

Virginia Sheriffs' Association Heavy Equipment Cooperative Purchasing Program Bid 24-05-0713

Group: Sewer Cleaners

Make: USB-USA

Model: Catalog Discount Model Number: Nozzles

Discount: 6%

| Item Number | Description | MSRP | Discounted VSA Price |
|-------------|--|------------|-------------------------|
| USB1052 | 3D CLEANING NOZZLE (1 IN, 8 IN - 24 IN) | \$1,356.71 | \$1,275.30 |
| USB1055 | 3D CLEANING NOZZLE (1 IN, 8 IN - 24 IN) | \$1,316.04 | \$1,237.08 |
| USB1060 | 3D CLEANING NOZZLE (1 IN, 6 IN - 15 IN) | \$1,187.89 | \$1,116.62 |
| USB1063 | 3D CLEANING NOZZLE (3/4 IN, 6 IN - 10 IN) | \$1,141.06 | \$1,072.60 |
| USB1070 | 3D CLEANING NOZZLE (3/4 IN, 6 IN - 10 IN) | \$937.74 | \$881.48 |
| USB1062 | 3D CLEANING NOZZLE (1/2 IN, 4 IN - 8 IN) | \$704.85 | \$662.56 |
| USB1071 | 3D CLEANING NOZZLE (1/2 IN, 4 IN - 8 IN) | \$570.53 | \$536.30 |
| USB1075 | 3D CLEANING NOZZLE (1/2 IN, 4 IN - 8 IN) | \$496.60 | \$466.80 |
| USB1081 | EGG NOZZLE 3D (1 IN, 6 IN - 12 IN) | \$1,079.45 | \$1,014.68 |
| USB1082 | EGG NOZZLE 3D (3/4 IN, 6 IN - 10 IN) | \$677.74 | \$637.07 |
| USB1083 | EGG NOZZLE 3D (1/2 IN, 4 IN - 8 IN) | \$496.60 | \$466.80 |
| USB1084 | EGG NOZZLE 3D (3/8 IN, 4 IN - 6 IN) | \$342.57 | \$322.01 |
| USB1085 | EGG NOZZLE 3D (1/4 IN, 2 IN - 4 IN) | \$235.36 | \$221.24 |
| USB1086 | EGG NOZZLE (1/8 IN, 2 IN - 4 IN) | \$115.83 | \$108.88 |
| USB1087 | EGG NOZZLE (1/8 IN, 2 IN - 4 IN) | \$115.83 | \$108.88 |
| USB1112 | RADI 70° 3D NOZZLE (1 IN, 10 IN - 32 IN) | \$1,738.70 | \$1,634.38 |
| USB1114 | RADI 70° 3D NOZZLE (1 IN, 6 IN - 24 IN) | \$1,493.49 | \$1,403.88 |
| USB1115 | RADI 70° 3D NOZZLE (3/4 IN, 6 IN - 12 IN) | \$1,290.17 | \$1,212.76 |
| USB1117 | RADI 70° 3D NOZZLE (1/2 IN, 4 IN - 8 IN) | \$672.81 | \$632.44 |
| USB1120 | SMALL ROCKET NOZZLE 3D (1 IN, 6 IN - 15 IN) | \$1,187.89 | \$1,116.62 |
| USB1120AL | ALUMINUM ROCKET NOZZLE 3D (1 IN, 6 IN - 15 IN) | \$609.96 | \$573.37 |
| USB1121 | SMALL ROCKET NOZZLE 3D (1 IN , 6 IN - 24 IN) | \$1,316.04 | \$1,237.08 |

| Item Number | Description | MSRP | Discounted VSA Price |
|-------------|---|------------|----------------------|
| USB112075AL | ALUMINUM ROCKET NOZLE 3D (3/4 IN, 6 IN - 12 IN) | \$609.96 | \$573.37 |
| USB1126 | SMALL ROCKET NOZZLE 3D (3/4 IN, 6 IN - 12 IN) | \$937.74 | \$881.48 |
| USB1128 | SMALL ROCKET NOZZLE 3D (1/2 IN, 4 IN - 8 IN) | \$496.60 | \$466.80 |
| USB1136 | 3D EXTREME NOZZLE (1 IN, 6 IN - 15 IN) | \$1,094.24 | \$1,028.58 |
| USB113675 | 3D EXTREME NOZZLE (3/4 IN, 6 IN - 15 IN) | \$1,094.24 | \$1,028.58 |
| USB1140 | DIGGER NOZZLE (1/2 IN, 2 IN - 8 IN) | \$319.15 | \$300.00 |
| USB1142 | DIGGER NOZZLE (1/4 IN, UP TO 3 IN) | \$221.81 | \$208.50 |
| USB1144 | NOZZLE HOLDER (,) | \$319.15 | \$300.00 |
| USB1145 | DIGGER NOZZLE W/ HOLDER | \$611.20 | \$574.52 |
| USB1152 | LARGE ROCKET NOZZLE 3D (1 1/2 IN, 16 IN - 48 IN) | \$4,004.81 | \$3,764.52 |
| USB1154 | LARGE ROCKET NOZZLE 3D (1 1/4 IN, 12 IN - 32 IN) | \$1,938.33 | \$1,822.03 |
| USB1156 | LARGE ROCKET NOZZLE 3D (1 IN, 10 IN - 24 IN) | \$1,488.56 | \$1,399.24 |
| USB1157 | LARGE ROCKET NOZZLE 3D (1 IN, 8 IN - 20 IN) | \$1,276.61 | \$1,200.01 |
| USB1158 | LARGE ROCKET NOZZLE 3D (3/4 IN, 8 IN - 15 IN) | \$1,276.61 | \$1,200.01 |
| USB1172 | FS NOZZLE 3D (1 IN, 6 IN - 15 IN) | \$1,208.84 | \$1,136.31 |
| USB1173 | FS NOZZLE 3D (3/4 IN, 6 IN - 12 IN) | \$985.80 | \$926.65 |
| USB1174 | FS NOZZLE 3D (1/2 IN, 4 IN - 8 IN) | \$597.64 | \$561.78 |
| USB1175 | FS-NOZZLE (3/8 IN, 2 IN - 4 IN) | \$481.81 | \$452.90 |
| USB1176 | FS-NOZZLE (1/4 IN, 2 IN - 4 IN) | \$442.38 | \$415.84 |
| USB1182 | COMBINATOR 3D NOZZLE (1 1/4 IN, 15 IN - 48 IN) | \$1,938.33 | \$1,822.03 |
| USB1186 | COMBINATOR 3D NOZZLE (1 IN, 10 IN - 32 IN) | \$1,488.56 | \$1,399.24 |
| USB1187 | COMBINATOR 3D NOZZLE (1 IN, 8 IN - 20 IN) | \$1,276.61 | \$1,200.01 |
| USB1188 | COMBINATOR 3D NOZZLE (3/4 IN, 8 IN - 20 IN) | \$1,276.61 | \$1,200.01 |
| USB1190 | RADIAL-CLEAN 3D NOZZLE (1 1/4 IN, 10 IN - 20 IN) | \$2,852.66 | \$2,681.50 |
| USB1191 | RADIAL-CLEAN 3D NOZZLE (1 1/2 IN, 12 IN - 24 IN) | \$6,656.61 | \$6,257.22 |
| USB1194 | RADIAL-CLEAN 3D NOZZLE (1 IN, 8 IN - 15 IN) | \$1,755.96 | \$1,650.60 |
| USB1195 | RADIAL-CLEAN 3D NOZZLE (3/4 IN, 6 IN - 12 IN) | \$1,351.78 | \$1,270.67 |
| USB1198 | ANTIBLASTER 3D NOZZLE (1 IN, 6 IN - 12 IN) | \$1,208.84 | \$1,136.31 |
| USB119875 | ANTIBLASTER 3D NOZZLE (3/4 IN, 6 IN - 10 IN) | \$1,208.84 | \$1,136.31 |
| USB1199 | ANTIBLASTER PLUS 3D NOZZLE (1 IN, 6 IN - 12 IN) | \$1,476.24 | \$1,387.66 |
| USB1200 | ANTIBLASTER PLUS 3D NOZZLE (1 IN, 8 IN - 15 IN) | \$1,640.12 | \$1,541.72 |
| USB1205 | SUPER 12 NOZZLE (1/2 IN, 2 IN - 4 IN) | \$454.70 | \$427.42 |
| USB1210 | TRI JET 3D NOZZLE (1 IN, 4 IN - 12 IN) | \$1,330.83 | \$1,250.98 |
| USB1213 | TRI JET 3D NOZZLE (1 IN, 8 IN - 20 IN) | \$1,746.10 | \$1,641.33 |
| USB1213AL | ALUMINUM TRI JET 3D NOZZLE (1 IN, 8 IN - 20 IN) | \$1,746.10 | \$1,641.33 |
| USB1218 | TRI JET 3D NOZZLE (1 IN, 10 IN - 32 IN) | \$1,901.36 | \$1,787.28 |
| USB1220 | TRI JET 3D NOZZLE (1 1/4 IN, 12 IN - 40 IN) | \$2,215.59 | \$2,082.65 |
| USB1225 | TRI JET 3D NOZZLE (1 1/2 IN, 16 IN - 48 IN) | \$4,116.95 | \$3,869.93 |
| USB1240 | STEERING NOZZLE (1/2 IN, 3 IN - 8 IN) | \$319.15 | \$300.00 |
| USB1241 | STANDARD W/ STEERING NOZZLE (1/2 IN, 3 IN - 8 IN) | \$581.62 | \$546.72 |
| USB1243 | EGG W/ STEERING NOZZLE (1/2 IN, 3 IN - 8 IN) | \$883.52 | \$830.51 |
| USB1245 | ROTO W/ STEERING NOZZLE (1/2 IN, 3 IN - 8 IN) | \$1,260.59 | \$1,184.96 |
| USB1246 | ROCKER W/ STEERING NOZZLE (1/2 IN, 3 IN - 8 IN) | \$1,423.25 | \$1,337.85 |
| USB1251 | STANDARD NOZZLE (1 1/4 IN, 8 IN - 12 IN) | \$474.42 | \$445.95 |
| USB1256 | STANDARD NOZZLE (1 IN, 6 IN -12 IN) | \$348.73 | \$327.80 |
| USB1255 | STANDARD NOZZLE BALL SHAPE (1 IN, 6 IN -12 IN) | \$388.16 | \$364.87 |

