M-D Pneumatics® KINNEY®

4840 W. Kearney St.
Springfield, MO 65803

DIMENSIONS & WEAR LIMITS FOR MAJOR DYNAMIC COMPONENTS

				KT-150/KTC-112		KT-300/KTC-225	
				Standard Limits	Suggested Wear Limits	Standard Limits	Suggested Wear Limits
		Cylinder					
	A.	Long Bore, Diameter	Max	6.879	6.885	8.879	8.885
	B.	Short Bore, Diameter	Max	7.044	7.010	9.004	9.010
#*	C.	Slide Pin Bore Diameter	Max	3.752	3.757	4.752	4.757
	D.	Long Cylinder Bore Depth	Max	10.001		15.002	
	E.	Short Cylinder Bore Depth	Max	3.001		4.502	
		(Closed Head Side w/	Min	2.999		4.999	
		Wall Installed)					
		Slide Pins					
#*	A.	OD, Long	Min	3.7465	3.744	4.7455	4.743
		OD, Short	Min	3.7475	3.745	4.746	4.743
	B.	Slot Length, Long	Max	6.001		9.001	
		Slot Length, Short	Max	3.001		4.501	
*	C.	Slot Width	Max	1.505	1.507	2.002	2.004
		Pistons					
	A.	OD, Long	Min	4.743		6.118	
		OD, Short	Min	4.868		6.243	
*	B.	ID	Max	4.0015	4.004	5.377	5.379
	C.	Length, Long	Min	5.994		8.993	
		Length, Short	Min	2.995		4.494	
*	D.	Slide Width	Min	1.500	1.497	1.995	1.992
		Cams					
*	A.	OD	Min	3.996	3.993	5.371	5.368
	B.	Bore	Max	1.376		2.001	
		Shaft					
*	A.	Under Bearings	Min	1.312	1.310	1.936	1.934
	B.	Under Shaft seal	Min	1.249		1.874	
		Bearings (Installed)					
*	A.	ID	Max	1.317	1.320	1.942	1.945
		Head					
*	A.	Sline Pin Counter Bore	Max	3.754		4.754	

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Note: *Primary surfaces subjected to wear. It must be recognized that stated wear limits, particularly on both mating parts or on several parts, will result in below standard performance.
#Excessively worn slidepin bores may be reworked for special 1/16 oversize diameter slidepins.

KT-300C/D PUMP DIMENSION FOR MAJOR DYNAMIC COMPONENTS

				Standard Limits	Suggested Wear Limits
		Cylinder			
	A.	Long Bore, Diameter	Max	8.879	8.884
	B.	Short Bore, Diameter	Max	9.004	9.009
#*	C.	Slide Pin Bore Diameter	Max	4.752	4.754
	D.	Long Cylinder Bore Depth	Max	15.002	
	E.	Short Cylinder Bore Depth	Max	4.502	
		(Closed Head Side w/ Wall Installed)	Max	4.999	
		Slide Pins			
*	A.	OD, Long	Min	4.745	4.7425
		OD, Short	Min	4.7455	4.743
	B.	Slot Length, Long	Max	9.001	
		Slot Length, Short	Max	4.501	
*	C.	Slot Width	Max	2.001	2.003
		Piston			
	A.	OD, Long	Min	6.117	
		OD, Short	Min	6.242	
*	B.	ID	Max	5.377	5.3795
	C.	Length, Long	Min	8.493	
		Length, Short	Min	4.494	
*	D.	Slide Width, long	Min	1.9935	1.992
		Slide Width, short	Min	1.9945	1.993
		Cam			
*	A.	OD	Min	5.371	5.368
	B.	Bore	Max	2.001	
		Shaft			
*	A.	Under Bearings	Min	1.937	1.935
	B.	Under Shaft seal	Min	1.874	
		Bearings (Installed)			
*	A.	ID	Max	1.942	1.944

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	Head				
*	A.	Sline Pin Counter Bore	Max	4.754	

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KT-500C/D PUMP DIMENSION FOR MAJOR DYNAMIC COMPONENTS

				Standard Limits	**Suggested Wear Limits**
		Cylinder			
	A.	Long Bore, Diameter	Max	11.880	11.886
	B.	Short Bore, Diameter	Max	12.005	12.011
#*	C.	Slide Pin Bore Diameter	Max	6.502	6.505
	D.	Long Cylinder Bore Depth	Max	16.502	
	E.	Short Cylinder Bore Depth	Max	5.002	
		(Closed Head Side w/ Wall Installed)	Max	4.998	
		Slide Pins			
*	A.	OD, Long	Min	6.492	6.490
		OD, Short	Min	6.493	6.491
	B.	Slot Length, Long	Max	10.001	
		Slot Length, Short	Max	5.001	
*	C.	Slot Width	Max	2.501	2.503
		Piston			
	A.	OD, Long	Min	8.363	
		OD, Short	Min	8.49	
*	B.	ID	Max	7.002	7.005
	C.	Length, Long	Min	9.992	
		Length, Short	Min	9.993	
*	D.	Slide Width, long	Min	2.4905	2.4885
		Slide Width, short	Min	2.4915	2.4895
		Cam			
*	A.	OD	Min	6.995	6.992
	B.	Bore	Max	2.501	
		Shaft			
*	A.	Under Bearings	Min	2.3745	2.3725
	B.	Under Shaft seal	Min	2.124	

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	Bearings (Installed)				
* A.	ID	Max	2.380		2.382
	Head				
* A.	Sline Pin Counter Bore	Max	6.505		

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#Excessively worn slidepin bores may be reworked for special 1/16 oversize diameter slidepins.

