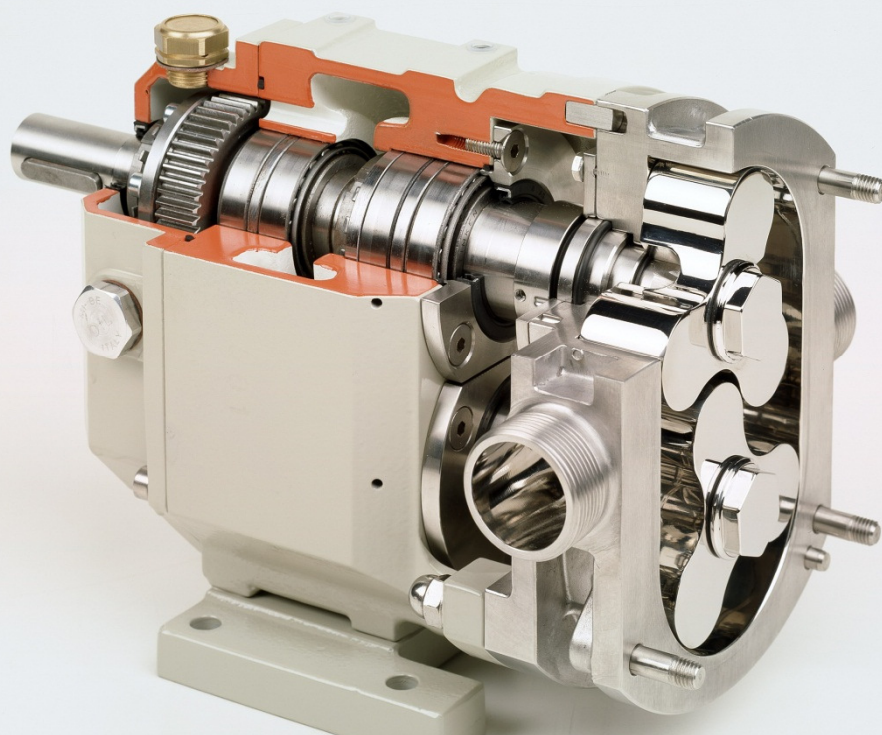


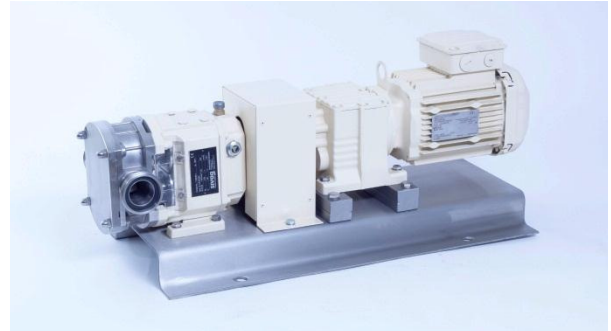


LOBE PUMP

B

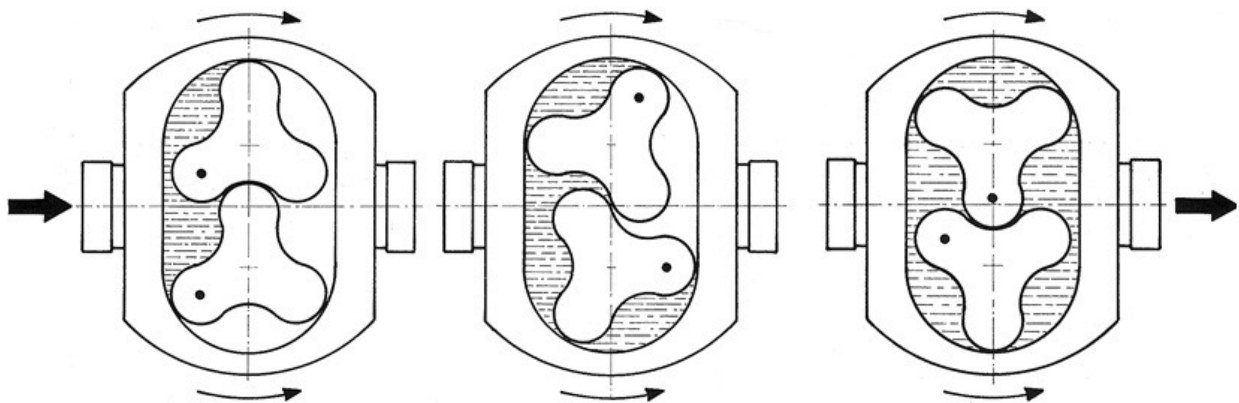
INDUSTRY APPLICATION

Rotary lobe pumps type B are positive displacement pumps for liquids of any viscosity with lubricating and non-lubricating properties. Lobe pumps are used in the chemical, pharmaceutical and food industry.



