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STC FITTINGS NUMBERING SYSTEM

Ordering Part No. = BC | (Material/Type) | 1/8 | 10-32 | (Release Button Color)
(eg. BC 1/8 10-32)

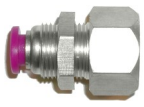
Fitting Name	Model
BULKHEAD CONNECTOR	BC
BRANCH TEE	BT
BULKHEAD UNION	BU
COMPACT MALE CONNECTOR	CC
CONTROL VALVE (meter-in)	CI
CONTROL VALVE (meter-out)	CV
CROSS UNION	CU
EXTENDED ELBOW	EE
FEMALE CONNECTOR	FC
FEMALE ELBOW	FE
INLINE FLOW CONTROL	FV
MALE ANGLE	MA
MALE CONNECTOR	MC
MALE ELBOW	ME
MALE MANIFOLD	MM
MANIFOLD UNION	MU
PLUG-IN ELBOW (LJ)	PE
PLUG	PG
REDUCED BRANCH	RB
REDUCER ELBOW (GJ)	RE
REDUCED TEE	RT
REDUCED UNION	RU
RUN TEE	RT
STACK ELBOW	SE
STRAIGHT UNION	SU
STEM COUPLING (IJ)	SC
STEM REDUCER (IG)	SR
TEE UNION	TU
TUBE REDUCER	TR
UNIVERSAL ELBOW	UE
Y CONNECTOR	YC
Y UNION	YU
UNION VALVE	UV
CHECK VALVE	KV
INLET FLOW CONTROL	AS
INLINE FLOW CONTROL	ASC
MUFFLER	BSL
QUICK EXHAUST VALVE	QE
SHUTTLE VALVE	ST
SPEED CONTROL MUFFLER	BESL

Material/Type	Tube OD	Thread Size N= NPT, R=PT, G=PP, U=UNIFIT	Release Button Color
Blank = Composite B = Nickel Plated Brass M = Miniature Composite Fittings S = 316 Stainless Steel	(inch) 1/8 5/32 3/16 1/4 5/16 3/8 1/2 (mm) 4 6 8 10 12	10-32 N1/8 N1/4 N3/8 N1/2 M5 M6 R1/8 R1/4 R3/8 R1/2 G1/8 G1/4 G3/8 U1/8 U1/4 U3/8 U1/2	Blank = Purple/Metal Color B = Blue K = Black

