

### 90% Minimum Trips

Inlet Pressure psig	SER 300	SER 350	SER 400	SER 550	SER 700	SER 800	SER 1100	SER 1800	SER 2600	SER 5500	SER 10000
5	360	315		423	540		900	1620		4320	
10	405	360	360	495	630	720	990	1800	2340	4950	9000
15	441	387	387	540	684	810	1107	2025	2430	5580	9450
20	486	414	441	594	747	882	1179	2250	2700	6120	9900
30	558	477	504	684	864	1017	1377	2520	3240	6750	11250
40	612	540	576	756	954	1179	1503	2790	3600	7560	12600
50	666	585	630	828	1080	1278	1683	3060	3960	8370	13500
60	720	630	684	891	1170	1377	1827	3420	4410	9000	14400
70	774	657	729	963	1269	1494	1962	3690	4770		
80	819	702	774	1008	1332	1593	2070	3870	5130		
90	855	738	819	1071	1386	1674	2205	4050	5400		
100	900	774	873	1116	1440	1755	2295	4230	5580		
150	1071	900	1044	1287	1602			4743			
200	1089		1062		1764			5522			
250	1215		1179		1926			6210			
300	1341		1305		2088			6872			
350	1431		1386		2250			7524			
400	1503		1467		2412			8010			
450	1593		1548		2574			8510			
500	1629		1584		2736			8960			
550	1701		1665		2898			9324			
600	1773		1728		3060			9653			
650	1845		1791		3222			9981			
700	1908		1854		3375			10184			
720	1953		1890		3420			10224			

**MAXIMUM RECOMMENDED EQUIVALENT LENGTHS (feet) OF POLYETHYLENE (PE) SERVICE TUBING  
TO BE USED DOWNSTREAM OF A UMAC EXCESS FLOW VALVE  
1/2" CTS through 2" IPS Pipe and Tubing**

**1/2" CTS .090 (I.D. = .436")**

Inlet Pressure (psig)	UMAC EFV						
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100
5	69	51	-	19	36	-	16
10	145	140	64	69	69	29	33
15	219	234	145	119	103	52	48
20	280	327	203	162	134	74	64
30	406	486	340	248	190	116	90
40	545	629	454	337	251	148	121
50	677	796	581	422	291	191	143
60	803	958	703	511	343	231	169
70	923	1165	835	586	388	265	194
80	1055	1316	963	688	449	302	223
90	1204	1490	1087	765	515	344	245
100	1328	1659	1184	864	582	385	276

**1/2" IPS SDR 9.3 (I.D. = .634")**

Inlet Pressure (psig)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
5	405	301	-	112	211	-	93	15	-
10	854	828	375	408	404	172	197	50	24
15	1293	1380	856	703	610	306	282	79	52
20	1653	1926	1199	957	788	438	380	104	74
30	2395	2867	2006	1460	1120	688	532	165	109
40	3215	3709	2674	1990	1481	875	717	223	151
50	3993	4694	3429	2490	1716	1126	847	278	190
60	4737	5651	4144	3011	2024	1367	996	314	218
70	5441	6870	4923	3455	2286	1565	1144	361	252
80	6220	7762	5678	4055	2648	1783	1313	421	283
90	7098	8785	6407	4512	3039	2030	1447	481	322
100	7832	9782	6982	5092	3429	2270	1628	540	369

- NOTES:**
- 1) Pipe lengths based on calculation only. Equation found in Mueller Engineering Bulletin 0-1, page 0-120. Actual tests should be performed to determine valve's ability to trip under certain conditions.
  - 2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.
  - 3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.
  - 4) Series 1800 and higher not recommended for 1/2" CTS applications.
  - 5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

**3/4" CTS .090 (I.D. = .673")**

Inlet Pressure (psig)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
5	538	400	-	149	281	-	123	19	-
10	1133	1099	498	542	537	228	261	66	32
15	1718	1834	1136	933	809	406	374	104	69
20	2195	2556	1592	1269	1045	582	505	138	98
30	3180	3809	2661	1938	1486	913	706	219	145
40	4265	4922	3549	2640	1965	1163	952	296	200
50	5302	6236	4550	3304	2277	1495	1124	368	252
60	6286	7499	5499	3998	2686	1815	1321	416	290
70	7216	9125	6533	4587	3033	2078	1518	478	334
80	8249	10300	7535	5381	3514	2368	1743	559	376
90	9419	11658	8503	5991	4033	2694	1921	638	427
100	10392	12980	9266	6757	4550	3013	2160	716	490

