Sheet Metal Ductwork Takeoff - Practice Test #1 - Answers

VAV Low Side Ductwork Practice Test #1 - Answers		
Item #	**Duct or Fitting Description**	**Size**
1	Lined Sheet Metal Plenum or (Duct with End Cap)	No Size Shown
2	Transition (Lined)	No Size Shown
3	Spin-in	12”
4	Spiral Duct	12”
5	Reducing Tee-Wye	12” x 12” x 10”
6	Spiral Duct	12”
7	Reducing Tee-Wye	2” x 12” x 10”
8	Spiral Duct	12”
9	Reducing Tee-Wye	2” x 12” x 10”
10	Spiral Duct	10”
11	Volume Damper	10”
12	Flexible Duct Connector	10”
13	45-Degree Elbow	10”
14	Volume Damper	10”
15	Spiral Duct	10”
16	90-Degree Elbow	10”
17	45-Degree Elbow	10”
18	Volume Damper	10”
19	Spiral Duct	10”
20	90-Degree Elbow	10”
21	45-Degree Elbow	10”
22	Spiral Duct	10”
23	Reducing Tee-Wye	10” x 10” x 6”
24	Spiral Duct	10”
25	Volume Damper	10”
26	Flexible Duct Connector	10”
27	Spiral Duct	6”
28	Volume Damper	6”
29	Spiral Duct	6”
30	90-Degree Elbow	6”

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Low Pressure Supply - Option 1 Answers

Low Pressure Supply Test Answers – Option #1		
Item #	**Duct or Fitting Description**	**Size**
1	Spiral Duct	16”
2	90-Degree Elbow	16”
3	Spiral Duct	16”
4	90-Degree Elbow	16”
5	Spiral Duct	16”
6	Reducing Tee	16” x 16” x 10”
7	Spiral Duct	16”
8	Reducing Tee	16” x 16” x 10”
9	Spiral Duct	16”
10	Reducing Tee	16” x 12” x 10”
11	Spiral Duct	12”
12	Reducing Tee	12” x 10” x 10”
13	Spiral Duct	10”
14	90-Degree Elbow	10”
15	Spiral Duct	10”

We didn’t ask you to finish all the individual branches, but in this case there would be short stubs of 10” duct to each linear diffuser. What is missing from this engineered drawing is the volume damper for each linear diffuser.

Low Pressure Supply - Option 2

Low Pressure Supply Test Answers – Option #2		
Item #	**Duct or Fitting Description**	**Size**
1	Spiral Duct	16”
2	90-Degree Elbow	16”
3	Spiral Duct	16”
4	90-Degree Elbow	16”
5	Spiral Duct	16”
6	~~Reducing Tee~~ Straight Saddletap	10” on 16”
7	Spiral Duct	16”
8	~~Reducing Tee~~ Straight Saddletap	10” on 16”
9	Spiral Duct	16”
10	~~Reducing Tee~~ Straight Saddletap	10” on 16”
11	Spiral Duct	12”
12	Reducing Tee	12” x 10” x 10”
13	Spiral Duct	10”
14	90-Degree Elbow	10”
15	Spiral Duct	10”
16	Straight Saddletap (See items 6,8, & 10)	(Qty 3) 10” on 16”
17	Reducer	16” x 10”

You can use a 16” x 12” x 10” Reducing Tee-Wye at located #10, but since you are using saddletaps on the other two Tee-Wye locations it makes sense to use it in all three locations. The benefit of using saddletaps is that you reduce the amount of joints or cuts on the large 16” main spiral duct, which saves labor and money.