

ST-1600 / STK-6V

Radius: **107' to 165'**
Flow: **96.2 to 326.8 GPM**

This ST System solution offers cleaning, cooling, and flushing capabilities to prepare synthetic sports fields for play.

KEY BENEFITS

- Nozzle choices: 6
- Standard nozzle: #20
- Nozzle range: #16 to #26
- Nozzle trajectory: 22.5°
- Isolated, grease-lubricated gear drive
- Factory-installed rubber logo cap (ST-1600B / ST-1600-HSB)
- Movable stops (left and right) arc adjustment
- Arc setting: 40° to non-reversing 360°
- Ratcheting nozzle turret
- Telescoping rubber infill barrier on riser
- Adjustable speed of rotation: 0 to 65 seconds (High-speed models, 180° at 120 PSI)
- Internal construction: brass, stainless steel, and ball bearings
- Optional infill barrier system (ST-1600B / ST-1600-HSB)
- Warranty period: 5 years component part

OPERATING SPECIFICATIONS

- Radius: 107' to 165'
- Flow: 96.2 to 326.8 GPM
- Operating pressure range: 60 to 120 PSI
- Precipitation rate: 2.25 in/hr approximately

KIT CONFIGURATIONS

STK-6V		
Kit Description (Components are ordered individually)	STK-6V-HSB-2P High-Speed Pop-Up 2" Plastic Valve	STK-6V-HSB-3M High-Speed Pop-Up 3" Metal Valve
ST Rotor: Synthetic turf rotor	ST-1600-HS-B	ST-1600-HS-B
ST Infill Barrier System: Rubber cover kit	ST-IBS-1600	ST-IBS-1600
ST Bracket: Rotor hanger and elevation adjustment	ST-BKT-1600	ST-BKT-1600
ST Vault: 4-piece polymer-concrete cover set	ST-243636-B	ST-243636-B
ST Manifold: 3" fittings, isolation valve and drain valve	ST-BVF30-K	ST-BVF30-K
ST Valve: With remote on-off-auto selector	ST-V20-KVP	ST-V30-KV
ST Variable Speed Valve: Regulates opening speed	ST-NDL-K	ST-NDL-K
ST Support: Adjustable manifold support (2 required)	ST-SPT-K	ST-SPT-K
ST Inlet Hose: Flexible stainless steel alignment hose	ST-H30-K	ST-H30-K
Quick-Coupler Valve: 1" inlet, 1¼" outlet for key	HQ-5RC	HQ-5RC



ST-1600-HS-B (High-Speed)

Overall height: 22½"
Pop-up height: 5"
Diameter: 14"
Inlet size: 2" BSP*

* Adapter to 2" NPT nipple not required. Use BSP t.o.e. nipple adapter P/N 241400 if desired.



BR (High-Speed)

(Riser-Mounted Model)
Overall height: 8¾"
Diameter: 8¼"
Inlet size: 2" BSP*

* Adapter to 2" NPT nipple not required. Use BSP t.o.e. nipple adapter P/N 241400 if desired.



ST1600 Tool

P/N 517600SP
For gear drive installation and removal

ST Infill Barrier System

ST-IBS-1600

The unique IBS rubber cover kit includes vertical rubber barriers to retain infill material creating a safe transition where the rotor pops up. The IBS can also be trimmed to create a flat exposed surface area.

ST Adjustable Hanger Bracket

ST-BKT-1600

This bracket supports the rotor within the vault and provides vertical elevation adjustments allowing for a perfect surface transition.

ST Manifold and Isolation Valve

ST-BVF30-K

Rated to 500 PSI working pressure, this 3" galvanized ductile iron assembly includes Victaulic™ type grooved connections, a butterfly isolation valve, a point of connection for the quick coupler, and a 1" brass drain valve.

