

Nakanishi (NSK) Polishing Machines

Nakanishi (NSK) Espert 500

A precision power hand tool system with a wide range of attachments suitable for grinding, smoothing, polishing and deburring.

An exclusive new feature of the Espert 500 system, the FiXpeed® system allows the user to independently preset the speed of motor A and motor B. For example motor A can be set to maintain the speed set by the FiXpeed® system while motor B has variable control using a foot pedal. This function allows for unprecedented flexibility.

- Self Check Function (Maintenance Mode)
- Smooth Operation
- Operation Check Sound
- Highly Visible and easy to operate front panel
- 2-Digit Digital Display
- Error Code Display Function

Speed : 1,000~50,000 min⁻¹

Speed is steplessly variable from 1,000~50,000 min⁻¹. Smooth and powerful torque is delivered at both high and low speeds. The extremely high maximum speed of 50,000 min⁻¹ allows high precision micro-machining.

Nakanishi (NSK) Smart Switch

The switch provides a click sensation and a confirmation tone is produced by the control unit when the switch is operated. The motor type is distinguishable by the switch color.

2 Types of Motors

Very high torque from compact motors.

Compact Type (ENK-500C)	140W	Blue
Torque Type (ENK-500T)	200W	Grey



Simple Screw on Attachments



Excellent Durability

High performance brushless motor eliminates the need to change carbon brushes. NSK's internal load test has proven continuous use for more than 5,000 hours.

12 Types of Attachments Available

All of the Espert 400 system attachments are available for use with this system. 11 different types of attachments and 1 speed reducer making an almost infinite number of applications possible.

Wide Range of Collet Chucks Available

Collet sizes range from a tiny 0.3 mm up, with a wide variety of sizes available. Tools can be changed without the use of any wrenches.

Special Dust-Proof Mechanism

The handpiece has a patented built-in-dust protection system to prevent the infiltration of dust and debris into the front bearings. This NSK patented design assures long-term durability.

Espert 500 Standard Set

High Power System. Max. Output 140W
 Speed Range : 1,000~50,000 min⁻¹
 Microprocessor controlled for optimal motor control
 Hand Switch [Nakanishi (NSK) Smart Switch]
 Memory Speed Function [FiXspeed®]

Model: ES50C-HR Code: 340024



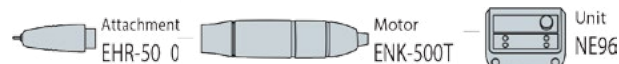
Standard
Accessories

- Control Unit (NE96) : 1 pc.
- Compact Motor Handpiece (ENK50C-HR) : 1 pc.
- Collet Chuck $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each
- Handpiece Holder : 1 pc. Handpiece Stand : 1 pc. Spanner (7 x 5.1) : 1 pc. Pin Spanner : 1 pc. L-Spanner (9) : 1 pc.

Espert 500 Torque Set

Highest Power in Class. Max. Output 200W
 Speed Range : 1,000~50,000 min⁻¹
 Microprocessor controlled for optimal motor control
 Hand Switch [NSK Smart Switch]
 Memory Speed Function [FiXspeed®]

Model: ES50T-HR Code: 340002

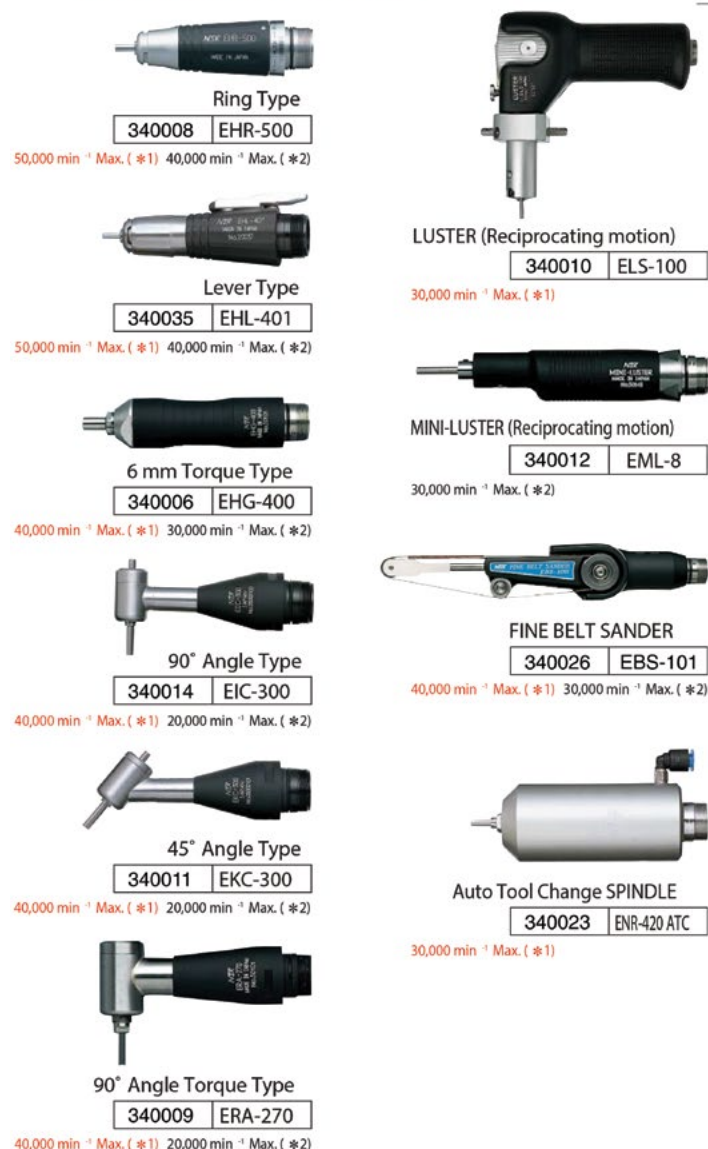


Standard
Accessories

- Control Unit (NE96) : 1 pc.
- Compact Motor Handpiece (ENK50T-HR) : 1 pc.
- Collet Chuck $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each
- Handpiece Holder : 1 pc. Handpiece Stand : 1 pc. Spanner (7 x 5.1) : 1 pc. Pin Spanner : 1 pc. L-Spanner (9) : 1 pc.

