

STANLEY

Assembly Technologies



General Industry goes
++IG++TECH++

Intelligent Air Tools



AP Series



AT Series



AH & AM Series



AM/A Series

Closed-loop control
and reporting



Barcode information can be
used to select parameter
sets and store part ID
with rundown results



Stanley Assembly Technologies is a leading provider of threaded fastening solutions for the global industrial assembly market. The innovative and reliable "PSI Family" includes error-proofing solutions to monitor or control pulse, impact, and gear driven tools ranging from 3 to 3000 Nm and beyond.

Nomenclature

AH30PB-40 = Hydraulic Pulse Tool, 3/8" square drive, 40 Nm

A	H	3	0	P	B		- 40
A = Air	H = Hydraulic Pulse	3 = 3/8" square drive	0 = Flush Anvil	P = Pistol	B = straight		40 Nm max (B Joint)
	M = Mechanical Pulse	4 = 1/2" square drive	4 = 4" Extended Anvil	D = D-handle Inline			
	P = Pin Clutch	6 = 3/4" square drive	6 = 6" Extended Anvil				
	T = Twin Hammer	8 = 1" square drive					

AM30PBMA-40 = Mechanical Pulse Tool, 3/8" square drive, Tool Memory, Angle Control, 40 Nm

A	M	3	0	P	B	M	A	- 40
A = Air	H = Hydraulic Pulse	3 = 3/8" square drive	0 = Flush Anvil	P = Pistol	B = straight	M = Memory	A = Angle	40 Nm max (B Joint)
	M = Mechanical Pulse	4 = 1/2" square drive	4 = 4" Extended Anvil	D = D-handle Inline				
	P = Pin Clutch	6 = 3/4" square drive	6 = 6" Extended Anvil					
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INTELLIGENT

PSI-C Controller



The **PSI-C** controls Stanley Assembly Technologies' complete line of transducerized pulse and impact tools, including four types of tools designed to meet a wide range of application requirements: AH – Hydraulic Pulse, AM – Mechanical Pulse, AP – Pin-clutch Impact, and AT – Twin Hammer Impact tools.

PSI-C controls the fastening process by stopping the tool after achieving the programmed torque and/or angle target and error proofing the operation with batch counting, process control I/O, and various types of network connectivity for numerical results. Simple MENU programming reduces set-up time.

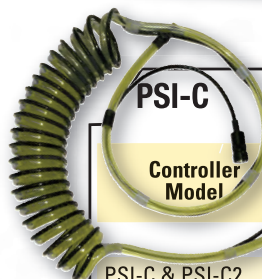
Rundown information can be sent via a network or printed

DATE:12/19/07	TIME:15:10	RANGE:65-95	FTLB
WHEEL1: 80.9	82.1	82.1	80.0
WHEEL2: 82.4	81.8	80.9	81.5
WHEEL3: 80.0	80.3	79.4	82.4
WHEEL4: 79.4	79.7	80.6	80.3
TECH: CALIBRATION DUE DATE:11/05/08			



Socket tray and other interfaces can be used to select parameter sets

Options for the **PSI-C** include up to eight parameter sets and internal data storage with the Data Transfer Unit (DTU); various fastening features including **downshift**, **joint conditioning**, and **linked parameter sets**; and plant integration capabilities including serial or Ethernet communication, barcode scanning, socket tray parameter set selection, remote switches and an internal label printer.



Hose/Cable Assembly

Controller Model	Hose/Cable Part No.	Length	Fitting at Controller	Fitting at Tool	Hose Size
		meters	in.	in.	in.
PSI-C & PSI-C2	24C500505	5	3/8"	1/4"	3/8"
PSI-C & PSI-C2	24C500508	8	3/8"	1/4"	3/8"
PSI-C & PSI-C2	24C500511	11	3/8"	1/4"	3/8"
PSI-C & PSI-C2	24C500805*	5	3/8"	1/4"	3/8"
PSI-C & PSI-C2	24C500905*	5	3/8"	3/8"	3/8"
PSI-C/H & PSI-C2/H	24C505305	5	1/2"	3/8"	1/2"
PSI-C/H & PSI-C2/H	24C505308	8	1/2"	3/8"	1/2"
PSI-C/H & PSI-C2/H	24C505311	11	1/2"	3/8"	1/2"
PSI-C/H & PSI-C2/H	24C500705	5	1/2"	1/2"	1/2"
PSI-C/H & PSI-C2/H	24C500708	8	1/2"	1/2"	1/2"
PSI-C/H & PSI-C2/H	24C500711	11	1/2"	1/2"	1/2"

