





# FUCHS ORANGE PEEL GRAPPLE

Fuchs work attachments are specially designed for all recycling and scrap handling applications. You have optimum control over your material flow at all times with the wide range of tool options available.

All **wear zones** of the grapple tines are made of wearresistant HB-400 material

Tine tips made of highly wear-resistant austenitic manganese steel, replaceable Powerful, compact, and robust rotary drive for a long service life and good overall cost-effectiveness

Tines integration with large-sized and highly wear-resistant hard

steel bushings

**Grapple Torque** 

max. **4,100** Nm

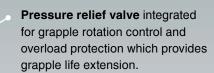
**Grapple Speed** 

max. **24** rpm

**Operating Pressure** 

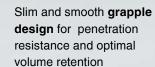
Opening / Closing

max. **4,641** psi



Stable, integrated **piston rod and line protection** to avoid damage

Robust **hydraulic cylinders** with end position damping to reduce shock and noise



Bolts made of high-strength material, hardened and smoothed, the bolts are securely fixed in the housing free from play using clamping bushings, resulting in reduced bearing clearance and minimal wear

**Quantity of Oil**Opening

max. **39.6** gpm

**Quantity of Oil** 

Closina

max. **66** gpm



## CONTROL VIA THE FUCHS DISPLAY

The rotation speed for the grapple can be adjusted easily and individually via the display.

### ROTATION SPEED

continuously adjustable

### **TORQUE**

continuously adjustable

#### **ROTATION OF GRAPPLE**

Preselection proportional or black / white control Rotation of grapple



### **ORANGE PEEL GRAPPLE**

### FMG (SEMI-CLOSED)

## Fuchs 5-tine orange peel grapple with 0.52 - 1.04 yd<sup>3</sup> filing capacity.

Fuchs orange peel grapple have been specially developed for scrap handling. Their robust design ensures longevity of components.

The performance of the orange peel grapple is a result of our simple yet robust kinematics, high clamping forces and proper adaption of high pressures. The use of high-quality materials guarantees a long service life.



### **ORANGE PEEL GRAPPLE FMG (SEMI-CLOSED)**

Туре	Overall width (closed) A	Opening width B	Height (closed) C	Filling Capacity	Grapple tines	Grapple peak force	Load capacity	Weight with attachment (semi-closed)
FMG 04	49"	80"	76"	0.52 yd <sup>3</sup>	5	9,667 lbf	18,298 lbs	3,527 lbs
FMG 06	55"	93"	82"	$0.78 \text{ yd}^3$	5	8,093 lbf	17,968 lbs	3,847 lbs
FMG 08	61"	99"	85"	1.04 yd <sup>3</sup>	5	7,418 lbf	17,571 lbs	4,211 lbs

#### **SCOPE OF DELIVERY**

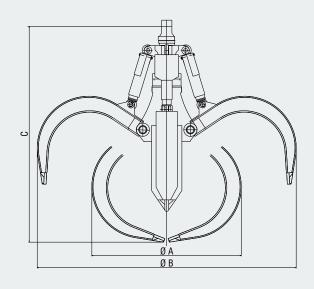
- · Orange peel grapple
- · Swing assembly
- 360 rotation with mounting pin
- · Shock valve

#### **OPTIONAL**

- Dipperstick pin
- · Quick-attach mounting
- · Hose kit
- Quick-closure coupling



When choosing a grapple, remember to consider the individual load capacities of the respective machines.



05

### **ORANGE PEEL GRAPPLE**

### FMG (OPEN)

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### **ORANGE PEEL GRAPPLE FMG (OPEN)**

Туре	Overall width (closed) A	Opening width B	Height (closed) C	Filling Capacity	Grapple tines	Grapple peak force	Load capacity	Weight with attachment (open)
FMG 04	49"	80"	76"	0.52 yd³	5	9,667 lbf	18,298 lbs	3,307 lbs
FMG 06	55"	93"	82"	$0.78 \text{ yd}^3$	5	8,093 lbf	17,968 lbs	3,572 lbs
FMG 08	61"	99"	85"	1.04 yd³	5	7,418 lbf	17,571 lbs	3,649 lbs

