

ROTARY UNION

5000 SERIES

STAINLESS STEEL - GENERAL PURPOSE



Operating Parameters

SPEED	TEMPERATURE
1,000 RPM (NPT), 3,600 RPM (MT)	300°F (Water), 350°F (Steam), 395°F (Hot Oil)
PRESSURE	MEDIA
750 psi (Water), 120 psi (Steam), 100 psi (Hot Oil), 300 psi (Air)	Water, Steam, Hot Oil, Air
THREADS	MATERIAL
<ul style="list-style-type: none"> • 1/4 Inch to 2 Inch NPT • BSP, BSPP & Metric Threads Available 	300 Grade Stainless Steel
CONFIGURATION OPTIONS	
Mono Flow and Dual Flow Configurations Available	

* See Performance Charts For Details

**MODELS
ADDED**

FEATURES & BENEFITS

Corrosion Resistant

- 300 Grade stainless steel construction for superior corrosion resistance.

Long Service Life

- Two precision bearings keep the 5000 Series seal faces perfectly aligned to extend the life of the 5000 Series Rotary Union.

Dual Flow Option

- With the addition of an elbow, the 5000 Series can become dual flow.

Balanced Mechanical Seal Design

- The balanced mechanical seal design of the 5000 series allows for optimal operation with a wide variety of media.

Replaceable Cartridge

- Integrated cartridge design makes repairs fast and easy reducing maintenance costs.

Multiple Seal Design Options

- All sizes are available with three seal options for better wear resistance
- **5000 Series (Standard)**
 - Carbon graphite against a ceramic coated steel seal design offers long life.
- **5000 ASM Series (Consult Factory)**
 - The tungsten carbide face ring against a siliconized graphite seal ring design is used for abrasive applications.
 - Duff-Norton's Series 5000ASM features Advanced Seal Materials for abrasive applications, where softer sealing faces are subject to grooving. The ASM seal is a tungsten carbide face ring against a siliconized graphite seal ring, offering unsurpassed protection against grooving in applications where other materials fail.

Part Numbers - 5000 Series Rotary Unions • NPT, UNS, UN Threads • Mono Flow

Nominal Pipe Size	Shaft Thread (A)	5000 Series Standard					
		Right Hand			Left Hand		
		Part Number	Description	Repair Cartridge	Part Number	Description	Repair Cartridge
1/4	1/4 NPT	750625C	R5000P	451671C	750642C	L5000P	451670C
3/8	3/8 NPT	750110C	R5100P	451251C	750109C	L5100P	451250C
	5/8-18 UNF	750142C	R5124P	451253C	750109C	L5124P	451250C
1/2	1/2 NPT	750112C	R5200P	451258C	750111C	L5200P	451257C
	3/4-16 UNF	750147C	R5224P	451260C	750146C	L5224P	451259C
	Quick Release	750150C	Q5200P	451263C	750150C	Q5200P	451263C
3/4	3/4 NPT	750089C	R5300P	451265C	750088C	L5300P	451264C
	1-14 UNS	750152C	R5324P	451267C	750151C	L5324P	451266C
	Quick Release	750155C	Q5300P	451270C	750155C	Q5300P	451270C
1	1 NPT	750114C	R5400P	451272C	750113C	L5400P	451271C
	1-1/2-12 UNF	750157C	R5424P	451274C	750156C	L5424P	451273C
	Quick Release	750160C	Q5400P	451277C	750160C	Q5400P	451277C
1-1/4	1-1/4 NPT	750116C	R5500P	451279C	750115C	L5500P	451278C
	1-3/4-12 UN	750162C	R5524P	451281C	750161C	L5524P	451280C
	Quick Release	750165C	Q5500P	451284C	750165C	Q5500P	451284C
1-1/2	1-1/2 NPT	750118C	R5600P	451286C	750117C	L5600P	451285C
	2-12 UN	750167C	R5624P	451288C	750166C	L5624P	451287C
	Quick Release	750170C	Q5600P	451291C	750170C	Q5600P	451291C
2	2 NPT	750120C	R5700P	451293C	750119C	L5700P	451292C
	2-1/2-12 UN	750172C	R5724P	451295C	750171C	L5724P	451294C
	Quick Release	750175C	Q5700P	451298C	750175C	Q5700P	451298C

