

FASTPIPE

Modular Aluminum Compressed Air Piping

3/4" - 1" - 1 1/2" - 2" - 3"



RAPIDAIR



STEP 1



STEP 2



STEP 3



(see page 8 for detailed instructions)

Today's Improved Compressed Air Piping Method

FAST INSTALLATION TIME

- Compression style fittings make installation simple
- Aluminum piping is easy to cut and lift
- O-ring seals ensure a leak free system
- No glueing, threading or soldering
- Installs in half the time as some traditional methods

DIVERSE

- Install in small shops to industrial plants
- Connect to any existing piping system
- Expand or modify the system with ease



SUPERIOR AIR QUALITY

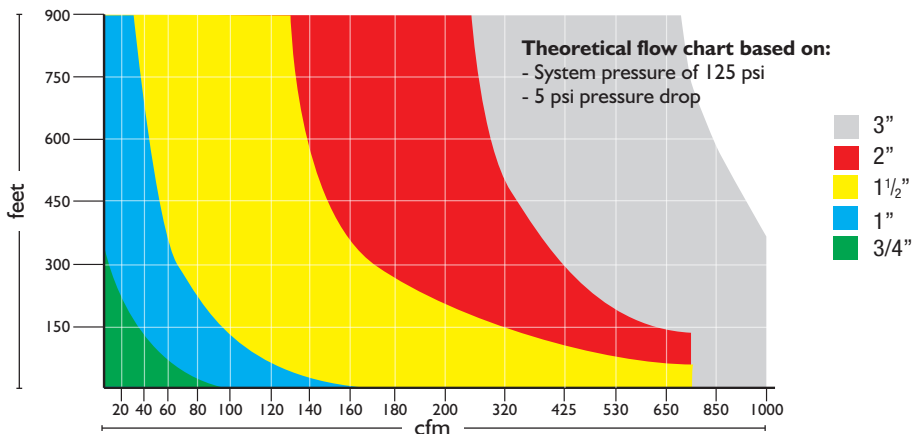
- No corrosion in the pipe and fittings means longer tool life
- Cools hot compressed air quickly for better filter performance

ENERGY EFFICIENT

- Smooth inner wall and free flowing fittings lower compressed air costs
- Sealed connections means your compressor run time is less

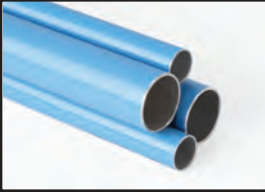
CHOOSE THE CORRECT SIZE OF FASTPIPE FROM THIS FLOW RATE CHART

LENGTH OF STRAIGHT RUN FROM COMPRESSOR OR 1/2 THE MAIN LOOP LENGTH



TECHNICAL SPECIFICATIONS

- 190 psi working pressure
- 0 Deg F to 140 Deg F
- compatible with all types of compressor lubricants
- compressed air, vacuum, inert gas



ALUMINUM PIPE SPECIFICATION 3/4" thru 3"

- alloy grade 6063-T5
- seamless extruded to ASTM B241
- blue powder coat, color RAL5012 outside
- non chromate conversion coating inside



FITTINGS SPECIFICATION 3/4" thru 2"

- nylon 6 base with fiberglass reinforcement
- bite ring: stainless steel
- o-ring: Nitrile

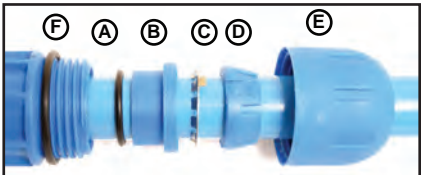


FITTINGS SPECIFICATION 3"

- DieCast Aluminum Alloy
- bite ring: stainless steel
- o-ring: Nitrile
- Electrocoated

FITTINGS PARTS BREAKDOWN

- A) O-RING
- B) BACKER
- C) SS BITE RING
- D) COLLET
- E) CONE NUT
- F) TENSION O-RING*



SPARE PARTS KIT (INCLUDES A AND C)

SIZE	PART NUMBER
3/4"	F1076
1"	F2076
1 1/2"	F4076
2"	F5076
3"	FI7076



*Tension O-ring (F) is a design enhancement on the 3/4" and 1" sizes. This will be phased in over the next year. There are no performance issues with fittings without this O-ring.