Tel: 650-938 8833; Website: StcValve.com

STC ™

STC Composite Push-In Fittings List Price

Composite Fittings													
Model		Universal Elbow		Extended Elbow		Female Connector		Female Elbow		Bulkhead Connector		Control Valve CV=meter-out; CI= meter-in	
Tube OD	Pipe Size	UE		EE		FC		FE		BC		CV or CI	
1/8	10-32UNF	UE 1/8 10-32	$2.51			FC 1/8 10-32	$1.41	FE 1/8 10-32	$2.00			CV 1/8 10-32	$6.17
1/8	NPT1/8	UE 1/8 N1/8	$2.51			FC 1/8 N1/8	$1.41	FE 1/8 N1/8	$2.00	BC 1/8 N1/8	$2.65	CV 1/8 N1/8	$6.17
5/32	10-32UNF	UE 5/32 10-32	$2.51	EE 5/32 10-32	$2.00	FC 5/32 10-32	$1.41	FE 5/32 10-32	$2.00			CV 5/32 10-32	$6.17
5/32	NPT1/8	UE 5/32 N1/8	$2.51	EE 5/32 N1/8	$2.00	FC 5/32 N1/8	$1.41	FE 5/32 N1/8	$2.00	BC 5/32 N1/8	$2.65	CV 5/32 N1/8	$6.17
5/32	NPT1/4					FC 5/32 N1/4	$1.41	FE 5/32 N1/4	$2.00	BC 5/32 N1/4	$2.65	CV 5/32 N1/4	$6.17
3/16	10-32UNF	UE 3/16 10-32	$3.00					FE 3/16 10-32	$2.00				
3/16	NPT1/8	UE 3/16 N1/8	$3.00	EE 3/16 N1/8	$2.00			FE 3/16 N1/8	$2.00	BC 3/16 N1/8	$2.65	CV 3/16 N1/8	$6.17
3/16	NPT1/4	UE 3/16 N1/4	$3.00	EE 3/16 N1/4	$2.00			FE 3/16 N1/4	$2.00	BC 3/16 N1/4	$2.65		
3/16	NPT3/8			EE 3/16 N3/8	$2.53								
1/4	10-32UNF	UE 1/4 10-32	$3.00					FE 1/4 10-32	$2.00			CV 1/4 10-32	$6.17
1/4	NPT1/8	UE 1/4 N1/8	$3.00	EE 1/4 N1/8	$2.00	FC 1/4 N1/8	$1.41	FE 1/4 N1/8	$2.00	BC 1/4 N1/8	$3.17	CV 1/4 N1/8	$6.67
1/4	NPT1/4	UE 1/4 N1/4	$3.42	EE 1/4 N1/4	$2.00	FC 1/4 N1/4	$1.60	FE 1/4 N1/4	$2.00	BC 1/4 N1/4	$3.62	CV 1/4 N1/4	$6.67
1/4	NPT3/8			EE 1/4 N3/8	$2.53			FE 1/4 N3/8	$2.53			CV 1/4 N3/8	$8.50
5/16	NPT1/8	UE 5/16 N1/8	$3.12	EE 5/16 N1/8	$2.16	FC 5/16 N1/8	$1.61	FE 5/16 N1/8	$2.16	BC 5/16 N1/8	$3.30	CV 5/16 N1/8	$6.67
5/16	NPT1/4	UE 5/16 N1/4	$3.12	EE 5/16 N1/4	$2.16	FC 5/16 N1/4	$1.61	FE 5/16 N1/4	$2.16	BC 5/16 N1/4	$3.62	CV 5/16 N1/4	$6.67
5/16	NPT3/8	UE 5/16 N3/8	$3.73	EE 5/16 N3/8	$2.38	FC 5/16 N3/8	$1.90	FE 5/16 N3/8	$2.38			CV 5/16 N3/8	$8.50
3/8	NPT1/8	UE 3/8 N1/8	$3.73										
3/8	NPT1/4	UE 3/8 N1/4	$3.73	EE 3/8 N1/4	$2.98	FC 3/8 N1/4	$2.15	FE 3/8 N1/4	$2.98	BC 3/8 N1/4	$3.62	CV 3/8 N1/4	$7.28
3/8	NPT3/8	UE 3/8 N3/8	$4.03	EE 3/8 N3/8	$2.98	FC 3/8 N3/8	$2.15	FE 3/8 N3/8	$2.98	BC 3/8 N3/8	$4.27	CV 3/8 N3/8	$8.50
3/8	NPT1/2			EE 3/8 N1/2	$4.47	FC 3/8 N1/2	$3.25	FE 3/8 N1/2	$4.47			CV 3/8 N1/2	$10.15
