BANSHEERotary Tube Cleaning



2.6-6.9 in. 65-180 mm

The Banshee line of tube cleaning tools use high pressure water as a liquid bearing, replacing ball bearings, seals or lubricant used in conventional rotary tools. This patented design features a straight flow path that delivers the highest quality jets for maximum cleaning power.

Banshee tools clean effectively at a wide range of pressures up to 40,000 psi (2800 bar). Each tool can be easily configured to suit any application by choosing from a variety of replaceable heads and inlet options.

COMPETITIVE ADVANTAGES

- Proven to be the most effective tube cleaning tools on the market
- Low cost, low maintenance bearing design
- Extensive tool selection for all major hose sizes and tube cleaning applications
- Multiple interchangeable head options for polishing, unplugging, and different flow capacities
- Replaceable sapphire inserts on 40k psi models
- Easy to pair with automated flex lance machines

F	EATURES	В	ENEFITS
•	Patented liquid bearing technology	•	No bearings, seals or lubricant to replace — reduced maintenance costs
•	Configurable head options	•	Select the most effective cleaning configuration for a specific application
•	Streamlined internal flow path	•	Unlike labyrinth seal and cross jet pattern nozzles, Banshee tools deliver water in a straight path, generating the least amount of turbulence and highest quality jet power for better cleaning
•	Shrouded head option (for use with automated drive equipment)	•	Allows the head to continue to rotate when forced against a blockage



QUESTIONS TO ASK YOUR CUSTOMER

- What size and length of hose are you using?
- What pressure and flow are you operating?
- What are the length and diameter of tubes?
- What type of cleaning is required? Are the tubes plugged?
- Do you need an adapter?
- Do you need a stinger?
- Do you need a backout preventer? You should always use a backout preventer with high pressure tube cleaning tools.

OTHER INFORMATION

- The Banshee is a water-bearing tool, which means that the tool relies on a very thin "film" of water between shaft and body. It is critical that all lines are flushed prior to use to eliminate any debris which can cause the tool to misoperate.
- Water must be blown out of the Banshee after each use to avoid corrosion damage. It is also important to soak or bathe the tool in a very light oil such as WD-40 between applications.
- Pipe threads are rated to 15k psi (1000 bar) MAWP, M7 and MP threads are 22k psi (1500 bar) MAWP.
 Some BSP threads can rate as high as 22k psi (1500 bar), please refer to the tool manual for pressure ratings for each tool.
- Choose the appropriate head option for all cleaning applications. A universal head may not unplug or polish
 as effectively as the unplugger or polisher head specifically. Contact your StoneAge Account Representative for questions about specific applications, including the shrouded head option.
- StoneAge recommends the Banshee ProTex splash guard/back-out preventer for vertical applications and the VE-400 Safety Stop for horizontal or vertical back-out prevention.
- The use of pipe wrenches and or pliers with "teeth" will void all tool warranty. All Banshee tube cleaning tools require the use of a correctly sized open-end wrench to fit the flats provided on the inlet nut when attaching the tool to the lance. Incorrect tools can crush or crack the hardened steel body, leading to failure or breakage during operation.

BACKOUT PREVENTION

We offer two standard backout preventers to be used with all Banshee tool models.

The **VE-400 Safety Stop** is designed to protect the operator form a flex-lance exiting the tube sheet during cleaning operations.

The **Banshee ProTex BPT-100** vertical splashguard is lightweight and dirable to keep operators safe from the potential hazards of flex-lancing.

TOOL SPECIFICATIONS - 22K PSI (1500 BAR) MODELS

			•	,		
PART ID	BN9.5	BN13	BN15	BN18	BN24	BN33
Tube ID Range	0.47-0.63 in. 12-16 mm	0.60-1.0 in. 15-25 mm	0.75-1.2 in. 19-30 mm	0.87–1.3 in. 22–33 mm	1.1–2.0 in. 28–51 mm	1.5-2.4 in. 38-60 mm
Pressure Range*	10k–22k psi 700–1500 bar	10k-22k psi 700-1500 bar	10k–22k psi 700–1500 bar	10k-22k psi 700-1500 bar	10k-22k psi 700-1500 bar	10k–22k psi 700–1500 bar
Flow Range	4.5-8 gpm 17-30 l/min	7–10 gpm 27–38 l/min	7–10 gpm 27–38 l/min	8–14 gpm 30–53 l/min	12–25 gpm 45–95 l/min	12-49 gpm 45-190 l/min
Flow Coefficient	0.20 Cv	0.27 Cv	0.35 Cv	0.66 Cv	0.90 Cv	2.3 Cv
Inlet Connections	M7, 1/16 NPT	1/8 NPT, 1/8 BSPP, 1/4 LH, 1/4 RH, 3/8 LH, 3/8 RH	1/8 NPT, 1/8 BSPP, 3/8 LH/RH	1/4 NPT, 1/4 BSPP, 9/16 LH, 9/16 RH	3/8 NPT, 3/8 BSPP, 9/16 LH, 9/16 RH	1/2 NPT, 1/2 BSPP or 9/16 MP
Swivel Diameter	0.4 in. 10 mm	0.5 in. 13 mm	0.6 in. 15 mm	0.7 in. 18 mm	0.9 in. 24 mm	1.3 in. 33 mm
Swivel Length	2.6 in. 65 mm	2.9 in. 74 mm	3.0 in. 76 mm	3.8 in. 97 mm	5.1 in. 130 mm	6.9 in. 180 mm
Swivel Weight	0.05 lb 0.02 kg	0.10 lb 0.05 kg	0.15 lb 0.07 kg	0.25 lb 0.11 kg	0.60 lb 0.27 kg	1.8 lb 0.81 kg
Head Weight	0.01 lb .005 kg	0.05 lb 0.02 kg	0.08 lb 0.04 kg	0.08 lb 0.04 kg	0.10 lb 0.05 kg	0.25 lb 0.11 kg
Maximum Water Temperature	250 °F 120 °C	250 °F 120 °C	250 °F 120 °C	250 °F 120 °C	250 °F 120 °C	250 °F 120 °C

