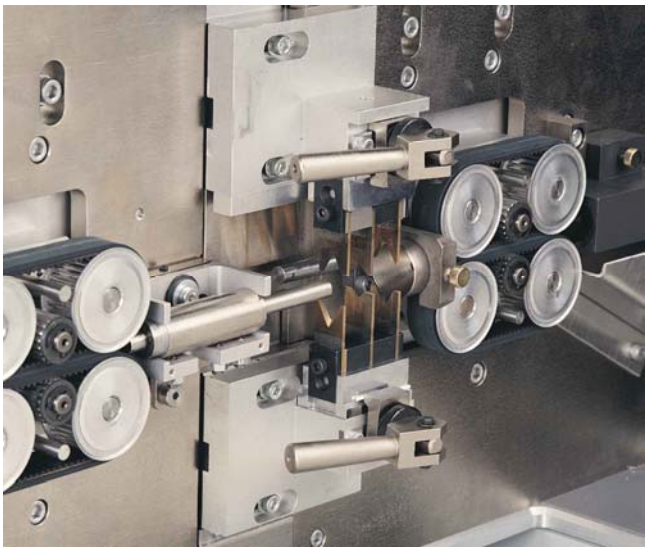
CS326 Blades for 3 blade cutterhead

REV 13 12/15/2016

Contents

Machine styles



3 blade cutter machine

Dimensions on blade sketches are in inches and are only approximate overall dimensions.

Tool holders for three blade cutter head

These require the machine to be configured for 3-blade 16.5mm strip

Series 5-132742 holders can be used in the CS326, and CS600 machines.

5-132742-6 Includes 30 degree stripping blades, standard

5-132742-8 Includes 20 degree stripping blades, this edge has a steeper angle and may work better for some types of insulation like silicon or Teflon. The downside is that they do not stay sharp as long as 30 degree would.

5-132742-12 Collinear (butt) style die blades

5-132742-10 Tool holder no blades

5-145074 Tool Holder and 5 blades. 7mm strip coaxial

5-142461 Tool Holder and 5 blades. 6.5mm strip coaxial

5-143227 Tool Holder and 5 blades. 5mm strip coaxial

5-142194-X Tool Holder for 18 Gauge 4 conductor wire. Multiple strip blades for staggered stripping

5-142196-X Tool Holder for 16 Gauge 4 conductor wire. Multiple strip blades for staggered stripping

5-143227 Tool Holder 3 blades 0.02 offset for stagger stripping.

These require the machine to be configured for 3-blade 21mm strip

5-141479 Tool Holder 3 radius blades, for 3 wires at once, aluminum block

5-147424 Tool Holder 3 radius blades, for 3 wires at once, steel block

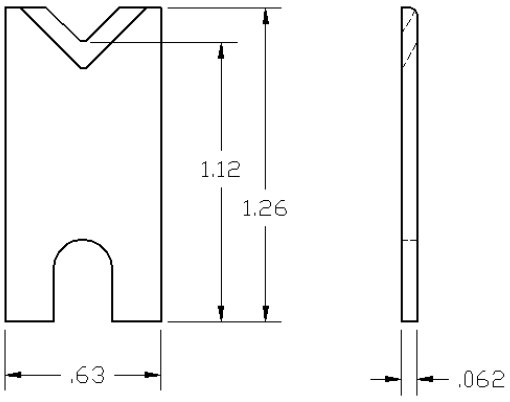
5-142923 Tool Holder 3 universal V-blades, for 3 wires at once, aluminum block

5-142923-2 Tool Holder 21mm no blades, aluminum block

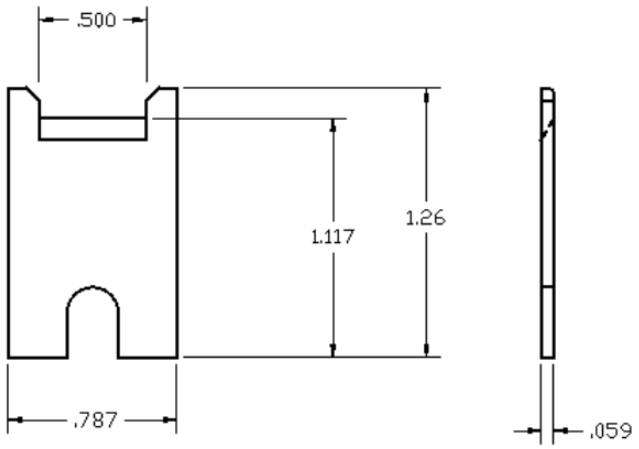
5-147348 Tool Holder 3 butt blades, for 3 wires at once, steel block

5-147923 Tool Holder stagger stripping, steel block

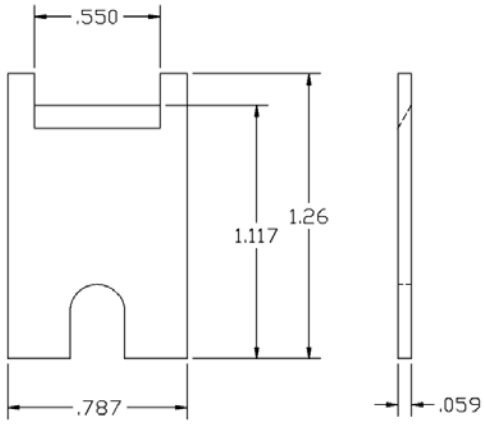
Wire cut off blades



121635-1 Wire cutoff blade.