#### **SCOPE OF DELIVERY**

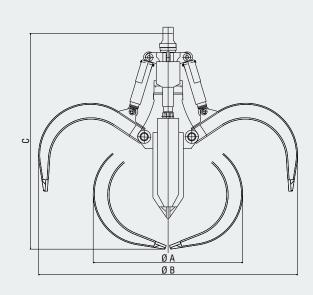
- Orange peel grapple
- · Swing assembly
- 360 rotation with mounting pin
- Shock valve

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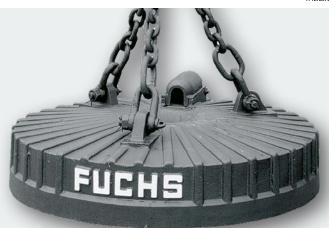
### **MAGNETIC PLATES**

### **FMP**

Fuchs electromagnets demonstrate power and performance and are designed for use in scrap and storage areas.

The high handling capacity is guaranteed by the strong force field over the entire diameter range of the magnetic plate. The control works with counter-excitation by briefly reversing the polarity, which causes even the smallest iron parts to fall off

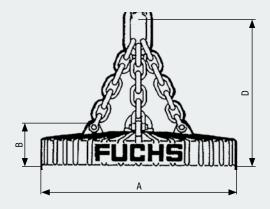
- Magnetic plate made of special dynamo cast steel and non-magnetizable cast steel base plate
- Magnetic upper parts made of special casting alloy
- · Magnetic plate with chain suspension
- Hollow core for emitting the operating temperature and safe collection of drop balls



 Optimum alignment with direct current generator and three-phase generator with rectifier

#### **MAGNETIC DEVICES FMP**

Type <sup>1</sup>	Diameter	Height to upper	Height to chain	Net weight	•		sumption	Operating time	Voltage
	A	part attachment B	suspension D		internal resistance <sup>2</sup>	68 °F	176 °F		
FMP 950	37"	9"	35"	1,587 lbs	10.80 Ohm	4.5 kW	3.6 kW	65 %	220 V DC
FMP 1150	45"	9.7"	37"	2,359 lbs	8.10 Ohm	6.0 kW	4.5 kW	65 %	220 V DC
FMP 1250	49"	10.6"	43"	2,998 lbs	6.10 Ohm	7.9 kW	6.3 kW	65 %	220 V DC
FMP 1350	53"	10"	43"	3,594 lbs	6.00 Ohm	8.1 kW	6.5 kW	65 %	220 V DC
FMP 1500	59"	10.6"	47"	4,409 lbs	5.40 Ohm	9.0 kW	7.0 kW	65 %	220 V DC
FMP 1750	69"	14"	53"	7,716 lbs	2.70 Ohm	17.8 kW	13.2 kW	65 %	220 V DC
FMP 2000	79"	15"	59"	12,125 lbs	2.35 Ohm	20.3 kW	15.0 kW	65 %	220 V DC



Туре	Load capacity <sup>3</sup>						
	Air gap D/300	Solid scrap Type 24	Pig iron	Cast iron scrap Type 3a	Swarf Type 40		
FMP 950	22,046 lbs	793 lbs	1,014 lbs	881 lbs	419 lbs		
FMP 1150	26,455 lbs	1,058 lbs	1,410 lbs	1,146 lbs	529 lbs		
FMP 1250	30,864 lbs	1,146 lbs	1,785 lbs	1,389 lbs	661 lbs		
FMP 1350	34,171 lbs	1,433 lbs	2,094 lbs	1,631 lbs	860 lbs		
FMP 1500	43,210 lbs	1,918 lbs	2,425 lbs	2,204 lbs	1,058 lbs		
FMP 1750	59,524 lbs	3,174 lbs	4,299 lbs	3,417 lbs	1,742 lbs		
FMP 2000	92,594 lbs	4,695 lbs	6,878 lbs	5,445 lbs	2,668 lbs		

The load capacity information stated for the various bulk materials represents average values measured in accordance with DIN-VDE 0580, and actual values can either exceed or fall below these average values, since the quantity recorded per magnetic transport is heavily influenced by the shape, alloy, composition, and storage of the relevant material. The operator's working methods also have an impact here.

