FIG.1

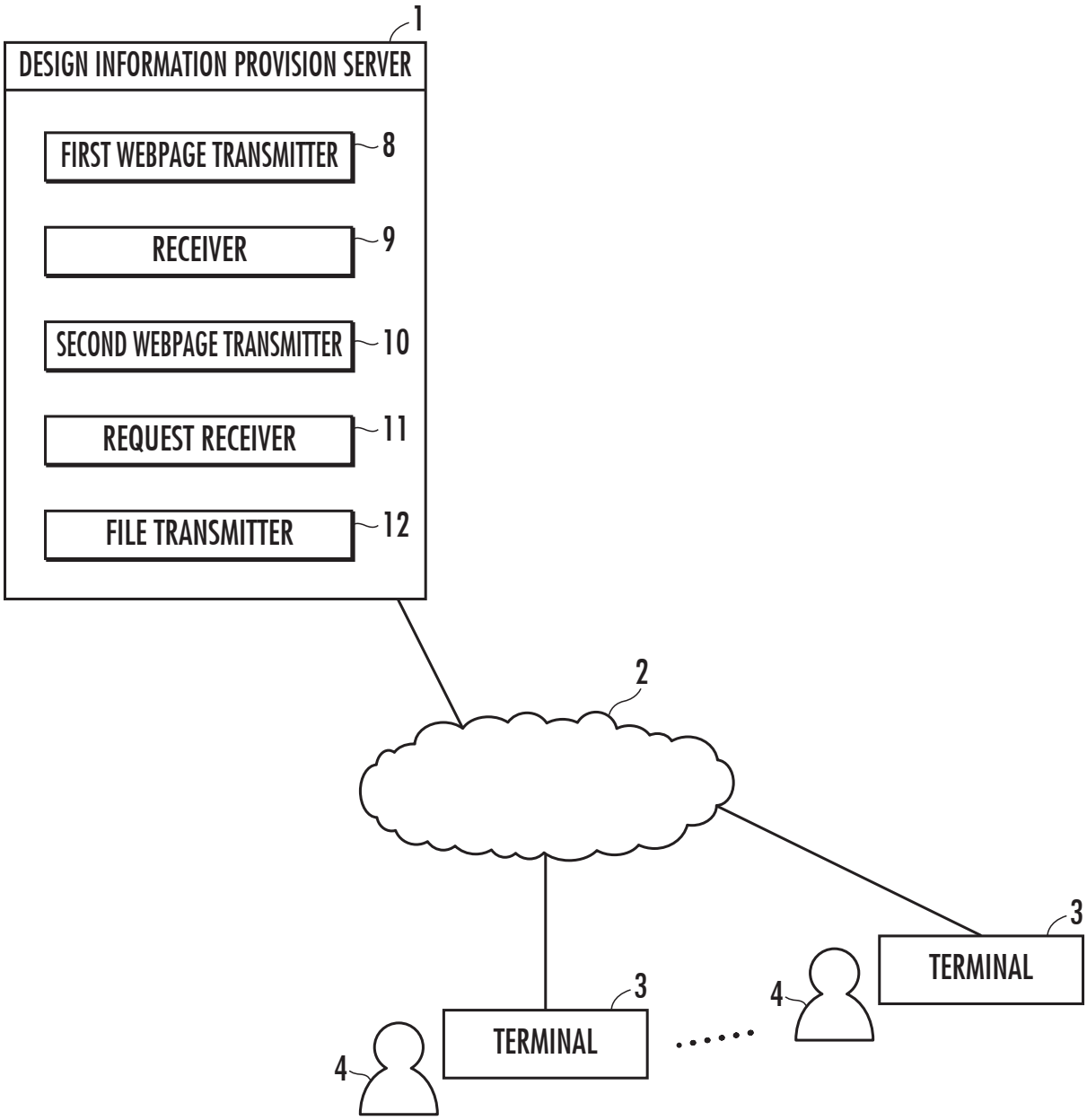

1
DESIGN INFORMATION PROVISION SERVER
FIRST WEBPAGE TRANSMITTER
8
RECEIVER
9
SECOND WEBPAGE TRANSMITTER
10
REQUEST RECEIVER
11
FILE TRANSMITTER
12
2
3
TERMINAL
4
3
TERMINAL
4

