

**HEAVY**  
PUMPS

**TOYO**  
PUMPS



# DP LEGENDARY SUBMERSIBLE

THE WORLD'S PREMIER HEAVY DUTY DREDGING SLURRY PUMP  
WITH THE AGITATOR THAT REVOLUTIONIZED AN INDUSTRY

# DP PUMP SERIES

YOUR **ELECTRICALLY DRIVEN DREDGE PUMP SOLUTION**



- ▶ Capacities to **10,000 gpm** (2,300 m<sup>3</sup>/hr)
- ▶ Heads to **168 ft** (51 meters)
- ▶ Capable of pumping **Class 3** & some **free flowing 4** slurries
- ▶ Discharge sizes up to **16" (400mm)**
- ▶ Patented **high chrome agitator** as standard – attached directly to the pump's shaft
- ▶ Front (adjustable) and Back **high chrome wear plates**
- ▶ Unique **1.35 S.F.** motor
- ▶ **Heavy duty** motor housing
- ▶ **Low RPM** for reduced wear
- ▶ **Additional bearing support** between primary and secondary seal elements
- ▶ **Replaceable elbow**





# TO PUMP SERIES

YOUR HYDRAULICALLY DRIVEN SOLUTION



The **Toyo submersible DP series** and its hydraulically driven cousin the **TO series** were specifically designed to pick up and transport abrasive materials with the least amount of water.

**The DP/TO is a pump and excavator in one.** The design incorporates the Toyo agitator, attached directly to the pump shaft, which together with the closed impeller, large open passages for the easy passage of solids and heavy duty shaft/bearing configuration results in the most rugged submersible slurry pump on the market today.

