

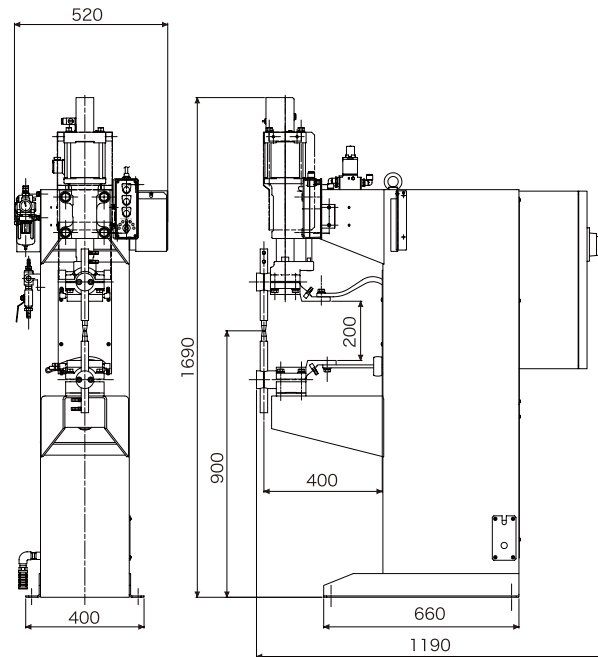
The Challenger of Welding Evolution

# Stationary Spot Welder NDZ Series

## Outline

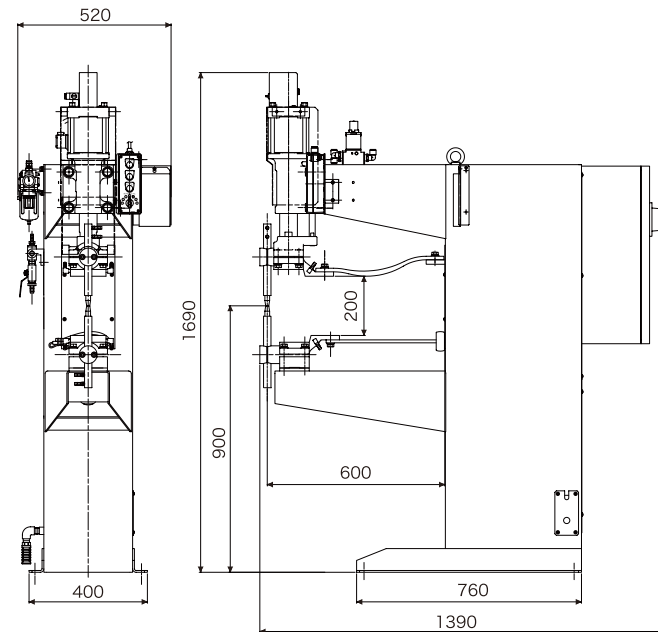
### Throat 400 Model

NDZ — 035 · 050 · 070 · 100 — 406SC — CA



### Throat 600 Model

NDZ — 035 · 050 — 606SC — CA



## ■■■■ Contact Us ■■■■



**DENGENSHA**  
**EUROPE**

### DENGENSHA EUROPE LTD

Dengensha Europe Limited  
Unit 8, Birchbrook Industrial Park,  
Shenstone, Staffordshire WS14 0DJ  
United Kingdom

[www.dengensha.co.uk](http://www.dengensha.co.uk)

Telephone: +44 (0) 1543 481844

Fax: +44 (0) 1543 481851

Distributor



**DENGENSHA** MFG.CO.,LTD.

1-23-1 Masugata, Tama-ku, Kawasaki-shi, Kanagawa-ken, Japan 214-8588  
TEL. +81-44-922-1121 FAX. +81-44-922-1100 <http://www.dengensha.co.jp>

Specifications of product and the appearance have a case to change without notice. No.211NZ03① 0907 1000



**DENGENSHA** MFG.CO.,LTD.



- \* ENERGY SAVING STROKE CHANGE CYLINDER.
- \* RIGID AND DURABLE FRAME MINIMIZES DEFLECTION AND IMPROVES WELD QUALITY.
- \* NEW PRECISION WELD HEAD IS DESIGNED FOR NUT WELDING AND DURABILITY.

[NDZ Series] Please select model type.

Please use this welding machine with Dengensha feeder.

1

Spot weld model

Spot weld type is the basic model.

2

Nut weld model

Nut weld model has air regulator, feeder interface and low voltage transformer added to spot weld model.

