



Bulldog Rack Company

200 Fort Steuben Road

Weirton, WV 26062

Sales Line: 304.459.8490



Think Inside the Box - Do More with Less!

Think Inside the Box Solutions

Established in 2003, Bulldog Rack Company has created a distinctive range of dynamic storage solutions.

The Bulldog **“Think Inside the Box”** strategy maximizes existing and future space and helps reduce redundant labor costs.

The Bulldog high-density storage product line offers clients a diverse array of cost-effective solutions that can be implemented in operating environments.

From early concept all the way to completion, the Bulldog design, engineering and project management team work in concert to enhance your operation.

Dealer Network Synergies



Our sales and engineering teams combined with an unmatched dealer network offer a unique turnkey solution with local long term support.

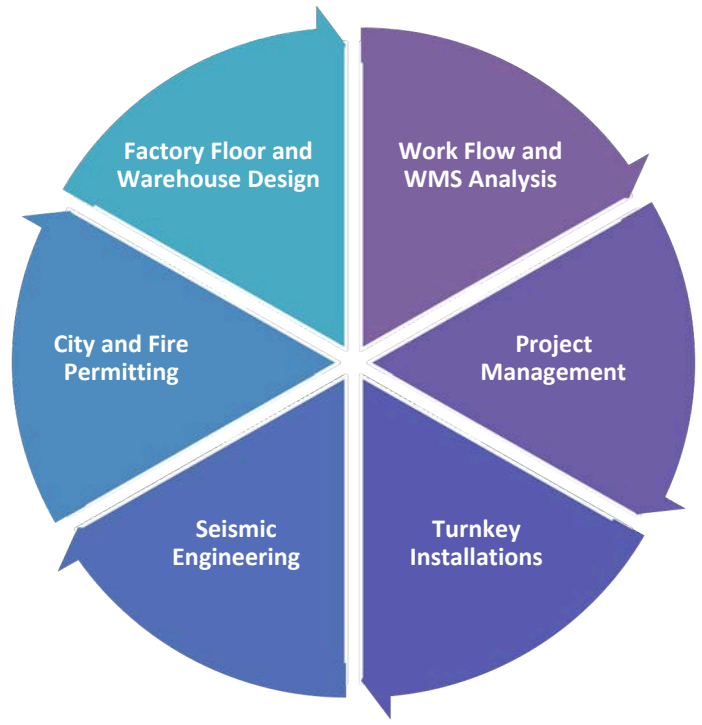
Custom Fabrication

As a seasoned manufacturing company Bulldog Rack converts customer vision into reality.

Bulldog offers a wide range of roll forming, cutting, punching, welding and high quality powder coating.

Bring us your fabrication projects. Our shop is dynamic, high quality and experienced.

High quality tube laser cutting is available for up to 12" shapes and 1/4" thick steel.



From Concept to Completion

The best time to engage the Bulldog design team is before you decide to build out or move. Our concept to completion design services help provide feasibility services, budgets and building layouts.

We assess various factors such as space, item velocity, labor, and operating costs to identify the optimal solution for your challenges.

The most effective design strategy is to adopt an inside-out approach, ensuring that your building aligns with column placement, storage heights, fire protection, egress, and structural code requirements.



High Density Storage Systems

High-velocity bulk products in storage zones typically consume the majority of space and labor in both manufacturing and warehousing operations.

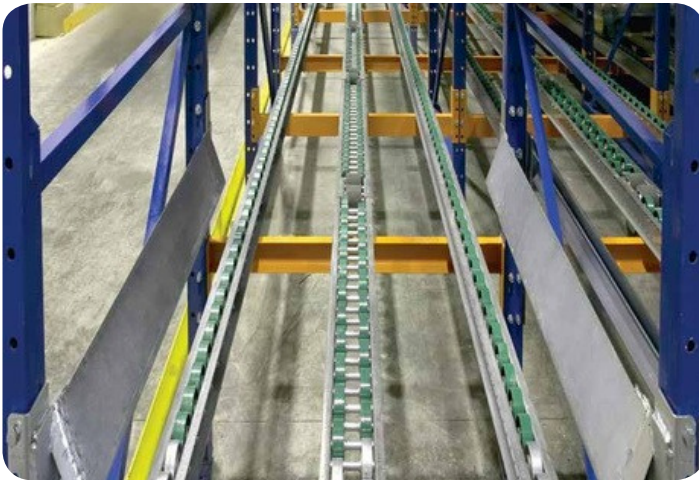
Limited stacking heights and multiple product touches of bulk storage items greatly reduces storage capacity and adds excessive forklift labor to storage areas.