Part Numbers - 5000 Series Rotary Unions • Metric Threads • Mono Flow

Nominal Pipe Size	Shaft Thread (A)	5000 Series Standard					
		Right Hand			Left Hand		
		Part Number	Description	Repair Cartridge	Part Number	Description	Repair Cartridge
1/4	1/4-19 BSP	750362C	R5000P-20	451673C	750361C	L5000P-20	451672C
	1/4-19 BSPP	750738C	R5000P-19	451666C	750737C	L5000P-19	451665C
3/8	3/8-19 BSP	750144C	R5100P-20	451255C	750143C	L5100P-20	451254C
	3/8-19 BSPP	750259C	R5100P-19	451311C	750258C	L5100P-19	451310C
M16	16 x P1.5	750377C	R511600P-27	451363C	750376C	L511600P-27	451688C
M18	18 x P1.5	750379C	R511800P-27	451365C	750378C	L511800P-27	451690C
1/2	1/2-14 BSP	750149C	R5200P-20	451262C	750148C	L5200P-20	451261C
	1/2-14 BSPP	750261C	R5200P-19	451313C	750260C	L5200P-19	451312C
M22	22 x P1.5	750381C	R522200P-27	451367C	750380C	L522200P-27	451692C
M25	25 x P1.5	750383C	R522500P-27	451369C	750382C	L522500P-27	451694C
M26	26 x P1.5	750385C	R522600P-27	451371C	750384C	L522600P-27	451696C
3/4	3/4-14 BSP	750154C	R5300P-20	451269C	750153C	L5300P-20	451268C
	3/4-14 BSPP	750244C	R5300P-19	451315C	750243C	L5300P-19	451314C
M30	30 x P1.5	750387C	R533000P-27	451373C	750386C	L533000P-27	451698C
1	1-11 BSP	750159C	R5400P-20	451276C	750158C	L5400P-20	451275C
	1-11 BSPP	750246C	R5400P-19	451317C	750245C	L5400P-19	451316C
M35	35 x P1.5	750389C	R543500P-27	451375C	750388C	L543500P-27	451700C
M42	42 x P1.5	750391C	R544200P-27	451377C	750390C	L544200P-27	451702C
1-1/4	1-1/4-11 BSP	750164C	R5500P-20	451283C	750163C	L5500P-20	451282C
	1-1/4-11 BSPP	750263C	R5500P-19	451319C	750262C	L5500P-19	451318C
M48	48 x P1.5	750393C	R554800P-27	451379C	750392C	L554800P-27	451704C
1-1/2	1-1/2-11 BSP	750169C	R5600P-20	451290C	750168C	L5600P-20	451282C
	1-1/2-11 BSPP	750265C	R5600P-19	451321C	750264C	L5600P-19	451318C
M50	50 x P1.5	750395C	R565000P-27	451381C	750394C	L565000P-27	451706C
2	2-11 BSP	750174C	R5700P-20	451297C	750173C	L5700P-20	451296C
	2-11 BSPP	750267C	R5700P-19	451323C	750266C	L5700P-19	451322C



Models Added

Part Numbers - 5000 ASM Series Rotary Unions • NPT Threads • Mono Flow*

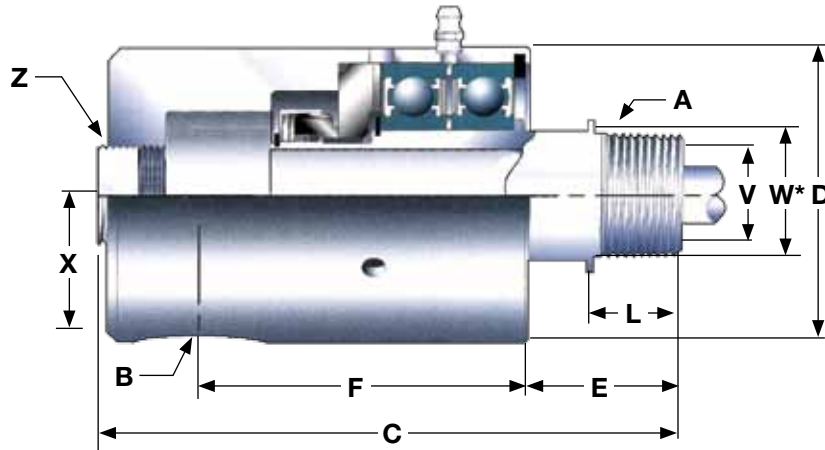
Nominal Pipe Size	Shaft Thread (A)	Right Hand			Left Hand		
		Part Number	Description	Repair Cartridge	Part Number	Description	Repair Cartridge
3/8	3/8 NPT	750505C	R5100PA	451460C	750504C	L5100PA	451459C
1/2	1/2 NPT	750513C	R5200PA	451468C	750512C	L5200PA	451467C
3/4	3/4 NPT	750522C	R5300PA	451477C	750521C	L5300PA	451476C
1	1 NPT	750531C	R5400PA	451486C	750530C	L5400PA	451485C
1-1/4	1-1/4 NPT	750540C	R5500PA	451495C	750539C	L5500PA	451494C
1-1/2	1-1/2 NPT	750549C	R5600PA	451504C	750548C	L5600PA	451503C
2	2 NPT	750558C	R5700PA	451513C	750557C	L5700PA	451512C

