



Rain Bird Pump Station Products



Low Profile Pump Station (LP)

NEW

0.5 to 10 hp; Up to 120 psi (8.1 bar); Up to 235 gpm (1.8-27.2m³/h)

- Cost effective – Standardized drive only pump system that delivers high performance with minimum investment
- Low Profile – Compact aluminum marine enclosure with powder coated piping
- Energy efficient – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand
- Reliability – Simple standard design, easy installation and maintenance



Low Profile Pump Station (LP)
with NEMA 3R enclosure



Interior of Low Profile Pump Station (LP)

Features

- Vertical multistage or horizontal end-suction pumps for boost, flooded suction, or suction lift applications
- Small marine-grade, low-profile aluminum enclosure
- Separate NEMA 3R electrical controls enclosure
- Steel pipes throughout
- Corrosion resistant powder coating on skid, pipes and flanges
- Pump Start Relay
- Variable Frequency Drive for maximum efficiency
- GT 1020 Operator touch screen
- Circuit breaker motor protection
- Auto restart capability
- Surge protection
- Low pressure discharge alarm – dry run protection
- Pump thermal switch (safety shutdown)
- Fan and louver cooling
- Inlet/outlet pressure gauges

Options

- Environmental Package: Insulation and heater
- Audible/visual Alarm
- Pressure Relief Valve (PRV)
- Z - Pipe(s)
- Expansion tank and flow switch: If pump start signal is not available
- Swing Check Valve: for suction lift application
- Pump bypass manifold
- Flow meter: Inlet/discharge thru enclosure wall only if flowmeter is chosen

Electrical Power Specification

- 60Hz, 3-phase power: 208V, 230V, 460V
- 60Hz, 1-phase power: 208V, 230V

Application

- Choose the Low Profile Pump Station for small to midsize boost, flooded suction and suction lift applications such as, city parks and buildings, sports fields, commercial buildings, small home owner's associations, and large residential sites



“D” Series Pump Stations D/DP/DPX-Series Pump Stations

Flows Up to 300 gpm (68 m³/h) and Greater, Discharge Pressures Up to 150 psi (10.3 bar)

- Reliability – Integrated Plug-n-Pump Stations (up to 300gpm) provide single source responsibility for the entire pumping system insuring trouble-free installation and operation
- No hassle buying – Purchase all irrigation system components from Rain Bird facility in Tucson, Arizona
- Easy start-up – All stations are wet tested prior to shipment

Features

- Vertical multistage pump for flooded suction or pressure boosting applications
- Horizontal end-suction pump for flooded suction, pressure boosting, or suction-lift applications
- Variable Frequency Drive for maximum energy efficiency
- Monochrome-backlit touch screen operator interface makes for easy operator training
- Power-loss auto-restart ensures seamless operation on loss and regain of electrical power
- Operator touch screen
- Vandal resistant enclosure in PGS8-C0651 fence green or FS 20450 night tan

Options

- Environmental Package: Insulation and heater
- Audible/visual alarm
- Pressure Relief Valve (PRV)
- Z - Pipe(s)
- Expansion tank and flow switch: If pump start signal is not available
- Swing Check Valve: for suction lift application
- Pump bypass manifold
- Flow meter: Inlet/discharge thru enclosure wall only if flowmeter is chosen

Electrical Power Specifications

- 60 Hz, 3-phase power: 230V, 460V, 575V
- 50 Hz, 3-phase power: 190V, 380V, 415V
- 60 Hz, 1-phase power: 230V (up to 10 hp per pump)

Note: See the “Pump Station Specification Guide for Low Profile and D-Series Pumps” on page 8.

