

# CHERRYMAX® 'AB' RIVET

LOCKED SPINDLE STRUCTURAL RIVETS



**CHERRY®**  
**AEROSPACE**  
*SPS Fastener Division, a PCC Company*



# CHERRYMAX 'AB'

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## LIMITED WARRANTY

Seller warrants the goods conform to applicable specifications and drawings and will be manufactured and inspected according to generally accepted practices of companies manufacturing industrial or aerospace fasteners. In the event of any breach of the foregoing warranty, Buyer's sole remedy shall be to return defective goods (after receiving authorization from Seller) for replacement or refund of the purchase price, at the Seller's option. Seller agrees to any freight costs in connection with the return of any defective goods, but any costs relating to removal of the defective or nonconforming goods or installation of replacement goods shall be Buyer's responsibility. SELLER'S WARRANTY DOES NOT APPLY WHEN ANY PHYSICAL OR CHEMICAL CHANGE IN THE FORM OF THE PRODUCT IS MADE BY BUYER. THE FOREGOING EXPRESS WARRANTY AND REMEDY ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES; ANY IMPLIED WARRANTY AS TO QUALITY, FITNESS FOR PURPOSE, OR MERCHANTABILITY IS HEREBY SPECIFICALLY DISCLAIMED AND EXCLUDED BY SELLER. This warranty is void if seller is not notified in writing of any rejection of the goods within one (1) Year after initial use by buyer of any power Riveter or ninety (90) days after initial use of any other product.

Seller shall not be liable under any circumstances for incidental, special or consequential damages arising in whole or in part from any breach by Seller, AND SUCH INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES ARE HEREBY EXPRESSLY EXCLUDED.

Our policy is one of continuous development. Specifications shown in this document may be subject to changes introduced after publication.

CHERRY®, CHERRYMAX® and MAXIBOLT® are trademarks of Cherry Aerospace.

## NOTE

The properties, strengths, dimensions, installed characteristics and all other information in this catalog is for guidance only to aid in the correct selection of the products described herein and is not intended or implied as part of the warranty. All applications should be evaluated for functional suitability and available samples of the described parts can be requested for installed tests, suitability and evaluations.

## ATTENTION

Blind rivets are not always a suitable substitute for solid rivets. Maintenance personnel are reminded that AC 43.13-1A chapter 2, section 3, stipulates: "Do not substitute hollow rivets for solid rivets in load carrying members without specific approval of the application by a representative of the Federal Aviation Administration. Blind rivets may be used in blind locations in accordance with the conditions listed in Chapter 5, provided the edge distances and spacings are not less than the minimum listed in paragraph 99d."

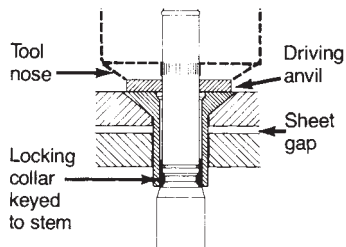
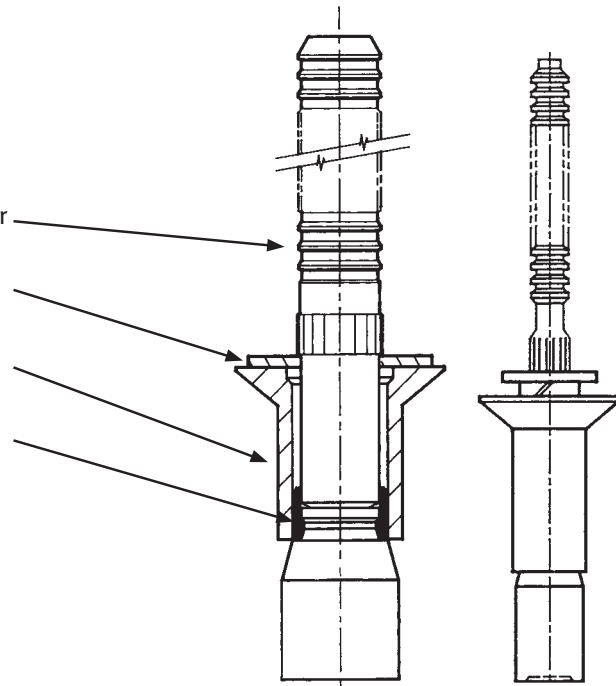
# CHERRYMAX 'AB'

## FEATURES AND INSTALLATION SEQUENCE

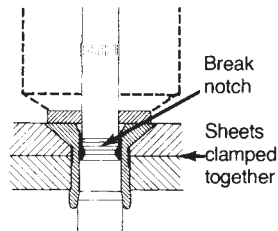
As part of the CherryMAX® family of proven fastener systems, CherryMAX 'AB' Rivets are lock-spindle, flush fracturing, structural rivets exceeding the requirements of procurement specification NAS1400 and NAS1398/1399 standard pages.

CherryMAX® 'AB' Rivets consist of four components assembled as a single unit.

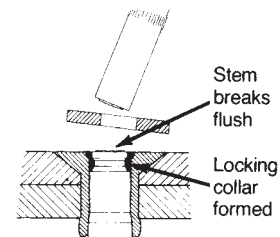
1. A fully serrated pulling stem with break notch, locking collar groove and plug section.
2. The CherryMAX 'AB'® integral driving anvil insures flush stem breaks and a flush installed collar at all times.
3. A fastener sleeve with a locking collar recess to receive the locking collar.
4. A deforming locking collar with an extruded flange that provides a permanent mechanical lock to the stem which dramatically improves stem retention, thereby permitting use even in critical inlet areas.



CherryMAX® 'AB' Rivet before installation. A new driving anvil is part of each rivet...eliminating wear and replacement of tool anvils.



As the stem is pulled into the rivet sleeve, the sheets are clamped firmly together, the rivet is securely seated and the rivet sleeve expands to fill the hole.

