

The first name in wire processing

**ARTOS**  
ENGINEERING COMPANY

# Cr.11

## AUTOMATIC CRIMPING MACHINE



### FEATURES



**Closed Loop Servo Wire Feed System\*** ensures length accuracy

**Unique Wire Gripper\*** Prevents wire bending and ensures level placement into terminals



**Innovative Stripping Blade Configuration** Reduces the gap between grippers, letting you process even light gauge wires

# Cr.11

## FINALLY, AN AFFORDABLE AUTOMATIC CRIMPING SOLUTION

WE PROCESS  
THE WIDEST  
RANGE  
OF WIRE  
BAR NONE



Ideal for low volume runs and a high mix of wire types, the Artos Cr-11 represents a breakthrough in affordable automatic crimping. Featuring digital servo-drive technology to control every operation, this unit is loaded with standard and optional features to efficiently handle a wide range of wire processing applications.

### LOOK AT ALL THE Cr-11 HAS TO OFFER



#### Unique Tool Cart Solution\*

- Quick change system allows for fast preloading of terminal reels to maximize machine uptime
- Carts also allow for easy transport and storage of reels and applicators
- Universal cart design accommodates both side feed and end feed terminals



#### Built-in PC for Easy Programming

- Runs Artos' Unity operating software, allowing you to share wire programs from machine to machine
- Common software to all Artos machines



#### Servo-Driven Termination Units

- Our new TU-11 unit allows for programmable stroke and split-cycle operation to handle the widest range of applications including closed barrel terminals
- Intelligent software minimizes crimping cycle times for maximum production speeds
- Terminal scrap chop-off and airfeed die kits offered



#### Quality Control

- Integrated crimp force monitor system

#### Optional Micrometer and Pull Testers

- Can be integrated into the machine to verify crimping parameters prior to production



#### Eco-Friendly Design

- Servo motors reduce energy consumption vs. comparable stepper motor designs
- Machine is powered by a single phase 220 Volt supply – simple and accessible

#### MACHINE DIMENSIONS

	mm	inches
Length with straightener bar	3175	125
Width with carts	1370	54
Height (Guard down)	1750	69
Height (Guard Up)	2235	88

Machine Weight 737 Kg 1625 lbs

Cart Weight 32 Kg 70 lbs

#### POWER SUPPLY

230VAC ±10% 1 Phase 50/60 Hz

#### POWER CONSUMPTION

7A RMS continuous 20A peak

#### AIR SUPPLY

6 Bar (80 PSI)

#### AIR CONSUMPTION

140 L/M 5 CFM

#### WIRE RANGE

Min	0.05mm <sup>2</sup>	(30 AWG)
Max	4.0mm <sup>2</sup>	(12 AWG)
OD	5mm	(0.210 In.)

*Note: Additional sizes may be possible, see Artos for Details*

#### WIRE LENGTH

Min	25mm (1 inch) depending on strip lengths
Max	100m 3938 inches

#### STRIPPING LENGTHS

Min.	0.1mm	0.004 in
Max	32mm	1.26 in

#### PRESS STROKE

Min	1mm	0.040 inches
Max	40mm	1.60 inches

\* Patent pending

Specifications are subject to change without notice, and exceptions may apply depending on application, wire and other variables. Optional equipment may require standard machine modification and/or later specifications.

