

## SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 1.5B | SUBMITTAL

File No: 43.603  
Date: NOV. 26, 2014  
Supersedes: 43.603  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 1.5" (38mm) Discharge: 1.5" (38mm)

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED	■ ALL IRON	■ ALL BRONZE
Casing	Cast iron	Cast iron	Bronze
Companion flanges	Cast iron	Cast iron	Bronze
Pump/motor bracket	Cast iron	Cast iron	Bronze

Impeller: Non-ferrous

Stub Shaft: Stainless Steel

### OPTIONAL EQUIPMENT

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12

\* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MECHANICAL SEAL DATA

Construction	Bronze fitted / All bronze	All iron
Rotating hardware	Brass	Steel
Seal type: Inside single spring	Rotating face: Carbon	
Manufacturer: Armstrong	Stationary seat: Ceramic	
Manu code: Armseal	Secondary seal /spring: BUNA-N/stainless steel	

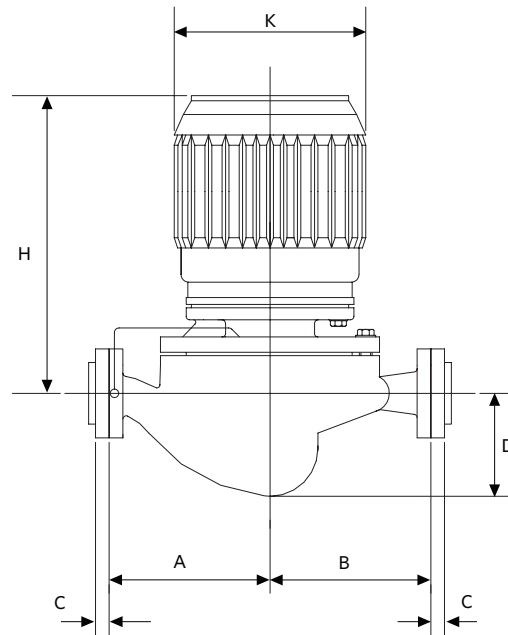
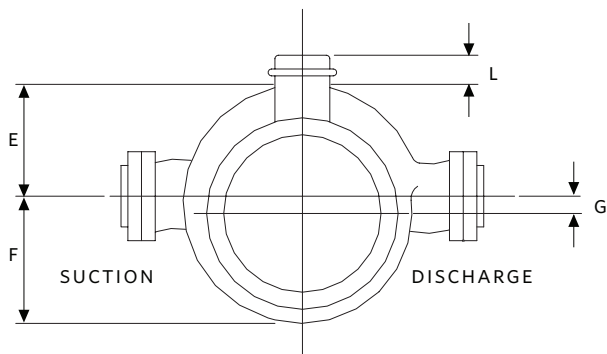
### MAXIMUM PUMP OPERATING CONDITIONS

175 psig at 150°F (12 bars at 65°C)  
 140 psig at 225°F (10 bars at 107°C)

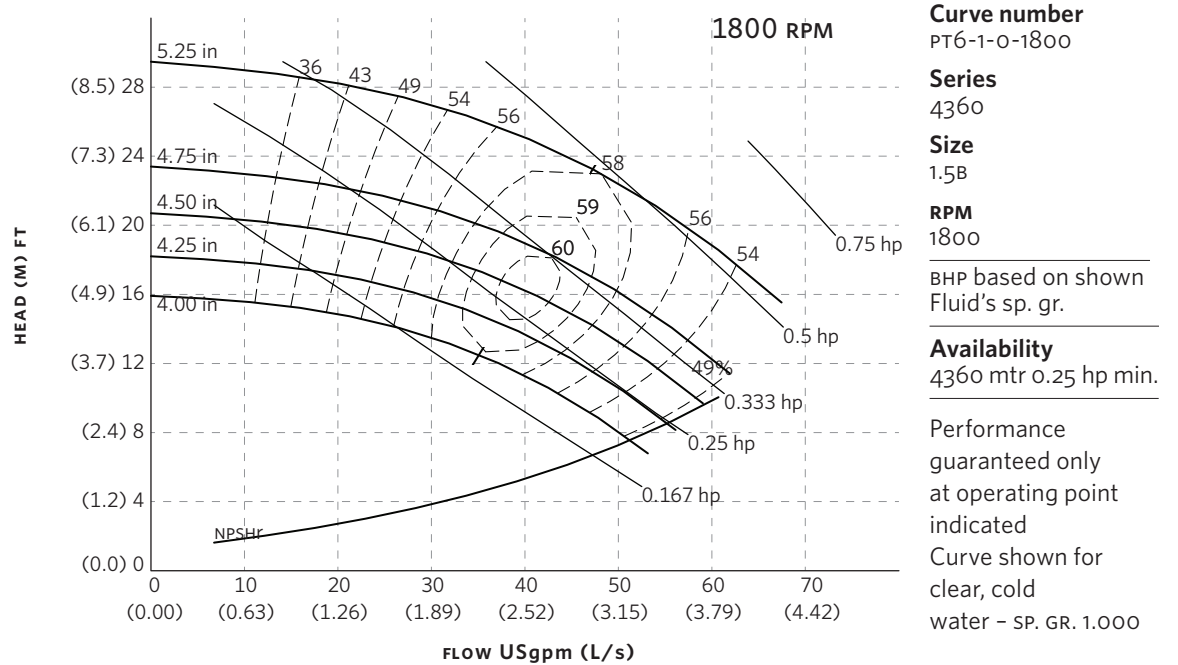
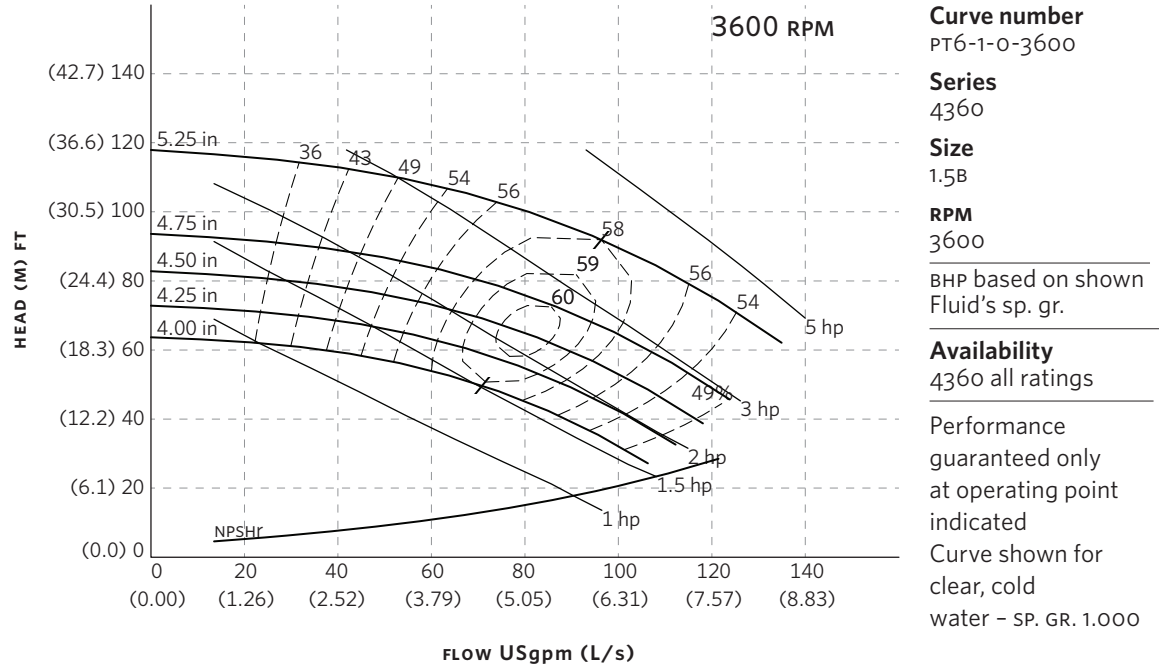
MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56c	-	0.25	1.38 (35)	11.50 (292)	11.50 (292)	7.50 (191)	1.00 (25)	43 (19.5)	-
56c	-	0.33	1.38 (35)	11.75 (298)	11.75 (298)	7.50 (191)	1.00 (25)	43 (19.5)	43 (19.5)
56c	-	0.5	1.38 (35)	12.75 (324)	11.75 (298)	7.50 (191)	1.00 (25)	43 (19.5)	43 (19.5)
56c	-	0.75	1.38 (35)	13.13 (334)	12.75 (324)	7.50 (191)	1.00 (25)	45 (20.4)	45 (20.4)
56c	1.5	-	1.38 (35)	13.88 (353)	12.75 (324)	7.50 (191)	1.00 (25)	48 (21.7)	53 (24.0)
56c	2	-	1.38 (35)	13.88 (353)	13.13 (334)	7.50 (191)	1.00 (25)	53 (24.0)	58 (26.3)
56c	3	-	1.38 (35)	-	13.13 (334)	7.50 (191)	1.00 (25)	58 (26.3)	78 (35.3)
56c	5	-	1.38 (35)	-	14.63 (372)	7.50 (191)	1.00 (25)	88 (39.9)	-