FIG.2

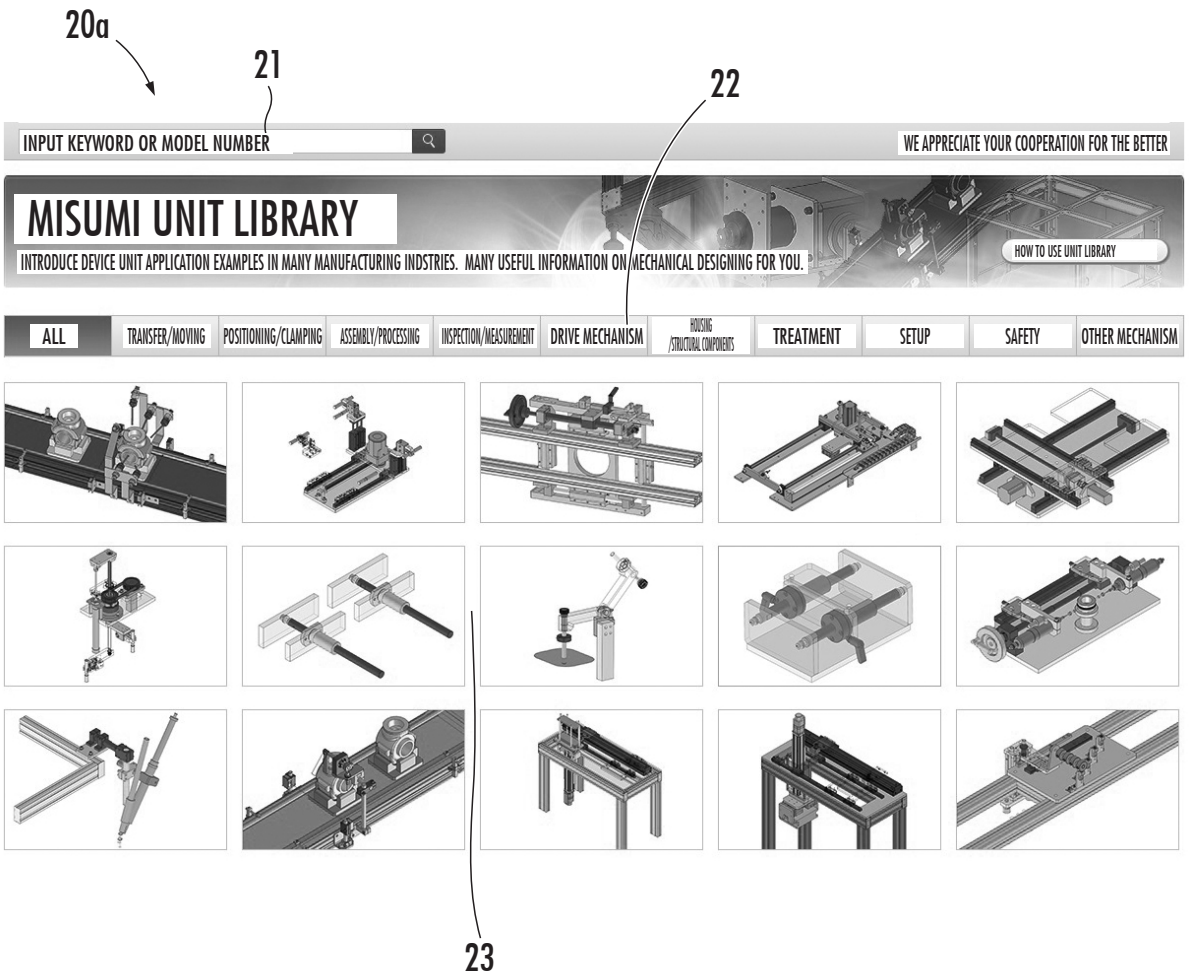

20a
21
22
INPUT KEYWORD OR MODEL NUMBER
WE APPRECIATE YOUR COOPERATION FOR THE BETTER
MISUMI UNIT LIBRARY
INTRODUCE DEVICE UNIT APPLICATION EXAMPLES IN MANY MANUFACTURING INDSTRIES. MANY USEFUL INFORMATION ON MECHANICAL DESIGNING FOR YOU.
HOW TO USE UNIT LIBRARY
ALL
TRANSFER/MOVING
POSITIONING/CLAMPING
ASSEMBLY/PROCESSING
INSPECTION/MEASUREMENT
DRIVE MECHANISM
HOUSING /STRUCTURAL COMPONENTS
TREATMENT
SETUP
SAFETY
OTHER MECHANISM
23

FIG.3

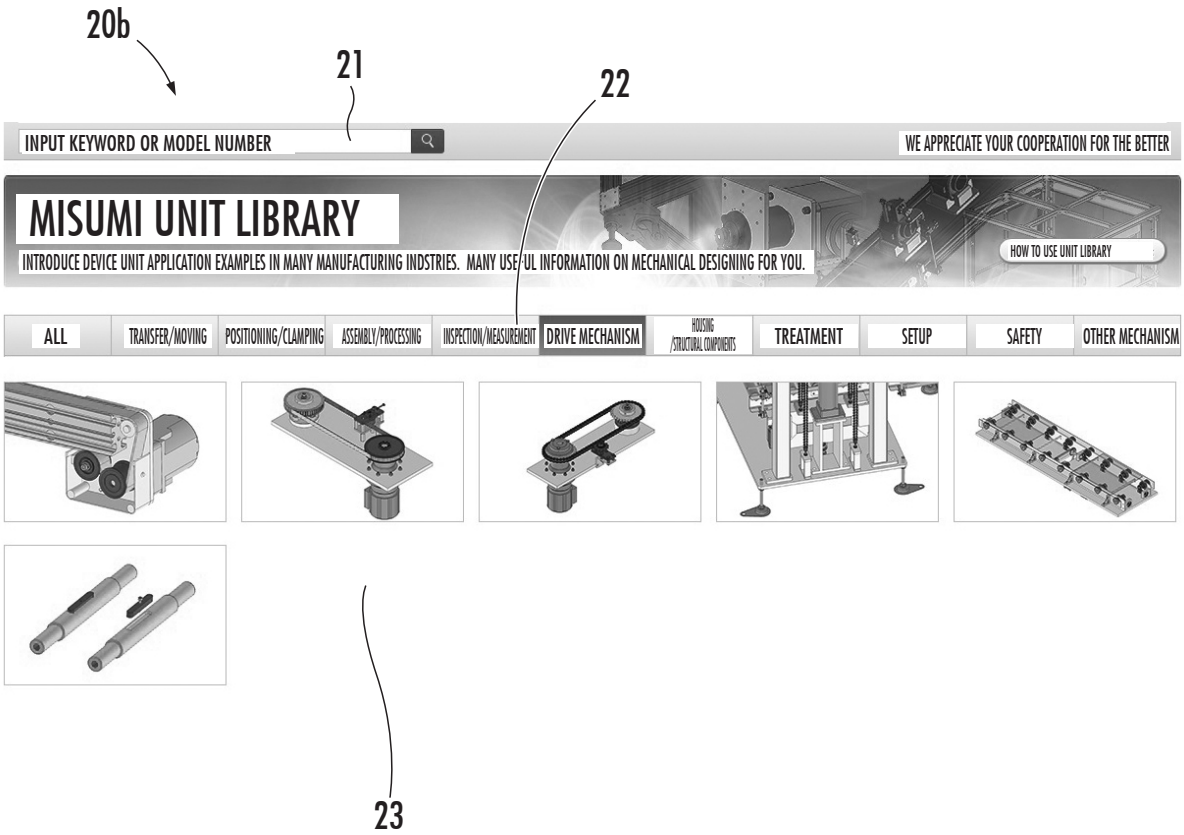

20b
21
22
INPUT KEYWORD OR MODEL NUMBER
WE APPRECIATE YOUR COOPERATION FOR THE BETTER
MISUMI UNIT LIBRARY
INTRODUCE DEVICE UNIT APPLICATION EXAMPLES IN MANY MANUFACTURING INDSTRIES. MANY USEFUL INFORMATION ON MECHANICAL DESIGNING FOR YOU.
HOW TO USE UNIT LIBRARY
ALL
TRANSFER/MOVING
POSITIONING/CLAMPING
ASSEMBLY/PROCESSING
INSPECTION/MEASUREMENT
DRIVE MECHANISM
HOUSING /STRUCTURAL COMPONENTS
TREATMENT
SETUP
SAFETY
OTHER MECHANISM
23

FIG.4

30

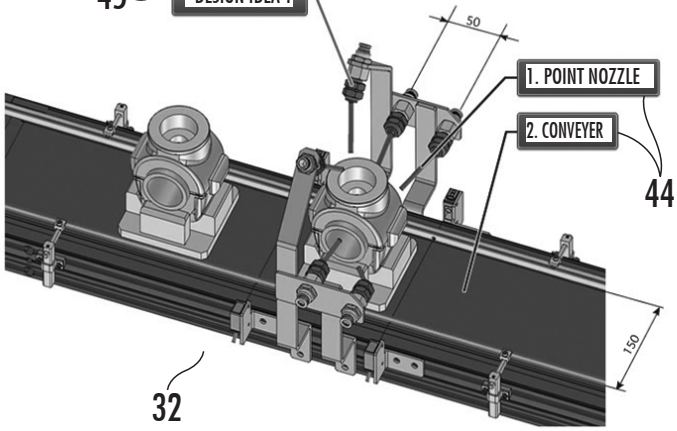
UNIT LIBRARY TOP> EXAMPLE NO. 0001 AIR-BLOW STEP IN DELIVERY BY CONVEYER

MISUMI UNIT LIBRARY

INTRODUCE DEVICE UNIT APPLICATION EXAMPLES IN MANY MANUFACTURING INDSTRIES. MANY USEFUL INFORMATION ON MECHANICAL DESIGNING FOR YOU.

