

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 Axalta™ Corlar® Epoxy, Two Coats

SEAL: *Design* Tandem Mechanical, Oil Filled Reservoir

Material Rotating Faces - Carbon
 Stationary Faces - Ceramic
 Elastomer - Buna-N

CORD ENTRY Hardware -300 Series Stainless
 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

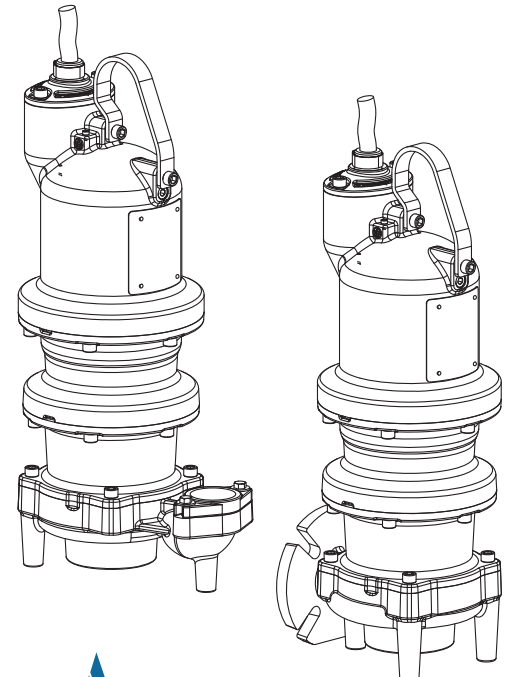
SINGLE PHASE Requires overload protection to be
 included in control panel. Requires start
 components to be included in panel.
 Provided with pump

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, 3" Spool 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.

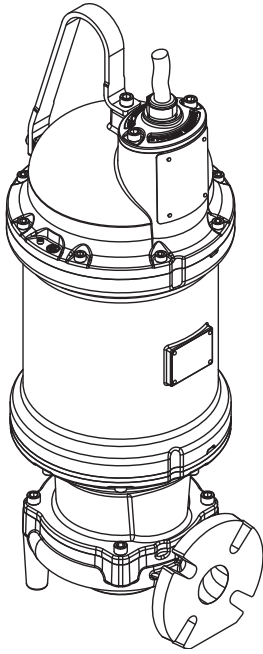


WARNING:

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



Submersible Grinder Pumps



Specifications:

DISCHARGE:	
<i>Flange</i>	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
<i>Material</i>	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	Axalta™ Corlar® Epoxy, Two Coats
SEAL: Design	Tandem Mechanical, Oil Filled Reservoir
<i>Material</i>	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:	
<i>Design</i>	Single Row, Ball, Oil Lubrication
<i>Load</i>	Radial
LOWER BEARING:	
<i>Design</i>	Double Row, Ball, Oil Lubrication
<i>Load</i>	Radial & Thrust
MOTOR: Design	NEMA B Three Phase Torque Curve Oil-Filled, Squirrel Cage Induction, Inverter Duty rated per NEMA MG1
<i>Insulation</i>	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
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



