



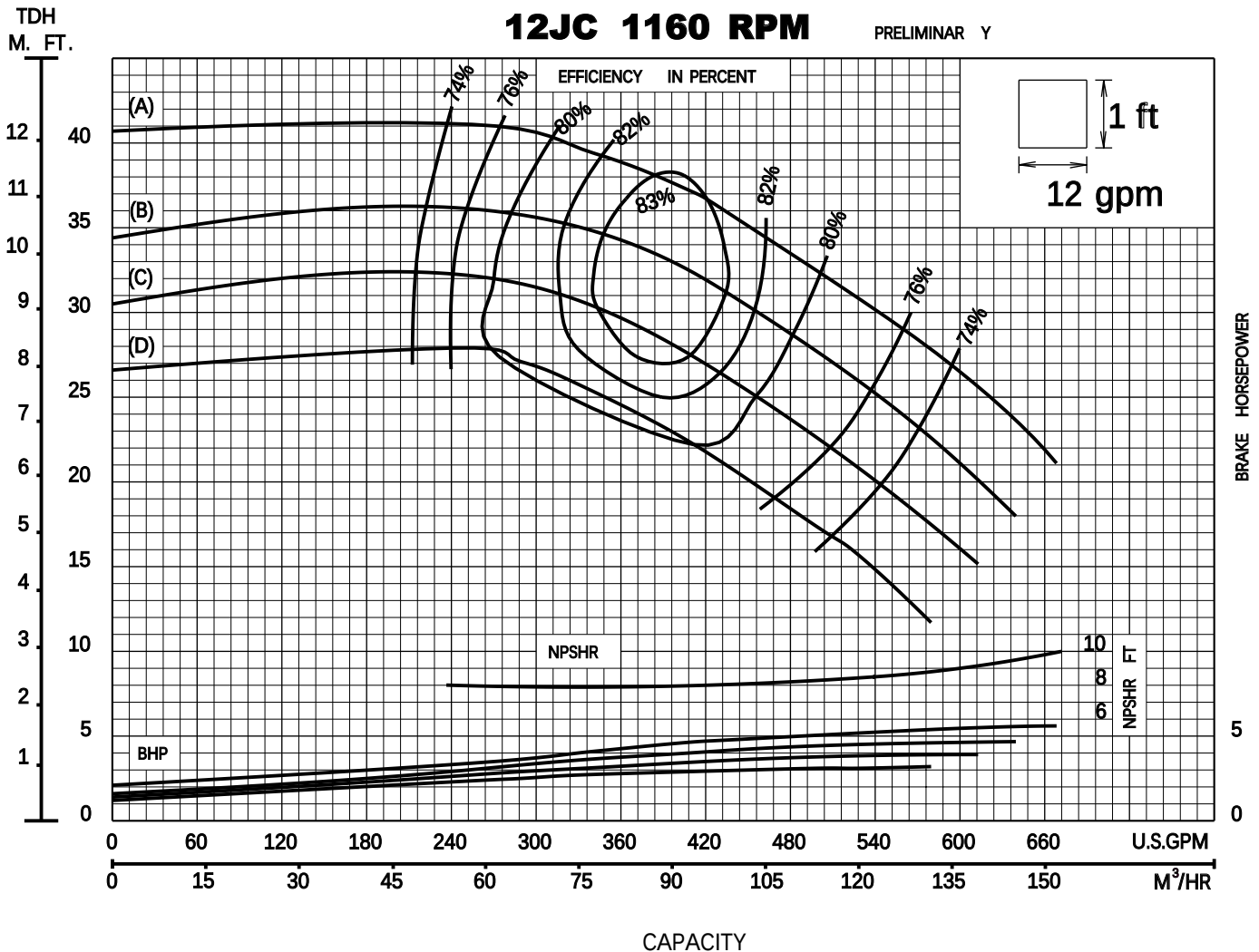
480 Series Vertical Turbine

1200 RPM Performance Curves
Enclosed & Semi-Open Impellers



TURBINE PUMP CURVE

SEPTEMBER 2001



IMPELLER DATA

Impeller Number	2990	TRIM: (A) 9.500" X 25°
Material	BRONZE	(B) 9.000" X 25°
Type	CLOSED	(C) 8.500" X 25°
Thrust Factor	K=6.60	(D) 8.000" X 25°
Eye Area	15.90 sq. in.	Minimum submergence above eye of bottom impeller: 18 in.
Weight	14.50 lb.	

BOWL DATA

Bowl Number	2993 C.I./ENAM.
Bowl Dia.	11.625"max 11.500"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.625 in
Discharge Size	6 - 8 in
Suction Size	6 - 8 in
Max. Sphere Size	0.500 in
Max Operation P.S.I.	585 (special)

EFFICIENCY CORRECTION

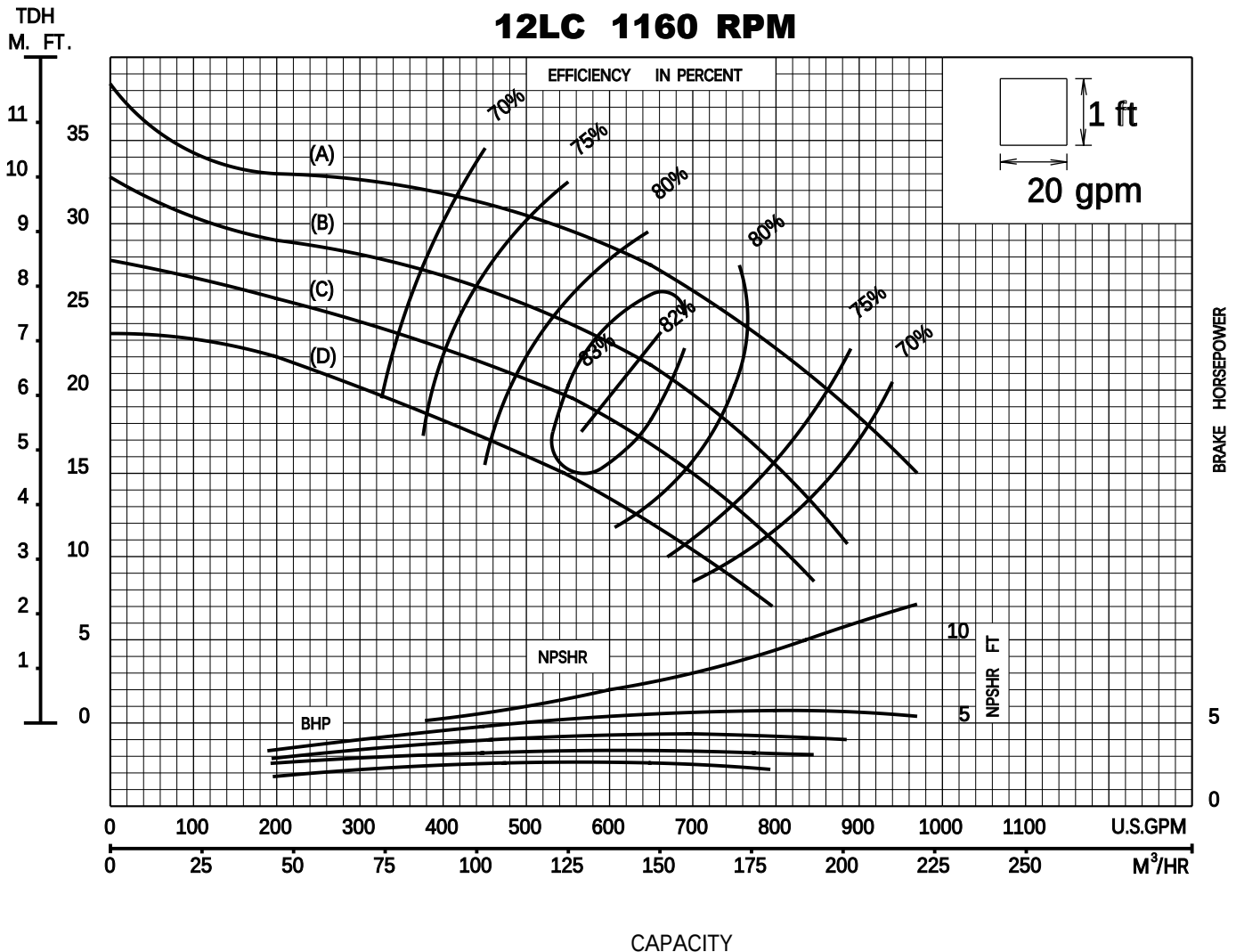
Number of Bowls	1	2	3	4	
Change as follows	-3	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3778	TRIM: (A) 9.375" X 21.5°
Material	BRONZE	(B) 8.750" X 21.5°
Type	CLOSED	(C) 8.250" X 21.5°
Thrust Factor	K=10.60	(D) 7.750" X 21.5°
Eye Area	20.10 sq. in.	Minimum submergence above eye of bottom impeller: 24 in.
Weight	15.50 lb.	

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-4	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

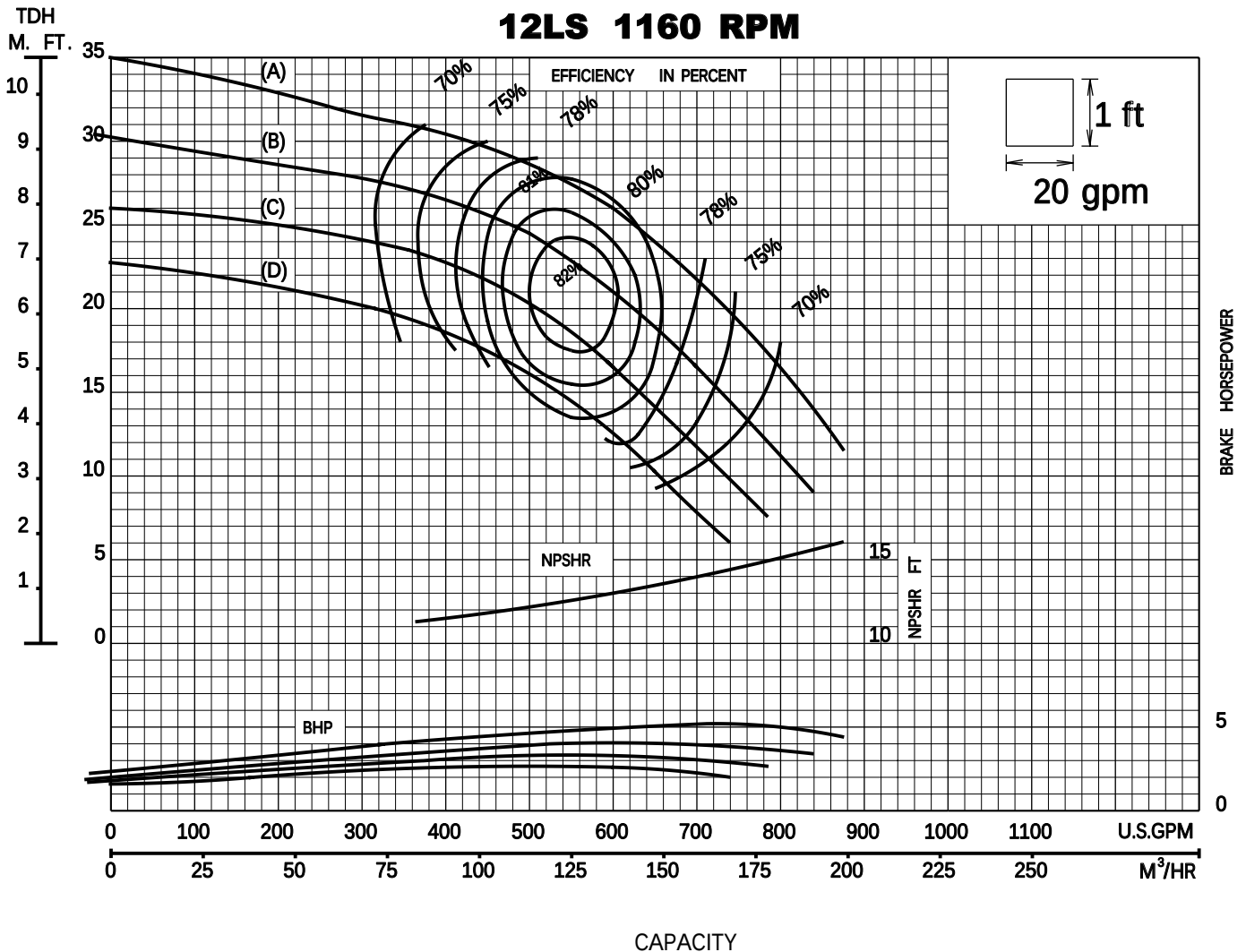
Bowl Number	2952 C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.875 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.625 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3779	TRIM:	(A) 9.375" X 21.5°
Material	BRONZE		(B) 8.750" X 21.5°
Type	SEMI-OPEN		(C) 8.250" X 21.5°
Thrust Factor	K=12.50		(D) 7.750" X 21.5°
Eye Area	20.10 sq. in.	Minimum submergence above eye of top impeller: 30 in.	
Weight	8.13 lb.		

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

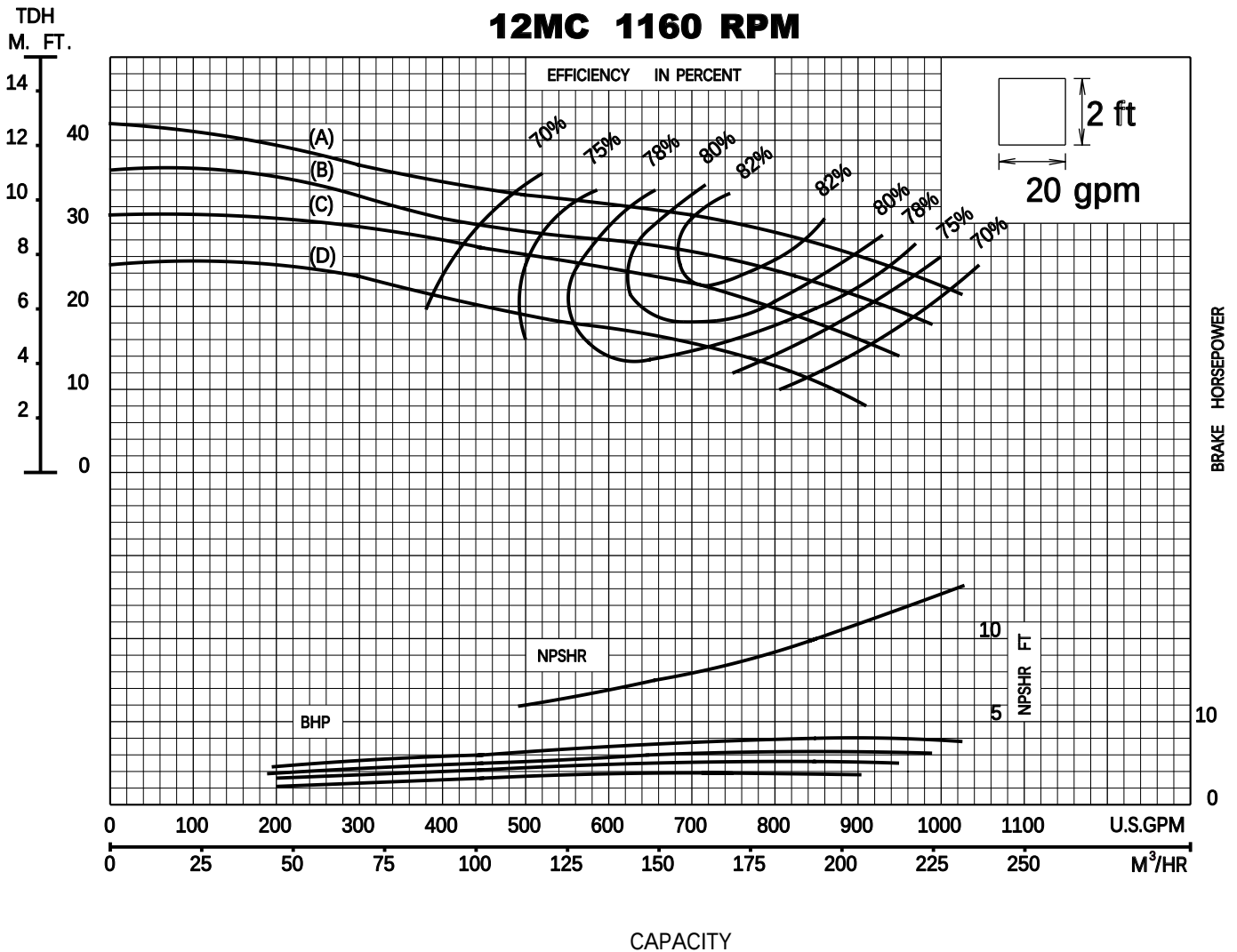
Bowl Number	2952-S.C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.875 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.625 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA			
Impeller Number	2951	TRIM: (A) 9.375" X 21.5°	
Material	BRONZE	(B) 9.000" X 21.5°	
Type	CLOSED	(C) 8.625" X 21.5°	
Thrust Factor	K=10.60	(D) 8.000" X 21.5°	
Eye Area	20.10 sq. in.	Minimum submergence above eye of bottom impeller: 24 in.	
Weight	15.00 lb.		