D-Series Features

- Drive-only pump system that cost effectively delivers no-frills high performance

D-Series Applications

- Residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications requiring a reliable pump station delivering the pressure and flow rate required by the irrigation system

DP-Series Features

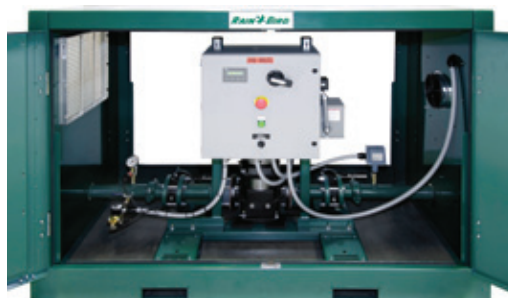
- Programmable logic controller (PLC) allows controls beyond pressure and flow such as lake level controls, actuated automation filtration, and the ability to alter pressure set points based on time (variable pressure settings)

DP-Series Application

- Residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications up to 300 gpm, with pressures up to 150 psi requiring programmable logic controls



D-Series



DP-Series

D-Series, DP-Series and DPX-Series Pump Stations (cont.)

DPX-Series Features

- Seamless system integration with Rain Bird SiteControl software (requires optional full color touch screen)
- Liquid-cooled NEMA 3R electrical panel ensures reliability and longevity in hot climates
- Programmable logic controller (PLC) allows controls beyond pressure and flow such as lake level controls, actuate automation filtration, and alter pressure set points based on time (variable pressure settings)
- Selection of the full color touch screen and modem options provides communication between the pump station and central control computer
- Power-loss auto-restart ensures seamless operation on loss and regain of electrical power

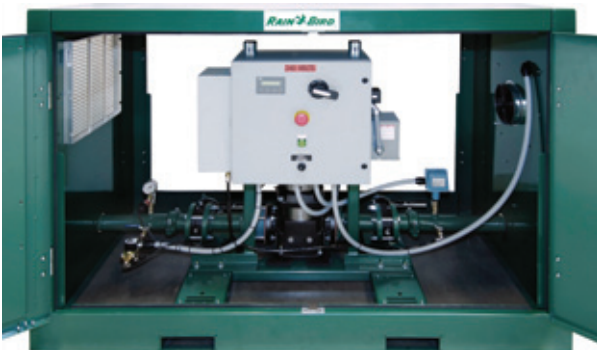
DPX-Series Application

- Warm climate residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications up to 300 gpm, with pressures up to 150 psi requiring liquid cooled electronics
- When communication between the pump station and Rain Bird SiteControl is desired

DPX-Series Options

- Full color touch screen with Spanish and English operator screens. This option is required for communication between the pump station and central control computer
- Hard wire or radio communication modems
- Filtration or wye strainer with auto flush
- Self cleaning inlet screen
- Pump start relay
- "Z" pipe
- Lake level controls
- Pump bypass
- Environmental Package: Insulation and heater
- Suction lift assembly

"D" Series Pump Features				
Item	PLC REQUIRED DPX	PLC REQUIRED DP	NO PLC D	NO PLC LP
Cabinet Size/Color	Mid/green	Mid/green	Mid/green	small/aluminum
Touchscreen	Full Color	Monochrome/Color	Mono	Mono
Reliable Delivery of Required Pressure and Flow	✓	✓	✓	✓
Pressure or Flow (max or min settings)	✓	✓	✓	✓
Pump Thermal Safety Switch	✓	✓	✓	✓
Multiple Pump Applications	✓	✓		
Lake Level Controls	✓	✓		
Filtration Controls	✓	✓		
Self Cleaning Inlet Screen	✓	✓		
Communication Between Pump Station and Central Control capable	✓	✓		
Remote Pump Monitoring (using Pump Manager)	✓	✓		
Heat Exchanger in Warmer Climates	✓			



DPX-Series



Color Touchscreen
(Standard on D, DP, DPX Series)

Intermediate Flow Pump Stations

Flows Up to 750 gpm (170 m³/h) at 120 psi (8.3 bar). Higher Flows Available at Pressures Less than 120 psi (8.3 bar)

- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- Easy Operator Training – Easy to navigate monochrome touch-screen
- Reduced Cost – Our powder coat paint earned a perfect rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost

Features

- Everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation for over seven decades
- Easy installation and start-up
- Dry no-flow protection and thermal safety

Application

Mid to large projects such as golf courses, parks, lake transfer sports fields, nurseries, turf farms, and other agricultural projects

Options

- Air conditioner electrical panel cooling
- Enclosures: aluminum, painted steel (government specified colors), or stainless steel
- Full color touch-screen with English and Spanish
- Magnetic flow meter
- Modem, radio or hard-wired
- Totally enclosed, fan cooled (TEFC) motor
- Wye strainer with auto back-flush
- Z discharge pipe

Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 190V (up to 60hp per pump), 380V, 415V
- 60 Hz, 1-Phase Power: 230V (up to 30hp per pump)



Intermediate Flow Pump Stations Color Touchscreen (Optional on D, DP, DPX Series)



Intermediate Flow Pump Station

Main Irrigation Pump Stations

Flows Up to 10,000 gpm (2,300 m³/h)

- **Enhanced Serviceability** – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- **Reduced Downtime** – Modern electrical design that uses industrial circuit breaker motor protection instead of time wasting fuses. Industrial circuit breakers are good for thousands of trips
- **Easy Operator Training** – English and Spanish color touch-screen that is easy to learn

Features

- **Reduced cost:** Powder coat paint earned the highest rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost
- **No-hassles buying:** Everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation
- **Real-time communication** between the pump station and Rain Bird Central Control

Application

Reliable Variable Frequency Drive Pump Stations designed to serve as the main irrigation pump station for large commercial sites and projects. Rain Bird Pump Systems are designed for both new construction projects and can be custom built for tough-to-fit renovation projects

• Available in the following configurations:

- Vertical and submersible turbine pump stations for wet-well applications
- Horizontal end suction for flooded suction, suction lift, and pressure boosting applications
- Multistage pumps for flooded suction and pressure boosting applications where differential pressures greater than 130 psi (9 bar) are required

Options

- Air conditioned electrical panel cooling system
- Custom controls
- Custom piping and manifolds
- Enclosures: aluminum, painted steel (government specified colors) or stainless steel
- Fabricated discharge heads
- Fertigation systems
- Filtration: backwashing screen filters and suction scan filters (hydraulic or electric)
- Heater, skid mounted 5KW
- Intake box screen with 3 stainless steel screens
- Lake level control: float switch and ultrasonic
- Magnetic flow meter
- Modem, radio or hard-wired
- Power zones: 5, 7.5, or 10KVA
- Totally enclosed, fan cooled (tefc) motors
- Wye strainer with auto back-flush
- Z discharge pipe
- HDPE piping and manifolding

Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 190V (up to 60hp per pump), 380V, 415V
- 60 Hz, 1-Phase Power: 230V (up to 30hp per pump)



Main Irrigation Pump Station

Water Feature Pump Stations

Flows Up to 10,000 gpm (2,300 m³/h) and Greater

- Adjustable Look – The VFD allows for altering the look of a water feature by adjusting the pump run speed
- Save Energy – “Night-Run” Mode runs VFD driven pump at minimum speed, minimizing energy cost while preventing stagnant water
- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life

Features

- Monochrome touch-screen operator interface
- Powder coat paint earned a perfect rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost

Application

Reliable Variable Frequency Drive (VFD), water feature pump stations allow adjustable water feature appearance and provide a “Night-Run” mode that prevents stagnant water when the full look of the water feature is not desired. Constant speed systems require that the system be on or off, allowing water to stagnate during non-running periods.

- Available in flows up to 10,000 gpm and greater in the following configurations:
 - Vertical turbine pump stations for wet-well applications
 - Split-case and horizontal end suction for flooded suction applications



Water Feature Pump Station

Options

- Air conditioner electrical panel cooling
- Custom controls
- Custom piping and manifolds
- Enclosures: aluminum, painted steel (government specified colors) or stainless steel
- Fabricated discharge heads
- Filtration: backwashing screen filters and suction scan filters (hydraulic or electric)
- Heater, skid mounted 5KW
- Intake box screen with 3 stainless steel screens
- Lake level control: float switch and ultrasonic
- Totally enclosed, fan cooled (TEFC) motors
- Wye strainer with auto back-flush
- Z discharge pipe
- HDPE piping and manifolding

Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
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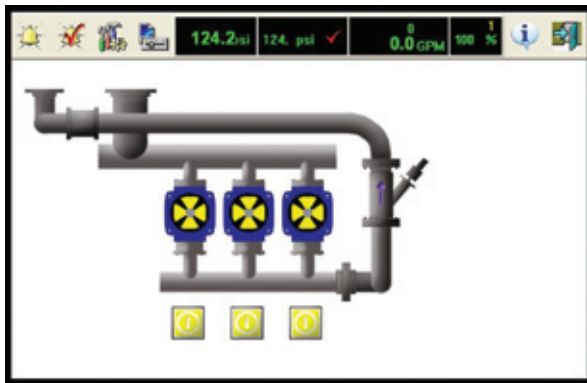
Pump Manager with SmartPump™

Combine a Rain Bird Pump Station and site control software to fully integrate pump station operation with your site control software with real-time communication.

