

Submersible drainage pumps with cutter

***TERAL***

**KO**

60Hz



**TERAL INC.**

## Applications

- Sewage storage tanks and kitchen drainage of buildings, hotels, theaters, hospitals, condominiums, schools, etc.
- Combined treatment of sewage and human waste
- Drainage of sewage and waste of hog farms/livestock farms
- Drainage of sewage and waste of food processing plants
- Drainage of other types of sewage and waste containing solids

## Features

- ① No tangling or clogging of foreign matter by adoption of cutter mechanism and non-clogging type impeller.  
It has a mechanism to prevent water from entering the motor.
- ② A built-in motor protector prevents motor burnout due to overload, constraint or open phase.
- ③ KOA model and KOT model are automatic operation built-in types. KOA model performs independent automatic operation while KOT model performs automatic alternate parallel operation.

## Description of types

**100 KO - 6 7.5**

①      ②      ③      ④      ⑤

- ① Bore diameter
- ② Model KO: Non-automatic  
KOA: Automatic  
KOT: Automatic alternate parallel operation
- ③ Frequency 5: 50Hz 6: 60Hz
- ④ Output
- ⑤ Detachable device Blank: None  
-C: C-type detachable device,  
-S: SEC-type detachable device

## Standard specifications

Liquid handled	Liquid quality...Sewage/miscellaneous drainage/waste Liquid temperature...0 - 40°C
Max. solids size for passage	Diameter ... 50%~70% of bore diameter (5.5kW or less of bore 65, 80/bore 100) Spherical solids of 53mm in diameter (compliance with public building work standard specifications)(7.5kW - 22kW of bore 65, 80) Length ... 300% or less of bore diameter
Structure	Impeller ... with non-clogging type semi-open cutter disk Shaft seal ... Mechanical seal
Material	Impeller ... FC200 (5.5kW or less of bore 65, 80/bore 100) FCD450 (7.5kW - 22kW of bore 65, 80) Cutter disk ... FCD450 Main shaft ... SUS403 (3.7kW or less) SUS420J1 (5.5kW or more)*1 Casing ... FC200
Motor	Type ... Dry submersible Power source ... 3-phase 200/220V Synchronous rotation speed ... 1800min <sup>-1</sup> Protector ... Automatic reset type auto-cut (7.5kW or less) Thermal protector*2 (11kW or more)
Cable	Power cable ... VCT 4 cores (7.5kW or less) VCT 3 cores + 4 cores (11kW, 15kW) 2PNCT 3 cores + 4 cores (18.5kW, 22kW) Control cable ... VCT 2 cores (11kW or more)
Mechanical seal	Double mechanical seal (3.7kW or less) Tandem mechanical seal (5.5kW or more) Material ... Pump side: SiC vs SiC Motor side: Ceramic vs Carbon
Lubricant	Turbine oil VG32
Flange spec	JIS 10K thin type
Paint	Acrylic alkyd resin Munsell 7.5R4/14

\*1 The main shaft material shall be changed to comply with Ministry of Land, Infrastructure and Transport Public Building Construction Standard Specification.

\*2 b-contact output



\* Please note that some of the devices in the photo may differ from actual devices in coating color, etc.

## Standard accessories

Cable .....	10m
Companion flange (packing, nut, and bolt included) .....	1set
Aboveground nameplate .....	1 pc.
Screwed type flange for changing bore .....	1 pc.
(In case of 7.5kW - 22kW of bore 80)	

## Special specifications

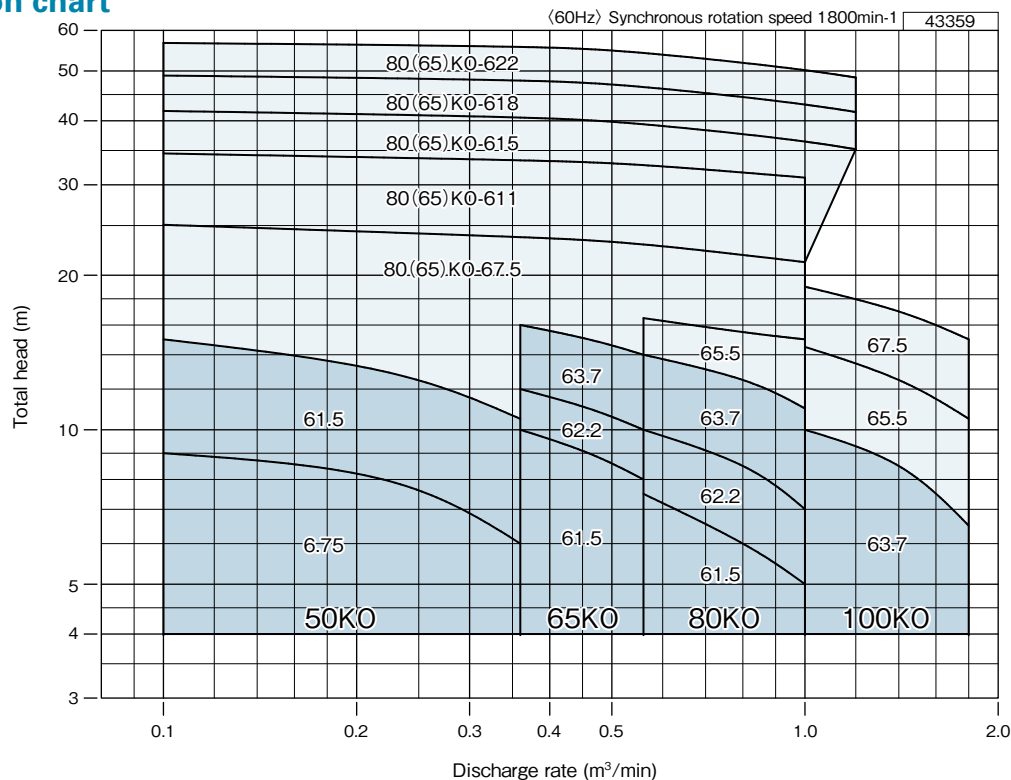
Motor	Power source	3-phase 400/440V, 3-phase 460V
	Main shaft	SUS420J2 (5.5kW or more)
Lubricant	Liquid paraffin	
Paint	Non-tar epoxy resin painting	
Cable	Cable extension 20m/30m	

## Special accessories

Control panel  
Float switch  
Detachable device\*

\* The material is FC. The entire material can be changed to SCS, or only the chain and foundation bolt can be changed to SUS as option. Also it is possible to attach the sliding guide and chain only.

