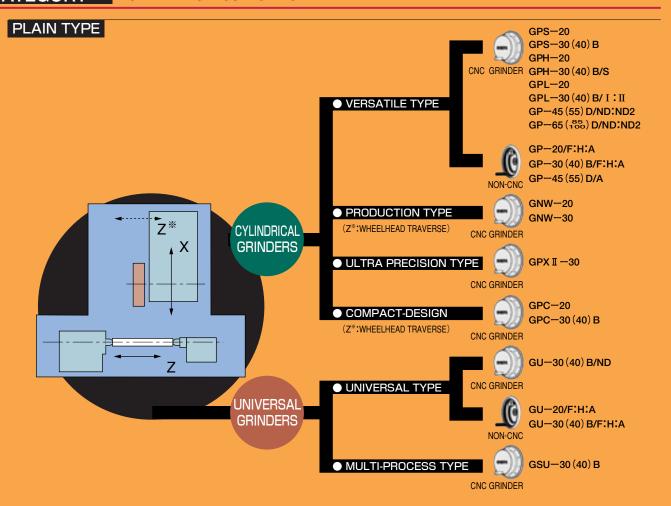
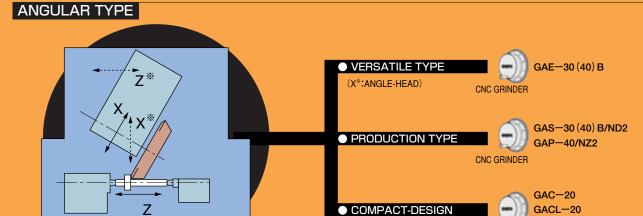
SHIGIYA GENERAL GATALOG









CUSTOM DESIGNED



CVT Grinder GSF-30B



CNC Masterless CAM Grinder GCMH-30



CNC Crank Pin Grinder
GOCP—30



CNC Eccentric Pin
/ Polygon Grinder
GPES—30B



(Z*:WHEELHEAD TRAVERSE)

CNC Thread Grinder GSR-48B



CNC GRINDER

GAC-30 (40) B

Compact CNC Rubber roll Grinder GRN-20



Face Grinder SG-38B



CNC Multiple Centerless Grinder SMG-10 CNC Centerless Cylindrical Grinder GCO-16



CONVENTIONAL OPERATION GRINDERS

SUPERIOR OPERABILITY FOR QUALITY GRINDING

SHIGIYA's precision cylindrical and universal grinders, series GP/GU, is a full line, ranging from manual to motor-driven infeed grinding operation; a wide selection of models is able to meet every kind of grinding need.

SHIGIYA's machine design, common to all models, features excellent operability and flexibility for production needs.

	WHEELHEAD FEED		TABLE TRAVERSE			
TYPE-CHARACTERISTICS		INF	EED	IADLE IN		
		MANUAL	HYD.	MANUAL	HYD.	
MANUAL OPERATED HIGH REPEATABILITY FOR PRECISION GRINDING	-	•	_	•	-	
HYDRAULIC ACTUATED SIMPLY BY HANDLE OPERATION	•	•	_	•	•	
AUTOMATIC HYDRAULIC OPERATED A HIGH PRECISION GRINDING ACHIEVED BY MECHANICAL FEED STOP AT HYDRAULIC CYLINDER END	•	•	•	•	•	

CYLINDRICAL/UNIVERSAL GRINDER



Wide choice, from manual to automatic infeed, to best fit each application. Highly reliable in delivering precision grinding for small parts.

MODEL	TYPE
GP/GU-20 • 25/50	F•H•A
SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	250 • 500mm



CYLINDRICAL/UNIVERSAL GRINDER

G-30(40)B_{SERIES}

Varies from manual to automatic infeed type.

Huge number of options available, to satisfy every cylindrical grinding need. This series is the most long-seller. It proves high quality & reliable operation.

MODEL	TYPE
GP/GU-30 (40) B+40/60	F·H·A
GP/GU-30 (40) B+100/150/200	H•A
SPECIFICATIONS	() G-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	400 (330) •600 (530) •1000 (930) 1600 (1530) •2100 (2030) mm



CYLINDICAL GRINDER

GP-45(55)Dseries

Versatile, Medium-sized machine.

