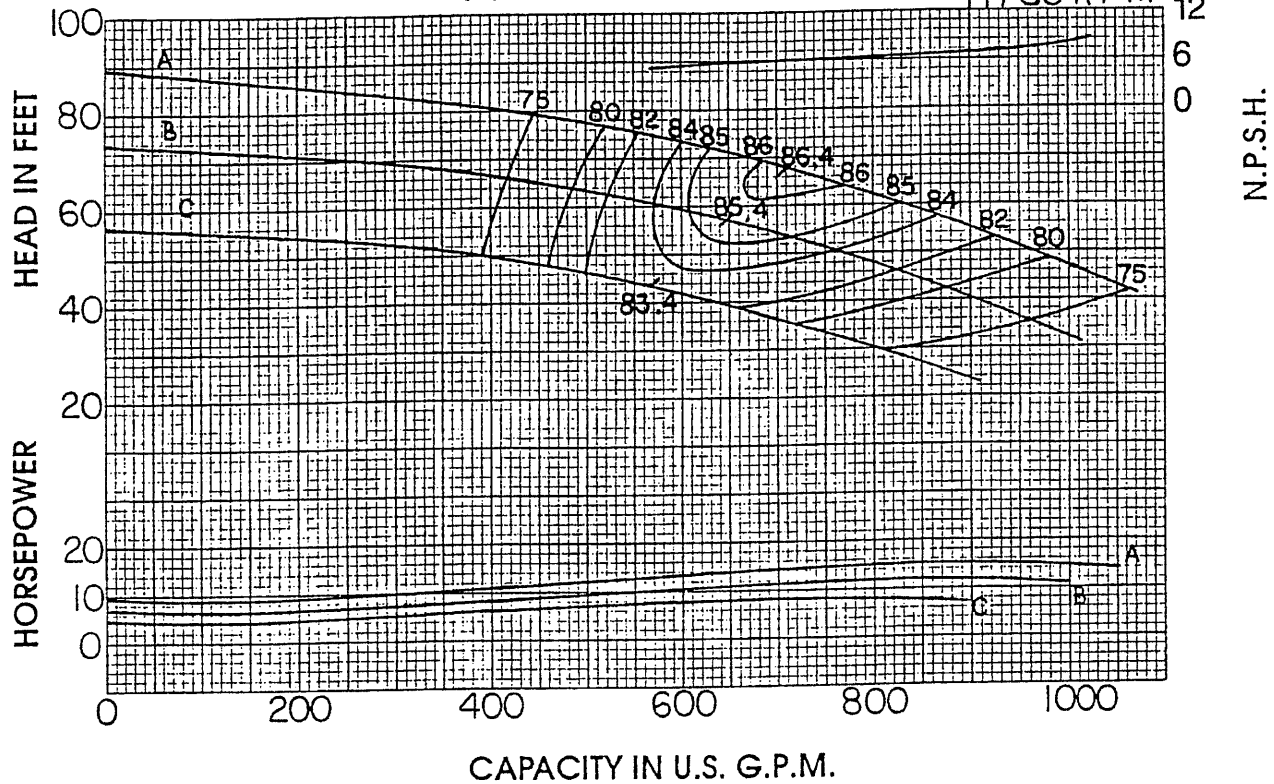
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# GUSHER®

Division of Ruthman Pump & Engineering

12-725  
1760 RPM

## Performance Curves



Impeller Data	
Impeller Number	12-725
Type	Enclosed
Diameter: A =	9.300 "
B =	8.700 "
C =	7.900 "
Thrust Constant (K)	6.69 pounds/foot of head
Impeller Weight	13.20 #
Number of Vanes	5
Specific Speed (Ns)	1945
Effective Eye Area	19 square inches
W(r sq.)	.709 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-M
Connection Type	Bolted
Outside Diameter: nominal	11.900 "
minimum	11.750 "
Column Pipe Size: standard	8 "
maximum	10 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.687 "
maximum	1.75 "
Lateral: standard	.625 "
maximum	1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.850 "
Maximum No. Stages (std. const.)	23
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	880 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

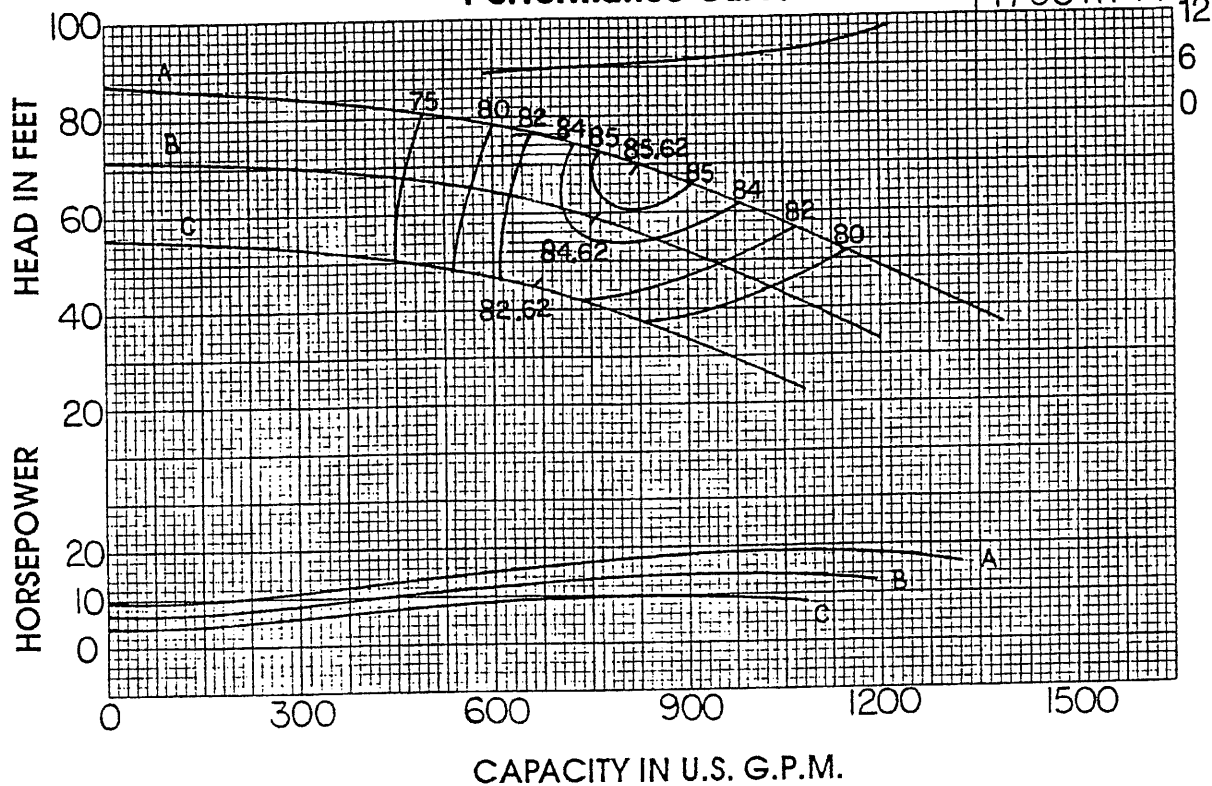
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# GUSHER®

Division of Ruthman Pump & Engineering

12-825  
1760 RPM

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	12-825
Type	Enclosed
Diameter: A =	9.300 "
B =	8.700 "
C =	7.900 "
Thrust Constant (K)	6.59 pounds/foot of head
Impeller Weight	13.40 #
Number of Vanes	7
Specific Speed (Ns)	2076
Effective Eye Area	19 square inches
W(r sq.)	.720 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-M
Connection Type	Bolted
Outside Diameter: nominal	11.900 "
minimum	11.750 "
Column Pipe Size: standard	8 "
maximum	10 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.687 "
maximum	1.75 "
Lateral: standard	.625 "
maximum	1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.750 "
Maximum No. Stages (std. const.)	18
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	845 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

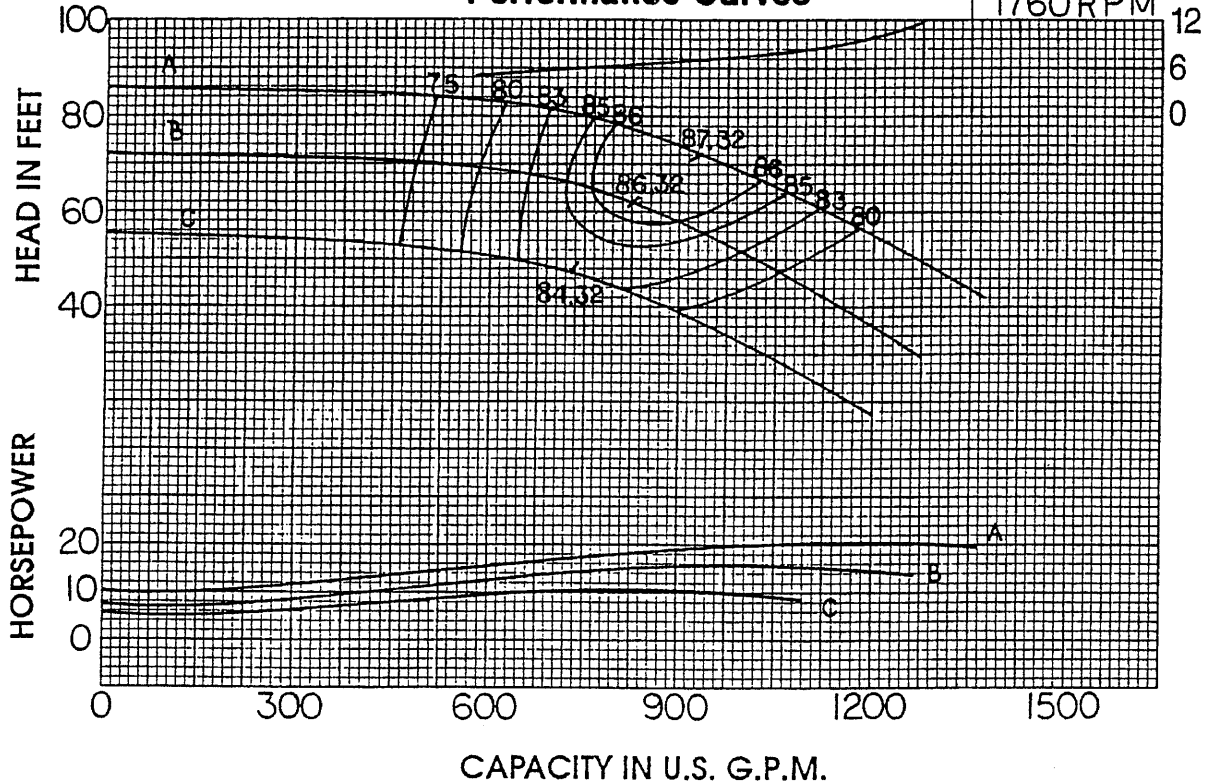
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.750 "
Bowl	10.000 "
Suction Case	10.125 "
Suction Bell	8.500 "
Submersible Motor Adapter	24.250 "
<b>Approximate Shipping Weights</b>	
First Stage	250 #
Additional Stage	110 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.562 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	8.532 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

12-900  
1760RPM



N.P.S.H.

Impeller Data	
Impeller Number	12-900
Type	Enclosed
Diameter: A =	9.300 "
B =	8.700 "
C =	7.900 "
Thrust Constant (K)	6.50 pounds/foot of head
Impeller Weight	13.40 #
Number of Vanes	8
Specific Speed (Ns)	2188
Effective Eye Area	20.37 square inches
W(r sq.)	.720 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data		June 1991
Bowl Number	12-M	
Connection Type	Bolted	
Outside Diameter:	nominal	11.900 "
	minimum	11.750 "
Column Pipe Size:	standard	8 "
	maximum	10 "
Suction Pipe Size:	standard	8 "
	maximum	8 "
Shaft Size:	standard	1.687 "
	maximum	1.75 "
Lateral:	standard	.625 "
	maximum	1.000 "
Shaft Bearing Clearance		.010 "
Impeller Skirt Clearance		.015 "
Maximum Sphere Size		.750 "
Maximum No. Stages (std. const.)		17
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)		845 ft.

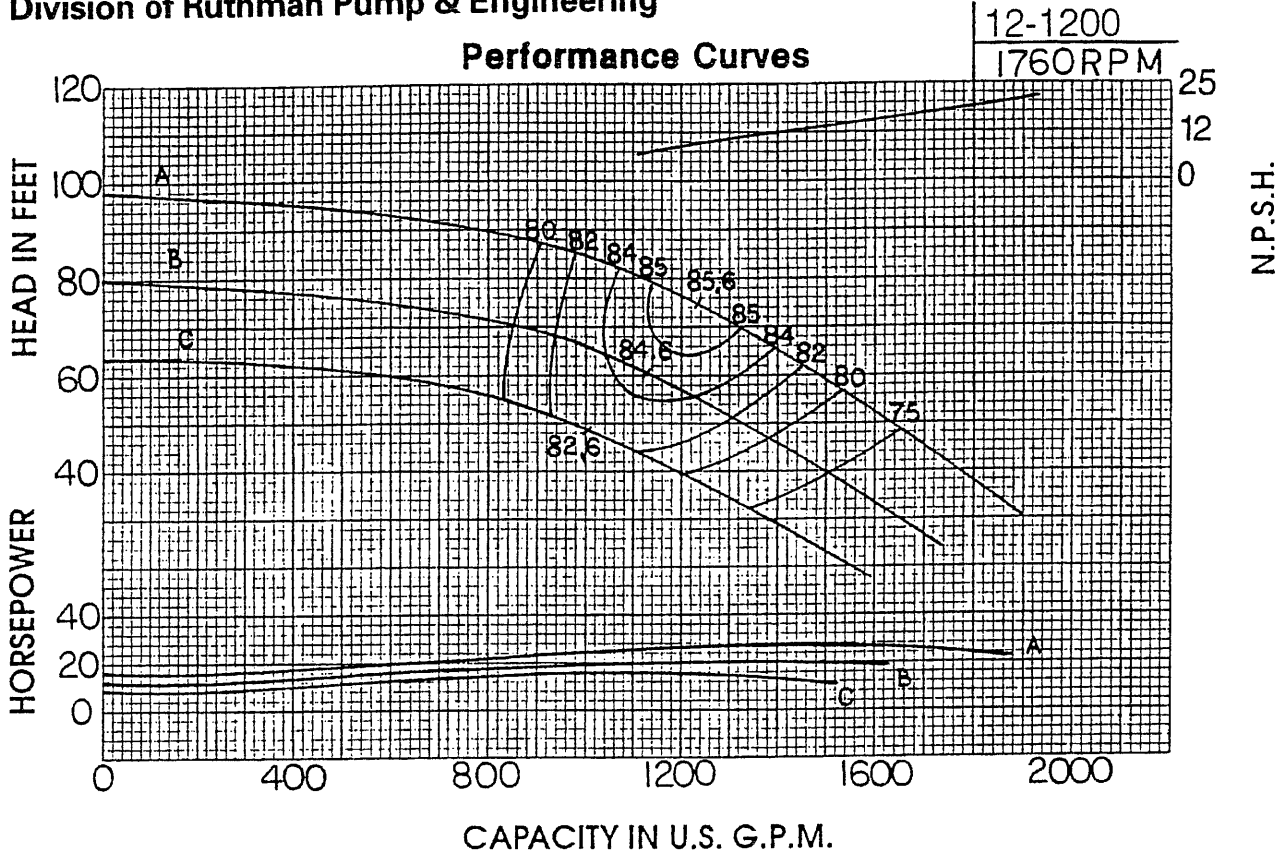
Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.500 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	4.750 "	<b>Standard Construction Materials</b>	
Bowl	10.000 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	10.125 "	Impeller	C83800 br.
Suction Bell	8.500 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	24.250 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	250 #	Cap Screw	grade 5
Additional Stage	110 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	1.562 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	8.532 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves



Impeller Data	
Impeller Number	12-1200
Type	Enclosed
Diameter: A =	10.030 "
B =	9.330 "
C =	8.630 "
Thrust Constant (K)	6.82 pounds/foot of head
Impeller Weight	14.80 #
Number of Vanes	7
Specific Speed (Ns)	2421
Effective Eye Area	20.66 square inches
W(r sq.)	.919 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-H
Connection Type	Bolted
Outside Diameter: nominal	12.350 "
minimum	12.120 "
Column Pipe Size: standard	8 "
maximum	10 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.687 "
maximum	1.75 "
Lateral: standard	.750 "
maximum	1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.775 "
Maximum No. Stages (std. const.)	12
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	620 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.750 "
Bowl	10.750 "
Suction Case	10.125 "
Suction Bell	8.500 "
Submersible Motor Adapter	24.250 "
<b>Approximate Shipping Weights</b>	
First Stage	250 #
Additional Stage	110 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.562 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	8.438 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buns-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

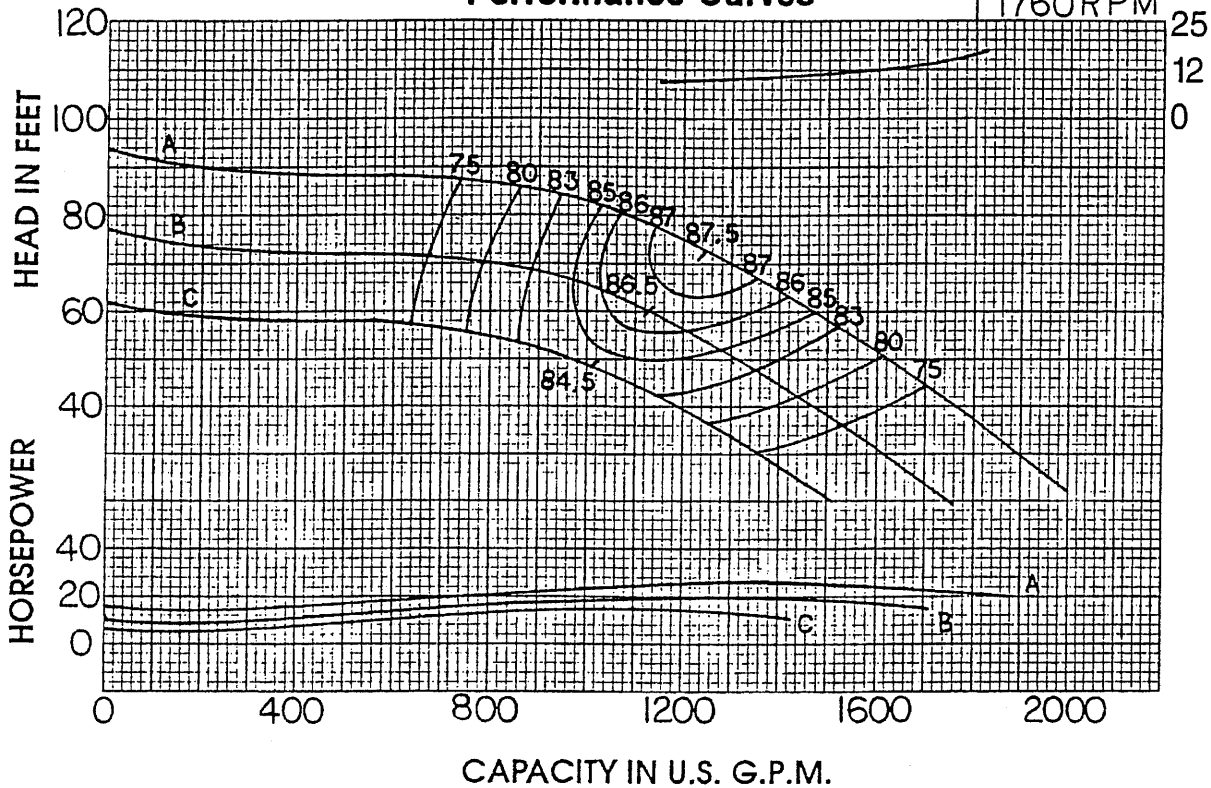


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

12-1250  
1760RPM



N.P.S.H.