^{*}The maximum working pressure for different Banshee swivels is dependent on the inlet connection.

TOOL SPECIFICATIONS — 40K PSI (2800 BAR) MODELS

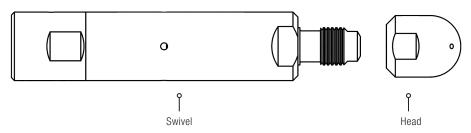
PART ID	BN13-40K	BN18-40K	BN27-40K
Tube ID Range*	0.60-1.0 in. 15-25 mm	0.87–1.3 in. 22–33 mm	1.25-2.0 32-51 mm
Pressure Range	20-40k psi 1400-2800 bar	20-40k psi 1400-2800 bar	20–40k psi 1400–2800 bar
Flow Range	4.5-6 gpm 17-23 l/min	5–8.5 gpm 19–32 l/min	5–8.5 gpm 19–32 l/min
Flow Coefficient	0.20 Cv	0.25 Cv	0.30 Cv
Port Size	6-40 UNF (S2)	6-40 UNF (S2)	6-40 UNF (S2)
Nozzle Type	0S2	0S2	0S2
Inlet Connections	1/4 LH, 3/8 LH	3/8 LH, M14L, 9/16 LH, 9/16 RH	9/16 LH, M14L
Swivel Diameter	0.5 in. 13 mm	0.7 in. 18 mm	1.06 in. 27 mm
Swivel Length	3.5 in. 89 mm	4.7 in. 120 mm	5.5 in. 140 mm
Swivel Weight	0.15 lb 0.07 kg	0.30 lb 0.14 kg	0.10 lb 0.05 kg
Head Weight	0.05 lb 0.02 kg	0.08 lb 0.04 kg	0.15 lb 0.68 kg
Maximum Water Temperature	250 °F 120 °C	250 °F 120 °C	250 °F 120 °C

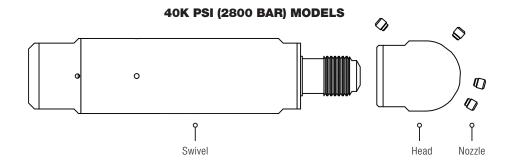
 $^{^*}When \ cleaning\ 5/8\ in.\ diameter\ tubes\ at\ 40k\ psi,\ please\ contact\ our\ technical\ support\ team\ for\ hose\ specifications.$



BANSHEE TOOL CONFIGURATION







A complete Banshee tool configuration requires the following components:

- 1. Swivel for required working pressure and inlet connection
- 2. Head with required jet configuration, pressure and flow

The following items may also be required:

- Suitable hose adapter
- Backout preventer

To configure a Banshee tool, the following information should be obtained:

- Pump pressure and flow
- Hose length and ID
- Hose/lance end fitting

StoneAge offers standardized Banshee BN9.5 tool packages for the most commonly used configurations. All Banshee BN9.5 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN9.5 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
		1 x BN9.5 Banshee swivel 1 x Polisher head	BN9.5-NPT-POL-PKG
15k psi 1000 bar	1/16 NPT Female	1 x BN 9.5 Banshee swivel 1 x Universal head	BN9.5-NPT-UNI-PKG
		1 x BN9.5 Banshee swivel 1 x Unplugger head	BN9.5-NPT-UNP-PKG
		1 x BN9.5 Banshee swivel 1 x Polisher head	BN9.5-M7-POL-PKG
	M7 Female	1 x BN 9.5 Banshee swivel 1 x Universal head	BN9.5-M7-UNI-PKG
22k psi		1 x BN9.5 Banshee swivel 1 x Unplugger head	BN9.5-M7-UNP-PKG
1500 bar		1 x BN9.5 Banshee swivel 1 x Polisher head	BN9.5-MP-POL-PKG
	1/4 LH Female, 1/4 RH Female	1 x BN 9.5 Banshee swivel 1 x Universal head	BN9.5-MP-UNI-PKG
		1 x BN9.5 Banshee swivel 1 x Unplugger head	BN9.5-MP-UNP-PKG

When ordering a standard Banshee package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION	
1	BN9.5-MP-UNP-PKG	BN9.5 package 1/4 LH inlet. 20,000 psi 6 gpm 30 ft 5/32" ID	



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

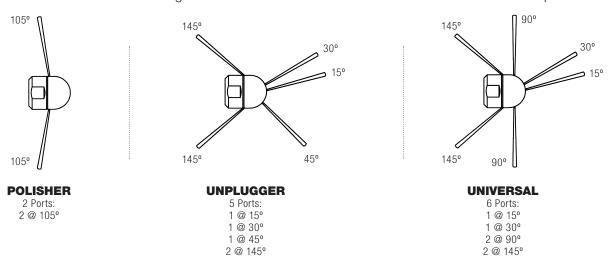
STEP 1 SWIVEL SELECTION

There are four Banshee BN9.5 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
15k psi 1000 bar	1/16 NPT Female	BN9.5-P1
	M7 Female	BN9.5-M7
22k psi 1500 bar	1/4 LH Female	BN9.5-MP4L
.000 84.	1/4 RH Female	BN9.5-MP4R

STEP 2 HEAD SELECTION

There are three standard head configurations for the BN9.5 swivel. Custom heads are available on request.