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ENGINEERING COMPANY

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Bulletin No. Cr-11-06-09



# Cr.11

## Option Description and Price List

Item:	Description	Photo	Price
<b>CR.11 Base Machine</b>	<p>Base Machine with 230 Volt, 1-Phase, 50/60 Hz                      Closed Loop Brushless Servo Feed System with Knurled Feed Wheels                      Wire measuring end coder with length calibration and wire slip detection                      Servo Driven Swing Arms Featuring Programmable Wire-Terminal Set-up                      Servo Driven Cutterhead Featuring Programmable Wire Diameter and Stripping Set-Up                      Motorized 1.5 meter collector with batching tray                      P.C. Operator Interface Featuring Windows Vista and Artos Unity Software                      Two Process Station Mounting Bases with Hand wheel Height Adjustment                      Two TU-12 Servo Crimping Units with Programmable Stroke Adjustment and Split Cycle Operation                      Two Quick Change Terminal Reel Carts with Terminal Run-out Sensors                      Two Side Feed terminal carrier strip Chop-off Devices with scrap collection                      Two Air Feed Die Kit                      Complete wire guide kits for up to 5.5 mm (0.218") wire diameter                      Wire Straightener (Vertical and Horizontal)                      Complete Upward Lifting Safety Shield                      One Owners Manual</p>		<b>\$52,350</b>
<b>Domestic / Air Box</b>	Crate for shipment within USA or Air shipment		<b>\$655</b>
<b>Ocean / Export Box</b>	Crate for ocean shipment.		<b>\$878</b>
<b>208 Volt, Single Phase</b>	<p>Special 208, 1phase, 50/60 Hz. Voltage (requires custom transformer). For use where standard 230 Volt 1 Phase power is not available.</p>		<b>\$950</b>
<b>Installation / Training</b>	<p>Installation and training by Artos direct technicians. Recommend two days minimum. Price is per day. Travel expenses are not included and billed separately.</p>		<b>\$950</b>
<b>Heavy Duty Crimping Module</b>	<p>Upgrade TU-12-HD terminal crimping station for standard "mini" style applicators. Programmable stroke and split cycle operation. Crimping force of up to 5000 lbs (2267 Kg) for more challenging crimping applications. This option may allow the processing of 10 AWG (6mmsq) wire depending on the specific application. Price is the upgrade cost for each press.</p>		<b>\$1,800</b>
<b>CFM-2100</b>	<p>Crimp Force Monitor for crimping inspection. System learns "good" crimps and compares all crimps to learned good crimps. If crimp is out of tolerance, the CR.11 will cut the crimp off and remake new wire. Wires with "bad" crimps are separated from good wires. Price is for two presses.</p>		<b>\$3,900</b>



