

# Deep Well Jet Pump



Model Numbers:  
095D, 125D, 165D



FARM &  
IRRIGATION

## RUGGED, RELIABLE SINGLE STAGE JET ASSISTED PUMP

### APPLICATION

Used in conjunction with Deep Well injector kits, these pumps are Ideal for supplying high pressure water from bores to 42m depth for water supply, tank filling, stock watering and sprinkler supply.

Pumps can also be used in applications where pump needs to be horizontally offset from the water supply.

### FEATURES & BENEFITS

- High TEFC - IP rating for long term protection against vermin, dust and water
- Manufactured from quality corrosion resistant materials  
Pump casing made from marine grade aluminium for high tensile strength, with a unique internal Rilsan® casing injection moulded for wet areas, providing outstanding resistance to aggressive water
- Versatile pump - convertible to match different suction lifts
- Easily converted to automatic or manual operation
- Pumping system can be used for 'offset' installations
- Automatic Demand Response (ADR) fitted to provide peak performance and loss of prime discharge shut down
- 165D available with 3 phase motor
- Low maintenance
- O-ring seal hand tightened priming plug for easy operation

### PUMP

- Single stage jet assisted centrifugal\*
- Marine grade aluminium pump body with Rilsan® lining
- ADR valve fitted
- Pressure switch fitted
- Pressure gauge supplied

### MOTOR

- Davey manufactured
- 2 pole, 2900rpm, 50Hz
- Class F insulation, IP56
- Permanently split, P2 metal jacket 'fail safe' capacitors designed for single phase motors
- Double contact seal C3, high temperature greased bearings
- Inbuilt thermal overload protection with automatic reset in all 1Ø models

\*Note: Pump requires correctly installed and selected Deep Well Injector Kit to operate as per the included performance data

# Deep Well Pressure Systems

## OPERATING LIMITS

Model	095D	125D	165D
Maximum capacity (@140kPa, 6m suction) lpm	85	96	122
Maximum water temperature	50°C		
Minimum water temperature	1°C		
Outlet size	1 1/2" BSP(F)		
Suction pipe sizes	Refer injector kit		

## ELECTRICAL DATA

	095D	125D	165D
Supply voltage (1Ø)	220-240		
Supply voltage (3Ø)	N/A	N/A	380-450
Output power (kW)	1.1	1.4	1.8
Maximum rated current (A) @ 240V / 415V	7.2	8.5	10/4.2
Locked rotor current (A) @ 240V / 415V	21	25	39/24
Insulation class	F		
IP rating	IP56		
Starting (1Ø)	P.S.C.		

## INJECTOR OD (MAX.)

Type	To Suit	Max. OD
23100	Nominal 4" Bore	85
23125	Nominal 5" Bore	111

## MATERIALS OF CONSTRUCTION

PART	MATERIAL
Suction cover	Aluminium-Rilsan® lined
Pump body	Aluminium-Rilsan® lined
Discharge port	Aluminium-Rilsan® lined
Diffuser	Glass filled Noryl
Backplate	Glass filled Noryl
Impeller	Glass filled polycarbonate
Seal ring (stationary)	Ceramic
Seal ring (rotating)	Carbon
O-rings	Nitrile rubber
Priming plug	Nylon
Shaft	304 stainless steel
Motor shell	Aluminium
Motor shell finish	Polyester powder coat
Capacitor cover	Polypropylene
Terminal box cover	Polypropylene
Mounting feet	Xenoy®

## INSTALLATION & PRIMING

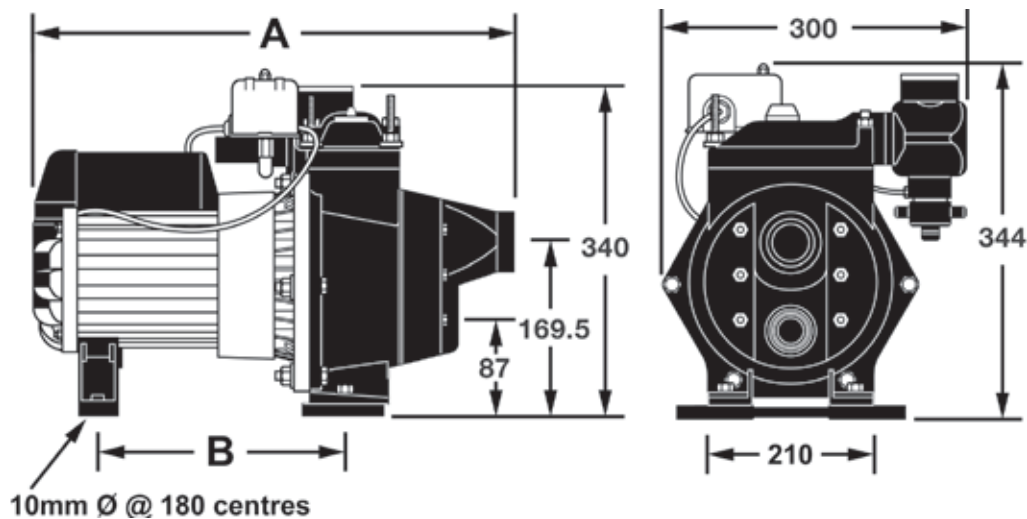
- To prime, fill pump body, suction and pressure pipes and injector through priming plug hole and replace plug.

