

TIP 0605-01

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Grinder pulpstones – cubical contents

Scope

This TIP table provides the calculated volume of grinder pulpstones for specific stone diameters. Volumes are listed per inch of face width and by total volume for stones of certain width (54, 66, and 69 inches). The purpose of this information is to calculate the change in pulpstone volume due to wear. Additional information is provided to indicate the flywheel effect of stones of different diameters.

Definition

Cubicle Content is the pulpstone volume in cubic inches *including* the eye of the stone.

Safety Precautions

No safety precautions apply to the use of this TIP Paper.

Content

Diam.			Circum.			Width of Stone Face			Diam.			Circum.			Width of Stone Face		
ft.	in.	1 in.	54 in.	66 in.	69 in.	ft.	in.	1 in.	54 in.	66 in.	69 in.	ft.	in.	1 in.	54 in.	66 in.	69 in.
72	18	10-5/16	4071.5	219861	2687190	2809335	69	18	0-3/4	3739.3	201922	2467938	2580117				
-7/8	18	9-13/16	4057.4	219100	2677884	2799606	-7/8	18	0-5/16	3725.7	201188	2458962	2570733				
-3/4	18	9-7/16	4043.3	218338	2668578	2789877	-3/4	18	0	3712.2	200459	2450052	2561418				
-5/8	18	9	4029.2	217577	2659272	2780148	-5/8	17	11-5/8	3698.7	199730	2441142	2552103				
-1/2	18	8-5/8	4015.2	216821	2650032	2770488	-1/2	17	11-3/16	3685.3	199006	2432298	2542857				
-3/8	18	8-1/4	4001.1	216059	2640726	2760759	-3/8	17	10-13/16	3671.8	198277	2423388	2533542				
-1/4	18	7-13/16	3987.1	215303	2631486	2751099	-1/4	17	10-3/8	3658.4	197554	2414544	2524296				
-1/8	18	7-7/16	3975.1	214547	2622246	2741439	-1/8	17	10	3645.0	196830	2405700	2515050				
71	18	7-1/16	3959.2	213797	2613072	2731848	68	17	9-5/8	3631.7	196112	2396922	2505873				
-7/8	18	6-5/8	3945.3	213046	2603898	2722257	-7/8	17	9-1/4	3618.3	195388	2388078	2496627				
-3/4	18	6-1/4	3931.4	212296	2594724	2712666	-3/4	17	8-7/8	3605.0	194670	2379300	2487450				
-5/8	18	5-7/8	3917.5	211545	2585550	2703075	-5/8	17	8-7/16	3591.7	193952	2370522	2478273				
-1/2	18	5-1/2	3903.6	210794	2576376	2693484	-1/2	17	8-1/16	3578.5	193239	2361810	2469165				
-3/8	18	5-1/16	3889.8	210049	2567268	2683962	-3/8	17	7-5/8	3565.2	192521	2353032	2459988				
-1/4	18	4-11/16	3876.0	209304	2558160	2674440	-1/4	17	7-1/4	3552.0	191808	2344320	2450880				
-1/8	18	4-5/16	3862.2	208559	2549052	2664918	-1/8	17	6-7/8	3538.8	191095	2335608	2441772				
70	18	3-15/16	3848.5	207819	2540010	2655465	67	17	6-1/2	3525.7	190388	2326962	2432733				
-7/8	18	3-1/2	3834.7	207074	2530902	2645943	-7/8	17	6-1/16	3512.5	189675	2318250	2423625				
-3/4	18	3-1/8	3821.0	206334	2521860	2636490	-3/4	17	5-11/16	3499.3	188968	2309604	2414586				
-5/8	18	2-3/4	3807.3	205594	2512818	2627037	-5/8	17	5-5/16	3486.5	188260	2301090	2405685				