**PUMP DIMENSIONS**  
INCHES (mm)

A	B	C	D	E	F
6.56	5.06	0.88	3.56	2.75	5.00
(167)	(129)	(22)	(90)	(70)	(127)



## SERIES 4360 PERFORMANCE CURVES



Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

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# SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 1.5D | SUBMITTAL

File No: 43.607  
Date: NOV. 26, 2014  
Supersedes: 43.607  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 1.5" (38mm) Discharge: 1.5" (38mm)

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12  
 \* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED		■ ALL IRON		■ ALL BRONZE	
Casing	Cast iron		Cast iron		Bronze	
Impeller	Bronze		Cast iron		Bronze	
Companion flanges	Cast iron		Cast iron		Bronze	
Pump/motor bracket	Cast iron		Cast iron		Bronze	
Motor frame	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM
Stub shaft	Stainless steel	NA	Stainless steel	NA	Stainless steel	NA
Shaft sleeve	NA	Bronze	NA	St Steel	NA	Bronze

### OPTIONAL EQUIPMENT

### MECHANICAL SEAL DATA

Seal Type: 2A Stationary Seat: Silicone carbide  
 Secondary Seal: EPDM Rotating Hardware: Stainless steel  
 Spring: Stainless steel

### MAXIMUM PUMP OPERATING CONDITIONS

**ANSI 125**  
 175 psig at 150°F (12 bars at 65°C)  
 140 psig at 250°F (10 bars at 121°C)  
**ANSI 250**  
 300 psig at 150°F (20 bars at 65°C)  
 250 psig at 250°F (17 bars at 121°C)

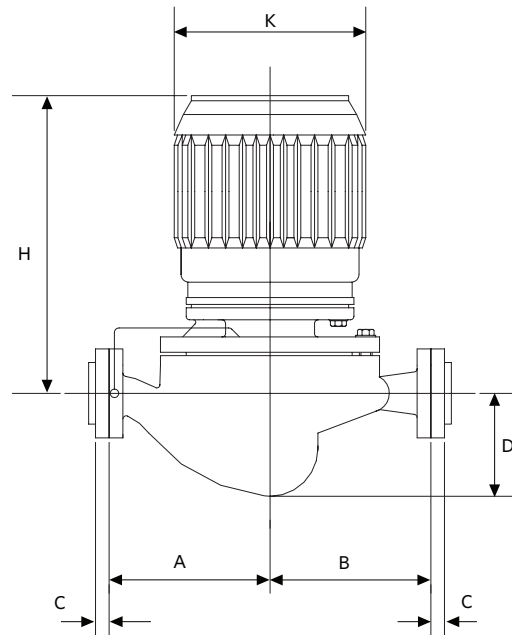
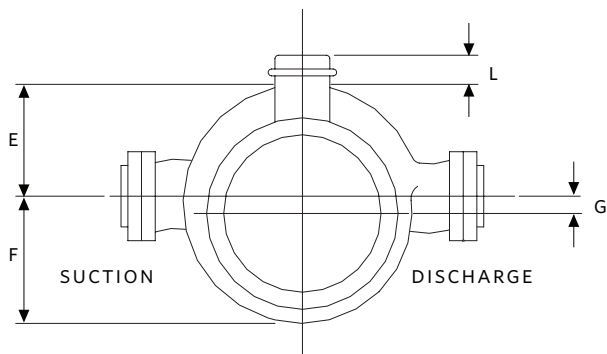
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
Rotating Face	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
Seat Elastomer	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
Material Code	SCsc L EPSS 2A	SCsc O EPSS 2A	C-sc L EPSS 2A	ACsc O EPSS 2A	C-sc L EPSS 2A	C-sc O EPSS 2A

MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56c	-	0.5	1.00 (25)	13.68 (347)	13.69 (348)	7.50 (191)	1.00 (25)	100 (45.3)	100 (45.3)
56c	-	0.75	1.00 (25)	13.81 (351)	13.69 (348)	7.50 (191)	1.00 (25)	102 (46.2)	102 (46.2)
143JM	-	1	1.00 (25)	14.38 (365)	13.75 (349)	7.50 (191)	1.25 (32)	118 (53.5)	120 (54.4)
145JM	-	1.5	1.00 (25)	15.38 (391)	14.75 (375)	7.50 (191)	1.25 (32)	124 (56.2)	128 (58.1)
145JM	3	-	1.00 (25)	-	14.75 (375)	7.50 (191)	1.25 (32)	129 (58.5)	168 (76.2)
182JM	5	-	1.00 (25)	-	15.50 (394)	9.50 (241)	2.88 (73)	130 (58.9)	181 (82.1)
184JM	7	-	1.00 (25)	-	16.50 (419)	9.50 (241)	2.88 (73)	143 (64.9)	214 (97.1)
213JM	10	-	1.00 (25)	-	18.69 (475)	10.75 (273)	4.88 (124)	183 (83.0)	235 (106.6)