3

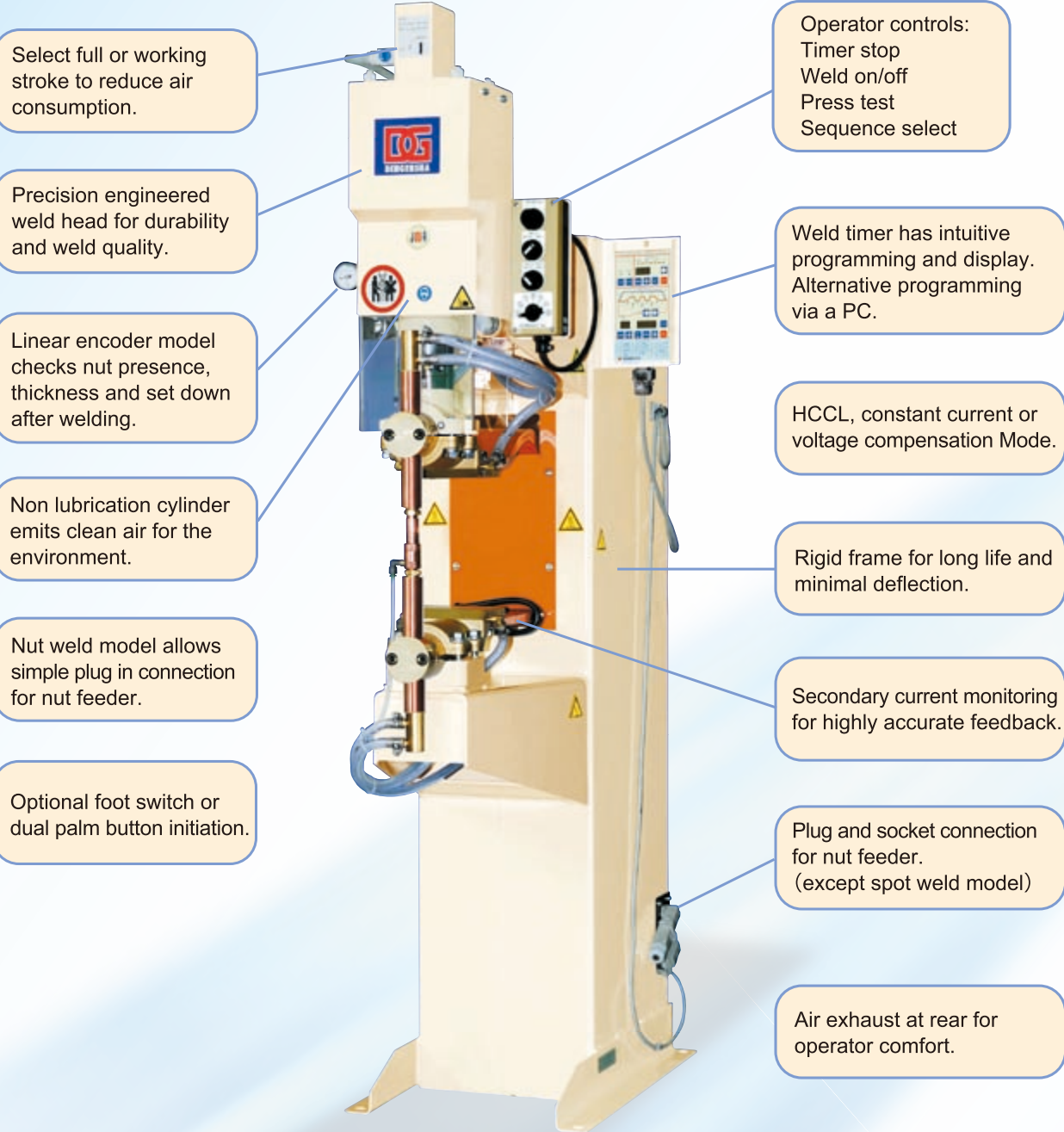
Linear encoder mount model

Nut weld model is supplied with timer controlled, programmable linear encoder added to check nut presence, thickness and set down.

