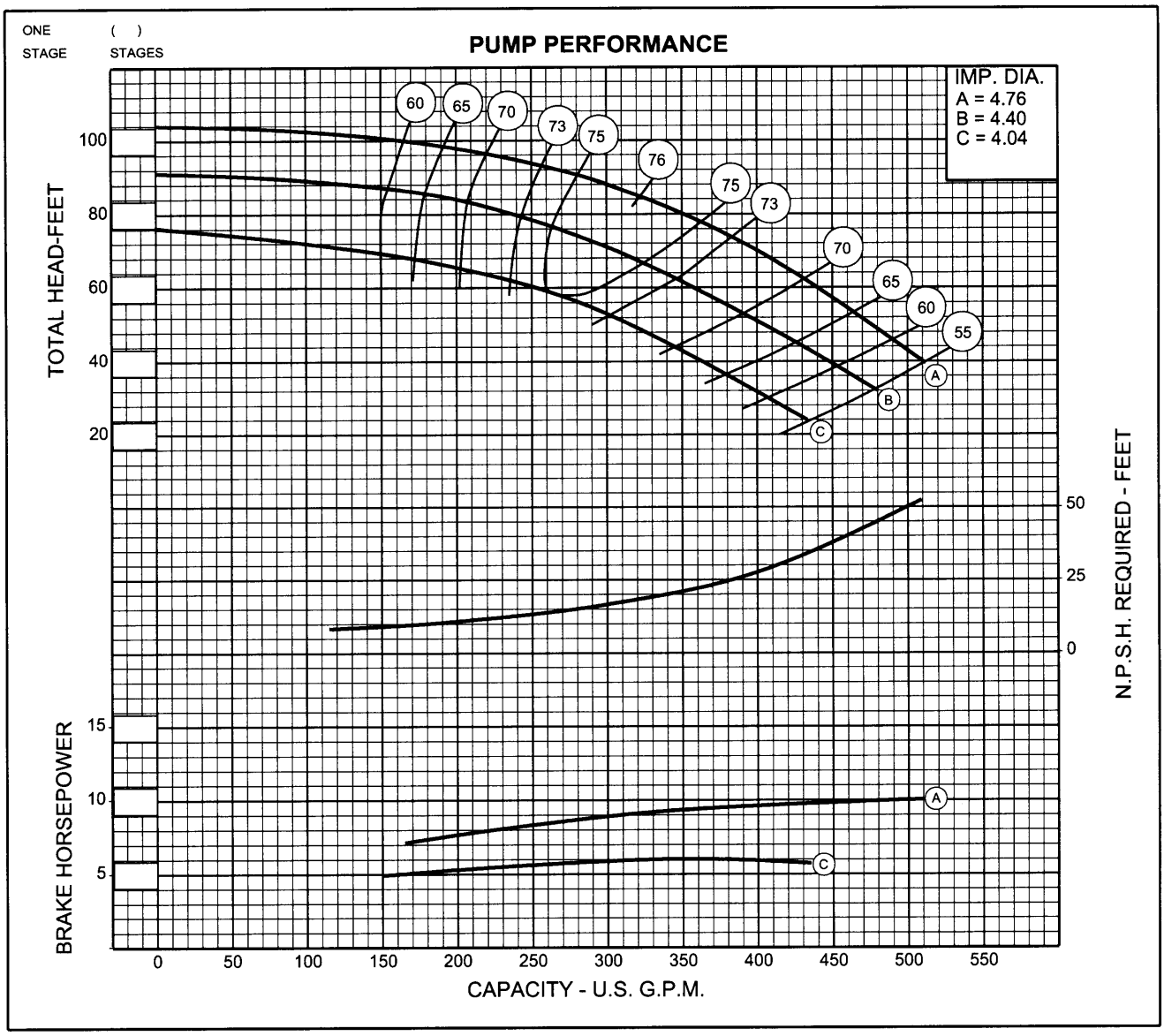
Layne/Verti-Line
Pentair Water

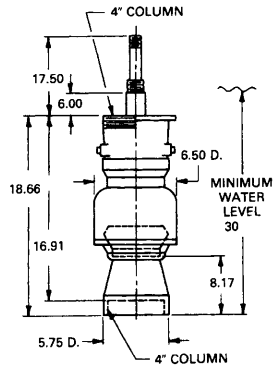
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-7	IMP. – C.I.	-1
2	-4	IMP. – BRZ.	0
3	-2	IMP. – ENAM. C.I.	+2
4	-1	BOWL – C.I.	-4
5	0	BOWL – ENAM. C.I	0

7 EM **3550 RPM**

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 2 OR MORE STAGES. HORSEPOWER SHOWN FOR ONE STAGE BASE ON 2 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.50
Pump Shaft Diameter – Inches	1.000	Thrust Factor - K_t	2.56
Bowl Weight, 1st Stage – Lbs.	71	WR^2	0.09
Bowl Weight, Ea. Add. Stage–Lbs.	22	Running Position (above seat)-In.	0.200
Allowable Shaft Stretch – Inches	.39	Submergence- Inches	30
Maximum Working Pressure – PSI	823	Max. Bowl Brg Clearance-In.Dia.	0.014
Maximum Hydro Pressure – PSI	1234	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	6.05	Max Bowl O.D. – Inches	6.50
Rotor Weight 1st/add stages-(K_a)	4.4/4.4	Suct Bell O.D. – Inches	N/A
Add 5.19" per additional stage.		Maximum Number of Stages	11
Discharge – Inches	4	Suction - Inches	4



