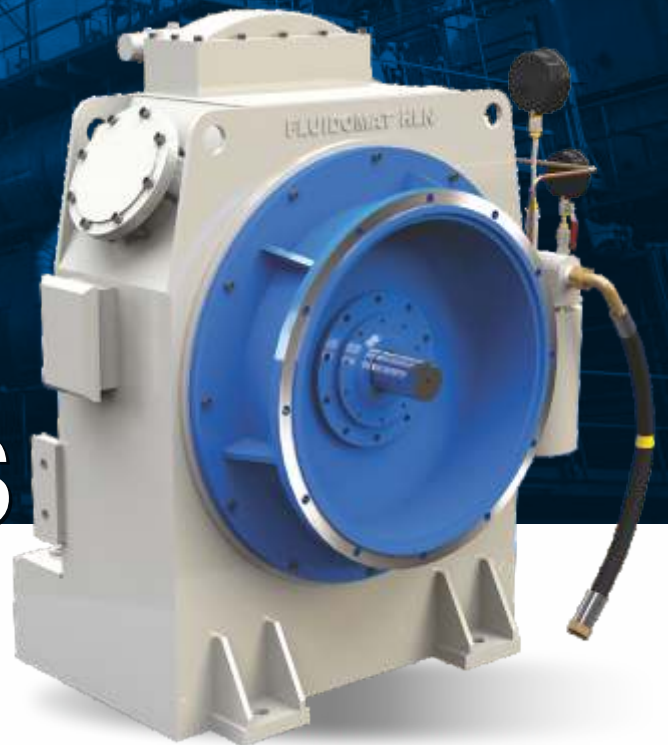


a vault of solutions



**FNIC : Drain Type
Fluid Coupling For
Internal Combustion
Engine**

FNIC: Drain nozzle type Fluid Couplings for Internal Combustion Engines.

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 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.

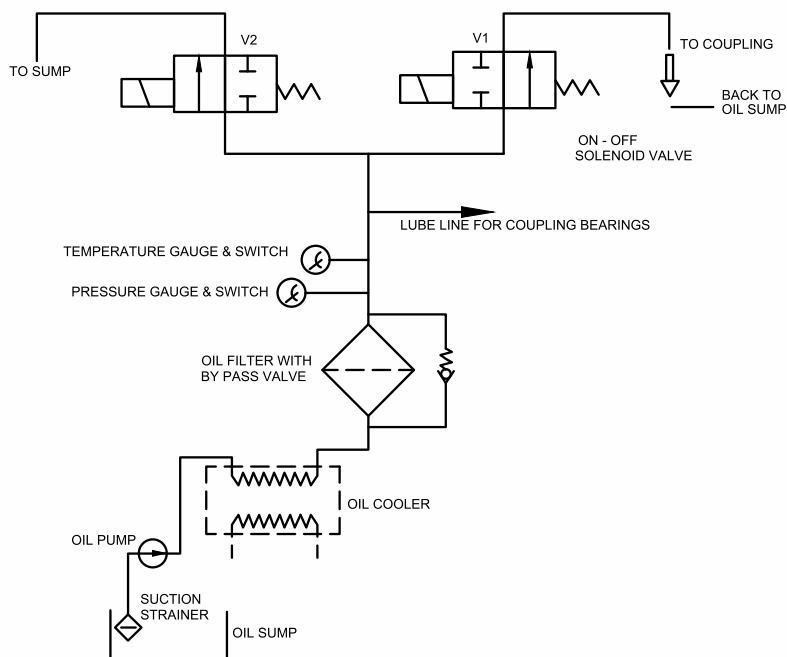
Typical application: Wood Chipper, Stone Crusher, Shredder, Grinders, Belt Conveyor, Centrifugal Pump, Fans & Blowers

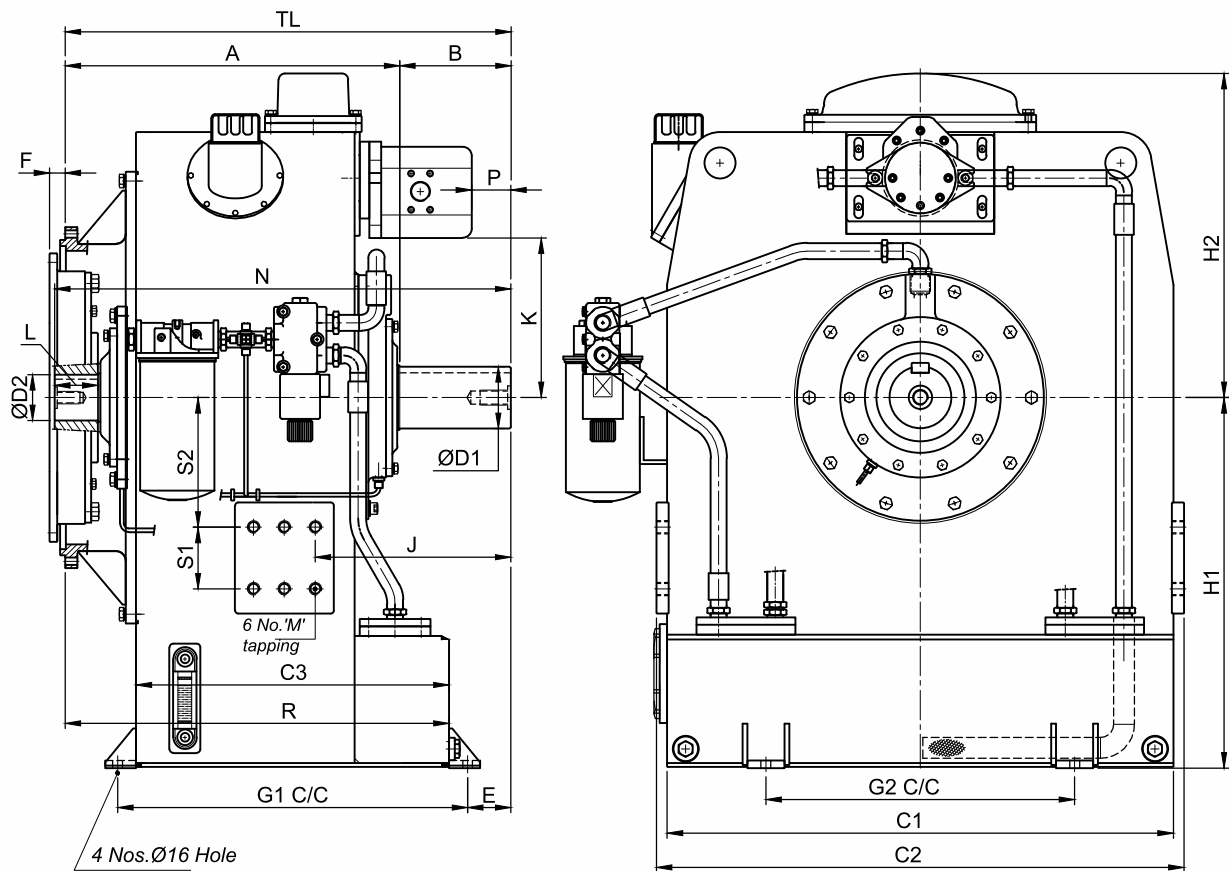
Offered in four sizes upto 1050KW

Model FNIC	SAE- Housing	SAE Flywheel
500	1	14
540	1-0	14-18
615	1-0	14-18
700	0	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	733
700	180	311	608	1050	1205

OIL CIRCUIT FOR FNIC COUPLING





Dimension Table - 1

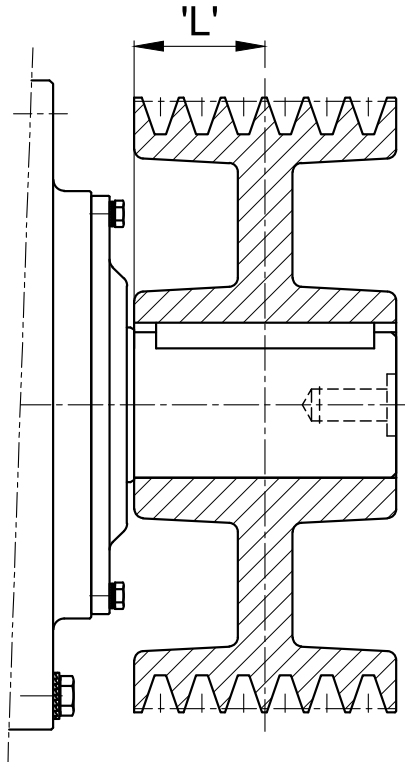
All Dimension are in MM

Model FNIC	H1	H2	ØD1	ØD2	L	S1	S2	M	J	E	C1	C2	C3	G1	G2	N	K	P	OIL Quantity in Litres	'J' Value With Oil in kg m ³
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
700	710	362	100	90	100	100	250	20	526	162	1000	1050	690	750	530	1055	362	280	96.0	27.53

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
700	SAE- 0; 18"	15.7	867	180	1047	855	1274

Belt Data for bearing life of over 10000 hours
Pulley Pitch diameter is minimum
'L' distance is max. and is as per allowable belt
radial load 'K' including belt tension factor of 2.5



Coupling Model: FNIC	KW @ RPM	Pulley Pitch Diameter min. in mm	Pulley Center 'L' max. in mm	'K' max. Load in Newton
500	250 @ 1800	300	107	22107
	300 @ 2200	300	119	21700
540	400 @ 1800	335	170	31000
	470 @ 2200	355	170	29000
615	545 @ 1800	335	629	40000
700	1050 @ 1800	*	*	*

***Data on request.**

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