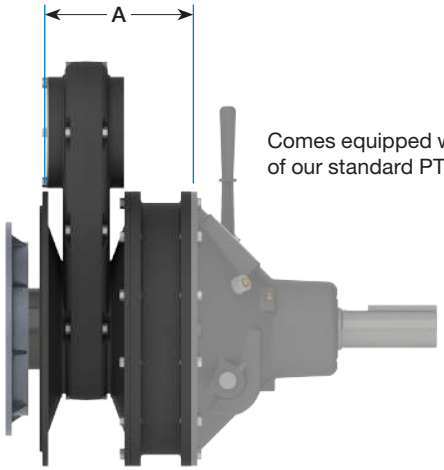
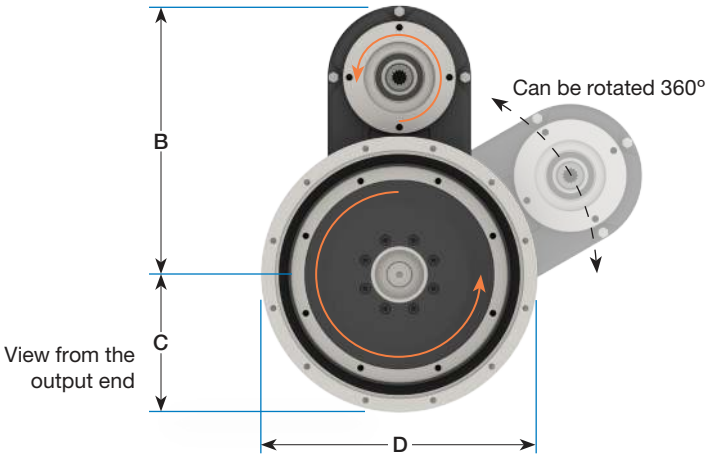
Pump Drive

Mounted between the power take-off and the engine, the WPT® Power Pump Drive (PPD) is a rugged and versatile unit providing for multiple live or clutched pumps. As the PPD is self-contained, no external lubrication is required. Flexible couplings on the input side dampen torsional vibrations and are standard on all WPT PPDs.

The Power Pump Drive can be provided with a variety of SAE engine housings, power take-off clutches, SAE pump drives and accessories. All units mount to standard SAE flywheel housings and provide up to 8 pump mounting faces. An internal heat exchanger can be added as required.





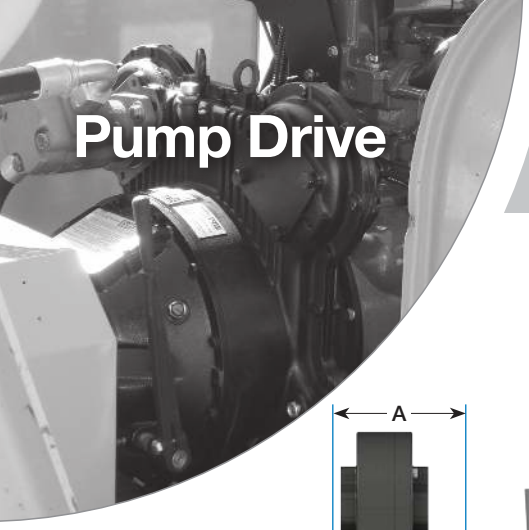
WPD-03

SAE Input	SAE Output	A	B	C	D
#5 - 7 1/2”	#4M - 10”	8 5/8 (218.5)	15 1/2 (393.0)	7 (178.0)	15 7/8 (404.0)
#4 - 10”				7 15/16 (202.0)	
#3 - 11 1/2”				8 7/8 (225.5)	

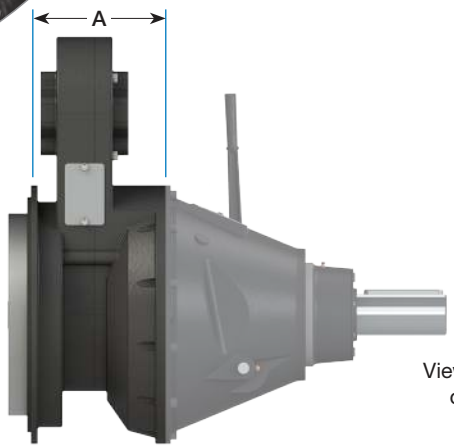
Available in SAE B

Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Head hp (kW)[1]	Head Ratio	Weight lb (kg)
3000	230 (310)	58 (43)	1 : 1	110 (50)
	413 (560)			
	413 (560)			

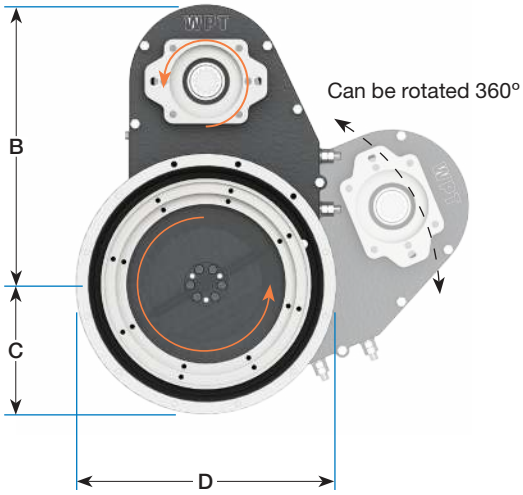
[1] Rated at maximum input speed.



