

CL4-13, Drawing: 0 14135

Cold End

1	-			Motor shaft end	
2	4			Socket set screw M5 x 10	
3	2			Slinger disc	
4	1			Distance-ring	
5	2			Elbow union Ø 6 - M10 x 1	
6	1			Purge chamber	
7	4			Spring washer M5	
8	4			Socket head cap screw M5 x 16	
9	4			Hexagon cap screw M12 x 50	
10	4			Split lock washer M12	
11	4			Hexagon nut M12	
12	1			Shaft	
13	1			Support	
14	8			Hexagon cap screw M12 x 50	
15	8			Strain washer M12	
16	1	1	1	Labyrinth-holder complete	
17	1		1	Labyrinth-wheel	
18	1	1	2	O-Ring Ø 38 x 3	
19	1	1	2	Seal washer Ø 65 x 45 x 0,2	
20	1		1	Labyrinth-bushing	
21	1		1	Labyrinth wheel	
22	8			Socket head cap screw M5 x 16	
23	8			Strain washer M5	
24	1			Labyrinth-cover	
25	4			Socket head cap screw M6 x 35	
26	4			Strain washer M6	
27	1			Cover-bushing	
28	4			Socket head cap screw M5 x 12	
29	4			Spring washer M5	
30	1			Coupling	
31	1			Adjusting nut	
32	1			Press nut	
33	1			Socket head cap screw M8 x 25	
				Nomenclature	Material
				Recommended Spare Parts	Rev: Date:
				Required Spare Parts	0 18.05.2005
				Parts per Unit	
				Item-No.	

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34	3			Socket head cap screw M5 x 16	
35	3			Strain washer M5	
36	2			Key A8 x 7 x 32	
37	4			Key A5 x 5 x 32	
38	1			Spring tension pin Ø 5 x 20	
39	1			Pump cover	
40	4			Spring washer Ø 33 x 24.5 x 2	
41	1			Press-bushing	
42	1			Inducer	
43	4			Impeller	
44	1			Suction lid	
45	1	1	1	Shim Ø 155 x 144 x 3	
46	4	4	4	Wear-ring Ø 70	
47	4	4	4	Wear-ring Ø 86	
48	6	6	6	Metallic O-Ring Ø 146 x 1,6	
49	1	1	1	Axial seal type AVI 165,4 x 156 x 3,07	
50	16			Socket set screw M4 x 10	
51	3			Bushing	
52	6			Key B5 x 5 x 28	
53	3	1	3	Shim 30 x 24 x 1	
54	3			Shaft sleeve	
55	3	3	3	DU-B-bushing Ø 34 x 30 x 30	
56	2			Key B5 x 5 x 20	
57	3			Diffusor 1	
58	24			Strain washer M5	
59	24			Circlip Ø 11,8 x 1	
60	24			Socket head cap screw M5 x 40	
61	3			Intermediate casing	
62	6	2	6	Shim Ø 30 x 24 x 1	
63	1			Impeller cap	
64	1			Strain washer M8	
65	1			Socket head cap screw M8 x 45	
66	1			Safety screw M16 x 1	
Nomenclature					Material
Recommended Spare Parts					Rev: 0
Required Spare Parts					Date: 18.05.2005
Parts per Unit					
Item-No.					

