



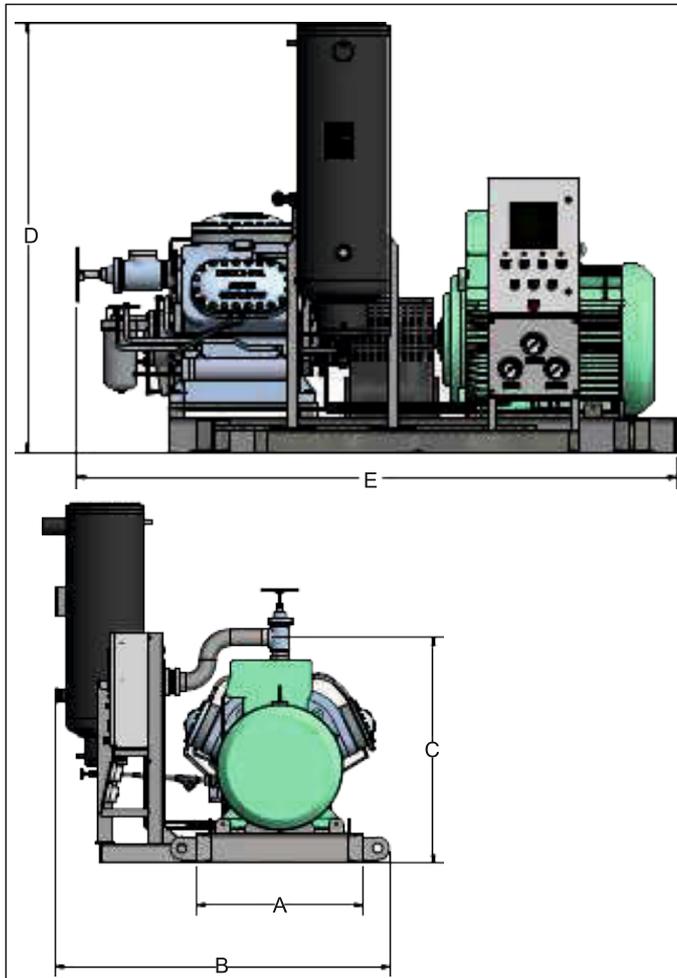
FRICK INDIA

HIGH STAGE RECIPROCATING COMPRESSORS
450XL SERIES



Frick India Direct Drive Reciprocating Compressors

- Space Saver
- Higher energy efficiency due to reduced number of components for power transfer
- Less maintenance costs and low downtime for repairs
- Low noise levels
- The direct connection in direct drive compressors enhances their overall reliability and durability
- Minimized wear and tear because motor is directly attached to the compressor's crankshaft
- Variable speed operation of the compressor's motor with the help of VFD



Dimensions & Weight

| Model | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Weight (kg) W/O Motor |
|--------|--------|--------|--------|--------|--------|-----------------------|
| 452 XL | 700 | 1347 | 1120 | 1475 | 2110 | 1220 |
| 454 XL | 850 | 1680 | 1145 | 1585 | 1485 | 1445 |
| 456 XL | 850 | 1720 | 1170 | 1860 | 2600 | 1635 |
| 458 XL | 850 | 1720 | 1220 | 1870 | 2680 | 1758 |

Note: Please consult us for 4512 XL & 4516 XL compressor package dimensions & weight. The dimension of the product may change without notice due to improvement to the product.

