



應用奈米科技股份有限公司 Applied Nano Technology Science, Inc.

ANTS[®]

Specific Vacuum (transport) Components Supplier
2b6c111c 19c11111 (19c11111) 19c11111 19c11111

Introduction & Portfolio

Agenda

- Introduction
- Capability
- Portfolio

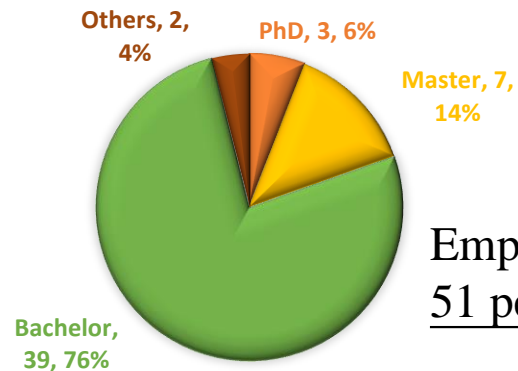
ANTS Introduction

Company Profile

- Applied Nano Technology Science, Inc., ANTS



Established in 2001
by Dr. Ih-Hong Loh
and other co-
founders.

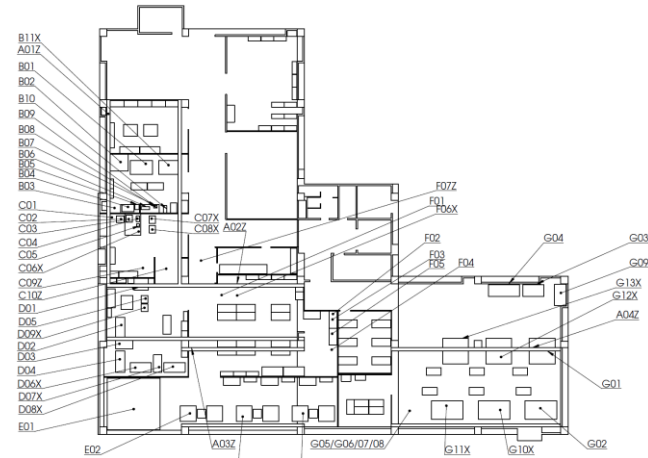


Employee:
51 persons in total

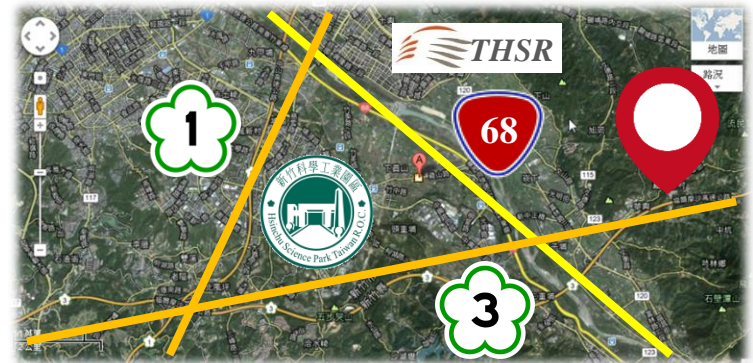
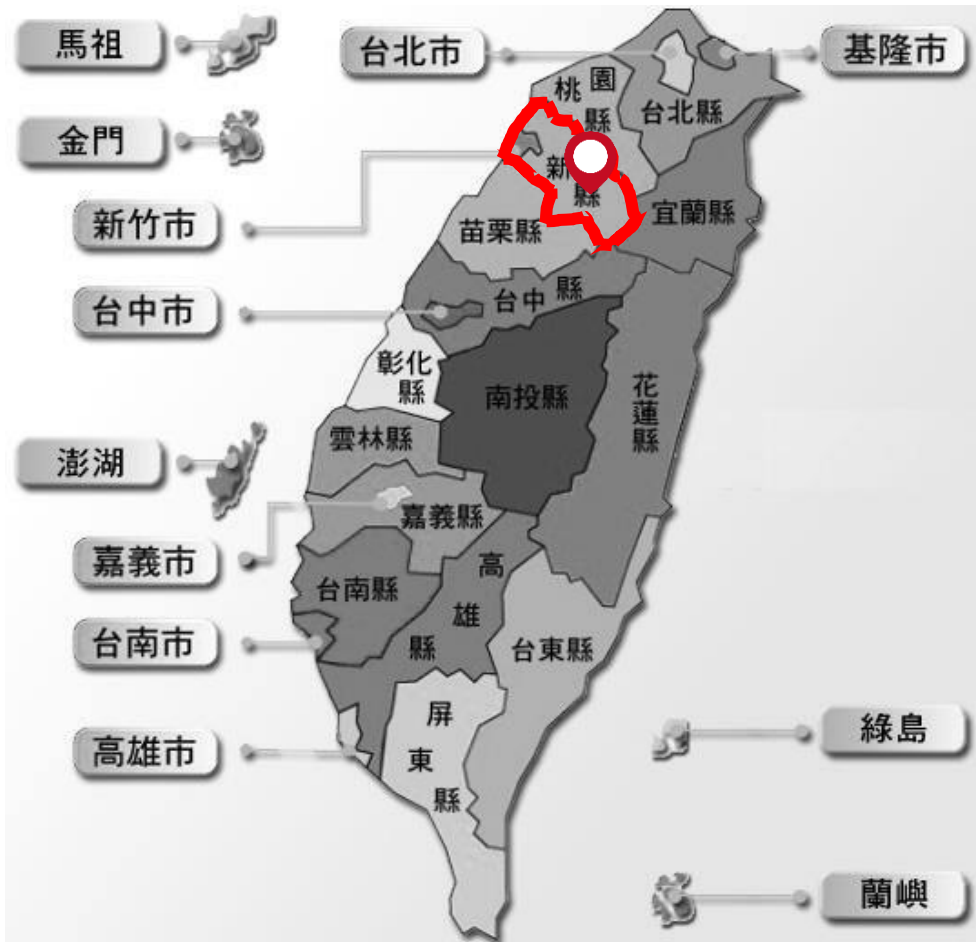
* New plant starts operation in July, 2016.

