

HRB-4 3050

CAPACITY CHART

BENDING LENGTH	10'
PREBENDING CAPACITY	1.57"
BENDING CAPACITY	2"
TOP ROLL DIAMETER	20.47"

"I have a 10' machine and can roll a 10' wide sheet of 2" thick Class 2 mild steel to a 61" diameter. If I only needed to roll a 6' plate to that diameter, how thick could it be?" The answer is **2.582"**.

With this example chart for the HRB-4 3050, you can determine what you can roll at different diameters, lengths, thicknesses and in different materials. **Charts are available for all machines.**

Plate Width (in Feet):		10.000		9.000		8.000		7.000		6.000		5.000		4.000		3.000		2.000	
		100% Width		90% Width		80% Width		70% Width		60% Width		50% Width		40% Width		30% Width		20% Width	
Material Types	Inside Diameter ØD (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)	Pre-Bending (Inch)	Bending (Inch)
		CLASS-1 MATERIAL Max Yield Strength 206.84277 N/mm ² 30,000 PSI	22.517	1.049	1.336	1.105	1.408	1.172	1.493	1.253	1.596	1.354	1.724	1.483	1.889	1.658	2.112	1.914	2.439
26.611	1.302		1.659	1.373	1.749	1.456	1.855	1.556	1.983	1.681	2.142	1.842	2.346	2.059	2.623	2.377	3.029		
30.705	1.387		1.767	1.462	1.862	1.550	1.975	1.657	2.111	1.790	2.281	1.961	2.498	2.193	2.793				
40.940	1.607		2.047	1.694	2.157	1.796	2.288	1.920	2.446	2.074	2.642	2.272	2.894						
61.410	1.691		2.154	1.783	2.271	1.891	2.409	2.021	2.575	2.183	2.781	2.392	3.047						
81.880	1.742		2.219	1.836	2.339	1.947	2.481	2.082	2.652	2.249	2.865	2.463	3.138						
102.350	1.793		2.284	1.890	2.407	2.004	2.553	2.143	2.729	2.314	2.948								
204.700	1.903		2.424	2.005	2.555	2.127	2.710	2.274	2.897	2.456	3.129								
CLASS-2 MATERIAL Max Yield Strength 241.31657 N/mm ² 35,000 PSI	22.517	0.973	1.240	1.026	1.307	1.088	1.386	1.163	1.482	1.257	1.601	1.377	1.754	1.539	1.961	1.777	2.264	2.177	2.773
	26.611	1.209	1.540	1.274	1.623	1.352	1.722	1.445	1.841	1.561	1.988	1.710	2.178	1.911	2.435	2.207	2.812		
	30.705	1.287	1.640	1.357	1.729	1.439	1.834	1.539	1.960	1.662	2.117	1.821	2.319	2.036	2.593	2.350	2.994		
	40.940	1.492	1.900	1.572	2.003	1.668	2.124	1.783	2.271	1.926	2.453	2.109	2.687	2.358	3.004				
	61.410	1.570	2.000	1.655	2.108	1.755	2.236	1.877	2.390	2.027	2.582	2.220	2.828	2.482	3.162				
	81.880	1.617	2.060	1.705	2.171	1.808	2.303	1.933	2.462	2.088	2.659	2.287	2.913						
	102.350	1.664	2.120	1.754	2.235	1.861	2.370	1.989	2.534	2.148	2.737	2.354	2.998						
	204.700	1.766	2.250	1.862	2.372	1.975	2.516	2.111	2.689	2.280	2.905	2.498	3.182						
CLASS-3 MATERIAL Max Yield Strength 344.73795 N/mm ² 50,000 PSI	22.517	0.812	1.035	0.856	1.091	0.908	1.157	0.971	1.237	1.049	1.336	1.149	1.463	1.284	1.636	1.483	1.889	1.816	2.313