| Item Number | Description | MSRP | Discounted VSA Price |
|-------------|--|------------|----------------------|
| USB1257 | STANDARD NOZZLE (3/4 IN, 6 IN - 8 IN) | \$243.99 | \$229.35 |
| USB1259 | STANDARD NOZZLE (3/4 IN, 6 IN - 8 IN) | \$216.88 | \$203.86 |
| USB1260 | STANDARD NOZZLE (1/2 IN, 2 IN - 6 IN) | \$162.66 | \$152.90 |
| USB1262 | STANDARD NOZZLE BALL SHAPE (1/2 IN, 2 IN - 6 IN) | \$176.21 | \$165.64 |
| USB1268 | STANDARD NOZZLE (3/8 IN, 2 IN - 4 IN) | \$133.08 | \$125.10 |
| USB1273 | STANDARD NOZZLE W/ FRWD JET (1/4 IN, UP TO 4 IN) | \$129.39 | \$121.62 |
| USB1274 | STANDARD NOZZLE W/ NO FRWD JET (1/4 IN, UP TO 4 IN) | \$129.39 | \$121.62 |
| USB1278 | FD2 NOZZLE 3D (1 1/4 IN, 12 IN) | \$2,020.89 | \$1,899.64 |
| USB1279 | FD2 NOZZLE 3D (1 IN, 12 IN) | \$2,020.89 | \$1,899.64 |
| USB1280 | FD2 NOZZLE 3D (1 IN, 8 IN) | \$1,622.87 | \$1,525.50 |
| USB1282 | FD2 NOZZLE 3D (3/4 IN, 6 IN) | \$1,154.62 | \$1,085.34 |
| USB1290 | FD2 NOZZLE 3D (1/2 IN, 4 IN) | \$883.52 | \$830.51 |
| USB1308 | FORWARD PUSH-ROTOR NOZZLE (1/2 IN, 4 IN - 8 IN) | \$1,128.74 | \$1,061.02 |
| USB1309 | FORWARD PUSH-ROTOR NOZZLE (3/8 IN, UP TO 6 IN) | \$819.45 | \$770.28 |
| USB1310 | FORWARD PUSH-ROTOR NOZZLE (1/4 IN, UP TO 6 IN) | \$819.45 | \$770.28 |
| USB1313 | RADIAL CHISEL NOZZLE (1 IN, 8 IN - 20 IN) | \$1,677.09 | \$1,576.47 |
| USB1314 | RADIAL CHISEL NOZZLE (3/4 IN, 6 IN - 12 IN) | \$1,127.51 | \$1,059.86 |
| USB1316 | XXXL CHISEL NOZZLE (1 1/4 IN, 8 IN - 24 IN) | \$1,627.80 | \$1,530.13 |
| USB1317 | XXL CHISEL NOZZLE (1 1/4 IN, 8 IN - 20 IN) | \$1,249.50 | \$1,174.53 |
| USB1318 | XL CHISEL NOZZLE (1 IN, 8 IN- 20 IN) | \$1,152.15 | \$1,083.02 |
| USB1319 | LARGE CHISEL NOZZLE (1 1/4 IN, 8 IN - 24 IN) | \$1,078.22 | \$1,013.53 |
| USB1320DP | LARGE CHISEL NOZZLE W/ DRILL POINT (1 IN, 8 IN- 20 IN) | \$556.98 | \$523.56 |
| USB1320 | LARGE CHISEL NOZZLE (1 IN, 8 IN - 20 IN) | \$534.80 | \$502.71 |
| USB1323DP | MEDIUM CHISEL NOZZLE W/ DRILL POINT (3/4 IN, 8 IN - 15 IN) | \$483.04 | \$454.06 |
| USB1323 | MEDIUM CHISEL NOZZLE (3/4 IN, 8 IN - 15 IN) | \$468.26 | \$440.16 |
| USB1326DP | SMALL CHISEL NOZZLE W/ DRILL POINT (1/2 IN, 6 IN - 12 IN) | \$317.92 | \$298.85 |
| USB1326 | SMALL CHISEL NOZZLE (1/2 IN, 6 IN - 12 IN) | \$301.90 | \$283.79 |
| USB1328 | XS CHISEL NOZZLE (3/8 IN, 4 IN - 8 IN) | \$230.43 | \$216.60 |
| USB1330 | XXS CHISEL NOZZLE (1/4 IN, 2 IN - 4 IN) | \$210.71 | \$198.07 |
| USB1331 | XXS CHISEL NOZZLE (1/4 IN, 2 IN - 4 IN) | \$197.16 | \$185.33 |
| USB1334 | T-HAMMER NOZZLE (1 1/4 IN, 8 IN - 20 IN) | \$5,796.50 | \$5,448.71 |
| USB1335 | T-HAMMER NOZZLE (1 IN, 6 IN - 15 IN) | \$5,434.22 | \$5,108.17 |
| USB1337 | V-HAMMER NOZZLE (1 IN, 6 IN - 12 IN) | \$1,622.87 | \$1,525.50 |
| USB1338 | V-HAMMER NOZZLE (3/4 IN, 6 IN - 10 IN) | \$1,312.35 | \$1,233.61 |
| USB1339 | V-HAMMER NOZZLE (1/2 IN, 4 IN - 8 IN) | \$1,040.02 | \$977.62 |
| USB1340 | V-HAMMER NOZZLE (3/8 IN, UP TO 4 IN) | \$711.01 | \$668.35 |
| USB1341 | V-HAMMER NOZZLE (1/4 IN, UP TO 4 IN) | \$711.01 | \$668.35 |
| USB1345 | ROTOR NOZZLE (1 1/4 IN, 10 IN - 20 IN) | \$2,513.79 | \$2,362.96 |
| USB1350 | ROTOR NOZZLE (1 IN, 6 IN - 15 IN) | \$2,377.01 | \$2,234.39 |
| USB1351 | ROTOR NOZZLE (1 IN, 6 IN - 12 IN) | \$1,338.22 | \$1,257.93 |
| USB1352 | ROTOR NOZZLE (3/4 IN, 6 IN - 10 IN) | \$1,113.95 | \$1,047.12 |
| USB1357 | ROTOR NOZZLE (1/2 IN, 4 IN - 8 IN) | \$873.67 | \$821.25 |
| USB1360 | ROTOR NOZZLE (3/8 IN, 2 IN - 6 IN) | \$685.13 | \$644.02 |
| USB1362 | ROTOR NOZZLE (1/4 IN, 2 IN - 6 IN) | \$685.13 | \$644.02 |
| USB1364 | ROTOR NOZZLE (1/4 IN, UP TO 4 IN) | \$340.10 | \$319.69 |