1/2	NPT1/4			EE 1/2 N1/4	$4.47	FC 1/2 N1/4	$3.25						
1/2	NPT3/8	UE 1/2 N3/8	$4.36	EE 1/2 N3/8	$4.47	FC 1/2 N3/8	$3.25			BC 1/2 N3/8	$4.58	CV 1/2 N3/8	$9.72
1/2	NPT1/2	UE 1/2 N1/2	$4.65	EE 1/2 N1/2	$4.47					BC 1/2 N1/2	$4.91	CV 1/2 N1/2	$10.15
4 mm	M5X0.8	UE 4 M5	$2.51	EE 4 M5	$2.00			FE 4 M5	$2.00			CV 4 M5	$6.17
4 mm	M6X1	UE 4 M6	$2.51	EE 4 M6	$2.00			FE 4 M6	$2.00			CV 4 M6	$6.17
4 mm	R1/8	UE 4 R1/8	$2.51	EE 4 R1/8	$2.00	FC 4 R1/8	$1.41	FE 4 R1/8	$2.00	BC 4 R1/8	$2.65	CV 4 R1/8	$6.17
4 mm	R1/4	UE 4 R1/4	$3.00	EE 4 R1/4	$2.00	FC 4 R1/4	$1.41	FE 4 R1/4	$2.00	BC 4 R1/4	$2.65	CV 4 R1/4	$6.67
6 mm	M5X0.8	UE 6 M5	$3.00	EE 6 M5	$2.00			FE 6 M5	$2.00			CV 6 M5	$6.17
6 mm	M6X1	UE 6 M6	$3.00	EE 6 M6	$2.00			FE 6 M6	$2.00			CV 6 M6	$6.17
6 mm	R1/8	UE 6 R1/8	$3.00	EE 6 R1/8	$2.00	FC 6 R1/8	$1.41	FE 6 R1/8	$2.00	BC 6 R1/8	$3.17	CV 6 R1/8	$6.67
6 mm	R1/4	UE 6 R1/4	$3.42	EE 6 R1/4	$2.00	FC 6 R1/4	$1.60	FE 6 R1/4	$2.00	BC 6 R1/4	$3.62	CV 6 R1/4	$6.67
6 mm	R3/8	UE 6 R3/8	$3.73	EE 6 R3/8	$2.53	FC 6 R3/8	$1.90	FE 6 R3/8	$2.53	BC 6 R3/8	$3.95	CV 6 R3/8	$8.50
6 mm	R1/2			EE 6 R1/2	$3.95								
8 mm	R1/8	UE 8 R1/8	$3.12	EE 8 R1/8	$2.16	FC 8 R1/8	$1.61	FE 8 R1/8	$2.16	BC 8 R1/8	$3.30	CV 8 R1/8	$6.67
8 mm	R1/4	UE 8 R1/4	$3.12	EE 8 R1/4	$2.16	FC 8 R1/4	$1.61	FE 8 R1/4	$2.16	BC 8 R1/4	$3.62	CV 8 R1/4	$6.67
8 mm	R3/8	UE 8 R3/8	$3.73	EE 8 R3/8	$2.38	FC 8 R3/8	$1.90	FE 8 R3/8	$2.38	BC 8 R3/8	$3.95	CV 8 R3/8	$6.67
8 mm	R1/2	UE 8 R1/2	$4.36	EE 8 R1/2	$3.95	FC 8 R1/2	$3.12			BC 8 R1/2	$4.58	CV 8 R1/2	$8.50
10 mm	R1/8			EE 10 R1/8	$2.98	FC 10 R1/8	$2.15	FE 10 R1/8	$2.98	BC 10 R1/8	$3.62		
10 mm	R1/4	UE 10 R1/4	$3.73	EE 10 R1/4	$2.98	FC 10 R1/4	$2.15	FE 10 R1/4	$2.98	BC 10 R1/4	$3.95	CV 10 R1/4	$7.28
10 mm	R3/8	UE 10 R3/8	$4.03	EE 10 R3/8	$2.98	FC 10 R3/8	$2.15	FE 10 R3/8	$2.98	BC 10 R3/8	$4.27	CV 10 R3/8	$8.50
10 mm	R1/2	UE 10 R1/2	$4.36	EE 10 R1/2	$4.47	FC 10 R1/2	$3.25	FE 10 R1/2	$4.47	BC 10 R1/2	$4.58	CV 10 R1/2	$10.15
12 mm	R1/4	UE 12 R1/4	$4.36	EE 12 R1/4	$4.47	FC 12 R1/4	$3.25	FE 12 R1/4	$4.47	BC 12 R1/4	$4.27	CV 12 R1/4	$9.72
12 mm	R3/8	UE 12 R3/8	$4.36	EE 12 R3/8	$4.47	FC 12 R3/8	$3.25	FE 12 R3/8	$4.47	BC 12 R3/8	$4.58	CV 12 R3/8	$9.72
12 mm	R1/2	UE 12 R1/2	$4.65	EE 12 R1/2	$4.47	FC 12 R1/2	$3.25	FE 12 R1/2	$4.47	BC 12 R1/2	$4.91	CV 12 R1/2	$10.15