** Indicates Coiled Hose/Cable Assemblies - All Others Are Straight.*



Reduce Total Cost of Ownership with user-friendly setup

"AP" Pin Clutch Impact Tools

Another INDUSTRY FIRST! The new **AP** series impact tools feature an internal torque transducer. The **AP** series offers the power of an impact tool optimized for operator comfort by delivering smooth and accurate high speed performance across a wide range of free running fasteners on hard to medium joint rates with light to medium duty cycles, **ALL OF THIS WITH VIRTUALLY NO TORQUE REACTION!** Upon cycle completion, bright **GREEN** or **RED** lights illuminate the work piece to indicate **OK/NOK** cycle status.



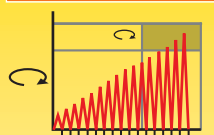
AP40PB-225

Model No.	Torque Range Nm.*		Free Speed rpm	Overall Length		Weight		NPT Inlet	Output Drive
	Hard	Soft		in.	mm	lbs.	kg	in	in
AP30PB-40	16 - 45	10 - 32	9000	6 1/4"	158.8	2.0	0.9	1/4"	3/8" sq.
AP30PB-115	55 - 125	15 - 88	8800	7 1/2"	190.5	2.6	1.2	1/4"	3/8" sq.
AP40PB-225	90 - 270	60 - 160	7800	9"	228.6	6.2	2.8	1/4"	1/2" sq.
AP60PB-700	200 - 800	135 - 650	6600	12 3/8"	314.0	12.6	5.7	3/8"	3/4" sq.
AP64PB-700	190 - 775	135 - 635	6600	15 1/2"	393.7	13.6	6.2	3/8"	3/4" sq.

* Torque range is approximate and will be affected by joint rate, extensions and socket condition.



TC/PM
Torque Control with
Pulse Monitoring



Control strategy for tightening threaded fasteners. Pulse monitoring can be used for error-proofing to detect rehits, cross threaded fasteners and changes in the joint rate.

Settings

- Torque target and limits
- Pulse limits

Ends at torque = torque target.
Final torque and pulse count within limits for OK cycle.



The PSI Controller runs tools ranging from 3 – 2200 Nm.

INTELLIGENT

Heavy-Duty “AT” Impact Tools



AT84DB-1500

Stanley is proud to offer the **ONLY** heavy-duty transducerized impact tool with all the power and performance advantages of a Twin Hammer and the control and reporting capability of a transducerized tool.

The AT series offers the power necessary for the most demanding applications with soft and prevailing joint rates and the most intense duty cycles. Upon cycle completion, the lights illuminate the work piece **GREEN** or **RED** to indicate **OK/NOK** cycle status. For the ultimate in Intelligent Impacts, Stanley's **AT/M** series tools project white lights on the work piece during fastening and includes model number, serial number and calibration values stored to the internal micro-chip enabling plug and play operation.



AT/M Model No.	AT Model No.	Torque Range Nm.*		Free Speed rpm	Overall Length		Weight		NPT Inlet	Output Drive
		Hard	Soft		in.	mm	lbs.	kg		
AT40PBM-175	AT40PB-175	55 - 170	20 - 110	10000	7 9/16"	192	3.6	1.6	1/4"	1/2" sq.
AT40PBM-335	AT40PB-335	140 - 450	60 - 250	7500	9 3/8"	237	6.0	2.7	1/4"	1/2" sq.
AT60PBM-675	AT60PB-675	230 - 770	190 - 635	5500	11 1/8"	282	14.2	6.4	3/8"	3/4" sq.
AT64PBM-675	AT64PB-675	230 - 770	190 - 635	5500	15"	381	14.5	6.6	3/8"	3/4" sq.
AT60DBM-675	AT60DB-675	230 - 770	190 - 635	5500	14 3/4"	374	14.8	6.7	1/2"	3/4" sq.
AT64DBM-675	AT64DB-675	230 - 770	190 - 635	5500	18 7/16"	468	15.8	7.2	1/2"	3/4" sq.
AT84DBM-1500	AT84DB-1500	610 - 1800	475 - 1380	4500	19 1/8"	487	26.0	11.8	1/2"	1" sq.
AT86DBM-2200	AT86DB-2200	1130 - 2200	725 - 2200	4200	24 3/4"	630	37.8	17.2	1/2"	1" sq.

