

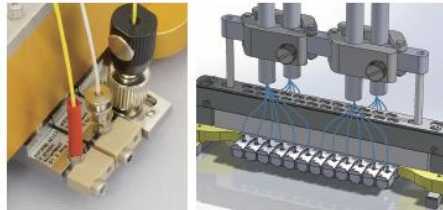
Example

NTT-AT can make jigs from 1 Insert on up. Move from planning and development to structural construction for mass production quickly and smoothly.

The ATP-3200 polishing machine's independent pressurization jigs use a unique attachment structure, and so polishing jigs from even 1 insert (1 terminal) can be manufactured to match the customer's request. Evaluation of risky polishing processes, such as special material quality polishing, process improvements, etc., can be done at low cost, and by simply adding inserts, you can easily build a structure for mass production.

Specialized Polishing Example (actual usage)

Materials : Silica glass, various resins, ceramics, various metal, etc.
 Shapes : Cylinder, thin board, cube, bare fiber, etc.
 Polish types : Spherical (UPC, APC), flat (0 - 45 degrees), Spherical Lensed Fiber, etc.
 Polish processes : Priority for polish accuracy, cost, or roughness, dry polish, others.



Custom-polishing jigs

Custom-cable holder

Specifications

Main Unit

Dimensions	300W x 430D x 290H (mm)
Weight	25kg
Power	AC 100 to 240V, 240W
Polishing Method / Speed	Rotation: 0 to 270 rpm / Reciprocation: 10 to 600 sec
Polishing Film Size	140mm x 150mm (5.5in x 5.9in square)

Polishing Specifications

Single	ROC (mm)	10<UPC<25
Polish(PC)	Apex Offset (μm)	<50
	Fiber Height (μm)	<0.05
MT Polish	RX (mm)	>2000
	RY (mm)	>5
	Angle (degree)	±0.2
	Fiber Height (μm)	-0.05~0.05

Jig Overview

Type	Jig Name	Mounts	Connectors	Model	Mounting method				
For Single Fiber	Individually Pressurized Universal Jig	24	SC, FC	ATP3200-AZ0001					
			LC, MU	ATP3200-AZ0005					
			Ferrule	E2000/APC	ATP3200-AZ0021				
			Φ2.5mm	ATP3200-AZ0014					
			Φ1.25mm	ATP3200-AZ0015					
			For Multi-Fiber	Individually Pressurized Universal Jig	24	Connector	SC(SC2)	ATP3200-AZ0007	
						SC/APC Conical	ATP3200-AZ0009		
						FC	ATP3200-AZ0002		
						FC/APC Conical	ATP3200-AZ0010		
						LC	ATP3200-AZ0006		
LC/APC	ATP3200-AZ0008								
LC-Duplex	ATP3200-AZ0018								
MT 0°	ATP3200-AZ0003								
Ferrule		24				MPO 8°	ATP3200-AZ0013		
						MT-RJ 0°, miniMT 0°	ATP3200-AZ0012		

Notes:
 * Other company names, product names, etc. recorded herein are trademarks or registered trademarks of each respective company.
 * Please understand that the contents recorded herein may be subject to change without notification.
 * Catalog contents from July, 2019 to present.

For more information,
 please contact

<http://www.ntt-at.com/product/atp3200/>



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Optical Connector Polishing Machine
 ATP-3200 Series



NTT-AT's Optical Connector Polishing Solutions,
 back up your company's "Polish" with Power!



IT Infrastructure Support

<http://www.ntt-at.com/product/atp3200/>

Optical connector polishing machine for Mass Production Use, ATP-3200 Series

Along with the ongoing expansion of applications for optical connectors, the optical connector polishing machine ATP-3200 can handle not only standard optical connectors, but also prototype polishing of newly developed products up to various kinds of small volume to mass volume production.



Polishing maximum of 96 LC connector terminals, Polishing maximum of 48 MPO connector terminals.

Achieve both low cost and high quality polishing

With an independent pressurizing type polishing jig, we eliminated the intermediate process of adjusting the dispersion of polishing pressure and so realized low cost. In addition, since our unique polishing track system effectively uses the entire surface of the polishing film, waste is minimized. In addition, the overlap of polishing tracks is small, and scratches on the ferrule due to polishing are kept to a minimum.

[Polishing path of conventional models] [ATP-3200's Polishing path trajectory]



Can be polished by 2 jigs simultaneously

Since 2 jigs can now be mounted, it is possible to polish more than twice as many terminals than with our company's early machine (ATP-3000), enabling mass production polishing of a maximum of 48 MPO connector terminals, and a maximum of 96 LC connector terminals.



High versatility makes it ideal for multi-product small volume production

In addition to standard optical connectors, it is possible to polish a wide range from single optical fibers to large-size substrates. Dummies are not necessary even in the polishing of one connector, making it ideal for small quantities of newly developed start-up products. (Examples of versatility: MPO/PC and LC/PC can be polished at the same time)

High potential for developing automatic and semiautomatic machines

It corresponds to standard operation command input by using a Windows PC and sequencer, making it extremely easy to incorporate batch polishing lines and building semi-automatic machines and incorporation into automated line production, greatly contributing to labor saving on the production line.

Reduced Maintenance Costs

Because consumable items can be replaced by the customers themselves, returning the machine to the manufacturer for an overhaul is unnecessary, reducing both downtime and maintenance costs. In addition, the frequency and labor-intensity of cleaning maintenance have been greatly reduced by the new cylinder protection mechanism and the new bundle attachment insert/eject mechanism for jigs.



Single Fiber Optical Connector Polishing Solutions



Polishes up to 24 connector plugs. And the individual pressure system lets you polish as few as 1 at a time. Besides connector plugs, it can do specialized polishing such as all types of ferrule and bare fiber.

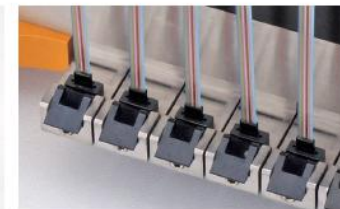
Single Fiber Ferrule (SC, FC) Standard Polishing Processes

Process #	Name	Polishing Film	Polishing Fluid
1	Pre-condition	Adhesive removal film	Distilled Water
	Adhesive Removal		
2	Mid-processing	Diamond Film	Distilled Water
3	Finishing	Silica Film	Distilled Water

Merits of the individual pressure system

- only 3 process polishing
- Possible to polish different connectors at the same time. E.g. SC, FC, ST
- Prevent over-polishing (Finish polishing amount 50 um or less)

Multi-Fiber Optical Connector Polishing Solutions



Polishes up to 24 ferrule plugs. And the individual pressure system lets you polish as few as 1 at a time. One jig can be used for multiple types of ferrule; ideal for setting conditions and testing applications.

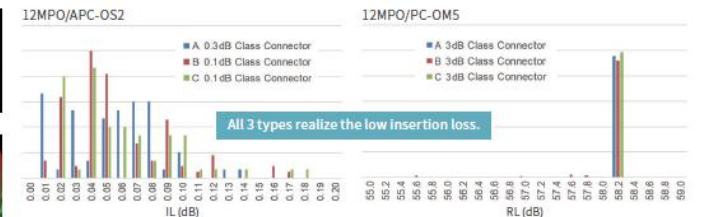
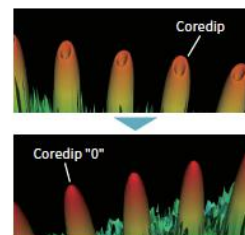
Multi-Fiber ferrule (MT) Polishing Process (reference)

Process #	Name	Polishing Film	Polishing Fluid
1	Adhesive	AAS-GC16A-R140-12	Distilled Water
2	Removal	AAS-GC03A-R140-12	Distilled Water
3	Flat Polish	AAS-RFZZA-140-150	AMS-EHZ2-1L
4	End Face Cleaning	AAS-RFZZA-140-150	Distilled Water
5	Protrusion Polish	ADS-MPO-140-150	Distilled Water
6	Final Polish	AAS-RFZZA-140-150	Distilled Water

ADS-MPO can realize a low reflection in multimode fiber connector equivalent to that of single fiber connector by polishing a convex shape to eliminate dips in the core (Coredip)

- low return loss by coredip value of "0"
- OS2/APC: 80dB, OM3/PC: 58dB (Measuring device: Opto Test)
- Possible to improve a insertion loss by preventing over-polishing Achieved 80dB by Grade B ferrule (OS2/APC)

*The results described above don't guarantee the future results.



An example of MPO polishing result when ADS-MPO polishing film is used in ATP polishing machine