The following table lists head selection approximations of common jetting scenarios for Banshee BN9.5 swivels:

SWIVEL	HEAD STYLE	PRESSURE RANGE	FLOW RANGE	HEAD PART ID
	Polisher	10-15k psi 700-1000 bar	4.5-5.5 gpm 17-21 I/min	BN9.5 042-A
		15-22k psi 1000-1500 bar	5-6 gpm 19-23 l/min	BN9.5 042-B
BN9.5	Unnlugger	10-15k psi 700-1000 bar	5-6 gpm 19-23 l/min	BN9.5 043-A
	Unplugger	15-22k psi 1000-1500 bar	5.5-6.5 gpm 21-25 l/min	BN9.5 043-B
	Universal	15–22k psi 1000–1500 bar	7-8 gpm 27-30 l/min	BN9.5 044-1

STEP 3

MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN9.5. This kit contains required wrenches for the BN9.5 swivel.

SWIVEL	TOOL KIT	MANUAL
BN9.5 (22k)	BN9.5 612	PL 505

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

When ordering a Banshee BN9.5 tool by line item, the Dealer should specify:

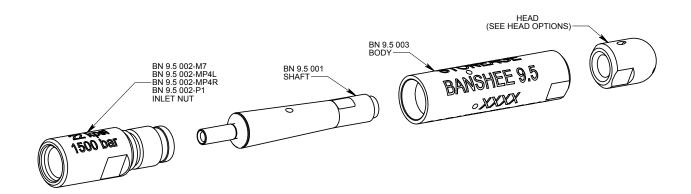
- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

QTY	PART ID	DESCRIPTION	
1	BN9.5-M7	BN9.5-M7 Banshee swivel 9.5 mm M7 connection	
3	BN9.5 042-A Polisher head		
3	BN9.5 043-A	Unplugger head	



TOOL COMPONENT VIEW

BANSHEE BN9.5



StoneAge offers standardized Banshee BN13 tool packages for the most commonly used configurations. All Banshee BN13 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN13 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
		1 x BN13 Banshee swivel 1 x Polisher head	BN13-NPT-POL-PKG
15k psi 1000 bar	1/8 NPT Female	1 x BN13 Banshee swivel 1 x Universal head	BN13-NPT-UNI-PKG
		1 x BN13 Banshee swivel 1 x Unplugger head	BN13-NPT-UNP-PKG
		1 x BN13 Banshee swivel 1 x Polisher head	BN13-BSPP-POL-PKG
18k psi 1250 bar	1/8 BSPP Female	1 x BN13 Banshee swivel 1 x Universal head	BN13-BSPP-UNI-PKG
		1 x BN13 Banshee swivel 1 x Unplugger head	BN13-BSPP-UNP-PKG
	1/4 LH Female,	1 x BN13 Banshee swivel 1 x Polisher head	BN13-MP-POL-PKG
22k psi 1500 bar	1/4 RH Female, 3/8 LH Female,	1 x BN13 Banshee swivel 1 x Universal head	BN13-MP-UNI-PKG
	3/8 RH Female	1 x BN13 Banshee swivel 1 x Unplugger head	BN13-MP-UNP-PKG
40k psi	1/4 LH Female, 1/4 RH Female,	1 x BN13 Banshee swivel 1 x Polisher head	BN13-HP-POL-PKG
2800 bar	3/8 LH Female, 3/8 RH Female	1 x BN13 Banshee swivel 1 x Unplugger head	BN13-HP-UNP-PKG

When ordering a standard Banshee BN13 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION
1	BN13-BSPP-UNI-PKG	BN13 universal package 1000 Bar 30 I/min 10 m 5 mm ID hose 1/8 BSPP



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

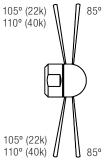
STEP 1 SWIVEL SELECTION

There are ten Banshee BN13 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
15k psi 1000 bar	1/8 NPT Female	BN13-P2
18k psi 1250 bar	1/8 BSPP Female	BN13-BSPP2
	1/4 LH Female	BN13-MP4L
22k psi	1/4 RH Female	BN13-MP4R
1500 bar	3/8 LH Female	BN13-MP6L
	3/8 RH Female	BN13-MP6R
	1/4 LH Female	BN13-H4L
40k psi	1/4 RH Female	BN13-H4R
2800 bar	3/8 LH Female	BN13-H6L
	3/8 RH Female	BN13-H6R

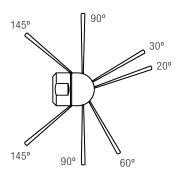
STEP 2 HEAD SELECTION

There are three standard head configurations for the BN13 swivel. Custom heads are available on request.



