

### APPLICATION

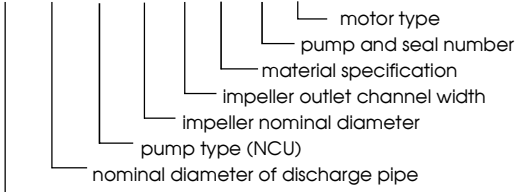
- pure and slightly polluted, active and neutral chemical liquids, mixtures of high content of solids and combustibles
- chemical, processing industries, power engineering and water supply systems
- design:
  - A) standard - for general use
  - B) explosive conditions - for pumping incombustibles in dangerous explosive conditions
  - C) for combustibles - for pumping combustible liquids in dangerous

### WORKING CONDITIONS

- medium temperature from  $-40^{\circ}\text{C}$  up to  $+160^{\circ}\text{C}$
- intake working pressure for DN up to 80 – 5 bars, DN from 100 – 2 bars
- outlet working pressure for DN up to 80 – 10 bars, DN from 100 – 8 bars
- medium density from  $600 \text{ kg}\cdot\text{m}^{-3}$  up to  $1900 \text{ kg}\cdot\text{m}^{-3}$
- kinematic viscosity up to  $75 \text{ mm}^2\cdot\text{s}^{-1}$
- ph 0-14, acc. to the used materials
- contents of solid particles up to 15% of weight – higher has to be consulted with the manufacturer
- size of particles up to 5 mm – higher has to be consulted with the manufacturer

### TYPE IDENTIFICATION

**80 - 80- NCU-230-15-LC-040-09**



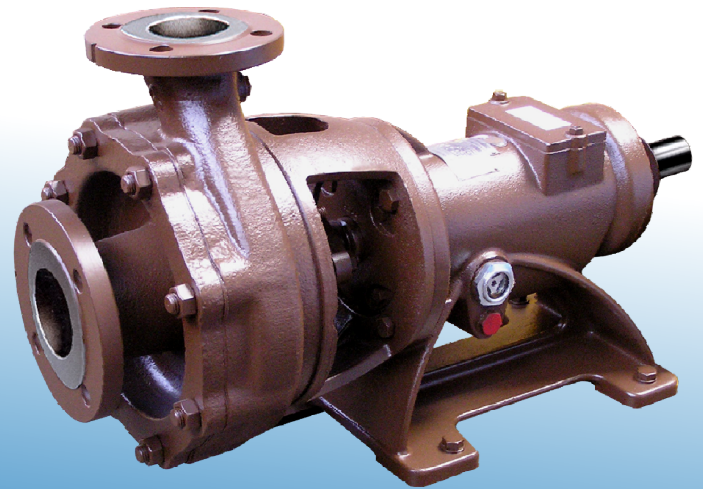
### CONSTRUCTION

- NCU.O series contain 6 sizes of hydrodynamic pumps
- horizontal, centrifugal, single-stage, volute type construction with an axial intake and radial outlet
- hydraulic part is formed with suction cover and volute casing (mutually sealed by flat gaskets) and open impeller with rear diffuser guide vanes
- mechanical part consist of self-supporting bearing support and lantern; in the bearing support on roller bearings is located pump shaft, on which overhanging end is briefly placed the impeller secured by nut
- long service life bearings are lubricated by oil, whose water level can be monitored by level gauge
- bearing support is provided with feet that are used for base plate mounting
- when pumping hot liquids, cooled bearing support design with cooling flow spiral in oil can be used

### MATERIAL SPECIFICATION

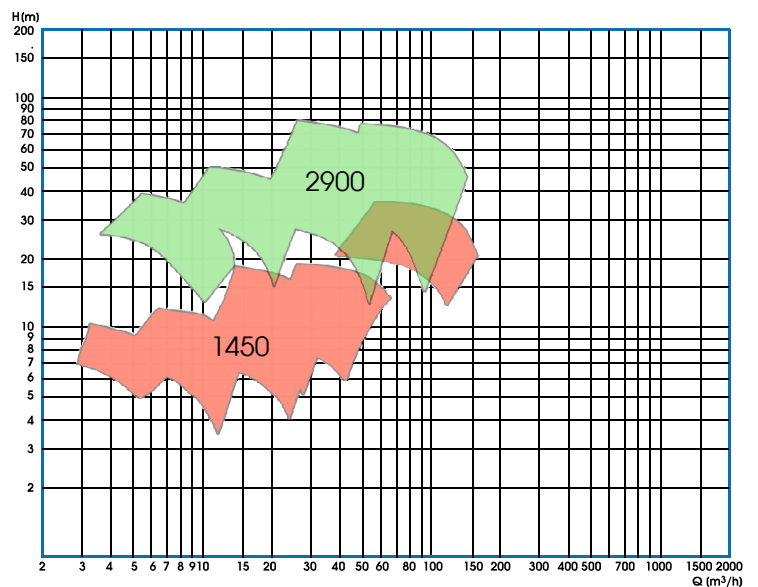
Part name	LC	LB	YC	YB	ZC	ZB
volute, suction cover	EN-GJL-200	EN-GJL-200	1.4308	1.4308	1.4408	1.4408
impeller	EN-GJL-200	CuSn10Zn2	1.4308	CuSn10Zn2	1.4408	CuSn10Zn2
lantern ring	EN-GJL-200	EN-GJL-200	stainless steel	stainless steel	stainless steel	stainless steel
shaft sleeve	EN-GJL-200*	EN-GJL-200*	stainless steel	stainless steel	stainless steel	stainless steel
pump shaft	1.0503	1.0503	stainless steel	stainless steel	stainless steel	stainless steel
impeller nut	1.0503	1.0503	stainless steel	stainless steel	stainless steel	stainless steel
lantern	EN-GJL-200	EN-GJL-200	EN-GJL-200 (1.4308)	EN-GJL-200 (1.4308)	EN-GJL-200 (1.4308)	EN-GJL-200 (1.4308)
bearing support	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200

for \* mechanical seal – stainless steel

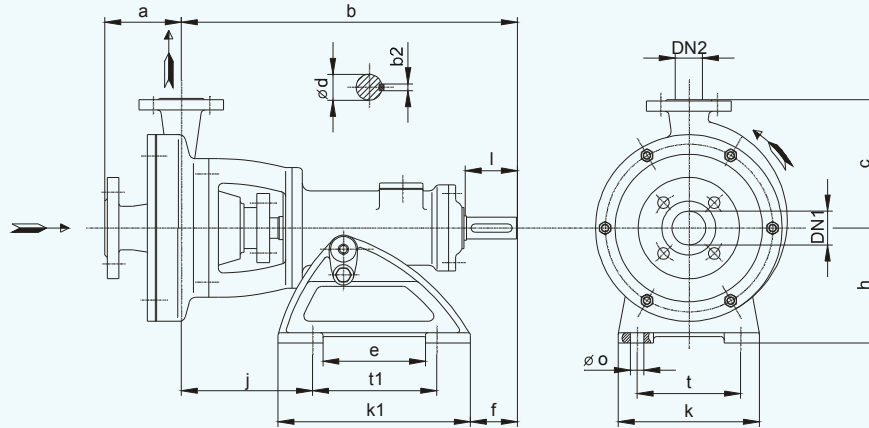


### WORKING AREA

PUMP SIZE	SHAFT SPEED (min <sup>-1</sup> )	FLOW Q (l/s)	DELIVERY HEAD H (m)	TEMPERATURE max (°C)
from 32-25-NCU-175 to 125-100-NCU-305	1450 2900	from 1,2 to 60	from 4 to 75	160

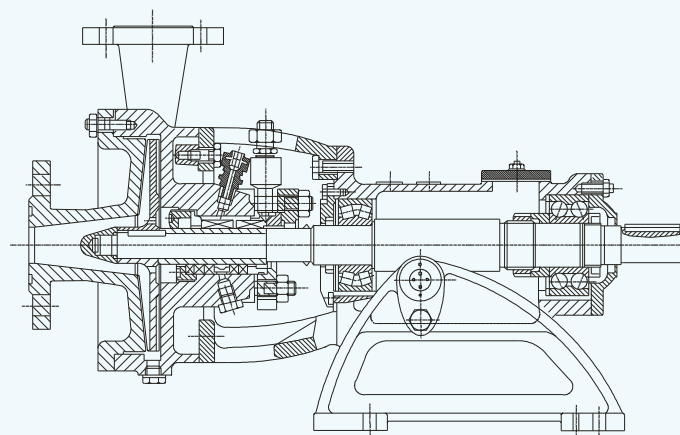


### BASIC DIMENSIONS



Area	DN1	DN2	Ø impeller	Pump						Feet						Shaft			kg
				a	b	h	c	f	j	e	t1	k1	t	k	Ø o	l	d	b2	
1	32	25	175	100	456	160	180	55	160	150	225	270	190	230	14	50	28	8	47
2	40	32	175	100	456	160	180	55	162	150	225	270	190	230	14	50	28	8	49
3	65	50	175	100	458	160	180	55	163	150	225	270	190	230	14	50	28	8	52
4	65	50	230	130	553	200	220	65	192	190	250	340	210	250	14	70	40	12	103
5	80	80	230	134	557	200	226	65	192	190	250	340	210	250	14	70	40	12	105
6	125	100	305	176	824	355	355	40	283	350	460	550	400	450	27	80	45	14	162

### CROSS-SECTION DRAWING



### SEAL DESIGN

- ▮ soft cord packing
- ▮ single mechanical seal
- ▮ double mechanical seal
- ▮ single mechanical seal, cartridge type
- ▮ double mechanical seal, cartridge type

### MOTORS

- ▮ foot-mounted electric motor drive
- ▮ driving force is transmitted using a flexible coupling with spacer
- ▮ common base plate assembly, cast iron