

TECHNICAL DATA



CONCEPT :

The Toyo DPE range of submersible pumps with agitator has been specially designed to handle extra heavy and abrasive slurries.

These centrifugal pumps with semi-open or closed impeller, feature a unique agitator design. This agitator lifts sediments into suspension and create a homogeneous mixture. This enables the continuous pumping of media with a high concentration of solids.

Robust construction, careful selection of materials and unique contour components, coupled with a low speed high torque motor, have produced a pump with excellent abrasion resistance as well as a sufficient weight and an important torque. These characteristics ensure long service life and economical operation.

The impeller, the wear plate(s) and the agitator are manufactured in cast chrome iron (24 to 28% Cr).

A strong short shaft, supported by a series of carefully selected bearings and a double mechanical seal or an assembly of special lip seals operating in an oil bath ensure tightness in the hardest of conditions.

DPE 15 to DPE 75 are also available with lip seals and mechanical seal (option).

The DPE pumps are provided with detachable bend and base, braces for the guidance pipes and suspension chain. This allows the realization of fixed installations, for example in narrow pits and to work on the pump without disassembling the discharge hose.

Servicing and maintaining the pumps to keep them in good working order is easy. On the DPE pumps you have one or two wear plates, one of which is adjustable allowing simple adjustments to maintain long lasting high performance.

The electric class F motor is cooled by the liquid in which the pump is submerged.

The DPE pumps can be equipped with thermal protection and moister sensor. These pumps are also available in different metallurgies and notably in stainless steel for acid slurries pumping.

OPERATING CONDITIONS:

- slurries with solid content of up to 60% by weight
- particle sizes up to 60 mm
- liquid temperatures up to 60°C
- pH levels between 4 and 14

Special versions are available for liquid temperatures up to 80°C. Maximal operating depth is 30 m.

ELECTRIC POWER REQUIREMENTS* :

Pump type	Power kVA	Amp. 400 V
DPE 3	6	5
DPE 5	12	8.3
DPE 7.5/B	15	11.8
DPE 10/H	20	16.3
DPE 15/B	30	24
DPE 20/B/H	40	32
DPE 30/B	50	46
DPE 40B	65	58
DPE 50/B/H	80	75
DPE 60B	100	90
DPE 75/B	120	116

*These figures are given as an indication.

ELECTRIC CABLE :

The standard cable type to be used for connecting the pump is HO7RN-F and its specifications should correspond to the following:

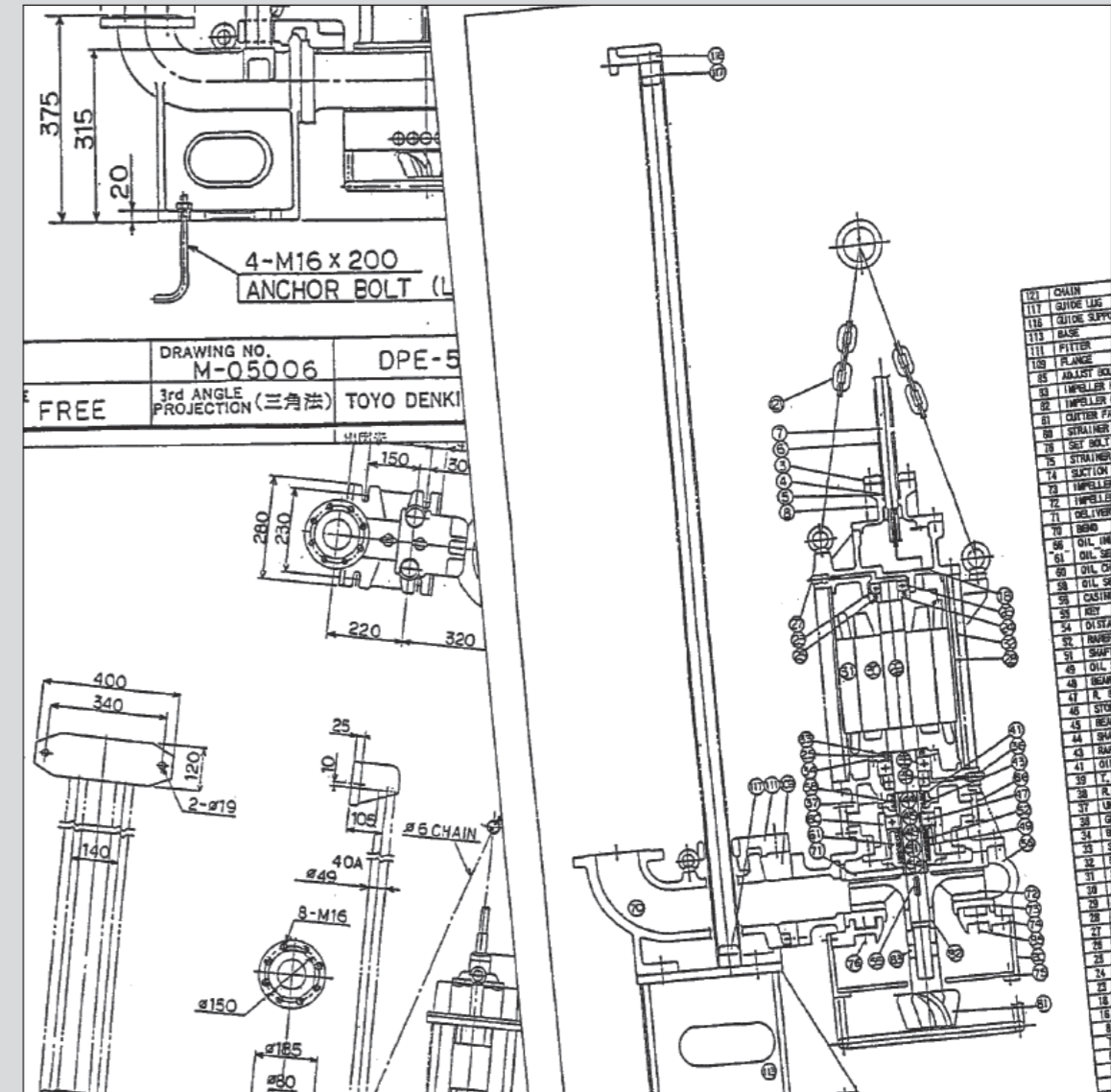
Pump type	Section	Outer diam. mm	Max. length m / 400V
DPE 3	4 x 6 mm ²	19	500
DPE 5	4 x 6 mm ²	19	350
DPE 7.5/B	4 x 10 mm ²	23	350
DPE 10/H	4 x 10 mm ²	23	250
DPE 15/B	4 x 10 mm ²	23	170
DPE 20/B/H	4 x 10 mm ²	23	120
DPE 30/B	4 x 16 mm ²	27	140
DPE 40B	4 x 35 mm ²	37	260
DPE 50/B/H	4 x 35 mm ²	37	200
DPE 60B	4 x 35 mm ²	37	170
DPE 75/B	4 x 50 mm ²	43	180

CONTROL PANEL :

For 3 to 10 HP DPE pumps, we recommend to use a Toyo control panel equipped with a direct starter. From 15 HP DPE pumps on, we recommend to use a Toyo control panel equipped with a statoric starter.