Every manufacturing and distribution facility faces unique challenges.

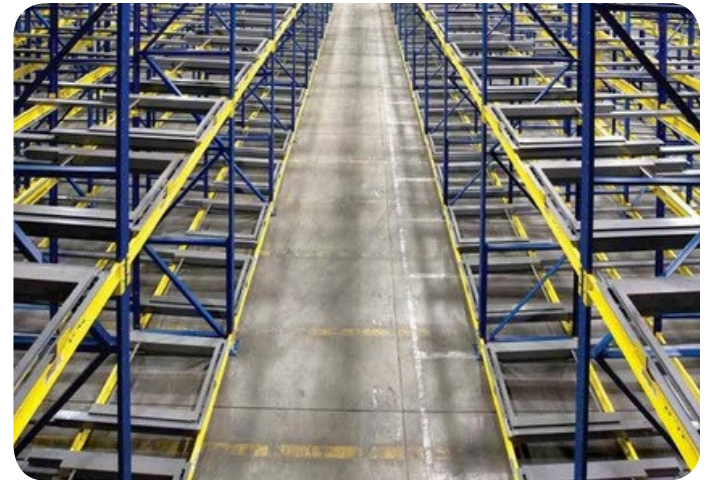
Our design team focuses on gathering essential data to ensure the most effective solution is proposed versus a one solution fits all approach.



2D and 4D Shuttle Systems



Pallet-Flow Storage Systems



Push-Back Storage Systems



Double Wide Drive-In



Structural Cantilever



Secure Pin Cantilever



Structural Drive-In



Cold Storage Solutions

The Bulldog Design and Implementation team have extensive expertise in cold storage solutions.

We manage these projects from the ground up, guiding them from concept to completion. Bulldog offers the most diverse storage solutions available in the cold chain industry. Solutions can be provided in both new and existing facilities.

Super Tube Moment Frame

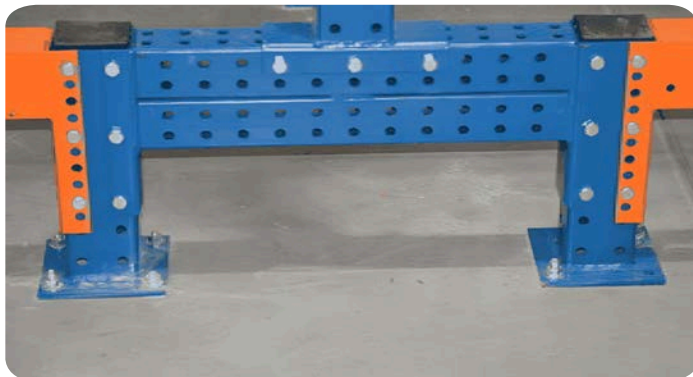
Moment frame technology was developed in the 1880s as a superior solution for skyscrapers, enabling the construction of taller and more resilient buildings.

Modern day RMI codes especially in seismic zones favor these type of beam and frame connections.

Bulldog uses high precision tube lasers for any shape or beam connection. This flexibility allows for the use of structural beams for impact zones and teardrop or roll-formed beams for internal areas. This hybrid approach reduces overall costs including installation, hardware and steel.

Moment frames help reduce slab thickness and are superior during seismic and forklift impact events.

Tube shapes of up to 12" and 1/4" thick are available.



Double Deep Moment Tube Bridge Frames



Double Deep Structural System



Double Deep Super Tube Frames with Decking

4-Way Shuttle Systems

4-Way Fully Automated Systems can be retrofitted into existing cold storage systems.

Bulldog Rack and its partners' turnkey Shuttle Systems including top tier WMS and maintenance support.



