



General

The ETA low-pressure centrifugal pump built by KSB considers fully the recommendations of DIN 24255 with regard to main dimensions and rated capacities.

By the adaption to the standardised water pump and utilising the meccano system, the ETA series provides economic advantages for plant designers, plant manufacturers and users.

Fields of Application

General water supply for municipalities, industry and agriculture; for irrigation and drainage or pumping of sea water, brines, lyes and condensate; circulation of hot water, cooling water and oil; for blending and loading duties, etc.

Design

Horizontal single-stage, single-flow centrifugal pump with volute casing flanged onto the bearing pedestal.

Axial suction nozzle and radial discharge nozzle vertically upwards, overhung radial flow impeller, shaft protecting sleeves of 316 stainless steel.

Shaft Seal

Uncooled soft-packed stuffing box up to 110°C, or cooled soft-packed stuffing box over 110°C, up to 160°C. Uncooled mechanical seals up to 140°C max. may be fitted.

Drive

Direct drive by an electric motor, an internal combustion engine or turbine, via a flexible coupling.

In special cases drive is also possible via a gear box, a hydraulic gear coupling, or belt drive (overhung or via a jack-shaft). If a spacer type coupling is used, the complete pump rotor can be withdrawn towards the motor end, without having to remove the motor or to disconnect the piping from the pump casing.

Bearings

Axial and radial location by two oil lubricated deep groove ball bearings in the bearing pedestal. Grease lubricated bearings are available as an optional extra.

Materials of construction

Part No.	Part Designation	Material combinations							
		(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)
102	Volute Casing	JL 1040							
211	Pump Shaft	080M40Q				431S29		080M40Q	431S29
234	Impeller	JL1040	GCuSn 10	JL 1040		GCuSn 10	JL1040	GCuSn 10	
	Shaft seal	Packed gland		Mechanical	Packed gland		Mechanical		
350.1	Bearing housing	JL 1040							
451	Stuffing box housing	JL 1040							
452	Gland	JL 1040		N/a	JL 1040		N/a	N/a	N/a
524	Shaft Protecting sleeve	316SS							

JL 1040 → GG-25

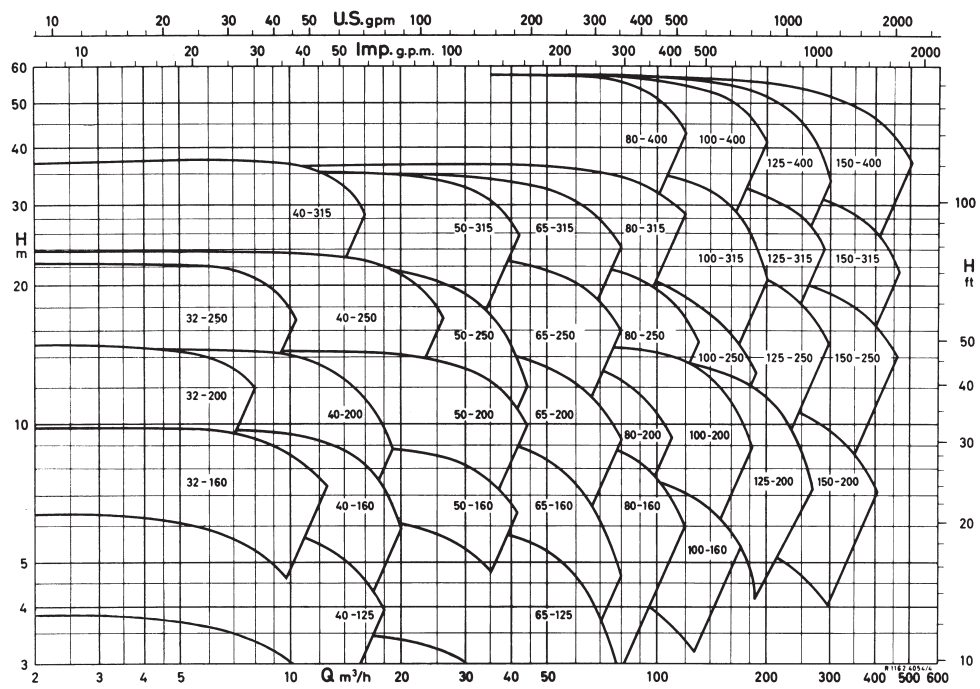


Fig 2 Selection Chart (n = 1450 r.p.m.)

