

# Submittal Data

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

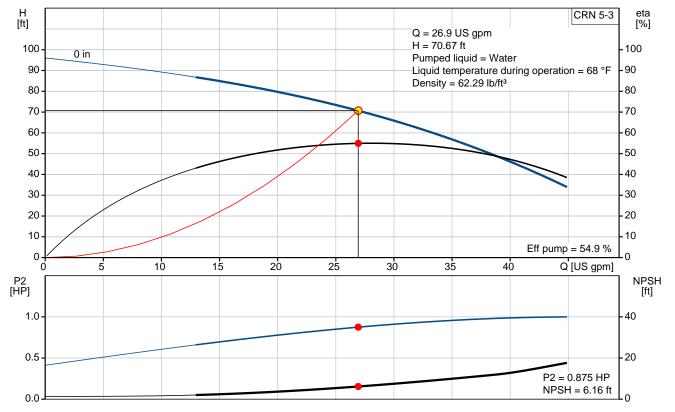


## CRN 5-3

Vertical, multistage centrifugal pump with suction and discharge ports on same the level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401) (AISI 316)

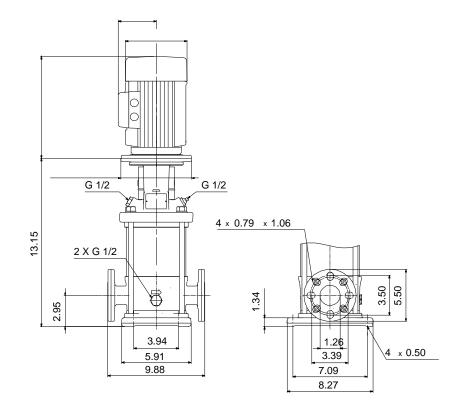
Product photo could vary from the actual product

Conditions of Service		Pump Data	Motor Data		
Flow: Head:	26.9 US gpm 70.67 ft	Max pressure at stated temperature: Shaft seal:	363 psi / 194 °F HQQV	Main frequency:	60 Hz
Efficiency:		Product number:	96085087		
Liquid:	Water				
Temperature:	68 °F				
NPSH required:	6.16 ft				
Viscosity:					
Specific Gravity:	1.000				



# Submittal Data





Materials:

Base:	Stainless steel EN 1.4408
	AISI 316
Impeller:	Stainless steel
	AISI 316
	EN 1.4401
Material code:	G
Code for rubber:	V



2/21/2018

**Tender Text** 



Product photo could vary from the actual product

#### Product No.: 96085087 CRN 5-3 A-FGJ-G-V-HQQV

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- Impellers, intermediate chambers and outer
- sleeve are made of
  - Pump head cover and base are made of
- The shaft seal has assembly length
- according to EN 12756.
- Power transmission is via cast iron split coupling.

flanges/couplings.

#### Controls:

Technical

Frequency converter:	NONE
Liquid: Pumped liquid: Liquid temperature during o Density:	Water operation: 68 °F 62.29 lb/ft <sup>3</sup>

rechnical:	
Speed for pump data:	3484 rpm
Actual calculated flow:	26.9 US gpm
Resulting head of the pump:	70.67 ft
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Curve tolerance:	ISO9906:2012 3B

Materials:

Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Bearing material:	SIC



Date:

2/21/2018

#### Installation:

motanution	
Max pressure at stated temperat	ture: 363 psi / 194 °F
	363 psi / -4 °F
Type of connection:	DIN / ANŚI / JIS
Size of inlet connection:	DN 25/32
Size of suction port:	1 1/4 inch
Size of outlet connection:	DN 25/32
Size of outlet port:	1 1/4 inch
Pressure rating:	PN 25
Flange size for motor:	56C
Flange rating inlet:	300 lb
Electrical data:	

Motor standard:	NEMA
Power (P2) required by pump:	1 HP

#### Others:

Net weight:	35.8 lb
Gross weight:	46.8 lb
Shipping volume:	4.94 ft <sup>3</sup>

Position

1

Company name: Created by: Phone:

Date: 2/21/2018 Count | Description **CRN 5-3 A-FGJ-G-V-HQQV** Product photo could vary from the actual product Product No.: 96085087 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers, intermediate chambers and outer sleeve are made of - Pump head cover and base are made of \_ The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling. flanges/couplings. **Controls:** Frequency converter: NONE Liquid: Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft3 **Technical:** Speed for pump data: 3484 rpm Actual calculated flow: 26.9 US gpm Resulting head of the pump: 70.67 ft Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQV Curve tolerance: ISO9906:2012 3B Materials: Base: Stainless steel EN 1.4408 AISI 316

> Stainless steel EN 1.4401 AISI 316

SIC

Max pressure at stated temperature: 363 psi / 194 °F

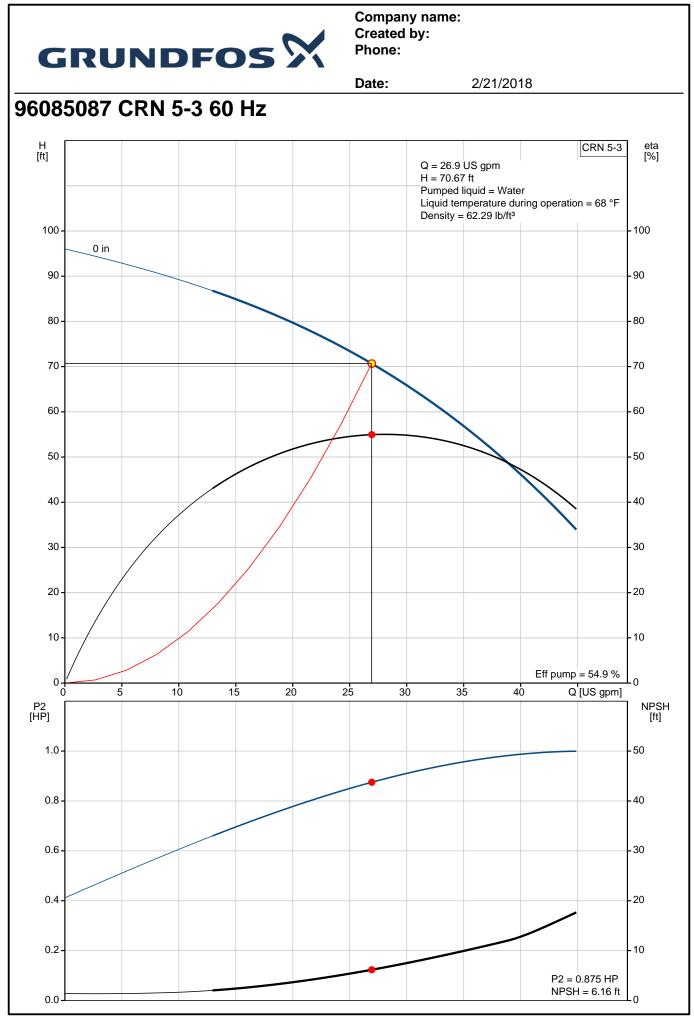
Impeller:

Bearing material:

Installation:

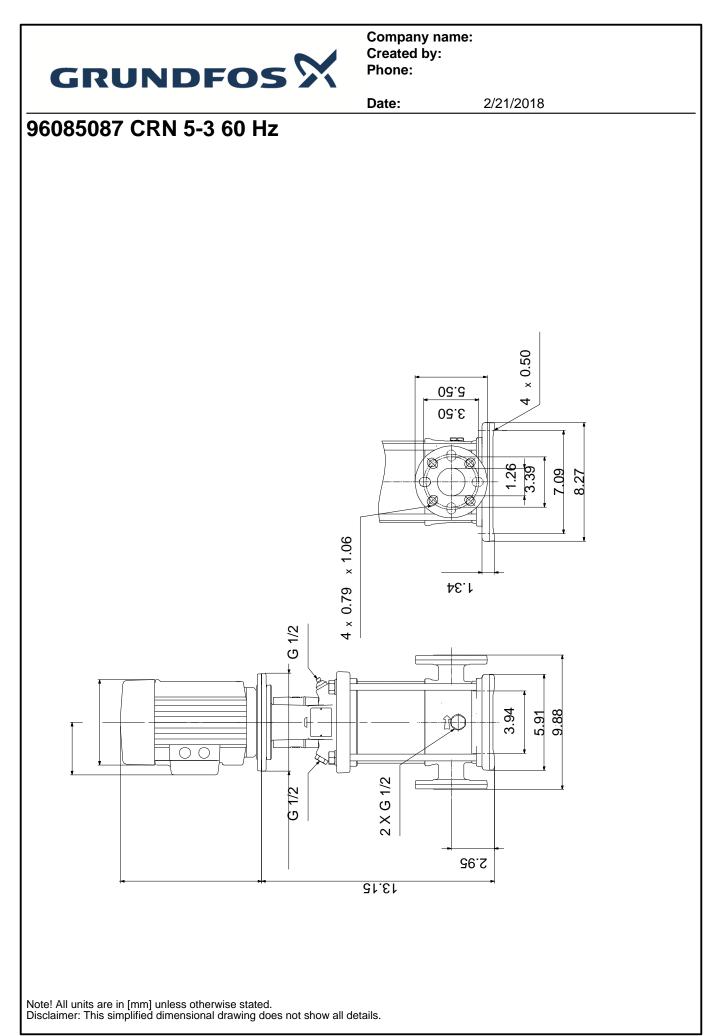


			Date:	2/21/2018
ition	Count	Description		
		Type of connection:	363 psi /  -4 °F DIN / ANSI / JIS	
ſ		Size of inlet connection:	DN 25/32	
1		Size of suction port:	1 1/4 inch	
I				
I		Size of outlet connection:	DN 25/32 1 1/4 inch	
I		Size of outlet port: Pressure rating:	PN 25	
		Flange size for motor:	56C	
		Flange rating inlet:	300 lb	
		Electrical data:		
I		Motor standard:	NEMA	
		Power (P2) required by pump:	1 HP	
		Others:		
1		Net weight:	35.8 lb	
I		Gross weight:	46.8 lb	
1		Shipping volume:	4.94 ft <sup>3</sup>	
1				
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		Date:								
Description	Value	H [ft]						C	RN 5-3	
General information:					26.9 US 70.67 ft	gpm				
Product name:	CRN 5-3 A-FGJ-G-V-HQQV			Pum	ped liqu	id = Wa	ater			
Product No.:	96085087	100 -	0 in					operation =	68 °F	-1
EAN:	5700395199253	90 -		Dens	sity = 62	.29 Ib/f	[ <sup>3</sup>			-9
	5700595199255	90-								-9
Technical:		80 -								- 8
Speed for pump data:	3484 rpm									
Actual calculated flow:	26.9 US gpm	70 -				R				-7
Resulting head of the pump:	70.67 ft	60 -								-6
Stages:	3				1	++-	<u> </u>			
Impellers:	3	50 <b>-</b>								-5
Low NPSH:	Ν	40 -								L <sub>4</sub>
Pump orientation:	Vertical	-							N	
Shaft seal arrangement:	Single	30 -			/					- 3
Code for shaft seal:	HQQV									
Curve tolerance:	ISO9906:2012 3B	20 -								-2
Pump version:	A	-								
Model:	A	10 -								- 1
		- - 0 -					E	ff pump = 5	54.9 %	Lo
