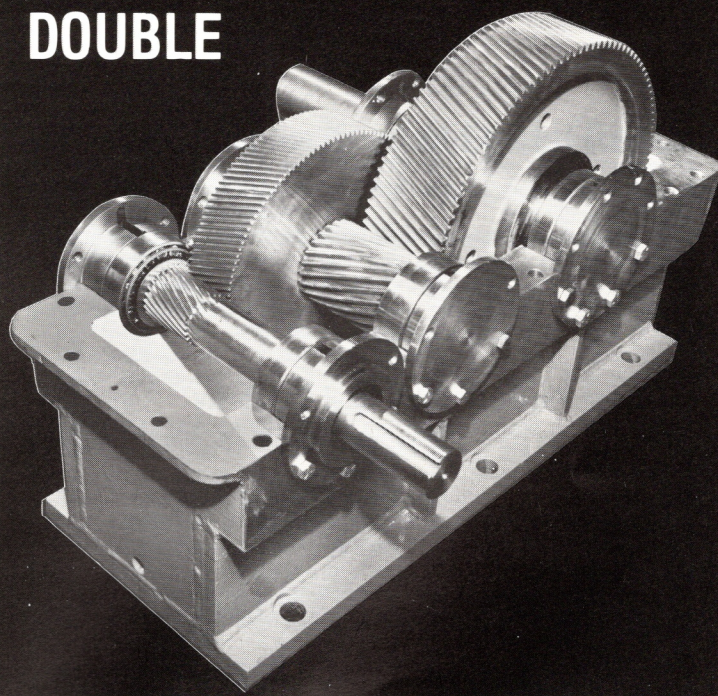


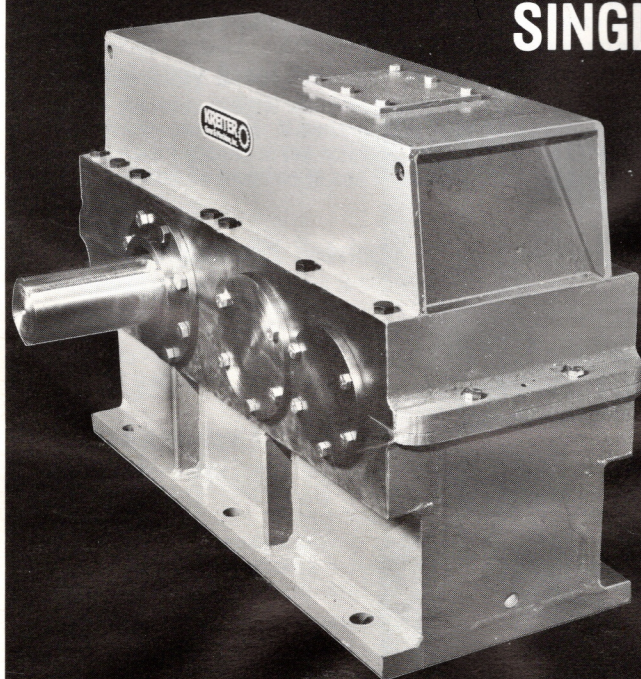


# Parallel Shaft Speed Reducers

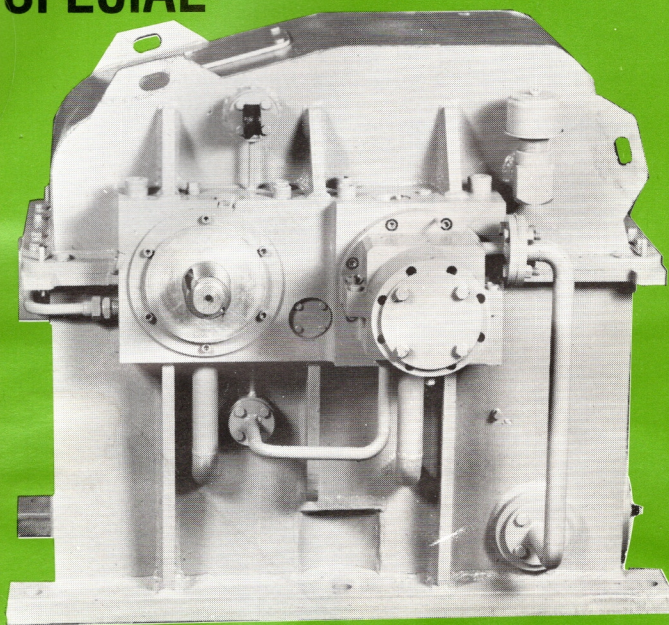
**DOUBLE**



**SINGLE**

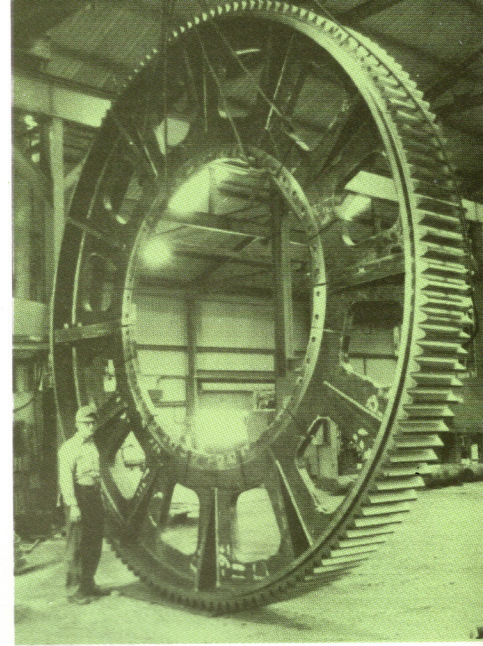


**SPECIAL**



# Kreiter Gear & Machine, Inc.

Over 70 years of custom gear design and manufacturing.



From its start in 1910, Kreiter Gear & Machine, Inc. has grown to one of the largest custom gear manufacturers in the U.S. with more than seven acres of shops, storage yards, and work areas, 270,000 square feet of which are under roof.

Kreiter is fully equipped and staffed to meet almost any gear or gearbox requirement. The plant organization is structured for maximum efficiency and fast turn around, with separate departments for engineering, fabrication, machining, gear cutting, assembly and testing. Proven systems are used to expedite special projects of all types.

## Expanded Facilities Offer Total Capability

Kreiter's growing plant facilities have been tailored to meet the needs throughout heavy industry.

- Gear Manufacturing and Power Transmission Components
- Standard and Custom Speed Reducers and Speed Increasers
- Rotary Equipment Service and Testing
- Oil Field Pumping Units
- Special Mining and Conveying Equipment
- Extensive Machine & Fabrication Facilities with Lifting Capacity up to 100 Tons

Each division of Kreiter is staffed with skilled craftsmen who specialize in each phase of manufacturing. This not only enhances the quality of Kreiter's products but inherently provides you with the fastest delivery time. Modifications of existing equipment, special designs, and turn key development of prototype machines are only a few of the "extra-services" that Kreiter frequently provides for its customers in addition to the standard line of products.

Kreiter also provides complete rotary equipment maintenance programs, on a contract or hourly basis. This is a separate department in the plant and is dedicated to maintenance only.

Each division of the plant has a specialty. Customers deal directly with the department that does the work on their projects. If problems can be better solved in your plant, Kreiter will send a service engineer to analyze your needs and provide both the necessary repairs and replacement parts.

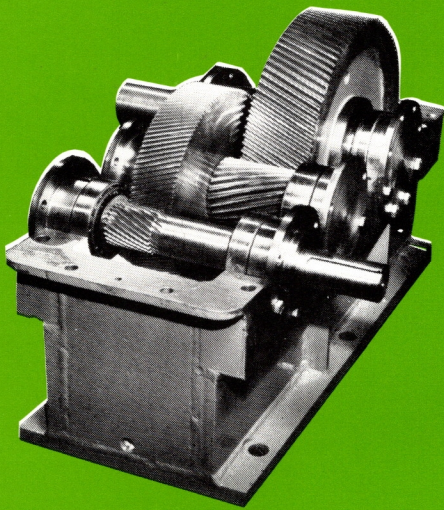
## Complete Flexibility Provides For Personal Service

Kreiter's complete flexibility means that the talents and skills of the people in every department are available when needed on a customer's project. Kreiter engineers can help reduce your down-time by working with you before equipment failure occurs. When an assembly or component first indicates possible failure, Kreiter's shops can start work on replacement parts or assemblies which can be completed quickly. A concise analysis of the problem, expedient design or specification for a remedy, quality manufacturing and field assistance for your installation are implemented promptly.

## Kreiter's Engineering Capability Is Complete

From the start of your job to the finished product, Kreiter has the engineering staff to carry it from initial concept and design to development of specifications then through the manufacturing phase to completion. Kreiter's engineers have the experience and technical expertise to analyze your needs and, frequently, provide a conversion design which results in equipment that out performs the original installation. Kreiter also has the consulting engineering capability to analyze field application problems and make recommendations on new installations based on your manufacturing or processing requirement.





# Kreiter Speed Reducers

Computer engineered for maximum performance and design life.

## Computer Evaluated Designs

Kreiter Gear and Machine's design Engineers use a digital computer to evaluate each gear set design to yield maximum allowable capacity complying with the latest AGMA standards. Tooth geometry is evaluated to give the user an optimum balance between tooth beam strength and durability based on the physical dimensions of the gear set.

## Precision Fabricated Housings

Housings are fabricated of heavy steel plate and are stress relieved to prevent distortion. All surfaces are then sand blasted and primed prior to machining. The case is of two piece construction with an accurately machined splitline between the housing and the cover. Interior surfaces are completely cleaned and painted to inhibit corrosion and contamination. These heavy duty housings provide the rigidity required to assure precision gear alignment.

## Accurately Cut and Finished Gears

Gears are either double helical or single helical precision cut on hobbing machine. Gear blanks are made of heat treated high tensile alloy steel forgings, or fabricated from steel plate and forged alloy rims. The gear teeth are cut after the gear has been pressed on its shaft then finish turned to assure concentricity between pitch circle and shaft.

The final cutting of teeth is done slowly with freshly ground cutters for a superior finish. Final finish of teeth is done by lapping to insure perfect mating contact between tooth surfaces when such accuracy is required. When necessary finished gears are then carefully balanced.

## Integral Alloy Steel Pinions

Pinions are made integral with their shafts except for large pinion diameters for very low ratios. Material is heat treated alloy steel. Pinion shaft extensions are ground to the nominal dimensions depicted in the rating tables and can be modified to suit the customers particular application upon request.

## Custom Engineered Bearings

Bearings are carefully selected to satisfy each individual combination of speed, thrust and radial load imposed on a given gearset. Tapered roller bearings, solid roll straight type anti-friction bearings, and babbitted sleeve bearings are a few types frequently chosen to meet the wide range of Kreiter gearbox applications.

## Positive Lubrication System

The slow speed gear runs in an oil bath in the bottom of the housing which provides constant lubrication to the gear-mesh. This splash also supplies ample oil to the troughs on the inside of the cover, lubricating all bearings by gravity flow. Oil seals minimize oil loss and the entrance of dirt. The lubrication system is simple and positive as long as the correct lubricant level is maintained in the housing.

Pressurized lubrication is provided when required.

## How to Select a Kreiter Speed Reducer

1. Establish the known operating specifications:
  - a. Horsepower to be transmitted;
  - b. Speed of both input and output shafts, or the speed of one shaft and the gear ratio;
  - c. Type of prime mover;
  - d. Type of driven machine; and
  - e. Hours per day continuous operation
2. Determine the form of operational load (i.e. uniform, moderate, or heavy shock) characterized by the driven machinery. Use Table 1 on page 16.
3. Select the proper service factor from Table 2 on page 17. This requires knowing the type of driver and the duration of use.
4. Multiply the actual horsepower load to be transmitted by the service factor just selected to obtain the equivalent horsepower. If the maximum momentary or starting load is high it should be considered in determining the equivalent horsepower. Do this by dividing the maximum momentary or starting load by 2.0. The higher of the two values calculated should be used in making the selection.
5. Calculate the gear ratio (divide the high-speed shaft RPM by the low-speed shaft RPM).
6. Choose a reducer from the rating tables on pages 2, 3, 4, 5, 6 & 7. Opposite the high-speed shaft RPM and the required ratio, trace to the right and check the available Mechanical Horsepower until a unit size is found which meets or exceeds the equivalent horsepower calculated.
7. The thermal horsepower rating of the unit selected should be checked. If the thermal horsepower rating is less than the actual horsepower to be transmitted (without service factor) then either additional cooling capacity must be provided or a larger unit must be selected.
8. Obtain unit dimensional data from pages 8 & 9, and select a shaft configuration from page 10.

Our engineering department will be pleased to offer assistance—  
CALL (713) 237-9793

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# SINGLE REDUCTION RATING CHARTS

## PARALLEL SHAFT SPEED REDUCERS

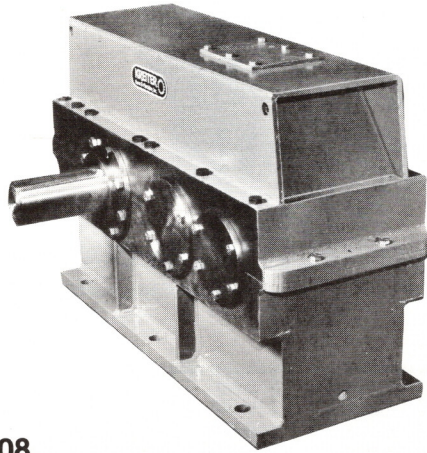
### MODEL 1006 SINGLE REDUCTION

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	1.84	1.85	950	551	157	36.6
	2.25	2.24	780	442	160	35.7
	2.76	2.75	640	446	163	44.1
	3.38	3.38	520	363	169	44.2
	4.13	4.12	420	287	187	42.5
	5.06	5.06	350	231	198	42.1
	6.20	6.19	280	176		39.3
	7.59	7.58	230	119		32.6
1430	1.84	1.85	780	476	210	38.7
	2.25	2.24	640	382	212	37.7
	2.76	2.75	520	383	214	46.4
	3.38	3.38	420	307	216	45.8
	4.13	4.12	350	245	230	44.5
	5.06	5.06	280	195		43.5
	6.20	6.19	230	150		41.0
	7.59	7.58	190	100		33.6
1170	1.84	1.85	640	416	262	41.4
	2.25	2.24	520	334	264	40.4
	2.76	2.75	420	325	269	48.1
	3.38	3.38	350	260		47.4
	4.13	4.12	280	207		46.0
	5.06	5.06	230	164		44.8
	6.20	6.19	190	126		42.2
	7.59	7.58	155	84		34.5
870	1.84	1.85	470	336		44.9
	2.25	2.24	390	269		43.7
	2.76	2.75	320	253		50.4
	3.38	3.38	260	205		50.2
	4.13	4.12	210	161		48.0
	5.06	5.06	170	127		46.6
	6.20	6.19	140	98		43.8
	7.59	7.58	115	65		35.7
720	1.84	1.85	390	293		47.3
	2.25	2.24	320	236		46.3
	2.76	2.75	260	214		51.5
	3.38	3.38	210	174		51.5
	4.13	4.12	175	135		48.6
	5.06	5.06	140	108		47.8
	6.20	6.19	115	83		44.8
	7.59	7.58	95	54		36.1
580	1.84	1.85	320	252		50.7
	2.25	2.24	260	204		49.8
	2.76	2.75	210	181		54.1
	3.38	3.38	170	144		52.8
	4.13	4.12	140	112		50.0
	5.06	5.06	115	89		49.0
	6.20	6.19	95	68		45.6
	7.59	7.58	75	44		36.5

### MODEL 1107 SINGLE REDUCTION

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	1.84	1.85	950	761	164	50.6
	2.25	2.22	780	736	167	58.7
	2.76	2.70	640	616	171	59.8
	3.38	3.31	520	484	179	57.6
	4.13	4.03	420	398	197	57.7
	5.06	5.03	350	300	210	54.4
	6.20	6.07	280	247	221	54.0
	7.59	7.35	230	166		44.0
1430	1.84	1.85	780	666	221	54.2
	2.25	2.22	640	639	223	62.5
	2.76	2.70	520	523	225	62.2
	3.38	3.31	420	424	230	61.7
	4.13	4.03	350	338	244	59.9
	5.06	5.03	280	256		56.8
	6.20	6.07	230	208		55.7
	7.59	7.35	190	140		45.4
1170	1.84	1.85	640	569	276	56.6
	2.25	2.22	520	544	281	65.0
	2.76	2.70	420	444	287	64.6
	3.38	3.31	350	359	292	63.9
	4.13	4.03	280	286		62.1
	5.06	5.03	230	216		58.6
	6.20	6.07	190	176		57.4
	7.59	7.35	155	118		46.6
870	1.84	1.85	470	464	370	62.0
	2.25	2.22	390	428	374	68.8
	2.76	2.70	320	347		67.9
	3.38	3.31	260	280		67.1
	4.13	4.03	210	222		64.7
	5.06	5.03	170	168		61.2
	6.20	6.07	140	136		59.7
	7.59	7.35	115	91		48.4
720	1.84	1.85	390	407		65.7
	2.25	2.22	320	363		70.5
	2.76	2.70	260	296		69.9
	3.38	3.31	210	237		68.7
	4.13	4.03	175	188		66.2
	5.06	5.03	140	141		62.0
	6.20	6.07	115	115		61.1
	7.59	7.35	95	77		49.5
580	1.84	1.85	320	350		70.1
	2.25	2.22	260	303		73.1
	2.76	2.70	210	246		72.2
	3.38	3.31	170	198		71.1
	4.13	4.03	140	155		67.8
	5.06	5.03	115	117		64.0
	6.20	6.07	95	96		63.2
	7.59	7.35	75	63		50.2

\*Thermal horsepower listed only when  
lower than mechanical horsepower.



**MODEL 1208  
SINGLE REDUCTION**

**MODEL 1408  
SINGLE REDUCTION**

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	1.84	1.83	950	914	198	60.3
	2.25	2.24	780	794	203	64.0
	2.76	2.76	640	707	209	70.3
	3.38	3.29	520	562	218	66.5
	4.13	4.05	420	498	244	72.7
	5.06	4.97	350	389	260	69.6
	6.20	6.06	280	318	275	69.4
7.59	7.45	230	204		54.9	
1430	1.84	1.83	780	771	274	62.2
	2.25	2.24	640	692	279	68.2
	2.76	2.76	520	614	281	74.7
	3.38	3.29	420	497	284	72.1
	4.13	4.05	350	430	305	76.7
	5.06	4.97	280	329	320	72.0
	6.20	6.06	230	271		72.3
7.59	7.45	190	171		56.1	
1170	1.84	1.83	640	697	343	68.8
	2.25	2.24	520	602	350	72.5
	2.76	2.76	420	533	357	79.3
	3.38	3.29	350	439	364	77.8
	4.13	4.05	280	367		80.1
	5.06	4.97	230	285		76.4
	6.20	6.06	190	227		73.9
7.59	7.45	155	142		56.9	
870	1.84	1.83	470	560	462	74.4
	2.25	2.24	390	488	466	79.0
	2.76	2.76	320	434		86.8
	3.38	3.29	260	356		84.8
	4.13	4.05	210	282		82.7
	5.06	4.97	170	225		81.1
	6.20	6.06	140	175		76.9
7.59	7.45	115	108		58.0	
720	1.84	1.83	390	494		79.3
	2.25	2.24	320	425		83.3
	2.76	2.76	260	377		91.2
	3.38	3.29	210	309		88.9
	4.13	4.05	175	241		85.3
	5.06	4.97	140	189		82.2
	6.20	6.06	115	148		78.4
7.59	7.45	95	90		58.7	
580	1.84	1.83	320	422		84.1
	2.25	2.24	260	365		88.7
	2.76	2.76	210	325		97.4
	3.38	3.29	170	256		91.5
	4.13	4.05	140	208		91.7
	5.06	4.97	115	159		86.1
	6.20	6.06	95	121		79.4
7.59	7.45	75	73		59.4	

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	1.84	1.79	950	1575	226	101.6
	2.25	2.27	780	1241	232	101.2
	2.76	2.76	640	1101	240	109.5
	3.38	3.38	520	952	253	115.8
	4.13	4.03	420	760	284	110.1
	5.06	5.06	350	597	304	108.7
	6.20	6.18	280	445	323	99.0
7.59	7.48	230	308		82.9	
1430	1.84	1.79	780	1359	317	107.3
	2.25	2.27	640	1074	323	107.1
	2.76	2.76	520	954	329	116.1
	3.38	3.38	420	824	335	122.7
	4.13	4.03	350	645	359	114.4
	5.06	5.06	280	514	377	114.4
	6.20	6.18	230	379		103.2
7.59	7.48	190	260		85.6	
1170	1.84	1.79	640	1180	416	113.9
	2.25	2.27	520	935	420	114.0
	2.76	2.76	420	832	424	123.7
	3.38	3.38	350	717	432	130.6
	4.13	4.03	280	545	448	118.1
	5.06	5.06	230	434		118.3
	6.20	6.18	190	318		105.8
7.59	7.48	155	219		88.3	
870	1.84	1.79	470	954	563	123.8
	2.25	2.27	390	756	569	124.0
	2.76	2.76	320	673	574	134.5
	3.38	3.38	260	562		137.7
	4.13	4.03	210	428		124.9
	5.06	5.06	170	318		116.6
	6.20	6.18	140	249		111.4
7.59	7.48	115	170		91.9	
720	1.84	1.79	390	838	657	131.4
	2.25	2.27	320	661		131.1
	2.76	2.76	260	588		142.1
	3.38	3.38	210	479		141.7
	4.13	4.03	175	373		131.6
	5.06	5.06	140	287		127.1
	6.20	6.18	115	210		113.6
7.59	7.48	95	144		94.1	
580	1.84	1.79	320	595		115.9
	2.25	2.27	260	571		140.5
	2.76	2.76	210	500		150.0
	3.38	3.38	170	397		145.9
	4.13	4.03	140	315		137.6
	5.06	5.06	115	236		129.9
	6.20	6.18	95	174		116.9
7.59	7.48	75	119		96.5	

\*Thermal horsepower listed only when lower than mechanical horsepower.

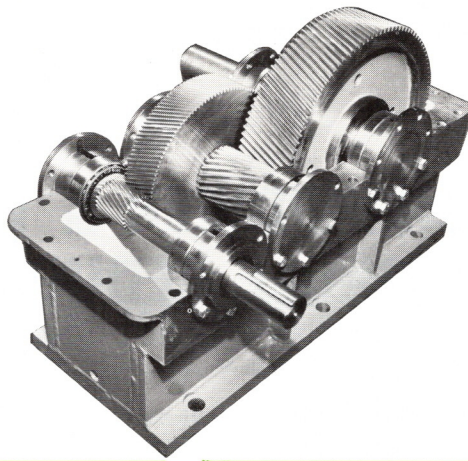
# DOUBLE REDUCTION RATING CHART

## PARALLEL SHAFT SPEED REDUCERS

MODEL 1006 DOUBLE REDUCTION						
HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	9.30	9.30	190	160	68	53.7
	11.39	11.38	155	134	70	54.7
	13.95	13.98	125	103	73	51.8
	17.09	17.07	100	81	74	49.7
	20.93	20.99	84	78	77	59.2
	25.63	25.65	68	59		54.3
	31.39	31.44	56	51		57.6
	38.44	38.40	45	41		56.5
	47.08	46.94	37	30		50.7
1430	9.30	9.30	155	134	98	55.0
	11.39	11.38	125	112	101	56.1
	13.95	13.98	100	86		53.0
	17.09	17.07	84	68		50.8
	20.93	20.99	68	64		58.9
	25.63	25.65	56	48		54.6
	31.39	31.44	45	43		59.2
	38.44	38.40	37	34		57.4
	47.08	46.94	30	25		52.0
1170	9.30	9.30	125	114		57.1
	11.39	11.38	100	95		58.0
	13.95	13.98	84	71		53.3
	17.09	17.07	68	57		52.5
	20.93	20.99	56	54		61.4
	25.63	25.65	45	41		56.6
	31.39	31.44	37	37		62.6
	38.44	38.40	30	28		57.8
	47.08	46.94	25	21		53.3
870	9.30	9.30	95	88		59.1
	11.39	11.38	77	72		59.8
	13.95	13.98	62	55		55.5
	17.09	17.07	50	43		53.4
	20.93	20.99	42	41		62.1
	25.63	25.65	34	30		55.8
	31.39	31.44	28	28		63.9
	38.44	38.40	22	21		57.3
	47.08	46.94	18	16		53.6
720	9.30	9.30	77	68		55.2
	11.39	11.38	62	55		55.2
	13.95	13.98	50	44		53.7
	17.09	17.07	42	36		53.8
	20.93	20.99	34	29		53.3
	25.63	25.65	28	24		52.9
	31.39	31.44	22	20		55.3
	38.44	38.40	18	17		57.3
	47.08	46.94	15	14		56.9
580	9.30	9.30	62	56		57.1
	11.39	11.38	50	44		54.5
	13.95	13.98	42	37		56.5
	17.09	17.07	34	29		54.2
	20.93	20.99	28	24		54.7
	25.63	25.65	22	20		55.2
	31.39	31.44	18	17		57.4
	38.44	38.40	15	14		58.3
	47.08	46.94	12	11		55.5

MODEL 1107 DOUBLE REDUCTION						
HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	9.30	9.11	190	208	77	68.2
	11.39	10.98	155	168	79	66.3
	13.95	13.50	125	143	82	69.4
	17.09	17.07	100	118	83	72.3
	20.93	20.56	84	97	86	71.6
	25.63	24.99	68	81		72.8
	31.39	30.14	56	66		71.6
	38.44	36.97	45	57		75.6
	47.08	45.93	37	41		67.8
1430	9.30	9.11	155	175	110	70.1
	11.39	10.98	125	141	113	68.2
	13.95	13.50	100	119	116	71.0
	17.09	17.07	84	99		74.1
	20.93	20.56	68	81		73.5
	25.63	24.99	56	67		73.4
	31.39	30.14	45	55		72.9
	38.44	36.97	37	47		76.1
	47.08	45.93	30	34		68.8
1170	9.30	9.11	125	147	145	72.1
	11.39	10.98	100	119		70.6
	13.95	13.50	84	101		73.1
	17.09	17.07	68	82		75.3
	20.93	20.56	56	67		74.1
	25.63	24.99	45	56		75.6
	31.39	30.14	37	45		72.6
	38.44	36.97	30	39		77.2
	47.08	45.93	25	28		69.7
870	9.30	9.11	95	114		75.0
	11.39	10.98	77	91		72.0
	13.95	13.50	62	77		75.0
	17.09	17.07	50	63		78.1
	20.93	20.56	42	51		75.8
	25.63	24.99	34	43		77.7
	31.39	30.14	28	35		76.3
	38.44	36.97	22	29		77.3
	47.08	45.93	18	21		70.9
720	9.30	9.11	77	96		76.4
	11.39	10.98	62	77		73.7
	13.95	13.50	50	62		73.8
	17.09	17.07	42	50		74.2
	20.93	20.56	34	41		73.3
	25.63	24.99	28	35		76.2
	31.39	30.14	22	28		73.6
	38.44	36.97	18	23		74.3
	47.08	45.93	15	18		71.7
580	9.30	9.11	62	79		78.2
	11.39	10.98	50	63		74.7
	13.95	13.50	42	50		73.5
	17.09	17.07	34	41		76.4
	20.93	20.56	28	34		76.1
	25.63	24.99	22	28		75.8
	31.39	30.14	18	23		75.1
	38.44	36.97	15	19		75.8
	47.08	45.93	12	15		72.4

\*Thermal horsepower listed only when  
lower than mechanical horsepower.



**MODEL 1208  
DOUBLE REDUCTION**

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	9.30	8.93	190	274	99	88.2
	11.39	11.13	155	230	102	92.2
	13.95	13.81	125	187	106	92.9
	17.09	16.76	100	159	108	96.0
	20.93	20.18	84	129	112	93.9
	25.63	25.05	68	108		97.1
	31.39	30.91	56	91		101.6
	38.44	38.07	45	67		91.7
	47.08	45.50	37	52		85.0
1430	9.30	8.93	155	236	143	93.0
	11.39	11.13	125	193	146	94.5
	13.95	13.81	100	160	150	97.6
	17.09	16.76	84	132		97.2
	20.93	20.18	68	109		96.8
	25.63	25.05	56	88		97.6
	31.39	30.91	45	75		102.6
	38.44	38.07	37	55		92.4
	47.08	45.50	30	43		86.3
1170	9.30	8.93	125	207	187	99.4
	11.39	11.13	100	163		97.5
	13.95	13.81	84	134		99.5
	17.09	16.76	68	110		99.3
	20.93	20.18	56	90		97.7
	25.63	25.05	45	75		101.5
	31.39	30.91	37	64		105.8
	38.44	38.07	30	45		93.1
	47.08	45.50	25	36		87.5
870	9.30	8.93	95	161		104.0
	11.39	11.13	77	126		101.3
	13.95	13.81	62	102		101.9
	17.09	16.76	50	85		102.6
	20.93	20.18	42	69		100.3
	25.63	25.05	34	58		104.3
	31.39	30.91	28	48		106.9
	38.44	38.07	22	34		94.0
	47.08	45.50	18	27		89.1
720	9.30	8.93	77	133		104.1
	11.39	11.13	62	106		103.2
	13.95	13.81	50	87		104.6
	17.09	16.76	42	71		103.4
	20.93	20.18	34	58		101.6
	25.63	25.05	28	48		104.5
	31.39	30.91	22	40		109.2
	38.44	38.07	18	28		94.6
	47.08	45.50	15	23		90.1
580	9.30	8.93	62	110		107.1
	11.39	11.13	50	87		105.2
	13.95	13.81	42	70		105.5
	17.09	16.76	34	59		107.0
	20.93	20.18	28	47		103.3
	25.63	25.05	22	39		107.4
	31.39	30.91	18	33		111.6
	38.44	38.07	15	23		95.1
	47.08	45.50	12	18		91.1

**MODEL 1408  
DOUBLE REDUCTION**

HIGH SPEED SHAFT RPM	AGMA RATIO	ACTUAL RATIO	NOMINAL LOW SPEED SHAFT RPM	MECH. H.P. RATING	THERMAL H.P. RATING*	TORQUE RATING IN 1000 INCH POUNDS L.S.S.
1750	9.30	9.10	190	379	135	124.3
	11.39	11.07	155	319	139	127.2
	13.95	13.56	125	266	144	130.1
	17.09	16.88	100	219	147	133.3
	20.93	20.35	84	184	152	134.8
	25.63	24.77	68	154		137.1
	31.39	30.26	56	126		136.9
	38.44	37.78	45	106		143.7
	47.08	45.44	37	79		129.4
1430	9.30	9.10	155	328	194	131.6
	11.39	11.07	125	271	199	132.3
	13.95	13.56	100	222	205	132.9
	17.09	16.88	84	179		133.3
	20.93	20.35	68	154		137.9
	25.63	24.77	56	128		139.9
	31.39	30.26	45	104		138.5
	38.44	37.78	37	88		146.2
	47.08	45.44	30	65		130.5
1170	9.30	9.10	125	288	255	141.1
	11.39	11.07	100	228		136.2
	13.95	13.56	84	187		136.7
	17.09	16.88	68	152		138.5
	20.93	20.35	56	128		140.7
	25.63	24.77	45	106		141.4
	31.39	30.26	37	86		139.9
	38.44	37.78	30	74		150.6
	47.08	45.44	25	53		130.5
870	9.30	9.10	95	226		149.1
	11.39	11.07	77	178		143.0
	13.95	13.56	62	144		141.1
	17.09	16.88	50	118		143.7
	20.93	20.35	42	98		144.5
	25.63	24.77	34	81		146.1
	31.39	30.26	28	65		143.2
	38.44	37.78	22	56		153.8
	47.08	45.44	18	41		133.7
720	9.30	9.10	77	192		152.9
	11.39	11.07	62	149		144.4
	13.95	13.56	50	122		144.7
	17.09	16.88	42	99		146.2
	20.93	20.35	34	82		146.8
	25.63	24.77	28	68		148.3
	31.39	30.26	22	55		146.2
	38.44	37.78	18	45		147.3
	47.08	45.44	15	34		135.4
580	9.30	9.10	62	157		155.7
	11.39	11.07	50	121		145.9
	13.95	13.56	42	100		147.2
	17.09	16.88	34	81		148.8
	20.93	20.35	28	68		149.2
	25.63	24.77	22	56		151.7
	31.39	30.26	18	44		146.2
	38.44	37.78	15	37		153.7
	47.08	45.44	12	28		136.2

\*Thermal horsepower listed only when lower than mechanical horsepower.

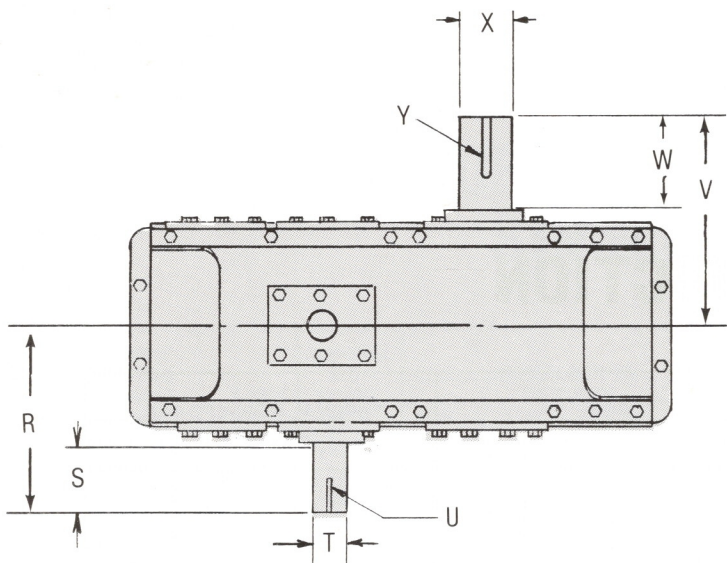
# HORSEPOWER & TORQUE SINGLE REDUCTION

HIGH SPEED SHAFT RPM	AGMA RATIO	NOMINAL L.S. SHAFT RPM	HORSEPOWER				TORQUE				THERMAL HORSEPOWER			
			UNIT SIZE				UNIT SIZE				UNIT SIZE			
			1006	1107	1208	1408	1006	1107	1208	1408	1006	1107	1208	1408
1750	1.84	950	551	761	914	1575	36.6	50.6	60.3	101.6	157	164	198	226
	2.25	780	442	736	794	1241	35.7	58.7	64.0	101.2	160	167	203	232
	2.76	640	446	616	707	1101	44.1	59.8	70.3	109.5	163	171	209	240
	3.38	520	363	484	562	952	44.2	57.6	66.5	115.8	169	179	218	253
	4.13	420	287	398	498	760	42.5	57.7	72.7	110.1	187	197	244	284
	5.06	350	231	300	389	597	42.1	54.4	69.6	108.7	198	210	260	304
	6.20	280	176	247	318	445	39.3	54.0	69.4	99.0		221	275	323
	7.59	230	119	166	204	308	32.6	44.0	54.9	82.9				
1430	1.84	780	476	666	771	1359	38.7	54.2	62.2	107.3	210	221	274	317
	2.25	640	382	639	692	1074	37.7	62.5	68.2	107.1	212	223	279	323
	2.76	520	383	523	614	954	46.4	62.2	74.7	116.1	214	225	281	329
	3.38	420	307	424	497	824	45.8	61.7	72.1	122.7	216	230	284	335
	4.13	350	245	338	430	645	44.5	59.9	76.7	114.4	230	244	305	359
	5.06	280	195	256	329	514	43.5	56.8	72.0	114.4			320	377
	6.20	230	150	208	271	379	41.0	55.7	72.3	103.2				
	7.59	190	100	140	171	260	33.6	45.4	56.1	85.6				
1170	1.84	640	416	569	697	1180	41.4	56.6	68.8	113.9	262	276	343	416
	2.25	520	334	544	602	935	40.4	65.0	72.5	114.0	264	281	350	420
	2.76	420	325	444	533	832	48.1	64.6	79.3	123.7	269	287	357	424
	3.38	350	260	359	439	717	47.4	63.9	77.8	130.6		292	364	432
	4.13	280	207	286	367	545	46.0	62.1	80.1	118.1				448
	5.06	230	164	216	285	434	44.8	58.6	76.4	118.3				
	6.20	190	126	176	227	318	42.2	57.4	73.9	105.8				
	7.59	155	84	118	142	219	34.5	46.6	56.9	88.3				
870	1.84	470	336	464	560	954	44.9	62.0	74.4	123.8		370	462	563
	2.25	390	269	428	488	756	43.7	68.8	79.0	124.0		374	466	569
	2.76	320	253	347	434	673	50.4	67.9	86.8	134.5				574
	3.38	260	205	280	356	562	50.2	67.1	84.8	137.7				
	4.13	210	161	222	282	428	48.0	64.7	82.7	124.9				
	5.06	170	127	168	225	318	46.6	61.2	81.1	116.6				
	6.20	140	98	136	175	249	43.8	59.7	76.9	111.4				
	7.59	115	65	91	108	170	35.7	48.4	58.0	91.9				
720	1.84	390	293	407	494	838	47.3	65.7	79.3	131.4				657
	2.25	320	236	363	425	661	46.3	70.5	83.3	131.1				
	2.76	260	214	296	377	588	51.5	69.9	91.2	142.1				
	3.38	210	174	237	309	479	51.5	68.7	88.9	141.7				
	4.13	175	135	188	241	373	48.6	66.2	85.3	131.6				
	5.06	140	108	141	189	287	47.8	62.0	82.2	127.1				
	6.20	115	83	115	148	210	44.8	61.1	78.4	113.6				
	7.59	95	54	77	90	144	36.1	49.5	58.7	94.1				
580	1.84	320	252	350	422	595	50.7	70.1	84.1	115.9				
	2.25	260	204	303	365	571	49.8	73.1	88.7	140.5				
	2.76	210	181	246	325	500	54.1	72.2	97.4	150.0				
	3.38	170	144	198	256	397	52.8	71.1	91.5	145.9				
	4.13	140	112	155	208	315	50.0	67.8	91.7	137.6				
	5.06	115	89	117	159	236	49.0	64.0	86.1	129.9				
	6.20	95	68	96	121	174	45.6	63.2	79.4	116.9				
	7.59	75	44	63	73	119	36.5	50.2	59.4	96.5				

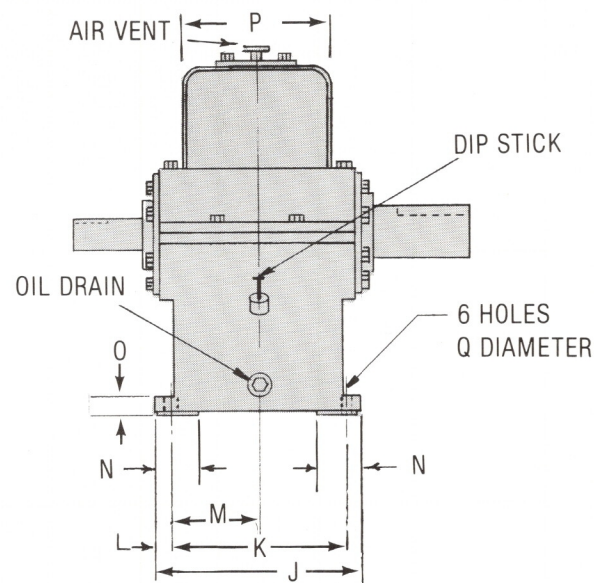
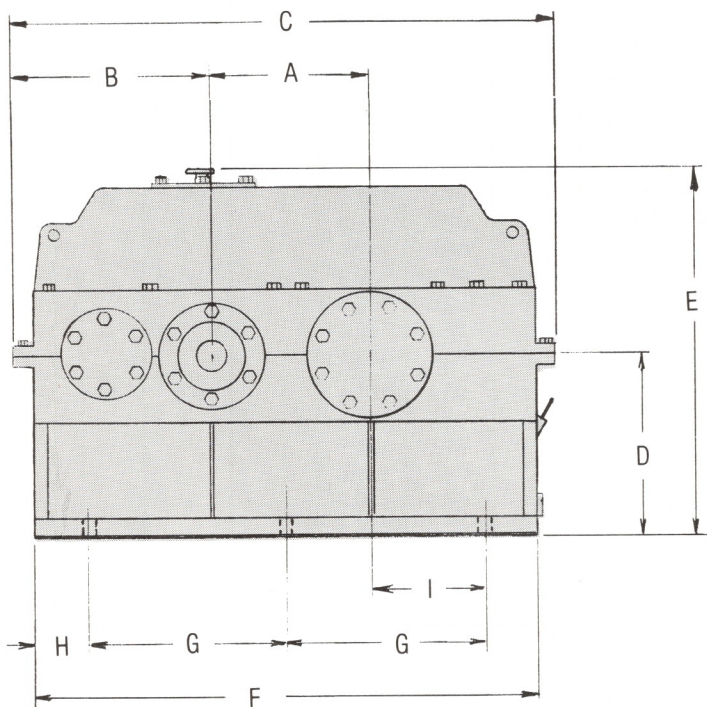


# DOUBLE REDUCTION

HIGH SPEED SHAFT RPM	AGMA RATIO	NOMINAL L.S. SHAFT RPM	HORSEPOWER				TORQUE				THERMAL HORSEPOWER			
			UNIT SIZE				UNIT SIZE				UNIT SIZE			
			1006	1107	1208	1408	1006	1107	1208	1408	1006	1107	1208	1408
1750	9.30	190	160	208	274	379	53.7	68.2	88.2	124.3	68	77	99	135
	11.39	155	134	168	230	319	54.7	66.3	92.2	127.2	70	79	102	139
	13.95	125	103	143	187	266	51.8	69.4	92.9	130.1	73	82	106	144
	17.09	100	81	118	159	219	49.7	72.3	96.0	133.3	74	83	108	147
	20.93	84	78	97	129	184	59.2	71.6	93.9	134.8	77	86	112	152
	25.63	68	59	81	108	154	54.3	72.8	97.1	137.1				
	31.39	56	51	66	91	126	57.6	71.6	101.6	136.9				
	38.44	45	41	57	67	106	56.5	75.6	91.7	143.7				
47.08	37	30	41	52	79	50.7	67.8	85.0	129.4					
1430	9.30	155	134	175	236	328	55.0	70.1	93.0	131.6	98	110	143	194
	11.39	125	112	141	193	271	56.1	68.2	94.5	132.3	101	113	146	199
	13.95	100	86	119	160	222	53.0	71.0	97.6	132.9		116	150	205
	17.09	84	68	99	132	179	50.8	74.1	97.2	133.3				
	20.93	68	64	81	109	154	58.9	73.5	96.8	137.9				
	25.63	56	48	67	88	128	54.6	73.4	97.6	139.9				
	31.39	45	43	55	75	104	59.2	72.9	102.6	138.5				
	38.44	37	34	47	55	88	57.4	76.1	92.4	146.2				
47.08	30	25	34	43	65	52.0	68.8	86.3	130.5					
1170	9.30	125	114	147	207	288	57.1	72.1	99.4	141.1		145	187	255
	11.39	100	95	119	163	228	58.0	70.6	97.5	136.2				
	13.95	84	71	101	134	187	53.3	73.1	99.5	136.7				
	17.09	68	57	82	110	152	52.5	75.3	99.3	138.5				
	20.93	56	54	67	90	128	61.4	74.1	97.7	140.7				
	25.63	45	41	56	75	106	56.6	75.6	101.5	141.4				
	31.39	37	37	45	64	86	62.6	72.6	105.8	139.9				
	38.44	30	28	39	45	74	57.8	77.2	93.1	150.6				
47.08	25	21	28	36	53	53.3	69.7	87.5	130.5					
870	9.30	95	88	114	161	226	59.1	75.0	104.0	149.1				
	11.39	77	72	91	126	178	59.8	72.0	101.3	143.0				
	13.95	62	55	77	102	144	55.5	75.0	101.9	141.1				
	17.09	50	43	63	85	118	53.4	78.1	102.6	143.7				
	20.93	42	41	51	69	98	62.1	75.8	100.3	144.5				
	25.63	34	30	43	58	81	55.8	77.7	104.3	146.1				
	31.39	28	28	35	48	65	63.9	76.3	106.9	143.2				
	38.44	22	21	29	34	56	57.3	77.3	94.0	153.8				
47.08	18	16	21	27	41	53.6	70.9	89.1	133.7					
720	9.30	77	68	96	133	192	55.2	76.4	104.1	152.9				
	11.39	62	55	77	106	149	55.2	73.7	103.2	144.4				
	13.95	50	44	62	87	122	53.7	73.8	104.6	144.7				
	17.09	42	36	50	71	99	53.8	74.2	103.4	146.2				
	20.93	34	29	41	58	82	53.3	73.3	101.6	146.8				
	25.63	28	24	35	48	68	52.9	76.2	104.5	148.3				
	31.39	22	20	28	40	55	55.3	73.6	109.2	146.2				
	38.44	18	17	23	28	45	57.3	74.3	94.6	147.3				
47.08	15	14	18	23	34	56.9	71.7	90.1	135.4					
580	9.30	62	56	79	110	157	57.1	78.2	107.1	155.7				
	11.39	50	44	63	87	121	54.5	74.7	105.2	145.9				
	13.95	42	37	50	70	100	56.5	73.5	105.5	147.2				
	17.09	34	29	41	59	81	54.2	76.4	107.0	148.8				
	20.93	28	24	34	47	68	54.7	76.1	103.3	149.2				
	25.63	22	20	28	39	56	55.2	75.8	107.4	151.7				
	31.39	18	17	23	33	44	57.4	75.1	111.6	146.2				
	38.44	15	14	19	23	37	58.3	75.8	95.1	153.7				
47.08	12	11	15	18	28	55.5	72.4	91.1	136.2					



# Single Reduction



**GENERAL DIMENSIONS  
SINGLE REDUCTION GEAR REDUCERS**

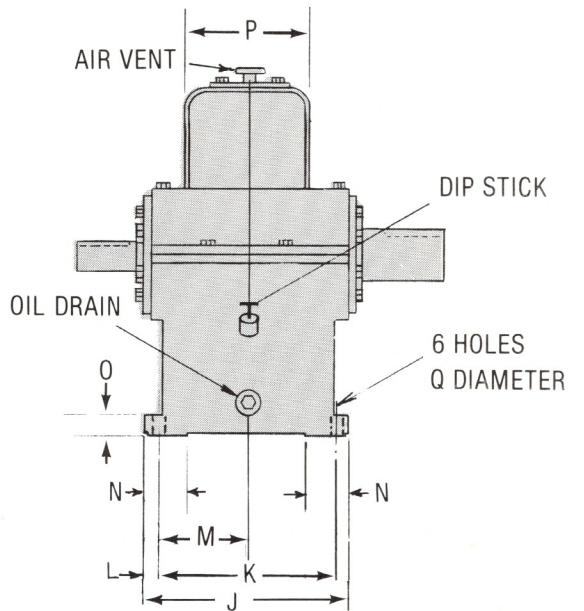
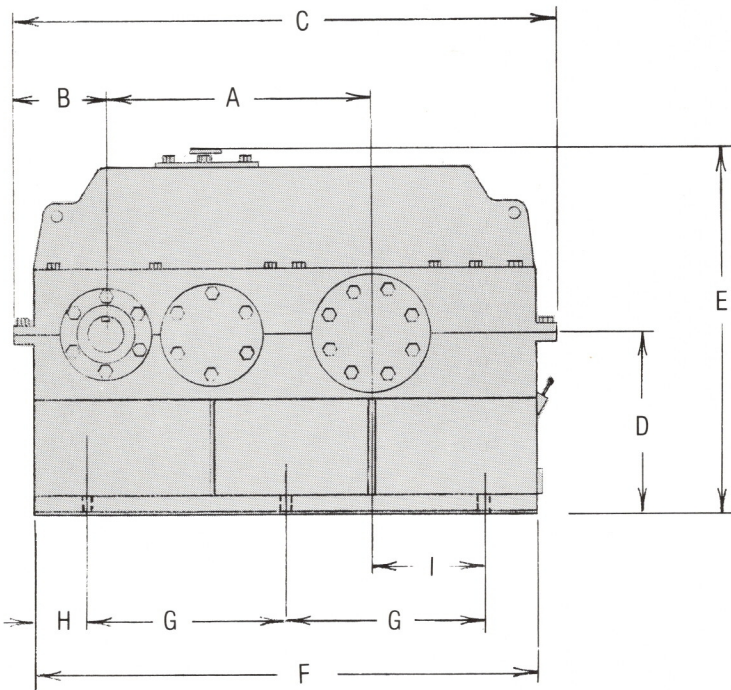
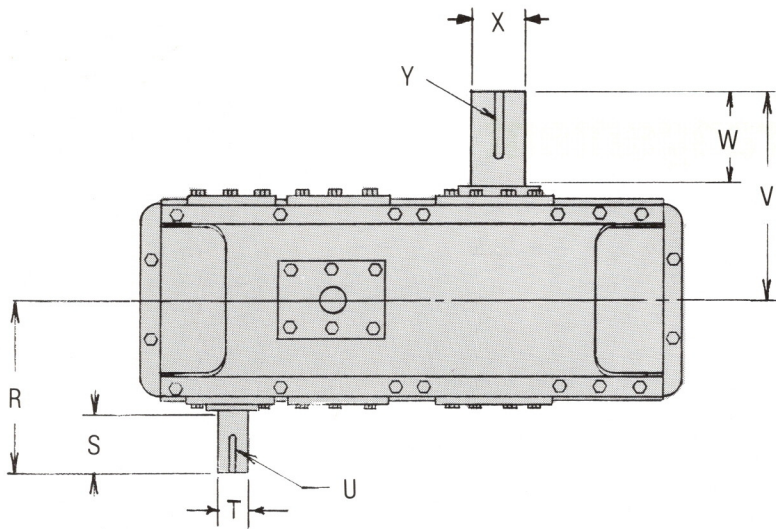
UNIT SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1006	10	13	36	12	23	31 1/2	12	3 3/4	7	17	14	1 1/2	7	5
1107	11	14 1/2	39 1/2	13	23	35	13 1/2	4	7 3/4	17	14	1 1/2	7	5
1208	12	15 3/4	42 1/2	13 3/4	27 1/2	38	15	4	8 1/2	21	18	1 1/2	9	5
1408	14	16	46 3/4	15	30	42 1/4	16 1/4	5	10	22 1/2	19 1/2	1 1/2	9 3/4	5 1/2

UNIT SIZE	O	P	Q	R	H.S. SHAFT			V	W	X	L.S. SHAFT
					S	T	U				Y
1006	1 1/4	12 1/4	1 1/8	13 3/4	4 3/4	2 1/4*	1/2 X 1/4 X 4	15 1/4	6	3 1/2	7/8 X 7/16 X 5
1107	1 1/4	12 1/4	1 1/8	14	5	2 **	1/2 X 1/4 X 4	16 1/4	7	4	1 X 1/2 X 6
						2 1/2*	5/8 X 5/16 X 4				
1208	1 1/2	14 1/4	1 1/4	15 1/2	5 1/2	2 1/4**	1/2 X 1/4 X 4	18	7 3/4	4 1/2	1 X 1/2 X 7
						2 3/4	5/8 X 5/16 X 4 1/2				
1408	1 1/2	15 3/4	1 1/4	17	6	3	3/4 X 3/8 X 5	20	8 3/4	5	1 1/4 X 5/8 X 7 1/2

\*1.84 thru 5.06 Ratios  
\*\*6.20 and 7.59 Ratios

NOTE: Shaft diameters under 3 inches are held to +0.0000, -0.0005 inch tolerance.  
Shaft diameters 3 inches and over are held to +0.000, -0.001 inch tolerance

# Double Reduction



GENERAL DIMENSIONS  
DOUBLE REDUCTION GEAR REDUCERS

UNIT SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1006	16	7	36	12	23	31 1/2	12	3 3/4	7	17	14	1 1/2	7	5
1107	18 1/2	7	39 1/2	13	23	35	13 1/2	4	7 3/4	17	14	1 1/2	7	5
1208	20	7 3/4	42 1/2	13 3/4	27 1/2	38	15	4	8 1/2	21	18	1 1/2	9	5
1408	22 3/4	7 1/4	46 3/4	15	30	42 1/4	16 1/4	5	10	22 1/2	19 1/2	1 1/2	9 3/4	5 1/2

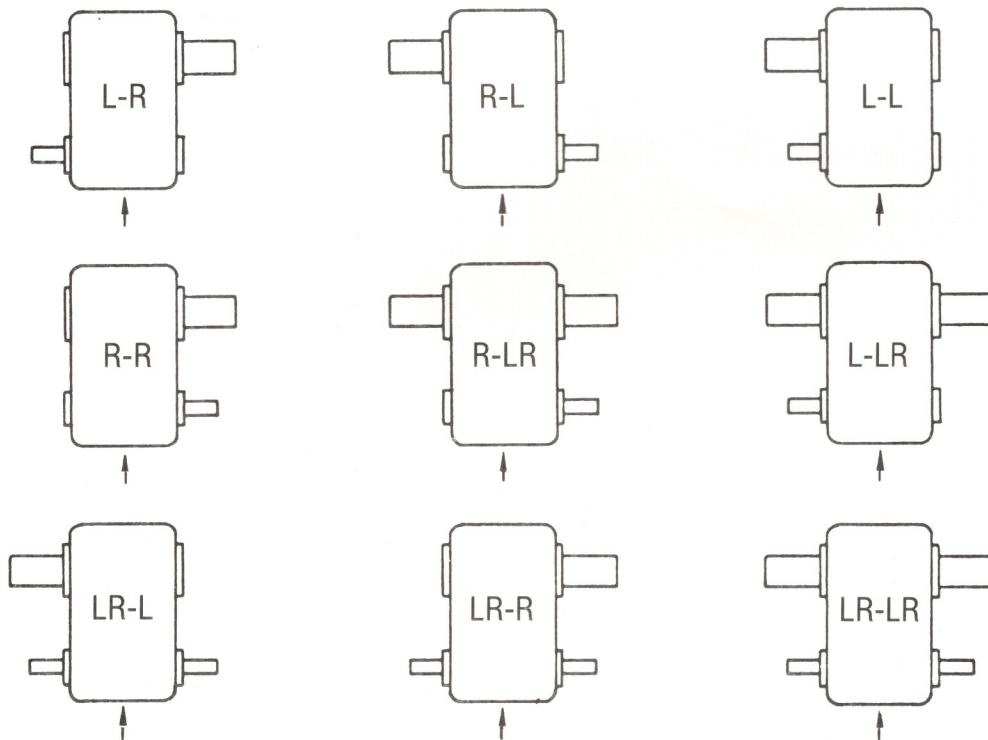
UNIT SIZE	O	P	Q	R	S	T	H.S. SHAFT		V	W	X	L.S. SHAFT	
							U	Y					
1006	1 1/4	12 1/4	1 1/8	12 3/4	3 3/4	1 3/4* 1 1/4**	3/8 X 3/16 X 3 1/4 X 1/8 X 3	15 1/4	6	3 1/2	7/8 X 7/16 X 5		
1107	1 1/4	12 1/4	1 1/8	13 1/4	4 1/4	2* 1 3/4**	1/2 X 1/4 X 3 1/2 3/8 X 3/16 X 3 1/2	16 1/4	7	4	1 X 1/2 X 6		
1208	1 1/2	14 1/4	1 1/4	14 3/4	4 3/4	2 1/4* 2**	1/2 X 1/4 X 4 1/2 X 1/4 X 4	18	7 3/4	4 1/2	1 X 1/2 X 7		
1408	1 1/2	15 3/4	1 1/4	16	5	2 1/2* 2 1/4**	5/8 X 5/16 X 4 1/2 X 1/4 X 4	20	8 3/4	5	1 1/4 X 5/8 X 7 1/2		

\*9.3 thru 31.39 Ratios  
\*\*38.44 and 47.08 Ratios

NOTE: Shaft diameters under 3 inches are held to +0.0000, -0.0005 inch tolerance.  
Shaft diameters 3 inches and over are held to +0.000, -0.001 inch tolerance

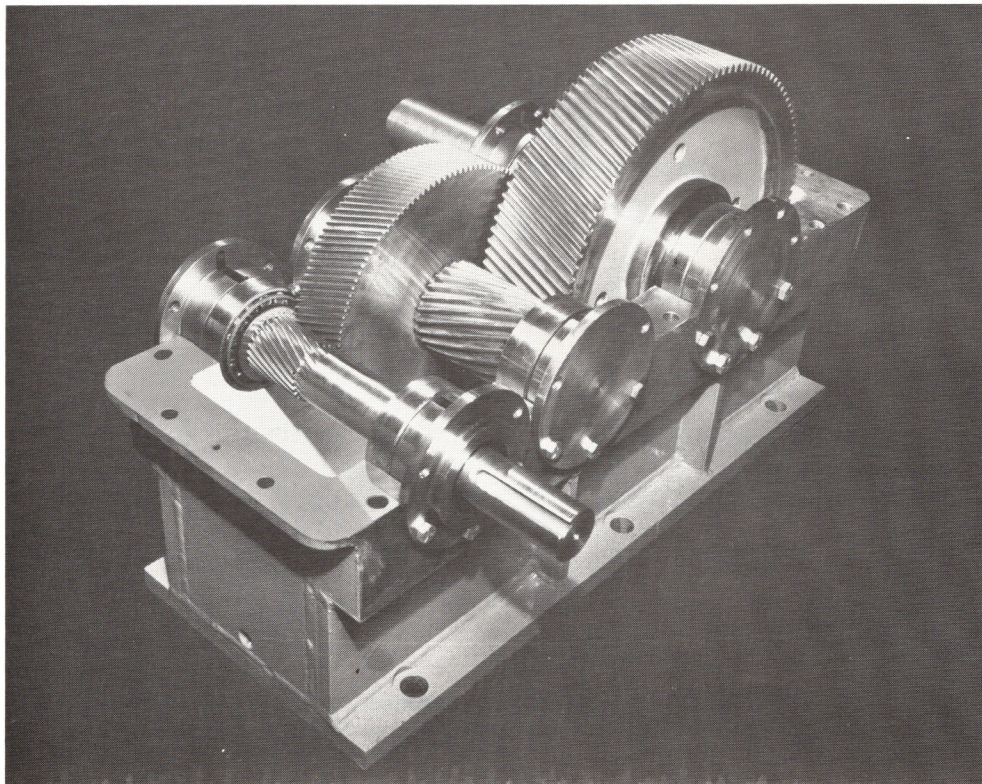
# Shaft Arrangement

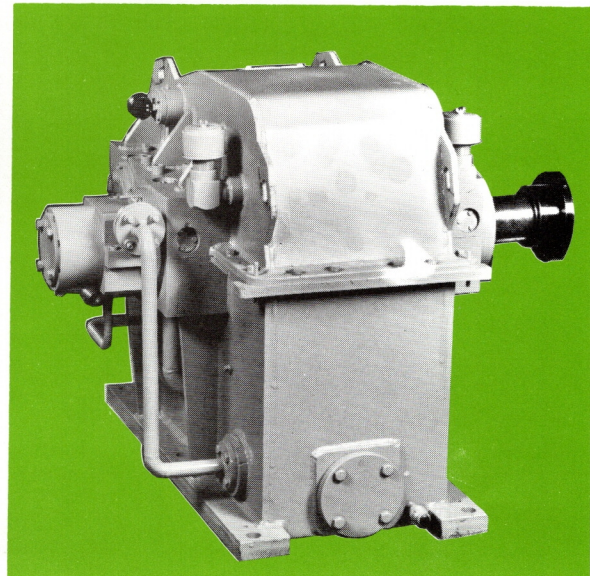
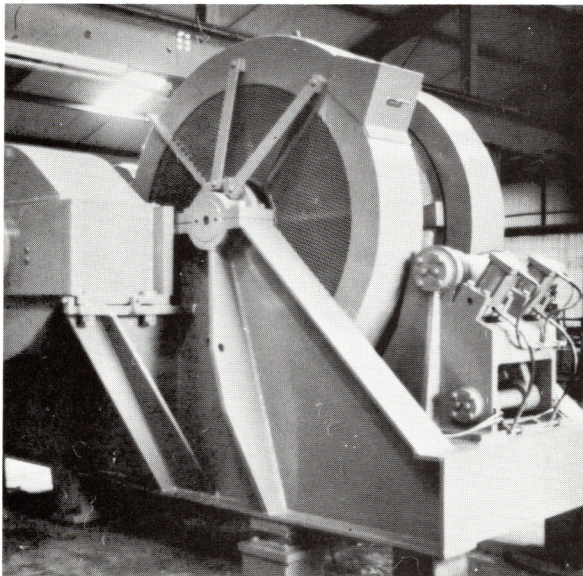
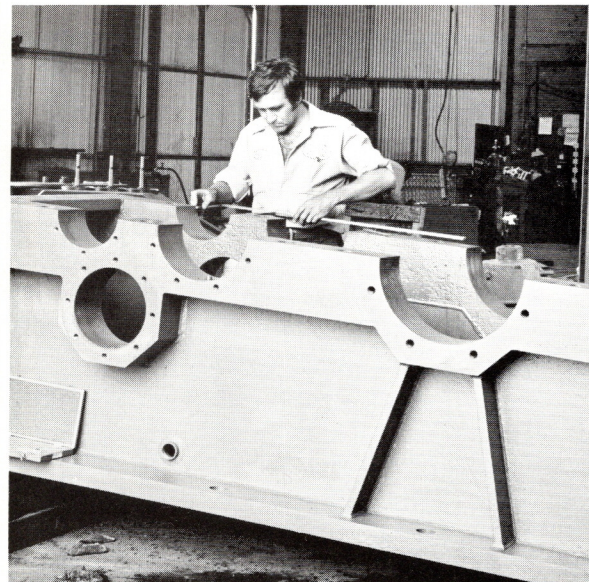
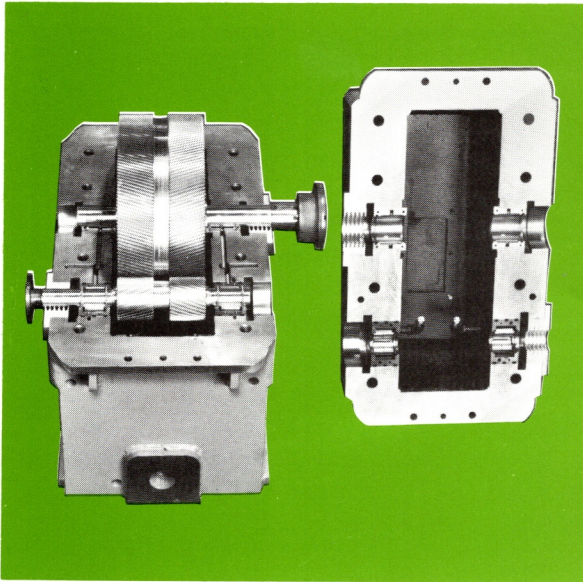
TYPE — SINGLE REDUCTION — DOUBLE REDUCTION



**NOTES:**

1. Code: L = Left; R = Right.
2. Arrows indicate line of sight to determine direction of shaft extensions.
3. Letters preceding the hyphen refer to number and direction of high-speed shaft extensions.
4. Letters following the hyphen refer to number and direction of low-speed shaft extensions.





## **Custom Kreiter Gear Box Units** “Made to Order” solutions for nonstandard needs

Kreiter recognizes that the technological needs for gearboxes are broadly diversified. Frequently, these needs require a nonstandard unit.

To meet these applications, Kreiter's engineering staff utilizes advanced computer optimizing techniques to design power transmission reducers/or increasers to your specifications. These special units are balanced, tested, stamped for certification and shipped to you ready for immediate installation—normally within 12 to 18 weeks.

Over half a century of custom gear manufacturing provides the background and expertise demanded on such new applications. Kreiter's proven systems for custom projects have been of service to major companies throughout many industries—just some of which include: sugar mills, oil industry, paper mills, mining equipment, machine tool manufacturing, petro-chemical industry, and printing equipment.

Through Kreiter's experience and engineering excellence, we can offer you the “Custom Unit” capability beyond the standard line.

# Kreiter's Gear Manufacturing

For seventy-plus years Kreiter has provided industry with custom cut gears and replacement sprockets. Today, the capacity exists at Kreiter for producing a wide variety of gear types and sizes (some as large as 20 foot in diameter) for almost every application you might have.

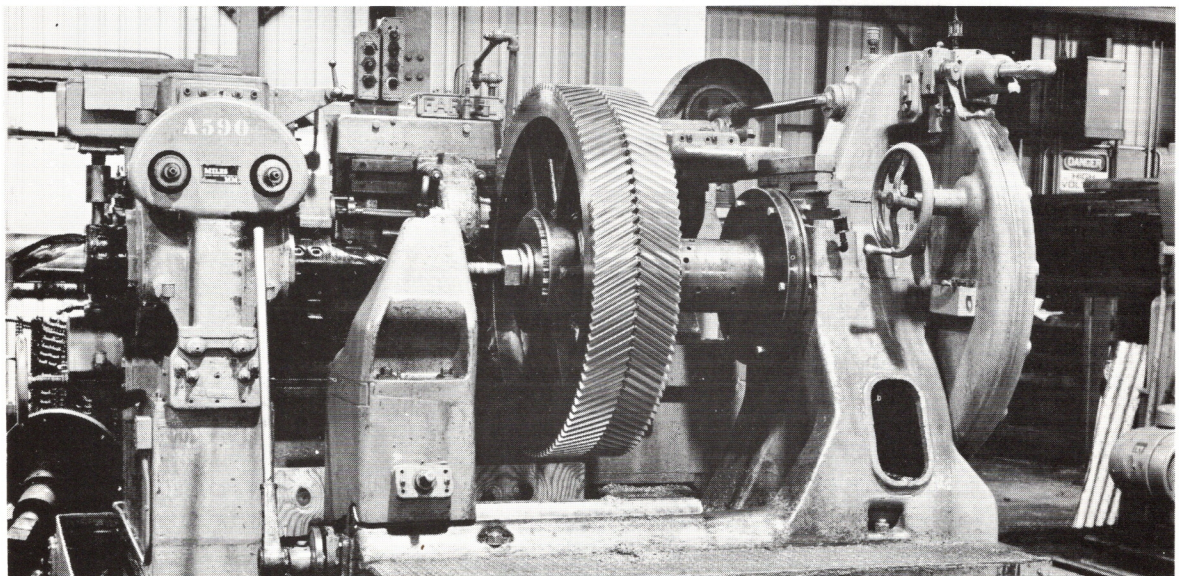
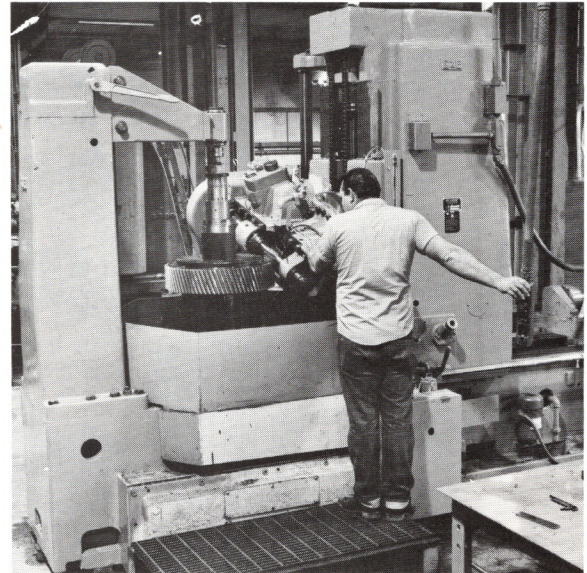
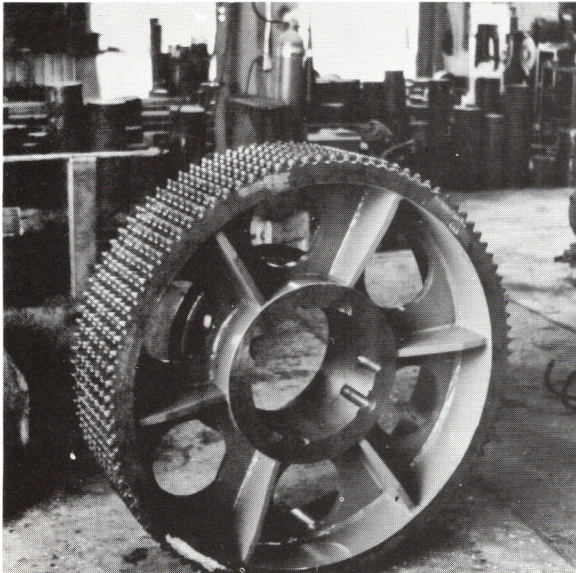
In addition to the gear types pictured, Kreiter can manufacture open gear drives, power chain drives, and others to meet your particular needs. Industries served include those of Oilfield, Sugar Mills, Offshore Drilling, Petrochemical, Construction, Mining, Marine, Printing, and Process Packaging.

