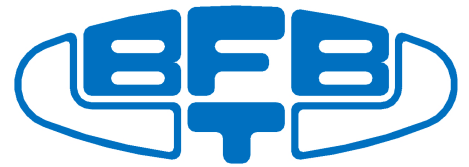


Trading BFBT s.r.o.

Equipment for disconnecting and reloading material



STATIONARY HYDRAULIC BOOM SYSTEMS WITH HYDRAULIC HAMMER FOR MINING AND TREATMENT LINES



50%

REDUCTION IN DOWNTIME

10-12%

INCREASE IN PRODUCTION

Boom systems with hydraulic hammers are special equipments for unblocking of conveyer tracks from loose material. They are used for breaking oversized rocks and/or for unblocking conveyer tracks and crushers of stuck pieces while the line and crusher are running.

INVESTING IN OPERATOR SAFETY DOES PAY

Basic division of product series

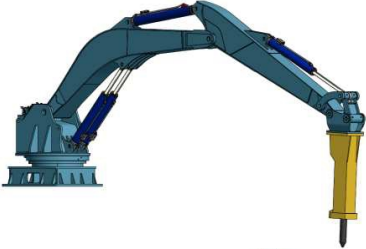
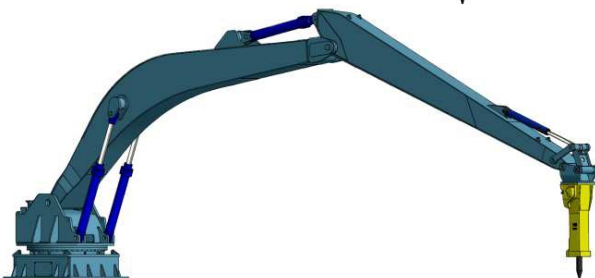
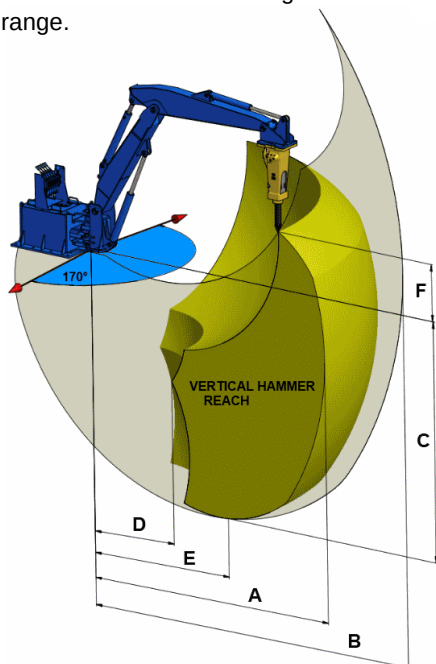
		MAX. REACH OF HAMMER	MAX. WEIGHT OF HAMMER
Series S		3,8 m	820 kg
Series L		4,8 m	1190 kg
Series M		6,5 m	1550 kg
Series C		10,3 m	1820 kg
Series CR		7,5 m	1730 kg
Series HR		10,8 m	2370 kg
Series GR		15,6 m	2390 kg
Series GRX		19,9 m	5200 kg

Table of operating ranges of BFBT boom systems

Series S L M C

All K versions (SK, LK, MK, CK) have the rotation carried out by a slewing console with 170° rotation range. All R versions (SR, LR, MR, CR) have the rotation carried out by a slewing mechanism with a bearing and a 330° rotation range.



