



GMAW-S PUSH (SHORT CIRCUIT 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: 0.035 ER70S-6 (Quantum Arc 6) | Transfer Mode: Short Circuit (SCMT)
 Shielding Gas: 75% Argon / 25% Carbon Dioxide | Travel Direction: Forehand (Push)
 Base Metal: 1/8 in. Cold Rolled Carbon Steel | Nozzle Diameter: 5/8 in.

123

A

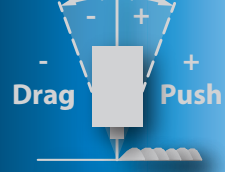
220



10.5



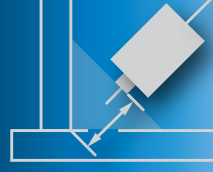
+10°



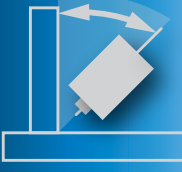
35



1/2" (Flush Tip)

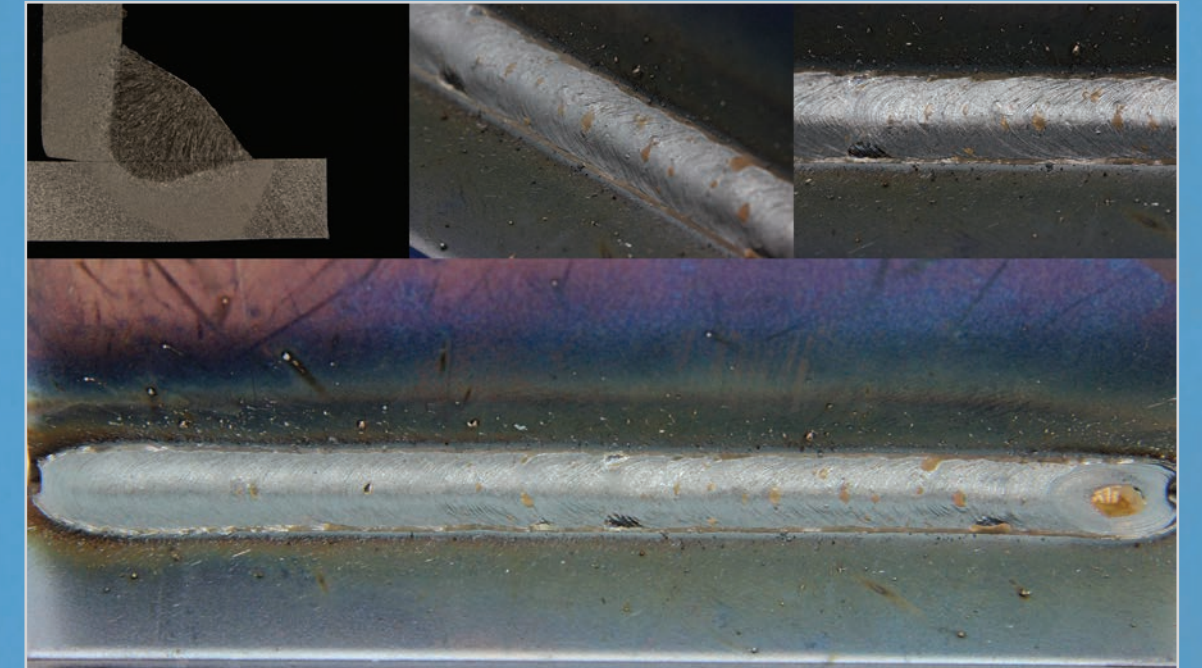


45°



18.0

V



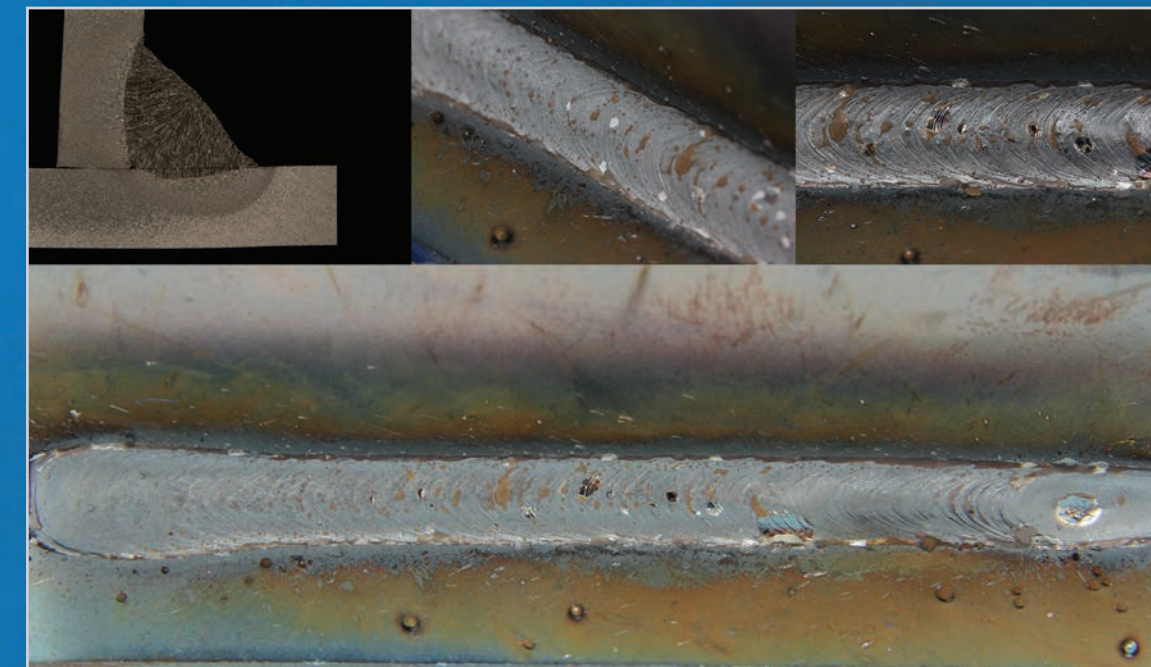
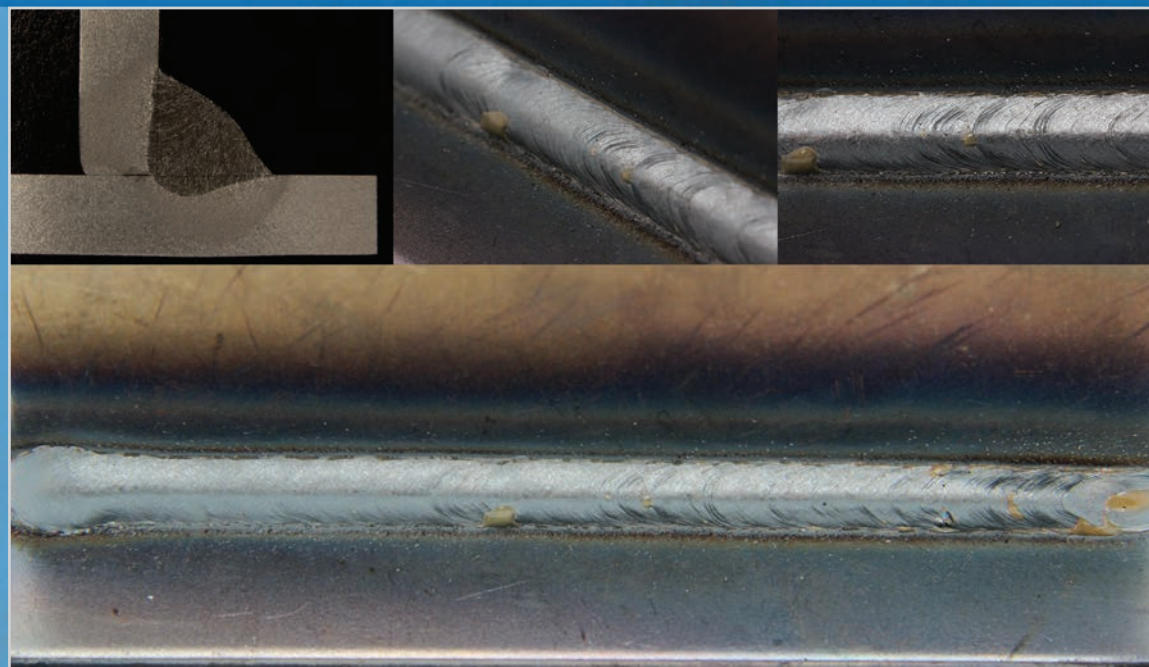
Voltage

