

**FLOW-STRAIGHTENING  
TECHNOLOGY** →→→

**MORE POWER - LESS WATER**

**HYDRO-EXCAVATION**

# SWITCH BLADE™

## STRAIGHT-LINE VERSATILITY

Multiple straight streams of zero-degree digging power available, with interchangeable pills to dial in your exact flow rate on the fly. Customized impact for any job!

**MORE RUNTIME,  
LESS DOWNTIME**

- ✓ TRENCHING
- ✓ STARTING TOOL
- ✓ COMPACT SOILS
- ✓ PRECISION DIGGING

**WATCH VIDEO  
TO LEARN MORE**



ACE



DEUCE



QUAD

**AVAILABLE IN 1, 2, OR 4 SOLID STREAMS**

**HYDRA-FLEX**  
FLUID INNOVATION

www.hydrflexinc.com | hello@hydrflexinc.com

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FLUID INNOVATION

hydrflexinc.com | hello@hydrflexinc.com

**Save time. Save water.  
Save money.**

**3 STREAM VARIATIONS AVAILABLE TO CUSTOMIZE TRENCH WIDTHS**



INTERCHANGEABLE PILLS



**CHANGE FLOW RATES  
ON THE FLY**

| NOZZLE SIZE                         | KIT PART NUMBER | FLOW RATE CHART    |                     |                     |                     |                     |                     |                     |
|-------------------------------------|-----------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                     |                 | @1000 PSI (69 Bar) | @1500 PSI (103 Bar) | @2000 PSI (138 Bar) | @2500 PSI (172 Bar) | @3000 PSI (207 Bar) | @3500 PSI (241 Bar) | @4000 PSI (275 Bar) |
| <b>SWITCHBLADE ACE NOZZLE KIT</b>   |                 |                    |                     |                     |                     |                     |                     |                     |
| 1.0                                 | 20022348        | 0.5 GPM (1.8 LPM)  | 0.6 GPM (2.2 LPM)   | 0.7 GPM (2.6 LPM)   | 0.8 GPM (3.0 LPM)   | 0.9 GPM (3.4 LPM)   | 0.9 GPM (3.4 LPM)   | 1.0 GPM (3.7 LPM)   |
| 2.0                                 | 20022349        | 1.0 GPM (3.7 LPM)  | 1.2 GPM (4.5 LPM)   | 1.4 GPM (5.2 LPM)   | 1.6 GPM (6.0 LPM)   | 1.7 GPM (6.4 LPM)   | 1.9 GPM (7.1 LPM)   | 2.0 GPM (7.5 LPM)   |
| 3.0                                 | 20022350        | 1.5 GPM (5.7 LPM)  | 1.8 GPM (6.8 LPM)   | 2.1 GPM (7.9 LPM)   | 2.4 GPM (9.1 LPM)   | 2.6 GPM (9.8 LPM)   | 2.7 GPM (10.2 LPM)  | 3.0 GPM (11.3 LPM)  |
| 4.0                                 | 20022351        | 2.0 GPM (7.6 LPM)  | 2.4 GPM (9.1 LPM)   | 2.8 GPM (10.6 LPM)  | 3.2 GPM (12.1 LPM)  | 3.5 GPM (13.2 LPM)  | 3.6 GPM (13.6 LPM)  | 4.0 GPM (15.1 LPM)  |
| 5.0                                 | 20022352        | 2.5 GPM (9.5 LPM)  | 3.1 GPM (11.7 LPM)  | 3.5 GPM (13.2 LPM)  | 4.0 GPM (15.1 LPM)  | 4.3 GPM (16.2 LPM)  | 4.5 GPM (17.0 LPM)  | 5.0 GPM (18.9 LPM)  |
| 6.0                                 | 20022353        | 3.0 GPM (11.4 LPM) | 3.7 GPM (14.0 LPM)  | 4.2 GPM (15.9 LPM)  | 4.7 GPM (17.9 LPM)  | 5.2 GPM (19.8 LPM)  | 5.4 GPM (20.4 LPM)  | 6.0 GPM (22.7 LPM)  |
| 8.0                                 | 20022354        | 4.0 GPM (15.1 LPM) | 4.9 GPM (18.5 LPM)  | 5.7 GPM (21.6 LPM)  | 6.3 GPM (23.8 LPM)  | 6.9 GPM (26.1 LPM)  | 7.2 GPM (27.3 LPM)  | 8.0 GPM (30.2 LPM)  |
| 10.0                                | 20022355        | 5.0 GPM (18.9 LPM) | 6.1 GPM (23.1 LPM)  | 7.1 GPM (26.9 LPM)  | 7.9 GPM (29.9 LPM)  | 8.7 GPM (32.9 LPM)  | 8.9 GPM (33.7 LPM)  | 9.0 GPM (34.0 LPM)  |
