DATA AND ENGINEERING

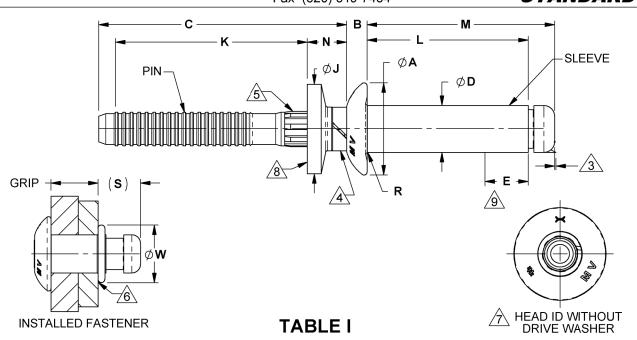
DESIGN DISCLOSED THEREIN AND THE TECHNICAL

THE STRUCTURAL

ARCONIC

Arconic Fastening Systems and Rings Tucson Operations 3724 East Columbia Street Tucson, Arizona 85714 USA Phone (520) 519-7400 Fax (520) 519-7454

Ti-Matic® **ADVANCED SERIES ENGINEERING** STANDARD



DIA.	ØΑ	В	С	ØD	Е	ØJ	K	N	R	(S)	ØW	SINGLE	TENSILE	SPINDLE	HOLE
DASH	HEAD	+.010	MIN	±.001	MAX	±.005	±.030	±.060	RAD	MAX	MIN.	SHEAR	STRENGTH	RET.	SIZE
NO.		000							MAX	REF		STRENGTH	LBS	LBS	+.003
												LBS			000
					<u>/</u> 9\	\triangle						<u>^2</u>			
0.5	.328	007	044	400	200		000	110	040	222	220	4000	000	F7F	101
-05	.296	.067	.844	.163	.300		.800	.140	.010	.232	.228	1980	900	575	.164
00	.394	000	075	400	220	275	000	100	045	202	077	2025	4.400	0.45	400
-06	.356	.080	.875	.198	.320	.375	.830	.160	.015	.292	.277	2925	1400	845	.199
00	.525	107	1 000	250	270		075	100	040	201	262	5000	2400	1110	260
-08	.475	.107	1.000	.259	.370		.975	.190	.018	.361	.363	5000	2100	1440	.260

- /1. -05 DIA SIZE ALSO AVAILABLE WITH REDUCED O.D. DRIVE ANVIL OF .312 \pm .005. (SEE SHEET 3)
- APPLIES TO GRIPS 05-03 MAX, 06-03 MAX, 08-04 MAX AND GREATER. IN SHORTER GRIPS, A TRUE COMPOSITE SHEAR TEST CANNOT BE PERFORMED.
- $\sqrt{3}$ \ TRIM FLASH NOT TO EXCEED .005" MAXIMUM LENGTH ABOVE HEAD OF PIN.
- $\overline{/4.}$ SOLID OR SPLIT LOCK COLLAR AT MANUFACTURER'S OPTION. SPLIT NOT TO EXCEED .020 WIDTH.
- $\sqrt{5}$ KNURLED TO RETAIN FASTENER ASSEMBLY. NOT PART OF INSTALLED FASTENER.
- 6\ BLIND SIDE HEAD MAY BE INSTALLED ON 7 $^\circ$ MAX SLOPE.
- IDENTIFICATION: HUCK SYMBOL, MV (FOR CP TITANIUM SLEEVE MATERIAL) AND GRIP DASH NUMBER.
- OPTIONAL DRIVE WASHER FOR INSTALLATION WITH BLUNT TOOL. NOT PART OF INSTALLED FASTENER.
- SLEEVE DIAMETER "D" MAY BE .002" UNDERSIZED IN THIS AREA.