## Selection chart



\* For dark blue area, automatic KOA model and automatic alternating parallel operation KOT model are also available.

## Specification table

Operating system	Type	Bore diameter mm	Output kW	Specifications							
				Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m
Non-automatic	50KO-6.75	50	0.75	0.1	9	0.22	8	0.36	6		
	50KO-61.5		1.5	0.1	15	0.22	13	0.36	10.5		
	65KO-61.5	65	1.5	0.36	10	0.46	9	0.56	8		
	65KO-62.2		2.2	0.36	12	0.46	11	0.56	10		
	65KO-63.7		3.7	0.36	16	0.46	15	0.56	14		
	65KO-67.5		7.5	0.1	25.1	0.6	23.0	1.0	21.2		
	65KO-611	80	11	0.1	34.5	0.6	32.8	1.0	31.0		
	65KO-615		15	0.1	41.8	0.6	39.4	1.2	35.2		
	65KO-618		18.5	0.1	49.0	0.6	46.5	1.2	41.6		
	65KO-622		22	0.1	56.7	0.6	54.2	1.2	48.6		
	80KO-61.5	100	1.5	0.56	7.5	0.8	6	1.0	5		
	80KO-62.2		2.2	0.56	10	0.8	8.5	1.0	7		
	80KO-63.7		3.7	0.56	14	0.8	12.5	1.0	11		
	80KO-65.5		5.5	0.56	16.5	0.8	15.5	1.0	15		
	80KO-67.5	100	7.5	0.1	25.1	0.6	23	1.0	21.2		
	80KO-611		11	0.1	34.5	0.6	32.8	1.0	31.0		
	80KO-615		15	0.1	41.8	0.6	39.4	1.2	35.2		
	80KO-618		18.5	0.1	49	0.6	46.5	1.2	41.6		
	80KO-622	100	22	0.1	56.7	0.6	54.2	1.2	48.6		
	100KO-63.7		3.7	1.0	10	1.4	8.5	1.8	6.5		
	100KO-65.5		5.5	1.0	14.5	1.4	12.5	1.8	10.5		
	100KO-67.5		7.5	1.0	19	1.4	17	1.8	15		

Operating system	Type	Bore diameter mm	Output kW	Specifications							
				Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m	Discharge rate: m <sup>3</sup> /min	Total head: m
Automatic	50KOA-6.75	50	0.75	0.1	9	0.22	8	0.36	6		
	50KOA-61.5		1.5	0.1	15	0.22	13	0.36	10.5		
	65KOA-61.5	65	1.5	0.36	10	0.46	9	0.56	8		
	65KOA-62.2		2.2	0.36	12	0.46	11	0.56	10		
	65KOA-63.7	80	3.7	0.36	16	0.46	15	0.56	14		
	80KOA-61.5		1.5	0.56	7.5	0.8	6	1.0	5		
	80KOA-62.2	100	2.2	0.56	10	0.8	8.5	1.0	7		
	80KOA-63.7		3.7	0.56	14	0.8	12.5	1.0	11		
	100KOA-63.7	100	3.7	1.0	10	1.4	8.5	1.8	6.5		
Automatic alternate parallel operation	50KOT-6.75	50	0.75×2	0.1	9	0.22	8	0.36	6		
	50KOT-61.5		1.5×2	0.1	15	0.22	13	0.36	10.5		
	65KOT-61.5	65	1.5×2	0.36	10	0.46	9	0.56	8		
	65KOT-62.2		2.2×2	0.36	12	0.46	11	0.56	10		
	65KOT-63.7	80	3.7×2	0.36	16	0.46	15	0.56	14		
	80KOT-61.5		1.5×2	0.56	7.5	0.8	6	1.0	5		
	80KOT-62.2	100	2.2×2	0.56	10	0.8	8.5	1.0	7		
	80KOT-63.7		3.7×2	0.56	14	0.8	12.5	1.0	11		
	100KOT-63.7	100	3.7×2	1.0	10	1.4	8.5	1.8	6.5		