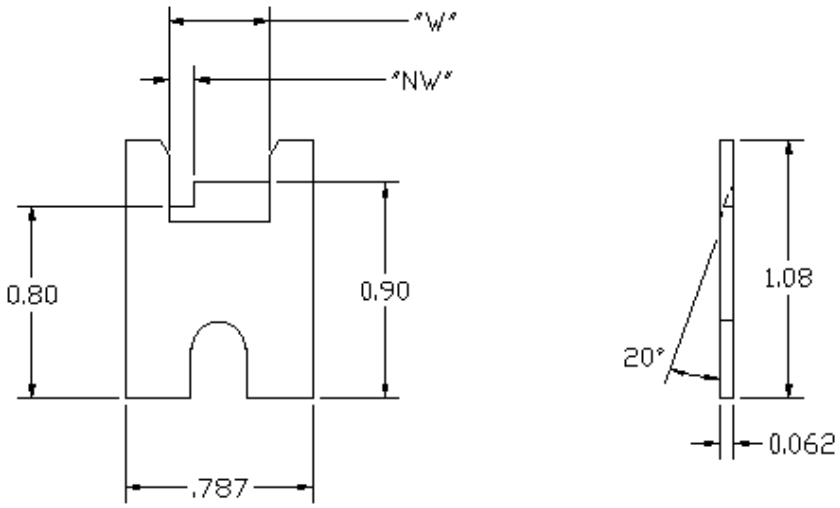
138633 Wire cutoff blade.



124037-1 Wire cutoff blade.

Blades for stagger cutting

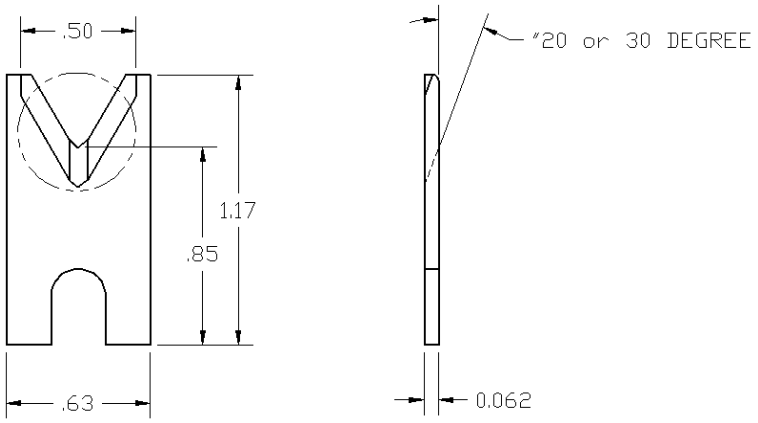
These blades are designed for working with flat multi-conductor cable. They strip some of the conductors and cut off some of them



123565-x Stagger cutting blades. The notch can be on either side of the blade. The diagram shows the notch on the left.

Item #	Mark	Number of Conductors	Conductor #'S to cut	"W" inches	"W" mm	"NW" inches	"NW" mm	Notch location
-9	2V-060CC-N1-C2	2	1	0.120	3.05	0.060	1.52	Left
-5	2V-100CC-N1-C2	2	1	0.205	5.21	0.105	2.67	Left
-6	3V-120CC-N1,N2-C3	3	1	0.350	8.89	0.235	5.97	Left
-7	3V-120CC-C1-N2,N3	3	1	0.350	8.89	0.235	5.97	Right
-1	4V-090CC-N1-C2,3,4	4	3	0.370	9.40	0.093	2.36	Left
-4	4V-096CC-N1-C2,3,4	4	3	0.375	9.53	0.096	2.44	Left
-2	4V-100CC-N1-C2,3,4	4	3	0.410	10.4	0.100	2.54	Left
-3	4V-105CC-N1-C2,3,4	4	3	0.421	10.7	0.105	2.67	Left
-8	4V-N1-C2,3,4	4	4	0.435	11.0	0.065	1.65	Left

Universal V style stripping blades



132921-1 Strip blade universal “V” 30 degree, standard

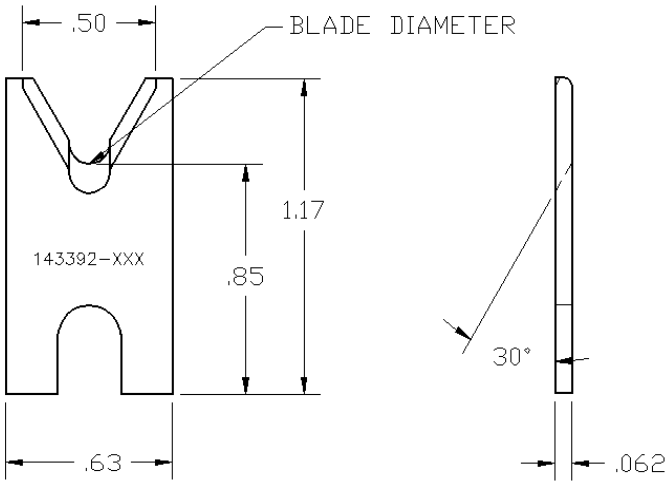
132921-2 Strip blade universal “V” 20 degree, the 20 degree edge has a steeper angle and may work better for some types of insulation like silicon or Teflon. The downside is that they do not stay sharp as long as 30 degree would.

True radius style stripping blades

The sharp edge is ground to a half circle whose radius approximates awg wire size. The entry angle lines intersect the half circle at the quadrant points. This type of blade, when closed, presents a true circle profile.

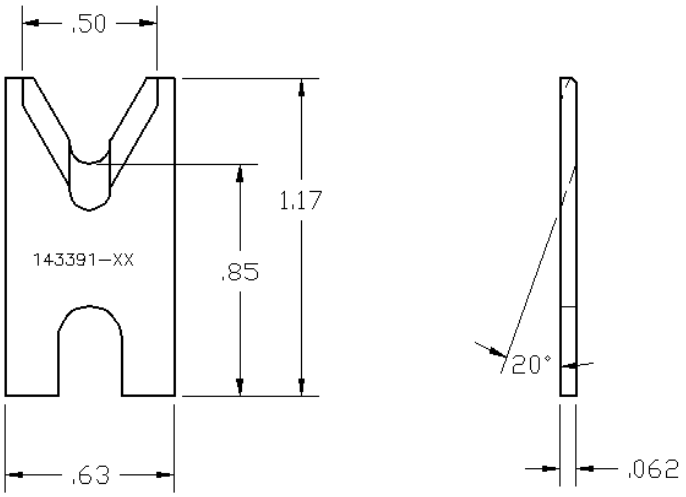
Advantages: this type of blade is excellent for precise and clean jacket removal because it combines the scissor-like shearing action of the by-pass blade with the exact hole profile matching a conductor gauge. Excellent for thin wall cross-link PVC and most rubbery or elastic insulations (thin or thick wall).

