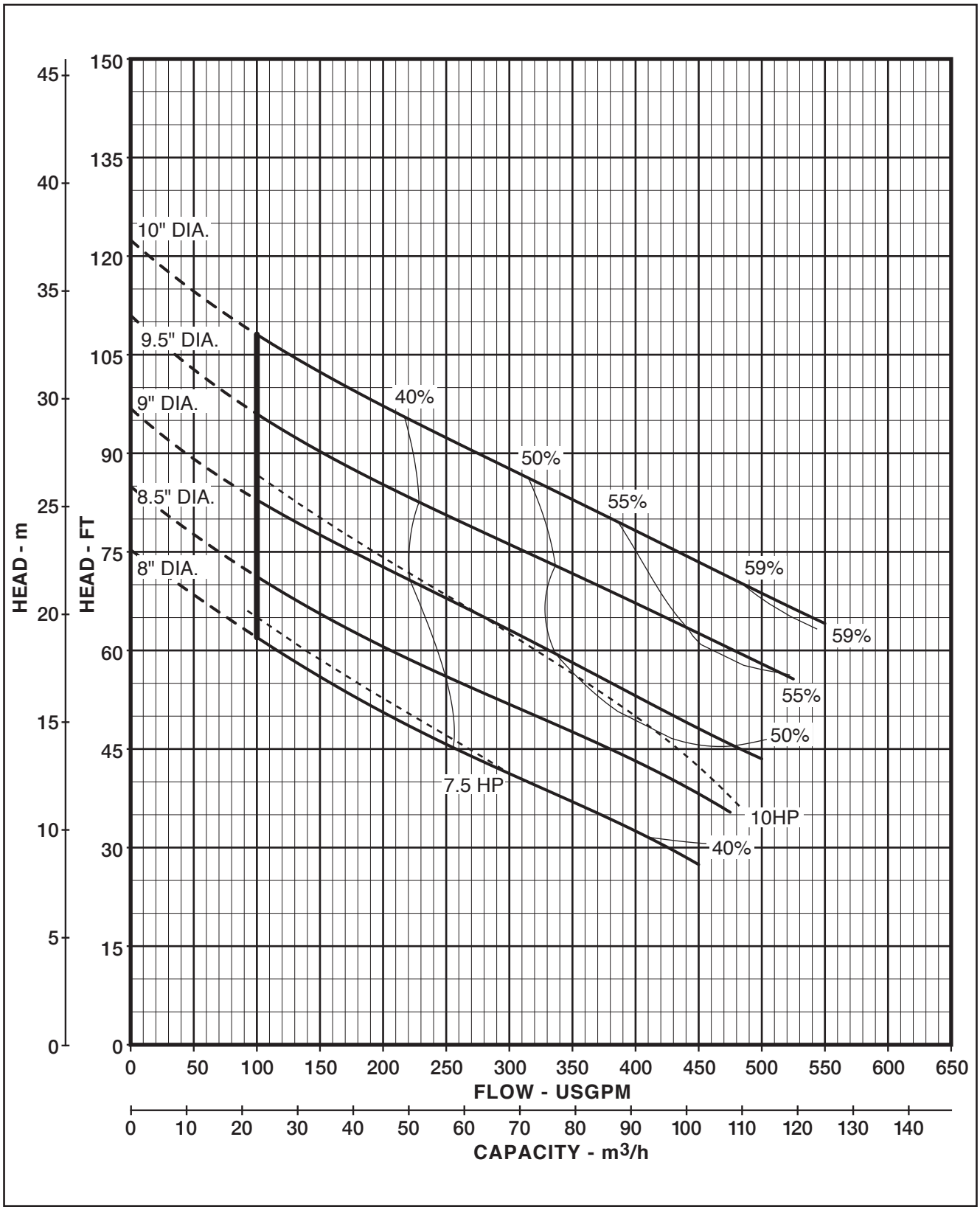
Performance Curve – H3H(X)P

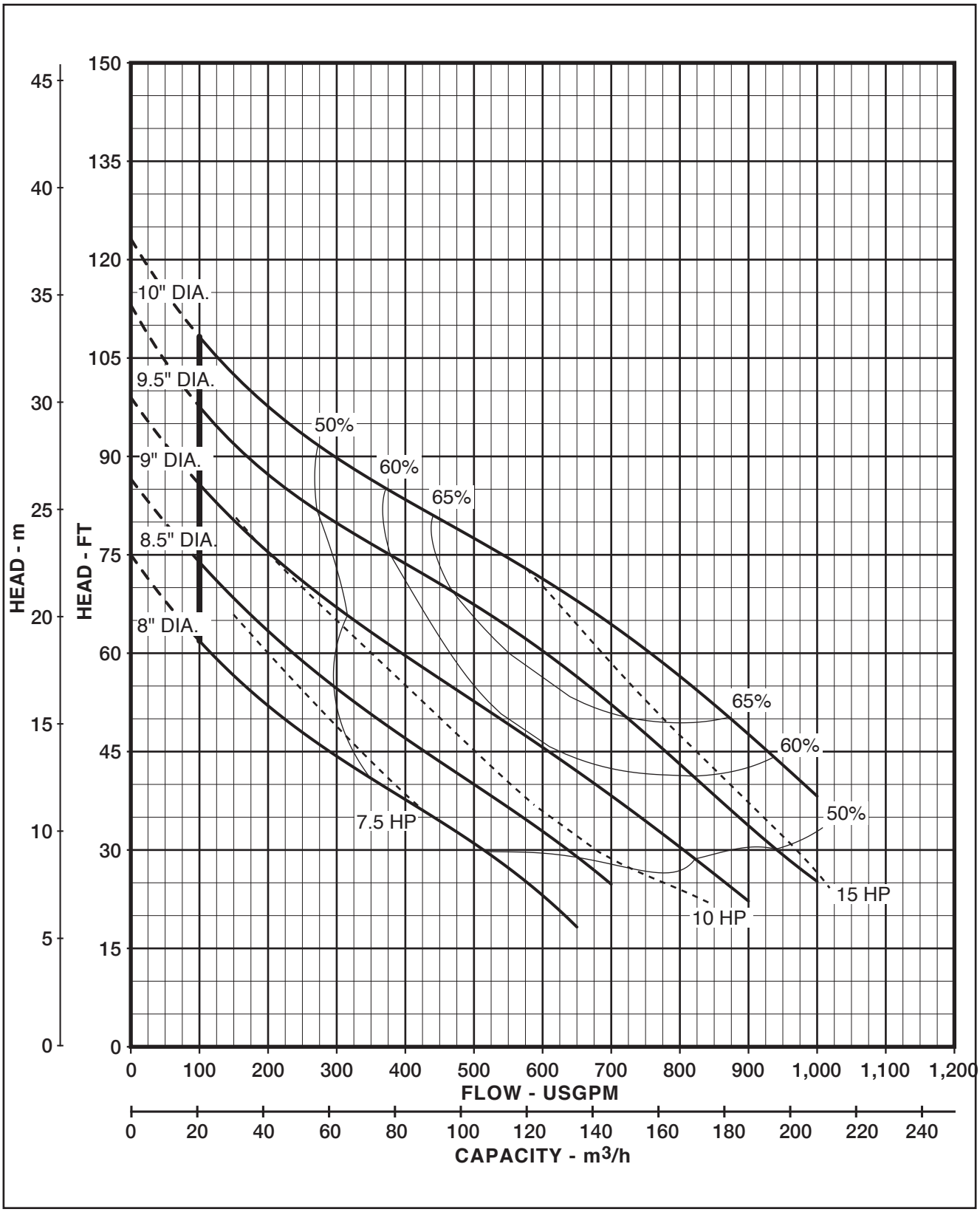
RPM: **1750** DISCHARGE: **3"** SOLIDS: **3"**



PENTAIR HYDROMATIC®

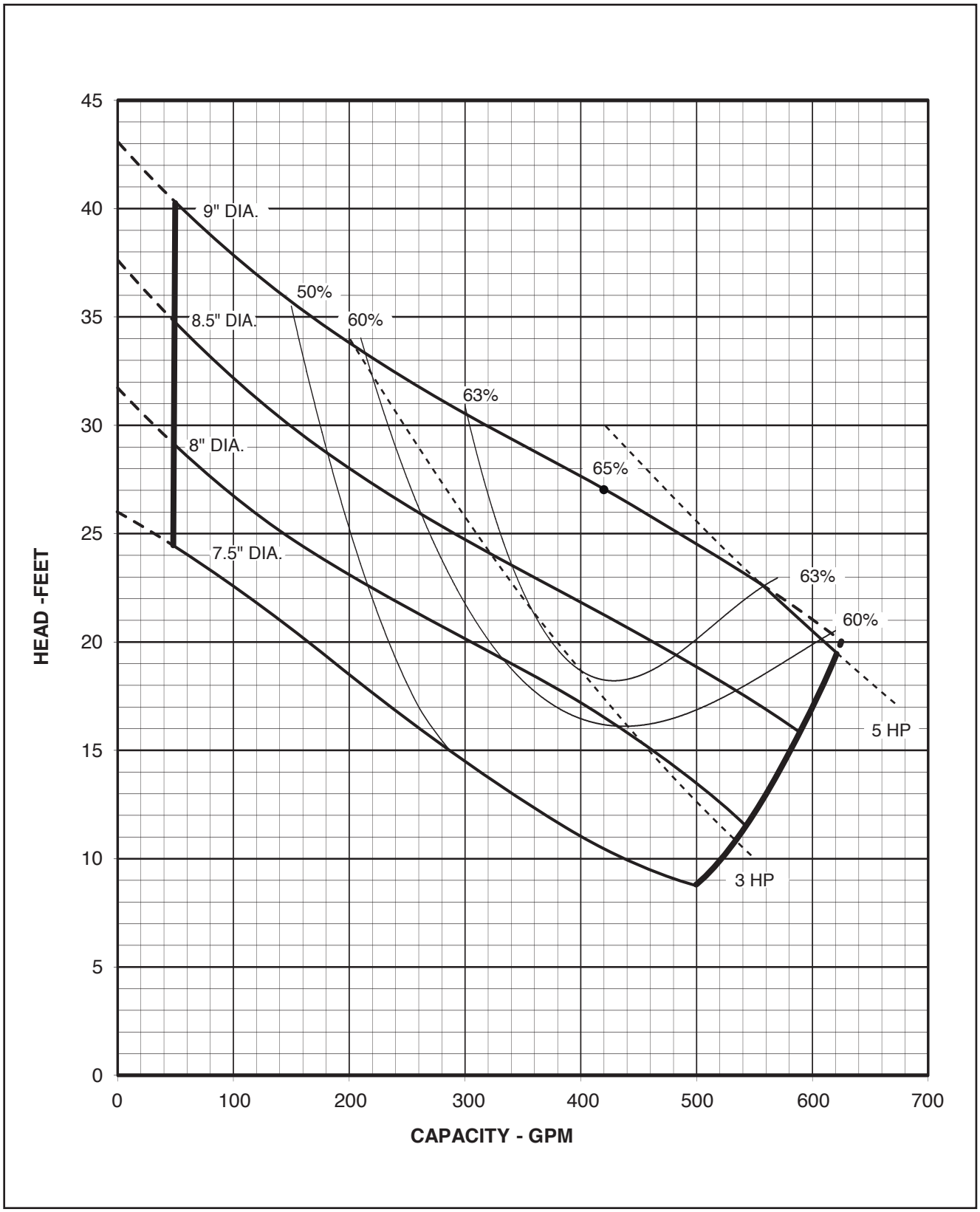
Performance Curve – H4H(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



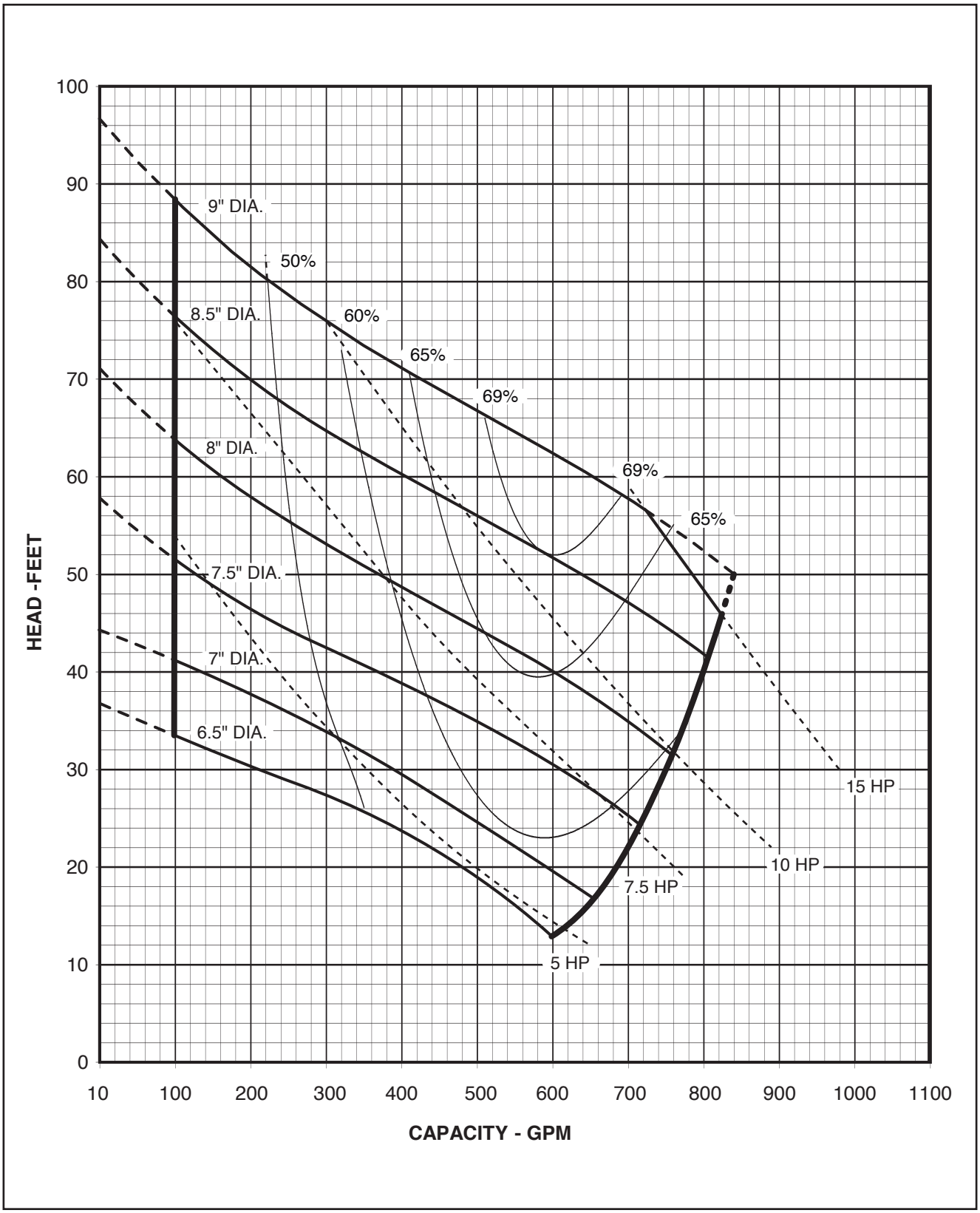
Performance Curve – S4M(X)P

RPM: **1150** DISCHARGE: **4"** SOLIDS: **3"**



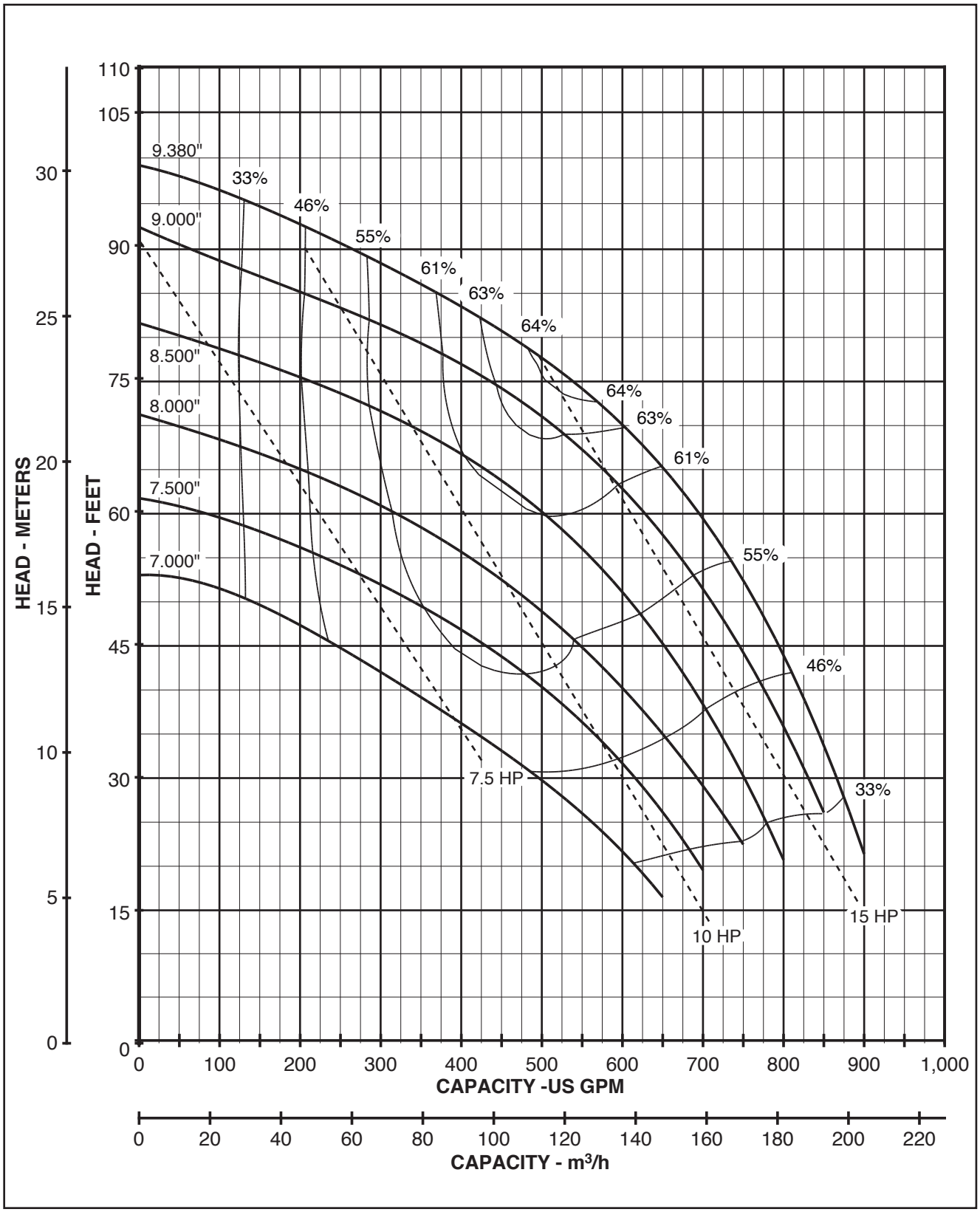
Performance Curve – S4M(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



Performance Curve – C4S(X)P

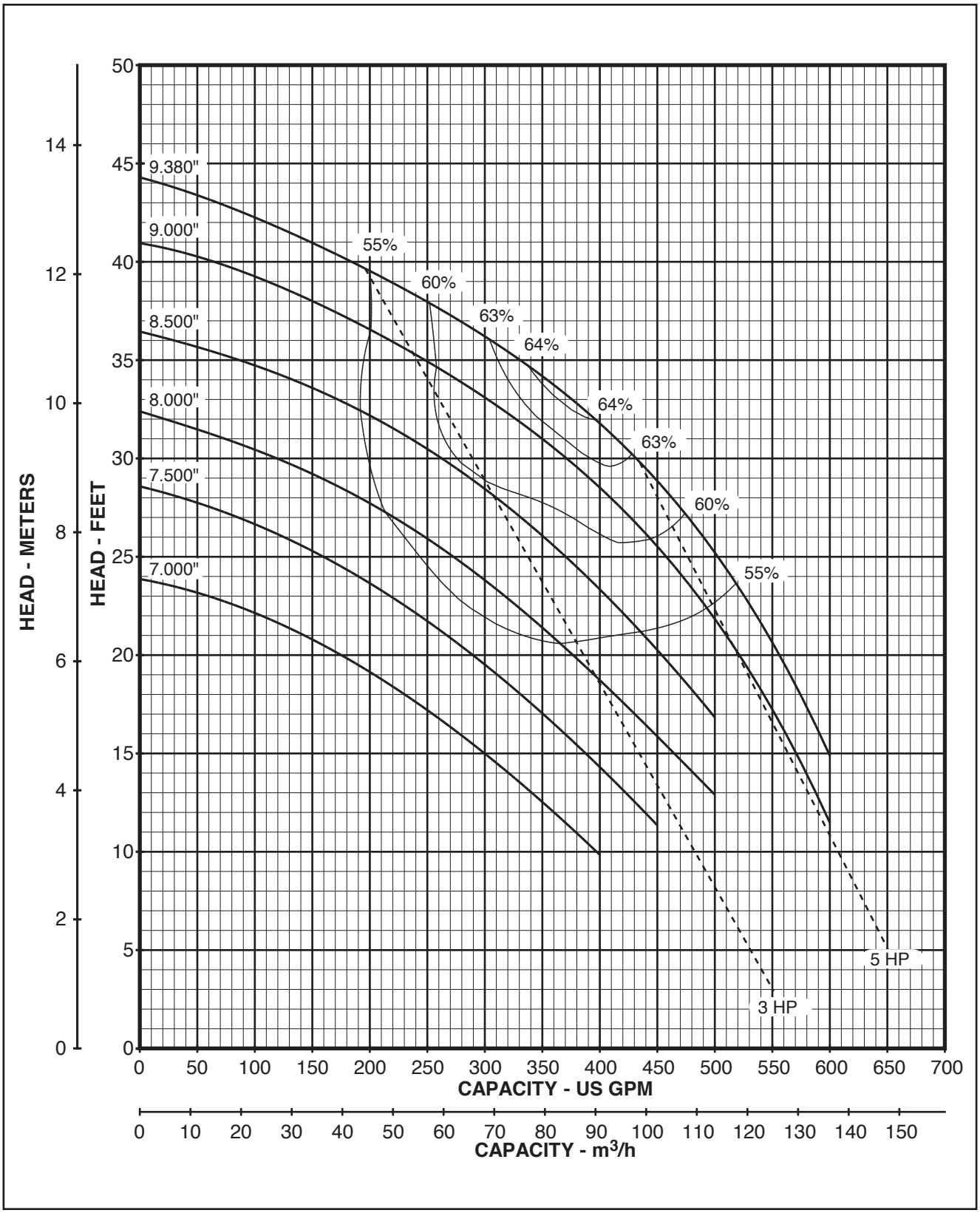
RPM: **1750** DISCHARGE: **4"**



PENTAIR HYDROMATIC®

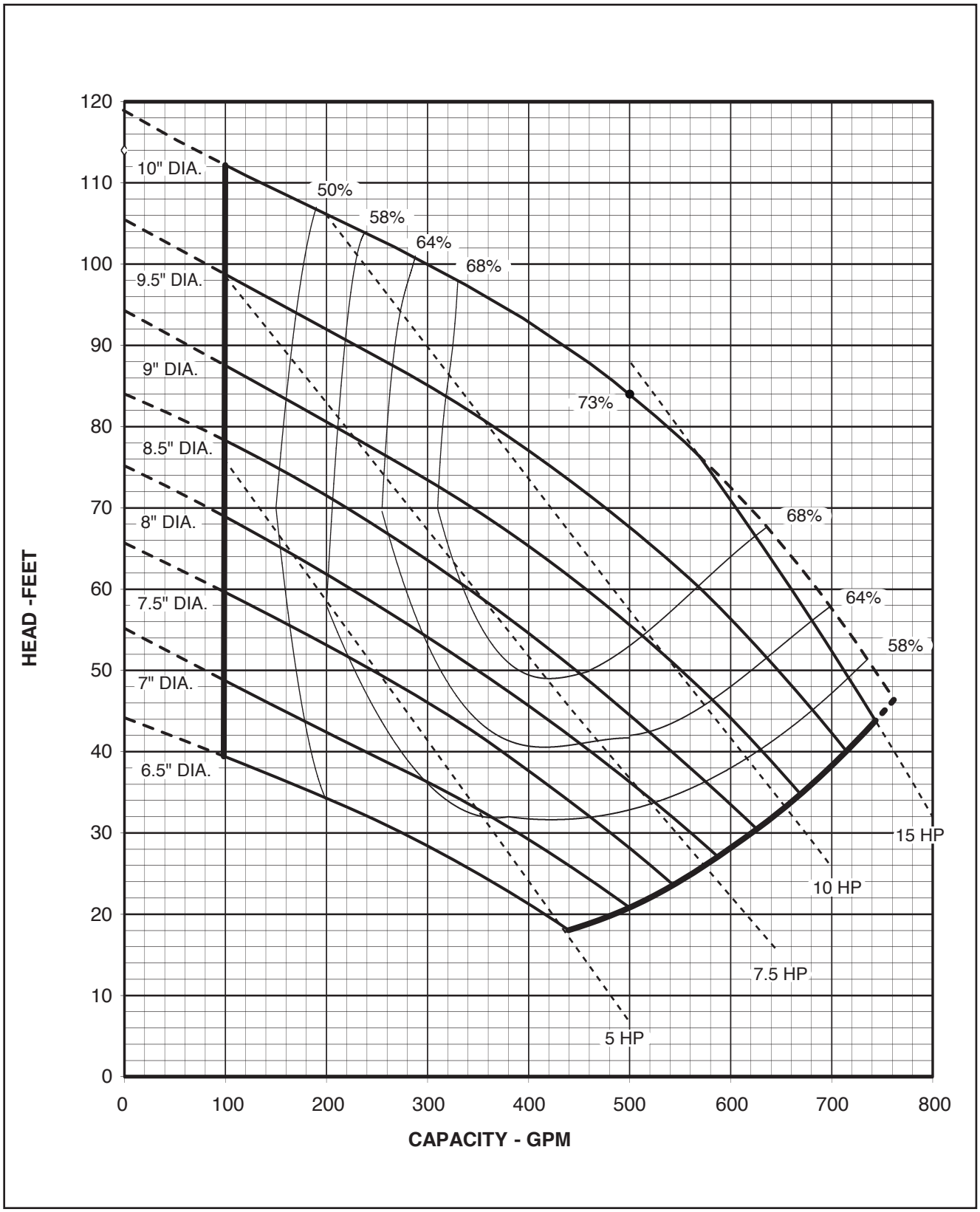
Performance Curve – C4S(X)P

RPM: **1150** DISCHARGE: **4"**



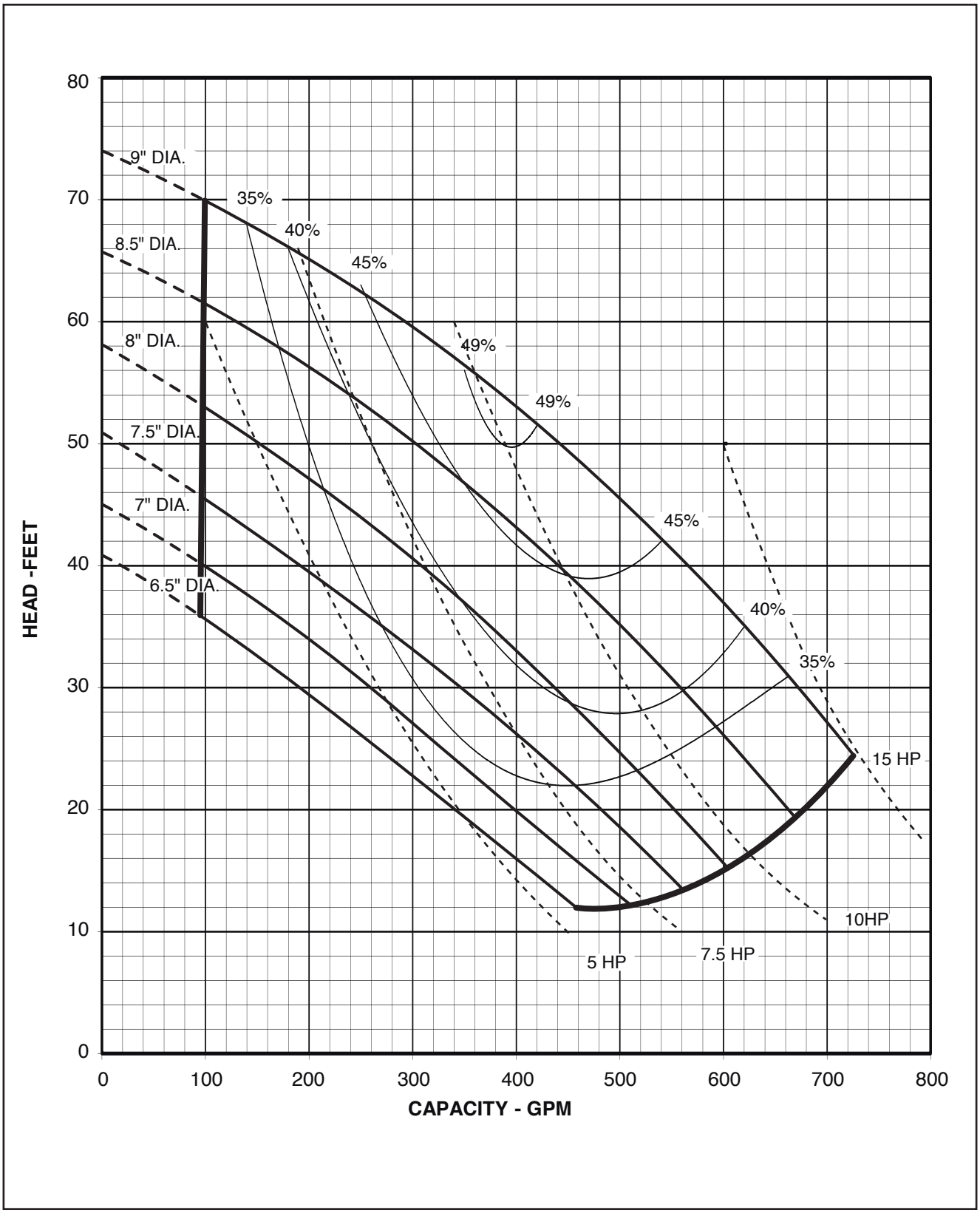
Performance Curve – S4P(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **2"**



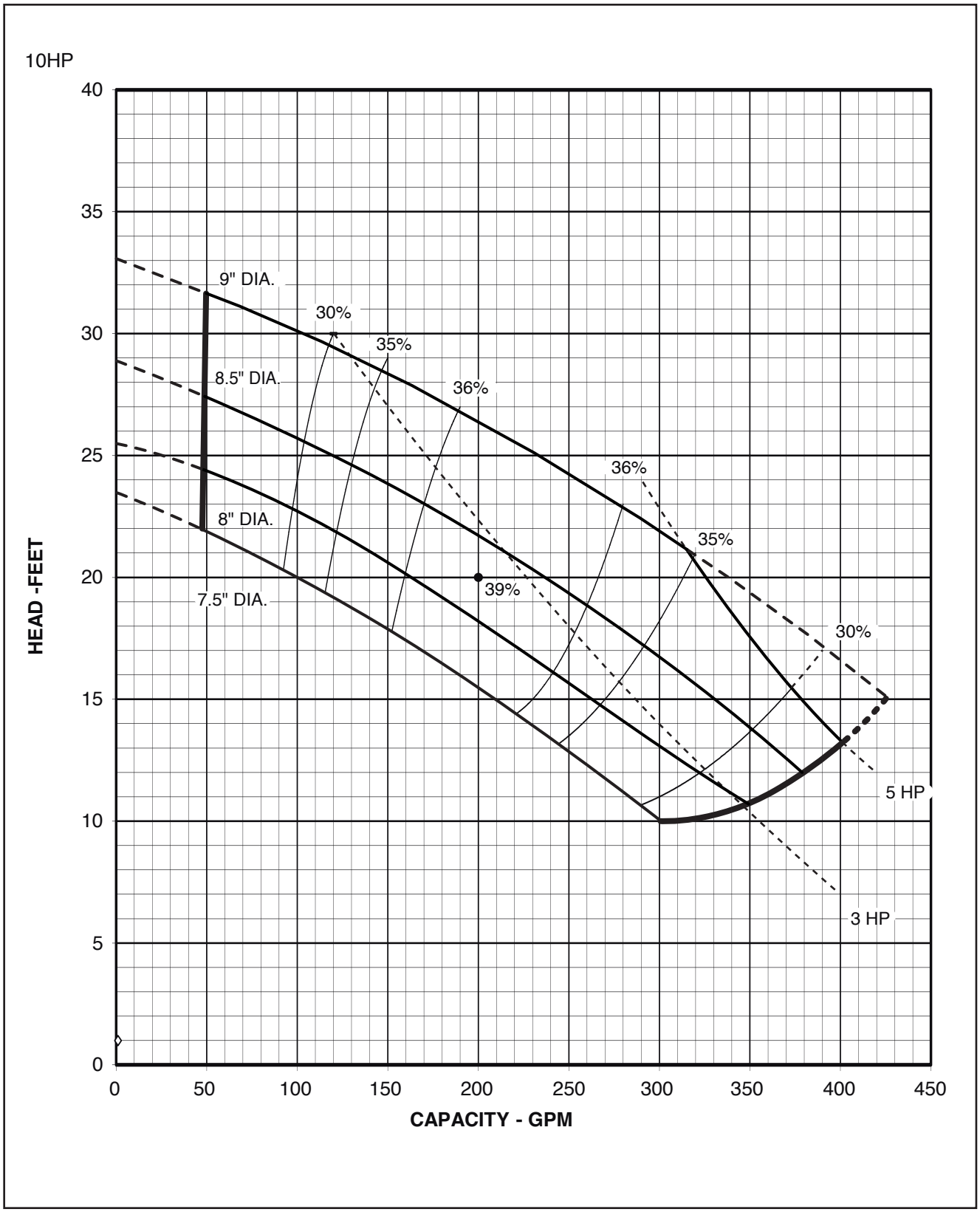
Performance Curve – S4MV(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



