

TAKE ADVANTAGE OF OUR KNOW HOW  
IN THEORY AND PRAXIS  
GATHERED IN MANY YEARS ON SITE

# Content:

- History
- Outline
- Capability
- Products



DIN EN ISO 9001

ZDH-ZERT GMBH CERTIFIES THAT THE ORGANIZATION



MARTIN SAMMLER GMBH & CO. KG  
FESSENSTR. 13  
65719 HOFHEIM

IN THE SCOPE OF

PRODUCTION, SELLING AND PERFORMING SERVICES FOR  
REPLACEMENT COMPONENTS SUITABLE FOR SINGLE STAGE  
HIGH SPEED CENTRIFUGAL PUMPS AND COMPRESSORS

HAS INTRODUCED AND APPLIES A QUALITY MANAGEMENT SYSTEM IN ACCORDANCE  
WITH THE FOLLOWING STANDARD:

**DIN EN ISO 9001:2015**

THE RESPECTIVE VERIFICATION WAS BROUGHT BY AN ASSESSMENT OF THE ORGANIZATION

CERTIFICATE VALID FROM 08.02.2021 07.02.2024

CERTIFICATE REGISTRATION NO.: 01.047158

Rev.: 10.02.2021

Dipl.-Ing. Peter Lepp  
Head of Certification Body



# HISTORY



- 2003 Set up in Frankfurt/Main Germany
- 2012 Move to Flörsheim/Weilbach
- 2019 Move to Hofheim am Taunus in new building

[click image for larger view](#)



# OUTLINE



- Headoffice & Service-Center

**M. SAMMLER GmbH & Co. KG**  
**Hessenstr. 13**  
**65719 Hofheim am Taunus**

- Area 1.000 square meters
- Contact

Phone: **+49 (0) 6122 - 7273 666**

FAX: **+49 (0) 6122 - 7273 667**

E-Mail: **INFO@SAMMLER-CS.DE**

- Internet

**[www.SAMMLER-CS.de](http://www.SAMMLER-CS.de)**



[click image for larger view](#)

# CAPABILITY



- Design and production of components suitable for Sundyne and Sunflo pumps and compressors
  - Technical competence
  - High degree of quality awareness
  - React quickly to specific customer needs
- Repair and maintenance works at Sundyne and Sunflo machinery in our service center
  - Permanent availability of key components such as gears, shafts, impellers, inducers, mechanical seals, etc...
  - Test bench for gearbox mechanical test run available!
- Field service
  - commissioning, start up, troubleshooting etc...

Quality

Stock

Service

click for more

# PRODUCTS



## Suitable for SUNFLO PUMPS

- HIGH SPEED SHAFT ASSEMBLIES - PUMP TYPE P-2000 or P-3000
- GEARBOX KITS - PUMP TYPE P-2000
- MECHANICAL SEALS - PUMP TYPE P-2000 or P-3000

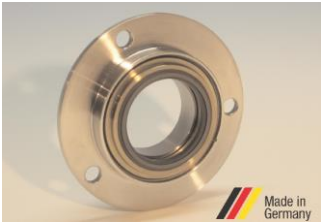
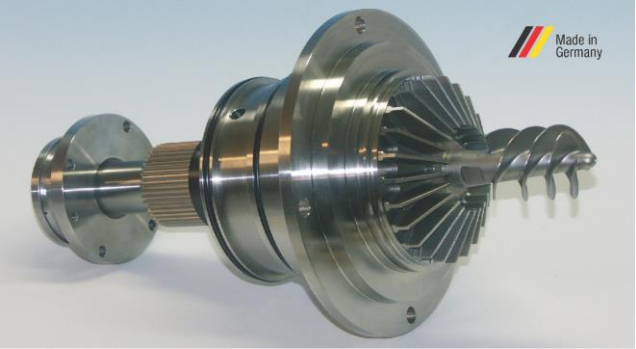
## Suitable for SUNDYNE PUMPS

- COMPLETE GEARBOX ASSEMBLIES for LMV-322 / 311 / 331 / 341
  - GEARBOX KITS - PUMP TYPE LMV- 322 / 311 / 331 / 341
  - ROTATING SEAL RINGS AND SHAFT SLEEVES
  - GEARBOX COMPACT SEAL - TYPE KPX
  - COMPACT SEAL - TYPE KPS
  - IMPELLERS, INDUCERS FOR LMV-322 / 311 / 331 / 341
- FURTHER COMPONENTS ON REQUEST

# PRODUCTS



Click on a picture for more informations.



