

FRD FURUKAWA FURUKAWA ROCK DRILL USA

BREAKER/ATTACHMENT
DIVISION

MEETING THE EQUIPMENT NEEDS OF THE MINING AND CONSTRUCTION INDUSTRIES.



Leading Innovations for Construction and Industrial Applications

FURUKAWA ROCK DRILL (FRD) USA IS A LEADING MANUFACTURER OF ATTACHMENTS FOR COMPACT UTILITY LOADERS, SKID STEERS, MINI EXCAVATORS, BACKHOES AND EXCAVATORS.

We provide a complete line of attachments that are built to last, including breakers, compactors, compaction wheels and mechanical thumbs.

Our breakers incorporate innovative features such as mono-block body design, the elimination of thru-bolts, improved internal grease routing and patented dust intake prevention systems.

The FRD-USA breaker line includes:

Fxa SERIES SMALL BREAKERS

(Fx15a, Fx25a, Fx35a, Fx45a and Fx55a) that are ideal for use in tight work environments, sidewalks, driveway removal or any other demolition task.

Fxa SERIES MEDIUM BREAKERS

(F6, F9 and Fx125) engineered with higher back head pressure and larger pistons for an increase in impact energy of 20-30%.

Fxa SERIES LARGE BREAKERS

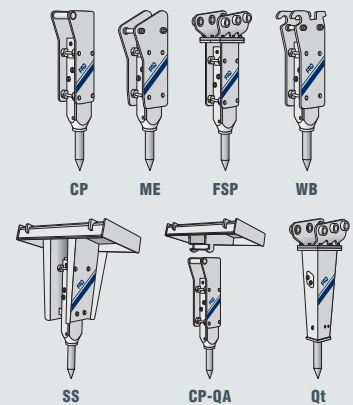
(Fx175 Qtv, Fx225 Qtv, Fx275 Qtv, Fx800 Qtv and Fx1070 Qtv) are the perfect choice for working in quarries, breaking hard rock or large demolition jobs.

No matter what application, you can trust that FRD-USA attachment technology represents our ongoing commitment to innovation, durability and quality operation.

NEW FHB SERIES LARGE BREAKERS

FHB Large Breakers (FHB12 Qtv, FHB16 Qtv, FHB18 Qtv, FHB20 Qtv, FHB27 Qtv, FHB35 Qtv and FHB45 Qtv) are FRD's latest breaker line and builds on the innovations of breakers before it. This series is also ideal for quarries and large demolition jobs.

Carrier Options



Fxa SERIES SMALL HYDRAULIC BREAKERS

IMPACT ENERGY CLASS	Fx15a – 150 ft lb	Fx25a – 275 ft lb	Fx35a – 375 ft lb	Fx45a – 550 ft lb	Fx55a – 800 ft lb
Weight in lbs (kg)*					
FB configuration	130 (59.00)	181.5 (82.33)	320 (150)	n/a	n/a
SS configuration	n/a	n/a	549 (247)	784 (356)	840 (381)
FSP configuration**	n/a	n/a	460 (209)	606 (275)	714 (324)
Qt configuration**	n/a	n/a	470 (213)	550 (250)	550 (250)
Length in inches (mm)*					
FB configuration	36.63 (930)	43.5 (1,106)	53.33 (1,354.5)	n/a	n/a
SS configuration	n/a	n/a	51 (1,295)	57.5 (1,461)	61 (1,549)
FSP configuration**	n/a	n/a	50 (1,270)	54 (1,372)	60 (1,524)
Qt configuration**	n/a	n/a	48.5 (1,232)	52.75 (1,340)	57.5 (1,461)
Working Steel***					
Diameter in inches (mm)	1.42 (36)	1.77 (45)	2.05 (52)	2.36 (60)	2.68 (68)
Replaceable length measured from front head in inches (mm)	7 (175)	8.5 (215)	9 (225)	9.5 (240)	10 (250)
General Specifications					
Blows per minute (variable)	600 ~ 1,500	600 ~ 1,500	600 ~ 1,300	600 ~ 1,100	500 ~ 1,000
Oil flow range gpm (lpm)	2.6 ~ 7.4 (10 ~ 28)	4.75 ~ 9.25 (18 ~ 35)	6 ~ 13.75 (24 ~ 52)	7.9 ~ 15.8 (30 ~ 60)	10.5 ~ 22.5 (40 ~ 85)
Operating pressure psi (MPa)	1,450 ~ 2,030 (10 ~ 14)	1,450 ~ 2,030 (10 ~ 14)	1,740 ~ 2,320 (12 ~ 16)	1,740 ~ 2,320 (12 ~ 16)	1,740 ~ 2,320 (12 ~ 16)
Qt configuration; 85 dB(A) @	n/a	n/a	7.5 - meters	7.5 - meters	8.0 - meters
Recommended carrier range in U.S. tons	0.55 ~ 1.65	1.1 ~ 2.75	1.65 ~ 4.41	2.75 ~ 6.1	4.4 ~ 7.7
Carrier options	■	■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■