Disadvantages: shut height cannot be modified to process adjacent wire sizes. Off center wire condition has to be considered when choosing blade size.



143392-xxx Strip blade, radius style 30 degree, the dash number is the diameter of the hole in the blade in inches. Example -028 is .028 inches

Dash #	**millimeters**				
-024	0.61	-090	2.29	-175	4.45
-031	0.78	-102	2.59	-200	5.08
-039	0.99	-112	2.85	-220	5.59
-047	1.19	-125	3.18	-240	6.10
-055	1.40	-140	3.56	-260	6.60
-067	1.70	-150	3.81	-280	7.11
-078	1.98	-160	4.06	-300	7.62



143391-xxx Strip blade, radius style20 degree. The 20 degree edge has a steeper angle and may work better for some types of insulation like silicon or Teflon. When stripping thick insulation, this angle will tend not to tip the slug end as much as a 30 degree blade would. The

downside is that they do not stay sharp as long as 30 degree blade. Not recommended for 1 blade machines, due to short life.

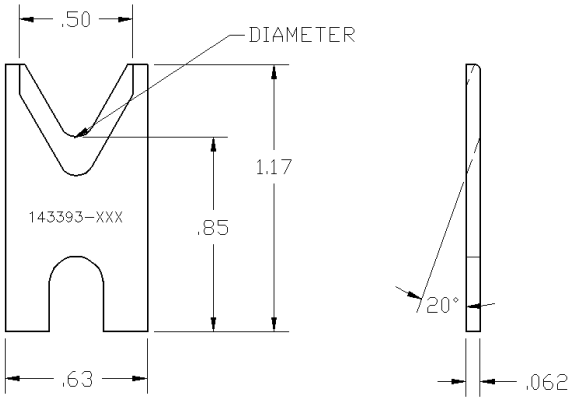
Dash #	millimeters				
-024	0.61	-102	2.59	-220	5.59
-031	0.78	-112	2.85	-240	6.10
-039	0.99	-125	3.18	-260	6.60
-047	1.19	-140	3.56	-270	6.86
-055	1.40	-150	3.81	-280	7.11
-067	1.70	-160	4.06	-300	7.62
-078	1.98	-175	4.45		
-090	2.29	-200	5.08		

Universal tangent radius style stripping blades

The sharp edge is ground to an arc whose radius approximates awg wire size. The entry angle lines meet the arc at a tangent point. This type of blade, when closed, presents a diamond shaped edge profile.

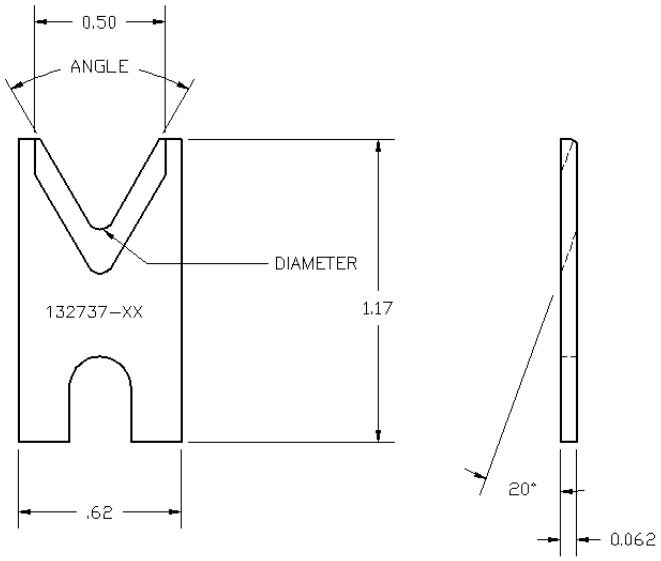
Advantages: by adjusting cutter head shut height, (if insulation material and wall thickness allow), you can process adjacent wire extrusions.

Disadvantages: inadequate for processing thin wall and/or hard insulations such as cross-link or fiberglass jackets.



143393-xxx Strip blade, tangent radius style 20 degree. T he dash number is the diameter of the hole in the blade in inches. Example -028 is .028 inches

Dash #	millimeters				
-024	0.61	-090	2.29	-175	4.45
-031	0.78	-102	2.59	-200	5.08
-039	0.99	-112	2.85	-220	5.59
-047	1.19	-125	3.18	-240	6.10
-055	1.40	-140	3.56	-260	6.60
-067	1.70	-150	3.81	-280	7.11
-078	1.98	-160	4.06	-300	7.62

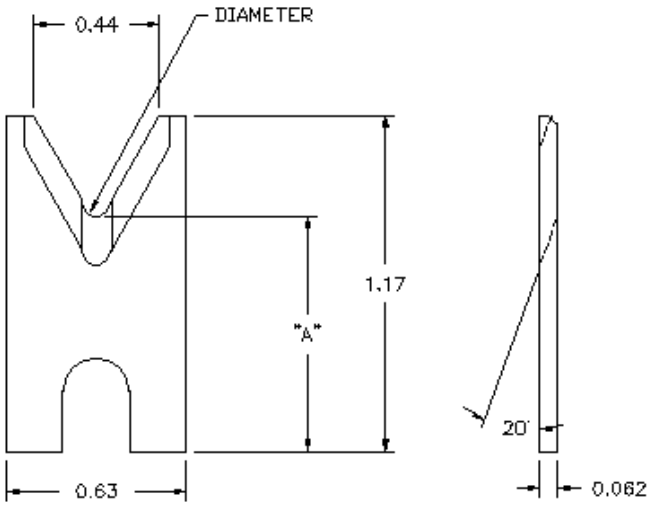


132737-xx Strip blade, tangent radius style 20 degree. The dimension between the bottom of the blade and the bottom of the Vee varies according to the Diameter. This means that in the CS326 programming the strip diameter would be set to zero or close to zero.