Layne/Verti-Line
Pentair Water

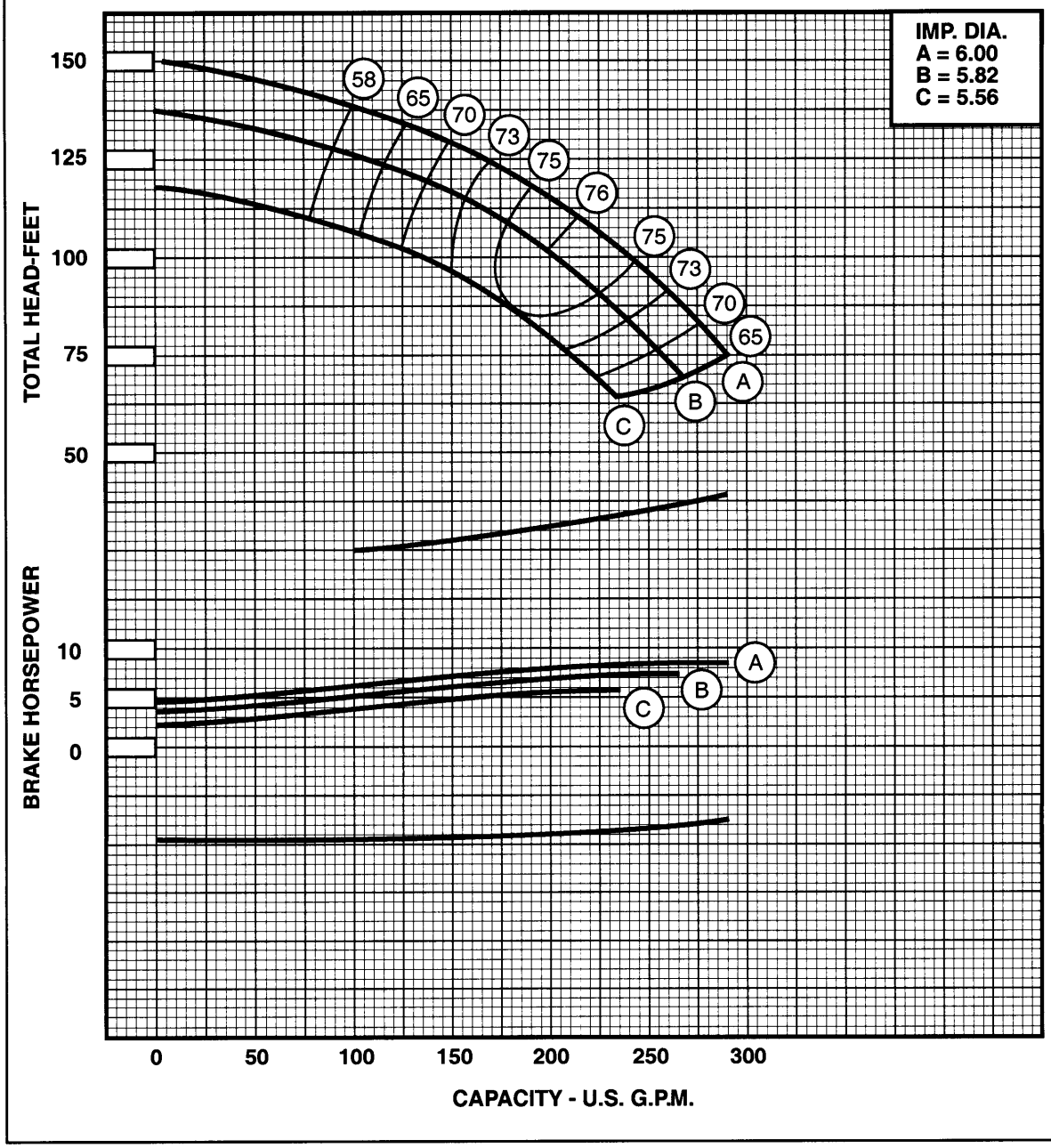
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP. – C.I.	-1
2	-1	IMP. – NI-RI	-1
3	0	BOWL– BRZ.	1
4		BOWL– NI-R.	-1

8 URHC **3500** R.P.M.

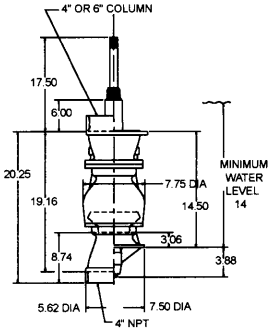
SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

ONE STAGE ( ) STAGES

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.41
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	2.20
Bowl Weight, 1st Stage – Lbs.	107	WR2	0.13
Bowl Weight, Ea. Add. Stage–Lbs.	37	Running Position (above seat)-In.	0.250
Allowable Shaft Stretch – Inches	.44	Submergence- Inches	14
Maximum Working Pressure – PSI	800	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	1200	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	4.11	Max Bowl O.D. – Inches	7.75
Rotor Weight 1st/add stages-(K_a)	17.3/7.7	Suct Bell O.D. – Inches	7.50
Add 5.50" per additional stage.		Maximum Number of Stages	12
Discharge – Inches	4,6	Suction - Inches	4

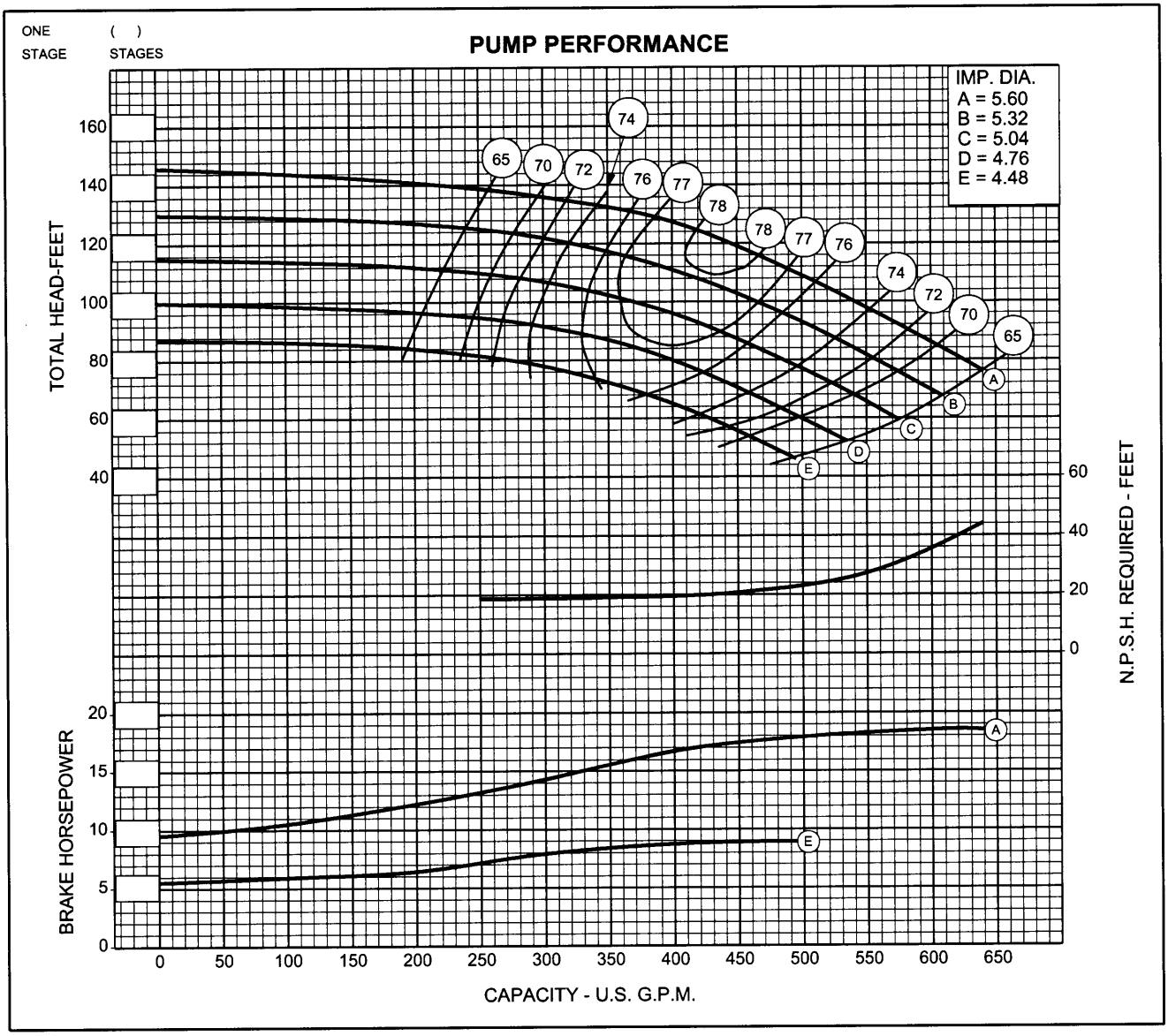


Layne/Verti-Line
Pentair Water

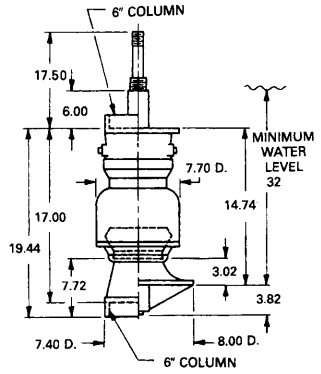
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-7	IMP. – C.I.	-1
2	-3	IMP. – BRZ.	0
3	-1	IMP. – ENAM. C.I.	0
4	0	BOWL – C.I.	-2
		BOWL– ENAM. C.I.	