4D Fully Automated Storage Solutions

Food & Beverage Solutions

The Bulldog Food and Beverage Systems are a unique mix of bulk, case and keg storage solutions designed to help companies do more with less space.

We help consolidate Food and Beverage operations using proven pick line and storage techniques.

Each facility and challenge is different. Our team has completed over 700 Food and Beverage projects.



Turnkey Pick Line Solutions

Bulldog provides system designs from concept to completion. Bring your challenges. We can help!



Double Wide Drive-In



Keg Flow Storage System

The variety of kegs with small keg rooms is always a challenge. The Bulldog Design team offers turnkey layouts, materials and installation of keg flow and case flow system.

Consolidate your slower movers to reduce pick path and help improve space utilization.

Bulldog provides replacement parts for existing beverage systems.



Case Flow Storage Systems



Shuttle Storage Systems

The Bulldog 2D and 4D Shuttle Systems are excellent solutions for raw material or finished good storage areas.

The semi-automated 2D systems work well in a low SKU environment of full loads in and out.

The 4-Way Shuttle Systems can be utilized in any warehouse design including very narrow aisle to deep lane bulk storage.

AGVs with Shuttles = Fully Autonomous Operations.



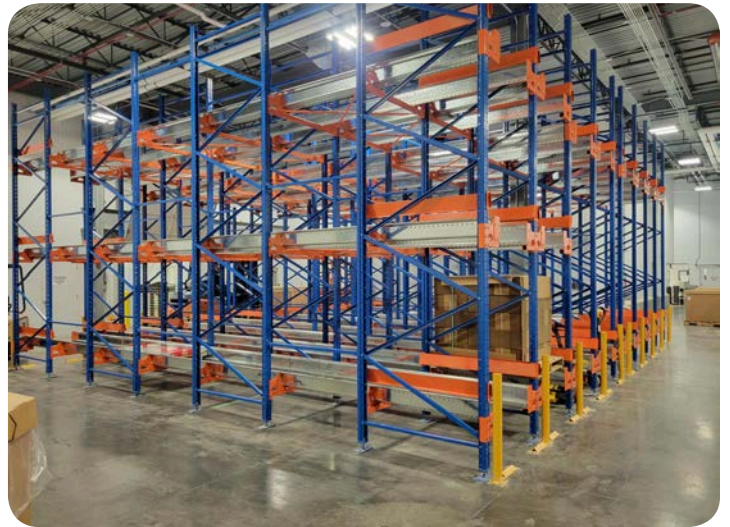
4D All-In-One Shuttle Systems

The All-In-One 2D and 4D Shuttle systems uses one unit for both applications. Start with a 2D system and upgrade down the road when your budget permits.

The systems include a turnkey **SaaS based WMS** and robotic control system connected to your ERP.



Shuttles for Layer Picking



Shuttle Racking System



2D All-in-One Shuttle Systems



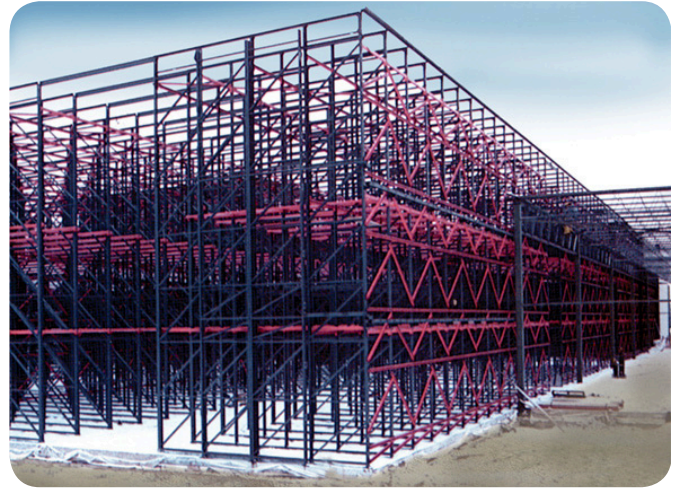
4D Automated Charging System

Rack Supported Storage

The Bulldog Rack Supported building solution is an excellent answer to tall ceiling heights and when the facility is mostly racking.

