

SBM

MINERAL PROCESSING
A Member of MFL Group

**THE SPECIALIST FOR MINERAL PROCESSING AND
CONCRETE MIXING TECHNOLOGY**





Reversible Impact Crusher SMR



Reversible Impact Crusher vs Cone Crusher

IMPACT CRUSHER

■ Why impact crushers from SBM?

- Best grain shape with high quality grain proportion.
- Long service life of the machine due to the use of high quality materials.
- Quality made in Austria.
- Designed for a wide range of applications in order to facilitate flexible production for the customer.

■ Areas of application

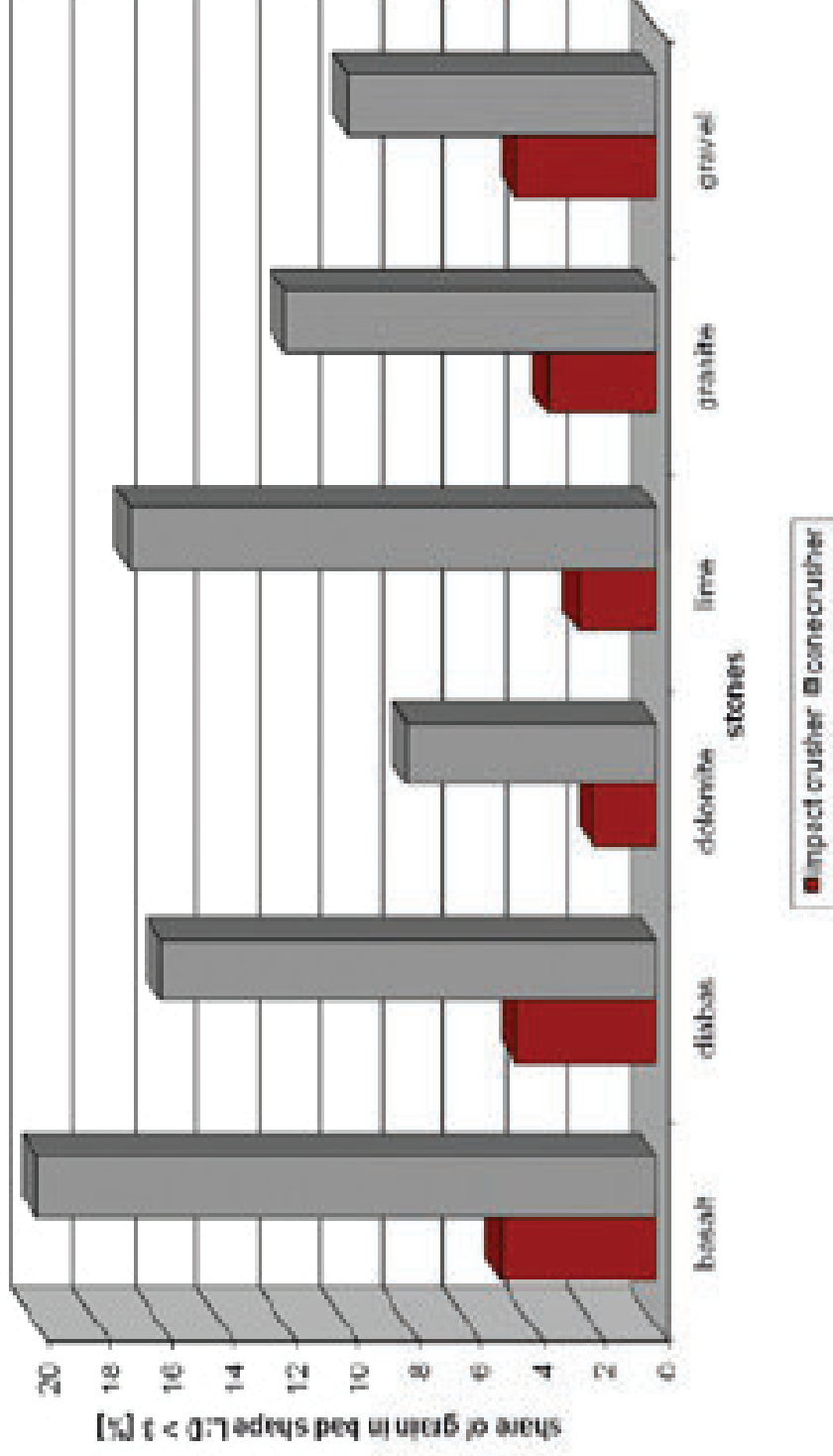
- Natural stone (medium hard - hard)
- Sand & gravel
- Slag