	A	B	C	D	E	F
ST 27	2,74	3,72	1,16	0,92	2,74	0,62
SK 28	2,90	4,18	2,27	1,36	1,85	0,64
SK 32	3,22	4,50	2,68	1,15	1,82	0,68
SK 36	3,63	4,91	2,72	1,37	2,08	0,96
SK 38	3,82	5,10	3,23	1,31	2,08	0,82
SR 28	2,91	4,19	2,43	0,83	1,53	0,63
LK 32	3,22	4,63	2,96	1,01	1,78	-0,17
LK 38	3,89	5,30	3,41	1,26	2,13	0,02
LK 40	4,06	5,47	3,51	1,43	2,19	0,92
LK 45	4,56	5,97	3,69	1,55	2,77	0,55
LK 48	4,76	6,28	4,56	1,84	2,66	1,25
MK 56	5,61	7,01	4,78	1,96	3,40	2,22
MK 60	6,00	7,41	4,55	2,57	3,65	2,07
MK 64	6,34	7,80	5,00	2,50	3,51	1,80
CK 47	4,80	6,62	2,94	2,44	3,26	1,63
CK 60	6,15	7,96	3,68	2,95	3,86	2,36
CK 69	6,91	8,97	5,12	3,25	4,40	2,19
CK 73	7,35	9,40	5,95	3,59	4,65	2,08
CK 89	8,90	10,96	7,61	4,08	4,73	2,59
CK102	10,25	12,31	7,74	4,50	5,82	3,92
CR 69	6,93	8,98	5,37	2,75	4,22	1,73
CR 74	7,48	9,53	5,18	3,29	4,77	2,64

Trading BFBT si vyhrazuje právo změn.

The dimensions in [m]

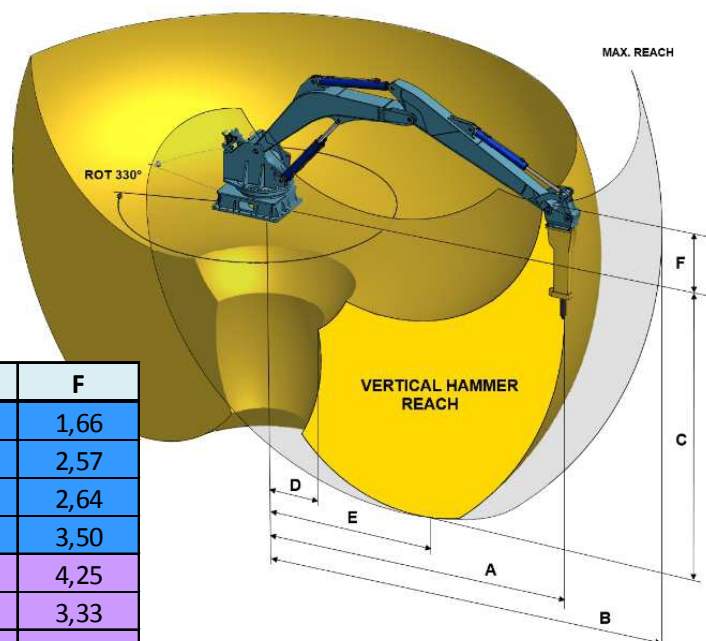
Series HR GR GRX

These versions are rotated with a slew bearing with a 330° rotation range. The design of the base frame and its anchors is suitable for heavy-duty working conditions and extreme loading forces. These Boom system ranges are designed for continuous operation.

	A	B	C	D	E	F
HR 80	7,94	10,51	7,31	1,01	3,79	1,66
HR 88	8,78	11,37	7,67	1,78	4,83	2,57
HR 98	9,71	12,30	8,67	1,03	4,85	2,64
HR 108	10,78	13,37	9,15	2,15	5,57	3,50
GR 128	12,89	15,50	10,23	3,50	7,63	4,25
GR 138	13,92	16,53	11,43	2,62	7,61	3,33
GR 148	14,91	17,53	12,05	3,44	8,42	3,89
GR 158	15,62	18,23	12,85	2,86	8,41	4,55
GRX 100	9,99	13,49	8,62	3,56	5,95	2,75
GRX 110	10,88	13,85	9,07	2,05	5,91	1,45
GRX 121	12,19	15,16	9,55	3,03	6,99	2,30
GRX 188	17,59	20,21	14,02	2,72	9,28	4,21
GRX 200	19,17	21,70	14,85	3,66	10,49	5,29

Trading BFBT si vyhrazuje právo změn.

