

TRANSFLUID



TRANSFLUID®

industrial & marine



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KPTO

DRAIN-TYPE FLUID COUPLING
for internal combustion engines

FLUID COUPLINGS KPTO SERIES for internal combustion engines

DESCRIPTION

The **KPTO** is a variable fill fluid coupling enclosed into a casing connected to the Diesel engine by means of a SAE housing. The **KPTO** has been designed to meet the market requirements for a unit combining the technical features of a conventional Power Take Off with the performances of a fluid coupling.

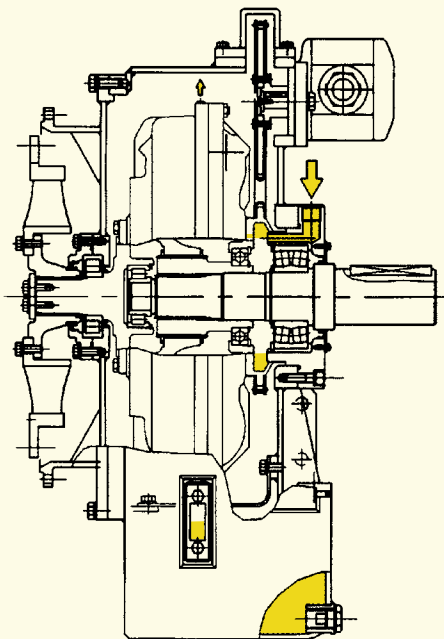
The **KPTO** has an integral feeding pump driven by the Diesel engine. A remote electrically operated ON-OFF solenoid valve allows the fluid coupling circuit to be fed when it is turned ON, while a rapid oil drain through calibrated orifices located on the periphery of the fluid coupling occurs when it is turned OFF. A forced bearing lubrication is always assured continuously. The **KPTO** range is suitable for powers up to 1000 kW.

The engine flywheel is connected to the **KPTO** input by a highly torsionally flexible coupling. The output shaft can be connected to the driven machine by an elastic coupling, a cardan shaft or a pulley.

Standard accessories: oil feeding pump, oil filter with pressure and temperature gauges, ON-OFF electric valve, oil temperature and pressure switches, oil level indicators.

Optionals: water/oil heat exchanger or radiator, quick release valves, output pulley, elastic or superelastic alignment couplings.

WORKING SCHEME



rpm	ENGINE POWER (kW)				
	15	19	21	24	27
1000	-	70	100	150	220
1200	-	90	150	220	300
1500	65	160	230	315	570
1800	85	275	400	545	1000
2200	155	330	470	650	-
2600	200	400	-	-	-

FEATURES

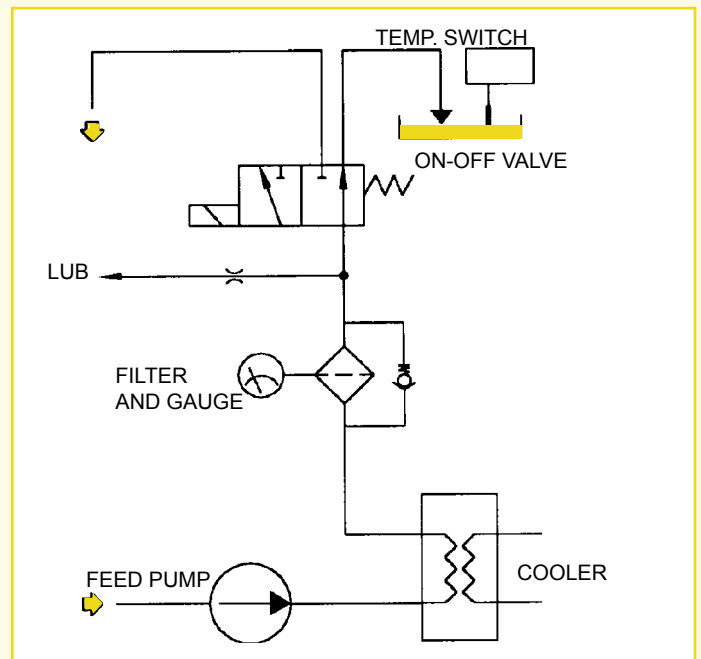
The **KPTO** drain type fluid coupling allows to disconnect the engine from the load granting the following advantages:

- unloaded engine warm up
- smooth start up, not belt slip
- shock and overload protection
- torsional vibration dampening
- high radial load capacity
- remote control by electric valve
- load positioning
- inexpensive and easy maintenance due to external mounting of the main accessories like oil filter, feeding pump, control valve
- longer life thanks to no friction linings to wear out.

APPLICATIONS

- mills, crushers, wood chippers, grinders, shredders
- belt conveyors
- reciprocating and centrifugal pumps, compressors
- marine propulsion, boat thrusters
- generators
- fans and blowers.