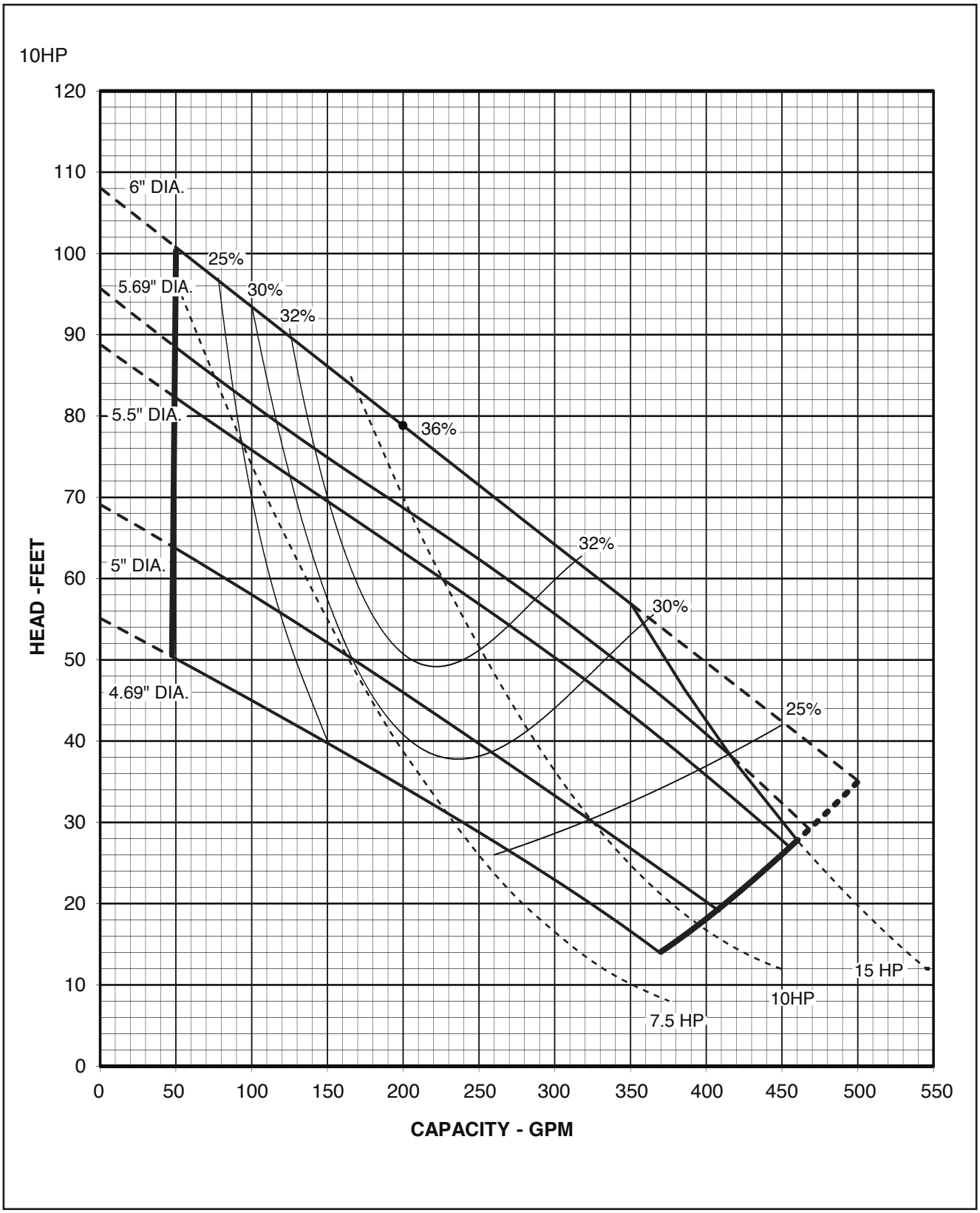
Performance Curve – S4MV(X)P

RPM: **1150** DISCHARGE: **4"** SOLIDS: **3"**



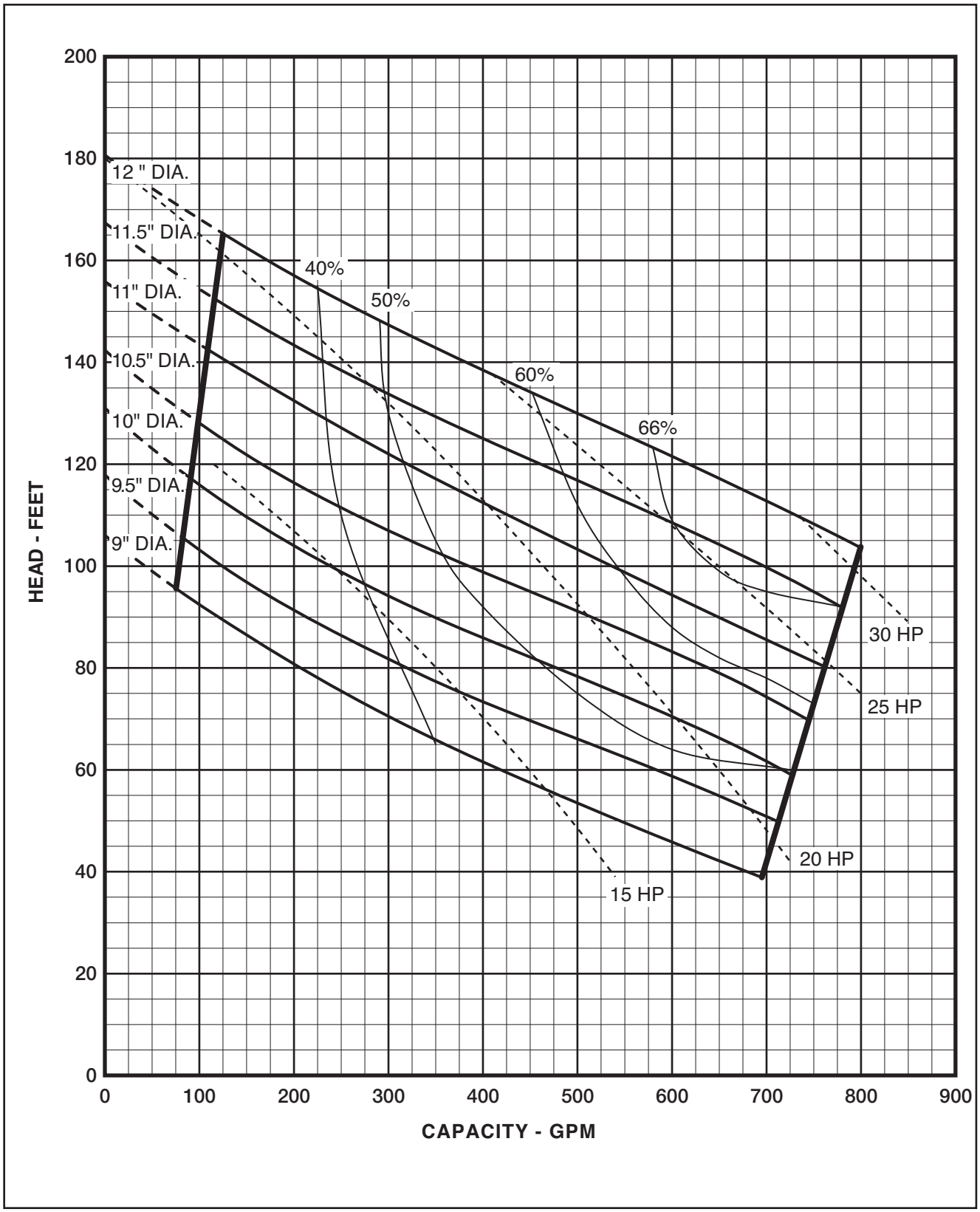
Performance Curve – S4HV(X)P

RPM: **3450** DISCHARGE: **4"** SOLIDS: **3"**



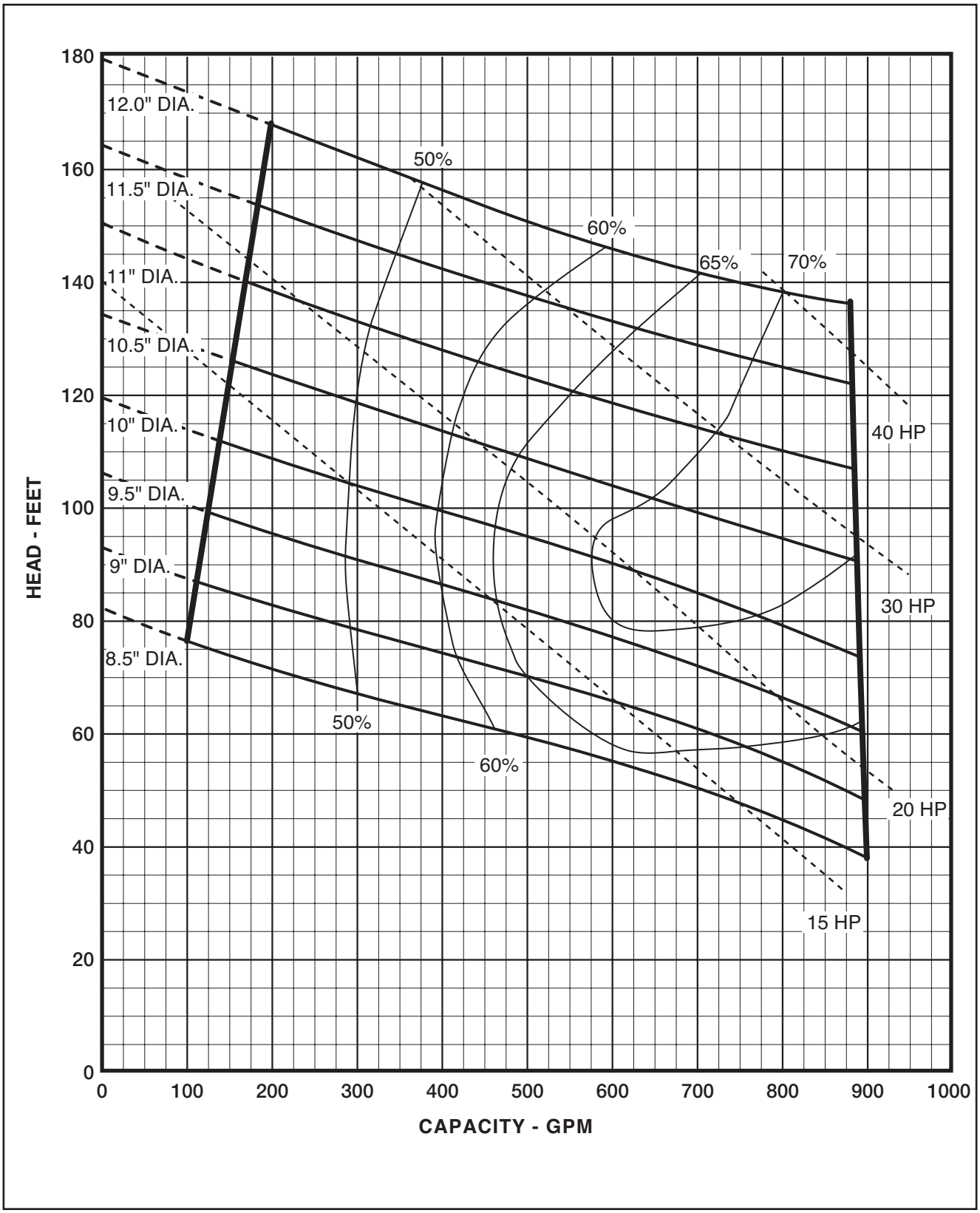
Performance Curve – H4Q(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



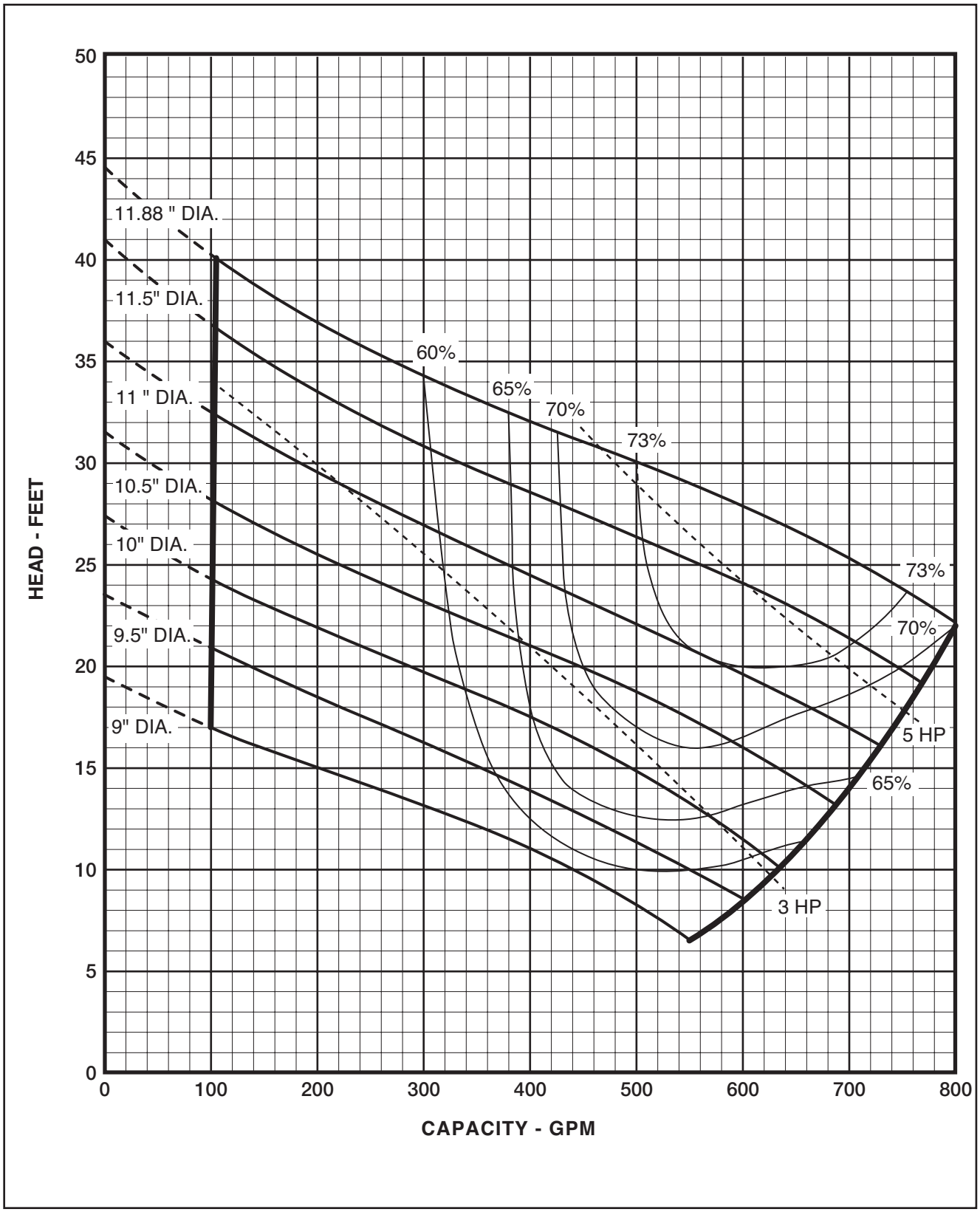
Performance Curve – S4K(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



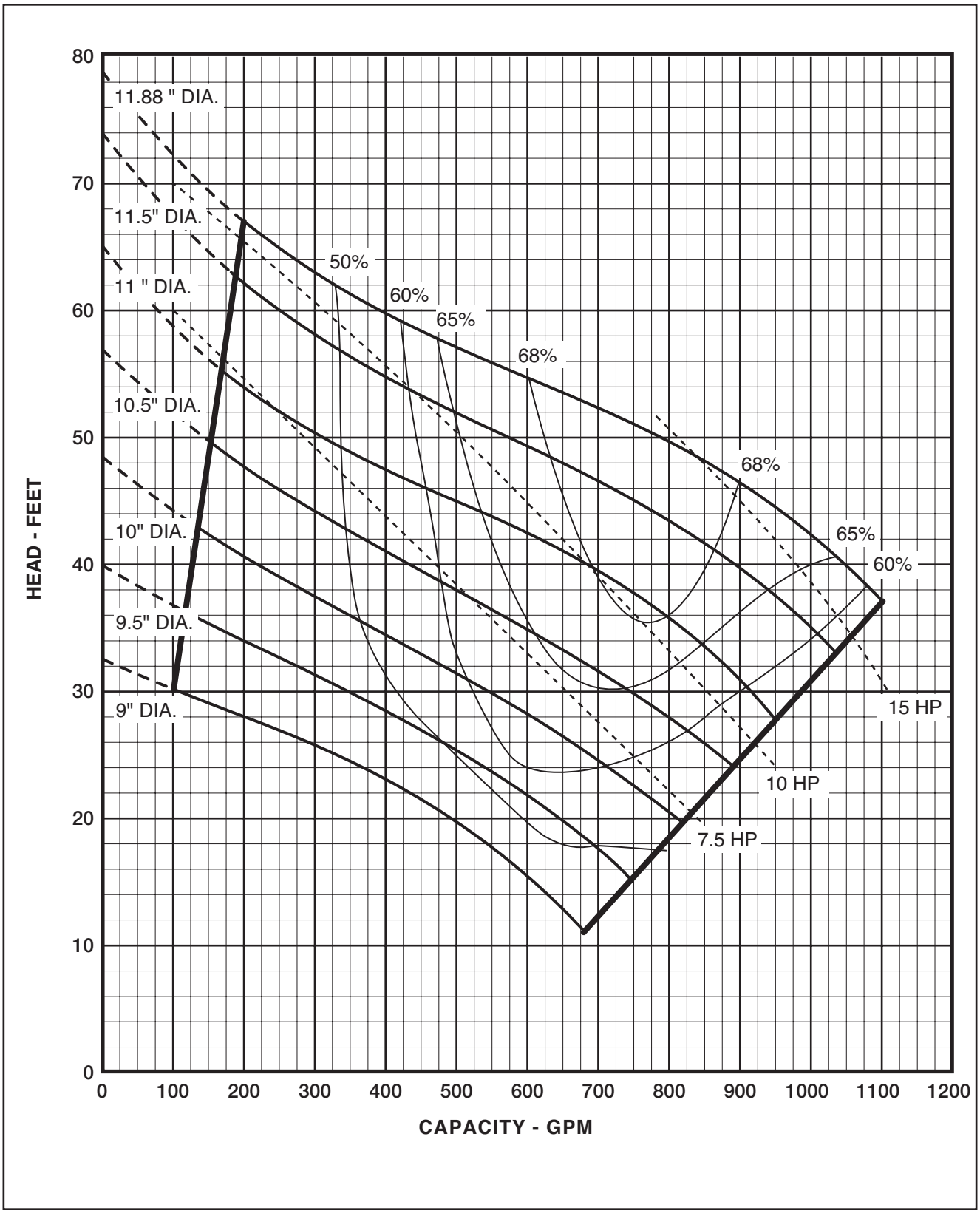
Performance Curve – S4L(X)P

RPM: **870** DISCHARGE: **4"** SOLIDS: **3-1/4"**



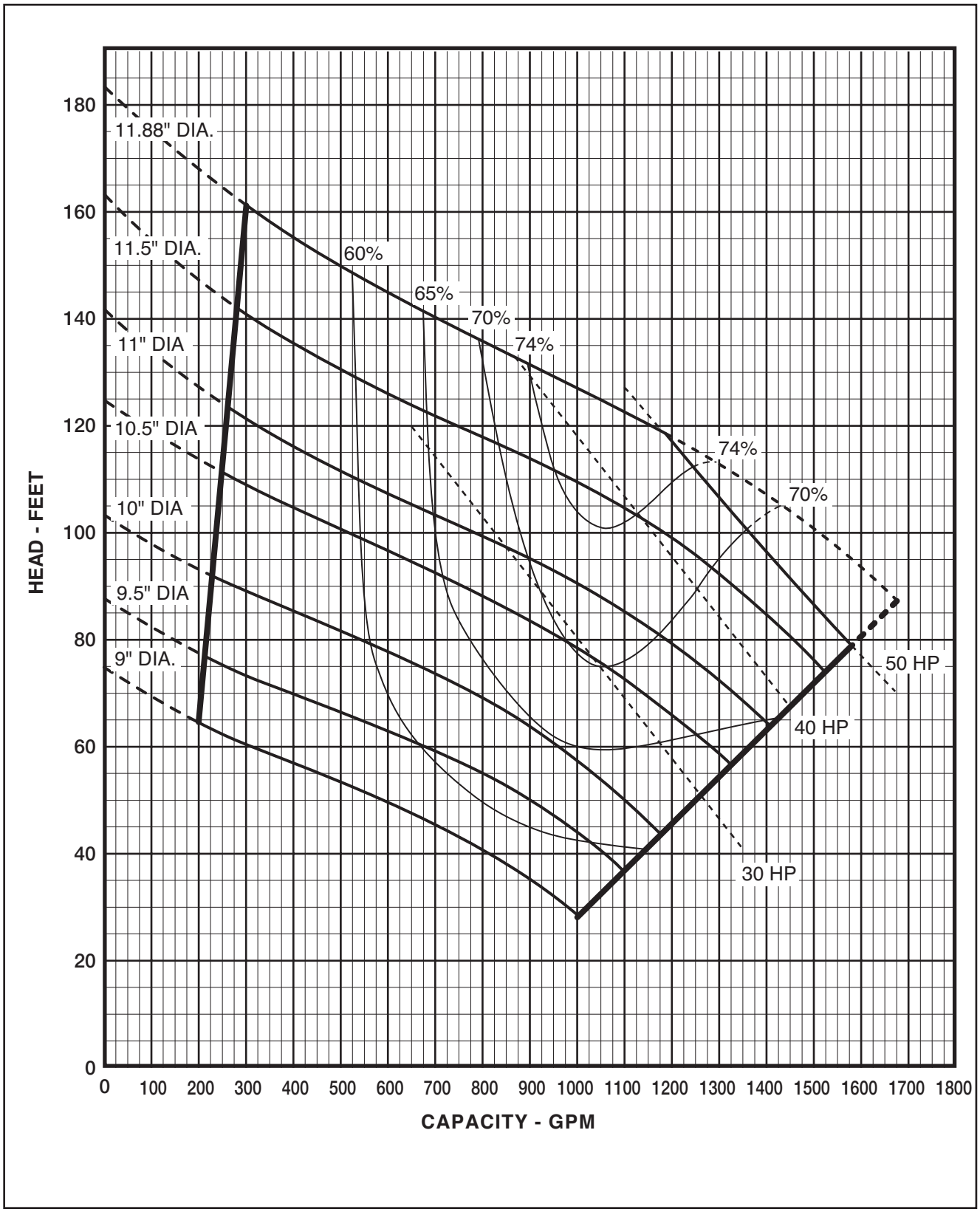
Performance Curve – S4L(X)P

RPM: **1150** DISCHARGE: **4"** SOLIDS: **3-1/4"**



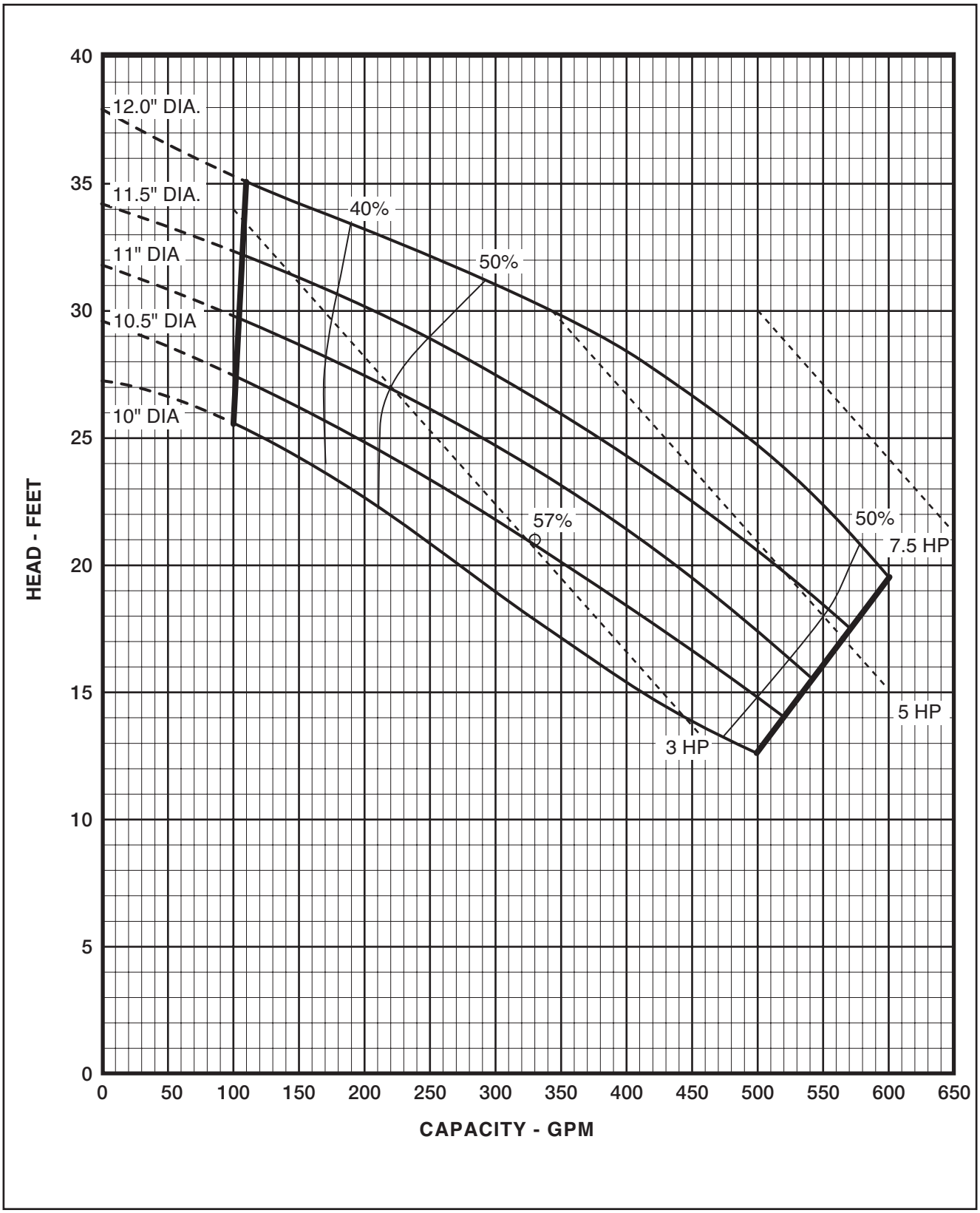
Performance Curve – S4L(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3-1/4"**



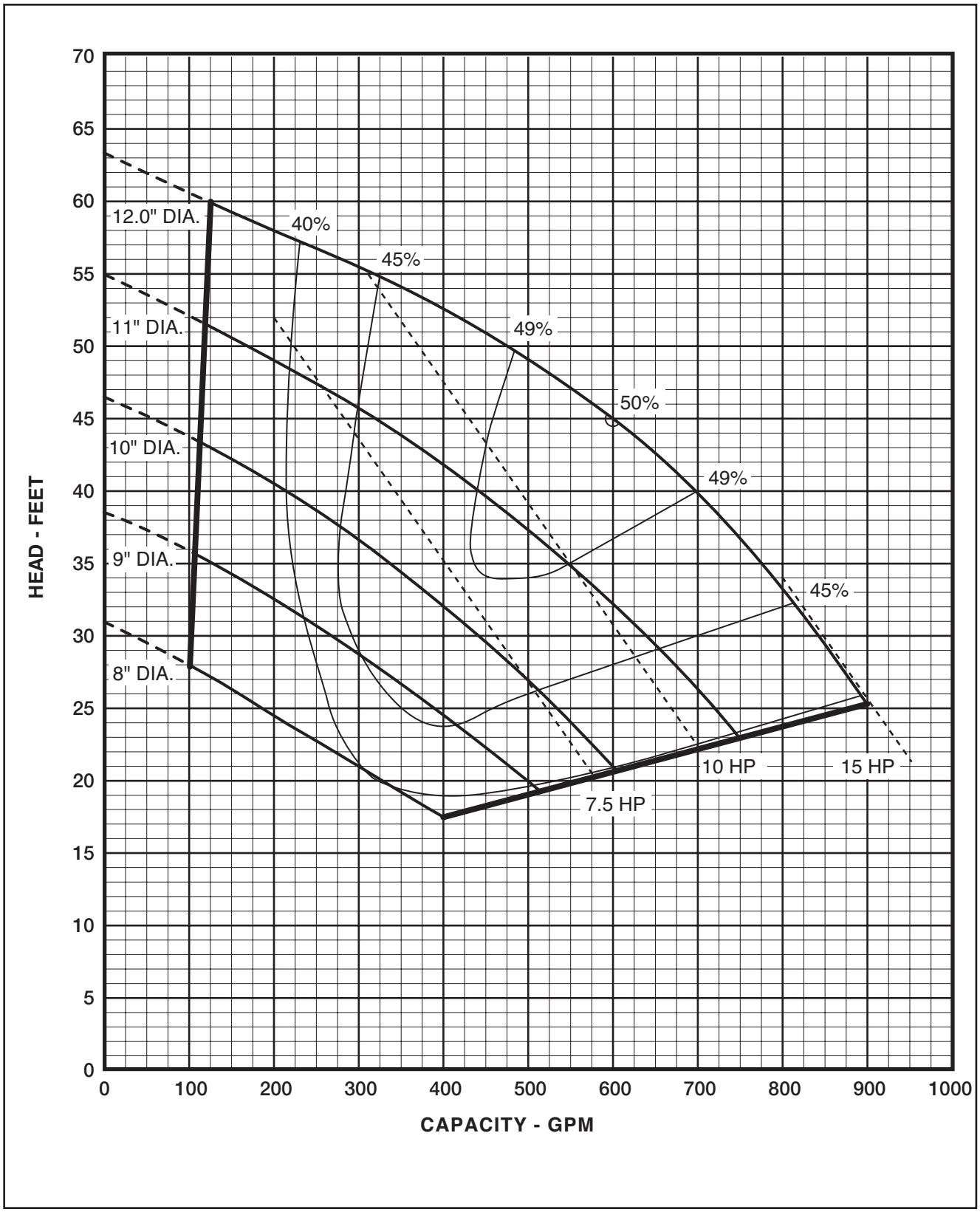
Performance Curve – S4LV(X)P

RPM: **870** DISCHARGE: **4"** SOLIDS: **3-1/4"**



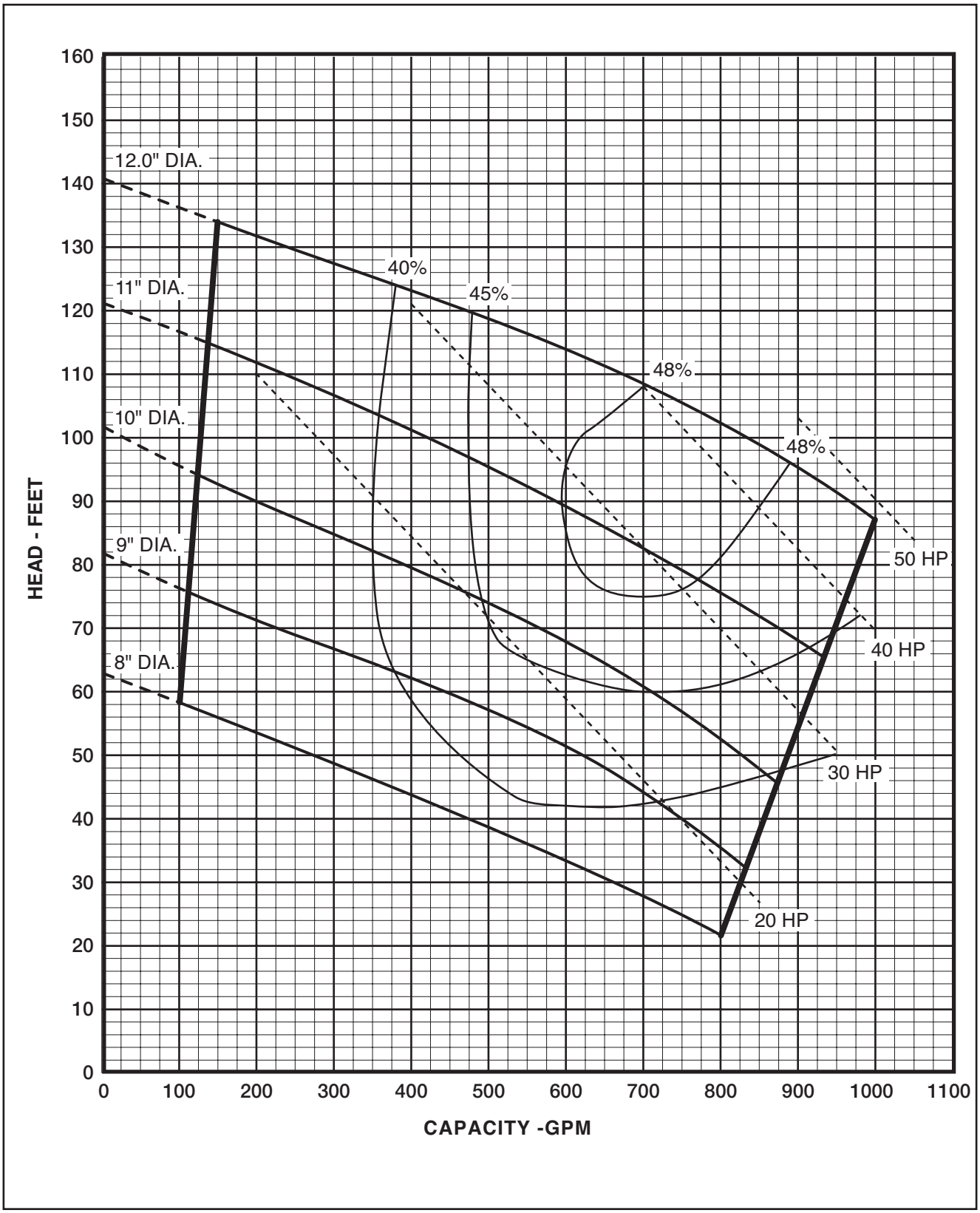
Performance Curve – S4LV(X)P

RPM: **1150** DISCHARGE: **4"** SOLIDS: **3-1/4"**



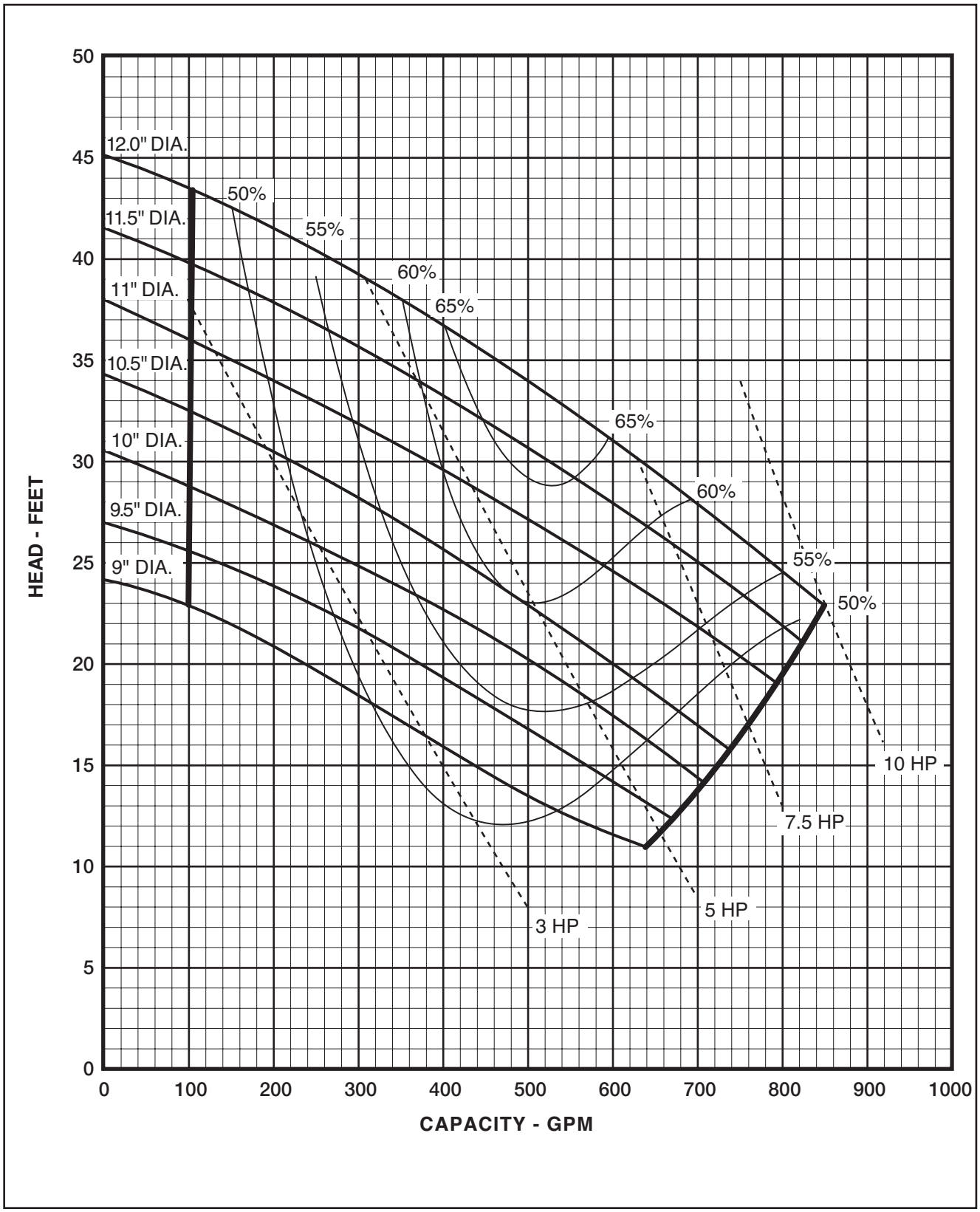
Performance Curve – S4LV(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3-1/4"**



