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PUMP	SIZE	3x2x6.5F-L	4x3x9F	3x2x11F-S	H3x2x11F-S	6x4x9F	H6x4x9F
	TYPE	2000	2000	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	125	125	250	125	125 OR 250
	DISCHARGE	125	125	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	CAST IRON ASTM A48 CLASS 35	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	200	200	400	200	375
MAX SUCTION PRESSURE (PSIG)		100	100	75	300	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		375	375	262	600	375	563
CASING WALL THICKNESS		0.31	0.38	0.38	0.38	0.44	0.44

### STUFFING BOX DESIGN

BORE	2.00	2.62	2.62	2.62	2.62	2.62
DEPTH	2.00	2.02	2.56	2.56	2.56	2.56
PACKING: # RINGS / SIZE SQUARE	5 / .38	5 / .44	5 / .38	5 / .38	5 / .38	5 / .38
SEAL CAGE WIDTH	0.38	0.38	0.50	0.50	0.50	0.50
SHAFT SLEEVE O.D.	1.25	1.62	1.88	1.88	1.88	1.88

### IMPELLER DESIGN

# OF VANES	6	6	6	6	6	6
INLET AREA (IN <sup>2</sup> )	7.30	12.80	7.70	7.70	5.90	5.90
MAX DIAMETER	6.50	9.00	11.00	11.00	9.80	9.80
MIN DIAMETER	4.00	6.50	5.50	5.50	6.00	6.00
MAX SPHERE	0.50	0.81	0.25	0.25	0.44	0.44
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	0.40	0.80	3.60	3.60	2.40	2.40
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		0.875	1.250	1.686	1.686	1.687	1.687
DIA THRU SLEEVE		1.000	1.375	1.499	1.499	1.499	1.499
DIA AT COUPLING		0.875	1.375	1.125	1.125	1.125	1.125
SHAFT SPAN - BRG TO BRG		3.74	7.62	20.90	20.90	22.00	22.00
BALL BEARING	INBOARD BRG #	6306	6308	6206	6206	6206	6206
	DIA THRU BRG	1.1816	1.5753	1.1816	1.1816	1.1816	1.1816
	OUTBOARD BRG #	6306	6308	5206	5206	5206	5206
	DIA THRU BRG	1.1816	1.5753	1.1160	1.1160	1.1816	1.1816
FRAME NUMBER		330	500	F20-A4	F20-A5	F20-G4	F20-G4
INSTRUCTION BOOK		AC8652	AC8652	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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PUMP	SIZE	6x4x10F-M	H6x4x10F-M	6x4x11F	H6x4x11F	6x4x12F-M	H6x4x12F-M
	TYPE	8100	8100	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	125 OR 250	125	125 OR 250	125	125 OR 250
	DISCHARGE	125	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	450	200	400	200	375
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		375	675	375	600	338	563
CASING WALL THICKNESS		0.5	0.5	0.5	0.5	0.44	0.44

### STUFFING BOX DESIGN

BORE	3.25	3.25	3.25	3.25	2.62	2.62
DEPTH	3.50	3.50	3.50	3.50	2.56	2.56
PACKING: # RINGS / SIZE SQUARE	5 / .50	5 / .50	5 / .50	5 / .50	5 / .38	5 / .38
SEAL CAGE WIDTH	0.75	0.75	0.75	0.75	0.50	0.50
SHAFT SLEEVE O.D.	2.25	2.25	2.25	2.25	1.88	1.88