4

Robot cell model

Linear encoder model is supplied with cylinder operated retracting pin and sensors.



| Model                            |       | Spot weld model |                 |                 |                 |                 |                 |                 |
|----------------------------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| CE specification                 |       | NDZ-035-406SC-* | NDZ-035-606SC-* | NDZ-050-406SC-* | NDZ-050-410SC-* | NDZ-050-606SC-* | NDZ-070-410SC-* | NDZ-100-410SC-* |
| Primary voltage                  | V     | 400             | 400             | 400             | 400             | 400             | 400             | 400             |
| Rated frequency                  | Hz    | 50              | 50              | 50              | 50              | 50              | 50              | 50              |
| Rated capacity                   | kVA   | 35              | 35              | 50              | 50              | 50              | 70              | 100             |
| Maximum input                    | kVA   | 106             | 93              | 124             | 124             | 104             | 188             | 313             |
| Max short circuit current        | A     | 17000           | 15000           | 20000           | 20000           | 17000           | 25000           | 33000           |
| Allowable duty cycle             | %     | 5.5             | 7.1             | 8.1             | 8.1             | 11.2            | 7.0             | 5.1             |
| Throat depth                     | mm    | 400             | 600             | 400             | 400             | 600             | 400             | 400             |
| Throat gap                       | mm    | 200             | 200             | 200             | 200             | 200             | 200             | 200             |
| Max. electrode force (at 0.5Mpa) | kN    | 6               | 6               | 6               | 10              | 6               | 10              | 10              |
| Stroke change                    |       | ○               | ○               | ○               | ○               | ○               | ○               | ○               |
| Total stroke                     | mm    | 75              | 75              | 75              | 75              | 75              | 75              | 75              |
| Retracting stroke                | mm    | 60              | 60              | 60              | 60              | 60              | 60              | 60              |
| Working stroke                   | mm    | 20              | 20              | 20              | 20              | 20              | 20              | 20              |
| Standard working height          | mm    | 900             | 900             | 900             | 900             | 900             | 900             | 900             |
| Horn diameter                    | mm    | 60              | 60              | 60              | 70              | 60              | 70              | 70              |
| Electrode holder diameter        | mm    | 25              | 25              | 25              | 32              | 25              | 32              | 32              |
| Tip diameter                     | mm    | 16              | 16              | 16              | 20              | 16              | 20              | 20              |
| Electrode taper                  |       | 1/10            | 1/10            | 1/10            | 1/10            | 1/10            | 1/10            | 1/10            |
| Required water flow rate         | l/min | 8               | 8               | 8               | 8               | 8               | 8               | 10              |
| Timer/Contactor                  |       | NWC-900-31      | NWC-900-31      | NWC-900-31      | NWC-900-31      | NWC-900-31      | NWC-900-31      | NWC-900-31      |
| Program box                      |       | PB-900-22       | PB-900-22       | PB-900-22       | PB-900-22       | PB-900-22       | PB-900-22       | PB-900-22       |
| Secondary current feed back      |       | Toroidal coil   | Toroidal coil   | Toroidal coil   | Toroidal coil   | Toroidal coil   | Toroidal coil   | Toroidal coil   |
| Breaker box                      |       | ELBOX-01        | ELBOX-01        | ELBOX-01        | ELBOX-01        | ELBOX-01        | ELBOX-02        | ELBOX-03        |
| 7 Welding schedule switch        |       | ○               | ○               | ○               | ○               | ○               | ○               | ○               |
| Power source symbol (-*)         |       | C               | C               | C               | C               | C               | C               | C               |
| Approx.mass                      | kg    | 275             | 325             | 285             | 290             | 340             | 330             | 380             |

| Model                                |    | Nut weld model  |                 |                 |                 |                 |                 |
|--------------------------------------|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| CE specification                     |    | NDZ-035-406NC-* | NDZ-035-606NC-* | NDZ-050-406NC-* | NDZ-050-410NC-* | NDZ-050-606NC-* | NDZ-070-410NC-* |
| Regulator for air type nut electrode |    | ○               | ○               | ○               | ○               | ○               | ○               |
| Feeder interface                     |    | ○               | ○               | ○               | ○               | ○               | ○               |
| Feeder power source                  |    | ○               | ○               | ○               | ○               | ○               | ○               |
| Approx.mass                          | kg | 275             | 325             | 285             | 290             | 340             | 330             |

