



MINING PRODUCT CATALOG

MINER
ELASTOMER
PRODUCTS CORPORATION

TecsPak®

THE LATEST ADVANCE IN ENERGY ABSORPTION



Miner Elastomer Products Corporation is a division of Miner Enterprises, a company founded on the basic principle of selling high-quality products at competitive prices. TecsPak® was invented and patented by WH Miner Company to provide dramatic improvements in the shock absorbing capacity of railcar draft gears.

TECSPAK® MATERIAL IS A HIGHLY ENGINEERED ELASTOMERIC PRODUCT THAT ABSORBS MORE ENERGY PER UNIT OF WEIGHT AND VOLUME THAN MANY KNOWN MATERIALS.

In certain applications, TecsPak® bumpers and springs significantly outperform rubber, urethane and coil steel springs. TecsPak® springs are consistently solving energy absorption problems where other materials fail.

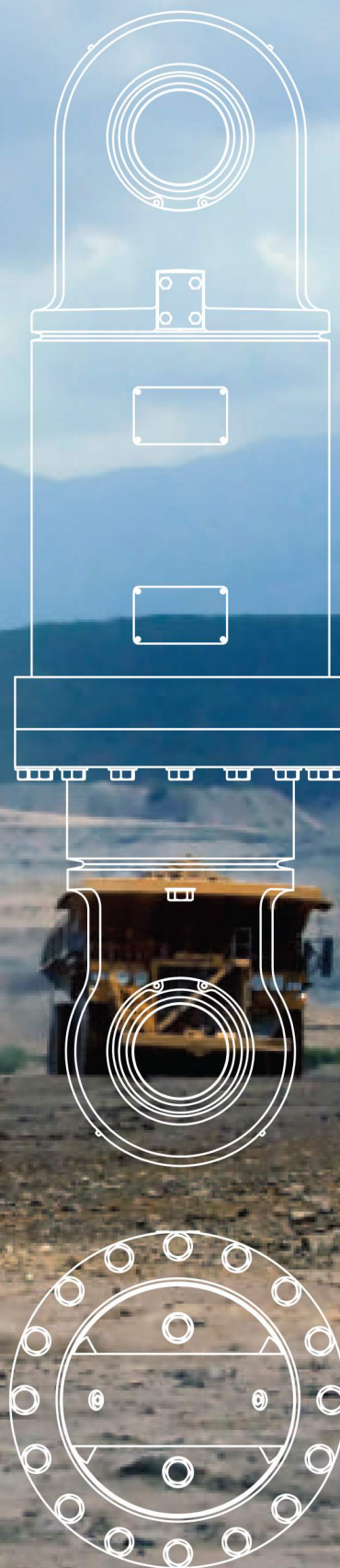
Design engineers continue to find innovative ways to use TecsPak® to solve their energy management problems. Tests have shown it is 10 times more durable than rubber and 20 times more durable than urethane. The extended product life cycle that TecsPak® can provide is clearly important. But perhaps just as important is the design flexibility TecsPak® offers. Due to its unique properties, TecsPak® has greater energy absorbing capability than rubber or urethane of equal volume or weight. Essentially, TecsPak® can achieve the required performance using less volume and weight than other technologies.

We hope you will find the information and products presented in this catalog valuable. The breadth of our standard product line is represented as well as our ability to custom design for your applications.

QUALITY STATEMENT

Miner Elastomer Products Corporation is an efficient, continually improving producer of engineered and proprietary products that meet our customer's requirements.

— ISO 9001:2008 REGISTERED —



PRODUCT OVERVIEW



HAUL TRUCK SUSPENSION STRUTS AND RMC

Miner Elastomer Products has a selection of TecsPak® haul truck complete suspension struts and replacement suspension packages (RMC). TecsPak® suspension packages are designed to handle specified loads in all environments. TecsPak® suspensions are virtually maintenance free. TecsPak® suspensions reduce truck down-time due to maintenance.

[Page 6](#)



OEM PARTS - SHOVEL COMPONENTS

Miner Elastomer Products offers several heavy-duty bucket door components that improve performance, reduce downtime and increase shovel output. Our components are designed to absorb maximum load capacities while reducing wear and tear on hinges and weldments within the bucket.

[Page 7 & 8](#)

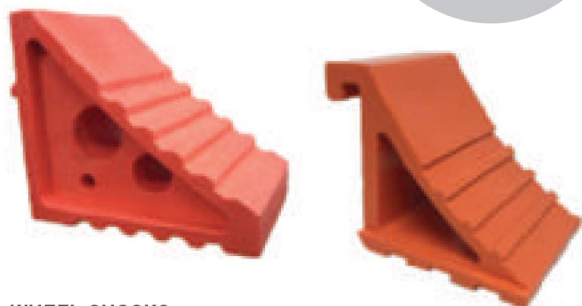


OEM PARTS - BLAST HOLE DRILLING ACCESSORIES

Miner Elastomer Products has available a line of TecsPak® roller bearings for Blast Hole Drill Rigs. The TecsPak® roller bearings are designed to stabilize the roller assembly as it travels up and down within the cradle.

