

Introduction

This literature applies to Falk V-Class (Model A) standard gear drives with ratings, speeds, ratios, and dimensions as cataloged in current Rexnord selection guides. Contact Rexnord for all specials and modifications.

1. **IDENTIFY DRIVE** — Give complete data shown on drive nameplate. Also, give reference numbers, Falk part numbers, and name of parts required. Drawings and reference numbers are representative of all sizes and the actual parts may not agree in exact detail for each drive size. Complete nameplate data and parts reference number will assure receipt of correct parts.

The numerical designation stamped on the nameplate completely identifies all parts used in the drive. All drives with exactly the same nameplate markings have interchangeable rotating elements.

FALK V-CLASS		ENCLOSED GEAR DRIVE	
MODEL 153VRC3A			
M.O.	12-066549	RATIO	23.05
INPUT RPM	1750	SERVICE RATING HP	300
OUTPUT RPM	75.9	SERVICE FACTOR	1.71
CLASS	----	DATE	4/12
		APPROX. U.S. GALS	11.4
Rexnord Industries, LLC www.rexnord.com			V002028

Sample Nameplate

2. **IDENTIFY INDIVIDUAL PARTS** — Use the exploded view on Page 2 to determine the reference of the required parts.
3. **NOTE** — It is recommended that the shaft seals be replaced whenever it becomes necessary to disturb a seal in the process of disassembling a drive. New shim-gaskets are recommended to prevent oil leakage and in some cases necessary to adjust internal running clearances. Shim-gaskets are available only in kits; see reference number 100 in the Table 1 Parts List.

PINIONS, GEARS, & SHAFTS — Replacement of a pinion, gear or shaft may also require the replacement of the respective connected parts. It is recommended that the factory be contacted to help make that determination.

Rexnord can normally furnish a total rotating assembly more economically than than if the customer purchases individual parts, disassembles the old parts, and reassembles using some new and old parts. Falk replacement assemblies also reduce down time and always consist of all new parts.

FASTENERS — Fasteners are sold in sets for a specific item, i.e. four for an end cover, eight for a low speed seal cage, etc. Fasteners describe cap screws, bolts, studs, nuts and lock washers as required.

RATIO CHANGE — Refer complete information to Rexnord.

SHAFT COUPLINGS — Refer to coupling parts guide and price list.

3. **HOW TO USE THIS GUIDE** — Use the Part Reference Number (step 2) and the drive Model Number (Step 1) to determine the part description and use this information to order the required parts.
4. **ORDER PLACEMENT** — Place your order with your local Rexnord Account Executive or Distributor. If you need assistance call the number below.

Bearing & Seal Identification

Refer to the exploded views on Page 2 to identify the bearings and oil seals by the parts list Reference Numbers. Then refer to Tables 1 thru 8 , Pages 3 and 4 to determine the correct bearing or seal and the commercial number.

Corrosion Protection & Storage

CAUTION: Follow guidelines below to avoid damage to parts.

1. For domestic or indoor storage, the Factory provides standard 24 month protection as boxed or optional 24 month protection for individual parts.
2. For export or outdoor storage, the Factory provides optional 18 month protection.

CAUTION: This protection does not cover exposure to elements such as standing water, etc.