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67	1			Circlip Ø 16 x 1	
68	1			Diffusor 2	
69	1			End-cover	
70	1			Pump casing	
71	8			Flat socket head cap screw M6 x 16	
72	1m	2m	10m	Seal-cord 3 x 1,5 x approx. 0.80m	
73	1			Insulation plate	
74	1			Ring	
75	8			Socket head cap screw M5 x 25	
76	16			Washer M5	
77	8			Hexagon nut M5	
78	1			Hood	
79	2m	4m	10m	Seal-cord 3 x 1,5 x approx. 2m	
80	3			Socket head cap screw M6 x 40	
81	3			Washer M6	
82	3			Hexagon nut M6	
83	1			Nipple Ø 1/8" x 50	
84	1			Double nipple Ø 1/4" x 90	
85	1			Union female Ø 12 - 1/4"	
86	2			Adjustable elbow union Ø 12	
87	4			Male adaptor union Ø 6 - M10 x1	
88	12			Hexagon cap screw M8 x 30	
89	1	1	2	Seal washer Ø 126 x 90 x 0,2	
90	-				
91	-				
92	-				
93	-				
94	2			Cable gland M12 x 1,5	optional
95	4			Compression segment	
96	1			Gasket Ø 600 x 560 x 1,5	
97	4			Panel mount elbow union Ø 6	
98	1			Panel mount elbow union Ø 12	
99	1			Panel mount union Ø 12	
Nomenclature					Material
Recommended Spare Parts					Rev: 0
Required Spare Parts					Date: 18.05.2005
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100	1		Male adaptor union Ø 12 - 3/8"	
101	-			
102	1		L-union Ø 6 - 1/4"	
103	1		Tube adaptor Ø 1/4" - 3/8"	
104	1		Elbow union Ø 12 - 3/8"	
105	1		Cable gland M12 x 1,5	optional
106	1		Hexagon nut M12 x 1,5 for cable gland	optional
107	1		Panel mount union Ø 6	
108	1		Male adaptor Ø 1/4" - 3/8"	
109	1		Male adaptor elbow union Ø 6 - 1/4"	
110	1		Plug Ø 1/8"	
111	1		Seal washer Ø 13.5 x 10 x 1	
112	1		Socket set screw M6 x 8	
113	1		Copper disc Ø 4,5 x 2	
114	4		Washer M12	
115	1		Plug Ø 6	
116	1		Support for RTD's	optional
117	2		Socket head cap screw M6 x 12	optional
118	2		Split lock washer M6	optional
119	1		Temperature probe union Ø 6 - M10 x 1	optional
120	1		RTD's for seal leakage detection	optional
121	1		RTD's for cool down survey	optional
122	1		Hex. cap screw M10 x 20 (on motor shaft fan side)	
			Nomenclature	Material
			Recommended Spare Parts	Rev:
			Required Spare Parts	Date:
			Parts per Unit	0
			Item-No.	18.05.2005

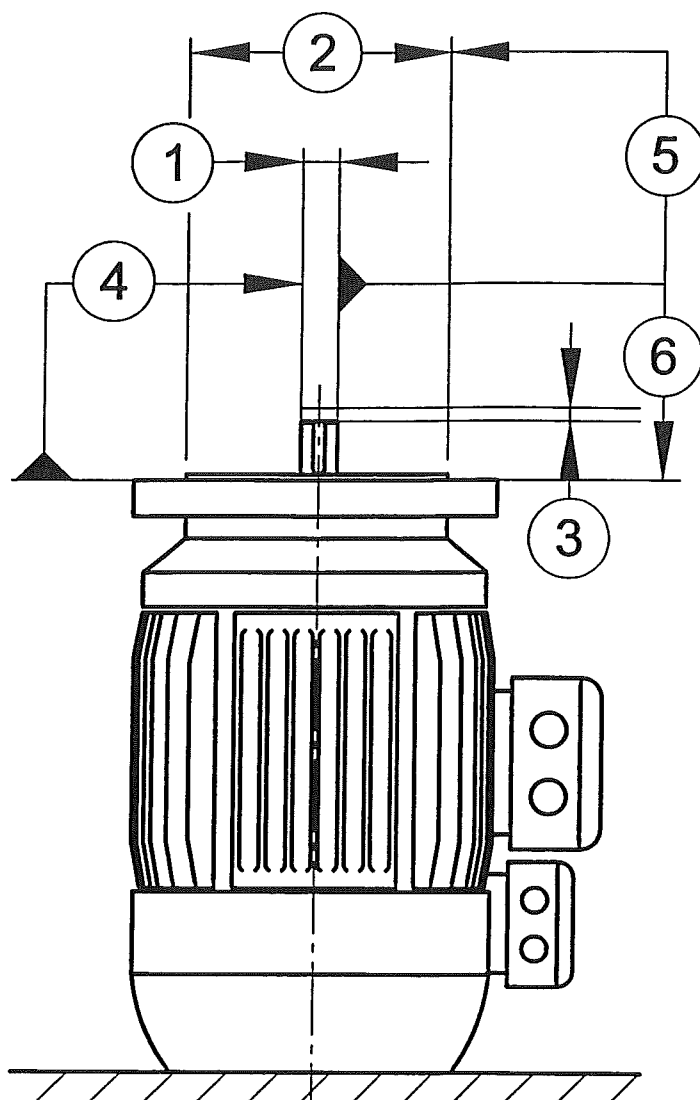
Motor Nr. / No. Moteur

Pumpe Nr. / Pump nr. / No. pompe

Ref.

