

# Origo™ Mig L305, L405

## Origo™ Feed L302, L304

### Reliable and easy-to-use welding package

The Origo™ Mig L305 and L405 welding package is ideal for welding applications within general steel fabrication, the vehicle industry and household and furniture manufacturers.

The package consists of the Origo™ Mig L305 and L405 power source, Origo™ Feed L302 or L304 wire feed unit, a connection set (1.7 m, 5.0 m or 10.0 m) and the PSF™ welding torch.

Reliable and easy to use

Origo™ Mig L305 and L405 are step-controlled power sources for MIG/MAG welding.

The Origo™ Mig L305 is a 10 voltage step unit and Origo™ Mig L405 40 voltage steps unit.

Electronically controlled feeding gives accurate and stable arc. The 4-wheel feed mechanism has grooves in the feed roller and idle pressure roller with ball bearing, which provides a positive and stable feeding combined with low wear on the wire. The 2-wheel feeder mechanism is a cost efficient solution for wire dimension up to 1,2 mm.

The feeders are available with Ø30 mm feed rollers for wires up to Ø1.2 mm (L302) and Ø1,6 mm (L304).

Easy settings

Wire feed speed, 2/4 stroke, creep start, spot welding, inching, gas purge and burnback time setting are made on the front panel of the feeder, giving a good overview of the settings. Voltage setting and inductance adjustments are made on the power source.

Available accessories

The easy to install Plastic bobbin option can protect the wire spool from dirt and dust.

Extra versatility is provided by the three wire feed mounting options; counterbalance and mast, wheel kit or a suspension bracket.

As an option the Origo™ Mig L305 and L405 can be equipped with a V/A digital meter and transformer for CO<sub>2</sub> heater.



With safety in mind

The Origo™ Feed is designed to meet the most rigid safety standard IEC/EN 60974-5 with low voltage (42 V/AC) operations complete with an overload device ensuring the best possible protection.

Service and support

ESAB has a large network of distributors and authorised service workshops. Should any problem arise with your ESAB Origo™ Mig, you can with confidence turn to your local dealer or authorised workshop, which are available at [www.esab.com](http://www.esab.com).

#### Applications

- General steel fabrication
- Vehicle industry
- Household and furniture

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- **40 voltage steps** (Origo™ Mig L405), optimum settings for each application.
- **2/4 stroke**, simplifies welding.
- **Adjustable burnback timer** gives correct stick-out.
- **Creep start**, (L304) gradual feed of wire for ultimate starts.
- **Spot welding** (L304) for easy operation with pre-setting of the timer and equal lengths of the spots.
- **Gas Purge and Inching** (L304) no wastage wire or gas when initially setting up the equipment for welding or changing the wire spool.
- **Two inductance outlets**- easy to optimise settings for different applications.
- **IP 23** - fit for safe out of doors applications.
- **Easy-to-use control panel** for quick set up.

## Technical data

|   | Origo™ Mig L305    | Origo™ Mig L405  |
|---|--------------------|--|
| <b>Mains voltage, V, Hz</b>             | 400/415, 3~ 50     | 400/415, 3~ 50<br>230/400/415/500, 3~ 50<br>230/400/460, 3~ 60 |
| <b>Permitted load at</b>                |                    |  |
| 25% duty cycle, A/V                     | 300/29             |  |
| 50% duty cycle, A/V                     |                    | 400 / 34   |
| 60% duty cycle, A/V                     | 190 / 24           | 365 / 32   |
| 100% duty cycle, A/V                    | 150 / 22           | 280 / 28   |
| <b>Setting range (DC), A/V</b>          | 30 / 15 - 300 / 29 | 50 / 16,5 - 400 / 34   |
| <b>Open circuit voltage, V</b>          | 17-40              | 17-45  |
| <b>Open circuit power, W</b>            | 190                | 360  |
| <b>Power factor</b> at maximum current  | 0,97               | 0,98   |
| <b>Efficiency</b> at maximum current, % | 69                 | 71   |
| <b>Control voltage, V, Hz</b>           | 42, 50/60          | 42, 50/60  |
| <b>Dimensions l x w x h, mm</b>         | 782 x 425 x 830    | 812 x 552 x 925  |
| <b>Weight, kg</b>                       | 89                 | 142  |
| with cooling unit                       |                    | 156  |
| <b>Operating temperature, °C</b>        | -10 to +40         | -10 to +40   |
| <b>Enclosure class</b>                  | IP 23              | IP 23  |
| <b>Application classification</b>       | S                  | S  |

## Ordering information

Put together your package:

### Power sources

|   |              |
|---|--------------|
| Origo™ Mig L305 (400-415V 50Hz)                               | 0349 309 700 |
| Origo™ Mig L405 (400-415V 50Hz)                               | 0349 306 517 |
| Origo™ Mig L405 (230/400-415/500V 50Hz;<br>230/440-460V 60Hz) | 0349 306 594 |
| Origo™ Mig L405w (400-415V 50Hz)                              | 0349 306 563 |
| Origo™ Mig L405 VA-meter (400-415V 50Hz)                      | 0349 313 090 |

### Wire feed units

|                         |              |
|-------------------------|--------------|
| Origo™ Feed L302, Open  | 0459 495 782 |
| Origo™ Feed L304, Open  | 0459 495 882 |
| Origo™ Feed L304w, Open | 0459 495 892 |

### Connection cables

|   |              |
|---|--------------|
| 1.7 m, 50 mm <sup>2</sup> for air and water-cooled feeder | 0459 532 880 |
| 5.0 m, 50 mm <sup>2</sup>                                 | 0459 532 881 |
| 10.0 m, 50 mm <sup>2</sup>                                | 0459 532 882 |
| 15.0 m, 50 mm <sup>2</sup>                                | 0459 532 883 |
| 5.0 m 50 mm <sup>2</sup> water-cooled                     | 0459 532 891 |
| 10.0 m 50 mm <sup>2</sup> water-cooled                    | 0459 532 892 |
| 15.0 m 50 mm <sup>2</sup> water-cooled                    | 0459 532 893 |

### Torches

|                 |              |
|-----------------|--------------|
| PSF™ 305 3 m    | 0458 401 880 |
| PSF™ 305 4.5 m  | 0458 401 881 |
| PSF™ 405 3 m    | 0458 401 882 |
| PSF™ 405 4.5 m  | 0458 401 883 |
| PSF™ 410w 3 m   | 0458 400 882 |
| PSF™ 410w 4.5 m | 0458 400 883 |

## Options

### Origo™ Mig

|  |              |
|--|--------------|
| Digital instrument for Origo™ Mig L305 | 0349 302 598 |
| Digital instrument for Origo™ Mig L405 | 0349 302 451 |
| Transformer for CO <sub>2</sub> heater | 0349 302 250 |
| Stabilizer (for Origo™ Mig L305)       | 0349 303 475 |
| Stabilizer (for Origo™ Mig L405)       | 0349 303 474 |
| Reinforcer kit for counterbalance      | 0349 309 748 |

### Origo™ Feed

|                                     |              |
|-------------------------------------|--------------|
| Water connection kit 1.7 m*         | 0459 564 880 |
| Bobbin cover, plastic               | 0458 674 880 |
| Wheel kit                           | 0458 707 880 |
| Strain relief for welding torch     | 0457 341 881 |
| Strain relief for connection cables | 0459 234 880 |
| Quick connector MarathonPac™        | F102 440 880 |
| Lifting eye                         | 0458 706 880 |
| Adapter for 5 kg' s spool           | 0455 410 001 |
| Counter balance device              | 0458 705 880 |
| Turning piece                       | 0458 703 880 |

\* Used only for upgrading of wire feed units 0459 495 782/882 to "w" versions.

## Technical data

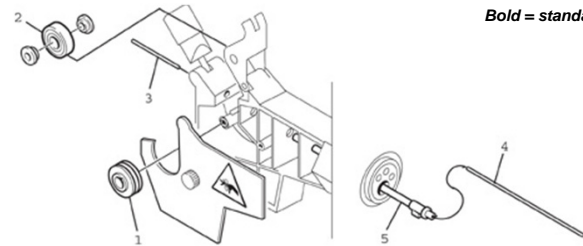
|                                    | Origo™ Feed L302 | Origo™ Feed L304 |
|------------------------------------|------------------|------------------|
| <b>Power supply:</b> (V ac, Hz)    | 42, 50/60        | 42, 50/60        |
| <b>Wire spool capacity:</b> (kg)   | 18               | 18               |
| <b>Max. spool diameter:</b> (mm)   | 300              | 300              |
| <b>Setting data</b>                |                  |                  |
| <b>Wire feed speed :</b> (m/min)   | 1.5-22.0         | 1.5-22.0         |
| <b>Burnback time :</b> (s)         | 0-0.7            | 0-0.7            |
| <b>Spot welding time :</b> (s)     | -                | 0.2 - 5.0        |
| <b>Dimension (l x w x h):</b> (mm) | 569 x 259 x 355  | 569 x 259 x 355  |
| <b>Incl bobbin cover:</b>          | 687 x 271x 417   | 687 x 271x 417   |
| <b>Weight:</b> (kg)                | 12.6             | 13.2             |
| <b>Wire dimensions:</b> (mm)       |                  |                  |
| steel                              | 0.6-1.2          | 0.6-1.6          |
| stainless steel                    | 0.6-1.2          | 0.6-1.2          |
| aluminium                          | 1.0-1.2          | 1.0-1.6          |
| cored wire                         | 0.8-1.2          | 0.8-1.6          |

## Panel functions

|               | L302 | L304 |
|---------------|------|------|
| 2/4 stroke    | X    | X    |
| Burnback time | X    | X    |
| Creep start   |      | X    |
| Spot welding  |      | X    |
| Inching       |      | X    |
| Gas Purge     |      | X    |

## Wear parts Origo™ Feed L302

| Wire<br>Ø mm     | Wire<br>type     | 1<br>Feed roller  | 2<br>Pressure<br>roller | 3<br>Inlet<br>nozzle | 4<br>Insert tube  | 5<br>Outlet<br>nozzle | Groove<br>type |
|------------------|------------------|-------------------|-------------------------|----------------------|-------------------|-----------------------|----------------|
| 0.6 / 0.8        | Fe, Ss, C        | 367556-001        | 455907-001              | 466074-001           | 455889-001        | 455886-001            | V              |
| 0.8 / 1.0        | Fe, Ss, C        | 367556-002        | 455907-001              | 466074-001           | 455889-001        | 455886-001            | V              |
| <b>1.0 / 1.2</b> | <b>Fe, Ss, C</b> | <b>367556-003</b> | <b>455907-001</b>       | <b>466074-001</b>    | <b>455889-001</b> | <b>455886-001</b>     | <b>V</b>       |
| 1.0 / 1.2        | Al               | 367556-004        | 455907-001              | 466074-001           | 455894-001        | 455885-001            | U              |
|                  | C=cored wire     |                   |                         |                      |                   |                       |                |

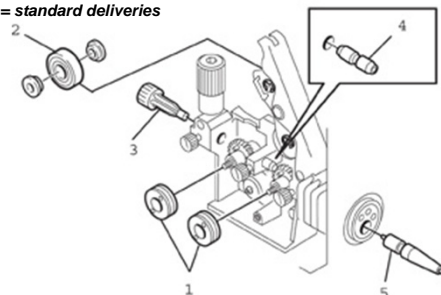


**Bold = standard deliveries**

## Wear parts Origo™ Feed L304

| Wire<br>Ø mm     | Wire<br>type     | 1<br>Feed roller  | 2<br>Pressure<br>roller | 3<br>Inlet<br>nozzle | 4<br>Intermediate<br>nozzle | 5<br>Outlet nozzle | Groove<br>type |
|------------------|------------------|-------------------|-------------------------|----------------------|-----------------------------|--------------------|----------------|
| 0.6 / 0.8        | Fe, Ss, C        | 369557-001        | 455907-001              | 455049-001           | 455072-002                  | 469837-880         | V              |
| 0.8 / 1.0        | Fe, Ss, C        | 369557-002        | 455907-001              | 455049-001           | 455072-002                  | 469837-880         | V              |
| <b>1.0 / 1.2</b> | <b>Fe, Ss, C</b> | <b>369557-003</b> | <b>455907-001</b>       | <b>455049-001</b>    | <b>455072-002</b>           | <b>469837-880</b>  | <b>V</b>       |
| 1.4 / 1.6        | Fe, C            | 369557-013        | 455907-001              | 455049-001           | 455072-002                  | 469837-880         | V              |
| 0.8 / 0.9        | Al               | 369557-011        | 455907-001              | 455049-001           | 456615-001                  | 469837-881         | U              |
| 1.0 / 1.2        | Al               | 369557-006        | 455907-001              | 455049-001           | 456615-001                  | 469837-881         | U              |
|                  | C=cored wire     |                   |                         |                      |                             |                    |                |

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