

**QVD**  
Centrifugal single-stage pumps

# CENTRIFUGAL SINGLE-STAGE PUMPS QVD

## APPLICATION

QVD pumps are intended for pumping of clean as well as slightly polluted water (max. content of sand 3 grammes or other dirt per 1 liter of water).

Maximum dirt grain size 0,5 mm.

Allowed scope of pumped water pH is 6 - 8,5.

Maximum allowed pumped water temperature is 60°C.

## DESIGN

QVD pumps are designed as horizontal, centrifugal, axially-split, single-stage volute casting pumps with radial double-entry impeller.

Pump design conforms to ISO 9908, ISO 5199 eventually.

Flanges dimensions as per EN, DIN or ANSI standards.

## BEARINGS

Pump shaft is laid in roller bearings.

## SEALS

Pump shaft is bilaterally sealed through seals (soft rope or mechanical). Detailed seal version is based on specific characteristics of pumped media or customer's requirements.

## MATERIAL VERSIONS

In default, material version "LU" is offered, consisting of the following materials:

- volute casting, bearing housings, bearing covers – gray cast
- impeller – carbide cast steel
- shaft - refined carbon steel

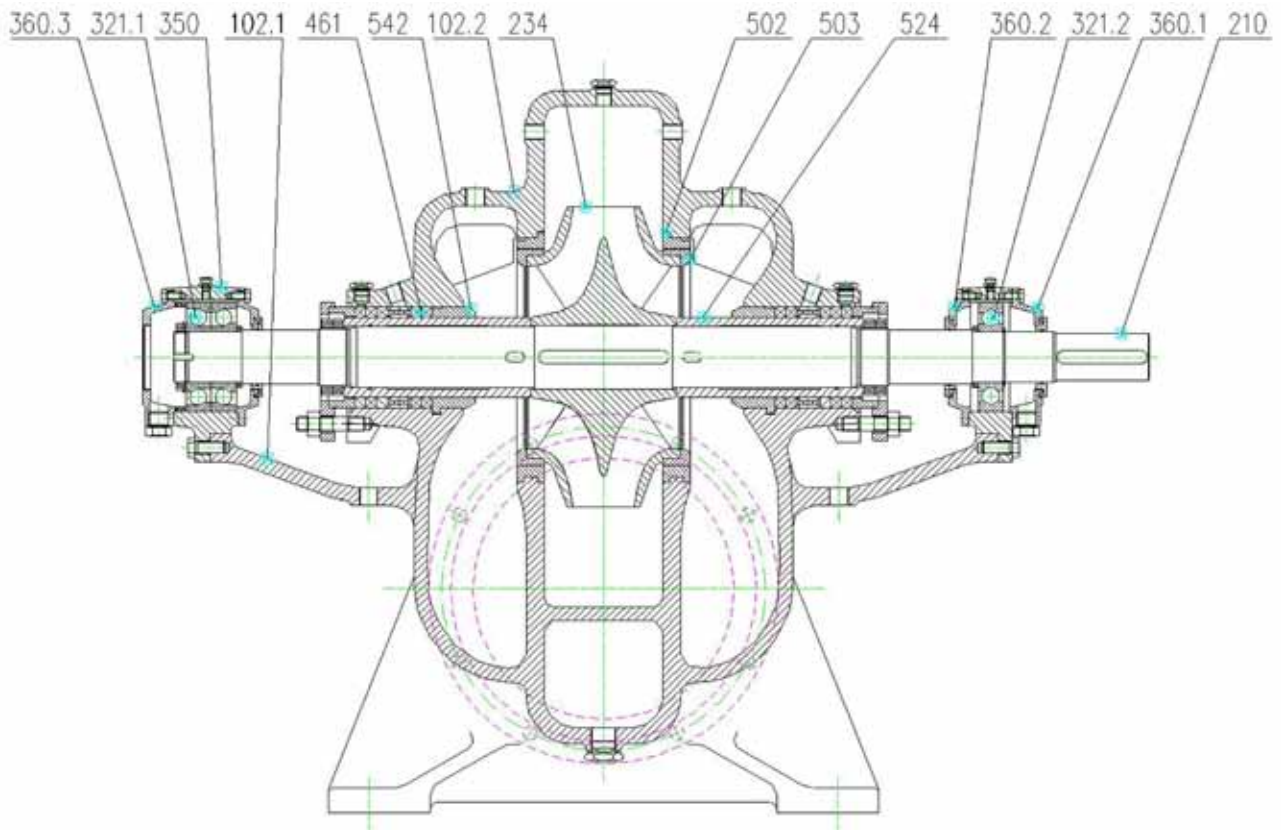
Further material versions upon customer's requirements.