A

Motor / Moteur

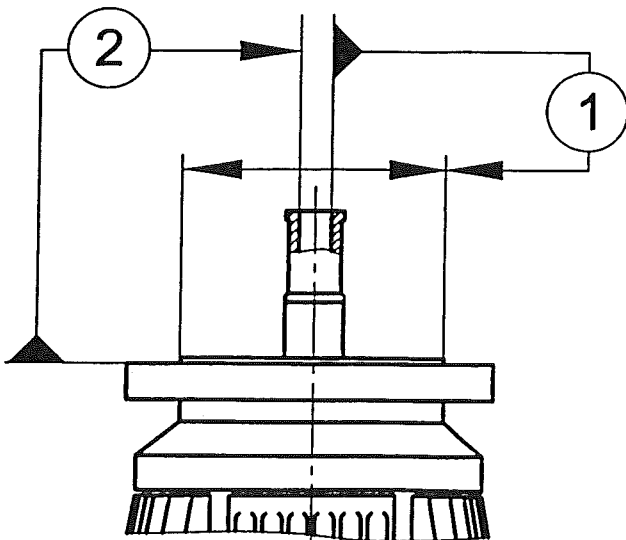


Motor senkrecht / Motor in a vertical position /
Moteur en position verticale

	min.	max.	gemessen measured mesuré
1	25.002	25.015	
2	179.988	180.013	
3	—	—	
4	—	0.015	
5	—	0.020	
6	—	0.030	

B

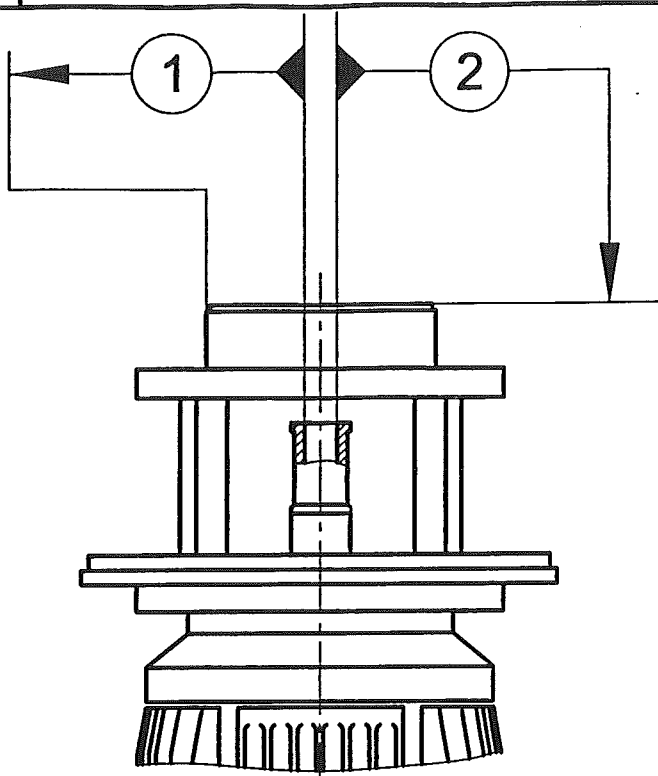
Kupplung / Shaft connection / Accouplement



	min.	max.	gemessen measured mesuré
1	—	0.025	
2	—	0.020	

C

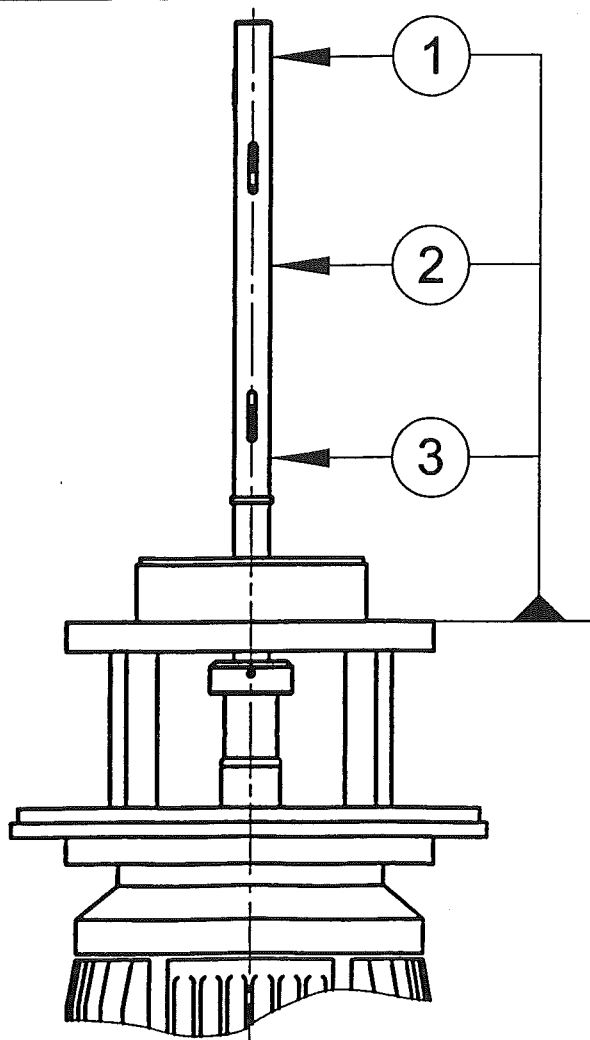
Support-Kupplung / Support-Shaft connection / Support-Accouplement



