

Howmet Fastening Systems



CURRENT DESIGN ACTIVITY
CAGE CODE 0HFW7
HFS TUCSON OPERATIONS
3724 EAST COLUMBIA STREET
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Ti-Matic® ADVANCED SERIES ENGINEERING STANDARD

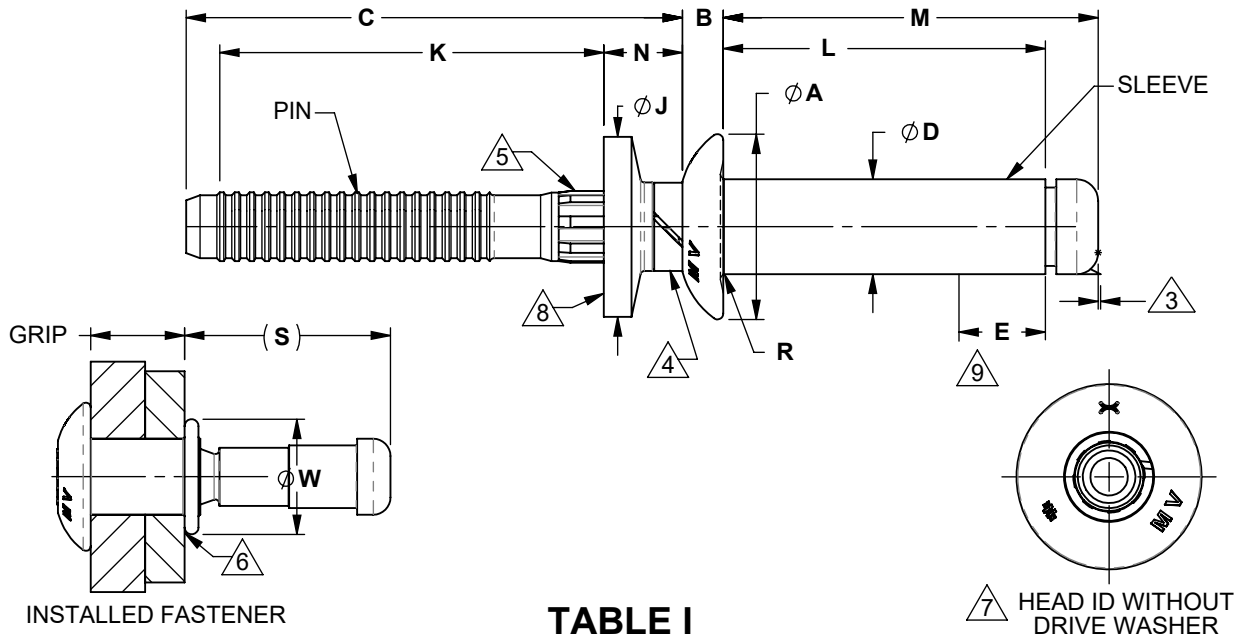


TABLE I

DIA. DASH NO.	Ø A HEAD	B +.010 -.000	C MIN	Ø D ±.001	E MAX	Ø J ±.005	K ±.030	N ±.060	R RAD MAX	(S) MAX REF	Ø W MIN.	SINGLE SHEAR STRENGTH LBS	TENSILE STRENGTH LBS	SPINDLE RET. LBS	HOLE SIZE +.003 -.000
					△9	△1						△2			
-05	.328 .296	.067	.844	.163	.300		.800	.140	.010	.232	.228	1980	900	575	.164
-06	.394 .356	.080	.875	.198	.320	.375	.830	.160	.015	.292	.277	2925	1400	845	.199
-08	.525 .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±.005. (SEE SHEET 3)
- △2. APPLIES TO GRIPS 05-03 MAX, 06-04 MAX, 08-05 MAX AND GREATER. IN SHORTER GRIPS, A TRUE COMPOSITE SHEAR TEST CANNOT BE PERFORMED.
- △3. TRIM FLASH NOT TO EXCEED .005" MAXIMUM LENGTH ABOVE HEAD OF PIN.
- △4. SOLID OR SPLIT LOCK COLLAR AT MANUFACTURER'S OPTION. SPLIT NOT TO EXCEED .020 WIDTH.
- △5. KNURLED TO RETAIN FASTENER ASSEMBLY. NOT PART OF INSTALLED FASTENER.
- △6. BLIND SIDE HEAD MAY BE INSTALLED ON 7° MAX SLOPE.
- △7. IDENTIFICATION: HUCK SYMBOL, MV (FOR CP TITANIUM SLEEVE MATERIAL) AND GRIP DASH NUMBER.
- △8. OPTIONAL DRIVE WASHER FOR INSTALLATION WITH BLUNT TOOL. NOT PART OF INSTALLED FASTENER.
- △9. SLEEVE DIAMETER "D" MAY BE .002" UNDERSIZED IN THIS AREA.

