



FNIC : Drain Type
Fluid Couplings for
Internal Combustion
Engines 

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Fluidomat FNIC are drain nozzle type fluid coupling suitable for Combustion Engine Drive.

Construction : The coupling is mounted on engine SAE Flange through stationary housing of coupling and connected to engine flywheel by elastic coupling provided on input shaft of coupling. The output end can be connected suitably to driven machine by a pulley, an elastic coupling or cardon shaft.

It has an integrated oil feeding pump driven by the IC engine. A solenoid valve is provided to switch the oil flow either to working circuit or bypass back to oil sump. Oil filter is provided in oil line. Leak off nozzles are provided on coupling periphery.

Standard accessories supplied with coupling include oil pump, filter, solenoid valve, flexible coupling on input shaft, oil temperature and pressure switch and oil level indicator.

Operation : During Power Transmission (clutching) operation oil flows into working circuit through oil cooler, filter and solenoid valve. Hot oil from working circuits leaks off continuously into oil sump.

During Declutching – the circulating oil after cooler and filter is bypassed back to oil sump without flowing into working circuit. The residual oil in working circuit is emptied by leak off nozzles and the power transmission stops with engine running (Declutching)

Advantages of FNIC Coupling.

- No load startup of engine in declutching mode.
- Continuous clutching and declutching operation simply by switching of solenoid valve.
- Absorbs shock loads and dampens torsional vibrations.
- Smooth startup of driven machine.
- Belt slippage avoided in belt drives.
- Rugged construction and high radial load bearing capacity.
- Easy maintenance.

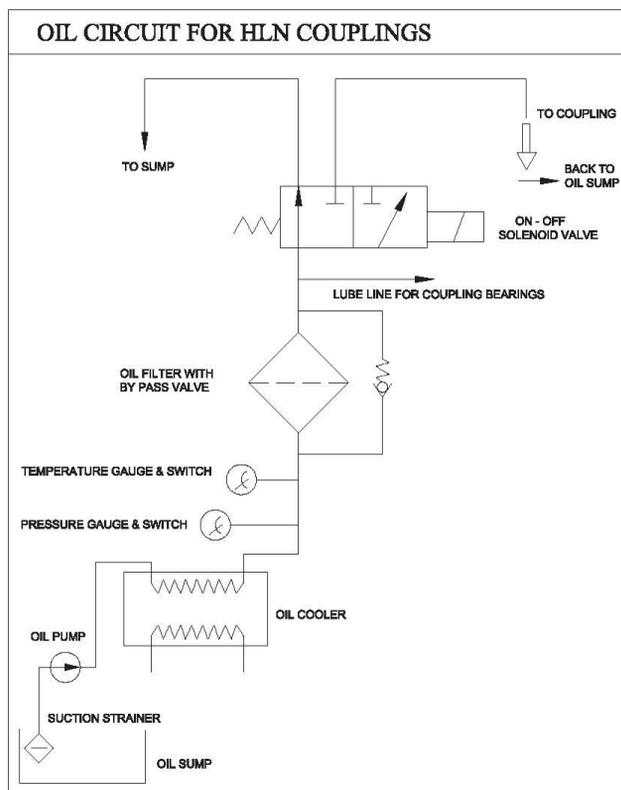
Offered in three sizes upto 600KW.