DIMENSIONS IN INCHES DROCUDEMENT

Ь	PER ECN	I 13657, CHANGED TO ARCONIC LOGO	Current Design Activity	PROCUREMENT SPEC	DRAWN BY	J. SCHLOBOHM			
K			CAGE Code OHDW7	I OFEC I		SIGNATURE ON FILE			
ISSUED	12/14/2001		Unimatic® BLIND BOLT FASTENER, HIGH STRENGTH, PULL-TYPE,						
REVISED	11/22/2016	POSITIVE MECHANICAL LOCK, PROTI TITANIUM/TITANIUM (95 KSI SHEAF		IABP-I	VI V				
PAGE	1 OF 3	TITANION/TITANION (95 KSI SHEAF	K), SINGLE ACTION INSTALLATION		SK1277	73			



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Ti-Matic® ADVANCED SERIES **ENGINEERING STANDARD**

TABLE II

	GRIP NUMBER TABULATION															
GRIP DASH	OVERLAP GRIP			N GRIP NGE	OVERLAP GRIP	0	5	GRIP DASH	OVERLAP GRIP	DESIG RAI	_	OVERLAP GRIP	0)6	C)8
NO.	MIN	MIN.	MAX.	MAX	(L)	M MAX	NO MIN	MIN.	MAX.	MAX	(L)	M MAX	(L)	M MAX		
01	NONE	.031	.095	.111	.265	.447	-	-	-	-	-	-	-	-	-	
02	.084	.094	.157	.173	.330	.510	02	.078	.094	.157	.173	.359	.570	.399	.660	
03	.146	.156	.220	.236	.392	.572	03	.140	.156	.220	.236	.421	.632	.462	.722	
04	.209	.219	.282	.298	.455	.635	04	.203	.219	.282	.298	.484	.695	.524	.785	
05	.271	.281	.345	.361	.517	.697	05	.265	.281	.345	.361	.546	.757	.587	.847	
06	.334	.344	.407	.423	.580	.760	06	.328	.344	.407	.423	.609	.820	.649	.910	
07	.396	.406	.470	.486	.642	.822	07	.390	.406	.470	.486	.671	.882	.712	.972	
08	.459	.469	.532	.548	.705	.884	08	.453	.469	.532	.548	.734	.945	.774	1.035	
09	.521	.531	.595	.611	.767	.946	09	.515	.531	.595	.611	.796	1.007	.837	1.097	
10	.584	.594	.657	.673	.830	1.009	10	.578	.594	.657	.673	.859	1.070	.899	1.160	
11	.647	.657	.719	.736	.892	1.071	11	.640	.656	.720	.736	.921	1.132	.962	1.222	
12	.710	.720	.781	.798	.955	1.134	12	.703	.719	.782	.798	.984	1.195	1.024	1.285	
13	.773	.783	.843	.861	1.017	1.196	13	.765	.781	.845	.861	1.046	1.257	1.087	1.347	
14	.836	.846	.905	.923	1.080	1.259	14	.828	.844	.907	.923	1.109	1.320	1.149	1.410	
15	.899	.909	.967	.986	1.142	1.321	15	.890	.906	.970	.986	1.171	1.382	1.212	1.472	
16	.962	.972	1.029	1.048	1.205	1.384	16	.953	.969	1.032	1.048	1.234	1.445	1.274	1.535	
17	-	-		-	-	-	17	1.015	1.031	1.095	1.111	-	-	1.337	1.597	
18	-	-		-	-	-	18	1.078	1.094	1.157	1.173	-	-	1.399	1.660	
19	-	-	•	-	-	-	19	1.140	1.156	1.220	1.236	-	-	1.462	1.722	
20		-	-	1	-	-	20	1.203	1.219	1.282	1.298	-	-	1.524	1.785	

TABLE III

	UABP-MV INSTALLED WEIGHT IN LBS (1000 PCS.)														
GRIP	5 DIA	6 DIA	8 DIA	GRIP	5 DIA	6 DIA	8 DIA	GRIP	5 DIA	6 DIA	8 DIA				
-01	1.70			-08	3.21	5.01	9.80	-15	4.67	7.27	13.71				
-02	1.90	3.09	6.49	-09	3.43	5.33	10.36	-16	4.89	7.59	14.28				
-03	2.12	3.41	7.03	-10	3.65	5.66	10.91	-17	1	-	14.84				
-04	2.34	3.73	7.59	-11	3.87	5.98	11.47	-18	ı	-	15.40				
-05	2.56	4.05	8.14	-12	4.04	6.30	12.03	-19	-	-	15.97				
-06	2.78	4.37	8.70	-13	4.25	6.63	12.59	-20	-	-	16.53				
-07	2.99	4.69	9.25	-14	4.46	6.95	13.15								