Notes * Weights and lengths for all configurations include standard Working Steel (less mounting & Hose Whips)
 ** Weights and lengths for FSP's & Qt's include a Universal Top Cap (less mounting & Hose Whips)
 *** All working steels are interchangeable with the previous F-Series and Fx-Series



Fxa SERIES MEDIUM HYDRAULIC BREAKERS

IMPACT ENERGY CLASS	F6 – 1,000 ft lb	F9 – 1,500 ft lb	Fx125 – 2,000 ft lb
Weight in lbs (kg)*			
TLB Version	700 (317)	1,120 (508)	1,348 (611.4)
SS Version	939 (426)	n/a	n/a
FSP Version	875 (397)**	1,121 (554)**	n/a
Qt Version	958 (434)**	1,403 (636)**	1,820 (825.5)
Length in inches (mm)*			
TLB Version	57 (1,448)	63.25 (1,606)	77 (1,956)
SS Version	63 (1,600)	n/a	n/a
FSP Version	56.5 (1,435)**	75.5 (1,918)**	n/a
Qt Version	55.25 (1,403)	74.5 (1,461)	94.25 (2,394)
Working Steel***			
Diameter in inches (mm)	3 (76.2)	3.5 (90)	4.33 (110)
New length measured from front head in inches (mm)	17.75 (451)	19.5 (495)	26.75 (680)
Replaceable length measured from front head in inches (mm)	12.25 (311)	13.75 (349)	15.94 (405)
General Specifications			
Adjustable Blows Per Minute (BPM)	650 ~ 1,500	550 ~ 900	400 ~ 650
Acceptable GPM Range (LPM)	13 ~ 40 (50 ~ 150)	17 ~ 30 (65 ~ 114)	18.5 ~ 31.5 (70 ~ 119)
Acceptable PSI Range (Bar)	1,450 ~ 2,030 (100 ~ 140)	1,700 ~ 2,150 (120 ~ 150)	2,320 ~ 2,610 (160 ~ 180)
Qt configuration; 85 dB(A) @	10 - meters	11 - meters	12 - meters
Recommended carrier range in U.S. tons	6 ~ 7	7 ~ 10	10 ~ 15
Carrier options			

Notes * Weights and lengths for all configurations include standard Working Steel (less mounting & Hose Whips)

** Weights and lengths for FSP's & Qt's include a Universal Top Cap (less mounting & Hose Whips)

*** All working steels are interchangeable with the previous F-Series and Fx-Series



Fxa SERIES LARGE HYDRAULIC BREAKERS

IMPACT ENERGY CLASS	EXTRA LARGE				
	Fx175 Qtv 3,250 ft lb	Fx225 Qtv 4,250 ft lb	Fx275 Qtv 5,250 ft lb	Fx800 Qtv 12,000 ft lb	Fx1070 Qtv 15,000 ft lb
Total Weight in lbs (kg)*	3,084 (1,402)	3,734 (1,694)	3,758 (1,705)	10,742 (4,872)	14,550 (6,600)
Total Length in inches (mm)*	100 (2,540)	113 (2,870)	119 (3,026)	155.7 (3,955)	149.60 (3,800)
Working Steel					
Diameter in inches (mm)	4.72 (120)	5.31 (135)	5.51 (140)	7.48 (190)	8.27 (210)
New length measured from front head in inches (mm)	27.36 (695)	29.02 (737)	30.30 (770)	33.85 (860)	38.50 (978)
Replaceable length measured from front head in inches (mm)	16.14 (410)	16.93 (430)	17.72 (450)	21.25 (540)	25.25 (641)
General Specifications					
Adjustable Blows Per Minute (BPM)	450 ~ 600	350 ~ 550	350 ~ 550	250 ~ 330	200 ~ 375
Acceptable GPM Range (LPM)	26 ~ 42 (98 ~ 158)	33 ~ 50 (124 ~ 189)	38 ~ 58 (144 ~ 220)	66 ~ 90 (250 ~ 340)	52 ~ 99 (200 ~ 375)
Acceptable PSI Range (Bar)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)
85 dB(A) @	13 - meters	14 - meters	14 - meters	17 - meters	17 - meters
Recommended carrier range in U.S. tons	13 ~ 22	21 ~ 26.5	21 ~ 33	48.5 ~ 83	65 ~ 110
Carrier options					

Notes * Total weight and total length include standard working steel and universal top cap less mounting pins and bushings.



