



United Trade Centre

Baitush Sharaf Complex (2nd Floor)
149/A Airport Road, Farmgate
Dhaka-1215, Bangladesh
Phone : +88 02 48110234 (PABX)
+88 02 48115102 (Direct)
Fax : +88 02 58154962
E-mail : whasan@utcbd.com
info@utcbd.com



112/DWASA/PSI/UTC-77/25/0098
04 May 2025

To
Executive Engineer
Procurement Division – 2
Dhaka Water Supply and Sewerage Authority (Dhaka WASA)
WASA Bhaban, 98, Kawran Bazar, Dhaka – 1215

Sub: Submission of SGS Inspection Report.

Ref: Contract No.: 46.113.428.00.00.006/24/2024-25/e-GP CA-13; Dt. 06.01.2025

Sir,

Please find attached herewith the 3rd Party Inspection Report of “Procurement of 100 Cubic Meter per Hour 125 Meter Head Submersible Pump-Motor Sets for F.M. Division, Dhaka WASA” which is conducted by “SGS, Germany” in the test bed of Pump-Motor manufacturer “DKM & KKB GmbH, Germany”.

This is for your kind information and necessary action, please.

Sincerely yours

Wahidul Hasan
Chief Executive Officer
United Trade Centre



SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

SGS INSPECTION REPORT

SGS Report No.	7377544 / 10	Revision	01
----------------	--------------	----------	----

CUSTOMER INFORMATION

Customer	United Trade Centre	Project	Order 6100436
----------	---------------------	---------	---------------

Customer Ref. No.	135424010031	Customer Contact	
-------------------	--------------	------------------	--

SUPPLIER / MANUFACTURER INFORMATION

PLACE OF INSPECTION

Company	DKM-KKB GmbH	Company	DKM-KKB GmbH
---------	--------------	---------	--------------

Location	DE-66482 Zweibrücken	Location	DE-66482 Zweibrücken
----------	----------------------	----------	----------------------

Contact Name	Mr Matthias Zornow	Contact Name	Mr Matthias Zornow
--------------	--------------------	--------------	--------------------

Phone	+49 (0) 6332 47977-17	Phone	+49 (0) 6332 47977-17
-------	-----------------------	-------	-----------------------

Email	matthias.zornow@dkb-kkm.com	Email	matthias.zornow@dkb-kkm.com
-------	-----------------------------	-------	-----------------------------

INSPECTION DETAILS

Scope of Inspection	Witnessing of Performance Test of pump unit, visual quality, document review and checked		
---------------------	--	--	--

Equipment inspected	1 x pump unit VAU08-100.125.052 with motor 52kW, order 6100436.010		
---------------------	--	--	--

SGS Inspector	Jochen Groos	Report Date	17.04.2025
---------------	--------------	-------------	------------

Visit Date(s)	16.04.2025		
---------------	------------	--	--

SGS Germany Coordinator	Mrs Natalia Knaus	Coordinator E-mail	
-------------------------	-------------------	--------------------	--

ATTENDEES

Name	Company	Phone	E-Mail
Mr Jochen Groos	SGS Germany GmbH	+49 173 859 4949	jo.groos@gmx.net
Mr Matthias Zornow	DKM-KKB GmbH	+49 6332 47977-17	matthias.zornow@dkb-kkb.com
Mr Markus Urban	DKM-KKB GmbH	+49 6332 47977-0	markus.urban@dkm-kkb.com
Mrs Annika Sivasothy	DKM-KKB GmbH	+49 6332 47977-19	annika.sivasothy@dkm-kkb.com
Mr Ajinkya Gadhave	DKM-KKB GmbH	n/a	n/a
Mr Hasan Wahidul	United Trade Centre	n/a	n/a
Mr Hasan Waker	United Trade Centre	n/a	n/a

Member of the SGS Group (Société Générale de Surveillance)

Issued by: Oliver Francois

Date: 22.10.2021

Page 1 of 9

Title: Technical Manager

Version: 04

Annex 1.1.2 SOP O 180

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

OVERALL INSPECTION RESULT

Satisfactory

REMARKS

1. EQUIPMENT DETAILS

PO Item No.	Serial / TAG No.	Qty	Product Description
6100436.010	PS25070310	1	Pump unit VAU08-100.125.052 with motor 52kW

2. DOCUMENTS USED DURING INSPECTION

Document Name	Document No.	Revision No.	Issue Date
TCP Test Criteria for Performance Test	Q00100022	0	13.03.2023

3. MEASURING EQUIPMENT / INSTRUMENTS USED

Instrument	Instrument No.	Calibration certificate	Validity date	Appropriate for required use?
Endress & Hauser PROMAG 53W flow meter	F811EC19000 (KKB332)	FV428H9CT	April 2026	Yes ☒ No ☐
Endress & Hauser Pressure Calibrator	L80A830109C (KKB330)	01.25.019502	March 2026	Yes ☒ No ☐

Member of the SGS Group (Société Générale de Surveillance)

Issued by: Oliver Francois

Date: 22.10.2021

Page 2 of 9

Title: Technical Manager

Version: 04

Annex 1.1.2 SOP O 180

4. SUMMARY OF INSPECTION

Equipment Description / Tag No.	Activities Performed	Result
Pump unit VAU08-100.125.052 with motor 52kW s/n PS25070310	Performance test, visual quality, document review and check	Satisfactory

5. BRIEF DESCRIPTION OF INSPECTIONS PERFORMED

Performance test:

According to Inspection order, one pump unit of order 6100436 was selected for testing. All selected pump units had been tested internally before and accordingly test reports were available.

The selected pump unit was tested at 30 bar DN 100 test stand at DKM-KKB GmbH on 16.04.2025. Test medium was tap water at room temperature, test duration was approximately 30 minutes. Performance test was carried out according to the requirements of Test Criteria for Performance Test No.: Q00100022.

Test of pump unit was executed with 11 measuring point from Q_{min} to Q_{max} with one measuring point at designed flow (Operating Point). Efficiency η [%] of the tested pumps was measured over the entire test duration from Q_{min} until Q_{max} and have been recorded in attached test record (Operating point = 67,6%). Performance test of selected pump unit was carried out without objections and with an acceptable result. Test reports have been issued by DKM-KKB GmbH and were stamped and signed by inspector.

Result: **satisfactory**

Visual quality and completeness:

The tested pump unit was visually checked. The pump unit was found to be new, unused and in good workmanship. No visible damages or defects were detectable. Name plate of pump and motor were attached and checked. Completeness was checked against the requirements of Order overview and was found to be without objections.

Result: **satisfactory**

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

6. DOCUMENT REVIEW:

Document Name	Document No.	Revision No.	Issue Date	Result
TCP Test Criteria for Performance Test	Q00100022	0	13.03.2023	Satisfactory
Compliance Sheet	n/a	n/a	16.04.2025	Satisfactory
Technical Specification	n/a	n/a	16.04.2025	Satisfactory
Test Report	n/a	n/a	16.04.2025	Satisfactory

7. DEVIATIONS / NON CONFORMITIES:

No.	Equipment Description / Tag No.	Deviation description
7.1.		
7.2.		

8. ATTACHMENTS

- Performance Test Report including Performance Test Criteria, Compliance Sheet, Technical Specification and Test Protocols (17 pages)
- ISO Certificates (4 pages)
- Calibration Certificates (4 pages)
- Order overview (one page)

9. DISCLAIMER

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

In accordance with Client's instructions, the Company's involvement has been limited to witnessing/observing a third party's intervention(s) at the third party's laboratory/test house or other facilities and installations used for the intervention(s). The Company's sole responsibility was to be present at the time of the third party's intervention(s)

Member of the SGS Group (Société Générale de Surveillance)

Issued by: Oliver Francois

Date: 22.10.2021

Page 4 of 9

Title: Technical Manager

Version: 04

Annex 1.1.2 SOP O 180

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

to forward the results, or confirm the occurrence, of the intervention(s). The Company is not responsible for the condition or calibration of apparatus, instruments and measuring devices used, the analysis methods applied, the qualifications, actions or omissions of the third party's personnel or the analysis results.