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add 3/4" Rev. 03/01/2006  
add 5500 Rev. 04/09/2007  
add 10000 Rev. 03/04/2010

3/4" IPS SDR 11.0 (I.D. = .834")

Inlet Pressure (psig)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
5	1485	1102	-	411	775	-	340	54	-	-
10	3131	3037	1376	1497	1483	631	721	182	89	26
15	4741	5061	3140	2579	2236	1122	1033	289	192	44
20	6061	7064	4398	3508	2888	1607	1394	382	270	61
30	8783	10514	7355	5354	4107	2523	1950	605	401	102
40	11971	13603	9807	7296	5430	3211	2630	818	554	137
50	14642	17215	13032	9131	6291	4130	3106	1018	697	169
60	17370	20722	15196	11040	7423	5013	3651	1151	801	205
70	19952	25194	18054	12669	8382	5742	4195	1322	924	-
80	22809	28464	20823	14869	9711	6541	4817	1544	1039	-
90	26029	32215	23497	16546	11146	7446	5308	1763	1180	-
100	28719	35870	25605	18674	12575	8324	5970	1979	1355	-

1" CTS .099 (I.D. = .898")

Inlet Pressure (psig)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
5	2109	1565	-	583	1101	-	483	76	-	-
10	4445	4312	1954	2125	2105	895	1024	258	127	40
15	6731	7185	4457	3661	3174	1593	1467	410	272	67
20	8604	10029	6244	4980	4100	2282	1980	542	383	94
30	12469	14927	10441	7601	5831	3581	2768	859	570	157
40	16738	19311	13922	10357	7709	4558	3734	1161	786	210
50	20786	24439	17848	12963	8931	5863	4409	1445	989	260
60	24660	29418	21572	15673	10537	7117	5183	1633	1137	316
70	28325	35766	25630	17985	11900	8151	5955	1877	1311	-
80	32380	40408	29561	21109	13786	9286	6838	2192	1475	-
90	36951	45734	33357	23490	15823	10570	7535	2503	1675	-
100	40770	50922	36350	26509	17851	11817	8475	2810	1923	-

- NOTES:**
- 1) Pipe lengths based on calculation only. Equation found in Mueller Engineering Bulletin 0-1, page 0-120. Actual tests should be performed to determine valve's ability to trip under certain conditions.
  - 2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.
  - 3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.
  - 4) Series 1800 and higher not recommended for 1/2" CTS applications.
  - 5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

1" IPS SDR 11.0 (I.D. = 1.044")

Inlet Pressure (psig)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
5	4306	3195	-	1191	2248	-	987	156	-	-
10	9076	8805	3990	4340	4298	1829	2091	527	259	81
15	13745	14672	9102	7476	6481	3253	2996	837	556	138
20	17570	20478	12750	10169	8372	4660	4042	1107	782	191
30	25461	30480	21320	15521	11907	7313	5653	1754	1163	320
40	34180	39433	28429	21149	15742	9308	7625	2371	1605	430
50	42445	49904	36446	26740	18238	11973	9004	2951	2020	530
60	50354	60071	44051	32004	21517	14534	10584	3335	2322	644
70	57838	73034	52335	36725	24299	16645	12161	3833	2678	-
80	66120	82513	60364	43104	28151	18962	13964	4475	3011	-
90	74453	93388	68114	47966	32310	21584	15387	5111	3420	-
100	83525	103983	74227	54132	36453	24132	17306	5738	3927	-

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Rev. 03/01/2006  
 Rev. 04/09/2007  
 Rev. 03/04/2010

1-1/4" CTS .121 (I.D. = 1.098")