Pump Manager with SmartPump™

- Matches irrigation system operation with the real capacity of the pump station, shortening the water window and decreasing energy consumption
- Alerts the superintendent in real time of irrigation and pump station problems via cell phone text message
- Responds to irrigation system and pump system problems in real-time. Other systems can lose an hour of irrigation time trying to recover from a fault

Pump Manager with SmartPump™ provides for pump station control and full monitoring capabilities from the site control



Pump Station Service

Rain Bird fields a nationwide network of Authorized Service Providers to ensure your pump station remains in operation. Additionally, Rain Bird also offers Phone Support, Preventative Maintenance Plans and Full Service coverage during and after the Customer Satisfaction Policy is completed. Add these services to your purchase to get the full package. Contact your authorized Rain Bird Distributor for details.

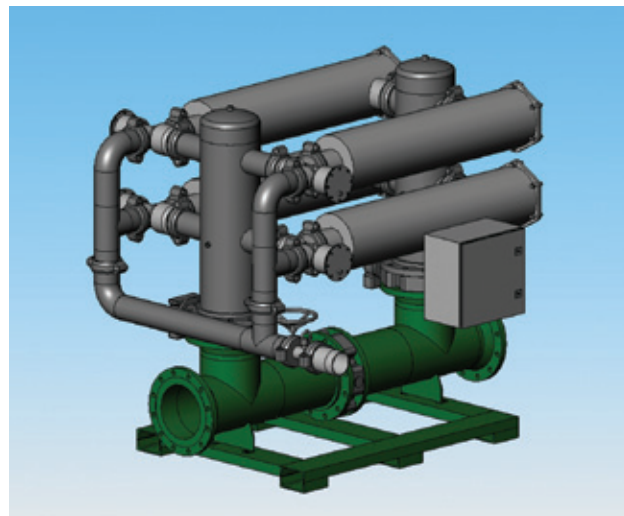


Rain Bird Filtration Systems

Need filtration due to lowering water quality or getting ready to switch to reclaim? Rain Bird can fabricate custom filter manifolds and integrate leading back-washing screen filters or suction-scan filters to yield a filter system that is ready to install.

Filter Systems are available for flows up to 10,000 gpm and available with:

- Backwashing screen filters with epoxy coated steel
- Hydraulic or electrically operated suction-scan filters in painted steel or stainless steel construction



Filter Screen Mesh Number and Micron Cross Reference

Filter Screen Conversion	
MESH #	MICRONS
35	500
40	400
45	354
50	297
60	250
70	210
80	177
100	149
120	125
140	105
170	88
200	74