Pump Drive



View from the output end



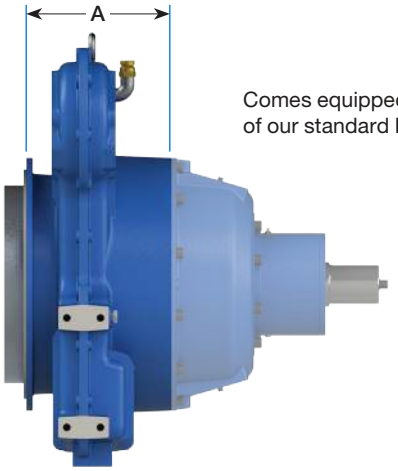
WPD-03 HD

SAE Input	SAE Output	A	B	C	D
#3 - 11 1/2”	#3M - 11 1/2”	9 1/4 (235.0)	19 (483.9)	8 7/8 (225.5)	17 3/4 (450.9)

Available in SAE B, B-B, C, D, E (spline only)

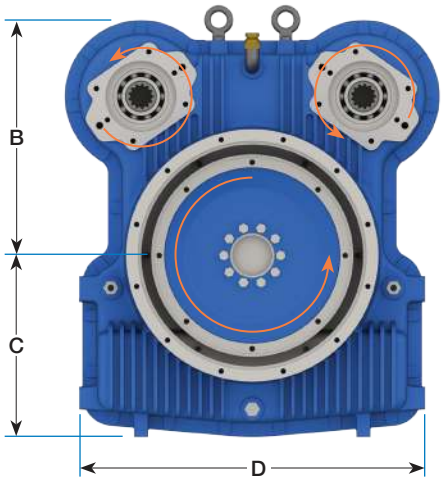
Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Head hp (kW)[1]	Head Ratio	Weight lb (kg)
2500	1475 (2000)	210 (157)	1 : 1	260 (117)

[1] Rated at maximum input speed.



Comes equipped with any of our standard PTOs

View from the output end



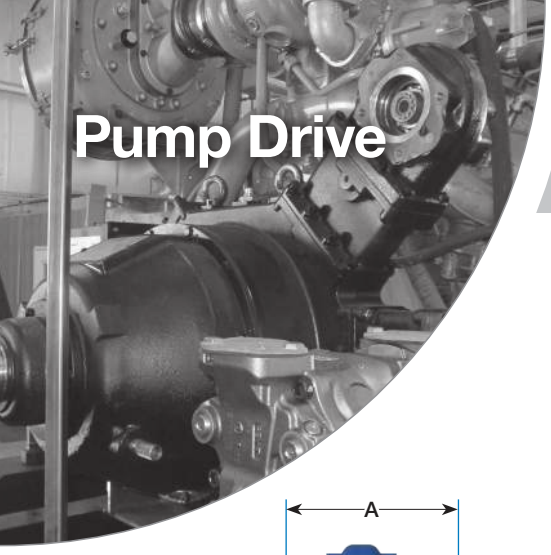
WPD-00

SAE Input	SAE Output	A	B	C	D
#3, #2 - 11 1/2”	#3M - 11 1/2”	10 1/8 (257.0)	16 5/8 (422.0)	12 13/16 (325.0)	24 7/16 (620.0)
#1 - 14”		11 1/8 (282.0)			

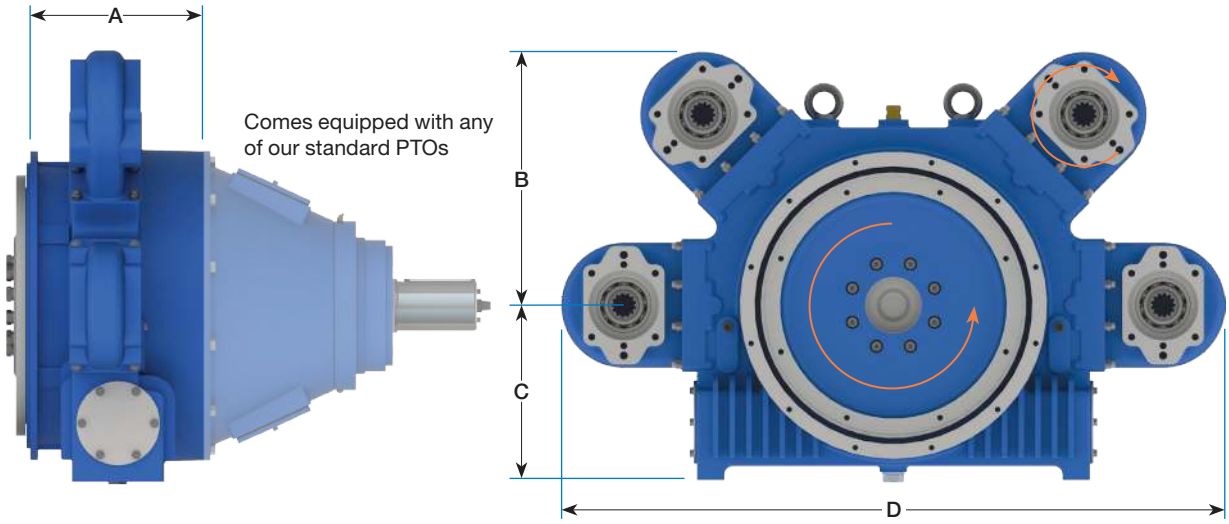
Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Total Head hp (kW)[1]	Single Head hp (kW)[1]	Head Ratio	Weight lb (kg)
2600	1475 (2000)	235 (175)	160 (120)	1 : 1	430 (195)