HYDRAULIC CIRCUIT



To calculate oil and water flow into heat exchanger, use following formulas:

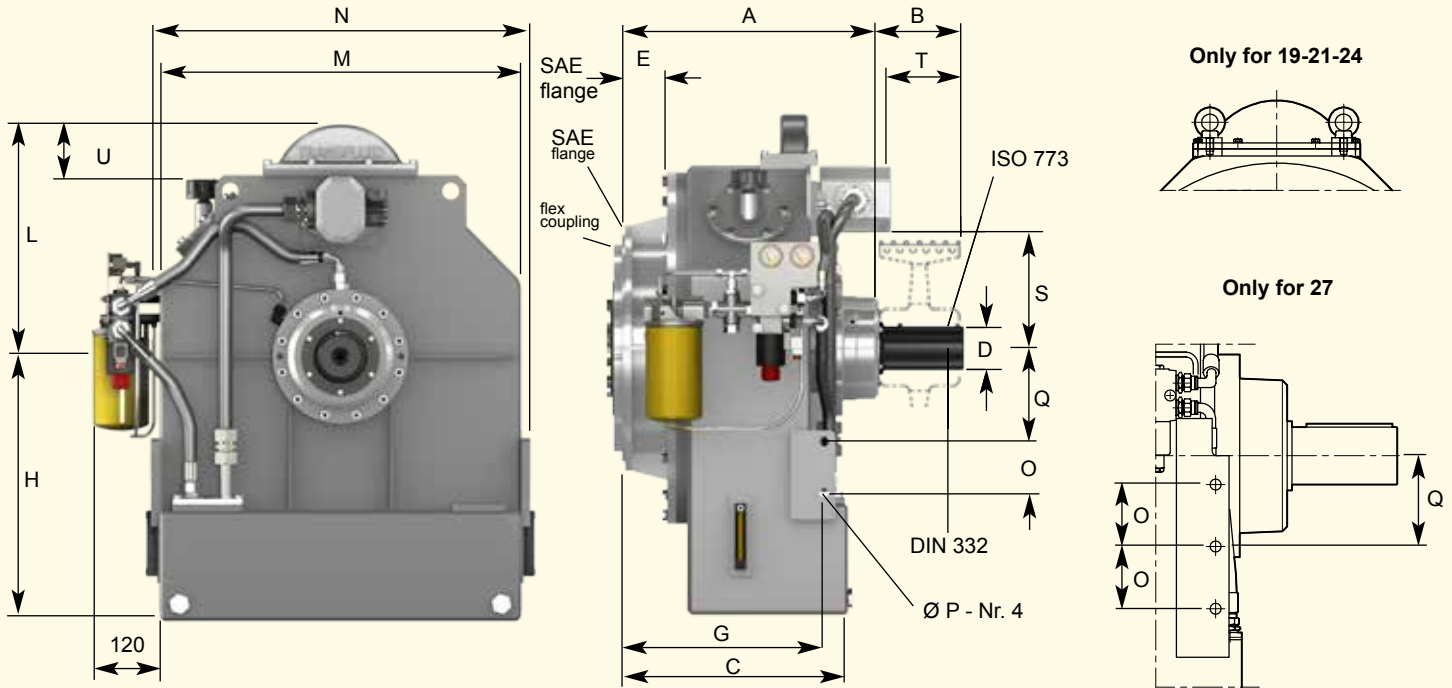
$$\text{water (l/min)} = \frac{\text{power (kW)}}{50} \times 8$$

$$\text{oil (l/min)} = \frac{\text{power (kW)}}{50} \times 10$$

Above formulas are based upon following data:

Exchanger oil inlet = 110°C Exchanger oil outlet = 100°C
Exchanger water inlet = 85°C Exchanger water outlet = 90°C

Engine cooling water can be used.



size ↕

↔ Dimensions (mm)

	A	B	C	D	E	G	H	L	M	N
15	414	130	430	70	61	362	440	395	560	590
19	455	150	450	80	98	406	500	420	670	700
21	517	180	512	100	105	458	600	480	820	860
24	583	180	502	100	95	448	600	526	820	860
27	710-726*	220	605-621*	120	123-139*	550-566*	675	445	890	940

size ↕

↔ Dimensions (mm)

	O	P	Q	S	T	U	SAE J617 housing	SAE J620 flywheel	Weight (kg) w/o oil	Oil (l)
15	65	17	135	205	66.5	115	2-1	11.5-14	250	28
19	80	19	155	228	68	85	1	14	310	35
21	115	21	210	260	87	115	1-0	14-18	475	65
24	115	21	210	260	163	70	1-0	14-18	550	65
27	130	23	190	-	-	-	0-00	18-21*	800	87

* Dimensions for flywheel 21".
For admissible radial loads apply Transfluid.

Dimensions can be changed without notice





















CRUSHER



MARINE PROPULSION


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