85°

140°



DOI ICHED

UNPLUGGER
5 Ports:
1 @ 15°
1 @ 30°
1 @ 45°
2 @ 140°

JNIVERSA
7 Ports:
1 @ 20°
1 @ 30°
1 @ 60°
2 @ 90°
2 @ 145°

The following table lists head selection approximations of common jetting scenarios for Banshee BN13 swivels:

SWIVEL	HEAD STYLE	PRESSURE FLOW RANGE HEAD PART ID NOZZLES FITTE		S FITTED		
SWIVEL	HEAD STILE	RANGE	FLOW NAME	HEAD PART ID	FRONT	BACK
		10–15k psi 700–1000 bar	7–9 gpm 27–34 l/min	BN13 042-A	N/A	N/A
	Polisher	15–22k psi 1000–1500 bar	7–9 gpm 27–34 l/min	BN13 042-C	N/A	N/A
	FUISHE	30–40k psi	5.5 –6 gpm 21–23 l/min	BN13 442-C	2 x 0S2 014	2 x 0S2 015
		2100–2800 bar	4.5–5 gpm 17–19 l/min	BN13 442-D	2 x 0S2 010	2 x 0S2 014
BN13	15–22k psi 1000–1500 bar 30–40k psi 2100–2800 bar 10–15k psi 700–1000 bar		7–9 gpm 27–34 l/min	BN13 043-A	N/A	N/A
DNIS			7–9 gpm 27–34 l/min	BN13 043-C	N/A	N/A
		30–40k psi	5.5 –6 gpm 21–23 l/min	BN13 443-C	3 x 0S2 010	2 x 0S2 016
		2100–2800 bar	4.5–5 gpm 17–19 l/min	BN13 443-D	3 x 0S2 009	2 x 0S2 015
			8–10 gpm 30–38 l/min	BN13 044-A	N/A	N/A
	Universal 15–22k psi 1000–1500 bar		7 –8 gpm 27–30 l/min	BN13 044-C	N/A	N/A

STEP 3 \ MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN13. This kit contains required wrenches for the BN13 swivel.

SWIVEL	TOOL KIT	MANUAL
BN13 (22k)	BN13 612	PL 505
BN13 (40k)	BN13 612-H	PL 507

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.



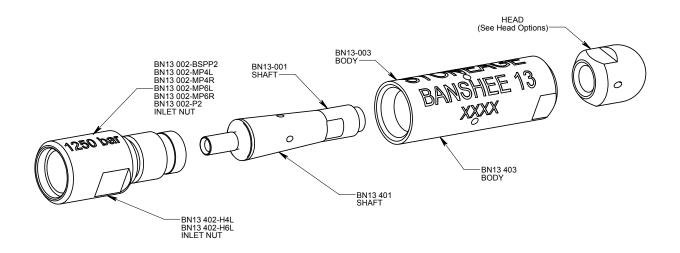
When ordering a Banshee BN13 tool by line item, the Dealer should specify:

- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

FOR EXAMPLE:

QTY	PART ID	DESCRIPTION	
1	BN13-H6L	Banshee swivel 13mm 3/8 LH connection	
3	BN13 443-C	Unplugger head	
1	BN13 612-H	Tool Kit	

BANSHEE BN13



StoneAge offers standardized Banshee BN15 tool packages for the most commonly used configurations. All Banshee BN15 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN15 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
		1 x BN15 Banshee swivel 1 x Polisher head	BN15-NPT-POL-PKG
15k psi 1000 bar	1/8 NPT Female	1 x BN15 Banshee swivel 1 x Universal head	BN15-NPT-UNI-PKG
		1 x BN15 Banshee swivel 1 x Unplugger head	BN15-NPT-UNP-PKG
		1 x BN15 Banshee swivel 1 x Polisher head	BN15-BSPP-POL-PKG
18k psi 1250 bar	1/8 BSPP Female	1 x BN15 Banshee swivel 1 x Universal head	BN15-BSPP-UNI-PKG
		1 x BN15 Banshee swivel 1 x Unplugger head	BN15-BSPP-UNP-PKG
	1/4 LH Female, 22k psi 1/4 RH Female, 1500 bar 3/8 LH Female, 3/8 RH Female	1 x BN15 Banshee swivel 1 x Polisher head	BN15-MP-POL-PKG
		1 x BN15 Banshee swivel 1 x Universal head	BN15-MP-UNI-PKG
		1 x BN15 Banshee swivel 1 x Unplugger head	BN15-MP-UNP-PKG

When ordering a standard Banshee BN15 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION
1	BN15-MP-UNP-PKG	BN15 unplugger package 30 ft 3/16 ID hose 3/8 LH



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

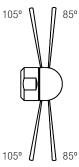
STEP 1 \ SWIVEL SELECTION

There are six Banshee BN15 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

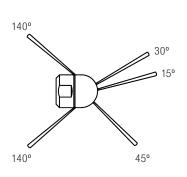
MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
15k psi 1000 bar	1/8 NPT Female	BN15-P2
18k psi 1250 bar	1/8 BSPP Female	BN15-BSPP2
	1/4 LH Female	BN15-MP4L
22k psi	1/4 RH Female	BN15-MP4R
1500 bar	3/8 LH Female	BN15-MP6L
	3/8 RH Female	BN15-MP6R

STEP 2 HEAD SELECTION

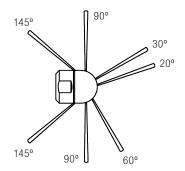
There are three standard head configurations for the BN15 swivel. Custom heads are available on request.











JNIVERSAL	
7 Ports:	
1 @ 20°	
1 @ 30°	
1 @ 60°	
2 @ 90°	
2 @ 145°	

The following table lists head selection approximations of common jetting scenarios for Banshee BN15 swivels:

SWIVEL	HEAD STYLE	PRESSURE RANGE	FLOW RANGE	HEAD PART ID
	Dolinhar	10-15k psi 700-1000 bar	7-9 gpm 27-34 l/min	BN15 042-A
	Polisher	15-22k psi 1000-1500 bar	7-9 gpm 27-34 l/min	BN15 042-C
DNIIE	BN15 Unplugger Universal	10-15k psi 700-1000 bar	7-9 gpm 27-34 l/min	BN15 043-A
CIND		15-22k psi 1000-1500 bar	7-9 gpm 27-34 l/min	BN15 043-C
		10-15k psi 700-1000 bar	8-10 gpm 30-38 l/min	BN15 044-A
		15-22k psi 1000-1500 bar	8-10 gpm 30-38 l/min	BN15 044-C

STEP 3 \ MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN15. This kit contains required wrenches for the BN13 swivel.

SWIVEL	TOOL KIT	MANUAL
BN15 (22k)	BN15 612	PL 505

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

When ordering a Banshee BN15 tool by line item, the Dealer should specify:

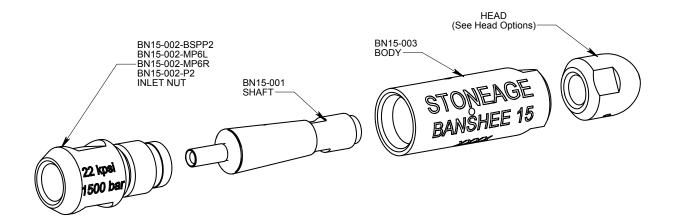
- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

QTY	PART ID	DESCRIPTION	
1	BN15-P2	Banshee swivel 13 mm 1/8 NPT connection	
3	BN15 042-A	Polisher head	
2	BN15 044-A	Universal head	



TOOL COMPONENT VIEW

BANSHEE BN15



StoneAge offers standardized Banshee BN18 tool packages for the most commonly used configurations. All Banshee BN18 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN18 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
		1 x BN18 Banshee swivel 1 x Polisher head	BN18-NPT-POL-PKG
15k psi 1000 bar	1/4 NPT Female	1 x BN18 Banshee swivel 1 x Universal head	BN18-NPT-UNI-PKG
		1 x BN18 Banshee swivel 1 x Unplugger head	BN18-NPT-UNP-PKG
		1 x BN18 Banshee swivel 1 x Polisher head	BN18-BSPP-POL-PKG
20k psi 1400 bar	1/4 BSPP Female	1 x BN18 Banshee swivel 1 x Universal head	BN18-BSPP-UNI-PKG
		1 x BN18 Banshee swivel 1 x Unplugger head	BN18-BSPP-UNP-PKG
	9/16 LH Female, 9/16 RH Female	1 x BN18 Banshee swivel 1 x Polisher head	BN18-MP-POL-PKG
22k psi 1500 bar		1 x BN18 Banshee swivel 1 x Universal head	BN18-MP-UNI-PKG
40k psi 2800 bar		1 x BN18 Banshee swivel 1 x Unplugger head	BN18-MP-UNP-PKG
	3/8 LH Female, M14 LH Female,	1 x BN18 Banshee swivel 1 x Polisher head	BN18-HP-POL-PKG
	9/16 LH Female, 9/16 RH Female	1 x BN18 Banshee swivel 1 x Unplugger head	BN18-HP-UNP-PKG

When ordering a standard Banshee BN18 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION
1	BN18-HP-POL-PKG	BN18 polisher package 40k psi 6 gpm 30 ft 5 mm ID hose 3/8 LH



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

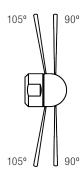
STEP 1 SWIVEL SELECTION

There are six Banshee BN18 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

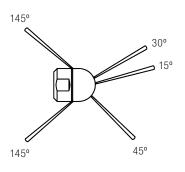
MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
15k psi 1000 bar	1/4 NPT Female	BN18-P4
20k psi 1400 bar	1/4 BSPP Female	BN18-BSPP4
22k psi	9/16 LH Female	BN18-MP9L
1500 bar	9/16 RH Female	BN18-MP9R
	3/8 LH Female	BN18-H6L
40k psi	M14 LH Female	BN18-HM14L
2800 bar	9/16 LH Female	BN18-H9L
	9/16 RH Female	BN18-H9R

STEP 2 HEAD SELECTION

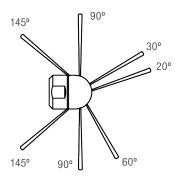
There are three standard head configurations for the BN18 swivel. Custom heads are available on request.



POLISHER 4 Ports: 2 @ 90° 2 @ 105°







UNIVER	SAL
7 Ports	3:
1 @ 20)0
1 @ 30)0
1 @ 60)0
2 @ 90)0
2 @ 14	5⁰

The following table lists head selection approximations of common jetting scenarios for Banshee BN18 swivels:

CWIVE	LIEAD CTVI E	PRESSURE RANGE	FLOW DANCE	UEAD DART ID	NOZZLE	NOZZLES FITTED	
SWIVEL	HEAD STYLE		FLOW RANGE	HEAD PART ID	FRONT	BACK	
		10-15k psi	11–14 gpm 42–53 l/min	BN18 042-A	N/A	N/A	
		700–1000 bar	8–10 gpm 30–38 l/min	BN18 042-B	N/A	N/A	
		15–22k psi	11–14 gpm 42–53 l/min	BN18 042-C	N/A	N/A	
	Polisher	1000–1500 bar	8–10 gpm 30–38 l/min	BN18 042-D	N/A	N/A	
	Folisher		8–8.5 gpm 30–32 l/min	BN18 442-A	2 x 0S2 020	2 x 0S2 017	
		30–40k psi	7–7.5 gpm 27–28 l/min	BN18 442-B	2 x 0S2 018	2 x 0S2 017	
		2100–2800 bar	6–6.5 gpm 23–25 l/min	BN18 442-C	2 x 0S2 015	2 x 0S2 015	
			5–5.5 gpm 19–21 l/min	BN18 442-D	2 x 0S2 010	2 x 0S2 014	
		10–15k psi 700–1000 bar	11–14 gpm 42–53 l/min	BN13 043-A	N/A	N/A	
BN18	Unplugger		8–10 gpm 30–38 l/min	BN18 043-B	N/A	N/A	
		30-40k psi 2100-2800 bar	5.5 –6 gpm 21–23 l/min	BN18 043-C	N/A	N/A	
			4.5–5 gpm 17–19 l/min	BN18 043-D	N/A	N/A	
			8–8.5 gpm 30–32 l/min	BN18 443-A	3 x 0S2 014	2 x 0S2 020	
			7–7.5 gpm 27–28 l/min	BN18 443-B	3 x 0S2 013	2 x 0S2 019	
			6–6.5 gpm 23–25 l/min	BN18 443-C	3 x 0S2 011	2 x 0S2 016	
			5–5.5 gpm 19–21 l/min	BN18 443-D	3 x 0S2 009	2 x 0S2 014	
	Universal	10-15k psi 700-1000 bar	11–15 gpm 42–53 l/min	BN18 044-A	N/A	N/A	
			8–10 gpm 30–38 l/min	BN18 044-B	N/A	N/A	
		15–22k psi 1000–1500 bar	11–14 gpm 42–53 l/min	BN18 044-C	N/A	N/A	



STEP 3 MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN18. This kit contains required wrenches for the BN18 swivel.

SWIVEL	TOOL KIT	MANUAL
BN18 (22k)	BN18 612	PL 505
BN18 (40k)	BN18 612-H	PL 507

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

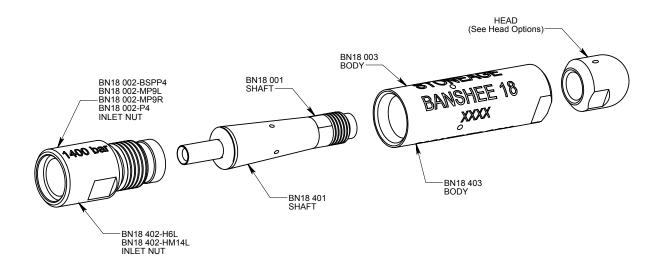
When ordering a Banshee BN18 tool by line item, the Dealer should specify:

- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

FOR EXAMPLE:

QTY	PART ID	DESCRIPTION		
1	BN18-HM14L	Banshee swivel 18 mm M14 LH connection		
3	BN18 442-A	Polisher head		

BANSHEE BN18



StoneAge offers standardized Banshee BN24 tool packages for the most commonly used configurations. All Banshee BN24 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN24 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
15k psi	3/8 NPT Female -	1 x BN24 Banshee swivel 1 x Polisher head	BN24-NPT-POL-PKG
1000 bar	3/8 NPT Female	1 x BN24 Banshee swivel 1 x Universal head	BN24-NPT-UNI-PKG
20k psi	3/8 BSPP Female	1 x BN24 Banshee swivel 1 x Polisher head	BN24-BSPP-POL-PKG
1400 bar		1 x BN24 Banshee swivel 1 x Universal head	BN24-BSPP-UNI-PKG
22k psi 1500 bar	9/16 LH Female,	1 x BN24 Banshee swivel 1 x Polisher head	BN24-MP-POL-PKG
	9/16 RH Female	1 x BN24 Banshee swivel 1 x Universal head	BN24-MP-UNI-PKG

When ordering a standard Banshee BN24 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION	
1	BN24-MP-POL-PKG	BN24 polisher package 20k psi 16 gpm 50 ft 10 mm ID hose 9/16 LH	



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

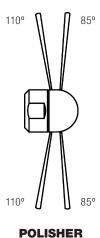
STEP 1 SWIVEL SELECTION

There are four Banshee BN24 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

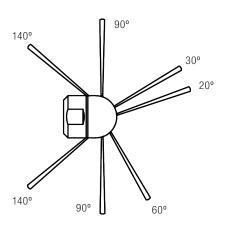
MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID	
15k psi 1000 bar	3/8 NPT Female	BN24-P6	
20k psi 1400 bar	3/8 BSPP Female	BN24-BSPP	
22k psi	9/16 LH Female	BN24-MP9L	
1500 bar	9/16 RH Female	BN24-MP9R	

STEP 2 HEAD SELECTION

There are two standard head configurations for the BN24 swivel. Custom heads are available on request.



DLISHER2 Ports:
2 @ 85°
2 @ 110°



UNIVERSAL
7 Ports:
1 @ 20°
1 @ 30°
1 @ 60°
2 @ 90°
2 @ 140°

The following table lists head selection approximations of common jetting scenarios for Banshee BN24 swivels:

SWIVEL	HEAD STYLE	PRESSURE RANGE	FLOW RANGE	HEAD PART ID
			20-25 gpm 76-95 l/min	BN24 042-A
		10-15k psi 700-1000 bar	15–19 gpm 57–72 l/min	BN24 042-B
	Polisher		11-14 gpm 42-53 l/min	BN24 042-C
	Folistiei		18-21 gpm 68-80 l/min	BN24 042-D
		15–22k psi 1000–1500 bar	15-17 gpm 57-64 l/min	BN24 042-E
BN24			11-14 gpm 42-53 l/min	BN24 042-F
DN24	Universal -	10-15k psi 700-1000 bar	20-25 gpm 76-95 l/min	BN24 044-A
			15–19 gpm 57–72 l/min	BN24 044-B
			11-14 gpm 42-53 l/min	BN24 044-C
		15–22k psi 1000–1500 bar	18-21 gpm 68-80 l/min	BN24 044-D
			15-17 gpm 57-64 l/min	BN24 044-E
			11–14 gpm 42–53 l/min	BN24 044-F

STEP 3 \ MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN24. This kit contains required wrenches for the BN24 swivel.

SWIVEL	TOOL KIT	MANUAL
BN24 (22k)	BN24 612	PL 505

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

When ordering a Banshee BN24 tool by line item, the Dealer should specify:

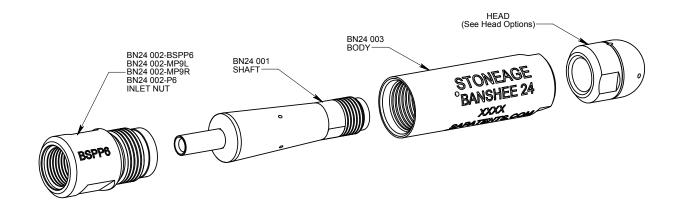
- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

QTY	PART ID	DESCRIPTION	
1	BN24-P6	Banshee swivel 24 mm 3/8 NPT connection	
3	BN24 044-E	Polisher head	
1	BN24 612	Tool Kit	



TOOL COMPONENT VIEW

BANSHEE BN24



StoneAge offers standardized Banshee BN27 tool packages for the most commonly used configurations. All Banshee BN27 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN27 tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
	0401115	1 x BN27 Banshee swivel 1 x Polisher head	BN27-HP-POL-PKG
40k psi	9/16 LH Female	1 x BN27 Banshee swivel 1 x Unplugger head	BN27-HP-UNP-PKG
2800 bar	M14 LH Female	1 x BN27 Banshee swivel 1 x Polisher head	BN27-MHP-POL-PKG
		1 x BN27 Banshee swivel 1 x Unplugger head	BN27-MHP-UNP-PKG

When ordering a standard Banshee BN27 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION
1	1 BN27-HP-POL-PKG BN27 polisher package 40k psi 7.5 gpm 50 ft 8 mm ID ho	



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

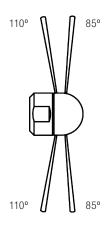
STEP 1 SWIVEL SELECTION

There are two Banshee BN27 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

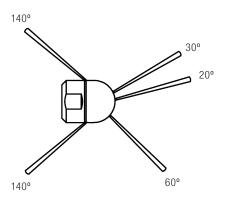
MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
40k psi	9/16 LH Female	BN27-H9L
2800 bar	M14 LH Female	BN27-HM14L

STEP 2 HEAD SELECTION

There are two standard head configurations for the BN27 swivel. Custom heads are available on request.



POLISHER 2 Ports: 2 @ 85° 2 @ 110°



UNPLUGGER
5 Ports:
1 @ 20°
1 @ 30°
1 @ 60°
2 @ 140°

The following table lists head selection approximations of common jetting scenarios for Banshee BN27 swivels:

CWIVE	HEAD STYLE	PRESSURE	FLOW RANGE	HEAD PART ID	NOZZLES FITTED	
SWIVEL	SWIVEL HEAD STYLE	RANGE	FLOW NANUE	HEAD PART ID	FRONT	BACK
Polisher BN27 Unplugger		30–40k psi	8–8.5 gpm 30–32 l/min	BN27 442-A	2 x 0S2 018	2 x 0S2 018
	Dolighar		7–7.5 gpm 27–28 l/min	BN27 442-B	2 x 0S2 015	2 x 0S2 016
	2100–2800 bar	6–6.5 gpm 23–25 l/min	BN27 442-C	2 x 0S2 011	2 x 0S2 015	
			5–5.5 gpm 19–21 l/min	BN27 442-D	2 x 0S2 009	2 x 0S2 013
	I I I I I I I I I I I I I I I I I I I	30–40k psi	8–8.5 gpm 30–32 l/min	BN27 443-A	3 x 0S2 013	2 x 0S2 019
			7–7.5 gpm 27–28 l/min	BN27 443-B	3 x 0S2 011	2 x 0S2 017
		2100-2800 bar	6–6.5 gpm 23–25 l/min	BN27 443-C	3 x 0S2 009	2 x 0S2 014
			5–5.5 gpm 19–21 l/min	BN27 443-D	3 x 0S2 006	2 x 0S2 013

STEP 3 \ MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN27. This kit contains required wrenches for the BN27 swivel.