PIPE



SIZE	MM	PART #	OUTSIDE	INSIDE	LENGTH	WEIGHT
3/4"	20mm	F1000	.79 in	.69 in	19ft 8in	2.6 lbs
1"	25mm	F2000	.98 in	.87 in	19ft 8in	4.2 lbs
1 1/2"	40mm	F4000	1.57 in	1.43 in	19ft 8in	8.8 lbs
2"	50mm	F5000	1.97 in	1.81 in	19ft 8in	10.1 lbs
3"	80mm	FI7000	3.15 in	2.98 in	19ft 8in	21.0 lbs

UNION



SIZE	PART NUMBER
3/4"	F1002
1"	F2002
1 1/2"	F4002
2"	F5002

NEW



SIZE	PART NUMBER
3"	FI7002

REDUCING UNION



SIZE	PART NUMBER
1" x 3/4"	F2121
1" x 1 1/2"	F4221
2" x 1 1/2"	F5421



90° ELBOW



SIZE	PART NUMBER
3/4"	F1003
1"	F2003
1½"	F4003
2"	F5003

90° ELBOW



SIZE	PART NUMBER
3"	FI7003

90° REDUCING ELBOW NPT



SIZE	DROP SIZE FEMALE	PART NUMBER
3/4"	1/2" NPT	F1093
3/4"	1/4" NPT	F1073
1"	3/4" NPT	F2083
1"	1/2" NPT	F2093
1"	1/4" NPT	F2073

45° ELBOW



SIZE	PART NUMBER
1"	F2004
1½"	F4004
2"	F5004



EQUAL TEE



SIZE	PART NUMBER
3/4"	F1005
1"	F2005
1 1/2"	F4005
2"	F5005

EQUAL TEE



SIZE	PART NUMBER
3"	F17005

REDUCING TEE



MAIN SIZE	DROP SIZE	PART NUMBER
1"	3/4" Fastpipe	F2107
1 1/2"	1" Fastpipe	F4207
1 1/2"	3/4" Fastpipe	F4206
2"	1" Fastpipe	F5207
2"	3/4" Fastpipe	F5206

REDUCING TEE NPT



MAIN SIZE	DROP SIZE FEMALE	PART NUMBER
3/4"	1/2" NPT	F1009
3/4"	1/4" NPT	F1007
1"	3/4" NPT	F2008
1"	1/2" NPT	F2009
1"	1/4" NPT	F2007
1 1/2"	3/4" NPT	F4008
1 1/2"	1/2" NPT	F4009
2"	3/4" NPT	F5008
2"	1/2" NPT	F5009

REDUCING TEE NPT



MAIN SIZE	DROP SIZE FEMALE	PART NUMBER
3"	2" NPT	F17509



END CAP



SIZE	PART NUMBER
3/4"	F1006
1"	F2006
1½"	F4006
2"	F5006

END CAP



SIZE	PART NUMBER
3"	FI7006

INLINE VALVE



SIZE	PART NUMBER
3/4"	F1111
1"	F2222
1½"	F4444
2"	F5555

INLINE VALVE



SIZE	PART NUMBER
3"	FI7777



THREADED MALE NIPPLE



SIZE	MALE THREAD	PART NUMBER
3/4"	1/2" NPT	F1018
3/4"	3/4" NPT	F1118
1"	1/2" NPT	F2018
1"	3/4" NPT	F2118
1"	1" NPT	F2218
1 1/2"	1 1/2" NPT	F4418
2"	1 1/2" NPT	F5418
2"	2" NPT	F5518

THREADED MALE NIPPLE

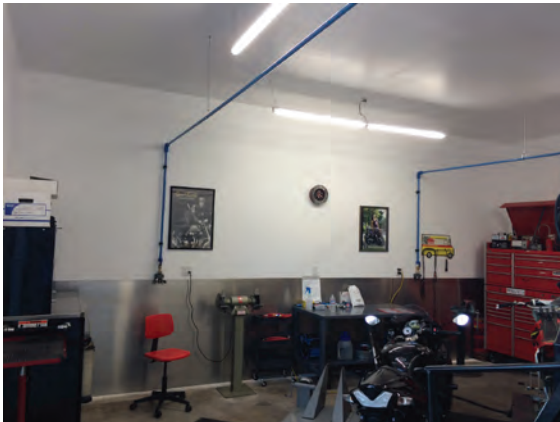


SIZE	MALE THREAD	PART NUMBER
3"	3" NPT	FI7718

THREADED FEMALE NIPPLE



SIZE	FEMALE THREAD	PART NUMBER
3/4"	3/4" NPT	F1120
1"	1" NPT	F2220
1 1/2"	1 1/2" NPT	F4420





WALL OUTLET



TOP INLET	OUTLET SIZE FEMALE	PART NUMBER
3/4"	(2x) 1/2" NPT	F1024
1"	(2x) 1/2" NPT	F2024

(Has bottom moisture drain)