SECTION 3B
PAGE 34
DATE 7/19

CRANE®

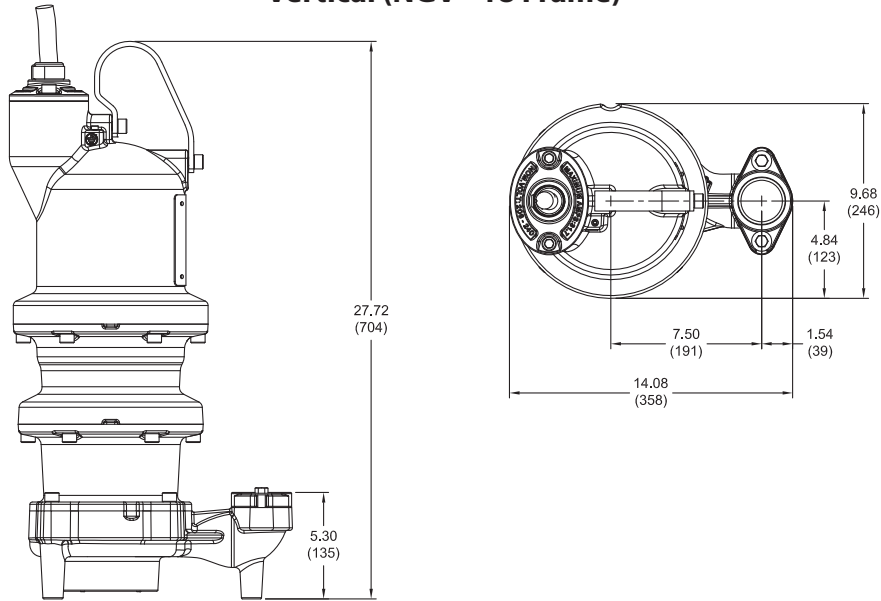
A Crane Co. Company

PUMPS & SYSTEMS

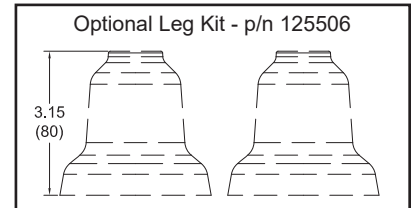
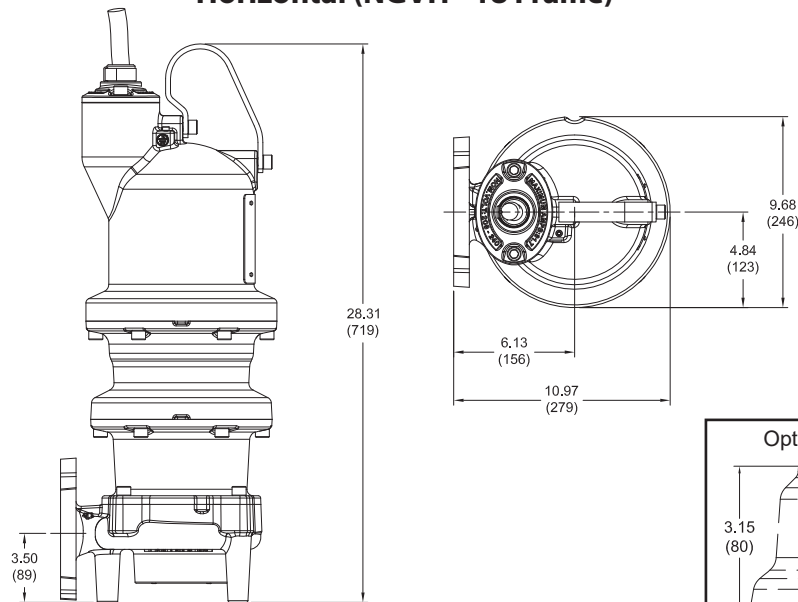
USA: (937) 778-8947 • Canada: (905) 457-6223 • International: (937) 615-3598

Submersible Grinder Pumps

Vertical (NGV - 18 Frame)



Horizontal (NGVH - 18 Frame)



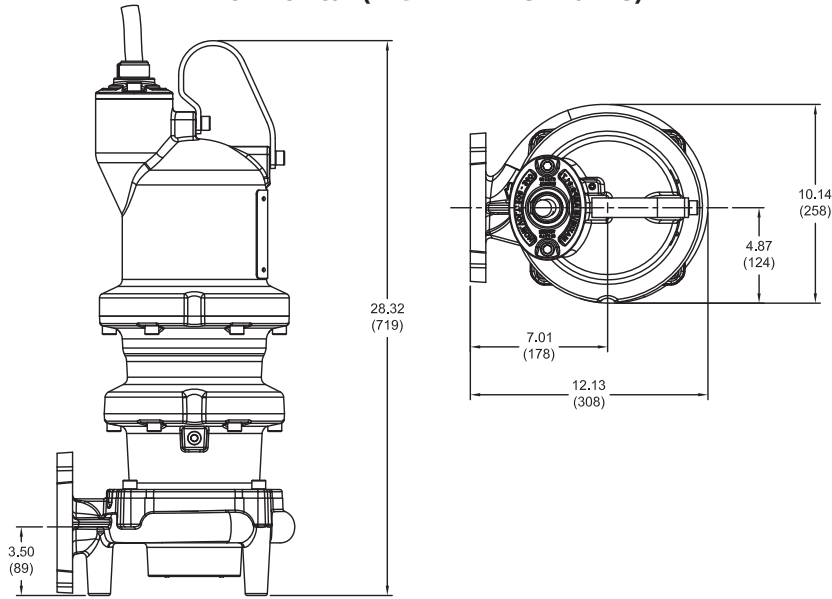
IMPORTANT !

- 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.

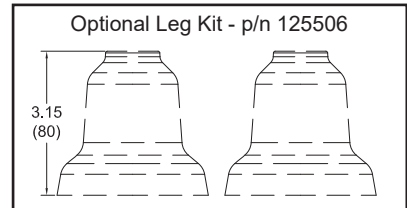
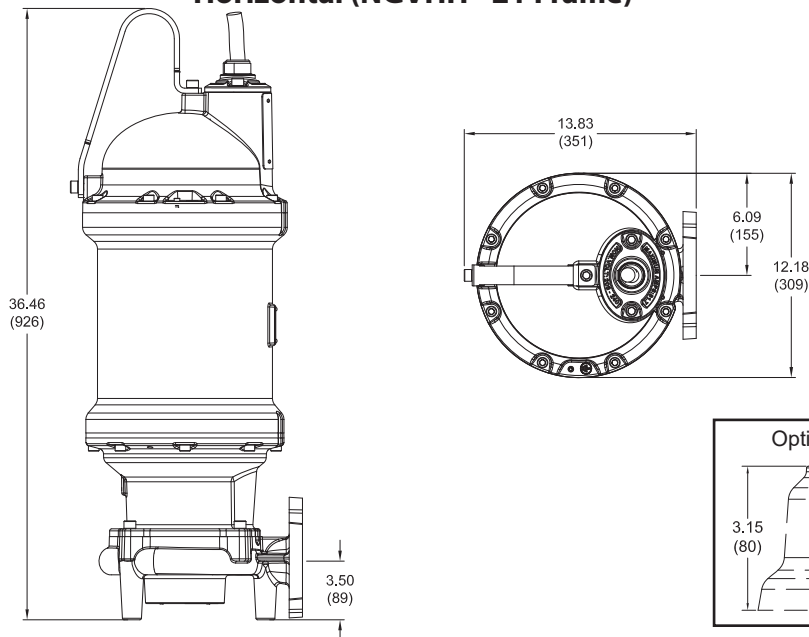
Submersible Grinder Pumps

Horizontal (NGVHH - 18 Frame)

inches
(mm)



Horizontal (NGVHH - 21 Frame)



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

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.	
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					95.2							
			460					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	
BLADE NGV Pump - Vertical															
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					95.2							
			460					47.6							
			575					38.1							
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					201.0							
			460					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.
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				
			208				P	12.1		85.4				
NGVH30N2	141351N	3.0	230	3	60	3450	P	12.6	1.0	95.2	18	125496	12/4 - 18/4	.86 ± .02
			460					47.6						
			575					38.1						
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				
			208				J	17.8		85.4				
NGVH50N2	141355N	5.0	230	3	60	3450	J	16.0	1.0	95.2	18	125496	12/4 - 18/4	.86 ± .02
			460					47.6						
			575					38.1						
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					201.0						
			460					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

BLADE NGVH Pump - Horizontal

NOTE: A 3" Pipe Spool Kit is recommended for use of a NGVH with a 3x3 BAF.

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.
NGVHH75N2	143385N	7.5	208	3	60	3450	M	28.0	1.0	173.9	18	125496	1 1/4 - 1 1/4	.86 ± .02
			230					201.0						
			460					100.5						
NGVHH7552	143386N	7.5	575	3	60	3450	M	11.3	1.0	80.4	18	125497	1 1/4 - 1 1/4	.86 ± .02
NGVHH100N2	143387N	10.0	208	3	60	3450	K	37.0	1.0	173.9	18	125498	3/4 - 1 1/4	1.12 ± .02
			230					201.0						
			460					100.5						
NGVHH10052	143388N	10.0	575	3	60	3450	K	13.9	1.0	80.4	18	125497	1 1/4 - 1 1/4	.86 ± .02
NGVHH150N2	141375N	15.0	208	3	60	3450	E	59.0	1.0	195.7	21	125498	3/4 - 1 1/4	1.12 ± .02
			230					88.5						
			460					70.8						
NGVHH15052	141377N	15.0	575	3	60	3450	E	22.8	1.0	70.8	21	125497	1 1/4 - 1 1/4	.86 ± .02

BLADE NGVHH Pump - Horizontal

NOTE: A 3" Pipe Spool Kit is recommended for use of a NGVHH with a 3x3 BAF.