Nakanishi (NSK) Espert 500 System

Attachment Overview



Speed Reducer



Motor



Control Unit



★ 1 : Maximum Allowable Speed, intermittent use.
 ★ 2 : Maximum Allowable Speed, continuous use.

Nakanishi (NSK) Espert 500 - Attachments

Product (size mm)	Description	Description / Standard Accessories	Model	Code
	Espert 500 Control Unit	- Power Source : AC120/230V, 50-60Hz - Dimensions : W172 x D230 x H94 mm - Weight : 2.6 kg - Accessories : Handpiece Stand: 1 pc. Handpiece Holder: 1 pc.	NE96 120	340013
			NE96 230	339990
	Compact Type Motor	- Small, lightweight, high-speed brushless DC motor. - Incorporates the NSK Smart Switch for easy on/off operation. - Very low vibration noise and maintenance. - Weight : 115 g excluding cord - Output Power : 140W - Maximum Torque : 6.0 cN·m - Cord Length : 1.5 m	ENK-500C	340005
	Torque Type Motor	- High-power, high-torque, high-speed brushless DC motor. - Incorporates the NSK Smart Switch for easy on/off operation. - Very low vibration noise and maintenance. - Weight : 160 g excluding cord - Output Power : 200W - Maximum Torque : 8.7 cN·m - Cord Length : 1.5 m	ENK-500T	340007
	Ring Type Attachment	- Manufactured with micron level precision for high accuracy and high reliability. - Slim, lightweight design allows for fine finishing of delicate parts. - Ring Type one touch burr release. - Collet Chuck: Standard Size : $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each - Spanner (7 x 5.1) : 1pc. Pin Spanner : 1pc. L Spanner (9) : 1pc. - Weight : 94 g 50,000 min-1 Max. (*1) 40,000 min-1 Max. (*2)	EHR-500	340008
	Lever type Attachment	- To attain more powerful grinding and fine polishing finish, attachment EHL-401 is designed to make it lightweight and fit to pen-grip type holding. - Simple lever turning for burr exchange. - Same chuck as used in EHR-500. - Collet Chuck: Standard Size : $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each - Spanner (7 x 5.1) : 1 pc. - Weight : 70 g 50,000 min-1 Max. (*1) 40,000 min-1 Max. (*2)	EHL-401	340035
	Torque Type Attachment	- Torque type attachment used with $\phi 6$ mm chuck diameter as standard and nicely fits in hand-grip. - Collet Chuck: Standard Size : $\phi 6.0$ mm (CHG-6.0) : 1 pc. - Spanner (10 x 10) : 1 pc. • Bar Wrench (K-212) : 1 pc. - Weight : 110 g 40,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	EHG-400	340006
	90° Angle Attachment	90° Angle Attachment with $\phi 3$ mm Collet. Chuck is conveniently small and equally suitable for polishing flat surfaces with rubber pad paper disk, corner work, and grinding the inside of a pipes. - Speed Reduction Ratio : 3/4 • Weight : 54 g - Collet Chuck: Standard Size : $\phi 3.0$ mm (CHC-3.0) : 1 pc. Chuck Wrench (K-231) : 1 pc. Spanner (20 x 24) : 1 pc. - Standard Accessories : Rubber Pad, Paper Disk (1 set) 40,000 min-1 Max. (*1) 20,000 min-1 Max. (*2)	EIC-300	340014
	90° Angle Torque Attachment	90° Angle type is suitable for the work of corner and the grinding of the inside of pipe. - Speed Reduction Ratio : 1/1.5 • Weight : 107 g - Collet Chuck: Standard Size : $\phi 3.0$ mm (CHS-3.0) : 1 pc. - Spanner (8 x 5), (7 x 5.1), (20 x 24): 1 pc. each 40,000 min-1 Max. (*1) 20,000 min-1 Max. (*2)	ERA-270	340009
	50° Angle Attachment	50° Angle Attachment is suitable for working in corners, cavities, etc. - Reverse rotation against the motor - Speed Reduction Ratio : 3/4 • Weight : 54 g - Collet Chuck: Standard Size : $\phi 3.0$ mm (CHC-3.0) : 1pc. - Standard Accessories : Rubber Pad, Paper Disk (1 set). Chuck Wrench (K-231) : 1 pc. Spanner (20 x 24) : 1 pc. 40,000 min-1 Max. (*1) 20,000 min-1 Max. (*2)	EKC-300	340011
	Mini-luster Attachment (Pencil-Type Reciprocating Polishing Finisher)	- Reciprocating Stroke (variable) : 0~10,000 times/min (Max.) - Stroke Range : 0.8, 0.4, 0.2 mm (3 different models) - Mountable tool shaft diameter : Max. shaft diameter $\phi 3.2$ mm, Screw clamp type. - Standard Accessories : 1 set. Allen Wrench (1.5 mm) : 1 pc. - Weight : 130 g 30,000 min-1 Max. (*2)	EML-8 (Stroke 0.8 mm)	340012

★ Maximum Allowable Speed, continuous use may change depending on the material being cut and other application variables.