FUNCTIONAL PRINCIPLE

The pumping action of the B series lobe displacement pump is achieved thanks to the counter-rotation of two rotors, housed inside the pumping chamber. When the lobes of the rotors move away from each other, the volume between them increases and create a decrease of the pressure near the suction outlet. The fluid is transported along the internal of the pumping chamber, from the suction inlet to the discharge outlet of the rotor case. By further rotation and engagement of the rotor blades, the volume between the rotors is reduced again, thus achieving an increase in pressure on the pressure side.



PROPERTIES AND ADVANTAGES

- Compact, but very robust construction
- Wetted parts in stainless steel AISI 316 L
- Reversible flow direction by changing the direction of the motor rotation
- Easy and quick cleaning
- Horizontal or vertical pump connections possible

- **Different variants**

Depending on the application it is possible to select different types of rotors: Standard stainless steel tri-lobe rotors, stainless steel bi-lobe rotors and dual wing rotors for liquids with solids, or gears for models B100 and B105. The rotors are inter-changeable. Depending on the pump pressure it is possible to assemble the pump with rotors with special clearances.



- **Shaft sealing**

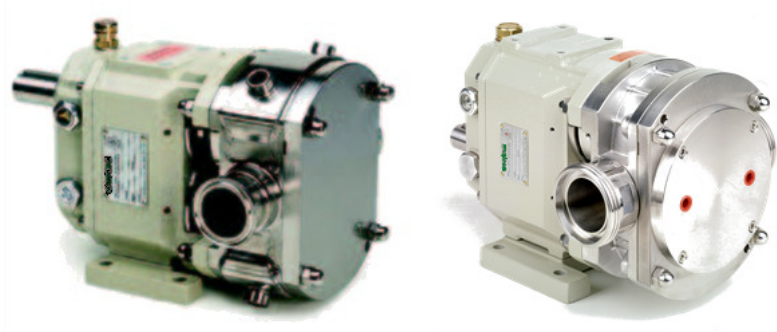
The following types of shaft seal systems are available:

- Lip seal: For low pump pressures and slow speeds.
Replaceable shaft sleeve made of hardened stainless steel
Low-cost design for lubricating liquids (oils, chocolate, glucose,...)
- Packing gland in PTFE
- Simple mechanical seal
Materials for different applications available
- Simple flushed mechanical seal
Lip seal as atmosphere sided seal
Flushing with low pressure (max. 2 bar)



- **Heating:**

If required, the pump can be equipped with a heating jacket around the casing or the pump cover, in which circulates a heating or cooling fluid for keeping the medium at a constant temperature. (Typical examples are chocolate, glucose or butter)



- **High-pressure version:**

Pump pressures up to 20 bars for some pump sizes can be achieved with non-galling rotors with special clearances and shafts in duplex-material.

- **Pump with enlarged suction inlet**

Some pump sizes can be supplied with a bigger rectangular suction inlet allowing highly viscous products or mixtures containing semi-solid pieces to be pumped.

In these cases the pump is generally positioned with the port on a vertical axis in order to allow the entry of the product under gravity beneath the hopper.



- **Aseptic version**

All standard models can be produced in aseptic version with sterile, steam or liquid barriers on the end cover, shaft seals and suction/discharge ports.

- **Protection of the pump**

To protect the pump and the piping system against high pressure, lobe pumps can be achieved with a safety valve. Internal (manual or pneumatic) or external safety valves (in a bypass line) are available.

- **ATEX-Version**

The pumps and aggregates can be certified according to ATEX. For the available versions, materials and the possible accessories please contact our sales staff.