## Motor specification table

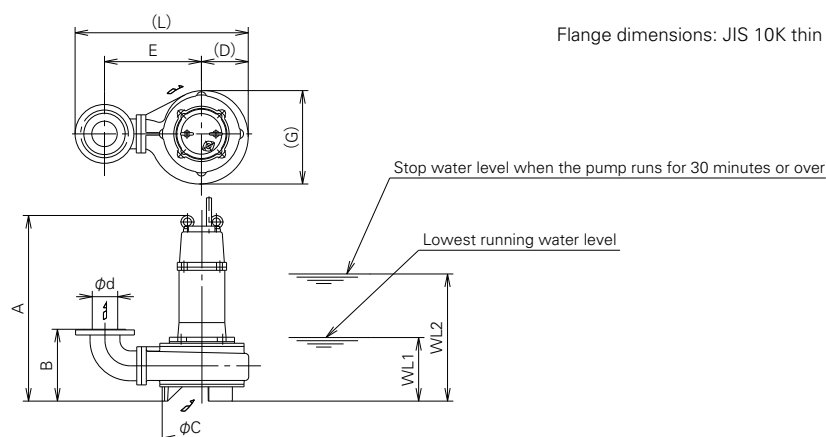
Output kW	Type	Number of poles P	Phase and voltage V	Rating	Starting		Thermal class	Protector	Cable				
				Current A	Method	Current A			Type	Number of cores	Size mm <sup>2</sup>	Length m	Finishing outer diameter mm
0.75	Dry	4	3-phase, 200/220V	3.9/3.6	Direct-on-Line	15.3/16.9	B	○	VCT	4	1.25	10	11.1
1.5	Dry	4	3-phase, 200/220V	6.9/6.6	Direct-on-Line	29.0/31.6	B	○	VCT	4	1.25	10	11.1
2.2	Dry	4	3-phase, 200/220V	9.9/9.0	Direct-on-Line	39.8/44.8	B	○	VCT	4	1.25	10	11.1
3.7	Dry	4	3-phase, 200/220V	16.0/14.8	Direct-on-Line	69.9/78.1	F	○	VCT	4	2	10	11.8
5.5	Dry	4	3-phase, 200/220V	22.5/20.0	Direct-on-Line	103/116	B	○	VCT	4	3.5	10	13.9
7.5	Dry	4	3-phase, 200/220V	30.0/27.0	Direct-on-Line	156/177	B	○	VCT	4	5.5	10	16.5
11	Dry	4	3-phase, 200/220V	45/40	Star-delta	181/204	F	×	VCT	3 4	3.5	10	12.6 13.9
15	Dry	4	3-phase, 200/220V	56/51	Star-delta	268/277	F	×	VCT	3 4	5.5	10	15 16.5
18.5	Dry	4	3-phase, 200/220V	70/63	Star-delta	352/399	F	×	2PNCT	3 4	8	10	16.7 18.4
22	Dry	4	3-phase, 200/220V	81/74	Star-delta	461/531	F	×	2PNCT	3 4	14	10	19.9 21.9

Starting current of Star-delta starter is the value of Direct-on-line starting. (If this is made 1/3, it becomes the value when Star-delta starter.)



## Assembly drawing

### Non-automatic KO



Flange dimensions: JIS 10K thin type or equivalent

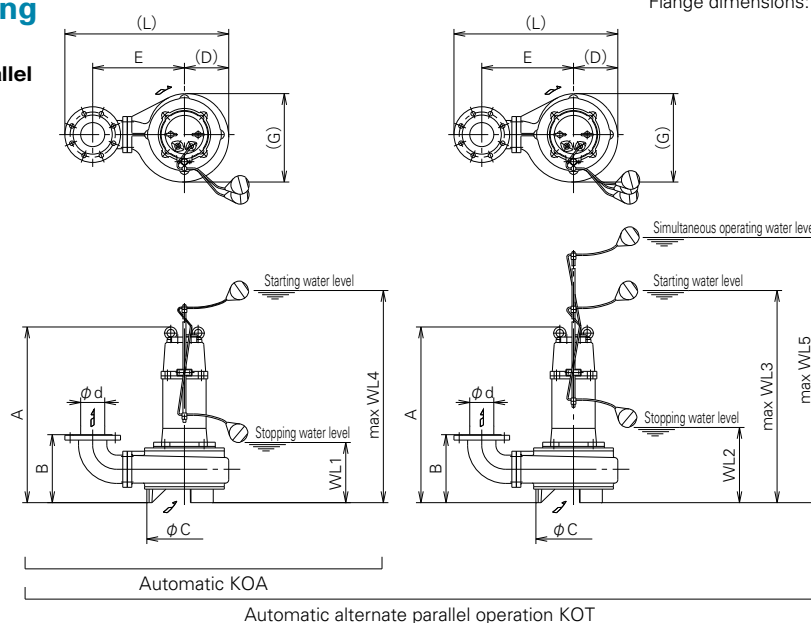
## Dimensions

(Unit: mm)

Bore diameter d	Type	Output kW	Pump							Operating water level		Approx. mass kg
			A	B	C	D	E	G	L	WL1	WL2	
50	50KO-6.75	0.75	475	203	210	116	231	238	425	200	381	39
	50KO-61.5	1.5	498	206	260	137	251	275	465	200	406	50
	65KO-61.5	1.5	518	216	250	141	261	282	490	200	426	53
65	65KO-62.2	2.2	542	225	280	151	281	311	520	200	436	59
	65KO-63.7	3.7	577	225	280	151	281	311	520	200	471	65
	65KO-67.5	7.5	741	263	355	201	331	401	619	350	700	165
	65KO-611	11	820	293	355	201	341	401	629	350	780	192
	65KO-615	15	888	293	410	228	369	460	684	350	830	230
	65KO-618	18.5	938	293	410	228	369	460	684	350	880	245
	65KO-622	22	938	293	410	228	369	460	684	350	880	260
	80KO-61.5	1.5	528	226	250	147	306	294	546	200	436	56
80	80KO-62.2	2.2	552	226	280	154	316	314	563	200	446	65
	80KO-63.7	3.7	587	226	280	154	316	314	563	200	481	71
	80KO-65.5	5.5	738	258	300	170	336	339	598	340	680	141
	80KO-67.5	7.5	741	258	355	201	366	401	659	350	700	165
	80KO-611	11	820	293	355	201	341	401	634	350	780	192
	80KO-615	15	888	293	410	228	369	460	689	350	830	230
	80KO-618	18.5	938	293	410	228	369	460	689	350	880	245
	80KO-622	22	938	293	410	228	369	460	689	350	880	260
100	100KO-63.7	3.7	607	288	280	170	316	337	591	200	501	77
	100KO-65.5	5.5	748	310	300	171	311	341	587	350	690	145
	100KO-67.5	7.5	748	310	300	171	311	341	587	350	690	158

## Assembly drawing

- Automatic KOA
- Automatic alternate parallel operation KOT



Flange dimensions: JIS 10K thin type or equivalent

## Dimensions

(Unit: mm)

Bore diameter d	Type	Output kW	Pump							Operating water level					Approx. mass kg
			A	B	C	D	E	G	L	WL1	WL2	WL3	WL4	WL5	
50	50KOA (T)-6.75	0.75	540	203	210	116	231	238	425	200	250	1333	1433	1733	39
	50KOA (T)-61.5	1.5	575	206	260	137	251	275	465	200	250	1373	1473	1773	51
65	65KOA (T)-61.5	1.5	595	216	250	141	261	282	490	200	250	1393	1493	1793	54
80	80KOA (T)-61.5	1.5	605	226	250	147	306	294	546	200	250	1396	1496	1796	57

Note) Set the operating water level of KOT model to WL1&lt;WL2&lt;WL3&lt;WL4&lt;WL5 and make the water level difference in each float 50mm or more.

