

FEATURES

Design: Capable of grinding municipal, commercial and industrial sewage.

Cutter System: Designed to reduce sewage to a fine slurry.

Impeller: Cast iron, semi-open, non-overloading multi-vane design with pump-out vanes for mechanical seal protection.

Casing: Cast iron, volute type for high efficiency. Adaptable for slide rail system.

Paint: Two coat paint system for superior surface protection.

Float Leakage Sensor (FLS): a small internal float switch is used to detect the presence of water in the stator chamber. Standard on all models.

Leakage Sensor Detector Circuit: The FLS, when activated, will cause the patented 24 volt MiniCAS monitoring relay to signal an alarm and, if desired, stop the pump. The MiniCAS 24 volt relay can be ordered separately for installation in a control panel by a UL or CSA certified panel shop or as a built-in option in our control panel.



1GA(X) & 2GA(X)

1½" AND 2" DISCHARGE SUBMERSIBLE GRINDER PUMPS

APPLICATIONS

High head and pressure sewage systems for:

- Municipal
- Commercial
- Industrial

PUMP SPECIFICATIONS

1GA:

- Discharge Size: 1½"
- Maximum Capacity: 92 GPM.
- Maximum Total Head: 117' TDH.

2GA:

- Discharge Size: 2"
- Maximum Capacity: 198 GPM.
- Maximum Total Head: 178' TDH.
- Maximum temperature rating: 104° F (40° C) continuous duty
- Tandem mechanical seals: see Application Data for details.
- Fasteners: 300 series stainless steel.
- Rotating cutter: chrome alloyed cast iron.
- Cutter ring: hardened 316L stainless steel.
- Cast iron parts are ASTM A-48, Class 35B.

MOTOR SPECIFICATIONS

- Air-filled design
- NEMA type B
- Class F insulation
- 60 Hertz
- Shaft: 431 series stainless steel, taper collet design.
- Ball bearings: oversized, pre-greased upper and lower ball bearings.
- Power cord: 30 feet standard, single jacket, 6 conductor combination power and control cable. Optional 100 foot lead is available.

CONTROLS

- **SINGLE PHASE UNITS** require capacitors. See panels BCP5 R13 for Standard Construction and Explosion Proof.
- **THREE PHASE UNITS** can use standard panel selections with option added for minicas device (i.e. options O, simplex and P, duplex).

Single Phase:

- 3 HP @ 3450 RPM
- 5.4 HP @ 3450 RPM
- 9.4 HP @ 3450 RPM
- 230 Volts

Notice: Single phase pumps require a capacitor pack and start relay for proper operation.

Three Phase:

- 4 HP @ 3450 RPM
- 6 HP @ 3450 RPM
- 11 HP @ 3450 RPM
- 200, 230, 460 and 575 Volts

MOTOR FEATURES

- Air-filled, NEMA type B squirrel cage induction motor
- Class F, 311° F (155° C) insulated stator winding
- Designed for a maximum of 15 evenly spaced starts per hour.
- Built-in thermal sensors provide an over temperature signal to the Mini CAS (Control and Status) monitoring relay mounted in the control panel. The Mini CAS can be ordered separately or ordered as an option in our control panel.
- Common pump motor shaft and compact seal design permit short overhang minimizing shaft deflection.
- Motor casings have integral cooling ribs for maximum heat dissipation.
- Shaft mounting is a robust maintenance free design featuring pre-greased ball bearings.
- The junction chamber is completely sealed off from the surrounding liquid and incorporates a separate gland assembly with a strain relief clamp.
- Also available in optional Explosion Proof construction. Explosion Proof motor listed Class 1, Division 1, Groups C and D. These units are FM approved.

MODEL INFORMATION

Order Number	HP	Phase	Volts	RPM	Discharge Size	Impeller Code	Max. Amps	Start Amps	Locked Rotor Amps	Power Cable Size	Pump Wt. (Lbs.)			
1GA71G1HD	3	1	230	3450	1½"	H	13.0	74.0	52.0	14/7	117			
1GA71G1LD						L								
1GA81H1GD	5.4				G	22.0	120.0	100.0	12/7	172				
2GA81H1KD											K			
2GA31J1FD	9.4			F	38.0	134.0	170.0	8/4 & 10/3*	241					
2GA31J1JD										J				
1GA71H2CD	4	3	200	3450	1½"	C	12.0	63.0	62.0	14/7	117			
1GA71H3CD			230				10.0	60.0	54.0					
1GA71H4CD			460				5.0	30.0	27.0					
1GA71H5CD			575				4.0	20.0	22.0					
1GA81J2BD	6		3			200	3450	1½"	B	17.0	133.0	79.0	12/7	172
1GA81J3BD						230				15.0	144.0	75.0		
1GA81J4BD						460				7.6	77.0	41.0		
1GA81J5BD						575			6.0	53.0	30.0			
2GA81J2ED					200	E			17.0	133.0	79.0			
2GA81J3ED					230				15.0	144.0	75.0			
2GA81J4ED	460		7.6		77.0		41.0							
2GA81J5ED	575		6.0		53.0		30.0							
2GA31K2AD	11	3	200	3475	2"	A	30.0	258.0	189.0	8/4 & 10/3*	241			
2GA31K3AD			230				26.0	229.0	164.0					
2GA31K4AD			460				13.0	113.0	82.0					
2GA31K5AD			575				11.0	84.0	66.0					
2GA31K2DD			200			D	30.0	258.0	189.0					
2GA31K3DD			230				26.0	229.0	164.0					
2GA31K4DD			460				13.0	113.0	82.0					
2GA31K5DD			575				11.0	84.0	66.0					

* Single cable

NOMENCLATURE

1st, 2nd and 3rd Characters - Discharge Size and Type

1GA = 1½" discharge, grinder, dual seal
2GA = 2" discharge, grinder, dual seal

4th Character - Mechanical Seals

3 = tungsten carbide/tungsten carbide lower, carbon/ceramic upper
7 = ceramic/ceramic lower, carbon/ceramic upper
8 = tungsten carbide/ceramic lower, carbon/ceramic upper

5th Character - Cycle/RPM

1 = 60 Hz/3500 RPM

6th Character - Horsepower

G = 3 HP, 1Ø
H = 5 HP, 1Ø; 4 HP 3Ø
J = 9.4 HP, 1Ø; 6 HP 3Ø
K = 11 HP, 3Ø

7th Character - Phase and Voltage

1 = single phase, 230 volt
2 = three phase, 200 volt
3 = three phase, 230 volt
4 = three phase, 460 volt
5 = three phase, 575 volt

8th Character - Performance Curve

A = 11 HP / 3Ø / 2GA
B = 6 HP / 3Ø / 1GA
C = 4.0 HP / 3Ø / 1GA
D = 11 HP / 3Ø / 2GA
E = 6 HP / 3Ø / 2GA
F = 9.4 HP / 1Ø / 2GA
G = 5.4 HP / 1Ø / 1GA
H = 3 HP / 1Ø / 1GA
J = 9.4 HP / 1Ø / 2GA
K = 5.4 HP / 1Ø / 2GA
L = 3 HP / 1Ø / 1GA

Impeller trims not available.