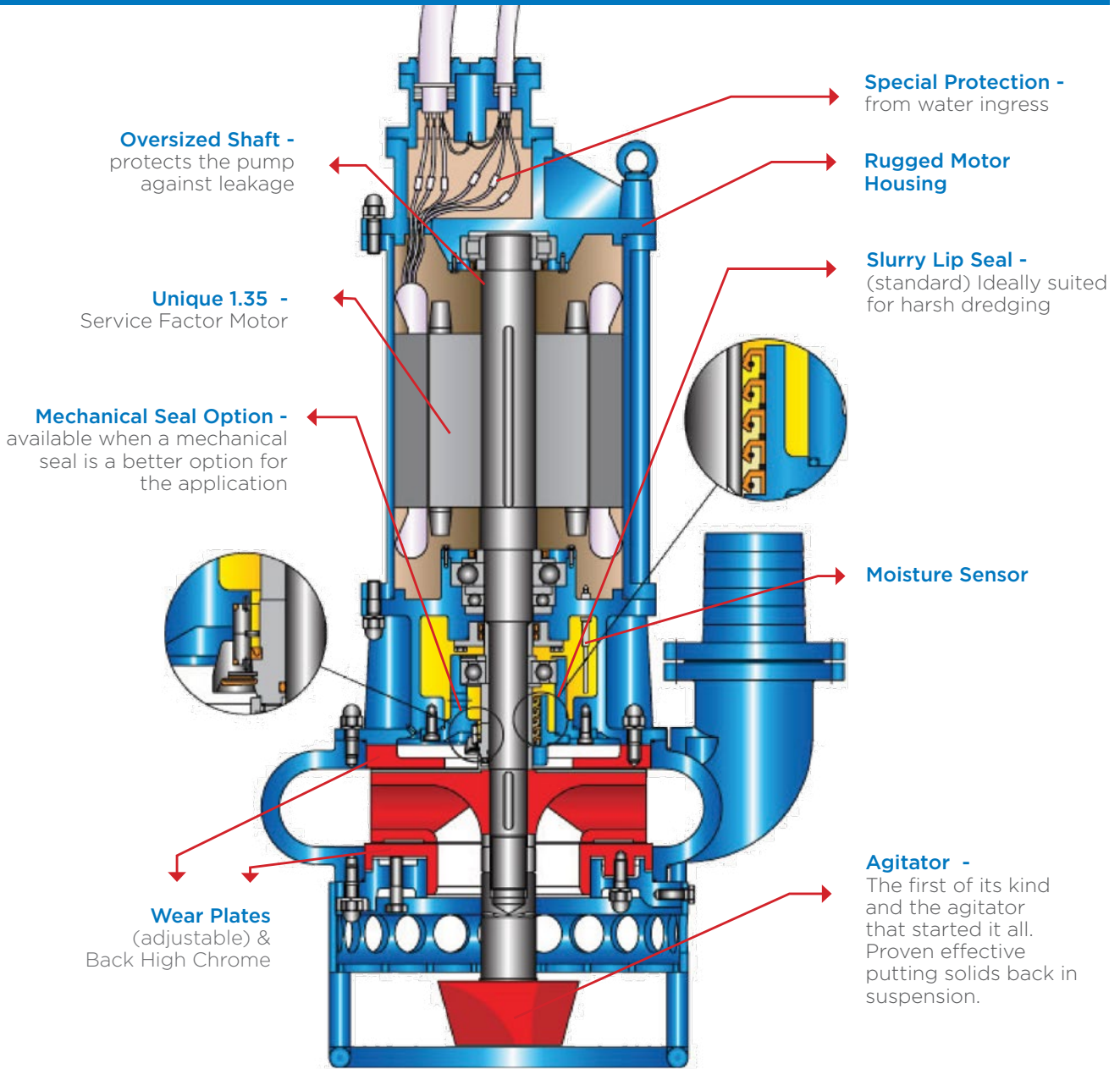
**TOYO/ HEVY CUSTOM DREDGE SOLUTIONS DESIGNED TO OPTIMIZE YOUR DP & TO**



## THE TOYO/ HEVY DREDGE ADVANTAGE:

- ▶ **Optimal for precise dredging operations:** dredging close to structures/pipelines or alongside docks & piers.
- ▶ Excavate sediments with **minimal turbidity** (suspended solids in water).
- ▶ **Lower costs** - not only are Toyo/ Hevy dredges more economical to operate than cutter head dredges but also transportation/mobilization costs are significantly reduced.

