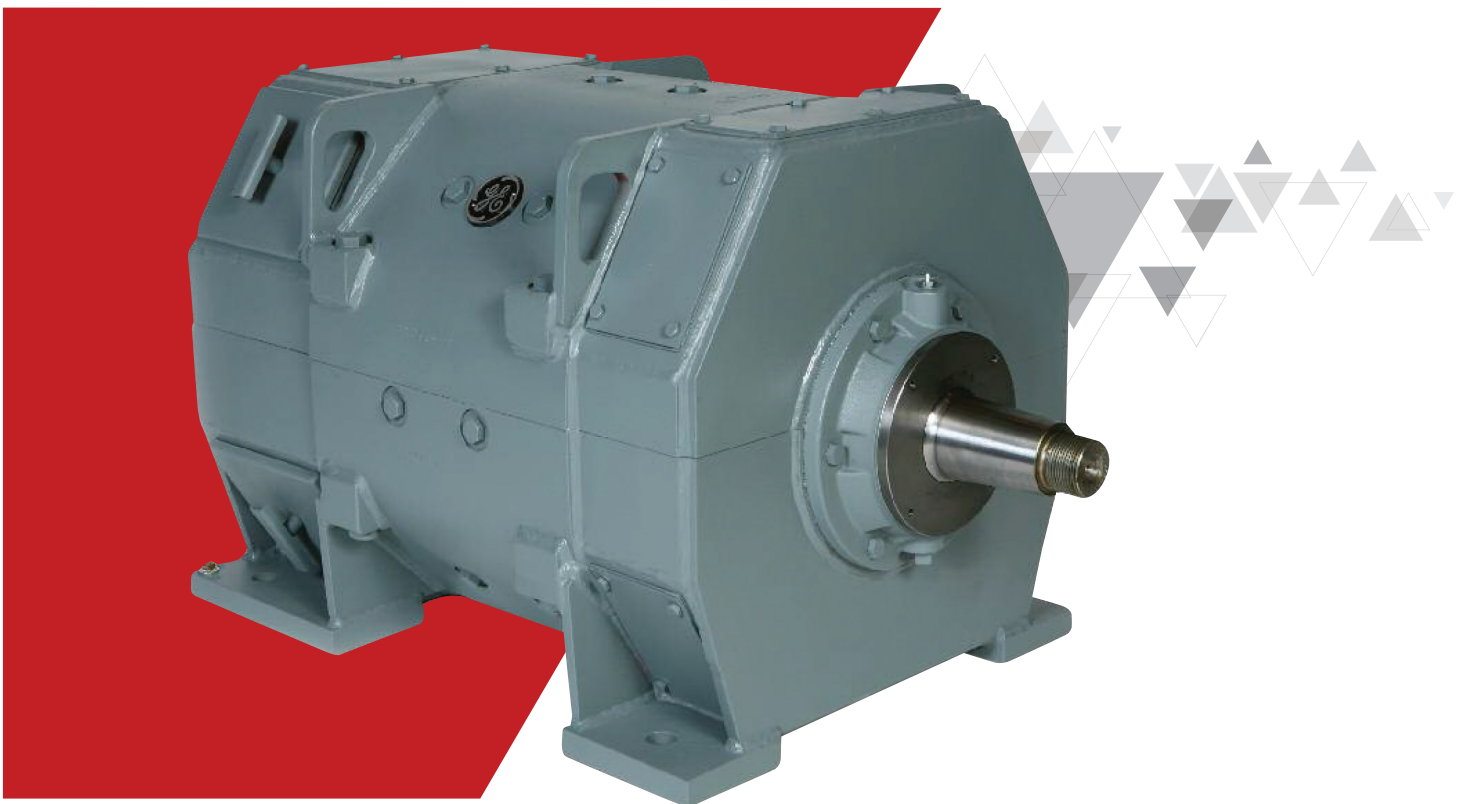




GE INDUSTRIAL MOTORS  
a WOLONG company

# MD800 Armored Mill Motor

802 to 818 Frame  
5-250 HP



**NEMA**  
Premium

VFD  
READY  
NEMA  
MG1  
PART 31



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# Reliability is Critical

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## We've Manufactured Motors for Over 125 Years

