

# PA & PT IRRIGATION PUMP SETS

**ENGINES: TR1, TR2, TR3,  
LPW(S)2, LPW(S)3, LPW(S)4 & LPWT4**

*Water Pumps: SNM 50-160 up to SNM 150-200  
Water flow from 29 up to 420 m<sup>3</sup>/hr*

## AIR AND WATER COOLED PUMP SETS FOR OPERATING CONDITIONS UP TO 52°C

*Engine outputs used for the design of the pump sets are continuous ISO 3046 ratings under NTP conditions.*

*The pump sets are designed to ensure optimum performance, taking into account standard operating site conditions.*

*The engine selection is made with at least 20% differential between the power absorbed by the pump and the engine output. This is to take into account extreme site conditions (especially high altitudes). The engine outputs after derating must be checked against the absorbed power by the pump.*

### STANDARD FEATURES

- Lister Petter TR air cooled diesel engine
- electric or hand start
- Lister Petter Alpha water cooled diesel engine complete with electric start and engine control panel, low oil pressure and high water temperature protection, 12V battery and leads
- close coupling arrangement allowing easy maintenance operations
- continuous operation for up to 24 hours a day
- corrosion resistant galvanised base complete with forklift pockets (except TR1 and LPW/S2)
- 66 litres polypropylene fuel tank with contents gauge (except TR1 and LPW/S2)
- engine mounted fuel tank (TR1: 13,5 L and LPW/S2 12 L)
- operators' handbook
- heavy duty, single stage, centrifugal, end suction pump with cast iron casing and impeller



**PT380L PUMP SET  
(MOBILE CONFIGURATION)**

- suction and delivery flanges conforming with DN2533/PN16 – ISO7005-2/PN16
- soft packed stuffing box used for shaft seal
- hardened chrome steel shaft sleeve to protect pump shaft

### OPTIONAL ITEMS

- 12V electric start for TR series pump sets
- off-road trailer with 2 wheeled axle, towbar and positioning stands (except TR1 and LPW/S2); towing speed limited to 25km/hr maximum
- site trolley kit (TR1 and LPW/S2)

**Note:**

*A foot valve and strainer must be fitted to the suction pipe to facilitate priming.*



**RATING DEFINITIONS (ISO 3046)**

The power in kW stated in this data sheet is the power, which the engine is capable of delivering continuously at the stated crankshaft speed under conditions of 100 kPa barometric pressure, 30% relative humidity and 25°C air inlet temperature, provided that the engine is overhauled and maintained in good operating condition and that fuel to BS EN 590 Class A1 or A2, and lubricating oils to the correct performance specification and viscosity classification as recommended by Lister Petter Limited, are used.

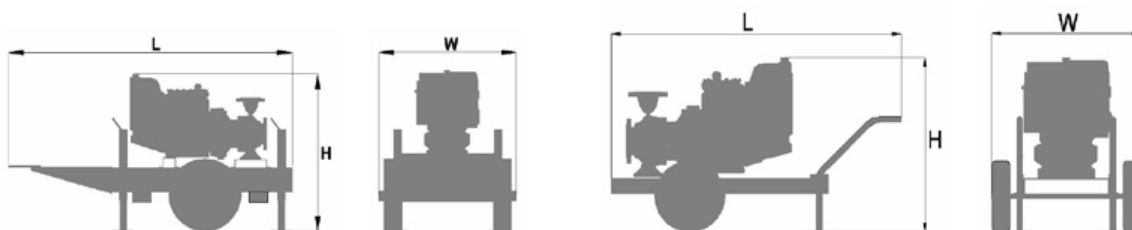
The maximum power in kW stated here is obtained with the fuel limited, so that the fuel stop power cannot be exceeded. Any site condition outside the above stated values may affect the engine selection to drive a pump and you need to clearly specify site conditions (ambient temperature, relative humidity and site altitude) to allow Lister Petter Limited to check the engine capabilities to obtain the required performances.

PUMP FLANGE DIMENSIONS				
Pump model	Suction Flange		Discharge Flange	
	mm	inches	mm	inches
SNM 50-160 SNM 50-200	65	2.5	50	2
SNM 65-250	80	3	65	2.5
SNM 80-315	100	4	80	3
SNM 100-160 SNM 100-200 SNM 100-250	125	5	100	4
SNM 125-200	150	6	125	5
SNM 150-200	200	8	150	6

APPROXIMATE FUEL CONSUMPTION			
Model	Consumption litres/hour	Model	Consumption litres/hour
PA130L	1.50	PT130L	1.20
PA145L	1.60	PT145L	1.30
PA50M	2.30	PT50M	1.84
PA60M	2.00	PT60M	1.60
PA180L	2.37	PT180L	2.57
PA230L	3.13	PT230L	2.40
PA90M	3.00	PT90M	3.20
PA310L	3.90	PT310L	3.80
PA380L	2.90	PT380L	3.60
PA420L	3.70	PT420L	3.60
PA140M	4.60	PT140M	4.30
PA190M	5.50		

APPROXIMATE DIMENSIONS AND WEIGHT (STATIONARY CONFIGURATIONS)									
Model	L (mm)	W (mm)	H (mm)	Weight (kg)	Model	L (mm)	W (mm)	H (mm)	Weight (kg)
PA130L	1225	580	752	300	PT130L	1225	580	739	295
PA145L	1225	580	752	305	PT145L	1225	580	739	300
PA50M	1225	580	732	245	PT50M	1225	580	739	240
PA60M	1225	580	732	255	PT60M	1225	580	739	250
PA180L	1400	718	1048	385	PT180L	1400	718	978	375
PA230L	1400	718	1098	425	PT230L	1400	718	1027	380
PA90M	1400	718	1048	370	PT90M	1400	718	978	375
PA310L	1400	718	1127	425	PT310L	1400	718	1027	425
PA380L	1400	718	1157	465	PT380L	1400	718	1057	460
PA420L	1400	718	1157	465	PT420L	1400	718	1057	460
PA140M	1400	718	1127	440	PT140M	1400	718	1027	430
PA190M	1400	718	1102	465					

APPROXIMATE DIMENSIONS AND WEIGHT (MOBILE CONFIGURATIONS)



Model	L (mm)	W (mm)	H (mm)	Weight (kg)	Model	L (mm)	W (mm)	H (mm)	Weight (kg)
PA130L	1625	840	1022	315	PT130L	1625	840	1009	310
PA145L	1625	840	1022	320	PT145L	1625	840	1009	315
PA50M	1625	840	1002	260	PT50M	1625	840	1009	255
PA60M	1625	840	1002	270	PT60M	1625	840	1009	265
PA180L	2202	1086	1308	485	PT180L	2202	1086	1235	475
PA230L	2202	1086	1358	525	PT230L	2202	1086	1284	485
PA90M	2202	1086	1308	470	PT90M	2202	1086	1235	460
PA310L	2202	1086	1387	525	PT310L	2202	1086	1284	530
PA380L	2202	1086	1417	565	PT380L	2202	1086	1314	560
PA420L	2202	1086	1417	565	PT420L	2202	1086	1314	560
PA140M	2202	1086	1387	540	PT140M	2202	1086	1284	535
PA190M	2202	1086	1362	565					

**UK**

LISTER PETTER LIMITED

Long Street, Dursley, Gloucestershire, GL11 4HS, England

TEL: +44 (0)1453 544141; FAX: +44 (0)1453 546732

E-mail: sales@lister-petter.co.uk

www.lister-petter.co.uk

**UAE**

LISTER PETTER FZE

Dubai Silicon Oasis Headquarters,

PO Box 341077, Dubai, UAE

TEL: +971 4 372 4331; FAX: +971 4 372 4318

E-mail: sales@listerpettergroup.com

www.lister-petter.co.uk

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