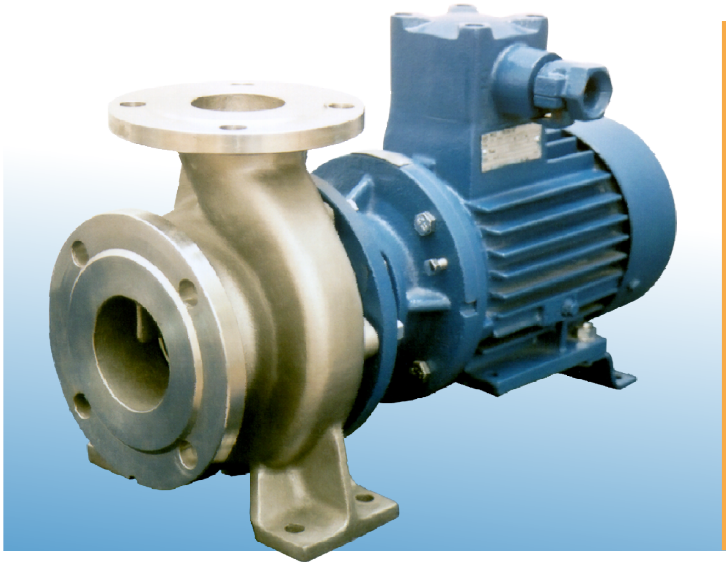
MONO-NORM
HORIZONTAL, CENTRIFUGAL, VOLUTE-TYPE PUMPS, COMPACT MONOBLOC DESIGN

ISH PUMPS OLOMOUC

APPLICATION

- pure or slightly polluted, active and neutral chemical liquids and combustibles
- chemical, food-processing and processing industries, conventional power engineering and water supply systems
- design:
  A) standard - for general use
  B) explosive conditions for pumping incombustibles liquids in dangerous explosive conditions
  C) for combustibles – for pumping combustible liquids in zone 1 and 2



WORKING CONDITIONS

- medium temperature range from -30°C to +100°C– depending on the used seal
- working pressure of 10 bars
- medium density range from 600 kg.m^{-3} to 1150 kg.m^{-3}
- kinematic viscosity up to 20 mm^2.s^{-1}
- pH 0 - 14
- contents and size of solid particles along with different temperature and density to be discussed with the manufacturer

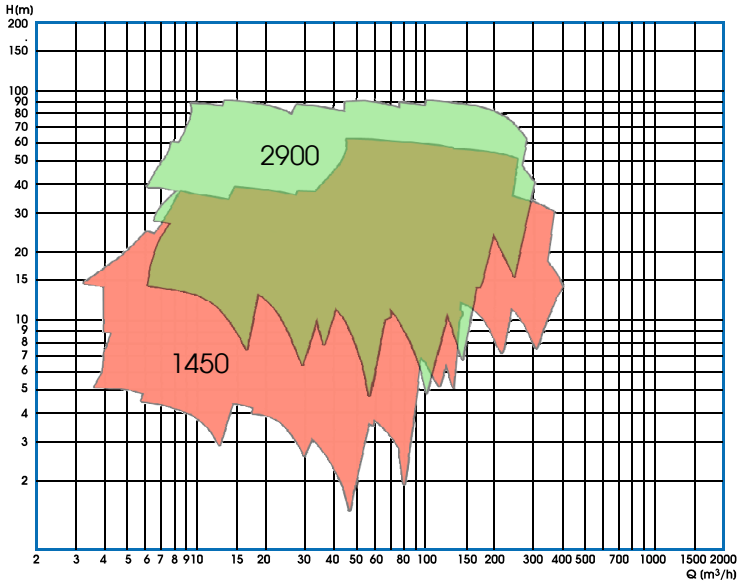
TYPE IDENTIFICATION

50 - 32 - NVY-125-11-YC-020-91

- 91 — motor type
- YC — pump and seal number
- 020 — material specification
- 11 — impeller outlet channel width
- 125 — impeller nominal diameter
- NVY — pump type (NVY)
- 32 — nominal diameter of discharge pipe
- 50 — nominal diameter of suction pipe

WORKING AREA

PUMP SIZE	SHAFT SPEED (r.p.m.)	FLOW Q (l/s)	DELIVERY HEAD H (m)	TEMPERATURE MAX. (°C)
from 50-32-NVY-125 to 200-150-NVY-315	1450 2900	from 0,8 to 105	from 3 to 85	100