[Page 8](#)





WHEEL CHOCKS

The large wheel chock line is designed for mining haul truck and service vehicle applications. For 240 Ton and larger haul trucks, a minimum of four wheel chocks are recommended. These chocks are strong, lightweight and crush-resistant. They will not damage tires even if they are run over.

[Page 9](#)



HEAVY-DUTY PADS AND OVERTRAVEL RINGS

Miner Elastomer Products has a wide variety of Heavy-duty pads and overtravel rings designed to absorb impacts of all sizes. Heavy-duty pads and overtravel rings are virtually maintenance free and help decrease down-time. Heavy-duty pads and overtravel rings are inert to most chemicals, greases and oils. They do not delaminate, dry rot, or flake apart. Contact the factory today with your application requirements.

[Page 10 & 11](#)



TECSPAK® CRANE BUMPERS

TecSPak® crane bumpers are a proven, cost-effective choice for energy management systems with excellent resistance to chemicals and humidity. These bumpers are designed to meet the minimum requirements of existing industry standards – OSHA and CMAA.

[Page 12](#)

TECSPAK® HEAVY RADIAL BUMPERS

TecSPak® heavy radial bumpers are ideal for applications that require high loads and limited travel. This bumper is well suited for applications in the Mining Industry.

[Page 13](#)



TECSPAK® SUCKER ROD CUSHIONS

Miner Elastomer Products offers TecSPak® sucker rod shock absorption solutions to enable pumping units to produce more oil while reducing the KW requirements and easing the amp spikes when the weight changes velocity. In addition, TecSPak® sucker rod shock absorbers reduce the stresses on the rod string preventing separation and breakage. TecSPak® sucker rod shock absorbers are easily installed and require no maintenance. Overall, TecSPak® sucker rod shock absorbers reduce down-time and increase production.

[Page 14 & 15](#)



HAUL TRUCK SUSPENSIONS

Miner Elastomer Products has a large selection of Tecspak® haul truck complete suspension struts and replacement suspension packages (RMC). Tecspak® suspension packages are designed to handle severe loads in all environments.

TECSPAK® SUSPENSIONS ARE:

- virtually maintenance free
- require no gas or oil to maintain
- reduce truck down-time due to maintenance for strut failure, ride height adjustment and tire wear
- standard bearings included

SUSPENSIONS AVAILABLE FOR KOMATSU & CAT.
CONTACT THE FACTORY FOR MORE INFORMATION.



HAUL TRUCK
SUSPENSION



SUSPENSION	
TRUCK	PAYLOAD
ME-773	60 TON
ME-775	70 TON
ME-777	100 TON
ME-785	150 TON
ME-789	190 TON
ME-793	240 TON
ME-830	240 TON



SHOVEL COMPONENTS

Miner Elastomer Products offers a large line of shovel components designed to improve performance, reduce downtime due to maintenance and increase shovel output. Our shovel components ability to absorb impacts result in longer life allowing for reduced shovel maintenance and overall lower operating cost.



EP90003476

OEM PARTS - SNUBBER
PAD ASSEMBLY



EP90004334

OEM PARTS - SNUBBER
PAD ASSEMBLY



EP90001322

OEM PARTS - LATCH
BAR BUMPER



EPM0331210

OEM PARTS - SMALL
LATCH BAR BUMPER



EPM0331280

OEM PARTS -
LARGE LATCH
BAR BUMPER

PART NUMBER	OD (IN)	ID (IN)	FREE HT. (IN)	SOLID HEIGHT (IN)	LENGTH (IN)	WIDTH (IN)	WEIGHT (LBS)	MOUNTING HOLE* (IN)
EP90003476	6.50	3.125	3.16	1.87	—	—	4.08	N/A
EP90004334	4.87	2.06	1.94	1.15	—	—	2.11	N/A
EP90001322	1.72	0.79	4.63	2.00	—	—	3.28	0.79
EPM0331210	—	—	1.96	—	8.27	3.94	2.43	1.00
EPM0331280	—	—	1.96	—	11.02	4.53	3.90	0.79

*MOUNTING HOLE DIMENSIONS ARE NOMINAL VALUES AND PROVIDE CLEARANCE FOR THE RECOMMENDED MOUNTING HARDWARE.



