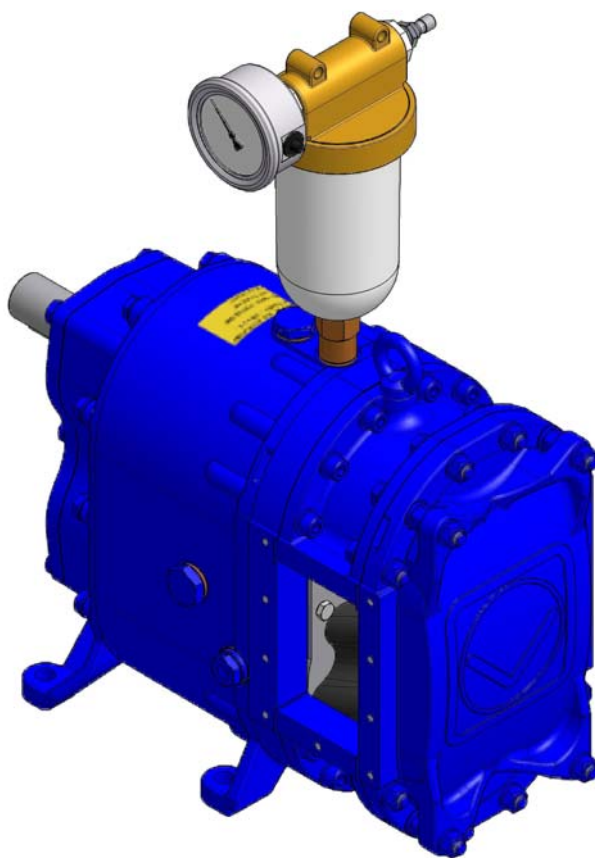


## Spare Parts List

### Rotary Lobe Pump V100QHD



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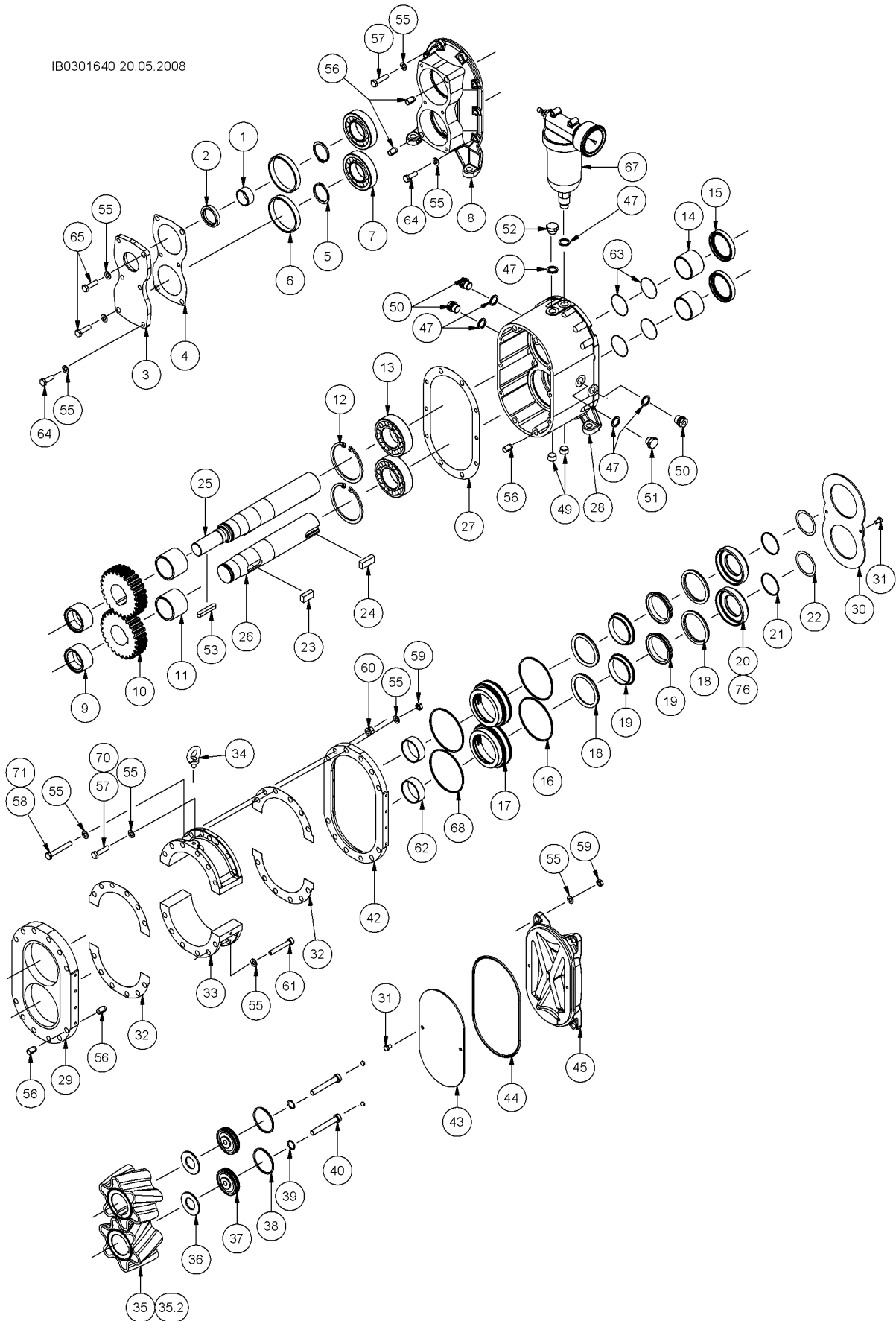