The dimensions in [m]



For reasons of clarity, the table shows only the main reach parameters for each individual series of boom systems. Based on these parameters we are able to determine preliminary suitable size of the equipment. The operating area of the hammer should be placed within vertical hammer reach.

Parameter tables of boom systems

Designed for
crushers

MOBILE

STATIONARY

GRIZZLY

GYRATORY

S Series Small series with compact dimensions and high mechanical durability. Intermittent operation.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
ST 27	2,75	1,16	860	kr. 650	1,8-2,8		300
SK 28	2,89	2,27	1450	950x750	1,5	1,2	350
SK 32	3,22	2,68	1485	950x750	1,5	1,6	350
SK 36	3,62	2,73	1500	950x750	1,8	1,6	350
SK 38	3,82	3,23	1530	950x750	1,8	1,8	350
SR 28	2,91	2,43	920	kr. 650	1,5	1,6	300
SKD 44	4,42	3,74	1640	950x750	1,8	1,2+1,2	350

L Series Lightweight series with more compact dimensions and high mechanical durability. Intermittent operation.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
LK 32	3,22	2,96	1650	1140x950	1,5	1,5	750
LK 38	3,89	3,41	1720	1140x950	1,9	1,8	750
LK 40	4,06	3,51	1790	1140x950	2,0	1,8	750
LK 45	4,56	3,69	1830	1140x950	2,6	1,8	750
LK 48	4,76	4,56	1950	1140x950	2,8	1,8	750

M Series Medium series with high mechanical durability. Intermittent operation. Large hammers may be used.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
MK 56	5,61	4,78	2330	1265x1010	3,6	2,0	800
MK 60	6,00	4,56	2580	1265x1010	3,7	2,0	800
MK 64	6,49	5,06	2720	1265x1010	3,7	2,5	800

C Series Compact series with high mechanical durability. Frequent operation. Large hammers may be used.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
CK 47	4,80	2,94	5250	1600x1500	2,6	1,8	1700
CK 60	6,00	3,70	5850	1600x1500	3,3	2,5	1700
CK 69	6,91	5,12	6150	1600x1500	4,0	2,8	1400
CK 73	7,35	5,95	6270	1600x1500	4,5	2,8	1000
CK 89	8,90	7,60	6500	1600x1500	4,5	4,5	1000
CK102	10,25	5,82	6750	1600x1500	5,6	4,8	1000
CR 60	5,87	3,25	5700	kr. 1340	3,3	2,5	1700
CR 69	6,93	5,37	5800	kr. 1340	4,0	3,2	1400
CR 74	7,48	5,18	5920	kr. 1340	4,5	3,2	1000

HR Series Heavy-duty series with robust structure. Continuous operation. Heavy-duty operation conditions.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
HR 80	7,94	7,31	9080	1730x1410 (KR 1650)	4,3	4,0	2 200
HR 88	8,78	7,67	9290	1730x1410 (KR 1650)	5,1	4,0	2 200
HR 98	9,71	8,67	9580	1730x1410 (KR 1650)	5,1	5,0	2 200
HR 108	10,78	9,15	9940	1730x1410 (KR 1650)	6,1	5,0	2 200

Parameter tables of boom systems

Designed for
crushers

GR Series Great Heavy-duty series. Continuous operation. Heavy-duty operation conditions.

GYRATORY

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
GR 128	12,89	10,23	23800	2600x2200	8,3	5,8	2400
GR 138	13,92	11,43	24200	2600x2200	8,3	7,0	2200
GR 148	14,91	12,05	24400	2600x2200	9,3	7,0	2200
GR 158	15,62	12,85	24650	2600x2200	9,3	7,8	2200

GRX Series Great Extra Heavy-duty series. Continuous operation. Designed for the heaviesconditions. Large hammers or long reach.