8 EM **3500 RPM**

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 2 OR MORE STAGES. HORSEPOWER SHOWN FOR ONE STAGE BASED ON 2 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.41
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	2.32
Bowl Weight, 1st Stage – Lbs.	82	WR^2	0.13
Bowl Weight, Ea. Add. Stage–Lbs.	31	Running Position (above seat)-In.	0.250
Allowable Shaft Stretch – Inches	.37	Submergence- Inches	32
Maximum Working Pressure – PSI	804	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	1206	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	6.93	Max Bowl O.D. – Inches	7.70
Rotor Weight 1st/add stages-(K_a)	5.25/5.25	Suct Bell O.D. – Inches	8.00
Add 6.58" per additional stage.		Maximum Number of Stages	8
Discharge – Inches	6	Suction - Inches	6



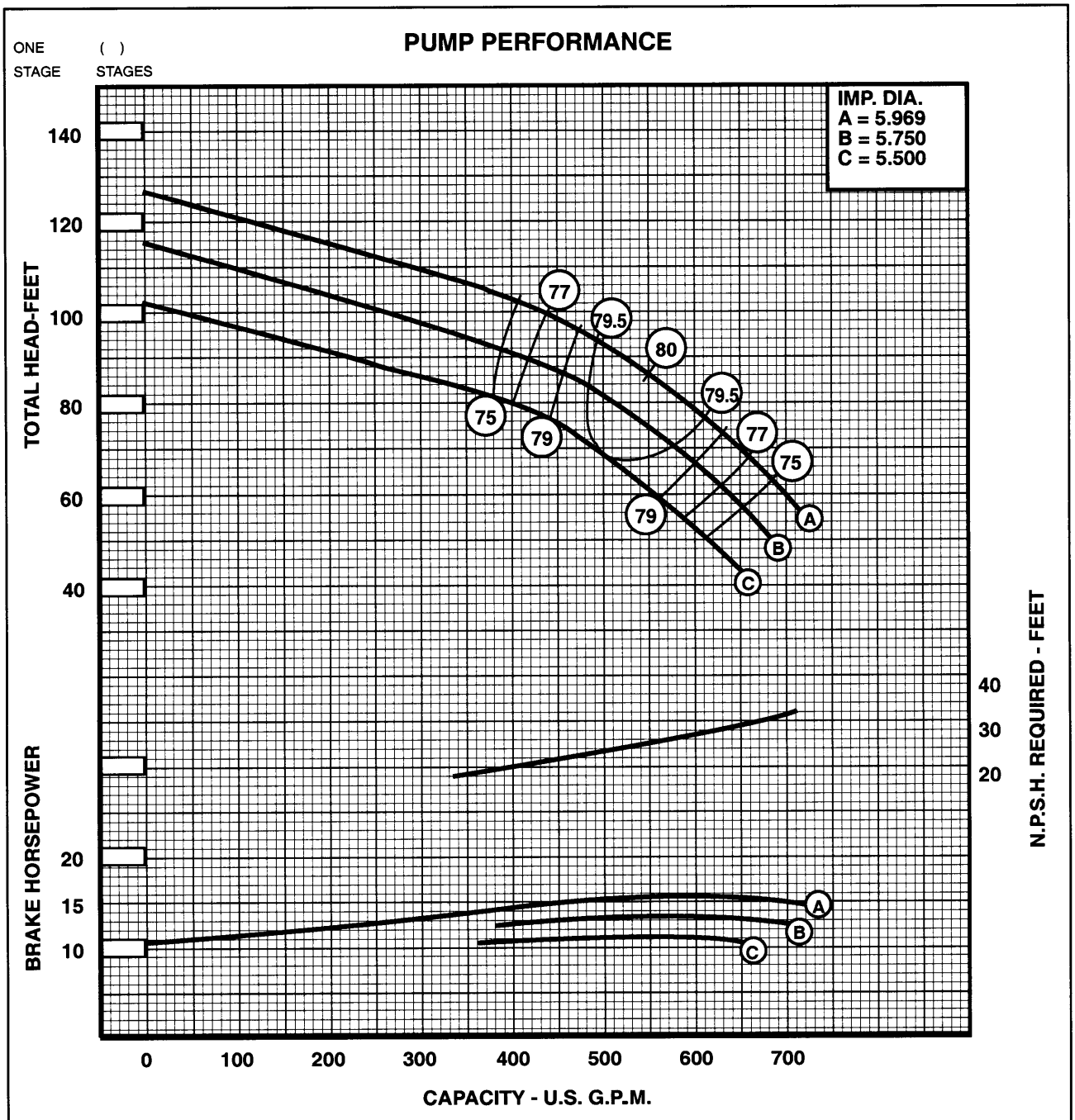
Layne/Verti-Line
Pentair Water

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP - C.I.	-1
2	-1	IMP - NI-RI	-1
3	0	BOWL - BRZ.	-2
4	0	BOWL - NI-R.	-2

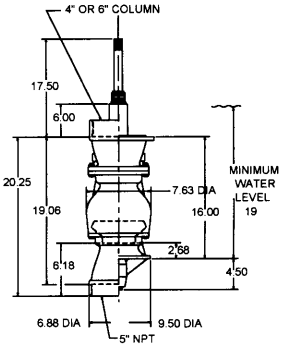
8 RL **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.56
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	4.30
Bowl Weight, 1st Stage – Lbs.	140	WR^2	0.16
Bowl Weight, Ea. Add. Stage–Lbs.	45	Running Position (above seat)-In.	0.125
Allowable Shaft Stretch – Inches	.375	Submergence- Inches	19
Maximum Working Pressure – PSI	400	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	600	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	10.4	Max Bowl O.D. – Inches	7.63
Rotor Weight 1st/add stages-(K_a)	19.0/11.0	Suct Bell O.D. – Inches	9.50
Add 6.5" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	4, 6	Suction - Inches	5