### IMPELLER DESIGN

# OF VANES	6	6	6	6	6	6
INLET AREA (IN <sup>2</sup> )	15.90	15.90	19.60	19.60	10.20	10.20
MAX DIAMETER	12.00	12.00	11.60	11.60	13.70	13.70
MIN DIAMETER	6.50	6.50	6.50	6.50	7.50	7.50
MAX SPHERE	0.50	0.50	0.70	0.70	0.50	0.50
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	2.90	2.90	3.00	3.00	3.00	3.00
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		1.937	1.937	1.937	1.937	1.687	1.687
DIA THRU SLEEVE		1.874	1.874	1.874	1.874	1.499	1.499
DIA AT COUPLING		1.375	1.375	1.375	1.375	1.125	1.125
SHAFT SPAN - BRG TO BRG		25.25	25.25	25.25	25.25	22.90	22.90
BALL BEARING	INBOARD BRG #	6208	6208	6208	6208	6206	6206
	DIA THRU BRG	1.5753	1.5753	1.5753	1.5753	1.1816	1.1816
	OUTBOARD BRG #	5307	5307	5307	5307	5206	5206
	DIA THRU BRG	1.3785	1.3785	1.3785	1.3785	1.8160	1.8160
FRAME NUMBER		F20-B4	F20-B4	F20-B4	F20-B4	F20-C4	F20-C4
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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PUMP	SIZE	6x6x9F	H6x6x9F	8x6x9F	H8x6x9F	8x6x10F	H8x6x10F
	TYPE	8100	8100	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	250	125	250	125	250
	DISCHARGE	125	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	375	200	375	200	375
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		375	563	375	563	375	563
CASING WALL THICKNESS		0.44	0.44	0.44	0.44	0.44	0.44

### STUFFING BOX DESIGN

BORE	2.62	2.62	2.62	2.62	3.25	3.25
DEPTH	2.56	2.56	2.56	2.56	3.50	3.50
PACKING: # RINGS / SIZE SQUARE	5 / .38	5 / .38	5 / .38	5 / .38	5 / .50	5 / .50
SEAL CAGE WIDTH	0.50	0.50	0.50	0.50	0.75	0.75
SHAFT SLEEVE O.D.	1.88	1.88	1.88	1.88	2.25	2.25

### IMPELLER DESIGN

# OF VANES	6	6	6	6	6	6
INLET AREA (IN <sup>2</sup> )	5.90	5.90	12.00	12.00	15.20	15.20
MAX DIAMETER	9.80	9.80	9.80	9.80	10.00	10.00
MIN DIAMETER	6.50	6.50	6.50	6.50	7.60	7.60
MAX SPHERE	0.48	0.48	0.64	0.64	0.75	0.75
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	2.50	2.50	2.60	2.60	3.10	3.10
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		1.687	1.687	1.687	1.687	1.937	1.937
DIA THRU SLEEVE		1.499	1.499	1.499	1.499	1.874	1.874
DIA AT COUPLING		1.125	1.125	1.125	1.125	1.375	1.375
SHAFT SPAN - BRG TO BRG		22.00	22.00	25.25	25.25	25.25	25.25
BALL BEARING	INBOARD BRG #	6206	6206	6206	6206	6208	6208
	DIA THRU BRG	1.1816	1.1816	1.1816	1.1816	1.5753	1.5753
	OUTBOARD BRG #	5206	5206	5206	5206	5307	5307
	DIA THRU BRG	1.8160	1.8160	1.1816	1.1816	1.3750	1.3750
FRAME NUMBER		F20-G4	F20-G4	F20-H4	F20-H4	F20-I4	F20-I4
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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① PUMP	SIZE	8x6x12F-S	H8x6x12F-S	8x6x12F-M	H8x6x12F-M	8x6x13F	H8x6x13F
	TYPE	8100	8100	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	250	125	250	125	250
	DISCHARGE	125	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	375	200	375	200	375
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	75	200
MAX HYDROSTATIC PRESSURE (PSIG)		338	563	375	563	315	563
CASING WALL THICKNESS		0.44	0.44	0.5	0.44	0.44	0.44

### STUFFING BOX DESIGN

BORE	2.62	2.62	3.25	3.25	3.25	3.25
DEPTH	2.56	2.56	3.50	3.50	3.50	3.50
PACKING: # RINGS / SIZE SQUARE	5 / .38	5 / .38	5 / .50	5 / .50	5 / .50	5 / .50
SEAL CAGE WIDTH	0.50	0.50	0.75	0.75	0.75	0.75
SHAFT SLEEVE O.D.	1.88	1.88	2.25	2.25	2.25	2.25