Composite, Stainless Steel, and Nickel-Plated Brass Push-In Fittings Specifications

A. Installation of Pipe Fittings:

1. Tighten fitting by hand, then turn it 2 to 3 turns with a wrench until it reaches the desire torque listed. If the fitting is not pre-coated with sealant, or is used and the sealant is not in good condition, apply Teflon sealant tape to the threads.

Recommendation of Torque for Tightening Fittings		
Fitting Thread Size	Torque, lb-ft	Torque, kgf/cm
10-32, M5 –M6	1.0 -1.5	14 –21
NPT1/8, R1/8	5 -6.5	70 -90
NPT1/4, R1/4	8.5 -10	120 -140
NPT3/8, R3/8	16 -17.5	220 -240
NPT1/2, R1/2	20 -21.5	280 -300

B. Installation of Tubing into Fitting:

1. Slowly push a clean and perpendicularly cut tubing into the fitting until it comes to a dead stop.
2. Pull the tubing back gently until the Grip Ring or Collet of the fitting grips onto the tubing and has a good seal.
3. Use Polyethylene, Polypropylene, Polyurethane or Nylon Tubing designed for instant fittings.
   Hard metal tubing can be used for all metal Stainless Steel and all Brass fittings if tubing is pre-grooved.

C. Removal of Tubing from Fitting:

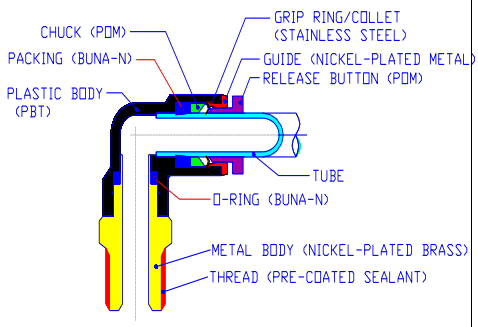
1. Push in evenly on the two long oval sides of the Release Button.
2. Pull out the tube while keeping the Release Button depressed.
3. To reuse the tubing; cut off the lodged portion of the previously used tubing evenly and perpendicularly.

D. Recommended Tubing Material, Size and Hardness Requirements:

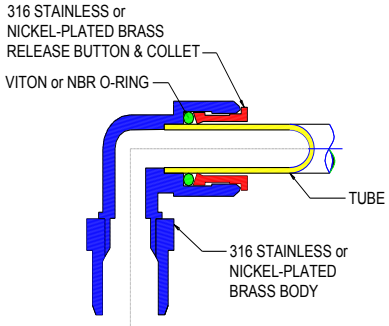
Tubing Material	Specified Size	Hardness (Durometer)
Polyurethane	+/- 0.006" (+/-0.15 mm)	Shore A 85 or higher
Polyethylene	+/- 0.004" (+/-0.1 mm)	Shore D 44 or higher
Polypropylene	+/- 0.004" (+/-0.1 mm)	Shore D 44 or higher
Nylon	+/- 0.004" (+/-0.1 mm)	Shore D 44 or higher
Pre-grooved Metal Tubing	+/- 0.004" (+/-0.1 mm)	

E. Specifications, Materials of Construction and Schematic of Typical Construction:

	Composite Fittings		Stainless Steel Fittings	Nickel-Plated Brass Fittings
	(Standard-Purple Button)	(K Series-Black Button)		
Operating Pressure Range	0 - 150 PSI (0 - 990 kpa)	0 - 180 PSI (0 - 1200 kpa)	0 - 250 PSI (0 - 1650 kpa)	0 - 250 PSI (0 - 1650 kpa)
Vacuum	0 - 29.5 in Hg (750 mm Hg)		0 - 29.5 in Hg (750 mm) Hg	0 - 29.5 in Hg (750 mm) Hg
Operating Temperature	32 - 140 °F (0 - 60 °C)		5 - 230 °F (-15 to 110 °C) Can be sterilized up to 280°F (138°C)	5 - 230 °F (-15 to 110 °C)
Recommended Tubing Material	Polyurethane, Nylon, Polyethylene, Polypropylene		Polyurethane, Nylon, Polyethylene, Polypropylene, and Hard metal tubing (tubing must be pre-grooved)	
Metal Body	Brass, Nickel Plated		T316 Stainless Steel	Nickel-Plated Brass
Plastic Body	PBT (Polybutylene terephthalate)		None	None
Release Button	POM (Poly oxy methylene copolymer)		300 series Stainless Steel	Nickel-Plated Brass
Grip Ring or Collet	300 series Stainless Steel		300 series Stainless Steel	300 series Stainless Steel
O-ring	NBR (Buna-N)		VITON	NBR/VITON/EPDM
Thread Sealant	Teflon		None	Teflon

