ST SYSTEM ROTORS

Application: Synthetic Turf Sports Fields

Radius: **103' to 165'**

ST SYSTEM

Flow Rate: 74.5 to 326.8 GPM

Inlet Size: 11/2" NPT, 11/2" ACME & 2" BSP

FEATURES

- Models
 - ST-90: 3" jar top
 - STG-900: 3" top service
 - ST-1600B: 5" top service
 - ST-1600BR: Riser mount
- Nozzle choices
 - ST-90, STG-900: 2
 - ST-1600B, ST-1600BR: 6
- Nozzle ranges
 - ST-90, STG-900: #73 to 83
 - ST-1600B, ST-1600BR: #16 to 26
- Standard installed nozzle
 - ST-90, STG-900: #73
 - ST-1600B, ST-1600BR: #20
- · Arc adjustment
 - ST-90, STG-900: Through-the-top
 - ST-1600B, ST-1600BR: Movable stops
- Arc setting: 40 to 360 degrees (all models)
- Quick check arc mechanism (all models)
- · Gear-drive
 - ST-90, STG-900: Water lubricated
 - ST-1600B, ST-1600BR: Isolated grease lubrication
- Ratcheting nozzle turret: ST-1600B, ST-1600BR
- Telescoping infill protection barrier: ST-1600B
- Factory installed rubber logo cap (all pop-up models)
- Nozzle trajectory: 22.5 degrees (all models)
- 5-year component part warranty (all models)

OPERATING SPECIFICATIONS

- Radius: 103' to 165'
- Flow rate: 74.5 to 326.8 GPM
- Operating pressure range: 60 to 120 PSI
- Precipitation rate: 1.23 to 3.27 in/hr

USER INSTALLED OPTIONS

- Rubber Cover Kit ST-90: P/N 234200
- Rubber Cover Kit STG-900: P/N 473900



ST-90* Overall height: 11½" Pop-up height: 3" Diameter: 5½" Inlet size: 1½" NPT * not for use with the ST Enclosure



STG-900* Overall height: 14" Pop-up height: 3" Diameter: 8" Inlet size: 1½" Acme * for use with the \$T173026B Enclosure



ST-1600B*
Overall height: 22½"
Pop-up height: 5"
Diameter: 14"
Inlet size: 2" BSP**
* for use with the
ST243642B Enclosure
** use PN 241400 adapter
to 2" pipe



ST-1600BR*
Overall height: 8¾"
Diameter: 8¼"
Inlet size: 2" BSP**
* riser mounted model
** use PN 241400 adapter
to 2" pipe

ST ROTOR MODELS		
Model Description		
ST-90-73	3" pop-up, jar top cap, adjustable arc, plastic riser, NPT inlet threads, and 2 nozzles	
STG-900-73	3" pop-up, top service, adjustable arc, plastic riser, ACME inlet threads, and 2 nozzles	
ST-1600-B	5" pop-up, top service, adjustable arc, stainless riser, BSP* inlet threads, and 6 nozzles	
ST-1600-BR	Riser mount, adjustable arc, BSP* inlet threads and 5 nozzles	

 $^{^{\}ast}$ To adapt to 2" pipe use adapter P/N 241400

ST SYSTEM ACCESSORIES

ST SWING JOINTS

Multi-axis 315 PSI rated vertical alignment PVC swing joints with seven O-ring sealed pivot points allow the rotor to be perfectly placed within the ST Vault's cover set opening.



ST2008VA - 2" for ST-90, STG-900

Inlet: 2" Female Slip Outlet: 1½" Female Acme

ST VALVE SETS

Heavy-duty control valves configured to complement the ST Rotors and ST Vaults.



STVBVFK - for STG-900 in STK-2 Kit

Valve: 1½" NPT ICV Ball Valve: 315 PSI rated

Low Pressure Loss Design: 9.8 PSI at 100 GPM Inlet: 1½" Acme Outlet: 1½' Acme



ST3010VA - 3" for ST-1600B

Inlet: 3" Female Slip Outlet: 3" Female Acme



STV30K - for ST-1600B in STK-6 Kit

Valve: 3" NPT ST-30

Low Pressure Loss Design: 2.0 PSI at 325 GPM Inlet: 3" NPT Outlet: 3' NPT

Slow Opening and Closing Feature Remote On-Off-Auto Selector (not shown)

ST VAULTS

 $Heavy-duty\ tapered\ fiberglass\ and\ polymer-concrete\ construction\ with\ pre-cast\ holes\ for\ rotor.$



ST173026B - for STG-900 includes 2" thick 3-piece PC cover set

Main Cover: 17" x 30" Overall Height: 26" Body Weight: 104 lbs. Total Weight: 161 lbs. Base Pad: 27" x 41" One Quick Access Port



ST243642B - for ST-1600 includes 3" thick 4-piece PC cover set

Main Cover: 24" x 36" Overall Height: 42" Body Weight: 170 lbs. Total Weight: 320 lbs. Base Pad: 44" x 50" Two Quick Access Ports



1 Quick Coupler

All ST Vaults include convenient quick access ports. Quick-couplers provide a convenient source of water for washing down spills and water-soluable paint. Integrated in-vault design eliminates the need for additional quick-coupler enclosures.



② On-Off-Auto Selector

The ST-V30K valve kit includes a remotely located On-Off-Auto selector and solenoid manifold assembly. These convenient features bring valve manual control functions and solenoid splice connections closer to the surface for easy access.

