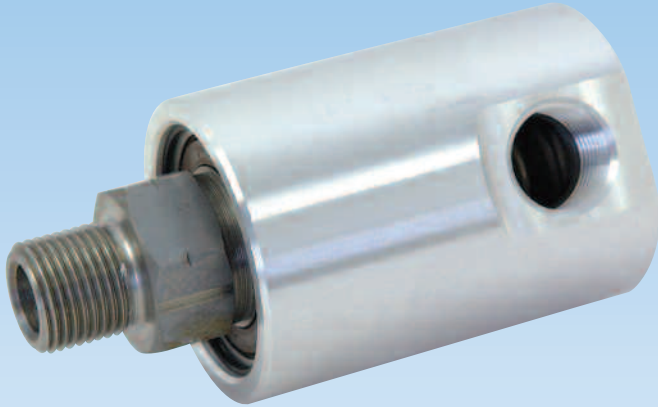


DEUBLIN

1/8" to 1/2" Air-Hydraulic Unions

- monoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- seal combinations:
Carbon Graphite/Hardened Tool Steel or
Carbon Graphite/Silicon Carbide
- felt oiler in seal cavity for air service
- oiler for relubrication (3 - 5 drops/month)
- low torque
- weight-optimized design
- aluminum housing
- bearings lubricated for life

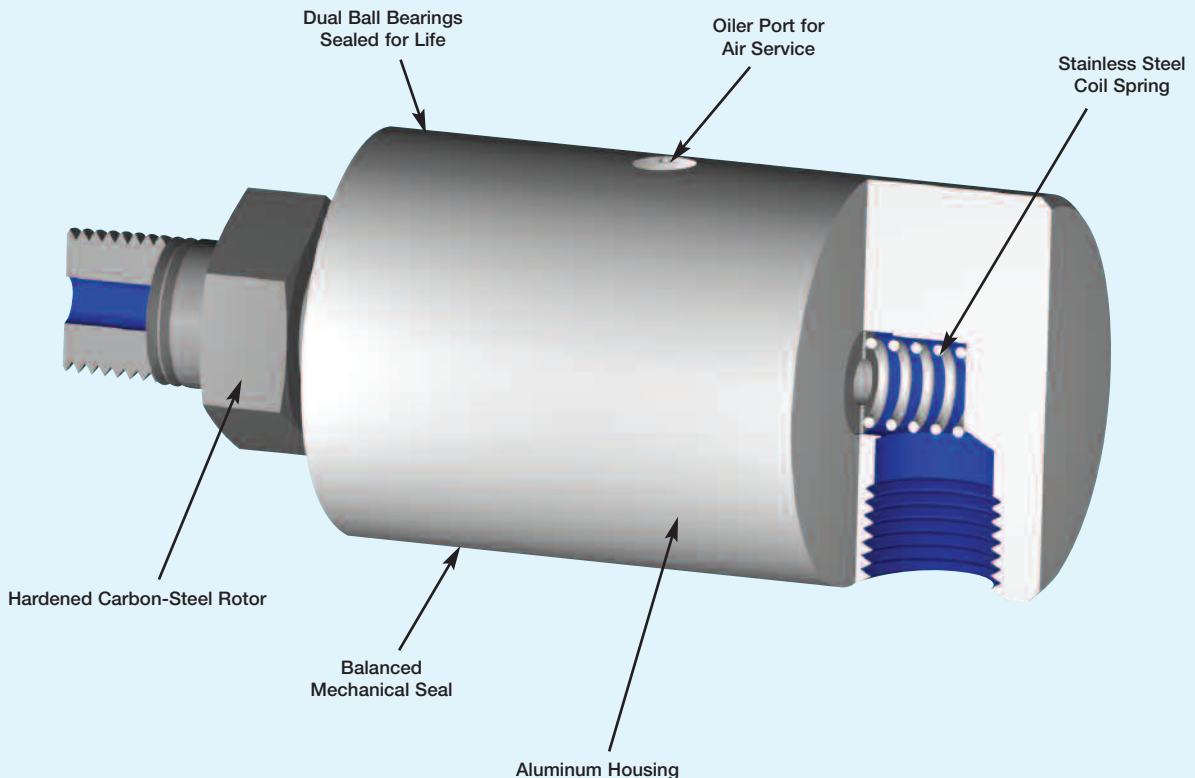


Operating Data

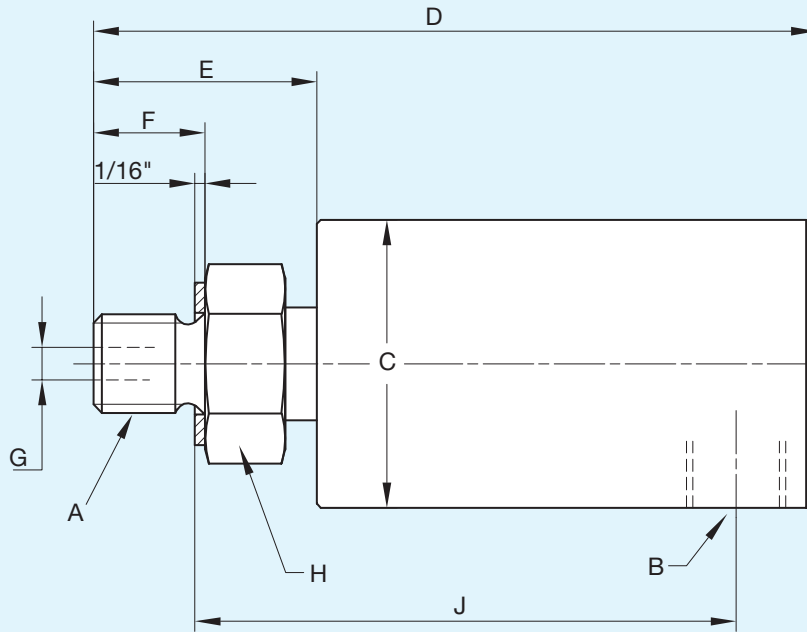
Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Hydraulic Pressure		
Model 1005	1,000 PSI	70 bar
Model 1102	1,000 PSI	70 bar
Model 1115	500 PSI	34 bar
Model 1205	750 PSI	50 bar
Model 2200 ^①	1,000 PSI	70 bar
Maximum Speed NPT Threads	1,500 RPM	1,500/min
Maximum Speed Straight Threads	3,500 RPM	3,500/min
Maximum Temperature	250°F	120°C

^① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.

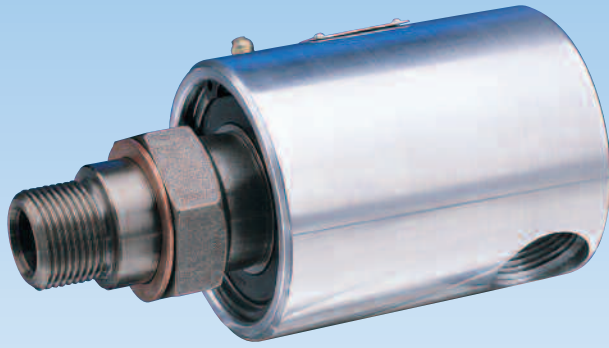
See next page for dimensional data.



Monoflow Rotating Union



B Port NPT	Ordering No.	A Rotor Thread	C Dia.	D	E	F	G Rotor Hole	H Across Flats	J Lock-up	Shpg. Wt.
	Model									
1/8"	1005-020-019	3/8"-24 UNF RH	1 1/8"	2 13/16"	7/8"	1/2"	1/8"	5/8"	2 1/16"	1/2#
	1005-020-039	3/8"-24 UNF LH								
	1005-020-038	1/8" NPT RH								
	1005-020-037	M10x1 RH								
	1005-020-049	G 1/4" (BSP) RH								
1/4"	1102-070-029	5/8"-18 UNF RH	1 5/8"	3 3/16"	1 1/8"	5/8"	1/4"	7/8"	2 1/4"	1#
	1102-070-079	5/8"-18 UNF LH								
	1102-070-081	1/4" NPT RH								
	1102-070-082	1/4" NPT LH								
	1102-070-103	G 1/4" (BSP) RH								
	1102-070-104	G 1/4" (BSP) LH								
3/8"	1115-000-001	5/8"-18 UNF RH	1 23/32"	3 15/16"	1 1/16"	5/8"	3/8"	15/16"	2 27/32"	1 1/2#
	1115-000-017	5/8"-18 UNF LH								
	1115-000-002	3/8" NPT RH								
	1115-000-018	1/4" NPT RH								
	1115-000-205	G 3/8" (BSP) RH								
	1115-000-200	M16x2 RH								
1/2"	1205-000-003	1/2" NPT RH	2 1/4"	4 9/16"	1 7/16"	7/8"	1/2"	1 1/8"	3 1/2"	1 1/2#
	1205-000-004	1/2" NPT LH								
	1205-000-019	3/4" NPT RH								
	1205-000-020	3/4" NPT LH								
	1205-000-039	3/4"-16 UNF RH								
	1205-000-025	3/4"-16 UNF LH								
	1205-000-001	1"-14 UNS RH								
	1205-000-002	1"-14 UNS LH								
	1205-000-012	G 1/2" (BSP) RH								
	1205-000-013	G 1/2" (BSP) LH								
	1205-000-021	G 3/4" (BSP) RH								
	1205-000-022	G 3/4" (BSP) LH								
1/2"	2200-000-096	1/2" NPT RH	2 7/8"	4 15/16"	1 7/16"	7/8"	1/2"	1 1/4"	3 3/4"	3#
	2200-000-097	1/2" NPT LH								
	2200-000-098	3/4" NPT RH								
	2200-000-099	3/4" NPT LH								
	2200-000-003	1"-14 UNS RH								
	2200-000-027	1"-14 UNS LH								
	2200-000-102	G 3/4" (BSP) RH								
2200-000-103	G 3/4" (BSP) LH									