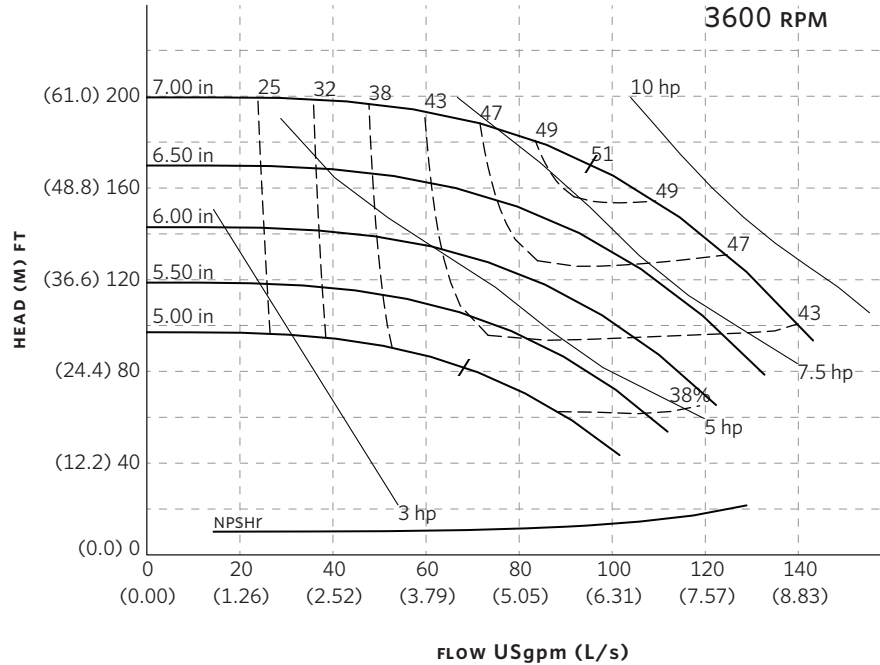
**PUMP DIMENSIONS**

INCHES (mm)

A	B	C	D	E	F
7.00	6.50	0.88	3.25	3.88	5.63
(178)	(165)	(22)	(83)	(99)	(143)



## SERIES 4360 PERFORMANCE CURVES



**Curve number**  
PT10-1-0-3600

**Series**  
4360

**Size**  
1.5D

**RPM**  
3600

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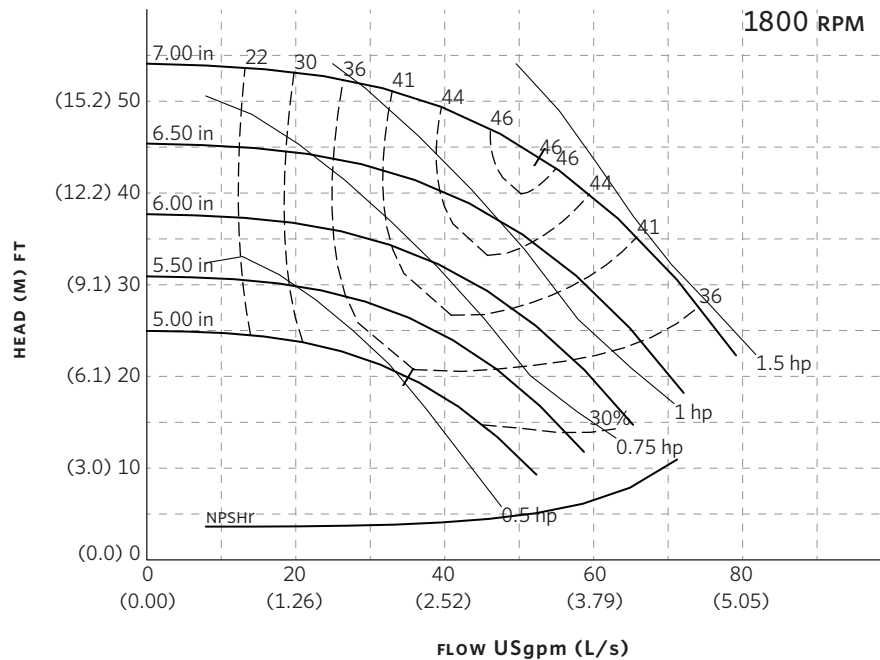
BHP based on shown Fluid's sp. gr.

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**Availability**  
4360 all ratings

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Performance guaranteed only at operating point indicated  
 Curve shown for clear, cold water - SP. GR. 1.0000



**Curve number**  
PT9-1-0-1800

**Series**  
4360

**Size**  
1.5D

**RPM**  
1800

---

BHP based on shown Fluid's sp. gr.

---

**Availability**  
4360 all ratings

---

Performance guaranteed only at operating point indicated  
 Curve shown for clear, cold water - SP. GR. 1.0000

Performance curves are for reference only.  
 Confirm current performance data with Armstrong ACE Online selection software.

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## SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 1.25B | SUBMITTAL

File No: 43.601  
Date: NOV. 26, 2014  
Supersedes: 43.601  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 1.25"(32mm) Discharge: 1.25"(32mm)

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED	■ ALL IRON	■ ALL BRONZE
Casing	Cast iron	Cast iron	Bronze
Companion flanges	Cast iron	Cast iron	Bronze
Pump/motor bracket	Cast iron	Cast iron	Bronze

Impeller: Non-ferrous

Stub Shaft: Stainless Steel

### OPTIONAL EQUIPMENT

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12

\* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MECHANICAL SEAL DATA

Construction	Bronze fitted / All bronze	All iron
Rotating hardware	Brass	Steel
Seal type: Inside single spring	Rotating face: Carbon	
Manufacturer: Armstrong	Stationary seat: Ceramic	
Manu code: Armseal	Secondary seal /spring: BUNA-N/stainless steel	