					DIMENSI	ONS IN INCHES
)	PER ECN	13657, CHANGED TO ARCONIC LOGO	Current Design Activity	PROCUREMENT	DRAWN BY	J. SCHLOBOHM
K			CAGE Code OHDW7	SPEC T0106	CHECKED BY	SIGNATURE ON FILE
ISSUED	12/14/2001	Unimatic® BLIND BOLT FASTENER	UABP-MV			
REVISED	11/22/2016	POSITIVE MECHANICAL LOCK, PROTE TITANIUM/TITANIUM (95 KSI SHEAR		OADI -IVIV		
PAGE	2 OF 3	TITAMON/TITAMON (95 KSI SHEAR	A), SINGLE ACTION INSTALLATION		SK1277	73

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Ti-Matic® ADVANCED SERIES ENGINEERING STANDARD

TABLE I V

FINISH		MATERIAL			LUBE		
CODE	SLEEVE	PIN	LOCK COLLAR	SLEEVE	PIN	LOCK COLLAR	LOBE
NONE	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	NONE	NONE	PASSIVATE PER AMS QQ-P-35 AND AMS2700	11
DF	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	NONE	NONE	PASSIVATE PER AMS QQ-P-35 AND AMS2700	12
AC	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	HI-KOTE 1 ALUMINUM COAT PER NAS4006 AND BMS 10-85	NONE	PASSIVATE PER AMS QQ-P-35 AND AMS2700	11
AT	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	BLUE ANODIZE PER ISO 8080	NONE	PASSIVATE PER AMS QQ-P-35 AND AMS2700	11

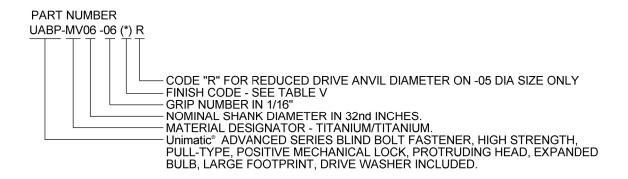
10 LUBE AND LOCK COLLAR MATERIAL AT MANUFACTURER'S OPTION.

11. LUBRICATION:

SERRATED PIN: NONE OR CETYL ALCOHOL (CHLORINE FREE) PER AS87132 TYPE 1
OR DRY FILM LUBE PER AS5272 AT MANUFACTURE'S OPTION.
MECHANICAL LOCK: NONE OR LOX COMPATIBLE DRY FILM LUBE AT MANUFACTURER'S OPTION.
SLEEVE: NO SUFFIX AND AC SUFFIX: NONE OR CETYL ALCOHOL (CHLORINE FREE) PER AS87132
TYPE 1 OR DRY FILM LUBE PER AS5272 AT MANUFACTURER'S OPTION.

A == 0.1=1/2 = 0

DF SUFFIX PARTS WHEN LUBED SHALL USE AS5272 ON ANY OF THE FASTENER COMPONENTS EXCEPT MECHANICAL LOCK MAY USE LOX COMPATIBLE DRY FILM LUBE (MFG'S OPTION)



					DIMENSI	ONS IN INCHES			
]	PER ECN	I 13657, CHANGED TO ARCONIC LOGO	PROCUREMENT	ORAWN BY	J. SCHLOBOHM				
K			CAGE Code OHDW7	SPEC T0106	CHECKED BY	SIGNATURE ON FILE			
ISSUED	12/14/2001		UABP-MV						
REVISED	11/22/2016	POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, LARGE FOOTPRINT, TITANIUM/TITANIUM (95 KSI SHEAR), SINGLE ACTION INSTALLATION							
PAGE	3 OF 3	TITANIOW/TITANIOW (95 KSI SHEAR)	SK12773						