

**NOTE: To calculate minimum closing times when door protection is disabled (nudging), multiply times shown by 1.71**

### **30" Two Speed Side**

Door Weight	Equipment Weight	Code Distance In Inches	Average Kinetic Energy	Minimum Code Closing Time			
				MOD	MOM	MOH	MOVFR
<b>225</b>	50	26	7.37	<b>1.61</b>	<b>1.67</b>	<b>1.71</b>	<b>1.59</b>
<b>250</b>	50	26	7.37	<b>1.66</b>	<b>1.71</b>	<b>1.75</b>	<b>1.63</b>
<b>275</b>	50	26	7.37	<b>1.71</b>	<b>1.76</b>	<b>1.79</b>	<b>1.68</b>
<b>300</b>	50	26	7.37	<b>1.75</b>	<b>1.80</b>	<b>1.84</b>	<b>1.73</b>
<b>325</b>	50	26	7.37	<b>1.79</b>	<b>1.84</b>	<b>1.88</b>	<b>1.77</b>
<b>350</b>	50	26	7.37	<b>1.84</b>	<b>1.88</b>	<b>1.92</b>	<b>1.81</b>
<b>375</b>	50	26	7.37	<b>1.88</b>	<b>1.92</b>	<b>1.96</b>	<b>1.86</b>
<b>400</b>	50	26	7.37	<b>1.92</b>	<b>1.96</b>	<b>2.00</b>	<b>1.90</b>

### **32" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>225</b>	50	28	7.37	<b>1.73</b>	<b>1.78</b>	<b>1.82</b>	<b>1.70</b>
<b>250</b>	50	28	7.37	<b>1.78</b>	<b>1.83</b>	<b>1.87</b>	<b>1.75</b>
<b>275</b>	50	28	7.37	<b>1.83</b>	<b>1.88</b>	<b>1.92</b>	<b>1.80</b>
<b>300</b>	50	28	7.37	<b>1.88</b>	<b>1.93</b>	<b>1.97</b>	<b>1.85</b>
<b>325</b>	50	28	7.37	<b>1.92</b>	<b>1.97</b>	<b>2.01</b>	<b>1.90</b>
<b>350</b>	50	28	7.37	<b>1.97</b>	<b>2.02</b>	<b>2.06</b>	<b>1.95</b>
<b>375</b>	50	28	7.37	<b>2.02</b>	<b>2.06</b>	<b>2.10</b>	<b>1.99</b>
<b>400</b>	50	28	7.37	<b>2.06</b>	<b>2.11</b>	<b>2.14</b>	<b>2.04</b>

## 34" Two Speed Side

				MOD	MOM	MOH	MOVFR
250	50	30	7.37	1.90	1.95	2.00	1.87
275	50	30	7.37	1.95	2.01	2.05	1.92
300	50	30	7.37	2.00	2.06	2.10	1.98
325	50	30	7.37	2.05	2.11	2.14	2.03
350	50	30	7.37	2.10	2.15	2.19	2.08
375	50	30	7.37	2.15	2.20	2.24	2.13
400	50	30	7.37	2.20	2.25	2.28	2.18
425	50	30	7.37	2.25	2.29	2.33	2.22

## 36" Two Speed Side

				MOD	MOM	MOH	MOVFR
275	50	32	7.37	2.06	2.11	2.15	2.03
300	50	32	7.37	2.12	2.17	2.21	2.09
325	50	32	7.37	2.17	2.22	2.26	2.15
350	50	32	7.37	2.22	2.27	2.31	2.20
375	50	32	7.37	2.28	2.33	2.36	2.25
400	50	32	7.37	2.33	2.38	2.41	2.30
425	50	32	7.37	2.38	2.42	2.46	2.35
450	50	32	7.37	2.43	2.47	2.51	2.40

## 38" Two Speed Side

				MOD	MOM	MOH	MOVFR
275	50	34	7.37	2.17	2.23	2.27	2.15
300	50	34	7.37	2.23	2.29	2.33	2.21
325	50	34	7.37	2.29	2.35	2.39	2.27
350	50	34	7.37	2.35	2.40	2.44	2.32
375	50	34	7.37	2.41	2.46	2.49	2.38
400	50	34	7.37	2.46	2.51	2.55	2.44
425	50	34	7.37	2.51	2.56	2.60	2.49
450	50	34	7.37	2.56	2.61	2.65	2.54