| Item Number | Description | MSRP | Discounted VSA Price |
|-------------|---|------------|-------------------------|
| USB1365 | ROTOR NOZZLE (1/8 IN, UP TO 4 IN) | \$285.88 | \$268.73 |
| USB1377 | FLOUNDER NOZZLE 3D (1 1/4 IN, 15 IN - 60 IN) | \$3,253.14 | \$3,057.95 |
| USB1378 | FLOUNDER NOZZLE 3D (1 IN, 12 IN - 40 IN) | \$1,960.51 | \$1,842.88 |
| USB1380 | FLOUNDER NOZZLE 3D (3/4 IN, 10 IN - 24 IN) | \$1,243.34 | \$1,168.74 |
| USB1381 | FLOUNDER NOZZLE 3D (1/2 IN, 4 IN - 12 IN) | \$876.13 | \$823.56 |
| USB1382 | FLOUNDER NOZZLE 3D (3/8 IN, 2 IN - 4 IN) | \$771.39 | \$725.11 |
| USB1974 | ROTOR - WOLF NOZZLE (1/2 IN, 4 IN - 6 IN) | \$1,128.74 | \$1,061.02 |
| USB1975 | ROTOR - WOLF NOZZLE (1/4 IN, 1 IN - 2 IN) | \$771.39 | \$725.11 |
| USB1976 | ROTOR - WOLF NOZZLE (3/8 IN, 2 IN - 4 IN) | \$771.39 | \$725.11 |
| USB1977 | ROTOR - WOLF NOZZLE (1/4 IN, 1 IN - 2 IN) | \$712.24 | \$669.51 |
| USB1978 | MINI WOLF NOZZLE (1/2 IN, 2 IN - 4 IN) | \$1,219.93 | \$1,146.73 |
| USB1979 | MINI WOLF NOZZLE (1/2 IN, 2 IN - 4 IN) | \$1,219.93 | \$1,146.73 |
| USB1980 | PIPE WOLF NOZZLE (1/2 IN, 4 IN - 8 IN) | \$1,336.99 | \$1,256.77 |
| USB1982 | PIPE WOLF NOZZLE (3/4 IN, 1 IN, 6 IN - 15 IN) | \$2,241.46 | \$2,106.97 |
| USB1984 | PIPE WOLF NOZZLE (1 1/4 IN, 8 IN - 24 IN) | \$3,858.17 | \$3,626.68 |
| USB2999 | SUPER CYCLE NOZZLE 3D (1 1/4 IN, 10 IN - 40 IN) | \$2,158.90 | \$2,029.37 |
| USB3000 | SUPER CYCLE NOZZLE 3D (1 IN, 10 IN - 40 IN) | \$2,158.90 | \$2,029.37 |
| USB3001 | CYCLE NOZZLE 3D (3/4 IN, 8 IN - 15 IN) | \$1,762.12 | \$1,656.39 |
| USB3002 | CYCLE NOZZLE 3D (1 IN, 8 IN - 15 IN) | \$1,762.12 | \$1,656.39 |
| USB3003 | CYCLE NOZZLE 3D (1 1/4 IN, 8 IN - 15 IN) | \$1,762.12 | \$1,656.39 |
| USB3006 | 6 JET STORM SURGE NOZZLE (3/4 IN, 1 IN, 12 IN - 15 IN) | \$3,736.18 | \$3,512.01 |
| USB3008 | 8 JET STORM SURGE NOZZLE (3/4 IN, 1 IN, 15 IN - 30 IN) | \$4,144.06 | \$3,895.41 |
| USB3010 | 10 JET STORM SURGE NOZZLE (1 IN, 1 1/4 IN, 18 IN - 40 IN) | \$4,823.03 | \$4,533.64 |
| USB3012 | 12 JET STORM SURGE NOZZLE (1 IN, 1 1/4 IN, 20 IN - 72 IN) | \$5,189.00 | \$4,877.66 |
| USB3014 | 14 JET STORM SURGE NOZZLE (1 IN, 1 1/4 IN, 20 IN - 96 IN) | \$5,535.27 | \$5,203.15 |
| USB5005 | PRIMUS I NOZZLE (1/2 IN, 4 IN - 8 IN) | \$1,589.60 | \$1,494.23 |
| USB5010 | PRIMUS II NOZZLE (3/4 IN, 6 IN - 10 IN) | \$2,895.79 | \$2,722.04 |
| USB5013 | PRIMUS II NOZZLE (1 IN, 6 IN - 15 IN) | \$2,895.79 | \$2,722.04 |