All magnets can be customized to meet special requirements.

<sup>1</sup> smaller magnetic plates can be used at any time. This information only applies to the magnetic plates described from Fuchs; the performance of plates from other manufacturers cannot necessarily be deduced from the size. The internal resistance values must be observed in this case.

<sup>&</sup>lt;sup>2</sup> values must not fall below the values stated for the internal resistance. Lower internal resistance values can result in overload, malfunction, or shutdown of the generator system. The internal resistance values must be observed.

<sup>&</sup>lt;sup>3</sup> under optimal operating conditions

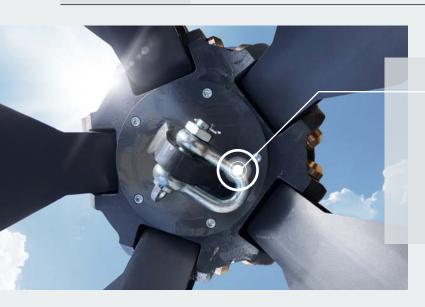
### **MACHINE OVERVIEW**

Туре		Magnetic plate									
	_	<b>37"</b> (D64)*	<b>45"</b> (D64)*	<b>49"</b> (D64)*	<b>53"</b> (D64)*	<b>59"</b> (D64)*	<b>69"</b> (D58)*	<b>79"</b> (D58)*			
MHL320	9 kW	•	•	•	•	_	_	_			
MHL320	11 kW	•	•	•	•	•	_	_			
MHL331-MHL335	11 kW	•	•	•	•	•	_	_			
MHL331-MHL335	13 kW	•	•	•	•	•	_	_			
MHL340	13 kW	•	•	•	•	•	_	_			
MHL340	17 kW	•	•	•	•	•	•	_			
MHL350	13 kW	•	•	•	•	•	_	_			
MHL350	20 kW	•	•	•	•	•	•	_			
MHL360-MHL370	20 kW	•	•	•	•	•	•	_			
MHL360-MHL370	30 kW	•	•	•	•	•	•	•			
MHL375-MHL390	30 kW	•	•	•	•	•	•	•			

Calculated based on the electrical conduction for the magnetic plates stated above. When selecting the magnetic plate, pay attention to the individual load capacities of the respective machines.

 $<sup>^{\</sup>star}$ Plug connector type on magnetic plate

Туре	Machine plug			Cables	
		connector	6835215075 (6 mm² K64-D64) 37"-59"	<b>6835216076</b> (6 mm² K58–D64) 37"–59"	<b>6836217075</b> (10 mm² K58–D58) 69"–79"
MHL320	9 kW	K64	•	_	_
MHL320	11 kW	K64	•	_	_
MHL331	11 kW	K64	•	_	_
MHL331	13 kW	K64	•	_	_
MHL340	13 kW	K64	•	_	_
MHL340	17 kW	K58	_	•	•
MHL350	13 kW	K64	•	_	_
MHL350	20 kW	K58	_	•	•
MHL360-MHL370	20 kW	K58	_	•	•
MHL360-MHL370	30 kW	K58	_	•	•
MHL375-MHL390	30 kW	K58	_	•	•



## MOUNT FOR MAGNETIC PLATE IN THE GRAPPLE

- can be changed quickly and easily
- without uncoupling the grapple
- normal chain suspension can still be used for the magnetic plate
- no special magnetic plate mount required



### LOAD HOOKS FLH

### Fuchs load hooks with high load capacity

Fuchs load hooks with a load capacity of up to 20 tons are used primarily for heavy handling operations. A wide range of options makes it easier to use in every day operation. The Fuchs load hook come standard with quick-change hangers in either a fixed or rotating hook design.