KT-850C MECHANICAL VACUUM PUMP
DIMENSIONS FOR MAJOR DYNAMIC COMPONENTS

		Standard Limits		**Suggested Wear Limits**
	Cylinder			
A.	Long Bore, Diameter	13.878	+ .003	13.887
B.	Short Bore, Diameter	14.003	+.003	14.012
#* C.	Slide Pin Bore Diameter	7.251	± .001	7.255
D.	Long Cylinder Bore Depth	22.5	+.003	
E.	Short Cylinder Bore Depth (Cylinder head side with wall installed)	7.0015	-.0025	
	Slide Pins			
#* A.	OD, Long	7.242	- .002	7.238
	OD, Short	7.243	- .0015	7.237
B.	Slot Length, Long	14.001	- .002	
	Slot Length, Short	7.001	- .0015	
* C.	Slot Width	3.000	+ .002	3.004
	Pistons			
A.	OD, Long	9.355	+ .001 - .002	
	OD, Short	9.48	+ .001 - .002	
* B.	ID	8.000	+ .002	8.005
C.	Length, Long	13.991	± .001	
	Length, Short	6.993	± .001	
* D.	Slide Width, Long	2.991	- .002	2.987
	Slide Width, Short	2.992	- .002	2.988
	Cam			

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* A.	Outside Diameter	7.995	- .001	7.991
B.	Bore	2.750	+ .001	
	Shaft			
* A.	Under Bearings	2.6245	+ .0005	2.622
B.	Under Shaft seal	2.499	+ .002	
	Bearings (Installed)			
* A.	Inside Diameter	2.629	+ .002	2.632
	Head			
A.	Slide Pin Counter Bore	7.254		

Note:

* Primary surfaces subjected to ear. It must be recognized that stated wear limits,

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				KDH-130 / 150	
				Standard Limits	Suggested Wear Limits
	Cylinder				
	A.	Cylinder Bore Diameter	Max.	8.003	8.008
#*	B.	Slide Pin Bore Diameter	Max.	3.002	3.005
	C.	Cylinder Bore Depth	Max.	8.002	8.005
	D.	Bore Center Distance		4.843/4.845	-
	Slide Pins				
#*	A.	Outside Diameter	Min.	2.9975	2.995
	B.	Slot Length	Max.	8.002	8.004
*	C.	Slot Width	Max.	1.5055	1.507
	Pistons				
	A.	Outside Diameter	Min.	5.493	5.489
*	B.	Inside Diameter	Max.	4.753	4.7555
	C.	Length	Min.	7.995	7.993
*	D.	Slide Width	Min.	1.501	1.499
	Cam				
*	A.	Outside Diameter	Min.	7.995	- .001
	B.	Bore	Max.	2.750	+ .001
	Shaft				
	A.	Under bearings & under shaft seal	Min.	1.498	1.496
	Bearings (Installed)				
*	A.	Inside Diameter	Max.	1.501	1.504
	Head				
	A.	Slide Pin Counter Bore	Max.	3.0035	-

Note:

* Primary surfaces subjected to ear. It must be recognized that stated wear limits,

* Excessively worn slidepin bores may be reworked for special 1/16" oversize diameter slidepins.

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KC-15, KD30/50 PUMP DIMENSION FOR MAJOR DYNAMIC COMPONENTS

			Standard Limits	Suggested Wear Limits
	Cylinder			
	A. Cylinder Bore Diameter	Max.	5.0015	5.004
*	B. Slide Pin Bore Diameter	Max.	2.127	2.129
	C. Cylinder Bore Depth	Max.	5.0015	5.0025
	Slide Pins			
*	A. Diameter	Min.	2.124	2.1225
	B. Slot Length	Max.	0.0015	5.0025
*	C. Slot Width	Max.	0.255	1.2565
	Pistons			
	A. Outside Diameter	Min.	3.495Δ	3.493
*	B. Inside Diameter	Max.	2.941	2.943
	C. Length	Min.	4.997	4.995
*	D. Slide Width	Min.	1.251	1.2495
	Cam			
*	A. Diameter	Min.	2.9375	2.936
	B. Bore	Max.	0.9385	
	Shaft			
	A. Under Bearings	Min.	0.787	0.786
	B. Under Shaft seal	Min.	0.749	
	Bearing (C.I.) KD-30/50			
	A. Inside Diameter	Max.	0.790	0.7915

Note: *Primary surfaces subjected to wear. It must be recognized that stated wear limits, particularly on both mating parts or on several parts, will result in below standard performance.

ΔMin. KD-50 piston OD is 3.491 with suction quadrant feathering to 3.485 dia. adjacent to slide.