ST H-Block Manifold Supports

ST-SPT-K

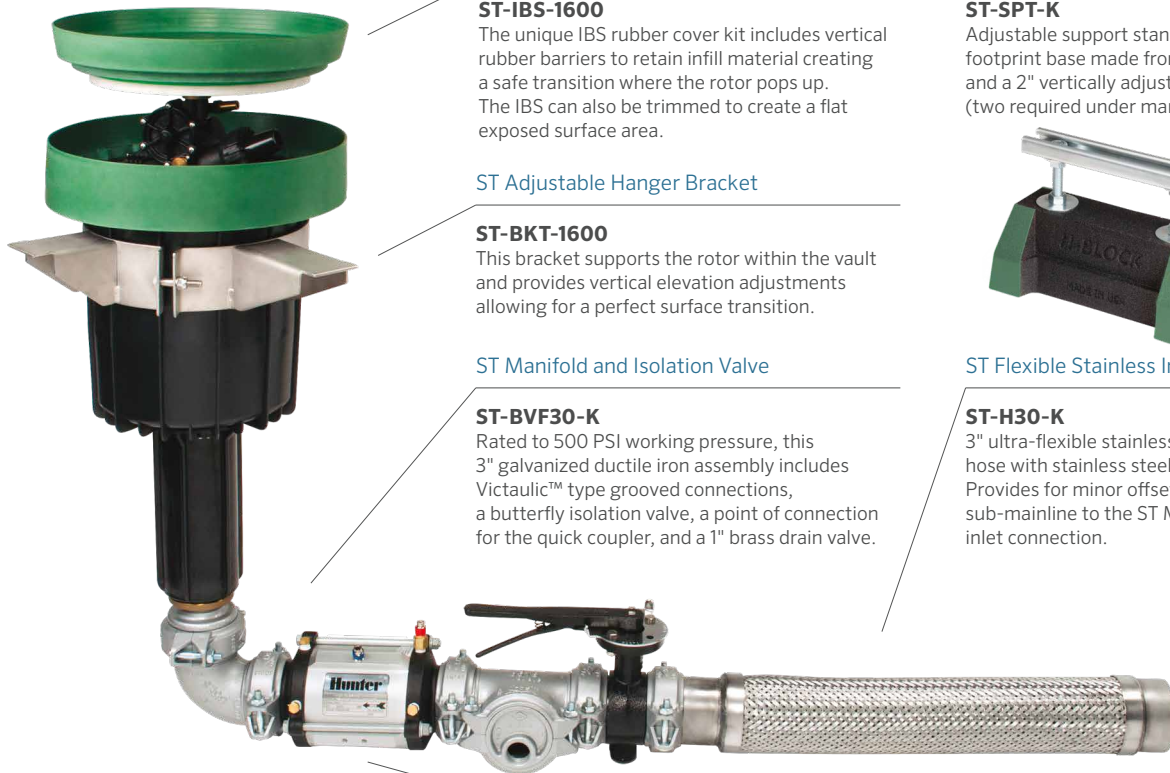
Adjustable support stands include a large footprint base made from recycled tire rubber and a 2" vertically adjustable support rail (two required under manifold).



ST Flexible Stainless Inlet Hose

ST-H30-K

3" ultra-flexible stainless steel corrugated hose with stainless steel support braiding. Provides for minor offset and alignment of sub-mainline to the ST Manifold's inlet connection.



ST Low-Loss, Slow-Opening Valve (Plastic)

For Flows Up to 200 GPM



ST-V20-KVP: Heavy-duty plastic control valve
Valve: 2" grooved Vic type
Opening speed: ST-NDL-K regulates/slow speed
Pressure loss: Ultra-low (1.5 PSI at 200 GPM)
Manual control: Remote on-off-auto selector and solenoid (not shown)

ST Low-Loss, Slow-Opening Valve (Metal)

ST-V30-KV: Heavy-duty metal control valve
Valve: 3" grooved Vic type
Opening speed: ST-NDL-K regulates/slow speed
Pressure loss: Ultra-low (2.0 PSI at 325 GPM)
Manual control: Remote on-off-auto selector and solenoid (not shown)

ST Rotors Have Many Uses

While ST Rotors are specifically designed for cleaning and cooling synthetic turf sports fields, they are also great for other applications such as pastures, horse arenas, dust control, and even casual natural turf areas.