■ Advantages of impact grinding on product result:

- High degree of grinding
- Selective grinding
- Improved product quality
- Greater cubicity and therefore improved grain shape
- Reduced impact fragmentation value per Los Angeles

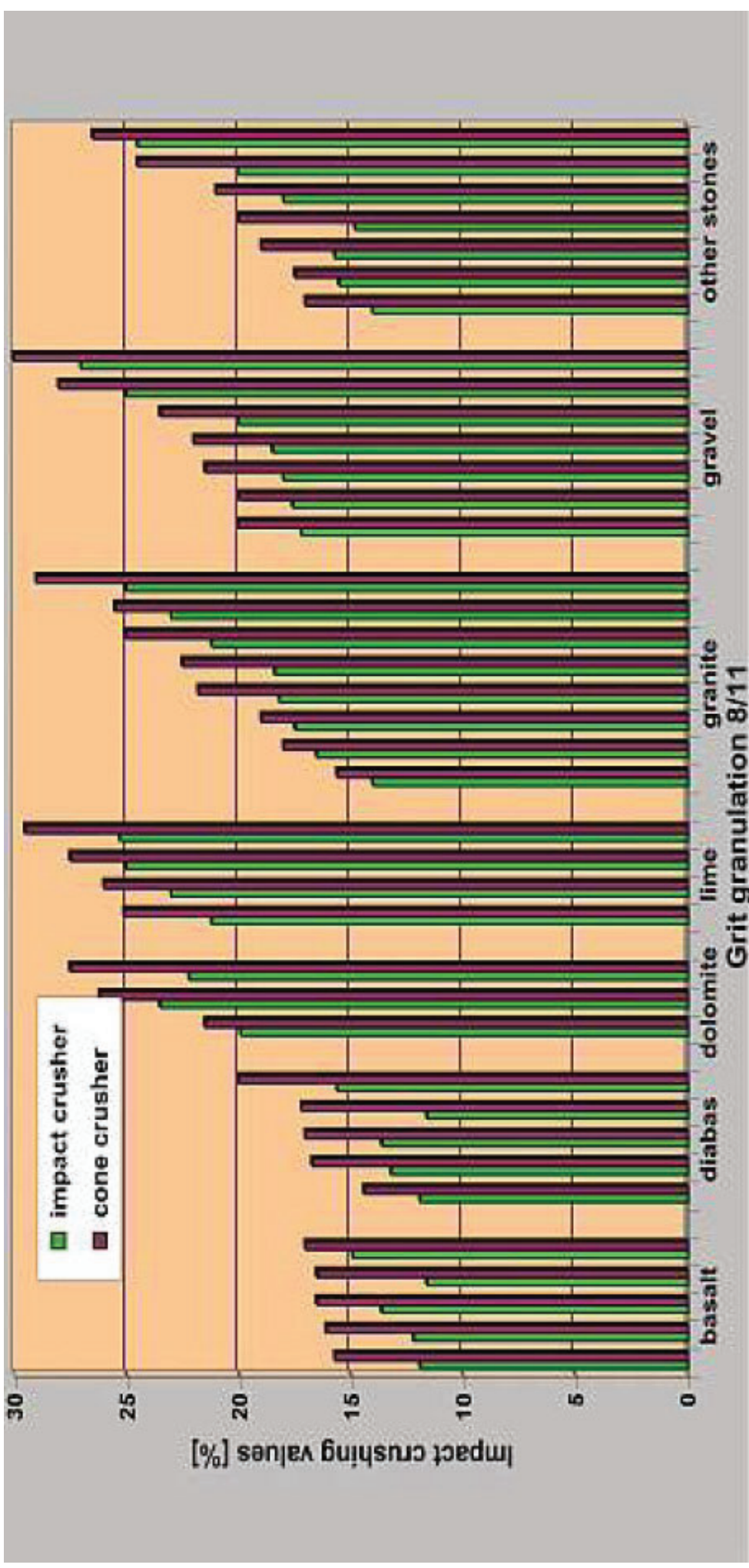
■ Economic advantages of the SMR:

- Reduced wear due to the use of particularly tough materials even with highly abrasive substances.
- Easy maintenance due to extremely accessible design.
- Low energy and cost of investment in comparison to other crushing methods.
- A single machine for economic production of sand as well as for high-quality gravel.
- Low filler content.
- High medium particle proportion in sand and gravel.
- Uniform crushed product due to regrinding of the striking bars in reverse operation.



Comparison impact crusher to cone crusher: Proportion of poorly formed grains (chipped grain 8/11)

Comparison impact crusher / cone crusher: impact crushing values



Rock name	SiO2	Specific gravity	WI (Bond)	Crushability	Los A	Dynamic fragmentation	Abresiveness
Amphibolite				25 - 46		15 - 24	300 - 1600
Basalt	20 - 50	2,7 - 3,1	10 - 20	20 - 44	8 - 21	11 - 32	500 - 2300
Diabase	45 - 55	2,6 - 3,1	14 - 22	18 - 44	7 - 34	11 - 21	450 - 2300
Diorite	55 - 70	2,6 - 2,9	10 - 22	20 - 36	14 - 30	13 - 24	400 - 1700
Dolomite	0 - 10	2,6 - 3,0	6 - 12	30 - 56	15 - 55	20 - 38	20 - 450
Gabbro	40 - 55	2,7 - 3,0	8 - 22	27 - 34	14 - 30	15 - 19	800 - 1700
Gneiss	55 - 75	2,6 - 2,8	11 - 18	30 - 67	15 - 28	12 - 42	600 - 1600
Granit	65 - 75	2,6 - 2,8	10 - 20	28 - 90	17 - 35	17 - 41	900 - 1900
Gravel				30 - 55		15 - 30	300 - 2500
Limestone	0 - 30	2,4 - 2,8	6 - 15	30 - 62	30 - 45	28 - 44	0 - 500
Rhyolite		2,6 - 3,0		16 - 56		8 - 31	700 - 1900
Sandstone		2,5 - 2,7	8 - 16	32 - 60	15 - 55	20 - 35	300 - 2200
Quartzite	90 - 99	2,5 - 2,7	9 - 17	22 - 65	17 - 30	14 - 40	1400 - 2400

Wear material selection

Crushed mineral properties				
Very difficult	Difficult	Medium	Easy	Very easy
-12	12-17	17-22	22-27	27-
-20	20-30	30-40	40-50	50-