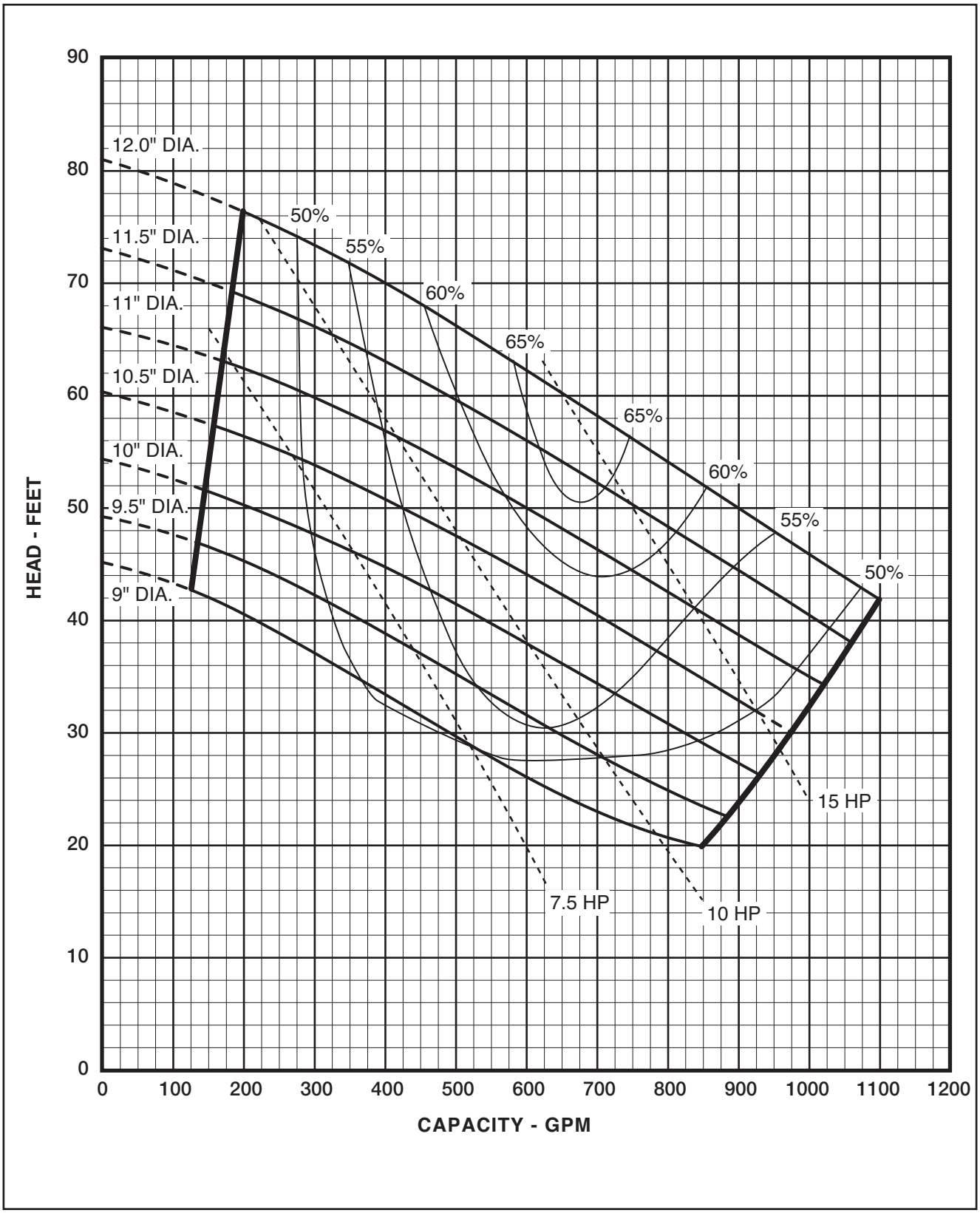
Performance Curve – S4B(X)P

RPM: **870** DISCHARGE: **4"** SOLIDS: **3"**



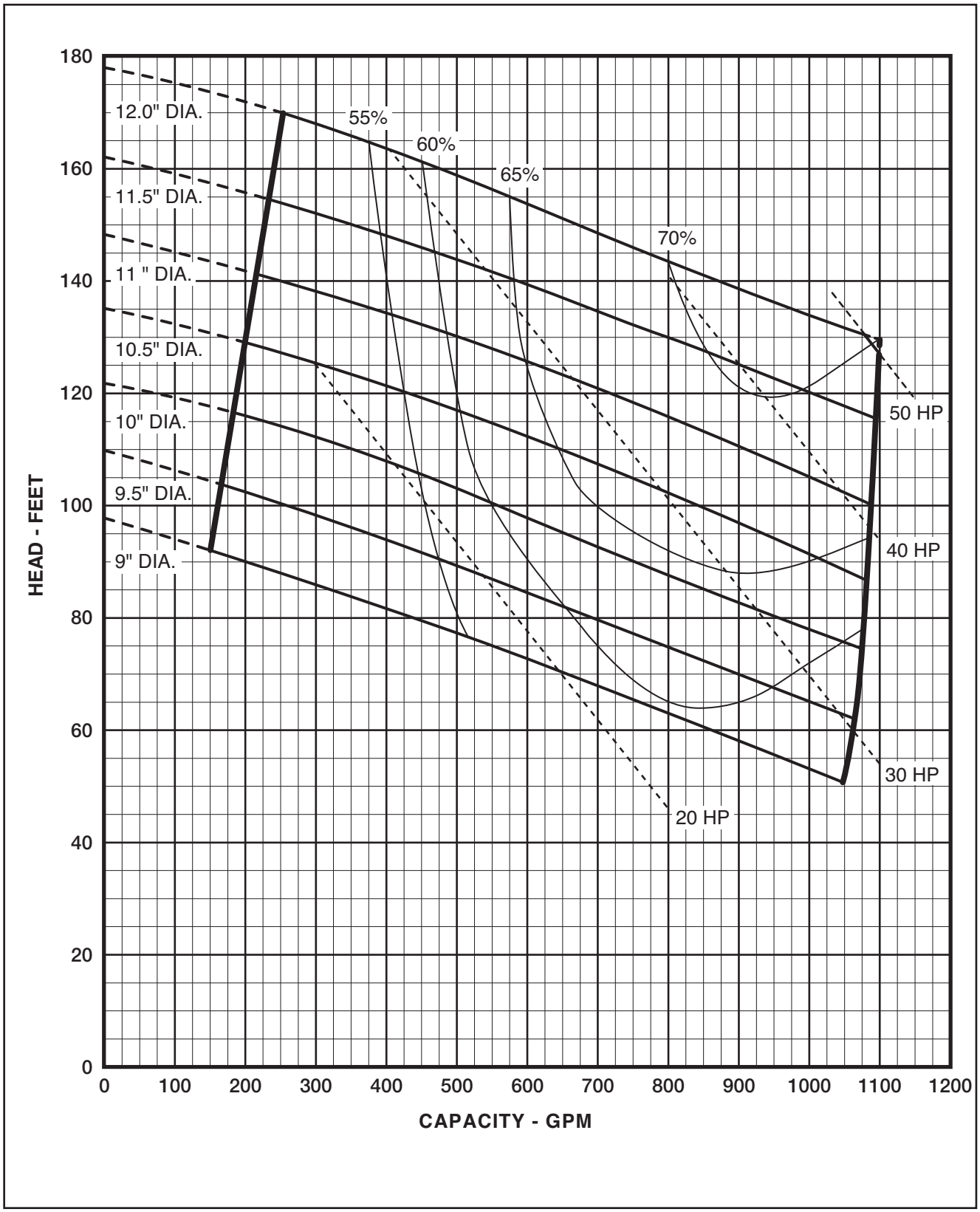
Performance Curve – S4B(X)P

RPM: **1150** DISCHARGE: **4"** SOLIDS: **3"**



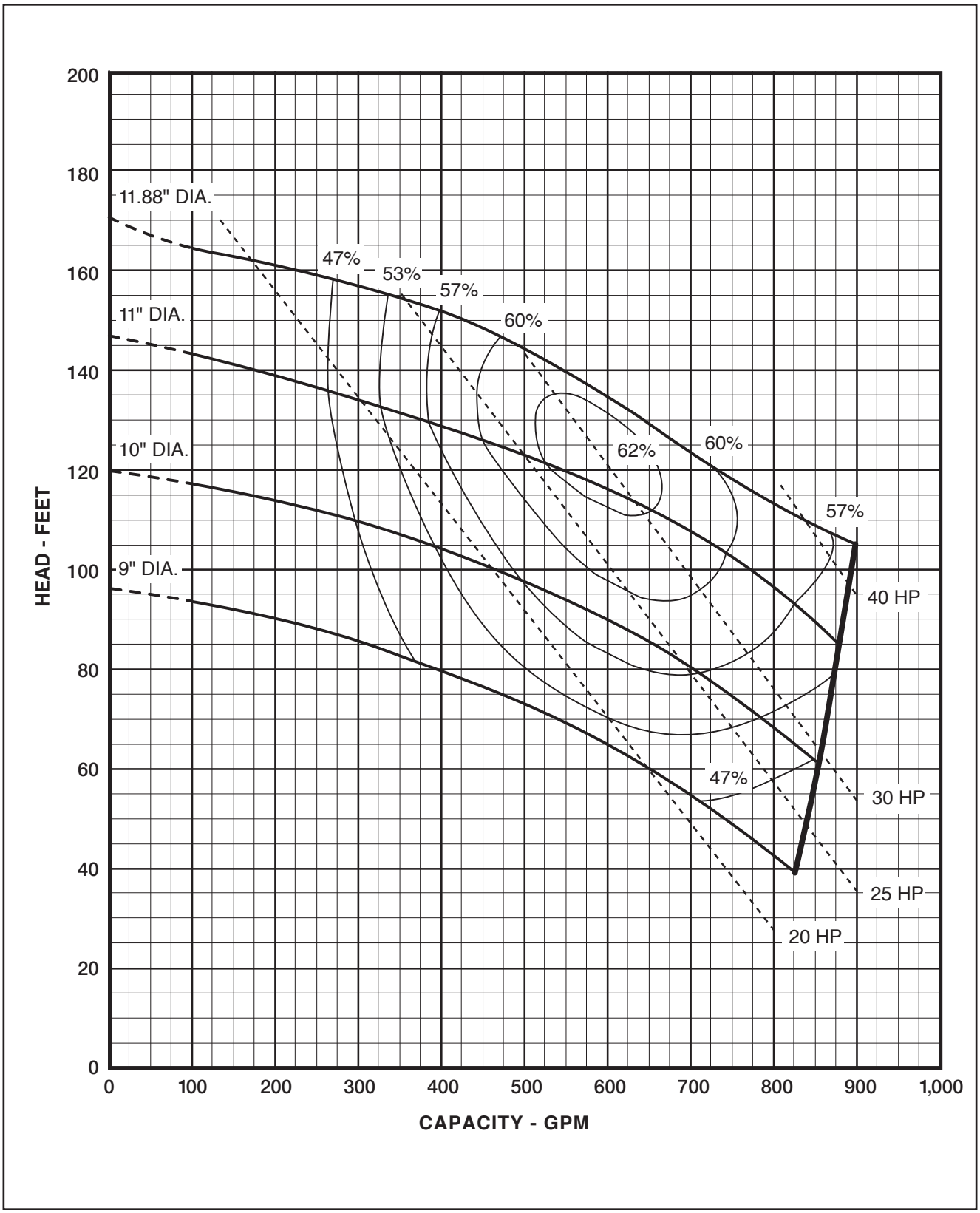
Performance Curve – S4B(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



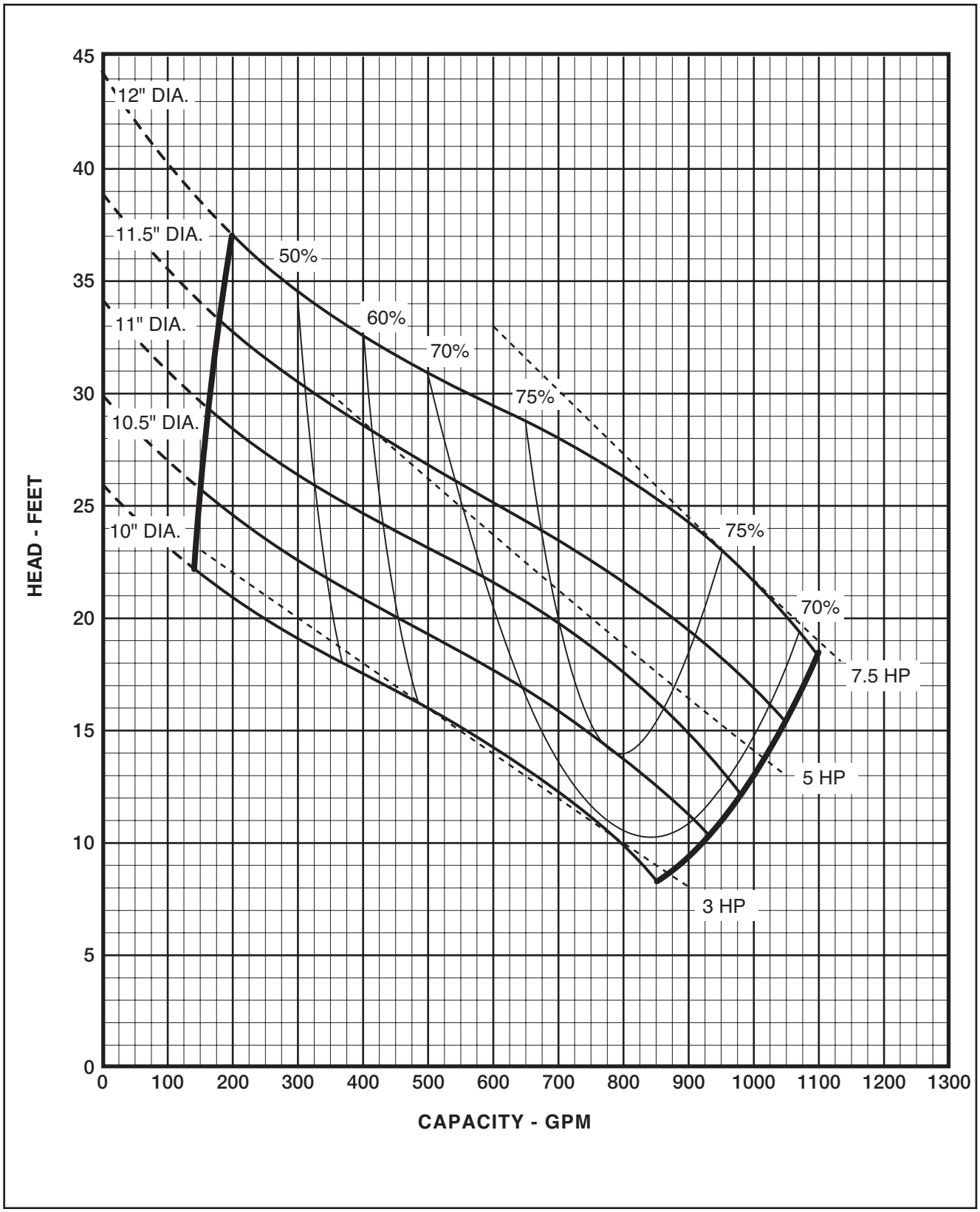
Performance Curve – C4HXP

RPM: **1750** DISCHARGE: **4"** SOLIDS: **0"**



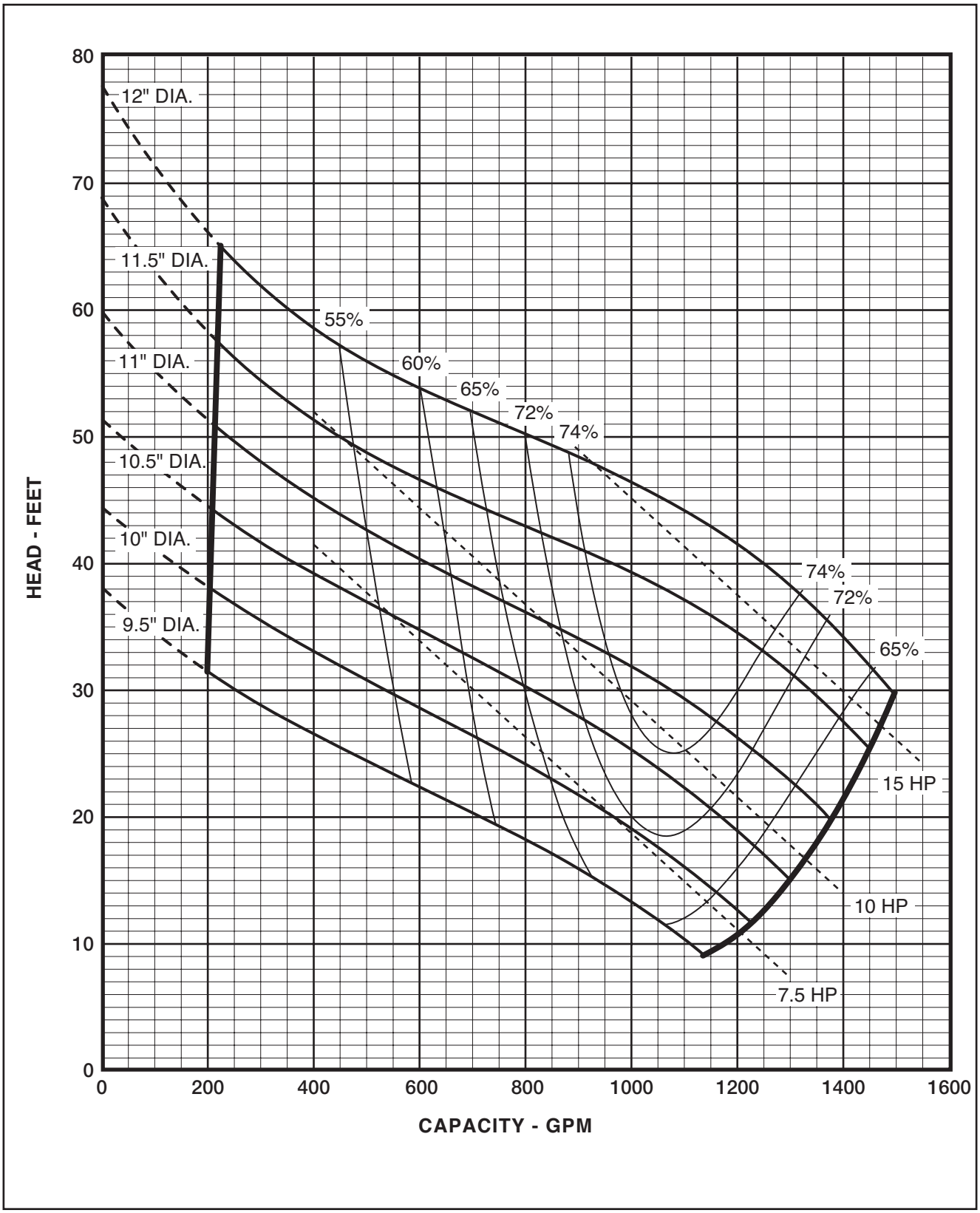
Performance Curve – S6L(X)P

RPM: **870** DISCHARGE: **6"** SOLIDS: **3-1/4"**



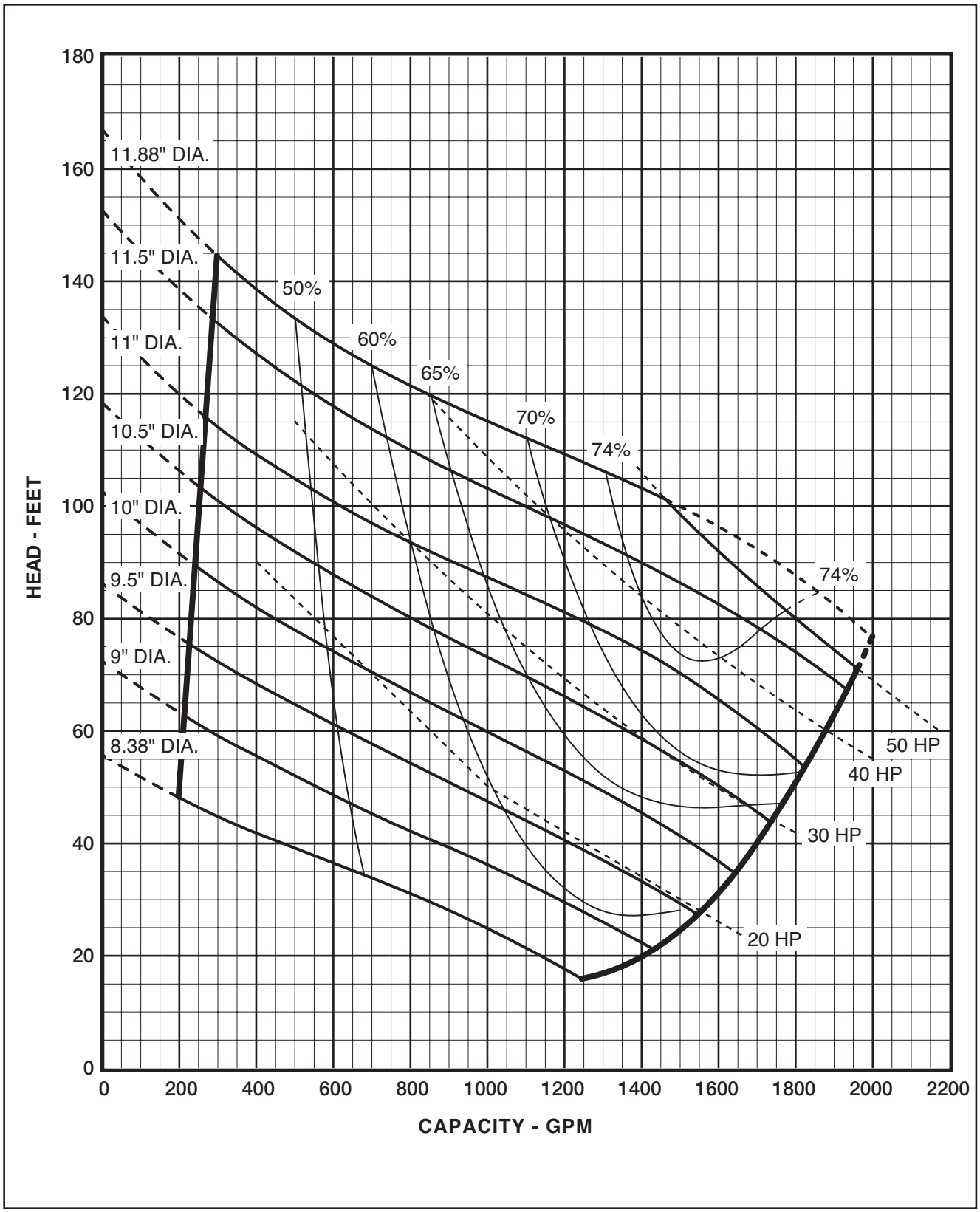
Performance Curve – S6L(X)P

RPM: **1150** DISCHARGE: **6"** SOLIDS: **3-1/4"**



Performance Curve – S6L(X)P

RPM: **1750** DISCHARGE: **6"** SOLIDS: **3-1/4"**



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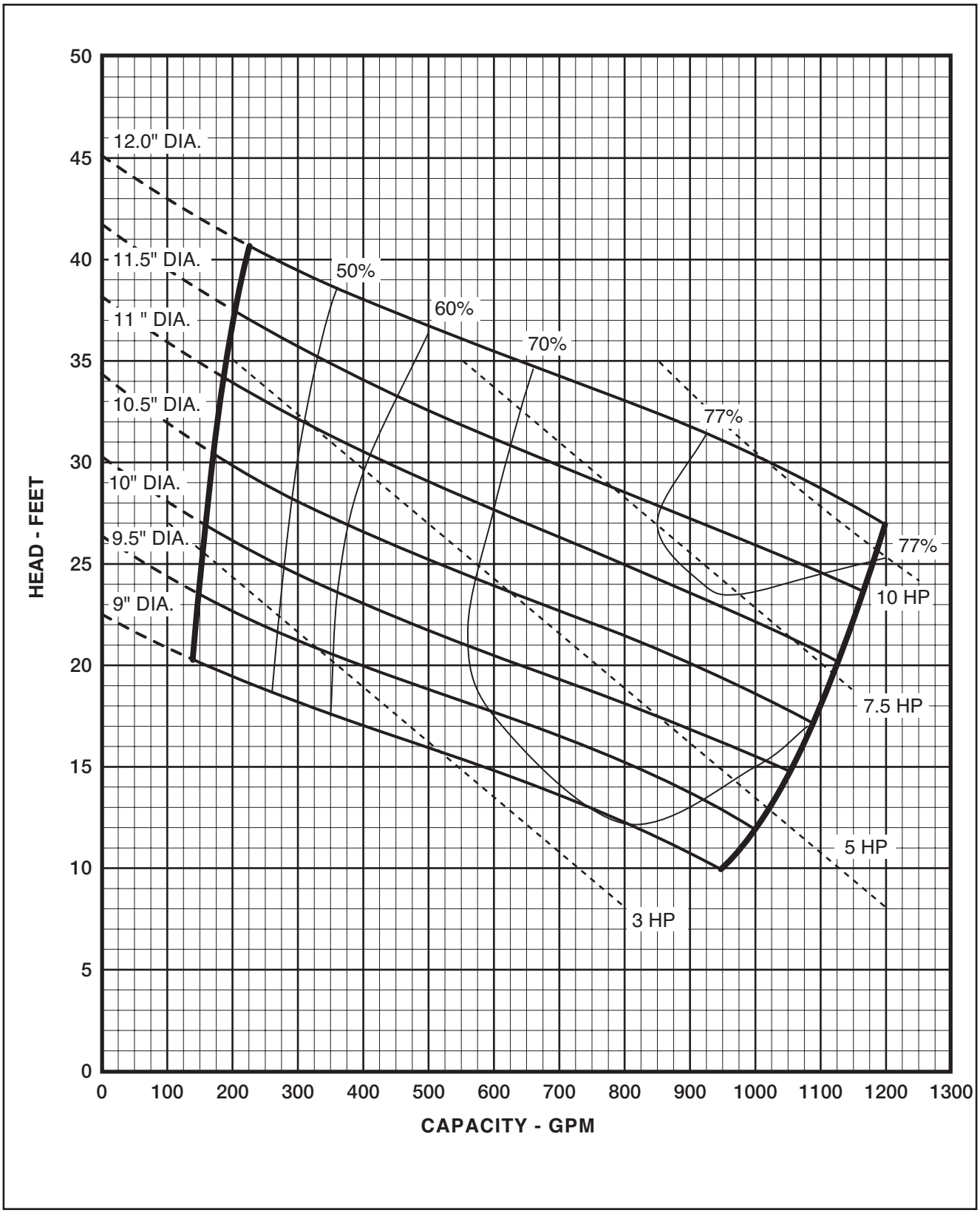
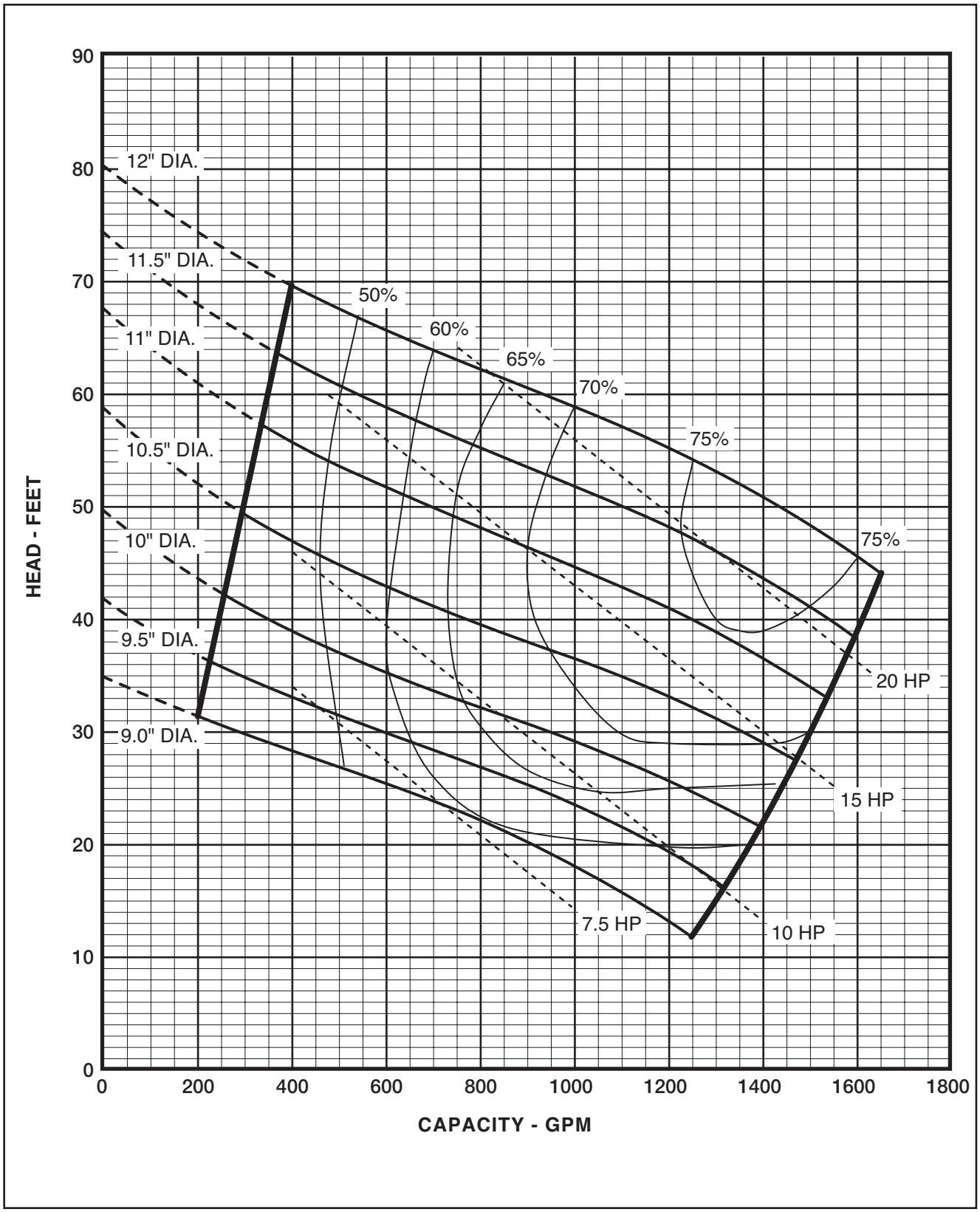
Performance Curve – S6A(X)P