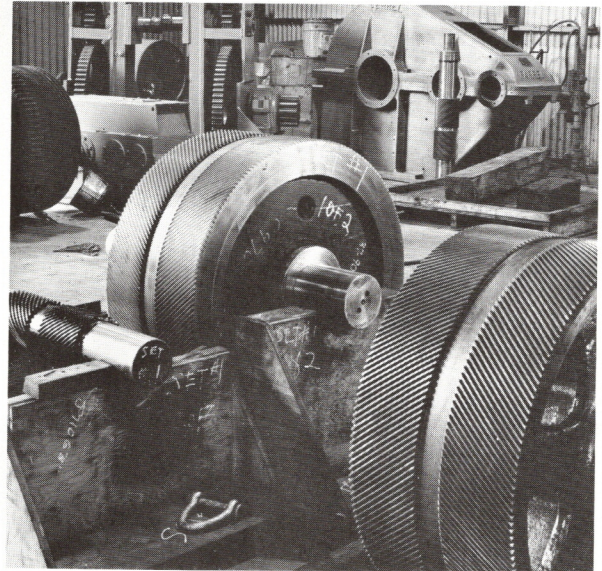
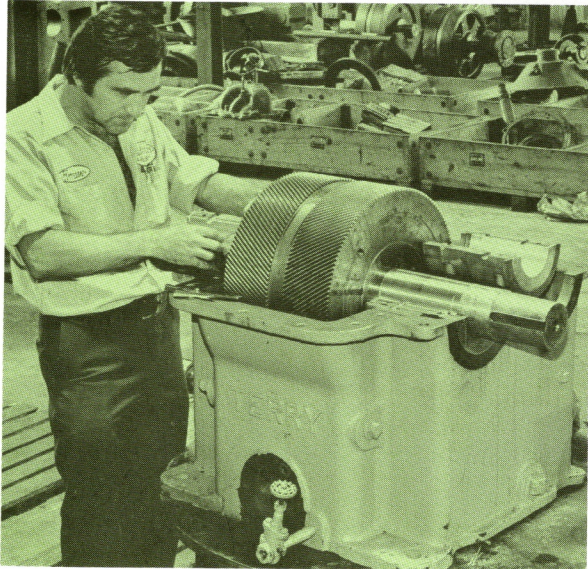
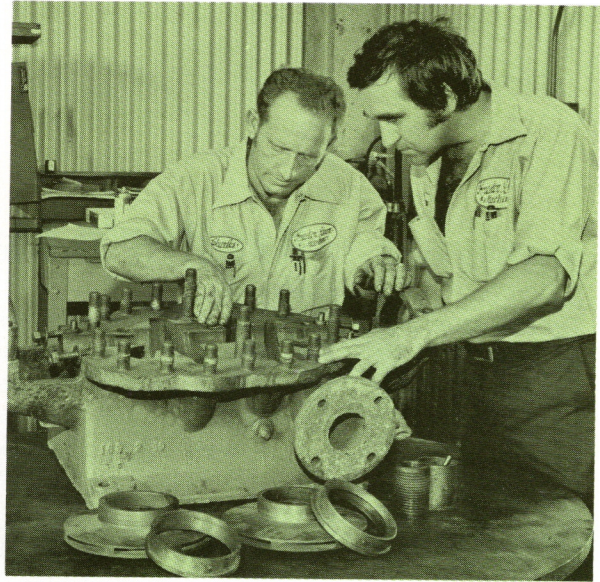
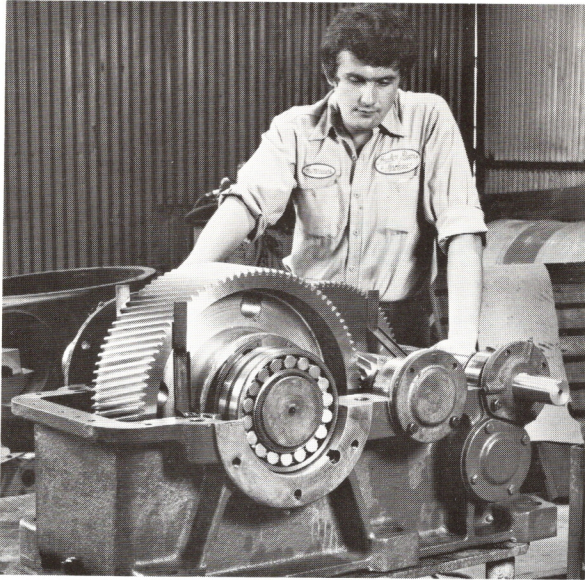
## Fully-Equipped Gear Cutting Shop

Kreiter's inventory of gear cutting tools includes every AGMA standard size from 1 DP to 20 DP, plus most special sizes.

Modern equipment makes it possible for many cutting and machining operations to be automated—for maximum accuracy and optimum production. For example, our ultra-precision gear hobbing machine now on-line enables Kreiter to cut double-helical gear sets which operate at speeds up to 20,000 feet per minute.

Also, as one of the largest and most up-to-date gear manufacturers in the U.S., Kreiter is capable of manufacturing gears to your specifications in a minimum amount of time.





## **Kreiter's Gear Service Center**

**Quality overhauls, repairs and testing of rotary equipment—fast.**

Kreiter's Service Center provides complete rotary equipment repair and maintenance programs for all types of industries.

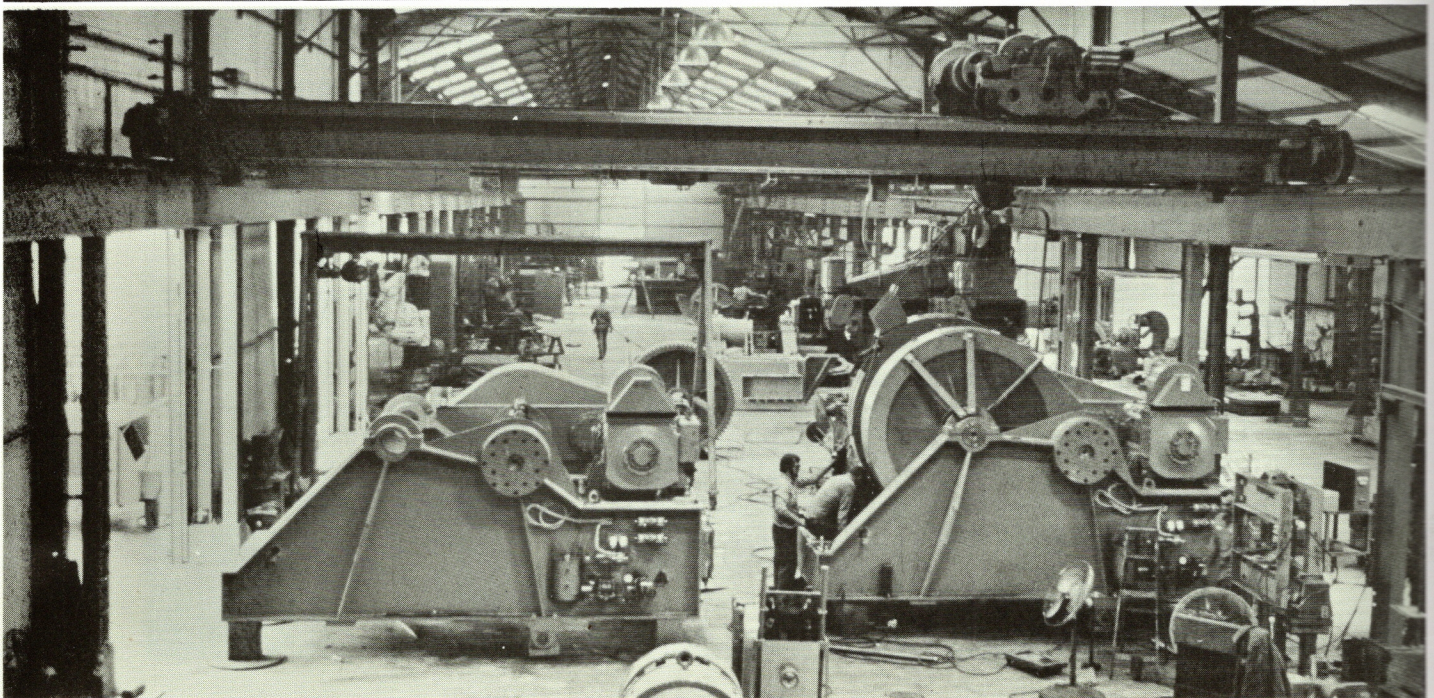
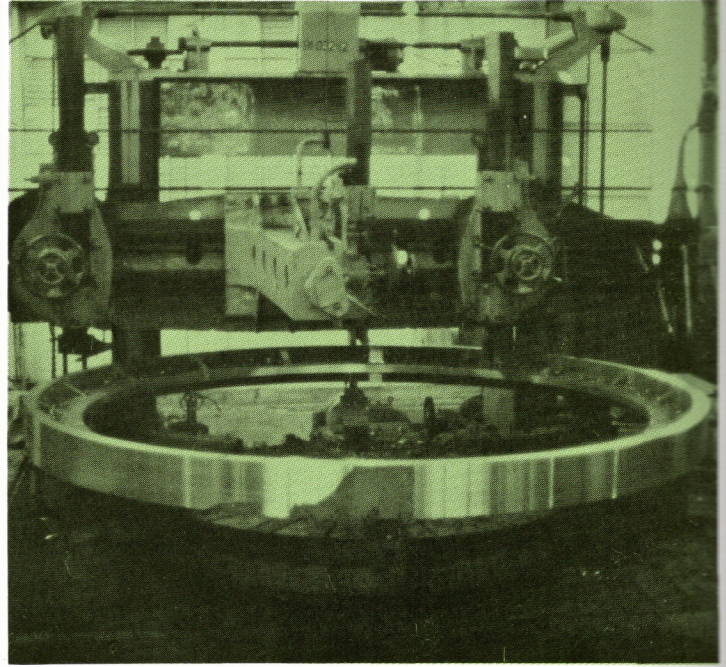
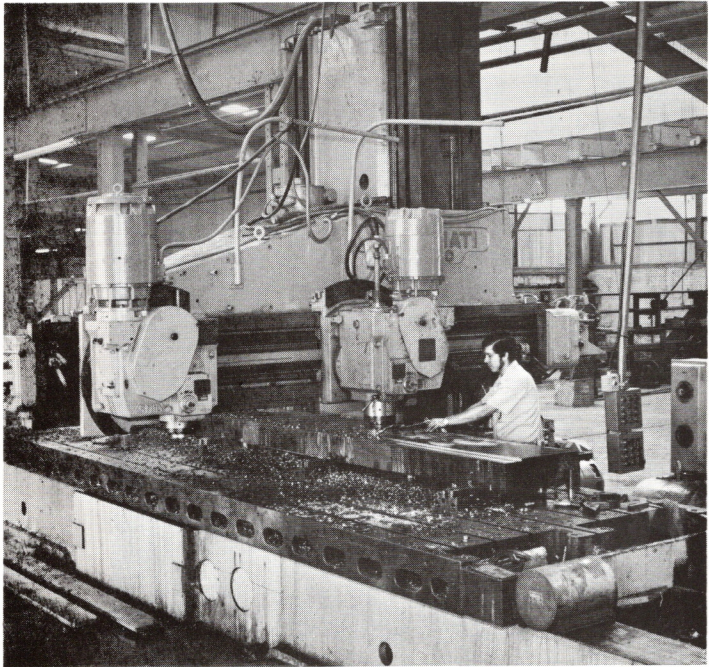
It is a separate facility at Kreiter, completely apart from manufacturing operations, and as such is dedicated solely to the repair and service of each customer's equipment needs.

A full staff of application engineers, gear specialists, and field technicians complement our in house craftsman to analyze problem areas and specify practical cost effective procedures.

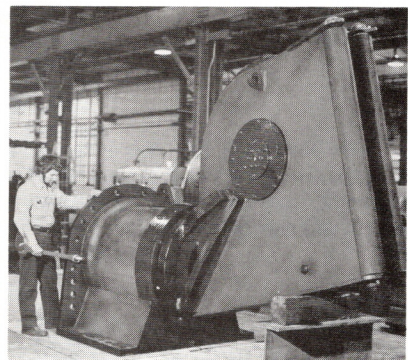
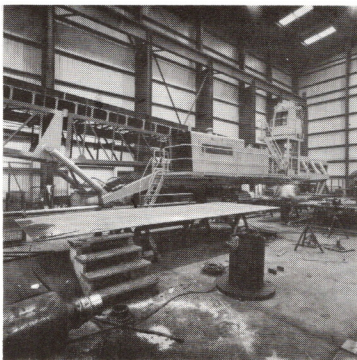
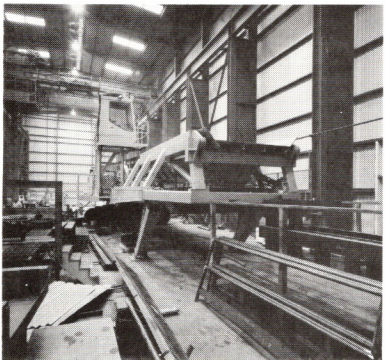
- **Compressors, pumps, gearboxes, etc. completely overhauled**
- **Teststand fully equipped for speed and load testing with monitored lubrication and cooling system**
- **Maintenance programs on a contract basis available**
- **Field service at your plant—where you need it**
- **Fast turnaround because of the 'Total Kreiter Capability' . . . Engineering-Machining-Fabricating-Gear Cutting-Assembly and Testing**

## Kreiter's Machine Shop

Fifty-three large pieces of production equipment make this shop one of the most versatile in the southwest. Kreiter's machine shop includes large horizontal and vertical boring mills, and a 20 foot planer mill along with the standard array of lathes, grinding machines, and milling machines. They provide the backbone for the standard product lines. The size and number of machines permits the flexibility required to handle the special specifications often encountered by the service center or development work of custom projects.







## **Kreiter's Fabrication Shop**

**Fully-equipped for fabrication and machine work to 100 tons.**

Kreiter's fabrication shop is one of the best equipped in the nation, with overhead crane capacity up to 100 tons to handle even the biggest jobs.

The inventory of tools in the fabrication shop includes multiple torch burning machines, short arc welding machines, stick electrode welding, submerged arc turret welding equipment and a variable speed positive drive flame hardening system.

Kreiter also has the test facilities, the people, the engineering support and the experience to assure you of the finest quality and superior performance. Non-destructive testing and inspection is available with the certification upon request.

Just one example of our design and fabrication capability is the Mobile Conveyor Stacker product line pictured. This piece of off the highway surface mining equipment measures over 152' in length, weighs 187,000 pounds, and was designed and built at Kreiter in less than 8 months.

**Table 1 — AGMA SERVICE FACTORS LISTED BY INDUSTRY**

Table 1 is to be used as a guide for speed reducer selection. These ratings are considered representative and should be considered as minimum values under normal operating conditions.

UNIFORM LOAD	MODERATE SHOCK LOAD	HEAVY SHOCK LOAD
<p><b>Agitators</b> Pure Liquids</p> <p><b>Blowers</b> Centrifugal Vane</p> <p><b>Clarifiers</b></p> <p><b>Compressors</b> Centrifugal</p> <p><b>Conveyors</b> (Uniformly Loaded or Fed) Apron Assembly Belt Bucket Chain Flight Oven Screw</p> <p><b>Cranes</b> Main Hoists</p> <p><b>Elevators</b> Bucket — Uniform Load Bucket — Continuous Centrifugal Discharge Escalators Gravity Discharge</p> <p><b>Extruder</b> Light Duty</p> <p><b>Fans</b> Centrifugal Light</p> <p><b>Feeders</b> Disc</p> <p><b>Generators</b></p> <p><b>Line Shafts</b> Light</p> <p><b>Machine Tools</b> Auxiliary Drives</p> <p><b>Mixers</b> Constant Density</p> <p><b>Paper Mills</b> Bleacher Conveyors Presses Suction Roll Winders</p> <p><b>Pumps</b> Centrifugal Rotary</p> <p><b>Rubber and Plastics Industries</b> Rubber Mill (3 on line)</p> <p><b>Sewage Disposal Equipment</b> Bar Screens Chemical Feeders Collectors</p> <p><b>Screens</b> Air Washing Traveling Water Intake</p> <p><b>Stokers</b></p>	<p><b>Agitators</b> Liquids and Solids Liquids — Variable Density</p> <p><b>Blowers</b> Lobe</p> <p><b>Cane Knives</b></p> <p><b>Classifiers</b></p> <p><b>Compressors</b> Lobe Reciprocating, Multi-Cylinder</p> <p><b>Conveyors — (Heavy Duty Not Uniformly Fed)</b> Apron Assembly Belt Bucket Chain Flight Oven Screw</p> <p><b>Crusher</b> Sugar</p> <p><b>Dredges</b> Cable Reels Conveyors Maneuvering Winches Pumps Stackers Utility Winches</p> <p><b>Elevators</b> Bucket — Heavy Load Freight</p> <p><b>Extruder</b> Constant Duty</p> <p><b>Fans</b> Cooling Tower Induced Draft Large</p> <p><b>Feeders</b> Apron Belt Screw</p> <p><b>Hoists</b> Medium Duty Skip</p> <p><b>Line Shafts</b> Processing Equipment</p> <p><b>Lumber Industry</b> Barkers — Spindle Feed Conveyors — Burner Merry-go-Round Transfer Chains-Green Cut-Off Saws Feeds-Edger, Trimmer Planer Feed Sorting Table Tipple Hoist Transfers, Chain, Craneway Tray Drives</p> <p><b>Machine Tools</b> Bending Roll Main Drives</p> <p><b>Metal Mills</b> Draw Bench, Carriage and Main Drive Slitters Wire Drawing and Flattening Machine Wire Winding Machine</p> <p><b>Mills, Rotary Type</b> Ball Cement Kilns Dryers and Coolers Kilns Pebble Rod, Plain and Wedge Bar Rubber</p> <p><b>Mixers</b> Concrete Variable Density</p> <p><b>Paper Mills</b> Agitators Barker Beater and Pulper Calenders Converting Machine except Cutter, Platers Couch Cylinders Dryers Felt Stretchers Pulp Machine Reel Stock Chests Washers and Thickeners</p> <p><b>Pumps</b> Proportioning Reciprocating (3 or more cylinders)</p> <p><b>Rubber &amp; Plastics Ind.</b> Laboratory Equipment Refiners Rubber Calenders Rubber Mill (2 on line) Sheeter Tubers and Strainers Warming Mills</p> <p><b>Sand Muller</b></p> <p><b>Sewage Disposal Equipment</b> Dewatering Screws Scum Breakers Slow or Rapid Mixers Thickeners Vacuum Filters</p> <p><b>Screens</b> Rotary-Stone or Gravel</p> <p><b>Slab Pushers</b></p> <p><b>Sugar Industry</b> Cane Knives Crushers Mills</p> <p><b>Textile Machinery</b></p>	<p><b>Compressors</b> Reciprocating, Single-Cylinder</p> <p><b>Conveyors —</b> Heavy Duty Shaker</p> <p><b>Crushers</b> Ore Stone</p> <p><b>Dredges</b> Cutter Head Drives Jig Drives Screen Drives</p> <p><b>Feeders</b> Reciprocating</p> <p><b>Hammer Mills</b></p> <p><b>Hoists</b> Heavy Duty</p> <p><b>Lumber Industry</b> Barkers — Main Drive Conveyors — Main Log Conveyors — Slab Debarking Drums Feeds — Gang Log Deck Log Hauls — Incline-Well Type Log Turning Devices Rolls-Live-Off Brg. Roll Cases</p> <p><b>Machine Tools</b> Punch Press Plate Planers Tapping Machine</p> <p><b>Metal Mills</b> Table Conveyors non-reversing, Individual drives</p> <p><b>Mills, Rotary Type</b> Tumbling Barrels</p> <p><b>Paper Mills</b> Barking Drum Calenders — Super Cutters — Platers Felt Whippers Jordans Log Hauls</p> <p><b>Pullers</b> Barge Haul</p> <p><b>Rubber and Plastics Industries</b> Crackers Mixing Mills</p>

## Table 2 — SERVICE FACTOR CONVERSIONS

Prime Mover	DURATION OF SERVICE	Character of Load on Driven Machine		
		Uniform	Moderate Shock	Heavy Shock
Electric Motor or Turbine	*Occasional ½ Hour per Day	0.50	0.80	1.25
	*Intermittent 3 Hours per Day	0.80	1.00	1.50
	Up to 10 Hours per Day	1.00	1.25	1.75
	24 Hours per Day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	*Occasional ½ Hour per Day	0.80	1.00	1.50
	*Intermittent 3 Hours per Day	1.00	1.25	1.75
	Up to 10 Hours per Day	1.25	1.50	2.00
	24 Hours per Day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	*Occasional ½ Hour per Day	1.00	1.25	1.75
	*Intermittent 3 Hours per Day	1.25	1.50	2.00
	Up to 10 Hours per Day	1.50	1.75	2.25
	24 Hours per Day	1.75	2.00	2.50

\*Maximum momentary or starting load must not exceed 200 percent of gear reducer rating (rating meaning Service Factor of 1).

### EXPLANATION OF RATING TABLES

The Horsepower, Torque and Thermal-Load capacities of all Kreiter Gears are based on the latest Standard Practices of the American Gear Manufacturers Association of which Kreiter Gear and Machine has been a member for many years.

#### MECHANICAL RATINGS

The Mechanical Horsepower Ratings listed in the Rating Tables are for a Service Factor of 1 which would be the proper factor for a gear unit being driven by an electric motor up to 10 hours per day and driving a machine classed as a Uniform Load. For any other type of prime mover or driven machine or for any other duration of service the horsepower load would have to be modified by an appropriate Service Factor before the proper gear reducer could be selected.

The load carrying capacity of a set of gears for a given size housing varies with ratio and speed. Therefore, the Rating Tables show the horsepower ratings for each size reducer at the several standard ratios and motor speeds. The gears will stand 100% overload, or 200% of the mechanical ratings tabulated at starting or momentarily during operation.

#### OUTPUT TORQUE RATINGS

The Output Torque ratings are based on the mechanical horsepower ratings and must be modified by an appropriate Service Factor before the proper gear reducer can be selected. The gears will stand 100% torque overload or 200% of the tabulated output torque rating at starting or momentarily during operation.

#### THERMAL RATINGS

The Thermal Horsepower rating tables are tabulated with the mechanical

ratings. These ratings vary with unit speed and ratio. The Thermal Horsepower rating is the average load the unit will deliver continuously without overheating. The actual horsepower transmitted by the gear unit may not be greater than the Thermal Horsepower rating unless the unit is equipped with an oil pump and cooler.

#### SERVICE FACTORS

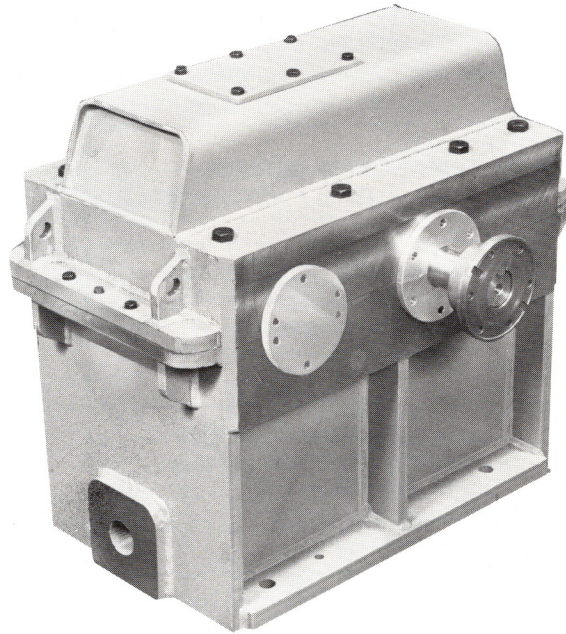
The selection of a gear unit for a certain job depends upon (1) the type of prime mover, (2) the character of the driven machine and (3) the number of hours per day the unit will operate. These variables enter into the selection of Reducers through the use of Service Factors.

A tabulation of the Character of Load for various types of machinery generally driven by gear units is shown in Table 1. Table 2 shows the Service Factors based on the three variables listed above.

In selecting a gear reducer the actual horsepower load to be transmitted is multiplied by the appropriate Service Factor to determine the Equivalent Horsepower. A reducer is then selected from the Rating Tables which has a tabulated rating equal to or greater than the Equivalent Horsepower. Conversely, the tabulated mechanical rating of a reducer divided by the Service Factor will give the Service Rating of that reducer. This Service Rating cannot be higher than the Thermal Horsepower unless means for artificially cooling the oil is provided.

#### RATIOS

The gear ratios listed in the Rating Tables are standard for each size reducer and these particular ratios are more readily available than any other ratio. The exact ratio required or a very close approximation can be furnished, however. The approximate horsepower rating for intermediate ratios not shown in the tables may be determined by interpolation.



## Kreiter's Speed Reducers

- are backed by 70 years of custom gear cutting and engineering experience.
- are manufactured and certified to meet or exceed AGMA standards.
- are available in standard units from 50 hp to 2200 hp.
- are also, available on request designed and manufactured for special applications to meet customer specification.
- are computer engineered to obtain maximum optimized performance and design life.
- incorporate advanced features of state of the art: engineering, bearing selection, precision hobbled gears, integral steel alloy pinions, positive lubrication and cooling as required.
- are all assembled and tested in KGM's new gearbox service center and test facility to assure a quality product every time.
- are supported by dependable service representatives and staff engineers to trouble shoot your needs in the field where they are happening.

### Quality and Performance



Member of American Gear  
Manufacturers Association



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