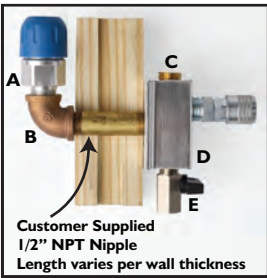
WALL OUTLET WITH SHUTOFF



TOP INLET	OUTLET SIZE FEMALE	PART NUMBER
3/4"	(2x) 1/2" NPT	F1024V
1"	(2x) 1/2" NPT	F2024V

(Has bottom moisture drain)

THRU WALL OR OUTSIDE OUTLET



TOP INLET	OUTLET SIZE FEMALE	PART NUMBER
3/4"	(1x) 1/2" NPT	F1024W
1"	(1x) 1/2" NPT	F2024W

(Kit includes A,B,C,D,E)





SADDLE DROP



SIZE	DROP SIZE	PART NUMBER
1"	1" Fastpipe	F2210
1½"	3/4" Fastpipe	F4110
1½"	1" Fastpipe	F4210
2"	3/4" Fastpipe	F5110
2"	1" Fastpipe	F5210

SADDLE DROP NPT



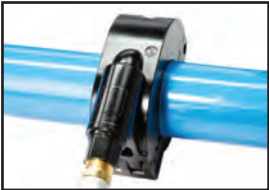
MAIN SIZE	DROP SIZE	PART NUMBER
1"	3/4" Female NPT	F2112
1"	1/2" Female NPT	F2012
1"	1/4" Female NPT	F2011
1½"	3/4" Female NPT	F4112
1½"	1/2" Female NPT	F4012
1½"	1/4" Female NPT	F4011
2"	3/4" Female NPT	F5112
2"	1/2" Female NPT	F5012
2"	1/4" Female NPT	F5011

SADDLE DROP



MAIN SIZE	DROP SIZE	PART NUMBER
3"	1"	FI7210
3"	3/4"	FI7110

SADDLE DROP NPT



MAIN SIZE	DROP SIZE	PART NUMBER
3"	1" Female NPT	FI7312
3"	3/4" Female NPT	FI7112
3"	1/2" Female NPT	FI7012



SADDLE DROP INSTALLATION



STEP 1



STEP 2



STEP 3



STEP 4

- 1) Position saddle drop opposite the side of the pipe that needs the hole
Tighten securely and mark the pipe by the raised locating mark on the fitting
Mark the pipe both horizontally and vertically along the fitting edge
- 2) Drill thru one side of pipe with the drill bit, using the hole in the fitting as a locator
- 3) Insert the saddle drop gasket into the molded cavity
- 4) Position the saddle drop over the drilled hole with aligning marks, tighten securely
- 5) Attach the necessary drop pipe or threaded adapter

SADDLE DROP INSTALLATION TIPS

- system must be de-pressurized before installing, wear eye protection
- the drop can be used in any position on the pipe
- avoid putting the hole at the bottom of the pipe to prevent condensate or debris to enter the drop pipe
- to prevent chips from entering the pipe interior, stop drilling occasionally and blow out chips, grease the end of the drilling tool
- allen wrench for tightening is 6mm size



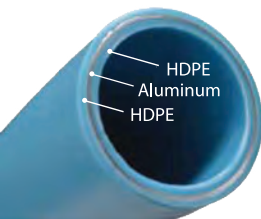
MAIN SIZE	DRILL BIT	GASKET
1"	9/16" F0043	F2210C
1 1/2"	3/4" F0044	F4210C
2"	3/4" F0044	F5210C
3"	3/4" F0044	F4210C



MaxLINE *RAPIDAIR*

Compressed Air Piping System

A great alternative for drops and long continuous runs, see our website for more details.



