



# **HEAVY-DUTY JAW CRUSHERS**



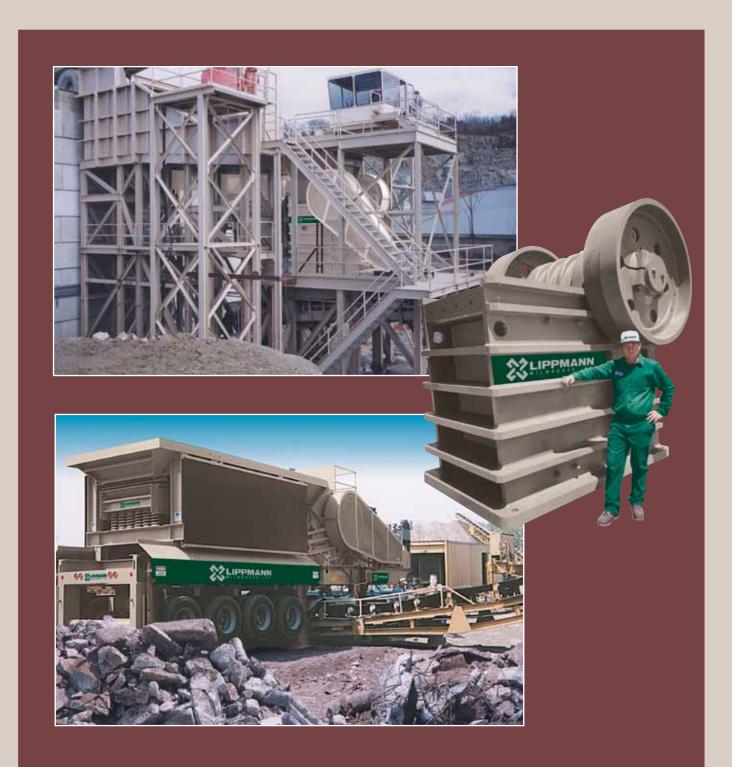
### LIPPMANN HEAVY-DUTY JAW CRUSHERS... YOUR BEST VALUE IN PRIMARY CRUSHING



- Heavy-duty, oversized heat treated shafts forged of special alloy to handle overloads and hard material.
- Radial thrust tapered roller bearings, the best design for absorbing and withstanding shock, radial and thrust loads.
- Longer jaw length to provide increased crushing area, steeper nip angle and increased capacity.
- Curved jaw dies to provide non-choking crushing action, reversible for increased wear.
- Rugged frame with heavy-ribbed steel plate construction at stress points, stress-relieved by heat treating before machining. Inside contact surfaces are fully machined.
- Lubrication easily checked. Positive oil-level gauges assure correct lubrication of bearings.

- Protected pitman hub with rock ribs reduce wear due to feeding of oversized material.
- Cheek plates are one-piece or two-piece for easy replacement.
- Positive setting adjustment shims provide easy change of discharge opening with aid of hydraulic pumps.
- Extension wedges hold jaw dies rigidly across full width.
- Dynamically balanced flywheels reduce vibration on either portable plant or stationary installations.
- Toggle plate is set at an optimum angle for maximum crushing action and for highest possible crushing capacity.

### STATIONARY OR PORTABLE, LIPPMANN OFFERS COST-EFFECTIVE SOLUTIONS FOR YOUR NEEDS





### LIPPMANN HEAVY-DUTY JAW CRUSHERS OFFER SUPERIOR QUALITY, UNMATCHED RELIABILITY & MAXIMUM CAPACITY

### **PROPER MOTION PROVIDES INCREASED CAPACITY**

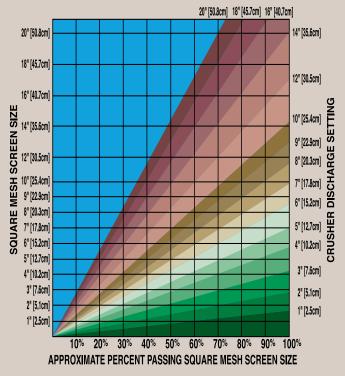
The Lippmann Milwaukee jaw is an overhead eccentric type jaw crusher that does not rely upon gravity alone to move material through the chamber. Instead, it provides a forced-feeding action, which results from the inward and downward eccentric movement of the swing jaw.