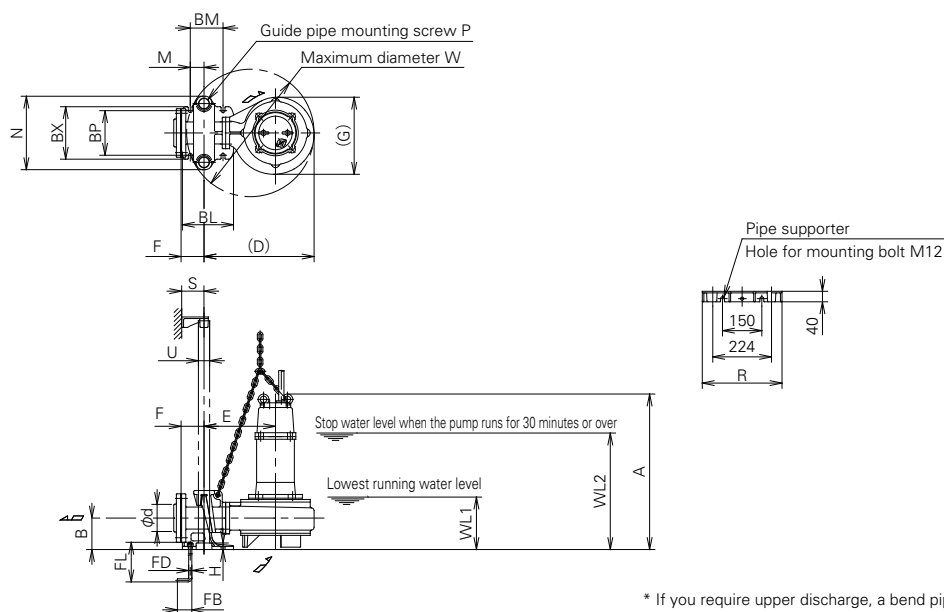
Approx. mass is for one unit.

Note 1) In case of KOT type, the required power supply capacity is equal to the motor output of 2 pumps.

## Assembly drawing

### ●Non-automatic KO + C-type detachable device

Flange dimensions: JIS 10K thin type or equivalent



\* If you require upper discharge, a bend pipe is necessary as a special accessory.

## Dimensions

(Unit: mm)

Bore diameter d	Type	Output kW	Pump								Detachable device			
			A	B	D	E	F	G	S	W	H	M	N	P
50	50KO-6.75-C	0.75	513	120	349	233	84	238	75	410	20	51	275	Rp 1
	50KO-61.5-C	1.5	532	120	389	253	84	275	75	448	20	51	275	Rp 1
65	65KO-61.5-C	1.5	542	120	405	264	88	282	85	471	25	53	280	Rp 1 ¼
	65KO-62.2-C	2.2	557	120	435	284	88	311	85	500	25	53	280	Rp 1 ¼
	65KO-63.7-C	3.7	592	120	435	284	88	311	85	500	25	53	280	Rp 1 ¼
	*65KO-67.5-C	7.5	769	170	548	347	104	401	95	610	25	59	290	Rp 1 ½
	80KO-61.5-C	1.5	537	120	421	274	88	294	85	486	25	53	280	Rp 1 ¼
80	80KO-62.2-C	2.2	562	120	438	284	88	314	85	502	25	53	280	Rp 1 ¼
	80KO-63.7-C	3.7	597	120	438	284	88	314	85	502	25	53	280	Rp 1 ¼
	*80KO-65.5-C	5.5	766	170	487	317	104	339	95	554	25	59	290	Rp 1 ½
	*80KO-67.5-C	7.5	769	170	548	347	104	401	95	610	25	59	290	Rp 1 ½
	100KO-63.7-C	3.7	639	170	492	322	104	337	95	557	25	59	290	Rp 1 ½
100	100KO-65.5-C	5.5	758	170	488	317	104	341	95	554	25	59	290	Rp 1 ½
	100KO-67.5-C	7.5	758	170	488	317	104	341	95	554	25	59	290	Rp 1 ½