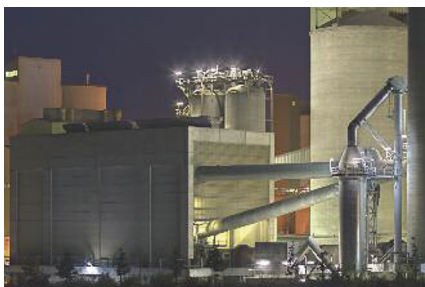
In 1879, GE founder, Thomas Edison constructed the first electric motor ever made for a 110 to 120 Volt line at Menlo Park, NJ. This device still exists and is operative! It is located in the Edison Historical Collection in New Jersey.

Since then, GE has been designing, developing and perfecting DC motor technology for industrial applications—culminating in the MD800 Armored Mill Motor.



## Applications and Standards

This low base speed, high torque motor is used in high performance, automatic control systems that require a fast transient response. These motors are ideal for use in steel plants, excavating equipment, shipyard cranes, coal and dock cranes. They operate well in constant potential or adjustable voltage drive systems with either rectified power supplies or motor-generator sets.



MD800 motors meet standards established by the Association of Iron and Steel Technology (AIST).

## Key Features

- Heavy-duty, double tapered shaft is removable and replaceable
- Single width cylindrical roller bearings for high intermittent and impact thrust capacity
- TIG welding of the armature coil leads to the commutator and makes the motor highly resistant to overloads



## GE Benefits

- Fast dynamic response and smooth speed control due to optimal system inertia
- Advanced Tape-Reinforced Encapsulated Construction (TREC®); coil technology is highly resistant to contamination, vibration, impact and wear
- Specifically designed to accelerate, decelerate, or reverse under conditions of severe duty-cycle operation
- Optimal Class H insulation protection



# Rugged Inside and Out

## Ventilation and Cooling

A new design was developed to improve heat transfer with a low-pressure drop

Commutator risers are TIG welded to armature conductors for higher overload capability

Proven GE commutator design has greater stability for severe MDmotor applications with improved tracking resistance

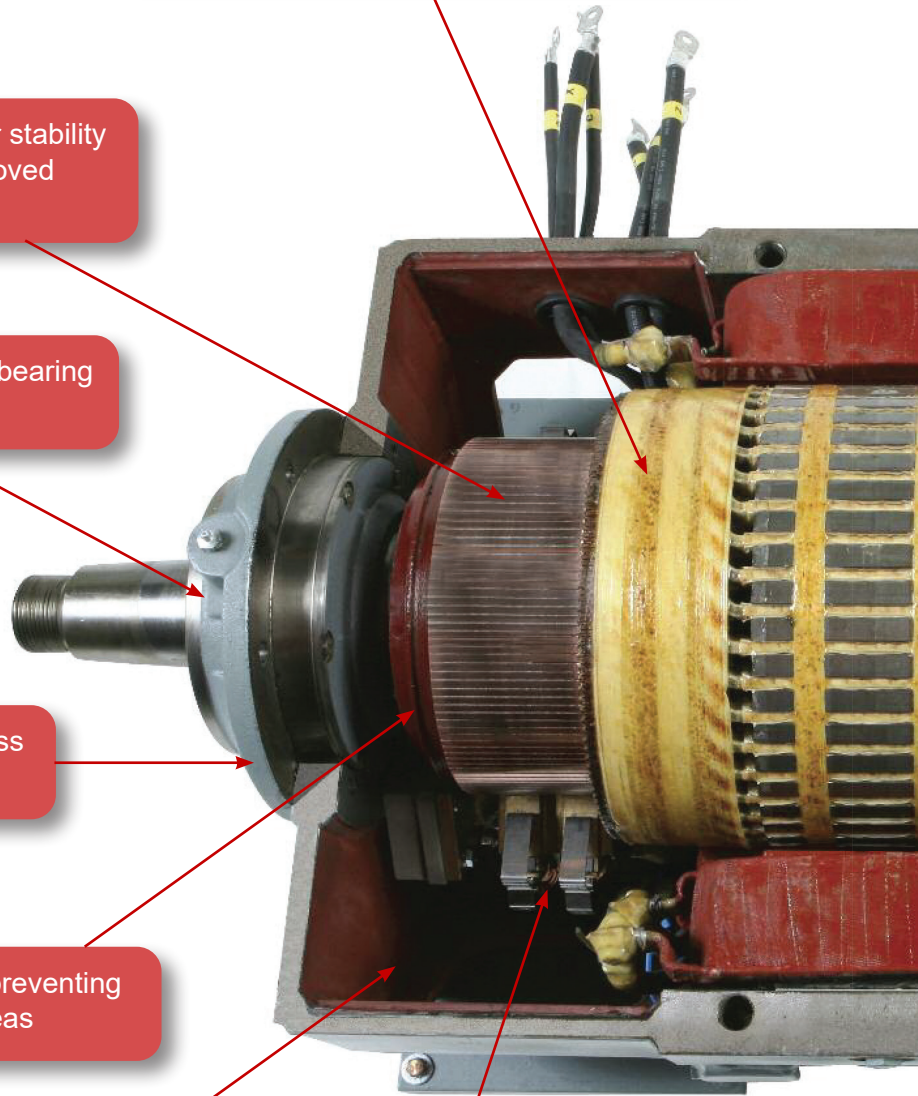
Cartridge-type bearing assemblies protect bearing from dirt and contaminants during overhaul

