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**VK / VKL**

**REFRIGERATION COMPRESSOR**

**COMPONENT PARTS**

**CATALOGUE**

Ver. 2

**HASEGAWA**  
**REFRIGERATION, LTD.**



## CONTENTS

### Model VK / VKL Compressor

Description	Parts #
<b>Crankcase Component Parts</b> External Casing Fittings Covers & Gaskets Suction Screen Thermometer Heater Service Valves Cooling Water Accessories	<b>K1**</b>
<b>Internal Component Parts</b> Safety Head Spring Discharge Valve Suction Valve Piston & Connecting Rod Cylinder Liner	<b>K2**</b>
<b>Lubrication Component Parts</b> Oil Pump Oil Screen Rear Metal Capacity Control Relief Valve	<b>K3**</b>
<b>Drive Mechanism Component Parts</b> Crankshaft Mechanical Seal Front Metal RM / AM Motor Coupling	<b>K4**</b>
<b>Pipe System Component Parts</b> Oil Cooler Oil Filter Connectors	<b>K5**</b>
<b>Valves</b> Stop Valves Flanges	<b>K6**</b>

Revision date: February 28, 2002

Hasegawa Refrigeration Ltd. provides the information enclosed as a guide and is subject to periodic revision.

## Component Identification

### Reference Number

Compressor component parts are identified in the following manner using five characters:

### Part Number



Each component part is identified with a Part Number, usually a six or seven figure number. Therefore the above component is identified as 12203140 from the catalogue.

### Description

Each component also has a description and the above component would be VKVKL Piston Pin Needle Bearing.

## Component Ordering

1. Compressor model number, serial number and refrigerant designation is required.
2. Reference number.
3. Part number.
4. Description

Utilize the published parts catalogue version that was supplied at the time of procurement of the compressor. Additional information, for example procurement date would assist in the identification of component parts.

## Symbols

### Reference Number

2K\*\*\* Assemblies

### Part Number

\*\*\*\*\* Components not held as stock items – please consult when identified components are required.

----- Item supplied as part of an assembly.

## Parts Quantity


The parts marked with \* in the list are required for two stage compressors with an intermediate stop valve.

## Remarks

Ass'y:	Assembled parts
Set:	Complete set of items
Packing:	Gasket
R:	R22
N:	R717

## **Authentication of Spare Parts**

Genuine Hasegawa replacement parts are guaranteed for high quality and specification, therefore components are identified as follows:

1. Piston Rings: at the counter portion of the ring HRL mark is applied.
2. Suction & Discharge Valve Plates: the Surely trademark is applied. 
3. Other Parts: are packed with a label indicating the parts are 'HASEGAWA GENUINE PARTS'.

Hasegawa Genuine parts are guaranteed for quality, reliability and performance utilizing stringent manufacturing procedures to ensure absolute customer satisfaction. The use of non-approved components would invalidate any remaining or implied warranty that is provided with Hasegawa compressors.