Los Angeles

Crushability

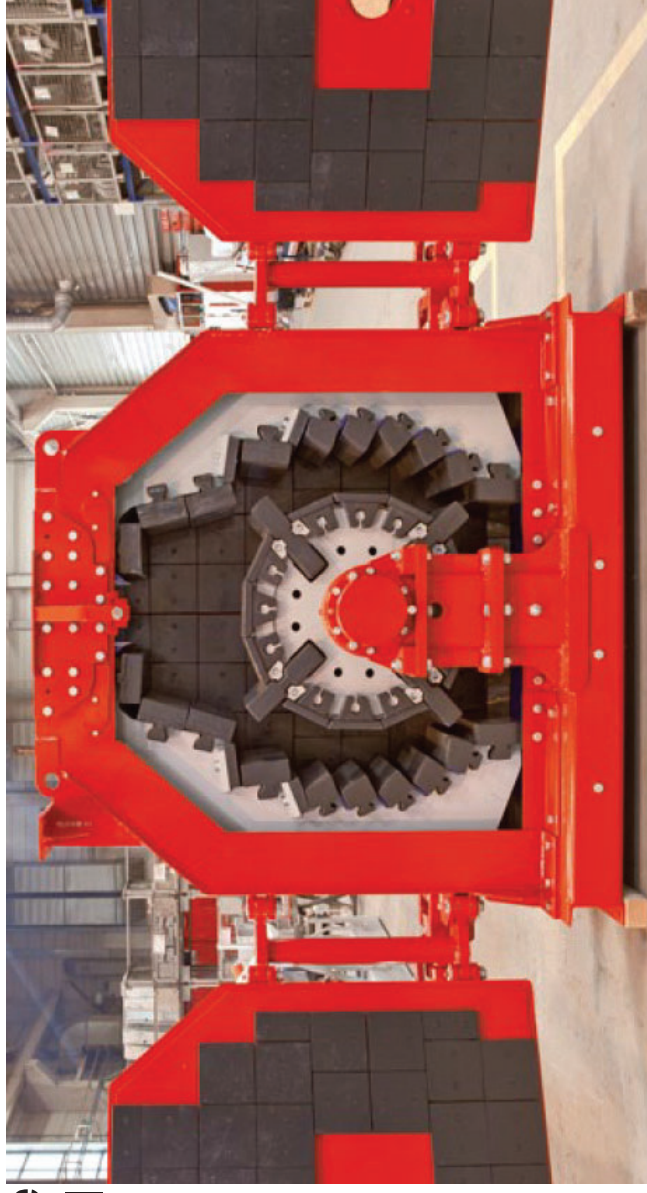
Central Inlet = 2 Rotation directions

- Good feed of material
- High degree of utilization of the blow bars