## 40" Two Speed Side

				MOD	MOM	MOH	MOVFR
<b>300</b>	50	36	7.37	<b>2.35</b>	<b>2.40</b>	<b>2.44</b>	<b>2.32</b>
<b>325</b>	50	36	7.37	<b>2.41</b>	<b>2.46</b>	<b>2.50</b>	<b>2.38</b>
<b>350</b>	50	36	7.37	<b>2.47</b>	<b>2.52</b>	<b>2.56</b>	<b>2.44</b>
<b>375</b>	50	36	7.37	<b>2.53</b>	<b>2.58</b>	<b>2.62</b>	<b>2.50</b>
<b>400</b>	50	36	7.37	<b>2.59</b>	<b>2.64</b>	<b>2.67</b>	<b>2.56</b>
<b>425</b>	50	36	7.37	<b>2.64</b>	<b>2.69</b>	<b>2.73</b>	<b>2.62</b>
<b>450</b>	50	36	7.37	<b>2.70</b>	<b>2.75</b>	<b>2.78</b>	<b>2.68</b>
<b>475</b>	50	36	7.37	<b>2.75</b>	<b>2.80</b>	<b>2.83</b>	<b>2.73</b>

## 42" Two Speed Side

				MOD	MOM	MOH	MOVFR
<b>325</b>	50	38	7.37	<b>2.53</b>	<b>2.58</b>	<b>2.62</b>	<b>2.50</b>
<b>350</b>	50	38	7.37	<b>2.59</b>	<b>2.65</b>	<b>2.69</b>	<b>2.57</b>
<b>375</b>	50	38	7.37	<b>2.66</b>	<b>2.71</b>	<b>2.75</b>	<b>2.63</b>
<b>400</b>	50	38	7.37	<b>2.72</b>	<b>2.77</b>	<b>2.81</b>	<b>2.69</b>
<b>425</b>	50	38	7.37	<b>2.78</b>	<b>2.83</b>	<b>2.86</b>	<b>2.75</b>
<b>450</b>	50	38	7.37	<b>2.84</b>	<b>2.88</b>	<b>2.92</b>	<b>2.81</b>
<b>475</b>	50	38	7.37	<b>2.89</b>	<b>2.94</b>	<b>2.98</b>	<b>2.87</b>
<b>500</b>	50	38	7.37	<b>2.95</b>	<b>3.00</b>	<b>3.03</b>	<b>2.93</b>

## 44" Two Speed Side

				MOD	MOM	MOH	MOVFR
325	50	40	7.37	<b>2.66</b>	<b>2.72</b>	<b>2.76</b>	<b>2.63</b>
350	50	40	7.37	<b>2.73</b>	<b>2.78</b>	<b>2.83</b>	<b>2.70</b>
375	50	40	7.37	<b>2.79</b>	<b>2.85</b>	<b>2.89</b>	<b>2.77</b>
400	50	40	7.37	<b>2.86</b>	<b>2.91</b>	<b>2.96</b>	<b>2.83</b>
425	50	40	7.37	<b>2.92</b>	<b>2.97</b>	<b>3.02</b>	<b>2.90</b>
450	50	40	7.37	<b>2.98</b>	<b>3.03</b>	<b>3.08</b>	<b>2.96</b>
475	50	40	7.37	<b>3.04</b>	<b>3.09</b>	<b>3.14</b>	<b>3.02</b>

500	50	40	7.37	<b>3.10</b>	<b>3.15</b>	<b>3.19</b>	<b>3.08</b>
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### 46" Two Speed Side