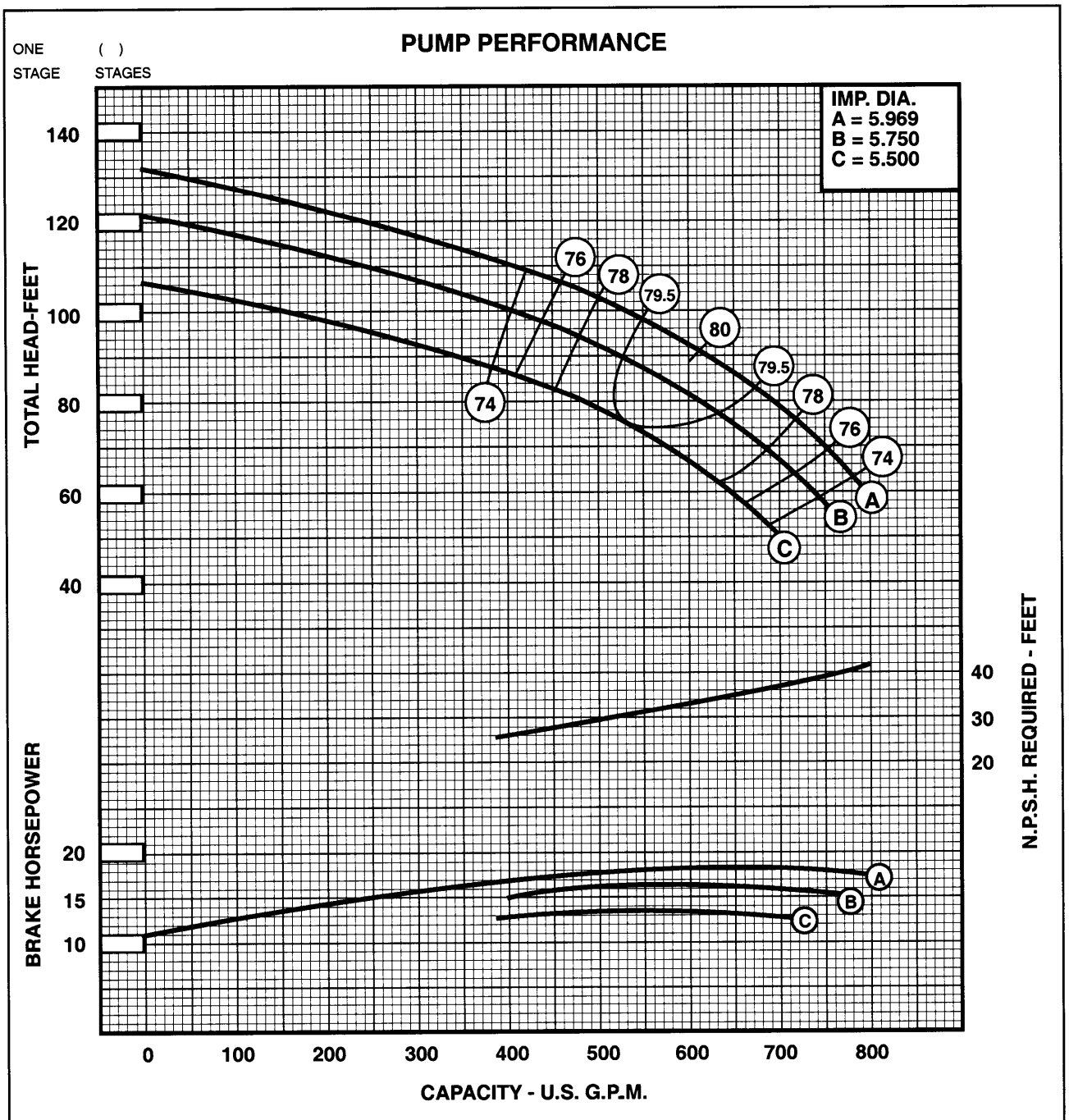


Layne/Verti-Line
Pentair Water

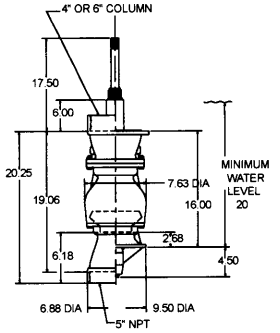
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP - C.I.	-1
2	-1	IMP - NI-RI	-1
3	0	BOWL- BRZ.	-2
4	0	BOWL- NI-R.	-2

8 RM **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.56
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	4.30
Bowl Weight, 1st Stage – Lbs.	140	WR2	0.16
Bowl Weight, Ea. Add. Stage–Lbs.	45	Running Position (above seat)-In.	0.125
Allowable Shaft Stretch – Inches	.375	Submergence- Inches	20
Maximum Working Pressure – PSI	400	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	600	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	10.4	Max Bowl O.D. – Inches	7.63
Rotor Weight 1st/add stages-(K_a)	19.0/11.0	Suct Bell O.D. – Inches	9.50
Add 6.5" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	4, 6	Suction - Inches	5



