CLAIMS

We claim:

1. A one-piece conduit mount (205) for a vibrating sensor assembly (200), comprising:

an inlet port (206);

an outlet port (208);

a conduit support base (210) extending from the inlet port (206) to the outlet port (208); and

first and second support blocks (211, 212) extending from the conduit support base (210).

2. The one-piece conduit mount (205) of claim 3, wherein the first and second support blocks (211, 212) are tapered and comprise a first thickness, t_1 on an end facing a corresponding port and comprise a second thickness, t_2 on an end facing the other support block, wherein t_2 is less than t_1.

3. The one-piece conduit mount (205) of claim 1, further comprising one or more apertures (440) sized and shaped to receive a coupling fixture.

4. A vibrating sensor assembly (200), comprising:

a one-piece conduit mount (205) including an inlet port (206), an outlet port (208), and a conduit support base (210) extending from the inlet port (206) to the outlet port (208); and

a single fluid conduit (203) with two or more loops (204A, 204B) separated by a crossover section (213), which is coupled to the one-piece conduit mount (205).

5. The vibrating sensor assembly (200) of claim 4, wherein the crossover section (213) is coupled to the conduit support base (210).

6. The vibrating sensor assembly (200) of claim 4, further comprising first and second support blocks (211, 212) extending from the conduit support base (210).

7. The vibrating sensor assembly (200) of claim 6, wherein a first loop (204A) of the two or more loops (204A, 204B) is coupled to a first side of the first and second support blocks (211, 212) and wherein a second loop (204B) of the two or more loops (204A, 204B) is coupled to a second side of the first and second support blocks (211, 212).

8. The vibrating sensor assembly (200) of claim 4, further comprising an inlet conduit portion (207) coupled to the inlet port (206).

9. The vibrating sensor assembly (200) of claim 4, further comprising an outlet conduit portion (209) coupled to the outlet port (208).

10. The vibrating sensor assembly (200) of claim 4, further comprising a case (500) at least partially enclosing the fluid conduit (203).

11. A method for forming a vibrating sensor assembly, comprising steps of:

forming a single fluid conduit into two or more loops;

separating the two or more loops with a crossover section; and

coupling a one-piece conduit mount to the crossover section, wherein the one-piece conduit mount includes an inlet port, an outlet port, and a conduit support base extending from the inlet port to the outlet port.

12. The method of claim 11, wherein the step of coupling comprises coupling the crossover section to the conduit support base.

13. The method of claim 11, wherein the one-piece conduit mount comprises first and second support blocks and the step of coupling comprises:

coupling a first loop of the two or more loops to a first side of the first and second support blocks; and

coupling a second loop of the two or more loops to a second side of the first and second support blocks.

14. The method of claim 11, wherein the step of coupling comprises coupling an inlet conduit portion to an inlet port of the one-piece conduit mount and coupling an outlet conduit portion to an outlet port of the one-piece conduit mount.

15. The method of claim 11, further comprising a step of at least partially enclosing the fluid conduit with a case.

CLAIMS

We claim:

1. A one-piece conduit mount (205) for a vibrating sensor assembly (200), comprising:

an inlet port (206);

an outlet port (208);

a conduit support base (210) extending from the inlet port (206) to the outlet port (208); and

first and second support blocks (211, 212) configured to support a fluid conduit (203) extending from the conduit support base (210), wherein the first and second support blocks (211, 212) are tapered and comprise a first thickness, t_1 on an end facing a corresponding port and comprise a second thickness, t_2 on an end facing the other support block, wherein t_2 is less than t_1.

2. The one-piece conduit mount (205) of claim 1, further comprising one or more apertures (440) sized and shaped to receive a coupling fixture.

3. A vibrating sensor assembly (200), comprising:

a one-piece conduit mount (205) including an inlet port (206), an outlet port (208), and a conduit support base (210) extending from the inlet port (206) to the outlet port (208); and

a single fluid conduit (203) with two or more loops (204A, 204B) separated by a crossover section (213), which is coupled to the one-piece conduit mount (205).

4. The vibrating sensor assembly (200) of claim 3, wherein the crossover section (213) is coupled to the conduit support base (210).

5. The vibrating sensor assembly (200) of claim 3, further comprising first and second support blocks (211, 212) extending from the conduit support base (210).

6. The vibrating sensor assembly (200) of claim 5, wherein a first loop (204A) of the two or more loops (204A, 204B) is coupled to a first side of the first and second support blocks (211, 212) and wherein a second loop (204B) of the two or more loops (204A, 204B) is coupled to a second side of the first and second support blocks (211, 212).

7. The vibrating sensor assembly (200) of claim 3, further comprising an inlet conduit portion (207) coupled to the inlet port (206).

8. The vibrating sensor assembly (200) of claim 3, further comprising an outlet conduit portion (209) coupled to the outlet port (208).

9. The vibrating sensor assembly (200) of claim 3, further comprising a case (500) at least partially enclosing the fluid conduit (203).

10. A method for forming a vibrating sensor assembly, comprising steps of:

forming a single fluid conduit into two or more loops;

separating the two or more loops with a crossover section; and

coupling a one-piece conduit mount to the crossover section, wherein the one-piece conduit mount includes an inlet port, an outlet port, and a conduit support base extending from the inlet port to the outlet port.

11. The method of claim 10, wherein the step of coupling comprises coupling the crossover section to the conduit support base.

12. The method of claim 10, wherein the one-piece conduit mount comprises first and second support blocks and the step of coupling comprises:

coupling a first loop of the two or more loops to a first side of the first and second support blocks; and

coupling a second loop of the two or more loops to a second side of the first and second support blocks.

13. The method of claim 10, wherein the step of coupling comprises coupling an inlet conduit portion to an inlet port of the one-piece conduit mount and coupling an outlet conduit portion to an outlet port of the one-piece conduit mount.

14. The method of claim 10, further comprising a step of at least partially enclosing the fluid conduit with a case.