Rack supported buildings utilize racking frames connected to purlins for supporting the roofing and walls.

Construction lead times and building costs can be reduced.



Financing and Depreciation

Since the rack structure and building are as one, equipment financing can be considered for the turnkey facility.

As equipment, you may be able to take advantage of accelerated depreciation and expense the facility in year one. Subject to accounting review.

Bulldog Rack, together with its partners offer financing support, design, manufacturing and and installation services.

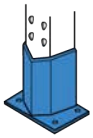
System Advantages

- Provides the highest storage density
- Ideal for wind, snow load, and seismic conditions
- Often results in lower insurance costs
- Increases storage density and reduces steel
- Excellent for AS/RS systems
- Utilizes height instead of land mass
- Tax and financing advantages
- Faster construction time
- Lower overall construction costs

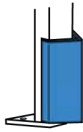


Bulldog Safety, Durability and Color Options

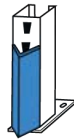
HEAVY-DUTY COLUMN PROTECTOR
1/4" Steel



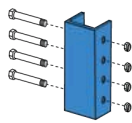
BOLT-ON COLUMN PROTECTOR



WELDED ANGLE DEFLECTORS



SPLICE CHANNEL
Joins 2 Posts



REINFORCED INTERNAL COLUMN PROTECTOR



HEAVY-DUTY BOTTOM HORIZONTAL BRACE



DOUBLE COLUMN



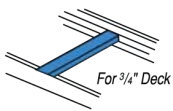
OFFSET LEG UPRIGHT



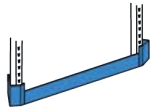
SLOPE LEG UPRIGHT



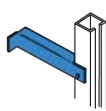
WOOD DECK SUPPORT



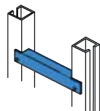
END OF AISLE RACK GUARD



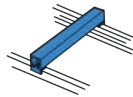
RIGID WALL SPACERS WITH HARDWARE



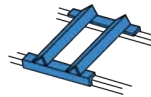
RIGID ROW SPACERS WITH HARDWARE



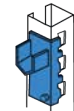
FORK SPACERS



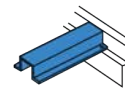
DRUM CRADLES



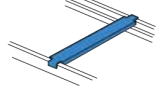
REEL HOLDERS



HAT SHAPED PALLET SUPPORT



FLANGED CROSS BAR



Bulldog's powder coated finish is applied electrostatically, and then baked to provide our products with a durable and beautiful high gloss finish that is the best in the industry.

Our powder coat finish is superior to wet spray or dipping. The quality high-gloss finish is free of unsightly paint runs.

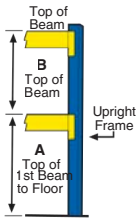


Bulldog Capacity Charts and Rack Types

3" UPRIGHT FRAME CAPACITIES FOR POWER SLOT (Tear Drop), KEYSTONE & RIDGID SLOT DESIGN

MAXIMUM VERTICAL BEAM SPACING** <i>(See Illustration below)</i>	*TU23	*TU24	*TU33	*TU34	*TU35	*TU36
	14 GA 3" X 98"	13 GA 3" X 98"	14 GA 3" X 93"	13 GA 3" X 93"	12 GA 3" X 93"	11 GA 3" X 93"
36"	18,900	22,200	28,200	36,000	40,500	47,900
42"	17,200	20,800	26,000	33,000	37,100	43,800
48"	15,000	19,200	22,900	29,000	32,500	38,300
54"	13,600	17,600	21,000	26,500	29,700	34,800
60"	12,200	15,800	19,100	24,000	26,800	31,300
66"	10,700	14,100	17,100	21,400	23,900	27,800
72"	9,300	12,400	15,100	18,900	21,000	24,400
84"	7,200	9,600	11,900	14,700	16,400	19,000
96"	5,700	7,600	9,500	11,800	13,000	15,100

RIDGIDSLLOT CAPACITIES 3" X 93" ONLY
*Use Prefix "TU" for Tear Drop, "KU" for Keystone or "RR" for Ridgid Rack
**A Floor to top of first beam or B maximum beam spacing - whichever is greater.



