

DIESEL POWERED "FIREFIGHTER®"

Model Numbers: **5170Y Single Impeller**
 5170YE Single Impeller
 5110YE Single Impeller
 5270Y Twin Impeller
 5270YE Twin Impeller
 5210YE Twin Impeller

DEPEND ON
DAVEY

WATER PRODUCTS

SELF PRIMING PUMPS

PRODUCT DESCRIPTION

Rugged, economical single and twin impeller self priming pumps. These units are driven by either a Yanmar 7hp or Yanmar 10hp diesel engine.

APPLICATIONS

- Firefighting
- Tank filling
- Irrigation
- Garden watering
- Water transfer
- Crop spraying



FEATURES & BENEFITS

All models (except 5100YE) feature patented clamped impeller design to enable longer impeller life, improved performance and easier disassembly in the case of blockage.

Model 5110YE feature heavy duty sand cast impellers.

Thrust balanced impeller design to extend engine life.

Pump casing, diffusers and impellers manufactured from quality corrosion resistant marine grade aluminium for long life.

4 way discharge port for 7hp models and 3 way discharge for 10hp models providing easy installation with a choice of plumbing sizes.

Epoxy coated pump casing, exterior and interior, for added corrosion resistance.

Patented floating impeller neckrings front and back. The front neckring helps improve pumping efficiency, the back neckring helps extend seal life and dramatically reduce engine wear.

Self priming from up to 6m* for more versatile installation options.

Large priming and drain port with bayonet fit plugs. Plugs have safety retention system, plus are available with 1/4" tapping to accept pressure gauges or drain cocks.

All engines feature cast iron cylinder bore for long life.

Electric start models have electric starter (battery and leads required) and recoil starter fitted, ensures a choice of starting methods, even if the battery is flat or removed.

Viton seal and oring kit available for herbicide/insecticide spraying.

Attractive baked enamel carry frame with anti-vibration mounts for ease of transportation and installation.

Electric Start models

- Battery not included
- Minimum 12 volt battery required :-
L70A/E: 24-36AH
L100A/E: 36-45AH

OPERATING LIMITS

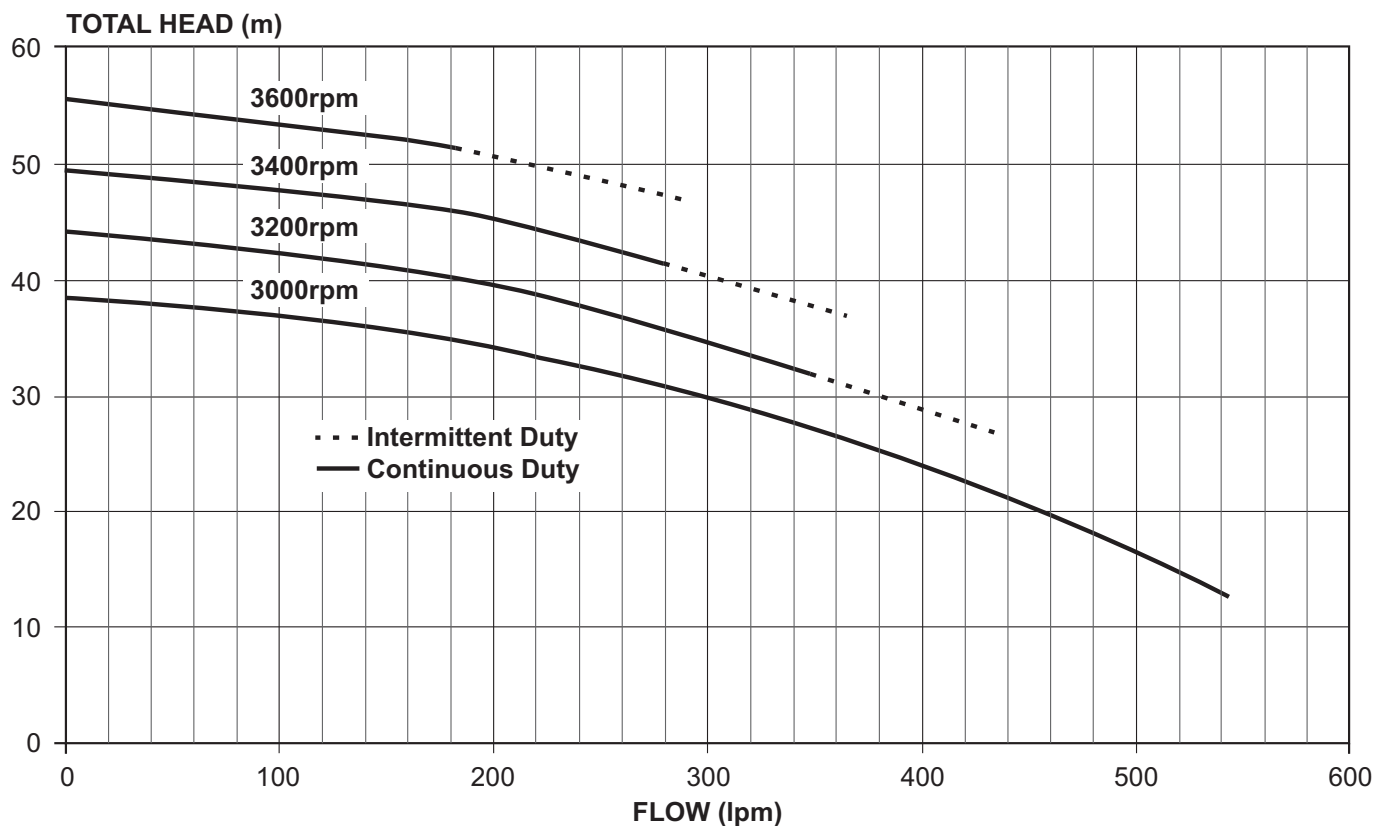
Flows to	800lpm
Maximum total heads	92m
Maximum suction lift	7m
Maximum water temperature	50°C
Minimum water temperature	1°C
Minimum suction pipe size	7hp 1 1/2" 10hp 2"
Suction pipe strainer	Required
Inlet size	7hp 1 1/2" BSP(M) 10hp 2" BSP(M)
Outlet sizes	7hp 2 x 1 1/2" BSP(M) 2 x 1" BSP(M) 10hp 1 x 2" BSP(M) 2 x 1" BSP(M) & Priming Port 1 x 1 1/2" BSP(M)