Inlet Pressure (psig)	UMAC EFV										
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500	Series 10000
5	5468	4064	-	1514	2854	-	1253	198	-	-	-
10	11525	11182	5067	5517	5458	2323	2655	669	329	103	52
15	17474	18661	11559	9493	8231	4131	3804	1063	705	175	85
20	22335	26007	16192	12914	10632	5918	5133	1405	993	243	120
30	32348	38756	27076	19711	15121	9298	7179	2227	1477	407	179
40	43391	50079	36103	26858	19991	11827	9683	3011	2038	546	233
50	53941	63440	46286	33616	23161	15206	11434	3747	2565	673	298
60	63949	76288	55943	40670	27326	18473	13442	4236	2949	818	363
70	73409	92832	66464	46667	30858	21139	15444	4867	3401	-	-
80	83922	104789	76661	54741	35751	24090	17734	5683	3824	-	-
90	95823	118600	86503	60948	41032	27412	19541	6491	4343	-	-
100	105728	132055	65515	68746	46293	30657	21978	7286	4986	-	-

1-1/4" IPS SDR 11.0 (I.D. = 1.317")

Inlet Pressure (psig)	UMAC EFV										
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500	Series 10000
5	12947	9606	-	3579	6759	-	2968	469	-	-	-
10	27288	26475	11997	13048	12923	5500	6287	1584	779	243	122
15	41328	44117	27367	22477	19488	9782	9008	2517	1671	414	201
20	52830	61575	38337	30576	25153	14012	12155	3327	2351	576	284
30	76558	91648	64107	46670	35802	21991	16997	5274	3497	963	424
40	102772	118568	85480	63591	47332	27989	22926	7129	4825	1292	551
50	127624	150053	109588	79591	54838	36002	27072	8873	6072	1595	706
60	151407	180621	132452	96230	64698	43702	31826	10029	6982	1938	859
70	173910	219599	157363	110425	73029	50049	36567	11524	8052	-	-
80	198810	248101	181504	129606	84646	57015	41988	13456	9054	-	-
90	226874	280801	204806	144225	97149	64901	46265	15369	10284	-	-
100	250324	312658	223186	162765	109606	72560	52036	17252	11806	-	-

- NOTES:**
- 1) Pipe lengths based on calculation only. Equation found in Mueller Engineering Bulletin 0-1, page 0-120. Actual tests should be performed to determine valve's ability to trip under certain conditions.
  - 2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.
  - 3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.
  - 4) Series 1800 and higher not recommended for 1/2" CTS applications.
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Rev. 03/01/2006  
 Rev. 04/09/2007  
 Rev. 03/04/2010

1-1/2" IPS SDR 11.0 (I.D. = 1.506")

Inlet Pressure (psig)	UMAC EFV										
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500	Series 10000
5	24444	18136	-	6758	12761	-	5605	885	-	-	-
10	51521	49986	22651	24636	24399	10385	11871	2991	1470	460	230
15	78028	83293	51670	42438	36793	18468	17007	4752	3154	781	380
20	99744	116254	72382	57729	47490	26456	22948	6282	4439	1087	537
30	144541	173032	121034	88113	67595	41518	32091	9958	6602	1817	800
40	194035	223857	161387	120061	89363	52844	43285	13459	9110	2439	1041
50	240955	283301	206902	150268	103535	67972	51113	16752	11465	3010	1334
60	285857	341014	250070	181683	122150	82510	60088	18935	13183	3659	1623
70	328343	414605	297102	208484	137879	94493	69038	21759	15203	-	-
80	375355	468416	342681	244697	159813	107646	79274	25406	17094	-	-
90	428341	530154	386676	272298	183418	122534	87349	29016	19417	-	-
100	472613	590300	421377	307302	206937	136995	98245	32572	22290	-	-

2" IPS SDR 11.0 (I.D. = 1.885")

