



GMAW-P (PULSED MIG)

A baseline weld was made using automated welding equipment. Voltage, Wire Feed Speed, Travel Speed and Contact-Tip-to-Work Distance were then adjusted individually from baseline weld settings to illustrate how each parameter affects a fillet weld when raised and lowered. Icons in grey indicate the specific parameter adjusted; in the case of amperage, the icon represents the value measured.

Baseline Weld Variables

Wire Type: 0.045 ER70S-6 (Quantum Arc 6)
 Shielding Gas: 90% Argon / 10% Carbon Dioxide
 Base Metal: 1/8 in. Cold Rolled Carbon Steel

Transfer Mode: Pulsed Spray
 Travel Direction: Forehand (Push)
 Nozzle Diameter: 5/8 in.

260

A

400
 IPM

20
 IPM

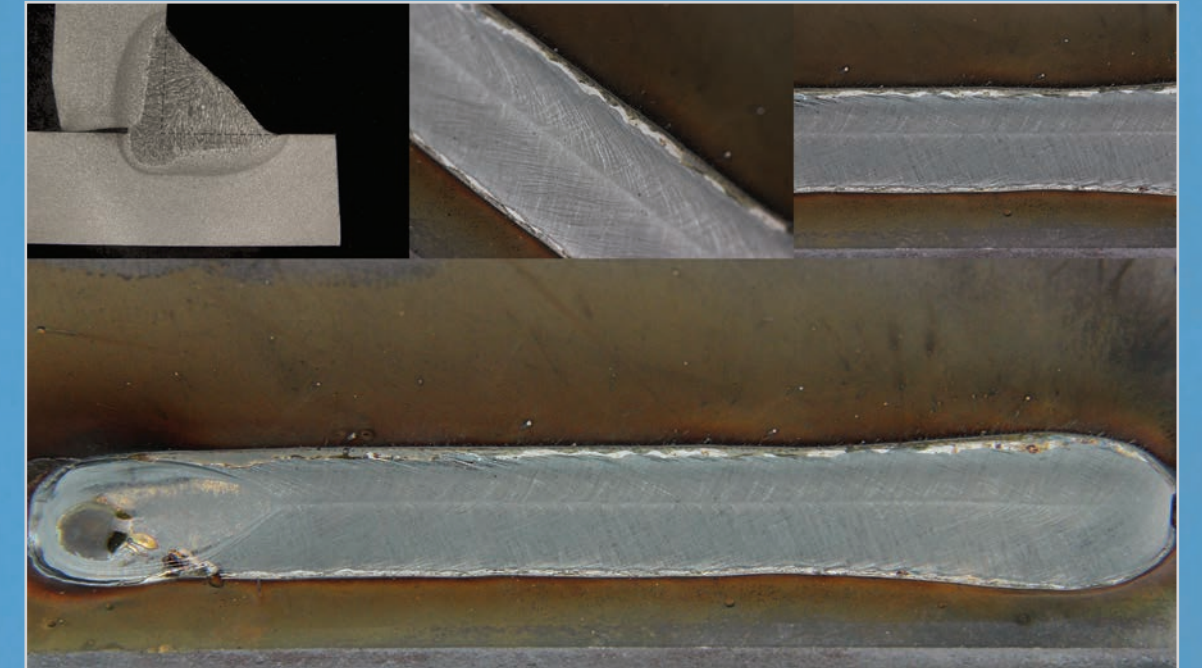
+10°
 Drag Push

35
 CFH

3/4"
 (Flush Tip)

45°

45
 IPM

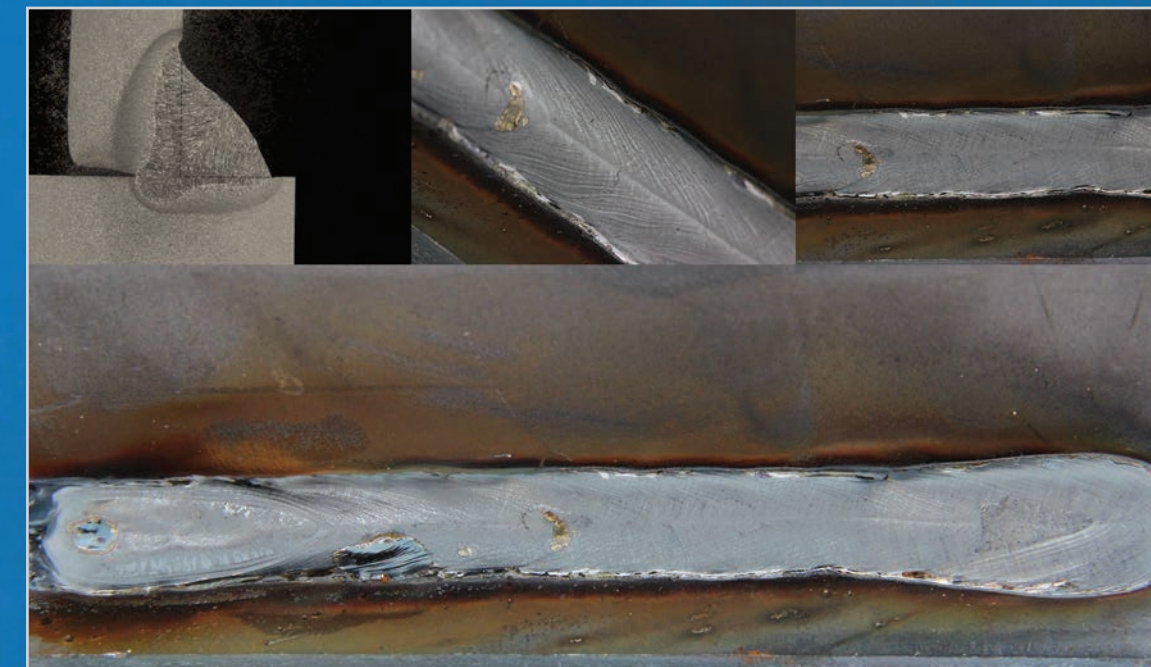
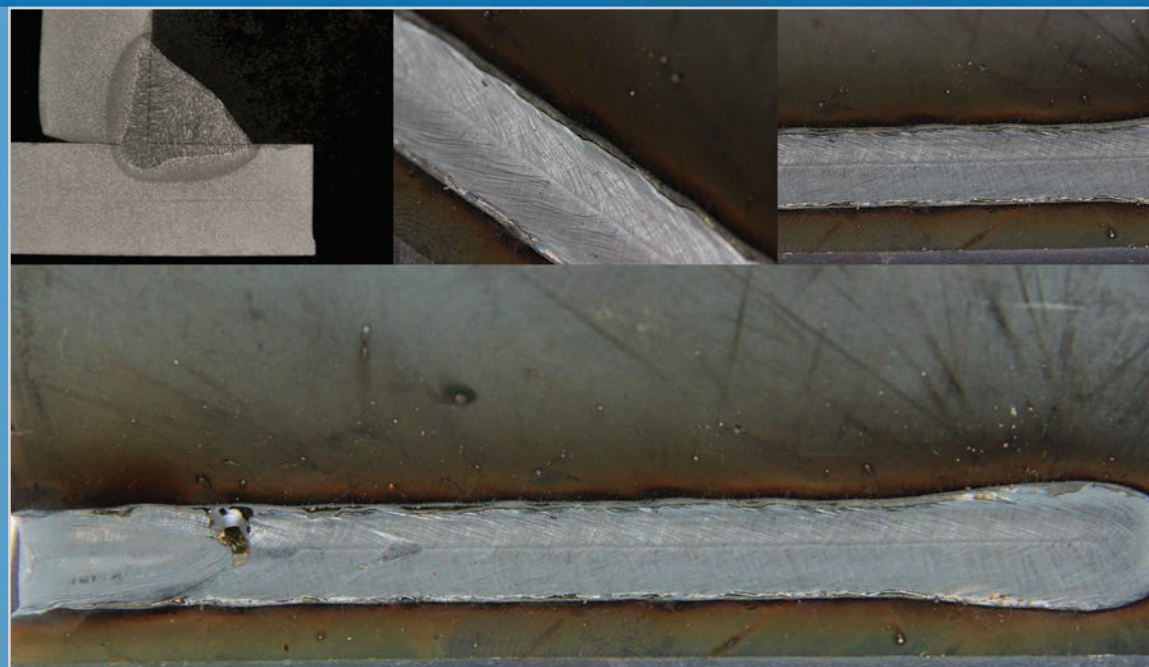


Voltage

Decreased

38
 IPM

249
 A



Increased

52
 IPM

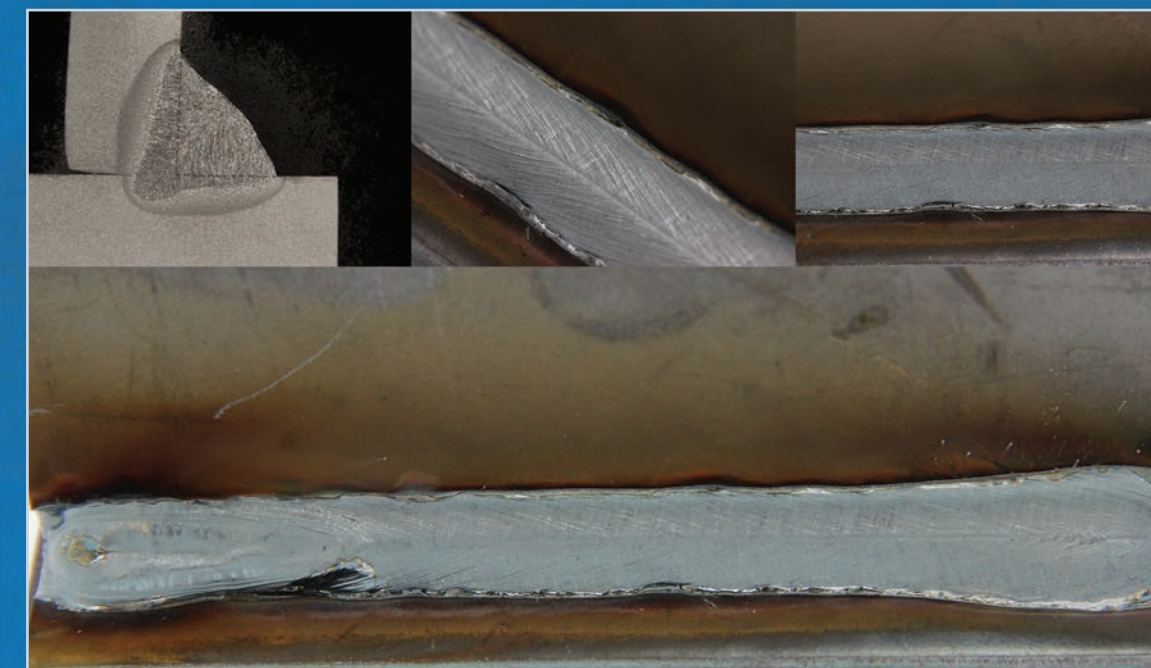
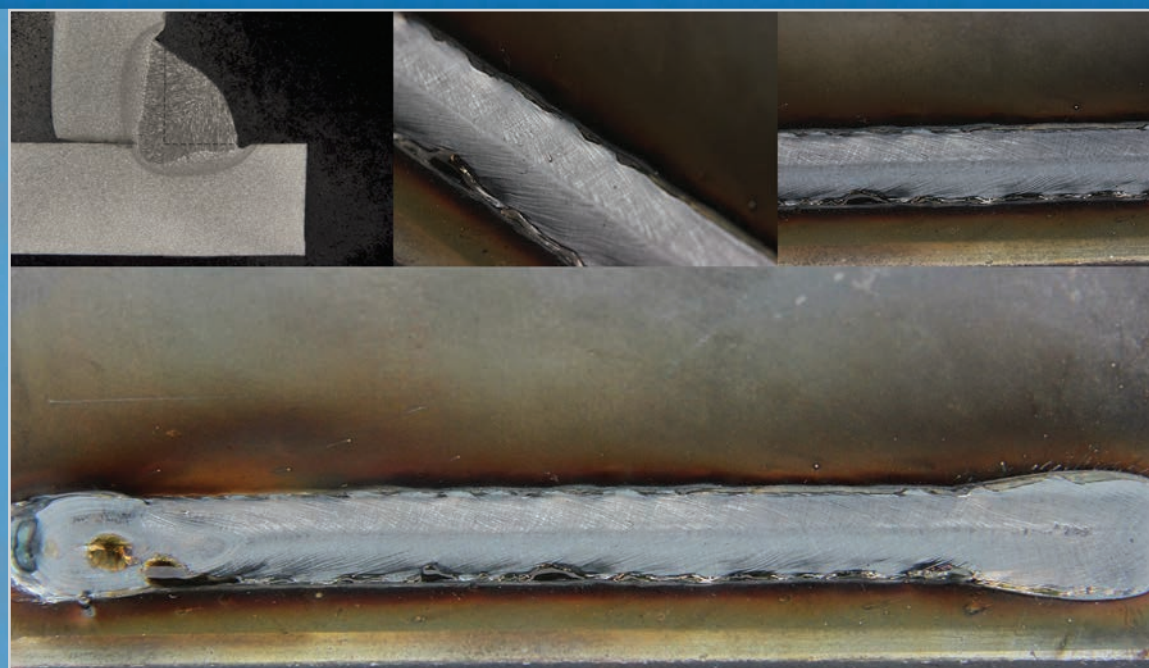
278
 A

Wire Feed Speed

Decreased

340
 IPM

221
 A



Increased

460
 IPM

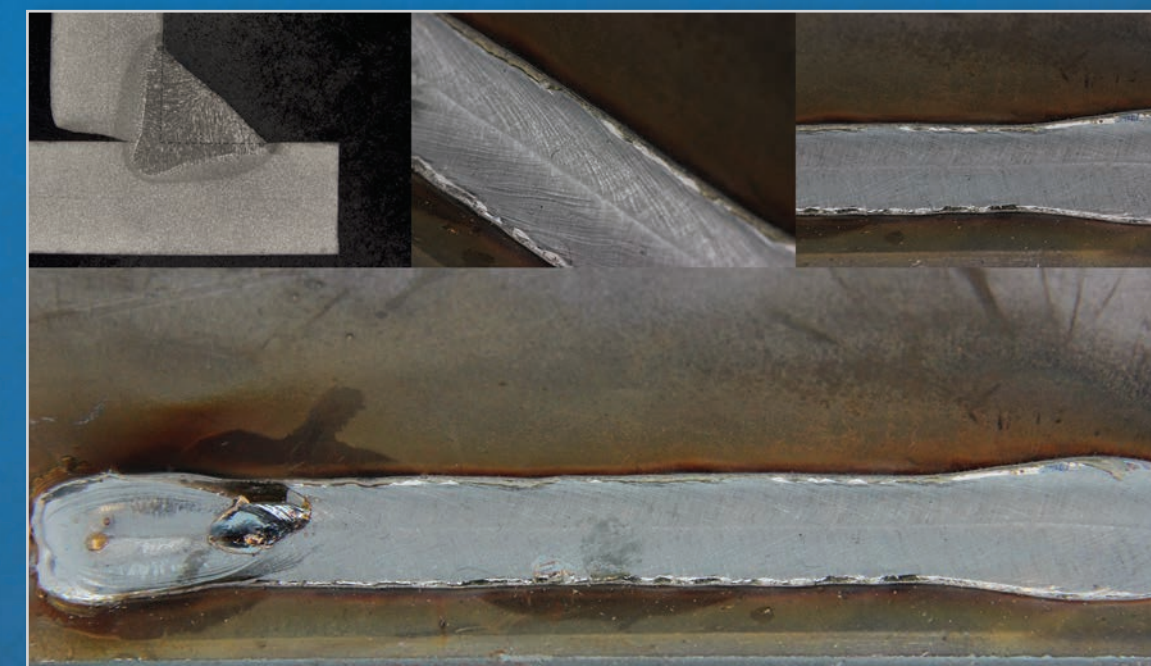
290
 A

Travel Speed

Decreased

16
 IPM

266
 A



Increased

24
 IPM

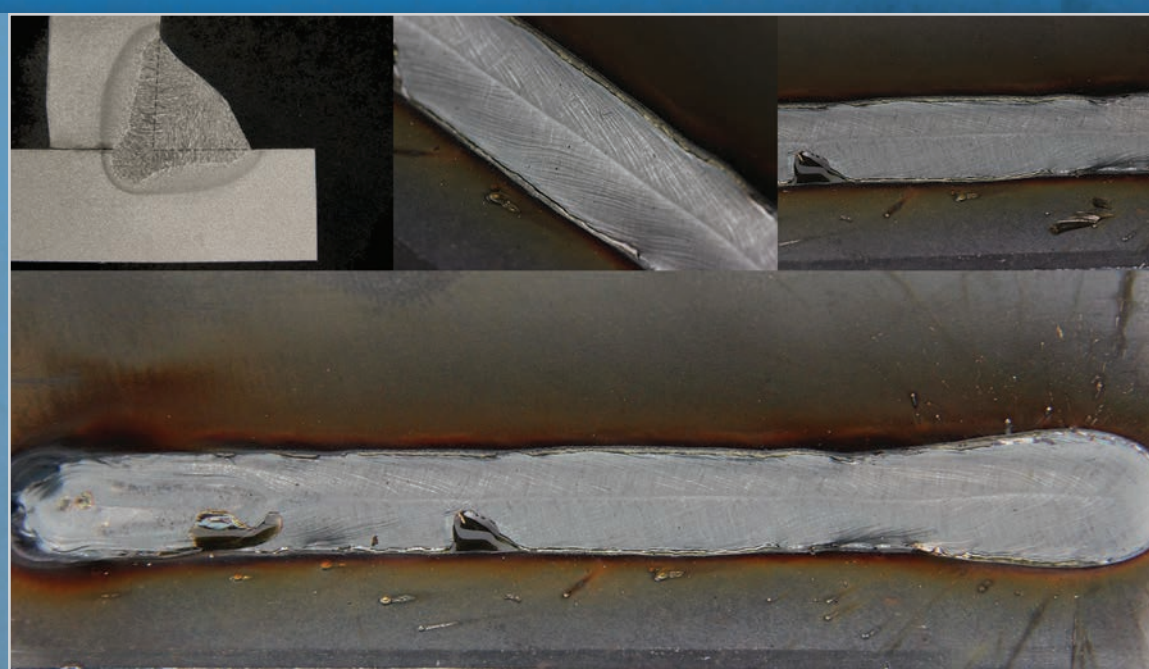
270
 A

Contact Tip To Work

Decreased

3/8"
 (FLUSH TIP RECESS)

298
 A



Increased

1-7/8"
 IPM

216
 A



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