Item number	Diameter, inches	Diameter, mm	Mark	Angle
-1	0.012	0.3	012	65
-2	0.022	0.6	022	65
-3	0.034	0.9	034	60
-4	0.042	1.1	042	60
-5	0.056	1.3	056	60
-6	0.062	1.6	062	60
-7	0.076	1.9	076	55
-8	0.096	2.4	096	55
-9	0.112	2.8	112	48
-10	0.172	4.4	172	40
-11	0.222	5.6	222	30

True radius style stripping blades, for multiple jacket stripping.

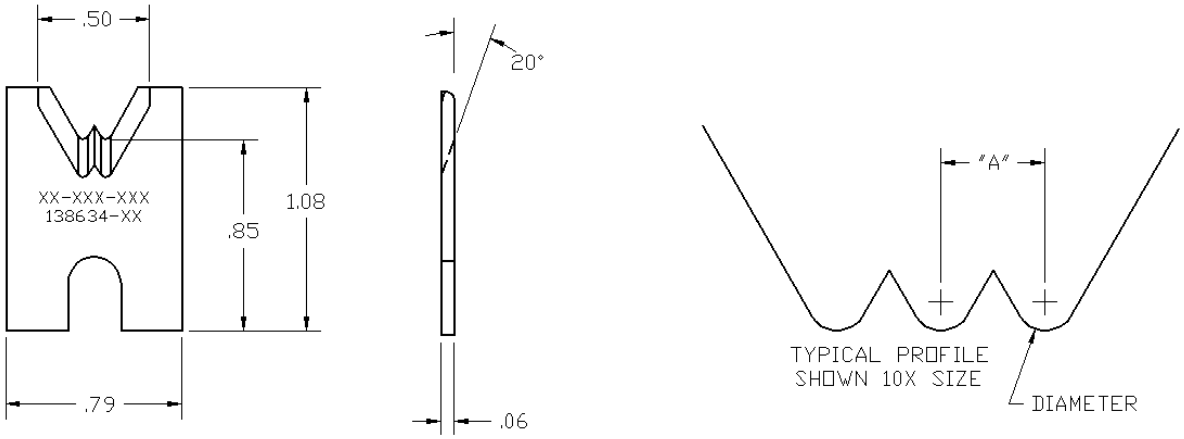
The blade is ground so that the cutting depth is controlled by the blade instead of programming the diameter in the machine. These types of blades are used in blade packs that can perform a double strip on one or two ends of the wire (usually coaxial cable). Examples of these blade packs are 5-145074, 5-142461, 5-143227.

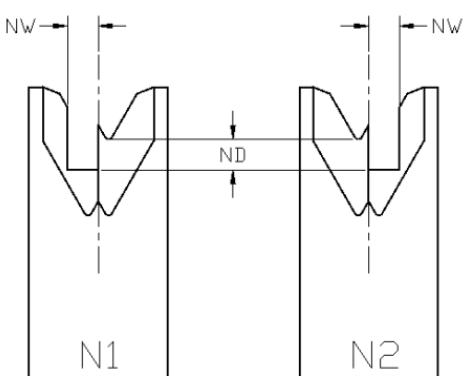


122551-xxx Strip blade, radius style 20 degree, the dash number is the diameter of the hole in the blade in inches. Example -039 is .039 inches

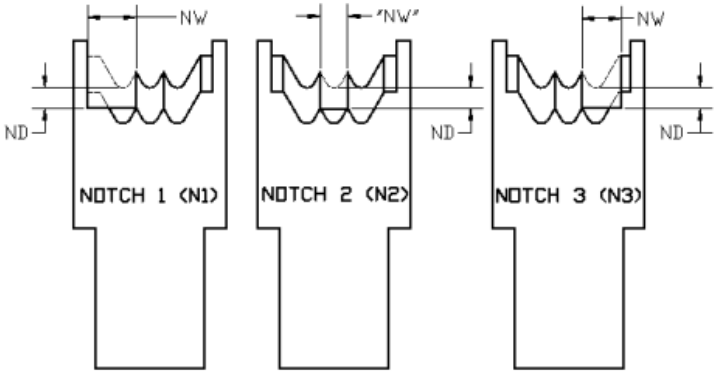
Item number	Diameter, mm	"A", inch	"A",mm
-028	0.71	0.852	21.64
-039	0.99	0.846	21.49
-047	1.19	0.842	21.39
-055	1.40	0.838	21.29
-067	1.70	0.832	21.13
-078	1.98	0.826	20.98
-090	2.29	0.821	20.85
-102	2.59	0.815	20.70
-112	2.84	0.810	20.57
-125	3.18	0.804	20.42
-140	3.56	0.796	20.22
-160	4.06	0.786	19.96
-175	4.45	0.778	19.76
-180	4.57	0.776	19.71
-200	5.08	0.766	19.46
-220	5.59	0.756	19.20
-230	5.84	0.751	19.08

True radius style multi-conductor stripping blades





Notch detail for 2 conductor



Notch detal for 3 conductor

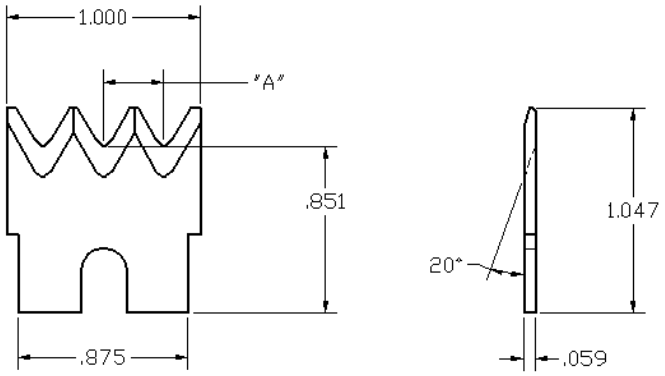
138634-xx Blade, 20 degree for stripping parallel wire. This blade has a finer cutting edge and more relief but will not stay sharp as long as a 30 degree blade.

