

Introduction of YUTANI's Products for Aircraft Industry

YUTANI Corporation



YUTANI's Products for Aircraft Industry

● Nut Runner for Assembly of Aircraft Wheels for Maintenance

- 2-spindle Nut Runner
- For tightening and loosening
- Torque range : Up to **2,450 [lbf · in]**

Existing Problem(s)

- ① **Low productivity** by tightening bolts one by one.
- ② **Low torque accuracy** by tightening bolts one by one.



Solution(s)

- ① **High productivity** by tightening 2 bolts at the same time.
- ② **High torque accuracy** by tightening 2 bolts at the same time.



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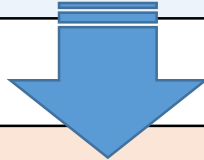
● Hand-held Nut Runner for Assembling Aircraft Engines

- Air tools with special attachments
- Torque range : Up to 45 [lbf · in]

We have samples.

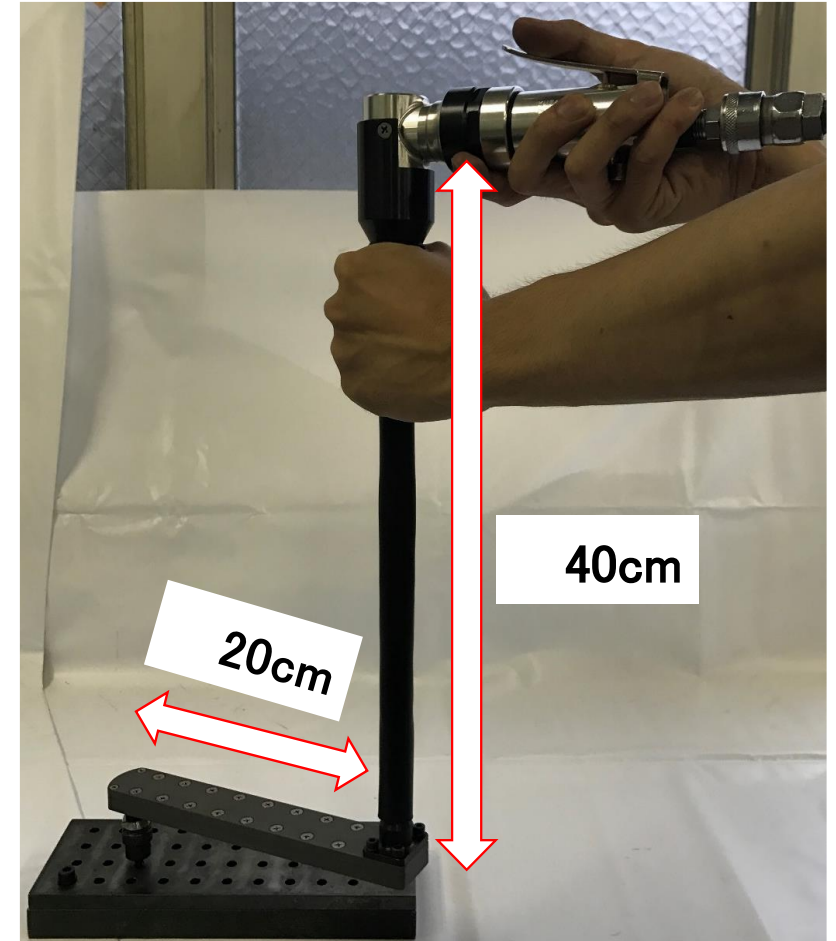
Existing Problem(s)

- ① **Low productivity** by using conventional hand tools with special jigs due to narrow space.



Solution(s)

- ① **High productivity** by using pneumatic tools with attachments.



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● Set of a Jig and a Tool for Assembling Aircraft Engines

- Set of jig and pneumatic Nut Runner with a controller for tightening

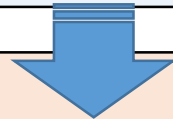
⇒ Size of jig : $\phi 170 \times 250$

⇒ Size of Nut Runner : $\phi 170 \times 950$

⇒ Torque range : Up to **21,200 [lbf · in]**

Existing Problem(s)

- ① **Low productivity and low quality** by tightening to the target torque manually.
- ② **Low productivity** by recording and tightening torque manually.