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3/4" to 1 1/2" Air-Hydraulic Unions

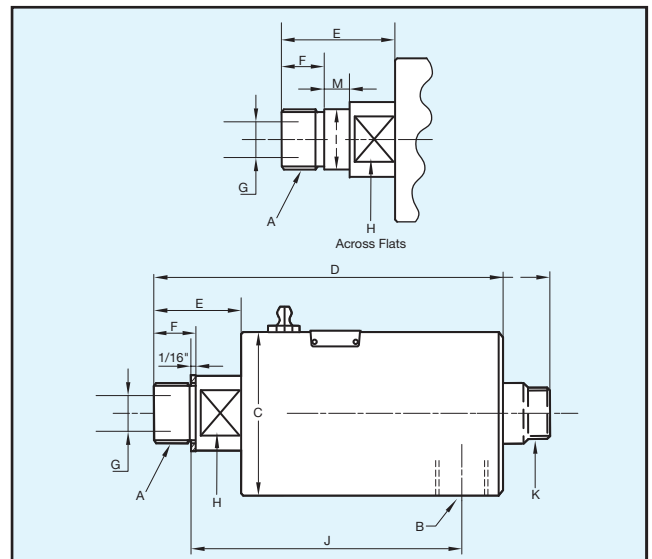
- monoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- seal combinations:
Carbon Graphite/Hardened Tool Steel or
Carbon Graphite/Ceramic
- felt oiler in seal cavity for air service
- oiler for relubrication (3 - 5 drops/month)
- low torque
- aluminum housing
- stainless steel or steel rotor (respective of model)
- Lubrication Guide page 55

Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Hydraulic Pressure		
Model 250-094	1,000 PSI	70 bar
Model 355-021	1,000 PSI	70 bar
Model 452-000	750 PSI	50 bar
Maximum Speed NPT Threads	1,500 RPM	1,500/min
Maximum Speed Straight Threads		
Model 250-094	3,500 RPM	3,500/min
Model 355-021	3,000 RPM	3,000/min
Model 452-000	2,500 RPM	2,500/min
Maximum Temperature	250°F	120°C

Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.

* To indicate union with additional "K" port with
 1/2" NPT: Order Number 250-979-RTR
 3/4" NPT: Order Number 355-305-RTR
 1 1/4" NPT: Order Number 452-001-RTR



B Port NPT	Ordering No. Model	A Rotor Thread	C	D	E	F	G Rotor Hole	H Across Flats	I Pilot Dia.	J Lock-up	M	Shpg. Wt.
3/4"	250-094-020	3/4" NPT RH	2 7/8"	5 1/8"	1 7/16"	7/8"	1 1/16"	1 1/4"	-	4 1/16"	-	3 1/2#
	250-094-021	3/4" NPT LH										
	250-094-002	1"-14 UNS RH	2 7/8"	5"	1 5/16"	3/4"	2 1/32"	1 1/4"	-	3 11/16"	-	3 1/2#
	250-094-027	1"-14 UNS LH										
	250-094-016	1"-14 UNS (PLT) RH	2 7/8"	5 13/16"	2 7/8"	3/4"	5/8"	1 5/8"	1.2480"	4"	1/2"	3 1/2#
	250-094-017	1"-14 UNS (PLT) LH							1.2478"			
	250-094-284	G 3/4" (BSP) RH	73	128	34	19	17.5	32	-	94	-	1.6 Kg
	250-094-285	G 3/4" (BSP) LH										
	250-094-012	M22x1.5 (PLT) RH	73	122	28	14	14.3	32	26.992	87.5	3	1.6 Kg
250-094-013	M22x1.5 (PLT) LH							26.979				
1"	355-021-002	1" NPT RH	3 3/4"	6 3/16"	1 15/16"	1 1/8"	1"	1 1/2"	-	4 13/16"	-	4 1/2#
	355-021-003	1" NPT LH										
	355-021-019	1 1/2"-12 UNF RH	3 3/4"	6 3/16"	1 15/16"	1 1/8"	1"	1 1/2"	-	4 1/4"	-	4 1/2#
	355-021-074	1 1/2"-12 UNF LH										
	355-021-016	1 1/2"-12 UNF (PLT) RH	3 3/4"	6 9/16"	2 5/16"	1"	1"	1 1/2"	1.5610"	4 3/16"	1/2"	4 1/2#
	355-021-017	1 1/2"-12 UNF (PLT) LH							1.5605"			
	355-021-222	G1" (BSP) RH	82.6	150	42	21	22.2	38	-	108	-	2.1 Kg
355-021-223	G1" (BSP) LH											
1 1/2"	452-000-001	1 1/2" NPT RH	4 1/4"	7 11/16"	2 7/16"	1 3/16"	1 1/2"	2 1/8"	-	5 13/16"	-	9.5#
	452-000-002	1 1/2" NPT LH										
	452-000-395	2"-12 UN RH	4 1/4"	8 1/8"	2 13/16"	1 1/8"	1 1/2"	2 1/8"	-	5 5/8"	-	9.5#
	452-000-396	2"-12 UN LH										
	452-000-029	1 3/4"-12 UN RH	4 1/4"	8 7/16"	3 3/16"	7/8"	1 1/4"	2 1/8"	-	6 1/4"	-	9.5#
	452-000-109	1 3/4"-12 UN LH										
	452-000-198	G1 1/2" (BSP) RH	108	205	72	29	35	54	-	143	-	4.5 Kg
452-000-199	G1 1/2" (BSP) LH											

Deublin In-The-Shaft Mounted Unions

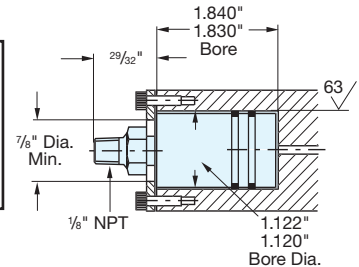
To meet the specifications of engineering designs requiring minimum overhang, Deublin can provide unions which can be mounted within the shaft. With these models, the only extensions beyond the end of the shaft are the supply line connections.

Model 1005-000-038 1/8" Capacity

Available with 1005 rotors shown on page 32. **for Air or Hyd. Oil**

Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Hydraulic Pressure ^①	1,000 PSI	70 bar
Maximum Speed ^①	3,500 RPM	3,500/min
Maximum Temperature	250°F	120°C



Model 1102-025-081 1/4" Capacity

Available with 1102 rotors shown on page 32.

Also available with hub mount for CTIS.

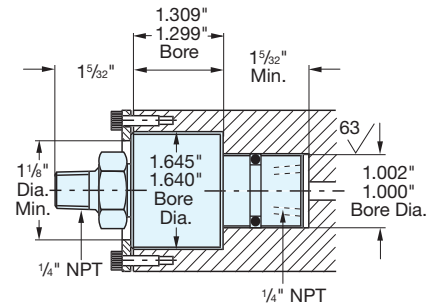
See page 52.

for Air or Hyd. Oil

Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Hydraulic Pressure ^①	1,000 PSI	70 bar
Maximum Speed ^①	3,500 RPM	3,500/min
Maximum Temperature	250°F	120°C

^① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.

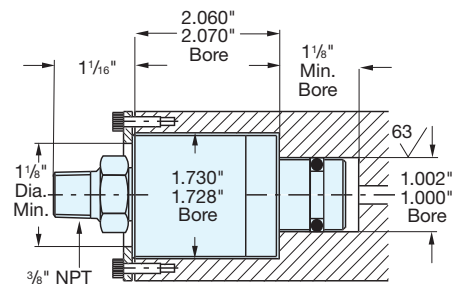


Model 1115-130-002 3/8" Capacity—for Air

Available with 1115 rotors shown on page 32.

Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Speed	3,500 RPM	3,500/min
Maximum Temperature	250°F	120°C



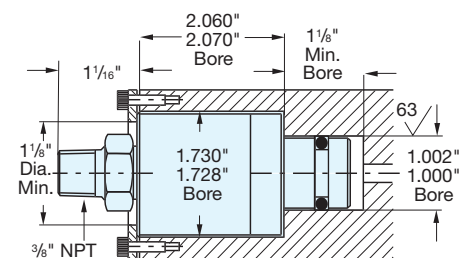
Model 1116-319-248 3/8" Capacity—for Hydraulic Oil

This model contains E.L.S. seals of silicon carbide to silicon carbide for long life on abrasive applications. Do not run dry.

Operating Data

Maximum Hydraulic Pressure ^①	500 PSI	34 bar
Maximum Speed ^①	3,500 RPM	3,500/min
Maximum Temperature	250°F	120°C

^① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.



