ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Grundfos SPK4-3/1 U-W-A-AUUV* at our website: *Click HERE*

GRUNDFOS **PRODUCT GUIDE**

# SPK, CRK

## Immersible pumps
## 60 Hz



BE > THINK > INNOVATE >

GRUNDFOS

Table of contents


**1. General data 3**
Performance range 3
Product data 4
Introduction 4
Applications 5
Product range 6
I-version 7
Extension pipe 7
Installation 7
Shaft seal 7
Motor 7
Terminal box positions 8
Ambient temperature 8
Type key 9

**2. SPK performance range 10**

**3. SPK construction 11**
Materials, SPK 11
Sectional drawing 12

**4. SPK performance curves/ technical data 15**
SPK 1 15
SPK 2 17
SPK 4 19
SPK 8 21

**5. CRK performance range 23**

**6. CRK construction 24**
Materials, CRK 24
Sectional drawing 25

**7. CRK performance curves/ technical data 26**
CRK 2 26
CRK 4 28

**8. Accessories 30**
Sensors for SPKE and CRKE 30
R100 remote control 30

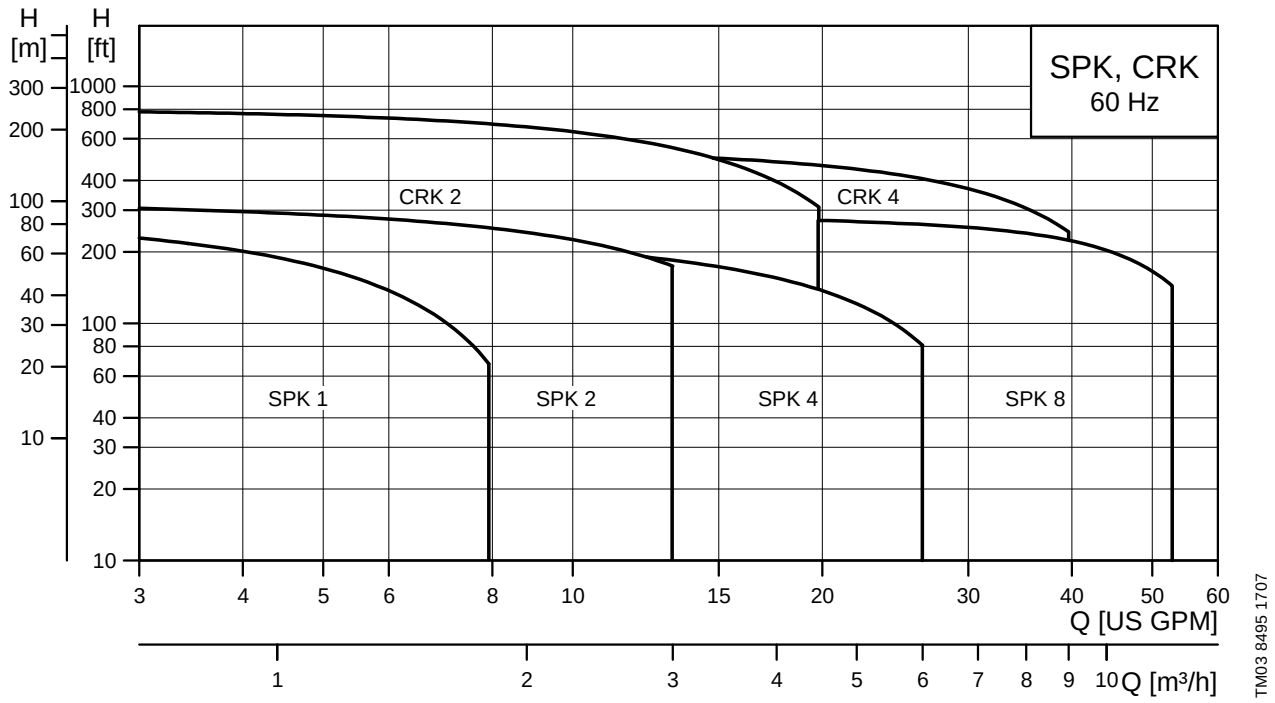
**9. Further product documentation 31**
WebCAPS 31
WinCAPS 32

**10. Submittal data sheet 33**

**11. Quotation text 35**

# 1. General data

## Performance range




**Notes:**

### Grundfos Canada

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.

# Product data

## Introduction

This product guide deals with SPK, SPKE, CRK, CRKE pumps.



TM02 8540 0404

**Fig. 1** SPK and CRK pumps

SPK, CRK pumps are vertical multistage centrifugal pumps designed for pumping of cooling lubricants for machine tools, condensate transfer and similar applications.

The pumps are designed to be mounted on top of tanks with the chamber stack immersed in the pumped liquid.

SPK and CRK pumps come in various pump sizes and have various numbers of stages to provide the flow, the pressure and the installation length required.

The pumps consist of two main components: The motor and the pump unit. The motor is a heavy duty Grundfos specified motor.

The pump unit consists of optimized hydraulics, various types of connections, a motor stool, a given number of chambers and various other parts.

**SPKE and CRKE- pumps with built-in variable frequency drive**



TM02 8537 0408

**Fig. 2** SPKE and CRKE pumps

SPKE and CRKE pumps are built on the basis of standard pumps.

The difference between the standard pumps and the SPKE and CRKE pump ranges is the motor. SPKE and CRKE pumps are fitted with an E-motor, i.e. a motor with built-in frequency control.

The motors of the SPKE and CRKE pumps are Grundfos MLE motors.

Frequency control enables continuously variable control of motor speed, which makes it possible to set the pump to operate in any duty point. Continuously variable control of the motor speed enables adjustment of the performance to a given requirement.

The pump materials are the same as those of the SPK and CRK pump ranges

## Applications

| Application | SPK(E) | CRK(E) |
|---|---|---|
| Boring | ● | ● |
| Sawing | - | - |
| Milling | ● | ● |
| Grinding | ● | ● |
| Spark erosion | ● | ● |
| Wire cutting | ● | ● |
| Turning | ● | ● |
| Chilling | ● | ● |
| Part washing | ● | ● |
| Filtration | ● | - |
| Condensate systems | ● | ● |
| Wash and clean | ● | ● |

● The pump is suitable for this application.

### Machine tool applications

Grundfos' range of high-pressure pumps offers unsurpassed accuracy and stability to make sure that nothing interferes with the delicate machining process. Equally important, high efficiency ensures a remarkably low heat input into the cooling lubricant. Integrated variable frequency drives can be optionally supplied for increased system efficiency and flexibility. Pumps suitable for machine tool applications are the immersible SPK and CRK offering a tank mounted design.

### Machine tool sub applications

### Boring

Grundfos is capable of providing the exact pressure and flow required for different materials, bore diameters and tool speeds in both through boring and blind boring. Our flexible range includes pumps supplying a pressure of up to 345 PSI.

### Milling/turning

The Grundfos range easily meets the individual cooling requirements of different materials in milling and turning – from low flow and low pressure to high flow and high pressure. The pumps are available in different lengths and customized to fit specific tank sizes. In fact, the modular construction of our pumps allows for more than 1,000,000 individual configurable variants.

### Wire cutting

In wire cutting it is essential that the media are clean. This results in a more accurate process and extends the life of the filter. As a steady temperature is required for wire cutting operation, the process will benefit from a Grundfos E-solution.

### Part washing

The Grundfos range includes pumps suitable for corrosive media and media with a high content of particles. Our variable frequency drive operated pumps with high-efficiency motors ensure that systems operate under the best possible conditions with low-energy consumption. Pumps suitable for this application are all immersible pumps.

### Chilling

The reliable and thoroughly-tested range of pumps for chillers offers a particularly diverse application spectrum. It covers cooling water circuits, washing plants, industrial circulation systems as well as general pressure boosting applications. All pumps are available with an E-motor to increase efficiency and perfectly control any process. Pumps suitable for this application are all immersible pumps.

### Condensate systems

As condensate is normally pumped from a tank, an immersible pump will be a perfect choice. Compact solution as half the pump will be in the tank. Optimum suction as no pipes or valves are needed in front of inlet. For temperatures above 194°F, a 248°F version is available.

### Wash & clean

As for condensate systems, wash and clean applications are typically based around a tank. So also here the immersible pumps can save space and secure optimum suction. A version in all stainless steel is available for aggressive media.

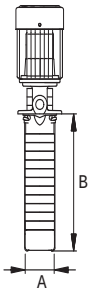
## Product range



TM05 3480 1412



TM05 3481 1412

| Description | SPK 1 | SPK 2 | SPK 4 | SPK 8 | CRK 2 | CRK 4 |
|---|---|---|---|---|---|---|
| **Range 60 Hz** | | | | | | |
| Nominal flow [gpm] | 5 | 11 | 18 | 40 | 13 | 28 |
| Flow range [gpm] | 0.5 - 8 | 1.1 - 13.2 | 1.8 - 26.5 | 4 - 56 | 1.3 - 20 | 2.8 - 40 |
| Maximum head [ft] | 287 | 331 | 250 | 312 | 805 | 560 |
| Maximum power [hp] | 0.75 | 1.50 | 1.50 | 5.00 | 5.00 | 5.00 |
| Liquid temperature range [°F] | +14 to +194 °F (–10 to +90 °C) | | | | | |
| Maximum efficiency [%] | 41 | 54 | 51 | 59 | 44 | 59 |
| **Material variants** | | | | | | |
| Motor stool/pump head: Cast iron, ASTM 25B | ● | ● | ● | ● | ● | ● |
| Motor stool / pump head: Stainless Steel: AISI 316LN | ●* | ●* | ●* | ●* | ●* | ●* |
| **Pipe connection** | | | | | | |
| 1.25” NPT | ● | ● | ● | ● | ● | ● |
| **Installation dimension [in]** | | | | | | |
|  **A** | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 |
| **B Max.** | 39.63** | 39.63** | 39.63** | 39.63** | 39.63 | 39.63 |
| **Shaft seal** | | | | | | |
| AUUV | ● | ● | ● | ● | ● | ● |
| ***Available on request** | | | | | | |
| Variable speed motor (</=10 hp) | ●* | ●* | ●* | ●* | ●* | ●* |

**With extension pipe

## 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.

## Extension pipe

All SPK pumps are available with an extension pipe. The extension pipe is available in various lengths enabling installation lengths up to 39.63 in. (1005 mm).

CRK 2 and CRK 4 pumps can be extended by means of empty chambers enabling installation lengths up to 39.63 in. (1005 mm).

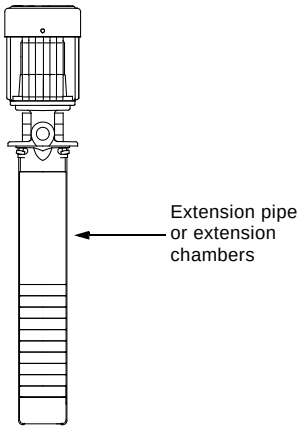



**Fig. 3** Extension pipe

## Installation

### SPK, CRK 2/4

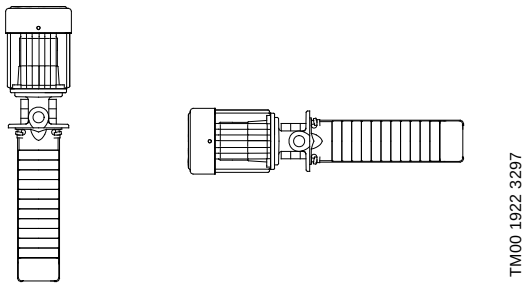



**Fig. 4** SPK, CRK 2/4

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

### SPK and CRK 2/4

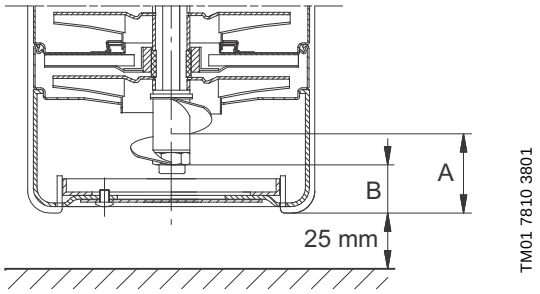



**Fig. 5** SPK and CRK 2/4

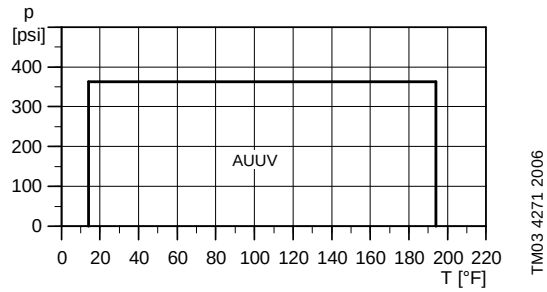
The pumps are designed to provide full performance down to a level of A in. above the bottom of the strainer.

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 | 1.63 | 1.00 |

## Shaft seal

### Max. operating pressure and liquid temperature




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

## Motor

**Grundfos standard motors - ML and Baldor® motors**

SPK and CRK pumps are fitted with a Grundfos specified motor. The motors are all heavy-duty 2-pole, NEMA C-face motors.

**Variable frequency drive motors - MLE motors**

SPKE and CRKE pumps are fitted with a totally enclosed, fan-cooled, 2-pole motor with integrated variable frequency drive.

From 0.5 Hp to 1.5 Hp Grundfos offers SPKE and CRKE pumps fitted with single-phase MLE motors (1 x 208-230 V). From 1.0 Hp to 30 Hp Grundfos offers the

SPKE and CRKE pumps fitted with three-phase MLE motors (3 x 460-480 V). From 1.5 Hp to 7.5 Hp Grundfos offers the SPKE and CRKE pumps fitted with three-phase MLE motors (3 x 208-230 V).