DIMENSIONS IN INCHES

T	PER ECN 14901, ADDED ACN OPTION, CHANGED "HI-KOTE 1" TO "ALUMINUM PIGMENTED COATING" ON AC SLEEVE FINISH, ADDED NOTE 13 AND FLAG, UPDATED LOGO	PROCUREMENT SPEC T0106	DRAWN BY J. SCHLOBOHM
ISSUED	12/14/2001		CHECKED BY SIGNATURE ON FILE
REVISED	11/24/21		
PAGE	1 OF 3		
Unimatic® BLIND BOLT FASTENER, HIGH STRENGTH, PULL-TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, LARGE FOOTPRINT, TITANIUM/TITANIUM (95 KSI SHEAR), SINGLE ACTION INSTALLATION		UABP-MV	
		SK12773	

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TABLE II

GRIP NUMBER TABULATION															
GRIP DASH NO.	OVERLAP GRIP MIN	DESIGN GRIP RANGE		OVERLAP GRIP MAX	05		GRIP DASH NO.	OVERLAP GRIP MIN	DESIGN GRIP RANGE		OVERLAP GRIP MAX	06		08	
		MIN.	MAX.		(L)	M MAX			MIN.	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	-	-	-	-	-	-	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	-	-	14.84
-04	2.34	3.73	7.59	-11	3.87	5.98	11.47	-18	-	-	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				

DIMENSIONS IN INCHES

T	PER ECN 14901, ADDED ACN OPTION, CHANGED "HI-KOTE 1" TO "ALUMINUM PIGMENTED COATING" ON AC SLEEVE FINISH, ADDED NOTE 13 AND FLAG, UPDATED LOGO						PROCUREMENT SPEC T0106	DRAWN BY J. SCHLOBOHM	SIGNATURE ON FILE	
	ISSUED	12/14/2001	Unimatic® BLIND BOLT FASTENER, HIGH STRENGTH, PULL-TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, LARGE FOOTPRINT, TITANIUM/TITANIUM (95 KSI SHEAR), SINGLE ACTION INSTALLATION						CHECKED BY	
REVISD	11/24/21									
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									UABP-MV	
									SK12773	

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CURRENT DESIGN ACTIVITY
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HFS TUCSON OPERATIONS
3724 EAST COLUMBIA STREET
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Ti-Matic®
ADVANCED SERIES
**ENGINEERING
STANDARD**

TABLE I V

FINISH CODE	MATERIAL			FINISH			LUBE
	SLEEVE	PIN	LOCK COLLAR	SLEEVE	PIN	LOCK COLLAR	
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 13.	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	ALUMINUM PIGMENTED COATING 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
ACN 13.	CP TITANIUM PER ASTM-B348	38-6-44 TITANIUM PER AMS 4957	A-286 CRES PER AMS 5737	NON-CHROMATE ALUMINUM PIGMENTED COATING PER NAS4006 AND EN4473	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.

12. 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)

13. COMPLETE COVERAGE OF SLEEVE INTERNAL FEATURES IS NOT REQUIRED. OVER SPRAY ONTO
THE INTERNAL FEATURES IS ACCEPTABLE

PART NUMBER
UABP-MV06 -06 (*) R

CODE "R" FOR REDUCED DRIVE ANVIL DIAMETER ON -05 DIA SIZE ONLY
FINISH CODE - SEE TABLE V
GRIP NUMBER IN 1/16"
NOMINAL SHANK DIAMETER IN 32nd INCHES.
MATERIAL DESIGNATOR - TITANIUM/TITANIUM.
Unimatic® ADVANCED SERIES BLIND BOLT FASTENER, HIGH STRENGTH,
PULL-TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, EXPANDED
BULB, LARGE FOOTPRINT, DRIVE WASHER INCLUDED.

DIMENSIONS IN INCHES

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