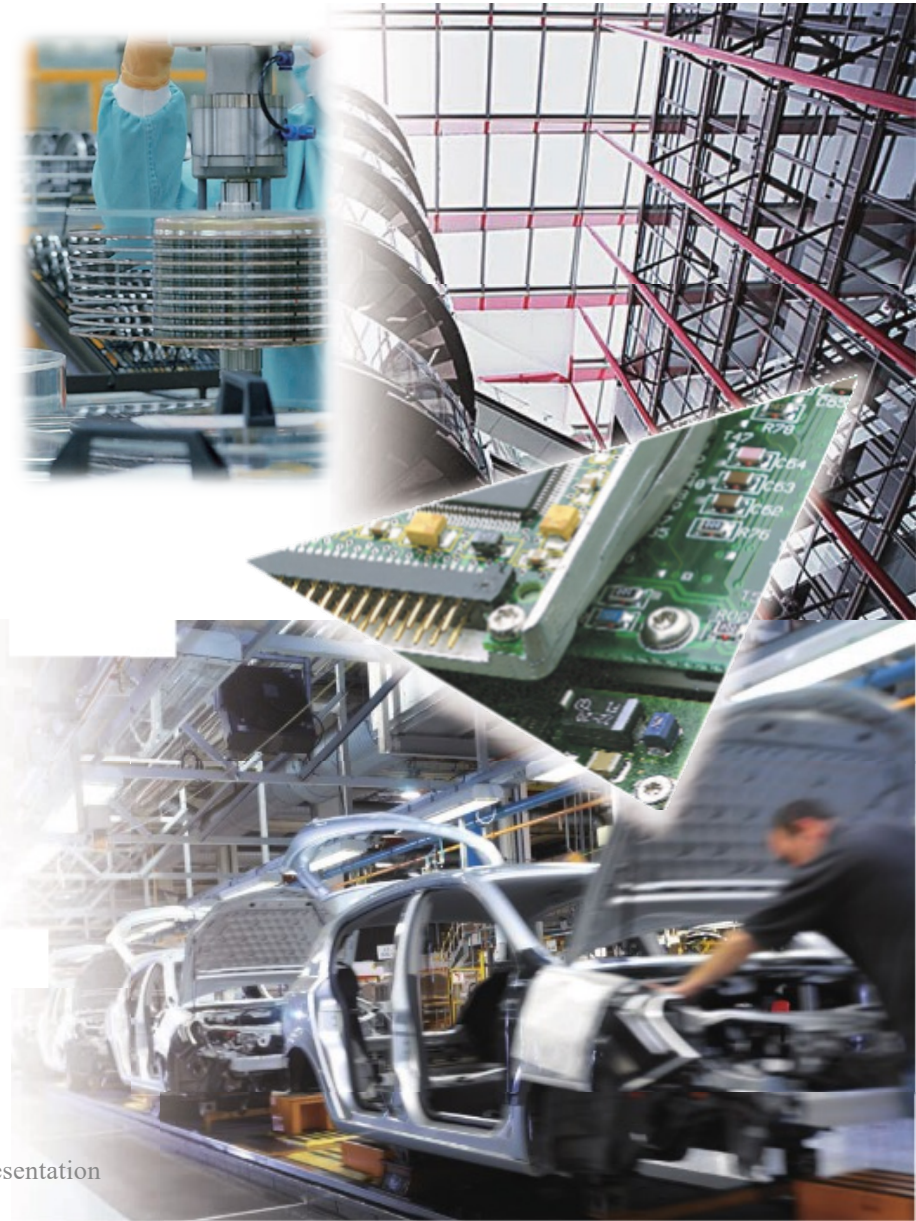


# **VESSEL**

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## **Bits & Sockets presentation**



VESSEL EUROPE - Bits & Sockets Presentation

## **Bits presentation Summary**

- ❖ Introduction : History
- ❖ Bits Technology :
  - Configuration
  - Material
  - Heat treatment
  - Screw fitting
- ❖ Engineering Facilities
- ❖ Special Bits : Special inquiry form
- ❖ Manufacturing Capacities
- ❖ Logistics capacities
- ❖ SKU
- ❖ Applications

# Introduction

Since 1916, **VESSEL** has been a Japanese leading manufacturing company of screwdrivers and bits.

