



AcraDyne
A Division of AIMCO

Case Study

Still going strong after more than 33,700 cycles, AcraDyne's bolting tool proves that its total cost of ownership is the lowest in the industry



Not Pretty, but Pretty Impressive

Critical bolting demands tools that deliver high torque with superior performance. In addition to performance, a sustainable application solution incorporates tools that are ergonomic and robust, as well as long-lasting to fit the budget.

AcraDyne's 8000 series 4,200 Nm HT bolting tool was originally put into service in 2014. As with all its tools, AcraDyne has backed up the 8000 Series tool with unwavering service, including annual calibration, maintenance, and technical support.

Need

Customer needed a high-torque bolting tool for both scheduled and unscheduled wind tower maintenance. The tool needed to be durable enough to withstand repeated heavy-duty use.

Challenge

Severe, remote environments are tough on even the toughest tools. It is necessary for tools to not only be durable, but consistently sustain long-term reliability and certification — all while keeping the budget in mind.

Solution

AcraDyne supplied a 4,200 Nm bolting tool that met all initial customer requirements, with a suggested calibration every 12 months.

Result

AcraDyne's AEP4B884200B1 HT pistol tool has a proven 5-year track record of consistent performance and quality, incurring only minimal maintenance and repair costs. Despite heavy wear and constant use, it continues to pass certification.



QUALITY • INNOVATION • SERVICE

Since 1970, AIMCO has been providing superior Global Assembly and Critical Bolting Tooling solutions for the Motor Vehicle Industry, AG/Off Road, Electronics, Aerospace, Energy Services, and General Assembly Industries.

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Superior Durability Begins with Better Tool Design

Customers voice common frustrations with other high-torque bolting tools on the market. AcraDyne designs its tools and systems to respond directly to those needs.



AcraDyne Built a Better Gearbox that Requires Less-Frequent Maintenance

Many competing tools in the market are designed for a Service/Maintenance use condition and are rated for 20,000 – 25,000 cycles before maintenance. AcraDyne's HT tools are designed for production-level duty cycles and are rated for 100,000 cycles.



AcraDyne's Warranty is Designed with Customer Cost-Saving and Productivity in Mind

In addition to frequent warranty denials from competing companies, the repair of a tool under their warranty can be costly, both in price and downtime. If repair is needed, other brands require the entire system be pulled from a line, removing the entire asset from service.

AcraDyne's HT series is modular. Service/Warranty/Maintenance is performed by component (tool/cable/controller/reaction bar), so only one part of the system needs to be returned for repair. This allows other tools to be substituted into the system, so work stoppage is brief and costs associated with downtime are minimal.



On-site Calibration Ensures that Certificate Numbers are Accurate

HT series systems with AcraDyne controllers allow for calibration to the known standard at the customer's site as often as needed. This requires no additional investment or need to send any product offsite. This lowers calibration costs and keeps tool in use.


Service, Maintenance, and Calibration Costs 2014 – 2019

AcraDyne AEP4B884200B1 HT Pistol Tool

Service Date	Cycle Count	Service	Cost
9/2016	26,805	• Service and calibration	\$313.00
3/2017	29,848	• Service and calibration • Replaced screw in reaction bar retainer plate	\$407.00
2/2018	32,976	• Service and calibration • Replaced trigger assembly	\$527.00
3/2019	33,720	• Service and calibration • Replaced associated parts	\$486.00
Total cost of service, maintenance, and calibration from 2014 – 2019			\$1,733.00

DC Tool Calibration Certificate 03/28/2019

TOOL MODEL #:	AEP4B884200B1				
TOOL SERIAL #:	091411				
TEST DATE:	3/28/2019				
CONTROLLER #:	C10				
JOINT SIMULATOR:	J18				
CERTIFICATE #:	AEP4B884200B1-091411-032819				



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EQUIPMENT USED*					
	MODEL	S/N	LAST CAL DATE	CAL DUE DATE	CERTIFICATE #
TRANSDUCER:	8.333KFTLB	X6037N	5/15/2018	5/15/2019	18998-1
TORQUE DISPLAY:	ATDA	M138881	5/15/2018	5/15/2019	18998-1D

RUNDOWN DATA		
	TOOL	MASTER TRANSDUCER
1	3377.00	3408.00
2	3372.00	3446.00
3	3376.00	3373.00
4	3391.00	3376.00
5	3400.00	3441.00
6	3382.00	3392.00
7	3369.00	3394.00
8	3400.00	3411.00
9	3392.00	3394.00
10	3364.00	3379.00
11	3374.00	3365.00
12	3369.00	3369.00
13	3372.00	3397.00
14	3377.00	3395.00
15	3374.00	3356.00
16	3363.00	3379.00
17	3389.00	3398.00
18	3387.00	3388.00
19	3380.00	3351.00
20	3360.00	3341.00
21	3372.00	3392.00
22	3374.00	3418.00
23	3374.00	3343.00
24	3399.00	3381.00
25	3392.00	3439.00
26	3390.00	3434.00
27	3383.00	3407.00
28	3380.00	3431.00
29	3370.00	3381.00
30	3370.00	3399.00

TARGET TORQUE	3360.0	NM
USL	3528.0	NM
LSL	3192.0	NM

STATISTICAL PERFORMANCE		
	TOOL	MASTER
MEAN	3379.07	3392.60
STD DEV	11.05	28.10
Cm	5.07	1.99
Cmk	4.49	1.61
% 6 SIGMA	1.96	4.97

TEST RESULT
PASS

AFTER FIRST USE, ACRADYNE RECOMMENDS THAT THE TOOL BE CALIBRATED ANNUALLY**. THE CALIBRATION VALUE IS STORED IN THE TOOL.

*Measurements are Traceable to NIST (National Institute of Standards and Technology)

**Tool calibration intervals are application dependent, and should be determined by the end users quality plan