

SUPER DRY GEAR SHAPING MACHINE

SE SERIES



NIDEC MACHINE TOOL CORPORATION

www.nidec.com/en/nidec-machinetool/



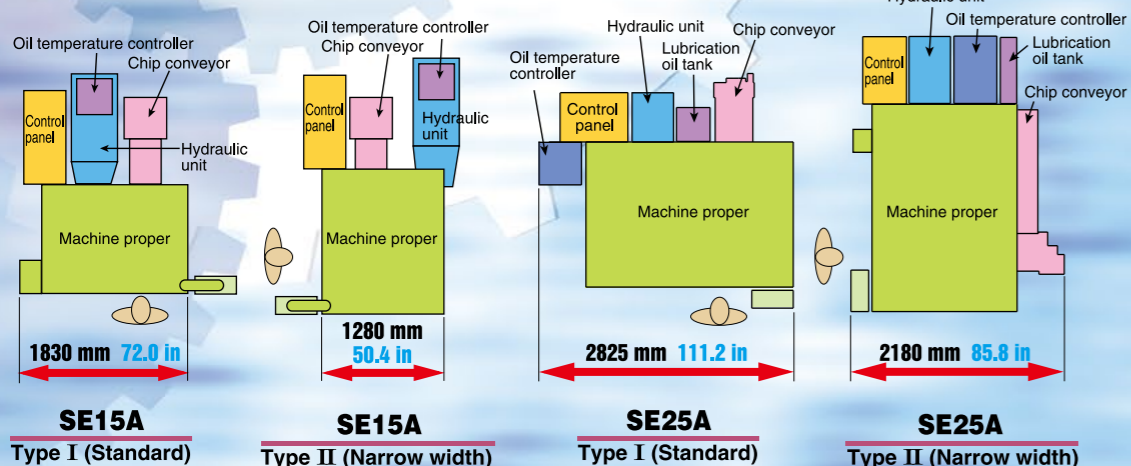
An Evolutionary Perfect Dry Cut Shaping Machine

We now deliver to you a perfect, dry cut shaping machine, first of its kind in the world. This evolutionary dry cut shaper reflects the needs of the customer.

Modular Peripheral Equipment Facilitates Line Configuration

Modular peripheral equipment and transfer system facilitates building and remodeling line configuration. As a result, we are able to reduce set-up and operation time.

You can select from either the square Type I, or the narrow width Type II.



Space saving layout
15% reduction

(In comparison with our SE15A)



SE25A
*The photo includes optional equipment.

Vibration and noise reduced

Silent shaft

Improved power

Main motor output
Cutting speed

Super Dry Pinion Cutter

High productivity is achieved
by improving the high speed cutting

Example of workpiece specifications

m: 1.75 Z: 21 α : 20 β : 0 b: 10 mm 0.4 in

Spindle stroke speed (str./min) 1025/1135 → 1650/2000

Cutting speed (m/min) 45/50 → 70/90

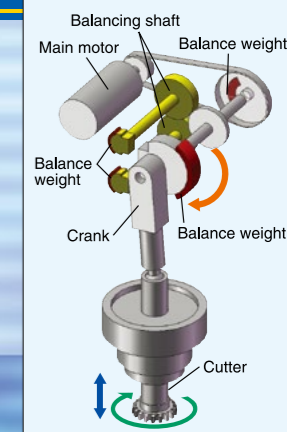
Cycle time (min) 0.78 → 0.60
(23% reduction)

(In comparison with our SD series)

Vibration and Noise Reduced

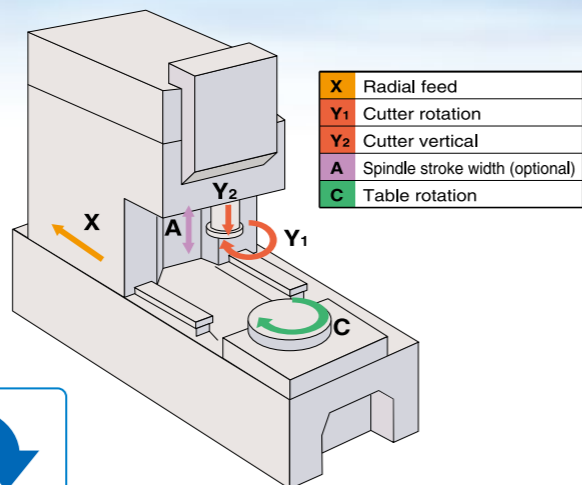
Vibration and noise encountered at high speed machining range has been greatly reduced by adding counter-balancing shafts within the gear box.

Silent shaft (Counter-balancing shaft)



SE15A
*The photo includes optional equipment.

NC Controlled Axes



- X Radial feed
- Y1 Cutter rotation
- Y2 Cutter vertical
- A Spindle stroke width (optional)
- C Table rotation

High Speed Shaping with The Next Generation Super Dry Pinion Cutter

A further enhanced high speed, high feed shaping process made possible with Next Generation SuperDry Shaper Cutter.