APPLICATION EXAMPLE NO. 0001
APPLICATION EXAMPLE NAME: AIR-BLOW STEP IN DELIVERY BY CONVEYER 31

45 DESIGN IDEA 1



33

FEATURES

- AIR-BLOW IS POSSIBLE WITHOUT STOPPING IN THE MIDDLE OF DELIVERY BY CONVEYER
- SUITABLE FOR RELATIVELY-COMPLICATED SHAPE WITH MANY NON-PENETRATING HOLES AND RECESSES
- ADJUSTABLE NOZZLE TIP END ANGLE WITHIN ±30℃

34

TARGET WORKPIECE

- RAISED-RECESSED WORKPIECE WITH COMPLICATED SHAPE (DIE-CAST COMPONENTS, RESIN MOLDED COMPONENTS)

35

DESIGN POINTS

- CONSIDERATION IN NOZZLE ARRANGEMENT ACCORDING TO WORKPIECE SHAPE
- CONSIDERATION IN REDUCTION IN AIR CONSUMPTION (NOZZLE QUANTITY/DIAMETER)
- PHOTOELECTRIC SENSOR ATTACHED FOR AIR-BLOW ONLY DURING WORKPIECE DETECTION
  - → (1) SENSOR ARRANGEMENT IN FRONT-BACK DIRECTION WITH RESPECT TO MOVEMENT DIRECTION
  - → (2) SENSOR ARRANGEMENT IN OBLIQUE DIRECTION WITH RESPECT TO MOVEMENT DIRECTION
- SUITABLE FOR CONVEYER DELIVERY SYSTEM, FOR EXAMPLE
- PROVIDE AIR PRESSURE ADJUSTMENT REGULATOR AS NECESSARY
- NEED CONSIDERATION IN COVER INSTALLATION FOR NOISE AND SCATTER PREVENTION
- PROVIDE SPEED CONTROLLER FOR AIR FLOW ADJUSTMENT AS NECESSARY.

※ IN THE UNIT APPLICATION EXAMPLE IMAGE VIEW ABOVE, PRODUCTS IN MISUMI COMPONENT LIST IS DISPLAYED IN BLUE (MAIN COMPONENTS DESCRIBED IN DETAIL ARE DISPLAYED IN RICH BLUE). TARGET WORKPIECE IS DISPLAYED IN YELLOW, IF ANY.

37 38

MISUMI COMPONENT LIST

CHECK COMPONENT POSITION IN APPLICATION EXAMPLE | MISUMI COMPONENT LIST DOWNLOAD (CSV)

CAD DOWNLOAD (COMPOSITE COMPONENT) | CAD DOWNLOAD (SEPARATE COMPONENT SELECTION)