Inlet Pressure (psig)	UMAC EFV										
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500	Series 10000
5	70824	52547	-	19581	36973	-	16239	2565	-	-	-
10	149275	144826	65629	71379	70693	30089	34395	8667	4260	1332	667
15	226076	241330	149707	122958	106603	53509	49276	13768	9140	2262	1102
20	288995	336829	209715	167260	137594	76653	66490	18201	12863	3149	1554
30	418787	501336	350678	255294	195847	120294	92979	28852	19129	5266	2318
40	562189	648593	467594	347860	258917	153109	125413	38996	26396	7067	3015
50	698132	820822	599468	435380	299978	196940	148092	48537	33219	8722	3865
60	828229	988038	724542	526398	353912	239060	174095	54861	38196	10601	4701
70	951325	1201255	860808	604050	399483	273780	200029	63043	44048	-	-
80	1087535	1357164	992867	708972	463034	311887	229685	73611	49528	-	-
90	1241052	1536041	1120334	788944	531427	355025	253082	84071	56259	-	-
100	1369327	1710304	1220876	890362	599570	396922	284649	94373	64584	-	-

- NOTES:**
- 1) Pipe lengths based on calculation only. Equation found in Mueller Engineering Bulletin 0-1, page 0-120. Actual tests should be performed to determine valve's ability to trip under certain conditions.
  - 2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.
  - 3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.
  - 4) Series 1800 and higher not recommended for 1/2" CTS applications.
  - 5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

GASBREAKER, INC.

Rev. 03/01/2006  
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 Rev. 03/04/2010

**MAXIMUM RECOMMENDED LENGTHS (meters) OF POLYETHYLENE (PE) SERVICE TUBING  
TO BE USED DOWNSTREAM OF A UMAC EXCESS FLOW VALVE  
11 mm I.D. through 26 mm I.D. Pipe and Tubing**

**1/2" CTS .090 (I.D. = 11.07mm)**

Inlet Pressure (bar)	UMAC EFV						
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100
0.34	21.0	15.5	-	5.8	10.9	-	4.9
0.69	44.2	42.7	19.5	21.0	20.9	8.8	10.1
1.03	66.7	71.3	44.2	36.3	31.5	15.8	14.6
1.38	85.3	99.7	61.9	49.4	40.7	22.6	19.5
2.07	123.7	148.1	103.6	75.6	57.9	35.4	27.4
2.76	166.1	191.7	138.4	102.7	76.5	45.1	36.9
3.45	206.3	242.6	177.1	128.6	88.7	58.2	43.6
4.14	244.7	292.0	214.3	155.7	104.6	70.4	51.5
4.83	281.3	355.1	254.5	178.6	118.1	80.8	59.1
5.52	321.5	401.1	293.5	209.7	136.9	92.0	68.0
6.21	367.0	454.1	331.3	233.2	157.1	104.8	74.7
6.90	404.8	505.6	360.9	263.3	177.2	117.3	84.1

**1/2" IPS SDR 9.3 (I.D. = 16.1mm)**

Inlet Pressure (bar)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
0.34	123.4	91.7	-	34.1	64.4	-	28.3	4.6	-
0.69	260.3	252.4	114.3	124.4	123.2	52.4	60.0	15.2	7.3
1.03	394.1	420.6	260.9	214.3	185.8	93.3	85.9	24.1	15.8
1.38	503.8	587.0	365.4	291.7	240.0	133.5	115.8	31.7	22.6
2.07	730.0	873.8	611.4	445.0	341.4	209.7	162.1	50.3	33.2
2.76	979.9	1130.4	815.0	606.5	451.3	266.7	218.5	68.0	46.0
3.45	1217.0	1430.7	1045.1	758.9	522.9	343.2	258.2	84.7	57.9
4.14	1443.8	1722.3	1263.0	917.7	616.9	416.6	303.6	95.7	66.4
4.83	1658.3	2093.9	1500.5	1053.0	696.7	477.0	348.7	110.0	76.8
5.52	1895.8	2365.7	1730.6	1235.9	807.1	543.4	400.2	128.3	86.3
6.21	2163.4	2677.5	1952.8	1375.2	926.4	618.7	441.0	146.6	98.1
6.90	2387.1	2981.4	2128.0	1552.0	1045.1	691.9	496.2	164.6	112.5

**NOTES:** 1) Pipe lengths based on calculation only.

Actual tests should be performed to determine valve's ability to trip under certain conditions.

2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.

3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.

4) Series 1800 and higher not recommended for 1/2" CTS applications.

