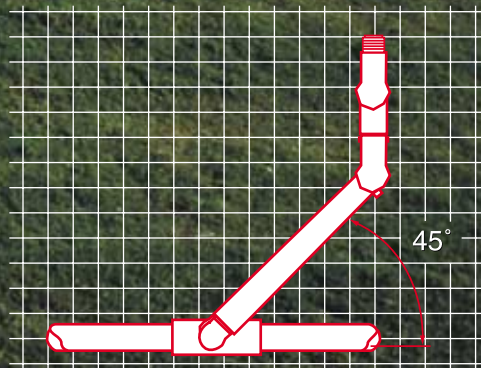
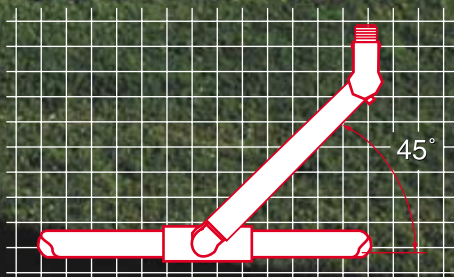
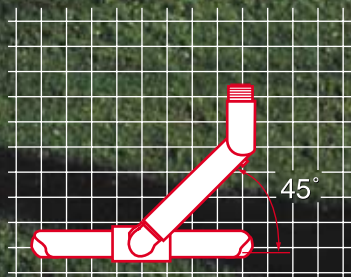




KING BROS. INDUSTRIES



TRIPLE SWING ASSEMBLIES

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COMPANY HISTORY

Yesterday... In 1970 we started manufacturing specialty irrigation repair products at *Kbi*. Since the inception of *Kbi*, our foundation for success has been a combination of precise engineering, high quality products and a commitment to total customer service.

Today... Building on a foundation of precise engineering and high quality, we use state of the art equipment and software. At *Kbi* we are proud of our in-house digital molding equipment, the finest in the industry, that runs 24 hours a day. We engineer all of our products with advanced Computer Aided Design software, C&C, EDM, and MRP Scheduling systems. We continue in our quest for total customer satisfaction by employing Electronic Data Processing, Bar Coding and on-line purchasing information to ensure immediate and efficient ordering and communication. To further guarantee customer satisfaction we have developed a strong network of sales representatives throughout the world who provide our customers with additional individual attention. Our entire team is dedicated to total customer satisfaction.

Tomorrow... At *Kbi* we continue to enhance our products and introduce new products that address the advancements in irrigation design and equipment. Our philosophy is that *Kbi* is a partner with the irrigation industry. As a good partner we will continue to provide high quality products, superior service and competitive prices to meet the growing demands of our customers. We are thankful to our customers for the opportunity to serve them and appreciate their support of our products over the years.

MISSION STATEMENT

Kbi will design and manufacture high quality plastic valves and specialty products that exceed industry expectations and specifications at competitive prices. Our customers will receive the highest quality service and support for all of our product lines.

Key to fulfilling our mission will be to focus on the objectives of:

- Continued production of superior quality products.
- Maintaining long-term loyal working relationships with our customers.
- Commitment to Total Quality Management (*ISO9001*).
- Placing a priority on product research and development.
- Non-compromising ethics, morals and business/personal values.



KING BROS. INDUSTRIES

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QUICK PART NUMBER GUIDE

TSX - XXXX - X X

TRIPLE SWING SERIES

TSA	=	Standard Length - Unitized
TSS	=	Short Length - Unitized
TSL	=	Long Length - Specify Length ¹
TSK	=	Kit Assembly (<i>Add Sch 80 Pipe</i>)
TSE	=	Economy Swing Assembly ²

OUTLET CONFIGURATIONS

A	=	ACME Thread
B	=	BSP Thread
C	=	Socket
R	=	Triple Out (<i>MIPT</i>)
T	=	MIPT Thread

SIZES AVAILABLE

<u>Standard</u>		<u>Inlet</u>		<u>Outlet</u>
0500	=	1/2"	x	1/2"
0750	=	3/4"	x	3/4"
1000	=	1"	x	1"
1250	=	1-1/4"	x	1-1/4"
1500	=	1-1/2"	x	1-1/2"

INLET CONFIGURATIONS

B	=	BSP Thread
C	=	Socket
L	=	Long Spigot (4")
S	=	Standard Spigot
T	=	MIPT Thread

<u>Dual Size</u>		<u>Inlet</u>		<u>Outlet</u>
0507 ³	=	1/2"	x	3/4"
1012	=	1"	x	1-1/4"
1210	=	1-1/4"	x	1"
1215	=	1-1/4"	x	1-1/2"
1512	=	1-1/2"	x	1-1/4"

ABBREVIATIONS

BSP	=	British Standard Pipe
FIPT	=	Female Iron Pipe Thread
MIPT	=	Male Iron Pipe Thread
ACME	=	Male Acme Thread

NOTES

- * See specific page for all available configurations.
- * (1) TSL - Add desired Lie length to suffix (ie: TSL - 1000 - TT16 = 16 inch).
- * (2) TSE - Available in 0500/0750 - TT configurations only.
- * (3) 0507 - Size available on TSE only.










STANDARD LENGTH UNITIZED BODY

TSA SERIES

Kbi TSA series are excellent for use under sprinkler heads anywhere a high quality installation is required. Allows sprinkler height and angle to be adjusted and protects against lateral or mainline damage. O-ring seals provide leak-free joints. Ideal for valve-in-head applications.



- Limited Lifetime Warranty.
- Full 360° adjustment / 3 planes.
- 315 psi @ 73° working pressure rating.
- Made of Sch80 HI-IMPACT PVC Type II material.
- All sizes available (1/2" - 1 1/2"), including dual size.
- High quality EPDM O-ring/Acme thread seals.
- Reinforced Sch80 gusset design swing elbows (3/4" - 1-1/2").
- Complies with all applicable ASTM and ANSI standards.
- Manufactured in the U.S.A. by Kbi.
- Lie Lengths:
 1/2" (0500) = 10" 1-1/4" (1250) = 12"
 3/4" (0750) = 10" 1-1/2" (1500) = 12"
 1" (1000) = 12"

TSA Available Part Numbers							
All Available Product Configurations Shown on Chart			OUTLET CONFIGURATIONS				
			MIPT Thread (-_T)	Socket (-_C)	Triple Out MIPT (-_R)	ACME Thread (-_A)	BSP Thread (-_B)
							
INLET CONFIGURATIONS	MIPT Thread (-_T_) 	1/2"	TSA-0500-TT	TSA-0500-TC	TSA-0500-TR	n/a	TSA-0500-TB
		3/4"	TSA-0750-TT	TSA-0750-TC	TSA-0750-TR	n/a	TSA-0750-TB
		1"	TSA-1000-TT	TSA-1000-TC	TSA-1000-TR	TSA-1000-TA	TSA-1000-TB
		1-1/4"	TSA-1250-TT	TSA-1250-TC	TSA-1250-TR	TSA-1250-TA	TSA-1250-TB
		1-1/2"	TSA-1500-TT	TSA-1500-TC	TSA-1500-TR	TSA-1500-TA	TSA-1500-TB
	Std Spigot (-_S_) 	1/2"	TSA-0500-ST	TSA-0500-SC	TSA-0500-SR	n/a	TSA-0500-SB
		3/4"	TSA-0750-ST	TSA-0750-SC	TSA-0750-SR	n/a	TSA-0750-SB
		1"	TSA-1000-ST	TSA-1000-SC	TSA-1000-SR	TSA-1000-SA	TSA-1000-SB
		1-1/4"	TSA-1250-ST	TSA-1250-SC	TSA-1250-SR	TSA-1250-SA	TSA-1250-SB
		1-1/2"	TSA-1500-ST	TSA-1500-SC	TSA-1500-SR	TSA-1500-SA	TSA-1500-SB
	Long Spigot (-_L_) 	1/2"	TSA-0500-LT	TSA-0500-LC	TSA-0500-LR	n/a	TSA-0500-LB
		3/4"	TSA-0750-LT	TSA-0750-LC	TSA-0750-LR	n/a	TSA-0750-LB
		1"	TSA-1000-LT	TSA-1000-LC	TSA-1000-LR	TSA-1000-LA	TSA-1000-LB
		1-1/4"	TSA-1250-LT	TSA-1250-LC	TSA-1250-LR	TSA-1250-LA	TSA-1250-LB
		1-1/2"	TSA-1500-LT	TSA-1500-LC	TSA-1500-LR	TSA-1500-LA	TSA-1500-LB
	Socket (-_C_) 	1/2"	TSA-0500-CT	TSA-0500-CC	TSA-0500-CR	n/a	TSA-0500-CB
		3/4"	TSA-0750-CT	TSA-0750-CC	TSA-0750-CR	n/a	TSA-0750-CB
		1"	TSA-1000-CT	TSA-1000-CC	TSA-1000-CR	TSA-1000-CA	TSA-1000-CB
		1-1/4"	TSA-1250-CT	TSA-1250-CC	TSA-1250-CR	TSA-1250-CA	TSA-1250-CB
		1-1/2"	TSA-1500-CT	TSA-1500-CC	TSA-1500-CR	TSA-1500-CA	TSA-1500-CB
	BSP Thread (-_B_) 	1/2"	TSA-0500-BT	TSA-0500-BC	TSA-0500-BR	n/a	TSA-0500-BB
		3/4"	TSA-0750-BT	TSA-0750-BC	TSA-0750-BR	n/a	TSA-0750-BB
		1"	TSA-1000-BT	TSA-1000-BC	TSA-1000-BR	TSA-1000-BA	TSA-1000-BB
		1-1/4"	TSA-1250-BT	TSA-1250-BC	TSA-1250-BR	TSA-1250-BA	TSA-1250-BB
		1-1/2"	TSA-1500-BT	TSA-1500-BC	TSA-1500-BR	TSA-1500-BA	TSA-1500-BB
Dual Size Configurations							
1" x 1-1/4"	TSA-1012-xx	To Create specific part number for all size configurations, simply use 4 number size code as shown on left. (ie: TSA-1215-TT = 1-1/4" MIPT inlet x 1-1/2" MIPT outlet).					
1-1/4" x 1"	TSA-1210-xx						
1-1/4" x 1-1/2"	TSA-1215-xx						
1-1/2" x 1-1/4"	TSA-1512-xx						









SHORT LENGTH UNITIZED BODY

TSS SERIES

Kbi TSS series are excellent for use under sprinkler heads anywhere a high quality installation is required but space is limited. Allows sprinkler height and angle to be adjusted and protects against lateral or mainline damage. O-ring seals provide leak-free joints. Ideal for valve-in-head applications.



- Limited Lifetime Warranty.
- Full 360° adjustment / 3 planes.
- 315 psi @ 73° working pressure rating.
- Made of Sch80 HI-IMPACT PVC Type II material.
- All sizes available (1/2" - 1-1/2"), including dual size.
- High quality EPDM O-ring/Acme thread seals.
- Reinforced Sch80 gusset design swing elbows (3/4" - 1-1/2").
- Complies with all applicable ASTM and ANSI standards.
- Manufactured in the U.S.A. by *Kbi*.
- Lie Lengths:
 - 1/2" (0500) = 3.4" 1-1/4" (1250) = 4.5"
 - 3/4" (0750) = 3.7" 1-1/2" (1500) = 4.5"
 - 1" (1000) = 4.0"

TSS Available Part Numbers						
All Available Product Configurations Shown on Chart		OUTLET CONFIGURATIONS				
		MIPT Thread (-_T) 	Socket (-_C) 	ACME Thread (-_A) 	BSP Thread (-_B) 	
INLET CONFIGURATIONS	MIPT Thread (-T_) 	1/2"	TSS-0500-TT	TSS-0500-TC	n/a	TSS-0500-TB
		3/4"	TSS-0750-TT	TSS-0750-TC	n/a	TSS-0750-TB
		1"	TSS-1000-TT	TSS-1000-TC	TSS-1000-TA	TSS-1000-TB
		1-1/4"	TSS-1250-TT	TSS-1250-TC	TSS-1250-TA	TSS-1250-TB
		1-1/2"	TSS-1500-TT	TSS-1500-TC	TSS-1500-TA	TSS-1500-TB
	Std Spigot (-S_) 	1/2"	TSS-0500-ST	TSS-0500-SC	n/a	TSS-0500-SB
		3/4"	TSS-0750-ST	TSS-0750-SC	n/a	TSS-0750-SB
		1"	TSS-1000-ST	TSS-1000-SC	TSS-1000-SA	TSS-1000-SB
		1-1/4"	TSS-1250-ST	TSS-1250-SC	TSS-1250-SA	TSS-1250-SB
		1-1/2"	TSS-1500-ST	TSS-1500-SC	TSS-1500-SA	TSS-1500-SB
	Socket (-C_) 	1/2"	TSS-0500-CT	TSS-0500-CC	n/a	TSS-0500-CB
		3/4"	TSS-0750-CT	TSS-0750-CC	n/a	TSS-0750-CB
		1"	TSS-1000-CT	TSS-1000-CC	TSS-1000-CA	TSS-1000-CB
		1-1/4"	TSS-1250-CT	TSS-1250-CC	TSS-1250-CA	TSS-1250-CB
		1-1/2"	TSS-1500-CT	TSS-1500-CC	TSS-1500-CA	TSS-1500-CB
	BSP Thread (-B_) 	1/2"	TSS-0500-BT	TSS-0500-BC	n/a	TSS-0500-BB
		3/4"	TSS-0750-BT	TSS-0750-BC	n/a	TSS-0750-BB
		1"	TSS-1000-BT	TSS-1000-BC	TSS-1000-BA	TSS-1000-BB
		1-1/4"	TSS-1250-BT	TSS-1250-BC	TSS-1250-BA	TSS-1250-BB
		1-1/2"	TSS-1500-BT	TSS-1500-BC	TSS-1500-BA	TSS-1500-BB
Dual Size Configurations						
1" x 1-1/4"	TSS-1012-xx	To Create specific part number for all size configurations, simply use 4 number size code as shown on left. (ie: TSS-1215-TT = 1-1/4" MIPT inlet x 1-1/2" MIPT outlet).				
1-1/4" x 1"	TSS-1210-xx					
1-1/4" x 1-1/2"	TSS-1215-xx					
1-1/2" x 1-1/4"	TSS-1512-xx					











NON-STANDARD LIE-LENGTH

TSL SERIES

Kbi TSL series are excellent for use under sprinkler heads when special lengths are necessary. Allows sprinkler height and angle to be adjusted and protects under head piping against damage. O-ring seals provide leak-free joints. Ideal for valve-in-head applications. Custom specified lie-length allows maximum control of application.

- Limited Lifetime Warranty.
- Full 360° adjustment / 3 planes.
- 315 psi @ 73° working pressure rating.
- Made of Sch80 HI-IMPACT PVC Type II material.
- All sizes available (1/2" - 1-1/2"), including dual size.
- Factory assembled with solvent cemented length of Sch80 pipe.
- High quality EPDM O-ring/Acme thread seals.
- Reinforced Sch80 gusset design swing elbows (3/4" - 1-1/2").
- Complies with all applicable ASTM and ANSI standards.
- Manufactured in the U.S.A. by *Kbi*.
- Lie Lengths (must be specified as suffix) ie: TSL-1000-TT18 = 18"



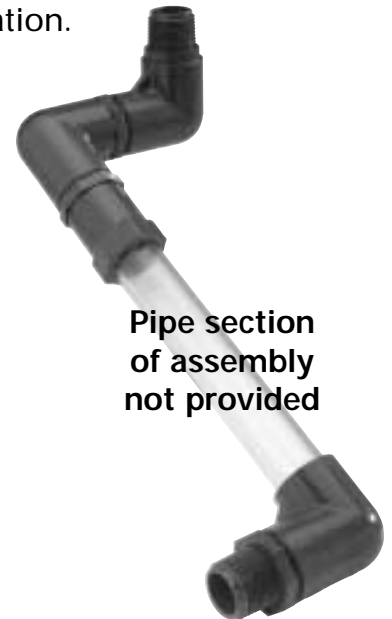
TSL Available Part Numbers							
All Available Product Configurations Shown on Chart			OUTLET CONFIGURATIONS				
			MIPT Thread (-_T)	Socket (-_C)	Triple Out MIPT (-_R)	ACME Thread (-_A)	BSP Thread (-_B)
							
INLET CONFIGURATIONS	MIPT Thread (-_T) 	1/2"	TSL-0500-TT	TSL-0500-TC	TSL-0500-TR	n/a	TSL-0500-TB
		3/4"	TSL-0750-TT	TSL-0750-TC	TSL-0750-TR	n/a	TSL-0750-TB
		1"	TSL-1000-TT	TSL-1000-TC	TSL-1000-TR	TSL-1000-TA	TSL-1000-TB
		1-1/4"	TSL-1250-TT	TSL-1250-TC	TSL-1250-TR	TSL-1250-TA	TSL-1250-TB
		1-1/2"	TSL-1500-TT	TSL-1500-TC	TSL-1500-TR	TSL-1500-TA	TSL-1500-TB
	Std Spigot (-_S) 	1/2"	TSL-0500-ST	TSL-0500-SC	TSL-0500-SR	n/a	TSL-0500-SB
		3/4"	TSL-0750-ST	TSL-0750-SC	TSL-0750-SR	n/a	TSL-0750-SB
		1"	TSL-1000-ST	TSL-1000-SC	TSL-1000-SR	TSL-1000-SA	TSL-1000-SB
		1-1/4"	TSL-1250-ST	TSL-1250-SC	TSL-1250-SR	TSL-1250-SA	TSL-1250-SB
		1-1/2"	TSL-1500-ST	TSL-1500-SC	TSL-1500-SR	TSL-1500-SA	TSL-1500-SB
	Long Spigot (-_L) 	1/2"	TSL-0500-LT	TSL-0500-LC	TSL-0500-LR	n/a	TSL-0500-LB
		3/4"	TSL-0750-LT	TSL-0750-LC	TSL-0750-LR	n/a	TSL-0750-LB
		1"	TSL-1000-LT	TSL-1000-LC	TSL-1000-LR	TSL-1000-LA	TSL-1000-LB
		1-1/4"	TSL-1250-LT	TSL-1250-LC	TSL-1250-LR	TSL-1250-LA	TSL-1250-LB
		1-1/2"	TSL-1500-LT	TSL-1500-LC	TSL-1500-LR	TSL-1500-LA	TSL-1500-LB
	Socket (-_C) 	1/2"	TSL-0500-CT	TSL-0500-CC	TSL-0500-CR	n/a	TSL-0500-CB
		3/4"	TSL-0750-CT	TSL-0750-CC	TSL-0750-CR	n/a	TSL-0750-CB
		1"	TSL-1000-CT	TSL-1000-CC	TSL-1000-CR	TSL-1000-CA	TSL-1000-CB
		1-1/4"	TSL-1250-CT	TSL-1250-CC	TSL-1250-CR	TSL-1250-CA	TSL-1250-CB
		1-1/2"	TSL-1500-CT	TSL-1500-CC	TSL-1500-CR	TSL-1500-CA	TSL-1500-CB
	BSP Thread (-_B) 	1/2"	TSL-0500-BT	TSL-0500-BC	TSL-0500-BR	n/a	TSL-0500-BB
		3/4"	TSL-0750-BT	TSL-0750-BC	TSL-0750-BR	n/a	TSL-0750-BB
		1"	TSL-1000-BT	TSL-1000-BC	TSL-1000-BR	TSL-1000-BA	TSL-1000-BB
		1-1/4"	TSL-1250-BT	TSL-1250-BC	TSL-1250-BR	TSL-1250-BA	TSL-1250-BB
		1-1/2"	TSL-1500-BT	TSL-1500-BC	TSL-1500-BR	TSL-1500-BA	TSL-1500-BB
Dual Size Configurations							
1" x 1-1/4"	TSL-1012-xx	To Create specific part number for all size configurations, simply use 4 number size code as shown on left. (ie: TSL-1215-TT = 1-1/4" MIPT inlet x 1-1/2" MIPT outlet).					
1-1/4" x 1"	TSL-1210-xx						
1-1/4" x 1-1/2"	TSL-1215-xx						
1-1/2" x 1-1/4"	TSL-1512-xx						











KIT ASSEMBLIES

TSK SERIES

Kbi TSK field assembled kits allow for maximum versatility in installation. Allows sprinkler height and angle to be adjusted and protects lateral or mainline against damage. O-ring seals provide leak-free joints. Ideal for valve-in-head applications. Assembly can be made to any length at job site.

- Limited Lifetime Warranty.
- Full 360° adjustment / 3 planes.
- 315 psi @ 73° working pressure rating.
- Made of Sch80 HI-IMPACT PVC Type II material.
- All sizes available (1/2" - 1-1/2"), including dual size.
- Installer to furnish desired length of Sch80 pipe and solvent weld as per ASTM D2855.
- High quality EPDM O-ring/Acme thread seals.
- Reinforced Sch80 gusset design swing elbows (3/4" - 1-1/2").
- Complies with all applicable ASTM and ANSI standards.
- Manufactured in the U.S.A. by *Kbi*.
- Lie Lengths determined by length of pipe solvent welded to kit.



TSK Available Part Numbers							
All Available Product Configurations Shown on Chart			OUTLET CONFIGURATIONS				
			MIPT Thread (-_T)	Socket (-_C)	Triple Out MIPT (-_R)	ACME Thread (-_A)	BSP Thread (-_B)
							
INLET CONFIGURATIONS	MIPT Thread (-_T) 	1/2"	TSK-0500-TT	TSK-0500-TC	TSK-0500-TR	n/a	TSK-0500-TB
		3/4"	TSK-0750-TT	TSK-0750-TC	TSK-0750-TR	n/a	TSK-0750-TB
		1"	TSK-1000-TT	TSK-1000-TC	TSK-1000-TR	TSK-1000-TA	TSK-1000-TB
		1-1/4"	TSK-1250-TT	TSK-1250-TC	TSK-1250-TR	TSK-1250-TA	TSK-1250-TB
		1-1/2"	TSK-1500-TT	TSK-1500-TC	TSK-1500-TR	TSK-1500-TA	TSK-1500-TB
	Std Spigot (-_S) 	1/2"	TSK-0500-ST	TSK-0500-SC	TSK-0500-SR	n/a	TSK-0500-SB
		3/4"	TSK-0750-ST	TSK-0750-SC	TSK-0750-SR	n/a	TSK-0750-SB
		1"	TSK-1000-ST	TSK-1000-SC	TSK-1000-SR	TSK-1000-SA	TSK-1000-SB
		1-1/4"	TSK-1250-ST	TSK-1250-SC	TSK-1250-SR	TSK-1250-SA	TSK-1250-SB
		1-1/2"	TSK-1500-ST	TSK-1500-SC	TSK-1500-SR	TSK-1500-SA	TSK-1500-SB
	Long Spigot (-_L) 	1/2"	TSK-0500-LT	TSK-0500-LC	TSK-0500-LR	n/a	TSK-0500-LB
		3/4"	TSK-0750-LT	TSK-0750-LC	TSK-0750-LR	n/a	TSK-0750-LB
		1"	TSK-1000-LT	TSK-1000-LC	TSK-1000-LR	TSK-1000-LA	TSK-1000-LB
		1-1/4"	TSK-1250-LT	TSK-1250-LC	TSK-1250-LR	TSK-1250-LA	TSK-1250-LB
		1-1/2"	TSK-1500-LT	TSK-1500-LC	TSK-1500-LR	TSK-1500-LA	TSK-1500-LB
	Socket (-_C) 	1/2"	TSK-0500-CT	TSK-0500-CC	TSK-0500-CR	n/a	TSK-0500-CB
		3/4"	TSK-0750-CT	TSK-0750-CC	TSK-0750-CR	n/a	TSK-0750-CB
		1"	TSK-1000-CT	TSK-1000-CC	TSK-1000-CR	TSK-1000-CA	TSK-1000-CB
		1-1/4"	TSK-1250-CT	TSK-1250-CC	TSK-1250-CR	TSK-1250-CA	TSK-1250-CB
		1-1/2"	TSK-1500-CT	TSK-1500-CC	TSK-1500-CR	TSK-1500-CA	TSK-1500-CB
	BSP Thread (-_B) 	1/2"	TSK-0500-BT	TSK-0500-BC	TSK-0500-BR	n/a	TSK-0500-BB
		3/4"	TSK-0750-BT	TSK-0750-BC	TSK-0750-BR	n/a	TSK-0750-BB
		1"	TSK-1000-BT	TSK-1000-BC	TSK-1000-BR	TSK-1000-BA	TSK-1000-BB
		1-1/4"	TSK-1250-BT	TSK-1250-BC	TSK-1250-BR	TSK-1250-BA	TSK-1250-BB
		1-1/2"	TSK-1500-BT	TSK-1500-BC	TSK-1500-BR	TSK-1500-BA	TSK-1500-BB
Dual Size Configurations							
1" x 1-1/4"		TSK-1012-xx	To Create specific part number for all size configurations, simply use 4 number size code as shown on left. (ie: TSK-1215-TT = 1-1/4" MIPT inlet x 1-1/2" MIPT outlet).				
1-1/4" x 1"		TSK-1210-xx					
1-1/4" x 1-1/2"		TSK-1215-xx					
1-1/2" x 1-1/4"		TSK-1512-xx					

ECONOMY SERIES

Kbi TSE provides maximum flexibility and protection for sprinkler heads with minimal cost. Allows sprinkler height and angle to be adjusted. Flexible design adds protection to lateral pipe against damage. Retrofit model adds extra inlet elbow to retrofit riser on either horizontal or vertical elbow.

- Factory preassembled.
- Permanent and economical.
- Limited Lifetime Warranty.
- Full 3 way adjustable including height.
- 70 psi @ 73° working pressure rating.
- Made of quality acetyl and polyethylene construction.
- 1/2" and 3/4" sizes available in both 6" and 12" lie-length.
- Manufactured in the U.S.A. by *Kbi*.
- Lie lengths 6" or 12" as shown.

TSE SERIES

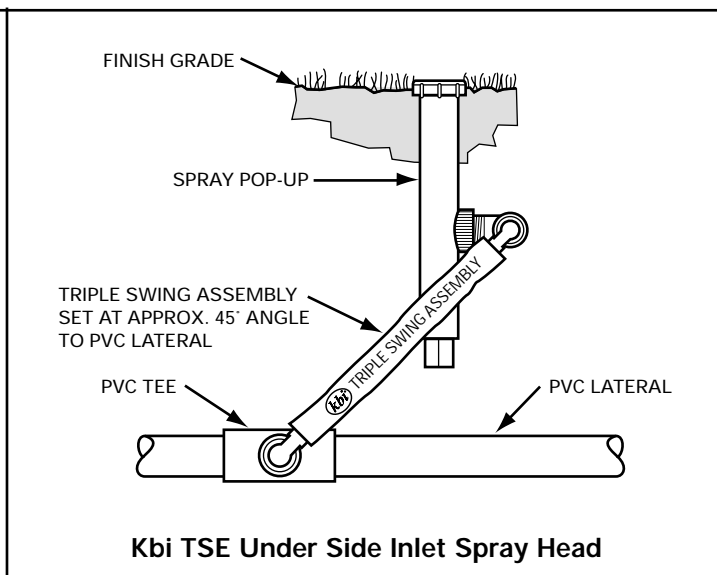
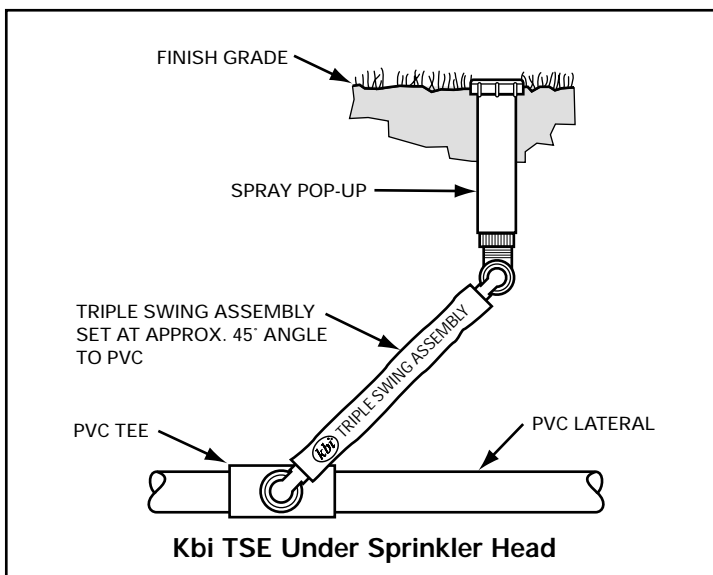


Retrofit

Standard

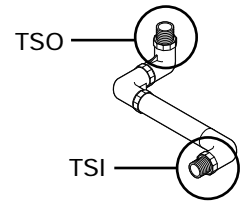
TSE Available Part Numbers			
Size	Length	Standard	Retrofit
1/2"	6"	TSE-0500-6	TSE-0500-6R
1/2"	12"	TSE-0500-12	TSE-0500-12R
3/4" x 6"	6"	TSE-0750-6	TSE-0750-6R
3/4" x 12"	12"	TSE-0750-12	TSE-0750-12R
1/2" x 3/4" x 6"	6"	TSE-0507-6	N/A
1/2" x 3/4" x 12"	12"	TSE-0507-12	N/A

Typical TSE Installations:



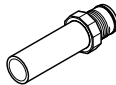




COMPONENT & REPLACEMENT PARTS TSI/TSO SERIES




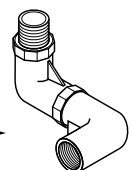

Kbi Components available anytime a change or replacement is desired on TSA, TSS, TSL, or TSK series. Each assembly is ready to replace or add to existing triple swing assembly simply by removing existing component and carefully threading on the new component.



INLET COMPONENTS/REPLACEMENT ASSEMBLY


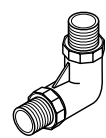
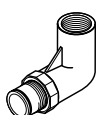
TSI - XXXX - X		
Series	Size	Inlet Configuration
Indicates Triple Swing Inlet	0500 = 1/2"	B = BSP Threaded Inlet w/O-ring → 
	0750 = 3/4"	C = Socket Inlet w/O-ring → 
	1000 = 1"	L = Long Spigot Inlet w/O-ring → 
	1250 = 1-1/4"	S = Standard Spigot Inlet w/O-ring → 
	1500 = 1-1/2"	T = Standard MIPT Threaded Inlet w/O-ring → 

OUTLET COMPONENTS/REPLACEMENT ASSEMBLY

TSO - XXXX - X		
Series	Size	Outlet Configuration
Indicates Triple Swing Outlet	0500 = 1/2"	A = Acme Outlet (1"-1-1/2" only) w/ <i>Kbi</i> female acme elbow → 
	0750 = 3/4"	B = BSP Threaded Outlet w/ <i>Kbi</i> female acme elbow → 
	1000 = 1"	C = Socket Outlet w/ <i>Kbi</i> female acme elbow → 
	1250 = 1-1/4"	R = Triple Outlet (adds double) w/ <i>Kbi</i> female acme elbow → 
	1500 = 1-1/2"	T = Standard MIPT Threaded Outlet w/ <i>Kbi</i> female acme elbow → 

SWING ELBOWS

Can be used as stand alone product or in the case of the - ADD series, can be used to add additional swing elbow to either inlet or outlet side of assembly.

	Inlet	Outlet
SL-xxxx-SC	Spigot	Socket → 
SL-xxxx-TT	MIPT	MIPT → 
SL-xxxx-ADD	<i>Kbi</i> male acme	<i>Kbi</i> female acme → 