Materials:		(	) 5	10 15	20	25 3	30 3	5 Q [U:	S gpm]	- 0
Base:	Stainless steel	P2 [HP]								
	EN 1.4408	1.0 <b>-</b>								- 50
	AISI 316	1.0 -								
Impeller:	Stainless steel	0.8 -				-				- 4
	EN 1.4401				1					
	AISI 316	0.6 -				_				- 30
Material code:	G									
		0.4 -								- 20
Code for rubber:	V									
Bearing material:	SIC	0.2 -								- 1
						_		P2 = 0.8 NPSH =		
Installation:		0.0 -								L0
Max pressure at stated temperature:	363 psi / 194 °F									
	363 psi / -4 °F		]	1						
Type of connection:	DIN / ANSI / JIS									
Connect code:	FGJ									
Size of inlet connection:	DN 25/32			0						
Size of suction port:	1 1/4 inch									
Size of outlet connection:	DN 25/32		(							
Size of outlet port:	1 1/4 inch		<u>G 1/2</u>		G 1/2					
Pressure rating:	PN 25		ſ		4_x 0.79	× 1.06	_			
Flange size for motor:	56C	13.15	2 X G 1/2				h -	11		
Flange rating inlet:	300 lb		<u>- x o 1/2</u>	╠╎╢╷	Π			<b>H</b> , 1		
			2 H	181日	+ :	25	$( \bigcirc$	3.50		
Liquid:			2:95	da ana ana ana ana ana ana ana ana ana a	4	¯ <b>⊨</b> ≓				
Pumped liquid:	Water			3.94 5.91			1.26 3.39	4_× 0.5	0	
Liquid temperature during operation:	68 °F		L.	9.88	]	L	7.09			
Density:	62.29 lb/ft <sup>3</sup>					<b>-</b>	0.27			
Density.	02.23 ID/II-									
Electrical data:										
Motor standard:										
Power (P2) required by pump:	1 HP									
Controls										
Controls:	NONE									
	NONE									
Frequency converter:										
Others:										
	35.8 lb 46.8 lb									