9th Character - Cord Length

D = 30' (standard)
J = 100'

10th Character - Explosion Proof Option

X = Explosion Proof



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PERFORMANCE CURVES

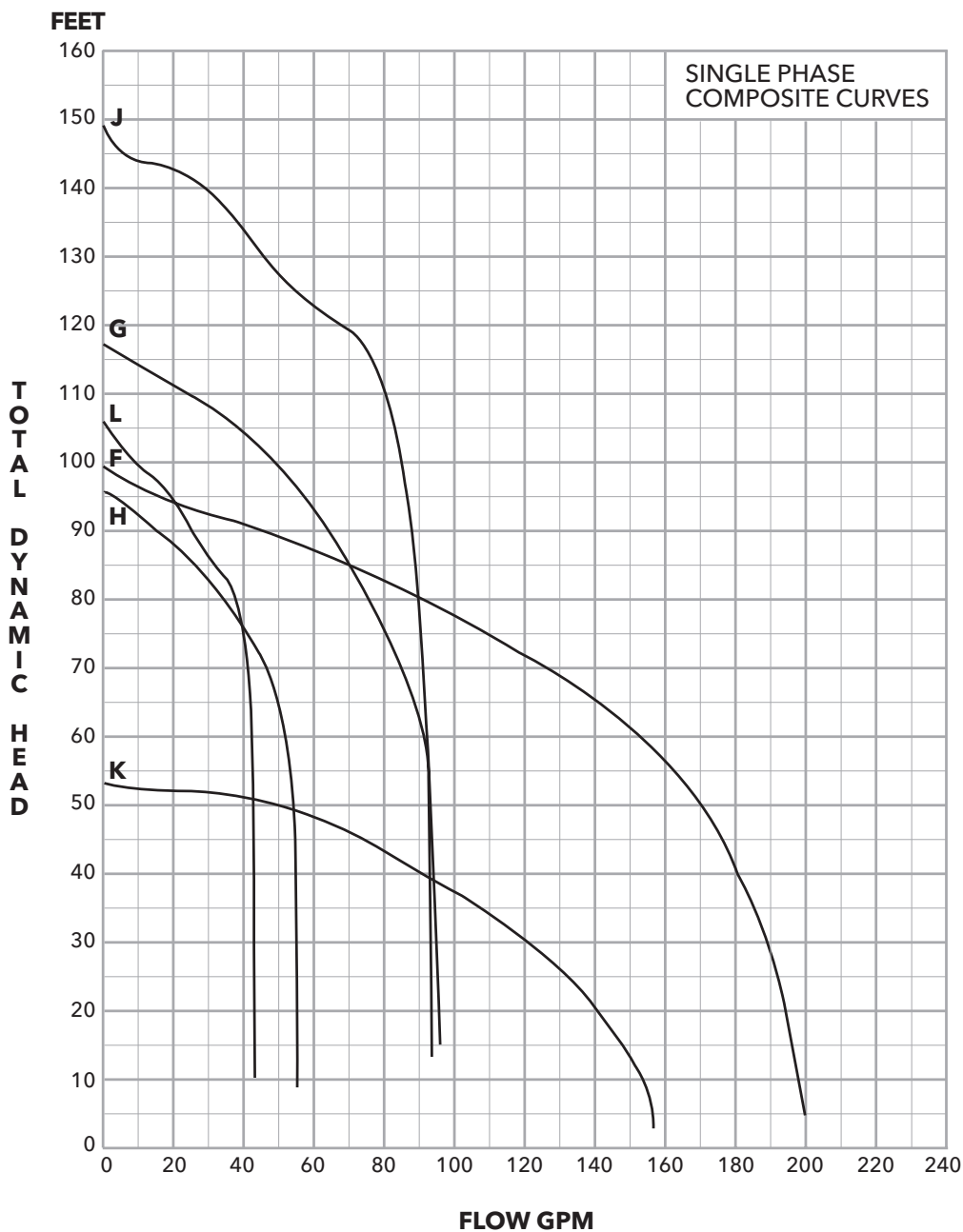
C1GA2GA R3



1GA & 2GA

SUBMERSIBLE GRINDER PUMPS

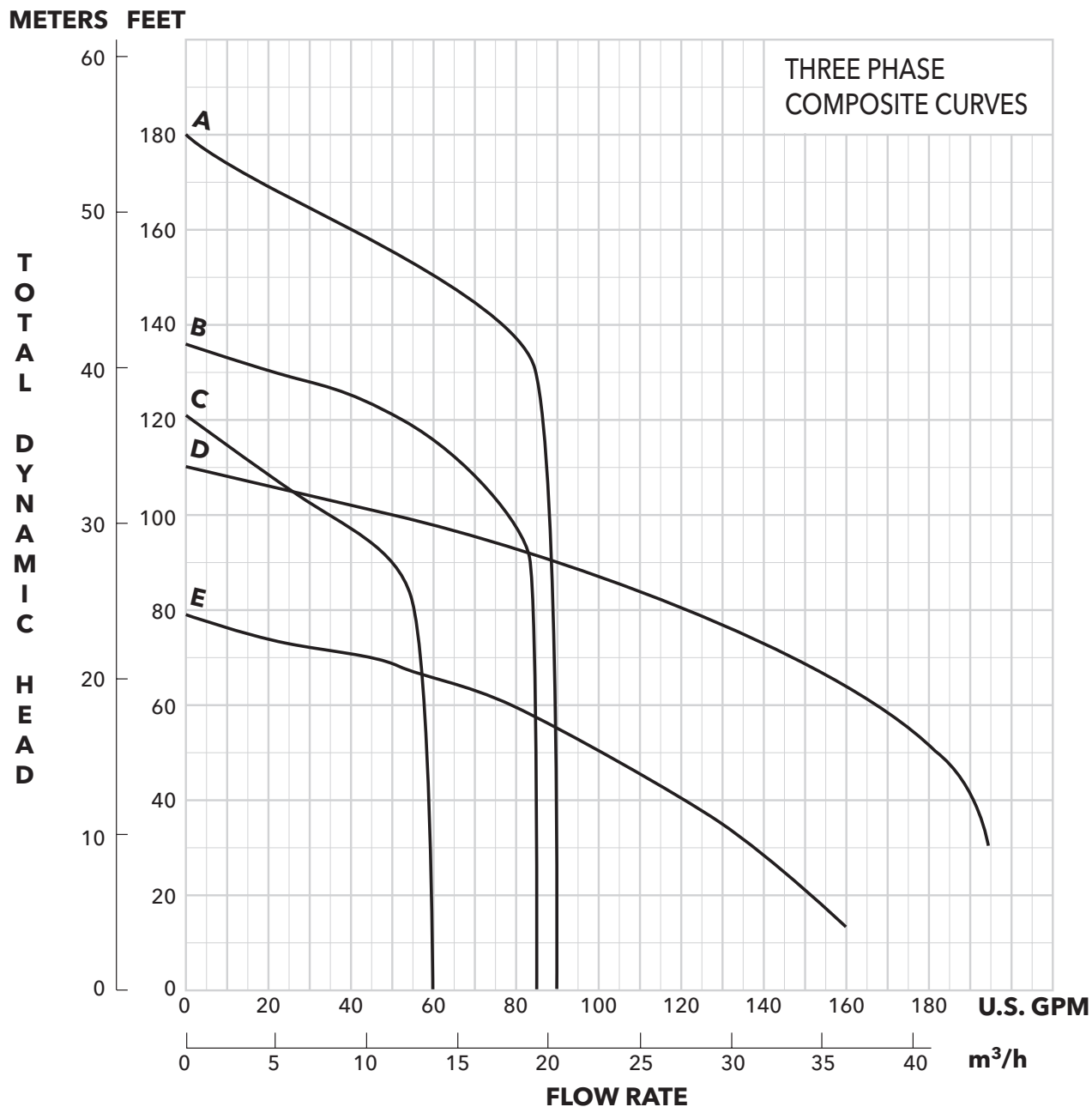
1Ø Composite Curves



Impeller Code	Order Number	HP
F	2GA31J1FD	9.4
G	1GA81H1GD	5.4
H	1GA71G1HD	3
J	2GA31J1JD	9.4
K	2GA81H1KD	5.4
L	1GA71G1LD	3