### MAXIMUM PUMP OPERATING CONDITIONS

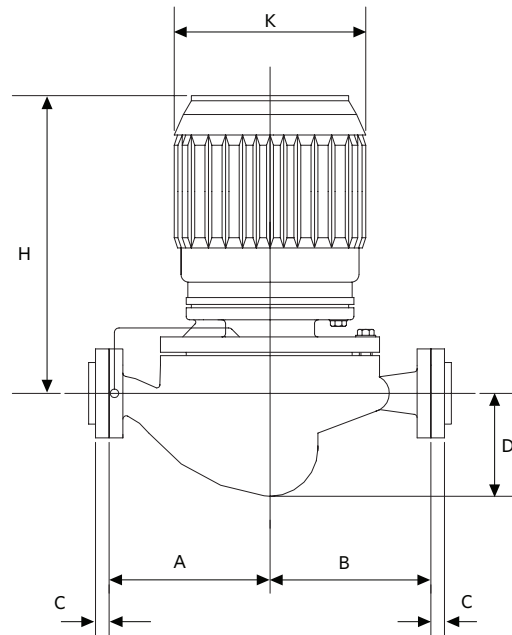
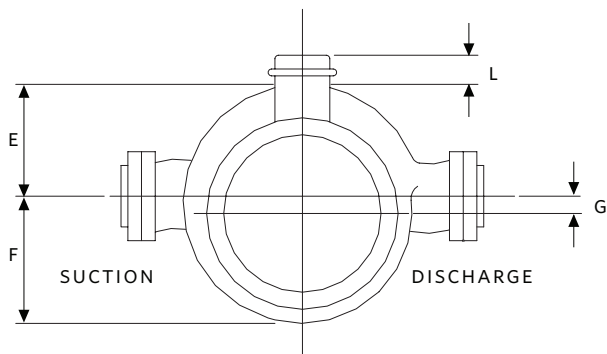
175 psig at 150°F (12 bars at 65°C)  
 140 psig at 225°F (10 bars at 107°C)

MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56c	-	0.25	1.38 (35)	11.50 (292)	11.50 (292)	7.50 (191)	1.00 (25)	37 (16.8)	-
56c	-	0.33	1.38 (35)	11.75 (298)	11.75 (298)	7.50 (191)	1.00 (25)	37 (16.8)	37 (16.8)
56c	-	0.5	1.38 (35)	12.75 (324)	11.75 (298)	7.50 (191)	1.00 (25)	37 (16.8)	37 (16.8)
56c	1.5	-	1.38 (35)	13.88 (353)	12.75 (324)	7.50 (191)	1.00 (25)	42 (19.0)	47 (21.3)
56c	2	-	1.38 (35)	13.88 (353)	13.13 (334)	7.50 (191)	1.00 (25)	47 (21.3)	52 (23.6)
56c	3	-	1.38 (35)	-	13.13 (334)	7.50 (191)	1.00 (25)	52 (23.6)	72 (32.6)

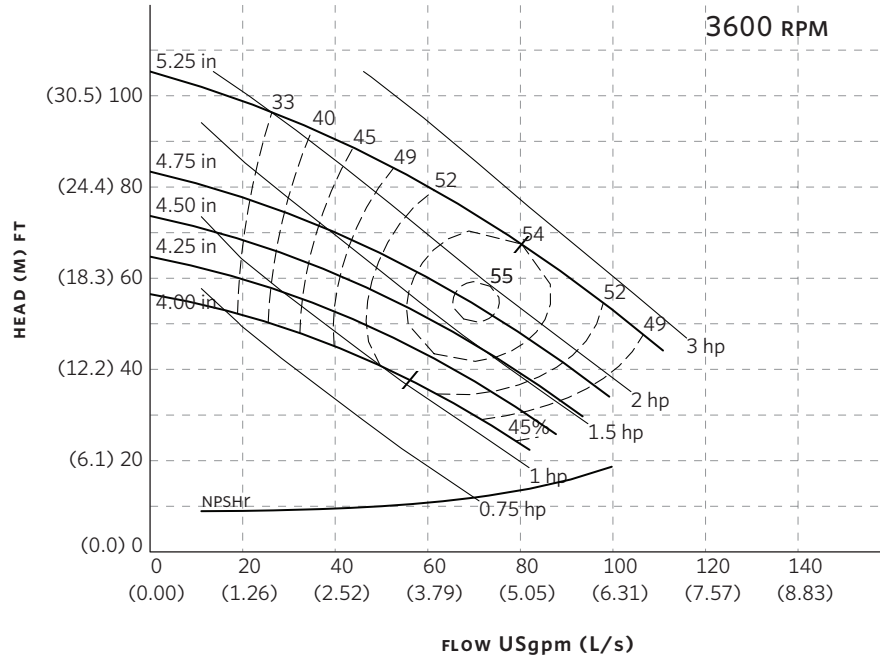
**PUMP DIMENSIONS**

INCHES (mm)

A	B	C	D	E	F
6.50	5.00	0.88	3.56	2.75	5.00
(165)	(127)	(22)	(90)	(70)	(127)



## SERIES 4360 PERFORMANCE CURVES



**Curve number**  
PT3-1-0-3600

**Series**  
4360

**Size**  
1.25B

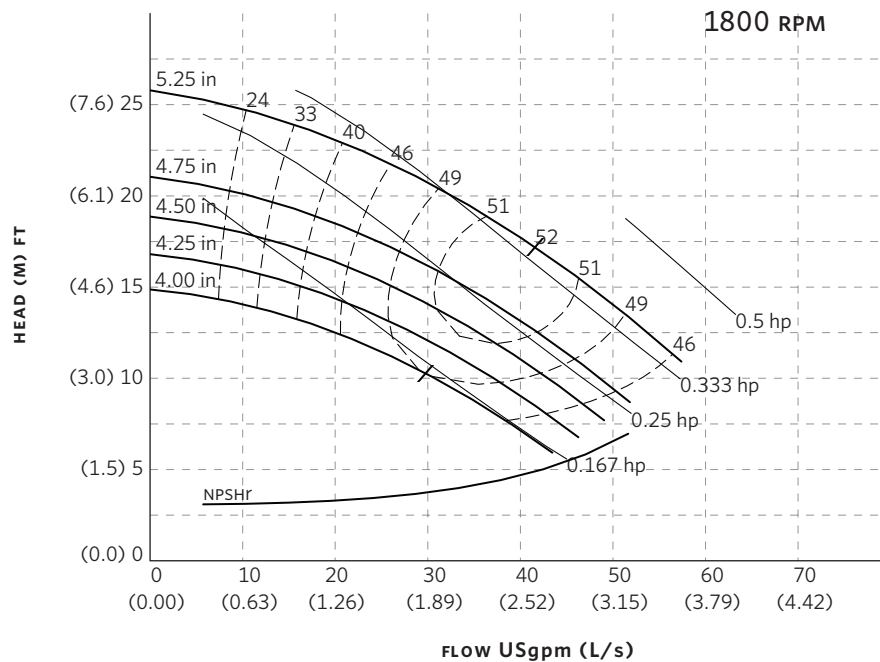
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4360 all ratings

Performance  
guaranteed only  
at operating point  
indicated

Curve shown for  
clear, cold  
water - SP. GR. 1.000



**Curve number**  
PT2-2-0-1800

**Series**  
4360

**Size**  
1.25B

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4360 mtr 0.25 hp min.