Model: 454XL
Compressor Package with
Coalescer Oil Separator



Model: 456XL
Compressor Package with
Coalescer Oil Separator
with Gauge Panel



Model: 458XL
Compressor Package
with Coalescer Oil
Separator with PLC



Rating Chart for High Stage Direct Drive Compressors

| Ammonia | | | | | | | | | | | | | | | | |
|---------|-----|------------------------|---------------------|---------------------|--------|---------------------|---------------------|--------|------|------------------------|---------------------|---------------------|--------|---------------------|---------------------|--------|
| Model | RPM | Evaporative Temp in °C | 35°C | | | 40°C | | | RPM | Evaporative Temp in °C | 35°C | | | 40°C | | |
| | | | CMH (CFM) | Qo kW (TR) | BkW | CMH (CFM) | Qo kW (TR) | BkW | | | CMH (CFM) | Qo kW (TR) | BkW | CMH (CFM) | Qo kW (TR) | BkW |
| 452XL | 960 | 5 | 135.10 (79.51) | 153.74 (43.80) | 23.16 | 135.10 (79.51) | 147.24 (41.95) | 26.05 | 1440 | 5 | 202.65 (119.26) | 230.61 (65.70) | 34.74 | 202.65 (119.26) | 220.86 (62.93) | 39.08 |
| | | 0 | 135.10 (79.51) | 125.13 (35.65) | 23.11 | 135.10 (79.51) | 120.71 (34.39) | 25.78 | | 0 | 202.65 (119.26) | 187.70 (53.48) | 34.67 | 202.65 (119.26) | 181.07 (51.59) | 38.67 |
| | | -5 | 135.10 (79.51) | 100.67 (28.68) | 22.41 | 135.10 (79.51) | 96.74 (27.56) | 24.63 | | -5 | 202.65 (119.26) | 151.01 (43.02) | 33.62 | 202.65 (119.26) | 145.11 (41.34) | 36.95 |
| | | -10 | 135.10 (79.51) | 79.15 (22.55) | 21.07 | 135.10 (79.51) | 75.36 (21.47) | 22.77 | | -10 | 202.65 (119.26) | 118.73 (33.83) | 31.61 | 202.65 (119.26) | 113.04 (32.21) | 34.16 |
| | | -15 | 135.10 (79.51) | 61.04 (17.39) | 19.39 | 135.10 (79.51) | 57.35 (16.34) | 20.60 | | -15 | 202.65 (119.26) | 91.56 (26.09) | 29.09 | 202.65 (119.26) | 86.03 (24.51) | 30.90 |
| | | -20 | 135.10 (79.51) | 46.86 (13.35) | 17.52 | | | | | -20 | 202.65 (119.26) | 70.29 (20.03) | 26.28 | | | |
| 454XL | 960 | 5 | 270.20 (159.01) | 307.90 (87.72) | 44.28 | 270.20 (159.01) | 295.09 (84.07) | 49.84 | 1440 | 5 | 405.30 (238.52) | 461.85 (131.58) | 66.42 | 405.30 (238.52) | 442.64 (126.11) | 74.76 |
| | | 0 | 270.20 (159.01) | 250.72 (71.43) | 44.17 | 270.20 (159.01) | 241.84 (68.90) | 49.25 | | 0 | 405.30 (238.52) | 376.08 (107.15) | 66.26 | 405.30 (238.52) | 362.76 (103.35) | 73.88 |
| | | -5 | 270.20 (159.01) | 201.90 (57.52) | 42.87 | 270.20 (159.01) | 194.00 (55.27) | 47.10 | | -5 | 405.30 (238.52) | 302.85 (86.28) | 64.31 | 405.30 (238.52) | 291.00 (82.91) | 70.65 |
| | | -10 | 270.20 (159.01) | 158.72 (45.22) | 40.28 | 270.20 (159.01) | 150.97 (43.01) | 43.50 | | -10 | 405.30 (238.52) | 238.08 (67.83) | 60.42 | 405.30 (238.52) | 226.46 (64.52) | 65.25 |
| | | -15 | 270.20 (159.01) | 122.36 (34.86) | 37.03 | 270.20 (159.01) | 110.39 (31.45) | 39.36 | | -15 | 405.30 (238.52) | 183.54 (52.29) | 55.55 | 405.30 (238.52) | 165.59 (47.18) | 59.04 |
| | | -20 | 270.20 (159.01) | 93.30 (26.58) | 33.46 | | | | | -20 | 405.30 (238.52) | 139.95 (39.87) | 50.19 | | | |
| 456XL | 960 | 5 | 405.30 (238.52) | 461.67 (131.53) | 65.11 | 405.30 (238.52) | 442.33 (126.02) | 73.27 | 1440 | 5 | 607.95 (357.78) | 692.51 (197.30) | 97.67 | 607.95 (357.78) | 663.50 (189.03) | 109.91 |
| | | 0 | 405.30 (238.52) | 375.82 (107.07) | 64.93 | 405.30 (238.52) | 362.58 (103.30) | 72.41 | | 0 | 607.95 (357.78) | 563.73 (160.61) | 97.40 | 607.95 (357.78) | 543.87 (154.95) | 108.62 |
| | | -5 | 405.30 (238.52) | 302.53 (86.19) | 63.04 | 405.30 (238.52) | 290.77 (82.84) | 69.24 | | -5 | 607.95 (357.78) | 453.80 (129.29) | 94.56 | 607.95 (357.78) | 436.16 (124.26) | 103.86 |
| | | -10 | 405.30 (238.52) | 237.87 (67.77) | 59.21 | 405.30 (238.52) | 226.32 (64.48) | 63.93 | | -10 | 607.95 (357.78) | 356.81 (101.66) | 88.82 | 607.95 (357.78) | 339.48 (96.72) | 95.90 |
