



# IMBANI ENERGY



## MINING LOCOMOTIVE BATTERY

# BATTERY QUALITIES

## POSITIVE PLATE

The tubular plate construction incorporates low antimonial lead alloy spines in complete contact with the active material, which is retained by an outer gauntlet. This enables the electrolyte to penetrate freely, ensuring a high power output per unit volume.

## NEGATIVE PLATE

The negative plate is of a highly porous paste on a lead alloy grid. This compliments the positive plate construction, providing a balanced performance and superior life.

## THREADED BRASS INSERT

Maximizes terminal connector conductivity.

## MUD TRAP

Prevents possible shorting between plates due to active material shedding during the life of the cell.

## CONTAINER AND LID

The lid is heat-sealed to the container ensuring an excellent bond. This is vital to mechanical strength and safety. Both the container and lid are moulded from flame retardant polypropylene.

## WRAP-AROUND SLEEVE SEPARATORS

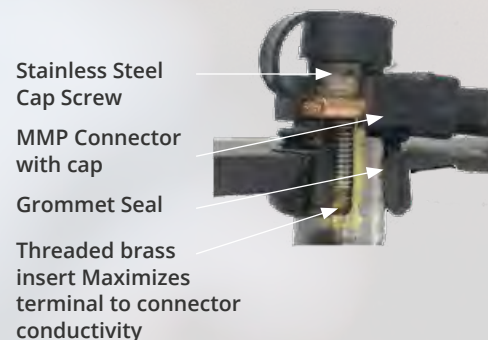
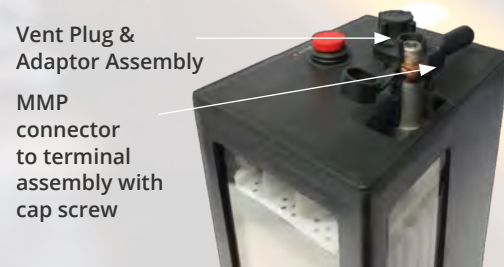
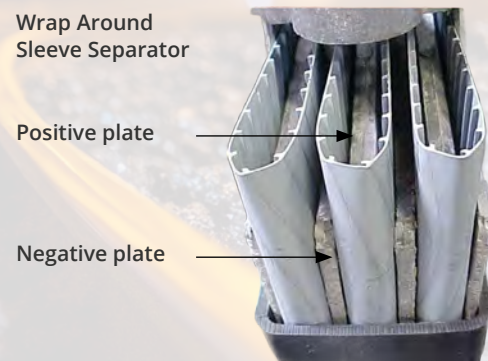
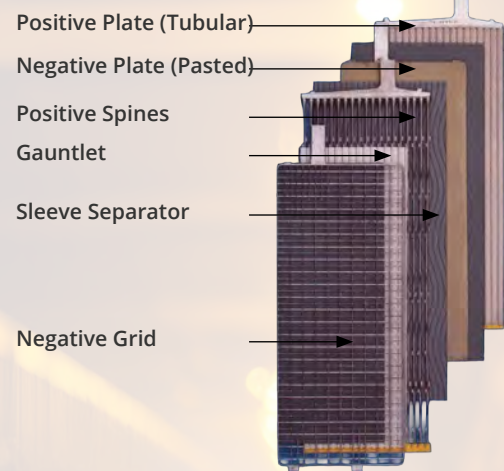
Separators are manufactured from microporous polyethylene. They are impervious to acid attack. The sleeve separator prevents short-circuiting caused by mousing. Extended battery life is achieved by using sleeved plates.

## TERMINAL SEAL

The grommet style terminal assembly allows the terminal to slide upwards as the plate grows with age. The tight seal prevents electrolyte spillage.

## FORPRENE CONNECTORS

- Made of thermoplastic rubber
- Acid resistant
- Abrasion resistant
- Fatigue resistant
- More flexible than PVC cable
- Exceptional moulding bond eliminates contamination
- Built in "O" rings
- Easy and simple to connect



# Battery Specifications

| Cell Type                      | 5hr Capacity @25° | Length (mm) | Width (mm) | Cover Height (mm) | Cell Total Height (mm) | Weight (kg)± 5% |      | Number of posts |
|--------------------------------|-------------------|-------------|------------|-------------------|------------------------|-----------------|------|-----------------|
|                                |                   |             |            |                   |                        | Dry             | Wet  |                 |
| 50 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MIL 15 F                       | 450               | 157         | 158        | 370               | 400                    | 18.5            | 25.7 | 2               |
| MIL 17 F                       | 450               | 157         | 158        | 370               | 400                    | 18.5            | 25.7 | 2               |
| MIL 19 F                       | 550               | 184         | 158        | 370               | 400                    | 22.6            | 31.1 | 2               |
| MIL 21 F                       | 600               | 205         | 158        | 370               | 400                    | 24.7            | 33.5 | 2               |
| MIL 23 F                       | 650               | 221         | 158        | 370               | 400                    | 26.3            | 37.4 | 4               |
| MIL 25 FD                      | 700               | 242         | 158        | 370               | 400                    | 29.5            | 39.8 | 4               |
| 55 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MTL 19 XF                      | 550               | 173         | 158        | 398               | 428                    | 25.1            | 31.7 | 2               |
| MTL 21 FD                      | 660               | 205         | 158        | 398               | 428                    | 29.9            | 37.8 | 4               |
| 65 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MTL 25 F                       | 770               | 242         | 158        | 398               | 428                    | 36.2            | 45.2 | 4               |
| 75 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MTLA27XFD                      | 900               | 205         | 158        | 511               | 541                    | 40.7            | 51.5 | 4               |
| 70 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MTH 23 EF                      | 770               | 184         | 158        | 492               | 522                    | 35.5            | 44.8 | 4               |
| MTH 25 XF                      | 910               | 221         | 158        | 492               | 522                    | 39.6            | 51.4 | 4               |
| MTH 25 EFD                     | 840               | 205         | 158        | 492               | 522                    | 38.7            | 48.1 | 4               |
| 85 Ampere hour positive plate  |                   |             |            |                   |                        |                 |      |                 |
| MTE 21                         | 1020              | 205         | 158        | 567               | 597                    | 43.0            | 53.4 | 4               |
| 105 Ampere hour positive plate |                   |             |            |                   |                        |                 |      |                 |
| MTE 25                         | 1260              | 205         | 158        | 683               | 713                    | 52.2            | 65.2 | 4               |
| MTE 29 ED                      | 1470              | 242         | 158        | 683               | 713                    | 60.3            | 75.4 | 4               |

**FLAME RETARDANT POLYPROPYLENE CONTAINER & LID**

**Note: Operating S.G. = 1.290 ±0.010**



# Connector Specifications

## INTER-CELL CONNECTORS/ INTER BLOCK CONNECTORS



### MMP INTER-CELL CONNECTOR WITH CAP

| CELL TYPE  | CONNECTOR CSA (mm2) | Length (mm) & Part Number |        |        |        |        |        |        |
|------------|---------------------|---------------------------|--------|--------|--------|--------|--------|--------|
|            |                     | 95                        | 170    | 190    | 250    | 275    | 380    | 600    |
| MIL 15 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 |        |        |
| MIL 17 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 |        |        |
| MIL 19 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MIL 21 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MIL 23 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MIL 25 FD  | 35                  | CB 642                    |        | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTL 19 XF  | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTL 21 FD  | 35                  | CB 642                    |        | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTL 25 F   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTH 23 EF  | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTH 23 EFD | 35                  | CB 642                    |        | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTH25 XF   | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTLAXFD    | 35                  | CB 642                    |        | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTE 21     | 35                  |                           | CB 615 | CB 644 | CB 620 | CB 646 | CB 653 | CB 654 |
| MTE 25     | so                  |                           | CB616  | CB 618 | CB 621 | CB 623 | CB 628 | CB 629 |
| MTE 29 ED  | so                  | 613                       |        | CB 618 | CB 621 | CB 623 | CB 628 | CB 629 |

## CELL LIFTERS

To facilitate easy removal of cells from tanks, or shipping crates, this cell lifter is designed to ensure no damage occurs.

| CELLS       | CAT.NO |
|-------------|--------|
| Single Post | R 12   |



# Connector Specifications

## INTER-CELL CONNECTORS/ INTER-BLOCK CONNECTORS



## SINGLE END TAKE-OFF CONNECTORS

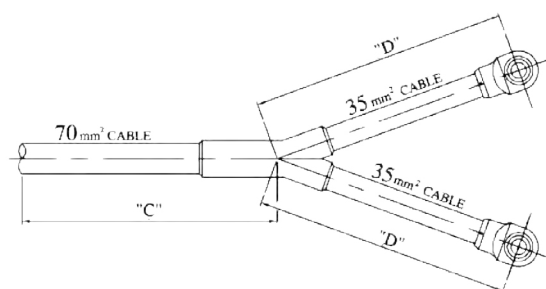


| MMP CONNECTOR CROSS SECTIONAL AREA mm2                      |     |     |     |
|-------------------------------------------------------------|-----|-----|-----|
| CELL TYPE                                                   | MIL | MTL | MTH |
| 15 PLATE                                                    | 35  |     |     |
| 17 PLATE                                                    | 35  |     |     |
| 19 PLATE                                                    | 35  | 35  |     |
| 21 PLATE                                                    | 35  |     |     |
| 23 PLATE                                                    | 35  |     | 50  |
| 25 PLATE                                                    | 35  | 50  | 50  |
| DOUBLE POST CELLS - APPLICATION CHART (GOLD AND COAL MINES) |     |     |     |
| 21 PLATE                                                    |     | 35  |     |
| 25 PLATE                                                    | 35  |     | 35  |
| 27 PLATE                                                    |     | 35  |     |

| CABLE LENGTH 'B' mm | SINGLE END/ TAKE OFF CONNECTORS |        |        |
|---------------------|---------------------------------|--------|--------|
|                     | 35mm2                           | 50mm2  | 70mm2  |
| 215 ± 2.0           | CB 630                          |        | CB 631 |
| 500± 5.0            | CB 525                          |        |        |
| 1200 ± 5.0          |                                 | CB 632 | CB 633 |
| 1500± 5.0           | CB 527                          | CB 634 | CB 538 |
| 2000± 5.0           | CB 635                          |        |        |
| 2500± 5.0           |                                 |        |        |
| 4800± 5.0           |                                 |        |        |

## MMP Y – CONNECTORS

| CABLE LENGTH 70 mm2 | CAT NUMBER |
|---------------------|------------|
| 1000 ± 5.0          | CB 638     |
| 4000 ± 5.0          | CB 639     |





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