



SWEDEN 'S UNIQUE SITUATION

OIL



NO

GAS



NO

COAL



NO

WOOD



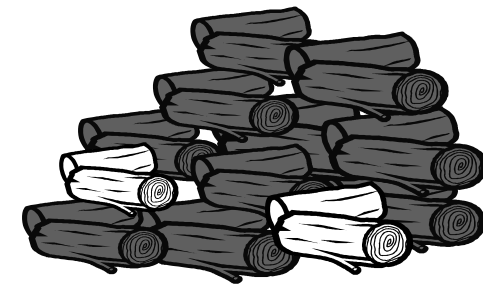
YES!

WASTE

YES!



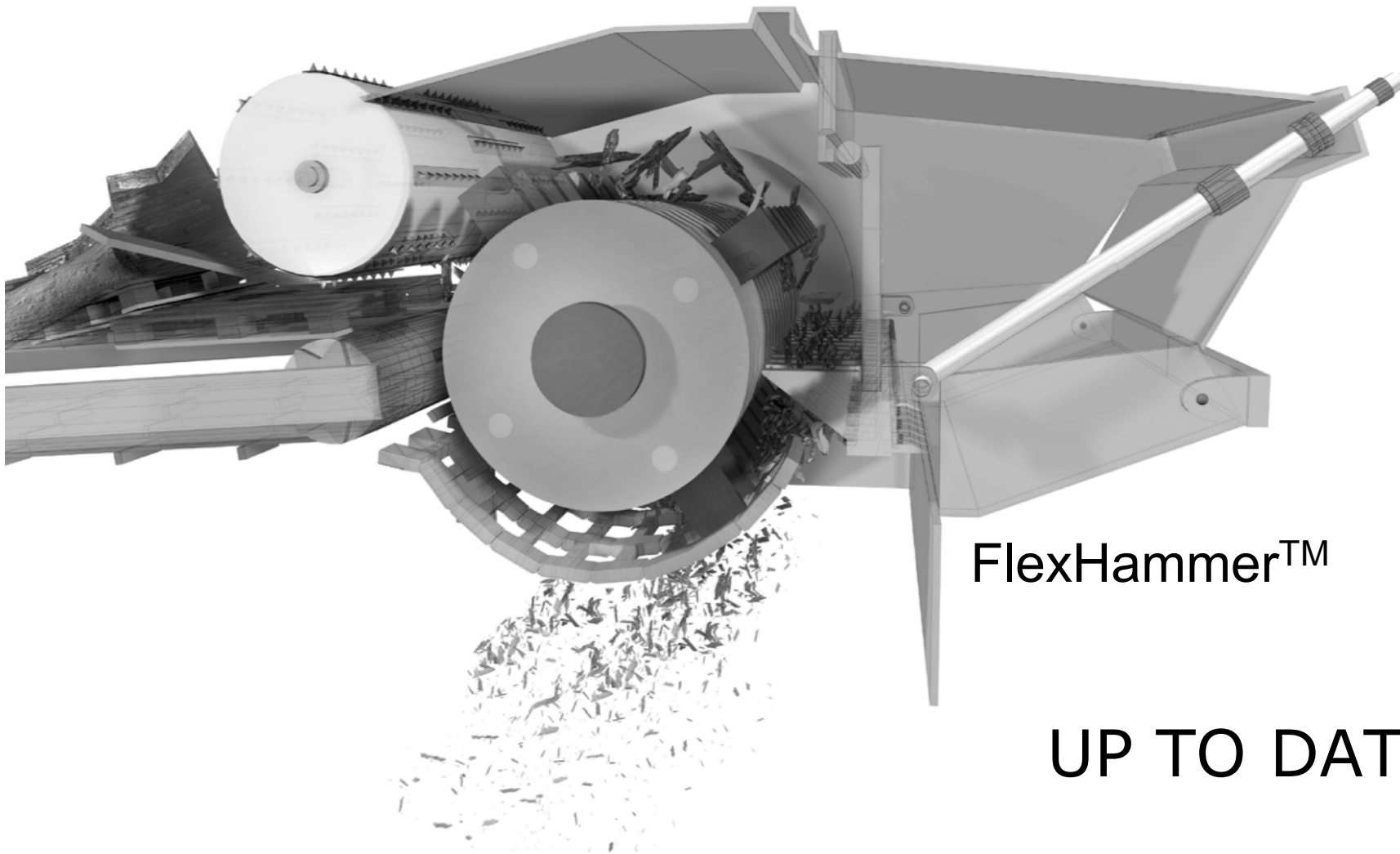
FUEL PREPARATION



TRADITIONAL



FUEL PREPARATION

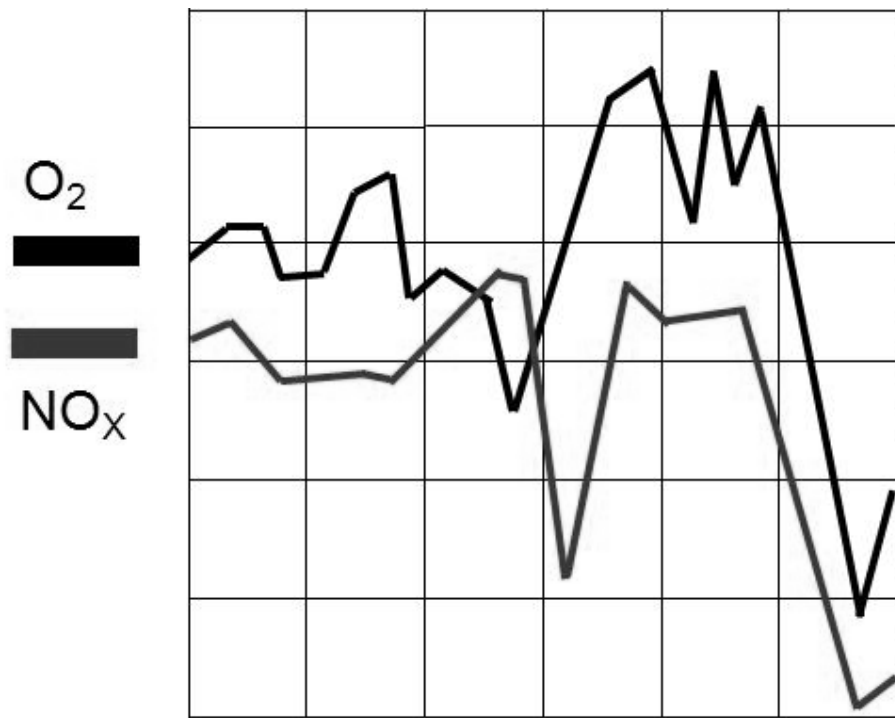


FlexHammer™

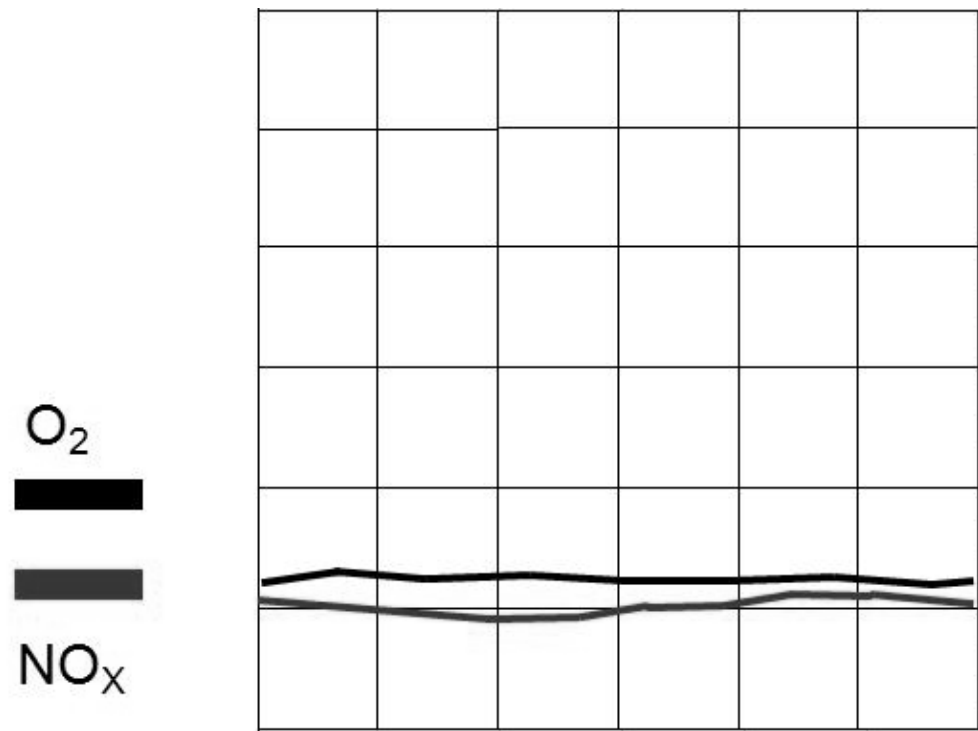
UP TO DATE



Emissions from not prepared fuel.



Emissions from prepared fuel.





Fuel Based on Waste Materials

FACTORS of influence to the incineration control

1.COMPOSITION

- Type of community
- Structure of industry
- Communication community-industry-waste company

3.HUMIDITY

- Preparation order
- Storage volume
- Design of storage, in – out order

2.HOMOGENEITY

- Collection
- Feeding
- Design of storage, in – out order
- All steps through

4.PARTICLE SIZE

- Preparation equipment
- Equipments' flexibility



High Quality fuel for BFB & CFB boilers

Means Improved incineration

No organics in ashes

Simple gas cleaning

Less NOX

Less emissions

Increased temperature

Increased pressure



Saying 1:

- Grate boilers need no fuel preparation.....but
- Grate boilers have high demand on AVAILABILITY
Zero acceptance regarding production breakdowns is very demanding
- A breakdown means no energy delivery out and no waste delivery in and millions/day in lost money

Saying 2:

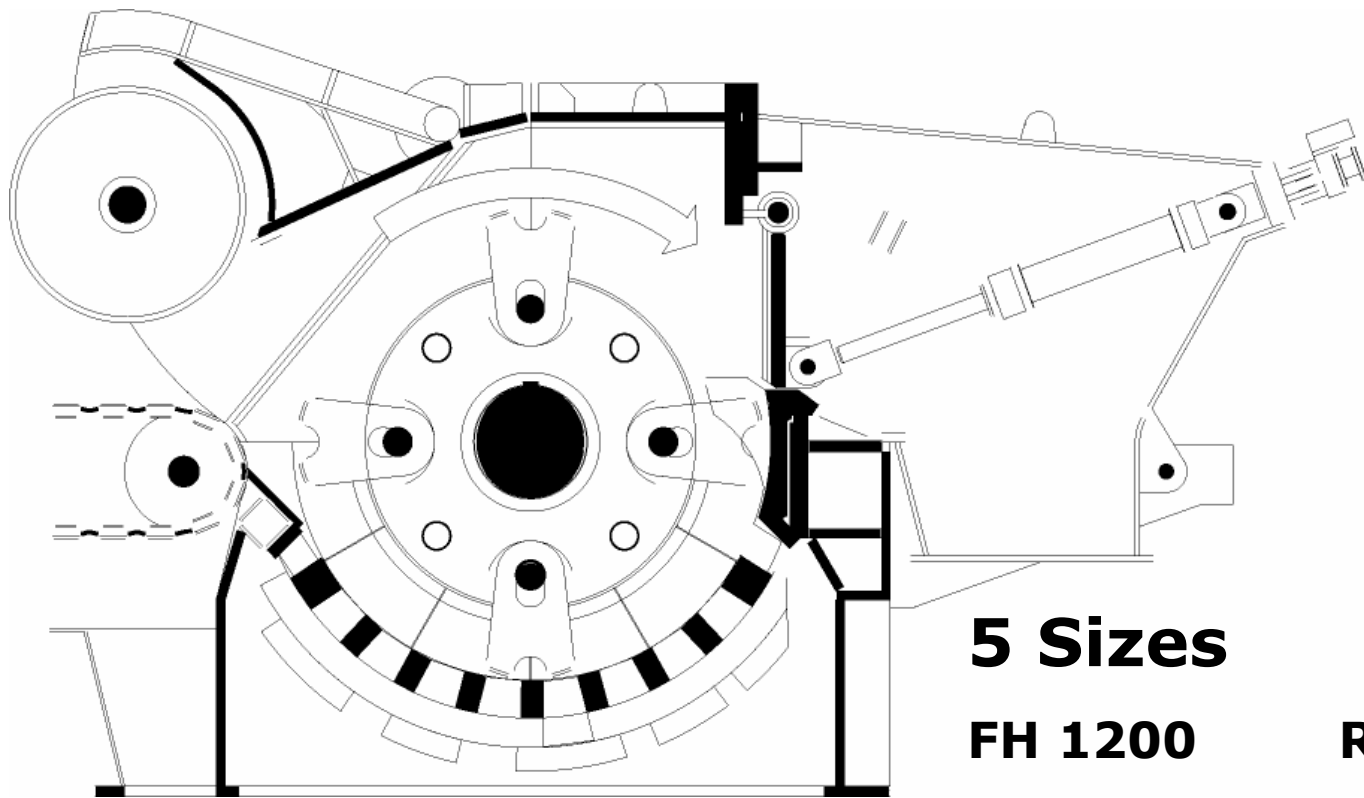
- "Design-fuel" doesn't exist

Saying 3:

- Guaranteed "clean" material