

# HIGH VOLTAGE CABLE PROCESSING SOLUTIONS

A FLEXIBLE APPROACH TO LARGE  
WIRE CABLE PROCESSING

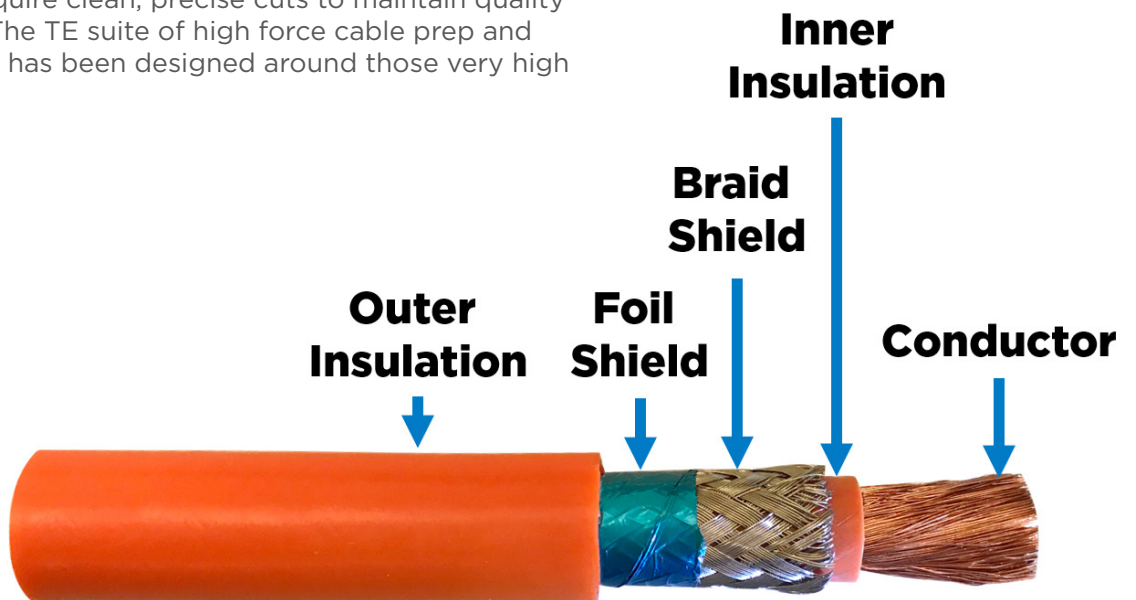
# FLEXIBLE HIGH FORCE PROCESSING SOLUTIONS



TE offers a wide range of wire processing solutions to handle challenging small wire applications up through complex 120mm<sup>2</sup> high voltage cables. Our high force lineup gives you the power needed to process large wire applications in a fast, flexible, and affordable format.

## Challenges of High Voltage Cables

High voltage cables require clean, precise cuts to maintain quality and safety standards. The TE suite of high force cable prep and termination equipment has been designed around those very high standards.



# HIGH FORCE TERMINATING SOLUTIONS

## HV Modular Die Sets

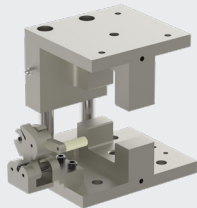


This is only a cross section of die sets and terminals available. Our modular die holders can accommodate both TE and non-TE terminals. For a more complete list please visit [tooling.te.com](http://tooling.te.com) or contact your TE Application Tooling sales representative.

## HV Modular Die Holders — Loaded with Features



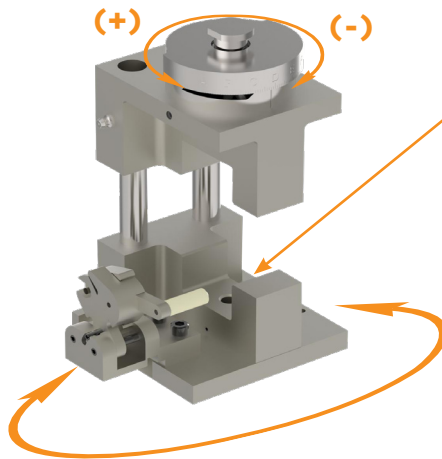
With Fine Adjust  
for HV-20 Machines



For AT-66  
Machines

The multi-platform design of our modular HV die holders allows for use in a variety of TE and non-TE terminators

Fine adjust feature allows for faster, more precise crimp height adjustment



The wire clamp assembly, handle and die sets can easily be adjusted to handle left or right side wire processing



Spring-loaded wire clamp assembly accommodates a variety of different wire sizes to match your processing needs

### Modular Die Holder part Numbers

	Description	Part Number
<b>Die Holders</b>	HV MOD Die Holder w/Fine Adjust	2305470-1
	HV MOD Die Holder w/o Fine Adjust For AT-66 Terminator only <small>(Can not be used in HV-20 or HF-20 Terminators)</small>	2326378-1