Impeller Data	
Impeller Number	12-1250
Type	Enclosed
Diameter: A =	10.030 "
B =	9.330 "
C =	8.630 "
Thrust Constant (K)	6.82 pounds/foot of head
Impeller Weight	14.80 #
Number of Vanes	7
Specific Speed (Ns)	2421
Effective Eye Area	20.66 square inches
W(r sq.)	.919 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	12-H
Connection Type	Bolted
Outside Diameter:	nominal 12.350 "
	minimum 12.120 "
Column Pipe Size:	standard 8 "
	maximum 10 "
Suction Pipe Size:	standard 8 "
	maximum 8 "
Shaft Size:	standard 1.687 "
	maximum 1.75 "
Shaft Size:	standard .750 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.775 "
Maximum No. Stages (std. const.)	12
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	620 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.500 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	4.750 "	<b>Standard Construction Materials</b>	
Bowl	10.750 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	10.125 "	Impeller	C83800 br.
Suction Bell	8.500 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	24.250 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	250 #	Cap Screw	grade 5
Additional Stage	110 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	1.562 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	8.438 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

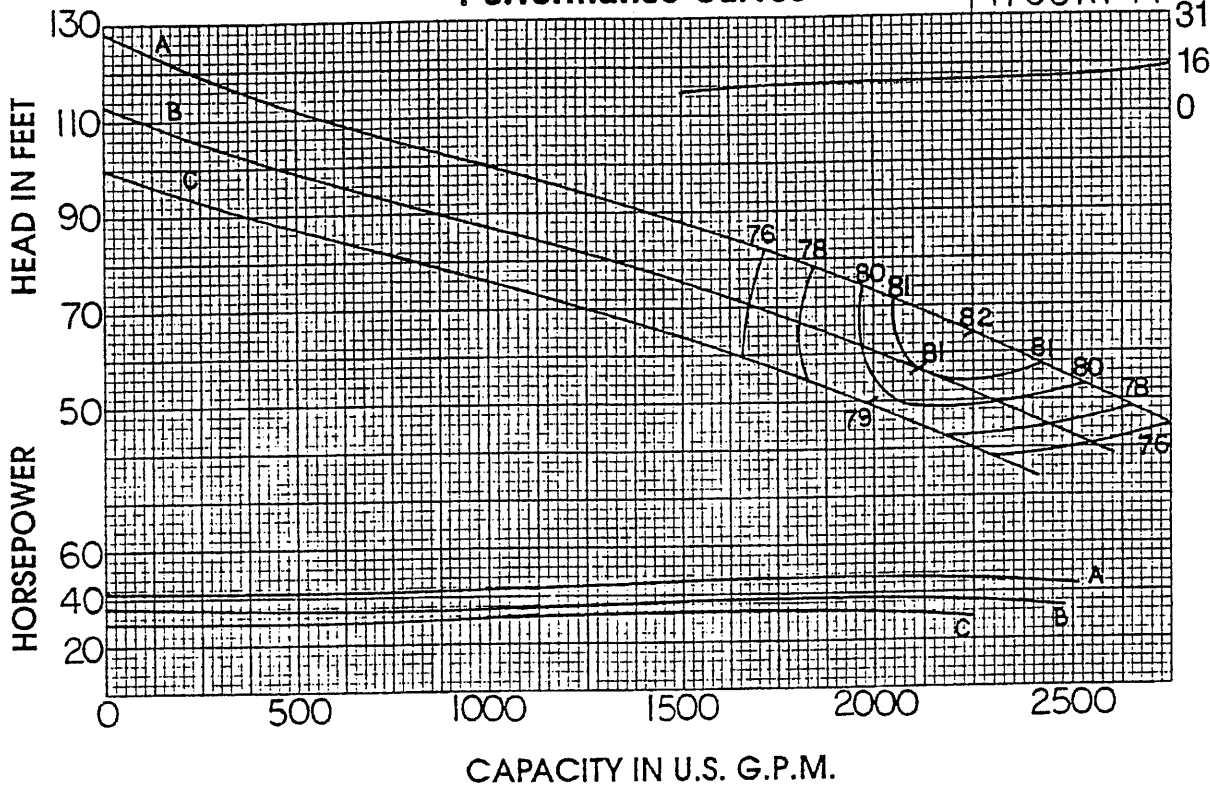


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

14-2250  
1760RPM



N.P.S.H.

Impeller Data	
Impeller Number	14-2250
Type	Enclosed
Diameter: A =	11.615 "
B =	11.115 "
C =	10.615 "
Thrust Constant (K)	12.03 pounds/foot of head
Impeller Weight	27.00 #
Number of Vanes	5
Specific Speed (Ns)	3668
Effective Eye Area	41.9 square inches
W(r sq.)	2.300 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	14-M
Connection Type	Bolted
Outside Diameter: nominal	14.310 "
minimum	14.000 "
Column Pipe Size: standard	12 "
maximum	14 "
Suction Pipe Size: standard	12 "
maximum	12 "
Shaft Size: standard	2.187 "
maximum	2.25 "
Lateral: standard	1.000 "
maximum	1.250 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.250 "
Maximum No. Stages (std. const.)	16
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	580 ft.

### Efficiency Correction for Impeller Data

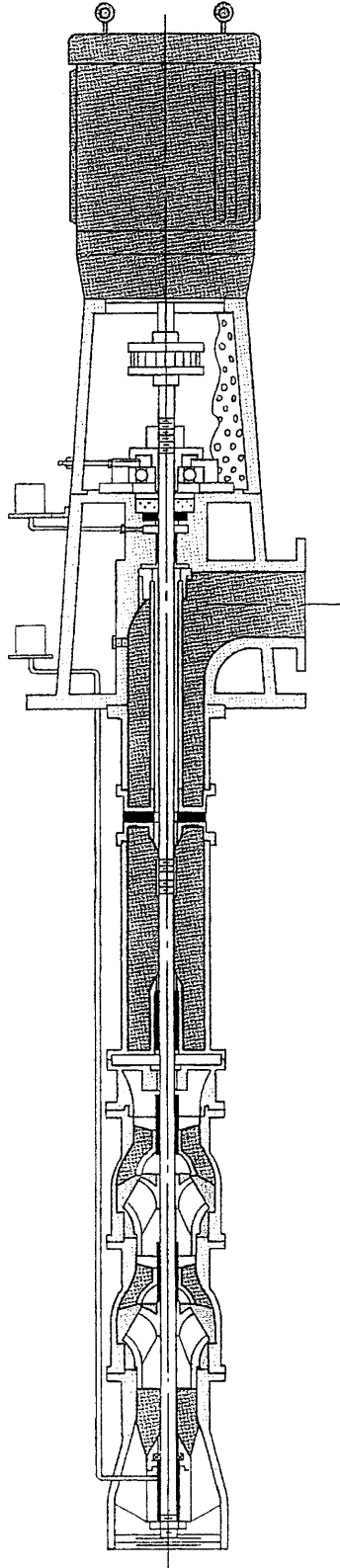
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	5.375 "
Bowl	13.375 "
Suction Case	11.875 "
Suction Bell	9.625 "
Submersible Motor Adapter	17.750 "
<b>Approximate Shipping Weights</b>	
First Stage	425 #
Additional Stage	180 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	9.500 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# **GUSHER<sup>®</sup>**



**Division of Ruthman Pump & Engineering**



**Mechanical Seal And  
Packing Problems  
Gone Forever.**

## **Design Features**

- 1. Automatic  
Deflector Sealing  
Of Pumpage**
- (2. Top Pull Out  
Design Available**
- 3. Extra Hard  
Bowl Bearings  
Available**
- 4. Below Plate  
Discharge  
Available**
- 5. Cast Iron Or  
Stainless  
Construction**
- 6. Oil, Grease Or  
Solution Lube**

**Capacities To  
4000 GPM**

**Sizes To 15" Bowl**

**Available For Use  
With Standard  
C Face Or High  
Thrust Motors**

**World Wide Repair  
& Service**

**Over 75 Years Of  
Experience Serving  
The Industrial  
Market Place**

**Very Efficient Energy  
Saving Design**

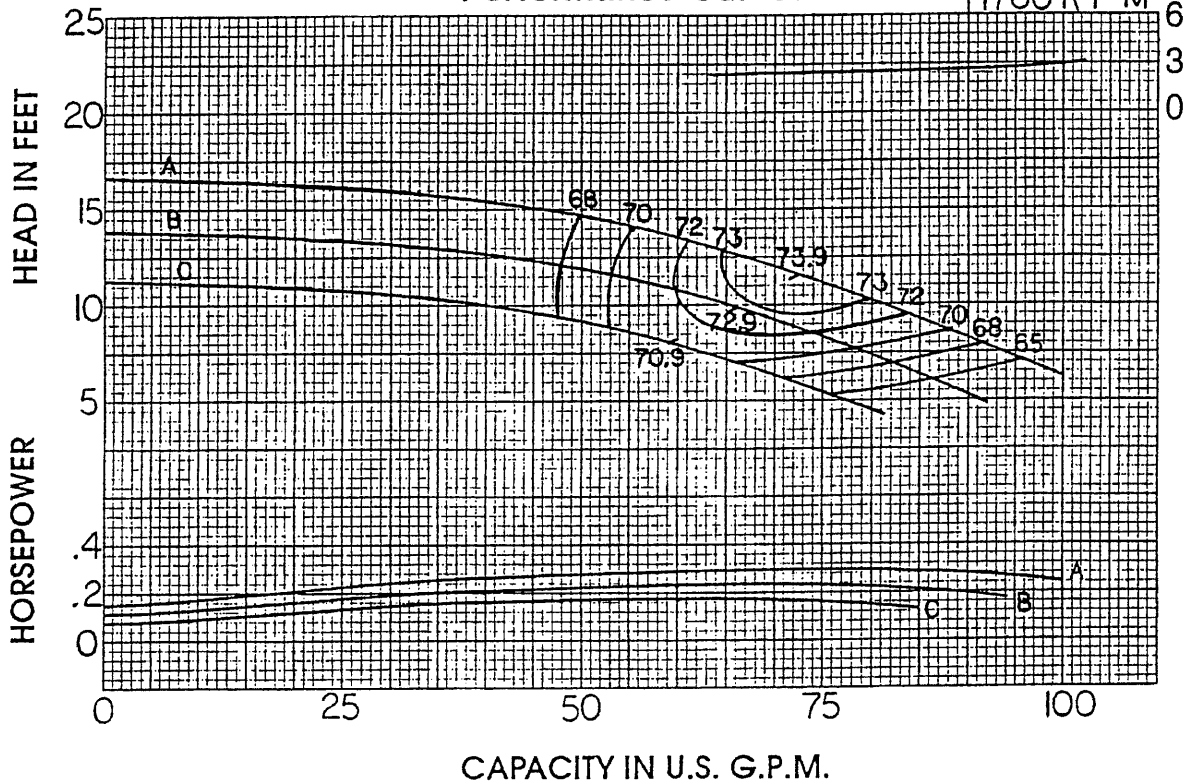
**World Wide Sales & Service**

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6-70  
1760 R P M



N.P.S.H.

Impeller Data	
Impeller Number	6-70
Type	Enclosed
Diameter: A=	4.475 "
B=	4.175 "
C=	3.875 "
Thrust Constant (K)	1.71 pounds/foot of head
Impeller Weight	1.75 #
Number of Vanes	6
Specific Speed (Ns)	1854
Effective Eye Area	3.68 square inches
W(r sq.)	.022 lbs. -ft. sq.
Eye Fluid Velocity	0.09 ft./sec./g.p.m.
Peripheral Velocity	7.63 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-L
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .600 "
	maximum .750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.300 "
Maximum No. Stages (std. const.)	220
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1400 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

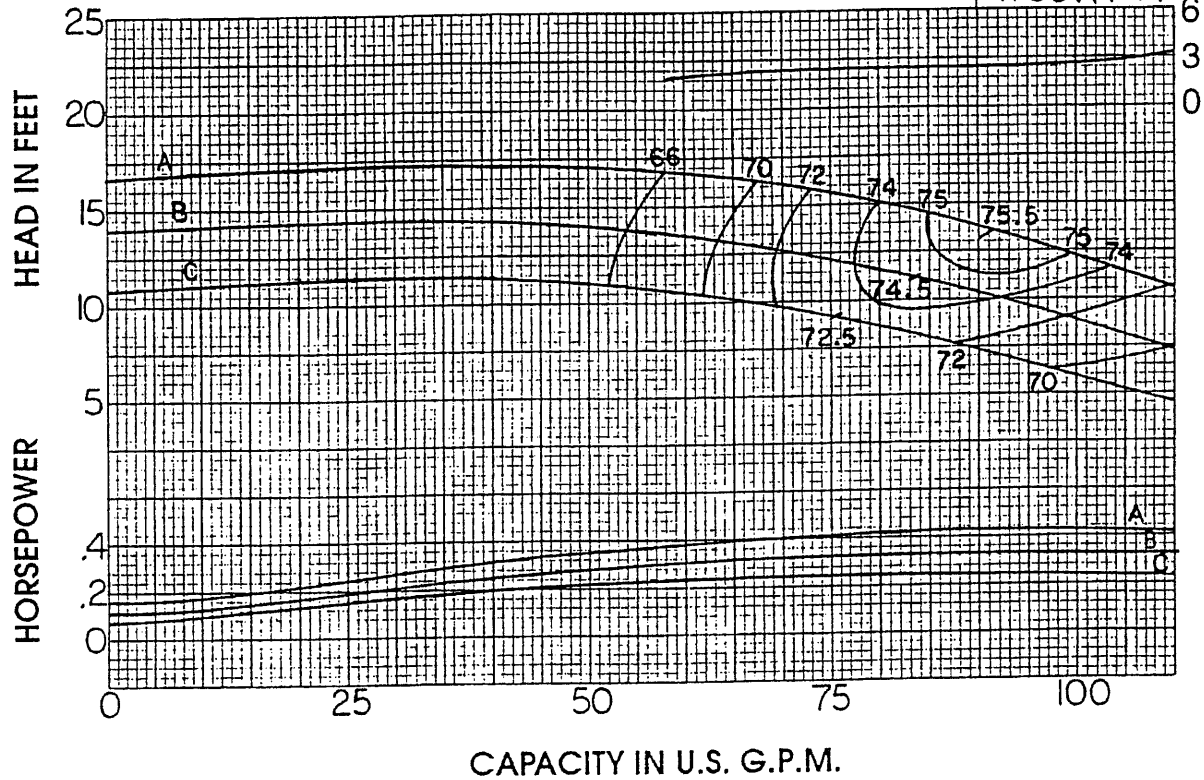
General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.844 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6-90  
1760R PM



N.P.S.H.

Impeller Data	
Impeller Number	6-90
Type	Enclosed
Diameter: A =	4.475 "
B =	4.175 "
C =	3.875 "
Thrust Constant (K)	1.75 pounds/foot of head
Impeller Weight	1.75 #
Number of Vanes	8
Specific Speed (Ns)	1764
Effective Eye Area	3.55 square inches
W(r sq.)	.023 lbs. -ft. sq.
Eye Fluid Velocity	0.09 ft./sec./g.p.m.
Peripheral Velocity	7.63 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-L
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .500 "
	maximum .625 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.230 "
Maximum No. Stages (std. const.)	153
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1400 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

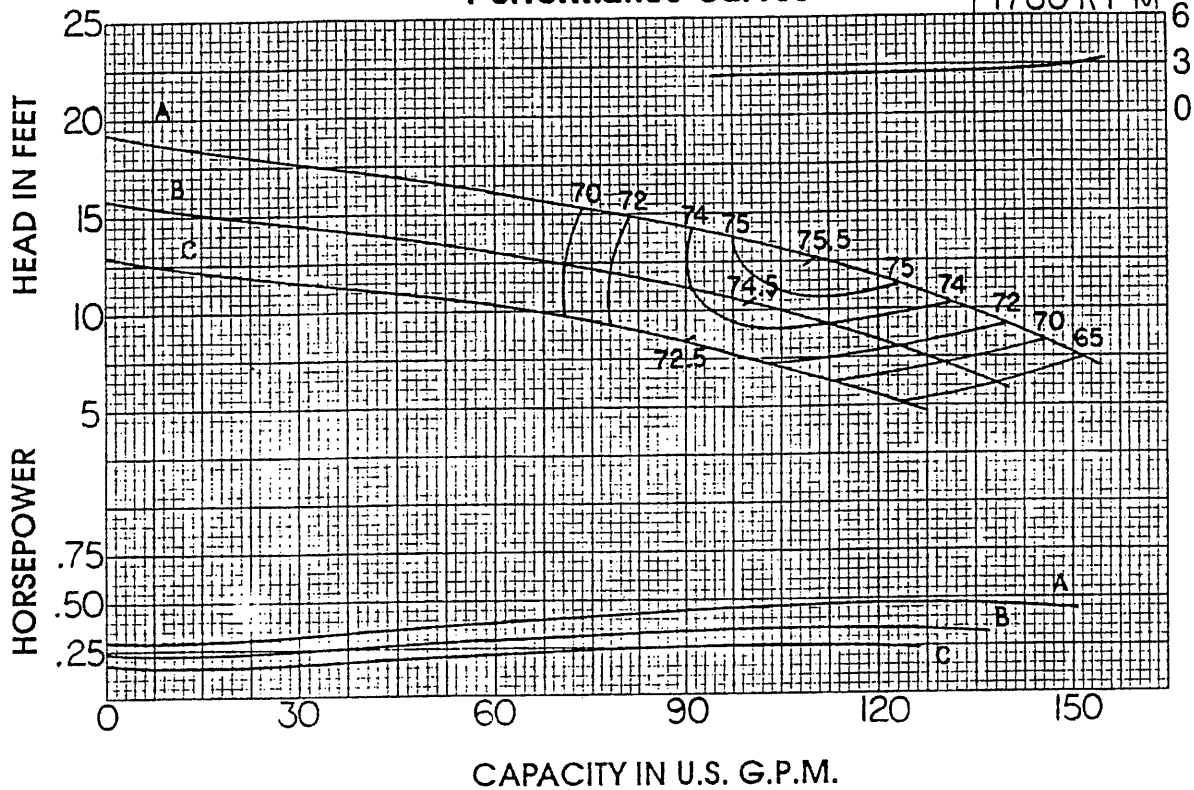
General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.844 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6-112  
1760 R P M



N.P.S.H.