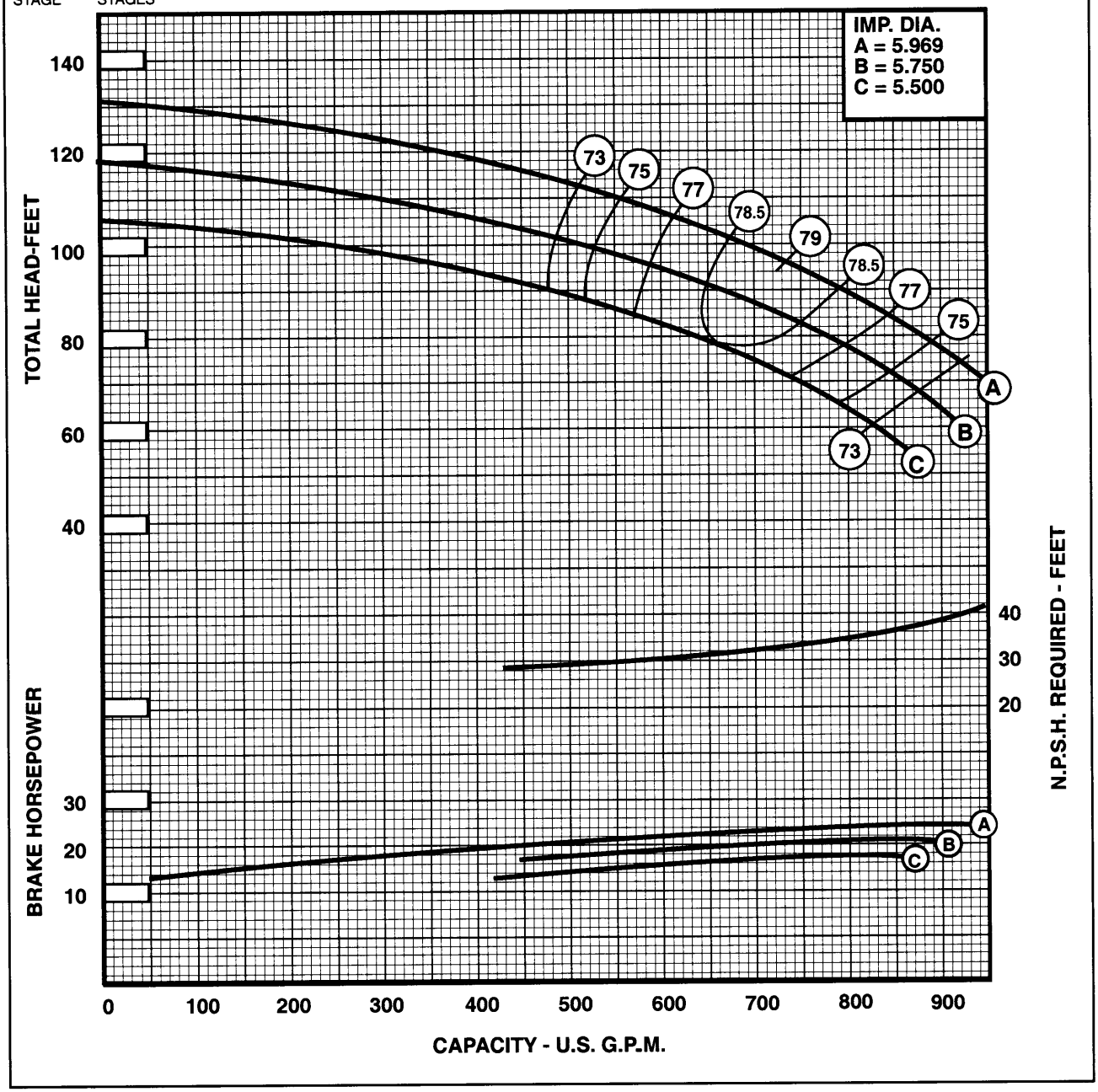
Layne/Verti-Line
Pentair Water

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP. - C.I.	-1
2	-1	IMP. - NI-RI	-1
3	0	BOWL- BRZ.	-2
4	0	BOWL- NI-R.	-2

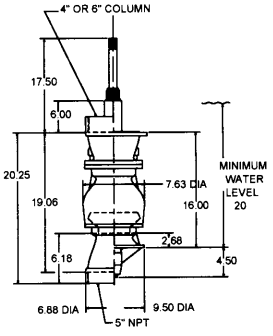
8 RH **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.56
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	4.30
Bowl Weight, 1st Stage – Lbs.	140	WR^2	0.16
Bowl Weight, Ea. Add. Stage–Lbs.	45	Running Position (above seat)-In.	0.125
Allowable Shaft Stretch – Inches	.375	Submergence- Inches	20
Maximum Working Pressure – PSI	400	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	600	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	10.40	Max Bowl O.D. – Inches	7.63
Rotor Weight 1st/add stages-(K_a)	19.0/11.0	Suct Bell O.D. – Inches	9.50
Add 6.5" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	4, 6	Suction - Inches	5

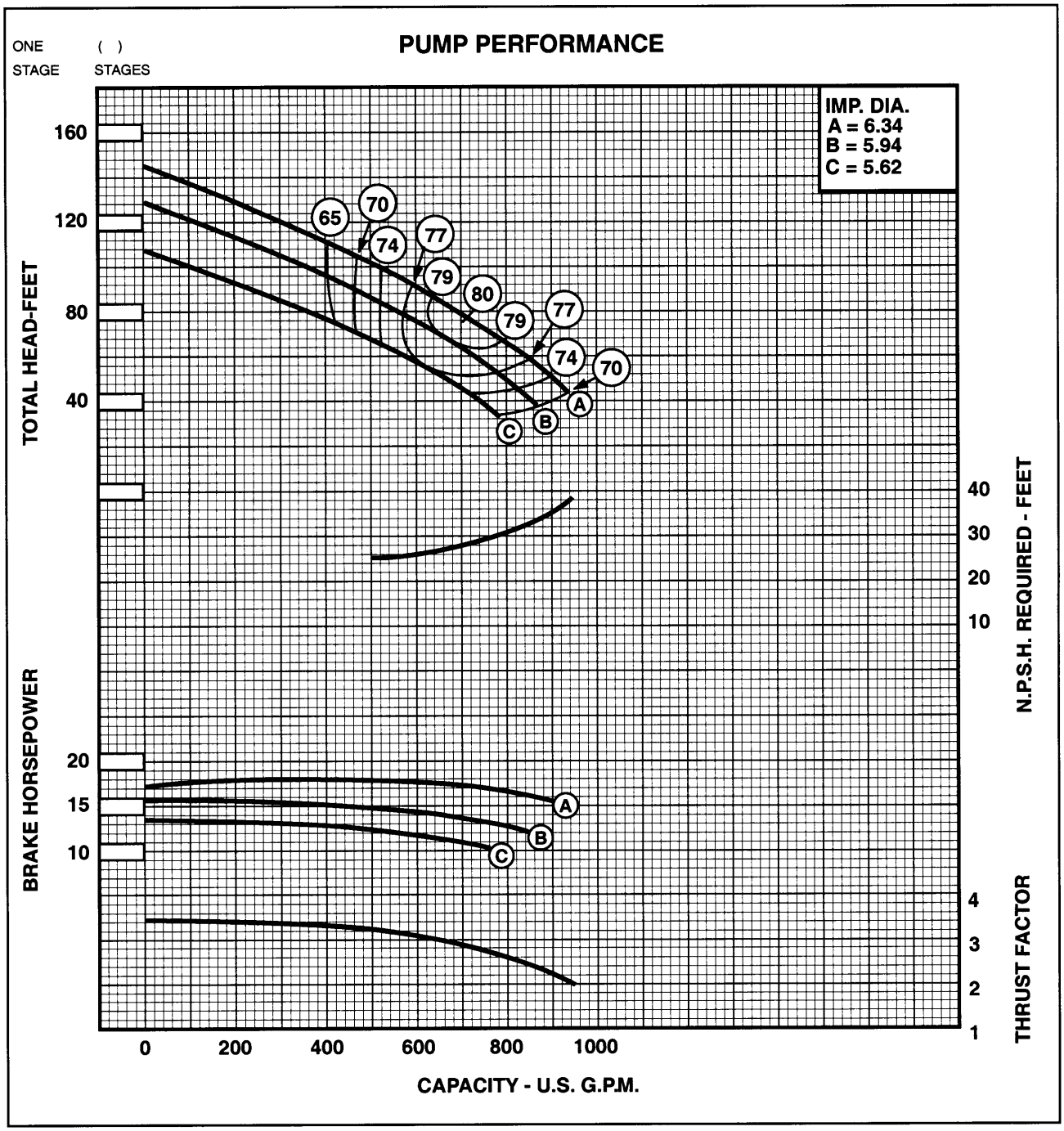


Layne/Verti-Line
Pentair Water

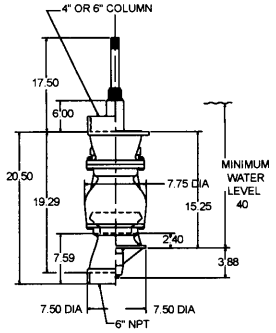
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-3	IMP. – C.I.	-1
2	-2	IMP. – NI-RI	-1
3	-1	BOWL– BRZ.	-1
4	0	BOWL– NI-R.	-1

8 TM **3500 R.P.M.**

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 4 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 4 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.68
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	3.00
Bowl Weight, 1st Stage – Lbs.	110	WR^2	0.16
Bowl Weight, Ea. Add. Stage–Lbs.	32	Running Position (above seat)-In.	0.125
Allowable Shaft Stretch – Inches	.3	Submergence- Inches	40
Maximum Working Pressure – PSI	350	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	525	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	12.90	Max Bowl O.D. – Inches	7.75
Rotor Weight 1st/add stages-(K_a)	18.2/8.7	Suct Bell O.D. – Inches	7.50
Add 6.5" per additional stage.		Maximum Number of Stages	6
Discharge – Inches	4, 6	Suction - Inches	6



