## Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:
	TYPE OF SERVICE:	
REPRESENTATIVE:	SUBMITTED BY:	DATE:
ENGINEER:	APPROVED BY:	DATE:
CONTRACTOR:	ORDER NO.:	DATE:

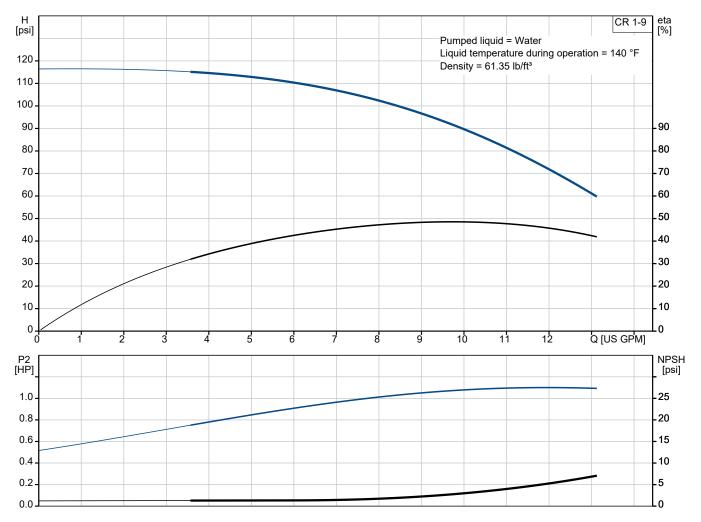


### CR 1-9 A-B-A-E-HQQE

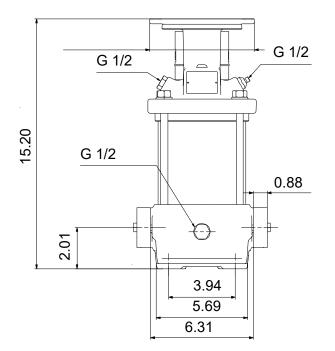
Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron - all other wetted parts are in stainless steel (EN 1.4301)

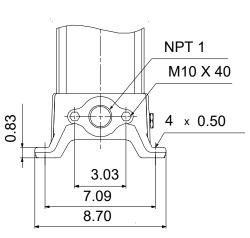
Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid: Temperature: Specific Gravity:	Water 140 °F 0.985	Max pressure at stated temp: Liquid temperature range: Shaft seal: Product number:	232 psi / 250 °F -4 248 °F HQQE 96081958	Mains frequency:	60 Hz



# Submittal Data





Materials:	
Base:	Cast iron
	EN 1561 EN-GJL-200
	ASTM A48-25B
Impeller:	Stainless steel
	AISI 304
	EN 1.4301
Material code:	Α
Code for rubber:	E



22/04/2025

Qty. | Description

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#### CR 1-9 A-B-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: 96081958 Pump without motor

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via oval flanges with internal NPT threads.

#### Further product details

Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process.

CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

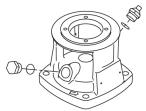
An integral part of the process is a pretreatment.

The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.
- The colour code for the finished product is NCS 9000/RAL 9005.

#### Pump

The pump head, pump head cover and flange for motor mounting is made in one piece. The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system.

This seal type is assembled in a cartridge unit which makes replacement safe and easy.

Due to the balancing, this seal type is suitable for high-pressure applications.

The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



22/04/2025

Qty. | Description

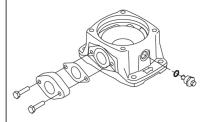
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The shaft seal is screwed into the pump head.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The base is made of cast iron. The oval flanges are bolted to the base. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate.