- 1/2", 3/4", 1", 2"
- Multi-Layer Semi Flexible tubing
- Inner and Outer Layer - HDPE
- Center Layer - Aluminum
- Sizes measured on inside diameter



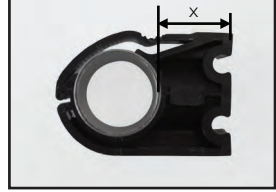
FLAT SURFACE INSTALLATION

Use pipe clips to secure pipe to any flat surface with mounting screw
Ceiling or wall mount
Clip has 5/16" thru hole and hex bore for a 5/16" hex nut
Hex nut serves as a backer for screws
In horizontal installations, mount clip pivot tab up

PIPE CLIP

MAIN SIZE	PART NUMBER	X DIMENSION
3/4"	F1022-10	15/16"
1"	F2022-10	7/8"
1 1/2"	F4022-10	1 15/16"
2"	F5022-10	1 3/4"

(Pack of 10)



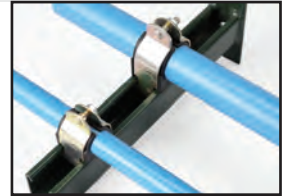
HANGING INSTALLATION



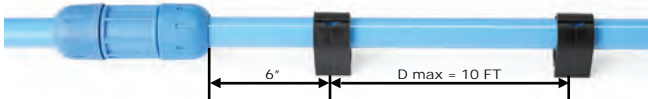
-Beam clamp-Pipe Clip
-5/16" threaded rod
-Pipe Clip



-Beam Clamp
-3/8" threaded rod
-Loop hanger



-Cantilever arm
-Cantilever tube supports



- hangers or mounting clips should be no more than 10 ft apart and one must be at least 6" from a fitting
- do not over tighten cantilever type tube supports, pipe must be allowed to expand and contract slightly in length
- for continuous lengths over 200 ft and variations in temperatures of 80 deg F consult the factory for expansion joint guidelines

BEAM CLAMP



-Thru hole design
-works for both 5/16" and 3/8" threaded rod
-3/4" width opening

PART NUMBER

F0018

CANTILEVER ARM



-12" overall length
-silver zinc plated
(green for picture purpose only)

PART NUMBER

F0021

LOOP HANGER



-for 3/8"-16 threaded rod

MAIN SIZE PART NUMBER

3/4" & 1" F0019

1 1/2" F0020

2" F0024

3" F0030

CANTILEVER TUBE SUPPORT



-for 1-5/8" standard strut

MAIN SIZE PART NUMBER

3/4" F0017

1" F0022

1 1/2" F0023

2" F0025

3" F0028

FASTPIPE INSTALLATION STEPS



STEP 1

- 1) **CUT PIPE TO LENGTH** with tubing cutter (cut must be square)
(DO NOT USE HACK SAW)



STEP 2

- 2) **DEBURR** the end of the pipe outside and inside
(a smooth edge allows easy fitting assembly and no damage to the fitting o-ring)



STEP 3

- 3) **MARK END OF PIPE** for the proper insertion depth
3/4" Fittings: 2 inches
1" Fittings: 2-3/4 inches
1-1/2" Fittings: 4 inches
2" Fittings: 4-3/4 inches
3" Fittings: 4-1/2 inches



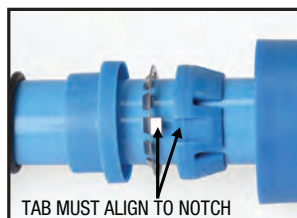
STEP 4

- 4) **WET END OF PIPE**, with very diluted soapy water
DO NOT USE ANY OIL OR GREASE LUBRICANT



STEP 5

- 5) **LOOSEN** FITTING CONE NUT PARTIALLY
LOOK INSIDE EACH FITTING FOR INNER PARTS
(inner parts, o-ring, stainless steel bite ring)



STEP 6

- 6) **INSERT PIPE** into fitting until pipe bottoms out
HAND TIGHTEN fitting
FULLY TIGHTEN fitting with FASTPIPE spanner wrenches