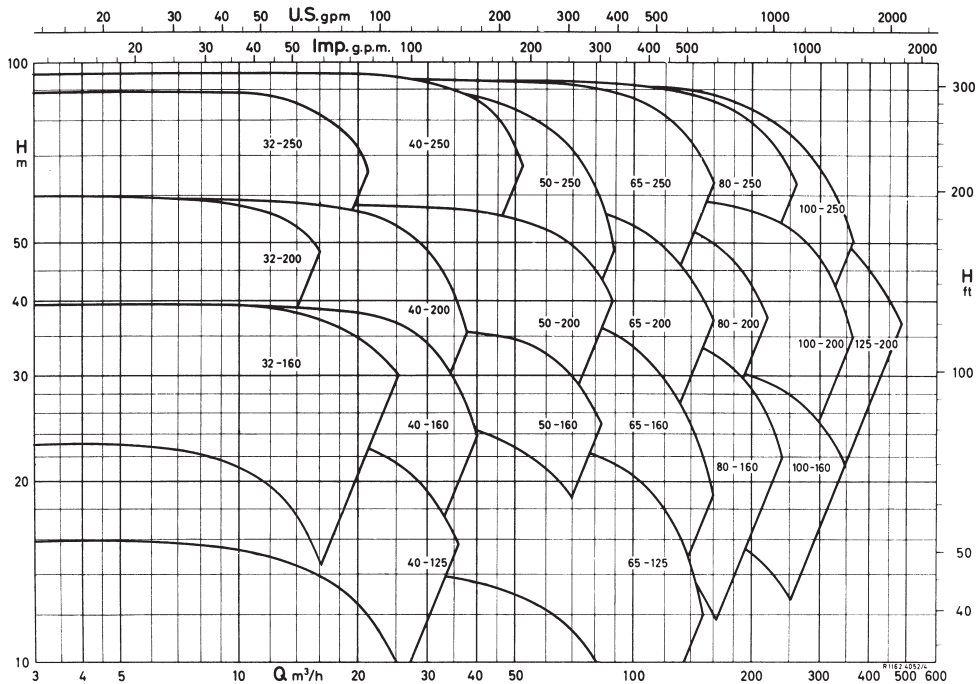
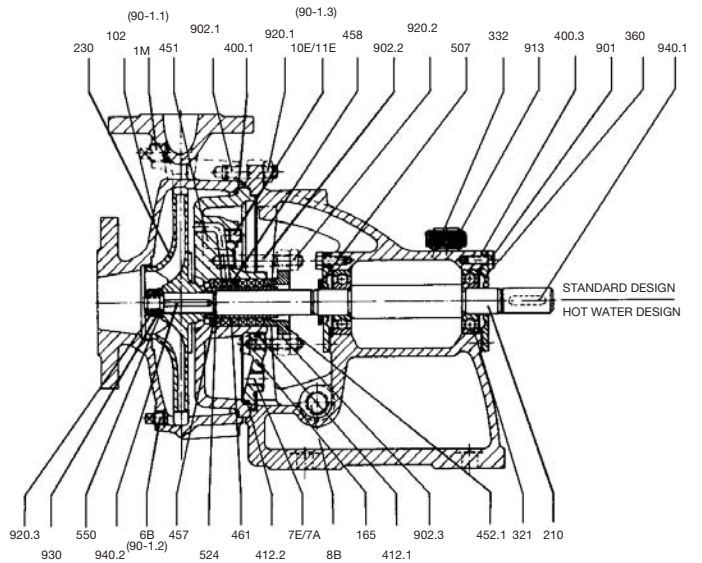


Fig 1 Selection Chart (n = 2900 r.p.m.)