BN27 (40k) BN27 6120H9L PL 507	SWIVEL	TOOL KIT	MANUAL
	BN27 (40k)	BN27 6120H9L	PL 507

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

When ordering a Banshee BN27 tool by line item, the Dealer should specify:

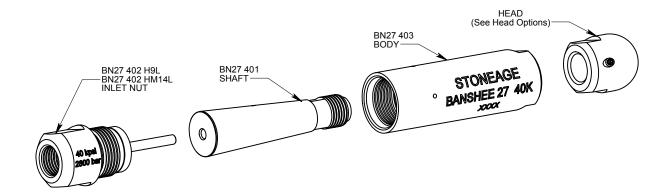
- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

QTY	PART ID	DESCRIPTION	
1	BN27-H9L	Banshee swivel 27 mm 9/16 LH connection	
3	BN27 443-C	Unplugger head	



TOOL COMPONENT VIEW

BANSHEE BN27



StoneAge offers standardized Banshee BN33 tool packages for the most commonly used configurations. All Banshee BN33 packages come fully assembled and include 1. Swivel, 2. Head.

The following table shows the configurations of standard Banshee BN33 tool packages:

MAXIMUM Pressure	INLET CONNECTION	PACKAGE CONTENTS	PACKAGE PART ID
15k psi 1000 bar	1/2 NPT Female	1 x BN33 Banshee swivel 1 x Universal head	BN33-NPT-UNI-PKG
22k psi	1/2 BSP Female	1 x BN33 Banshee swivel 1 x Universal head	BN33-BSPP-UNI-PKG
1500 bar	9/16 MP Female	1 x BN33 Banshee swivel 1 x Universal head	BN33-MP-UNI-PKG

When ordering a standard Banshee BN33 package, the Dealer should specify:

- 1. Package Part ID and inlet connection thread
- 2. Pump pressure and flow
- 3. Hose length and ID

QTY	PART ID	DESCRIPTION
1	BN33-MP-UNI-PKG	BN33 universal package 9/16 MP inlet 15k psi 15 gpm 50 ft 10 mm ID hose



ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined below.

Contact your StoneAge Account Representative for questions about specific applications.

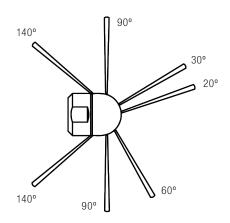
STEP 1 SWIVEL SELECTION

There are six Banshee BN33 swivel options available. The correct swivel is selected based on the maximum working pressure and inlet connection required.

MAXIMUM PRESSURE	INLET CONNECTION	SWIVEL PART ID
15k psi 1000 bar	1/2 NPT Female	BN33-P8
22k psi	1/2 BSPP Female	BN33-BSPP8
1500 bar	9/16 MP Female	BN33-MP9

STEP 2 \ HEAD SELECTION

There is one standard head configurations for the BN33 swivel. Custom heads are available on request.



UNIVERSAL

7 Ports:

1 @ 20°

1 @ 30°

1 @ 60°

2 @ 90°

2 @ 140°

The following table lists head selection approximations of common jetting scenarios for Banshee BN33 swivels:

SWIVEL	HEAD STYLE	PRESSURE RANGE	FLOW RANGE	HEAD PART ID
BN33	Universal	10–15k psi 700–1000 bar	40-49 gpm 150-190 l/min	BN33 044-A
			33-39 gpm 130-150 l/min	BN33 044-B
			26-32 gpm 98-120 l/min	BN33 044-C
			20-25 gpm 76-95 l/min	BN33 044-D
			15–19 gpm 57–72 l/min	BN33 044-E
		15–22k psi 1000–1500 bar	22-26 gpm 83-98 l/min	BN33 044-F
			18-21 gpm 68-80 l/min	BN33 044-G
			15–17 gpm 57–64 l/min	BN33 044-H
			12-14 gpm 45-53 l/min	BN33 044-I

STEP 3 MAINTENANCE RESOURCES

StoneAge provides a tool kit for the Banshee BN33. This kit contains required wrenches for the BN33 swivel.

SWIVEL	TOOL KIT	MANUAL
BN33 (22k)	BN33 612	PL 505

Kit components and tool maintenance/assembly videos are available on the StoneAge Dealer Portal:

DEALER.STONEAGETOOLS.COM

For questions or help with a specific application, configuration or tool repairs, please contact your StoneAge Account Representative.

When ordering a Banshee BN33 tool by line item, the Dealer should specify:

- 1. Swivel Part ID
- 2. Head Part ID
- 3. Part IDs of spare heads or maintenance items, if required

QTY	PART ID	DESCRIPTION
1	BN33-P8	Banshee swivel 33 mm 1/2 NPT connection
3	BN33 044-C	Universal head



TOOL COMPONENT VIEW

BANSHEE BN33