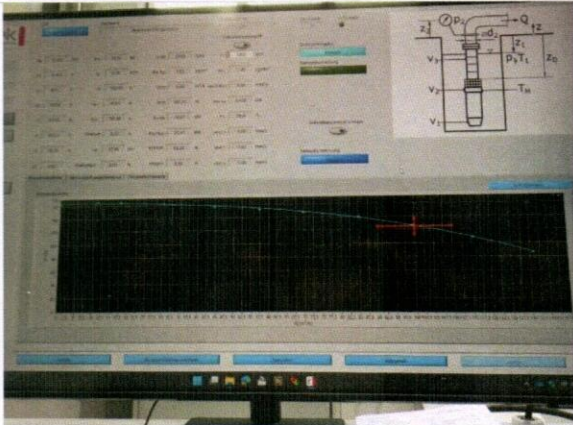
The publication and duplicating of our test reports and expert opinions for advertising purposes as well as their use for any other purposes in extracts requires our written approval.

10. PHOTOGRAPHS

No.	Description	Photo
10.1.	Pump units for testing	

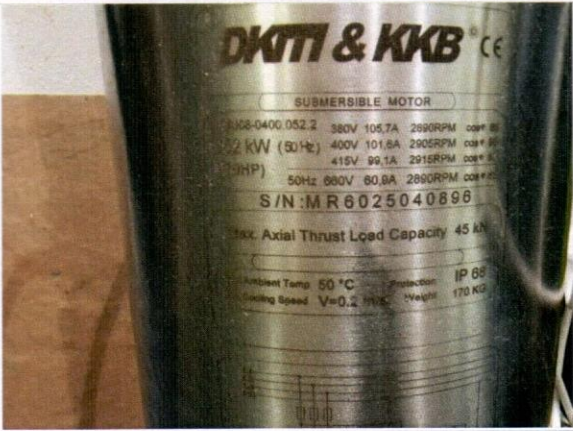
SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

10.2.	Pump units for testing	
10.3.	Pump unit in test stand	
10.4.	Q-H-curve displayed	

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

10.5.	Pump unit after performance test	
10.6.	Name plate s/n 25070310	
10.7.	Motor name plate (sample)	

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

10.8.	Completeness check	
10.9.	Completeness check	
10.10.	Markings order 6100436	

SGS Germany GmbH
Heidenkampsweg 99
D-20097 Hamburg

SGS Germany Report No.: 7377544 / 10 Rev.: 01
Customer Reference No.: 135424010031

HAMBURG,
23.04.2025

SGS GERMANY GMBH

i.V.
N. KNAUS


SGS Germany GmbH
Heidenkampsweg 99 - 20097 Hamburg

i.V.
P. SIEFKE


SGS Germany GmbH
Heidenkampsweg 99 - 20097 Hamburg

End of Report

Test Criteria for Performance Test

Table of Contents

1. TEST CONDITIONS	2
1.1 Agreed Acceptance Standard	2
1.2 Agreed Tolerances	2
2. SCOPE OF TESTING	2
3. TEST SETUP	2
4. TEST FIELD SETUP and MEASURING PROCEDURE	2

Customer United Trade Centre
Customers Order No / will be filled out later
KKB Order number 6100436
Pump type/No.of stages / ... VPU08-100.125.07
Motor type..... VMU08-0400.052.2
Item No 500000410 – VAU08-100.125.052

Facility

DKM & KKB GmbH
Greenwichstr. 2
66482 Zweibrücken
DEUTSCHLAND / GERMANY

Contact:

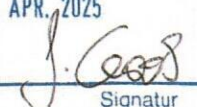
Mrs. Kathrin Sternsdorf / Mr. Zornow Matthias

Phone : +49 (0) 6332 / 47977 – 15

+49 (0) 6332 / 47977 – 17

Mail : kathrin.sternsdorf@dkm-kkb.com

matthias.zornow@dkm-kkb.com

SGS	Witnessed ☒
	Reviewed ☒
	Noted ☐
Date	16. APR. 2025
	
Jochen Groos	Signatur

					BENENNUNG / DENOMINATION	
					TCP	
					Test criteria performance test	
					NR. / NO.	BLATT-NR. SHEET-NO.
					Q0010022	1
					FOR PREPARATION / APPROVAL / COPYRIGHT SEE SHEET 01	
0	First Issue	RUFF		13.03.23		
Rev	Änderung	Erstellt	Geprüft	Datum		



DKM & KKB
THE EXPERTS IN FLUID HANDLING

1. TEST CONDITIONS

1.1 Agreed Acceptance Standard

- client requirements

Overall efficiency: minimum 67%

1.2 Agreed Tolerances

- According to test standard at para. 1.1

Acceptance Regulation	Q	H	Power	ETA
	+/-	+/-	+/-	≥ 0%

2. SCOPE OF TESTING

- Inspector takes part in a defined number of test runs.
 - Share of tests: **10%** of delivery
 - Share of inspector's acceptances: **1 Units (Pump + Motor)**.
 - Documentation check (remaining of 10%)
 - Optical quality check
- Acceptance curve (Q-H-P) with 5 measuring points.

3. TEST SETUP

- With motor of the order
- With test field instrumentation
- Calibration according to test field standard
- Test frequency is 50 Hz.

4. TEST FIELD SETUP and MEASURING PROCEDURE

N/A

SGS	Witnessed Reviewed Noted	☒ ☒ ☐
Date	16. APR. 2025	
Jochen Groos	Signatur	

DKM&KKB
THE EXPERTS IN FLUID HANDLING
DKM & KKB GmbH
Greenwichstraße 2 • 66482 Zweibrücken
Germany +49 6332 47977-0
info@dkm-kkb.com www.dkm-kkb.com

DKM&KKB
THE EXPERTS IN FLUID HANDLING

BENENNUNG / DENOMINATION

Test Conditions

NR. / NO.

BLATT-NR.
SHEET-NO
2

FOR PREPARATION / APPROVAL / COPYRIGHT SEE SHEET 01

**COMPLIANCE SHEET OF 100 M³/HR, 125 METER HEAD SUBMERSIBLE PUMP-
MOTOR**

Sl. No.	Requirement & Specification as per the contract		
1. General:			
1.	Manufacturer Standard	:	ISO 9001:2015 Certificated
		:	ISO 14001 Certificated
		:	ISO 45001 Certificated
		:	CE Certificated
2.	Overall Efficiency	:	Min. 67%
3.	Pump-motor assembly	:	Pump casing are clamped together by studs (Tie-Rod)
4.	Pump motor operation time	:	Heavy duty pump motor suitable to operate 24x7
2. PUMP:			
1.	Flow System	:	Mixed Flow
2.	Rated flow	:	100 m ³ /hr.
3.	Head	:	125 meter at duty point.
4.	Rated Speed	:	2900 rpm $\pm$ 2%.
5.	Stages	:	Max. 09 Stages
6.	Strainer	:	Stainless Steel AISI 304
7.	Impeller	:	Stainless Steel AISI 304
8.	Diffuser	:	Stainless Steel AISI 304
9.	Pump Shaft	:	Stainless Steel AISI 630
10.	Bowl Bearing	:	Bronze
11.	Discharge bracket-	:	Stainless Steel AISI 304
12.	Top Bearing collet	:	Stainless Steel AISI 304
13.	Check Valve	:	Stainless Steel AISI 304
14.	Check Valve housing	:	Stainless Steel AISI 304
15.	Impeller Wire Ring-	:	Stainless Steel AISI 304
16.	Impeller Bush	:	Stainless Steel AISI 304
17.	Discharge piece	:	flange Dia: 150 mm. For operation and maintenance: adequate clamping space would be provided with the pump.
18.	Non return valve	:	Built-in with the pump.
3. MOTOR:			
1.	Power	:	Max. 57 KW
2.	Power Factor	:	0.80
3.	Current	:	Max. 114.60 Amp
4.	Voltage	:	415 $\pm$ 10% Volt, 50 Hz, AC 3 Phase
5.	Rated Speed	:	2900 rpm $\pm$ 2%
6.	Starting Method	:	Star-Delta & VFD
7.	Bearings	:	Radial Bearing: Carbon Thrust Bearing: Carbon + Stainless Steel