| Item Number | Description | MSRP | Discounted VSA Price |
|-------------|---|------------|-------------------------|
| USB5020 | PRIMUS III NOZZLE (1 1/4 IN, 12 IN - 24 IN) | \$3,573.53 | \$3,359.11 |
| USB5017 | PRIMUS II ANTIBLASTER NOZZLE (3/4 IN, 6 IN - 10 IN) | \$2,895.79 | \$2,722.04 |
| USB5018 | PRIMUS II ANTIBLASTER NOZZLE (1 IN, 6 IN - 15 IN) | \$2,895.79 | \$2,722.04 |
| USB5019 | PRIMUS III ANTIBLASTER NOZZLE (1 1/4 IN, 12 IN - 24 IN) | \$3,573.53 | \$3,359.11 |
| USB5022 | MINI-GATOR NOZZLE (3/8 IN 1/2 IN, 3 IN - 8 IN) | \$2,240.23 | \$2,105.82 |
| USB5025 | MINI-GATOR NOZZLE CASE KIT | \$2,747.92 | \$2,583.04 |
| USB5030 | GATOR NOZZLE (3/4 IN - 1 1/4 IN, 6 IN - 24 IN) | \$4,066.43 | \$3,822.44 |
| USB5035 | GATOR NOZZLE CASE KIT | \$4,374.49 | \$4,112.02 |
| USB5050 | SPIN-JET 3 (1/2 IN, MANHOLES | \$3,230.96 | \$3,037.10 |
| USB5052 | SPIN-JET 6 (3/4 IN, MAN HOLE | ¢2.704.24 | ¢2.557.10 |
| | OR LIFT STATION 4 FT - 15 FT) | \$3,784.24 | \$3,557.19 |
| USB5055 | SPIN-JET 6 (1 IN, MAN HOLE | ¢2.794.24 | ¢2 FF7 10 |
| | OR LIFT STATION 4 FT - 15 FT) | \$3,784.24 | \$3,557.19 |

Bortek Industries, Inc. will provide a detailed quote upon request. Shipping and Handling will be added based on individual purchase order. Manufacturer Warranty Included.

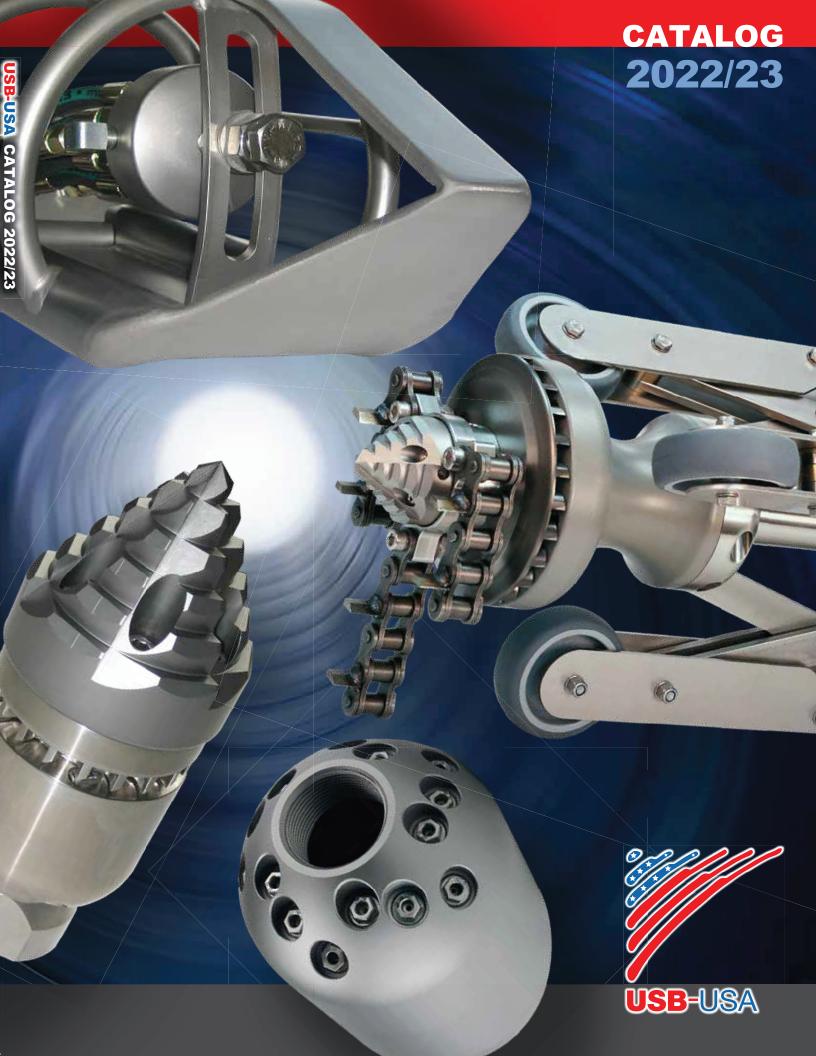
For more information, please contact:

PWX Municipal Sales Team

800.626.7835

contact@bortekpwx.com

www.bortekpwx.com



CYCLE NOZZLE 3D





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 3001 | 3/4" | 50 | 8" - 20" | 7.00" x 3.8" | 11 | 8 | | | 3 |
| 3002 |]" | 60 | 8" - 20" | 7.00" x 3.8" | 11 | 8 | | | 3 |
| 3003 | 1 1/4" | 80 | 8" - 20" | 7.00" x 3.8" | 11 | 8 | | | 3 |

Spray angles for pipe cleaning and maintenance (12°/20°)

Produced from hardened stainless steel, the **Cycle Nozzle 3D** includes 3D fluid mechanics and two different rear spray angles of 12°/20°. These spray angles are ideal for general pipe cleaning and preventative maintenance work. This nozzle comes standard with one-piece ceramic inserts.

SUPER CYCLE NOZZLE 3D

















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 3000 | 1" | 60 | 10" - 40" | 7.80" x 4.20" | 17.5 | 12 | | | 3 |
| 2999 | 1¼" | 80 | 10" - 40" | 7.80" x 4.20" | 17,5 | 12 | | | 3 |

12 rear jets ideal for large pipes

The **Super Cycle Nozzle 3D** is a large, heavy-weight nozzle constructed from hardened stainless steel with 12 rear jets. Set at spray angles of 12° and 28°, the rear jets make this nozzle ideal for cleaning sewer, storm or other large pipes. Its powerful jet pattern and 3D fluid mechanics are excellent for flushing dirt from roots before cutting or general cleaning. This nozzle comes standard with one-piece ceramic inserts.

COMBINATOR 3D

















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1182 | 1", 1¼" | 80 | 15" - 48" | 7.87" x 4.72" | 23,14 | 12 | | | 3 |
| 1186 |]" | 60 | 10" - 32" | 7.08" x 4.33" | 17,63 | 10 | | | 3 |
| 1187 | 1" | 60 | 8" - 20" | 6.10" x 3.93" | 12,12 | 8 | | | 3 |
| 1188 | 3/4" | 35 | 8" - 20" | 6.10" x 3.93" | 12,12 | 8 | | | 3 |

Spray angles for pipe cleaning and maintenance (15°/25°)

The **Combinator 3D** nozzle is produced from hardened stainless steel and includes 3D fluid mechanics and two different rear spray angles of 15° /25°. These spray angles are ideal for general pipe cleaning and preventative maintenance work. This nozzle comes standard with one-piece ceramic inserts.

ROCKET LARGE 3D













| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1152 | 1 1/2" | 110 | 16" - 48" | 10.23" x 6.29" | 44,09 | 12 | | | 3 |
| 1154 | 1", 1¼" | 80 | 12" - 32" | 7.87" x 4.72" | 20,94 | 10 | | | 3 |
| 1156 |]" | 60 | 10" - 24" | 7.08" x 4.33" | 17,63 | 8 | | | 3 |
| 1157 | 1" | 60 | 8" - 20" | 6.10" x 3.93" | 11,46 | 8 | | | 3 |
| 1158 | 3/4" | 35 | 8" - 15" | 6.10" x 3.93" | 11,46 | 8 | | | 3 |

Rocket-like power!