Performance  
guaranteed only  
at operating point  
indicated

Curve shown for  
clear, cold  
water - SP. GR. 1.000

Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

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## SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 2B | SUBMITTAL

File No: 43.605  
Date: NOV. 26, 2014  
Supersedes: 43.605  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 2"(50mm) Discharge: 2"(50mm)

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12  
 \* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED	■ ALL IRON	■ ALL BRONZE
Casing	Cast iron	Cast iron	Bronze
Companion flanges	Cast iron	Cast iron	Bronze
Pump/motor bracket	Cast iron	Cast iron	Bronze

Impeller: Non-ferrous

Stub Shaft: Stainless Steel

### MECHANICAL SEAL DATA

Construction	Bronze fitted / All bronze	All iron
Rotating hardware	Brass	Steel
Seal type: Inside single spring	Rotating face: Carbon	
Manufacturer: Armstrong	Stationary seat: Ceramic	
Manu code: Armseal	Secondary seal /spring: BUNA-N/stainless steel	

### OPTIONAL EQUIPMENT

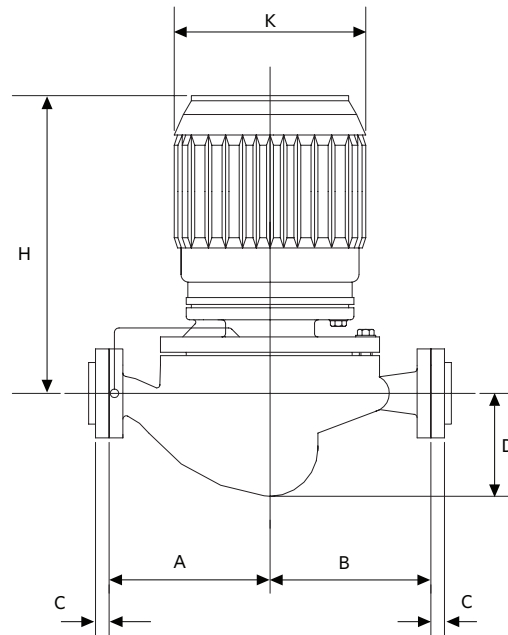
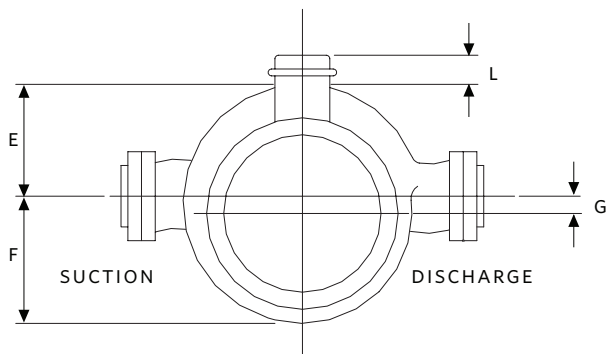
### MAXIMUM PUMP OPERATING CONDITIONS

175 psig at 150°F (12 bars at 65°C)  
 140 psig at 225°F (10 bars at 107°C)

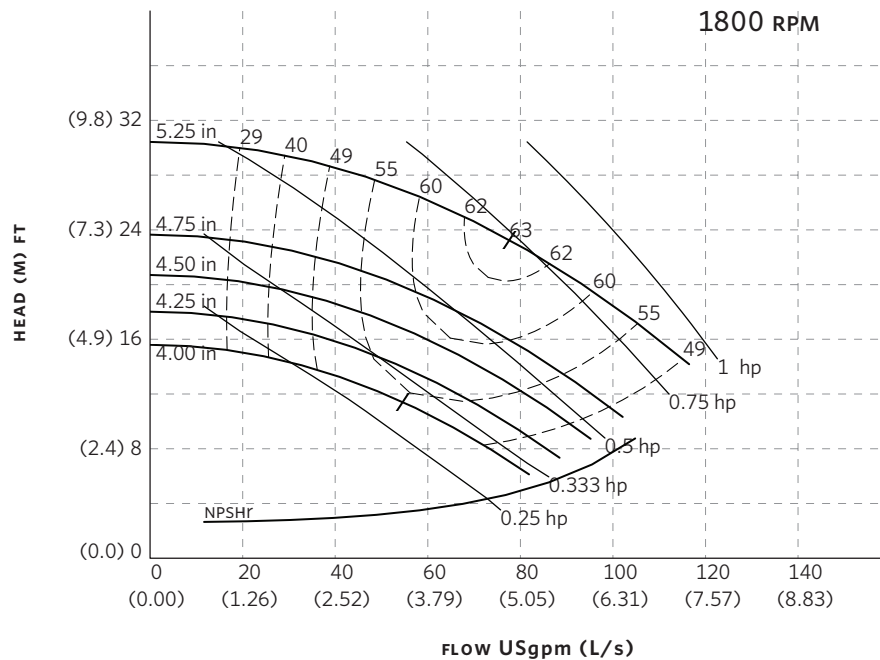
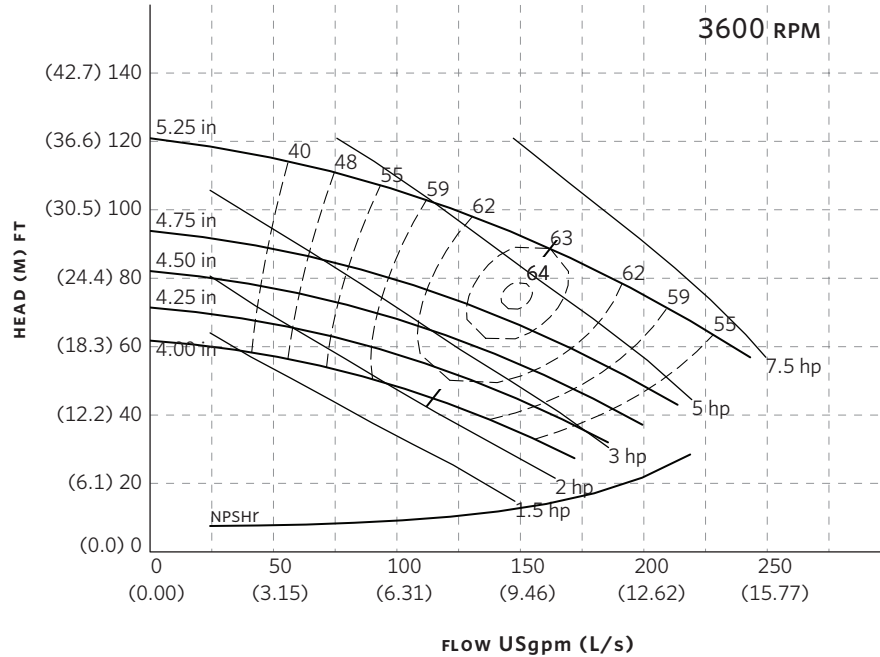
MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56c	-	0.33	1.38 (35)	11.75 (298)	11.75 (298)	7.50 (191)	1.00 (25)	49 (22.2)	49 (22.2)
56c	-	0.5	1.38 (35)	12.75 (324)	11.75 (298)	7.50 (191)	1.00 (25)	49 (22.2)	49 (22.2)
56c	-	0.75	1.38 (35)	13.13 (334)	12.75 (324)	7.50 (191)	1.00 (25)	51 (23.1)	51 (23.1)
56c	-	1	1.38 (35)	13.88 (353)	12.75 (324)	7.50 (191)	1.00 (25)	54 (24.5)	59 (26.7)
56c	2	-	1.38 (35)	13.88 (353)	13.13 (334)	7.50 (191)	1.00 (25)	59 (26.7)	64 (29.0)
56c	3	-	1.38 (35)	-	13.13 (334)	7.50 (191)	1.00 (25)	64 (29.0)	84 (38.1)
56c	5	-	1.38 (35)	-	14.63 (372)	7.50 (191)	1.00 (25)	94 (42.6)	-

