

Submersible Grinder Pumps

Specifications:

DISCHARGE:

NGV Vertical 2" NPT
 NGVH Flange..... 2"/2.50"/3", Horizontal
 NGVHH Flange 2.50"/3", Horizontal

LIQUID TEMPERATURE 104°F (40°C) Continuous

VOLUTE Cast Iron ASTM A-48, Class 30

MOTOR HOUSING Cast Iron ASTM A-48, Class 30

SEAL PLATE Cast Iron ASTM A-48, Class 30

IMPELLER: Design 12 Vane, Vortex, With Pump Out Vanes
 On Back Side. Dynamically Balanced,
 ISO G6.3

Material Cast Iron ASTM A-48, Class 30

SHREDDING RING Hardened 440C Stainless Steel,
 Rockwell® C-55

CUTTER Hardened 440C Stainless Steel,
 Rockwell® C-55

SHAFT 416 Stainless Steel

SQUARE RINGS Buna-N

HARDWARE 300 Series Stainless Steel

PAINT Air Dry Enamel

SEAL: Design Tandem Mechanical, Oil Filled Reservoir
Material Rotating Faces - Carbon
 Stationary Faces - Ceramic

Elastomer - Buna-N

Hardware -300 Series Stainless

CORD ENTRY Custom Molded, Quick Connected
 for Sealing and Strain Relief

POWER CORD CSA Certified Submersible Power
 Cable 2000V - Ordered Separately

UPPER BEARING:

Design Single Row, Ball, Oil Lubrication
Load Radial

LOWER BEARING:

Design Double Row, Ball, Oil Lubrication
Load Radial & Thrust

MOTOR: Design NEMA B

Three Phase Torque Curve
 Oil-Filled, Squirrel Cage Induction,
 Inverter Duty rated per NEMA MG1

Insulation Class H Varnish & Magnet Wire

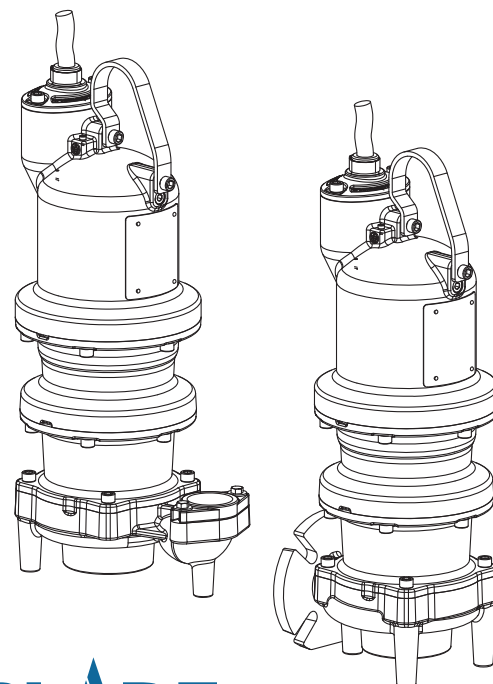
SINGLE PHASE Requires overload protection to be
 included in control panel. Requires start
 components to be included in panel.
 Provided with pump

THREE PHASE Requires overload protection to be
 included in control panel

MOISTURE SENSORS Normally Open (N/O), Requires relay
 in control panel

TEMPERATURE SENSOR Normally Closed (N/C)
 To be wired in series with control circuit

OPTIONAL EQUIPMENT Seal Material, Impeller Trims,
 Cord Length, Leg Kit



BLADE

Series: NGV
3, 5, 7.5 & 10HP,
3450RPM, 60Hz

Sample Specifications: Section 3 Page 12.

DESCRIPTION:

THE GRINDER PUMP IS DESIGNED TO
REDUCE DOMESTIC, COMMERCIAL,
 INSTITUTIONAL AND LIGHT INDUSTRIAL
 SEWAGE TO A FINELY GROUND SLURRY.

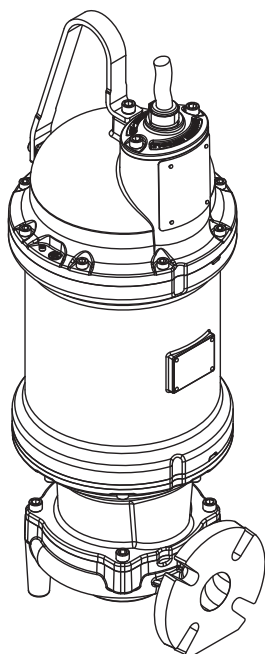


WARNING:

CANCER AND REPRODUCTIVE HARM -
 WWW.P65WARNINGS.CA.GOV



Submersible Grinder Pumps



BLADE

Series: NGV
15HP,
3450RPM, 60Hz

Sample Specifications : Section 3 Page 13.