Grease relief plug prevents forcing of excess grease into internal parts of the motor

Viton® is used to seal commutator bands, preventing penetration of contaminants into critical areas

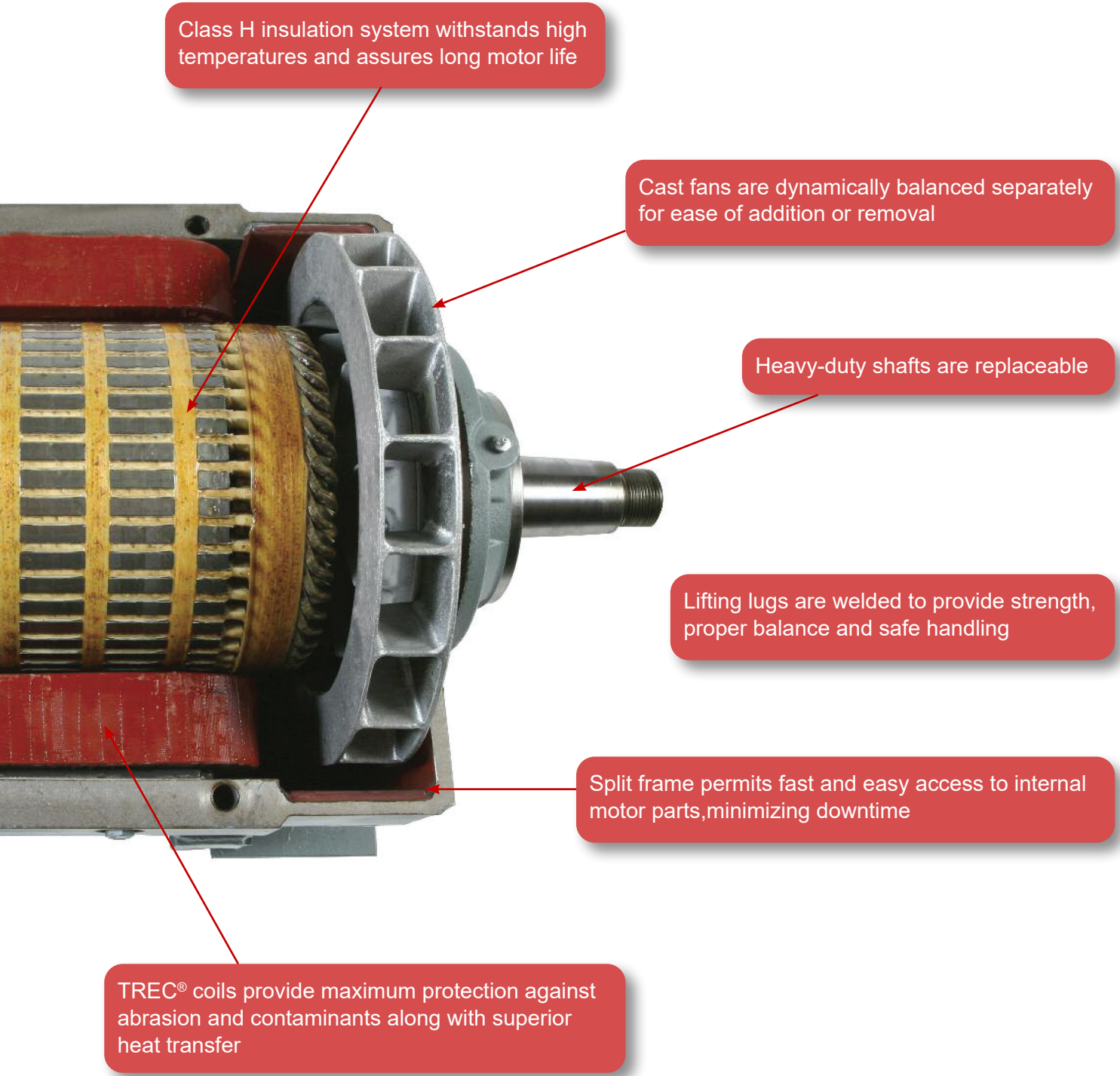
Drain holes allow excess moisture to drain from bottom of motor