CONSTRUCTION

- connection dimensions and parameters acc. to ČSN EN 22858/ISO 2858/DIN 24 256 up to size 35 (200-150-NHD-315)
- 33 sizes of hydrodynamic, medium-pressure pumps with standardized connection dimensions (series 25 and 30 not included)
- developed from META-PLUS series horizontal, centrifugal, single-stage, volute-type construction with an axial intake and a radial outlet
- compact monobloc construction minimum demands on installation area, low weight
- pump stator consisting of a volute with pedestal feet, packing flange and a spacer, connecting the pump with an electric motor
- pump rotor consisting of an extended shaft, ball bearing with shaft collars and lock rings; closed impeller set on the extended shaft and secured with a nut and lock washer
- the pumps are connected with foot-flanged or flanged el. motor as monobloc unit - 4 construction options
- anchored straight on a concrete bed or common base sub-frame for the whole unit
- flanges PN16 acc. to ČSN EN 1092-1 and 2/ISO 7005-1/-2

MATERIAL SPECIFICATION

Part name	LC	LN	LB	LY	OC	ON	OL	YC	ZC
volute	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	1.0619	1.0619	1.0619	1.4308	1.4408
packing flange	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	1.0619	1.0619	1.0619	1.4308	1.4408
impeller	EN-GJL-200	EN-GJL-200	CuSn10Zn2	1.4308	1.0619	1.0619	EN-GJL-200	1.4308	1.4408
seal ring	EN-GJL-200	CuSn10Zn2	EN-GJL-200	EN-GJL-200	EN-GJL-200	CuSn10Zn2	EN-GJL-200	1.4308	1.4408
shaft extension	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
impeller nut, washer	1.0503	1.0503	1.0503	stainless steel	1.0503	1.0503	1.0503	stainless steel	stainless steel
spacer	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200	EN-GJL-200

The above table states the basic material specifications: if applicable, other material combinations optional depending on pumped medium.

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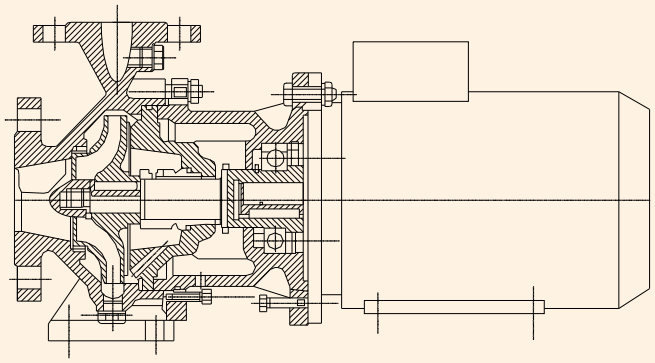
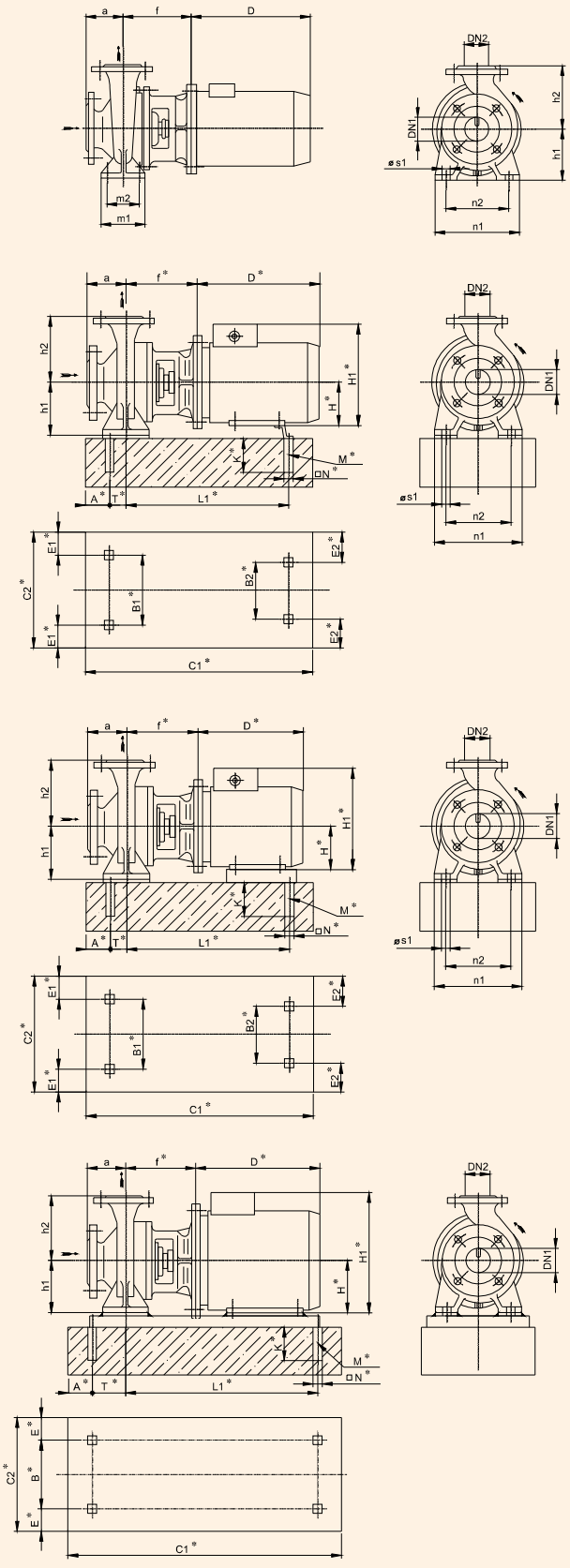
CROSS-SECTION DRAWING



BASIC DIMENSIONS



Pos.	DN1	DN2	Ø impeller	Actuator 90	91	92	93	Pump a	h1	h2	Feet m1	m2	n1	n2	Ø s1
1	50	32	125	•	•			80	112	140	100	70	190	140	14
2	50	32	160	•	•	•		80	132	160	100	70	240	190	14
3	50	32	200	•	•	•	•	80	160	180	100	70	240	190	14
4	50	32	250	•	•	•	•	100	180	225	125	95	320	250	14
5	65	50	125	•	•			80	112	140	100	70	210	160	14
6	65	50	160	•	•	•	•	80	132	160	100	70	240	190	14
7	65	40	200	•	•	•	•	100	160	180	100	70	265	212	14
8	65	40	250	•	•	•	•	100	180	225	125	95	320	250	14
9	65	40	315		•	•		125	200	250	125	95	345	280	14
10	80	65	125	•	•	•	•	100	132	160	100	70	240	190	14
11	80	65	160	•	•	•	•	100	160	180	100	70	265	212	14
12	80	50	200	•	•	•	•	100	160	200	100	70	265	212	14
13	80	50	250	•	•	•	•	125	180	225	125	95	320	250	14
14	80	50	315		•	•		125	225	280	125	95	345	280	14
15	100	80	125	•	•	•	•	100	160	180	125	95	280	212	14
16	100	80	160	•	•	•	•	100	160	200	125	95	280	212	14
17	100	65	200	•	•	•	•	100	180	225	125	95	320	250	14
18	100	65	250	•	•	•	•	125	200	250	160	120	360	280	18
19	100	65	315		•	•	•	125	225	280	160	120	400	315	18
20	125	80	160	•	•	•	•	125	180	225	125	95	320	250	14
21	125	80	200	•	•	•	•	125	180	250	125	95	345	280	14
22	125	80	250		•	•	•	125	225	280	160	120	400	315	18
23	125	80	315		•	•	•	125	250	315	160	120	400	315	18
24	125	80	400				•	125	280	355	160	120	435	355	18
26	125	100	200		•	•	•	125	200	280	160	120	360	280	18
27	125	100	250		•	•	•	140	225	280	160	120	400	315	18
28	125	100	315			•	•	140	250	315	200	150	400	315	18
29	125	100	400				•	140	280	355	160	120	500	400	23
31	150	125	250		•	•	•	140	250	355	200	150	400	315	18
32	150	125	315			•	•	140	280	355	200	150	500	400	23
33	150	125	400				•	140	315	400	200	150	500	400	23
34	200	150	250			•	•	160	280	375	200	150	500	400	23
35	200	150	315				•	160	315	400	200	150	550	450	23

SEAL DESIGN

- single mechanical seal

MOTORS

- Drive - flange mounted electric motor drive (type 90)
  - foot-flange-mounted electric motor drive (type 91-93)
- Unit - anchored straight on a concrete bed (type 90-92)
  - common base sub-frame assembly, welded type (type 93)

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