Customer _____
Pump Item _____
Condition of Service _____ Impeller Diameter _____
_____ GPM _____ TDH _____ EFF%
Certified for: _____ Approval <input type="checkbox"/>
By _____ Date _____ Record <input type="checkbox"/>

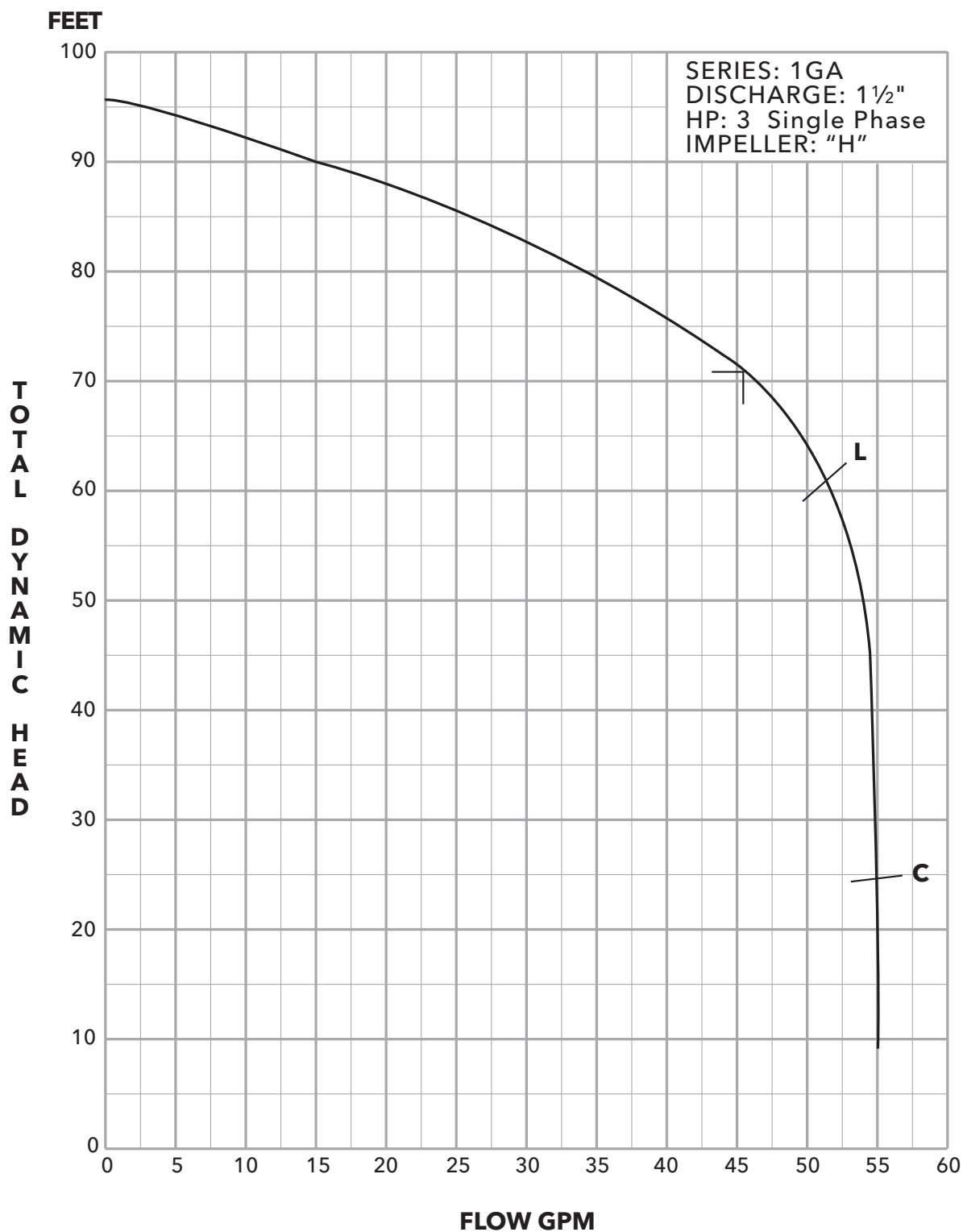
3Ø Composite Curves



Impeller Code	Order Number	HP
A	2GA-1K-AD	11
B	1GA-1J-BD	6
C	1GA-1H-CD	4
D	2GA-1K-DD	11
E	2GA-1J-ED	6

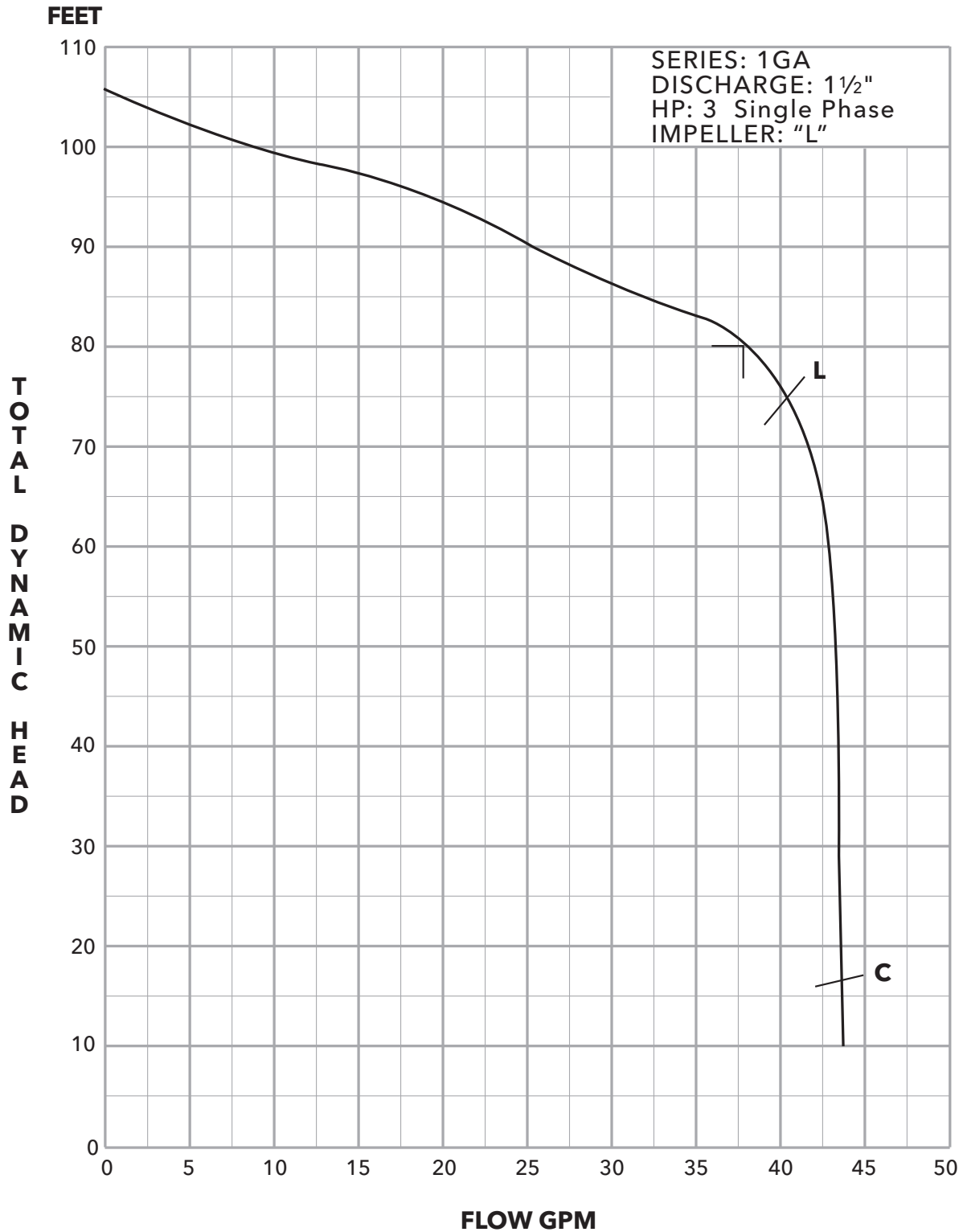
Customer _____
Pump Item _____
Condition of Service Impeller Diameter _____
_____ GPM _____ TDH _____ EFF%
Certified for: _____ Approval <input type="checkbox"/>
By _____ Date _____ Record <input type="checkbox"/>