# HIGH VOLTAGE WIRE PROCESSING



Part Number 2335400-1

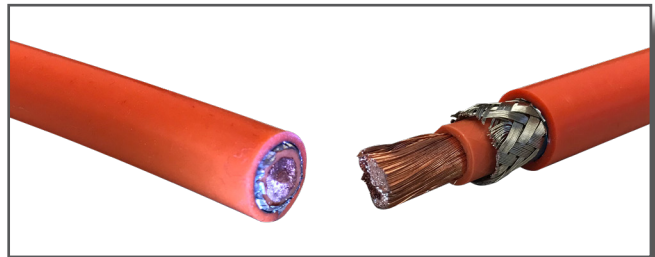
Take the complexity and long preparation times out of your high voltage cable processing with the new HV-CP machine from TE. This machine can process (10 - 120mm<sup>2</sup>) multi-layered conductors in as fast as 30 seconds!

## Multi-Step Stripping

The HV-CP machine will strip the outer jacket, foil shield, braid shield, and inner insulation to meet your termination specifications.

To confirm proper preparation of the cable, several unique quality control measures are in place.

- The machine has the ability to confirm installation of the proper tooling before running
- The HV-CP can self-calibrate the blade positions after tooling changeover
- The machine confirms cable position before and after the prep process to confirm proper strip lengths



**Process complex multi-layered HV cables in as fast as 30 Seconds!**

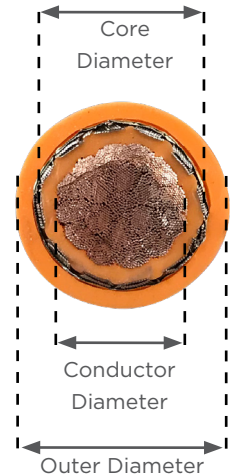
For ease-of-use the HV-CP machine has an intuitive touch screen interface with a memory that accommodates up to 1,500 different profiles.

## Specifications

Description	Specification	Description	Specification
Wire Cross Section	10 mm <sup>2</sup> - 120 mm <sup>2</sup>	Increments for Incision Diameter	0.01 mm (0.0004 in)
Max. Outer Diameter	25.0 mm (1 in)	Increment for Stripping Length	0.01 mm (0.0004 in)
Min Diameter of Inner Conductors	6.0 mm (0.24 in)	Maximum Outer Jacket Strip Length	80 mm (3.15 in)
Max Wire Cross Section for Cutting	2 mm <sup>2</sup> / AWG 14 / 1.6 mm diam (0.063 in diam)	Profile Library: Max Number of Articles	1500
Typical Cycle Time	30 sec	Sequence Function: Max Number of Steps	100

## High Voltage Cable Prep Spare Tooling Part Numbers

Machine Part#	Cable Size (mm <sup>2</sup> )	Outer Diameter	Core Diameter	Conductor Diameter (mm Max)	Contour Blade Assembly Kit Part #	Mandrel Assembly Kit Part #	Cutting Wheels Part #
2335400-1	10	8.8 (-0.6)	6.0 (-0.6)	4.5	2364113-1	2360456-1	2364114-1
	16	10.2 (-0.6)	7.2 (-0.6)	5.8	2364113-2	2360456-2	
	25	12.2 (-0.6)	8.7 (-0.6)	7.2	2364113-3	2360456-3	
	35	14.4 (-0.6)	10.4 (-0.7)	8.5	2364113-4	2360456-4	
	50	15.8 (-0.6)	12.2 (-0.7)	10.5	2364113-5	2360456-5	
	60	16.9 (-0.6)	13.3 (-1.2)	11.6	2364113-6	2360456-6	
	70	18.2 (-0.6)	14.4 (-1.2)	12.5	2364113-7	2360456-7	
	95	20.9 (-0.6)	17.2 (-1.2)	14.8	2364113-8	2360456-8	
	120	23 (-0.8)	19 (-1.2)	16.5	2364113-9	2360456-9	



## HV-CP FEATURES



Combining sophisticated controls, traceability system and equipped with ethernet and USB ports, the HV-CP high voltage cable prep machine is Industry 4.0 ready.

Integrated air jets for automatic blade cleaning and an in-line vacuum to remove slugs keep the processing area clean and efficient. A removable container is located inside the chassis for easy waste disposal.



1470 mm (h)



# HIGH VOLTAGE WIRE TERMINATION

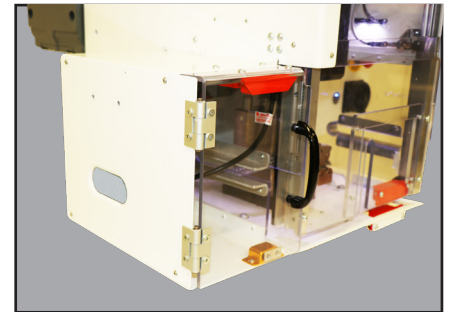


The HF-20 and HV-20 are robust, compact, high force bench top machines capable of terminating cables up to 120mm<sup>2</sup>

Both models are eccentric presses capable of reaching 178kN (20T) of crimp force, with fast, repeatable accuracy. The HV-20 model comes with a CQM II digital interface for crimp force monitoring, variable speed and an integrated vacuum system to keep sensitive connections clean and clear of debris commonly associated with high voltage cable processing.

## Flexible Design

To best fit the application process, the flexible design of the high force machines accommodates multiple processing orientations. The adjustable die holder platform can be easily rotated to handle processing from the left, front or right side of the unit. Side feed guarding is also available for all models to accommodate both loose piece and reeled terminal applications.



## Safe, Easy Operation

Both models offer a simple push button design with multiple interlock features to confirm operator safety throughout the crimping process.

## High Force Terminator Part Numbers

	Description	Press Part Number	
		w/Loose Piece Guarding	w/Side Feed Guarding (for reeled terminals)
Terminator	HF-20, High Force Terminator, 400V	2335500-1	2358697-1
	HF-20, High Force Terminator, 200V	2335500-2	2358697-2
	HV-20, High Voltage Terminator, 400V	2348822-1	2358698-1
	HV-20, High Voltage Terminator, 200V	2348822-2	2358698-2

# SIDE-BY-SIDE COMPARISON



	<b>HF-20</b>	<b>HV-20</b>	<b>Competitor 1 Large Press Offering</b>	<b>Competitor 2 Large Press Offering</b>
Force	178kN (20T)	178kN (20T)	150kN (17T)	178kN (20T)
Max Wire	120mm <sup>2</sup>	120mm <sup>2</sup>	100mm <sup>2</sup>	120mm <sup>2</sup>
Variable Stroke (Sec) Speed (RPM)	1.3 - 8.3 Sec 288 - 1800 RPM	1.3 - 8.3 Sec 288 - 1800 RPM	1.2 Sec (fixed) 1420 RPM	(fixed) 1200 RPM
Power	3kW	3kW	4kW	7.5 kW
Supply	200V & 400V	200V & 400V	400V	200V & 400V
Stroke / Shut Height	44mm / 158.4mm	44mm / 158.4mm	50mm / 204.8mm	50mm / 190mm
Weight	390kg	390kg	500kg	1550kg
Network/MES	RJ-45 / MQTT	RJ-45 / MQTT	-	-
Particle Vacuum	-	Yes	No	No
Guard Auto Lift	Yes	Yes	Yes	Optional
CQM/CFM	-	Yes	Optional	Optional

## HV-20T & HF-20T FEATURES



Combining sophisticated controls, traceability system and equipped with ethernet and USB ports, the HV-20T and HF-20T bench-top terminators are Industry 4.0 ready.

The integrated vacuum system design keeps sensitive connections clean and clear of debris commonly associated with high voltage cable crimping.



974  
mm (h)



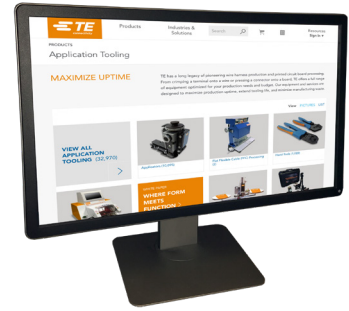
777 mm (d)

552 mm (w)



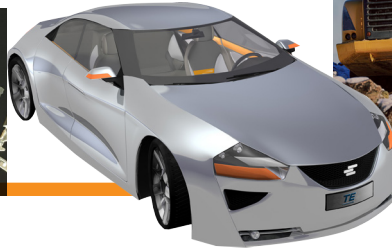
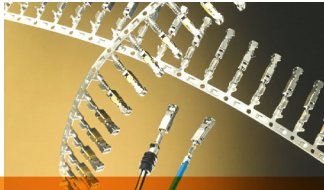
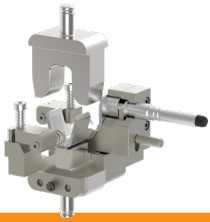
## Let's Connect

To find the right TE tooling for your needs, call us at **717-810-2082** or email [toolingSales@te.com](mailto:toolingSales@te.com).



## TE Technical Support Center

USA:	1.800.522.6752	UK:	+44.0800.267666
Canada:	1.800.522.6752	France:	+33.1.34.20.8686
Mexico:	+52.55.11.06.0800	Netherlands:	+31.73.624.6999
Latin/S. America	+54.11.4733.2200	China:	+86.400.820.6015
Germany:	+49.6151.607.1999		



### te.com

TE Connectivity, and TE Connectivity (logo) are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2019 TE Connectivity Ltd. family of companies All Rights Reserved.

2354336-1 11/19 Rev C

### Contact us today to learn more

North America (US, Mexico and Canada)

• Wire processing equipment:  
800-722-1111 or 717-810-3434

• Board processing equipment:  
888-782-3349 or 610-893-9680  
E-mail: [fieldservicesnorthamerica@te.com](mailto:fieldservicesnorthamerica@te.com)

• Web: [www.te.com/fieldservice](http://www.te.com/fieldservice)

For locations outside North America visit [tooling.te.com](http://tooling.te.com)  
[www.te.com/fieldservice](http://www.te.com/fieldservice)