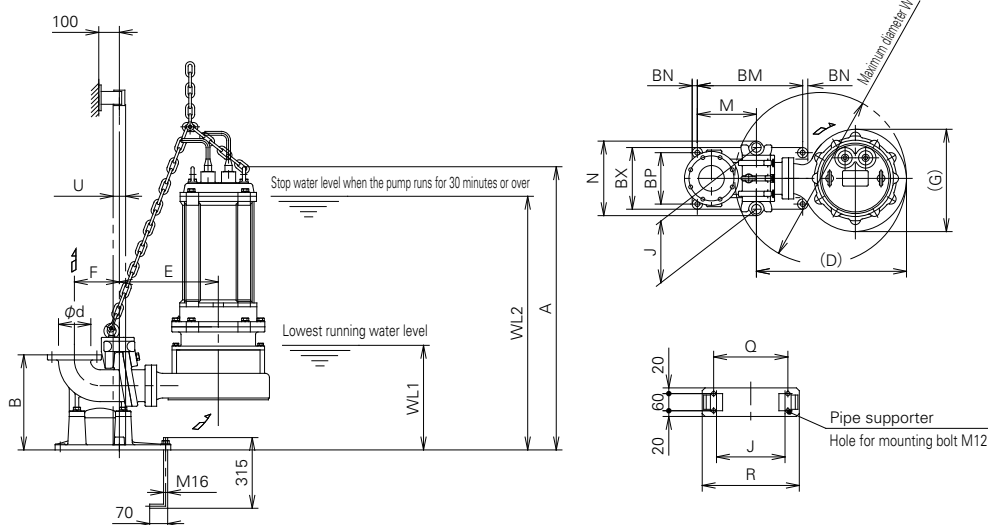
Bore diameter d	Type	Detachable device				Pipe supporter		Foundation bolt			Operating water level		Lifting mass kg
		BL	BM	BP	BX	R	U	FB	FD	FL	WL1	WL2	
50	50KO-6.75-C	170	115	130	160	304	25A	55	M12	250	200	421	39
	50KO-61.5-C	170	115	130	160	304	25A	55	M12	250	200	446	50
65	65KO-61.5-C	195	125	170	200	314	32A	55	M12	250	200	456	53
	65KO-62.2-C	195	125	170	200	314	32A	55	M12	250	200	446	59
	65KO-63.7-C	195	125	170	200	314	32A	55	M12	250	200	481	65
	*65KO-67.5-C	245	155	200	240	314	40A	70	M16	315	380	730	165
	80KO-61.5-C	195	125	170	200	314	32A	55	M12	250	200	446	56
80	80KO-62.2-C	195	125	170	200	314	32A	55	M12	250	200	456	65
	80KO-63.7-C	195	125	170	200	314	32A	55	M12	250	200	491	71
	*80KO-65.5-C	245	155	200	240	314	40A	70	M16	315	370	710	141
	*80KO-67.5-C	245	155	200	240	314	40A	70	M16	315	380	730	165
	100KO-63.7-C	245	155	200	240	304	40A	70	M16	315	250	531	77
100	100KO-65.5-C	245	155	200	240	314	40A	70	M16	315	360	700	145
	100KO-67.5-C	245	155	200	240	314	40A	70	M16	315	360	700	158

\*Special flange is used.

## Assembly drawing

### Non-automatic KO + SEC-type detachable device

Flange dimensions: JIS 10K thin type or equivalent



## Dimensions

(Unit: mm)

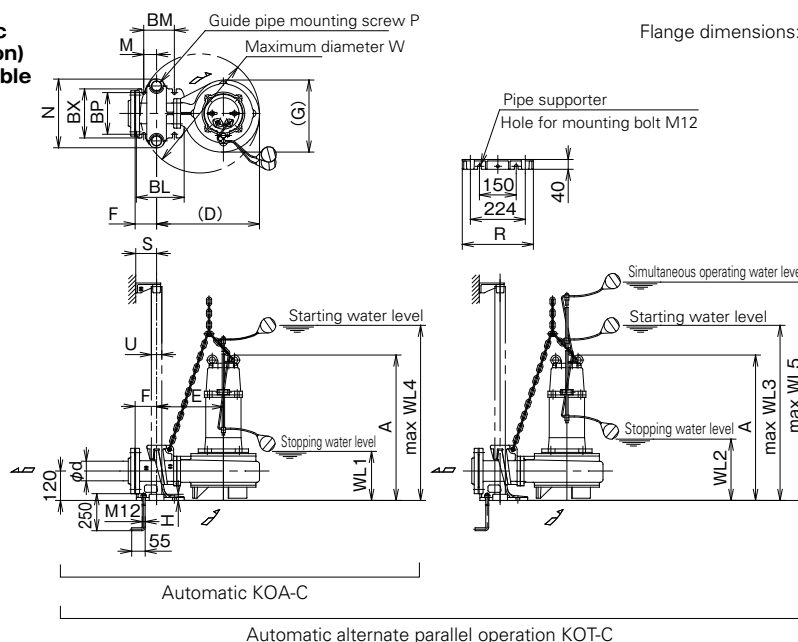
Bore diameter d	Type	Output kW	Pump					Detachable device								Pipe supporter			Operating water level		Lifting mass kg	
			A	D	E	G	W	B	F	J	M	N	BM	BN	BP	BX	Q	R	U	WL1		WL2
65	* 65KO-611-S	11	928	577	376	401	661	370	155	240	230	290	410	20	200	240	260	340	40A	460	880	212
	* 65KO-615-S	15	996	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	930	230
	* 65KO-618-S	18.5	1046	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	980	245
	* 65KO-622-S	22	1046	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	980	260
80	80KO-611-S	11	928	577	376	401	661	370	155	240	230	290	410	20	200	240	260	340	40A	460	880	192
	80KO-615-S	15	996	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	930	230
	80KO-618-S	18.5	1046	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	980	245
	80KO-622-S	22	1046	632	404	460	715	370	155	240	230	290	410	20	200	240	260	340	40A	460	980	260

\*Special flange is used.

## Assembly drawing

### Automatic type (automatic alternate parallel operation) KOA (T) + C-type detachable device

Flange dimensions: JIS 10K thin type or equivalent



## Dimensions

(Unit: mm)

Bore diameter d	Type	Output kW	Pump								Detachable device								Pipe supporter		Foundation bolt			Operating water level					Lifting mass kg
			A	B	D	E	F	G	S	W	H	M	N	P	BL	BM	BP	BX	R	U	FB	FD	FL	WL1	WL2	WL3	WL4	WL5	
50	50KOA(T)-6.75-C	0.75	578	120	349	233	84	238	75	410	20	51	275	Rp1	170	115	130	160	304	25A	55	M12	250	200	250	1373	1473	1773	39
	50KOA(T)-61.5-C	1.5	609	120	389	253	84	275	75	448	20	51	275	Rp1	170	115	130	160	304	25A	55	M12	250	200	250	1373	1503	1803	51
65	65KOA(T)-61.5-C	1.5	619	120	405	264	88	282	85	471	25	53	280	Rp1 1/4	195	125	170	200	314	32A	55	M12	250	200	250	1413	1513	1813	54
80	80KOA(T)-61.5-C	1.5	614	120	421	274	88	294	85	486	25	53	280	Rp1 1/4	195	125	170	200	314	32A	55	M12	250	200	250	1406	1506	1806	57