36 39

FIG.5

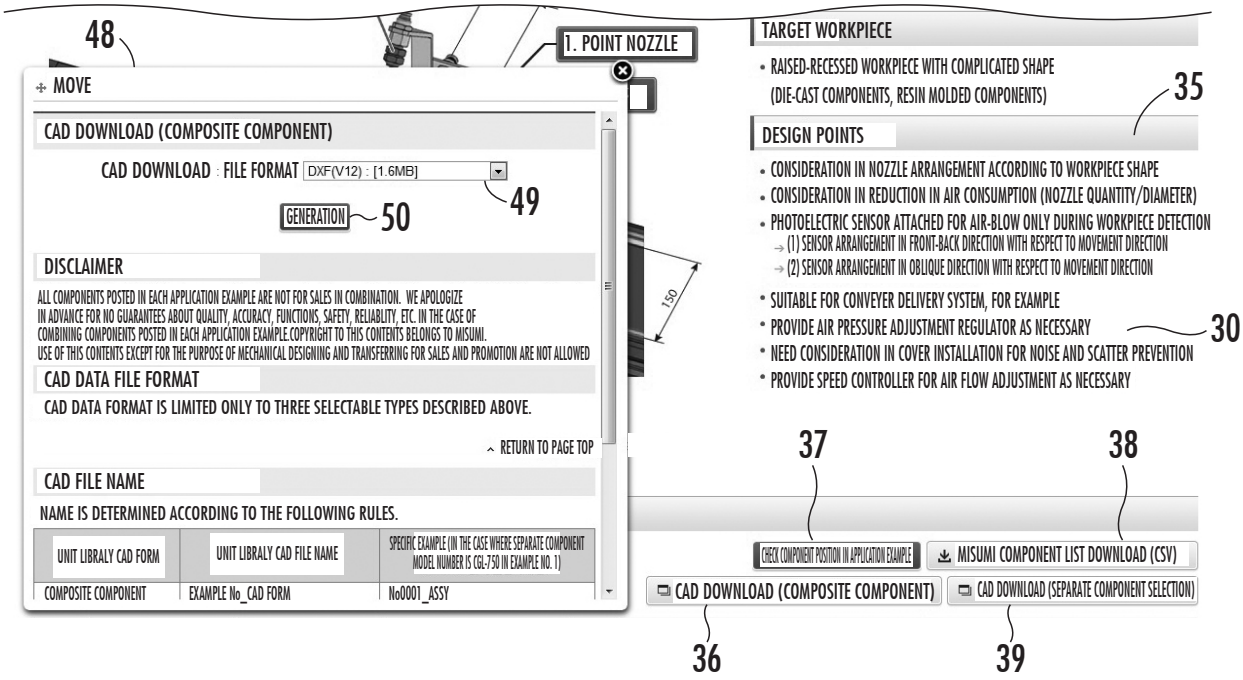

48
1. POINT NOZZLE
MOVE
CAD DOWNLOAD (COMPOSITE COMPONENT)
CAD DOWNLOAD : FILE FORMAT
DXF(V12) : [1.6MB]
49
GENERATION
50
DISCLAIMER
ALL COMPONENTS POSTED IN EACH APPLICATION EXAMPLE ARE NOT FOR SALES IN COMBINATION. WE APOLOGIZE IN ADVANCE FOR NO GUARANTEES ABOUT QUALITY, ACCURACY, FUNCTIONS, SAFETY, RELIABILITY, ETC. IN THE CASE OF COMBINING COMPONENTS POSTED IN EACH APPLICATION EXAMPLE.COPYRIGHT TO THIS CONTENTS BELONGS TO MISUMI. USE OF THIS CONTENTS EXCEPT FOR THE PURPOSE OF MECHANICAL DESIGNING AND TRANSFERRING FOR SALES AND PROMOTION ARE NOT ALLOWED
CAD DATA FILE FORMAT
CAD DATA FORMAT IS LIMITED ONLY TO THREE SELECTABLE TYPES DESCRIBED ABOVE.
RETURN TO PAGE TOP
CAD FILE NAME
NAME IS DETERMINED ACCORDING TO THE FOLLOWING RULES.
UNIT LIBRALY CAD FORM
UNIT LIBRALY CAD FILE NAME
SPECIFIC EXAMPLE (IN THE CASE WHERE SEPARATE COMPONENT MODEL NUMBER IS CGL-750 IN EXAMPLE NO. 1)
COMPOSITE COMPONENT
EXAMPLE No_CAD FORM
No0001_ASSY
150
TARGET WORKPIECE
• RAISED-RECESSED WORKPIECE WITH COMPLICATED SHAPE (DIE-CAST COMPONENTS, RESIN MOLDED COMPONENTS)
35
DESIGN POINTS
• CONSIDERATION IN NOZZLE ARRANGEMENT ACCORDING TO WORKPIECE SHAPE
• CONSIDERATION IN REDUCTION IN AIR CONSUMPTION (NOZZLE QUANTITY/DIAMETER)
• PHOTOELECTRIC SENSOR ATTACHED FOR AIR-BLOW ONLY DURING WORKPIECE DETECTION
→ (1) SENSOR ARRANGEMENT IN FRONT-BACK DIRECTION WITH RESPECT TO MOVEMENT DIRECTION
→ (2) SENSOR ARRANGEMENT IN OBLIQUE DIRECTION WITH RESPECT TO MOVEMENT DIRECTION
• SUITABLE FOR CONVEYER DELIVERY SYSTEM, FOR EXAMPLE
• PROVIDE AIR PRESSURE ADJUSTMENT REGULATOR AS NECESSARY
30
• NEED CONSIDERATION IN COVER INSTALLATION FOR NOISE AND SCATTER PREVENTION
• PROVIDE SPEED CONTROLLER FOR AIR FLOW ADJUSTMENT AS NECESSARY
37
38
CHECK COMPONENT POSITION IN APPLICATION EXAMPLE
MISUMI COMPONENT LIST DOWNLOAD (CSV)
CAD DOWNLOAD (COMPOSITE COMPONENT)
CAD DOWNLOAD (SEPARATE COMPONENT SELECTION)
36
39