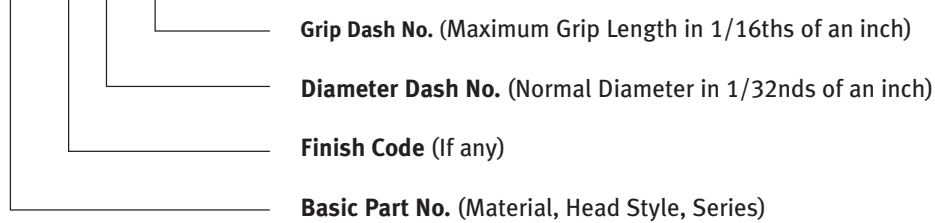


Pressure of driving anvil cold forms locking collar into collar recess, locking stem and sleeve together. Continued pulling fractures stem, providing a flush, burr-free installation.

### NUMBERING SYSTEM

Cherry Part Number Example:

CR4623 D -4 -05



### MATERIALS

Materials		Ultimate Shear Strength	Maximum Temperature ③
Sleeve	Stem		
2017 Aluminum	7075 Aluminum	38,000 psi	250° F
Monel	A-286 CRES	55,000 psi	900° F
A286 CRES	A-286 CRES	75,000 psi	1200° F

### STRENGTH

Minimum ultimate rivet shear and tensile strength (lbs.) per NASM1312 -4 & 8. Test method per NASM1312-4 & -8

CherryMAX® 'AB' Rivets		Single Shear				Tensile			
		1/8"	5/32"	3/16"	1/4"	1/8"	5/32"	3/16"	1/4"
Aluminum	CR4172	494	755	1090	1970	230	375	540	1000
	CR4173								
	CR4174①②								
Monel	CR4522	710	1090	1590	2840	340	550	780	1450
	CR4523								
	CR4524②								
CRES	CR4622	970	1490	2150	3890	640	1000	1500	2700
	CR4623								
	CR4624②					375	900	1350	2490

① CR4174 not manufactured in -8 diameter.

② Not covered by NAS 1400.

③ Refers to materials' resistance to elevated temperature only.

**NOTES:** Values shown are fastener capabilities only. Consult Mil-Hdbk-5 for joint design allowables.

### MINIMUM BLIND SIDE MATERIAL DATA

The wiredrawing type rivet is designed to give the best hole filling of any blind rivet and as such must be limited to applications where the blind side substructure has sufficient bearing strength to withstand the wiredrawing installation loads. When blind side substructure is made up of thin or soft material, then the bulb type rivet would be the recommended rivet selection.

Wiredrawing type rivets are not recommended for double dimple applications.

Listed are the recommended rivet selection material types and minimum thicknesses for use with the wiredrawing type blind rivets.

Rivet Material	Rivet Diameter	Blind Side Material Thickness (minimum)	Blind Side Material
ALUMINUM	-4	.030	2024
	-5	.040	ALUMINUM
	-6	.050	OR
	-8	.060	STRONGER
MONEL & A-286 CRES	-4	.030	7075
	-5	.040	ALUMINUM
	-6	.050	OR
	-8	.060	STRONGER