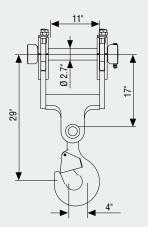


Туре	Weight	Fixed	Rotating	Permissible load capacity in accordan with the drive mechanism unit	
				3 <sub>m</sub>	1B <sub>m</sub>
FLH10	254 lbs	•		22,046 lbs	
FLH10	309 lbs		•	22,046 lbs	
FLH20 s	375 lbs		•		44, 092 lbs
FLH20 I	375 lbs				44, 092 lbs

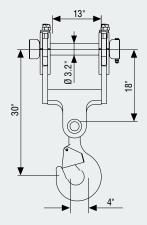
### **REQUIREMENTS FOR THE SUPPORT FRAME**

Туре	Mounting width	Bolt diameter
FLH10	11"	2.7"
FLH20 s	11"	2.7"
FLH20 I	13"	3.2"

Load hook FLH10 / load hook FLH20 s



Load hook FLH20 I





### Technical Data





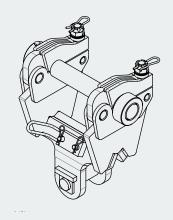




### **QUICK-ATTACH MOUNTING FGA**

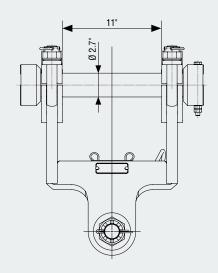
## MECHANICAL WITH DIPPERSTICK PIN FOR GRAPPLE 0.52–1.04 yd³

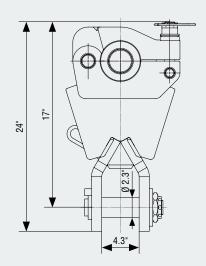
Load capacity: 22,046 lbs | Weight: 276 lbs



Suitable for:

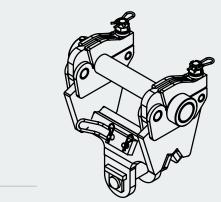
MHL320-MHL370 MHL334, MHL354, MHL364, MHL434





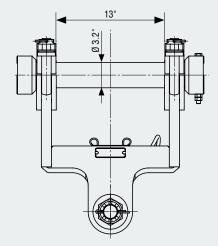
## MECHANICAL WITH DIPPERSTICK PIN FOR GRAPPLE 0.52-1.04 yd³

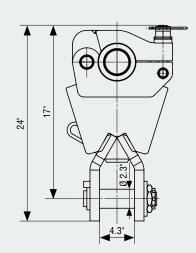
Load capacity: 22,046 lbs | Weight: 298 lbs



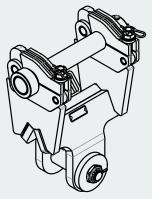
Suitable for:

MHL375, MHL380, MHL390



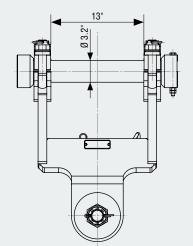


## MECHANICAL WITH DIPPERSTICK PIN FOR GRAPPLE 1.31–1.83 yd<sup>3</sup>

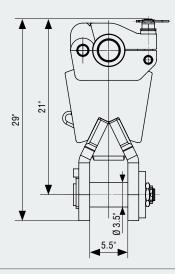


Suitable for:

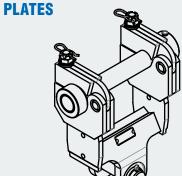
MHL375, MHL380, MHL390



Load capacity: 38,580 lbs | Weight: 408 lbs

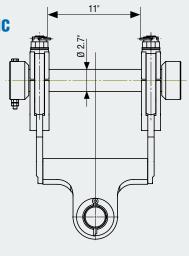


MECHANICAL WITH DIPPERSTICK PIN FOR CHAIN SUSPENSIONS AND MAGNETIC

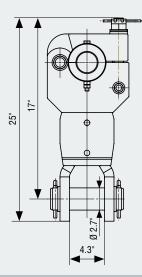


Suitable for:

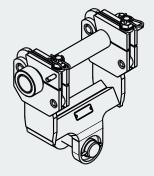
MHL320-MHL370



Load capacity: 22,046 lbs | Weight: 243 lbs

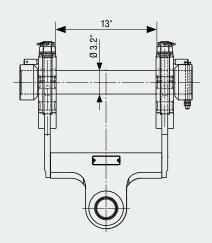


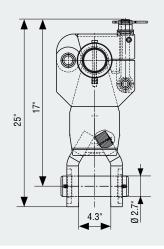
Load capacity: 22,046 lbs | Weight: 276 lbs



Suitable for:

MHL375-MHL390





11





WORKS FOR YOU."

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