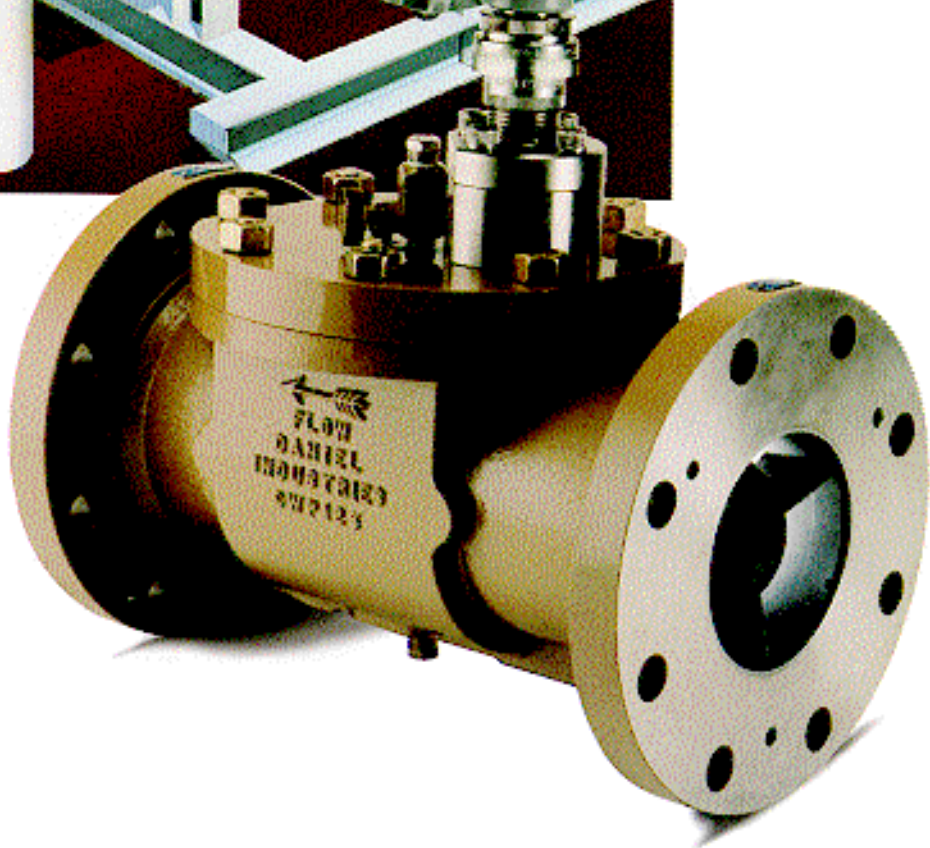
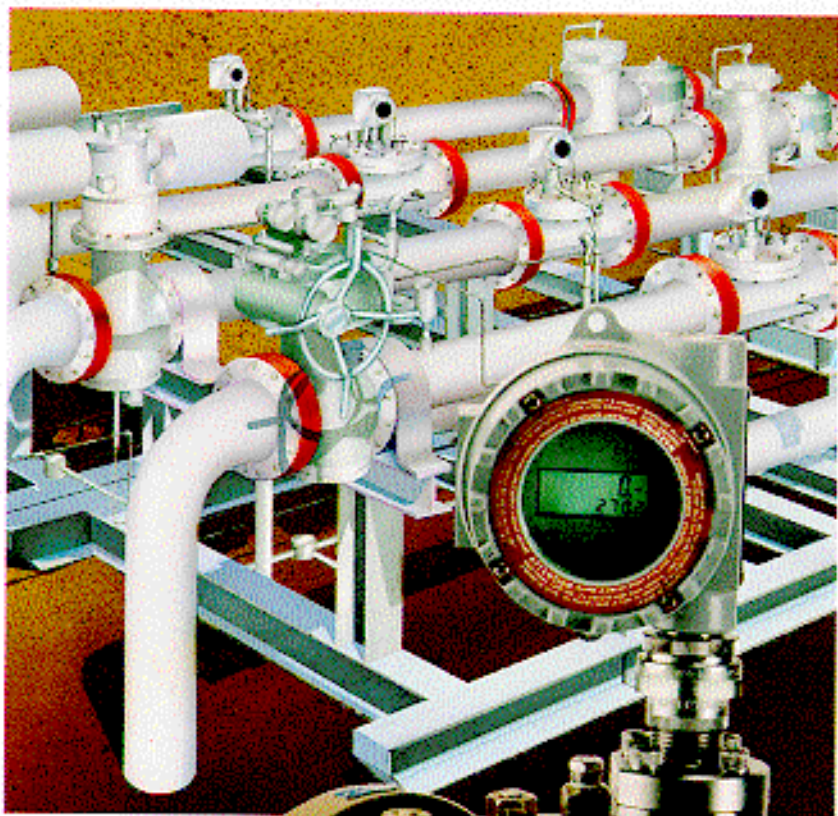


