

Self propelled bundle extractors (on-shore)

Mef mobil

Self-positioning tube bundle puller, remote controlled for extraction, hoisting and movement of tube bundles



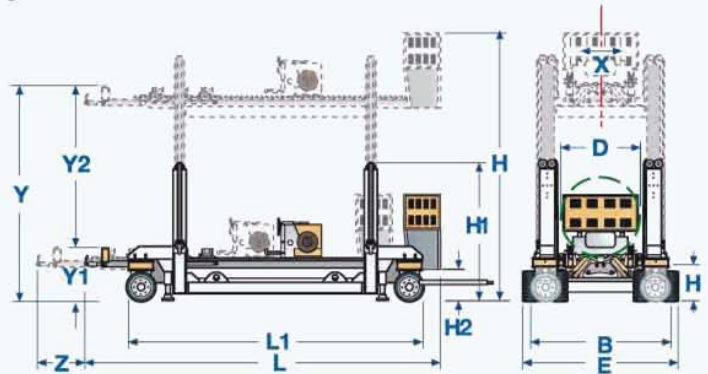
The **Mef mobil** tube bundle puller, designed for cases of difficult access, is completely **self-sufficient**, as is presented as a global solution in petrochemical plants for the extraction of tube bundles.

The tested rapid quick-hooking system **Mef express** is used for the **extraction and insertion** of the bundle.

The **Mef mobil** puller operates autonomously without the assistance of a crane for positioning and hoisting or trucks for transport to the tube bundle maintenance area after extraction.

It is solid, robust and stable and autonomously raises to a height of **4,2 m (166")** enabling a rapid and precise approach to the heat exchanger.

The use of the portable remote control (*wireless also available*), can control all the operations, leading to the inevitable reduction in personnel and increasing the final safety margins. The **Mef mobil** puller is proposed in two sizes, differentiating in weight, length and diameter of the tube bundle to pull out. The operation of inserting the tube bundle after maintenance also becomes extremely rapid and precise thus guaranteeing reduction in plant stopping times.

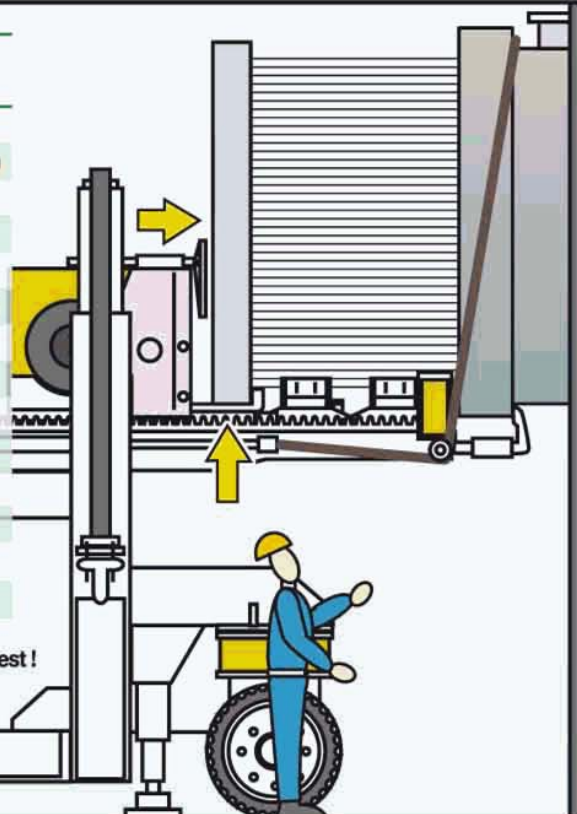


Easy to operate | Performing reliable

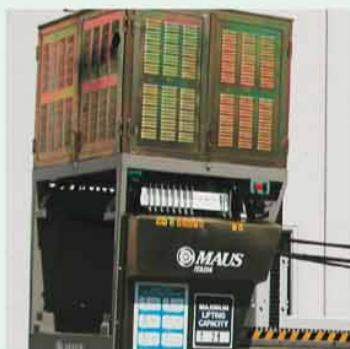
Performing reliable

Mef mobil		1300 65/75	2000 65/75
Min. width (transport)	B mm "	2500 (99)	3000 (119)
Max. length	L mm "	8100/9100 (319/359)	8100/9100 (319/359)
Height	H1 mm "	2540 (100)	2540 (100)
Plane height	H2 mm "	400 (16)	400 (16)
Min. heat exchanger height	Y1 mm "	650 (26)	700 (28)
Length excluding steering bar	L1 mm "	5050/6050 (199/238)	5050/6050 (199/238)
Max. width	E mm "	2900 (115)	3450 (136)
Max. height	H mm "	5850 (230)	5850 (230)
Feeding	Z mm "	1500 (60)	1500 (60)
Vertical stroke	Y2 mm "	3500 (138)	3500 (138)
Puller traverse	X mm "	±200 (± 8)	±100 (± 4)
Weight	Kg Lb	9200 (20300)	12500 (27600)
Axis rotation	DGS	120°	120°
Elevation at tube sheet bottom	Y* mm "	650/4150 (26/164)	700/4200 (28/166)

*Y = Y1 + Y2 ESpecial executions with Y2 > 3500mm (138") on request !