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★ 2 : Maximum Allowable Speed, continuous use.

Nakanishi (NSK) Emax Evolution

A precision power hand tool system with a wide range of attachments suitable for grinding, smoothing, polishing and deburring.

FiXpeed® system allows everyone to easily fix the speed of motor A and B independently prior to operation. For example motor A can be set to maintain the speed set by the FiXpeed® system while motor B has variable control using a foot controller. This function brings for unprecedented workability.

Emax Evolution Standard Set

Capable for wide range of applications. An excellent total balance in motor performance and dimension against required rotational speed. 1,000~40,000 min⁻¹

Emax Evolution Torque Set

For heavy duty and larger tools, Torque type promises to extend operation ranges. 1,000~25,000 min⁻¹



Model	Set	Standard Accessories	Code
EV410-120 (120V)	Standard	• Micro Grinder (IR-310+ENK-410S) : 1 pc. • Collet Chuck $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each • Control Unit (NE249) : 1 pc. Handpiece Holder : 1 pc. Handpiece Stand : 1 pc. Power Supply Cord : 1 pc. Spanner (7 x 5.1) : 1 pc. Pin Spanner (K-233) : 2 pc. L Shaped Spanner : 1 pc.	340436
EV410-230 (230V)			339920
EV250-120 (120V)	Torque	• Micro Grinder (IR-310+ENK-250T) : 1 pc. • Collet Chuck $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35) : 1 pc. each • Control Unit (NE249) : 1 pc. Handpiece Holder : 1 pc. Handpiece Stand : 1 pc. Power Supply Cord : 1 pc. Spanner (7 x 5.1) : 1 pc. Pin Spanner (K-233) : 1 pc. L Shaped Spanner : 1 pc.	340437
EV250-230 (230V)			339921

Nakanishi (NSK) Smart Switch

The switch provides a click sensation and a confirmation tone is produced by the control unit when the switch is operated. The motor type is distinguishable by the switch color.

One Touch Tool Changing

Ring Type (IR-310 Code: 339937) Easy twist open/close chuck.

2 Types of Motors

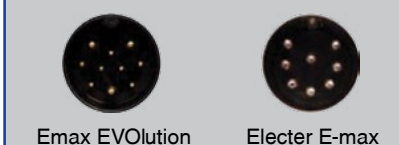
Provides choice of various applications.

Standard Type Motor 1,000~40,000 min⁻¹(ENK-410S)

Torque Type Motor 1,000~25,000 min⁻¹(ENK-250T)



Emax EVOLution and Electer E-max have different motor cord pin configurations.



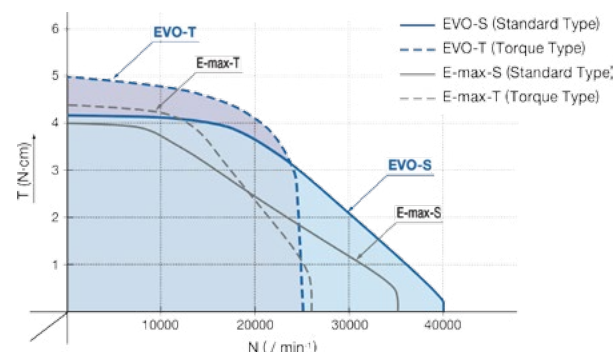
Excellent Durability

High performance brushless motor eliminates the need of changing carbon brushes. RPM variation is minimal even when load changes. Allowing difficult and stable cutting in stress free motion. Suitable performance for finish grinding.

17 Type of Attachments for All Type of Applications

Capable of infinite applications with 14 different handpieces and 3 types of intermediate attachments.

Emax EVOLution vs Emax Torque Characteristic



Nakanishi (NSK) Emax Evolution System

Attachment Overview



Ring Type

339937 IR-310

40,000 min⁻¹ Max. (※1) 40,000 min⁻¹ Max. (※2)



Lever Type

340271 IH-300

40,000 min⁻¹ Max. (※1) 40,000 min⁻¹ Max. (※2)



Straight Type

340410 IG-400

40,000 min⁻¹ Max. (※1) 40,000 min⁻¹ Max. (※2)



6 mm Torque Type (※3)

340242 HG-200

30,000 min⁻¹ Max. (※1) 27,000 min⁻¹ Max. (※2)



Long Type

340245 BMH-300

35,000 min⁻¹ Max. (※1) 35,000 min⁻¹ Max. (※2)



90° Mini Angle Type

340247 MFC-300S

15,000 min⁻¹ Max. (※1) 15,000 min⁻¹ Max. (※2)



90° Mini Angle Type (Very Small Head)

340248 MFC-300M

15,000 min⁻¹ Max. (※1) 15,000 min⁻¹ Max. (※2)



90° Angle Type

340272 IC-300

35,000 min⁻¹ Max. (※1) 20,000 min⁻¹ Max. (※2)



45° Angle Type

340273 KC-300

35,000 min⁻¹ Max. (※1) 20,000 min⁻¹ Max. (※2)



LUSTER (Reciprocating motion)

340251 LS-100

30,000 min⁻¹ Max. (※1) 30,000 min⁻¹ Max. (※2)



MINI-LUSTER (Reciprocating motion)

340252 ML-8

35,000 min⁻¹ Max. (※1) 30,000 min⁻¹ Max. (※2)



