

Serie
Series

TK-VTK

BOMBAS CENTRIFUGAS MULTICELULARES

MULTISTAGE CENTRIFUGAL PUMP



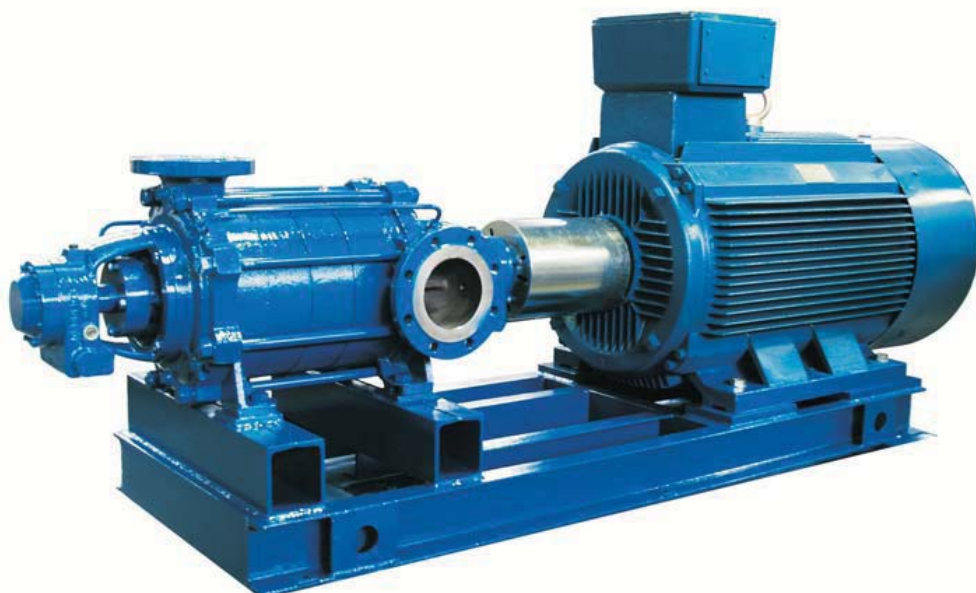
pumps

pumpen

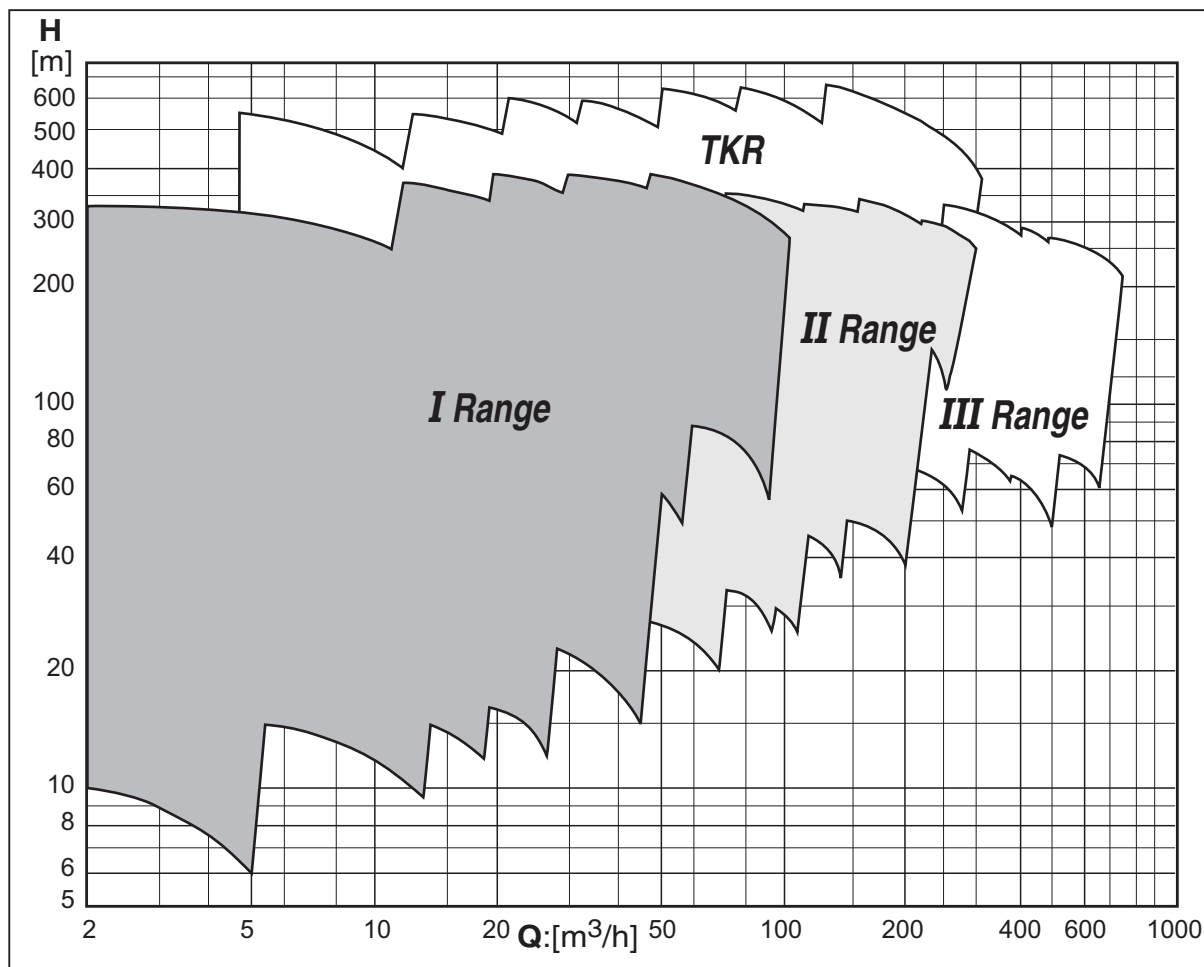
azcue

bombas

pompes



TK-VTK-0114



I Range	II Range	III Range	TKR
TK-VTK 25/40 - 65/100	TK-VTK 80/125 - 125/150	TK 150/200 - 250/300	32/50 - 100/150
Q [m³/h] : up to 100	Q [m³/h] : up to 300	Q [m³/h] : up to 800	Q [m³/h] : up to 400
H [m] : up to 400	H [m] : up to 350	H [m] : up to 300	H [m] : up to 640
P [kW] : up to 132	P [kW] : up to 250	P [kW] : up to 630	P [kW] : up to 450

□ Designation: **TK 80/125 - 5 R1**

TK Horizontal multistage pump

80 Delivery nozzle [mm]

125 Suction nozzle [mm]

5 Number of stages

R1 Impeller cut

VTK

Vertical multistage pump



Multistage pump

I Range

TK-VTK

25/40 - 65/100

Description:

TK and VTK high pressure multistage centrifugal pumps in horizontal and vertical construction.

Construction:

- Centrifugal multistage pumps, ring section type.
- Radial impellers dynamically and hydraulically balanced.
- Suction flanges: PN 16 Bar – Delivery flanges: PN 40 Bar.

■ **TK pumps** are horizontally mounted. The shaft is supported by two, externally located, grease lubricated, antifriction bearings. Motor and pump are connected by flexible coupling and mounted on a common base plate.

■ **VTK pumps** are vertically mounted. The shaft on the suction side is led in a slide bearing lubricated by the pump liquid, on the delivery side is supported by the motor bearing. Motor and pump are connected by a stool and a rigid coupling.

Materials:

- ☐ Casing:
- ☐ Radial impeller:
- ☐ Diffuser:
- ☐ Wear rings:
- ☐ Suction/delivery casing:
- ☐ Shaft sleeves:
- ☐ Shaft:
- ☐ TK seal:
- ☐ VTK seal:
- ☐ Bearings:

Standard:

- Cast iron
- Cast iron or Bronze
- Cast iron or Bronze

-
- Cast iron
- Chromium steel
- Chromium steel
- Soft packing (PTFE)
- Mech. (Chr.Steel/Carb/EPDM)
- Roller/ball bear. grease lubricated

Options:

- Stainless Steel (only TK)
- Stainless Steel
- Stainless Steel
- Bronze/Stainless Steel
- Stainless Steel (only TK)
- Stainless Steel
- Stainless Steel
- Mechanical seal
- Mechanical (SiC/SiC/Viton)
- Oil (only TK)

Operating range:

- | | Suction | Delivery | Temperature |
|--|----------|----------|---------------|
| ☐ Soft packing: | 12 [Bar] | 40 [Bar] | -10°C + 105°C |
| ☐ Standard mechanical seal: | 6 [Bar] | 30 [Bar] | -10°C + 95°C |
| ☐ Special mechanical seal: | 16 [Bar] | 40 [Bar] | -10°C + 130°C |
- Maximum admissible casing pressure (suction + shut off head): 40 Bar

International Standards:

- ☐ Design: ISO 9908 ☐ Performances: ISO 9906 deg 2 ☐ Flange dims.: ISO 7005-2

Multistage pump

II Range

TK-VTK

80/125 - 125/150

Description:

TK and VTK high pressure multistage centrifugal pumps in horizontal and vertical construction.

Construction:

- Centrifugal multistage pumps, ring section type.
- Radial impellers dynamically and hydraulically balanced.
- Suction flanges: PN 16 Bar – Delivery flanges: PN 40 Bar.

■ **TK pumps** are horizontally mounted. The shaft is supported by two, externally located, grease lubricated, antifriction bearings. Motor and pump are connected by flexible coupling and mounted on a common base plate.

