



DEUBLIN

Rotating Unions 57 Series

for General Purposes, DN 10 - 50

- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- pinned rotor seal
- easy and quick replacement of sealing components (rotor seal, floating seal)
- ball bearings lubricated for life
- for poor water quality
- 3 vent holes
- forged brass housing
- stainless steel rotor
- special options:
threaded vent holes,
bearings splash proof,
nickel-plated versions

Operating Data

Max. Water Pressure	Model	57-357	750 PSI	50 bar
		527-657	150 PSI	10 bar
Max. Sat. Steam Pressure (Interm.)		57-357	14 PSI	1 bar
Max. Hot Oil Pressure		57-357	100 PSI	6,6 bar
Max. Speed, Rotor with Straight Threads:	Model	57-257	3,500 RPM	3.500 min ⁻¹
		357	3,000 RPM	3.000 min ⁻¹
		527-557	2,500 RPM	2.500 min ⁻¹
		657	750 RPM	750 min ⁻¹
Max. Temperature	Model	57-357	120 °C	> 120 °C consult Deublin
		527-657	90 °C	> 90 °C consult Deublin

For further information please contact Deublin or your local representative.

Torque Ratings 57 Series

DN	ft.lbs	Nm
10	0.18	0.25
15	0.37	0.50
20	0.74	1.00
25	1.48	2.00
32	1.62	2.20
40	2.14	2.90
50	3.32	4.50

Seal Combination – Standard

- Carbon Graphite/Silicon Carbide
- long service life

Seal Combination – E.L.S. (Extended Life Sealing)

- Silicon Carbide/Silicon Carbide for severe conditions (poor water quality)

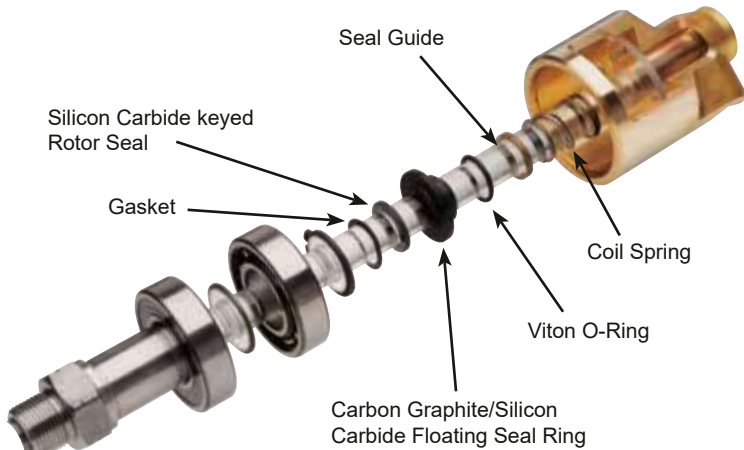
All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX".

Union Repair

The 57 Series is designed for quick, easy replacement of both Floating Seal and the Rotor Seal.

The "57's" seal is seated in a keyed counter bore at the rotor's end. The worn seal simply lifts out and the new one drops right in. Since the entire rotor does not need to be replaced or relapped, the repair is fast, easy and on the spot. As you only replace the seals, the repair cost is very economical.

For Ordering Number of Repair Kit see page 5.



DEUBLIN

Rotating Unions 55 Series for General Purposes, DN 32 - 50

- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- 3 vent holes
- forged brass housing
- stainless steel rotor
- special options:
threaded vent holes,
splash-proof bearings,
nickel-plated
and/or low torque design
- Lubrication Guide page 48

For further information please contact Deublin or your local representative.

Operating Data

Max. Water Pressure	Model 525 & 555	750 PSI	50 bar
	655	200 PSI	15 bar
Max. Saturated Steam Pressure (Intermittent)		14 PSI	1 bar
Max. Hot Oil Pressure		100 PSI	6,6 bar
Max. Speed, Rotors with Straight Threads:	Model 525 -555	2,500 RPM	2,500 min ⁻¹
	655	750 RPM	750 min ⁻¹
Max. Temperature	120 °C	> 120 °C consult Deublin	

Torque Ratings 55 Series

DN	ft.lbs	Nm
32	1.25	1.80
40	2.50	3.40
50	3.00	4.07

Seal Combinations – Standard

- Carbon Graphite/Bronze for water
- multi-purpose applications

optional:

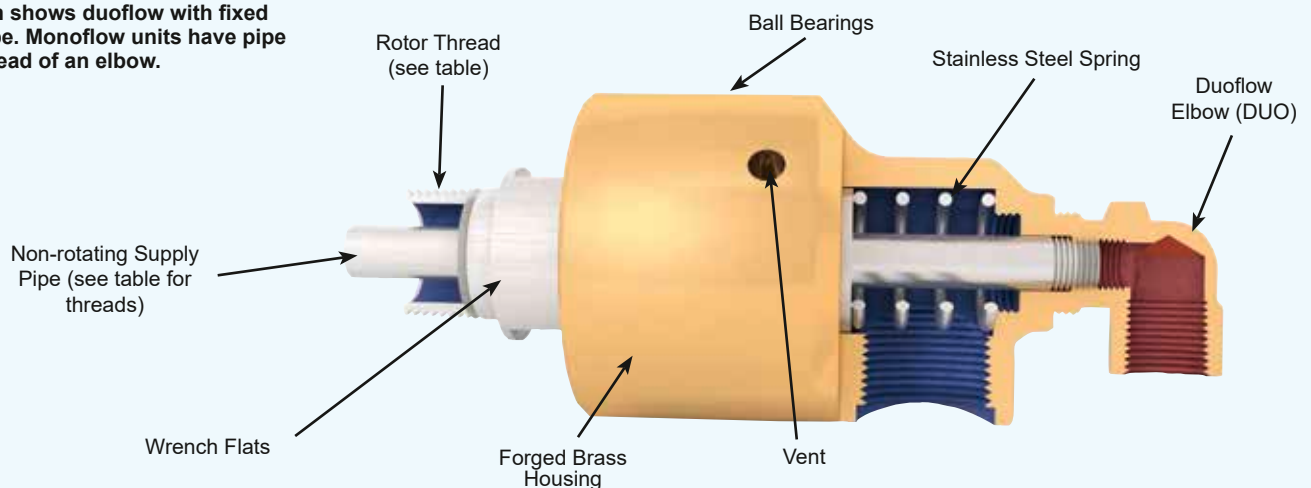
- Carbon Graphite/Ceramic for hot oil, hot water and saturated steam

Seal Combination – E.L.S. (Extended Life Sealing)

- Tungsten Carbide/Ceramic for severe conditions (poor water quality), max. temperature 90°C

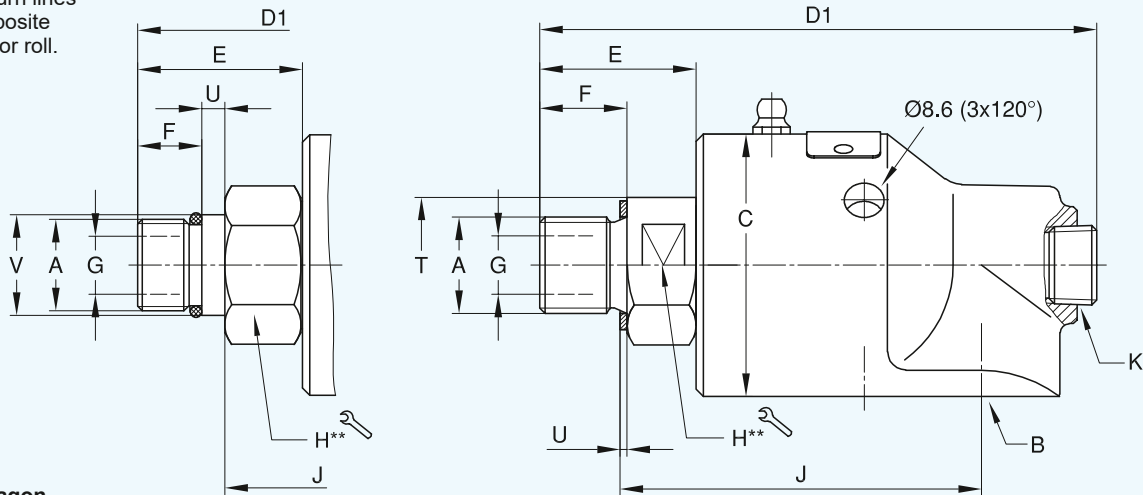
All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by “ATEX”.