never arrives



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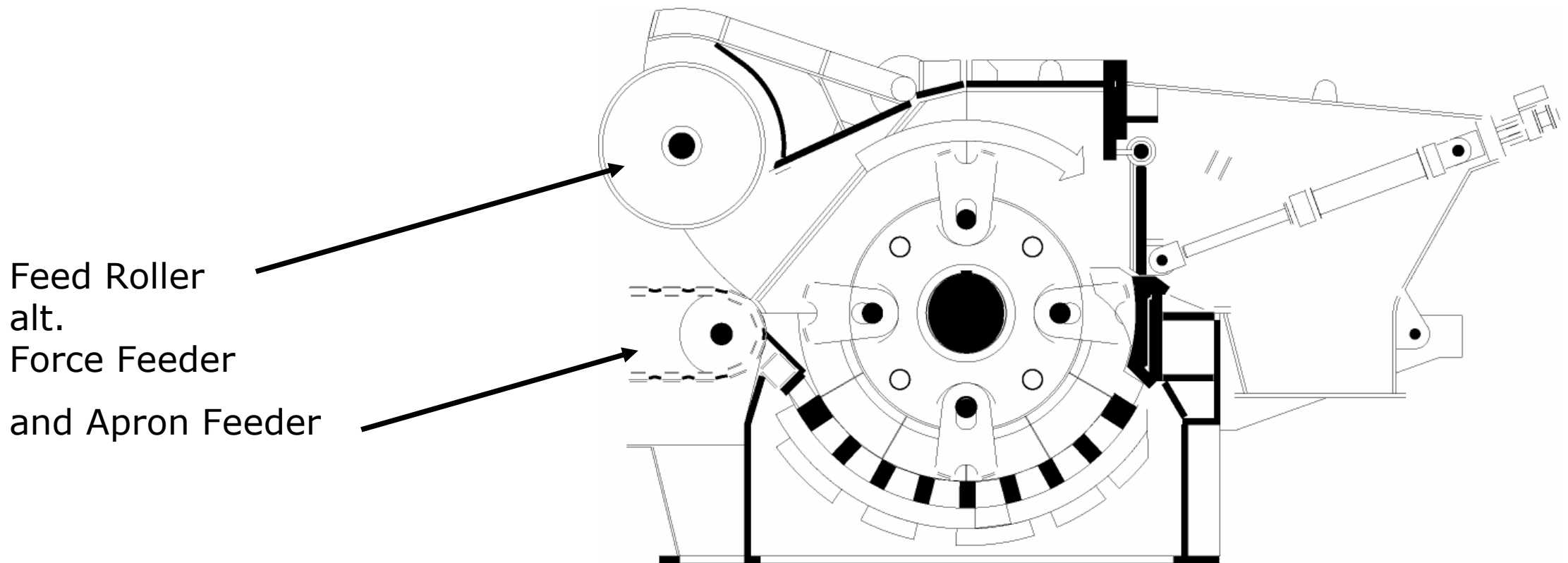