THE NEXT GENERATION OF ROCK BREAKING

INTRODUCING THE FHB LARGE SERIES BREAKERS

Our Unique Design gives us an Excellent Power to Weight Ratio for Lower Maintenance and Increased Performance! This SOLID BODY CONCEPT ELIMINATES Thru-Bolts which has reduced the breaker weight but does not affect our Impact Energy! This makes for much better Control for the Operator, Less Wear and Tear on the Excavator and reduced fuel costs.

New FHB features include:

- › The Smart Stroke System (SSS) automatically dials in optimal stroke length by sensing piston position, and is available as an option on select models
- › New models include the manual Quick Switch Valve (QSV) (with the exception of the FHB12) for altering between short and long stroke based on application
- › Enhanced internal hydraulics efficiencies leading to improved production
- › Stop pins and rod pins updated to improve breaker durability
- › Reduced CO2 emissions results in more eco-friendly operation.



FHB SERIES LARGE HYDRAULIC BREAKERS

SPECIFICATIONS	<i>FHB12</i>	<i>FHB16</i>	<i>FHB18</i>	<i>FHB20</i>	<i>FHB27</i>	<i>FHB35</i>	<i>FHB45</i>
Recommended Carrier Range in U.S. Tons *OPTIMAL	9 - 15 *12 tons	12 - 20 *16 tons	15 - 21 *18 tons	19 - 26 *20 tons	21 - 33 *27 tons	28 - 44 *35 tons	39 - 61 *45 tons
Working Steel Diameter in inches (mm)	4.33 (110)	4.72 (120)	4.72 (120)	5.31 (135)	5.51 (140)	6.10 (155)	6.69 (170)
Acceptable GPM Range (LPM)	18.5 ~ 31.5 (70 ~ 119)	26.4 ~ 40.9 (100 ~ 155)	29.1 ~ 44.8 (110 ~ 170)	33.1 ~ 51.4 (125 ~ 195)	36.9 ~ 55.4 (140 ~ 210)	44.8 ~ 56.6 (170 ~ 250)	52.8 ~ 79.2 (200 ~ 300)
Acceptable PSI Range (Bar)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)	2,320 ~ 2,610 (160 ~ 180)
Hydraulic Input Power (kW)	36.0	46.5	51.0	58.5	63.0	75.0	90.0
Adjustable Blows Per Minute (BPM)	450 ~ 670	420 ~ 620	400 ~ 600	390 ~ 590	370 ~ 550	340 ~ 510	290-400
Total Weight in lbs (kg)*	1,782 (810)	2,963 (1,347)	3,355 (1,525)	3,485 (1,584)	3,762 (1,710)	5,277 (2,399)	7,021 (3,185)
Total Length in inches (mm)*	87 (2,208)	100 (2,540)	100 (2,540)	113 (2,870)	119 (3,026)	126 (3,197)	290 ~ 400
Carrier Options	■ ■	■	■	■	■	■	■

*Note: Total weight and total length include standard working steel and universal top cap less mounting pins and bushings.

HP SERIES COMPACTORS/DRIVERS

MODEL	HP35 ME	HP65 II	HP65 II 18"	HP75
Impulse Force lbs (kg)	3,000 (1,361)	6,500 (2,948)	6,500 (2,948)	7,800 (3,538)
Cycles Per Minute	2,000	2,000	2,000	2,000
Operating Pressure PSI (Bar)	2,000 (138)	1,800 - 2,200 (124-152)	2,000 - 2,400 (138-152)	1,800 - 2,200 (124-152)
Hydraulic Flow Req'd GPM (LPM)	7.5 (28)	12-15 (45-57)	12-15 (45-57)	18-22 (68-83)
Approximate Weight in lbs (kg)*	350 (159)	850 (385)	742 (336)	850 (385)
Approximate Height in inches (mm)*	20 (508)	27.5 (699)	27.5 (699)	27.5 (699)
Width in inches (mm)	12 (305)	24 (610)	18 (457)	24 (610)
Pin Spacing in inches (mm)	As required	As required	As required	As required
Mounting Pin Diameter	As required	As required	As required	As required
Base Plate Dimensions in inches (mm)	12 x 26 (305 x 660)	24 x 34 (610 x 864)	18 x 34 (457 x 864)	24 x 34 (610 x 864)
Compaction Area sq. ft. (sq. m)	2.2 (.20)	5.7 (.53)	4.25 (.39)	5.7 (.53)
Hose Size in inches (mm)				
Pressure Line in inches (mm)	0.5 (13)	0.75 (19)	0.75 (19)	0.75 (19)
Return Line in inches (mm)	0.5 (13)	0.75 (19)	0.75 (19)	0.75 (19)
Carrier options	■ ■	■ ■	■ ■	■ ■



Notes * Weight and Height are specific for HydraPaks with Flat Top (FT) Hanger Assemblies, less mounting bracket. For accurate weight and height for models utilizing a different or specific hanger arrangement, please contact FRD USA engineering.

MODEL	HP135 II	HP135 FB II	HP135 FT II	HP210 II	HP210 FB II	HP210 FT II
Impulse Force lbs (kg)	13,500 (6,124)	13,500 (6,124)	13,500 (6,124)	21,000 (9,525)	21,000 (9,525)	21,000 (9,525)
Cycles Per Minute	2,000	2,000	2,000	2,000	2,000	2,000
Operating Pressure PSI (Bar)	2,000 (138)	2,000 (138)	2,000 (138)	2,000 (138)	2,000 (138)	2,000 (138)
Hydraulic Flow Req'd GPM (LPM)	30 (114)	30 (114)	30 (114)	48 (182)	48 (182)	48 (182)
Approximate Weight in lbs (kg)*	1,335 (606)	1,470 (667)	1,770 (803)	2,150 (975)	2,235 (1,014)	2,730 (1,238)
Approximate Height in inches (mm)*	34 (864)	34 (864)	27 (686)	39.5 (1,003)	39.5 (1,003)	32 (813)
Width in inches (mm)	28 (711)	28 (711)	28 (711)	34 (864)	34 (864)	34 (864)
Pin Spacing in inches (mm)	15.75 (400)	O.E.M.	O.E.M.	18.7 (475)	O.E.M.	O.E.M.
Mounting Pin Diameter	As required	As required	As required	As required	As required	As required
Base Plate Dimensions in inches (mm)	28 x 40 (711 x 1,016)	28 x 40 (711 x 1,016)	28 x 40 (711 x 1,016)	34 x 46 (864 x 1,168)	34 x 46 (864 x 1,168)	34 x 46 (864 x 1,168)
Compaction Area sq. ft. (sq. m)	7.8 (.72)	7.8 (.72)	7.8 (.72)	10.8 (1.0)	10.8 (1.0)	10.8 (1.0)
Hose Size in inches (mm)						
Pressure Line in inches (mm)	0.75 (19)	0.75 (19)	0.75 (19)	1 (25)	1 (25)	1 (25)
Return Line in inches (mm)	1 (25)	1 (25)	1 (25)	1.25 (32)	1.25 (32)	1.25 (32)
Carrier options	■	■	■	■	■	■

Notes * FT weight is based on average O.E.M. top cap and does not include mounting pins and bushings.

TEFRA COUPLERS

MODEL	TAC30	TAC50	TAC70	TAC130	TAC160
Approx. Carrier Range in Tons*	3 - 4	5 - 7	8 - 9	10 - 14	15 - 18
Pin Diameter Pick-Up in inches (mm)	1.4 - 1.6 (35 - 50)	1.6 - 2.2 (40 - 55)	1.7 - 1.9 (45 - 50)	2.3 - 2.5 (60 - 65)	2.7 - 3.1 (70 - 80)
Bottom Frame Width in inches (mm)	4.6 (117)	5.6 - 7.2 (143 - 183)	6.4 - 7.2 (163 - 183)	8.6 - 9.4 (218 - 238)	11 - 11.7 (277 - 298)
Pin Pick-Up Range in inches (mm)	6.4 - 8.5 (162 - 217)	8.5 - 10.7 (216 - 272)	11 - 14 (279 - 356)	13.6 - 17.12 (345 - 435)	15 - 20 (386 - 510)

Notes * To confirm all carrier and coupler compatibility, please contact FRD USA engineering.

MODEL	TAC210	TAC260	TAC325	TAC350	TAC450
Approx. Carrier Range in Tons*	19 - 23	24 - 28	29 - 33	34 - 39	40 - 50
Pin Diameter Pick-Up in inches (mm)	3.1 (80)	3.1 (80)	3.5 (90)	3.5 - 3.9 (90 - 100)	3.9 - 4.3 (100 - 110)
Bottom Frame Width in inches (mm)	10.9 - 11.7 (277 - 298)	11.7 (298)	14.8 (378)	15.75 (400)	17.4 (442)
Pin Pick-Up Range in inches (mm)	15 - 20 (386 - 510)	15 - 20 (386 - 510)	18 - 22.5 (455 - 572)	20.3 - 25.6 (517 - 650)	20.3 - 25.6 (517 - 650)

Notes * To confirm all carrier and coupler compatibility, please contact FRD USA engineering.



PNEUMATIC BREAKERS

IMPACT ENERGY CLASS	B555 – 500 ft lb	B999 – 1,000 ft lb
Weight in lbs (kg)	502 (228)	950 (431)
Length in inches (mm)		
Without Steel in inches (mm)	32.5 (826)	57 (1,448)
With Moil Point in inches (mm)	50 (1,270)	74 (1,880)
Bore in inches (mm)	3.75 (95)	4.62 (117)
Stroke in inches (mm)	4.75 (121)	15 (381)
Working Steel Diameter in inches (mm)	2.5 (64)	3.5 (89)
Chuck Sizes in inches (mm)	2.5 (64)	3.5 (89)
Optional	3.0 (76)	-
Air Hose Size in inches (mm)	1 (25)	1.5 (38)
Blows Per Minute	600	600
Required CFM	175	250
Carrier options	■ ■ ■	■ ■ ■



MT SERIES MECHANICAL THUMBS

MODEL	MT3X10	MT8X16	MT16X33	MT16X33 HD
Carrier Range x 1,000 lbs (kg)	3 - 10 (1 - 5)	8 - 16 (4 - 7)	16 - 33 (7 - 15)	16 - 33 (7 - 15)
Width in inches (mm)	8 (203)	12 (305)	18 (457)	18 (457)
Length in inches (mm)	28 (711)	40 (1,016)	48 (1,219)	48 (1,219)
Weight in lbs (kg)	108 (49)	371 (168)	535 (243)	710 (322)
Pin Diameter in inches (mm)	2.00 (50)	2.00 (50)	2.00 (50)	2.00 (50)
Tine Thickness in inches (mm)	0.50 (13)	0.75 (19)	0.75 (19)	1.00 (25)
# of Tines	2	2	3	3

MODEL	MT33X40	MT40X55	MT55X65	MT65X80	MT80X120
Carrier Range x 1,000 lbs (kg)	33 - 40 (15 - 18)	40 - 55 (18 - 25)	55 - 65 (25 - 29)	65 - 80 (29 - 36)	80 - 120 (36 - 54)
Width in inches (mm)	18 (457)	24 (610)	30 (762)	34 (864)	36 (914)
Length in inches (mm)	52 (1,321)	58 (1,473)	62 (1,575)	63 (1,600)	73 (1,854)
Weight in lbs (kg)	820 (372)	996 (452)	1,410 (640)	2,452 (1,112)	3,105 (1,408)
Pin Diameter in inches (mm)	2.00 (50)	2.00 (50)	2.50 (64)	3.00 (76)	3.00 (76)
Tine Thickness in inches (mm)	1.00 (25)	1.00 (25)	1.25 (32)	1.50 (38)	2.00 (50)
# of Tines	3	4	4	4	4



CW III SERIES COMPACTION WHEELS

MODEL	CW18 III	CW24 III	CW36 III
Weight in lbs (kg)	1,200 (544)	2,380 (1,080)	3,350 (1,520)
Wheel Width in inches (mm)	17 (432)	23 (580)	35 (889)
Height in inches (mm)	47.50 (1,200)	59 (1,499)	57.25 (1,450)
Bracket Spacing inches (mm)	10.75 (273)	15 (400)	17 (430)
Wheel Diameter in inches (mm)	30 (762)	40 (1,000)	40 (1,000)
Number of Wheels	3	3	4
Foot Configuration	Pad Foot	Pad Foot	Pad Foot
Carrier options	■ ■ ■	■	■



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