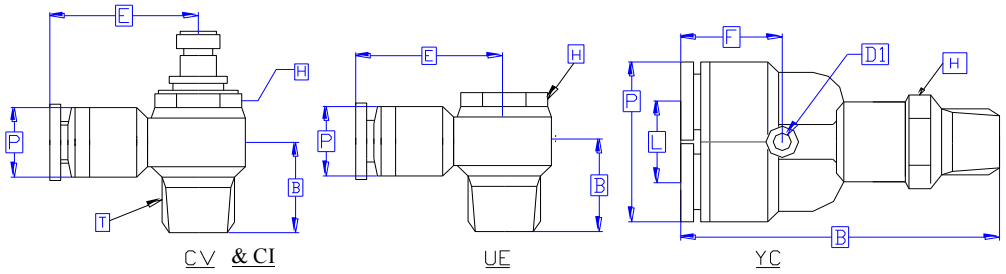


SCHEMATIC OF TYPICAL COMPOSITE FITTING CONSTRUCTION



SCHEMATIC OF TYPICAL 316 STAINLESS or NICKEL-PLATED BRASS FITTING CONSTRUCTION

STC Composite Push-In Fittings Dimensions

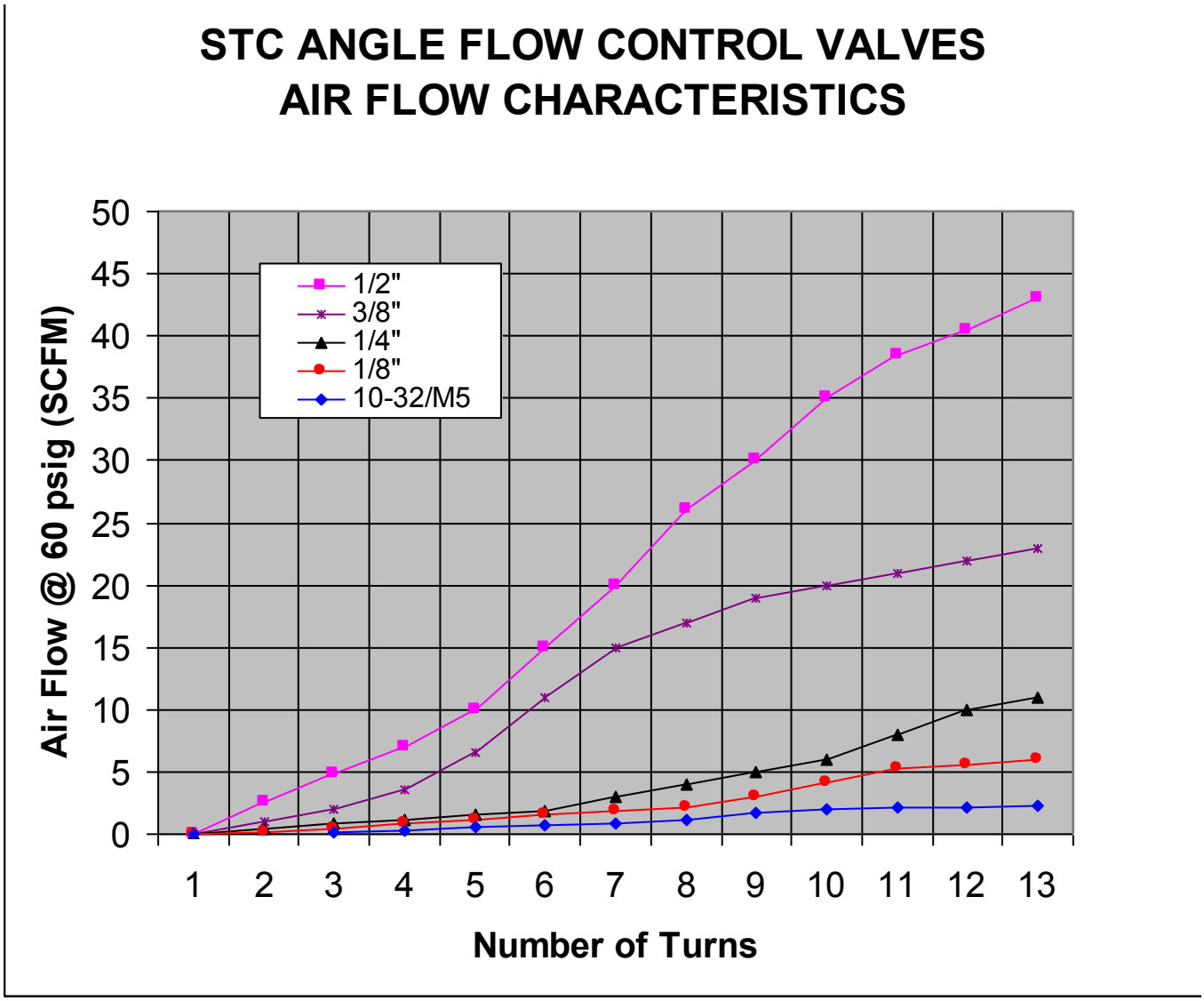


TUBE OD	PIPE SIZE	PART NO.	PART NO.	B	E	H	P	PART NO.	B	D1	F	H	L	P
1/8	10-32	CV 1/8 10-32	UE 1/8 10-32	0.44	0.80	5/16	0.41							
1/8	NPT1/8	CV 1/8 N1/8	UE 1/8 N1/8	0.59	0.88	7/16	0.41							
5/32	10-32	CV 5/32 10-32	UE 5/32 10-32	0.44	0.80	5/16	0.41	YC 5/32 10-32	1.50	0.12	0.57	7/16	0.41	0.82
5/32	NPT1/8	CV 5/32 N1/8	UE 5/32 N1/8	0.59	0.88	7/16	0.41	YC 5/32 N1/8	1.63	0.12	0.56	7/16	0.41	0.82
5/32	NPT1/4							YC 5/32 N1/4	1.74	0.12	0.57	9/16	0.41	0.82
3/16	10-32		UE 3/16 10-32	0.49	0.94	0.31	0.44	YC 3/16 10-32	1.62	0.12	0.58	7/16	0.45	0.89
3/16	NPT1/8	CV 3/16 N1/8	UE 3/16 N1/8	0.60	0.99	0.39	0.44	YC 3/16 N1/8	1.68	0.12	0.59	7/16	0.45	0.89
3/16	NPT1/4		UE 3/16 N1/4	0.70	1.07	0.55	0.44	YC 3/16 N1/4	1.84	0.12	0.60	9/16	0.45	0.89
3/16	NPT3/8		UE 3/16 N3/8	0.47	0.96	0.31	0.44	YC 3/16 N3/8	1.91	0.12	0.61	11/16	0.45	0.90
1/4	10-32	CV 1/4 10-32	UE 1/4 10-32	0.47	0.92	5/16	0.52	YC 1/4 10-32	1.66	0.12	0.63	1/2	0.53	1.06