5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

**3/4" IPS SDR 11.0 (I.D. = 21.2mm)**

Inlet Pressure (bar)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
0.34	452.6	335.9	-	125.3	236.3	-	103.6	16.5	-
0.69	954.3	925.6	419.4	456.3	451.9	192.3	219.8	55.5	27.1
1.03	1445.0	1542.5	957.0	786.0	681.4	342.0	314.8	88.1	58.5
1.38	1847.3	2153.0	1340.4	1069.2	880.2	489.8	424.9	116.4	82.3
2.07	2676.9	3204.5	2241.7	1631.8	1251.9	769.0	594.3	184.4	122.2
2.76	3648.6	4146.0	2989.0	2223.7	1655.1	978.7	801.6	249.3	168.9
3.45	4462.7	5246.9	3972.0	2783.0	1917.5	1258.8	946.7	310.3	212.4
4.14	5294.1	6315.8	4631.5	3364.8	2262.3	1527.9	1112.8	350.8	244.1
4.83	6081.1	7678.8	5502.6	3861.3	2554.8	1750.1	1278.6	402.9	281.6
5.52	6951.8	8675.4	6346.5	4531.9	2959.8	1993.6	1468.1	470.6	316.7
6.21	7933.3	9818.7	7161.5	5043.0	3397.0	2269.4	1617.8	537.3	359.6
6.90	8753.1	10932.6	7804.0	5691.6	3832.6	2537.0	1819.6	603.2	413.0

1" CTS .099 (I.D. = 22.8)

Inlet Pressure (bar)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
0.34	642.8	477.0	-	177.7	335.5	-	147.2	23.2	-
0.69	1354.8	1314.2	595.6	647.7	641.5	272.8	312.1	78.6	38.7
1.03	2051.5	2189.9	1358.4	1115.8	967.4	485.5	447.1	125.0	82.9
1.38	2622.4	3056.7	1903.1	1517.8	1249.6	695.5	603.5	165.2	116.7
2.07	3800.4	4549.5	3182.3	2316.7	1777.2	1091.4	843.6	261.8	173.7
2.76	5101.5	5885.7	4243.2	3156.7	2349.6	1389.2	1138.1	353.9	239.6
3.45	6335.3	7448.6	5439.8	3950.9	2722.2	1787.0	1343.8	440.4	301.4
4.14	7516.0	8966.2	6574.8	4776.9	3211.6	2169.2	1579.7	497.7	346.5
4.83	8633.0	10900.9	7811.6	5481.6	3626.8	2484.3	1815.0	572.1	399.6
5.52	9868.9	12315.8	9009.8	6433.7	4201.9	2830.2	2084.1	668.1	449.6
6.21	11262.1	13939.0	10166.7	7159.4	4822.5	3221.6	2296.6	762.9	510.5
6.90	12426.1	15520.3	11078.9	8079.5	5440.9	3601.6	2583.1	856.4	586.1

1" IPS SDR 11.0 (I.D. = 26.5)

Inlet Pressure (bar)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
0.34	1312.4	973.8	-	363.0	685.1	-	300.8	47.5	-
0.69	2766.2	2683.6	1216.1	1322.8	1310.0	557.5	637.3	160.6	78.9
1.03	4189.3	4471.8	2774.2	2278.6	1975.4	991.5	913.1	255.1	169.5
1.38	5355.1	6241.4	3886.0	3099.4	2551.6	1420.3	1231.9	337.4	238.3
2.07	7760.1	9289.9	6498.0	4730.6	3629.1	2228.9	1723.0	534.6	354.5
2.76	10417.6	12018.6	8664.7	6445.9	4797.8	2836.9	2324.0	722.6	489.2
3.45	12936.6	15210.0	11108.2	8150.0	5558.7	3649.2	2744.3	899.4	615.7
4.14	15347.2	18308.7	13426.1	9754.3	6558.1	4429.7	3225.8	1016.5	707.7
4.83	17628.2	22259.7	15950.9	11193.2	7405.9	5073.1	3706.5	1168.2	816.2
5.52	20152.4	25148.7	18398.0	13137.5	8580.1	5779.3	4256.0	1363.9	917.7
6.21	22692.2	28463.3	20760.1	14619.3	9847.5	6578.5	4689.7	1557.8	1042.4
6.90	25457.2	31692.5	22623.3	16498.6	11110.2	7355.1	5274.6	1748.9	1196.9