■ **VTK pumps** are vertically mounted. The shaft on the suction side is led in a slide bearing lubricated by the pump liquid, on the delivery side is supported by the pump ball bearing. Motor and pump are connected by a stool and an elastic coupling.

Materials:

- ☐ Casing:
- ☐ Radial impeller:
- ☐ Diffuser:
- ☐ Wear rings:
- ☐ Suction casing:
- ☐ Delivery casing:
- ☐ Shaft sleeves:
- ☐ Shaft:
- ☐ TK seal:
- ☐ VTK seal:
- ☐ Bearings:

Standard:

- Cast iron
- Cast iron or Bronze
- Cast iron or Bronze
- (**)
- Cast iron
- Cast iron (°)
- Steel
- Steel
- Soft packing (PTFE)
- Mechanical (Chr.Steel/Carb/EPDM)
- Roller/ball bear. grease lubricated

Options:

- Stainless Steel (only TK)
- Stainless Steel
- Stainless Steel
- Bronze/ Stainless Steel
- Stainless Steel (only TK)
- Stainless Steel (only TK)
- Stainless Steel
- Stainless Steel
- Mechanical
- Mechanical (SiC/SiC/Viton)
- Oil (only TK)

Operating range:

- | | Suction | Delivery | Temperature |
|--|----------|----------|---------------|
| ☐ Soft packing: | 12 [Bar] | 40 [Bar] | -10°C + 105°C |
| ☐ Standard mechanical seal: | 6 [Bar] | 30 [Bar] | -10°C + 95°C |
| ☐ Special mechanical seal: | 16 [Bar] | 40 [Bar] | -10°C + 130°C |
- Maximum admissible casing pressure (suction + shut off head): 40 Bar ; (125/150: 30 Bar)

International Standards:

- ☐ Design: ISO 9908 ☐ Performances: ISO 9906 deg 2 ☐ Flange dims.: ISO 7005-2

Notes: (**): Std for 125/150 in Bronze; (°) for 125/150 exceeding 25 Bar: Spheroid Cast-iron



Multistage pump

TKR Range

TKR

32/50 - 100/150

Description:

TK high pressure multistage centrifugal pumps in horizontal construction.

Construction:

- Centrifugal multistage pumps.
- Radial impellers dynamically and hydraulically balanced.
- Suction flanges: PN 16 Bar – Delivery flanges: PN 64 Bar.

■ **TK pumps** are horizontally mounted. The shaft is supported by two, externally located, oil lubricated, antifriction bearings.

Motor and pump are connected by flexible coupling and mounted on a common base plate.

Materials:

	Standard	Options
☐ Casing:	Nodular Cast iron	Stainless Steel
☐ Radial impeller:	Cast iron or Bronze	Stainless Steel
☐ Diffuser:	Cast iron	Stainless Steel
☐ Wear rings:	Bronze	Stainless Steel
☐ Suction casing:	Spheroid cast iron	Stainless Steel
☐ Delivery casing:	Carbon Steel	Stainless Steel
☐ Shaft sleeves:	Chromium steel	Stainless Steel
☐ Shaft:	Chromium steel	Stainless Steel
☐ TK seal :	Soft packing (PTFE)	Mechanical
☐ Bearings:	Roller/ball bearings oil lubricated	

Operating range:

	Suction	Delivery	Temperature
☐ Soft packing:	12 [Bar]	64 [Bar]	-10°C + 105°C
☐ Special mechanical seal:	16 [Bar]	64 [Bar]	-10°C + 130°C

Maximum admissible casing pressure (suction + shut off head): 64 Bar

International Standard:

- ☐ Design: ISO 9908 ☐ Performances: ISO 9906 deg 2 ☐ Flange dim.: ISO 7005-2

Multistage pump

III Range

TK

150/200- 250/300

Description:

TK high pressure multistage centrifugal pumps in horizontal construction.

Construction:

- Centrifugal multistage pumps.
- Radial impellers dynamically and hydraulically balanced.
- Suction flanges: PN 16 Bar – Delivery flanges: PN 40 Bar.

■ **TK pumps** are horizontally mounted. The shaft is supported by two, externally located, grease lubricated, antifriction bearings.

Motor and pump are connected by flexible coupling and mounted on a common base plate.