1/4	NPT1/8	CV 1/4 N1/8	UE 1/4 N1/8	0.82	0.94	7/16	0.52	YC 1/4 N1/8	0.18	0.12	0.62	1/2	0.53	1.06
1/4	NPT1/4	CV 1/4 N1/4	UE 1/4 N1/4	0.73	1.03	9/16	0.52	YC 1/4 N1/4	1.86	0.12	0.62	9/16	0.53	1.06
1/4	NPT3/8	CV 1/4 N3/8		0.85	1.10	0.74	0.51	YC 1/4 N3/8	1.93	0.12	0.61	11/16	0.53	1.06
5/16	NPT1/8	CV 5/16 N1/8	UE 5/16 N1/8	0.59	1.04	0.39	0.58	YC 5/16 N1/8	1.81	0.12	0.65	7/16	0.58	1.15
5/16	NPT1/4	CV 5/16 N1/4	UE 5/16 N1/4	0.71	1.13	0.56	0.58	YC 5/16 N1/4	1.89	0.12	0.64	9/16	0.58	1.17
5/16	NPT3/8	CV 5/16 N3/8	UE 5/16 N3/8	0.85	1.19	3/4	0.58	YC 5/16 N3/8	1.96	0.12	0.65	11/16	0.58	1.15
3/8	NPT1/8							YC 3/8 N1/8	2.28	0.16	0.76	9/16	0.71	1.42
3/8	NPT1/4	CV 3/8 N1/4	UE 3/8 N1/4	0.81	1.26	9/16	0.71	YC 3/8 N1/4	2.39	0.16	0.76	9/16	0.71	1.42
3/8	NPT3/8	CV 3/8 N3/8	UE 3/8 N3/8	0.94	1.26	3/4	0.72	YC 3/8 N3/8	2.44	0.16	0.77	11/16	0.71	1.42
3/8	NPT1/2	CV 3/8 N1/2		0.99	1.40	0.94	0.71	YC 3/8 N1/2	2.54	0.16	0.75	7/8	0.71	1.41
1/2	NPT1/4							YC 1/2 N1/4	2.43	0.16	0.79	11/16	0.85	1.70
1/2	NPT3/8	CV 1/2 N3/8	UE 1/2 N3/8	0.94	1.35	3/4	0.86	YC 1/2 N3/8	2.50	0.16	0.78	11/16	0.85	1.70
1/2	NPT1/2	CV 1/2 N1/2	UE 1/2 N1/2	0.82	1.12	3/4	0.86	YC 1/2 N1/2	2.61	0.16	0.80	7/8	0.85	1.70