2/21/2018

**Order Data:** 

Product name: CRN 5-3 A-FGJ-G-V-HQQV Amount: 1 Product No.: 96085087

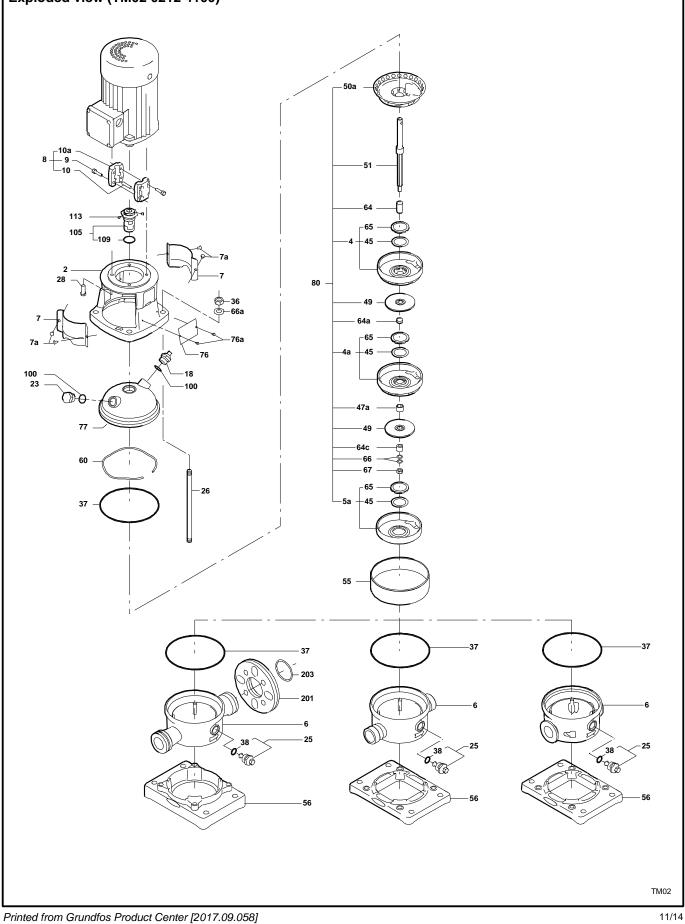
Total: Price on request

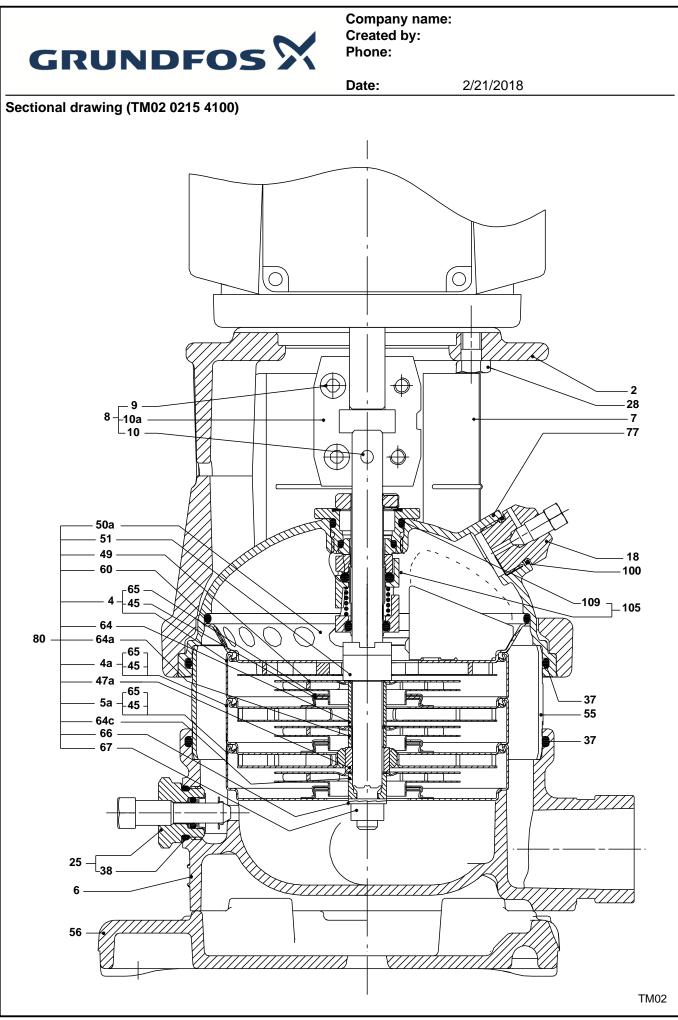


2/21/2018

Date:

Exploded view (TM02 0212 4100)