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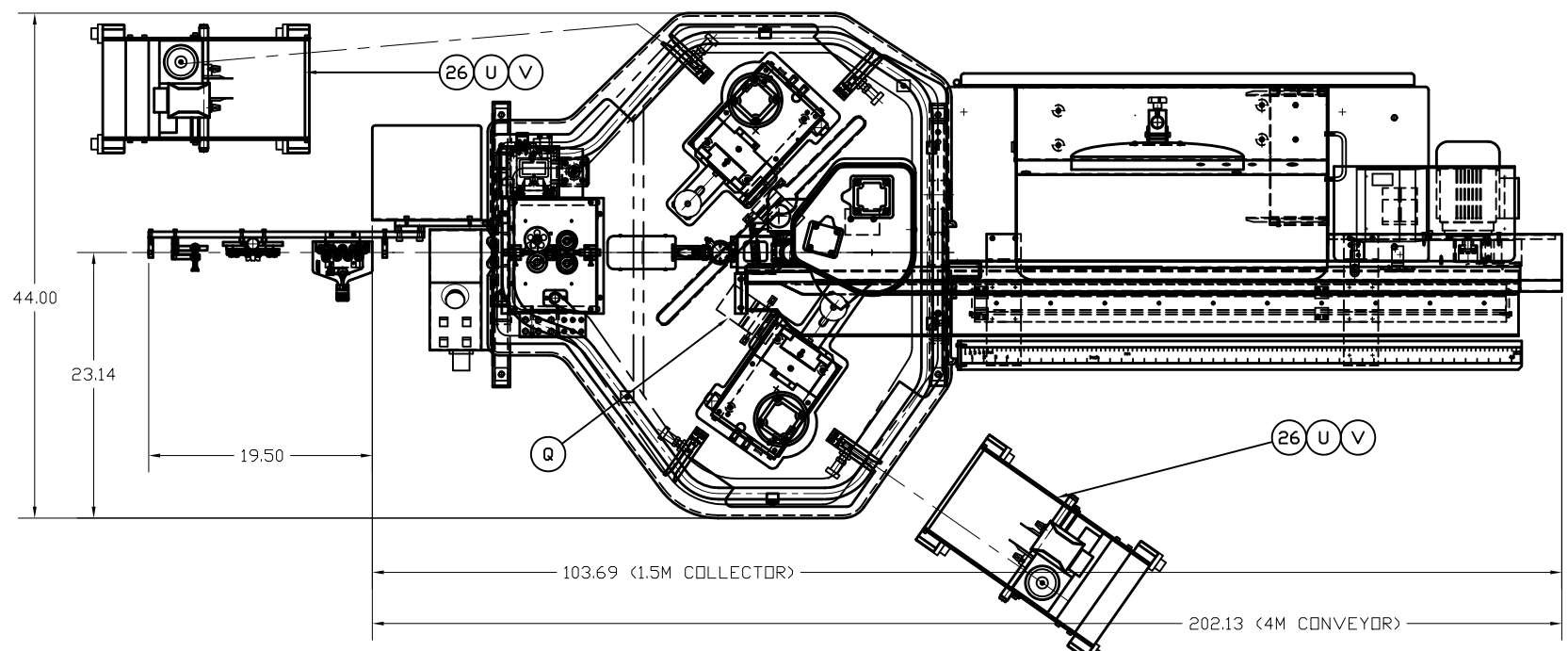
Item:	Description	Photo	Price
<b>Sencor</b>	Patent pending system for automatic setting of stripping blades. Technology senses the conductor within the wire and automatically set the value of the stripping diameter. Reduces wire waste and shortens set-up time. Can also be used to monitor blade wear.		<b>\$1,950</b>
<b>Cart Assembly</b>	Additional cart assembly for pre-loading terminals and die onto a cart off line of the machine, reducing machine down-time for set-up. Recommend two extra carts per machine.		<b>\$1,250</b>
<b>Paper Take-up</b>	Motorized collection of terminal reel paper. This option allows for the coiling of the paper which separates side feed terminals for better housekeeping. Price is for each cart assembly ordered.		<b>\$375</b>
<b>Paper Take-up Drive</b>	This is the drive mechanism which mounts to the CR.11 and activates the paper take-up mounted on the cart assembly. Price is each, two are needed per CR.11.		<b>\$450</b>
<b>Programmable Z-Axis</b>	Motorized adjustment of the Z-Axis (up / down) for wire placement into the terminal. This option allows for fully programmable adjustment for open to closed barrel terminals, with no manual adjustments. Price is for each press (two are needed for CR.11).		<b>\$750</b>
<b>Crimp Height Measurement</b>	Integrated crimp height micrometer. Allows the CR.11 to retain specified crimp height and tolerance for each terminal / wire combination. As part of the machine set-up, crimps must be measured and within tolerance before production begins.		<b>\$2,000</b>