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Exploded view

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**Bearing/seal housing + accessories**  
Position 1-15

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
1	NIR.020	Sleeve	30 x 35 x 17			1	1	1	1
	NIR.027	Sleeve <sup>(7)</sup>	40 x 45 x 30	For hydraulic motor					
2	DWD.037	Lip seal	35 x 47 x 7			1	1	1	1
	DWD.073	Lip seal <sup>(7)</sup>	45 x 58 x 7	For hydraulic motor					
3	PFL.D001.TA	Bearing cover				1	1	1	1
	PFL.D001.TA.AL	Bearing cover		Aluminum					
	PFL.D001.T3	Bearing cover <sup>(7)</sup>		For hydraulic motor					
	PFL.D001.T4	Bearing cover		For electric motor					
4	DAD.D001	Gasket		Asbestos-free fiber material		1	1	1	1
5	NSR.016	Retaining ring	40 x 2,5	DIN 471		2	2	2	2
6	PRS.D005	Distance sleeve				2	2	2	2
7	NLG.031	Cylindrical roller bearing	40 x 80 x 18			2	2	2	2
8	PGP.D006	Bearing cover				1	1	1	1
	PGP.D006.AL	Bearing cover		Aluminum					
9	PRS.D003	Distance sleeve	41 x 50 x 25,5	Floating bearing		2	2	2	2
10	PZH.D005	Gear		b=30		2	2	2	2
	PZH.D005.T2	Gear		b=15; light version					
11	PRS.D002	Distance sleeve	45 x 53 x 4			2	2	2	2
12	NSR.003	Retaining ring	85 x 3			2	2	2	2
13	NLG.032	Spherical roller bearing	45 x 85 x 22			2	2	2	2
14	NIR.021	Inner ring	JR 45 x 50 x 35			2	2	2	2
15	DWD.066	Lip seal	50 x 65 x 10			2	2	2	2

<sup>(7)</sup> for hydraulic motor

**Mechanical seal**  
Position 16-21

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
16	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DOR.082.EP	O-ring	90 x 2.5	EPDM					
	DOR.082.VI	O-ring	90 x 2.5	FPM					
	DOR.082.PT	O-ring	90 x 2.5	Silicone FEP coated					
17	PRS.D014.N1	Seal holder				2	2	2	2
18	DOR.024.HNB	O-ring	58 x 7.5	HNBR		4 2*	4 2*	4 2*	4 2*
	DOR.024.VI	O-ring	58 x 7.5	FPM					
	DOR.024.SI	O-ring	58 x 7.5	Silicone; check resistance!					
19	DGL.D003.N1	Seal ring		Duronit <sup>(4)</sup>		4 2*	4 2*	4 2*	4 2*
	DGL.D003.SC	Seal ring		SiSiC					
	DGL.D003.K	Seal ring		Carbon					
20	PRS.D015.N1	Seal support				2 0*	2 0*	2 0*	2 0*
21	DOR.068	O-ring	45 x 2	NBR		2	2	2	2
22	NUS.033	Shim	45 x 55 x 0.3	DIN 988		2	2	2	2

\* Quantity block ring

<sup>(4)</sup> up to 10 bar [145 psi] real operating pressure

## Key

### Position 23-24

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
23	NPF.010	Key	B 14 x 9 x 28	DIN 6885		2	2	2	2
24	NPF.050	Key	B 14 x 9 x 20	DIN 6885		2	-	-	-
	NPF.022	Key	B 14 x 9 x 35	DIN 6885		-	2	-	-
	NPF.051	Key	B 14 x 9 x 63	DIN 6885		-	-	2	-
	NPF.013	Key	B 14 x 9 x 100	DIN 6885		-	-	-	2

## Motor-shaft

### Position 25-26

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
25	PWQ.D001.N1	Motor shaft	V100-45-ML20-Q HD	Long		1	-	-	-
	PWQ.D002.N1	Motor shaft	V100-64-ML20-Q HD	Long		-	1	-	-
	PWQ.D003.N1	Motor shaft	V100-90-ML20-Q HD	Long		-	-	1	-
	PWQ.D004.N1	Motor shaft	V100-128-ML20-Q HD	Long		-	-	-	1
25	PWQ.D005.N1.H	Hollow shaft <sup>(7)</sup>	V100-45-MH-Q HD			1	-	-	-
	PWQ.D006.N1.H	Hollow shaft <sup>(7)</sup>	V100-64-MH-Q HD			-	1	-	-
	PWQ.D007.N1.H	Hollow shaft <sup>(7)</sup>	V100-90-MH-Q HD			-	-	1	-
	PWQ.D008.N1.H	Hollow shaft <sup>(7)</sup>	V100-128-MH-Q HD			-	-	-	1
26	PWQ.D005.N1	Motor shaft	V100-45-MK-Q HD	Short		1	-	-	-
	PWQ.D006.N1	Motor shaft	V100-64-MK-Q HD	Short		-	1	-	-
	PWQ.D007.N1	Motor shaft	V100-90-MK-Q HD	Short		-	-	1	-
	PWQ.D008.N1	Motor shaft	V100-128-MK-Q HD	Short		-	-	-	1