2/21/2018

## Parts list CRN 5-3, Prod number 96085087 Valid from 1.1.2004 (0401)

	Base cpl.				1		pcs
6	Base					1	
56	Base plate					1	
201.a	Flange					2	
203	Lock ring					2	
	Sealing parts				1		pcs
25						1	•
38			Diameter: 16.3				
	3						
37	Q-ring		•			2	
01	C mg					-	
100	O ring					2	
100	O-Illig					2	
0	Duran hand and		Thickness: 2,4		4		
					1	4	pcs
	_						
18						1	
	_						
	Spindle						
25	Drain plug					1	
23	Pipe plug						
25	Drain plug						
28	Hex head cap screw		Length: 25			4	
			Thread: UNC 3/8"				
60	Formed wire spring					1	
77	Pump cover					1	
8					1		pcs
			Lenath: 178		4		pcs
36	Nut				4		pcs
							pcs
			Designation: DIN 125 A2				pcs
000	Washer		•		-		poo
00	Chamber stock		Thickness. 2,5		4		
80			Langth: 0.00		1		pcs
			Length: 2.00				
						1	
4						1	
45	Neck ring						
65	Neck ring retainer						
5a	Chamber cpl.					1	
	Chamber						
45							
	-						
	25 38 37 100 2 2 2 7 7 7 3 18 25 23 25 23 25 23 25 23 25 23 25 28 60 77 8 26 36 55 66a 36 55 66a 80 80 80 80 80 80	Sealing parts25Drain plug w/bypass valve38O-ring37O-ring100O-ring100O-ring2Pump head cpl.2Motor stool7Coupling guard7aThread cutting screw18Air vent screwPlugSpindle25Drain plug23Pipe plug25Drain plug28Hex head cap screw60Formed wire spring77Pump cover8Coupling cpl.26Staybolt36Nut55Outer sleeve66aWasher80Chamber stackSpacing pipeChamber v. bearing cpl.4Chamber cpl.4Chamber cpl.45Neck ring65Neck ring retainer4Chamber cpl.45Neck ring65Neck ring	Sealing parts     25   Drain plug w/bypass valve     38   O-ring     37   O-ring     100   O-ring     2   Pump head cpl.     2   Motor stool     7   Coupling guard     7a   Thread cutting screw     18   Air vent screw     18   Air vent screw     18   Air vent screw     9lug   Spindle     25   Drain plug     23   Pipe plug     25   Drain plug     28   Hex head cap screw     60   Formed wire spring     77   Pump cover     8   Coupling cpl.     26   Staybolt     36   Nut     55   Outer sleeve     66a   Washer     80   Chamber stack     Spacing pipe   Chamber     45   Neck ring     65   Neck ring retainer     45   Neck ring retainer     45   Neck ring retainer     45   Neck ring retainer <t< td=""><td>Sealing parts     25   Drain plug w/bypass valve     38   O-ring   Diameter: 16,3     Material type: FKM   Thickness: 2,4     37   O-ring   Diameter: 137,5     Material type: FKM   Material type: FKM     100   O-ring   Diameter: 16,3     Material type: FKM   Material type: FKM     100   O-ring   Diameter: 16,3     Material type: FKM   Material type: FKM     2   Pump head cpl.   Thickness: 2,4     2   Motor stool   Thickness: 2,4     7   Coupling guard   Thickness: 2,4     7   Motor stool   Thickness: 2,5     7   Coupling guard   Thickness: 2,5     8   Air vent screw   Length: 25     9   Plug   Thread: UNC 3/8"     60   Formed wire spring   Thread: UNC 3/8"     77   Pump cover   Eength: 178     8   Coupling cpl.   Length: 178     7   Pump cover   Material M12     75   Outer sleeve   Material M12     76   Staybolt   Length: 178 &lt;</td><td>Sealing parts     25   Drain plug w/bypass valve     38   O-ring     Material type: FKM     Thickness: 2,4     37   O-ring     Material type: FKM     37   O-ring     Material type: FKM     Thickness: 3,3     100   O-ring     Diameter: 16,3     Material type: FKM     Thickness: 3,3     100   O-ring     Diameter: 16,3     Material type: FKM     Thickness: 2,4     2   Motor stool     7   Coupling guard     7   Coupling screw     18   Air vent screw     Plug  </td><td>Sealing parts     1       25     Drain plug w/bypass valve     1       38     O-ring     Diameter: 16,3       37     O-ring     Diameter: 137,5       37     O-ring     Diameter: 137,5       37     O-ring     Material type: FKM       Thickness: 3,3     100       O-ring     Diameter: 137,5       100     O-ring     Diameter: 137,5       2     Pump head cpl.     1       2     Motor stool     1       7     Coupling guard     1       7     Coupling guard     1       7     Thread cutting screw     1       8     Air vent screw     1       23     Pipe plug     1       24     Motor screw     1       25     Drain plug     1       28     Hex head cap screw     Length: 25       7     Pump cover     1       26     Staybolt     Length: 178     4       4     Coupling cpl.     1     1       26     <td< td=""><td>Sealing parts     1       25     Drain plug w/bypass valve     1       28     O-ring     Diameter: 16,3       7     O-ring     Diameter: 137,5     2       7     O-ring     Diameter: 137,5     2       