Improved Productivity

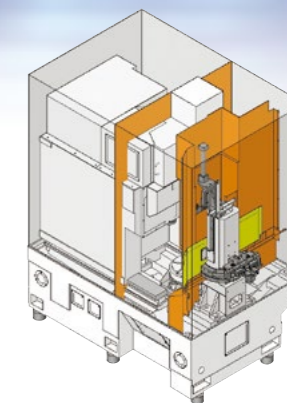
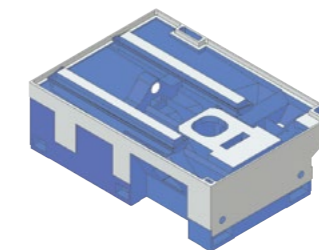
	SD	SE
Cutting speed	Max. 90 m · min ⁻¹ 295.3 fpm	Max. 130 m · min ⁻¹ 426.5 fpm
Main motor output	5.5 kW 7.5 HP	7.5 kW 10 HP

Adaptable to Wet Cut Shaping

You can select from either dry cut version for dry cut shaping or wet cut version for conventional wet cut shaping.

Chip Disposal Assurance and Rugged Bed

- Totally enclosed machining area
 - Steep angle internal cover
 - Optimum layout of internal chip conveyor
 - Bed structure designed for efficient chip disposal
- Full assurance provided based on our abundant experience in dry cut shaping technology.



Reduction to 80% in energy consumption compared to conventional wet cut shaping as no cutting fluid is used.

20% reduction

Energy consumption compared to conventional machines

100% reduction

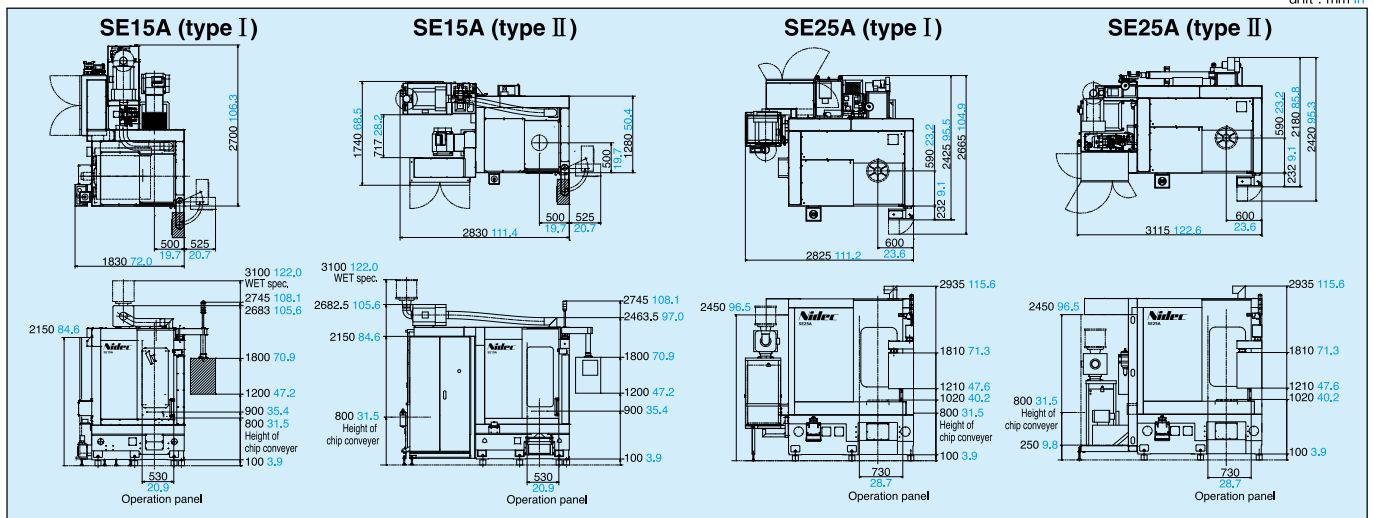
Cutting fluid compared to conventional machines

SUPER DRY GEAR SHAPING MACHINE SE15A/25A

Main Specifications

Item		SE15A	SE25A
Max. workpiece diameter	External gear mm in	φ150 5.9	φ250 9.8
	Internal gear mm in	φ60 2.4 + Cutter P.C.D	φ120 4.7 + Cutter P.C.D
Max. module		4	6
Max. workpiece width	mm in	32 1.3	60 2.4
Max. stroke width	mm in	40 1.6	70 2.8
Spindle stroke speed	str/min	400~2,000	180~1,800
Rotary speed	mm/str in/str	0.1~10 0.004~0.4	
Radial travel	mm in	-30~195 -1.2~7.7	-60~270 -2.4~10.6
Radial feedrate	mm/str in/str	0.001~0.1 0.00004~0.004	
Radial rapid traverse	mm/min ipm	10,000 393.7	
Table max. speed	min ⁻¹	33	30
Table diameter	mm in	φ260 10.2	φ330 13.0
Main motor (cont. rating)	kW HP	7.5 10	
NC software		Conversational programming	
Number of NC axes		4 axes (Optional 5)	
Total power consumption	kVA	31	33
Machine weight	kg lb	6,500 14,400	9,000 19,900