**THE DP'S HEAVY DUTY CONSTRUCTION MAKES IT THE TOUGHEST SUBMERSIBLE DREDGE PUMP ON THE MARKET TODAY**



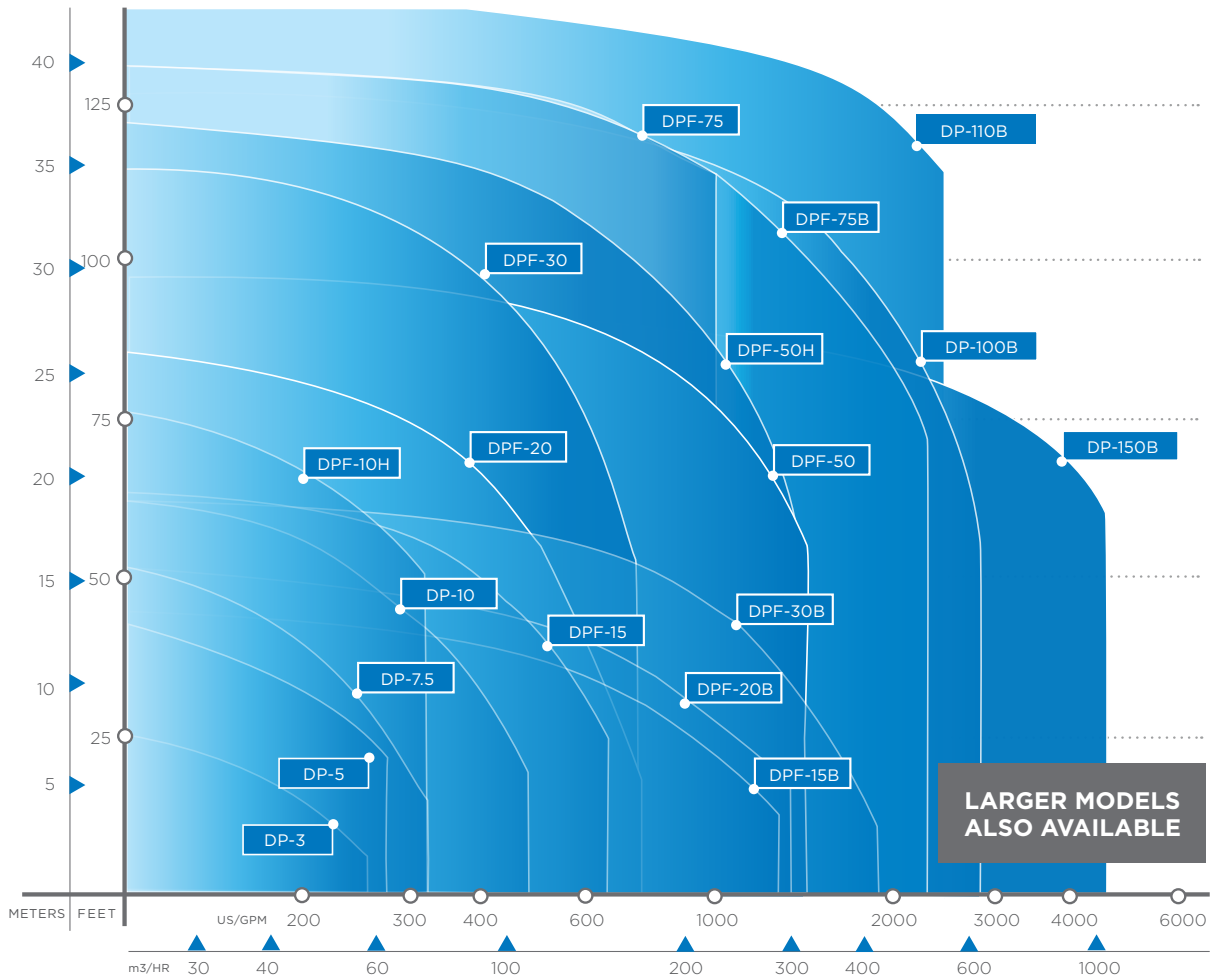
**AGITATOR**



Toyo/Hevvy utilizes heavy duty submersible agitator dredge pumps in combination with our customized dredge solutions to allow for economical dredging in all water depth conditions.

The **Toyo agitator** eliminates solids accumulating on the sump floor and can significantly reduce maintenance costs resulting from digging out sumps and downtime due to solids building up and choking off the suction of conventional pumps.

# DP-3 to 150B COVERAGE CURVE



## SUPERCHARGE YOUR DREDGING OR PROCESS WITH THESE DP & TO OPTIONS

### JET RING



**The Original Agitation team - Toyo Agitator & Jet ring** - for applications where solids are especially difficult to pump, Toyo offers the option of a special high pressure jet ring. The jet ring combined with the original Toyo agitator have proven to be a truly effective 'agitation team'.

### PRESSURE COMPENSATED



- ▶ High Temperature package
- ▶ Pressure compensation bladder
- ▶ High Pressure Jetting ring
- ▶ Custom dredging

