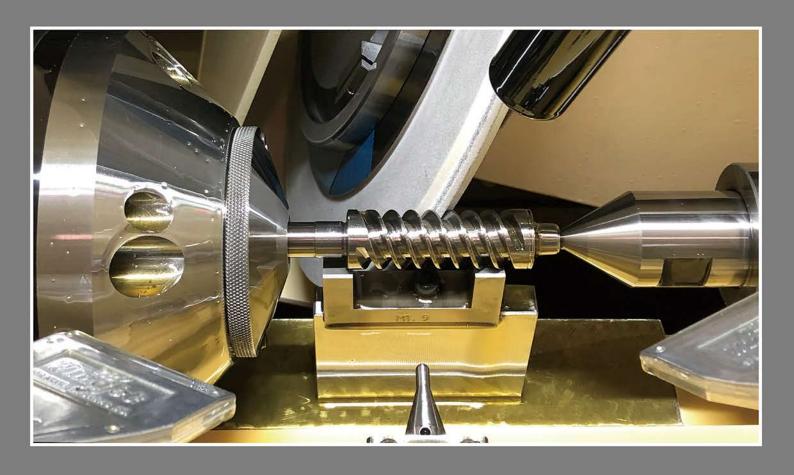
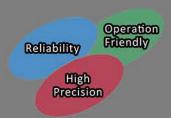
# WORM GRINDER SWG-200N



# SWG-200N



SWG-200N is a specially designed grinder for worms, above all for EPS worms. A complete flow from wheel truing and dressing to grinding is conducted in the shortest cycle time. An interface for changeover of jobs, changing of grinding cycles and conditions is built in.



History of Karats gear technology started from production of a turbine pinion hobbing machine in 1921. For 100 years Karats Precision has succeeded to produce many models and large numbers of gear processing machines. This model is one of the master pieces.

### Exclusive design for WORM grinding

Feed (Z axis)
speed increased
×5

Conventional machine: Carats FGS-21/31N Gear grinder Wheel dressing / work orientation time decreased



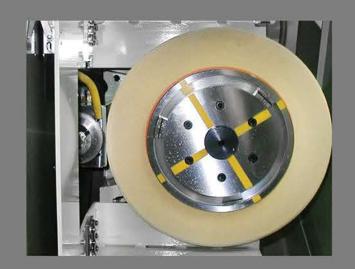
Conventional machine: Karats FGS-21/31N Gear grinder

## **CNC Axis**

X wheel infeed axis
Z work feed axis
A wheel swivelling axis

#### Easy wheel exchange, High speed dressing

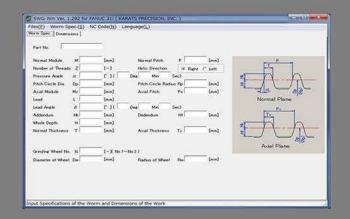
- Grinding wheel is trued and dressed during work orientation.
- Grinding wheel and Dresser can be exchanged quickly and easily.



#### Grinding program

Equipped with conversation mode programming interface operation is simplified.

Deep experience on large number delivery has piled up deep knowledge for customer support.



#### Prevention of misoperation

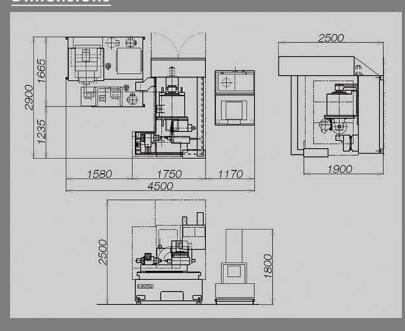
Grinding wheel storage has a fool-proof system for preventing wrong wheels from being used for unmatched worms in case of changeover.



#### Specification

Max. dia. of worm	25mm
Max. module	m3
Max. tooth width	100mm
Max. center distance	200mm
Number of start	1~3
Lead angle	right 30° ~(left 30°)
Grinding wheel dia.	280mm~355mm
Wheel rotation	1400~2800min <sup>-1</sup>
Wheel spindle motor (Continuous rating)	AC 5.5kW
Rated capacity	30k V A
Required floor area(L×W)	4500×2900mm
Net weight	6000kg

#### **Dimensions**



#### Standard egipment

- CNC system(FANUC 31i-B)
- Control panel · Operation panel
- Hydraulic oil unit(with temp. controller)
- Coolant system (with temp. controller)
- Oil mist lubricating unit
- One-touch wheel changing device
- Wheel dressing system
- Part programming system

#### Optional equipment

- Centrifugal coolant separator
- Magnetic coolant separator
- Flow switch for coolant supply
- Mist collector
- Micro-lubrication detector
- Automatic clamping device for rotary dresser
- Tooth space indexing device
- Work length measuring device
- Digital display for wheel swiveling angle
- ☐ Closed loop system for X axis
- Automatic front door
- Cabinet for grinding wheel
- Warm-up cycle button
- Signal light tower
- Shower gun
- Air gun
- Wheel balancing stand
- Test bar for accuracy test
- Striker switch for cycle start

\*Contents in this brochure are subject to modify without notice in case of machine improvement

#### ■ TOKYO, HEAD & SALES OFFICE

117 Mita-Kokusai-Bldg., 1-4-28 Mita, Minato-Ku, Tokyo 108-0073 Japan

PHONE: +81-3-3451-6861 FAX: +81-3-3451-6862

#### ■ OSAKA SALES OFFICE

501 Daido-Seimei-Minami-Kan, 1-2-11 Edobori, Nishi-Ku, Osaka 550-0002 Japan

PHONE: +81-6-6441-1600, 1601 FAX: +81-6-6441-1602

**■ KARATSU WORKS** 

3-12-41, Futago, Karatsu-City, Saga 847-0861 Japan PHONE: +81-955-72-1111 FAX: +81-955-72-1110

**■ SEOUL SALES OFFICE** 

501 Jain Bldg. 11, Nohae-ro, Gangbuk-gu, Seoul, 01080 Korea

PHONE: +82-2-2254-1563 FAX: +82-2-2254-1564

■ SHANGHAI OFFICE

Block 09 11F Oasis Tower, No.555 Zhongshang West Road,

Changning District, Shanghai 200050 China

PHONE: +86-21-6218-0028 FAX: +86-21-6218-0028