* Consult factory to metric threads

ROTARY UNION

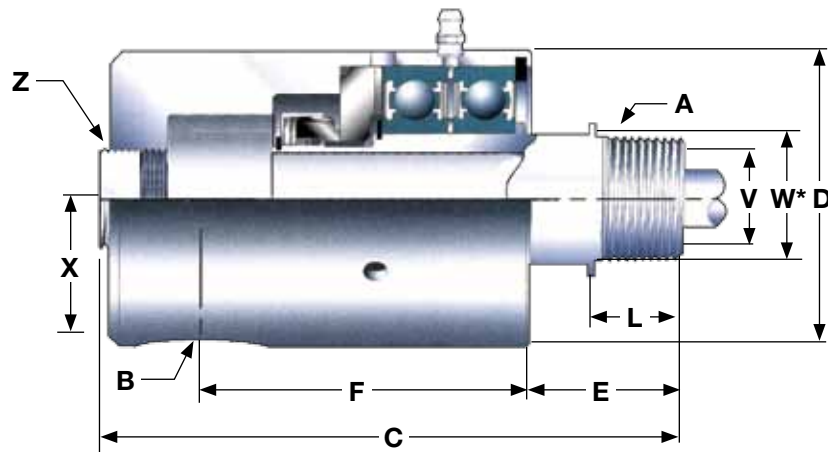
5000 SERIES

STAINLESS STEEL - GENERAL PURPOSE



Dimensions - 5000 Series Rotary Unions • NPT, UNS, UN Threads • Mono Flow (In.)

Nominal Pipe Size	Shaft Thread A (Right or Left)	B (NPT)	C	C1	D	E	F	H	J (NPT)	L	V	W (Flats)	X	Z (NPT)
1/4	1/4 NPT	3/8	4	5-1/4	1-9/16	1-1/4	2-9/32	1-3/8	3/8	9/16	1/4	5/8	1-1/16	3/8
3/8	3/8 NPT	3/8	4	5-1/4	1-9/16	1-1/4	2-9/32	1-3/8	3/8	5/8	3/8	5/8	1-1/13	3/8
	5/8-19 UNF													
1/2	1/2 NPT	1/2	4-3/4	5-15/16	2-1/16	1-9/32	2-23/32	1-7/16	3/8	3/4	1/2	7/8	1-1/16	3/8
	3/4-16 UNF													
	Quick Release													
3/4	3/4 NPT	3/4	5-1/4	6-1/2	2-5/16	1-13/32	3	1-9/16	1/2	3/4	11/16	1-1/4	1-1/16	1/2
	1-14 UNS													
	Quick Release													
1	1 NPT	1	6-3/16	7-1/2	3-1/8	1-5/8	3-7/16	1-13/16	1/2	15/16	1	1-3/8	1-15/32	3/4
	1-1/2-12 UNF													
	Quick Release													
1-1/4	1-1/4 NPT	1-1/4	7-1/2	9-1/16	3-1/2	2-9/64	4-1/32	2-5/32	3/4	1-1/16	1-1/4	1-5/8	1-1/32	1
	1-3/4-12 UN MT													
	Quick Release													
1-1/2	1-1/2 NPT	1-1/2	8-3/8	9-15/16	4	2-13/32	4-17/32	2-1/4	3/4	1-1/16	1-1/2	1-15/16	1-5/32	1-1/4
	2-12 UN													
	Quick Release													
2	2 NPT	2	9-1/2	11	4-3/8	2-21/32	5-1/16	2-1/2	3/4	1-1/8	1-7/8	2-1/2	1-5/32	1-1/4
	2-1/2-12 UN													
	Quick Release													