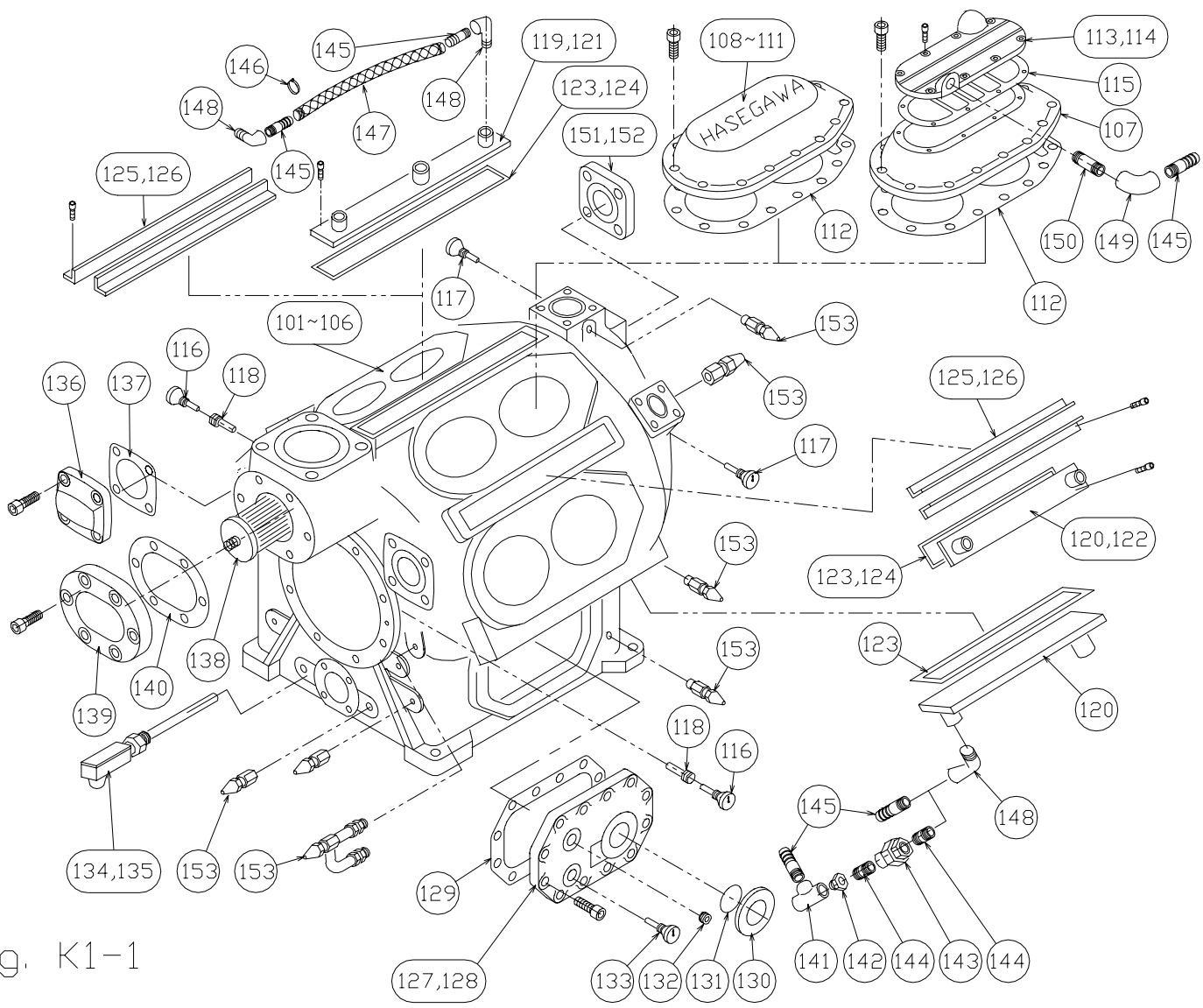


Fig. K1-1





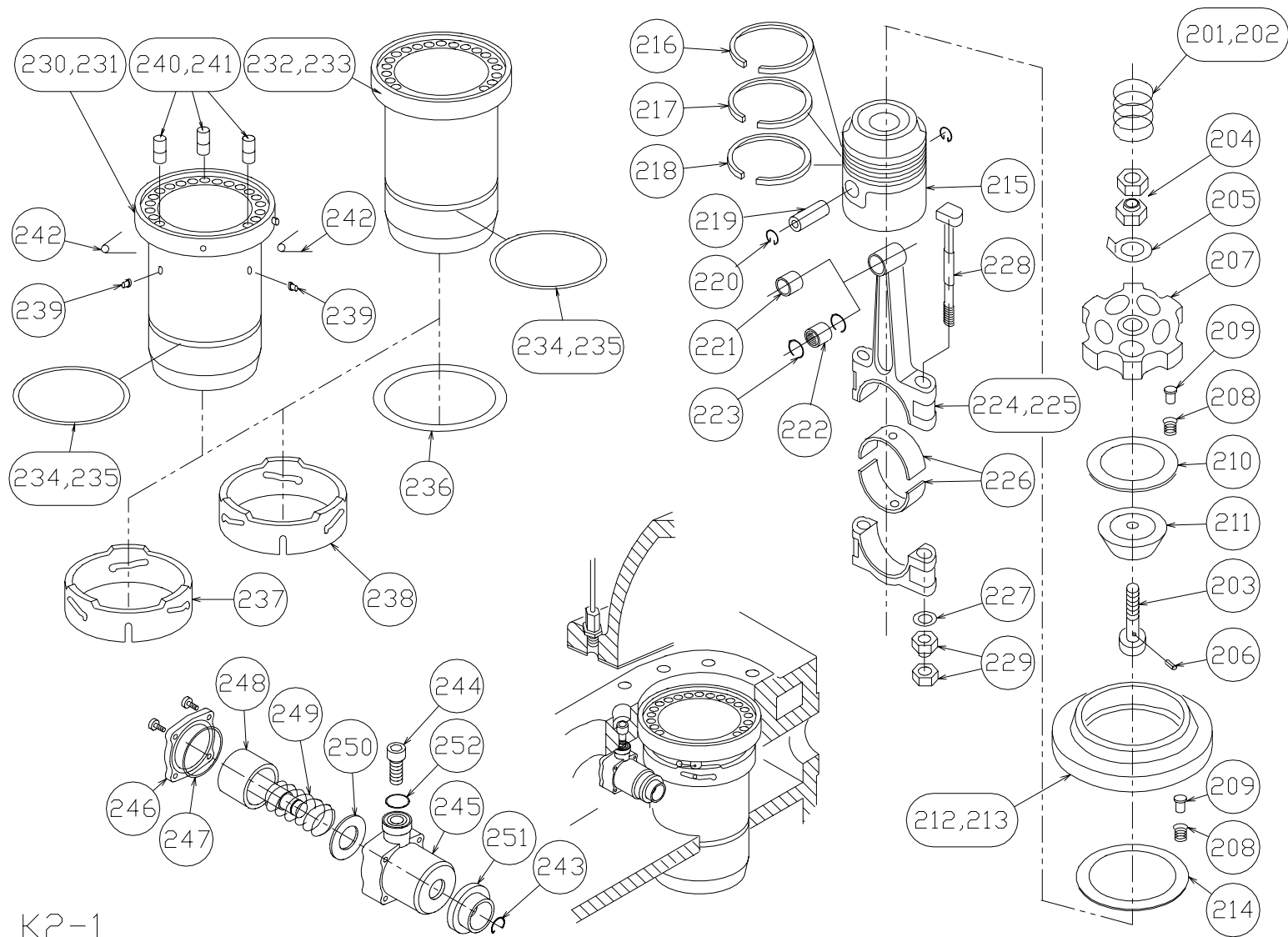
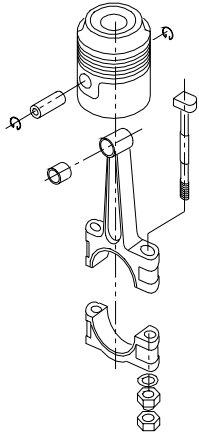
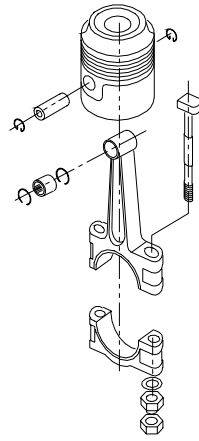


Fig. K2-1

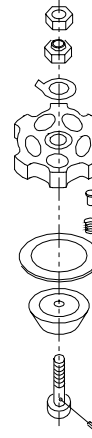




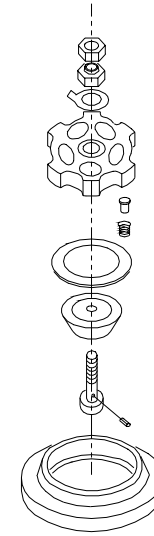
VKVKL Piston Connecting  
Rod 25 Assembly  
12201000