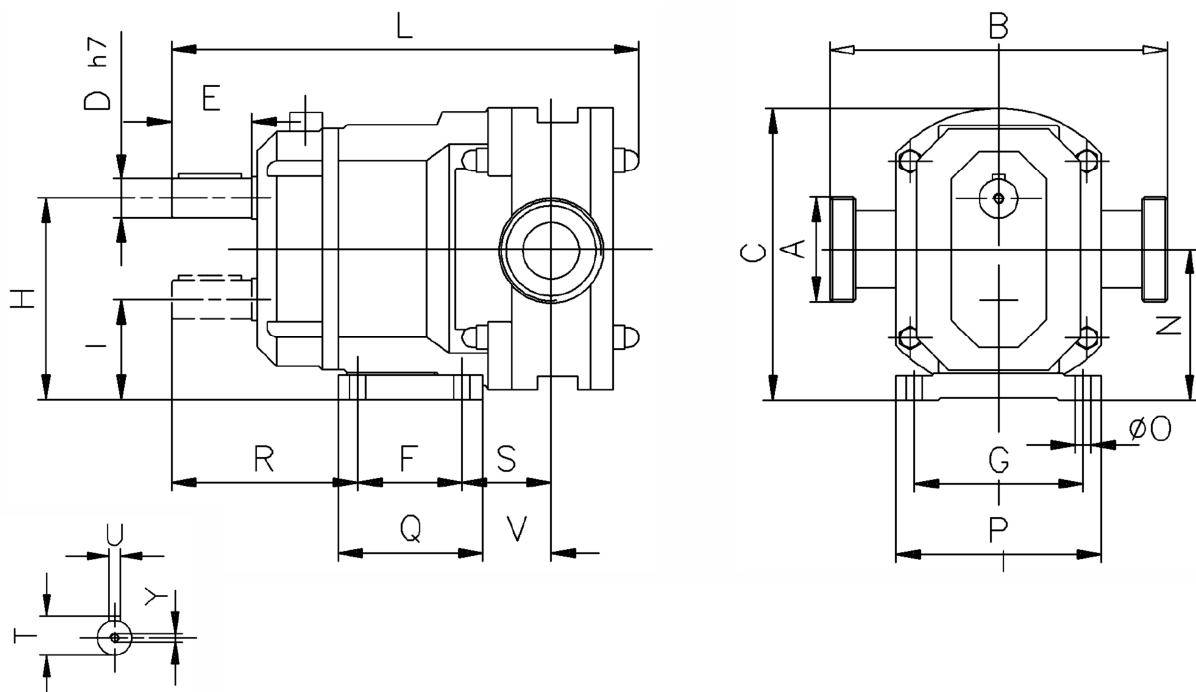


PUMP SELECTION – STANDARD VALUES

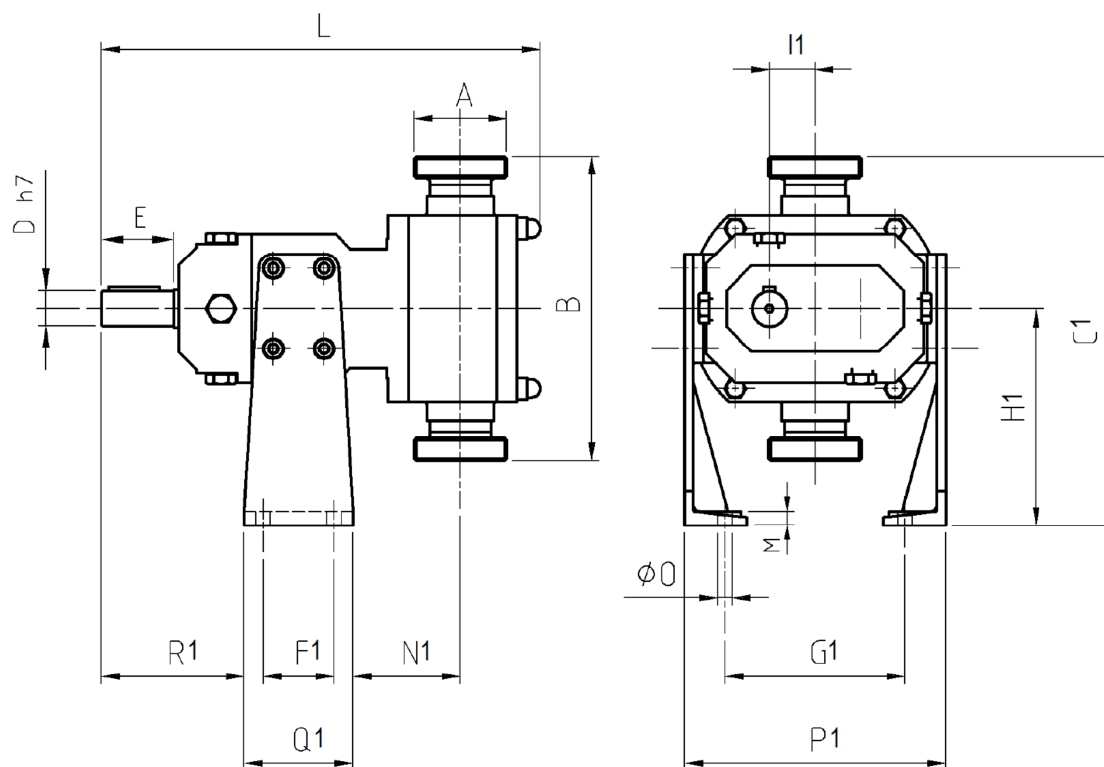
Type	Capacity [l / 100 min ⁻¹]	max. pressure type ST [bar]	max. pressure type SM [bar]	max. speed [min ⁻¹]	max. power [kW]	Connections Ø
B 100	3	7	10	1400	1,5	R 1"
B 105	7	10	15	1000	4	R 1 1/2"
B 110	12	10	15	1000	4	R 1 1/2"
B 115	18	7	12	1000	5,5	R 1 1/2"
B 215	23	10	15	950	7,5	R 1 1/2"
B 220	34	7	12	950	7,5	R 2"
B 325	55	10	15	720	18,5	R 2 1/2"
B 330	70	7	12	720	18,5	R 3"
B 390	90	5	10	720	18,5	R 3"
B 430	116	10	15	600	22	R 3"
B 440	155	7	12	600	22	R 4"
B 470	240	10	15	500	45	R 4"
B 490	330	7	12	500	45	R 4"
B 550	400	5	7	500	30	R 5"
B 660	700	7	10	500	75	R 6"
B 680	1050	4	5	500	75	R 8"