### Electrical data

| | |
|---|---|
| **Mounting designation** | NEMA |
| **Insulation class** | F & B |
| **Efficiency class*** | Energy efficient<br>Premium efficiency - on request for 15 Hp and above |
| **Enclosure class** | TEFC - Totally Enclosed Fan Cooled (Grundfos standard)<br>ODP - Open Drip Proof - on request |
| **60 Hz Standard voltages** | 1 x 115/208-230 V<br>3 x 208-230/460 V<br>3 x 575 V |
| **Approvals** | The motors are rated for:<br>Baldor ML/MLE MLE<br>LISTED |

* 1 - 10 Hp ML motors are premium efficiency as standard

## Operating conditions

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

### Motor protection

Single-phase Grundfos specified motors up to 7.5 hp have a built-in thermal overload switch.

Three-phase motors **must** be connected to a motor starter in accordance with local regulations.

## Sound pressure level

| Motor [hp] | dB(A) |
|---|---|
| 0.33 to 1.5 | <70 |
| 2.0 to 5.0 | 71 |
| 7.5 | 78 |
| 10.0 | 78 |
| 15.0 | 84 |
| 20.0 | 77 |

### Optional motors

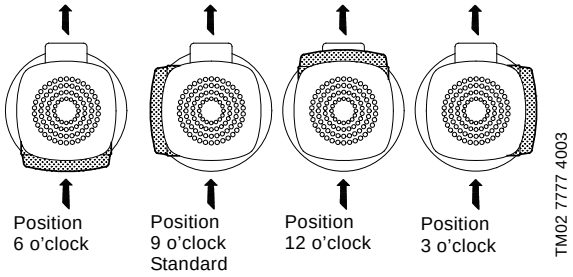
The Grundfos standard range of motors covers a wide variety of application demands. However, for special applications or operating conditions, custom-built motor solutions can be provided.

For special applications or operating conditions, Grundfos offers custom-built motors such as:

- explosion proof motors,
- motors with anti-condensation heating unit,
- low-noise motors,
- premium efficiency motors,

## 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.




## Ambient temperature

Ambient temperature: Maximum +104 °F.

If the ambient temperature exceeds +104 °F or if the motor is located 3280 feet above sea level or higher, the motor output (P2) must be reduced due to the low cooling effect of the air. In such cases, it may be necessary to use a motor with a higher output.

Overheating may result from excessive ambient temperatures or the low density and consequently low cooling effect of the air at high altitudes. In such cases, it may be necessary to use a motor with a higher rated output ($P_2$).

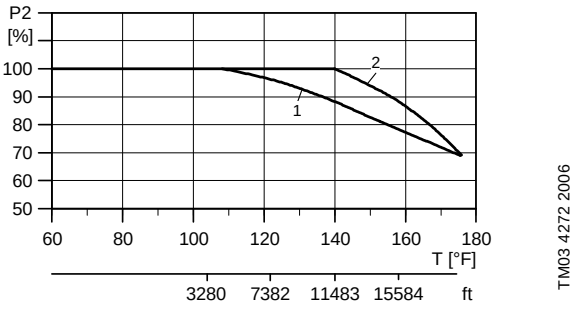


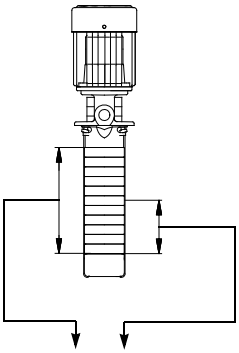

**Fig. 6** Relationship between motor output ($P_2$) and ambient temperature/altitude

Legend

| Pos. | Description |
|---|---|
| 1 | NEMA energy efficient motors (EPAct) |
| 2 | NEMA Premium efficiency motors |

# Type key

## SPK



**Example** **SPK 2 - 15 / 8 A - W - A AUUV**

Pump type

Nominal flow [m³/h]

Number of chambers

Number of impellers
(ref. to performance
curve and motor size)

Pump version
A: Basic
L : With extension pipe

Connection code
W: Internal thread
B: NPT Thread

Materials
A: Basic
I: Motor stool in stainless steel

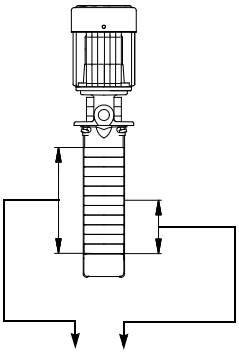
**Shaft seal** **A U U V**

A: O-ring seal with fixed driver

U: Cemented tungsten carbide

V: FKM
E: EPDM

## CRK



**Example** **CRK 4 - 120 / 8 A - W - A AUUV**

Pump type

Nominal flow [m³/h]

Number of chambers x 10

Number of impellers
(ref. to performance
curve and motor size)

Pump version
A: Basic

Connection code
W: Internal thread
B: NPT Thread

Materials
A: Basic
I: Motor stool in stainless steel

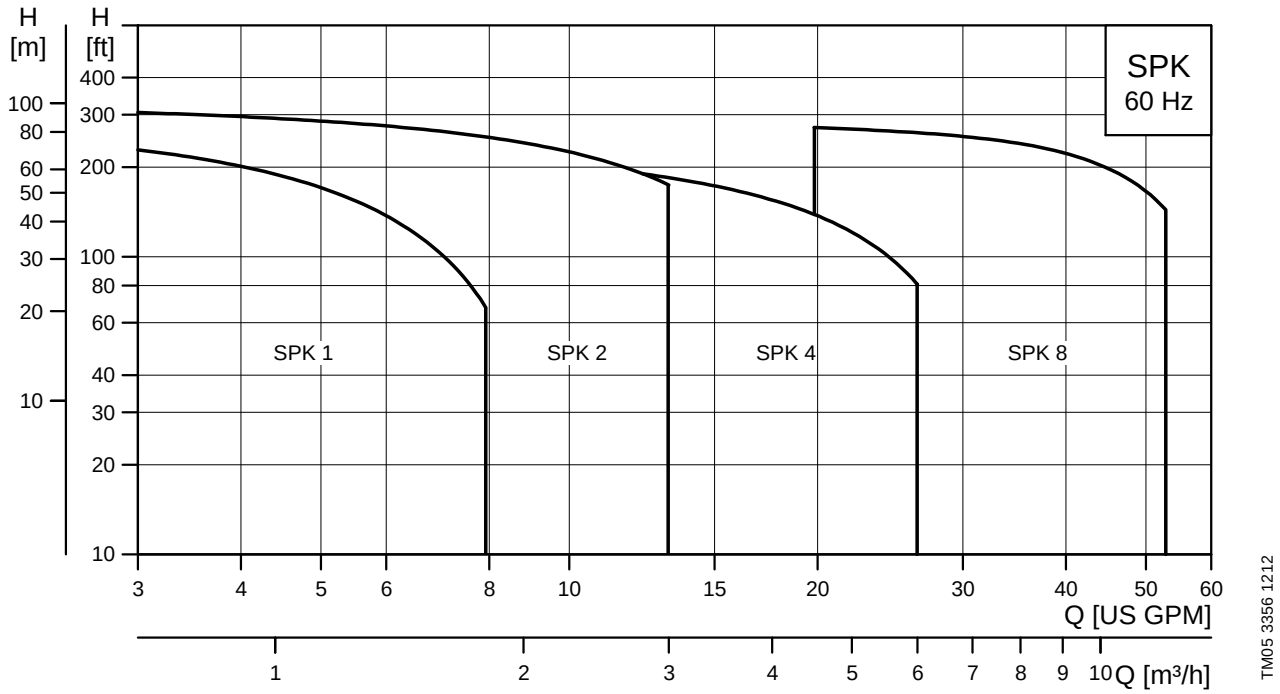
**Shaft seal** **A U U V**

A: O-ring seal with fixed driver

U: Cemented tungsten carbide

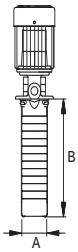
V: FKM
E: EPDM

# 2. SPK performance range



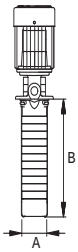

## Product range

### SPK 1

| Example: SPK 1-8/8 | Number of chambers | Number of impellers 1 | 3 | 5 | 8 | 11 | 15 | B [in] |
|---|---|---|---|---|---|---|---|---|
|  | 1 | ● | | | | | | 5.63 |
| | 3 | ● | ● | | | | | 7.25 |
| | 5 | ● | ● | ● | | | | 8.88 |
| | 8 | ● | ● | ● | ● | | | 11.38 |
| | 11 | ● | ● | ● | ● | ● | | 13.88 |
| | 15 | ● | ● | ● | ● | ● | ● | 17.13 |
| | 19 | ● | ● | ● | ● | ● | ● | 20.50 |
| | 23 | ● | ● | ● | ● | ● | ● | 23.75 |
| | 23★ | ● | ● | ● | ● | ● | ● | 39.63 |
| Motor [hp] | | 0.33 | 0.33 | 0.33 | 0.33 | 0.50 | 0.75 | |

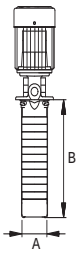
★ with extension pipe.

### SPK 2

| Example: SPK 2-8/8 | Number of chambers | Number of impellers 1 | 3 | 5 | 8 | 11 | 15 | B [in] |
|---|---|---|---|---|---|---|---|---|
|  | 1 | ● | | | | | | 5.63 |
| | 3 | ● | ● | | | | | 7.25 |
| | 5 | ● | ● | ● | | | | 8.88 |
| | 8 | ● | ● | ● | ● | | | 11.38 |
| | 11 | ● | ● | ● | ● | ● | | 13.88 |
| | 15 | ● | ● | ● | ● | ● | ● | 17.13 |
| | 19 | ● | ● | ● | ● | ● | ● | 20.50 |
| | 23 | ● | ● | ● | ● | ● | ● | 23.75 |
| | 23★ | ● | ● | ● | ● | ● | ● | 39.63 |
| Motor [hp] | | 0.33 | 0.33 | 0.50 | 0.75 | 1.00 | 1.50 | |

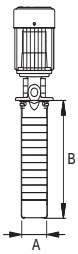
★ with extension pipe.

### SPK 4

| Example: SPK 4-8/8 | Number of chambers | Number of impellers 1 | 3 | 5 | 8 | 10 | B [in] |
|---|---|---|---|---|---|---|---|
|  | 1 | ● | | | | | 5.63 |
| | 3 | ● | ● | | | | 7.25 |
| | 5 | ● | ● | ● | | | 8.88 |
| | 8 | ● | ● | ● | ● | | 11.38 |
| | 11 | ● | ● | ● | ● | ● | 13.88 |
| | 15 | ● | ● | ● | ● | ● | 17.13 |
| | 19 | ● | ● | ● | ● | ● | 20.50 |
| | 19★ | ● | ● | ● | ● | ● | 39.63 |
| Motor [hp] | | 0.33 | 0.50 | 0.75 | 1.50 | 1.50 | |

★ with extension pipe.

### SPK 8

| Example: SPK 8-7/7 | Number of chambers | Number of impellers 1 | 2 | 3 | 5 | 7 | 8 | 12 | B [in] |
|---|---|---|---|---|---|---|---|---|---|
|  | 1 | ● | | | | | | | 7.25 |
| | 2 | ● | ● | | | | | | 8.88 |
| | 3 | ● | ● | ● | | | | | 11.38 |
| | 5 | ● | ● | ● | ● | | | | 13.88 |
| | 7 | ● | ● | ● | ● | ● | | | 17.13 |
| | 9 | ● | ● | ● | ● | ● | ● | | 20.50 |
| | 12 | ● | ● | ● | ● | ● | ● | ● | 25.38 |
| | 15 | ● | ● | ● | ● | ● | ● | ● | 30.38 |
| | 15★ | ● | ● | ● | ● | ● | ● | ● | 39.63 |
| Motor [hp] | | 0.50 | 0.75 | 1.50 | 2.00 | 3.00 | 3.00 | 5.00 | |

★ with extension pipe.

