

These economical, quick change caps are made of long-lasting, highly-efficient Class 1, 2 and 2.18150 copper alloys, precision manufactured to exacting tolerances in a wide range of standard configurations or to your special requirements for use on CMW shanks.

## CMW FEMALE CAP ELECTRODES

- See pages 12 for Shanks

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.



|                                                                                               | POINTED (A)                   | DOME (B)                      | FLAT (C)                      | OFFSET (D)                    | TRUNCATED (E)                 | RADIUS (F)                    |
|-----------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Cap Taper RW #4<br>Diameter .500*<br>Length .840*<br><br>Class 1<br>Class 2<br>Class 2.18150  | <br>MPA14Z<br>MPA24<br>MPA24Z | <br>MPB14Z<br>MPB24<br>MPB24Z | <br>MPC14Z<br>MPC24<br>MPC24Z | <br>MPD14Z<br>MPD24<br>MPD24Z | <br>MPE14Z<br>MPE24<br>MPE24Z | <br>MPF14Z<br>MPF24<br>MPF24Z |
| Cap Taper RW #5<br>Diameter .625*<br>Length .880*<br><br>Class 1<br>Class 2<br>Class 2.18150  | <br>MPA15Z<br>MPA25<br>MPA25Z | <br>MPB15Z<br>MPB25<br>MPB25Z | <br>MPC15Z<br>MPC25<br>MPC25Z | <br>MPD15Z<br>MPD25<br>MPD25Z | <br>MPE15Z<br>MPE25<br>MPE25Z | <br>MPF15Z<br>MPF25<br>MPF25Z |
| Cap Taper RW #6<br>Diameter .750*<br>Length 1.000*<br><br>Class 1<br>Class 2<br>Class 2.18150 | <br>MPA16Z<br>MPA26<br>MPA26Z | <br>MPB16Z<br>MPB26<br>MPB26Z | <br>MPC16Z<br>MPC26<br>MPC26Z | <br>MPD16Z<br>MPD26<br>MPD26Z | <br>MPE16Z<br>MPE26<br>MPE26Z | <br>MPF16Z<br>MPF26<br>MPF26Z |

## CMW MALE CAP ELECTRODES

- See pages 13 for Shanks

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.



|                                                                                               | POINTED (A)                | DOME (B)                   | FLAT (C)                   | OFFSET (D)                 | TRUNCATED (E)              | RADIUS (F)                 |
|-----------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Cap Taper RW #4<br>Diameter .500*<br>Length 1.125*<br><br>Class 1<br>Class 2<br>Class 2.18150 | <br>MA14Z<br>MA24<br>MA24Z | <br>MB14Z<br>MB24<br>MB24Z | <br>MC14Z<br>MC24<br>MC24Z | <br>MD14Z<br>MD24<br>MD24Z | <br>ME14Z<br>ME24<br>ME24Z | <br>MF14Z<br>MF24<br>MF24Z |
| Cap Taper RW #5<br>Diameter .625*<br>Length 1.250*<br><br>Class 1<br>Class 2<br>Class 2.18150 | <br>MA15Z<br>MA25<br>MA25Z | <br>MB15Z<br>MB25<br>MB25Z | <br>MC15Z<br>MC25<br>MC25Z | <br>MD15Z<br>MD25<br>MD25Z | <br>ME15Z<br>ME25<br>ME25Z | <br>MF15Z<br>MF25<br>MF25Z |
| Cap Taper RW #6<br>Diameter .750*<br>Length 1.625*<br><br>Class 1<br>Class 2<br>Class 2.18150 | <br>MA16Z<br>MA26<br>MA26Z | <br>MB16Z<br>MB26<br>MB26Z | <br>MC16Z<br>MC26<br>MC26Z | <br>MD16Z<br>MD26<br>MD26Z | <br>ME16Z<br>ME26<br>ME26Z | <br>MF16Z<br>MF26<br>MF26Z |