DIMENSIONS

- Horizontal execution:

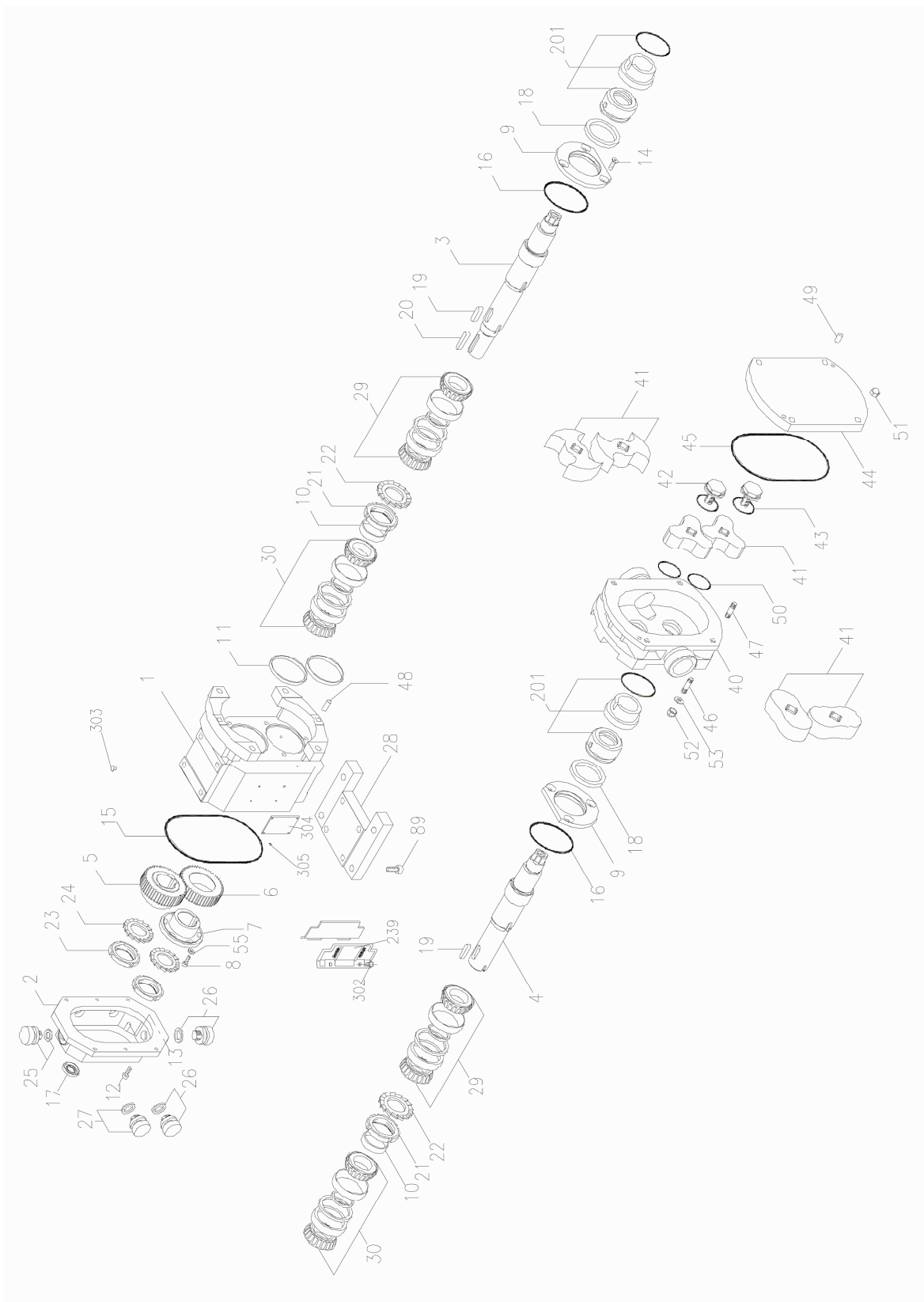


- Vertical execution:



Position	Size															
	100	105	110	115	215	220	325	330	390	430	440	470	490	550	660	680
C	115.5	181	181	181	235.5	235.5	270	270	270	367.5	367.5	442.5	442.5	515	690	690
D	18	24	24	24	28	28	35	35	35	48	48	55	55	55	80	80
E	43.5	50	50	50	55	55	65	65	65	85	85	110	110	110	140	140
F	65	65	65	65	90	90	120	120	120	140	140	150	150	20	300	300
F1	-	49	49	49	87	87	110	110	110	135	135	175	175	-	-	-
G	105	105	105	105	125	125	140	140	140	190	190	250	250	300	300	400
G1	-	124	124	124	166	166	192	192	192	270	270	320	320	-	-	-
H	80	125	125	125	165	165	190	190	190	255	255	300	300	350	480	480
H1	-	150	150	150	155	155	175	175	175	210	210	300	300	-	-	-
I	-	62	62	62	90	90	100	100	100	130	130	160	160	178	250	250
I1	-	31.5	31.5	31.5	37.5	37.5	45	45	45	62.5	62.5	70	70	-	-	-
L	265	290.5	290.5	302.5	365.5	380.5	459	474	494	543.5	563.5	654	684	637	807	867
N	58.6	93.5	93.5	93.5	127.5	127.5	145	145	145	192.5	192.5	230	230	264	365	365
N1	-	62.5	62.5	74	81	90	107	116	136	119	126.5	118.5	148	-	-	-
O	9	10	10	10	12	12	14	14	14	18	18	22	22	19	26	26
P	125	128	128	128	152	152	174	174	174	235	235	300	300	350	460	460
P1	-	180	180	180	240	240	272	272	272	360	360	430	430	-	-	-
Q	92	90	90	90	130	130	170	170	170	195	195	255	255	250	360	360
Q1	-	75	75	75	115	115	140	140	140	170	170	220	220	-	-	-
R	110.5	115.5	115.5	115.5	135.5	136.5	167	167	167	206.5	206.5	255	255	227	283	283
R1	110.5	98.5	98.5	98.5	108.5	108.5	134	134	134	165.5	165.5	210	210	-	-	-
S	52	55.5	55.5	67	78	87	94	103	123	109	116.5	143.5	173	106.5	122	152
T	20.5	27	27	27	31	31	38.5	38.5	38.5	52	52	60	60	60	85	88