SWING-LUSTER (Right to left motion)

339878 SLS-16

35,000 min⁻¹ Max. (※1) 24,000 min⁻¹ Max. (※2)



Hammer Action Type

340750 HA-500

20,000 min⁻¹ Max. (※1) 16,000 min⁻¹ Max. (※2)



FINE BELT SANDER

340256 KBS-101

35,000 min⁻¹ Max. (※1) 35,000 min⁻¹ Max. (※2)

Speed Reducer - Extension Joint



Extension Joint

340260 CN-01

35,000 min⁻¹ Max. (※1) 35,000 min⁻¹ Max. (※2)



1/4 Speed Reducer

340258 RG-01

30,000 min⁻¹ Max. (※1) 30,000 min⁻¹ Max. (※2)



1/15 Speed Reducer

340259 RG-02

30,000 min⁻¹ Max. (※1) 30,000 min⁻¹ Max. (※2)

May be connected between the motor and the attachment when required increased torque.

Motor

Exclusive use for Emax EVOLUTION



• Standard Type Motor with Cord
1,000~40,000 min⁻¹

339923 ENK-410S



• Torque Type Motor with Cord
1,000~25,000 min⁻¹

339924 ENK-250T

Control Unit



Emax EVOLUTION Control Unit

340438 (120V) NE249 120

339922 (230V) NE249 230



LUSTER (Reciprocating motion) Built-in Motor

340283 NLS-110

30,000 min⁻¹ Max. (※1) 30,000 min⁻¹ Max. (※2)

★ Can be used for Emax series attachments, reducers, and extension joint

★ When using Emax EVOLUTION, be careful for Maximum Allowable Speed.

★ Never connect to Emax Series motor NK-351, NK-261 and NK-151.

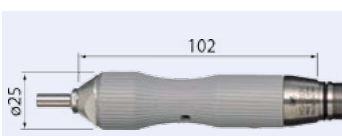
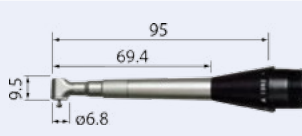
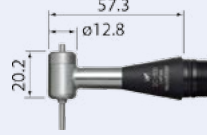
★ 3 : Use 6mm torque Type HG-200 to connect ENK-250T

Exclusive use for Emax EVOLUTION

★ Maximum Allowable Speed, continuous use may change depending on the material being cut and other application variables.

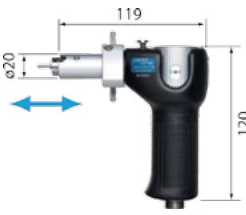
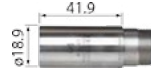
★ 1 : Maximum Allowable Speed, intermittent use.
★ 2 : Maximum Allowable Speed, continuous use.

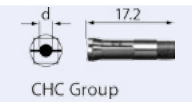
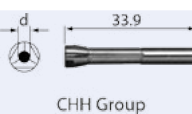
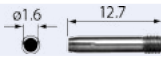
Nakanishi (NSK) Emax Evolution - Attachments