DESCRIPTION:

THE GRINDER PUMP IS DESIGNED TO **REDUCE** DOMESTIC, COMMERCIAL, INSTITUTIONAL AND LIGHT INDUSTRIAL SEWAGE TO A FINELY GROUND SLURRY.



WARNING:
CANCER AND REPRODUCTIVE HARM -
WWW.P65WARNINGS.CA.GOV

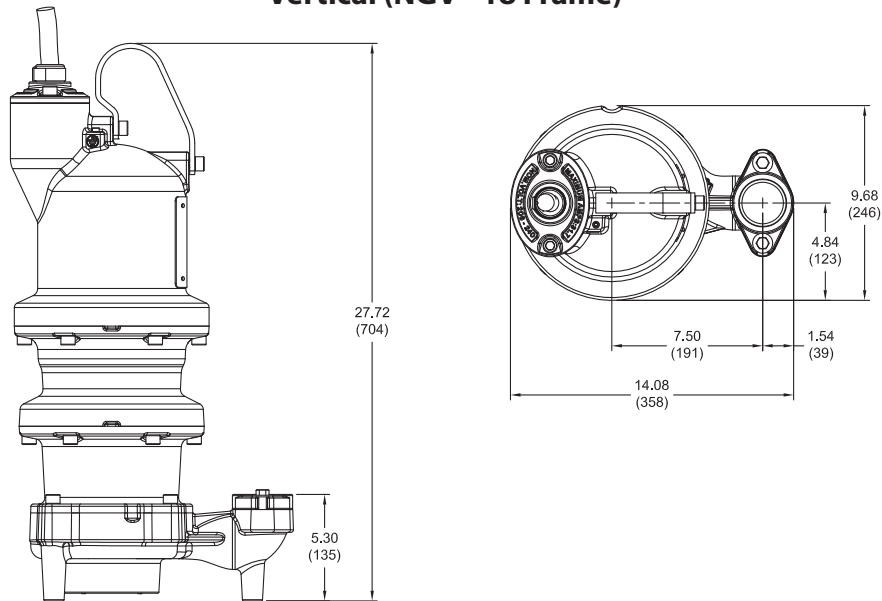
Specifications:

DISCHARGE:	
Flange	2.50"/3", Horizontal
LIQUID TEMPERATURE	104°F (40°C) Continuous
VOLUTE	Cast Iron ASTM A-48, Class 30
MOTOR HOUSING	Cast Iron ASTM A-48, Class 30
SEAL PLATE	Cast Iron ASTM A-48, Class 30
IMPELLER: Design	12 Vane, Vortex, With Pump Out Vanes On Back Side. Dynamically Balanced, ISO G6.3
Material	Cast Iron ASTM A-48, Class 30
SHREDDING RING	Hardened 440C Stainless Steel, Rockwell® C-55
CUTTER	Hardened 440C Stainless Steel, Rockwell® C-55
SHAFT	416 Stainless Steel
SQUARE RINGS	Buna-N
HARDWARE	300 Series Stainless Steel
PAINT	Air Dry Enamel
SEAL:	
Design	Tandem Mechanical, Oil Filled Reservoir
Material	Rotating Faces - Carbon Stationary Faces - Ceramic Elastomer - Buna-N Hardware -300 Series Stainless
CORD ENTRY	Custom Molded, Quick Connected for Sealing and Strain Relief
POWER CORD	CSA Certified Submersible Power Cable 2000V - Ordered Separately
UPPER BEARING:	
Design	Single Row, Ball, Oil Lubrication
Load	Radial
LOWER BEARING:	
Design	Double Row, Ball, Oil Lubrication
Load	Radial & Thrust
MOTOR:	
Design	NEMA B Three Phase Torque Curve Oil-Filled, Squirrel Cage Induction, Inverter Duty rated per NEMA MG1
Insulation	Class H Varnish & Magnet Wire
SINGLE PHASE	Requires overload protection to be included in control panel. Requires start components to be included in panel. Provided with pump
THREE PHASE	Requires overload protection to be included in control panel
MOISTURE SENSORS	Normally Open (N/O), Requires relay in control panel
TEMPERATURE SENSOR	Normally Closed (N/C) To be wired in series with control circuit
OPTIONAL EQUIPMENT	Seal Material, Impeller Trims, Cord Length, Leg Kit



