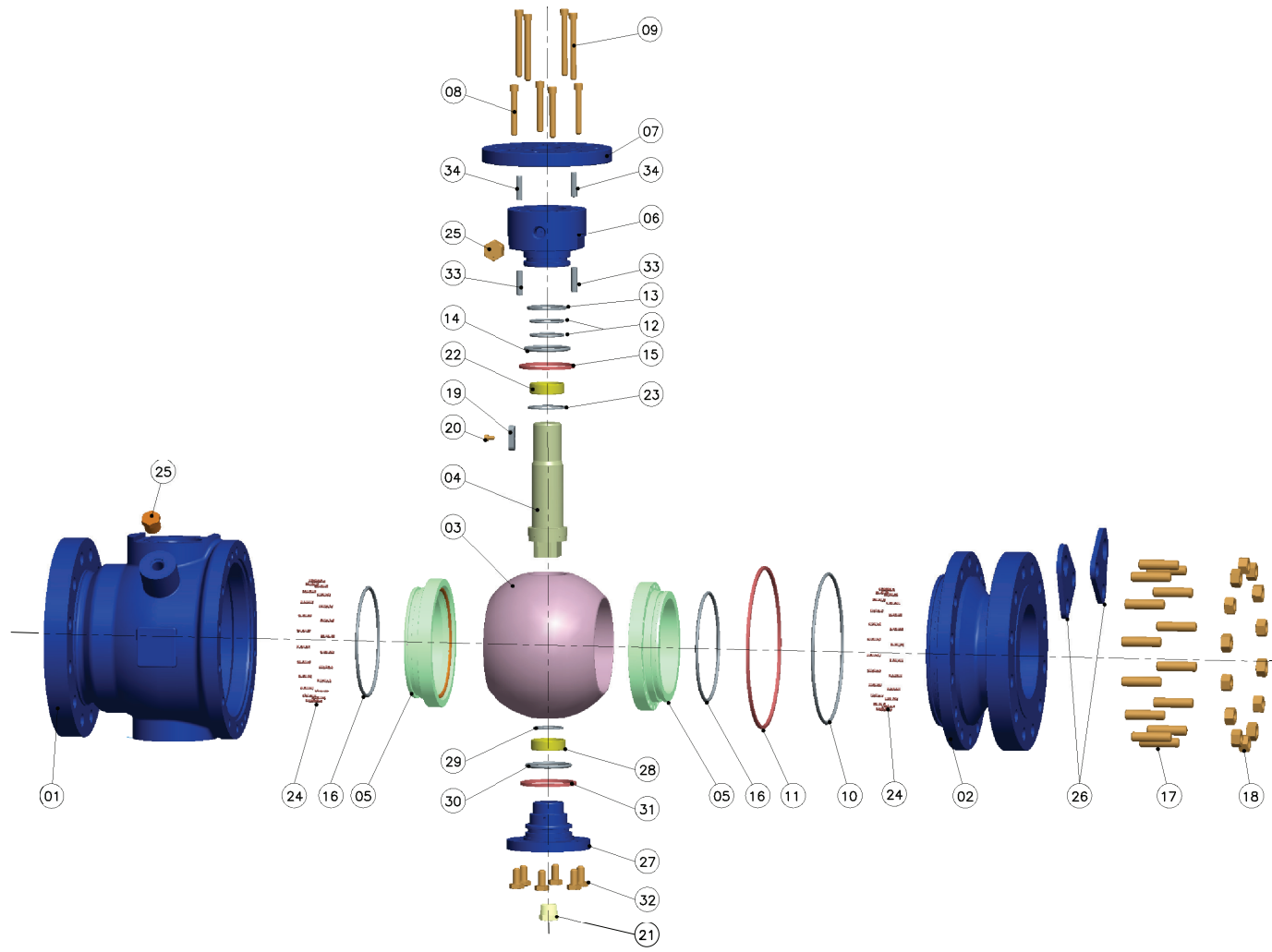


L Series Trunnion Mounted Ball Valves — Material Matrix



Size NPS 2, 3, 4, 6 FB Class 150, 300



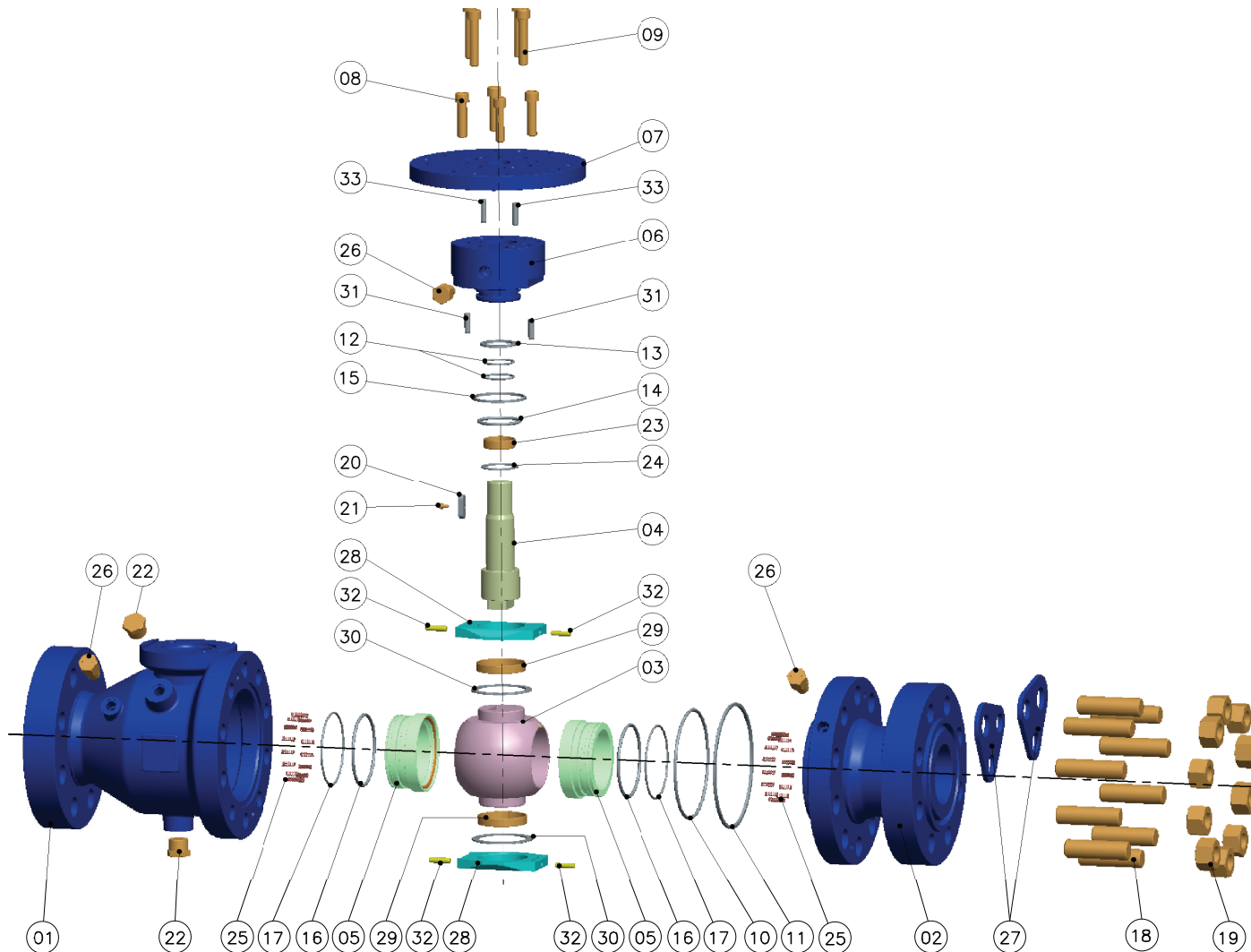
Size NPS 2, 3, 4, 6 FB Class 150, 300

MATERIAL COMBINATION OF VALVE					
ITEM NO.	PART NAME	C1L BODY-WCB TRIM-CS WITH ENP INSERT-DEVLON	C6L BODY-WCB TRIM-SS INSERT-DEVLON	2LL BODY-LCC TRIM-CS WITH ENP INSERT-DEVLON	26L BODY-LCC TRIM-SS INSERT-DEVLON
1	BODY	ASTM A216 GR. WCB	ASTM A216 GR. WCB	ASTM A352 GR. LCC	ASTM A352 GR. LCC
2	ADAPTER	ASTM A216 GR. WCB	ASTM A216 GR. WCB	ASTM A352 GR. LCC	ASTM A352 GR. LCC
3	BALL	ASTM A105 WITH ENP	ASTM A182 GR. F316/ASTM A351 GR. CF8M	ASTM A350 GR. LF2 WITH ENP	ASTM A182 GR. F316/ASTM A351 GR. CF8M
4	STEM	ASTM A322 GR. 4140 WITH ENP	ASTM A479 TYPE 316	ASTM A564 TYPE 630 17-4PH	ASTM A479 TYPE 316
5	SEAT	ASTM A105 WITH ENP + DEVLON	ASTM A182 GR. F316 + DEVLON	ASTM A350 GR. LF2 WITH ENP + DEVLON	ASTM A182 GR. F316 + DEVLON
6	HOUSING	ASTM A216 GR. WCB/ASTM A105	ASTM A216 GR. WCB/ASTM A105	ASTM A352 GR. LCC/ASTM A350 GR. LF2	ASTM A352 GR. LCC/ASTM A350 GR. LF2
7	ISO PAD	ASTM A216 GR. WCB/ASTM A105	ASTM A216 GR. WCB/ASTM A105	ASTM A352 GR. LCC/ASTM A350 GR. LF2	ASTM A352 GR. LCC/ASTM A350 GR. LF2