### IMPELLER DESIGN

# OF VANES	5	5	5	5	7	7
INLET AREA (IN <sup>2</sup> )	27.00	27.00	19.60	19.60	44.40	44.40
MAX DIAMETER	12.80	12.80	11.60	11.60	13.10	13.10
MIN DIAMETER	7.00	7.00	6.50	6.50	7.00	7.00
MAX SPHERE	0.72	0.72	0.70	0.70	1.00	1.00
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	3.60	3.60	3.00	3.00	5.30	5.30
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		1.687	1.687	1.937	1.937	1.937	1.937
DIA THRU SLEEVE		1.499	1.499	1.874	1.874	1.874	1.874
DIA AT COUPLING		1.125	1.125	1.375	1.375	1.375	1.375
SHAFT SPAN - BRG TO BRG		22.90	22.90	25.25	25.25	27.25	27.25
BALL BEARING	INBOARD BRG #	6206	6206	6208	6208	6208	6208
	DIA THRU BRG	1.1816	1.1816	1.5753	1.5753	1.5753	1.5753
	OUTBOARD BRG #	5206	5206	5307	5307	5307	5307
	DIA THRU BRG	1.1816	1.1816	1.3785	1.3785	1.3785	1.3785
FRAME NUMBER		F20-C4	F20-C4	F20-B4	F20-B4	F20-D4	F20-D4
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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PUMP	SIZE	8x6x14F-S	H8x6x14F-S	8x6x14F-L	H8x6x14F-L	8x6x18F	H8x6x18F
	TYPE	8200	8200	8200	8200	8200	8200
STAGES		2	2	2	2	2	2

### CASING DESIGN

FLANGE RATING	SUCTION	125 OR 250	125 OR 250	125 OR 250	125 OR 250	125	250
	DISCHARGE	250	800	250	800	250	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		500	800	500	800	375	500
MAX SUCTION PRESSURE (PSIG)		100	300	100	300	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		750	1200	750	1200	563	750
CASING WALL THICKNESS		0.75	0.75	0.75	0.75	0.75	0.75

### STUFFING BOX DESIGN

BORE	3.75	3.75	3.75	3.75	3.75	3.75
DEPTH	4.06	4.06	4.06	4.06	4.06	4.06
PACKING: # RINGS / SIZE SQUARE	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50
SEAL CAGE WIDTH	0.94	0.94	0.94	0.94	0.94	0.94
SHAFT SLEEVE O.D.	2.75	2.75	2.75	2.75	2.75	2.75

### IMPELLER DESIGN

# OF VANES	6	6	6	6	4	4
INLET AREA (IN <sup>2</sup> )	26.75	26.75	33.14	33.14	28.72	28.72
MAX DIAMETER	14.00	14.00	14.00	14.00	18.00	18.00
MIN DIAMETER	9.00	9.00	9.00	9.00	13.50	13.50
MAX SPHERE	0.50	0.50	0.63	0.63	0.63	0.63
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	8.50	8.50	8.00	8.00	20.00	20.00
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		2.437	2.437	2.437	2.437	2.437	2.437
DIA THRU SLEEVE		2.375	2.375	2.375	2.375	2.375	2.375
DIA AT COUPLING		2.125	2.125	2.125	2.125	2.125	2.125
SHAFT SPAN - BRG TO BRG		33.45	33.45	33.45	33.45	33.45	33.45
BALL BEARING	INBOARD BRG #	5311	5311	5311	5311	5311	5311
	DIA THRU BRG	2.1654	2.1654	2.1654	2.1654	2.1654	2.1654
	OUTBOARD BRG #	73311BG (2)	73311BG (2)	73311BG (2)	73311BG (2)	73311BG (2)	73311BG (2)
	DIA THRU BRG	2.1654	2.1654	2.1654	2.1654	2.1654	2.1654
FRAME NUMBER		F27-A1	F27-A1	F27-A1	F27-A1	F27-A1	F27-A1
INSTRUCTION BOOK		AC2675	AC2675	AC2675	AC2675	AC2675	AC2675