Product (size mm)	Description	Specification	Model	Code
	Emax EVOLUTION Control Unit	- Weight : 2.3 kg - Power Source : AC 120/230V, 50-60Hz - Dimensions : W130 x D254 x H97 mm	NE249 120	340438
			NE249 230	339922
	Standard Type Motor with Cord	- Weight : 90 g (w/o Cord) - Max. Torque 4.3 cN·m - Speed : 1,000~40,000 min-1 - Accessory : Pin Spanner (K-233) 1 pc. - with Straight Cord 1.5m - Max. Power : 73W	ENK-410S	339923
	Torque Type Motor with Cord	- Weight : 147 g (w/o Cord) - Max. Torque 4.8 cN·m - Speed : 1,000~25,000 min-1 - Accessory : Pin Spanner (K-233) 1 pc. - with Straight Cord 1.5m - Max. Power : 76W	ENK-250T	339924
	Ring Type Attachment	- Weight : 92 g - Collet Chuck : $\phi 3.0$mm (CHH-3.0), $\phi 2.35$mm (CHH-2.35) - Accessory : Spanner (7 x 5.1) 1 pc. Pin Spanner (K-233) 1 pc. L Shaped Spanner 1 pc. 40,000 min-1 Max. (*) 40,000 min-1 Max. (*2)	IR-310	339937
	Lever Type Attachment	- Weight : 62 g - Collet Chuck : $\phi 3.0$mm (CHH-3.0), $\phi 2.35$mm (CHH-2.35) - Accessory : Spanner (7 x 5.1) 1 pc. Pin Spanner (K-233) 1 pc. 40,000 min-1 Max. (*) 40,000 min-1 Max. (*2)	IH-300	340271
	Straight Type Attachment	- Weight : 55 g - Collet Chuck : $\phi 3.0$mm (CHH-3.0), $\phi 2.35$mm (CHH-2.35) - Accessory : Spanner (7 x 5.1) 1 pc. Bar Wrench (PCR-30) 1 pc. 40,000 min-1 Max. (*) 40,000 min-1 Max. (*2)	IG-400	340410
	6 mm Torque Type Attachment	- Weight : 210 g - Collet Chuck : $\phi 6.0$mm (CHG-6.0) - Accessory : Spanner (10 x 10) 1 pc. Bar Wrench (K-212) 1 pc. Pin Spanner (K-233) 1 pc. * Use 6mm torque Type HG-200 to connect ENK-250T 30,000 min-1 Max. (*) 27,000 min-1 Max. (*2)	HG-200	340242
	Long Type Attachment for Deep Hole Grinding $\phi 13$ mm	- Weight : 156 g - Collet Chuck : $\phi 3.0$mm (CHM-3.0) - Accessory : Spanner (7 x 5.1), (6 x 4.5) 1 pc. each Pin Spanner (K-233) 1 pc. 35,000 min-1 Max. (*) 35,000 min-1 Max. (*2)	BMH-300	340245
	90° Mini Angle Type Attachment for Chamfering Deep Hole (Very Small Head)	- Weight : 47 g - Speed Reduction Ratio : 10/11 - Collet Chuck : $\phi 1.6$mm (K-253) - Accessory : Chuck Wrench (K-232) 1 pc. Pin Spanner (K-233) 1 pc. 15,000 min-1 Max. (*) 15,000 min-1 Max. (*2)	MFC-300M	340248
	90° Mini Angle Type Attachment for Chamfering Deep Hole	- Weight : 50 g - Speed Reduction Ratio : 10/11 - Collet Chuck : $\phi 1.6$mm (K-252) - Accessory : Chuck Wrench (K-232) 1 pc. Pin Spanner (K-233) 1 pc. 15,000 min-1 Max. (*) 15,000 min-1 Max. (*2)	MFC-300S	340247
	90° Angle Attachment	- Weight : 45 g - Collet Chuck : $\phi 3.0$mm (CHC-3.0) - Standard Accessories (Rubber Pad, Paper Disk) - Accessory : Standard Accessories 1 set. Chuck Wrench (K-231) 1 pc. Pin Spanner (K-233) 1 pc. 35,000 min-1 Max. (*) 20,000 min-1 Max. (*2)	IC-300	340272
	50° Angle Attachment	- Weight : 45 g - Collet Chuck : $\phi 3.0$mm (CHC-3.0) - Standard Accessories (Rubber Pad, Paper Disk) - Accessory : Standard Accessories 1 set. Chuck Wrench (K-231) 1 pc. Pin Spanner (K-233) 1 pc. 35,000 min-1 Max. (*) 20,000 min-1 Max. (*2)	KC-300	340273
	Mini-luster Attachment (Pencil-Type Polisher) (Reciprocating motion)	- Weight : 130 g - Max. tool shank diameter $\phi 3.2$mm, Screw clamp type. - Stroke range (fixed) : 0.8mm - Accessory : Standard Accessories 1 set 35,000 min-1 Max. (*) 30,000 min-1 Max. (*2)	ML-8	340252
	Swing-luster Attachment (Pencil-Type Polisher) (Right to Left motion)	- Weight : 127 g - Reciprocating Stroke (Variable) : 0~9,000 times/min. - Stroke range (Variable) : 0~1.6mm - Max. tool shank diameter $\phi 5.0$mm, Screw clamp type. - Accessory : Standard Accessories 1 set 35,000 min-1 Max. (*) 24,000 min-1 Max. (*2)	SLS-16	339878

★ Maximum Allowable Speed, continuous use may change depending on the material being cut and other application variables.

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★ 2 : Maximum Allowable Speed, continuous use.

Product (size mm)	Description	Specification	Model	Code
	Fine Belt Sander Attachment	- Weight : 350 g - Belt Speed : 0~825 m/min. - Accessory : 8, 6, 4mm Belts. Allen Wrench (3mm) : 1 pc. 35,000 min-1 Max. (*1) 35,000 min-1 Max. (*2)	KBS-101	340256
	Hammer Attachment for Engraving and Ornament Processing Work	- Weight : 95 g - Stroke Times : 25~5,000 times/min. - Stroke Spring Pressure : 4.4~7.1N (Ring Adjustment Type) - Accessory : Spanner (7 x 5.1) 1 pc. Bar Wrench (K-212) 1 pc. Oil and nozzle, Hammer Bit (For replacement) 2 pcs. 20,000 min-1 Max. (*1) 16,000 min-1 Max. (*2)	HA-500	340750
	Luster Attachment (Pistol-Type Polisher) (Reciprocating motion) Built-in Motor	- Weight : 800 g - Max. Torque 17.2 cN·m - with Straight Cord 1.5m - Stroke Range : 0~6mm (variable) - Max. tool shank diameter ø6.4mm, Screw clamp type. - Reciprocating Stroke (variable) : 0~7,600 times/min - Accessory : Standard Accessories 1 set Lubrication Oil, Lubrication Nozzle for LUSTER 30,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	NLS-110	340283
	Luster Attachment (Pistol-Type Polisher) (Reciprocating motion)	- Weight : 680 g - Stroke Range : 0~6mm (variable) - Max. tool shank diameter ø6.4mm, Screw clamp type. - Reciprocating Stroke (variable) : 0~7,600 times/min - Accessory : Standard Accessories 1 set. Lubrication Oil, Lubrication Nozzle for LUSTER 30,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	LS-100	340251
	EXTENSION JOINT	- Weight : 83 g - Pin Spanner (K-233) : 1 pc. 35,000 min-1 Max. (*1) 35,000 min-1 Max. (*2)	CN-01	340260
	(1/4) Speed Reducer	- Weight : 68 g - Pin Spanner (K-233) : 1 pc. 30,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	RG-01	340258
	(1/15) Speed Reducer	- Weight : 93 g - Pin Spanner (K-233) : 1 pc. 30,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	RG-02	340259