Materials:

	Standard:	Options:
☐ Casing:	Cast iron	Stainless Steel (▲)
☐ Radial impeller:	Cast iron or Bronze	Stainless Steel (▲)
☐ Diffuser:	Cast iron	Stainless Steel (▲)
☐ Wear rings:	Bronze	Stainless Steel
☐ Suction casing:	Cast iron	Stainless Steel (▲)
☐ Delivery casing:	Cast iron (°)	Stainless Steel (▲)
☐ Shaft sleeves:	Chromium steel	Stainless Steel
☐ Shaft:	Chromium steel	Stainless Steel
☐ TK seal :	Soft packing (PTFE)	Mechanical
☐ Bearings:	Roller/ball bearings grease lubricated	Oil

Operating range:

	Suction	Delivery	Temperature
☐ Soft packing:	12 [Bar]	25 [Bar]	-10°C + 105°C
☐ Standard mechanical seal:	6 [Bar]	25 [Bar]	-10°C + 95°C
☐ Special mechanical seal:	16 [Bar]	25 [Bar]	-10°C + 130°C

Maximum admissible casing pressure (suction + shut off head): 30 Bar

International Standard:

- ☐ Design: ISO 9908 ☐ Performances: ISO 9906 deg 2 ☐ Flange dim.: ISO 7005-2

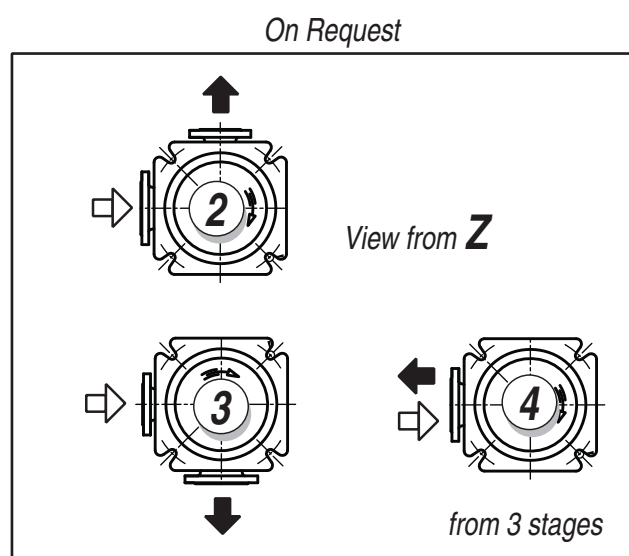
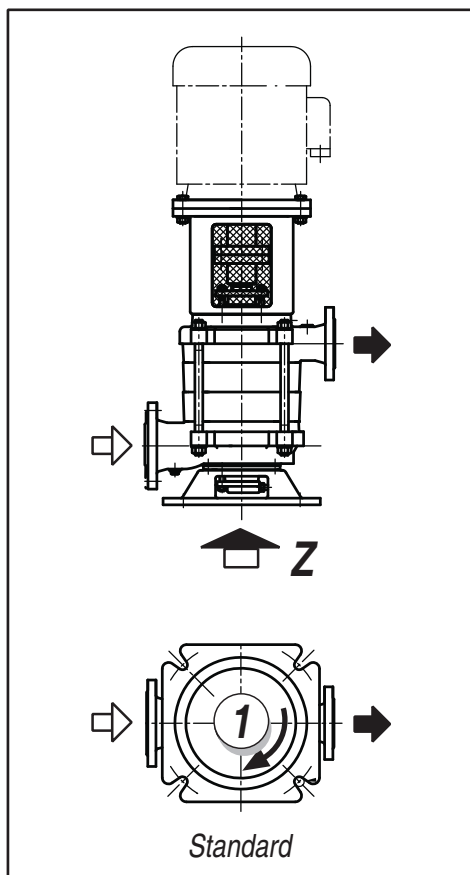
Notes:

(▲) : only for TK150/200 , TK200/250

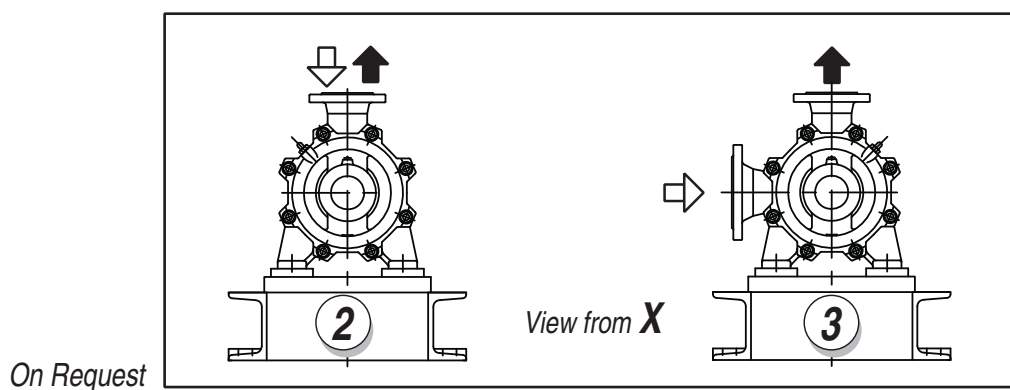
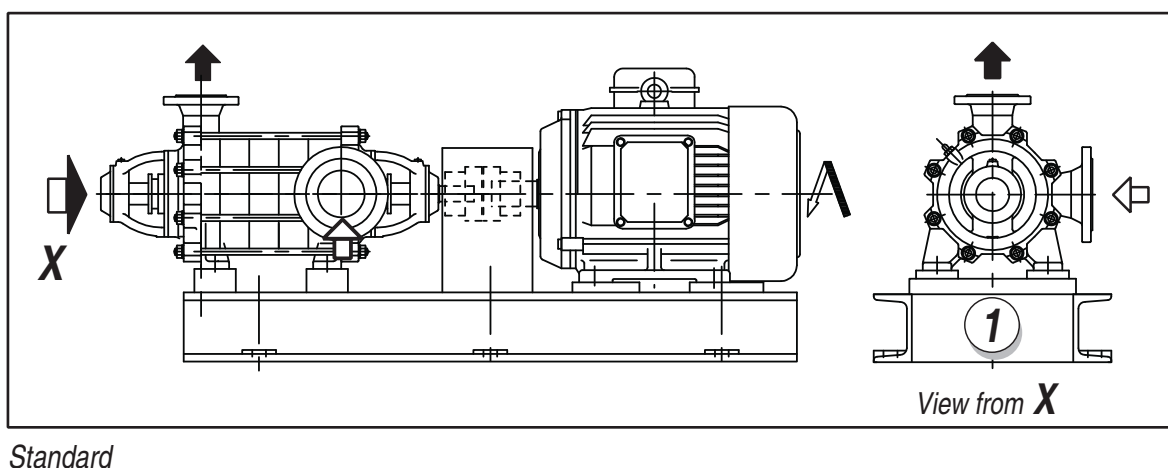
(°) : exceeding 25 Bar: Spheroid Cast-Iron