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① PUMP	SIZE	8x6x18F	H8x6x18F	8x8x12F	H8x8x12F	8x8x17F	H8x8x17F
	TYPE	8100	8100	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	250	125	125 OR 250	125	250
	DISCHARGE	125	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	375	200	400	200	375
MAX SUCTION PRESSURE (PSIG)		100	200	75	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		390	563	300	600	338	563
CASING WALL THICKNESS		0.44	0.44	0.44	0.44	0.44	0.44

### STUFFING BOX DESIGN

BORE	3.25	3.25	3.25	3.25	3.75	3.75
DEPTH	3.50	3.50	3.50	3.50	3.62	3.62
PACKING: # RINGS / SIZE SQUARE	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50
SEAL CAGE WIDTH	0.75	0.75	0.75	0.75	0.94	0.94
SHAFT SLEEVE O.D.	2.25	2.25	2.25	2.25	2.75	2.75

### IMPELLER DESIGN

# OF VANES	6	6	7	7	7	7
INLET AREA (IN <sup>2</sup> )	18.30	18.30	61.90	61.90	40.20	40.20
MAX DIAMETER	17.20	17.20	12.80	12.80	17.70	17.70
MIN DIAMETER	13.00	13.00	8.00	8.00	10.00	10.00
MAX SPHERE	0.70	0.70	1.13	1.13	0.98	0.98
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	18.00	18.00	8.10	8.10	17.00	17.00
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		1.937	1.937	1.937	1.937	2.437	2.437
DIA THRU SLEEVE		1.874	1.874	1.874	1.874	2.374	2.374
DIA AT COUPLING		1.375	1.375	1.375	1.375	1.625	1.625
SHAFT SPAN - BRG TO BRG		27.25	27.25	27.25	27.25	29.90	29.90
BALL BEARING	INBOARD BRG #	6208	6208	6208	6208	6309	6309
	DIA THRU BRG	1.5753	1.5753	1.5753	1.5753	1.7500	1.7500
	OUTBOARD BRG #	5307	5307	5307	5307	5308	5308
	DIA THRU BRG	1.3785	1.3785	1.3785	1.3785	1.5753	1.5753
FRAME NUMBER		F20-D4	F20-D4	F20-D4	F20-D4	F20-E4	F20-E4
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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① PUMP	SIZE	10x8x17F-S	H10x8x17F-S	10x8x17F-L	H10x8x17F-L	10x8x20F-S	H10x8x20F-S
	TYPE	8100	8100	8100	8100	8100	8100
STAGES		1	1	1	1	1	1

**CASING DESIGN**

FLANGE RATING	SUCTION	125	250	125	250	125	250
	DISCHARGE	125	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	375	200	375	200	375
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		300	555	300	555	300	555
CASING WALL THICKNESS		0.5	0.5	0.5	0.5	0.62	0.62

**STUFFING BOX DESIGN**

BORE	3.75	3.75	3.75	3.75	3.75	3.75
DEPTH	3.62	3.62	3.62	3.62	3.62	3.62
PACKING: # RINGS / SIZE SQUARE	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50	5 / .50
SEAL CAGE WIDTH	0.94	0.94	0.94	0.94	0.94	0.94
SHAFT SLEEVE O.D.	2.75	2.75	2.75	2.75	2.75	2.75

**IMPELLER DESIGN**

# OF VANES	7	7	5	5	6	6
INLET AREA (IN <sup>2</sup> )	57.50	57.50	65.60	65.60	68.40	68.40
MAX DIAMETER	17.00	17.00	17.30	17.30	20.70	20.70
MIN DIAMETER	10.00	10.00	12.00	12.00	12.00	12.00
MAX SPHERE	0.97	0.97	1.15	1.15	0.53	0.53
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	20.70	20.70	22.40	22.40	21.70	21.70
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