	min.	max.	gemessen measured mesuré
1	–	0.050	
2	–	0.050	

D

Pumpenwelle / Pump-Shaft / Arbre pompe



	min.	max.	gemessen measured mesuré
1	–	0.060	
2	–	0.060	
3	–	0.060	

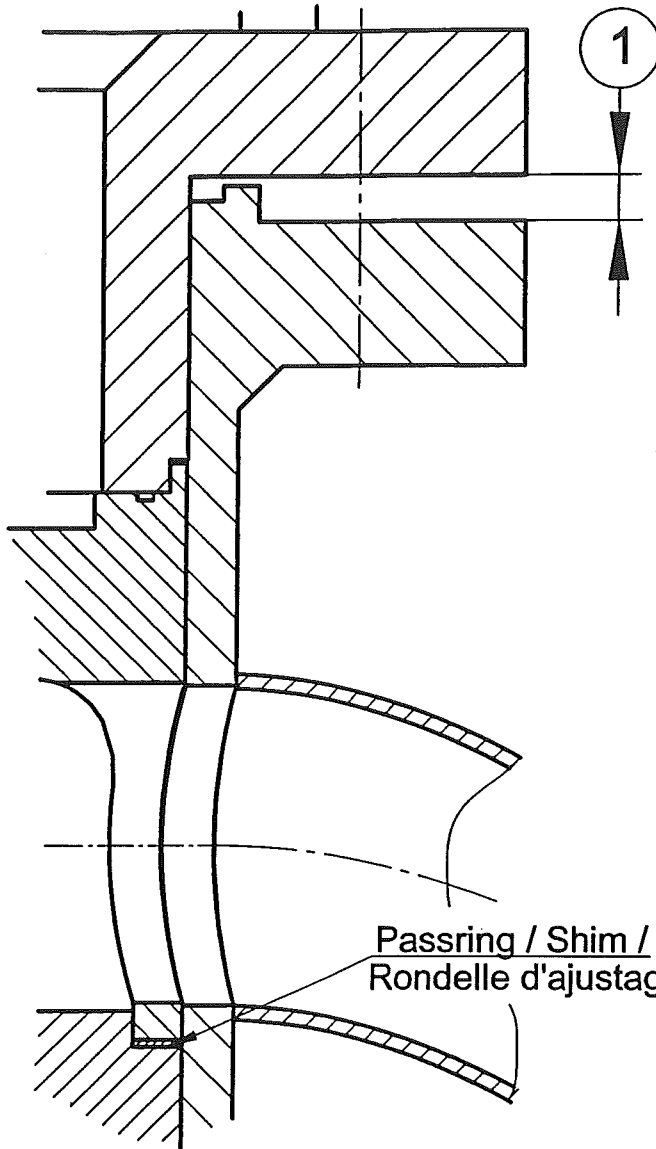
Motor Nr. / No. Moteur

Pumpe Nr. / Pump nr. / No. pompe

Ref. .

E

Gehäuseteile / Casing parts / Corps de pompe



	min.	max.	gemessen measured mesuré
1	6.1	6.2	

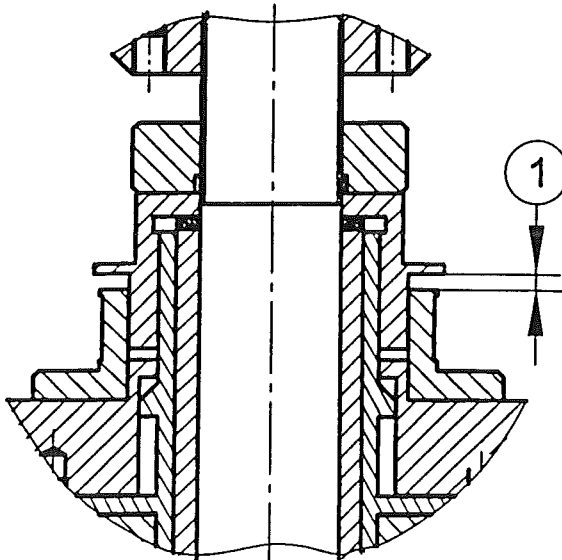
Messung / Measurement / Mesure :