EPM0331031

OEM PARTS - BUCKET DOOR
BUMPER ASSEMBLY
includes mounting hardware



EP90002809

OEM PARTS - BUCKET
DOOR BUMPER
includes mounting hardware

PART NUMBER	FREE HEIGHT (IN)	WIDTH (IN)	LENGTH (IN)	TOTAL HEIGHT W/ RODS (IN)	WEIGHT (LBS)
EPM0331031	8.875	7.25	4.00	16.375	9.40
EP90002809	8.875	7.25	13.00	16.375	28.0

SHOVEL COMPONENTS



EPM0379075
OEM PARTS - LATCH
BAR WEAR PAD

EP90002643
OEM PARTS - BOOM
BUMPER ASSY
EP91006825 379-6 (1 pc)
OEM PARTS - BOOM
BUMPER PAD
EP91004770 (1 pc)
OEM PARTS - MACHINED LOAD PLATE



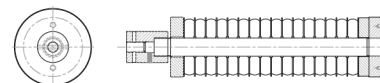
PART #	FREE HEIGHT (IN)	WIDTH (IN)	LENGTH (IN)	WEIGHT (LBS)
EPM0379075	1.00	9.00	13.25	5.00
EP90002643	12.13	12.00	11.94	127.00



CROWD CUSHION ASSEMBLIES



Miner Elastomer Products offers a line of TecPak® crowd cushion components that are designed to improve shovel performance, reduce downtime due to cable breakages, and increase shovel output. Our TecPak® Crowd Cushions absorb the shovel impact resulting in longer cable life allowing for maximum shovel-to-wall penetration. Also reduces load spikes to electric motors and drive components.



EP90002973 PCC-BE-125S
EP90002577 PCC-BE-125A
EP90001926 PCC-BE-125



EP90001264
PCC-BE-295BII/395B



EP90004094
PCC-BE275-SP1



EP90003369
PCC-BE-125AS



EP90000696
SBC-295-BII
OEM PARTS - SADDLE BLOCK
CUSHION ASSY
EP91004101 (1 pc)
OEM PARTS - BACKING PLATE
EP91006189 EPD-102-2 (3 pcs)
OEM PARTS - PADS

BLAST HOLE DRILLING ACCESSORIES

Miner Elastomer Products has available a line of TecPak® roller bearings for Blast Hole Drill Rigs. The TecPak® roller bearings are designed to stabilize the roller assembly as it travels up and down within the cradle.



EP90002387
OEM PARTS -
BE ROLLER



EP90002395
OEM PARTS -
BE ROLLER



EP90003914
OEM PARTS -
BE ROLLER

WHEEL CHOCKS



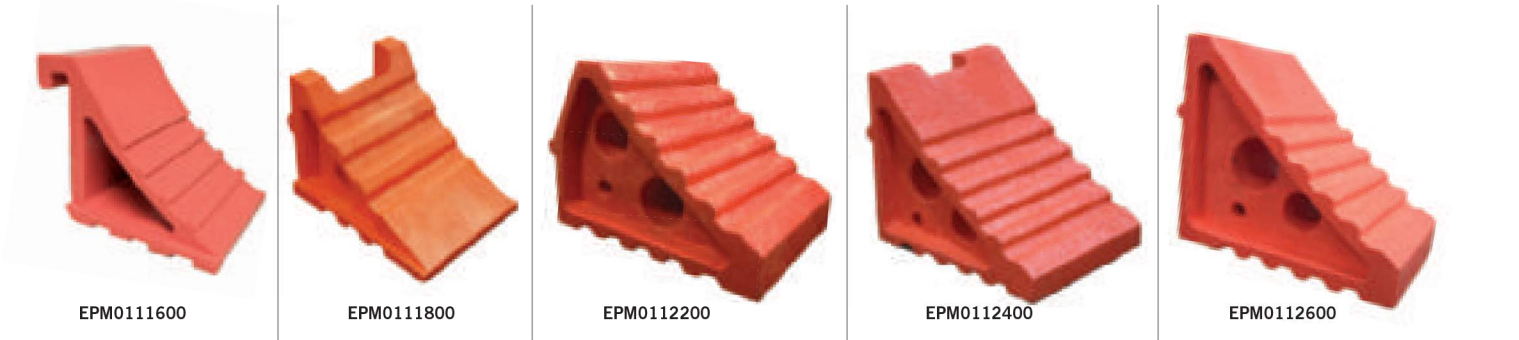
Miner Elastomer Products mining truck wheel chocks are designed for the demanding requirements of the mining industry. Currently, five sizes of wheel chocks are available.

The ImPak™ wheel chocks are designed for over-the-road trucks and large mining haul trucks. Our wheel chocks are virtually indestructible and suited for all types of environments. All ImPak™ wheel chocks are made from high-visibility orange material.

The large wheel chock line is designed for mining haul truck applications. For 240 Ton and larger haul trucks, a minimum of four wheel chocks are recommended. These chocks are strong, lightweight and crush-resistant. They will not damage tires even if they are run over.