**SHAFT AND BEARING DATA**

DIA THRU IMPELLER		2.437	2.437	2.437	2.437	2.437	2.437
DIA THRU SLEEVE		2.374	2.374	2.374	2.374	2.374	2.374
DIA AT COUPLING		1.625	1.625	1.625	1.625	1.625	1.625
SHAFT SPAN - BRG TO BRG		29.90	29.90	29.90	29.90	29.90	29.90
BALL BEARING	INBOARD BRG #	6309	6309	6309	6309	6309	6309
	DIA THRU BRG	1.7500	1.7500	1.7500	1.7500	1.7500	1.7500
	OUTBOARD BRG #	5308	5308	5308	5308	5308	5308
	DIA THRU BRG	1.5753	1.5753	1.5753	1.5753	1.5753	1.5753
FRAME NUMBER		F20-E4	F20-E4	F20-E4	F20-E4	F20-E4	F20-E4
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC2515	AC2515

① "H" PREFIX INDICATES HIGH PRESSURE CASING

② FM APPROVED ONLY



# ITT

## A-C FIRE PUMP SYSTEMS

General Information and  
Engineering Data

FP 1.0

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Supersedes all previous issues

① PUMP	SIZE	10x8x20F-L	H10x8x20F-L	12x10x18F	H12x10x18F	12x8x21F	H12x8x21F
	TYPE	8100	8100	8100	8100	9100	9100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	250	125	250	125	250
	DISCHARGE	125	250	125	250	250	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		200	375	200	375	250	375
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		262	555	345	563	375	563
CASING WALL THICKNESS		0.62	0.62	0.56	0.56	0.62	0.62

### STUFFING BOX DESIGN

BORE	3.75	3.75	3.75	3.75	5.12	5.12
DEPTH	3.62	3.62	3.62	3.62	4.81	4.81
PACKING: # RINGS / SIZE SQUARE	5 / .50	5 / .50	5 / .50	5 / .50	6 / .62	6 / .62
SEAL CAGE WIDTH	0.94	0.94	0.94	0.94	0.75	0.75
SHAFT SLEEVE O.D.	2.75	2.75	2.75	2.75	3.88	3.88

### IMPELLER DESIGN

# OF VANES	6	6	8	8	6	6
INLET AREA (IN <sup>2</sup> )	74.00	74.00	53.40	53.40	35.70	35.70
MAX DIAMETER	20.20	20.20	18.00	18.00	21.80	21.80
MIN DIAMETER	12.00	12.00	12.50	12.50	12.50	12.50
MAX SPHERE	0.75	0.75	0.90	0.90	1.00	1.00
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	22.50	22.50	24.20	24.20	49.00	49.00
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		2.437	2.437	2.437	2.437	3.311	3.311
DIA THRU SLEEVE		2.374	2.374	2.374	2.374	3.311	3.311
DIA AT COUPLING		1.625	1.625	1.625	1.625	3.125	3.125
SHAFT SPAN - BRG TO BRG		29.90	29.90	29.90	29.90	35.80	35.80
BALL BEARING	INBOARD BRG #	6309	6309	6309	6309	6316	6316
	DIA THRU BRG	1.7500	1.7500	1.7500	1.7500	3.1502	3.1502
	OUTBOARD BRG #	5308	5308	5308	5308	21316	21316
	DIA THRU BRG	1.5753	1.5753	1.5753	1.5753	3.1502	3.1502
FRAME NUMBER		F20-E4	F20-E4	F20-E4	F20-E4	F21-D6	F21-D6
INSTRUCTION BOOK		AC2515	AC2515	AC2515	AC2515	AC8599	AC8599

① "H" PREFIX INDICATES HIGH PRESSURE CASING



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PUMP	SIZE	12x8x22F-M	H12x8x22F-M	14x10x20F-S	H14x10x20F-S	14x10x20F-L	H14x10x20F-L
	TYPE	9100	9100	9100	9100	9100	9100
STAGES		1	1	1	1	1	1

### CASING DESIGN

FLANGE RATING	SUCTION	125	250	125	250	125	250
	DISCHARGE	250	250	125	250	125	250
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12	CAST IRON ASTM A48 CLASS 35	DUCTILE IRON ASTM A536 GR 65-45-12
MAX DISCHARGE PRESSURE (PSIG)		250	375	175	255	175	255
MAX SUCTION PRESSURE (PSIG)		100	200	100	200	100	200
MAX HYDROSTATIC PRESSURE (PSIG)		405	563	262	383	262	383
CASING WALL THICKNESS		0.62	0.62	0.62	0.62	0.62	0.62