| 12.0                                | 20022356        | 6.0 GPM (22.7 LPM) | 7.3 GPM (22.4 LPM)  | 8.5 GPM (32.1 LPM)  | 9.5 GPM (35.9 LPM)  | 10.4 GPM (39.3 LPM) | 10.7 GPM (40.5 LPM) | 12.0 GPM (45.4 LPM) |
| <b>SWITCHBLADE DEUCE NOZZLE KIT</b> |                 |                    |                     |                     |                     |                     |                     |                     |
| 2.0                                 | 20022342        | 1.0 GPM (3.7 LPM)  | 1.2 GPM (4.5 LPM)   | 1.4 GPM (5.2 LPM)   | 1.6 GPM (6.0 LPM)   | 1.7 GPM (6.4 LPM)   | 1.9 GPM (7.1 LPM)   | 2.0 GPM (7.5 LPM)   |
| 4.0                                 | 20022343        | 2.0 GPM (7.6 LPM)  | 2.4 GPM (9.1 LPM)   | 2.8 GPM (10.6 LPM)  | 3.2 GPM (12.1 LPM)  | 3.5 GPM (13.2 LPM)  | 3.6 GPM (13.6 LPM)  | 4.0 GPM (15.1 LPM)  |
| 6.0                                 | 20022344        | 3.0 GPM (11.4 LPM) | 3.7 GPM (14.0 LPM)  | 4.2 GPM (15.9 LPM)  | 4.7 GPM (17.9 LPM)  | 5.2 GPM (19.8 LPM)  | 5.4 GPM (20.4 LPM)  | 6.0 GPM (22.7 LPM)  |
| 8.0                                 | 20022345        | 4.0 GPM (15.1 LPM) | 4.9 GPM (18.5 LPM)  | 5.7 GPM (21.6 LPM)  | 6.3 GPM (23.8 LPM)  | 6.9 GPM (26.1 LPM)  | 7.2 GPM (27.3 LPM)  | 8.0 GPM (30.2 LPM)  |
| 10.0                                | 20022346        | 5.0 GPM (18.9 LPM) | 6.1 GPM (23.1 LPM)  | 7.1 GPM (26.9 LPM)  | 7.9 GPM (29.9 LPM)  | 8.7 GPM (32.9 LPM)  | 8.9 GPM (33.7 LPM)  | 9.0 GPM (34.0 LPM)  |
| 12.0                                | 20022347        | 6.0 GPM (22.7 LPM) | 7.3 GPM (22.4 LPM)  | 8.5 GPM (32.1 LPM)  | 9.5 GPM (35.9 LPM)  | 10.4 GPM (39.3 LPM) | 10.7 GPM (40.5 LPM) | 12.0 GPM (45.4 LPM) |
| <b>SWITCHBLADE QUAD NOZZLE KIT</b>  |                 |                    |                     |                     |                     |                     |                     |                     |
| 4.0                                 | 20022291        | 2.0 GPM (7.6 LPM)  | 2.4 GPM (9.1 LPM)   | 2.8 GPM (10.6 LPM)  | 3.2 GPM (12.1 LPM)  | 3.5 GPM (13.2 LPM)  | 3.6 GPM (13.6 LPM)  | 4.0 GPM (15.1 LPM)  |
| 6.0                                 | 20022294        | 3.0 GPM (11.4 LPM) | 3.7 GPM (14.0 LPM)  | 4.2 GPM (15.9 LPM)  | 4.7 GPM (17.9 LPM)  | 5.2 GPM (19.8 LPM)  | 5.4 GPM (20.4 LPM)  | 6.0 GPM (22.7 LPM)  |
| 8.0                                 | 20022277        | 4.0 GPM (15.1 LPM) | 4.9 GPM (18.5 LPM)  | 5.7 GPM (21.6 LPM)  | 6.3 GPM (23.8 LPM)  | 6.9 GPM (26.1 LPM)  | 7.2 GPM (27.3 LPM)  | 8.0 GPM (30.2 LPM)  |
| 10.0                                | 20022278        | 5.0 GPM (18.9 LPM) | 6.1 GPM (23.1 LPM)  | 7.1 GPM (26.9 LPM)  | 7.9 GPM (29.9 LPM)  | 8.7 GPM (32.9 LPM)  | 8.9 GPM (33.7 LPM)  | 9.0 GPM (34.0 LPM)  |
| 12.0                                | 20022295        | 6.0 GPM (22.7 LPM) | 7.3 GPM (22.4 LPM)  | 8.5 GPM (32.1 LPM)  | 9.5 GPM (35.9 LPM)  | 10.4 GPM (39.3 LPM) | 10.7 GPM (40.5 LPM) | 12.0 GPM (45.4 LPM) |
| 14.0                                | 20022279        | 7.0 GPM (26.4 LPM) | 8.6 GPM (32.5 LPM)  | 9.9 GPM (37.4 LPM)  | 11.1 GPM (42.0 LPM) | 12.1 GPM (45.8 LPM) | 13.1 GPM (49.5 LPM) | 14.0 GPM (52.9 LPM) |