SGS

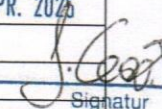
Witne
Revie
Noted

Date

16. APR. 2025

Jochen Groos

Signature

SGS	Witnessed	☒
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos	 Signatur	

Sl. No.	Requirement & Specification as per the contract		
8.	Suction Motor bracket	:	Stainless Steel AISI 304
9.	Upper body	:	Stainless Steel AISI 304
10.	Lower body	:	Stainless Steel AISI 304
11.	Main body	:	Stainless Steel AISI 304
12.	Thickness of the main body	:	2.5 mm
13.	Stand Guard	:	NBR (Nitrile Rubber)
14.	Thermal Protection	:	PT 100 Cables with Thermo Sensor
15.	Stator-Rotor	:	Corrosion Resistive
16.	Degree of protection	:	IP 68
17.	Insulation class	:	Y
18.	Motor winding insulation type	:	PE2
19.	Pump & Motor outer diameter.	:	Maximum 200 mm.
20.	Cable Size	:	3 x 16 mm ²
21.	Cable length	:	Length of flat cable: 3 x 16 mm ² , 2 x 3 m, PVC Sheeted Cooper Wire, Water Resistance insulated Cable. Cable Size:10.3 x 25.5 mm

"We hereby confirm that the above pumps of type Submersible Pump-Motor have been manufactured in accordance with the procedures listed in this document and that only the specified materials have been used.

Product Details:

- Pump Type: Multistage Submersible Pump
- Serial Number:
- Materials Used: [see List of materials of the compliance sheet]
- Compliance with Standards: [e.g., ISO 9001:2015, ISO 14001, ISO 45001, CE Marking]

Production and quality assurance are carried out in compliance with all relevant technical requirements and regulations. Conformity is ensured through internal inspections and quality control measures."

We hereby confirmed that the we made the Submersible Pump-Motor as per the above requirements of Dhaka WASA. We confirmed and complied the compliance sheet. The compliance sheet has checked, and verified by SGS Germany.



DKM&KKB
THE EXPERTS IN FLUID HANDLING
DKM & KKB GmbH
Greenwichstraße 2 • 66482 Zweibrücken
Germany +49 6332 47977-0
info@dkm-kkb.com www.dkm-kkb.com

1. Allgemeine Informationen

1.1 Kundendaten

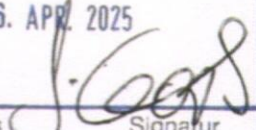
Kunde	UTC	Dokumentennummer	P0010175
Bestellnummer	0	Version	0
Auftragsnummer intern	6100436	Prüfstand	DN 100 - 30 bar
Prüfdatum	04.04.2025	Rückschlagventil	Ja

1.2 Pumpendaten

Pumpentyp	VPU08-100.125.07	Seriennummer	6100436.010.003
Stufenzahl	7	Artikelnummer	500003079
		Equi. Nr.	WP-70311

1.3 Motordaten

Motortyp	VMU08-0400.052.2	Frequenz	50 Hz
Leistung	52 kW	Drehzahl	2860 1/min
Spannung	400 V	Seriennummer	0
Stromstärke	98 A	Artikelnummer	500003072
		Equi. Nr.	WM-40881

SGS	Witnessed ☐ Reviewed ☒ Noted ☐
Date	16. APR. 2025
Jochen Groos	 Signatur

DKM&KKB
THE EXPERTS IN FLUID HANDLING
DKM & KKB GmbH
Greenwichstraße 2 / 66482 Zweibrücken
Germany +49 6332 47977-0
info@dkm-kkb.com www.dkm-kkb.com

1. General Information

1.1 Client data

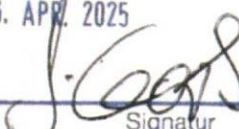
Client	UTC	Doc. no.	P0010175
Order no.	0	Rev.	0
Order no. (KKB)	6100436	Test stand	DN 100 - 30 bar
Date of inspection	04.04.2025	Non-Return Valve	yes

1.2 Pump data

Pump type	VPU08-100.125.07	Serial no.	6100436.010.003
Number of stages	7	Article no.	500003079
		Equi. no.	WP-70311

1.3 Motor data

Motor	VMU08-0400.052.2	Frequency	50 Hz
Power	52 kW	Speed	2860 1/min
Voltage	400 V	Serial no.	0
Current	98 A	Article no.	500003072
		Equi. no.	WM-40881

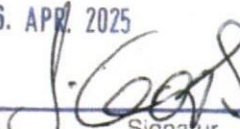
SGS	Witnessed	☐
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos	 Signatur	

2. Measurements

Operating Point

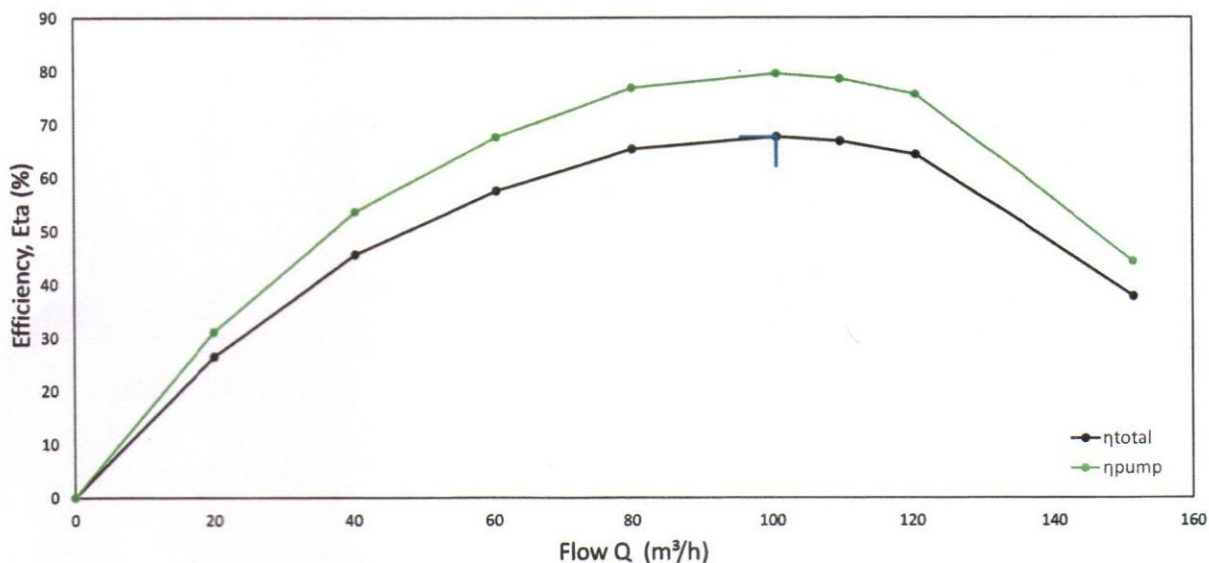
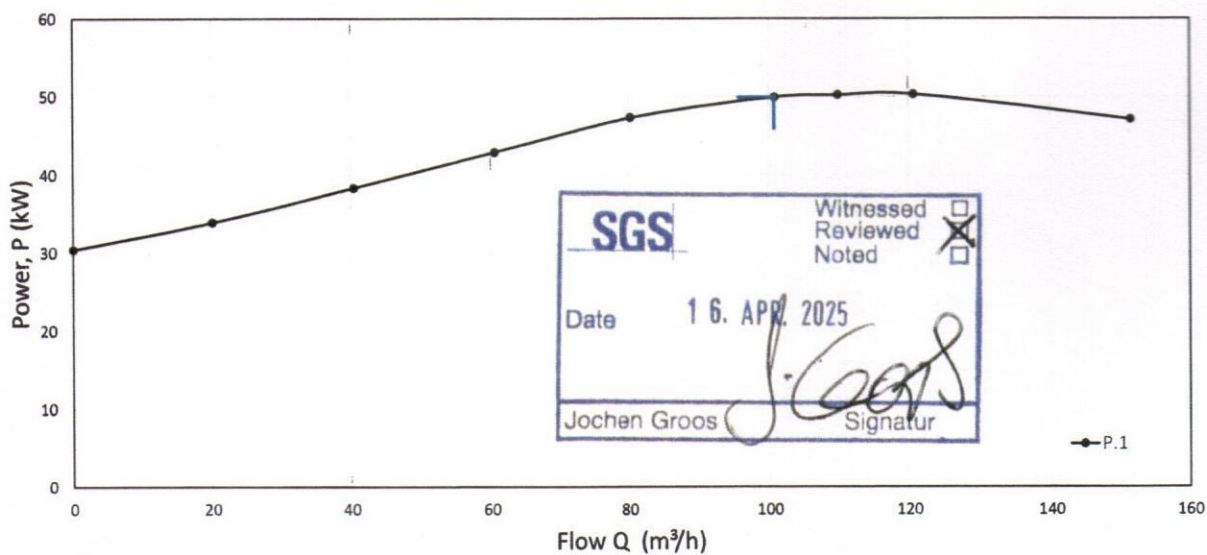
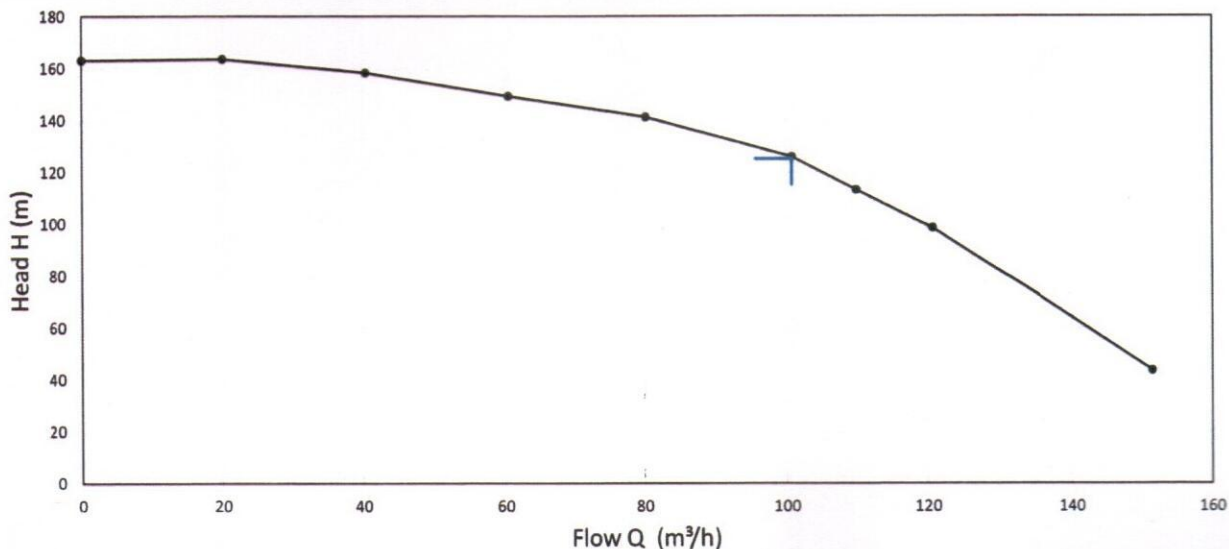
2.1 Measured values at 2850 rpm