VTK

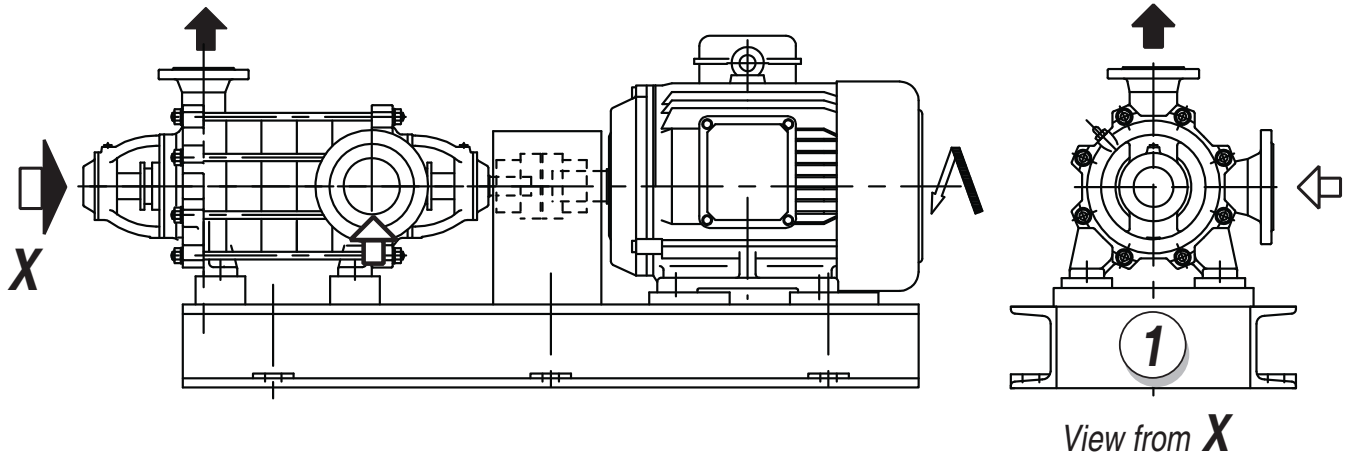


TK

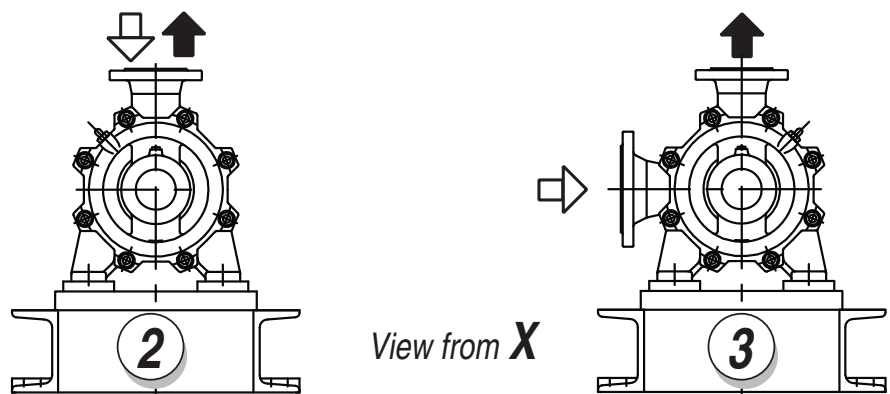




TKR



Standard

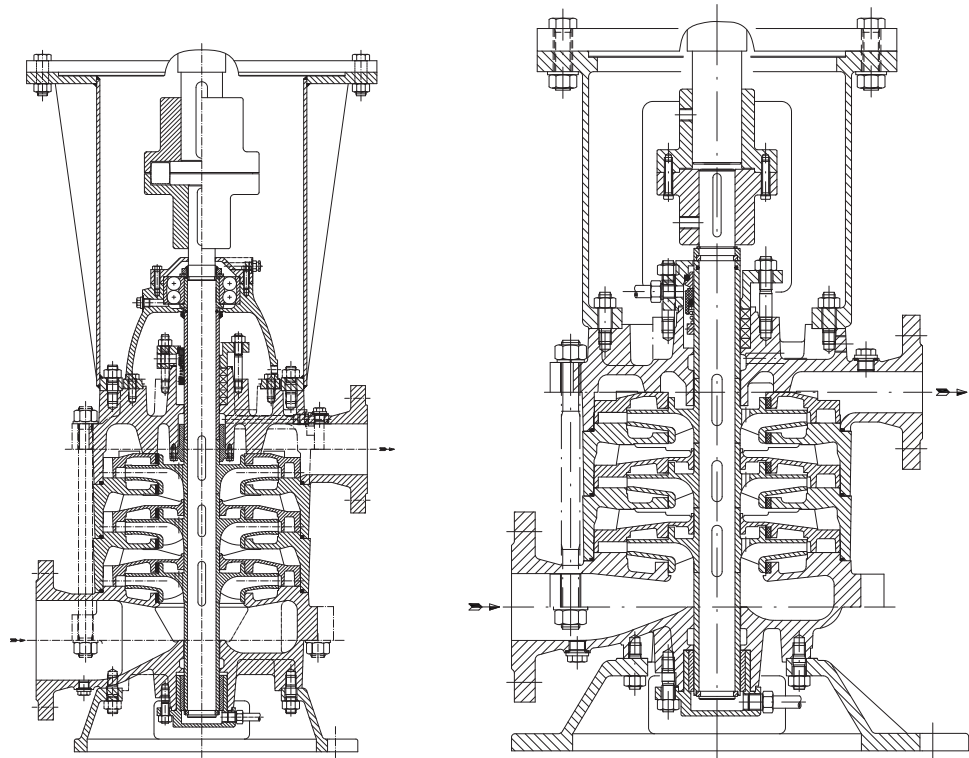


On Request



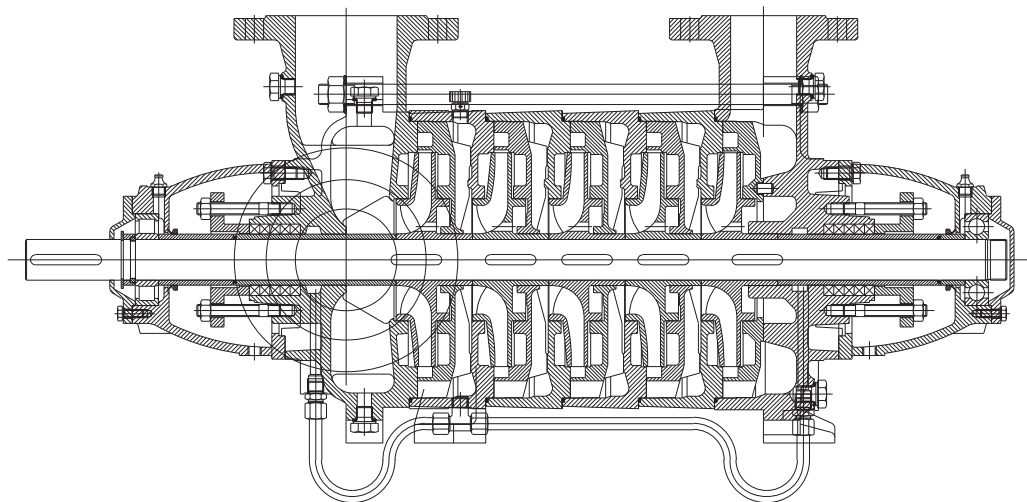
VTK

(Range I-II)