Company Profile

- Address
 - No. 306, Wenhua St., Qionglin Township, Hsinchu County 30743, Taiwan
- Landscape
 - 4,500 m²



Welcome to visit ANTS



No. 306, Wenhua St., Qionglin Township,
Hsinchu County, 30743, Taiwan (R.O.C.)



新竹縣芎林鄉文華街306號

Board Members

2013-2014
International
President



George Yen
Chairman



Dr. Ih-houng Loh

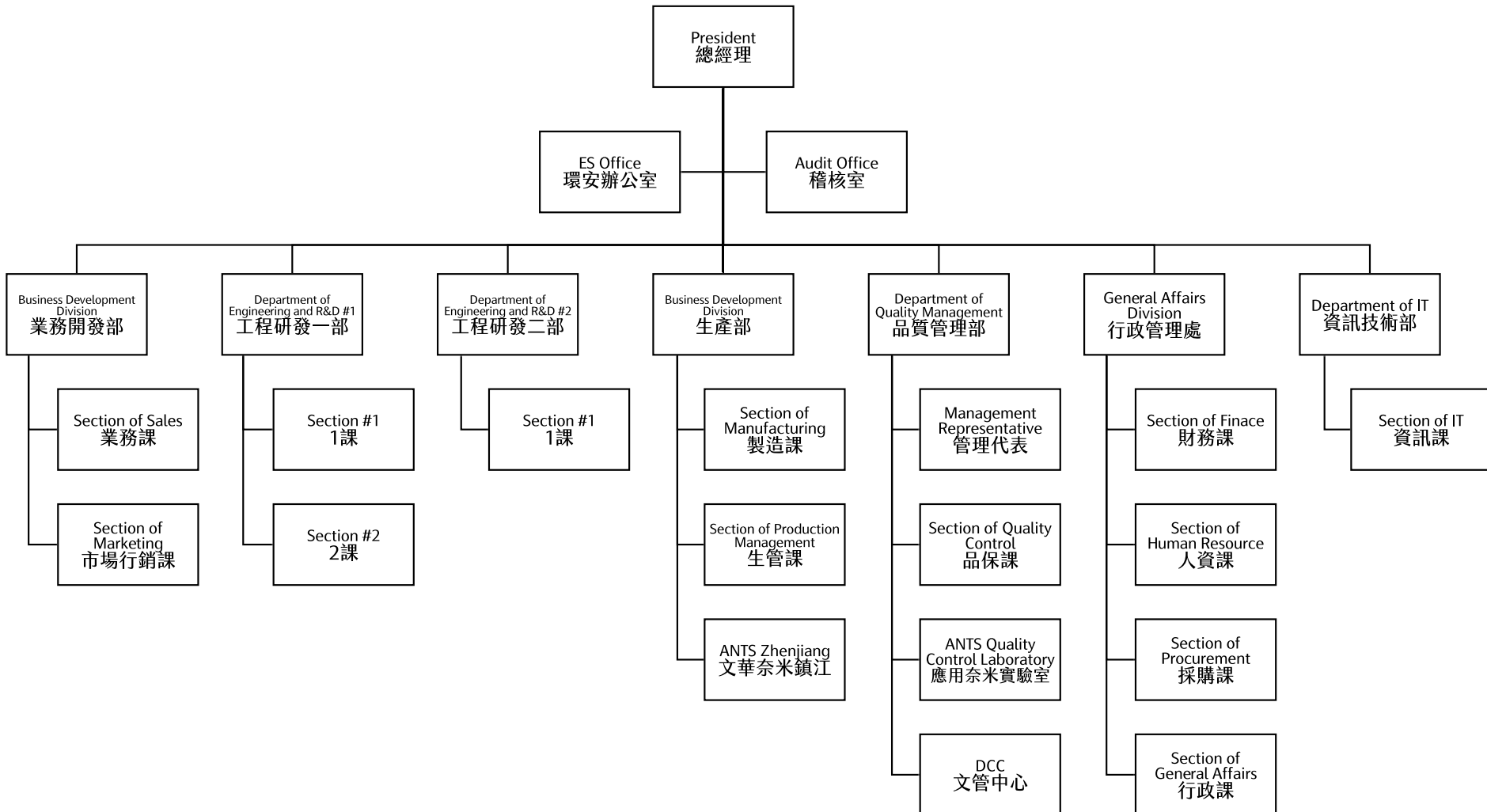
MIT, PhD,
Material Science
& Engineering