## DRIVE AND SENSE OF ROTATION

QVD pumps are driven by electric motor. The transmission of motor torque to the pump via flexible multi-plate coupling. The pumps are in default delivered on a common base frame for pump and electric motor.

In default, the pumps sense of rotation is clockwise from the drive's view. Reverse sense of rotation possible only after approval by manufacturer.

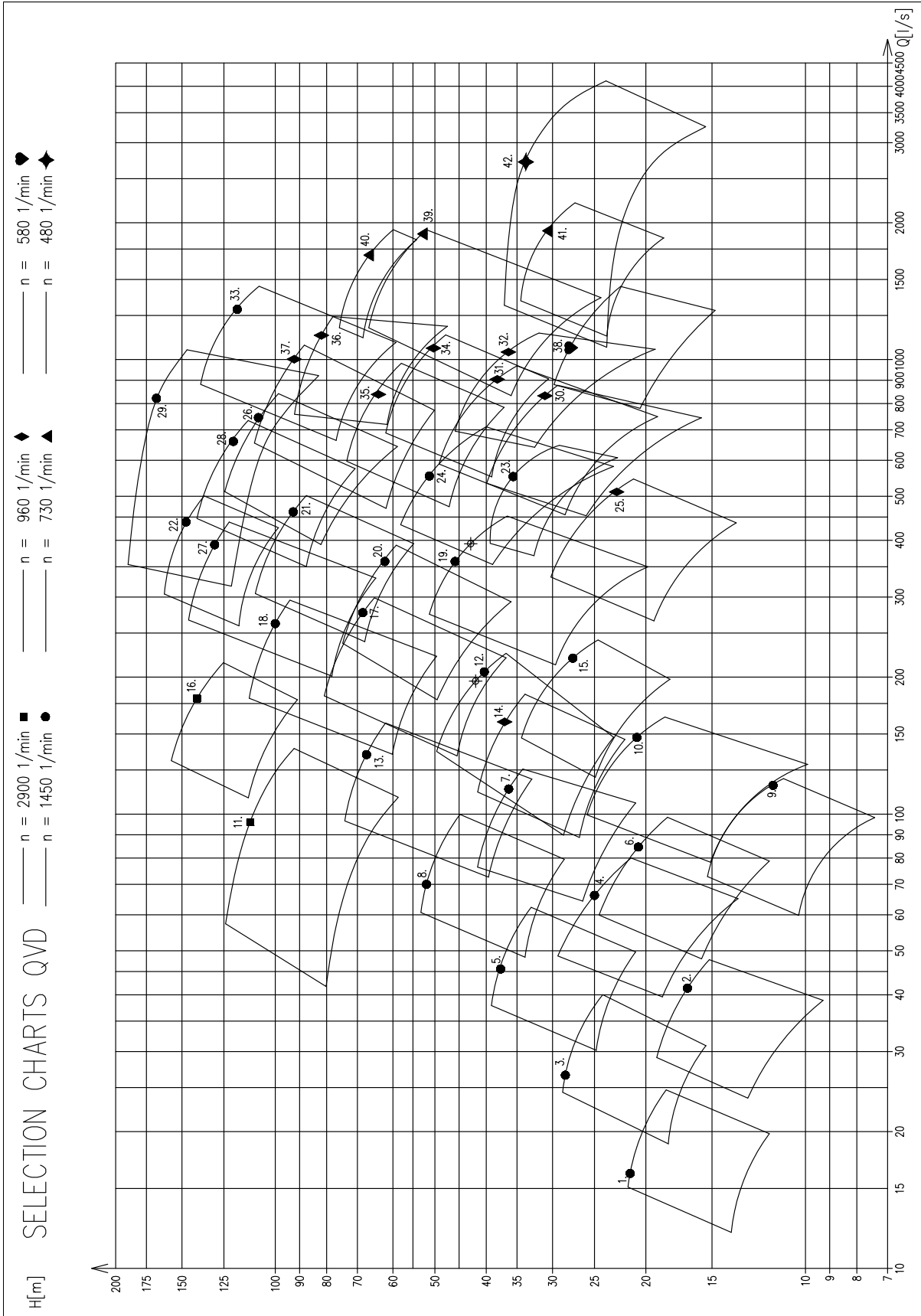
# INFORMATIVE PUMP CROSS-SECTIONAL DRAWING