No.	Q	H	P.el	I	U	PF	n	η_{Overall}	T.W
	m ³ / h	m	kW	A	V	cos ϕ	rpm	%	°C
1	0,0	162,7	30,4	65,8	414,1	0,64	2850	0,0	22,3
2	20,1	163,3	33,9	70,2	413,7	0,67	2850	26,5	22,3
3	40,4	158,0	38,3	76,1	413,3	0,70	2850	45,6	22,3
4	60,5	149,0	42,9	82,0	413,1	0,73	2850	57,5	22,3
5	80,2	140,7	47,3	88,1	412,3	0,78	2850	65,3	22,3
6	100,8	125,1	49,9	91,8	411,7	0,80	2850	67,6	22,4
7	109,8	112,3	50,2	92,3	411,1	0,78	2850	66,8	22,4
8	120,7	97,5	50,3	92,2	411,0	0,77	2850	64,3	22,3
9	151,5	42,1	47,1	87,6	411,6	0,75	2850	37,7	22,4

SGS	Witnessed	☐
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos	 Signatur	

3. Performance Curve

Test medium	Water	the losses in the non-return valve are not included in the pump curves	
Operating point		Speed	50 Hz (2860 rpm)
Flow rate	100 m ³ /h	Water temperature	20 °C
Head	125 m	Motor temperature	-1 °C



1. Allgemeine Informationen

1.1 Kundendaten

Kunde	UTC	Dokumentennummer	P0010177
Bestellnummer	0	Version	0
Auftragsnummer intern	6100436	Prüfstand	DN 100 - 30 bar
Prüfdatum	07.04.2025	Rückschlagventil	Ja

1.2 Pumpendaten

Pumpentyp	VPU08-100.125.07	Seriennummer	6100436.010.001
Stufenzahl	7	Artikelnummer	500003079
		Equi. Nr.	WP-70309

1.3 Motordaten

Motortyp	VMU08-0400.052.2	Frequenz	50 Hz
Leistung	52 kW	Drehzahl	2860 1/min
Spannung	400 V	Seriennummer	0
Stromstärke	98 A	Artikelnummer	500003072
		Equi. Nr.	WM-40894

SGS

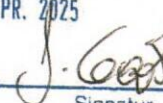
Witnessed
Reviewed
Noted

☒
☐
☐

Date

16. APR. 2025

Jochen Groos


Signatur

DKM & KKB
THE EXPERTS IN FLUID HANDLING
DKM & KKB GmbH
Greenwichstraße 2 • 66482 Zweibrücken
Germany +49 6332 47977-0
info@dkm-kkb.com www.dkm-kkb.com

1. General Information**1.1 Client data**

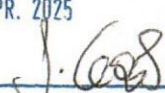
Client	UTC	Doc. no.	P0010177
Order no.	0	Rev.	0
Order no. (KKB)	6100436	Test stand	DN 100 - 30 bar
Date of inspection	07.04.2025	Non-Return Valve	yes

1.2 Pump data

Pump type	VPU08-100.125.07	Serial no.	6100436.010.001
Number of stages	7	Article no.	500003079
		Equi. no.	WP-70309

1.3 Motor data

Motor	VMU08-0400.052.2	Frequency	50 Hz
Power	52 kW	Speed	2860 1/min
Voltage	400 V	Serial no.	0
Current	98 A	Article no.	500003072
		Equi. no.	WM-40894

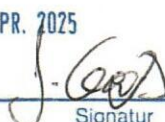
SGS	Witnessed	☒
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos		
	Signatur	