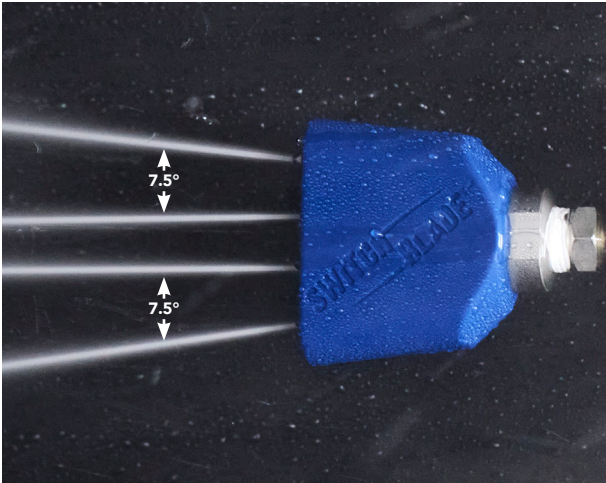
ACE



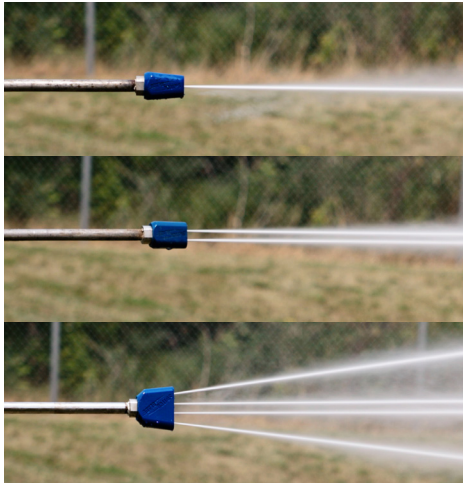
DEUCE



QUAD



  
**Stainless steel housing and tungsten carbide wear surfaces to extend life**



## CHANGE YOUR FLOW RATE IN THE FIELD

Individual, replaceable, color-coded nozzle pills – as well as plugs – allow you to change the water flow rate based on soil conditions.



Use Ace's single stream to penetrate the ground directly and deeply in small, precise areas. Let the Deuce tackle medium-size areas, and switch to the Quad for brute force spread over four streams to tackle larger areas with less depth.



| PART NUMBER | DESCRIPTION      | COLOR  | FLOW RATE (EACH PILL) (GPM) |            |            |            |            |            |
|-------------|------------------|--------|-----------------------------|------------|------------|------------|------------|------------|
|             |                  |        | @ 1000 PSI                  | @ 1500 PSI | @ 2000 PSI | @ 2500 PSI | @ 3000 PSI | @ 4000 PSI |
| 20022319    | 1.0 Nozzle Pill  | Blue   | 0.5 GPM                     | 0.6 GPM    | 0.7 GPM    | 0.8 GPM    | 0.9 GPM    | 1.0 GPM    |
| 20022320    | 2.0 Nozzle Pill  | Yellow | 1.0 GPM                     | 1.2 GPM    | 1.4 GPM    | 1.6 GPM    | 1.7 GPM    | 2.0 GPM    |
| 20022321    | 3.0 Nozzle Pill  | Green  | 1.5 GPM                     | 1.8 GPM    | 2.1 GPM    | 2.4 GPM    | 2.6 GPM    | 3.0 GPM    |
| 20022322    | 4.0 Nozzle Pill  | Orange | 2.0 GPM                     | 2.4 GPM    | 2.8 GPM    | 3.2 GPM    | 3.5 GPM    | 4.0 GPM    |
| 20022323    | 5.0 Nozzle Pill  | Purple | 2.5 GPM                     | 3.1 GPM    | 3.5 GPM    | 4.0 GPM    | 4.3 GPM    | 5.0 GPM    |
| 20022324    | 6.0 Nozzle Pill  | Red    | 3.0 GPM                     | 3.7 GPM    | 4.2 GPM    | 4.7 GPM    | 5.2 GPM    | 6.0 GPM    |
| 20022325    | 8.0 Nozzle Pill  | Black  | 4.0 GPM                     | 4.9 GPM    | 5.7 GPM    | 6.3 GPM    | 6.9 GPM    | 8.0 GPM    |
| 20022326    | 10.0 Nozzle Pill | White  | 5.0 GPM                     | 6.1 GPM    | 7.1 GPM    | 7.9 GPM    | 8.7 GPM    | 10.0 GPM   |
| 20022327    | 12.0 Nozzle Pill | Pink   | 6.0 GPM                     | 7.3 GPM    | 8.5 GPM    | 9.5 GPM    | 10.4 GPM   | 12.0 GPM   |