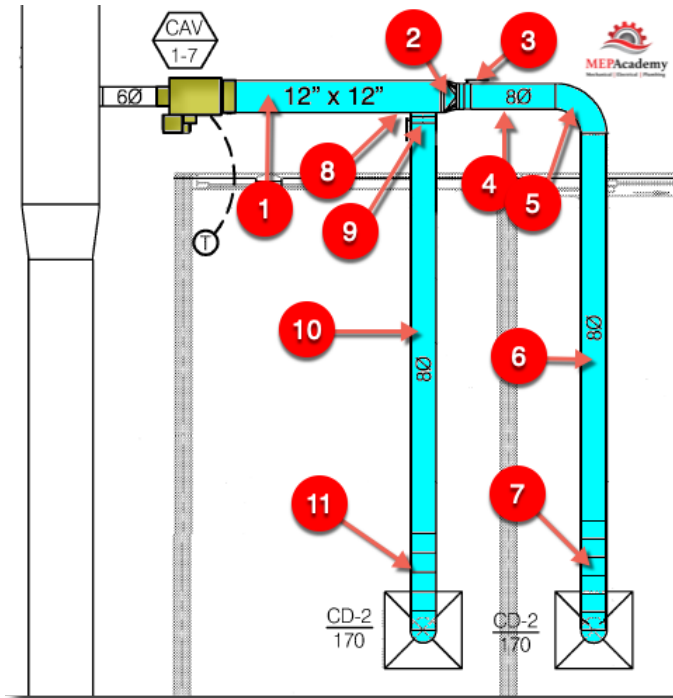


Sheet Metal Ductwork Takeoff - Test #1 – Answers

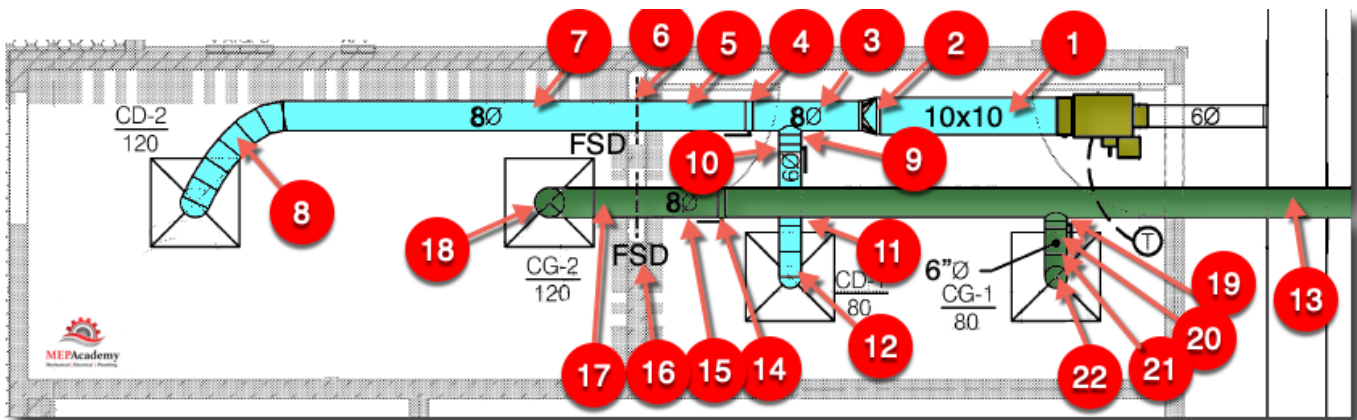
Below are the answers to Test #1. Your answers don't have to be in the exact same order, but you should have all the ductwork and fittings identified below. Check your answers to the ones below.

VAV Low Side Ductwork #1



VAV Low Side Ductwork #1 – Test #1		
Item #	Duct or Fitting Description	Size
1	Rectangular Duct	12" x 12"
2	Square to Round	12" x 12" to 8"
3	Volume Damper	8"
4	Round Duct	8"
5	90-Degree Elbow	8"
6	Round Duct	8"
7	Flexible Duct Connector	8"
8	Start Collar (Spin-in)	8"
9	Volume Damper	8"
10	Round Duct	8"
11	Flexible Duct Connector	8"

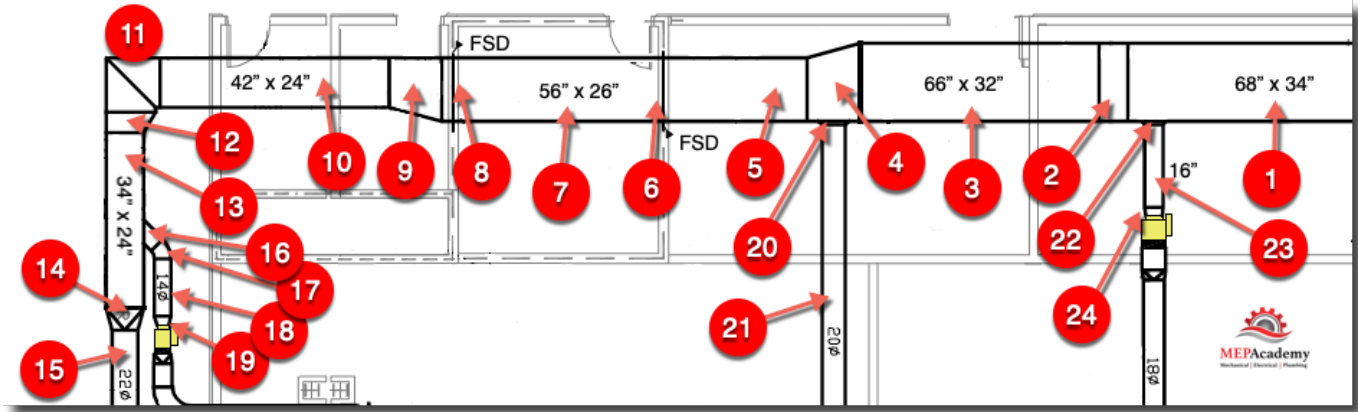
VAV Low Pressure & Exhaust Ductwork #2



If you look closely you will see that there isn't a flexible duct connector (#18 & 22) on the exhaust connection to the air distribution device. In this case the engineer has chosen to use a 90-degree elbow.

VAV Low Side & Exhaust Ductwork #2 – Test #1			
Item #	Duct or Fitting Description	Size	System
1	Rectangular Duct	10" x 10"	VAV Low Press
2	Square to round	10" x 10" to 8"	
3	Round Duct	8"	
4	Volume Damper	8"	
5	Round Duct	8"	
6	Fire/Smoke Damper	8"	
7	Round Duct	8"	
8	Flexible Duct Connector	8"	
9	Saddle Tap- 90 Degree	6" on 8"	
10	Volume Damper	6"	
11	Round Duct	6"	
12	Flexible Duct Connector	6"	
13	Round Duct	8"	Exhaust
14	Volume Damper	8"	
15	Round Duct	8"	
16	Fire/Smoke Damper	8"	
17	Round Duct	8"	
18	90-Degree Elbow	8"	
19	Saddle Tap- 90 Degree	6"	
20	Volume Damper	6"	
21	Round Duct	6"	
22	90-Degree Elbow	6"	

VAV High Side Ductwork #3



VAV High Side Ductwork #3 – Test #1		
Item #	Duct or Fitting Description	Size
1	Rectangular Duct	68" x 34"
2	Transition	68" x 34" to 66" x 32"
3	Rectangular Duct	66" x 32"
4	Transition	66" x 32" to 56" x 26"
5	Rectangular Duct	56" x 26"
6	Fire/Smoke Damper	56" x 26"
7	Rectangular Duct	56" x 26"
8	Fire/Smoke Damper	56" x 26"
9	Transition	56" x 26" to 42" x 24"
10	Rectangular Duct	42" x 24"
11	Square Elbow – 90 Degrees	42" x 24"
12	Transition	42" x 24" to 34" x 24"
13	Rectangular Duct	34" x 24"
14	Square to Round	34" x 24" to 22"
15	Round Duct	22"
16	45-Degree Flat Saddle	14"
17	45-Degree Elbow	14"
18	Round Duct	14"
19	Reducer	14" to (Box Inlet Size)
20	Start Collar	20"
21	Round Duct	20"
22	Start Collar	16"
23	Round Duct	16"
24	Reducer	16" to (Box Inlet Size)