Line	Reach of vertical hammer		Weight kg	Base dimension mxm	Boom m	Stick m	Max. weight of hammer kg
	Horizontal m	Vertical m					
GRX 100	9,99	8,62	27500	2600x2200	6,4	4,0	5200
GRX 110	10,88	9,07	27800	2600x2200	6,4	5,0	4400
GRX 121	12,19	9,55	31000	2600x2200	7,5	5,0	4150
GRX 188	17,59	14,02	35400	2600x2200	10,0	8,8	2550
GRX 200	19,17	14,85	36300	2600x2200	11,0	9,2	2000

Engineers from Trading BFBT s.r.o. are able to provide you with the most suitable Boom system size calculation - draft. The main inputs for this proposal are the type of the rock which is to be treated, the crusher parameters and frequency of the extraordinary issues. By using our unique software "DESIGN OF THE MOST SUITABLE HAMMER SIZE FOR BFBT BOOM SYSTEMS" we are able to determine proper hydraulic hammer suitable for specific real conditions. In the next step the suitable size and range of the Boom system is being specified. Our quotation also includes situational draft of the Boom system instalation to the specific area and location. Here you can find the main details of the installation as well as the reach of the hammer to the required locations.

QUOTATION PROCESSING INCLUDING SITUATIONAL DRAFT IS FREE OF CHARGE!

Hydraulic drive units

Hydraulic drive unit is designed as self-supporting container. It is equipped by lifting lugs for easy assembly.

HYDRAULIC UNIT BFBT		AHC15	AHC18	AHC22	AHC30	AHC37	AHC45
Power	kW	15	18,5	22	30	37	45
requirements	PS	20	25	29	40	50	61
Speed of el.motor	min ⁻¹	1460	1465	1465	1465	1475	1475
Max. flow	L/min	63,7	63,9	73,2	93,3	105,9	105,9
Max. pressure	Mpa	30	30	25	27	31	31
Tank volume	L	180	180	190	280	440	440
Base Dimension	m	0,74X1,26	0,74X1,26	0,74X1,35	0,74X1,35	1,04X1,52	1,04X1,52
Height of unit	m	1,45	1,45	1,45	1,65	2,0	2,0

HYDRAULIC UNIT BFBT		AHC55	AHC75	AHCX75	AHCX90	AHCX110	AHCX132
Power	kW	55	75	75	90	110	132
requirements	PS	75	102	102	120	146	175
Speed of el.motor	min ⁻¹	1480	1485	1485	1485	1485	1485
Max. flow	L/min	143,6	187,3	282,7	282,7	282,7	395,8
Max. pressure	Mpa	31	31	35	35	35	35
Tank volume	L	630	650	830	830	1170	1170
Base Dimension	m	1,04X1,96	1,04X2,04	1,24x2,16	1,24x2,16	1,24x2,54	1,24x2,54
Height of unit	m	2,0	2,0	2,11	2,11	2,3	2,3