FIG.6

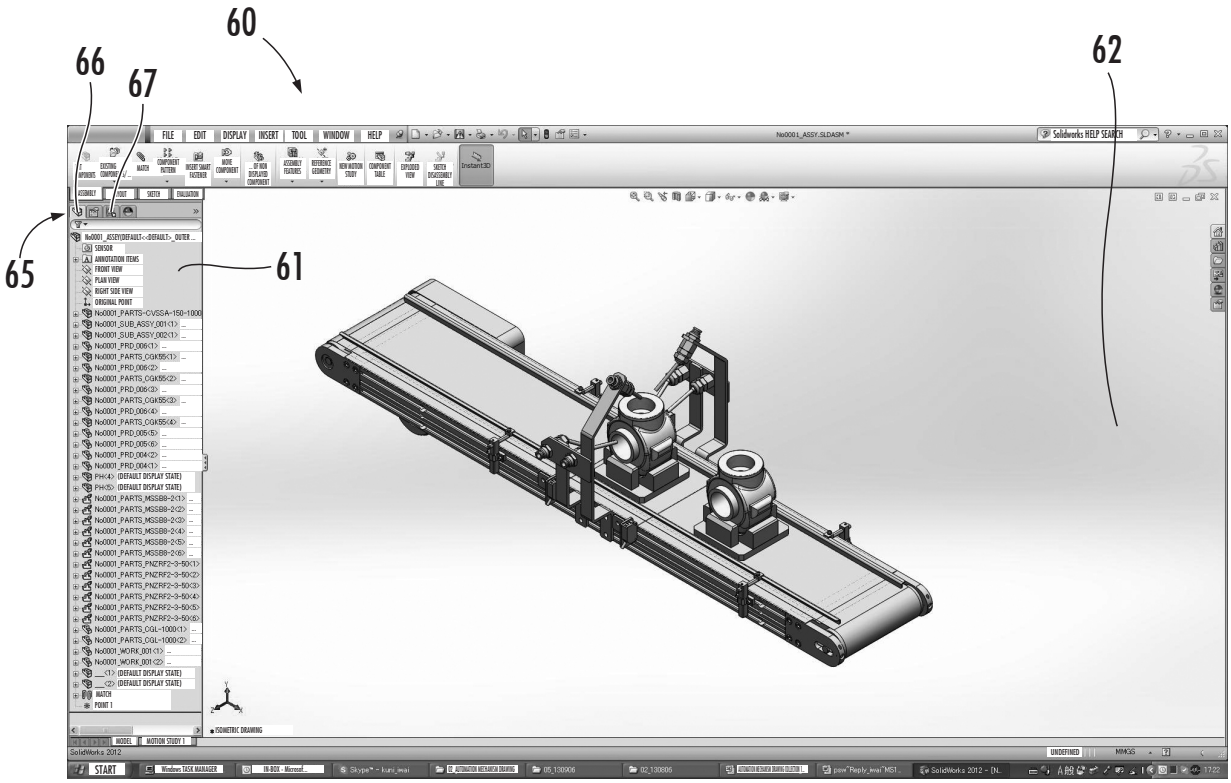


FIG.7

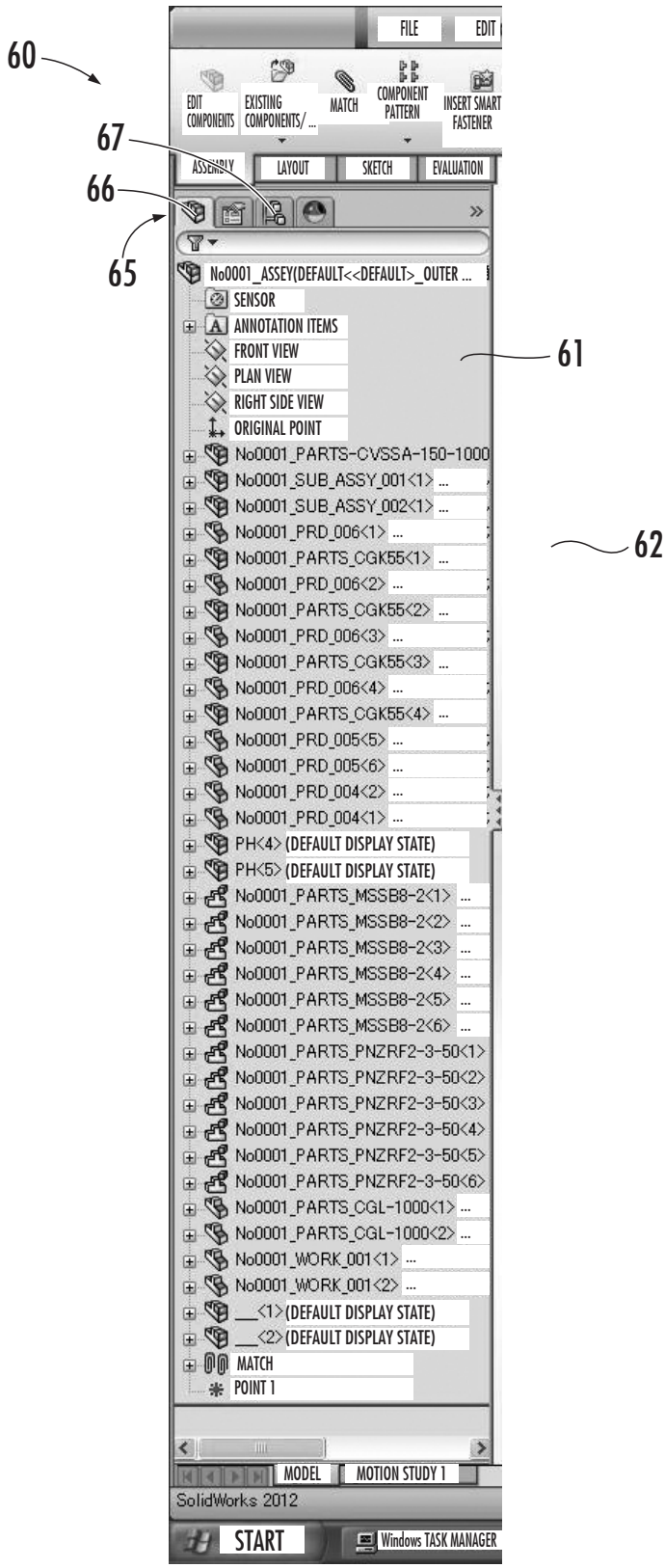

60
67
66
65
61
62
FILE
EDIT
EDIT COMPONENTS
EXISTING COMPONENTS/ ...
MATCH
COMPONENT PATTERN
INSERT SMART FASTENER
ASSEMBLY
LAYOUT
SKETCH
EVALUATION
No0001_ASSEY(DEFAULT<<DEFAULT>_OUTER ...
SENSOR
ANNOTATION ITEMS
FRONT VIEW
PLAN VIEW
RIGHT SIDE VIEW
ORIGINAL POINT
No0001_PARTS-CVSSA-150-1000
No0001_SUB_ASSY_001<1> ...
No0001_SUB_ASSY_002<1> ...
No0001_PRD_006<1> ...
No0001_PARTS_CGK55<1> ...
No0001_PRD_006<2> ...
No0001_PARTS_CGK55<2> ...
No0001_PRD_006<3> ...
No0001_PARTS_CGK55<3> ...
No0001_PRD_006<4> ...
No0001_PARTS_CGK55<4> ...
No0001_PRD_005<5> ...
No0001_PRD_005<6> ...
No0001_PRD_004<2> ...
No0001_PRD_004<1> ...
PH<4> (DEFAULT DISPLAY STATE)
PH<5> (DEFAULT DISPLAY STATE)
No0001_PARTS_MSSB8-2<1> ...
No0001_PARTS_MSSB8-2<2> ...
No0001_PARTS_MSSB8-2<3> ...
No0001_PARTS_MSSB8-2<4> ...
No0001_PARTS_MSSB8-2<5> ...
No0001_PARTS_MSSB8-2<6> ...
No0001_PARTS_PNZRF2-3-50<1>
No0001_PARTS_PNZRF2-3-50<2>
No0001_PARTS_PNZRF2-3-50<3>
No0001_PARTS_PNZRF2-3-50<4>
No0001_PARTS_PNZRF2-3-50<5>
No0001_PARTS_PNZRF2-3-50<6>
No0001_PARTS_CGL-1000<1> ...
No0001_PARTS_CGL-1000<2> ...
No0001_WORK_001<1> ...
No0001_WORK_001<2> ...
__<1> (DEFAULT DISPLAY STATE)
__<2> (DEFAULT DISPLAY STATE)
MATCH
POINT 1
MODEL
MOTION STUDY 1
SolidWorks 2012
START
Windows TASK MANAGER