* at 3000rpm

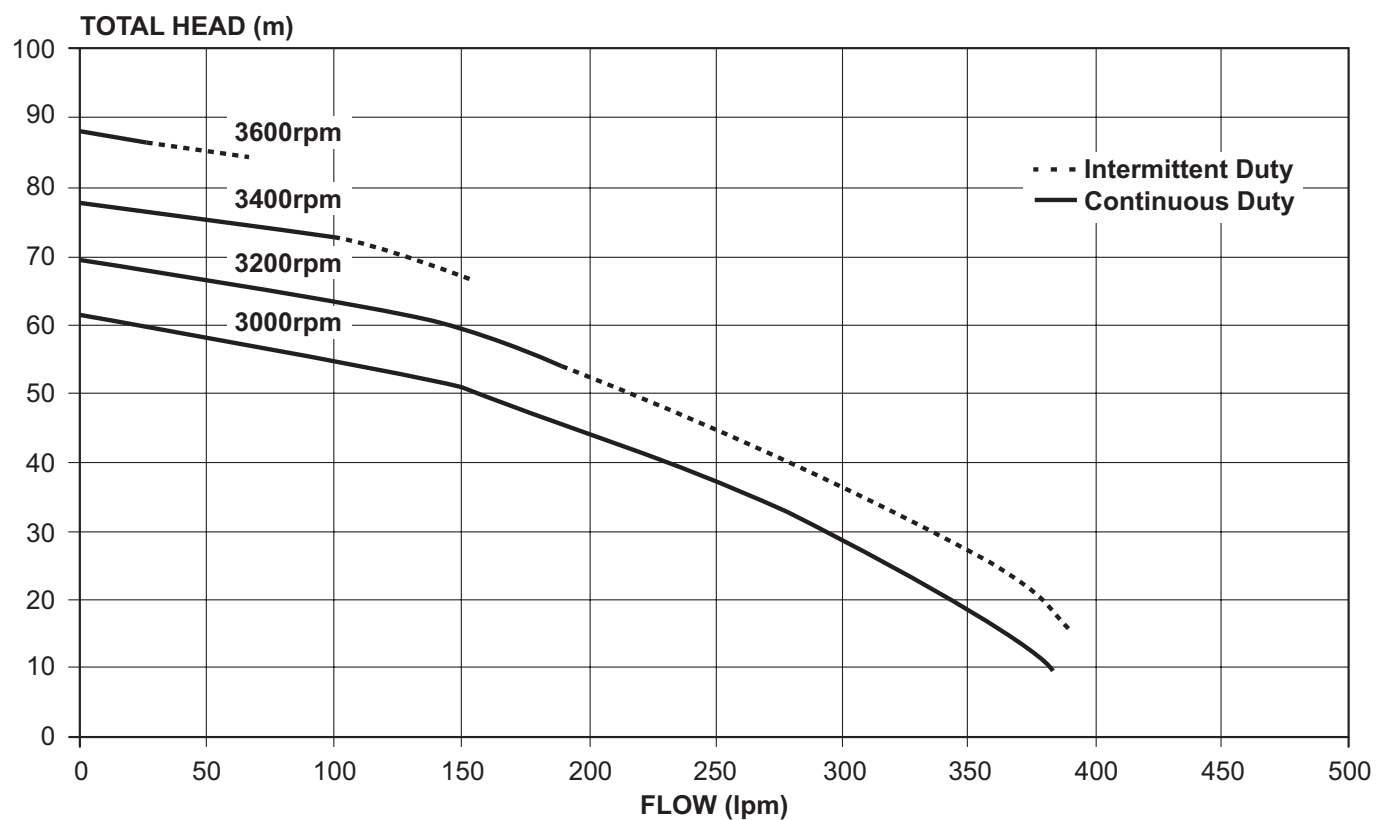


TECHNICAL SPECIFICATIONS

5170Y & 5170YE HYDRAULIC PERFORMANCE

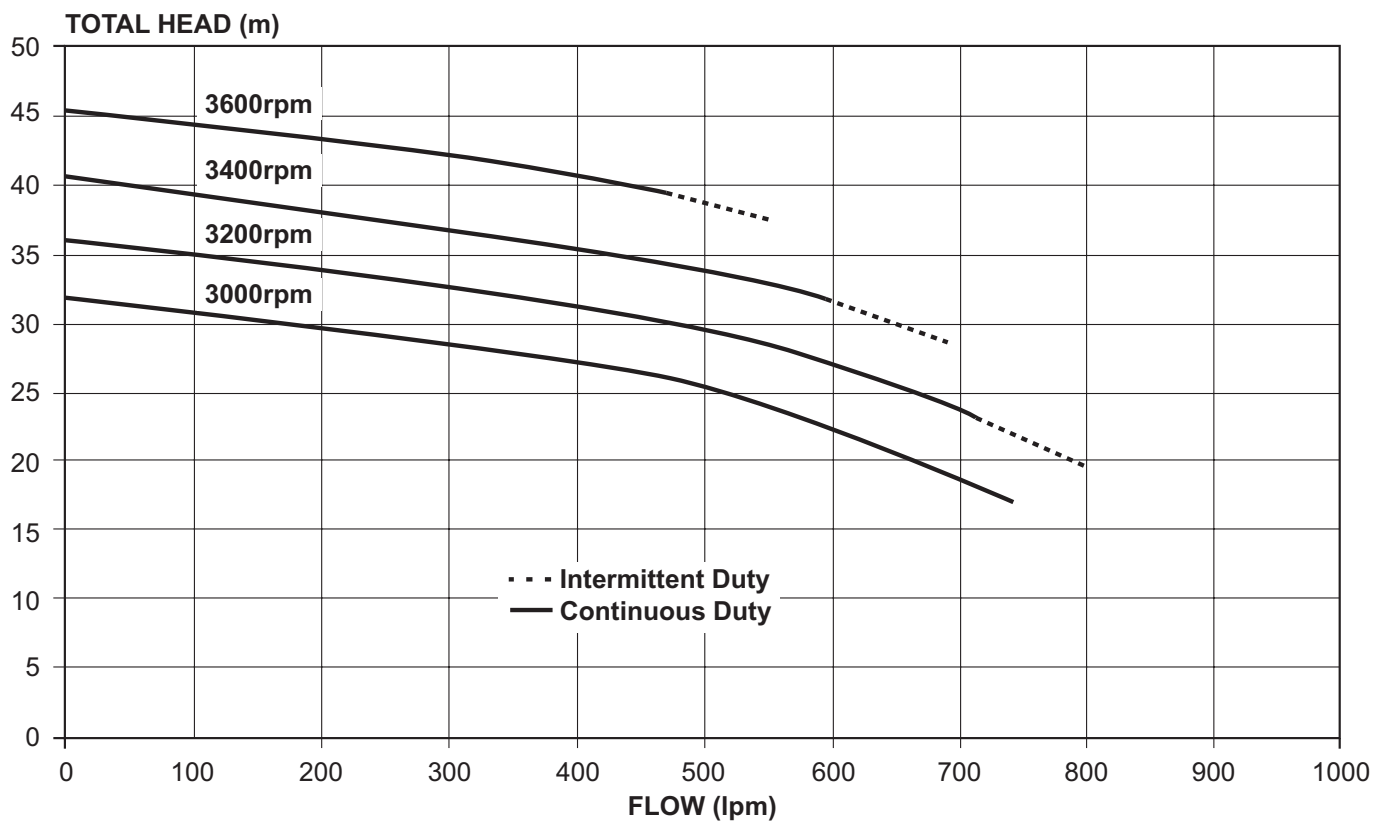


5270Y & 5270YE HYDRAULIC PERFORMANCE

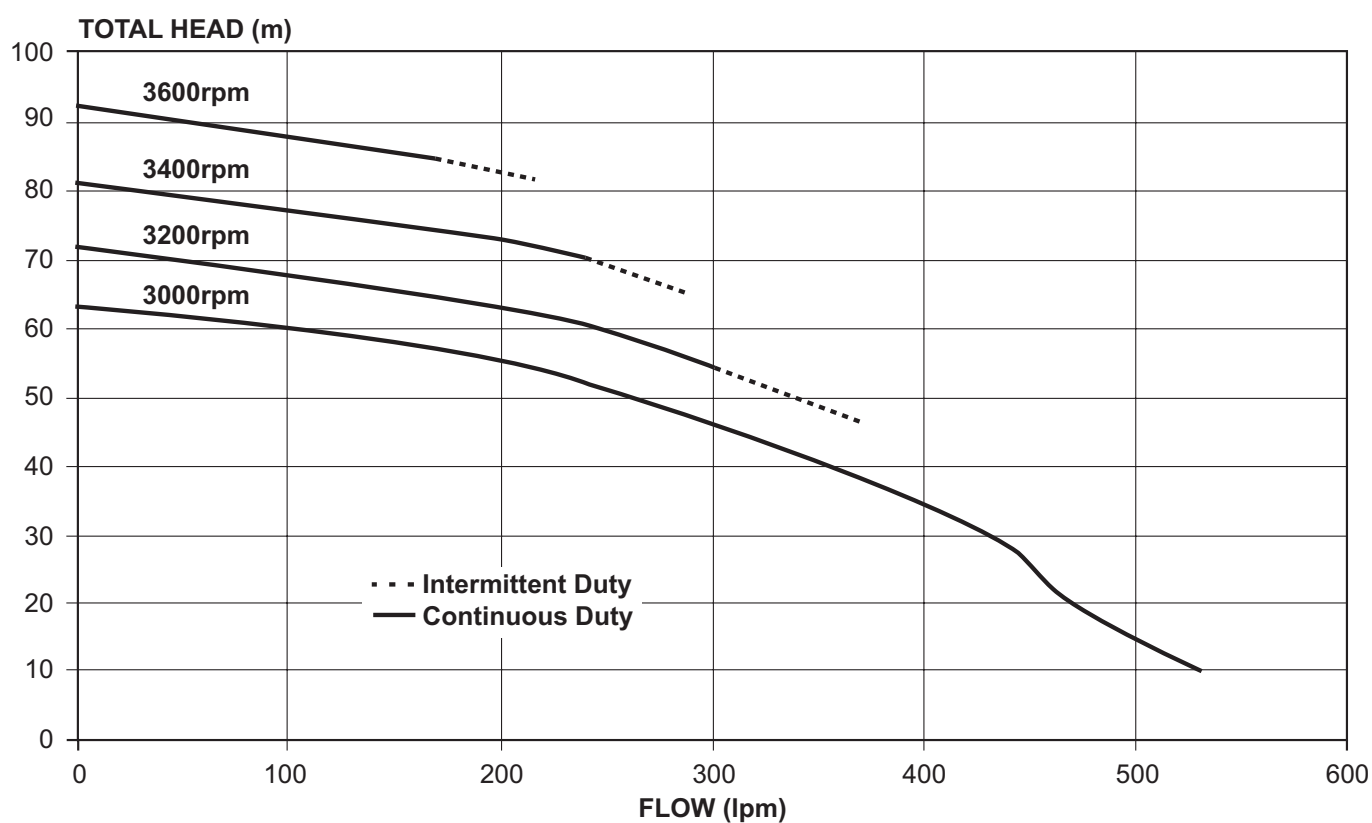


TECHNICAL SPECIFICATIONS

5110YE HYDRAULIC PERFORMANCE



5210YE HYDRAULIC PERFORMANCE



TECHNICAL SPECIFICATIONS

MATERIALS OF CONSTRUCTION

PART	MATERIAL
Suction cover	Marine grade aluminium (AS605)
Diffuser	Marine grade aluminium (AS605)
Impeller	Marine grade aluminium (AS605)
Casing / yoke	Marine grade aluminium (AS605)
Mechanical seal	Carbon / ceramic
4 way discharge	Marine grade aluminium (AS605)
Casing bolts	Zinc plated steel
Yoke bolts	Stainless steel
Flap valve / seal ring	Zinc body, Hytrel seal
Neck ring, priming & drain plug	Glass filled Nylon
Casing, priming & drain plug oring	Nitrile rubber
Discharge gasket	Hytrel
Paint finish	Baked polyester powder coat

ENGINE SPECIFICATIONS