- 7 Crushing stages
- Heavy Rotor
- Blow bars available in different material qualities

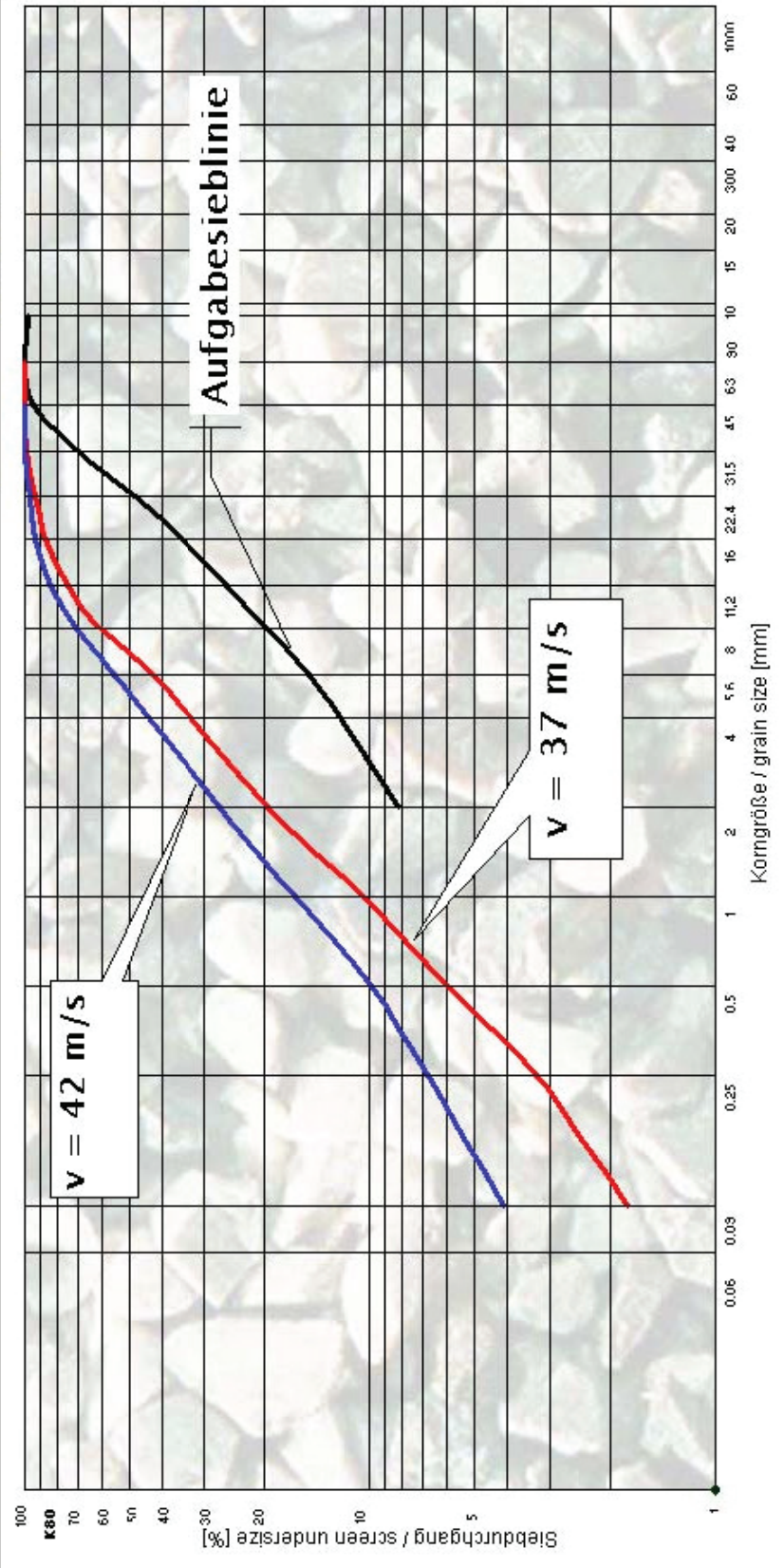
- Separated housing
- Easy maintenance
 - Wear parts interchangeable