MOUNTING BRACKETS
AVAILABLE UPON REQUEST



PART #	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	WEIGHT (LBS)	LOAD CAPACITY
EPM0111600	7.50	6.50	7.50	5	Up to 46" (116 cm) Tire Diameter (GVW 26,000 lbs)
EPM0111800	11.0	8.90	8	6	Up to 35T Payload trucks (GVW 150,000 LBS)/ 46"-65" (116-165cm) Tire Diameters
EPM0112200	16.00	14.00	12.00	25.00	Up to 165T Payload trucks (GVW 555,000 LBS)/ 65"-125" (165-317cm) Tire Diameters
EPM0112400	16.00	14.00	14.00	30.00	Up to 240T Payload trucks (GVW 855,000 LBS)/ 65"-142" (165-360cm) Tire Diameters
EPM0112600	18.00	14.00	16.00	35.00	240T-400T Payload trucks (GVW 1,600,000 LBS)/ 105"-165" (267-419cm) Tire Diameters
EPM0112900	Wheel Chock Bracket			3.00	Fits all chock sizes except EPM0111600
EPM0122904	Wheel Chock Bracket			1.00	Fits chock size EPM0111600
EPM0112905	Wheel Chock Bracket			2.00	Fits chock size EPM0111800

A minimum of four EPM0112600 wheel chocks are recommended for a gross vehicle wight of 855,000-1,600,00 lbs.

MEETS THESE SPECIFICATIONS

OSHA SPECIFICATIONS

1910.178(K)
1910.178(M)
1910.111(F)

MSHA SPECIFICATIONS

30 CFR §56.14207
WARNING: Individual end user testing required to ensure proper chock selection and application.



HEAVY-DUTY PADS

HEAVY-DUTY PADS

Miner Elastomer Products has a wide variety of Heavy-duty pads designed to absorb impacts of all sizes. Heavy-duty pads are virtually maintenance free and help decrease down-time of all types of heavy duty mining equipment. Heavy-duty pads are inert to most chemicals, greases and oils. They do not delaminate, dry rot, or flake apart. Contact the factory today with your application requirements.



EP90001363
EPD-170-2
TecsPak® ARTICULATED TRUCK
STEERING STOP PAD



EPM0916002
TecsPak® GENERAL BUMPER



EPM0900002
TecsPak® CONTAINER CUSHION PAD



EPJ0791001
TecsPak® OVER TRAVEL PAD



EPM1091010
ImPak™ CABLE SLAP LOG



EPK0296002
ImPak™ BAR PAD



EPK0296007
ImPak™ BAR PAD

PART #	OD (IN)	ID (IN)	FREE HEIGHT (IN)	LENGTH (IN)	WIDTH (IN)	SOLID HEIGHT (IN)	FREE BULGE (IN)	SOLID BULGE (IN)	MOUNTING HOLE (IN)
EPM1091010	—	—	4.00	32.00	5.875	—	—	—	—
EP90001363	5.58	1.13	2.00	—	—	1.00	5.58	6.90	.54
EPM0916002	6.00	1.55	2.48	—	—	—	—	—	0.79
EPK0296002	4.50	1.06	1.50	—	—	—	—	—	—
EPM0900002	8.94	3.15	2.35	—	—	1.19	—	11.02	1.97
EPJ0791001	—	—	4.19	4.50	—	2.00	5.06	6.63	0.81
EPK0296007	3.50	1.06	1.50	—	—	—	—	—	—

HEAVY DUTY OVERTRAVEL PADS & RINGS

Miner Elastomer Products offers Heavy-duty pads are overtravel pads & rings for an array of applications. Designed to stop metal-to-metal contact without compromising handling capabilities. Overtravel pads & rings are virtually maintenance free and help decrease down-time. Overtravel pads & rings are inert to most chemicals, greases and oils. They do not delaminate dry rot, or flake apart. Contact the factory today with your application requirements.