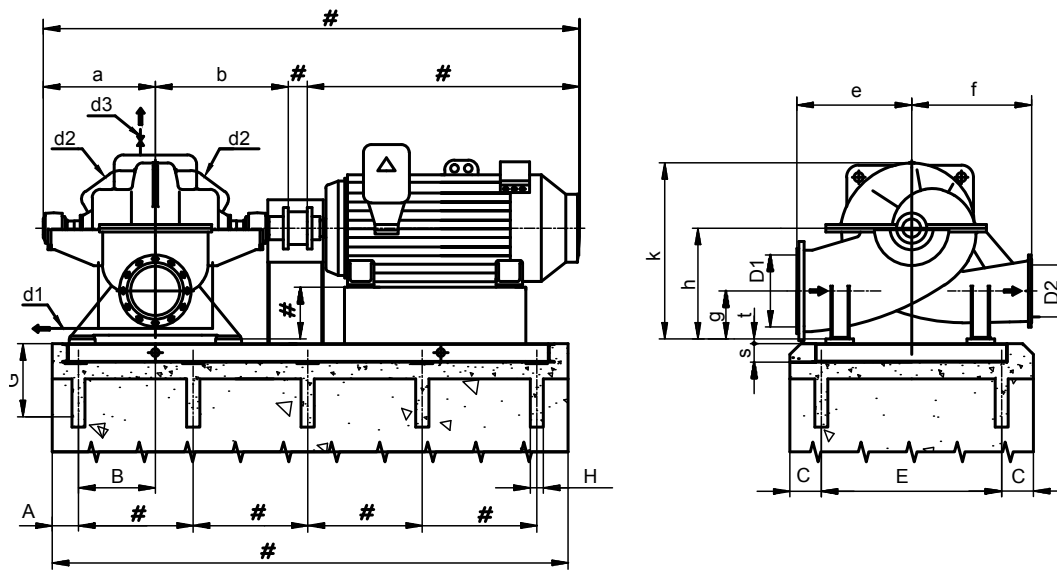
102.1	Pump casing – lower
102.2	Pump casting - upper
210	Shaft
234	Impeller
321.1	Bearing
321.2	Bearing
350.2	Bearing housing
360.1	Bearing cover

360.2	Bearing cover
360.3	Bearing cover
461	Seal packing
502	Casing wearing ring
503	Impeller wearing ring
524	Sealing bushing
542	Throttling bushing