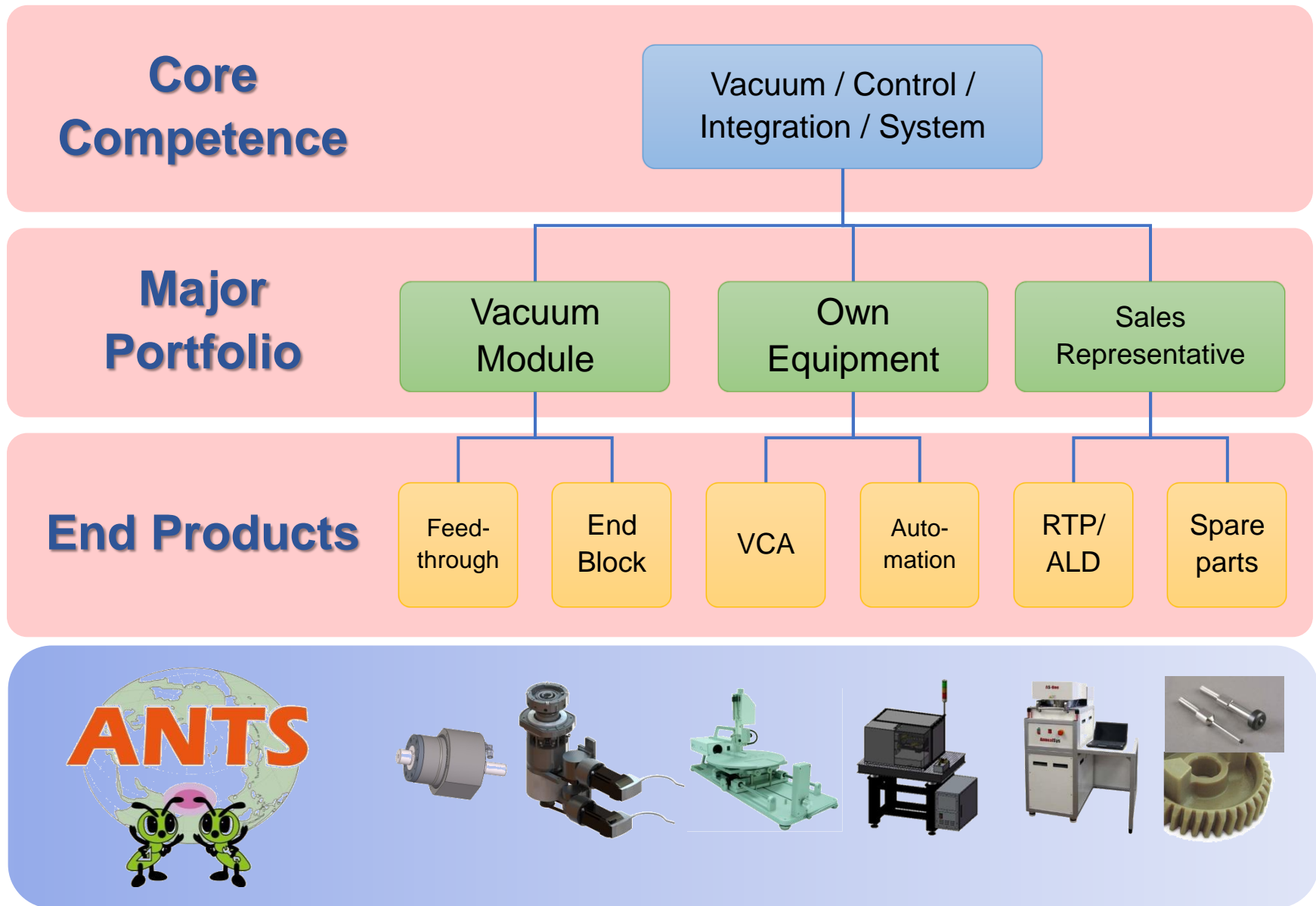


GSC



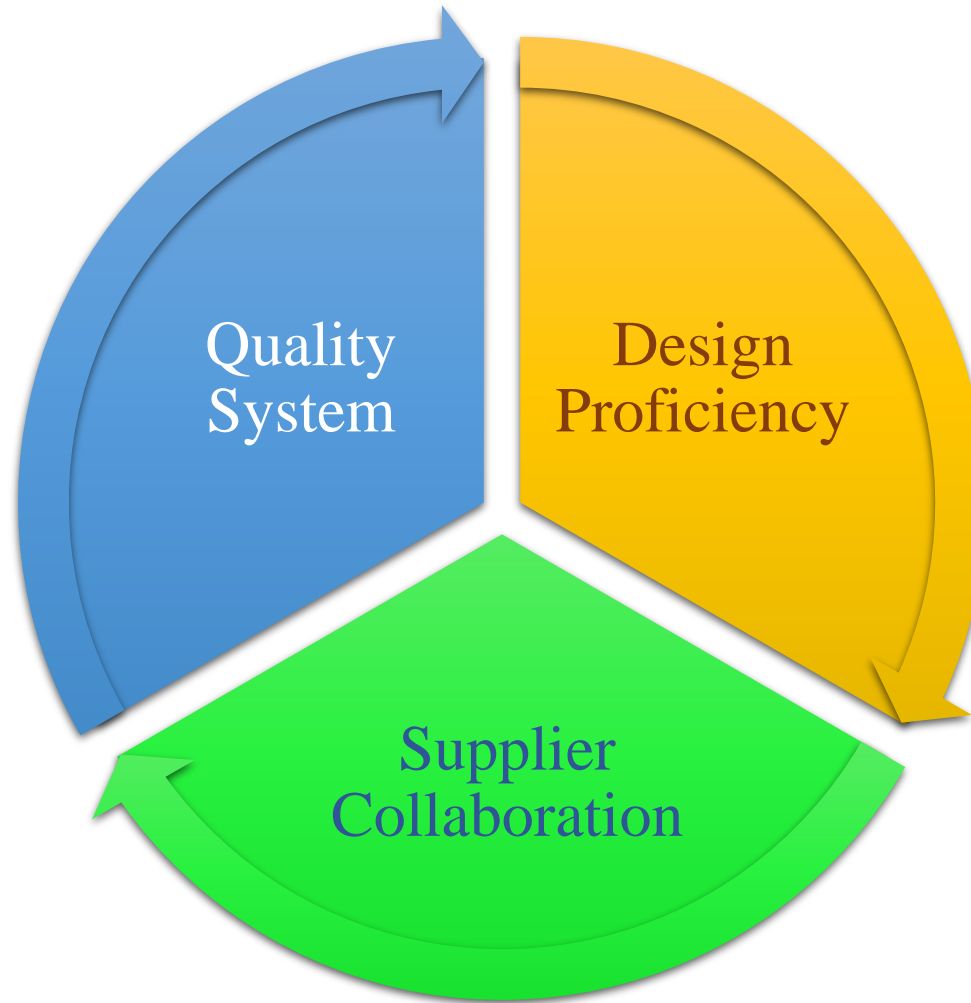
ANTS Org Chart





ANTS Capability

ANTS Capability



Quality System

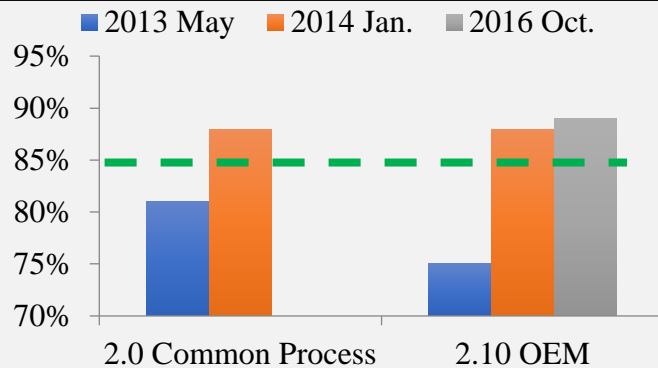
ISO 9001-2008 => 2015

ISO 17025

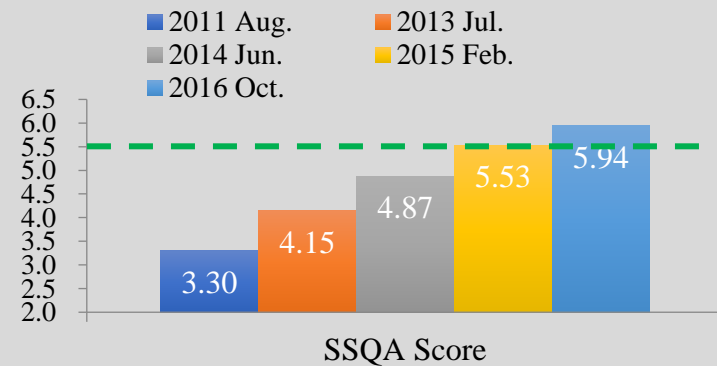


Scheduled to
certificate in
Jun. 2017

Customer's Technical Assessment



Customer's Quality System Audit



Supplier Collaboration