Machine Dimensions



unit : mm in

Inquiry

NIDEC MACHINE TOOL CORPORATION

Customer Support & Sales Headquarters 130, Rokujizo, Ritto, Shiga, 520-3080, Japan

www.nidec.com/en/nidec-machinetool/



Global Group Phone: +81-77-552-9768 Facsimile: +81-77-552-9774

Sales and Service bases

Nidec-Shimpo (Shanghai) Int'l Trading Co., Ltd.
3507-3508, Tower B, 100 Zunyi Road, Chang Ning District,
Shanghai, 200051 P.R.China
Phone: +86-21-63800318
E-mail: nssc-koki@nidec-shimpo.com.cn

Nidec-Shimpo (Shanghai) Int'l Trading Co., Ltd. Shenzhen Office
Room 739, 7th Floor, Dongming Building, Minkang Road,
Zhangkeng Community, Minzhi Street, Longhua District,
Shenzhen, 518131 P.R.China
Phone: +86-755-23765091

NIDEC MACHINE TOOL CORPORATION TAIPEI BRANCH
Room 1001, 10F, No. 88, Sec. 2, Zhongxiao E. Road,
Jhongheng District, Taipei City 100, Taiwan
Phone: +886-2-2395-6210 Facsimile: +886-2-2395-6230

NIDEC MACHINE TOOL (THAILAND) CO. LTD.
777 WHA Tower, 16th Fl., Room No. 1602, Moo 13,
Debaratna (Bangna-Trad) KM. 7 Road,
Bangkaew, Bangplee, Samutprakarn, 10540 Thailand
Phone: +66-2-001-9050 Facsimile: +66-2-001-9370

NIDEC-SHIPMO INDIA MANUFACTURING PRIVATE LIMITED Delhi Office
No.435, Regus Level 4, Rectangle No.1, Commercial Complex, D4,
Saket New Delhi, Delhi 110017, India
Phone: +91-11-6654-4030

NIDEC-SHIPMO INDIA MANUFACTURING PRIVATE LIMITED Bengaluru Office
BVR Lake Front, No. 40/32/50/1/2, Nagavara Village, Kasaba Hobli,
Near Ring Road, Veerannapalya, Arabi College Post,
Bangalore -560 045, India
Phone: +91-80-4953-6579

PT. NIDEC MOBILITY INDONESIA
M Gold Tower, 20th floor unit A & B, Jl. KH.Kalimangal,
RT.001/RW.012, Pekayon Jaya, Kec. Bekasi Sel., Kota Bks,
Jawa Barat, Indonesia
Phone: +62-21-2808-7288

NIDEC-SHIPMO KOREA CORPORATION
#317, Kolon sciencevally II, 55, Digital-ro 34-gil, Guro-gu,
SEOUL 08378 KOREA
Phone: +82-2-2038-3537 Facsimile: +82-2-2038-3538

Nidec Machine Tool America LLC
46992 Liberty Drive, Wixom, MI 48393 U.S.A.
Phone: +1-248-669-6136 Facsimile: +1-248-669-0614
<https://www.nidec-machinetoolamerica.com>

NIDEC DRIVE TECHNOLOGY DE MEXICO, S. de R.L. de C.V.
Parque Industrial NAVEX PARK, Callejón de la Evangelización #106,
Cal. Santa Maria Magdalena, Querétaro, Qro. 76137, México
Phone: +52- 442-242-3351

Nidec-Shimpo do Brazil Imp., Exp. e Com. de Equip. Ltda.
Estrada General Motors, 852 – Galpão 11 & 12, Indaiatuba - SP
13347-500 Brazil
Phone: +55-11-5071-0015

Nidec-Shimpo GmbH
Ludwigstrasse 9, 80539 Munich, Germany
Phone: +49-89-125030-780 Facsimile: +49-89-125030-781

Manufacturing bases

Federal Broach & Machine Company, LLC
1961 Sullivan Drive, Harrison, MI 48625 U.S.A.
Phone: +1-989-539-7420 Facsimile: +1-989-539-7381
<https://federalbroach.com/>

Southeast Broach Company - South Carolina LLC
431 S Buncombe Rd Greer, SC 29650 U.S.A.
Phone: +1-864-879-7641 Facsimile: +1-864-879-7693
<https://www.sebroach.com/index-2.html>

Nidec India Precision Tools Ltd.
No.2 SIPCOT Industrial Complex, Ranipet, Tamil Nadu, India
Phone: +91-4172-244361

Nidec Machine Tool (Changshu) Corporation
181 Huangpujiang Road,
Changshu New & Hi-tech Industrial Development Zone,
Changshu City, Jiangsu Province 215500, P.R. China
Phone: +86-512-5230-3030



Machine specifications such as dimensions etc., are fixed using SI units including the metric system.
In case data are shown in other units in blue, such as inches, pounds and gallons etc. they are for reference only and the formal data in black supersedes any equivalent data given in blue when fractions caused by conversion become an issue.
Specifications are subject to change without prior notice.
The export of this product is subject to Japanese Governmental approval.