

## DRILLING MACHINES LD-1P-ECO

### *Machinery for drilling tracks and railway equipment*

Cembre Rail Drilling Machines, LD-1P-ECO have been specifically designed for use in Railway applications, to provide a consistent and accurate hole, in all types of weather conditions.

Due to their compact size, our drill can save considerable time by allowing direct operation in cases which would normally require removal of obstructions.

Special twist drill bits can be used for hole diameters 7 to 27,5 mm on rail up to 45 mm thick.

Whilst broach cutters can be used for hole diameters 13 to 40 mm on rails up to 50 mm thick.

The drills are provided with a coolant system consisting of a reservoir and pump for use with suitable cooling lubricants.

Connection to the rail drill is by a quick coupler.

The units are lightweight and ideally suited for one man operation.

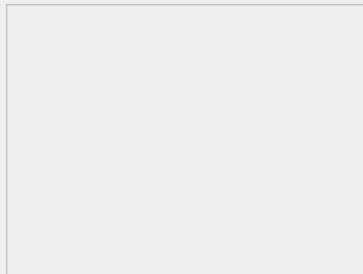


### Typical mounting of drilling machines

#### ***Typical fixing situations:***

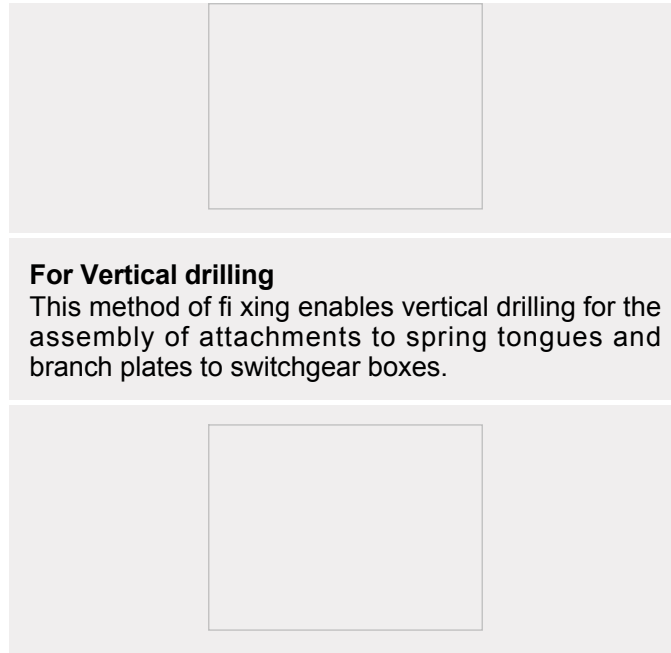
##### **On the Rail Web**

This system is ideally suited to working when the track is under possession or if not under possession when adequate train sighting provision is in place, however removal from the rail can be quickly achieved if so required. Using this arrangement, a hole can be drilled in close proximity to a sleeper.



##### **To the Rail Flange**

In this situation the drill slides under the rail and can therefore be left in position during the passage of a train. Work can be carried out either side of the four foot zone.



**For Vertical drilling**

This method of fi xing enables vertical drilling for the assembly of attachments to spring tongues and branch plates to switchgear boxes.

Typical applications of rail drilling machines

|   |  |
|---|--|
| <p><b>ON RUNNING RAILS</b></p>  |  |
| <p><b>STANDARD USE</b><br/>                     DBG-F2 over rail clamp equipped with <b>TDB- 6</b> termination</p>  | <p><b>DRILLING BY THE GUARD RAIL</b><br/>                     DBG-F2 over rail clamp equipped with <b>TDB- 3</b> termination</p> |
|    |    |
| <p><b>ON GIRDER RAIL (e.g. Ri 60 Np4)</b></p>   |  |
| <p><b>DBG-LF2</b> over rail clamp<br/>                     Specific positioning template <b>MPAF</b><br/>                     Use of long broach cutters <b>A...L</b> range</p> | <p>The design of the template (combination) allows positioning on both sides of the rails</p>                                    |

|   |  |
|---|--|
|   |  |
| <b>ON CHECK RAIL</b>  | <b>ON CONDUCTOR RAIL</b>   |
| <p><b>DBG-UIC33</b> over rail clamp<br/>         Specific positioning template <b>MPAF-UIC33</b><br/> <b>SPACER UIC33</b> spacer block<br/>         Use of long broach cutters <b>A...L</b> range</p> | <p><b>DBG-LF2</b> over rail clamp equipped with <b>TDB-1</b> termination for 150LB conductor rail drilling<br/>         Specific positioning template <b>MPAF-106LB</b> or <b>MPAF-150LB</b></p> |
|   |  |

CERTIFICATES 

 EN 13977  BT 2006/42/CE

# DRILLING MACHINES LD-1P-ECO

## *Technical characteristics*

### PROPERTIES

|                               |   |
|-------------------------------|---|
| Minimum thickness of the rail | 7 mm                                    |
| Maximum thickness of the rail | 40 mm                                   |
| Engine                        | 2 stroke                                |
| Displacement                  | 45.4 cm <sup>3</sup>                    |
| Fuel                          | 2% oil/petrol mixture                   |
| Start                         | by rope pull                            |
| RPM (to the minute)           | 7500 rpm                                |
| Clutch                        | centrifugal with automatic intervention |
| Motor power                   | 1.4 kW                                  |
| Weight                        | 18.9 kg                                 |



## DRILLING MACHINES LD-1P-ECO

*In the same kit*

### Tools

- Over rail clamp (for use with rail possession) DBG-F2

### Accessories

Adaptor ARE - Adaptor ARE

Guide bits PP

|      |     |      |
|------|-----|------|
| PP1  | PP2 | PPL1 |
| PPL2 |     |      |

Socket head cap screw #TCEI

|   |                                 |  |
|---|---------------------------------|--|
| Socket head cap screw M6x16 #S TCEI M6x16 | Socket head cap screws #G M8x10 | Socket head cap screws M6x25 #S TCEI M6x25 |
|---|---------------------------------|--|

Coolant unit SR5000 - Coolant unit SR5000

Range of tools #KIT LD

|                     |                     |                                  |
|---------------------|---------------------|----------------------------------|
| Allen key 5mm #AK 5 | Allen key 6mm #AK 6 | Allen key with handle 4mm #AKH 4 |
| Spark plug key #SPK | Swarf brush #SB     |                                  |

SPACER DPE - Spacer DPE

*On request*

### Accessories

|                      |                     |                       |
|----------------------|---------------------|-----------------------|
| Guard rail clamp DBC | Swarf collector MSC | Under rail clamp DBSN |
|----------------------|---------------------|-----------------------|

Positioning templates for axle counter gauge location holes MSPAF

|                  |                   |                 |
|------------------|-------------------|-----------------|
| MSPAF-ACG-BS80A  | MSPAF-ACG-109LB   | MSPAF-ACG-98LB  |
| MSPAF-ACG-BS113A | MSPAF-ACG-BS95RBH | MSPAF-ACG-UIC60 |

Templates for positioning rail drills MP

|                                |                                    |                                    |
|--------------------------------|------------------------------------|------------------------------------|
| Check rail template MPAF UIC33 | Conductor rail template MPAF 150LB | Conductor rail template MPAF-106LB |
| MPAF 50UNI                     | MPAF U69                           | MPAF UIC54                         |
| MPAF UIC60                     | Templates MPAF 35G                 | Templates MPAF NP4AM               |
| Templates MPAF RI60N           |                                    |                                    |

POSITIONING JIG MRF- - Clamp MRF

SPA/2 - Device SPA/2-HSB

### Templates

### Templates for positioning rail drills MP

|  |                |   |
|--|----------------|---|
| MPSR 100LB-RE-64                         | MPSR 37JP-53   | MPSR 46UNI-64                             |
| MPSR 50JP-63                             | MPSR 50T-64    | MPSR R65-94                               |
| MPSR S49-64                              | MPSR S54-63    | MPSR S54-68                               |
| MPSR UIC54-68                            | MPSR UIC54-72  | MPSR UIC60-68                             |
| MPSR UIC60-74                            | MPSR UIC60-85  | Template for positioning rail drills MPAU |
| Templates for positioning rail drills MP | Templates MPDU |   |

### Vertical positioning templates MPAS

|             |            |
|-------------|------------|
| MPAS 35G-GP | MPAS RI60N |
|-------------|------------|

## Storage

### CASE VAL

|                               |                                  |                            |
|-------------------------------|----------------------------------|----------------------------|
| Plastic carrying case VAL P24 | Plastic carrying case VAL P24-CS | Steel carrying case VAL LD |
| Steel carrying case VAL LD-SR | Steel carrying case VAL MPA      |                            |

## Tools

|   |                           |
|---|---------------------------|
| Device for clamping the drill to girder rails DBG-LF2 | Over rail clamp DBG-UIC33 |
|---|---------------------------|

## Drill Bits

### HIGH QUALITY SPIRAL BITS PEAR

|         |         |         |
|---------|---------|---------|
| PE130AR | PE135AR | PE170AR |
| PE190AR | PE210AR | PE220AR |
| PE240AR | PE275AR |         |

### SPECIAL SPIRAL BITS PE

|       |       |       |
|-------|-------|-------|
| PE100 | PE120 | PE130 |
| PE135 | PE140 | PE160 |
| PE170 | PE180 | PE190 |
| PE210 | PE220 | PE70  |
| PE80  | PE90  | PE95  |

## Adaptors

### Adapter APE

|        |        |       |
|--------|--------|-------|
| APE100 | APE120 | APE95 |
|--------|--------|-------|

### Adapter APED

|          |          |        |
|----------|----------|--------|
| APED130L | APED70   | APED80 |
| APED90   | APEDW130 |        |

## Broach cutters

**CEMBRE BROACH CUTTERS CY - CEMBRE BROACH CUTTERS CY**

**CEMBRE BROACH CUTTERS CYL - CEMBRE BROACH CUTTERS CYL**

### *Products used together*

#### Accessories

##### **POSITIONING JIG MRF-**

Positioning Jig MRF SR-SF

Positioning Jig MRF SR-SFA

POSITIONING JIG MRF U300-S

POSITIONING JIG MRF U500-S

Positioning Jig MRFT SRA

### *Alternative names for this product*

**SNCF - SNCF IEM 04018**