The tight spray angle of 7° combined with one piece-ceramic inserts and 3D fluid mechanics produce incredible results. Constructed from hardened stainless steel, the **Rocket Nozzle 3D Large** has a powerful jet pattern can flush dirt, mud, rocks and other large or heavy material found in sewer or storm pipes.

3D RADIAL CLEAN NOZZLE















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1191 | 1½" | 110 | 12" - 24" | 12.40" x 7.48" | 79,36 | 6 | | 12 | 3 |
| 1190 | 1", 1¼" | 80 | 10" - 20" | 7.87" x 4.72" | 20,94 | 5 | | 10 | 3 |
| 1194 | 1" | 60 | 8" - 15" | 6.10" x 3.93" | 12,12 | 6 | | 6 | 3 |
| 1195 | 3/4" | 30 | 6" - 12" | 4.92" x 3.14" | 6,17 | 5 | | 5 | 3 |

Powerful spray pattern leaves no streaks behind

Streaks are a thing of the past with the 3D Radial Clean Nozzle! 3D fluid mechanics deliver smooth water to the rear 45° fan jets, creating a powerful 360° spray pattern capable of removing grease, scale, dirt and sand from pipe walls—without leaving streaks behind. The additional rear 15° propulsion jets move the nozzle up the line and help transport material back to the manhole. This high-performing nozzle is perfect before CCTV inspection.

TRI-JET 3D

















| | Hose Con. | Minimum/GPM | (inch) Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|--------|-----------|-------------|----------------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1225 | 11/2" | 110 | 16" - 48" | 10.23" x 6.29" | 44,09 | 15 | | | 3 |
| 1220 | 1", 1¼" | 80 | 12" - 40" | 7.87" x 4.72" | 23,14 | 15 | | | 3 |
| 1218 |]" | 80 | 10" - 32" | 7.08" x 4.33" | 17,63 | 15 | | | 3 |
| 1213 |]" | 60 | 8" - 20" | 6.10" x 3.93" | 12,12 | 12 | | | 3 |
| 1213AL | 1" | 60 | 8" - 20" | 6.10" x 3.93" | 6,00 | 12 | | | 3 |
| 1210 | 3/4″ | 50 | 4" - 12" | 4.92" x 2.75" | 4,85 | 12 | | | 3 |

A high-performance nozzle with options

The **Tri-Jet 3D**, available in aluminum or stainless steel, makes use of three different optimal rear spray angles, 7°/14°/21°. As an option, one of the spray angles can be blocked off all the way around the nozzle to focus the cleaning process on pulling, flushing or cleaning with the remaining two spray angles. This nozzle comes standard with one-piece ceramic inserts.

3D CLEANING NOZZLE























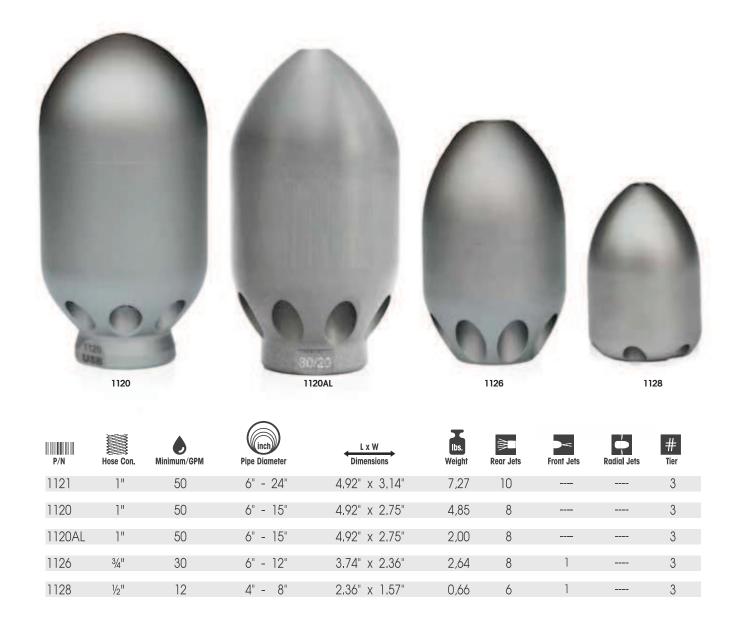
| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1052 |]" | 60 | 8" - 24" | 7.08" × 3.14" | 8,81 | 10 | 1 | | 3 |
| 1055 | 1" | 60 | 8" - 24" | 4.72" x 3.14" | 6,17 | 10 | 1 | | 3 |
| 1060 | 1" | 50 | 6" - 15" | 4.92" x 2.75" | 4,85 | 8 | 1 | | 3 |
| 1063 | 3/4" | 30 | 6" - 10" | 4.13" x 2.75" | 3,96 | 8 | 1 | | 3 |
| 1070 | 3/4" | 30 | 6" - 10" | 3.74" x 2.36" | 2,64 | 8 | 1 | | 3 |
| 1062 | 1/2" | 18 | 4" - 8" | 4.13" x 2.75" | 3,96 | 6 | 1 | | 3 |
| 1071 | 1/2" | 18 | 4" - 8" | 3.74" x 2.36" | 2,64 | 6 | 1 | | 3 |
| 1075 | 1/2" | 12 | 4" - 8" | 2.36" x 1.57" | 0,66 | 6 | 1 | | 3 |

Rear-spraying angles and a forward-spraying jet

Hardened stainless steel construction with 3D fluid mechanics and two different rear-spraying angles of 15°/25° make this **3D Cleaning Nozzle** ideal for general pipe cleaning and preventative maintenance work. A forward-spraying jet is also included. This nozzle comes standard with one-piece ceramic inserts.

ROCKET NOZZLE 3D





Small but powerful

The **Rocket Nozzle 3D** has a tight spray angle of 7°. This combined with the one piece-ceramic inserts and 3D fluid mechanics, produces incredible pulling power. Constructed from hardened stainless steel, the powerful jet pattern can flush dirt, mud, rocks and any other large heavy material you may find in sewer or storm pipes. "The 1" Rocket nozzle is also available in aluminum for hilly difficult terrain".

RADI 70 3D





















1117

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1112 |]" | 80 | 10" - 32" | 7.08" x 3.14" | 9,70 | 10 | 1 | 10 | 3 |
| 1114 | 1" | 60 | 6" - 24" | 5.11" x 2.75" | 4,85 | 8 | 1 | 8 | 3 |
| 1115 | 3/4" | 30 | 6" - 12" | 3.74" x 2.36" | 2,64 | 8 | 1 | 8 | 3 |
| 1117 | 1/2" | 18 | 4" - 8" | 2.36" x 1.57" | 0.66 | 6 | 1 | 6 | 3 |

Multiple spray angles blast materials away

3D fluid mechanics and multiple spray angles, including jets that are 70° perpendicular to the interior wall of the pipe, enable the **RADI 70 3D** to blast material off the pipe wall. The two remaining two spray angles of 15°/25° effectively propel the nozzle and clean the pipe. This nozzle comes standard with one-piece ceramic inserts.