**Motor group
Hydraulic unit
Electric system**



**Support hydraulic
trolley and heat
exchanger
blocking system**



Driving seat

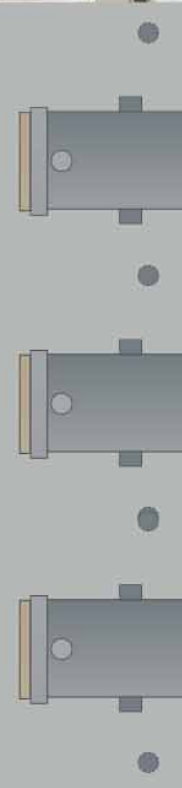
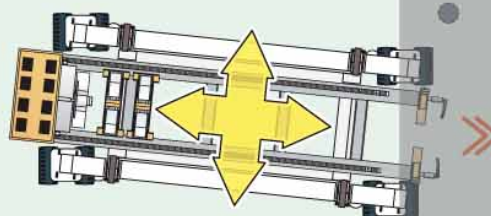
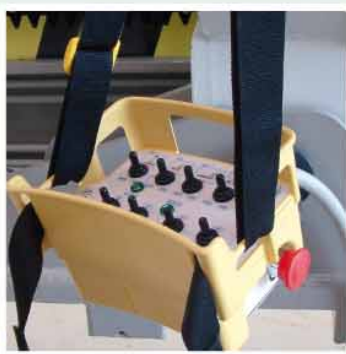


**Front view of
the bundle
extraction with
bundle support
trolley and
hydraulic vice**



Bundle size		1300 65/75	2000 65/75
Length	mm "	6500/7500 (255/295)	6500/7500 (255/295)
Diameter D	mm "	1300 (52)	2000 (79)
Max lifting capacity	T Lb	15 (33000)	30 (66000)

Performances		1300 65/75	2000 65/75
Main carriage pulling/pushing	KN Lb	30 (66100)	50 (110200)
Main carriage speed	m/min ft/min	2 (6.6)	2 (6.6)



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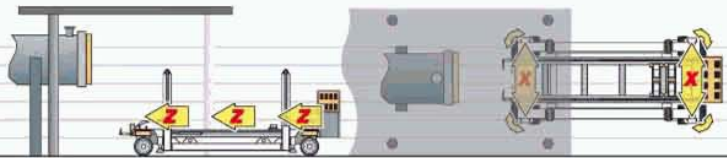
Mef mobil

Extraction sequence

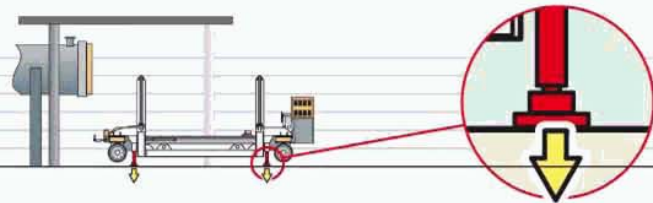
The main operations are shown below in sequence.



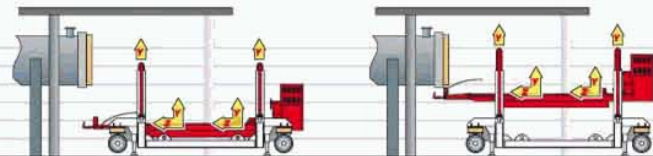
- 1 Approximate approach to about 0,5mt (20")



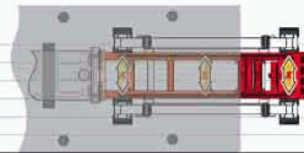
- 2 4 hydraulic feet to stabilize the puller



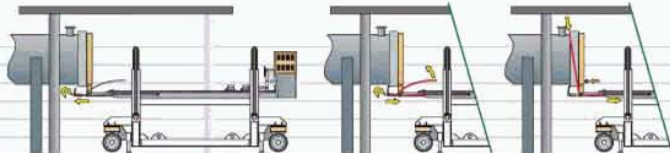
- 3 Servo-assisted positioning and hoisting upto
Y max = 4200mm (165")
Z max = 1500mm (59")