EFFICIENCY CORRECTION					
Number of Bowls	1	2	3	4	
Change as follows	-3	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

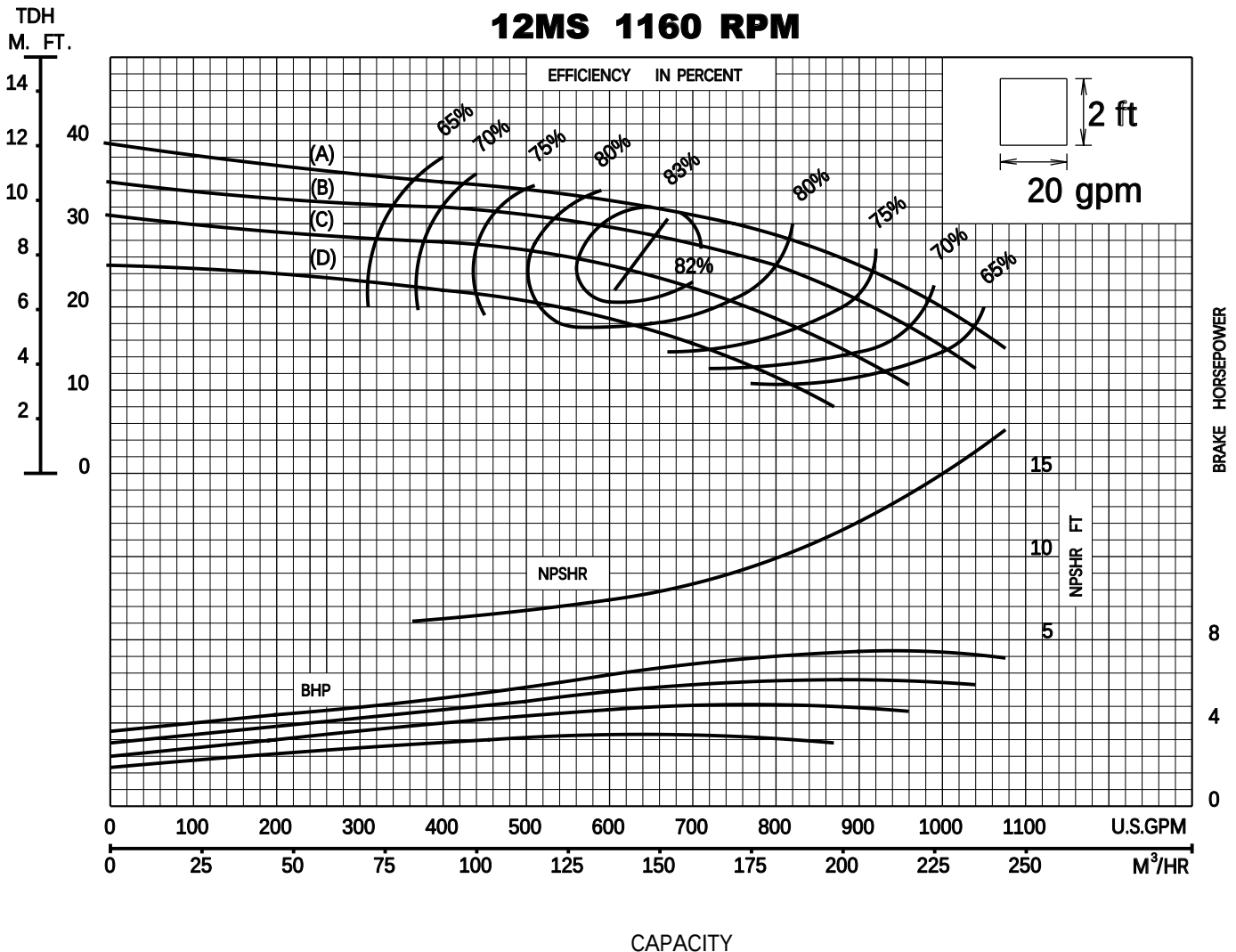
BOWL DATA			
Bowl Number	2952 C.I./ENAM.		
Bowl Dia.	11.563"max 11.250"min		
Max. No. Stages	22		
One Stage Weight	340 lb		
Add'l Stage Weight	100 lb		
Std. Shaft Dia.	1.688 in		
Std. Lateral	0.750 in		
Discharge Size	6-8-10 in		
Suction Size	8 - 10 in		
Max. Sphere Size	0.625 in		
Max Operation P.S.I.	584 (special)		

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	2956	TRIM: (A) 9.375" X 21.5°
Material	BRONZE	(B) 9.000" X 21.5°
Type	SEMI-OPEN	(C) 8.625" X 21.5°
Thrust Factor	K=12.50	(D) 8.000" X 21.5°
Eye Area	20.10 sq. in.	Minimum submergence above eye of top impeller: 30 in.
Weight	10.00 lb.	

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-3	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

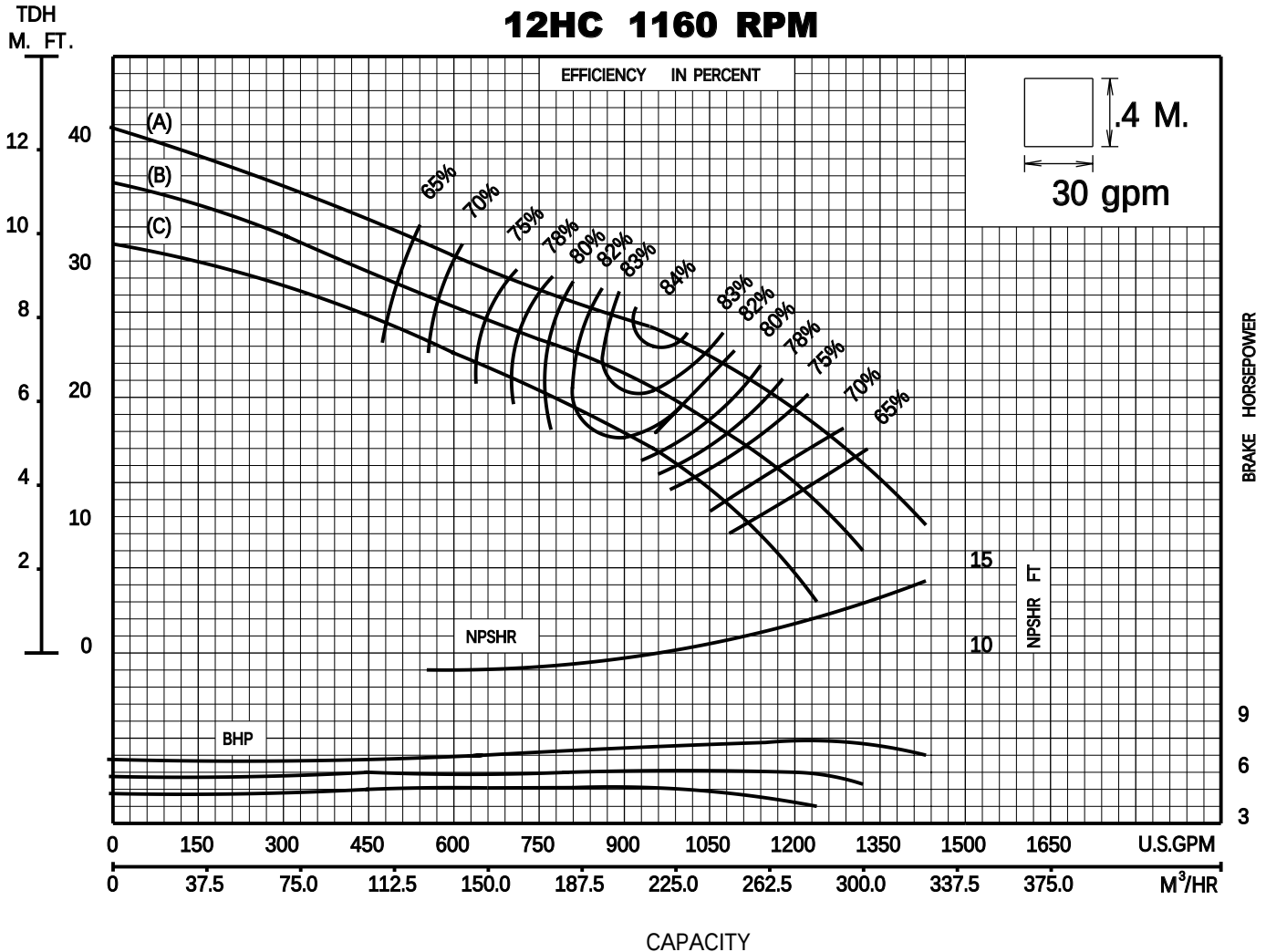
Bowl Number	2952-S,C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.625 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	2914	TRIM: (A) 9.563" X 30°
Material	BRONZE	(B) 9.281" X 30°
Type	CLOSED	(C) 8.875" X 30°
Thrust Factor	K=16.50	
Eye Area	32.40 sq. in.	
Weight	11.50 lb.	Minimum submergence above eye of bottom impeller: 26 in.

BOWL DATA

Bowl Number	2915 C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.750 in
Max Operation P.S.I.	584 (special)

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0

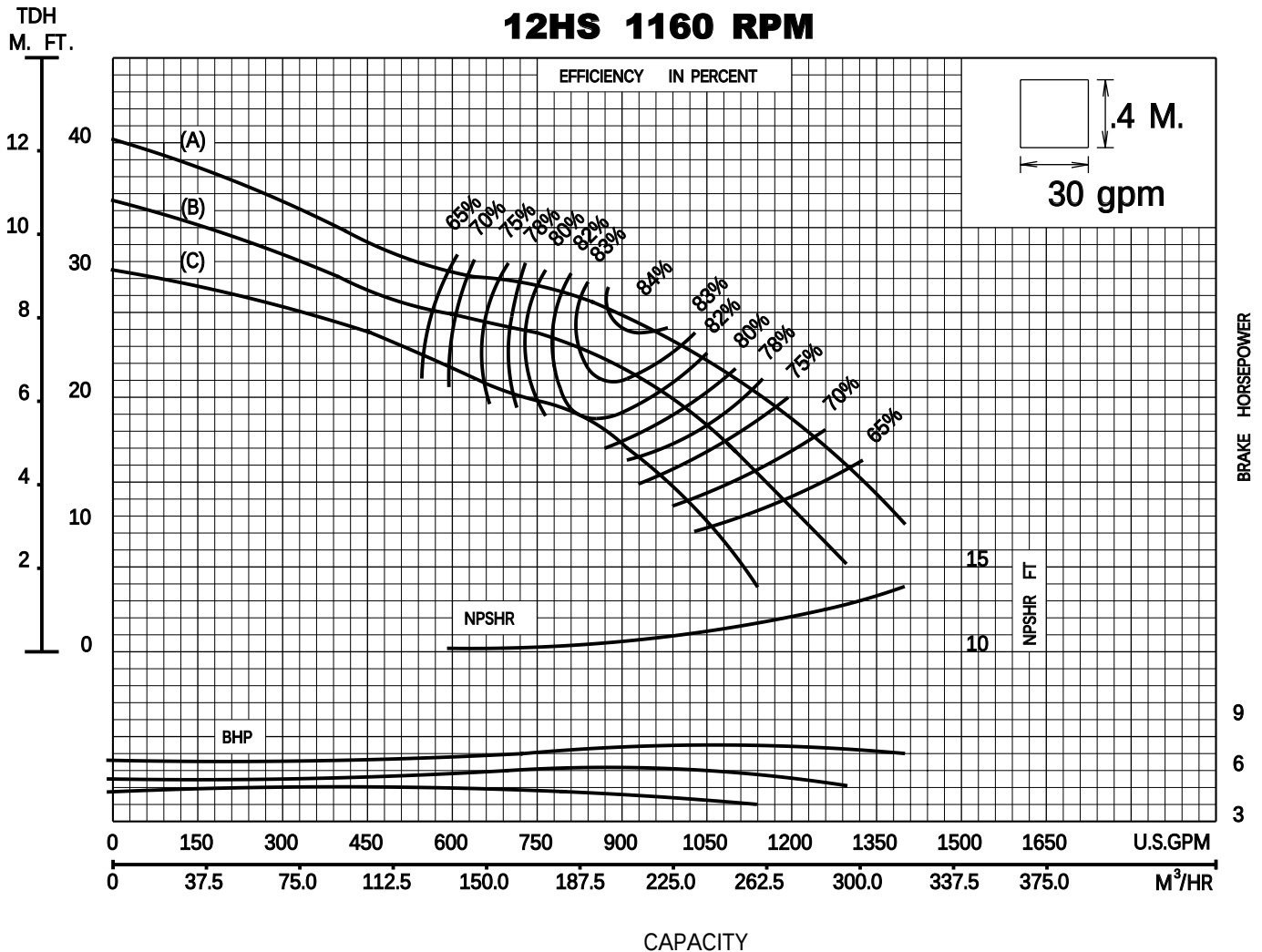
Change in efficiency may affect both head and horsepower.

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	2953	TRIM: (A) 9.563" X 30°
Material	BRONZE	(B) 9.281" X 30°
Type	SEMI-OPEN	(C) 8.875" X 30°
Thrust Factor	K=19.00	
Eye Area	32.40 sq. in.	
Weight	11.25 lb.	

Minimum submergence
above eye of top
impeller: 30 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

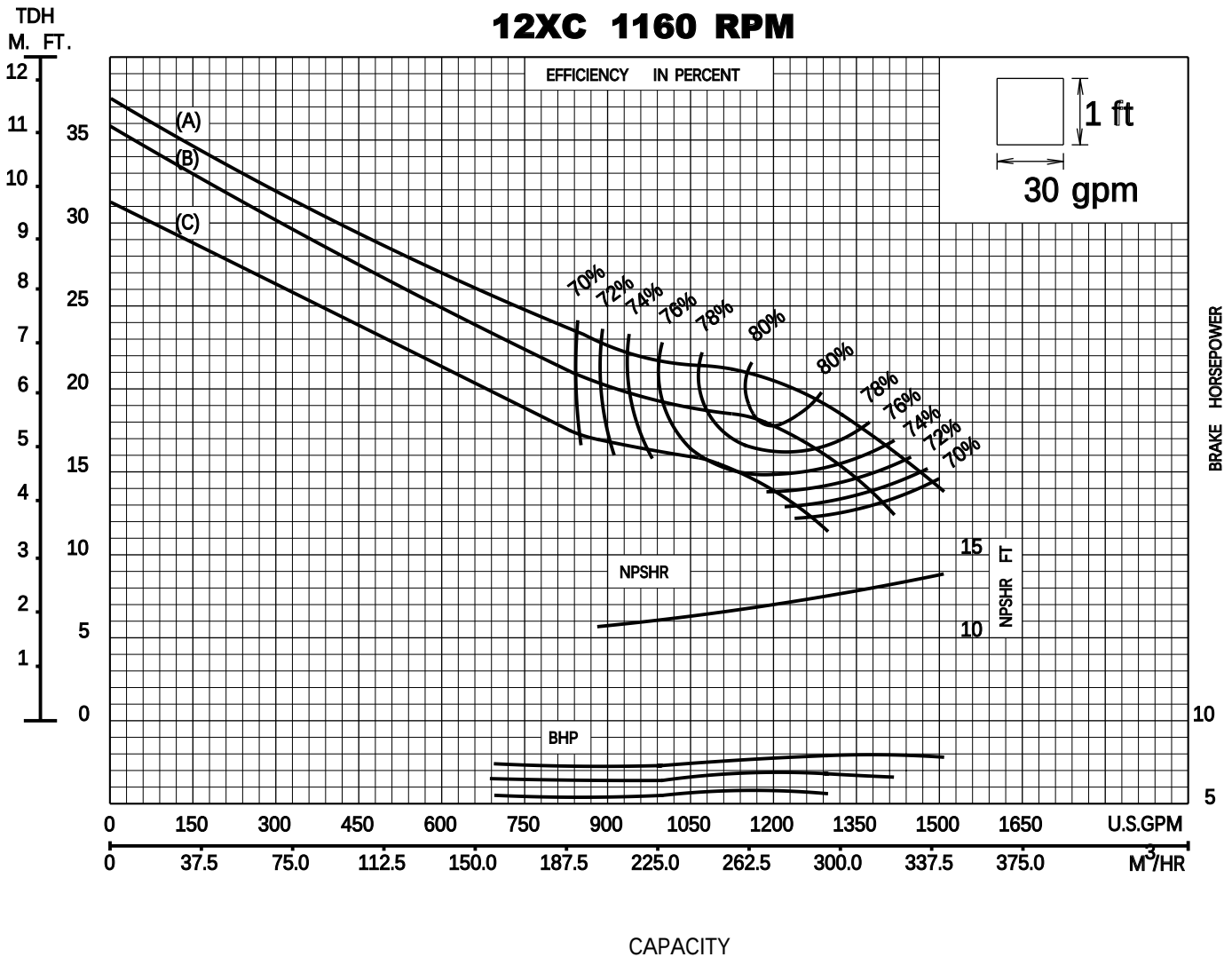
Bowl Number	2915-S.C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.750 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3360	TRIM: (A) 9.563" X 26.5°
Material	BRONZE	(B) 9.250" X 26.5°
Type	CLOSED	(C) 8.875" X 26.5°
Thrust Factor	K=18.20	
Eye Area	35.60 sq. in.	
Weight	15.25 lb.	

Minimum submergence
above eye of bottom
impeller: 28 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-4	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

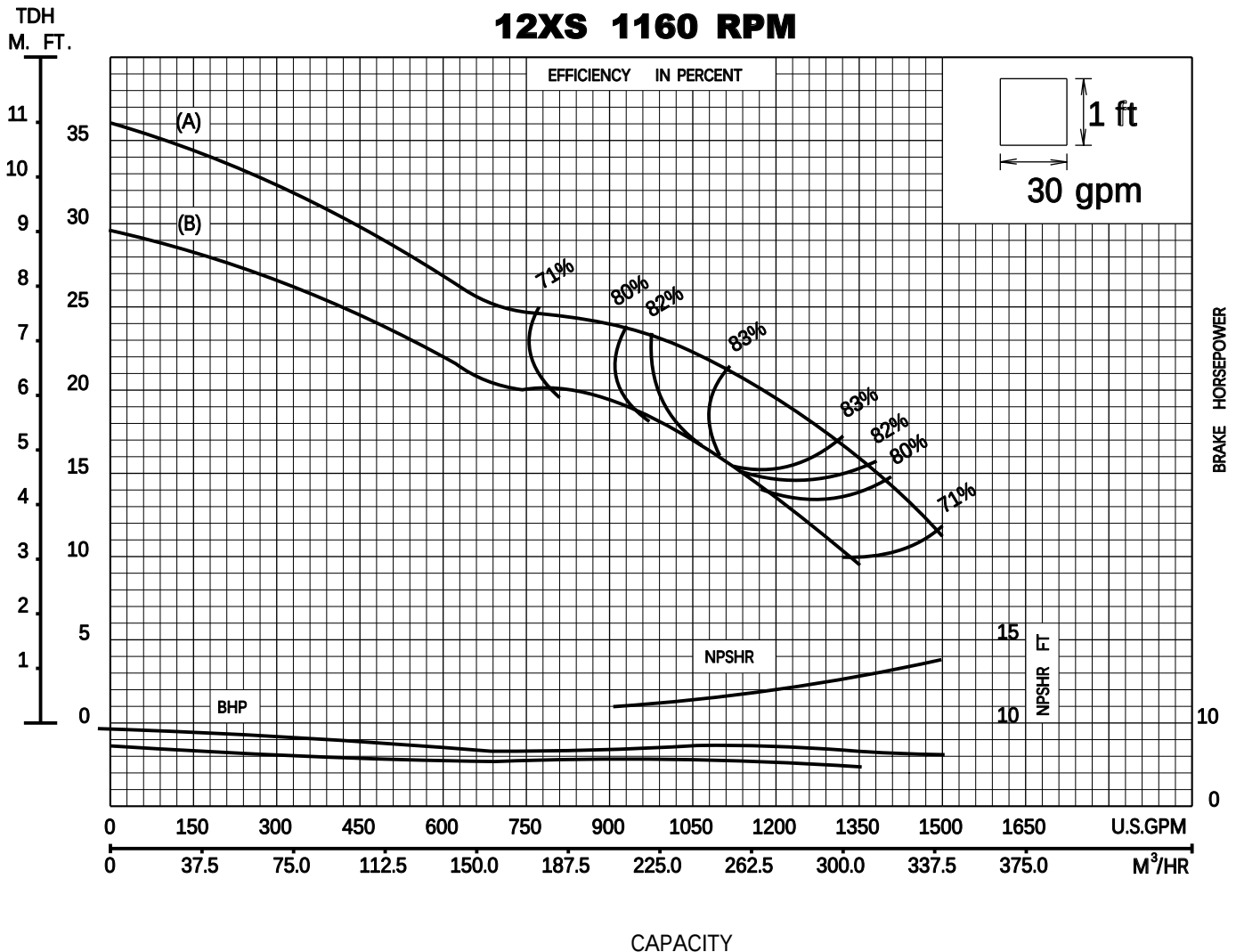
Bowl Number	3361 C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.875 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.000 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3374	TRIM: (A) 9.563" X 26.5°
Material	BRONZE	(B) 8.875" X 26.5°
Type	SEMI-OPEN	
Thrust Factor	K=20.80	
Eye Area	35.60 sq. in.	
Weight	11.50 lb.	Minimum submergence above eye of top impeller: 30 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

