



Welding process

- MMA (Electrode)
- MIG/MAG short spray manual arc
- MIG/MAG short spray synergic arc (TERRA 320 SMC SMART)
- MIG/MAG brazing

Materials

- Carbon steels
- Aluminized and galvanized steels
- Stainless steels
- Aluminum and aluminum alloys
- Copper and copper alloys

Applications

- Light job shop fabrication
- Medium-heavy job shop fabrication
- Heavy job shop fabrication
- Buildings sites
- Shipyards
- Plants machinery construction
- Oil refinery plants construction
- Machine and apparatus construction
- Automobile industry
- Railway industry
- Military industry
- Repair and overhaul
- Handicraft working
- Chassis
- Building
- Installers
- Stand construction workers
- Door and window fitters
- Blacksmiths
- Workshops
- Sheet metal working








Technical features








- Advanced inverter technology power source for superior arc performance
- High power at 100% of duty cycle
- Heavy duty and environmental conditions, high service life
- CAN fieldbus digital communication protocol system (very high speed and high reliability digital communication)
- High temperature, shockproof, abrasion resistant plastic case
- Airflow ducting and fully encapsulated PC board to avoid dust contamination
- Linear controlled fan on demand
- Built-in wire feeder unit (2/4 roll drives)
- Wire drive unit fully designed by voestalpine Böhler Welding
- Ø 200/300 mm wire spool compatible
- Full digital and user-friendly control panel
- Welding parameters digital display
- Last job settings auto-storage at switch-off
- Lock-unlock function key protected by password
- Ideal for stick welding with multiple types of popular electrodes
- Built-in adjustable arc control features (hot start, arc force, antisticking)
- 2/4 step operating mode
- Arc dynamic adjustment
- Perfect arc ignition (soft start - motor slope)
- Burn-back and droplet detachment correction
- Synergic operations from databank (14 pre-set programs)
- Wire speed (0,5-22,0 m/min) (TERRA 320 SMC CLASSIC)
- Wire speed (0,5-22,0 m/min), amperage and piece thickness adjustment (TERRA 320 SMC SMART)
- Spot welding mode
- Intermittent welding mode
- Push-pull torch device
- Remote control compatible
- WU cooling unit compatible
- Controlled cooling operations

TERRA 320 SMC

Power source

|  |  |  | P | X% | P.F. | I₂ | U₀ | IP |  mm l x w x h |  Kg |
|---|---|---|-------------------|---|-------------|----------------------|----------------------|-----------|---|--|
| TERRA 320 SMC | 3x400V MIG/MAG | 20A | 14,8kVA 11,0kW | 40°C 45% 320A 40°C 60% 280A 40°C 100% 240A 25°C 80% 320A 25°C 100% 280A | 0,74 | 3-320A | 61V | 23S | 690x290x510mm | 33,0kg |
| | 3x400VMMA | 20A | 14,8kVA 11,0kW | 40°C 45% 300A 40°C 60% 280A 40°C 100% 240A 25°C 80% 300A 25°C 100% 280A | 0,74 | 3-320A | 61V | 23S | 690x290x510mm | 33,0kg |

Wirefeeder

|  | P | ϕ (m/min) |  mm |  | ϕ mm | ϕ |  |  | IP |  mm l x w x h |  Kg | |
|---|----------|-------------------|--|---|--|--------|---|---|-----------|---|--|-------|
| TERRA 320 SMC CLASSIC SL 4R-1T (v.2R) | 90W | 0,5-22,0m/min | 200/300mm | 2 ● 4 ○ | 1,0/1,2mm ● 0,6-1,6mm ○ A0,8-1,6mm ○ Z0,9-2,4mm ○ | ● | ● | ○ | - | / | 167x43x140mm | 0,9kg |
| TERRA 320 SMC SMART SL 4R-1T (v.2R) | 90W | 0,5-22,0m/min | 200/300mm | 2 ● 4 ○ | 1,0/1,2mm ● 0,6-1,6mm ○ A0,8-1,6mm ○ Z0,9-2,4mm ○ | ● | ● | ○ | - | / | 167x43x140mm | 0,9kg |






● = Included

○ = Optional

A = Aluminum

Z = Cored

Cooling unit

|  |  | P |  | IP |  mm l x w x h |  Kg |
|---|---|----------|---|-----------|---|--|
| WU 330 | 1x400Vac | 1,0kW | 5,5l | 23S | 705x305x250mm | 15,0kg |

CONFIGURATIONS

TERRA 320 SMC CLASSIC - MIG/MAG welding configuration - Gas**AC**

| | | |
|-------------|--|---|
| 55.15.012 | TERRA 320 SMC 3x400 CLASSIC | A |
| 07.01.507 | UPGRADE KIT FROM 2 ROLLS (1 ROLL DRIVE) TO 4 ROLLS (2 ROLLS DRIVE) - 1.0/1.2 | A |
| 71.03.081 | POWER SOURCE TROLLEY GT 500 | A |
| 81.05.72807 | MT 350 G MIG/MAG WELDING TORCH - 4m - AIR COOLED | B |
| 71.05.013 | WORK CABLE - 50mm ² - L.4m | A |

TERRA 320 SMC SMART - MIG/MAG welding configuration - Gas**AC**

| | | |
|-------------|--|---|
| 55.15.011 | TERRA 320 SMC 3x400V SMART | A |
| 07.01.507 | UPGRADE KIT FROM 2 ROLLS (1 ROLL DRIVE) TO 4 ROLLS (2 ROLLS DRIVE) - 1.0/1.2 | A |
| 71.03.081 | POWER SOURCE TROLLEY GT 500 | A |
| 81.05.72807 | MT 350 G MIG/MAG WELDING TORCH - 4m - AIR COOLED | B |
| 71.05.013 | WORK CABLE - 50mm ² - L.4m | A |

TERRA 320 SMC CLASSIC - MIG/MAG welding configuration - Water**AC**

| | | |
|-------------|--|---|
| 55.15.012 | TERRA 320 SMC 3x400 CLASSIC | A |
| 07.01.507 | UPGRADE KIT FROM 2 ROLLS (1 ROLL DRIVE) TO 4 ROLLS (2 ROLLS DRIVE) - 1.0/1.2 | A |
| 71.03.072 | COOLING UNIT WU330 | A |
| 71.03.081 | POWER SOURCE TROLLEY GT 500 | A |
| 81.05.72826 | MT 440 W MIG/MAG WELDING TORCH - 4m - LIQUID COOLED | B |
| 71.05.013 | WORK CABLE - 50mm ² - L.4m | A |

TERRA 320 SMC SMART - MIG/MAG welding configuration - Water**AC**

| | | |
|-------------|--|---|
| 55.15.011 | TERRA 320 SMC 3x400V SMART | A |
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