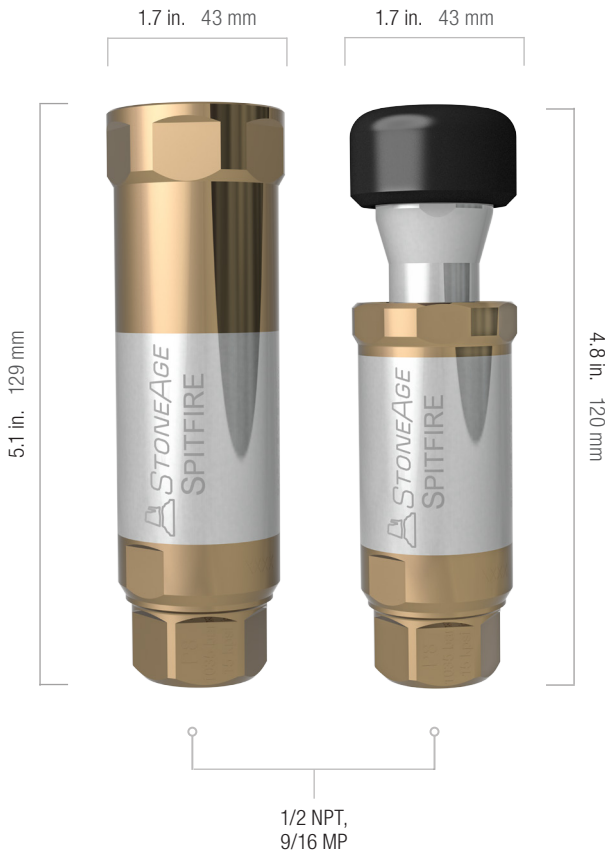


# SPITFIRE

Rotary Shotgun Tools for Thin, Hard Deposits



The Spitfire rotary shotgun tool is designed for cleaning difficult and irregular surfaces where manual shotgun cleaning is required. The extra lightweight Spitfire requires little maintenance, reducing down time and increasing productivity.

## COMPETITIVE ADVANTAGES

- Handles a wide range of pressure ratings from 2–22k psi (140–1500 bar) — fewer tools to buy to cover all applications and less downtime swapping or rebuilding tools
- Two different head options offer better tool protection for a variety of applications and eliminate the necessity for multiple tools

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• High speed rotation</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent for removing hardened paint and epoxies</li> </ul>
<ul style="list-style-type: none"> <li>• Angled jets</li> </ul>	<ul style="list-style-type: none"> <li>• Broader impact for quicker, more effective cleaning of large surfaces and odd shapes</li> </ul>
<ul style="list-style-type: none"> <li>• Fewer parts and no seals to stock or replace</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced costs and maintenance downtime</li> </ul>
<ul style="list-style-type: none"> <li>• Short overall tool length and light weight</li> </ul>	<ul style="list-style-type: none"> <li>• Easy handling and less operator fatigue</li> </ul>
<ul style="list-style-type: none"> <li>• External shield option</li> </ul>	<ul style="list-style-type: none"> <li>• Protects the tool from damage caused by lateral swinging of the tool</li> </ul>
<ul style="list-style-type: none"> <li>• Bumper head option</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative head for instances when debris gets stuck in the shield, preventing head rotation</li> </ul>

## QUESTIONS TO ASK YOUR CUSTOMER

- What pressure and flow are you operating?
- Do you want a bumper or shrouded head?
- Do you need an adapter?
- Have you purchased an old style Spitfire (SPF) with female shaft design?  
*If so, please share the serial number with your Account Representative.*

## OTHER INFORMATION

- StoneAge does not recommend pairing the new SPFR shaft and head configuration with a used SPF body. Attempting to do so will void the warranty and may cause unintended wear and/or rotation issues, decreasing the life of the tool.
- Water must be blown out of the Spitfire after each use to avoid corrosion damage.
- The Spitfire tool can be a more effective choice over the Barracuda when used for removal of thin hard coatings.