| | | -15 | 405.30 (238.52) | 183.36 (52.24) | 54.45 | 405.30 (238.52) | 172.06 (49.02) | 57.85 | | -15 | 607.95 (357.78) | 275.04 (78.36) | 81.68 | 607.95 (357.78) | 258.09 (73.53) | 86.78 |
| | | -20 | 405.30 (238.52) | 139.94 (39.87) | 49.16 | | | | | -20 | 607.95 (357.78) | 209.91 (59.81) | 73.74 | | | |
| 458XL | 960 | 5 | 540.40 (318.03) | 614.04 (174.94) | 86.76 | 540.40 (318.03) | 588.38 (167.63) | 97.66 | 1440 | 5 | 810.60 (477.04) | 921.06 (262.41) | 130.14 | 810.60 (477.04) | 882.57 (251.45) | 146.49 |
| | | 0 | 540.40 (318.03) | 499.96 (142.44) | 86.56 | 540.40 (318.03) | 482.27 (137.40) | 96.54 | | 0 | 810.60 (477.04) | 749.94 (213.66) | 129.84 | 810.60 (477.04) | 723.41 (206.10) | 144.81 |
| | | -5 | 540.40 (318.03) | 402.60 (114.70) | 84.03 | 540.40 (318.03) | 386.87 (110.22) | 92.33 | | -5 | 810.60 (477.04) | 603.90 (172.05) | 126.05 | 810.60 (477.04) | 580.31 (165.33) | 138.50 |
| | | -10 | 540.40 (318.03) | 316.60 (90.20) | 78.94 | 540.40 (318.03) | 300.98 (85.75) | 85.25 | | -10 | 810.60 (477.04) | 474.90 (135.30) | 118.41 | 810.60 (477.04) | 451.47 (128.63) | 127.88 |
| | | -15 | 540.40 (318.03) | 244.12 (69.55) | 72.56 | 540.40 (318.03) | 228.85 (65.20) | 77.14 | | -15 | 810.60 (477.04) | 366.18 (104.33) | 108.84 | 810.60 (477.04) | 343.28 (97.80) | 115.71 |
| | | -20 | 540.40 (318.03) | 186.03 (53.00) | 65.58 | | | | | -20 | 810.60 (477.04) | 279.045 (79.50) | 98.37 | | | |
| 4512XL | 960 | 5 | 810.60 (477.04) | 923.45 (263.09) | 130.24 | 810.60 (477.04) | 884.98 (252.13) | 146.55 | 1440 | 5 | 1215.90 (715.56) | 1385.18 (394.64) | 195.36 | 1215.90 (715.56) | 1327.47 (378.20) | 219.83 |
| | | 0 | 810.60 (477.04) | 751.81 (214.19) | 129.89 | 810.60 (477.04) | 739.28 (210.62) | 144.85 | | 0 | 1215.90 (715.56) | 1127.72 (321.29) | 194.84 | 1215.90 (715.56) | 1108.92 (315.93) | 217.28 |
| | | -5 | 810.60 (477.04) | 605.33 (172.46) | 126.08 | 810.60 (477.04) | 581.71 (165.73) | 138.50 | | -5 | 1215.90 (715.56) | 907.00 (258.69) | 189.12 | 1215.90 (715.56) | 872.57 (248.60) | 207.75 |
| | | -10 | 810.60 (477.04) | 475.96 (135.60) | 118.46 | 810.60 (477.04) | 452.83 (129.01) | 127.92 | | -10 | 1215.90 (715.56) | 713.94 (203.40) | 177.69 | 1215.90 (715.56) | 679.25 (193.52) | 191.88 |
| | | -15 | 810.60 (477.04) | 367.04 (104.57) | 108.90 | 810.60 (477.04) | 344.16 (98.05) | 115.75 | | -15 | 1215.90 (715.56) | 550.56 (156.86) | 163.35 | 1215.90 (715.56) | 516.24 (147.08) | 173.63 |
| | | -20 | 810.60 (477.04) | 279.92 (79.75) | 98.39 | | | | | -20 | 1215.90 (715.56) | 419.88 (119.63) | 147.59 | | | |
| 4516XL | 960 | 5 | 1080.80 (636.05) | 1232.57 (351.16) | 173.82 | 1080.80 (636.05) | 1181.19 (336.52) | 195.65 | 1440 | 5 | 1621.20 (954.08) | 1848.86 (526.74) | 260.73 | 1621.20 (954.08) | 1771.79 (504.78) | 293.48 |
| | | 0 | 1080.80 (636.05) | 1003.68 (285.95) | 173.38 | 1080.80 (636.05) | 968.16 (275.83) | 193.40 | | 0 | 1621.20 (954.08) | 1505.52 (428.93) | 260.07 | 1621.20 (954.08) | 1452.24 (413.75) | 290.10 |
| | | -5 | 1080.80 (636.05) | 808.11 (230.23) | 168.31 | 1080.80 (636.05) | 776.59 (221.25) | 184.90 | | -5 | 1621.20 (954.08) | 1212.17 (345.35) | 252.47 | 1621.20 (954.08) | 1164.89 (331.88) | 277.35 |
| | | -10 | 1080.80 (636.05) | 635.49 (181.05) | 158.12 | 1080.80 (636.05) | 604.25 (172.15) | 170.76 | | -10 | 1621.20 (954.08) | 953.24 (271.58) | 237.18 | 1621.20 (954.08) | 906.38 (258.23) | 256.14 |
| | | -15 | 1080.80 (636.05) | 489.64 (139.50) | 145.42 | 1080.80 (636.05) | 459.14 (130.81) | 154.50 | | -15 | 1621.20 (954.08) | 734.46 (209.25) | 218.13 | 1621.20 (954.08) | 688.71 (196.22) | 231.75 |
| | | -20 | 1080.80 (636.05) | 373.50 (106.41) | 131.37 | | | | | -20 | 1621.20 (954.08) | 560.25 (159.62) | 197.06 | | | |

Note: Liquid Subcooling: 0°C, Superheat: 0°C
For any condition outside the range given above please contact us.

Frick India Belt Drive Reciprocating Compressors

- Flexibility in adjusting speed and pressure as per application
- We offer V-belts or banded belts options to handle heavier load
- Easy to maintain
- Advantageous for applications where pressure requirements fluctuate
- Lower initial cost
- Our banded belt option minimizes vibration, enhances stability, and improves horsepower transmission
- Superior oil separation system with Coalescer oil separator

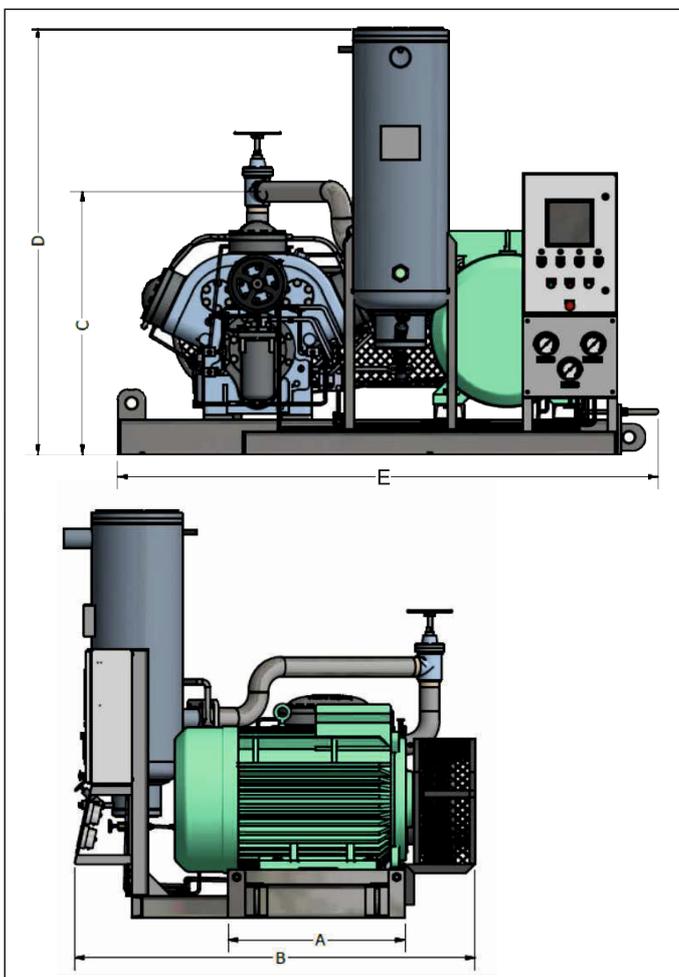
Model: 454XL
Compressor Package with
Scrubber Type Oil
Separator



Model: 456XL
Compressor Package with
Coalescer Oil Separator



Model: 4512XL Compressor
Package with Coalescer Oil
Separator



Dimensions & Weight

| Model | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Weight (kg) W/O Motor |
|---------|--------|--------|--------|--------|--------|-----------------------|
| 452 XL | 785 | 1583 | 1123 | 1463 | 1920 | 1350 |
| 454 XL | 785 | 1590 | 1123 | 1595 | 2030 | 1565 |
| 456 XL | 785 | 1780 | 1123 | 1820 | 2290 | 1732 |
| 458 XL | 785 | 1780 | 1137 | 1820 | 2290 | 1850 |
| 4512 XL | 1750 | 2442 | 1240 | 1915 | 2430 | 2564 |
| 4516 XL | 1750 | 2260 | 1240 | 1950 | 2450 | 2650 |

Note: The dimension of the product may change without notice due to improvement to the product.

Rating Chart for High Stage Belt Drive Compressors

| Refrigerant | | | Ammonia | | | | | | | | | | | | | |
|-------------|------|------------------------|------------------------|---------------------|--------|---------------------|---------------------|--------|------|------------------------|---------------------|---------------------|--------|---------------------|---------------------|--------|
| Model | RPM | Evaporative Temp in °C | Condensing Temperature | | | | | | | | | | | | | |
| | | | 35°C | | | 40°C | | | RPM | Evaporative Temp in °C | 35°C | | | 40°C | | |
| | | | CMH (CFM) | Qo kW (TR) | Pe KW | CMH (CFM) | Qo kW (TR) | Pe KW | | | CMH (CFM) | Qo kW (TR) | Pe KW | CMH (CFM) | Qo kW (TR) | Pe KW |
| 452XL | 1200 | 5 | 168.90 (99.36) | 192.21 (54.76) | 29.84 | 168.90 (99.36) | 184.06 (52.44) | 33.58 | 1440 | 5 | 202.68 (119.24) | 230.65 (65.71) | 35.81 | 202.68 (119.24) | 220.87 (62.93) | 40.30 |
| | | 0 | 168.90 (99.36) | 156.41 (44.56) | 29.78 | 168.90 (99.36) | 150.86 (42.98) | 33.22 | | 0 | 202.68 (119.24) | 187.69 (53.47) | 35.74 | 202.68 (119.24) | 181.03 (51.58) | 39.86 |
| | | -5 | 168.90 (99.36) | 125.80 (35.84) | 28.87 | 168.90 (99.36) | 120.92 (34.45) | 31.74 | | -5 | 202.68 (119.24) | 150.96 (43.01) | 34.64 | 202.68 (119.24) | 145.10 (41.34) | 38.09 |
| | | -10 | 168.90 (99.36) | 98.91 (28.18) | 27.14 | 168.90 (99.36) | 94.21 (26.84) | 29.34 | | -10 | 202.68 (119.24) | 118.69 (33.82) | 32.57 | 202.68 (119.24) | 113.05 (32.21) | 35.21 |
| | | -15 | 168.90 (99.36) | 76.27 (21.73) | 24.98 | 168.90 (99.36) | 71.71 (20.43) | 26.54 | | -15 | 202.68 (119.24) | 91.52 (26.08) | 29.98 | 202.68 (119.24) | 86.05 (24.52) | 31.85 |
| | | -20 | 168.90 (99.36) | 58.58 (16.69) | 22.58 | | | | | -20 | 202.68 (119.24) | 70.30 (20.03) | 27.10 | | | |
| 454XL | 1200 | 5 | 337.80 (198.73) | 384.87 (109.65) | 57.06 | 337.80 (198.73) | 368.87 (105.09) | 64.22 | 1440 | 5 | 405.36 (238.47) | 461.84 (131.58) | 68.47 | 405.36 (238.47) | 442.64 (126.11) | 77.06 |
| | | 0 | 337.80 (198.73) | 313.37 (89.28) | 56.91 | 337.80 (198.73) | 302.32 (86.13) | 63.47 | | 0 | 405.36 (238.47) | 376.04 (107.14) | 68.29 | 405.36 (238.47) | 362.78 (103.36) | 76.16 |
| | | -5 | 337.80 (198.73) | 252.37 (71.90) | 55.24 | 337.80 (198.73) | 242.51 (69.09) | 60.69 | | -5 | 405.36 (238.47) | 302.84 (86.28) | 66.29 | 405.36 (238.47) | 291.01 (82.91) | 72.83 |
| | | -10 | 337.80 (198.73) | 198.42 (56.53) | 51.90 | 337.80 (198.73) | 188.70 (53.76) | 56.05 | | -10 | 405.36 (238.47) | 238.10 (67.84) | 62.28 | 405.36 (238.47) | 226.44 (64.51) | 67.26 |
| | | -15 | 337.80 (198.73) | 152.93 (43.57) | 47.72 | 337.80 (198.73) | 138.01 (39.32) | 50.72 | | -15 | 405.36 (238.47) | 183.52 (52.28) | 57.26 | 405.36 (238.47) | 165.61 (47.18) | 60.86 |
| | | -20 | 337.80 (198.73) | 116.64 (33.23) | 43.12 | | | | | -20 | 405.36 (238.47) | 139.97 (39.88) | 51.74 | | | |
| 456XL | 1200 | 5 | 506.60 (298.03) | 577.08 (164.41) | 83.91 | 506.60 (298.03) | 552.93 (157.53) | 94.41 | 1440 | 5 | 607.92 (357.64) | 692.50 (197.29) | 100.69 | 607.92 (357.64) | 663.52 (189.04) | 113.29 |
| | | 0 | 506.60 (298.03) | 469.78 (133.84) | 83.67 | 506.60 (298.03) | 453.21 (129.12) | 93.31 | | 0 | 607.92 (357.64) | 563.74 (160.61) | 100.40 | 607.92 (357.64) | 543.85 (154.94) | 111.97 |
| | | -5 | 506.60 (298.03) | 378.17 (107.74) | 81.24 | 506.60 (298.03) | 363.46 (103.55) | 89.22 | | -5 | 607.92 (357.64) | 453.80 (129.29) | 97.49 | 607.92 (357.64) | 436.15 (124.26) | 107.06 |
| | | -10 | 506.60 (298.03) | 297.33 (84.71) | 76.30 | 506.60 (298.03) | 282.91 (80.60) | 82.38 | | -10 | 607.92 (357.64) | 356.80 (101.65) | 91.56 | 607.92 (357.64) | 339.49 (96.72) | 98.86 |
| | | -15 | 506.60 (298.03) | 229.20 (65.30) | 70.17 | 506.60 (298.03) | 215.09 (61.28) | 74.55 | | -15 | 607.92 (357.64) | 275.04 (78.36) | 84.20 | 607.92 (357.64) | 258.11 (73.54) | 89.46 |
| | | -20 | 506.60 (298.03) | 174.90 (49.83) | 63.35 | | | | | -20 | 607.92 (357.64) | 209.88 (59.80) | 76.02 | | | |
| 458XL | 1200 | 5 | 675.50 (397.40) | 767.53 (218.67) | 111.81 | 675.50 (397.40) | 735.45 (209.53) | 125.85 | 1440 | 5 | 810.60 (476.88) | 921.04 (262.40) | 134.17 | 810.60 (476.88) | 882.54 (251.44) | 151.02 |
| | | 0 | 675.50 (397.40) | 624.96 (178.05) | 111.54 | 675.50 (397.40) | 602.84 (171.75) | 124.41 | | 0 | 810.60 (476.88) | 749.95 (213.66) | 133.85 | 810.60 (476.88) | 723.41 (206.10) | 149.29 |
| | | -5 | 675.50 (397.40) | 503.26 (143.38) | 108.28 | 675.50 (397.40) | 483.57 (137.77) | 118.98 | | -5 | 810.60 (476.88) | 603.91 (172.06) | 129.94 | 810.60 (476.88) | 580.28 (165.32) | 142.78 |
| | | -10 | 675.50 (397.40) | 395.72 (112.74) | 101.73 | 675.50 (397.40) | 376.24 (107.19) | 109.86 | | -10 | 810.60 (476.88) | 474.86 (135.29) | 122.08 | 810.60 (476.88) | 451.49 (128.63) | 131.83 |
| | | -15 | 675.50 (397.40) | 305.12 (86.93) | 93.51 | 675.50 (397.40) | 286.06 (81.50) | 99.40 | | -15 | 810.60 (476.88) | 366.14 (104.32) | 112.21 | 810.60 (476.88) | 343.27 (97.80) | 119.28 |
| | | -20 | 675.50 (397.40) | 232.54 (66.25) | 84.50 | | | | | -20 | 810.60 (476.88) | 279.05 (79.50) | 101.40 | | | |
| 4512XL | 1200 | 5 | 1013.30 (596.12) | 1154.30 (328.86) | 167.83 | 1013.30 (596.12) | 1106.21 (315.16) | 188.86 | 1440 | 5 | 1215.96 (715.35) | 1385.16 (394.63) | 201.40 | 1215.96 (715.35) | 1327.45 (378.19) | 226.63 |
| | | 0 | 1013.30 (596.12) | 939.77 (267.74) | 167.38 | 1013.30 (596.12) | 924.11 (263.28) | 186.66 | | 0 | 1215.96 (715.35) | 1127.72 (321.29) | 200.86 | 1215.96 (715.35) | 1108.93 (315.94) | 223.99 |
| | | -5 | 1013.30 (596.12) | 756.69 (215.58) | 162.47 | 1013.30 (596.12) | 727.13 (207.16) | 178.49 | | -5 | 1215.96 (715.35) | 908.03 (258.70) | 194.96 | 1215.96 (715.35) | 872.56 (248.59) | 214.19 |
| | | -10 | 1013.30 (596.12) | 594.94 (169.50) | 152.66 | 1013.30 (596.12) | 566.02 (161.26) | 164.84 | | -10 | 1215.96 (715.35) | 713.93 (203.40) | 183.19 | 1215.96 (715.35) | 679.22 (193.51) | 197.81 |
| | | -15 | 1013.30 (596.12) | 458.79 (130.71) | 140.34 | 1013.30 (596.12) | 430.19 (122.56) | 149.15 | | -15 | 1215.96 (715.35) | 550.55 (156.85) | 168.41 | 1215.96 (715.35) | 516.23 (147.07) | 178.98 |
| | | -20 | 1013.30 (596.12) | 349.88 (99.68) | 126.78 | | | | | -20 | 1215.96 (715.35) | 419.86 (119.62) | 152.14 | | | |
| 4516XL | 1200 | 5 | 1351.00 (794.79) | 1540.71 (438.95) | 223.99 | 1351.00 (794.79) | 1476.48 (420.65) | 252.13 | 1440 | 5 | 1621.20 (953.75) | 1852.02 (526.74) | 268.79 | 1621.20 (953.75) | 1772.06 (504.00) | 302.56 |
| | | 0 | 1351.00 (794.79) | 1254.58 (357.43) | 223.43 | 1351.00 (794.79) | 1210.18 (344.78) | 249.23 | | 0 | 1621.20 (953.75) | 1507.94 (428.88) | 268.12 | 1621.20 (953.75) | 1454.78 (413.76) | 299.08 |
| | | -5 | 1351.00 (794.79) | 1010.11 (287.78) | 216.89 | 1351.00 (794.79) | 970.76 (276.57) | 238.27 | | -5 | 1621.20 (953.75) | 1213.86 (345.24) | 260.27 | 1621.20 (953.75) | 1166.61 (331.80) | 285.92 |
| | | -10 | 1351.00 (794.79) | 794.35 (226.31) | 203.76 | 1351.00 (794.79) | 755.32 (215.19) | 220.05 | | -10 | 1621.20 (953.75) | 954.80 (271.56) | 244.51 | 1621.20 (953.75) | 907.93 (258.23) | 264.06 |
| | | -15 | 1351.00 (794.79) | 612.07 (174.38) | 187.39 | 1351.00 (794.79) | 573.92 (163.51) | 199.10 | | -15 | 1621.20 (953.75) | 735.41 (209.16) | 224.87 | 1621.20 (953.75) | 689.84 (196.20) | 238.92 |
| | | -20 | 1351.00 (794.79) | 466.90 (133.02) | 169.29 | | | | | -20 | 1621.20 (953.75) | 561.24 (159.62) | 203.15 | | | |

Note: Liquid Subcooling: 0°C, Superheat: 0°C
For any condition outside the range given above please contact us.

452XL



454XL



456XL



458XL



4512XL



4516XL



Outstanding performance, enhanced durability, and robust high-pressure resistance: Next-generation energy-saving compressor blocks

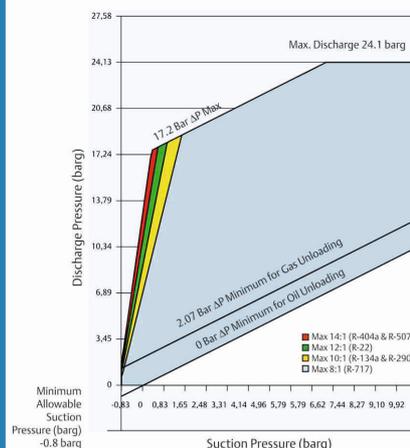
Frick India offers six models of high-speed reciprocating compressors available in 2, 4, 6, 8, 12 and 16-cylinder options. All our high-speed reciprocating compressors operate at a maximum speed of 1440 RPM and are equipped with integrated capacity reduction features to ensure cost-effective performance under lower load conditions. V-belt and direct-connected motor operations are available across all ranges of high-speed reciprocating models. The 450XL can operate with ammonia, halocarbon, and hydrocarbon refrigerants. It works in extreme applications ranging from 2.07 bar to 17.2 bar pressure differential. These compressors can achieve high compression ratios and are known for their exceptional cost efficiency. Frick India High Speed Compressors have a whopping cylinder displacement of 84.5 m³/h at 1200 RPM, and their coefficient of performance (COP) is notably high compared to other compressors in the industry. These compressors can be installed anywhere, even on the upper floor, since vibration is very low. Furthermore, the noise level is exceptionally low due to the use of precise, quick-acting ring plates in the suction and discharge valves.

SPECIFICATIONS

| DESCRIPTION / MODELS | | 452XL | 454XL | 456XL | 458XL | 4512XL | 4516XL |
|-----------------------------|-----------|-------------|-------------|-------------|--------------|-------------|--------------|
| Number of Cylinders | | 2 | 4 | 6 | 8 | 12 | 16 |
| Maximum RPM | | 1440 | 1440 | 1440 | 1440 | 1440 | 1440 |
| Bore and Stroke | Inch | 4 ½ x 4 ½ | 4 ½ x 4 ½ | 4 ½ x 4 ½ | 4 ½ x 4 ½ | 4 ½ x 4 ½ | 4 ½ x 4 ½ |
| | mm | 114x114 | 114 x 114 | 114 x 114 | 114 x 114 | 114 x 114 | 114 x 114 |
| Suction Connection | in. (mm) | 2 ½ (65) | 3 (80) | 4 (100) | 4 (100) | 6 (150) | 6 (150) |
| Discharge Connection | in (mm) | 2 (50) | 2 ½ (65) | 3 (80) | 3 (80) | 3 (80x2) | 3 (80x2) |
| Unit weight without Motor | Lbs. (kg) | 2976 (1350) | 3450 (1565) | 3818 (1732) | 4079 (1850) | 5653 (2564) | 5842 (2650) |
| Oil Charge | Ga (Lts.) | 5 (19) | 7 (27) | 7 (27) | 7 (27) | 15 (54) | 15 (54) |
| Standard Steps of Unloading | (%) | 0 | 50/100 | 33/66/100 | 25/50/75/100 | 33/66/100 | 25/50/75/100 |

* Above data is calculated at 1200 RPM

OPERATIONAL LIMITS



FEATURES

- High COP
- Energy Efficiency Performance
- Superior Part Load Performance
- Double Bellow Shaft Seal
- Inherent Variable Volume Ratio
- Liquid resistant Safety Head Protection
- Double Tapered Roller Bearing
- Tri Micro Oil Filtration
- Smooth 100 % Unloading system
- Low Vibration & Noise
- Low Power Consumption
- Less Maintenance
- Environment Friendly
- User Friendly

Frick India Genuine Spare Parts



Spring Loaded Safety Heads



Capacity Control System



Ductile Iron Crankshaft



Tri-Micro Oil Filter

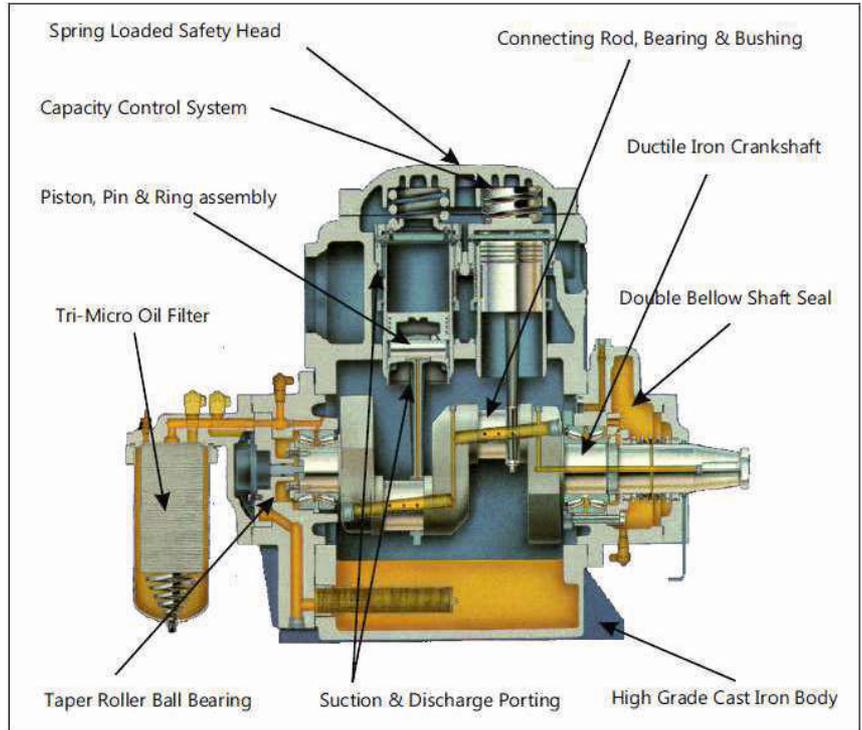


Piston, Ring & Ring Assembly



Taper Roller Ball Bearing

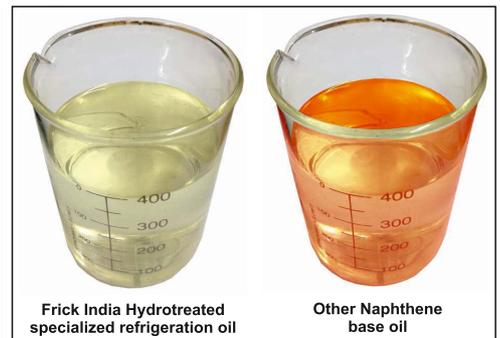
Inside Frick India Compressors



FRICK INDIA COMPRESSOR OIL

Frick India offers highly refined, premium quality industrial refrigeration compressor oil specifically engineered to operate under the most demanding conditions of ammonia refrigeration systems.

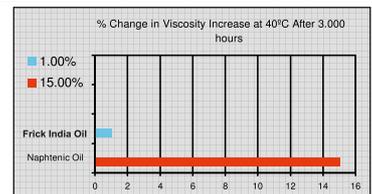
This is a hydro-treated specialized refrigeration oil that presents numerous performance benefits compared to conventional naphthenic refrigeration oils.



| Reference | Various Temperature | | | | |
|----------------------|---------------------|------|------|-------|-------|
| | -30°C | 0°C | 40°C | 100°C | 120°C |
| Frick India Super LT | 4100 | 1075 | 70 | 8.8 | 5.7 |
| Napthalene N 68 | 18300 | 1750 | 68 | 6.9 | 4.4 |
| Napthalene N 46 | 13000 | 495 | 43.6 | 6.4 | 4.1 |
| Napthalene N 32 | 6000 | 400 | 32 | 4 | 3.8 |

Features of Frick India Compressor Oil

- Low Volatility
- Reduce Wear & Tear
- Wide Temperature Performance Capability
- Lower foaming tendency
- Extended oil drain interval capability
- Low tendency to evaporation





FRICK INDIA LIMITED

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Contact No.: 0129 2275691/ 94, 2270547, 2254103



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