# INFORMATIVE PUMP PERFORMANCE DIAGRAM

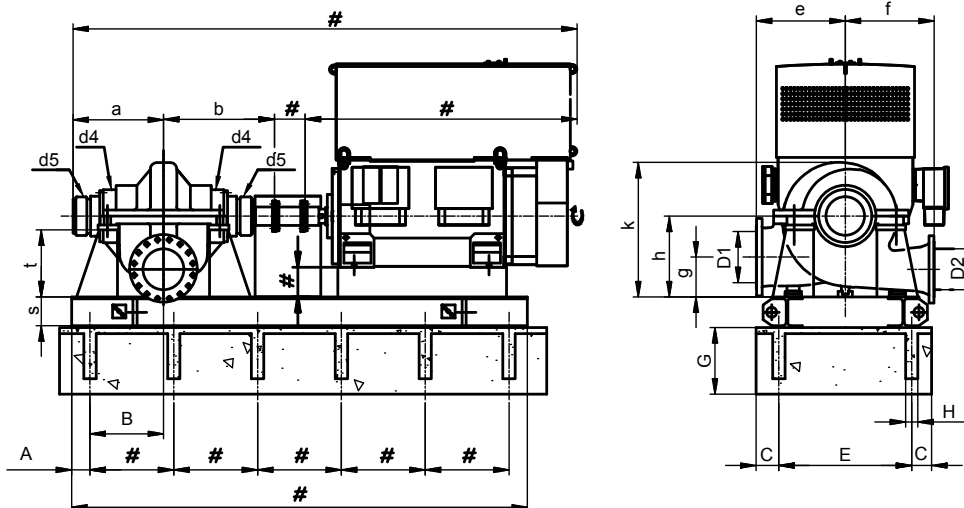


# PUMP DIMENSIONS



- d1 seals water drain
- d2 seals flooding
- d3 deaeration piping

# dimensions varying upon electric motors used



Picture holds only for pumps of sizes:  
 250-QVD-355-40, size no. 16  
 400-QVD-750-82, size no. 29

- d4 seals cooling
- d5 bearing cooling
- # dimensions varying upon electric motors used