Illustration shows duoflow with fixed supply pipe. Monoflow units have pipe plugs instead of an elbow.



57 and 55 Series – Monoflow Rotating Unions DN 10 - 50

Monoflow unions are used when supply and return lines are connected to opposite sides of the cylinder or roll.



Pilot Type Rotor

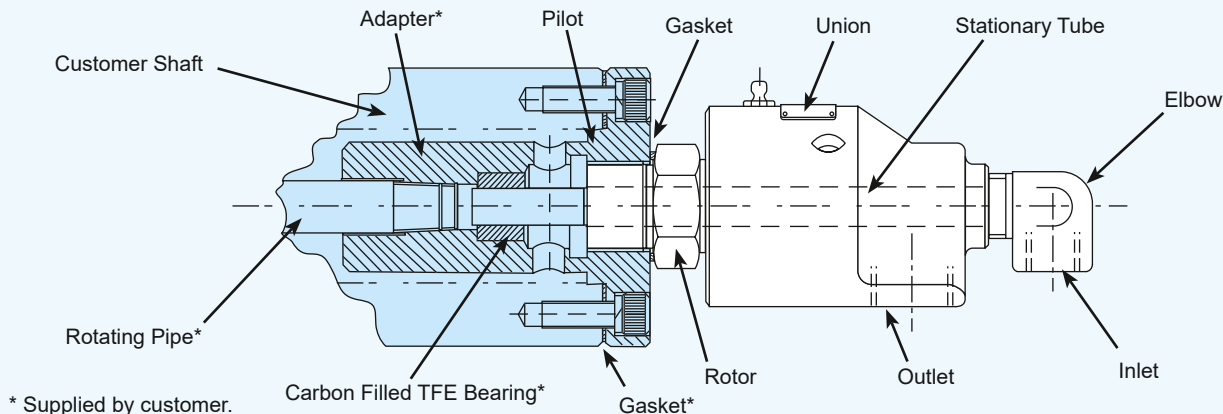
** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