DEUBLIN

AP Series High Pressure High Speed Unions

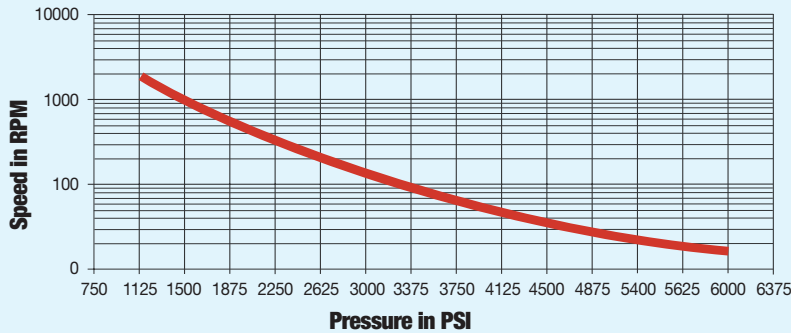
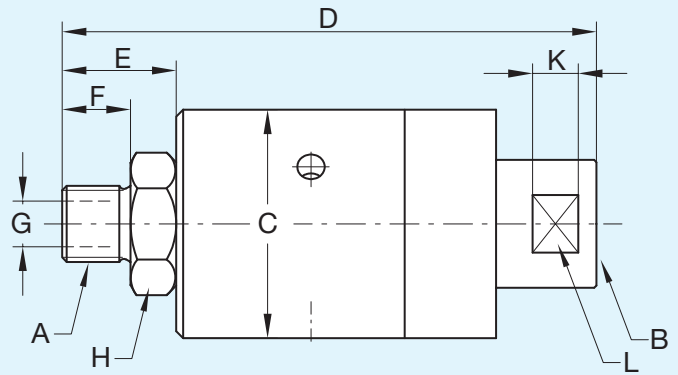
- monoflow design
- self-supported rotating union
- seal combination:
Tungsten Carbide/Tungsten Carbide
- double row ball bearing; lubricated for life
- vent holes
- steel housing nickel-plated
- stainless steel end cap and rotor
- all parts in media contact are stainless steel and corrosion resistant
- designed for high pressure and high speed



Operating Data

Maximum Hydraulic/Water Pressure ^①	5,700 PSI	400 bar
Maximum Speed ^①	1,500 RPM	1,500/min
Maximum Temperature	200°F	90°C

^① Operation at maximum pressure combined with maximum speed should be avoided. For optional performance, refer to graph. If operating conditions are marginal, consult **DEUBLIN**.



B Inlet Port	Ordering Number	A Rotor Thread	C	D	E	F	G Rotor Hole	H Across Flats	K	L Across Flats	Shpg. Wt.
1/4" NPT	AP8-011-214	1/4" NPT RH	1 31/32"	4 19/32"	1"	19 1/32"	9/32"	1 1/16"	13 1/32"	1"	1.5#
	AP8-011-215	1/4" NPT LH									
G 1/4" (BSP)	AP8-010-210	G 3/8" (BSP) RH	50	117	25	15	7	27	10	25	.7 Kg
	AP8-010-211	G 3/8" (BSP) LH									
3/8" NPT	AP10-011-214	3/8" NPT RH	1 31/32"	4 19/32"	1"	19 1/32"	13 1/32"	1 1/16"	13 1/32"	1"	1.5#
	AP10-011-215	3/8" NPT LH									
G 3/8" (BSP)	AP10-010-210	G 3/8" (BSP) RH	50	117	25	15	10	27	10	25	.7 Kg
	AP10-010-211	G 3/8" (BSP) LH									
1/2" NPT	AP12-011-214	1/2" NPT RH	1 31/32"	4 13/16"	1 1/16"	25 1/32"	15 1/32"	1 1/16"	13 1/32"	1"	2#
	AP12-011-215	1/2" NPT LH									
G 1/2" (BSP)	AP12-010-210	G 1/2" (BSP) RH	50	122	30	20	12	27	10	25	1 Kg
	AP12-010-211	G 1/2" (BSP) LH									



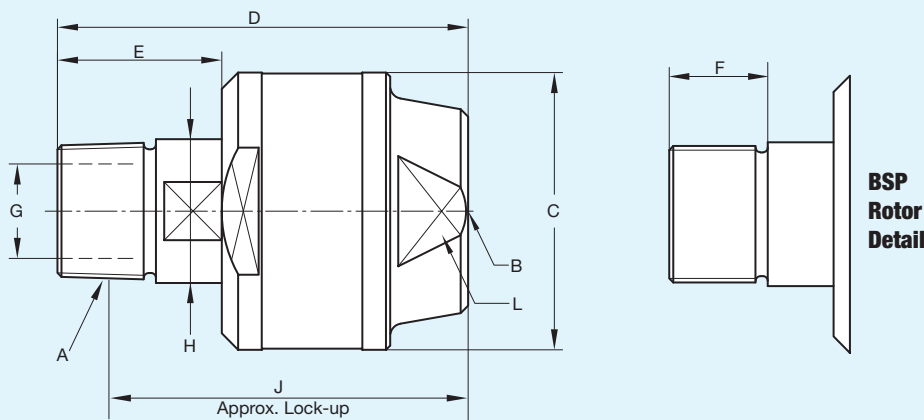
DEUBLIN

D Series High Pressure Swivel Low Speed Rotating Unions

- monoflow design
- for hydraulic oil and water
- for swivel applications and high pressure media
- steel housing and end cap
- stainless steel rotor
- self-supported rotating union
- can be adapted for other media

Operating Data

Maximum Hydraulic/Water Pressure	6,400 PSI	450 bar
Maximum Speed	20 RPM	20/min
Maximum Temperature	250°F	120°C



B Inlet Port	Ordering Number	A Rotor Connections	C	D	E	F	G Rotor Hole	H Across Flats	J Lock-up	L Across Flats	Shpg. Wt.
1/4" NPT	D8-004-214	1/4" NPT RH	1 1/16"	2 1/16"	1"	19/32"	9/32"	15/32"	2 5/16"	1 5/16"	3/4#
	D8-004-215	1/4" NPT LH									
G 1/4" (BSP)	D8-003-210	G 1/4" (BSP) RH	40	68	25	15	7	12	53	24	.3 Kg
	D8-003-211	G 1/4" (BSP) LH									
3/8" NPT	D10-004-214	3/8" NPT RH	1 3/4"	2 3/4"	1"	25/32"	13/32"	9/16"	2 3/8"	1 3/32"	7/8#
	D10-004-215	3/8" NPT LH									
G 3/8" (BSP)	D10-003-210	G 3/8" (BSP) RH	44	70	25	15	10	14	55	28	.4 Kg
	D10-003-211	G 3/8" (BSP) LH									
1/2" NPT	D12-004-214	1/2" NPT RH	2 7/32"	3 3/32"	1 1/4"	25/32"	15/32"	7/8"	2 23/32"	1 1/2"	1 3/4#
	D12-004-215	1/2" NPT LH									
G 1/2" (BSP)	D12-003-210	G 1/2" (BSP) RH	56	82	32	20	12	22	62	38	.8 Kg
	D12-003-211	G 1/2" (BSP) LH									
3/4" NPT	D20-004-214	3/4" NPT RH	2 7/16"	3 17/32"	1 11/32"	25/32"	23/32"	1 1/16"	3"	1 21/32"	2 1/4#
	D20-004-215	3/4" NPT LH									
G 3/4" (BSP)	D20-003-210	G 3/4" (BSP) RH	62	90	34	20	18	27	70	42	1.0 Kg
	D20-003-211	G 3/4" (BSP) LH									
1" NPT	D25-004-214	1" NPT RH	2 11/16"	3 15/16"	1 19/32"	1 5/16"	29/32"	1 1/4"	3 1/4"	1 7/8"	2 3/4#
	D25-004-215	1" NPT LH									
G 1" (BSP)	D25-003-210	G 1" (BSP) RH	68	100	40	24	23	32	76	48	1.3 Kg
	D25-003-211	G 1" (BSP) LH									
1 1/4" NPT	D32-004-214	1 1/4" NPT RH	3 5/32"	4 1/4"	1 11/16"	1"	1 1/16"	1 21/32"	3 9/16"	2 9/32"	4 1/4#
	D32-004-215	1 1/4" NPT LH									
G 1 1/4" (BSP)	D32-003-210	G 1 1/4" (BSP) RH	80	108	43	25	30	42	83	58	1.9 Kg
	D32-003-211	G 1 1/4" (BSP) LH									
1 1/2" NPT	D40-004-214	1 1/2" NPT RH	3 15/32"	4 15/32"	1 23/32"	1 1/2"	1 1/2"	1 13/16"	3 13/16"	2 7/16"	6 1/2#
	D40-004-215	1 1/2" NPT LH									
G 1 1/2" (BSP)	D40-003-210	G 1 1/2" (BSP) RH	88	114	44	26	38	46	88	62	3.0 Kg
	D40-003-211	G 1 1/2" (BSP) LH									

DEUBLIN

Deu-Plex Air Unions

- duoflow design
- self-supported rotating union
- flanged rotor
- radial housing connections
- low torque
- balanced mechanical seals
- seal combination:
Carbon Graphite/Cast Iron
- full-media flow
- aluminum housing
- cast iron rotor
- oil cup (3-5 drops/month)