**PUMP DIMENSIONS**  
INCHES (mm)

A	B	C	D	E	F
6.63	5.13	0.88	3.50	2.88	5.00
(168)	(130)	(22)	(89)	(73)	(127)



## SERIES 4360 PERFORMANCE CURVES



Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

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# SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 2D | SUBMITTAL

File No: 43.609  
Date: NOV. 26, 2014  
Supersedes: 43.609  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 2" (50mm) Discharge: 2" (50mm)

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12

\* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED		■ ALL IRON		■ ALL BRONZE	
Casing	Cast iron		Cast iron		Bronze	
Impeller	Bronze		Cast iron		Bronze	
Companion flanges	Cast iron		Cast iron		Bronze	
Pump/motor bracket	Cast iron		Cast iron		Bronze	
Motor frame	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM
Stub shaft	Stainless steel	NA	Stainless steel	NA	Stainless steel	NA
Shaft sleeve	NA	Bronze	NA	St Steel	NA	Bronze

### OPTIONAL EQUIPMENT

### MECHANICAL SEAL DATA

Seal Type: 2A Stationary Seat: Silicone carbide  
 Secondary Seal: EPDM Rotating Hardware: Stainless steel  
 Spring: Stainless steel

### MAXIMUM PUMP OPERATING CONDITIONS

#### ANSI 125

175 psig at 150°F (12 bars at 65°C)  
 140 psig at 250°F (10 bars at 121°C)

#### ANSI 250

300 psig at 150°F (20 bars at 65°C)  
 250 psig at 250°F (17 bars at 121°C)

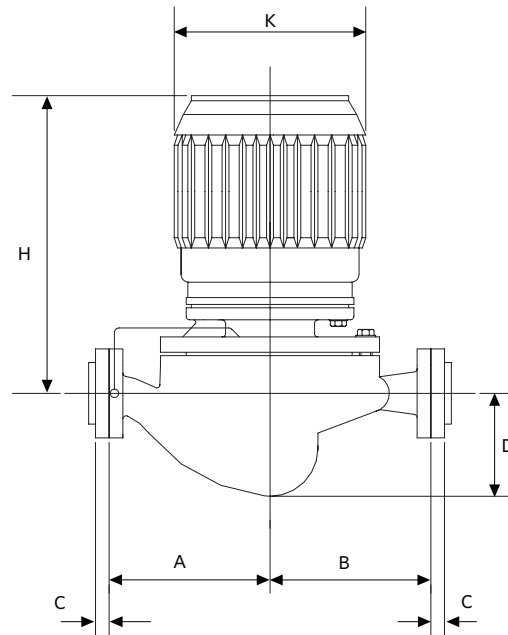
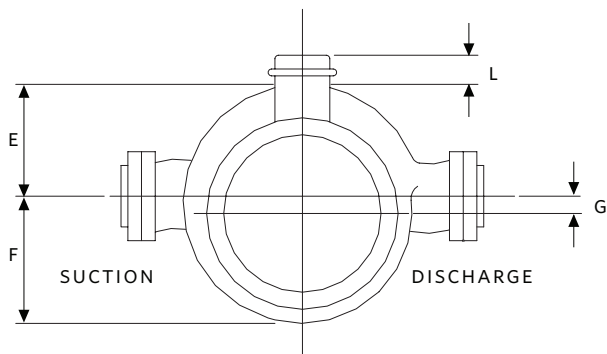
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
Rotating Face	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
Seat Elastomer	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
Material Code	SCsc L EPSS 2A	SCsc O EPSS 2A	C-sc L EPSS 2A	ACsc O EPSS 2A	C-sc L EPSS 2A	C-sc O EPSS 2A

MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56C	-	0.33	1.00 (25)	13.50 (343)	13.69 (348)	7.50 (191)	1.00 (25)	105 (47.6)	105 (47.6)
56C	-	0.50	1.00 (25)	13.81 (351)	13.69 (348)	7.50 (191)	1.00 (25)	105 (47.6)	105 (47.6)
56C	-	0.75	1.00 (25)	13.81 (351)	13.69 (348)	7.50 (191)	1.00 (25)	107 (48.5)	107 (48.5)
143JM	-	1	1.00 (25)	14.38 (366)	13.75 (349)	7.50 (191)	1.25 (32)	123 (55.8)	125 (56.7)
145JM	-	1.5	1.00 (25)	15.38 (391)	14.75 (375)	7.50 (191)	1.25 (32)	129 (58.5)	133 (60.3)
145JM	-	2	1.00 (25)	15.38 (391)	14.75 (375)	7.50 (191)	1.25 (32)	132 (59.9)	136 (61.7)
145JM	3	-	1.00 (25)	-	14.75 (375)	7.50 (191)	1.25 (32)	134 (60.8)	173 (78.5)
182JM	5	-	1.00 (25)	-	15.50 (394)	9.50 (241)	2.88 (73)	135 (61.2)	186 (84.4)
184JM	7.5	-	1.00 (25)	-	16.50 (419)	9.50 (241)	2.88 (73)	148 (67.1)	219 (99.3)
213JM	10	-	1.00 (25)	-	18.06 (459)	10.75(273)	4.88 (124)	188 (85.3)	240 (108.9)
215JM	15	-	1.00 (25)	-	19.56 (497)	10.75(273)	4.88 (124)	227 (103.0)	333 (151.0)