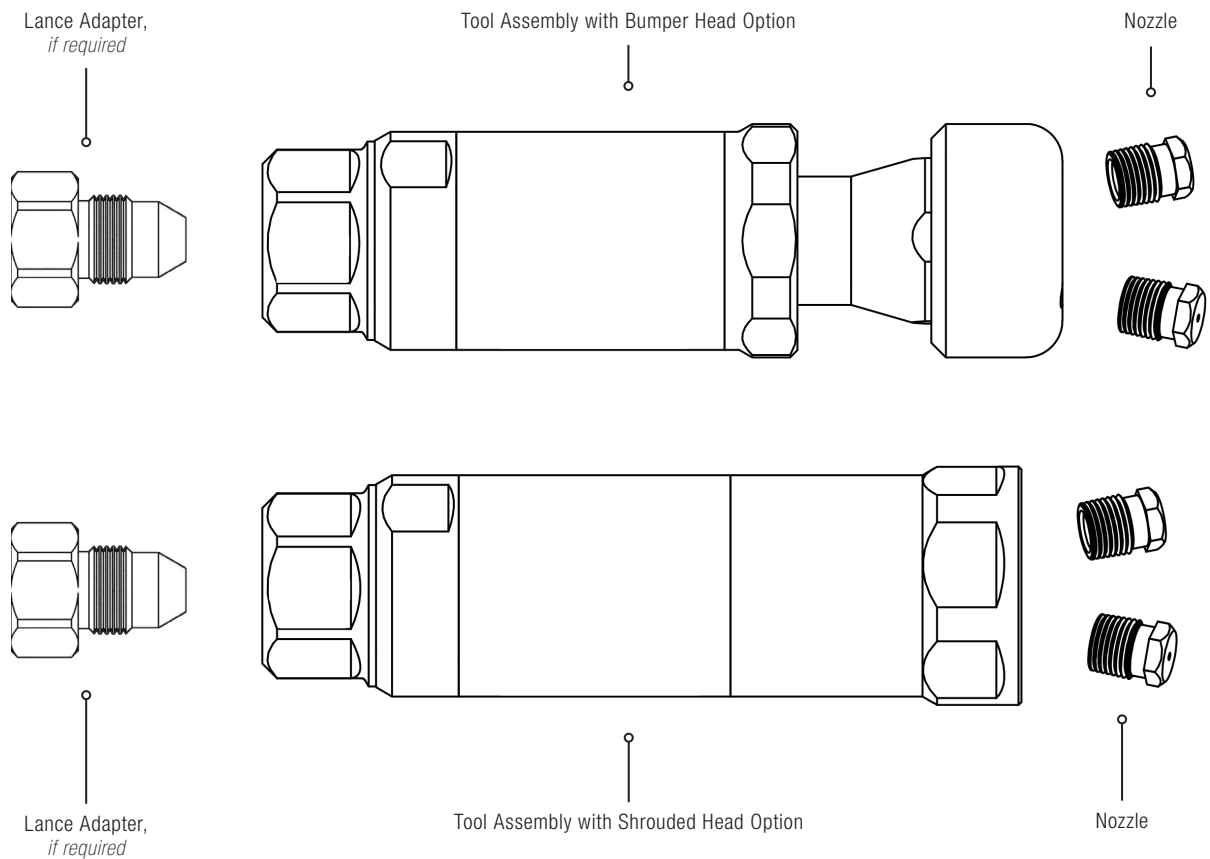
## TOOL SPECIFICATIONS

PART ID	SPFR-P8-S/ SPFR-P8-B	SPFR-MP9-S/ SPFR-MP9-B
<b>Pressure Range</b>	5–15k psi 340–1000 bar	5–22k psi 340–1500 bar
<b>Flow Range</b>	2–15 gpm 8–58 l/min	4–13 gpm 16–49 l/min
<b>Flow Coefficient</b>	0.60 Cv	0.60 Cv
<b>Rotation Speed</b>	3000–5000 rpm	3000–5000 rpm
<b>Inlet Connection</b>	1/2 NPT	9/16 MP
<b>Port Size</b>	1/8 NPT (P2)	1/8 NPT (P2)
<b>Nozzle Type</b>	AP2	AP2
<b>Diameter</b>	1.7 in. 43 mm	1.7 in. 43 mm
<b>Length</b>	5.1 in. 129 mm (S) 4.8 in. 120 mm (B)	5.1 in. 129 mm (S) 4.8 in. 120 mm (B)
<b>Weight</b>	1.5 lb 0.7 kg (S) 1.7 lb 0.8 kg (B)	1.5 lb 0.7 kg (S) 1.7 lb 0.8 kg (B)
<b>Maximum Water Temperature</b>	250 °F 120 °C	250 °F 120 °C

Visit our website for tool resources including operation and maintenance videos:

**[WWW.STONEAGETOOLS.COM](http://WWW.STONEAGETOOLS.COM)**

# SPITFIRE TOOL CONFIGURATION



## A complete Spitfire tool configuration requires the following components:

1. Appropriate tool option for the required working pressure and inlet connection
2. Nozzles of appropriate number and size

## The following items may also be required:

- Suitable lance adapter

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

- Pump pressure and flow
- Hose length and ID
- Lance end fitting

# SPITFIRE TOOL CONFIGURATION

## ORDERING A STANDARD PACKAGE

StoneAge offers standardized Spitfire tool packages for the most commonly used configurations. All Spitfire tool packages come fully assembled and include: 1. Tool, 2. Nozzles specified to jetting.