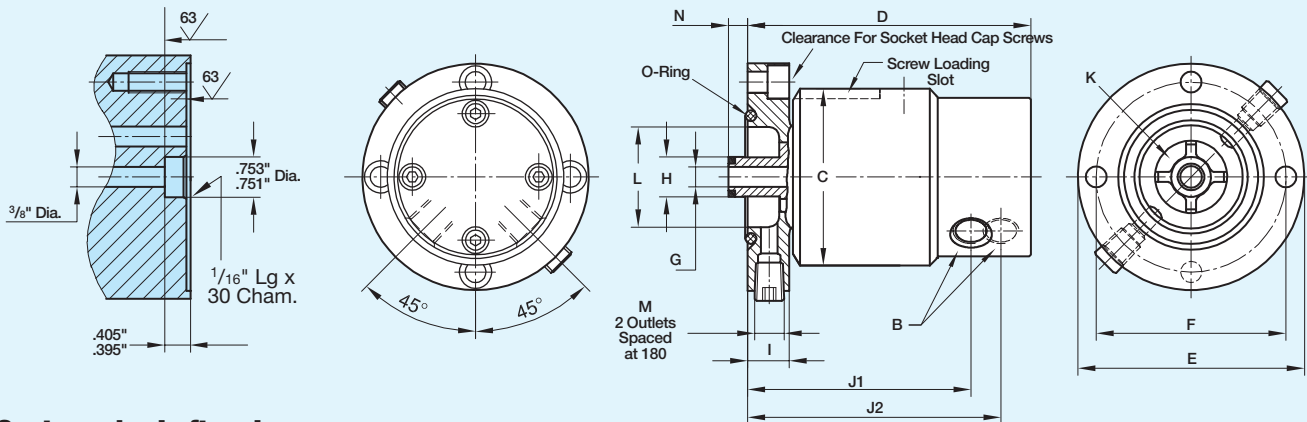
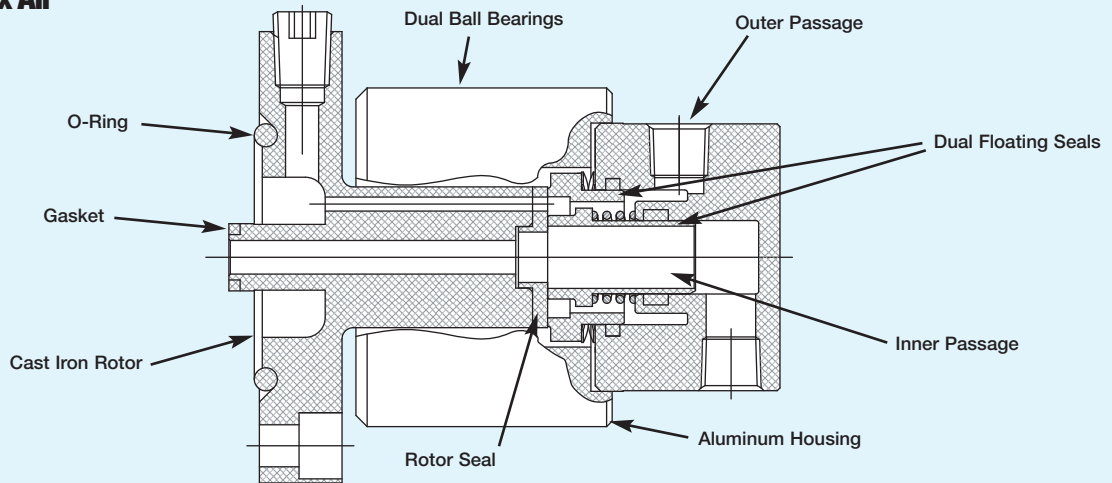


Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Speed	1,500 RPM	1,500/min
Maximum Temperature	250°F	120°C

Only one passage should be pressurized at a time.

Typical Duplex Air



Customer's shaft end

B Port NPT	Ordering No.	C	D	E Pilot	F Bolt Circle	G Area	H	I	J1	J2	K Area	L	M Tap	N	Screw	Shpg. Wt.
	Model															
(2) x 3/8"	1500-000	3 5/16"	5 1/4"	4.250" 4.249"	3 9/16"	.1105in ²	.750" .748"	3/4"	4 1/8"	4 11/16"	.2304in ²	1 7/8"	1/4" NPT	7/16"	3/8"-16	7#
	1500-250	84	133	107.95 107.92	90.5	71mm ²	19.05 19.00	19	105	119	150mm ²	48	1/4" NPT	11.1	M10	3.2 Kg

DEUBLIN

Deu-Plex Air Unions

- duoflow design
- self-supported rotating union
- flanged rotor
- balanced mechanical seals
- seal combination:
Carbon Graphite/Ceramic
- full-media flow
- aluminum housing
- cast iron rotor
- oil cup (3-5 drops/month)

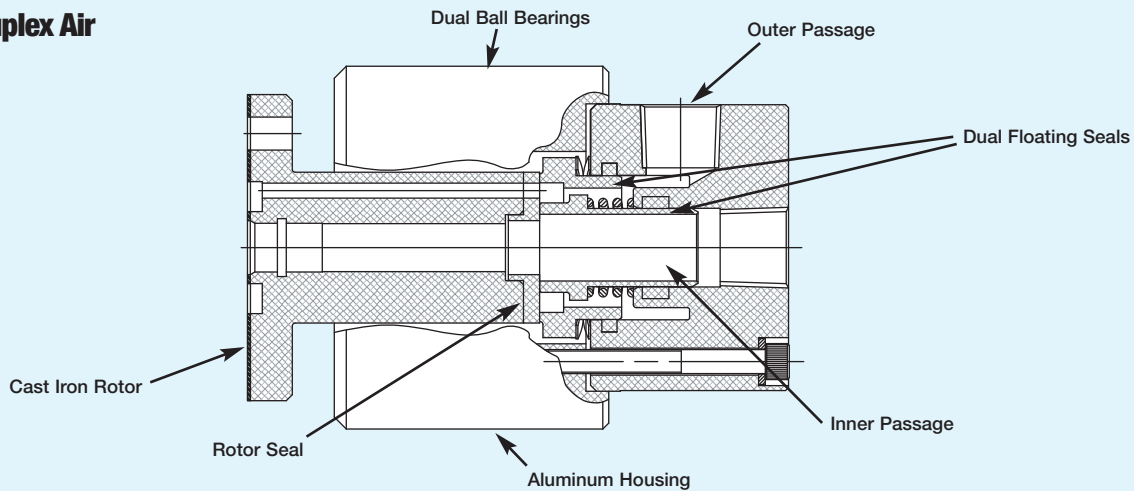


Operating Data

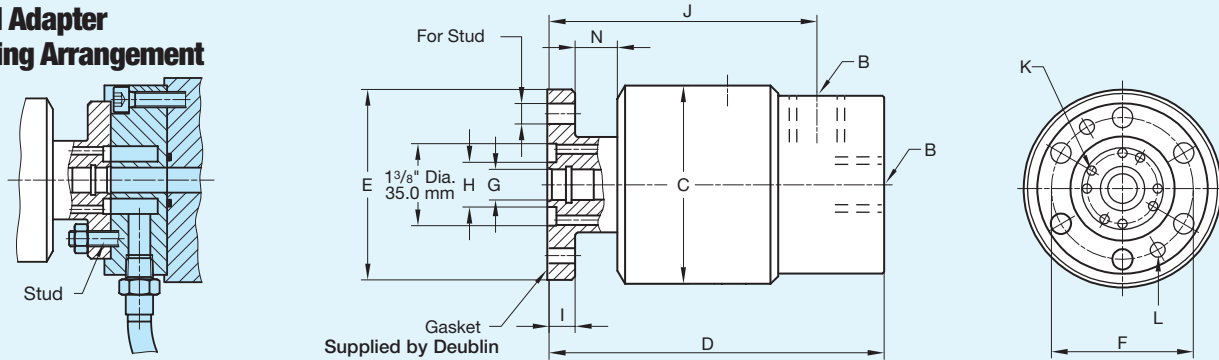
Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Speed	1,500 RPM	1,500/min
Maximum Temperature	250°F	120°C

Only one passage should be pressurized at a time.

Typical Duplex Air



Typical Adapter Mounting Arrangement



B Port NPT	Ordering No.	C	D	E Pilot	F Bolt Circle	G Area	H	I	J	K Area	L Dowel	N	Stud	Shpg. Wt.
	Model													
(2) x 1/2"	1590-000	3 5/16"	5 19/32"	3.189" 3.187"	2 3/8"	.1964in ²	3/4"	7/16"	4 7/16"	.1536in ²	1/4"	5/8"	5/8"	7#
	1590-000	84	142	81.00 80.95	60.3	126mm ²	19	11	113	100mm ²	6.3	15.8	M8	3.2 Kg

DEUBLIN

Deu-Plex Hydraulic Unions

- duoflow design
- self-supported rotating union
- flanged rotor
- balanced mechanical seals
- seal combinations:
Carbon Graphite/Ceramic - standard
Tungsten Carbide/Ceramic - E.L.S.
- full-media flow
- aluminum housing
- cast iron rotor