Note:

For complete details consult the installation and operating instructions.

## DIMENSIONS (MM)

Model	A	B	Inlet B.S.P.		Outlet B.S.P.	Net Weight (kg)
			Drive	Suction		
095D	485	212	1 1/4"	1 1/2" F	1 1/4" F	19.8
125D	505	232	1 1/4"	1 1/2" F	1 1/4" F	22.6
165D	505	232	1 1/4"	1 1/2" F	1 1/4" F	22.6



# Deep Well Pressure Systems

PERFORMANCE																																		
Pump Model	Injector Kit No.	*Max Shut Off Pressure	Outlet Pressure	Depth to water metres/feet																														
				6	9	12	15	18	21	24	27	30	33	36	39	42																		
				20	30	39	49	59	69	79	89	98	108	118	128	138																		
Output per minute in litres/gallons																																		
95D 1ph 1.6kW * 1.1kW ◊ 7.2A	22469 (4") 100mm	550	80	140	20	85	18.6	73	16.0	64	14.0	55	12.0	46	10.1																			
				210	30	73	15.9	65	14.2	55	12.0	47	10.2	39	8.5																			
				280	40	57	12.5	49	10.7	40	8.7	32	7.0	25	5.4																			
				350	50	38	8.3	30	6.5	23	5.1	18	3.9	12	2.6																			
420	60	21	4.6	16	3.5	11	2.4																											
125D 1ph 2.1kW * 1.4kW ◊ 8.5A	22471 (4") 100mm	575	83	210	30	96	21.1	85	18.6	73	16.0	60	13.1	51	11.2																			
				240	35	88	19.3	77	16.9	67	14.6	58	12.7	45	9.8																			
				280	40	77	16.9	65	14.2	57	12.5	47	10.3	39	8.5																			
				350	50	54	11.7	45	9.8	38	8.3	30	6.5	23	5.1																			
420	60	34	7.4	26	5.7	20	4.3	14	3.0																									
165D 1ph 2.4kW * 1.8kW ◊ 10.0A	22472 (4") 100mm	660	96	210	30			63	13.8	55	12.0	49	10.7	42	9.2	36	7.9	29	6.3	25	5.4	22	4.8											
				240	35			58	12.7	52	11.3	45	9.8	39	8.5	33	7.2	27	5.9	23	5.0	20	4.4											
				280	40			51	11.2	47	10.3	41	8.9	35	7.6	29	6.3	25	5.4	21	4.6	18	3.9											
				350	50			39	8.5	34	7.4	29	6.3	24	5.2	21	4.6	18	3.9	14	3.0	11	2.4											
420	60			27	5.9	23	5.0	19	4.1	16	3.5	13	2.8	10	2.1																			
480	70			19	4.1	16	3.5	12	2.6	10	2.1																							
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22570 (5") 125mm	650	94	210	30			87	19.1	80	17.5	70	15.3	61	13.4	53	11.6	45	9.8	37	8.1	32	7.0	27	5.9	21	4.6							
				240	35			83	18.0	76	16.5	66	14.3	57	12.5	50	10.9	42	9.2	35	7.6	29	6.3	24	5.2	19	4.1							
				280	40			73	15.9	66	14.3	58	12.6	50	10.9	45	9.8	36	7.8	31	6.7	24	5.2	20	4.4	15	3.2							
				350	50			56	12.3	51	11.2	43	9.4	37	8.1	33	7.2	23	5.0	19	4.1	15	3.2	11	2.4									
420	60			40	8.7	37	8.1	31	6.7	25	5.4	21	4.6	14	3.0	10	2.1																	
480	70			29	6.3	26	5.7	21	4.6	17	3.7	13	2.8																					
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22473 (4") 100mm	620	90	210	30	107	23.5	93	20.4	83	18.2	71	15.6	59	12.9	48	10.5																	
				240	35	98	21.5	84	18.4	74	16.2	64	14.0	54	11.7	44	9.6																	
				280	40	83	18.0	71	15.6	62	13.6	53	11.6	44	9.6	33	7.2																	
				350	50	60	13.1	50	10.9	42	9.2	35	7.6	29	6.3	23	5.0																	
420	60	41	8.9	33	7.2	26	5.7	20	4.4	15	3.2	10	2.1																					
480	70	27	5.9	20	4.3	14	3.0	10	2.1																									
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22474 (4") 100mm	635	92	210	30			63	13.8	54	11.8	46	10.1	40	8.7	35	7.6	27	5.9	24	5.2													
				240	35			60	13.1	53	11.6	43	9.4	38	8.3	32	7.0	24	5.2	21	4.6													
				280	40			53	11.6	46	10.1	40	8.7	35	7.6	29	6.3	24	5.2	20	4.4													
				350	50			40	8.7	34	7.4	28	6.1	24	5.2	20	4.3	16	3.5	12	2.6													
420	60			28	6.1	22	4.8	19	4.1	15	3.2	11	2.4																					
480	70			19	4.1	14	3.0	10	2.1																									
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22475 (4") 100mm	750	109	210	30												25	5.4	24	5.2	21	4.6	19	4.1	17	3.7	14	3.0	12	2.6	11	2.4		
				240	35														23	5.0	20	4.4	19	4.1	17	3.7	14	3.0	12	2.6	11	2.4		
				280	40															22	4.8	20	4.4	18	3.9	16	3.5	14	3.0	12	2.6	10	2.1	
				350	50															19	4.1	18	3.9	16	3.5	14	3.0	13	2.8	11	2.4	9	1.9	
420	60															15	3.2	14	3.0	12	2.6	10	2.1											
480	70															12	2.6	11	2.4	10	2.1													
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22571 (5") 125mm	590	86	210	30	122	26.8	111	24.4	98	21.5	87	19.1	70	15.3	56	12.3																	
				240	35	112	24.3	102	22.2	90	19.6	79	17.2	65	14.2	51	11.2																	
				280	40	99	21.5	88	19.3	75	16.4	65	14.2	52	11.4	41	9.0																	
				350	50	74	16.2	62	13.6	51	11.2	40	8.7	29	6.3	20	4.3																	
420	60	49	10.7	37	8.1	27	5.9	19	4.1	10	2.1																							
480	70	27	5.9	18	3.9	11	2.4																											
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22572 (5") 125mm	630	91	210	30								64	14.0	57	12.5	49	10.7	42	9.2	37	8.1	31	6.8										
				240	35											59	12.8	52	11.4	46	10.1	40	8.7	35	7.6	29	6.3							
				280	40											53	11.6	47	10.3	41	9.0	34	7.4	30	6.5	25	5.4							
				350	50											38	8.3	33	7.2	28	6.1	24	5.2	20	4.3	15	3.2							
420	60											27	5.9	23	5.1	18	3.9	14	3.0	11	2.4													
480	70											18	3.9	14	3.0	10	2.1																	
165D 3ph 2.3kW * 1.8kW ◊ 4.2A	22573 (5") 125mm	540	78	210	30													37	8.1	30	6.5	27	5.9	21	4.6	17	3.7	12	2.6					
				240	35															35	7.6	30	6.5	25	5.4	20	4.4	16	3.5	11	2.4			
				280	40																30	6.5	27	5.9	22	4.8	18	3.9	14	3.0	10	2.1		
				350	50																21	4.6	17	3.7	13	2.8	10	2.1						