Easy-to-operate, offering construction ruggedness for unchanging grinding precision.

Ideal for medium and large components.

MODEL	TYPE		
GP-45 (55) D•100/150/220/300	Α		
/400/500	7.		
SPECIFICATIONS	() GP-	55D	
SWING OVER TABLE	φ450 (550) mm		
CENTER DISTANCE	1000mm	1500 • 2200 • 3000	
CENTER DISTANCE	TOOOIIIII	4000 • 5000 mm	
MAX.WORK LOAD (BETWEEN CENTERS)	650kg	1000kg	





UNIQUE PROGRAMING SYSTEM CONTAINING

ABUNDANT GRINDING "KNOW-HOW"

VERTICAL CNC CYLINDRICAL GRINDER

GPV-10 SERIES

Both-center support in a vertical grinder, for optimum grinding of small workpieces. Narrow machine width contributes to reduced space requirement on the production time.

MODEL		
GPV-10·15/20		
SPECIFICATIONS		
SWING OVER TABLE	φ100mm	
CENTER DISTANCE	150mm	200mm
WHEEL SIZE ODXWIDTH	φ305×25mm	<i>ϕ</i> 355×25mm



COMPACT CNC CYLINDRICAL GRINDER

GPC-20·10

GPC-20 is a wheelhead traverse type Compact CNC Cylindrical Grinder which offers accurate grinding in small workpieces with small diameters.

SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	100mm
WHEEL SIZE ODXWIDTH	<i>ϕ</i> 355×38mm



2-HEAD CNC CYLINDRICAL GRINDER

GNW-20-10

This machine has a small footprint and was designed for small and very precise workpieces.

With twin wheelheads and optional center drive workheads, it is possible to grind all surfaces in one chucking and significantly reduce cycle times while still maintaining a high degree of accuracy.

SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	85mm
WHEEL SIZE ODXWIDTH	φ280×20mm



CNC CYLINDRICAL GRINDER

GPS-20series

SHIGIYA has designed this series of machine, keeping in mind the flexibility to allow for a wide range of grinding applications, as well as retaining a user-friendly conversational programming package.

Operators without CNC programming experience can use the machine as efficiently as an operator with a vast knowledge of CNC programming.

MODEL	
GPS-20 • 25/50	
SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	250 • 500mm



CNC CYLINDRICAL GRINDER



Superior "CNC control" and "Variety of Optional Accessories" complement customization for specialized applications. "GPL-20" Allows any combination of options to provide highly accurate grindings.

MODEL	
GPL-20 • 25/50	
SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	250 • 500mm



CNC CYLINDRICAL GRINDER WITH MeisterHandwheels

GPH-20SERIES

This model is equipped with handwheels on the X axis (wheelhead infeed) and the Z axis (table traverse), which can be operated just like those of manual operation machines, and with an electronic table stopper on the apron. This mechanism makes single workpiece grinding faster than manual operation machines. For larger lot sizes, workability has been enhanced with its performance combined with the automatic function of NC machines.

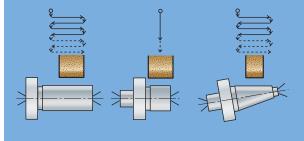
MODEL	
GPH-20 • 25/50	
SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	250 • 500mm

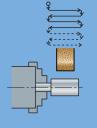


GRINDING PATTERN

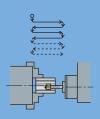
(Live spindle workhead with swivel base is required.)

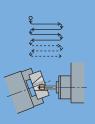
(Internal grinding attachment is required)











CNC CYLINDRICAL GRINDER

GPS-30(40) B SERIES

This model has substantially inherited SHIGIYA's traditional performance and quality and supports high precision and highly efficient grinding with its excellent highly-durable mechanism.

MODEL	
GPS-30 (40) B+50/75/100/150/2	00
SPECIFICATIONS	() GPS-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	500 (470) •750 (720) •1000 (970)
CENTER DISTANCE	1500 (1470) •2000 (1970) mm



CNC CYLINDRICAL GRINDER

GPL-30(40)Bseries

The GPL-30B series CNC Cylindrical Grinders are a new concept of machines aiming for flexibility, with a large selection of options to customize and meet individual customer's requirements.