<sup>(7)</sup> for hydraulic motor

## Gear housing and accessories

### Position 27-29

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
27	DAD.D002	Gasket		Asbestos-free gasket		1	1	1	1
28	PGP.D005.T2	Gear box housing				1	1	1	1
	PGP.D005.T2.AL	Gear box housing		Aluminum					
	PGP.D005.T3	Gear box housing		Sin feet					
29	PGP.D013	Seal housing				1	1	1	1
	PGP.D013.AL	Seal housing		Aluminum					

## Wear plate

### Position 30/ 31

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
30	PFL.D005	Wear plate				1	1	1	1
	PFL.D005.G	Wear plate		Hard-chromium-plated					
	PFL.D005.G1	Wear plate		Tungsten carbide coated					
	PFL.D020	Wear plate InjectionSystem							
	PFL.D020.G	Wear plate InjectionSystem		Hard-chromium-plated					
	PFL.D020.G1	Wear plate InjectionSystem		Tungsten carbide coated					
31	NSK.193.EE	Hex head screw	M6 x 10	DIN 933; stainless steel		4	4	4	4

### Gasket for pump housing segment

#### Position 32

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
32	DAD.D003	Gasket for pump housing segment		Asbestos-free gasket		4	4	4	4

### Pump housing segment

#### Position 33

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
33	PGP.D001	Pump housing segment	45			2	-	-	-
	PGP.D002	Pump housing segment	64			-	2	-	-
	PGP.D003	Pump housing segment	90			-	-	2	-
	PGP.D004	Pump housing segment	128			-	-	-	2
	PGP.D001.G	Pump housing segment	45	Hard-chromium-plated		2	-	-	-
	PGP.D002.G	Pump housing segment	64	Hard-chromium-plated		-	2	-	-
	PGP.D003.G	Pump housing segment	90	Hard-chromium-plated		-	-	2	-
	PGP.D004.G	Pump housing segment	128	Hard-chromium-plated		-	-	-	2
	PGP.D001.G1	Pump housing segment	45	Tungsten carbide coated		2	-	-	-
	PGP.D002.G1	Pump housing segment	64	Tungsten carbide coated		-	2	-	-
	PGP.D003.G1	Pump housing segment	90	Tungsten carbide coated		-	-	2	-
	PGP.D004.G1	Pump housing segment	128	Tungsten carbide coated		-	-	-	2
33	PGP.D020	Pump housing segment	45	Mild steel		2	-	-	-
	PGP.D021	Pump housing segment	64	Mild steel		-	2	-	-
	PGP.D022	Pump housing segment	90	Mild steel		-	-	2	-
	PGP.D023	Pump housing segment	128	Mild steel		-	-	-	2

### Pump housing segment Injection System

#### Position 33

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
33	PGP.D030	Pump housing segment InjectionSystem	45			2	-	-	-
	PGP.D031	Pump housing segment InjectionSystem	64			-	2	-	-
	PGP.D032	Pump housing segment InjectionSystem	90			-	-	2	-
	PGP.D033	Pump housing segment InjectionSystem	128			-	-	-	2
	PGP.D030.G	Pump housing segment InjectionSystem	45	Hard-chromium-plated		2	-	-	-
	PGP.D031.G	Pump housing segment InjectionSystem	64	Hard-chromium-plated		-	2	-	-
	PGP.D032.G	Pump housing segment InjectionSystem	90	Hard-chromium-plated		-	-	2	-
	PGP.D033.G	Pump housing segment InjectionSystem	128	Hard-chromium-plated		-	-	-	2
	PGP.D030.G1	Pump housing segment InjectionSystem	45	Tungsten carbide coated		2	-	-	-
	PGP.D031. G1	Pump housing segment InjectionSystem	64	Tungsten carbide coated		-	2	-	-
	PGP.D032. G1	Pump housing segment InjectionSystem	90	Tungsten carbide coated		-	-	2	-
	PGP.D033. G1	Pump housing segment InjectionSystem	128	Tungsten carbide coated		-	-	-	2

### Lifting eye bolt

#### Position 34

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
34	NMK.011	Lifting eye bolt	M8	DIN 580		1	1	1	1

### Rotary lobes HiFlo™ SBR

#### Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D101.TL	Rotary lobe	45; 6K15-L	SBR		1	-	2	-
	PKD.D101.TR	Rotary lobe	45; 6K15-R	SBR		1	-	2	-
	PKD.D111.TL	Rotary lobe	64; 6K15-L	SBR		-	1	-	2
	PKD.D111.TR	Rotary lobe	64; 6K15-R	SBR		-	2	-	4