U	6	8	8	8	8	8	10	10	10	14	14	16	16	16	22	22
V	49.5	42.5	42.5	54	52	61	62	71	91	76.5	84	63.5	93	81.5	92	122
Y	-	M6	M6	M6	M8	M8	M10	M10	M10	M12	M12	M12	M12	M12	M16	M16
kg	10.5	20	20	21	41	43	63	65	69	130	135	225	233	270	610	670
GAS BSP	A	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2 1/2"	3"	3"	3"	4"	4"	4"	-	-
	B	160	170	170	170	208	208	236	236	236	335	335	385	385	-	-
	C1	-	235	235	235	259	259	293	293	293	377.5	377.5	492.5	492.5	-	-
FLANGED PN16	A	DN25	DN40	DN40	DN40	DN40	DN50	DN65	DN80	DN80	DN80	DN100	DN100	DN100	DN125	DN200
	B	165	186	186	186	224	228	256	256	256	355	355	405	405	566	670
	C1	-	243	243	243	267	269	303	303	303	387.5	397.5	502.5	502.5	-	-
DIN 11851	A	DN25	DN40	DN40	DN40	DN40	DN50	DN65	DN80	DN80	DN80	DN100	DN100	DN100	DN125	-
	B	160	210	210	210	248	248	296	296	296	395	395	445	445	632	-
	C1	-	255	255	255	279	279	323	323	323	407.5	407.5	522.5	522.5	-	-
SMS	A	DN25	DN38	DN38	DN38	DN38	DN51	DN63	DN76	DN76	DN76	DN101	DN101	DN101	-	-
	B	150	210	210	210	248	248	296	296	296	395	395	445	445	-	-
	C1	-	255	255	255	279	279	323	323	323	407.5	407.5	522.5	522.5	-	-
IDF-ISS	A	DN25	DN38	DN38	DN38	DN38	DN51	DN63	DN76	DN76	DN76	DN101	DN101	DN101	-	-
	B	153	210	210	210	248	248	296	276	276	375	378	428	428	-	-
	C1	-	255	255	255	279	279	323	323	323	397.5	399	514	514	-	-
RJT	A	DN25	DN38	DN38	DN38	DN38	DN51	DN63	DN76	DN76	DN76	DN101	DN101	DN101	-	-
	B	157	210	210	210	248	248	290	286	286	385	389	439	439	-	-
	C1	-	255	255	255	279	279	320	318	318	402.5	404.5	519.5	519.5	-	-
TRI CLAMP	A	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2 1/2"	3"	3"	3"	4"	4"	4"	-	-
	B	160	210	210	210	248	248	293	290	290	389	392	442	442	-	-
	C1	-	255	255	255	279	279	321.5	320	320	404.5	406	521	521	-	-

EXPLODED VIEW



LOBE PUMPS - 3A SANITARY STANDARD

BA

Lobe pumps of type BA are designed according to the 3A Sanitary Standard.

The design, the surface roughness ($Ra \leq 0,8 \mu m$) and the seals are certified to 3A-FDA.



- **Properties:**

- Improved cleanability against B-version
- Minimum „dead spots“ in the rotor nuts and O-Rings
- Mechanical seals with larger slots for improved self-cleaning



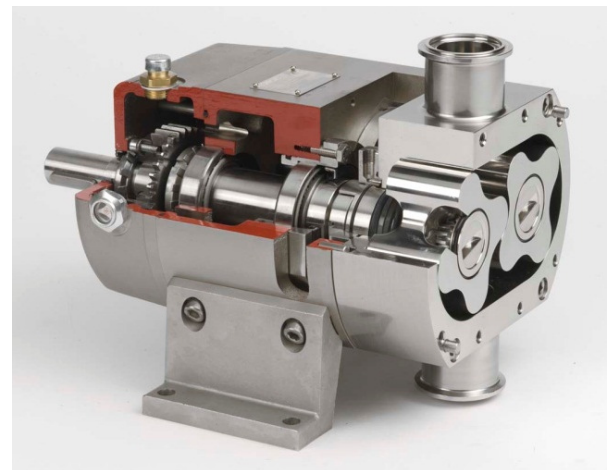
LOBE PUMPS WITH EHEDG-CERTIFICATION

C

Lobe pumps of type C are designed according to the 3A Sanitary Standard. As an option, an EHEDG certificate is available.

- **Properties:**

- Designed for maximum hygiene
- Mechanical seals expandable from the front
- Nickel-coated bearing housing (optional in stainless steel)
- Surface roughness $Ra \leq 0,8 \mu m$
($Ra \leq 0,6 \mu m$ as option for EHEDG-certification)
- Horizontal or vertical execution
(Self-emptying vertical execution for EHEDG-certification necessary)
- Casing with integrated TRI-CLAMP or DIN 11864-3 - (without welds) or with different welded connections available
- Rotors in 4-lobe or 2-lobe execution





Basic data:

Capacity:	up to. 5000 l/min
Discharge pressure:	up to 20 bar
Viscosity:	up to 100000 mm ² /s
Temperature:	-40 bis +200°C
Connections:	25 - 200 mm