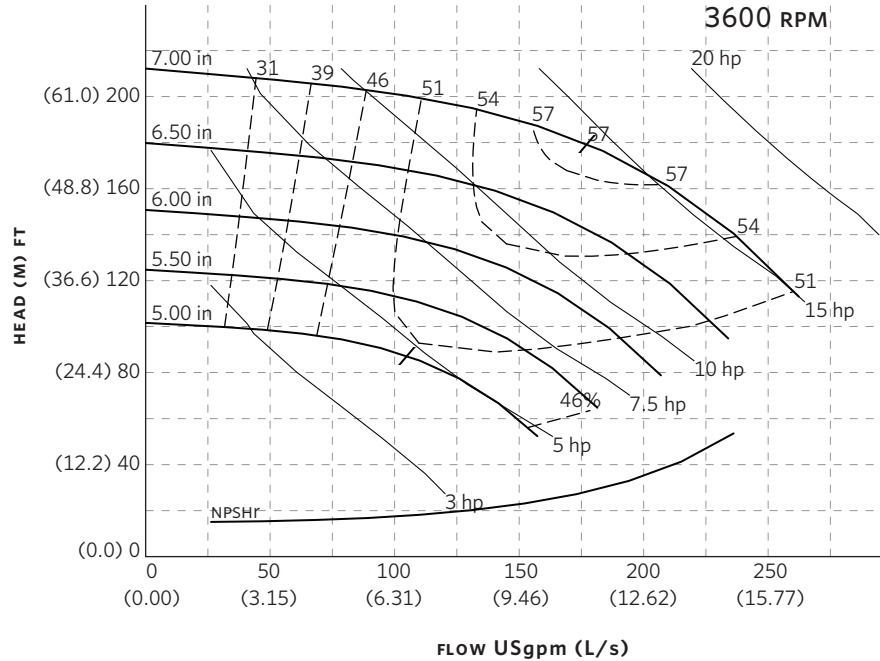
**PUMP DIMENSIONS**

INCHES (mm)

A	B	C	D	E	F
7.50	5.50	0.88	3.50	4.13	5.75
(191)	(140)	(22)	(89)	(105)	(146)



## SERIES 4360 PERFORMANCE CURVES



**Curve number**  
PT31-1-0-3600

**Series**  
4360

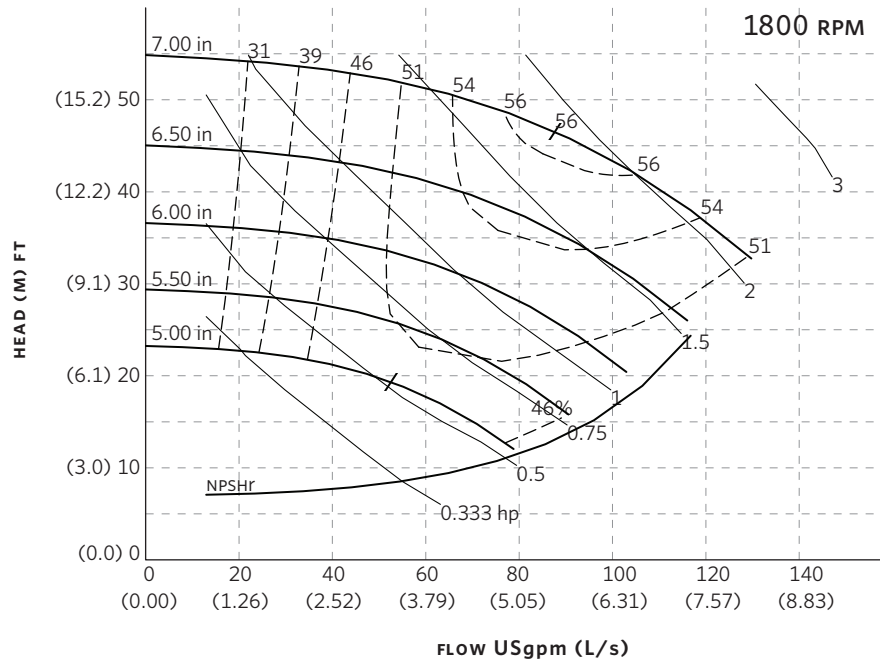
**Size**  
2D

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4360 all ratings

Performance  
guaranteed only  
at operating point  
indicated  
Curve shown for  
clear, cold  
water - SP. GR. 1.0000



**Curve number**  
PT132-1-0-1800

**Series**  
4360

**Size**  
2D

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4360 all ratings

Performance  
guaranteed only  
at operating point  
indicated  
Curve shown for  
clear, cold  
water - SP. GR. 1.0000

Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

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# SERIES 4360 IN-LINE PUMPS INSIDE MECHANICAL SEAL | 3D | SUBMITTAL

File No: 43.611  
Date: NOV. 26, 2014  
Supersedes: 43.611  
Date: MAR. 15, 2012

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific Gravity: \_\_\_\_\_  
 Suction: 3" (75mm) Discharge: 3" (75mm)

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency\*:  Standard  Energy EFF 12.11  
 NEMA premium 12.12  
 \* Frame 56 motors: Standard Efficiency only.  
 JM motors: 12.11 or 12.12

### MATERIALS OF CONSTRUCTION

PART NAME	■ BRONZE FITTED		■ ALL IRON		■ ALL BRONZE	
Casing	Cast iron		Cast iron		Bronze	
Impeller	Bronze		Cast iron		Bronze	
Companion flanges	Cast iron		Cast iron		Bronze	
Pump/motor bracket	Cast iron		Cast iron		Bronze	
Motor frame	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM	<input type="checkbox"/> 56C	<input type="checkbox"/> JM
Stub shaft	Stainless steel	NA	Stainless steel	NA	Stainless steel	NA
Shaft sleeve	NA	Bronze	NA	St Steel	NA	Bronze

### OPTIONAL EQUIPMENT

### MECHANICAL SEAL DATA

Seal Type: 2A Stationary Seat: Silicone carbide  
 Secondary Seal: EPDM Rotating Hardware: Stainless steel  
 Spring: Stainless steel

### MAXIMUM PUMP OPERATING CONDITIONS

#### ANSI 125

175 psig at 150°F (12 bars at 65°C)  
 140 psig at 250°F (10 bars at 121°C)

#### ANSI 250

300 psig at 150°F (20 bars at 65°C)  
 250 psig at 250°F (17 bars at 121°C)

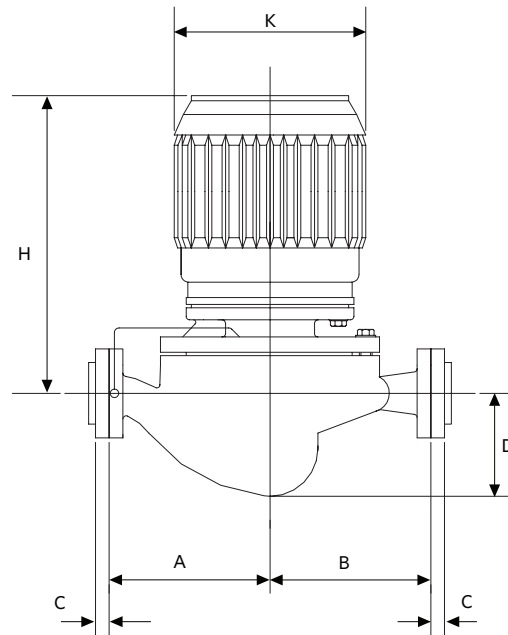
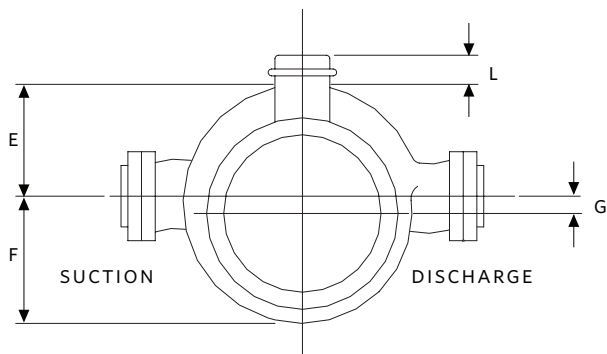
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
Rotating Face	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
Seat Elastomer	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
Material Code	SCsc L EPSS 2A	SCsc O EPSS 2A	C-sc L EPSS 2A	ACsc O EPSS 2A	C-sc L EPSS 2A	C-sc O EPSS 2A

