

# 5HRP MODEL

## ALUMINUM RETURN GRILLE, 1" SPACING, 45° CURVED HORIZONTAL BLADES TO THE LONG DIMENSION FOR TEE CEILING



- Appropriate to be mounted on "T" profiles of reticular false ceiling, with a frame of thin edges that allow a non-visible appearance when installed.
- Baffles Fixed blades to 45° that provide a non-vision appearance when are installed with openings to the closest wall.
- Optional reduction box made of steel sheet with round or square neck.

**CONSTRUCTION:** Roll formed aluminum

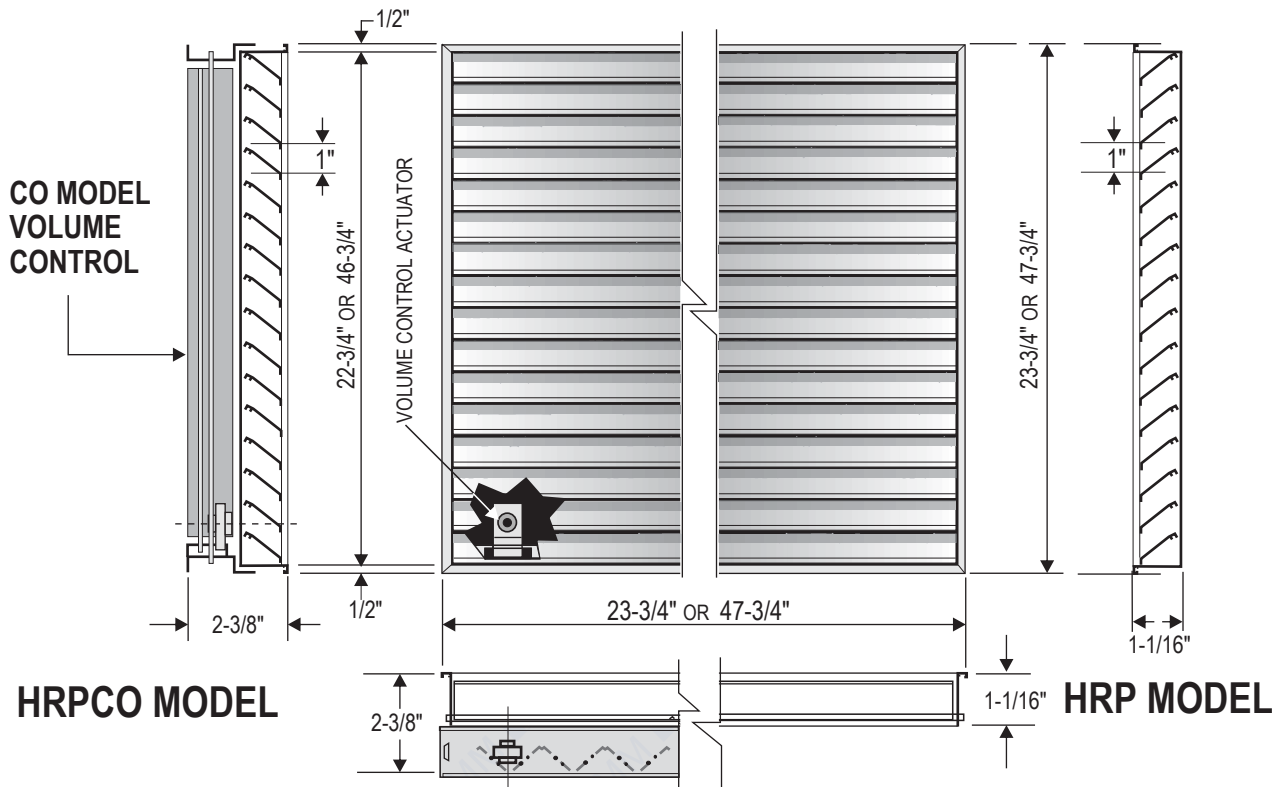
**FINISH:** Standard white Anodic acrylic paint.

**PERFORMANCE:** Up to 70 % effective free area which minimizes the input speed (Vk), reduces the pressure drop and provides a smooth operation.

**HRPCO RETURN REGISTERS:** Provides optional with opposed blades volume control, CO Model, that offers maximum air volume.

Minimum measure of 1 piece: 72"x 12"  
Maximum measure of 1 piece: 6"x 6"

## Dimensional Data



## RETURN GRILLES & REGISTERS

TABLE 1 PERFORMANCE DATA

| NOMINAL SIZES (INCHES)                             |      | FREE CORE AREA (FT. <sup>2</sup> ) | VELOCITY Feet/Min. |       |       |       |       |       |       |       |       |
|--|------|------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|  |      |                                    | NC20               |       |       | NC30  |       |       | NC40  |       |       |
|  |      |                                    | 200                | 300   | 400   | 500   | 600   | 700   | 800   | 900   | 1000  |
| 8 x 4<br>6 x 6                                     | 0.19 | CFM                                | 38                 | 57    | 76    | 95    | 114   | 133   | 152   | 171   | 190   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 10                 | 18    | 24    | 28    | 30    | 33    | 36    | 38    | 40    |
| 12 x 4<br>8 x 6                                    | 0.26 | CFM                                | 52                 | 78    | 104   | 130   | 156   | 182   | 208   | 234   | 260   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 11                 | 19    | 25    | 29    | 32    | 35    | 38    | 40    | 42    |
| 14 x 4<br>10 x 6<br>8 x 8                          | 0.33 | CFM                                | 66                 | 99    | 132   | 165   | 198   | 231   | 264   | 297   | 330   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 12                 | 20    | 25    | 30    | 33    | 36    | 39    | 41    | 43    |
| 18 x 4<br>12 x 6                                   | 0.38 | CFM                                | 76                 | 114   | 152   | 190   | 228   | 266   | 304   | 342   | 380   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 13                 | 21    | 27    | 31    | 34    | 37    | 40    | 42    | 44    |
| 20 x 4<br>14 x 6<br>10 x 8                         | 0.44 | CFM                                | 88                 | 132   | 176   | 220   | 264   | 308   | 352   | 396   | 440   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 14                 | 22    | 27    | 32    | 35    | 38    | 41    | 43    | 45    |
| 24 x 4<br>16 x 6                                   | 0.52 | CFM                                | 104                | 156   | 208   | 260   | 312   | 364   | 416   | 468   | 520   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 14                 | 22    | 28    | 32    | 36    | 39    | 41    | 44    | 46    |
| 30 x 4<br>20 x 6                                   | 0.70 | CFM                                | 140                | 210   | 280   | 350   | 420   | 490   | 560   | 630   | 700   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 15                 | 23    | 29    | 33    | 37    | 40    | 42    | 45    | 47    |
| 36 x 4<br>24 x 6                                   | 0.91 | CFM                                | 182                | 273   | 364   | 455   | 546   | 637   | 728   | 819   | 910   |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 16                 | 24    | 30    | 34    | 38    | 41    | 43    | 46    | 48    |
| 48 x 4<br>34 x 6<br>24 x 8                         | 1.18 | CFM                                | 236                | 354   | 472   | 590   | 708   | 826   | 944   | 1062  | 1180  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 17                 | 25    | 31    | 35    | 39    | 42    | 44    | 47    | 49    |
| 54 x 4<br>36 x 6<br>28 x 8                         | 1.32 | CFM                                | 264                | 396   | 528   | 660   | 792   | 924   | 1056  | 1188  | 1320  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 18                 | 25    | 31    | 35    | 39    | 42    | 45    | 47    | 49    |
| 60 x 4<br>40 x 6                                   | 1.58 | CFM                                | 316                | 474   | 632   | 790   | 948   | 1106  | 1264  | 1422  | 1580  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 19                 | 27    | 32    | 36    | 40    | 43    | 45    | 48    | 50    |
| 48 x 6<br>36 x 8<br>30 x 10                        | 1.78 | CFM                                | 356                | 534   | 712   | 890   | 1068  | 1246  | 1424  | 1602  | 1780  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 19                 | 27    | 32    | 36    | 40    | 43    | 46    | 48    | 50    |
| 54 x 6<br>40 x 8<br>32 x 10                        | 1.93 | CFM                                | 386                | 579   | 772   | 965   | 1158  | 1351  | 1544  | 1737  | 1930  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 19                 | 27    | 33    | 37    | 41    | 44    | 46    | 48    | 51    |
| 56 x 6<br>42 x 8<br>34 x 10                        | 2.08 | CFM                                | 416                | 624   | 832   | 1040  | 1248  | 1456  | 1664  | 1872  | 2080  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 19                 | 27    | 33    | 37    | 41    | 44    | 46    | 48    | 51    |
| 60 x 6<br>46 x 8<br>36 x 10                        | 2.42 | CFM                                | 484                | 726   | 968   | 1210  | 1452  | 1694  | 1936  | 2178  | 2420  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 20                 | 28    | 33    | 38    | 41    | 44    | 47    | 49    | 51    |
| 64 x 6<br>48 x 8<br>38 x 10<br>30 x 14             | 2.76 | CFM                                | 552                | 828   | 1104  | 1380  | 1656  | 1932  | 2208  | 2484  | 2760  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 20                 | 28    | 34    | 38    | 42    | 45    | 47    | 49    | 52    |
| 72 x 8<br>54 x 10<br>48 x 12<br>46 x 14<br>24 x 24 | 3.59 | CFM                                | 718                | 1077  | 1436  | 1795  | 2154  | 2513  | 2872  | 3231  | 3590  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 21                 | 29    | 35    | 39    | 42    | 45    | 48    | 50    | 52    |
| 54 x 12<br>48 x 14<br>40 x 16<br>36 x 18           | 4.27 | CFM                                | 854                | 1281  | 1708  | 2135  | 2562  | 2989  | 3416  | 3843  | 4270  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 22                 | 30    | 35    | 40    | 43    | 46    | 49    | 51    | 53    |
| 72 x 10<br>60 x 12<br>48 x 16                      | 4.60 | CFM                                | 920                | 1380  | 1840  | 2300  | 2760  | 3220  | 3680  | 4140  | 4600  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 22                 | 30    | 35    | 40    | 43    | 46    | 49    | 51    | 53    |
| 72 x 12<br>60 x 14<br>48 x 18                      | 5.50 | PCM /CFM                           | 1100               | 1650  | 2200  | 2750  | 3300  | 3850  | 4400  | 4950  | 5500  |
|  |      | (-)TP                              | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |
|  |      | NC                                 | 23                 | 30    | 36    | 40    | 44    | 47    | 50    | 52    | 54    |

NC50

(-)TP= NEGATIVE TOTAL PRESSURE, Inches Water Column

## RETURN GRILLES & REGISTERS

TABLE 2 PERFORMANCE DATA

| NOMINAL SIZES (INCHES)   | FREE CORE AREA (FT. <sup>2</sup> ) |        | VELOCITY Feet/Min. |       |       |       |       |       |       |       |       |  |
|--|------------------------------------|--------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|  |                                    |        | NC20               |       | NC30  |       | NC40  |       | NC50  |       |       |  |
|  |                                    |        | 200                | 300   | 400   | 500   | 600   | 700   | 800   | 900   | 1000  |  |
| 56X16 38X24<br>50X18 30X30                                       | 5.95                               | CFM    | 1190               | 1785  | 2380  | 2975  | 3570  | 4165  | 4760  | 5355  | 5950  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 18                 | 27    | 34    | 39    | 44    | 47    | 51    | 54    | 57    |  |
| 72X14 46X22<br>62X16 42X24<br>56X18 36X28                        | 6.67                               | CFM    | 1334               | 2000  | 2668  | 3335  | 4002  | 4668  | 5336  | 6000  | 6670  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 18                 | 27    | 34    | 40    | 44    | 48    | 51    | 54    | 57    |  |
| 64X16 40X26<br>58X18 32X32<br>52X20                              | 6.80                               | CFM    | 1360               | 2040  | 2720  | 3400  | 4080  | 4760  | 5440  | 6120  | 6800  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 27    | 35    | 40    | 44    | 48    | 51    | 54    | 57    |  |
| 68 X 16 42 X 26<br>60 X 18 36 X 30<br>54 X 20 34 X 32            | 7.20                               | CFM    | 1440               | 2160  | 2880  | 3600  | 4320  | 5040  | 5760  | 6480  | 7200  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 27    | 35    | 40    | 44    | 48    | 51    | 55    | 58    |  |
| 72 X 16 36 X 32<br><del>68 X 28</del> 34 X 34                    | 7.64                               | CFM    | 1528               | 2292  | 3056  | 3820  | 4584  | 5348  | 6112  | 6876  | 7640  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 28    | 35    | 40    | 45    | 49    | 52    | 55    | 59    |  |
| 68 X 18 40 X 30<br>62 X 20 36 X 34<br>48 X 26                    | 8.20                               | CFM    | 1640               | 2460  | 3280  | 4100  | 4920  | 5740  | 6560  | 7380  | 8200  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 28    | 35    | 41    | 45    | 49    | 52    | 55    | 59    |  |
| 70 X 18 42 X 30<br>64 X 20 40 X 32<br>58 X 22                    | 8.40                               | CFM    | 1680               | 2520  | 3360  | 4200  | 5040  | 5880  | 6720  | 7560  | 8400  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 28    | 35    | 41    | 45    | 49    | 52    | 55    | 59    |  |
| 72 X 18 46 X 28<br>54 X 24 36 X 36<br>50 X 26                    | 8.60                               | CFM    | 1720               | 2580  | 3440  | 4300  | 5160  | 6020  | 6880  | 7740  | 8600  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 28    | 35    | 41    | 45    | 49    | 52    | 55    | 59    |  |
| 72 X 20 42 X 34<br>60 X 24 40 X 36<br>48 X 30 38 X 38            | 9.58                               | CFM    | 1916               | 2874  | 3832  | 4790  | 5748  | 6706  | 7664  | 8622  | 9580  |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 19                 | 29    | 36    | 41    | 46    | 49    | 53    | 56    | 60    |  |
| 58 X 26 42 X 36<br>54 X 28 40 X 38<br>50 X 30                    | 10.15                              | CFM    | 2030               | 3045  | 4060  | 5075  | 6090  | 7105  | 8120  | 9135  | 10150 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 20                 | 29    | 36    | 41    | 46    | 50    | 53    | 56    | 60    |  |
| 72 X 22 56 X 28<br>66 X 24 52 X 30<br>60 X 26 46 X 34            | 10.52                              | CFM    | 2104               | 3156  | 4208  | 5260  | 6312  | 7364  | 8416  | 9468  | 10520 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 20                 | 29    | 36    | 42    | 46    | 50    | 53    | 56    | 60    |  |
| 62 X 26 42 X 38<br>58 X 28 40 X 40<br>54 X 30                    | 10.84                              | CFM    | 2168               | 3252  | 4336  | 5420  | 6504  | 7588  | 8672  | 9756  | 10840 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 20                 | 29    | 36    | 42    | 46    | 50    | 53    | 56    | 60    |  |
| 72 X 24 58 X 30<br>62 X 28 48 X 36                               | 11.60                              | CFM    | 2320               | 3480  | 4640  | 5800  | 6960  | 8120  | 9280  | 10440 | 11600 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 21                 | 30    | 37    | 42    | 47    | 50    | 54    | 56    | 60    |  |
| 68 X 26 44 X 40<br>46 X 38 42 X 42                               | 11.80                              | CFM    | 2360               | 3540  | 4720  | 5900  | 7080  | 8260  | 9440  | 10620 | 11800 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 21                 | 30    | 37    | 42    | 47    | 50    | 54    | 57    | 61    |  |
| 70 X 28 48 X 40<br>64 X 30 46 X 42<br>58 X 34 44 X 44<br>54 X 36 | 13.04                              | CFM    | 2608               | 3912  | 5216  | 6520  | 7824  | 9128  | 10432 | 11736 | 13040 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 21                 | 30    | 37    | 43    | 47    | 51    | 54    | 57    | 61    |  |
| 72 X 28 48 X 42<br>56 X 36 46 X 44                               | 13.38                              | CFM    | 2676               | 4014  | 5352  | 6690  | 8028  | 9366  | 10704 | 12042 | 13380 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 21                 | 30    | 37    | 43    | 47    | 51    | 54    | 57    | 61    |  |
| 72 X 30 60 X 36<br>68 X 32 54 X 40<br>64 X 34 46 X 46            | 14.36                              | CFM    | 2872               | 4308  | 5744  | 7180  | 8616  | 10052 | 11488 | 12924 | 14360 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 21                 | 30    | 37    | 43    | 47    | 51    | 54    | 57    | 61    |  |
| 62 X 36 50 X 40<br>58 X 38 48 X 46<br>56 X 40                    | 14.81                              | CFM    | 2962               | 4443  | 5924  | 7405  | 8886  | 10367 | 11848 | 13329 | 14810 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 22                 | 31    | 38    | 43    | 48    | 51    | 55    | 58    | 62    |  |
| 72X32 56X42<br>68X34 54X44<br>66X36 48X48                        | 15.42                              | CFM    | 3084               | 4626  | 6168  | 7710  | 9252  | 10794 | 12336 | 13878 | 15420 |  |
|  |                                    | (-)TTP | 0.016              | 0.034 | 0.062 | 0.096 | 0.140 | 0.189 | 0.248 | 0.310 | 0.370 |  |
|  |                                    | NC     | 22                 | 31    | 38    | 43    | 48    | 52    | 55    | 58    | 62    |  |

NC 60

(-)TTP= NEGATIVE TOTAL PRESSURE, Inches Water Column