Tube OD	Pipe Size	Part No.	PART NO.	B	E	H	P	PART NO.	B	D1	F	H	P	P
4	M5	CV 4 M5	UE 4 M5	10.5	20.7	8	10.5	YC 4 M5	38.8	3.0	13.8	10	10.5	21.1
4	M6	CV 4 M6	UE 4 M6	12.0	20.6	8	10.5	YC 4 M6	38.5	3.0	13.9	10	10.5	21.1
4	R1/8	CV 4 R1/8	UE 4 R1/8	14.9	22.2	10	10.5	YC 4 1/8	40.1	3.0	14.3	10	10.5	21.1
4	R1/4	CV 4 R1/4	UE 4 R1/4	16.3	27.3	14	10.5	YC 4 R1/4	42.5	3.0	13.9	14	10.5	20.9
6	M5	CV 6 M5	UE 6 M5	12.5	23.1	8	13.2	YC 6 M5	41.6	3.0	15.5	12	13.4	26.7
6	M6	CV 6 M6	UE 6 M6	12.8	23.8	8	13.2	YC 6 M6	42.8	3.0	15.3	12	13.4	26.7
6	R1/8	CV 6 R1/8	UE 6 R1/8	14.8	23.6	10	13.2	YC 6 R1/8	44.3	3.0	15.5	12	13.4	26.7
6	R1/4	CV 6 R1/4	UE 6 R1/4	16.6	25.5	14	13.2	YC 6 R1/4	44.8	3.0	15.3	14	13.4	26.7
6	R3/8	CV 6 R3/8	UE 6 R3/8	19.5	27.8	19	13.2	YC 6 R3/8	47.6	3.0	15.4	17	13.4	26.8
6	R1/2							YC 6 R1/2	50.6	3.0	15.1	21	13.4	26.8
8	R1/8	CV 8 R1/8	UE 8 R1/8	15.2	26.5	10	14.8	YC 8 R1/8	45.4	3.0	16.9	14	14.6	29.2
8	R1/4	CV 8 R1/4	UE 8 R1/4	16.4	27.8	14	14.8	YC 8 R1/4	46.4	3.0	16.9	14	14.6	29.3
8	R3/8	CV 8 R3/8	UE 8 R3/8	20.1	31.4	19	14.8	YC 8 R3/8	48.3	3.0	15.7	17	14.6	29.3
8	R1/2	CV 8 R1/2	UE 8 R1/2	22.8	30.3	24	14.8	YC 8 R1/2	50.5	3.0	17.1	21	14.6	29.2
10	R1/8							YC 10 R1/8	57.0	4.0	21.0	17	18.0	36.1
10	R1/4	CV 10 R1/4	UE 10 R1/4	19.5	34.0	14	18.4	YC 10 R1/4	59.3	4.0	21.2	17	18.0	36.1
10	R3/8	CV 10 R3/8	UE 10 R3/8	21.2	33.4	19	18.4	YC 10 R3/8	60.5	4.0	20.0	17	18.0	36.1
10	R1/2	CV 10 R1/2	UE 10 R1/2	25.0	35.2	24	18.4	YC 10 R1/2	62.9	4.0	21.4	21	18.0	36.1
12	R1/4	CV 12 R1/4	UE 12 R1/4	21.3	34.2	14	20.3	YC 12 R1/4	61.4	4.0	21.9	19	20.8	41.5
12	R3/8	CV 12 R3/8	UE 12 R3/8	22.4	34.2	19	20.3	YC 12 R3/8	63.4	4.0	21.8	19	20.8	41.5
12	R1/2	CV 12 R1/2	UE 12 R1/2	26.3	37.2	24	20.3	YC 12 R1/2	65.5	4.0	21.8	21	20.8	41.5

Unit: Inch size fittings in inch; Metric fittings in mm

STC Composite Angle Flow Control Valves Flow Rates



Special Features:

- Complete rotation of the valve body around the bolt allows for optimum positioning of tubing
- Compact in size provide space saving installations
- Special adjustment needle design allows large adjustment ranges with high precision
- Adjustment needles and banjo bodies are retained, preventing accidental loss of needle or lock nut