				MOD	MOM	MOH	MOVFR
350	50	42	7.37	<b>2.84</b>	<b>2.90</b>	<b>2.94</b>	<b>2.82</b>
375	50	42	7.37	<b>2.91</b>	<b>2.97</b>	<b>3.00</b>	<b>2.89</b>
400	50	42	7.37	<b>2.98</b>	<b>3.03</b>	<b>3.07</b>	<b>2.96</b>
425	50	42	7.37	<b>3.05</b>	<b>3.10</b>	<b>3.14</b>	<b>3.03</b>
450	50	42	7.37	<b>3.11</b>	<b>3.16</b>	<b>3.20</b>	<b>3.09</b>
475	50	42	7.37	<b>3.18</b>	<b>3.23</b>	<b>3.26</b>	<b>3.16</b>
500	50	42	7.37	<b>3.24</b>	<b>3.29</b>	<b>3.32</b>	<b>3.22</b>
525	50	42	7.37	<b>3.30</b>	<b>3.35</b>	<b>3.38</b>	<b>3.28</b>

### 48" Two Speed Side

				MOD	MOM	MOH	MOVFR
<b>375</b>	50	44	7.3	<b>3.04</b>	<b>3.09</b>	<b>3.13</b>	<b>3.02</b>
<b>400</b>	50	44	7.3	<b>3.11</b>	<b>3.16</b>	<b>3.20</b>	<b>3.09</b>
<b>425</b>	50	44	7.3	<b>3.18</b>	<b>3.23</b>	<b>3.27</b>	<b>3.17</b>
<b>450</b>	50	44	7.3	<b>3.25</b>	<b>3.30</b>	<b>3.34</b>	<b>3.23</b>
<b>475</b>	50	44	7.3	<b>3.32</b>	<b>3.37</b>	<b>3.40</b>	<b>3.30</b>
<b>500</b>	50	44	7.3	<b>3.39</b>	<b>3.43</b>	<b>3.47</b>	<b>3.37</b>
<b>525</b>	50	44	7.3	<b>3.45</b>	<b>3.50</b>	<b>3.53</b>	<b>3.43</b>
<b>550</b>	50	44	7.3	<b>3.51</b>	<b>3.56</b>	<b>3.59</b>	<b>3.50</b>

### 50" Two Speed Side

				MOD	MOM	MOH	MOVFR
<b>375</b>	50	46	7.3	<b>3.14</b>	<b>3.19</b>	<b>3.23</b>	<b>3.12</b>
<b>400</b>	50	46	7.3	<b>3.22</b>	<b>3.27</b>	<b>3.30</b>	<b>3.20</b>
<b>425</b>	50	46	7.3	<b>3.29</b>	<b>3.34</b>	<b>3.38</b>	<b>3.27</b>
<b>450</b>	50	46	7.3	<b>3.37</b>	<b>3.41</b>	<b>3.45</b>	<b>3.35</b>
<b>475</b>	50	46	7.3	<b>3.44</b>	<b>3.48</b>	<b>3.52</b>	<b>3.42</b>
<b>500</b>	50	46	7.3	<b>3.51</b>	<b>3.55</b>	<b>3.58</b>	<b>3.49</b>

<b>525</b>	50	46	7.3	<b>3.58</b>	<b>3.62</b>	<b>3.65</b>	<b>3.56</b>
<b>550</b>	50	46	7.3	<b>3.64</b>	<b>3.68</b>	<b>3.72</b>	<b>3.62</b>

## **52" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>400</b>	50	48	7.3	<b>3.36</b>	<b>3.40</b>	<b>3.44</b>	<b>3.33</b>
<b>425</b>	50	48	7.3	<b>3.43</b>	<b>3.48</b>	<b>3.52</b>	<b>3.41</b>
<b>450</b>	50	48	7.3	<b>3.51</b>	<b>3.56</b>	<b>3.59</b>	<b>3.49</b>
<b>475</b>	50	48	7.3	<b>3.58</b>	<b>3.63</b>	<b>3.66</b>	<b>3.56</b>
<b>500</b>	50	48	7.3	<b>3.66</b>	<b>3.70</b>	<b>3.73</b>	<b>3.64</b>
<b>525</b>	50	48	7.3	<b>3.73</b>	<b>3.77</b>	<b>3.80</b>	<b>3.71</b>
<b>550</b>	50	48	7.3	<b>3.80</b>	<b>3.84</b>	<b>3.87</b>	<b>3.78</b>
<b>575</b>	50	48	7.3	<b>3.87</b>	<b>3.91</b>	<b>3.94</b>	<b>3.85</b>