# 3. SPK construction

## 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) | 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

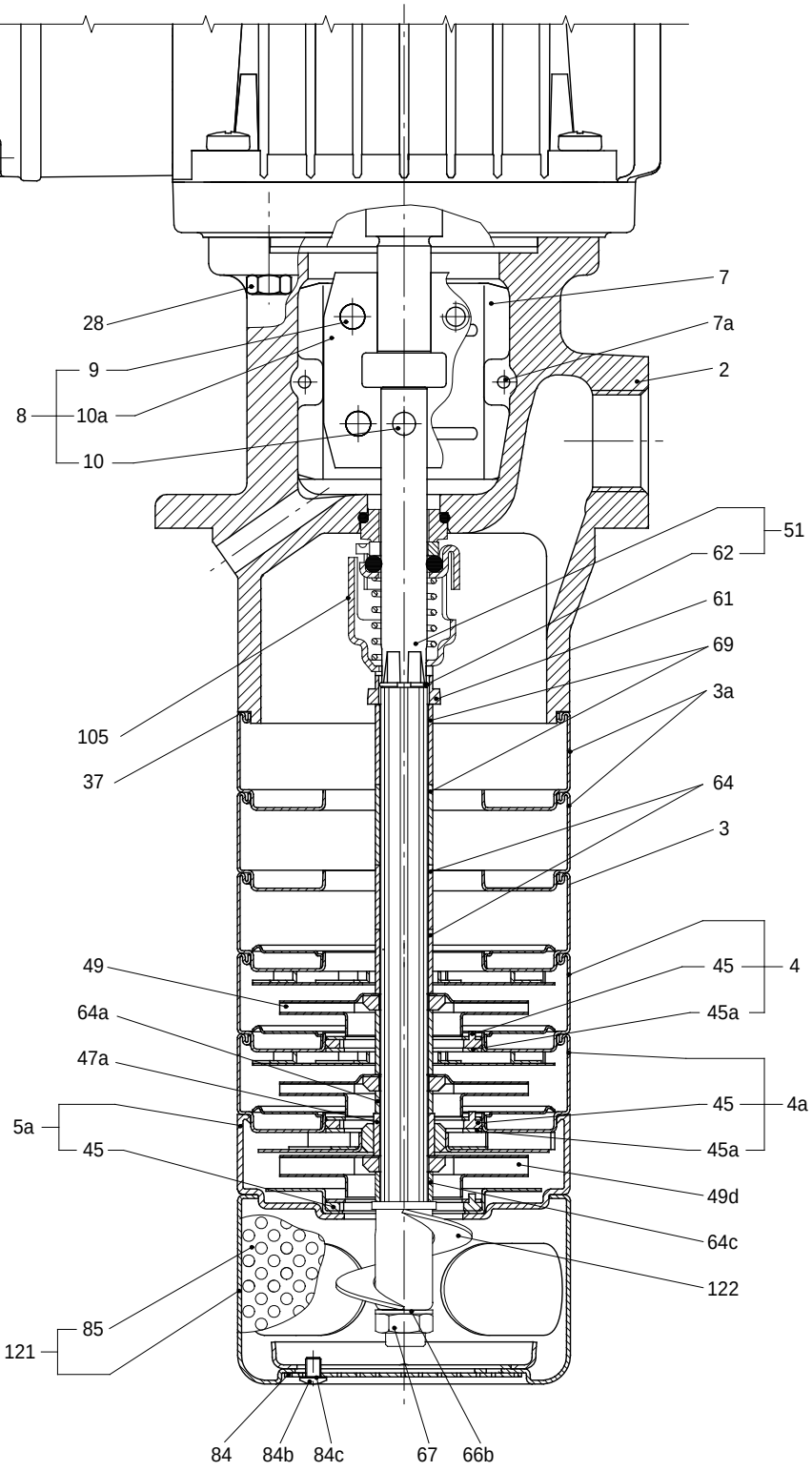



**Fig. 7** SPK 1, SPK 2

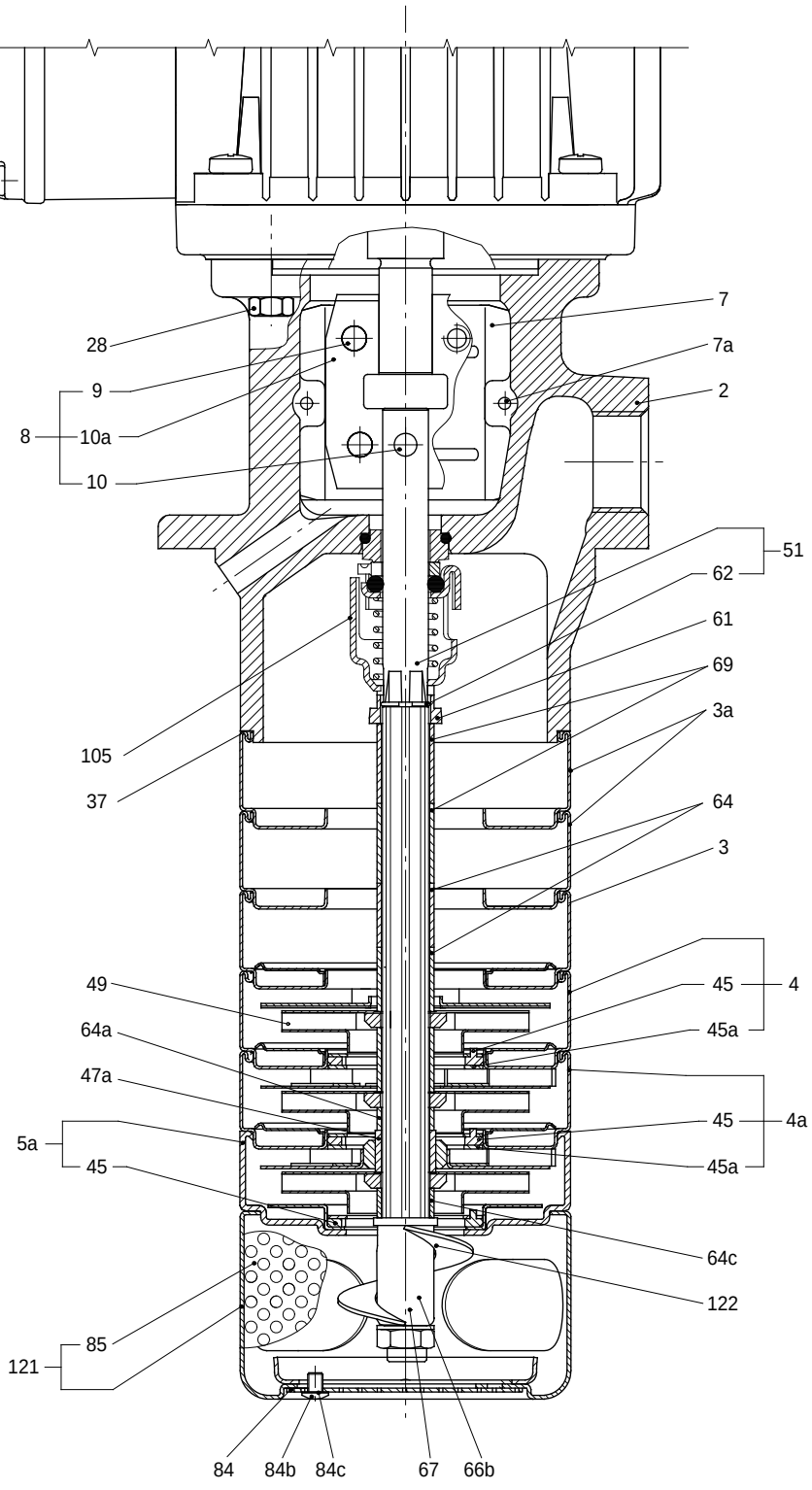

7
28
7a
9
2
8
10a
10
51
62
61
69
105
3a
37
64
3
49
45
4
64a
45a
47a
45
4a
5a
45
45a
64c
122
85
121
84
84b
84c
67
66b
TM02 0111 1901

**Fig. 8** SPK 4

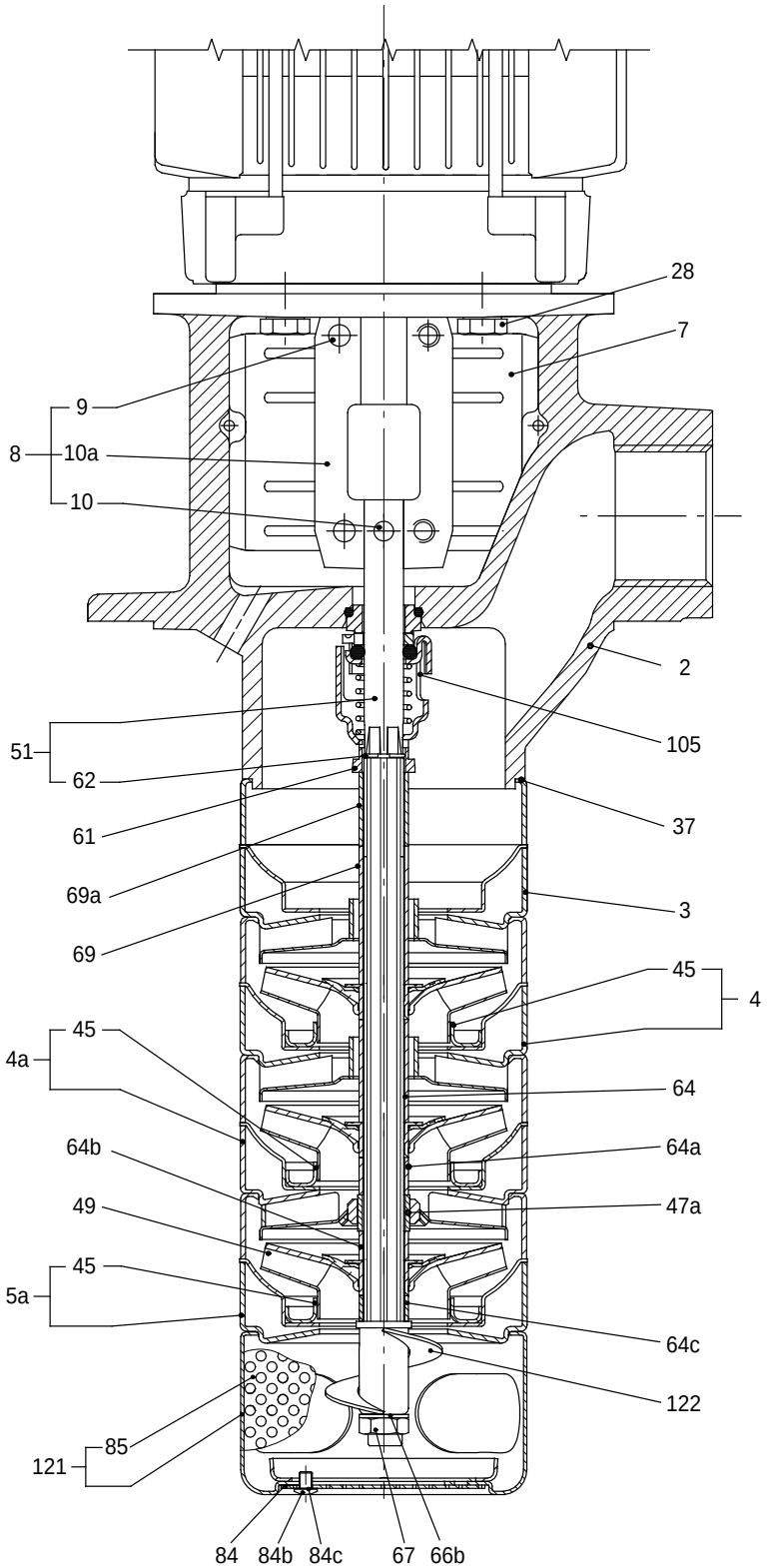
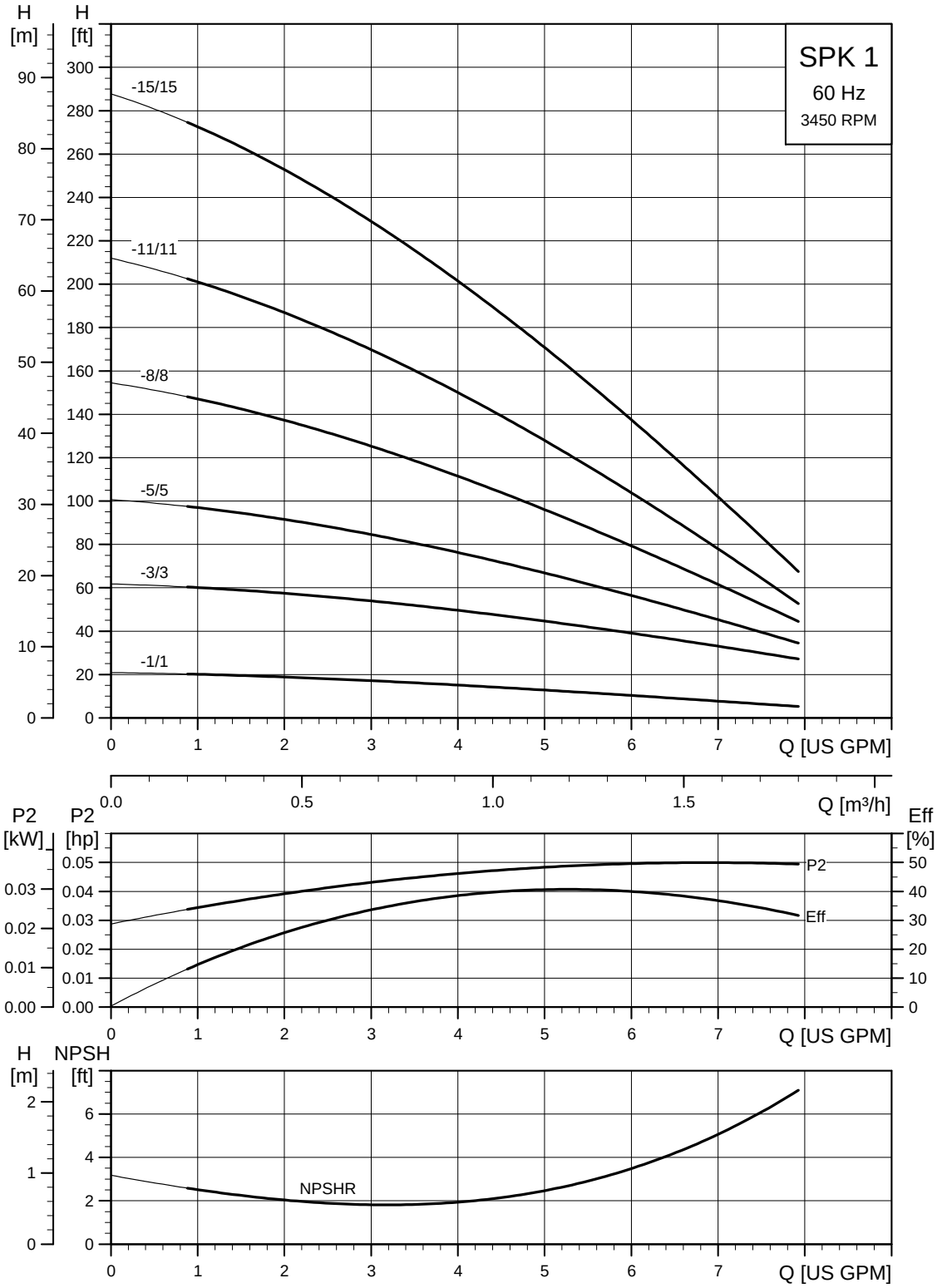

28
7
9
8
10a
10
2
105
51
62
61
37
69a
3
69
45
4
45
4a
64
64b
64a
49
47a
45
5a
64c
122
85
121
84
84b
84c
67
66b
TM02 0112 1901