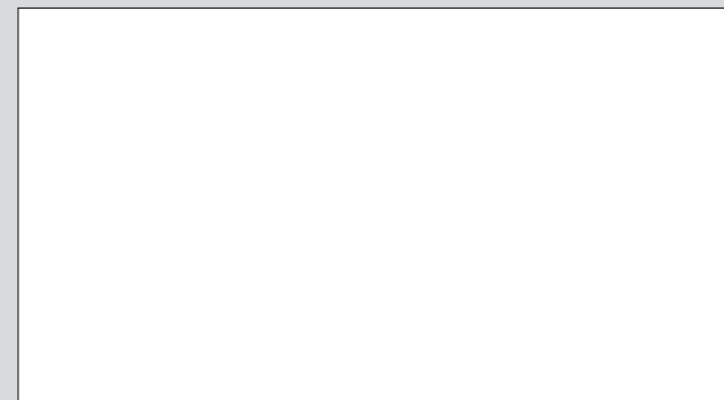
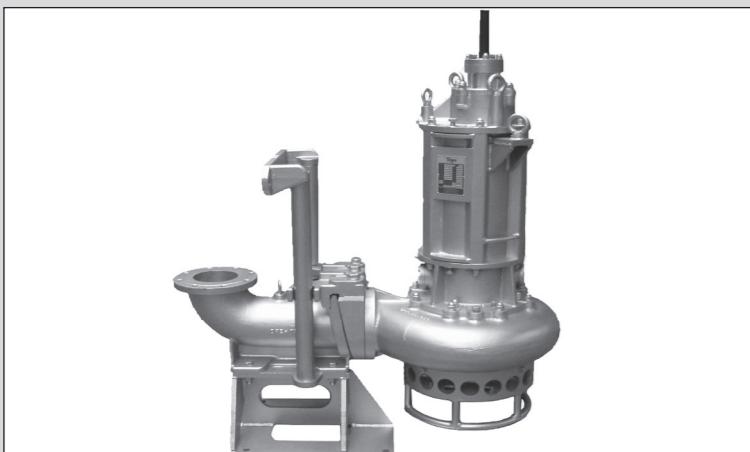
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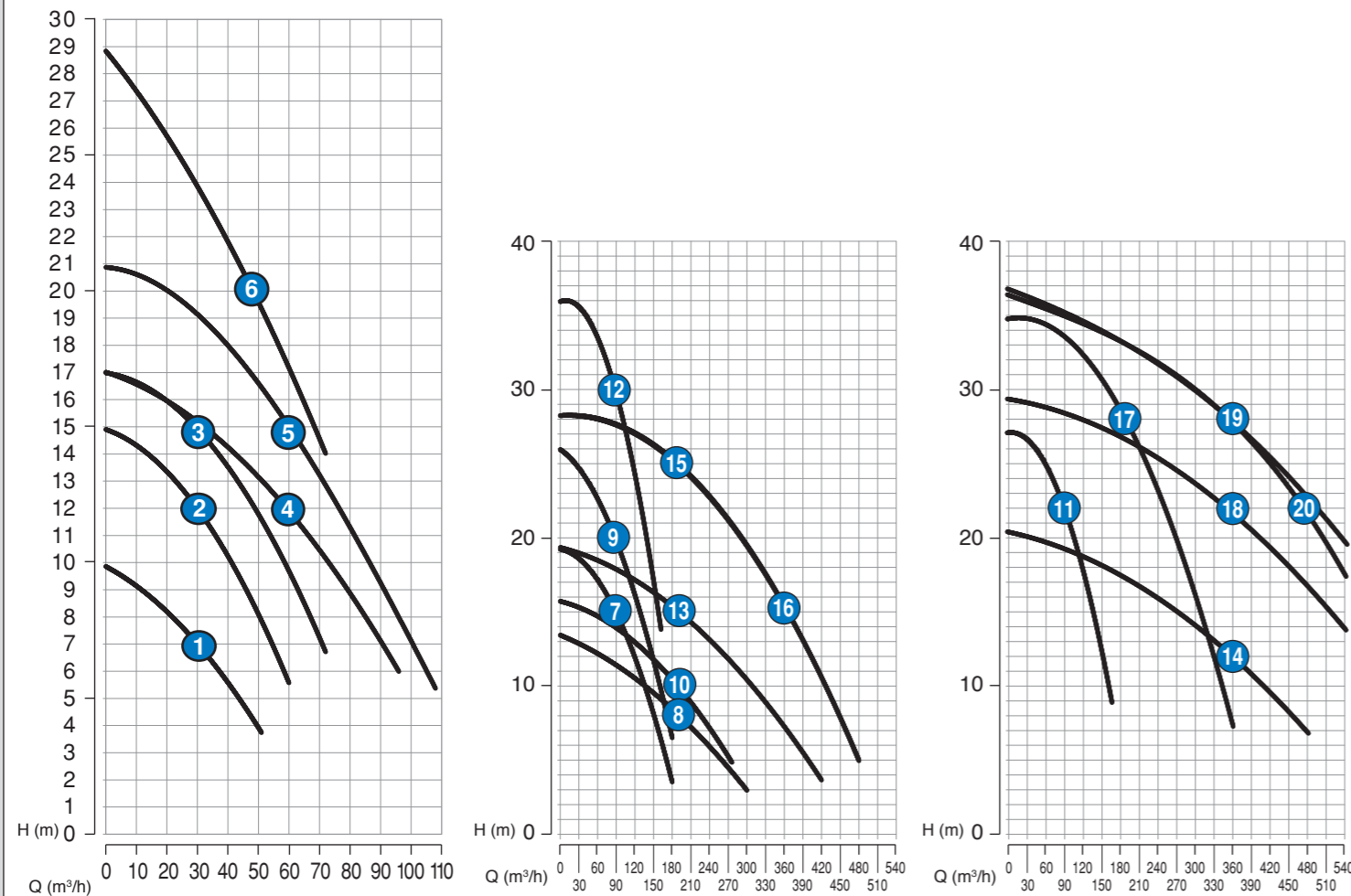


