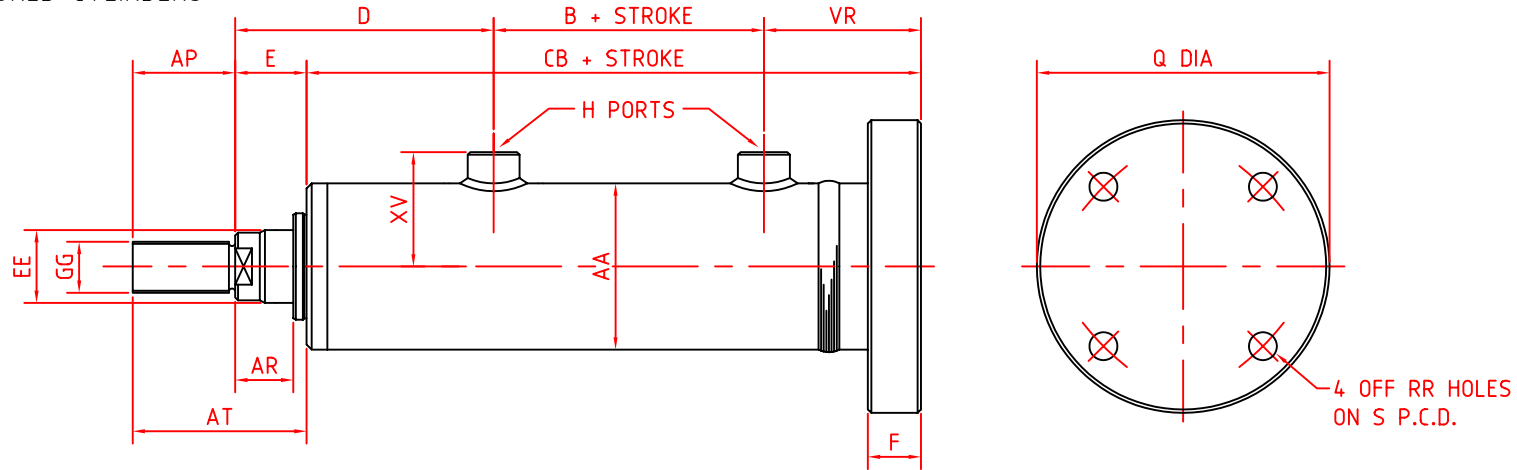


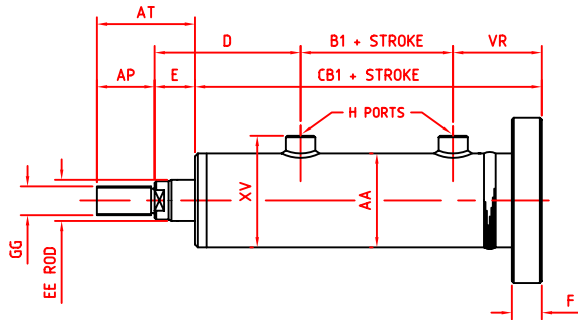
HR & HSH NON-CUSHIONED CYLINDERS

HR SHOWN

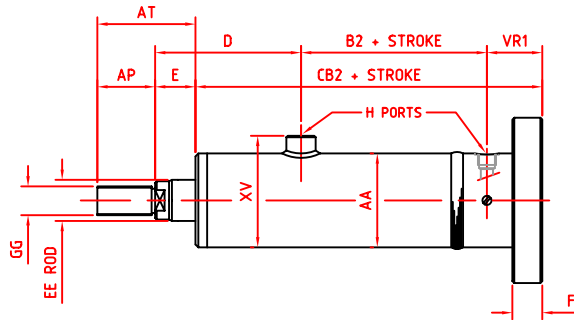


| CYLINDER SIZE | EE ROD | GG THREAD | CB | B | E | D | AP | VR | AT | H BSPP | AA | XV | AR MIN | F | Q | RR | S | CYLINDER SIZE |
|---------------------------|----------------|---------------|------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|--------|-----------------|----------------|----------------|----------------|------------------|------------------|------------------|---------------------------|
| HR/HSH 15 1.50" BORE | 0.875 22.22 | 3/4" - 16UN | 5.375 136.52 | 1.50 38.10 | 0.875 22.22 | 3.125 79.37 | 1.125 28.57 | 1.625 41.28 | 2.00 50.80 | 3/8" | 2.00 50.80 | 1.75 44.45 | 0.50 12.70 | 0.375 9.52 | 4.00 101.60 | 7/16 11.11 | 3.25 82.55 | HR/HSH 15 1.50" BORE |
| HR/HSH 20 2.00" BORE | 1.00 25.40 | 3/4" - 16UN | 5.375 136.52 | 1.875 47.62 | 0.875 22.22 | 2.75 69.85 | 1.125 28.57 | 1.625 41.28 | 2.00 50.80 | 3/8" | 2.50 63.50 | 2.00 50.80 | 0.50 12.70 | 0.50 12.70 | 4.75 120.65 | 9/16 14.29 | 3.875 98.43 | HR/HSH 20 2.00" BORE |
| HR/HSH 25 2.50" BORE | 1.375 34.92 | 1" - 14UN | 5.875 149.23 | 2.125 53.98 | 1.125 28.58 | 3.125 79.37 | 1.625 41.28 | 1.75 44.45 | 2.75 69.85 | 1/2" | 3.00 76.20 | 2.25 57.15 | 0.75 19.05 | 0.50 12.70 | 5.375 136.53 | 9/16 14.29 | 4.50 114.30 | HR/HSH 25 2.50" BORE |
| HR/HSH 30 3.00" BORE | 1.75 44.45 | 1 1/4" - 12UN | 7.25 184.15 | 2.50 63.50 | 1.25 31.75 | 4.00 101.60 | 2.00 50.80 | 2.00 50.80 | 3.25 82.55 | 1/2" | 3.50 88.90 | 2.375 60.33 | 0.875 22.22 | 0.625 15.87 | 6.375 161.93 | 11/16 17.46 | 5.25 133.35 | HR/HSH 30 3.00" BORE |
| HR/HSH 35 3.50" BORE | 1.75 44.45 | 1 1/4" - 12UN | 7.625 193.68 | 2.50 63.50 | 1.25 31.75 | 4.00 101.60 | 2.00 50.80 | 2.25 57.15 | 3.25 82.55 | 3/4" | 4.00 101.60 | 2.875 73.03 | 0.875 22.22 | 0.625 15.87 | 6.875 174.63 | 11/16 17.46 | 5.75 146.05 | HR/HSH 35 3.50" BORE |
| HR/HSH 40 4.00" BORE | 2.00 50.80 | 1 1/2" - 12UN | 8.00 203.20 | 2.625 66.68 | 1.375 34.92 | 4.50 114.30 | 2.25 57.15 | 2.25 57.15 | 3.625 92.08 | 3/4" | 4.50 114.30 | 3.25 82.55 | 0.875 22.22 | 0.75 19.05 | 7.75 196.85 | 13/16 20.64 | 6.375 161.93 | HR/HSH 40 4.00" BORE |
| HR/HSH 45 4.50" BORE | 2.00 50.80 | 1 1/2" - 12UN | 8.50 219.50 | 3.00 76.20 | 1.375 34.92 | 4.50 114.30 | 2.25 57.15 | 2.375 60.33 | 3.625 92.08 | 3/4" | 5.125 130.18 | 3.50 88.90 | 0.875 22.22 | 0.75 19.05 | 8.625 219.08 | 13/16 20.64 | 7.25 184.15 | HR/HSH 45 4.50" BORE |
| HR/HSH 50 5.00" BORE | 2.50 63.50 | 1 3/8" - 12UN | 9.125 231.78 | 3.00 76.20 | 1.50 38.10 | 4.875 123.83 | 3.00 76.20 | 2.75 69.85 | 4.50 114.30 | 1" | 5.625 142.88 | 3.875 98.43 | 1.00 25.40 | 0.875 22.22 | 9.625 244.48 | 15/16 23.81 | 8.00 203.20 | HR/HSH 50 5.00" BORE |
| HR/HSH 55 5.50" BORE | 2.50 63.50 | 1 3/8" - 12UN | 9.875 250.83 | 3.625 92.08 | 1.50 38.10 | 5.00 127.00 | 3.00 76.20 | 2.75 69.85 | 4.50 114.30 | 1" | 6.125 155.58 | 4.25 107.95 | 1.00 25.40 | 1.00 25.40 | 10.75 273.05 | 1-1/16 26.99 | 8.875 225.43 | HR/HSH 55 5.50" BORE |
| HR/HSH 60 6.00" BORE | 3.00 76.20 | 2 1/4" - 12UN | 10.625 269.87 | 3.875 98.43 | 1.50 38.10 | 5.125 130.18 | 3.50 88.90 | 3.125 79.38 | 5.00 127.00 | 1" | 6.625 168.28 | 4.50 114.30 | 1.00 25.40 | 1.125 28.57 | 11.25 285.75 | 1-1/16 26.99 | 9.375 238.13 | HR/HSH 60 6.00" BORE |
| HR/HSH 65 6.50" BORE | 3.00 76.20 | 2 1/4" - 12UN | 11.00 279.40 | 4.00 101.60 | 1.50 38.10 | 5.25 133.25 | 3.50 88.90 | 3.25 82.55 | 5.00 127.00 | 1" | 7.25 184.15 | 4.75 120.65 | 1.00 25.40 | 1.25 31.75 | 11.875 301.62 | 1-1/16 26.99 | 10.00 254.00 | HR/HSH 65 6.50" BORE |
| HR/HSH 70 7.00" BORE | 3.50 88.90 | 2 1/2" - 12UN | 12.50 317.50 | 4.50 114.30 | 1.50 38.10 | 6.00 152.40 | 3.50 88.90 | 3.50 88.90 | 5.00 127.00 | 1 1/4" | 7.75 196.85 | 5.25 133.35 | 1.00 25.40 | 1.375 34.93 | 13.125 333.38 | 1-3/16 30.16 | 11.00 279.40 | HR/HSH 70 7.00" BORE |
| HR/HSH 75 7.50" BORE | 3.50 88.90 | 2 1/2" - 12UN | 13.00 330.20 | 4.25 107.95 | 1.50 38.10 | 6.50 165.10 | 3.50 88.90 | 3.75 95.25 | 5.00 127.00 | 1 1/4" | 8.50 215.90 | 5.50 139.70 | 1.00 25.40 | 1.50 38.10 | 13.875 352.42 | 1-3/16 30.16 | 11.75 298.45 | HR/HSH 75 7.50" BORE |
| HR/HSH 80 8.00" BORE | 4.00 101.60 | 3" - 12UN | 13.75 349.25 | 5.00 127.00 | 1.50 38.10 | 6.50 165.10 | 4.00 101.60 | 3.75 95.25 | 5.50 139.70 | 1 1/4" | 9.00 228.60 | 6.00 152.40 | 1.00 25.40 | 1.50 38.10 | 14.75 374.65 | 1-5/16 33.34 | 12.50 317.50 | HR/HSH 80 8.00" BORE |
| HR/HSH 90 9.00" BORE | 4.50 114.30 | 3" - 12UN | 15.875 403.22 | 6.00 152.40 | 1.50 38.10 | 7.00 177.80 | 4.00 101.60 | 4.375 111.12 | 5.50 139.70 | 1 1/4" | 10.00 254.00 | 6.50 165.10 | 1.00 25.40 | 1.75 44.45 | 16.50 419.10 | 1-9/16 39.69 | 13.75 349.25 | HR/HSH 90 9.00" BORE |
| HR/HSH 100 10.00" BORE | 5.00 127.00 | 3 3/4" - 12UN | 16.625 422.28 | 6.125 155.58 | 1.50 38.10 | 7.50 190.50 | 4.375 111.13 | 4.50 114.30 | 5.875 149.22 | 1 1/4" | 11.00 279.40 | 7.00 177.80 | 1.00 25.40 | 2.00 50.80 | 18.50 469.90 | 1-13/16 46.04 | 15.375 390.53 | HR/HSH 100 10.00" BORE |

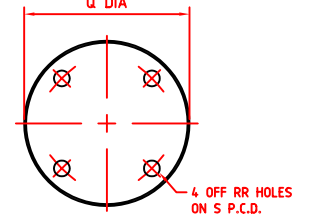
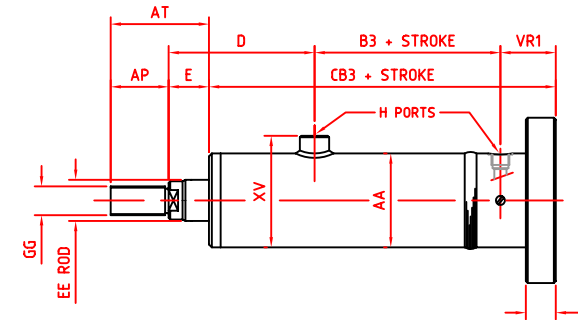
CUSHION FRONT CF



CUSHION REAR CR



CUSHION FRONT & REAR CF/CR



| CYLINDER SIZE | EE ROD | GG THREAD | CB1 | CB2 | CB3 | B1 | B2 | B3 | E | D | AP | VR | VR1 | AT | H BSPP | AA | XV | F | Q | RR | S |
|---------------------------|----------------|---------------|------------------|------------------|------------------|-----------------|------------------|------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|-----------------|----------------|----------------|------------------|------------------|------------------|
| HR/HSB 15 1.50" BORE | 0.875 22.22 | 3/4" - 16UN | 6.250 158.75 | 6.750 191.45 | 7.625 193.68 | 2.375 60.33 | 3.375 85.73 | 4.25 107.95 | 0.875 22.22 | 3.125 79.37 | 1.125 28.57 | 1.625 41.28 | 2.000 50.80 | 2.00 50.80 | 3/8" | 2.00 50.80 | 1.75 44.45 | 0.375 9.52 | 4.00 101.60 | 7/16 11.11 | 3.25 82.55 |
| HR/HSB 20 2.00" BORE | 1.00 25.40 | 3/4" - 16UN | 6.375 161.93 | 6.875 174.63 | 7.875 200.03 | 2.875 73.03 | 3.75 95.25 | 4.75 120.65 | 0.875 22.22 | 2.75 69.85 | 1.125 28.57 | 1.625 41.28 | 2.125 53.98 | 2.00 50.80 | 3/8" | 2.50 63.50 | 2.00 50.80 | 0.50 12.70 | 4.75 120.65 | 9/16 14.29 | 3.875 98.43 |
| HR/HSB 25 2.50" BORE | 1.375 34.92 | 1" - 14UN | 6.875 174.63 | 7.375 187.33 | 8.375 212.73 | 3.125 79.38 | 4.00 101.60 | 5.00 127.00 | 1.125 28.58 | 3.125 79.37 | 1.625 41.28 | 1.75 44.45 | 2.250 57.15 | 2.75 69.85 | 1/2" | 3.00 76.20 | 2.25 57.15 | 0.50 12.70 | 5.375 136.53 | 9/16 14.29 | 4.50 114.30 |
| HR/HSB 30 3.00" BORE | 1.75 44.45 | 1 1/4" - 12UN | 8.750 222.25 | 8.750 222.25 | 10.250 260.35 | 4.00 101.60 | 4.50 114.30 | 6.00 152.40 | 1.25 31.75 | 4.00 101.60 | 2.00 50.80 | 2.00 50.80 | 2.625 66.68 | 3.25 82.55 | 1/2" | 3.50 88.90 | 2.375 60.33 | 0.625 15.87 | 6.375 161.93 | 11/16 17.46 | 5.25 133.35 |
| HR/HSB 35 3.50" BORE | 1.75 44.45 | 1 1/4" - 12UN | 9.250 234.95 | 9.000 228.60 | 10.625 269.88 | 4.125 104.78 | 4.75 120.65 | 6.375 161.93 | 1.25 31.75 | 4.00 101.60 | 2.00 50.80 | 2.25 57.15 | 2.875 73.03 | 3.25 82.55 | 3/4" | 4.00 101.60 | 2.875 73.03 | 0.625 15.87 | 6.875 174.63 | 11/16 17.46 | 5.75 146.05 |
| HR/HSB 40 4.00" BORE | 2.00 50.80 | 1 1/2" - 12UN | 9.750 247.65 | 9.250 234.95 | 11.000 279.40 | 4.375 111.13 | 4.875 138.83 | 6.625 168.28 | 1.375 34.92 | 4.50 114.30 | 2.25 57.15 | 2.25 57.15 | 2.625 66.68 | 3.625 92.08 | 3/4" | 4.50 114.30 | 3.25 82.55 | 0.75 19.05 | 7.75 196.85 | 13/16 20.64 | 6.375 161.93 |
| HR/HSB 45 4.50" BORE | 2.00 50.80 | 1 1/2" - 12UN | 10.250 260.35 | 9.750 247.85 | 11.500 292.10 | 4.75 120.65 | 5.625 142.88 | 7.375 187.33 | 1.375 34.92 | 4.50 114.30 | 2.25 57.15 | 2.375 60.33 | 2.500 63.50 | 3.625 92.08 | 3/4" | 5.125 130.18 | 3.50 88.90 | 0.75 19.05 | 8.625 219.08 | 13/16 20.64 | 7.25 184.15 |
| HR/HSB 50 5.00" BORE | 2.50 63.50 | 1 3/8" - 12UN | 11.125 282.58 | 11.125 282.58 | 13.125 333.38 | 5.00 127.00 | 5.875 149.23 | 7.875 200.03 | 1.50 38.10 | 4.875 123.83 | 3.00 76.20 | 2.75 69.85 | 3.250 82.55 | 4.50 114.30 | 1" | 5.625 142.88 | 3.875 98.43 | 0.875 22.22 | 9.625 244.48 | 15/16 23.81 | 8.00 203.20 |
| HR/HSB 55 5.50" BORE | 2.50 63.50 | 1 3/8" - 12UN | 11.750 298.45 | 11.875 301.63 | 13.750 349.25 | 5.50 139.70 | 6.50 165.10 | 8.375 212.73 | 1.50 38.10 | 5.00 127.00 | 3.00 76.20 | 2.75 69.85 | 3.250 82.55 | 4.50 114.30 | 1" | 6.125 155.58 | 4.25 107.95 | 1.00 25.40 | 10.75 273.05 | 1-1/16 26.99 | 8.875 225.43 |
| HR/HSB 60 6.000" BORE | 3.00 76.20 | 2 1/4" - 12UN | 12.625 320.68 | 12.625 320.68 | 14.625 371.48 | 5.875 149.22 | 7.00 177.80 | 9.00 228.60 | 1.50 38.10 | 5.125 130.18 | 3.50 88.90 | 3.125 79.38 | 3.750 95.25 | 5.00 127.00 | 1" | 6.625 168.28 | 4.50 114.30 | 1.125 28.57 | 11.25 285.75 | 1-1/16 26.99 | 9.375 238.13 |
| HR/HSB 65 6.50" BORE | 3.00 76.20 | 2 1/4" - 12UN | 12.875 327.03 | 13.000 330.20 | 14.875 377.83 | 5.875 149.22 | 7.125 180.98 | 9.00 228.60 | 1.50 38.10 | 5.25 133.25 | 3.50 88.90 | 3.25 82.55 | 4.000 101.60 | 5.00 127.00 | 1" | 7.25 184.15 | 4.75 120.65 | 1.25 31.75 | 11.875 301.62 | 1-1/16 26.99 | 10.00 254.00 |
| HR/HSB 70 7.00" BORE | 3.50 88.90 | 2 1/2" - 12UN | 15.250 387.35 | 15.750 400.05 | 18.500 469.90 | 7.25 184.15 | 8.50 215.90 | 11.25 228.75 | 1.50 38.10 | 6.00 152.40 | 3.50 88.90 | 3.50 88.90 | 4.250 107.95 | 5.00 127.00 | 1 1/4" | 7.75 196.85 | 5.25 133.35 | 1.375 34.93 | 13.125 333.38 | 1-3/16 30.16 | 11.00 279.40 |
| HR/HSB 75 7.50" BORE | 3.50 88.90 | 2 1/2" - 12UN | 15.750 400.05 | 16.250 412.75 | 19.000 482.60 | 7.00 177.80 | 8.50 215.90 | 11.25 228.75 | 1.50 38.10 | 6.50 165.10 | 3.50 88.90 | 3.75 95.25 | 4.500 114.30 | 5.00 127.00 | 1 1/4" | 8.50 215.90 | 5.50 139.70 | 1.50 38.10 | 13.875 352.42 | 1-3/16 30.16 | 11.75 298.45 |
| HR/HSB 80 8.000" BORE | 4.00 101.60 | 3" - 12UN | 16.625 422.28 | 16.875 428.63 | 19.750 501.65 | 7.875 200.03 | 9.125 10.125 | 12.00 304.80 | 1.50 38.10 | 6.50 165.10 | 4.00 101.60 | 3.75 95.25 | 4.250 107.95 | 5.50 139.70 | 1 1/4" | 9.00 228.60 | 6.00 152.40 | 1.50 38.10 | 14.75 374.65 | 1-5/16 33.34 | 12.50 317.50 |
| HR/HSB 90 9.00" BORE | 4.50 114.30 | 3" - 12UN | 18.375 466.73 | 18.875 479.63 | 21.375 542.93 | 8.50 215.90 | 10.125 257.18 | 12.625 320.68 | 1.50 38.10 | 7.00 177.80 | 4.00 101.60 | 4.375 111.12 | 5.375 136.53 | 5.50 139.70 | 1 1/4" | 10.00 254.00 | 6.50 165.10 | 1.75 44.45 | 16.50 419.10 | 1-9/16 39.69 | 13.75 349.25 |
| HR/HSB 100 10.00" BORE | 5.00 127.00 | 3 3/4" - 12UN | 19.125 485.78 | 19.500 495.30 | 22.000 558.80 | 8.625 219.08 | 10.25 260.35 | 12.75 323.85 | 1.50 38.10 | 7.50 190.50 | 4.375 111.13 | 4.50 114.30 | 5.500 139.70 | 5.875 149.22 | 1 1/4" | 11.00 279.40 | 7.00 177.80 | 2.00 50.80 | 18.50 469.90 | 1-13/16 46.04 | 15.375 390.53 |