*PLEASE NOTE: Lance adapters are not included in these packages. If an adapter is required for your configuration, it must be ordered separately. See Fittings and Adapters for available options.*

The following table shows the configurations of standard Spitfire tool packages:

MAXIMUM PRESSURE	INLET CONNECTION	HEAD TYPE	PACKAGE CONTENTS	PACKAGE PART ID
15k psi 1000 bar	1/2 NPT	Bumper	1 x Spitfire tool assembly with bumper head 2 x AP2 Attack Tip nozzles	<b>SPFR-P8-B-PKG</b>
		Shield	1 x Spitfire tool assembly with shield 2 x AP2 Attack Tip nozzles	<b>SPFR-P8-S-PKG</b>
22k psi 1500 bar	9/16 MP	Bumper	1 x Spitfire tool assembly with bumper head 2 x AP2 Attack Tip nozzles	<b>SPFR-MP9-B-PKG</b>
		Shield	1 x Spitfire tool assembly with shield 2 x AP2 Attack Tip nozzles	<b>SPFR-MP9-S-PKG</b>

### When ordering a standard Spitfire package, you should specify:

1. Package Part ID
2. Pump pressure and flow
3. Hose length and ID
4. Lance adapter, if required

FOR EXAMPLE:

Spitfire bumper package. 20,000 psi, 10 gpm. 100 ft 1/2" ID hose for M14 LH lance end.

QTY	PART ID	DESCRIPTION
1	<b>SPFR-MP9-B-PKG</b>	Spitfire MP9 package 20,000 psi 10 gpm 100 ft 1/2 ID hose
1	<b>AF 071-MPM14L</b>	LH collar
1	<b>AF 072 MP9</b>	Anti vibe gland nut

## ORDERING BY LINE ITEM

Complete tools can be configured by following the steps outlined on the following pages. Contact your StoneAge Customer Service for questions about specific applications.

## STEP 1 TOOL SELECTION

There are four Spitfire tool options available. All Spitfire tools are supplied complete with a head and choice of bumper or shield protection. The correct tool is selected based on the maximum working pressure, inlet connection, and head protection type.

MAXIMUM PRESSURE	INLET CONNECTION	HEAD TYPE	TOOL PART ID
15k psi 1000 bar	1/2 NPT	Bumper	<b>SPFR-P8-B</b>
		Shield	<b>SPFR-P8-S</b>
22k psi 1500 bar	9/16 MP	Bumper	<b>SPFR-MP9-B</b>
		Shield	<b>SPFR-MP9-S</b>

## STEP 2 LANCE CONNECTION

A lance connector may be required. The Spitfire tool is typically connected to the lance with either a collar and gland nut or an adapter. See *Fittings and Adapters* for available options.

## STEP 3 NOZZLES

Spitfire tools are jetted with two AP2 nozzles of the size indicated. The chart below demonstrates appropriate nozzle sizing for common pressure and flow scenarios. Use the StoneAge Jetting App to verify accurate jetting.

		FLOW													
		Nozzle Size	.018	.020	.022	.024	.026	.029	.032	.035	.038	.042	.047	.052	
PRESSURE	<b>5k psi</b> <b>350 bar</b>	2.3 8	2.6 10	2.9 11	3.3 12	3.7 13	4.3 16	5 19	5.7 21	6.5 25	7.7 29	9.2 35	11 42	12.7 48	2 x AP2 Nozzles  gpm l/min
	<b>10k psi</b> <b>700 bar</b>	3.1 12	3.5 13	3.9 15	4.4 16	5 19	5.9 22	6.8 26	7.9 30	9 34	10.7 40	13 49	15.3 58		
	<b>15k psi</b> <b>1000 bar</b>	3.7 13	4.2 16	4.8 18	5.4 20	6 23	7.1 27	8.3 31	9.6 36	11 42	13 49				
	<b>20k psi</b> <b>1400 bar</b>	4.3 16	4.9 18	5.5 21	6.2 23	7 26	8.2 31	9.6 36	11.1 42	12.7 48					
	<b>22k psi</b> <b>1500 bar</b>	4.6 17	5.2 20	5.8 22	6.6 25	7.4 28	8.7 33	10.1 38	11.7 44						

FOR EXAMPLE:

A pump running at 20,000 psi, 10 gpm would require 2 x AP2 032 nozzles.

For the most accurate nozzle selection, use the StoneAge Jetting App to determine nozzle sizes:

**JETTING.STONEAGETOOLS.COM**

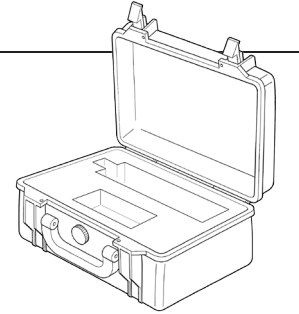
See *Nozzles and Extensions* for information on StoneAge Attack Tip nozzles.

# SPITFIRE TOOL CONFIGURATION

## STEP 4 ACCESSORIES

A Pelican™ brand protection/carrying case with custom cut foam insert is available for Spitfire tool models.

EXTERIOR DIMENSIONS (L X W X D)	INTERIOR DIMENSIONS (L X W X D)	COLOR	CASE PART ID
11.6 x 8.3 x 3.8 in. 29.6 x 21.2 x 9.6 cm	10.5 x 6.0 x 3.2 in. 26.8 x 15.3 x 8.0 cm	Black	<b>BC 080</b>



## STEP 5 MAINTENANCE RESOURCES

Spitfire tools have no high pressure seals or bearings therefore no repair kits are available.

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

TOOL	MANUAL
Spitfire	<b>PL 595</b>

**When ordering a Spitfire tool by line item, you should specify:**

1. Spitfire tool model Part ID
2. Part ID and size of nozzles
3. Part ID of lance adapter, if required
4. Part IDs of any accessories or maintenance items

FOR EXAMPLE:

Spitfire shrouded version for pump running 11 gpm, 10,000 psi. 100 ft 1/2" ID hose, 3/8 NPT gun lance.

QTY	PART ID	DESCRIPTION
1	<b>SPFR-P8-S</b>	Spitfire swivel assembly
2	<b>AP2 042</b>	Attack Tip 1/8 NPT
1	<b>GP 051-P6P8</b>	Adapter 3/8 NPT Female – 1/2 NPT Male