Heavy slurry pumps

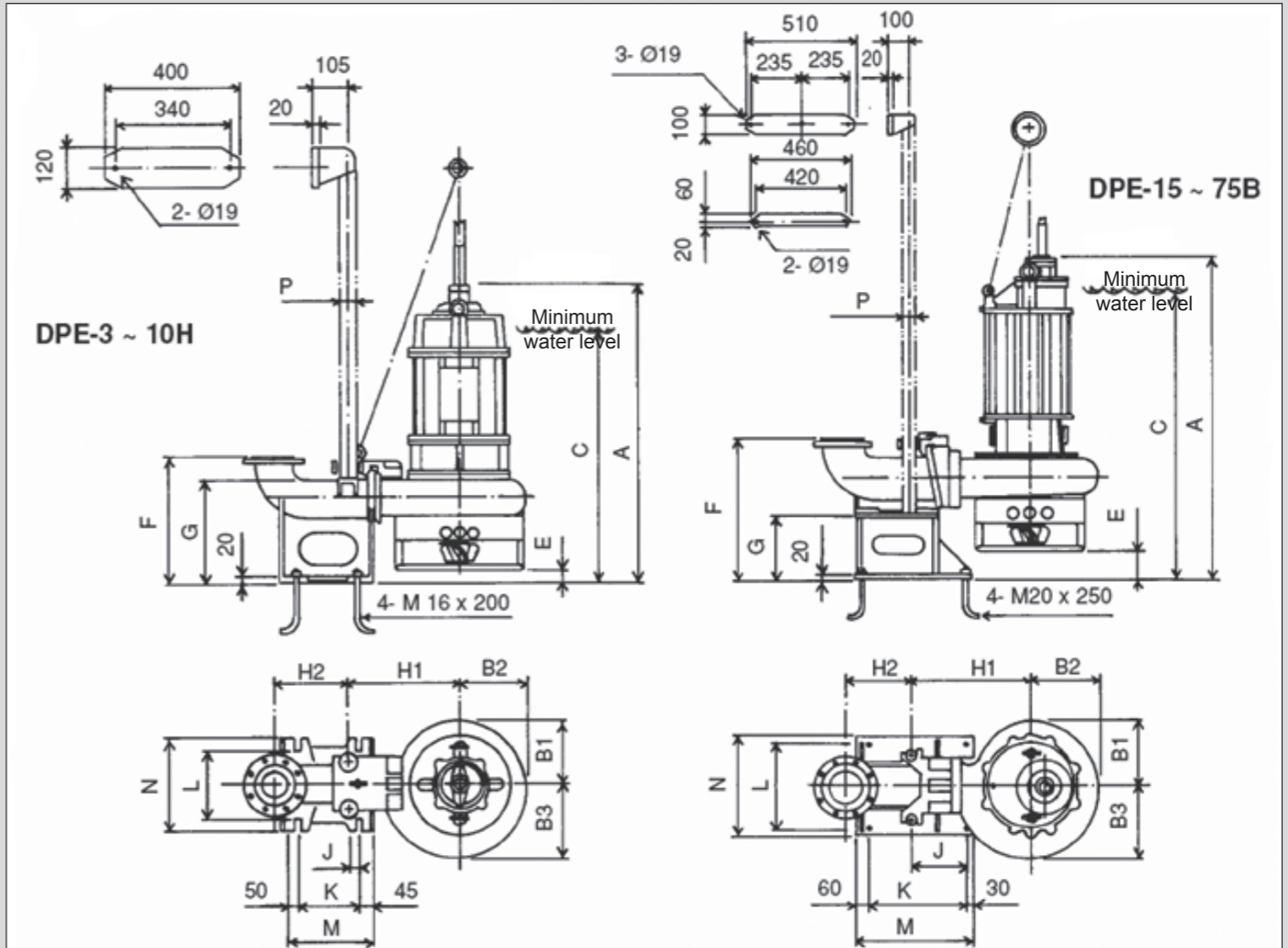
**TECHNICAL SPECIFICATIONS
DPE PUMPS**



Performance curves



Nr	Type	Outlet (inch) (mm)	Capacity (m³/h)	Manom. head (m)	Particle size (mm)	Power (kW)	Poles (P)	Revolution (1/min) 50Hz	Current (A) 400V	Electr. cable	Weight (kg)
1	DPE 3	3 80	30	7	20	2.2	4	1430	5.0	4x6mm²	145
2	DPE 5	3 80	30	12	20	3.7	4	1430	8.3	4x6mm²	155
3	DPE 7.5	3 80	30	15	25	5.5	4	1445	11.8	4x10mm²	195
4	DPE 7.5B	4 100	60	12	25	5.5	4	1445	11.8	4x10mm²	195
5	DPE 10	4 100	60	15	25	7.5	4	1445	16.3	4x10mm²	215
6	DPE 10H	4 100	48	20	14	7.5	4	1445	16.3	4x10mm²	215
7	DPE 15	4 100	90	15	35	11	6	960	24	4x10mm²	490
8	DPE 15B	6 150	192	8	60	11	6	960	24	4x10mm²	490
9	DPE 20	4 100	90	20	35	15	6	970	32	4x10mm²	550
10	DPE 20B	6 150	192	10	60	15	6	970	32	4x10mm²	520
11	DPE 20H	4 100	90	22	15	15	6	970	32	4x10mm²	550
12	DPE 30	4 100	90	30	35	22	6	975	46	4x16mm²	750
13	DPE 30B	6 150	192	15	60	22	6	975	46	4x16mm²	710
14	DPE 40B	8 200	360	12	40	30	6	970	58	4x35mm²	750
15	DPE 50	6 150	192	25	60	37	6	980	75	4x35mm²	930
16	DPE 50B	8 200	360	15	60	37	6	980	75	4x35mm²	930
17	DPE 50H	6 150	192	28	40	37	6	980	75	4x35mm²	1030
18	DPE 60B	8 200	360	22	60	45	6	975	90	4x35mm²	980
19	DPE 75	8 200	360	28	60	55	6	975	116	4x50mm²	1100
20	DPE 75B	8 200	470	22	40	55	6	975	116	4x50mm²	1100



DIMENSIONS (mm)		A	B1	B2	B3	C	E	F	G	H1	H2	J	K	L	M	N	P
1	DPE 3	840	168	168	187	705	55	375	315	320	220	30	180	230	275	280	49
