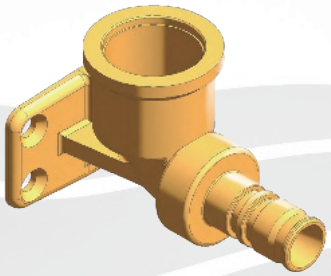
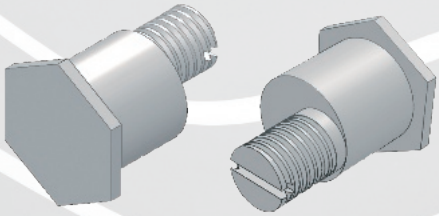
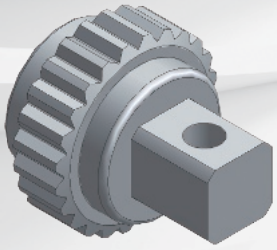
TAKAMAZ INDUSTRIAL

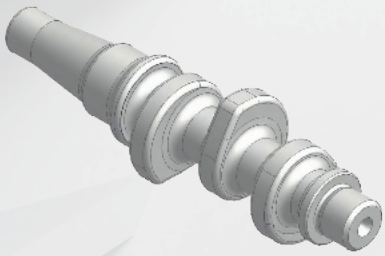
Part Machining Solutions





TAKAMAZ
INDUSTRIAL





CONTENTS

Part Machining Solutions

2 Models for Turning Work of Piping and Joint Parts

6 Models for Turning Work of Construction Materials and Parts

10 Examples of Completed Hand and Power Tool Parts

11 Models for Machining Parts for Hand and Power Tools

16 Models for Turning Work of Parts for Construction and Agricultural Machinery

Made by TAKAMAZ:

Piping and joint parts



Faucet parts

Internal temperature control parts for bathroom use



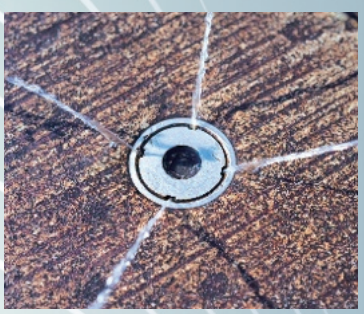
Gas appliance parts



Piping parts for fire extinguishers

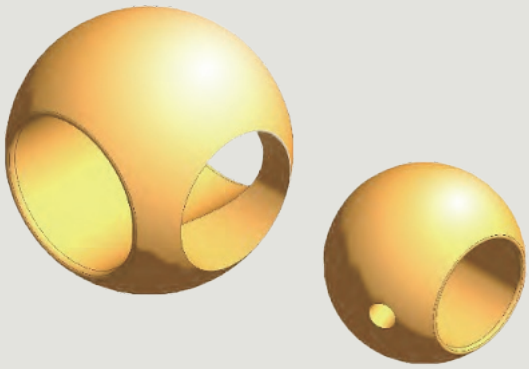


Parts for water meters



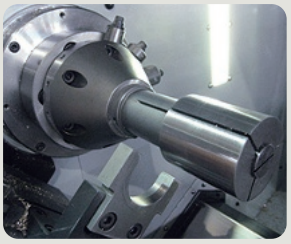
Snow-melting nozzle parts

Models for Turning Work of Piping and Joint Parts

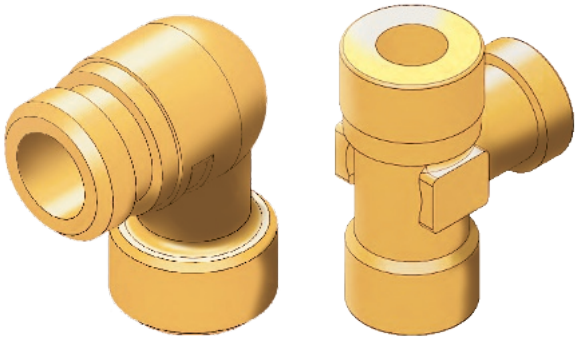


Ball valves
【Material：Brass】



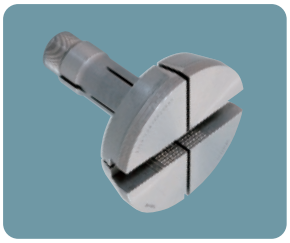


【Model with record of use】	【Chuck】
TOP-TURNⅡ	TAKAMAZ TIC-DD

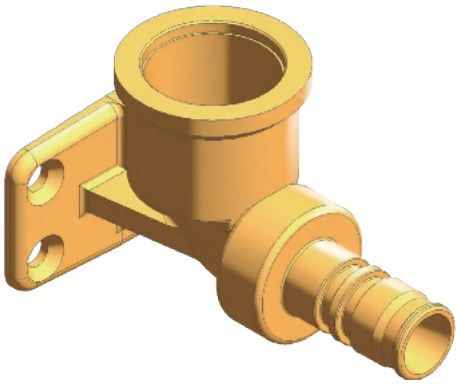


Shower elbow
【Material：Brass】



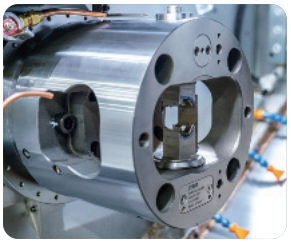


【Model with record of use】	【Chuck】
XTS-6	TAKAMAZ TSC-D26-O120



Elbow with a mount
【Material：Brass】





【Model with record of use】	【Chuck】
XL-200	JTEKT 「Indexing Chucks」:HSR-225



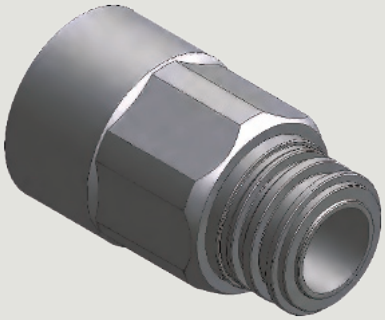
Valve case
【Material：PPS resin】





【Model with record of use】	【Chuck】
XTS-6・XY-120PLUS	TAKAMAZ TSC-D26-ST

Models for Turning Work of Piping and Joint Parts



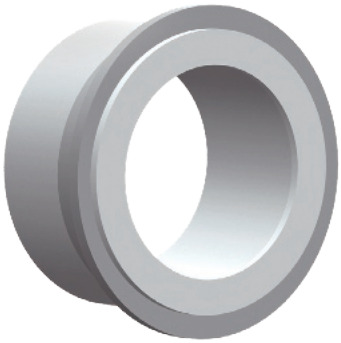
Z-type meter unit

【Material: Spheroidal graphite cast iron】





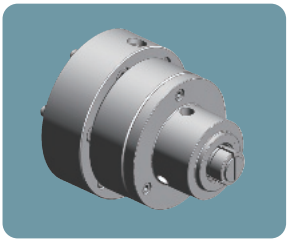
【Model with record of use】	【Chuck】
XWT-8	TAKAMAZ TSC-D26-O60(Hi-grip)



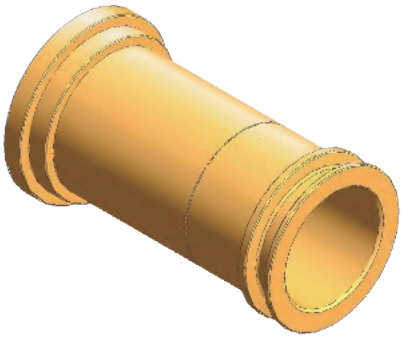
Welded joints

【Material: Carbon steel】





【Model with record of use】	【Chuck】
XT-8	TAKAMAZ TIC1-N5



Sockets

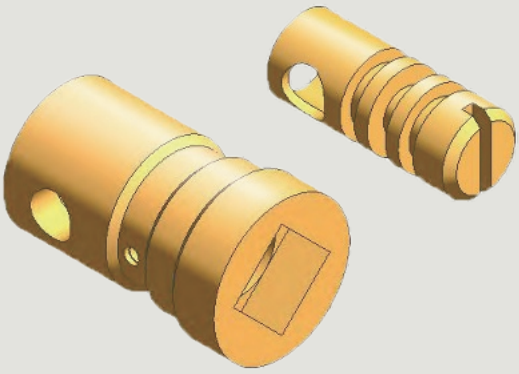
【Material: Bronze casting】







【Model with record of use】	【Chuck】
XWT-8	(Left) OP-1 : KITAGAWA N-06 (3-jaw) (Right) OP-2 : TAKAMAZ TIC1-N3