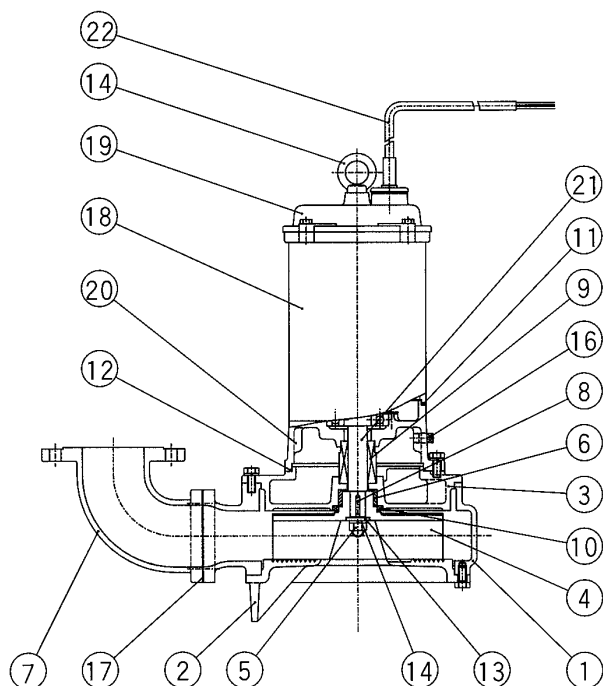
Note) Set the operating water level of KOT model to WL1&lt;WL2&lt;WL3&lt;WL4&lt;WL5 and make the water level difference in each float 50mm or more.

Approx. mass is for one unit.

Note 1) In case of KOT type, the required power supply capacity is equal to the motor output of 2 pumps.

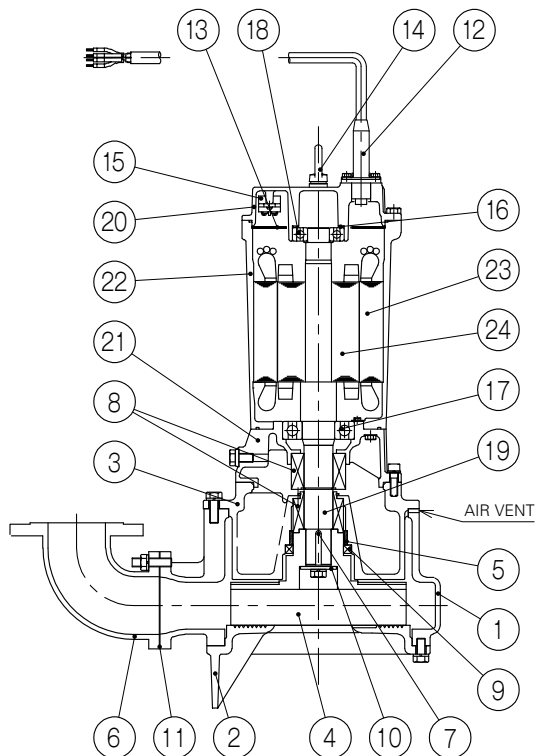
## Sectional drawing

### ●Non-automatic KO Bore 50-100mm 1.5-3.7kW



Lubricant  
Turbine oil: #32

### ●Non-automatic KO Bore 80-100mm 5.5-7.5kW



## Parts list

No.	Part name	Qty	Material
1	Casing	1	FC200
2	Cutter disk	1	FCD450
3	Seal cover	1	FC200
4	Impeller	1	FC200
5	Impeller nut	1	SUS304
6	Bushing	1	CAC406
7	Discharge elbow	1	FC200
8	Key	1	SUS304
9	Mechanical seal	1	SiC vs SiC Ceramic vs Carbon
10	Oil seal	1	NBR
11	O-ring	1	NBR
12	O-ring	1	NBR
13	Washer	1	SUS403
14	Spring washer	1	SUS304
15	Eye bolt	2	SS400
16	Plug	1	SUS304
17	Gasket	1	Joint sheet
18	Motor frame	1	FC200
19	Protective cover	1	FC200
20	Lower bracket	1	FC200
21	Motor shaft	1	SUS403
22	Lead wire	1	VCT

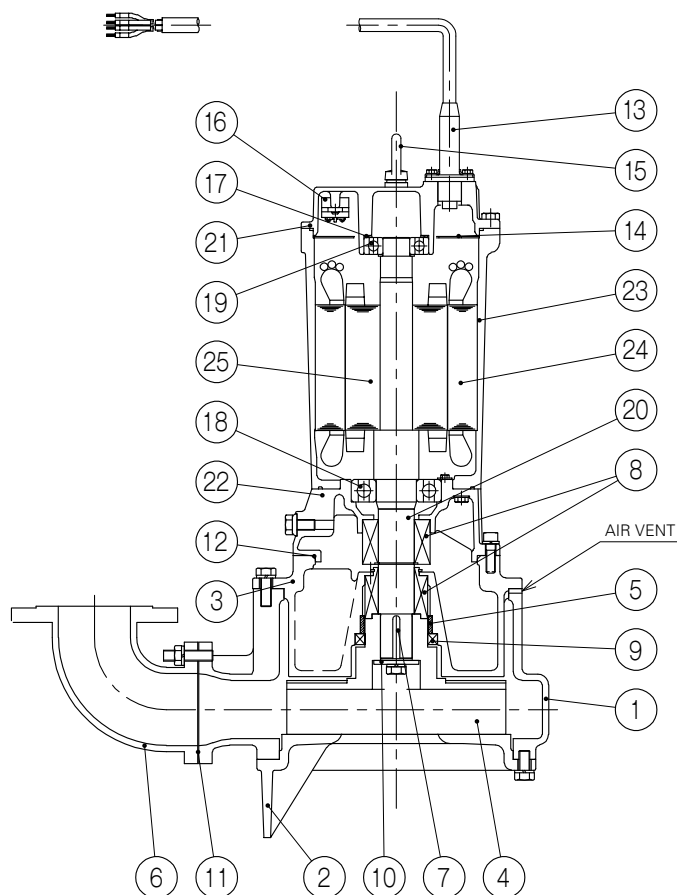
Applicable model : 50KO-61.5 / 65KO-61.5 / 65KO-62.2 /  
65KO-63.7 / 80KO-61.5 / 80KO-62.2 /  
80KO-63.7 / 100KO-63.7