RPM: **870** DISCHARGE: **6"** SOLIDS: **3-3/4"**



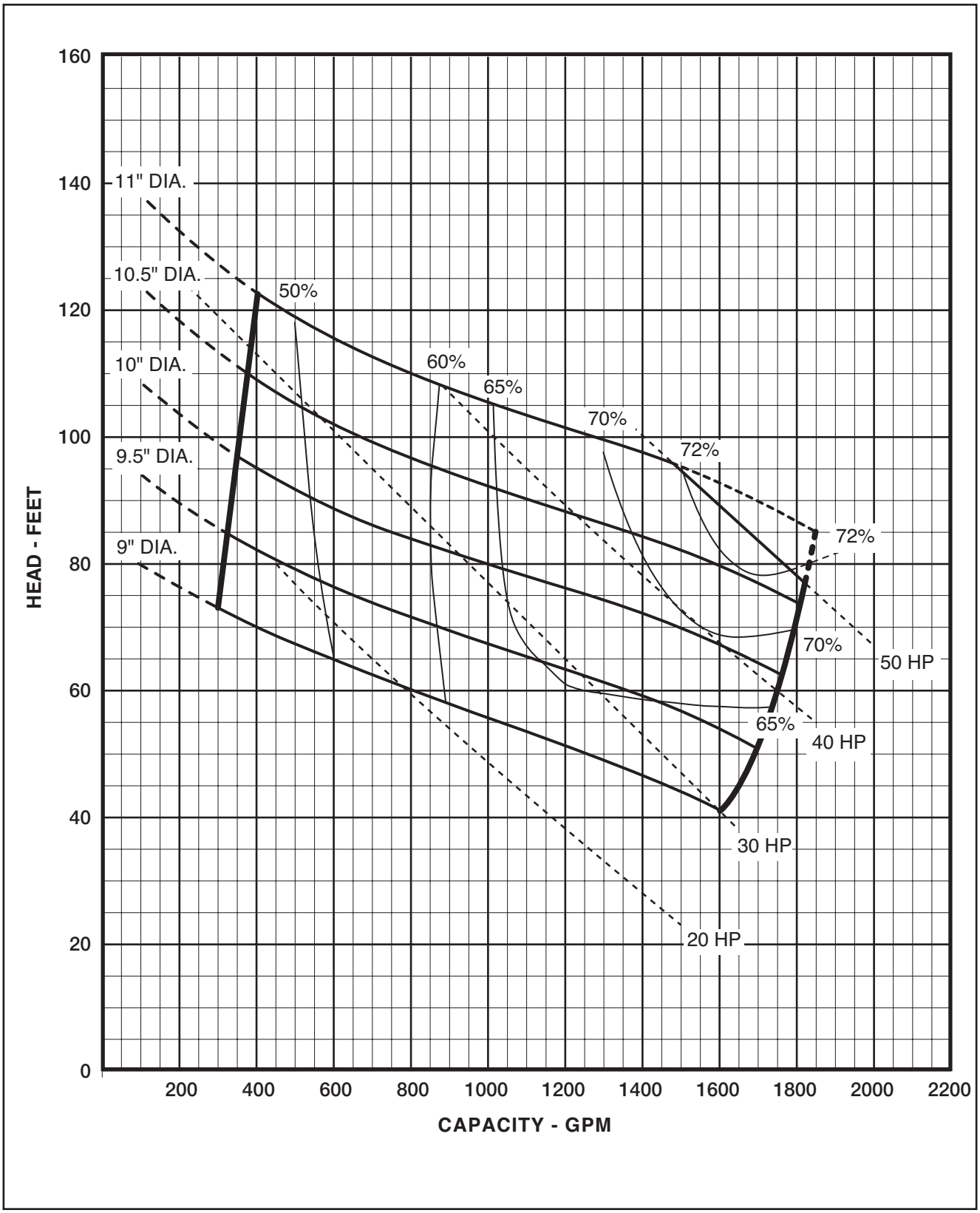
Performance Curve – S6A(X)P

RPM: **1150** DISCHARGE: **6"** SOLIDS: **3-3/4"**



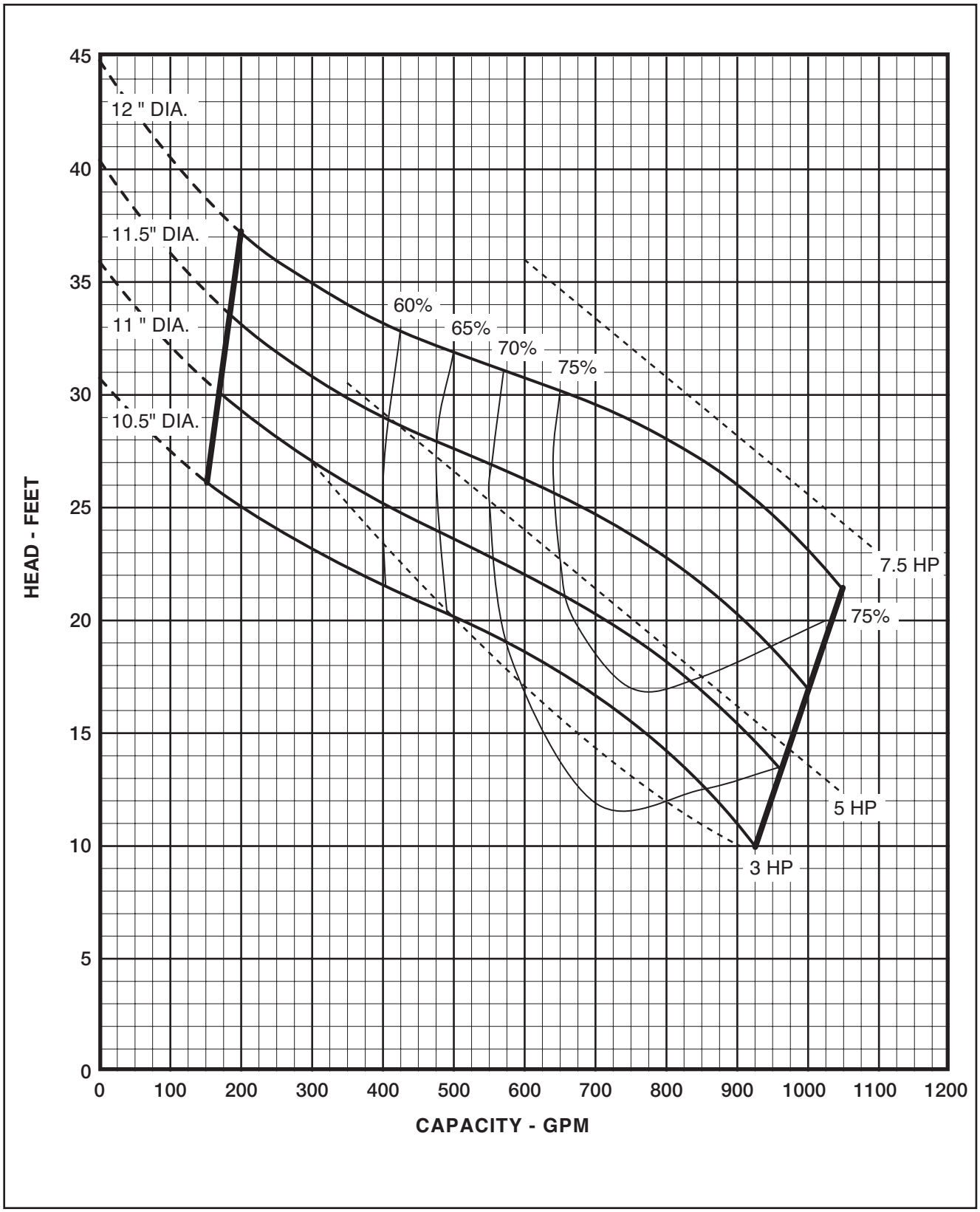
Performance Curve – S6A(X)P

RPM: **1750** DISCHARGE: **6"** SOLIDS: **3-3/4"**



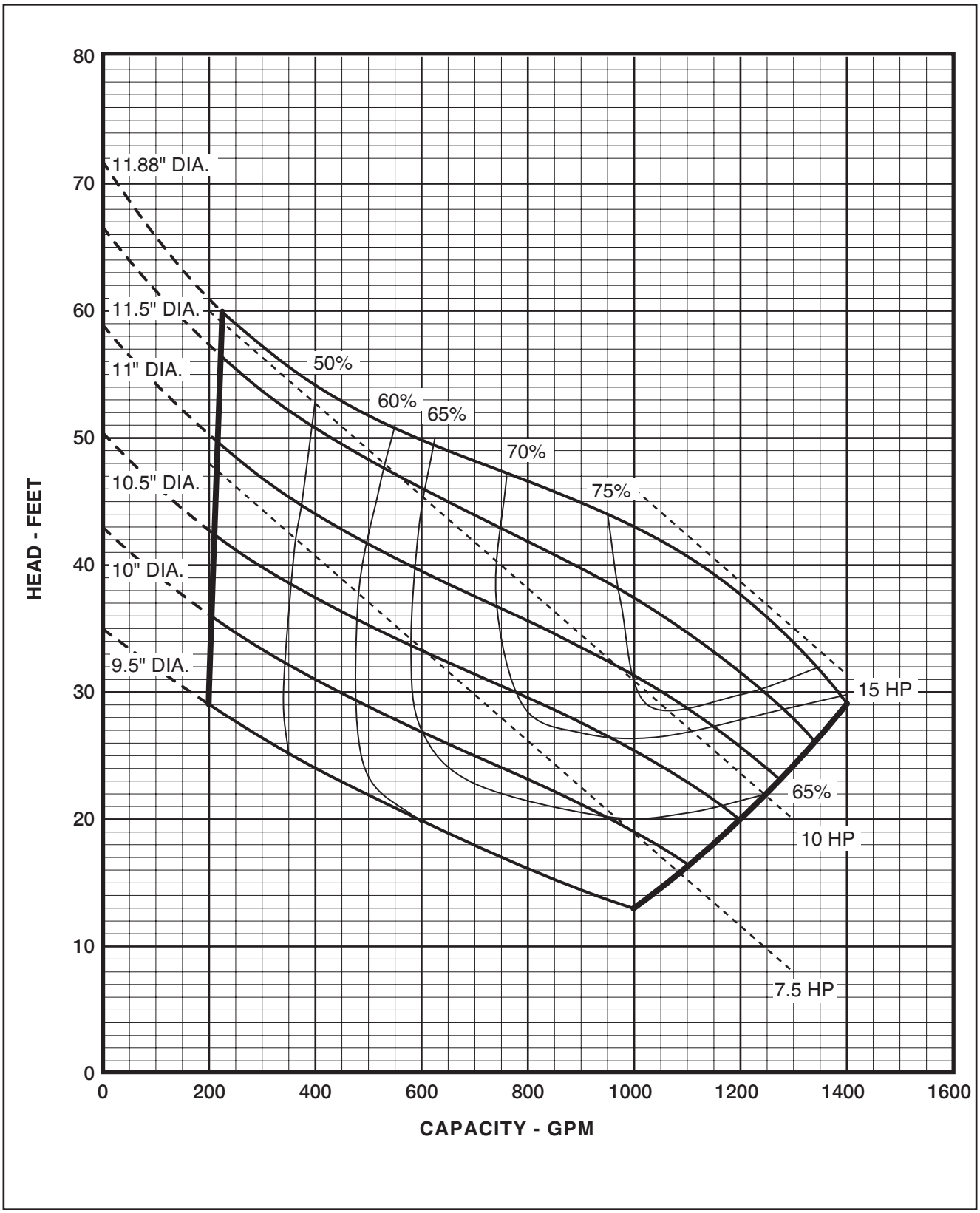
Performance Curve – S8F(X)P

RPM: **870** DISCHARGE: **8"** SOLIDS: **3-1/4"**



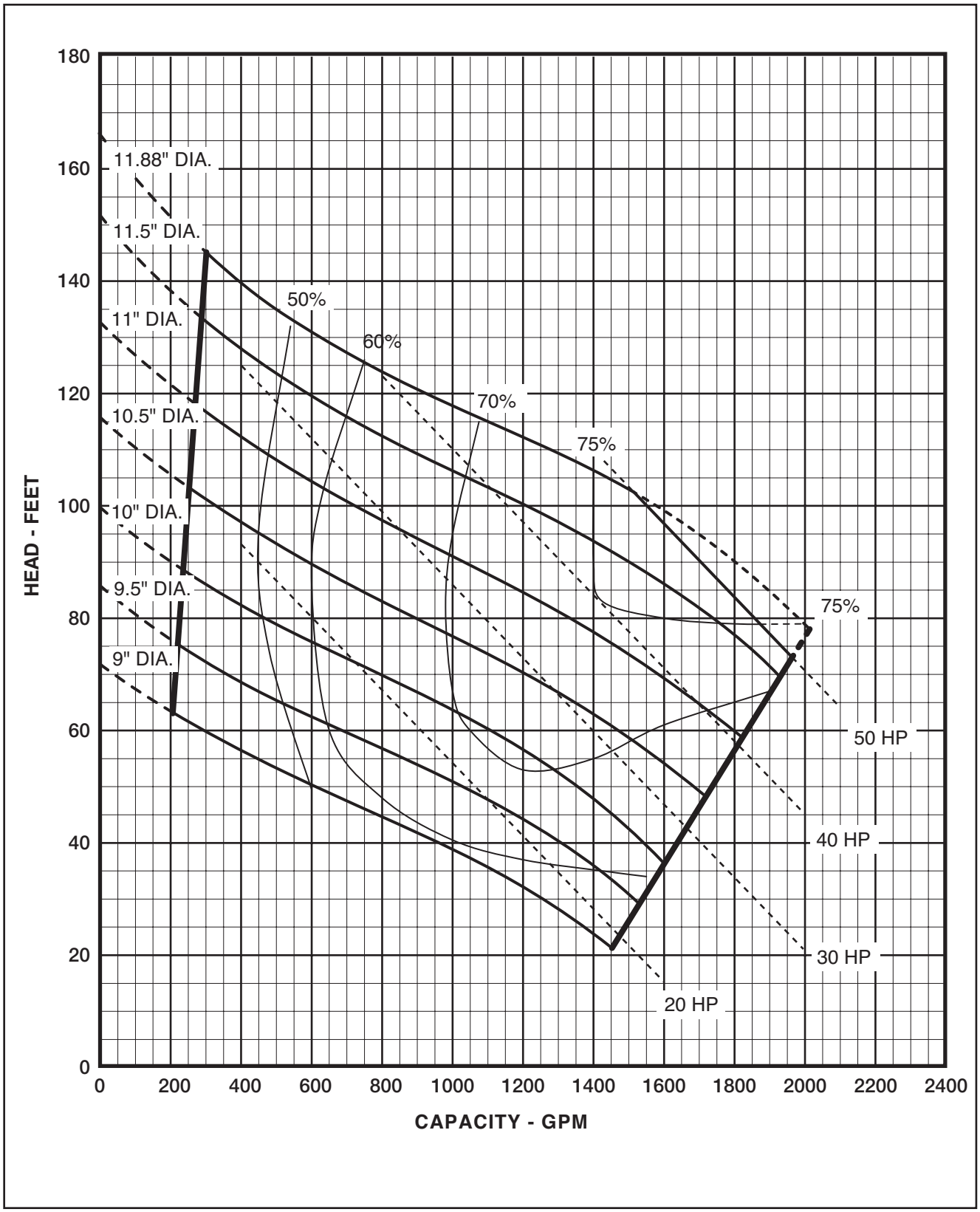
Performance Curve – S8F(X)P

RPM: **1150** DISCHARGE: **8"** SOLIDS: **3-1/4"**



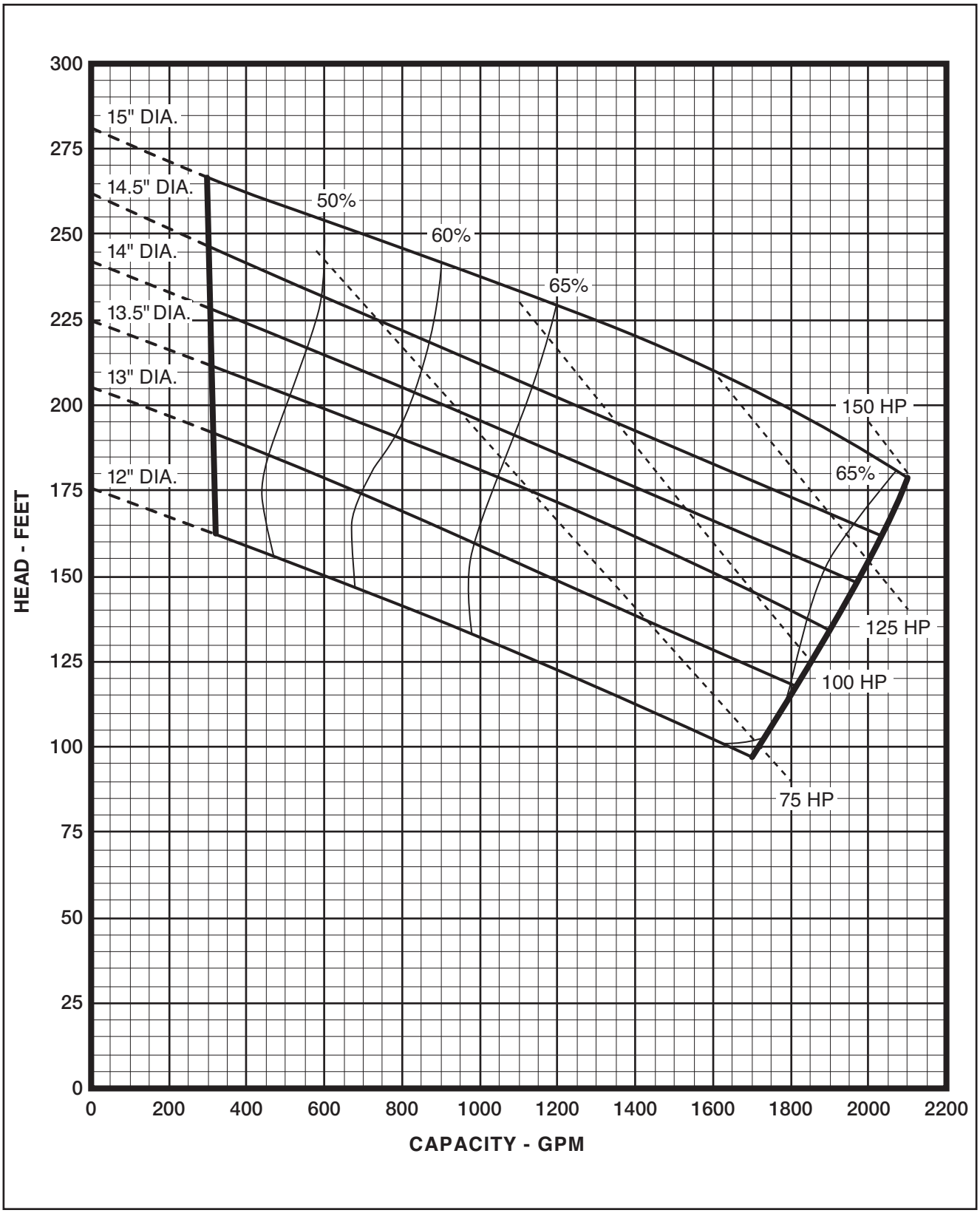
Performance Curve – S8F(X)P

RPM: **1750** DISCHARGE: **8"** SOLIDS: **3-1/4"**



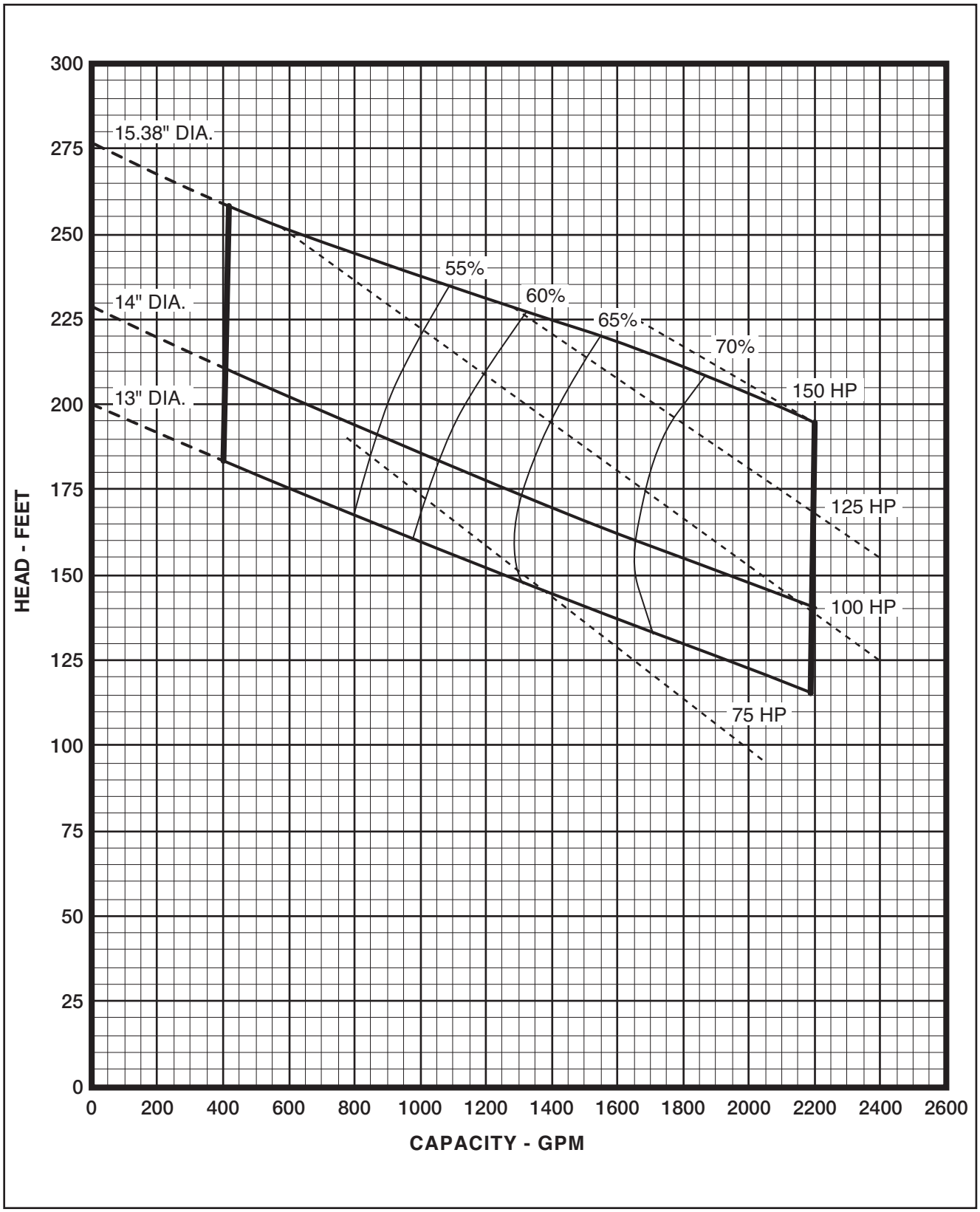
Performance Curve – S4T(X)P

RPM: **1750** DISCHARGE: **4"** SOLIDS: **3"**



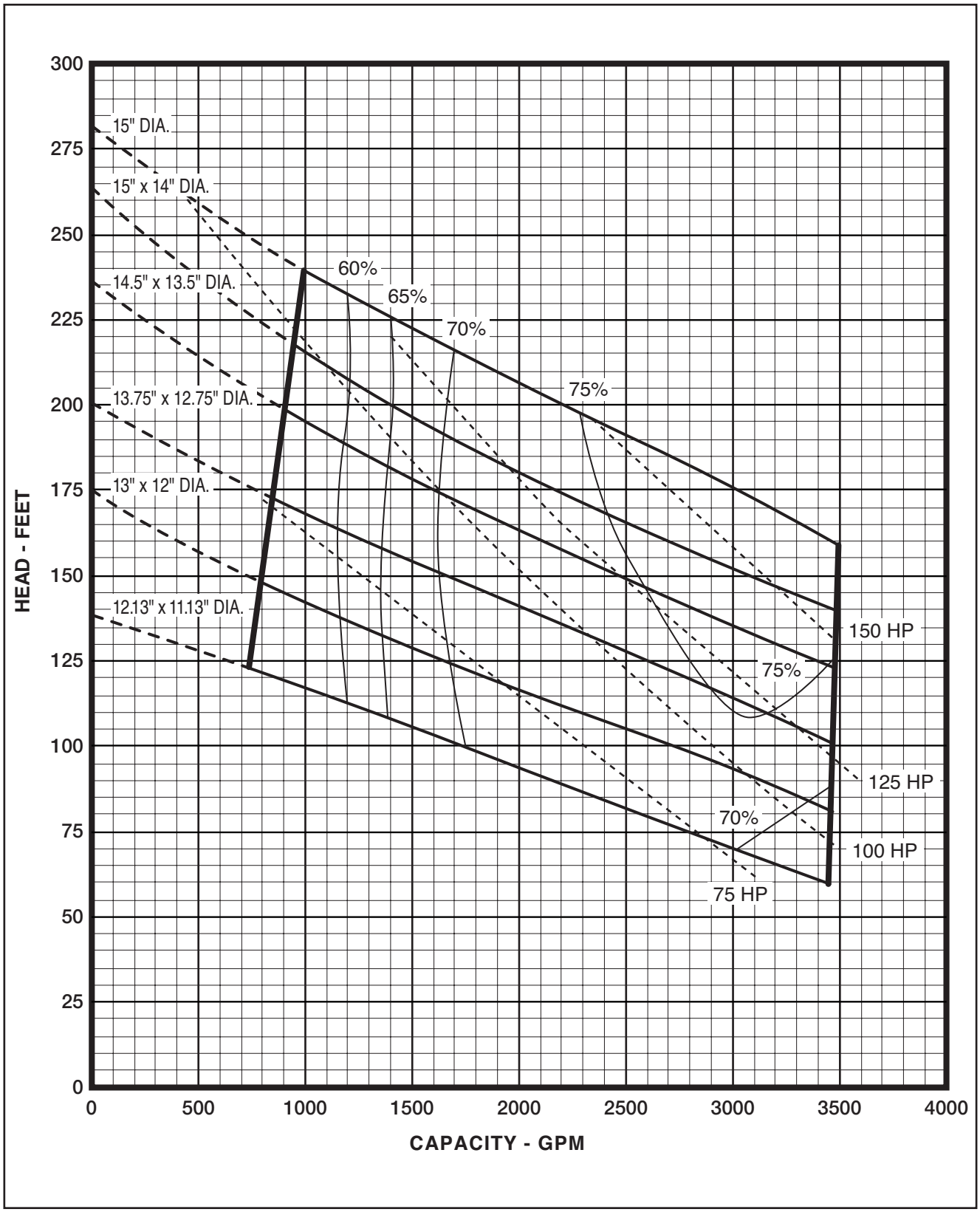
Performance Curve – S8LA(X)P

RPM: **1750** DISCHARGE: **8"** SOLIDS: **3"**



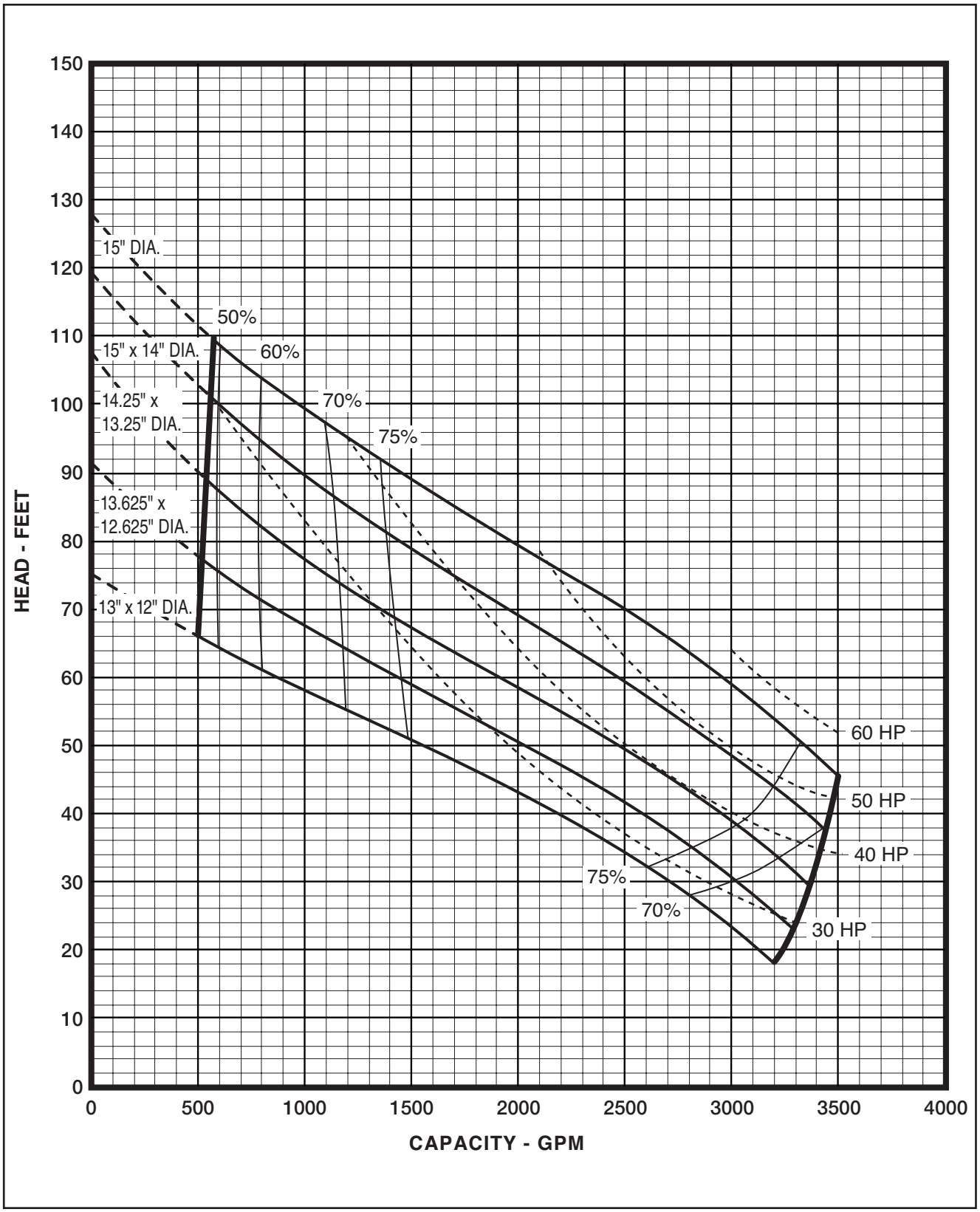
Performance Curve – S8L(X)P

RPM: **1750** DISCHARGE: **8"** SOLIDS: **4"**



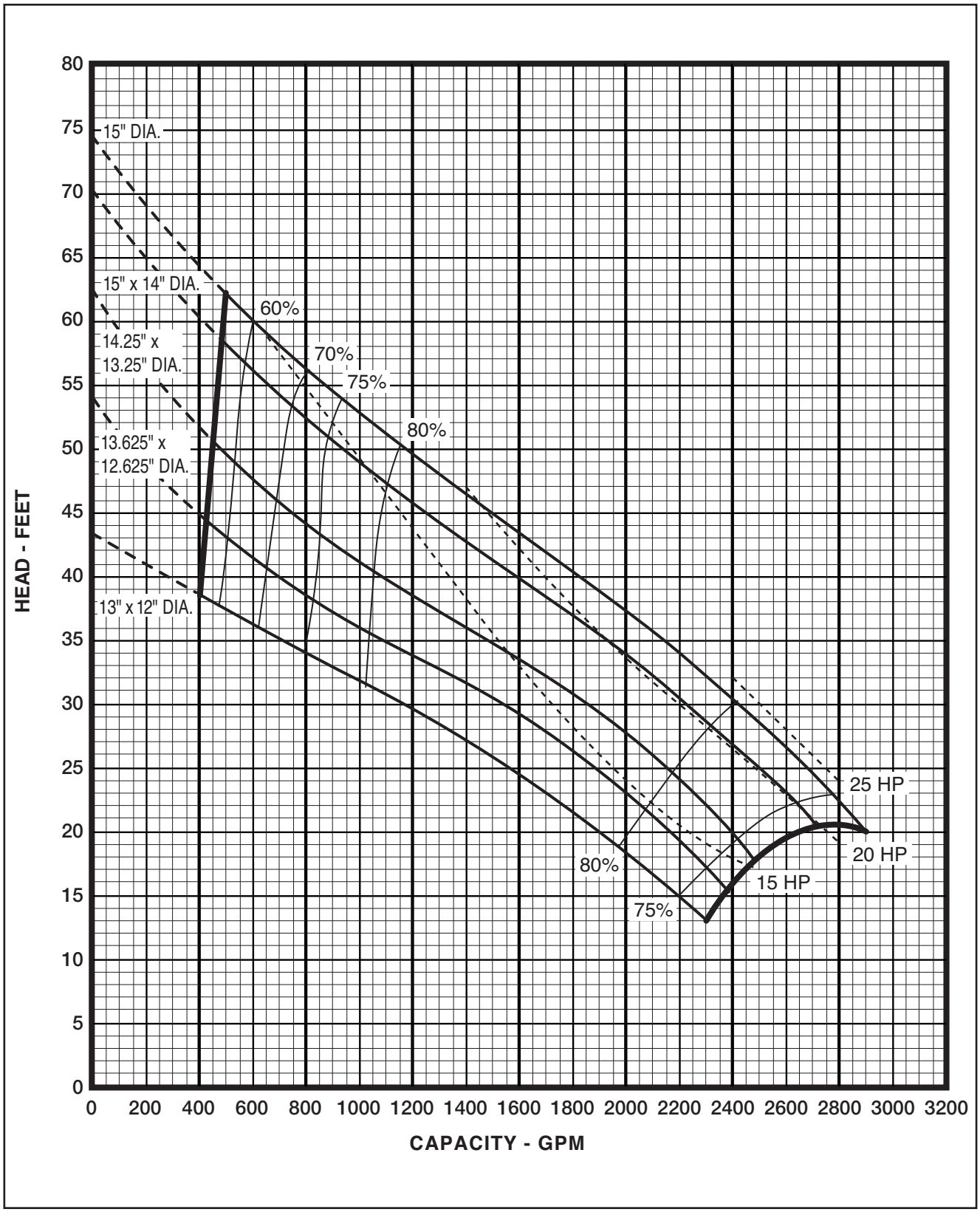
Performance Curve – S8L(X)P

RPM: **1150** DISCHARGE: **8"** SOLIDS: **4"**



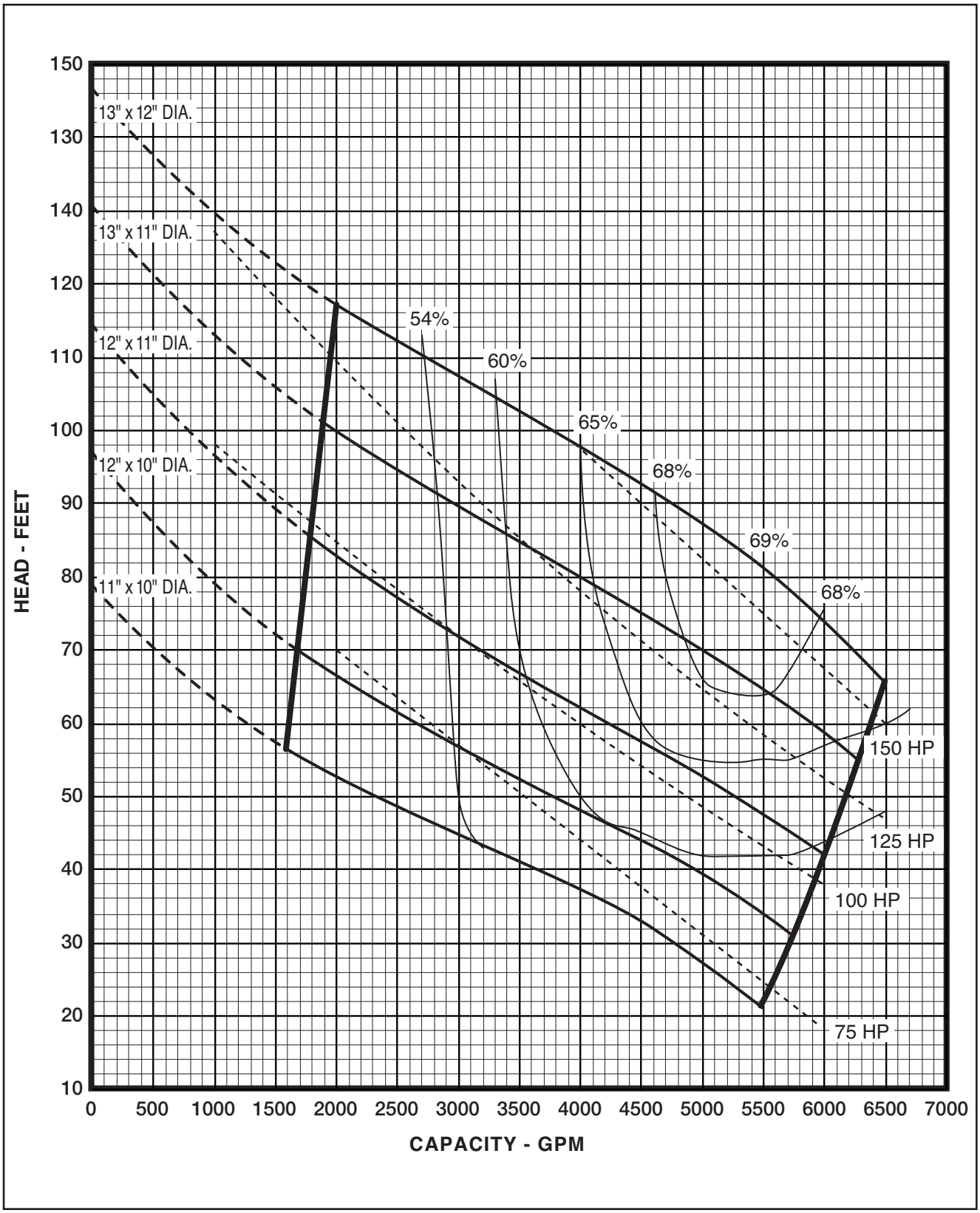
Performance Curve – S8L(X)P

RPM: **870** DISCHARGE: **8"** SOLIDS: **4"**



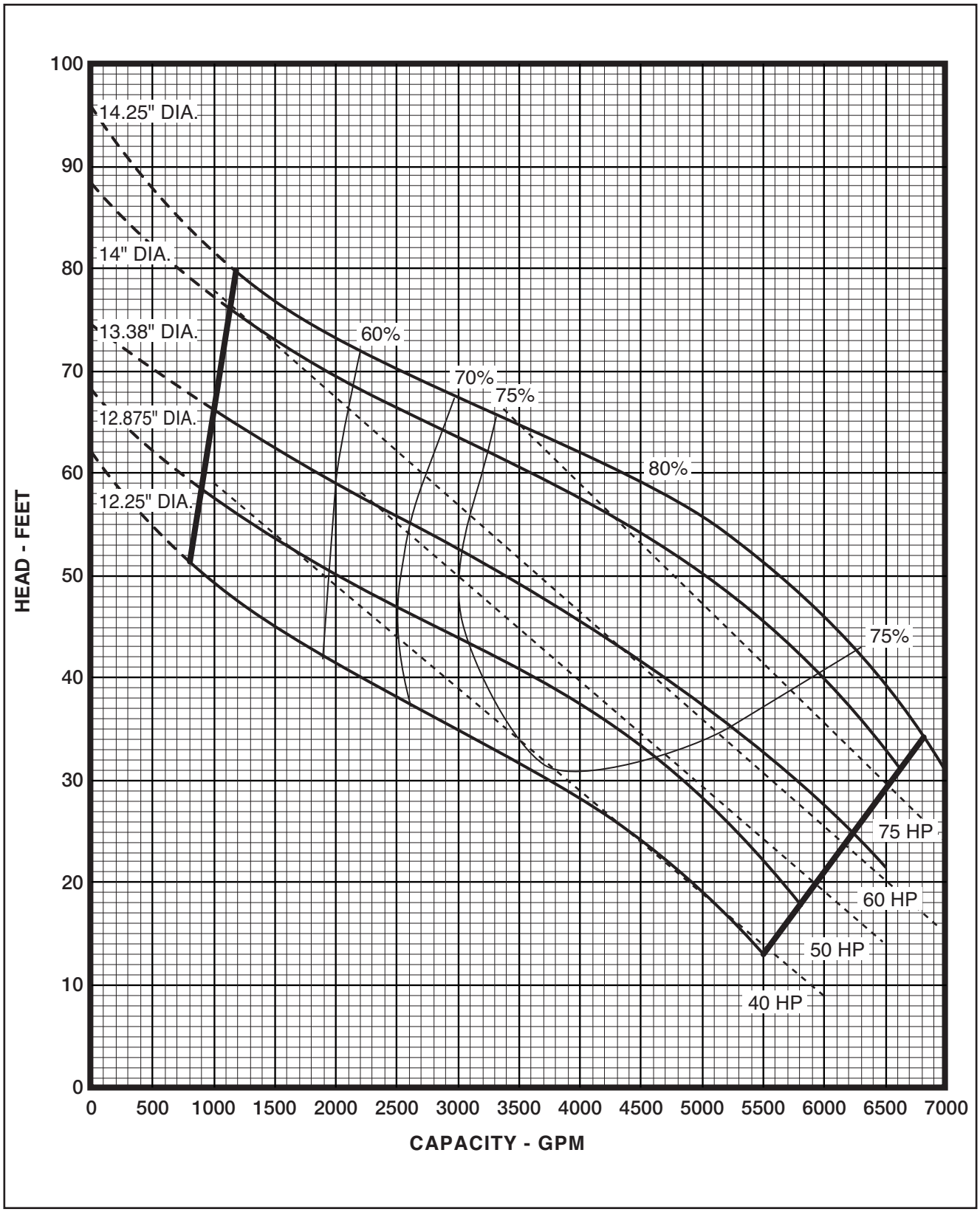
Performance Curve – S12L(X)P

RPM: **1750** DISCHARGE: **12"** SOLIDS: **6"**



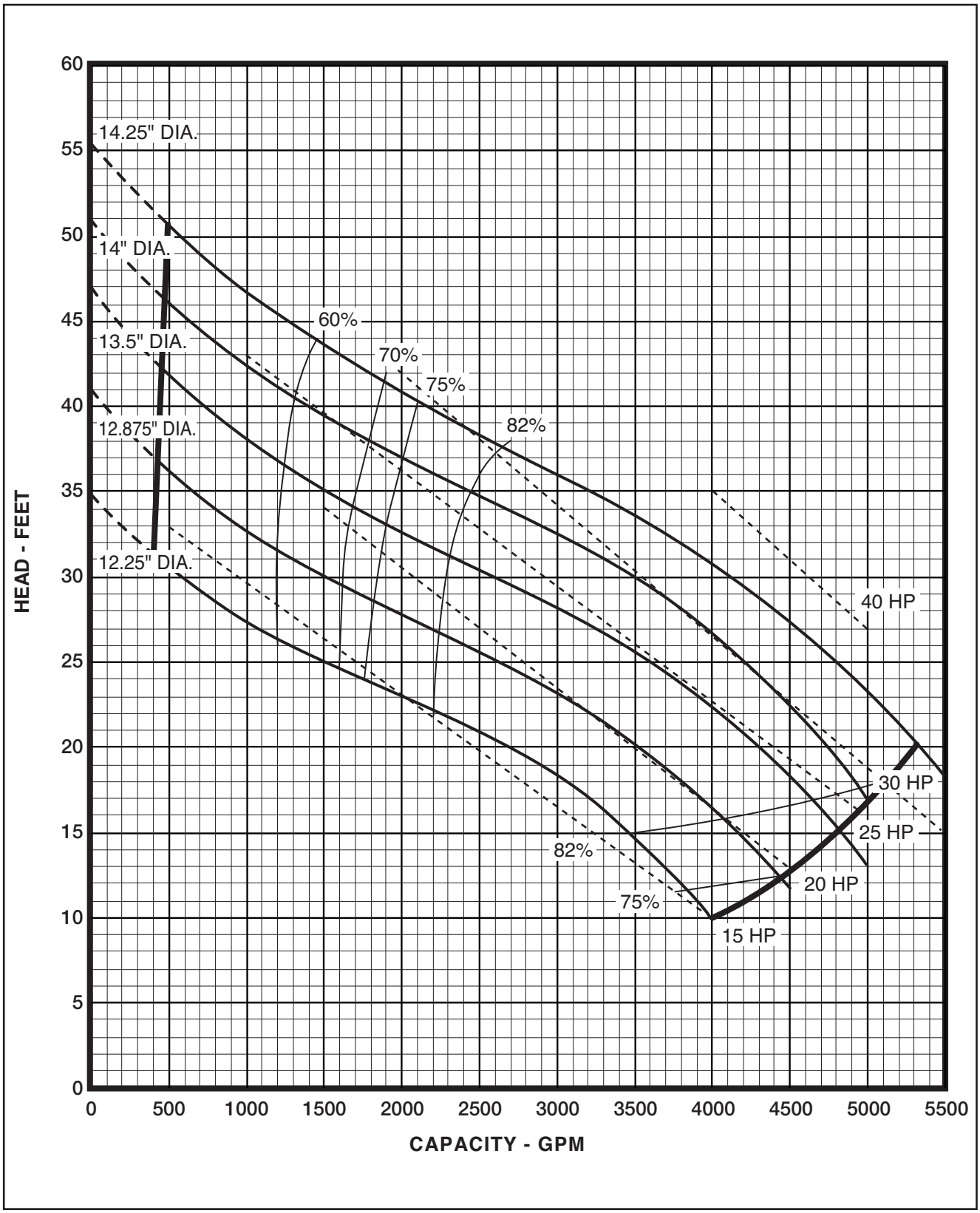
Performance Curve – S12L(X)P

RPM: **1150** DISCHARGE: **12"** SOLIDS: **6"**



Performance Curve – S12L(X)P

RPM: **870** DISCHARGE: **12"** SOLIDS: **6"**



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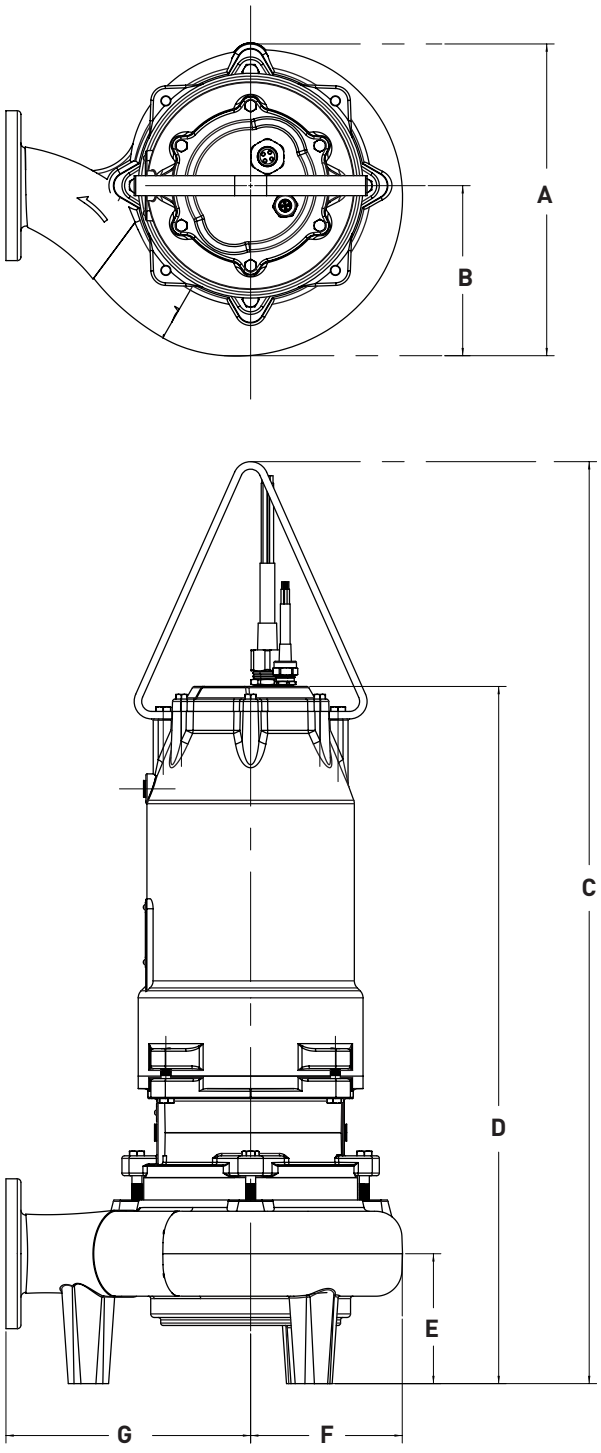
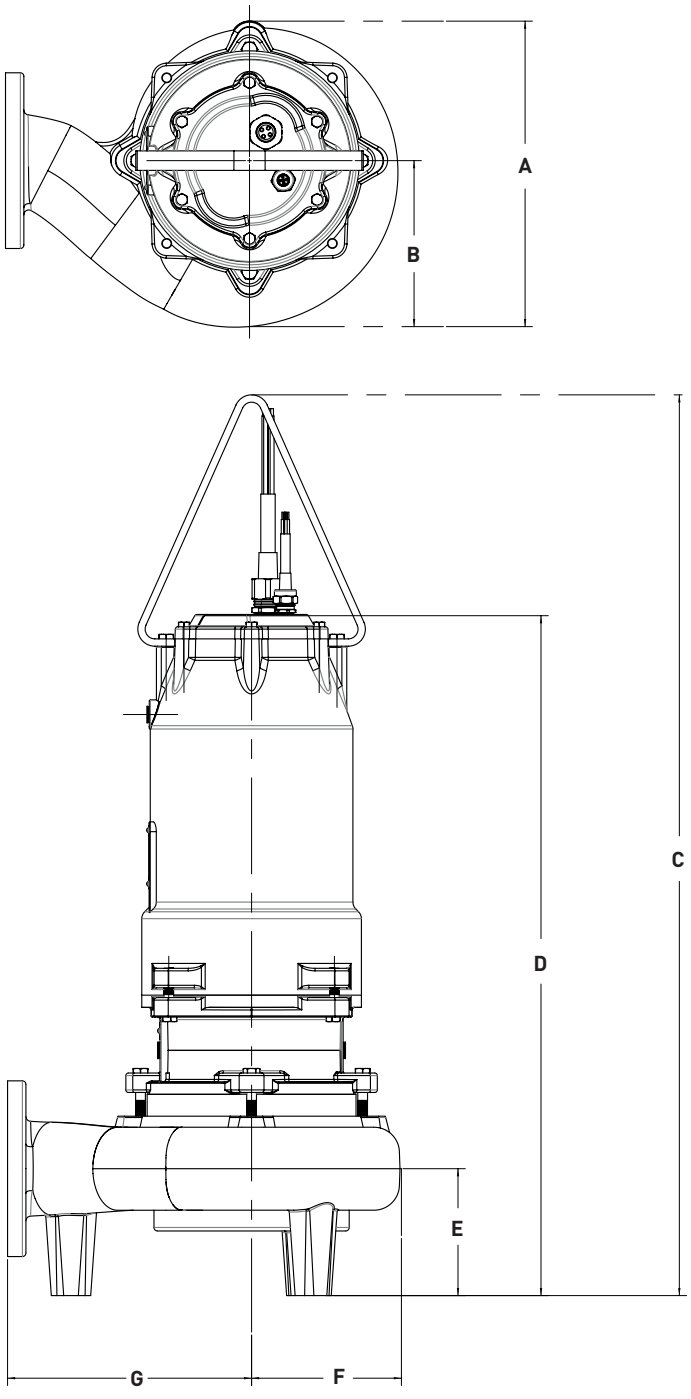
Dimensional Data – H3H(X)P



	A	B	C	D	E	F	G