- NOTES:** 1) Pipe lengths based on calculation only. Actual tests should be performed to determine valve's ability to trip under certain conditions.
- 2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure. Calculations based on actual valve test data would result in longer lengths of pipe.
- 3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.
- 4) Series 1800 and higher not recommended for 1/2" CTS applications.
- 5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

**MAXIMUM RECOMMENDED LENGTHS (meters) OF POLYETHYLENE (PE) SERVICE TUBING  
TO BE USED DOWNSTREAM OF A UMAC EXCESS FLOW VALVE  
20 mm through 63 mm Pipe and Tubing**

**20mm SDR 11 (I.D. = 13.3mm)**

Inlet Pressure (bar)	UMAC EFV							
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800
0.34	49.9	37.1	-	13.8	26.0	-	11.4	1.8
0.69	105.1	102.0	46.4	50.3	49.8	21.2	24.2	6.1
1.03	159.3	170.1	105.8	86.6	75.0	37.7	34.7	9.7
1.38	203.6	237.1	148.2	117.7	96.9	54.0	46.8	12.8
2.07	294.9	353.4	247.8	179.7	137.9	84.7	65.5	20.3
2.76	395.6	456.6	330.4	244.9	182.3	107.8	88.3	27.5
3.45	491.8	578.4	423.5	306.5	211.2	138.6	104.3	34.2
4.14	583.1	695.6	511.9	370.8	249.1	168.4	122.6	38.6
4.83	669.3	846.4	608.2	425.5	281.4	192.7	140.8	44.4
5.52	765.2	955.4	701.5	499.1	326.0	219.6	161.7	51.8
6.21	873.7	1081.3	791.6	555.7	374.1	249.9	178.2	59.2
6.90	964.0	1204.0	862.6	626.8	422.1	279.5	200.4	66.4

**25mm SDR 11 (I.D. = 18.3mm)**

Inlet Pressure (bar)	UMAC EFV								
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600
0.34	225.6	167.7	-	62.5	117.8	-	51.7	8.2	-
0.69	475.5	461.3	209.0	227.6	225.2	95.8	109.6	27.6	13.6
1.03	720.9	769.8	476.8	391.6	339.6	170.4	157.0	43.9	29.1
1.38	921.4	1072.9	668.0	532.8	438.6	244.2	211.8	58.0	41.0
2.07	1334.5	1598.8	1117.0	813.2	623.8	383.4	296.2	91.9	60.9
2.76	1790.0	2065.9	1489.4	1108.0	824.7	487.9	399.5	124.2	84.1
3.45	2225.3	2617.1	1909.4	1386.8	955.5	627.3	471.7	154.6	105.8
4.14	2638.1	3147.1	2307.8	1677.8	1127.3	761.8	554.5	174.7	121.7
4.83	3028.3	3829.6	2741.9	1925.2	1273.0	872.0	637.1	200.8	140.3
5.52	3462.0	4322.8	3162.5	2258.2	1474.9	993.8	731.6	234.5	157.8
6.21	3953.0	4892.6	3568.5	2514.3	1692.7	1130.8	806.1	267.8	179.2
6.90	4361.6	5447.7	3888.7	2836.0	1909.8	1264.7	906.7	300.6	205.7

**NOTES:** 1) Pipe lengths based on calculation only.

Actual tests should be performed to determine valve's ability to trip under certain conditions.

2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure.

Calculations based on actual valve test data would result in longer lengths of pipe.

3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.

4) Series 1800 and higher not recommended for 1/2" CTS applications.

5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.