* Torque range is approximate and will be affected by joint rate, extensions and socket condition.

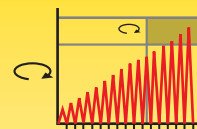


AT60PBM-675



TC/PM

Torque Control with
Pulse Monitoring



Control strategy for tightening threaded fasteners. Pulse monitoring can be used for error-proofing to detect rehits, cross threaded fasteners and changes in the joint rate.

Settings

- Torque target and limits
- Pulse limits

Ends at torque = torque target.
Final torque and pulse count within limits for OK cycle.

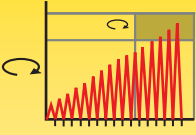
T H I R T O O L S

"AH & AM" Pulse Tools

Hydraulic & Mechanical Transducer Controlled Pulse Tools

AH and **AM** series pulse tools offer excellent ergonomics delivering high torque with virtually no torque reaction. The hydraulic pulse **AH** series and mechanical pulse **AM** series have been changing the industry since 2004 and as with all pulse and impact tools in the PSI family, the **AH & AM** tools provides operator feedback. Upon cycle completion, the tool's lights illuminate the work piece **GREEN** or **RED** to indicate **OK/NOK** cycle status.

TC/PM
Torque Control with
Pulse Monitoring



Control strategy for tightening threaded fasteners. Pulse monitoring can be used for error-proofing to detect rehits, cross threaded fasteners and changes in the joint rate.

Settings

- Torque target and limits
- Pulse limits

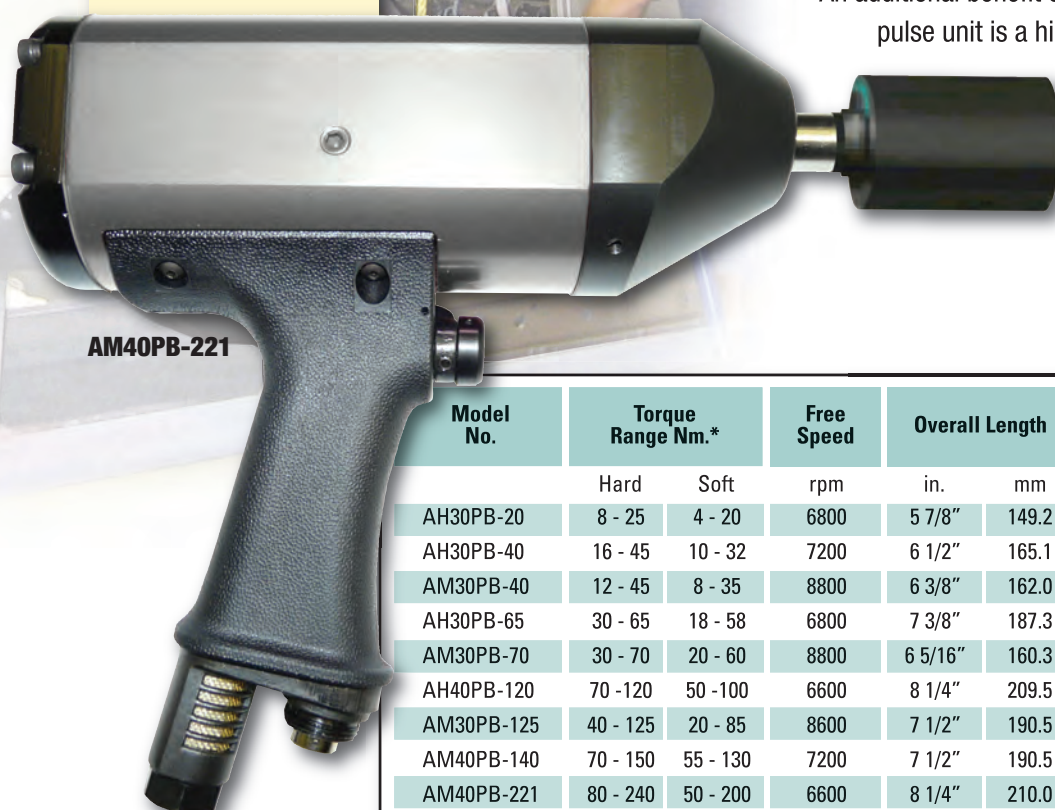
Ends at torque = torque target.
Final torque and pulse count within limits for OK cycle.

AH series pulse tools use hydraulic fluid to transfer energy to the fastener with the lowest possible noise and vibration levels.

AM series pulse tools employ a proprietary mechanical mechanism instead of hydraulic fluid to transfer energy to the fastener enabling operation on more intense joint types and duty cycles. Since the **AM** series uses oil for lubrication only, mechanical pulse tools do not require periodic oil changes reducing maintenance costs significantly.



An additional benefit of the mechanical pulse unit is a higher power to weight ratio. For example, the **AM** model rated for 220 Nm weighs only 2.6 kg, which is 30% lighter than the leading-competitor's comparable hydraulic shutoff tool.



AM40PB-221

Model No.	Torque Range Nm.*		Free Speed rpm	Overall Length		Weight		NPT Inlet in	Output Drive in
	Hard	Soft		in.	mm	lbs.	kg		
AH30PB-20	8 - 25	4 - 20	6800	5 7/8"	149.2	2.6	1.2	1/4"	3/8" sq.
AH30PB-40	16 - 45	10 - 32	7200	6 1/2"	165.1	3.0	1.3	1/4"	3/8" sq.
AM30PB-40	12 - 45	8 - 35	8800	6 3/8"	162.0	3.0	1.3	1/4"	3/8" sq.
AH30PB-65	30 - 65	18 - 58	6800	7 3/8"	187.3	3.4	1.5	1/4"	3/8" sq.
AM30PB-70	30 - 70	20 - 60	8800	6 5/16"	160.3	3.2	1.4	1/4"	3/8" sq.
AH40PB-120	70 - 120	50 - 100	6600	8 1/4"	209.5	4.8	2.2	1/4"	1/2" sq.
AM30PB-125	40 - 125	20 - 85	8600	7 1/2"	190.5	3.8	1.7	1/4"	3/8" sq.
AM40PB-140	70 - 150	55 - 130	7200	7 1/2"	190.5	4.5	2.0	1/4"	1/2" sq.
AM40PB-221	80 - 240	50 - 200	6600	8 1/4"	210.0	6.0	2.7	1/4"	1/2" sq.
AM60PB-450	220 - 470	120 - 420	5500	11 7/8"	301.6	12.5	5.7	1/4"	3/4" sq.

* Torque range is approximate and will be affected by joint rate, extensions and socket condition.

INTELLIGENT

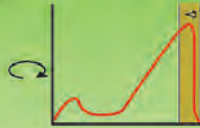
Angle Control "AM/A" Pulse Tools

*The AM/A series tools with APS (Absolute Position Sensor) enables **ANGLE** control and monitoring for the ultimate in error-proofing and control*



AC/TM

Angle Control with Torque Monitoring



Controls the amount of fastener rotation. Angle control can determine component positions.

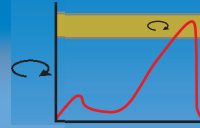
Settings

- Angle target and limits
- Torque limits

Ends at angle = angle target. Final angle and torque within limits for OK cycle.

TC/AM

Torque Control with Angle Monitoring



Most common control strategy for tightening threaded fasteners. Angle monitoring can detect changes in joint rate, indicating process concerns.

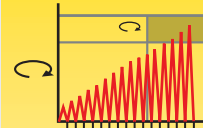
Settings

- Torque target and limits
- Angle limits

Ends at torque = torque target. Final torque and angle within limits for OK cycle.

TC/PM

Torque Control with Pulse Monitoring



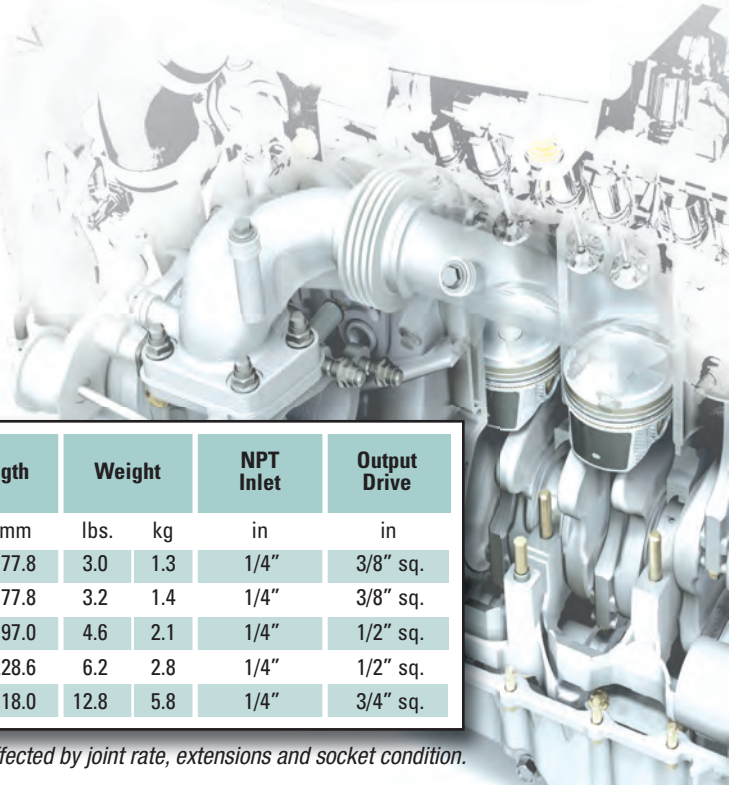
Control strategy for tightening threaded fasteners. Pulse monitoring can be used for error-proofing to detect rehits, cross threaded fasteners and changes in the joint rate.

Settings

- Torque target and limits
- Pulse limits

Ends at torque = torque target. Final torque and pulse count within limits for OK cycle..

Stanley introduces another Industry First! **AM/A** series mechanical pulse tools with APS (Absolute Position Sensor) providing torque and angle monitoring and control. While torque control has become the industry standard for threaded fastening, those operations that demand tighter process control with integrated error proofing can now turn to the new Stanley **AM/A** series, which also project white light on to the work piece during fastening. Upon cycle completion, the light illuminating the work piece changes to **GREEN** or **RED** to indicate **OK/NOK** cycle status. In addition, the AM/A series also offers tool memory with calibration value stored to plug-and-play operation.



Model No.	Torque Range Nm.*		Free Speed	Overall Length		Weight		NPT Inlet	Output Drive
	Hard	Soft		in.	mm	lbs.	kg		
AM30PBMA-40	16 - 45	16 - 45	8800	7"	177.8	3.0	1.3	1/4"	3/8" sq.
AM30PBMA-70	30 - 70	30 - 70	8800	7"	177.8	3.2	1.4	1/4"	3/8" sq.
AM40PBMA-140	70 - 150	55 - 130	7200	7 3/4"	197.0	4.6	2.1	1/4"	1/2" sq.
AM40PBMA-220	80 - 240	50 - 200	6600	9"	228.6	6.2	2.8	1/4"	1/2" sq.
AM60PBMA-450	220 - 470	160 - 420	5500	12 1/2"	318.0	12.8	5.8	1/4"	3/4" sq.

*Torque range is approximate and will be affected by joint rate, extensions and socket condition.

STANLEY

MAKE SOMETHING GREAT™

PSI-DT & PSI-DT/H Dial-A-TORQ

- POKE-YOKE error-proofing (Rehit / Minimum Pulse Count detection)
- Basic I/O (Disable IN and OK OUT)
 - Green lights on GOOD cycle
- Runs all of the PSI Family Discontinuous-Drive Transducerized Tools

**PSI-Q & Qc**

The PSI-Q and Qc Process Qualifier will provide your operations with true POKE-YOKE error-proofing and batch counting of fasteners.

- Error-proofing for non-transducerized air tools
- Monitors fastening cycle to detect incomplete or undesired cycles
 - I / O for cycle OK and DISABLE
- EtherNet or Serial Network communication available

**TVM (Torque Validation Module)**

The TVM is a torque transducer designed to handle the most rugged torque tools available and provide actual torque readings that are N.I.S.T. traceable. Extremely robust and employing an easily replaceable Grade 8 (or 10.8) hex head cap screw and nut, the TVM is ready to take on any impact tool, pulse tool or direct drive tool within its range.

- Heavy-duty design - stands up to impact wrenches
 - Easy to replace wear items
- Dead weight calibrated; N.I.S.T. Certificate of Calibration
 - Adjustable joint rate



For more information, visit www.StanleyAssembly.com

Stanley Assembly Technologies, an operating group of The Stanley Works was founded in 1963. Originally called Stanley Air Tools, the group was renamed in 2002 to reflect the emphasis on technology to deliver high value solutions to the global assembly market. The Stanley Works, headquartered in New Britain, Connecticut has manufacturing and distribution in all world areas.

STANLEY**Assembly Technologies**