ST SYSTEM

KIT CONFIGURATIONS

STK-1 / STK-2			
The ST Kits Descriptions For specification ease and to ensure the correct product is installed, the ST System is available in kit configurations.	STK-1 STG-900 Block System (remotely located valve)	STK-2 STG-900 VAH System (valve adjacent to head)	
ST Rotor: Synthetic Turf Rotor without rubber cover kit	STG-900	STG-900	
ST Vault: Vault with 3-piece polymer-concrete cover	ST-173026B	ST-173026B	
ST Swing Joint: "VA" 2" PVC Swing joint with 7 pivot points	ST-2008VA	ST-2008VA	
ST Valve & Fitting Kit: ICV-151 valve, high pressure rated ball valve and fitting kit	_	ST-VBVFK	
ST Adapter Elbow Fitting*	239800	239800	
ST Rotor Adapter Fitting**	239300	_	
Rubber Cover Kit: STG-900 Rubber Cover Kit	473900	473900	
Quick Coupler Valve: 1" inlet with 11/4" outlet for key	HQ5RC	HQ5RC	

STK-5 / STK-6				
The STK Kits Description For specification ease and to ensure the correct product is installed, the ST System is available in kit configurations.	STK-5 ST-1600 Block System (remotely located valve)	STK-6 ST-1600 VAH System (valve adjacent to head)		
ST Rotor: Synthetic Turf Rotor	ST-1600B	ST-1600B		
ST Vault: Vault with 4-piece polymer-concrete cover set	ST-243642B	ST-243642B		
ST Swing Joint: 3" PVC Swing Joint with 7 pivot points (315 PSI rated)	ST-3010VA	ST-3010VA		
ST Valve Sets: 3" Valve Set with remote on-off-auto selector manifold	_	ST-V30K		
ST Fitting Sets: All fittings needed to connect swing joint to valve and/or rotor	ST-F30K	ST-F30K		
Quick Coupler Valve: 1" inlet with 1¼" outlet for key	HQ5RC	HQ5RC		

^{*}ST Adapter Elbow Fitting connects ST-2008VA swing joint to rotor adapter fitting (STK-1) also connects ST-VBVFK to STG-900 rotor (STK-2)
**ST Rotor Adapter Fitting connects 239800 Adapter Elbow Fitting to STG-900 Acme inlet rotor (STK-1)

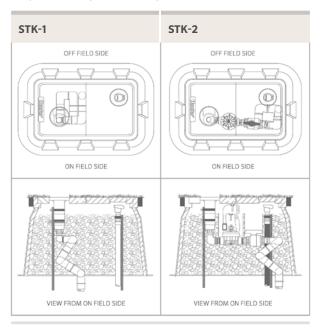
Nozzle Pressure (PSI) Radius (FT.) Flow (GPM) Precip (GPM) 16 ● 60 107 96.2 1.63 75 115 107.3 1.57 90 121 117.8 1.54 Black 105 128 127.3 1.50	1.88 1.81
75 115 107.3 1.57 90 121 117.8 1.54	1.81
90 121 117.8 1.54	
	1 70
Black 105 128 127.3 1.50	1.78
	1.73
120 135 137.4 1.46	1.69
18 • 60 112 107.0 1.66	1.91
75 121 119.4 1.56	1.80
90 128 131.0 1.54	1.78
Black 105 133 141.3 1.54	1.78
120 141 153.2 1.48	1.71
20 • 60 115 144.0 2.10	2.43
75 128 160.9 1.89	2.18
90 141 176.5 1.71	1.97
Black 105 144 190.5 1.76	2.03
120 148 204.2 1.80	2.08
22 • 60 118 171.5 2.37	2.73
75 130 191.8 2.20	2.54
90 144 210.0 1.94	2.24
Black 105 151 226.9 1.84	2.12
120 155 243.1 1.89	2.18
24 • 60 121 202.1 2.64	3.05
24 6 75 133 225.9 2.46	2.84
90 148 247.6 2.19	2.52
Black 105 156 267.4 2.12	2.45
120 160 286.4 2.16	2.49
26*• 60 126 233.2 2.83	3.27
75 136 260.4 2.71	3.13
90 151 284.5 2.40	2.77
Black 105 160 307.0 2.31	2.67
120 165 326.8 2.32	2.68

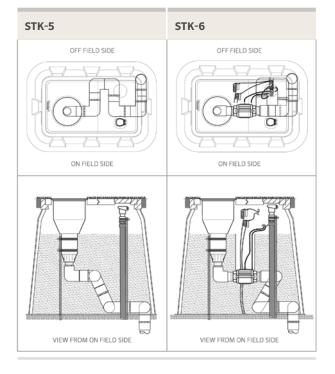
ST-90 / STG-900 NOZZLE PERFORMANCE DATA						
Nozzle	Pressure (PSI)	Radius (FT.)	Flow (GPM)	Precip	in/hr	
73 •	100 110 120	103 109 115	74.5 77.0 79.6	1.35 1.25 1.16	1.56 1.44 1.34	
Orange 83 Tan	100 110 120	112 116 120	84.2 88.1 92.0	1.29 1.26 1.23	1.49 1.46 1.42	

Notes:

All precipitation rates calculated for 180 degree operation. For precipitation rate of 360 degree sprinkler divide by 2.

INSTALLATION DETAILS





^{*} Preliminary data