# CHERRYMAX 'AB'

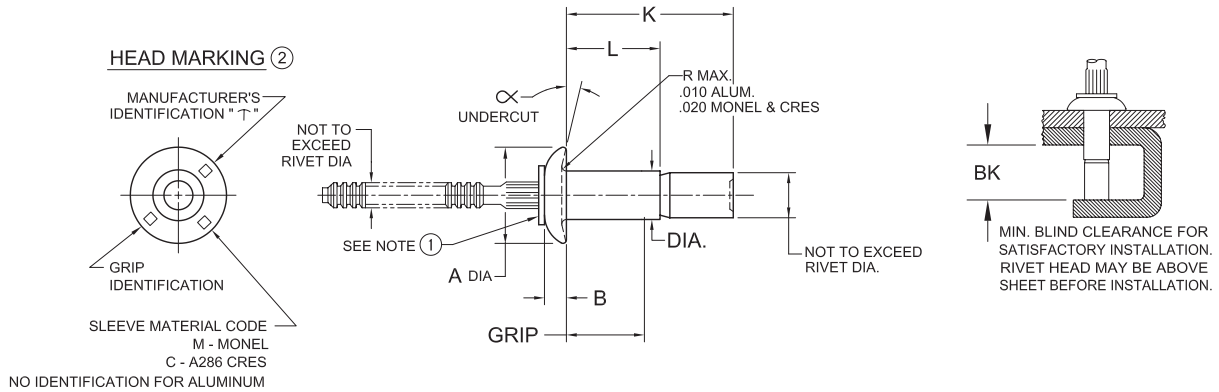
## RIVET SELECTION

### INSTALLED WEIGHTS Pounds per 1000 pieces (Ref.)

Dash Number	CR4172	CR4173	CR4174	CR4522	CR4523	CR4524	CR4622	CR4623	CR4624
4-1	.29	.43	—	.95	1.42	.84	.84	1.26	.74
4-2	.38	.52	—	1.25	1.73	1.14	1.10	1.52	1.00
4-3	.47	.61	—	1.54	2.02	1.43	1.36	1.78	1.26
4-4	.56	.70	—	1.84	2.32	1.73	1.62	2.04	1.52
4-5	.65	.80	—	2.14	2.62	2.03	1.89	2.31	1.79
4-6	.74	.89	—	2.44	2.91	2.33	2.15	2.57	2.05
4-7	.82	—	—	2.73	—	2.62	2.41	—	2.31
4-8	—	—	—	—	—	—	—	—	—
5-1	—	.73	—	—	2.38	—	—	2.10	—
5-2	.62	.87	.59	2.03	2.85	1.79	1.79	2.51	1.58
5-3	.76	1.01	.69	2.49	3.30	2.25	2.20	2.91	1.99
5-4	.90	1.15	.83	2.95	3.77	2.71	2.60	3.32	2.39
5-5	1.04	1.30	.97	3.40	4.23	3.17	3.00	3.73	2.79
5-6	1.18	1.44	1.11	3.87	4.69	3.63	3.41	4.13	3.20
5-7	1.33	1.58	1.26	4.33	5.15	4.09	3.82	4.54	3.61
5-8	1.47	1.72	1.40	4.80	5.62	4.56	4.23	4.95	4.02
5-9	—	—	1.54	—	—	5.02	4.64	—	4.43
5-10	—	—	1.68	—	—	5.49	5.05	—	4.84
6-1	—	1.12	—	—	3.68	—	—	3.24	—
6-2	.94	1.32	.80	3.09	4.32	2.62	2.72	3.81	2.30
6-3	1.15	1.53	1.00	3.74	4.98	3.27	3.30	4.39	2.88
6-4	1.35	1.72	1.20	4.42	5.62	3.95	3.87	4.96	3.45
6-5	1.55	1.92	1.40	5.05	6.29	4.58	4.45	5.54	4.03
6-6	1.75	2.12	1.60	5.71	6.93	5.24	5.03	6.11	4.61
6-7	1.95	2.32	1.80	6.38	7.59	5.91	5.61	6.69	5.19
6-8	2.15	2.52	2.00	7.02	8.24	6.55	6.19	7.27	5.77
6-9	2.35	2.73	2.20	7.66	8.91	7.19	6.76	7.85	6.34
6-10	2.55	2.92	2.40	8.32	9.55	7.85	7.33	8.42	6.91
6-11	2.74	3.13	2.60	8.96	10.21	8.49	7.90	9.00	7.48
6-12	2.95	3.32	2.80	9.61	10.84	9.14	8.48	9.56	8.06
6-13	—	—	3.00	—	—	9.78	9.05	—	8.63
6-14	—	—	3.20	—	—	10.43	9.62	—	9.20
8-1	—	—	—	—	—	—	—	—	—
8-2	—	3.00	—	—	9.78	—	—	8.62	—
8-3	2.56	3.35	—	8.35	10.95	7.08	7.37	9.65	6.23
8-4	2.92	3.72	—	9.54	12.13	8.27	8.41	10.70	7.27
8-5	3.28	4.07	—	10.72	13.27	9.45	9.45	11.70	8.31
8-6	3.65	4.45	—	11.91	14.49	10.64	10.49	12.80	9.35
8-7	4.00	4.79	—	13.04	15.62	11.83	11.53	13.80	10.39
8-8	4.37	5.13	—	14.29	16.76	13.02	12.57	14.80	11.43
8-9	4.72	5.52	—	15.42	18.02	14.19	13.61	15.90	12.47
8-10	5.07	5.87	—	16.56	19.15	15.36	14.65	16.90	13.51
8-11	5.46	6.22	—	17.80	20.29	16.53	15.69	17.90	14.55
8-12	5.80	6.57	—	18.90	21.42	17.69	16.73	18.90	15.59
8-13	6.15	6.95	—	20.03	22.68	18.85	17.77	20.00	16.63
8-14	6.52	7.29	—	21.29	23.81	20.02	18.81	21.00	17.67

# CHERRYMAX 'AB'

## UNIVERSAL HEAD NOMINAL DIAMETER



Dia. Dash No.	Dia. +.003 -.001	A		B Ref	∞ Max	Hole Limits
		Min	Max			
-4	.125	.238	.262	.054	12°	.129-.132
-5	.156	.296	.328	.067	10°	.160-.164
-6	.187	.356	.394	.080	8°	.192-.196
-8	.250	.475	.525	.107	6°	.256-.261

Grip Limits 1/16" Range		1/8" Diameter				5/32" Diameter				3/16" Diameter				1/4" diameter			
		Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min
④	.062	4-01	.198	.39	.30	5-01	.201	.38	.28	6-01	.225	.44	.27	—	—	—	—
.063	.125	4-02	.260	.51	.35	5-02	.263	.49	.34	6-02	.287	.55	.32	8-02	.323	.57	.37
.126	.187	4-03	.323	.63	.41	5-03	.326	.61	.39	6-03	.350	.67	.37	8-03	.385	.69	.43
.188	.250	4-04	.385	.75	.46	5-04	.388	.73	.45	6-04	.412	.79	.43	8-04	.448	.81	.48
.251	.312	4-05	.448	.87	.52	5-05	.451	.85	.50	6-05	.475	.91	.48	8-05	.510	.93	.54
.313	.375	4-06	.510	.98	.57	5-06	.513	.97	.56	6-06	.537	1.03	.54	8-06	.573	1.04	.60
.376	.437	4-07	.573	1.11	.63	5-07	.576	1.09	.62	6-07	.600	1.15	.60	8-07	.635	1.16	.65
.438	.500	4-08	.636	1.23	.69	5-08	.638	1.20	.67	6-08	.662	1.27	.65	8-08	.698	1.28	.71
.501	.562	4-09	.698	1.35	.75	5-09	.701	1.37	.78	6-09	.725	1.44	.76	8-09	.760	1.46	.82
.563	.625	—	—	—	—	5-10	.763	1.50	.84	6-10	.787	1.56	.82	8-10	.823	1.58	.88
.626	.687	—	—	—	—	—	—	—	—	6-11	.850	1.68	.88	8-11	.885	1.70	.94
.688	.750	—	—	—	—	—	—	—	—	6-12	.912	1.81	.94	8-12	.948	1.83	1.00
.751	.812	—	—	—	—	—	—	—	—	—	—	—	—	8-13	1.010	1.95	1.06
.813	.875	—	—	—	—	—	—	—	—	—	—	—	—	8-14	1.073	2.07	1.12

Rivet Number	NAS 523 Code	Material <sup>③</sup>			Finish		
		Sleeve	Stem	Lock Collar	Sleeve	Stem	Lock Collar
CR4173 NAS1398D()AB()	ACC	2017-T4 QQ-A-430	7075 QQ-A-430	5056-H38 QQ-A-430	MIL-A-8625 OR MIL-C-5541	MIL-C-5541	NONE
CR4523 NAS1398M()AB()	ACR	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	NONE	PASSIVATE PER AMS 2700	NONE
CR4523P NAS1398MW()AB()	ACD	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	CAD PLATE QQ-P-416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4623 NAS1398C()AB()	ACW	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	NONE
CR4623D	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	I.V.D. ALUM. MIL-C- 83488 CLASS 3, TYPE II	PASSIVATE PER AMS 2700	NONE
CR4623CW NAS1398CW()AB()	AFC	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	CAD PLATE QQ-P- 416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4623EA	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	A-286 CRES AMS 5731	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700

NOTE: Do not clean or degrease rivets prior to installation.

