Limitorque V Series

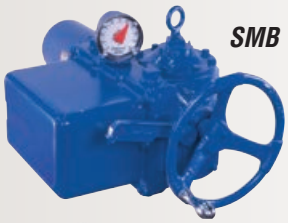
Bevel Gearboxes

The V series bevel gearboxes offer an extensive range of thrust and torque outputs for multi-turn applications such as gate and globe valves, and slide gates. Applications for weatherproof or temporary submersion (IP67) service can be accommodated. Optional spur gear attachments reduce the input torque required, resulting in lower handwheel rim pull foropening and closing operations.

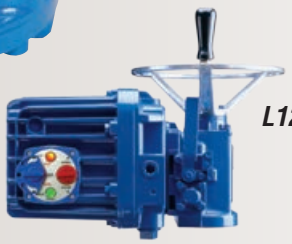
The V series ductile iron housing provides strength and durability. The drive sleeve, bevel pinion shaft, and spur gear reduction shafts are roller bearing-supported, delivering high mechanical advantage and long life. Excellent sealing of mating surfaces provides reliable environmental protection. Ambient temperatures to -40°C are achieved with the standard lubricant.



V series bevel gearboxes are easily adapted for motorized operation by MX, L120 and SMB actuators.



SMB



L120



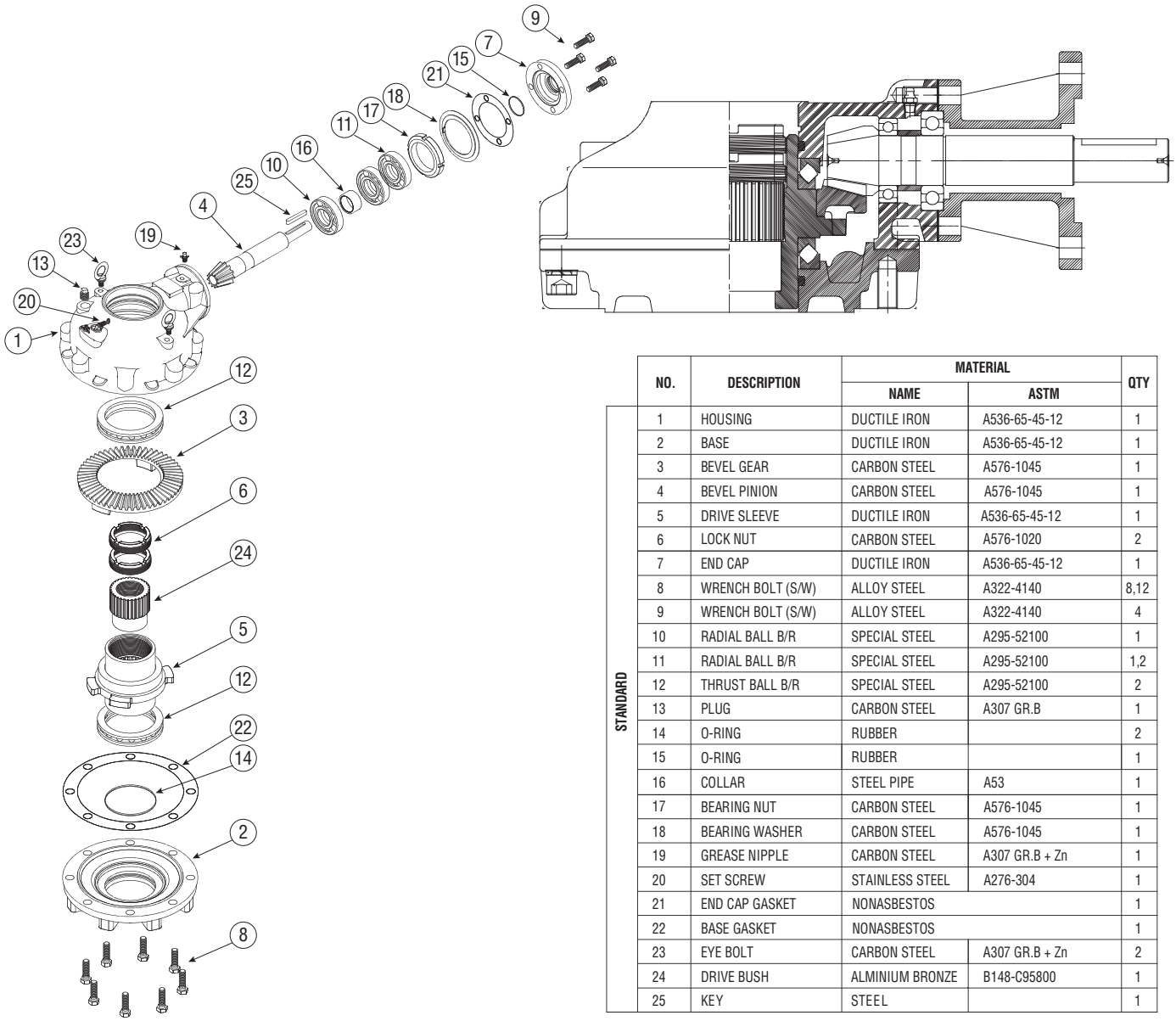
MX

Features and Benefits

- Weatherproof and temporary submersion construction (IP67)
- Maintenance-free
- Input flanges machined in accordance with MSS SP-102, with keyed input shaft
- Splined, bronze alloy stem nut is removable from the drive sleeve for thread machining
- High strength bevel pinion and ring gear
- Roller bearing supported for high mechanical advantage
- Ductile iron enclosure
- Output thrust to 921 700 lbs (4100 kN)
- Output torque to 19 176 ft-lb (26 000 N-m)
- -40°C to 90°C (-40°F to 194°F) temperature range for continuous operation (options to -50°C)

Ratings

Gearbox	Ratio	Mechanical Advantage	Stem Capacity		Output Thrust Rating (manual and motorized)		Output Torque Rating (manual and motorized)		Input Torque for Output Torque Rating	
			Inches	MM	Lbs	kN	ft-lb	N-m	ft-lb	N-m
V0	3.25:1	3.18	1.81	46	28 551	127	442	600	143	194
V1	3.5:1	3.29	2.17	55	31 698	141	723	980	220	298
V2	4:1	3.72	2.44	62	42 714	190	1106	1500	297	403
V3	5:1	4.80	2.83	72	64 745	288	1844	2500	384	521
V35	5.5:1	5.23	3.35	85	78 680	350	2581	3500	494	670
V35H	5.5:1	5.23	3.74	95	550 800	2450	5163	7000	988	1340