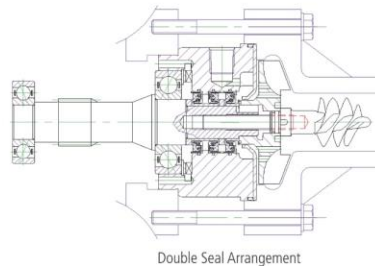
# HIGH SPEED SHAFT ASSEMBLIES PUMP TYPE P-2000



## High Speed Shaft Assemblies suitable for Sunflo Pump Type P-2000

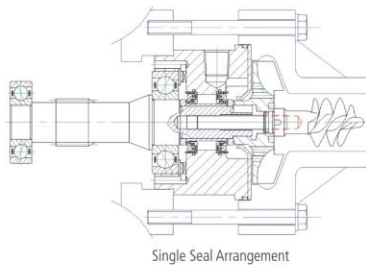


Complete high speed shaft assemblies from **sammler cs** suitable for Sunflo Pump type P-2000 allow a quick and easy exchange of defective units. Downtime of the pump is reduced to a minimum. All components meet the highest material and quality standards and are fully compatible with the original pump parts. Upon returning the failed high speed shaft assembly to **sammler cs** the customer gets a discount on the price of the new supplied unit. High speed shaft assemblies are available for 10.360, 12.263 and 14.227\* rpm.



### \*further pump speeds on request

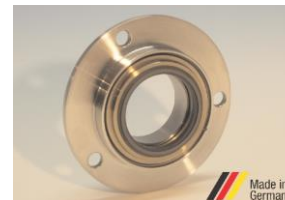
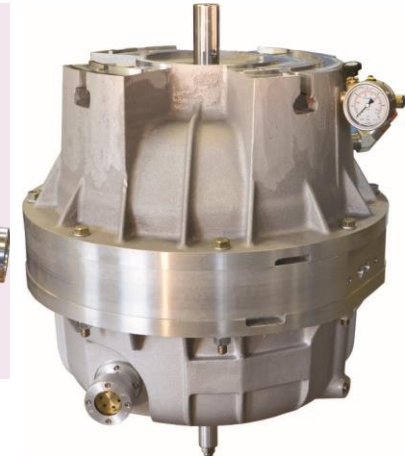
All components such as impellers, inducers, high speed shafts, seal housings, ball bearings, shaft sleeves, rotating seal rings, mechanical seals etc. are also available separately.



### Standard materials of construction

Seal housing, impeller, inducer, shaft sleeves, seal retainer etc.:	stainless steel
High speed shaft:	alloy steel
O-rings:	Viton, EP-rubber, Teflon

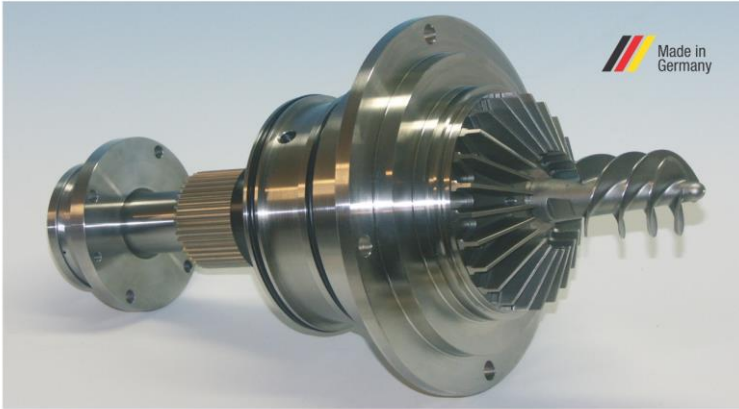
\* further materials on request



# HIGH SPEED SHAFT ASSEMBLIES PUMP TYPE P-3000



## High Speed Shaft Assemblies suitable for Sunflo Pump Type P-3000



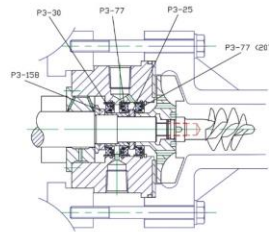
Complete high speed shaft assemblies from **sammler cs** suitable for Sunflo Pump type P-3000 allow a quick and easy exchange of defective units.

Downtime of the pump is reduced to a minimum. All components meet the highest material and quality standards and are fully compatible with the original pump parts. Upon returning the failed high speed shaft assembly to **sammler cs** the customer gets a discount on the price of the new supplied unit.

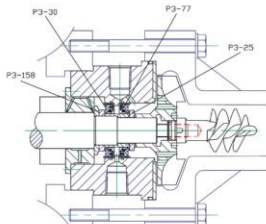
High speed shaft assemblies are available for pump speeds ranging from 7.700 to 17.500 rpm.

### \*further pump speeds on request

All components such as impellers, inducers, high speed shafts, seal housings, ball bearings, shaft sleeves, rotating seal rings, mechanical seals etc. are also available separately.