FIG.8

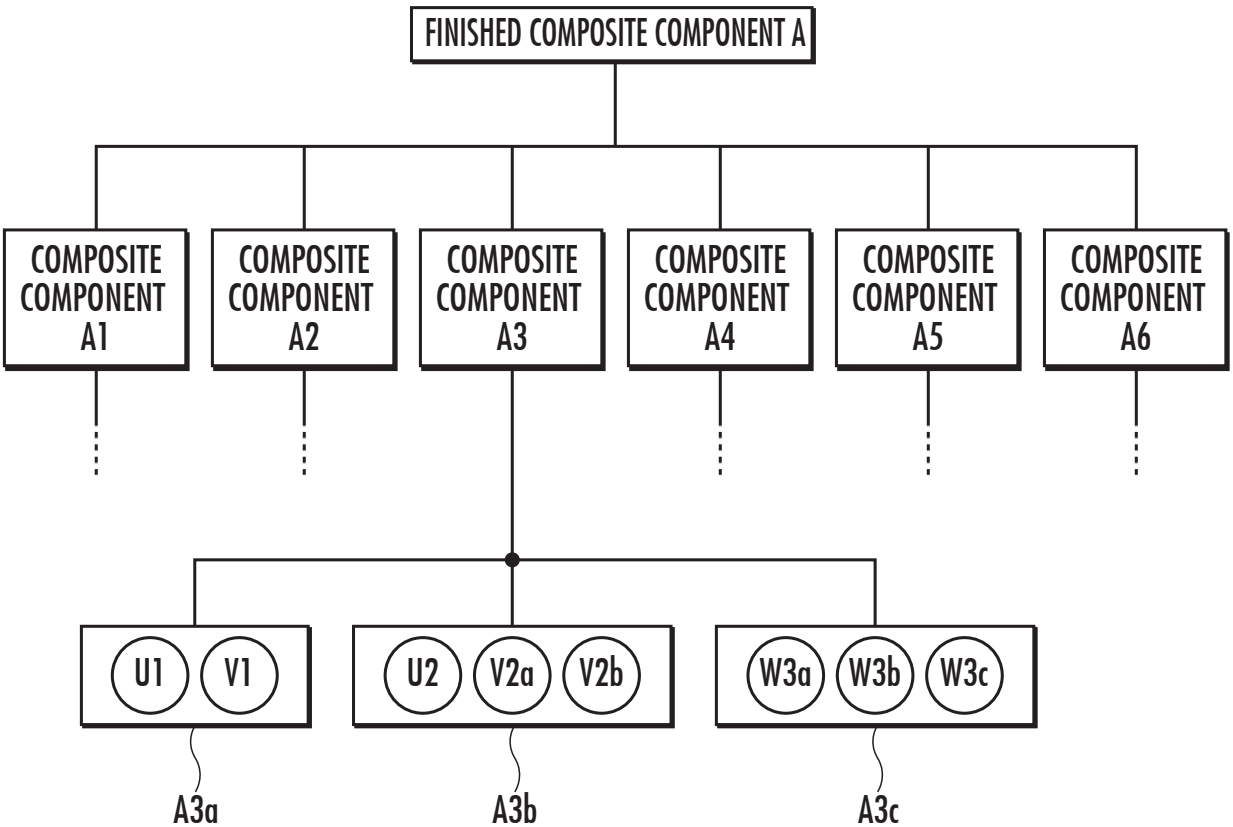

FINISHED COMPOSITE COMPONENT A
COMPOSITE COMPONENT A1
COMPOSITE COMPONENT A2
COMPOSITE COMPONENT A3
COMPOSITE COMPONENT A4
COMPOSITE COMPONENT A5
COMPOSITE COMPONENT A6
U1
V1
U2
V2a
V2b
W3a
W3b
W3c
A3a
A3b
A3c