TIP Category: Data and Calculations



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Diam.			Circum.			Width of Stone Face			Diam.			Circum.			Width of Stone Face		
-1/2	18	2-5/16	3793.7	204860	2503842	2617653	-1/2	17	4-15/16	3473.2	187553	2292312	2396508				
-3/8	18	1-15/16	3780.0	204120	2494800	2608200	-3/8	17	4-1/2	3460.2	186851	2283732	2387538				
-1/4	18	1-9/16	3766.4	203386	2485824	2598816	-1/4	17	4-1/8	3447.2	186149	2275152	2378568				
-1/8	18	1-1/8	3752.8	202651	2476848	2589432	-1/8	17	3-3/4	3434.2	185447	2266572	2369598				
66	17	3-3/8	3421.2	184745	2257992	2360628	63	16	5-15/16	3117.2	168329	2057352	2150868				
-7/8	17	2-15/16	3408.2	184043	2249412	2351658	-7/8	16	5-1/2	3104.9	167665	2049234	2142381				
-3/4	17	2-9/16	3395.3	183346	2240898	2342757	-3/4	16	5-1/8	3092.6	167000	204116	2133894				
-5/8	17	2-1/8	3382.4	182650	2232384	2333856	-5/8	16	4-3/4	3080.3	166336	2032998	2125407				
-1/2	17	1-3/4	3369.6	181958	2223936	2325024	-1/2	16	4-3/8	3068.0	165672	2024880	2116920				
-3/8	17	1-3/8	3356.7	181262	2215422	2316123	-3/8	16	3-15/16	3055.7	165008	2016762	2108433				
-1/4	17	1	3343.9	180571	2206974	2307291	-1/4	16	3-9/16	3043.5	164349	2008710	2100015				
-1/8	17	0-5/8	3331.1	179879	2198526	2298459	-1/8	16	3-3/16	3031.3	163690	2000658	2091597				
65	17	0-1/4	3318.3	179188	2190078	2289627	62	16	2-3/4	3019.1	163031	1992606	2083179				
-7/8	16	11-13/16	3305.6	178502	2181696	2280864	-7/8	16	2-3/8	3006.9	162373	1984554	2074761				
-3/4	16	11-3/8	3292.8	177811	2173248	2272032	-3/4	16	2	2994.8	161719	1976568	2066412				
-5/8	16	11	3280.1	177125	2164866	2263269	-5/8	16	1-5/8	2982.7	161066	1968582	2058063				
-1/2	16	10-5/8	3267.5	176445	2056550	2254575	-1/2	16	1-1/4	2970.6	160412	1960596	2049714				
-3/8	16	10-1/4	3254.8	175759	2148168	2245812	-3/8	16	0-13/16	2958.5	159759	1952610	2041365				
-1/4	16	9-7/8	3242.2	175079	2139852	2237118	-1/4	16	0-7/16	2946.5	159111	1944690	2033085				
-1/8	16	9-1/2	3229.6	174398	2131536	2228424	-1/8	16	0	2934.5	158463	1936770	2024805				
64	16	9-1/16	3217.0	173718	2123220	2219730	61	15	11-5/8	2922.5	157815	1928850	2016525				
-7/8	16	8-5/8	3204.4	173038	2114904	2111036	-7/8	15	11-1/4	2910.5	157167	1920930	2008245				
-3/4	16	8-1/4	3191.9	172363	2106654	2202411	-3/4	15	10-7/8	2898.6	156524	1913076	2000034				
-5/8	16	7-7/8	3179.4	171688	2098404	2193786	-5/8	15	10-1/2	2886.6	155876	1905156	1991754				
-1/2	16	7-1/2	3166.9	171013	2090154	2185161	-1/2	15	10-1/16	2874.8	155239	1897368	1983612				
-3/8	16	6-15/16	3154.5	170343	2081970	2176605	-3/8	15	9-11/16	2862.9	154597	1889514	1975401				
-1/4	16	6-11/16	3142.0	169668	2073720	2167980	-1/4	15	9-1/4	2851.0	153954	1881660	1967190				
-1/8	16	6-5/16	3129.6	168998	2065536	2159424	-1/8	15	8-7/8	2839.2	153317	1873872	1959048				

