# TFS

## TANK FILLING STARTERS



MOTOR

Kenrahn Tank Filling Starters fill distant tanks by starting at various time signals and stopping when the float valves in the tank or tanks rise creating a low flow or high pressure condition. The standard TFS is housed in a powder coated weather proof metal enclosure with inbuilt pressure switches for ease of installation and are available in many standard or special combinatons to suit most applications. Economy versions are also available in plastic enclosures with external pressure switches.

#### **General information**

The standard unit housed in a powder coated weather proof metal enclosure with all control switches and indicators behind a lockable door incorporates a motor starter for the pump, 48 starts per day time clock, stop pressure switch, low pressure switch, Man-Off-Auto selector, low pressure indicator, high pressure indicator & time delay to by-pass the pressure switch at start.

The TFS can also be used as an irrigation system to water every day for a pre set time with low or high pressure protection.

The Standard TFS can have many options:-

- Ammeter.
- Hours Run meter.
- No flow protection.
- Thermistor overtemperature protection.
- Transformer for 24 Volt ac supply to external circuits.
- Low level relay to suit level switches if pumping from tank
- Flow switch circuit with time delay for stopping on low flow.
- Vacuum switch for loss of prime.
- Bore probe relay if pumping from a bore
- Two probe circuit to start and stop on probes and time.

Various starting methods, like Direct on Line, Star Delta, Soft starter, Auto transformer or Variable speed drive can be supplied for small or large kilowatt motors in standard models.

### STANDARD VERSION

MODEL	VOLTS	TYPE	REMARKS
TFS-FRD-2D	240V	Direct On Line	Standard base model with
TFS-FRD-6D	415V	Direct On Line	pressure switch to stop when tank fills and pressure switch for broken pipes or loss of pressure protection.Standard
TFS-FRD-SD	415V	Star Delta	
TFS-FRD-AT	415V	Auto Transformer	
TFS-FRD-SS	415V	Soft Starter	features as above.
TFS-FRDL-2D	240V	Direct On Line	Same as base model with low
TFS-FRDL-6D	415V	Direct On Line	level bore probe relay to stop on level fall in the bore.
TFS-FRDL-SD	415V	Star Delta	One LP style probe is required
TFS-FRDL-AT	415V	Auto Transformer	as once the pump stops it wil not restart until the next time
TFS-FRDL-SS	415V	Soft Starter	lever passes the time mark.
			•
TFS-RDL-2D	240V	Direct On Line	Same as base model without low pressure switch but with

TFS-RDL-2D TFS-RDL-6D TFS-RDL-SD TFS-RDL-AT	240V 415V 415V 415V 415V	Direct On Line Direct On Line Star Delta Auto Transformer	Same as base model without low pressure switch but with low level bore probe relay to stop on level fall in the bore. One LP stlyle probe is required as once the pump stops it will not restart until the next time
TFS-RDL-SS	415V	Soft Starter	not restart until the next time lever passes the time mark.

"REFER TO THE PRICE LIST FOR VARIOUS MOTOR SIZES AND TYPES TO SUIT PARTICULAR KILOWATT AND AMPS."



The standard 240 Volt DOL model shown will start when a start lever passes the time mark and continue to run until all troughs and tanks are full. It will not restart until the next time lever passes the time mark. During the off period the lower tanks or troughs are kept full via the check valve in the bottom of the tank.

## ECONOMY VERSION

Economy versions are housed in plastic enclosures to suit external pressure switches or flow switches. Not all options are available on the economy models, please see the price list or check with Kenrahn before ordering.

Care must be taken when selecting a mounting position for the economy models with options, as the controls and indicators are on the outside of the enclosure and may not be suitable if exposed to the weather.

MODEL	VOLTS	TYPE	REMARKS
TFS-RD-2DE TFS-RD-6DE	240V 415V	Direct On Line Direct On Line	Basic economy model with DOL starter to start on time and stop on pressure rise via external pressure switch.
TFS-NF-2DE TFS-NF-6DE	240V 415V	Direct On Line Direct On Line	Economy model with DOL starter to start on time and stop on No Flow via external flow switch.
TFS-FRD-2DE TFS-FRD-6DE	240V 415V	Direct On Line Direct On Line	Economy model with DOL starter to start on pressure drop and stop on pressure rise via external pressure switches