INSIDE THE ST SYSTEM

Open access to all components for ease of ongoing maintenance



FROM THE TOP

Smooth and safe surface area with quick-access ports



SEAMLESS INTEGRATION

Blends in perfectly with the surrounding synthetic surface



Victaulic is a trademark of Victaulic Company.

ST VAULTS

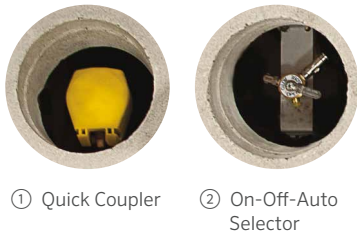
The heavy-duty tapered fiberglass and polymer-concrete construction includes pre-cast holes for the rotor, quick-coupler valve, and remote manifold assembly.

Quick couplers provide a convenient source of water for washing down spills and water-soluble paint. The integrated in-vault design eliminates the need for additional quick-coupler enclosures.

The ST-V30KV 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-243636B: Includes 3" thick 4-piece PC cover set

Main cover: 24" x 36"
Overall height: 36"
Body weight: 170 lbs.
Total weight: 320 lbs.
Base pad: 42" x 48"
Quick-access ports: 2



ST-1600 Rotor in Action



ST-1600 SHORT-RADIUS NOZZLE KIT - P/N 959900 PERFORMANCE DATA

Nozzle	Pressure PSI	Radius ft.	Flow GPM	Precip in/hr	
				■	▲
8	45	67	23.3	1.00	1.15
	60	70	23.3	0.92	1.06
	70	72	25.5	0.95	1.09
	90	74	27.3	0.96	1.11
	100	76	29.2	0.97	1.12
10	45	74	32.4	1.14	1.32
	60	81	37.8	1.11	1.28
	70	84	42.5	1.16	1.34
	90	86	47.1	1.23	1.42
	100	88	51.0	1.27	1.46
12	45	84	46.2	1.26	1.46
	60	92	53.9	1.23	1.42
	70	94	60.5	1.32	1.52
	90	96	65.7	1.37	1.58
	100	98	71.8	1.44	1.66
14	45	91	60.7	1.41	1.63
	60	103	69.3	1.26	1.45
	70	105	78.2	1.37	1.58
	90	108	85.5	1.41	1.63
	100	110	92.5	1.47	1.70

ST-1600 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure PSI	Radius ft.	Flow GPM	Precip in/hr	
				■	▲
16 ●	60	107	96.2	1.63	1.88
	70	115	107.3	1.57	1.81
	90	121	117.8	1.54	1.78
	100	128	127.3	1.50	1.73
	115	135	137.4	1.46	1.69
18 ●	60	112	107.0	1.66	1.91
	70	121	119.4	1.56	1.80
	90	128	131.0	1.54	1.78
	100	133	141.3	1.54	1.78
	115	141	153.2	1.48	1.71
20 ●	60	115	144.0	2.10	2.43
	70	128	160.9	1.89	2.18
	90	141	176.5	1.71	1.97
	100	144	190.5	1.76	2.03
	115	148	204.2	1.80	2.08
22 ●	60	118	171.5	2.37	2.73
	70	130	191.8	2.20	2.54
	90	144	210.0	1.94	2.24
	100	151	226.9	1.84	2.12
	115	157	243.1	1.89	2.18
24 ●	60	121	202.1	2.64	3.05
	70	133	225.9	2.46	2.84
	90	148	247.6	2.19	2.52
	100	156	267.4	2.12	2.45
	115	160	286.4	2.16	2.49
26 ●	60	126	233.2	2.83	3.27
	70	136	260.4	2.71	3.13
	90	151	284.5	2.40	2.77
	100	160	307.0	2.31	2.67
	115	165	326.8	2.32	2.68

Note:

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

* All radius measurements taken at standard rotation speeds. Slowing rotation to minimum rotation speed will add 10+ feet to radius.