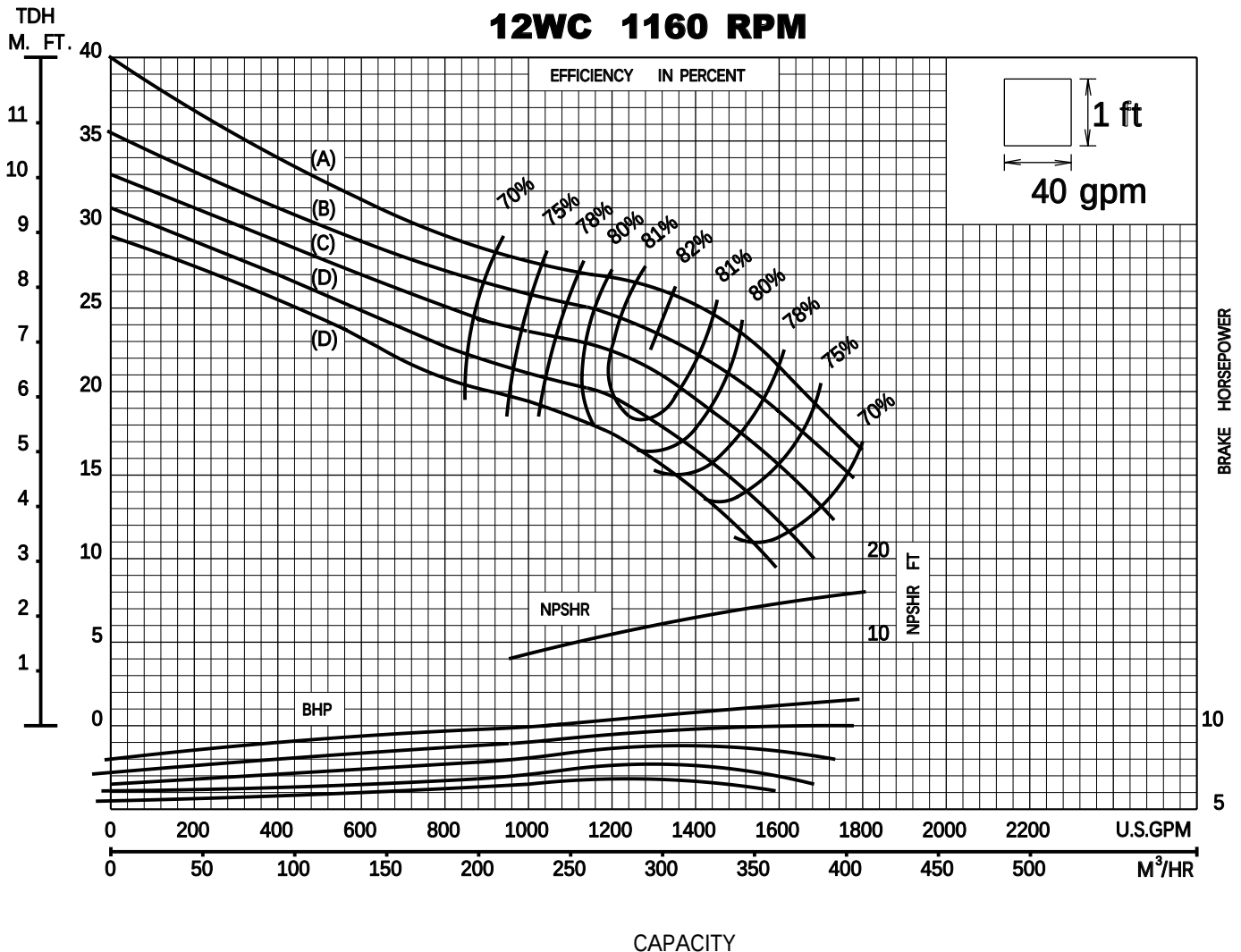
Bowl Number	3361 C.I./ENAM.
Bowl Dia.	11.563"max 11.250"min
Max. No. Stages	22
One Stage Weight	340 lb
Add'l Stage Weight	100 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.875 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.000 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	4777	TRIM:	(A) 10.063" X 30.5°
Material	BRONZE		(B) 9.813" X 30.5°
Type	CLOSED		(C) 9.563" X 30.5°
Thrust Factor	K=16.20		(D) 9.313" X 30.5°
Eye Area	29.70 sq. in.		(E) 9.063" X 30.5°
Weight	21.00 lb.	Minimum submergence above eye of bottom impeller: 30 in.	

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-3	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

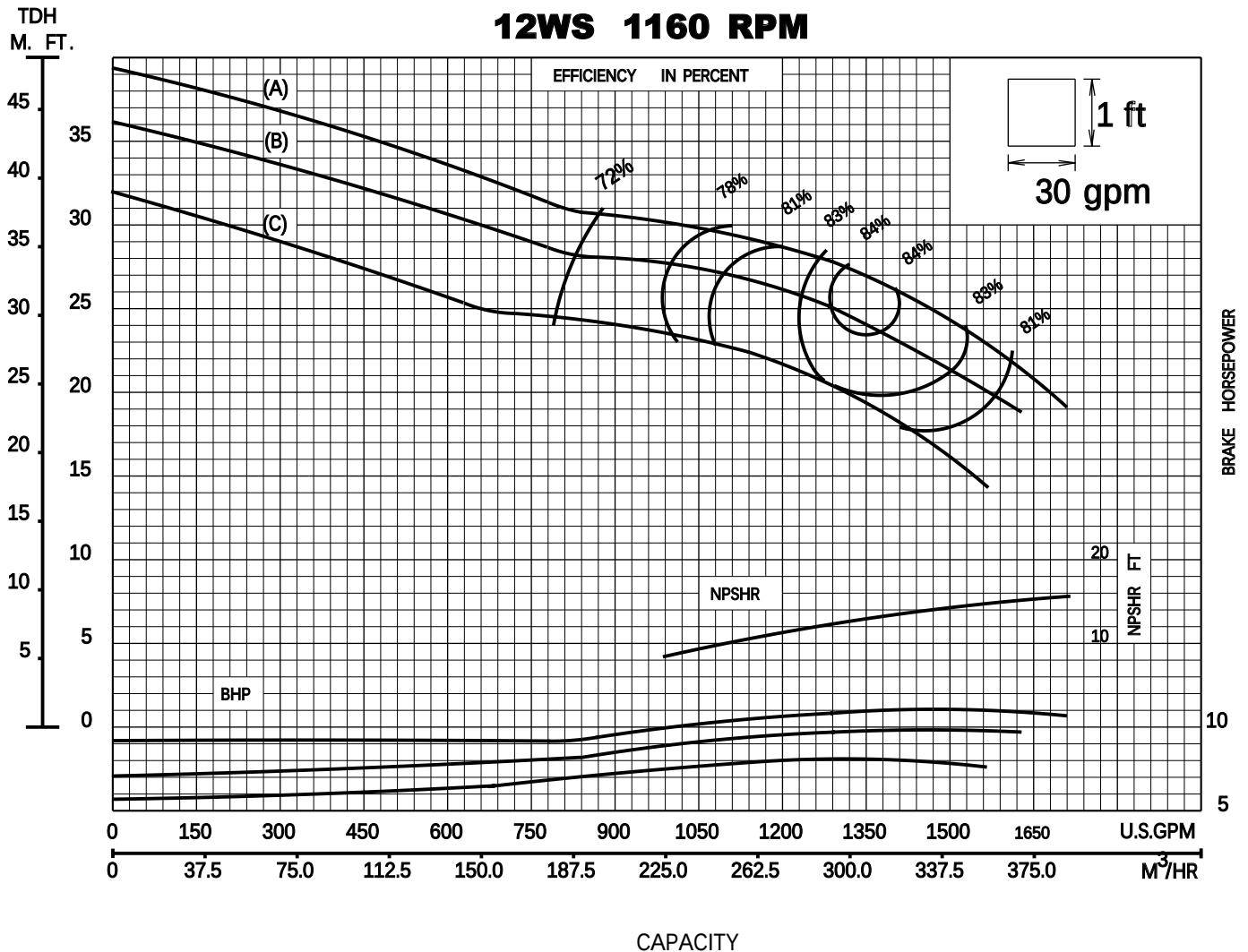
Bowl Number	4771 C.I./ENAM.
Bowl Dia.	12.188"max 11.750"min
Max. No. Stages	21
One Stage Weight	415 lb
Add'l Stage Weight	140 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.375 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	4777	TRIM: (A) 10.063" X 30.5°
Material	BRONZE	(B) 9.750" X 30.5°
Type	SEMI-OPEN	(C) 9.375" X 30.5°
Thrust Factor	K=17.40	
Eye Area	29.70 sq. in.	
Weight	14.50 lb.	Minimum submergence above eye of top impeller: 32 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-3	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

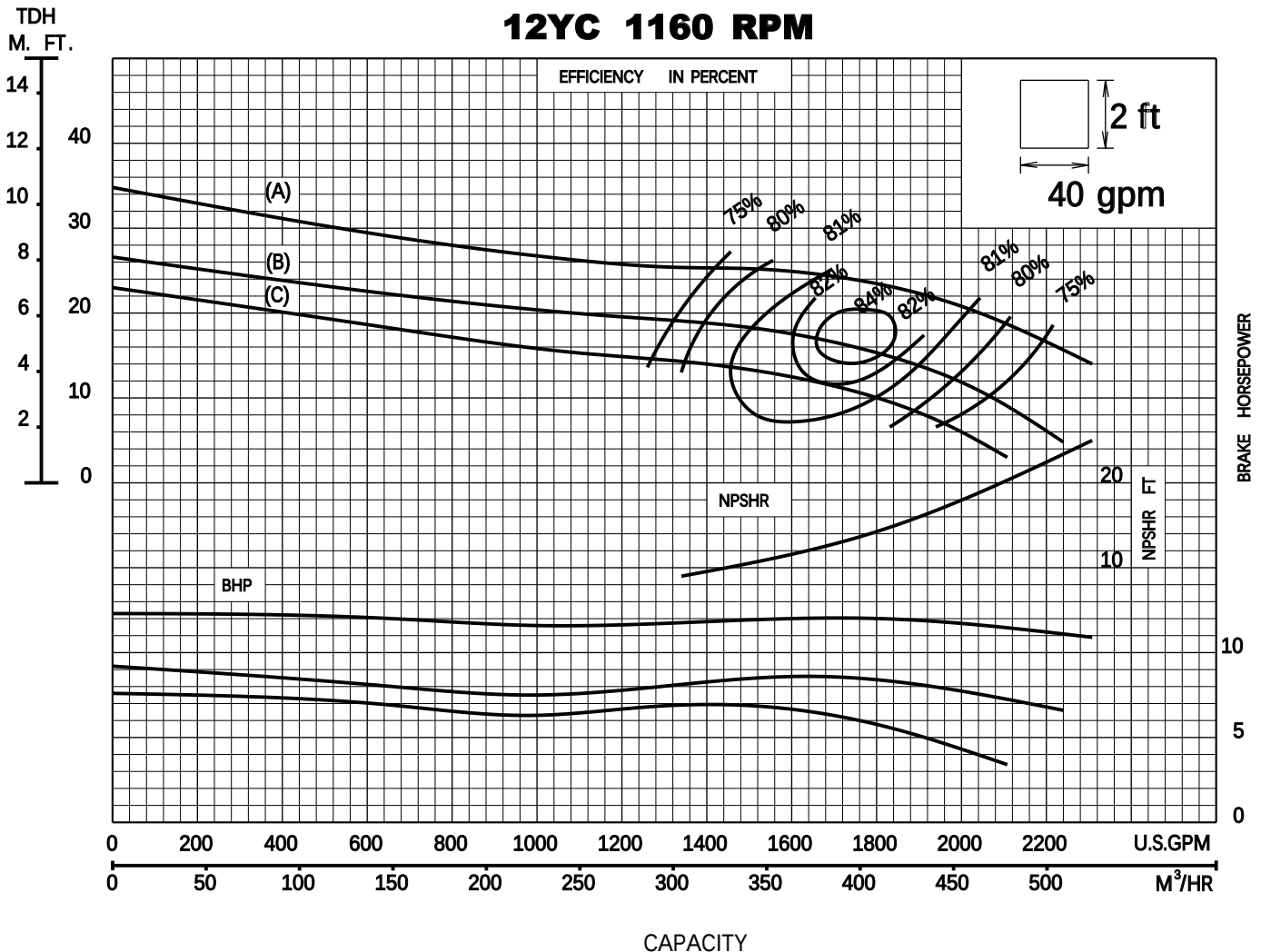
Bowl Number	4771 C.I./ENAM.
Bowl Dia.	12.188"max 11.750"min
Max. No. Stages	21
One Stage Weight	415 lb
Add'l Stage Weight	140 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.375 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	4778	TRIM: (A) 9.797" X 35°
Material	BRONZE	(B) 9.203" X 35°
Type	CLOSED	(C) 8.734" X 35°
Thrust Factor	K=14.20	
Eye Area	38.00 sq. in.	
Weight	19.00 lb.	Minimum submergence above eye of bottom impeller: 36 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0

Change in efficiency may affect both head and horsepower.

BOWL DATA

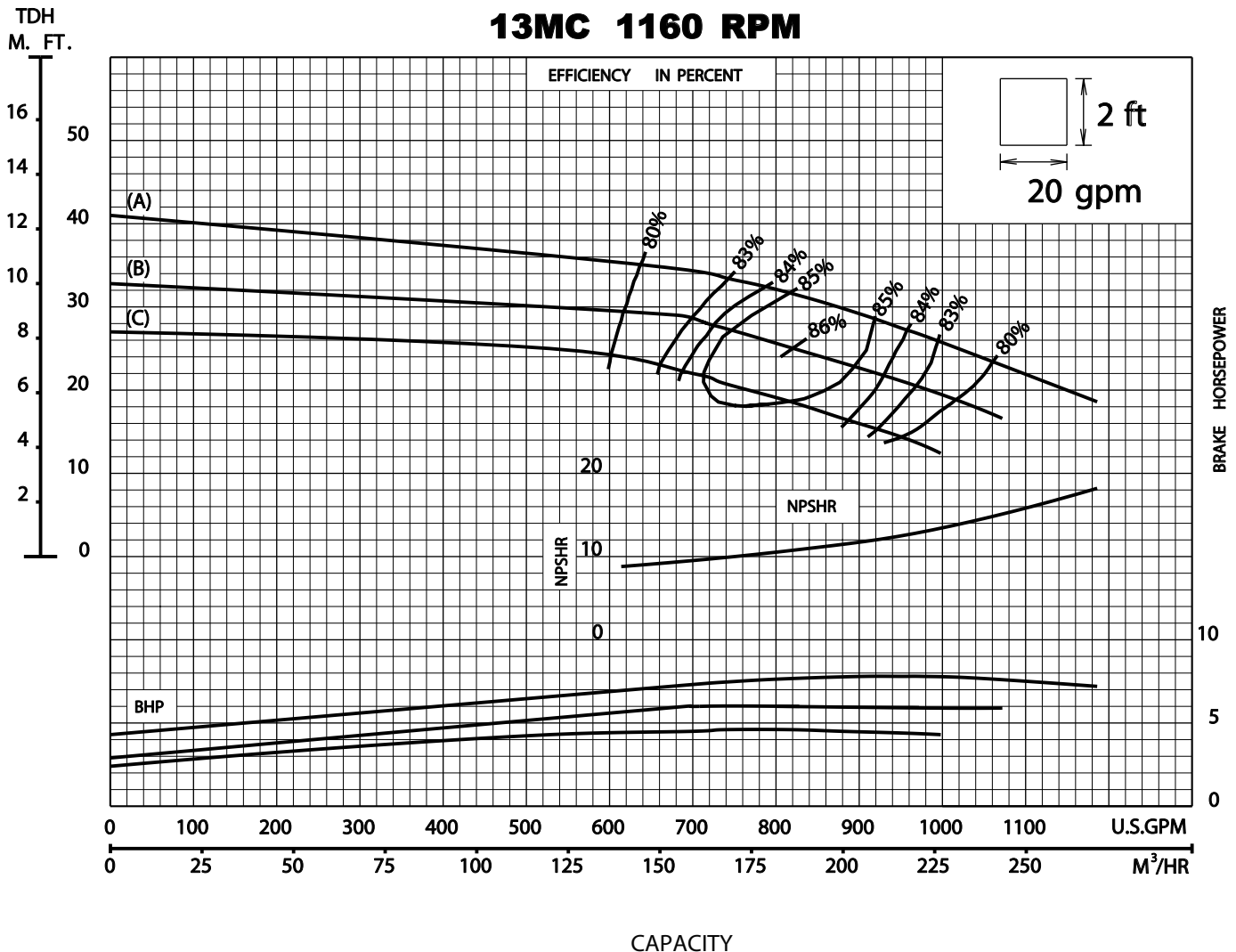
Bowl Number	4772 C.I./ENAM.
Bowl Dia.	12.188"max 11.750"min
Max. No. Stages	20
One Stage Weight	415 lb
Add'l Stage Weight	140 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.875 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.500 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

FEBRUARY 2002



IMPELLER DATA

Impeller Number	2999	TRIM: (A) 9.938" x 30°
Material	BRONZE	(B) 9.313" x 30°
Type	CLOSED	(C) 8.625" x 30°
Thrust Factor	K= 7.9	
Eye Area	23.37 sq. in.	
Weight	14.70 lb.	Minimum submergence above eye of bottom impeller: 30 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	5
Change as follows	4	3	2	1	0
Change in efficiency may affect both head and horsepower.					