Note if you add a –N1 to the number a notch will be added in the N1 location. If you add a –N2 to the number a notch will be added to the N2 location etc. Adding a notch is for stagger stripping.

Item Number	Mark	# of V's	Dia. inches	Dia. mm	"A" inches	"A" mm
-16	2V-022-056	2	0.022	0.56	0.056	1.42
-25	2V-022-060	2	0.022	0.56	0.060	1.52
-28	2V-022-065	2	0.022	0.56	0.065	1.65
-21	2V-042-060	2	0.042	1.07	0.060	1.52
-01	2V-042-083	2	0.042	1.07	0.083	2.11
-18	2V-052-096	2	0.052	1.32	0.096	2.44
-02	2V-052-100	2	0.052	1.32	0.100	2.54
-13	2V-052-115	2	0.052	1.32	0.115	2.92
-12	2V-052-125	2	0.052	1.32	0.125	3.18
-11	2V-052-135	2	0.052	1.32	0.135	3.43

-15	2V-052-150	2	0.052	1.32	0.150	3.81
-22	2V-062-060	2	0.062	1.57	0.060	1.52
-03	2V-062-090	2	0.062	1.57	0.090	2.29
-04	2V-062-100	2	0.062	1.57	0.100	2.54
-17	2V-062-105	2	0.062	1.57	0.105	2.67
-05	2V-062-125	2	0.062	1.57	0.125	3.18
-09	2V-062-150	2	0.062	1.57	0.150	3.81
-26	2V-076-120	2	0.076	1.93	0.120	3.05
-08	2V-096-140	2	0.096	2.44	0.140	3.56
-29	3V-022-057	3	0.022	0.56	0.057	1.45
-23	3V-042-054	3	0.042	1.07	0.054	1.37
-19	3V-052-096	3	0.052	1.32	0.096	2.44
-14	3V-052-105	3	0.052	1.32	0.105	2.67
-06	3V-062-090	3	0.062	1.57	0.090	2.29
-10	3V-062-100	3	0.062	1.57	0.100	2.54
-20	3V-076-120	3	0.076	1.83	0.120	3.05
-27	4V-042-054	4	0.042	1.07	0.054	1.37
-24	4V-052-093	4	0.052	1.32	0.093	2.36
-07	4V-062-100	4	0.062	1.57	0.100	2.54

Universal V blade for 3 wire machine

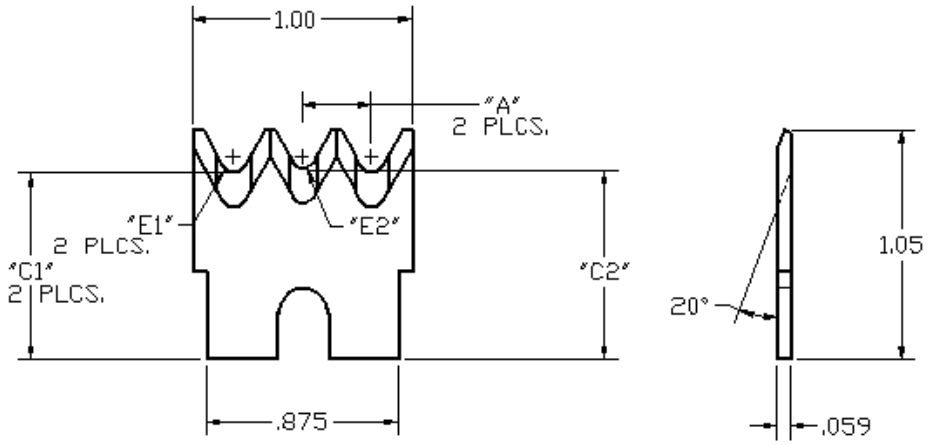


123721-x Blade, 20

123721-xTC Blade, 20 Titanium Nitrate Coated

Item x=	A, inches	A, mm
-1	0.313	7.94

Radius blade for 3 wire machine



123263-x Blade, 3 conductor radius, 20 degree, dimensions are in inches(mm)

123263-xTC Blade, 3 conductor radius, 20 degree, Titanium Nitride coating

Item number	C1	C2	E1	E2	A	AWG SIZE
-1	0.851(21.62)	0.864(21.95)	0.076(1.93)	0.063(1.59)	0.313(7.94)	8-10-8
-2	0.864(21.95)	0.864(21.95)	0.063(1.59)	0.063(1.59)	0.313(7.94)	10-10-10
-3	0.902(22.91)	0.902(22.91)	0.025(0.62)	0.025(0.62)	0.313(7.94)	18-18-18
-4	0.887(22.53)	0.887(22.53)	0.039(0.99)	0.039(0.99)	0.313(7.94)	14-14-14
-5	0.878(22.30)	0.878(22.30)	0.048(1.22)	0.048(1.22)	0.313(7.94)	12-12-12
-6	0.851(21.62)	0.851(21.62)	0.076(1.93)	0.076(1.93)	0.313(7.94)	8-8-8
-7	0.900(22.86)	0.900(22.86)	0.027(0.69)	0.027(0.69)	0.313(7.94)	18-18-18
-8	0.909(23.09)	0.909(23.09)	0.018(0.46)	0.018(0.46)	0.313(7.94)	22-22-22
-9	0.912(23.16)	0.912(23.16)	0.015(0.38)	0.015(0.38)	0.313(7.94)	24-24-24
-10	0.915(23.24)	0.915(23.24)	0.012(0.30)	0.012(0.30)	0.313(7.94)	26-26-26

Collinear stripping blades

The sharp edge is ground to a half circle whose radius approximates awg wire size. Shearing edge is ground to a straight edge. This type of blade, when closed to shut height, forms a perfect circle profile.
Advantages: this type of blade is excellent for precise and clean jacket removal because it exactly matches conductor gauge. Excellent for thin-wall cross-link PVC and most applications where precise jacket removal around the conductor is required, especially with layered coverings such as fiber over plastic, plastic over shields, etc.
Disadvantages: shut height cannot be modified to process adjacent wire sizes. Off-center wire condition has to be considered when choosing blade size.