Valve case

【Material: Brass】

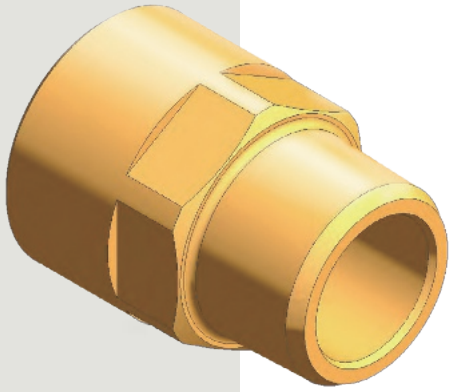






【Model with record of use】	【Chuck】
XT-8・TOP-TURNⅡ	TAKAMAZ TSC-D26-O60(Hi-grip)

Models for Turning Work of Piping and Joint Parts

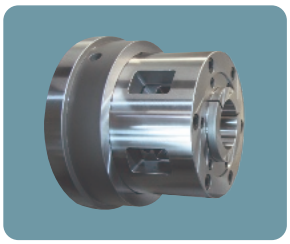


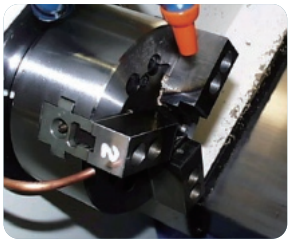
Threaded sockets

【Material：Brass】

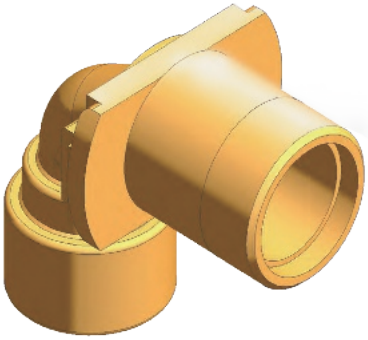








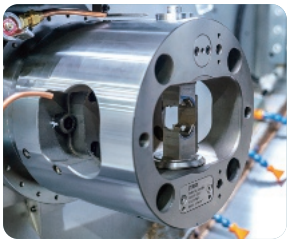
【Model with record of use】		【Chuck】	
OP-1：***XWT-8***	OP-2：***XT-6***	TAKAMAZ TPC3-CS55	KITAGAWA N-06



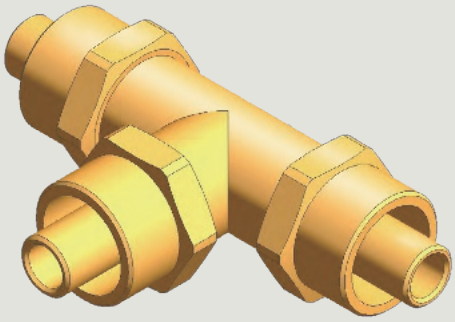
A4 box joints

【Material：Bronze casting】





【Model with record of use】	【Chuck】
XL-200	JTEKT 「Indexing Chucks」:HSR-225



XPE joints

【Material：Brass】

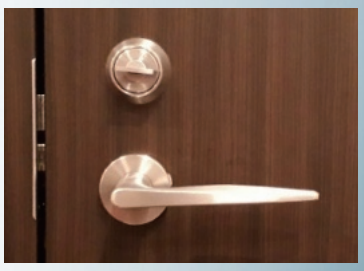




【Model with record of use】	【Chuck】
XT-8M	TAKAMAZ TSC-D26-O120

Made by TAKAMAZ:

Construction Materials and Parts



Parts for door knobs and door closers



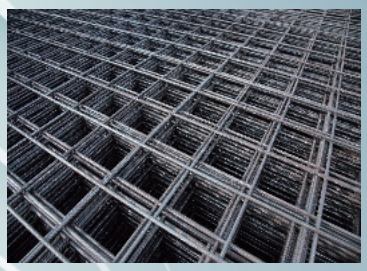
Lighting fixture parts



Compressor parts



Elevator door parts



Rebar parts

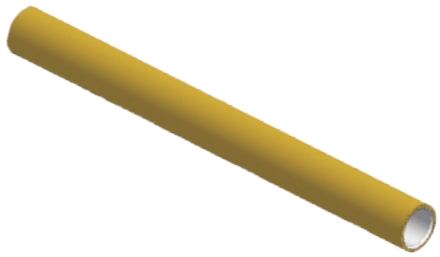


Parts for bolts for tunnels



Fiber optic cable relay box parts

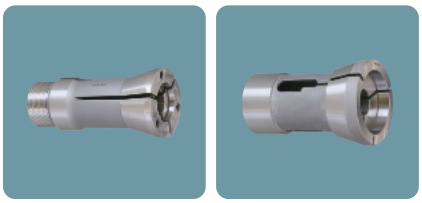
Models for Turning Work of Construction Materials and Parts



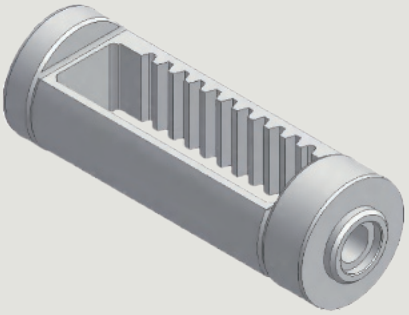
Handles

【Material: Vinyl chloride + aluminum】





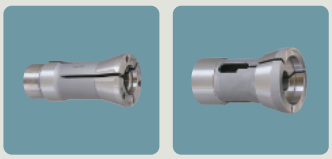
【Model with record of use】	【Chuck】
XT-6M	(Left) TAKAMAZ TSC-D26 (Right) TAKAMAZ TSC-D43



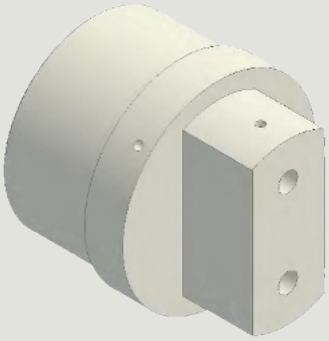
Pistons

【Material: Carbon steel】





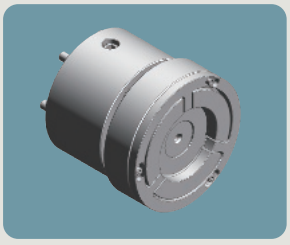
【Model with record of use】	【Chuck】
OP-1 : *XT-8*　OP-2、OP-3 : *XD-10i*	(Left) TAKAMAZ TSC-D26 (Right) TAKAMAZ TSC-D43