1GA 3 HP Single Phase "H" Curve



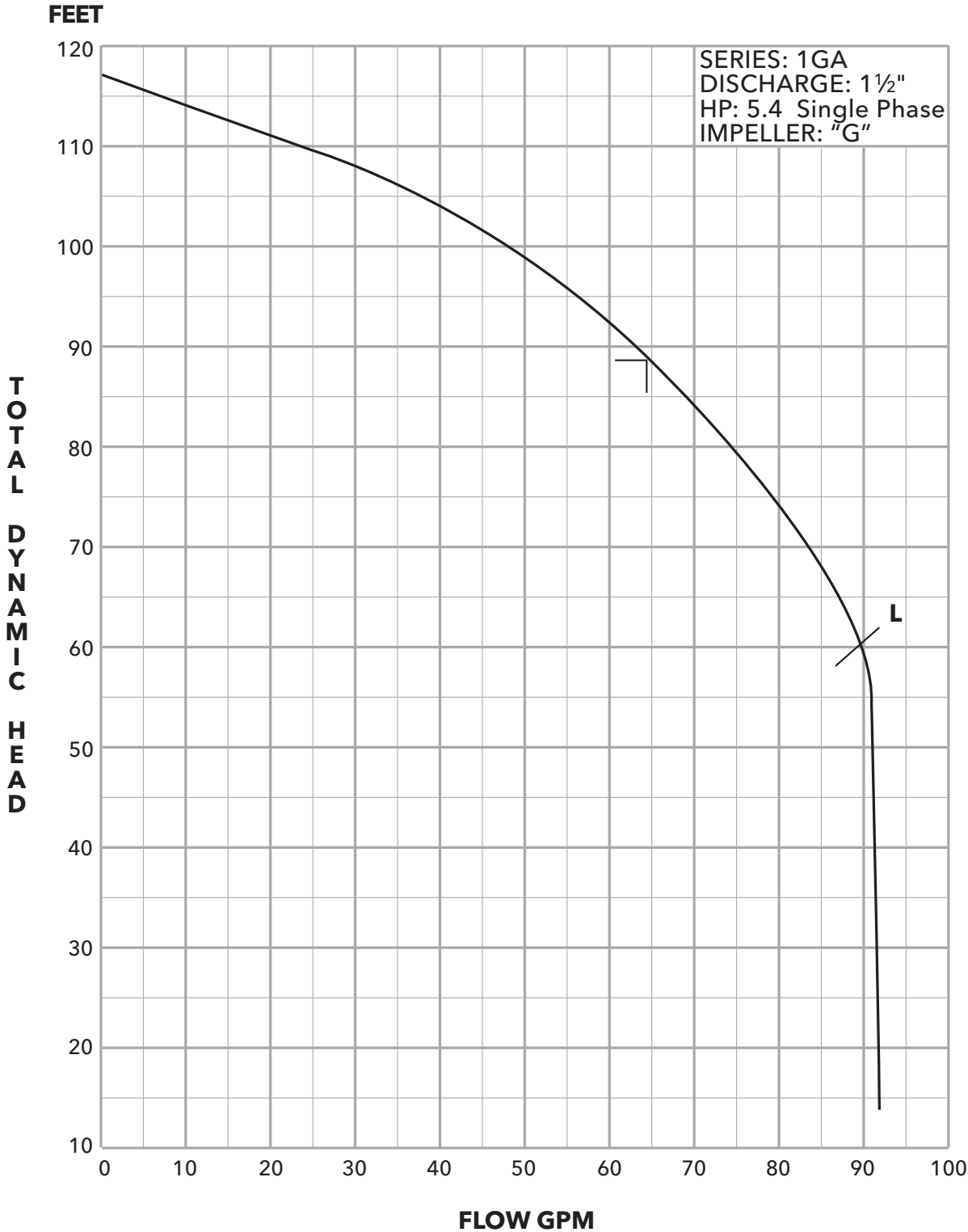
- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- C = Cavitation limit

1GA 3 HP Single Phase "L" Curve



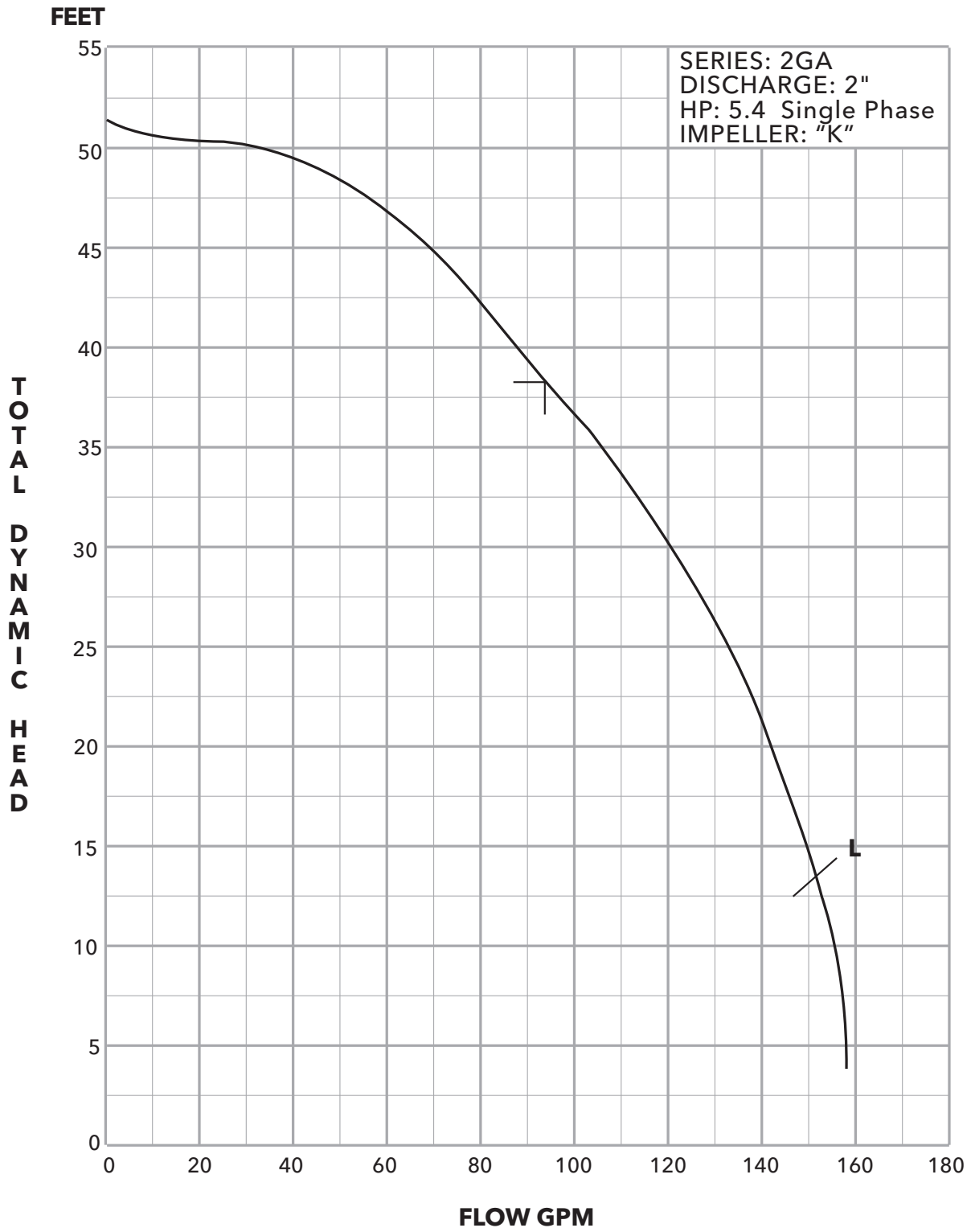
- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- C = Cavitation limit