BOWL DATA

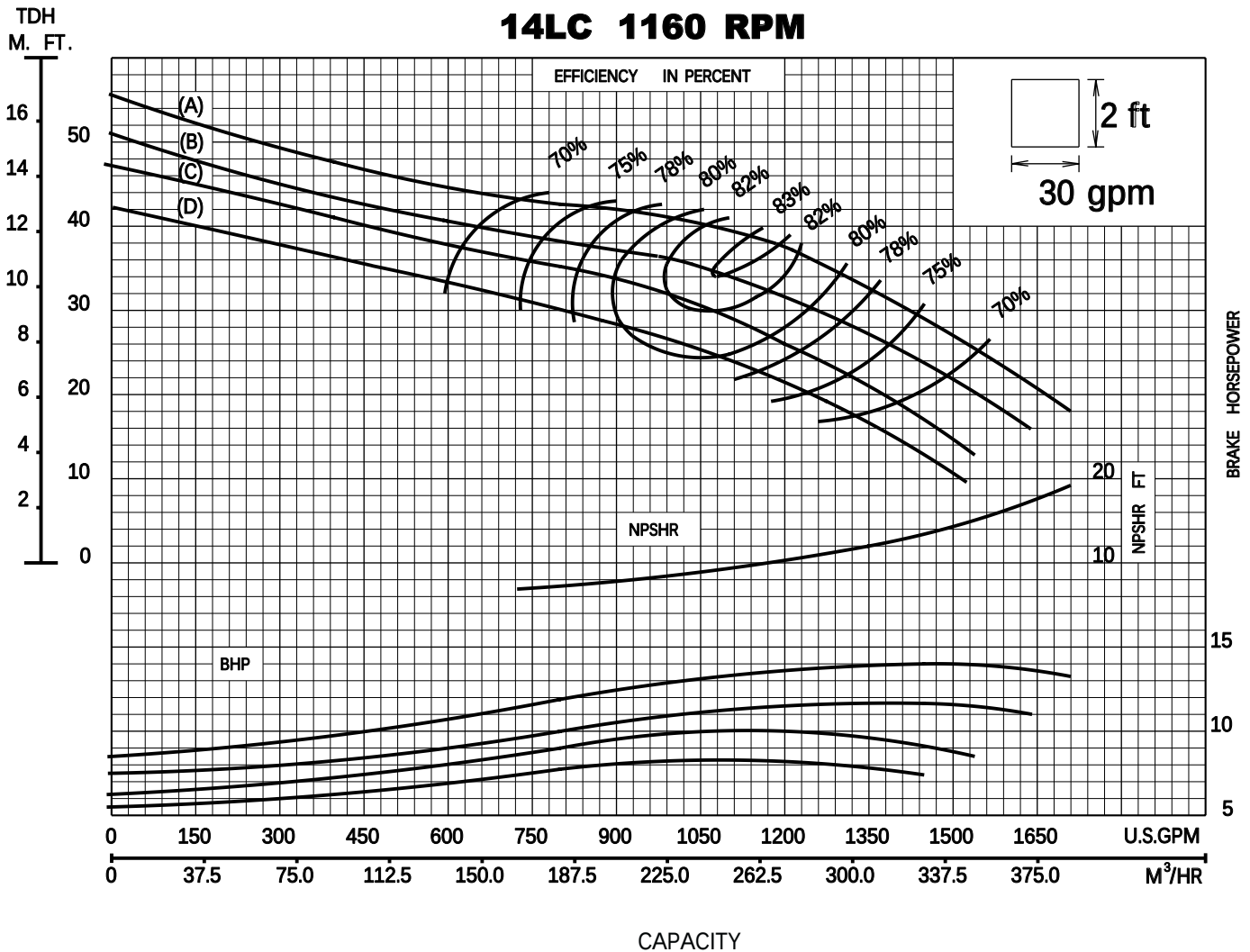
Bowl Number	2998 C.I./ENAM.
Bowl Dia.	12.500"max 12.125"min
Max. No. Stages	26
One Stage Weight	240 lb
Add'l Stage Weight	79 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.813 in
Discharge Size	6-8-10 in
Suction Size	8 - 10 in
Max. Sphere Size	0.750 in
Max Operation P.S.I.	584 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3105	TRIM: (A) 11.313" X 23°
Material	BRONZE	(B) 11.000" X 23°
Type	CLOSED	(C) 10.688" X 23°
Thrust Factor	K=17.20	(D) 10.313" X 23°
Eye Area	31.50 sq. in.	Minimum submergence above eye of bottom impeller: 30 in.
Weight	28.00 lb.	

BOWL DATA

Bowl Number	3106 C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	0.750 in
Max Operation P.S.I.	540 (special)

EFFICIENCY CORRECTION

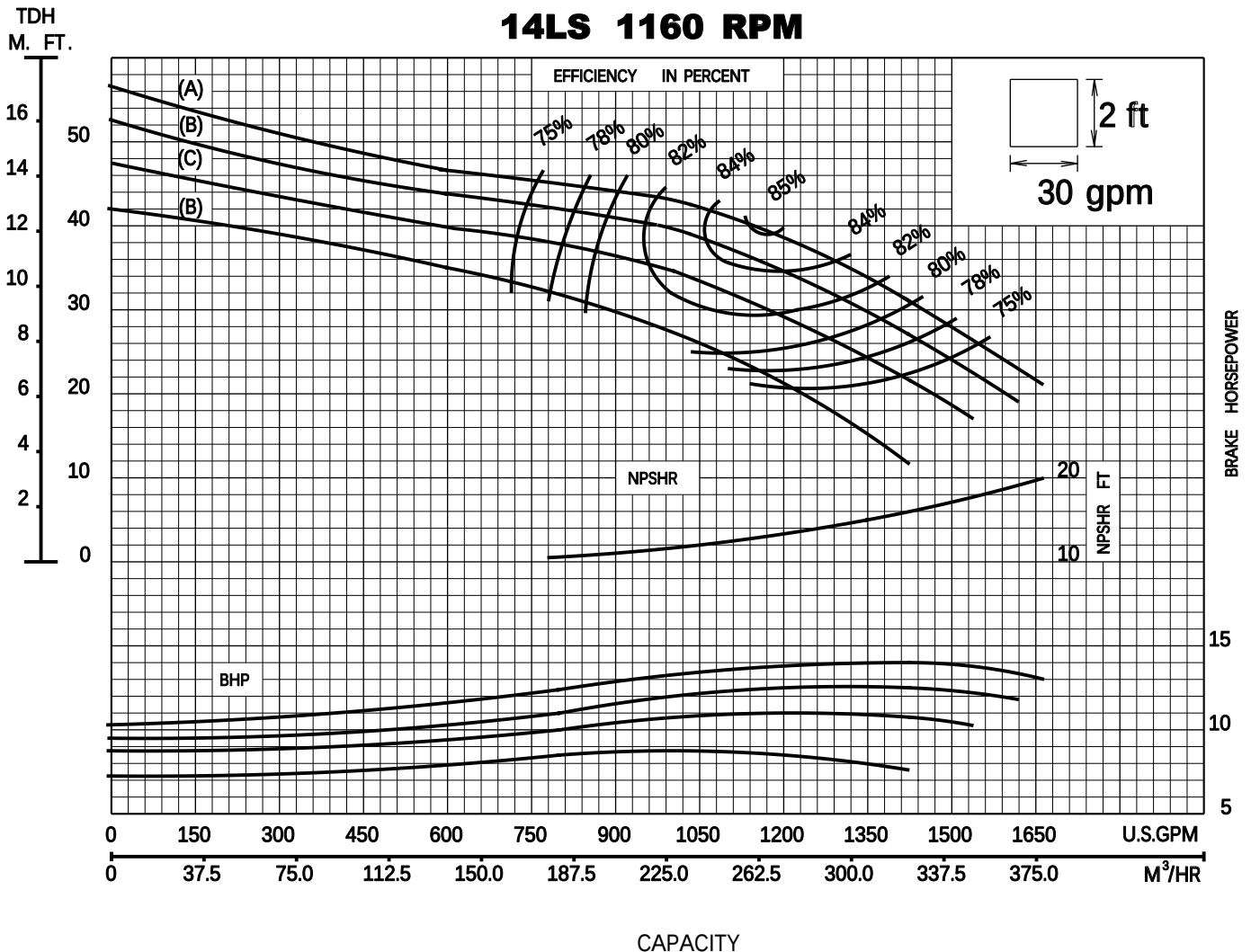
Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3107	TRIM:	(A) 11.313" X 23°
Material	BRONZE		(B) 11.000" X 23°
Type	SEMI-OPEN		(C) 10.688" X 23°
Thrust Factor	K=19.70		(D) 10.313" X 23°
Eye Area	31.50 sq. in.	Minimum submergence above eye of top impeller: 30 in.	
Weight	18.50 lb.		

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		
Change in efficiency may affect both head and horsepower.					

BOWL DATA

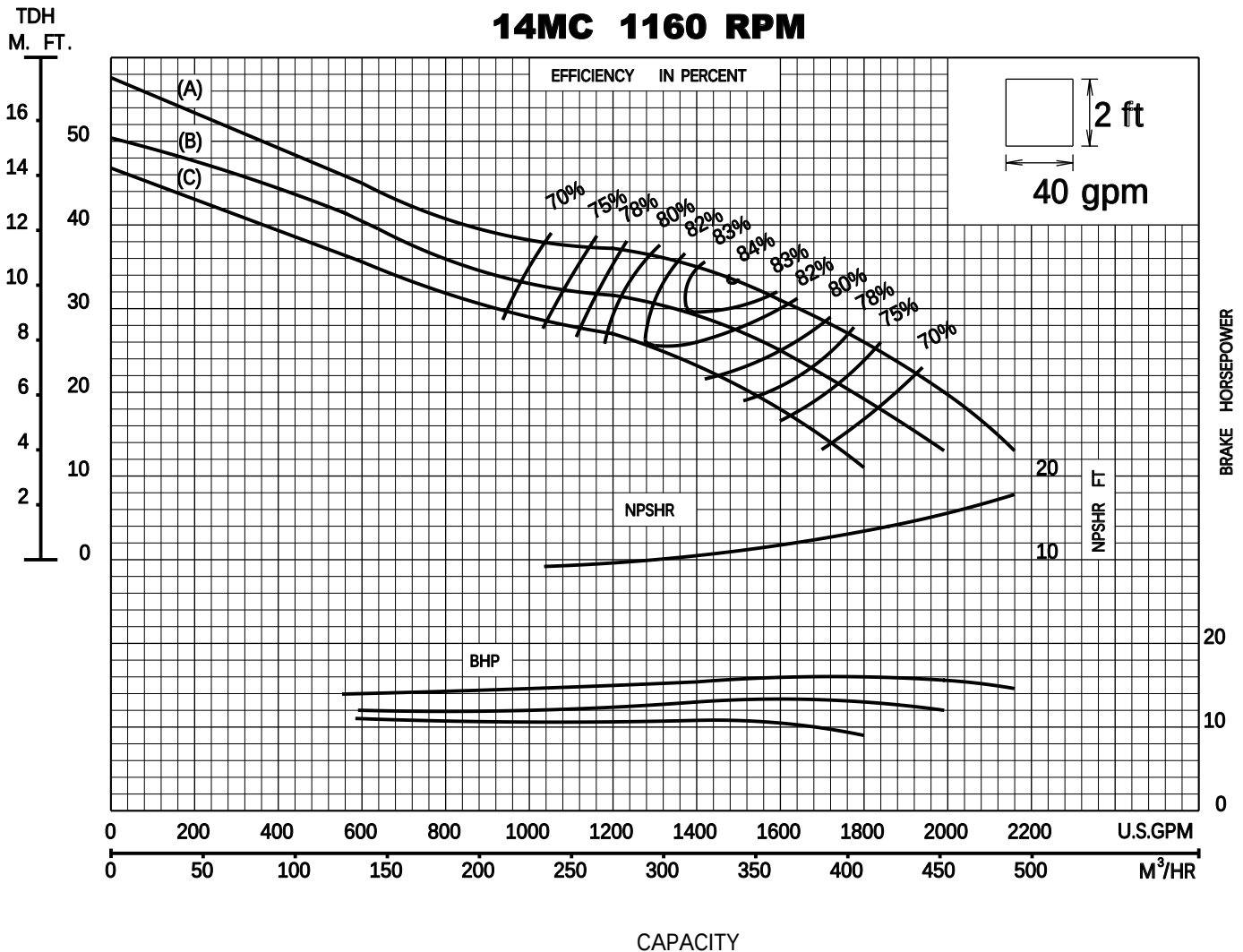
Bowl Number	3106-S.C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	0.750 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3065	TRIM: (A) 11.313" X 30°
Material	BRONZE	(B) 11.000" X 30°
Type	CLOSED	(C) 10.688" X 30°
Thrust Factor	K=21.80	
Eye Area	40.90 sq. in.	
Weight	28.00 lb.	Minimum submergence above eye of bottom impeller: 30 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-4	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

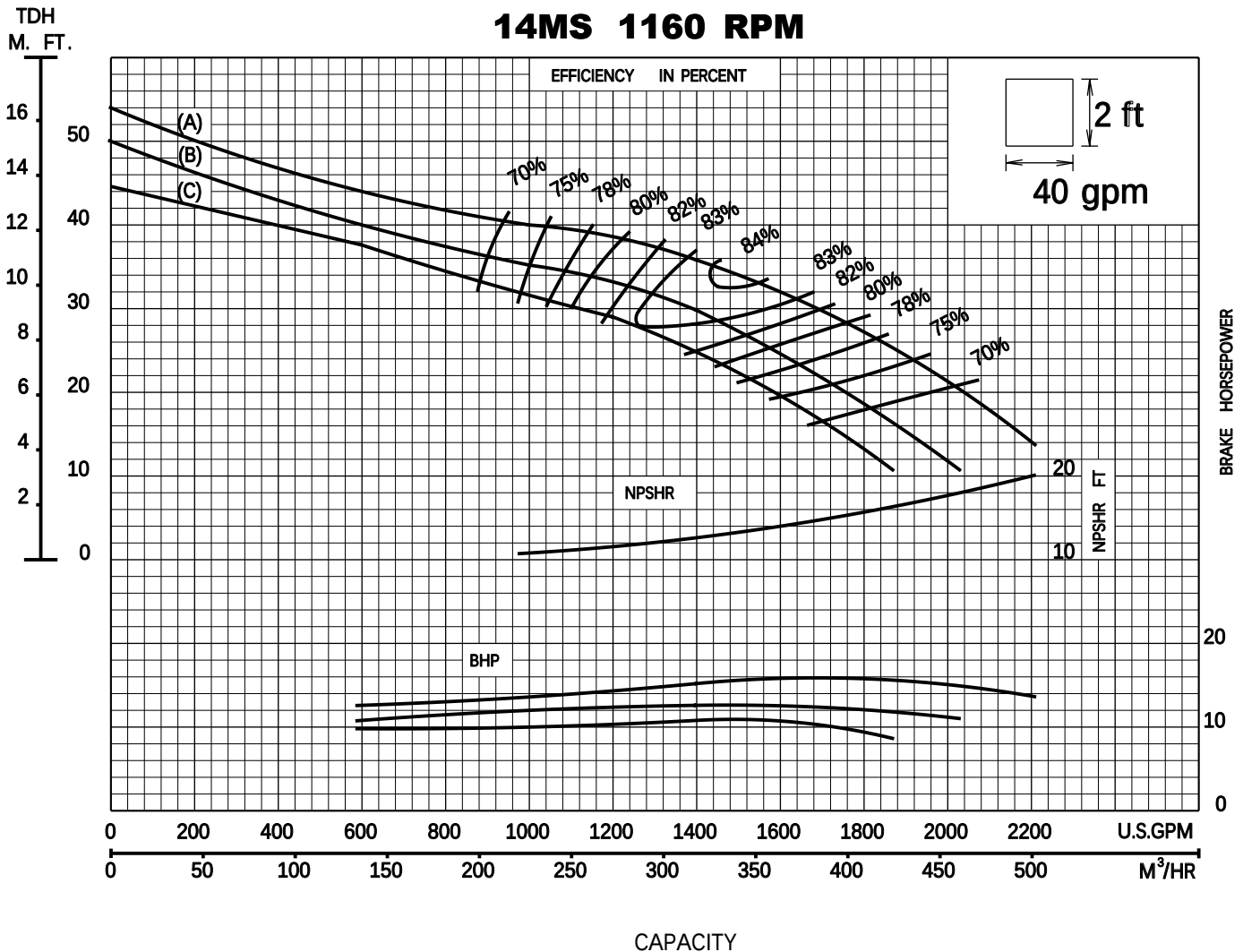
Bowl Number	3042 C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3078	TRIM: (A) 11.313" X 30°
Material	BRONZE	(B) 11.000" X 30°
Type	SEMI-OPEN	(C) 10.688" X 30°
Thrust Factor	K=23.40	
Eye Area	40.90 sq. in.	
Weight	20.25 lb.	Minimum submergence above eye of top impeller: 30 in.

BOWL DATA

Bowl Number	3042-S.C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

EFFICIENCY CORRECTION

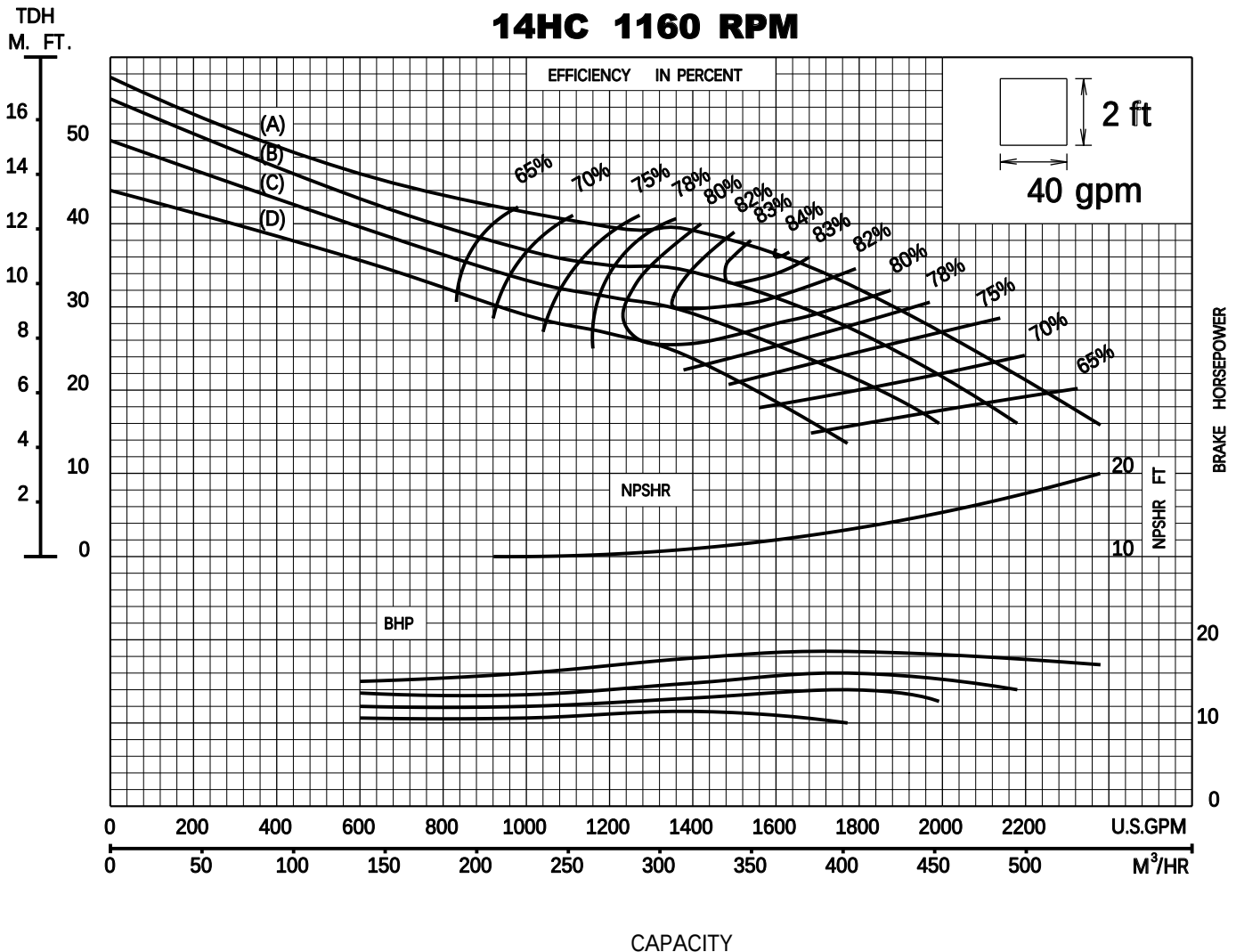
Number of Bowls	1	2	3	4
Change as follows	-3	-2	-1	0
Change in efficiency may affect both head and horsepower.				