EGG NOZZLE 3D





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1081 | 1" | 50 | 6" - 12" | 4.13" x 2.75" | 3,74 | 8 | 1 | | 3 |
| 1082 | 3/4" | 30 | 6" - 10" | 2.75" x 1.96" | 1,76 | 8 | 1 | | 3 |
| 1083 | 1/2" | 12 | 4" - 8" | 2.16" x 1.57" | 0,44 | 6 | 1 | | 3 |
| 1084 | 3/8" | 8 | 4" - 6" | 1.96" x 1.37" | <0.44 | 5 | 1 | | 2 |
| 1085 | 1/4" | 6 | 2" - 4" | 1.57" x 1.18" | <0.44 | 6 | 1 | | 2 |
| 1086 | 1/8" | 3 | 2" - 4" | 0.78" x 0.62" | <0.44 | 3 | 1 | | 1 |
| 1087 | 1/8" | 3 | 2" - 4" | 0.78" x 0.62" | <0.44 | 3 | 1 | | 1 |

Designed for easy mobility and powerful cleaning

With its contoured egg-shaped design and 20° rear propulsion jets, the **Egg Nozzle 3D** is designed to slide easily down the pipe. 3D fluid mechanics and one-piece ceramic inserts deliver water that efficiently and effectively cleans while propelling the nozzle.

FS NOZZLE 3D





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1172 |]" | 60 | 6" - 15" | 4.13" x 2.75" | 3,74 | 8 | 4 | | 3 |
| 1173 | 3/4" | 30 | 6" - 12" | 2.95" x 1.96" | 1,54 | 8 | 4 | | 3 |
| 1174 | 1/2" | 14 | 4" - 8" | 2.36" x 1.57" | 0,66 | 6 | 4 | | 3 |
| 1175 | 3/8" | 8 | 2" - 4" | 1.96" x 1.37" | 0,44 | 5 | 4 | | 2 |
| 1176 | 1/4" | 6 | 2" - 4" | 1.57" x 1.18" | 0,22 | 6 | 4 | | 2 |

A penetrating nozzle that opens tough blockages and slides with ease

Designed to penetrate pipes with tough blockages, the **FS Nozzle 3D** is made from hardened stainless steel and features 3D fluid mechanics and four forward-facing one-piece ceramic inserts at 0° /15°. The 20° rear propulsion jets combined with the smooth egg shape enables the nozzle to slide easily down the pipe.

SUPER 12





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier | |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|--|
| 1205 | 1/2" | 14 | 2" - 4" | 1.96" x 1.18" | <1.0 | 12 | 1 | | 2 | |

A small nozzle that packs a punch—and navigates tight corners

Don't be fooled by its small size, the **Super 12** gets the job done. The 12 rear propulsion jets are more than any other ½" nozzle in our inventory. And the 15° spray angle makes this nozzle ideal for use around tight corners.

STANDARD NOZZLE





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1251 | 1¼" | 80 | 8" - 12" | 3.14" x 2.36" | 2,2 | 10 | 1 | | 2 |
| 1256 |]" | 50 | 6" - 12" | 3.14" x 2.16" | 1,76 | 10 | 1 | | 2 |
| 1255 |]" | 50 | 6" - 12" | 2.04" x 2.28" | 1,5 | 12 | 4 | | 2 |
| 1257 | 3/4" | 30 | 6" - 8" | 2.55" x 1.69" | 0,88 | 8 | 1 | | 2 |
| 1259 | 3/4" | 30 | 6" - 8" | 2.55" x 1.69" | 0,88 | 6 | 1 | | 2 |
| 1260 | 1/2" | 12 | 4" - 6" | 1.18" x 1.96" | 0,22 | 6 | 1 | | 1 |
| 1262 | 1/2" | 12 | 2" - 6" | 1.06" x 1.25" | 0,22 | 6 | 1 | | 2 |
| 1268 | 3/8" | 8 | 2" - 4" | 1.37" x 0.98" | <0.22 | 6 | 1 | | 1 |
| 1273 | 1/4" | 3 | up to 4" | 0.78" x 0.78" | <0.22 | 6 | 1 | | 1 |
| 1274 | 1/4" | 3 | up to 4" | 0.78" x 0.78" | <0.22 | 6 | | | 1 |

A nozzle that sets new standards for cleaning smaller pipes

Compact, lightweight and inexpensive are three words that sum up the **Standard Nozzle**. Made from hardened stainless steel with a rear spray angle of 20°, this nozzle is perfect for cleaning smaller pipes. A front jet for penetration is also available.

CHISEL NOZZLE

















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1316 | 11/4" | 100 | 8" - 24" | 7.08" x 3.34" | 9,70 | 6 | 5 | | 2 |
| 1317 | 11/4" | 80 | 8" - 20" | 6.29" x 2.95" | 5,51 | 6 | 5 | | 2 |
| 1318 | 1" | 60 | 8" - 20" | 6.29" x 2.95" | 5,51 | 6 | 5 | | 2 |
| 1319 | 11/4" | 80 | 8" - 20" | 3.93" x 2.36" | 1,76 | 10 | 4 | | 2 |
| 1320 |]" | 60 | 8" - 15" | 3.74" x 2.36" | 1,50 | 8 | 4 | | 2 |
| 1323 | 3/4" | 30 | 6" - 12" | 2.95" x 1.96" | 0,66 | 6 | 4 | | 2 |
| 1326 | 1/2" | 12 | 4" - 8" | 2.36" x 1.18" | 0,33 | 6 | 4 | | 1 |
| 1328 | 3/8" | 12 | 2" - 4" | 1.57" x 0.98" | <0.22 | 6 | 4 | | 1 |
| 1330 | 1/4" | 6 | 2" - 4" | 1.18" x 0.78" | <0.22 | 6 | 4 | | 1 |

Reliable, powerful and effective at tough blockages

The **Chisel Nozzle** is a reliable sewer cleaning nozzle that is a must have! Sharp edges and multiple forward jets deliver powerful penetration to effectively open tough total blockages. A drill point can be added to the front of the Chisel as well.

RADIAL CHISEL NOZZLE







| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1313 |]" | 80 | 8" - 20" | 6,29" x 2,95" | 5,51 | 6 | 5 | 6 | 2 |
| 1314 | 3/4" | 30 | 6" - 12" | 4,13" x 2,36" | 2,42 | 6 | 5 | 6 | 2 |

Greater penetrating power that restores flow

The **Radial Chisel Nozzle** uses sharp edges, multiple forward-penetrating jets and radial spray jets at 70° to break up blockages from within. This nozzle is designed for ultimate penetrating power.

3D EXTREME



















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|---------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1136 | 1" | 60 | 6" - 15" | 8.74" x 2.75" | 9,47 | 8 | 1 | | 3 |
| 1136 75 | 3/4" | 30 | 6" - 15" | 8.74" x 2.75" | 9 47 | 8 | 1 | | 3 |

Exceptional cleaning and pulling power

Ideal for pipes that may have holes in the bottom or offsets, the **3D Extreme** nozzle is a worthy tool to have in your tool box. 3D fluid mechanics and one-piece ceramic inserts create a strong jet pattern with a spray angle of 11°, resulting in exceptional cleaning and pulling power. One forward jet offers a penetration option as well.