Material type: FKM     Thickness: 3,3     2       100     O-ring     Diameter: 16,3     2       Material type: FKM     Thickness: 3,3     2       100     O-ring guard     1       7     Coupling guard     1       7     Poup hug     1       25     Drain plug     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  19     Coupling cpl.     1  10     Spication: DIN 125 A2     4</td></td<></td></t<>	Sealing parts     25   Drain plug w/bypass valve     38   O-ring   Diameter: 16,3     Material type: FKM   Thickness: 2,4     37   O-ring   Diameter: 137,5     Material type: FKM   Material type: FKM     100   O-ring   Diameter: 16,3     Material type: FKM   Material type: FKM     100   O-ring   Diameter: 16,3     Material type: FKM   Material type: FKM     2   Pump head cpl.   Thickness: 2,4     2   Motor stool   Thickness: 2,4     7   Coupling guard   Thickness: 2,4     7   Motor stool   Thickness: 2,5     7   Coupling guard   Thickness: 2,5     8   Air vent screw   Length: 25     9   Plug   Thread: UNC 3/8"     60   Formed wire spring   Thread: UNC 3/8"     77   Pump cover   Eength: 178     8   Coupling cpl.   Length: 178     7   Pump cover   Material M12     75   Outer sleeve   Material M12     76   Staybolt   Length: 178 <	Sealing parts     25   Drain plug w/bypass valve     38   O-ring     Material type: FKM     Thickness: 2,4     37   O-ring     Material type: FKM     37   O-ring     Material type: FKM     Thickness: 3,3     100   O-ring     Diameter: 16,3     Material type: FKM     Thickness: 3,3     100   O-ring     Diameter: 16,3     Material type: FKM     Thickness: 2,4     2   Motor stool     7   Coupling guard     7   Coupling screw     18   Air vent screw     Plug	Sealing parts     1       25     Drain plug w/bypass valve     1       38     O-ring     Diameter: 16,3       37     O-ring     Diameter: 137,5       37     O-ring     Diameter: 137,5       37     O-ring     Material type: FKM       Thickness: 3,3     100       O-ring     Diameter: 137,5       100     O-ring     Diameter: 137,5       2     Pump head cpl.     1       2     Motor stool     1       7     Coupling guard     1       7     Coupling guard     1       7     Thread cutting screw     1       8     Air vent screw     1       23     Pipe plug     1       24     Motor screw     1       25     Drain plug     1       28     Hex head cap screw     Length: 25       7     Pump cover     1       26     Staybolt     Length: 178     4       4     Coupling cpl.     1     1       26 <td< td=""><td>Sealing parts     1       25     Drain plug w/bypass valve     1       28     O-ring     Diameter: 16,3       7     O-ring     Diameter: 137,5     2       7     O-ring     Diameter: 137,5     2       Material type: FKM     Thickness: 3,3     2       100     O-ring     Diameter: 16,3     2       Material type: FKM     Thickness: 3,3     2       100     O-ring guard     1       7     Coupling guard     1       7     Poup hug     1       25     Drain plug     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  19     Coupling cpl.     1  10     Spication: DIN 125 A2     4</td></td<>	Sealing parts     1       25     Drain plug w/bypass valve     1       28     O-ring     Diameter: 16,3       7     O-ring     Diameter: 137,5     2       7     O-ring     Diameter: 137,5     2       Material type: FKM     Thickness: 3,3     2       100     O-ring     Diameter: 16,3     2       Material type: FKM     Thickness: 3,3     2       100     O-ring guard     1       7     Coupling guard     1       7     Poup hug     1       25     Drain plug     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  17     Pump cover     1  18     Coupling cpl.     1  19     Coupling cpl.     1  10     Spication: DIN 125 A2     4



Position	Description		Date:	2/21/2018		
		Annotation	Classification data	Part No.	Count	Unit
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				1	
+ 49	Impeller cpl.				3	
- 50a	Guide vane				1	
	Guide vane					
	Plate					
50b	Top plate					
51	Shaft, spline, cpl.				1	
64a	Spacing pipe		Length: 13.00		1	
64c	Clamp, splined		Inner diameter: 8,5		1	
			Outer diameter: 15			
66	Wedge lock washer				1	
69	Spacing pipe		Length: 26.0		1	
- 105	Shaft seal		Material type: HQQV		1	pcs
	O-ring				1	
	O-ring				1	
	O-ring				1	
	Seal driver, upper				1	
	Seal driver, lower				1	
	Spacer ring				1	
	Pipe				1	
	Plug				1	
	Plug				1	
	Compression spring				1	
	Socket set screw				3	
103	Seal ring, stationary				1	
105	Seal ring, rotating				1	
109	O-ring				1	
113	Driver				1	