IMPORTANT !

Moisture and Temperature sensor leads are integral to power cord. Pump rated for operation at ± 10% voltage at motor.

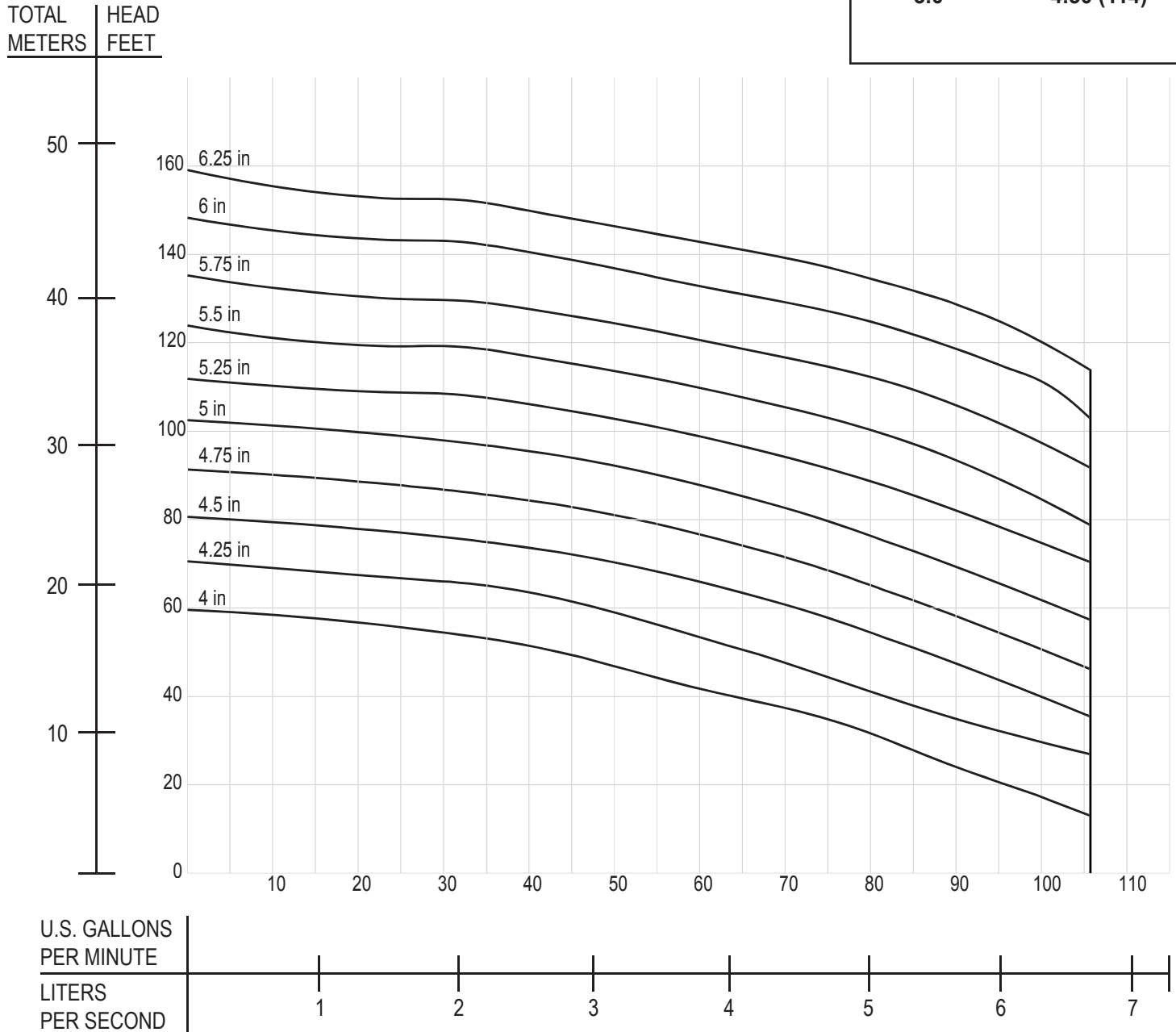
▲ Cord Suffix: XC - 30 Feet, XF - 50 Feet, XJ - 75 Feet, or XL - 100 Feet.

▲ 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)

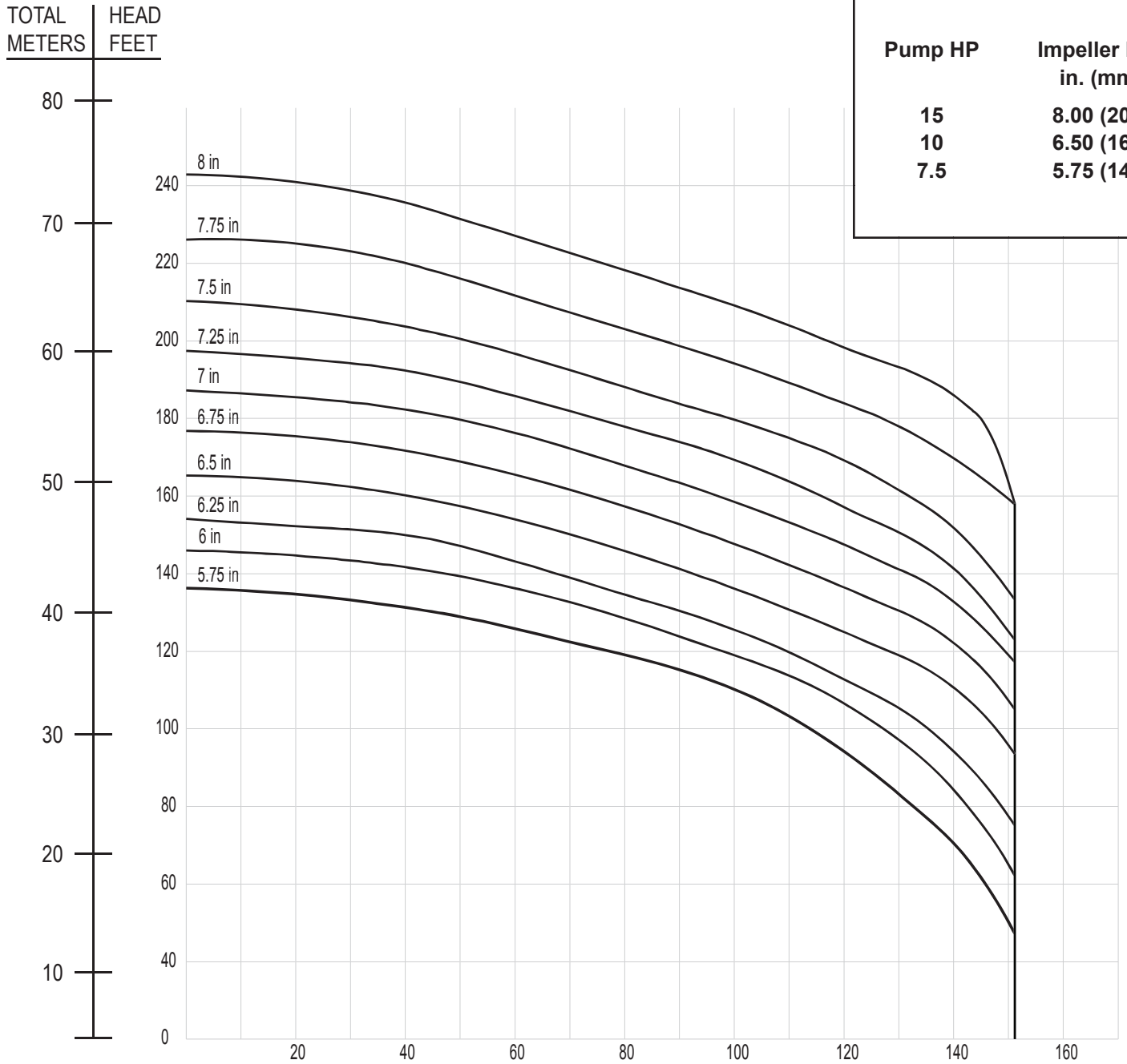


Testing is performed with water, specific gravity 1.0 @ 68° F @ (20°C), other fluids may vary performance

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)



U.S. GALLONS PER MINUTE

LITERS PER SECOND

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