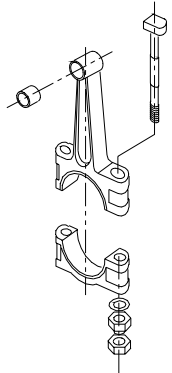
VKVKL Piston Connecting  
Rod 37 Assembly  
12201010



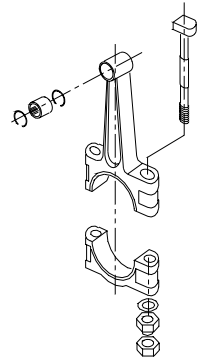
VKVKL Discharge Valve  
Inner Seat Assembly  
12201060



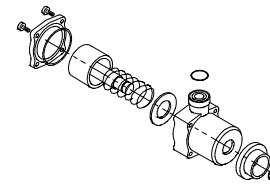
VK Discharge Valve Assembly  
12201040  
VKL Discharge Valve Assembly  
12201050



VKVKL Connecting  
Rod 25 Assembly  
12201020



VKVKL Connecting  
Rod 37 Assembly  
12201030



VKVKL Unloader  
Cylinder Assembly  
12201110

Fig. K2-2

## K2 Internal Component Parts

Ref #	Description	Part #	VK 4	VK 31	VK 6	VK 42	VK 8	VK 62	VKL 4	VKL 31	VKL 6	VKL 42	VKL 8	VKL 62	Remarks
2K201	Safety Head Spring VK	12202500	4	4	6	6	8	8							
2K202	Safety Head Spring VKL	12202510							4	4	6	6	8	8	
2K203	Center Bolt, Discharge Valve	12202550	4	4	6	6	8	8	4	4	6	6	8	8	
2K204	Nut, Center Bolt	12202560	4	4	6	6	8	8	4	4	6	6	8	8	
2K205	Washer, Center Bolt	12202570	4	4	6	6	8	8	4	4	6	6	8	8	
2K206	5 x 10 Parallel Pin	853330	4	4	6	6	8	8	4	4	6	6	8	8	
2K207	Discharge Valve Guide	12202520	4	4	6	6	8	8	4	4	6	6	8	8	
2K208	Spring, SV – DV	12202700	56	56	84	84	112	112	56	56	84	84	112	112	SV – 8, DV – 6
2K209	Spring Holder, SV – DV	12202710	56	56	84	84	112	112	56	56	84	84	112	112	SV – 8, DV – 6
2K210	Discharge Valve Plate	12202720	4	4	6	6	8	8	4	4	6	6	8	8	
2K211	Discharge Valve Plate Inner Seat	12202600	4	4	6	6	8	8	4	4	6	6	8	8	
2K212	Discharge Valve Plate Outer Seat	12202610	4	4	6	6	8	8							VK
2K213	Discharge Valve Plate Outer Seat	12202620							4	4	6	6	8	8	VKL
2K214	Suction Valve Plate	12202730	4	4	6	6	8	8	4	4	6	6	8	8	
2K215	Piston	12202900	4	4	6	6	8	8	4	4	6	6	8	8	
2K216	Piston Ring #1	12202910	4	4	6	6	8	8	4	4	6	6	8	8	
2K217	Piston Ring #2	12202920	4	4	6	6	8	8	4	4	6	6	8	8	
2K218	Piston Ring, Oil	12202930	4	4	6	6	8	8	4	4	6	6	8	8	
2K219	Piston Pin	12203100	4	4	6	6	8	8	4	4	6	6	8	8	
2K220	Spring Clip, Piston Pin	12203110	8	8	12	12	16	16	8	8	12	12	16	16	
2K221	Piston Pin Metal	12203120	4	3	6	4	8	6	4	3	6	4	8	6	
2K222	Needle Bearing, Piston Pin	12203140		1		2		2		1		2		2	High Stage
2K223	Spring Clip, Needle Bearing	12203150		2		4		4		2		4		4	High Stage
2K224	Connecting Rod 25	-----	4	3	6	4	8	6	4	3	6	4	8	6	
2K225	Connecting Rod 37	-----		1		2		2		1		2		2	High Stage
2K226	Crank Pin Metal	12203160	4	4	6	6	8	8	4	4	6	6	8	8	Set
2K227	Washer, Rod Bolt	12203020	8	8	12	12	16	16	8	8	12	12	16	16	
2K228	Rod Bolt	12203030	8	8	12	12	16	16	8	8	12	12	16	16	
2K229	Nut, Rod Bolt	12203040	8	8	12	12	16	16	8	8	12	12	16	16	
2K230	Cylinder Liner A	12202800	2	2	2	2	4	4							VK
2K231	Cylinder Liner A	12202820							2	2	2	2	4	4	VKL
2K232	Cylinder Liner B	12202810	2	2	4	4	4	4							VK
2K233	Cylinder Liner B	12202830							2	2	4	4	4	4	VKL
2K234	O – Ring (N), Cylinder Liner	12202840	4	4	6	6	8	8	4	4	6	6	8	8	



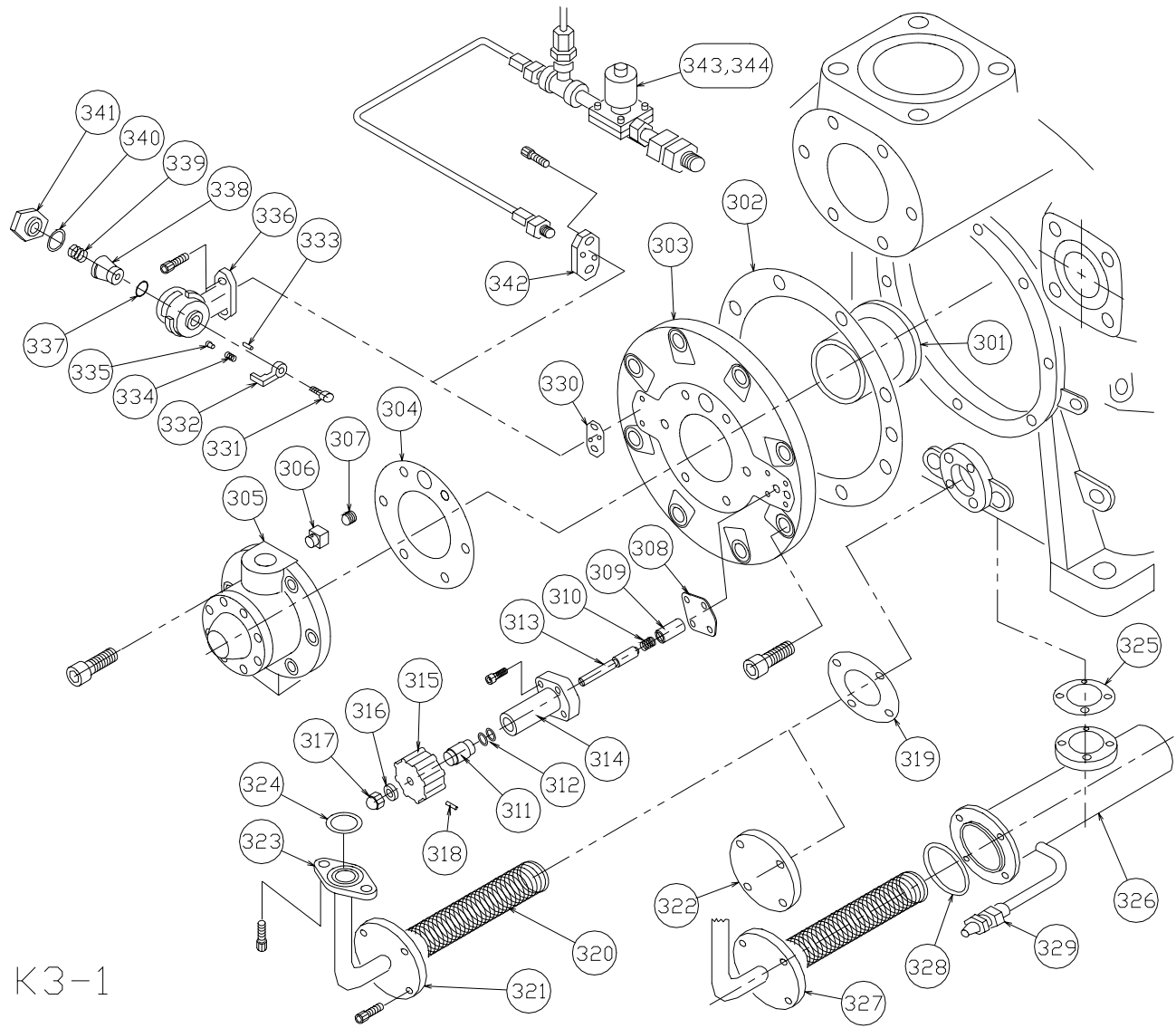
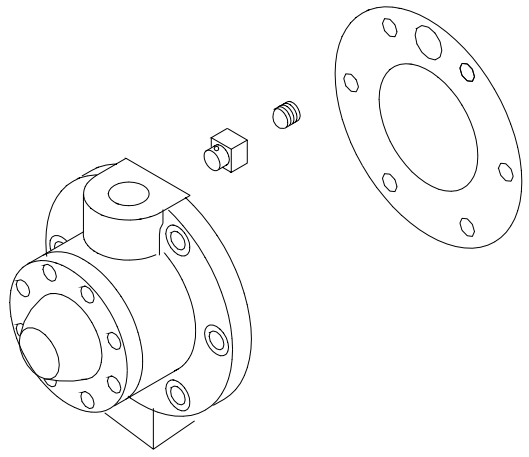
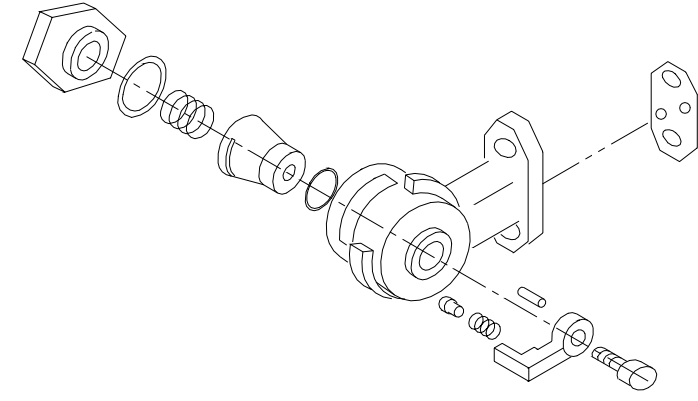


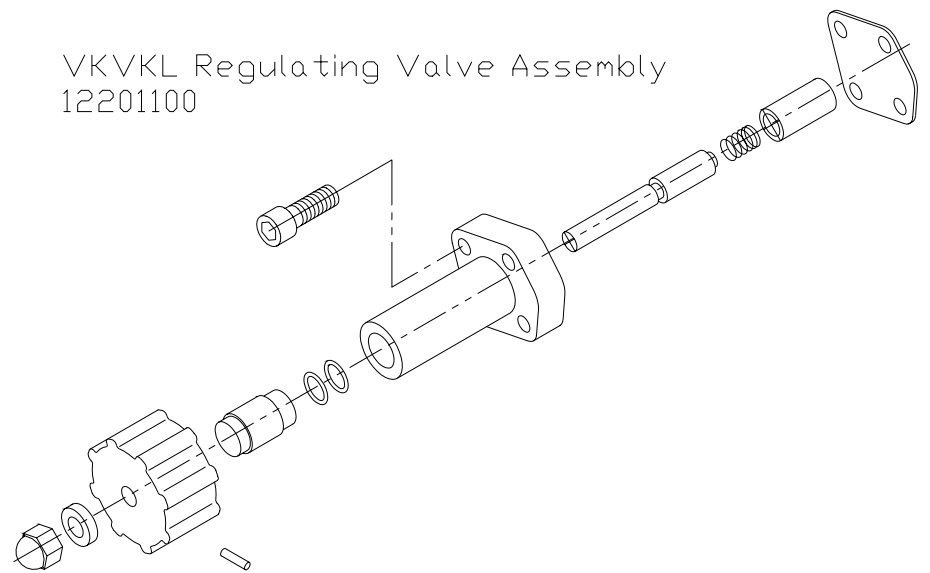
Fig. K3-1



VKVKL Oil Pump Ass'y  
12201090



VKVKL Unloader Valve Assembly  
12201120



VKVKL Regulating Valve Assembly  
12201100

Fig. K3-2





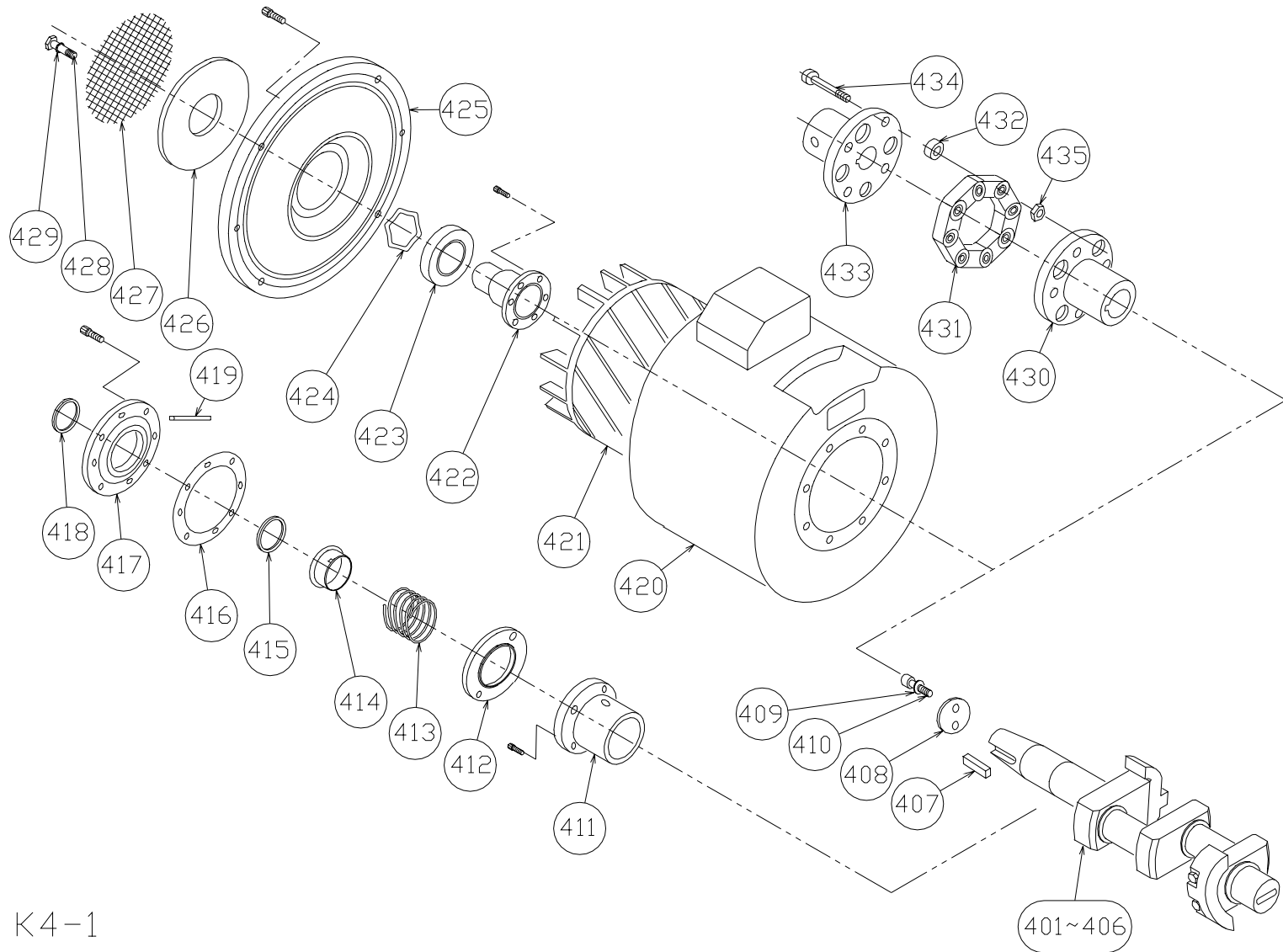
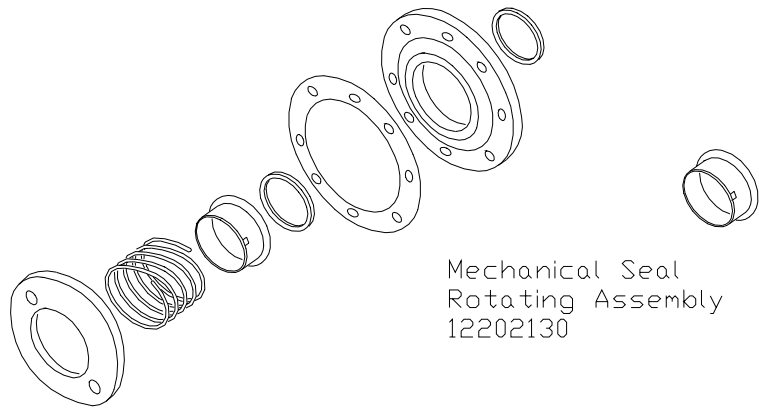