FD2 NOZZLE 3D







| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1278 | 1 1/4" | 100 | 12" | 7.87" x 3.54" | 14,33 | 8 | | | 3 |
| 1279 | 1" | 80 | 12" | 7.87" x 3.54" | 14,33 | 8 | | | 3 |
| 1280 |]" | 60 | 8" | 6.29" x 2.95" | 8,37 | 8 | | | 3 |
| 1282 | 3/4" | 30 | 6" | 5.51" x 2.36" | 3,96 | 8 | | | 3 |
| 1290 | 1/2" | 12 | 4" | 4.72" x 1.96" | 2,64 | 6 | | | 3 |

Power meets control

The **FD2 Nozzle 3D** was designed to clean half open or completely open drain pipes! The hardened stainless steel nozzle includes 3D fluid mechanics that provide excellent cleaning and pulling power. At the same time, the one-piece ceramic inserts spray at an angle, preventing water from splashing upwards out of the channel.

DIGGER NOZZLE













| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|----------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1140 | 1/2" | 12 | 2" - 8" | 1.57" x 1.18" | 0,22 | | | 7 | 2 |
| 1142 | 1/4" | 6 | Up to 3" | 1.18" × 0 .78" | <0.22 | | | 7 | 2 |
| 1144 | Digge | r Nozzle Holde | er | 0.98" x 1.96" | 0,22 | | | | N/A |

A front-focused nozzle

Used as is or together with a special push rod attachment, the **Digger Nozzle** is strictly made for pushing material out of small pipes. The absence of rear jets focus all the water to the front of the nozzle, enabling it to clean effectively.

PRIMUS



















PRIMUS I

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier | |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|--|
| 5005 | 1/2" | 12 | 4" - 8" | 5.36" x 2.36" | 3 | 3 | 1 | 4 | 3 | |

PRIMUS II

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 5010 | 3/4" | 30 | 6" - 10" | 9" x 4.72" | 8 | 5 | 1 | 4 | 3 |
| 5013 | 1" | 60 | 6" - 15" | 9" x 4.72" | 8 | 5 | 1 | 4 | 3 |

PRIMUS III

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier | |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|--|
| 5020 | 1", 1¼" | 80 | 12" - 24" | 11.63" x 5.90" | 20,94 | 5 | 1 | 4 | 3 | |

A user-friendly, innovative nozzle that flushes out debris

Designed for controlled rotation and use with recycled water, the innovative **Primus** requires no lubrication or replacement of internal parts for at least one year. The nozzle is built from hardened stainless steel. A rotating head removes grease, light scale and roots. And the 3D fluid mechanics in the propulsion unit flush out debris, providing outstanding results.

PRIMUS ANTIBLASTER 3D















PRIMUS ANTIBLASTER II 3D

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 5017 | 3/4" | 30 | 6" - 10" | 9" x 4.72" | 8 | 5 | 1 | 4 | 3 |
| 5018 |]" | 60 | 6" - 15" | 9" x 4.72" | 8 | 5 | 1 | 4 | 3 |

PRIMUS ANTIBLASTER III 3D

| | Hose Con. | Minimum/GPM | inch Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier | |
|------|-----------|-------------|--------------------|------------------|----------------|-----------|------------|-------------|-----------|--|
| 5019 | 1, 1¼" | 80 | 12" - 24" | 11.63" x 5.9" | 20,94 | 5 | 1 | 4 | 3 | |

Controlled rotation for shallow sewer lines

Designed to reduce the chances of blowing toilets, the Primus Antiblaster Nozzle 3D is a controlled rotating nozzle that is also low maintenance. The nozzle is built from hardened stainless steel and requires no maintenance or replacement of internal parts for at least one year. A rotating head removes grease, light scale and roots while the wide 42° rear spray angles in the propulsion unit clean / flush out debris.

ROTOR NOZZLES

















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1345 | 1¼" | 100 | 10" - 20" | 7.08 x 3.54" | 14,1 | 6 | | 3 | 2 |
| 1350 |]" | 80 | 6" - 15" | 5.51" x 3.14" | 9,25 | 6 | | 3 | 2 |
| 1351 | 1" | 40 | 6" - 12" | 4.13" x 2.36" | 3,30 | 6 | | 3 | 2 |
| 1352 | 3/4" | 30 | 6" - 10" | 3.74" x 1.96" | 3,30 | 6 | | 3 | 2 |
| 1357 | 1/2" | 12 | 4" - 8" | 2.95" x 1.57" | 1,10 | 3 | | 3 | 2 |
| 1360 | 3/8" | 6 | 2" - 6" | 2.16" x 1.18" | 0,66 | 3 | | 3 | 2 |
| 1362 | 1/4" | 6 | 2" - 6" | 2.16" x 1.18" | 0,66 | 3 | | 3 | 2 |
| 1364 | 1/4" | 6 | Up to 4" | 1.57" x 0.78" | 0,33 | 3 | | | 1 |
| 1365 | 1/8" | 3 | Up to 4" | 1,33" x 0,62" | 0,22 | 3 | | | 1 |

Multi-angled inserts and rear propulsion jets remove and flush debris

Rotor Nozzles feature three one-piece ceramic inserts in the middle rotating section with spray angles of 90° /75° /60°, effectively removing grease, dirt and light roots from pipes. Rear propulsion jets help flush the debris. Constructed of hardened stainless steel, the nozzles include non-corrosive, low-maintenance rotating centers.

FRONT PUSH ROTOR







| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1308 | 1/2" | 14 | 4" - 8" | 2.75" x 1.57" | 0,88 | 3 | 4 | 3 | 2 |
| 1309 | 3/8" | 8 | up to 6" | 2.16" x 1.18" | 0,66 | 3 | 4 | 3 | 2 |
| 1310 | 1/4" | 8 | up to 6" | 2.16" x 1.18" | 0,66 | 3 | 4 | 3 | 2 |

A front-pushing nozzle designed for laterals and small pipes

The stainless steel **Front Push Rotor nozzle** is designed for effective cleaning of laterals and other small pipes. Rear jets propel the nozzle in the pipe, front rotating jets move material forward and additional rotating radial jets thoroughly clean the interior circumference of the pipe.

T-HAMMER











1335

| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1333 | 11/4" | 100 | 10" - 24" | 10.23" x 5.19" | 33,06 | 6 | 3 | 3 | 2 |
| 1334 | 1, 1¼" | 80 | 8" - 20" | 7.08" x 3.54" | 14,33 | 6 | 3 | 3 | 2 |
| 1335 | 1 | 80 | 6" - 15" | 5.51" x 3.14" | 8.81 | 6 | 3 | 3 | 2 |

Controlled force for plastic pipes

The **T-Hammer**'s middle rotor section generates vibration in plastic pipes to break up deposits and other hard materials. Turbine technology controls the agitation. This stainless steel nozzle can be used with recycled water and comes standard with one-piece ceramic inserts.

WARNING: Use in thick plastic pipes only!! NEVER use in clay, concrete or thin plastic pipes

V-HAMMER

















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1337 | 1" | 40 | 6" - 12" | 4.13" x 2.36" | 3,08 | 6 | | 3 | 2 |
| 1338 | 3/4" | 30 | 6" - 10" | 3.62" x 1.96" | 1,76 | 6 | | 3 | 2 |
| 1339 | 1/2" | 12 | 4" - 8" | 2.75" x 1.57" | 1,32 | 3 | | 3 | 2 |
| 1340 | 1/4" | 6 | up to 4" | 2.16" x 1.18" | 0,33 | 3 | | 3 | 2 |
| 1341 | 3/8" | 6 | up to 4" | 2.16" x 1.18" | 0,33 | 3 | | 3 | 2 |

Powerful impact for plastic pipes

The **V-Hammer**'s middle rotor section generates vibration in plastic pipes to break up deposits and other hard materials that can then be flushed out. Less aggressive options for the top cap section are also available.