2. Measurements

Operating Point

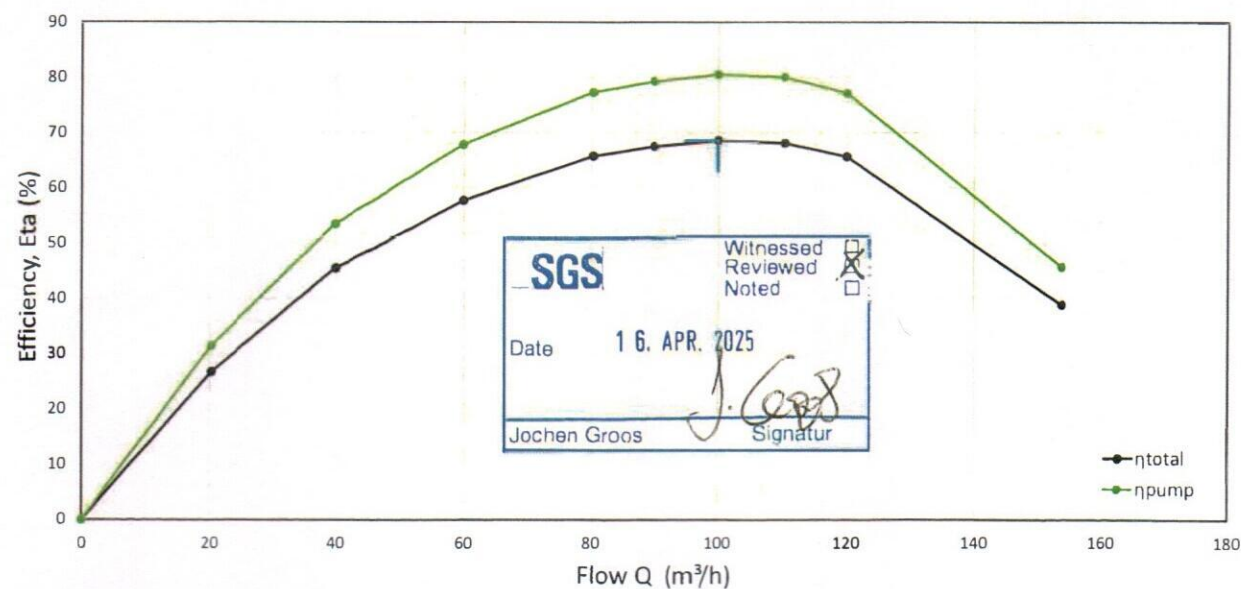
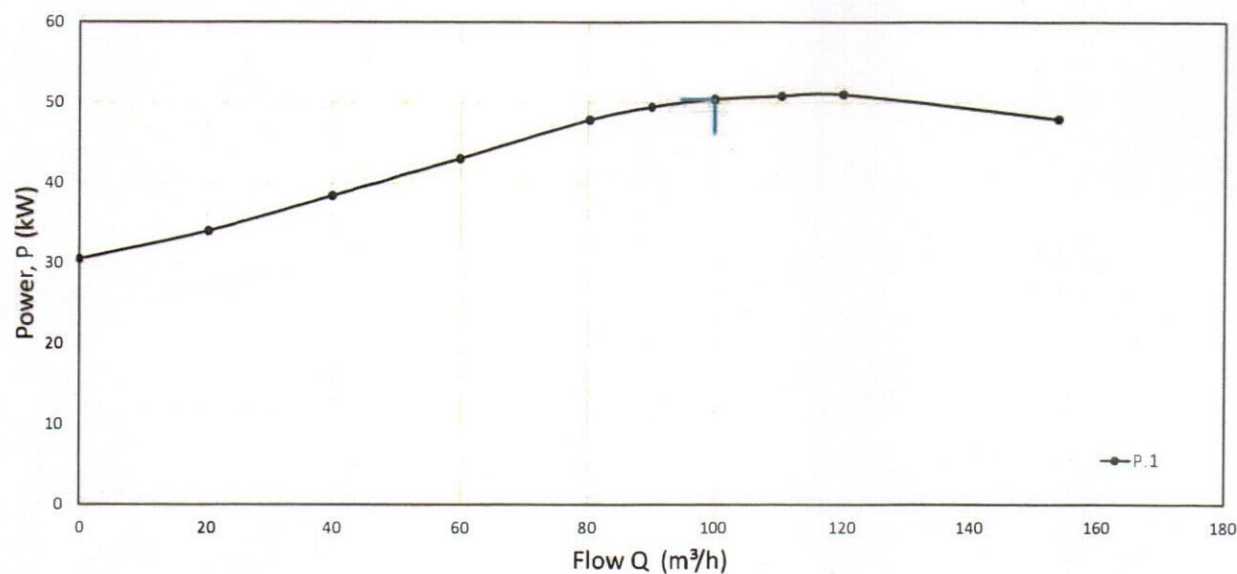
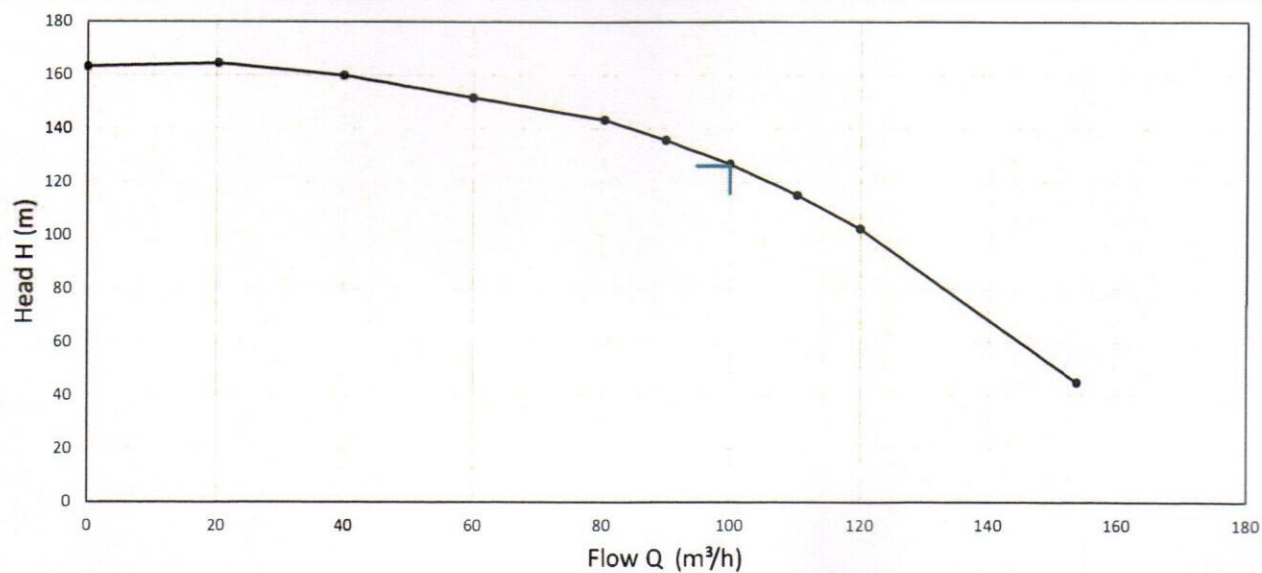
2.1 Measured values at 2850 rpm

No.	Q	H	P.el	I	U	PF	n	η_{Overall}	T.W
	m ³ / h	m	kW	A	V	cos ϕ	rpm	%	°C
1	0,0	162,7	30,5	67,8	412,5	0,69	2850	0,0	20,3
2	20,3	164,1	34,0	71,8	411,5	0,72	2850	26,8	20,3
3	40,0	159,5	38,4	77,6	412,3	0,77	2850	45,5	20,4
4	59,9	151,2	43,0	83,9	410,7	0,78	2850	57,7	20,4
5	80,3	142,9	47,8	90,8	411,1	0,79	2850	65,7	20,4
6	90,0	135,1	49,4	93,1	411,0	0,82	2850	67,4	20,4
7	100,0	126,0	50,4	94,7	411,0	0,83	2850	68,6	20,4
8	110,3	114,2	50,8	95,2	410,9	0,81	2850	68,1	20,4
9	119,9	101,5	51,0	95,5	411,1	0,79	2850	65,6	20,4
10	153,7	43,5	47,9	90,7	411,0	0,78	2850	38,9	20,5

SGS	Witnessed	☐
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos	 Signatur	

3. Performance Curve

Test medium	Water	the losses in the non-return valve are not included in the pump curves	
Operating point		Speed	50 Hz (2860 rpm)
Flow rate	100 m ³ /h	Water temperature	20 °C
Head	125 m		



SGS
Date 16. APR. 2025
Jochen Groos
Witnessed ☐
Reviewed ☒
Noted ☐
Signature

1. Allgemeine Informationen

1.1 Kundendaten

Kunde	UTC	Dokumentennummer	P0010196
Bestellnummer	0	Version	0
Auftragsnummer intern	6100434	Prüfstand	DN 100 - 30 bar
Prüfdatum	16.04.2025	Rückschlagventil	Ja

1.2 Pumpendaten

Pumpentyp	VPU08-100.125.07	Seriennummer	6100436.010.002
Stufenzahl	7	Artikelnummer	500003079
		Equi. Nr.	WP-70310

