



# K&E AERO TOOLS

## AEROSPACE BEARING INSTALLATION, SWAGING, STAKING & TESTING TOOLS

### About Us

K&E Aero Tools offers a full range of standard and custom bearing installation tools for OEM assembly requirements. Our precision tools allow for accurate and repeatable installation and removal, meeting OEM and industry standard installation specifications.

## AEROSPACE TOOLS

### Precision Engineered Solutions

#### » Bearing Installation Tools

Standard and Custom Tri-Roller - Portable, Drill Press  
Two-wheel, Anvil Impression, Segment & Ball Sleeve

#### » Removal & Extraction Tools

Cutter - Portable, Machine Push-Out

#### » Testing Tools

Proof Load & Breakaway Torque

#### » Go Kits

Standard MS Bearing Kits, Portable and Drill Press  
& Specialty Custom Kits

#### » Technical Assistance

Engineering & Training

#### » Industries Served

Commercial/Aerospace & Government/Military

#### » Custom Tools

Designed for your application requirements



PORTABLE TOOLS



DRILL PRESS



GO KITS



## Aerospace Bearing Tools & Go Kits for MS Series Bearings

MIL-B-81820		Tri-Roller		Cutter		Install/ Removal	Proof Load Testers		Go Kits	
Bearing # MS14101	Bearing # MS14103	Portable Model #	Drill Press Model #	Portable Model #	Drill Press Model #	Portable Model #	Portable Model #	Drill Press Model #	Portable Model #	Drill Press Model #
MS14101-3		NPT3000	NPT1000	NPC3000	NPC1000	NPIR3000	NPPL4101-3	NPPL4101-3 DP	NPK3000	NPK1000
	MS14103-3	NPT3001	NPT1001	NPC3001	NPC1001	NPIR3001	NPPL4103-3	NPPL4103-3 DP	NPK3001	NPK1001
	MS14103-4	NPT3002	NPT1002	NPC3002	NPC1002	NPIR3002	NPPL4103-4	NPPL4103-4 DP	NPK3002	NPK1002
MS14101-4		NPT3003	NPT1003	NPC3003	NPC1003	NPIR3003	NPPL4101-4	NPPL4101-4 DP	NPK3003	NPK1003
	MS14103-5	NPT3004	NPT1004	NPC3004	NPC1004	NPIR3004	NPPL4103-5	NPPL4103-5 DP	NPK3004	NPK1004
MS14101-5		NPT3005	NPT1005	NPC3005	NPC1005	NPIR3005	NPPL4101-5	NPPL4101-5 DP	NPK3005	NPK1005
MS14101-6	MS14103-6	NPT3006	NPT1006	NPC3006	NPC1006	NPIR3006	NPPL4101-6	NPPL4101-6 DP	NPK3006	NPK1006
MS14101-7	MS14103-7A	NPT3007	NPT1007	NPC3007	NPC1007	NPIR3007	NPPL4101-7	NPPL4101-7 DP	NPK3007	NPK1007
	MS14103-7	NPT3008	NPT1008	NPC3008	NPC1008	NPIR3008	NPPL4103-7	NPPL4103-7 DP	NPK3008	NPK1008
MS14101-8		NPT3009	NPT1009	NPC3009	NPC1009	NPIR3009	NPPL4101-8	NPPL4101-8 DP	NPK3009	NPK1009
	MS14103-8	NPT3010	NPT1010	NPC3010	NPC1010	NPIR3010	NPPL4103-8	NPPL4103-8 DP	NPK3010	NPK1010
MS14101-9		NPT3011	NPT1011	NPC3011	NPC1011	NPIR3011	NPPL4101-9	NPPL4101-9 DP	NPK3011	NPK1011
	MS14103-9	NPT3012	NPT1012	NPC3012	NPC1012	NPIR3012	NPPL4103-9	NPPL4103-9 DP	NPK3012	NPK1012
MS14101-10		NPT3013	NPT1013	NPC3013	NPC1013	NPIR3013	NPPL4101-10	NPPL4101-10 DP	NPK3013	NPK1013
	MS14103-10	NPT3014	NPT1014	NPC3014	NPC1014	NPIR3014	NPPL4103-10	NPPL4103-10 DP	NPK3014	NPK1014
	MS14103-12	NPT3015	NPT1015	NPC3015	NPC1015	NPIR3015	NPPL4103-12	NPPL4103-12 DP	NPK3015	NPK1015
MS14101-12		NPT3016	NPT1016	NPC3016	NPC1016	NPIR3016	NPPL4101-12	NPPL4101-12 DP	NPK3016	NPK1016
MS14101-14		NPT3017	NPT1017	NPC3017	NPC1017	NPIR3017	NPPL4101-14	NPPL4101-14 DP	NPK3017	NPK1017
	MS14103-14	NPT3018	NPT1018	NPC3018	NPC1018	NPIR3018	NPPL4103-14	NPPL4103-14 DP	NPK3018	NPK1018
MS14101-16		NPT3019	NPT1019	NPC3019	NPC1019	NPIR3019	NPPL4101-16	NPPL4101-16 DP	NPK3019	NPK1019
	MS14103-16	NPT3020	NPT1020	NPC3020	NPC1020	NPIR3020	NPPL4103-16	NPPL4103-16 DP	NPK3020	NPK1020

## Housing Stake & Sleeve Swage

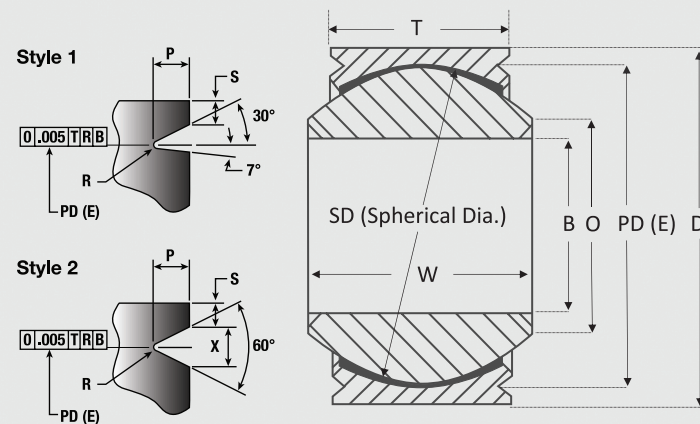
Other methods of bearing retention include staking the housing over the bearing or using a sleeve over the outer race and the housing. This can be accomplished with various methods including ball and segment impression staking using flat rollers.

## Standard & Custom Go Kits



## Custom Tool Capability

Custom designed tools can be manufactured to meet your application requirements. A complete bearing size description and housing as listed below and any clearance restrictions must be known for proper design.



SPHERICAL BRG	B	D	W	T	O	P	R	S	X	SD	PD (E)