

PRODUCT OVERVIEW / QUICK SPECS

# MIG NBC 350/500

**Industrial non-pulse CO2 / MAG ladder with separated wire feeder.**

A combined spec sheet for the NBC external-feeder line, separating basic CO2 / MAG production work from DEYUN pulse, LCD, and low-spatter MIG families.



|                                                                              |                                                                            |                                                                          |                                                                        |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|
| <p>OUTPUT CLASS</p> <p><b>350/500A</b></p> <p>EXTERNAL-FEEDER NBC LADDER</p> | <p>PROCESS</p> <p><b>CO2 / MAG</b></p> <p>NON-PULSE PRODUCTION WELDING</p> | <p>INPUT POWER</p> <p><b>3PH 380V</b></p> <p>STANDARD WORKSHOP INPUT</p> | <p>FEEDER</p> <p><b>Separate</b></p> <p>WIRE FEEDER SYSTEM PACKAGE</p> |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|

QUICK SPECS

| FIELD           | SPECIFICATION                                                                         |
|-----------------|---------------------------------------------------------------------------------------|
| Product type    | External-feeder non-pulse CO2 / MAG inverter welding system                           |
| models          | MIG-350 NBC and MIG-500 NBC                                                           |
| Positioning     | Basic industrial NBC page below pulse, LCD, and low-spatter MIG families              |
| Processes       | CO2 / MAG, mixed-gas MAG, cored-wire setup, MMA, 2T / 4T, spot, gas check, wire check |
| Output current  | 350-class: 60-350 A; 500-class: 80-500 A                                              |
| Duty cycle      | 60% for the 350-class and 500-class routes                                            |
| Wire feed speed | 1.5-15 m/min                                                                          |
| Wire diameter   | 350-class: 0.8 / 1.0 / 1.2 mm; 500-class: 1.0 / 1.2 / 1.6 mm                          |

PRODUCT HIGHLIGHTS

| FEATURE              | BENEFIT                                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|
| Clear NBC ladder     | Lets buyers choose 350A or 500A non-pulse CO2 / MAG without entering the double-pulse MIG selector                       |
| Production package   | Separate feeder, high-current output, and simple operation make the page suitable for industrial fabrication comparisons |
| Clean product ladder | Keeps 350A and 500A NBC choices visible without mixing them with pulse or LCD platforms                                  |

TYPICAL APPLICATIONS

Carbon-steel fabrication, repair, and maintenance using CO2 or mixed-gas MAG.

Workshops that need separated wire feeder access rather than compact built-in feeder bodies.

Distributor comparisons against 280A compact NBC and higher-spec pulse / LCD MIG families.

500A capacity route when the buyer needs more output headroom than the 350A NBC machine.

TECHNICAL SECTION

# MODEL SELECTOR / DIMENSIONS

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## 350-CLASS ROUTE

### MIG-350 NBC



| FIELD  | VALUE              |
|--------|--------------------|
| Output | 60-350 A           |
| Duty   | 60%                |
| Input  | 3PH AC380V         |
| Body   | 690 x 330 x 629 mm |

## 500-CLASS ROUTE

### MIG-500 NBC



| FIELD  | VALUE                |
|--------|----------------------|
| Output | 80-500 A             |
| Duty   | 60%                  |
| Input  | 3PH AC380V           |
| Body   | N / NW body packages |

## MODEL SELECTOR

| MODEL       | COOLING                               | FEEDER / PACKAGE     | MACHINE DIMENSIONS                                        | NET WEIGHT        |
|-------------|---------------------------------------|----------------------|-----------------------------------------------------------|-------------------|
| MIG-350 NBC | Air-cooled                            | External wire feeder | 690 x 330 x 629 mm main unit                              | 50 kg             |
| MIG-500 NBC | Air-cooled / option boundary by model | External wire feeder | MIG-500N 545 x 300 x 785 mm; MIG-500NW 970 x 475 x 908 mm | 36 kg N; 68 kg NW |