1.3 Motordaten

Motortyp	VMU08-0400.052.2	Frequenz	50 Hz
Leistung	52 kW	Drehzahl	2860 1/min
Spannung	400 V	Seriennummer	0
Stromstärke	98 A	Artikelnummer	500003072
		Equi. Nr.	WM-40896

SGS	Witnessed	☒
	Reviewed	☐
	Noted	☐
Date	16. APR. 2025	
Jochen Groos		
	Signatur	

1. General Information

1.1 Client data

Client	UTC	Doc. no.	P0010196
Order no.	0	Rev.	0
Order no. (KKB)	6100434	Test stand	DN 100 - 30 bar
Date of inspection	16.04.2025	Non-Return Valve	yes

1.2 Pump data

Pump type	VPU08-100.125.07	Serial no.	6100436.010.002
Number of stages	7	Article no.	500003079
		Equi. no.	WP-70310

1.3 Motor data

Motor	VMU08-0400.052.2	Frequency	50 Hz
Power	52 kW	Speed	2860 1/min
Voltage	400 V	Serial no.	0
Current	98 A	Article no.	500003072
		Equi. no.	WM-40896

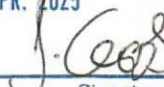
SGS	Witnessed	☒
	Reviewed	☐
	Noted	☐
Date	16. APR. 2025	
Jochen Groos		
	Signatur	

2. Measurements

Operating Point

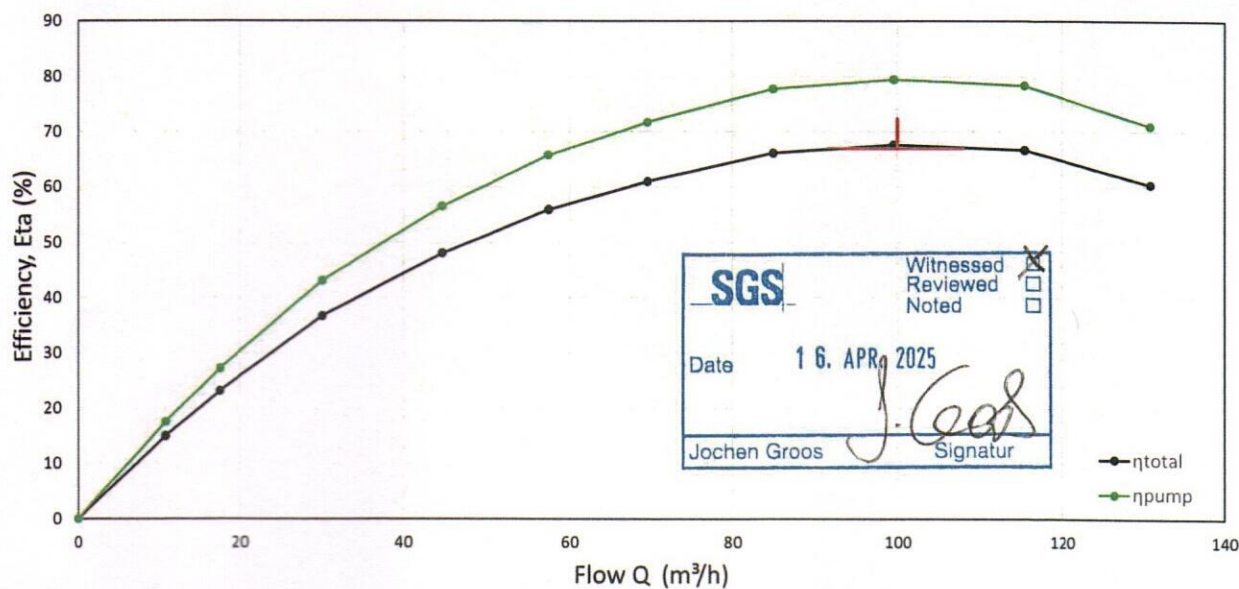
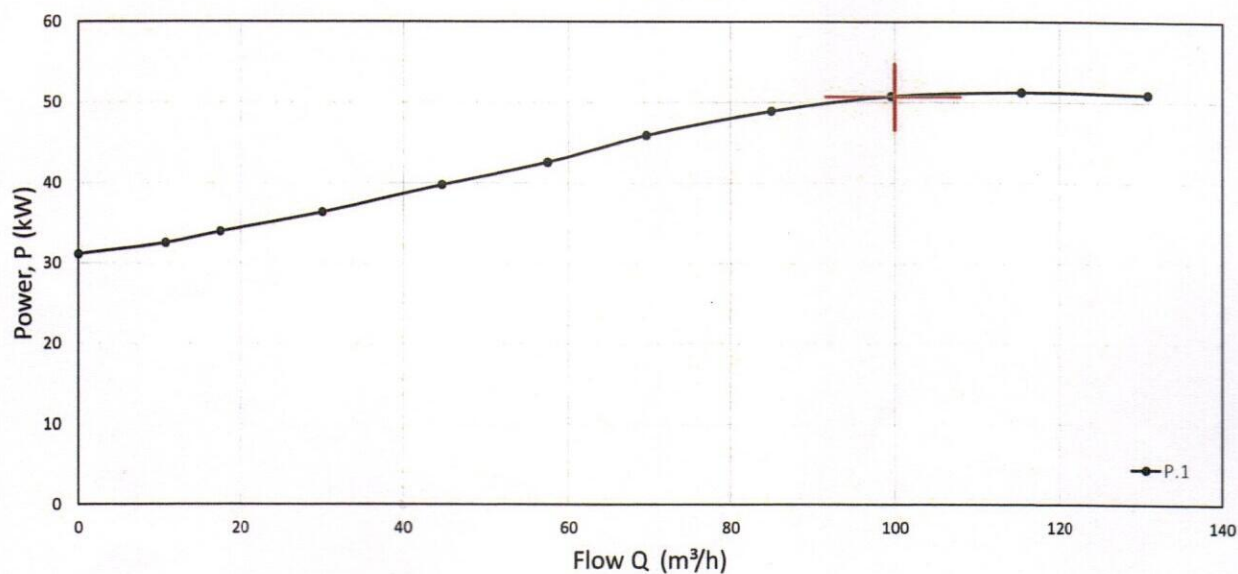
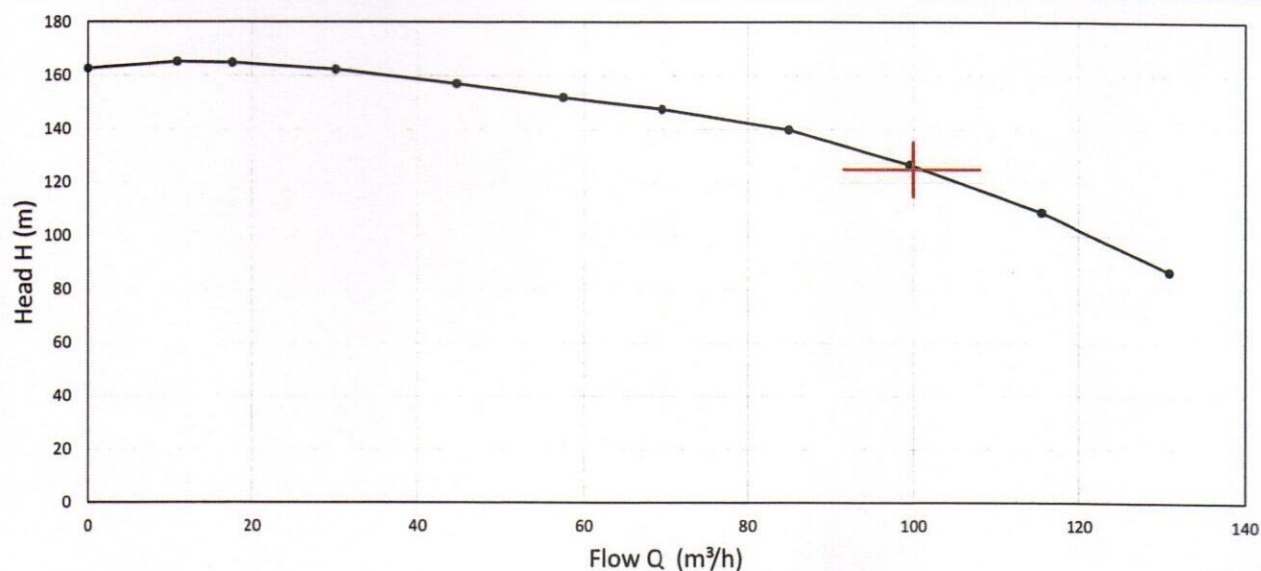
2.1 Measured values at 2860 rpm