TK

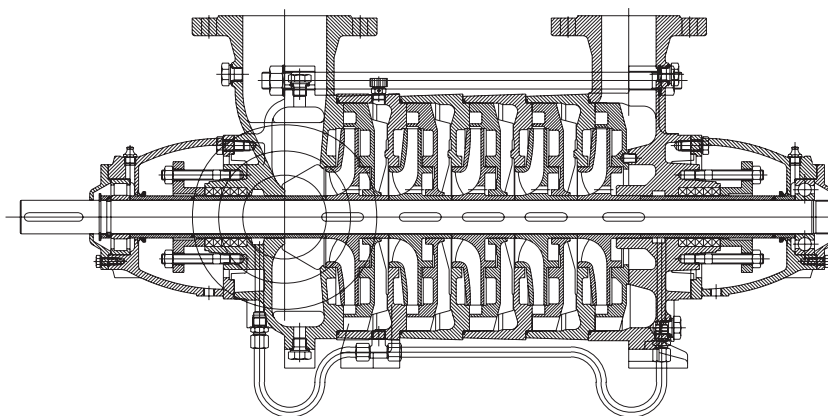
(Range I-II)



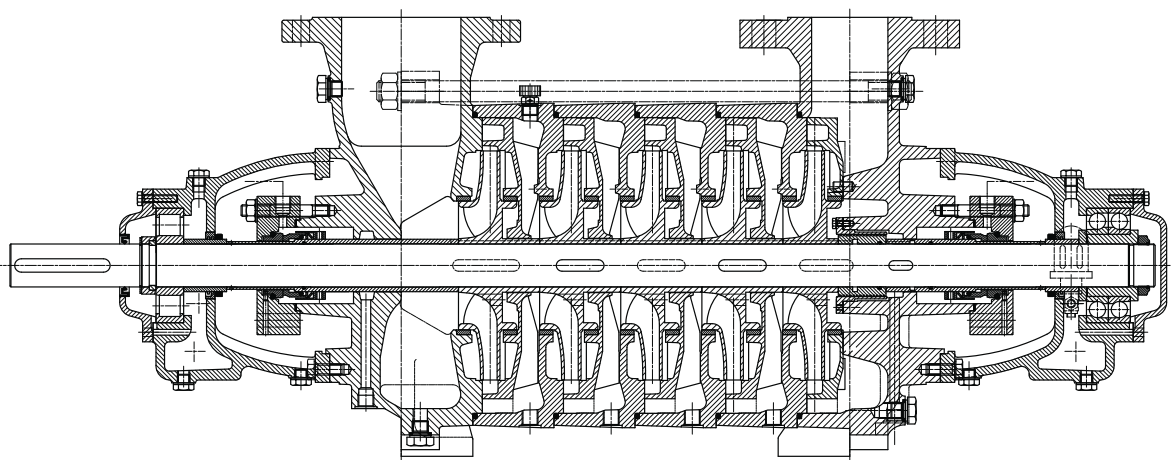


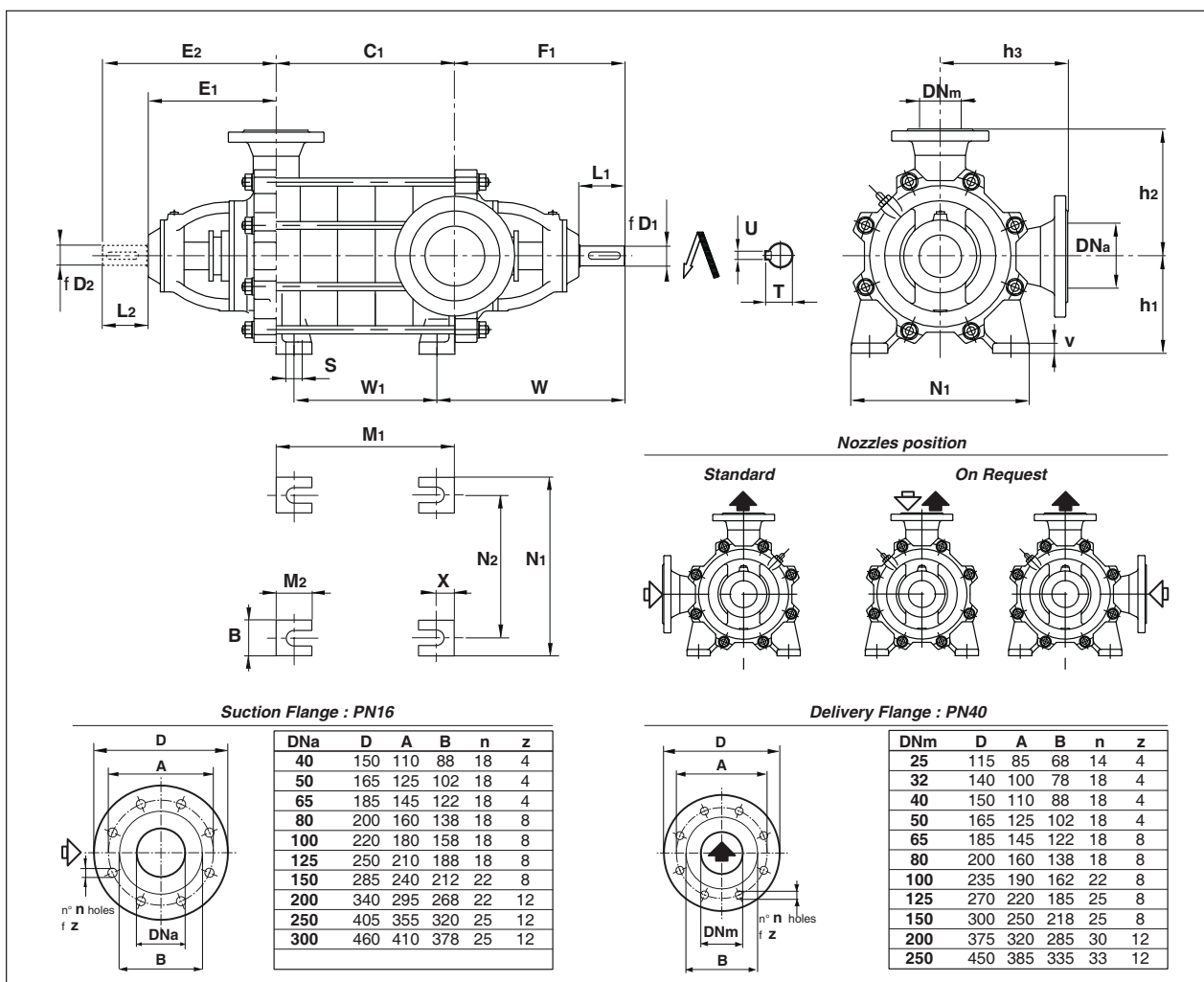
TK

(Range III)



TKR





Type	Dimensions [mm]																	
	C1: Number of Stages																	
	DNa	DNm	2	3	4	5	6	7	8	9	10	11	12	13	14	E1	E2	F1
25-40	40	25	100	145	190	235	280	325	370	415	460	505	550	595	640	170	215	200
32-50	50	32	124,5	182	239,5	297	354,5	412	469,5	527	584,5	642	699,5	757	814,5	210	275	256
40-65	65	40	143	206	269	332	395	458	521	584	647	710	773	836		227	310	295
50-80	80	50	161	227	293	359	425	491	557	623	689	755	821			227	310	295
65-100	100	65	185	260	335	410	485	560	635	710	785					247	335	315
80-125	125	80	215	300	385	470	555	640	725	810						295	410	390
100-150	150	100	260	360	460	560	660	760	860							320	435	425
125-150 A/B	150	125	315	440	565	690	815	940	1065							330	445	430
150-200	200	150	370	510	650	790	930	1070								370	510	495
200-250A	250	200	410	565	720	875	1030									350	495	510
200-250B	250	200	435	615	795	975	1156									350	495	505