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

FEBRUAR Y 1995



IMPELLER DATA

Impeller Number	3029	TRIM: (A) 11.313" X 32.5
Material	BRONZE	(B) 11.125" X 32.5
Type	CLOSED	(C) 10.844" X 32.5
Thrust Factor	K=21.80	(D) 10.500" X 32.5
Eye Area	40.90 sq. in.	Minimum submergence above eye of bottom impeller: 32 in.
Weight	30.25 lb.	

BOWL DATA

Bowl Number	3042 C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

EFFICIENCY CORRECTION

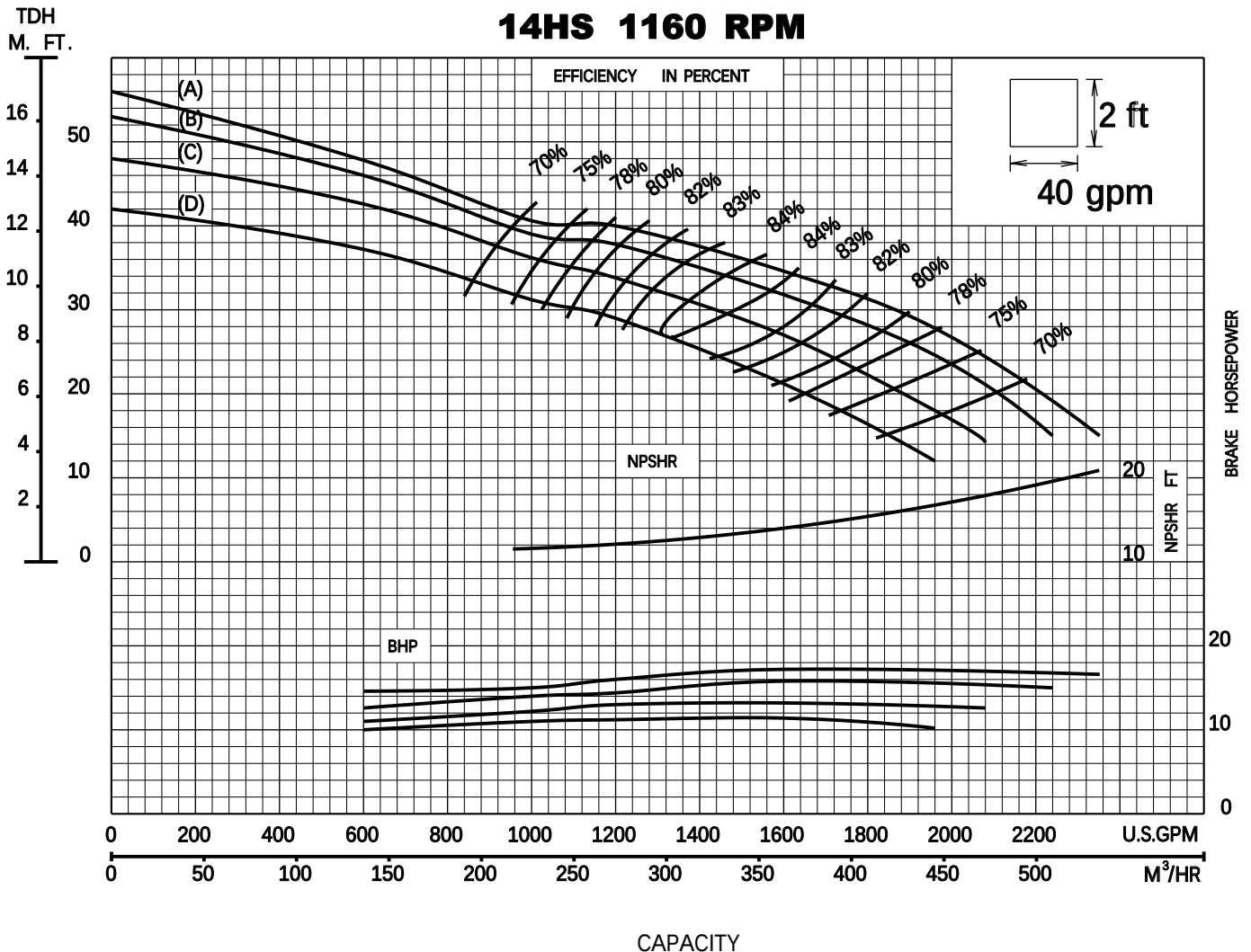
Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

FEBRUAR Y 1995



IMPELLER DATA

Impeller Number	3029	TRIM: (A) 11.313" X 32.5
Material	BRONZE	(B) 11.125" X 32.5
Type	SEMI-OPEN	(C) 10.844" X 32.5
Thrust Factor	K=25.20	(D) 10.500" X 32.5
Eye Area	43.85 sq. in.	Minimum submergence above eye of top impeller: 32 in.
Weight	21.25 lb.	

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-3	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

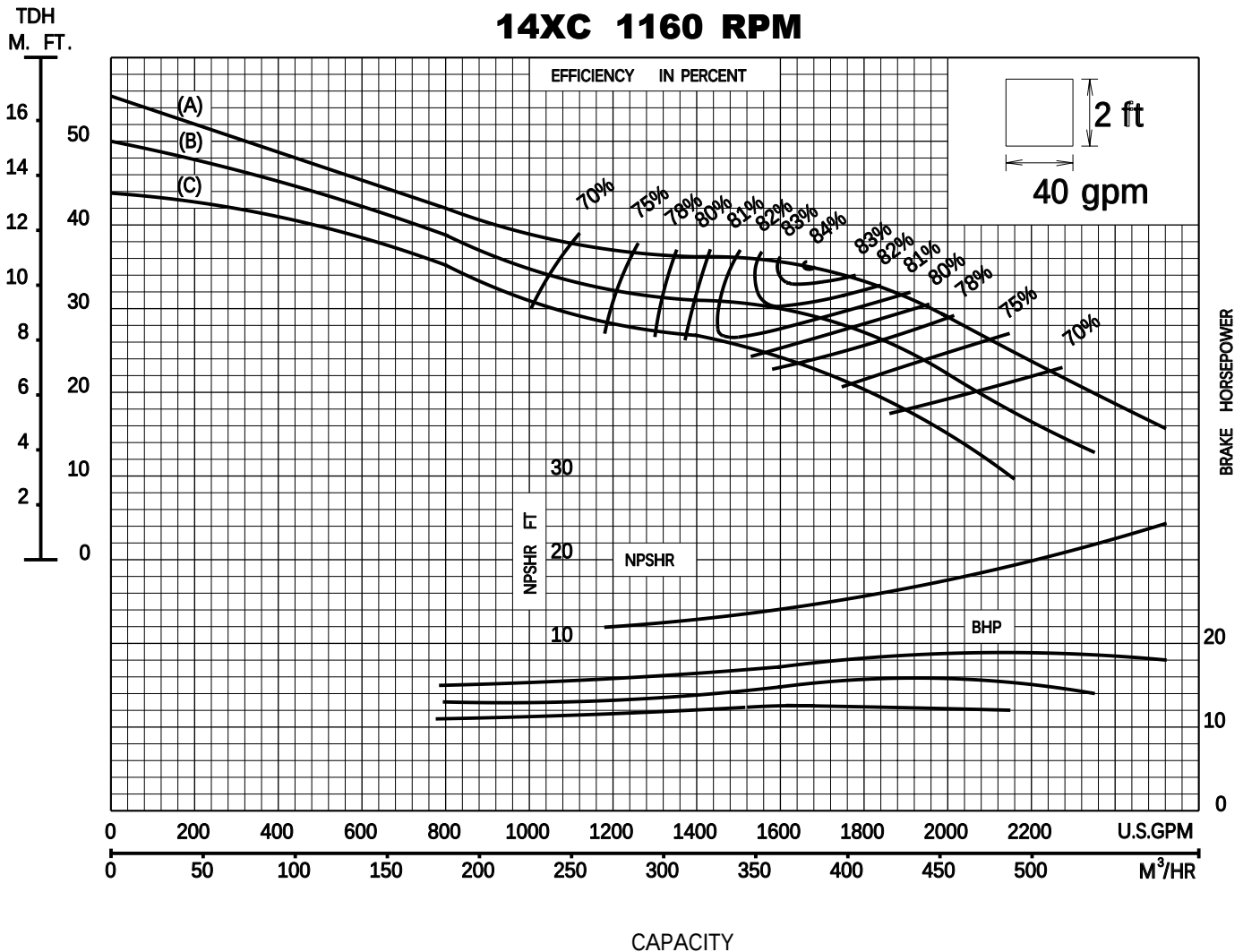
Bowl Number	3042-S,C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3086	TRIM: (A) 11.313" X 32.5°
Material	BRONZE	(B) 11.000" X 32.5°
Type	CLOSED	(C) 10.625" X 32.5°
Thrust Factor	K=21.80	
Eye Area	40.90 sq. in.	
Weight	29.25 lb.	Minimum submergence above eye of bottom impeller: 32 in.

BOWL DATA

Bowl Number	3042 C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

EFFICIENCY CORRECTION

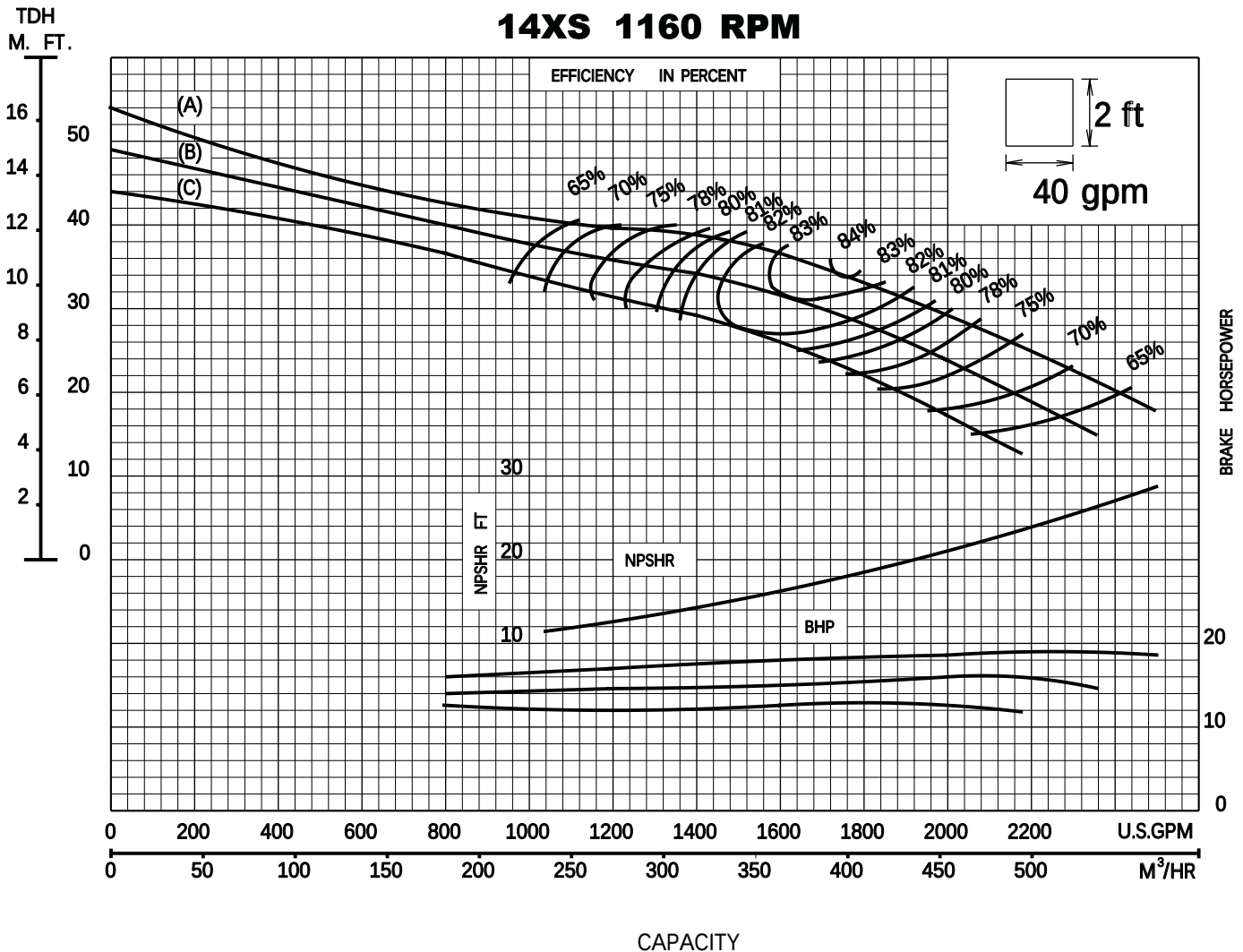
Number of Bowls	1	2	3	4
Change as follows	-5	-3	-1	0
Change in efficiency may affect both head and horsepower.				

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	3092	TRIM:	(A) 11.313" X 32.5°
Material	BRONZE		(B) 11.000" X 32.5°
Type	SEMI-OPEN		(C) 10.625" X 32.5°
Thrust Factor	K=23.40	Minimum submergence above eye of top impeller: 32 in.	
Eye Area	40.90 sq. in.		
Weight	20.25 lb.		

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4	
Change as follows	-3	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

BOWL DATA

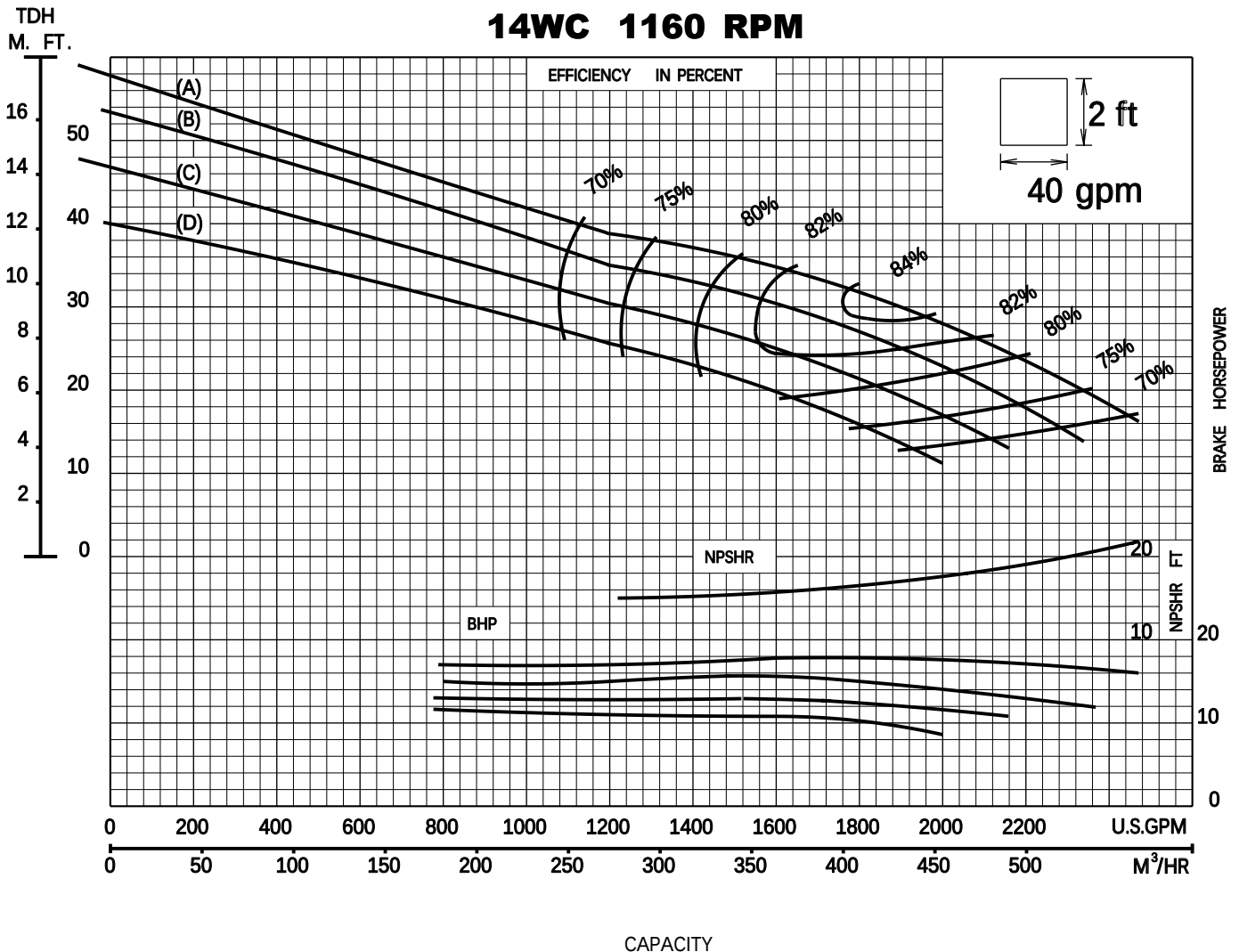
Bowl Number	3042-S,C.I./ENAM.
Bowl Dia.	13.500"max 13.250"min
Max. No. Stages	19
One Stage Weight	490 lb
Add'l Stage Weight	175 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA			
Impeller Number	4151	TRIM:	(A) 11.813" X 35°
Material	BRONZE		(B) 11.500" X 35°
Type	CLOSED		(C) 11.000" X 35°
Thrust Factor	K=24.80		(D) 10.500" X 35°
Eye Area	47.30 sq. in.	Minimum submergence above eye of bottom impeller: 34 in.	
Weight	31.75 lb.		