Pump Models	5170Y/YE & 5270Y/YE	5110YE & 5210YE
Engine Brand	Yanmar	
Engine Model	L70A/E	L100AE
Engine Type	Diesel	
Max HP @ 3600 rpm	7.0	10.0
Displacement (cc)	296	406
Fuel Tank (litres)	3.5	5.5
Oil Capacity (litres)	1.1	1.65
Compression Ratio	19.5:1	19.3:1
Air Filter Type	Dry Element	
Spark Arrestor	NO	
Approx. fuel consumption @ full load @ 3600 rpm	1.6 l/hr	2.5 l/hr
dBa @ 7m @ 3600 rpm @ full load	80.5	82.5

USAGE GUIDE

These Diesel powered pumps are intended for portable applications. The use of long range fuel tanks is discouraged, since proper maintenance schedules are unlikely to be followed when such tanks are installed.

Care must be taken to ensure the operator is fully briefed on safe operation of these pump units, especially in regards to the daily engine maintenance requirements.

This literature is not a complete guide to product usage. Further information is available from your Davey dealer, Davey Customer Service Centre and from the relevant product Installation and Operating Instructions. This data sheet must be read in conjunction with the relevant product Installation and Operating Instructions and all applicable statutory requirements. Product specifications may change without notice.

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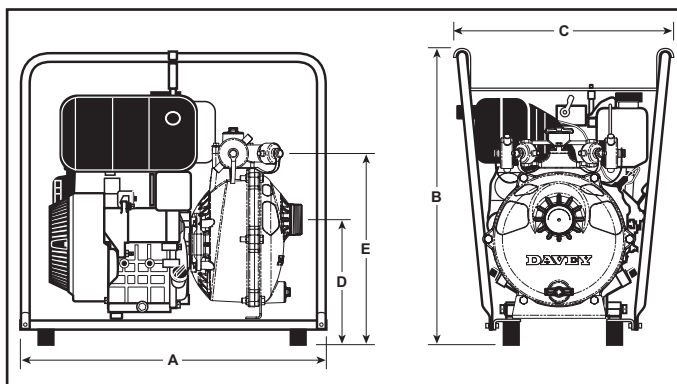
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DIMENSIONS



Model	A	B	C	D	E	Inlet BSP	Outlet BSP	Net Weight (kg)
5170Y/YE 5270Y/YE	595	550	435	224	355	1 1/2" M	2 x 1" M 2 x 1 1/2" M	43 45
5110YE 5210YE	605	600	492	234	365	2" M	2 x 1" M 1 x 2" M	65 66

All dimensions in mm unless otherwise stated.

HYDRAULIC PERFORMANCE

All Davey Diesel models are set with governors at 3000rpm "out of box" speed. At this speed the pump will not overload the engine under a variety of continuous pumping conditions, such as:-

Pumping fresh water
 Ambient temperature up to 40°C
 Humidity up to 50%
 Altitude up to 200 metres above sea level

Pumping fresh water
 Ambient temperature up to 30°C
 Humidity up to 70%
 Altitude up to 400 metres above sea level

The performance curves below indicate the safe continuous pumping limits (solid curve) at a variety of speeds. The intermittent duty performance (dotted curve) is applicable ONLY for short periods.

SELF PRIMING PERFORMANCE

Self priming pumps work best when operated at higher speeds.

The Yanmar diesel engines are set at 3000rpm "out of box". They may be adjusted to 3600rpm, but care must be taken regarding overloading at this speed. In normal operating conditions, where the pump is able to evacuate the air properly, the self priming times through a 40mm suction hose will be:-

Depth (metres)	Speed (rpm)	Time (seconds)
1	3000	30
1	3600	20
2	3000	90
2	3600	50
3	3000	110
3	3600	80

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