OVERTRAVEL
PADS & RINGS



EPH1066004
Hitachi, Ltd. ImPak™ ONE
PIECE RING



EPH1066260
Hitachi, Ltd. ImPak™
SPLIT RING
PAD ASSEMBLY



EPL0629001
Liebherr TecsPak® DUMP
CYLINDER PAD



EP90005128
Liebherr TecsPak®
OVER TRAVEL PAD

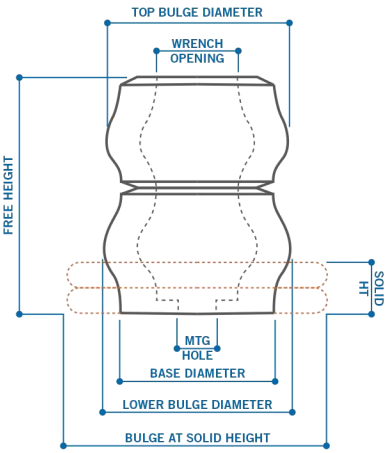
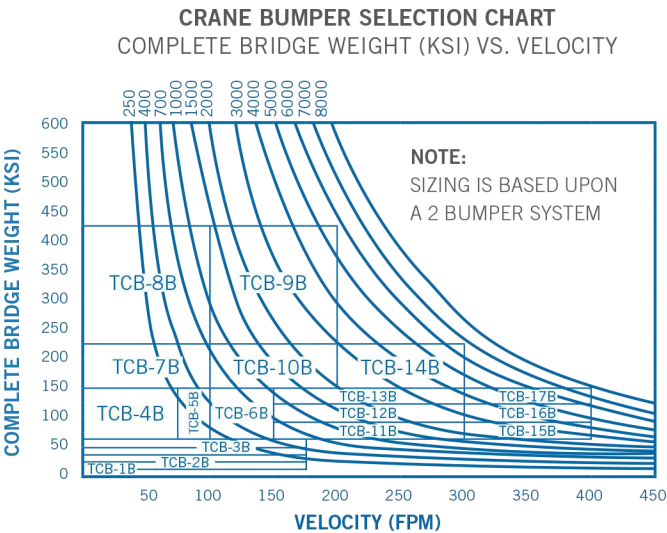


EP91100362
Liebherr TecsPak®
OVER TRAVEL PAD

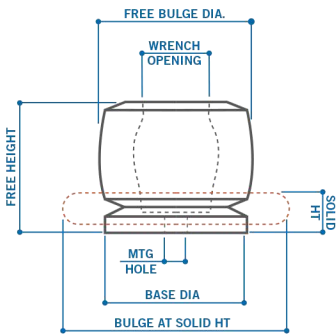
PART #	OD (IN)	ID (IN)	FREE HEIGHT (IN)	SOLID HEIGHT (IN)	FREE BULGE (IN)	SOLID BULGE (IN)	WEIGHT (LBS)
EPH1066004	11.88	9.03	2.00	—	—	—	3.76
EPH1066260	12.50	9.03	2.00	—	—	—	9.90
EPL0629001	12.72	9.63	2.70	1.54	12.72	14.07	5.25
EP90005128	8.25	5.00	1.79	0.92	8.25	9.50	2.06
EP91100362	9.25	5.12	2.27	1.27	9.25	10.26	3.67

TECSPAK® CRANE BUMPERS

TecsPak® crane bumpers are a proven, cost-effective choice for energy management systems with excellent resistance to chemicals and humidity. These bumpers are designed to meet the minimum requirements of existing industry standards – OSHA and CMAA.



TCB
DOUBLE



TCB
SINGLE

DIMENSIONAL INFORMATION									PERFORMANCE DATA		
BUMPER	FREE HEIGHT (IN)	FREE BULGE		WRENCH OPENING (IN)	BASE DIAMETER (IN)	MOUNTING HOLE* (IN)	SOLID HEIGHT (IN)	BULGE AT SOLID HT. (IN)	RATED ENERGY CAPACITY (FT-LBS)	PEAK DYNAMIC FORCE (LBS)	SHIPPING WEIGHT (LBS)
		TOP (IN)	LOWER (IN)								
TCB-1B	3.12+/-0.09	2.43+/-0.09	2.50+/-0.09	1.09+/-0.03	2.04+/-0.03	0.54	0.69	3.50	330	18,000	0.35
TCB-2B	3.76+/-0.12	2.86+/-0.09	2.92+/-0.09	1.29+/-0.03	2.37+/-0.06	0.54	0.80	4.50	720	37,000	0.52
TCB-3B	3.72+/-0.12	3.28+/-0.09	3.34+/-0.09	1.45+/-0.03	2.70+/-0.03	0.54	0.80	5.00	1,400	82,000	0.62
TCB-4B	2.09+/-0.06	4.25+/-0.12	N/A	1.11+/-0.03	3.00+/-0.03	0.54	0.90	5.25	1,400	102,000	0.78
TCB-5B	2.67+/-0.09	3.48+/-0.09	N/A	1.26+/-0.03	2.64+/-0.03	0.54	0.75	4.88	1,200	112,000	0.56
TCB-6B	3.32+/-0.09	3.94+/-0.12	N/A	1.72+/-0.03	3.62+/-0.05	0.54	1.00	5.88	1,300	57,000	1.13
TCB-7B	2.25+/-0.06	3.45+/-0.09	N/A	1.46+/-0.03	3.09+/-0.06	0.54	0.67	5.25	890	71,000	0.56
TCB-8B	3.85+/-0.12	4.17+/-0.12	N/A	1.60+/-0.03	3.24+/-0.05	0.80	1.38	5.50	1,450	50,000	1.22
TCB-9B	4.40+/-0.12	5.62+/-0.18	5.87+/-0.18	1.55+/-0.06	3.90+/-0.05	0.80	2.00	7.50	6,140	185,000	3.23
TCB-10B	4.18+/-0.12	5.35+/-0.18	N/A	1.69+/-0.03	4.16+/-0.05	0.80	1.63	7.00	3,130	112,000	2.38
TCB-11B	5.08+/-0.18	4.56+/-0.12	N/A	1.69+/-0.03	3.95+/-0.05	0.80	1.25	7.38	2,730	110,000	2.21
TCB-12B	7.31+/-0.18	5.50+/-0.18	5.50+/-0.18	2.52+/-0.03	4.62+/-0.06	0.80	1.63	8.44	5,375	160,000	3.44
TCB-13B	4.50+/-0.12	5.40+/-0.18	N/A	1.66+/-0.03	4.44+/-0.06	0.80	1.00	8.50	4,675	205,000	2.38
TCB-14B	6.54+/-0.18	6.60+/-0.18	N/A	2.78+/-0.03	5.77+/-0.06	0.80	1.65	10.25	7,440	220,000	5.13
TCB-15B	8.80+/-0.18	6.00+/-0.18	6.00+/-0.18	2.88+/-0.03	5.20+/-0.06	0.80	1.88	9.50	5,350	135,000	5.13
TCB-16B	9.50+/-0.18	5.84+/-0.18	5.88+/-0.18	2.90+/-0.03	5.19+/-0.09	0.80	2.50	8.81	6,530	126,000	5.65
TCB-17B	9.92+/-0.18	6.97+/-0.18	7.00+/-0.18	3.36+/-0.04	5.95+/-0.06	0.80	2.13	11.00	9,375	192,000	7.94