EFFICIENCY CORRECTION					
Number of Bowls	1	2	3	4	
Change as follows	-4	-2	-1	0	
Change in efficiency may affect both head and horsepower.					

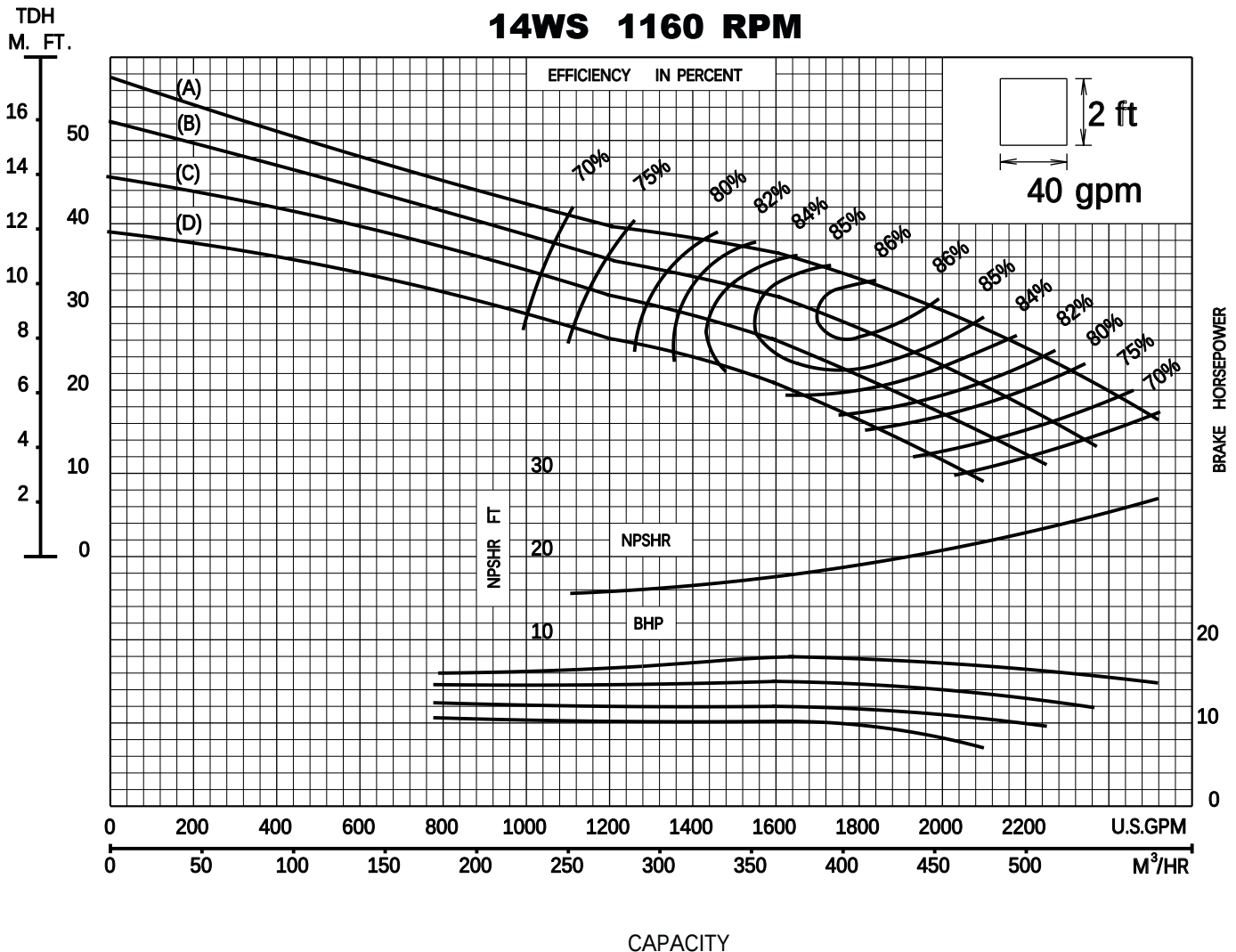
BOWL DATA		
Bowl Number	4152 C.I./ENAM.	
Bowl Dia.	14.063"max	13.750"min
Max. No. Stages	18	
One Stage Weight	500	lb
Add'l Stage Weight	185	lb
Std. Shaft Dia.	1.938	in
Std. Lateral	0.875	in
Discharge Size	10-12	in
Suction Size	10-12	in
Max. Sphere Size	1.500	in
Max Operation P.S.I.	540 (special)	

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	4153	TRIM: (A) 11.813" X 35°
Material	BRONZE	(B) 11.500" X 35°
Type	SEMI-OPEN	(C) 11.000" X 35°
Thrust Factor	K=26.20	(D) 10.500" X 35°
Eye Area	47.30 sq. in.	Minimum submergence above eye of top impeller: 34 in.
Weight	23.25 lb.	

EFFICIENCY CORRECTION

Number of Bowls	1	2	3	4
Change as follows	-4	-2	-1	0
Change in efficiency may affect both head and horsepower.				

BOWL DATA

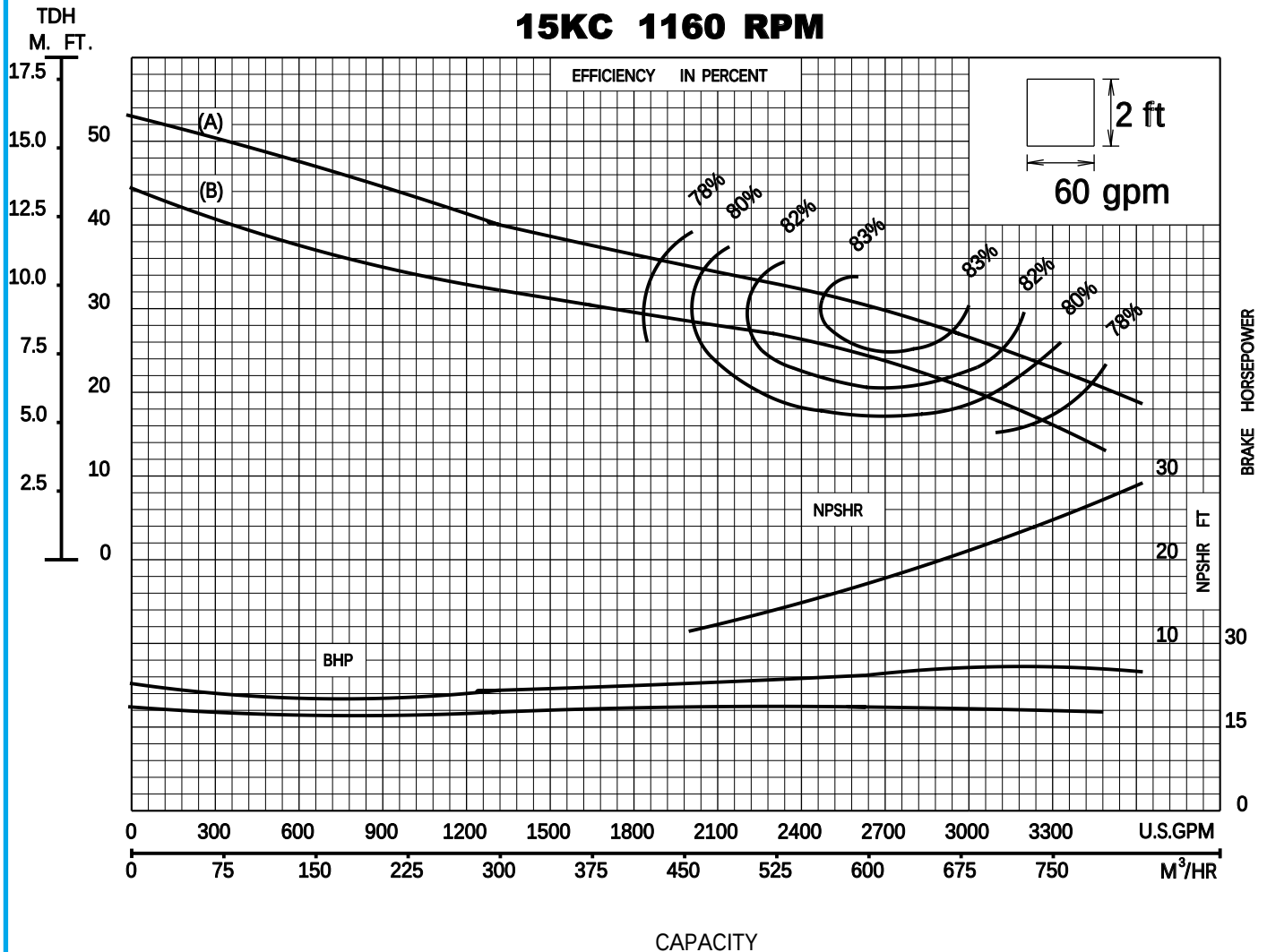
Bowl Number	4152-S.C.I./ENAM.
Bowl Dia.	14.063"max 13.750"min
Max. No. Stages	18
One Stage Weight	500 lb
Add'l Stage Weight	185 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.875 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	1.500 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JANUAR Y 1995



IMPELLER DATA

Impeller Number	0004	TRIM: (A) 11.850" X 34°
Material	BRONZE	(B) 11.000" X 34°
Type	CLOSED	
Thrust Factor	K=28.00	
Eye Area	63.60 sq. in.	
Weight	30.00 lb.	Minimum submergence above eye of bottom impeller: 36 in.

BOWL DATA

Bowl Number	0001 C.I./ENAM.
Bowl Dia.	15.250"max 14.750"min
Max. No. Stages	14
One Stage Weight	510 lb
Add'l Stage Weight	195 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.688 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	2.250 in
Max Operation P.S.I.	540 (special)

EFFICIENCY CORRECTION

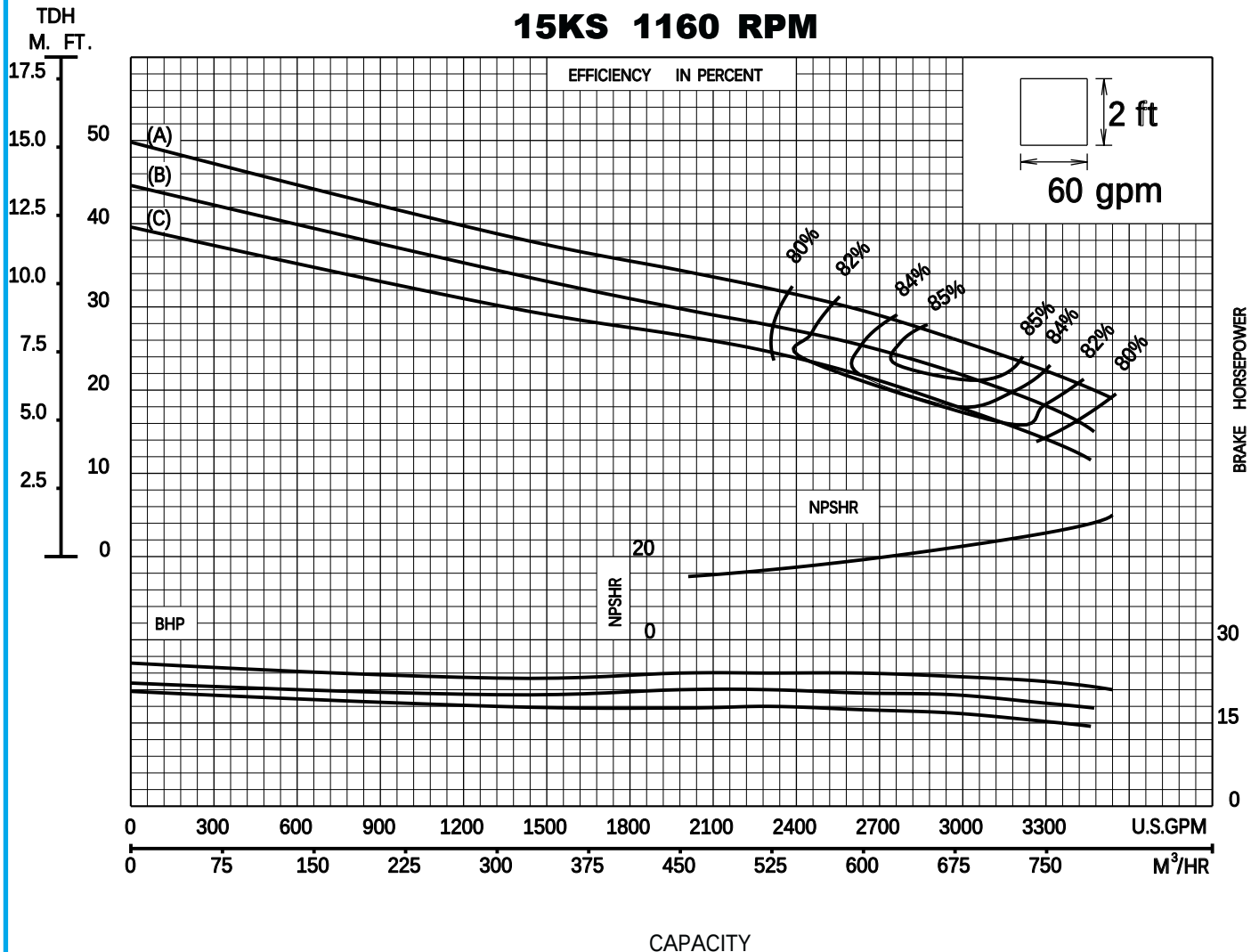
Number of Bowls	1	2	3	4
Change as follows	-3	-2	-1	0
Change in efficiency may affect both head and horsepower.				

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

OCT OBER 1998



IMPELLER DATA

Impeller Number	0004-S	TRIM: (A) 11.850" X 34°
Material	BRONZE	(B) 11.438" X 34°
Type	SEMI-OPEN	(C) 11.000" X 34°
Thrust Factor	K=30.00	
Eye Area	63.60 sq. in.	
Weight	21.00 lb.	Minimum submergence above eye of bottom impeller: 36 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		
Change in efficiency may affect both head and horsepower.					

BOWL DATA

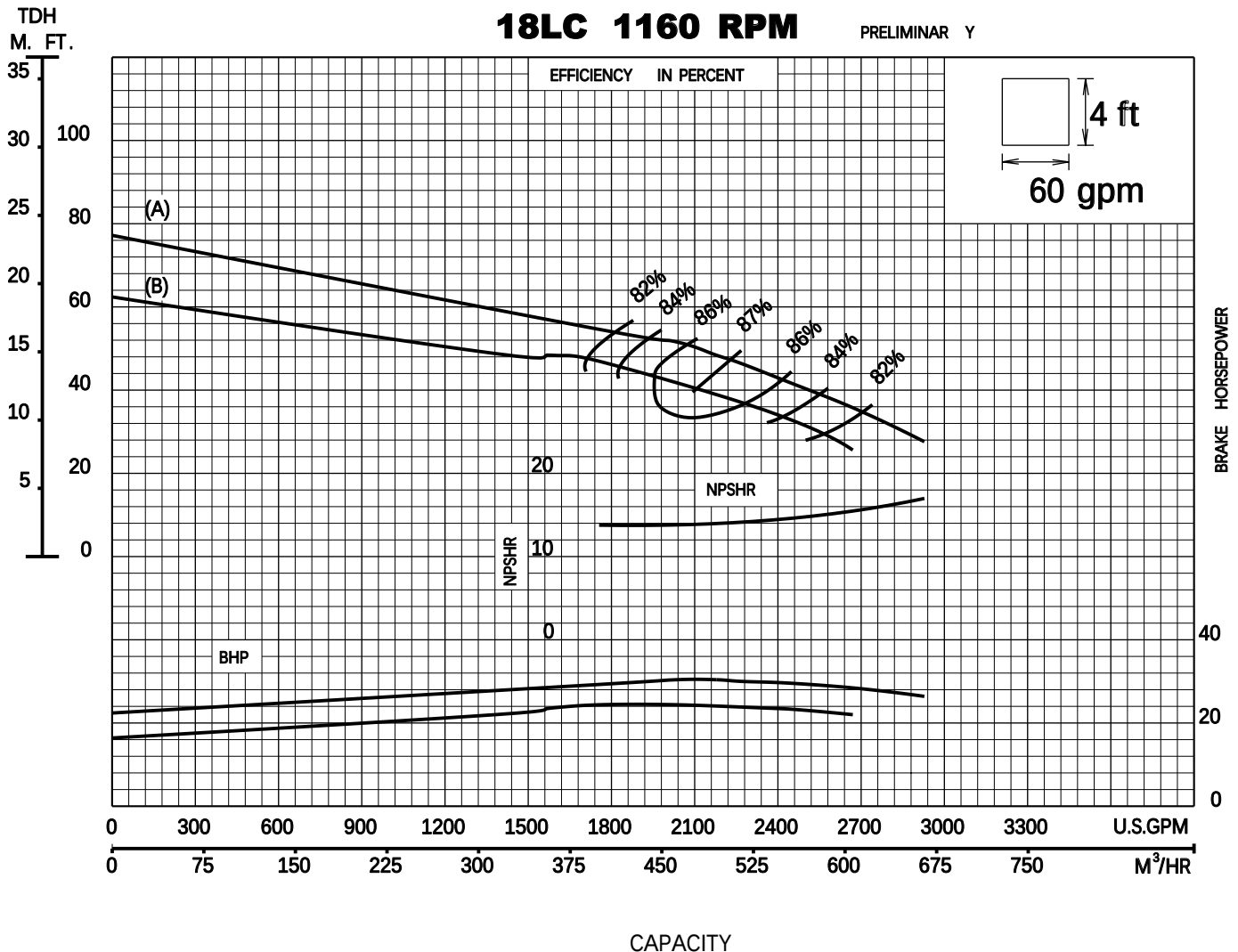
Bowl Number	0001-S.C.I./ENAM.
Bowl Dia.	15.250"max 14.750"min
Max. No. Stages	14
One Stage Weight	375 lb
Add'l Stage Weight	170 lb
Std. Shaft Dia.	1.938 in
Std. Lateral	0.688 in
Discharge Size	10-12 in
Suction Size	10-12 in
Max. Sphere Size	2.250 in
Max Operation P.S.I.	540 (special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JUNE 2000



IMPELLER DATA

Impeller Number	3914	TRIM: (A) 13.188" X 20"
Material	BRONZE	(B) 12.250" X 20"
Type	CLOSED	
Thrust Factor	K=21.75	
Eye Area	46.0 sq. in.	
Weight	42.0 lb.	Minimum submergence above eye of bottom impeller: 32 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		
Change in efficiency may affect both head and horsepower.					