	26.611	1.009	1.285	1.063	1.354	1.128	1.437	1.206	1.536	1.302	1.659	1.426	1.817	1.595	2.032	1.842	2.346	2.255	2.873
	30.705	1.074	1.368	1.132	1.442	1.201	1.530	1.284	1.636	1.387	1.767	1.519	1.935	1.698	2.164	1.961	2.498	2.402	3.060
	40.940	1.244	1.585	1.312	1.671	1.391	1.772	1.487	1.895	1.607	2.047	1.760	2.242	1.968	2.507	2.272	2.894		
	61.410	1.310	1.669	1.381	1.759	1.465	1.866	1.566	1.995	1.691	2.154	1.853	2.360	2.071	2.639	2.392	3.047		
	81.880	1.349	1.719	1.422	1.812	1.509	1.922	1.613	2.054	1.742	2.219	1.908	2.431	2.133	2.718	2.463	3.138		
	102.350	1.389	1.769	1.464	1.865	1.552	1.978	1.660	2.114	1.793	2.284	1.964	2.502	2.196	2.797				
	204.700	1.474	1.877	1.553	1.979	1.648	2.099	1.761	2.244	1.903	2.424	2.084	2.655	2.330	2.968				
CLASS-4 MATERIAL Max Yield Strength 448.15934 N/mm ² 65,000 PSI	22.517	0.712	0.907	0.751	0.957	0.796	1.015	0.851	1.085	0.920	1.171	1.007	1.283	1.126	1.435	1.301	1.657	1.593	2.029
	26.611	0.885	1.127	0.933	1.188	0.989	1.260	1.057	1.347	1.142	1.455	1.251	1.594	1.399	1.782	1.615	2.058	1.978	2.520
	30.705	0.942	1.200	0.993	1.265	1.053	1.342	1.126	1.434	1.216	1.549	1.332	1.697	1.490	1.898	1.720	2.191	2.107	2.684
	40.940	1.091	1.390	1.151	1.466	1.220	1.555	1.305	1.662	1.409	1.795	1.544	1.966	1.726	2.198	1.993	2.539	2.441	3.109
	61.410	1.149	1.464	1.211	1.543	1.285	1.636	1.373	1.749	1.483	1.889	1.625	2.070	1.817	2.314	2.098	2.672		
	81.880	1.183	1.507	1.247	1.589	1.323	1.685	1.414	1.802	1.528	1.946	1.674	2.132	1.871	2.384	2.161	2.752		
	102.350	1.218	1.551	1.284	1.635	1.362	1.735	1.456	1.854	1.572	2.003	1.722	2.194	1.926	2.453	2.223	2.832		
	204.700	1.293	1.647	1.362	1.736	1.445	1.841	1.545	1.968	1.669	2.126	1.828	2.329	2.044	2.603	2.360	3.006		
HIGH YIELD 689.47591 N/mm ² 100,000 PSI	22.517	0.574	0.732	0.605	0.771	0.642	0.818	0.686	0.874	0.741	0.944	0.812	1.035	0.908	1.157	1.049	1.336	1.284	1.636
	26.611	0.713	0.909	0.752	0.958	0.797	1.016	0.852	1.086	0.921	1.173	1.009	1.285	1.128	1.437	1.302	1.659	1.595	2.032
	30.705	0.760	0.968	0.801	1.020	0.849	1.082	0.908	1.156	0.981	1.249	1.074	1.368	1.201	1.530	1.387	1.767	1.698	2.164
	40.940	0.880	1.121	0.928	1.182	0.984	1.253	1.052	1.340	1.136	1.447	1.244	1.585	1.391	1.772	1.607	2.047	1.968	2.507
	61.410	0.926	1.180	0.976	1.244	1.036	1.319	1.107	1.410	1.196	1.523	1.310	1.669	1.465	1.866	1.691	2.154	2.071	2.639
	81.880	0.954	1.215	1.006	1.281	1.067	1.359	1.140	1.453	1.232	1.569	1.349	1.719	1.509	1.922	1.742	2.219	2.133	2.718
	102.350	0.982	1.251	1.035	1.318	1.098	1.398	1.174	1.495	1.268	1.615	1.389	1.769	1.552	1.978	1.793	2.284	2.196	2.797
	204.700	1.042	1.327	1.098	1.399	1.165	1.484	1.246	1.587	1.345	1.714	1.474	1.877	1.648	2.099	1.903	2.424	2.330	2.968