Pump Station Specification Guide for Low Profile and D-Series Pumps

Rain Bird® Low Profile (LP) Pump Stations														
Vertical Multi-Stage Pump Type														
Pump Model	hp	Flanged Connections Inlet/Disch.	(Differential Pressure- psiG) Boost at Maximum Flow (gpm)											
			15 psiG	20 psiG	30 psiG	40 psiG	50 psiG	60 psiG	70 psiG	80 psiG	90 psiG	100 psiG	110 psiG	120 psiG
CR3-3	0.5	2"	22	20	12									
CR3-4	0.75	2"			18	12								
CR3-5	0.75	2"				18	14							
CR5-2	0.75	2"	30	23										
CR10-1	0.75	2"	15											
CR3-6	1	2"					18	14	10					
CR5-3	1	2"		40	23									
CR3-7	1.5	2"						18	15	10				
CR5-4	1.5	2"			37	23								
CR5-5	1.5	2"				35	27	17						
CR10-2	1.5	2"		60	55									
CR3-10	2	2"								18	16	14	12	8
CR5-7	2	2"					37	34	27	20				
CR15-1	2	3"	110	80										
CR10-3	3	2"				60	45							
CR10-4	3	2"					60	55	45	30				
CR20-1	3	3"	130	110										
Horizontal End-Suction Pump Type														
Pump Model	hp	Flanged Connections Inlet/Disch.	(Differential Pressure- psiG) Boost at Maximum Flow (gpm)											
			15 psiG	20 psiG	30 psiG	40 psiG	50 psiG	60 psiG	70 psiG	80 psiG	90 psiG	100 psiG	110 psiG	120 psiG
CP0590T	1	2"		35										
CP0590T	2	3"			55	30								
1WC	2	2"				27-40	15-20							
1WC	3	2"					25-42	15-30						
CT1090T	3	3"			70	60	30							
CP1090T	5	3"				95	85	70	50					
1WC	5	2"						35-47	17-50	17-50	20-30			
1.5WH	5	4"			140-165	90-135	75-90							
1WC	7.5	2"								45-55	35-55	20-45		
1.25W	7.5	4"				140-160	105-160	65-125	65-75					
1.5WH	7.5	4"			170-215	140-195	95-165	80-125						
CP10150T	7.5	4"	180		190	190	170	130						
2WH	7.5	4"			200-235	115-185								
1.25Y	7.5	4"					145	125	100	65				
1.25Y	10	4"					150-160	130-160	105-145					
1.5WH	10	4"				200-235	170-215	130-190	90-150					
CP1090T	10	4"								105	88	60		
CP10150T	10	4"					215	204	180	130				
D Series Pumps														
Pump Model	hp	Flanged Connections Inlet/Disch.	(Differential Pressure- psiG) Boost at Maximum Flow (gpm)											
			15 psiG	20 psiG	30 psiG	40 psiG	50 psiG	60 psiG	70 psiG	80 psiG	90 psiG	100 psiG	110 psiG	120 psiG
	5	2"						60	60	50				
	5	2"								60	50	50		
	5	2"									60			
	7.5	2"										60		
	5	3"		100	100	90	50						60	
	5	3"					100	90	80					
	7.5	3"							100	100	80			
	10	3"									100	100		
	10	3"											100	90
	5	3"		120	120	100		120	120					
	7.5	3"						120	120					
	10	3"							120	120				
	2(5)	3"									120			
	3	4"		150										
Custom Builds	5	4"		180	130									
	7.5	4"			180	160	130							
No Model Numbers	7.5	4"				180	150							
	7.5	4"					170	140						
	10	4"						180	160	140				
	2(5)	4"												
	2(7.5)	4"						200	200	200	160	120		
	2(10)	4"									200	200		
	2(10)	4"											200	180
	7.5	4"		260	260	190								
	2(5)	4"				230								
	2(7.5)	4"					240	240						
	2(10)	4"							240	240	210			
	2(3)	6"		300										
	2(5)	6"		360	240									
	2(7.5)	6"			360	330	270							
	2(7.5)	6"				360	310							
	2(7.5)	6"					340	280						

Select Required Flow within the Desired Pressure Column

Pump Station Specification Guide for LP and D-Series Pumps

		Pipe Diameter in Inches									
gpm		0.5	0.75	1	1.5	2	2.5	3	4	6	8
Flow Rate in Gallons per Minute (gpm)	1	1.6	0.7	0.4	0.2	0.1	0.1	0	0	0	0
	2	3.3	1.5	0.8	0.4	0.2	0.1	0.1	0.1	0	0
	3	4.9	2.2	1.2	0.5	0.3	0.2	0.1	0.1	0	0
	4	6.5	2.9	1.6	0.7	0.4	0.3	0.2	0.1	0	0
	5	8.2	3.6	2	0.9	0.5	0.3	0.2	0.1	0.1	0
	6	9.8	4.4	2.5	1.1	0.6	0.4	0.3	0.2	0.1	0
	7	11.4	5.1	2.9	1.3	0.7	0.5	0.3	0.2	0.1	0
	8	13.1	5.8	3.3	1.5	0.8	0.5	0.4	0.2	0.1	0.1
	9	14.7	6.5	3.7	1.6	0.9	0.6	0.4	0.2	0.1	0.1
	10	16.3	7.3	4.1	1.8	1	0.7	0.5	0.3	0.1	0.1
	15	24.5	10.9	6.1	2.7	1.5	1	0.7	0.4	0.2	0.1
	20	32.7	14.5	8.2	3.6	2	1.3	0.9	0.5	0.2	0.1
	25	40.9	18.2	10.2	4.5	2.6	1.6	1.1	0.6	0.3	0.2
	30	49	21.8	12.3	5.4	3.1	2	1.4	0.8	0.3	0.2
	35	57.2	25.4	14.3	6.4	3.6	2.3	1.6	0.9	0.4	0.2
	40	65.4	29	16.3	7.3	4.1	2.6	1.8	1	0.5	0.3
	45	73.5	32.7	18.4	8.2	4.6	2.9	2	1.1	0.5	0.3
	50	81.7	36.3	20.4	9.1	5.1	3.3	2.3	1.3	0.6	0.3
	60	98	43.6	24.5	10.9	6.1	3.9	2.7	1.5	0.7	0.4
	70	114.4	50.8	28.6	12.7	7.1	4.6	3.2	1.8	0.8	0.4
	80	130.7	58.1	32.7	14.5	8.2	5.2	3.6	2	0.9	0.5
	90	147.1	65.4	36.8	16.3	9.2	5.9	4.1	2.3	1	0.6
	100	163.4	72.6	40.9	18.2	10.2	6.5	4.5	2.6	1.1	0.6
	125	204.3	90.8	51.1	22.7	12.8	8.2	5.7	3.2	1.4	0.8
	150	245.1	108.9	61.3	27.2	15.3	9.8	6.8	3.8	1.7	1
	175	286	127.1	71.5	31.8	17.9	11.4	7.9	4.5	2	1.1
	200	326.8	145.2	81.7	36.3	20.4	13.1	9.1	5.1	2.3	1.3
	225	367.7	163.4	91.9	40.9	23	14.7	10.2	5.7	2.6	1.4
	250	408.5	181.6	102.1	45.4	25.5	16.3	11.3	6.4	2.8	1.6
	275	449.4	199.7	112.3	49.9	28.1	18	12.5	7	3.1	1.8
300	490.2	217.9	122.6	54.5	30.6	19.6	13.6	7.7	3.4	1.9	
325	531.1	236	132.8	59	33.2	21.2	14.8	8.3	3.7	2.1	
350	571.9	254.2	143	63.5	35.7	22.9	15.9	8.9	4	2.2	
375	612.8	272.3	153.2	68.1	38.3	24.5	17	9.6	4.3	2.4	
400	653.6	290.5	163.4	72.6	40.9	26.1	18.2	10.2	4.5	2.6	
425	694.5	308.6	173.6	77.2	43.4	27.8	19.3	10.9	4.8	2.7	
450	735.3	326.8	183.8	81.7	46	29.4	20.4	11.5	5.1	2.9	
475	776.2	345	194	86.2	48.5	31	21.6	12.1	5.4	3	
500	817	363.1	204.3	90.8	51.1	32.7	22.7	12.8	5.7	3.2	

Values represent velocity in feet per second

Purple = Recommended inlet/discharge velocity. Typical is 5.0 ft/s

Pump Stations Specifically Designed for any Site or Application



Main Irrigation Station
Up to 10,000 gpm



Low Profile Station
Up to 220 gpm



Integrated Pump Stations
Up to 300 gpm



Water Feature Station
Up to 10,000 gpm and greater



"No site is the same so no pump station is the same. Rain Bird designs and builds my pump stations based on my specifications and measurements so I can count on a quick and easy installation."

Nick Shebert
TurfPro
Sacramento, CA

The Intelligent Use of Water.™

LEADERSHIP • EDUCATION • PARTNERSHIPS • PRODUCTS

At Rain Bird, we believe it is our responsibility to develop products and technologies that use water efficiently. Our commitment also extends to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can. Visit www.rainbird.com for more information about The Intelligent Use of Water.™



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