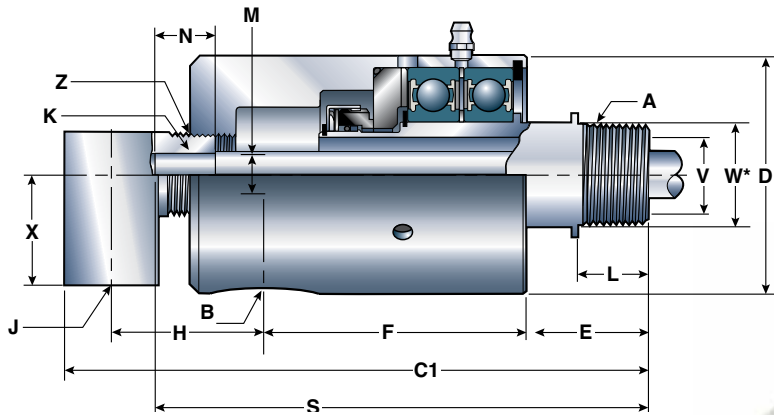
Dimensions - 5000 Series Rotary Unions • Metric Threads • Mono Flow (In.)

Nominal Pipe Size	Shaft Thread A (Right or Left)	B (NPT)	C	C1	D	E	F	H	J (NPT)	L	V	W (Flats)	X	Z (NPT)
1/4	1/4-19 BSP	3/8-18	101.6	133.4	39.7	31.8	57.9	34.9	3/8-18	13.9	6.4	16.0	27.0	3/8-18
	1/4-19 BSPP													
3/8	3/8-19 BSP	3/8-18	101.6	133.4	39.7	31.8	57.9	34.9	3/8-18	15.9	9.5	16.0	27.0	3/8-18
	3/8-19 BSPP													
M16	16 x P1.5	3/8-18	101.6	133.4	39.7	31.8	57.9	34.9	3/8-18	15.9	9.5	16.0	27.0	3/8-18
M18	18 x P1.5													
1/2	1/2-14 BSP	1/2-14	120.7	150.8	52.4	32.5	69.1	36.5	3/8-18	19.1	12.7	22.2	27.0	3/8-18
	1/2-14 BSPP													
M22	22 x P1.5	1/2-14	120.7	150.8	52.4	32.5	69.1	36.5	3/8-18	19.1	12.7	22.2	27.0	3/8-18
M25	25 x P1.5													
M26	26 x P1.5	1/2-14	120.7	150.8	52.4	32.5	69.1	36.5	3/8-18	19.1	12.7	22.2	27.0	3/8-18
	26 x P1.5													
3/4	3/4-14 BSP	3/4-14	133.4	165.1	58.7	35.7	76.2	39.7	1/2-14	19.1	17.5	31.8	27.0	1/2-14
	3/4-14 BSPP													
M30	30 x P1.5	3/4-14	133.4	165.1	58.7	35.7	76.2	39.7	1/2-14	19.1	17.5	31.8	27.0	1/2-14
	30 x P1.5													
1	1-11 BSP	1-11 1/2	157.2	190.5	79.4	41.3	87.3	46.0	1/2-14	23.8	25.4	34.9	37.3	3/4-14
	1-11 BSPP													
M35	35 x P1.5	1-11 1/2	157.2	190.5	79.4	41.3	87.3	46.0	1/2-14	23.8	25.4	34.9	37.3	3/4-14
M42	42 x P1.5													
1-1/4	1-1/4-11 BSP	1-1/4-11 1/2	190.5	230.2	88.9	54.4	102.4	54.8	3/4-14	27.0	31.8	41.3	26.2	1-11 1/2
	1-1/4-11 BSPP													
M48	48 x P1.5	1-1/4-11 1/2	190.5	230.2	88.9	54.4	102.4	54.8	3/4-14	27.0	31.8	41.3	26.2	1-11 1/2
	48 x P1.5													
1-1/2	1-1/2-11 BSP	1-1/2-11 1	212.7	252.4	101.6	61.1	115.1	57.2	3/4-14	27.0	38.1	49.2	29.4	1-1/4-11 1/2
	1-1/2-11 BSPP													
M50	50 x P1.5	1-1/2-11 1	212.7	252.4	101.6	61.1	115.1	57.2	3/4-14	27.0	38.1	49.2	29.4	1-1/4-11 1/2
	50 x P1.5													
2	2-11 BSP	2-11 1/2	241.3	279.4	111.1	67.5	128.6	63.5	3/4-14	28.6	47.6	63.5	29.4	1-1/4-11 1/2
	2-11 BSPP													