Gas Turbine Meters

4" THROUGH 12"

CATALOG 2000



CERTIFICATE DS18-16
5220 OLD RAYT ROAD
HOUSTON, TEXAS 77055 USA
18200 HEMPSTEAD
HOUSTON, TEXAS 77065 USA

DANIEL

High Capacity Gas Turbine Meter Brochure

Flow Charts for Sizing [4"](#), [6"](#), [8"](#), [12"](#)

[Characteristics and Dimensions](#)

[Outputs and Spin Times](#)

High Capacity Gas Turbine Meters

HIGH CAPACITY GTM 4" (100 MM)

OPERATING PRESSURE		MAXIMUM FLOW RATE		MINIMUM FLOW RATE		RANGE TURNDOWN RATIO	APPROXIMATE PRESSURE DROP	
(PSIG)	(BARS)	(SCFH)	(Nm3/hr)	(SCFH)	(Nm3/hr)		(IN WC)	(millibars)
0	1.02	30000	850	2324	66	13:1	6.8	16.9
0.25	1.03	30509	864	2343	66	13:1	6.9	17.2
1	1.08	32037	907	2401	68	13:1	7.3	18.1
10	1.71	50367	1426	3011	85	17:1	11.4	28.4
25	2.74	80916	2291	3816	108	21:1	18.3	45.7
50	4.46	131833	3733	4871	138	27:1	29.9	74.4
75	6.19	182749	5175	5735	162	32:1	41.4	103.2
100	7.91	233666	6617	6485	184	36:1	53.0	131.9
125	9.63	284582	8059	7157	203	40:1	64.5	160.7
200	14.81	437332	12384	8872	251	49:1	99.1	246.9
300	21.70	640998	18151	10741	304	60:1	145.3	361.9
400	28.59	844664	23919	12330	349	69:1	191.5	476.9
500	35.49	1048330	29686	13737	389	76:1	237.6	591.9
600	42.38	1251996	35453	15012	425	83:1	283.8	706.9
700	49.28	1455662	41221	16187	458	90:1	330.0	821.8
800	56.17	1659328	46988	17282	489	96:1	376.1	936.8
900	63.07	1862994	52755	18312	519	102:1	422.3	1051.8
1000	69.96	2066660	58522	19287	546	107:1	468.4	1166.8
1100	76.86	2270326	64290	20215	572	112:1	514.6	1281.8
1200	83.75	2473992	70057	21103	598	117:1	560.8	1396.8
1300	90.65	2677658	75824	21954	622	122:1	606.9	1511.8
1400	97.54	2881324	81592	22774	645	127:1	653.1	1626.8

The above table is based on standard conditions of 14.73 psia and 60 degrees F for 0.60 specific gravity gas. Supercompressibility is not included.

HIGH CAPACITY GTM 6" (150 MM)

OPERATING PRESSURE		MAXIMUM FLOW RATE		MINIMUM FLOW RATE		RANGE TURNDOWN RATIO	APPROXIMATE PRESSURE DROP	
(PSIG)	(BARS)	(SCFH)	(Nm3/hr)	(SCFH)	(Nm3/hr)		(IN WC)	(millibars)
0	1.02	60000	1699	3098	88	19:1	5.5	13.7
0.25	1.03	61018	1728	3125	88	20:1	5.6	13.9
1	1.08	64073	1814	3202	91	20:1	5.9	14.6
10	1.71	100733	2853	4015	114	25:1	9.2	23.0
25	2.74	161833	4583	5089	144	32:1	14.8	37.0
50	4.46	263666	7466	6495	184	41:1	24.2	60.2
75	6.19	365499	10350	7647	217	48:1	33.5	83.5
100	7.91	467332	13234	8647	245	54:1	42.8	106.7
125	9.63	569165	16117	9543	270	60:1	52.2	130.0
200	14.81	874664	24768	11830	335	74:1	80.2	199.7
300	21.70	1281996	36303	14322	406	90:1	117.5	292.7
400	28.59	1689328	47837	16441	466	103:1	154.9	385.7
500	35.49	2096660	59372	18316	519	114:1	192.2	478.7
600	42.38	2503992	70906	20016	567	125:1	229.5	571.7
700	49.28	2911324	82441	21583	611	135:1	266.9	664.7
800	56.17	3318656	93976	23043	653	144:1	304.2	757.7
900	63.07	3725988	105510	24416	691	153:1	341.5	850.7
1000	69.96	4133320	117045	25716	728	161:1	378.9	943.7
1100	76.86	4540652	128579	26954	763	168:1	416.2	1036.7
1200	83.75	4947984	140114	28137	797	176:1	453.6	1129.7
1300	90.65	5355316	151649	29272	829	183:1	490.9	1222.8
1400	97.54	5762648	163183	30365	860	190:1	528.2	1315.8

The above table is based on standard conditions of 14.73 psia and 60 degrees F for 0.60 specific gravity gas. Supercompressibility is not included.