**Fig. 9** SPK 8

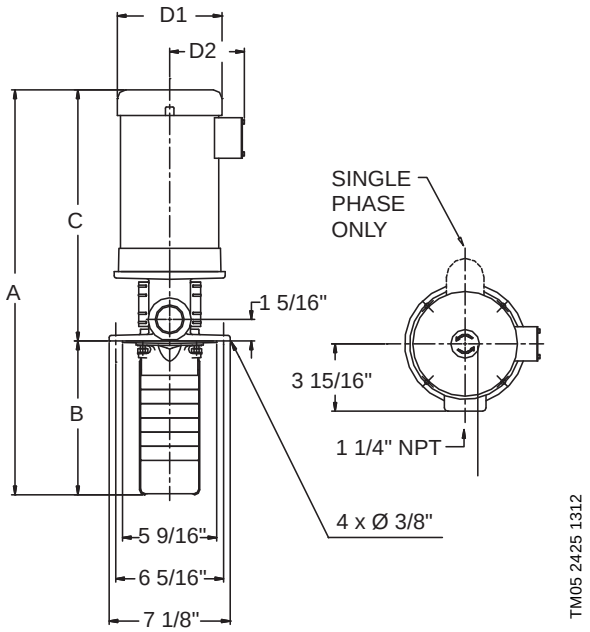
# 4. SPK performance curves/ technical data

## SPK 1




TM03 8487 1212

## Dimensional sketches




## Dimensions and weights[1]

| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs]* |
|---|---|---|---|---|---|---|---|---|
| SPK 1-1/1 | 0.33 | 1 | 19.00 | 5.63 | 9.29 | 6.25 | 5.25 | 35 |
| | | 3 | 17.31 | 5.63 | 7.60 | 5.63 | 4.63 | 33 |
| SPK 1-3/3 | 0.33 | 1 | 20.62 | 7.25 | 9.29 | 6.25 | 5.25 | 36 |
| | | 3 | 18.93 | 7.25 | 7.60 | 5.63 | 4.63 | 34 |
| SPK 1-5/5 | 0.33 | 1 | 22.25 | 8.88 | 9.29 | 6.25 | 5.25 | 37 |
| | | 3 | 20.56 | 8.88 | 7.60 | 5.63 | 4.63 | 35 |
| SPK 1-8/8 | 0.33 | 1 | 24.75 | 11.38 | 9.29 | 6.25 | 5.25 | 39 |
| | | 3 | 23.06 | 11.38 | 7.60 | 5.63 | 4.63 | 37 |
| SPK 1-11/11 | 0.50 | 1 | 27.25 | 13.88 | 9.29 | 6.25 | 5.25 | 50 |
| | | 3 | 25.56 | 13.88 | 7.60 | 5.63 | 4.63 | 42 |
| SPK 1-15/15 | 0.75 | 1 | 30.50 | 17.13 | 9.29 | 6.25 | 5.25 | 54 |
| | | 3 | 28.81 | 17.13 | 7.60 | 5.63 | 4.63 | 49 |
| SPK 1-19/15 | 0.75 | 1 | 33.87 | 20.50 | 9.29 | 6.25 | 5.25 | 59 |
| | | 3 | 32.18 | 20.50 | 7.60 | 5.63 | 4.63 | 50 |
| SPK 1-23/15 | 0.75 | 1 | 37.12 | 23.75 | 9.29 | 6.25 | 5.25 | 59 |
| | | 3 | 35.43 | 23.75 | 7.60 | 5.63 | 4.63 | 50 |

* 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 1-23/15 | 0.75 | 1 | 53.00 | 39.63 | 9.29 | 6.25 | 5.25 | 69 |
| | | 3 | 51.31 | 39.63 | 7.60 | 5.63 | 4.63 | 60 |

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

## Electrical data[1]

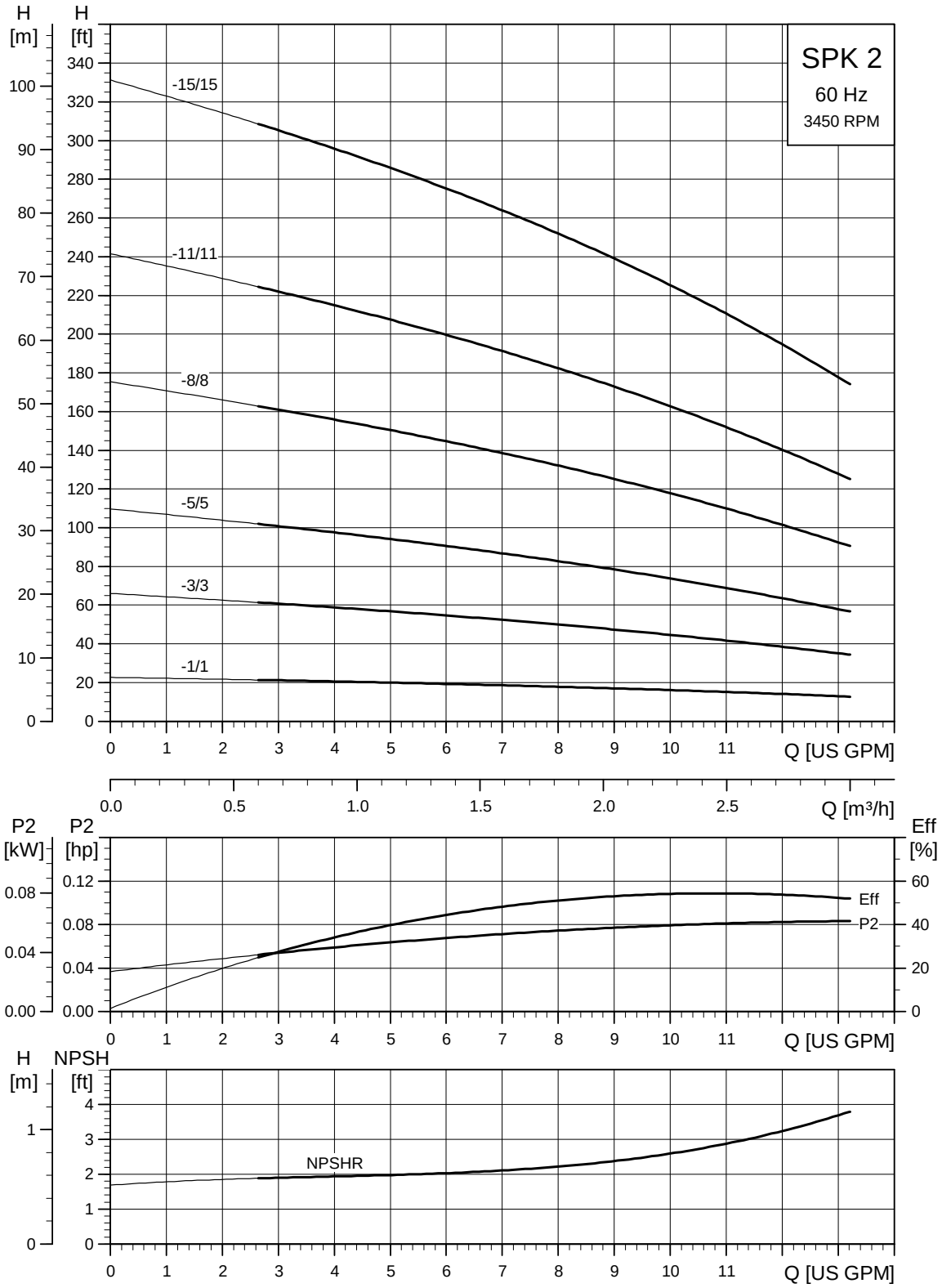
| Hp | Ph | NEMA frame | Service factor | Voltage | Motor eff. [%] | Insul. class | KVA code | Full load current [A] | Service factor current [A] | Start current [A] | Motor type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.33 | 1 | 56C | 1.35 | 115/230 | 55 | B | K | 6.0/3.0 | 7.6/3.8 | 28/14 | 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 |
| 0.50 | 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 |
| 0.75 | 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 3.

## Flange to strainer length options

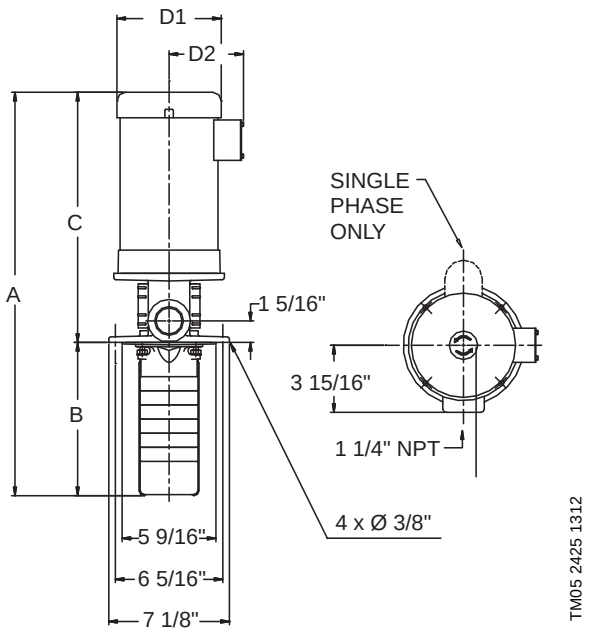
| Pump type | No. of impellers | Hp | Flange to strainer length options (dimension B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Inches | | | | | | | | |
| | | | 5.63 | 7.25 | 8.88 | 11.38 | 13.88 | 17.13 | 20.5 | 23.75 | 39.63 |
| | | | Stages / Impellers | | | | | | | | |
| SPK 1 | 1 | 0.33 | -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 | 0.33 | - | -3/3 | -5/3 | -8/3 | -11/3 | -15/3 | -19/3 | -23/3 | |
| SPK 1 | 5 | 0.33 | - | - | -5/5 | -8/5 | -11/5 | -15/5 | -19/5 | -23/5 | |
| SPK 1 | 8 | 0.33 | - | - | - | -8/8 | -11/8 | -15/8 | -19/8 | -23/8 | |
| SPK 1 | 11 | 0.50 | - | - | - | - | -11/11 | -15/11 | -19/11 | -23/11 | |
| SPK 1 | 15 | 0.75 | - | - | - | - | - | -15/15 | -19/15 | -23/15 | |

## SPK 2




TM03 8488 1707

## Dimensional sketches




## Dimensions and weights[1]

| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs.]* |
|---|---|---|---|---|---|---|---|---|
| SPK 2-1/1 | 0.33 | 1 | 19.00 | 5.63 | 9.29 | 6.25 | 5.25 | 35 |
| | | 3 | 17.31 | 5.63 | 7.60 | 5.63 | 4.63 | 33 |
| SPK 2-3/3 | 0.33 | 1 | 20.62 | 7.25 | 9.29 | 6.25 | 5.25 | 36 |
| | | 3 | 18.93 | 7.25 | 7.60 | 5.63 | 4.63 | 36 |
| SPK 2-5/5 | 0.50 | 1 | 22.25 | 8.88 | 9.29 | 6.25 | 5.25 | 38 |
| | | 3 | 20.56 | 8.88 | 7.60 | 5.63 | 4.63 | 38 |
| SPK 2-8/8 | 0.75 | 1 | 24.75 | 11.38 | 9.29 | 6.25 | 5.25 | 48 |
| | | 3 | 18.98 | 11.38 | 7.60 | 5.63 | 4.63 | 41 |
| SPK 2-11/11 | 1.00 | 1 | 25.07 | 13.88 | 11.19 | 7.25 | 5.75 | 62 |
| | | 3 | 21.48 | 13.88 | 7.60 | 5.63 | 4.63 | 48 |
| SPK 2-15/15 | 1.50 | 1 | 28.81 | 17.13 | 11.68 | 7.25 | 5.75 | 70 |
| | | 3 | 25.91 | 17.13 | 8.78 | 5.63 | 4.63 | 57 |
| SPK 2-19/15 | 1.50 | 1 | 32.18 | 20.50 | 11.68 | 7.25 | 5.75 | 75 |
| | | 3 | 29.28 | 20.50 | 8.78 | 5.63 | 4.63 | 63 |
| SPK 2-23/15 | 1.50 | 1 | 35.43 | 23.75 | 11.68 | 7.25 | 5.75 | 76 |
| | | 3 | 32.53 | 23.75 | 8.78 | 5.63 | 4.63 | 64 |

* 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 | 1.50 | 1 | 55.39 | 39.63 | 11.68 | 7.25 | 5.75 | 86 |
| | | 3 | 52.48 | 39.63 | 8.78 | 5.63 | 4.63 | 74 |