④ Dash No. Min. Grip

① Gold colored driving anvil identifies nominal rivets.

-4-01 .025

② Head Markings visible after installation.

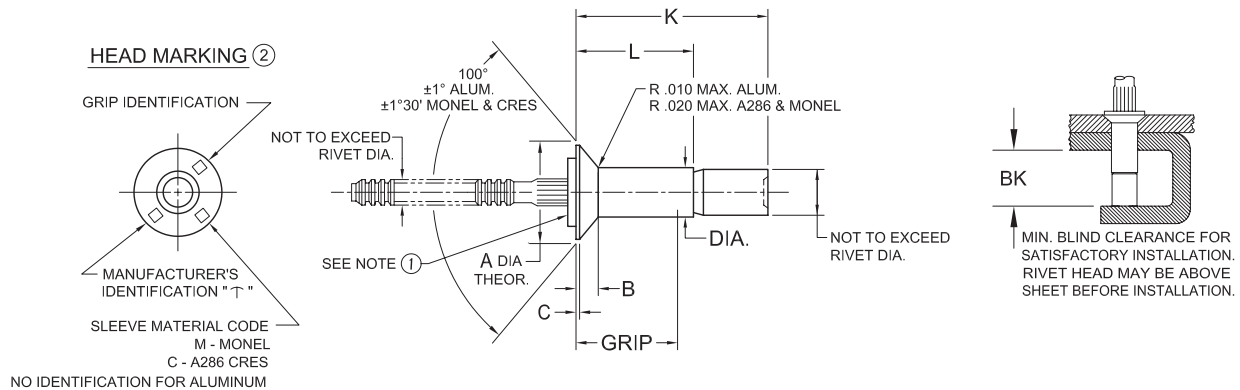
-5-01 .031

③ Chemical composition only.

-6-01 .037

# CHERRYMAX 'AB'

## 100° FLUSH HEAD NOMINAL DIAMETER



Dia. Dash No.	Dia. +.003 -.001	A ±.004	B Ref	Hole Limits
-4	.125	.225	.042	.129-.132
-5	.156	.286	.055	.160-.164
-6	.187	.353	.070	.192-.196
-8	.250	.476	.095	.256-.261

Grip Limits 1/16" Range		1/8" Diameter					5/32" Diameter				3/16" Diameter				1/4" diameter			
		Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	
④	.125	4-02	.260	.45	.30	5-02	.263	.44	.28	6-02	.287	.48	.26					
.126	.187	4-03	.323	.57	.35	5-03	.326	.56	.34	6-03	.350	.60	.32	8-03	.385	.63	.37	
.188	.250	4-04	.385	.69	.41	5-04	.388	.67	.39	6-04	.412	.72	.37	8-04	.448	.75	.43	
.251	.312	4-05	.448	.81	.46	5-05	.451	.79	.45	6-05	.475	.83	.43	8-05	.510	.87	.48	
.313	.375	4-06	.510	.93	.52	5-06	.513	.91	.50	6-06	.537	.95	.48	8-06	.573	.99	.54	
.376	.437	4-07	.573	1.05	.57	5-07	.576	1.03	.56	6-07	.600	1.07	.54	8-07	.635	1.11	.60	
.438	.500	—	—	—	—	5-08	.638	1.15	.62	6-08	.662	1.19	.60	8-08	.698	1.23	.65	
.501	.562	—	—	—	—	5-09	.701	1.27	.67	6-09	.725	1.31	.65	8-09	.760	1.34	.71	
.563	.625	—	—	—	—	5-10	.763	1.44	.78	6-10	.787	1.48	.76	8-10	.823	1.52	.82	
.626	.687	—	—	—	—	—	—	—	—	6-11	.850	1.60	.82	8-11	.885	1.64	.88	
.688	.750	—	—	—	—	—	—	—	—	6-12	.912	1.72	.88	8-12	.948	1.77	.94	
.751	.812	—	—	—	—	—	—	—	—	6-13	.975	1.83	.94	8-13	1.010	1.89	1.00	
.813	.875	—	—	—	—	—	—	—	—	6-14	1.037	1.95	1.00	8-14	1.073	2.01	1.06	

Rivet Number	NAS 523 Code	Material③			Finish		
		Sleeve	Stem	Lock Collar	Sleeve	Stem	Lock Collar
CR4172 NAS1399D(J)AB()	ACF	2017-T4 QQ-A-430	7075 QQ-A-430	5056-H38 QQ-A-430	MIL-A-8625 OR MIL-C-5541	MIL-C-5541	NONE
CR4522 NAS1399M(J)AB()	ACT	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	NONE	PASSIVATE PER AMS 2700	NONE
CR4522P NAS1399MW(J)AB()	ACK	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	CAD PLATE QQ-P-416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4622 NAS1399C(J)AB()	ACX	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	NONE
CR4622D	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	I.V.D. ALUM. MIL-C- 83488 CLASS 3, TYPE II	PASSIVATE PER AMS 2700	NONE
CR4622CW NAS1399CW(J)AB()	AFE	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	CAD PLATE QQ-P- 416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4622EA	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	A-286 CRES AMS 5731	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700

**NOTE:** Do not clean or degrease rivets prior to installation.  
Sizes below heavy line not covered by NAS 1399.

④ Dash No.	Min. Grip
-4-02	.063
-5-02	.065
-6-02	.080

① Gold colored driving anvil identifies nominal rivets.