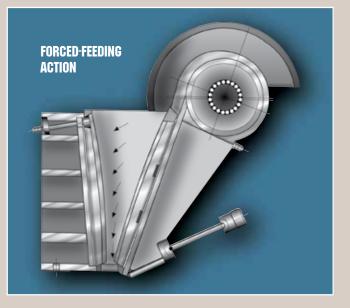
### **GREATER RATIO OF REDUCTION**

The Lippmann Milwaukee jaw has longer jaw dies, a larger eccentric and a non-choking design. The longer jaws also mean a reduction in nip angle, resulting in a more positive bite. The Lippmann Milwaukee jaw can also have a smaller discharge setting than other crushers allowing for a higher degree of flexibility with related equipment.

#### **Typical Gradation Curve**

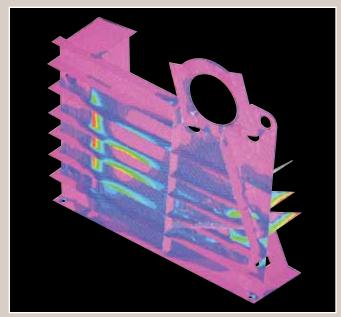
Gradation may vary depending on feed size, condition and characteristics.





### FINITE ELEMENT ANALYSIS FOR SOUND DESIGN

Maximum strength at all stress points is necessary to assure strong, trouble-free crusher operation. To this end, extensive stress analysis is preformed using finite element analysis techniques along with classical engineering mechanics.



#### PREMIUM QUALITY TAPERED ROLLER BEARINGS

For optimum bearing life, only tapered roller bearings are used. The tapered roller bearing has a combination of features that no other type of bearing can provide. These features are adjustable clearance, line contact, true rolling motion and ability to carry both radial and thrust loads. In addition, bearings are oil lubricated - the best method of lubrication recommended by bearing manufacturers.



#### **CIRCULATING OIL LUBRICATION SYSTEM**

Optional oil lubrication system available, especially for use with larger jaw crushers. Motor driven oil pump starts before the crusher is started to pre-lube the bearings. The oil is filtered as it is pumped through the lubrication system. A large oil tank provides a cooling and supply reservoir. Three sight glasses with temperature gauges indicate flow and temperature from the bearings.



#### **HEAVY-DUTY FORGED ECCENTRIC SHAFT**

All Lippmann Heavy-Duty Jaw Crushers feature a massive, oversized, heat-treated shaft forged of special alloy to provide an exceptionally large eccentric throw, and to handle overloads and hard materials.