### Rotary lobe HiFlo™ NBR

#### Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D102.TL	Rotary lobe	45; 6K15-L	NBR		1	-	2	-
	PKD.D102.TR	Rotary lobe	45; 6K15-R	NBR		1	-	2	-
	PKD.D112.TL	Rotary lobe	64; 6K15-L	NBR		-	1	-	2
	PKD.D112.TR	Rotary lobe	64; 6K15-R	NBR		-	1	-	2
35	PKD.D103.TL	Rotary lobe	45; 6K15-L	NBR white		1	-	2	-
	PKD.D103.TR	Rotary lobe	45; 6K15-R	NBR white		1	-	2	-
	PKD.D113.TL	Rotary lobe	64; 6K15-L	NBR white		-	1	-	2
	PKD.D113.TR	Rotary lobe	64; 6K15-R	NBR white		-	1	-	2

### Rotary lobes HiFlo™ EPDM

#### Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D110.TL	Rotary lobe	45; 6K15-L	EPDM-SL		1	-	2	-
	PKD.D110.TR	Rotary lobe	45; 6K15-R	EPDM-SL		1	-	2	-
	PKD.D120.TL	Rotary lobe	64; 6K15-L	EPDM-SL		-	1	-	2
	PKD.D120.TR	Rotary lobe	64; 6K15-R	EPDM-SL		-	1	-	2
35	PKD.D106.TL	Rotary lobe	45; 6K15-L	EPDM white		1	-	2	-
	PKD.D106.TR	Rotary lobe	45; 6K15-R	EPDM white		1	-	2	-
	PKD.D116.TL	Rotary lobe	64; 6K15-L	EPDM white		-	1	-	2
	PKD.D116.TR	Rotary lobe	64; 6K15-R	EPDM white		-	1	-	2

### Rotary lobes HiFlo™ FPM

#### Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D105.TL	Rotary lobe	45; 6K15-L	FPM <sup>(1)</sup>		1	-	2	-
	PKD.D105.TR	Rotary lobe	45; 6K15-R	FPM <sup>(1)</sup>		1	-	2	-
	PKD.D115.TL	Rotary lobe	64; 6K15-L	FPM <sup>(1)</sup>		-	1	-	2
	PKD.D115.TR	Rotary lobe	64; 6K15-R	FPM <sup>(1)</sup>		-	1	-	2

<sup>(1)</sup> max. 6 bar [87 psi], please pay attention to the admissible pressure of pump!

**Rotary lobes HiFlo™ WEROBUST**  
Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D108.TL	Rotary lobe	45; 6K15-L	WEROBUST <sup>(2)</sup>		1	-	2	-
	PKD.D108.TR	Rotary lobe	45; 6K15-R	WEROBUST <sup>(2)</sup>		1	-	2	-
	PKD.D118.TL	Rotary lobe	64; 6K15-L	WEROBUST <sup>(2)</sup>		-	1	-	2
	PKD.D118.TR	Rotary lobe	64; 6K15-R	WEROBUST <sup>(2)</sup>		-	1	-	2

<sup>(2)</sup> Attention! Usable up to 50°C medium temperature, only!

**Rotary lobes HiFlo™ CSM Hypalon**  
Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D107.TL	Rotary lobe	45; 6K15-L	CSM Hypalon		1	-	2	-
	PKD.D107.TR	Rotary lobe	45; 6K15-R	CSM Hypalon		1	-	2	-
	PKD.D117.TL	Rotary lobe	64; 6K15-L	CSM Hypalon		-	1	-	2
	PKD.D117.TR	Rotary lobe	64; 6K15-R	CSM Hypalon		-	1	-	2

**Rotary lobes two wings**  
Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D111.TR	Rotary lobe, two wings	64	SBR		-	1	-	2
	PKD.D001	Rotary lobe, two wings	45	SBR		2	-	4	-
	PKD.D002	Rotary lobe, two wings	45	NBR		2	-	-	-
	PKD.D012	Rotary lobe, two wings	64	NBR		-	2	-	-
	PKD.D022	Rotary lobe, two wings	90	NBR		-	-	2	-
	PKD.D032	Rotary lobe, two wings	128	NBR		-	-	-	2
	PKD.D002.F	Rotary lobe, two wings	45	NBR with thick rubber line		2	-	4	-
	PKD.D012.F	Rotary lobe, two wings	64	NBR with thick rubber line		-	2	-	4
	PKD.D002.W	Rotary lobe, two wings	45	NBR white		2	-	4	-
	PKD.D012.W	Rotary lobe, two wings	64	NBR white		-	2	-	4
	PKD.D003.SL	Rotary lobe, two wings	45	EPDM-SL		2	-	4	-
	PKD.D013.SL	Rotary lobe, two wings	64	EPDM-SL		-	2	-	4
	PKD.D003.W	Rotary lobe, two wings	45	EPDM white		2	-	4	-
	PKD.D013.W	Rotary lobe, two wings	64	EPDM white		-	2	-	4
	PKD.D004	Rotary lobe, two wings	45	FPM <sup>(1)</sup>		2	-	-	-
	PKD.D014	Rotary lobe, two wings	64	FPM <sup>(1)</sup>		-	2	-	4
	PKD.D024	Rotary lobe, two wings	90	FPM <sup>(1)</sup>		-	-	2	-
	PKD.D006	Rotary lobe, two wings	45	WEROBUST <sup>(2)</sup>		2	-	4	-
	PKD.D015	Rotary lobe, two wings	64	WEROBUST <sup>(2)</sup>		-	2	-	4

<sup>(1)</sup> max. 6 bar [87 psi], please pay attention to the admissible pressure of pump!