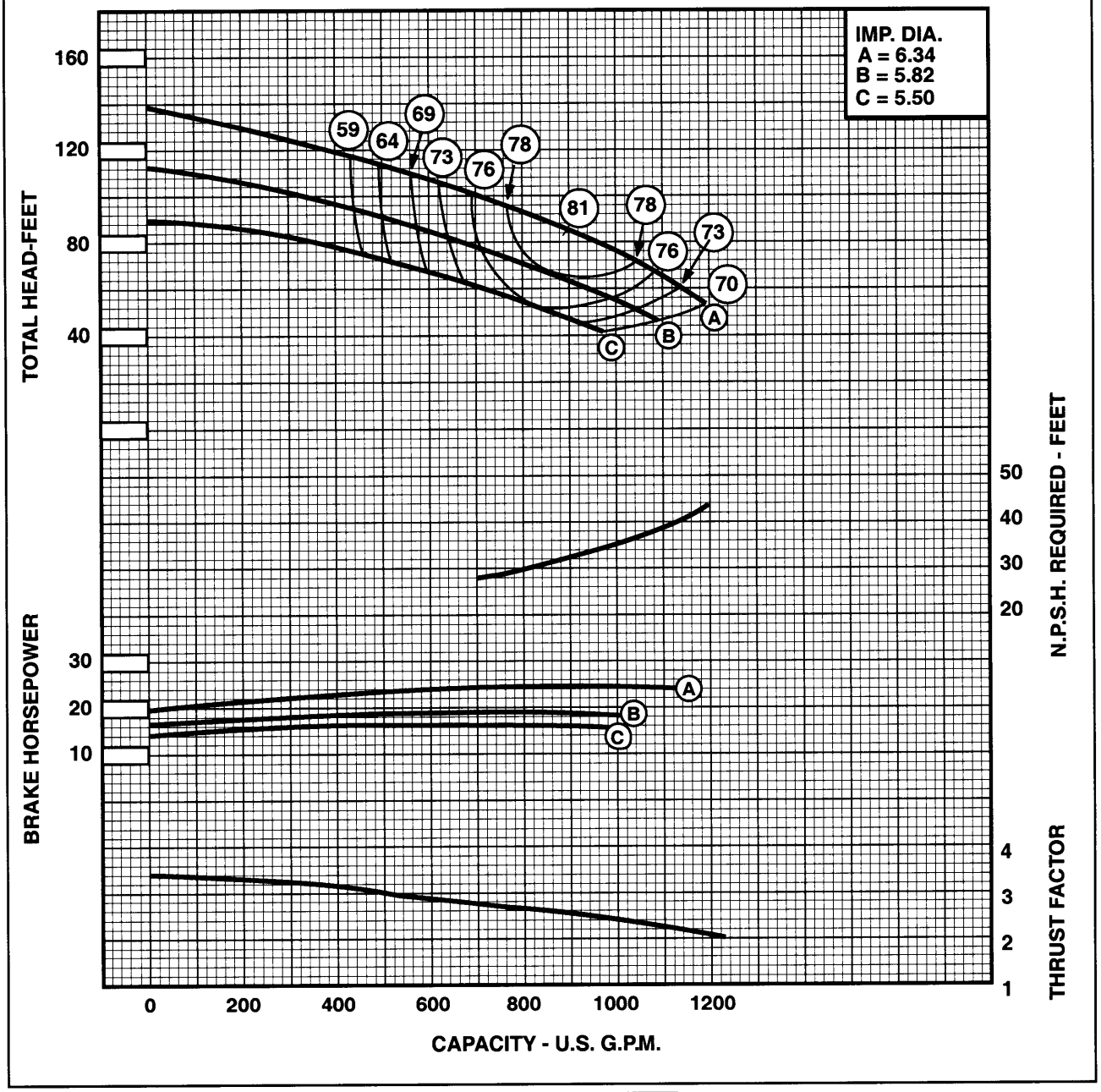
Layne/Verti-Line
Pentair Water

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-3	IMP. – C.I.	-1
2	-2	IMP. – NI-RI	-1
3	-1	BOWL– BRZ.	-1
4	0	BOWL– NI-R.	-1

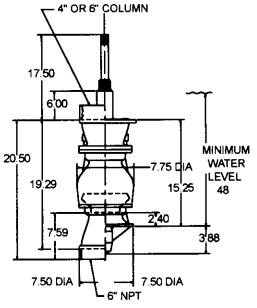
8 TH **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 4 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 4 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.68
Pump Shaft Diameter – Inches	1.188	Thrust Factor - K_t	2.50
Bowl Weight, 1st Stage – Lbs.	110	WR2	0.16
Bowl Weight, Ea. Add. Stage–Lbs.	32	Running Position (above seat)-In.	0.125
Allowable Shaft Stretch – Inches	.3	Submergence- Inches	48
Maximum Working Pressure – PSI	350	Max. Bowl Brg Clearance-In.Dia.	0.009
Maximum Hydro Pressure – PSI	525	Max Wear Ring Clearance-In.Dia.	0.018
Impeller Eye Area – Sq. In.	12.90	Max Bowl O.D. – Inches	7.75
Rotor Weight 1st/add stages-(K_a)	18.2/8.7	Suct Bell O.D. – Inches	7.50
Add 6.5" per additional stage.		Maximum Number of Stages	6
Discharge – Inches	4, 6	Suction - Inches	6