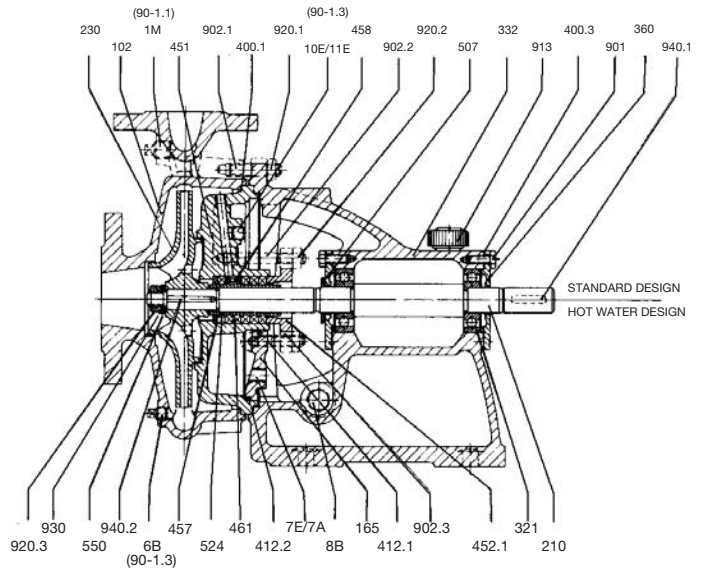
Part No.	Part Designation
102	Volute casing
165	Cooling cover
183	Foot
210	Shaft
230	Impeller
321	Deep groove ball bearing
330	Bearing bracket
332	Bearing pedestal
360	Bearing cover
400.1/2	Flat gasket
412.1/2	O-ring
451	Stuffing box housing
452.1	Stuffing box gland
454	Stuffing box ring
457	Throat ring
458	Split lantern ring
461	Stuffing box packing
502	Casing wear ring
507	Thrower
524	Shaft protecting sleeve
550	Washer
920.3	Hexagonal nut
930	Spring washer
1 M	Pressure gauge
6 B	Draining
7 A	Cooling liquid outlet
7 E	Cooling liquid inlet
8 B	Leakage drain
10 E	Sealing liquid inlet
11 E	Flushing liquid inlet

Pump size	Shaft unit
40-200	25



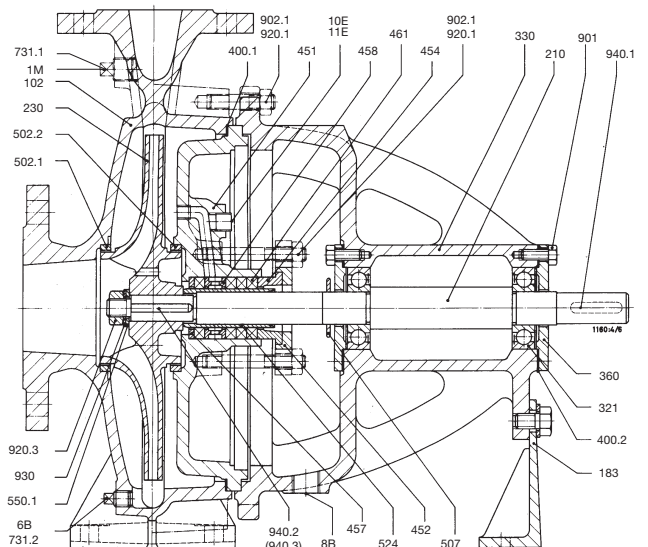
Impeller with back vanes for hydraulic balancing

Pump size	Shaft unit
40-250	25
50-200	25
50-250	25
65-200	25



Impeller with balance holes for hydraulic balancing

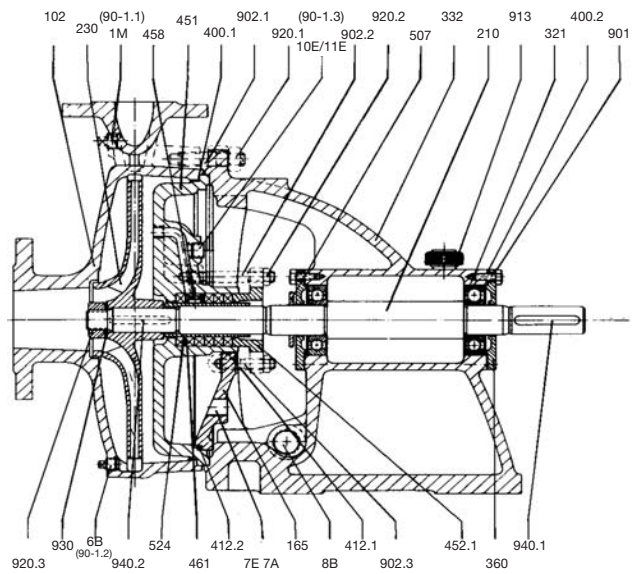
Pump size	Shaft unit
32-160	20
32-200	20
32-250	25
40-125	20
40-160	20
50-160	20
65-125	20
65-160	25
80-160	25
100-160	35