	TYPE
0/200	$I \cdot II$
()(GPL-40B
φ300 (410) mm	
250 (220) •500 (470) •750 (720) 1000 (970) •1500 (1470) •2000 (1970) n	
	() (φ300 250 (22)



CNC CYLINDRICAL GRINDER WITH Meister Handwheels

GPH-30(40) B SERIES

This model is an easy-to-use CNC cylindrical grinder with handwheels. In addition, S type (high precision specification), for which a closed type hydrostatic wheelhead slide and an extremely low vibration wheel spindle motor are provided as standard, is also available in order to satisfy high required precision.

MODEL	TYPE	
GPH-30 (40) •50/75/100/150/20	00 S	
SPECIFICATIONS	() GPH-40B	
SWING OVER TABLE	φ300 (410) mm	
CENTER DISTANCE	500 (470) •750 (720) •1000 (970)	
	1500 (1470) •2000 (1970) mm	



COMPACT CNC CYLINDRICAL GRINDER

GPC-30(40)B SERIES

This model has achieved a narrow machine width of 1.95~m for the center distance of 400 mm (1.58~m for the center distance of 250 mm). This feature allows easy automatization, and its smaller body is helpful in constructing production lines.

MODEL	
GPC-30 (40) B • 25/40	
SPECIFICATIONS	() GPC-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	250 · 400mm



2-HEAD CNC CYLINDRICAL GRINDER

GNW-30 SERIES

Double wheelhead design allows 2 simultaneous grinding to yield high production output; perfect for small and medium lot production with a wide variety of products.

MODEL	
GNW-30 • 25/40/60/80	
SPECIFICATIONS	
SWING OVER TABLE	φ300mm
CENTER DISTANCE	250 · 400 · 600 · 800mm



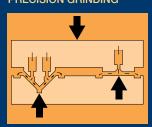
Shigiya's advanced design concept

NON-CONCENTRIC WEDGE-TYPE HYDRO-DYNAMIC BEARINGS SECURE HIGH ROTATIONAL STABILITY OF THE WHEELSPINDLE



The essence of our finest expertise in manufacturing and fabrication is the wheelspindle. Its optimal design-and-built curved wedge, hydro-dynamically operating bearing, secures maximum rotational stability and accuracy for high precision grind quality for many years of service.

HIGHLY RUGGED FEED MECHANISM TO GUARANTEE PRECISION GRINDING



The wheelhead and the table-feed sliding surfaces have wide, V-flat guiding surfaces that have sufficient rigidity and load capacity. Moreover, the high damping performance and equalization of the lubricant provided by oil film's squeezing effect help the Grinder maintain good precision and smooth operation for decades.

CNC CYLINDRICAL GRINDER

GP-45(55) D SERIES

Designed and strongly-built for versatile applications - ideal for medium to large size work meeting with critical job requirements of accuracy and efficiency.

MODEL	TYPE	
GP-45 (55) D•100/150/220 /300/400/500	ND•ND2	
SPECIFICATIONS	() GP-	55D
SWING OVER TABLE	φ450 (550) mm	
CENTER DISTANCE	1000mm	1500·2200·3000 4000·5000mm
MAX.WORK LOAD (BETWEEN CENTERS)	650kg	1000kg



CNC CYLINDRICAL GRINDER

GP-65(85/100)DSERIES

Huge, table traversing type cylindrical grinder with biggest work capacity, featuring uncompromising precison grinding capability.

MODEL		TYPE	
GP-65 (85/100) D • 220/300/400		ND•ND2	
	/500/600	ND*ND2	
SPECIFICAT	IONS	() GP-85D,GP-100D	
SWING OVE	R TABLE	φ650 (850,1000) mm	
CENTER	GP-65 (85) D	2200 • 3000 • 4000 • 5000 • 6000 mm	
DISTANCE	GP-100D	1770 • 2500 • 3500 • 4500 • 5500 mm	
MAX.WORK LOAD	(BETWEEN CENTERS)	3000kg	



VERTICAL CNC ANGULAR CYLINDRICAL GRINDER

GAV-10 SERIES

Both-center support in a vertical grinder, for optimum grinding of small workpieces.