## SELECTOR DECISION

| APPLICATION NEED                             | RECOMMENDED ROUTE                | SELECTION                             |
|----------------------------------------------|----------------------------------|---------------------------------------|
| Need compact 280A NBC                        | MIG-280 NBC                      | Route to compact built-in-feeder page |
| Need external-feeder 350A non-pulse          | MIG-350 NBC                      | Use this family page                  |
| Need external-feeder 500A non-pulse          | MIG-500 NBC                      | Use this family page                  |
| Need double-pulse aluminum MIG               | MIG-350 / MIG-500 pulse families | Route away from NBC                   |
| Need low-spatter carbon / stainless workflow | Titians low-spatter family       | Route to low-spatter page             |

# PROCESS CAPABILITY / BUYER FIT

The customer story stays narrow: non-pulse CO2 / MAG production welding with an external feeder, plus secondary MMA and setup modes where documented.

## PROCESS CAPABILITY

| PROCESS / MODE          | APPLICATION MEANING                                        |
|-------------------------|------------------------------------------------------------|
| CO2 MIG/MAG             | Core NBC gas-shielded process for carbon-steel welding     |
| Mixed-gas MAG           | Mixed-gas setup path for broader MAG welding discussions   |
| Flux-cored / cored wire | Cored-wire setup is handled by wire type and order package |
| MMA                     | Listed as secondary manual welding path                    |
| 2T / 4T                 | Torch-trigger operation for short or continuous welding    |
| Spot welding            | Timed short weld mode for repeated tack or spot work       |
| Gas check / wire check  | Setup support before welding                               |

## TECHNOLOGY / CONTROL FEATURES

| FEATURE                         | CUSTOMER BENEFIT                                                          |
|---------------------------------|---------------------------------------------------------------------------|
| IGBT inverter platform          | Inverter CO2 / MIG / MAG semiautomatic welding machine                    |
| Separate wire feeder            | Positions the family for industrial fabrication and larger work envelopes |
| Electronic reactor / inductance | Supports arc stability, reduced spatter, and bead-shape adjustment        |
| PWM waveform control            | documented output-control method                                          |
| FTT / arc-ending circuit        | Supports smoother arc stop behavior and reduced end-ball tendency.        |
| Grid fluctuation tolerance      | Designed for operation under grid fluctuation up to +15%.                 |
| Thermal overload protection     | Protection indicators and overload language appear in manuals             |

## RECOMMENDED USE

|                                                                                                     |                                                                                            |                                                                                             |                                                                                             |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>External-feeder workshops</b><br>Fits buyers who need feeder reach and a larger production setup | <b>Carbon-steel fabrication</b><br>Best-fit material scope for the NBC CO2 / MAG platform. | <b>Current-class laddering</b><br>350A and 500A can be compared inside one simple NBC sheet | <b>Not a pulse page</b><br>Avoid aluminum double-pulse or LCD program claims on this family |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|

WIRE / GAS / MATERIAL BOUNDARIES

Material, wire, and gas rows define the customer process scope for the NBC external-feeder family.

MATERIAL / WIRE / GAS MATRIX

| PROCESS            | MATERIAL / SCOPE                                            | WIRE / ELECTRODE                                 | GAS / SETUP       | APPLICATION                     |
|--------------------|-------------------------------------------------------------|--------------------------------------------------|-------------------|---------------------------------|
| CO2 MIG/MAG        | Carbon steel / low-carbon steel                             | 350: 0.8 / 1.0 / 1.2 mm; 500: 1.0 / 1.2 / 1.6 mm | CO2 shielding gas | Safest material scope           |
| Mixed-gas MAG      | Carbon steel and application-specific stainless discussions | Solid wire by model                              | Ar mix with CO2   | Set gas and wire by application |
| Flux-cored / cored | Gasless or cored-wire use                                   | Match wire to model                              | By wire type      | Order-specific application only |

# TECHNICAL SPECIFICATIONS / SITE DATA

The table keeps the main 350A and 500A NBC comparison fields together for product selection.