8	FASTENER (ISO PAD-HOUSING)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
9	FASTENER (HOUSING-BODY)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
10	O-RING (BODY SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
11	GASKET (BODY SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
12	O-RING (STEM SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
13	GASKET (STEM SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
14	O-RING (HOUSING SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
15	GASKET (HOUSING SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
16	O-RING (SEAT SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
17	STUD (BODY-ADAPTER)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M

Size NPS 2, 3, 4, 6 FB Class 150, 300

MATERIAL COMBINATION OF VALVE					
ITEM NO.	PART NAME	C1L BODY-WCB TRIM-CS WITH ENP INSERT-DEVLON	C6L BODY-WCB TRIM-SS INSERT-DEVLON	2LL BODY-LCC TRIM-CS WITH ENP INSERT-DEVLON	26L BODY-LCC TRIM-SS INSERT-DEVLON
18	NUT (BODY-ADAPTER)	ASTM A194 GR. 2HM	ASTM A194 GR. 2HM	ASTM A194 GR. 7M	ASTM A194 GR. 7M
19	KEY	ASTM A321 GR. 1040	ASTM A321 GR. 1040	ASTM A182 GR. F51	ASTM A182 GR. F51
20	CAP SCREW (KEY-STEM)	ASTM A193 GR. B8M	ASTM A193 GR. B8M	ASTM A193 GR. B8M	ASTM A193 GR. B8M
21	DRAIN PLUG	ASTM A105	ASTM A105	ASTM A350 GR. LF2	ASTM A350 GR. LF2
22	BEARING (STEM)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
23	THRUST WASHER (STEM)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
24	SEAT SPRING	ASTM B637 UNS N07750	ASTM B637 UNS N07750	ASTM B637 UNS N07750	ASTM B637 UNS N07750
25	SEALANT FITTING FOR NPS 6	ASTM A479 TYPE 316	ASTM A479 TYPE 316	ASTM A479 TYPE 316	ASTM A479 TYPE 316
26	LIFTING HOOK FOR NPS 6	CARBON STEEL	CARBON STEEL	LOW TEMPERATURE CARBON STEEL	LOW TEMPERATURE CARBON STEEL
27	TRUNNION	ASTM A216 GR. WCB/ASTM A105	ASTM A216 GR. WCB/ASTM A105	ASTM A352 GR. LCC/ASTM A350 GR. LF2	ASTM A352 GR. LCC/ASTM A350 GR. LF2
28	BEARING (TRUNNION)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
29	THRUST WASHER (TRUNNION PLATE)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
30	O-RING (TRUNNION SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
31	GASKET (TRUNNION SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
32	HEX SCREW (TRUNNION)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
33	DOWEL (BODY-HOUSING)	ASTM A321 GR. 1040	ASTM A321 GR. 1040	ASTM A182 GR. F51	ASTM A182 GR. F51
34	DOWEL (ISO PAD-HOUSING)	ASTM A321 GR. 1040	ASTM A321 GR. 1040	ASTM A182 GR. F51	ASTM A182 GR. F51

Size NPS 2, 3, 4, 6 FB Class 600, 900, 1500
NPS 8 FB to NPS 18 FB Class 150, 300, 600, 900, 1500
NPS 20 FB Class 150, 300, 600, 900
NPS 24 Class 150, 300, 600



NPS 2, 3, 4, 6 FB Class 600, 900, 1500
NPS 8 FB to NPS 18 FB Class 150, 300, 600, 900, 1500
NPS 20 FB Class 150, 300, 600, 900
NPS 24 Class 150, 300, 600

MATERIAL COMBINATION OF VALVE					
ITEM NO.	PART NAME	C1L BODY-WCB TRIM-CS WITH ENP INSERT-DEVLON	C6L BODY-WCB TRIM-SS INSERT-DEVLON	21L BODY-LCC TRIM-CS WITH ENP INSERT-DEVLON	26L BODY-LCC TRIM-SS INSERT-DEVLON
1	BODY	ASTM A216 GR. WCB	ASTM A216 GR. WCB	ASTM A352 GR. LCC	ASTM A352 GR. LCC
2	ADAPTER	ASTM A216 GR. WCB	ASTM A216 GR. WCB	ASTM A352 GR. LCC	ASTM A352 GR. LCC
3	BALL	ASTM A105 WITH ENP	ASTM A182GR.F316 / ASTM A351 GR. CF8M ASTM A182 GR. F51 / ASTM A890 GR. 4A (NPS 6 Class 1500, NPS 8 & above, Class 900 & 1500)	ASTM A350 GR. LF2 WITH ENP	*ASTM A182GR.F316 / ASTM A351 GR. CF8M ASTM A182 GR. F51/ASTM A890 GR. 4A (NPS 6 Class 1500, NPS 8 & above, Class 900 & 1500)
4	STEM	ASTM A322 GR. 4140 WITH ENP	ASTM A479 TYPE 316 ASTM A182 GR. F51 / ASTM A479 UNS 31803 (NPS 16 & NPS 18 Class 1500)	ASTM A564 TYPE 630 17-4PH	*ASTM A479 TYPE 316 ASTM A182 GR. F51 / ASTM A479 UNS 31803 (NPS 16 & NPS 18 Class 1500)
5	SEAT	ASTM A105 WITH ENP + DEVLON	ASTM A182 GR. F316 + DEVLON	ASTM A350 GR. LF2 WITH ENP + DEVLON	ASTM A182 GR. F316 + DEVLON
6	HOUSING	ASTM A216 GR. WCB / ASTM A105	ASTM A216 GR. WCB / ASTM A105	ASTM A352 GR. LCC / ASTM A350 GR. LF2	ASTM A352 GR. LCC / ASTM A350 GR. LF2
7	ISO PAD	ASTM A216 GR. WCB / ASTM A105	ASTM A216 GR. WCB / ASTM A105	ASTM A352 GR. LCC / ASTM A350 GR. LF2	ASTM A352 GR. LCC / ASTM A350 GR. LF2
8	FASTENER (ISO PAD-HOUSING)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
9	FASTENER (HOUSING-BODY)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
10	O-RING (BODY SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
11	GASKET (BODY SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
12	O-RING (STEM SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
13	GASKET (STEM SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
14	O-RING (HOUSING SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
15	GASKET (HOUSING SEAL)	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
16	O-RING (SEAT SEAL)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)
17	O-RING (SEAT SEALANT)	HNBR	HNBR	HNBR (LOW TEMPERATURE)	HNBR (LOW TEMPERATURE)

NPS 2, 3, 4, 6 FB Class 600, 900, 1500
NPS 8 FB to NPS 18 FB Class 150, 300, 600, 900, 1500
NPS 20 FB Class 150, 300, 600, 900
NPS 24 Class 150, 300, 600

MATERIAL COMBINATION OF VALVE					
ITEM NO.	PART NAME	C1L BODY-WCB TRIM-CS WITH ENP INSERT-DEVLON	C6L BODY-WCB TRIM-SS INSERT-DEVLON	21L BODY-LCC TRIM-CS WITH ENP INSERT-DEVLON	26L BODY-LCC TRIM-SS INSERT-DEVLON
18	STUD (BODY-ADAPTER)	ASTM A193 GR. B7M	ASTM A193 GR. B7M	ASTM A320 GR. L7M	ASTM A320 GR. L7M
19	NUT (BODY-ADAPTER)	ASTM A194 GR. 2HM	ASTM A194 GR. 2HM	ASTM A194 GR. 7M	ASTM A194 GR. 7M
20	KEY	ASTM A321 GR. 1040	ASTM A321 GR. 1040	ASTM A182 GR. F51	ASTM A182 GR. F51
21	CAP SCREW (KEY-STEM)	ASTM A193 GR. B8M	ASTM A193 GR. B8M	ASTM A193 GR. B8M	ASTM A193 GR. B8M
22	DRAIN & VENT PLUG	ASTM A105	ASTM A105	ASTM A350 GR. LF2	ASTM A350 GR. LF2
23	BEARING (STEM)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
24	THRUST WASHER (STEM)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
25	SEAT SPRING	ASTM B637 UNS N07750	ASTM B637 UNS N07750	ASTM B637 UNS N07750	ASTM B637 UNS N07750
26	SEALANT FITTING FOR NPS 4 CLASS 600 AND ABOVE	ASTM A479 TYPE 316	ASTM A479 TYPE 316	ASTM A479 TYPE 316	ASTM A479 TYPE 316
27	LIFTING HOOK FOR NPS 3 CLASS 1500 AND ABOVE	CARBON STEEL	CARBON STEEL	LOW TEMPERATURE CARBON STEEL	LOW TEMPERATURE CARBON STEEL
28	TRUNNION PLATE	ASTM A216 GR. WCB / ASTM A105	ASTM A216 GR. WCB / ASTM A105	ASTM A352 GR. LCC / ASTM A350 GR. LF2	ASTM A352 GR. LCC / ASTM A350 GR. LF2
29	BEARING (TRUNNION PLATE)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
30	THRUST WASHER (TRUNNION)	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE	SS316 + PTFE
31	DOWEL (BODY-HOUSING)	ASTM A321 GR. 1040	ASTM A321 GR. 1040	ASTM A182 GR. F51	ASTM A182 GR. F51
32	DOWEL (TRUNNION PLATE- BODY / ADAPTER)	ASTM A276 TYPE 316	ASTM A276 TYPE 316	ASTM A276 TYPE 316	ASTM A276 TYPE 316
33	DOWEL (ISO PAD-HOUSING)	ASTM A321 GR. 1040	ASTM A321 GR.1040	ASTM A182 GR. F51	ASTM A182 GR. F51

**Emerson Process Management
Virgo Valves**

10225 Mula Road, Suite 130
Stafford, TX 77477, USA
Phone: +1 281 933 3100
Fax: +1 281 933 3110
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

277, Hinjewadi Phase II, Maan (Mulshi)
Pune - 411 057, India
Phone: +91 20 6674 4000
Fax: +91 20 6674 4021
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

Via Sicilia, 96-20020 Magnago
Milan, Italy
Phone: +39 0331 308 211
Fax: +39 0331 306 299
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

PO Box 18748
Bldg B Jebel Ali Free Zone,
South Zone 2, Dubai, UAE
Phone: +971 4 8118100
Fax: +971 4 8865465
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

No. 15,
Taman Perindustrian Alfa Impian,
Jalan Alfa Impian 1,
Balakong 43300,
Selangor, Malaysia
Phone: +60 3 8964 1381
Fax: +60 3 8964 1382
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

1803, YongSeong Biztel, 314-1
Hangganro 2ga, Yongsan-gu
Seoul, South Korea, 140-750
Phone: +82 70 8884 0630
www.Virgo-Valves.com

**Emerson Process Management
Virgo Valves**

Room No. C 38, 11th Floor,
Shanghai Mart, 2299 Yan An Rd (W),
Shanghai, China
Phone: +86 21 6207 6626
www.Virgo-Valves.com

©2016 Emerson Process Management. All rights reserved.

Virgo is a mark owned by one of the companies in the Emerson Process Management business unit of Emerson Electric Co. The Emerson logo is a trade mark and service mark of Emerson Electric Co. All other marks are property of their respective owners.

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice. Responsibility for proper selection, use and maintenance of any product or service remains solely with the purchaser and end user.

VIRGO™


EMERSON™
Process Management