# PUMP DIMENSIONS

Size number	Pump type	Pump							Base plate		Foundation						Nozzle DN/PN		Speed (rpm)
		a	b	e	f	g	h	k	s	t	A	B	C	E	G	H	succion	discharge	
1.	80-QVD-250-22	260	325	260	300	130	420	590	150	20	200	180	200	570	300	6x100x100	150/10	80/10	1450
2.	100-QVD-250-32	300	363	330	330	145	430	605	150	20	200	180	200	570	300	6x100x100	200/10	100/10	1450
3.	100-QVD-300-26	370	442	320	350	170	335	531	80	20	150	250	150	525	400	6x100x100	150/10	100/10	1450
4.	125-QVD-300-38	350	400	360	330	175	380	600	100	20	200	280	150	500	400	6x100x100	200/10	125/10	1450
5.	125-QVD-340-30	410	494	380	400	185	375	605	100	20	200	280	150	650	400	6x100x100	200/10	125/10	1450
6.	150-QVD-280-53	460	560	450	450	240	440	665	145	30	200	290	150	760	500	6x100x100	250/10	150/10	1450
7.	150-QVD-350-44	439	519	420	360	190	435	685	150	30	200	290	200	610	800	6x150x150	250/10	150/10	1450
8.	150-QVD-400-35	460	567	420	450	220	450	725	148	25	250	290	200	760	500	6x100x100	250/10	150/10	1450
9.	200-QVD-235-52	420	490	450	300	200	450	750	120	20	200	320	150	640	500	6x100x100	250/6	200/6	1450
10.	200-QVD-290-60	450	530	500	500	240	480	750	120	20	250	320	250	600	500	6x100x100	300/10	200/10	1450
11.	200-QVD-300-33	412	501	400	400	230	450	679	190	25	300	307	300	620	900	8x200x200	250/25	200/25	2900
12.	200-QVD-400-48	360	420	500	500	255	530	820	150	25	250	340	200	570	800	6x200x200	300/10	200/10	1450
13.	200-QVD-460-40	499	564	500	550	240	500	812	170	25	250	320	200	780	800	6x150x150	300/10	200/10	1450
14.	200-QVD-530-47	600	670	650	612	260	500	860	190	25	300	300	250	880	800	6x200x200	250/10	200/10	960
15.	250-QVD-350-72	552	657	550	550	260	520	825	170	20	300	390	250	830	800	6x150x150	350/10	250/10	1450
16.	250-QVD-355-40	605	725	500	500	435	495	1129	240	425	150	348	150	800	280	10x150x150	300/16	250/25	2900
17.	250-QVD-500-54	615	733	550	550	290	560	910	190	25	300	445	250	930	800	6x200x200	350/10	250/10	1450
18.	250-QVD-570-50	615	733	600	700	275	600	990	220	25	300	420	250	900	800	8x200x200	350/10	250/16	1450
19.	300-QVD-415-86	640	755	700	700	310	630	1010	190	25	300	490	250	1005	800	6x200x200	400/10	300/10	1450
20.	300-QVD-480-62	545	645	600	550	290	620	1035	210	25	300	410	300	880	800	6x200x200	400/10	300/16	1450
21.	300-QVD-600-65	675	850	700	700	310	630	1050	230	25	300	445	300	960	800	8x200x200	400/10	300/16	1450
22.	300-QVD-690-60	960	855	700	800	325	710	1170	220	25	300	500	300	1050	800	8x200x200	400/16	300/16	1450
23.	400-QVD-380-85	630	770	600	450	335	760	1325	220	30	300	490	300	950	800	8x200x200	500/10	400/10	1450
24.	400-QVD-440-108	637	830	800	800	360	710	1115	250	35	300	495	300	1160	800	6x200x200	500/10	400/10	1450
25.	400-QVD-470-115	670	770	750	750	380	750	1180	230	35	300	515	300	1250	800	8x200x200	500/6	400/16	960
26.	400-QVD-620-80	706	844	750	700	370	800	1270	250	35	350	530	380	1140	800	8x200x200	500/16	400/25	1450
27.	400-QVD-660-57	700	836	690	800	320	740	1200	250	40	300	480	300	1100	750	10x200x200	500/25	400/25	1450
28.	400-QVD-660-70	750	898	800	800	375	725	1195	310	45	200	505	200	1200	800	12x200x200	500/25	400/25	1450
29.	400-QVD-750-82	886	1085	870	870	390	790	1320	300	705	180	720	230	1300	800	12x200x200	500/40	400/40	1450
30.	500-QVD-530-136	811	907	1000	1000	450	900	1406	250	40	300	606	300	1480	800	8x200x200	600/40	500/40	960
31.	500-QVD-590-130	950	1110	1000	1000	460	930	1495	250	35	300	720	300	1500	800	8x200x200	600/10	500/10	960
32.	500-QVD-630-152	800	940	800	800	490	990	1590	250	40	300	485	300	1380	800	8x200x200	700/6	500/10	960
33.	500-QVD-670-116	700	900	850	850	400	850	1400	250	40	400	500	400	1000	700	8x200x200	600/10	500/16	1450
34.	500-QVD-700-125	756	941	1100	1160	460	897	1517	250	40	300	500	300	1630	800	8x200x200	700/10	500/16	960
35.	500-QVD-750-100	903	1082	950	950	420	950	1510	310	45	300	580	300	1500	800	8x200x200	600/16	500/16	960
36.	500-QVD-820-118	980	1200	1420	1200	570	1220	2020	235	40	300	500	250	1980	900	6x200x200	700/10	500/10	960
37.	500-QVD-890-95	1050	1280	950	950	465	945	1575	300	35	400	650	400	1680	700	8x200x200	600/10	500/16	960
38.	600-QVD-780-196	1115	1390	1350	1350	620	1240	1940	310	40	350	790	350	2200	800	8x200x200	800/10	600/10	580
39.	600-QVD-920-160	1070	1325	1300	1300	580	1180	1950	315	40	350	1205	350	2000	800	10x200x200	800/10	600/10	730
40.	600-QVD-950-135	1000	1255	1200	1200	555	1200	1882	255	45	300	620	300	1930	700	8x200x200	800/10	600/10	730
41.	700-QVD-720-160	1065	1255	1200	1200	600	1400	2250	410	40	350	686	350	2000	800	10x200x200	900/10	700/10	730
42.	900-QVD-1025-220	1323	1463	2000	1100	880	1940	3091	410	40	400	900	400	2600	800	10x200x200	1200/10	900/10	480

The dimensions of base foundation for the whole unit (pump+electric drive) are determined by dimensions of individually chosen drive. Therefore the manufacturer shall prepare a drawing of the whole unit upon request after technical clarification of each individual quotation or order.





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