250-300	300	250	500	700	900	1100										375	520	550

Type	Dimensions [mm]														Weight [kg]			
	B	M1	M2	N1	N2	S	V	W	W1	X	DN1	L1	T1	U1	D2	L2	T2	U2
25-40	40	C1+24	50	255	220	M14	14	240	C1-6	15	20	40	22,5	6	18	40	20,5	6
32-50	50	C1+7,5	50	310	270	M14	15	313,5	C1-22,5	15	30	60	33	8	28	60	31	8
40-65	60	C1+12	60	300	250	M18	16	360	C1-23	17,5	35	80	38	10	32	80	35	10
50-80	60	C1-1	60	300	250	M18	16	373	C1-36	17,5	35	80	38	10	32	80	35	10
65-100	70	C1-5	70	330	280	M20	18	410	C1-37	20	40	80	43	10	38	80	41	10
80-125	75	C1	75	380	320	M24	20	440	C1-100	50	45	110	48,8	14	42	110	45,3	12
100-150	80	C1	80	420	350	M24	22	475	C1-100	50	50	110	53,8	14	48	110	51,8	14
125-150 A/B	110	C1	90	500	400	M24	25	485	C1-110	55	50	110	53,8	14	48	110	51,8	14
150-200	110	C1	110	550	450	M24	26	560	C1-130	65	55	140	59,3	16	52	140	56,3	16
200-250A	120	C1	120	660	550	M30	30	580	C1-140	70	60	140	64,4	18	56	140	60,3	16
200-250B	220	C1	120	660	550	M30	30	575	C1-140	70	65	140	69,4	18	62	140	66,4	18
250-300	160	C1	140	750	600	M30	33	630	C1-160	80	70	140	74,9	20	65	140	69,4	18