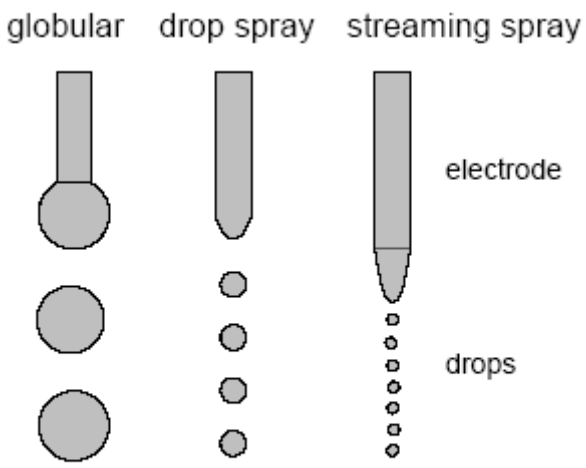

Figure 1: Drop transfer modes

The globular, drop (or projected) spray and steaming spray transfer mode can be observed in Figure 1. The character of the metal transfer depends mainly on the welding current, wherein the size of the drops decreases with an increasing current. In globular transfer the diameter of the spherical drops is greater than the electrode diameter. With increasing current the mode changes into drop spray transfer which is characterized by an acceleration of the drops. The drop shape is similar to globular transfer but with a diameter slightly smaller than the electrode. Upon a further increase in wire feed speed, the mode turns into streaming spray transfer characterized by very small drops, wherein an almost continuous column extends from electrode to base metal [9].

Source: “Dynamic Behavior of Gas Metal Arc Welding”
Jones, L.A.; Mendez, P.; Weiss, D. and Eagar, T.W.;
Massachusetts Institute of Technology; 1997

Dynamic Behavior of Gas Metal Arc Welding

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