Decreased

15.3



119



Increased

20.7



127



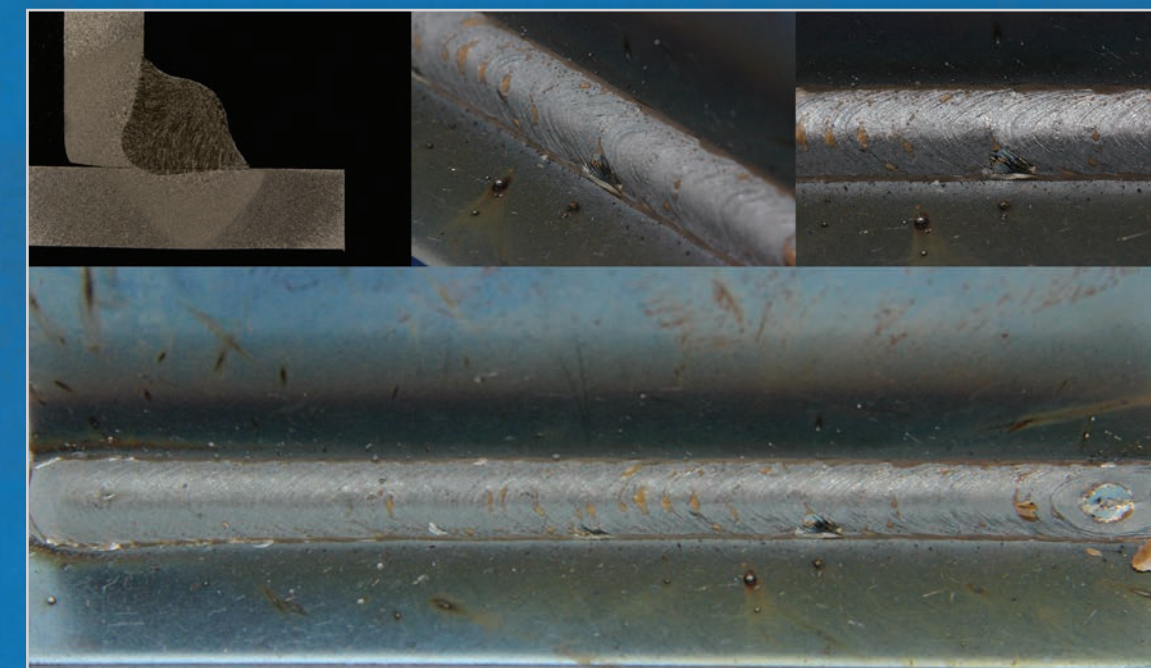
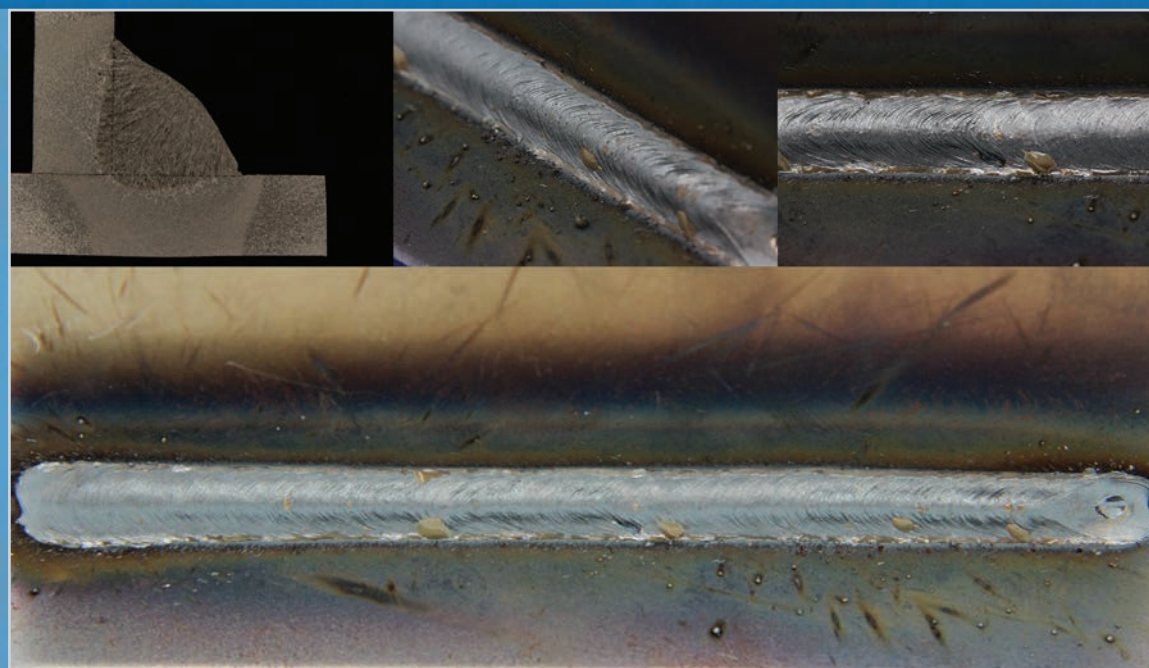
Wire Feed Speed

Decreased

187



105



Increased

253



131



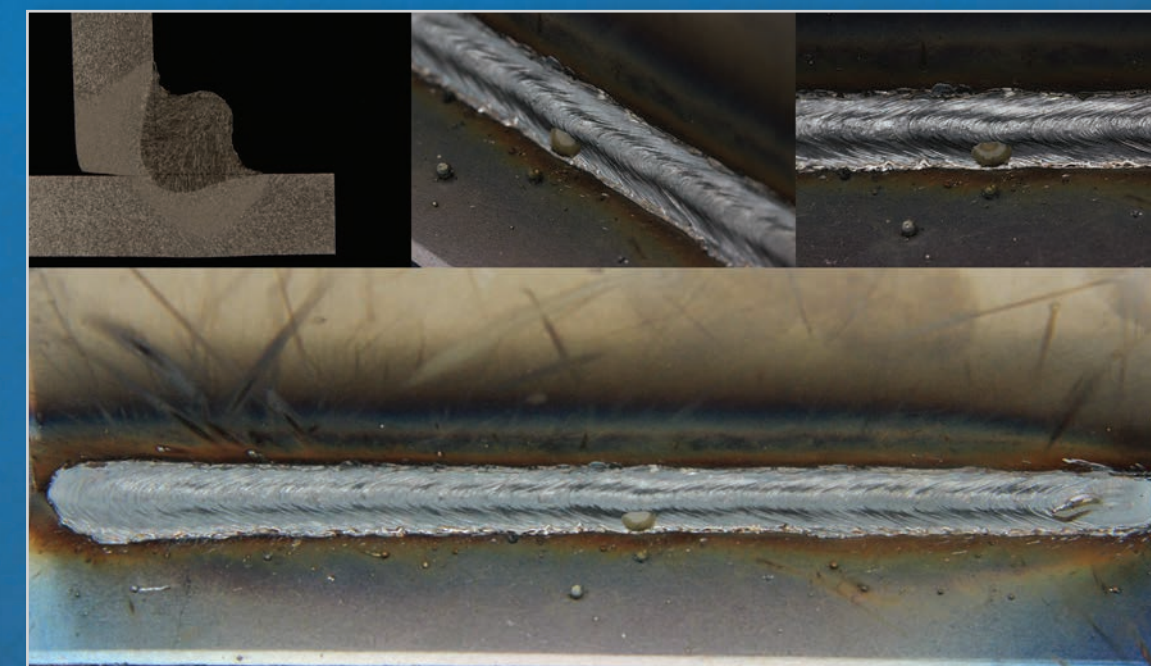
Travel Speed

Decreased

9

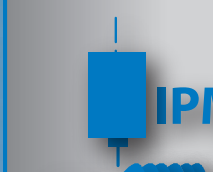


121



Increased

13



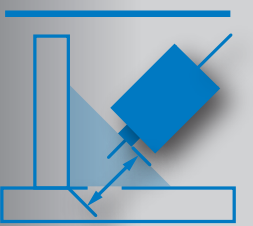
123



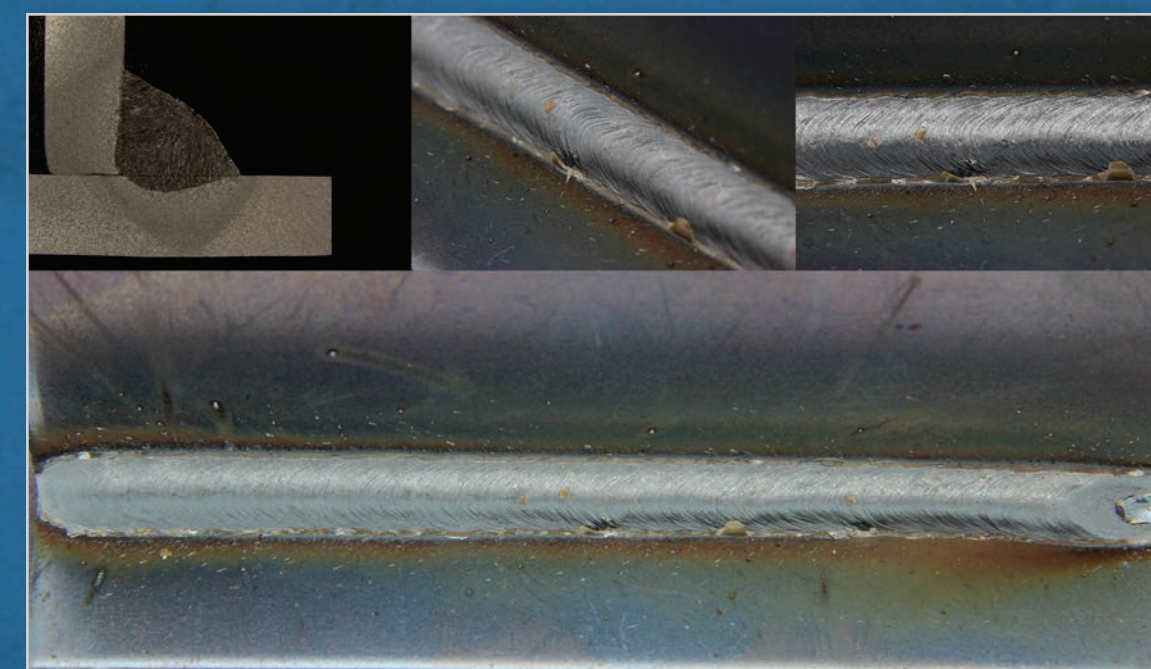
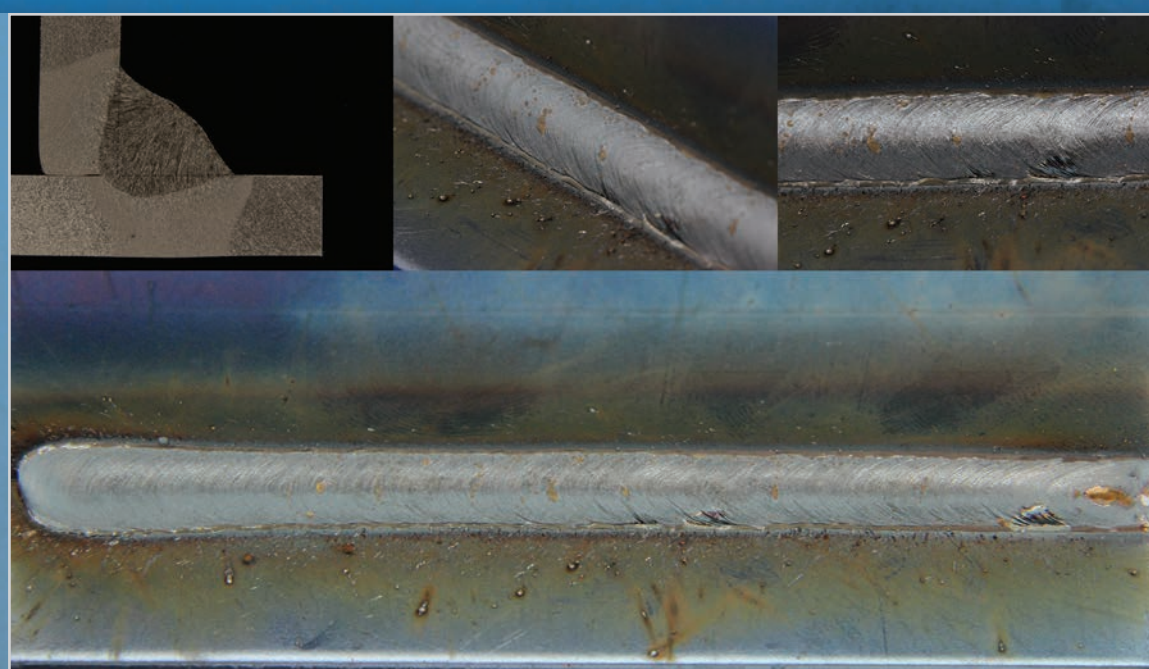
Contact Tip To Work

Decreased

3/8" (FLUSH TIP RECESS)

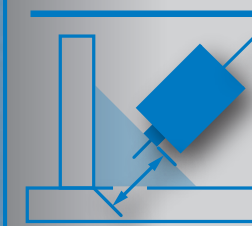


128



Increased

5/8"



108



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