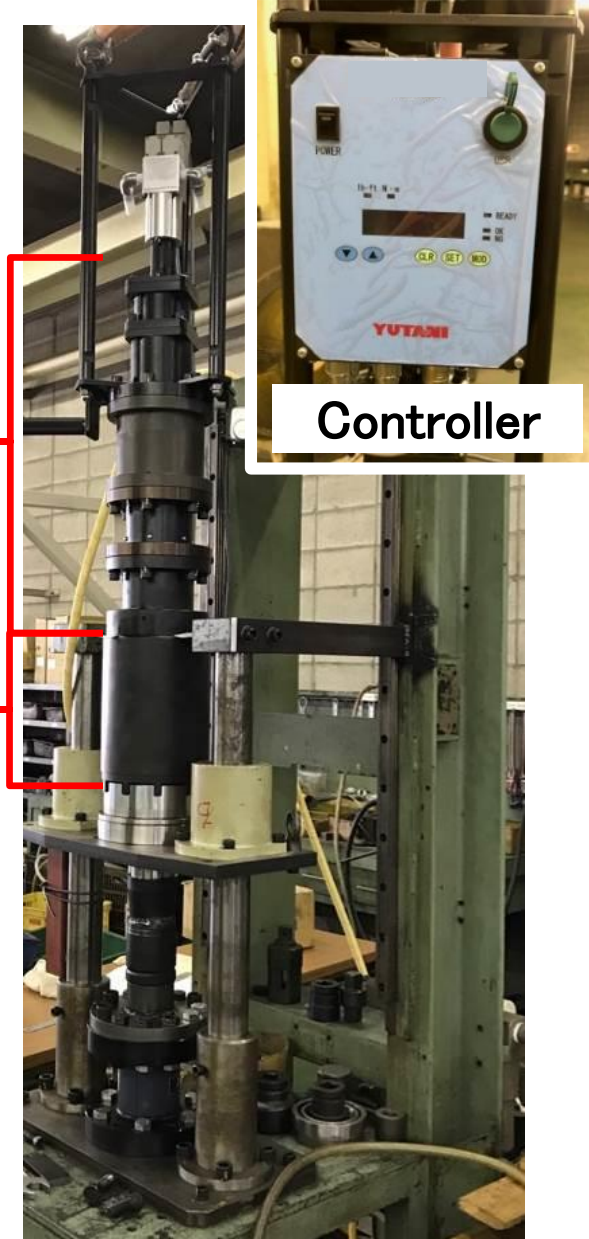


Solution(s)

- ① **High productivity and high quality** by tightening to the target torque automatically.
- ② **High productivity** by recording and tightening torque automatically.

Nut Runner

Jig



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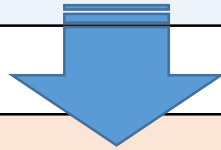
● Collar Tightening Nut Runners for Assembling Aircraft

- Air tools with detachable attachments
⇒ Torque range : Up to 90 [lbf · in]

We have samples.

Existing Problem(s)

- ① **Low productivity** by using conventional hand tools.
- ② **Low productivity and high cost** by using various hand tools to adjust with locations.



Solution(s)

- ① **High productivity** by using pneumatic tools with detachable attachments to avoid and bypass obstacles.
- ② **High productivity and lower cost** by using the same tools for various locations with detachable attachments.



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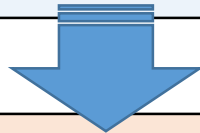
We have samples.

● Hand-held Nut Runners for Assembling Aircraft

- Ultra-light weight and small pneumatic tools
- Torque range : Up to 3 [lbf · in]

Existing Problem(s)

- ① **Low productivity** by using conventional hand tools due to narrow and limited space.
- ② **Low productivity** by using tools without locking mechanism.



Solution(s)

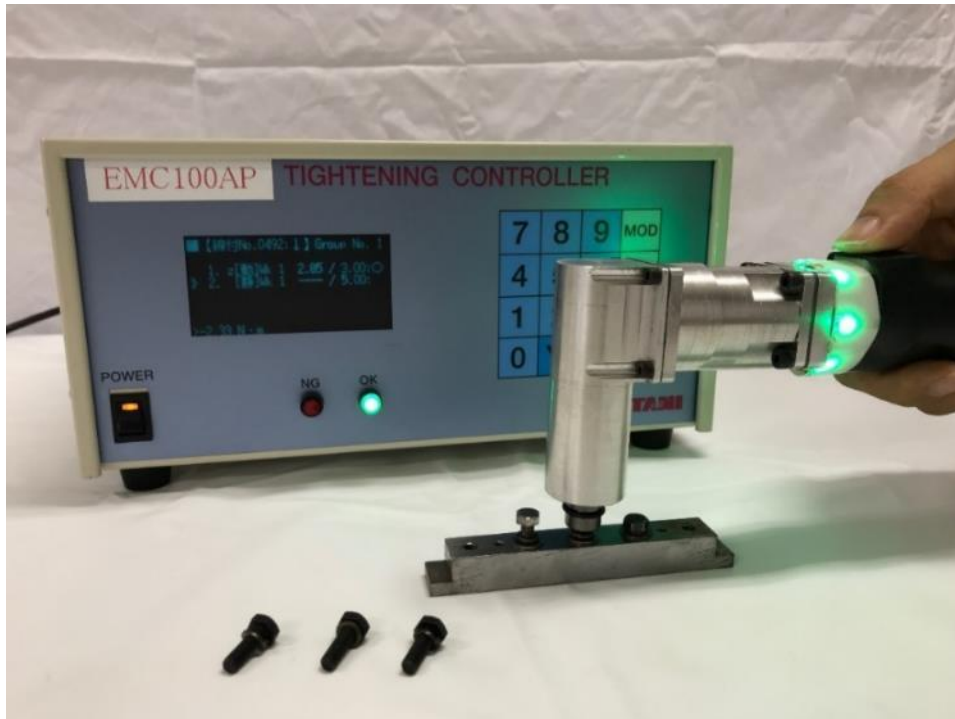
- ① **High productivity** by using ultra-lightweight pneumatic tools with small size air hoses for narrow spaces.
- ② **High productivity** by using pneumatic tools with locking mechanism.



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● Hand-held Nut Runner for Aircraft Assembling.

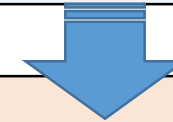
- Torque controlled pneumatic tools with dual(2) torque sensors.
- Tightening by air and by hand with pneumatic tools to assure control of tightening torque.
- Torque range : Up to **105 [lbf · in]**



**Assemble aircraft
more Securely, Quickly and Easily**

Existing Problem(s)

- ① **Low productivity** by using different tools for preliminary tightening and final tightening respectively.
- ② **Unable to verify malfunction of torque sensor.**
- ③ **Low productivity and low quality** by using conventional hand tools.
- ④ **Low productivity** by recording & tightening torque manually.



Solution(s)

- ① **High productivity** by using the same tools for preliminary tightening and final tightening.
- ② **Assure function of torque sensor** by double independent sensors.
- ③ **High productivity and high quality** by using pneumatic tools with torque control.
- ④ **High productivity** by recording & tightening torque automatically.