No.	Q	H	P.el	I	U	PF	n	η_{Overall}	T.W
	m ³ / h	m	kW	A	V	cos ϕ	rpm	%	°C
1	0,0	162,2	31,1	67,9	414,2	0,64	2860	0,0	26,4
2	10,8	164,7	32,5	70,1	414,4	0,65	2860	14,9	26,4
3	17,5	164,4	33,9	71,4	414,3	0,66	2860	23,1	26,3
4	30,1	161,9	36,3	74,3	414,1	0,69	2860	36,6	26,3
5	44,6	156,6	39,7	78,8	413,8	0,72	2860	48,0	26,3
6	57,4	151,5	42,5	82,4	413,5	0,75	2860	55,9	26,3
7	69,6	147,0	45,8	86,9	413,8	0,78	2860	60,9	26,3
8	84,9	139,2	48,8	91,2	413,4	0,79	2860	66,1	26,3
9	99,6	125,9	50,7	93,9	412,6	0,81	2860	67,6	26,3
10	115,4	108,1	51,2	94,7	412,9	0,80	2860	66,6	26,2
11	130,8	85,7	50,9	94,2	412,0	0,78	2860	60,4	26,2

SGS	Witnessed	☒
	Reviewed	☐
	Noted	☐
Date	16. APR. 2025	
Jochen Groos	 Signatur	

3. Performance Curve

Test medium	Water	the losses in the non-return valve are not included in the pump curves	
Operating point		Speed	50 Hz (2860 rpm)
Flow rate	100 m ³ /h	Water temperature	26 °C
Head	125 m		



Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 2309906**

Certificate Holder:



DKM & KKB GmbH
Greenwichstr. 2
66482 Zweibrücken
Germany

Scope:

Development, manufacturing, sales, reverse engineering, retrofit and service of pumps, electric motors, ball valves and fittings

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity:

The certificate is valid from 2024-06-20 until 2026-06-09.
First certification 2020

2024-06-25

SGS	Witnessed ☒
	Reviewed ☒
	Noted ☐
Date 16. APR. 2025	
Jochen Groos	Signatur

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com



TÜVRheinland®
Precisely Right.

Certificate

Standard

ISO 14001:2015

Certificate Registr. No. **01 104 2309907**

Certificate Holder:



DKM & KKB GmbH
Greenwichstr. 2
66482 Zweibrücken
Germany

Scope:

Development, manufacturing, sales, reverse engineering, retrofit and service of pumps, electric motors, ball valves and fittings

Proof has been furnished by means of an audit that the requirements of ISO 14001:2015 are met.

Validity:

The certificate is valid from 2024-06-20 until 2026-05-05.
First certification 2020

2024-06-25

SGS	Witnessed ☐
	Reviewed ☒
	Noted ☐
Date 16. APR. 2025	
Jochen Groos	Signatur

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com



TÜVRheinland®
Precisely Right.

CERTIFICATE

The occupational health and safety management system of



DKM & KKB GmbH

Greenwichstraße 2 | 66482 Zweibrücken | Germany

has been assessed and certified as meeting the requirements of:

ISO 45001:2018

for the following activities:

**Development, design, manufacturing,
sales and service of Cenrifugal Pumps,
Ball Valves, other types of Valves as well as their components**

This certificate is valid from 20.11.2023 until 19.11.2026

Issued: 23.08.2024

Revised: 23.08.2024

Certificate No. DG00587-EN

SGS	Witnessed ☐
	Reviewed ☒
	Noted ☐
Date 16. APR. 2025	
Jochen Groos	Signatur



Dipl. Wirtsch.-Ing. (FH) Thorsten Greiner, Managing Director
TÜV® Saarland Certification GmbH
Am TÜV 1 | 66280 Sulzbach/Saar | Germany
T +49 (0) 68 97 506 0 | cert@tuv-saar.com



Zertifikat

Qualitätssicherungssystem nach Richtlinie 2014/68/EU

Zertifikatsnummer: 01 202 173/Q-23 0298.01

Name und Anschrift des
Zertifikatsinhaber:

DKM & KKB GmbH
Greenwichstr. 2
66482 Zweibrücken
Deutschland

Hiermit wird bescheinigt, dass der Hersteller ein QS-System gemäß der Richtlinie 2014/68/EU eingeführt hat und anwendet. Der Hersteller ist berechtigt, die von ihm im Rahmen des Geltungsbereichs dieses QS-Systems beschriebenen und hergestellten Druckgeräte mit dem abgebildeten Zeichen zu kennzeichnen:

CE 0035

Prüfgrundlage:

Richtlinie 2014/68/EU: QS-System (Modul H1)
(die QS-Module E1, E, D1, D und H sind durch Modul H1 abgedeckt)

Prüfbericht Nr.:

01 202 173/Q-23 0298.00

Geltungsbereich:

Entwicklung, Herstellung und Service von Armaturen,
siehe Anlage zum Zertifikat: 01 202 173/Q-23 0298.00, Revision 1
vom 29.08.2024

Fertigungsstätte:

siehe Zertifikatsinhaber

Gültigkeit:

Dieses Zertifikat ist gültig bis 22.10.2026.

Köln, 10.12.2024

Ines Krüger-Führ



TÜV Rheinland Industrie Service GmbH
Notifizierte Stelle für Druckgeräte, Kennnummer: 0035
Am Grauen Stein, D-51105 Köln

SGS	Witnessed	☐
	Reviewed	☒
	Noted	☐
Date	16. APR. 2025	
Jochen Groos		
		Signatur

MS-0037317 E-008-Rev01

Kalibrierzertifikat

Endress+Hauser

People for Process Automation

Endress+Hauser (Deutschland) GmbH+Co. KG
Colmarer Str. 6, D-79576 Weil am Rhein
Tel: +49 7621 975-666 Fax: +49 7621 975-777
Certified ISO 9001:2015 - Registrierungsnummer: H30139

Zertifikats-Nr. FV428H9CT
Datum der Kalibrierung 26.04.2023

Auftraggeber
Firma DKM Armaturentechnik GmbH
Anschrift Greenwichstr. 2
Postleitzahl / Ort 66482 Zweibrücken
Serviceauftrag Nr. 004407656871

Kalibrierort
Firma DKM Armaturentechnik GmbH
Anschrift Greenwichstr. 2
Postleitzahl / Ort 66482 Zweibrücken
Ansprechpartner Herr Johann Ruff

Gerätedaten Prüfling

Gerätetyp 53W1H-HCOB1AA0AAAA
Serien-Nr. F811EC19000
Messstelle 53W1H-HCOB1AA0AAAA
Parameter Durchfluss
Medium Wasser
Temperatur 20 °C

Kalibrierbereich 110 bis 150 m³/h

Abweichung / MPE / Messunsicherheit spezifiziert als % vom Messwert

Rohrumfang 360mm
Rohrdurchmesser 114,65mm
Wandstärke 1,7mm
Sensorabstand 221,26mm

Verwendete Referenzen/Normale

Beschreibung	Serien-Nr.	Zertifikats-Nr.	Kalibrierdatum
DE-CT-D-0062, kalibrierter P-Flow 93T	DE-CT-D-0062	DE-CT-D-0062_23_Prosonic Flow	17.02.2023

Verwendete Kalibrier SOP

SOP-Nr.	SOP Beschreibung
SOP-C-de-D-001 (de)	Standardverfahren für vor Ort Standard Durchfluss Kalibrierungen

Kalibrierwerte As Found

Testpunkt	Sollwert m³/h	Referenzwert m³/h	Messwert Prüfling m³/h	PLS Anzeigewert m³/h	Abweichung* %	± MPE %
1	110	112,38	110,87	110,21	-1,93	5,00
2	125	126,31	125,80	125,57	-0,59	5,00
3	150	152,45	150,54	150,31	-1,40	5,00

*Abweichung zwischen PLS Anzeigewert und Referenzwert

Konformität Prüfling ☒ Prüfling konform ☐ Prüfling nicht konform

Das Kalibrierzertifikat dokumentiert die Rückführbarkeit auf nationale Standards zur Darstellung der Einheiten in Übereinstimmung mit dem internationalen Einheitensystem (SI). Das Zertifikat darf nur vollständig veröffentlicht oder nachgedruckt werden. Die Konformitätsaussage bezieht sich ausschließlich auf die im Kalibrierzertifikat angegebene Prüfanweisung sowie die Prüfbedingungen und die in den Ergebnissen angegebenen Prüfpunkte. Eine Konformitätsaussage über die Einhaltung der Spezifikation erfolgt ohne Berücksichtigung der Messunsicherheit.