FIG.9

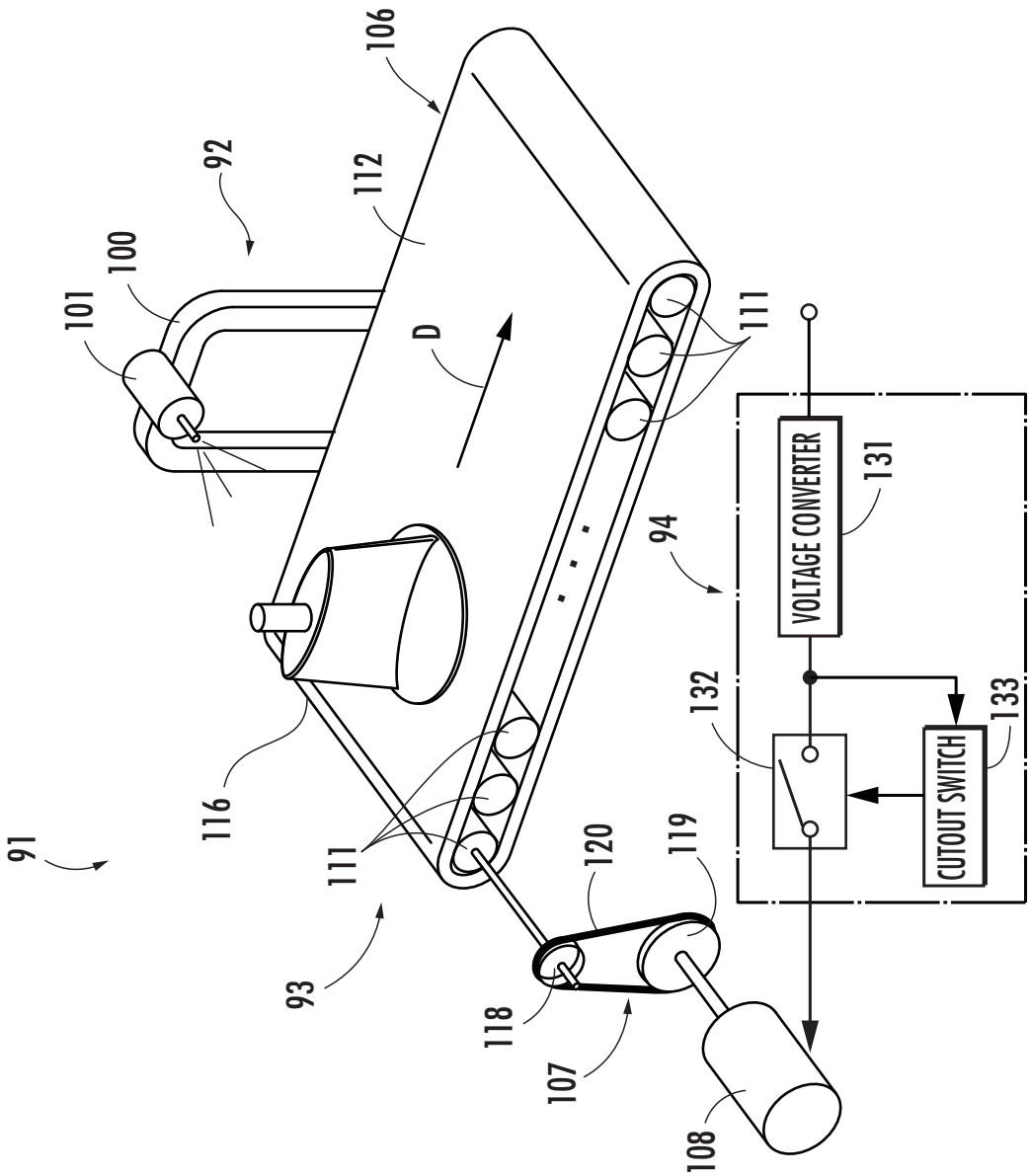

91
92
93
94
100
101
106
107
108
111
112
116
118
119
120
131
132
133
D
VOLTAGE CONVERTER
CUTOUT SWITCH

FIG.10

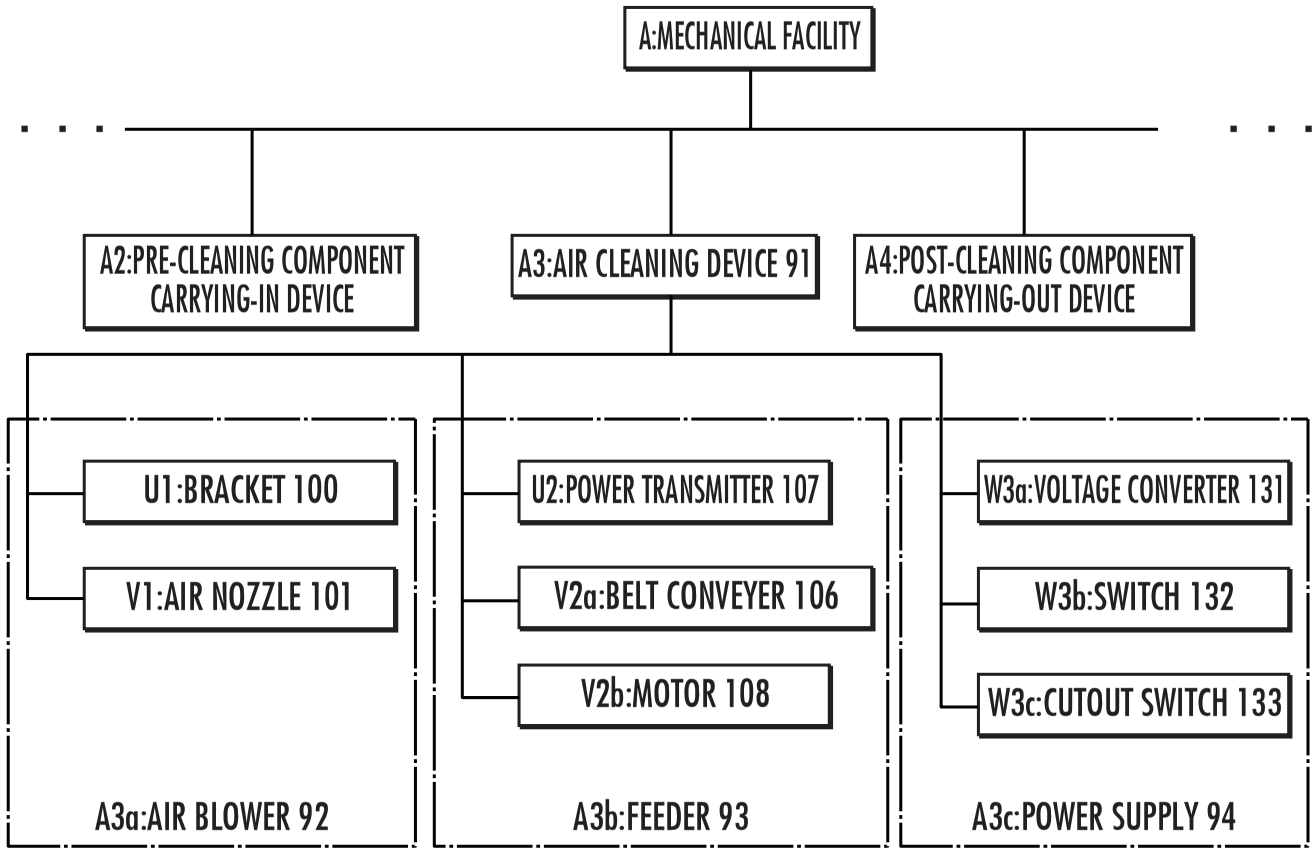

A:MECHANICAL FACILITY
A2:PRE-CLEANING COMPONENT CARRYING-IN DEVICE
A3:AIR CLEANING DEVICE 91
A4:POST-CLEANING COMPONENT CARRYING-OUT DEVICE
U1:BRACKET 100
V1:AIR NOZZLE 101
U2:POWER TRANSMITTER 107
V2a:BELT CONVEYER 106
V2b:MOTOR 108
W3a:VOLTAGE CONVERTER 131
W3b:SWITCH 132
W3c:CUTOUT SWITCH 133
A3a:AIR BLOWER 92
A3b:FEEDER 93
A3c:POWER SUPPLY 94

FIG.11

COMBINATION	P (U1)	Q(V1)
C11	p11	q11
C12	p12	q12
C13	p13	q13
C14	p14	q14

FIG.12

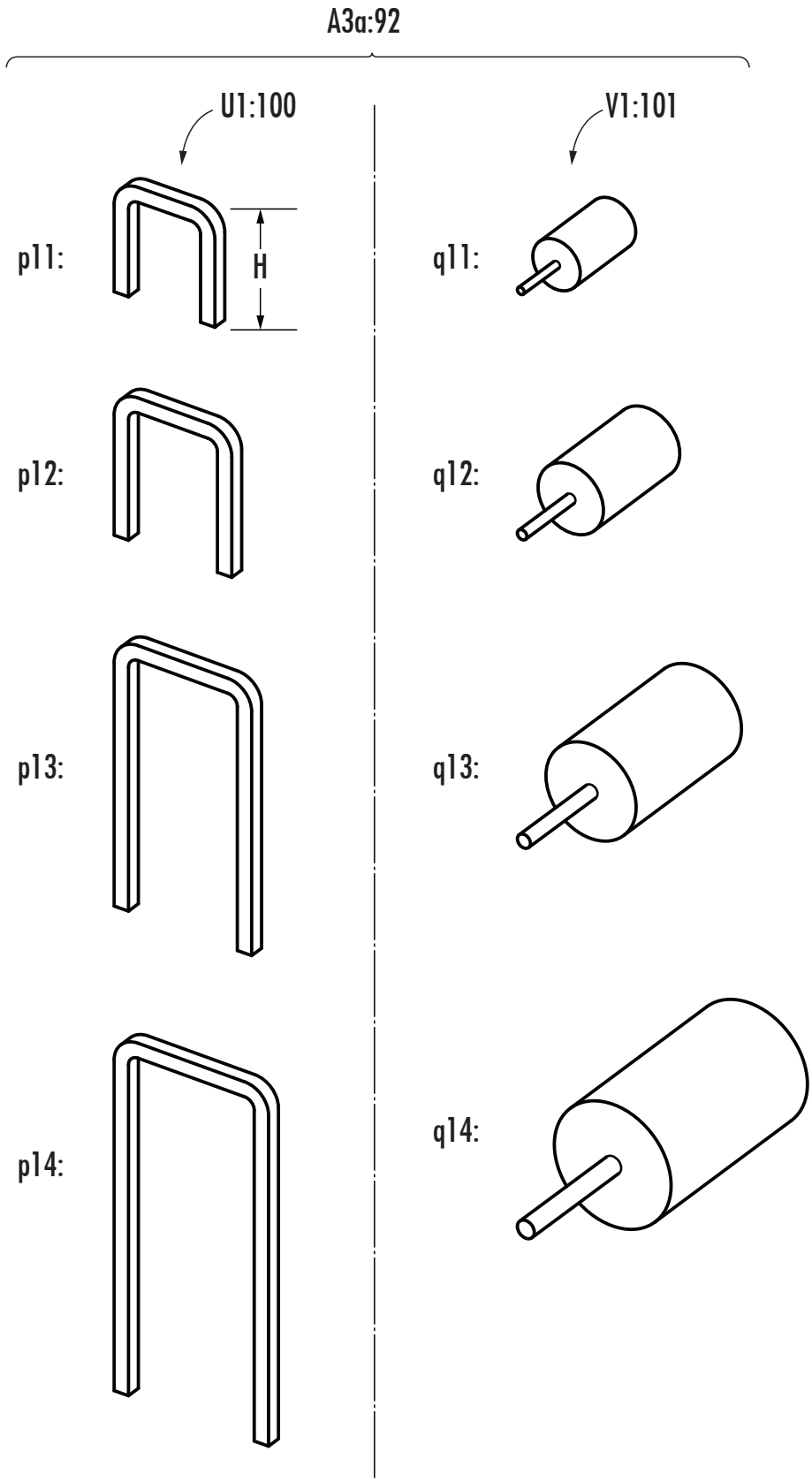


FIG.13

COMBINATION	P (U2)	Q (∨ 2a)	Q (∨ 2b)
C21	p21	q 2a1	q 2b1
C22	p22	q 2a2	q 2b1
C23	p23	q 2a3	q 2b2
C24	p24	q 2a3	q 2b3
C25	p25	q 2a4	q 2b4