The CMW GCAP® electrode is the answer to welding galvanized steels. The GCAP's® revolutionary design, and precision manufacturing from CMW Engineering provides for no sticking from the very first weld. GCAP® electrode nuggets meet or exceed industry standards for high quality welds from the first weld through the life of the cap. This cap design made from R.W.M.A. class 2 material eliminates brass build-up by literally rolling the brass away. You will use

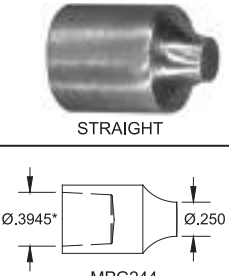
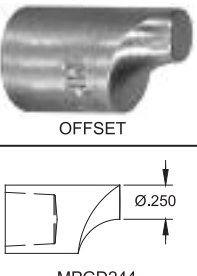
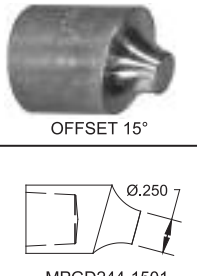
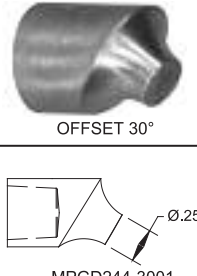
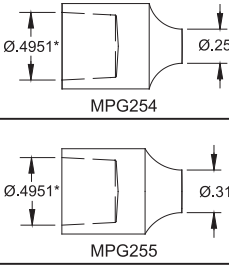
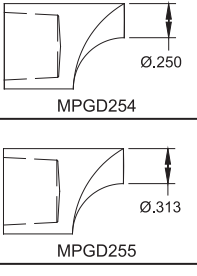
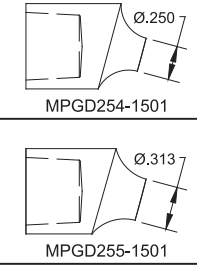
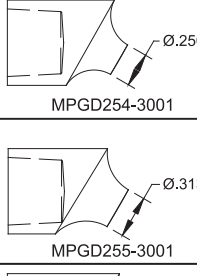
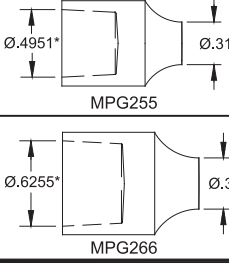
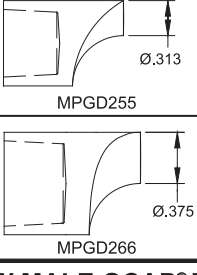
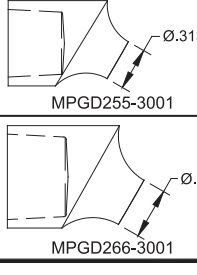
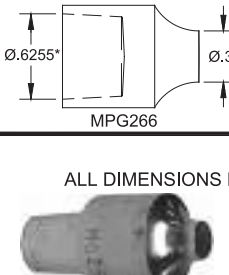
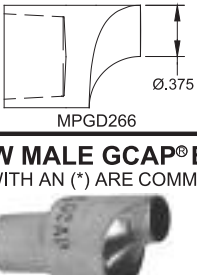
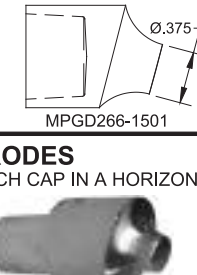
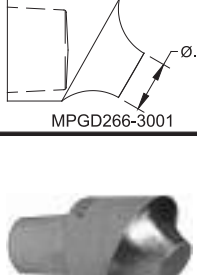
less electric power (up to 25% less) and still achieve superior welds due to GCAP® design. Productivity will increase with up to 10 times more welds without dressing.

For best use of CMW GCAPS®, a stepper program is recommended. Consult CMW application engineering.  
U.S. Patent 49,954,687; 5,015,816; 5,126,528.  
Other patents pending.

### CMW FEMALE GCAP® ELECTRODES

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.

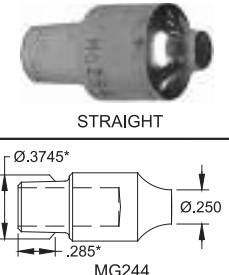
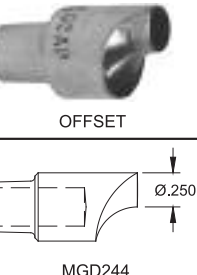
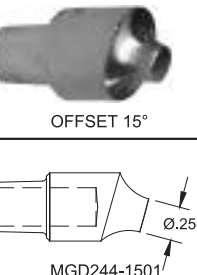
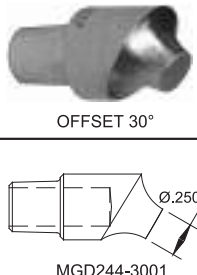
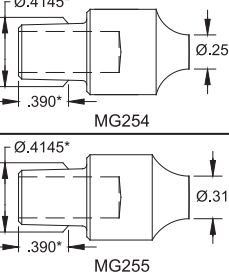
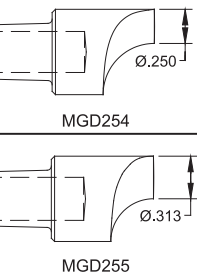
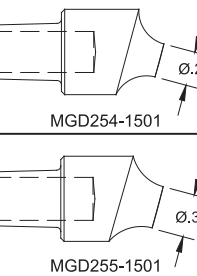
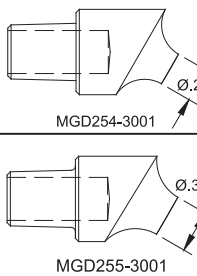
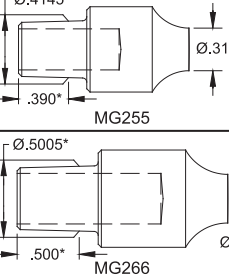
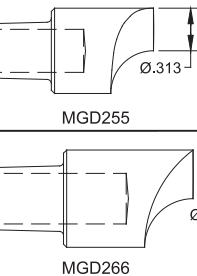
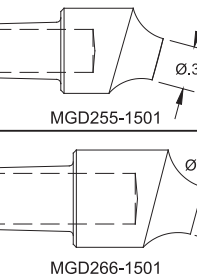
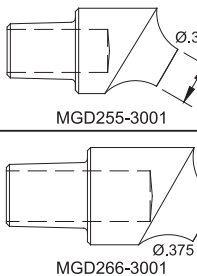
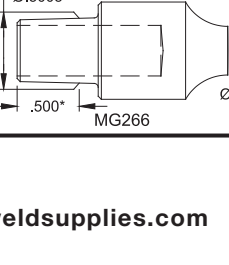
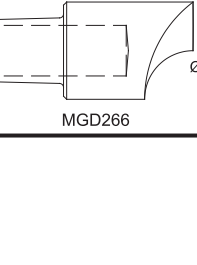
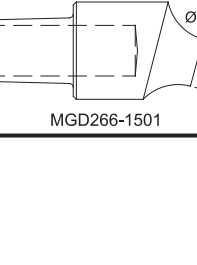
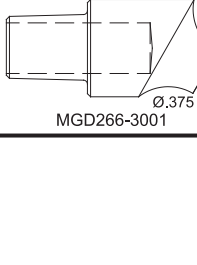
- See pages 12 for Shanks  
- See page 70 for suggested weld schedules

|                                                                    | STRAIGHT                                                                                      | OFFSET                                                                                         | OFFSET 15°                                                                                           | OFFSET 30°                                                                                            |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Cap Taper RW #4<br>Diameter .500*<br>Length .840*<br>RWMA Class 2  | <br>MPG244   | <br>MPGD244   | <br>MPGD244-1501   | <br>MPGD244-3001   |
| Cap Taper RW #5<br>Diameter .625*<br>Length .880*<br>RWMA Class 2  | <br>MPG254  | <br>MPGD254  | <br>MPGD254-1501  | <br>MPGD254-3001  |
| Cap Taper RW #5<br>Diameter .625*<br>Length .880*<br>RWMA Class 2  | <br>MPG255  | <br>MPGD255  | <br>MPGD255-1501  | <br>MPGD255-3001  |
| Cap Taper RW #6<br>Diameter .750*<br>Length 1.000*<br>RWMA Class 2 | <br>MPG266 | <br>MPGD266 | <br>MPGD266-1501 | <br>MPGD266-3001 |

### CMW MALE GCAP® ELECTRODES

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.

- See pages 13 for Shanks  
- See page 70 for suggested weld schedules

|                                                                    | STRAIGHT                                                                                     | OFFSET                                                                                        | OFFSET 15°                                                                                          | OFFSET 30°                                                                                           |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Cap Taper RW #4<br>Diameter .500*<br>Length 1.125*<br>RWMA Class 2 | <br>MG244 | <br>MGD244 | <br>MGD244-1501 | <br>MGD244-3001 |
| Cap Taper RW #5<br>Diameter .625*<br>Length 1.250*<br>RWMA Class 2 | <br>MG254 | <br>MGD254 | <br>MGD254-1501 | <br>MGD254-3001 |
| Cap Taper RW #5<br>Diameter .625*<br>Length 1.250*<br>RWMA Class 2 | <br>MG255 | <br>MGD255 | <br>MGD255-1501 | <br>MGD255-3001 |
| Cap Taper RW #6<br>Diameter .750*<br>Length 1.625*<br>RWMA Class 2 | <br>MG266 | <br>MGD266 | <br>MGD266-1501 | <br>MGD266-3001 |

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## CMW FEMALE ASIAN CAP ELECTRODES

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.



ASIAN TYPE (D)



ASIAN TYPE (R)



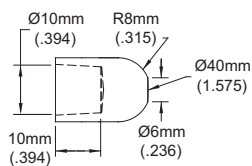
ASIAN TYPE (F)



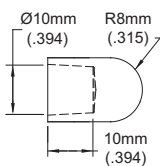
ASIAN TYPE (E)

Taper 1:9.6  
Dia. 13mm (.512)\*  
Length 20mm (.787)\*

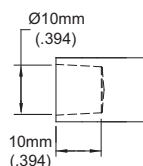
Class 1  
Class 2  
Class 2.18150



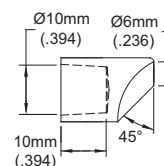
MPB141Z-01  
MPB241-01  
MPB241Z-04



MPB141Z-02  
MPB241-02  
MPB241Z-07



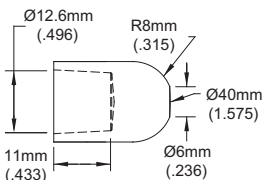
MPC141Z-01  
MPC241-01  
MPC241Z-02



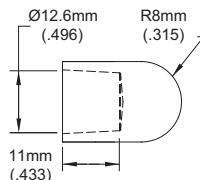
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MPD241Z-02

Taper 1:9.6  
Dia. 16mm (.625)\*  
Length 23mm (.906)\*

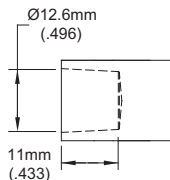
Class 1  
Class 2  
Class 2.18150



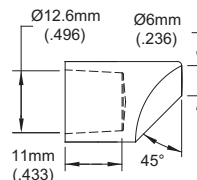
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MPB25-14  
MPB25Z-19



MPB15Z-12  
MPB25-18  
MPB25Z-20



MPC15Z-01  
MPC25-02  
MPC25Z-05



MPD15Z-03  
MPD25-05  
MPD25Z-04

# METRIC-ISO 5821 STANDARD CAP ELECTRODES



Phone: 888-654-9353

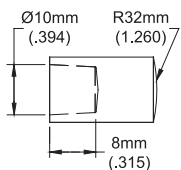
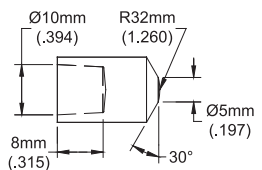
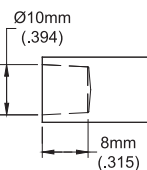
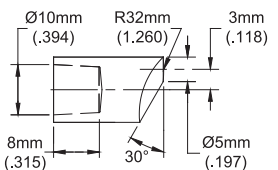
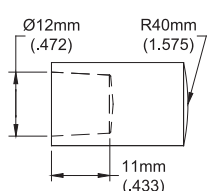
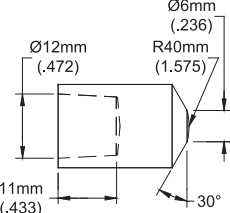
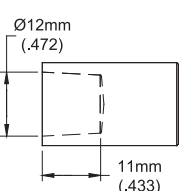
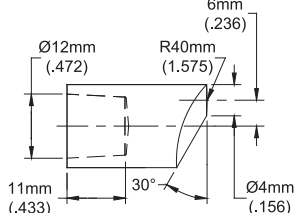
Fax: 937-253-2324

Email: sales@productionengineering.com

These economical, quick change caps are made of long-lasting, highly-efficient Class 2.18150 copper alloy, precision manufactured to exacting tolerances in a wide range of standard configurations or to your special requirements.

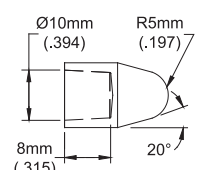
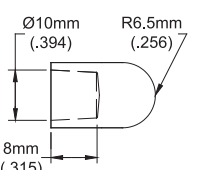
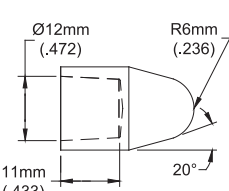
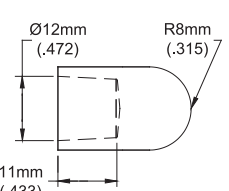
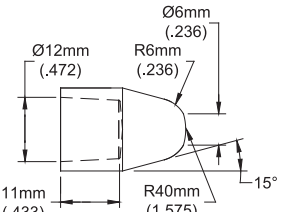
## CMW FEMALE METRIC-ISO 5821 CAP ELECTRODES

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.

|                                                        |   |   |   |   |
|--------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                        | METRIC TYPE (A)                                                                    | METRIC TYPE (B)                                                                    | METRIC TYPE (C)                                                                      | METRIC TYPE (D)                                                                      |
| Taper 1:10<br>Dia. 13mm (.512)*<br>Length 18mm (.709)* |   |   |   |   |
| Class 2.18150                                          | MPF241Z-01                                                                         | MPE241Z-01                                                                         | MPC241Z-01                                                                           | MPD241Z-01                                                                           |
| Taper 1:10<br>Dia. 16mm (.625)*<br>Length 20mm (.787)* |  |  |  |  |
| Class 2.18150                                          | MPF25Z-01                                                                          | MPE25Z-02                                                                          | MPC25Z-02                                                                            | MPD25Z-02                                                                            |

## CMW FEMALE METRIC-ISO 5821 CAP ELECTRODES

ALL DIMENSIONS MARKED WITH AN (\*) ARE COMMON TO EACH CAP IN A HORIZONTAL LINE.

|                                                        |  |  |  |
|--------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                        | METRIC TYPE (E)                                                                     | METRIC TYPE (F)                                                                      | METRIC TYPE (G)                                                                       |
| Taper 1:10<br>Dia. 13mm (.512)*<br>Length 18mm (.709)* |  |  | No Standard Available                                                                 |
| Class 2.18150                                          | MPA241Z-01                                                                          | MPB241Z-01                                                                           |                                                                                       |
| Taper 1:10<br>Dia. 16mm (.625)*<br>Length 20mm (.787)* |  |  |  |
| Class 2.18150                                          | MPA25Z-03                                                                           | MPB25Z-03                                                                            | MPA25Z-09                                                                             |