1GA 5.4 HP Single Phase "G" Curve



T = Best Efficiency
L = Limited to intermittent duty below this point

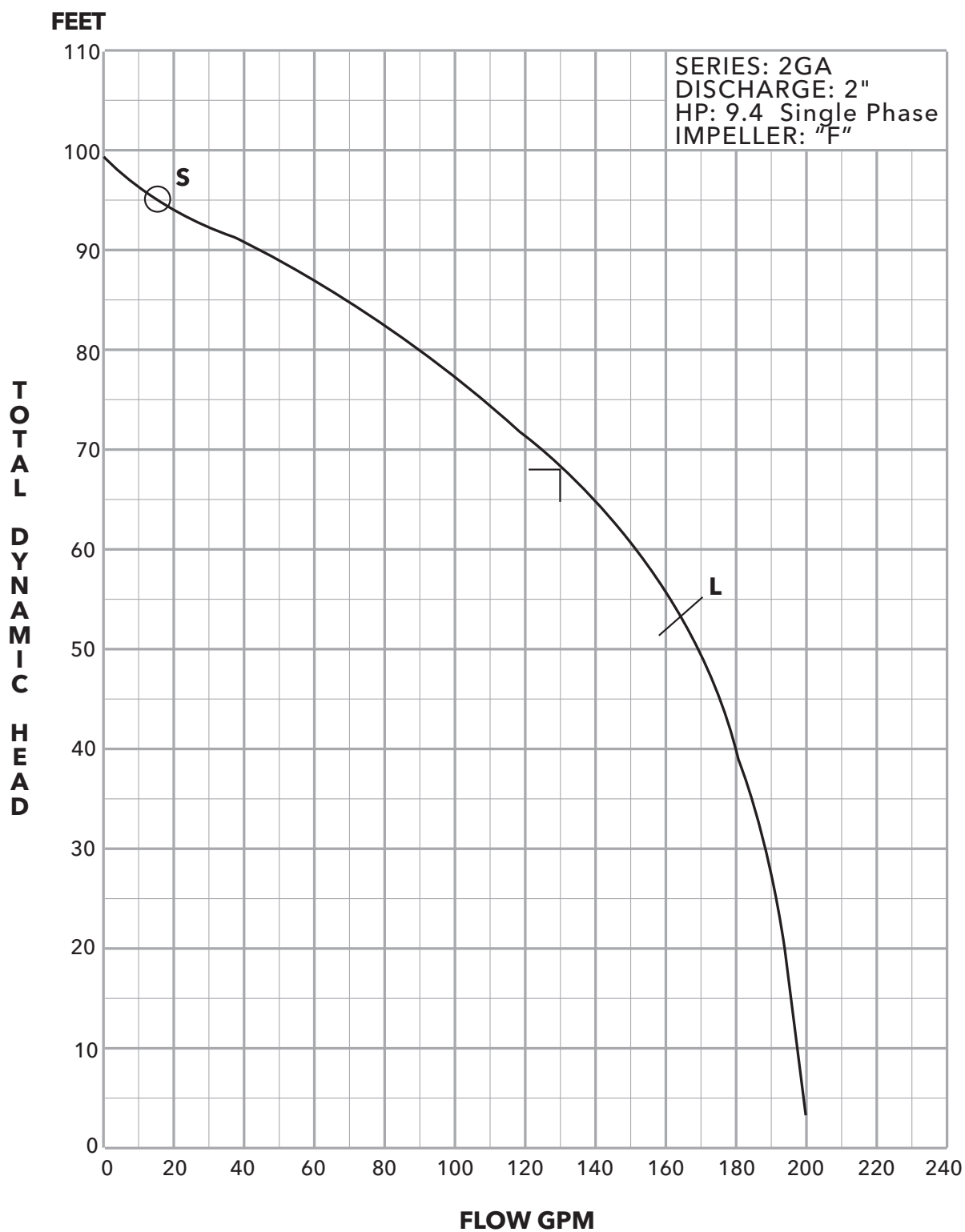
2GA 5.4 HP Single Phase "K" Curve



┌ = Best Efficiency

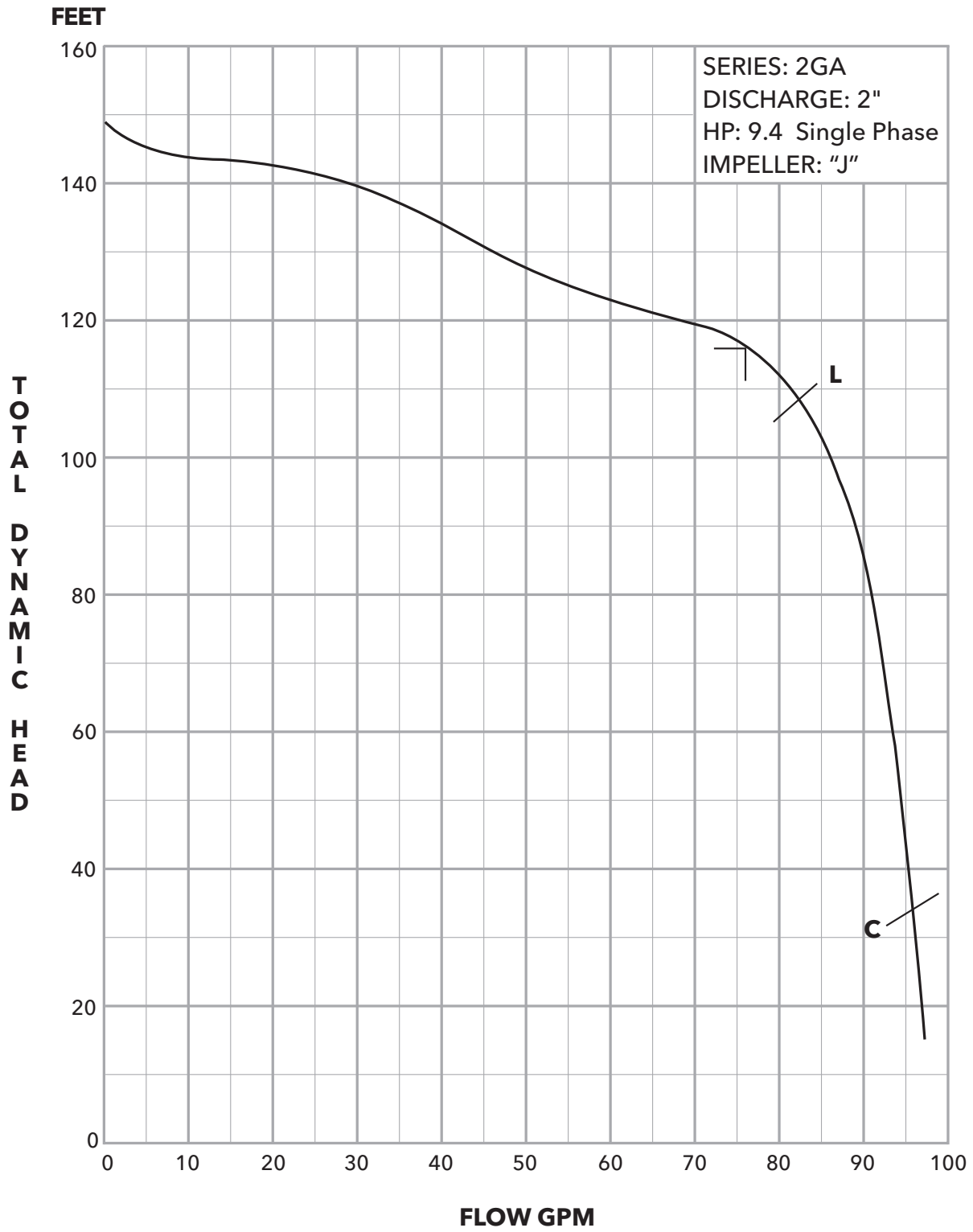
L = Limited to intermittent duty below this point

2GA 9.4 HP Single Phase "F" Curve



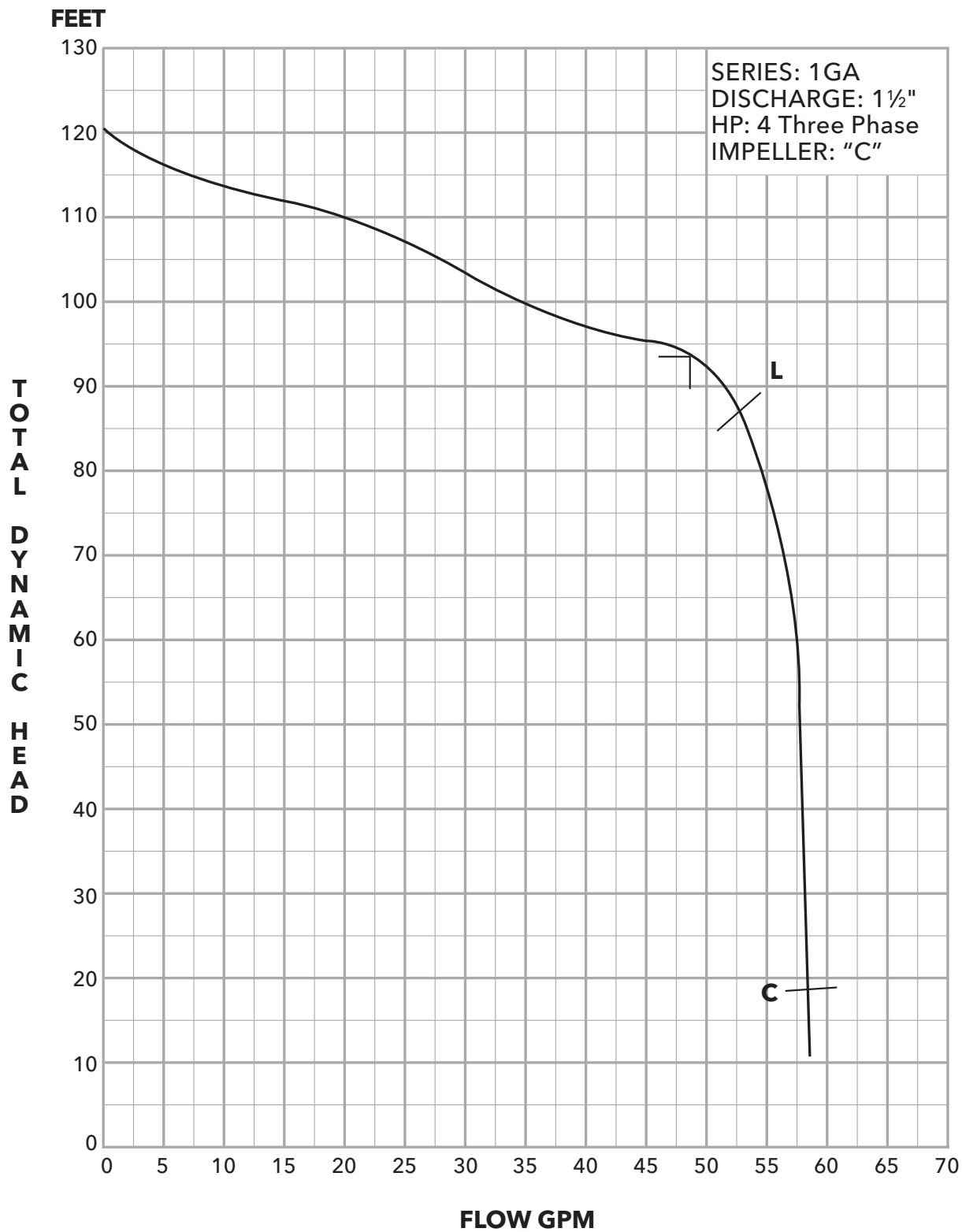
- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- S = Risk of sedimentation at velocity below 2 ft./sec.