Parts Diagram

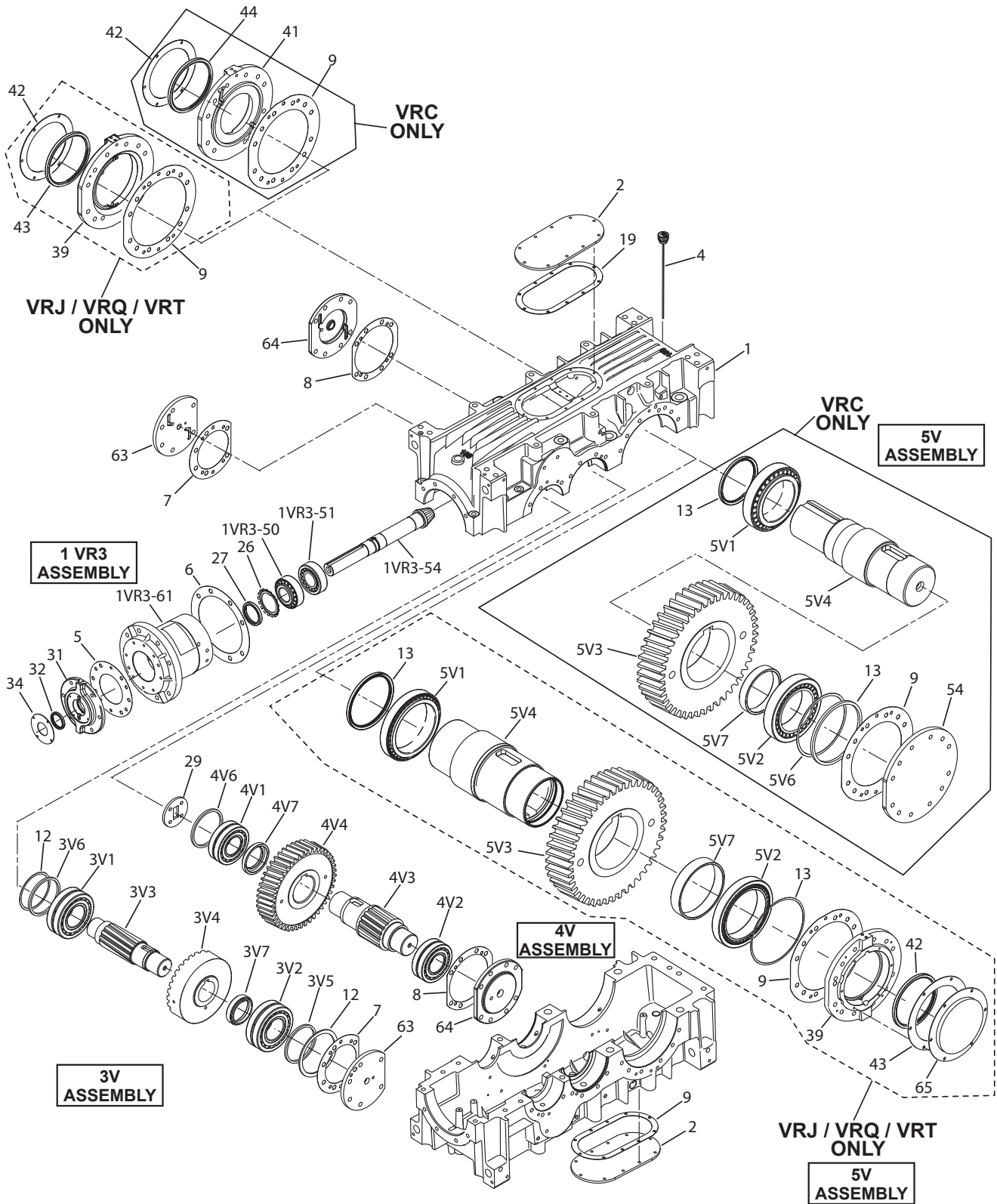


TABLE 1 — Parts List

Ref. No.	Part Description
1	Housing (Consists of Base & Cover & all Hardware)
2	Inspection Cover
4	Vented Dipstick
5	Gasket, High Speed Seal Cage
6	Shim Gasket, High Speed Bearing Carrier
7	Gasket, Intermediate End Cover
8	Gasket, Low Speed Pinion End Cover
9	Gasket, Low Speed Seal Cage or End Cover (Solid Shaft)
12	Shim, Steel – Intermediate Pinion
13	Shim, Steel – Low Speed Shaft Assembly
19	Gasket, Inspection Cover
26	Lock Washer, Bearing Nut
27	Lock Nut, Bearing
29	Keeper Plate, Low Speed Pinion
31	Cage, High Speed Seal
32	Seal, High Speed (Quantity 1 or 2)
34	Cover, High Speed Seal Cage
39	Cage, Low Speed Seal (Hollow Shaft)
41	Cage, Low Speed Seal (Solid Shaft)
42	Seal, Low Speed (Quantity 1 or 2)
43	Cover, Low Speed Seal Cage (Hollow Shaft)
44	Cover, Low Speed Seal Cage (Solid Shaft)
54	Cover, Low Speed Shaft (Solid Shaft)
63	Cover, Intermediate
64	Cover, Low Speed Pinion
65	Cover, Low Speed Shaft (Hollow Shaft)
100	Shim Gasket Kit (includes ref. numbers 5, 6, 7, 8, 9, 12, 13, 19)
1VR3	HIGH SPEED PINION ASSEMBLY – Includes:
1VR3-50	Bearing, High Speed Pinion
1VR3-51	Bearing, High Speed Pinion
1VR3-54	Pinion SOS, High Speed
1VR3-61	Carrier, High Speed Bearing
1VR3-70	Bevel Set (consists of ref. numbers 3V4 & 1VR3-54)
3V	INTERMEDIATE PINION ASSEMBLY – Includes:
3V1	Bearing, Intermediate
3V2	Bearing, Intermediate
3V3	Pinion, Intermediate
3V4	Gear, High Speed
3V5	Spacer, Housing
3V6	Spacer, Housing
3V7	Spacer, Shaft
4V	LOW SPEED PINION ASSEMBLY - Includes:
4V1	Bearing, Low Speed Pinion Shaft
4V2	Bearing, Low Speed Pinion Shaft
4V3	Pinion, Low Speed (SOS)
4V4	Gear, Intermediate
4V6	Spacer, Housing
4V7	Spacer, Shaft
5V	LOW SPEED SHAFT ASSEMBLY – Includes:
5V1	Bearing, Low Speed Shaft
5V2	Bearing, Low Speed Shaft
5V3	Gear, Low Speed
5V4	Shaft, Low Speed (single extension is pictured)
5V6	Spacer, Housing (not used with double extension shafts)
5V7	Spacer, Shaft