MOTOR FRAME	HORSEPOWER @ RPM		MAX. DIMENSIONS INCHES (mm)				SHIP. WEIGHT lbs (kg)		
	3500	1750	G	H		K	L	ODP	TEFC
				SINGLE PHASE	THREE PHASE	MAX	MAX		
56c	-	0.75	0	13.63 (346)	13.88 (353)	7.50 (191)	1.00 (25)	117 (53.1)	117 (53.1)
143JM	-	1	0	14.44 (367)	13.81 (351)	7.50 (191)	2.25 (57)	133 (60.3)	135 (61.2)
145JM	-	1.5	0	15.44 (393)	14.81 (376)	7.50 (191)	2.25 (57)	139 (63.0)	143 (64.9)
145JM	-	2	0	15.44 (393)	14.81 (376)	7.50 (191)	2.25 (57)	142 (64.4)	146 (66.2)
182JM	-	3	0	-	15.56 (395)	9.50 (241)	3.75 (95)	144 (65.3)	183 (83.0)
182JM	5	-	0	-	15.56 (395)	9.50 (241)	3.75 (95)	145 (65.8)	196 (88.9)
184JM	7.5	-	0	-	16.56 (421)	9.50 (241)	3.75 (95)	158 (71.7)	229 (103.9)
213JM	10	-	0	-	18.13 (461)	10.75(273)	5.13 (130)	198 (89.8)	250 (113.4)
215JM	15	-	0	-	19.63 (499)	10.75(273)	5.13 (130)	237 (107.5)	343 (155.6)

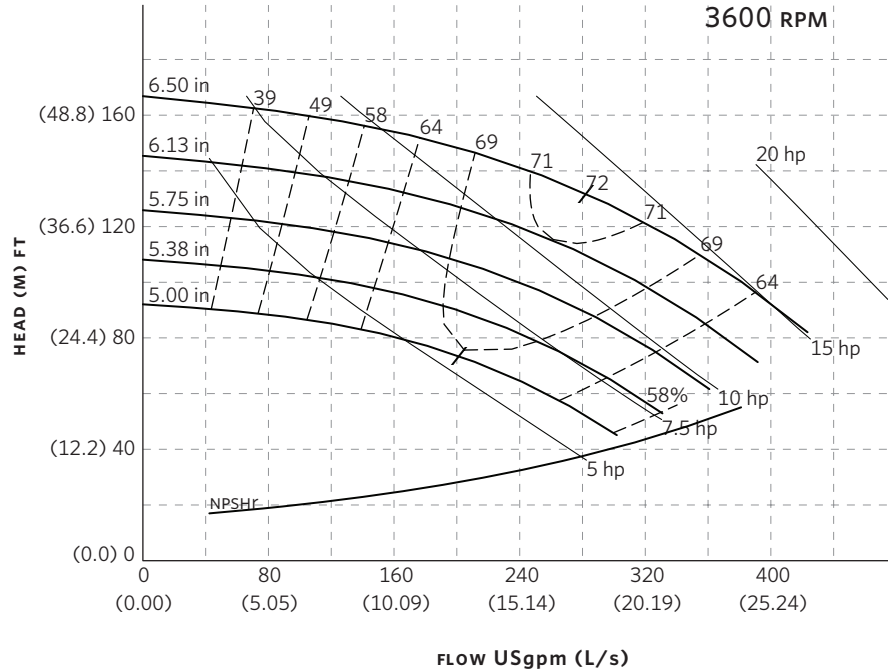
**PUMP DIMENSIONS**

INCHES (mm)

A	B	C	D	E	F
9.00	9.00	1.00	4.50	5.88	5.00
(227)	(227)	(25)	(114)	(149)	(127)



## SERIES 4360 PERFORMANCE CURVES



**Curve number**  
PT43-0-0-3600

**Series**  
4360

**Size**  
3D

**RPM**  
3600

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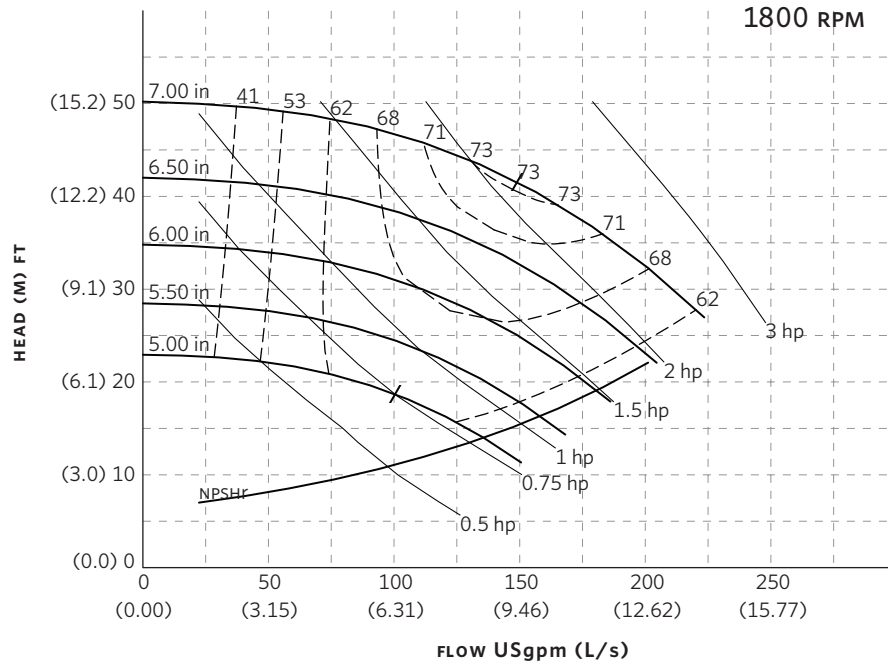
BHP based on shown Fluid's sp. gr.

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**Availability**  
4360 all ratings

---

Performance guaranteed only at operating point indicated  
 Curve shown for clear, cold water - SP. GR. 1.0000



**Curve number**  
PT42-0-0-1800

**Series**  
4360

**Size**  
2D

**RPM**  
1800

---

BHP based on shown Fluid's sp. gr.

---

**Availability**  
4360 all ratings

---

Performance guaranteed only at operating point indicated  
 Curve shown for clear, cold water - SP. GR. 1.0000

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 Confirm current performance data with Armstrong ACE Online selection software.

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