## **CAPACITIES AND DISCHARGE SETTINGS**

### LIPPMANN HEAVY-DUTY JAW CRUSHER CAPACITIES IN TONS

SIZE CSS inches [mm]	Elec. Hp	1-1/2 [38.1]	2 [50.8]	2-1/2 [63.5]	3 [76.2]	3-1/2 [88.9]	4 [101.6]	4-1/2 [114.3]	5 [127.0]	6 [152.4]	7 [177.8]	8 [203.2]	10 [254.0]	12 [304.8]	14 [355.6]	16 [406.4]
15x24 [38x61]	40	35-39 [32-35]	47-52 [43-47]	59-65 [54-59]	70-77 [67-70]	84-92 [76-84]	97-106 [88-96]	115-133 [105-121]	132-159 [120-145]							
12x36 [30x91]	60	54-60 [49-55]	72-80 [65-73]	91-101 [83-92]	108-119 [98-108]	127-140 [116-127]	143-158 [130-144]	161-179 [146-163]	179-198 [162-180]							
12x48 [30x122]	75	73-81 [66-74]	94-104 [85-96]	121-133 [110-121]	144-159 [131-145]	169-186 [154-169]	190-211 [173-192]	215-237 [195-216]	239-263 [217-239]							
12x60 [30x152]	125	99-127 [90-115]	126-161 [115-146]	161-192 [146-175]	192-225 [175-205]	225-252 [205-229]	252-336 [229-305]	292-376 [266-341]	336-419 [305-381]							
15x36 [38x91]	75	61-80 [56-73]	80-100 [73-91]	100-120 [91-109]	120-141 [109-128]	141-162 [128-143]	162-201 [128-183]	183-222 [166-202]	201-243 [183-221]							
20x36 [51x91]	100		98-108 [89-98]	121-133 [110-121]	145-160 [132-146]	171-188 [155-171]	194-213 [176-194]	219-240 [199-218]	243-267 [221-243]	290-319 [264-290]	339-373 [308-339]					
24x36 [61x91]	100			127-153 [116-139]	153-170 [139-155]	179-204 [163-185]	204-254 [185-231]	231-282 [210-257]	254-306 [231-278]	305-355 [279-323]	354-408 [323-371]	407-462 [371-420]	508-584 [461-531]			
30x36 [76x91]	125			121-133 [110-121]	145-160 [132-146]	171-188 [155-171]	194-213 [176-194]	219-240 [199-218]	243-267 [221-243]	290-319 [264-290]	339-373 [308-339]					
22x42 [59x107]	125				166-194 [151-177]	194-223 [177-208]	223-278 [208-253]	251-302 [228-274]	278-333 [253-303]	334-390 [304-355]	389-444 [354-404]	444-510 [404-464]				
30x42 [76x107]	200				220-248 [200-225]	248-278 [225-253]	278-344 [253-313]	301-366 [275-332]	344-410 [313-373]	441-477 [401-433]	476-542 [433-493]	542-675 [493-614]	675-811 [614-737]	807-948 [734-862]		
22x48 [59x122]	150		127-159 [115-145]	159-191 [145-174]	191-223 [174-208]	223-254 [208-231]	254-317 [231-288]	281-349 [255-317]	317-381 [288-346]	382-445 [347-405]	444-507 [405-461]	509-571 [462-519]				
30x48 [76x122]	200				226-259 [205-235]	259-303 [235-275]	303-378 [275-344]	339-417 [308-379]	378-454 [344-413]	455-531 [413-483]	594-659 [540-599]	659-755 [599-686]				
36x50 [91x127]	250					342-375 [311-341]	375-468 [341-425]	421-527 [383-479]	468-573 [425-521]	573-661 [521-601]	661-750 [601-682]	750-926 [682-842]	927-1136 [842-1033]	1135-1246 [1032-1133]		
42x48 [107x122]	250						386-489 [351-446]	441-550 [401-500]	489-595 [445-541]	599-689 [545-626]	688-780 [626-709]	788-966 [716-878]	966-1177 [716-1070]	1069-1178 [972-1070]	1176-1309 [1069-1190]	
46x48 [117x122]	250						386-489 [351-446]	441-550 [401-500]	489-595 [445-541]	599-689 [545-626]	688-780 [626-709]	788-966 [716-878]	966-1177 [716-1070]	1069-1178 [972-1070]	1176-1309 [1069-1190]	
24x50 [61x122]	150		132-147 [120-137]	166-184 [151-167]	205-229 [186-208]	231-256 [210-233]	261-288 [237-262]	294-325 [267-295]	326-361 [296-328]	386-425 [351-386]	451-518 [410-471]	513-588 [466-535]				
30x62 [76x158]	200				220-243 [200-221]	280-309 [255-281]	337-375 [306-341]	399-421 [363-383]	420-463 [382-421]	491-541 [446-492]	570-628 [518-571]	650-717 [591-571]	799-882 [726-802]			
38x62 [97x158]	250/ 300					372-424 [338-385]	408-468 [371-425]	459-527 [417-479]	510-586 [464-532]	624-713 [567-648]	720-823 [655-748]	816-936 [742-851]	1008-1149 [916-1045]	1236-1397 [1124-1270]	1356-1559 [1233-1417]	
50x62 [122x158]	300/ 350								600-650 [546-591]	700-775 [636-704]	850-915 [772-832]	980-1088 [891-989]	1199-1301 [1090-1183]	1400-1499 [1273-1363]	1599-1700 [1454-1545]	1689-1799 [1535-1635]