### STUFFING BOX DESIGN

BORE	5.12	5.12	5.12	5.12	5.12	5.12
DEPTH	4.81	4.81	4.81	4.81	4.81	4.81
PACKING: # RINGS / SIZE SQUARE	6 / .62	6 / .62	6 / .62	6 / .62	6 / .62	6 / .62
SEAL CAGE WIDTH	0.75	0.75	0.75	0.75	0.75	0.75
SHAFT SLEEVE O.D.	3.88	3.88	3.88	3.88	3.88	3.88

### IMPELLER DESIGN

# OF VANES	5	5	6	6	6	6
INLET AREA (IN <sup>2</sup> )	68.00	68.00	112.00	112.00	129.00	129.00
MAX DIAMETER	21.00	21.00	19.80	19.80	19.80	19.80
MIN DIAMETER	12.00	12.00	9.40	9.40	14.00	14.00
MAX SPHERE	1.40	1.40	1.63	1.63	1.56	1.56
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	52.00	52.00	46.90	46.90	52.00	52.00
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017	.015-.017

### SHAFT AND BEARING DATA

DIA THRU IMPELLER		3.311	3.311	3.311	3.311	3.311	3.311
DIA THRU SLEEVE		3.311	3.311	3.311	3.311	3.311	3.311
DIA AT COUPLING		3.125	3.125	3.125	3.125	3.125	3.125
SHAFT SPAN - BRG TO BRG		35.80	35.80	40.50	40.50	40.50	40.50
BALL BEARING	INBOARD BRG #	6316	6316	6316	6316	6316	6316
	DIA THRU BRG	3.1502	3.1502	3.1502	3.1502	3.1502	3.1502
	OUTBOARD BRG #	21316	21316	21316	21316	21316	21316
	DIA THRU BRG	3.1502	3.1502	3.1502	3.1502	3.1502	3.1502
FRAME NUMBER		F21-D6	F21-D6	F21-E6	F21-E7	F21-E8	F21-E9
INSTRUCTION BOOK		AC8599	AC8599	AC8599	AC8599	AC8599	AC8599

① "H" PREFIX INDICATES HIGH PRESSURE CASING



Supersedes all previous issues

① PUMP	SIZE	16x12x23F				
	TYPE	9100				
STAGES		1				

**CASING DESIGN**

FLANGE RATING	SUCTION	125				
	DISCHARGE	125				
CASING MATERIAL		CAST IRON ASTM A48 CLASS 35				
MAX DISCHARGE PRESSURE (PSIG)		175				
MAX SUCTION PRESSURE (PSIG)		100				
MAX HYDROSTATIC PRESSURE (PSIG)		262				
CASING WALL THICKNESS		0.62				

**STUFFING BOX DESIGN**

BORE	5.12				
DEPTH	4.81				
PACKING: # RINGS / SIZE SQUARE	6 / .62				
SEAL CAGE WIDTH	0.75				
SHAFT SLEEVE O.D.	3.88				

**IMPELLER DESIGN**

# OF VANES	6				
INLET AREA (IN <sup>2</sup> )	150.00				
MAX DIAMETER	23.00				
MIN DIAMETER	13.00				
MAX SPHERE	1.63				
WR <sup>2</sup> FOR MAX DIA (LBS-FT <sup>2</sup> )	109.00				
WEAR RING CLEARANCE - DIAMETRICAL	.015-.017				

**SHAFT AND BEARING DATA**

DIA THRU IMPELLER		3.311			
DIA THRU SLEEVE		3.311			
DIA AT COUPLING		3.125			
SHAFT SPAN - BRG TO BRG		40.50			
BALL BEARING	INBOARD BRG #	6316			
	DIA THRU BRG	3.1502			
	OUTBOARD BRG #	21316			
	DIA THRU BRG	3.1502			
FRAME NUMBER		F21-E10			
INSTRUCTION BOOK		AC8599			

① "H" PREFIX INDICATES HIGH PRESSURE CASING