DN	B	Ordering No. (Basic Models)				A Rotor Connections	C ø	D1	E	F	G ø	H ⌀	J	K NPT	T	U	V ø	kg
		Model 57 STD	Model 57 E.L.S.	Model 55 STD	Model 55 E.L.S.													
10	G 3/8	57-130-094	57-145-094	-	-	G 3/8 RH	45	100	26	16	9,5	22	67	1/4	-	1,5	-	0,6
	G 3/8	57-130-095	57-145-095	-	-	G 3/8 LH	45	100	26	16	9,5	22	67	1/4	-	1,5	-	0,6
	3/8 NPT	57-000-094	57-050-094	-	-	G 3/8 RH	45	100	26	16	9,5	22	67	1/4	-	1,5	-	0,6
	3/8 NPT	57-000-095	57-050-095	-	-	G 3/8 LH	45	100	26	16	9,5	22	67	1/4	-	1,5	-	0,6
15	G 1/2	157-130-151	157-145-151	-	-	G 1/2 RH	57	119	35	19	12,7	30	79	3/8	-	1,5	-	1,2
	G 1/2	157-130-152	157-145-152	-	-	G 1/2 LH	57	119	35	19	12,7	30	79	3/8	-	1,5	-	1,2
	G 1/2	157-130-738	157-145-738	-	-	M 20 x 1,5 RH	57	121	37	14	12,7	30	79	3/8	-	5	22g6	1,2
	G 1/2	157-130-835	157-145-835	-	-	M 20 x 1,5 LH	57	121	37	14	12,7	30	79	3/8	-	5	22g6	1,2
	1/2 NPT	157-000-151	157-050-151	-	-	G 1/2 RH	57	119	35	19	12,7	30	79	3/8	-	1,5	-	1,2
	1/2 NPT	157-000-152	157-050-152	-	-	G 1/2 LH	57	119	35	19	12,7	30	79	3/8	-	1,5	-	1,2
20	G 3/4	257-130-284	257-145-284	-	-	G 3/4 RH	73	136	34	19	17,5	36	95	1/2	-	2	-	2,1
	G 3/4	257-130-285	257-145-285	-	-	G 3/4 LH	73	136	34	19	17,5	36	95	1/2	-	2	-	2,1
	G 3/4	257-130-014	257-145-014	-	-	M 35 x 1,5 RH	73	140	38	15	17,5	41	102	1/2	-	2	-	2,2
	G 3/4	257-130-015	257-145-015	-	-	M 35 x 1,5 LH	73	140	38	15	17,5	41	102	1/2	-	2	-	2,2
	G 3/4	257-130-048	257-145-048	-	-	M 27 x 1,5 RH	73	137	35	15	17,5	36	92	1/2	-	6	28g6	2,1
	G 3/4	257-130-104	257-145-104	-	-	M 27 x 1,5 LH	73	137	35	15	17,5	36	92	1/2	-	6	28g6	2,1
	3/4 NPT	257-000-284	257-050-284	-	-	G 3/4 RH	73	136	34	19	17,5	36	95	1/2	-	2	-	2,1
	3/4 NPT	257-000-285	257-050-285	-	-	G 3/4 LH	73	136	34	19	17,5	36	95	1/2	-	2	-	2,1
25	G 1	357-130-222	357-145-222	-	-	G 1 RH	83	163	42	22	25	36	108	3/4	45	2	-	3,1
	G 1	357-130-223	357-145-223	-	-	G 1 LH	83	163	42	22	25	36	108	3/4	45	2	-	3,1
	G 1	357-130-235	357-145-235	-	-	M 35 x 1,5 RH	83	157	36	15	25	36	108	3/4	45	2	-	3,1
	G 1	357-130-236	357-145-236	-	-	M 35 x 1,5 LH	83	157	36	15	25	36	108	3/4	45	2	-	3,1
	1 NPT	357-000-222	357-050-222	-	-	G 1 RH	83	163	42	22	25	36	108	3/4	45	2	-	3,1
	1 NPT	357-000-223	357-050-223	-	-	G 1 LH	83	163	42	22	25	36	108	3/4	45	2	-	3,1
32	G 1 1/4	527-130-054	527-145-054	525-301-054	525-398-122	G 1 1/4 RH	91	189	54	28	31,8	46	119	1	58	2	-	4,1
	G 1 1/4	527-130-055	527-145-055	525-301-055	525-398-123	G 1 1/4 LH	91	189	54	28	31,8	46	119	1	58	2	-	4,1
	1 1/4 NPT	527-000-054	527-050-054	525-000-054	525-097-122	G 1 1/4 RH	91	189	54	28	31,8	46	119	1	58	2	-	4,1
	1 1/4 NPT	527-000-055	527-050-055	525-000-055	525-097-123	G 1 1/4 LH	91	189	54	28	31,8	46	119	1	58	2	-	4,1
40	G 1 1/2	557-130-198	557-145-198	555-385-198	555-378-288	G 1 1/2 RH	108	228	72	29	38	55	149	1 1/4	65	2	-	6,7
	G 1 1/2	557-130-199	557-145-199	555-385-199	555-378-289	G 1 1/2 LH	108	228	72	29	38	55	149	1 1/4	65	2	-	6,7
	G 1 1/2	557-130-200	557-145-200	555-385-200	555-378-418	M 50 x 1,5 RH	108	222	66	23	38	55	149	1 1/4	65	2	-	6,5
	G 1 1/2	557-130-201	557-145-201	555-385-201	555-378-419	M 50 x 1,5 LH	108	222	66	23	38	55	149	1 1/4	65	2	-	6,5
	1 1/2 NPT	557-000-198	557-050-198	555-000-198	555-033-288	G 1 1/2 RH	108	228	72	29	38	55	149	1 1/4	65	2	-	6,7
	1 1/2 NPT	557-000-199	557-050-199	555-000-199	555-033-289	G 1 1/2 LH	108	228	72	29	38	55	149	1 1/4	65	2	-	6,7
50	G 2	657-130-124	657-145-124	655-527-124	655-930-124	G 2 RH	118	248	65	29	47,6	60	165	1 1/4	70	2,5	-	7,6
	G 2	657-130-125	657-145-125	655-527-125	655-930-125	G 2 LH	118	248	65	29	47,6	60	165	1 1/4	70	2,5	-	7,6
	2 NPT	657-000-124	657-050-124	655-500-124	655-502-124	G 2 RH	118	248	65	29	47,6	60	165	1 1/4	70	2,5	-	7,6
	2 NPT	657-000-125	657-050-125	655-500-125	655-502-125	G 2 LH	118	248	65	29	47,6	60	165	1 1/4	70	2,5	-	7,6

