

Dash-8 Q400

Takeoff Speeds Card

1. Look up the Vr/V2 from the appropriate Vr/V2 table below. Assume V1=Vr
2. In Vr exceeds V2, assume V2 = Vr
3. If icing protection is ON above 500 ft AGL, add 20 kts to V2
4. For wet runway reduce V1 by 8kts - 0.1kts for each kt headwind, or 8 kts + 0.3kts for each kt tailwind
5. Check Vr not below 108kts for Flaps 5, 104kts for Flaps 10, 100 kts for Flaps 15
6. Check V1 not below 97 kts for Flaps 5, 96 kts for Flaps 10 and Flaps 15

| WEIGHT | Flap Retraction Initiation Speed (VFRI) Final Takeoff Speed (V CLMB) | | | |
|-----------|---|------------------|------------------|-----------|
| | VFRI Flap 5° | VFRI Flap 10° | VFRI Flap 15° | V CLMB |
| 39.500 LB | 116 | 110 | 107 | 130 |
| 44.000 LB | 120 | 112 | 109 | 131 |
| 48.500 LB | 126 | 118 | 115 | 137 |
| 53.000 LB | 132 | 123 | 120 | 143 |
| 57.000 LB | 137 | 128 | 125 | 148 |
| 62.000 LB | 142 | 134 | 130 | 154 |
| 64.000 LB | 146 | 137 | 133 | 158 |

FLAPS 5° Vr/V2

| WEIGHT/ ALTITUDE | AT OR BELOW 20° C OAT | | | | | | ABOVE 20° C OAT | | | | | |
|---------------------|-----------------------|---------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|---------|
| | 0 | 2000 | 4000 | 6000 | 8000 | 10000 | 0 | 2000 | 4000 | 6000 | 8000 | 10000 |
| 39.500 LB | 102/116 | 102/115 | 102/114 | 102/113 | 102/112 | 103/111 | 102/114 | 102/113 | 102/112 | 103/111 | 103/110 | 105/109 |
| 44.000 LB | 105/115 | 106/114 | 107/113 | 107/112 | 108/112 | 110/111 | 107/113 | 108/112 | 108/112 | 110/111 | 110/111 | 112/111 |
| 48.500 LB | 112/117 | 113/117 | 113/117 | 114/117 | 115/117 | 116/117 | 113/117 | 114/117 | 115/117 | 116/117 | 117/117 | 118/117 |
| 53.000 LB | 118/122 | 119/122 | 120/122 | 120/122 | 121/122 | 122/122 | 120/122 | 120/122 | 121/122 | 122/122 | 123/122 | 124/122 |
| 57.000 LB | 124/127 | 125/127 | 126/127 | 126/127 | 127/127 | 128/127 | 126/127 | 126/127 | 127/127 | 128/127 | 129/127 | 130/127 |
| 62.000 LB | 130/132 | 131/132 | 131/132 | 132/132 | 133/132 | 134/132 | 131/132 | 132/132 | 133/132 | 134/132 | 135/132 | 136/132 |
| 64.000 LB | 133/135 | 134/135 | 135/135 | 136/135 | 137/135 | 138/135 | 135/135 | 136/135 | 137/135 | 138/135 | 138/135 | 140/135 |

FLAPS 10° Vr/V2

| WEIGHT/ ALTITUDE | AT OR BELOW 20° C OAT | | | | | | ABOVE 20° C OAT | | | | | |
|---------------------|-----------------------|---------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|---------|
| | 0 | 2000 | 4000 | 6000 | 8000 | 10000 | 0 | 2000 | 4000 | 6000 | 8000 | 10000 |
| 39.500 LB | 100/111 | 100/110 | 100/110 | 100/109 | 100/108 | 100/107 | 100/109 | 100/109 | 100/109 | 100/107 | ---/106 | ---/105 |
| 44.000 LB | 100/110 | 100/109 | 100/109 | 100/108 | 100/107 | 101/106 | 100/108 | 100/108 | 100/107 | 100/106 | ---/105 | ---/105 |
| 48.500 LB | 103/109 | 105/109 | 105/108 | 105/108 | 106/108 | 108/108 | 104/108 | 106/108 | 106/108 | 106/108 | ---/108 | ---/108 |
| 53.000 LB | 109/113 | 110/113 | 111/113 | 111/113 | 112/113 | 113/113 | 110/113 | 111/113 | 112/113 | 112/113 | ---/113 | ---/113 |
| 57.000 LB | 115/118 | 116/118 | 116/118 | 117/118 | 118/118 | 119/118 | 116/118 | 117/118 | 117/118 | 118/118 | ---/118 | ---/118 |
| 62.000 LB | 120/122 | 121/122 | 122/122 | 122/122 | 123/122 | 124/122 | 121/122 | 122/122 | 123/122 | 123/122 | ---/122 | ---/122 |
| 64.000 LB | 124/125 | 125/125 | 125/125 | 126/125 | 127/125 | 128/125 | 125/125 | 125/125 | 126/125 | 127/125 | ---/125 | ---/125 |

FLAPS 15° Vr/V2

| WEIGHT/ ALTITUDE | AT OR BELOW 20° C OAT | | | | | | ABOVE 20° C OAT | | | | | |
|---------------------|-----------------------|---------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|---------|
| | 0 | 2000 | 4000 | 6000 | 8000 | 10000 | 0 | 2000 | 4000 | 6000 | 8000 | 10000 |
| 39.500 LB | 98/106 | 98/106 | 98/105 | 98/104 | 98/103 | 98/102 | 98/105 | 98/104 | 98/103 | 98/102 | 98/102 | 98/102 |
| 44.000 LB | 98/105 | 98/105 | 98/104 | 98/103 | 98/102 | 98/102 | 98/103 | 98/103 | 98/102 | 98/102 | 99/102 | 99/102 |
| 48.500 LB | 100/104 | 101/104 | 101/104 | 102/104 | 103/104 | 104/104 | 101/104 | 102/104 | 103/104 | 104/104 | 104/104 | 104/104 |
| 53.000 LB | 106/109 | 106/109 | 107/109 | 108/109 | 108/109 | 109/109 | 107/109 | 108/109 | 108/109 | 109/109 | 110/109 | 110/109 |
| 57.000 LB | 111/113 | 112/113 | 112/113 | 113/113 | 114/113 | 114/113 | 112/113 | 113/113 | 114/113 | 114/113 | 115/113 | 115/113 |
| 62.000 LB | 116/118 | 117/118 | 117/118 | 118/118 | 118/118 | 119/118 | 117/118 | 118/118 | 119/118 | 119/118 | 120/118 | 120/118 |
| 64.000 LB | 119/120 | 120/120 | 120/120 | 121/120 | 122/120 | 122/120 | 120/120 | 121/120 | 121/120 | 122/120 | 123/120 | 123/120 |