CNC in Sister company



Turning x3, Size ≤ 1 m

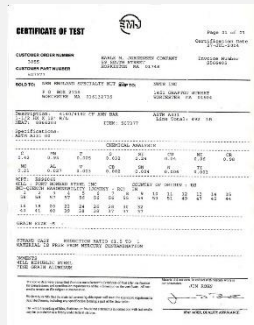
Lathe x3, Size ≤ 1 m

CNC in Partner company

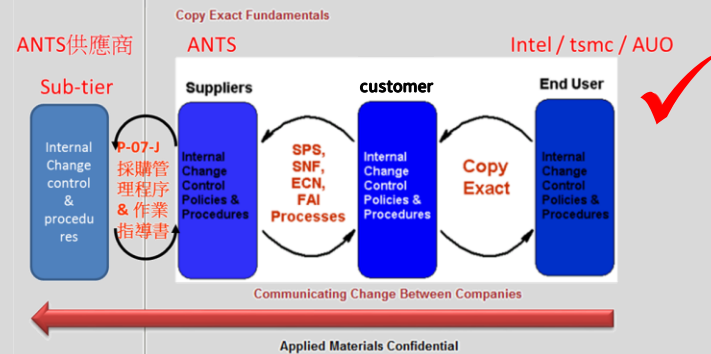


Lathe x a lot, Size ≤ 5 m

Material Sources and Certificates

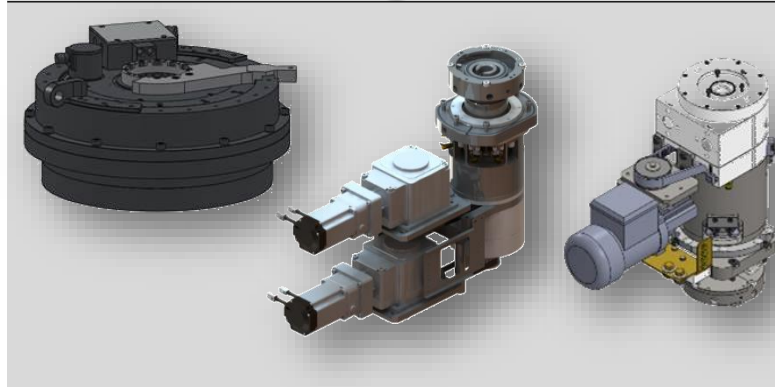


Supp. Selection, NDA&IP Protection

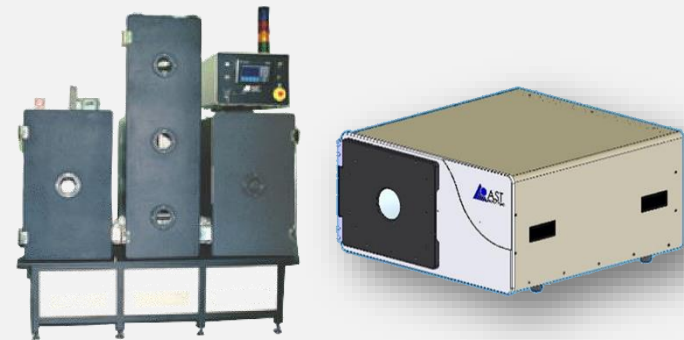


Design Proficiency

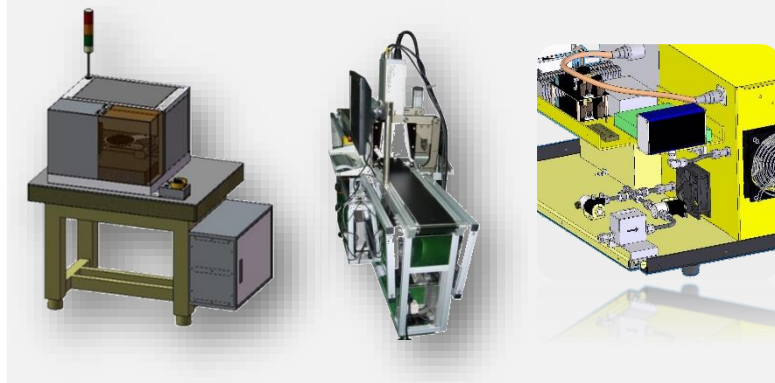