FASTPIPE INSTALLATION GUIDELINES

- Assemble all NPT threads with two wraps of teflon tape and then **PIPE SEALANT** which prevents thread galling.
- CHECK** that all fittings are fully tightened before pressurizing the system for the first time.
- for initial installation, pressurize system slowly to 50 psi and check for leaks, then pressurize slowly to **MAX 190 psi**
- take extra precaution with **END CAP INSTALLATION**, double check these fittings are tightened fully.
- FASTPIPE** can be bent to conform around minor obstacles to a maximum of 15 degrees. **DO NOT OVERBEND**
- USE JUMPER HOSE** at the air compressor to absorb vibration
- ONLY** FastPipe outlets are designed for the direct pulling force of air hoses, for other FastPipe fittings attached to hoses, always secure hose with a **STRAIN RELIEF**, attached to the building structure
- After the first 48-96 hours of operation, check all the joints. Then make sure all the cone nuts are tight as these may have loosened due to settling of the component.
- Always use a filter unit to keep contaminants out of the FastPipe system.

TOOLS AND ACCESSORIES

SPANNER WRENCH



MAIN SIZE	PART NUMBER
3/4"	F1020
1"	F2020
1 1/2"	F4020
2"	F5020
3"	FI7020

DEBURR TOOL



(2) Required

MAIN SIZE	PART NUMBER
3/4" & 1"	F0142
3/4" thru 2"	F0141

ELECTRIC DRILL REQ.

3"	FI0153
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PIPE CUTTER



(3/4" thru 2")

PART NUMBER
F0140

(3" thru 4")

PART NUMBER
FI0148

SPRAY BOTTLE



PART NUMBER
F0139

TOOL SET



MAIN SIZE	PART NUMBER
3/4"	F0136
1"	F0137
1 1/2"	F0138
2"	F0145
3"	FI0146

JUMPER HOSE

(MALE NPT X SWIVEL FEMALE NPT)



MAIN SIZE	LENGTH	PART NUMBER
1/2"	2FT	F0212
1/2"	3FT	F0213
3/4"	2FT	F0214
3/4"	3FT	F0215
1"	2FT	F0216
1"	3FT	F0217

JUMPER HOSE

(MALE NPT X SWIVEL FEMALE NPT)



MAIN SIZE	LENGTH	PART NUMBER
1 1/2"	18"	F0225

WARNINGS

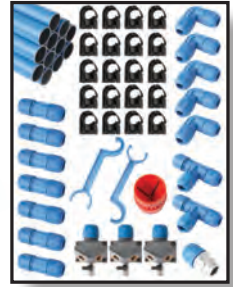
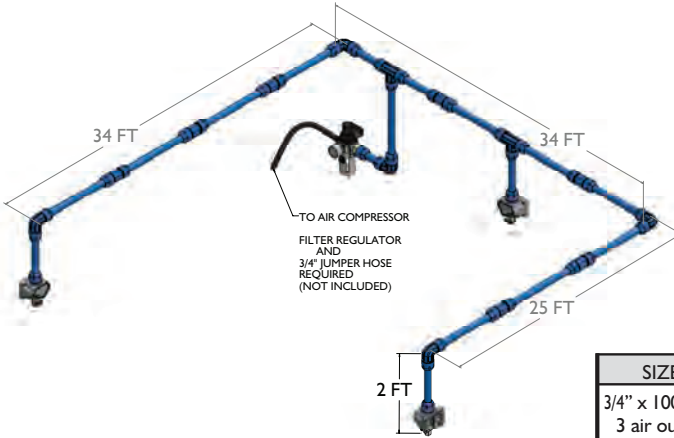
- Compressed air is DANGEROUS if not used properly
- Always use EYE PROTECTION when using compressed air
- DO NOT POINT compressed air at your body or any person
- Pressurize system SLOWLY
- TURN OFF air compressor when not in use
- CHECK local building codes before installation
- CA PROP 65: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm
- ALWAYS RELIEVE the system pressure when installing or performing maintenance
- Systems must have a SAFETY RELIEF valve installed at the compressed air source to prevent over pressurization
- When using FastPipe in direct sunlight, cover or paint the polymer fittings to protect from UV exposure (Pipe needs no covering and can be exposed)
- Keep children away from the system