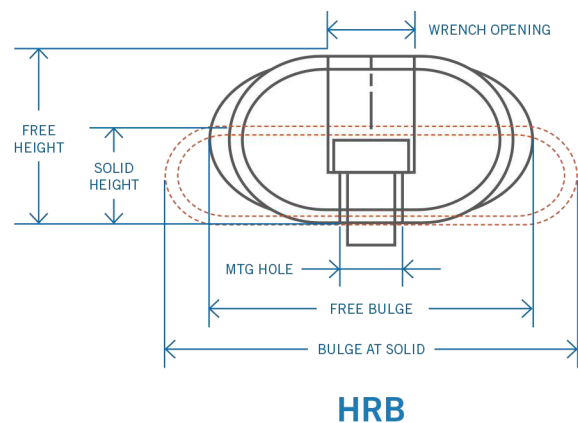
*MOUNTING HOLE DIMENSIONS ARE NOMINAL VALUES AND PROVIDE CLEARANCE FOR THE RECOMMENDED MOUNTING HARDWARE.

TECSPAK® HEAVY RADIAL BUMPERS

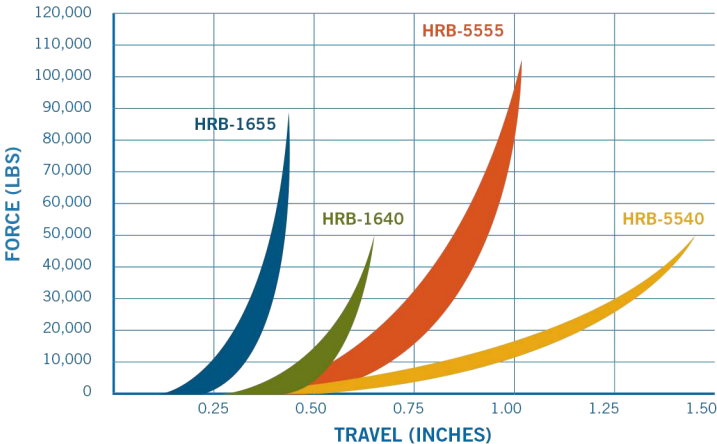
HIGH LOAD
LIMITED TRAVEL



TecsPak® heavy radial bumpers are ideal for applications that require high loads and limited travel. This bumper is well suited for applications in the Mining Industry.