ROTARY UNION

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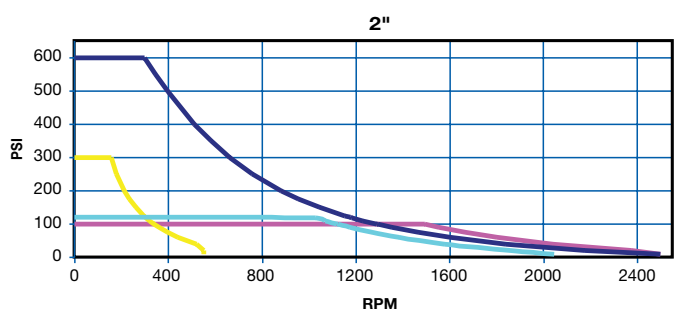
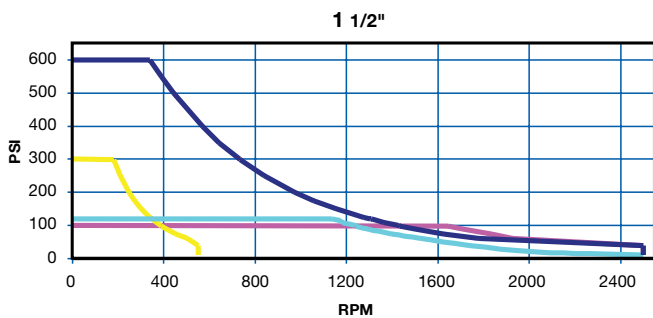
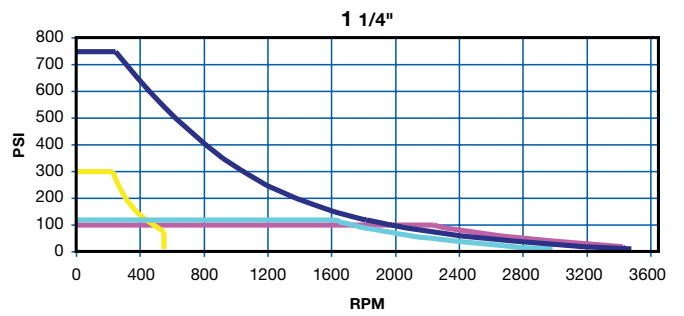
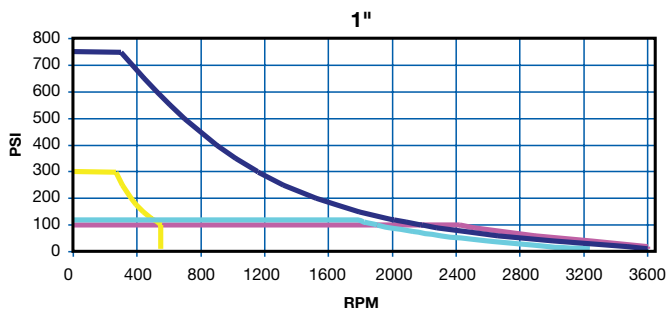
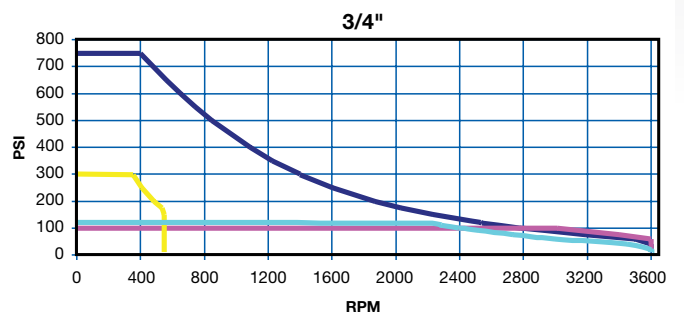
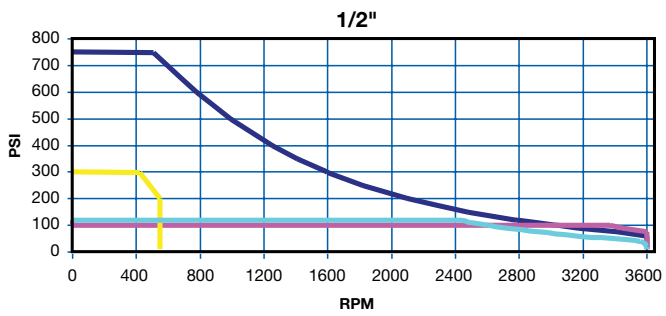
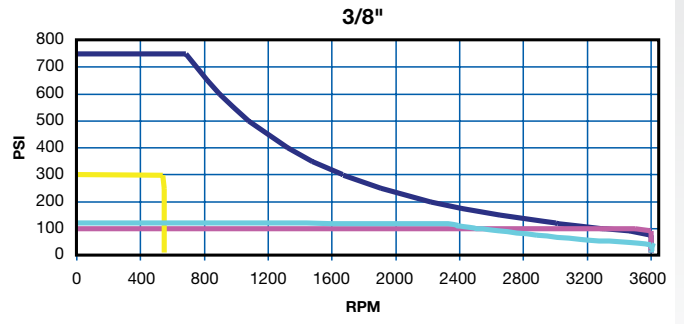
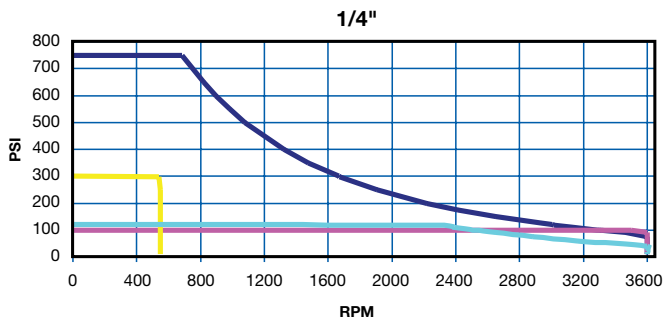
STAINLESS STEEL - GENERAL PURPOSE