• The above data is based on average feed material weighing 100 lbs. [45.4 kg] per cubic foot.

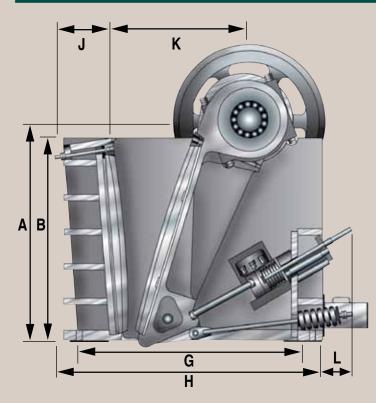
• Capacities will vary depending on size of feed, rate of feed, type of material, moisture and clay content and fracture characteristics of feed. Undersize material should be removed from crusher feed to eliminate excessive wear on jaw dies.

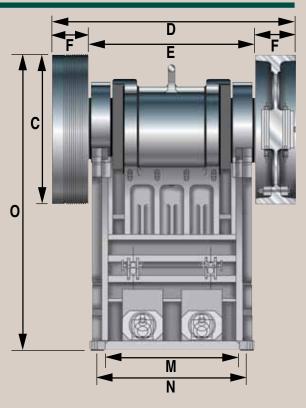




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### DIMENSIONS





### LIPPMANN HEAVY-DUTY JAW CRUSHER DIMENSIONS

Size	A	в	С	D	E	F	G	н	J	к	L	м	N	0	MOUNTING BOLT DIA.	WEIGHT
15x24	40-3/8	34-7/8	36	72-1/2	42	9	47	54-1/2	9-1/2	30	18	25	35	58-3/8	1-1/2	11,300
[38x61]	[102.6]	[88.6]	[91.4]	[184-2]	[106.7]	[22.9]	[119.4]	[138.4]	[24.1]	[76.2]	[45.7]	[63.5]	[88.9]	[148.3]	[3.8]	[5.1]
12x36	41	37	48	84	50-1/2	12-3/8	49	56-1/2	11	28	20	36-5/8	47	65	1-1/2	19,600
[30x91]	[104.1]	[94.0]	[121.9]	[213.4]	[128.3]	[31.4]	[124.5]	[143.5]	[27.9]	[71.1]	[50.8]	[93.0]	[119.4]	[165.1]	[3.8]	[8.9]
12x48	41-1/4	37	48	92-3/4	64	14-3/8	54-3/4	60	12-1/4	27-3/4	18	48-5/8	62	68-1/4	1-1/2	24,900
[30x122]	[104.8]	[94.0]	[121.9]	[235.6]	[162.6]	[36.5]	[139.1]	[152.4]	[31.1]	[70.5]	[45.7]	[123.5]	[157.5]	[173.4]	[3.8]	[11.3]
12x60	41-1/4	37	54	104	79	11-1/4	56-3/4	62	14-1/4	27-3/4	16-3/4	60-5/8	74	68-1/4	1-1/2	32,400
[30x152]	[104.8]	[94.0]	[137.2]	[264.2]	[200.1]	[28.6]	[144.1]	[157.5]	[36.2]	[70.5]	[42.5]	[154.0]	[188.0]	[173.4]	[3.8]	[14.7]
15x36	47	43	48	86	51-7/8	12-3/8	54-3/4	62-1/8	11-1/2	32	18	37	46-1/2	71	1-1/2	22,400
[38x91]	[119.4]	[109.2]	[121.9]	[218.4]	[131.8]	[31.4]	[139.1]	[157.8]	[28.6]	[81.3]	[45.7]	[94.0]	[118.1]	[180.3]	[3.8]	[10.2]
20x36	51	46-3/4	48	76-7/8	52-1/2	12-3/8	61-3/4	69-1/8	12	35-3/4	19-1/2	36-3/4	47	75	1-1/2	26,700
[51x91]	[129.5]	[118.7]	[121.9]	[195.3]	[133.4]	[31.4]	[156.8]	[175.6]	[30.5]	[90.8]	[49.5]	[93.3]	[119.4]	[190.5]	[3.8]	[12.1]
24x36	67-1/2	61	48	79-3/4	51	14-3/8	65-3/4	73-7/8	14-1/4	42	16	37	46	91-1/2	1-1/2	31,000
[61x91]	[171.5]	[154.9]	[121.9]	[202.6]	[129.5]	[36.5]	[167.0]	[187.6]	[36.2]	[106.7]	[40.6]	[94.0]	[116.8]	[232.4]	[3.8]	[14.1]
30x36	66	61	48	79-3/4	51	14-3/8	74-3/4	85	15-1/4	47	16	37	46	90	1-1/2	32,000
[76x91]	[167.6]	[154.9]	[121.9]	[202.6]	[129.5]	[36.5]	[189.9]	[215.9]	[38.7]	[119.4]	[40.6]	[94.0]	[116.8]	[228.6]	[3.8]	[14.5]