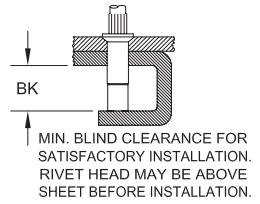
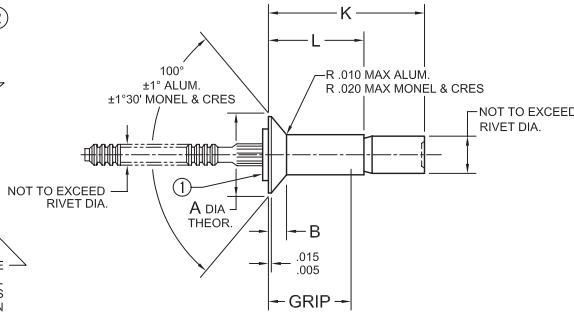
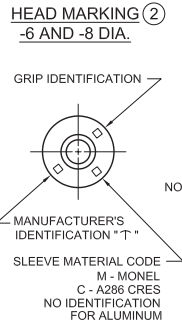
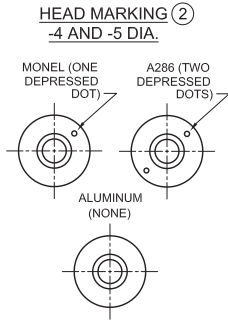
② Head marking visible after installation.

③ Chemical composition only.



# CHERRYMAX 'AB'

## NAS1097 100° REDUCED FLUSH HEAD NOMINAL DIAMETER



Dia. Dash No.	Dia. +.003 -.001	A ±.004	B Ref	Hole Limits
-4	.125	.192	.028	.129-.132
-5	.156	.243	.037	.160-.164
-6	.187	.299	.046	.192-.196
-8	.250	.392	.060	.256-.261

Grip Limits 1/16" Range		1/8" Diameter				5/32" Diameter				3/16" Diameter				1/4" diameter			
Min.	Max.	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min
⑤	.125	4-02	.260	.45	.30	5-02	.263	.44	.28	6-02	.287	.48	.26	—	—	—	—
.126	.187	4-03	.323	.57	.35	5-03	.326	.56	.34	6-03	.350	.60	.32	8-03	.385	.63	.37
.188	.250	4-04	.385	.69	.41	5-04	.388	.67	.39	6-04	.412	.72	.37	8-04	.448	.75	.43
.251	.312	4-05	.448	.81	.46	5-05	.451	.79	.45	6-05	.475	.83	.43	8-05	.510	.87	.48
.313	.375	4-06	.510	.93	.52	5-06	.513	.91	.50	6-06	.537	.95	.48	8-06	.573	.99	.54
.376	.437	4-07	.573	1.05	.57	5-07	.576	1.03	.56	6-07	.600	1.07	.54	8-07	.635	1.11	.60
.438	.500	—	—	—	—	5-08	.638	1.15	.62	6-08	.662	1.19	.60	8-08	.698	1.23	.65
.501	.562	—	—	—	—	5-08	.701	1.27	.67	6-09	.725	1.31	.65	8-09	.760	1.34	.71
.563	.625	—	—	—	—	5-08	.763	1.44	.78	6-10	.787	1.48	.76	8-10	.823	1.52	.82
.626	.687	—	—	—	—	—	—	—	—	6-11	.850	1.60	.82	8-11	.885	1.64	.88
.688	.750	—	—	—	—	—	—	—	—	6-12	.912	1.72	.88	8-12	.948	1.77	.94
.751	.812	—	—	—	—	—	—	—	—	6-13	.975	1.83	.94	8-13	1.010	1.89	1.00
.813	.875	—	—	—	—	—	—	—	—	6-14	1.037	1.95	1.00	8-14	1.073	2.01	1.06

Rivet Number	NAS 523 Code	Material ③			Finish		
		Sleeve	Stem	Lock Collar	Sleeve	Stem	Lock Collar
CR4174④	—	2017-T4 QQ-A-430	7075 QQ-A-430	5056-H38 QQ-A-430	MIL-A-8625 OR MIL-C-5541	MIL-C-5541	NONE
CR4524	—	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	NONE	PASSIVATE PER AMS 2700	NONE
CR4524	—	MONEL QQ-N-281	A-286 CRES AMS 5731 OR 5732	MONEL QQ-N-281	CAD PLATE QQ-P-416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4624	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	NONE
CR4624D	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	I.V.D. ALUM. MIL-C- 83488 CLASS 3, TYPE II	PASSIVATE PER AMS 2700	NONE
CR4624CW	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	CAD PLATE QQ-P- 416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4624EA	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	A-286 CRES AMS 5731	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700

**NOTE:** Do not clean or degrease rivets prior to installation.

⑤ Dash No. Min. Grip  
-4-02 .063  
-5-02 .065  
-6-02 .080

① Gold colored driving anvil identifies nominal rivets.

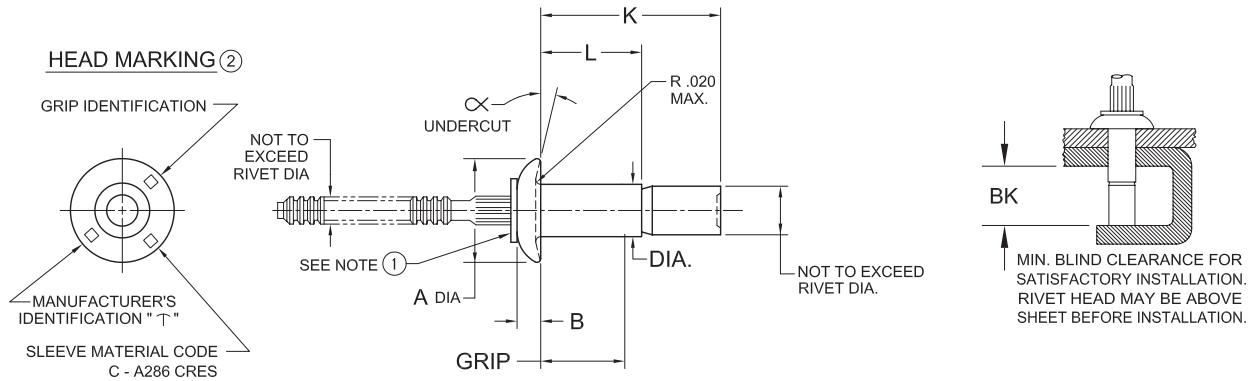
② Head marking visible after installation.

③ Chemical composition only.

