

# DATA SHEET

## SMART FOCUS 200

## TORCH PERCUT 2000

### TORCH LEADS:

COMPACT SYSTEM\*\* or IGNITION UNIT WITH CONNECTION HOSE AND CABLE PACKAGE:

\*\* Only for small cutting systems at track length < 8 m

max. length 15 m

max. length 55 m

|               |                    | O <sub>2</sub> / O <sub>2</sub> Air<br>CC / CCS<br>(S235/S355) | O <sub>2</sub> / Air<br>CC / CCS<br>(S235/S355) | N <sub>2</sub> / F5, N <sub>2</sub><br>HiFinox<br>(1.4301)*** | Ar, H <sub>2</sub> / N <sub>2</sub><br>Mix<br>(1.4301)*** | N <sub>2</sub> / N <sub>2</sub><br>HiFinox<br>(AlMg <sub>3</sub> ) | Ar, H <sub>2</sub> / N <sub>2</sub><br>Mix<br>(AlMg <sub>3</sub> ) |
|---------------|--------------------|----------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|
| CUTTING RANGE | (recommended) [mm] | 2,0 - 30                                                       | 8 - 30                                          | 1 - 6                                                         | 5 - 30                                                    | 2 - 6                                                              | 6 - 30                                                             |
| CUTTING RANGE | (min/max.) [mm]    | 1,0 - 30                                                       | 4 - 60                                          | 1 - 6                                                         | 5 - 60                                                    | 1 - 6                                                              | 6 - 60                                                             |
| CUTTING RANGE | (max. sep.) [mm]   | 30                                                             | 60 <sup>80</sup>                                | 6                                                             | 60 <sup>80</sup>                                          | 6                                                                  | 60 <sup>80</sup>                                                   |
| HOLE PIERCING | (max.) [mm]        | 30                                                             | 30                                              | 6                                                             | 30                                                        | 6                                                                  | 30                                                                 |

<sup>80</sup> < 80 % ED

\* reduced life time

### CUTTING EXAMPLES

(Speed approx. values)

| Plate thickness [mm]    | S235/S355 |      |      |      |     | 1.4301 |      |      |     |     | AlMg <sub>3</sub> |      |      |      |     |
|-------------------------|-----------|------|------|------|-----|--------|------|------|-----|-----|-------------------|------|------|------|-----|
|                         | 3         | 6    | 10   | 20   | 40  | 3      | 6    | 10   | 20  | 40  | 3                 | 6    | 10   | 20   | 40  |
| Quality cut [mm/min]    | 2500      | 2700 | 2400 | 1800 |     | 3000   | 1800 | 1400 | 650 | 400 | 3500              | 2500 | 1300 | 1300 | 500 |
| High-speed cut [mm/min] |           | 3200 | 3400 | 1800 | 600 |        |      |      | 850 |     |                   | 3500 | 1600 |      |     |

### GASES

|                |              | Min. supply pressure [bar] | Working pressure [bar] | Max. Flow rate [l/min] | S235/S355 |       | 1.4301 |       | AlMg <sub>3</sub> |       |
|----------------|--------------|----------------------------|------------------------|------------------------|-----------|-------|--------|-------|-------------------|-------|
|                |              |                            |                        |                        | thin      | thick | thin   | thick | thin              | thick |
| Air            | Plasma       | 12                         | 10±1                   | 89                     | X         | X     |        |       | X                 |       |
| Air            | Swirl        | 12                         | 10±1                   | 77                     | X         | X     |        |       |                   |       |
| O <sub>2</sub> | Plasma/Swirl | 12                         | 10±1                   | 62                     | X         | X     |        |       |                   |       |
| N <sub>2</sub> | Plasma/Swirl | 12                         | 10±1                   | 87                     | X         | X     | X      | X     |                   |       |
| Ar             | Plasma       | 12                         | 10±1                   | 44                     |           |       |        | X     | X                 | X     |
| H <sub>2</sub> | Plasma       | 13                         | 11±1                   | 20                     |           |       |        | X     |                   | X     |
| F5             | Plasma       | 12                         | 10±1                   | 26                     |           |       | X      |       |                   |       |
| Ar             | Marking**    | 12                         | 10±1                   | 44                     | X         | X     | X      | X     | X                 | X     |

\*\* Marking only with automatic gas flow control

|                                |                        |      |            |      |             |      |      |
|--------------------------------|------------------------|------|------------|------|-------------|------|------|
| NOZZLE LIVE                    | unit / shift (approx.) | 0,7  | 1,2 (1,3*) | 1    | 2,0 (3,0*)  | 1    | 2,5  |
| ELECTRODE LIFE                 | unit / shift (approx.) | 0,7  | 1,2 (1,3*) | 0,5  | 0,8 (1,2*)  | 0,5  | 1    |
| NUMBER OF STARTS per electrode | (approx.)              | 1600 | 900 (760*) | 2200 | 1400 (930*) | 2000 | 1000 |

\* Values valid for bevel cutting, only for PKS.

### GAS PURITY

|                  |          |       |                                      |  |
|------------------|----------|-------|--------------------------------------|--|
| O <sub>2</sub> : | 99,5 %   | (2.5) | The oxygen must be free of odorants. |  |
| N <sub>2</sub> : | 99,999 % | (5.0) |                                      |  |
| H <sub>2</sub> : | 99,95 %  | (3.5) |                                      |  |
| Ar:              | 99,996 % | (4.6) |                                      |  |
| F5:              | 99,95 %  | (3.5) |                                      |  |

|                 |                            |                        |          |           |
|-----------------|----------------------------|------------------------|----------|-----------|
| COMPRESSED AIR: | max. particle size         | 0,1 µm                 | (Class 1 | ISO 8573) |
|                 | max. remaining oil content | 0,01 mg/m <sup>3</sup> | (Class 1 | ISO 8573) |
|                 | max. compression dew point | + 3 °C                 | (Class 4 | ISO 8573) |

- F5 = 95% N<sub>2</sub> + 5% H<sub>2</sub>
- Pipeline network supply: Connecting of micro filter in series, supplied by the customer for air and O<sub>2</sub>.
- Manual gas console **is standard** (In combination with this gas console the operator adjusts all cut charts manually).
- Automatic gas console **is charged optionally** (remote operation by separate panel or by machine's CNC. Current programming by part program is not possible).
- The torch is equipped with shielded parts, swirl gas technology.
- Marking quality is limited, because the minimum current is 10A (not for thin material).
- Marking does not allow for velocity dependent current control.

|                                       |                      |                                |                |
|---------------------------------------|----------------------|--------------------------------|----------------|
| Cutting current (max.):               | 200 A                | Cutting power at 100 % d.c.:   | 32 kW (300A)   |
| Input power:                          | 51 kVA               | Rated frequency:               | 50 Hz          |
| Main supply voltage:                  | 400 V                | Max. voltage deviation:        | - 10 / + 10 %  |
| Input current:                        | 74 A                 | Ambient temperatures:          | -10 to +40 °C  |
| Dimensions L x W x H:                 | 1030 x 680 x 1450 mm | Weight:                        | approx. 388 kg |
| Noise (depending on plate thickness): | < 96 dB (A)          | UV – light protection required |                |

All previous editions of this data sheet are no longer valid.  
Messer-CSM.U – Gwel - 03-2016

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The manufacturer reserves the right to make alterations to product without notice.