

## LARGE HYDRAULIC BREAKERS

DESIGN FOR TASK

### PURCHASING PEACE OF MIND

Because the company invests total dedication in optimal reliability and lowest lifetime cost, the buyer and user can be sure that FRD products will do the job well, often even better than they expect. FRD knows that client loyalty depends on top quality products coupled with unquestioned local support. Machines do the job as required, and generally for longer than promised - for purchasing peace of mind -.

		F12	F19	F22	F27	F35	F45	F70	F100	
Operating weight, LN <sup>1)</sup>	kg	840	1330	1610	1800	2300	3310	4315	6500	
Height with rod, LN	mm	1970	2270	2348	2455	2648	2850	3235	3800	
Operating pressure	min	160	160	160	160	160	160	160	160	
	max	180	180	180	180	180	180	180	180	
Oil flow	min	100	120	145	155	175	200	250	280	
	max	130	155	180	190	220	250	340	390	
Impact rate	min	450	400	360	340	320	300	250	200	
	max	900	750	700	650	600	500	500	350	
Impact energy	max	joules	2320	3579	4572	5118	6883	8829	13667	15690
Rod diameter ø	mm	105	120	135	140	150	165	180	210	
Hose inner dia. ø HD, ND	mm	19	25	25	25	25	32	32	32	
Base machine weight	ton	10-16	12-19	16-25	20-30	25-40	30-50	45-70	65-100	

<sup>1)</sup> Operating weight with top bracket

*"In 1989 we bought the first FRD hydraulic breaker delivered in Germany. Today, it is still doing fine work. We're happy with the excellent service we receive from FRD and their dealer."*

## OUTSTANDING DEALER NETWORK



## WHERE EXPERIENCE COUNTS

*"What we mean by service to our clients includes same day repair and part delivery, fast repair on location in the event of a rare breakdown. We have a great name to uphold. We try to keep it that way."*

### LOCAL SERVICE AND SUPPORT

FRD seeks firstly to supply a product of undoubted integrity. Then back this up with a support network of dedicated dealers to ensure whatever support, wherever and whenever needed. The FRD-dealer combination has been made unbeatable.

FRD dealers have been selected for their professional competence, their market coverage, their dedication to quality and their willingness to work. They receive intense training on all machines and systems and every support that a committed manufacturer can give them. They actively exchange experience between each other to ensure their clients get the latest lessons from the market. They are a skilled and fast team of professionals.

*"For a professional problem-free job FRD offers the best combination of quality equipment and instant service and support. The dealer network is outstanding."*

### VALUE FOR MONEY

Buying FRD products is a smart investment. A reasonable price for top quality, long lifetime, low maintenance and no break-down-time products in the long term makes financially good sense.

Next steps? FRD Europe and its dealers have a vast resource of information beyond what can be mentioned here. Do not hesitate to get in touch for more detail and an unbeatable quote.

**FRD**  
FURUKAWA

## HYDRAULIC BREAKERS

DURABLE AND RELIABLE



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## WHERE EXPERIENCE COUNTS

**FRD**  
FURUKAWA

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# HYDRAULIC BREAKERS

DURABLE AND RELIABLE

A FULL RANGE OF INDESTRUCTIBLE PRODUCTS FOR DEMANDING QUARRY AND DEMOLITION WORK: CRUSHING, BREAKING, ROAD WORKS, LANDSCAPING, TRENCHING, SITE PREPARATION, PILE DRIVING, TUNNELLING AND DEMOLITION.



## WHY FRD HYDRAULIC BREAKERS?

Today Furukawa Rock Drill is a worldwide specialist in demolition and rock excavation with a wide range of carefully designed and robust breakers, attachments and crawler drills. Since its founding in 1875 Furukawa Rock Drill has specialized in the demolition and rock excavation field. Their over hundred thirty years experience has assured the company of an excellent reputation. All products are manufactured in the company's own plants using only the best materials under the highest quality control.

## HIGHEST LIFETIME OUTPUT

- With a 130+ year track-record, FRD has a base of product design experience second to none. A policy of constant improvement has created a breaker range of unsurpassed performance.
- Since 1974 a total of 130,000 breakers have been manufactured and sold; an estimated 90,000 are still in operation.
- FRD breakers have been designed to be durable, reliable, simple, and low maintenance: with superior performance adapted to conditions; easy, reliable operation and lowest lifetime cost.

## LOWEST LIFETIME COST

The result of decades of dedication. And synonym for easiest on-site operations, maximum operator peace of mind and optimal contributor to shareholder value. The purchasing department will appreciate the message.

*"You want the job done professionally without problems. FRD offers you high quality equipment, excellent service and support from a local, professional partner."*



WHERE

*"We have had F4s and F6s working for us on countless demolition jobs for the last 10 years. These units are uncanny. They just go on and on. Downtime has been negligible."*

# EXPERIENCE COUNTS

## SMALL AND MEDIUM HYDRAULIC BREAKERS

A UNIT FOR EVERY NEED

Behind their simple exterior FRD breakers hide many years' experience, careful learning and intelligent design. There are hundreds of reasons to let FRD products do your work, here are just some of them.

### HIGH POWER/WEIGHT RATIO

The use of high quality materials and highest quality production process results in a hammer body with less weight, with higher output/performance.

### MINIMUM MOVING PARTS

The fewer parts move, the fewer parts will wear. This reduces maintenance cost and downtime.

### ADJUSTABLE VALVE

The breaker can be adjusted to any specification of the carrying excavator and to each required optimal working condition. Long stroke with maximum power and short stroke with maximum frequency.

### HIGH RELIABILITY

The use of the best quality materials and the highest quality standard in production securely creates a product that will work longer and is more efficient.

### LOW MAINTENANCE

High quality materials give longer lifetime to each part, which drastically reduce the total maintenance cost.

### LOWEST LIFETIME COST

Over long periods the advantages of less downtime and fewer parts to replace results in a cost per year, which are the lowest in the market.



- A** Standard frame with pin and bush connection (F1-F5)
- B** Standard frame for top bracket mounting (F1 - F6)
- C** Low Noise (LN) for top bracket mounting (F2 - F100)
- D** Special BHL frame for backhoe loader mounting (F6)

		F1	F2	F3	F4	F5	F6	F9
Operating weight, standard <sup>1)</sup>	kg	66	86	129	172	225	365	
Operating weight, LN <sup>1)</sup>	kg		117	160	227	292	350	535
Height with rod, standard	mm	979	1095	1255	1335	1488		
Height with rod, BHL	mm						1641	1750
Height with rod, LN	mm		1050	1159	1255	1369	1400	1595
Operating pressure	min	bar	100	100	100	100	100	120
	max		140	140	140	140	160	170
Oil flow	min	l/min	9	14	22	28	38	45
	max		20	32	42	50	65	150
Impact rate	min	bpm	900	900	850	750	700	400
	max		1250	1200	1200	1000	900	1600
Impact energy	max	joules	160	260	345	490	710	1305
Rod diameter ø	mm		36	45	52	60	68	90
Hose inner dia. ø HD, ND	mm		9	12	12	12	12	19
Base machine weight	ton		0,5-1,5	1-2,5	1,5-4	2-5	3-7	3,5-10

<sup>1)</sup> Operating weight with top bracket