V4	6:1	5.70	3.86	98	89 924	400	3835	5200	673	912
V4H	6:1	5.70	4.33	110	651 900	2900	7228	9800	1268	1719
V5	6.5:1	6.18	4.53	115	114 653	510	5753	7800	932	1263
V5H	6.5:1	6.18	5.12	130	786 800	3500	11 063	15 000	1792	2429
V6	7:1	6.72	5.12	130	519 309	2310	9588	13 000	1427	1935
V6H	7:1	6.72	5.91	150	1 056 600	4700	16 964	23 000	2524	3423
V7	7.55:1	7.17	5.91	150	562 022	2500	12 981	17 600	1810	2454
V7H	7.55:1	7.17	6.69	170	1 169 000	5200	27 290	37 000	3805	5159
V8	8:1	7.60	7.09	180	921 718	4100	19 176	26 000	2523	3421
V8H	8:1	7.60	8.46	215	1 719 800	7650	38 353	52 000	5046	6842



	NO.	DESCRIPTION	MATERIAL		QTY
			NAME	ASTM	
STANDARD	1	HOUSING	DUCTILE IRON	A536-65-45-12	1
	2	BASE	DUCTILE IRON	A536-65-45-12	1
	3	BEVEL GEAR	CARBON STEEL	A576-1045	1
	4	BEVEL PINION	CARBON STEEL	A576-1045	1
	5	DRIVE SLEEVE	DUCTILE IRON	A536-65-45-12	1
	6	LOCK NUT	CARBON STEEL	A576-1020	2
	7	END CAP	DUCTILE IRON	A536-65-45-12	1
	8	WRENCH BOLT (S/W)	ALLOY STEEL	A322-4140	8,12
	9	WRENCH BOLT (S/W)	ALLOY STEEL	A322-4140	4
	10	RADIAL BALL B/R	SPECIAL STEEL	A295-52100	1
	11	RADIAL BALL B/R	SPECIAL STEEL	A295-52100	1,2
	12	THRUST BALL B/R	SPECIAL STEEL	A295-52100	2
	13	PLUG	CARBON STEEL	A307 GR.B	1
	14	O-RING	RUBBER		2
	15	O-RING	RUBBER		1
	16	COLLAR	STEEL PIPE	A53	1
	17	BEARING NUT	CARBON STEEL	A576-1045	1
	18	BEARING WASHER	CARBON STEEL	A576-1045	1
	19	GREASE NIPPLE	CARBON STEEL	A307 GR.B + Zn	1
	20	SET SCREW	STAINLESS STEEL	A276-304	1
	21	END CAP GASKET	NONASBESTOS		1
	22	BASE GASKET	NONASBESTOS		1
	23	EYE BOLT	CARBON STEEL	A307 GR.B + Zn	2
	24	DRIVE BUSH	ALMINIUM BRONZE	B148-C95800	1
	25	KEY	STEEL		1

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Operation Maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

© 2013 Flowserve Corporation, Irving, Texas, USA. Flowserve is a registered trademark of Flowserve Corporation.

To find your local Limitorque representative, visit www.limitorque.com or call USA 434 528 4400.

United States
Flowserve Limitorque
5114 Woodall Road
Lynchburg, VA 24502 USA
Telephone: 434 528 4400
Fax: 434 845 9736

FCD LMENFL3602-00 (E) 11/13 © 2013 Flowserve Corporation.