HEAVY RADIAL BUMPER (HRB) STATIC COMPARISON
FORCE VS. TRAVEL CURVE



BUMPER	DIMENSIONAL INFORMATION								PERFORMANCE DATA	
	FREE HEIGHT (IN)	FREE BULGE (IN)	LENGTH (IN)	WRENCH OPENING (IN)	MOUNTING HOLE* (IN)	SOLID HEIGHT (IN)	BULGE AT SOLID HT. (IN)	WEIGHT (LB)	ENERGY (IN-LBS)	PEAK FORCE (LBS)
HRB-1540	1.33+/- .13	1.64+/- .13	5.84+/- .09	0.69+/- .03	0.40	0.75	2.31	0.37	2,050	14,300
HRB-2540	1.87+/- .13	2.23+/- .13	5.86+/- .09	0.69+/- .03	0.40	1.01	3.12	0.75	4,720	23,500
HRB-3540	2.33+/- .13	2.84+/- .13	5.88+/- .09	0.81+/- .03	0.53	1.29	3.86	1.23	7,340	28,000
HRB-4540	2.81+/- .13	3.34+/- .13	5.89+/- .09	0.81+/- .03	0.53	1.49	4.36	1.56	10,250	32,800
HRB-5540	3.21+/- .13	3.80+/- .13	5.93+/- .09	0.81+/- .03	0.53	1.80	5.16	2.34	12,980	34,300
HRB-1640	1.27+/- .13	1.84+/- .13	5.90+/- .09	0.69+/- .03	0.40	0.60	2.75	0.39	3,460	27,400
HRB-2640	1.79+/- .13	2.46+/- .13	6.02+/- .09	0.69+/- .03	0.40	0.82	3.61	0.72	7,600	43,700
HRB-3640	2.27+/- .13	3.10+/- .13	6.09+/- .09	0.81+/- .03	0.53	1.04	4.42	1.23	11,730	50,900
HRB-4640	2.71+/- .13	3.56+/- .13	6.11+/- .09	0.81+/- .03	0.53	1.23	5.04	1.65	15,810	54,100
HRB-5640	3.18+/- .13	4.03+/- .13	6.14+/- .09	0.81+/- .03	0.53	1.44	5.80	2.32	19,790	57,200
HRB-1555	1.23+/- .13	1.83+/- .13	5.92+/- .09	0.69+/- .03	0.40	0.75	2.28	0.38	3,440	33,600
HRB-2555	1.59+/- .13	2.44+/- .13	6.02+/- .09	0.69+/- .03	0.40	0.97	3.04	0.73	7,300	55,000
HRB-3555	2.11+/- .13	3.12+/- .13	6.04+/- .09	0.81+/- .03	0.53	1.29	3.86	1.25	11,340	65,000
HRB-4555	2.50+/- .13	3.66+/- .13	6.10+/- .09	0.81+/- .03	0.53	1.54	4.54	1.74	14,530	68,000
HRB-5555	2.84+/- .13	4.12+/- .13	6.14+/- .09	0.81+/- .03	0.53	1.72	4.97	2.20	24,270	96,100
HRB-1655	1.15+/- .13	2.03+/- .13	6.01+/- .09	0.69+/- .03	0.40	0.60	2.73	0.39	6,410	68,400
HRB-2655	1.60+/- .13	2.45+/- .13	5.99+/- .09	0.69+/- .03	0.40	0.84	3.71	0.79	10,500	87,600
HRB-3655	1.88+/- .13	3.50+/- .13	6.37+/- .09	0.81+/- .03	0.53	1.03	4.42	1.24	17,930	107,300
HRB-4655	2.46+/- .13	3.81+/- .13	6.24+/- .09	0.81+/- .03	0.53	1.23	5.07	1.77	28,770	129,300
HRB-5655	2.60+/- .13	4.59+/- .13	6.55+/- .09	0.81+/- .03	0.53	1.39	5.61	2.22	32,960	143,600

*MOUNTING HOLE DIMENSIONS ARE NOMINAL VALUES AND PROVIDE CLEARANCE FOR THE RECOMMENDED MOUNTING HARDWARE. ALL HOLES ARE ON 4 INCH CENTER.

TECSPAK® SUCKER ROD CUSHIONS

Miner Elastomer Products offers TecsPak® sucker rod shock absorption solutions to enable pumping units to produce more oil while reducing the KW requirements and easing the amp spikes when the weight changes velocity. In addition, TecsPak® sucker rod shock absorbers reduce the stresses on the rod string preventing separation and breakage. TecsPak® sucker rod shock absorbers are easily installed and require no maintenance. Overall, TecsPak® sucker rod shock absorbers reduce down-time and increase production.



30 SRC-5-30
PEAK POLISHED ROD



31 SRC-5-31
PEAK POLISHED ROD



32 SRC-5-32
PEAK POLISHED ROD



33 SRC-5-33
PEAK POLISHED ROD

PART #	TOTAL HEIGHT (IN)	WIDTH (IN)	WEIGHT (LBS)	MAXIMUM LOAD (LBS)
SRC-5-30	14.70	6.75	38.00	44,000
SRC-5-31	9.50	6.75	29.00	20,000
SRC-5-32	6.50	6.75	25.00	15,000
SRC-5-33	6.50	5.50	18.00	9,000

Sucker Rod Cushions are installed on oil well pumping units. TecsPak® cushions are made from a highly engineered elastomeric product designed to absorb more energy per unit of weight and volume than most known materials. They are designed to absorb shock as the sucker rod is raised and lowered. Up to four pads of TecsPak® are fixed between steel plates and mounted on the top of the pumping unit's hanger bar. The pads reduce rod vibration and shock on wells with peak polished rod loads up to 44,000 lb (196 kN). Each pad measures approximately 6 in. in diameter by 3 to 5 in. high.