2GA 9.4 HP Single Phase "J" Curve



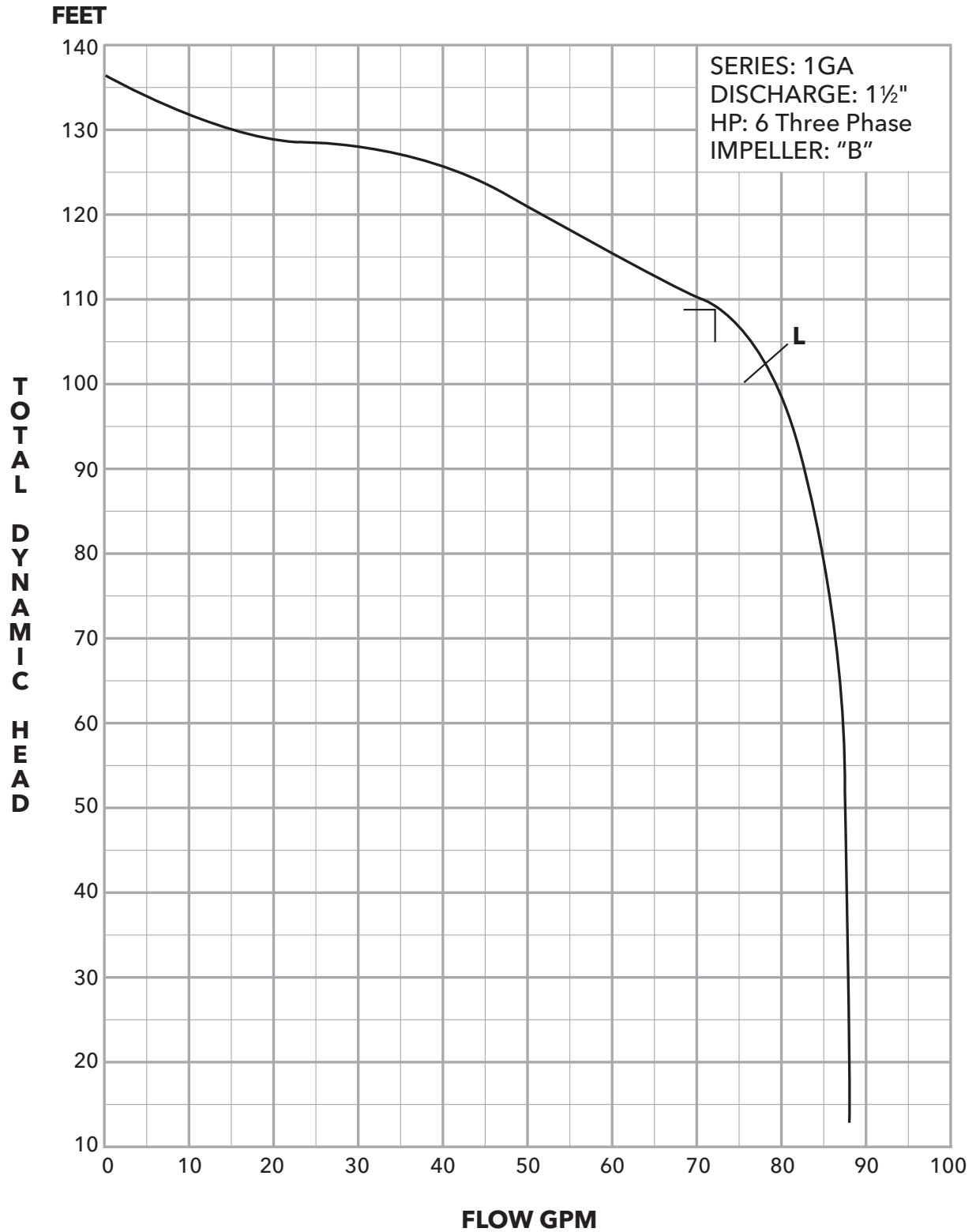
- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- C = Cavitation limit

1GA 4 HP Three Phase "C" Curve



- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- C = Cavitation limit

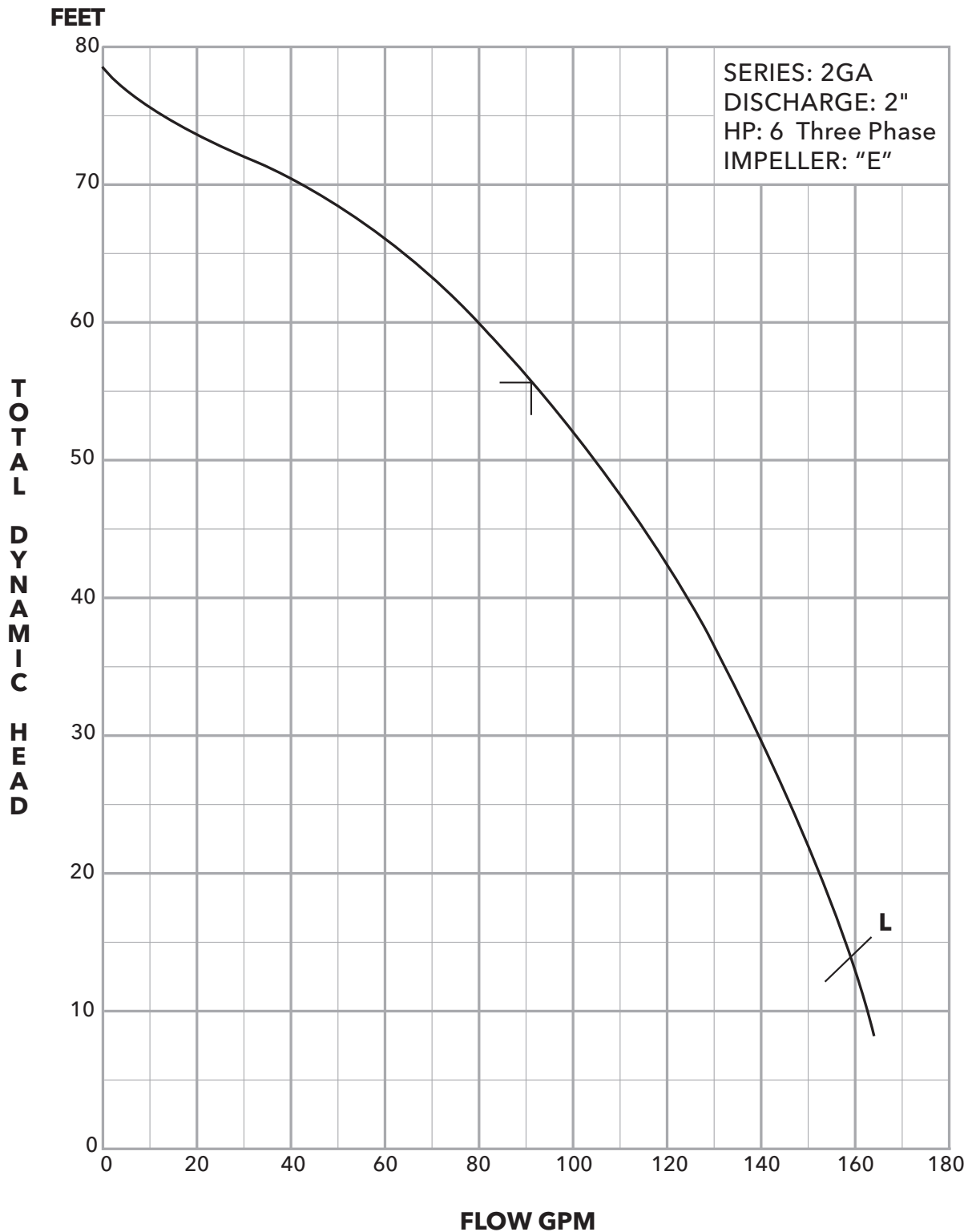
1GA 6 HP Three Phase "B" Curve



┌ = Best Efficiency

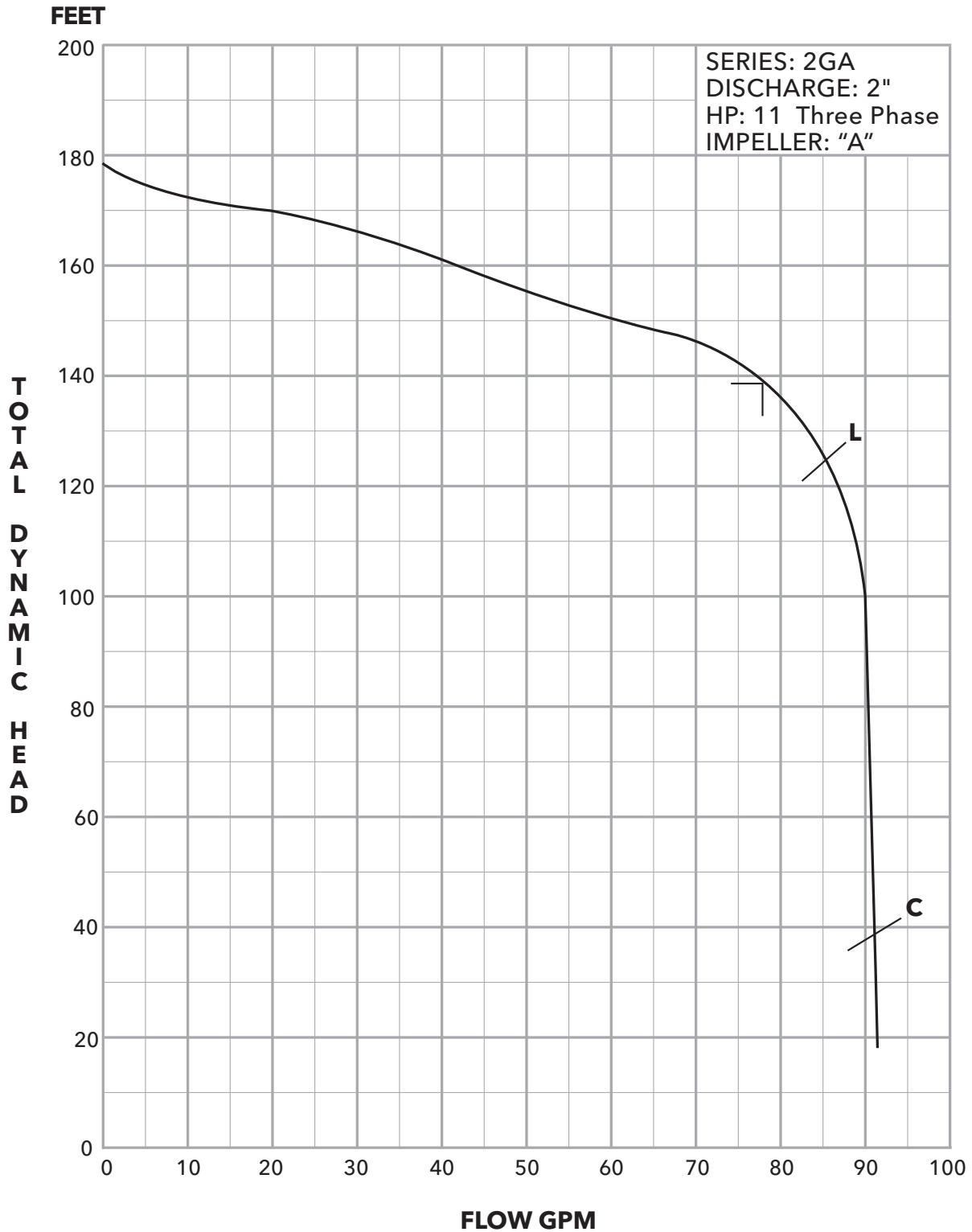
L = Limited to intermittent duty below this point

2GA 6 HP Three Phase "E" Curve



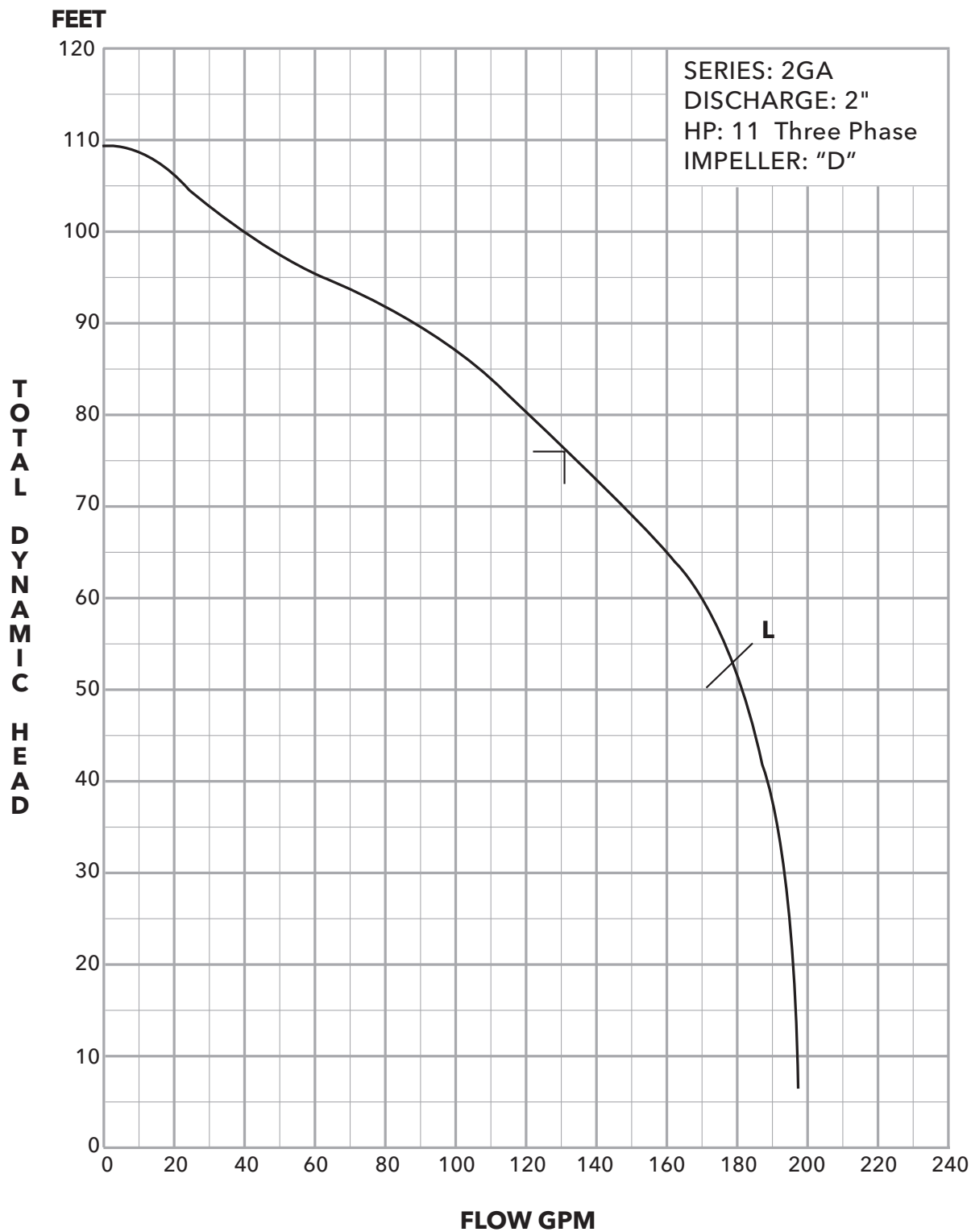
┌ = Best Efficiency
L = Limited to intermittent duty below this point

2GA 11 HP Three Phase "A" Curve



- ┌ = Best Efficiency
- L = Limited to intermittent duty below this point
- C = Cavitation limit

2GA 11 HP Three Phase "D" Curve



┌ = Best Efficiency
L = Limited to intermittent duty below this point

Notes

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're 12,500 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to www.xylem.com



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