Collet Chuck	Product	Fit to (Model)	Inside Diameter : ød mm	Model	Code	Chuck Nut
		IC-300, KC-300	ø1.6 ø2.35 ø3.0 ø3.175	CHC-1.6 CHC-2.35 CHC-3.0 CHC-3.175	340624 340604 340608 340603	IG-400 (for NKM6 Group)  Model: CHN-6 Code: 340639
		HG-200	ø2.35 ø3.0 ø3.175 ø5.0 ø6.0 ø6.35 ø1.0 - ø6.35 available on request	CHG-2.35 CHG-3.0 CHG-3.175 CHG-5.0 CHG-6.0 CHG-6.35	340611 340620 340610 340634 340612 340617	
		IH-300, IR-310	ø1.5 ø2.35 ø3.0 ø3.175 ø1.0 - ø3.175 available on request	CHH-1.5 CHH-2.35 CHH-3.0 CHH-3.175	340635 340607 340613 340602	
		BMH-300	ø1.0 ø1.6 ø2.0 ø2.35 ø3.0 ø3.175	CHM-1.0 CHM-1.6 CHM-2.0 CHM-2.35 CHM-3.0 CHM-3.175	340636 340637 340638 340609 340615 340630	
		MFC-300S	ø1.6	K-252	340626	
		MFC-300M	ø1.6	K-253	340924	
		IG-400	ø2.35 ø3.0 ø3.175	NKM6-2.35 NKM6-3.0 NKM6-3.175	340632 340631 340633	

Parts	Product	Description	Fit to	Model	Code
		Straight Cord : 1.5 m (with Switch)	Control Unit : Emax EVOLution NE249	K-269	340762
		Foot Control (ON-OFF and speed change can be accomplished.)	Control Unit : Emax EVOLution NE249	FC-64	340749
		Handpiece Holder	Control Unit : Emax EVOLution NE249	K-273	340726
		Handpiece Stand		K-274	340434

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★ 2 : Maximum Allowable Speed, continuous use.

For more parts and attachments please visit kemet.co.uk/emax

Nakanishi (NSK) Impulse



Ultra Precision, High Accuracy

Ideal for high precision grinding, the IMPULSE has smooth rotation without vibration, even at high speed.

High-Power-High-Torque

A special vane air motor ensures the motor speed remains stable, even under varying loads.

Exchangeable Chuck Collet

- Standard Size : ϕ 3.0mm
- Special Size : ϕ 0.8mm - ϕ 3.0mm in 0.1mm increments and ϕ 2.35, ϕ 3.175mm

Easy tool change

Cutting tools easily changed with a spanner.

Excellent Endurance

High precision components used in the IMPULSE provide excellent endurance and micron accuracy.

Excellent Silencer

Grinder features a silencer on the exhaust air hose to keep operation noise low.

Connecting Part To Air Line Kit

Built in air filter in air inlet coupling (included in the connection to air line kit)

Product (size mm)	Standard Accessories / Equipment	Model	Code
	• Weight : 165 g • Spanner (8x5) : 1pc. • Bar Wrench (K-212) : 1pc. • Hose (K-213) : 1.5m • Silencer (K-208) : 1pc.	NSP-601	340417
	• Weight : 210 g • Spanner (8x5) : 1pc. • Bar Wrench (K-212) : 1pc. • Hose (K-213) : 1.5m • Silencer (K-208) : 1pc.	NA45-400	340418
	• Weight : 190 g • Special Grindstone Axis (NCH-01) : 1pc. • Spanner (8x5) : 1pc. • Bar Wrench (K-212) : 2pcs. • Hose (K-213) : 1.5m • Silencer (K-208) : 1pc. • Allen Wrench (1.5mm) : 1pc. • Standard Accessories : 1 set	NA90-230	340420
	• Weight : 190 g • Special Grindstone Axis (NCH-01) : 1pc. • Spanner (8x5) : 1pc. • Bar Wrench (K-212) : 2pcs. • Hose (K-213) : 1.5m • Silencer (K-208) : 1pc. • Allen Wrench (1.5mm) : 1pc. • Standard Accessories : 1 set	NA45-230	340419
	• Weight : 2.2 kg • Can supply the smooth air flow and automatic lubrication for a long life and the stable power. • By adjustment of auto lubrication & air flow, this will extend the lifetime of air grinder. • Best for grinding and polishing processes, AL-H1206 air line kit has a compact body with a carrying handle and holder to put the IMPULSE in. • Standard Equipment : Air Pressure Gauge, Air Regulator, Air Filter Lubricator, Air ON-OFF Valve • Accessories : Hose for Piping (K-275) : 2m, Lubrication Oil (K-211) : 1pc	AL-H1206	340210

Collect Chuck

Product	Inside Diameter : ϕ d	Model	Code
	ϕ 2.35	CHS-2.35	340616
	ϕ 3.0	CHS-3.0	340614
	ϕ 3.175	CHS-3.175	340605
ϕ 0.8 - ϕ 2.9 available on request			

Nakanishi (NSK) SHEENUS neo

This Ultrasonic Polisher is an ideal tool for precision die polishing and burr removal.

The SHEENUS can be used for grinding, polishing and mirror finishing on a wide range of material from aluminium dies to cemented carbide dies. It is also perfect for plastic moulds, press, casting, forging, trimming and header dies.

It can quickly remove hard layer of EDM deposits and polish difficult areas such as complex corners and ribs. Capabilities include burr removal, grinding and polishing of precision moulds, dies electronic and ceramic components.



