



## Tweco® Velocity™

### Light Duty MIG Welding Consumables

Patents Pending



- **Superior Welding Performance** – A smoother, more stable arc.
- **Easy to Change Velocity Tips** – No threads, no tools required.
- **Solid Copper Conductor Path** – Fewer connections and optimized electrical surface contact.
- **Fewer Consumable Parts to Replace** – No diffuser lowers cost of ownership.
- **Continued Innovation** – Now available with Adjustable Slip Nozzles for Tweco Fusion® MIG Guns.

## SPEED MADE EASY.

## Tweco® Velocity™ - Light Duty MIG Welding Consumables Reference

### Light Duty Range Overview

Wire sizes .023" (0.6 mm) → 5/64" (2.0 mm)  
Optimized for .035" (0.9 mm) & .045" (1.2 mm)  
140 – 300 Amps @ 60% Duty Cycle

**Fixed Threaded** maintains a fixed, consistent flushness relationship between nozzle opening and contact tip.

**Adjustable Slip** allows welder to adjust the flushness relationship and provides improved access for cleaning. Adjustable slip nozzle cones and tip holder sold separately. These items must be used together to have a working nozzle assembly.

**Spot Weld** provides a solution for tack and spot welding with MIG.

**Flux Core Tip Holder** provides open sight line and the best solution for gasless flux core welding.

**Extended Taper** provides a solution for root pass and confined access MIG welding. Wire sizes .030" (0.8 mm) → 1/16" (1.6 mm)  
Optimized for .045" (1.2 mm)

### Nozzles



Fixed Threaded



Adjustable Slip



Spot Weld



Flux Core Tip Holder



Extended Taper Nozzle

### Contact Tips



Light Duty



Tip Holder



Extended Taper

## Tweco Velocity - Light Duty MIG Welding Features and Benefits

- **Ideal for Light to Medium Gauge Work** – Agriculture, automotive repair, do-it-yourself, architectural metal work, off-road vehicles, repair, maintenance, and general light fabrication.
- **Less Spatter, Less Clean-Up** – Reduces downtime for changeovers and improves production.
- **Rotate Tips** – Prolongs tip life, requires fewer changes.
- **Excellent Wire Feedability** – Centered liner for smoother operation.
- **Ground Breaking Innovation** – Inspired by welders for welders.

# SPEED MADE EASY.

All of the features of Velocity™ result in more convenience and higher productivity for the welder.



Velocity Light Duty Consumables fit Tweco® Fusion® 140, 180, 220 & 250 MIG Guns.

## Tweco® Velocity™ Contact Tips - Stay Cooler, Last Longer

Velocity contact tips **stay cooler** because;

- Greater contact surface area
- All copper contact conductor path to the tip
- Fewer connections in the system

And Velocity contact tips **last longer** because;

- Copper in the contact tip remains harder
- Harder copper surface wears slower
- Filler wire does not stick or seize against the copper

**VELOCITY NOZZLE IDENTIFICATION**

S=Small  
M=Medium  
H=Heavy  
ET=Extended Taper

Blank=Fixed Threaded  
S=Adjustable Slip

**V N S 5 0 F S**

Velocity Nozzle

Orifice Opening Size:  
37=3/8" 62=5/8"  
50=1/2" 75=3/4"

Blank=Standard Recess  
F=Flush  
2PC=Two Piece  
R=Recess 1/4" (6.35 mm)  
FAS=Spot Weld  
FC=Flux Core

**VELOCITY CONTACT TIP IDENTIFICATION**

S=Small  
M=Medium  
H=Heavy  
ET=Extended Taper

A=Aluminum  
Blank=Other

**V T S A 3 0**

Velocity Tip

Wire Size: 364=3/64"  
23=0.023" 116=1/16"  
30=0.030" 564=5/64"  
35=0.035" 332=3/32"  
40=0.040" 764=7/64"  
45=0.045" 18=1/8"

## Velocity™ Adjustable Slip Nozzles - Flushness Relationship



Adjustable Slip Nozzle



Tip Holder

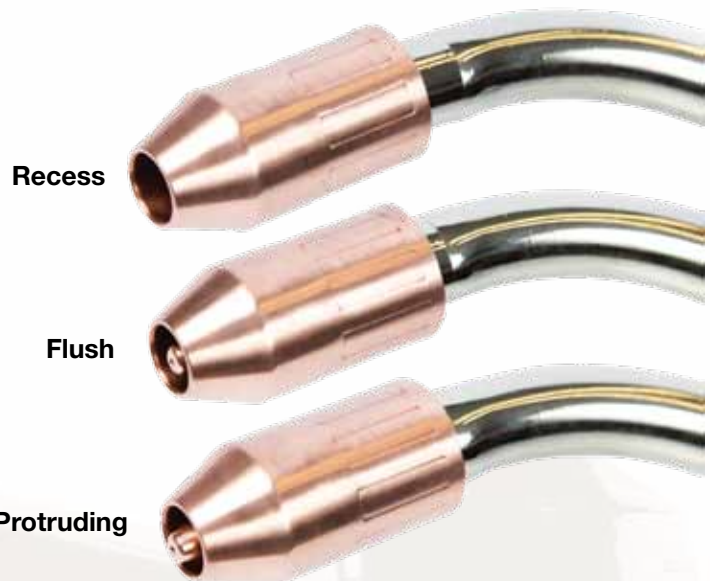


Contact Tip



Conductor Tube

- **Increased Versatility** – Able to conveniently achieve Recess, Flush, and Protruding tip flushness relationship.
- **Easy to Adjust** – Provides positive indexing to all positions.
- **Stays Where You Need It** – Clicks into place just by sliding to the preset 1/8" index marks on the tip holder.
- **Convenient** – Clean nozzle with tip secured to conductor tube.



## Fewer Consumable Parts - Less Complexity, Fewer Connections

We listened to shop-owners, distributors, and welders alike and they all told us that they prefer less complexity. They said, *'fewer tools and fewer threads'*. Velocity achieves this compared to its competition. The outcome is a design that is simpler, requires no tools, and virtually eliminates problems with threads.

Typical MIG consumables have TWO sets of threads and many have THREE – Velocity has reduced this down to ONE set. Fewer parts to order, inventory, and ration in a typical welding shop environment is a bonus for everyone involved.

Welders particularly like it because it means fewer parts to keep handy while welding. In a standard fixed threaded nozzle arrangement, Velocity uses

only a contact tip and nozzle as regularly exchanged consumables, while the traditional Tweco standard and most of its competitors require a diffuser as a third part.

Welders who really need smooth arc performance told us, *'reduce the number of connections, each connection is a chance for poor conductivity'* ... and we did. In addition, we took brass out of the conductor path, keeping it all copper, which is better for thermal and electrical conductivity.

The result is a more stable arc that provides more precision for the discerning welder. If your throughput is dependent upon precision and control and you are trying to maximize your deposition rate, then Velocity is the MIG welding consumable of choice.

For more specific information about Tweco Velocity Nozzle and Contact Tip varieties visit our website at [Tweco.com](http://Tweco.com).

# Tweco® Velocity™ - Light Duty MIG Welding Consumables

## Ordering Information

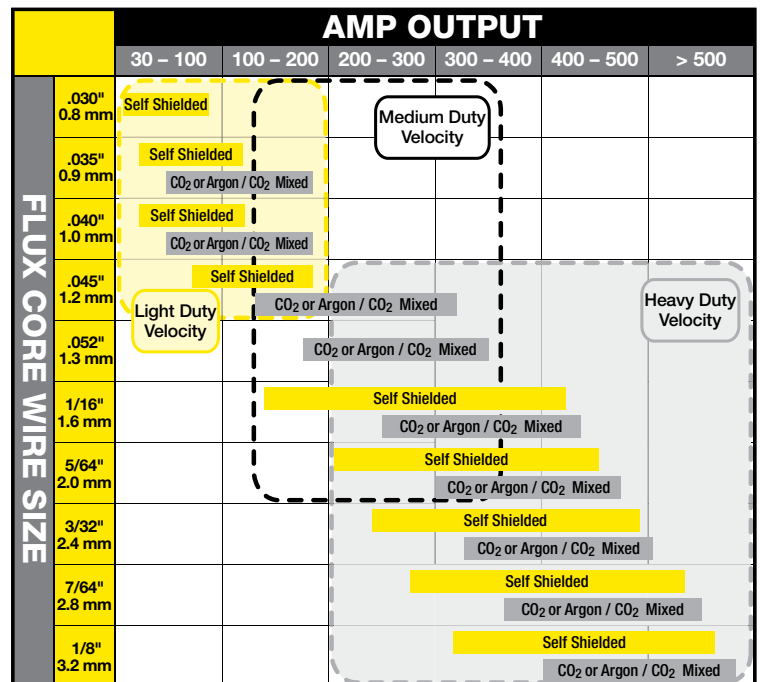
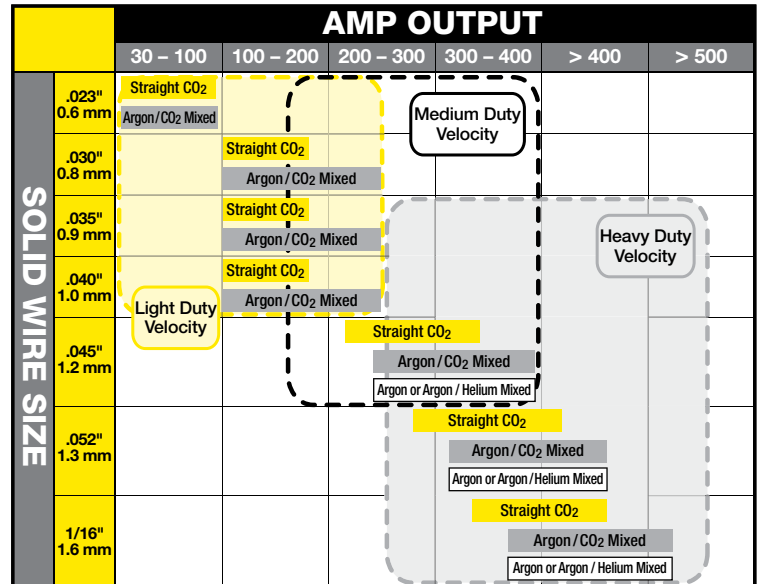
Light Duty Contact Tips		
Part No.	Description	Stock No.
VTS23	.023" (0.6 mm)	1110-1308
VTS30	.030" (0.8 mm)	1110-1309
VTS35	.035" (0.9 mm)	1110-1310
VTS40	.040" (1.0 mm)	1110-1311
VTS45	.045" (1.2 mm)	1110-1312
VTSA364*	3/64" (1.2 mm)*	1110-1313
VTS52	.052" (1.3 mm)	1110-1314
VTS116	1/16" (1.6 mm)	1110-1315
VTSA116*	1/16" (1.6 mm)*	1110-1317
VTS564	5/64" (2.0 mm)	1110-1316
VTSET23	.023" (0.6 mm) Extended Taper	1110-1330
VTSET30	.030" (0.8 mm) Extended Taper	1110-1331
VTSET35	.035" (0.9 mm) Extended Taper	1110-1332
VTSET40	.040" (1.0 mm) Extended Taper	1110-1333
VTSET45	.045" (1.2 mm) Extended Taper	1110-1334
VTSETA364*	3/64" (1.2 mm) Extended Taper	1110-1335
VTSET52	.052" (1.3 mm) Extended Taper	1110-1336
VTSET116	1/16" (1.6 mm) Extended Taper	1110-1337
VTSETA116*	1/16" (1.6 mm) Extended Taper	1110-1338

\* For Aluminum Wire

Light Duty Nozzles		
Part No.	Description	Stock No.
VNS50F	1/2" Fixed Threaded - Flush	1220-1200
VNS50	1/2" Fixed Threaded - Recess	1220-1201
VNS62F	5/8" Fixed Threaded - Flush	1220-1202
VNS62	5/8" Fixed Threaded - Recess	1220-1203
VNS37F	3/8" Fixed Threaded - Flush	1220-1204
VNS37	3/8" Fixed Threaded - Recess	1220-1206
VNSH50S	1/2" Adj. Slip - Heavy Cone	1220-1229
VNSSINS	Adj. Slip - Tip Holder	1340-1132
VNSE37F	3/8" Extended Taper Nozzle	1220-1235
VNS75FAS	3/4" Spot Nozzle Assembly	1220-1205
VNSFCI	FC Tip Holder - Insulator	1220-1208

Conductor Tubes		
Part No.	Description	Stock No.
FVCTS60	60 Degree Conductor Tube	1620-1368
FVCTS45	45 Degree Conductor Tube	1620-1369

NOTE: All Contact Tips are packaged in quantities of ten (10) per bag and all Nozzles are packaged in quantities of two (2) per bag.



POWER SUPPLY COMPATIBILITY				
Thermal Arc Connector (8 Pin)	Tweco Connector (4 Pin)	Miller Connector	Lincoln Connector	Euro-Kwik Connector
Thermal Arc Fabricator 141i, 181i, 211i & 252i	Thermal Arc Fabricator 190, 210, 251 & 281  Lincoln SP100, SP100T, SP125 Plus, SP130, SP170T & SP170 Plus  Hobart® Beta Mig 170	Millermatic® 130, 130 XR, 135, 140, 150, 155, 175, 180, 185, 200, 210, 211, 212  Hobart® Handler 130XL, 210, Trek 180, Ironman™ 210	Lincoln SP140T, SP180T, PowerMIG® 140C & 180C, Easy-Core™ 125, Pro-Core™ 125, Easy-MIG™ 140, Weld-Pak 125HD, 140HD & 180HD, MIG-Pak™ 140 & 180, Easy-MIG™ 180, Pro-MIG™ 140 & 180	ESAB® MigMaster® 160 & 173

# Tweco Fusion® Air-Cooled MIG Guns Ordering Information

## Tweco Fusion 140 Amp MIG Guns

### Tweco® Style (4 Pin) Rear Connector

Adapter kits are available to fit Tweco rear connection to most wire feeders

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F140T-10-3035	1017-1320

### Tweco® Style (8 Pin) Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F140TA-10-3035	1017-1321

### Miller® Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F140M-10-3035	1017-1319

### Lincoln® Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F140L-10-3035	1017-1318

### Euro-Kwik Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F140X-10-3035	1017-1323

Conduit Liner – WS42 Series

Note: Gun length is measured from the front case to the rear case +/-3".

## Tweco Fusion 180 Amp MIG Guns

### Tweco Style (4 Pin) Rear Connector

Adapter kits are available to fit Tweco rear connection to most wire feeders

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	12 ft (3.6 m)	F180T-12-3035	1017-1331

### Tweco Style (8 Pin) Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	12 ft (3.6 m)	F180TA-12-3035	1017-1332

### Miller Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	12 ft (3.6 m)	F180M-12-3035	1017-1330

### Lincoln Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	12 ft (3.6 m)	F180L-12-3035	1017-1329

### Euro-Kwik Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	10 ft (3 m)	F180X-12-3035	1017-1334
	12 ft (3.6 m)	F180XE-10-3035	1017-1335
	12 ft (3.6 m)	F180XE-12-3035	1017-1336

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Note: Gun length is measured from the front case to the rear case +/-3".

## Tweco Fusion 220 Amp MIG Guns

### Tweco Style (4 Pin) Rear Connector

Adapter kits are available to fit Tweco rear connection to most wire feeders

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	15 ft (4.6 m)	F220T-15-3035	1023-1260

### Tweco Style (8 Pin) Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	12 ft (3.6 m)	F220TA-12-3035	1023-1261

### Miller Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	15 ft (4.6 m)	F220M-15-3035	1023-1259

### Lincoln Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	15 ft (4.6 m)	F220L-15-3035	1023-1258

### Euro-Kwik Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.035" (0.9 mm)	15 ft (4.6 m)	F220X-15-3035	1023-1263
	12 ft (3.6 m)	F220XE-12-3035	1023-1264
	15 ft (4.6 m)	F220XE-15-3035	1023-1265

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Note: Gun length is measured from the front case to the rear case +/-3".

## Tweco Fusion 250 Amp MIG Guns

### Tweco Style (4 Pin) Rear Connector

Adapter kits are available to fit Tweco rear connection to most wire feeders

Wire Size	Length	Part No.	Stock No.
.045" (1.2 mm)	10 ft (3 m)	FV210-3545	1023-1059
	12 ft (3.6 m)	FV212-3545	1023-1060
	15 ft (4.6 m)	FV215-3545	1023-1061
	20 ft (6.1 m)	FV220-3545	1023-1062
	25 ft (7.6 m)	FV225-3545	1023-1063

### Tweco Style (8 Pin) Rear Connector

Wire Size	Length	Part No.	Stock No.
.045" (1.2 mm)	15 ft (4.6 m)	FV215-TA-3545	1023-1097

### Lincoln Style Rear Connector

Fits Lincoln LN7, 8, 9, SP200

Wire Size	Length	Part No.	Stock No.
.045" (1.2 mm)	12 ft (3.6 m)	FV212-L-3545	1023-1284
	15 ft (4.6 m)	FV212-L-3545	1023-1285

### Miller Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.045" (1.2 mm)	10 ft (3 m)	FV210-M-3545	1023-1067
	12 ft (3.6 m)	FV212-M-3545	1023-1068
	15 ft (4.6 m)	FV215-M-3545	1023-1069
	20 ft (6.1 m)	FV220-M-3545	1023-1070
	25 ft (7.6 m)	FV225-M-3545	1023-1071

### Euro-Kwik Style Rear Connector

Wire Size	Length	Part No.	Stock No.
.045" (1.2 mm)	10 ft (3 m)	FV210-X-3545	1023-1089
	12 ft (3.6 m)	FV212-X-3545	1023-1090
	15 ft (4.6 m)	FV215-X-3545	1023-1091
	25 ft (7.6 m)	FV225-X-3545	1023-1092

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Conduit Liner – WS42 Series

Note: Gun length is measured from the front case to the rear case +/-3".

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