BOWL DATA

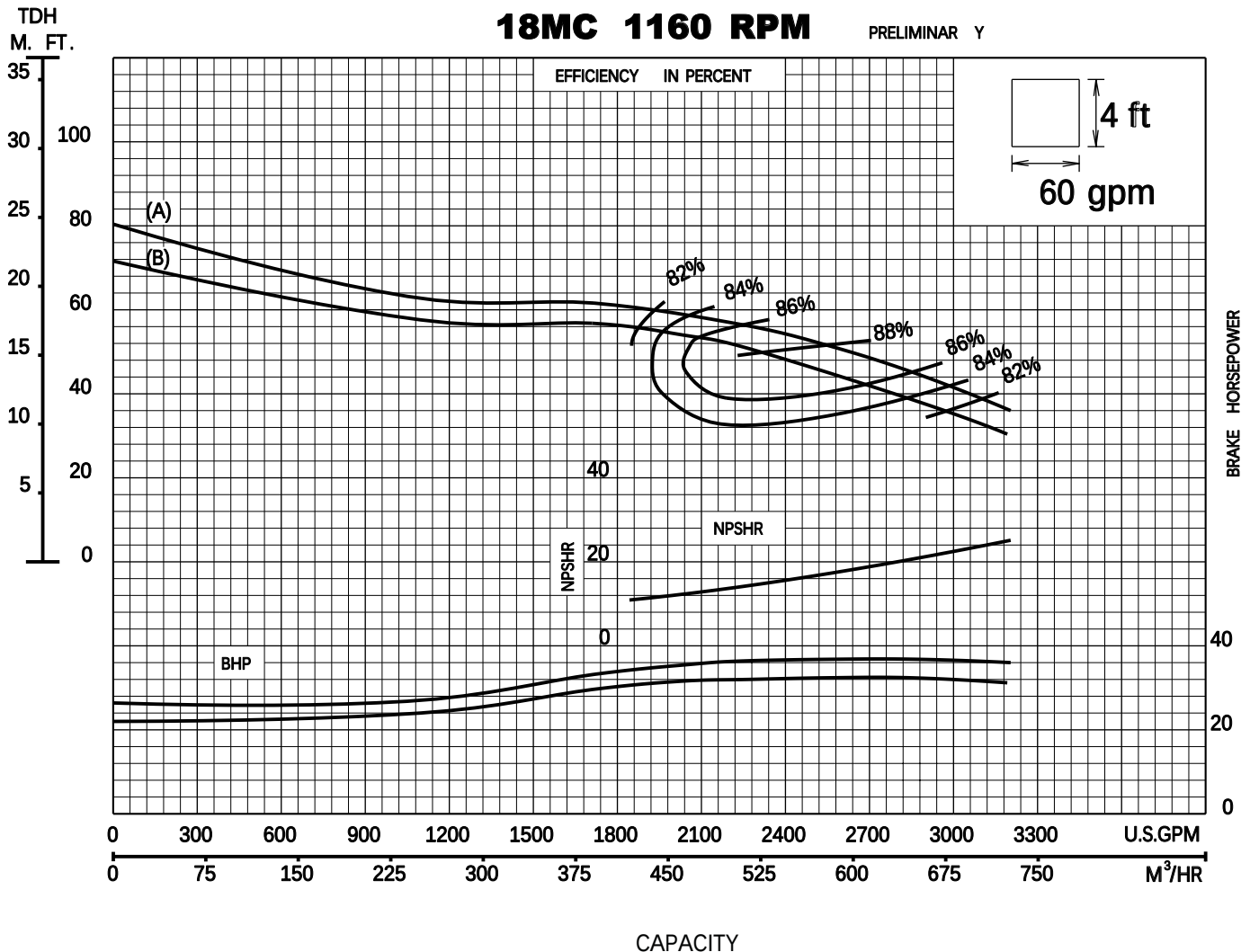
Bowl Number	3905 C.I./ENAM.
Bowl Dia.	17.750"max 17.500"min
Max. No. Stages	15
One Stage Weight	750 lb
Add'l Stage Weight	325 lb
Std. Shaft Dia.	2.188 in
Std. Lateral	0.500 in
Discharge Size	12-14 in
Suction Bell Size	18.000 in
Max. Sphere Size	1.250 in
Max Operation P.S.I.	500

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JUNE 2000



IMPELLER DATA

Impeller Number	3923	TRIM: (A) 13.188" X 20°
Material	BRONZE	(B) 12.250" X 20°
Type	CLOSED	
Thrust Factor	K=21.75	
Eye Area	50.27 sq. in.	
Weight	42.0 lb.	Minimum submergence above eye of bottom impeller: 32 in.

BOWL DATA

Bowl Number	3905 C.I./ENAM.
Bowl Dia.	17.750"max 17.500"min
Max. No. Stages	12
One Stage Weight	750 lb
Add'l Stage Weight	325 lb
Std. Shaft Dia.	2.188 in
Std. Lateral	0.500 in
Discharge Size	12-14 in
Suction Bell Size	18.000 in
Max. Sphere Size	1.375 in
Max Operation P.S.I.	500

EFFICIENCY CORRECTION

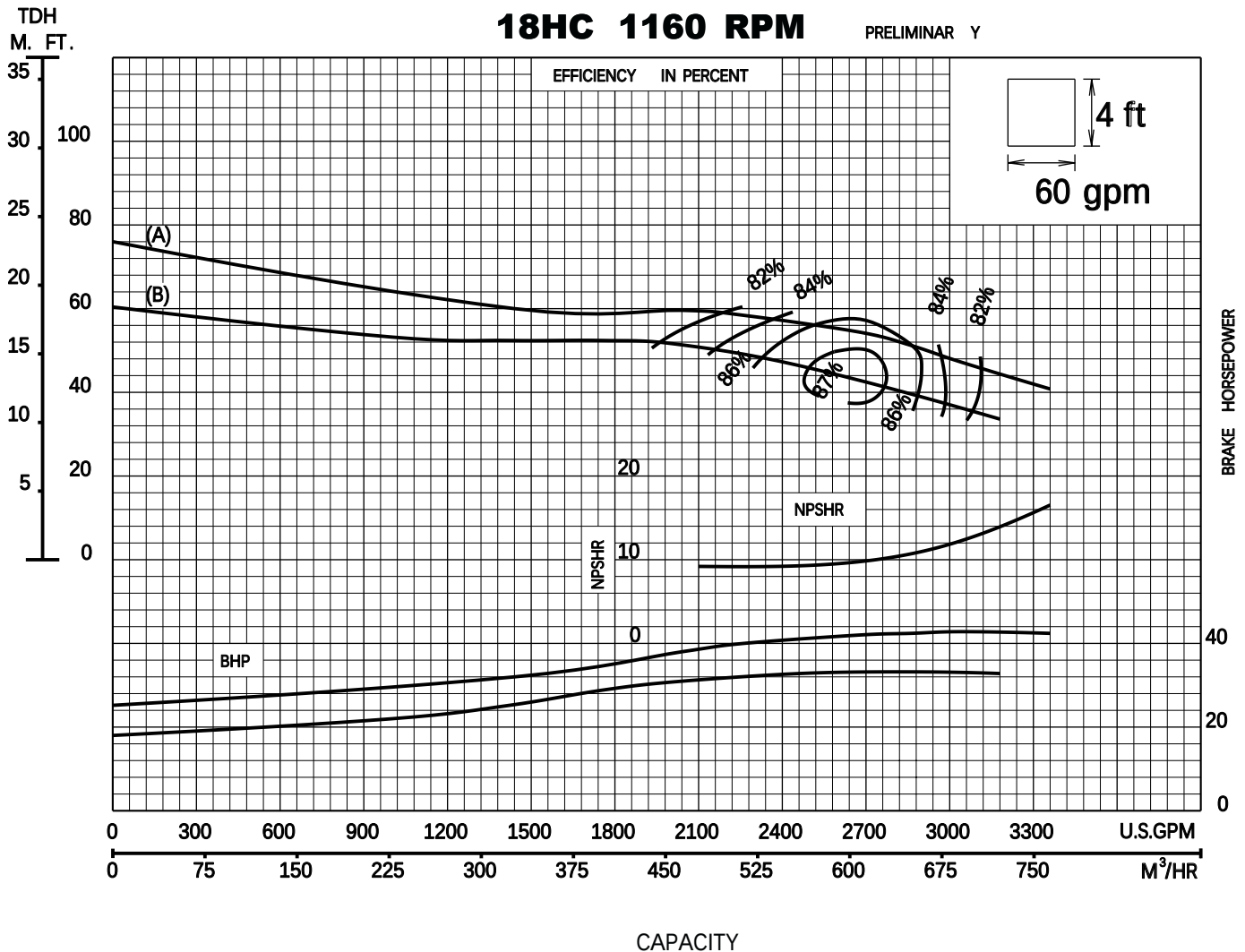
Number of Bowls	1	2	3		
Change as follows	-2	-1	0		
Change in efficiency may affect both head and horsepower.					

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

JUNE 2000



IMPELLER DATA

Impeller Number	3941	TRIM: (A) 13.188" X 20°
Material	BRONZE	(B) 12.250" X 20°
Type	CLOSED	
Thrust Factor	K=23.5	
Eye Area	67.5 sq. in.	
Weight	42.0 lb.	

Minimum submergence
above eye of bottom
impeller: 32 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		

Change in efficiency may affect both head and horsepower.

BOWL DATA

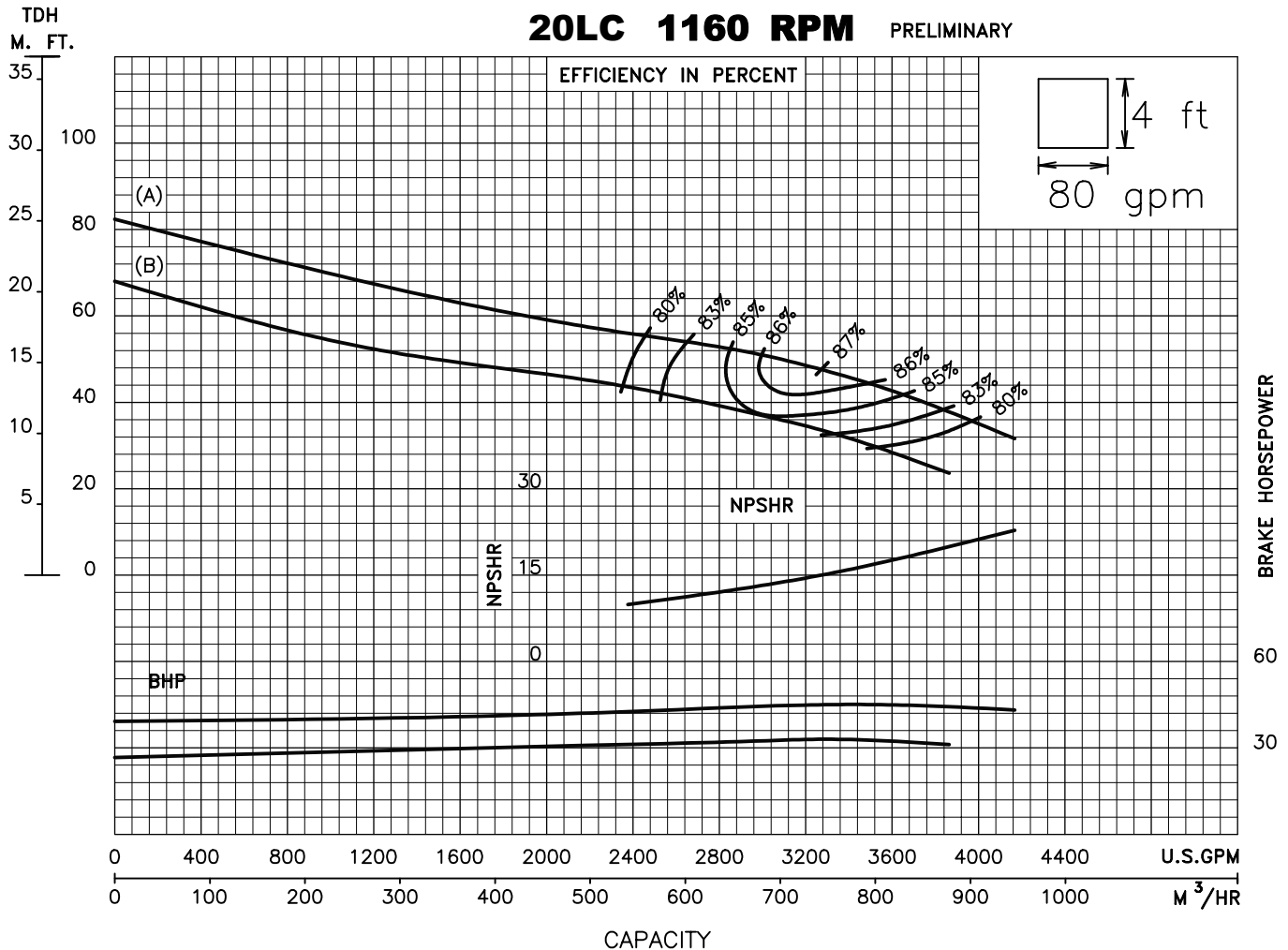
Bowl Number	3905 C.I./ENAM.
Bowl Dia.	17.750"max 17.500"min
Max. No. Stages	10
One Stage Weight	750 lb
Add'l Stage Weight	325 lb
Std. Shaft Dia.	2.188 in
Std. Lateral	0.500 in
Discharge Size	12-14 in
Suction Bell Size	18.000 in
Max. Sphere Size	1.375 in
Max Operation P.S.I.	500

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

August 2002



IMPELLER DATA		
Impeller Number	4838	TRIM: (A) 13.938" X 27" (B) 12.625" X 27"
Material	BRONZE	
Type	CLOSED	
Thrust Factor	K=29.4	
Eye Area	72.6 sq. in.	
Weight	69.0 lb.	Minimum submergence above eye of bottom impeller: 33 in.

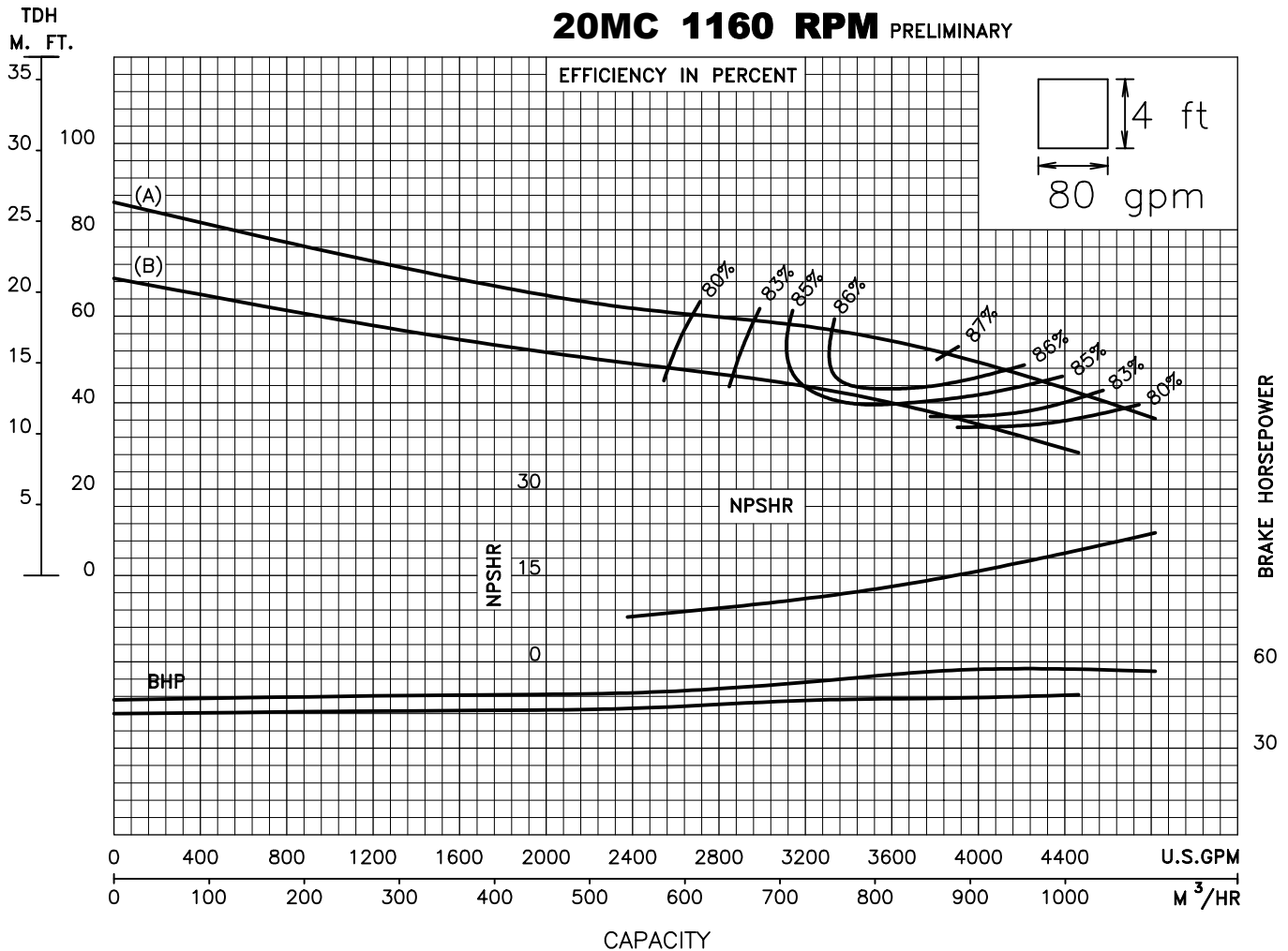
EFFICIENCY CORRECTION				
Number of Bowls	1	2		
Change as follows	-2	0		
Change in efficiency may affect both head and horsepower.				

BOWL DATA	
Bowl Number	3969 C.I.
Bowl Dia.	19.875"max 19.250"min
Max. No. Stages	13
One Stage Weight	790 lb
Add'l Stage Weight	569 lb
Std. Shaft Dia.	2 7/16 in
Std. Lateral	0.750 in
Discharge Size	14-16 in
Suction Bell Size	20.875 in
Max. Sphere Size	2.0 in
Max Operation P.S.I.	350

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE



IMPELLER DATA			
Impeller Number	4847	TRIM: (A) 13.938" X 27"	
Material	BRONZE	(B) 12.625" X 27"	
Type	CLOSED		
Thrust Factor	K=29.4		
Eye Area	72.6 sq. in.		
Weight	69.0 lb.	Minimum submergence above eye of bottom impeller: 33 in.	

EFFICIENCY CORRECTION				
Number of Bowls	1	2		
Change as follows	-2	0		
Change in efficiency may affect both head and horsepower.				