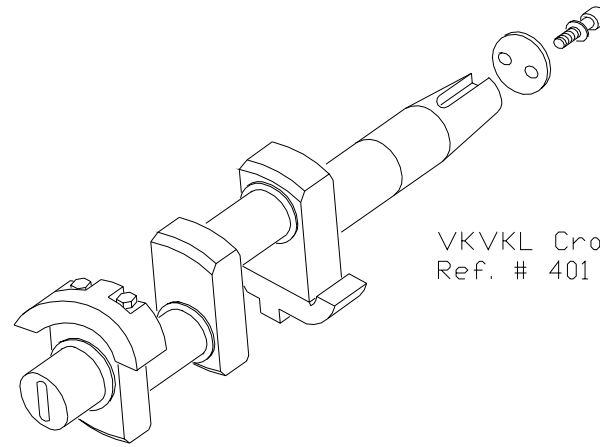
Fig. K4-1



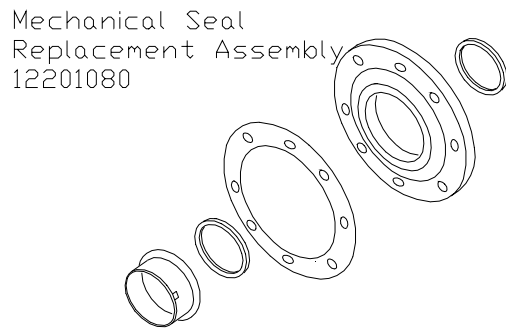


Mechanical Seal  
Rotating Assembly  
12202130

Mechanical Seal Assembly  
12201070



VKVKL Crankshaft Assembly  
Ref. # 401 - 406



Mechanical Seal  
Replacement Assembly  
12201080

Motor Stator Assembly  
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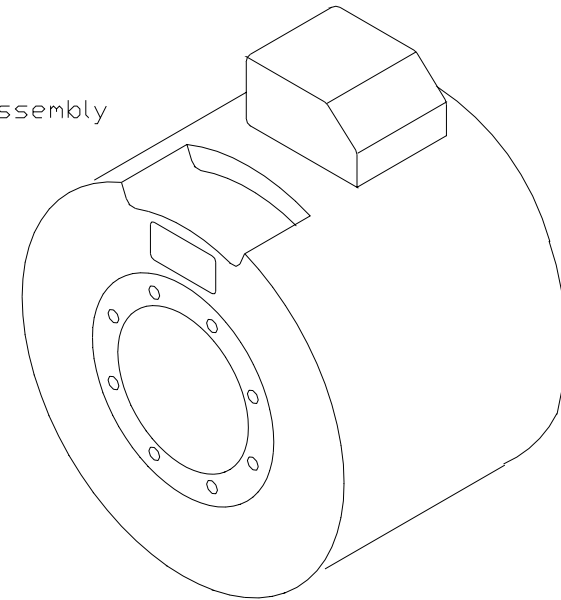


Fig. 4-2



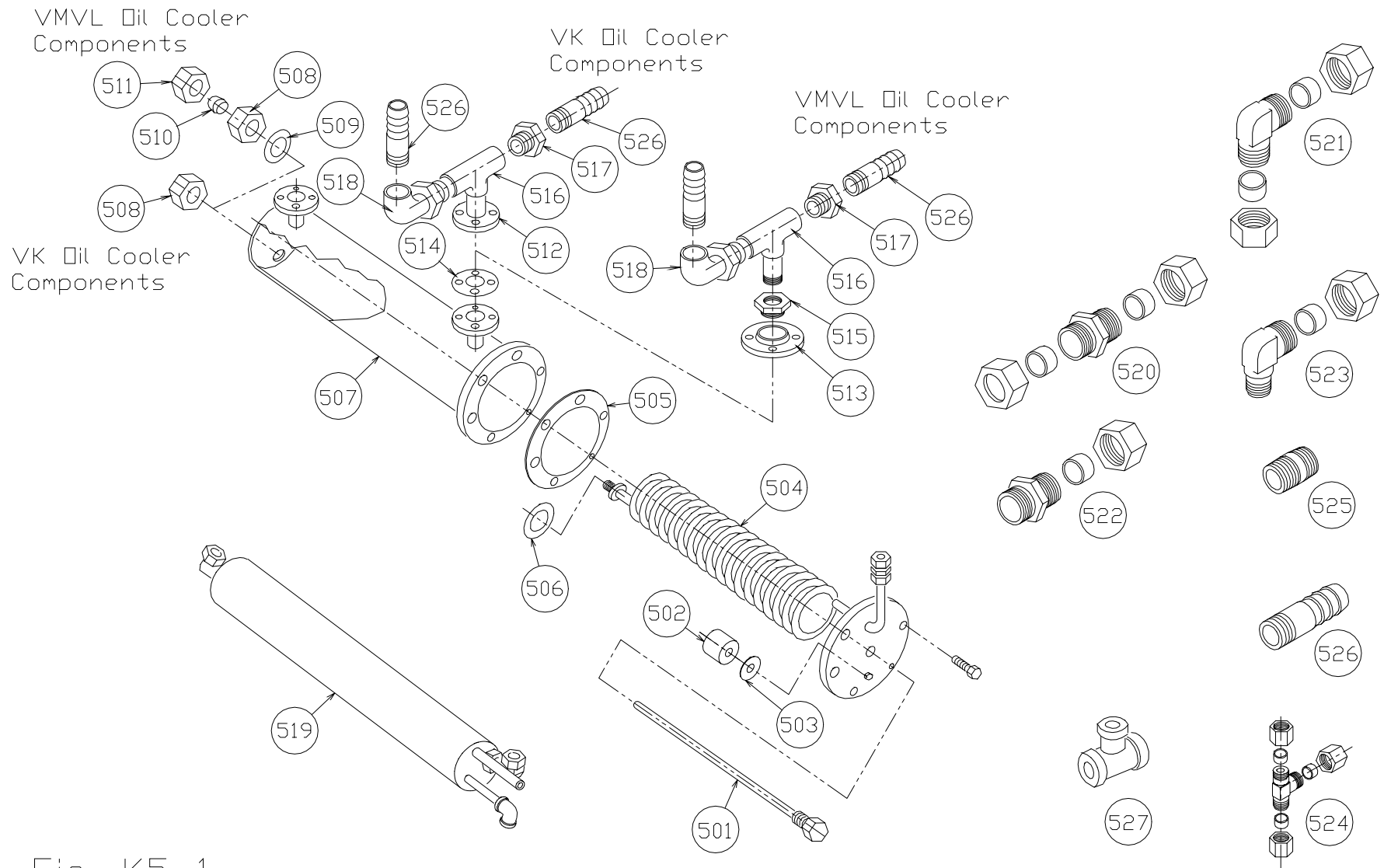
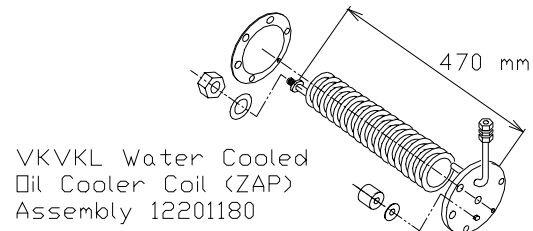
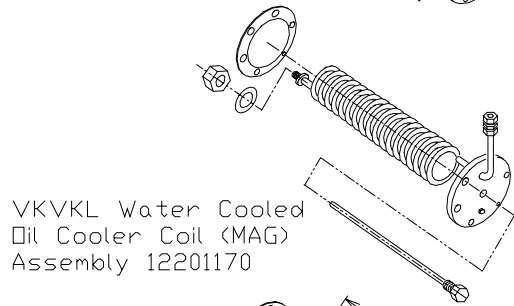


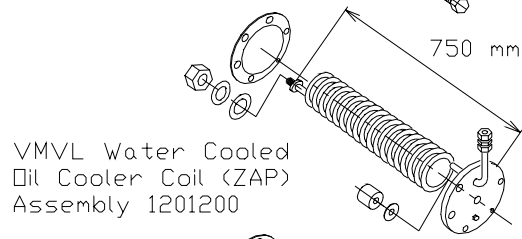
Fig. K5-1



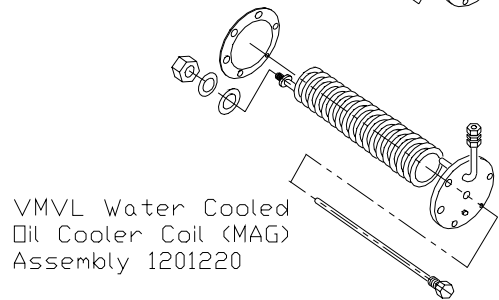
VKVKL Water Cooled  
Oil Cooler Coil (ZAP)  
Assembly 12201180



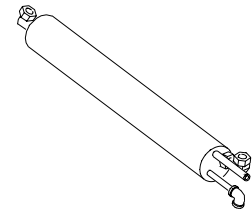
VKVKL Water Cooled  
Oil Cooler Coil (MAG)  
Assembly 12201170



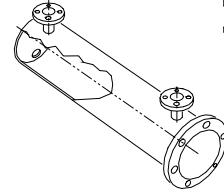
VMVL Water Cooled  
Oil Cooler Coil (ZAP)  
Assembly 1201200



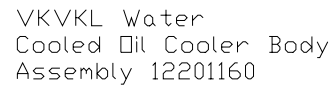
VMVL Water Cooled  
Oil Cooler Coil (MAG)  
Assembly 1201220



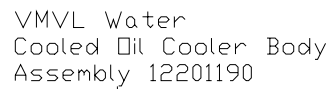
VKVKL Refrigerant  
Cooled Oil Cooler  
Assembly 12201140



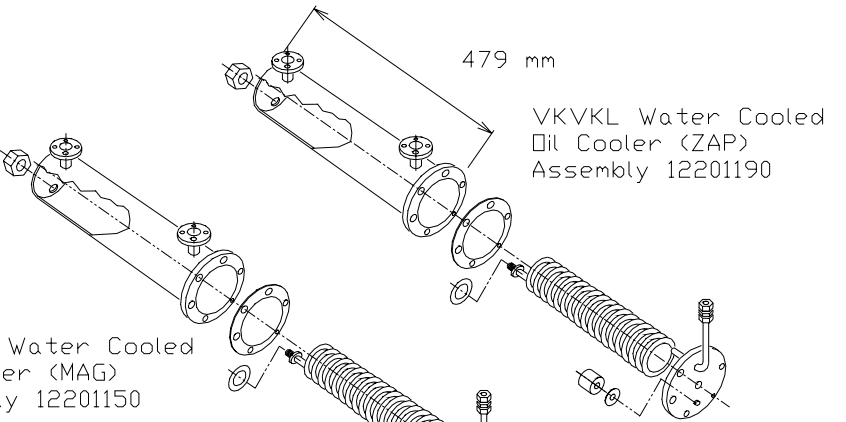
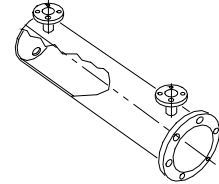
VKVKL Water Cooled  
Oil Cooler (MAG)  
Assembly 12201150



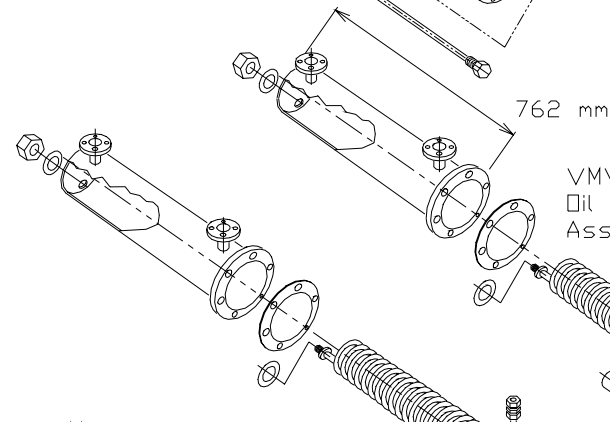
VKVKL Water  
Cooled Oil Cooler Body  
Assembly 12201160



VMVL Water  
Cooled Oil Cooler Body  
Assembly 12201190



VKVKL Water Cooled  
Oil Cooler (ZAP)  
Assembly 12201190



VMVL Water Cooled  
Oil Cooler (ZAP)  
Assembly 12201180



VMVL Water Cooled  
Oil Cooler (MAG)  
Assembly 1201210

Fig. K5-2

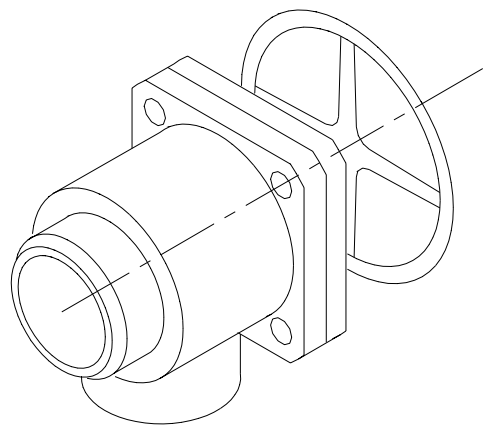
## K5 Pipe System Component Parts

VK Water cooled oil cooler is used on the following compressor types: VK/VKL4 & 31.

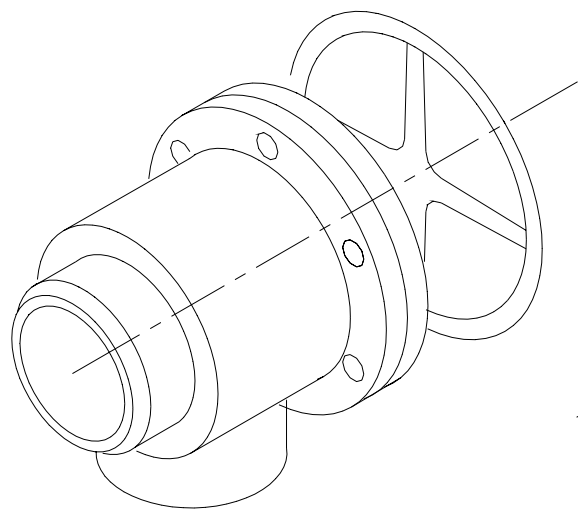
VM Water cooled oil cooler is used on the following compressor types: VK/VKL6, 8, 42 & 62.

Ref #	Description	Part #	Remarks	
2K501	VKVKL MGNAP 19-04	12205800	Water	
2K501	VMVL MGNAP 19-05	1205850	Water	
2K502	VKVKL ZAP 50	12205810	Sea Water	
2K502	VMVL ZAP 65	1202139	Sea Water	
2K503	VKVKL Packing, ZAP 50	820213	Sea Water, VKVM	
2K504	VKVKL Oil Cooler Coil Assembly	-----	Water cooled type	
2K504	VMVL Oil Cooler Coil Assembly	-----	Water cooled type	
2K505	VKVKL Packing, Flange A	821018	Water cooled type	
2K505	VMVL Packing, Flange A	820572	Water cooled type	
2K506	VKVKL Packing, Oil Cooler Fittings	821019	Water cooled type	
2K506	VMVL Packing, Oil Cooler Fittings	820578	Water cooled type	
2K507	VKVKL Body Assembly	12201160	Water cooled type	
2K507	VMVL Body Assembly	1201190	Water cooled type	
2K508	VKVKL Nut, Coil	12205660	Water cooled type	
2K508	VMVL Nut, Coil	1205790	Water cooled type	
2K509	VMVL Washer, Coil	1205800	Water cooled type	
2K510	PT 1/2B Sleeve, Coil	4112730	Water cooled type	
2K511	PN 1/2B Nut, Coil	4112830	Water cooled type	
2K512	20A FL-SS J5K	4105400	Water cooled type	
2K513	25A FL-FCD J5K	4105720	Water cooled type	
2K514	20A Packing, FL-SS J5K	858360	Water cooled type	
2K514	25A Packing, FL-FCD J5K	858361	Water cooled type	
2K515	25 x 20A Bushing	4117700	Water cooled type	
2K516	20A Tee	4117200	Water cooled type	
2K517	20 x 15A Bushing	4117800	Water cooled type	
2K518	15A Elbow 90 SL	4116530	Water cooled type	
2K519	Refrigerant Cooled Oil Cooler Assy.	12201140		
2K520	E1/2 Pipe Fitting (Sleeve)	4119320	15A	[OLD PART # 4112420]
2K520	E3/4 Pipe Fitting (Sleeve)	4119330	20A	[OLD PART # 4112430]
2K521	F1/2 Pipe Fitting (Sleeve)	4119340	15A	[OLD PART # 4112440]
2K522	A6 x PT1/8 Pipe Fitting (Sleeve)	4119200	1/6	[OLD PART # 4112300]
2K522	A6 x PT1/4 Pipe Fitting (Sleeve)	4119210	1/6	[OLD PART # 4112310]

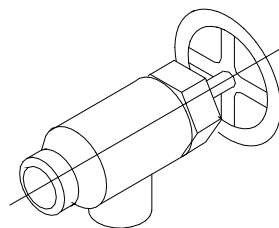




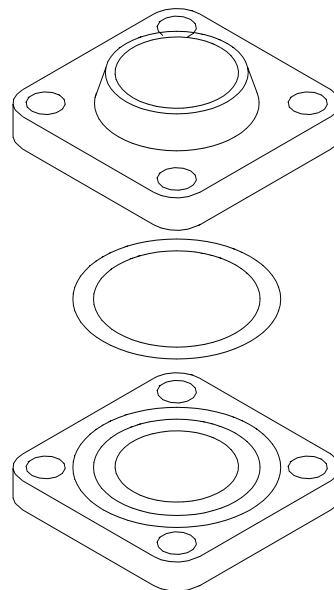
002~005



001



006



007~018

Fig. K6-1

