# VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER

Since 1926 Revised 01/11/2013

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

		(N/E = Not Established)				
			ocity	Tran	sducer Pre	
			os)		$(psi/100)^{(1)}$	
		Nominal	Nominal			Maximum
		Mean	Mean	Maximum	Maximum	Probable
	Bullet	Instrumental	Instrumental	Average	Probable	Sample
	Weight	@ 15'	@ 15'	Pressure	Lot Mean	Mean
Cartridge	(gr.)	Vented Bbl.(2)	Test Bbl.	(MAP)	(MPLM)	(MPSM)
	88	(3)	1,500			
	95		1,330			
	100		1,195			
	105		1,200			
Omen I was a	115		1,135	250	261	378
9mm Luger	115		1,210	350	361	
	104		1,090			
	124 -		1,130			
	135		1,060			
	147	<u> </u>	985			
	90	(3)	1,375			
	101		1,220			
9mm Luger +P	115 -		1,100	385	397	415
> 24801 . 1			1,235			
	124	<del></del>	1,180			
	115	(3)	1,450			
9mm Winchester Magnum	125	<del></del>	1,435	N/E	N/E	N/E
		(3)		<u>                                     </u>		
9 x 18 Makarov	90		990	241	249	260
	95	<u> </u>	1,000			
9 x 23 Winchester	124	(3)	1,460	550	567	593
7 X 23 W Inchester	125	+	1,435	330	307	373
10mm Automatic	155	(3)	1,115			
	155		1,410			
	170		1,320	27.5	207	405
	175		1,275	375	387	405
			985			
	200	<b>+</b>	1,150			
221 Remington Fireball	50	(3)	2,520	600	615	638
<i>y</i>			, -			

<sup>&</sup>lt;sup>(1)</sup> Based on sample size  $\eta$ =10.

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.

# VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER

Since 1926 Revised 01/11/2013

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

						cer Pressure	
Cartridge	Bullet Weight (gr.)	Nominal Mean Instrumental @ 15' Vented Bbl.(2)	Nominal Mean Instrumental @ 15' Test Bbl.	Maximum Average Pressure (MAP)	Maximum Probable Lot Mean (MPLM)	Maximum Probable Sample Mean (MPSM)	
25 Automatic	35 45 50	(3)	900 805 755	250	258	270	
25 North American Arms	35	(3)	1,200	239	247	258	
30 Luger (7.65mm)	93	(3)	1,190	280(T) <sup>(4)</sup>	289	302	
32 Automatic	60 65 71	(3)	970 1,000 900	205	211	221	
32 H&R Magnum	85 95	N/E N/E	1,120 1,020	N/E	N/E	N/E	
32 North American Arms	60	N/E	1,220	239	247	258	
32 Short Colt	80	N/E	700	175(T)	181	189	
32 Smith &Wesson	85-88	N/E	700	170	175	183	
32 Smith &Wesson Long	98	N/E	775	150	155	162	
327 Federal Magnum	115	N/E	1,535	450	464	485	
356 TSW	147	(3)	1,240	500	516	540	

<sup>&</sup>lt;sup>(1)</sup> Based on sample size  $\eta$ =10.

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.

<sup>(4)</sup> Tentative



Since 1926

#### **VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER**

01/11/2013 Revised

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		(N/E = Not Es				
		Velo	•	Tran	sducer Pre	
		(fp			(psi/100) <sup>(1)</sup>	
		Nominal	Nominal			Maximum
		Mean	Mean	Maximum	Maximum	Probable
	Bullet	Instrumental	Instrumental	Average	Probable	Sample
	Weight	@ 15'	@ 15'	Pressure	Lot Mean	Mean
Cartridge	(gr.)	Vented Bbl.(2)	Test Bbl.	(MAP)	(MPLM)	(MPSM)
	101	1,235	1,650			
	110	1,270	1,650			
	_	1,220	1,500			
	125	1,300	1,600			
		1,425	1,875			
	130	1,300	N/E			
357 Magnum	140	N/E	1,625	350	361	378
	140	1,330	1,750			
	145	1,270	1,670			
	158	1,220	1,545			
	138	1,220	1,600			
	165	N/E	1,510			
	180	1,000	1,400			
	100	(3)	1,450			
	104		1,345			
357 Sig	105		1,350			
	124		1,350	400	413	432
	125		1,350			
	147		1,225			
	150	<b>+</b>	1,130			

 $<sup>^{(1)}</sup>$  Based on sample size  $\eta$ =10.  $^{(2)}$  Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.



#### VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER

Since 1926 Revised 01/11/2013

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

		(N/E = Not Es	stablished)				
		Velo	•	Tran	<b>Transducer Pressure</b>		
		(fp			$(psi/100)^{(1)}$		
		Nominal	Nominal			Maximum	
		Mean	Mean	Maximum	Maximum	Probable	
	Bullet	Instrumental	Instrumental	Average	Probable	Sample	
	Weight	@ 15'	_@ 15'	Pressure	Lot Mean	Mean	
Cartridge	(gr.)	Vented Bbl.(2)	Test Bbl.	(MAP)	(MPLM)	(MPSM)	
38 Automatic	130	(3)	1,035	265	273	286	
38 Smith &Wesson	145-146	N/E	680	145	150	157	
	100	950	N/E				
	110	1,000	N/E				
		N/E	975				
		945	1,150				
		N/E	950				
29 Cmarial	125	N/E	1,000	170	175	183	
38 Special		N/E	1,050				
	130 —	N/E	775				
	130	775	950				
	150	N/E	900				
	158	750	900				
	200	630	780				
38 Special Match <sup>(4)</sup>	148	700	800	170	175	183	
38 Special Match	158	750	900	170	173	165	
	95 -	1,080	1,330				
38 Special +P	93	1,155	1,420				
	101	945	1,120				
	110	980	1,205				
	125	965	1,135	200	206	215	
	130	925	1,150				
	147	855	985				
	150	840	1,050				
	158	880	1,050				

<sup>&</sup>lt;sup>(1)</sup> Based on sample size  $\eta$ =10.

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.

<sup>(4)</sup> The velocity figures listed for Match items are nominal values; optimum accuracy may require a velocity different from the nominal values.

#### **VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER**

01/11/2013 Revised Since 1926

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

		(N/E = Not E: <b>Vel</b> o (f <sub>I</sub>	city	Tran	ssure	
<u>Cartridge</u>	Bullet Weight (gr.)	Nominal Mean Instrumental @ 15' Vented Bbl.(2)	Nominal Mean Instrumental @ 15' Test Bbl.	Maximum Average Pressure (MAP)	Maximum Probable Lot Mean (MPLM)	Maximum Probable Sample Mean (MPSM)
38 Super Automatic +P	115 125 130	(3)	1,280 1,230 1,200	365	377	394
380 Automatic	65 80 85 88-90 95	(3)	1,050 980 990 980 945 990 910	215	222	232
40 Smith & Wesson	125 135 140 141 155 165 180	•	1,300 1,150 1,185 1,155 1,135 1,115 1,195 1,040 1,135 985	350	361	378
400 Cor-Bon	135 150 155 160 165	(3)	1,450 1,350 1,200 1,000 1,300	350	361	378
41 Remington Magnum	170 175 180 210	1,400 1,250 955 1,280	1,800 1,490 1,615 1,125 1,585	360	371	388

 $<sup>^{(1)}</sup>$  Based on sample size  $\eta{=}10.$   $^{(2)}$  Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.



Since 1926

# VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER

Revised 01/11/2013

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

		(N/E = Not Established)					
		Velo	city	Tran	<b>Transducer Pressure</b>		
		(fp			$(psi/100)^{(1)}$		
		Nominal	Nominal			Maximum	
		Mean	Mean	Maximum	Maximum	Probable	
	Bullet	Instrumental	Instrumental	Average	Probable	Sample	
	Weight	@ 15'	@ 15'	Pressure	Lot Mean	Mean	
Cartridge	(gr.)	Vented Bbl.(2)	Test Bbl.	(MAP)	(MPLM)	(MPSM)	
	180	1,600	1,800				
	210	1,250	1,425				
	220	N/E	1,580				
	225	N/E	1,275				
	240 -	995	1,175			388	
		1,150	1,500				
44 Remington Magnum		1,170	1,600	360	371		
		1,335	1,600				
	_	N/E	1,150				
	250	1,150	1,475				
		N/E	1,520				
	275	1,185	1,335				
	300	N/E	1,200				
		N/E	900				
	200 -	N/E	1,025				
44 S&W Special	240	750	800	155	160	167	
	246	N/E	800				

<sup>&</sup>lt;sup>(1)</sup> Based on sample size  $\eta$ =10.