5 Sizes

FH 1200	Rotor diam. 1200	130-315 kW
FH 1500	-- " --	130-315 kW
FH 1800	-- " --	160-400 kW
FH 2000	Rotor diam. 1600	500-800 kW
FH 2400	-- " --	615-1000 kW



FlexHammer™ Flexibility

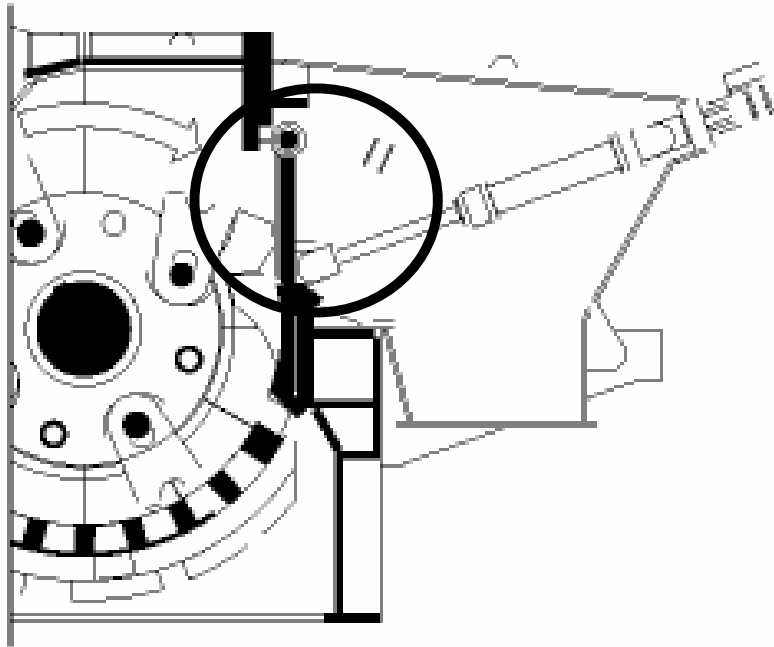


Variable speed makes it possible to take full advantage of installed motor power by variations in feed materials' analysis or supply.