[1] Rated at maximum input speed.



Pump Drive



View from the output end

WPD-01

SAE Input	SAE Output	A	B	C	D
#1 - 14”	#1M - 14”	12 3/16 (310.0)	18 (456.5)	12 7/16 (315.0)	47 1/8 (1197.0)

Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Total Head hp (kW)[1]	Single Head hp (kW)[1]	Head Ratio[2]	Weight lb (kg)
2200	2470 (3350)	400 (300)	160 (120)	1 : 1	770 (350)
				1 : 0.88	

[1] Rated at maximum input speed.
[2] Head ratios other than 1:1 are speed increasing

WPD-02

SAE Input	SAE Output	A	B	C	D
#1 - 14”	#0M - 18”	14 3/4 (374.0)	19 3/4 (502.0)	16 3/8 (415.0)	52 3/16 (1326.0)
#0 - 18”		14 5/16 (363.0)			

Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Total Head hp (kW)[1]	Single Head hp (kW)[1]	Head Ratio[2]	Weight lb (kg)
2100	4650 (6300)	535 (400)	235 (175)	1 : 0.95	1170 (530)

[1] Rated at maximum input speed.
[2] Head ratios other than 1:1 are speed increasing

Optional Accessories

Head PTO

Oil Actuated Clutch

Head Extension

Pump Drive Product Selection Guide

Step One

Maximum Input Torque

$T = \frac{hp}{r/min} \times 5{,}252 = \_\_\_\_\_$ lbf·ft

$T = \frac{kW}{r/min} \times 9{,}549 = \_\_\_\_\_$ N·m

T = Engine Torque [lbf·ft (N·m)] x SF

Conversions

Multiply	By	To Obtain
lbf·ft	1.356	N·m
hp	0.746	kW
lbf	0.454	kgf
kg	9.807	N

Step Two

Hydraulic Pump Service Factor Guide

Pump Type	Service Factor (SF)
Piston Plunger	1.8
Vane Gear	1.5
Centrifugal	1.0

Step Three

Single Head N° 1[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head N° 2[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head N° 3[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head N° 4[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Total Head[1] = Sum of All Heads from Step 3

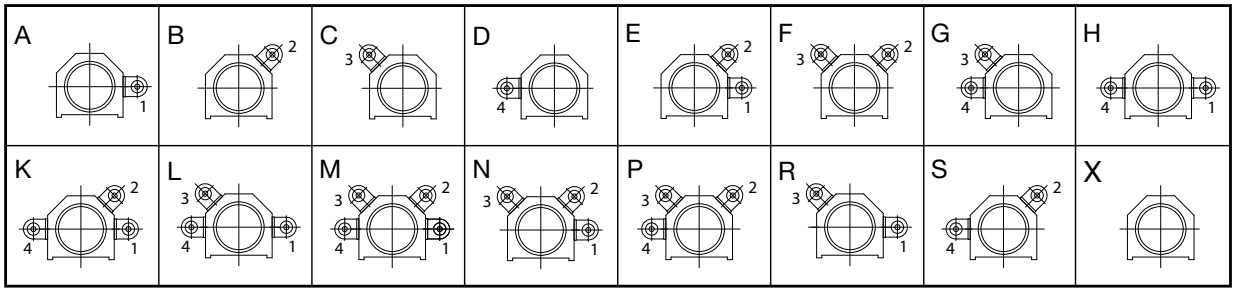
Definitions:

P = Hydraulic Pump Absorbed Power
SF = Pump Service Factor
PU = Percent of Power Used by Pump
n = Number of Pumps on Head

Note 1: Single and Total Head calculations may exceed rating for Pump Drive depending on duty cycles or pump modes. Please contact WPT Power Applications Engineering for details.

Step Four *For WPD-01 and WPD-02 only!*

View from Y side



Step Five *See Engine Driven Products brochure for Pump Drive Maximum Input Torque, r/min, and Head Ratings.*

Additional Notes:

Power Pump Drive calculations are for reference only. For full warranty consideration, a data sheet must be turned into WPT Power and complete review performed by WPT Power Applications Engineering.

Power Pump Drive models WPD-01 and WPD-02 may require Cooling Package and Circulation Kit. Please contact WPT Power Applications Engineering for details.