Elbows - 5000 Series Elbows for Dual Flow (Inch)

Nominal Pipe Size	Elbows for Stationary Siphon Systems				Elbows for Rotating Siphon Systems				
	Part Number	Siphon K	Siphon Pipe	Siphon Tube	Part Number	Siphon K	S	M	N
		Pipe Thread							
3/8	465409C	1/4	—	4-1/4	—	—	—	—	—
1/2	465408C	1/8 NPT	4-15/16	—	451245C	3/8	4-9/16	.370-.371	1-1/4
	465410C	3/8	—	4-15/16	—	—	—	—	—
BSP	465416C	1/8-28 BSP	125 mm	—	—	—	—	—	—
3/4	465401C	1/8 NPT	5-3/8	—	—	—	—	—	—
	465402C	1/4 NPT	5-15/32	—	—	—	—	—	—
	465403C	7/16	—	5-5/32	—	—	—	—	—
	465404C	1/2	—	5-5/32	451243C	1/2	5-5/32	.495-.496	1-1/4
BSP	465417C	1/8-28 BSP	136 mm	—	—	—	—	—	—
	465418C	1/4-19 BSP	139 mm	—	—	—	—	—	—
1	465411C	1/4 NPT	6-5/16	—	—	—	—	—	—
	465412C	3/8 NPT	6-3/16	—	451246C	5/8	6-1/8	.619-.612	1-1/4
	465413C	5/8	—	6-1/4	—	—	—	—	—
BSP	465419C	3/8-19 BSP	157 mm	—	—	—	—	—	—
1-1/4	465414C	1/2 NPT	7-13/32	—	—	—	—	—	—
	465415C	3/4	—	7-9/16	451247C	3/4	7-7/16	.743-.745	1-1/2
BSP	465420C	1/2-14 BSP	188 mm	—	—	—	—	—	—
1-1/2	465405C	1/2 NPT	8-9/32	—	—	—	—	—	—
	465406C	3/4 NPT	8-1/4	—	451244C	1	8-9/16	.998-1.000	1-3/4
	465407C	1	—	8-1/2	—	—	—	—	—
BSP	465421C	3/4-14 BSP	210 mm	—	—	—	—	—	—
2	465405C	1/2 NPT	9-11/32	—	—	—	—	—	—
	465406C	3/4 NPT	9-9/32	—	451244C	1	9-19/32	.998-1.000	1-3/4
	465407C	1	—	9-17/32	—	—	—	—	—
BSP	465421C	3/4-14 BSP	235 mm	—	—	—	—	—	—

Performance Charts



Steam
 Water
 Hot Oil
 Air