Part No.	Designation
102	Volute casing 1)
165	Cooling cover
210	Shaft
230	Impeller
321	Deep groove ball bearing
332	Bearing pedestal
360	Bearing cover
400.1/2	Flat gasket
412.1/2	O-ring
451	Stuffing box housing
452	Stuffing box gland
457	Neck ring
458	Split lantern ring
461	Stuffing box packing
507	Thrower
524	Shaft protecting sleeve
550	Washer
901	Hex bolt
902	Stud
913	Vent plug
920.3	Hexagonal nut
930	Spring washer
940	Key
1 M	Pressure gauge
6 B	Draining
7 A	Cooling liquid outlet
7 E	Cooling liquid inlet
8 B	Leakage drain
10 E	Sealing liquid inlet
11 E	Flushing liquid inlet

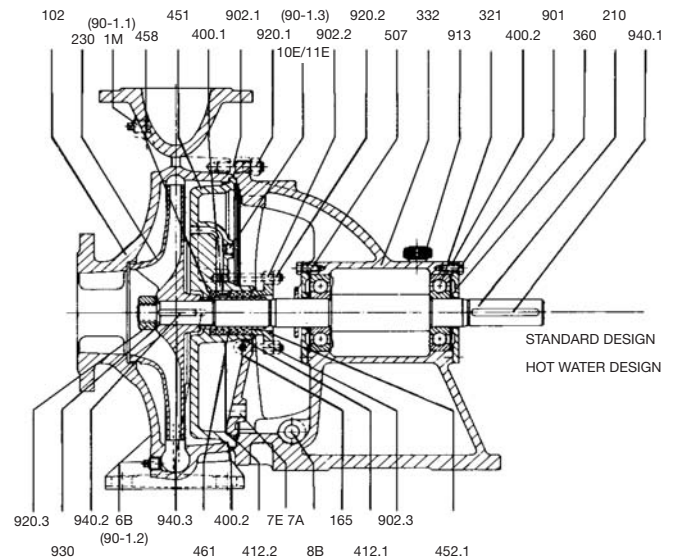
1) Feet are integrally cast to the volute casing of sizes 80-400, 100-400, 125-315, 125-400, 150-200, 150-250, 150-315 and 150-400.

Pump size	Shaft unit
40-315	35
50-315	35
65-315	35



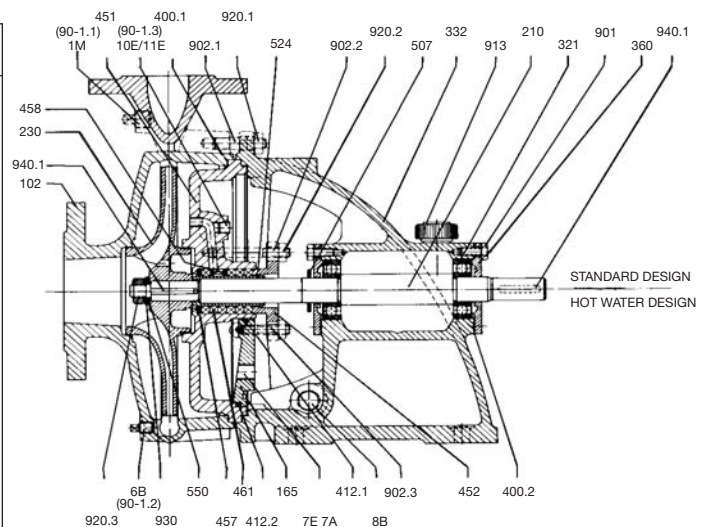
Impeller unbalanced

Pump size	Shaft unit
80-315	35
80-400	45
100-400	45
125-315	45
150-315	45



Impeller with back vanes for hydraulic balancing

Pump size	Shaft unit
65-250	35
80-200	35
80-250	35
100-200	35
100-250	35
100-315	35
125-200	35
125-250	35
125-400	45
150-200	35
150-250	35
150-400	45



Impeller with balance holes for hydraulic balancing

Subject to technical modification without prior notice

05.02.2007

Cartone Press: Tel: (011) 440-6126