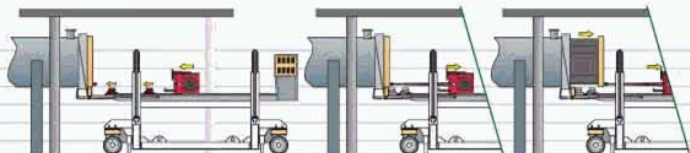
- 4 Servo-assisted positioning up to X max = 200mm (8")

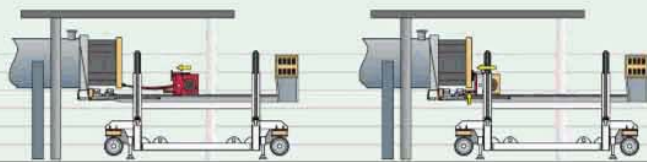
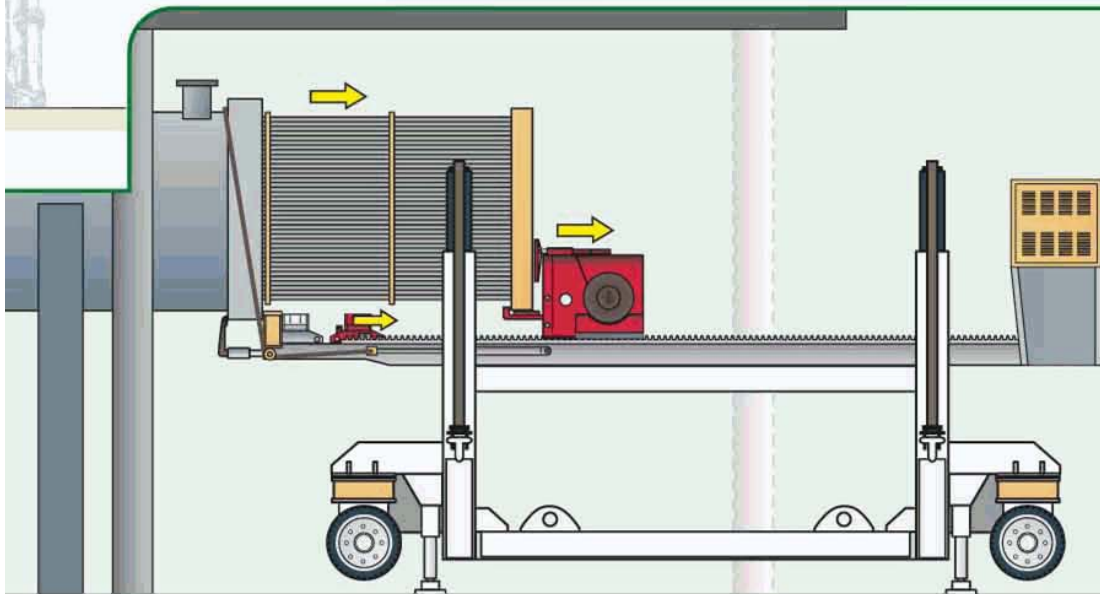


- 5 Shell blocking

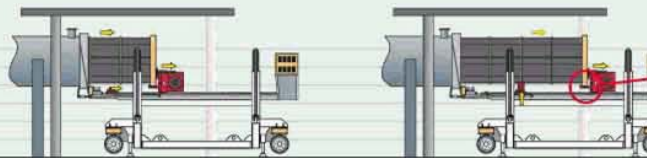


- 6 Trolley feeding
Fastening to eyebolts
Pull with cable

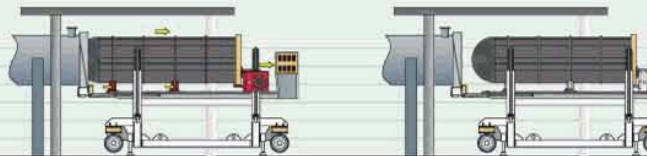




Trolley re-approach
with cable release **7**
Hooking up for extraction
and support



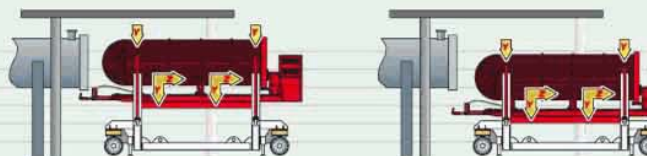
Pulling and support
with independent
hydraulically
controlled trolleys **8**



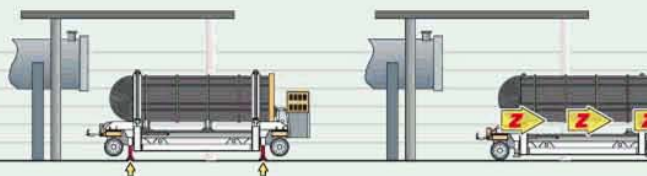
End of pulling **9**



Shell release **10**



Lowering of bundle **11**



Release of
4 hydraulic feet **12**
Towards the
maintenance area