Narrow machine width contributes to reduced space requirements on the production line.

MODEL		
GAV-10 • 15/20		
SPECIFICATIONS		
SWING OVER TABLE	φ100mm	
CENTER DISTANCE	150mm	200mm
WHEEL SIZE ODXWIDTH	<i>ϕ</i> 305×25mm	<i>ϕ</i> 355×25mm



COMPACT CNC ANGULAR CYLINDRICAL GRINDER

GAC-20:10

Simultaneous grinding of O.D. and shoulder face. Machine is small in size, yet big in useability. Perfect for high efficiency, precision grinding of small parts. Easily combined with auto loader and transfer equipment, allowing quick changeover to automation system.

SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	100mm
WHEEL SIZE ODXWIDTH	4355×38mm



LINEAR MOTOR SYSTEM

COMPACT CNC ANGULAR CYLINDRICAL GRINDER

GACL-20.20

A linear motor and a high-resolution linear scale have been provided on the wheelhead feed mechanism (X and Z axes), and thus allowing high-precision positioning. The machine width is as narrow as 1500 mm, and this has saved space and allowed easy automation by combination with loaders.

SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	200mm
WHEEL SIZE ODXWIDTH	φ510×50mm



COMPACT CNC ANGULAR CYLINDRICAL GRINDER

GAC-30(40)B SERIES

One of the two greatest series as well as GPC series. That is powerful high accuracy cylindrical grinder and can grind O.D. and shoulder at once.

MODEL	
GAC-30 (40) B • 25/40	
SPECIFICATIONS	() GAC-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	250 • 400mm



CNC ANGULAR CYLINDRICAL GRINDER

GRE-30(40)BSERIES

GAE-30B series are CNC 2-axis Angle Head General Purpose Cylindrical Grinder.

The angle head type wheelhead on a straight approach grinder has made rapid progress in easy to use.

MODEL		
GAE-30 (40) B+25/50/75/100/150/200		
SPECIFICATIONS	() GAE-40B	
SWING OVER TABLE	φ300 (410) mm	
CENTER DISTANCE	250 (220) •500 (470) •750 (720) 1000 (970) •1500 (1470) •2000 (1970) mm	
WHEEL SIZE ODXWIDTH	φ510×50mm	



CNC ANGULAR CYLINDRICAL GRINDER

GRS-30(40) B SERIES

Features large diameter wheelspindle and rigid tailstock design. Heavy-duty precision grinding achieved by highly stable spindle rotation, and very efficient operation by simultaneous grinding of O.D. and shoulder face.

MODEL	TYPE
GAS-30 (40) B • 50/100	ND2
SPECIFICATIONS	() GAS-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	500 (430) •1000 (930) mm
WHEEL SIZE ODXWIDTH	d610×75mm



PRODUCTION TYPE CNC ANGULAR CYLINDRICAL GRINDER GRP-4-O SERIES

Massive construction for heavy duty operation to meet medium and large lot production requirements with a very wide wheel. Provides highest efficiency for plunge-cut grinding.

MODEL	TYPE
GAP-40 • 60/100	NZ2
SPECIFICATIONS	
SWING OVER TABLE	φ410mm
CENTER DISTANCE	530 • 930mm
WHEEL SIZE ODXWIDTH	φ760×160mm
WHEEL SIZE ODXWIDTH (Option)	φ760×205mm



CNC UNIVERSAL GRINDER

GSU-30(40) B SERIES

The wheelhead is swiveled at high-speed by a direct drive system, and provides high positioning accuracy without backlash. Nine different wheelhead mounting patterns are available to accommodate a variety of multi-grinding, and a reduction of processes.

MODEL	
GSU-30 (40) B+50/75/100/150	
SPECIFICATIONS	() GSU-40B
SWING OVER TABLE	φ300 (410) mm
CENTER DISTANCE	500 (470) •750 (720) 1000 (970) •1500 (1470) mm



Speciality

DEDICATED AND CUSTOM DESIGNED GRINDERS

Special purpose or dedicated machines are designed to achieve high productivity and grinding quality, thus permitting an ideal fit to the diversified needs from a wide variety of users.



POLYGON-SHAPE PATTERN

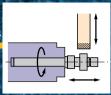
1. DIAMOND	+	8. SQUARE	+
2. ROUND	•	9. HEXAGON	\odot
3. DROP	+	10. RECTANGLE	+
4. TRIANGLE	A	11. SINGLE D	•
5. OVAL	+	12. DOUBLE D	+
6. TRAPEZOID	+	13. POLYGON	+
7. TRACK	+	14. PRE SHAPE	+

CNC ECCENTRIC PIN/POLYGON GRINDER

GPES-30B SERIES

Such high performance grinding as eccentric-pin, polygon oval will be done with easy operation. Automatic functions for grinding conditioning and work-spindle speed overriding are equipped with the machine. These provide excellent shaping precision and make the surface smooth.

	MODERN COMPANY OF THE PARTY OF THE	AD A STREET WATER
	MODEL	
	GPES-30B+25/50	
	SPECIFICATIONS	
į	SWING OVER TABLE	φ300mm
è	CENTER DISTANCE	250·500mm
	WHEEL SIZE O.D. YWIDTH	4350×35mm



	0 0	
SHIC	il va	
	SHIC	SHIGIYA

HIGH-SPEED CNC ECCENTRIC PIN GRINDER

GPEL-30.25

Achieving the world's top level high-speed pin grinding.

In corporates built-in wheel spindle motor for reduced wheelhead weight. Adopting a linear motor for feed and built-in servo motor for work spindle rotation.

This high-speed CNC eccentric pin grinder contributes to higher efficiency and productivity in the crankshafts.

SPECIFICATIONS	
SWING OVER TABLE	<i>ϕ</i> 300mm
WORKPIECE LENGTH	250mm
WHEEL SIZE ODXWIDTH	φ250×25mm



CNC MASTERLESS CAM GRINDER

GCMH-30 SERIES

Aiming for high quality and high production. SHIGIYA CNC Masterless Cam Shaft Grinder GCMH-30 series is equipped with conversational cam and journal automatic programming system. 350mm(14inch). 100m/sec. (20000ft/min.) CBN wheel capability as standard.

MODEL	
GCMH-30 • 25/60	
SPECIFICATIONS	
SWING OVER TABLE	φ300mm
CENTER DISTANCE	250 • 630mm
WHEEL SIZE ODXWIDTH	φ350×25mm





CVT GRINDER

GSE-30B

This is the machine designed for CVT shaft journal and face within the one chucking.

Utilizing CBN wheel with programmable wheelhead for hi-speed hi-accuracy plunge, traverse and conturing grinding.

SPECIFICATIONS	
SWING OVER TABLE	φ300mm
CENTER DISTANCE	350mm
WHELL SIZE OD X WIDTH	φ400×25mm





CNC CRANK PIN GRINDER

GOCP-30.50

Because of the special grinding spec, like journal center, GOCP achieves the accurate grinding for any types of eccentric works, like Crankshafts.

SPECIFICATIONS	
MAX. GRINDING DIAMETER	φ300mm
CENTER DISTANCE	500mm
1/2 stroke	50mm





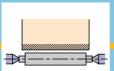
COMPACT CNC RUBBER ROLL GRINDER

GRN-20 SERIES

Rubber roll crown grinding is no longer the big issue. This GRN-20 series CNC compact size machine is

designed specifically for rubber roll grinding, using SHIGIYA's superior cylindrical grinding manufacturing and technological knowhow.

MODEL	
GRN-20 • 50/25W/34W	
SPECIFICATIONS	
SWING OVER TABLE	φ200mm
CENTER DISTANCE	600mm
WHEEL SIZE ODXWIDTH	φ405×50mm
WHEEL SIZE ODXWIDTH 25W/34W	φ355×250/340mm





CNC THREAD GRINDER

GSR-48B SERIES

This model is a CNC screw thread grinder for heavy duty grinding, which offers highly-efficient grinding of injection screws, etc. With this model, the wheelhead and the NC 2-axis wheel dressing device can be simultaneously rotated by the motor according to the screw lead angle, and thus substantially improving set-up changes.

MODEL	
GSR-48B • 150/400	
SPECIFICATIONS	
SWING OVER TABLE	φ480mm
MAX. GRINDING DIAMETER	φ200mm
CENTER DISTANCE	1500·4000mm



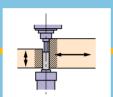
CNC MULTIPLE CENTERLESS GRINDER

SMG-10

This is OD/Face centerless grinder equipped with CNC longitudinal control.

Not only do thru feed, and plunge OD, this centerless grinder is able to do oscillate grinding, traverse grinding.

SPECIFICATIONS	
MAX. GRINDING DIAMETER	φ0.5∼10mm
MAX. GRINDING LENGTH	30mm
WHELL SIZE OD X WIDTH	<i>d</i> 255×32× <i>d</i> 127mm



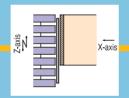


CNC CENTERLESS CYLINDRICAL GRINDER

GCO-16 SERIES

GCO has an innovational concept. In addition, this centerless machine has easy operation.

MODEL	
GCO-16+15/32	
SPECIFICATIONS	
MAX. GRINDING DIAMETER	ϕ 45mm
MAX. GRINDING LENGTH GCO-16.15	150mm
000 40 00	000



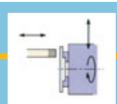


FACE GRINDER

SG-38B SERIES

Faces of bearing spacers, gears, side faces of slitter knives, metal saws, diamond wheels, etc. can be ground to the highest standards.

MODEL	TYPE
SG-38B	F·H·A·ND·ND2
SPECIFICATIONS	
MAX. GRINDING DIAMETER	φ400mm
WHEEL OD TO SPINDLE FACE	250mm
WHEEL SIZE ODXWIDTH	φ305×25mm







Shape the Future with Leading-edge Cylindrical Grinding

We have been providing our customers for a century with products born from the challenging spirit and creativity inherited from our founder.

Ultra-precision grinders from SHIGIYA which embodies the corporate philosophy of always looking ahead and providing leading-edge technologies that cannot be found anywhere else.

ULTRA-PRECISION NC CENTER HOLE GRINDER

GHC-15·130

Adoption of SHIGIYA hydrostatic bearings for the crucial spindle of the planetary-motioned unit permits grinding of center holes with ultra-high precision. High-precision grinding of center holes permits cylindrical grinding to the next level of accuracy.

SPECIFICATIONS	
CLAMP CAPACITY	φ12∼150mm
WORKPIECE LENGTH	1300mm
MAX.SWING	φ410mm



ULTRA-PRECISION CNC CYLINDRICAL GRINDER

GPXII-30 SERIES

This model is an ultra-precision CNC cylindrical grinder with the highest-level performance inherited from the first "GPX", and has been produced by combining SHIGIYA's technologies including a closed type hydrostatic wheelhead slide and an extremely low vibration wheel spindle motor. Innovative ultra-fine infeed has been realized with this model.

MODEL	
GPX II -30 · 40/60	
SPECIFICATIONS	
SWING OVER TABLE	φ300mm
CENTER DISTANCE	400 • 600 mm
WHEEL SIZE ODXWIDTH	φ405×50mm





Variety of automation lines can be constructed like clockwork









SHIGIYA, #1 variety of product lines, has reinforced the Research and Development department in order to increase its development capacity for high accuracy and quality advancement. SHIGIYA pursues to develop complex/multi-function and high-speed machines for high productivity,cost savings,and super high accuracy requirements. SHIGIYA has also accepted the challenge to develop advanced technologies to cope with new and hard to grind materials and to meet the users' needs precisely and specifically.



Assembly shop





Temperature-controlled factory (Ultra-precision column-type surface grinding machine)

SHIGIYA (USA) LTD. 406 Diens Dr.Wheeling IL 60090,USA







http://www.shigiya.co.jp

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• Descriptions contained in this catalog are subject to change without prior notice. Some of the photos contained in this catalog are different from standard specifications.