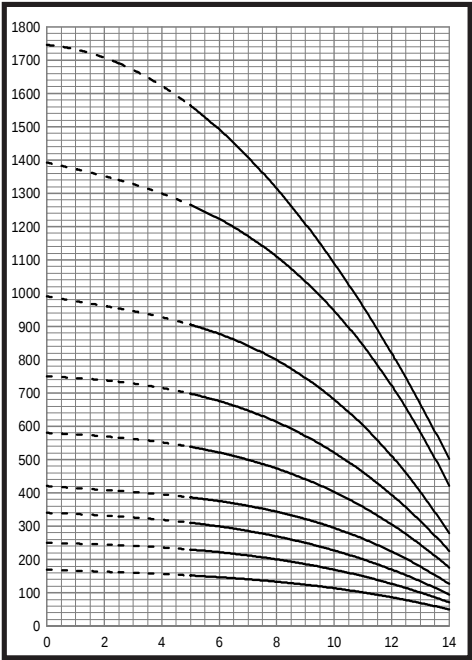
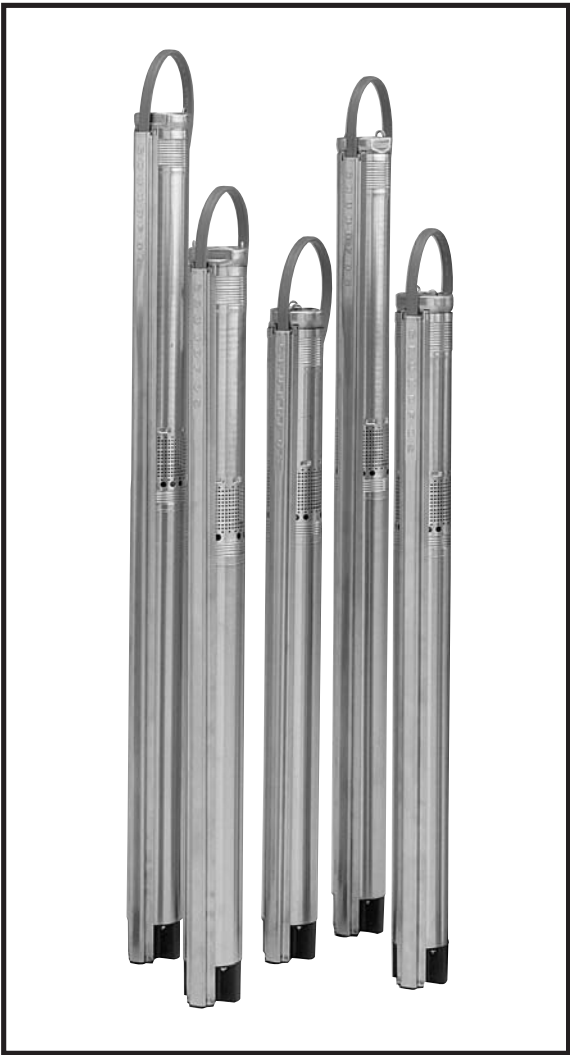


Performance Curves and Technical Data

For 3-Inch & larger well applications



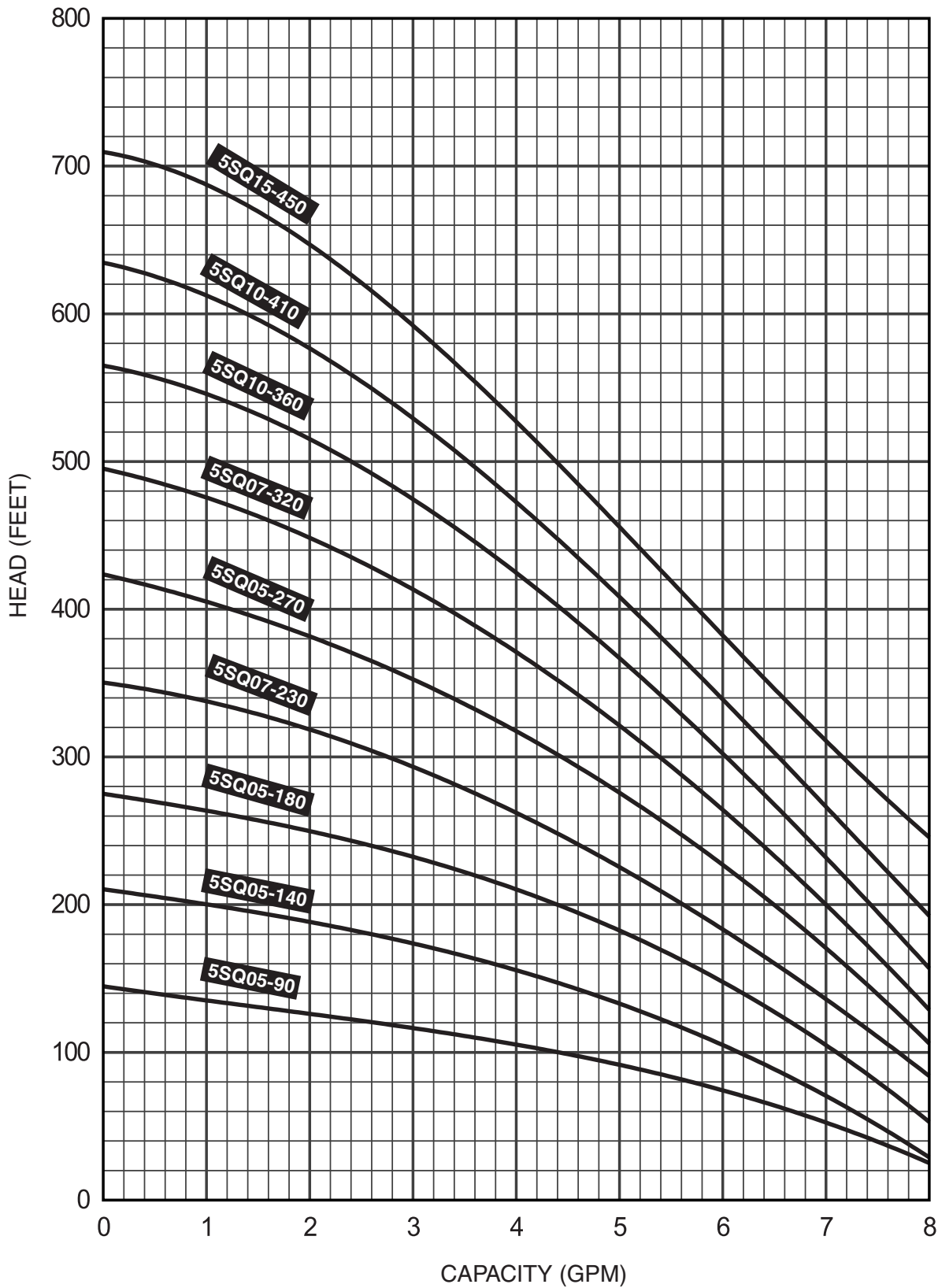
Performance Curves



Materials of Construction

OUTLET SIZE: 1" NPT

NOMINAL DIA. 3"

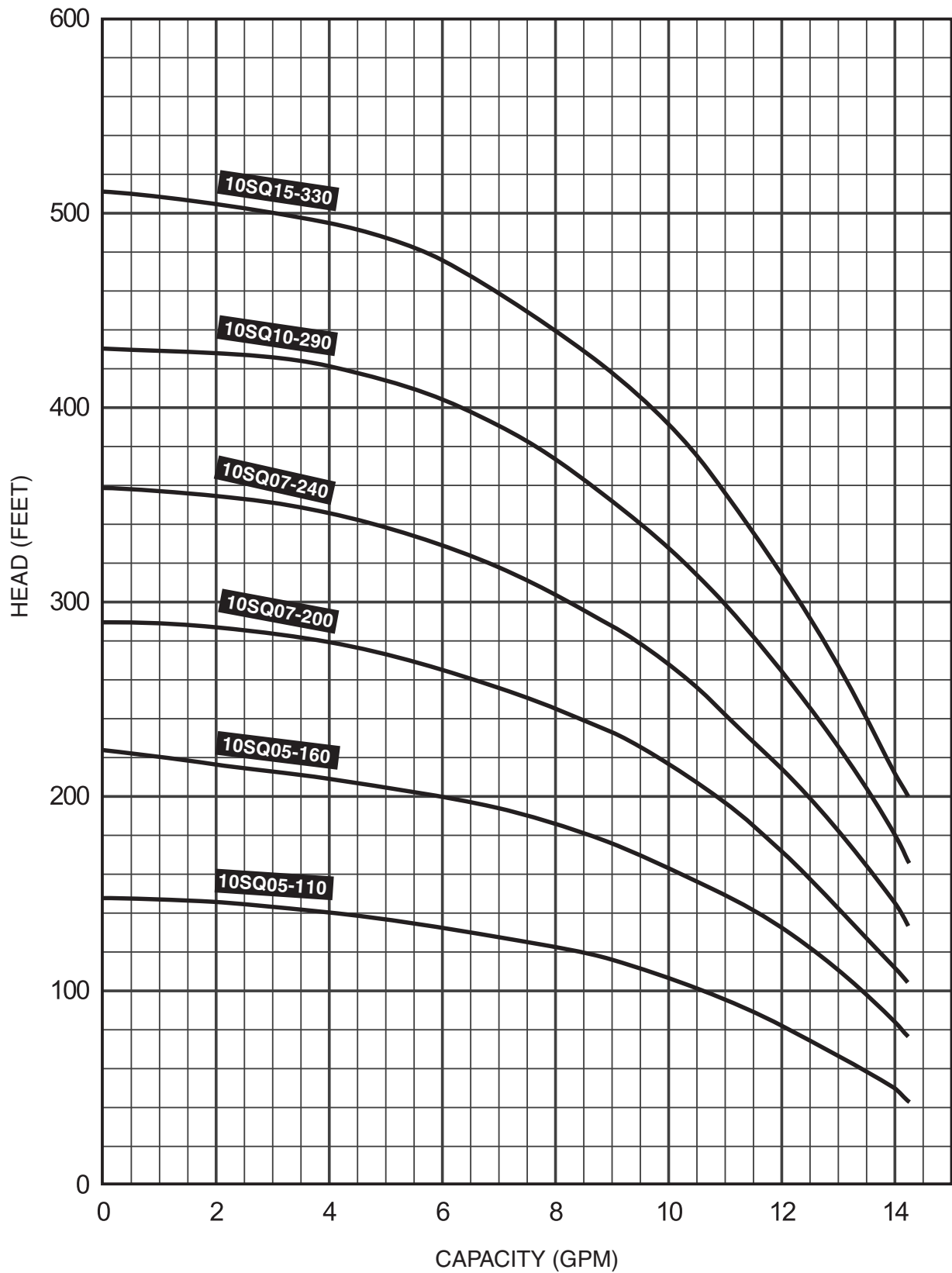


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PERFORMANCE CONFORMS TO ISO 9906 ANNEX A

OUTLET SIZE: 1 1/4" NPT

NOMINAL DIA. 3"

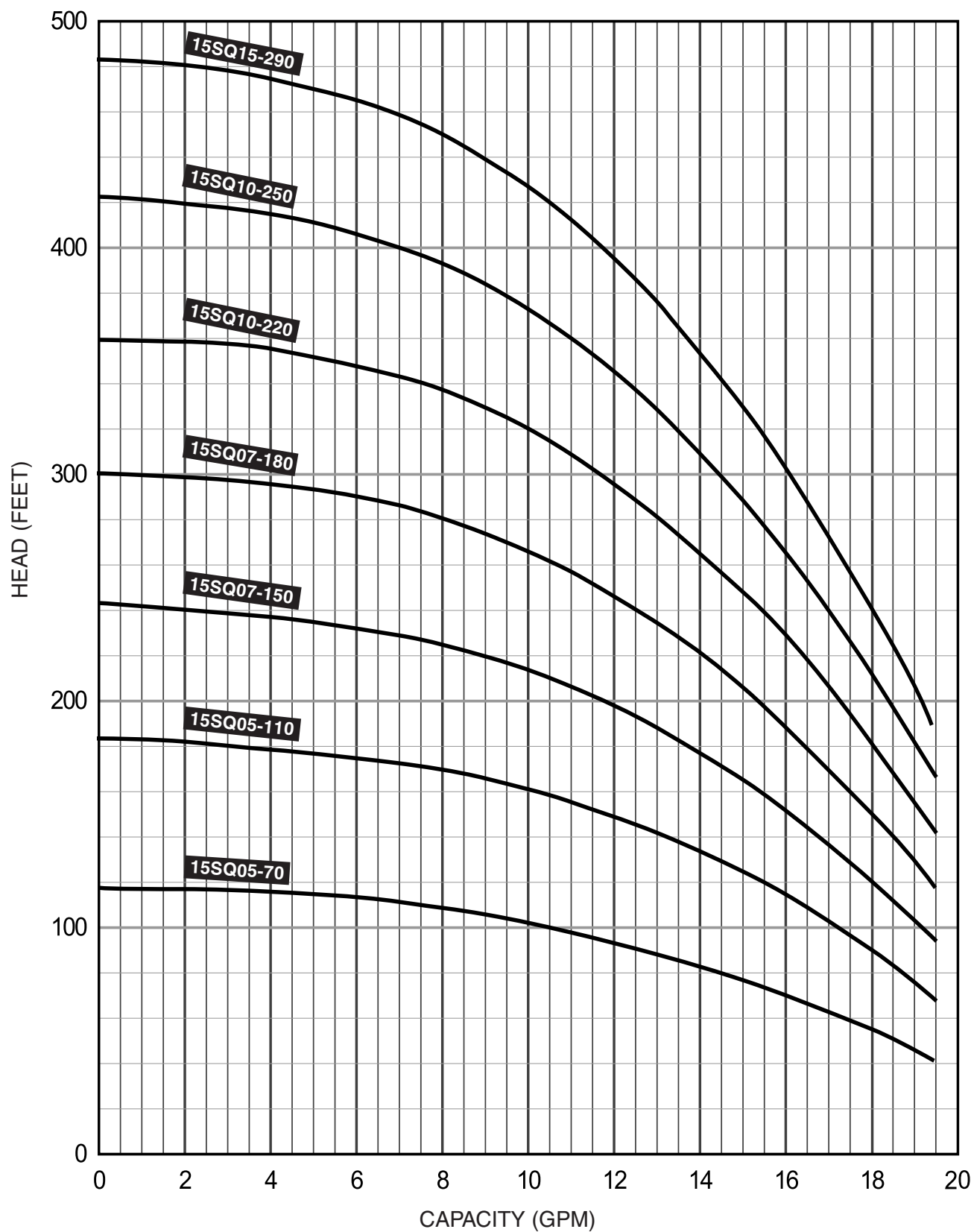


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PERFORMANCE CONFORMS TO ISO 9906. (E) ANNEX A

OUTLET SIZE: 1 1/4" NPT

NOMINAL DIA. 3"

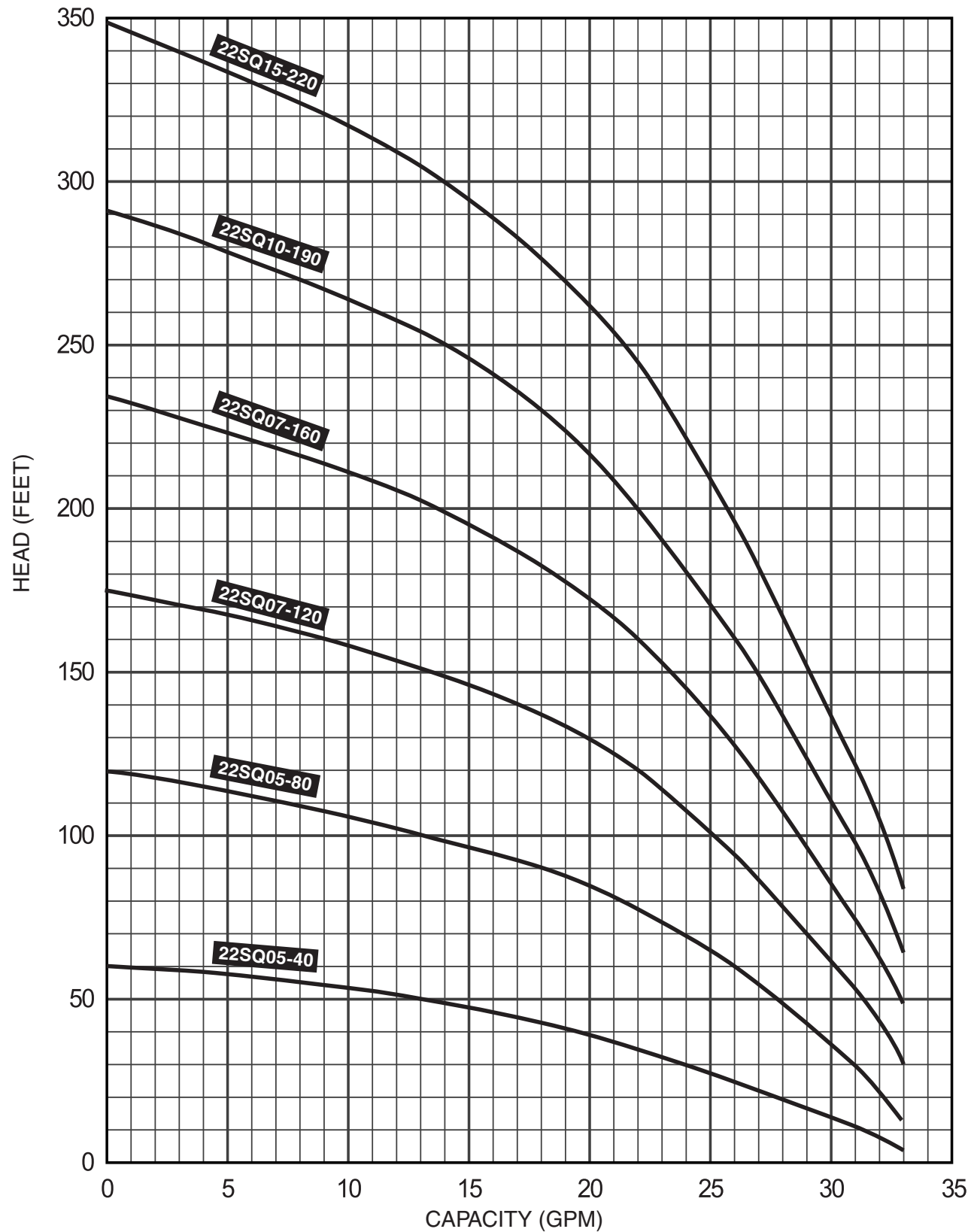


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PERFORMANCE CONFORMS TO ISO 9906. (E) ANNEX A

OUTLET SIZE: 1 1/2" NPT

NOMINAL DIA. 3"

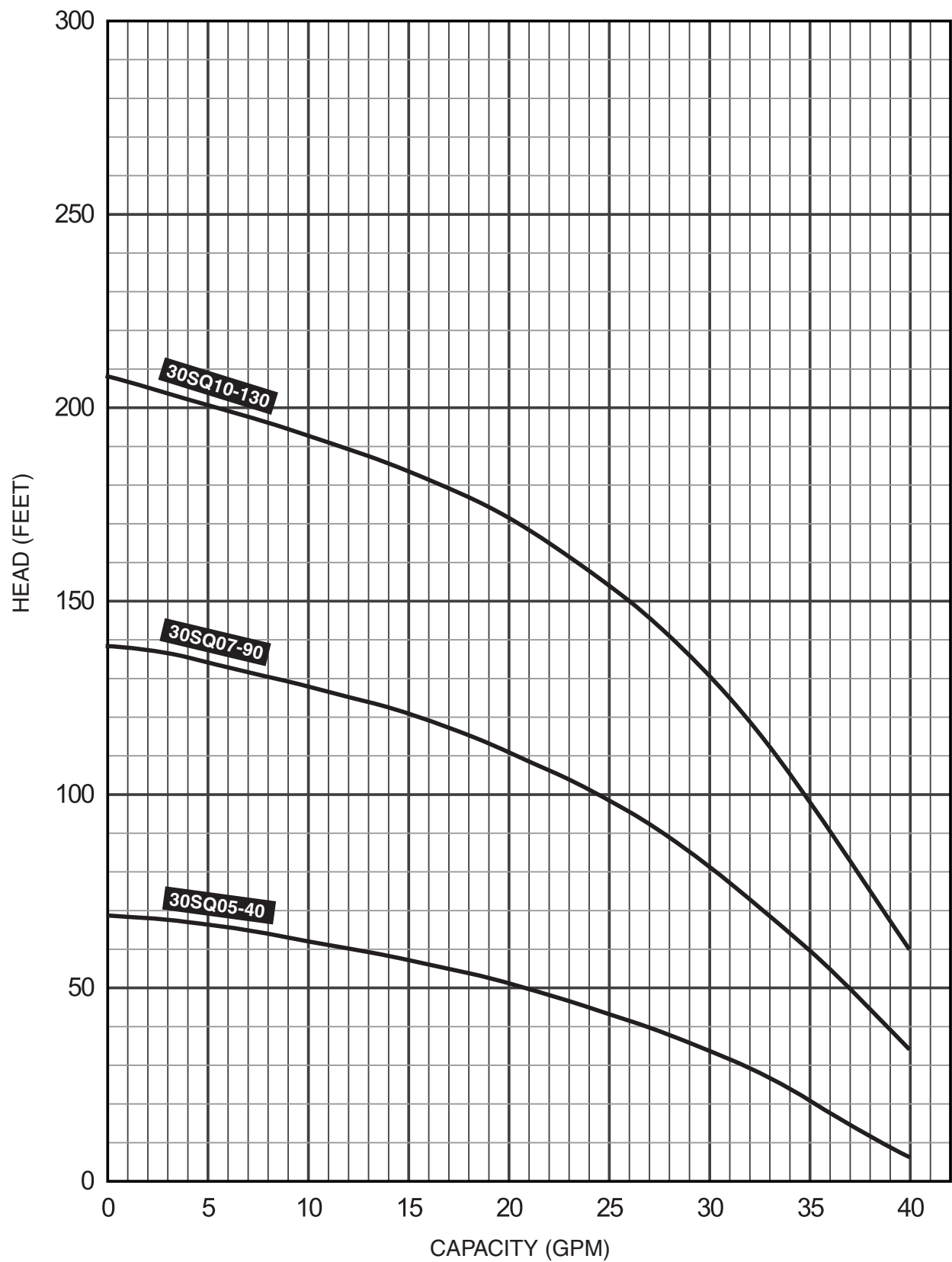


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PERFORMANCE CONFORMS TO ISO 9906. (E) ANNEX A

OUTLET SIZE: 1 1/2" NPT

NOMINAL DIA. 3"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PERFORMANCE CONFORMS TO ISO 9906. (E) ANNEX A

Dimensions and Weights

MODEL	FIG.	HP	MOTOR SIZE	DISCHARGE SIZE	DIMENSIONS IN INCHES					APPROX. SHIP WT.
					A	B	C	D	E	
5SQ/SQE05-90	A	1/2	3"	1" NPT	30.4	19.8	10.6	2.6	2.9	12
5SQ/SQE05-140	A	1/2	3"	1" NPT	30.4	19.8	10.6	2.6	2.9	12
5SQ/SQE05-180	A	1/2	3"	1" NPT	31.5	19.8	11.6	2.6	2.9	12
5SQ/SQE07-230	A	3/4	3"	1" NPT	33.6	19.8	13.7	2.6	2.9	13
5SQ/SQE07-270	A	3/4	3"	1" NPT	33.6	19.8	13.7	2.6	2.9	13
5SQ/SQE07-320	A	3/4	3"	1" NPT	34.6	19.8	14.8	2.6	2.9	13
5SQ/SQE10-360	A	1	3"	1" NPT	38.2	21.3	16.9	2.6	2.9	16
5SQ/SQE10-410	A	1	3"	1" NPT	38.2	21.3	16.9	2.6	2.9	16
5SQ/SQE15-450	A	1 1/2	3"	1" NPT	39.3	21.3	18.0	2.6	2.9	16
10SQ/SQE05-110	A	1/2	3"	1 1/4" NPT	30.4	19.8	10.6	2.6	2.9	12
10SQ/SQE05-160	A	1/2	3"	1 1/4" NPT	30.4	19.8	10.6	2.6	2.9	12
10SQ/SQE07-200	A	3/4	3"	1 1/4" NPT	31.5	19.8	11.6	2.6	2.9	13
10SQ/SQE07-240	A	3/4	3"	1 1/4" NPT	33.6	19.8	13.7	2.6	2.9	13
10SQ/SQE10-290	A	1	3"	1 1/4" NPT	35.0	21.3	13.7	2.6	2.9	16
10SQ/SQE15-330	A	1 1/2	3"	1 1/4" NPT	36.14	21.3	14.8	2.6	2.9	16
15SQ/SQE05-70	A	1/2	3"	1 1/4" NPT	30.4	19.8	10.6	2.6	2.9	12
15SQ/SQE05-110	A	1/2	3"	1 1/4" NPT	30.4	19.8	10.6	2.6	2.9	12
15SQ/SQE07-150	A	3/4	3"	1 1/4" NPT	31.5	19.8	11.6	2.6	2.9	13
15SQ/SQE07-180	A	3/4	3"	1 1/4" NPT	33.6	19.8	13.7	2.6	2.9	13
15SQ/SQE10-220	A	1	3"	1 1/4" NPT	35.0	21.3	13.7	2.6	2.9	16
15SQ/SQE10-250	A	1	3"	1 1/4" NPT	36.1	21.3	14.8	2.6	2.9	16
15SQ/SQE15-290	A	1 1/2	3"	1 1/4" NPT	38.2	21.3	16.9	2.6	2.9	16
22SQ/SQE05-40	A	1/2	3"	1 1/2" NPT	30.4	19.8	10.6	2.6	2.9	12
22SQ/SQE05-80	A	1/2	3"	1 1/2" NPT	30.4	19.8	10.6	2.6	2.9	12
22SQ/SQE07-120	A	3/4	3"	1 1/2" NPT	31.5	19.8	11.6	2.6	2.9	13
22SQ/SQE07-160	A	3/4	3"	1 1/2" NPT	33.6	19.8	13.7	2.6	2.9	13
22SQ/SQE10-190	A	1	3"	1 1/2" NPT	38.2	21.3	16.9	2.6	2.9	16
22SQ/SQE15-220	A	1 1/2	3"	1 1/2" NPT	38.2	21.3	16.9	2.6	2.9	16
30SQ/SQE05-40	A	1/2	3"	1 1/2" NPT	30.4	19.8	10.6	2.6	2.9	12
30SQ/SQE07-90	A	3/4	3"	1 1/2" NPT	30.4	19.8	10.6	2.6	2.9	13
30SQ/SQE10-130	A	1	3"	1 1/2" NPT	35.0	21.3	13.7	2.6	2.9	13

DISCHARGE SIZES
1" NPT 5SQ/SQE
1 1/4" NPT 10-15SQ/SQE
1 1/2" NPT 22-30 SQ/SQE

MATERIALS OF CONSTRUCTION

COMPONENT	SPLINED SHAFT
Valve Casing	Polyamide
Discharge Chamber	304 Stainless Steel
Valve Guide	Polyamide
Valve Spring	316LN Stainless Steel
Valve Cone	Polyamide
Valve Seat	NBR Rubber
O-ring	NBR Rubber
Lock Ring	310 Stainless Steel
Top Bearing	NBR Rubber
Top Chamber	Polyamide
Guide Vanes	Polyamide
Impeller	Polyamide w/tungsten carbide bearings
Bottom Chamber	Polyamide
Neck Ring	TPU/PBT
Bearing	Aluminum Oxide
Suction Interconnector	Polyamide
Ring	304 Stainless Steel
Pump Sleeve	304 Stainless Steel
Cone for Pressure Equalization	Polyamide
Spacer	Polyamide
Sand Trap	316 Stainless Steel
Shaft w/Coupling	304 Stainless Steel
Cable Guard	304 Stainless Steel

NOTES: Specifications subject to change without notice.

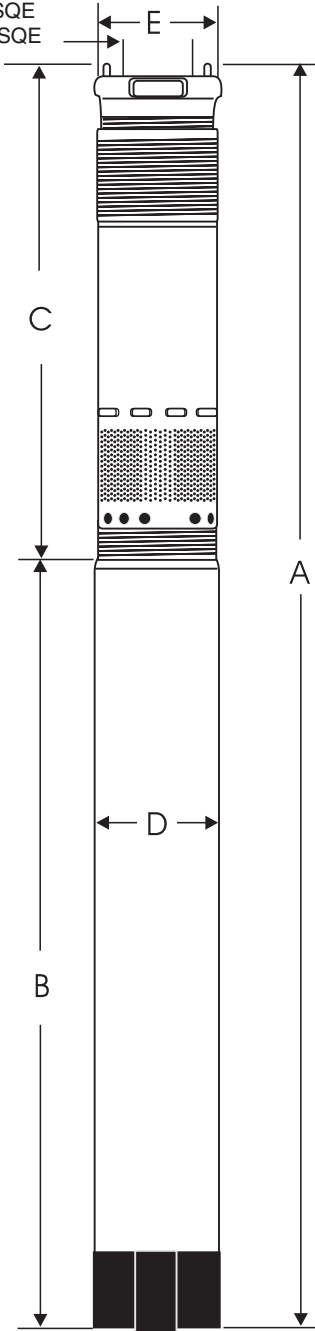


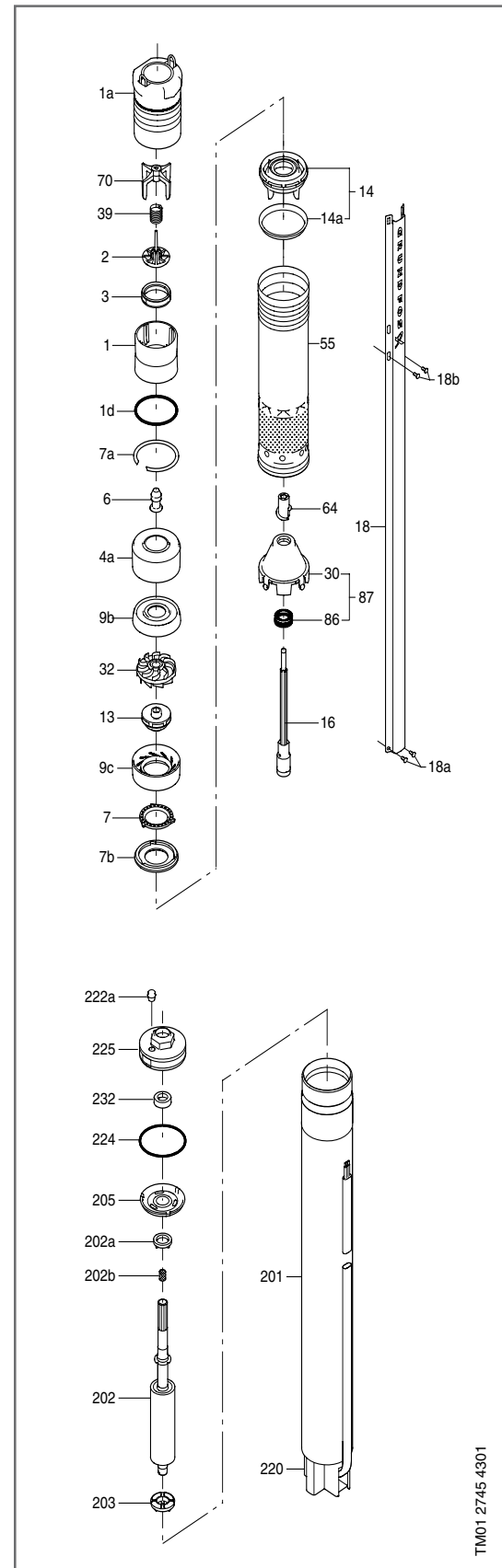
Fig. A

Material specification (Pump)

Pos.	Component	Material	DIN W.-Nr. SQ/SQE	AISI	DIN W.-Nr. SQ-N	AISI
1	Valve casing	Polyamide				
1a	Discharge chamber	Stainless steel	1.4301	304	1.4401	316
1d	O-ring	NBR rubber				
2	Valve cup	Polyamide				
3	Valve seat	NBR rubber				
4a	Empty chamber	Polyamide				
6	Top bearing	NBR rubber				
7	Neck ring	TPU/PBT				
7a	Lock ring	Stainless spring steel	1.4310	310	1.4401	316
7b	Neck ring retainer	Polyamide				
9b	Chamber top	Polyamide				
9c	Chamber bottom	Polyamide				
13	Impeller with tungsten carbide bearing	Polyamide				
14	Suction inter-connector	Polyamide				
14a	Ring	Stainless steel	1.4301	304	1.4401	316
16	Shaft with coupling	Stainless steel Sintered steel	1.4301	304	1.4401	316
18	Cable guard	Stainless steel	1.4301	304	1.4401	316
18a	Screws for cable guard	Stainless steel	1.4401	316	1.4401	316
30	Cone for pressure equalisation	Polyamide				
32	Guide vanes	Polyamide				
39	Spring	Stainless spring steel	1.4406	316LN	1.4406	316LN
55	Pump sleeve	Stainless steel	1.4301	304	1.4401	316
64	Priming screw	Polyamide				
70	Valve guide	Polyamide				
86	Lip seal ring	NBR rubber				
87	Cone for pressure equalization complete	Polyamide/ NBR rubber				

Material specification (Motor)

Pos.	Component	Material	DIN W.-Nr. MS 3/ MSE 3	AISI	DIN W.-Nr. MS 3-NE	AISI
201	Stator	Stainless steel	1.4301	304	1.4401	316
202	Rotor	Stainless steel	1.4301	304	1.4401	316
202a	Stop ring	PP				
202b	Filter	Polyester				
203	Thrust bearing	Carbon				
205	Radial bearing	Ceramic/ tungsten carbide				
220	Motor cable with plug	EPR				
222a	Filling plug	MS 3: NBR MSE 3: FKM				
224	O-ring	FKM				
225	Top cover	PPS				
232	Shaft seal	MS 3: NBR MSE 3: FKM				
	Motor liquid	SML-2				



ELECTRIC

Supply Voltage:	1x200-240V +6%/-10%, 50/60 Hz, PE 1x100-115V +6%/-10%, 50/60 Hz, PE
Operation Via Generator:	As a minimum, the generator output must be equal to the motor P1[kw] + 10%
Starting Current:	The motor starting current is equal to the highest value stated on the motor nameplate
Starting:	Soft Start
Run-up Time:	Maximum: 2-seconds
Motor Protection:	Motor is protected against: Dry running, overvoltage, undervoltage, overload, overtemperature
Power Factor:	PF=1
Motor Cable:	3 Wire, 14AWG XLPE
Motor Liquid:	Type SML 2
pH Values:	SQ and SQE: 5 to 9
Liquid Temperature:	The temperature of the pumped liquid must not exceed 104°F

Note: If liquids with a viscosity higher than that of water are to be pumped, please contact Grundfos

PIPING CONNECTION

Discharge Port:	5SQ/SQE - 1" NPT 10-15SQ/SQE - 1-1/4" NPT 22-30SQ/SQE - 1-1/2" NPT
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STORAGE CONDITIONS

Minimum Ambient Temperature:	-4°F
Maximum Ambient Temperature:	+140°F
Frost Protection:	If the pump has to be stored after use, it must be stored at a frost-free location or it must be ensured that the motor liquid is frost proof.

OPERATING CONDITIONS

Minimum Ambient Fluid Temperature:	+ 34°F
Maximum Ambient Fluid Temperature:	+140°F

APPROXIMATE DIMENSIONS AND WEIGHT

Motor Dimensions (MS 3 & MSE 3):	
0.50 [Hp]	20.9" length x 2.68 diameter
0.75 [Hp]	20.9" length x 2.68 diameter
1.0 - 1.5 [Hp]	22.3" length x 2.68 diameter
Motor Weights (MS3 & MSE3)	
0.50 [Hp]	6.0 lbs
0.75 [Hp]	7.1 lbs
1.0 - 1.5 [Hp]	8.2 lbs
Pump End Dimensions:	
Pump Diameter:	2.68
Pump Diameter, incl cable guard	2.91
Pump End Dimensions (min. and max.):	
5SQ/SQE	10.6" to 18.0"
10SQ/SQE	10.6" to 14.8"
15SQ/SQE	10.6" to 16.9"
22SQ/SQE	10.6" to 13.7"
30SQ/SQE	10.6" to 13.7"
Pump End Weights (min. and max.):	
All SQ/SQE Models	2.2 lbs to 3.5 lbs
Well Diameter:	3-inch or larger
Installation Depth (maximum)	500 feet below static water level