4 x Pos.14 vorgespannt / preloaded / précontraints
mit / with / avec 25Nm

Passring / Shim /
Rondelle d'ajustage

F

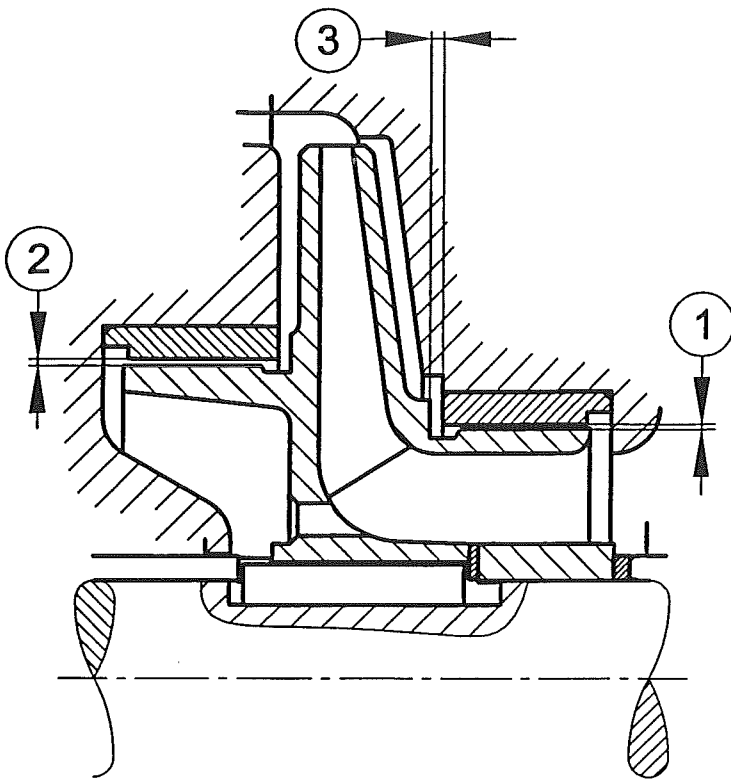
Labyrinthträger / Labyrinthholder / Support de Labyrinthes



	min.	max.	gemessen measured mesuré
1	2.4	2.6	

G

Laufrad-Spaltringe / Impeller-wear rings / Roue-Bague contre labyrinthes

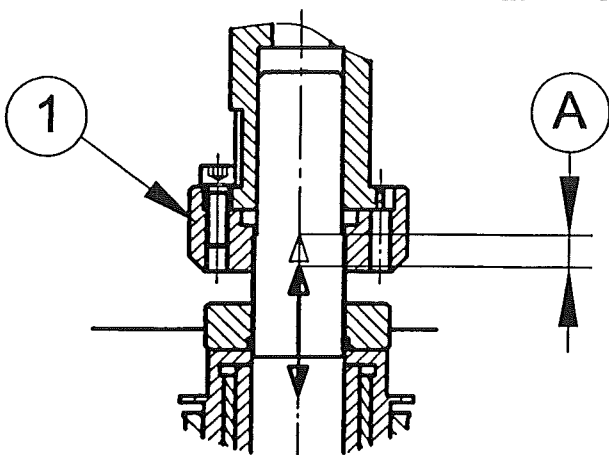


1. Laufrad / Impeller / Roue : a
2. Laufrad / Impeller / Roue : b
3. Laufrad / Impeller / Roue : c
4. Laufrad / Impeller / Roue : d

	min.	max.	gemessen measured mesuré
1a	0.17	0.25	
2a	0.17	0.25	
3a	1.4	1.6	
1b	0.17	0.25	
2b	0.17	0.25	
3b	1.4	1.6	
1c	0.17	0.25	
2c	0.17	0.25	
3c	1.4	1.6	
1d	0.17	0.25	
2d	0.17	0.25	
3d	1.4	1.6	

H

Mutter-Einstellmutter / Nut-Adjustment nut / Erou-Erou de reglage



- Axialspiel A auf Hälfte setzen mit Einstellungen der Mutter 1
- Set axial clearance A on the middle by adjust nut 1
- Régler le jeu axial A au milieu en ajustant avec l'écrou 1

I

Endkontrolle / Final control / Contrôle final

Dreht die Pumpenwelle frei ?
Is the pump shaft rotating free ?
L'arbre moteur tourne t'il librement ?

Ja
Yes
Oui

☐

Datum / date

Monteur / Fitter

Kontrolle / checked / contrôlé