No.	Part name	Qty	Material
1	Casing	1	FC200
2	Cutter disk	1	FCD450
3	Seal cover	1	FC200
4	Impeller	1	FC200
5	Bushing	1	CAC406
6	Discharge elbow	1	FC200
7	Key	1	SUS304
8	Mechanical seal	1	SiC ~ SiC Ceramic vs Carbon
9	Oil seal	1	NBR
10	Washer	1	SUS304
11	Sheet packing	1	Synthetic paper
12	Lead wire	1	VCT
13	Baffle	1	Bakelite
14	Eye bolt	2	S25C
15	Protector	1	
16	Wave washer	1	S58C
17	Ball bearing	1	SUJ
18	Ball bearing	1	SUJ
19	Motor shaft	1	SUS420J1
20	Upper bracket	1	FC200
21	Lower bracket	1	FC200
22	Motor frame	1	FC200
23	Stator	1	
24	Rotor	1	

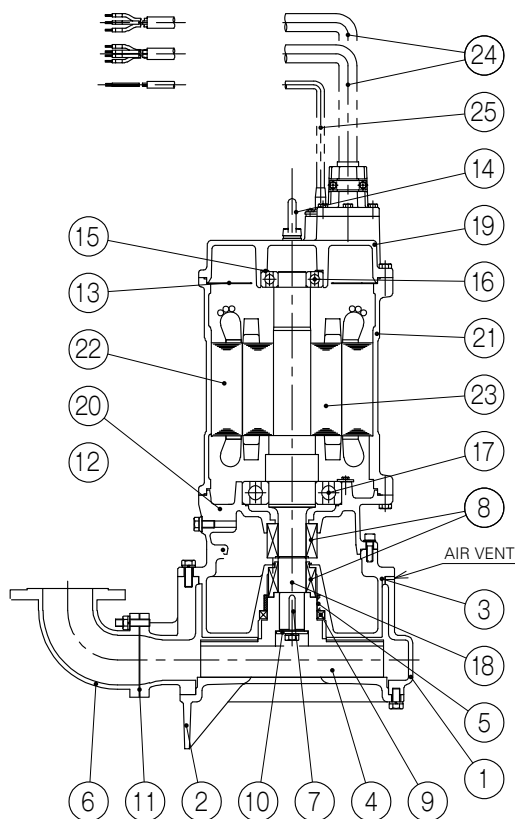
Applicable model : 80KO-65.5 / 100KO-65.5 / 100KO-67.5

## Sectional drawing

### ●Non-automatic KO Bore 65-80mm 7.5kW



### ●Non-automatic KO Bore 65-80mm 11-22kW



## Parts list

No.	Part name	Qty	Material
1	Casing	1	FC200
2	Cutter disk	1	FCD450
3	Seal cover	1	FC200
4	Impeller	1	FCD450
5	Bushing	1	CAC406
6	Discharge elbow	1	FC200
7	Key	1	SUS304
8	Mechanical seal	1	SiC ~ SiC Ceramic vs Carbon
9	Oil seal	1	NBR
10	Washer	1	SUS304
11	Sheet packing	1	Synthetic paper
12	O-ring	1	NBR
13	Lead wire	1	VCT
14	Baffle	1	Bakelite
15	Eye bolt	2	S25C
16	Protector	1	
17	Wave washer	1	S58C
18	Ball bearing	1	SUJ
19	Ball bearing	1	SUJ
20	Motor shaft	1	SUS420J1
21	Upper bracket	1	FC200
22	Lower bracket	1	FC200
23	Motor frame	1	FC200
24	Stator	1	
25	Rotor	1	

Applicable model : 80 (65) KO-67.5

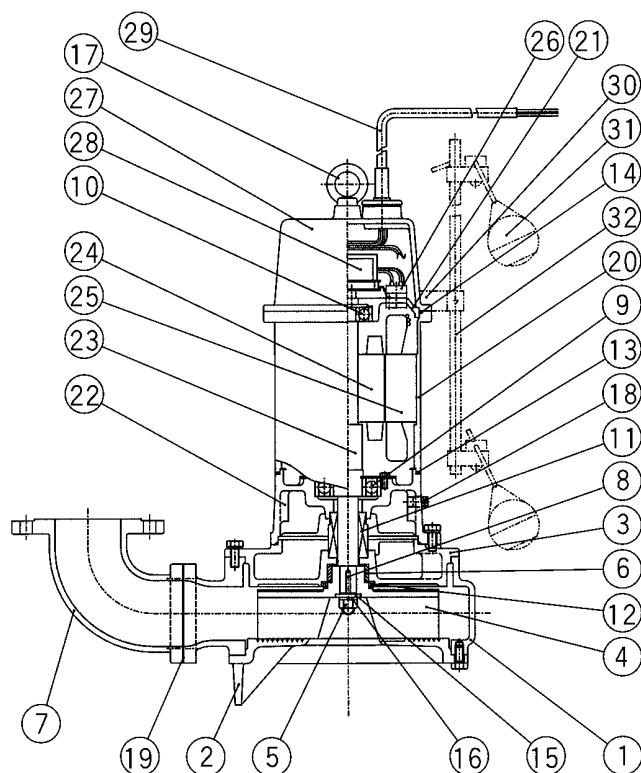
No.	Part name	Qty	Material
1	Casing	1	FC200
2	Cutter disk	1	FCD450
3	Seal cover	1	FC200
4	Impeller	1	FCD450
5	Bushing	1	CAC406
6	Discharge elbow	1	FC200
7	Key	1	SUS304
8	Mechanical seal	1	SiC ~ SiC Ceramic vs Carbon
9	Oil seal	1	NBR
10	Washer	1	SUS304
11	Sheet packing	1	Synthetic paper
12	O-ring	1	NBR
13	Baffle	1	Bakelite
14	Eye bolt	2	S25C
15	Wave washer	1	S58C
16	Ball bearing	1	SUJ
17	Ball bearing	1	SUJ
18	Motor shaft	1	SUS420J1
19	Upper bracket	1	FC200
20	Lower bracket	1	FC200
21	Motor frame	1	FC200
22	Stator	1	
23	Rotor	1	
24	Lead wire (for power supply)	2	VCT/2PNCT
25	Lead wire (for signal)	1	VCT