H3H(X)P	15.60	8.51	46.14	34.89	6.50	7.59	12.25

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

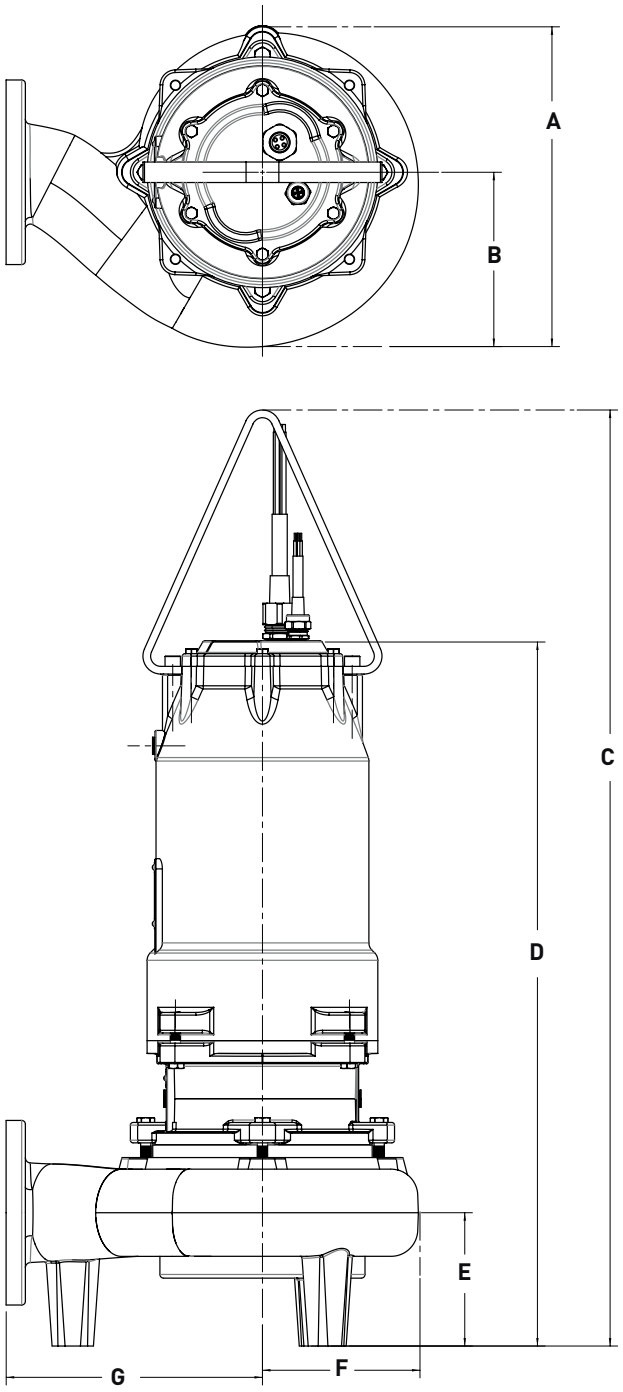
Dimensional Data – H4H(X)P



	A	B	C	D	E	F	G
H4H(X)P	15.65	8.50	46.14	34.83	6.50	7.67	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

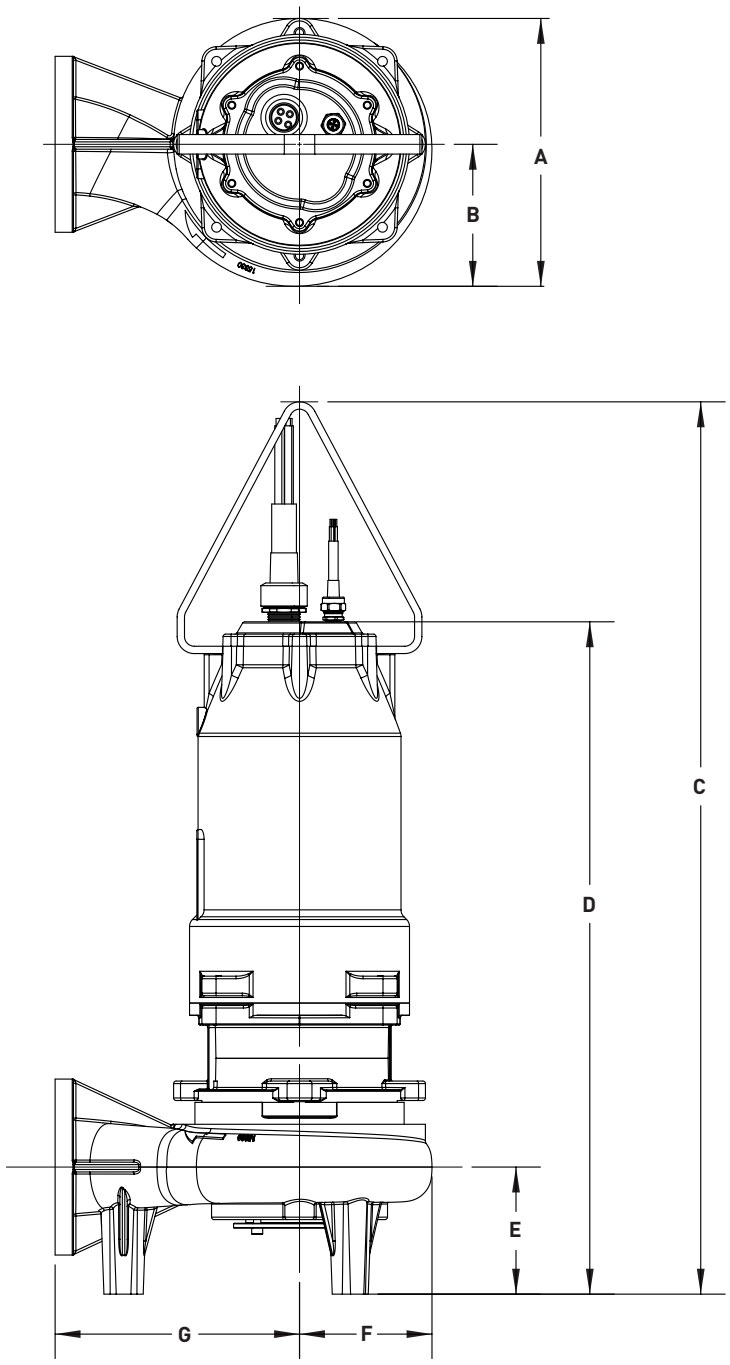
Dimensional Data – S4M(X)P



	A	B	C	D	E	F	G
S4M(X)P	14.19	7.88	45.64	34.33	6.50	7.00	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – C4S(X)P

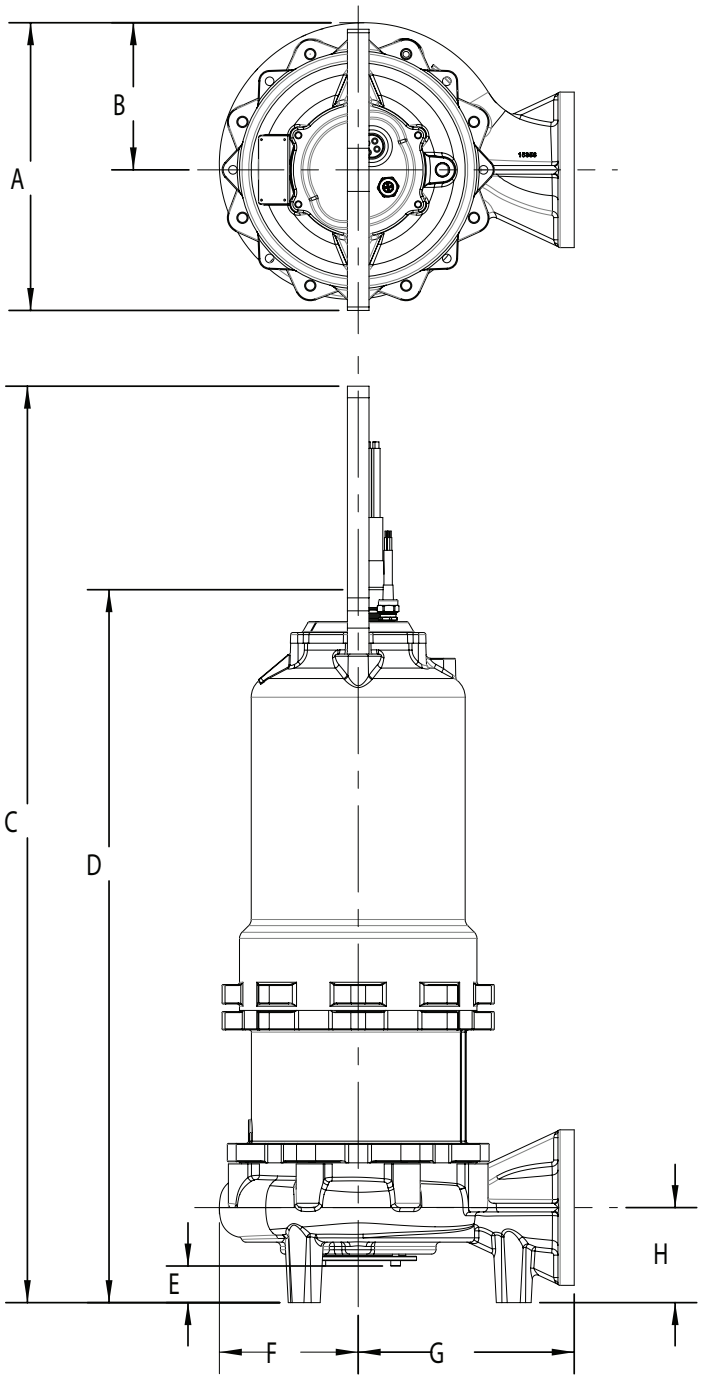


	A	B	C	D	E	F	G
CS4(X)P	13.70	7.25	45.64	34.39	6.50	6.77	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – C4H(X)P

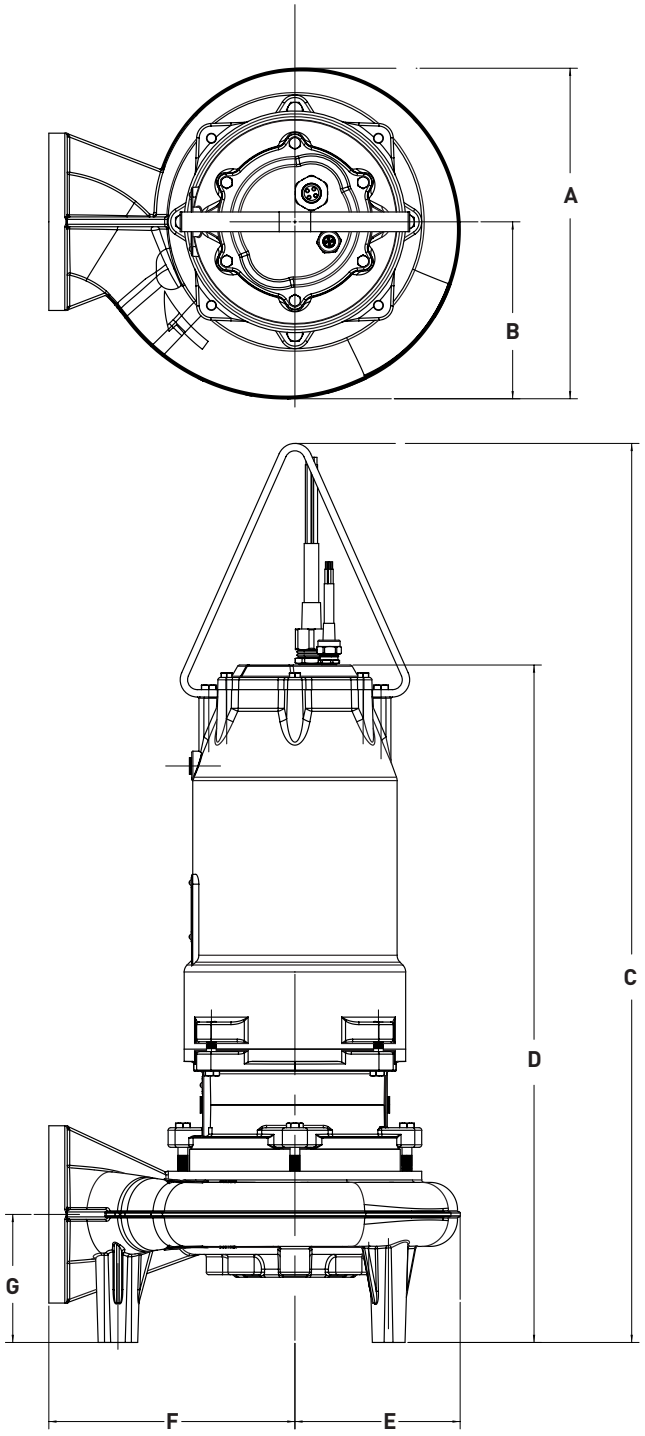
FRAME SIZE: **250**



	A	B	C	D	E	F	G	H
C4H(X)P	16.6	8.5	53.1	41.3	2.1	8.1	12.5	5.5

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

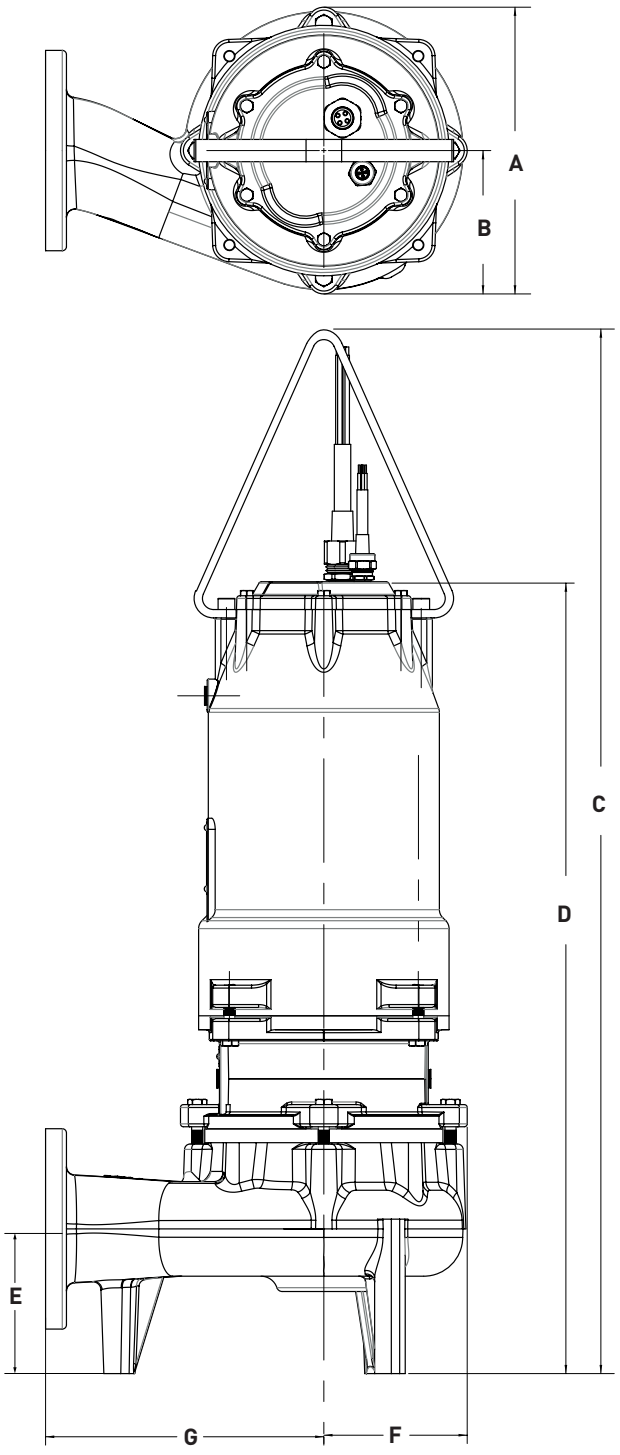
Dimensional Data – S4P(X)P



	A	B	C	D	E	F	G
S4P(X)P	16.78	8.98	45.64	34.39	8.39	12.50	6.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

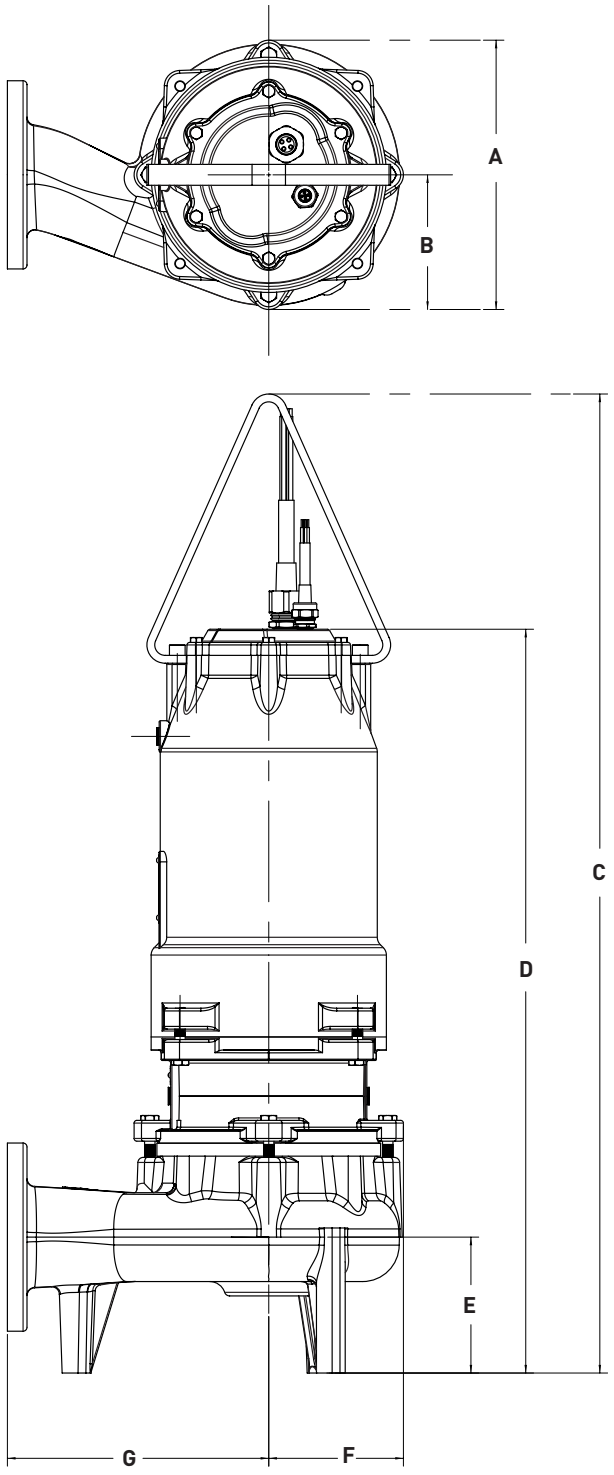
Dimensional Data – S4MV(X)P



	A	B	C	D	E	F	G
S4MV(X)P	12.88	6.44	46.82	35.51	6.50	6.44	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4HV(X)P

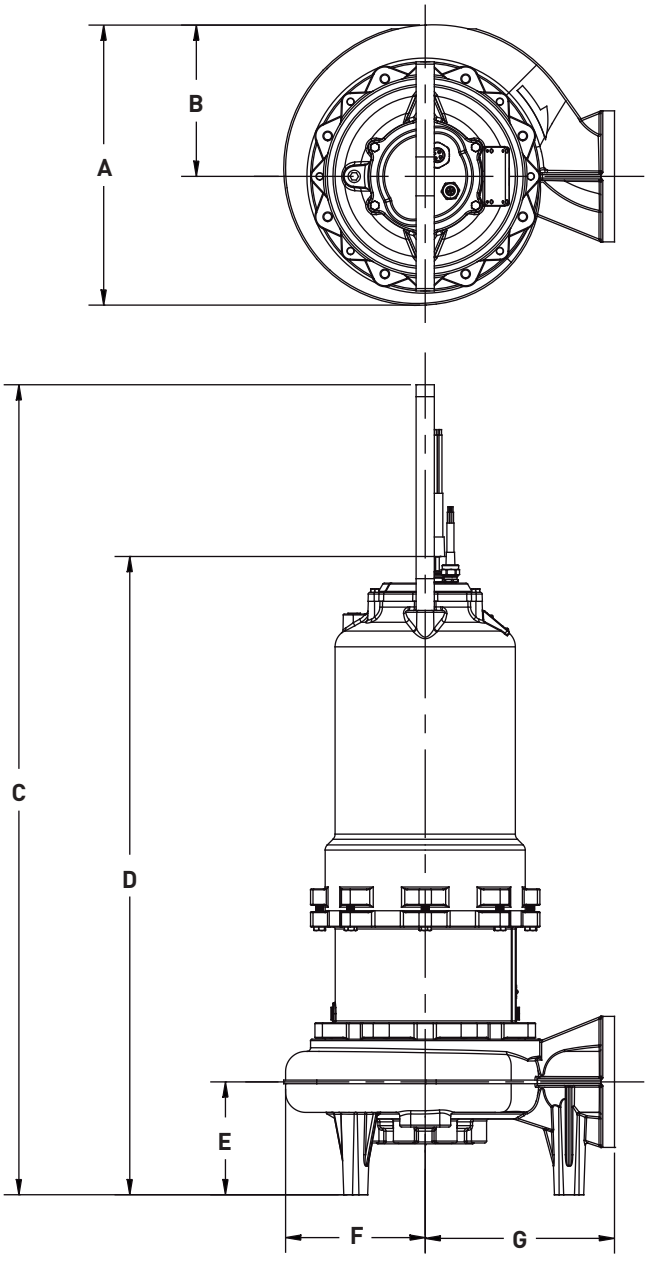


	A	B	C	D	E	F	G
S4HV(X)P	12.88	6.44	46.82	35.57	6.50	6.44	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4K(X)P

FRAME SIZE: **250**

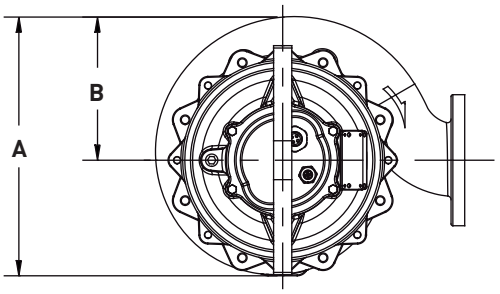


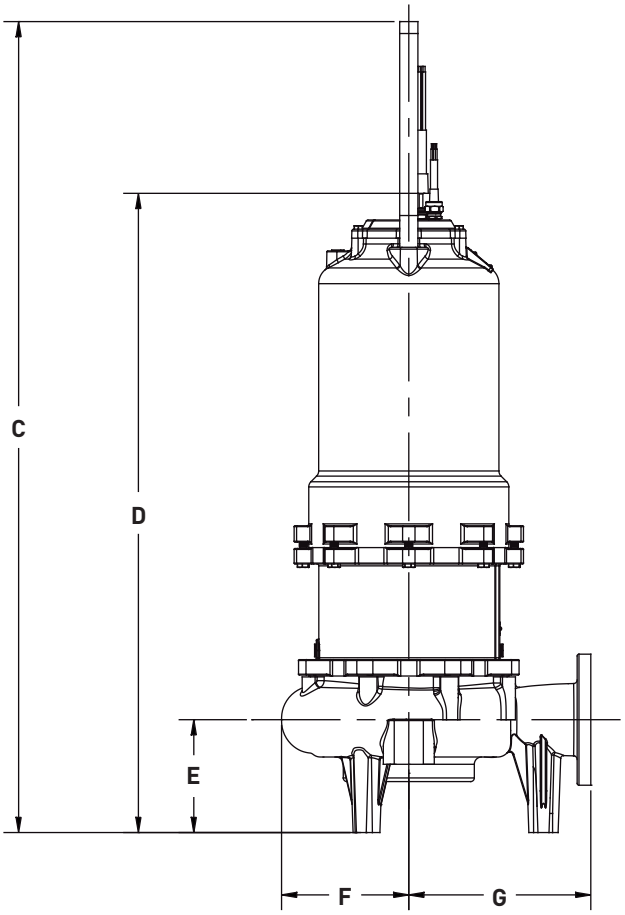
	A	B	C	D	E	F	G
S4K(X)P	19.20	10.40	55.60	43.84	7.76	9.60	12.96

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4L(X)P

FRAME SIZE: **250**



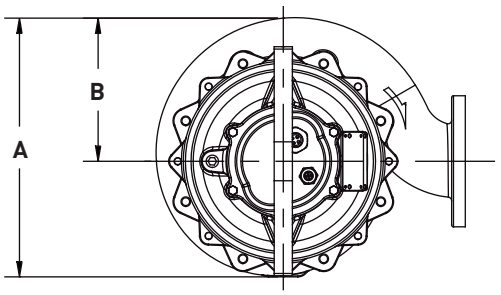


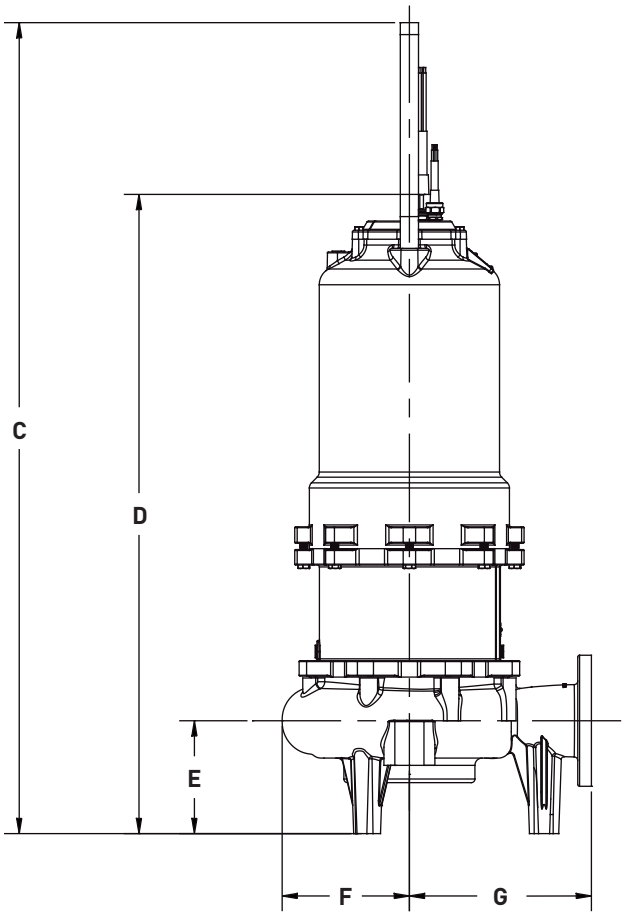
	A	B	C	D	E	F	G
S4L(X)P	18.29	9.98	56.06	45.61	7.75	9.13	14.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4L(X)P