HIGH CAPACITY GTM 8" (200 MM)

OPERATING PRESSURE		MAXIMUM FLOW RATE		MINIMUM FLOW RATE		RANGE TURNDOWN RATIO	APPROXIMATE PRESSURE DROP	
(PSIG)	(BARS)	(SCFH)	(Nm3/hr)	(SCFH)	(Nm3/hr)		(IN WC)	(millibars)
0	1.02	100000	2832	5000	142	20:1	5.5	13.7
0.25	1.03	101697	2880	5042	143	20:1	5.6	13.9
1	1.08	106789	3024	5167	146	21:1	5.9	14.6
10	1.71	167889	4754	6479	183	26:1	9.2	23.0
25	2.74	269722	7638	8212	233	33:1	14.8	37.0
50	4.46	439443	12444	10481	297	42:1	24.2	60.2
75	6.19	609165	17250	12341	349	49:1	33.5	83.5
100	7.91	778887	22056	13954	395	56:1	42.8	106.7
125	9.63	948608	26862	15400	436	62:1	52.2	130.0
200	14.81	1457773	41280	19090	541	76:1	80.2	199.7
300	21.70	2136660	60505	23112	654	92:1	117.5	292.7
400	28.59	2815547	79729	26531	751	106:1	154.9	385.7
500	35.49	3494433	98953	29557	837	118:1	192.2	478.7
600	42.38	4173320	118177	32301	915	129:1	229.5	571.7
700	49.28	4852206	137402	34829	986	139:1	266.9	664.7
800	56.17	5531093	156626	37186	1053	149:1	304.2	757.7
900	63.07	6209980	175850	39402	1116	158:1	341.5	850.7
1000	69.96	6888866	195075	41500	1175	166:1	378.9	943.7
1100	76.86	7567753	214299	43497	1232	174:1	416.2	1036.7
1200	83.75	8246640	233523	45406	1286	182:1	453.6	1129.7
1300	90.65	8925526	252748	47238	1338	189:1	490.9	1222.8
1400	97.54	9604413	271972	49001	1388	196:1	528.2	1315.8

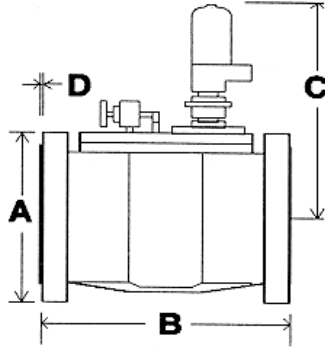
The above table is based on standard conditions of 14.73 psia and 60 degrees F for 0.60 specific gravity gas. Supercompressibility is not included.

HIGH CAPACITY GTM 12" (300MM)

OPERATING PRESSURE		MAXIMUM FLOW RATE		MINIMUM FLOW RATE		RANGE TURNDOWN RATIO	APPROXIMATE PRESSURE DROP	
(PSIG)	(BARS)	(SCFH)	(Nm3/hr)	(SCFH)	(Nm3/hr)		(IN WC)	(millibars)
0	1.02	270000	7646	11619	329	23:1	6.0	14.9
0.25	1.03	274582	7775	11717	332	23:1	6.1	15.2
1	1.08	288330	8165	12007	340	24:1	6.4	16.0
10	1.71	453299	12836	15055	426	30:1	10.1	25.1
25	2.74	728248	20622	19082	540	38:1	16.2	40.3
50	4.46	1186497	33598	24357	690	49:1	26.4	65.7
75	6.19	1644745	46575	28677	812	57:1	36.5	91.0
100	7.91	2102994	59551	32427	918	65:1	46.7	116.4
125	9.63	2561242	72528	35786	1013	72:1	56.9	141.8
200	14.81	3935988	111457	44362	1256	89:1	87.5	217.9
300	21.70	5768982	163362	53707	1521	107:1	128.2	319.3
400	28.59	7601976	215268	61652	1746	123:1	168.9	420.8
500	35.49	9434969	267174	68684	1945	137:1	209.7	522.2
600	42.38	11267963	319079	75060	2125	150:1	250.4	623.7
700	49.28	13100957	370985	80935	2292	162:1	291.1	725.2
800	56.17	14933951	422890	86412	2447	173:1	331.9	826.6
900	63.07	16766945	474796	91561	2593	183:1	372.6	928.1
1000	69.96	18599939	526702	96436	2731	193:1	413.3	1029.5
1100	76.86	20432933	578607	101077	2862	202:1	454.1	1131.0
1200	83.75	22265927	630513	105513	2988	211:1	494.8	1232.5
1300	90.65	24098921	682418	109770	3108	220:1	535.5	1333.9
1400	97.54	25931914	734324	113868	3224	228:1	576.3	1435.4