# DP SPECIFICATIONS

MODEL NUMBER	DP-3-2	DP-5-2	DP-7.5-2	DP-7.5B-2	DP-10-2	DP-10H-2	DPF-15	DPF-15B	DPF-20	DPF-20B
Discharge diameter - inch (mm)	3 (80)	3 (80)	3 (80)	4 (100)	4 (100)	4 (100)	4 (100)	6 (150)	4 (100)	6 (150)
Flow at rated point USgpm (m3/min)	132 (0.5)	132 (0.5)	132 (0.5)	246 (1.0)	246 (1.0)	198 (0.75)	400 (1.5)	880 (3.33)	400 (1.5)	880 (3.33)
Head at rated point - ft (m)	23 (7.0)	39 (11.9)	49 (14.9)	39 (11.9)	49 (11.9)	66 (20.1)	49 (11.9)	24 (7.3)	65 (19.8)	33 (10.0)
Impeller diameter - inch (mm)	7.26 (185)	8.23 (209)	9.13 (232)	9.13 (232)	9.53(242)	10.5(266)	12.6(320)	11.5(290)	13.9(353)	11.8(300)
Max. solid size - inch (mm)	0.8(20)	0.8(20)	1.0(25)	1.0(25)	1.0(25)	0.55(14)	1.4(35)	2.4(60)	1.4(35)	2.4(60)
Weight without cable - lb (kg)	320(145)	342(155)	430(195)	430(195)	430(195)	495(225)	1036(470)	1124(510)	1212(550)	1190(540)
Standard Motor HP	3	5	7.5	7.5	10	10	15	15	20	20
Standard seal	Double mech. seal	Double mech. seal	Double mech. seal	Double mech. seal	Double mech. seal	Double mech. seal	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip
Number of bearings	3	3	3	3	3	3	4	4	4	4
Speed - RPM	1740	1740	1750	1750	1750	1750	1170	1170	1160	1160
Voltage - V	220/460/575									
Motor protector	Klixon						Thermostat in windings			
Starting method	D.O.L									
Motor service factor	1.35									
Electric cable length - ft (m)	65 (20)									
Insulation Class	F									
Shaft	Alloy Steel									
Pump casing STD	Ductile Iron									
Pump casing OPT	HCr									
Impeller	HCr									
Wear plate - top	Ductile Iron									
Wear plate - bottom	N/A	N/A	N/A	N/A	N/A	N/A	HCr	HCr	HCr	HCr
Suction cover	HCr	HCr	HCr	HCr	HCr	HCr	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Agitator	HCr									



# DP SPECIFICATIONS

MODEL NUMBER	DPF-30	DPF-30B	DPF-50	DPF-50B	DPF-75	DPF-75B	DP-100B	DP-110B	DP-150B
Discharge diameter - inch (mm)	4 (100)	6 (150)	6 (150)	8 (200)	6 (150)	8 (200)	8 (200)	8 (200)	10 (250)
Flow at rated point USgpm (m3/min)	400 (1.5)	880 (3.33)	880 (3.33)	1600 (6.0)	880 (3.33)	1600 (6.0)	1600 (6.0)	1600 (6.0)	3200(12)
Head at rated point - ft (m)	98(29.9)	49(11.9)	82(25.0)	48(14.6)	115 (35.2)	96 (29.0)	98 (30.0)	130(40.0)	72 (22)
Impeller diameter - inch (mm)	16.56(420)	14.0(358)	14.94(380)	14.94(380)	16.92(430)	16.92(430)	21.65(550)		25(636)
Max. solid size - inch (mm)	1.4.35	2.4(60)	2.4(60)	2.4(60)	2.4(60)	2.4(60)	2.4(60)	2.0(50)	4.72(120)
Weight without cable - lb (kg)	1653(750)	1610(730)	2100(950)	2140(970)	2410(1095)	2450(1113)	4850(2200)	4850(2200)	7700(3500)
Standard Motor HP	30	30	50	50	75	75	100	110	150
Standard seal	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip	Toyo Lip
Number of bearings	4	4	4	4	4	4	5	5	6
Speed - RPM	1185	1185	1185	1185	1185	1185	885	885	705
Voltage - V	220/460/575						460/575	460/575	460/575
Motor protector	Thermostat in windings								
Starting method	D.O.L								
Motor service factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.2	1.35
Electric cable length - ft (m)	65 (20)								
Insulation Class	F						B		
Shaft	Alloy steel								
Pump casing STD	Ductile Iron								
Pump casing OPT	HCr								
Impeller	HCr								
Wear plate - top	HCr								
Wear plate - bottom	HCr								
Suction cover	Cast Iron								
Agitator	HCr								



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