★ Input kW (P<sub>1</sub>)    ◊ Output kW (P<sub>2</sub>)

Performances are obtained at or near sea level – Higher altitudes will reduce pump suction capabilities.

## IMPORTANT INFORMATION

- > Pump outlet: 1 1/4" (32 mm) BSP Female. 'Automatic Demand Response' valve fitted as standard on all complete pump models.
- > Suction pipe sizes: 1 1/2" and 1 1/4" I.D imperial poly pipe for injector kit nos 22469 – 22475 and 22472 – 22428. 2" and 1 1/2" I.D Imperial poly pipe for injector kit nos 22570 – 22573 and 22566 – 22569. 2" and 1 1/4" I.D Imperial poly pipe for injector kit no. 22468.
- > Max. shut-off pressures are at shallowest depth to water for each injector. Reduce by 10kPa for every 1 metre of extra depth to water.
- > All performances are with injector submergence of 3m and minimum pipe length of 12m.
- > All pipe fittings and hose clips are included with deep well injectors.
- > For offset applications, performance will be reduced if suction pipe lengths exceed depths indicated for borehole installations.
- > Consult your Davey dealer for recommendations on pipe sizes.
- > Pumps are supplied with pressure switches connected, suitable for automatic pressure system operation in conjunction with Davey Supercell tanks.
- > To convert litres/min to gallons/hour multiply by 13.2. All imperial data is an approximation of metric figures. Specifications subject to change without notice.
- > All single phase models supplied with plug and lead for 10amp (Prime Jet 240, 15amp) 220/250 volt 50Hz operation. Prime Jet 240 only may be re-connected for use on nominal 480 volt 50Hz single phase supply. 3 phase 415 volt available in models 165D and Prime Jet 240 only – specify when ordering.