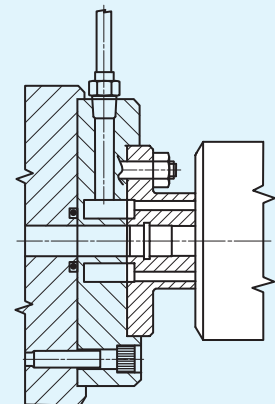
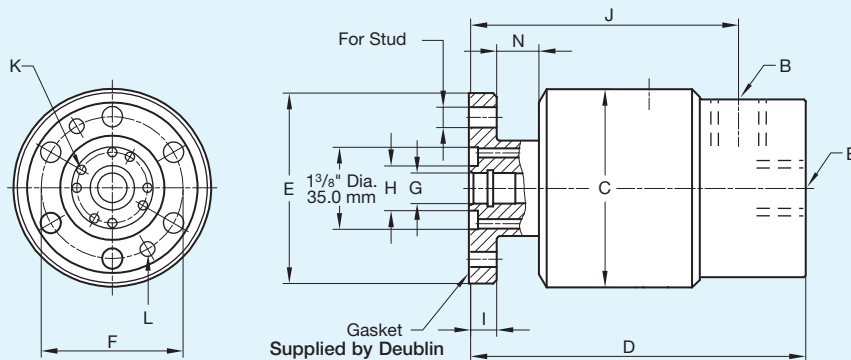
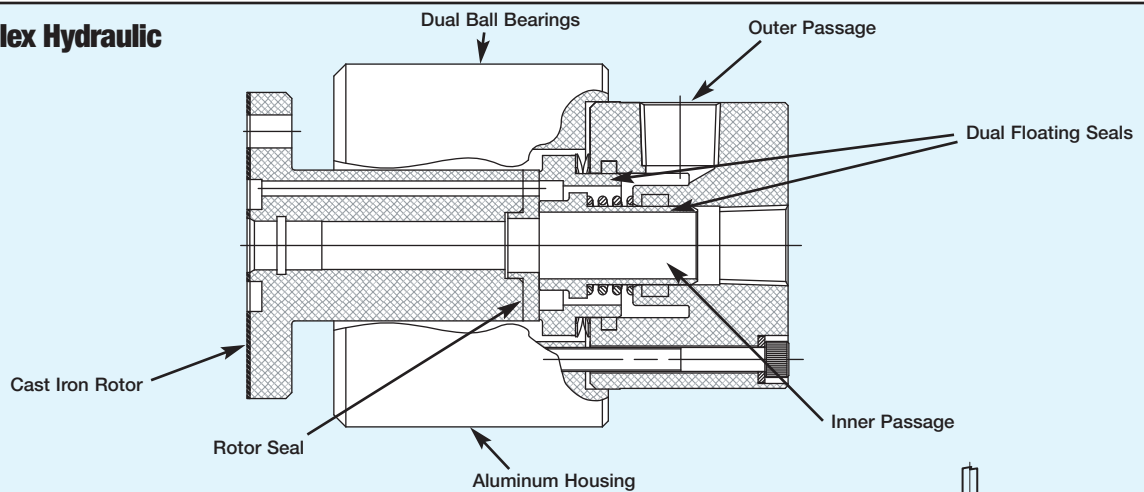


Operating Data

Maximum Hydraulic Pressure ^①	1,000 PSI	70 bar
Maximum Speed ^①	1,500 RPM	1,500/min
Maximum Temperature	250°F	120°C

^① Operation at maximum pressure combined with maximum speed should be avoided. Pressure rating is for inner passage only. Contact **DEUBLIN** if outer passage or both passages are pressurized.

Typical Duplex Hydraulic

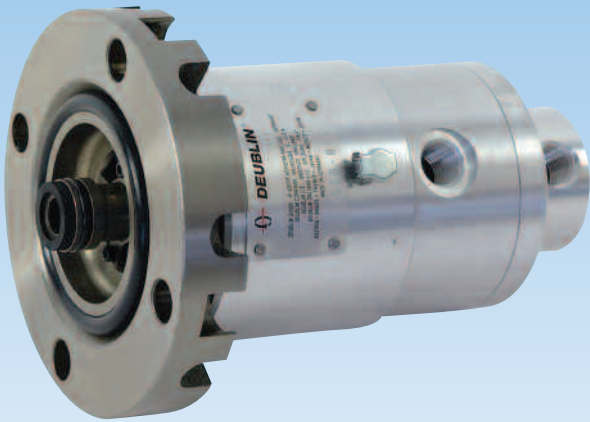


Typical Adapter Mounting Arrangement

B Port NPT	Ordering No.		C	D	E Pilot	F Bolt Circle	G Area	H	I	J	K Area	L Dowel	N	Stud	Shpg. Wt.
	Standard	E.L.S.													
(2) x 1/2"	1579-000	1579-041	3 5/16"	5 19/32"	3.189" 3.187"	2 3/8"	.1964in ²	3/4"	7/16"	4 7/16"	.1536in ²	1/4"	5/16"	5/16"	7#
	1579-000	1579-041	84	142	81.00 80.95	60.3	126mm ²	19	11	113	100mm ²	6.3	15.8	M8	3.2 Kg

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Deu-Plex Air-Hydraulic Hi-Speed Unions



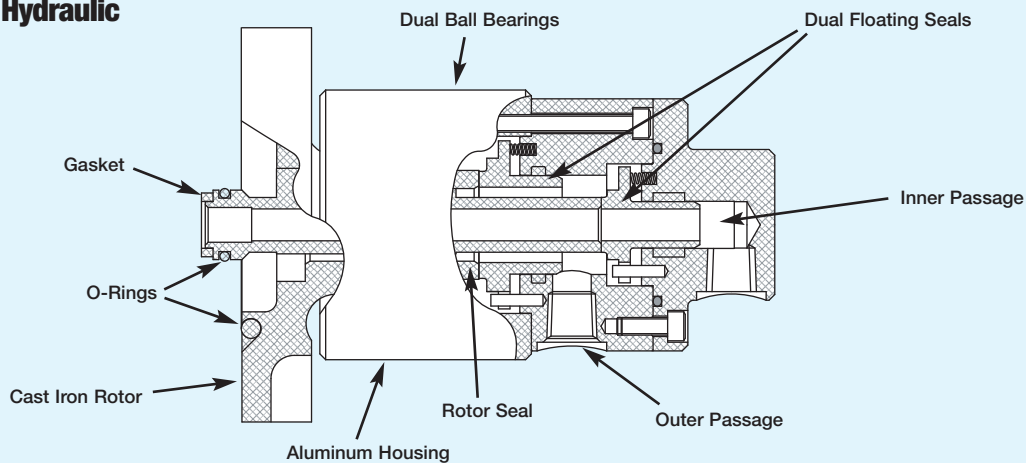
- duoflow design
- self-supported rotating union
- flanged rotor
- radial housing connections
- balanced mechanical seals
- seal combinations:
Carbon Graphite/Hardened Tool Steel - Air
Carbon Graphite/Ceramic - Hydraulic
- full-media flow
- aluminum housing
- cast iron rotor
- oil cup for air service (3-5 drops/month)
- passages should carry same media; inter-passage leakage may occur as seals wear.

Operating Data

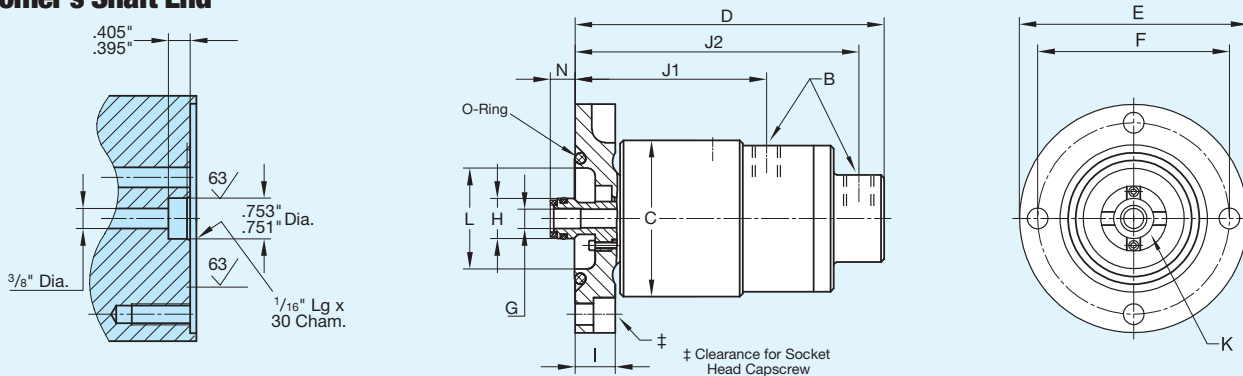
Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Hydraulic Pressure ^①	750 PSI	51 bar
Maximum Speed ^①	5,000 RPM	5,000/min
Maximum Temperature	250°F	120°C

① Operation at maximum pressure combined with maximum speed should be avoided. Pressure rating is for inner passage only. Contact **DEUBLIN** if outer passage or both passages are pressurized.

Typical Duplex Hydraulic



Customer's Shaft End



B Port NPT	Ordering No.		C	D	E Pilot	F Bolt Circle	G Area	H	I	J1	J2	K Area	L	N	Screw	Shpg. Wt.
	Air Service	Hydraulic Service														
(2) x 1/4"	2520-000	2520-400	2 ²⁹ / ₃₂ "	5 ³ / ₄ "	4.250" 4.249"	3 ⁹ / ₁₆ "	.093in ²	.750" .748"	3/4"	3 ⁹ / ₁₆ "	5 ⁹ / ₃₂ "	.121in ²	1 ⁷ / ₈ "	7/16"	3/8-16	6#
	2520-033	2520-401	74	146	107.95 107.92	90.5	60mm ²	19.05 19.00	19	91	134	78mm ²	48	11.1	M10	2.7 Kg

DEUBLIN

4 Passage Multi-Purpose, Multi-Media Unions

- 4-passage design
- self-supported rotating union
- flanged rotor
- drain passage prevents interpassage leakage
- special seals
- hardened sealing surface
- brass housing
- stainless steel rotor
- widely spaced ball bearings to withstand side load
- 5-passage available

A drain port is provided to collect leakage under normal operation. A vent is provided between ports 2 and 3 to allow use with two medias eliminating cross contamination.