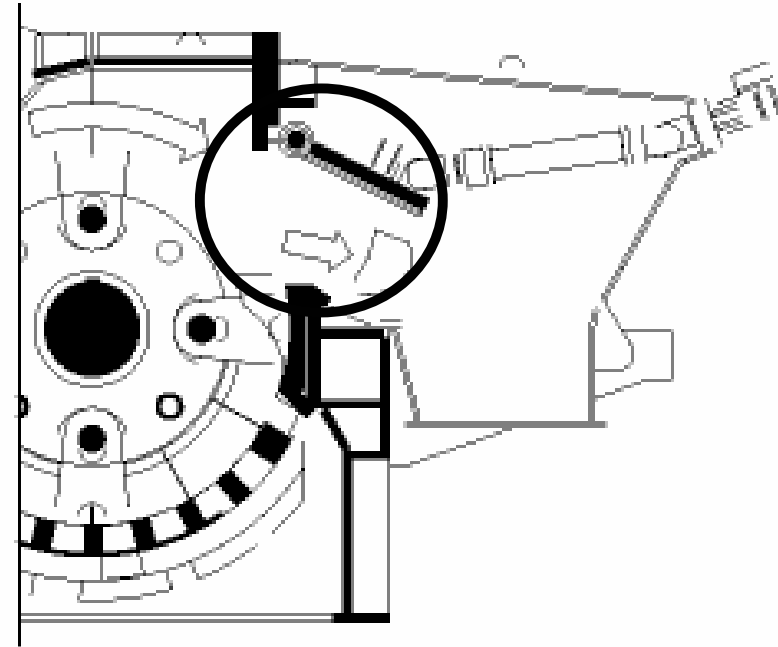


FlexHammer™ Flexibility

Closed Door



Open Door

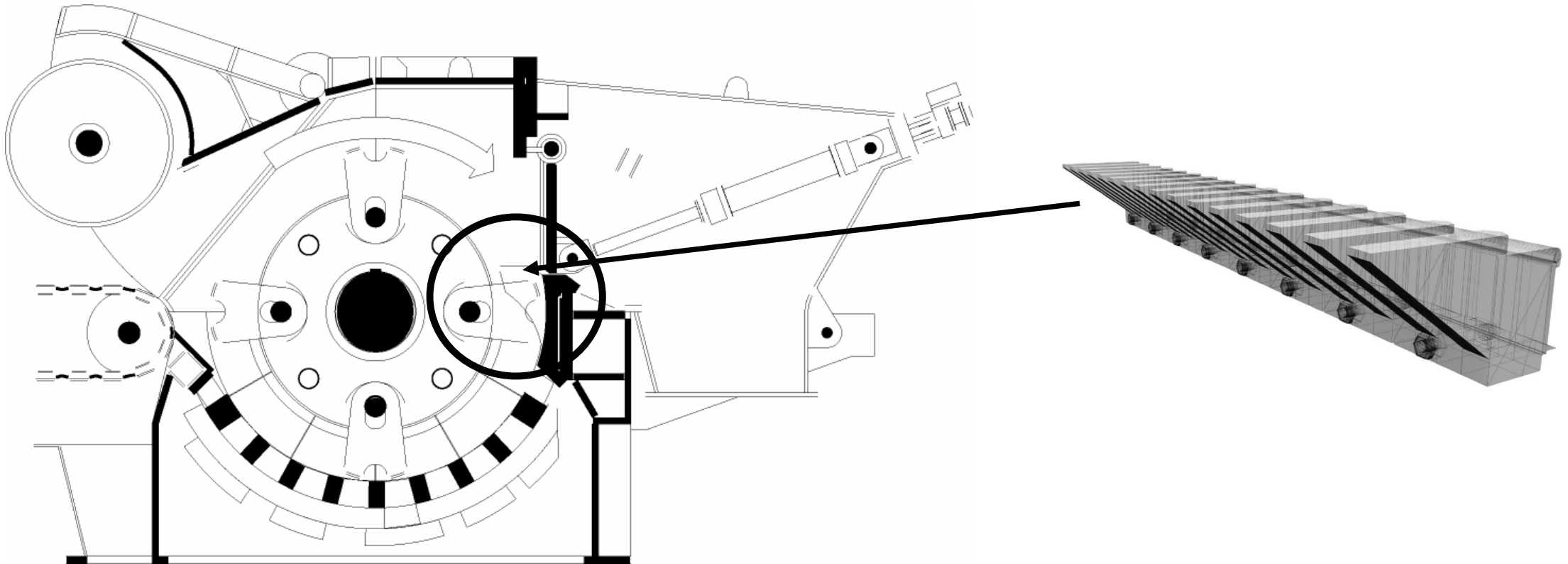


Closed Door – Processing over bottom grate, fine fractions

Open Door – Precrushing, bypassing the grate, coarse fractions e.g. processing railway sleepers with steel