# Cr.11

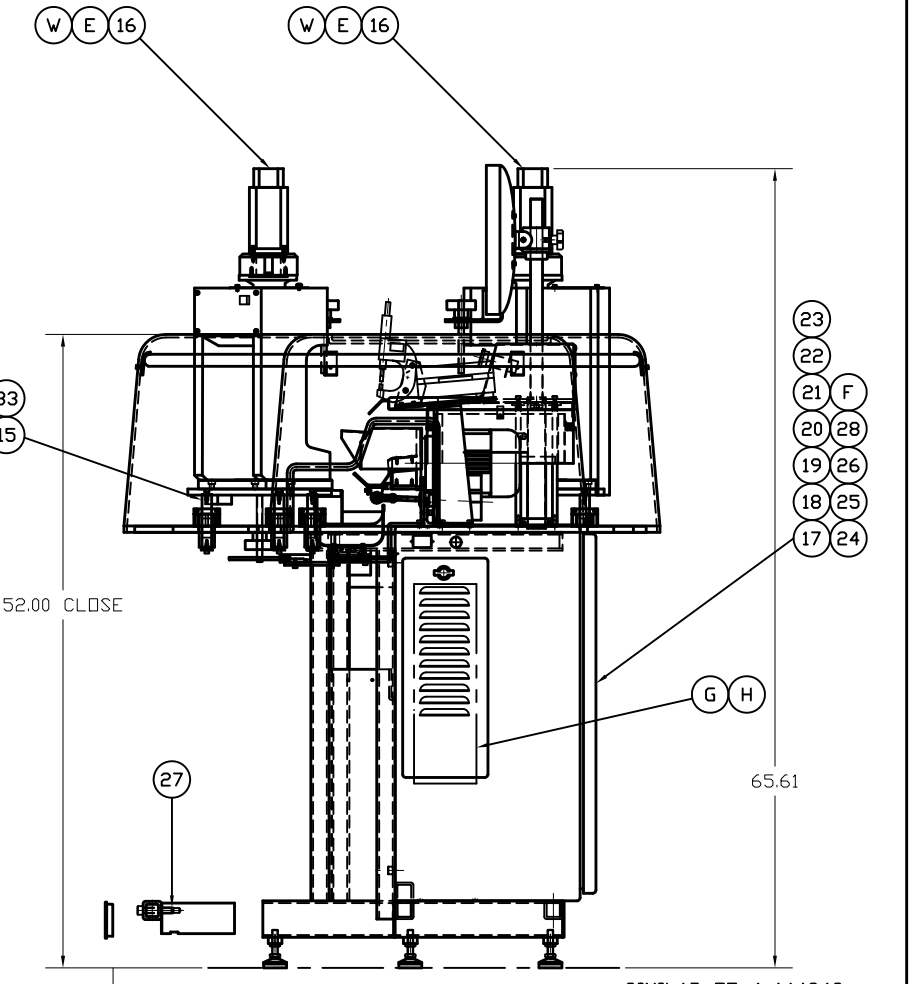
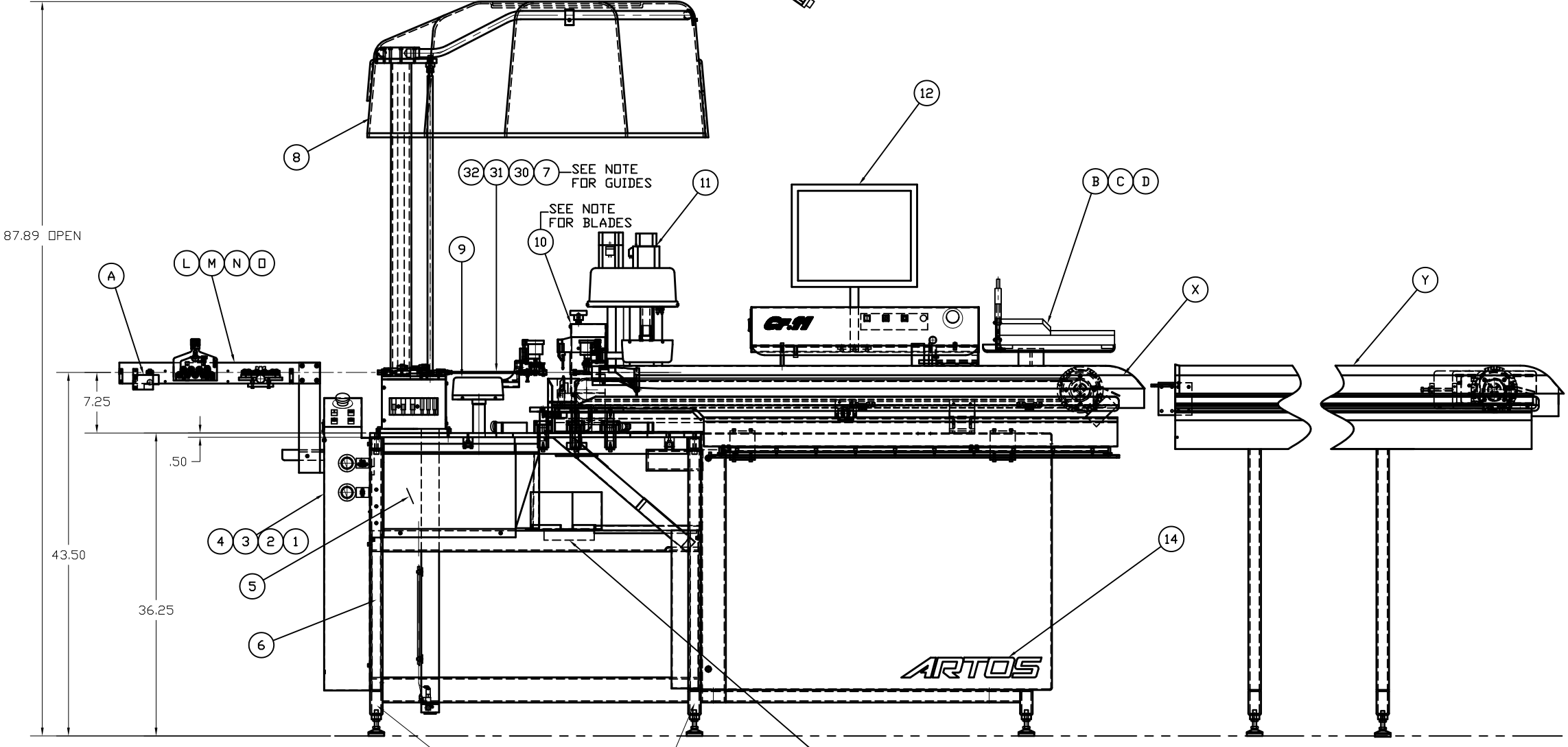
## Option Description and Price List

Item:	Description	Photo	Price
<b>Pull Test Verification - Manual Tester</b>	Integrated terminal pull testing station. Allows the CR.11 to retain specific pull test values for each terminal / wire combination. As part of the machine set-up, crimps must be tested and greater then pull test minimum requirement before production begins. Manual tester requires operator to manual operate the pull testing station.		\$2,950
<b>Pull Test Verification - Automatic Tester</b>	Integrated terminal pull testing station. Allows the CR.11 to retain specific pull test values for each terminal / wire combination. As part of the machine set-up, crimps must be tested and greater then pull test minimum requirement before production begins. Automatic tester utilizes a motor during pull testing.		\$5,495
<b>Ink-Jet Interface</b>	Interface for Imaje 9040 ink jet marking system. Fully integrated with programmable and recallable marking of wire. Marking system is sold separately.		\$6,000
<b>4-Meter Collector</b>	Upgrade to 4 meter motorized collector with batch sorter for long wire collection.		\$5,950
<b>Bar Code Scanning</b>	Integration of a bar code scanning system for data entry. Used for input of production data. Also used to verify materials supplied to the machine.		\$950
<b>Post Process Printer</b>	Integrated label printer allowing the printing of customer defined information upon the completion of a wire batch. Used for routing of material and traceability.		\$1,350
<b>Spare Parts Kit</b>	Common replacement parts for CR.11 (kit # 4-144987)		\$495



OPTION LIST			
QTY.	REF. NO.	PART NO.	DESCRIPTION
1	A	5-144872	TWIST REMOVER ASSEMBLY
1	B	5-144941-1	TEST STAND BASE PARTS
1	C	5-144941-2	PULL TESTER, MANUAL
1	C	5-144941-5	PULL TESTER, AUTOMATIC
1	D	5-144941-3	MICROMETER KIT, ANVIL STYLE
1	D	5-144941-4	MICROMETER KIT, PIN STYLE
2	E	5-144406-8	CFM 2100 -TU11 & THB2040
1	F	5-144873	ETHERNET HUB ASSY-5PORT
1	G	5-144704-8	COMPUTER FOR CR11
1	H	6-144912	SOFTWARE CD
2	I	5-144966	TONKER, THREADED ROD
2	J	5-144967	TONKER, PNEUMATIC
1	K	5-144678-10	ELECTRICAL ENCLOSURE IMAGE
1	L	5-144973	STRAIGHTENER IMAGE
1	M	5-144869	STRAIGHTENER STANDARD
1	N	5-144998	STRAIGHTENER VM6
1	O	5-145494	CORSEN, CORE DIAMETER SENSE
1	P	5-144970	CARRIER STRIP CHOP BASE ASSY
2	Q	5-144856	CARRIER STRIP CHOP LEAD OR TAIL
1	R	4-144987	SPARE PARTS KIT - CUSTOMER
1	S	4-144988	SPARE PARTS KIT - DISTRIBUTOR
1	T	5-145081	PRE-FEEDER INTERFACE
1	U	5-145065	PAPER TAKEUP, REEL FOR CART
1	V	5-145086	PAPER TAKEUP DRIVE FOR MACHINE
1	W	145087	LONGER SCRAP TRAY FOR TU-11
1	X	5-145123	1.5M COLLECTOR ASSEMBLY
1	Y	5-145199	4M CONVEYOR ASSEMBLY

QTY.	REF. NO.	PART NO.	DESCRIPTION
1	1	5-144913-1	PNEUMATIC ENCLOSURE
1	1	5-144913-2	PNEUMATIC ENCLOSURE
1	1	5-144913-3	PNEUMATIC ENCLOSURE
1	1	5-144913-4	PNEUMATIC ENCLOSURE
1	1	5-144931	LOWER GUARD ASSEMBLY
1	1	5-144939	TABLE & FRAME ASSEMBLY
1	1	5-144310	INFEED DRIVE ASSEMBLY
1	1	5-144934	UPPER GUARD ASSEMBLY
1	1	5-144522	LEAD PIVOT ASSEMBLY
1	1	5-143655	CUTTERHEAD ASSEMBLY
1	1	5-144521	TAIL PIVOT ASSEMBLY
1	1	5-144927	OPERATOR STATION ASSEM.
1	1	5-144943	LABEL LOCATION ASSEMBLY
1	1	5-144845	PRESS BASE ASSEMBLY
1	1	5-144846	TU-11
1	1	5-144678-1	ELECTRICAL ENCLOSURE
1	1	5-144678-2	ELECTRICAL ENCLOSURE
1	1	5-144678-3	ELECTRICAL ENCLOSURE
1	1	5-144678-4	ELECTRICAL ENCLOSURE
1	1	5-144678-5	ELECTRICAL ENCLOSURE
1	1	5-144678-6	ELECTRICAL ENCLOSURE
1	1	5-144678-7	ELECTRICAL ENCLOSURE
1	1	5-144678-8	ELECTRICAL ENCLOSURE
1	1	5-144678-9	ELECTRICAL ENCLOSURE
2	2	5-144858	TERMINAL REEL CART ASSEM
1	1	5-144932	SHIPPING FRAME
1	1	5-144743	ELECTRICAL SCHEMATIC
1	1	5-144929	CR-11 ACCESSORIES
1	1	2-144848-225	WIRE GUIDE SET Ø2.25mm
1	1	2-144848-350	WIRE GUIDE SET Ø3.50mm
1	1	2-144848-550	WIRE GUIDE SET Ø5.50mm
1	1	5-145060-1	AUTO PRESS BASE ASSEM.-T
1	1	5-145060-2	AUTO PRESS BASE ASSEM.-L
4	4	138774-1	BLADE, STRIP V 30 DEG.
2	2	144954	BLADE, CUT



REMOVE PLUGS TO INSTALL SHIPPING FRAME (FRONT & BACK)

NOTE: FOR GUIDE & BLADE SELECTION SEE 6-144848

PART NO.	DESCRIPTION
4-145217-1	CR11, LEAD AND TAIL TU-11'S
4-145217-2	CR11, LEAD TU-11
4-145217-3	CR11, TAIL TU-11
4-145217-4	CR11, 2 TU-11'S, AUTO BASE
4-145217-5	CR11, LEAD TU-11, AUTO BASE
4-145217-6	CR11, TAIL TU-11, AUTO BASE

SIMILAR TO 4-144842

HEAT TREATMENT/SURFACE TREATMENT	MATERIAL DESCRIPTION	USED FOR	CLASS CODE
CONFIDENTIAL	D	ARTOS ENGINEERING COMPANY	RD106
WORK TO MEAN DIMENSIONS DO NOT SCALE DRAWING		MAIN ASSEMBLY CR-11	REVISION DATE
ES-1 STANDARDS APPLY PLEASE READ THEM BEFORE MFG.		DATE: 4/26/2010	1/05/2011
DRAWN BY: LALUMONDIER		SCALE: 1:8	REVISION
CHECKED BY:		DATE: 4/26/2010	0
SHEET NUMBER		4-145217	1 of 1