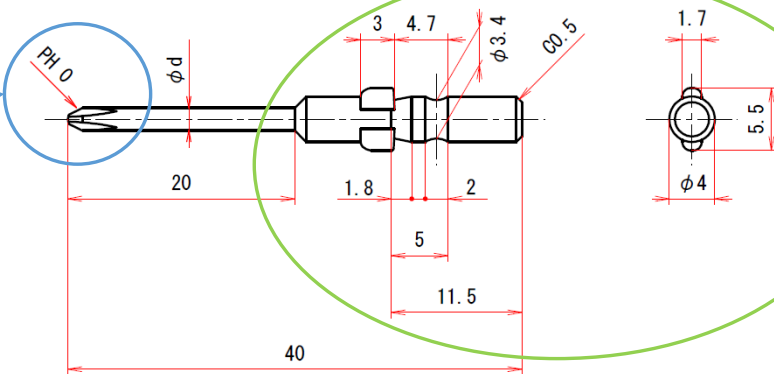


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# Bits Technology: Configuration

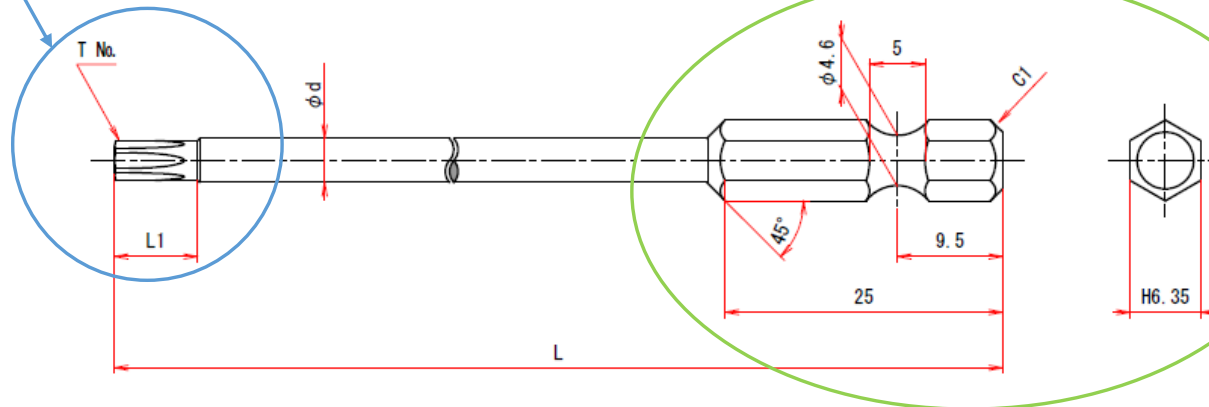
## Tips:

- ISO and JIS/JCIS Cross Recessed Standards
- Torx®, Torx Plus® licences



## Drives:

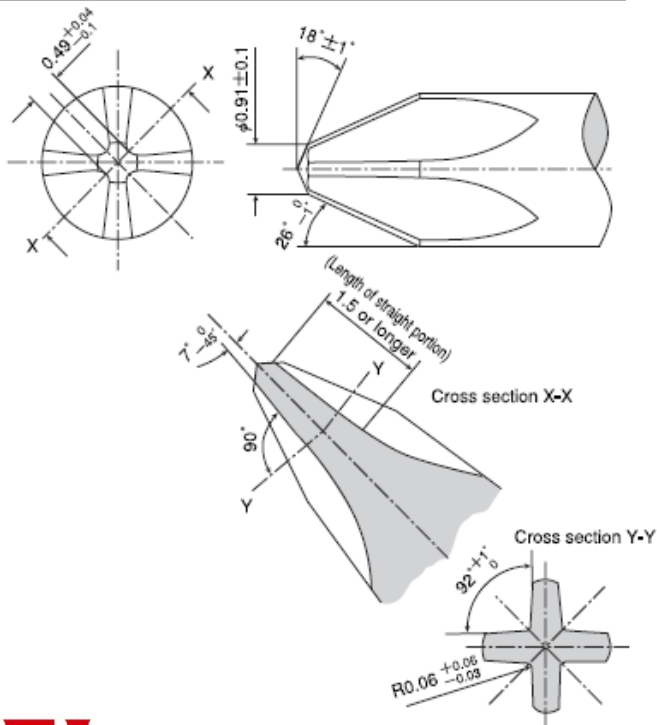
- Wing Shank Ø4mm
- DIN Standards



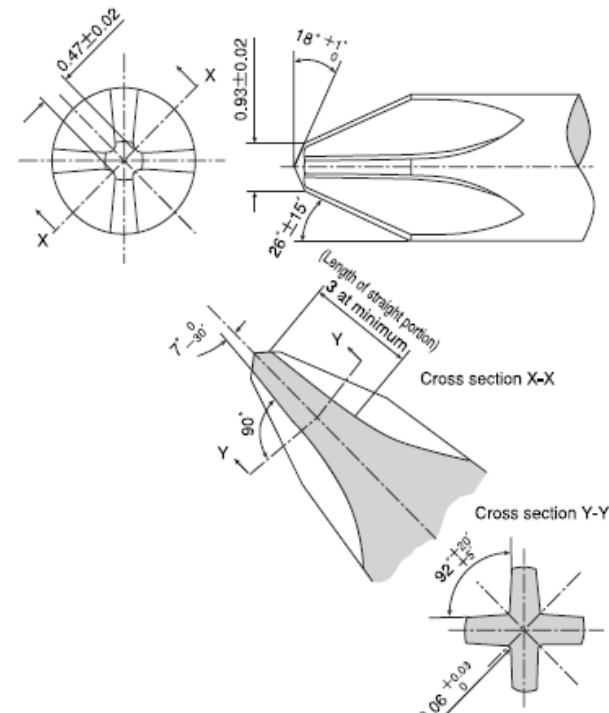
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# Bits Technology: Differences between two standards

**JIS No. 0** Japanese Industrial Standards (JISB4633)



**JCIS No. 0** Japan International Cooperation System (JCIS9-70)





# Bits Technology: Material

## ⇒ High Grade Materials

- Usage of each Metal Characteristics:
  - Carbon
  - Nickel
  - Molybdenum
  - Silicon
  - Chrome
  - And Many More!
  - Magnesium
  - Vanadium



Raw Materials (Bits)

# Bits Technology: Heat treatment

## ⇒ Best Heat Treatment

- Hardness Large Role: **Durability** of the product
- Wear & Shock Resistance



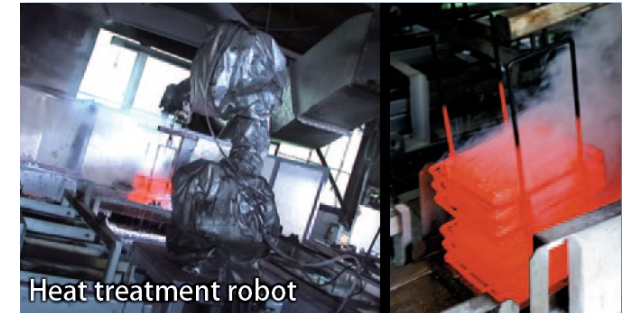
HEAT TREATMENT CLASS	SCREWS TO BE FASTENED	TYPE OF FIELD
<b>X</b> HIGHEST HARDNESS	PRECISION SCREWS, AUTOMATIC MOUNTING SCREWS, CONNECTING SCREWS	ASSEMBLY OF PRECISE EQUIPMENT, AUTOMATIC MACHINE SCREWING OF LIGHT ELECTRICAL APPLIANCE, HOUSING
<b>H</b> HIGH HARDNESS	WOOD SCREWS, MACHINE SCREWS, SELF-TAPPING SCREWS, SELF-DRILLING SCREWS	ASSEMBLY OF LIGHT ELECTRICAL APPLIANCE & AUDIO EQUIPMENT, BUILDING & WOODWORKING
<b>G</b> STANDARD HARDNESS	TAPPING SCREWS MACHINE SCREWS	ASSEMBLY OF CAR, MACHINE PARTS & WINDOW DOOR SASHES

VESSEL Standard

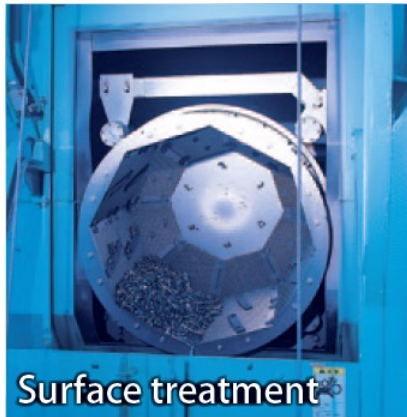
Unsurpassed Competitive Advantage in VESSEL Bits & Sockets Range

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# Bits Technology: Surface treatment

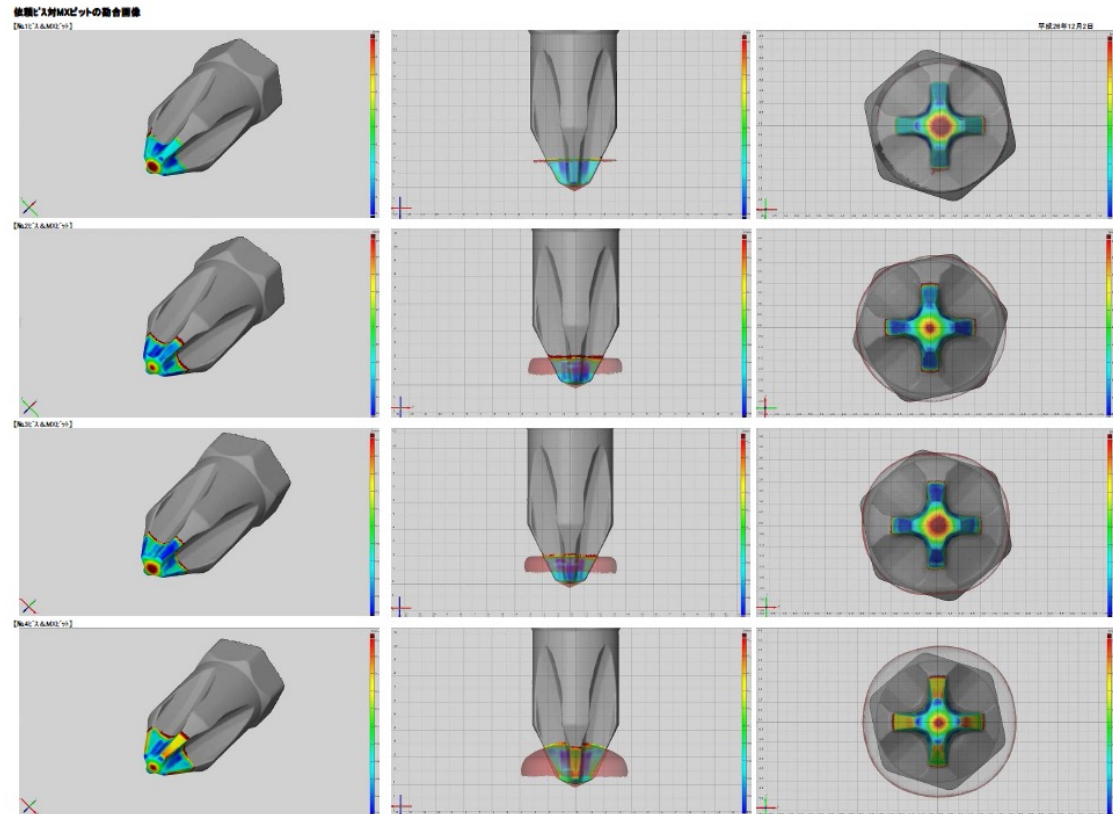


## ⇒ Surface Treatment

- Eliminate impurities from milling process
- Shot-Blast finish as Standard (“shiny metallic color”)
- Oil Bath preventing product corrosion

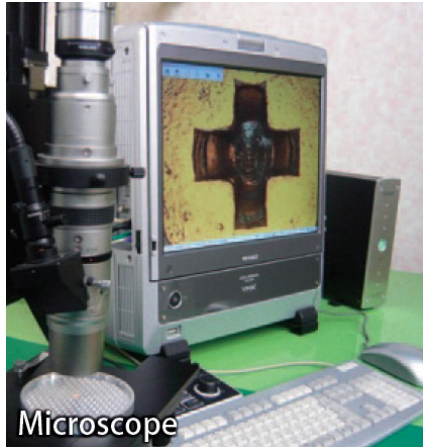


# Bits Technology: Screw Fitting



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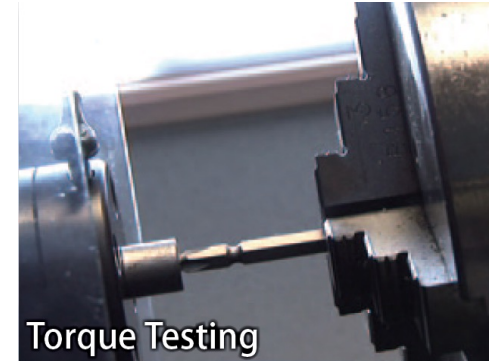
# Engineering expertise and testing facilities



Microscope



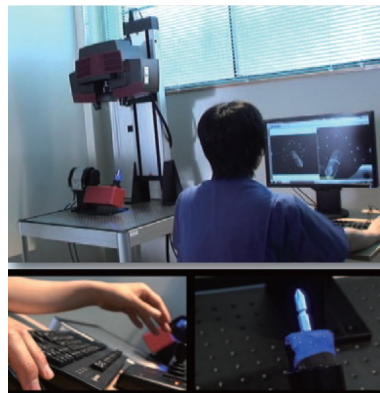
Contour Measuring Instruments



Torque Testing



Cam-out testing



Automated Thread Fastening Machine

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# Special Bit Inquiries

All the required information to manufacture your suitable solution

### General Purpose of the bits?

- General Information about the application:

.....

- General Information about the environment (industry line, cleanroom, ...):

.....

#### Operator:

- ☐ Manual
- ☐ Automation Installed

Operator

#### Bit:

- Dimensions required:
  - ☐ Length: .....
  - ☐ Diameter: .....
  - ☐ Recess Diameter: .....
  - ☐ Recess Length: .....
  - ☐ Special (need drawing or samples)

#### Screw:

- Samples if available

#### Tool:

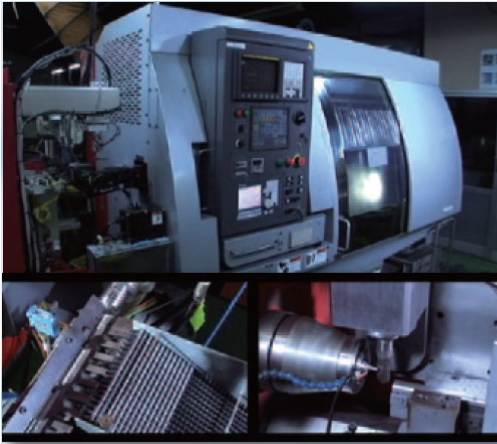
- Fastening Mechanism:
  - ☐ Direct
  - ☐ Impact
  - ☐ Impulse
  - ☐ Controlled
- Fastening Torque: .....
- Fastening Speed: .....
- Drive specifications:
  - ☐ ¼" Hex
  - ☐ 3mm Hex
  - ☐ 8mm Hex
  - ☐ 11mm Hex
  - ☐ Screw Shank: .....
  - ☐ Special (need drawing of tools or bits / or samples)
  - ☐ Insert Bits
  - ☐ Halfmoon
  - ☐ Wing Shank 5mm
  - ☐ Wing Shank 4mm

#### Material:

- Samples if available

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# Manufacturing Capacities



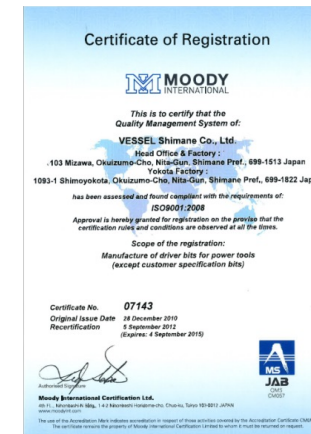
24-hour unmanned operation  
with manufacturing systems for  
cutting-edge technology



- “Milling” process (*Vs Forged*)
- Continuous investments in best cutting machines
- In-House development
- Years of know-How in precision technologies

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ISO 9001 Certification



ISO 14001 Certification





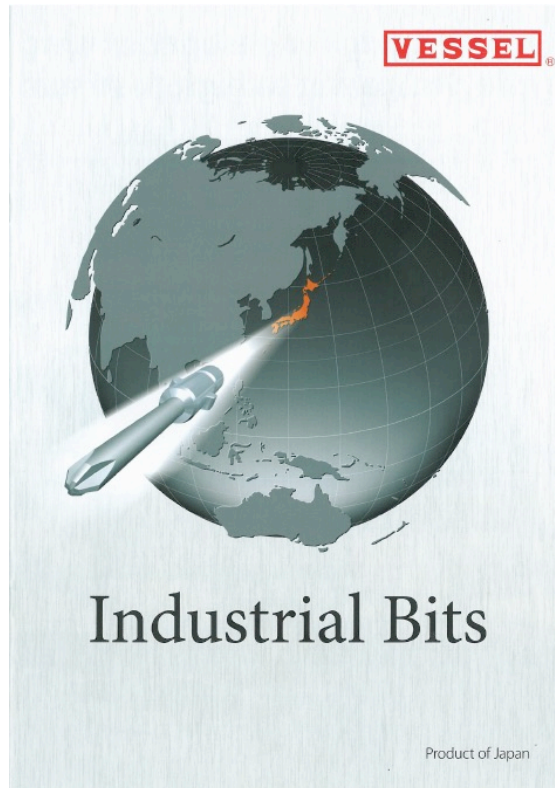
# Logistics capacities



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Let us think.

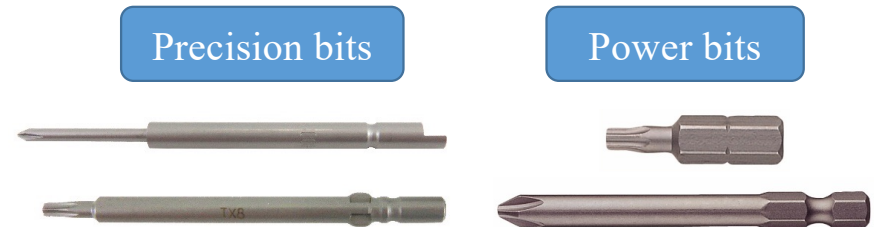
VESSEL EUROPE - Bits & Sockets Presentation

# SKU



- ⊕ Phillips
- ✱ PZ
- Plain Slotted
- ⬠ Torx®
- ⬠ Torx® (Tamper Proof)
- ⬠ Torx Plus®
- ⬠ Hex
- ⬠ Hex Socket
- Square
- ⬠ Tri-Wings

- Wing-Shank
- Halfmoon
- Insert Bits
- 1/4" Hex
- 11mm Hex
- 8mm Hex
- 3mm Hex
- Screw Shank



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# Applications

⇒ Precision Bits:

- Computers
- Acoustic Equipment
- Optical Equipment
- Office Automation (OA) Equipment



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# Applications

⇒ **Power Bits:**

- Construction
- Automotive Industry
- Wood Work
- DIY
- Other Industries



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