Kalibriertechniker Tim Ahlbach
Unterschrift

16.4.25



Druckdatum 28.04.2023

Auftraggeber: **DKM & KKB GmbH**
D-66482 Zweibrücken
Kalibriergegenstand: **Druck-Kalibrator**
Typ: **30 bar a / KI.0,05**
Hersteller: **Endres + Hauser**
Ident.-Nr.: **L80A830109C**
Kalibrierverfahren: **QMK 0241 / DIN EN 837**

Kalibrierschein-Nr.:
Certificate - No.:

01.25.019502

Seite 1 von 3

Auswertung

Nr.	Kalibriermerkmal Kalibrierschritt	Einh.	Sollwert	u. Tol. o. Tol.	Istwert	Abw.	Bewertung
1	• Sichtprüfung						verwendbar
2	• Funktionsprüfung						verwendbar
3	• Messwert 1 steigender Druck: in Druck	bar	3,000		3,000	0,000	
4	in Strom	mA	5,6000	-0,0080 +0,0080	5,5940	-0,0060	verwendbar
5	• Messwert 2 steigender Druck: in Druck	bar	6,000		6,000	0,000	
6	in Strom	mA	7,2000	-0,0080 +0,0080	7,1940	-0,0060	verwendbar
7	• Messwert 3 steigender Druck: in Druck	bar	9,000		9,000	0,000	
8	in Strom	mA	8,8000	-0,0080 +0,0080	8,7950	-0,0050	verwendbar
9	• Messwert 4 steigender Druck: in Druck	bar	12,000		12,000	0,000	
10	in Strom	mA	10,4000	-0,0080 +0,0080	10,3960	-0,0040	verwendbar
11	• Messwert 5 steigender Druck: in Druck	bar	15,000		15,000	0,000	
12	in Strom	mA	12,0000	-0,0080 +0,0080	11,9970	-0,0030	verwendbar

Bemerkung: as found data = as left data

Messunsicherheit (k=2): 0,02% vom Messwert

Temperatur: (20,0 ± 3,0) °C

rel. Luftfeuchte: (50 ± 20) %

Rückführung auf
nationale Normale:

Temp./Feuchte-Datenlogger / Testo 175H1 / Ident-Nr. 8331 / 0681 D-K-15024-01-00 2025-01
Druckwaage / DH-Budenberg BUD 580 HX / Ident-Nr. 6384 / D 21299 D-K-15105-01-00 2024-06
Multimeter / Hewlett Packard 34401A / Ident-Nr. 6150 / 1933 D-K-15024-01-00 2025-03
Druckmeßgerät / Druck Ltd. DPI 740 / Ident-Nr. 7626 / S19100 D-K-15055-01-00 2023-02

16.4.25



Auswertung: **einsatzfähig**

Hinweis: Die Auswertung wurde gemäß Kundenvereinbarung ohne Berücksichtigung der Messunsicherheit durchgeführt.

Kalibrierort: Im Hause DKM & KKB GmbH - Greenwichstraße 2 - D-66482 Zweibrücken

Datum : 27.03.2025

Bearbeiter: E. Müller

Unterschrift:

Dieser Kalibrierschein darf nur vollständig und unverändert weitergegeben werden. Kalibrierscheine ohne Unterschrift haben keine Gültigkeit.

Kalibrierschein-Nr.:
Certificate - No.:

01.25.019502

Seite 2 von 3

Nr.	Kalibriermerkmal Kalibrierschritt	Einh.	Sollwert	u. Tol. o. Tol.	Istwert	Abw.	Bewertung
13	• Messwert 6 steigender Druck: in Druck	bar	18,000		18,000	0,000	
14	in Strom	mA	13,6000	-0,0080 +0,0080	13,5980	-0,0020	verwendbar
15	• Messwert 7 steigender Druck: in Druck	bar	21,000		21,000	0,000	
16	in Strom	mA	15,2000	-0,0080 +0,0080	15,1980	-0,0020	verwendbar
17	• Messwert 8 steigender Druck: in Druck	bar	24,000		24,000	0,000	
18	in Strom	mA	16,8000	-0,0080 +0,0080	16,7990	-0,0010	verwendbar
19	• Messwert 9 steigender Druck: in Druck	bar	27,000		27,000	0,000	
20	in Strom	mA	18,4000	-0,0080 +0,0080	18,3990	-0,0010	verwendbar
21	• Messwert 10 steigender Druck: in Druck	bar	30,000		30,000	0,000	
22	in Strom	mA	20,0000	-0,0080 +0,0080	20,0000	0,0000	verwendbar
23	• Messwert 11 fallender Druck: in Druck	bar	30,000		30,000	0,000	
24	in Strom	mA	20,0000	-0,0080 +0,0080	20,0000	0,0000	verwendbar
25	• Messwert 12 fallender Druck: in Druck	bar	27,000		27,000	0,000	
26	in Strom	mA	18,4000	-0,0080 +0,0080	18,4000	0,0000	verwendbar
27	• Messwert 13 fallender Druck: in Druck	bar	24,000		24,000	0,000	
28	in Strom	mA	16,8000	-0,0080 +0,0080	16,8000	0,0000	verwendbar
29	• Messwert 14 fallender Druck: in Druck	bar	21,000		21,000	0,000	
30	in Strom	mA	15,2000	-0,0080 +0,0080	15,1990	-0,0010	verwendbar
31	• Messwert 15 fallender Druck: in Druck	bar	18,000		18,000	0,000	
32	in Strom	mA	13,6000	-0,0080 +0,0080	13,5980	-0,0020	verwendbar
33	• Messwert 16 fallender Druck: in Druck	bar	15,000		15,000	0,000	
34	in Strom	mA	12,0000	-0,0080 +0,0080	11,9970	-0,0030	verwendbar
35	• Messwert 17 fallender Druck: in Druck	bar	12,000		12,000	0,000	

Dieser Kalibrierschein darf nur vollständig und unverändert weitergegeben werden. Kalibrierscheine ohne Unterschrift haben keine Gültigkeit.

Kalibrierschein-Nr.:
Certificate - No.:

01.25.019502

Seite 3 von 3

Nr.	Kalibriermerkmal Kalibrierschritt	Einh.	Sollwert	u. Tol. o. Tol.	Istwert	Abw.	Bewertung
36	in Strom	mA	10,4000	-0,0080 +0,0080	10,3970	-0,0030	verwendbar
37	• Messwert 18 fallender Druck: in Druck	bar	9,000		9,000	0,000	
38	in Strom	mA	8,8000	-0,0080 +0,0080	8,7960	-0,0040	verwendbar
39	• Messwert 19 fallender Druck: in Druck	bar	6,000		6,000	0,000	
40	in Strom	mA	7,2000	-0,0080 +0,0080	7,1960	-0,0040	verwendbar
41	• Messwert 20 fallender Druck: in Druck	bar	3,000		3,000	0,000	
42	in Strom	mA	5,6000	-0,0080 +0,0080	5,5950	-0,0050	verwendbar

16.4.25



Dieser Kalibrierschein darf nur vollständig und unverändert weitergegeben werden. Kalibrierscheine ohne Unterschrift haben keine Gültigkeit.

- Ende des Kalibrierscheins -