| Model                                |    | Linear encoder model |                 |                 |                 |                 |                 |
|--------------------------------------|----|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| CE specification                     |    | NDZ-035-406LC-*      | NDZ-035-606LC-* | NDZ-050-406LC-* | NDZ-050-410LC-* | NDZ-050-606LC-* | NDZ-070-410LC-* |
| Timer/Contactor                      |    | NWC-901-31           | NWC-901-31      | NWC-901-31      | NWC-901-31      | NWC-901-31      | NWC-901-31      |
| Regulator for air type nut electrode |    | ○                    | ○               | ○               | ○               | ○               | ○               |
| Feeder interface                     |    | ○                    | ○               | ○               | ○               | ○               | ○               |
| Linear encoder                       |    | ○                    | ○               | ○               | ○               | ○               | ○               |
| Feeder power source                  |    | ○                    | ○               | ○               | ○               | ○               | ○               |
| Approx.mass                          | kg | 275                  | 325             | 285             | 290             | 340             | 330             |

| Model                                |    | Robot cell model |                 |                 |                 |                 |                 |
|--------------------------------------|----|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| CE specification                     |    | NDZ-035-406RC-*  | NDZ-035-606RC-* | NDZ-050-406RC-* | NDZ-050-410RC-* | NDZ-050-606RC-* | NDZ-070-410RC-* |
| Timer/Contactor                      |    | NWC-901-31       | NWC-901-31      | NWC-901-31      | NWC-901-31      | NWC-901-31      | NWC-901-31      |
| 7 Welding schedule switch            |    | ×                | ×               | ×               | ×               | ×               | ×               |
| Robot cell nut electrode             |    | ○                | ○               | ○               | ○               | ○               | ○               |
| Solenoid valve for retract guide pin |    | ○                | ○               | ○               | ○               | ○               | ○               |
| Feeder interface                     |    | ○                | ○               | ○               | ○               | ○               | ○               |
| Linear encoder                       |    | ○                | ○               | ○               | ○               | ○               | ○               |
| Feeder power source                  |    | ○                | ○               | ○               | ○               | ○               | ○               |
| Approx.mass                          | kg | 275              | 325             | 285             | 290             | 340             | 330             |
| Spot weld ability guide              |    | t0.8 ~ t2.3      | t0.8 ~ t1.8     | t0.8 ~ t2.6     | t1.2 ~ t3.2     | t0.8 ~ t2.3     | t1.2 ~ t4.0     |
| Nut weld ability guide               |    | M5 ~ M8          | M5 ~ M6         | M5 ~ M10        | M8 ~ M10        | M5 ~ M8         | M8 ~ M12        |

Example of model :  
**NDZ-035-406SC-CA**

Transformer capacity ① Throat depth ② Electrode force ③ Specification of electrode ④ Power supply symbol ⑤ Revision ⑦

|                              |     |                      |                         |          |              |
|------------------------------|-----|----------------------|-------------------------|----------|--------------|
| ① Transformer capacity       | 035 | 35kVA                | ⑤ Specification         | J        |              |
|                              | 050 | 50kVA                |                         | A        |              |
|                              | 070 | 70kVA                |                         | U        |              |
|                              | 100 | 100kVA               |                         | C        | CE           |
| ② Throat depth               | 4   | 400mm                | ⑥ "Power supply symbol" | A        |              |
|                              | 6   | 600mm                |                         | B        |              |
| ③ Electrode force            | 06  | 6kN                  |                         | C        | 400,415V50Hz |
|                              | 10  | 10kN                 |                         | D        |              |
| ④ Specification of electrode | S   | Spot weld model      |                         | E        |              |
|                              | N   | Nut weld model       |                         | F        |              |
|                              | L   | Linear encoder model |                         |          |              |
|                              | R   | Robot cell model     |                         |          |              |
|                              |     |                      | ⑦ Revision              | A,B,C... |              |

- Note)
- Assembled electrode is straight tip.
  - Please choose nut electrode and cap tip type electrode on the separate sheet.
  - Please choose initiation method, foot switch or anti tie down both hand start.
  - Spot weld ability guide refers to mild steel.
  - Nut weld ability guide refers to square nut.

| Select optional items                                  |
|--------------------------------------------------------|
| 125mm height base with fork lift holes                 |
| Ball type flow indicator at outlet side (install)      |
| Platen (install)                                       |
| Foot switch or anti tie down both hand start (install) |
| Programming cable (length 3m, 5m, 10m)                 |

| Accessories sold separately                                 |
|-------------------------------------------------------------|
| Electrode for nut (refer to note b)                         |
| Electrode for cap tip (refer to note b)                     |
| Transmitter (TSM-900)<br>(Available to communicate with PC) |
| Monitoring box (MB-900-22)                                  |