FRAME SIZE: **280**



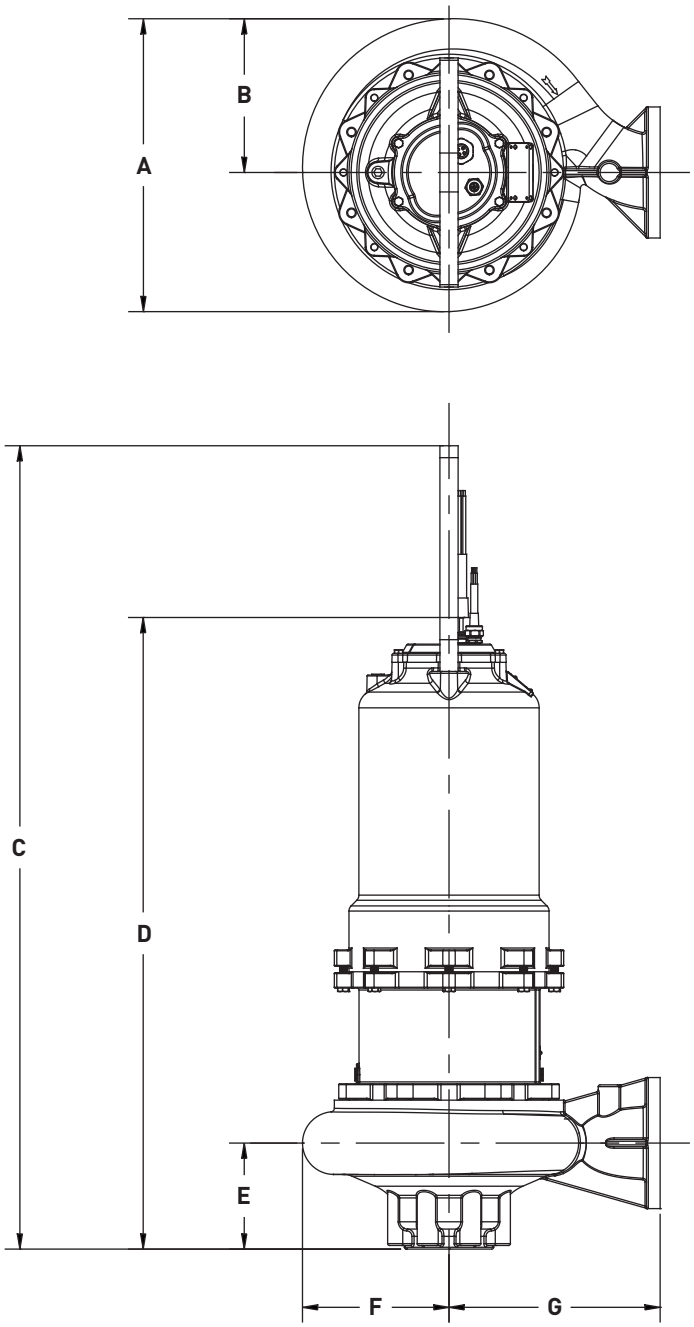


	A	B	C	D	E	F	G
S4L(X)P	18.29	9.98	57.31	46.86	7.75	9.13	14.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4B(X)P

FRAME SIZE: **250**

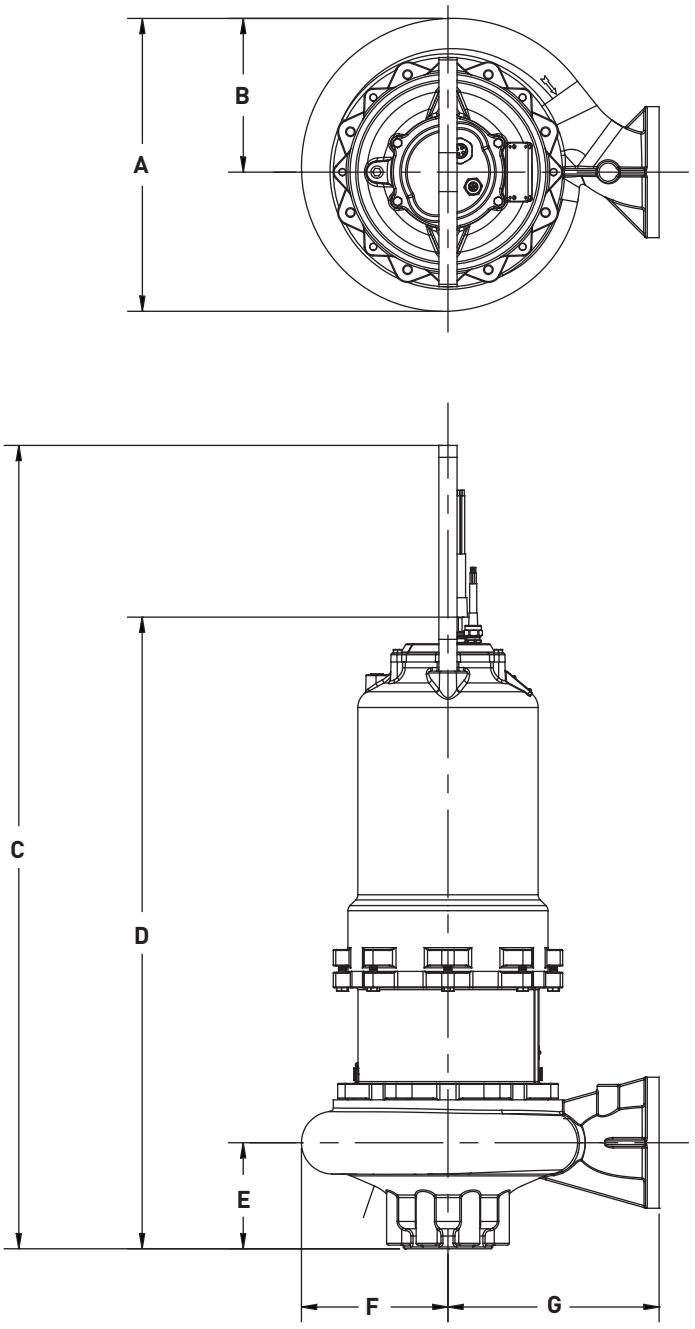


	A	B	C	D	E	F	G
S4B(X)P	20.08	10.56	55.20	43.36	7.28	10.08	14.48

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4B(X)P

FRAME SIZE: **280**

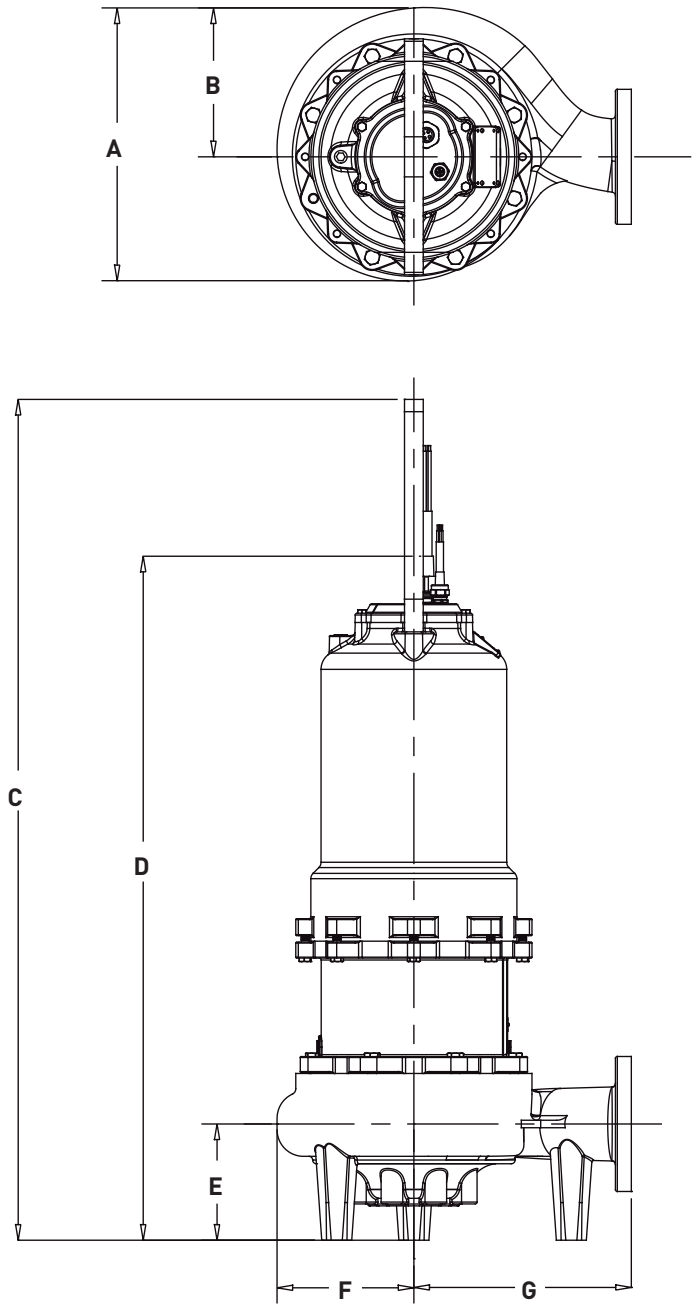


	A	B	C	D	E	F	G
S4B(X)P	21.33	11.81	56.45	44.61	8.53	11.33	15.73

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – H4Q(X)P

FRAME SIZE: **250**

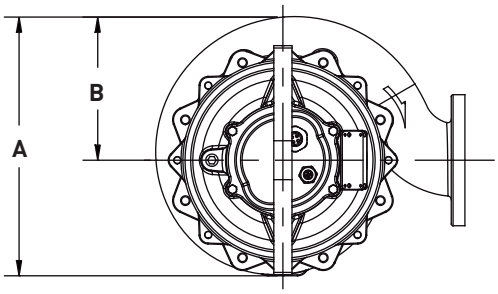


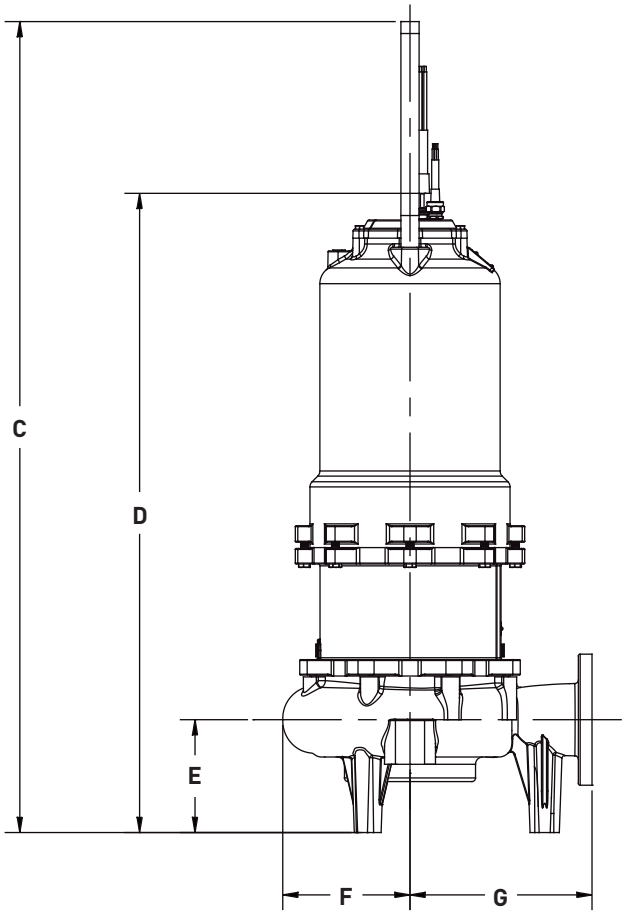
	A	B	C	D	E	F	G
H4Q(X)P	18.29	9.98	56.06	45.61	7.75	9.13	14.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4LV(X)P

FRAME SIZE: **250**



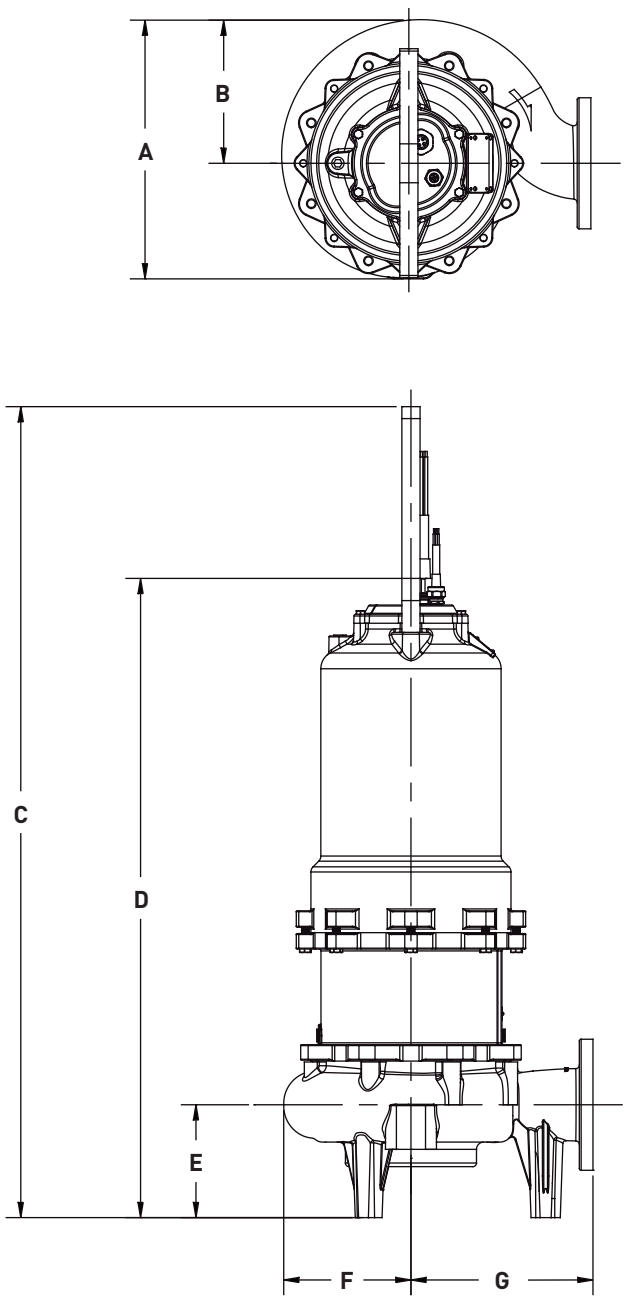


	A	B	C	D	E	F	G
S4LV(X)P	18.29	9.98	56.06	45.61	7.75	8.19	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4LV(X)P

FRAME SIZE: **280**

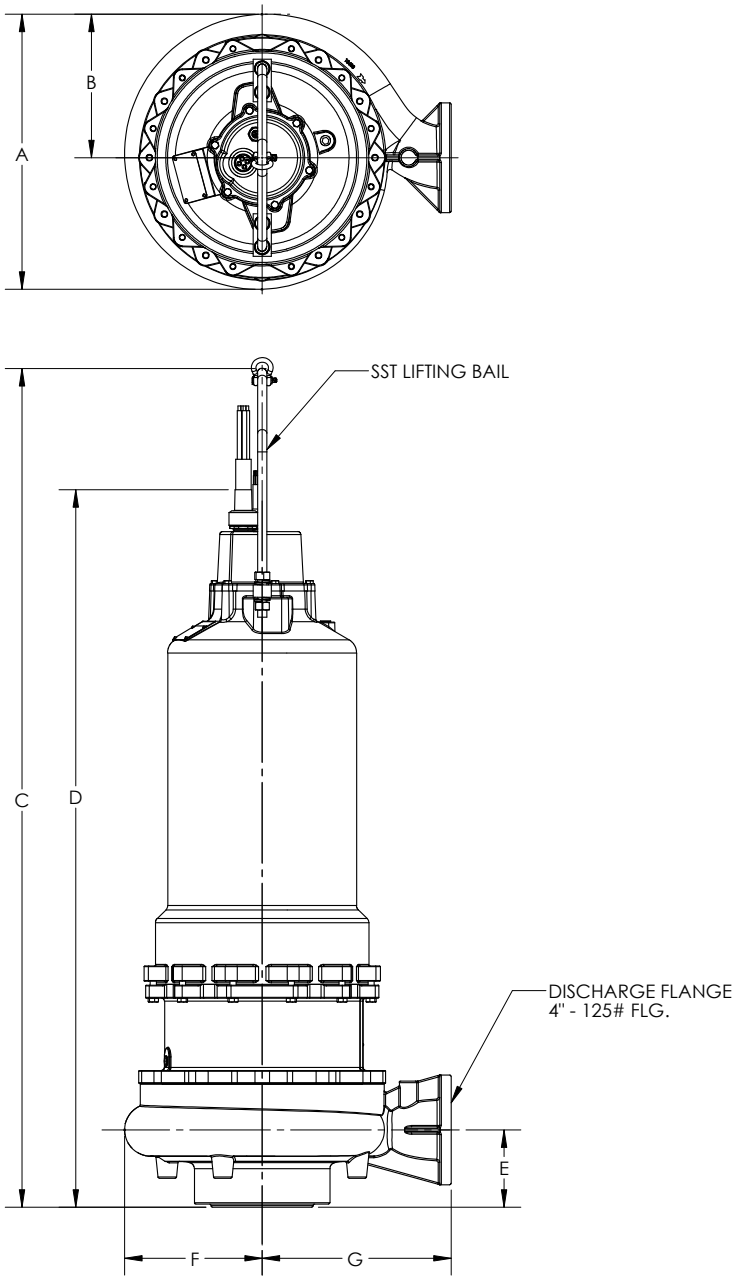


	A	B	C	D	E	F	G
S4LV(X)P	18.29	9.98	57.31	46.86	7.75	8.19	12.50

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4T(X)P

FRAME SIZE: **320**

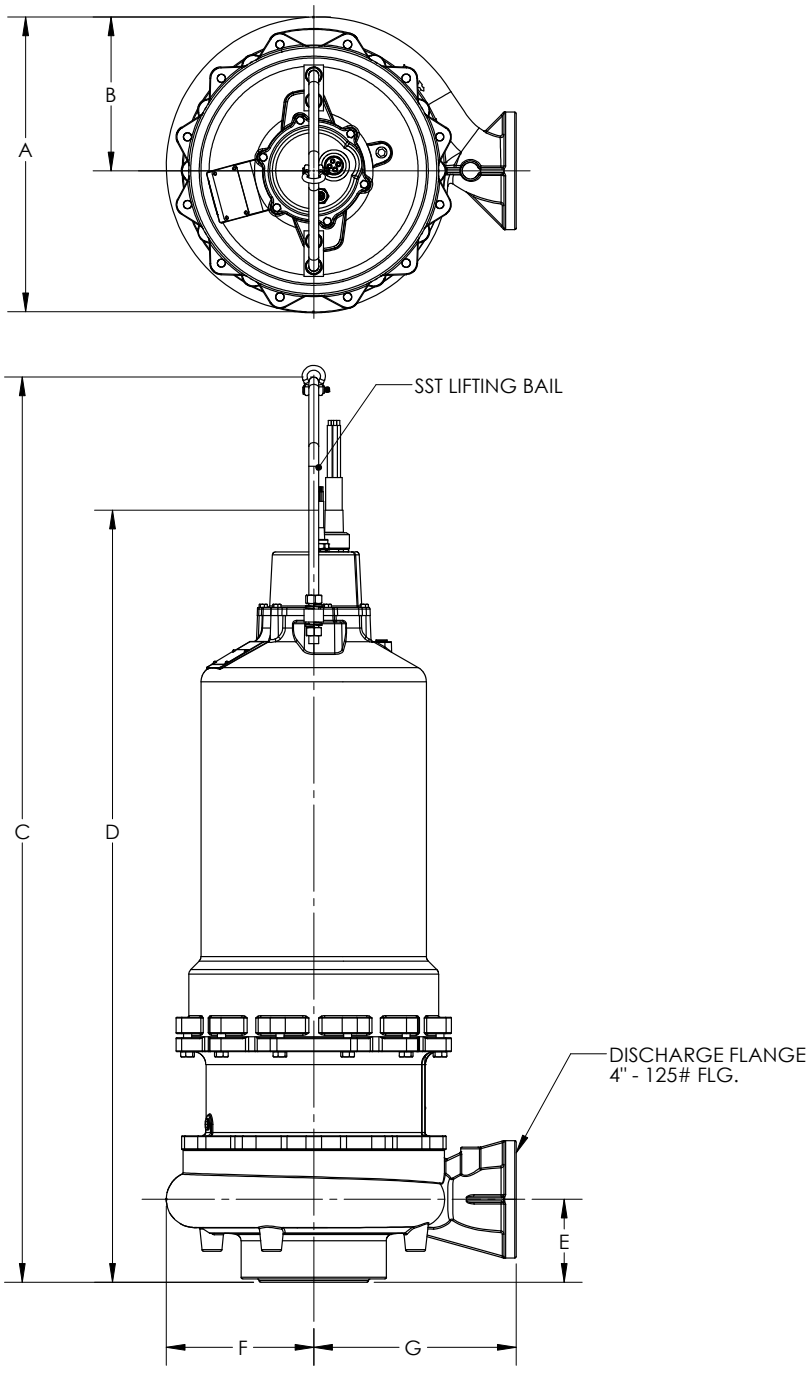


	A	B	C	D	E	F	G
S4T(X)P	22-1/2	11-3/4	68-13/16	57-7/8	6-5/16	11-1/4	15-1/2

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S4T(X)P

FRAME SIZE: **360**

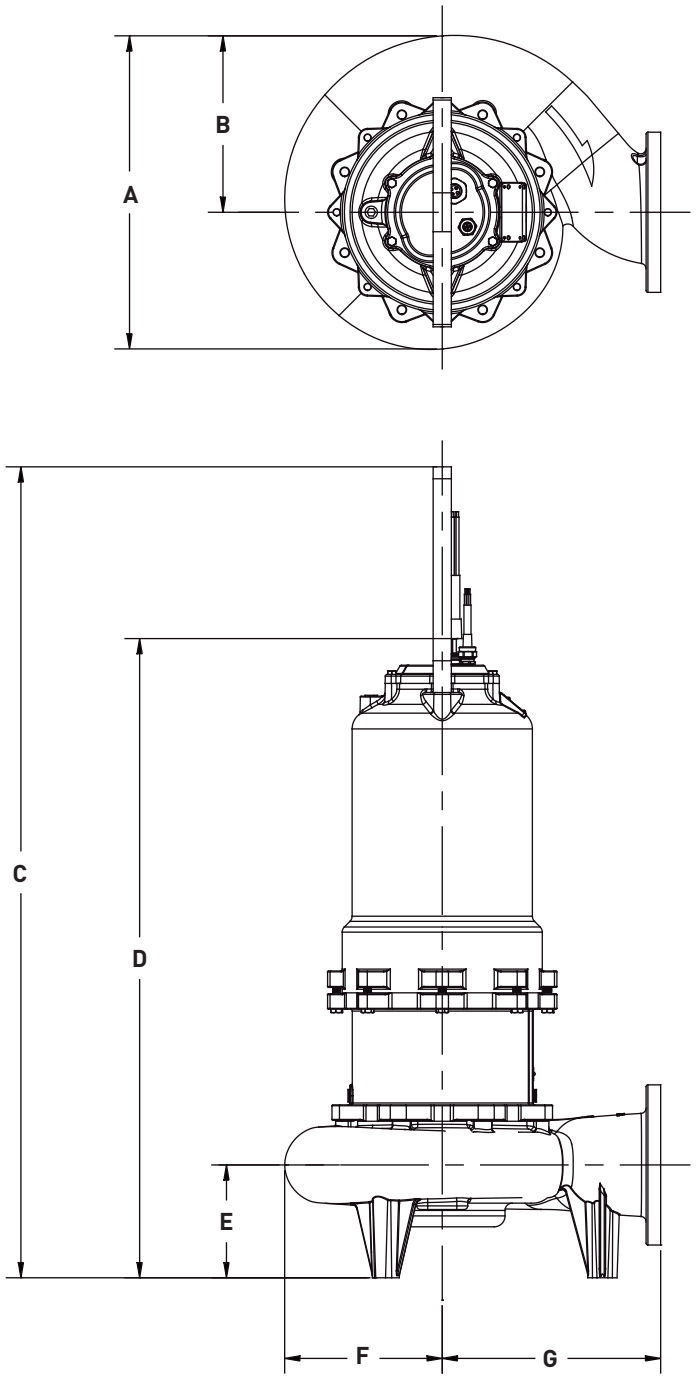


	A	B	C	D	E	F	G
S4T(X)P	22-1/2	11-3/4	69-5/16	59-1/16	6-5/16	11-1/4	15-1/2

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S6L(X)P

FRAME SIZE: **250**

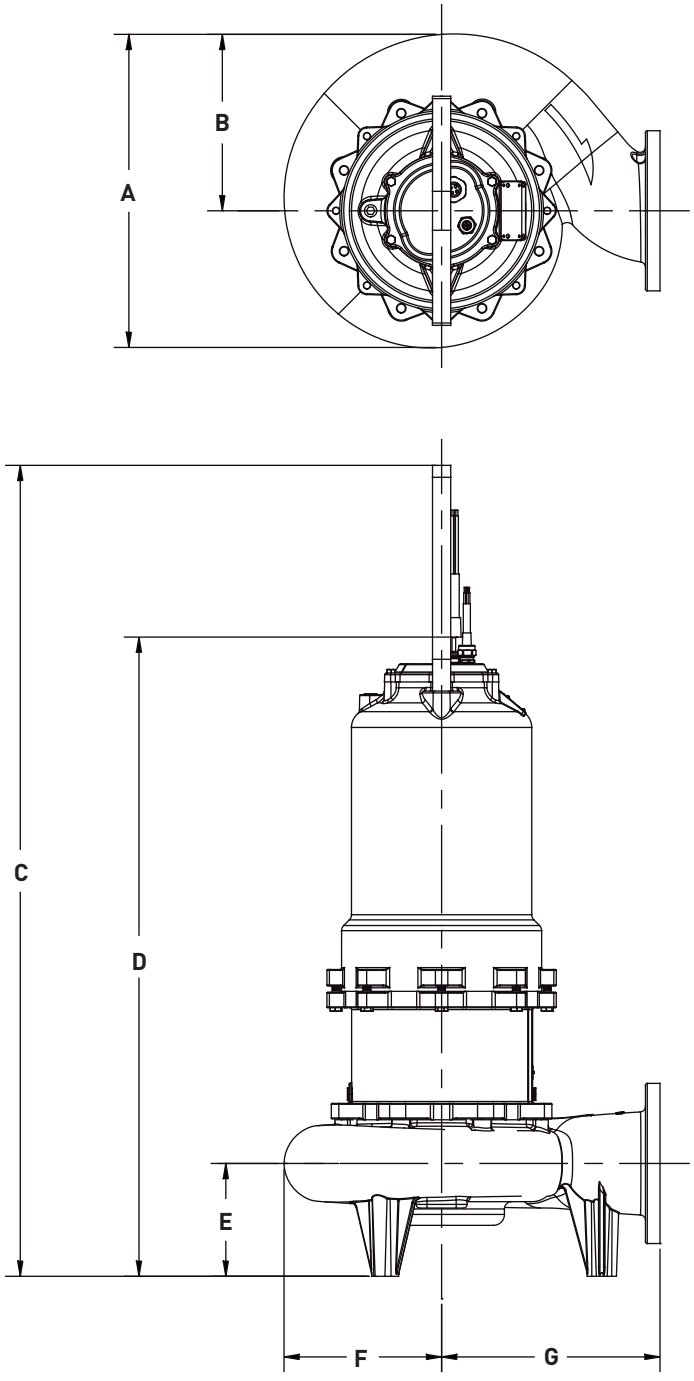


	A	B	C	D	E	F	G
S6L(X)P	21.52	12.08	55.68	43.92	7.76	10.80	15.04

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S6L(X)P

FRAME SIZE: **280**

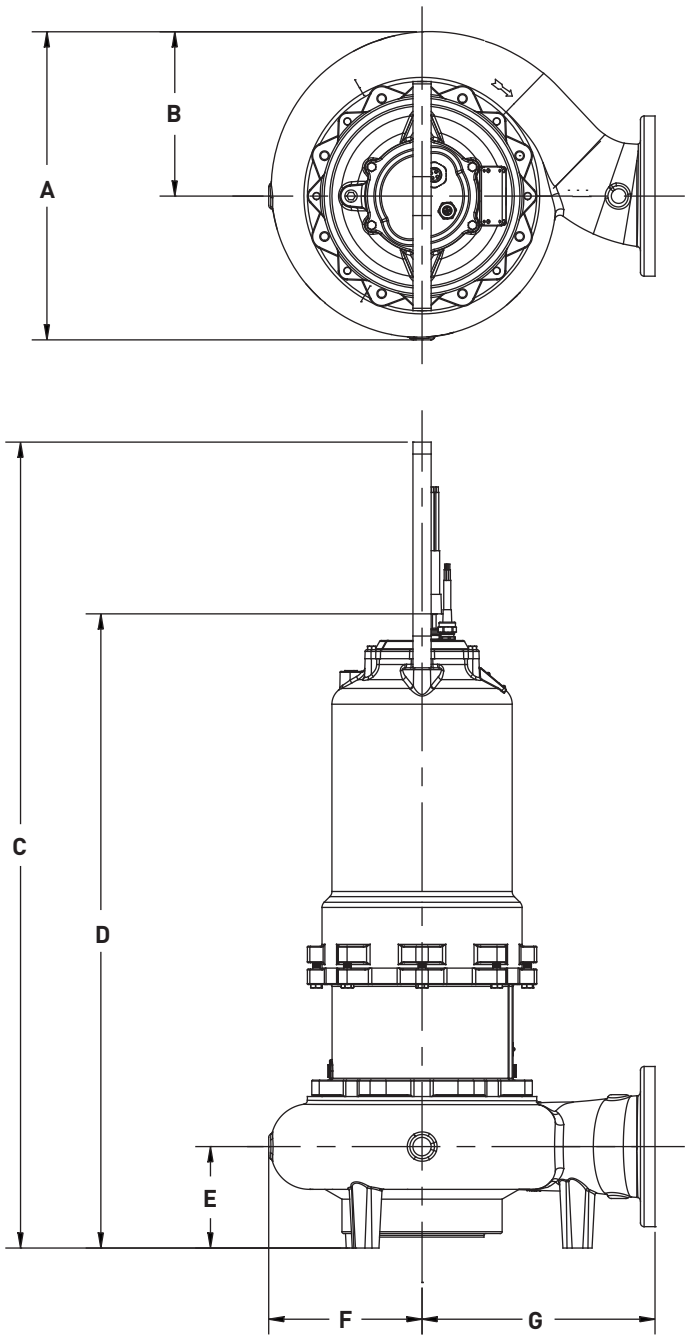


	A	B	C	D	E	F	G
S6L(X)P	21.52	12.08	56.93	44.17	7.76	10.80	15.04

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S6A(X)P

FRAME SIZE: **250**

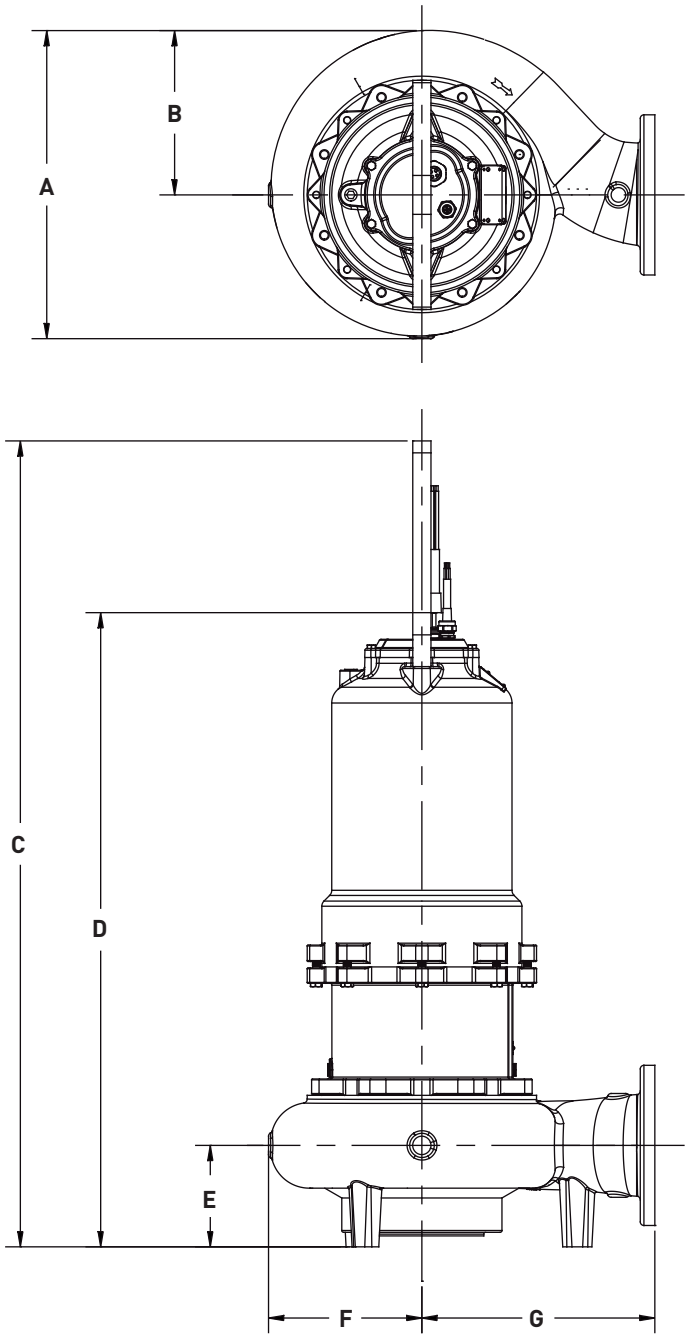


	A	B	C	D	E	F	G
S6A(X)P	21.12	11.20	55.36	43.52	6.96	10.56	16.00

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S6A(X)P

FRAME SIZE: **280**

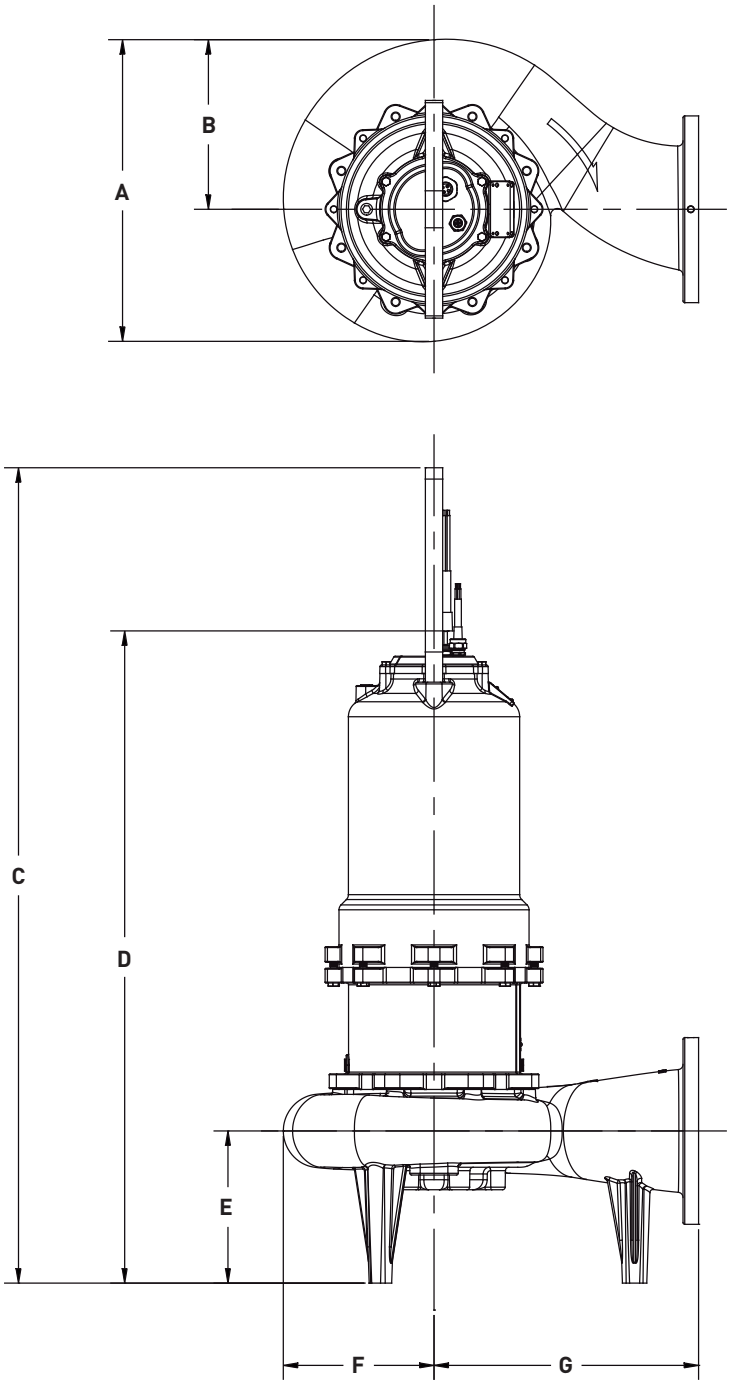


	A	B	C	D	E	F	G
S6A(X)P	21.12	11.20	56.61	44.77	6.96	10.56	16.00

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8F(X)P

FRAME SIZE: **250**

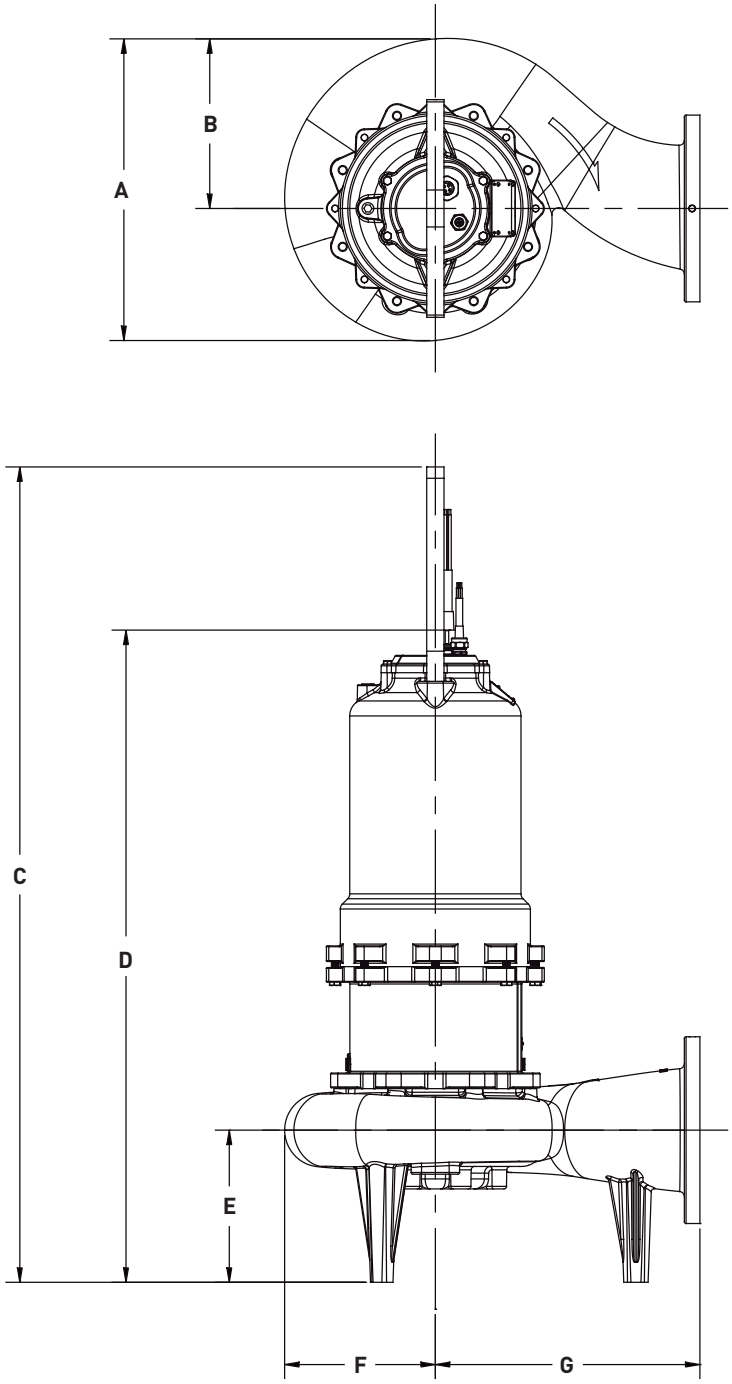


	A	B	C	D	E	F	G
S8F(X)P	21.84	12.24	58.96	47.12	10.96	10.88	19.12

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8F(X)P

FRAME SIZE: **280**

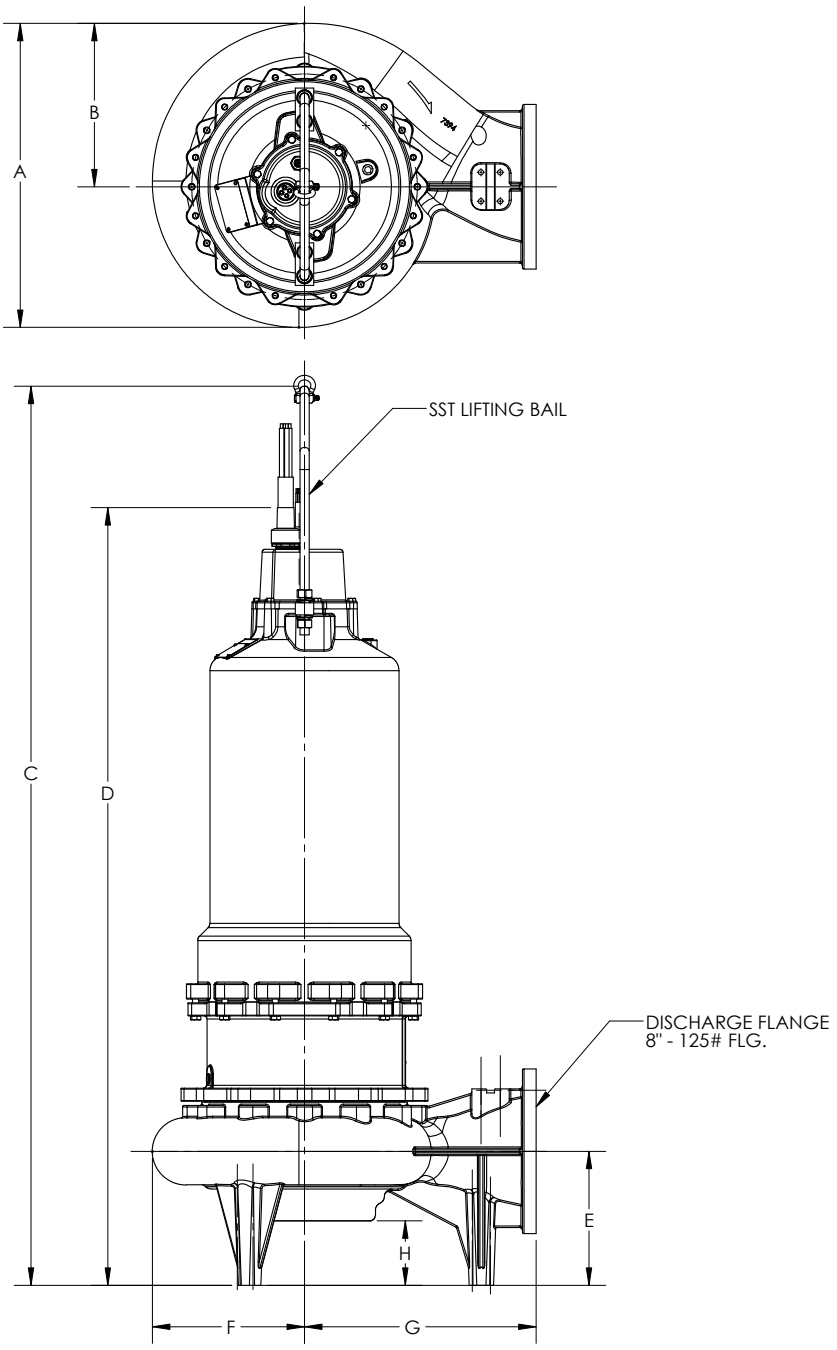


	A	B	C	D	E	F	G
S8F(X)P	21.84	12.24	59.21	48.37	10.96	10.88	19.12

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8L(X)P

FRAME SIZE: **320**

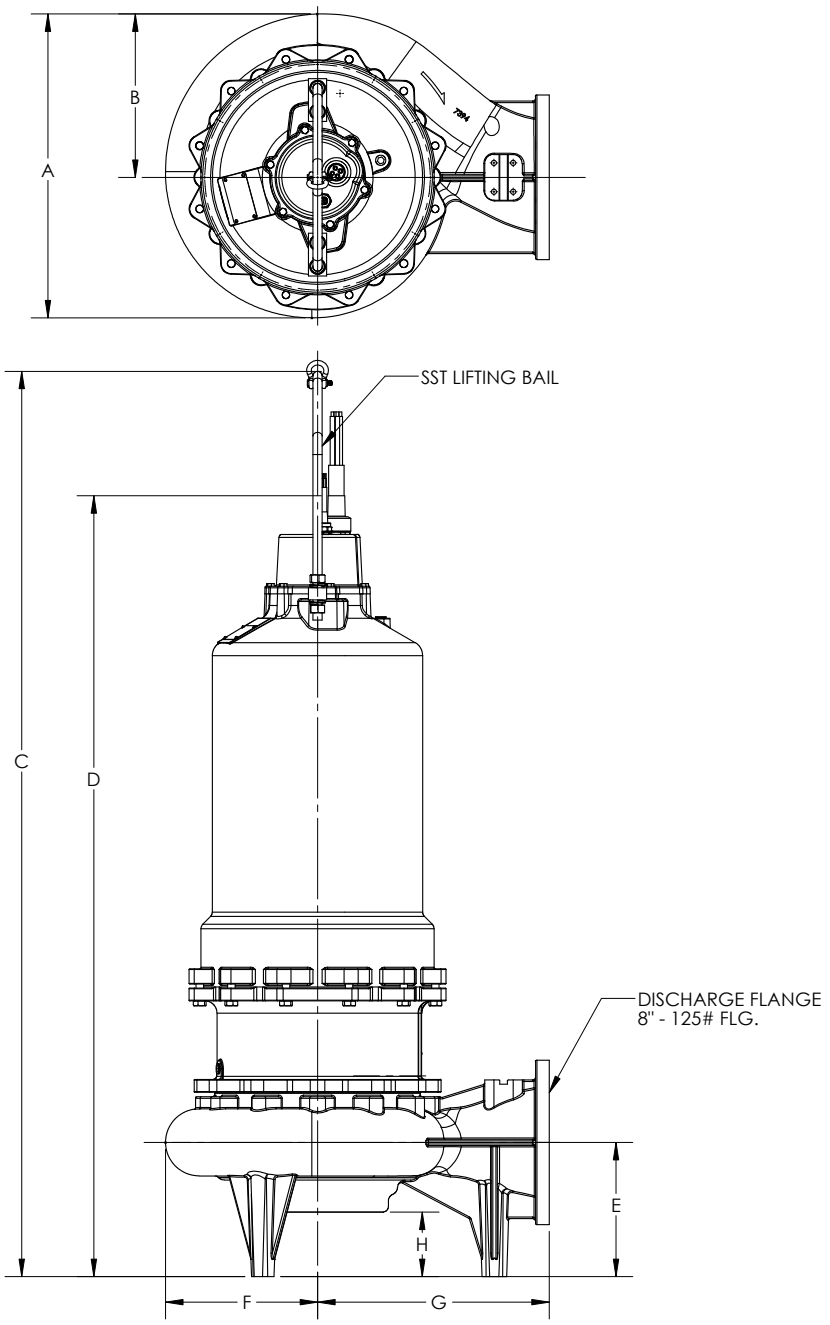


	A	B	C	D	E	F	G	H
S8L(X)P	24-15/16	13-7/16	73-3/4	63-13/16	11	12-1/2	19	5-3/16

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8L(X)P

FRAME SIZE: **360**

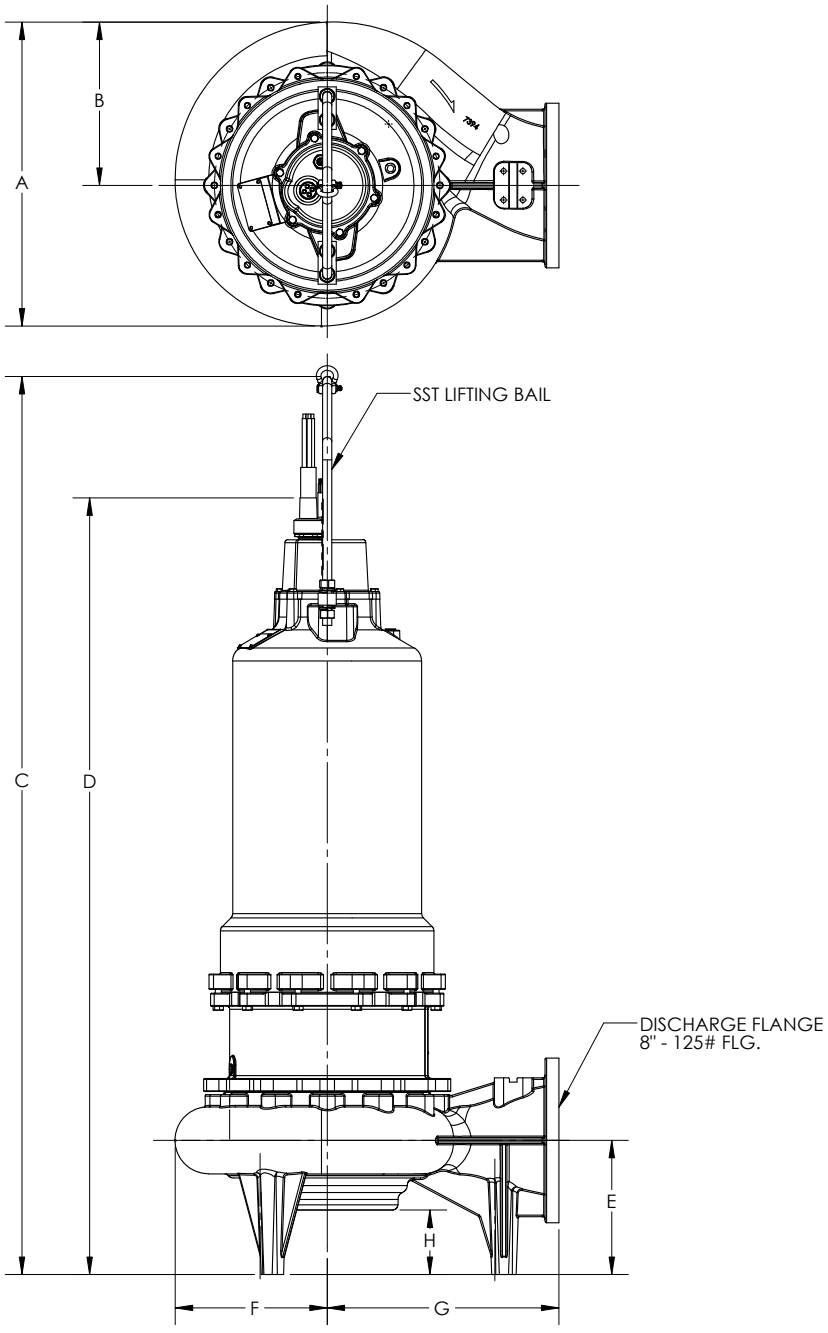


	A	B	C	D	E	F	G	H
S8L(X)P	24-15/16	13-7/16	74-1/4	64	11	12-1/2	19	5-3/16

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8LA(X)P

FRAME SIZE: **320**

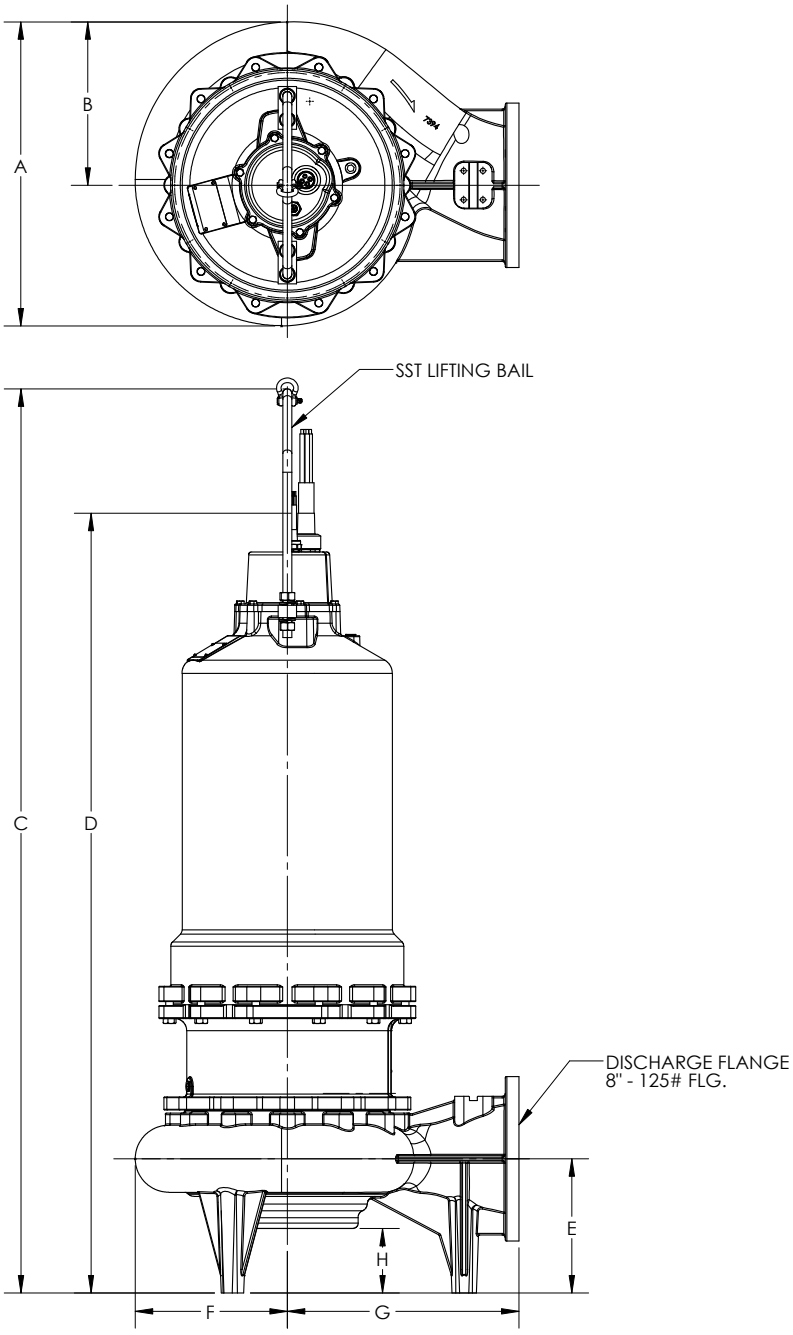


	A	B	C	D	E	F	G	H
S8LA(X)P	24-15/16	13-7/16	73-5/8	63-3/4	11	12-1/2	19	5-3/16

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S8LA(X)P

FRAME SIZE: **360**

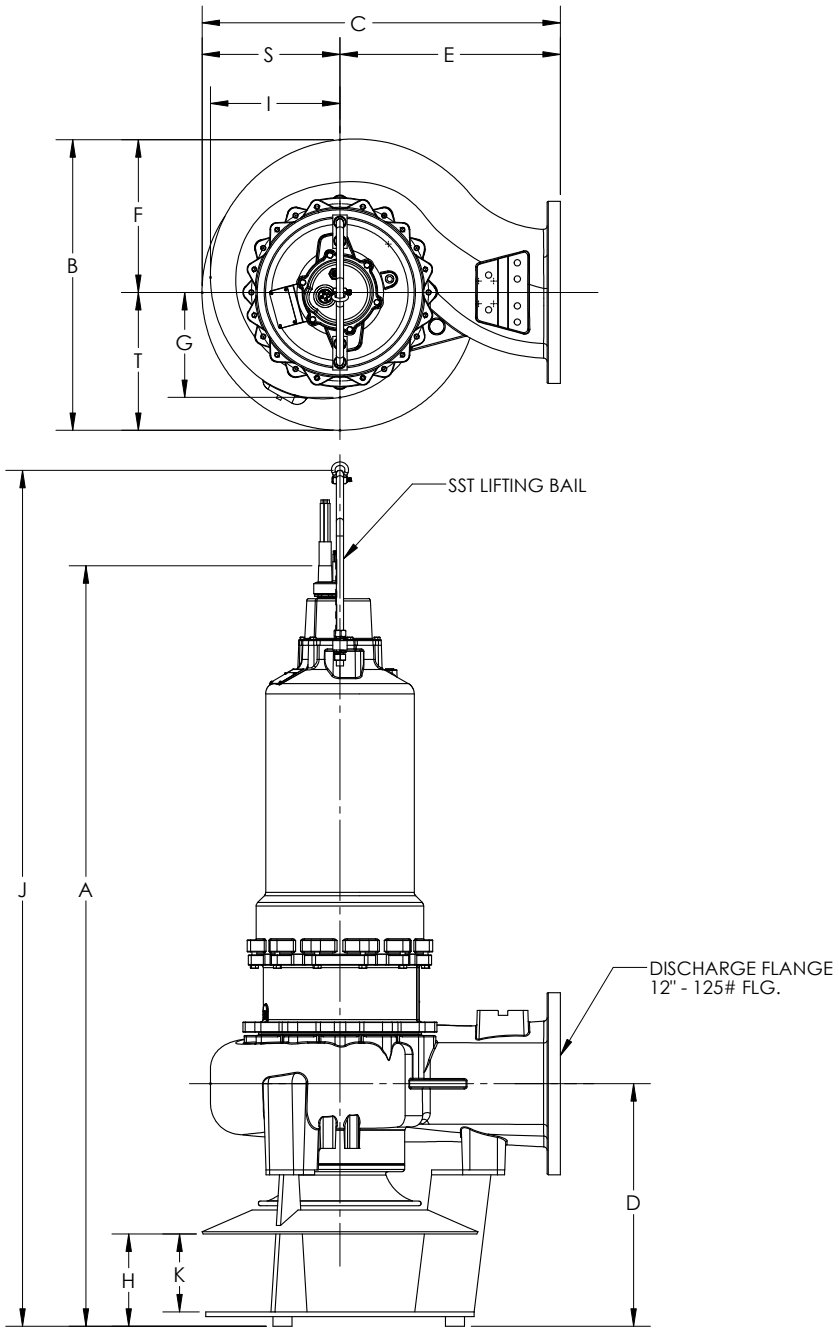


	A	B	C	D	E	F	G	H
S8LA(X)P	24-15/16	13-7/16	74-1/4	64	11	12-1/2	19	5-3/16

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S12L(X)P

FRAME SIZE: **320**

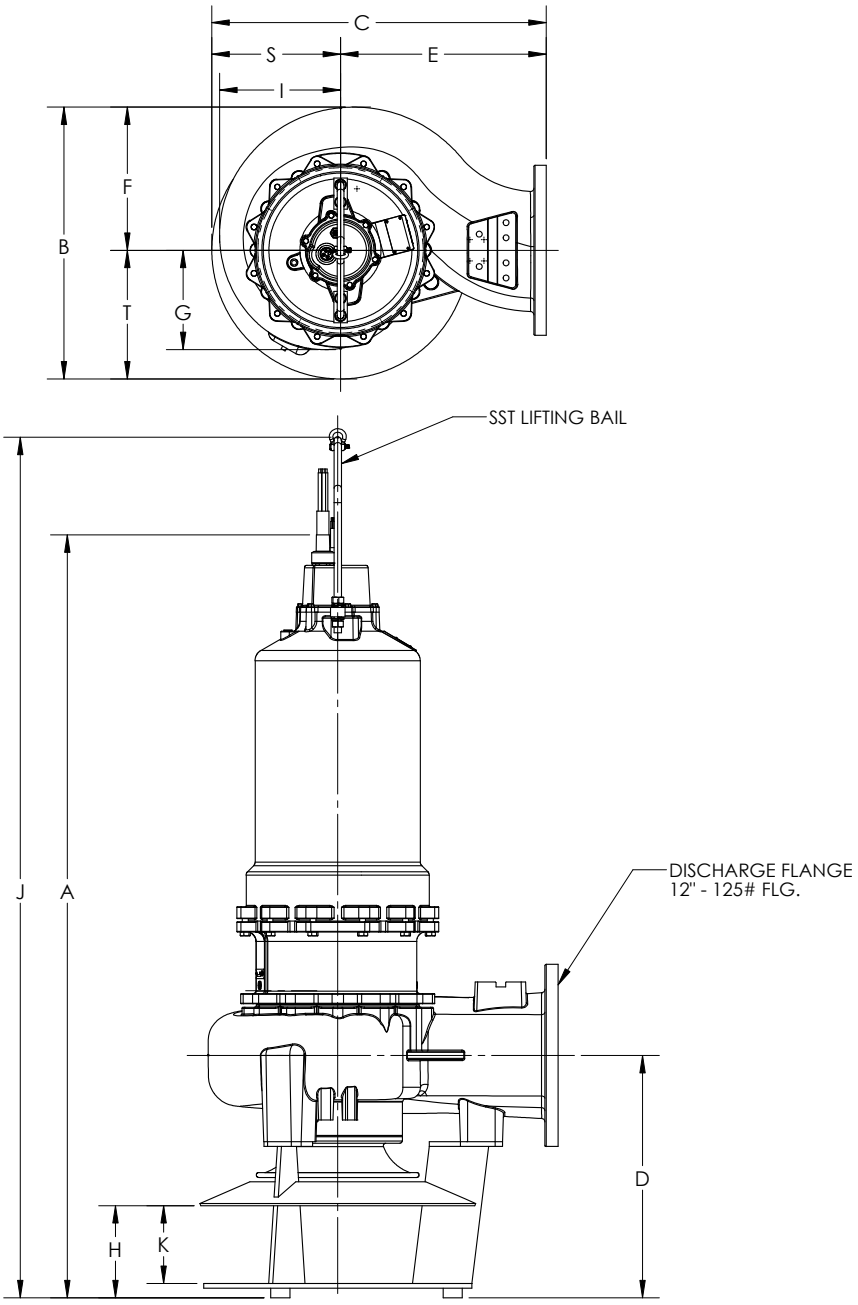


	A	B	C	D	E	F	G	H	I	J	K	S	T
S12L(X)P	79-3/8	30-1/16	37	25-5/16	23	16-1/16	11-3/16	9-5/8	13-9/16	89-3/8	8-1/8	14	14

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Dimensional Data – S12L(X)P

FRAME SIZE: **360**



	A	B	C	D	E	F	G	H	I	J	K	S	T
S12L(X)P	79-5/8	30-1/16	37	25-5/16	23	16-1/16	11-3/16	9-5/8	13-9/16	89-7/8	8-1/8	14	14

ALL DIMENSIONS IN INCHES
NOTE: CASTING DIMENSIONS MAY VARY ± 1/8"

Electrical Data – H3H(X)P/H4H(X)P/C4S(X)P

MODEL: H3H(X)P/H4H(X)P/C4S(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1750			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A or B (3ø) EXCEEDS L (1ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 82°C DIFFERENTIAL, ONE IN SINGLE PHASE, THREE IN THREE PHASE			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
7.5	230	1	K	1.3	35	43	263	7.7	60.5	8.1	NR	*88.4	*87.9	*73.6	*79	0.98	0.96	0.95	0.92
7.5	208	3	K	1.3	24.3	28.8	175	7.0	62.9	8.8	91.7	*91.7	*91.7	*90	*91.2	0.87	0.8	0.78	0.7
	230				22	26	158												
	460				11	13	79												
	575				8.8	10.4	65												
10	208	3	P	1.3	33.9	39.9	353	8.4	127.3	11.1	91.7	*91.7	*91.7	*90.2	*92	0.807	0.755	0.676	0.547
	230				29.4	34.7	320												
	460				14.7	17.3	160												
	575				11.8	13.9	120												
15	208	3	K	1.3	46.4	55.3	353	13.9	127.3	16.7	92.4	*92.4	*92.4	*92.3	*91.5	0.86	0.833	0.784	0.677
	230				42	50	320												
	460				21	25	160												
	575				16.8	20	120												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4M(X)P/S4MV(X)P/C4S(X)P

MODEL: S4M(X)P/S4MV(X)P/C4S(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1150				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A or B (3ø) EXCEEDS L (1ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 82°C DIFFERENTIAL, ONE IN SINGLE PHASE, THREE IN THREE PHASE				
ELECTRICAL RATINGS		HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
		SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
3	208	3	P	1.3	13.3	17.7	111	2.8	39.8	4.8	89.5	*89.5	*87.8	*84.4	*89.5	0.67	0.59	0.5	0.38
	230				12	16	100												
	460				6	8	50												
	575				4.8	6.4	43												
5	208	3	J	1.3	16.6	21	111	4.4	39.8	6.0	89.5	*89.5	*89.5	*88.5	*89.2	0.782	0.733	0.66	0.536
	230				15	19	100												
	460				7.5	8.5	50												
	575				6	6.8	43												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4M(X)P/S4MV(X)P/S4P(X)P

MODEL: S4M(X)P/S4MV(X)P/S4P(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1750			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A or B (3ø) EXCEEDS L (1ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 82°C DIFFERENTIAL, ONE IN SINGLE PHASE, THREE IN THREE PHASE			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
5	230	1	N	1.3	22	27	263	4.8	60.5	5.1	NR	*87.9	*85.4	*79.8	*88	0.955	0.94	0.92	0.87
5	208	3	P	1.3	17.7	19.9	175	4.5	62.9	6.4	89.5	*89.5	*89.5	*87	*90	0.81	0.7	0.6	0.54
	230				16	18	158												
	460				8	9	79												
	575				6.4	7.2	65												
7.5	230	1	K	1.3	35	43	263	7.7	60.5	8.1	NR	*88.4	*87.9	*73.6	*79	0.98	0.96	0.95	0.92
7.5	208	3	K	1.3	24.3	28.8	175	7.0	62.9	8.8	91.7	*91.7	*91.7	*90	*91.2	0.87	0.8	0.78	0.7
	230				22	26	158												
	460				11	13	79												
	575				8.8	10.4	65												
10	208	3	P	1.3	33.9	39.9	353	8.4	127.3	11.1	91.7	*91.7	*91.7	*90.2	*92	0.807	0.755	0.676	0.547
	230				29.4	34.7	320												
	460				14.7	17.3	160												
	575				11.8	13.9	120												
15	208	3	K	1.3	46.4	55.3	353	13.9	127.3	16.7	92.4	*92.4	*92.4	*92.3	*91.5	0.86	0.833	0.784	0.677
	230				42	50	320												
	460				21	25	160												
	575				16.8	20	120												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4HV(X)P

MODEL: S4HV(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	3450				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A or B (3ø) EXCEEDS L (1ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 82°C DIFFERENTIAL, ONE IN SINGLE PHASE, THREE IN THREE PHASE				
ELECTRICAL RATINGS		HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
		SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
7.5	208	3	K	1.3	26.5	30.5	186	8.2	66.8	9.5	89.5	*89.5	*89.5	*88	*90	0.87	0.86	0.8	0.7
	230				24	27.6	168												
	460				12	13.8	84												
	575				9.6	11	67												
10	208	3	P	1.3	32	35.4	365	9.6	131.3	11.5	90.2	*90.2	*90.2	*89.6	*91	0.87	0.832	0.773	0.662
	230				29	32	330												
	460				14.5	16	165												
	575				11.6	12.8	135												
15	208	3	K	1.3	44.2	57.5	365	14.1	131.3	15.9	91	*91	*91	*91	*90.4	0.904	0.886	0.854	0.777
	230				40	52	330												
	460				20	26	165												
	575				16	20.8	135												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4K(X)P/H4Q(X)P/C4H(X)P

MODEL: S4K(X)P/H4Q(X)P/C4H(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1750			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
20	208	3	K	1.3	60.2	72.1	402	18.1	160.0	21.6	93	*93	*92	*90	*92	0.85	0.833	0.8	0.74
	230				54.4	65.2	402												
	460				27.2	32.6	201												
	575				21.8	26.1	157												
25	208	3	H	1.3	75.2	88.5	402	23.5	160.0	27.1	93.6	*93.6	*92	*90	*92	0.85	0.854	0.82	0.78
	230				68	80	402												
	460				34	40	201												
	575				27.2	32.0	157												
30	230	3	G	1.3	80.2	96.2	434	26.6	172.7	31.9	93.6	*93.6	*92	*90	*92	0.836	0.856	0.851	0.82
	460				40.1	48.1	217												
	575				32.1	38.5	178												
40	460	3	H	1.3	54.7	63.7	345	34.5	274.6	43.5	94.1	*94.1	*93	*91	*93	0.842	0.842	0.82	0.75
	575				43.8	51.0	265												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4L(X)P/S4LV(X)P/S6L(X)P/S8F(X)P

MODEL: S4L(X)P/S4LV(X)P/S6L(X)P/S8F(X)P - Hydromatic®
Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	870			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
5	208	3	L	1.3	27.5	29.4	121	7.2	48.1	7.9	NR	*87.5	*86	*84	*86	0.56	0.51	0.44	0.4
	230				24.9	26.6	121												
	460				12.45	13.3	60.5												
	575				9.9	10.6	49												
7.5	208	3	H	1.3	31.0	37.6	121	9.3	48.1	11.1	NR	*88.5	*87	*85	*87	0.63	0.58	0.52	0.44
	230				28	34	121												
	460				14	17	60.5												
	575				11.2	13.6	49												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4L(X)P/S4B(X)P/S6L(X)P

MODEL: S4L(X)P/S4B(X)P/S6L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1150			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LOKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
7.5	208	3	L	1.3	27.6	31.4	174	7.3	69.2	9.9	91	*91	*90	*89	*90	0.8	0.77	0.718	0.58
	230				25	28.4	174												
	460				12.5	14.2	87												
	575				10.0	11.4	69												
10	208	3	H	1.3	34.3	40.3	174	9.2	69.2	12.3	91	*91	*90	*89	*90	0.83	0.815	0.77	0.75
	230				31	36.4	174												
	460				15.5	18.2	87												
	575				12.4	14.6	69												
15	208	3	J	1.3	46.2	54.4	275	13.8	109.4	16.6	91.7	*91.7	*91.0	*89	*91.0	0.83	0.845	0.76	0.68
	230				41.8	49.2	275												
	460				20.9	24.6	137.5												
	575				16.7	19.7	115												
20	208	3	J	1.3	58.6	64.1	394	17.8	156.8	21.1	91.7	*91.7	*91.0	*89	*91.0	0.86	0.85	0.83	0.74
	230				53	58	394												
	460				26.5	29	197												
	575				21.2	23.2	163												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4L(X)P/S4LV(X)P/S4B(X)P/ S6L(X)P/S8F(X)P

MODEL: S4L(X)P/S4LV(X)P/S4B(X)P/S6L(X)P/S8F(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1750				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A (3ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES				
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS	
	SEAL FAIL	300VAC 5mA			
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
20	208	3	K	1.3	60.2	72.1	402	18.1	160.0	21.6	93	*93	*92	*90	*92	0.85	0.833	0.8	0.74
	230				54.4	65.2	402												
	460				27.2	32.6	201												
	575				21.8	26.1	157												
25	208	3	H	1.3	75.2	88.5	402	23.5	160.0	27.1	93.6	*93.6	*92	*90	*92	0.85	0.854	0.82	0.78
	230				68	80	402												
	460				34	40	201												
	575				27.2	32.0	157												
30	230	3	G	1.3	80.2	96.2	434	26.6	172.7	31.9	93.6	*93.6	*92	*90	*92	0.836	0.856	0.851	0.82
	460				40.1	48.1	217												
	575				32.1	38.5	178												
40	460	3	H	1.3	54.7	63.7	345	34.5	274.6	43.5	94.1	*94.1	*93	*91	*93	0.842	0.842	0.82	0.75
	575				43.8	51.0	265												
50	460	3	G	1.3	70.5	98.5	387	43.0	308.0	56.1	94.5	*94.5	*93	*91	*93	0.874	0.877	0.865	0.82
	575				56.4	78.8	310												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4LV(X)P/S8F(X)P

MODEL: S4LV(X)P/S8F(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1150			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
7.5	208	3	L	1.3	27.6	31.4	174	7.3	69.2	9.9	91	*91	*90	*89	*90	0.8	0.77	0.718	0.58
	230				25	28.4	174												
	460				12.5	14.2	87												
	575				10.0	11.4	69												
10	208	3	H	1.3	34.3	40.3	174	9.2	69.2	12.3	91	*91	*90	*89	*90	0.83	0.815	0.77	0.75
	230				31	36.4	174												
	460				15.5	18.2	87												
	575				12.4	14.6	69												
15	208	3	J	1.3	46.2	54.4	275	13.8	109.4	16.6	91.7	*91.7	*91.0	*89	*91.0	0.83	0.845	0.76	0.68
	230				41.8	49.2	275												
	460				20.9	24.6	137.5												
	575				16.7	19.7	115												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4B(X)P

MODEL: S4B(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	870			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
5	208	3	L	1.3	27.5	29.4	121	7.2	48.1	7.9	NR	*87.5	*86	*84	*86	0.56	0.51	0.44	0.4
	230				24.9	26.6	121												
	460				12.45	13.3	60.5												
	575				9.9	10.6	49												
7.5	208	3	H	1.3	31.0	37.6	121	9.3	48.1	11.1	NR	*88.5	*87	*85	*87	0.63	0.58	0.52	0.44
	230				28	34	121												
	460				14	17	60.5												
	575				11.2	13.6	49												
10	208	3	K	1.3	39.8	47.5	213	11.4	84.8	14.3	NR	*89.5	*88	*86	*88	0.695	0.64	0.58	0.5
	230				36	43	213												
	460				18	21.5	106.5												
	575				14.4	17.2	87												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S6A(X)P

