

## FELD SIGMA

### Multi-Rope Clamshell Grabs

#### The rope grab for ports

- Low unladen weight and high jaw strength through use of hollow profiles
- Optimum degree of filling through favorable digging arc
- Balanced ratio of shell width to grab width (top ratio)
- High closing force through multiple-reeved block and tackle
- Use of star rope sheaves for rope entry reduces wear on closing ropes, significantly extending service lives

Size	Shell capacity [m <sup>3</sup> ]	Bulk density [t/m <sup>3</sup> ]	Unladen weight [kg]	Ultimate crane load [t]
D 21 S 1	0,63 – 3,20	0,60 – 3,20	1200 - 1300	3,2
D 21 S 2	0,80 – 4,00	0,60 – 3,20	1400 - 1500	4,0
D 21 S 3	1,00 – 5,90	0,60 – 3,20	1750 - 1900	5,0
D 21 S 4	1,25 – 6,30	0,60 – 3,20	2200 – 2400	6,3
D 21 S 5	1,60 – 8,00	0,60 – 3,20	2800 - 3000	8,0
D 21 S 6	2,00 – 10,00	0,60 – 3,20	3500 - 3800	10,0
D 21 S 7	2,50 – 12,50	0,60 – 3,20	4400 – 4800	12,5
D 21 S 8	3,20 – 16,00	0,60 – 3,20	5600 - 6000	16,0
D 21 S 9	4,00 – 20,00	0,60 – 3,20	7000 – 7500	20,0
D 21 S 10	5,00 – 25,00	0,60 – 3,20	8800 – 9300	25,0
D 21 S 11	6,30 – 32,00	0,60 – 3,20	1200 - 11700	32,0

The grab is designed according to a modular principle. Based on your requirements, we will supply you with the optimum combination of the individual assemblies:

- Head
- Crossbeam
- Shell
- Rope drive
- Push rods

#### Additional equipment

- Rope guide rollers and a gimbal to protect the rope when the grab is used predominantly in a slanting position
- Roller bearings for the rope sheaves (maintenance-free)
- Rubber gasket on the cutting edges or tightly closing profile cutting edges, recommended for loading free-flowing materials such as soda, phosphate, cement, and cereals
- Shell cover for powdery materials such as phosphate, cement, cereals, fine coal, etc. Here, the grabs are fitted with wind protection so that no material can be lost during gripping; this makes the grabs particularly environmentally friendly.
- Heavy-duty shell design for operation in rough conditions such as in smelting works or foundries and with coarse, hard-to-grab materials
- Heavy-duty push rods, e.g., for unloading ships. To protect against frequent impacts with hatch edges, gangways, and similar
- Plug-in teeth on the grab's cutting edges for secure grip on coarse and hard-to-grip materials.  
For breaking open hard surface layers. The teeth are inserted into sleeves and are easy to replace
- Steel rope sheaves for use in hot working environments, e.g., smelting works, foundries, and similar