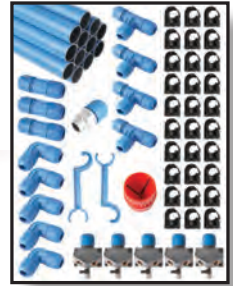
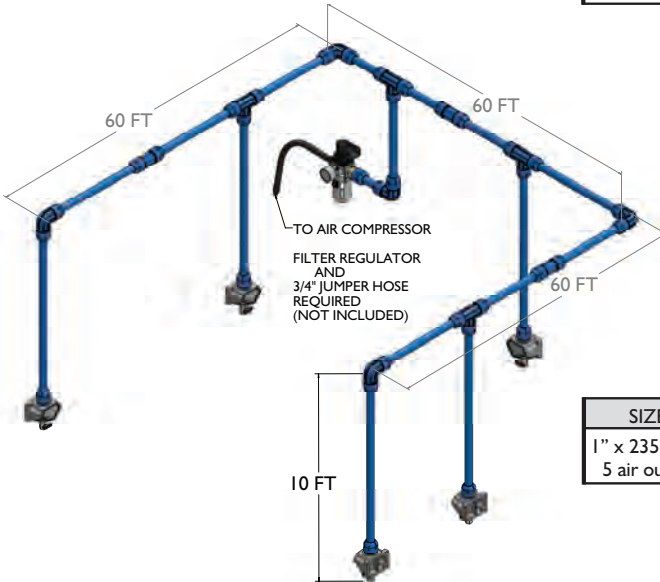
FastPipe is NOT designed:

- for underground burial
- to electrically ground equipment
- to be welded
- to take violent impacts
- to be used where the compressed air temperature is above 140 deg F
- for environments of caustic or corrosive chemicals

FastPipe also comes in convenient master kit assemblies.



SIZE	PART NUMBER
3/4" x 100 ft kit 3 air outlets	F28075
1" x 100 ft kit 3 air outlets	F28100



SIZE	PART NUMBER
1" x 235 ft kit 5 air outlets	F28235

WARRANTY

The Fastpipe compressed air system components are guaranteed against defects resulting from faulty workmanship or materials for a period of one year from the time of purchase. The company will replace, free of charge, any products which are found to be defective in workmanship or material, provided that the following conditions are met:

- the company is promptly notified in writing of such defect immediately upon discovery, and the defective product is returned to the company for inspection
- the defect is not due, without limitation, to faulty installation, misalignment of the product, vibration, ordinary wear and tear, corrosion, ultraviolet degradation, operation outside the products specified limits and using the product for uses other than its intended compressed air use

The company will not allow claims for labor, materials and/or other expenses required to replace the defective product, or to repair any damage resulting from the use thereof. The company's liability is limited to the purchase price of the product.

It is agreed and understood that the company's liability in respect to the sale is strictly limited to the replacement of products as specified. The company shall not, in any event, be liable for any damages whether for loss of use, injury or death, business interruption or any claim for incidental, consequential, special or punitive damages.

Warranty claims should be addressed to the customer service department of Engineered Specialties, LLC.

To help us develop a parts list and quote for your piping installation, use this quote worksheet.
Answer the questions and hand sketch your air piping layout and outlet location.

BUILDING LENGTH =

BUILDING
WIDTH
=

SKETCH ITEMS:

X = AIR OUTLET
AT WORK HEIGHT

CX= AIR OUTLET AT
CEILING

HR= HOSE REEL

0 = COMPRESSOR

NOTE ANY OBSTRUCTIONS

COMMERCIAL OR RESIDENTIAL

NEW OR EXISTING BUILDING

STEEL OR WOODFRAME OR BLOCK CONSTRUCTION

COMPRESSOR OUTLET SIZE NPT

HAVE FILTER/REGULATOR AT COMPRESSOR YES NO

OF PEOPLE USING AIR AT THE SAME TIME

BUILDING CEILING: FINISHED FLAT OR TRUSS/PERLIN

HANG MAIN PIPE FROM: CEILING OR ON WALL

AIR USE: AUTOBODY--FARM--REPAIR--MANUFACTURING--HOBBY-OTHER

CEILING HEIGHT

MAIN PIPING HEIGHT

AIR OUTLET HEIGHT

COMPRESSOR HP

INFO FOR SHIPPING QUOTE:

COMPANY

NAME

BILLING ADDRESS

CITY ST ZIP

SHIPPING ADDRESS

CITY ST ZIP

PHONE

EMAIL



**Engineered
Specialties LLC**
Auburndale, Wisconsin

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