<sup>(2)</sup> Attention! Usable up to 50°C medium temperature, only!



### Pure material rotary lobes HiFlo™ / two wings

#### Position 35

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35	PKD.D109.TL	Rotary lobe	45; 6K15-L	C45 <sup>(3)</sup>		1	-	2	-
	PKD.D109.TR	Rotary lobe	45; 6K15-R	C45 <sup>(3)</sup>		1	-	2	-
	PKD.D119.TL	Rotary lobe	64; 6K15-L	C45 <sup>(3)</sup>		-	1	-	2
	PKD.D119.TR	Rotary lobe	64; 6K15-R	C45 <sup>(3)</sup>		-	1	-	2
	PKD.D007	Rotary lobe; two wings	45	C45 <sup>(3)</sup>		2	-	4	-
	PKD.D008	Rotary lobe; two wings	64	C45 <sup>(3)</sup>		-	2	-	4

<sup>(3)</sup> + O-ring for pure material lobe

### O-ring for pure material lobes

#### Position 35.2

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
35.2	DOR.043	O-ring <sup>(5)</sup>	64 x 4	NBR		See quantity of lobes			
	DOR.043.EP	O-ring <sup>(5)</sup>	64 x 4	EPDM					
	DOR.043.VI	O-ring <sup>(5)</sup>	64 x 4	FPM					
	DOR.043.PT	O-ring <sup>(5)</sup>	64 x 4	Silicon FEP coated					

<sup>(5)</sup> for pure material lobes

### Spare parts preloading

#### Position 36-40

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
36	NTF.004	Spring washer	50 x 25,4 x 3			2	2	2	2
37	PRS.D004	Pressure disk				2	2	2	2
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2

<sup>(5)</sup> for pure material lobes

### Cover flange

#### Pos. 42

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
42	PGP.D011.T1	Cover flange				1	1	1	1

### Wear plate

#### Position 43

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
43	PFL.D003	Wear plate				1	1	1	1
	PFL.D003.G	Wear plate		Hard-chromium-plated					
	PFL.D003.G1	Wear plate		Tungsten carbide coated					

## Cover and accessories

### Position 44-51

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
44	DOR.057	O-ring	188 x 4	NBR		1	1	1	1
	DOR.057.EP	O-ring	188 x 4	EPDM					
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					
45	PGP.D012	Cover plate				1	1	1	1
	PGP.D012.AL	Cover plate		Aluminum					
47	DKR.005	Copper ring	C 16 x 22 x 2	DIN 7603		6	6	6	6
49	NSK.120	Hex head screw plug	M16 x 1.5	DIN 906		2	2	2	2
50	NSK.081	Hex head screw plug	M16 x 1.5	DIN 910		3	3	3	3
51	NSK.088	Hex head screw plug	M16 x 1.5	Magnetic		1	1	1	1
52	NSK.137	Bleed screw	M16 x 1.5			1	1	1	1

## Accessories

### Position 53-65

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
53	NPF.020	Key	A 8 x 7 x 50	Motor shaft long		1	1	1	1
55	NUS.003	Washer	A 8.4 x 16 x 1.6	DIN 125		28 <sup>(6)</sup> 28 <sup>(6)</sup> 22 <sup>(7)</sup>	52 <sup>(6)</sup> 28 <sup>(6)</sup> 22 <sup>(7)</sup>	52 <sup>(6)</sup> 28 <sup>(6)</sup> 22 <sup>(7)</sup>	52 <sup>(6)</sup> 28 <sup>(6)</sup> 22 <sup>(7)</sup>
56	NSP.021	Dowel pin	11 x 18	DIN 7346		18	18	18	18
57	NSK.021	Hex head screw	M8 x 35	DIN 933		4 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>
58	NSK.148	Hex head screw	M8 x 60	DIN 933		0	4 <sup>(6)</sup> 0 <sup>(6)</sup>	4 <sup>(6)</sup> 0 <sup>(6)</sup>	4 <sup>(6)</sup> 0 <sup>(6)</sup>
59	NMS.002	Hex nut	M8	DIN 934-8		4 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>	12 <sup>(6)</sup> 4 <sup>(6)</sup>
60	PRS.D006	Distance nut	M8			4	4	4	4
61	NSI.067	Hex socket head cap screw	M8 x 55	DIN 912		0	12 <sup>(6)</sup> 0 <sup>(6)</sup>	12 <sup>(6)</sup> 0 <sup>(6)</sup>	12 <sup>(6)</sup> 0 <sup>(6)</sup>
62	PRS.D016	Distance sleeve				2	2	2	2
	PRS.D016.T1	Distance sleeve		For block ring					
63	DOR.081	O-ring	40 x 1	NBR		4	4	4	4
64	NSK.019	Hex head screw	M8 x 25	DIN 933		10 <sup>(7)</sup> 6 <sup>(7)</sup>	10 <sup>(7)</sup> 6 <sup>(7)</sup>	10 <sup>(7)</sup> 6 <sup>(7)</sup>	10 <sup>(7)</sup> 6 <sup>(7)</sup>
65	NSK.020	Hex head screw	M8 x 30	DIN 933		2 <sup>(7)</sup> 0 <sup>(7)</sup>	2 <sup>(7)</sup> 0 <sup>(7)</sup>	2 <sup>(7)</sup> 0 <sup>(7)</sup>	2 <sup>(7)</sup> 0 <sup>(7)</sup>