FIG.14

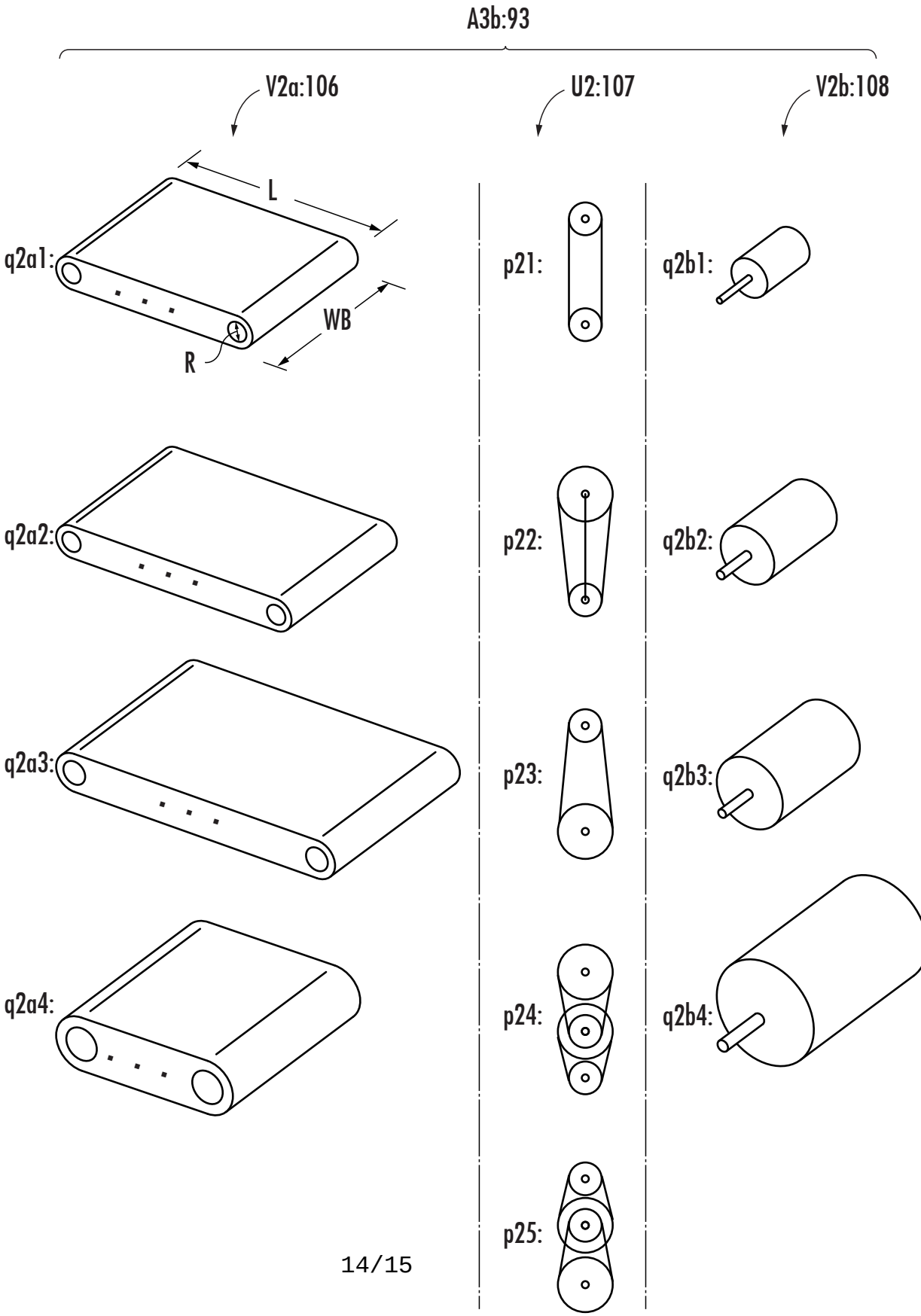
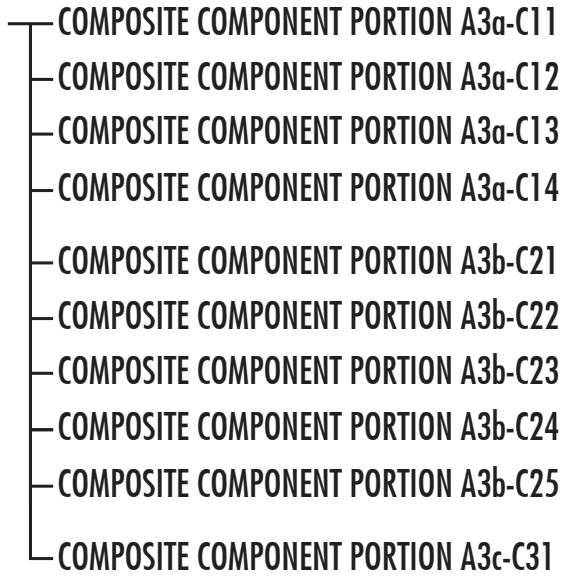

A3b:93
V2a:106
U2:107
V2b:108
L
WB
R
q2a1:
q2a2:
q2a3:
q2a4:
p21:
p22:
p23:
p24:
p25:
q2b1:
q2b2:
q2b3:
q2b4:

FIG.15


COMPOSITE COMPONENT PORTION A3a-C11
COMPOSITE COMPONENT PORTION A3a-C12
COMPOSITE COMPONENT PORTION A3a-C13
COMPOSITE COMPONENT PORTION A3a-C14
COMPOSITE COMPONENT PORTION A3b-C21
COMPOSITE COMPONENT PORTION A3b-C22
COMPOSITE COMPONENT PORTION A3b-C23
COMPOSITE COMPONENT PORTION A3b-C24
COMPOSITE COMPONENT PORTION A3b-C25
COMPOSITE COMPONENT PORTION A3c-C31