Duoflow Supply Pipe Installations

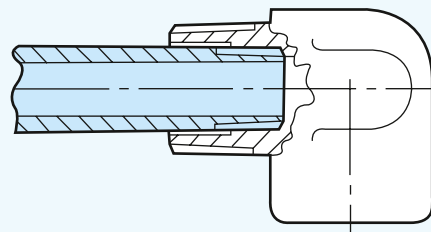
Deublin water service unions can be adapted for Duoflow applications where a single media is circulated through and around the supply pipe. Duoflow elbows are available in 3 styles to accept a variety of different supply systems. The guidelines shown below should be carefully considered. A poorly designed supply system can contribute to premature union failure.

Where long pipes or high speeds are required, an adapter should be used to avoid transmitting stresses from heavy pipes, cascading water or vibrations to the union. A typical adapter is illustrated.



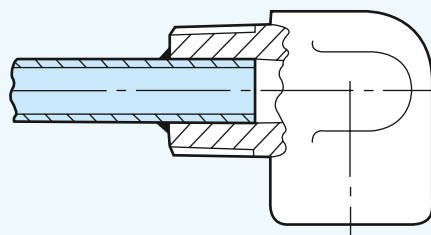
Threaded Pipe

The largest threaded supply pipe achieves the maximum flow rates available for a particular size union. Stresses at the pipe thread can cause breakage allowing the pipe to fall into the roll. For this reason pipe lengths longer than 4 union lengths ($4 \times D1$) and rotational speeds above 1,000 RPM should be avoided.



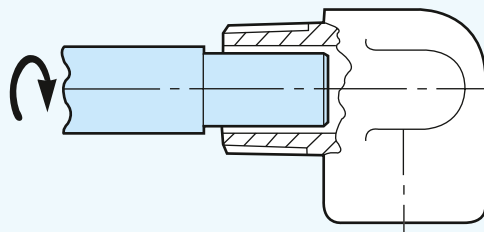
Fixed Tube

Thin wall stainless steel tube silver soldered into the Duoflow elbow produces the strongest, lightest weight assembly. The thinner wall sections allow greater flow rates than the threaded pipe. Maximum flow rates are obtained with the largest tube available for a given size union. Tube lengths is usually limited to 6 union lengths ($6 \times D1$). Speeds to 3,500 RPM are possible.



Rotating Pipe

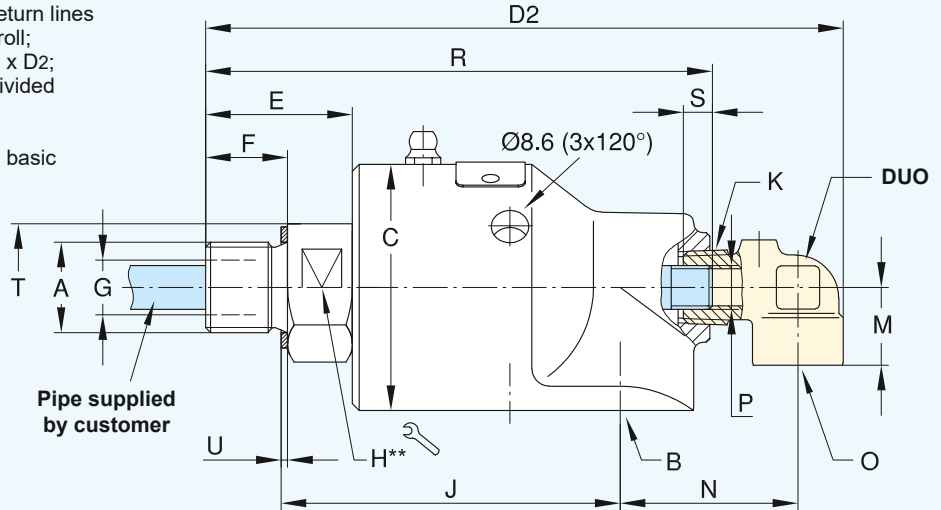
Rotating pipes are fastened internally to rotate with the roll. The Duoflow elbow helps to support the pipe and restrict crosstalk between passages. The pipe must be straight and concentric to the center line to avoid excessive loading of the union. The union must also have a rotor with a straight thread (Example 1" - 14" UNS) rather than a tapered pipe thread to assure concentricity. Rotational speeds above 1,000 RPM should be avoided.



