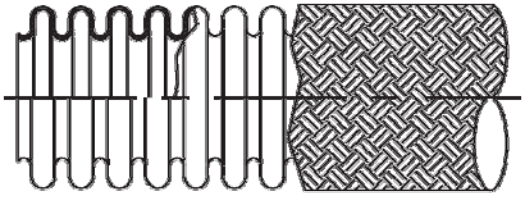
Flexible Solutions
DURAFLEX INC.
for Rigid Applications

FLEXIBLE METAL HOSE ASSEMBLIES

Corrugated Metal Hose Assemblies allow for the transfer of liquids of gases, usually at high pressure and elevated or cryogenic temperatures while remaining flexible.

ADVANTAGES



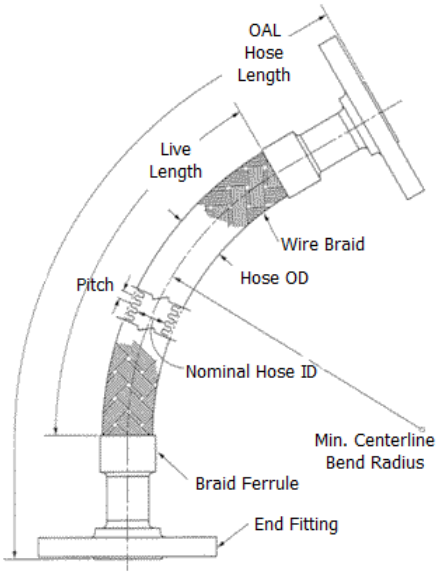
1. Longer service life.
2. Greater flexure without fatigue.
3. Greater capacity for pressure.
4. Absorption of pump vibration and noise.
5. Acceptance of thermal expansion.
6. Reduction in pipe stress due to minor misalignment and pressure variations.
7. Reduction of stress on pumps and compressor housings, reducing long term operation and maintenance cost.

CONSTRUCTION

DURAFLEX, INC. Corrugated Metal Hose Assemblies are made of stainless steel, bronze or other metals depending upon the environment they are installed.

Depending on your application, we offer a wide variety of hose with varying:

- Materials of construction
- Pressure Ratings
- Flexibility
- Forming Methods
  - Mechanical
  - Hydroformed
  - Elastomer



CONFIGURATION

HOSE NOMINAL SIZE
The nominal inside diameter of the hose.

NUMBER OF BRAID LAYERS
Indicated the number of braid layers required to achieve the pressure ratings listed.

NOMINAL OUTSIDE DIAMETER
Nominal outside diameter of the hose or the hose and indicated number of braid layers. This is usually used to determine the proper braid sleeve/ ferrule or the cover dimensions.

MINIMUM CENTERLINE BEND RADIUS
The hose may be bent to a radius not less than the indicated amount without permanent deformation. The type of flexing can be static or dynamic. Hose in a static bend is in a non-moving application. The dynamic application allows for random or intermittent flexing.

PRESSURE RATINGS
Pressure ratings are shown in three categories:

1. **Maximum Rated Working** pressure is the maximum pressure the hose should be subjected to on a continuous basis.
2. **Maximum Rated Test** pressure is the maximum amount of pressure the hose can be subjected to during testing without possible deformation of the hose corrugations.
3. **Nominal Rated Burst** pressure is the pressure at which the hose assembly can be expected to fail.

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24/7 EMERGENCY SERVICE 847.337.9459

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FLEXIBLE HOSE ASSEMBLIES

AVAILABLE FITTINGS

Fittings are available in T304 & T316 Stainless Steel, Carbon Steel in a variety of sizes, schedules and classes.

- Male Pipe Nipple
- Hex Male
- Victaulic Fitting
- Swivel Fitting
- Female Union
- Female Half coupling
- Metric Fittings
- Reducer
- Tube End
- Slip-On Flange
- Plate Flange
- Weld Neck Flange

As the service temperature increases, the maximum pressure a hose assembly can withstand decreases. The material from which the hose is made and the method of fitting attachment (mechanical, soldered, welded, silver brazed) determine the maximum pressure at which an assembly can be used. By using the factors given in the chart below, the approximate safe working pressure at elevated temperatures can be calculated for assemblies with welded or mechanically attached fittings.

TEMPERATURE CORRECTION FACTORS

Temp (°F)	304, 316L Stainless	321 Stainless	Bronze	Monel	Hastelloy	Inconel
Room	1.00	1.00	1.00	1.00	1.00	1.00
150	.96	.97	.92	.93	.97	.99
200	.92	.94	.89	.90	.94	.98
250	.91	.92	.86	.87	.92	.97
300	.86	.88	.83	.83	.91	.97
350	.85	.86	.81	.82	.89	.96
400	.82	.83	.78	.79	.87	.95
450	.80	.81	.75	.77	.86	.94
500	.77	.78	—	.73	.85	.94
600	.73	.74	—	.72	.84	.92
700	.69	.70	—	.71	.82	.90
800	.64	.66	—	.70	.81	.89
900	—	.62	—	—	.79	.87
1000	—	.60	—	—	.78	.86
1100	—	.58	—	—	.75	.84
1200	—	.55	—	—	.73	.82
1300	—	.50	—	—	.69	.79
1400	—	.44	—	—	.65	.77
1500	—	.40	—	—	—	.74

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