Constant-pressure brush holders help to assure excellent commutation without spring pressure adjustment, reducing maintenance



# Rugged Inside and Out

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# A Full Selection

Feature	Specification
HP Range	5-250
Frame Size	MD802 through MD818
Enclosures	Totally enclosed and forced ventilated
Speed	Various
Voltage	230 Volt DC
Winding	Series, shunt, and compound
Time Ratings	Continuous, 30 min or 60 min
Frames	Horizontally split steel frame w/lifting lugs
Shaft	Tapered and equal on DE and CE and replaceable without disturbing the windings
Ambient	40°C
Altitude	3300 ft
Insulation Class	H
Temperature Rise	75°C rise by thermometer or 110°C rise by resistance
Bearing Type	Single-width solid cylindrical roller bearing
Leads	Exit frame F2 configuration (conduit box not standard)

Standard Type Product Offering													
Frame	60 min, 75°C Rise Totally Enclosed, or Continuous, 75°C Rise, Force-Ventilated				30 min 75°C Rise Totally Enclosed			Continuous Duty Cycle, 30% Time On, 75°C Rise, Totally Enclosed					
	HP	Full-Load Speed RPM (Approx.)			HP	Full-Load Speed RPM (Approx.)		Full-Load Speed RPM (Approx.)					
		Series	Compound or Shunt	Adjustable Speed		Series	Compound	Series		Compound		Shunt	
								HP	RPM	HP	RPM	HP	RPM
802A	5	900	1025	1025/2050	6.5	750	925	5.5	840	5	1080	5	1130
802B	7.5	800	900	900/1800	10	675	775	8	780	7.5	950	7.5	1000
802C	10	800	900	900/1800	13.5	675	775	10	800	9.5	940	9	1000
803	15	725	800	800/2000	19	620	725	15	725	14.5	840	14	880
804	20	650	725	725/1800	26	580	650	20	650	18.5	775	17	800
806	30	575	650	650/1950	39	500	600	30	575	28.5	690	25	715
808	50	525	575	575/1725	65	450	525	40	570	37.5	625	35	630
810	70	500	550	550/1650	90	440	500	60	550	52.5	615	45	600
812	100	475	515	515/1300	135	420	475	85	510	75	580	60	565
814	150	460	500	500/1250	200	400	460	115	515	110	565	85	560
816	200	450	480	480/1200	265	400	450	150	500	140	540	110	535
818	250	410	435	435/1100	325	360	400	185	485	165	490	130	470