Choosing the correct part number

When choosing the correct size, the blade diameter chosen should be 0.1mm to 0.15mm larger than the measured conductor size.

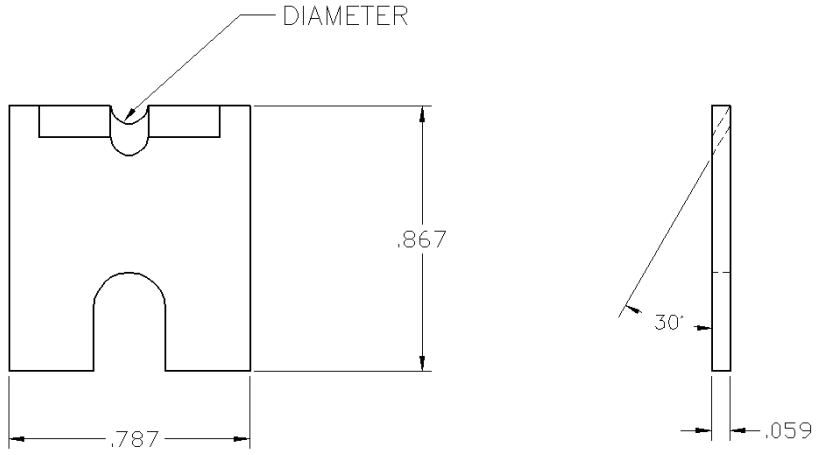
If Titanium Nitride coating is desired, add “TC” to the end of the part number.

Example 122067-1 = 0.25mm Diameter non-coated

122067-1 TC = 0.25mm Diameter Titanium Coated

These blades must be used with wire guides.

(See part number 122078)



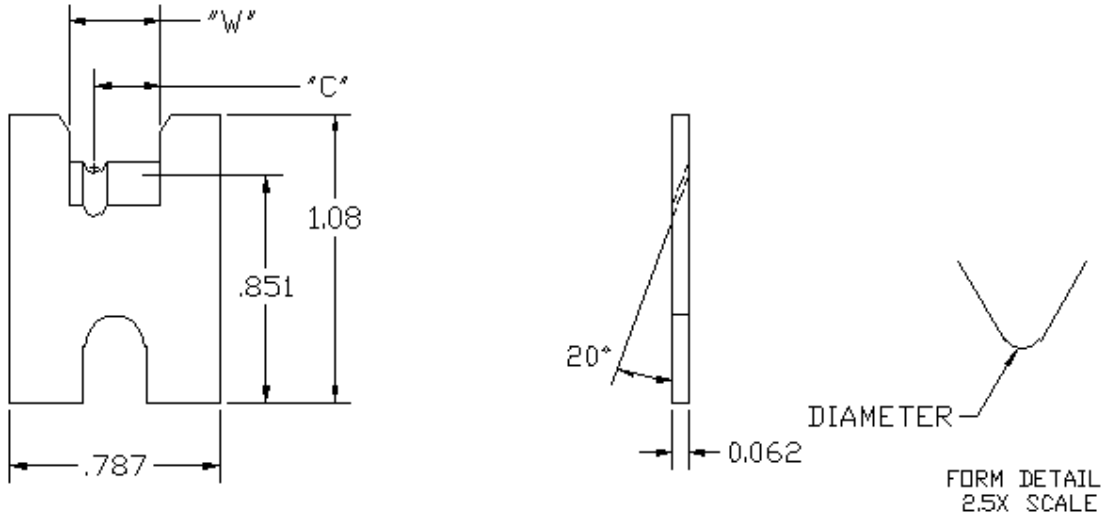
122067-x Strip blade, collinear (butt style)

Item number	Diameter, inches	Diameter, mm	Item number	Diameter, inches	Diameter, mm
-123	0.010	0.25	-46	0.173	4.40
-113	0.012	0.30	-50	0.177	4.50
-90	0.013	0.34	-60	0.181	4.60
-91	0.016	0.40	-34	0.185	4.70
-119	0.018	0.45	-47	0.189	4.80
-58	0.020	0.50	-36	0.193	4.90
-92	0.022	0.55	-51	0.197	5.00
-59	0.024	0.60	-43	0.201	5.10
-83	0.026	0.65	-44	0.205	5.20
-32	0.028	0.70	-37	0.209	5.30
-114	0.029	0.75	-45	0.213	5.40
-17	0.031	0.80	-41	0.217	5.50
-84	0.033	0.85	-62	0.220	5.60
-18	0.035	0.90	-57	0.224	5.70
-85	0.037	0.95	-49	0.228	5.80
-12	0.039	1.00	-69	0.232	5.90
-19	0.043	1.10	-38	0.236	6.00
-81	0.045	1.15	-42	0.240	6.10
-1	0.047	1.20	-66	0.244	6.20
-93	0.049	1.25	-52	0.248	6.30
-2	0.051	1.30	-67	0.252	6.40

-82	0.053	1.35	-39	0.256	6.50
-11	0.055	1.40	-79	0.260	6.60
-94	0.315	1.45	-70	0.264	6.70
-14	0.059	1.50	-53	0.268	6.80
-80	0.061	1.55	-76	0.272	6.90
-3	0.063	1.60	-54	0.276	7.00
-86	0.065	1.65	-71	0.280	7.10
-4	0.067	1.70	-55	0.283	7.20
-87	0.069	1.75	-72	0.287	7.30
-20	0.071	1.80	-61	0.291	7.40
-88	0.073	1.85	-65	0.295	7.50
-15	0.075	1.90	-77	0.299	7.60
-121	0.077	1.95	-73	0.303	7.70
-5	0.079	2.00	-78	0.307	7.80
-6	0.083	2.10	-74	0.311	7.90
-115	0.085	2.15	-95	0.315	8.00
-7	0.087	2.20	-75	0.319	8.10
-21	0.110	2.30	-56	0.323	8.20
-120	0.093	2.35	-96	0.327	8.30
-8	0.094	2.40	-97	0.331	8.40
-13	0.098	2.50	-98	0.335	8.50
-89	0.100	2.55	-99	0.339	8.60
-16	0.102	2.60	-100	0.343	8.70
-22	0.106	2.70	-101	0.346	8.80
-116	0.108	2.75	-102	0.350	8.90
-23	0.110	2.80	-63	0.354	9.00
-125	0.112	2.85	-103	0.358	9.10
-24	0.114	2.90	-104	0.362	9.20
-9	0.118	3.00	-105	0.366	9.30
-25	0.122	3.10	-106	0.370	9.40
-29	0.126	3.20	-107	0.374	9.50
-30	0.130	3.30	-108	0.378	9.60
-124	0.132	3.35	-109	0.382	9.70
-10	0.134	3.40	-110	0.386	9.80
-31	0.138	3.50	-111	0.390	9.90
-126	0.140	3.55	-112	0.394	10.00
-26	0.142	3.60	-122	0.445	11.30
-27	0.146	3.70	-68	0.453	11.50
-28	0.150	3.80	-117	0.472	12.00
-40	0.154	3.90	-118	0.492	12.50
-35	0.157	4.00			
-48	0.161	4.10			
-64	0.165	4.20			
-33	0.169	4.30			

Blades for stagger stripping

These blades are designed for working with flat multi-conductor cable. They strip some of the conductors and cut off some of them



123439-x Stagger stripping blades Con = Conductors Dia. = Diameter

Item #	Mark	# of Con	Con to cut	Con spacing inches	Con spacing mm	Dia. inches	Dia. mm	"W" inches	"W" mm	"C" inches	"C" mm
-1	2V-052-150-C1	2	1	0.150	3.81	0.052	1.32	0.346	8.79	0.097	2.46
-5	2V-062-100-C1	2	1	0.100	2.54	0.062	1.57	0.205	5.21	0.152	3.86
-4	4V-052-096-C2,3,4	4	2,3,4	0.096	2.44	0.052	1.32	0.375	9.53	0.313	7.95
-2	4V-062-103-C2,3,4	4	2,3,4	0.103	2.62	0.062	1.57	0.410	10.4	0.360	9.14
-3	4V-062-105-C2,3,4	4	2,3,4	0.105	2.67	0.062	1.57	0.421	10.7	0.368	9.35

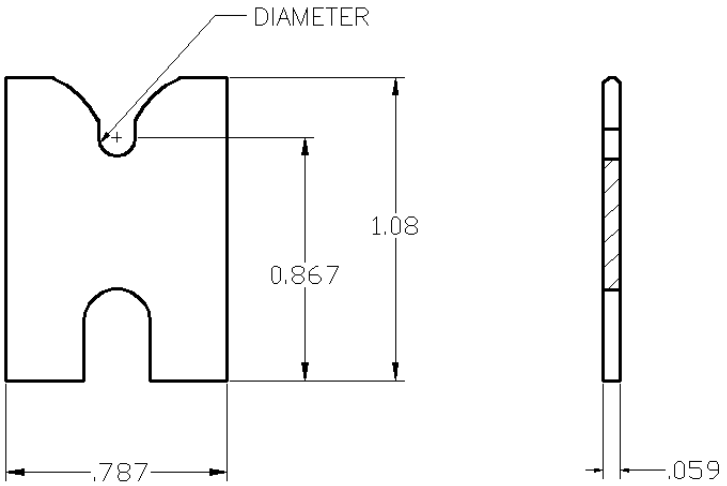
Radius wire guides

Wire guides are used in conjunction with the strip blades to precisely guide the conductor into the strip area of the blade. This will help prevent the conductor from coming into contact with the cutting edges of the strip blades, preventing premature strip blade wear.

Choosing the correct part number

When choosing the correct size, the guide diameter chosen should be 0.00mm to 0.1mm larger than the measured insulation diameter.

Example 122067-1 = 1.3 Diameter guide.



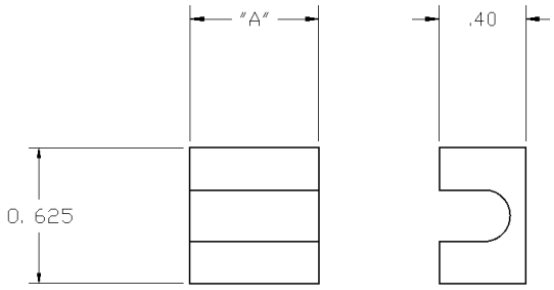
122078-x Radius wire guide, for use with collinear (butt style) stripping blades 122067-x

Item number	Diameter, inches	Diameter, mm	Item number	Diameter, inches	Diameter, mm
-87	0.020	0.50	-55	0.232	5.90
-70	0.024	0.60	-37	0.236	6.00
-73	0.028	0.70	-74	0.240	6.10
-76	0.031	0.80	-38	0.244	6.20
-60	0.035	0.90	-39	0.248	6.30
-49	0.039	1.00	-77	0.252	6.40
-57	0.043	1.10	-40	0.256	6.50
-48	0.047	1.20	-64	0.260	6.60
-23	0.051	1.30	-41	0.264	6.70
-34	0.055	1.40	-56	0.268	6.80
-16	0.059	1.50	-78	0.272	6.90
-1	0.063	1.60	-44	0.276	7.00
-17	0.067	1.70	-79	0.279	7.10
-30	0.071	1.80	-50	0.284	7.20
-28	0.075	1.90	-75	0.287	7.30
-2	0.079	2.00	-65	0.291	7.40
-31	0.082	2.10	-80	0.295	7.50
-3	0.087	2.20	-45	0.300	7.60
-10	0.090	2.30	-67	0.303	7.70
-25	0.094	2.40	-81	0.307	7.80
-24	0.098	2.50	-82	0.311	7.90
-4	0.102	2.60	-69	0.315	8.00
-5	0.106	2.70	-93	0.319	8.10
-11	0.110	2.80	-89	0.323	8.20
-42	0.114	2.90	-83	0.327	8.30
-6	0.118	3.00	-94	0.331	8.40