TABLE 2 — Oil Seals/Falk Part Number Low Speed Shaft Assembly

DRIVE SIZE	Ref. #42
133-137VRC	2931167
133-137VRT/VRJ/VRQ	2931178
143-147VRC	2931179
143-147VRT/VRJ/VRQ	2930698
153-157VRC	2931178
153-157VRT/VRJ/VRQ	2931180
163-167VRC	D003723
163-167VRT/VRJ/VRQ	D003199
173-177VRC	2930698
173-177VRT/VRJ/VRQ	2930699
187VRC	2930698
187VRT/VRJ/VRQ	2930699

TABLE 3 — Oil Seals/Falk Part Number High Speed Shaft Assembly

DRIVE SIZE/LS Shaft Configuration	Nominal Ratios	Ref. #32
133-137VRC/Single Extension Only	14.0 – 71.0	D003346
133-137VRC/Single Extension Only	80.0 – 125	D003347
143-147VRC/Single Extension Only	14.0 – 71.0	D004281
143-147VRC/Single Extension Only	80.0 – 125	D003722
153-157VRC/Single Extension Only	14.0 – 71.0	D009045
153-157VRC/Single Extension Only	80.0 – 125	D003345
163-167VRC/Single Extension Only	14.0 – 71.0	D003198
163-167VRC/Single Extension Only	80.0 – 125	D004281
173-177VRC/Single Extension Only	12.5 – 63.0	D009046
173-177VRC/Single Extension Only	71.0 – 112	D009045
187VRC/Single Extension Only	14.0 – 71.0	D009046
187VRC/Single Extension Only	80.0 – 125	D009045

TABLE 4 — Oil Seal Descriptions/ Commercial Numbers

Falk Number	Descriptions	Commercial Numbers
2930698	Seal, Nitrile	200X230X13TC
2930699	Seal, Nitrile	280X310X15TC
2931167	Seal, Nitrile	140X170X12TC
2931178	Seal, Nitrile	180X210X10TC
2931179	Seal, Nitrile	150X180X13TC
2931180	Seal, Nitrile	220X250X13TC
D003198	Seal, Viton	CR33412
D003199	Seal, Nitrile	240X270X15TC
D003345	Seal, Viton	56X70X8VTF
D003346	Seal, Viton	60X75X8VTF
D003347	Seal, Viton	45X 62X7VTC
D003722	Seal, Viton	52X72X8VTF
D003723	Seal, Nitrile	200X230X15TC
D004281	Seal, Viton	65X90X10VSC
D009045	Seal, Viton	75X100X10VTF
D009046	Seal, Viton	120X160X12VTF

TABLE 5 — Bearings/Falk Part Number HS Shaft Assembly (Ref. #1VR3)

DRIVE SIZE	Nominal Ratios	Ref. Numbers	
		1VR3-50	1VR3-51
133-137VRC Single Extension Only	14.0 – 71.0 80.0 – 125	D003036 D005592	D002007 D005592
143-147VRC Single Extension Only	14.0 – 71.0 80.0 – 125	D002885 D002006	D004029 D002006
153-157VRC Single Extension Only	14.0 – 71.0 80.0 – 125	D004029 D003307	D002898 D003307
163-167VRC Single Extension Only	14.0 – 71.0 80.0 – 125	2930456 D002007	D002889 D002007
173-177VRC Single Extension Only	12.5 – 63.0 71.0 – 112	D005731 D004029	D005619 D002008
187VRC Single Extension Only	14.0 – 71.0 80.0 – 125	D005731 D004029	D005619 D002008

