



NTT-AT's Optical Connector Polishing Solutions,

back up your company's "Polish" with Power!



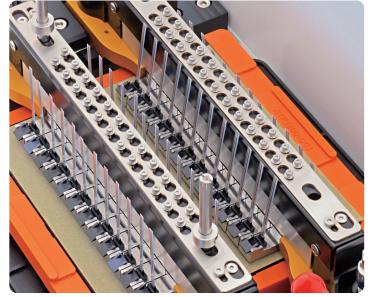












Optical connector polishing machine for Mass Production Use, ATP-3200 Series

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.

Special Features of the ATP-3200 Series

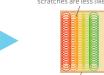


Polishing maximum of 96 LC connector terminals, Polishing maximum of 48 MPO connector terminals.

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]



the area of the film that is unused and wasted

Can be polished by 2 jigs simultaneously

Since 2 jigs can now be mounted, it is possible to polish more that twice as many terminals than with out 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 addtion, the frequency and labor-intensity of cleaning maintenance have been greatly reduced by the new cyliner 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

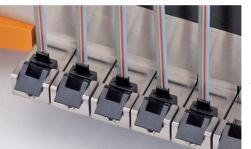
Process #	Name	Polishing Film	Polishing Fluid
1	Pre-condition	Adhesive removal film	Distilled Water
	Adhesive Removal	Adriestve removat min	
2	Mid-processing	Diamond Film	Distilled Water
3	Finishing	Silica Film	Distilled Water

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





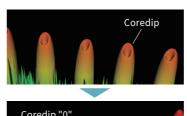
Polishes up to 24 ferrule plugs. And the individual pressure system lets you polish as few 1 at a time. One jig can be used for multiple types of ferrule; ideal for setting conditions and testing applications.

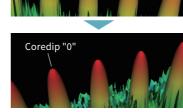
Multi-Fiber ferrule (MT) Polishing Process (reference)

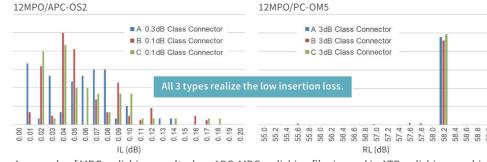
	Process#	Name	Polishing Film	Polishing Fluid	
	1	Adhesive	AAS-GC16A-R140-12	Distilled Water	
	2	Removal	AAS-GC03A-R140-12	Distilled Water	
	3	Flat Polish	AAS-RFZZA-140-150	AMS-EHZZ-1L	
	4	End Face Cleaning	AAS-RFZZA-140-150	Distilled Water	
	5 Protrusion Polish		ADS-MPO-140-150	Distilled Water	
6 Final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







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

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.

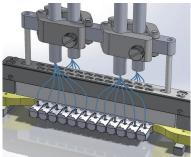
Shapes : Cylinder, thin board, cube, bare fiber, etc.

: Spherical (UPC, APC), flat (0 - 45 degrees), Spherical Lensed Fiber, etc. Polish types

Polish processes: Priority for polish accuracy, cost, or roughness, dry polish, others.







Custom-cable holder

Specifications

Main Unit

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

Polishing Specifications

	ROC (mm)	10 <upc<25< td=""></upc<25<>	
Single	Apex Offset (μm)	<50	
Polish(PC)	Fiber Hight (μm)	<0.05	
	RX (mm)	>2000	
MT Daliah	RY (mm)	>5	
MT Polish	Angle (degree)	±0.2	
	Fiber Hight (µm)	-0.05~0.05	

Jig Overview

Туре	Jig Name	Mounts	Connectors		Model	Mounting method
For Single Fiber	Individually Pressurized Universal Jig	24		SC, FC	ATP3200-AZ0001	
			Ferrule	LC, MU	ATP3200-AZ0005	
				E2000/APC	ATP3200-AZ0021	
				Ф2.5mm	ATP3200-AZ0014	SC, FC ferrule LC, MU ferrule
				Ф1.25mm	ATP3200-AZ0015	
			Connector	SC(SC2)	ATP3200-AZ0007	
				SC/APC Conical	ATP3200-AZ0009	
				FC	ATP3200-AZ0002	9
				FC/APC Conical	ATP3200-AZ0010	SC plug FC plug LC plug
				LC	ATP3200-AZ0006	
				LC/APC	ATP3200-AZ0008	
				LC-Duplex	ATP3200-AZ0018	SC APC LC APC LC Duplex Individual Insert Type
For Multi- Fiber	Individually Pressurized Universal Jig	2.		MT 0°	ATP3200-AZ0003	
			Ferrule	MPO 8°	ATP3200-AZ0013	
				MT-RJ 0°, miniMT 0°	ATP3200-AZ0012	MT 0° MP 8° Individual Insert Type

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 * Catalog contents from August, 2025 to present.

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For more information, please contact

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