MODEL: S6A(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	870				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A (3ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES				
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS	
	SEAL FAIL	300VAC 5mA			
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
5	208	3	L	1.3	27.5	29.4	121	7.2	48.1	7.9	NR	*87.5	*86	*84	*86	0.56	0.51	0.44	0.4
	230				24.9	26.6	121												
	460				12.45	13.3	60.5												
	575				9.9	10.6	49												
7.5	208	3	H	1.3	31.0	37.6	121	9.3	48.1	11.1	NR	*88.5	*87	*85	*87	0.63	0.58	0.52	0.44
	230				28	34	121												
	460				14	17	60.5												
	575				11.2	13.6	49												
10	208	3	K	1.3	39.8	47.5	213	11.4	84.8	14.3	NR	*89.5	*88	*86	*88	0.695	0.64	0.58	0.5
	230				36	43	213												
	460				18	21.5	106.5												
	575				14.4	17.2	87												
15	208	3	G	1.3	47.5	50.9	213	15.7	84.8	17.1	NR	*89.5	*88	*86	*88	0.74	0.72	0.67	0.58
	230				43	46	213												
	460				21.5	23	106.5												
	575				17.2	18.4	87												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S6A(X)P

MODEL: S6A(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1150			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES			
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	SEAL FAIL	300VAC 5mA		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LCKD. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
7.5	208	3	L	1.3	27.6	31.4	174	7.3	69.2	9.9	91	*91	*90	*89	*90	0.8	0.77	0.718	0.58
	230				25	28.4	174												
	460				12.5	14.2	87												
	575				10.0	11.4	69												
10	208	3	H	1.3	34.3	40.3	174	9.2	69.2	12.3	91	*91	*90	*89	*90	0.83	0.815	0.77	0.75
	230				31	36.4	174												
	460				15.5	18.2	87												
	575				12.4	14.6	69												
15	208	3	J	1.3	46.2	54.4	275	13.8	109.4	16.6	91.7	*91.7	*91.0	*89	*91.0	0.83	0.845	0.76	0.68
	230				41.8	49.2	275												
	460				20.9	24.6	137.5												
	575				16.7	19.7	115												
20	208	3	J	1.3	58.6	64.1	394	17.8	156.8	21.1	91.7	*91.7	*91.0	*89	*91.0	0.86	0.85	0.83	0.74
	230				53	58	394												
	460				26.5	29	197												
	575				21.2	23.2	163												
25	208	3	G	1.3	71.9	81.8	394	21.7	156.8	25.9	93	*93	*92.5	*90	*92.5	0.84	0.86	0.85	0.79
	230				65	74	394												
	460				32.5	37	197												
	575				26.0	29.6	163												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S6A(X)P

MODEL: S6A(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

R.P.M.	1750				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A (3ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE RATING	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 93–71°C DIFFERENTIAL, THREE IN SERIES				
ELECTRICAL RATINGS	HEAT SENSOR	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS	
	SEAL FAIL	300VAC 5mA			
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEC CODE	SF	FULL LOAD AMPS	SF AMPS	LOCK. RTR. AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY @ FL	MTR. EFF. 100% FL	MTR. EFF. 75% FL	MTR. EFF. 50% FL	MTR. EFF. @ SF	PWR. FACT. @ SF	PWR. FACT. 100% FL	PWR. FACT. 75% FL	PWR. FACT. 50% FL
25	208	3	H	1.3	75.2	88.5	402	23.5	160.0	27.1	93.6	*93.6	*92	*90	*92	0.85	0.854	0.82	0.78
	230				68	80	402												
	460				34	40	201												
	575				27.2	32.0	157												
30	230	3	G	1.3	80.2	96.2	434	26.6	172.7	31.9	93.6	*93.6	*92	*90	*92	0.836	0.856	0.851	0.82
	460				40.1	48.1	217												
	575				32.1	38.5	178												
40	460	3	H	1.3	54.7	63.7	345	34.5	274.6	43.5	94.1	*94.1	*93	*91	*93	0.842	0.842	0.82	0.75
	575				43.8	51.0	265												
50	460	3	G	1.3	70.5	98.5	387	43.0	308.0	56.1	94.5	*94.5	*93	*91	*93	0.874	0.877	0.865	0.82
	575				56.4	78.8	310												

*Motor Efficiency does not include seal and oil losses per IEC60034-30 5.1.3 Full Load Amps and Service Factor Amps do include these losses

Electrical Data – S4T(X)P/S8L(X)P/S8LA(X)P/S12L(X)P

MODELS: S4T(X)P/S8L(X)P/S8LA(X)P/S12L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

RPM	1750			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 150°C AND AUTOMATICALLY RESET @ 117–89°C DIFFERENTIAL, THREE IN THREE PHASE			
ELECTRICAL RATINGS	HEAT	24 VDC	115 VAC	230 VAC
	SENSOR	5 AMPS	5 AMPS	5 AMPS
	SEAL FAILURE	300 VAC 5 Ma		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEMA CODE	SF	NAME PLATE AMPS	SF AMPS	LOCK ROTOR AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY AT FL	*MOTOR EFF AT SF	*MOTOR EFF AT FL	*MOTOR EFF AT 75% FL	*MOTOR EFF AT 50% FL	POWER FACTOR AT SF	POWER FACTOR AT FL	POWER FACTOR AT 75% FL	POWER FACTOR AT 50% FL
75	460	3	G	1.3	96	120	570	67.8	453.6	76.4	95.4	94	95.4	94	93	0.88	0.887	0.886	0.84
	575				76.8	96.0	456												
100	460	3	H	1.3	125	155	826	88.1	657.5	99.5	95.4	94	95.4	94	93	0.884	0.886	0.877	0.845
	575				100.0	124.0	661												
125	460	3	H	1.3	152	190	1137	107.4	846.5	121.4	95.4	94.1	95.4	94.1	93.9	0.882	0.885	0.87	0.82
	575				122.0	152.0	851												
150	460	3	J	1.3	185	230	1521	128.8	1159.9	147.2	95.8	94.2	95.8	94.2	93.9	0.878	0.875	0.86	0.82
	575				148.0	184.0	1166												

*Motor efficiency does not include seal and oil losses per IEC60034-30 5.1.3. Full load amps and service factor amps do include these losses

Electrical Data – S8L(X)P

MODELS: S8L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

RPM	1150				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A (3ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 150°C AND AUTOMATICALLY RESET @ 117–89°C DIFFERENTIAL, THREE IN THREE PHASE				
ELECTRICAL RATINGS	HEAT	24 VDC	115 VAC	230 VAC	
	SENSOR	5 AMPS	5 AMPS	5 AMPS	
	SEAL FAILURE	300 VAC 5 Ma			
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEMA CODE	SF	NAME PLATE AMPS	SF AMPS	LOCK ROTOR AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY AT FL	*MOTOR EFF AT SF	*MOTOR EFF AT FL	*MOTOR EFF AT 75% FL	*MOTOR EFF AT 50% FL	POWER FACTOR AT SF	POWER FACTOR AT FL	POWER FACTOR AT 75% FL	POWER FACTOR AT 50% FL
40	460	3	K	1.3	54	63	420	36.5	349.2	43.0	94.1	93	94.1	93	91.5	0.865	0.85	0.84	0.83
	575				43.2	50.4	351												
50	460	3	H	1.3	64.0	79.0	420	44.1	349.2	50.9	94.1	93.1	94.1	93	91.6	0.865	0.865	0.85	0.84
	575				51.2	63.2	351												
60	460	3	J	1.3	78.0	95.0	503	54.0	426.7	62.1	94.5	93.2	94.5	93.2	91.8	0.875	0.87	0.86	0.85
	575				62.4	76.0	429												

*Motor efficiency does not include seal and oil losses per IEC60034-30 5.1.3. Full load amps and service factor amps do include these losses

Electrical Data – S8L(X)P

MODELS: S8L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

RPM	870			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 150°C AND AUTOMATICALLY RESET @ 117–89°C DIFFERENTIAL, THREE IN THREE PHASE			
ELECTRICAL RATINGS	HEAT	24 VDC	115 VAC	230 VAC
	SENSOR	5 AMPS	5 AMPS	5 AMPS
	SEAL FAILURE	300 VAC 5 Ma		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEMA CODE	SF	NAME PLATE AMPS	SF AMPS	LOCK ROTOR AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY AT FL	*MOTOR EFF AT SF	*MOTOR EFF AT FL	*MOTOR EFF AT 75% FL	*MOTOR EFF AT 50% FL	POWER FACTOR AT SF	POWER FACTOR AT FL	POWER FACTOR AT 75% FL	POWER FACTOR AT 50% FL
20	208	3	J	1.3	75.0	92.0	413.5	19.4	148.8	27.0	NR	90.2	89	86	84	0.77	0.72	0.67	0.65
	230				67.8	83.2	374												
	460				33.9	41.6	187												
	575				27.1	33.3	147												
25	208	3	G	1.3	91.0	120.0	413.5	25.2	148.8	32.7	NR	89	90.2	89	86	0.79	0.77	0.72	0.67
	230				82.3	108.5	374												
	460				41.2	54.2	187												
	575				32.9	43.4	147												

*Motor efficiency does not include seal and oil losses per IEC60034-30 5.1.3. Full load amps and service factor amps do include these losses

Electrical Data – S12L(X)P

MODELS: S12L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

RPM	1150				
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE				
MOTOR DESIGN NEMA TYPE	A (3ø)				
GENERAL INSULATION CLASS	H				
STATOR WINDING CLASS	H				
MAXIMUM STATOR TEMPERATURE	356°F (180°)				
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 150°C AND AUTOMATICALLY RESET @ 117–89°C DIFFERENTIAL, THREE IN THREE PHASE				
ELECTRICAL RATINGS	HEAT	24 VDC	115 VAC	230 VAC	
	SENSOR	5 AMPS	5 AMPS	5 AMPS	
	SEAL FAILURE	300 VAC 5 Ma			
VOLTAGE TOLERANCE	±10%				

HP	VOLTAGE	PHASE	NEMA CODE	SF	NAME PLATE AMPS	SF AMPS	LOCK ROTOR AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY AT FL	*MOTOR EFF AT SF	*MOTOR EFF AT FL	*MOTOR EFF AT 75% FL	*MOTOR EFF AT 50% FL	POWER FACTOR AT SF	POWER FACTOR AT FL	POWER FACTOR AT 75% FL	POWER FACTOR AT 50% FL
40	460	3	K	1.3	54	63	420	36.5	349.2	43.0	94.1	93	94.1	93	91.5	0.865	0.85	0.84	0.83
	575				43.2	50.4	351												
50	460	3	H	1.3	64.0	79.0	420	44.1	349.2	50.9	94.1	93.1	94.1	93	91.6	0.865	0.865	0.85	0.84
	575				51.2	63.2	351												
60	460	3	J	1.3	78.0	95.0	503	54.0	426.7	62.1	94.5	93.2	94.5	93.2	91.8	0.875	0.87	0.86	0.85
	575				62.4	76.0	429												
75	460	3	G	1.3	94	115	503	65.5	426.7	74.8	94.5	93.4	94.5	93.2	91.9	0.88	0.875	0.87	0.86
	575				75.2	92.0	429												

*Motor efficiency does not include seal and oil losses per IEC60034-30 5.1.3. Full load amps and service factor amps do include these losses

Electrical Data – S12L(X)P

MODELS: S12L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pump

RPM	870			
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE			
MOTOR DESIGN NEMA TYPE	A (3ø)			
GENERAL INSULATION CLASS	H			
STATOR WINDING CLASS	H			
MAXIMUM STATOR TEMPERATURE	356°F (180°)			
MOTOR PROTECTION	BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 150°C AND AUTOMATICALLY RESET @ 117–89°C DIFFERENTIAL, THREE IN THREE PHASE			
ELECTRICAL RATINGS	HEAT	24 VDC	115 VAC	230 VAC
	SENSOR	5 AMPS	5 AMPS	5 AMPS
	SEAL FAILURE	300 VAC 5 Ma		
VOLTAGE TOLERANCE	±10%			

HP	VOLTAGE	PHASE	NEMA CODE	SF	NAME PLATE AMPS	SF AMPS	LOCK ROTOR AMPS	RUN KW	START KVA	RUN KVA	NEMA REQ. PREMIUM EFFICIENCY AT FL	*MOTOR EFF AT SF	*MOTOR EFF AT FL	*MOTOR EFF AT 75% FL	*MOTOR EFF AT 50% FL	POWER FACTOR AT SF	POWER FACTOR AT FL	POWER FACTOR AT 75% FL	POWER FACTOR AT 50% FL
20	208	3	J	1.3	75.0	92.0	413.5	19.4	148.8	27.0	NR	90.2	89	86	84	0.77	0.72	0.67	0.65
	230				67.8	83.2	374												
	460				33.9	41.6	187												
	575				27.1	33.3	147												
25	208	3	G	1.3	91.0	120.0	413.5	25.2	148.8	32.7	NR	89	90.2	89	86	0.79	0.77	0.72	0.67
	230				82.3	108.5	374												
	460				41.2	54.2	187												
	575				32.9	43.4	147												
30	230	3	L	1.3	116.0	132.0	700	37.8	278.5	46.2	NR	89.5	91.7	89.5	86	0.85	0.82	0.76	0.69
	460				58.0	66.0	350												
	575				46.4	52.8	263												
40	460	3	H	1.3	61	84.5	350	39.8	278.5	48.5	NR	89.5	91.7	89.5	86	0.85	0.82	0.76	0.69
	575				48.8	67.6	263												

*Motor efficiency does not include seal and oil losses per IEC60034-30 5.1.3. Full load amps and service factor amps do include these losses

Technical Data – H3H(X)P

MODEL: H3H(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	3"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, MONOVANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – H4H(X)P

MODEL: H4H(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, MONOVANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4M(X)P

MODEL: S4M(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – C4S(X)P

MODEL: C4S(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Chopper Pump

Physical Data:

DISCHARGE SIZE	4"
IMPELLER TYPE	BALANCED, SEMI-OPEN
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	
	CHOPPER PLATE / CUTTER	440 STAINLESS STEEL, HARDENED			
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - C/SIC TYPE 2100, LOWER - C/SIC TYPE 2			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – C4H(X)P

MODEL: C4H(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Chopper Pump

Physical Data:

DISCHARGE SIZE	4"
IMPELLER TYPE	BALANCED, SEMI-OPEN
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON ASTM A-48 CLASS 30
	CASING	CAST IRON ASTM A-48 CLASS 30
	IMPELLER	DUCTILE IRON ASTM A-536
	CHOPPER PLATE / CUTTER	440 STAINLESS STEEL, HARDENED
	MOTOR SHAFT	416 STAINLESS STEEL
	HARDWARE	300 SERIES STAINLESS STEEL
	O-RINGS	NITRILE
MECHANICAL SEALS	STANDARD	UPPER - C/SIC TYPE 2100, LOWER - C/SIC TYPE 2
UPPER BEARING		(RADIAL) SINGLE ROW - BALL
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL

Technical Data – S4P(X)P

MODEL: S4P(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	2"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4MV(X)P

MODEL: S4MV(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, VORTEX
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	CAST IRON	ASTM	A-48	CLASS 30
	CASING WEAR RING	N/A			
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4HV(X)P

MODEL: S4HV(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, VORTEX
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	CAST IRON	ASTM	A-48	CLASS 30
	CASING WEAR RING	N/A			
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4K(X)P

MODEL: S4K(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4L(X)P

MODEL: S4L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3-1/4"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4B(X)P

MODEL: S4B(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – H4Q(X)P

MODEL: H4Q(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3"
IMPELLER TYPE	BALANCED, ENCLOSED, MONOVANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4LV(X)P

MODEL: S4LV(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	4"
SOLIDS SIZE	3-1/4"
IMPELLER TYPE	BALANCED, ENCLOSED, VORTEX
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S6L(X)P

MODEL: S6L(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	6"
SOLIDS SIZE	3-1/4"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S6A(X)P

MODEL: S6A(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	6"
SOLIDS SIZE	3-3/4"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S8F(X)P

MODEL: S8F(X)P - Hydromatic® Premium Efficient (HPE) Submersible Solids Handling Pumps

Physical Data:

DISCHARGE SIZE	8"
SOLIDS SIZE	3-1/4"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD WITH OPTIONAL QUICK CHANGE CONNECTOR
	50', 75', 100' OPTIONAL WITH OPTIONAL QUICK CHANGE CONNECTOR
PAINT	PAINTED AFTER ASSEMBLY. DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature:

MAXIMUM LIQUID	104° F LABELED/140° F UNLABELED
MAXIMUM STATOR	356° F (180° C)
OIL FLASH POINT	309° F
HEAT SENSOR OPEN:	275° F MAX./257° F MIN.
CLOSED:	204° F MAX.

Technical Data:

MOTOR		PREMIUM EFFICIENT NEMA MG1, IEC 60034 -30 LEVEL IE3			
POWER CORD TYPE		W OR SOOW, WATER RESISTANT, 600V, 90° C			
SENSER CORD TYPE		SOOW, 18-5, WATER RESISTANT, 600V, 90° C, 5.5 AMPS			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	CLASS 65
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	O-RINGS	NITRILE			
MECHANICAL SEALS STANDARD		UPPER - SIC TYPE 2100, LOWER - SIC TYPE 2			
OPTIONAL		CARTRIDGE SEAL			
UPPER BEARING		(RADIAL) SINGLE ROW - BALL			
LOWER BEARING		(THRUST) DOUBLE ROW, ANGULAR CONTACT - BALL			

Technical Data – S4T(X)P

MODEL: S4T(X)P — Solids Handling Sewage Pumps

Physical Data:

DISCHARGE SIZE	4"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD 50' OPTIONAL

Liquid Handling:

SOLIDS SIZE	3"
MAXIMUM LIQUID TEMP.	140ºF
ACCEPTABLE PH RANGE	6 - 9
SPECIFIC GRAVITY	0.9 - 1.1
VISCOSITY	28 - 35 SSU

Temperature:

MAXIMUM STATOR	311°F
OIL FLASH POINT	390°F
HEAT SENSOR Open: Closed:	311°F MAX./293°F MIN. 243°F MAX./192°F MIN.

Technical Data:

POWER CORD TYPE		SOOW, W, GGC			
SENSOR CORD TYPE		SOOW			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	“O” RINGS	NITRILE			
MECHANICAL SEALS Standard: Optional: Optional:		 UPPER AND LOWER CARBON/CERAMIC/FLUOROCARBON, TYPE 21 LOWER TUNGSTEN CARBIDE/TUNGSTEN CARBIDE/ FLUOROCARBON, TYPE 21 LOWER SILICON CARBIDE/SILICON CARBIDE/ FLUOROCARBON, TYPE 21			
UPPER BEARING		(RADIAL) SINGLE ROW — BALL			
LOWER BEARING		(THRUST) SINGLE ROW — BALL			

Technical Data – S8LA(X)P

MODEL: S8LA(X)P — Solids Handling Sewage Pumps

Physical Data:

DISCHARGE SIZE	8"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD 50' OPTIONAL

Liquid Handling:

SOLIDS SIZE	3"
MAXIMUM LIQUID TEMP.	140ºF
ACCEPTABLE PH RANGE	6 -9
SPECIFIC GRAVITY	0.9 - 1.1
VISCOSITY	28 - 35 SSU

Temperature:

MAXIMUM STATOR	311°F
OIL FLASH POINT	390°F
HEAT SENSOR Open: Closed:	311°F MAX./293°F MIN. 243°F MAX./192°F MIN.

Technical Data:

POWER CORD TYPE		SOOW, W, GGC
SENSOR CORD TYPE		SOOW
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON ASTM A-48 CLASS 30
	CASING	CAST IRON ASTM A-48 CLASS 30
	IMPELLER	DUCTILE IRON ASTM A-536
	CASING WEAR RING	BRONZE ASTM B-584-836 ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL
	HARDWARE	300 SERIES STAINLESS STEEL
	"O" RINGS	NITRILE
MECHANICAL SEALS Standard: Optional: Optional:		 UPPER AND LOWER CARBON/CERAMIC/FLUOROCARBON, TYPE 21 LOWER TUNGSTEN CARBIDE/TUNGSTEN CARBIDE/ FLUOROCARBON, TYPE 21 LOWER SILICON CARBIDE/SILICON CARBIDE/ FLUOROCARBON, TYPE 21
UPPER BEARING		(RADIAL) SINGLE ROW — BALL
LOWER BEARING		(THRUST) SINGLE ROW — BALL

Technical Data – S8L(X)P

MODEL: S8L(X)P — Solids Handling Sewage Pumps

Physical Data:

DISCHARGE SIZE	8"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD 50' OPTIONAL

Liquid Handling:

SOLIDS SIZE	4"
MAXIMUM LIQUID TEMP.	140ºF
ACCEPTABLE PH RANGE	6 - 9
SPECIFIC GRAVITY	0.9 - 1.1
VISCOSITY	28 - 35 SSU

Temperature:

MAXIMUM STATOR	311°F
OIL FLASH POINT	390°F
HEAT SENSOR Open: Closed:	311°F MAX./293°F MIN. 243°F MAX./192°F MIN.

Technical Data:

POWER CORD TYPE		SOOW, W, GGC
SENSOR CORD TYPE		SOOW
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON ASTM A-48 CLASS 30
	CASING	CAST IRON ASTM A-48 CLASS 30
	IMPELLER	DUCTILE IRON ASTM A-536
	CASING WEAR RING	BRONZE ASTM B-584-836 ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL
	HARDWARE	300 SERIES STAINLESS STEEL
	"O" RINGS	NITRILE
MECHANICAL SEALS Standard: Optional: Optional:		 UPPER AND LOWER CARBON/CERAMIC/FLUOROCARBON, TYPE 21 LOWER TUNGSTEN CARBIDE/TUNGSTEN CARBIDE/ FLUOROCARBON, TYPE 21 LOWER SILICON CARBIDE/SILICON CARBIDE/ FLUOROCARBON, TYPE 21
UPPER BEARING		(RADIAL) SINGLE ROW — BALL
LOWER BEARING		(THRUST) SINGLE ROW — BALL

Technical Data – S12L(X)P

MODEL: S12L(X)P — Solids Handling Sewage Pumps

Physical Data:

DISCHARGE SIZE	12"
IMPELLER TYPE	BALANCED, ENCLOSED, 2 VANE
CABLE LENGTH	35' STANDARD 50' OPTIONAL

Liquid Handling:

SOLIDS SIZE	6"
MAXIMUM LIQUID TEMP.	140ºF
ACCEPTABLE PH RANGE	6 - 9
SPECIFIC GRAVITY	0.9 - 1.1
VISCOSITY	28 - 35 SSU

Temperature:

MAXIMUM STATOR	311°F
OIL FLASH POINT	390°F
HEAT SENSOR Open: Closed:	311°F MAX./293°F MIN. 243°F MAX./192°F MIN.

Technical Data:

POWER CORD TYPE		SOOW, W, GGC			
SENSOR CORD TYPE		SOOW			
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON	ASTM	A-48	CLASS 30
	CASING	CAST IRON	ASTM	A-48	CLASS 30
	IMPELLER	DUCTILE IRON	ASTM	A-536	
	CASING WEAR RING	BRONZE	ASTM	B-584-836	ALLOY 115
	MOTOR SHAFT	416 STAINLESS STEEL			
	HARDWARE	300 SERIES STAINLESS STEEL			
	"O" RINGS	NITRILE			
MECHANICAL SEALS Standard: Optional: Optional:		 UPPER AND LOWER CARBON/CERAMIC/FLUOROCARBON, TYPE 21 LOWER TUNGSTEN CARBIDE/TUNGSTEN CARBIDE/ FLUOROCARBON, TYPE 21 LOWER SILICON CARBIDE/SILICON CARBIDE/ FLUOROCARBON, TYPE 21			
UPPER BEARING		(RADIAL) SINGLE ROW — BALL			
LOWER BEARING		(THRUST) SINGLE ROW — BALL			

Specifications - PREMIUM EFFICIENT

HPE SERIES
SUBMERSIBLE SOLIDS HANDLING PUMPS

GENERAL

Furnish Hydromatic HPE series or premium solids handling submersible sewage pump(s) as specified herein.

Pump shall be equipped with stainless steel nameplate, stating the unit is accepted for use in Standard Location or NEC class 1, division 1, groups C, D hazardous locations with third party, Factory Mutual, approval.

The pump shall be non-overloading throughout the entire range of operation without employing service factor. The pump shall reserve a minimum service factor of 1.30. The performance curve submitted for approval shall state in addition to head and capacity performance, the pump efficiency, solid handling capacity, and reflect motor service factor.

Job Name:_____

- Pump: HYDROMATIC HPE _____
- Number of Pumps: _____
- Impeller: _____
- Discharge: Shall be ____" ANSI flange.
- Motor: Shall be _____HP _____V_____Hz_____Phase, Oil Filled Design. Motor shall be Explosion Proof listed.
- Power Cord: Shall be epoxy potted and equipped with a minimum of 35' of power cord.
- Pump Operating Characteristics: Each pump shall be verified for performance. Pump Shall operate at following conditions;
  - _0_ GPM at ___TDH
  - ___ GPM at ___TDH
  - ___GPM at ___TDH
  - ___ GPM at ___TDH

CONSTRUCTION

Castings – Cord Cap / Motor Housing / Bearing Housing / Seal Plate shall be ASTM A48 Class 30 Cast Iron

Shaft shall be 416 Stainless Steel

Impeller- ASTM A48 Cast Iron Class 30 or ASTM A536 Ductile Iron Class 65

Fasteners / Hardware shall be 300 series Stainless Steel

Elastomers – O-Rings / Mechanical Seals / Cord Grip Grommets shall be Nitrile with optional Fluoropolymer Elastomer

Mechanical Seals shall be Carbon / Silicon Carbide with optional Silicon Carbide / Silicon Carbide, Tungsten Carbide / Silicon Carbide or Cartridge Seal

Power Cable shall be type SOOW or W while Control Cable shall be SOOW

Lifting Bail shall be welded or forged 300 Series Stainless

ELECTRICAL POWER CORD

Standard:

The power cord will be SOOW or W, oil and water resistant 600v, 90C, UL and CSA approved and applied per NEC ampacities ratings at the cables rated temperature for intermittent / continuous duty. The pump shall be double protected with a compression fitting and an epoxy potted area that seals each conductor at the power cord entry to the pump. The power cable entry into the cord cap assembly shall first be made with a compression fitting. Each individual lead shall be stripped down to bare wire at staggered intervals and each strand individually separated. This area of the cord cap shall then be filled with an epoxy compound potting. This assembly will prevent water contamination from gaining entry even in the event of wicking or capillary action. The power cord leads shall be connected to the motor leads with a terminal block or extra heavy connectors. The cord cap assembly where bolted to the motor housing shall be sealed with a Nitrile O-ring on a beveled edge to assure proper sealing. Wiring connection shall be done through a terminal block eliminating wire nuts or use of heavy duty crimp connectors.

Optional Quick Release Power and Control Cord:

This design uses double protection with a compression fitting and an epoxy potted area that seals each conductor at the power cord entry to the pump. The power cable entry into the cord cap assembly shall first be made with a compression fitting. Each individual lead shall be stripped down to bare wire installed in a socket and enclosed in an over molding. Mating pins shall be provided and attached to the individual PTFE coated lead wires and enclosed in another over molding which will be affixed to the cord cap. This area of the cord cap shall then be filled with an epoxy compound potting. This assembly will prevent water contamination from gaining entry even in the event of wicking or capillary action. The cord cap assembly where bolted to the motor housing shall be sealed with a Nitrile O-ring on a beveled edge to assure proper sealing. Strain relief shall be integral to the power cable and must be clamped over molding and vulcanized to the outer jacket of the cable. A stator lead sealing gland or terminal board shall not be relied upon to prevent moisture from contaminating the motor. The power cable will be domestic type SOOW, 4-wire rated at 90C below 30 amps or type W, 4-wires rated at 90 C above 30 amps. The control cable type will be SOOW, 5-wires. The cable size will be based on rated horsepower amps and NEC ampacities ratings at the cables rated temperature for intermittent / continuous duty. Both the power and control cables will contain a grounding wire of the same size as the current carrying wire.

MOTOR

The motors shall meet premium efficiency in accordance with IEC 60034-30, level IE3 and NEMA MG1 [NEMA 12.60 Enclosed motor]. Motor rating tests shall be conducted in accordance with CSA C390-10 requirements. A certificate shall be available upon request. The motors are submerged in non-toxic, oil filled, cool running design providing significantly reduced operating temperatures. Pump designs requiring a secondary cooling apparatus shall be deemed unapproved and not equal. Air filled pump designs shall not be considered equal or approved.

Motor will be of the squirrel-cage induction design, NEMA type A or B for 3 Phase [*Per NEMA MG1 1.19*] & NEMA type L for 1 Phase [*Per NEMA MG1 1.20*]

The copper stator windings shall be insulated with moisture resistant Class H insulation materials, rated for 180° C (356° F). [*Per NEMA MG1 1.66*]

The service factor shall be 1.3 in wet pit service and 1.0 for VFD operation (as defined by MG1 standard). The motor shall have a voltage tolerance of +/- 10% from nominal, and a phase to phase voltage imbalance tolerance of 1%.

The rotor bars and short circuit rings shall be made of cast aluminum.

The motor shall be designed for continuous duty. The maximum continuous temperature of the pumped liquid shall be 40 C (104 F), and intermittently up to 50 C (122 F). Each of the three phases will have a UL/FM approved thermostat or thermistor. The winding operating temperature at rated horsepower and service factor will be a maximum of 130 C @ 40 C ambient. (Maximum of 150 C for 320/360 frame HPE product)

The motor shall be capable of handling up to 15 (>=20kW) and 20 (<20kW) evenly spaced starts per hour without overheating. [*Per NEMA MG1 12.54*]

The motor shall meet the requirements of NEMA MG1 Part 30 and 31 for operation on PWM type Variable Frequency Drives. The rotors will have high efficiency laminated steel with die cast bars and shorting rings. The stators will have high efficiency laminated steel (if required to meet premium efficiency), with inverter duty rated,

Class H magnet wire & insulation materials. Each of the three phases will have a UL/FM approved thermostat or thermistor set for 130C +/-5. (150C +/-5 for 320/360 frame HPE product)

BEARINGS

The upper bearing shall be a heavy-duty radial single row ball bearing while the lower bearing shall be a double row heavy-duty angular contact ball bearing of the thrust limiting design. Minimum of 50,000 hours of B10 bearing life for radial & thrust bearings while operating across entire hydraulic operating range of the pump. Any Pumps having rated B10 life only at the BEP shall not be considered equal or approved. Bearing shall be lubricated for life from the factory and will be accomplished through the non-toxic, low viscous, dielectric oil in the frame. Pump designs requiring periodic scheduled bearing service shall not be considered equal or approved. Single row or sleeve lower bearings shall not be acceptable.

SHAFT

The pump shaft shall be an integral, one piece unit adequately designed to meet the maximum torque required at any normal start up condition or operating point in the system. Shafts of carbon steel, chrome plated or spin welded shafts shall not be considered adequate or equal. Material of shaft shall be 416 stainless steel conforming to ASTM 8582.

FLUID END

The impeller shall be ASTM Class 30 Cast Iron or ASTM Class 65 Ductile Iron with optional SST available. The impeller mounting is to be a slip fit onto a tapered shaft and a drive key. The impeller shall be attached to the shaft by a SST fastener and impeller washer. The impeller is to be balanced to ISO1940-1 Grade G6.3 standard. Impeller designs that rely on fins or pins protruding into the suction path to assist in the handling of fibrous material shall not be considered equal. Impellers shall be of the radial single or two vane type or a vortex impeller having the ability to pass a wide range of solids. Any impeller design requiring mechanical bypass mechanism located in the volute in order to handle solids shall not be considered equal or acceptable.

The volute shall be ASTM Class 30 also with optional SST. It will consist of a centerline discharge one piece design. The passages are to be large enough to pass the same solid size as the impeller. The discharge and inlet flanges shall be ANSI Class 125 and be integrated into the volute case. The wear rings shall be replaceable radial wear rings constructed of 85-5-5-5 bronze that come standard in the volute case with optional SST available in 304, 316 or 410.

CHOPPER FLUID END

The chopper fluid end shall feature a cutting blade and plate made from 440 stainless steel and hardened to 57-60 Rockwell C. The cutting plate will be adjustable to ensure proper alignment and will feature a relief groove to force debris from the cutting surface. The cutting blade will have serrated edges and will be fastened to the impeller in a manner that allows for easy replacement. Any chopper pump that performs the cutting action directly with the impeller or with a cutting blade that is integral to the impeller shall not be considered equal or acceptable.

SEALS

Each pump must be equipped with a switchable seal design allowing for the use of either tandem mechanical seals or a cartridge dual seal design (on 210 frame HPE product) without voiding the agency rating of the pump. Pumps utilizing one seal technology shall not be considered equal or approved. In the standard tandem mechanical seal configuration the lower seal shall be of the type 2 design and constructed of Carbon/ Silicon Carbide and be replaceable without disassembly of the seal chamber and without the use of special tools. The upper seal shall of the type 2100 design and constructed of Carbon/Silicon Carbide. Each seal will not require routine maintenance or adjustment. For ease of maintenance both the lower and upper seals shall be locally available and of a standard design. For ease of service the pumps shall be available with a drop in cartridge seal constructed of Silicon Carbide/Carbon. The cartridge seal design shall fit into the seal chamber with a switchable seal plate allowing for retrofit in the field. Units equipped with opposing mechanical seals shall not be acceptable. All lower seals shall be optionally available in tungsten carbide construction.

SHAFT GROUNDING RING

The pump shall be capable of being equipped with an optional shaft grounding ring. This shaft current mitigation technology uses proprietary conductive filaments to protect bearings from stray shaft currents by providing a low impedance path to ground, drawing the currents safely away from the bearings. Pumps not utilizing a current diverter technology shall not be considered equal or acceptable.

EQUIPMENT MONITORING

The integrity of the mechanical seal system shall be continuously monitored during pump operation and stand by time. Two electrical probes shall be provided in a sensing chamber positioned between the primary and secondary mechanical seal for detecting the presence of water contamination within the chamber. The sensing chamber shall be fitted with environmentally safe nontoxic oil. A solid state relay mounted in the pump control panel or in a separate enclosure shall send a low voltage, low amperage signal to the probe, continuously monitoring the conductivity of the liquid in the sensing chamber. If sufficient water enters the sensing chamber through the primary mechanical seal, the probe shall sense the increase in conductivity and signal the solid state relay in the control panel. The relay shall then energize a warning light on the control panel, or optionally, cause the pump to shut down. This system shall provide an early warning of mechanical seal leakage, thereby preventing damage to the submersible pump and allowing scheduled rather than emergency maintenance. Systems utilizing float switches or any other monitoring devices located in the stator housing rather than in a sensing chamber between the mechanical seals are not considered to be early warning system, and shall not be considered equal.

SERVICEABILITY

The complete rotating assembly shall be capable of being removed from the volute without disturbing the suction piping, discharge piping, and volute. The motor housing, seal housing with seal plate and impeller still attached to the shaft shall be capable of being lifted out of the volute case from the top as one assembly. For ease of repair, the motor stator shall be securely held in place by an end ring so it can be easily removed without the use of heat or a press. No special tools shall be required for pump and motor disassembly. Stators held in place by heat shrink fit shall not be acceptable.

TESTING

All pumps shall be built in a dedicated domestic factory with fifty years of continuous operation. All pumps shall be visually inspected to confirm that it is built in accordance with the specification as to HP, voltage, phase and hertz. The motor seal and housing chambers shall be meggered for infinity to test for moisture content or insulation defects. The motor housing will be filled with dielectric oil and shall be allowed to run dry to check for proper rotation. Discharge piping shall be attached, the pump submerged in water, and amp readings shall be taken on each phase to verify balanced stator windings. The pump shall be removed from the water, meggered again, and dried. Volutes can receive hydrostatic testing to ensure high quality castings are being provided. All pumps shall receive standard Hydraulic Institute (HI) non-witnessed testing at a third-party agency-certified test lab. Pump motors can be tested on a factory dynamometer capable of simultaneously measuring torque and rotational speed. Testing conducted off site shall not be considered equal or approved.

PAINT

The pump shall be painted with waterborne hybrid acrylic/alkyd paint. This custom engineered, quick dry, low VOC paint shall provide superior levels of corrosion and chemical protection. Optional coatings are available through the factory of chlorinated rubber, coal tar epoxy and polyamide epoxy.