Applicable model : 80 (65) KO-611 / 80 (65) KO-615 /  
80 (65) KO-618 / 80 (65) KO-622



## Sectional drawing

### ● Automatic KOA 1.5kW - 3.7kW



Lubricant  
Turbine oil: #32

## Parts list

No.	Part name	Qty	Material
1	Casing	1	FC200
2	Cutter disk	1	FCD450
3	Seal cover	1	FC200
4	Impeller	1	FC200
5	Impeller nut	1	SUS304
6	Bushing	1	CAC406
7	Discharge elbow	1	FC200
8	Key	1	SUS304
9	Ball bearing	1	SUJ2
10	Ball bearing	1	SUJ2
11	Mechanical seal	1set	SiC vs SiC Ceramic vs Carbon
12	Oil seal	1	NBR
13	O-ring	1	NBR
14	O-ring	1	NBR
15	Washer	1	SUS403
16	Spring washer	1	SUS304
17	Eye bolt	2	SS400
18	Plug	1	SUS304
19	Gasket	1	Joint sheet
20	Motor frame	1	FC200
21	Upper bracket	1	FC200
22	Lower bracket	1	FC200
23	Motor shaft	1	SUS403
24	Rotor	1	S40
25	Stator	1	S40
26	Protector	1	FC200
27	Protective cover	1	-
28	Control substrate	1	-
29	Lead wire	1	VCT
30	Support metal	1	SUS304
31	Float switch	2	ABS resin
32	Float supporter	1	PVC

Applicable model : 50KOA-61.5 / 65KOA-61.5 / 65KOA-62.2 /  
65KOA-63.7 / 80KOA-61.5 / 80KOA-62.2 /  
80KOA-63.7 / 100KOA-63.7

[illegible]

[illegible]



### **TERAL INC.**

Head Office 230, Moriwake, Miyuki-cyo, Fukuyama-city, Hiroshima, 720-0003, Japan  
Tel.+81-84-955-1111 Fax.+81-84-955-5777  
www.teral.net

### **Teral Asia Limited**

Room 1001,10/F, Olympia Plaza, 255 King's Road, North Point, Hong Kong  
Tel.+852-2571-0935 Fax.+852-2571-0619

### **TERAL THAI CO.,LTD.**

150 Moo 16 Udomsoraryuth Rd., T.Bangkrasan, A.Bangpa-In, Ayutthaya 13160 Thailand  
Tel.+66-3535-2148-9 Fax.+66-3535-2150

### **TERAL TRADING & SERVICE CO.,LTD.**

150 Moo 16 Udomsoraryuth Rd., T.Bangkrasan, A.Bangpa-In, Ayutthaya 13160 Thailand  
Tel.+66-3535-2145-7 Fax.+66-3535-8549

### **Teral Malaysia Sdn.Bhd.**

10, Jalan SS13/6A, Subang Jaya Industrial Estate, 47500, Subang Jaya, Selangor D.E, Malaysia  
Tel.+60-3-5611 5775 Fax.+60-3-5612 5775

### **PT.Teral Indonesia Pumps and Fans**

Komplek Pergudangan Taman Tekno Blok M No.26.Jl.BSD Sektor XI, Kelurahan Setu,  
Kecamatan Setu, Kota Tangerang Selatan, Provinsi Banten.15314.  
Tel.+62-21-29665778 Fax.+62-21-75673913

### **Teral Vietnam Limited Liability Company**

9th Floor, LADECO Building, No. 266 Doi Can Street, Lieu Giai Ward, Ba Dinh District, Hanoi City, Vietnam  
Tel.+84-24-393-52-790 Fax.+84-24-393-52-289

### **Teral General Machine (Shanghai) Co.,Ltd.**

No.285, Yuan Qu Road(N), Bei Qiao, Min Hang District, Shanghai 201109, China  
Tel.+86-21-6490-9128 Fax.+86-21-6490-9126

### **Teral-Aerotech Fans Private Ltd.**

Plot No.188-189, Ecotech Extension-1, Surajpur Kasna Road, Greater Noida-201306, Uttar Pradesh, India  
Tel.+91-9810162210, +91-9310162210

### **Teral Middle East F.Z.C.**

1806-002, 18th floor, BB1, Mazaya Business Avenue, JLT, Dubai, UAE. PO Box 414781  
Tel.+971-4369 9039

### **Teral Pumps & Fans North America Ltd.**

Suite # 197, 800-15355 24 Ave Surrey, B.C., CANADA V4A 2H9  
Tel.+1-604-839-1008

### **Teral Philippines Inc.**

Roof Deck 3, Vernida 1 Building, 120 Amorsolo St., Legaspi Village, Makati City  
Tel.+63 2 7717-9314