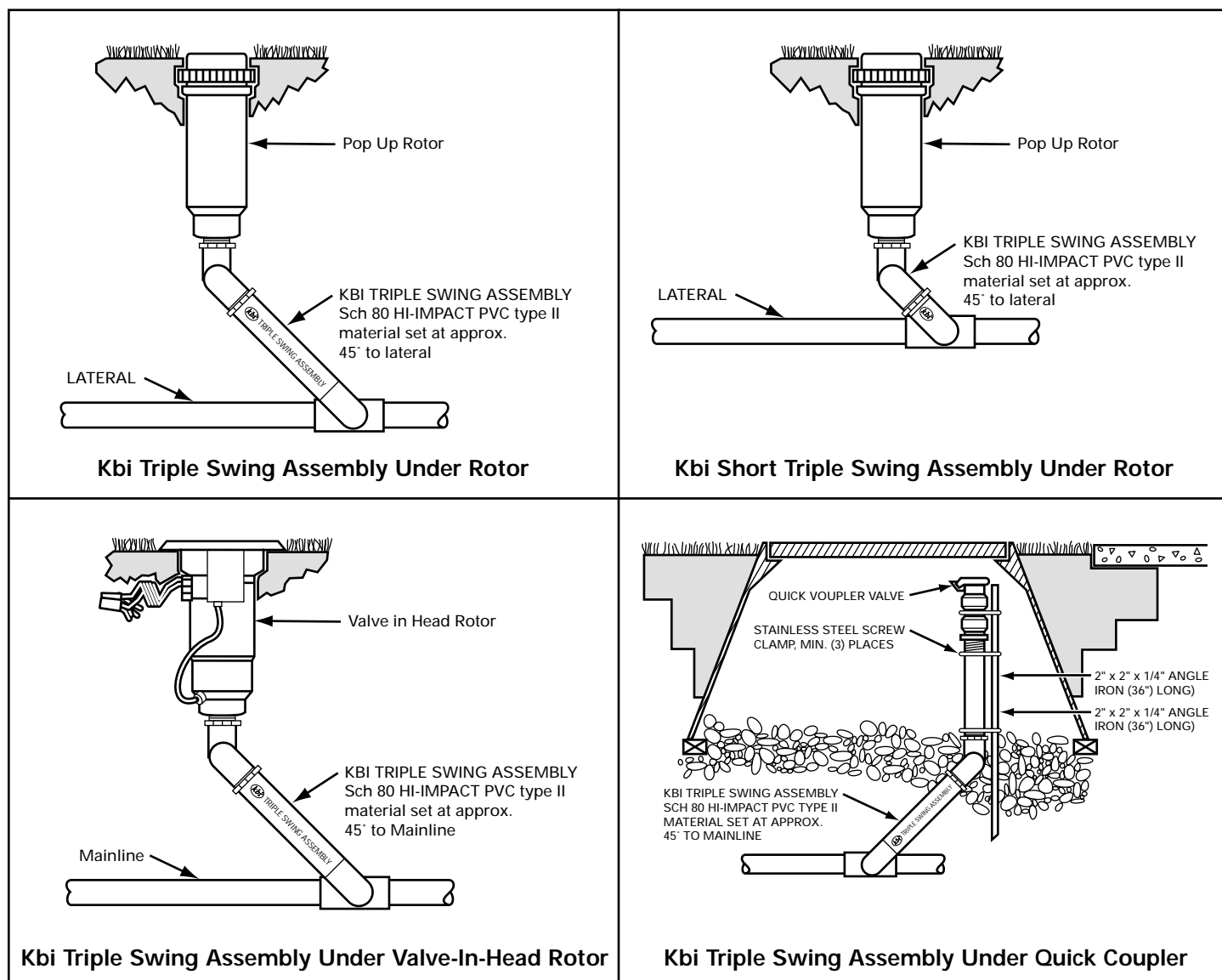
INSTALLATION

Preparation: Plastic piping systems should be installed and operated in accordance with established design, standards and procedures for plastic pipe systems. Suitability for the intended service application should be determined by the installer and/or user prior to installation of plastic piping system. Prior to assembly, all piping system components should be inspected for damage or irregularities. Mating components should be checked to assure that tolerances and engagements are compatible. Do not use any components that appear irregular or do not fit properly. Contact the appropriate manufacturer of the component product in question to determine usability.

Solvent Weld Connections: Kbi recommends the use of a quality grade primer and solvent cement formulated for the type of connection, with the the correct size applicator. Read and follow all of the solvent cement manufacturer's application and cure time instructions thoroughly. Avoid puddling or excessive cement or primer to sockets. Limited application of cement and primer will insure that excess cement and primer are not introduced into the system.

Threaded Connections: Kbi recommends the use of teflon tape or a quality grade thread sealant on MIPT and BSP threads. NEVER use any teflon tape or sealant on Acme threads. Warning: some pipe joint compounds or teflon pastes may contain substances that could cause stress cracking to the plastic. Select the appropriate sealant and follow the manufacturer's application and installation instructions. 1 or 2 turns beyond finger tight is generally all that is required to make a sound plastic threaded connection. Over tightening will cause damage to both pipe and fitting.

Typical TS_ Installations:



SPECIFICATIONS AND STANDARDS

ASTM D 1784	PVC (Poly Vinyl Chloride) Materials (Compounds).
ASTM D 2467	PVC Plastic Fittings, Schedule 80.
ASTM D 2846	PVC Plastic Fittings, Material & Dimensions
ASTM F 1970	Testing standard for all products.
NSF 14	Potable water product testing standard. (National Sanitation Foundation)
Materials	PVC: Produced with Hi-Impact PVC Type II, exceeding Type I in impact resistance. Acetal: Acetal Copolymer plastic.
Chemical Resistance	<i>Kbi</i> Chemical Resistant Guide for thermoplastics available upon request.
Compressed Air or Gas:	Plastic piping systems are never recommended for compressed air or gas.
Water Hammer:	Care should be taken to avoid water hammer in both design and testing. Excessive hammer could damage any component in a piping system.
Pressure Rating:	Maximum pressure rating of 315 psi @73°F. Fully tested for ASTM hydrostatic burst and sustained pressure.

LIMITED LIFETIME WARRANTY

Kbi warranties all of its products against defects resulting from faulty workmanship or materials for as long as the original owner where product installed owns the property, unless otherwise mandated by law. If any such product is found to be defective during the warranty period, the product will be replaced free of charge by *Kbi*. Should this occur, *Kbi* should be contacted immediately either by telephone or in writing for return authorization and/or instructions as to next step in procedure. Please note that all product reported to be defective must be available for inspection and analysis to determine cause.

Warranty shall be in force for as long as products are used for the intended purposes for which they were manufactured and in conformance with industry established installation, operation, and scheduled maintenance specifications. Warranty does not cover damage caused by workmanship of the installer, damage caused by freezing water conditions, or any application involving compressed air or gas. Claims for labor cost and other expenses required to replace defective product or to repair any damage resulting from the use thereof will not be allowed. This excludes but is not limited to special applications, incidental damages, vandalism, sabotage, floods, earthquakes, fires, and any other events beyond the control of *Kbi*. This warranty is in lieu of all other warranties, expressed or implied.

Kbi is always concerned about both our products and our relationship with our customers and/or contractors. We welcome opportunities to work together in investigation and resolution of all possible product failures and/or discrepancies.

KBI QUALITY POLICY

At *Kbi* we are committed to exceeding our customers expectations. We are committed to continuous improvement of our products and processes. We are committed to the ISO9001 standard as our guide to improve quality. We are all committed to this policy.


Bob King,
President



#120100



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