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.



#### **VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER**

01/11/2013 Revised Since 1926

NOTE: The pressure values shown in this table are only valid for measurements made using equipment as detailed in ANSI/SAAMI Z299.3 when calibrated and operated in accordance with the procedures therein.

		(fr	ocity os)	Tran	sducer Pressure (psi/100) <sup>(1)</sup>		
		Nominal Mean	Nominal Mean	Maximum	Maximum	Maximum Probable	
	Bullet	Instrumental	Instrumental	Average	Probable	Sample	
	Weight	@ 15'	@ 15'	Pressure	Lot Mean	Mean	
Cartridge	(gr.)	Vented Bbl.(2)	Test Bbl.	(MAP)	(MPLM)	(MPSM)	
	120	(3)	1,200				
	155		1,125				
	165		1,065				
	170		1,050				
45 Automatic	175		1,020	210	217	227	
45 Automatic	185		915	210			
	103		995				
	=		830				
	230		870				
		<u> </u>	915				
45 Automatic Match <sup>(4)</sup>	185	(3)	765	210	217	227	
	107	(3)	990				
45 A	185 -		1,130	230	237	248	
45 Automatic +P	230	<b>+</b>	975				
45 Auto Rim	230	(3)	825	N/E	N/E	N/E	
	200		1,120				
	225		915				
45 Colt	225		950	140	144	151	
	250		750				
	250-255		900				
	175	(3)	995				
45 Glock Automatic Pistol	185		995				
	185		1,090	230	237	248	
	200		1,020	230	231	240	
	230		830				
	230 -	<b>V</b>	870				
45 Windhester M.	230	N/E	1,380	415	420	440	
45 Winchester Magnum	260	<b>.</b>	1,200	415	428	448	

<sup>&</sup>lt;sup>(1)</sup> Based on sample size  $\eta$ =10.

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.
(4) The velocity figures listed for Match items are nominal values; optimum accuracy may require a velocity different from the nominal values.



# VELOCITY AND PIEZOELECTRIC TRANSDUCER PRESSURE: CENTERFIRE PISTOL & REVOLVER

Since 1926 Revised 01/11/2013

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### VELOCITY AND PRESSURE: VELOCITY & PRESSURE DATA – TRANSDUCER (Cont'd)

(N/E = Not Established)

		<b>Velocity</b> (fps)		Tran	sducer Pre (psi/100) <sup>(1)</sup>			
		Nominal	Nominal			Maximum		
		Mean	Mean	Maximum	Maximum	Probable		
	Bullet	Instrumental	Instrumental	Average	Probable	Sample		
	Weight	@ 15'	_@_15'	Pressure	Lot Mean	Mean		
Cartridge	(gr.)	Vented Bbl.(2)		(MAP)	(MPLM)	(MPSM)		
	-	N/E	1,420					
	250		1,775					
454 Casull		<u> </u>	2,000	650	671	702		
	260		2,000					
	300	1,625	1,825					
	200	N/E	2,540					
460 S&W Magnum	250		1,650	650	671	702		
	260	<u> </u>	2,150					
475 Linebaugh	400	1,300	1,400	500	516	540		
480 Ruger	325	1,350	1,425	480	495	518		
50 Action Express	325	(3)	1,400	350	361	378		
	275	N/E	1,620					
	300		2,050					
500 S&W Magnum	350		1,400	600	619	647		
	330		1,800	000	017	047		
	400		1,800					
	440	<del> </del>	1,625					
500 Special	350	N/E	1,375	360	371	388		

Based on sample size  $\eta=10$ .

<sup>(2)</sup> Vented barrel velocities are provided for information only. These values are not used for product manufacturing control.

<sup>(3)</sup> Revolvers not normally chambered for this cartridge.