-12	0.122	3.10	-72	0.335	8.50
-26	0.126	3.20	-84	0.339	8.60
-7	0.130	3.30	-90	0.343	8.70
-29	0.134	3.40	-85	0.346	8.80
-20	0.138	3.50	-95	0.350	8.90
-27	0.142	3.60	-51	0.354	9.00
-8	0.146	3.70	-96	0.358	9.10
-13	0.150	3.80	-97	0.362	9.20
-9	0.154	3.90	-98	0.366	9.30
-14	0.158	4.00	-99	0.370	9.40
-68	0.161	4.10	-91	0.374	9.50
-22	0.166	4.20	-100	0.378	9.60
-21	0.170	4.30	-101	0.382	9.70
-54	0.173	4.40	-46	0.386	9.80
-18	0.177	4.50	-102	0.390	9.90
-47	0.182	4.60	-71	0.394	10.00
-19	0.185	4.70	-92	0.413	10.50
-32	0.189	4.80	-53	0.417	10.60
-33	0.193	4.90	-86	0.472	12.00
-62	0.193	4.90	-88	0.504	12.80
-35	0.197	5.00	-66	0.512	13.00
-15	0.200	5.10			
-63	0.205	5.20			
-52	0.209	5.30			
-59	0.213	5.40			
-36	0.217	5.50			
-58	0.220	5.60			
-43	0.224	5.70			
-61	0.228	5.80			

Spacers for blade packs

Spacers are required between blades to hold them in place. The spacers need are dependent on the application.

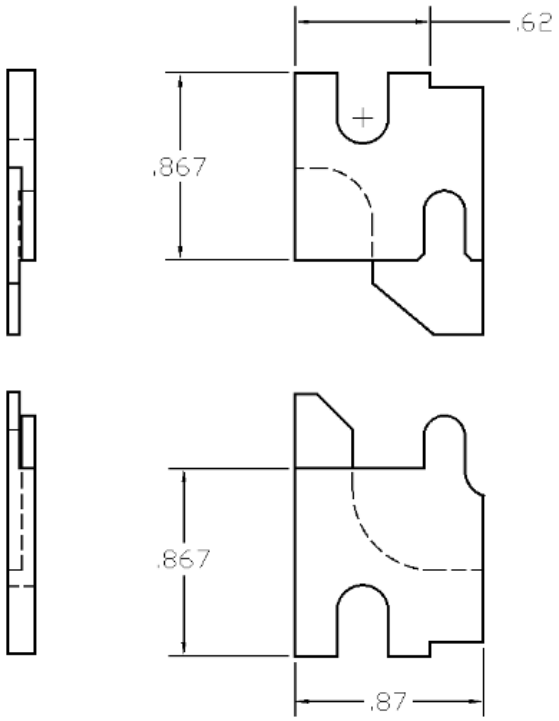


121607-xx Blade pack spacer.

Item number	Thickness, inches	Thickness, mm	Marking	**Item number**	Thickness, inches	Thickness, mm	Marking
-29	0.0197	0.50	0.5	**-40**	0.3768	9.57	9.57
-28	0.0393	1.00	1.0	**-18**	0.3937	10.00	11.5
-1	0.0590	1.50	3.0	**-19**	0.4134	10.50	12.0
-2	0.0787	2.00	3.5	**-20**	0.4331	11.00	12.5
-3	0.0984	2.50	4.0	**-21**	0.4528	11.50	13.0
-4	0.1181	3.00	4.5	**-38**	0.4650	11.81	11.8
-39	0.1250	3.18	3.2	**-22**	0.4724	12.00	13.5
-5	0.1378	3.50	5.0	**-23**	0.4921	12.50	14.0
-6	0.1575	4.00	5.5	**-24**	0.5118	13.00	14.5
-7	0.1772	4.50	6.0	**-27**	0.5285	13.42	
-8	0.1968	5.00	6.5	**-25**	0.5315	13.50	15.0
-9	0.2165	5.50	7.0	**-26**	0.5905	15.00	18.0
-10	0.2362	6.00	7.5	**-35**	0.6400	16.26	16.3
-11	0.2559	6.50	8.0	**-32**	0.7023	17.84	17.8
-12	0.2756	7.00	8.5	**-36**	0.7088	18.00	18.0
-13	0.2953	7.50	9.0	**-30**	0.7312	18.57	
-14	0.3150	8.00	9.5	**-31**	0.7648	19.43	19.4
-15	0.3346	8.50	10.0	**-33**	0.7686	19.52	19.5
-16	0.3543	9.00	10.5	**-37**	0.7708	19.58	19.6
-17	0.3740	9.50	11.0	**-34**	0.8932	22.69	22.7

DIE BLADES

Z3-XXX-YYY-H Die blade



The die style blade has a fixed cutter opening. The cutting edge is precisely drilled to an exact radius dimension for the conductor diameter. The insulation wall is contained in a counter-bore drilled around the cutting edge. This type of blade is made precisely for the wire that is to be stripped. It is good for the removal of very thin insulation walls or where the outer jacket is oval shaped. It is also useful for processing solid conductor insulated wire. Normally this is the blade of choice for sjt, svt, sjo, coaxial cable outer jacket removal, and many round multi-conductor cables
Determining part number of a die blade. Drawing number LPI638

Z3-XXX-ZZZ-H Ordering number format.

Z3 Stands for CS326 die blade

XXX Is the diameter of the conductor hole in inches (leave out the decimal point) – the chart below are the standard sizes call Artos if you need a size that is not on the chart.

ZZZ is the diameter of the insulation hole