

# Product Overview | Flexible Pipe Nipples

8777 flexible pipe nipples prevent damage to regulators, valves, blowers, burners, and piping by absorbing the stresses caused by vibration and thermal expansion. They also simplify and speed installation in cases of misaligned pipes.

8777 non-braided pipe nipples have low working pressures for use on low pressure air, natural gas and flue gases. For high pressure applications, 8773 braided hoses should be used.

The 8777 pipe nipples come in standard lengths with male NPT threaded connections. The standard lengths are sufficient for about  $\frac{3}{16}$ " maximum vibration or about  $\frac{3}{4}$ " static offset of misaligned pipes.

Several common variations are available: standard, high-temperature, cleaned-for-oxygen-service, and corrosion-resistant epoxy coated.

8777 pipe nipples can be special ordered in longer lengths, with different end types, or made from special materials for custom applications.

## Materials of Construction

The 8777 and 8777-E nipples are made of corrugated 321 stainless steel tubing and have carbon steel male NPT nipple ends.

The 8777-E is coated with a high protection corrosion resistant epoxy.

The 8777-H high temperature and 8777-C cleaned for oxygen series nipples are made of corrugated 321 stainless steel tubing and have 304 SST male NPT nipple ends.

## Service

8777 flexible pipe nipples are applicable for the majority of combustion systems and when installed and used properly can last many years. Life expectancy will vary by application and is dependent upon variables such as installation technique, temperature, pressure, movement, vibration, cycle count, external damage, fluid type, and the amount of corrosives in the fluid.

The corrosion resistance of the 321 SST material must be considered when exposure to "dirty" gases is possible. The products of combustion from fluxed aluminum melters contain water vapors, chlorides and fluorides and are known to attack the uncoated 321 SST flexes when used in such applications - for which the 8777E epoxy coated flexes are appropriate. Care should be taken not to compromise the epoxy coating during installation and handling.

For applications that are highly corrosive with high service temperatures contact North American for potential availability of suitable corrosion resistant materials.

## SPECIFICATIONS

### Temperature Ratings

**8777** (standard) series are for use from -50°F to 800°F.

**8777-H** (high temp) series are for use -50°F to 1500°F.

**8777-E** (corrosion resistant) epoxy coated series are limited for use -20°F to 400°F.

**8777-C** (cleaned for oxygen) series are for use -50°F to 800°F.

### Pressure Ratings

Pressure ratings reduce as fluid and ambient temperatures rise. For temperatures in excess of 70°F, the tabulated maximum working pressures must be decreased in accordance with the "Pressure Reduction Factors" listed in the table below. (See table on page 3 for maximum working pressures).

**Pressure Reduction Factors. Apply to pressure rating for elevated temperatures.**

Temp.	Material		
	F°	Stainless Steel	Steel
70		1.00	1.00
150		0.97	0.99
200		0.94	0.97
250		0.92	0.96
300		0.88	0.93
350		0.86	0.91
400		0.83	0.87
450		0.81	0.86
500		0.78	0.81
600		0.74	0.74
700		0.70	0.66
800		0.66	0.52
900		0.62	0.50
1000		0.60	-
1100		0.58	-
1200		0.55	-
1300		0.50	-
1400		0.44	-
1500		0.40	-