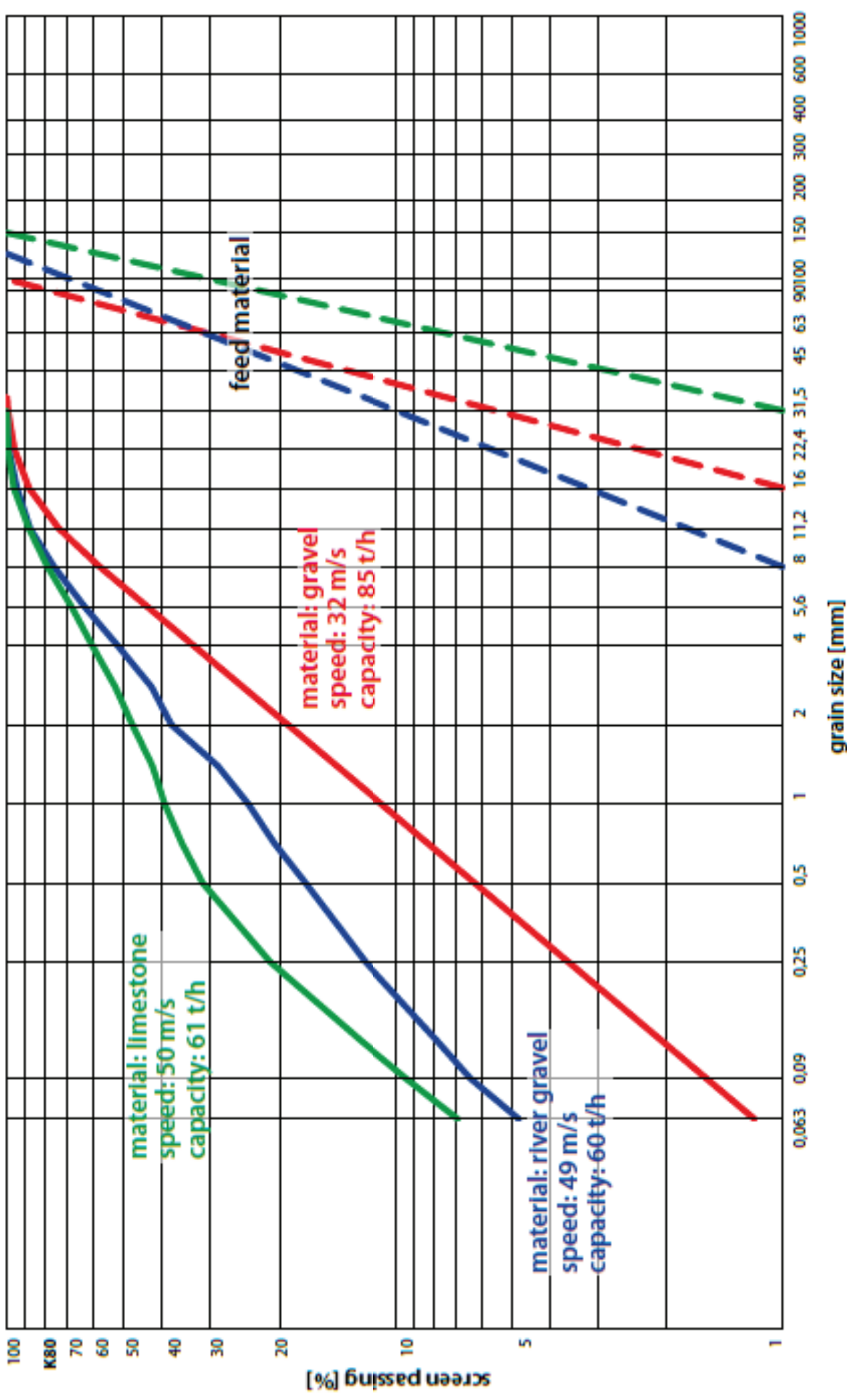


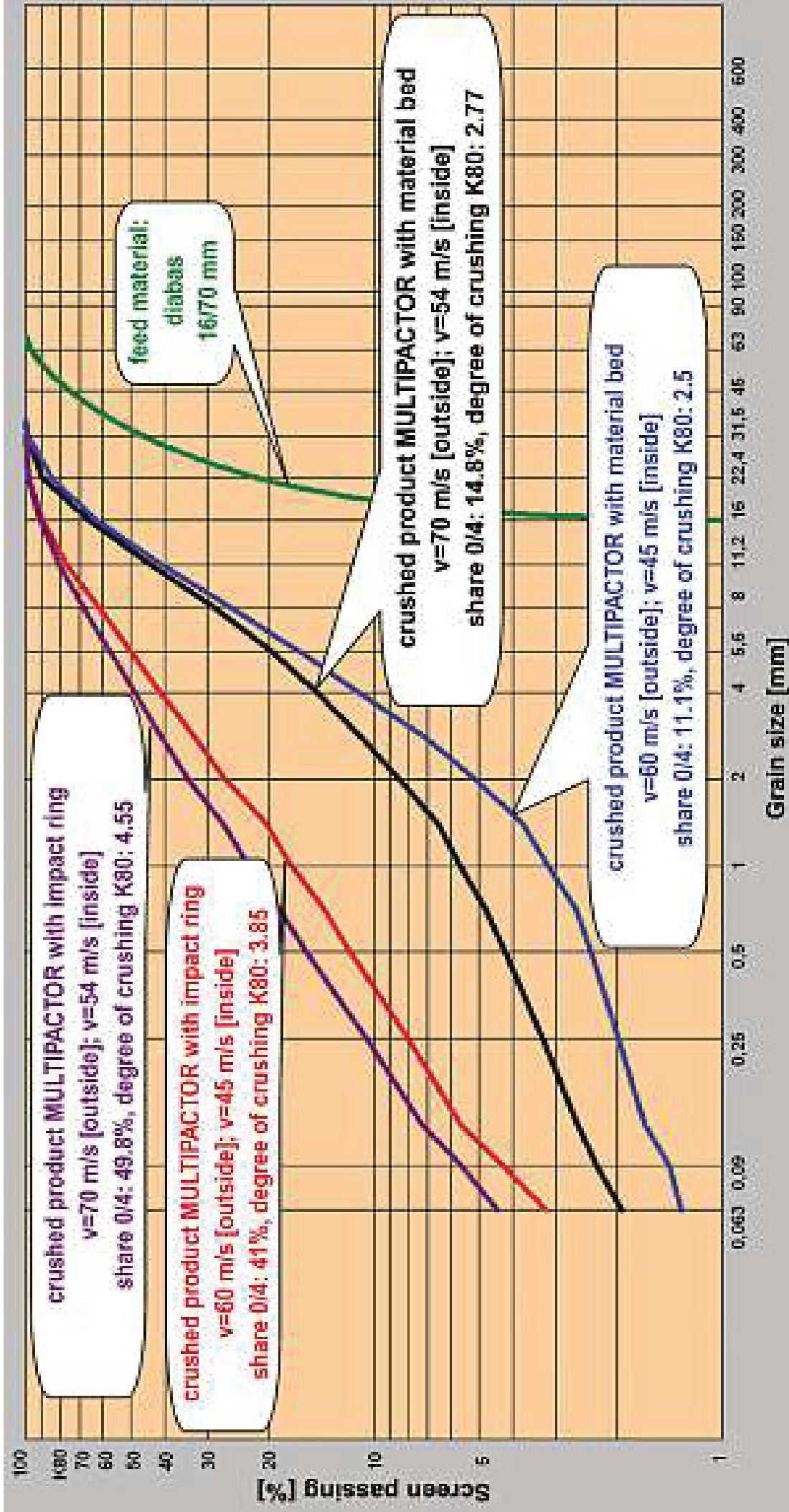
Brechgutanalyse Screen analysis

Firma / company: **s = 40 mm; Wo ca. 1,1 kWh/t**

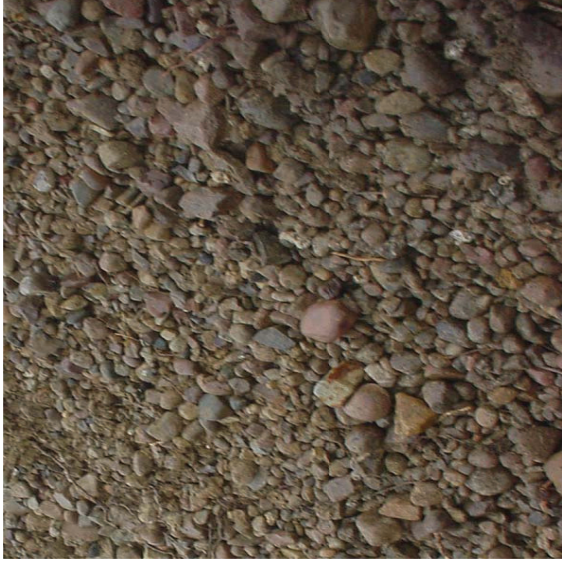
Rohstoffbezeichnung / material	Okerkies vorgebrochen
Aufgabegröße / feed size	5
Aufgabemenge / feed quantity	ca. 100 t/h
Brecher / crusher Type	10/5/4-SMR
	P = 110 (132) kW
Feuchte (%)	
	Gewicht feucht
	Gewicht trocken