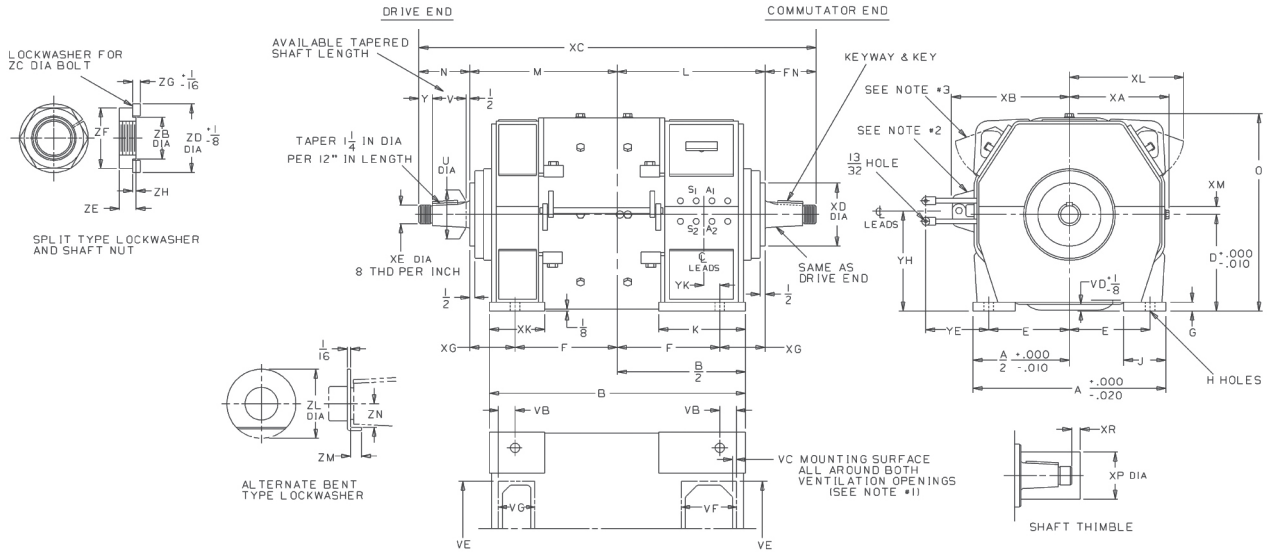
More ratings and features are available.

For more information contact your local GE representative or call 1-888-525-2915

Spare Parts	Number of Motors			
	1 to 4	5 to 9	10 to 19	20 or More
Spare Motor	0	0	1	1
Armature with Bearing Parts	1	1	1	1
Commutator	0	0	1	1
Armature Coils with Winding Supplies	0	1 set	1 set	1 set
Main Field Coil and Pole Assembly	1 set	1 set	1 set	2 sets
Commutating Field Coil and Pole Assembly	1 set	1 set	1 set	2 sets
Brushholders	1 set	1 set	1 set	2 sets
Brushes	1 Spare Set of Brushes for Each Motor			
Bearings	0	1 set	1 set	2 sets

# Mill DC Motors – MD800

Per AIST Standards



Frame	Approx Net Wt in Lbs.	Dimensions in Inches																			
		A	B	D	E	F	G	H	J	K	LM	O	XA	XB	XC	XD	XG	XK	XL	XM	XP
802	600	15.00	20.50	7.63	6.25	8.25	0.75	0.78	3.13	8.63	12.00	15.56	8.19	9.88	32.88	4.50	3.75	5.13	9.75	0.63	2.75
803	770	17.00	23.50	8.50	7.00	9.00	0.88	0.91	3.63	9.13	13.50	17.31	9.00	10.69	37.00	5.50	4.50	5.88	10.63	0.63	3.63
804	960	18.00	25.50	9.00	7.50	9.50	0.88	0.91	4.00	9.75	14.50	18.31	9.31	11.00	39.00	5.50	5.00	5.75	10.88	0.75	3.63
806	1300	20.00	27.50	10.00	8.25	10.50	1.00	1.03	4.25	10.00	15.50	20.31	10.31	12.25	42.25	6.25	5.00	6.75	12.00	0.75	4.25
808	1790	22.75	31.25	11.25	9.38	12.38	1.13	1.19	4.75	11.75	17.50	22.94	11.69	13.50	42.50	7.25	5.13	7.00	13.50	0.88	4.25
810	2450	24.50	32.50	12.25	10.25	13.00	1.13	1.19	5.25	11.00	18.75	24.94	12.69	14.50	50.25	8.00	5.75	7.00	14.50	1.00	6.06
812	3280	27.00	36.00	13.38	11.25	14.50	1.25	1.31	5.75	11.00	20.50	27.19	13.81	15.63	55.00	8.75	6.25	8.25	15.75	1.00	6.06
814	4500	30.00	41.50	14.75	12.50	16.00	1.50	1.56	6.25	13.50	23.25	29.94	15.19	—	60.75	10.00	7.25	8.75	17.25	1.13	7.69
816	5780	32.50	46.75	16.00	13.50	17.50	1.50	1.56	7.25	17.50	26.00	32.44	16.44	—	67.50	10.00	8.50	9.75	19.50	1.25	7.69
818	7500	36.00	49.75	17.75	15.00	19.50	1.75	1.81	7.75	17.75	17.50	35.94	18.19	—	70.63	10.00	8.00	11.00	21.50	1.38	7.69