**32mm SDR 11.0 (I.D. = 25.3mm)**

Inlet Pressure (bar)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
0.34	1050	780	-	291	332	-	241	38.0	-	-
0.69	2213	2147	973	1059	1048	446	510	128.5	63.2	19.7
1.03	3355	3583	2219	1823	1580	793	731	204.1	135.5	33.5
1.38	4289	4994	3109	2480	2041	1136	986	269.8	190.7	46.7
2.07	6211	7442	5199	3785	2904	1784	1378	427.7	283.6	78.1
2.76	8332	9616	6932	5157	3839	2271	1859	578.1	391.3	104.8
3.45	10357	12181	8887	6455	4447	2920	2196	719.6	492.5	129.3
4.14	12279	14648	10742	7809	5247	3546	2581	813.3	566.3	157.2
4.83	14095	17825	12762	8961	5925	4059	2966	934.6	653.0	-
5.52	16114	20121	14720	10511	6865	4626	3405	1091.3	734.3	-
6.21	18399	22773	16609	11703	7879	5263	3752	1246.4	834.1	-
6.90	20301	25356	18100	13200	8889	5887	4220	1399.1	957.5	-



50mm SDR 11.0 (I.D. = 39.6mm)

Inlet Pressure (psig)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
5	8777.35	6524.2	-	2430.07	4582	-	2013	317.969	-	-
10	18499.9	17948.5	8133.54	8856.48	8761	3729	4263	1074.1	528.042	165.0
15	28047.5	29953.1	18553.4	15238.3	13211	6632	6107	1706.35	1132.74	280.4
20	35849.9	41743.7	25990.3	20728.8	17065	9500	8240	2255.66	1594.16	390.2
30	51922.5	62206.7	43460	31638.9	24272	14917	11523	3575.64	2370.77	652.6
40	69646.1	80380.9	57949.5	43110.7	32088	18984	15543	4832.86	3271.34	875.9
50	86581	101826	74292.8	53957.1	37177	24407	18353	6015.29	4116.9	1081.0
60	102643	122449	89793.3	65279.6	43861	29639	21576	6799.02	4733.66	1313.8
70	117828	149004	106681	74905.7	49531	33930	24790	7812.99	5458.93	-
80	134703	168195	123047	87863.7	57384	38667	28465	9122.73	6138.03	-
90	153805	190363	138844	97827.6	65860	43999	31365	10419	6972.22	-
100	169702	211960	151305	110344	74305	49207	35277	11695.8	8003.94	-

63mm SDR 11.0 (I.D. = 50.0mm)

Inlet Pressure (psig)	UMAC EFV									
	Series 300	Series 350	Series 400	Series 550	Series 700	Series 800	Series 1100	Series 1800	Series 2600	Series 5500
5	26540.5	19727.6	-	7347.91	13855	-	6085.51	961.458	-	-
10	55939.1	54271.9	24593.8	26779.8	26491	11275.7	12889.2	3247.82	1596.67	499.0
15	84808.7	90570.7	56100.8	46076.9	39948	20052	18465.7	5159.56	3425.13	847.7
20	108401	126222	78588	62678.7	51602	28724.6	24916.4	6820.56	4820.33	1180.0
30	157001	188097	131412	95668.3	73391	45104.5	34842.9	10811.8	7168.61	1973.3
40	210592	243052	175225	130356	97026	57403.8	46997	14613.4	9891.71	2648.4
50	261799	307897	224643	163153	112413	73800.9	55495.7	18188.7	12448.5	3268.6
60	310368	370254	271512	197389	132624	89622.2	65240	20558.5	14313.4	3972.5
70	356281	450552	322576	226496	149769	102596	74958.3	23624.5	16506.4	-
80	407307	508579	372064	265678	173516	116918	86071.6	27584.9	18559.9	-
90	465068	575611	419830	295806	199146	133041	94839.2	31504.5	21082.2	-
100	513137	640914	457507	333651	224681	148791	106669	35365.2	24201.9	-

**NOTES:** 1) Pipe lengths based on calculation only.

Actual tests should be performed to determine valve's ability to trip under certain conditions.

2) Calculations based on Maximum pressure drop across valve and Maximum Trip flow of valve at given inlet pressure.

Calculations based on actual valve test data would result in longer lengths of pipe.

3) Calculations based on pressure loss through valve and given length and diameter of piping only. Additional loss through tapping tees, fittings, regulators and other restrictions should be considered.

4) Series 1800 and higher not recommended for 1/2" CTS applications.

5) Series 350 and 550 calculations based on metal design; plastic design results in significantly longer service lengths.