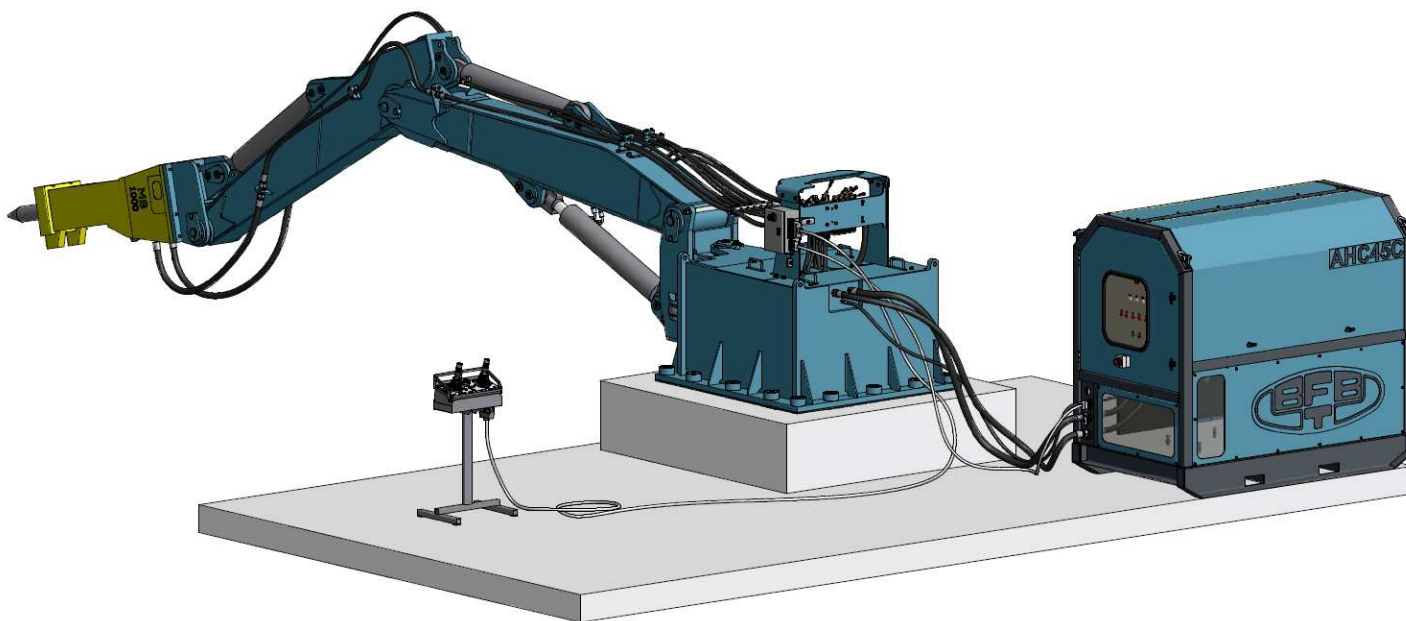
Nomenclature of the units

A Axial pump
AH Axial pump + heater
AHC Axial pump + heater + cooler



The unit may be canbe equipped an oil tank and roof.

Traditional arrangement of boom system



Assignment of hydraulic units to AtlasCopco hammers



HAMMER ATLAS COPCO		SB 202	SB 302	SB 452	SB 552	SB 702	MB 750	MB 1000	MB 1200
Operating Weight	kg	200	304	441	520	720	750	1000	1200
Flow Rate	L/min	35-75	50-83	55-105	65-115	80-120	80-120	85-130	100-140
Operating Pressure	bar	100-150	100-150	100-150	100-150	120-170	140-170	160-180	160-180
Frequency	bpm	840-1800	600-1380	540-1260	660-1140	600-1050	370-800	350-750	340-680
Tool Diameter	mm	65	80	95	100	105	100	110	120
Hydraulic Unit		AHC18	AHC 22	AHC 30	AHC 30	AHC 37	AHC 37	AHC 45	AHC 45

HAMMER ATLAS COPCO		MB 1500	MB 1700	HB 2000	HB 2500	HB 3100	HB 3600	HB 4100	HB 4700
Operating Weight	kg	1500	1700	2000	2500	3100	3600	4100	4700
Flow Rate	L/min	120-155	130-170	150-190	170-220	210-270	240-300	250-320	260-340
Operating Pressure	bar	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180
Frequency	bpm	330-680	320-600	300-600	280-550	280-560	280-560	280-550	280-520
Tool Diameter	mm	135	140	150	155	165	170	180	185
Hydraulic Unit		AHC 55	AHC 55	AHC 75	AHCX 90	AHCX 110	AHCX 132	AHCX 132	AHCX 132

Assignment of hydraulic units to RAMMER hammers



HAMMER RAMMER		455	555	777	999	1533
Operating Weight	kg	230	275	385	505	870
Flow Rate	L/min	40-70	35-90	40-120	50-150	80-140
Operating Pressure	bar	100-170	90-140	90-140	100-140	140-160
Frequency	bpm	700-2600	600-1800	500-1700	500-1700	550-1050
Tool Diameter	mm	56	72	72	90	105
Hydraulic Unit		AHC22	AHC 22	AHC 30	AHC 37	AHC 37

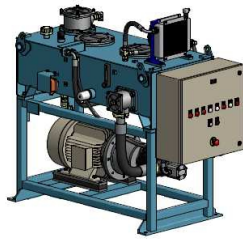
HAMMER RAMMER		2155	2577	3288	4099	5011
Operating Weight	kg	1280	1760	2500	3540	4750
Flow Rate	L/min	120-180	140-200	160-250	250-350	250-350
Operating Pressure	bar	140-160	135-145	150-160	150-160	160-170
Frequency	bpm	490-780	450-750	370-630	400-560	370-530
Tool Diameter	mm	118	135	142	166	190
Hydraulic Unit		AHC 45	AHC 55	AHC 75	AHCX 90	AHCX 110

Accessories of boom systems

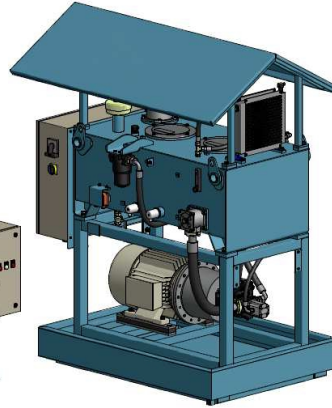
Standard:

- Hydraulic line with hoses
- Wired remote control
- Control with two proportional joystick
- Hydraulic unit includes heater
- Hydraulic unit includes cooler
- Manual lubrication
- Design of the concrete foundations
- Anchoring set for installation

Design of the hydraulic unit



INTERNAL



EXTERNAL



CONTAINER

Optional:

- Central lubrication
- Centralized manual lubrication
- Low-ambient version
- High-ambient version
- High-altitude version
- Wireless remote control
- Extra control station
- Operator cabin

Control stations



STANDARD



MULTIPURPOSE
SEAT



INTEGRATED
MULTIPURPOSE
SEAT

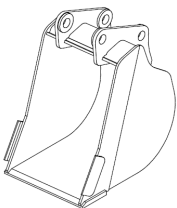


CABIN K140

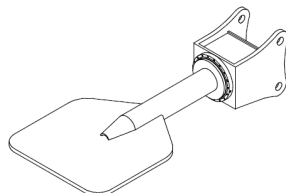


CABIN K225

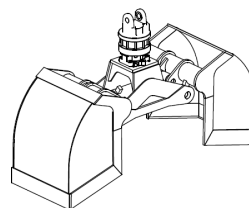
Special accessories



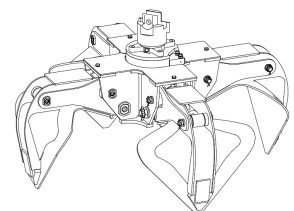
Shovel



Chisel



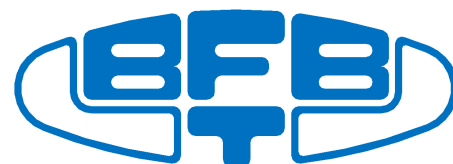
Clamshell grab



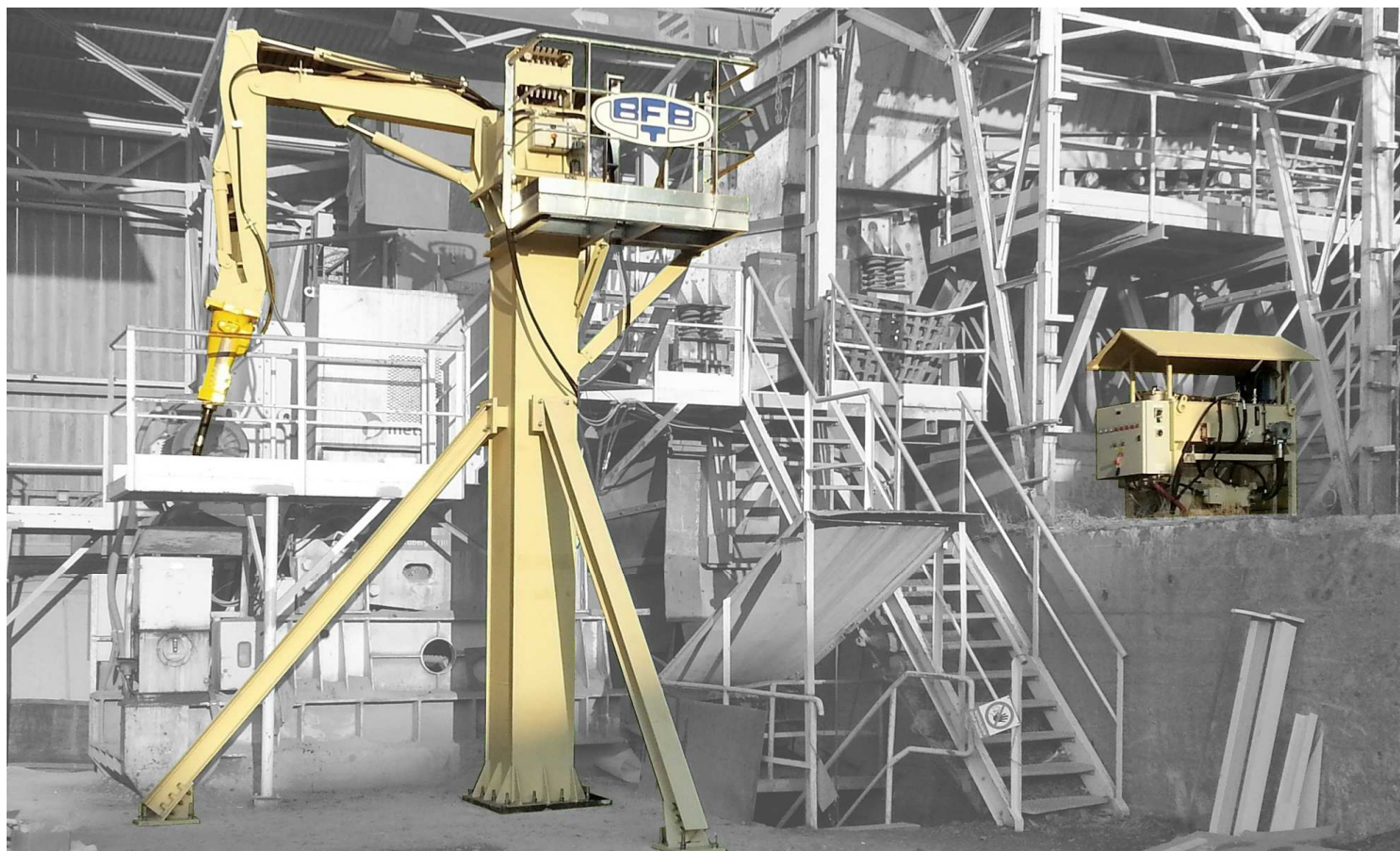
Polyp grab

Trading BFBT s.r.o.

Equipment for disconnecting and reloading



STATIONARY HYDRAULIC BOOM SYSTEMS WITH HYDRAULIC HAMMER FOR MINING AND TREATMENT LINES



Trading BFBT s.r.o.

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