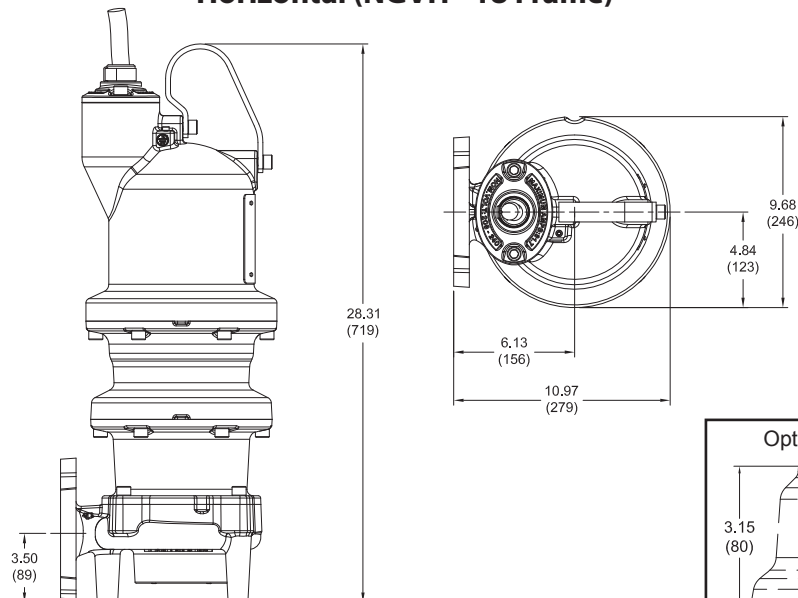
Submersible Grinder Pumps

Vertical (NGV - 18 Frame)

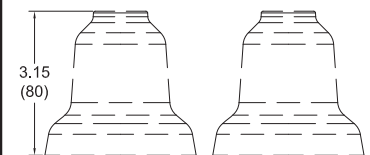


inches
(mm)

Horizontal (NGVH - 18 Frame)



Optional Leg Kit - p/n 125506

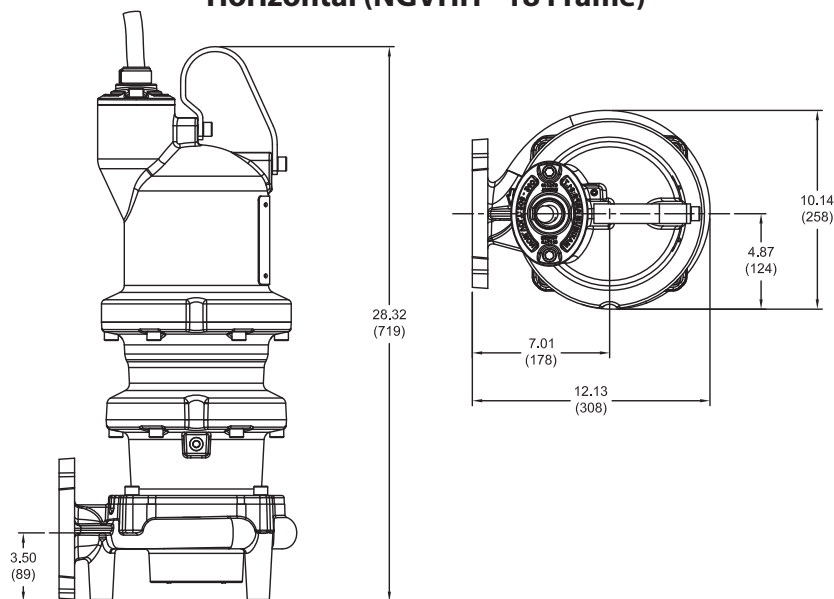


IMPORTANT !