④ No -8 diameter available

# CHERRYMAX 'AB'

## UNIVERSAL HEAD OVERSIZE DIAMETER



Dia. Dash No.	Dia. +.003 -.001	A		B Ref	∞ Max	Hole Limits
		Min	Max			
-4	.140	.238	.262	.054	12°	.143-.146
-5	.173	.296	.328	.067	10°	.176-.180
-6	.201	.356	.394	.060	8°	.205-.209

Grip Limits 1/16" Range		1/8" Diameter				5/32" Diameter				3/16" Diameter			
		Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min
④	.062	4-01	.198	.39	.30	5-01	.201	.38	.28	6-01	.225	.44	.27
.063	.125	4-02	.260	.51	.35	5-02	.263	.49	.34	6-02	.287	.55	.32
.126	.187	4-03	.323	.63	.41	5-03	.326	.61	.39	6-03	.350	.67	.37
.188	.250	4-04	.385	.75	.46	5-04	.388	.73	.45	6-04	.412	.79	.43
.251	.312	4-05	.448	.87	.52	5-05	.451	.85	.50	6-05	.475	.91	.48
.313	.375	4-06	.510	.98	.57	5-06	.513	.97	.56	6-06	.537	1.03	.54
.376	.437	4-07	.573	1.11	.63	5-07	.576	1.09	.62	6-07	.600	1.15	.60
.438	.500	4-08	.636	1.23	.69	5-08	.638	1.20	.67	6-08	.662	1.27	.65
.501	.562	4-09	.698	1.35	.75	5-09	.701	1.38	.78	6-09	.725	1.44	.76
.563	.625	—	—	—	—	5-10	.763	1.50	.84	6-10	.787	1.56	.82
.626	.687	—	—	—	—	—	—	—	—	6-11	.850	1.68	.88
.688	.750	—	—	—	—	—	—	—	—	6-12	.912	1.81	.94
.751	.812	—	—	—	—	—	—	—	—	—	—	—	—
.813	.875	—	—	—	—	—	—	—	—	—	—	—	—

Rivet Number	NAS 523 Code	Material ③			Finish		
		Sleeve	Stem	Lock Collar	Sleeve	Stem	Lock Collar
CR4653	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	NONE
CR4653D	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	I.V.D. ALUM. MIL-C- 83488 CLASS 3, TYPE II	PASSIVATE PER AMS 2700	NONE
CR4653CW	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	CAD PLATE QQ-P-416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4653EA	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	A-286 CRES AMS 5731	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700

NOTE: Do not clean or degrease rivets prior to installation.

④ Dash No.	Min. Grip
-4-01	.025
-5-01	.031
-6-01	.037

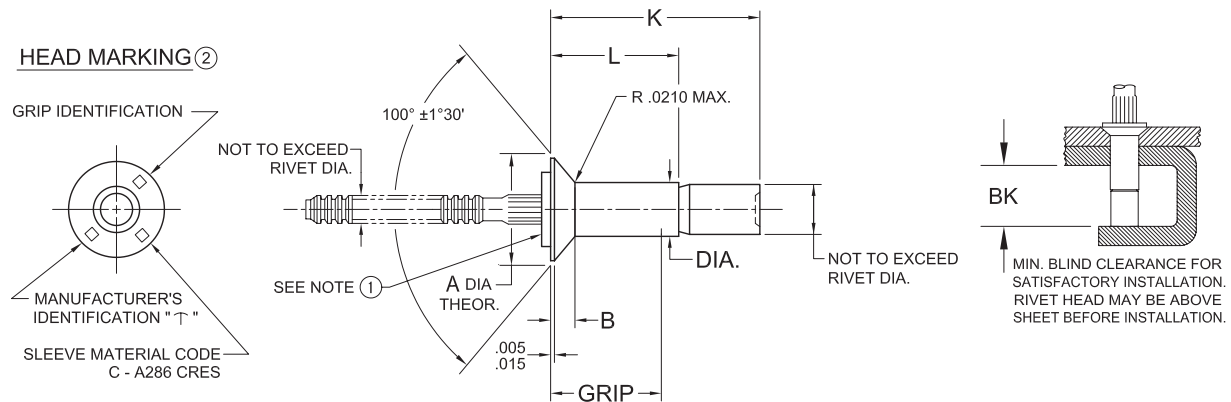
① Silver colored driving anvil identifies oversize rivets.

② Head marking visible after installation.

③ Chemical composition only.

# CHERRYMAX 'AB'

## 100° FLUSH HEAD OVERSIZE DIAMETER



Dia. Dash No.	Dia. +.003 -.001	A ±.004	B Ref	Hole Limits
-4	.140	.225	.035	.143-.146
-5	.173	.286	.047	.176-.180
-6	.201	.353	.063	.205-.209

Grip Limits 1/16" Range		1/8" Diameter				5/32" Diameter				3/16" Diameter			
		Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min	Dash No.	L Max	K Max	BK Min
④	.125	4-02	.260	.45	.30	5-02	.263	.44	.28	6-02	.287	.48	.26
	.126	4-03	.323	.57	.35	5-03	.326	.56	.34	6-03	.350	.60	.32
	.188	4-04	.385	.69	.41	5-04	.388	.67	.39	6-04	.412	.72	.37
	.251	4-05	.448	.81	.46	5-05	.451	.79	.45	6-05	.475	.83	.43
	.313	4-06	.510	.93	.52	5-06	.513	.91	.50	6-06	.537	.95	.48
	.376	4-07	.573	1.05	.57	5-07	.576	1.03	.56	6-07	.600	1.07	.54
	.438	—	—	—	—	5-08	.638	1.15	.62	6-08	.662	1.19	.60
	.501	—	—	—	—	5-09	.701	1.27	.67	6-09	.725	1.31	.65
	.563	—	—	—	—	5-10	.763	1.44	.78	6-10	.787	1.48	.76
	.626	—	—	—	—	—	—	—	—	6-11	.850	1.60	.82
	.688	—	—	—	—	—	—	—	—	6-12	.912	1.72	.88
	.751	—	—	—	—	—	—	—	—	6-13	.975	1.83	.94
	.813	—	—	—	—	—	—	—	—	6-14	1.037	1.95	1.00

Rivet Number	NAS 523 Code	Material ③			Finish		
		Sleeve	Stem	Lock Collar	Sleeve	Stem	Lock Collar
CR4652	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	NONE
CR4652D	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	I.V.D. ALUM. MIL-C- 83488 CLASS 3, TYPE II	PASSIVATE PER AMS 2700	NONE
CR4652CW	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	MONEL QQ-N-281	CAD PLATE QQ-P-416 TYPE II CL2	PASSIVATE PER AMS 2700	NONE
CR4652EA	—	A-286 CRES AMS 5731 5732 OR 5737	A-286 CRES AMS 5731	A-286 CRES AMS 5731	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700	PASSIVATE PER AMS 2700

NOTE: Do not clean or degrease rivets prior to installation.