## **54" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>400</b>	50	50	7.3	<b>3.48</b>	<b>3.53</b>	<b>3.57</b>	<b>3.46</b>
<b>425</b>	50	50	7.3	<b>3.56</b>	<b>3.61</b>	<b>3.64</b>	<b>3.54</b>
<b>450</b>	50	50	7.3	<b>3.64</b>	<b>3.69</b>	<b>3.72</b>	<b>3.62</b>
<b>475</b>	50	50	7.3	<b>3.72</b>	<b>3.76</b>	<b>3.80</b>	<b>3.70</b>
<b>500</b>	50	50	7.3	<b>3.80</b>	<b>3.84</b>	<b>3.87</b>	<b>3.78</b>
<b>525</b>	50	50	7.3	<b>3.87</b>	<b>3.91</b>	<b>3.95</b>	<b>3.85</b>
<b>550</b>	50	50	7.3	<b>3.95</b>	<b>3.99</b>	<b>4.02</b>	<b>3.93</b>
<b>575</b>	50	50	7.3	<b>4.02</b>	<b>4.06</b>	<b>4.09</b>	<b>4.00</b>

## **56" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>400</b>	50	52	7.3	<b>3.60</b>	<b>3.65</b>	<b>3.69</b>	<b>3.58</b>
<b>425</b>	50	52	7.3	<b>3.69</b>	<b>3.73</b>	<b>3.77</b>	<b>3.67</b>
<b>450</b>	50	52	7.3	<b>3.77</b>	<b>3.81</b>	<b>3.85</b>	<b>3.75</b>
<b>475</b>	50	52	7.3	<b>3.85</b>	<b>3.89</b>	<b>3.93</b>	<b>3.83</b>
<b>500</b>	50	52	7.3	<b>3.93</b>	<b>3.97</b>	<b>4.01</b>	<b>3.91</b>

<b>525</b>	50	52	7.3	<b>4.01</b>	<b>4.05</b>	<b>4.08</b>	<b>3.99</b>
<b>550</b>	50	52	7.3	<b>4.09</b>	<b>4.13</b>	<b>4.16</b>	<b>4.07</b>
<b>575</b>	50	52	7.3	<b>4.16</b>	<b>4.20</b>	<b>4.23</b>	<b>4.14</b>

## **58" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>425</b>	50	54	7.3	3.82	3.86	3.89	3.79
<b>450</b>	50	54	7.3	3.9	3.95	3.98	3.88
<b>475</b>	50	54	7.3	3.99	4.03	4.06	3.97
<b>500</b>	50	54	7.3	4.07	4.11	4.14	4.05
<b>525</b>	50	54	7.3	4.15	4.19	4.22	4.13
<b>550</b>	50	54	7.3	4.23	4.27	4.3	4.21
<b>575</b>	50	54	7.3	4.31	4.35	4.38	4.29
<b>600</b>	50	54	7.3	4.39	4.43	4.45	4.37

## **59" Two Speed Side**

				MOD	MOM	MOH	MOVFR
<b>450</b>	50	55	7.3	<b>3.97</b>	<b>4.01</b>	<b>4.05</b>	<b>3.95</b>
<b>475</b>	50	55	7.3	<b>4.05</b>	<b>4.10</b>	<b>4.13</b>	<b>4.03</b>
<b>500</b>	50	55	7.3	<b>4.14</b>	<b>4.18</b>	<b>4.21</b>	<b>4.12</b>
<b>525</b>	50	55	7.3	<b>4.22</b>	<b>4.26</b>	<b>4.29</b>	<b>4.20</b>
<b>550</b>	50	55	7.3	<b>4.30</b>	<b>4.34</b>	<b>4.37</b>	<b>4.28</b>
<b>575</b>	50	55	7.3	<b>4.38</b>	<b>4.42</b>	<b>4.45</b>	<b>4.36</b>
<b>600</b>	50	55	7.3	<b>4.46</b>	<b>4.50</b>	<b>4.53</b>	<b>4.44</b>
<b>625</b>	50	55	7.3	<b>4.54</b>	<b>4.58</b>	<b>4.60</b>	<b>4.52</b>