Mechanical Design



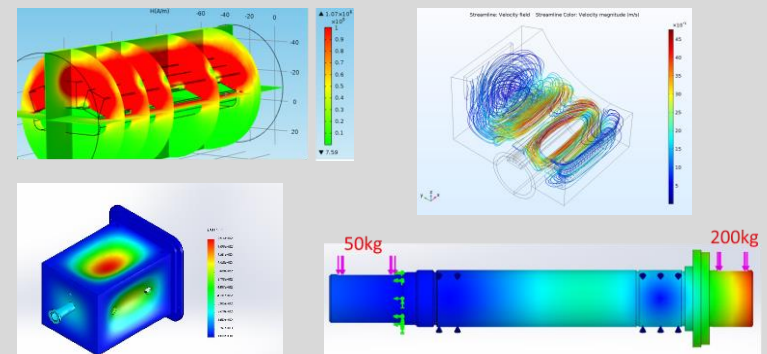
Vacuum Application



Electrical / Pneumatic Integration



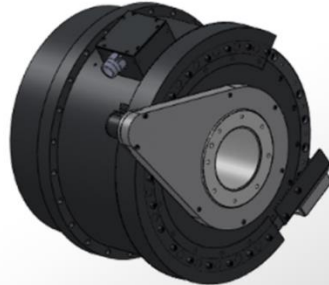
Numerical Simulation



ANTS Portfolio

Portfolios

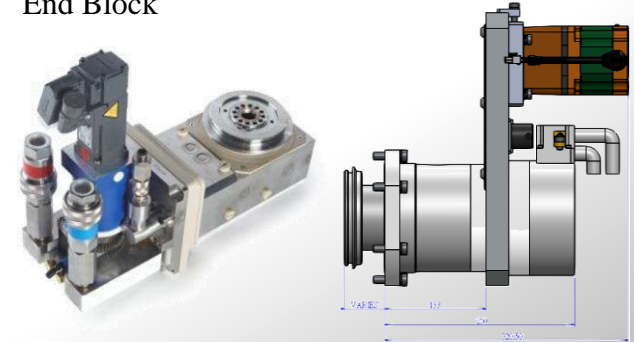
Design capability



\varnothing 31mm rotation
 \varnothing 128mm gas through
 \varnothing 226mm water cooled
 \varnothing 600mm motor integrated