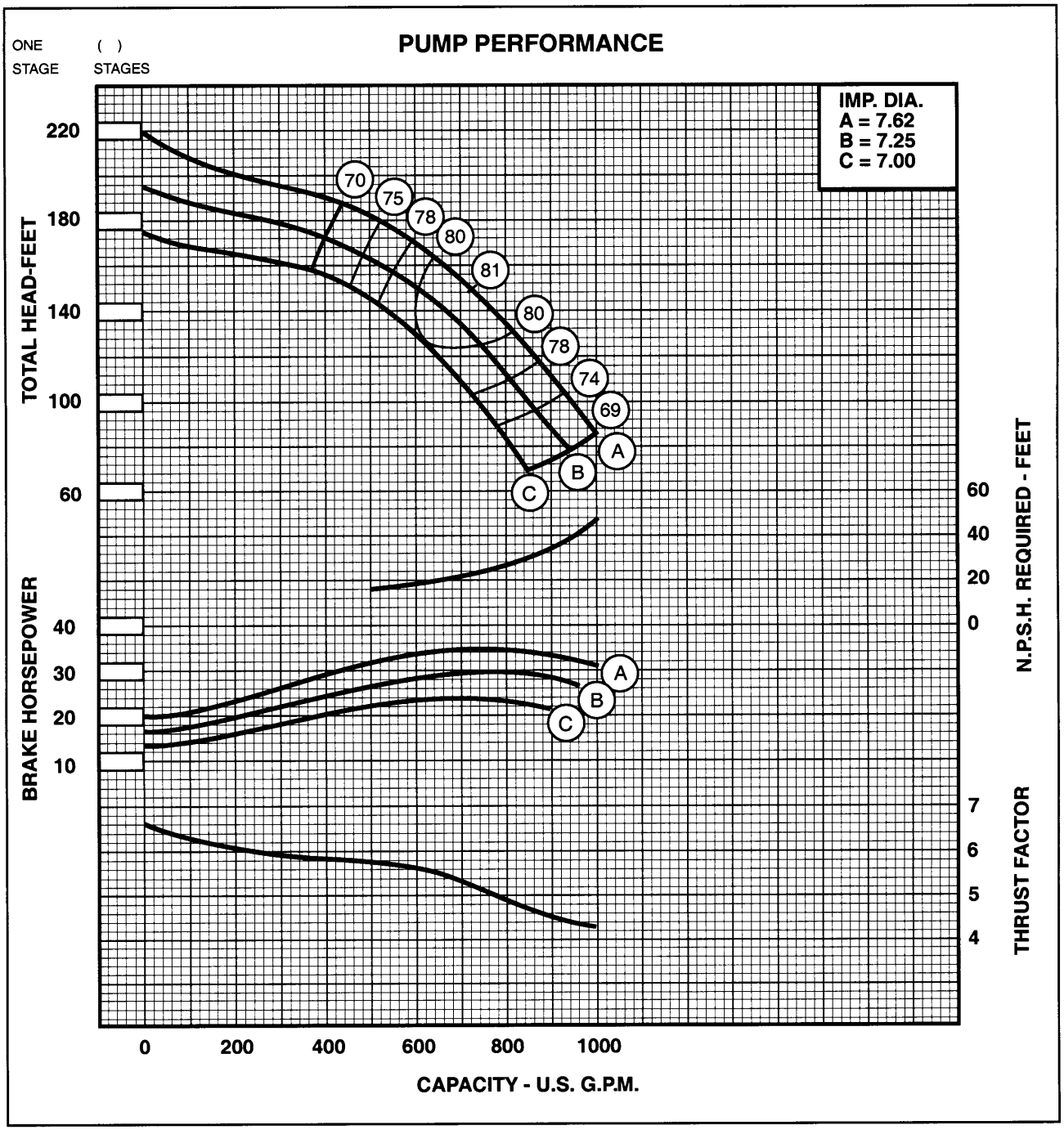
Layne/Verti-Line
Pentair Water

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP. – C.I.	-2
2	-1	IMP. – NI-RI	-1
3	0	BOWL– BRZ.	-1
4		BOWL– NI-R.	-1

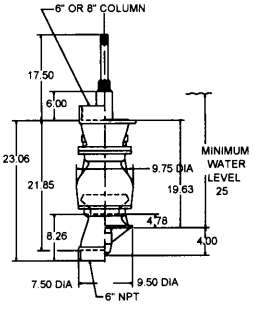
10 RKLC **3500 R.P.M.**

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.47
Pump Shaft Diameter – Inches	1.500	Thrust Factor - K_t	3.40
Bowl Weight, 1st Stage – Lbs.	185	WR2	0.44
Bowl Weight, Ea. Add. Stage–Lbs.	67	Running Position (above seat)-In.	0.437
Allowable Shaft Stretch – Inches	.920	Submergence- Inches	25
Maximum Working Pressure – PSI	530	Max. Bowl Brg Clearance-In.Dia.	0.013
Maximum Hydro Pressure – PSI	795	Max Wear Ring Clearance-In.Dia.	0.023
Impeller Eye Area – Sq. In.	10.15	Max Bowl O.D. – Inches	9.75
Rotor Weight 1st/add stages-(K_a)	30.8/14.5	Suct Bell O.D. – Inches	9.50
Add 7-7/16" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	6,8	Suction - Inches	6



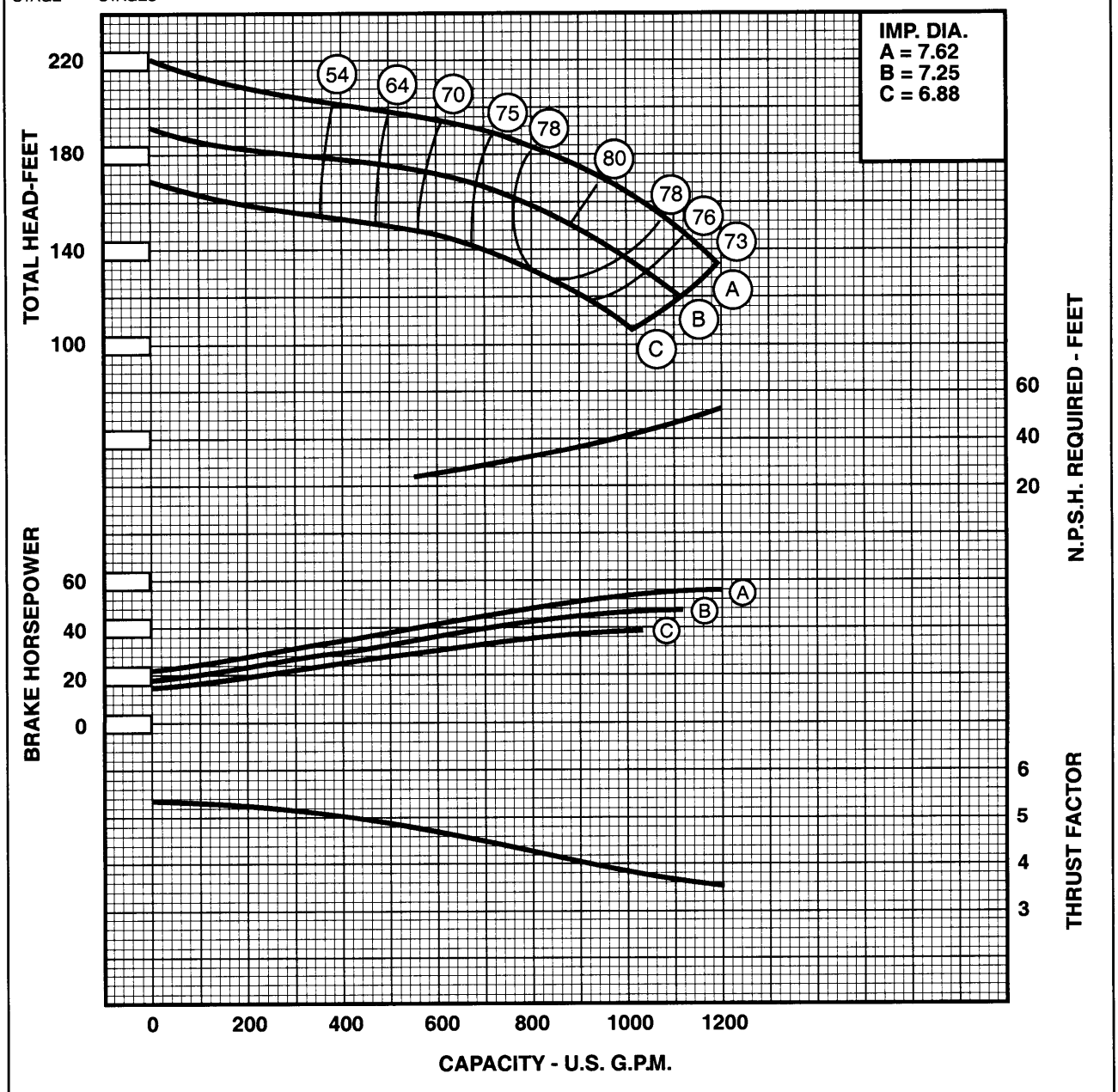
Layne/Verti-Line
Pentair Water

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-2	IMP. – C.I.	-2
2	-1	IMP. – NI-RI	-1
3	0	BOWL– BRZ.	-1
4		BOWL– NI-R.	-1