Product	Description	Specifications	Model	Code
	Control Unit	- Power Source : AC120V/230V, 50-60Hz - Rating Power consumption : 31W • Weight : 1.7 kg - Dimensions : W225 x D195 x H97 mm - Oscillation frequency : 22.5KHz (center frequency) - Power conditioning : Continuous variable type - Frequency control : Homing type - Max. power : UNCLAMP mode 45W: CLAMP mode 20W	NE240 120V	340441
			NE240 230V	340442
	Ultrasonic Handpiece	- Oscillator : PZT piezoelectric type - Attachment fixing : M6 screw • Cable length : 2 m (60 g) - Dimensions : $\phi 16$(Max. $\phi 28$) x L134 mm - Weight : 140 g (excluding cable)	US-25PB	340443
	Foot Pedal	ON/OFF switch only	FC-24	339898
			K-274	340434

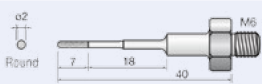
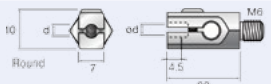
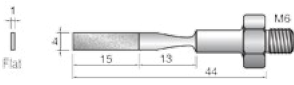
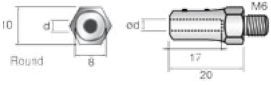
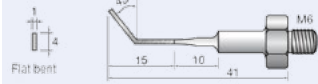
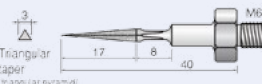
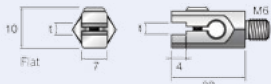
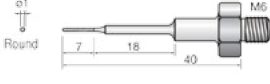
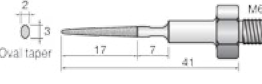
SHEENUS neo Standard Set

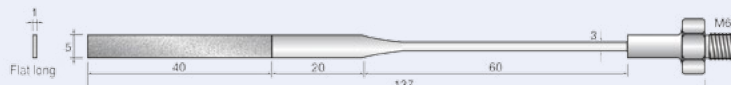
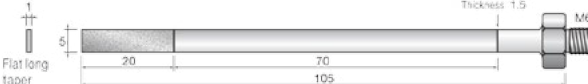
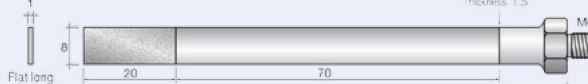
Standard Equipment - Control Unit (NE240 120V / 230V)

- Ultrasonic Handpiece (US-25PB) • Included Accessories : 1 set
- Tool box (plastic) : 1 pc. • Handpiece stand (K-274) : 1 pc. • Spanner (10 mm)
- Allen Wrench (2.5 mm) • Foot Pedal (FC-24) : 1 pc

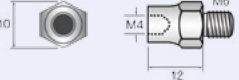
Included Accessories (1 pc. each)

- Electroplated diamond file Flat Taper 0.4 x 4 x 50 mm #200 (60101)
- Ceramic fiber grindstone Flat 1 x 6 x 50 mm #800 (60735)
- Tip Holder Round For $\phi 3$ mm (60902)
- Tip Holder Flat For thickness 1 mm (60992)

Electroplated Diamond File	Grit	Code	Electroplated Diamond File	Grit	Code	Special Tip Holder	Grain diameter	Code
	200	339956		200	340461		$d=\phi 2.0\text{mm}$	340040
	320	340450		320	340462		$d=\phi 3.0\text{mm}$	340054
	600	340451		600	340463		$d=\phi 3.3\text{mm}$	340041
	200	340452		200	340464		$d=\phi 2.0\text{mm}$	340032
	320	340453		320	340465		$d=\phi 3.0\text{mm}$	340031
	600	340454		600	340466		$d=\phi 3.3\text{mm}$	340037
	200	340455		200	339946		$t=0.8\text{mm}$	340034
	320	340456		320	340467		$t=1.0\text{mm}$	340030
	600	340457		600	340468		$t=2.0\text{mm}$	340033
							$t=3.0\text{mm}$	340038
							$t=3.3\text{mm}$	340036
	200	340458		200	340469		$t=1.0\text{mm}$	340480
	320	340459		320	340470			
	600	340460		600	340471			

Electroplated Diamond File	Grit	Code
	200	339957
	320	340472
	600	340473
	200	340474
	320	340475
	600	340476
	200	340477
	320	340478
	600	340479

M4 Screw Joint Adapter

Code
 339086

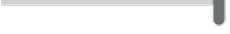
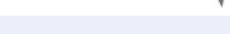
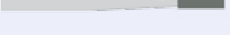
M4 screw is used on sintered diamond files and ruby grindstones. (Some of the sintered diamond files use M6). (2 pcs./pack)

Nakanishi (NSK) Presto II

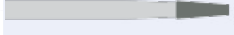
The PRESTO II is an ultra high speed 320,000 min⁻¹ non-lubricated air turbine. It is most suitable for high precision processing, such as small precision parts, ceramic, correction of printed circuit board, etc. due to its non-lubricated handpiece. Flexible tubing ensures excellent workability reducing fatigue to the operator's hand for long continuous use.

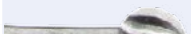
- Ultra-high speed non-lubricated air turbine handpiece ideal for delicate processing application.
- Chip air blows away the cutting powder and cools the cutting tool.
- Built-in dust protection mechanism ensures long durability.

Product	Description	Specifications	Model	Code
	Presto Handpiece	2 m Hose	PR-304	340481
	PRESTO II Air Line Kit (w/o Lubricator & Filter Mesh 5 µm)	• Rotating Speed : 320,000 min-1 • Proper Air Pressure : 0.25MPa • Weight : 71 g (w/o Hose) • Inside Diameter : ø1.6 mm Burr Only • Air Consumption : 40NL/min	PR2-06	340482
	PRESTO II / PRESTO Cartridge		PR-03	340483
	PRESTO Foot Control		AFC-40	340484
	Piping Hose	• 2 m Long	K-237	340485
	Air Turbine Hose	• 2 m Long	K-238	340486
	Pin Spanner		T-751	340487
Presto II Standard Set		Presto Handpiece (PR-304), Air Line Kit (PR2-06), Foot Control (AFC-40), Handpiece Holder (Z014)		
			PR2-304S	339916

Mounted Diamond Points	Profile	Size (mm)			Code
		Ø	Width	Total Length	
		0.9		19	321675
		1.4		19	321676
		1.8		19	321677
		2.2		19	321678
		4.8	1.0	15	321679
		3.0	0.8	19	321680
		4.0	1.5	17	321681
		0.8	4.0	19	321682
		1.0	4.0	19	321683
		1.4	4.0	19	321684
		1.2	5.6	21	321685
		1.2	8.0	21.5	321686
		1.4	8.0	21	321687
		1.8	8.0	21.5	321688
		1.4	8.0	21	321689

Ø 1.6 mm Shank size for Diamond Points and Burrs

Profile	Size (mm)			Code
	Ø	Width	Total Length	
	2.3	5.3	20	321690
	1.4	8.0	21	321691
	1.6	10	22.5	321692
	1.8	10	22.5	321693
	1.6	10	22.5	321694
	1.8	10	22.5	321695
	1.2	4.0	20	321696
	1.2	5.6	19	321697
	1.6	10.5	23.5	321698

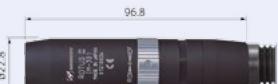
Burrs	Profile	Size (mm)		Code
		Ø	Total Length	
		1.4	19	321699
		1.4	19	321700
		1.0	19	321701
		1.6	19	321702
		1.6	19	321703
		0.8	19	321704
		0.9	19	321705
		1.0	19	321706

Nakanishi (NSK) Rotus

This high performance air motor features minimal power loss from load fluctuation has excellent grinding stability. Moreover, the motor has minimal air consumption, runs quietly and the energy-saving mechanics makes it possible to operate with a 0.75KW (1 hp) air compressor.



- Lightweight and compact design. 130 g (w/o hose)
- 17 types of attachments for all types of applications.
- ON/OFF, FWD./REV. Rotation Direction and Motor Speed can be controlled using just the Ring Switch. Foot controller is available : used as an ON/OFF switch as well as a variable speed control.
- Air cooling system generates no heat even with continuous operation.
- The silencer (attached to the end of the exhaust air tubing) allows the motor to be operated extremely quietly.
- Twist-Free Joint mechanism is installed in IM-301 to prevent the hose twisting.

Product (Size mm)	Description	Specification	Model	Code
	ROTUS AIR MOTOR (with Twist-Free Joint Mechanism)	Air Motor with 360° Twist-Free Joint Mechanism. Adapted Twist-Free Joint mechanism between the motor and the hose prevents the hose twisting. Weight : 130 g 3,000 ~ 30,000 min-1	IM-301	340217
	ROTUS AIR MOTOR (with Chip Air Mechanism)	Air Motor IM-300 with Chip Air mechanism blows away the cutting dust with clean air coming through the top end of the attachment. The hand-held cutting work remains cool by the Chip air for comfortable operation. Weight : 130 g 3,000 ~ 30,000 min-1 <i>This is only with the attachment IH-300.</i>	IM-300	340218
	RING TYPE ATTACHMENT	High precision and high reliability is realised by micron precision. Slim, lightweight design allows for fine finishing of delicate parts. One-touch ring type burr replacement. 40,000 min-1 Max. (*1) 40,000 min-1 Max. (*2)	IR-310	339937
	MINI-LUSTER ATTACHMENT (Pencil-Type Polisher)	Due to pencil type grip, this is the most suitable for polishing narrow groove, details, etc. Reciprocating Stroke (Variable) : 0~7,600 times/min. Mountable tool : Max. shaft diameter ø3.2 mm, Screw clamp type. Weight : 130 g 35,000 min-1 Max. (*1) 30,000 min-1 Max. (*2)	ML-8 Stroke (0.8mm)	340252
	AIR LINE KIT	Ensures a smooth operation and long life by supplying stable, conditioned air to the air motor. Three functions : air filter, regulator, mist lubricator can also be used to adjust motor speed. Weight : 2.2 kg Filter Mesh : 5 µm	AL-H1207F	390016
	SILENCER	The silencer (attached to the end of exhaust air tubing) significantly reduces operation noise.	K-209	340488
	FOOT CONTROL	Designed to depress from any direction. Fine adjustment of speed control is possible.	AFC-45	340214
	Select from a variety of attachments depending on the application. • Air Grinder (IM-301+IR-310) : 1 pc. • Chuck Collet ø3.0, ø2.35mm • Air Line Kit (AL-H1207F) : 1 pc. • Foot Control (AFC-45) : 1 pc. • Accessories : Piping Hose ø 2 m (K-275) : 1 pc., Lubricating Oil (K-211) : 1 pc. • Pin Spanner (K-233) : 2 pc. • Spanner (7x5.1) : 1 pc. • L Shaped Spanner : 1 pc The new ring type IR-310 is a standard attachment for ROTUS standard set R301-IR.		ROTUS-IR	340215

★ Maximum Allowable Speed, continuous use may change depending on the material being cut and other application variables.

★ 1 : Maximum Allowable Speed, intermittent use.

★ 2 : Maximum Allowable Speed, continuous use.

Set-up Drawing