<sup>(7)</sup> for hydraulic motor

<sup>(6)</sup> Quantity for block ring

## Buffer chamber enlargement

### Position 67

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
67	PSG.014	Buffer fluid tank		Pressurized		1	1	1	1
	PSG.014.T1	Quenching fluid tank		Ventilated (Option)					
	PSV.002.N1	Pressure valve		(Option)					

## Accessories

### Position 68

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
68	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2

## Screws and accessories

### Position 70-71

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
70	NSK.049	Hex head screw	M8 x 100	DIN 931		8	-	-	-
	NSK.063	Hex head screw	M8 x 120	DIN 931		-	8	-	-
	NSK.190	Hex head screw	M8 x 150	DIN 931		-	-	8	-
	NSK.191	Hex head screw	M8 x 190	DIN 931		-	-	-	8
71	NGS.038	Set screw	M8 x 140	DIN 976		4	-	-	-
	NGS.087	Set screw	M8 x 160	DIN 976		-	4	-	-
	NGS.088	Set screw	M8 x 190	DIN 976		-	-	4	-
	NGS.089	Set screw	M8 x 230	DIN 976		-	-	-	4

## Block ring

### Position 76

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
76	DGL.D004.G1	Block ring		1.4301/ coated with tungsten carbide					
	DGL.D004.G2	Block ring		1.4301/ Cr2O3		2	2	2	2
	DGL.D004.E.G1	Block ring		1.4571/ coated with tungsten carbide					

## Screws and accessories

### Position 77-78

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
77	NSI.003	Hex socket head cap screw <sup>(7)</sup>	M8 x 20			4 <sup>(7)</sup>	4 <sup>(7)</sup>	4 <sup>(7)</sup>	4 <sup>(7)</sup>
78	NSI.048	Hex socket head cap screw <sup>(7)</sup>	M8 x 25			2 <sup>(7)</sup>	2 <sup>(7)</sup>	2 <sup>(7)</sup>	2 <sup>(7)</sup>

<sup>(7)</sup> for hydraulic motor

## Tools

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
	PBA.D001.TK.N1	Lobe puller		Short		x	x		
	PBA.D001.TL.N1	Lobe puller		Long		x	x	x	x
	PBA.D006	Installation tool for mechanical seal				x	x	x	x

## Material for connectors

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
	NGS.033	Set screw	M6 x 16,	DIN 939		20	20	24	24
	NMS.001	Hex nut	M6	DIN 934-8		20	20	24	24
	NUS.002	Washer	B 6. x 12 x 1.6	DIN 125		20	20	24	24
	PFL.350	Flange	45			2	-	-	-
	PFL.351	Flange	64			-	2	-	-
	PFL.352	Flange	90			-	-	2	-
	PFL.353	Flange	128			-	-	-	2
	DFD.350.P	Flange gasket	45	From 6 bar on		2	-	-	-
	DFD.351.P	Flange gasket	64	From 6 bar on		-	2	-	-
	DFD.352.P	Flange gasket	90	From 6 bar on		-	-	2	-
	DFD.353.P	Flange gasket	128	From 6 bar on		-	-	-	2

**Necessary spare parts for rotary lobe change**

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
24	NPF.050	Key	B 14 x 9 x 20	DIN 6885		2	-	-	-
	NPF.022	Key	B 14 x 9 x 35	DIN 6885		-	2	-	-
	NPF.051	Key	B 14 x 9 x 63	DIN 6885		-	-	2	-
	NPF.013	Key	B 14 x 9 x 100	DIN 6885		-	-	-	2
35		Rotary lobe		see page 7					
35.2	DOR.043	O-ring <sup>(5)</sup>	64 x 4	NBR		See quantity of lobes			
	DOR.043.EP	O-ring <sup>(5)</sup>	64 x 4	EPDM					
	DOR.043.VI	O-ring <sup>(5)</sup>	64 x 4	FPM					
	DOR.043.PT	O-ring <sup>(5)</sup>	64 x 4	Silicon FEP coated					
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2
44	DOR.057	O-ring	188 x 4	NBR		1	1	1	1
	DOR.057.EP	O-ring	188 x 4	EPDM					
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					

<sup>(5)</sup> for pure material lobes

**Necessary spare parts for seal change in case of mechanical sealing system HD arrangement**

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
16	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DOR.082.EP	O-ring	90 x 2.5	EPDM					
	DOR.082.VI	O-ring	90 x 2.5	FPM					
	DOR.082.PT	O-ring	90 x 2.5	Silicone FEP coated					
18	DOR.024.HNB	O-ring	58 x 7.5	HNBR		4	4	4	4
	DOR.024.VI	O-ring	58 x 7.5	FPM					
	DOR.024.SI	O-ring	58 x 7.5	Silicone; check resistance!					
19	DGL.D003.N1	Seal ring		Duronit <sup>(4)</sup>		4	4	4	4
	DGL.D003.SC	Seal ring		SiSiC					
	DGL.D003.K	Seal ring		Carbon					
20	PRS.D015.N1	Seal support				2	2	2	2
21	DOR.068	O-ring	45 x 2	NBR		2	2	2	2
22	NUS.033	Shim	45 x 55 x 0.3	DIN 988		2	2	2	2
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2
44	DOR.057	O-ring	188 x 4	NBR		1	1	1	1
	DOR.057.EP	O-ring	188 x 4	EPDM					
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					
68	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2

<sup>(4)</sup> up to 10 bar [145 psi] real operating pressure

**Necessary spare parts for seal change in case of mechanical sealing system block ring:**

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
16	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DOR.082.EP	O-ring	90 x 2.5	EPDM					
	DOR.082.VI	O-ring	90 x 2.5	FPM					
	DOR.082.PT	O-ring	90 x 2.5	Silicone FEP coated					
18	DOR.024.HNB	O-ring	58 x 7.5	HNBR		2	2	2	2
	DOR.024.VI	O-ring	58 x 7.5	FPM					
	DOR.024.SI	O-ring	58 x 7.5	Silicone; check resistance!					
19	DGL.D003.N1	Seal ring		Duronit <sup>4</sup>		2	2	2	2
	DGL.D003.SC	Seal ring		SiSiC					
	DGL.D003.K	Seal ring		Carbon					
21	DOR.068	O-ring	45 x 2	NBR		2	2	2	2
22	NUS.033	Shim	45 x 55 x 0.3	DIN 988		2	2	2	2
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2
44	DOR.057	O-ring	188 x 4	NBR		1	1	1	1
	DOR.057.EP	O-ring	188 x 4	EPDM					
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					
68	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
76	DGL.D004.G1	Block ring		1.4301/ coated with tungsten carbide		2	2	2	2
	DGL.D004.G2	Block ring		1.4301/ Cr2O3					
	DGL.D004.E.G1	Block ring		1.4571/ coated with tungsten carbide					

<sup>4</sup> up to 10 bar [145 psi] real operating pressure

**Necessary spare parts for wear and tear repair with mechanical sealing system HD arrangement**

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
16	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DOR.082.EP	O-ring	90 x 2.5	EPDM					
	DOR.082.VI	O-ring	90 x 2.5	FPM					
	DOR.082.PT	O-ring	90 x 2.5	Silicone FEP coated					
18	DOR.024.HNB	O-ring	58 x 7.5	HNBR		4	4	4	4
	DOR.024.VI	O-ring	58 x 7.5	FPM					
	DOR.024.SI	O-ring	58 x 7.5	Silicone; check resistance!					
19	DGL.D003.N1	Seal ring		Duronit <sup>(4)</sup>		4	4	4	4
	DGL.D003.SC	Seal ring		SiSiC					
	DGL.D003.K	Seal ring		Carbon					
20	PRS.D015.N1	Seal support				2	2	2	2
21	DOR.068	O-ring	45 x 2	NBR		2	2	2	2
22	NUS.033	Shim	45 x 55 x 0.3	DIN 988		2	2	2	2
24	NPF.050	Key	B 14 x 9 x 20	DIN 6885		2	-	-	-
	NPF.022	Key	B 14 x 9 x 35	DIN 6885		-	2	-	-
	NPF.051	Key	B 14 x 9 x 63	DIN 6885		-	-	2	-
	NPF.013	Key	B 14 x 9 x 100	DIN 6885		-	-	-	2
30	PFL.D005	Wear plate				1	1	1	1
	PFL.D005.G	Wear plate		Hard-chromium-plated					
	PFL.D005.G1	Wear plate		Tungsten carbide coated					
	PFL.D020	Wear plate InjectionSystem							
	PFL.D020.G	Wear plate InjectionSystem		Hard-chromium-plated					
	PFL.D020.G1	Wear plate InjectionSystem		Tungsten carbide coated					
31	NSK.193.EE	Hex head screw	M6 x 10	DIN 933; stainless steel		4	4	4	4
32	DAD.D003	Gasket for pump housing segment		Asbestos-free gasket		4	4	4	4
35		Rotary lobe		see page 7					
35.2	DOR.043	O-ring <sup>(5)</sup>	64 x 4	NBR		See quantity of lobes			
	DOR.043.EP	O-ring <sup>(5)</sup>	64 x 4	EPDM					
	DOR.043.VI	O-ring <sup>(5)</sup>	64 x 4	FPM					
	DOR.043.PT	O-ring <sup>(5)</sup>	64 x 4	Silicon FEP coated					
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2