- EASY INSTALLATION AND MAINTENANCE FREE
- REDUCES ELECTRICAL USAGE
- INCREASES PUMP OUTPUT
- REDUCES PUMP DOWNTIME BY REDUCING ROD STRING BREAKAGE
- REDUCES STRESS ON BEARING AND GEARS IN THE PUMPING UNIT
- REDUCES AMPERAGE SPIKES WHEN THE COUNTER BALANCE CHANGES VELOCITY
- INCREASES PRODUCTION

SUCKER ROD CUSHION CALCULATORS

STRAIGHT ROD STRING

$$PPRL = 1.2 \times W_F + 1.2 \times (F \times W_R)$$

TAPERED ROD STRING

$$PPRL = 1.2 \times W_F + 1.2 \times F(W_{R1} + W_{R2} + \text{etc.})$$

MINIMUM POLISHED ROD LOAD

$$MPRL = W_R (1.87 - F)$$

PPRL Peak polished rod load in pounds

MPRL Minimum polished rod load in pounds

W_F Weight of fluid in pounds
(weight per foot on plunger × depth) See Table 1

W_{R1} Weight of rods in first rod section in pounds See Table 2

W_{R2} Weight of rods in second rod section in pounds See Table 2

F Impulse factor ($F = 1 + (S \times \text{SPM}^2 / 70,500)$) See Table 3

S Stroke length See Table 3

TABLE 1 - W_F

PLUNGER SIZE	WEIGHT. OF FLUID/FT ON PLUNGER
3/4"	.191#/FT
7/8"	.260#/FT
1"	.340#/FT
1 1/8"	.383#/FT
1 1/4"	.531#/FT
1 1/2"	.765#/FT
1 5/8"	.900#/FT
1 3/4"	1.040#/FT
2"	1.360#/FT
2 1/8"	1.535#/FT
2 1/4"	1.720#/FT
2 1/2"	2.120#/FT
2 3/4"	2.570#/FT
3 1/4"	3.590#/FT
3 3/4"	4.780#/FT
4 3/4"	7.690#/FT

TABLE 2 - W_R
WEIGHT OF
SUCKER RODS/1000 FT

ROD SIZE	LBS/1000 FT
5/8"	1150
3/4"	1650
7/8"	2200
1"	2850
1 1/8"	3650

TABLE 3 - F

		IMPULSE FACTOR								
		STROKES/MINUTE								
		6	8	10	12	14	16	18	20	22
STROKE LENGTH (INCHES)	24	1.01	1.02	1.03	1.05	1.07	1.09	1.11	1.14	1.16
	28	1.01	1.02	1.04	1.06	1.08	1.10	1.13	1.16	1.19
	32	1.02	1.02	1.05	1.07	1.09	1.12	1.15	1.18	1.22
	36	1.02	1.03	1.05	1.07	1.10	1.13	1.17	1.20	1.25
	40	1.02	1.04	1.06	1.08	1.11	1.15	1.17	1.23	1.27
	44	1.02	1.04	1.06	1.09	1.12	1.16	1.20	1.25	1.30
	48	1.02	1.04	1.07	1.10	1.13	1.17	1.22	1.27	1.33
	52	1.03	1.05	1.07	1.11	1.14	1.19	1.24	1.30	1.36
	56	1.03	1.05	1.08	1.11	1.16	1.20	1.26	1.32	1.38
	60	1.03	1.05	1.09	1.12	1.17	1.22	1.27	1.34	1.41
	64	1.03	1.06	1.09	1.13	1.18	1.23	1.29	1.36	1.44
	70	1.04	1.06	1.10	1.14	1.19	1.25	1.32	1.40	—
	74	1.04	1.07	1.10	1.15	1.21	1.27	1.34	1.42	—
	78	1.04	1.07	1.11	1.16	1.22	1.28	1.36	—	—
	86	1.04	1.08	1.12	1.18	1.24	1.31	1.40	—	—
	100	1.05	1.09	1.14	1.20	1.27	1.36	—	—	—
	106	1.05	1.10	1.15	1.22	1.30	1.38	—	—	—
	120	1.06	1.11	1.17	1.25	1.33	—	—	—	—
	144	1.07	1.12	1.20	1.29	1.40	—	—	—	—



TecsPak® ImPak™

Miner Elastomer Products is a manufacturer of high-quality suspension and shovel components for the mining industry. These haul truck suspensions and shovel components use TecsPak® technology as the basis for significant improvement in product lifecycle and lower cost of operation. TecsPak® is a proven energy-absorbing material designed to meet demanding performance requirements in an array of applications.



Scan this code with your device's QR reader to learn more about Miner Elastomer/TecsPak®/ImPak™ products.

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STANDARD TECSPA® WARRANTY

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