57 and 55 Series – Elbows DN 10 - 50 for Fixed, Threaded Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; non-supported pipe lengths no longer than 4 x D₂; max. speed 1,000 RPM; for higher speeds divided supply pipes must be used.

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.



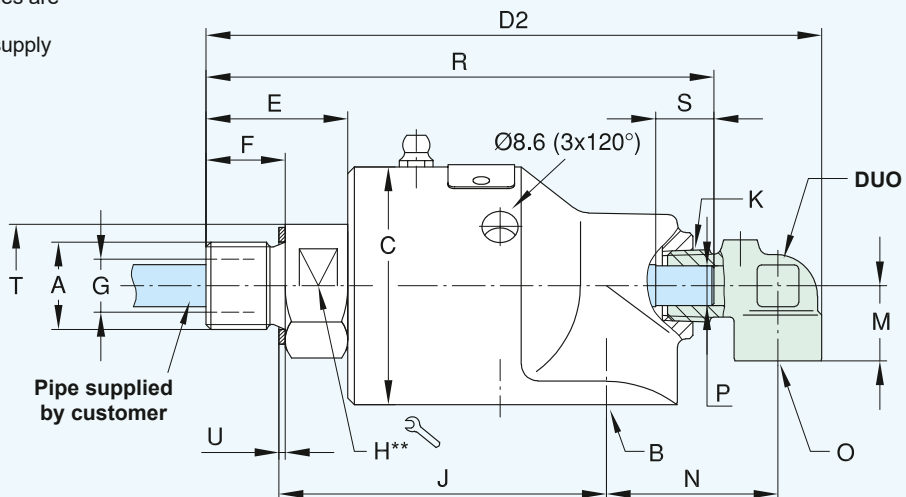
** DN 10 - 20 = hexagon
DN 25 - 50 = two wrench flats