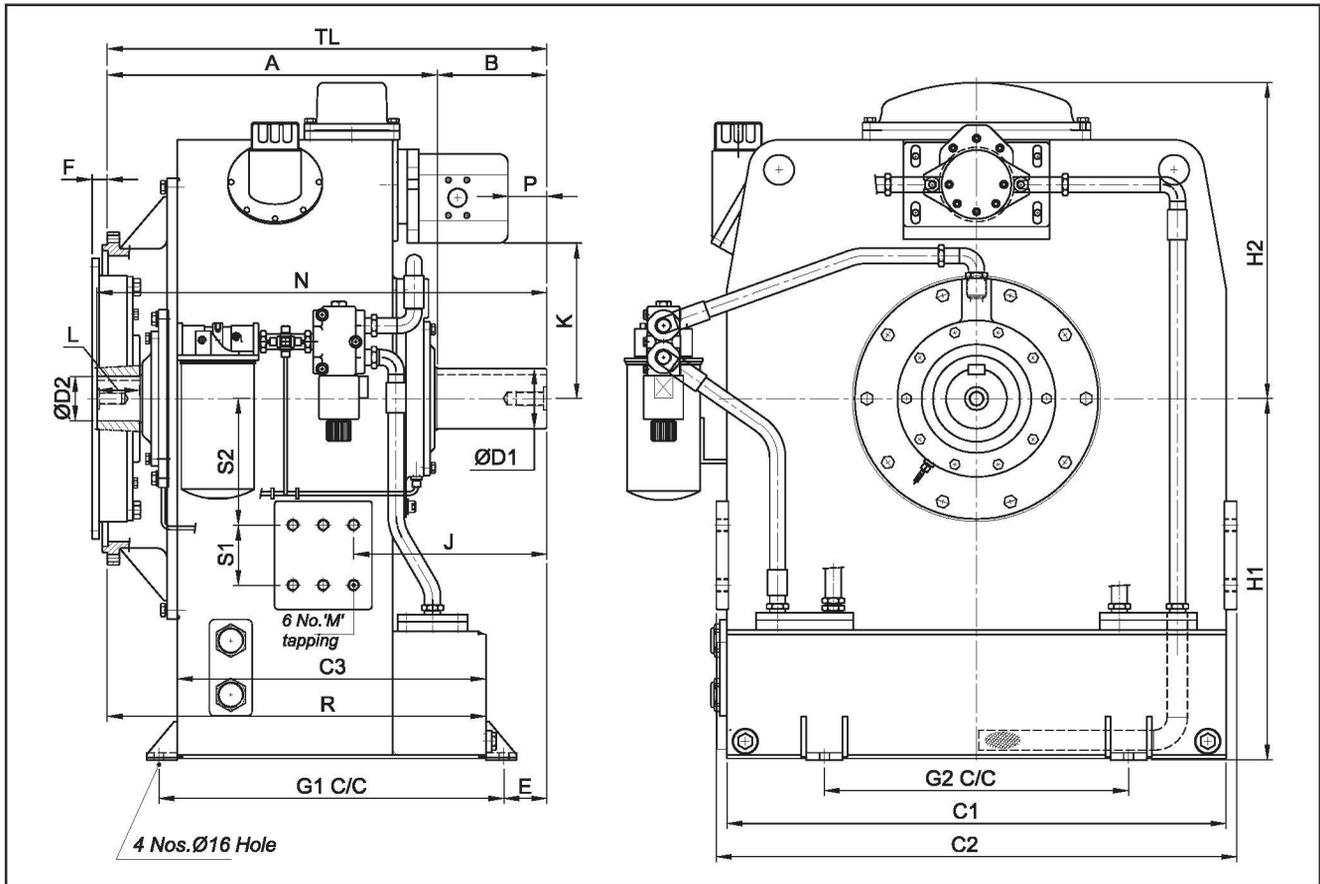
Model FNIC	SAE - Housing	SAE Flywheel
500	1	14
540	1-0	14-18
615	1-0	14-18

Maximum Rating in KW at different input speed RPM

FNIC	1000	1200	1500	1800	2200
500	72	94	160	275	330
540	100	150	235	405	470
615	160	235	335	600	*

*on request





Dimension Table-1

All Dimension are in mmm

Model FNIC-	H1	H2	ØD1	ØD2	L	S1	S2	M	J	E	C1	C2	C3	G1	G2	N	K	P	Oil Quantity in Leters	'J' Value with Oil in kg m ²
500	500	486	80	65	68	100	170	16	264	118	700	736	361	421	450	623	281	42	36.0	4.08
540	600	525	100	74	70	100	210	20	317	70	820	855	507	567	500	739	305	64	72.0	5.06
615	600	635	100	90	80	100	250	20	320	65	830	880	569	629	530	816	362	74	80.0	7.76

Dimension Table-2

Model FNIC-	SAE & FLY Wheel	F	A	B	TL	R	Dry Wt. in kgs.
500	SAE-1; 14"	25.4	455	150	605	458	498
540	SAE-1; 14"	25.4	542	180	722	622	655
	SAE-0; 18"	15.7	551	180	731	631	667
615	SAE-1; 14"	25.4	620	180	800	705	846
	SAE-0; 18"	15.7	629	180	809	714	864





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