- Capacities are based on plumb, undamaged posts and do not take seismic, wind or other lateral forces into consideration.
- Capacities are based on current RMI specifications.
- Capacities are based on 55 ksi minimum yield.
- Capacities are based on loads uniformly distributed.
- Vertical beam to beam spacing greater than 96" consult factory.
- Upright frames have to be anchored with at least one anchor bolt per post.
- Upright frames available in any height or depth.
- Custom Fabrication Available - Including Rack Supported Buildings.

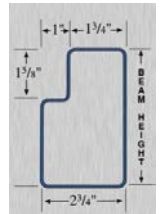
4" UPRIGHT FRAME CAPACITIES FOR POWER SLOT (Tear Drop) DESIGN

MAXIMUM VERTICAL BEAM SPACING** <i>(See Illustration above)</i>	TU43	TU44	TU45	TU46
	14 GA 4" X 98"	13 GA 4" X 98"	12 GA 4" X 98"	11 GA 4" X 98"
36" - 66"	21,000	24,500	28,500	32,500
72"	19,000	22,000	25,500	29,500
84"	16,000	18,500	21,500	24,500
96"	13,000	15,000	17,000	19,500
108"	10,000	11,500	13,500	15,500
120"	8,000	9,000	10,500	12,000
132"	6,500	7,500	9,000	10,000
144"	5,500	6,500	7,500	8,500

STEP BEAM CAPACITIES FOR POWER SLOT (Tear Drop), KEYSTONE & RIDGID SLOT

BEAM HEIGHT	3 16GA	3.5 16GA	4 16GA	4.25 16GA	4.5 16GA	5 16GA	5.5 14GA	6 14GA	6.5 14GA
	48	7,398	8,749	10,100	11,150	12,400	12,400	12,400	12,400
54	6,658	7,850	9,042	9,985	11,680	12,400	12,400	12,400	12,400
60	6,065	7,163	8,260	9,070	10,590	12,350	12,400	12,400	12,400
66	5,582	6,589	7,597	8,395	9,700	11,305	12,400	12,400	12,400
72	4,825	5,904	6,982	7,710	8,990	10,420	12,400	12,400	12,400
78	4,168	5,325	6,482	7,265	8,310	9,680	12,400	12,400	12,400
84	3,645	4,762	5,879	6,790	7,760	9,025	12,400	12,400	12,400
90	3,218	4,237	5,256	6,125	7,300	8,510	12,090	12,400	12,400
96	2,868	3,754	4,640	5,080	6,390	8,002	11,275	12,400	12,400
102	2,580	3,395	4,210	4,910	6,200	7,590	10,200	12,205	12,400
108	2,340	3,055	3,771	4,415	5,260	7,140	10,090	11,250	12,400
114	2,160	2,791	3,421	3,986	5,020	6,445	9,502	11,000	12,250
120	1,960	2,616	3,273	3,950	4,600	5,790	8,620	10,100	11,450
126	1,790	2,339	2,888	3,365	4,200	5,320	7,895	9,690	11,050
132	1,645	2,151	2,658	3,085	3,850	4,935	7,200	8,800	10,560
138	1,534	2,003	2,473	2,855	3,560	4,500	6,595	8,190	9,870
144	1,410	1,839	2,268	2,650	3,300	4,205	6,005	7,596	9,090

- All beam capacities are calculated based on current RMI specifications. All capacities are based on uniformly distributed loads per pair of beams. Length refers to the clear span of a beam in inches. The maximum beam deflection is Length/180. Special sizes are available upon request.



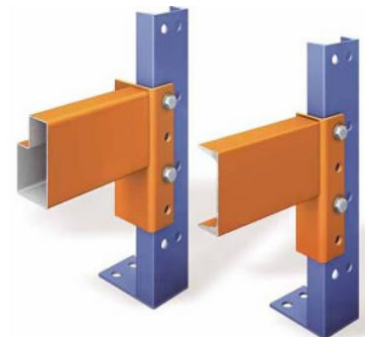
Power Slot (Tear -Drop)
2" Adjustability



Keystone Style
3" Adjustability



Ridgid Slot
4" Adjustability



Structural Standard and Hybrid
1" - 4" Adjustability



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