<sup>(4)</sup> up to 10 bar [145 psi] real operating pressure

<sup>(5)</sup> for pure material lobes

Continuation see next page

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
43	PFL.D003	Wear plate							
	PFL.D003.G	Wear plate		Hard-chromium-plated		1	1	1	1
	PFL.D003.G1	Wear plate		Tungsten carbide coated					
44	DOR.057	O-ring	188 x 4	NBR					
	DOR.057.EP	O-ring	188 x 4	EPDM		1	1	1	1
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					
68	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DFD.350.P	Flange gasket	45	From 6 bar on		2	-	-	-
	DFD.351.P	Flange gasket	64	From 6 bar on		-	2	-	-
	DFD.352.P	Flange gasket	90	From 6 bar on		-	-	2	-
	DFD.353.P	Flange gasket	128	From 6 bar on		-	-	-	2



**Necessary spare parts for wear and tear repair with mechanical sealing system block ring**

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
16	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
	DOR.082.EP	O-ring	90 x 2.5	EPDM					
	DOR.082.VI	O-ring	90 x 2.5	FPM					
	DOR.082.PT	O-ring	90 x 2.5	Silicone FEP coated					
18	DOR.024.HNB	O-ring	58 x 7.5	HNBR		2	2	2	2
	DOR.024.VI	O-ring	58 x 7.5	FPM					
	DOR.024.SI	O-ring	58 x 7.5	Silicone; check resistance!					
19	DGL.D003.N1	Seal ring		Duronit <sup>(4)</sup>		2	2	2	2
	DGL.D003.SC	Seal ring		SiSiC					
	DGL.D003.K	Seal ring		Carbon					
21	DOR.068	O-ring	45 x 2	NBR		2	2	2	2
22	NUS.033	Shim	45 x 55 x 0.3	DIN 988		2	2	2	2
24	NPF.050	Key	B 14 x 9 x 20	DIN 6885		2	-	-	-
	NPF.022	Key	B 14 x 9 x 35	DIN 6885		-	2	-	-
	NPF.051	Key	B 14 x 9 x 63	DIN 6885		-	-	2	-
	NPF.013	Key	B 14 x 9 x 100	DIN 6885		-	-	-	2
30	PFL.D005	Wear plate				1	1	1	1
	PFL.D005.G	Wear plate		Hard-chromium-plated					
	PFL.D005.G1	Wear plate		Tungsten carbide coated					
	PFL.D020	Wear plate InjectionSystem							
	PFL.D020.G	Wear plate InjectionSystem		Hard-chromium-plated					
	PFL.D020.G1	Wear plate InjectionSystem		Tungsten carbide coated					
31	NSK.193.EE	Hex head screw	M6 x 10	DIN 933; stainless steel		4	4	4	4
32	DAD.D003	Gasket for pump housing segment		Asbestos-free gasket		4	4	4	4
35		Rotary lobe		see page 7					
35.2	DOR.043	O-ring <sup>(5)</sup>	64 x 4	NBR		See quantity of lobes			
	DOR.043.EP	O-ring <sup>(5)</sup>	64 x 4	EPDM					
	DOR.043.VI	O-ring <sup>(5)</sup>	64 x 4	FPM					
	DOR.043.PT	O-ring <sup>(5)</sup>	64 x 4	Silicon FEP coated					
38	DOR.056	O-ring	50 x 3	NBR		2	2	2	2
	DOR.056.EP	O-ring	50 x 3	EPDM					
	DOR.056.VI	O-ring	50 x 3	FPM					
	DOR.056.PT	O-ring	50 x 3	Silicone FEP coated					
39	DOR.055	O-ring	16 x 2	NBR		2	2	2	2
	DOR.055.EP	O-ring	16 x 2	EPDM					
	DOR.055.VI	O-ring	16 x 2	FPM					
	DOR.055.PT	O-ring	16 x 2	Silicone FEP coated					
40	NSI.099	Hex socket head cap screw	M10 x 70	Installation from pump-no. 016400 on		2	2	2	2
	NSI.036	Hex socket head cap screw	M10 x 25	Previous design					
41	NST.030	Plug		Silicone		2	2	2	2

<sup>(4)</sup> up to 10 bar [145 psi] real operating pressure

<sup>(5)</sup> for pure material lobes

Continuation see next page

Pos.	Part number	Description	Dimensions	Note	Qty.	45	64	90	128
43	PFL.D003	Wear plate							
	PFL.D003.G	Wear plate		Hard-chromium-plated		1	1	1	1
	PFL.D003.G1	Wear plate		Tungsten carbide coated					
44	DOR.057	O-ring	188 x 4	NBR					
	DOR.057.EP	O-ring	188 x 4	EPDM		1	1	1	1
	DOR.057.VI	O-ring	188 x 4	FPM					
	DOR.057.PT	O-ring	188 x 4	Silicone FEP coated					
68	DOR.082	O-ring	90 x 2.5	NBR		2	2	2	2
76	DGL.D004.G1	Block ring		1.4301/ coated with tungsten carbide					
	DGL.D004.G2	Block ring		1.4301/ Cr2O3		2	2	2	2
	DGL.D004.E.G1	Block ring		1.4571/ coated with tungsten carbide					
	DFD.350.P	Flange gasket	45	From 6 bar on		2	-	-	-
	DFD.351.P	Flange gasket	64	From 6 bar on		-	2	-	-
	DFD.352.P	Flange gasket	90	From 6 bar on		-	-	2	-
	DFD.353.P	Flange gasket	128	From 6 bar on		-	-	-	2

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