## TECHNICAL SPECIFICATIONS

| PARAMETER            | SPECIFICATION                                                                            |
|----------------------|------------------------------------------------------------------------------------------|
| model pages          | MIG-350 NBC; MIG-500 NBC                                                                 |
| Input power          | 3PH AC380V standard input; other voltage packages by order                               |
| Rated input power    | 350: 14 kVA; 500: 25 kVA                                                                 |
| Rated input current  | 350: 18.8 A; 500: 38 A                                                                   |
| Output current range | 350: 60-350 A; 500: 80-500 A                                                             |
| Output voltage       | 350: 17-36 V; 500: 17-44 V                                                               |
| Open circuit voltage | 350: 65 V; 500: 70 V                                                                     |
| Duty cycle           | 350: 60%; 500: 60%                                                                       |
| 100% load current    | 350: 270 A; 500: 387 A                                                                   |
| Wire feed speed      | 1.5-15 m/min                                                                             |
| Wire diameter        | 350: 0.8 / 1.0 / 1.2 mm; 500: 1.0 / 1.2 / 1.6 mm                                         |
| Gas flow             | 350: 25 L/min table vs 15-20 L/min guidance; 500: 35 L/min table vs 15-20 L/min guidance |
| Insulation class     | F                                                                                        |
| Protection class     | IP21 / IP21S                                                                             |
| Dimensions / weight  | See selector table; 500N / 500NW option boundary by model                                |

## POWER AND SITE REQUIREMENTS

| FIELD             | REQUIREMENT                                                                       |
|-------------------|-----------------------------------------------------------------------------------|
| Power supply      | Listed voltage is 3PH AC380V; other input voltage options depend on order package |
| Gas cylinder      | External CO2 or mixed gas supply required for MIG/MAG work                        |
| Breaker reference | 350-class: 35 A; 500-class: 50 A                                                  |
| Cooling           | Air / fan cooling; water-cooled 500-class package by order                        |
| Environment       | Standard dry workshop deployment; avoid rain, dust, and corrosive gas             |

**Input voltage.** Listed input voltage values are the standard order setup. Other input voltage options depend on destination and order package.

## TECHNICAL SECTION

# PANEL CONTROLS / ACCESSORIES

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The NBC control story should emphasize simple process selection, current / voltage setup, inductance or electronic reactor adjustment, gas / wire checks, and 2T / 4T / spot operation.

## OPERATOR CONTROL AREAS

| FUNCTION                        | DESCRIPTION                                            |
|---------------------------------|--------------------------------------------------------|
| Welding method selection        | CO2 / MAG and MMA paths                                |
| Current / voltage displays      | Digital display setup for welding current and voltage  |
| Inductance / electronic reactor | Arc feel, spatter behavior, and bead-shape adjustment  |
| 2T / 4T                         | Short-cycle and continuous trigger operation           |
| Spot welding                    | Timed short-weld mode for repeated work                |
| Gas check                       | Gas setup and purge support                            |
| Wire check                      | Wire feeding setup path                                |
| Protection indicators           | Overload / warning indicators appear in manual context |

## OPERATION MODES

| MODE | DESCRIPTION                                                 |
|------|-------------------------------------------------------------|
| 2T   | Press and hold torch switch to weld; release to stop        |
| 4T   | Press and release to start; press and release again to stop |
| Spot | Timed short weld operation                                  |
| MMA  | Secondary manual welding path                               |

## INCLUDED / OPTIONAL ACCESSORIES

| ITEM                     | STATUS                    | DETAILS                                                           |
|--------------------------|---------------------------|-------------------------------------------------------------------|
| External wire feeder     | Included system component | Feeder dimensions and exact feeder model are available on request |
| Welding torch            | Standard included         | Standard MIG package item                                         |
| Earth wire / earth clamp | Standard included         | Work return connection                                            |
| Wire liner               | Standard included         | Match liner to wire type                                          |
| Wire feed roll           | Standard included         | Match roll to wire type                                           |
| Gas meter / air meter    | Paid optional             | Gas-flow accessory                                                |
| CO2 gas cylinder         | Customer / site supply    | External gas supply required                                      |