22x42	60-1/4	55-1/2	48	85-3/4	57	14-3/8	70-1/4	80-1/4	15-1/4	39-1/4	19	43	54	84-1/4	1-5/8	36,300
[59x107]	[153.0]	[141.0]	[121.9]	[217.8]	[144.8]	[36.5]	[178.4]	[203.8]	[38.7]	[99.7]	[48.3]	[109.2]	[137.2]	[214.0]	[4.1]	[16.5]
30x42	86	79-1/2	60	94-7/8	59-1/2	16-1/4	91-1/2	101-3/4	18-1/2	54-1/4	20	43-1/2	58	116	2	64,700
[76x107]	[218.4]	[201.9]	[152.4]	[241.0]	[151.1]	[41.3]	[232.4]	[258.4]	[47.0]	[137.8]	[50.8]	[110.5]	[147.3]	[294.6]	[5.1]	[29.3]
22x48	60-1/4	55-1/2	48	91-3/4	63	14-3/8	72	82	15	41	19	49	60	84-1/4	1-1/2	41,700
[59x122]	[153.0]	[141.0]	[121.9]	[233.0]	[160.0]	[36.5]	[182.9]	[208.3]	[38.1]	[104.1]	[48.3]	[124.5]	[152.4]	[214.0]	[3.8]	[18.9]
30x48	75	70	60	98	65-1/2	16-1/4	84	96	18	53	21	49-1/2	61	105	2	64,200
[76x122]	[190.5]	[177.8]	[152.4]	[248.9]	[166.4]	[41.3]	[213.4]	[243.8]	[45.7]	[134.6]	[53.5]	[125.7]	[154.9]	[266.7]	[5.1]	[29.1]
36x50	89-1/2	82	60	101-1/2	69	16-1/4	103	113	19-3/4	64-1/8	20	50	63	119	2	88,000
[91x127]	[227.3]	[208.3]	[152.4]	[257.8]	[175.3]	[41.3]	[261.6]	[287.0]	[50.2]	[162.9]	[50.8]	[127.0]	[160.0]	[302.3]	[5.1]	[39.9]
42x48	113-1/2	107	68	111-1/4	69-1/4	21	114	126-1/4	21-5/8	70-7/8	24-5/8	49-1/2	61	147-1/2	2	128,300
[107x122]	[288.3]	[271.8]	[172.7]	[282.6]	[175.9]	[53.3]	[289.6]	[320.7]	[54.9]	[180.0]	[62.5]	[125.7]	[154.9]	[374.7]	[5.1]	[58.2]
46x48	112	107	68	112-5/8	69-1/4	21	117	126	21-5/8	74-13/16	15	49-1/2	61	146	2	121,800
[117x122]	[284.5]	[271.8]	[172.7]	[286.1]	[175.9]	[53.3]	[297.2]	[320.0]	[54.9]	[190.0]	[38.1]	[125.7]	[154.9]	[370.8]	[5.1]	[55.5]
24x50	60-1/4	55-1/2	48	91-3/4	63	14-3/8	72	82	14-1/4	41-3/4	19	50	60	84-1/4	1-1/2	41,600
[61x122]	[153.0]	[141.0]	[121.9]	[233.0]	[160.0]	[36.5]	[182.9]	[208.3]	[36.2]	[106.0]	[48.3]	[127.0]	[152.4]	[214.0]	[3.8]	[18.9]
30x62	68-11/16	63-1/2	60	110	77-1/2	16-1/4	92	103-1/2	19-1/2	51-3/16	18	62	73	98-11/16	2	70,500
[76x158]	[174.5]	[161.3]	[152.4]	[279.4]	[196.9]	[41.3]	[233.7]	[262.9]	[49.5]	[130.0]	[45.7]	[157.5]	[185.4]	[250.7]	[5.1]	[32.0]
38x62	89-1/2	82	68	121-3/4	79-3/4	21	103	113	19-3/4	64-1/8	20	60	73	123	2	117,250
[97x158]	[227.3]	[208.3]	[172.7]	[309.2]	[202.6]	[53.3]	[261.6]	[287.0]	[50.2]	[162.9]	[50.8]	[152.4]	[185.4]	[312.4]	[5.1]	[53.2]
50x62	130-5/8	119-3/8	87	123	95	14	136-5/8	156-3/8	28	84	19	62	77	174-1/8	2-1/2	211,800
[122x158]	[331.8]	[303.2]	[221.0]	[312.4]	[241.3]	[35.6]	[347.0]	[397.2]	[71.1]	[213.4]	[48.3]	[157.5]	[195.6]	[442.3]	[5.1]	[96.1]



