

# Submittal Data Sheet

## Wilo-CO MVI – NSF 61/372 Pressure Boosting System

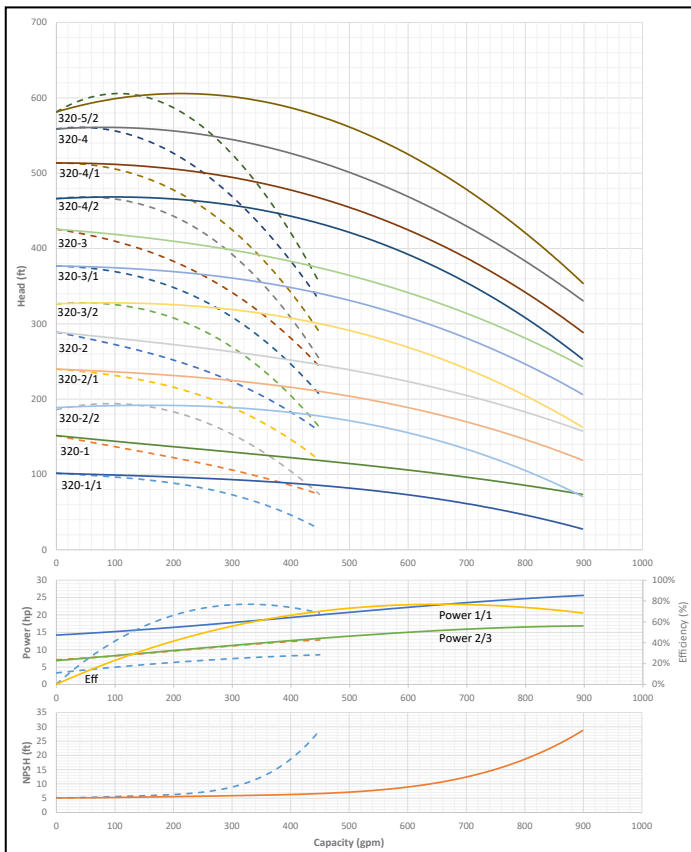


### CO2 MVI-320



|               |       |
|---------------|-------|
| Project:      |       |
| Engineer:     |       |
| Contractor:   |       |
| Submitted By: | Date: |
| Approved By:  | Date: |

| Tag # | Model #     | Flow | BOOST PSI | Min. Inlet PSI | HP/Pump | Phase | Voltage | RPM  |
|-------|-------------|------|-----------|----------------|---------|-------|---------|------|
|       | CO2 MVI-320 |      |           |                |         |       |         | 3600 |



#### Applications

- Water Supply
- Agriculture
- Washing / Sprinkling Systems
- Pressure Boosting
- Cooling Circuits
- Condensate Return

#### Materials of Construction

|                           |   |
|---------------------------|---|
| Volute                    | AISI 304 Stainless Steel with Cast Iron ANSI flanges  |
| Impeller                  | AISI 304 Stainless Steel  |
| Shaft                     | ANSI 431 Stainless Steel  |
| Elastomers                | EPDM  |
| Manifold                  | AISI 304 Stainless Steel  |
| Suction Isolation Valves  | 150# Cast Iron Wafer Butterfly, All Stainless Steel Wetted Components                             |
| Discharge Isolation Valve | 150# Cast Iron Wafer Butterfly, All Stainless Steel Wetted Components or 300# 304SS Ball Valve    |
| Check Valve               | Wafer Style, 316 Stainless Steel internals, non-slam, plunger type with EPDM seal/ cast iron body |
| Mechanical Seal           | Frame and Springs 304SS   |
| Pressure Transducers      | ¼" MNPT, 316 Stainless Steel  |
| Pressure Gauges           | ¼" MNPT, 304 Stainless Steel Housing with 316 Stainless Steel wetted parts                        |
| System Base               | Epoxy Coated A-500 Steel Tubing and A36 C-Channel/Plates  |

#### Technical Data – Operational Ranges

|                    |  |
|--------------------|--|
| Liquid Temp Range  | 5°F to 248°F (Min. 32 °F for Domestic Water) |
| Ambient Temp Range | +32°F to +104 °F                             |

#### Technical Data – Panel

|                           |  |
|---------------------------|--|
| Voltage                   | 208-230/460-3 or 575-3   |
| Enclosure                 | NEMA 3R up to 20 HP<br>NEMA 12 for 25 HP and above<br>(NEMA 4 and 4X available upon request)   |
| Standard                  | Meets UL 508A  |
| Variable Frequency Drives | Danfoss FC-101:<br>• 1 HP to 3 HP 208-230V~1 IN / 208-230V~3 OUT<br>• 1 HP to 60 HP 208-230V~3<br>• 1 HP to 100 HP 460V~3<br>• 1 HP to 100 HP 575V~3 |

#### Technical Data – PLC

|                           |  |
|---------------------------|--|
| User Interface            | 7" Diagonal Color LCD Touchscreen                                    |
| Display Resolution        | 800 x 480 Pixels   |
| Supply Voltage            | 24VDC  |
| Max. Current Consumption  | 320mA@24V  |
| Number of Analog Inputs   | 4  |
| Number of Analog Outputs  | 4  |
| Number of Digital Inputs  | 18   |
| Number of Digital Outputs | 17   |
| Onboard Communications    | Modbus Protocol (Optional Gateways for BACnet, LonWorks, and CANbus) |
| Ethernet Port             | RJ45 port capable of transmitting data 10/100Mbps                    |
| Additional Ports          | 2.0 USB Port; Micro-SD Port  |

#### Motor Data

|                        |   |
|------------------------|---|
| Power Supply           | 208-230, 460, 575~3                             |
| Motor Enclosure        | Totally Enclosed Fan Cooled (TEFC)              |
| Motor Efficiency       | Nema Premium Efficiency – Meets NEMA 12-12 Rule |
| Enclosure Construction | Rolled Steel / Cast Iron                        |
| Motor Protection Index | IP54  |
| Insulation Class       | F   |

Approval Stamp

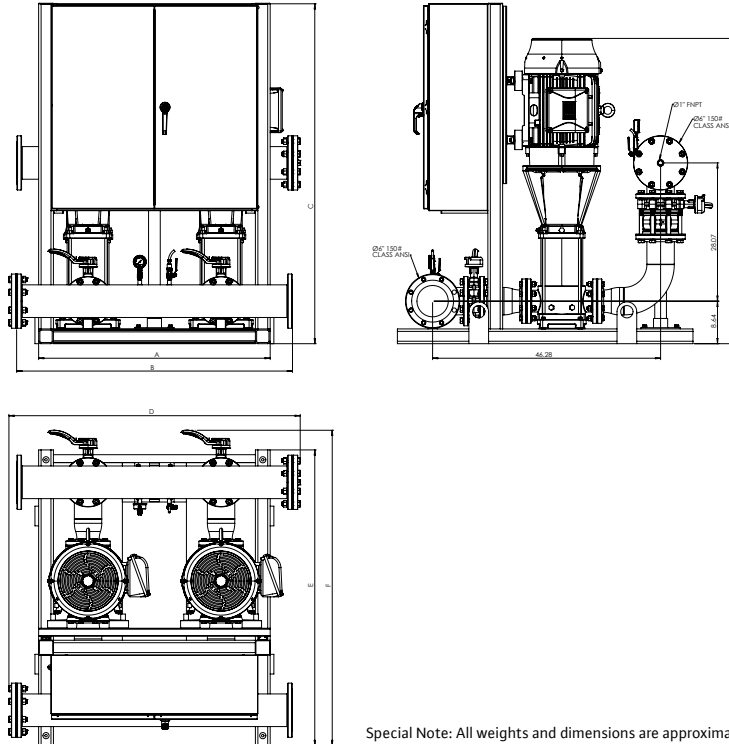
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### CO2 MVI-320

#### 150# Discharge



Special Note: All weights and dimensions are approximate and should not be used as exact rough-in dimensions

### CO2 MVI-320

| Model           | Article | HP  | Voltage   | Phase | System Header Size (ANSI) | Pmax (PSI) | Dimensions - Inches (in) |        |        |        |        |        |        |                     | TEFC Motor Data (Per Motor) |            |
|-----------------|---------|-----|-----------|-------|---------------------------|------------|--------------------------|--------|--------|--------|--------|--------|--------|---------------------|-----------------------------|------------|
|                 |         |     |           |       |                           |            | A (in)                   | B (in) | C (in) | D (in) | E (in) | F (in) | H (in) | System Weight (Lbs) | Motor FLA (per pump)        | System FLA |
| CO2 MVI-320-1/1 | 3354626 | 7.5 | 208V-230V | ~3    | 6" 150#                   | 232        | 35.75                    | 52     | 61     | 55.13  | 60     | 63.95  | 42.08  | 1593.82             | 19.2-17.3                   | 43-37      |
| CO2 MVI-320-1/1 | 3354627 | 15  | 208V-230V | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 50.55  | 2077.09             | 38.5-34.8                   | 83-77.4    |
| CO2 MVI-320-2/2 | 3354628 | 15  | 208V-230V | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 53.78  | 2094.41             | 38.5-34.8                   | 83-77.4    |
| CO2 MVI-320-2/1 | 3354629 | 20  | 208V-230V | ~3    | 6" 150#                   | 232        | 44                       | 52     | 69     | 55.13  | 60     | 63.95  | 53.78  | 1959.61             | 50.2-45.4                   | 106.4      |
| CO2 MVI-320-2   | 3354630 | 25  | 208V-230V | ~3    | 6" 150#                   | 232        | 44                       | 52     | 69     | 55.13  | 60     | 63.93  | 56.04  | 2115.95             | 63.0-57.6                   | 131        |
| CO2 MVI-320-3/2 | 3354631 | 30  | 208V-230V | ~3    | 6" 150#                   | 232        | 44                       | 52     | 89     | 55.13  | 60     | 63.95  | 59.29  | 2210.24             | 76.7-68.4                   | 153        |
| CO2 MVI-320-3/1 | 3354632 | 40  | 208V-230V | ~3    | 6" 150#                   | 232        | 47                       | 56     | 89     | 59.13  | 60     | 64.62  | 61.84  | 2529.12             | 101-92.6                    | 208.4      |
| CO2 MVI-320-3   | 3354633 | 40  | 208V-230V | ~3    | 6" 150#                   | 232        | 47                       | 56     | 89     | 59.13  | 60     | 64.62  | 61.84  | 2529.12             | 101-92.6                    | 208.4      |
| CO2 MVI-320-1/1 | 3354662 | 7.5 | 460V      | ~3    | 6" 150#                   | 232        | 35.75                    | 52     | 61     | 55.13  | 60     | 63.95  | 42.08  | 1466.13             | 8.67                        | 34.2       |
| CO2 MVI-320-1/1 | 3354663 | 15  | 460V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 50.55  | 1908.87             | 17.4                        | 37.8       |
| CO2 MVI-320-2/2 | 3354664 | 15  | 460V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 53.78  | 1926.19             | 17.4                        | 37.8       |
| CO2 MVI-320-2/1 | 3354665 | 20  | 460V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 53.78  | 1942.19             | 22.7                        | 50.4       |
| CO2 MVI-320-2   | 3354666 | 25  | 460V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 56.04  | 2176.48             | 28.8                        | 59.6       |
| CO2 MVI-320-3/2 | 3354667 | 30  | 460V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 59.29  | 2216.14             | 34.2                        | 70.2       |
| CO2 MVI-320-3/1 | 3354668 | 40  | 460V      | ~3    | 6" 150#                   | 232        | 47                       | 56     | 69     | 59.13  | 60     | 63.95  | 61.84  | 2803.09             | 46.3                        | 99.4       |
| CO2 MVI-320-3   | 3354669 | 40  | 460V      | ~3    | 6" 150#                   | 232        | 47                       | 56     | 69     | 59.13  | 60     | 63.95  | 61.84  | 2803.09             | 46.3                        | 99.4       |
| CO2 MVI-320-1/1 | 3354698 | 7.5 | 575V      | ~3    | 6" 150#                   | 232        | 35.75                    | 52     | 61     | 55.13  | 60     | 63.95  | 42.08  | 1470.13             | 6.94                        | 17.6       |
| CO2 MVI-320-1/1 | 3354699 | 15  | 575V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 65.09  | 1898.82             | 13.8                        | 32.4       |
| CO2 MVI-320-2/2 | 3354700 | 15  | 575V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 65.09  | 1916.14             | 13.8                        | 32.4       |
| CO2 MVI-320-2/1 | 3354701 | 20  | 575V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 61     | 55.13  | 60     | 63.95  | 53.78  | 1932.14             | 18.2                        | 43.8       |
| CO2 MVI-320-2   | 3354702 | 25  | 575V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 69     | 55.13  | 60     | 63.93  | 56.04  | 2101.95             | 23                          | 52.4       |
| CO2 MVI-320-3/2 | 3354703 | 30  | 575V      | ~3    | 6" 150#                   | 232        | 44                       | 52     | 69     | 55.13  | 60     | 63.93  | 59.29  | 2157.61             | 27.4                        | 64         |
| CO2 MVI-320-3/1 | 3354704 | 40  | 575V      | ~3    | 6" 150#                   | 232        | 47                       | 56     | 69     | 59.13  | 60     | 63.95  | 61.84  | 2482.49             | 37                          | 86.8       |
| CO2 MVI-320-3   | 3354705 | 40  | 575V      | ~3    | 6" 150#                   | 232        | 47                       | 56     | 69     | 59.13  | 60     | 63.95  | 61.84  | 2482.49             | 37                          | 86.8       |

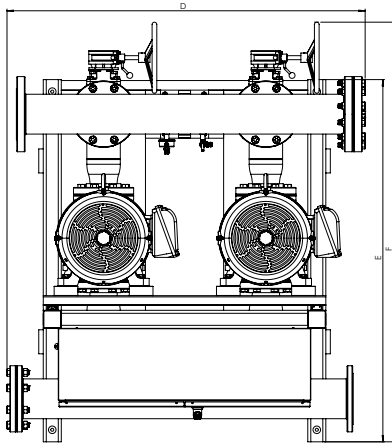
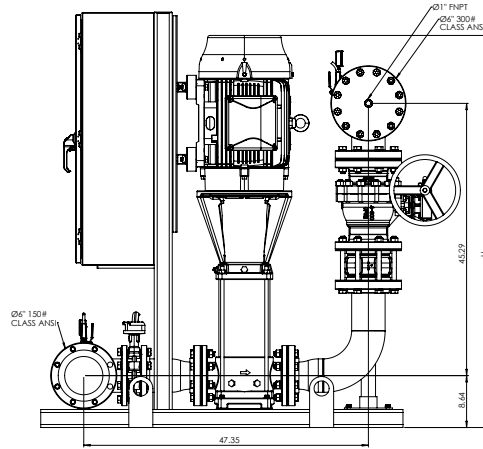
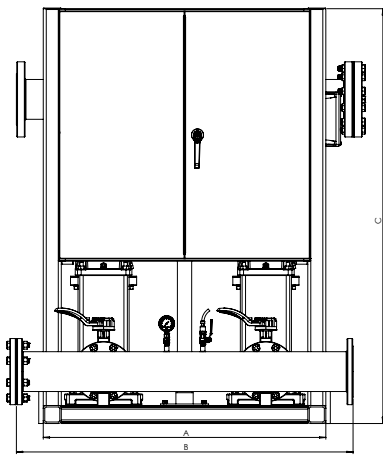
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### CO2 MVI-320

#### 300# Discharge



Special Note: All weights and dimensions are approximate and should not be used as exact rough-in dimensions

| CO2 MVI-320     |         |    |           |       |                              |               |                          |           |           |           |           |           |           | TEFC Motor Data<br>(Per Motor) |                         |            |
|-----------------|---------|----|-----------|-------|------------------------------|---------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------------|-------------------------|------------|
| Model           | Article | HP | Voltage   | Phase | System Header<br>Size (ANSI) | Pmax<br>(PSI) | Dimensions - Inches (in) |           |           |           |           |           |           | System<br>Weight (Lbs)         | Motor FLA<br>(per pump) | System FLA |
|                 |         |    |           |       |                              |               | A<br>(in)                | B<br>(in) | C<br>(in) | D<br>(in) | E<br>(in) | F<br>(in) | H<br>(in) |                                | (A)                     |            |
| CO2 MVI-320-4/2 | 3354634 | 40 | 208V-230V | ~3    | 6" 300#                      | 435           | 47                       | 56        | 89        | 59.57     | 60.25     | 69.97     | 65.09     | 2845.12                        | 101-92.6                | 208.4      |
| CO2 MVI-320-4/2 | 3354670 | 40 | 460V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 69        | 59.57     | 60.25     | 69.8      | 65.09     | 3119.1                         | 46.3                    | 99.4       |
| CO2 MVI-320-4/1 | 3354671 | 50 | 460V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 69        | 59.57     | 60.25     | 69.8      | 65.09     | 2896.21                        | 56.1                    | 122.2      |
| CO2 MVI-320-4   | 3354672 | 50 | 460V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 69        | 59.57     | 60.25     | 69.8      | 65.09     | 2896.21                        | 56.1                    | 122.2      |
| CO2 MVI-320-5/2 | 3354673 | 60 | 460V      | ~3    | 6" 300#                      | 435           | 53                       | 65        | 69        | 68.57     | 60.25     | 69.8      | 71.07     | 3481.11                        | 67                      | 146        |
| CO2 MVI-320-4/2 | 3354706 | 40 | 575V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 69        | 59.57     | 60.25     | 69.8      | 65.09     | 2798.49                        | 37                      | 86.8       |
| CO2 MVI-320-4/1 | 3354707 | 50 | 575V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 89        | 59.57     | 60.25     | 69.97     | 65.09     | 2914.84                        | 44.9                    | 105        |
| CO2 MVI-320-4   | 3354708 | 50 | 575V      | ~3    | 6" 300#                      | 435           | 47                       | 56        | 89        | 59.57     | 60.25     | 69.97     | 65.09     | 2914.84                        | 44.9                    | 105        |
| CO2 MVI-320-5/2 | 3354709 | 60 | 575V      | ~3    | 6" 300#                      | 435           | 53                       | 65        | 89        | 68.57     | 60.25     | 70.97     | 71.07     | 3529.74                        | 53.6                    | 127.6      |