Diam.			Circum.			Width of Stone Face												
	ft.	in.	1 in.	26 in.	27 in.	30 in.	32 in.	33 in.	34 in.	36 in.	54 in.	66 in.	69 in.					
60	15	8-1/2	2827.4	73512	76340	84822	90477	93304	96132	101786	152680	1866084	1950906					
-7/8	05	8-1/8	2815.7	73208	76024	84471	90102	92918	95734	101365	152048	1858362	1942833					
-3/4	15	7-3/4	2803.9	72901	75705	84117	89725	92529	95333	100940	151411	1850574	1934691					
-5/8	15	7-5/16	2792.2	72597	75389	83766	89350	92143	94935	100519	150779	1842852	1926618					
-1/2	15	6-15/16	2780.5	72293	75074	83415	88976	91757	94537	100098	150147	1835130	1918545					
-3/8	15	6-1/2	2768.8	71989	74758	83064	88602	91370	94139	99677	149515	1827408	1910472					
-1/4	15	6-1/8	2757.2	71687	74444	82716	88230	90988	93745	99259	148889	1819752	1902468					
-1/8	15	5-3/4	2745.6	71386	74131	82368	87859	90605	93350	98842	148262	1812096	1894464					
59	15	5-3/8	2734.0	71084	73818	82020	87488	90222	92956	98424	147636	1804440	1886460					
-7/8	15	4-15/16	2722.4	70782	73505	81672	87117	89839	92562	98006	147010	1796784	1878456					
-3/4	15	4-9/16	2710.9	70483	73194	81327	86749	89460	92171	97592	146389	1789194	1870521					
-5/8	15	4-3/16	2699.3	70182	72881	80979	86378	89077	91776	97175	145762	1791538	1862517					
-1/2	15	3-3/4	2687.8	69883	72571	80634	86010	88697	91385	96761	145141	1773948	1854582					
-3/8	15	3-3/8	2676.4	69586	72263	80292	85645	88321	90998	96350	144526	1766424	1846716					
-1/4	15	3	2664.9	69287	71952	79947	85277	87942	90607	95936	143905	1758834	1838781					
-1/8	15	2-5/8	2653.5	68991	71645	79605	84912	87566	90219	95526	143289	1751310	1830915					
58	15	2-1/4	2642.1	68695	71337	79263	84547	87189	89831	95116	142673	1743786	1823049					
-7/8	15	1-13/16	2630.7	68398	71029	78921	84182	86813	89444	94705	142058	1736262	1815183					
-3/4	15	1-7/16	2619.4	68104	70724	78582	83821	86440	89060	94298	141448	1728804	1807386					
-5/8	15	1-1/16	2608.0	67808	70416	78240	83456	86064	88672	93888	140832	1721280	1799520					
-1/2	15	0-5/8	2596.7	67514	70111	77901	83094	85691	88288	93481	140222	1713822	1791723					
-3/8	15	0-1/4	2585.4	67220	69806	77562	82733	85318	87904	93074	139612	1706364	1783926					
-1/4	14	11-7/8	2574.2	66929	69503	77226	82374	84949	87523	92671	139007	1698972	1776198					
-1/8	14	11-1/2	2563.0	66638	69201	76890	82016	84579	87142	92268	138402	1691580	1768470					
57	14	11-1/16	2551.8	66347	68899	76554	81658	84209	86761	91865	137797	1684188	1760742					
-7/8	14	10-11/16	2540.6	66056	68596	76218	81299	83840	86380	91462	137192	1676796	1753014					
-3/4	14	10-5/16	2529.4	65764	68294	75882	80941	83470	86000	91058	136588	1669404	1745286					
-5/8	14	9-7/8	2518.3	65475	67994	75549	80586	83104	85622	90659	135988	1662078	1737627					
-1/2	14	9-1/2	2507.2	65187	67694	75216	80230	82738	85245	90259	135389	1654752	1729968					