### LIPPMANN LOW PROFILE, HIGH-CAPACITY PORTABLE PRIMARY JAW CRUSHING PLANTS



### **STANDARD FEATURES**

- Flared type slide-on/slide-off feeder hopper module with heavy duty reinforcing ribs and supports. Hardox 400 hopper with optional liners.
- Extra heavy-duty vibrating grizzly feeder with AR steel liners. Vibrating grizzly feeder comes in lengths up to 28' [8.5 m] with straight or stepped grizzly section.
- Lippmann Milwaukee Heavy-Duty Jaw Crusher.
- Front discharge conveyor sized to match vibrating grizzly feeder and crusher capacities. Optional portable side delivery conveyors.
- Drive choices: Diesel or electric power units for the crusher. Electric or hydraulic drives for both the discharge conveyor and vibrating grizzly feeder.
- Steel truck frame with king pin, triple or quad axle carrier, tires and air brakes. Also includes screw type leveling jacks, guards for all drives, operator platform with railing and ladder, tool box, stoplights and directional signals. Optional fourth air ride axle.

### **OTHER OPTIONS**

- Self-contained hydraulic leveling system.
- Variable speed hydrostatic drive for the feeder.
- Heavy-duty 4' x 8' [1.2 x 2.4 m] double deck scalping screen in place of the grizzly section.