TABLE 7 — Bearings/Falk Part Number LS Shaft Assembly (Ref. #5V)

DRIVE SIZE	Ref. Numbers	
	5V1	5V2
133-137VRC 133-137VRT/VRJ/VRQ	D002009 D003265	D002009 D003265
143-147VRC 143-147VRT/VRJ/VRQ	2931223 D002848	2931223 D002848
153-157VRC 153-157VRT/VRJ/VRQ	D002882 2930624	D002882 2930624
163-167VRC 163-167VRT/VRJ/VRQ	2930462 D003073	2930462 D003073
173-177VRC 173-177VRT/VRJ/VRQ	2930497 2930498	2930497 2930498
187VRC 187VRT/VRJ/VRQ	2930497 2930498	2930497 2930498

TABLE 6 — Bearings/Falk Part Number Int. Pinion Assembly (Ref. #3V) & LS Pinion Assembly (Ref. #4V)

DRIVE SIZE	Nominal Ratios	Ref. Numbers			
		3V1	3V2	4V1	4V2
133-137VR3 All Shaft Types	14.0 – 50.0, 80.0 – 90.0 56.0 – 71.0, 100 – 125	2930307 2930878	2930307 2930878	2930315 2930315	2930315 2930315
143-147VR3 All Shaft Types	14.0 – 50.0, 80.0 – 90.0 56.0 – 71.0, 100 – 125	920698 2930302	920698 2930302	2930623 2930623	2930623 2930623
153-157VR3 All Shaft Types	14.0 – 50.0, 80.0 – 90.0 56.0 – 71.0, 100 – 125	2930623 2930307	2930623 2930307	2930317 2930317	2930317 2930317
163-167VR3 All Shaft Types	14.0 – 50.0, 80.0 – 90.0 56.0 – 71.0, 100 – 125	919675 2930315	919675 2930315	919115 919115	919115 919115
173-177VR3 All Shaft Types	12.5 – 45.0, 71.0 – 80.0 50.0 – 63.0, 90.0 – 112	919115 2930461	919115 2930461	919111 919111	919111 919111
187VR3 All Shaft Types	14.0 – 50.0, 80.0 – 90.0 56.0 – 71.0, 100 – 125	919115 2930461	919115 2930461	919111 919111	919111 919111

TABLE 8 — Bearing Descriptions/ Commercial Numbers †

Falk Number	Descriptions	Commercial Numbers
919111	Spherical Roller Bearing	22324EAE4C3 * H *
919115	Spherical Roller Bearing	22320EAE4C3 * H *
919675	Spherical Roller Bearing	22318EAE4C3 * H *
920698	Spherical Roller Bearing	22314 EAE4C3 * H *
2930307	Spherical Roller Bearing	22312EAE4C3 * H *
2930315	Spherical Roller Bearing	22315EAE4C3 * H *
2930317	Spherical Roller Bearing	22319EAE4C3 * H *
2930456	Tapered Roller Bearing	HR32319J
2930461	Spherical Roller Bearing	22317EAE4C3 * H *
2930462	Tapered Roller Bearing	HR30240J
2930497	Tapered Roller Bearing	HR32240J
2930498	Tapered Roller Bearing	HR32056XJ
2930623	Spherical Roller Bearing	22316EAE4C3 * H *
2930624	Tapered Roller Bearing	HR32944J
2930878	Spherical Roller Bearing	22310EAE4C3 * H *
2931223	Tapered Roller Bearing	HR30230J
D002006	Tapered Roller Bearing	HR32311 J
D002007	Tapered Roller Bearing	HR32314J
D002008	Tapered Roller Bearing	HR32317J
D002009	Tapered Roller Bearing	30228M
D002848	Tapered Roller Bearing	HR32940J
D002882	Tapered Roller Bearing	HR32036XJ
D002885	Tapered Roller Bearing	HR32315J
D002889	Tapered Roller Bearing	HR32320J
D002898	Tapered Roller Bearing	HR32318J
D003073	Tapered Roller Bearing	HR32048XJ
D003265	Tapered Roller Bearing	HR32936J
D003307	Tapered Roller Bearing	HR32312J
D004029	Tapered Roller Bearing	HR32316J
D005592	Tapered Roller Bearing	HR32310J
D005619	Tapered Roller Bearing	32228JM

† Consult Rexnord for approved bearing manufacturers.