Impeller Data	
Impeller Number	6-112
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.21 pounds/foot of head
Impeller Weight	2.15 #
Number of Vanes	5
Specific Speed (Ns)	2735
Effective Eye Area	5.66 square inches
W(r sq.)	.027 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter: nominal	5.700 "
minimum	5.625 "
Column Pipe Size: standard	3 "
maximum	4 "
Suction Pipe Size: standard	3 "
maximum	4 "
Shaft Size: standard	1 "
maximum	1 "
Lateral: standard	.438 "
maximum	.562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.010 "
Maximum Sphere Size	.500 "
Maximum No. Stages (std. const.)	153
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.985 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

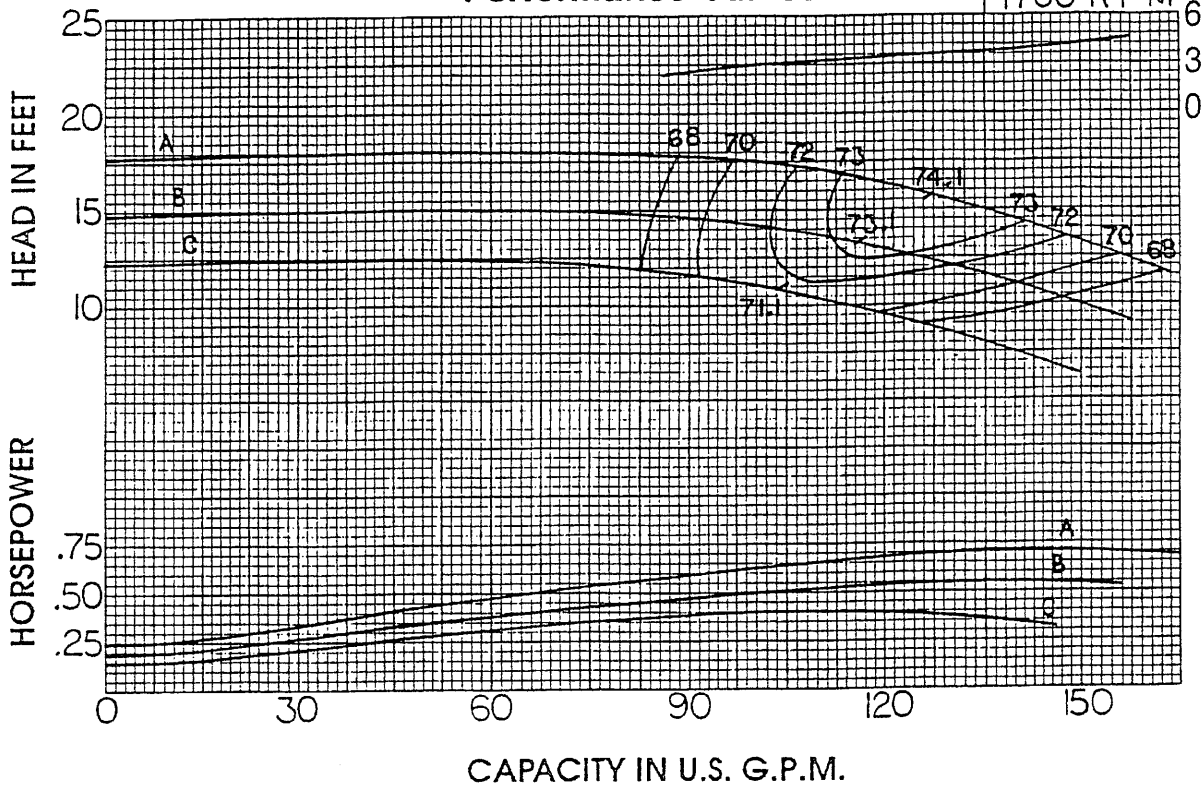
# GUSHER

Division of Ruthman Pump & Engineering

6-132

## Performance Curves

1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	6-132
Type	Enclosed
Diameter: A =	4.475 "
B =	4.175 "
C =	3.875 "
Thrust Constant (K)	1.69 pounds/foot of head
Impeller Weight	2.20 #
Number of Vanes	6
Specific Speed (Ns)	2003
Effective Eye Area	3.68 square inches
W(r sq.)	.027 lbs. -ft. sq.
Eye Fluid Velocity	0.09 ft./sec./g.p.m.
Peripheral Velocity	7.63 ft./sec./inch of impeller diameter

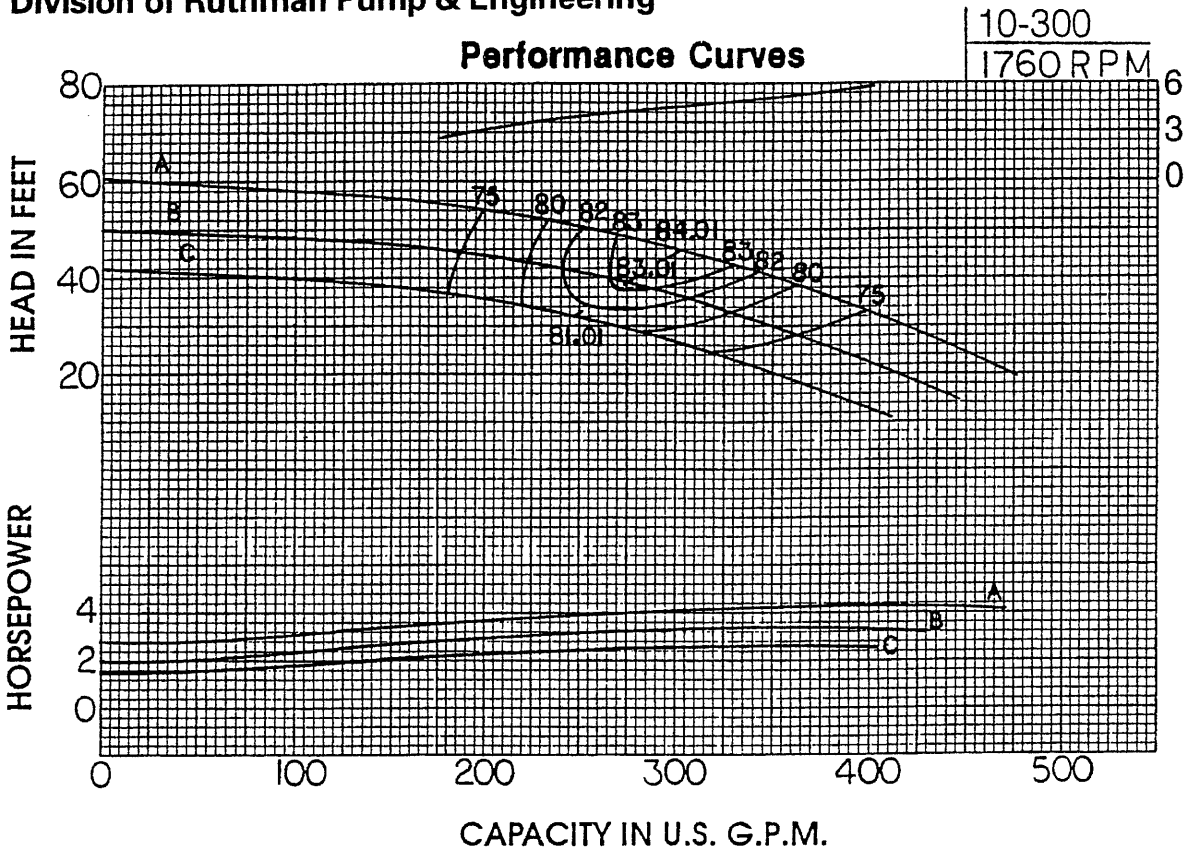
Bowl Data	
Bowl Number	6-L
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .400 "
	maximum .525 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.300 "
Maximum No. Stages (std. const.)	91
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1400 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data																																															
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# GUSHER®

Division of Ruthman Pump & Engineering



N.P.S.H.

Impeller Data	
Impeller Number	10-300
Type	Enclosed
Diameter: A =	7.700 "
B =	7.200 "
C =	6.700 "
Thrust Constant (K)	3.40 pounds/foot of head
Impeller Weight	8.70 #
Number of Vanes	5
Specific Speed (Ns)	1424
Effective Eye Area	8.19 square inches
W(r sq.)	.320 lbs. -ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-L
Connection Type	Bolted
Outside Diameter:	nominal 9.650 "
	minimum 9.500 "
Column Pipe Size:	standard 4 "
	maximum 8 "
Suction Pipe Size:	standard 6 "
	maximum 6 "
Shaft Size:	standard 1.5 "
	maximum 1.75 "
Lateral:	standard .375 "
	maximum .500 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.550 "
Maximum No. Stages (std. const.)	54
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	663 ft.

#### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

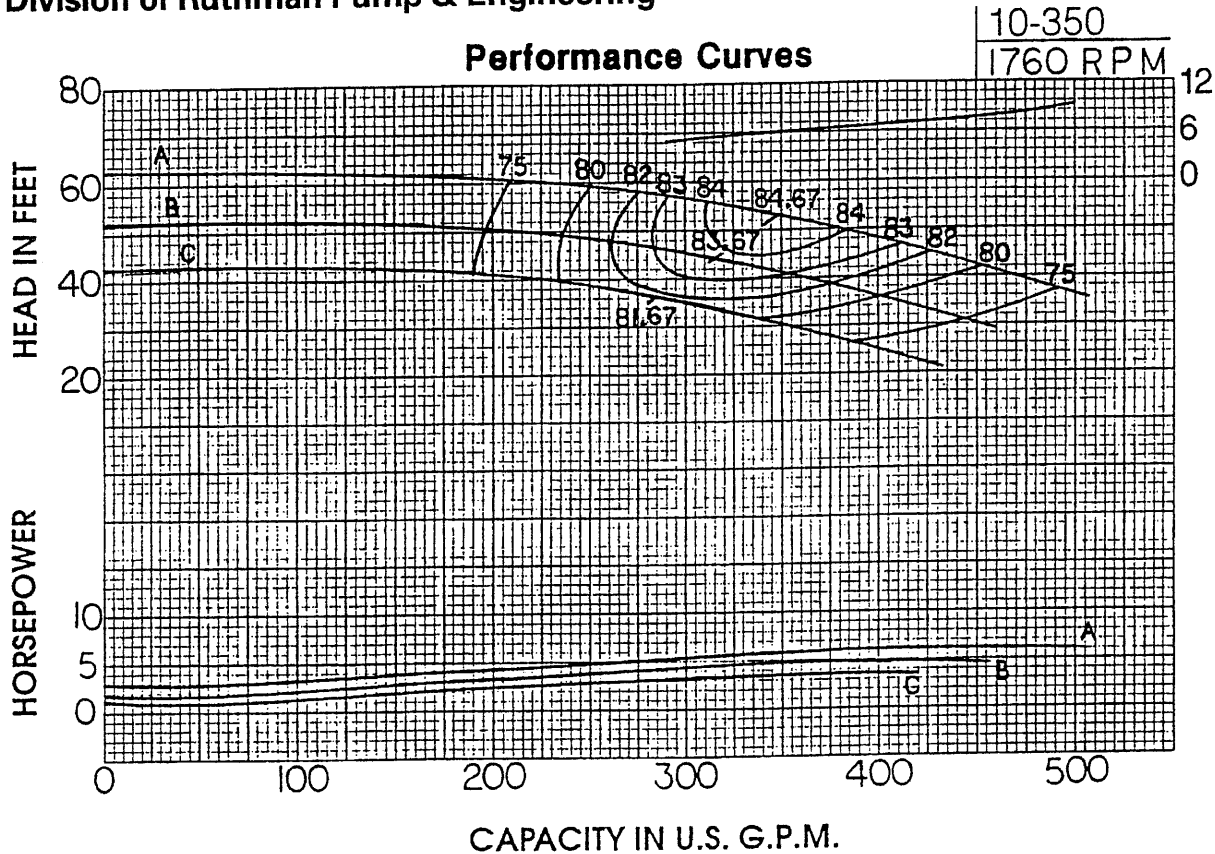
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# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	10-350
Type	Enclosed
Diameter: A =	7.700 "
B =	7.200 "
C =	6.700 "
Thrust Constant (K)	3.27 pounds/foot of head
Impeller Weight	8.70 #
Number of Vanes	8
Specific Speed (Ns)	1629
Effective Eye Area	7.24 square inches
W(r sq.)	.325 lbs. -ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-L
Connection Type	Bolted
Outside Diameter: nominal	9.650 "
minimum	9.500 "
Column Pipe Size: standard	4 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.5 "
maximum	1.75 "
Lateral: standard	.375 "
maximum	.500 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.550 "
Maximum No. Stages (std. const.)	39
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	613 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

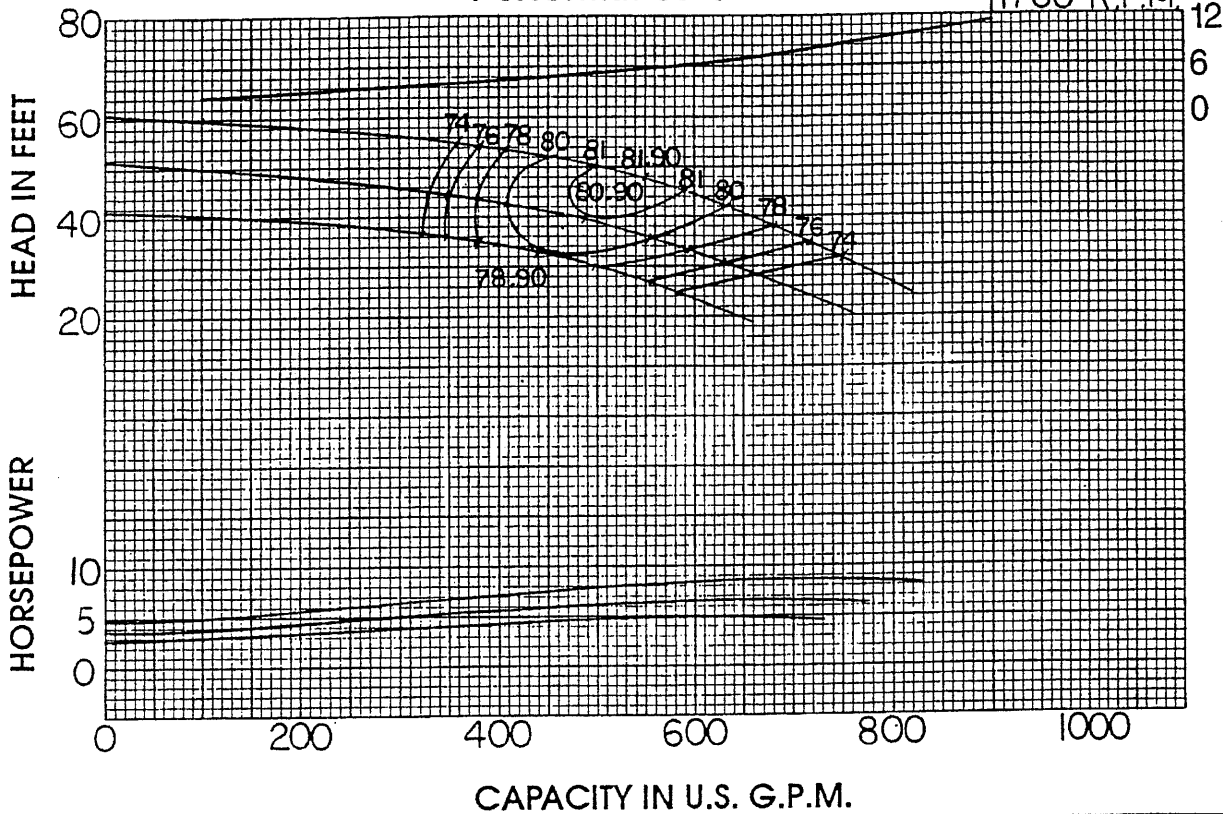
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	7.250 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	170 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.688 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10-500  
1760 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	10-500
Type	Enclosed
Diameter: A =	7.850 "
B =	7.350 "
C =	6.850 "
Thrust Constant (K)	5.48 pounds/foot of head
Impeller Weight	10.00 #
Number of Vanes	6
Specific Speed (Ns)	2242
Effective Eye Area	12.654 square inches
W(r sq.)	.790 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.679 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-M
Connection Type	Bolted
Outside Diameter:	nominal 9.750 "
	minimum 9.625 "
Column Pipe Size:	standard 8 "
	maximum 10 "
Suction Pipe Size:	standard 8 "
	maximum 8 "
Shaft Size:	standard 1.5 "
	maximum 1.5 "
Lateral:	standard .750 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.820 "
Maximum No. Stages (std. const.)	27
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	800 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

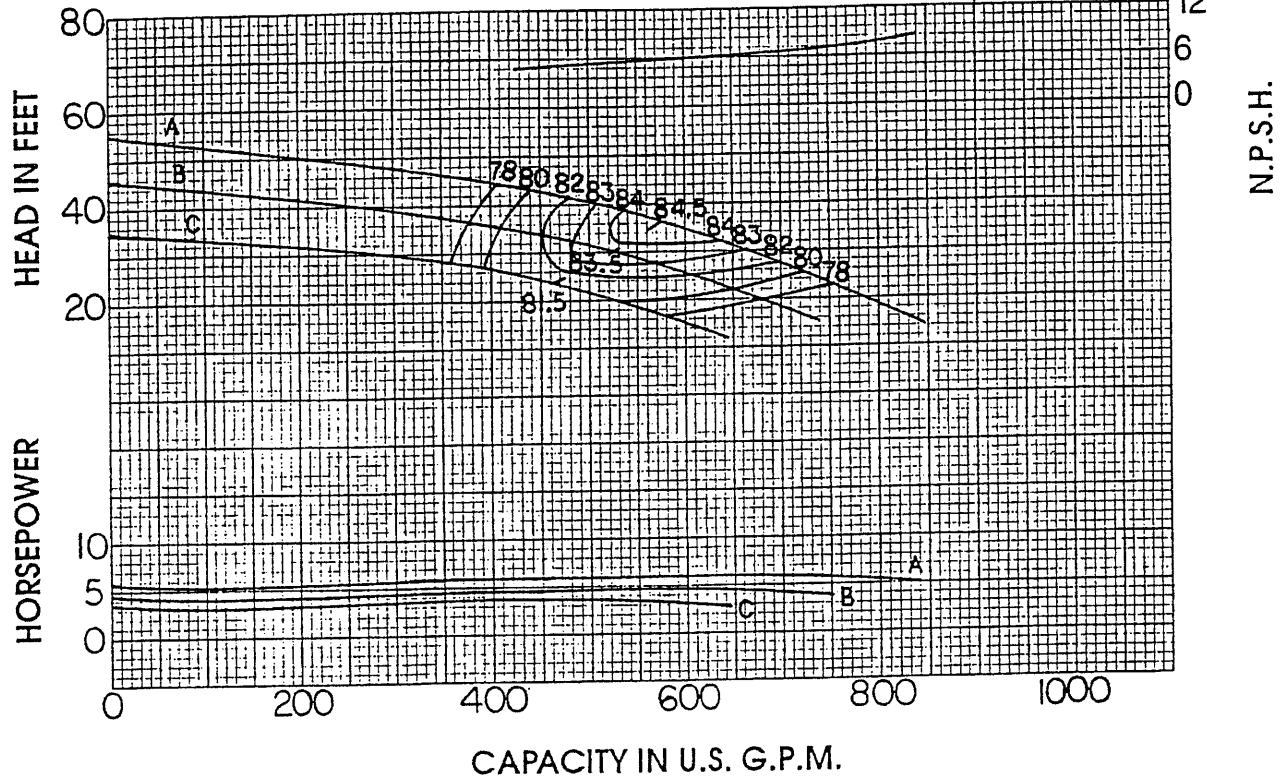
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.750 "
Bowl	11.875 "
Suction Case	10.062 "
Suction Bell	8.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	250 #
Additional Stage	100 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.562 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	0.000 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

10-550  
1760 RPM

## Performance Curves



Impeller Data	
Impeller Number	10-550
Type	Enclosed
Diameter: A =	7.750 "
B =	7.250 "
C =	6.650 "
Thrust Constant (K)	5.32 pounds/foot of head
Impeller Weight	8.90 #
Number of Vanes	6
Specific Speed (Ns)	2908
Effective Eye Area	15.18 square inches
W(r sq.)	.369 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-H
Connection Type	Bolted
Outside Diameter:	nominal 9.800 "
	minimum 9.562 "
Column Pipe Size:	standard 6 "
	maximum 8 "
Suction Pipe Size:	standard 8 "
	maximum 8 "
Shaft Size:	standard 1.5 "
	maximum 1.75 "
Lateral:	standard .625 "
	maximum .750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.610 "
Maximum No. Stages (std. const.)	39
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	722 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

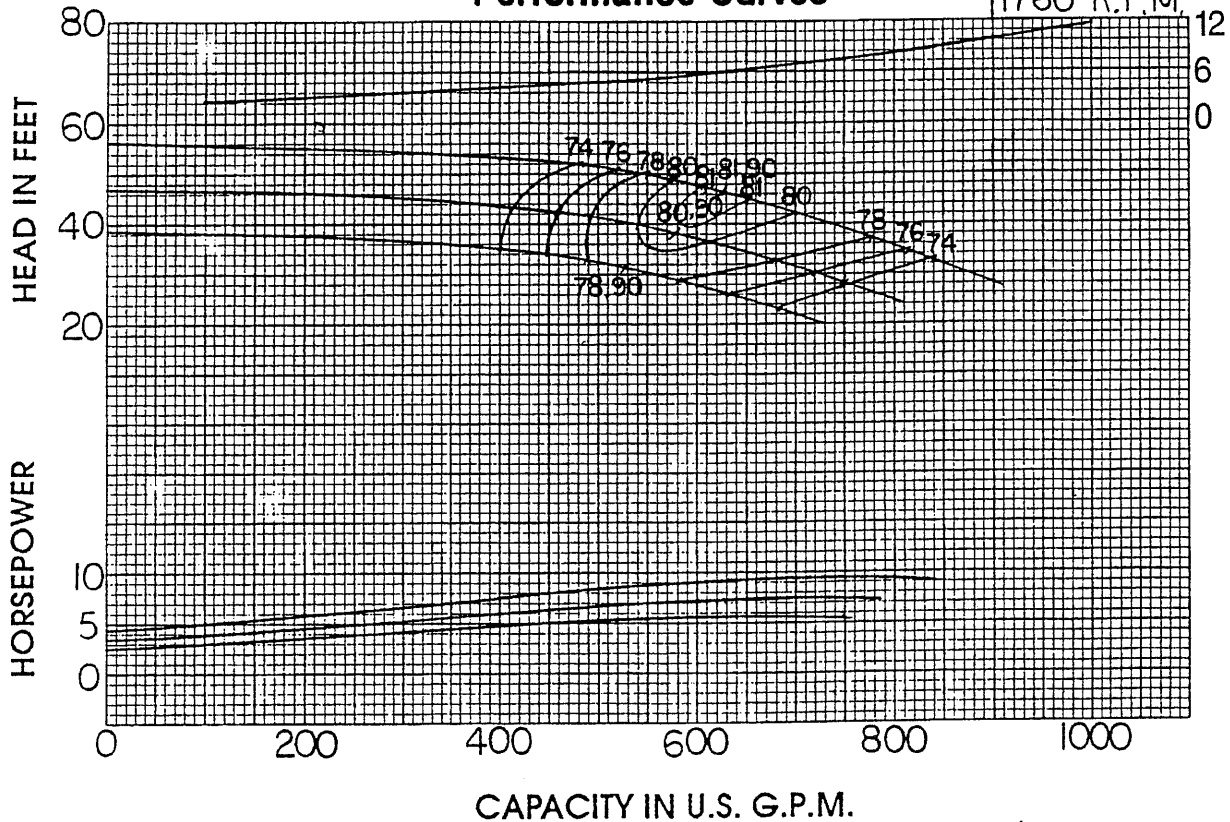
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	8.750 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	175 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.625 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10-600  
1760 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	10-600
Type	Enclosed
Diameter: A =	7.850 "
B =	7.350 "
C =	6.850 "
Thrust Constant (K)	5.10 pounds/foot of head
Impeller Weight	9.50 #
Number of Vanes	8
Specific Speed (Ns)	2742
Effective Eye Area	14.14 square inches
W(r sq.)	.790 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.679 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-M
Connection Type	Bolted
Outside Diameter: nominal	9.750 "
minimum	9.625 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.5 "
maximum	1.5 "
Lateral: standard	.875 "
maximum	1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.820 "
Maximum No. Stages (std. const.)	24
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	800 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

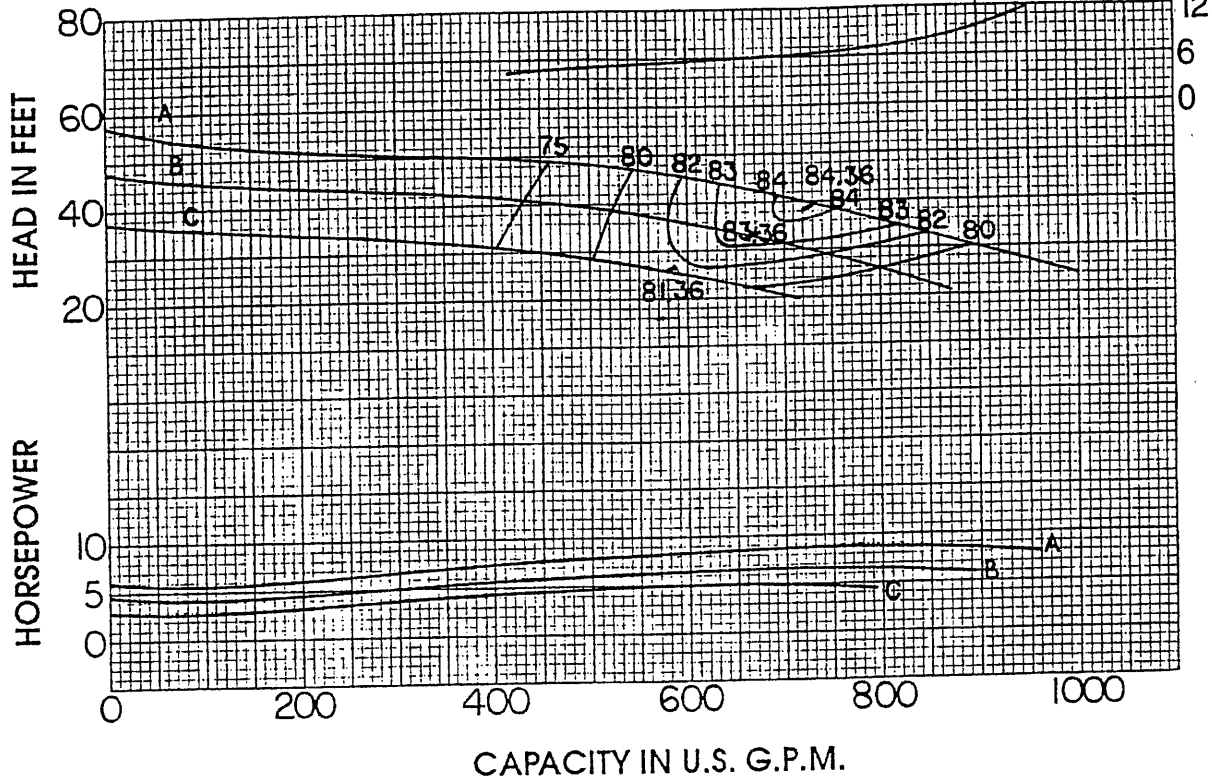
General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.500 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	4.000 "	<b>Standard Construction Materials</b>	
Bowl	8.500 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	8.750 "	Impeller	C83800 br.
Suction Bell	6.500 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	11.125 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	160 #	Cap Screw	grade 5
Additional Stage	70 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	2.250 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	0.000 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10-750  
1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	10-750
Type	Enclosed
Diameter: A =	7.750 "
B =	7.250 "
C =	6.650 "
Thrust Constant (K)	5.30 pounds/foot of head
Impeller Weight	8.60 #
Number of Vanes	7
Specific Speed (Ns)	2842
Effective Eye Area	14.92 square inches
W(r sq.)	.321 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-H
Connection Type	Bolted
Outside Diameter: nominal	9.800 "
minimum	9.562 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	8 "
maximum	8 "
Shaft Size: standard	1.5 "
maximum	1.75 "
Lateral: standard	.625 "
maximum	.750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.610 "
Maximum No. Stages (std. const.)	26
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	704 ft.

Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	8.750 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	175 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.625 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

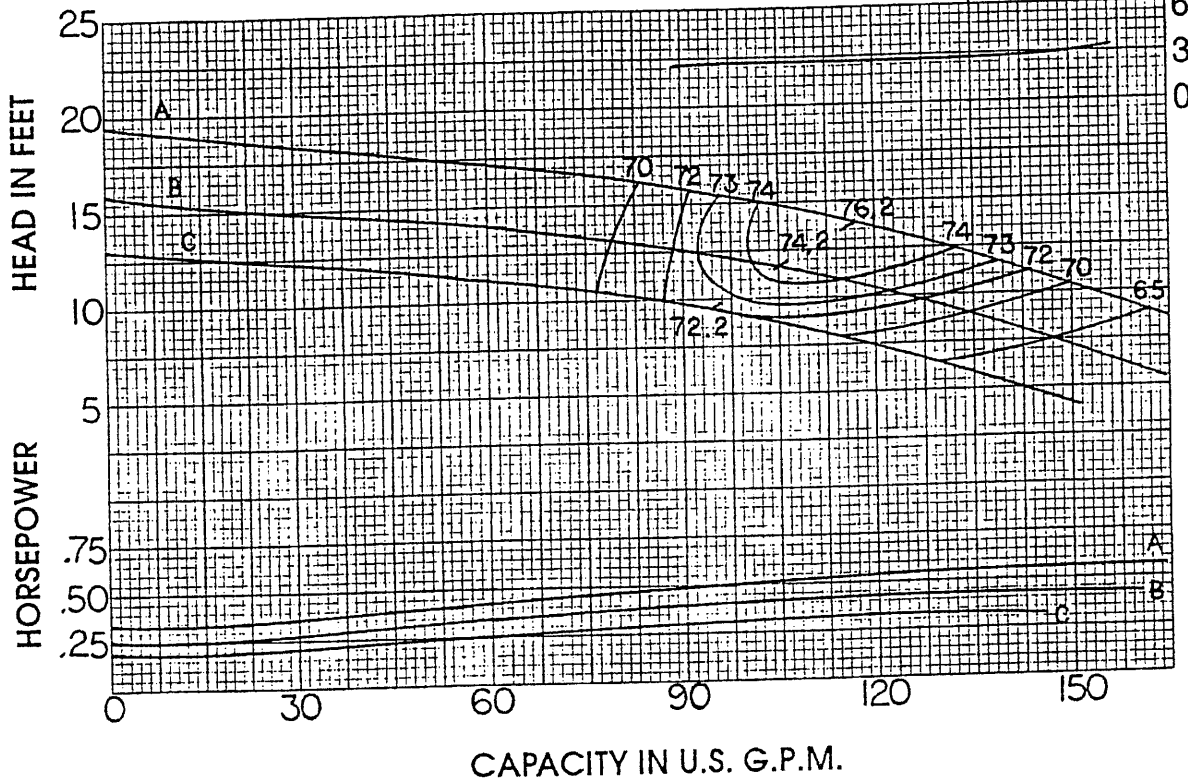
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## Performance Curves

6-120

1760 R P M

N.P.S.H.



Impeller Data	
Impeller Number	6-120
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.22 pounds/foot of head
Impeller Weight	2.25 #
Number of Vanes	6
Specific Speed (Ns)	2630
Effective Eye Area	5.66 square inches
W(r sq.)	.029 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter: nominal	5.700 "
minimum	5.625 "
Column Pipe Size: standard	3 "
maximum	4 "
Suction Pipe Size: standard	3 "
maximum	4 "
Shaft Size: standard	1 "
maximum	1 "
Lateral: standard	.438 "
maximum	.562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.010 "
Maximum Sphere Size	.450 "
Maximum No. Stages (std. const.)	117
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.985 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

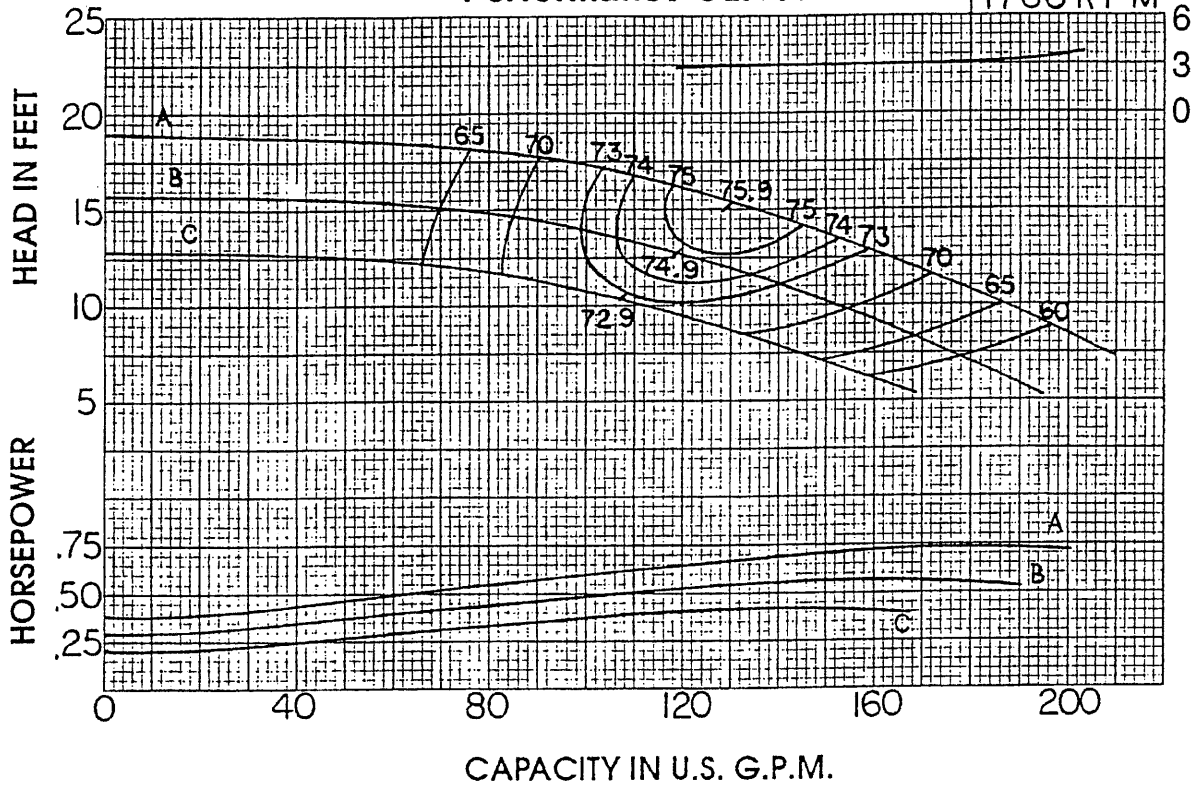


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6-130  
1760 RPM



Impeller Data	
Impeller Number	6-130
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.23 pounds/foot of head
Impeller Weight	2.45 #
Number of Vanes	7
Specific Speed (Ns)	2698
Effective Eye Area	3.84 square inches
W(r sq.)	.031 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter: nominal	5.700 "
minimum	5.625 "
Column Pipe Size: standard	3 "
maximum	4 "
Suction Pipe Size: standard	3 "
maximum	4 "
Shaft Size: standard	1 "
maximum	1 "
Lateral: standard	.438 "
maximum	.562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.010 "
Maximum Sphere Size	.300 "
Maximum No. Stages (std. const.)	88
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

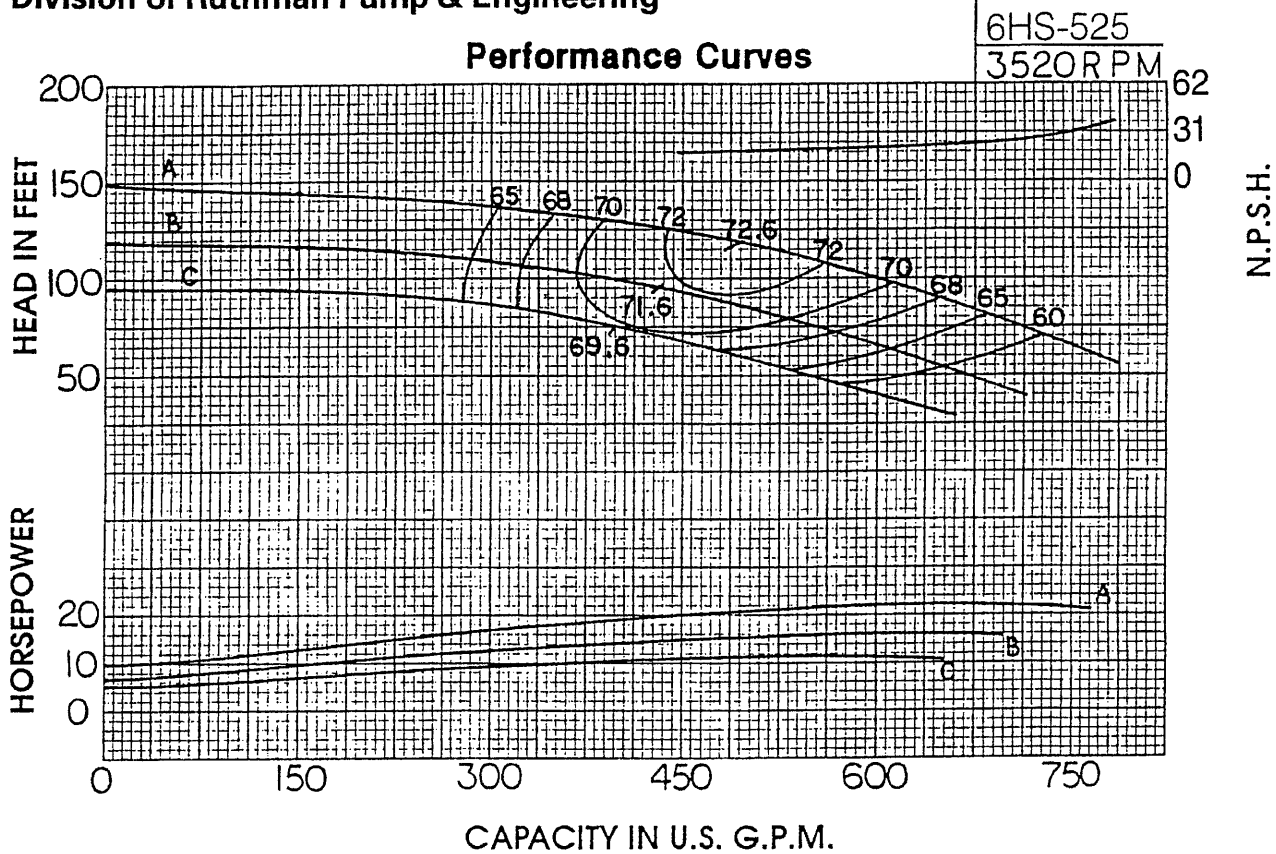
Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	2.125 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	8.875 "	<b>Standard Construction Materials</b>	
Bowl	4.875 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	8.000 "	Impeller	C83800 br.
Suction Bell	6.000 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	9.500 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	60 #	Cap Screw	grade 5
Additional Stage	16 #	Bowl Bearing	buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	0.000 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	C84400 br.
Distance From Impeller Eye to Bottom of Bell Suction	6.985 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron



# GUSHER®

Division of Ruthman Pump & Engineering



Impeller Data	
Impeller Number	6HS-525
Type	Enclosed
Diameter: A =	6.375 "
B =	5.875 "
C =	5.475 "
Thrust Constant (K)	2.90 pounds/foot of head
Impeller Weight	5.00 #
Number of Vanes	8
Specific Speed (Ns)	2240
Effective Eye Area	7.74 square inches
W(r sq.)	.130 lbs.-ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data		
Bowl Number	8-L	
Connection Type	Threaded	
Outside Diameter: nominal	7.950 "	
minimum	7.625 "	
Column Pipe Size: standard	4 "	
maximum	8 "	
Suction Pipe Size: standard	6 "	
maximum	6 "	
Shaft Size: standard	1.25 "	
maximum	1.5 "	
Lateral: standard	.500 "	
maximum	.625 "	
Shaft Bearing Clearance	.010 "	
Impeller Skirt Clearance	.015 "	
Maximum Sphere Size	.440 "	
Maximum No. Stages (std. const.)	12	
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1305 ft.	

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

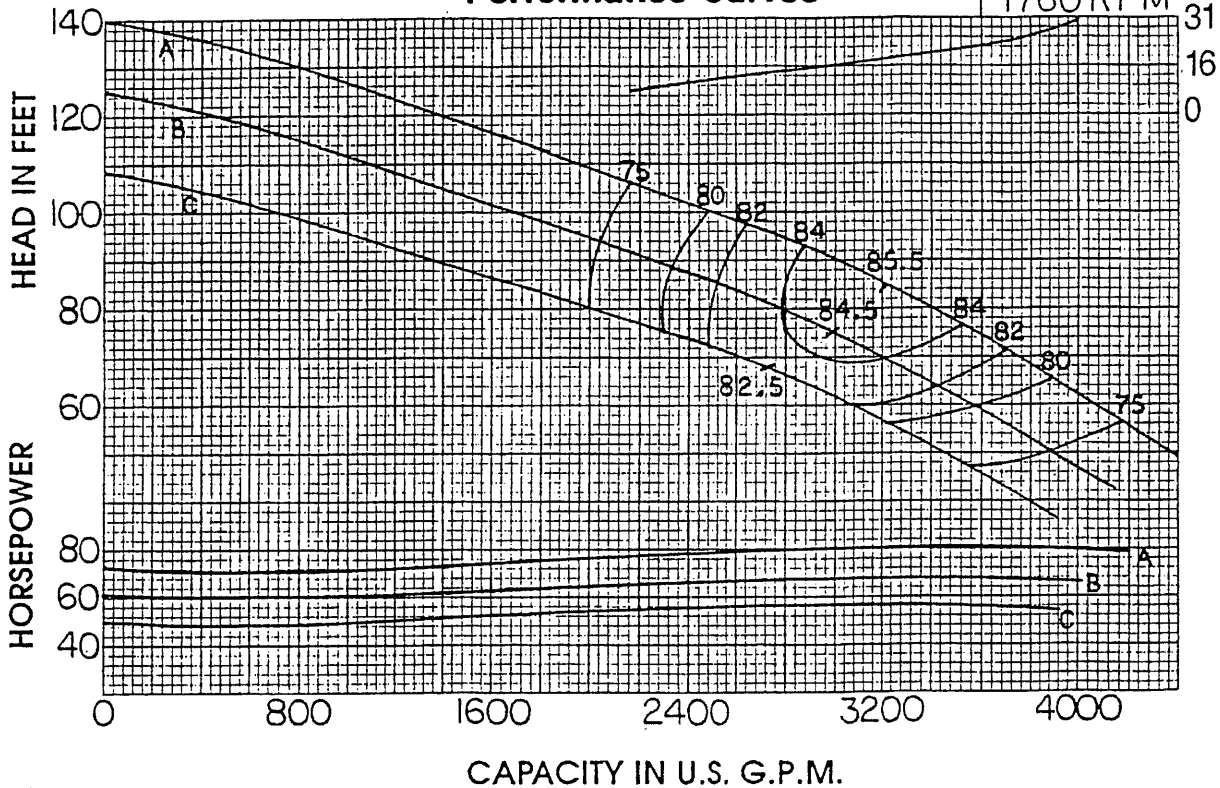
General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.625 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	3.937 "	<b>Standard Construction Materials</b>	
Bowl	7.125 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	8.125 "	Impeller	C83800 br.
Suction Bell	6.750 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	10.375 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	130 #	Cap Screw	grade 5
Additional Stage	47 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	0.500 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	7.500 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

14-3200  
1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	14-3200
Type	Enclosed
Diameter: A =	11.615 "
B =	11.115 "
C =	10.615 "
Thrust Constant (K)	11.60 pounds/foot of head
Impeller Weight	27.50 #
Number of Vanes	7
Specific Speed (Ns)	3556
Effective Eye Area	41.6 square inches
W(r sq.)	2.300 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	14-M
Connection Type	Bolted
Outside Diameter: nominal	14.312 "
minimum	14.000 "
Column Pipe Size: standard	10 "
maximum	14 "
Suction Pipe Size: standard	12 "
maximum	12 "
Shaft Size: standard	2.187 "
maximum	2.25 "
Lateral: standard	1.000 "
maximum	1.250 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.000 "
Maximum No. Stages (std. const.)	9
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	580 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

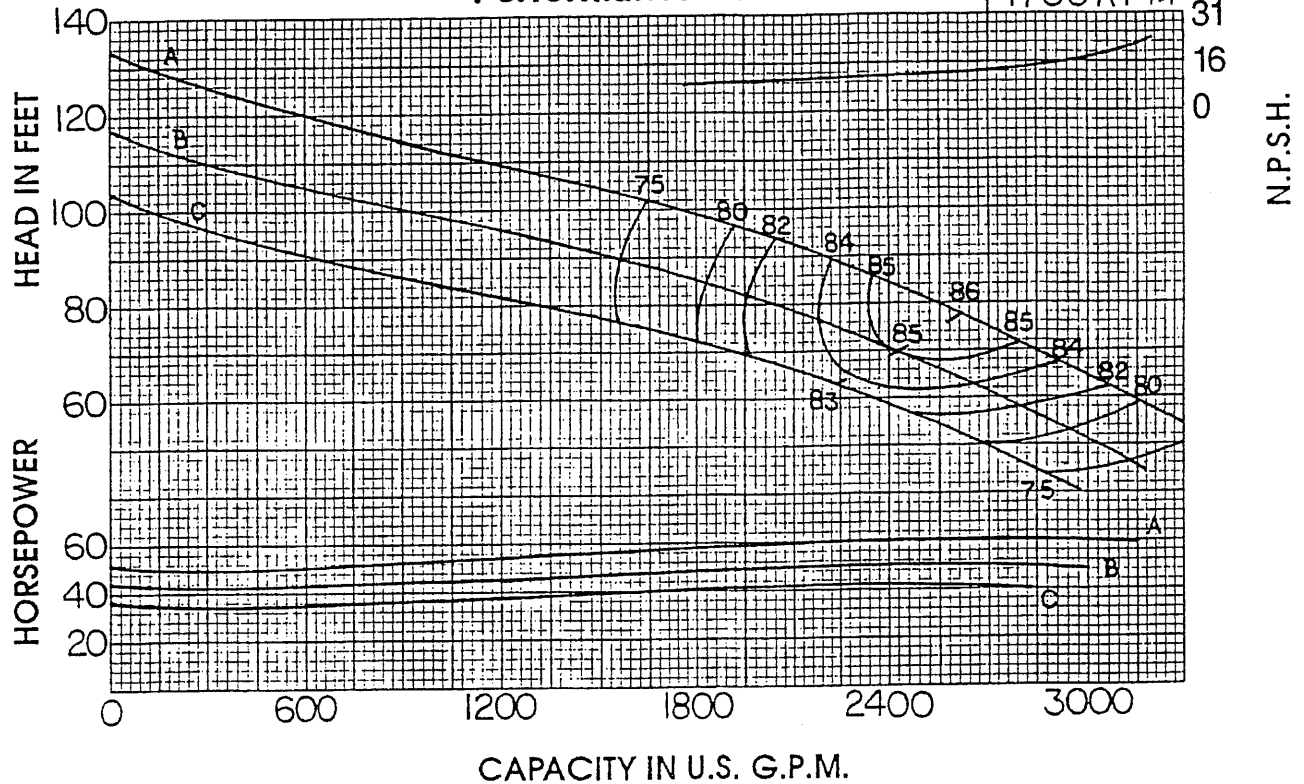
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	5.375 "
Bowl	13.375 "
Suction Case	11.875 "
Suction Bell	9.625 "
Submersible Motor Adapter	17.750 "
<b>Approximate Shipping Weights</b>	
First Stage	425 #
Additional Stage	180 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	9.500 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

14-2700  
1760 RPM



Impeller Data	
Impeller Number	14-2700
Type	Enclosed
Diameter: A =	11.615 "
B =	11.116 "
C =	10.615 "
Thrust Constant (K)	12.50 pounds/foot of head
Impeller Weight	27.50 #
Number of Vanes	6
Specific Speed (Ns)	3406
Effective Eye Area	41.9 square inches
W(r sq.)	2.300 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	14-M
Connection Type	Bolted
Outside Diameter: nominal	14.312 "
minimum	14.000 "
Column Pipe Size: standard	10 "
maximum	14 "
Suction Pipe Size: standard	12 "
maximum	12 "
Shaft Size: standard	2.187 "
maximum	2.25 "
Lateral: standard	1.000 "
maximum	1.250 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.000 "
Maximum No. Stages (std. const.)	12
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	580 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

### General Data

Lengths	
Column Adapter	1.500 "
Discharge Case	5.375 "
Bowl	13.375 "
Suction Case	11.875 "
Suction Bell	9.625 "
Submersible Motor Adapter	17.750 "
Approximate Shipping Weights	
First Stage	425 #
Additional Stage	180 #
Miscellaneous	
Hub Projection on Bell Suction	1.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	9.500 "

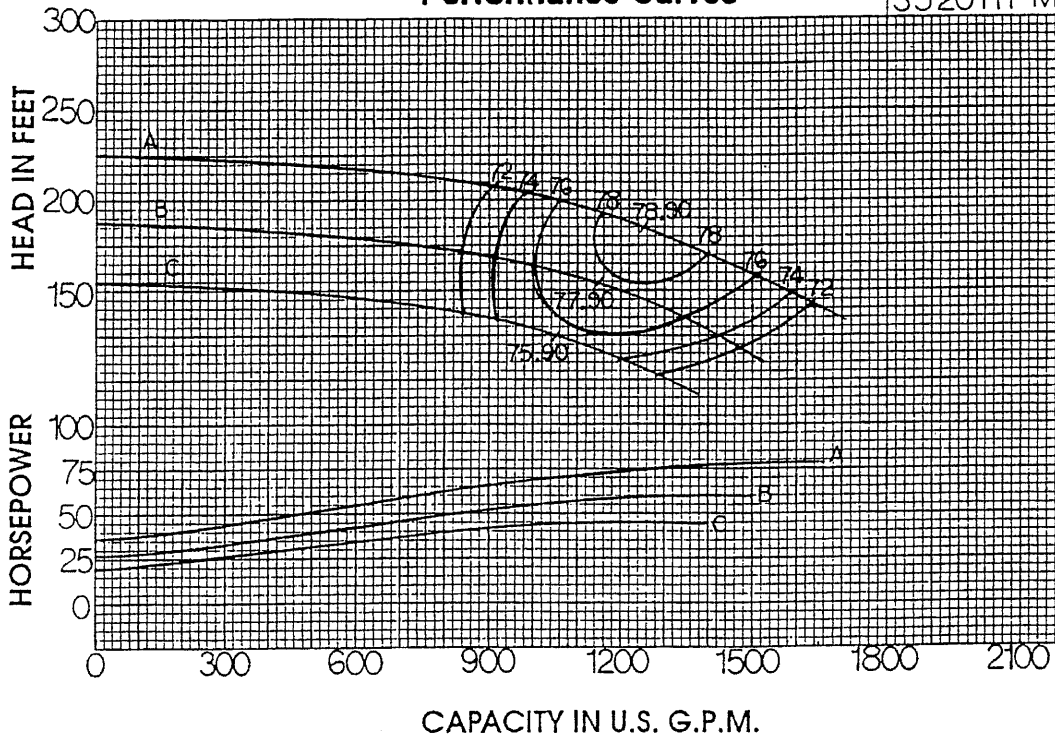
Operational	
Minimum Required Submergence	CONSULT FACTORY
Standard Construction Materials	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

10HS-1200  
3520 RPM

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	10HS-1200
Type	Enclosed
Diameter: A =	0.000 "
B =	0.000 "
C =	0.000 "
Thrust Constant (K)	0.00 pounds/foot of head
Impeller Weight	0.00 #
Number of Vanes	0
Specific Speed (Ns)	0
Effective Eye Area	0 square inches
W(r sq.)	.000 lbs. -ft. sq.
Eye Fluid Velocity	0.00 ft./sec./g.p.m.
Peripheral Velocity	0 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-M
Connection Type	Bolted
Outside Diameter: nominal	0.000 "
minimum	0.000 "
Column Pipe Size: standard	0 "
maximum	0 "
Suction Pipe Size: standard	0 "
maximum	0 "
Shaft Size: standard	0 "
maximum	0 "
Lateral: standard	.000 "
maximum	.000 "
Shaft Bearing Clearance	.000 "
Impeller Skirt Clearance	.000 "
Maximum Sphere Size	.000 "
Maximum No. Stages (std. const.)	0
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	0 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

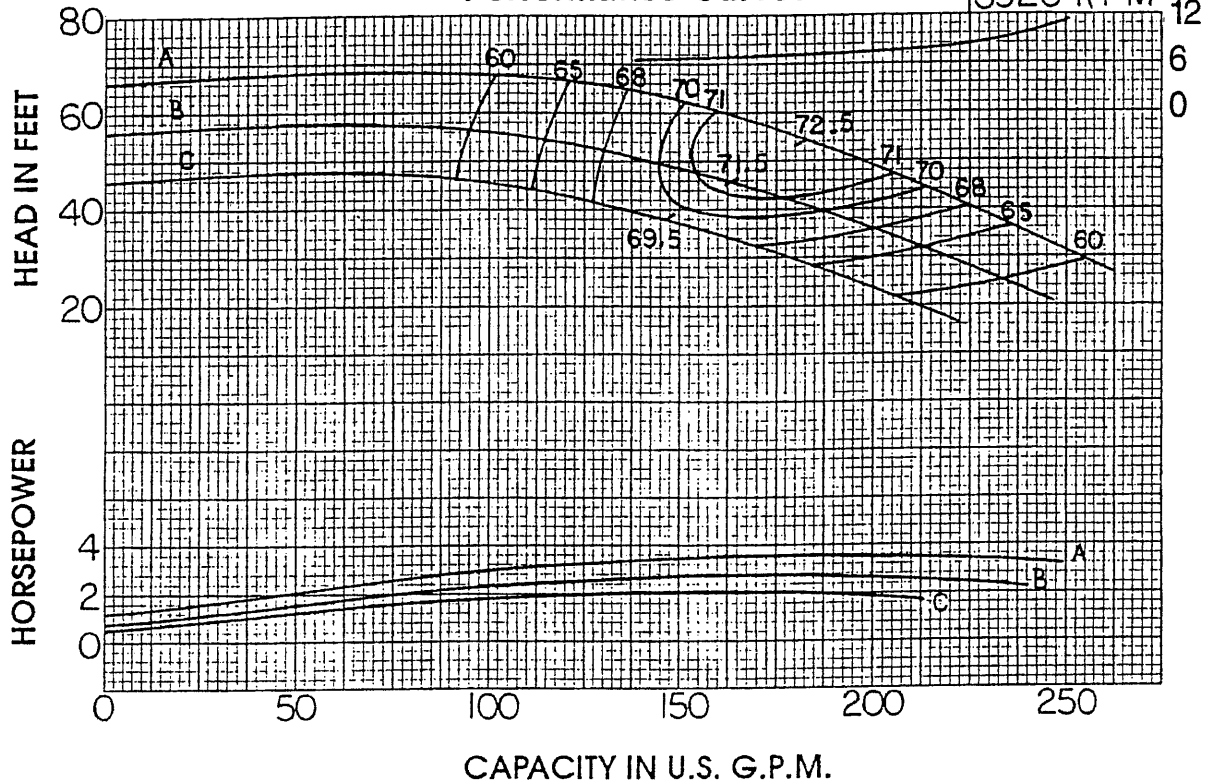
General Data		
Lengths		Operational
Column Adapter	0.000 "	Minimum Required Submergence
Discharge Case	0.000 "	CONSULT FACTORY
Bowl	0.000 "	Standard Construction Materials
Suction Case	0.000 "	Bowl
Suction Bell	0.000 "	Impeller
Submersible Motor Adapter	0.000 "	Bowl Shaft
Approximate Shipping Weights		Shaft Coupling
First Stage	0 #	Lock Collar
Additional Stage	0 #	Cap Screw
Miscellaneous		Bowl Bearing
Hub Projection on Bell Suction	0.000 "	Suction/Submersible Motor Adapter Bearing
Cable Guard Height	.000 "	Throttle Bearing
Distance From Impeller Eye to Bottom of Bell Suction	0.000 "	Sand Collar
		Column Adapter/Discharge Case/Suction Case
		Submersible Motor Adapter
		Tube Adapter

# GUSHER®

Division of Ruthman Pump & Engineering

6HS-175  
3520 RPM

## Performance Curves



N.P.S.H.

Impeller Data	
Impeller Number	6HS-175
Type	Enclosed
Diameter: A =	4.470 "
B =	4.170 "
C =	3.870 "
Thrust Constant (K)	1.75 pounds/foot of head
Impeller Weight	1.75 #
Number of Vanes	8
Specific Speed (Ns)	1762
Effective Eye Area	3.55 square inches
W(r sq.)	.023 lbs. -ft. sq.
Eye Fluid Velocity	0.09 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-L
Connection Type	
Outside Diameter: nominal	5.700 "
minimum	5.625 "
Column Pipe Size: standard	3 "
maximum	4 "
Suction Pipe Size: standard	3 "
maximum	4 "
Shaft Size: standard	1 "
maximum	1 "
Lateral: standard	.500 "
maximum	.625 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.230 "
Maximum No. Stages (std. const.)	36
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1400 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

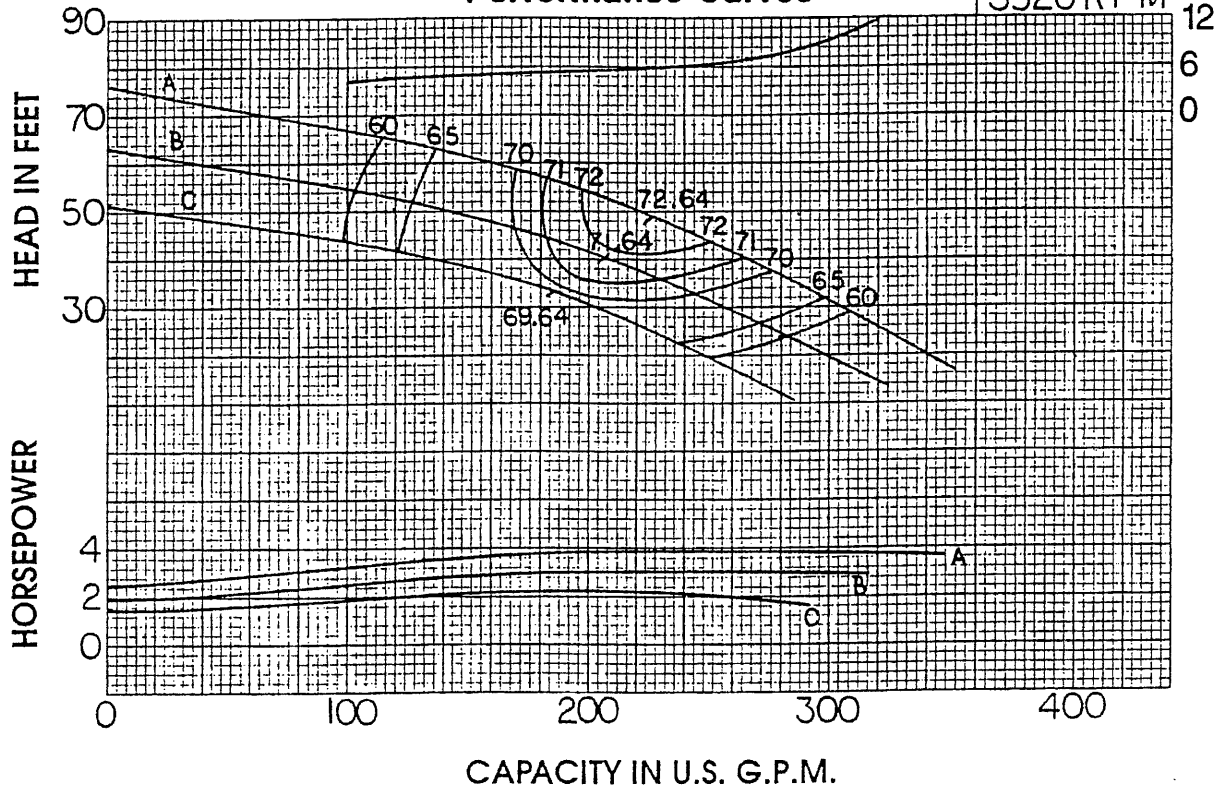
General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	2.125 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	8.875 "	<b>Standard Construction Materials</b>	
Bowl	4.875 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	8.000 "	Impeller	C83800 br.
Suction Bell	6.000 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	9.500 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	60 #	Cap Screw	grade 5
Additional Stage	16 #	Bowl Bearing	buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	0.000 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	C84400 br.
Distance From Impeller Eye to Bottom of Bell Suction	6.844 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6HS-220  
3520 R.P.M.



Impeller Data	
Impeller Number	6HS-220
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.21 pounds/foot of head
Impeller Weight	2.15 #
Number of Vanes	5
Specific Speed (Ns)	2289
Effective Eye Area	5.66 square inches
W(r sq.)	.027 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .438 "
	maximum .562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.500 "
Maximum No. Stages (std. const.)	33
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.985 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron



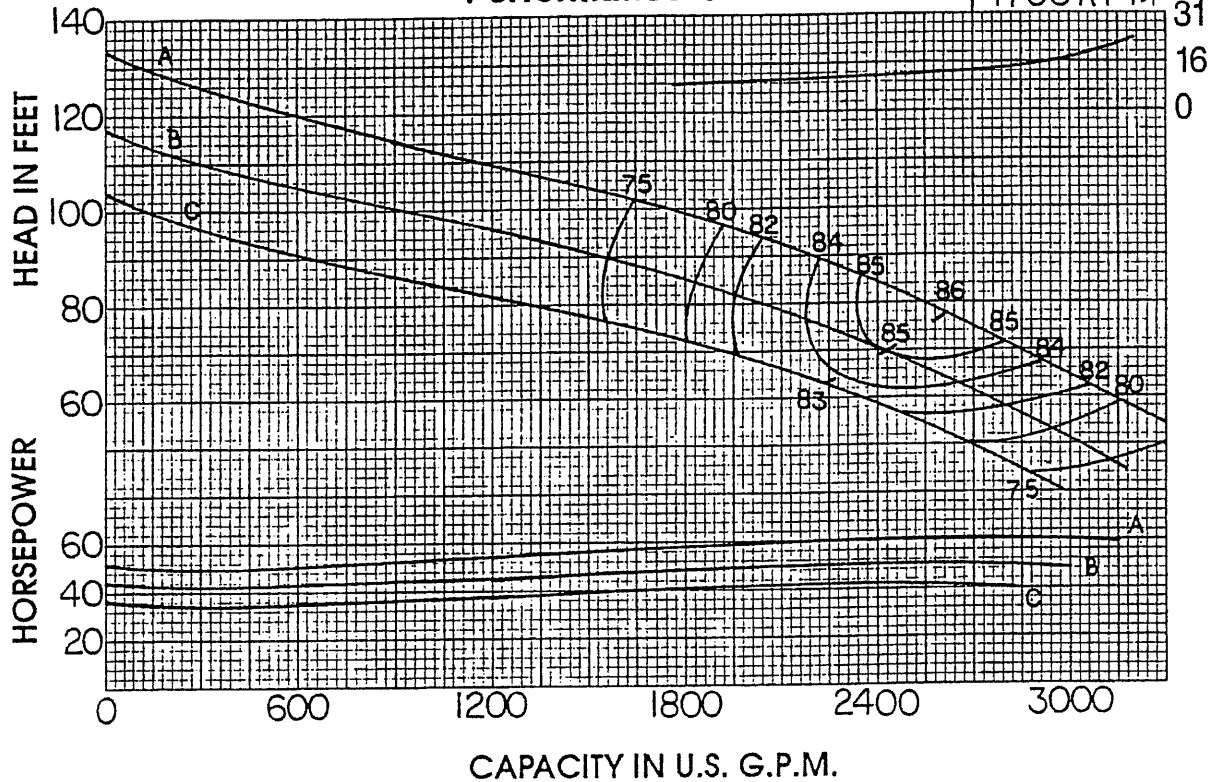
# GUSHER®

Division of Ruthman Pump & Engineering

14-2700

1760RPM

## Performance Curves



Impeller Data	
Impeller Number	14-2700
Type	Enclosed
Diameter: A =	11.615 "
B =	11.116 "
C =	10.615 "
Thrust Constant (K)	12.50 pounds/foot of head
Impeller Weight	27.50 #
Number of Vanes	6
Specific Speed (Ns)	3406
Effective Eye Area	41.9 square inches
W(r sq.)	2.300 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	14-M
Connection Type	Bolted
Outside Diameter:	nominal 14.312 "
	minimum 14.000 "
Column Pipe Size:	standard 10 "
	maximum 14 "
Suction Pipe Size:	standard 12 "
	maximum 12 "
Shaft Size:	standard 2.187 "
	maximum 2.25 "
Lateral:	standard 1.000 "
	maximum 1.250 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.000 "
Maximum No. Stages (std. const.)	12
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	580 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	5.375 "
Bowl	13.375 "
Suction Case	11.875 "
Suction Bell	9.625 "
Submersible Motor Adapter	17.750 "
<b>Approximate Shipping Weights</b>	
First Stage	425 #
Additional Stage	180 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	1.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	9.500 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

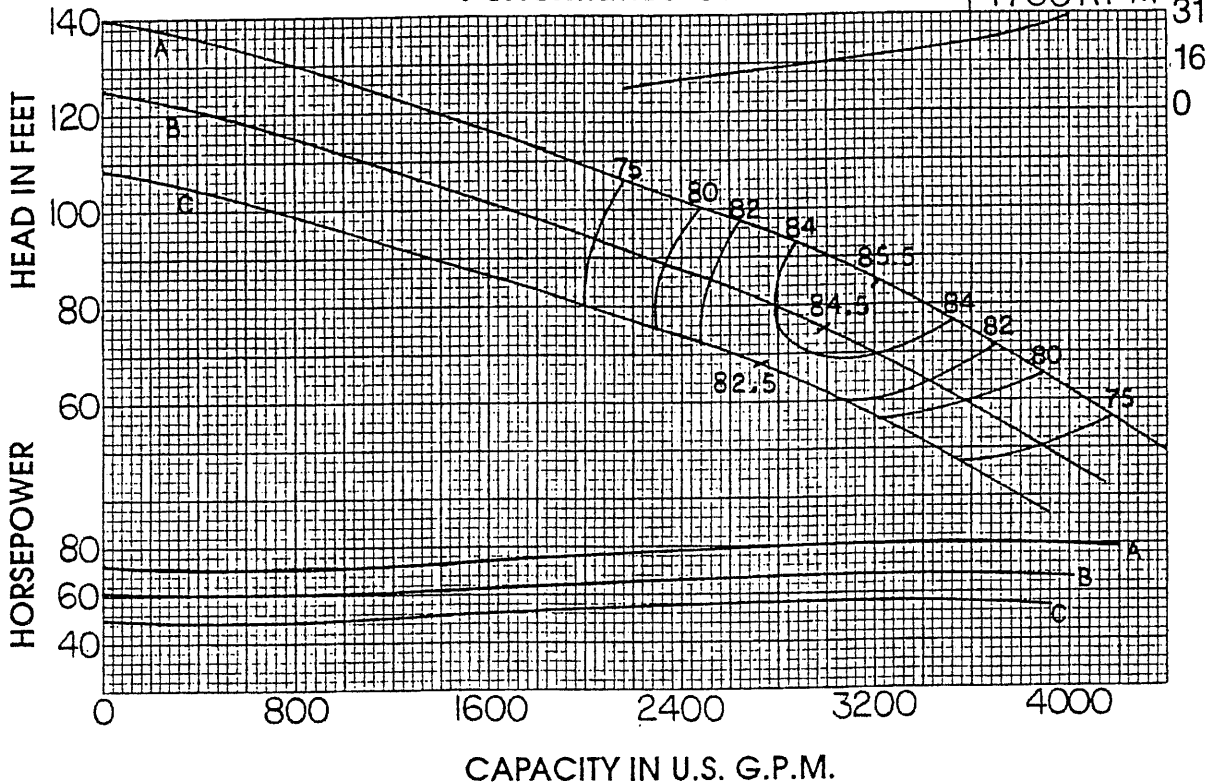


# GUSHER®

Division of Ruthman Pump & Engineering

14-3200  
1760 RPM

## Performance Curves



Impeller Data	
Impeller Number	14-3200
Type	Enclosed
Diameter: A =	11.615 "
B =	11.115 "
C =	10.615 "
Thrust Constant (K)	11.60 pounds/foot of head
Impeller Weight	27.50 #
Number of Vanes	7
Specific Speed (Ns)	3556
Effective Eye Area	41.6 square inches
W(r sq.)	2.300 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	14-M
Connection Type	Bolted
Outside Diameter:	nominal 14.312 "
	minimum 14.000 "
Column Pipe Size:	standard 10 "
	maximum 14 "
Suction Pipe Size:	standard 12 "
	maximum 12 "
Shaft Size:	standard 2.187 "
	maximum 2.25 "
Lateral:	standard 1.000 "
	maximum 1.250 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.000 "
Maximum No. Stages (std. const.)	9
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	580 ft.

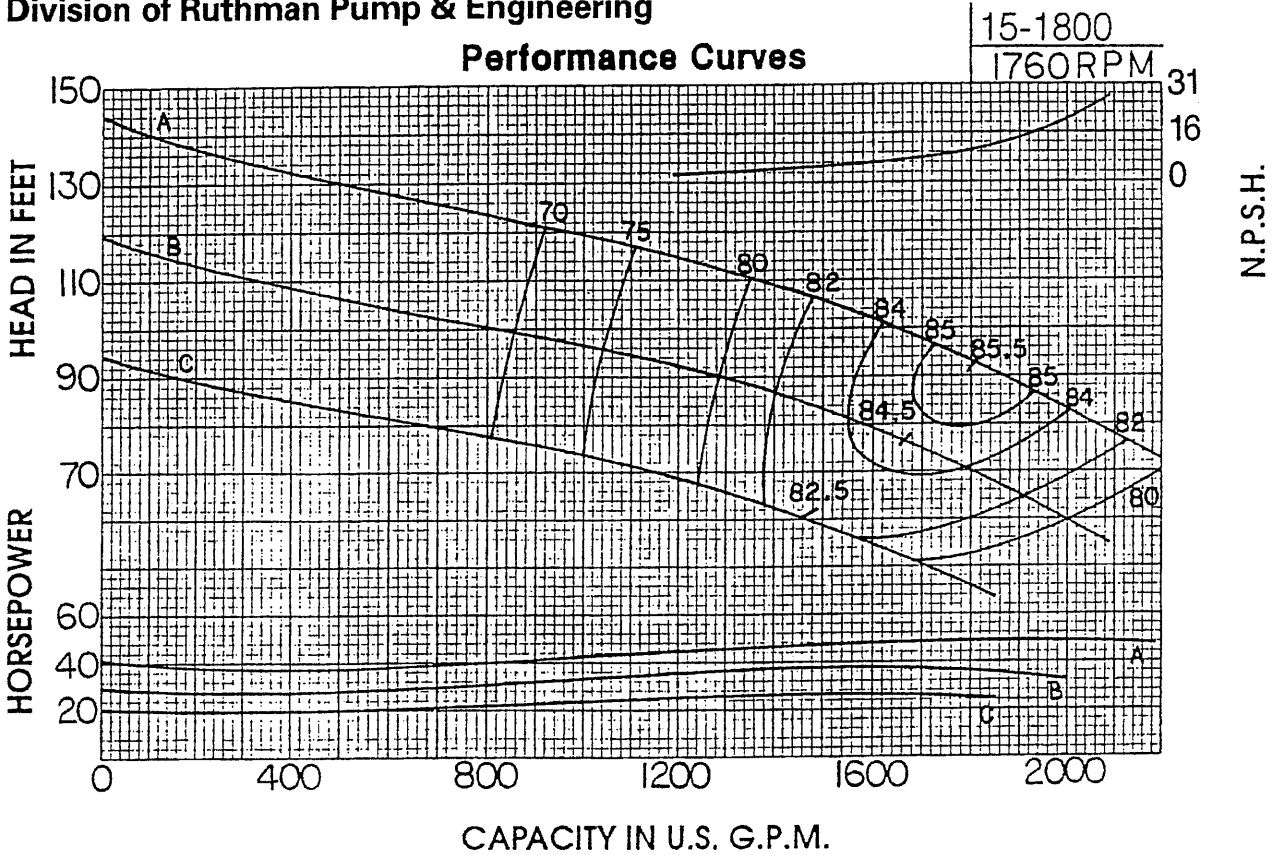
Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.500 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	5.375 "	<b>Standard Construction Materials</b>	
Bowl	13.375 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	11.875 "	Impeller	C83800 br.
Suction Bell	9.625 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	17.750 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	425 #	Cap Screw	grade 5
Additional Stage	180 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	1.000 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	9.500 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves



Impeller Data	
Impeller Number	15-1800
Type	Enclosed
Diameter: A =	11.850 "
B =	11.050 "
C =	10.250 "
Thrust Constant (K)	9.38 pounds/foot of head
Impeller Weight	25.00 #
Number of Vanes	5
Specific Speed (Ns)	2523
Effective Eye Area	31.85 square inches
W(r sq.)	2.233 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

Bowl Data	
Bowl Number	15-M
Connection Type	Bolted
Outside Diameter:	nominal 14.870 "
	minimum 14.620 "
Column Pipe Size:	standard 10 "
	maximum 14 "
Suction Pipe Size:	standard 12 "
	maximum 12 "
Shaft Size:	standard 2.187 "
	maximum 2.25 "
Lateral:	standard .875 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.125 "
Maximum No. Stages (std. const.)	15
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	650 ft.

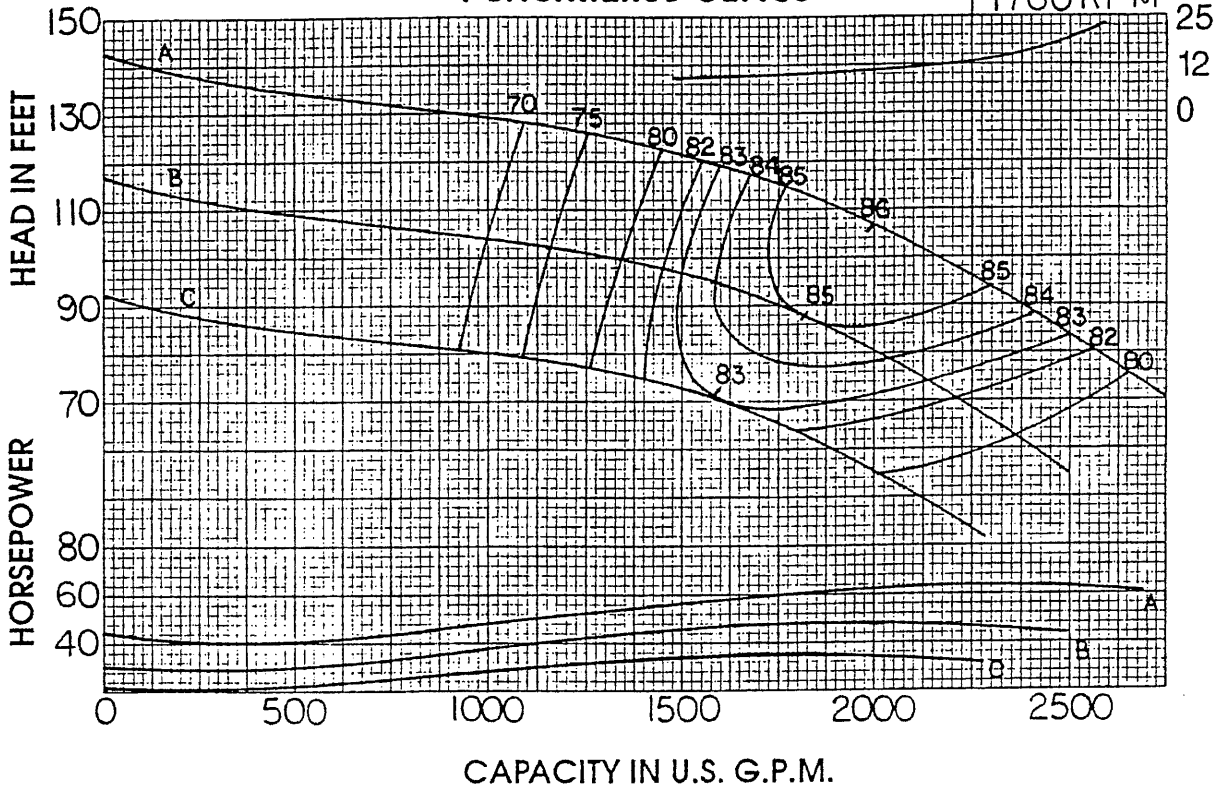
General Data			
<b>Lengths</b>		<b>Operational</b>	
Column Adapter	1.500 "	Minimum Required Submergence	CONSULT FACTORY
Discharge Case	5.500 "	<b>Standard Construction Materials</b>	
Bowl	12.750 "	Bowl	A48-30 c. i. (porcelain)
Suction Case	11.875 "	Impeller	C83800 br.
Suction Bell	9.625 "	Bowl Shaft	416 stainless steel
Submersible Motor Adapter	17.750 "	Shaft Coupling	C1215 steel
<b>Approximate Shipping Weights</b>		Lock Collet	C1215 steel
First Stage	425 #	Cap Screw	grade 5
Additional Stage	180 #	Bowl Bearing	C84400 br./buna-N A40
<b>Miscellaneous</b>		Suction/Submersible Motor Adapter Bearing	C84400 br.
Hub Projection on Bell Suction	1.000 "	Throttle Bearing	C84400 br.
Cable Guard Height	.500 "	Sand Collar	polyethylene
Distance From Impeller Eye to Bottom of Bell Suction	9.750 "	Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
		Submersible Motor Adapter	A48-30 c. i.
		Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

15-2000  
1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	15-2000
Type	Enclosed
Diameter: A =	11.850 "
B =	11.050 "
C =	10.250 "
Thrust Constant (K)	9.74 pounds/foot of head
Impeller Weight	22.50 #
Number of Vanes	7
Specific Speed (Ns)	2519
Effective Eye Area	31.84 square inches
W(r sq.)	2.233 lbs. -ft. sq.
Eye Fluid Velocity	0.01 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	15-M
Connection Type	Bolted
Outside Diameter:	nominal 14.870 "
	minimum 14.620 "
Column Pipe Size:	standard 10 "
	maximum 14 "
Suction Pipe Size:	standard 12 "
	maximum 12 "
Shaft Size:	standard 2.187 "
	maximum 2.25 "
Lateral:	standard .875 "
	maximum 1.000 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	1.125 "
Maximum No. Stages (std. const.)	11
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	650 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

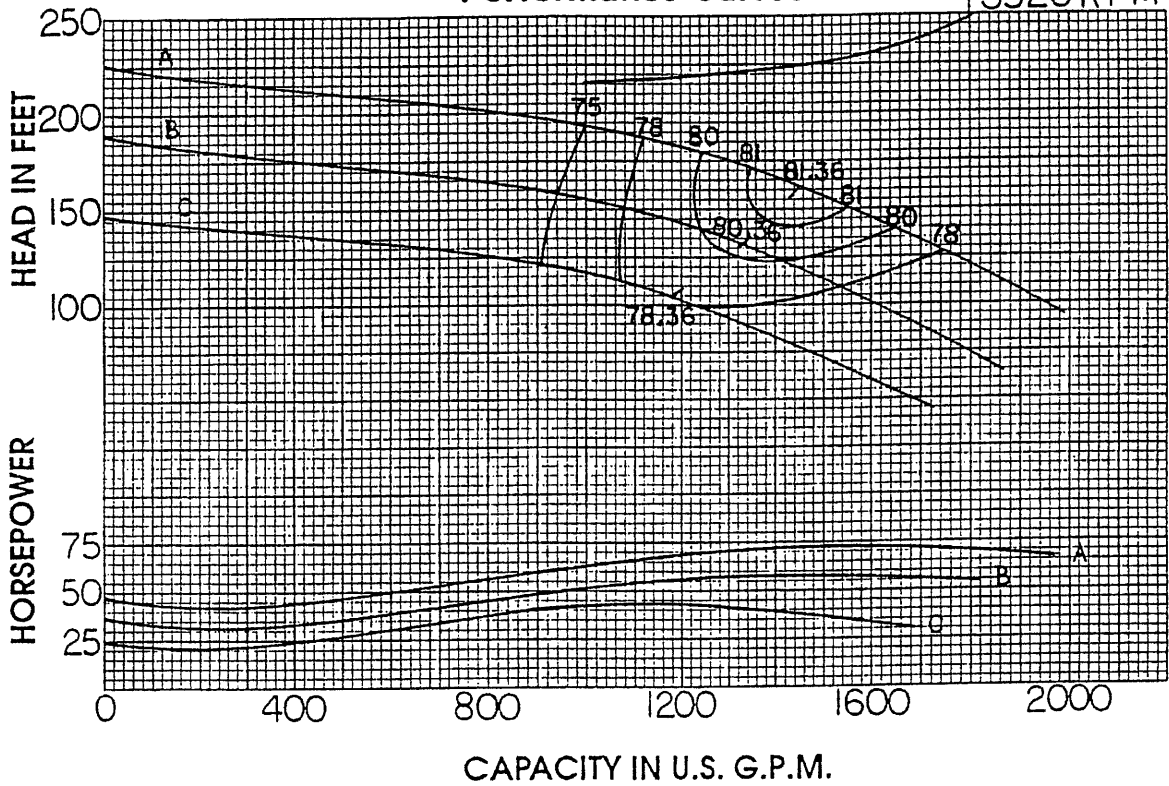
General Data																																	
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# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

10HS-1400  
3520RPM



N.P.S.H.

Impeller Data	
Impeller Number	10HS-1400
Type	Enclosed
Diameter: A =	7.750 "
B =	7.250 "
C =	6.650 "
Thrust Constant (K)	5.30 pounds/foot of head
Impeller Weight	8.60 #
Number of Vanes	7
Specific Speed (Ns)	2842
Effective Eye Area	14.92 square inches
W(r sq.)	.321 lbs. -ft. sq.
Eye Fluid Velocity	0.02 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	10-H
Connection Type	Bolted
Outside Diameter: nominal	9.800 "
minimum	9.562 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.5 "
maximum	1.75 "
Lateral: standard	.625 "
maximum	.750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.610 "
Maximum No. Stages (std. const.)	5
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	704 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

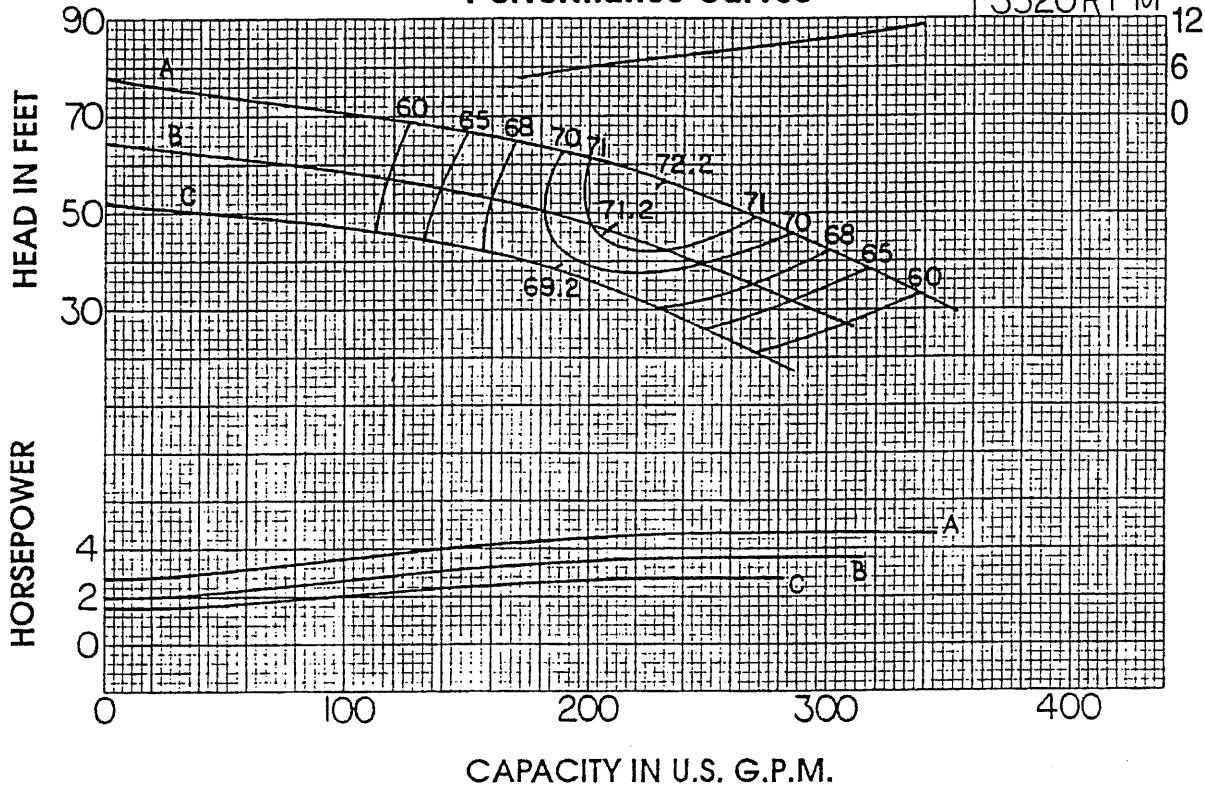
General Data	
<b>Lengths</b>	
Column Adapter	1.500 "
Discharge Case	4.000 "
Bowl	8.750 "
Suction Case	8.750 "
Suction Bell	6.500 "
Submersible Motor Adapter	11.125 "
<b>Approximate Shipping Weights</b>	
First Stage	175 #
Additional Stage	60 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	2.250 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.625 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collar	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6HS-240  
3520RPM



N.P.S.H.

Impeller Data	
Impeller Number	6HS-240
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.22 pounds/foot of head
Impeller Weight	2.25 #
Number of Vanes	6
Specific Speed (Ns)	2295
Effective Eye Area	5.66 square inches
W(r sq.)	.029 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .438 "
	maximum .562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.450 "
Maximum No. Stages (std. const.)	33
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

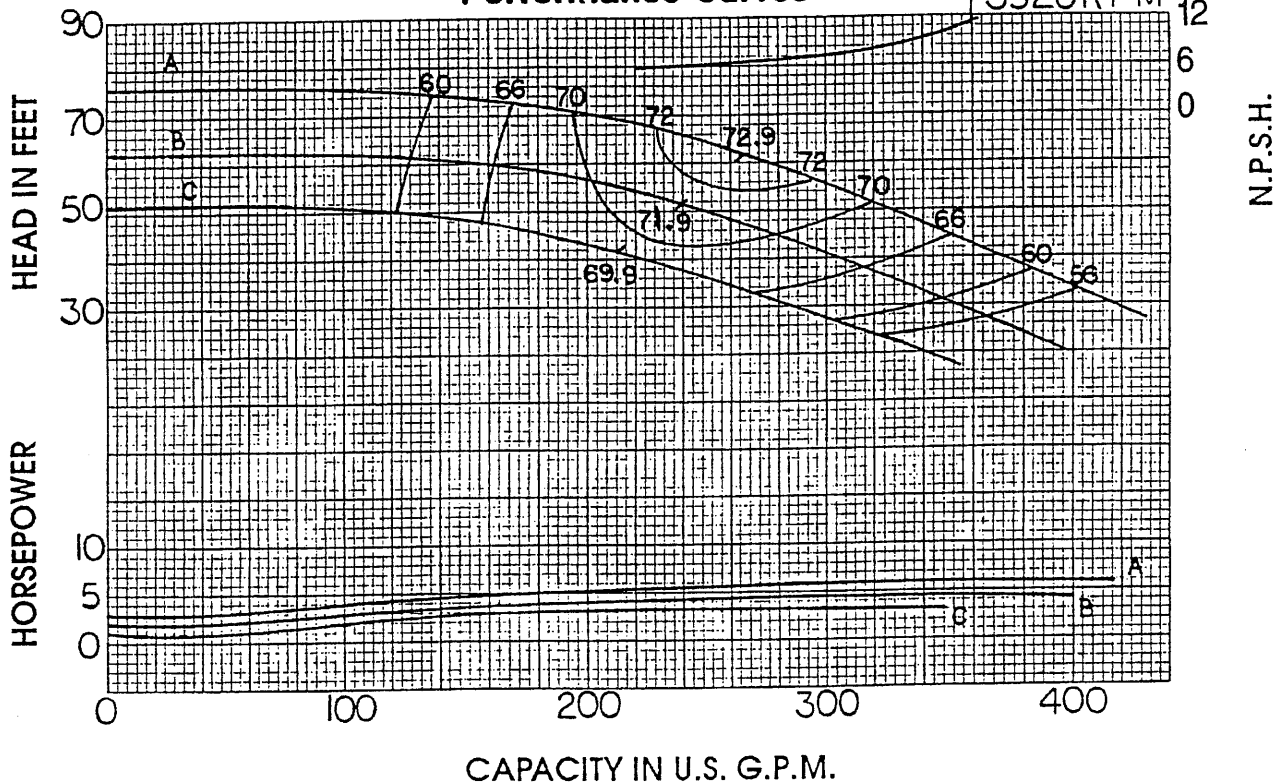
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# GUSHER®

Division of Ruthman Pump & Engineering

6HS-260  
3520RPM

## Performance Curves



Impeller Data	
Impeller Number	6HS-260
Type	Enclosed
Diameter: A =	4.560 "
B =	4.260 "
C =	3.960 "
Thrust Constant (K)	2.23 pounds/foot of head
Impeller Weight	2.45 #
Number of Vanes	7
Specific Speed (Ns)	2292
Effective Eye Area	3.84 square inches
W(r sq.)	.031 lbs. -ft. sq.
Eye Fluid Velocity	0.06 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-H
Connection Type	Threaded
Outside Diameter: nominal	5.700 "
minimum	5.625 "
Column Pipe Size: standard	3 "
maximum	4 "
Suction Pipe Size: standard	3 "
maximum	4 "
Shaft Size: standard	1 "
maximum	1 "
Lateral: standard	.438 "
maximum	.562 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.300 "
Maximum No. Stages (std. const.)	22
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1160 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.985 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

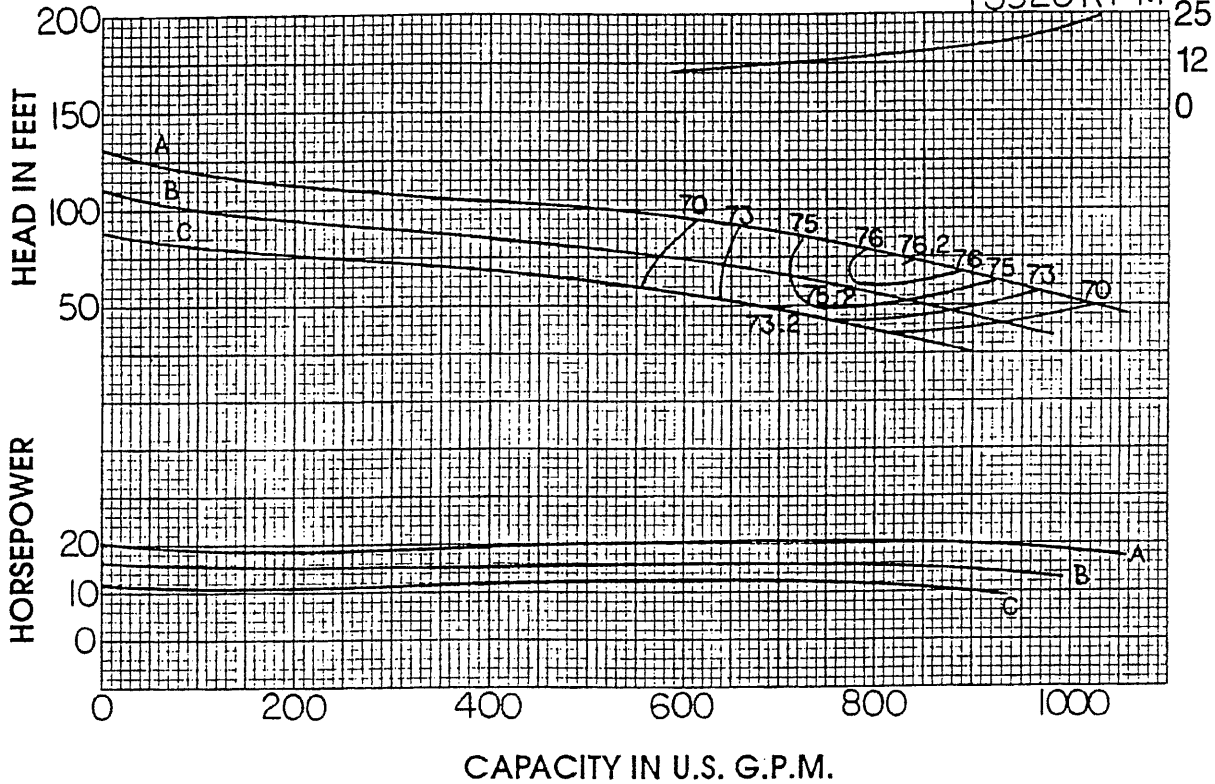


# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

8HS-850  
3520RPM



N.P.S.H.

Impeller Data	
Impeller Number	8HS-850
Type	Enclosed
Diameter: A =	6.145 "
B =	5.745 "
C =	5.345 "
Thrust Constant (K)	4.32 pounds/foot of head
Impeller Weight	3.50 #
Number of Vanes	4
Specific Speed (Ns)	4097
Effective Eye Area	12.79 square inches
W(r sq.)	.201 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-H
Connection Type	Threaded
Outside Diameter: nominal	7.950 "
minimum	7.625 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.25 "
maximum	1.25 "
Lateral: standard	.625 "
maximum	.750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.700 "
Maximum No. Stages (std. const.)	13
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1340 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

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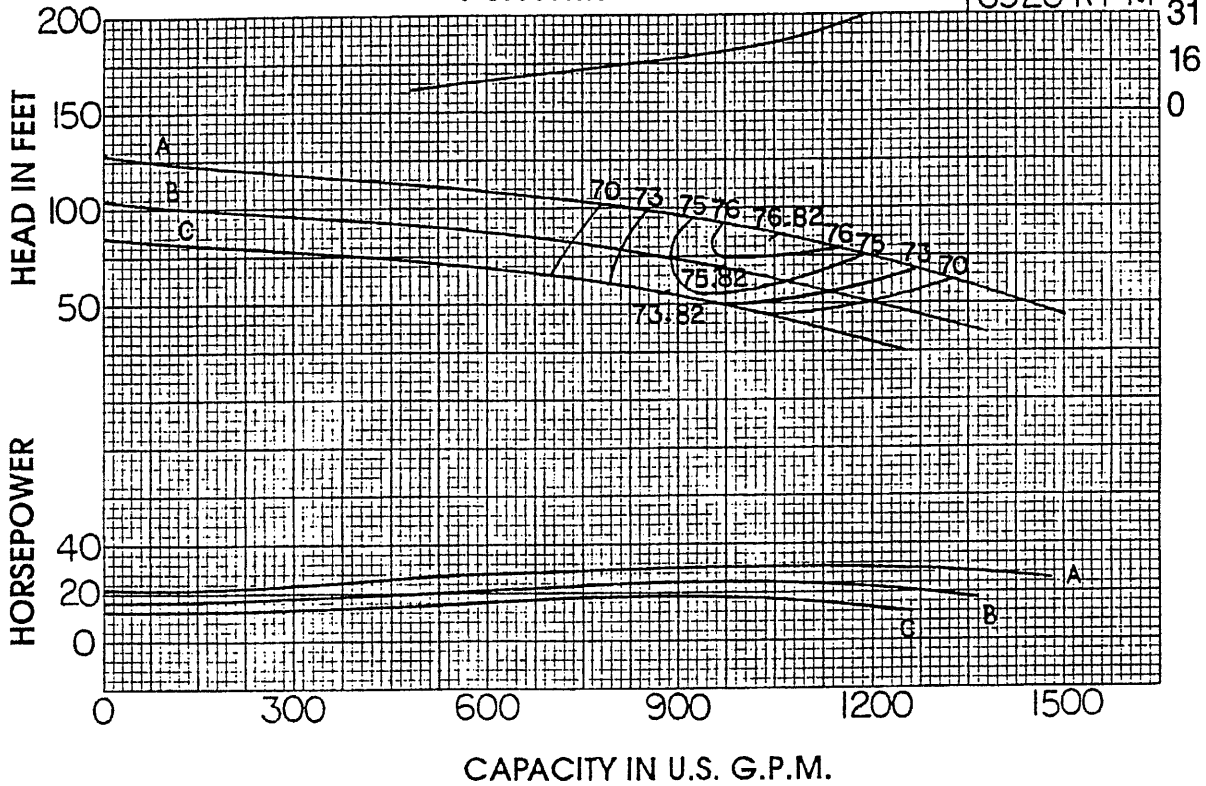
# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

8HS-1050

3520 R.P.M.



N.P.S.H.

Impeller Data	
Impeller Number	8HS-1050
Type	Enclosed
Diameter: A =	6.145 "
B =	5.745 "
C =	5.345 "
Thrust Constant (K)	4.26 pounds/foot of head
Impeller Weight	3.50 #
Number of Vanes	7
Specific Speed (Ns)	3874
Effective Eye Area	12.79 square inches
W(r sq.)	.201 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	15.36 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-H
Connection Type	Threaded
Outside Diameter: nominal	7.950 "
minimum	7.625 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.25 "
maximum	1.25 "
Lateral: standard	.625 "
maximum	.750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.500 "
Maximum No. Stages (std. const.)	8
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1300 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

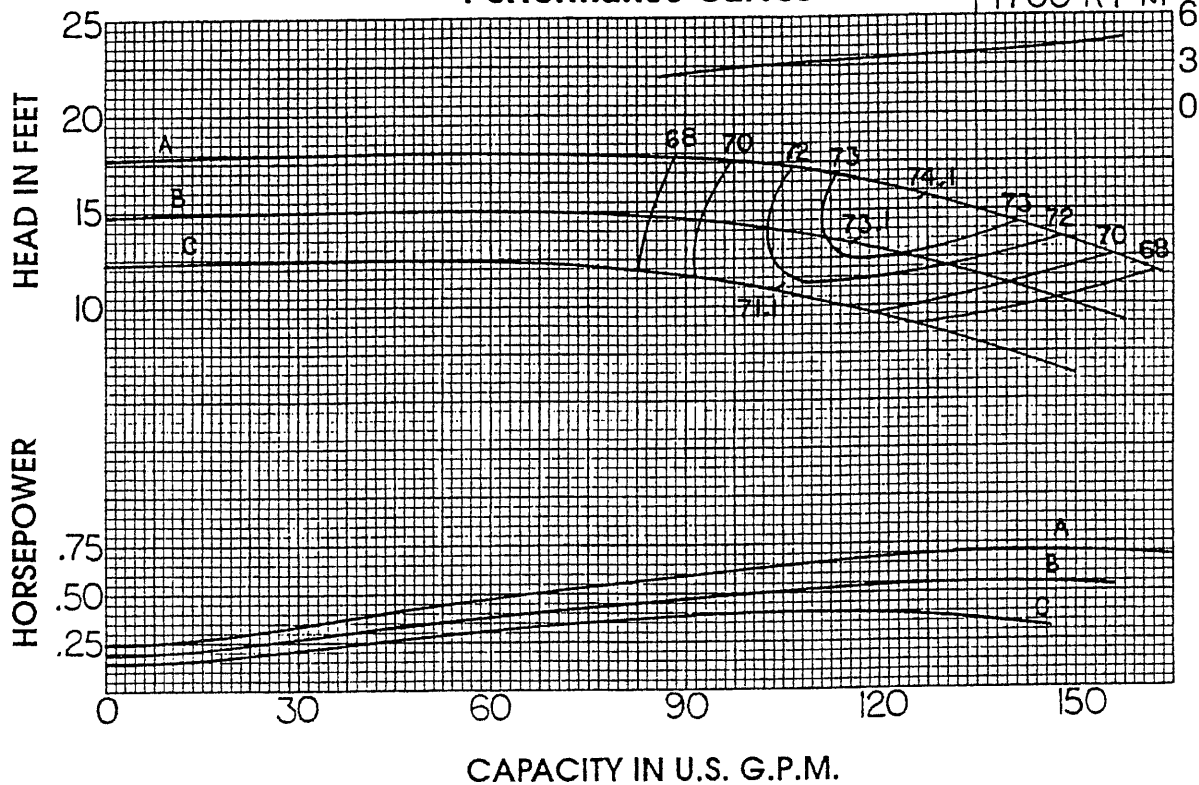
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# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

6-132  
1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	6-132
Type	Enclosed
Diameter: A =	4.475 "
B =	4.175 "
C =	3.875 "
Thrust Constant (K)	1.69 pounds/foot of head
Impeller Weight	2.20 #
Number of Vanes	6
Specific Speed (Ns)	2003
Effective Eye Area	3.68 square inches
W(r sq.)	.027 lbs. -ft. sq.
Eye Fluid Velocity	0.09 ft./sec./g.p.m.
Peripheral Velocity	7.63 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	6-L
Connection Type	Threaded
Outside Diameter:	nominal 5.700 "
	minimum 5.625 "
Column Pipe Size:	standard 3 "
	maximum 4 "
Suction Pipe Size:	standard 3 "
	maximum 4 "
Shaft Size:	standard 1 "
	maximum 1 "
Lateral:	standard .400 "
	maximum .525 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.300 "
Maximum No. Stages (std. const.)	91
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1400 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

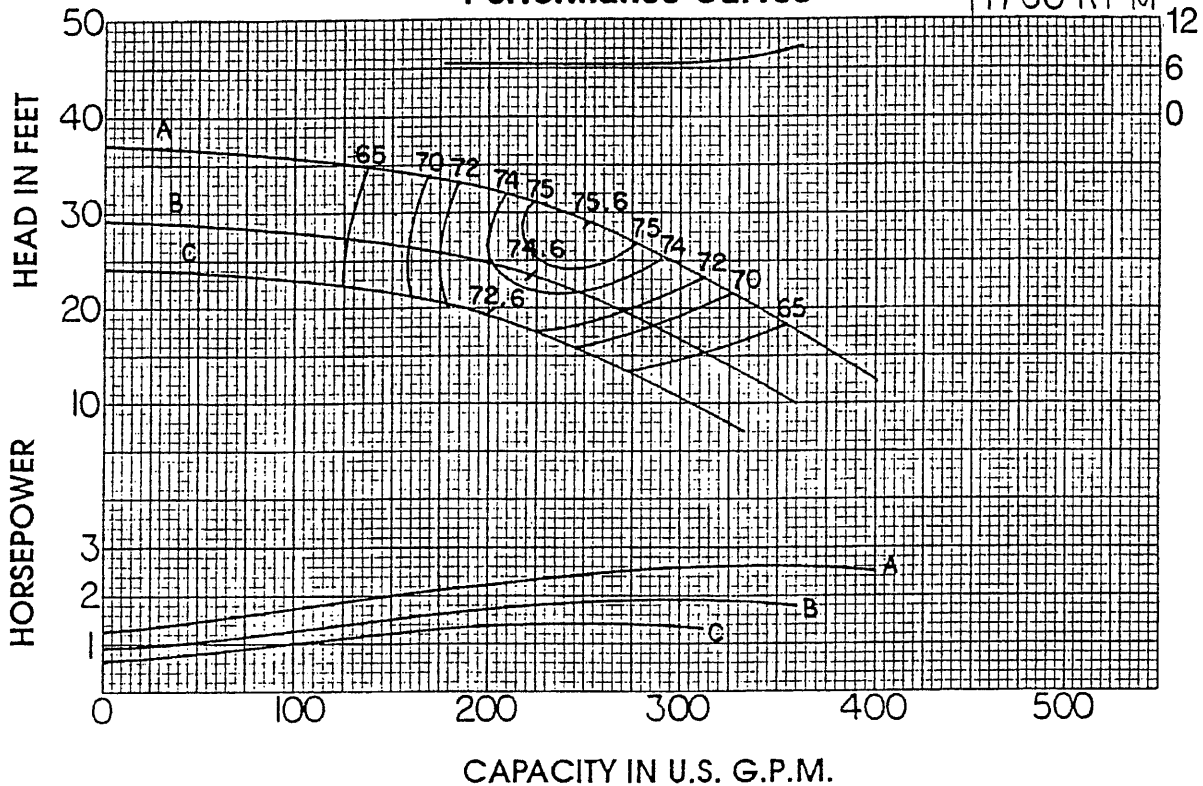
General Data	
<b>Lengths</b>	
Column Adapter	2.125 "
Discharge Case	8.875 "
Bowl	4.875 "
Suction Case	8.000 "
Suction Bell	6.000 "
Submersible Motor Adapter	9.500 "
<b>Approximate Shipping Weights</b>	
First Stage	60 #
Additional Stage	16 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	6.844 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	C84400 br.
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

# GUSHER®

Division of Ruthman Pump & Engineering

8-250  
1760 RPM

## Performance Curves



Impeller Data	
Impeller Number	8-250
Type	Enclosed
Diameter:	A = 6.375 "
	B = 5.875 "
	C = 5.475 "
Thrust Constant (K)	2.90 pounds/foot of head
Impeller Weight	5.00 #
Number of Vanes	8
Specific Speed (Ns)	2240
Effective Eye Area	7.74 square inches
W(r sq.)	.130 lbs. -ft. sq.
Eye Fluid Velocity	0.04 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-L
Connection Type	Threaded
Outside Diameter:	nominal 7.950 "
	minimum 7.625 "
Column Pipe Size:	standard 4 "
	maximum 8 "
Suction Pipe Size:	standard 6 "
	maximum 6 "
Shaft Size:	standard 1.25 "
	maximum 1.5 "
Lateral:	standard .500 "
	maximum .625 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.440 "
Maximum No. Stages (std. const.)	50
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1305 ft.

Efficiency Correction for Impeller Data					
Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

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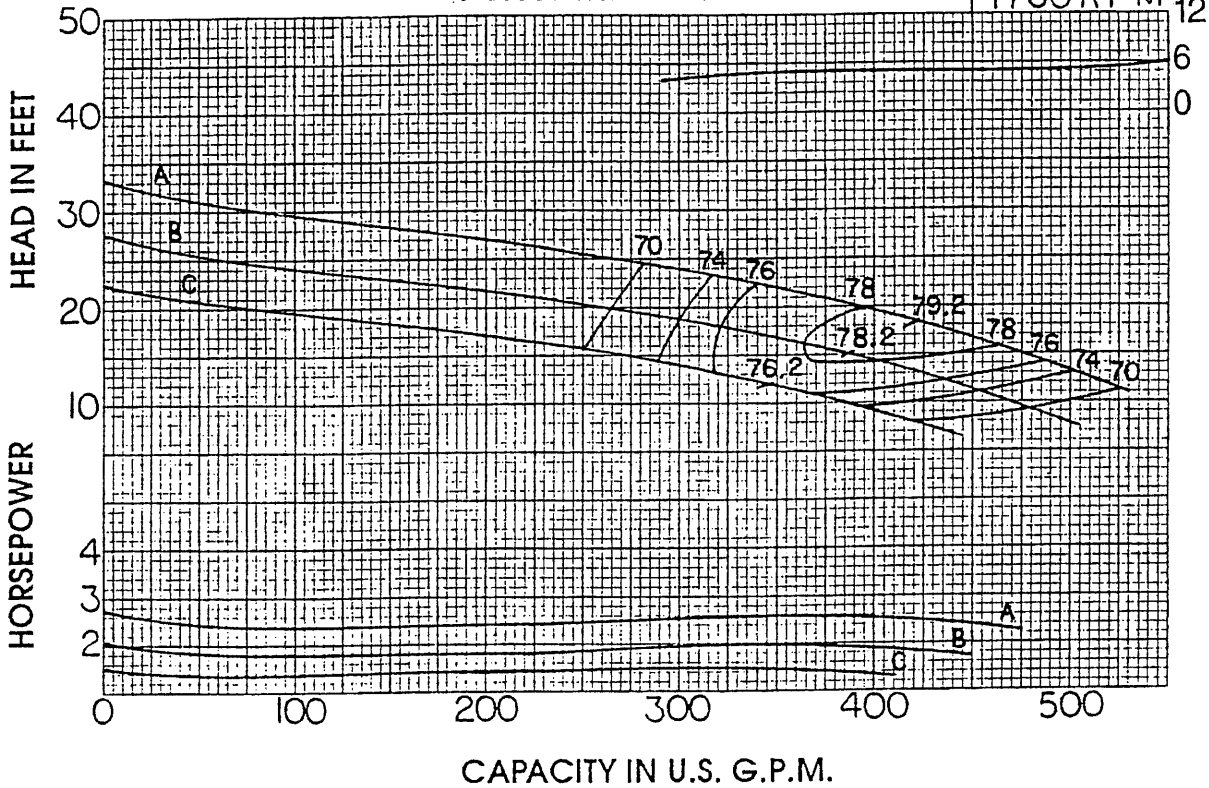
# GUSHER®

Division of Ruthman Pump & Engineering

## Performance Curves

8-425

1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	8-425
Type	Enclosed
Diameter: A =	6.145 "
B =	5.745 "
C =	5.345 "
Thrust Constant (K)	4.32 pounds/foot of head
Impeller Weight	3.50 #
Number of Vanes	4
Specific Speed (Ns)	4097
Effective Eye Area	12.79 square inches
W(r sq.)	.201 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-H
Connection Type	Threaded
Outside Diameter: nominal	7.950 "
minimum	7.625 "
Column Pipe Size: standard	6 "
maximum	8 "
Suction Pipe Size: standard	6 "
maximum	6 "
Shaft Size: standard	1.25 "
maximum	1.25 "
Lateral: standard	.625 "
maximum	.750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.700 "
Maximum No. Stages (std. const.)	50
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1340 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data	
<b>Lengths</b>	
Column Adapter	1.625 "
Discharge Case	3.937 "
Bowl	7.125 "
Suction Case	8.125 "
Suction Bell	6.750 "
Submersible Motor Adapter	10.375 "
<b>Approximate Shipping Weights</b>	
First Stage	125 #
Additional Stage	37 #
<b>Miscellaneous</b>	
Hub Projection on Bell Suction	0.000 "
Cable Guard Height	.500 "
Distance From Impeller Eye to Bottom of Bell Suction	7.500 "
<b>Operational</b>	
Minimum Required Submergence	CONSULT FACTORY
<b>Standard Construction Materials</b>	
Bowl	A48-30 c. i. (porcelain)
Impeller	C83800 br.
Bowl Shaft	416 stainless steel
Shaft Coupling	C1215 steel
Lock Collet	C1215 steel
Cap Screw	grade 5
Bowl Bearing	C84400 br./buna-N A40
Suction/Submersible Motor Adapter Bearing	C84400 br.
Throttle Bearing	C84400 br.
Sand Collar	polyethylene
Column Adapter/Discharge Case/Suction Case	A48-30 c. i.
Submersible Motor Adapter	A48-30 c. i.
Tube Adapter	cl. 65-45-12 ductile iron

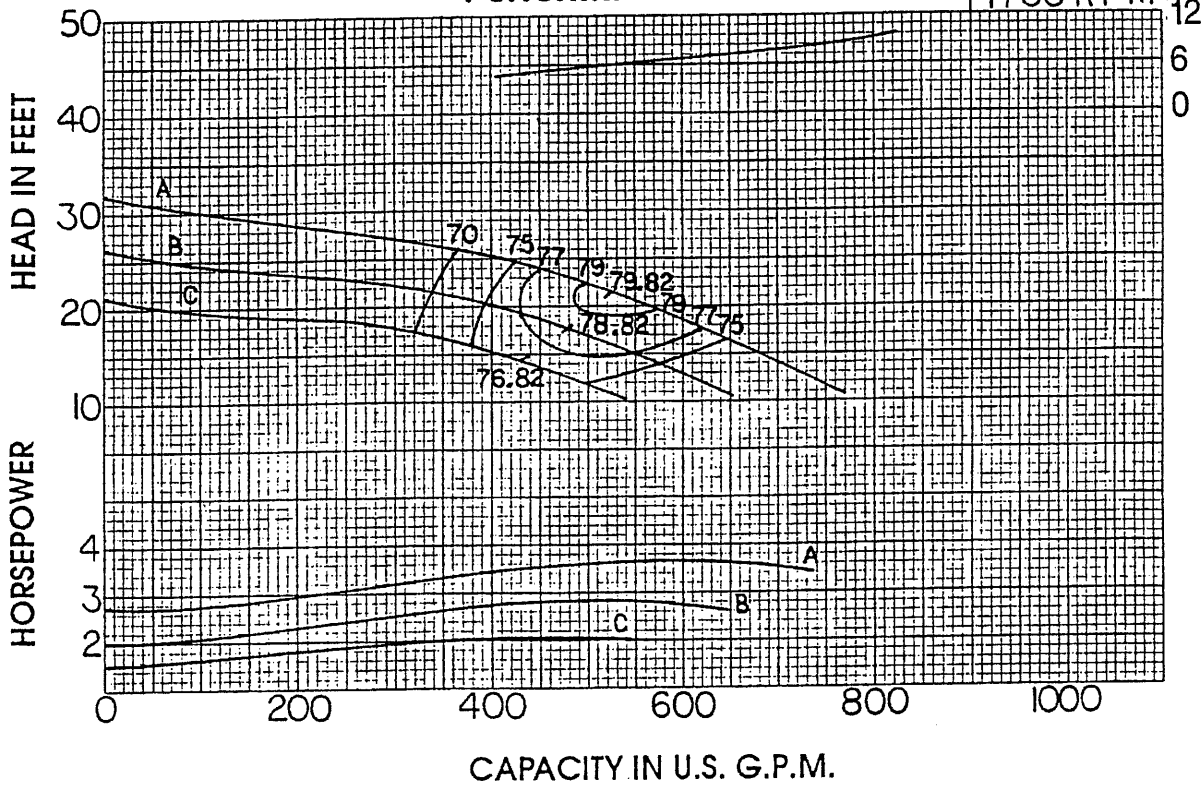
# GUSHER®

Division of Ruthman Pump & Engineering

8-500

## Performance Curves

1760 RPM



N.P.S.H.

Impeller Data	
Impeller Number	8-500
Type	Enclosed
Diameter: A=	6.145 "
B=	5.745 "
C=	5.345 "
Thrust Constant (K)	4.26 pounds/foot of head
Impeller Weight	3.50 #
Number of Vanes	7
Specific Speed (Ns)	3874
Effective Eye Area	12.79 square inches
W(r sq.)	.201 lbs. -ft. sq.
Eye Fluid Velocity	0.03 ft./sec./g.p.m.
Peripheral Velocity	7.68 ft./sec./inch of impeller diameter

Bowl Data	
Bowl Number	8-H
Connection Type	Threaded
Outside Diameter:	nominal 7.950 "
	minimum 7.625 "
Column Pipe Size:	standard 6 "
	maximum 8 "
Suction Pipe Size:	standard 6 "
	maximum 6 "
Shaft Size:	standard 1.25 "
	maximum 1.25 "
Lateral:	standard .625 "
	maximum .750 "
Shaft Bearing Clearance	.010 "
Impeller Skirt Clearance	.015 "
Maximum Sphere Size	.500 "
Maximum No. Stages (std. const.)	35
Maximum Head (with full nominal bowl diameter) (1.0 S.G.)	1300 ft.

### Efficiency Correction for Impeller Data

Number of Stages	1	2	3	4	5
Deduct No. Points	4	3	2	1	0

General Data		
<b>Lengths</b>		<b>Operational</b>
Column Adapter	1.625 "	Minimum Required Submergence
Discharge Case	3.937 "	CONSULT FACTORY
Bowl	7.125 "	<b>Standard Construction Materials</b>
Suction Case	8.125 "	Bowl
Suction Bell	6.750 "	Impeller
Submersible Motor Adapter	10.375 "	Bowl Shaft
<b>Approximate Shipping Weights</b>		Shaft Coupling
First Stage	125 #	Lock Collet
Additional Stage	37 #	Cap Screw
<b>Miscellaneous</b>		Bowl Bearing
Hub Projection on Bell Suction	0.000 "	Suction/Submersible Motor Adapter Bearing
Cable Guard Height	.500 "	Throttle Bearing
Distance From Impeller Eye to Bottom of Bell Suction	7.500 "	Sand Collar
		Column Adapter/Discharge Case/Suction Case
		Submersible Motor Adapter
		Tube Adapter