FlexHammer™ Flexibility



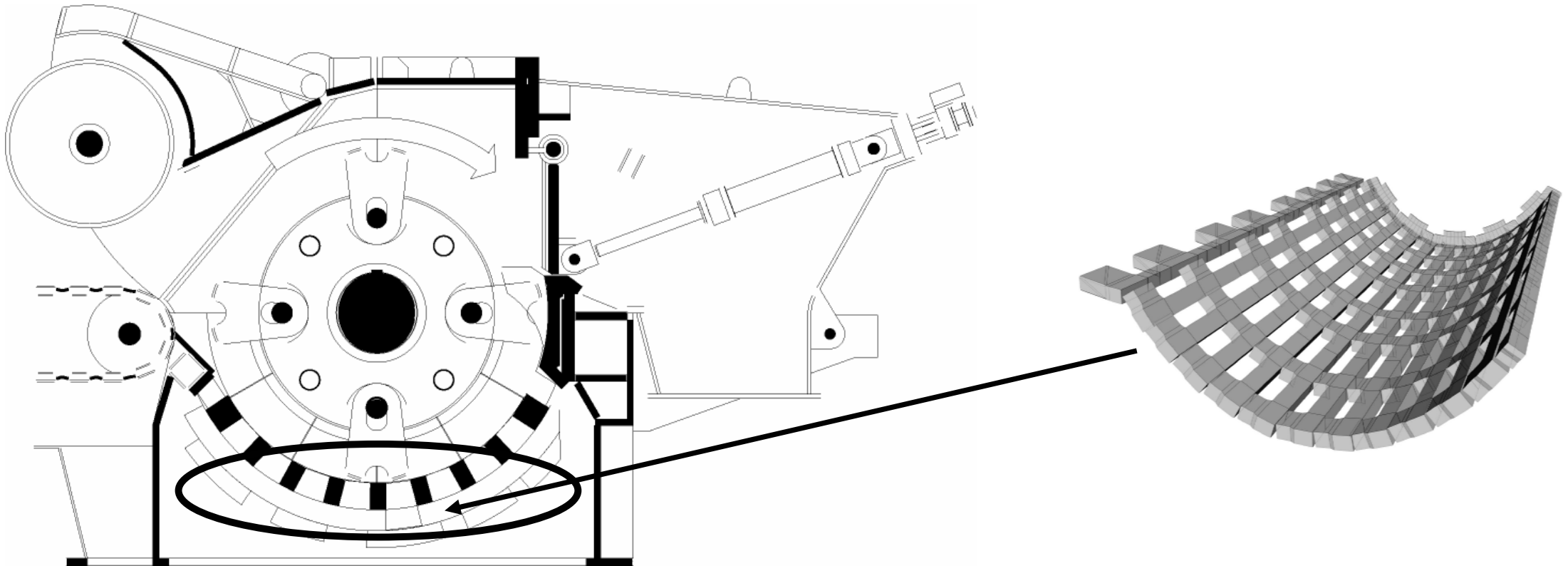
"Knives" Comb/Anvils

An item, very important, specifically when processing elastic objects such as plastic folios and textiles.

Necessary in the "uncrushable objects" release system, the reject door function.