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

## Electrical data

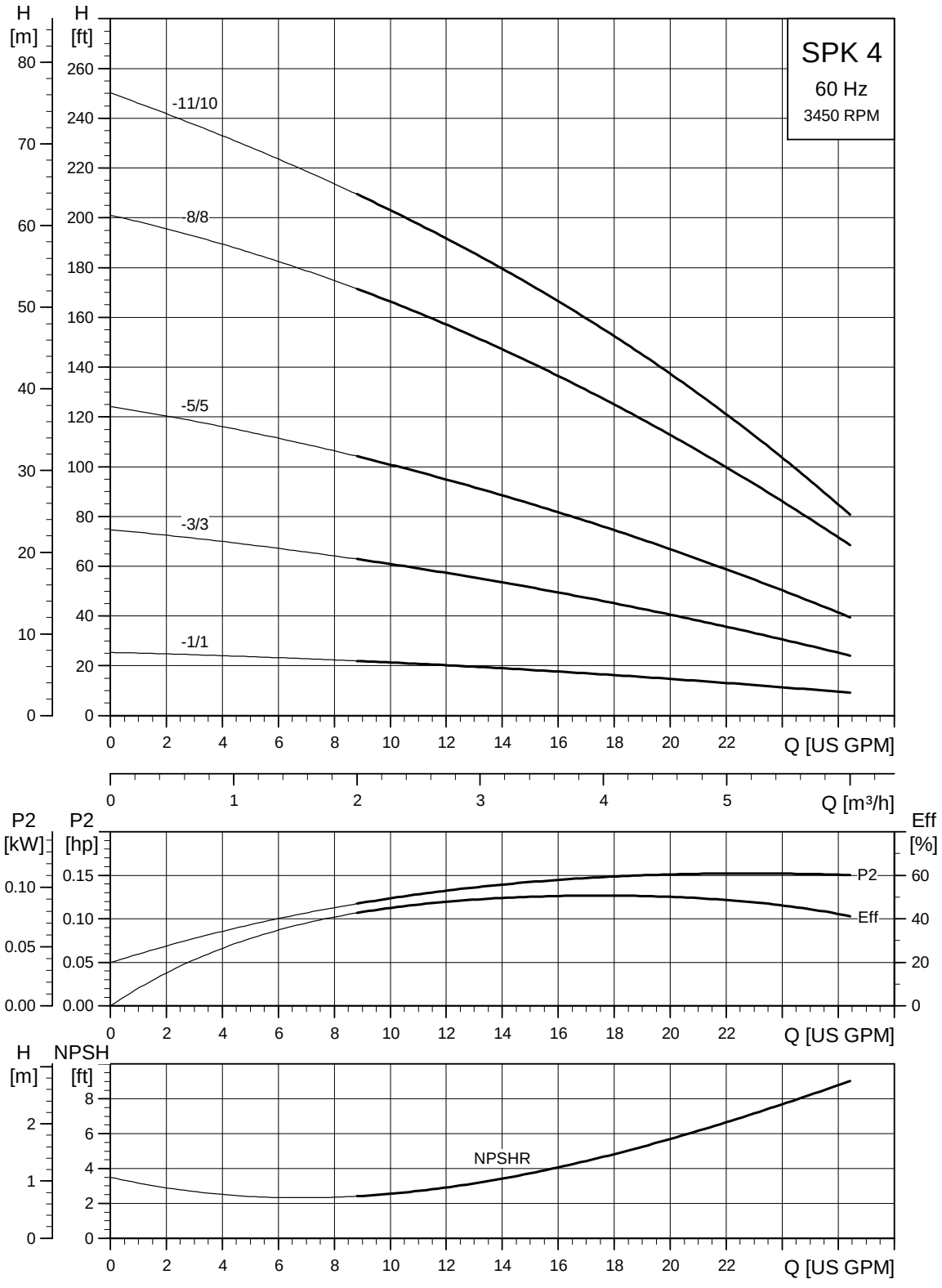
| Hp | Ph | NEMA frame | Service factor | Voltage | Motor eff. [%] | Insul. class | KVA code | Full load current [A] | Service factor current [A] | Start current [A] | Motor type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.33 | 1 | 56C | 1.35 | 115/230 | 55 | B | K | 6.0/3.0 | 7.6/3.8 | 28/14 | 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 |
| 0.50 | 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 |
| 0.75 | 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 |
| 1.00 | 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 |
| 1.50 | 1 | 56C | 1.30 | 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 |

[1]All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 3.

## Flange to strainer length options

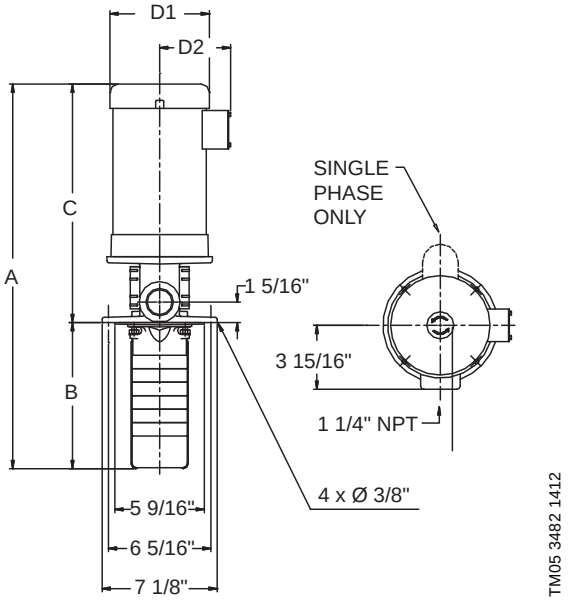
| Pump type | No. of impellers | Hp | Flange to strainer length options (dimension B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Inches | | | | | | | | |
| | | | 5.63 | 7.25 | 8.88 | 11.38 | 13.88 | 17.13 | 20.50 | 23.75 | 39.63 |
| | | | Stages / Impellers | | | | | | | | |
| SPK 2 | 1 | 0.33 | -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 | 0.33 | - | -3/3 | -5/3 | -8/3 | -11/3 | -15/3 | -19/3 | -23/3 | |
| SPK 2 | 5 | 0.50 | - | - | -5/5 | -8/5 | -11/5 | -15/5 | -19/5 | -23/5 | |
| SPK 2 | 8 | 0.75 | - | - | - | -8/8 | -11/8 | -15/8 | -19/8 | -23/8 | |
| SPK 2 | 11 | 1.00 | - | - | - | - | -11/11 | -15/11 | -19/11 | -23/11 | |
| SPK 2 | 15 | 1.50 | - | - | - | - | - | -15/15 | -19/15 | -23/15 | |

## SPK 4




TM03 8489 1707

## Dimensional sketches




## Dimensions and weights[1]

| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs.]* |
|---|---|---|---|---|---|---|---|---|
| SPK 4-1/1 | 0.33 | 1 | 14.92 | 5.63 | 9.29 | 6.25 | 5.25 | 35 |
| | | 3 | 13.22 | 5.63 | 7.60 | 5.63 | 4.63 | 33 |
| SPK 4-3/3 | 0.50 | 1 | 16.54 | 7.25 | 9.29 | 6.25 | 5.25 | 37 |
| | | 3 | 14.85 | 7.25 | 7.60 | 5.63 | 4.63 | 35 |
| SPK 4-5/5 | 0.75 | 1 | 18.17 | 8.88 | 9.29 | 6.25 | 5.25 | 54 |
| | | 3 | 16.47 | 8.88 | 7.60 | 5.63 | 4.63 | 40 |
| SPK 4-8/8 | 1.50 | 1 | 23.06 | 11.38 | 11.68 | 7.25 | 5.75 | 67 |
| | | 3 | 20.15 | 11.38 | 8.78 | 5.63 | 4.63 | 50 |
| SPK 4-11/10 | 1.50 | 1 | 25.56 | 13.88 | 11.68 | 7.25 | 5.75 | 69 |
| | | 3 | 22.65 | 13.88 | 8.78 | 5.63 | 4.63 | 57 |
| SPK 4-15/10 | 1.50 | 1 | 28.81 | 17.13 | 11.68 | 7.25 | 5.75 | 72 |
| | | 3 | 25.90 | 17.13 | 8.78 | 5.63 | 4.63 | 60 |
| SPK 4-19/10 | 1.50 | 1 | 32.18 | 20.50 | 11.68 | 7.25 | 5.75 | 74 |
| | | 3 | 29.28 | 20.50 | 8.78 | 5.63 | 4.63 | 62 |

* 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 | 1.50 | 1 | 55.38 | 39.63 | 11.68 | 7.25 | 5.75 | 86 |
| | | 3 | 52.48 | 39.63 | 8.78 | 5.63 | 4.63 | 74 |

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

## Electrical data[1]

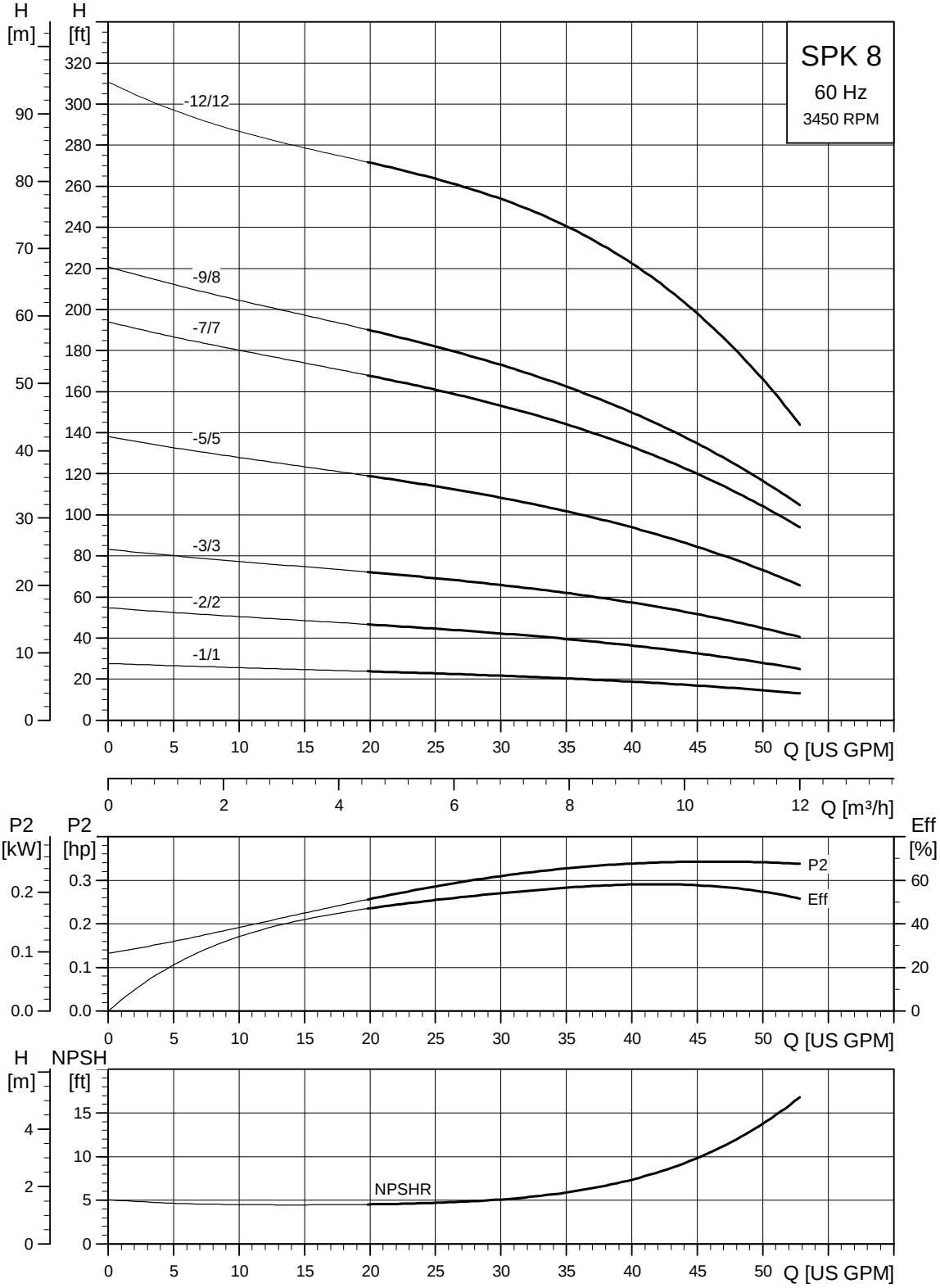
| Hp | Ph | NEMA frame | Service factor | Voltage | Motor eff. [%] | Insul. class | KVA code | Full load current [A] | Service factor current [A] | Start current [A] | Motor type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.33 | 1 | 56C | 1.35 | 115/230 | 55 | B | K | 6.0/3.0 | 7.6/3.8 | 28/14 | 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 |
| 0.50 | 1 | 56C | 1.60 | 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 |
| 0.75 | 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 |
| 1.00 | 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 |
| 1.50 | 1 | 56C | 1.30 | 115/230 | 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 |

[1] All specifications are for TEFC motors. ODP motors are available on request. For pumps supplied from Grundfos Canada see Notes on page 3.

## Flange to strainer length options

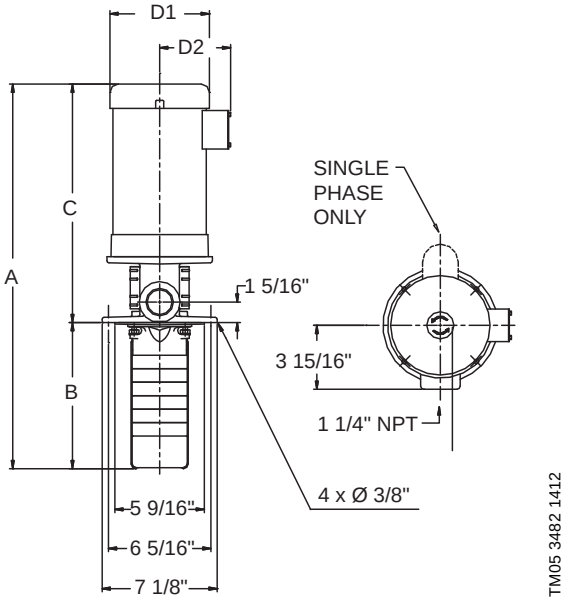
| Pump type | No. of impellers | Hp | Flange to strainer length options (dimension B) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Inches | | | | | | | |
| | | | 5.63 | 7.25 | 8.88 | 11.38 | 13.88 | 17.13 | 20.50 | 39.63 |
| | | | Stages / Impellers | | | | | | | |
| SPK 4 | 1 | 0.33 | -1/1 | -3/1 | -5/1 | -8/1 | -11/1 | -15/1 | -19/1 | All SPK models with extension pipe |
| SPK 4 | 3 | 0.50 | - | -3/3 | -5/3 | -8/3 | -11/3 | -15/3 | -19/3 | |
| SPK 4 | 5 | 0.75 | - | - | -5/5 | -8/5 | -11/5 | -15/5 | -19/5 | |
| SPK 4 | 8 | 1.50 | - | - | - | -8/8 | -11/8 | -15/8 | -19/8 | |
| SPK 4 | 10 | 1.50 | - | - | - | - | -11/10 | -15/10 | -19/10 | |