2	DPE 5	860	168	168	187	725	55	375	315	320	220	30	180	230	275	280	49
3	DPE 7.5	885	193	199	215	735	35	375	315	330	220	30	180	230	275	280	49
4	DPE 7.5B	890	193	209	225	740	40	405	335	340	260	40	200	240	295	290	61
5	DPE 10	930	193	209	225	780	40	405	335	340	260	40	200	240	295	290	61
6	DPE 10H	930	230	240	260	780	40	405	335	370	260	40	200	240	295	290	61
7	DPE 15	1415	246	253	267	1220	120	615	330	463	245	245	410	340	500	400	61
8	DPE 15B	1415	275	296	321	1220	120	630	290	535	310	260	460	400	550	460	61
9	DPE 20	1430	283	293	304	1220	120	610	325	498	245	245	410	340	500	400	61
10	DPE 20B	1430	275	296	321	1220	120	630	290	535	310	260	460	400	550	460	61
11	DPE 20H	1430	283	293	304	1220	120	610	325	498	245	245	410	340	500	400	61
12	DPE 30	1510	325	333	344	1320	120	630	345	538	245	245	410	340	500	400	61
13	DPE 30B	1510	304	322	340	1320	120	650	310	565	310	260	460	400	550	460	61
14	DPE 40B	1510	304	322	340	1320	120	700	310	565	370	260	520	400	610	460	61
15	DPE 50	1695	322	347	366	1470	120	705	365	595	310	260	460	400	550	460	61
16	DPE 50B	1695	322	347	366	1470	120	755	365	595	370	260	520	400	610	460	61
17	DPE 50H	1685	376	401	425	1455	105	705	365	655	310	260	460	400	550	460	61
18	DPE 60B	1785	376	401	425	1455	105	705	365	655	310	260	480	400	580	460	61
19	DPE 75	1755	376	401	425	1555	105	755	365	655	370	260	520	400	580	460	61
20	DPE 75B	1755	376	401	425	1555	105	755	365	655	370	260	520	400	610	460	61