① Silver colored driving anvil identifies oversize rivets.

② Head marking visible after installation.

③ Chemical composition only.

④ Dash No. Min. Grip

-4-02 .063

-5-02 .065

-6-02 .080

# CHERRYMAX 'AB'

## INSTALLATION TOOLING

### TOOL SELECTION CHART

The tooling and pulling head combinations shown in the chart below will install the diameter rivets indicated by the shaded areas, except where noted.

Type of Tool	Cherry Riveter Model	Pulling Head Number	Nominal And Oversize Diameter			
			-4	-5	-6	-8
Hand	G27	—	(4)			
	G750A	INCLUDED			(1)	
		H9055-6 (5)				
Power	G83 G84	H701B-456 (3)			(1)	
		H753A-456 (3)			(1)	
		H781-456 (3)			(1)	
		H782 (3)(6)			(1)	
		H955-6 (3)				
		H84A-8				(7)
		H84-8CLA				
	G700 (8)	H680B200A				
		H9055-6 (2)				
	G704B G704B-40SH G704B-SR	H701B-456			(1)	
		H753A-456			(1)	
		H781-456			(1)	
		H782 (6)			(1)	
		H955-6				
	G744 (8) G744-85SH (8)	H846A-456			(1)	
		H955-6 (9)				
		H744A-8				(7)
	G746A	H701B-456			(1)	
		H753A-456			(1)	
		H781-456			(1)	
		H782 (6)			(1)	
		H955-6				
	G747	H701B-456			(1)	
		H753A-456			(1)	
		H781-456			(1)	
		H782 (6)			(1)	
		H955-6				
G784	H680B200A			(1)		
	H9055-6 (2)					

**NOTES:** G83, G704B and G747 power tools will install grip lengths up to a -04 grip with one stroke of the tool, and longer grips with 2 strokes of the tool. All other power tools will pull all grip lengths with one stroke of the tool.

- (1) Will not pull 3/16" all-aluminum product. Pulls Monel and A286 materials only. Use H955-6 or H9055-6 with adapters as required.
- (2) Requires use of 680B46 adapter.
- (3) Requires use of 744-300 adapter.
- (4) Select 728A9-104 nose piece (sold separately) for all-aluminum fasteners.
- (5) Requires use of 750A-117 adapter.
- (6) For 3/16" all-aluminum product, use 782-6AL nose piece (sold separately).
- (7) Does not install 1/4" all-aluminum products.
- (8) Tool is non-standard.
- (9) Requires use of 744A20 adaptor.

For more information regarding tooling combinations, please contact Technical Services, Cherry Aerospace, Santa Ana, CA 714-850-6022.

# CHERRYMAX 'AB'

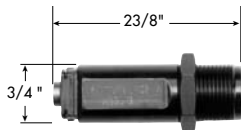
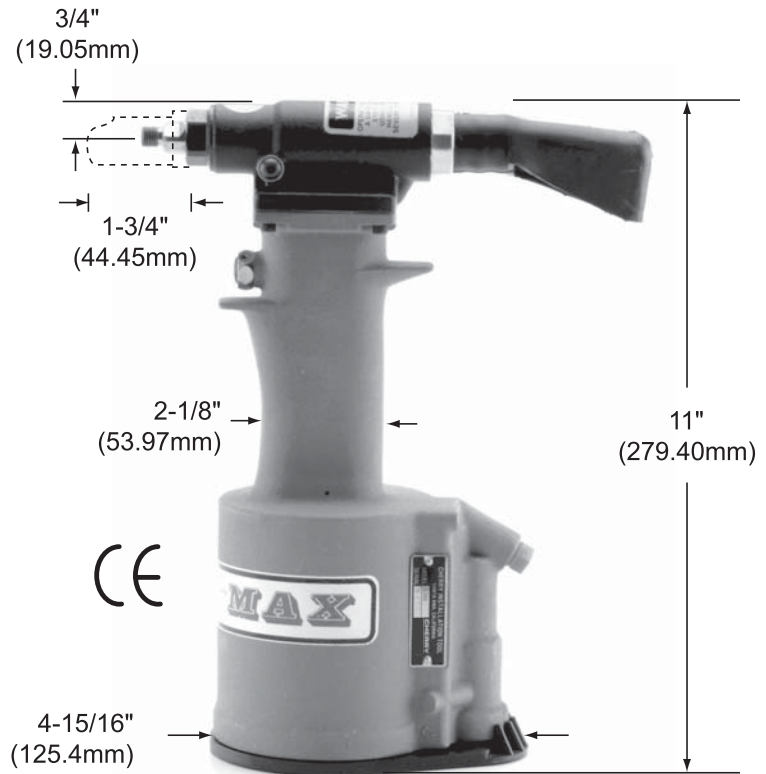
## INSTALLATION TOOLING

### G746A POWER RIVETER

National Stock Number 5130-01-338-3403

The Cherry G746A is a pneumatic/hydraulic tool designed for the efficient installation of CherryMax "AB" code rivets for -4, -5, and -6 diameter rivets. It weighs 4 lbs. and can be operated in any position with one hand. It has a .875 inch rivet setting stroke and a rated pull load of 1850 pounds on 90 psi air pressure at the air inlet. The G746A consumes approximately 3.9 cubic feet of air at 20 cycles per minute and its maximum noise level under load does not exceed 85 db(A).