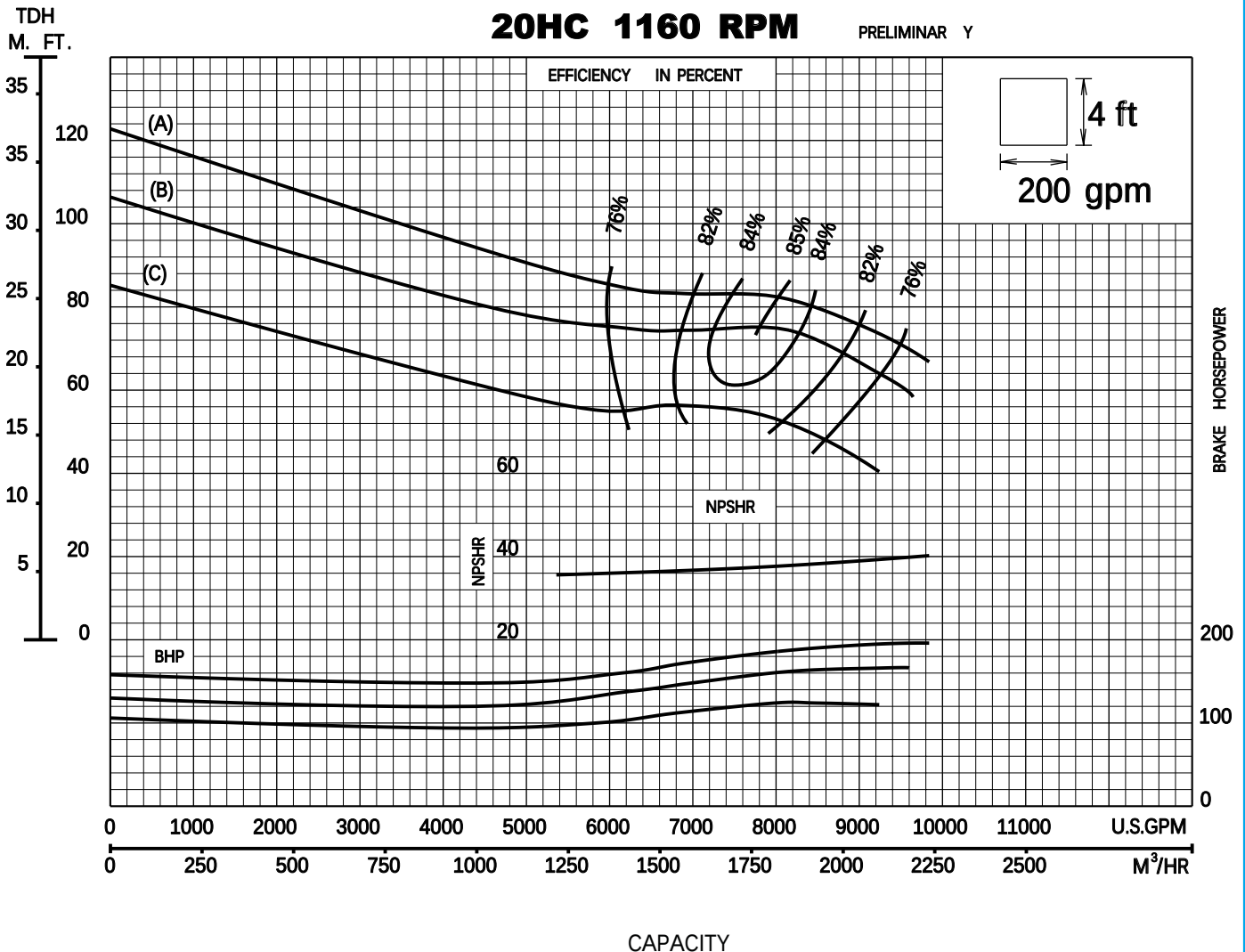
BOWL DATA	
Bowl Number	3969 C.I.
Bowl Dia.	19.875"max 19.250"min
Max. No. Stages	10
One Stage Weight	790 lb
Add'l Stage Weight	569 lb
Std. Shaft Dia.	2 7/16 in
Std. Lateral	0.750 in
Discharge Size	14-16 in
Suction Bell Size	20.875 in
Max. Sphere Size	2.0 in
Max Operation P.S.I.	350

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

FEBRUAR Y 2001



IMPELLER DATA

Impeller Number	3987	TRIM: (A) 16.750" X 27.5°
Material	BRONZE	(B) 16.250" X 27.5°
Type	CLOSED	(C) 15.313" X 27.5°
Thrust Factor	K=58.0	
Eye Area	112.5 sq. in.	
Weight	94.0 lb.	

Minimum submergence
above eye of bottom
impeller: 32 in.

EFFICIENCY CORRECTION

Number of Bowls	1	2			
Change as follows	-1	0			
Change in efficiency may affect both head and horsepower.					

BOWL DATA

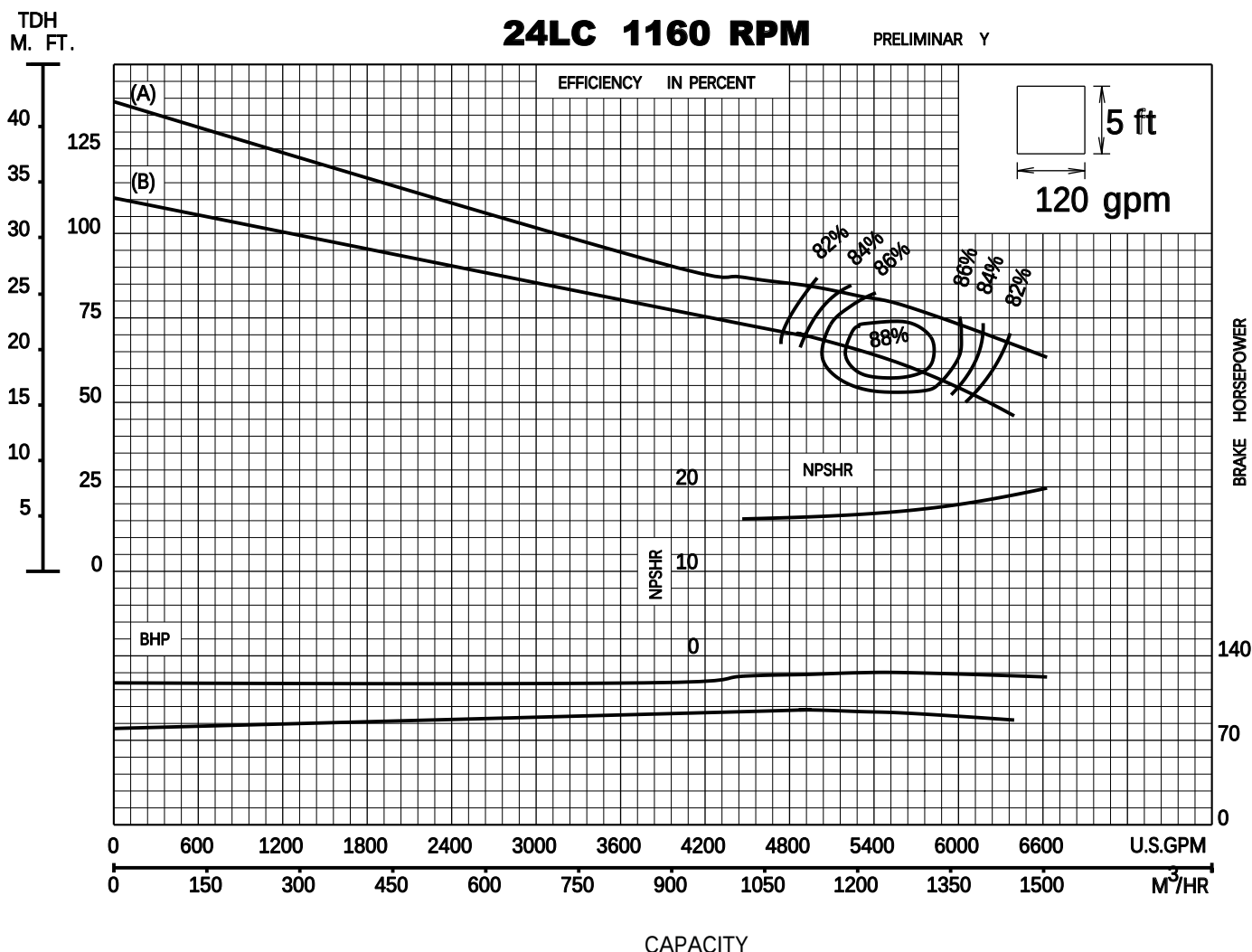
Bowl Number	3996 C.I.
Bowl Dia.	20.000"max 19.750"min
Max. No. Stages	4
One Stage Weight	845 lb
Add'l Stage Weight	560 lb
Std. Shaft Dia.	2.438 in
Std. Lateral	0.625 in
Discharge Size	14-16 in
Suction Bell Size	23.313 in
Max. Sphere Size	2.00 in
Max Operation P.S.I.	250

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

DECEMBER 2001



IMPELLER DATA

Impeller Number	4865	TRIM: (A) 17.500" x 18° (B) 16.250" x 18°
Material	BRONZE	
Type	CLOSED	
Thrust Factor	K=41.20	
Eye Area	93.0 sq. in.	
Weight	82.0 lb.	Minimum submergence above eye of bottom impeller: 32 in.

BOWL DATA

Bowl Number	5329
Bowl Dia.	24.000"max 23.750"min
Max. No. Stages	6
One Stage Weight	1150 lb
Add'l Stage Weight	850 lb
Std. Shaft Dia.	2.688 in
Std. Lateral	0.938 in
Discharge Size	14-16 in
Suction Bell Size	24.750 in
Max. Sphere Size	2.000 in
Max Operation P.S.I.	250

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		

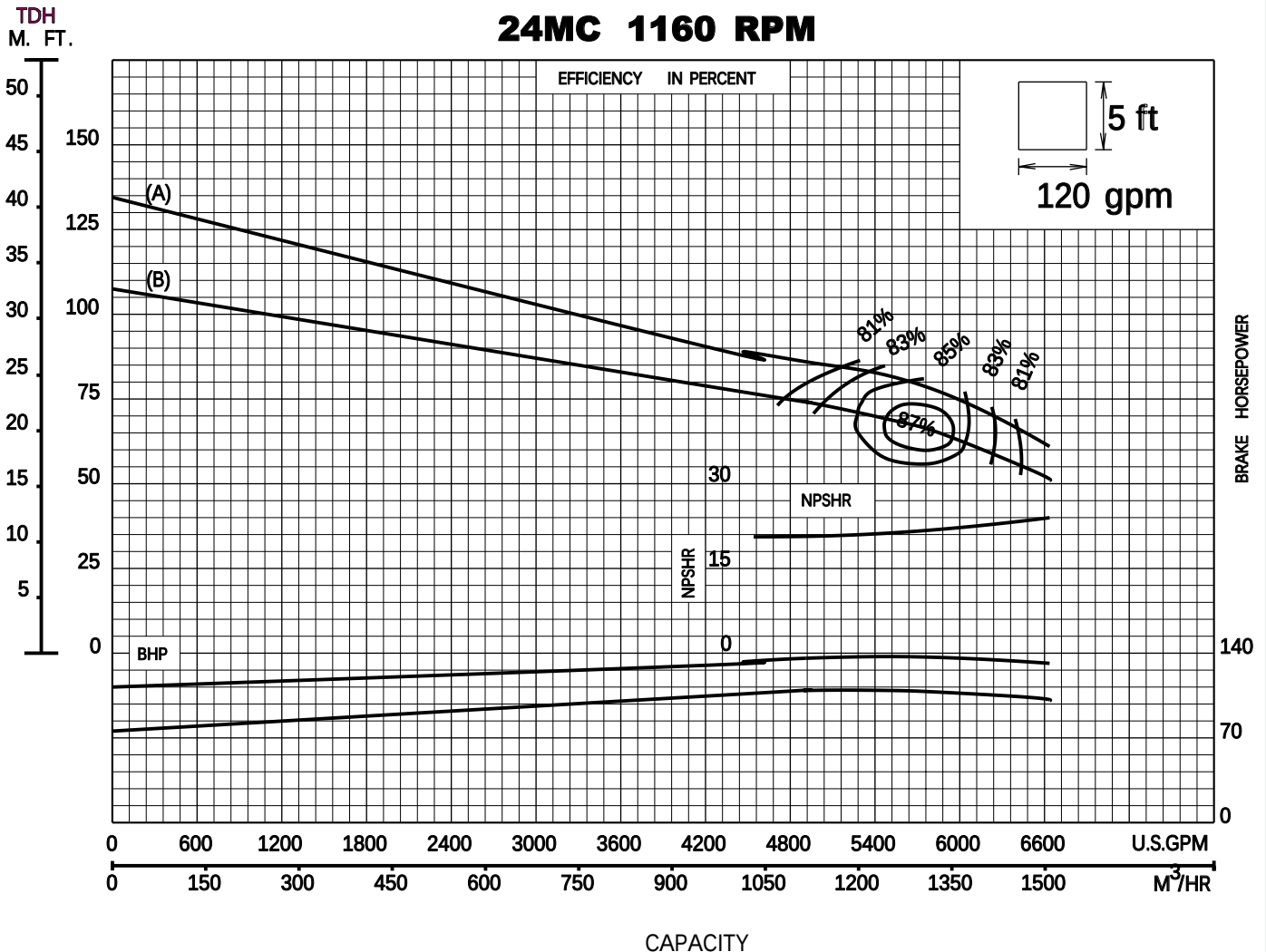
Change in efficiency may affect both head and horsepower.

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

DECEMBER 2001



IMPELLER DATA

Impeller Number	4874	TRIM: (A) 17.500" x 18° (B) 16.250" x 18°
Material	BRONZE	
Type	CLOSED	
Thrust Factor	K=41.2	
Eye Area	93.0 sq. in.	
Weight	82.0 lb.	Minimum submergence above eye of bottom impeller: 32 in.

BOWL DATA

Bowl Number	5329
Bowl Dia.	24.000"max 23.750"min
Max. No. Stages	6
One Stage Weight	1150 lb
Add'l Stage Weight	850 lb
Std. Shaft Dia.	2.688 in
Std. Lateral	0.938 in
Discharge Size	14-16 in
Suction Bell Size	24.750 in
Max. Sphere Size	2.000 in
Max Operation P.S.I.	250

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		

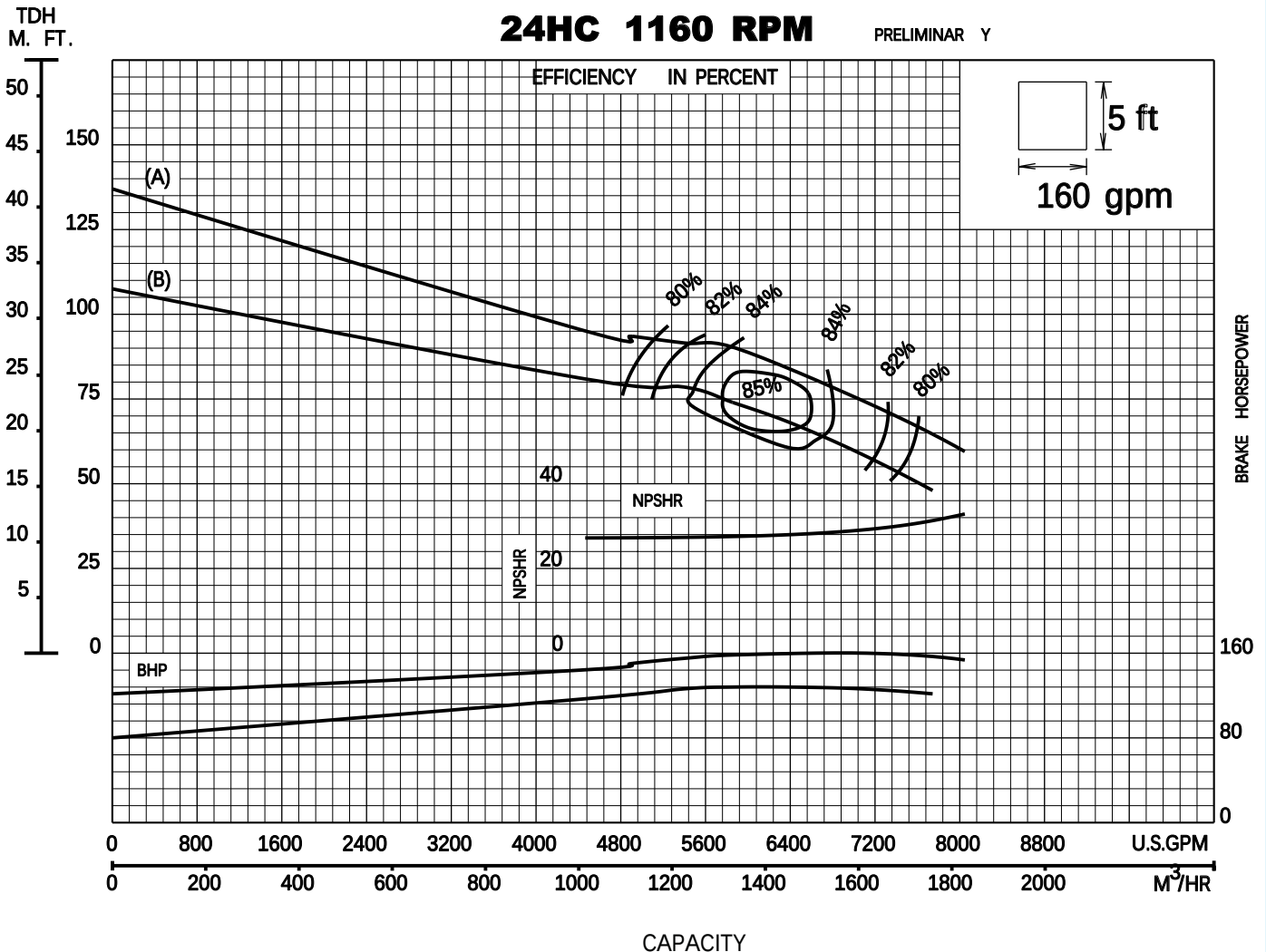
Change in efficiency may affect both head and horsepower.

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.



TURBINE PUMP CURVE

DECEMBER 2001



IMPELLER DATA

Impeller Number	4883	TRIM: (A) 17.500" x 18°
Material	BRONZE	(B) 16.250" x 18°
Type	CLOSED	
Thrust Factor	K=41.2	
Eye Area	93.0 sq. in.	
Weight	82.0 lb.	Minimum submergence above eye of bottom impeller: 32in.

BOWL DATA

Bowl Number	5329
Bowl Dia.	24.000"max 23.750"min
Max. No. Stages	5
One Stage Weight	1150 lb
Add'l Stage Weight	850 lb
Std. Shaft Dia.	2.688 in
Std. Lateral	0.938 in
Discharge Size	14-16 in
Suction Bell Size	24.750 in
Max. Sphere Size	2.000 in
Max Operation P.S.I.	250

EFFICIENCY CORRECTION

Number of Bowls	1	2	3		
Change as follows	-2	-1	0		

Change in efficiency may affect both head and horsepower.

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.