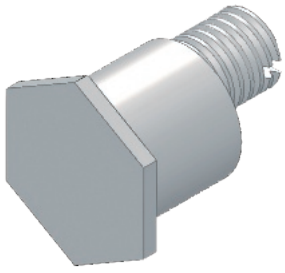
Base insulators

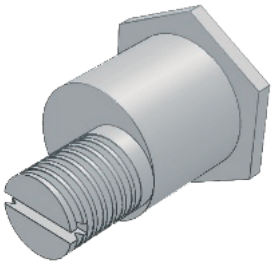
【Material: Ceramic】





【Model with record of use】	【Chuck】
XT-6M	TAKAMAZ TPC1-D26-C120





Special spiral bolts

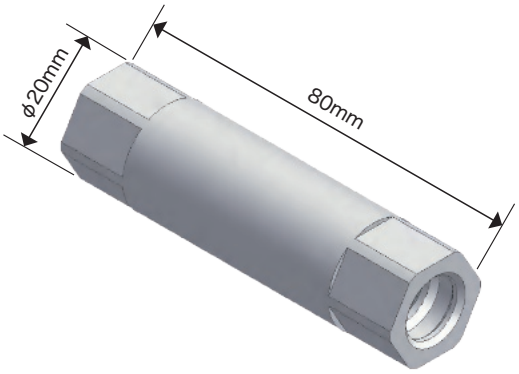
【Material: Stainless steel】





【Model with record of use】	【Chuck】
XY-120PLUS	TAKAMAZ TSC-D26 Eccentric unit

Models for Turning Work of Construction Materials and Parts



Couplers with bottom

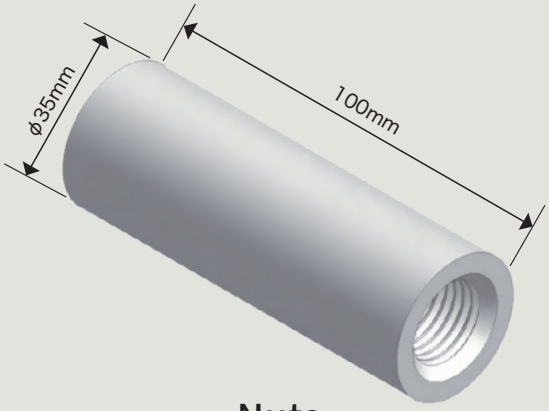
【Material: Carbon steel】







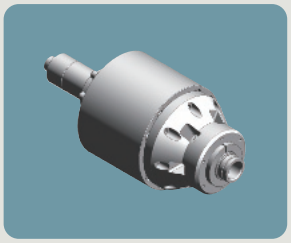
【Model with record of use】	【Chuck】
XTS-6・XT-8	TAKAMAZ TPC2-D26



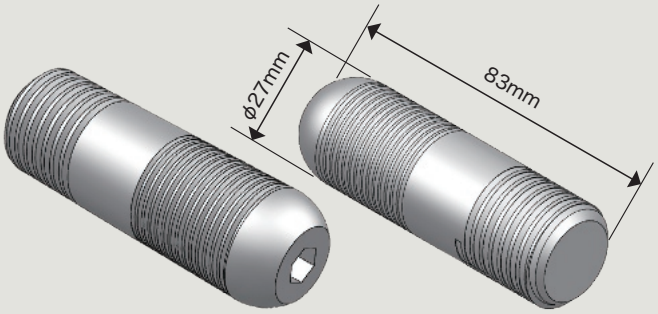
Nuts

【Material: Stainless steel】





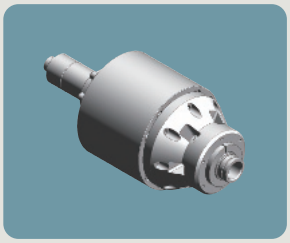
【Model with record of use】	【Chuck】
XT-8	TAKAMAZ TPC2-D26



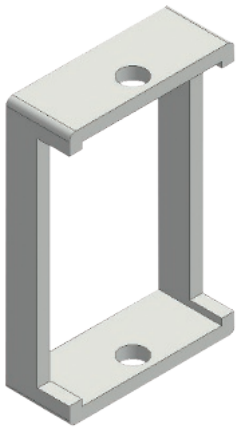
Pins

【Material: Chrome molybdenum steel】





【Model with record of use】	【Chuck】
XT-8	TAKAMAZ TPC2-D26



Frames

【Material: Kovar alloy】



【Model with record of use】
XT-8

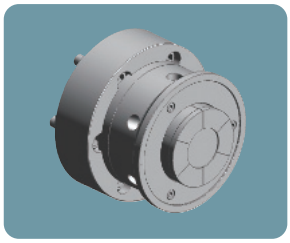
Models for Turning Work of Construction Materials and Parts



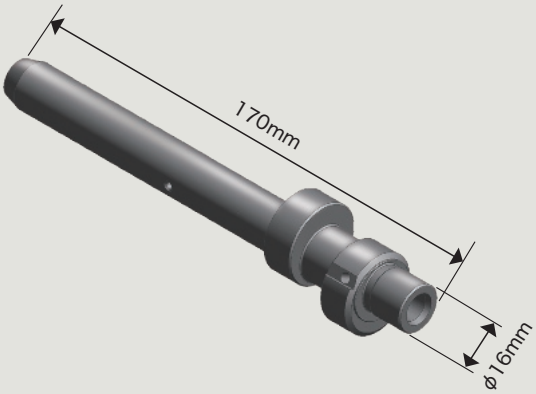
Scrolls

【Material: Composite material comprising fluoropolymer + copper + gray cast iron】





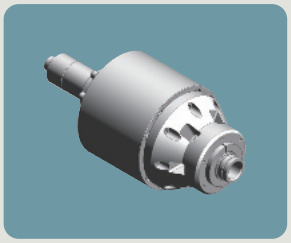
【Model with record of use】	【Chuck】
XT-8M	TAKAMAZ TIC-DD



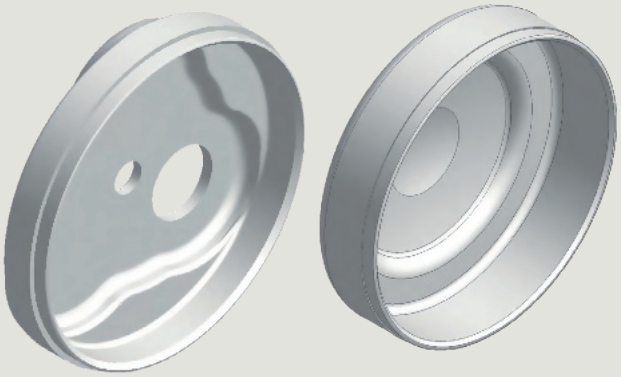
Crankshafts

【Material: Spheroidal graphite cast iron】





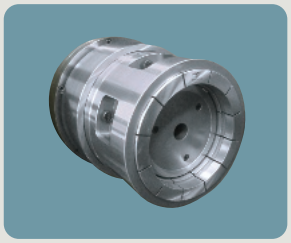
【Model with record of use】	【Chuck】
XT-8	TAKAMAZ TPC2-D26



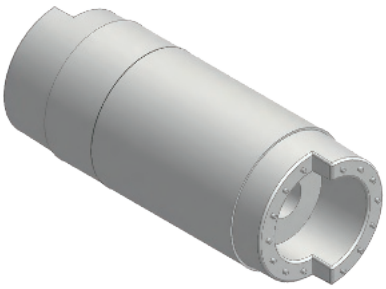
Housings

【Material: High-tensile strength steel】





【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC2-D150



Rotors

【Material: Soft magnetic iron】



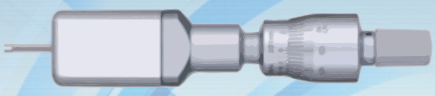


【Model with record of use】	【Chuck】
XT-8・XY-120PLUS	TAKAMAZ TPC2-D43

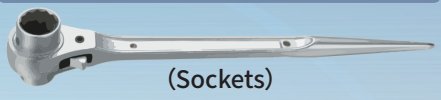
Made by TAKAMAZ

Parts for Hand and Power Tools (Example of finished product)

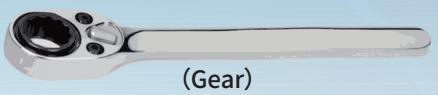
Inner diameter measuring instruments



Ratchet wrenches



(Sockets)



(Gear)

Torque wrenches

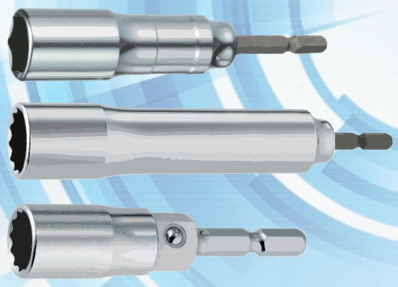


(Ratchet)

Impact drill parts



Sockets for power drills

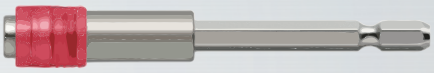


Hammers



(Cap)

Hexagon socket head holders



Screwdriver bits



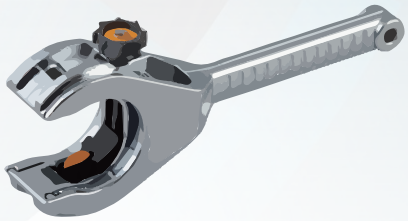
Sockets for impact wrenches



Sockets



Large ratchet pipe cutters



Sleeve and rebar binding machines



Small devices such as electric screwdrivers

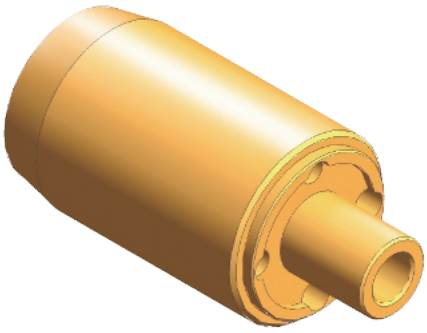


(Bearing boxes for motors)

Welding machines



Models for Machining Parts for Hand and Power Tools



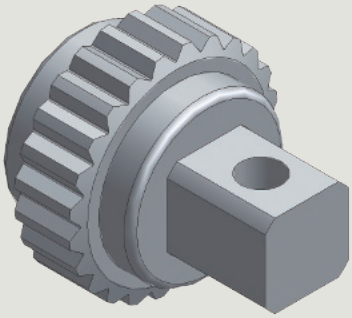
Outer cylinders

【Material：Free-cutting brass】





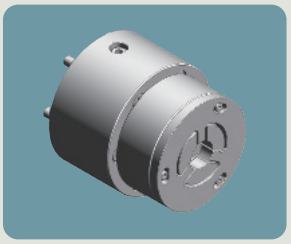
【Model with record of use】	【Chuck】
XY-120PLUS	TAKAMAZ TPC1-D26-C60



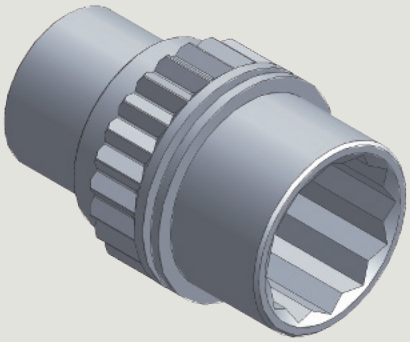
Ratchet

【Material：Chrome molybdenum steel】





【Model with record of use】	【Chuck】
XD-10i	TAKAMAZ TPC1-D26-C60



Ratchet

【Material：Chrome vanadium alloy steel】





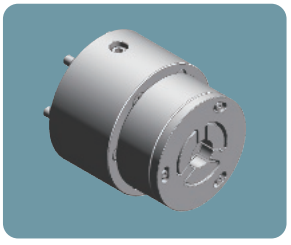
【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC1-D26-C60



Sockets

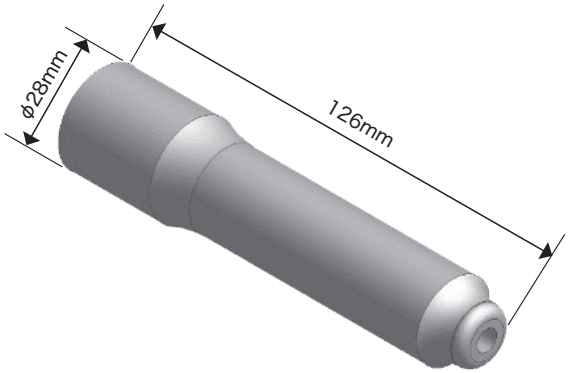
【Material：Chrome molybdenum steel】





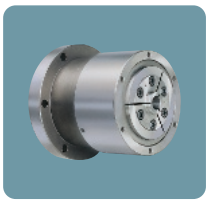
【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC1-D26-C60

Models for Machining Parts for Hand and Power Tools

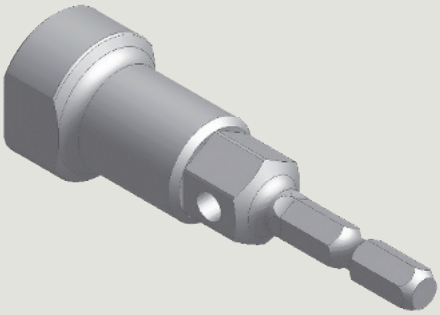


Sockets

【Material：Carbon steel】

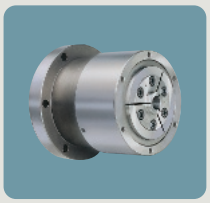




【Model with record of use】	【Chuck】
XT-8	(Left)TAKAMAZ TOC-2 (Right)TAKAMAZ TPC1-D26-C60

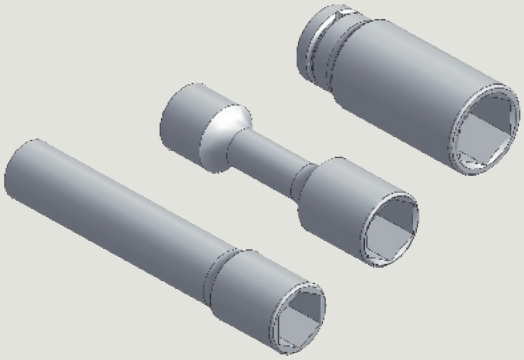


Sockets

【Material：Carbon steel】

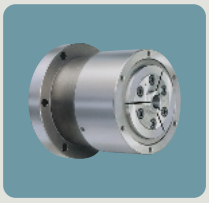




【Model with record of use】	【Chuck】
XT-8	(Left)TAKAMAZ TOC-2 (Right)TAKAMAZ TPC1-D26-C60

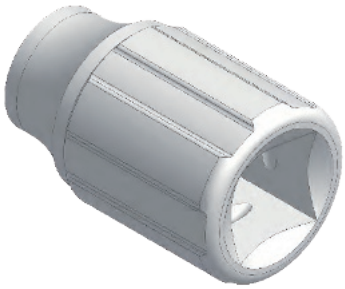


Sockets

【Material：Chrome molybdenum steel】

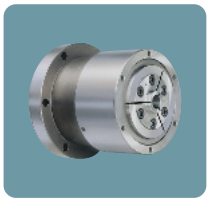




【Model with record of use】	【Chuck】
XTS-6	(Left)TAKAMAZ TOC-2 (Right)TAKAMAZ TPC1-D26-C60



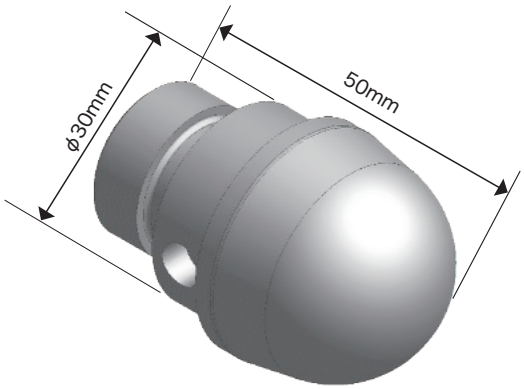
Sockets

【Material：Carbon steel】


【Model with record of use】	【Chuck】
XTS-6	(Left)TAKAMAZ TOC-2 (Right)TAKAMAZ TPC1-D26-C60

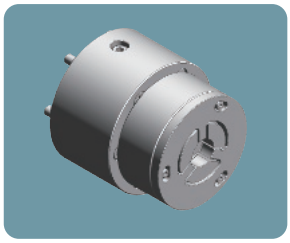
Models for Machining Parts for Hand and Power Tools



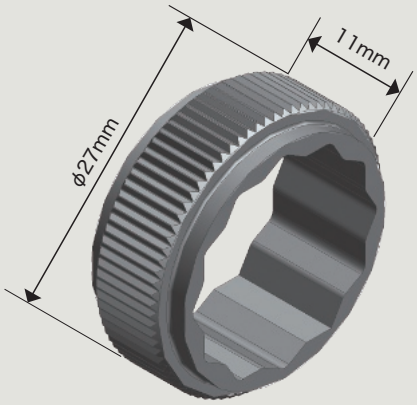
Cap

【Material: Spring steel】





【Model with record of use】	【Chuck】
XTS-6	TAKAMAZ TPC1-D26-C60



Gear

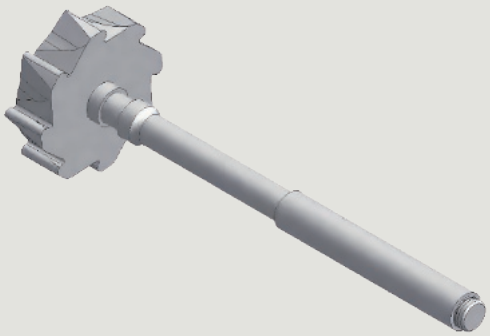
【Material: Carbon steel for forging】







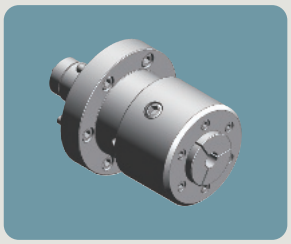
【Model with record of use】	【Chuck】
X-120	(Left) TAKAMAZ TPC1-D26-C60 (Right) TAKAMAZ TIC1-N5･Multi-faceted clamping



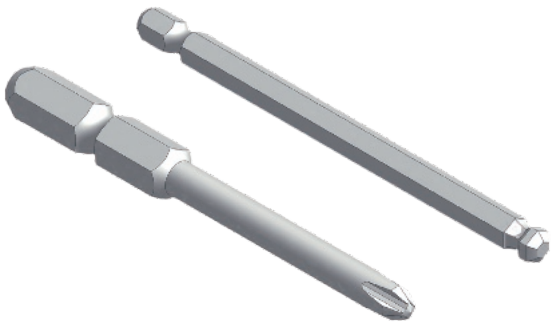
Bolts

【Material: Chrome molybdenum steel】





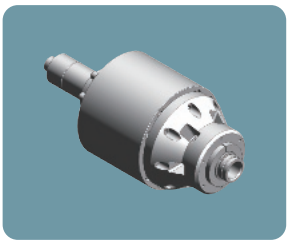
【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC2-D43



Screwdriver bits/ball points

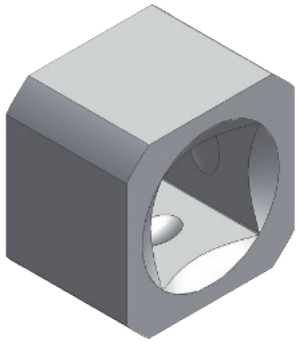
【Material: Chrome molybdenum steel】





【Model with record of use】	【Chuck】
Polygon Machine	TAKAMAZ TPC2-D26

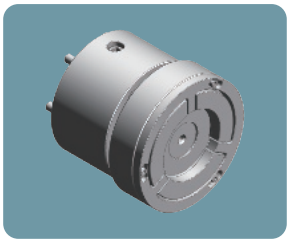
Models for Machining Parts for Hand and Power Tools



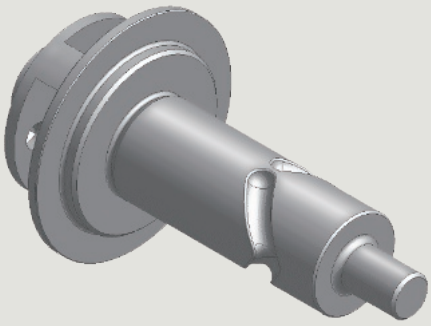
Special tetragonal pipes

【Material：Chrome steel】





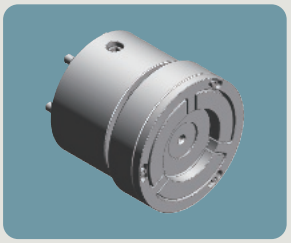
【Model with record of use】	【Chuck】
XT-6M	TAKAMAZ TPC1-D26-C80



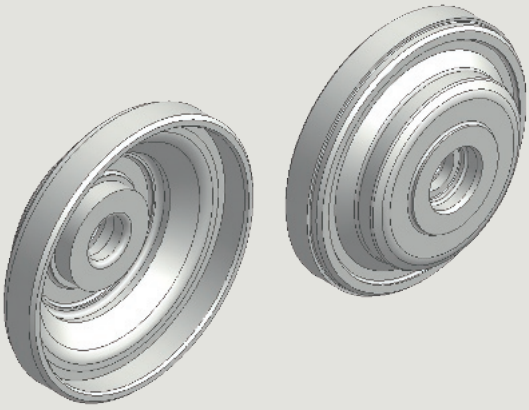
Gear

【Material：Case-hardened steel】





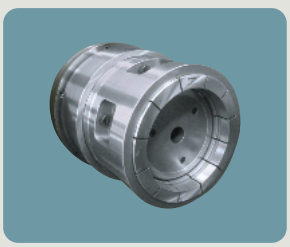
【Model with record of use】	【Chuck】
XYT-51	TAKAMAZ TPC1-D26-C80



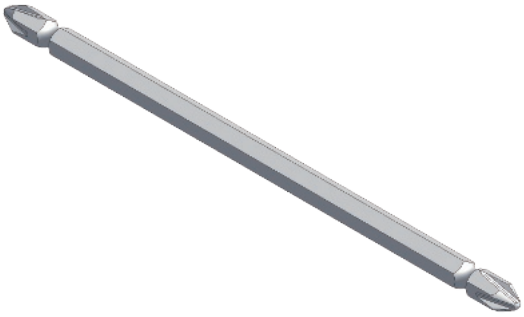
Bearing boxes

【Material：Diecast aluminum】





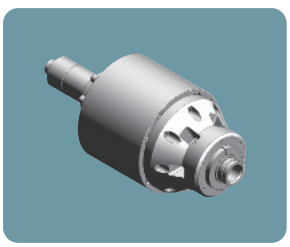
【Model with record of use】	【Chuck】
XW-60	TAKAMAZ TPC2-D150



Bits

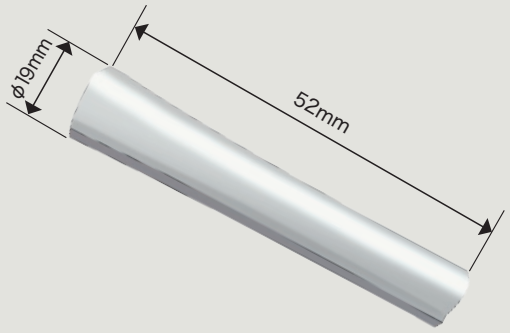
【Material：Chrome molybdenum steel】





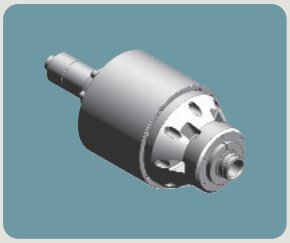
【Model with record of use】	【Chuck】
XY-120PLUS	TAKAMAZ TPC2-D26

Models for Machining Parts for Hand and Power Tools

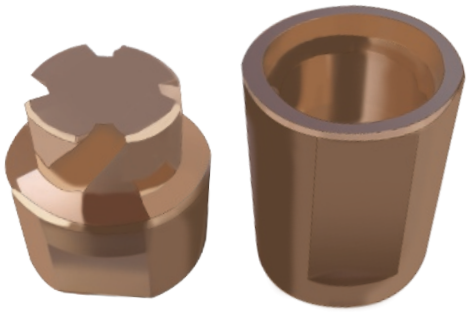


Grip sleeves
【Material: Stainless steel】



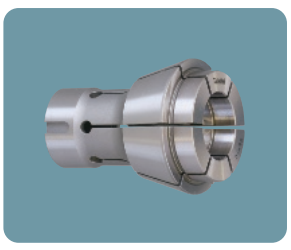


【Model with record of use】	【Chuck】
XY-120PLUS	TAKAMAZ TPC2-D26



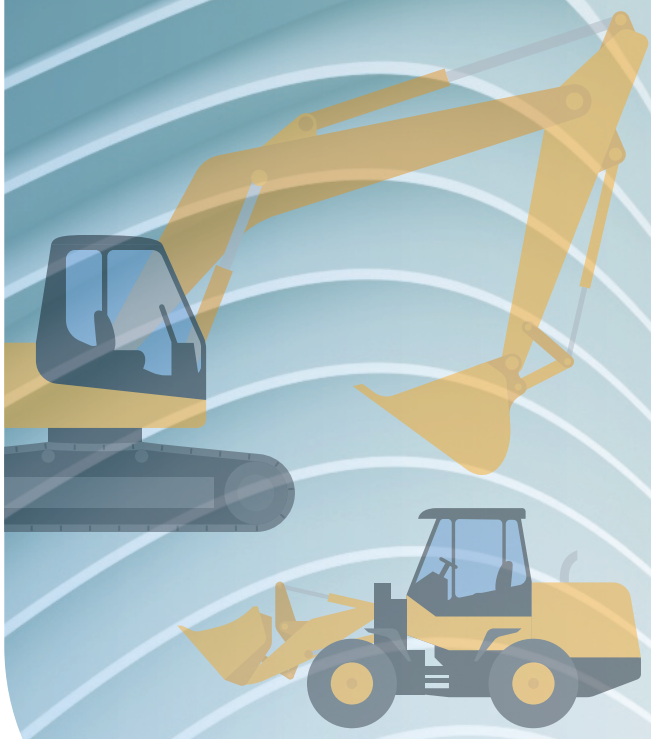
Special screws
【Material: Steel】



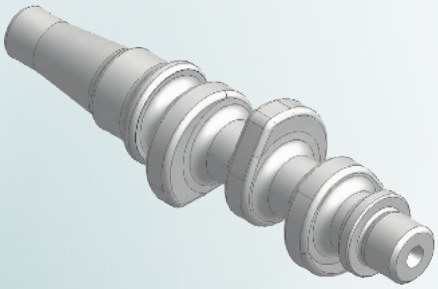


【Model with record of use】	【Chuck】
XY-120PLUS	TAKAMAZ TPC3-CS22(A_2-5)

Made by TAKAMAZ: Parts for Construction and Agricultural Machinery



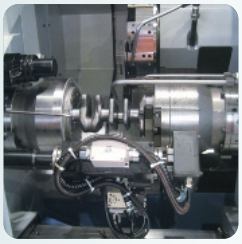
Models for Turning Work of Parts for Construction and Agricultural Machinery



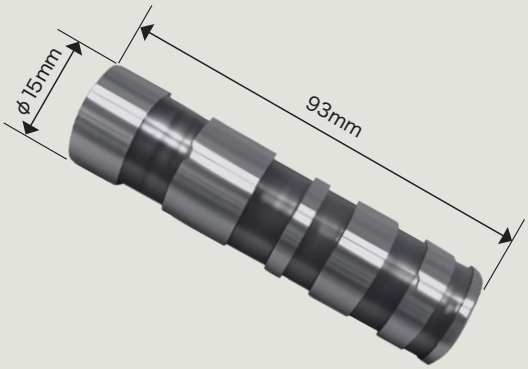
Camshafts

【Material：Carbon steel】





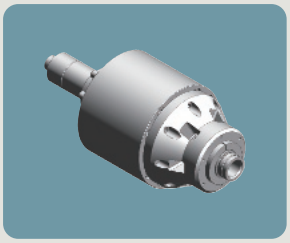
【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC3-Special



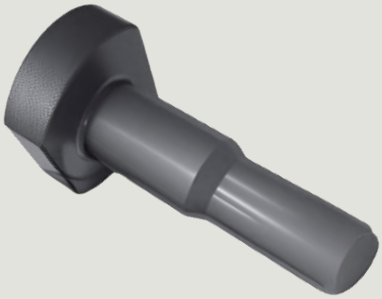
Spools

【Material：Carbon steel】





【Model with record of use】	【Chuck】
XT-6M	TAKAMAZ TPC2-D26



Bolts

【Material：Carbon steel for machine-building】





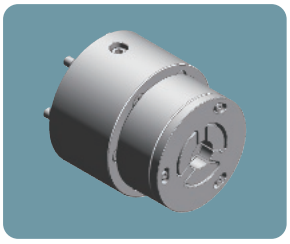
【Model with record of use】	【Chuck】
XT-6M	TAKAMAZ TPC1-D26-C60･Odd shape clamping



Body

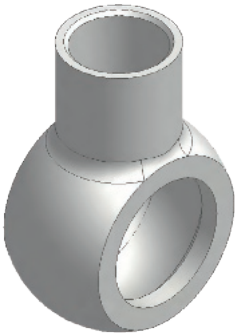
【Material：Carbon steel】





【Model with record of use】	【Chuck】
XT-6	TAKAMAZ TPC1-D26-C60

Models for Turning Work of Parts for Construction and Agricultural Machinery



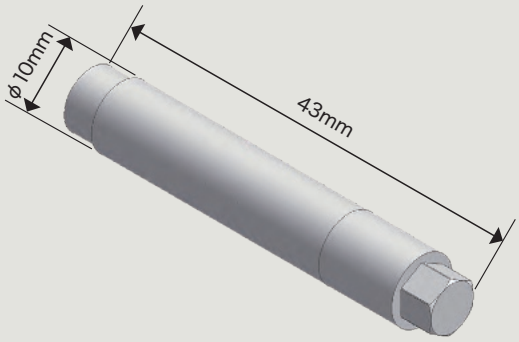
Feed hoses

【Material: Carbon steel for cold forging】





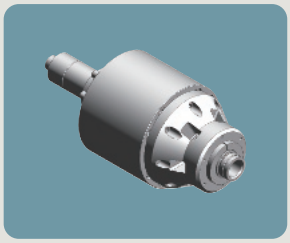
【Model with record of use】	【Chuck】
XW-60	TAKAMAZ TPC1-D26-C60



Retainers

【Material: Carbon steel】





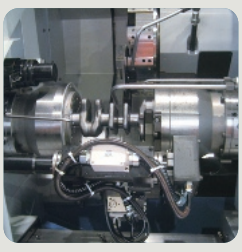
【Model with record of use】	【Chuck】
XT-8M	TAKAMAZ TPC2-D26



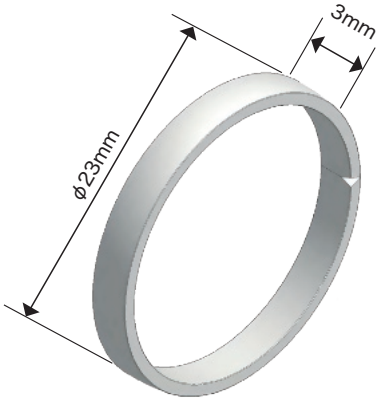
Fuel camshaft

【Material: Carbon steel for machine-building】





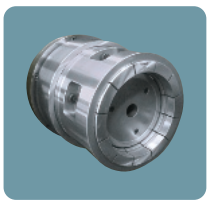
【Model with record of use】	【Chuck】
XT-8	TAKAMAZ TPC3-Special



Ring piston

【Material: Bearing steel】







【Model with record of use】	【Chuck】
XW-60	(Left) TAKAMAZ TPC2-D150 (Right) TAKAMAZ TIC-DD

Models for Turning Work of Parts for Construction and Agricultural Machinery



Seats

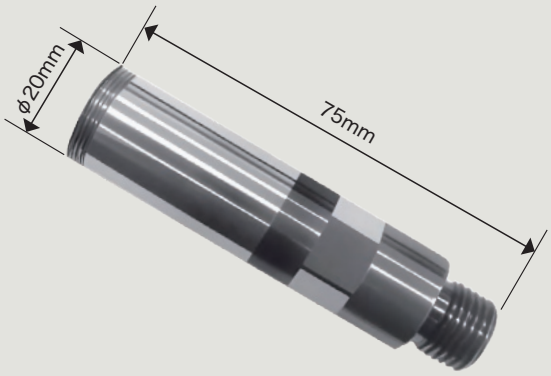
【Material: Chrome molybdenum steel】



【Model with record of use】
XWG-3



【Chuck】
TAKAMAZ TPC3-CS14

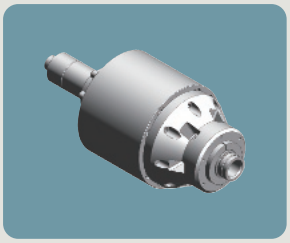


Shafts

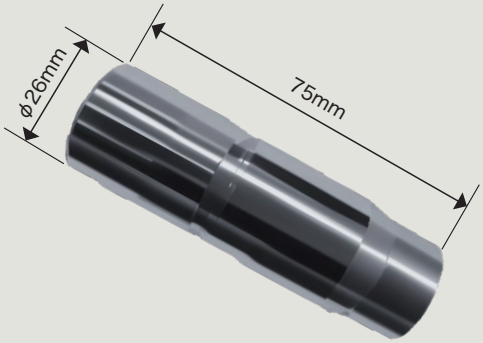
【Material: Carbon steel】



【Model with record of use】
XT-6



【Chuck】
TAKAMAZ TPC2-D26

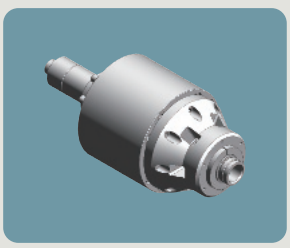


Pistons

【Material: Chrome molybdenum steel】



【Model with record of use】
XT-8



【Chuck】
TAKAMAZ TPC2-D26



Pistons

【Material: Chrome molybdenum steel】



【Model with record of use】
XW-130・XW-60



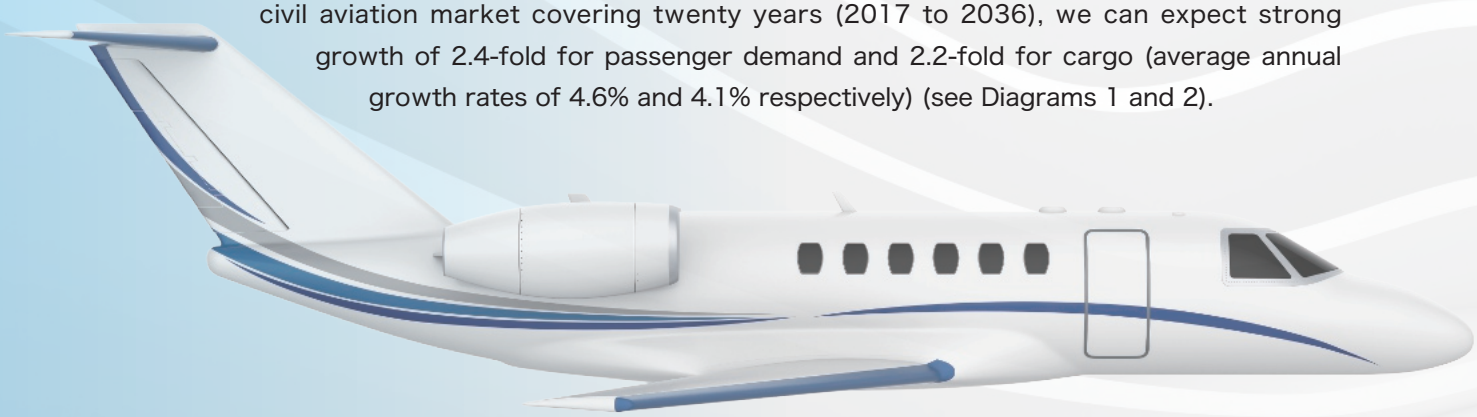
【Chuck】
TAKAMAZ
TPC2-D26

Growing Demand in the Skies

Trend in the world aircraft market

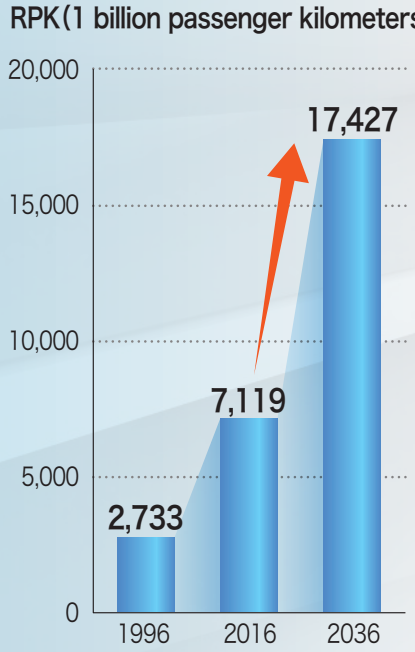
In the aircraft market from 2026 onward, we will see continued growth in passenger demand along with supply constraints. The passenger demand (RPK) in 2026 is 4.9% up on last year, and the Asia-Pacific region is the main driver of this trend, with its 7.3% increase. The total size of the market has reached $124.95 billion in 2026, and is predicted to expand to $130.67 billion in 2027, giving a compound annual growth rate (CAGR) of around 4.5%.

According to the long-term demand forecast (for passengers and cargo) for the worldwide civil aviation market covering twenty years (2017 to 2036), we can expect strong growth of 2.4-fold for passenger demand and 2.2-fold for cargo (average annual growth rates of 4.6% and 4.1% respectively) (see Diagrams 1 and 2).



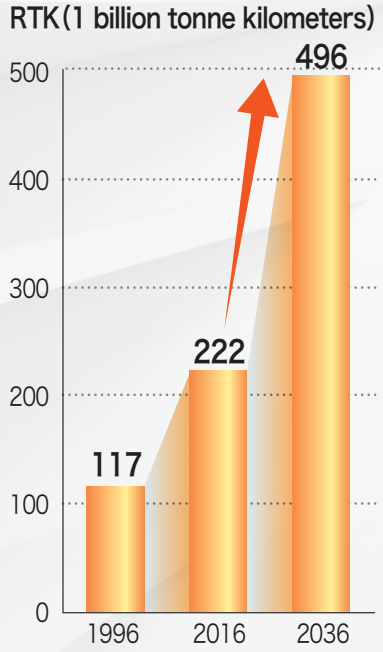
[Diagram 1]

Global Air Passenger Demand Forecast



[Diagram 2]

Global Air Cargo Demand Forecast



Note:RPK (Revenue Passenger Kilometers)
RTK (Revenue Ton Kilometers)
References:From Japan Aircraft Development Corporation (JADC) Worldwide Market Forecast (2017 - 2036), March 2017
Created by Mitsubishi UFJ Research & Consulting
Source:Kanto Bureau of Economy, Trade and Industry: "Trends in the Aircraft Industry and the Right Time to Enter the Market"

Aircraft part machining using TAKAMAZ machines

Japanese domestic aircraft Market trend for aircraft parts

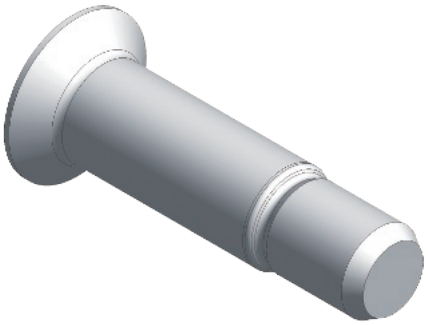
The value of Japanese domestic aircraft and aircraft part production is also increasing, and there is growth in engines and fuselage components for commercial passenger aircraft. There are expectations for further growth in the high-value-added aircraft sector as a new pillar of the manufacturing industry, offsetting the decline in demand for automotive parts.

However, this sector is subject to greater requirements to obtain certifications and attestations in accordance with international standards, and to maintain high quality control standards, than the automobile industry.

Furthermore, although the sector uses a large number of parts and has a broad industrial base, the annual production volumes are far lower than in the automotive industry. On the other hand, it is also characterized by product lifecycles that span several decades, offering business stability.



Aircraft part machining



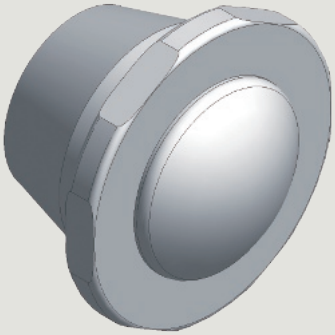
Bolts

【Material：Titanium alloy】





【Model with record of use】	【chuck】
XT-6	TAKAMAZ TOC-2



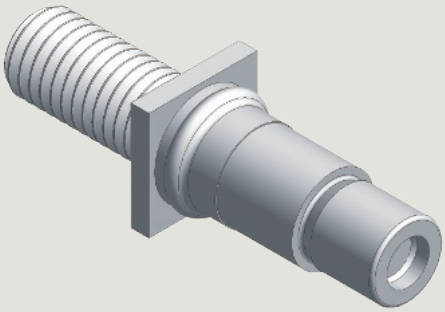
Plugs

【Material：SKD51】





【Model with record of use】	【chuck】
XT-6M	TAKAMAZ TSC-D26-ST



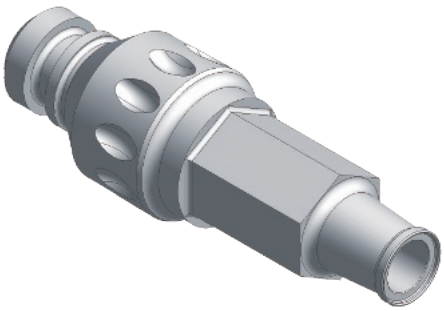
Connecting bolts

【Material：SKD51】





【Model with record of use】	【chuck】
XT-6M	TAKAMAZ TSC-D26-ST



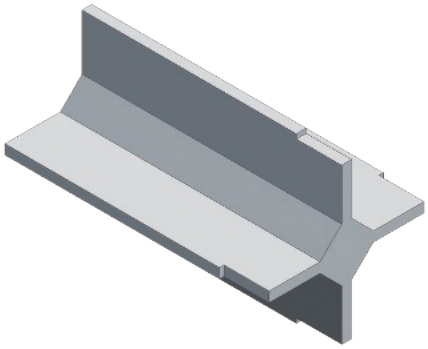
Shafts

【Material：Inconel 713】



【Model with record of use】	【chuck】
XT-8MY・XYT-51	TAKAMAZ TSC-D26-ST

Aircraft part machining

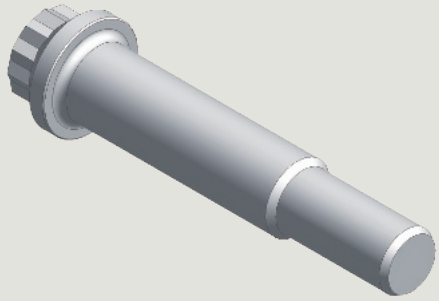


Springs

【Material：SUS316】



【Model with record of use】	【chuck】
XT-8MY・XYT-51	TAKAMAZ TSC-D26-ST

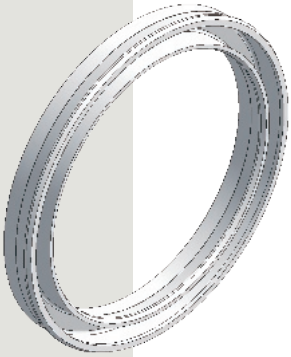


Bolts

【Material：NSF steel, Superalloy】



【Model with record of use】	【chuck】
XT-6M・XW-60M	TAKAMAZ TOC-2



Seal components

【Material：Teflon resin】



【Model with record of use】	【chuck】
XT-6・XT-8M・XT-8MY	TAKAMAZ TSC-D26-ST

Head Office and Plant

■TAKAMATSU MACHINERY CO., LTD.

・HEAD OFFICE & PLANT
1-8 ASAHIGAOKA HAKUSAN-CITY ISHIKAWA JAPAN. 924-8558
TEL +81-(0)76-207-6155　FAX +81-(0)76-274-1418

・ASAHI PLANT
4-13 ASAHIGAOKA HAKUSAN-CITY ISHIKAWA JAPAN. 924-0004
TEL +81-(0)76-274-0123　FAX +81-(0)76-274-8530

Overseas Bases

■TAKAMATSU MACHINERY U.S.A., INC.

・CHICAGO HEAD OFFICE
1280 LANDMEIER ROAD ELK GROVE VILLAGE, IL 60007 USA
TEL +1-(0)847-981-8577　FAX +1-(0)847-981-8599

■TAKAMAZ MACHINERY EUROPE GmbH
IM HÜLSENFELD 19, 40721 HILDEN, GERMANY
TEL +49-(0)2103-789-4882　FAX +49-(0)2103-789-4883

■TAKAMAZ MACHINERY (HANGZHOU) CO., LTD.

・HANGZHOU HEAD OFFICE
NO.6800, JIANGDONG 3RD ROAD, JIANGDONG INDUSTRIAL PARK,
XIAOSHAN, HANGZHOU, ZHEJIANG, CHINA
TEL +86-(0)571-8287-9709　FAX +86-(0)571-8215-3732

■TAKAMATSU MACHINERY (THAILAND) CO., LTD.

・BANGKOK HEAD OFFICE
888/59 MOO 9, TAMBOL BANGPLA, AMPHUR BANGPLEE,
SAMUTPRAKARN PROVINCE, THAILAND
TEL +66-(0)2-136-7831　FAX +66-(0)2-136-7834

■PT. TAKAMAZ INDONESIA
JL. FESTIVAL BOULEVARD BLOK AA 11 NO.30,31 GRAND WISATA TAMBUN, BEKASI 17510
TEL +62-(0)21-8261-6431　FAX +62-(0)21-8261-6430

■TAKAMAZ MACHINERY MEXICO, S.A.DE C.V.
AVENIDA DE LOS INDUSTRIALES 522, LOCAL 4, INDUSTRIAL JULIAN DE OBREGON,
37290 LEON, GUANAJUATO MEXICO
TEL +52-477-784-0468

■TAKAMATSU MACHINERY VIETNAM CO., LTD
NO.76 M HOANG QUOC VIET, PHU MY WARD, DISTRICT 7, HO CHI MINH CITY, VIETNAM
TEL +84-(0)28-3620-5671　FAX +84-(0)28-3620-5673

Affiliated Companies

■HANGZHOU FEELER TAKAMATSU MACHINERY CO., LTD.
NO.6800, JIANGDONG 3RD ROAD, JIANGDONG INDUSTRIAL PARK,
XIAOSHAN, HANGZHOU, ZHEJIANG, CHINA
TEL +86-(0)571-8215-3760　FAX +86-(0)571-8286-5311

MIX
Paper | Supporting responsible forestry
FSC® C174219

https://www.takamaz.co.jp

Scan this QR Code for more details.

25.06.1B(0)