### EASY TRANSPORTABILITY, MAXIMUM PRODUCTIVITY AND OPERATING ECONOMY

More compact, lower profile, minimum travel height. Lippmann Milwaukee portable plants are designed for quick moves from job site to job site. All crushing plants are optimally engineered to deliver maximum production and operating economy for each application. Choose the equipment that will stand up to the most demanding applications for the long haul – Lippmann.



30 x 48 Portable Diesel Jaw Crushing Plant with Extended Front Discharge Conveyor



30 x 42 Portable Diesel Jaw Crushing Plant with Front Discharge Conveyor





## **CUSTOMIZED RECYCLING AND TWO-STAGE SOLUTIONS**



#### **DRASTICALLY LOWER MATERIAL PREPARATION COSTS**

As a concrete and asphalt recycler, you can really lower your material preparation costs with a Lippmann Portable Recycle Jaw Plant. Lippmann's recycle jaw offers a huge 30" x 62" [76.2 x 157.5 cm] feed opening that accepts massive slabs of concrete full of rebar, reducing feed time and wear costs and achieving maximum capacity. Reversible jaw dies assure maximum wear life.

### **STRENGTH WHERE IT IS NEEDED**

Computer aided design allows for added strength in all key areas of a Lippmann Portable Recycle Jaw Plant.

#### **CONTRACTOR FRIENDLY**

With a travel height of 13'6" [4.1 m], mounted on a high quality chassis designed for easy set up and tear down, the Lippmann  $30 \times 62$  jaw plant is very portable and features a 62" x 18' [157.5 cm x 5.5 m] vibrating grizzly feeder, Hardox 400 feed hopper and hydraulic leveling.

#### EASE OF MATERIAL HANDLING

Transfer points for material have proper clearances to maximize the throughput of rebar and/or uncrushable material.

#### **SECONDARY SOLUTIONS**

Lippmann Milwaukee also offers complete two-stage jaw/impactor crushing solutions. When you need complete, superior crushing and screening solutions designed to handle reinforced concrete and asphalt to produce clean, saleable aggregates, count on Lippmann as your single source for equipment, application expertise and product support.

#### **TWO-STAGE AGGREGATE SOLUTIONS**

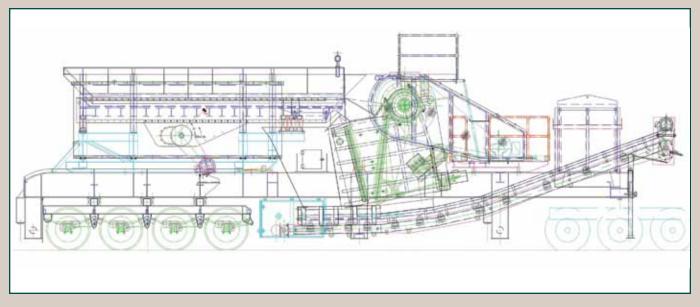
For superior in-pit jaw/impactor crushing systems to produce high quality cubical aggregates, no one offers more value, reliability and reduced operating costs than Lippmann Milwaukee.

# **CUSTOMER DRIVEN DESIGNS**

### A HIGH LEVEL OF CAPABILITY

You can count on an outstanding level of applications expertise, engineering know-how and quality manufacturing behind all Lippmann Milwaukee portable plants. Lippmann Milwaukee engineers provide fast and efficient portable plant designs and layouts using state-of-the-art computer systems. Lippmann Milwaukee will customize portable plant designs to fit all your specific needs.









The information contained in this literature is meant to be general in nature and is not intended to be used for specific application, construction, or installation purposes. Please note that machine capacities, settings, and other application considerations can vary from the information contained in this literature, depending on the material being crushed, moisture, feed sizes, other materials in the feed, etc. As a result, no warranty of any kind, either expressed or implied, is extended with the information contained in this literature. Lippmann Milwaukee, Inc. expressly reserves the right to change specifications or designs without prior notice or obligation.

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