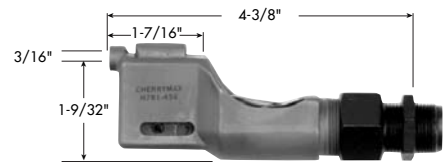
Pulling heads are not furnished with this riveter and must be ordered separately. The G746A with the H701B-456 (straight), H781-456 (offset), H782 offset, and H753A-456 (right angle) pulling heads can install CherryMAX "AB" blind rivets in -4 and -5 diameters in all materials, and -6 diameter in monel and A-286 materials. For -6 diameter aluminum rivets use H955-6 pulling head.



**H955-6 STRAIGHT PULLING HEAD**  
for Aluminum -6 dia. rivets  
NSN 5130-01-411-2599



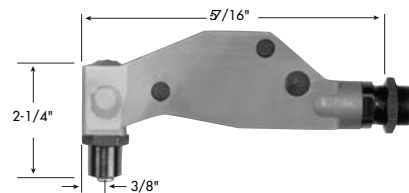
**H701B-456 STRAIGHT**  
NSN 5130-01-393-2927



**H781-456 OFFSET**  
NSN 5130-01-393-2925  
Military Part Number M85188S3



**H782 OFFSET**



**H753A-456 RIGHT ANGLE**  
NSN 5130-01-393-2926  
Military Part Number M85188S2

# CHERRYMAX 'AB'

## INSTALLATION TOOLING

### G750A HAND RIVETER

**National Stock Number 5120-01-432-9361**

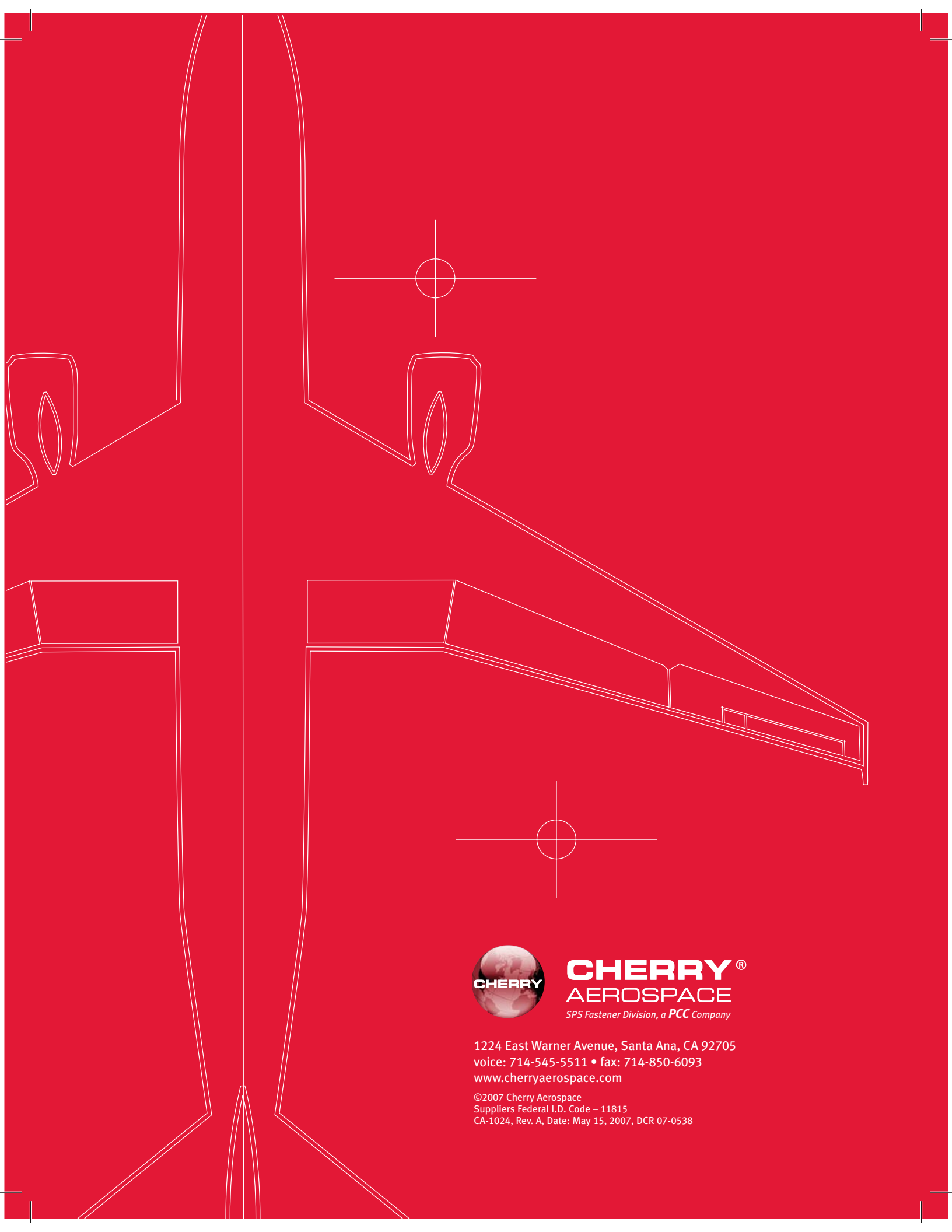
The Cherry G750A hand hydraulic riveting tool provides the versatility of a pneumatic-hydraulic riveter but with the lightweight, high pull strength ratio desirability not found in other hand riveters. The Cherry G750A has a unique 2-stage hydraulic power cylinder that provides the user with the ease of pulling the handle without the strain normally endured to install a high strength fastener. This patentable 2-stage power feature allows the user to squeeze the handle through the increase power requirement, without feeling the need to squeeze harder to install the fastener. The Cherry G750A hand riveter can install a variety of blind fastener styles, diameters, head configurations, and material combinations.

The G750A with the standard pulling head (included) can install CherryMAX "AB" blind rivets in -4 and -5 diameters in all materials, and -6 diameter in monel and A-286 materials.

For -6 diameter aluminum rivets use H9055-6 pulling head with 750A-117 adapter (sold separately).







**CHERRY<sup>®</sup>**  
**AEROSPACE**

*SPS Fastener Division, a PCC Company*

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[www.cherryaerospace.com](http://www.cherryaerospace.com)

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