**Oversized material
up to 150 mm**



chips



**Material with up to 30 % clay
content**



Feed material



Final product





MFL Transport of 10/5/4 SMR semimobile





Beginning of installation





Assembling





...Everyone helps

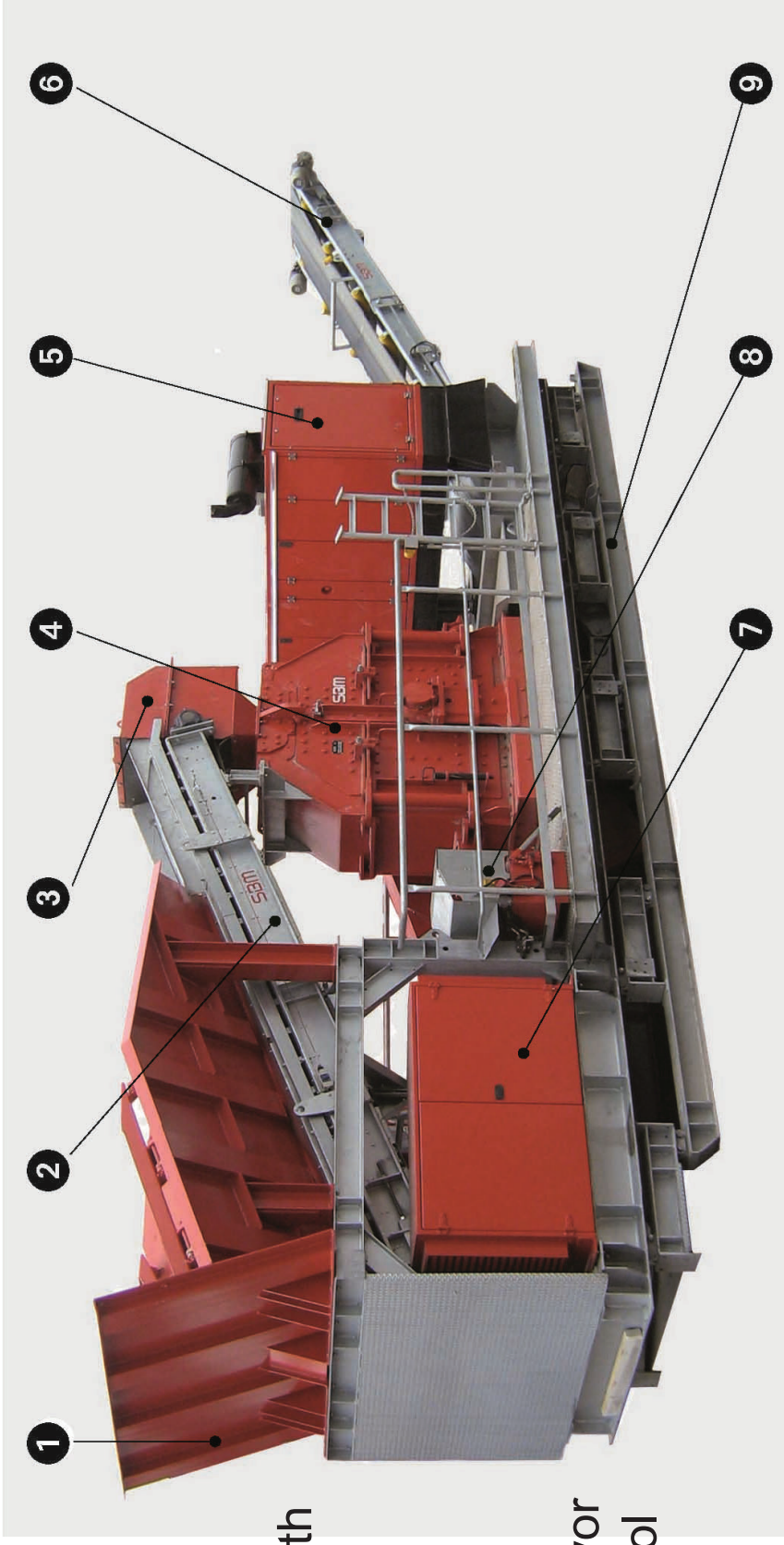




Ready for start-up!



- 1 Feed hopper
- 2 Feed conveyor with metal detector
- 3 Inlet chute
- 4 10/5/4 SMR
- 5 Diesel Genset
- 6 Discharge conveyor
- 7 Electric and control
- 8 Hydraulic unit
- 9 Frame







Screening plant in operation