The above table is based on standard conditions of 14.73 psia and 60 degrees F for 0.60 specific gravity gas. Supercompressibility is not included.

CHARACTERISTICS AND DIMENSIONS (Inches / Millimeters)



Size	ANSI Class	Work Pressure		A		B		C		D		Bolt Circle Diameter		Flange Bolt Holes			Weight (Approx)	
		psig	kPa											No	Diam	lbs	kg	
4 in (100 mm)	125	175	1200	9	280	14	355	17 5/8	447	Flat Face		7 1/2	190.5	8	1/2	12.8	38	17
	150	285	1900	9	280	15 1/2	394	17 5/8	447	1/16	1.59	7 1/2	190.5	8	3/4	19.1	125	57
	300	740	5000	10	255	15 1/2	394	17 5/8	447	1/16	1.59	7 7/8	200	8	7/8	22.2	130	59
	600	1480	10k	10 3/4	275	15 1/2	394	17 5/8	447	1/4	6.35	8 1/2	216	8	1	25.4	160	73
	900	2220	15.3k	11 1/2	295	17 1/2	444	18 3/8	466	1/4	6.35	9 1/4	235	8	1 1/4	31.8	260	118
6 in (150 mm)	125	175	1200	11	280	16	407	19 3/8	340	Flat Face		9 1/2	241.5	8	5/8	15.9	76	35
	150	285	1900	11	280	22 1/2	572	19 3/8	340	1/16	1.59	9 1/2	241.5	8	7/8	22.2	270	123
	300	740	5000	12 1/2	320	22 1/2	572	19 3/8	340	1/16	1.59	10 5/8	270	12	7/8	22.2	280	127
	600	1480	10k	14	355	22 1/2	572	19 3/8	340	1/4	6.35	11 1/2	292	12	1 1/8	28.6	365	166
	900	2220	15.3k	15	380	24	610	20 1/4	514	1/4	6.35	12 1/2	317.5	12	1 1/4	31.8	450	204
8 in (200 mm)	125	175	1200	13 1/2	345	21	533	19 5/8	499	Flat Face		12 3/8	298.5	8	3/4	19.1	137	62
	150	285	1900	13 1/2	345	27 1/4	692	19 5/8	499	1/16	1.59	12 3/8	298.5	8	7/8	22.2	530	240
	300	740	5000	15	380	27 1/4	692	19 5/8	499	1/16	1.59	13	330	12	1	25.4	550	250
	600	1480	10k	16 1/2	420	27 1/4	692	20 5/8	514	1/4	6.35	13 3/8	349	12	1 1/4	31.8	675	284
	900	2220	15.3k	18 1/2	470	27 1/4	692	21 5/8	549	1/4	6.35	15 1/2	393.5	12	1 1/2	38.1	850	386

12 in (300 mm)	150	285	1900	19	485	36	914	$\frac{23}{8}$	606	1/16	1.59	17	432	12	1	25.4	605	274
	300	740	5000	$20\frac{1}{2}$	520	36	914	$\frac{24}{3/8}$	619	1/16	1.59	$\frac{17}{3/4}$	451	16	$\frac{1}{1/4}$	31.8	630	331
	900	1480	10k	22	560	36	914	25	635	1/4	6.35	$\frac{19}{1/4}$	489	20	$\frac{1}{3/8}$	34.9	1100	499

High Capacity Gas Turbine Meter Outputs and Spin Times

Meter Size	Pulses Per Actual Cu Ft	Pulses Per Actual Cu Meter
4" (100mm)	74	2610
6" (150mm)	18	640
8" (200mm)	12	424
12" (300mm)	3.5	124

Meter Size	Max Flow (Hz)	Minimum Spin Time (Seconds)
4" (100mm)	616	130
6" (150mm)	300	200
8" (200mm)	330	260
12" (300mm)	262	300