## SPK 8




TM03 8490 1707

## Dimensional sketches




## Dimensions and weights[1]

| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs.]* |
|---|---|---|---|---|---|---|---|---|
| SPK 8-1/1 | 0.50 | 1 | 16.54 | 7.25 | 9.29 | 6.25 | 5.25 | 42 |
| | | 3 | 14.85 | 7.25 | 7.60 | 5.63 | 4.63 | 40 |
| SPK 8-2/2 | 0.75 | 1 | 18.17 | 8.88 | 9.29 | 6.25 | 5.25 | 59 |
| | | 3 | 16.47 | 8.88 | 7.60 | 5.63 | 4.63 | 50 |
| SPK 8-3/3 | 1.50 | 1 | 22.18 | 10.50 | 11.68 | 7.25 | 5.75 | 71 |
| | | 3 | 19.28 | 10.50 | 8.78 | 5.63 | 4.63 | 47 |
| SPK 8-5/5 | 2.00 | 1 | 26.44 | 13.88 | 12.56 | 7.25 | 5.75 | 73 |
| | | 3 | 25.25 | 13.88 | 11.38 | 7.13 | 4.38 | 63 |
| SPK 8-7/7 | 3.00 | 1 | 35.88 | 17.13 | 18.75 | 8.63 | 6.88 | 87 |
| | | 3 | 33.13 | 17.13 | 16.00 | 7.13 | 4.38 | 80 |
| SPK 8-9/8 | 3.00 | 1 | 35.15 | 20.50 | 14.65 | 8.63 | 6.88 | 89 |
| | | 3 | 33.73 | 20.50 | 13.23 | 7.13 | 4.38 | 78 |
| SPK 8-12/12 | 5.00 | 1 | 40.65 | 25.38 | 15.27 | 10.63 | 7.50 | 162 |
| | | 3 | 40.89 | 25.38 | 15.51 | 7.13 | 4.38 | 120 |
| SPK 8-15/12 | 5.00 | 1 | 45.65 | 30.38 | 15.27 | 10.63 | 7.50 | 165 |
| | | 3 | 45.89 | 30.38 | 15.51 | 7.13 | 4.38 | 123 |

* 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 | 5.00 | 1 | 58.98 | 39.63 | 15.27 | 10.63 | 7.50 | 172 |
| | | 3 | 59.22 | 39.63 | 15.51 | 7.13 | 4.38 | 130 |

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

## Electrical data[1]

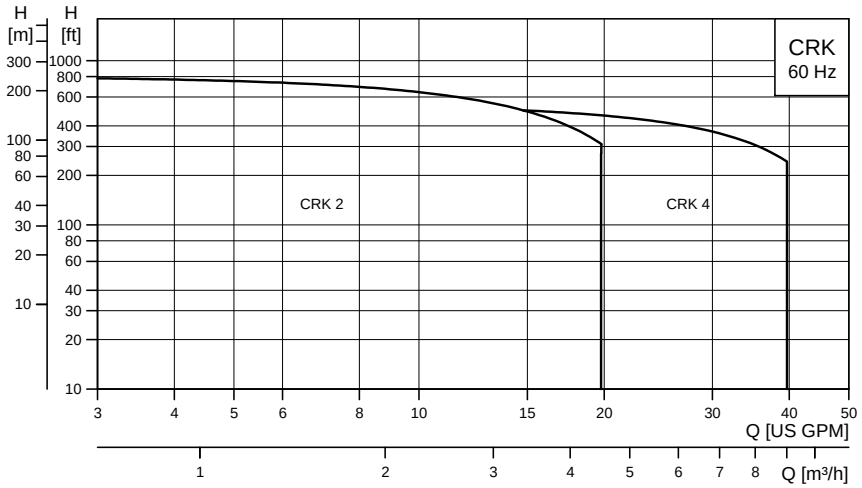
| Hp | Ph | NEMA frame | Service factor | Voltage | Motor eff. [%] | Insul. class | KVA code | Full load current [A] | Service factor current [A] | Start current [A] | Motor type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.50 | 1 | 56C | 1.6 | 115/208-230 | 62 | B | K | 7.4/4.1-3.7 | 9.8/5.2-4.9 | 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 |
| 0.75 | 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 |
| 1.50 | 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 |
| 2.00 | 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 |
| 3.00 | 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 |
| 5.00 | 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 3.

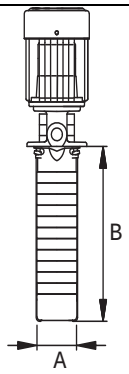
## Flange to strainer length options

| Pump type | No. of impellers | Hp | Flange to strainer length options (dimension B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Inches | | | | | | | | |
| | | | 7.25 | 8.88 | 10.50 | 13.88 | 17.13 | 20.50 | 25.38 | 30.38 | 39.63 |
| | | | Stages / Impellers | | | | | | | | |
| SPK 8 | 1 | 0.50 | -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 | 0.75 | - | -2/2 | -3/2 | -5/2 | -7/2 | -9/2 | -12/2 | -15/2 | |
| SPK 8 | 3 | 1.50 | - | - | -3/3 | -5/3 | -7/3 | -9/3 | -12/3 | -15/3 | |
| SPK 8 | 5 | 2.00 | - | - | - | -5/5 | -7/5 | -9/5 | -12/5 | -15/5 | |
| SPK 8 | 7 | 3.00 | - | - | - | - | -7/7 | -9/7 | -12/7 | -15/7 | |
| SPK 8 | 8 | 3.00 | - | - | - | - | - | -9/8 | -12/8 | -15/8 | |
| SPK 8 | 12 | 5.00 | - | - | - | - | - | - | -12/12 | -15/12 | |

# 5. CRK performance range

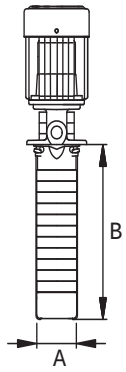



TM05 3355 1212

| Example: CRK 2-60/6 | | Number of impellers | | | | | | | | | | | B [in] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 11 | 13 | 15 | 18 | |
|  | 20 | ● | | | | | | | | | | | 6.38 |
| | 30 | ❍ | ● | | | | | | | | | | 7.13 |
| | 40 | ❍ | ❍ | ● | | | | | | | | | 7.75 |
| | 50 | ❍ | ❍ | ❍ | ● | | | | | | | | 8.50 |
| | 60 | ❍ | ❍ | ❍ | ❍ | ● | | | | | | | 9.25 |
| | 70 | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | | | | 9.88 |
| | 90 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | | | 11.38 |
| | 110 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | | 12.75 |
| | 130 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | 14.13 |
| | 150 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | 15.63 |
| | 180 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 17.75 |
| | 220 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 20.50 |
| | 260 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 23.38 |
| | 500★ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 39.63 |
| Number of chambers x 10 | **Motor [hp]** | 0.50 | 0.75 | 1.00 | 1.50 | 1.50 | 2.00 | 2.00 | 3.00 | 3.00 | 5.00 | 5.00 | |

❍ 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 | ● | | | | | | | | | 6.75 |
| | 30 | ❍ | ● | | | | | | | | 7.75 |
| | 40 | ❍ | ❍ | ● | | | | | | | 8.88 |
| | 50 | ❍ | ❍ | ❍ | ● | | | | | | 9.88 |
| | 60 | ❍ | ❍ | ❍ | ❍ | ● | | | | | 11.00 |
| | 70 | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | | 12.00 |
| | 80 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | | 13.13 |
| | 100 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | | 15.25 |
| | 120 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 17.38 |
| | 140 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 19.50 |
| | 160 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 21.63 |
| | 190 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 24.75 |
| | 220 | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 28.00 |
| | 330★ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ● | 39.63 |
| Number of chambers x 10 | **Motor [hp]** | 0.75 | 1.50 | 1.50 | 2.00 | 3.00 | 3.00 | 3.00 | 5.00 | 5.00 | |

❍ available on request.

# 6. CRK construction

## 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) | 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

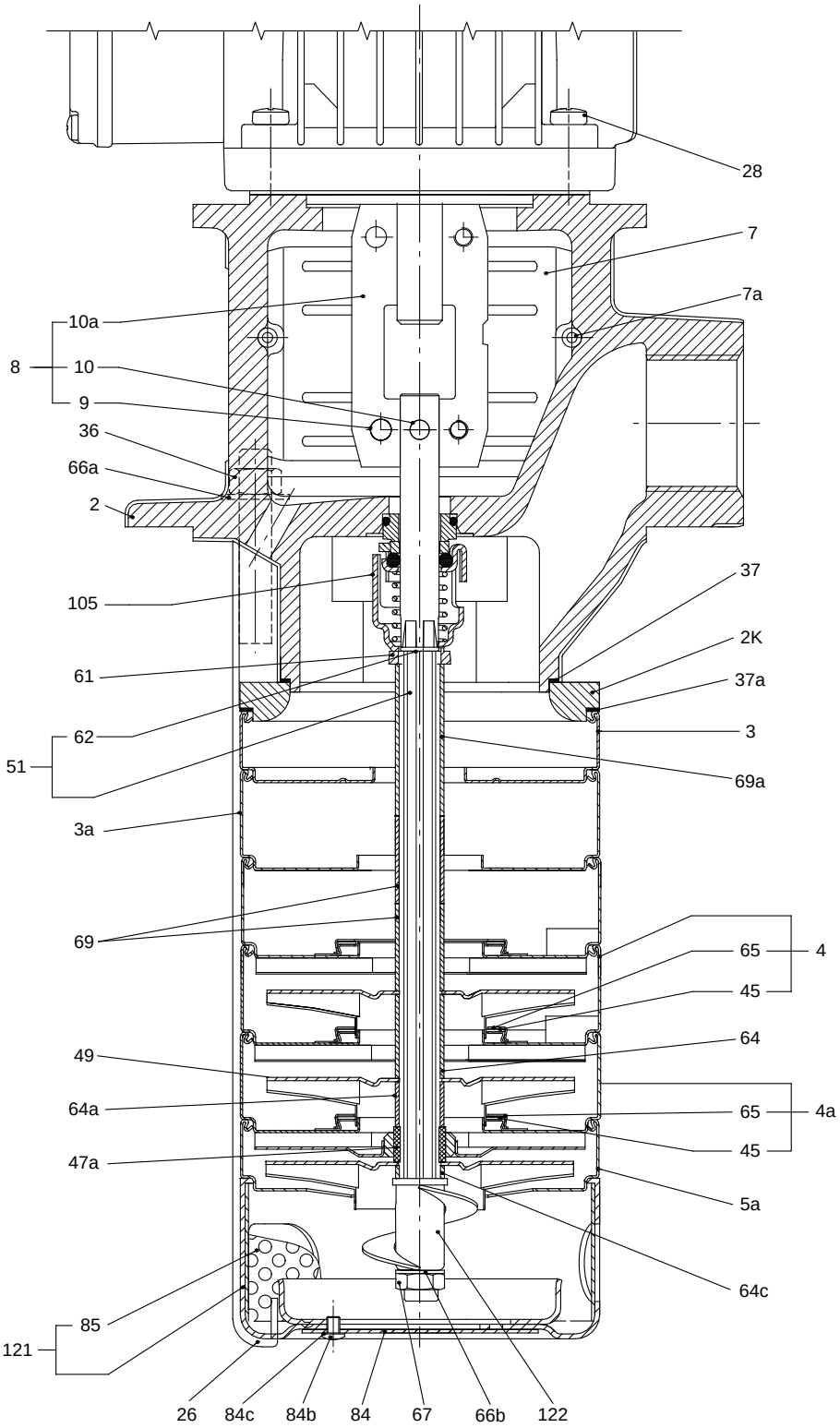
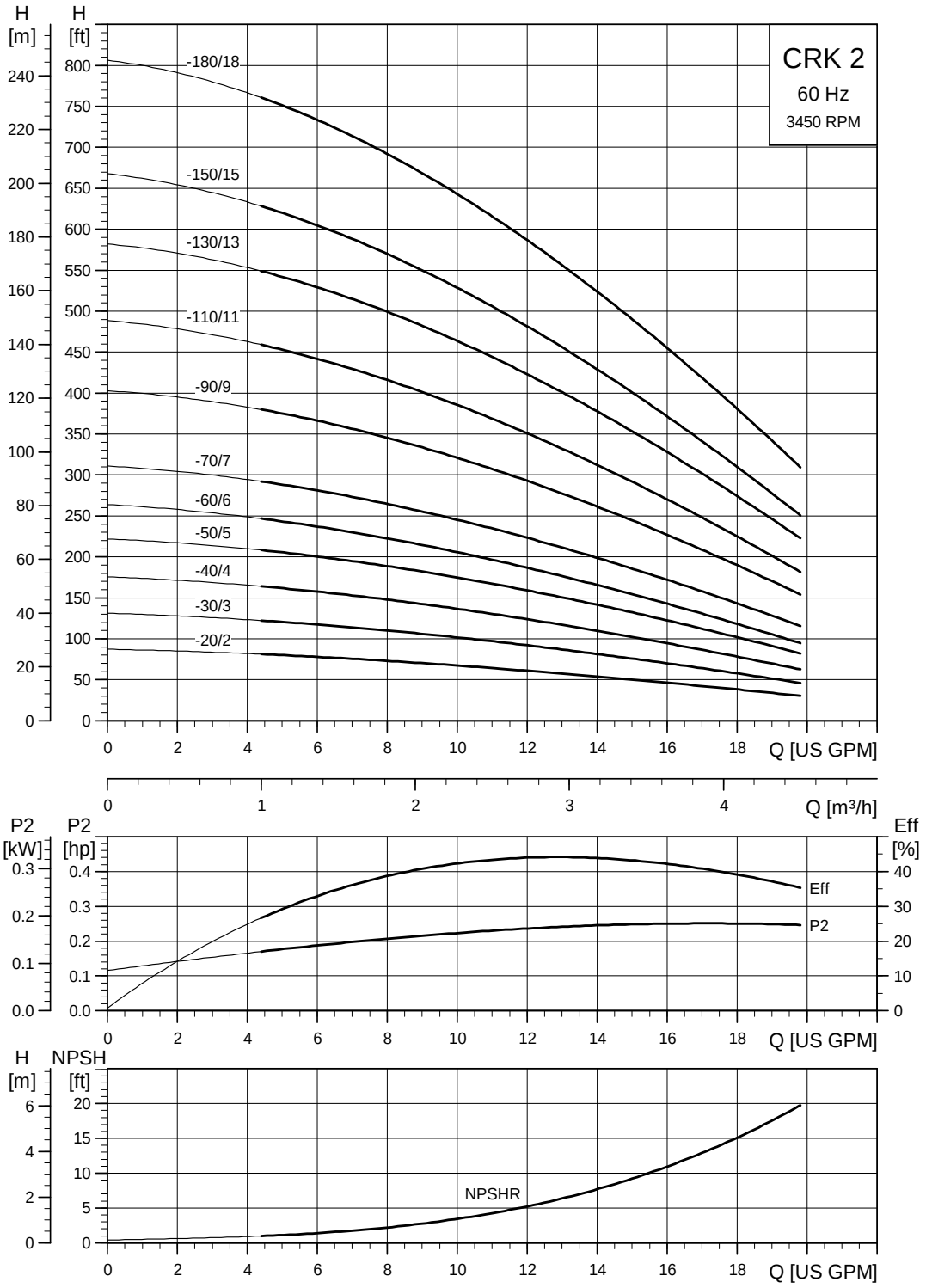