DN	O	fixed, threaded				rotating				divided Ordering No. DUO	+ self-centering Ordering No. DUO	L	P Ø H9	Q	S	D ₂	M	N
		Ordering No. DUO	P Pipe	R	S	Ordering No. DUO	P Pipe Ød11	R	S									
10	G ¼	55-121	M 6	99	8	55-807	5.8	103	20	55-843	---	171	6	5	55	124	18	33
	G ¼	55-121	M 6	99	8	55-807	5.8	103	20	55-843	---	171	6	5	55	124	18	33
	¼ NPT	55-120	M 6	99	8	55-446	5.8	103	20	55-445	---	171	6	5	55	124	18	33
	¼ NPT	55-120	M 6	99	8	55-446	5.8	103	20	55-445	---	171	6	5	55	124	18	33
15	G ⅜	155-581	G ⅜	118	8	155-709	9.8	124	30	150-232	155-981	201	10	8	60	147	18	40
	G ⅜	155-581	G ⅜	118	8	155-709	9.8	124	30	150-232	155-981	201	10	8	60	147	18	40
	G ⅜	155-581	G ⅜	120	8	155-709	9.8	124	30	150-232	155-981	201	10	8	60	149	18	40
	G ⅜	155-581	G ⅜	120	8	155-709	9.8	124	30	150-232	155-981	201	10	8	60	149	18	40
	⅜ NPT	155-199	G ⅜	118	8	155-471	9.8	124	30	155-470	155-797	201	10	8	60	147	18	40
	⅜ NPT	155-199	G ⅜	118	8	155-471	9.8	124	30	155-470	155-797	201	10	8	60	147	18	40
20	G ½	251-351	G ½	137	12	251-352	12.8	143	32	251-551	251-371	208	13	11	60	171	26	46
	G ½	251-351	G ½	137	12	251-352	12.8	143	32	251-551	251-371	208	13	11	60	171	26	46
	G ½	251-351	G ½	141	12	251-352	12.8	146	32	251-551	251-371	208	13	11	60	174	26	46
	G ½	251-351	G ½	141	12	251-352	12.8	146	32	251-551	251-371	208	13	11	60	174	26	46
	G ½	251-351	G ½	137	12	251-352	12.8	143	32	251-551	251-371	208	13	11	60	172	26	46
	G ½	251-351	G ½	137	12	251-352	12.8	143	32	251-551	251-371	208	13	11	60	172	26	46
	½ NPT	250-368	G ½	137	12	250-681	12.8	143	32	250-680	250-994	208	13	11	60	171	26	46
	½ NPT	250-368	G ½	137	12	250-681	12.8	143	32	250-680	250-994	208	13	11	60	171	26	46
25	G ½	350-912	G ⅝	161	12	350-772	15.8	171	35	350-990	351-173	272	16	14	60	200	28	59
	G ½	350-912	G ⅝	161	12	350-772	15.8	171	35	350-990	351-173	272	16	14	60	200	28	59
	G ½	350-912	G ⅝	155	12	350-772	15.8	165	35	350-990	351-173	272	16	14	60	194	28	59
	G ½	350-912	G ⅝	155	12	350-772	15.8	165	35	350-990	351-173	272	16	14	60	194	28	59
	½ NPT	350-255	G ⅝	161	12	350-347	15.8	171	35	350-366	350-974	272	16	14	60	200	28	59
	½ NPT	350-255	G ⅝	161	12	350-347	15.8	171	35	350-366	350-974	272	16	14	60	200	28	59
32	G ¾	525-594	G ½	186	14	525-480	21.8	196	40	525-931	525-926	285	22	20	60	234	35	72
	G ¾	525-594	G ½	186	14	525-480	21.8	196	40	525-931	525-926	285	22	20	60	234	35	72
	¾ NPT	525-079	G ½	186	14	525-237	21.8	196	40	525-236	525-592	285	22	20	60	234	35	72
	¾ NPT	525-079	G ½	186	14	525-237	21.8	196	40	525-236	525-592	285	22	20	60	234	35	72
40	G ¾	451-171	G ¾	223	16	451-173	25.8	238	44	451-274	451-175	319	26	24	60	270	38	76
	G ¾	451-171	G ¾	223	16	451-173	25.8	238	44	451-274	451-175	319	26	24	60	270	38	76
	G ¾	451-171	G ¾	216	16	451-173	25.8	232	44	451-274	451-175	319	26	24	60	264	38	76
	G ¾	451-171	G ¾	216	16	451-173	25.8	232	44	451-274	451-175	319	26	24	60	264	38	76
	¾ NPT	450-221	G ¾	223	16	450-468	25.8	238	44	450-467	451-162	319	26	24	60	270	38	76
	¾ NPT	450-221	G ¾	223	16	450-468	25.8	238	44	450-467	451-162	319	26	24	60	270	38	76
50	G 1¼	450-534	G 1	252	26	450-612	32.1	253	50	655-174	655-707	382	34	31	60	312	45	96
	G 1¼	450-534	G 1	252	26	450-612	32.1	253	50	655-174	655-707	382	34	31	60	312	45	96
	1¼ NPT	451-242	G 1	252	26	450-625	31.8	253	50	655-966	655-968	382	34	31	60	312	45	96
	1¼ NPT	451-242	G 1	252	26	450-625	31.8	253	50	655-966	655-968	382	34	31	60	312	45	96

57 and 55 Series – Elbows DN 10 - 50 for Rotating Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; max. speed 1,000 RPM; for higher speeds divided supply pipes must be used.

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.