Double Seal Arrangement

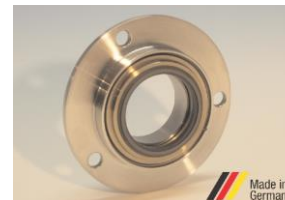


Single Seal Arrangement

### Standard materials of construction

Seal housing, impeller, inducer, shaft sleeves, seal retainer etc.:	stainless steel
High speed shaft:	alloy steel
O-rings:	Viton, EP-rubber, Teflon

\* further materials on request





# GEARBOX UNITS PUMP TYPE LMV-311 and LMV-322



Gearbox units suitable for Sundyne Pumps Type LMV-311 and LMV-322



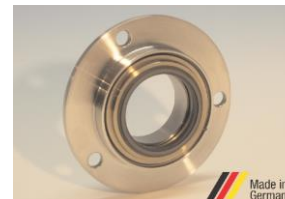
Completely pre-assembled and test bench tested gearbox units from **sammler cs** suitable for Sundyne Pumps type LMV-311 and LMV-322 allow a quick and easy exchange of defective gearbox units on site. Downtime of the pump is reduced to a minimum. All **sammler cs** gearbox components meet the highest material and quality standards and are fully compatible with the Sundyne original gearbox parts. Upon returning the failed gearbox to **sammler cs** the customer gets a discount on the price of the new supplied unit.



All components such as gearbox housings, shafts, gears and bearings etc. are also available separately.

#### Standard materials of construction

Gearbox housings:	Aluminium (high strength)
Shafts / Gears:	Alloy steel
Journal bearings:	Lead bronze
Gaskets:	Viton



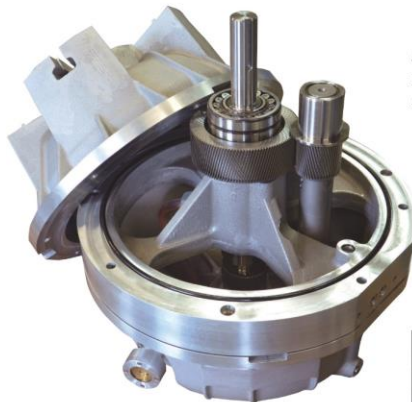
# GEARBOX UNITS PUMP TYPE LMV-331



## Gearbox unit suitable for Sundyne Pump Type LMV-331

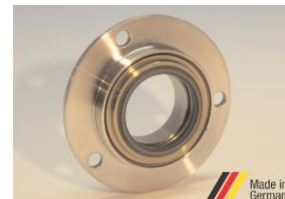
Completely pre-assembled and test bench tested gearbox units from **sammler cs** suitable for Sundyne Pump type LMV-331 allow a quick and easy exchange of defective gearbox units on site.

Downtime of the pump is reduced to a minimum. All **sammler cs** gearbox components meet the highest material and quality standards and are fully compatible with the Sundyne original gearbox parts. Upon returning the failed gearbox to **sammler cs** the customer gets a discount on the price of the new supplied unit.



All components such as gearbox housings, shafts, gears and bearings etc. are also available separately.

Standard materials of construction	
Gearbox housings:	Aluminium (high strength)
Shafts / Gears:	Alloy steel
Journal bearings:	Lead bronze
Gaskets:	Viton



# GEARBOX KITS PUMP TYPE LMV-311



## Gearbox Kits suitable for Sundyne Pump Type LMV-311



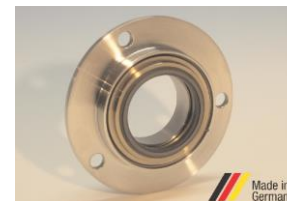
Complete gearbox kits from **sammler cs** suitable for Sundyne pump type LMV-311 allow a quick and easy overhaul of failed gearboxes. All single components produced by sammler cs meet the highest material and quality standards and are fully compatible with the original pump parts. Gears are hardened and precision ground and meet the requirements of AGMA (American Gear Manufacturer) quality class 11. Gearbox kits are available for pump speeds ranging from 6.859 rpm to 17.178 rpm\*.

### \* Further speeds on request

Overhauls can be carried out in our repair center or directly on site.

The following components which also can be ordered separately are included in the gearbox kit:

- Low speed shaft assembly (A120)
- Idler shaft assembly (A140)
- High speed shaft assembly (A130)
- Lube oil pump and spring (160 / 23A)
- Upper and lower journal bearing (151A/151B)
- Upper and lower axial thrust washer (155A/155B)
- Housing gasket (105)
- O-Ring (936T)
- Gearbox shaft seal (115)



# GEARBOX KITS

## PUMP TYPE LMV-322



### Gearbox Kits suitable for Sundyne Pump Type LMV-322

Complete gearbox kits from **sammler cs** suitable for Sundyne Pump type LMV-322 allow a quick and easy overhaul of failed gearboxes.

All single components produced by **sammler cs** meet the highest material and quality standards and are fully compatible with the original pump parts. Gears are hardened and precision ground and meet the requirements of AGMA (American Gear Manufacturer) quality class 11.

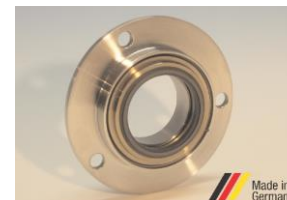
Gearbox kits are available for pump speeds ranging from 9.146 rpm to 14.227 rpm\*.

**\* further speeds on request**

Overhauls can be carried out in our repair center or directly on site.

The following components which also can be ordered separately are included in the gearbox kit:

- Low speed shaft assembly (A120)
- High speed shaft assembly (A130)
- Lube oil pump (160)
- Spring (23A)
- Upper and lower journal bearing (151A/151B)
- Upper and lower axial thrust washer (155A/155B)
- Housing gasket (105)
- O-Ring (936T)
- Gearbox shaft seal (115)



# ROTATING SEAL RINGS AND SHAFT SLEEVES



Shaft Sleeves and Rotating Seal Rings suitable for Sundyne Pumps



Made in Germany



For the mechanical seal arrangements single, tandem and double sammler cs offers a complete range of stainless steel shaft sleeves and tungsten carbide rotating seal rings suitable for Sundyne Pumps.



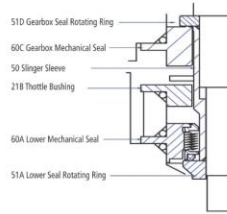
Made in Germany



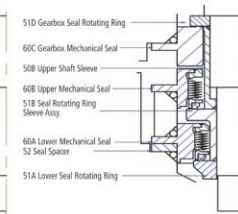
Made in Germany



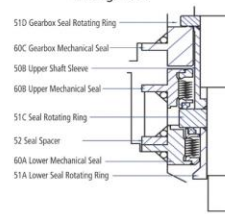
Single Seal Arrangement



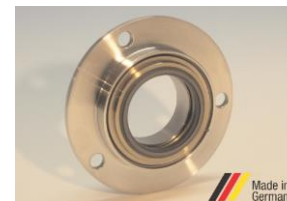
Tandem Seal Arrangement



Double Seal (Face to Face) Arrangement



Made in Germany



Made in Germany

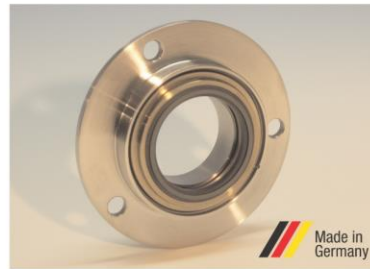


Made in Germany

# GEARBOX KITS COMPACT SEAL TYPE KPX



**Gearbox compact seal  
suitable for Sundyne Pumps**



The medium lubricated gearbox mechanical seal **type KPX** is specially designed for the application in Sundyne high speed centrifugal pumps. Identical dimensions with the original seals allow easy installation and interchangeability\*. Due to special design features the **KPX seal** can operate under reverse pressure thus providing maximum operating safety. Contamination and subsequent gearbox failure following a product entry due to a pump side mechanical seal collaps is excluded.

**Design features**

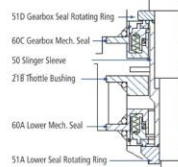
- Multi springs
- Bi-directional
- Reverse pressure capable

Seal designation:

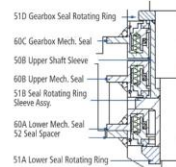
**KPX-381, gearbox compact seal (Pos. 60C)**



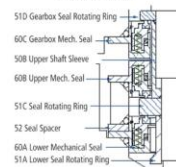
**Single Seal Arrangement**



**Tandem Seal Arrangement**



**Double Seal (Face to Face) Arrangement**



Operation limits	
Pressure:	max. 20barg
Temperature:	-50°C to + 180°C
Speed:	max. 22.000 rpm

Standard materials	
Seal face:	carbon antimony impr. in stainless steel body
Secondary seal:	Viton
Springs:	stainless steel
Seal retainer:	stainless steel

**further materials on request**

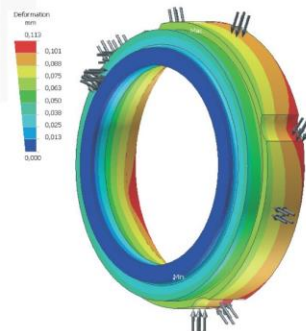
\* Due to its design **sammler cs** seal repair kits consisting of the stationary seal ring, the springs, the back up ring and the secondary seal fit in the original Sundyne mechanical seal retainer



# COMPACT SEAL



## Compact seal suitable for Sundyne Pumps



Deformation analysis of the stationary carbon ring at  $\Delta P$  20bar

The medium lubricated mechanical seal type KPS is specially designed for the application in Sundyne high speed centrifugal pumps. Identical main dimensions with the original seals allow easy installation and interchangeability\*. By applying the latest FE calculation methods the stationary carbon face is designed to provide superior sealing performance combined with high operating safety.

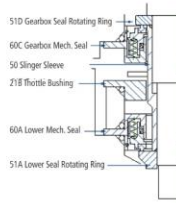
### Design features

- Multi springs
- Bi-directional
- Secondary seal: PTFE U-cup or Elastomer

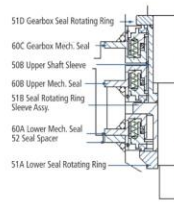
Two seal sizes are available:

- Type KPS-317: Lower seal (Pos. 60A)**
- Type KPS-381: Upper seal (Pos. 60B)**

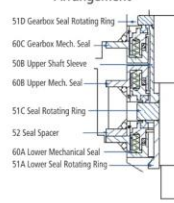
### Single Seal Arrangement



### Tandem Seal Arrangement



### Double Seal (Face to Face) Arrangement



### Operation limits

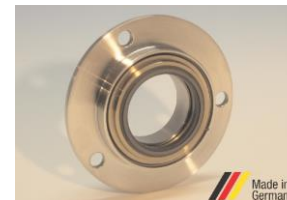
Temperature:	-50°C to +220°C
Pressure:	max. 45bar
Speed:	max. 22.000 rpm

### Standard materials

Seal face:	carbon resin impr.
Springs:	stainless steel
Seal retainer:	stainless steel
Secondary seal:	PTFE U-cup, Viton, EP-rubber etc.

### further materials on request

\* Due to its design **sammler cs** seal repair kits consisting of the stationary seal ring, the springs, the back up ring and the secondary seal fit in the original Sundyne mechanical seal retainer



# Headoffice & Service-Center



[click the picture to go back](#)





● ● ● | Stock



Back to  
CAPABILITY



# Stock



BACK

NEXT

# Stock



BACK

NEXT

# Stock



BACK

NEXT

# Stock



# SERVICES



NEXT



# SERVICES



BACK

NEXT

# SERVICES

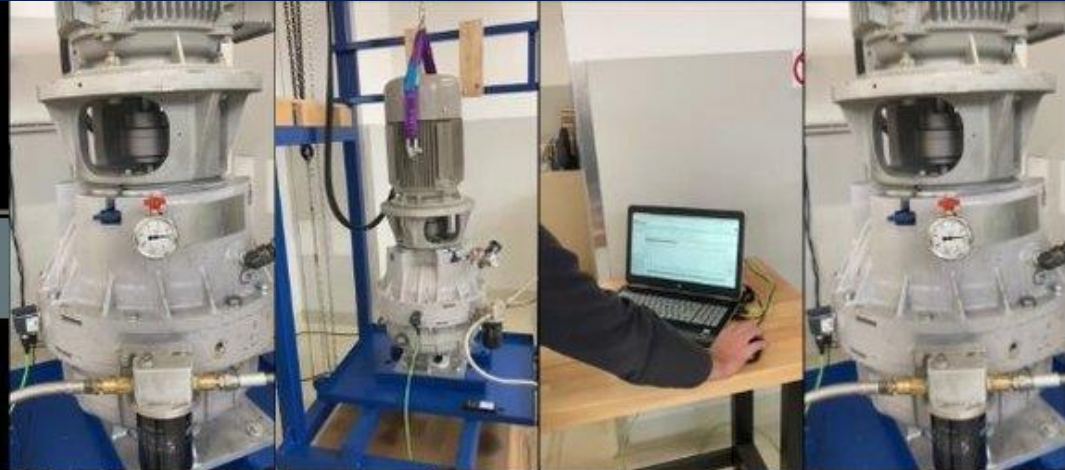
## Gearbox test run



**Mechanischer Testlauf 15.09.2021**  
**Getriebe LMV-331**  
**Sundyne S/N: 113729**  
**RPM 19000**

**Kunde: INEOS Solvents Germany**  
**GmbH - Werk Moers**

**Auftragsnr.: DCM4500843760-MLG**  
**Sammler-CS Ref. 946896**



BACK



NEXT



# SERVICES



BACK

NEXT

# SERVICES



BACK

NEXT

# SERVICES



BACK

CAPABILITY



# QUALITY

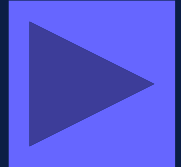
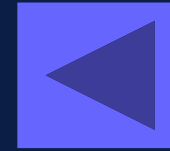


CAPABILITY

NEXT



# QUALITY



# QUALITY



Customer: [redacted] Order-No.: 24168

	actual size	size limit
A	0,002	0,012
B	0,002	0,012
C	0,002	0,012
X	0,002	0,01
Y	0,002	0,01
V	0,001	0,01
XY	//	0,01
d0	38,02	φ38,03 -0,03
d1	23,815	φ23,82 -0,03
l0	317,50	317,50 -0,3
l1	130,23	130,28 -0,1

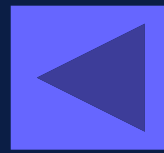
Date: 07.05.2020 Signature: [signature]

Martin Sammler GmbH & Co KG  
 Hohenheim 13 • 65719 Hohenheim • Tel. +49(0)6122 727 3663 •  
 Fax +49(0)178 789 1613 • www.sammler-cs.de • E-Mail: info@sammler-cs.de

Hochlauf 11 (Bemittel)  
 (Vorschalt, Hohenheim)  
 (HWE-3)  
 (Modell: oder Gussstück-31)

High speed shaft assy.  
 Inspection Sheet  
 02  
 MP-HWE-322-17-01-03

Name: [redacted]  
 Datum: [redacted]  
 Status: [redacted]  
 Zeichner: [redacted]  
 Gezeichnet: [redacted]  
 Prüfer: [redacted]  
 Fertiger: [redacted]



## Balancing report

**Balancing body:** High speed shaft assy. – A130  
 Sammler Part-No. HWE-311-75-01  
 Sundyne Ref. SH01BA01GS  
 Gear Ø 97,7mm with half key  
 Weight: 5,7 kg

**Customer / PO.:** Delta Equipment & Services / 24034  
**Sammler Ref.:** 920206

**Balancing grade:** G2,5 acc. to DIN ISO 1940 equals to  
 1,70 gmm / kg rotor mass at 14000 min<sup>-1</sup>

**Balancing speed:** 2000 min<sup>-1</sup>

**Balancing machine:** HK11 / MC7

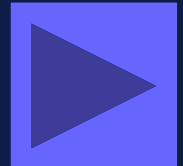
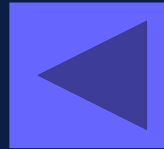
**Balancing mode:** two plane balancing

**Balancing body mandrel:** roller bearing

Part-no.	Initial balance gmm		Final balance gmm	
	Plane 1	Plane 2	Plane 1	Plane 2
01	41	46	< 1	< 1
02	37	31	< 1	< 1
03	41	34	< 1	< 1

Hohenheim, 03.02.2020  
 Peter Drienc

# QUALITY



# QUALITY



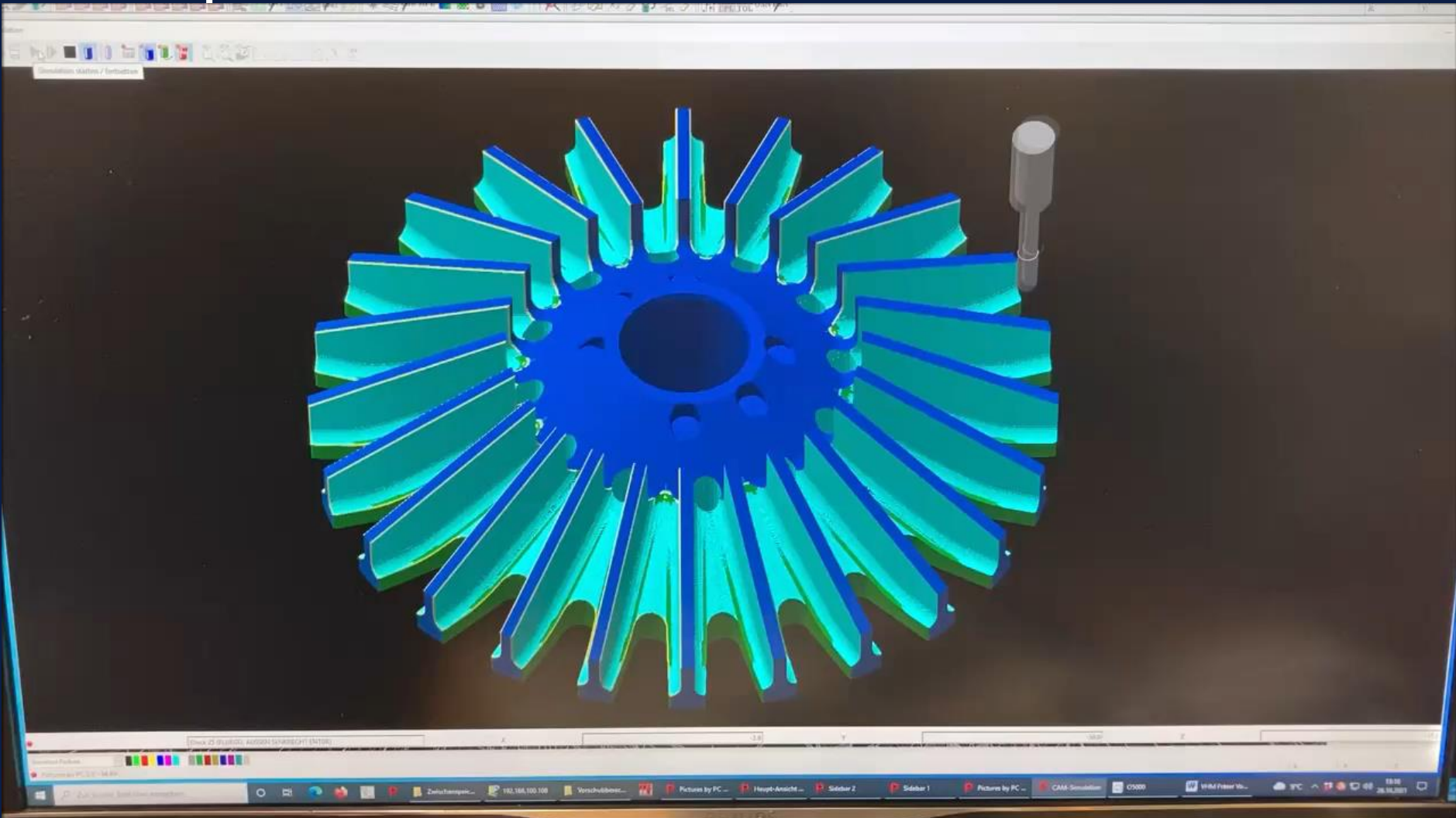
Production of inducer and profile measurement of helical gear



CAPABILITY



● ● ● | QUALITY



Production of impeller and diffuser



CAPABILITY

# QUALITY



Thyssen K-S

DESCRIPTION OF GOODS		INSPECTION CERTIFICATE		INVOICE NO: B71520002531K			
HOT ROLLED ROUND BARS		ACC. TO EN 10088EN - 1003 1-3		DATE: 2018-5-18			
GRADE	HEAT NO.	SIZE (Ø)	PCS	RDDS	WEIGHT (MT)	DELIVERY CONDITION	UT TEST: AS PER EN 15618, DIA R5200MM, CLASS 5, DIA R5200MM, CLASS 2
42CrMo54+QT	16313942218	75	8	80	18.020	HOT ROLLED, QUENCHED AND TEMPERED	PASSED
42CrMo54+QT	16313942218	75	2	17	3.882	HOT ROLLED, QUENCHED AND TEMPERED	PASSED
42CrMo54+QT	16313942218	80	5	52	12.280	HOT ROLLED, QUENCHED AND TEMPERED	PASSED
42CrMo54+QT	16313942218	85	5	40	10.170	HOT ROLLED, QUENCHED AND TEMPERED	PASSED

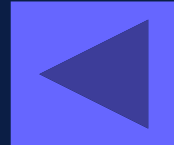
CHEMICAL ANALYSIS (%)																
C	Si	Mn	P	S	Cr	Ni	Mo	Al	Ca	REM	Cu	N	H (PPM)	O (PPM)	REDUCTION	HEAT-TREATMENT NO.
0.42	0.22	0.79	0.010	0.013	1.54	0.04	0.25	0.019	0.02	3.22	0.002	0.003	0.19	5	14.8	5617024
0.42	0.22	0.79	0.013	0.013	1.54	0.04	0.21	0.019	0.02	3.22	0.002	0.003	0.28	6	14.8	RS17027
0.42	0.22	0.79	0.014	0.014	1.54	0.04	0.21	0.020	0.02	3.22	0.002	0.003	0.42	9	12.0	6416039
0.42	0.21	0.78	0.012	0.012	1.53	0.04	0.20	0.025	0.02	2.94	0.005	0.011	0.39	8	12.3	2P16007

MECHANICAL PROPERTIES (SAMPLING FROM 12MM OF THE SURFACE)										GRANULES AN PER ASTM E112 & ISO 10692		TEMPERING TEMPERATURE °C		HARDNESS (HV)			MACROSTRUCTURE (GRADE) AS PER ASTM E333			NO-METALLIC INCLUSIONS ACC TO ISO 4957 A		
YIELD STRENGTH REL (MPa)	TENSILE STRENGTH (MPa)	ELONGAT (A) (%)	REDUCTION OF AREA Z (%)	IMPACT AKV(23°C) (J)	IMPACT AKV(20°C) (J)	IMPACT AKV(40°C) (J)	5	10	15	ADD TO EN 100692 (K10)-C10	A/B THICK	C/D THICK	DS									
507.647	1043.9025	16.017.0	42.63	8025.04	6626.56	2628.27	7	551.800	28226.286	1	1	1	0	1.00.31.00.5	AC0.45.6	0						
514.837	1027.087	15.011.9	53.54	3367.99	6020.90	6307.91	7	569.650	29202.295	1	1	1	0	1.00.31.00.5	AC0.45.6	0						
542.825	870.976	15.016.0	43.82	1100.18/19	7706.94	6048.64	7	599.400	27216.293	1	1	2	0	1.00.31.00.5	AC0.45.6	0.5						
604.079	1057.041	15.015.9	40.2	104.96/106	8709.99	7876.99	7	608.800	30821.335	1	2	1	0	1.00.31.00.5	AC0.45.6	0						

HARDENABILITY												REGIONAL MAGNETIC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
DISTANCE (MM)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
J1.5	J3	J5	J7	J9	J11	J13	J15	J17	J19	J21	J23	J25	J27	J29	J31	J33	J35	J37	J39	J41	J43	J45	J47	J49	J51	J53	J55	J57	J59	J61	J63	J65	J67	J69	J71	J73	J75	J77	J79	J81	J83	J85	J87	J89	J91	J93	J95	J97	J99	J101	J103	J105	J107	J109	J111	J113	J115	J117	J119	J121	J123	J125	J127	J129	J131	J133	J135	J137	J139	J141	J143	J145	J147	J149	J151	J153	J155	J157	J159	J161	J163	J165	J167	J169	J171	J173	J175	J177	J179	J181	J183	J185	J187	J189	J191	J193	J195	J197	J199	J201	J203	J205	J207	J209	J211	J213	J215	J217	J219	J221	J223	J225	J227	J229	J231	J233	J235	J237	J239	J241	J243	J245	J247	J249	J251	J253	J255	J257	J259	J261	J263	J265	J267	J269	J271	J273	J275	J277	J279	J281	J283	J285	J287	J289	J291	J293	J295	J297	J299	J301	J303	J305	J307	J309	J311	J313	J315	J317	J319	J321	J323	J325	J327	J329	J331	J333	J335	J337	J339	J341	J343	J345	J347	J349	J351	J353	J355	J357	J359	J361	J363	J365	J367	J369	J371	J373	J375	J377	J379	J381	J383	J385	J387	J389	J391	J393	J395	J397	J399	J401	J403	J405	J407	J409	J411	J413	J415	J417	J419	J421	J423	J425	J427	J429	J431	J433	J435	J437	J439	J441	J443	J445	J447	J449	J451	J453	J455	J457	J459	J461	J463	J465	J467	J469	J471	J473	J475	J477	J479	J481	J483	J485	J487	J489	J491	J493	J495	J497	J499	J501	J503	J505	J507	J509	J511	J513	J515	J517	J519	J521	J523	J525	J527	J529	J531	J533	J535	J537	J539	J541	J543	J545	J547	J549	J551	J553	J555	J557	J559	J561	J563	J565	J567	J569	J571	J573	J575	J577	J579	J581	J583	J585	J587	J589	J591	J593	J595	J597	J599	J601	J603	J605	J607	J609	J611	J613	J615	J617	J619	J621	J623	J625	J627	J629	J631	J633	J635	J637	J639	J641	J643	J645	J647	J649	J651	J653	J655	J657	J659	J661	J663	J665	J667	J669	J671	J673	J675	J677	J679	J681	J683	J685	J687	J689	J691	J693	J695	J697	J699	J701	J703	J705	J707	J709	J711	J713	J715	J717	J719	J721	J723	J725	J727	J729	J731	J733	J735	J737	J739	J741	J743	J745	J747	J749	J751	J753	J755	J757	J759	J761	J763	J765	J767	J769	J771	J773	J775	J777	J779	J781	J783	J785	J787	J789	J791	J793	J795	J797	J799	J801	J803	J805	J807	J809	J811	J813	J815	J817	J819	J821	J823	J825	J827	J829	J831	J833	J835	J837	J839	J841	J843	J845	J847	J849	J851	J853	J855	J857	J859	J861	J863	J865	J867	J869	J871	J873	J875	J877	J879	J881	J883	J885	J887	J889	J891	J893	J895	J897	J899	J901	J903	J905	J907	J909	J911	J913	J915	J917	J919	J921	J923	J925	J927	J929	J931	J933	J935	J937	J939	J941	J943	J945	J947	J949	J951	J953	J955	J957	J959	J961	J963	J965	J967	J969	J971	J973	J975	J977	J979	J981	J983	J985	J987	J989	J991	J993	J995	J997	J999



MANUFACTURER'S NAME: DONGSHI SPECIAL STEEL GROUP BOJIAN SPECIAL STEEL CO., LTD.  
 MANUFACTURER'S ADDRESS: NO.7 HONG AN STREET FULABELI QI QI HAR, HEILONGJIANG, CHINA.  
 ACC. TO EN 10088 Production Method EN 10088 1-3