WARNING: Use in thick plastic pipes only!! NEVER use in clay, concrete or thin plastic pipes.

GATOR Mini-Gator



















| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | • Head | # Tier |
|------|------------|-------------|---------------|------------------|----------------|-----------|------------|-----------|-----------|
| 5022 | 3/8 - 1/2" | 9 | 3" - 8" | 4.33 x 1.57" | 1,32 | | 1 | 4 | 3 |
| 5025 | CASE KI | T ½" | | | | | | | |
| 5030 | 3/4 - 1" | 50 | 6" - 24" | 8.66" x 4.52" | 14.33 | | 1 | 4 | 3 |
| 5035 | CASE KI | T 1" | | | | | | | |

High Performance Rotating Nozzle

The Gator and Mini Gator nozzles cut and remove roots, grease, blockages, and scale in various pipes ranging from 2" – 20". Encased in a compact stainless-steel body the strong reinforced internal design rotates the head. 3D fluid mechanics in the head smoothly direct all the incoming high-pressure water to the four rotating jets in the rear of the head and one in front. These rotating jets create an extremely powerful 360 degree all around complete cleaning of the pipe, flushing, and removing debris in less passes. The offset front jet eliminates blockages easily and effectively. A case kit is available which includes an additional skid.

SPIN-JET





| | Hose Con. | Minimum/GPM | (inch) Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------------------------|------------------|----------------|-----------|------------|-------------|-----------|
| 5050 | 1/2", 1" | 12 | Man Hole or Lift Station 4'-15' | 6.29" x 9.84" | 4,85 | | 3 | 3 | 2 |
| 5052 | 3/4" | 30 | Man Hole or Lift Station 4'-15' | 6.29" x 11.02" | 7,05 | | 3 | 6 | 2 |
| 5055 |]" | 60 | Man Hole or Lift Station 4'-15' | 9.44" x 11.81" | 12,34 | | 3 | 3 | 2 |
| 5058 | Center | ing Aid | 5050 5052 | | | | | | |
| 5059 | Center | ing Aid | 5055 | | | | | | |
| 5070 | Nozzle | Extension |]" | | | | | | |
| 5072 | Nozzle | Extension | 2" | | | | | | |
| 5074 | Nozzle | Extension | 4" | | | | | | |

A controlled, rotating nozzle for cleaning lift stations, barrels and manholes

The **Spin-Jet** is a self-centering, controlled rotating nozzle that is used for cleaning lift stations, barrels and manholes prior to rehabilitation. Available in three different versions, the Spin-Jet has driving nozzles that rotate in a 360° horizontal plane only. This action eliminates the need to cover the manhole during operation, allowing for constant viewing of the cleaning process. Front jets thoroughly clean any grease, sludge or mud at the bottom.

STEERING NOZZLE





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|-------------------|----------------|-----------|------------|-------------|-----------|
| 1239 | Replac | cement Hose | with Threaded | Ends | | | | | |
| 1240 | 1/2" | 12 | 3" - 8" | 10.62" x 1.25" | 0,22 | 4 | 4 | | 2 |
| 1241 | 1/2" | 12 | 3" - 8" | 9.05" x 1.25" | 0,55 | 6 | 4 | | 2 |
| 1243 | 1/2" | 12 | 3" - 8" | 9.44" x 1.57" | 0,99 | 6 | 4 | | 2 |
| 1245 | 1/2" | 12 | 3" - 8" | 9.84" x 1.57" | 1,54 | 3 | 4 | 3 | 2 |
| 1246 | 1/2" | 12 | 3" - 8" | 9.84" x 1.57" | 1,43 | 3 | 4 | 3 | 2 |

A nozzle for navigating

As the name suggest, the **Steering Nozzle** can be navigated into and through laterals and other branches. Simply twist your high-pressure hose to the left or right to direct the nozzle exactly where you want it to go.

ANTIBLASTER





| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|---------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1198 | 1" | 60 | 6" - 12" | 4.52" x 2.75" | 3,74 | 8 | 1 | | 3 |
| 1198,75 | 3/4" | 30 | 6" - 10" | 4.52" x 2.75" | 3,74 | 8 | 1 | | 3 |
| 1199 |]" | 80 | 6" - 12" | 4.52" x 2.75" | 3,74 | 8 | 1 | 8 | 3 |
| 1200 |]" | 80 | 8" - 15" | 5.90" x 3.93" | 10,58 | 6 | | 6 | 3 |

Smooth propulsion for shallow depths and pipes near homes

With a wide 35 and 70 degree spray angles, the **Antiblaster** nozzle is perfect for reducing the chances of blowing toilets. Constructed from hardened stainless steel, the nozzle was designed for cleaning pipes at a shallow depths and pipes that are adjacent to homes. The 3D fluid mechanics and one-piece ceramic inserts provide powerful cleaning and smooth propulsion. An optional front jet is also available.

OVERSIZED NOZZLES













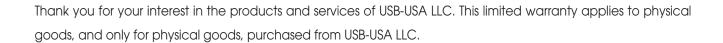


| | Hose Con. | Minimum/GPM | Pipe Diameter | L x W Dimensions | lbs. Weight | Rear Jets | Front Jets | Radial Jets | # Tier |
|------|-----------|-------------|---------------|------------------|----------------|-----------|------------|-------------|-----------|
| 1010 | 1½" | 120 | 40" - 196" | 32.28 x 17.32" | 167 | 14 | | | 3 |
| 1030 | 1½" | 100 | 12" - 78" | 16.53 x 7.48" | 105 | 8 | | | 3 |
| 1191 | 1½" | 100 | 12" - 24" | 12.40 x 7.48" | 79 | 6 | | 10 | 3 |
| 1227 | 1½" | 100 | 15" - 120" | 10.23 x 6.29" | 79 | 15 | | | 3 |

Special applications require special tools

Oversized nozzles are larger and heavier than ordinary cleaning nozzles. These nozzles are mainly used in conjunction with high water volumes and large hose diameters in big sewer lines. With 120 - 210 GPM and high-pressure hose $1\frac{1}{4}$ " to $1\frac{1}{2}$ ", deposits can be loosened and transported in these, constantly water bearing sewers. Due to their mass, the oversized nozzles will stay on the bottom of the sewer and never float. These nozzles come with one-piece ceramic inserts.

WARRANTY



What does this limited warranty cover?

This limited warranty covers any manufacturer's defect in material or workmanship under normal use during the warranty period.

During the warranty period, USB-USA LLC will repair or replace, at no charge, products or parts of a product that proves defective because of improper material or workmanship, under normal use and maintenance.

What will we do to correct problems?

USB-USA LLC will repair the product at no charge, using new or refurbished replacement parts. If necessary full replacement is offered.

How long does the coverage last?

The warranty period for physical goods purchased from USB-USA LLC is one year for any physical nozzle or chain cutter that spins (Turbo Chain Cutter, Rotors, Primus etc.) and three years for any nozzle with ceramic nozzle inserts and 3D fluid mechanics from the date of purchase.

A replacement physical good or part assumes the remaining warranty of the original physical good or 90 days from the date of replacement or repair, whichever is longer.

What does this limited warranty not cover?

This limited warranty does not cover any problem that is caused by conditions, malfunctions or damage not resulting from defects in material or workmanship.

What do you have to do?

To obtain warranty service, you must first contact us to determine the problem and most appropriate solution for you.