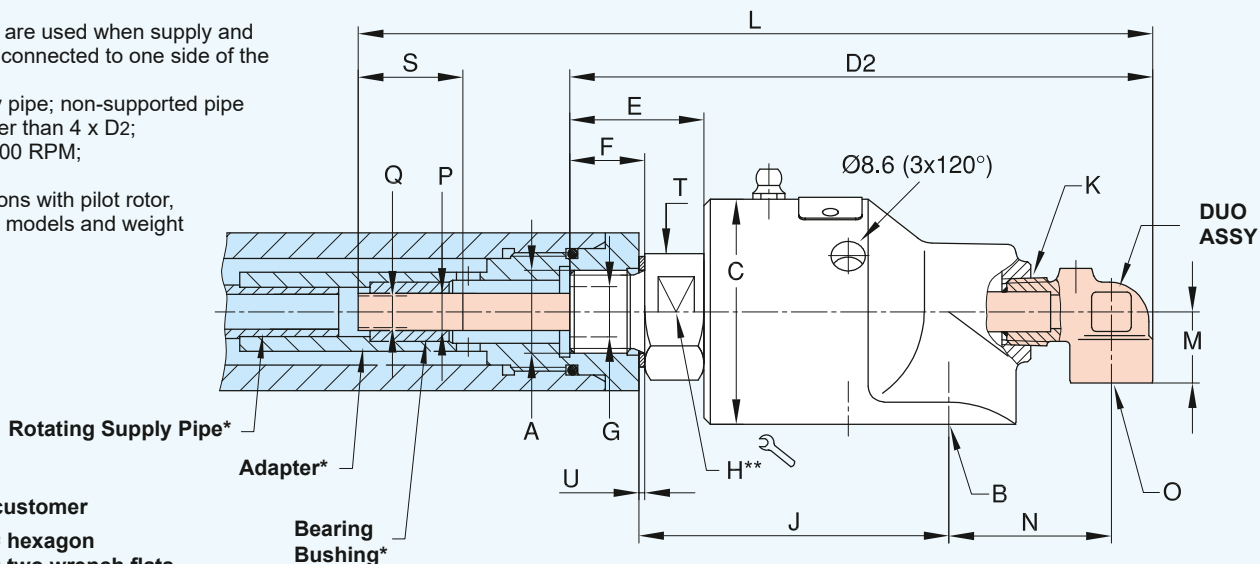


** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

57 and 55 Series – Elbows DN 10 - 50 with Divided Siphon Pipe (soldered)

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; soldered supply pipe; non-supported pipe lengths no longer than 4 x D2; max. speed 3,500 RPM;

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.

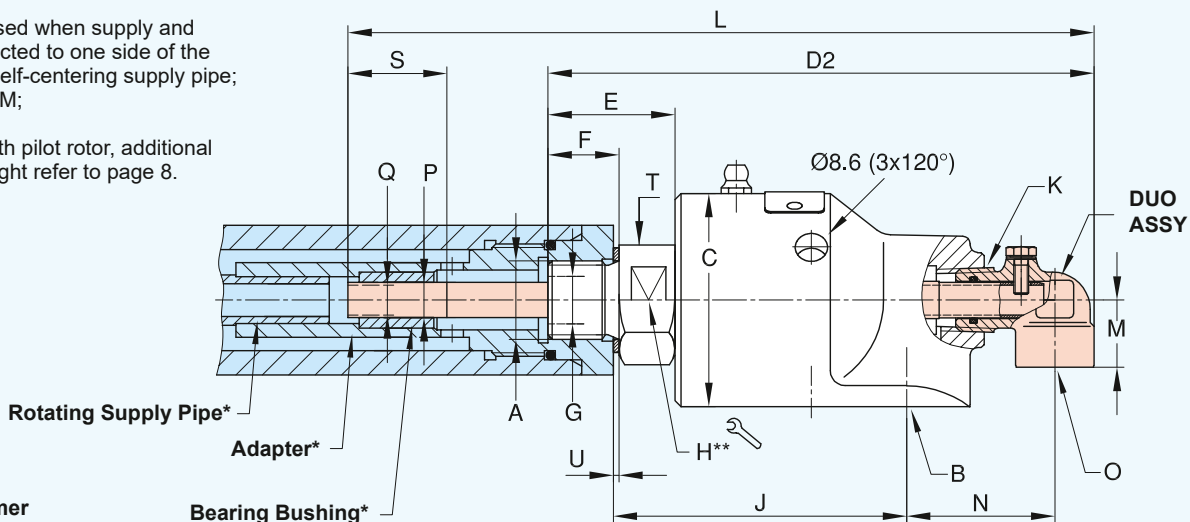


* supplied by customer
 ** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

57 and 55 Series – Elbows DN 10 - 50 with Flexible, Self-Centering Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; fixed self-centering supply pipe; max. speed 3,500 RPM;

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.



* supplied by customer
 ** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats