

FITTING ASSEMBLY GUIDELINES

STONEAGE PROPRIETARY

StoneAge proprietary threads (G9, G12, G16, K) seal with the use of an O-Ring on the male thread and a flat face at the bottom of the female thread, they do not seal on the threads. A paste type anti-seize compound such as Swagelok Blue Goop® works most effectively with these StoneAge propriety threads.

- Use anti-seize compound on male thread.
- Prepared fittings should engage fully by hand.

Thread Type	Recommended Torque	
G9	46–52 Nm	34–38 ft-lb
G12	75–81 Nm	55–60 ft-lb
G16	105–115 Nm	80–90 ft-lb
K	122–135 Nm	90–100 ft-lb

MEDIUM & HIGH PRESSURE FITTINGS

These “cone and thread” fittings use straight threads and seal on a tapered cone. There are two pressure ranges for this type of connection: medium pressure up to 22,000 psi, and high pressure up to 40,000 psi. The traditional design consists of pressure containing tubing with a cone on one end and a left-hand thread for a collar, and a larger gland nut with right-hand threads. Fitting sizes are indicated by tubing O.D.

Anti-vibe, an additional feature typically included, consists of a split tapered collet that grips the tubing in support to prevent cracking at the left-hand thread.

Variations of these fittings are made where the entire geometry is reproduced in one piece, and where the tubing itself is directly threaded into a port with either left or right hand threads.

Female ports have a weep hole that will leak if the fitting is not tightened, if the cone surface is damaged, or if the collar is not threaded on far enough to allow contact of the cone to the seat. If a connection leaks along the tubing through the inside of the gland nut, inspect for a crack in the tubing threads.

Gland and Collar Assemblies

- Inspect cone surface for damage.
- Use Swagelok Blue Goop® on all male threads.
- Slide gland nut onto tubing, then thread on collar until one thread shows between collar and cone.
- Tighten medium pressure anti-vibe nut last while holding other flats.

One Piece Connections

- Inspect cone surface for damage.
- Use Swagelok Blue Goop® on male threads.

Thread Size	Recommended Torque	
1/4-28 Left Hand	6.5 Nm	5 ft-lb
1/4-28 Right Hand	6.5 Nm	5 ft-lb
1/4 Gland and Collar 7/16-20	24 Nm	18 ft-lb
3/8-24 Left Hand	22 Nm	16 ft-lb
3/8-24 Right Hand	22 Nm	16 ft-lb
3/8 Gland and Collar 9/16-18	38 Nm	28 ft-lb
9/16-18 Left Hand	47 Nm	34 ft-lb
9/16-18 Right Hand	47 Nm	34 ft-lb
9/16 Gland and Collar 13/16-16	68 Nm	50 ft-lb
3/4-16 Left Hand	70 Nm	50 ft-lb
3/4-16 Right Hand	70 Nm	50 ft-lb
3/4 Gland and Collar 3/4-14 NPSM	102 Nm	75 ft-lb
1-12 Left Hand	98 Nm	70 ft-lb
1-12 Right Hand	98 Nm	70 ft-lb
1 Gland and Collar 1-3/8-12	135 Nm	100 ft-lb

TECHNICAL REFERENCE

STONEAGE THREAD SIZE CODING

We use several codes in StoneAge Part IDs to indicate relevant thread sizes:

NPT Thread Size	StoneAge Code
1/16 NPT	P1
1/8 NPT	P2
1/4 NPT	P4
3/8 NPT	P6
1/2 NPT	P8
3/4 NPT	P12
1 NPT	P16
1-1/4 NPT	P20
1-1/2 NPT	P24
BSPP Thread Size	StoneAge Code
1/8 BSPP	BSPP2
1/4 BSPP	BSPP4
3/8 BSPP	BSPP6
1/2 BSPP	BSPP8
3/4 BSPP	BSPP12
1 BSPP	BSPP16
1-1/4 BSPP	BSPP20
Metric Thread Size	StoneAge Code
M3 x .5	M3
M7 x 1	M7
M24 x 1.5	M24
M36 x 2	M36
Straight Thread Size	StoneAge Code
M3 x .5 Drilled Nozzle	OD3M
6-40 UNF Sapphire Nozzle	OS2
1/4-28 UNF Sapphire Nozzle	OS4
3/8-24 UNF Sapphire Nozzle	OS6
7/16-20 UNF Sapphire Nozzle	OS7

FOR EXAMPLE:

BN9.5-P1 is the Part ID for a Banshee swivel. The **P1** indicates 1/16 NPT inlet thread.

The same applies for nipples/lances: **SA 356-P8P4-12** is the Part ID for an extension nipple. The **P8P4** indicates 1/2 NPT one end and 1/4 NPT other end. The **-12** indicates overall length in inches.

For metric threads:

BN9.5-M7 is the Part ID for a Banshee swivel. The **M7** indicates M7 x 1 inlet thread.

The same applies for adapters: **GP 255-M24OM24C** is the Part ID for a hose adapter. The **M24** indicates M24 x 1.5 thread on one side. The **O** designates an o-ring seal. The second **M24** indicates M24 x 1.5 thread on the other side, with the **C** designating an internal cone to suit a standard M24 Female hose end.