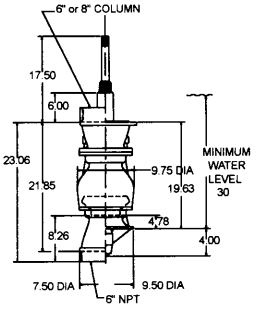
10 RKHC **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

PUMP PERFORMANCE



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.6347
Pump Shaft Diameter – Inches	1.500	Thrust Factor - K_t	4.00
Bowl Weight, 1st Stage – Lbs.	185	WR^2	0.432
Bowl Weight, Ea. Add. Stage–Lbs.	67	Running Position (above seat)-In.	0.437
Allowable Shaft Stretch – Inches	.560	Submergence- Inches	30
Maximum Working Pressure – PSI	700	Max. Bowl Brg Clearance-In.Dia.	0.013
Maximum Hydro Pressure – PSI	1050	Max Wear Ring Clearance-In.Dia.	0.023
Impeller Eye Area – Sq. In.	11.36	Max Bowl O.D. – Inches	9.75
Rotor Weight 1st/add stages-(K_a)	30.5/14.2	Suct Bell O.D. – Inches	9.50
Add 7-7/16" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	6,8	Suction - Inches	6

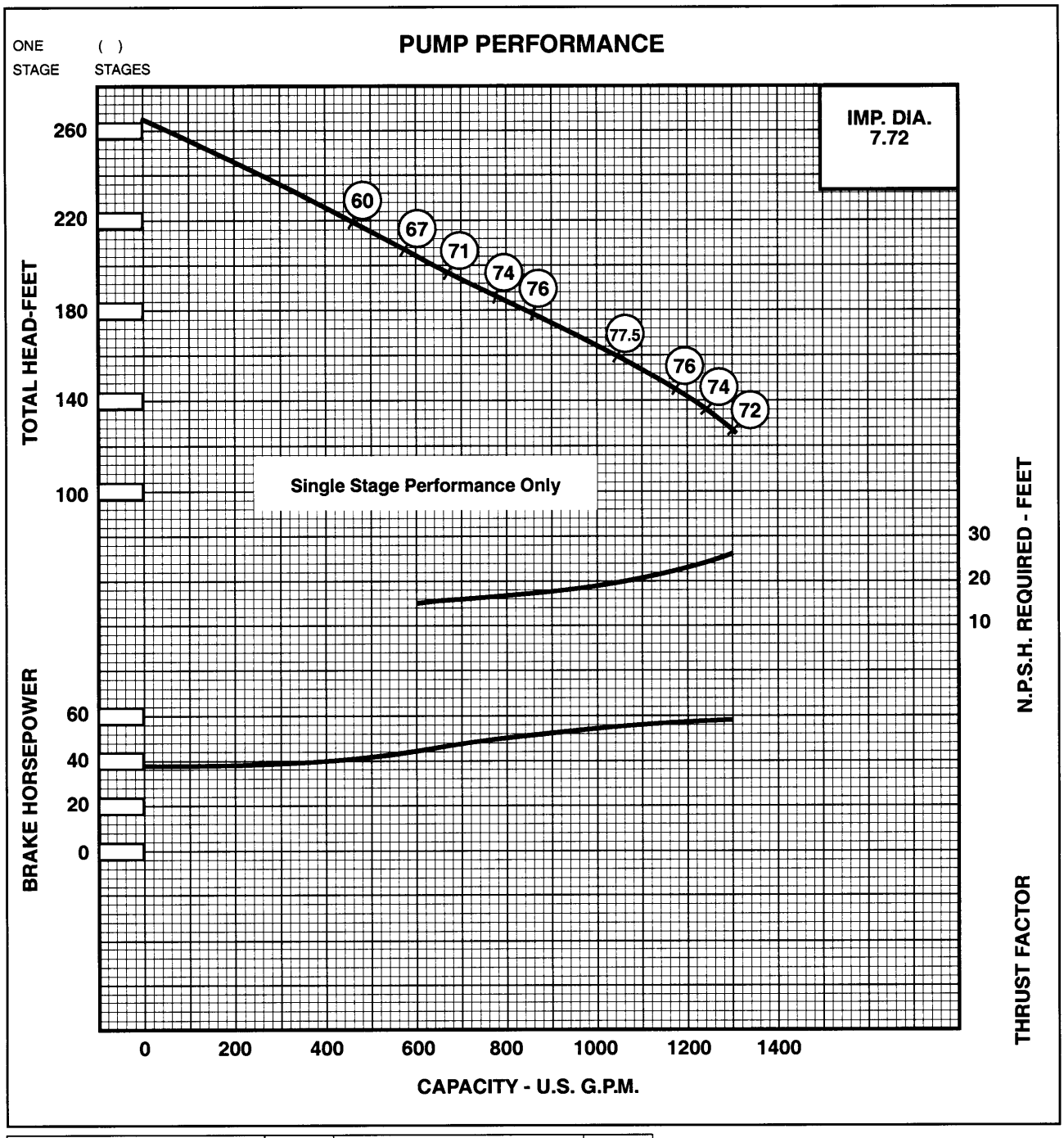


Layne/Verti-Line
Pentair Water

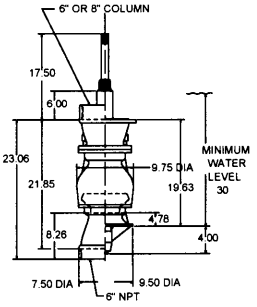
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	0	IMP. – C.I.	-2
2		IMP. – NI-RI	-1
3		BOWL– BRZ.	-1
4		BOWL– NI-R.	-1

10 RKHS **3500** R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 1 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 1 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.



Maximum Operating Speed	3600	Maximum Sphere Size - Inches	0.63
Pump Shaft Diameter – Inches	1.500	Thrust Factor - K_t	4.00
Bowl Weight, 1st Stage – Lbs.	185	WR^2	0.43
Bowl Weight, Ea. Add. Stage–Lbs.	67	Running Position (above seat)-In.	0.437
Allowable Shaft Stretch – Inches	.860	Submergence- Inches	30
Maximum Working Pressure – PSI	700	Max. Bowl Brg Clearance-In.Dia.	0.013
Maximum Hydro Pressure – PSI	1050	Max Wear Ring Clearance-In.Dia.	0.023
Impeller Eye Area – Sq. In.	19.50	Max Bowl O.D. – Inches	9.75
Rotor Weight 1st/add stages-(K_a)	10.2/10.2	Suct Bell O.D. – Inches	9.50
Add 7-7/16" per additional stage.		Maximum Number of Stages	7
Discharge – Inches	6, 8	Suction - Inches	6



NOTES