

1 The opinion in support of the decision being entered
2 today is *not* binding precedent of the Board.
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4
5 UNITED STATES PATENT AND TRADEMARK OFFICE
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7
8 BEFORE THE BOARD OF PATENT APPEALS
9 AND INTERFERENCES
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12 *Ex parte* TADAHIRO OHMI, HIROSHI MOROKOSHI, MICHIO YAMAJI,
13 SHIGEAKI TANAKA, KEIJI HIRAO, YUJI KAWANO, TAKASHI HIROSE,
14 KOSUKE YOKOYAMA, MICHIO KURAMOCHI, MASAYUKI HATANO,
15 and NOBUKAZU IKEDA
16

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18 Appeal No. 2007-1869
19 Application No. 09/023,416
20 Technology Center 3700
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23 Decided: August 15, 2007
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26 Before TERRY J. OWENS, MURRIEL E. CRAWFORD, and HUBERT C.
27 LORIN, *Administrative Patent Judges*.

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29 OWENS, *Administrative Patent Judge*.

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32 DECISION ON APPEAL

33 The Appellants appeal from a rejection of claim 1, which is the sole claim.
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1 THE INVENTION

2 The Appellants claim a fluid control apparatus which, the Appellants state, is
3 for use in semiconductor manufacturing equipment (Spec. 1:4-6). Claim 1 is as
4 follows:

5 1. A fluid control apparatus comprising a plurality of lines, each
6 line having a fluid controller, an inlet on-off device and an outlet on-off
7 device arranged respectively at an inlet side and an outlet side of each of the
8 fluid controllers, each of the on-off devices on the respective sides of the
9 fluid controllers comprising one valve or a plurality of adjacent valves, with
10 the one valve or the adjacent valves interconnecting each other and with the
11 fluid controllers without using tubing,

12 each of the on-off devices being of the type selected from the
13 group including a 2 -type on-off device having a two-port valve, a 2-3-type
14 on-off device having a two-port valve and a three-port valve, a 2-3-3 -type
15 on-off device having a two-port valve and two three-port valves, a 3-3-type
16 on-off device having two three-port valves, and a 3-3-3-type on-off device
17 having three three-port valves,

18 main bodies of two-port valves of all types of on-off devices
19 being identical in configuration and each having an inlet port and an outlet
20 port in a bottom face thereof, and main bodies of three-port valves of all
21 types of on-off devices being identical in configuration and each being
22 formed in a bottom face thereof with an inlet port, an outlet port always in
23 communication with the inlet port, and an inlet-outlet subopening having a
24 port separate from said inlet port and said outlet port;

25 each port of said two-port valves and said three-port valves
26 being arranged in a row disposed in a common plane along said each line;
27 and

28 valve mounts mounting said valve main bodies and said fluid
29 controllers including a plurality of joint members having upper surfaces
30 disposed in substantial coplanar relation, said valve mounts each having a
31 channel for holding the adjacent inlet port and outlet port of adjacent valves
32 or fluid controller in communication, said joint members each containing
33 passages extending entirely internally within the associated joint member
34 and opening in the upper surface thereof to communicate with ports in the
35 bottom faces of said valves and fluid controllers and operatively

1 interconnect said valves and said fluid controllers in selected fluid flow
2 relation.
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4 THE REFERENCE

5 Itafuji (JP ‘720) (as translated) JP 7-286720-A Oct. 31, 1995
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8 THE REJECTION

9 Claim 1 stands rejected under 35 U.S.C. § 102(b) as anticipated by JP ‘720.

10 OPINION

11 We affirm the aforementioned rejection.

12 JP ‘720 discloses a semiconductor fabrication machine gas transfer unit
13 having input block 10 attached, via attachment block 24, to the input control port
14 of flow control valve/mass flowmeter 53 (JP ‘720, ¶¶ 0001, 0011; fig. 3). Input
15 shutoff valve 54 and purge valve 55 are attached to the upperside of input
16 block 10 (JP ‘720, ¶ 0011, fig. 3). Output block 11 is attached, via attachment
17 block 25, to the output control port of flow control valve/mass flowmeter 53.
18 *See id.* Output shutoff valve 56 is attached to the upperside of output block 11.¹
19 *See id.* Communication path 20 in input block 10 links input block 10 to the input
20 of input shutoff valve 54, communication path 19 in input block 10 and attachment
21 block 24 links the outputs of input shutoff valve 54 and purge valve 55 to flow
22 control valve/mass flowmeter 53, communication path 18 in attachment block 25
23 and output block 11 links the output of flow control valve/mass flowmeter 53 to
24 output shutoff valve 56, and communication path 16 links the output of output

¹ The JP ‘720 upperside attachments correspond to the Appellants’ joint members (compare the Appellants’ fig. 4 and JP ‘720’s fig. 3).

1 shutoff valve 56 to output block 11 (JP '720, ¶¶ 0012, 0013).² Each of the JP '720
2 input shutoff valve 54, purge valve 55 and output shutoff valve 56 is a two port
3 valve (JP '720, fig. 3) (what the Appellants' claim 1 refers to as a 2-type on-off
4 device). The ports of the valves are arranged in a row in a common plane along a
5 line (JP '720, fig. 2).

6 The Appellants argue that JP '720 discloses only two port valves, not the
7 other types of valves recited in claim 1 (Br. 11). To anticipate that claim a
8 reference need not disclose every type of valve recited. The claim merely requires
9 a valve selected from the recited group. One of the recited types of valves is a two
10 port valve which, as acknowledged by the Appellants (Br. 11), is disclosed by
11 JP '720.

12 The Appellants argue that JP '720's inputs and outputs to, respectively, the
13 input and output blocks are on the sides, not the upper surfaces, of those blocks
14 (Br. 11). The Appellants' claim 1 requires that the passages to the valves are on
15 the upper surfaces of the valve mounts' joint members, but the claim has no
16 requirement regarding the positions of the inlets and outlets of the valve mounts.
17 As acknowledged by the Appellants (Br. 11), the JP '720 blocks open at their
18 upper surfaces to the valves (JP '720, fig. 3).

² The JP '720 communication paths in blocks correspond to the Appellants' channels in valve mounts (compare the Appellants' fig. 4 and JP '720's fig. 1).