Example: Air in 1 & 2 and hydraulic oil in 3 & 4.



Operating Data

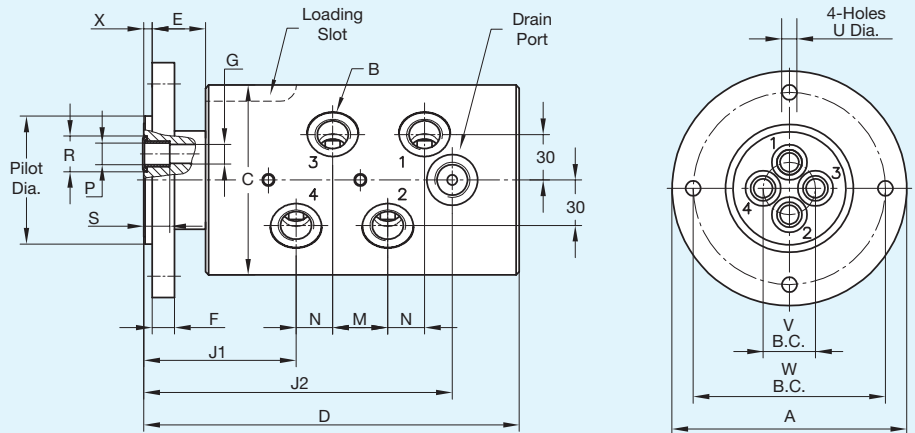
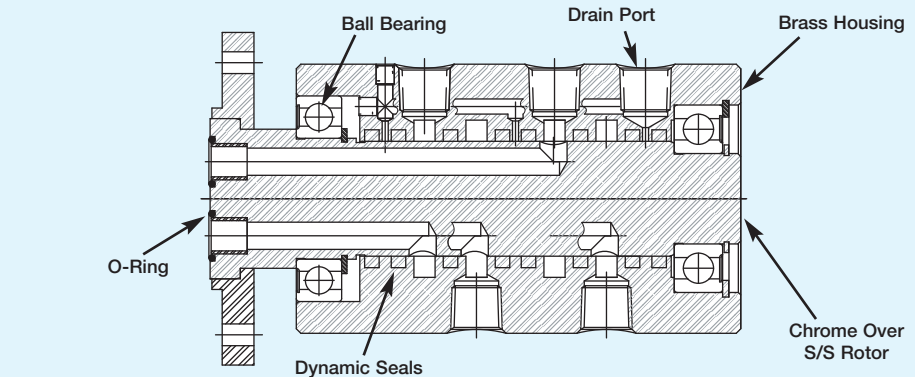
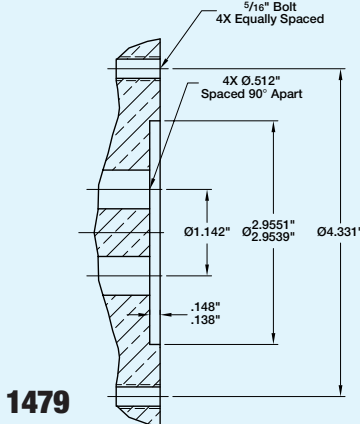
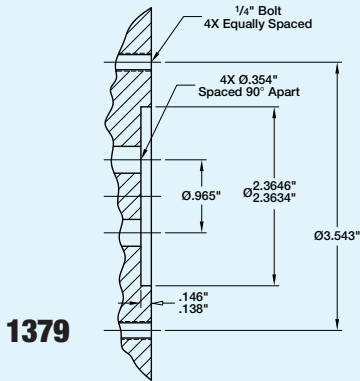
Maximum Air Pressure ^①	150 PSI	10 bar
Maximum Hydraulic Pressure ^①	850 PSI	60 bar
Maximum Speed	250 RPM	250/min

Maximum Temperature 175°F >175°F consult **DEUBLIN**

Slow speed or turnable applications not exceeding 10 RPM
Maximum Hydraulic Pressure 3,600 PSI 250 bar

^① Operating conditions vary depending on the application and must be adjusted so as not to exceed the maximum union housing temperature rating of 195°F.

Customer's Shaft End

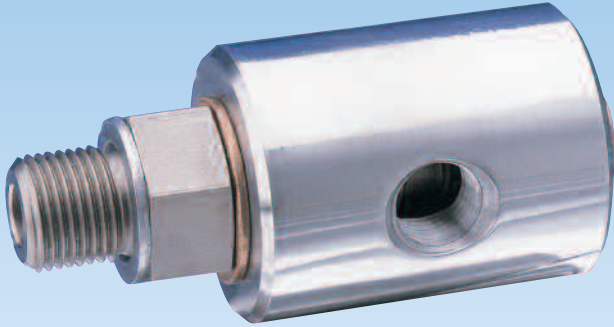


B Port	Order No. Model	A Dia.	C Dia.	D	E	F	G Dia.	J1 Lock-up	J2	M	N	P Dia.	R Dia.	S	U Dia.	V B.C. Dia.	W B.C. Dia.	Pilot Dia.	X	Shpg. Wt.
(4) x 3/8" NPT	1379-460	4 21/64"	3 1/2"	6 15/16"	1"	1 3/32"	2 3/64"	2 27/32"	5 19/32"	1 1/32"	2 3/32"	.4744" .4724"	.660" .655"	1/2"	9/32"	3 1/32"	3.543	2.3622" 2.3614"	5/32"	16.7#
(4) x G 3/8" (BSP)	1379-160	110	89	176	25	10.5	9	72	142	26	18	12.05 12.00	16.75 16.65	12	7.2	24.5	90	60.000 59.981	4	7.6 Kg
(4) x 1/2" NPT	1479-400	5 1/8"	4 1/4"	7 31/32"	1"	1 7/32"	1 1/2"	3 3/16"	6 21/32"	1 7/32"	2 9/32"	.5910" .5905"	.778" .773"	1 9/32"	1 1/32"	1 3/4"	4.331	2.953" 2.952"	5/32"	28#
(4) x G 1/2" (BSP)	1479-100	130	108	202	25	13.5	13	81	169	32	23	15.05 15.00	19.75 19.65	15	9	29	110	75.000 74.981	4	12.7 Kg

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Low Speed Air, Hydraulic, Brake Fluid Unions

- monoflow design
- self-supported rotating union
- steel rotor nickel-plated
- special bearing
- aluminum housing



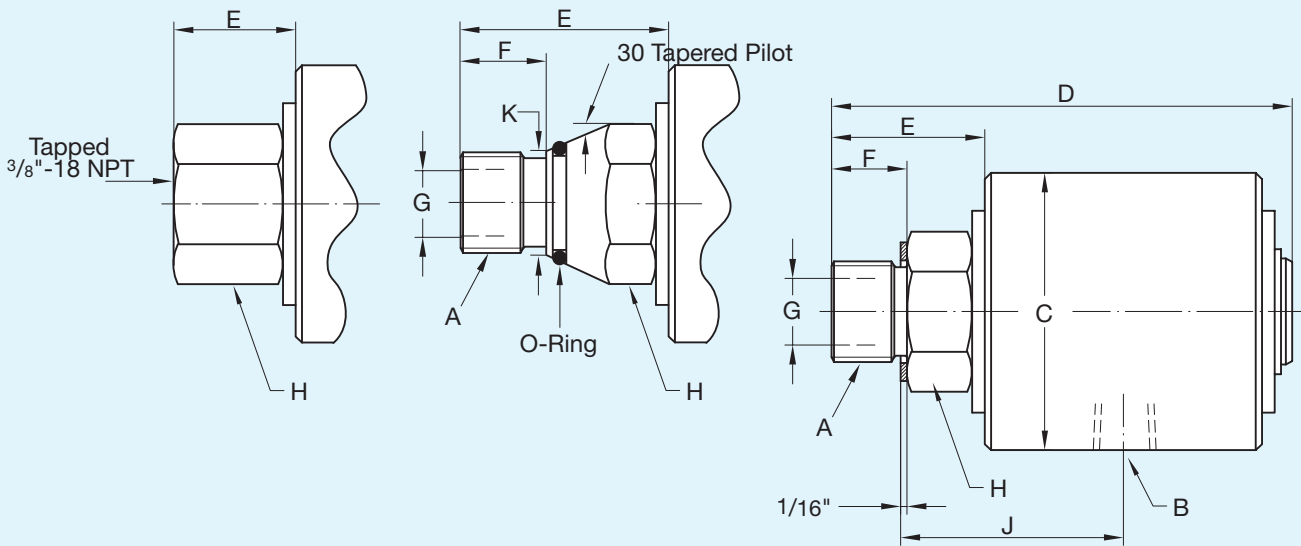
Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Hydraulic Pressure ^①	3,000 PSI	204 bar
Maximum Speed ^①	250 RPM	250/min
Maximum Temperature	250°F	120°C

① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.