FlexHammer™ Flexibility

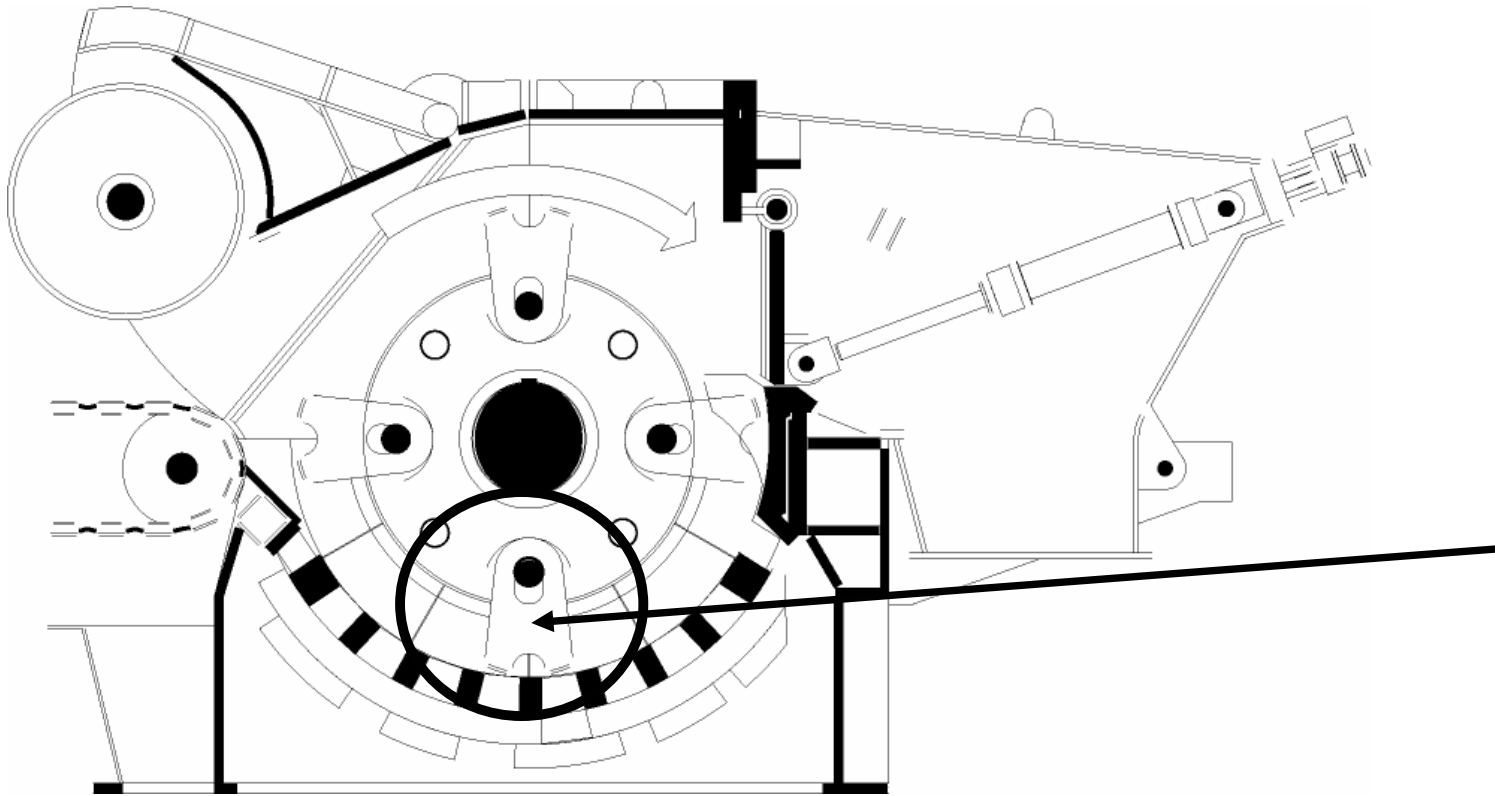


Grate

- Installed / Not installed / Partly installed
- Several opening dimensions
- Several opening combinations
- Steel bars- alt. Steel plate design



FlexHammer™ Flexibility

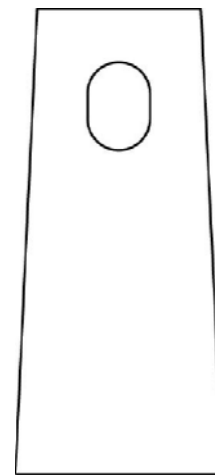


Hammers

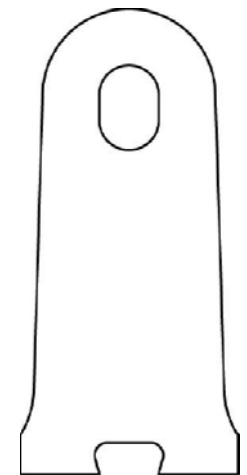
- Several shapes and qualities
- Several numbers and positioning patterns
- Several sizes



62 kg



Std 11 kg



11 alt.22 kg



Size Distribution Diagram for mixed Swedish household- and industrial waste, processed over 120mm grate