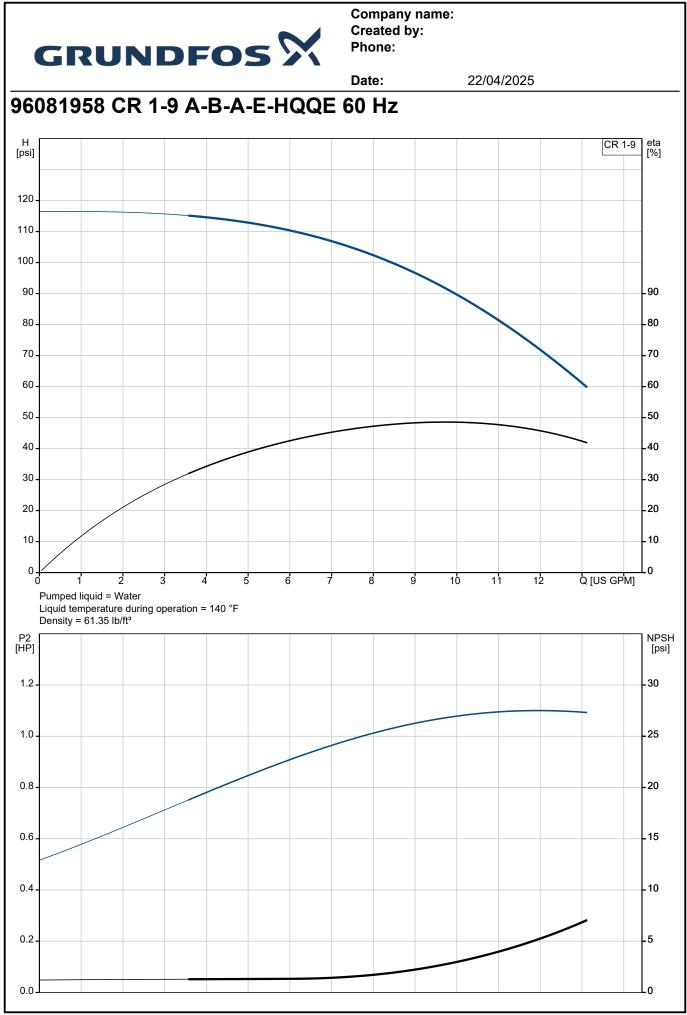


Motor The pump is sold without motor. Technical data

Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -4 248 °F 140 °F 61.35 lb/ft³
Technical: Pump speed on which pump data Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Primary shaft seal: Code for shaft seal: Approvals: Approvals for drinking water: Curve tolerance:	are based: 3484 rpm 9.69 US GPM 81.25 psi Vertical Single HQQE HQQE CE NSF/ANSI 61 ISO9906:2012 3B
Materials: Base: Impeller: Bearing:	Cast iron EN 1561 EN-GJL-200 ASTM A48-25B Stainless steel EN 1.4301 AISI 304 SIC
Installation: Maximum operating pressure:	232.06 psi



			Date:	22/04/2025	
Qty.	Description				
1	Max pressure at stated temp:	232 psi / 250 °F			
		232 psi / -4 °F			
	Type of connection:	Oval / NPT(F)			
	Size of inlet connection:	1 inch			
	Size of outlet connection:	1 inch			
	Pressure rating for connection:	PN 16			
	Flange size for motor:	56C			
	Electrical data:				
	Motor standard:	NEMA			
	Power (P2) required by pump:	1 HP			
	Controls:				
	Frequency converter:	None			
	Others:				
	Net weight:	35.4 lb			
	Gross weight:	46.5 lb			
	Shipping volume:	4.94 ft <sup>3</sup>			
	Country of origin:	US			
	Custom tariff no.:	8413.70.2040			



#### Printed from Grundfos Product Centre [2025.16.000]



CR 1-9 eta [%]

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Q [US GPM]

NPT 1 M10 X 40

4 × 0.50

 $\Theta$ 

3.03 7.09 8.70

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- 90 - 80 - 70 - 60 - 50 - 40 - 30 - 20 - 10 - 0

NPSH [psi] - 30 - 25 - 20 - 15 - 10 - 5 - 0

		Date:	22/04/2025
Description	Value	H [psi]	
General information:		120 -	
Product name:	CR 1-9 A-B-A-E-HQQE	110	
Product No:	00001059	100 -	
EAN number:	96081958 5700395166965		
Technical:	5700395100905	90 -	
		80 -	
Pump speed on which pump data are based:	3484 rpm	70 -	
Rated flow:	9.69 US GPM	60 -	
Rated head:	81.25 psi	50 -	
Maximum head:	111 psi	40 -	
Stages:	9	30 -	
Impellers:	9	20 -	
Number of reduced-diameter impellers:	0		
Low NPSH:	Ν	10-	
Pump orientation:	Vertical		4 6 8
Shaft seal arrangement:	Single	Pumped liquid	
Primary shaft seal:	HQQE	Liquid tempera	ature during operation = 140 °F
Code for shaft seal:	HQQE	Density = 61.3	5 ID/ft3
Approvals:	CE	[HP]	
Approvals for drinking water:	NSF/ANSI 61	1.2 -	
Curve tolerance:	ISO9906:2012 3B	1.0	
Pump version:	A	1.0 -	
Model:	A	0.8	
Materials:			
Base:	Cast iron	0.6	
2000.	EN 1561 EN-GJL-200		
	ASTM A48-25B	0.4 -	
Impeller:	Stainless steel	0.2	
	EN 1.4301	<b>0.2</b>	
	AISI 304	0.0	
Material code:	A	·	
Code for rubber:	E		
Bearing:	SIC	G 1/2	G 1/2
Installation:	0.0		
Maximum operating pressure:	232.06 psi		
Max pressure at stated temp:	232 psi / 250 °F	07 52 G 1/2	
······································	232 psi / -4 °F		0.88
Type of connection:	Oval / NPT(F)		
Size of inlet connection:	1 inch	5	
Size of outlet connection:	1 inch	• • •	3.94
Pressure rating for connection:	PN 16		5.69
Flange size for motor:	56C		6.31
Connect code:	В		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-4 248 °F		
Selected liquid temperature:	140 °F		
Density:	61.35 lb/ft <sup>3</sup>		
Electrical data:			
Motor standard:	NEMA		
Power (P2) required by pump:	1 HP		
Controls:			
Frequency converter:	None		
Others:	NOTIC		
Net weight:	35.4 lb		
Gross weight:	46.5 lb		
-			
Shipping volume:	4.94 ft <sup>3</sup>		



22/04/2025

Description Country of origin: Custom tariff no.: Value US

8413.70.2040