- Magnetic Feedthrough
- End Block
- VCA
- Automation

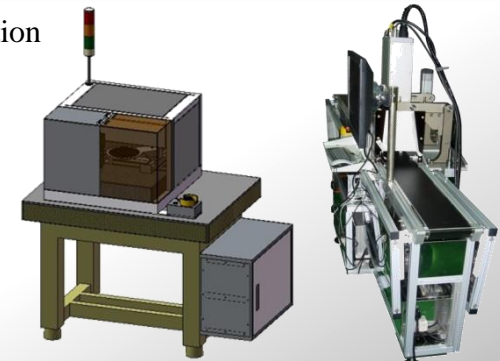
• End Block



• VCA – contact angle measurement



• Automation



ANTS' Customers on Feedthrough

- International EQ suppliers



- Local EQ suppliers



- Robot overhaul companies



- End user

- FPD AUO INNO LUX



- Semiconductor



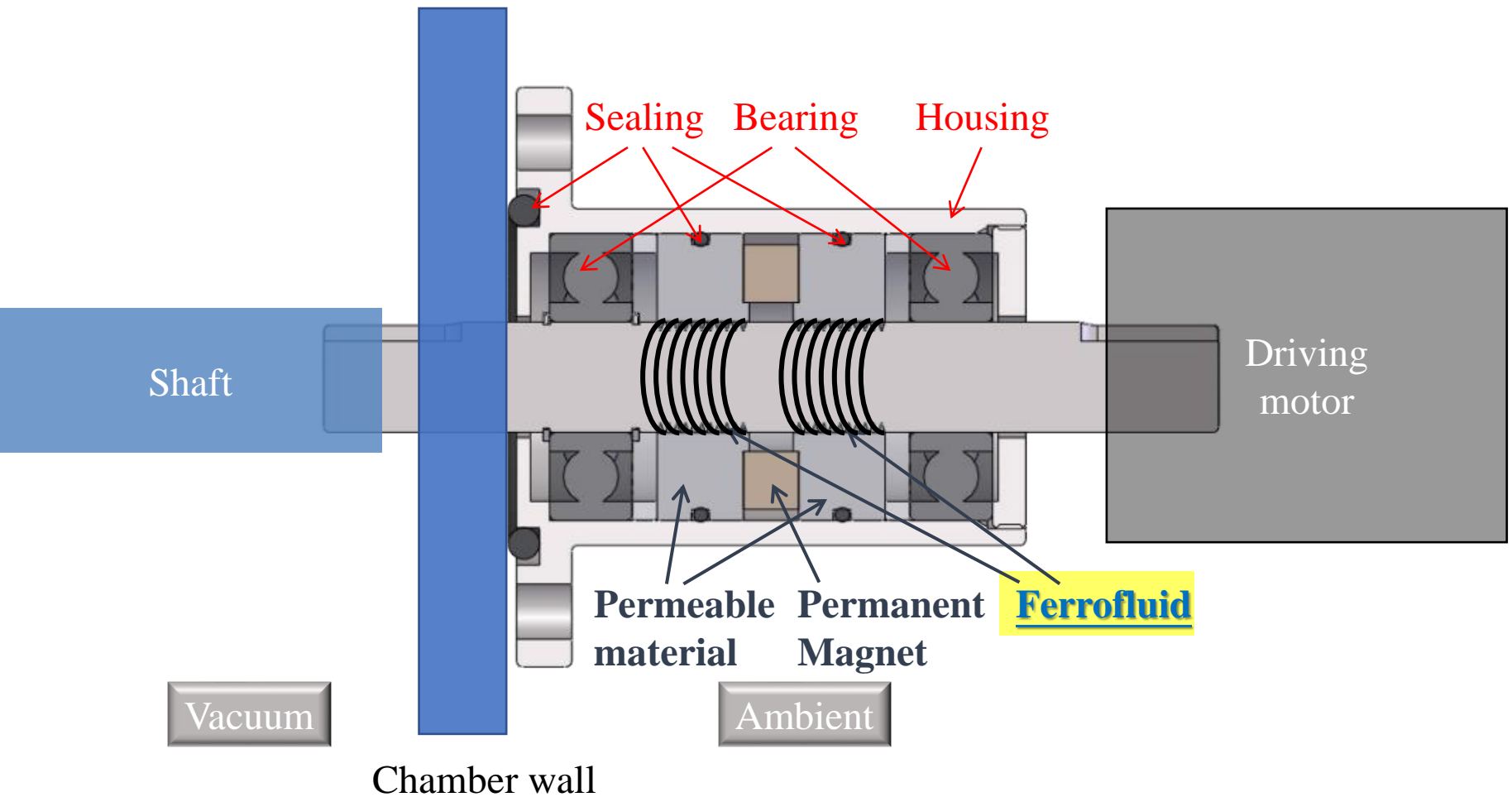
- Solar cell



- LED

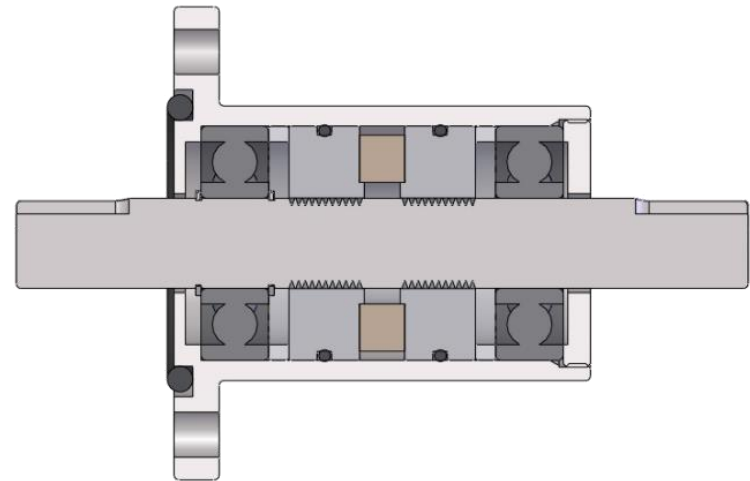


Rotary feedthrough structure



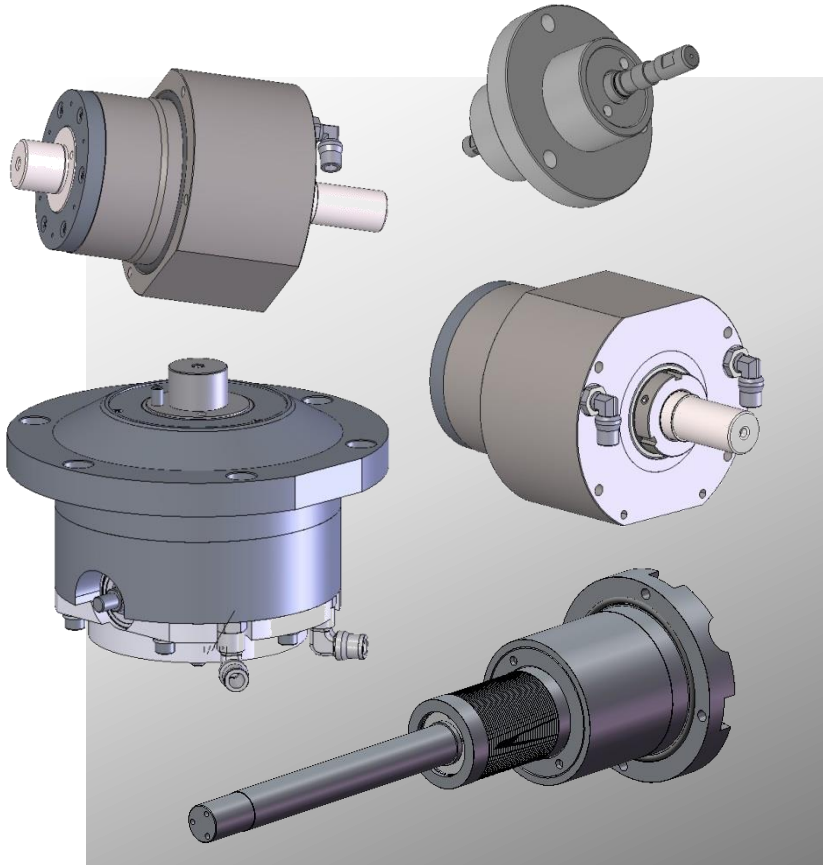
Rotary feedthrough advantages

- Long lifetime
- No friction / no particle
- Low power consumption
- High vacuum / high rpm / high reliability at high temperature

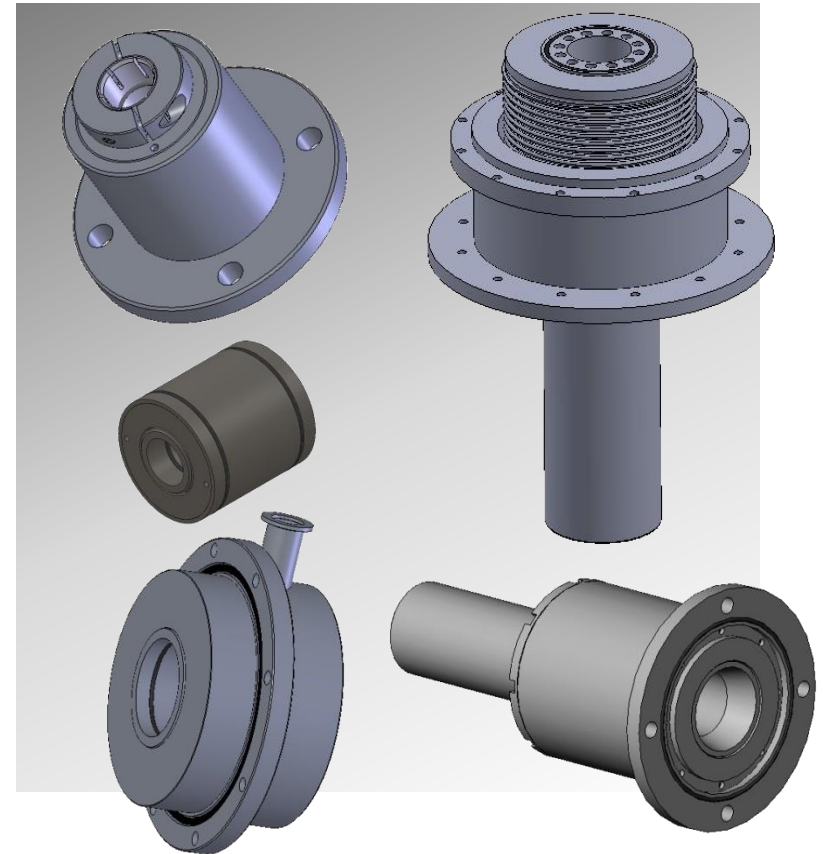


Shaft Types

- Solid

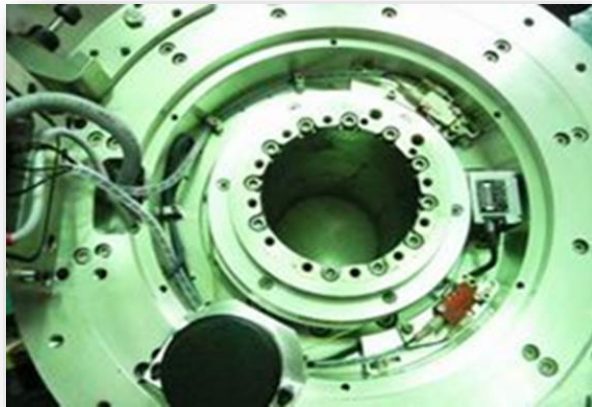
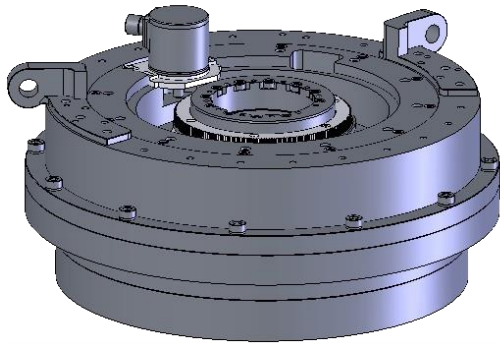


- Hollow

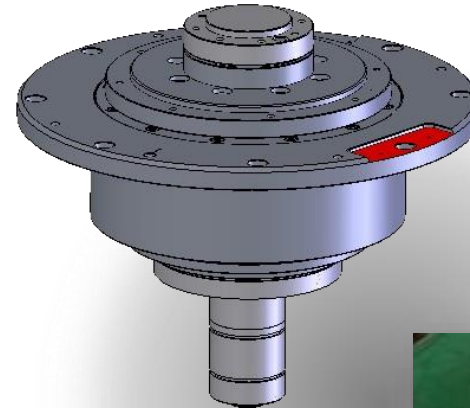


Diversity Design

- Motor integrated



- Multi-axis design



Manufacturing Line



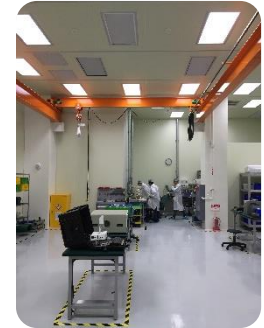
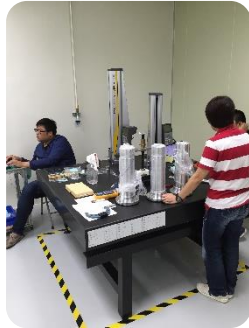
Evaluation
& QC

Cleaning

Assembly

Dynamic
Test

Packaging



IQC Instrument

Evaluation
& QC

Cleaning

Assembly

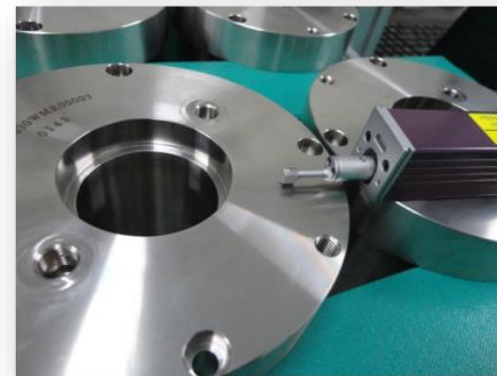
Dynamic
Test

Packaging

- Height Gauges



- Surface Roughness Tester



- 2.5D / Digital Micrometer



- Well Controlled QC Room



Testing Laboratory
3363

Parts Clean

Evaluation
& QC

Cleaning

Assembly

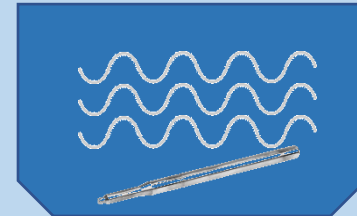
Dynamic
Test

Packaging

Preliminary + Chemical Cleaning



Supersonic Cleaning



Drying



Baking



Assembly



Dynamic Test

Evaluation
& QC

Cleaning

Assembly

Dynamic
Test

Packaging

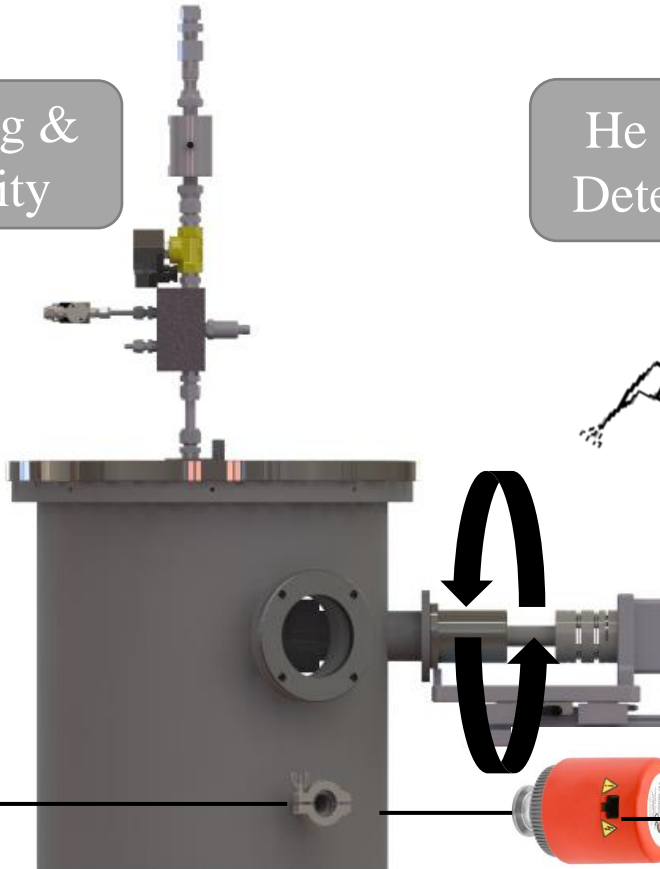
Driving &
Facility

He Leak
Detection

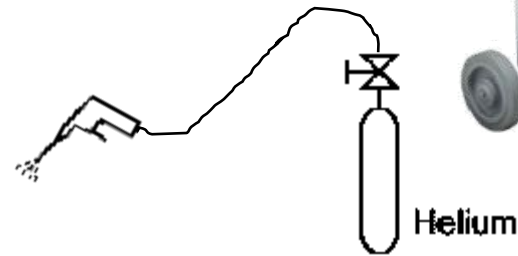
Vacuum
system



Turbo Pump



Gauge



Helium



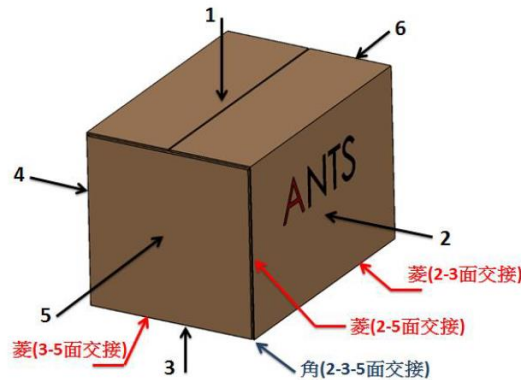
Data records

Automatic
Data Record
and OK/NG
Diagnostic

Packaging



- Vacuum Bag Packing
- Following SOP to Pack
- Well Organized Delivery

[illegible]



Thanks for your attention !