Frame	Approx Net Wt in Lbs.	Dimensions in Inches																											
		Shaft					Keyway		Key	Nut and Lockwasher								Vent. Duct Flange Surface					Motor Leads						
N	FN	U	V	Y	XE	Width	Dpth	Lgth	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZL	ZM	ZN	VB	VC	VD	VE	VF	VG	YE	YH	YK		
802	600	4.44	1.75	2.75	1.19	1.00	0.50	0.25	2.62	1.38	1.50	2.38	0.88	2.00	0.25	0.19	2.50	0.25	1.00	0.88	0.38	0.50	7.25	4.75	2.19	7.00	8.62	3.00	
803	770	5.00	2.00	3.25	1.25	1.25	0.50	0.25	3.12	1.50	1.50	2.38	0.94	2.25	0.25	0.19	2.88	0.31	1.13	1.75	0.50	0.50	8.50	5.00	3.25	7.00	9.50	3.00	
804	960	5.00	2.00	3.25	1.25	1.25	0.50	0.25	3.12	1.50	1.50	2.38	0.94	2.25	0.25	0.19	2.88	0.31	1.12	2.25	0.50	0.62	9.00	5.50	2.75	7.00	10.00	3.00	
806	1300	5.62	2.50	3.75	1.38	1.50	0.50	0.25	3.75	2.00	2.00	2.88	1.06	2.75	0.38	0.31	3.25	0.38	1.25	2.12	0.50	0.75	10.25	6.00	3.38	7.00	11.00	3.00	
808	1790	6.25	3.00	4.25	1.50	2.00	0.75	0.25	4.12	2.50	2.50	3.50	1.19	3.50	0.44	0.38	4.31	0.66	1.50	2.00	0.50	0.88	11.50	6.5	3.50	10.00	12.50	3.00	
810	2450	6.38	3.25	4.25	1.62	2.25	0.75	0.25	4.12	2.75	2.75	3.75	1.31	4.00	0.50	0.44	4.75	0.75	1.62	2.12	0.50	0.88	12.00	7.00	3.62	10.00	13.50	3.00	
812	3280	7.00	3.62	4.75	1.75	2.50	0.75	0.25	4.62	3.00	3.00	4.00	1.44	4.25	0.50	0.44	5.00	0.62	1.88	2.50	0.62	1.00	13.75	8.25	4.88	10.00	14.62	3.00	
814	4500	7.12	4.25	4.75	1.88	3.00	1.00	0.38	4.62	3.50	3.50	5.00	1.56	4.75	0.38	0.31	5.88	0.72	2.22	3.38	0.62	1.25	15.25	9.25	5.50	12.00	16.25	3.00	
816	5780	7.75	4.62	5.25	2.00	3.25	1.25	0.38	5.12	4.00	4.00	6.00	1.69	5.38	0.38	0.31	6.50	0.62	2.62	2.50	1.00	1.12	16.00	11.00	6.62	12.00	17.50	4.50	
818	7500	7.81	5.00	5.75	1.56	3.5	1.25	0.50	5.62	4.00	4.00	6.00	1.25	5.75	0.38	0.31	6.75	0.75	2.62	3.88	1.00	1.38	18.00	12.00	7.12	12.00	19.25	4.50	



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