**Fig. 10** CRK 2, CRK 4

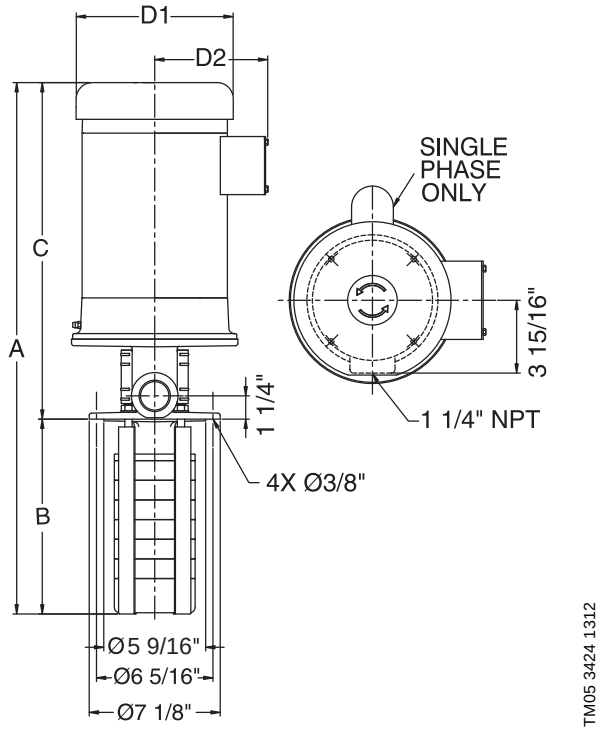
# 7. CRK performance curves/ technical data

## CRK 2




TM03 8491

### Dimensional sketches




## Dimensions and weight

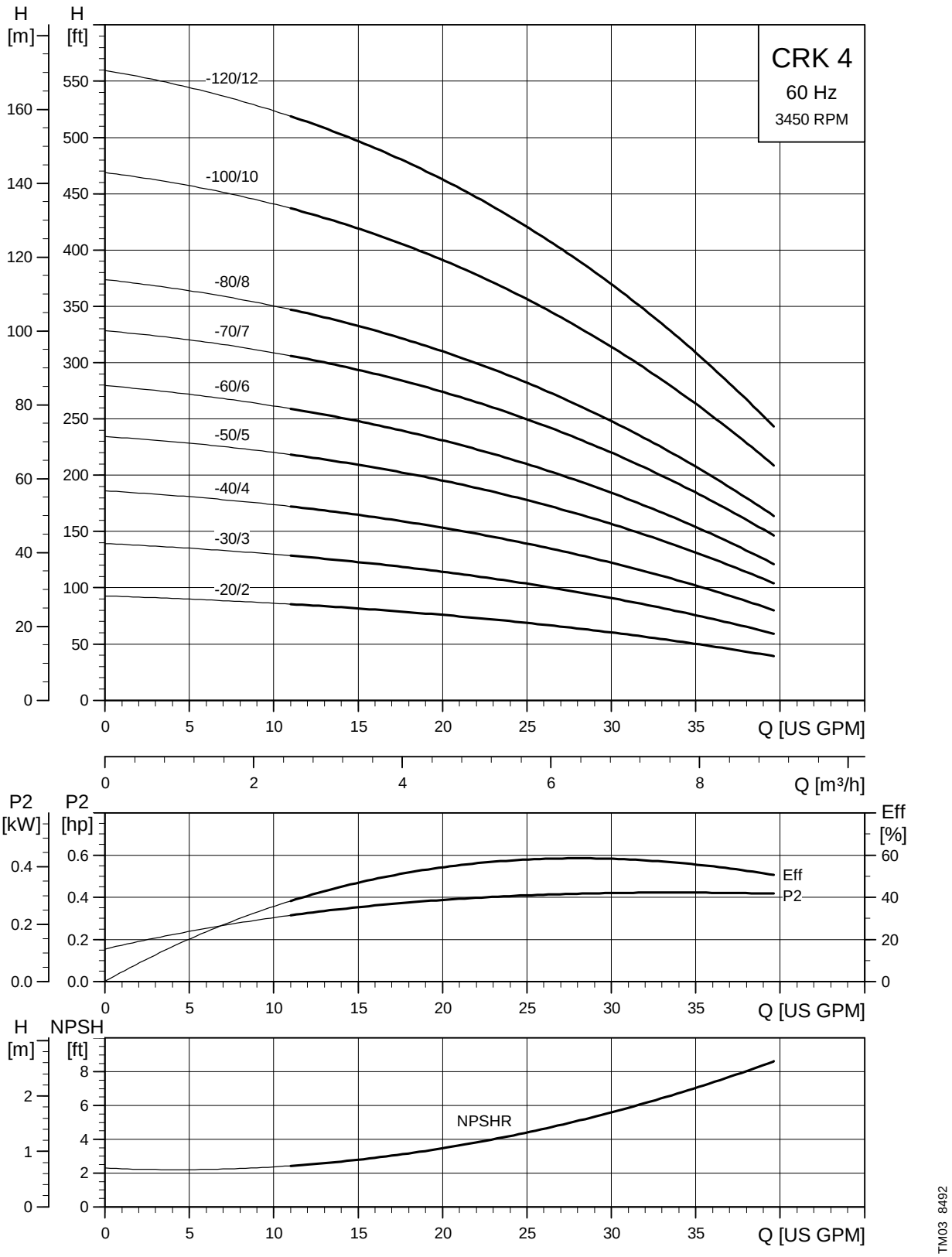
| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs.] |
|---|---|---|---|---|---|---|---|---|
| CRK 2-20/2 | 0.50 | 1 | 19.79 | 6.38 | 9.29 | 6.19 | 5.18 | 46 |
| | | 3 | 18.10 | 6.38 | 7.60 | 5.55 | 4.63 | 52 |
| CRK 2-30/3 | 0.75 | 1 | 20.53 | 7.13 | 9.28 | 6.19 | 4.90 | 63 |
| | | 3 | 18.85 | 7.13 | 7.60 | 5.55 | 4.57 | 42 |
| CRK 2-40/4 | 1.00 | 1 | 23.07 | 7.75 | 11.19 | 7.19 | 5.73 | 60 |
| | | 3 | 19.47 | 7.75 | 7.60 | 5.55 | 4.57 | 44 |
| CRK 2-50/5 | 1.50 | 1 | 24.31 | 8.50 | 11.68 | 7.19 | 5.73 | 65 |
| | | 3 | 21.40 | 8.50 | 8.78 | 5.55 | 4.57 | 55 |
| CRK 2-60/6 | 1.50 | 1 | 25.06 | 9.25 | 11.68 | 7.19 | 5.73 | 85 |
| | | 3 | 22.15 | 9.25 | 8.78 | 5.55 | 4.57 | 54 |
| CRK 2-70/7 | 2.00 | 1 | 26.56 | 9.88 | 12.56 | 7.19 | 5.73 | 110 |
| | | 3 | 25.38 | 9.88 | 11.38 | 7.01 | 4.33 | 65 |
| CRK 2-90/9 | 3.00 | 1 | 30.15 | 11.38 | 14.65 | 8.60 | 6.87 | 117 |
| | | 3 | 28.73 | 11.38 | 13.23 | 7.01 | 4.33 | 62 |
| CRK 2-110/11 | 3.00 | 1 | 31.53 | 12.75 | 14.65 | 8.60 | 6.87 | 160 |
| | | 3 | 30.10 | 12.75 | 13.23 | 7.01 | 4.33 | 88 |
| CRK 2-130/13 | 5.00 | 1 | 33.52 | 14.13 | 15.27 | 10.62 | 7.46 | 166 |
| | | 3 | 33.76 | 14.13 | 15.51 | 8.66 | 5.28 | 89 |
| CRK 2-150/15 | 5.00 | 1 | 35.02 | 15.63 | 15.27 | 10.62 | 7.46 | 212 |
| | | 3 | 35.26 | 15.63 | 15.51 | 8.66 | 5.28 | 170 |
| CRK 2-180/18 | 5.00 | 1 | 37.15 | 17.75 | 15.27 | 10.62 | 7.46 | 221 |
| | | 3 | 37.39 | 17.75 | 15.51 | 8.66 | 5.28 | 179 |
| CRK 2-220/18 | 5.00 | 1 | 39.90 | 20.50 | 15.27 | 10.62 | 7.46 | 221 |
| | | 3 | 40.14 | 20.50 | 15.51 | 8.66 | 5.28 | 180 |
| CRK 2-260/18 | 5.00 | 1 | 42.77 | 23.38 | 15.27 | 10.62 | 7.46 | 222 |
| | | 3 | 43.01 | 23.38 | 15.51 | 8.66 | 5.28 | 180 |
| CRK 2-500/18 | 5.00 | 1 | 59.02 | 39.63 | 15.27 | 10.62 | 7.46 | 236 |
| | | 3 | 59.26 | 39.63 | 15.51 | 8.66 | 5.28 | 194 |

## Electrical data[1]

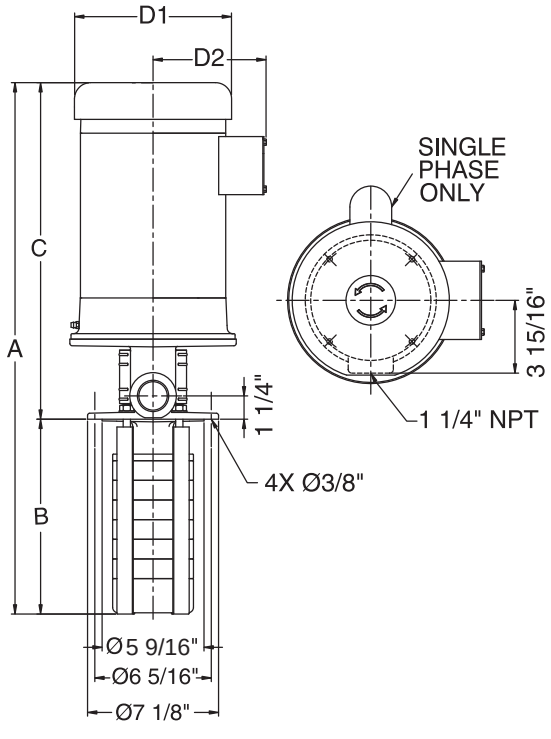
| Hp | Ph | NEMA frame | Service factor | Voltage | Motor eff. [%] | Insul. class | KVA code | Full load current [A] | Service factor current [A] | Start current [A] | Motor type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.50 | 1 | 56C | 1.6 | 115/208-230 | 62 | B | K | 7.4/4.1-3.7 | 9.8/5.2-4.9 | 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 |
| 0.75 | 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 |
| 1.00 | 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 |
| 1.50 | 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 |
| 2.00 | 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 |
| 3.00 | 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 |
| 5.00 | 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 3.

## CRK 4


CRK 4
60 Hz
3450 RPM
H [m]
H [ft]
-120/12
-100/10
-80/8
-70/7
-60/6
-50/5
-40/4
-30/3
-20/2
Q [US GPM]
Q [m³/h]
P2 [kW]
P2 [hp]
Eff [%]
Eff
P2
H [m]
NPSH [ft]
NPSHR
TM03 8492

## Dimensional sketches




TM05 3424 1312

## Dimensions and weights

| Pump type | Hp | Ph | A | B | C | D1 | D2 | Ship wt. [lbs.] |
|---|---|---|---|---|---|---|---|---|
| CRK 4-20/2 | 0.75 | 1 | 20.16 | 6.75 | 9.28 | 6.19 | 4.90 | 50 |
| | | 3 | 18.47 | 6.75 | 7.60 | 5.55 | 4.57 | 41 |
| CRK 4-30/3 | 1.50 | 1 | 23.56 | 7.75 | 11.68 | 7.19 | 5.73 | 83 |
| | | 3 | 20.65 | 7.75 | 8.78 | 5.55 | 4.57 | 54 |
| CRK 4-40/4 | 2.00 | 1 | 25.56 | 8.88 | 12.56 | 7.19 | 5.73 | 100 |
| | | 3 | 24.38 | 8.88 | 11.38 | 7.01 | 4.33 | 53 |
| CRK 4-50/5 | 2.00 | 1 | 26.56 | 9.88 | 12.56 | 7.19 | 5.73 | 103 |
| | | 3 | 25.38 | 9.88 | 11.38 | 7.01 | 4.33 | 61 |
| CRK 4-60/6 | 3.00 | 1 | 29.78 | 11.00 | 14.65 | 8.60 | 6.87 | 143 |
| | | 3 | 28.35 | 11.00 | 13.23 | 7.01 | 4.33 | 75 |
| CRK 4-70/7 | 3.00 | 1 | 30.78 | 12.00 | 14.65 | 8.60 | 6.87 | 152 |
| | | 3 | 29.35 | 12.00 | 13.23 | 7.01 | 4.33 | 94 |
| CRK 4-80/8 | 5.00 | 1 | 32.52 | 13.13 | 15.27 | 10.62 | 7.46 | 155 |
| | | 3 | 32.76 | 13.13 | 15.51 | 8.66 | 5.28 | 131 |
| CRK 4-100/10 | 5.00 | 1 | 34.65 | 15.25 | 15.27 | 10.62 | 7.46 | 201 |
| | | 3 | 34.89 | 15.25 | 15.51 | 8.66 | 5.28 | 115 |
| CRK 4-120/12 | 5.00 | 1 | 36.77 | 17.38 | 15.27 | 10.62 | 7.46 | 207 |
| | | 3 | 37.01 | 17.38 | 15.51 | 8.66 | 5.28 | 133 |
| CRK 4-140/12 | 5.00 | 1 | 38.90 | 19.50 | 15.27 | 10.62 | 7.46 | 214 |
| | | 3 | 39.14 | 19.50 | 15.51 | 8.66 | 5.28 | 172 |
| CRK 4-160/12 | 5.00 | 1 | 41.02 | 21.63 | 15.27 | 10.62 | 7.46 | 214 |
| | | 3 | 41.26 | 21.63 | 15.51 | 8.66 | 5.28 | 172 |
| CRK 4-190/12 | 5.00 | 1 | 44.15 | 24.75 | 15.27 | 10.62 | 7.46 | 215 |
| | | 3 | 44.39 | 24.75 | 15.51 | 8.66 | 5.28 | 173 |
| CRK 4-220/12 | 5.00 | 1 | 47.40 | 28.00 | 15.27 | 10.62 | 7.46 | 216 |
| | | 3 | 47.64 | 28.00 | 15.51 | 8.66 | 5.28 | 174 |
| CRK 4-330/12 | 5.00 | 1 | 59.02 | 39.63 | 15.27 | 10.62 | 7.46 | 223 |
| | | 3 | 59.26 | 39.63 | 15.51 | 8.66 | 5.28 | 181 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.75 | 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 |
| 1.50 | 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 |
| 2.00 | 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 |
| 3.00 | 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 |
| 5.00 | 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 3.