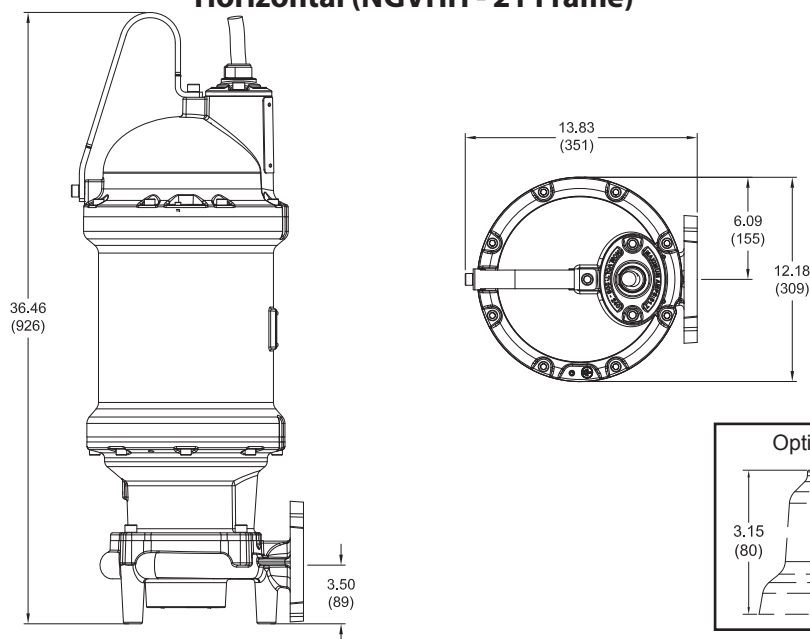
- 1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE WARRANTY.
- 2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.
- 3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. **DO NOT USE TO PUMP FLAMMABLE LIQUIDS.**
- 4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.
- 5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.

Submersible Grinder Pumps

Horizontal (NGVHH - 18 Frame)

inches
(mm)


Horizontal (NGVHH - 21 Frame)



Optional Leg Kit - p/n 125506



IMPORTANT !

- 1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE WARRANTY.
- 2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.
- 3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. **DO NOT USE TO PUMP FLAMMABLE LIQUIDS.**
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- 5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.

Submersible Grinder Pumps

	MODEL NO	PART NO	HP	VOLT	PH	Hz	RPM (Nom)	NEMA START CODE	FULL LOAD AMPS	SERVICE FACTOR	LOCKED ROTOR AMPS	DRIVER FRAME	CORD P/N ▲	CORD SIZE	CORD O.D.
BLADE NGV Pump - Vertical	NGV3072	141339N	3.0	208	1	60	3450	J	25.0	1.0	113.2	18	125496	12/4 - 18/4	.86 ± .02
				230				M	23.2		131.2				
	NGV30N2	141340N	3.0	208	3	60	3450	P	12.1	1.0	85.4	18	125496	12/4 - 18/4	.86 ± .02
				230					12.6		95.2		125497	12/4 - 18/4	.86 ± .02
				460					6.3		47.6				
	NGV3052	141342N	3.0	575	3	60	3450	P	5.0	1.0	38.1	18	125497	12/4 - 18/4	.86 ± .02
	NGV5072	141343N	5.0	208	1	60	3450	E	34.1	1.0	113.2	18	125498	8/4 - 18/4	1.12 ± .02
				230				G	29.9		131.2				
	NGV50N2	141344N	5.0	208	3	60	3450	J	17.8	1.0	85.4	18	125496	12/4 - 18/4	.86 ± .02
				230					16.0		95.2		125497	12/4 - 18/4	.86 ± .02
				460					8.0		47.6				
	NGV5052	141346N	5.0	575	3	60	3450	J	6.4	1.0	38.1	18	125497	12/4 - 18/4	.86 ± .02
	NGV75N2	141347N	7.5	208	3	60	3450	M	28.0	1.0	173.9	18	125496	12/4 - 18/4	.86 ± .02
				230					28.2		201.0		125497	12/4 - 18/4	.86 ± .02
				460					14.1		100.5				
	NGV7552	141349N	7.5	575	3	60	3450	M	11.3	1.0	80.4	18	125497	12/4 - 18/4	.86 ± .02

IMPORTANT !

Moisture and Temperature sensor leads are integral to power cord.

Pump rated for operation at ± 10% voltage at motor.

▲ Cord Suffix: XC - 30 Feet, XF - 50 Feet, XJ - 75 Feet, or XL - 100 Feet.

▲ Cord sold separately.

Single Phase pumps require start components to be included in panel. Provided with pump.

Submersible Grinder Pumps

	MODEL NO	PART NO	HP	VOLT	PH	Hz	RPM (Nom)	NEMA START CODE	FULL LOAD AMPS	SERVICE FACTOR	LOCKED ROTOR AMPS	DRIVER FRAME	CORD P/N ▲	CORD SIZE	CORD O.D.
BLADE NGVH Pump - Horizontal	NGVH3072	141350N	3.0	208	1	60	3450	J	25.0	1.0	113.2	18	125496	12/4 - 18/4	.86 ± .02
				230				M	23.2		131.2				
	NGVH30N2	141351N	3.0	208	3	60	3450	P	12.1	1.0	85.4	18	125496	12/4 - 18/4	.86 ± .02
				230					12.6		95.2		125497	12/4 - 18/4	.86 ± .02
				460					6.3		47.6				
	NGVH3052	141353N	3.0	575	3	60	3450	P	5.0	1.0	38.1	18	125497	12/4 - 18/4	.86 ± .02
	NGVH5072	141354N	5.0	208	1	60	3450	E	34.1	1.0	113.2	18	125498	8/4 - 18/4	1.12 ± .02
				230				G	29.9		131.2				
	NGVH50N2	141355N	5.0	208	3	60	3450	J	17.8	1.0	85.4	18	125496	12/4 - 18/4	.86 ± .02
				230					16.0		95.2		125497	12/4 - 18/4	.86 ± .02
				460					8.0		47.6				
	NGVH5052	141357N	5.0	575	3	60	3450	J	6.4	1.0	38.1	18	125497	12/4 - 18/4	.86 ± .02
	NGVH75N2	141358N	7.5	208	3	60	3450	M	28.0	1.0	173.9	18	125496	12/4 - 18/4	.86 ± .02
				230					28.2		201.0		125497	12/4 - 18/4	.86 ± .02
				460					14.1		100.5				
	NGVH7552	141360N	7.5	575	3	60	3450	M	11.3	1.0	80.4	18	125497	12/4 - 18/4	.86 ± .02

IMPORTANT !

Moisture and Temperature sensor leads are integral to power cord.
 Pump rated for operation at ± 10% voltage at motor.
 ▲ Cord Suffix: XC - 30 Feet, XF - 50 Feet, XJ - 75 Feet, or XL - 100 Feet.
 ▲ Cord sold separately.
 Single Phase pumps require start components to be included in panel. Provided with pump.

Submersible Grinder Pumps

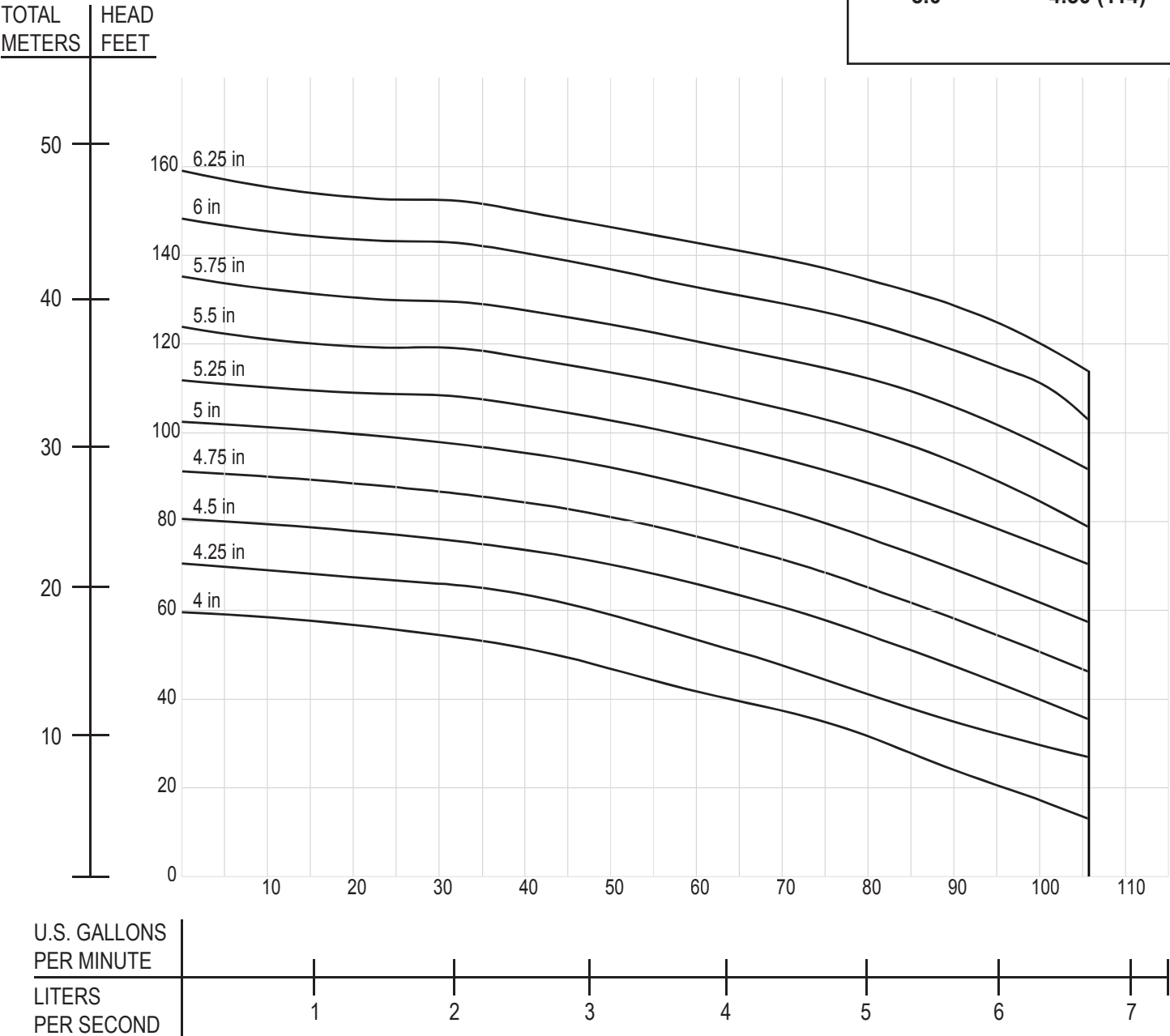
	MODEL NO	PART NO	HP	VOLT	PH	Hz	RPM (Nom)	NEMA START CODE	FULL LOAD AMPS	SERVICE FACTOR	LOCKED ROTOR AMPS	DRIVER FRAME	CORD P/N ▲	CORD SIZE	CORD O.D.
BLADE NGVHH Pump - Horizontal	NGVHH75N2	143385N	7.5	208	3	60	3450	M	28.0	1.0	173.9	18	125496	12/4 - 18/4	.86 ± .02
				230					28.2		201.0		125497	12/4 - 18/4	.86 ± .02
				460					14.1		100.5				
	NGVHH7552	143386N	7.5	575	3	60	3450	M	11.3	1.0	80.4	18	125497	12/4 - 18/4	.86 ± .02
	NGVHH100N2	143387N	10.0	208	3	60	3450	K	37.0	1.0	173.9	18	125498	8/4 - 18/4	1.12 ± .02
				230					34.8		201.0		125497	12/4 - 18/4	.86 ± .02
				460					17.4		100.5				
	NGVHH10052	143388N	10.0	575	3	60	3450	K	13.9	1.0	80.4	18	125497	12/4 - 18/4	.86 ± .02
	NGVHH150N2	141375N	15.0	208	3	60	3450	E	59.0	1.0	195.7	21	125498	8/4 - 18/4	1.12 ± .02
				230					57.1		88.5		125497	12/4 - 18/4	.86 ± .02
460				28.5											
NGVHH15052	141377N	15.0	575	3	60	3450	E	22.8	1.0	70.8	21	125497	12/4 - 18/4	.86 ± .02	

IMPORTANT !

Moisture and Temperature sensor leads are integral to power cord.
Pump rated for operation at ± 10% voltage at motor.
▲ Cord Suffix: XC - 30 Feet, XF - 50 Feet, XJ - 75 Feet, or XL - 100 Feet.
▲ Cord sold separately.

Submersible Grinder Pumps

STANDARD IMPELLER SIZES	
Pump HP	Impeller Dia. in. (mm)
7.5	6.25 (159)
5.0	5.25 (133)
3.0	4.50 (114)

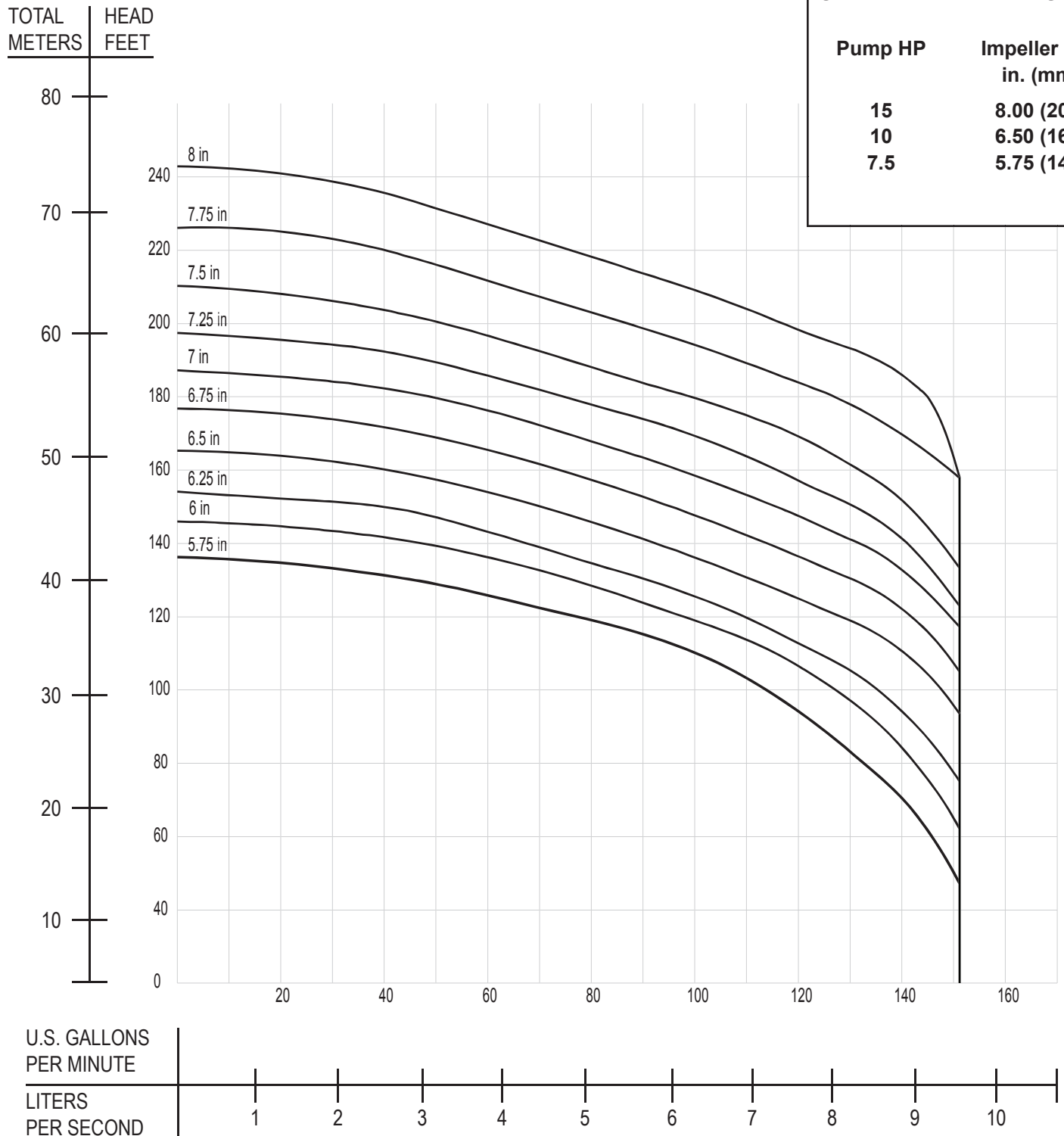


Testing is performed with water, specific gravity 1.0 @ 68° F @ (20°C), other fluids may vary performance

Submersible Grinder Pumps

STANDARD IMPELLER SIZES

Pump HP	Impeller Dia. in. (mm)
15	8.00 (203)
10	6.50 (165)
7.5	5.75 (146)



Testing is performed with water, specific gravity 1.0 @ 68° F @ (20°C), other fluids may vary performance