-045 Rotor

-023 & -048 Rotors

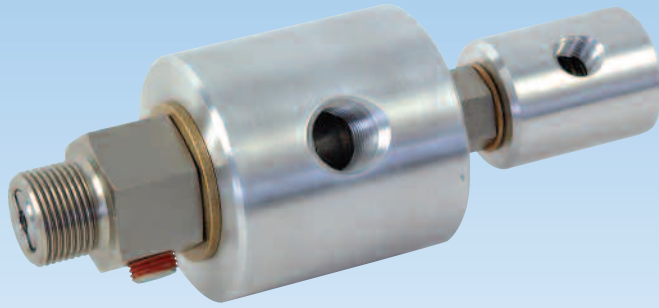


B Port NPT	Ordering Number			A Rotor Thread	C	D	E	F	G Rotor Hole	H Across Flats	J Lock-up	K	Shpg. Wt.
	Air-Hydraulic	Vacuum	Brake Fluid										
1/4"	17-025-012	17-051-012	17-086-012	5/8"-18 UNF RH	1 1/2"	3 1/4"	1 1/8"	5/8"	5/16"	7/8"	1 17/32"	-	1/2#
	17-025-041	17-051-041	17-086-041	3/8" NPT RH	1 1/2"	3 1/4"	1 1/8"	5/8"	5/16"	7/8"	1 25/32"	-	1/2#
	17-025-045	17-051-045	17-086-045	3/8" NPT (FEM) RH	1 1/2"	2 15/16"	1 3/16"	-	5/16"	7/8"	1 13/32"	-	1/2#
	17-025-023	17-051-023	17-086-023	5/8"-18 UNF T.PLT. RH	1 1/2"	3 5/32"	1 11/32"	5/8"	5/16"	7/8"	-	5/8"	1/2#
	17-025-039	17-051-039	17-086-039	G3/8"(BSP) RH	38	83.3	28.5	16.6	8	22.2	39	-	.3 Kg
	17-025-046	17-051-046	17-086-046	M16 x 2 RH	38	83.3	28.5	15.8	8	22.2	39	-	.3 Kg
	17-025-048	17-051-048	17-086-048	M16x2 T.PLT. RH	38	89	35	15.8	8	22.2	-	15.8	.3 Kg
1/2"	21-001-109	21-083-109	21-063-109	1"-14 UNS RH	2 3/4"	4 9/16"	1 1/2"	3/4"	5/8"	1 3/8"	2 1/4"	-	2 1/2#
	21-001-101	21-083-101	21-063-101	3/4" NPT RH	2 3/4"	4 11/16"	1 5/8"	7/8"	5/8"	1 3/8"	2 13/32"	-	2 1/2#
	21-001-122	21-083-122	21-063-122	G3/4"(BSP) RH	70	116	38	19	15.8	35	57	-	1.2 Kg
	21-001-121	21-083-121	21-063-121	M22 x 1.5 RH	70	111	33	14.2	12.7	35	57	-	1.2 Kg

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Tandem Air, Hydraulic, Brake Fluid Dual Passage Unions

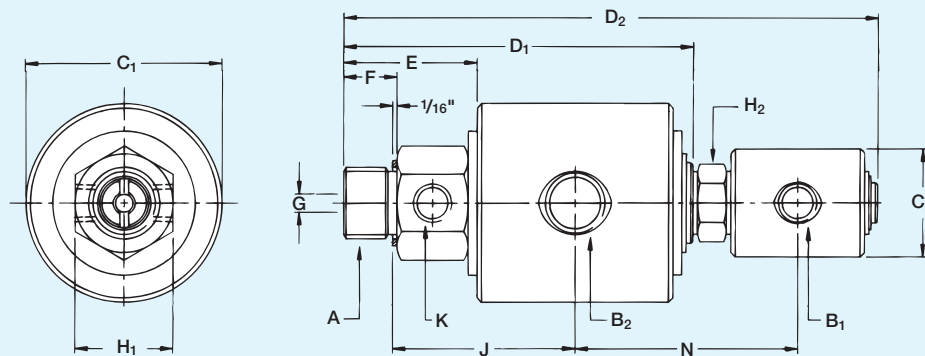
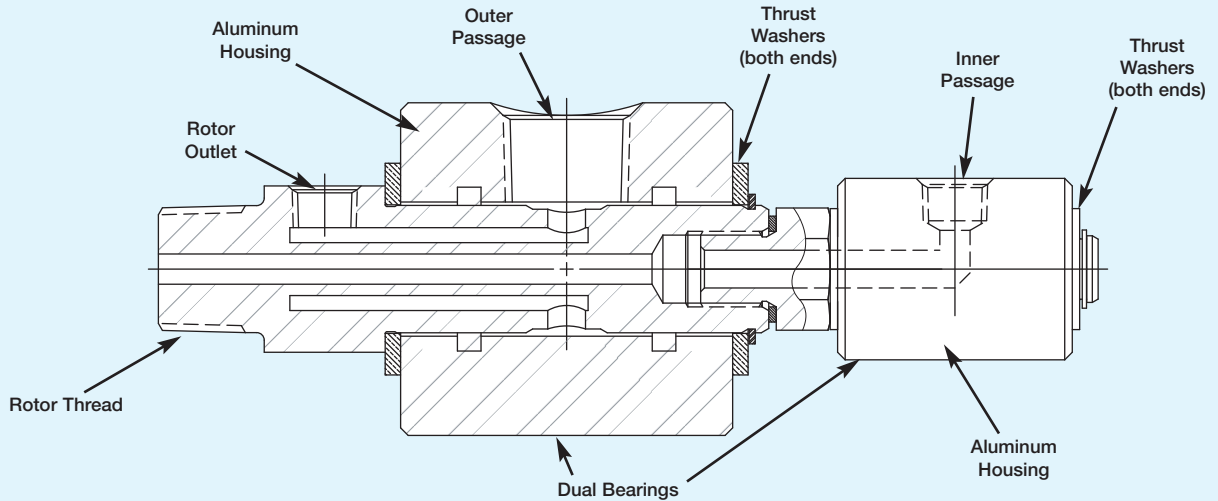
- duoflow (Tandem) design
- self-supported rotating union
- no interpassage leakage on the duoflow design
- steel rotor nickel-plated
- special bearing
- aluminum housing



Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum	28" Hg	6.7 kPa
Maximum Hydraulic Pressure ^①	3,000 PSI	204 bar
Maximum Speed ^①	250 RPM	250/min
Maximum Temperature	250°F	120°C

^① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.



Inlet Ports NPT	Ordering Number			A Rotor Thread	C1	C2	D1	D2	E	F	G	H1 Across Flats	H2 Across Flats	J Lock- Up	K Tap NPT	N Lock- up	Shpg. Wt.
	Air-Hydraulic	Vacuum	Brake Fluid														
B ₁ 1/4" B ₂ 1/2"	2117-001-109	2117-017-109	2117-018-136	3/4" NPT RH	2 3/4"	1 1/2"	4 5/64"	7 1/16"	1 15/16"	7/8"	1/4"	1 3/8"	7/8"	2 7/8"	1/4"	3 3/16"	3#
	2117-001-103	2117-017-103	2117-018-113	1"-14 UNS RH	2 3/4"	1 1/2"	4 59/64"	7 1/16"	1 7/8"	1 1/16"	1/4"	1 3/8"	7/8"	2 9/16"	1/4"	3 3/16"	3#
	2117-001-105	2117-017-105	2117-018-137	G 3/4" (BSP) RH	70	38	124	195	47	17	6	35	22	65	1/4"	81	1.4 Kg

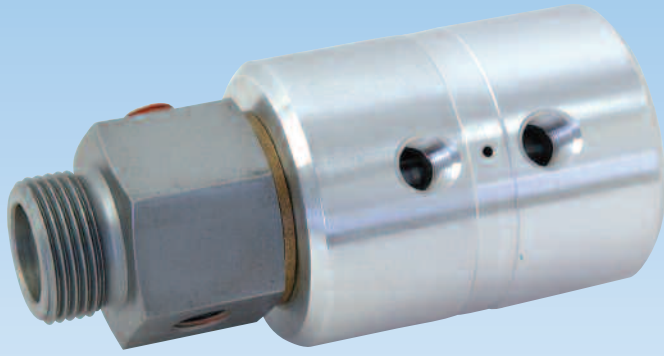
DEUBLIN

Deu-Plex Low Speed Air-Hydraulic Unions

- duoflow design
- self-supported rotating union
- composite bearing
- vent holes between passages
- special seals
- hardened sealing surface
- aluminum housing
- steel rotor

Optional:

- tandem model as triple-passages design

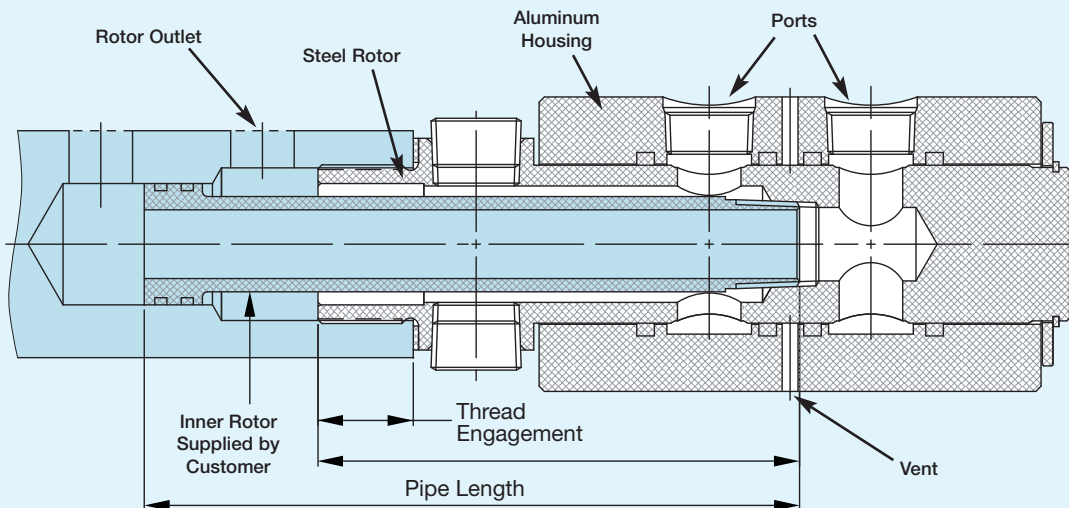


Operating Data

Maximum Air Pressure	150 PSI	10 bar
Maximum Vacuum Pressure	28" Hg	6.7 kPa
Maximum Hydraulic Pressure ^①	3,000 PSI	204 bar
Maximum Speed ^①	250 RPM	250/min
Torque for		
Model 1690	7 ft.lbs	9.5 Nm
Model 1790	18 ft.lbs	24 Nm
Model 1890	22 ft.lbs	29.8 Nm
Maximum Temperature	250°F	120°C

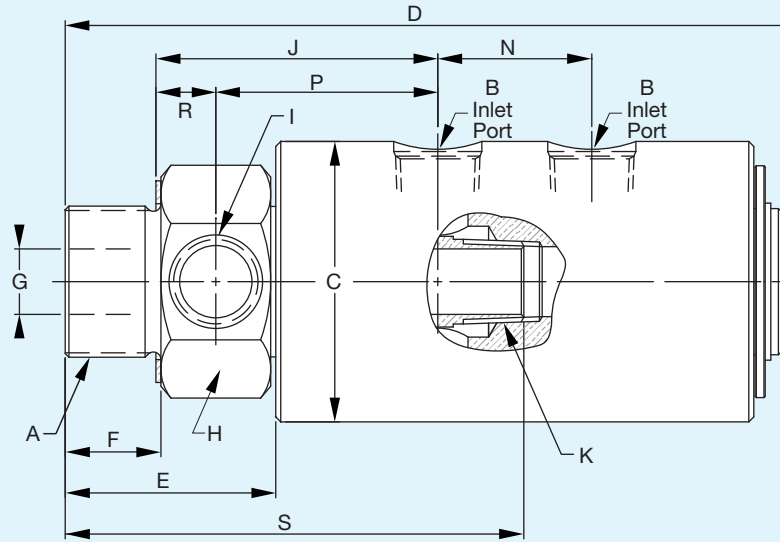
^① Union is designed for continuous operation at either maximum speed or maximum pressure. If operating conditions are close to maximum pressure and speed simultaneously, consult **DEUBLIN**.

Models without inner rotors can be used for coaxial feed applications as shown below.



**Illustration
of mounting
arrangement**

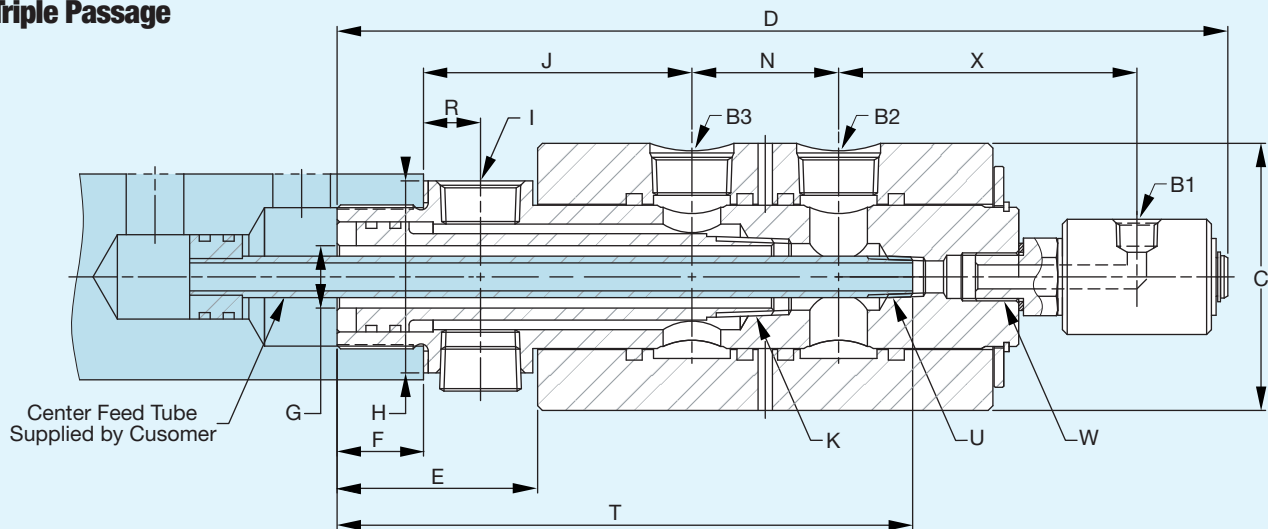
Double Passage Models



Ⓢ These models are supplied without inner rotors.

B Port NPT	Ordering No.	A Rotor Thread	C Dia.	D	E	F	G Rotor ID	H Across Flats	I Tap NPT	J Lock-up	K Tap NPT	N	P	R	S	Shpg Wt.
	Model															
(2) x 1/4"	1690-000-115	1" NPT RH	2 5/8"	5 7/8"	2 3/16"	1 1/8"	5/16"	1 3/4"	1/4"	2 5/8"	1/4"	1 5/32"	1 11/16"	1/2"	—	3 1/2#
	1690-000-102 [Ⓢ]	1" NPT RH	2 5/8"	5 7/8"	2 3/16"	1 1/8"	11/16"	1 3/4"	1/4"	2 5/8"	1/4"	1 5/32"	1 11/16"	1/2"	3 25/32"	3 1/2#
	1690-000-168	G1" (BSP) RH	66.6	150	55.5	18	7.9	44.4	1/4"	67.8	1/4"	29.4	42.9	17	—	1.6 Kg
	1690-000-105 [Ⓢ]	G1" (BSP) RH	66.6	150	55.5	18	17.4	44.4	1/4"	67.8	1/4"	29.4	42.9	17	96	1.6 Kg
(2) x 1/2"	1790-001-113	1 1/4" NPT RH	3"	8 3/16"	2 15/32"	1 1/8"	5/8"	2"	1/2"	3 3/4"	1/2"	1 21/32"	2 5/8"	5/8"	—	6 1/2#
	1790-001-101 [Ⓢ]	1 1/4" NPT RH	3"	8 3/16"	2 15/32"	1 1/8"	1 1/16"	2"	1/2"	3 3/4"	1/2"	1 21/32"	2 5/8"	5/8"	5 1/16"	6 1/2#
	1790-001-114	G1 1/4" (BSP) RH	76	208	63	28	16	55	1/2"	84.2	1/2"	42	67	15.5	—	3 Kg
	1790-001-112 [Ⓢ]	G1 1/4" (BSP) RH	76	208	63	28	27	55	1/2"	84.2	1/2"	42	67	15.5	129	3 Kg
(2) x 3/4"	1890-100	1 1/2" NPT RH	3 1/2"	8 7/8"	2 5/8"	1 3/8"	1 3/16"	2 1/2"	3/4"	4 3/32"	3/4"	1 29/32"	2 3/4"	1 1/16"	—	9 3/4#
	1890-110 [Ⓢ]	1 1/2" NPT RH	3 1/2"	8 7/8"	2 5/8"	1 3/8"	1 3/16"	2 1/2"	3/4"	4 3/32"	3/4"	1 29/32"	2 3/4"	1 1/16"	5 13/16"	9 3/4#
	1890-060	G1 1/2" (BSP) RH	88.9	225.4	66.6	30.2	20.6	63.5	3/4"	91.3	3/4"	48.4	69.8	17.5	—	4.4 Kg
	1890-063 [Ⓢ]	G1 1/2" (BSP) RH	88.9	225.4	66.6	30.2	34.9	63.5	3/4"	91.3	3/4"	48.4	69.8	17.5	147.6	4.2 Kg

Triple Passage



Center Feed Tube Supplied by Customer

Inlet Ports NPT	Ordering No.	A Rotor Thread	C	D	E	F	G Rotor Hole	H Across Flats	I Tap NPT	J Lock-up	K Tap NPT	N	P	R	T	U Tap NPT	W Tap	X	Shpg. Wt.
	Model																		
B ₁ B ₂ B ₃ 1/4" 3/4" 3/4"	1890-116	1 1/2" NPT RH	3 1/2"	11 17/32"	2 5/8"	1 3/16"	1 3/16"	2 1/2"	3/4"	4 3/32"	3/4"	1 29/32"	2 13/16"	1 1/16"	7 1/2"	1/4"	5/8" -18 UNF,RH	3 7/8"	10 3/4#
	1890-064	G1 1/2" (BSP) RH	88.9	293	66.6	30.2	20.6	63.5	3/4"	89	3/4"	48.4	69.8	17.5	190	1/4"	5/8" -18 UNF,RH	97.6	4.9 Kg