# 8. Accessories

## Sensors for SPKE and CRKE

The sensors must be fitted to the pipework with suitable fittings.

| DPI differential-pressure sensor kit<br>Kit includes: | Pressure range [psi] | Pressure range [bar] | Product number |
|---|---|---|---|
| • 1 sensor incl. 3 ft (0.9 m) screened cable (7/16" connections)<br>• 1 original DPI bracket (for wall mounting)<br>• 1 Grundfos bracket (for mounting on motor)<br>• 2 M4 screws for mounting of sensor on bracket<br>• 1 M6 screw (self-cutting) for mounting on MGE 90/100<br>• 1 M8 screw (self-cutting) for mounting on MGE 112/132<br>• 3 capillary tubes (short/long)<br>• 2 fittings (1/4" - 7/16")<br>• 5 cable clips (black)<br>• Installation and operating instructions (480675)<br>• Service kit instructions | 0 - 9 | 0 - 0.6 | 96611522 |
| | 0 - 14.5 | 0 - 1.0 | 96611523 |
| | 0 - 23 | 0 - 1.6 | 96611524 |
| | 0 - 36 | 0 - 2.5 | 96611525 |
| | 0 - 58 | 0 - 4.0 | 96611526 |
| | 0 -87 | 0 - 6.0 | 96611527 |
| | 0 - 145 | 0 - 10 | 96611550 |

| Pressure sensor<br>Kit includes: | Measuring range [psi] | Measuring range [bar] | Product number |
|---|---|---|---|
| Pressure sensor<br>Connection: 1/4" NPT<br><br>Includes a 6 ft (1.8 m) cable with removable potted plug in addition to a standard plug for remote mounting. | 0 - 87 | 0 - 6 | 91136169 |
| | 0 - 145 | 0 - 10 | 91136170 |
| | 0 - 232 | 0 - 16 | 91136171 |
| | 0 - 362 | 0 - 25 | 91136172 |
| | 0 - 580 | 0 - 40 | 91136173 |
| | 0 - 200 | 0 - 45 | 91120777 |

## R100 remote control




GrA5953

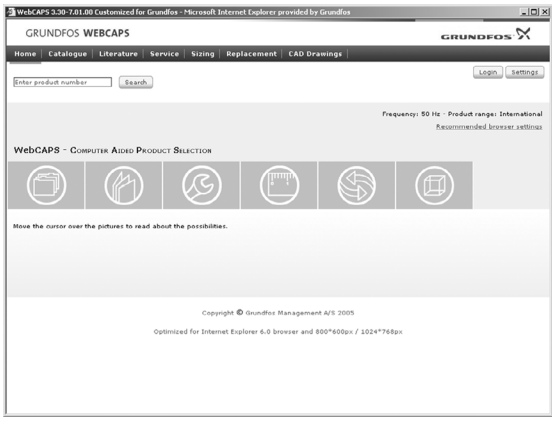
**Fig. 11** R100 remote control

Use the R100 for wireless communication with the SPKE and CRKE pumps. The communication takes place by means of infrared light.

| Product | Product number |
|---|---|
| R100 | 96615297 |

# 9. Further product documentation

## WebCAPS

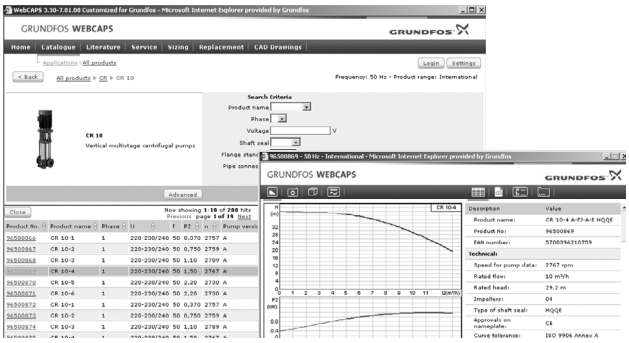



WebCAPS is a **Web**-based **C**omputer **A**ided **P**roduct **S**election program available on www.grundfos.com.

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:

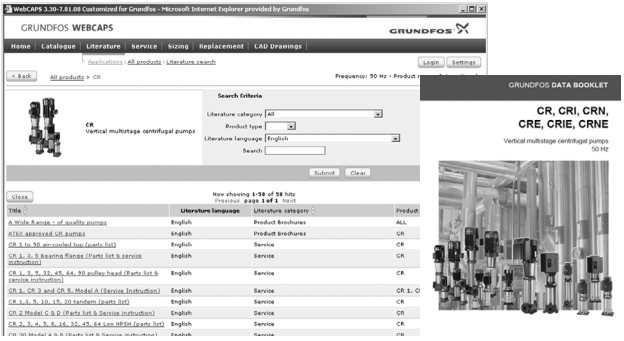
- Catalog
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.




### Catalog

This section is based on fields of application and pump types, and contains

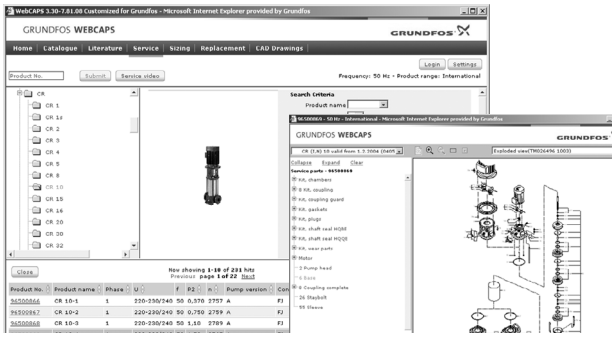
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.




### Literature

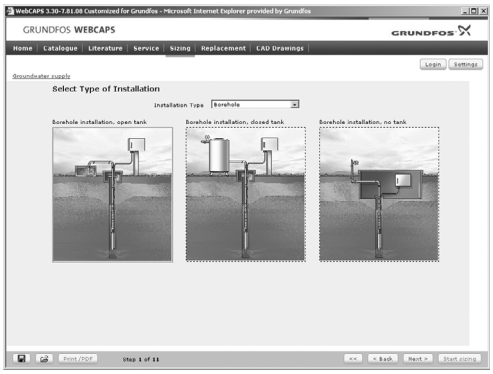
In this section you can access all the latest documents of a given pump, such as

- product guides
- installation and operating instructions
- service documentation, such as Service kit catalog and Service kit instructions
- quick guides
- product brochures, etc.




### Service

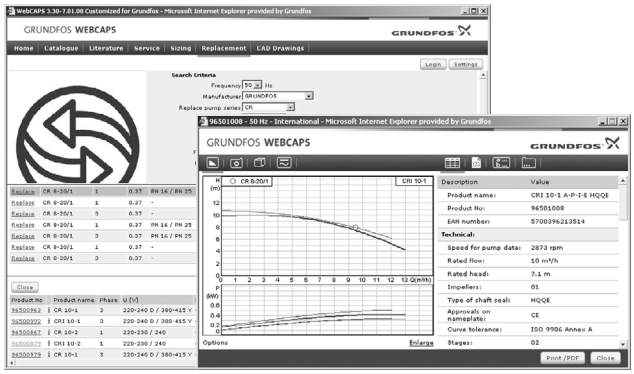
This section contains an easy-to-use interactive service catalog. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.
Furthermore, this section contains service videos showing you how to replace service parts.




### Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

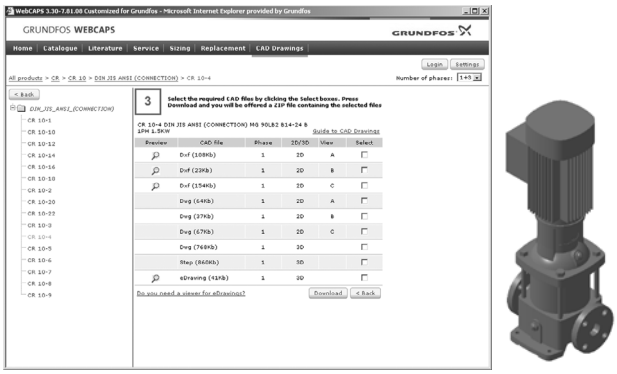
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications,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




### Replacement

In this section you find a guide to selecting and comparing 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. When you have specified the installed pump, the guide will suggest 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.

These 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. 12** WinCAPS CD-ROM

WinCAPS is a **Win**dows-based **C**omputer **A**ided **P**roduct **S**election program containing detailed information 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.

# 10. Submittal data sheet

## Client information

| | |
|---|---|
| Project title: | Client name: |
| Reference number: | Client number: |
| Client contact: | Client phone number: ( ) |

## Location information

| | | | |
|---|---|---|---|
| For: | Unit: | | |
| Site: | Service: | | |
| Address: | City: | State: | Zip code: |

## Application information

| Operating conditions | | | | Pumped liquid | | | |
|---|---|---|---|---|---|---|---|
| | | | | Liquid type: | | | |
| | **Max.** | **Norm.** | **Min.** | | **Rated** | **Max.** | **Norm.** |
| Flow (gpm) | | | | Liquid temperature ( °F) | | | |
| Suction pressure (psig) | | | | at designated temperature | | | |
| Discharge pressure (psig) | | | | Specific gravity | | | |
| Differential head (ft) | | | | Vapor pressure (psia) | | | |
| Hydraulic power (Hp) at designated capacity | | | | Viscosity (cp) | | | |
| NPSH available (ft) | | | | | | | |
| | | | | Liquid ph: | | Chlorides (ppm): | |
| **Service** | | | | Hazardous: | | Corrosion/erosion caused by: | |
| Continuous | | | | Flammable: | | | |
| Intermittent (starts/day): | | | | Other: | | | |

## Pump information

| | |
|---|---|
| Model Information from type key and codes: | ----> (Example: SPK 2-8/3 A-WB-A-AUUV) |
| Quantity required: | |
| 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 data page number: |

## Motor information

| | | | |
|---|---|---|---|
| Hp: | Phases: | Voltage: | Enclosure class: |

## Custom-built pump information (optional):

## Additional Information

This page intentionally left blank.

# 11. Quotation text

**SPK, CRK**

Horizontal, non-self-priming, multistage, end suction, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- impellers and intermediate chambers are made of AISI _____ stainless steel
- pump head and volute are made of _____
- power transmission is via cast iron split coupling.
- pipework connection is via _____

The motor is a _____ -phase AC motor.

**Technical**

| | |
|---|---|
| Rated flow: | _____ gpm |
| Rated head: | _____ ft |
| Minimum liquid temperature: | _____ °F |
| Maximum liquid temperature: | _____ °F |
| Type of shaft seal: | _____ |

**Materials**

| | |
|---|---|
| Material, pump housing: | _____ |
| Material, shaft: | AISI_____ stainless steel |
| Material, impeller: | AISI_____ stainless steel |
| Material, sleeve: | AISI_____ stainless steel |
| Material, seal metal: | AISI_____ stainless steel |
| - seal face: | _____ |
| - seal face: | _____ |
| - seal elastomer: | _____ |

**Installation**

| | |
|---|---|
| Maximum ambient temperature: | _____ °F |
| Max. pressure at stated temp.: | _____ psi / °F |
| Standard, pipe connection: | _____ |
| Size, pipe connection: | _____ |
| Rated pressure, pipe connection: | _____ psi |
| Frame size for motor: | _____ NEMA |

**Electrical data**

| | |
|---|---|
| Motor type: | _____ |
| Rated power (P2): | _____ Hp |
| Frequency: | _____ Hz |
| Rated 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: | _____ $ft^3$ |
| Model: | _____ |

This page intentionally left blank.

**L-MT-PG-001** 0512
ECM:

The name Grundfos, the Grundfos logo, and the payoff Be–Think–Innovate are registrated trademarks owned by Grundfos Management A/S or Grundfos A/S, Denmark. All rights reserved worldwide.

**GRUNDFOS Pumps Corporation**
17100 West 118th Terrace
Olathe, Kansas 66061
Phone: +1-913-227-3400
Telefax: +1-913-227-3500

**GRUNDFOS Canada Inc.**
2941 Brighton Road
Oakville, Ontario L6H 6C9
Canada
Phone: +1-905 829 9533
Telefax: +1-905 829 9512

**Bombas GRUNDFOS de Mexico S.A. de C.V.**
Boulevard TLC No. 15
Parque Industrial Stiva Aeropuerto
Apodaca, N.L. Mexico 66600
Phone: +52-81-8144 4000
Telefax: +52-81-8144 4010

GRUNDFOS

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP