GRUNDFOS **PRODUCT GUIDE**

SPK, CRK

Immersible Pumps
60 Hz

BE > THINK > INNOVATE >

GRUNDFOS

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Mission

- to successfully develop, produce, and sell high quality pumps and pumping systems worldwide, contributing to a better quality of life and healthier environment

Bjerringbro, Denmark

Fresno, California

Olathe, Kansas

Monterrey, Mexico

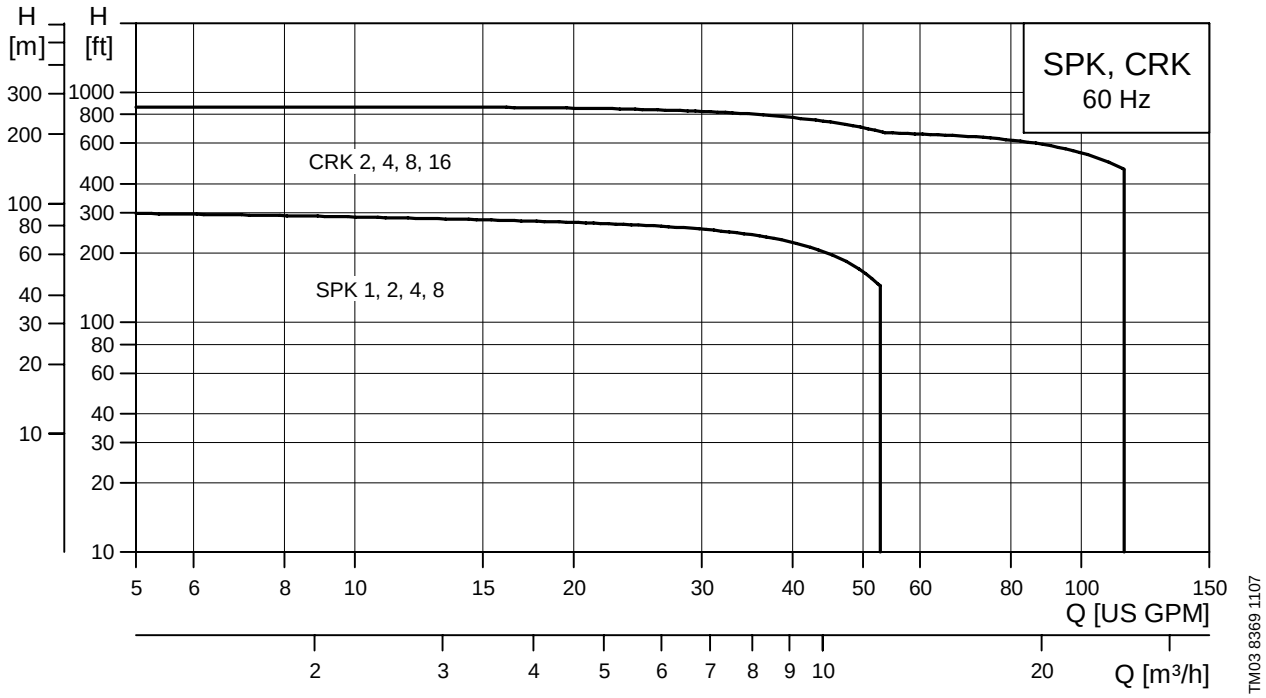
Allentown, Pennsylvania

Oakville, Ontario

- One of the 3 largest pump companies in the world
- The second largest manufacturer of submersible motors in the world
- World headquarters in Denmark
- North American headquarters in Kansas City - Manufacturing in Fresno, California
- 60 companies in 40 countries
- More than 10 million motors and pumps produced annually worldwide
- North American companies operating in USA, Canada and Mexico
- Continuous reinvestment in growth and development enables the company to **BE** responsible, **THINK** ahead, and **INNOVATE**

General data

Performance range



Notes:

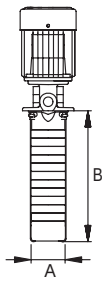
Pumps supplied by Grundfos Canada are normally supplied with motors from other manufacturers. 575V motors meet EPAct/NRC efficiency standards. Dimensions and data will vary slightly. Contact local Grundfos company for more information.

General data

Product range


TK01 6168 1699

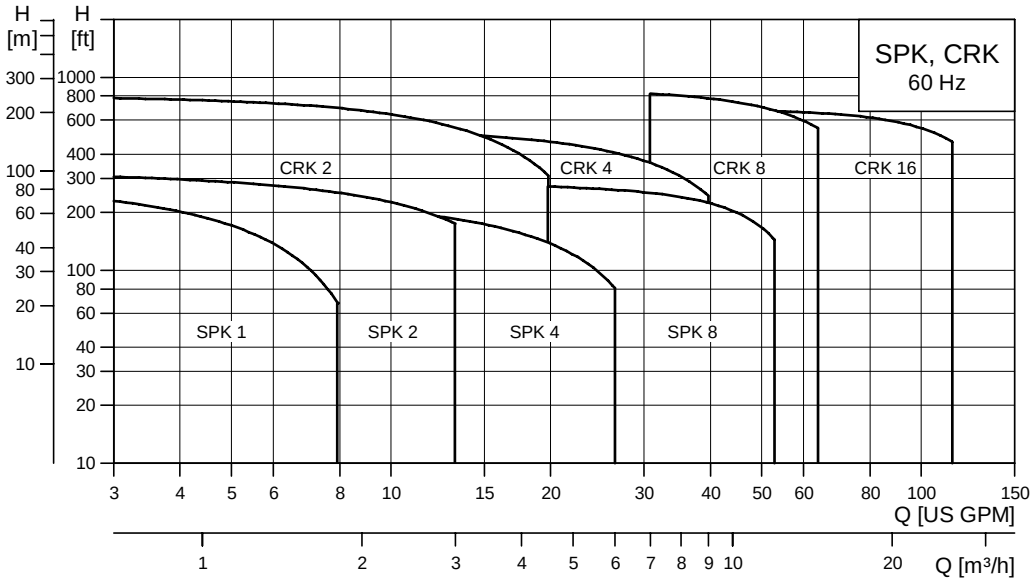

TK01 6168 1699

Description	SPK 1	SPK 2	SPK 4	SPK 8	CRK 2	CRK 4	CRK 8	CRK 16
Range 60 Hz								
Nominal flow [gpm]	5	11	18	40	13	28	50	80
Flow range [gpm]	0.5 - 8	1.1 - 13.2	1.8 - 26.5	4 - 56	1.3 - 20	2.8 - 40	5 - 63	8 - 114
Maximum head [ft]	287	331	250	312	805	560	865	715
Maximum power [hp]	3/4	1 1/2	1 1/2	5	5	5	15	20
Liquid temperature range [°F]	+14 to +194 °F (–10 to +90 °C)							
Maximum Efficiency [%]	41	54	51	59	44	59	64	71
Material variants								
Motor stool/pump head:Cast iron, ASTM 25B	●	●	●	●	●	●	●	●
Motor stool / pump head: Stainless Steel: AISI 316LN	● *	● *	● *	● *	● *	● *	● *	● *
Pipe connection								
1 1/4” NPT	●	●	●	●	●	●		
2” NPT							●	●
Installation dimension [in]								
 **A**	5 9/16	5 9/16	5 9/16	5 9/16	5 9/16	5 9/16	7 7/8	7 7/8
B Max.	39 5/8**	39 5/8**	39 5/8**	39 5/8**	39 5/8	39 5/8	27 1/8	31 7/8
Shaft seal								
AUUV	●	●	●	●	●	●	●	●
EUUV								
***Available on request**								
Variable speed motor (</=10 hp)	● *	● *	● *	● *	● *	● *	● *	● *

**With extension pipe

General data

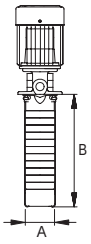
Performance range



TM03 8495 1707

Product range

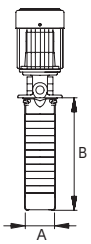
SPK 1

Example: SPK 1-8/8		Number of impellers						B [in]
		1	3	5	8	11	15	
	1	●						5 5/8
	3	●	●					7 1/4
	5	●	●	●				8 7/8
	8	●	●	●	●			11 3/8
	11	●	●	●	●	●		13 7/8
	15	●	●	●	●	●	●	17 1/8
	19	●	●	●	●	●	●	20 1/2
	23	●	●	●	●	●	●	23 3/4
	23★	●	●	●	●	●	●	39 5/8
Motor [hp]		1/3	1/3	1/3	1/3	1/2	3/4	

Number of chambers

★ with extension pipe.

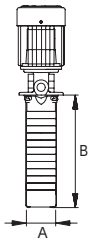
SPK 2

Example: SPK 2-8/8		Number of impellers						B [in]
		1	3	5	8	11	15	
	1	●						5 5/8
	3	●	●					7 1/4
	5	●	●	●				8 7/8
	8	●	●	●	●			11 3/8
	11	●	●	●	●	●		13 7/8
	15	●	●	●	●	●	●	17 1/8
	19	●	●	●	●	●	●	20 1/2
	23	●	●	●	●	●	●	23 3/4
	23★	●	●	●	●	●	●	39 5/8
Motor [hp]		1/3	1/3	1/2	3/4	1	1 1/2	

Number of chambers

★ with extension pipe.

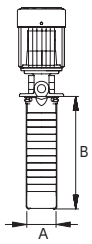
SPK 4

Example: SPK 4-8/8		Number of impellers					B [in]
		1	3	5	8	10	
	1	●					5 5/8
	3	●	●				7 1/4
	5	●	●	●			8 7/8
	8	●	●	●	●		11 3/8
	11	●	●	●	●	●	13 7/8
	15	●	●	●	●	●	17 1/8
	19	●	●	●	●	●	20 1/2
	19★	●	●	●	●	●	39 5/8
Motor [hp]		1/3	1/2	3/4	1 1/2	1 1/2	

Number of chambers

★ with extension pipe.

SPK 8

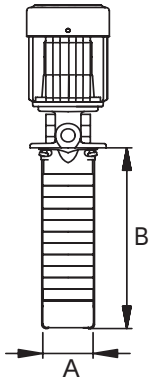
Example: SPK 8-7/7		Number of impellers							B [in]
		1	2	3	5	7	8	12	
	1	●							7 1/4
	2	●	●						8 7/8
	3	●	●	●					10 1/2
	5	●	●	●	●				13 7/8
	7	●	●	●	●	●			17 1/8
	9	●	●	●	●	●	●		20 1/2
	12	●	●	●	●	●	●	●	25 3/8
	15	●	●	●	●	●	●	●	30 3/8
	15★	●	●	●	●	●	●	●	39 5/8
Motor [hp]		1/2	3/4	1 1/2	2	3	3	5	

Number of chambers

★ with extension pipe.

General data

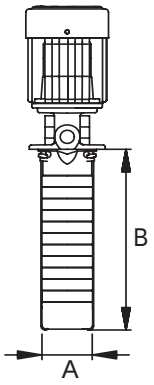
CRK 2

Example: CRK 2-60/6		Number of impellers											B [in]
		2	3	4	5	6	7	9	11	13	15	18	
	20	●											6 3/8
	30	❍	●										7 1/8
	40	❍	❍	●									7 3/4
	50	❍	❍	❍	●								8 1/2
	60	❍	❍	❍	❍	●							9 1/4
	70	❍	❍	❍	❍	❍	●						9 7/8
	90	❍	❍	❍	❍	❍	❍	●					11 3/8
	110	❍	❍	❍	❍	❍	❍	❍	●				12 3/4
	130	❍	❍	❍	❍	❍	❍	❍	❍	●			14 1/8
	150	❍	❍	❍	❍	❍	❍	❍	❍	❍	●		15 5/8
	180	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	17 3/4
	220	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	20 1/2
	260	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	23 3/8
	500★	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	39 5/8
Motor [hp]		1/2	3/4	1	1 1/2	1 1/2	2	2	3	3	5	5	

Number of chambers x 10

❍ available on request.

CRK 4

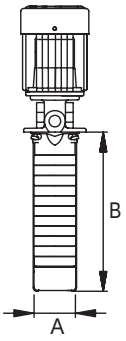
Example: CRK 4-60/6		Number of impellers									B [in]
		2	3	4	5	6	7	8	10	12	
	20	●									6 3/4
	30	❍	●								7 3/4
	40	❍	❍	●							8 7/8
	50	❍	❍	❍	●						9 7/8
	60	❍	❍	❍	❍	●					11
	70	❍	❍	❍	❍	❍	●				12
	80	❍	❍	❍	❍	❍	❍	●			13 1/8
	100	❍	❍	❍	❍	❍	❍	❍	●		15 1/4
	120	❍	❍	❍	❍	❍	❍	❍	❍	●	17 3/8
	140	❍	❍	❍	❍	❍	❍	❍	❍	●	19 1/2
	160	❍	❍	❍	❍	❍	❍	❍	❍	●	21 5/8
	190	❍	❍	❍	❍	❍	❍	❍	❍	●	24 3/4
	220	❍	❍	❍	❍	❍	❍	❍	❍	●	28
	330★	❍	❍	❍	❍	❍	❍	❍	❍	●	39 5/8
Motor [hp]		3/4	1 1/2	1 1/2	2	3	3	3	5	5	

Number of chambers x 10

❍ available on request.

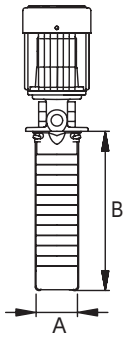
General data

CRK 8

Example: CRK 8-60/6	Number of chambers x 10	Number of impellers 1	2	3	4	5	6	8	10	12	14	16	B [in]
	20	●	●										5 7/8
	30	❍	❍	●									7 1/8
	40	❍	❍	❍	●								8 1/4
	50	❍	❍	❍	❍	●							9 3/8
	60	❍	❍	❍	❍	❍	●						10 5/8
	80	❍	❍	❍	❍	❍	❍	●					13
	100	❍	❍	❍	❍	❍	❍	❍	●				15 3/8
	120	❍	❍	❍	❍	❍	❍	❍	❍	●			17 3/4
	140	❍	❍	❍	❍	❍	❍	❍	❍	❍	●		20
	160	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	22 3/8
	180	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	24 3/4
	200	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	●	27 1/8
Motor [hp]		3/4	1 1/2	3	3	5	5	7 1/2	7 1/2	10	15	15	

❍ available on request.

CRK 16

Example: CRK 16-60/6	Number of chambers x 10	Number of impellers 1	2	3	4	5	6	7	8	10	B [in]
	20	●	●								7 1/8
	30	❍	❍	●							8 7/8
	40	❍	❍	❍	●						10 5/8
	50	❍	❍	❍	❍	●					12 3/8
	60	❍	❍	❍	❍	❍	●				14 1/8
	70	❍	❍	❍	❍	❍	❍	●			15 7/8
	80	❍	❍	❍	❍	❍	❍	❍	●		17 3/4
	100	❍	❍	❍	❍	❍	❍	❍	❍	●	21 1/4
	120	❍	❍	❍	❍	❍	❍	❍	❍	●	24 3/4
	140	❍	❍	❍	❍	❍	❍	❍	❍	●	28 3/8
	160	❍	❍	❍	❍	❍	❍	❍	❍	●	31 7/8
Motor [hp]		2	5	7 1/2	7 1/2	10	15	15	15	20	

❍ available on request.

Product description

SPK/CRK are designed for pumping cooling lubricants for machine tools, condensate transfer and other purposes.

The pumps are designed for low to high pressure and are very flexible as to installation length.

The pumps can be used for applications involving EDM machine tools, grinding machines, machining centers, cooling units, industrial washing machines, filtering systems etc.

Pumped liquids

Thin, clean, non-explosive liquids without abrasive particles or fibers. Both water and water-soluble coolants and cutting lubricants can be pumped.

Pump

The pump is a multistage, centrifugal pump with a mechanical shaft seal. Mounting flange sizes according to DIN 5540. To meet specific depths of tanks or containers, the installation length of the pump can be varied using empty chambers and/or an extension pipe.

Available variants are based on the number of stages indicated in the dimensions and weights tables.

Example: An SPK 1 pump with 8 impellers is available with installation lengths from SPK 1-8 to SPK 1-23 (dimension B).
Note: Empty chambers may cause pressure loss. The CRK 8 and the CRK 16 with empty bearing chambers have pressure losses. See page 36 for details.

I-version

As standard the SPK/CRK pumps are available as I-version called SPKI/CRKI. All parts of SPKI/CRKI pumps in contact with the pumped liquid are made of stainless steel AISI 304 or AISI 316.

Motor

Electrical Data

Mounting designation	NEMA
Insulation class	F
Efficiency class *	Standard efficiency Energy efficient / EPAct - on request Premium efficiency - on request
Enclosure class	TEFC - Totally Enclosed Fan Cooled (Grundfos standard) ODP - Open Drip Proof - on request
60 Hz Standard voltages	1 x 115/208-230 3 x 208-230/460 3 x 575

* 1, 1.5 and 2 HP ML motors are premium efficiency as standard.
Other voltages available on request

Operating conditions

Liquid temperature: +14°F to +194°F (-10°C to +90°C).

Ambient temperature

Ambient temperature Maximum +104°F (+40°C).

If the ambient temperature exceeds +104°F (+40°C) or if the motor is located 3280 ft . (1000 m) above sea level, the motor output (P_2) must be reduced due to the low density and consequently low cooling effect of the air. In such cases, it may be necessary to use a motor with a higher output.

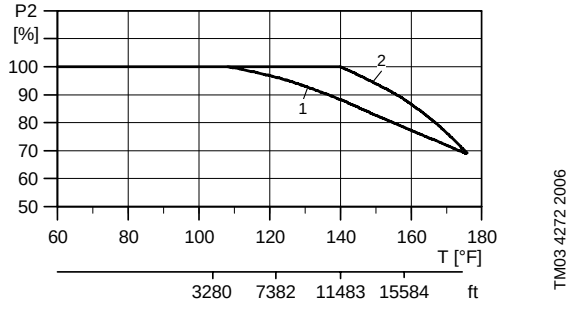


Fig. 1 Relationship between motor output (P_2) and ambient temperature/altitude

Key

Pos.	Description
1	NEMA Standard Efficiency motors
2	NEMA Premium Efficiency motors

Example: From the above figure and key appears that P_2 must be reduced to 88% when a pump with a NEMA Premium Efficiency, ML motor is installed 15584 feet above sea level. At an ambient temperature of 167°F, P_2 of a standard efficiency motor must be reduced to 80% of rated output.

Sound pressure level

Motor [hp]	dB(A)
1/3 to 1 1/2	<70
2 to 5	71
7.5	78
10	78
15	84
20	77

Shaft seal

Max. operating pressure and liquid temperature

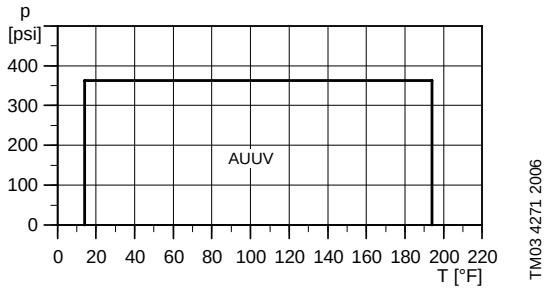


Fig. 2

Shaft seal	Description	Temperature range [°F]
AUUV	O-ring seal with fixed seal driver, tungsten carbide/tungsten carbide, FKM	+14°F to 194°F

Terminal box positions

As standard SPK and CRK pumps built in North America have their terminal box mounted in position 9 o'clock of the pump; however other positions are possible.

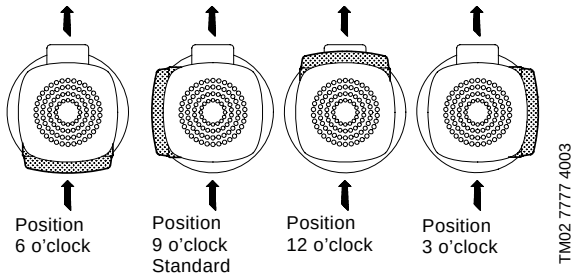
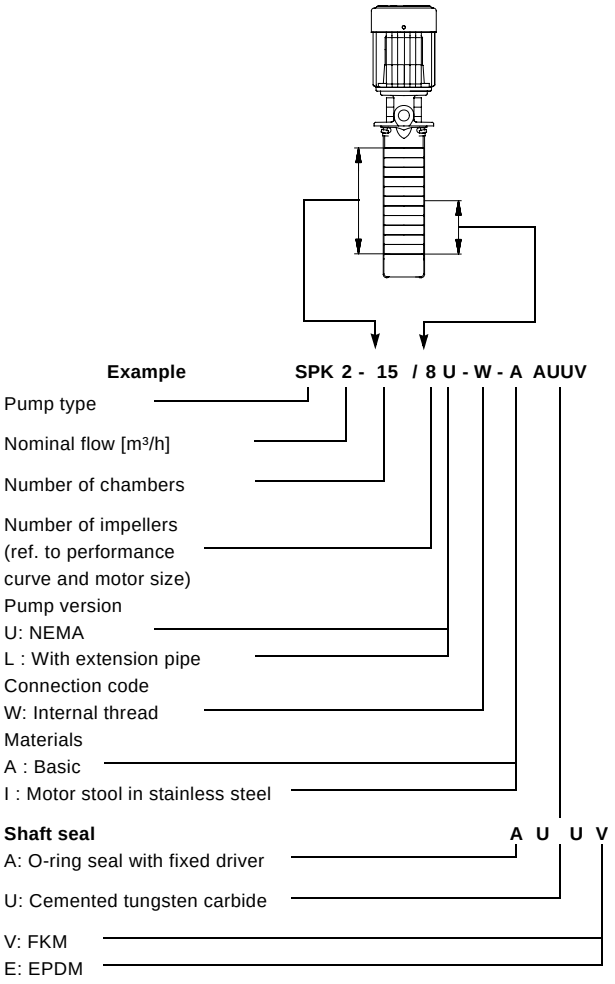


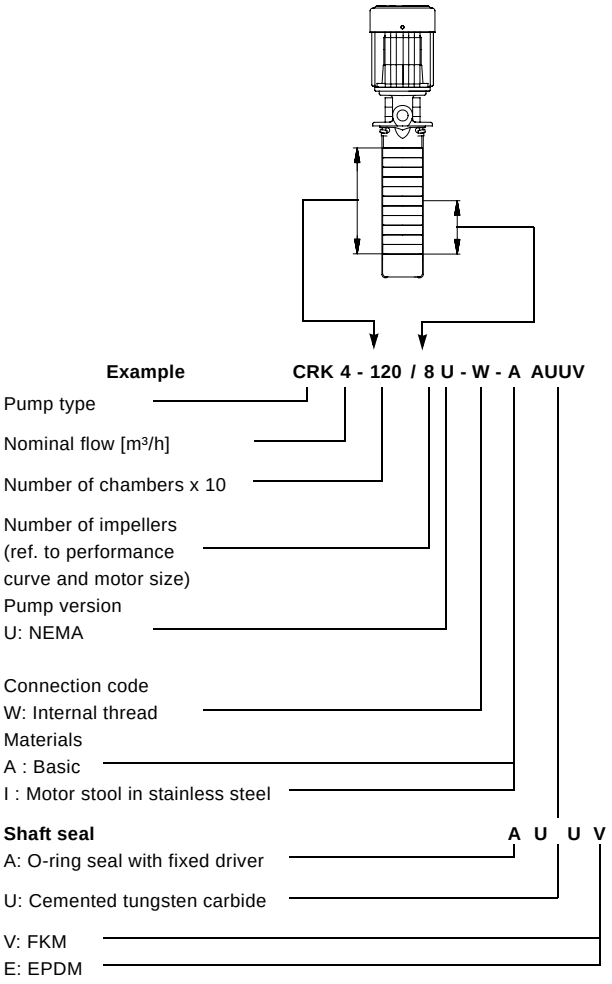
Fig. 3 Terminal box positions

Type key

SPK



CRK



Extension pipe

All SPK pumps are available with an extension pipe. The extension pipe is available in various lengths enabling installation lengths up to 39 5/8 in. (1005 mm).

CRK 2 and CRK 4 pumps can be extended by means of empty chambers enabling installation lengths up to 39 5/8 in. (1005 mm).

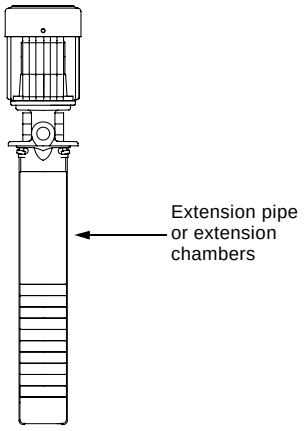


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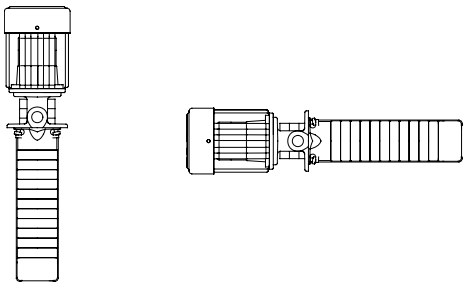
Fig. 4 Extension Pipe

Installation

SPK, CRK 2/4



TM00 1922 3297

Fig. 5 SPK, CRK 2/4

If the SPK pump is installed horizontally, the motor stool drain hole must be closed.

CRK 8/16

CRK 8/16 are designed for vertical mounting in a tank.

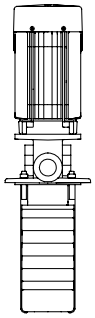


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Fig. 6 CRK 8/16

SPK and CRK 2/4

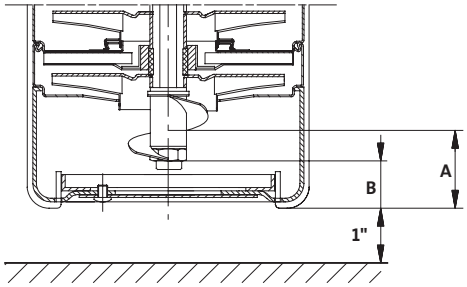

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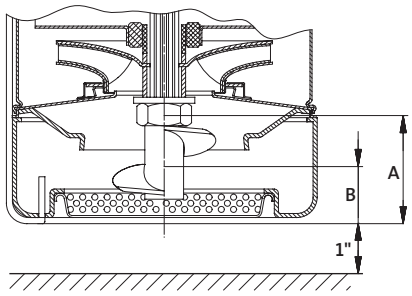
Fig. 7 SPK and CRK 2/4

CRK 8/ 16



TM01 7811 4899

Fig. 8 CRK 8/16

The pumps are designed to provide full performance down to a level of A in. above the bottom of the strainer.

At a liquid level between A and B in. above the bottom of the strainer, the built-in priming screw will protect the pump against dry running.

Pump type	A [in]	B [in]
SPK and CRK 2/4	1 5/8	1
CRK 8/16	2	1

Materials, SPK

Pos.	Description	Materials	DIN W.-Nr.	ASTM/AISI
2	Motor stool	Cast iron	0.6020	ASTM 25B
		Stainless steel (I-version)	1.4408	AISI 316LN
3	Intermediate chamber	Stainless steel	1.4301	AISI 304
3a	Intermediate chamber	Stainless steel	1.4301	AISI 304
4	Intermediate chamber	Stainless steel	1.4301	AISI 304
4a	Intermediate chamber w/ bearing	Stainless steel	1.4301	AISI 304
4a	Bearing in chamber	Ceramic AI2O3, 95-100% Hilox		
5a	Bottom intermediate chamber	Stainless steel	1.4301	AISI 304
7	Coupling guard	Stainless steel	1.4301	AISI 304
7a	Screw	Stainless steel		
8	Coupling	Cast iron	0.7040	ASTM 60-40-18
9	Allen screw	Steel		
10	Shaft pin	Stainless steel	1.4301	AISI 304
10a	Coupling half	Cast iron	0.7040	ASTM 60-40-18
26	Strap	Stainless steel	1.4301	AISI 304
28	Motor bolt	Steel		
37	Gasket	Paper		
45	Neck ring	PPS (Polyphenylene sulfide) 40% GF (SPK 1, 2, 4)		
		Tin/bronze (SPK 8)		
45a	Disc for neck ring	PTFE		
47a	Bearing ring	Tungsten carbide		
49(d)	Impeller	Stainless steel	1.4301	AISI 304
51	Spline shaft	Stainless steel	1.4057	AISI 431
61	Spacing pipe	Stainless steel	1.4301	AISI 304
62	Stop ring	Stainless steel	1.4436	AISI 316
64(a-c)	Spacing pipe	Stainless steel	1.4401	AISI 316
65	Retainer for neck ring	Stainless steel	1.4301	AISI 304
66(b)	Washer	Stainless steel	1.4301	AISI 304
67	Lock nut	Stainless steel	1.4401	AISI 316
69(a)	Spacing pipe	Stainless steel	1.4301	AISI 304
84/85	Strainer	0.08” holes (SPK 1, 2, 4, CRK 2)	1.4301	AISI 304
		0.16” holes (SPK 8, CRK 4, 8, 16)	1.4301	AISI 304
84b	Screw	Stainless steel		
105	Shaft seal	AUUV		
121	Suction interconnector	Stainless steel	1.4301	AISI 304
122	Priming screw	Stainless steel	1.4401	AISI 316

Sectional drawing

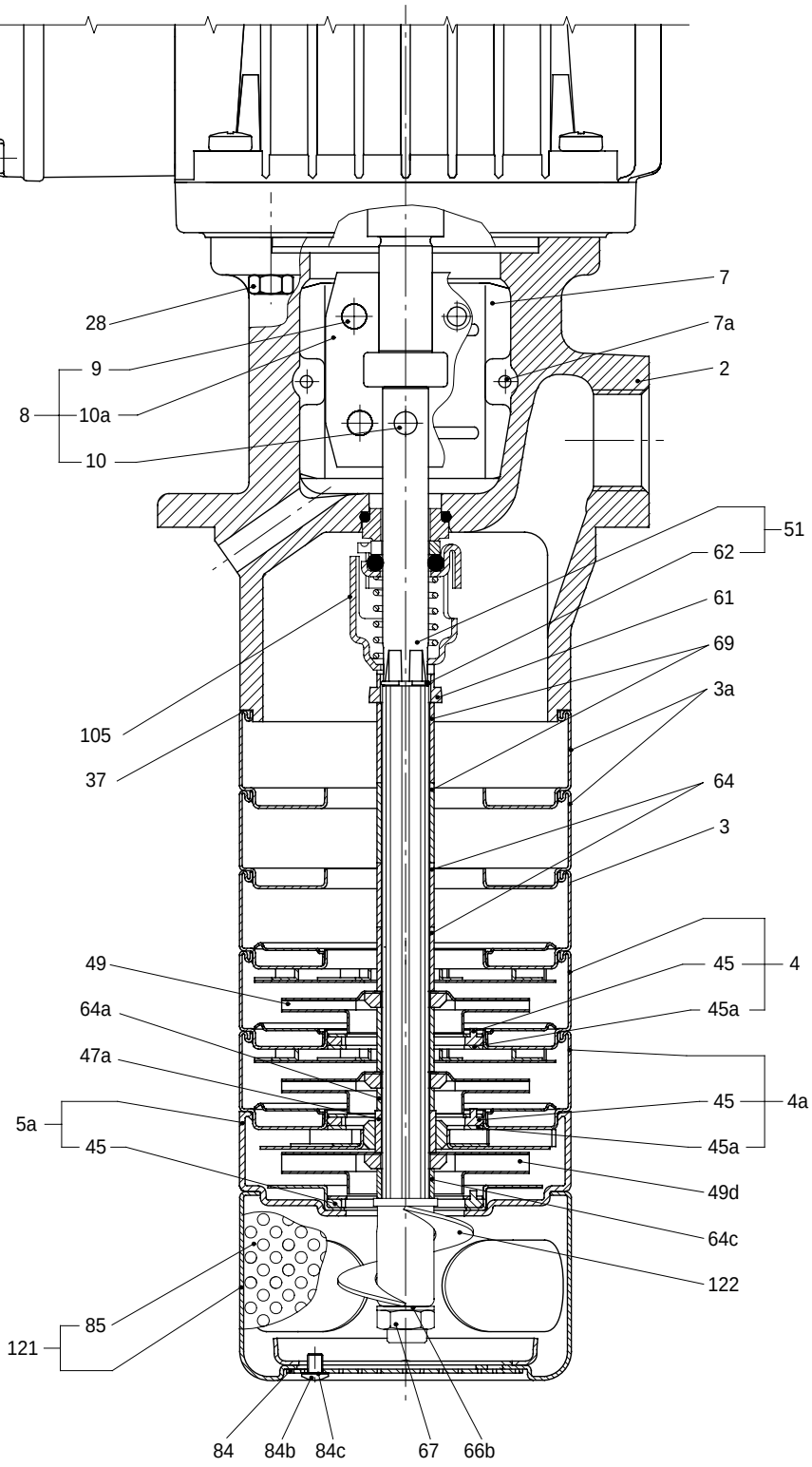
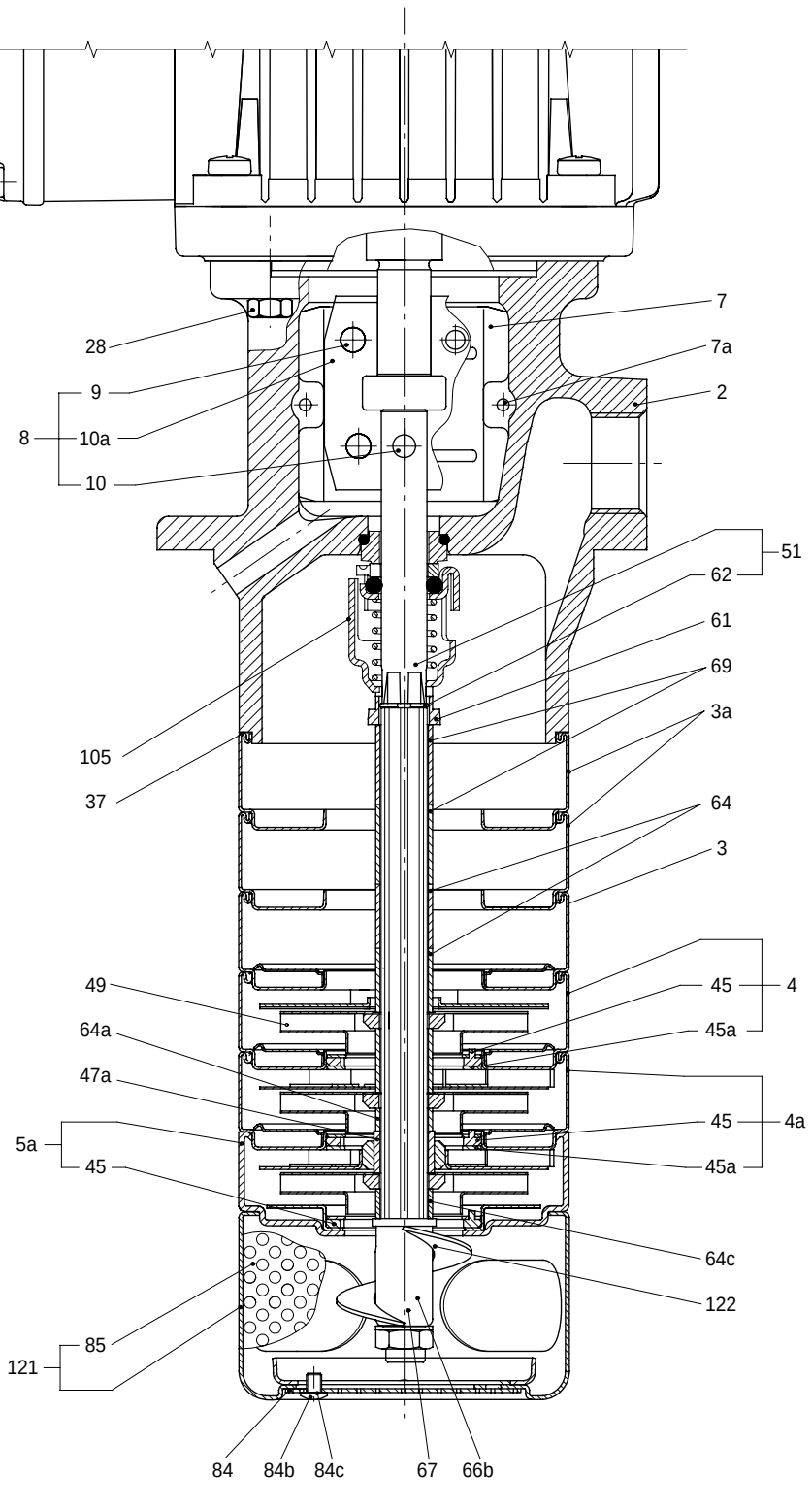


Fig. 9 SPK 1, SPK 2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9
2
8
10a
10
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62
61
69
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3a
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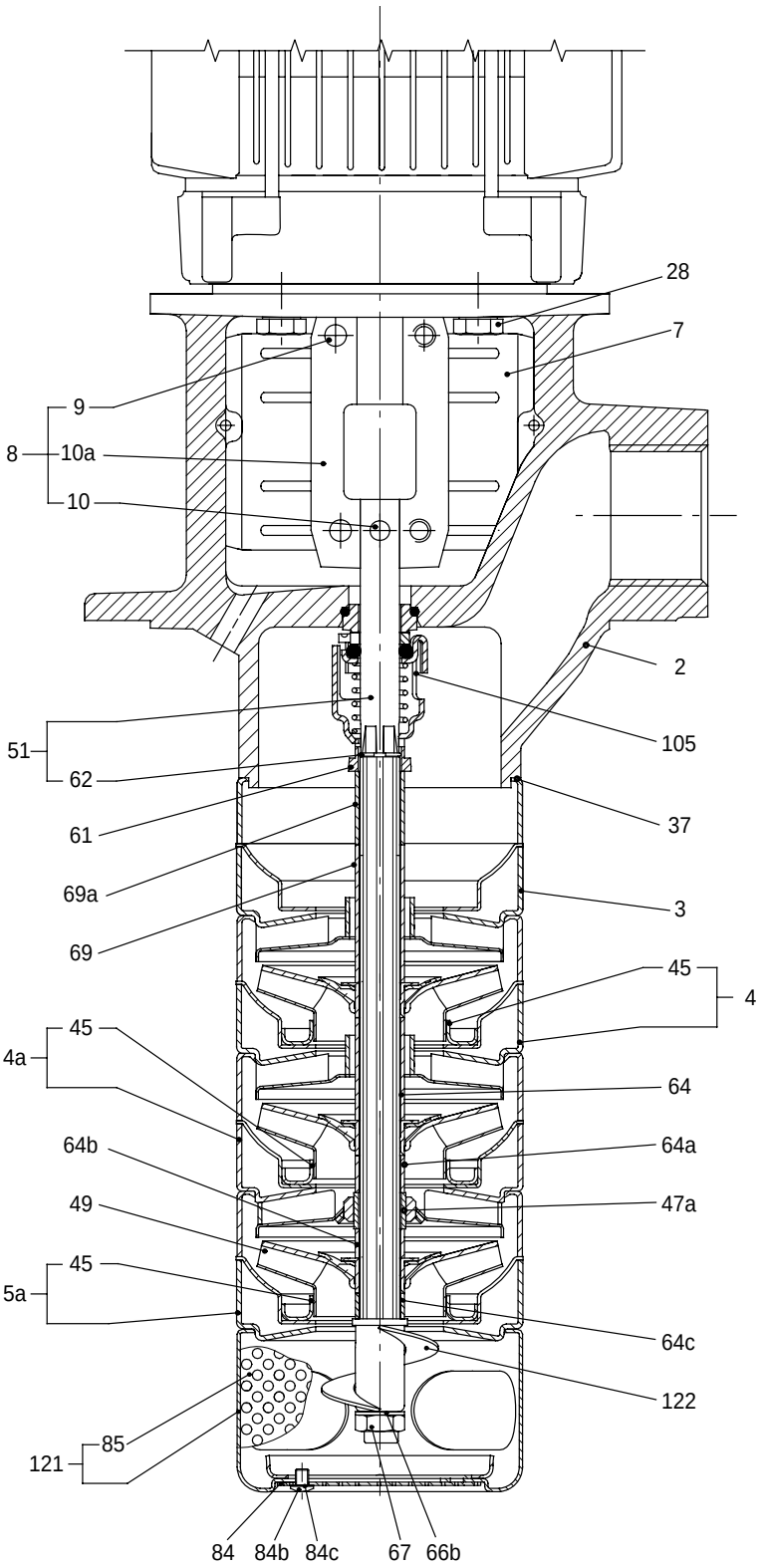
64a
45a
47a
45
4a
5a
45
45a
64c
122
85
121
84
84b
84c
67
66b
TM02 0111 1901

Fig. 10 SPK 4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3
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45
4a
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64b
64a
49
47a
45
5a
64c
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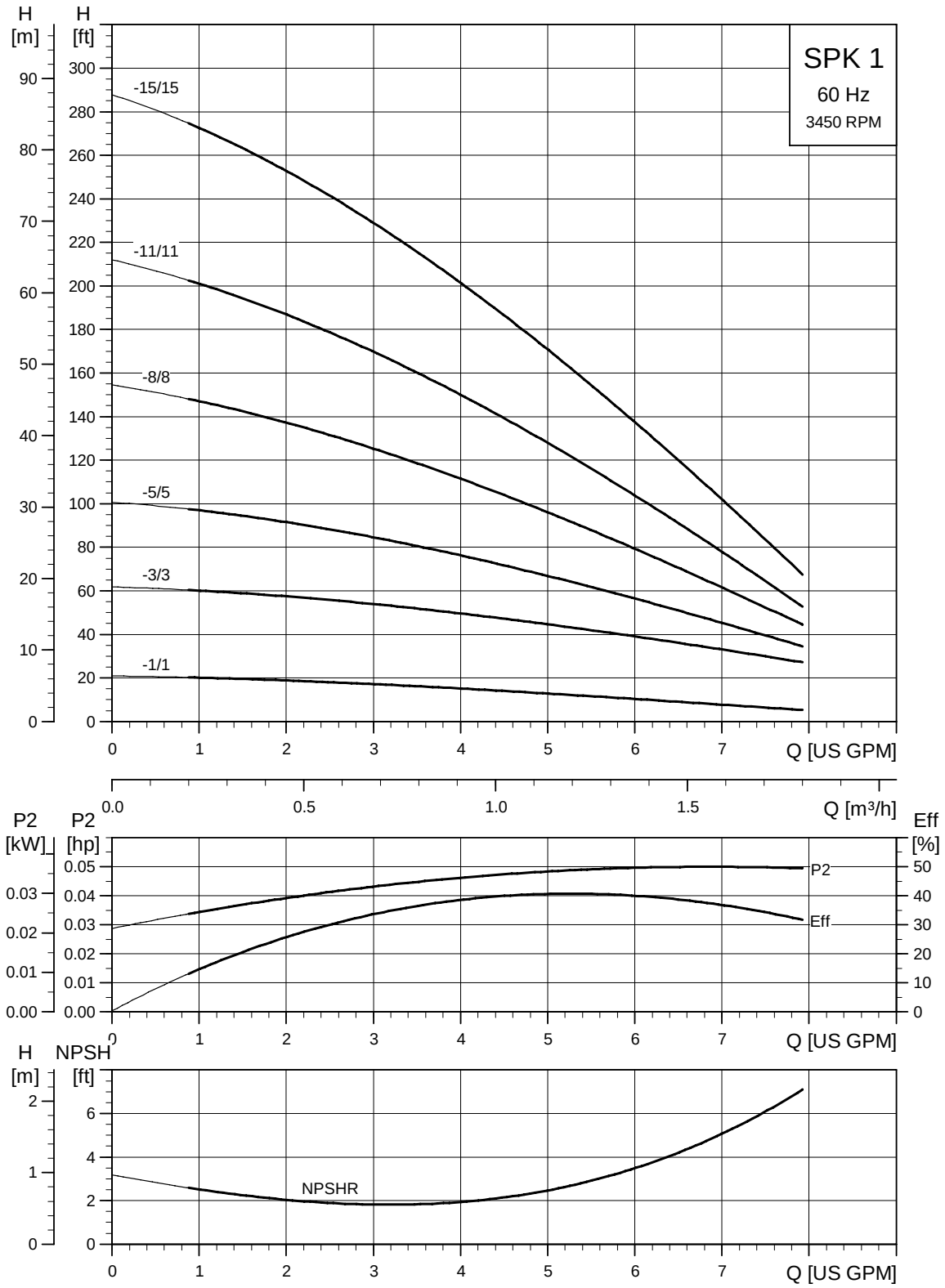
121
84
84b
84c
67
66b
TM02 0112 1901

Fig. 11 SPK 8

Performance curves/ Technical data

SPK 1



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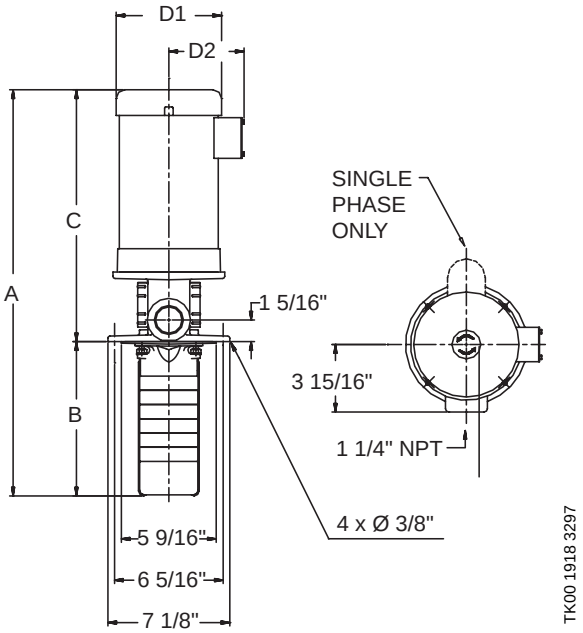
Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 1-1/1	1/3	1	19	5 5/8	13 3/8	6 1/4	5	34.9
		3	19	5 5/8	13 3/8	6 1/4	5	32.9
SPK 1-3/3	1/3	1	20 5/8	7 1/4	13 3/8	6 1/4	5	35.9
		3	20 5/8	7 1/4	13 3/8	6 1/4	5	33.9
SPK 1-5/5	1/3	1	22 1/4	8 7/8	13 3/8	6 1/4	5	36.9
		3	22 1/4	8 7/8	13 3/8	6 1/4	5	34.9
SPK 1-8/8	1/3	1	24 3/4	11 3/8	13 3/8	6 1/4	5	38.9
		3	24 3/4	11 3/8	13 3/8	6 1/4	5	36.9
SPK 1-11/11	1/2	1	27 1/4	13 7/8	13 3/8	6 1/4	5	49.9
		3	27 1/4	13 7/8	13 3/8	6 1/4	5	41.4
SPK 1-15/15	3/4	1	31 1/8	17 1/8	14	6 1/4	5	53.9
		3	30 1/2	17 1/8	13 3/8	6 1/4	5	48.9
SPK 1-19/15	3/4	1	34 1/2	20 1/2	14	6 1/4	5	58.9
		3	33 7/8	20 1/2	13 3/8	6 1/4	5	49.9
SPK 1-23/15	3/4	1	37 3/4	23 3/4	14	6 1/4	5	58.9
		3	37 1/8	23 3/4	13 3/8	6 1/4	5	49.9

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

SPK with extension pipe

Pump	hp	PH	A	B	C	D1	D2	Ship
SPK 1-23/15	3/4	1	53 5/8	39 5/8	14	6 1/4	5	69.0
		3	53	39 5/8	13 3/8	6 1/4	5	60.0

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
1/3	1	56C	1.35	115/230	55	B	K	6.0/3.0	7.6/3.8	28/14	Baldor
	3	56C	1.35	208-230/460	78.5/80	F	L	1.12-1.1/0.55	1.5-1.45/0.75	7.1-10.2/3.9	ML
1/2	1	56C	1.6	115/208-230	62	B	K	7.4/4.1-3.7	9.8/5.2-4.9	39/21.6-19.5	Baldor
	3	56C	1.25	208-230/460	78/79.5	F	K	1.64-1.55/ 0.78	2.0-1.9/0.95	9.7-10.1/5.1	ML
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML

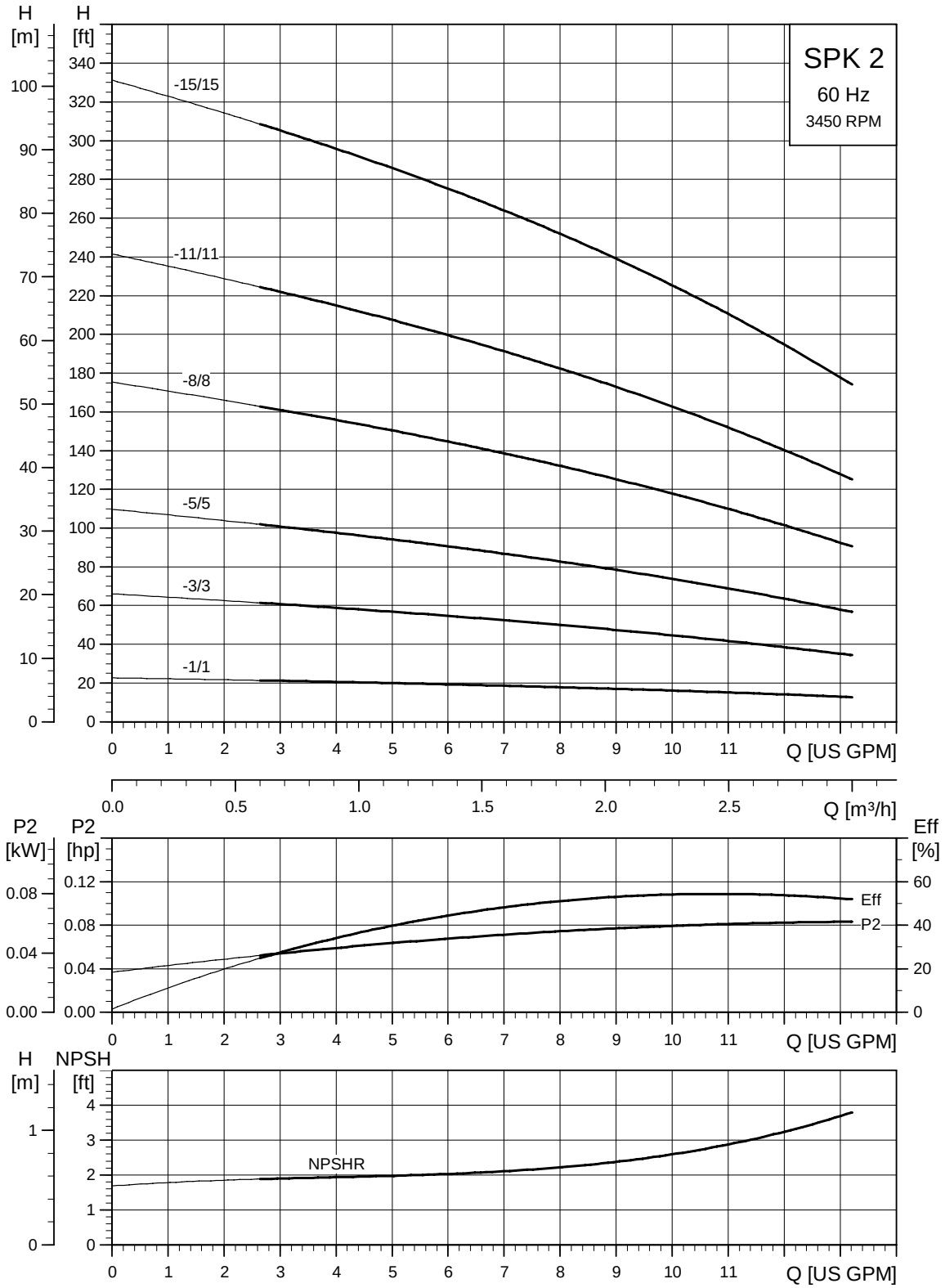
[1]All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Flange to strainer length options

Pump Type	No. of Impellers	hp	Flange to strainer length options (dimension B)								
			Inches								
			5 5/8	7 1/4	8 7/8	11 3/8	13 7/8	17 1/8	20 1/2	23 3/4	39 5/8
			Stages / Impellers								
SPK 1	1	1/3	-1/1	-3/1	-5/1	-8/1	-11/1	-15/1	-19/1	-23/1	All SPK models with extension pipe
SPK 1	3	1/3		-3/3	-5/3	-8/3	-11/3	-15/3	-19/3	-23/3	
SPK 1	5	1/3			-5/5	-8/5	-11/5	-15/5	-19/5	-23/5	
SPK 1	8	1/3				-8/8	-11/8	-15/8	-19/8	-23/8	
SPK 1	11	1/2					-11/11	-15/11	-19/11	-23/11	
SPK 1	15	3/4						-15/15	-19/15	-23/15	

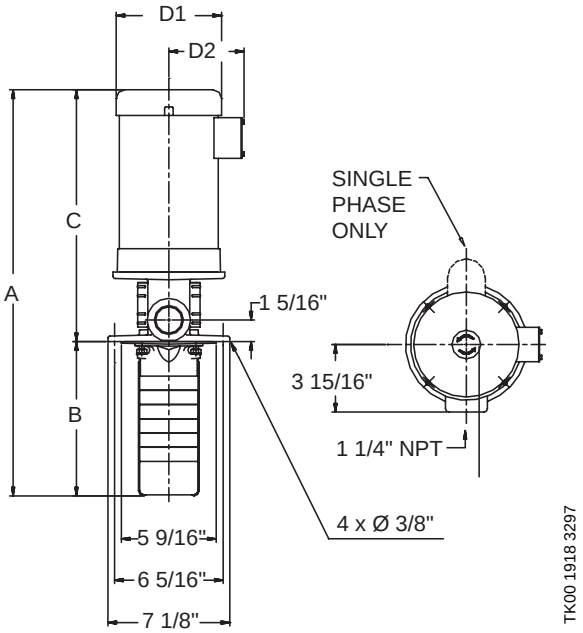
Performance curves

SPK 2



Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 2-1/1	1/4	1	19	5 5/8	13 3/8	6 1/4	5 1/4	35
		3	17 1/4	5 5/8	11 5/8	5 5/8	4 5/8	33
SPK 2-3/3	1/4	1	20 5/8	7 1/4	13 3/8	6 1/4	5 1/4	36
		3	18 7/8	7 1/4	11 5/8	5 5/8	4 5/8	36
SPK 2-5/5	1/2	1	22 1/4	8 7/8	13 3/8	6 1/4	5 1/4	38
		3	20 1/2	8 7/8	11 5/8	5 5/8	4 5/8	38
SPK 2-8/8	3/4	1	25 3/8	11 3/8	14	6 1/4	5 1/4	48
		3	23	11 3/8	11 5/8	5 5/8	4 5/8	41
SPK 2-11/11	1	1	29 1/8	13 7/8	15 1/4	7 1/4	5 3/4	62
		3	25 1/2	13 7/8	11 5/8	5 5/8	4 5/8	48
SPK 2-15/15	1 1/2	1	32 7/8	17 1/8	15 3/4	7 1/4	5 3/4	70
		3	30	17 1/8	12 7/8	5 5/8	4 5/8	57
SPK 2-19/15	1 1/2	1	36 1/4	20 1/2	15 3/4	7 1/4	5 3/4	75
		3	33 3/8	20 1/2	12 7/8	5 5/8	4 5/8	63
SPK 2-23/15	1 1/2	1	39 1/2	23 3/4	15 3/4	7 1/4	5 3/4	76
		3	36 5/8	23 3/4	12 7/8	5 5/8	4 5/8	64
SPK 2-23/15	1 1/2	1	55 3/8	39 5/8	15 3/4	7 1/4	5 3/4	86
		3	52 1/2	39 5/8	12 7/8	5 5/8	4 5/8	74

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

SPK with extension pipe

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 2-23/15	1 1/2	1	55 3/8	39 5/8	15 3/4	7 1/4	5 3/4	86.0
		3	54 3/8	39 5/8	14 3/4	7 1/4	5 3/4	74.0

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

Electrical data

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
1/4	1	56C	1.35	115/230	55	B	K	6.0/3.0	7.6/3.8	28/14	Baldor
	3	56C	1.35	208-230/460	78.5/80	F	L	1.12-1.1/0.55	1.5-1.45/0.75	7.1-10.2/3.9	ML
1/2	1	56C	1.6	115/208-230	62	B	K	7.4/4.1-3.7	9.8/5.2-4.9	39/21.6-19.5	Baldor
	3	56C	1.25	208-230/460	78/79.5	F	K	1.64-1.55/ 0.78	2.0-1.9/0.95	9.7-10.1/5.1	ML
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1	1	56C	1.25	115/230	66	B	K	12/6.0	14.4/7.2	77/38.5	Baldor
	3	56C	1.25	208-230/460	81/81	F	J	3.25-3.35/ 1.68	4.0-3.9/1.95	19.2-21.8/ 10.9	ML

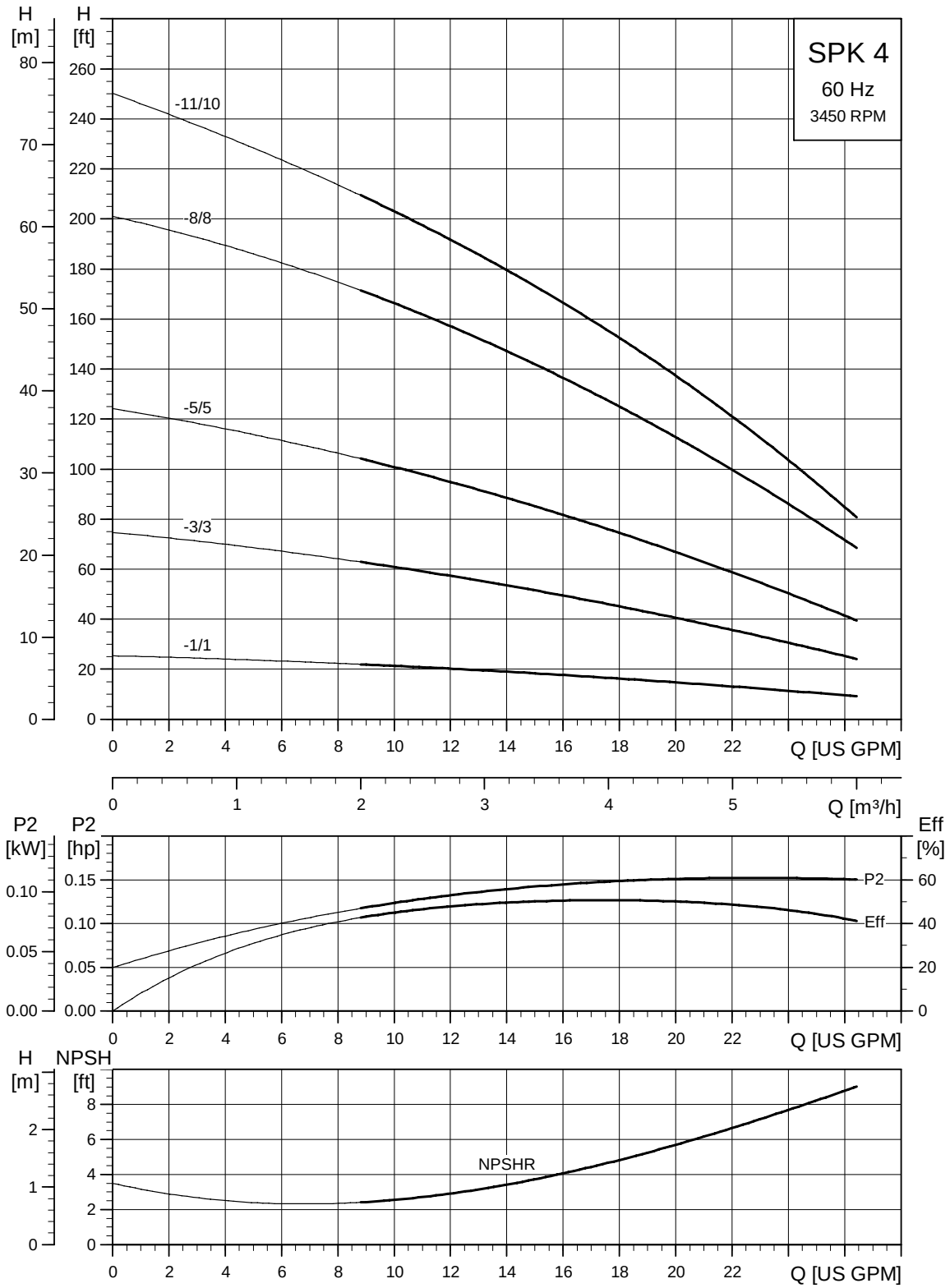
[1]All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Flange to strainer length options

Pump Type	No. of Impellers	hp	Flange to strainer length options (dimension B)								
			Inches								
			5 5/8	7 1/4	8 7/8	11 3/8	13 7/8	17 1/8	20 1/2	23 3/4	39 5/8
			Stages / Impellers								
SPK 2	1	1/3	-1/1	-3/1	-5/1	-8/1	-11/1	-15/1	-19/1	-23/1	All SPK models with extension pipe
SPK 2	3	1/3		-3/3	-5/3	-8/3	-11/3	-15/3	-19/3	-23/3	
SPK 2	5	1/2			-5/5	-8/5	-11/5	-15/5	-19/5	-23/5	
SPK 2	8	3/4				-8/8	-11/8	-15/8	-19/8	-23/8	
SPK 2	11	1					-11/11	-15/11	-19/11	-23/11	
SPK 2	15	1 1/2						-15/15	-19/15	-23/15	

Performance curves

SPK 4



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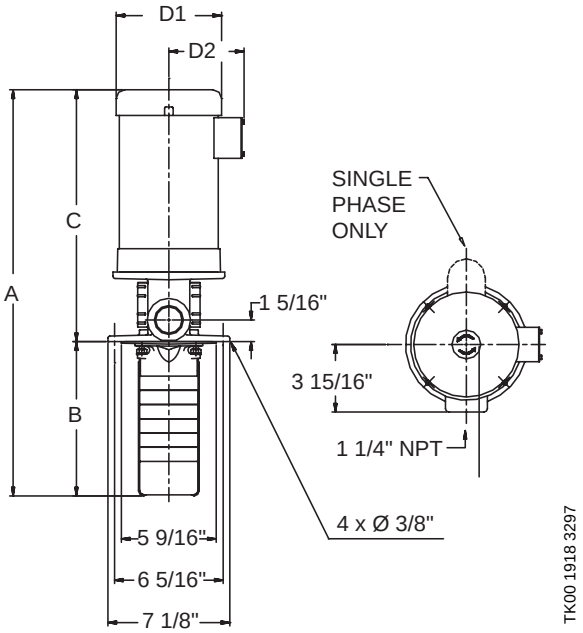
Dimensional sketches



Dimensions and weights[1]

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 4-1/1	1/4	1	19	5 5/8	13 3/8	6 1/4	5 1/4	35
		3	17 1/4	5 5/8	11 5/8	5 5/8	4 5/8	33
SPK 4-3/3	1/2	1	20 5/8	7 1/4	13 3/8	6 1/4	5 1/4	37
		3	18 7/8	7 1/4	11 5/8	5 5/8	4 5/8	35
SPK 4-5/5	3/4	1	22 7/8	8 7/8	14	6 1/4	5 1/4	54
		3	20 1/2	8 7/8	11 5/8	5 5/8	4 5/8	40
SPK 4-8/8	1 1/2	1	27 1/8	11 3/8	15 3/4	7 1/4	5 3/4	67
		3	24 1/4	11 3/8	12 7/8	5 5/8	4 5/8	50
SPK 4-11/10	1 1/2	1	29 5/8	13 7/8	15 3/4	7 1/4	5 3/4	69
		3	26 3/4	13 7/8	12 7/8	5 5/8	4 5/8	57
SPK 4-15/10	1 1/2	1	32 7/8	17 1/8	15 3/4	7 1/4	5 3/4	72
		3	30	17 1/8	12 7/8	5 5/8	4 5/8	60
SPK 4-19/10	1 1/2	1	36 1/4	20 1/2	15 3/4	7 1/4	5 3/4	74
		3	33 3/8	20 1/2	12 7/8	5 5/8	4 5/8	62
SPK 4-19/10	1 1/2	1	55 3/8	39 5/8	15 3/4	7 1/4	5 3/4	86
		3	52 1/2	39 5/8	12 7/8	5 5/8	4 5/8	74

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

SPK with extension pipe

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 4-19/10	1 1/2	1	55 3/8	39 5/8	15 3/4	7 1/4	5 3/4	85.7
		3	54 3/8	39 5/8	14 3/4	7 1/4	5 3/4	73.8

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
1/4	1	56C	1.35	115/230	55	B	K	6.0/3.0	7.6/3.8	28/14	Baldor
	3	56C	1.35	208-230/460	78.5/80	F	L	1.12-1.1/0.55	1.5-1.45/0.75	7.1-10.2/3.9	ML
1/2	1	56C	1.6	115/208-230	62	B	K	7.4/4.1-3.7	9.8/5.2-4.9	39/21.6-19.5	Baldor
	3	56C	1.25	208-230/460	78/79.5	F	K	1.64-1.55/ 0.78	2.0-1.9/0.95	9.7-10.1/5.1	ML
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1	1	56C	1.25	115/230	66	B	K	12/6.0	14.4/7.2	77/38.5	Baldor
	3	56C	1.25	208-230/460	81/81	F	J	3.25-3.35/ 1.68	4.0-3.9/1.95	19.2-21.8/ 10.9	ML

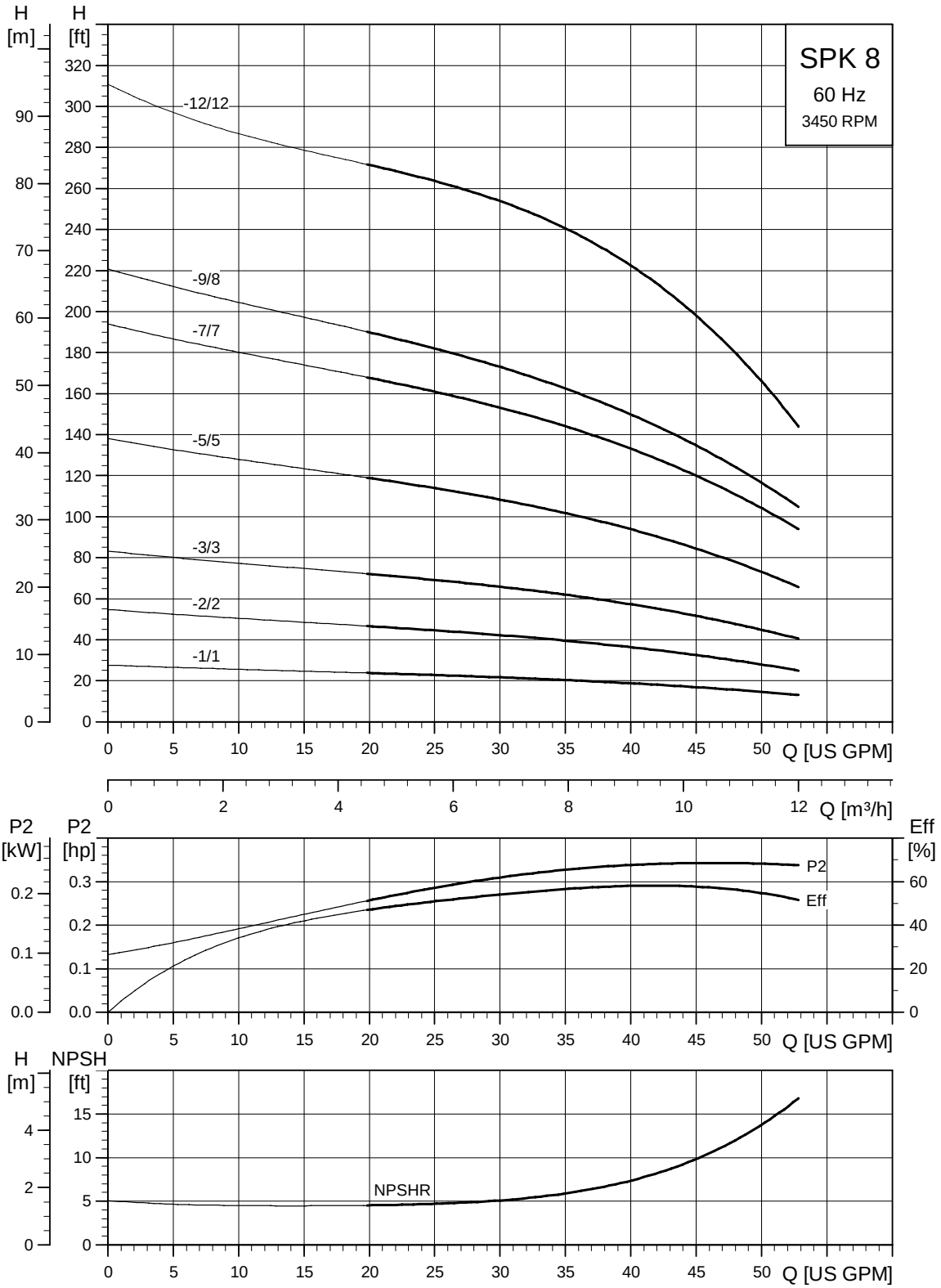
[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Flange to strainer length options

Pump Type	No. of Impellers	hp	Flange to Strainer length options (dimension B)							
			Inches							
			5 5/8	7 1/4	8 7/8	11 3/8	13 7/8	17 1/8	20 1/2	39 5/8
			Stages / Impellers							
SPK 4	1	1/3	-1/1	-3/1	-5/1	-8/1	-11/1	-15/1	-19/1	All SPK models with extension pipe
SPK 4	3	1/2		-3/3	-5/3	-8/3	-11/3	-15/3	-19/3	
SPK 4	5	3/4			-5/5	-8/5	-11/5	-15/5	-19/5	
SPK 4	8	1 1/2				-8/8	-11/8	-15/8	-19/8	
SPK 4	10	1 1/2					-11/10	-15/10	-19/10	

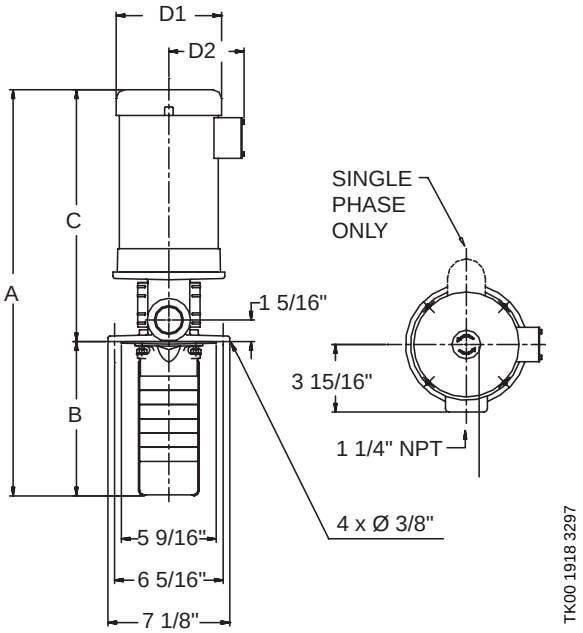
Performance curves

SPK 8



Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 8-1/1	1/2	1	20 5/8	7 1/4	13 3/8	6 1/4	5 1/4	42
		3	18 7/8	7 1/4	11 5/8	5 5/8	4 5/8	40
SPK 8-2/2	3/4	1	22 7/8	8 7/8	14	6 1/4	5 1/4	59
		3	20 1/2	8 7/8	11 5/8	5 5/8	4 5/8	50
SPK 8-3/3	1 1/2	1	26 1/4	10 1/2	15 3/4	7 1/4	5 3/4	71
		3	23 3/8	10 1/2	12 7/8	5 5/8	4 5/8	47
SPK 8-5/5	2	1	30 1/2	13 7/8	16 5/8	7 1/4	5 3/4	73
		3	29 3/8	13 7/8	15 1/2	7 1/8	4 3/8	63
SPK 8-7/7	3	1	35 7/8	17 1/8	18 3/4	8 5/8	6 7/8	87
		3	33 1/8	17 1/8	16	7 1/8	4 3/8	80
SPK 8-9/8	3	1	39 1/4	20 1/2	18 3/4	8 5/8	6 7/8	89
		3	36 1/2	20 1/2	16	7 1/8	4 3/8	78
SPK 8-12/12	5	1	45	25 3/8	19 5/8	10 5/8	7 1/2	162
		3	43	25 3/8	17 5/8	7 1/8	4 3/8	120
SPK 8-15/12	5	1	50	30 3/8	19 5/8	10 5/8	7 1/2	165
		3	48	30 3/8	17 5/8	7 1/8	4 3/8	123
SPK 8-15/12	5	1	59 1/4	39 5/8	19 5/8	10 5/8	7 1/2	171
		3	57 1/4	39 5/8	17 5/8	7 1/8	4 3/8	129

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

SPK with extension pipe

Pump Type	hp	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
SPK 8-15/12	5	1	59 1/4	39 5/8	19 5/8	10 5/8	7 1/2	171.2
		3	59 7/8	39 5/8	20 1/4	8 1/2	6	129.3

* The stated weights apply to SPK only. For SPKI, add 2 lbs.

Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
1/2	1	56C	1.6	115/208-230	62	B	K	7.4/4.1-3.7	9.8/5.2-4.9	39/21.6-19.5	Baldor
	3	56C	1.25	208-230/460	78/79.5	F	K	1.64-1.55/ 0.78	2.0-1.9/0.95	9.7-10.1/5.1	ML
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1 1/2	1	56C	1.3	115/208-230	71	B	K	17/9.5-8.6	20.4/11.3-10.2	106/58.6-53	Baldor
	3	56C	1.15	208-230/460	83/84	F	M	4.7-4.6/2.3	5.2-5.1/2.55	33.8-36.8/ 18.4	ML
2	1	56C	1.15	115/208-230	74	F	K	23/12.7-11.5	25.4/14.1-12.7	156/86.2-78	Baldor
	3	56C	1.15	208-230/460	84.5/ 85.5	F	G	5.7-5.4/2.7	6.55-6.1/3.05	46.2-48.6/ 24.3	ML
3	1	182TC	1.15	115/208-230	75	F	H	29/16-14.5	31.8/18-15.9	170/94-85	Baldor
	3	182TC	1.15	208-230/460	82.5/84	F	K	8.9-8.5/4.25	10.4-9.5/4.75	60.5-63.8/ 31.9	ML
5	1	213TC	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor
	3	184TC	1.15	208-230/460	84.5/86	F	S	14.2-14/7.0	16-15.4/7.7	109-119/59.5	ML

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Flange to strainer length options

Pump Type	No. of Impellers	HP	Flange to Strainer length options (dimension B)								
			Inches								
			7 1/4	8 7/8	10 1/2	13 7/8	17 1/8	20 1/2	25 3/8	30 3/8	39 5/8
			Stages / Impellers								
SPK 8	1	1/2	-1/1	-2/1	-3/1	-5/1	-7/1	-9/1	-12/1	-15/1	All SPK models with extension pipe
SPK 8	2	3/4		-2/2	-3/2	-5/2	-7/2	-9/2	-12/2	-15/2	
SPK 8	3	1 1/2			-3/3	-5/3	-7/3	-9/3	-12/3	-15/3	
SPK 8	5	2				-5/5	-7/5	-9/5	-12/5	-15/5	
SPK 8	7	3					-7/7	-9/7	-12/7	-15/7	
SPK 8	8	3						-9/8	-12/8	-15/8	
SPK 8	12	5							-12/12	-15/12	

Materials, CRK

Pos.	Description	Materials	DIN W.-Nr.	ASTM/AISI
2	Motor stool	Cast iron	0.6020	ASTM 25B
		Stainless steel (I-version)	1.4408	AISI 316LN
2k	Adapter flange	Cast iron	0.6020	ASTM 25B
3	Top intermediate chamber (not in CRK 2)	Stainless steel	1.4301	AISI 304
3a	Intermediate chamber	Stainless steel	1.4301	AISI 304
4	Intermediate chamber	Stainless steel	1.4301	AISI 304
4a	Intermediate chamber w/ bearing	Stainless steel	1.4301	AISI 304
4a	Bearing in chamber	Ceramic AI2O3, 95-100% Hilox		
5a	Bottom intermediate chamber	Stainless steel	1.4301	AISI 304
7	Coupling guard	Stainless steel	1.4301	AISI 304
8	Coupling	Cast iron	0.7040	ASTM 60-40-18
9	Allen screw	Stainless steel		
10	Shaft pin	Stainless steel	1.4301	AISI 304
10a	Coupling half	Cast iron	0.7040	ASTM 60-40-18
26	Strap	Stainless steel	1.4301	AISI 304
28	Motor bolt	Steel	1.4301	AISI 304
36	Nut	Stainless steel	1.4301	AISI 304
37(a)	Gasket	Paper		
44	Suction chamber	Stainless steel	1.4301	AISI 304
45	Neck ring	PTFE		
47a	Bearing ring	Tungsten carbide		
49	Impeller	Stainless steel	1.4301	AISI 304
51	Spline shaft	Stainless steel	1.4057	AISI 431
61	Spacing pipe	Stainless steel	1.4401	AISI 316
62	Stop ring	Stainless steel	1.4436	AISI 316
64(a-c)	Spacing pipe	Stainless steel	1.4301	AISI 304
65	Retainer for neck ring	Stainless steel	1.4301	AISI 304
66(a-b)	Washer	Stainless steel	1.4301	AISI 304
67	Lock nut	Stainless steel	1.4301	AISI 304
69(a)	Spacing pipe	Stainless steel	1.4301	AISI 304
84/85	Strainer	0.08” holes (CRK 2)	1.4301	AISI 304
		0.16” holes (CRK 4, 8, 16)	1.4301	AISI 304
84b	Screw	Stainless steel		
105	Shaft seal	AUUV		
121	Suction interconnector	Stainless steel	1.4301	AISI 304
122	Priming screw	Stainless steel	1.4401	AISI 316

Sectional drawing

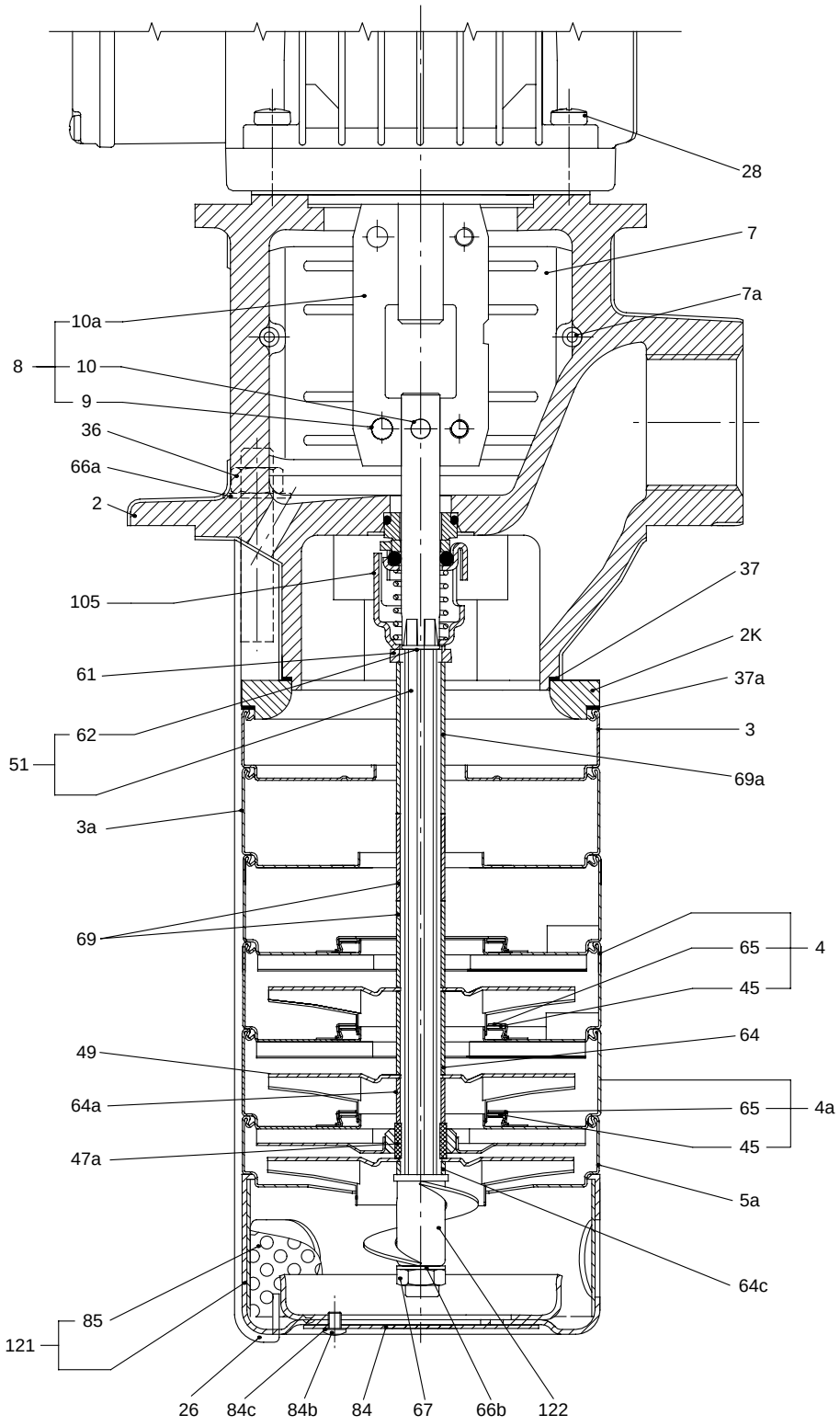


Fig. 12 CRK 2, CRK 4

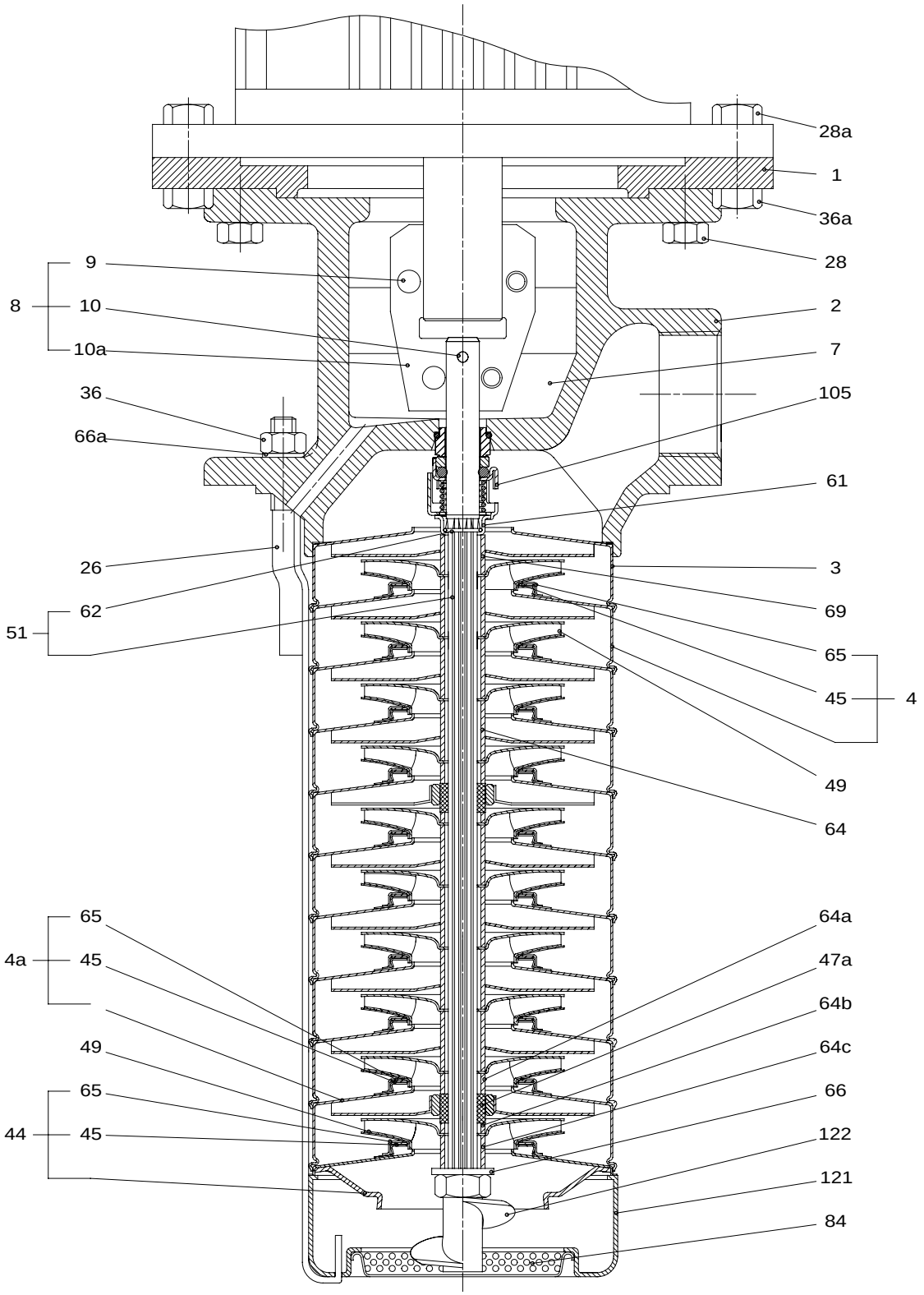
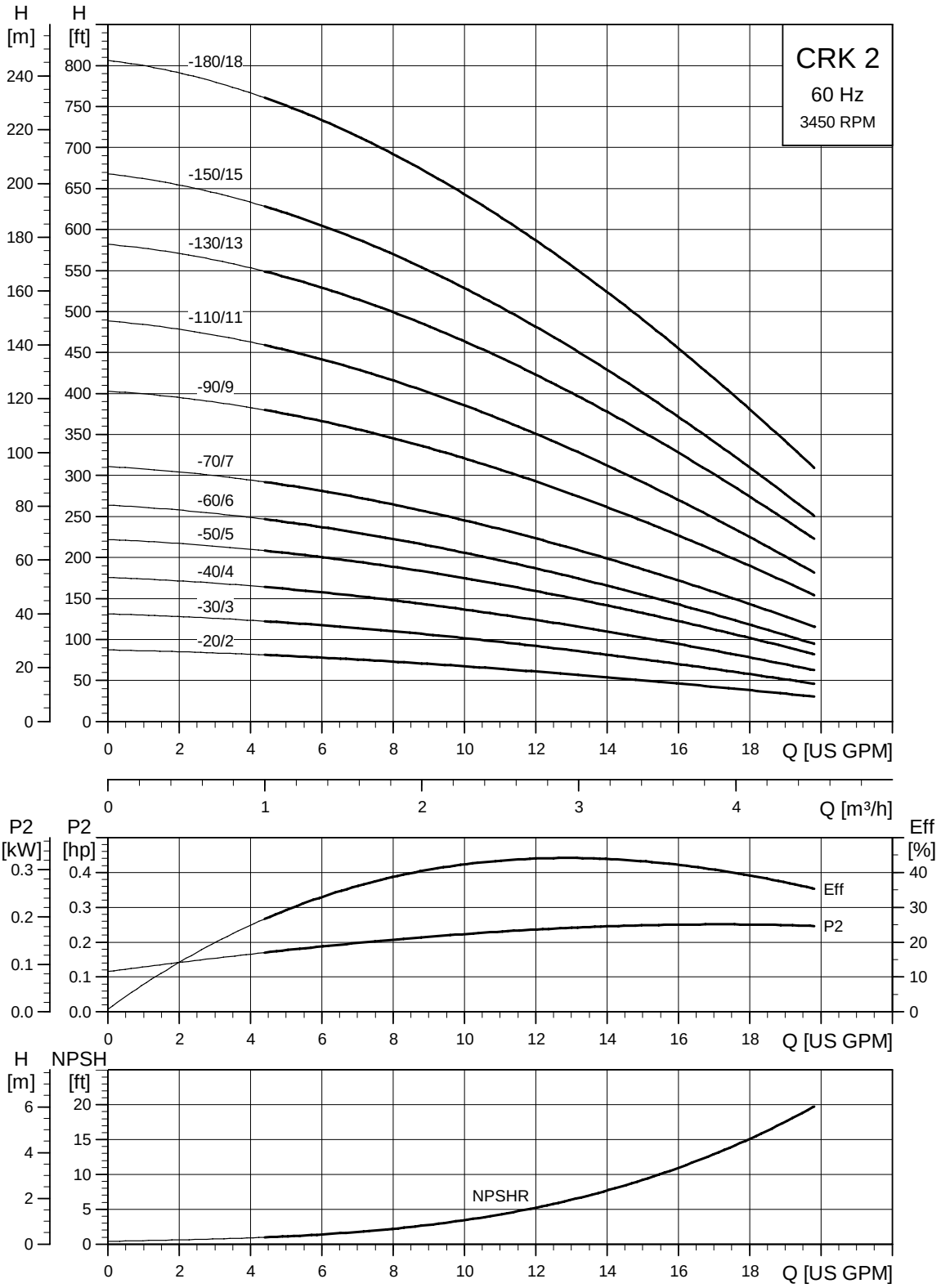


Fig. 13 CRK 8, CRK 16

Performance curves/ Technical data

CRK 2



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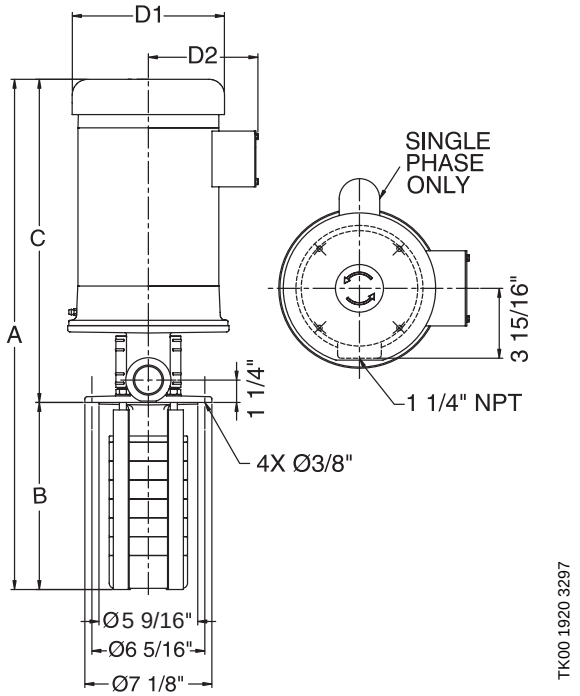
Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	HP	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
CRK 2-20/2	1/2	1	19 3/4	6 3/8	13 3/8	6 1/4	5 1/4	46
		3	18	6 3/8	11 5/8	5 5/8	4 5/8	52
CRK 2-30/3	3/4	1	21 1/8	7 1/8	14	6 1/4	5 1/4	63
		3	18 3/4	7 1/8	11 5/8	5 5/8	4 5/8	42
CRK 2-40/4	1	1	23	7 3/4	15 1/4	7 1/4	5 3/4	60
		3	19 3/8	7 3/4	11 5/8	5 5/8	4 5/8	44
CRK 2-50/5	1 1/2	1	24 1/4	8 1/2	15 3/4	7 1/4	5 3/4	65
		3	21 3/8	8 1/2	12 7/8	5 5/8	4 5/8	55
CRK 2-60/6	1 1/2	1	25	9 1/4	15 3/4	7 1/4	5 3/4	85
		3	22 1/8	9 1/4	12 7/8	5 5/8	4 5/8	54
CRK 2-70/7	2	1	26 1/2	9 7/8	16 5/8	7 1/4	5 3/4	110
		3	25 3/8	9 7/8	15 1/2	7 1/8	4 3/8	65
CRK 2-90/9	2	1	28	11 3/8	16 5/8	7 1/4	5 3/4	117
		3	26 7/8	11 3/8	15 1/2	7 1/8	4 3/8	62
CRK 2-110/11	3	1	31 1/2	12 3/4	18 3/4	8 5/8	6 7/8	160
		3	28 3/4	12 3/4	16	7 1/8	4 3/8	88
CRK 2-130/13	3	1	32 7/8	14 1/8	18 3/4	8 5/8	6 7/8	166
		3	30 1/8	14 1/8	16	7 1/8	4 3/8	89
CRK 2-150/15	5	1	35 1/4	15 5/8	19 5/8	10 5/8	7 1/2	212
		3	33 1/4	15 5/8	17 5/8	7 1/8	4 3/8	170
CRK 2-180/18	5	1	37 3/8	17 3/4	19 5/8	10 5/8	7 1/2	221
		3	35 3/8	17 3/4	17 5/8	7 1/8	4 3/8	179
CRK 2-220/18	5	1	40 1/8	20 1/2	19 5/8	10 5/8	7 1/2	221
		3	38 1/8	20 1/2	17 5/8	7 1/8	4 3/8	180
CRK 2-260/18	5	1	43	23 3/8	19 5/8	10 5/8	7 1/2	222
		3	41	23 3/8	17 5/8	7 1/8	4 3/8	180
CRK 2-500/18	5	1	59 1/4	39 5/8	19 5/8	10 5/8	7 1/2	236
		3	57 1/4	39 5/8	17 5/8	7 1/8	4 3/8	194

* The stated weights apply to CRK only. For CRKI, add 3 lbs.

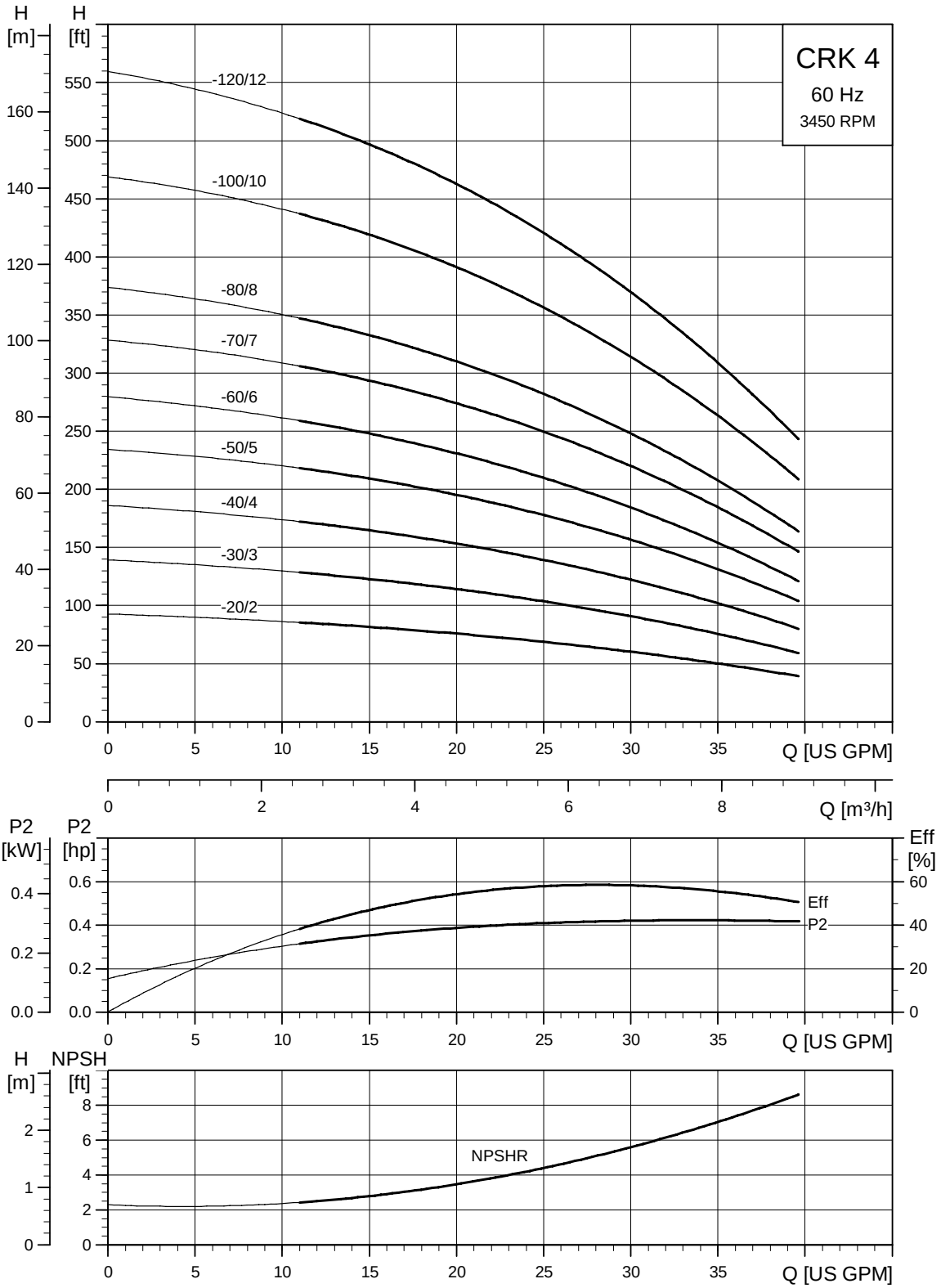
Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
1/2	1	56C	1.6	115/208-230	62	B	K	7.4/4.1-3.7	9.8/5.2-4.9	39/21.6-19.5	Baldor
	3	56C	1.25	208-230/460	78/79.5	F	K	1.64-1.55/ 0.78	2.0-1.9/0.95	9.7-10.1/5.1	ML
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1	1	56C	1.25	115/230	66	B	K	12/6.0	14.4/7.2	77/38.5	Baldor
	3	56C	1.25	208-230/460	81/81	F	J	3.25-3.35/ 1.68	4.0-3.9/1.95	19.2-21.8/ 10.9	ML
1 1/2	1	56C	1.3	115/208-230	71	B	K	17/9.5-8.6	20.4/11.3-10.2	106/58.6-53	Baldor
	3	56C	1.15	208-230/460	83/84	F	M	4.7-4.6/2.3	5.2-5.1/2.55	33.8-36.8/ 18.4	ML
2	1	56C	1.15	115/208-230	74	F	K	23/12.7-11.5	25.4/14.1-12.7	156/86.2-78	Baldor
	3	56C	1.15	208-230/460	84.5/ 85.5	F	G	5.7-5.4/2.7	6.55-6.1/3.05	46.2-48.6/ 24.3	ML
3	1	182TC	1.15	115/208-230	75	F	H	29/16-14.5	31.8/18-15.9	170/94-85	Baldor
	3	182TC	1.15	208-230/460	82.5/84	F	K	8.9-8.5/4.25	10.4-9.5/4.75	60.5-63.8/ 31.9	ML
5	1	213TC	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor
	3	184TC	1.15	208-230/460	84.5/86	F	S	14.2-14/7.0	16-15.4/7.7	109-119/59.5	ML

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Performance curves

CRK 4



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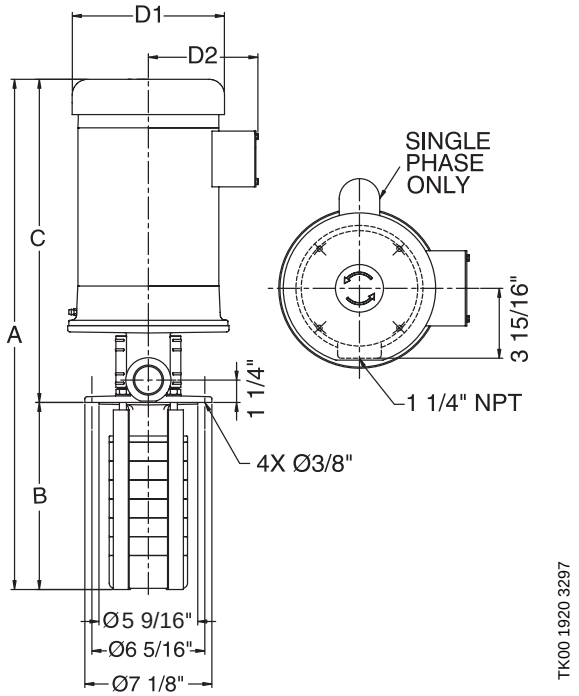
Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	HP	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
CRK 4-20/2	3/4	1	20 3/4	6 3/4	14	6 1/4	5 1/4	50
		3	18 3/8	6 3/4	11 5/8	5 5/8	4 5/8	41
CRK 4-30/3	1 1/2	1	23 1/2	7 3/4	15 3/4	7 1/4	5 3/4	83
		3	20 5/8	7 3/4	12 7/8	5 5/8	4 5/8	54
CRK 4-40/4	1 1/2	1	24 5/8	8 7/8	15 3/4	7 1/4	5 3/4	100
		3	21 3/4	8 7/8	12 7/8	5 5/8	4 5/8	53
CRK 4-50/5	2	1	26 1/2	9 7/8	16 5/8	7 1/4	5 3/4	103
		3	25 3/8	9 7/8	15 1/2	7 1/8	4 3/8	61
CRK 4-60/6	3	1	29 3/4	11	18 3/4	8 5/8	6 7/8	143
		3	27	11	16	7 1/8	4 3/8	75
CRK 4-70/7	3	1	30 3/4	12	18 3/4	8 5/8	6 7/8	152
		3	28	12	16	7 1/8	4 3/8	94
CRK 4-80/8	3	1	31 7/8	13 1/8	18 3/4	8 5/8	6 7/8	155
		3	29 1/8	13 1/8	16	7 1/8	4 3/8	131
CRK 4-100/10	5	1	34 7/8	15 1/4	19 5/8	10 5/8	7 1/2	201
		3	32 7/8	15 1/4	17 5/8	7 1/8	4 3/8	115
CRK 4-120/12	5	1	37	17 3/8	19 5/8	10 5/8	7 1/2	207
		3	35	17 3/8	17 5/8	7 1/8	4 3/8	133
CRK 4-140/12	5	1	39 1/8	19 1/2	19 5/8	10 5/8	7 1/2	214
		3	37 1/8	19 1/2	17 5/8	7 1/8	4 3/8	172
CRK 4-160/12	5	1	41 1/4	21 5/8	19 5/8	10 5/8	7 1/2	214
		3	39 1/4	21 5/8	17 5/8	7 1/8	4 3/8	172
CRK 4-190/12	5	1	44 3/8	24 3/4	19 5/8	10 5/8	7 1/2	215
		3	42 3/8	24 3/4	17 5/8	7 1/8	4 3/8	173
CRK 4-220/12	5	1	47 5/8	28	19 5/8	10 5/8	7 1/2	216
		3	45 5/8	28	17 5/8	7 1/8	4 3/8	174
CRK 4-330/12	5	1	59 1/4	39 5/8	19 5/8	10 5/8	7 1/2	223
		3	57 1/4	39 5/8	17 5/8	7 1/8	4 3/8	181

* The stated weights apply to CRK only. For CRKI, add 3 lbs.

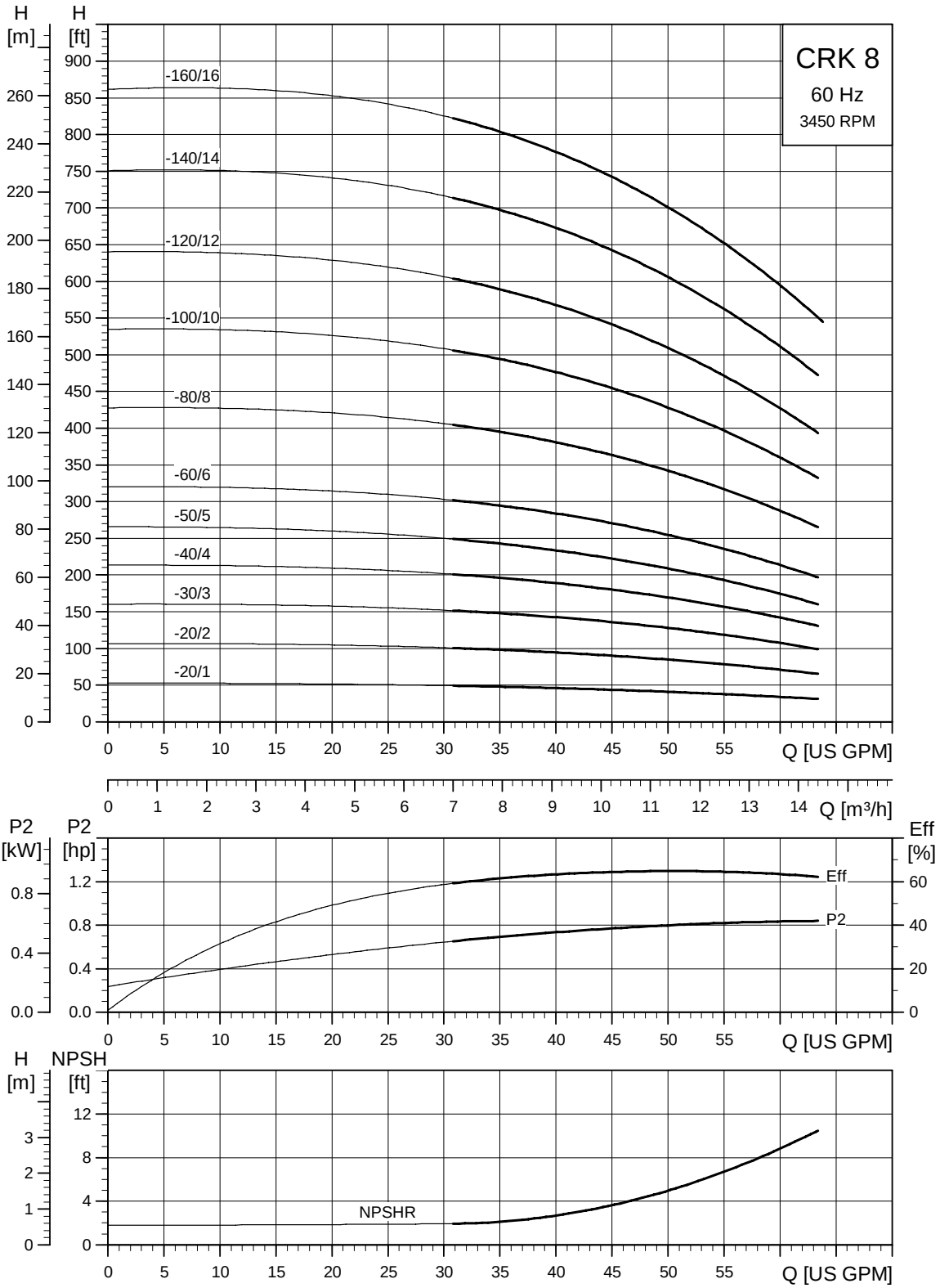
Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1 1/2	1	56C	1.3	115/208-230	71	B	K	17/9.5-8.6	20.4/11.3-10.2	106/58.6-53	Baldor
	3	56C	1.15	208-230/460	83/84	F	M	4.7-4.6/2.3	5.2-5.1/2.55	33.8-36.8/ 18.4	ML
2	1	56C	1.15	115/208-230	74	F	K	23/12.7-11.5	25.4/14.1-12.7	156/86.2-78	Baldor
	3	56C	1.15	208-230/460	84.5/ 85.5	F	G	5.7-5.4/2.7	6.55-6.1/3.05	46.2-48.6/ 24.3	ML
3	1	182TC	1.15	115/208-230	75	F	H	29/16-14.5	31.8/18-15.9	170/94-85	Baldor
	3	182TC	1.15	208-230/460	82.5/84	F	K	8.9-8.5/4.25	10.4-9.5/4.75	60.5-63.8/ 31.9	ML
5	1	213TC	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor
	3	184TC	1.15	208-230/460	84.5/86	F	S	14.2-14/7.0	16-15.4/7.7	109-119/59.5	ML

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Performance curves

CRK 8



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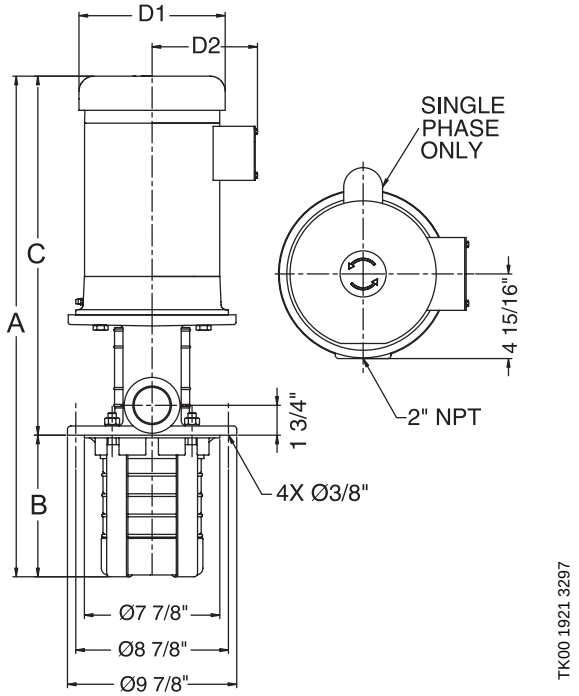
Technical data

Dimensional sketches



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Dimensions and weights[1]

Pump Type	HP	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
CRK 8-20/1	3/4	1	21 3/8	5 7/8	15 1/2	6 1/4	5 1/4	80
		3	19	5 7/8	13 1/8	5 5/8	4 5/8	68
CRK 8-20/2	1 1/2	1	23 1/8	5 7/8	17 1/4	7 1/4	5 3/4	84
		3	20 1/8	5 7/8	14 1/4	5 5/8	4 5/8	77
CRK 8-30/3	3	1	28 5/8	7 1/8	21 1/2	8 5/8	6 7/8	88
		3	25 7/8	7 1/8	18 3/4	7 1/8	4 3/8	112
CRK 8-40/4	3	1	29 3/4	8 1/4	21 1/2	8 5/8	6 7/8	94
		3	27	8 1/4	18 3/4	7 1/8	4 3/8	104
CRK 8-50/5	5	1	31 3/4	9 3/8	22 3/8	10 5/8	7 1/2	103
		3	29 5/8	9 3/8	20 1/4	7 1/8	4 3/8	142
CRK 8-60/6	5	1	33	10 5/8	22 3/8	10 5/8	7 1/2	110
		3	30 7/8	10 5/8	20 1/4	7 1/8	4 3/8	151
CRK 8-80/8	7 1/2	1	35 3/8	13	22 3/8	10 1/4	7 1/2	167
		3	35 5/8	13	22 5/8	8 3/4	5 3/8	172
CRK 8-100/10	7 1/2	1	37 3/4	15 3/8	22 3/8	10 1/4	7 1/2	177
		3	38	15 3/8	22 5/8	8 3/4	5 3/8	171
CRK 8-120/12	10	1	40 5/8	17 3/4	22 7/8	11 1/2	10 3/8	205
		3	40 3/8	17 3/4	22 5/8	8 3/4	5 3/8	200
CRK 8-140/14	15	3	43 3/4	20	23 3/4	11 1/2	8 3/4	283
CRK 8-160/16	15	3	46 1/8	22 3/8	23 3/4	11 1/2	8 3/4	274
CRK 8-180/16	15	3	48 1/2	24 3/4	23 3/4	11 1/2	8 3/4	264
CRK 8-200/16	15	3	50 7/8	27 1/8	23 3/4	11 1/2	8 3/4	266

* The stated weights apply to CRK only. For CRKI, add 3 lbs.

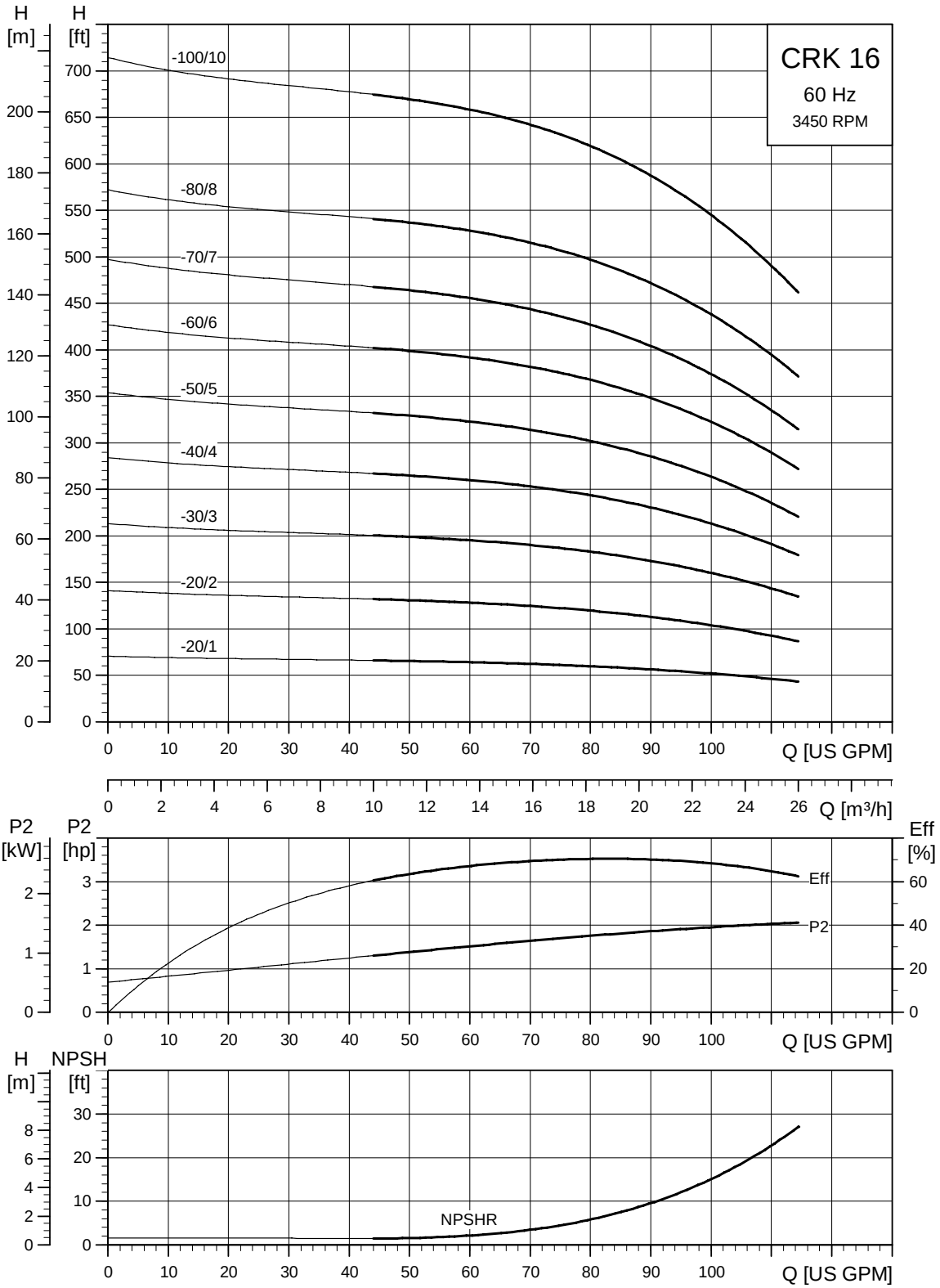
Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
3/4	1	56C	1.25	115/208-230	66	B	K	9.6/5.3-4.8	11.4/6.0-5.7	56/31-28	Baldor
	3	56C	1.25	208-230/460	79/80	F	K	2.4-2.3/1.2	2.9-2.75/1.4	14.2-15/7.8	ML
1 1/2	1	56C	1.3	115/208-230	71	B	K	17/9.5-8.6	20.4/11.3-10.2	106/58.6-53	Baldor
	3	56C	1.15	208-230/460	83/84	F	M	4.7-4.6/2.3	5.2-5.1/2.55	33.8-36.8/ 18.4	ML
3	1	182TC	1.15	115/208-230	75	F	H	29/16-14.5	31.8/18-15.9	170/94-85	Baldor
	3	182TC	1.15	208-230/460	82.5/84	F	K	8.9-8.5/4.25	10.4-9.5/4.75	60.5-63.8/ 31.9	ML
5	1	213TC	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor
	3	184TC	1.15	208-230/460	84.5/86	F	S	14.2-14/7.0	16-15.4/7.7	109-119/59.5	ML
7 1/2	1	213TC	1.15	208-230	82	F	F	33.8-31	38.5-35.5	244-220	Baldor
	3	213TC	1.15	208-230/460	86/87.5	F	M	21-21.5/10.8	24-23.5/11.8	162-183/93	ML
10	1	213TC	1.15	230	85.5	F	F	40	46	284	Baldor
	3	213TC	1.15	208-230/460	89/89.5	F	L	28-28.5/14.4	32-31.5/16	241-271/137	ML
15	3	254TCZ	1.15	208-230/460	86.5	F	J	39-37/18.5	43.4-39/19.5	376-340/170	Baldor

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

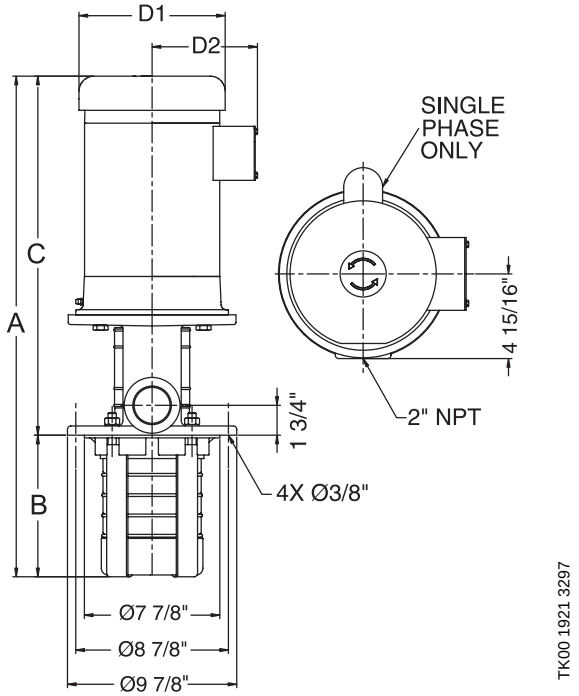
Performance curves

CRK 16



Technical data

Dimensional sketches



Dimensions and weights[1]

Pump Type	HP	PH	A	B	C	D1	D2	Ship Wt. [lbs.]*
CRK 16-20/1	2	1	25 1/4	7 1/8	18 1/8	7 1/4	5 3/4	116
		3	24	7 1/8	16 7/8	7 1/8	4 3/8	85
CRK 16-20/2	5	1	29 1/2	7 1/8	22 3/8	10 5/8	7 1/2	125
		3	27 3/8	7 1/8	20 1/4	7 1/8	4 3/8	109
CRK 16-30/3	7 1/2	1	31 1/4	8 7/8	22 3/8	10 1/4	7 1/2	158
		3	31 1/2	8 7/8	22 5/8	8 3/4	5 3/8	146
CRK 16-40/4	7 1/2	1	33	10 5/8	22 3/8	10 1/4	7 1/2	166
		3	33 1/4	10 5/8	22 5/8	8 3/4	5 3/8	156
CRK 16-50/5	10	1	35 1/4	12 3/8	22 7/8	11 1/2	10 3/8	183
		3	35	12 3/8	22 5/8	8 3/4	5 3/8	185
CRK 16-60/6	15	3	37 7/8	14 1/8	23 3/4	11 1/2	8 3/4	236
CRK 16-70/7	15	3	39 5/8	15 7/8	23 3/4	11 1/2	8 3/4	238
CRK 16-80/8	15	3	41 1/2	17 3/4	23 3/4	11 1/2	8 3/4	242
CRK 16-100/10	20	3	44 5/8	21 1/4	23 3/8	11 1/2	8 3/4	429
CRK 16-120/10	20	3	48 1/8	24 3/4	23 3/8	11 1/2	8 3/4	433
CRK 16-140/10	20	3	51 3/4	28 3/8	23 3/8	11 1/2	8 3/4	450
CRK 16-160/10	20	3	55 1/4	31 7/8	23 3/8	11 1/2	8 3/4	465

* The stated weights apply to CRK only. For CRKI, add 3 lbs.

Electrical data[1]

HP	PH	NEMA Frame	Service Factor	Voltage	Motor Eff. [%]	Insul. Class	KVA Code	Full Load Current [A]	Service Factor Current [A]	Start Current [A]	Motor Type
2	1	56C	1.15	115/208-230	74	F	K	23/12.7-11.5	25.4/14.1-12.7	156/86.2-78	Baldor
	3	56C	1.15	208-230/460	84.5/ 85.5	F	G	5.7-5.4/2.7	6.55-6.1/3.05	46.2-48.6/ 24.3	ML
5	1	213TC	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor
	3	184TC	1.15	208-230/460	84.5/86	F	S	14.2-14/7.0	16-15.4/7.7	109-119/59.5	ML
7 1/2	1	213TC	1.15	208-230	82	F	F	33.8-31	38.5-35.5	244-220	Baldor
	3	213TC	1.15	208-230/460	86/87.5	F	M	21-21.5/10.8	24-23.5/11.8	162-183/93	ML
10	1	213TC	1.15	230	85.5	F	F	40	46	284	Baldor
	3	213TC	1.15	208-230/460	89/89.5	F	L	28-28.5/14.4	32-31.5/16	241-271/137	ML
15	3	254TCZ	1.15	208-230/460	86.5	F	J	39-37/18.5	43.4-39/19.5	376-340/170	Baldor
20	3	254TC	1.15	208-230/460	88.5	F	K	50-46/23	56-52/26	464-420/210	Baldor

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 4.

Loss curves for CRK 8 and CRK 16

Pressure loss in pumps with empty chambers

In pumps with empty chambers, there will be one or two chambers with a bearing. These chambers will have a pressure loss which must be deducted from the performance curves. The pressure loss can be found on the curves below.

The number of empty chambers with bearing is found in the table at the bottom of the page.

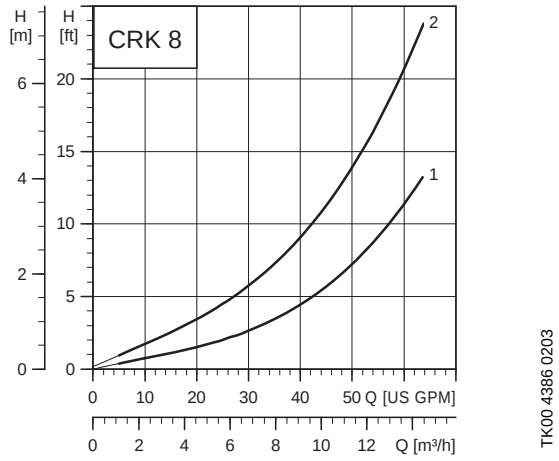


Fig. 14 CRK 8 pressure loss curves

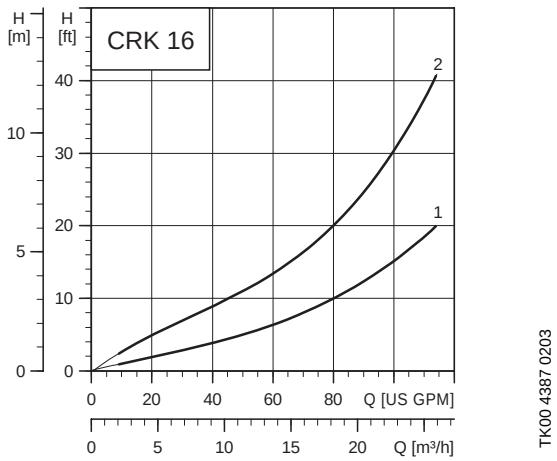


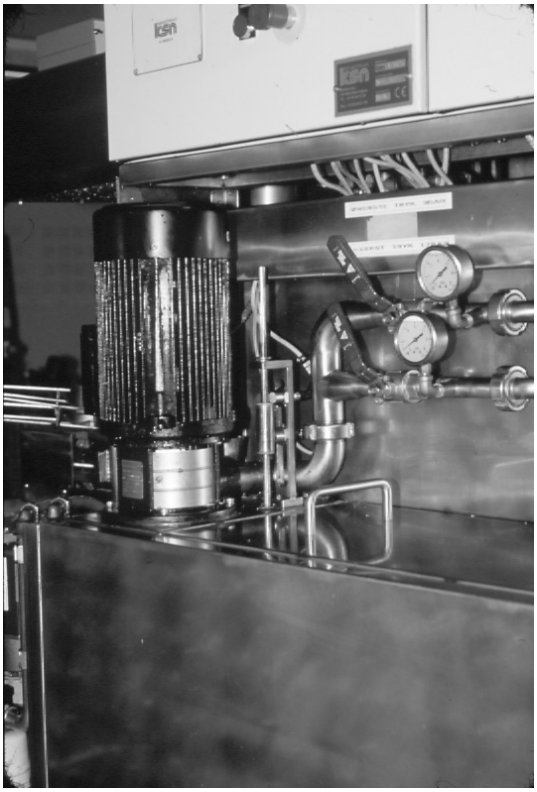
Fig. 15 CRK 16 pressure loss curves

Pumps with empty chambers

No. of impellers (x)	Number of empty chambers with bearing in pumps with empty chambers											
	CRK 8-						CRK 16-					
	100/x	120/x	140/x	160/x	180/x	200/x	70/x	80/x	100/x	120/x	140/x	160/x
1	1	1	1	2	2	2	1	1	1	2	2	2
2	1	1	1	2	2	2	1	1	1	2	2	2
3	1	1	1	2	2	2	1	1	1	1	2	2
4	1	1	1	2	2	2	0	1	1	1	2	2
5	1	1	1	1	2	2	0	0	1	1	1	2
6	0	1	1	1	2	2	0	0	1	1	1	2
7								0	0	1	1	1
8	0	0	1	1	1	2			0	1	1	1
10		0	0	1	1	1				0	1	1
12			0	0	1	1					0	1
14				0	0	1						0
16					0	0						
18						0						

Application photos

Industrial washing machine

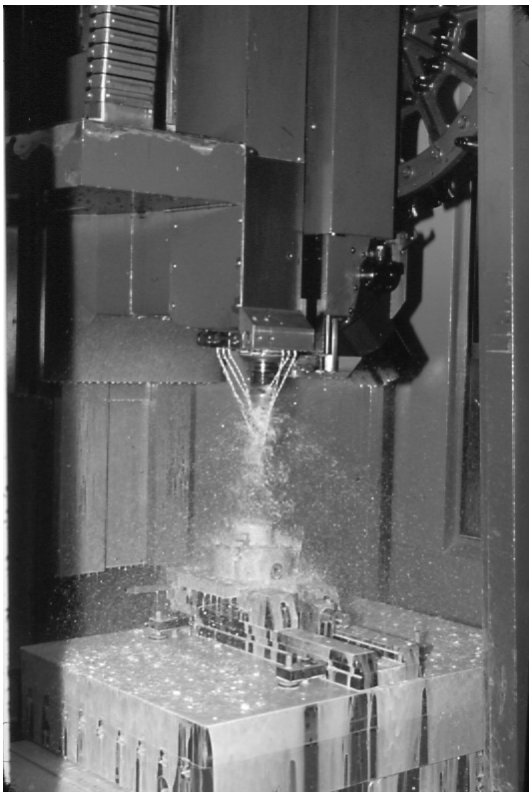


TM01 6013 1599

TM01 6017 1599

Application photos

Pumping of coolant lubricants



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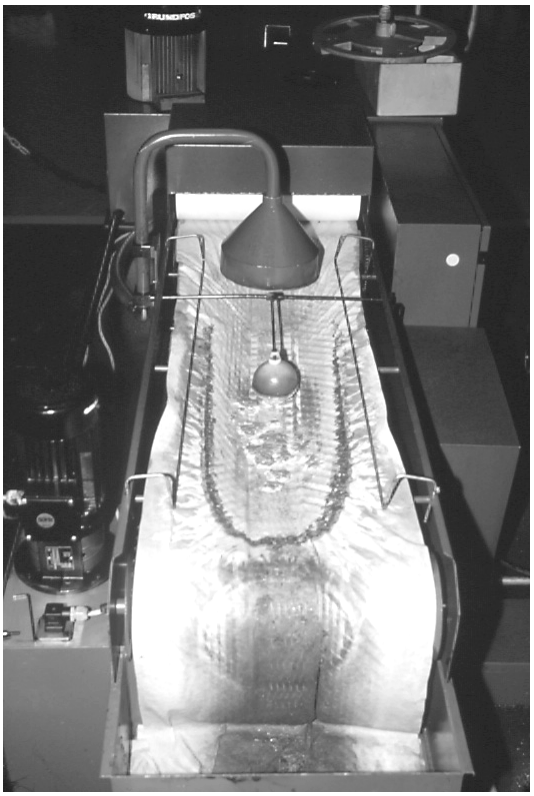

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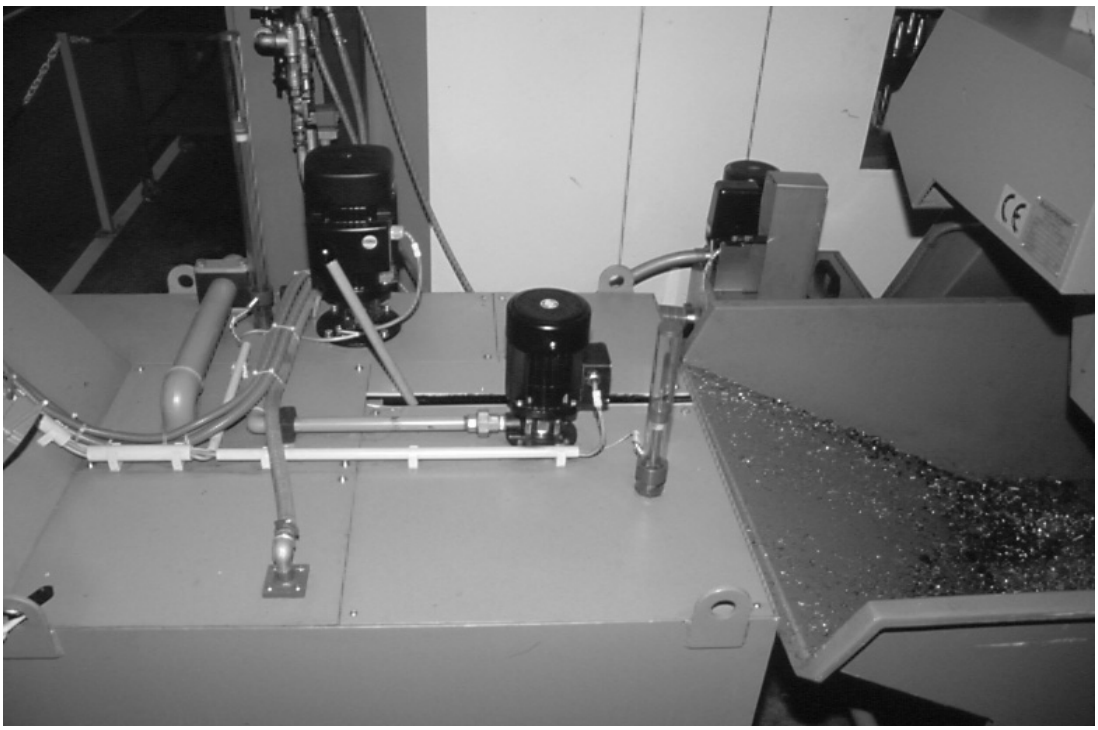

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Submittal Data Sheet

SPK, CRK

Immersible Pumps 60 Hz

Company name: _____
Prepared by: _____
Phone number: __(____)_____-_____
Fax number: __(____)_____-_____
Date: _____ Page 1 of_____
Quote number: _____

Client information	
Project title: _____	Client name: _____
Reference number: _____	Client number: _____
Client contact:	Client phone no: ( ) -

Location information	
For: _____	Unit: _____
Site: _____	Service: _____
Address:	City: State: Zip Code:

Application information

Operating Conditions

	max.	norm.	min.
Capacity (gpm)			
Discharge Pressure (psig)			
Hydraulic Power (hp)			
at designated capacity			
NPSH Available (ft)			

Tank depth*:
Pump length* (B dimension):

Service
Continuous: _____ Intermittent (starts/day): _____

Pumped Fluid

Fluid type:_____

	rated	max.	norm.
Fluid Temperature (°F)			
at designated temperature			
Specific Gravity			
Vapor Pressure (psia)			
Viscosity (cp)			

Fluid ph: _____ Chlorides (ppm):_____
Hazardous:_____ Flammable: _____
Other: _____
Corrosion/Errosion caused by: _____
% Solids: Max. particle size (in):

Pump information

Model information from Type Key and Codes:_____
Quantity required: _____ Example: CRK 4-120/8 U-W-A-AUUV
Minimum required flow: _____ NPSH required at duty point: _____
Product Guide additional information pages
Materials page number: _____ Performance curve page number:_____
Technical data page number:

Motor information			
HP:	Phase:	Voltage:	Enclosure:

Custom-built pump information (optional): _____

Additional information

* Pump should be sized to meet the requirements of minimum distance from bottom of tank and minimumfluid level above strainer at all times.

SPK, CRK

Multistage, immersible, self-priming, centrifugal pump for vertical installation into tanks etc.

The pump has the following characteristics:

– Installation length can be varied using empty chambers according to specifications.

– Impellers, intermediate chambers and pump shaft are made of stainless steel.

– Maintenance-free mechanical shaft seal.

– Power transmission via cast iron split coupling.

The motor is a _____-phase AC motor.

Technical:

Rated flow: _____
US GPMRated head: _____
FeetMinimum liquid temperature: _____ °F
Maximum liquid temperature: _____ °F
Type of shaft seal: _____

Materials:

Material, pump housing: _____
Material, shaft: _____ Stainless steel
Material, impeller: _____ Stainless steel
Material, seal metal: _____ Stainless steel
- seal face: _____
- seal face: _____
- seal elastomer: _____

Installation:

Maximum ambient temperature: _____ °F
Max. pressure at stated temp.: _____ PSI/°F
Size, pipe connection: _____ " NPT or " ANSI
Frame size for motor: _____

Electrical data:

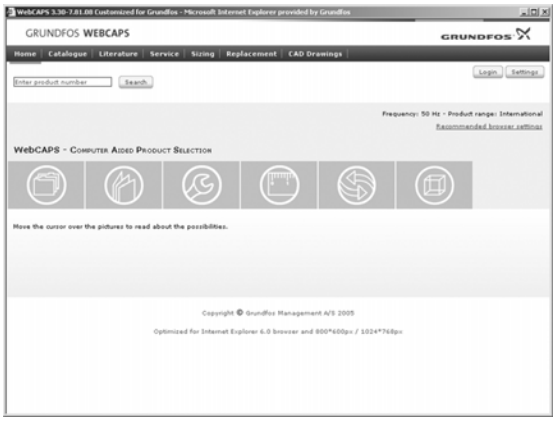
Motor type: _____
Number of poles: _____
Rated power (P2): _____
HPMains frequency: _____
HzRated voltage: _____ V
Rated current: _____ A
Service factor: _____
Starting current: _____ A
Rated speed: _____ RPM
Full load motor efficiency: _____ %
Insulation class: _____

Additional:

Gross weight: _____ Lbs.
Shipping volume: _____ ft3
Model: _____

Further product documentation

WebCAPS

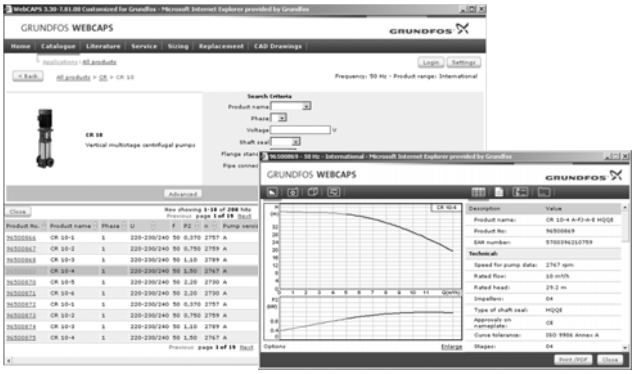


WebCAPS is a **Web**-based **C**omputer **A**ided **P**roduct **S**election program available on www.grundfos.com.

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

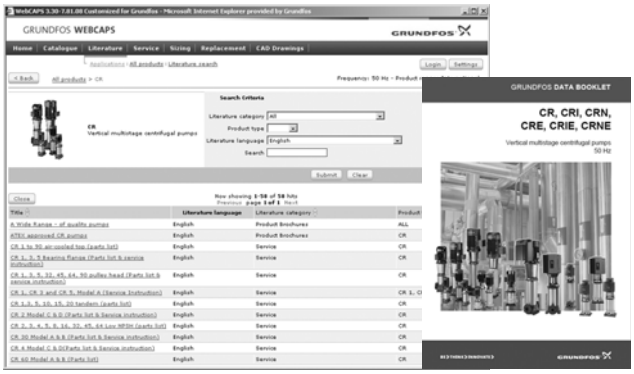
In WebCAPS, all information is divided into 6 sections:

- Catalog
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



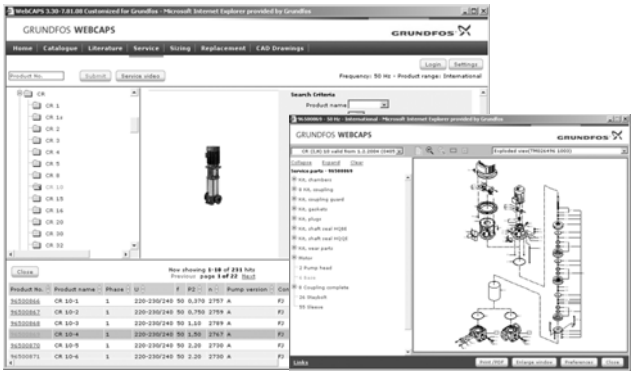
Catalog

With a starting point in areas of applications and pump types, this section contains
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

In this section you can access all the lastest documents of a given pump, such as
- data booklets
- Installation and operating instructions
- service documentation, such as Service kit catalog and Service kit instructions
- quick guides
- product brochures, etc.



Service

This section contains an easy-to-use interactive service catalog. Here you can find and identify service parts of both existing and cancelled Grundfos pumps.
Furthermore, this section contains service videos showing you how to replace service parts.

Further product documentation

Sizing

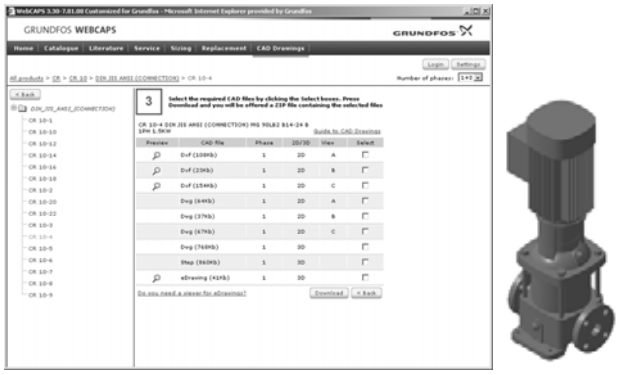
With a starting point in different application areas and installation examples, this section gives easy step-by-step instructions in how to

- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, lifecycle costs, etc.
- analyze your selected pump via the built-in lifecycle cost tool
- determine the flow velocity in wastewater applications, etc.

Replacement

In this section you find a guide to select and compare replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump.
The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. After having specified the installed pump, the guide suggests a number of Grundfos pumps which can improve both comfort and efficiency.



CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

The following formats are available in WebCAPS:

<u>2-dimensional drawings</u>

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

<u>3-dimensional drawings</u>

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

WinCAPS

Fig. 16 WinCAPS CD-ROM

WinCAPS is a **Win**dows-based **C**omputer **A**ided **P**roduct **S**election program containing detailed informtion on more than 185 000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.