FURUKAWA Power & Passion 150

FRD FURUKAWA

HYDRAULIC BREAKERS

WHERE **EXPERIENCE COUNTS**

FURUKAWA ROCK DRILL

TRADITION AND HIGH-TECH FROM ONE COUNTRY

Japan, country of old traditions, has proven its high technical performances in many different ways. Already many years ago Japanese electronic equipment contributed highly to the possibility to reach the moon and other planets. In almost every computer, telephone or any other kind of electronic equipment we can find some Japanese components. In the car industry Japanese engineers have achieved high performances in order to produce cars more efficient and economical. Car tests in different countries have often concluded that Japanese cars are the most reliable and with a minimum of maintenance cost. Also Furukawa is one of those traditional concerns, that could show continuous growth through their on going product improvement and development.

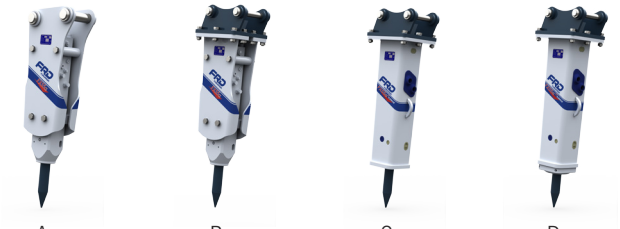
Everything started in 1875, when Furukawa opened their Kusakura Copper Mine. The mining job always required new and specific solutions to improve our production. For this reason Furukawa started in 1900 to produce their own mining equipment, which led to higher production levels of the mine. With this step Furukawa unintentionally created the base for a new, high technology concern. The better results with their custom made machinery soon created a demand for similar machines in other mines. To be able to fulfill these requirements, Furukawa started to separate their activities in different divisions.
In 1918 Furukawa Mining Co. Ltd was found and in 1920 Furukawa Electric Co. Ltd. Later in 1961 the start of Furukawa Rock Drill Co. Ltd was an answer to the demand to be able to sell worldwide, the machines, that initially were meant only for their own use.

In 1971 Furukawa established a new factory in Yoshii for the production of crawler drills and demolition equipment. The demand for those products was so large, that in 1976 a second production unit was established in Takasaki. Since then from these two factories more than 100.000 hydraulic breakers were delivered all over the world. In the meantime Furukawa Rock Drill division has built an international sales and service network, which secures an optimum after sales service for all equipment. Our slogan **WHERE EXPERIENCE COUNTS** we take as serious as other Japanese traditions and we hope you will approach us with your specific demands.
We and our Distributor network are ready to help you.

FX-ALPHA SERIES

FX-ALPHA SERIES

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



A B C D

A Standard frame with pin and bush connection
B Standard frame for top bracket mounting (FT)
C Silent for top bracket mounting (S)
D Extreme Silent for top bracket mounting (XS)

HIGH POWER/WEIGHT RATIO

The use of high quality materials and highest quality production process results in a breaker 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.

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.

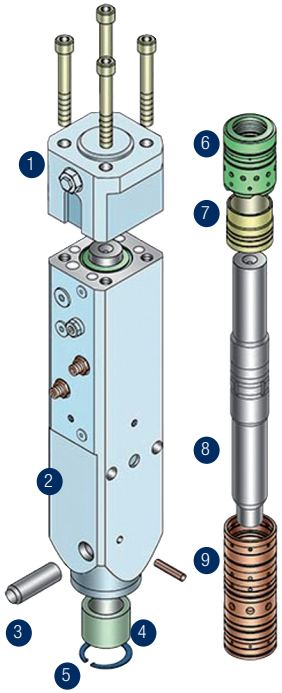
			FX15α	FX25α	FX35α	FX45α	FX55α
Operating weight[1)]	A, B	kg	69	101	146	187	245
Operating weight[1)]	C, D	kg		112	157	208	280
Height with rod	A	mm	924	1030	1172	1285	1388
Height with rod	B	mm	816	939	1060	1167	1264
Height with rod	C	mm		961	1062	1173	1276
Height with rod	D	mm		1015	1116	1227	1330
Operating pressure	min	Mpa	10	10	12	12	12
	max		14	14	16	16	16
Oil flow	min	l/min	10	18	24	30	40
	max		28	35	52	60	85
Impact rate 1/min	min	bpm	600	600	600	600	500
	max		1500	1500	1300	1100	1100
Rod diameter Ø		mm	36	45	52	60	68
Effective length Rod		mm	234	293	322	355	378
Weight Rod		kg	2,6	5	8	11	15
Hose inner dia Ø HD, ND		mm	9	12	12	12	12
Noise level guaranteed	P&B, FT	dB(A)	116	118	124	126	126
	S	dB(A)		112	119	120	119
	XS	dB(A)		110	117	117	116
Base machine weight		t	0,5 - 1,5	1,0 - 2,5	1,5 - 4,0	2,5 - 5,5	4,0 - 7,0

[1)] Operating weight with top bracket. [2)] S and XS Silent Version = Sound and vibration damping

Specifications subject to change without notice

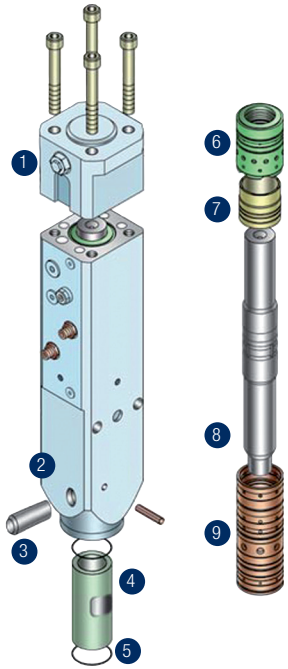
WHERE **EXPERIENCE COUNTS**

FX-ALPHA SERIES



FX-alpha 15/25/35

1.Back Head
2.Mono-Block Cylinder
3.Rod Pin
4.Front Bushing
5.Snap Ring
6.Seal Retainer
7.Valve
8.Piston
9.Cylinder Liner



FX-alpha 45/55

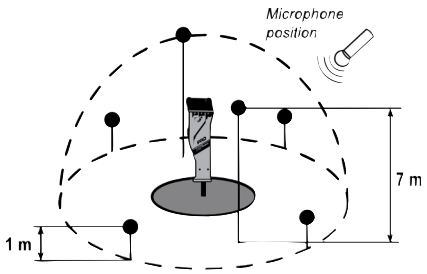
1.Back Head
2.Mono-Block Cylinder
3.Oval rod Pin
4.Front Bushing
5.Top & Bottom O-Rings
6.Seal Retainer
7.Valve
8.Piston
9.Cylinder Liner

FX-ALPHA SERIES

SOUND POWER & SOUND PRESSURE

These are two distinct and commonly confused characteristics of sound. Sound power is the acoustical energy emitted by the sound source, and is an absolute value. It is not affected by the environment. Sound pressure levels quantify in decibels the intensity of given sound sources. Sound pressure levels vary substantially with distance from the source, and also diminish as a result of intervening obstacles and barriers, air absorption, wind and other factors. Sound pressure is what our ears hear and what sound pressure level meters (SPL meters) measure.

Sound level	FX15α	FX25α	FX35α	FX45α	FX55α
PIN & BUSH (PB)	L_{WA} 116 dB	L_{WA} 118 dB	L_{WA} 124 dB	L_{WA} 126 dB	L_{WA} 126 dB
FLATTOP (FT)	L_{WA} 116 dB	L_{WA} 118 dB	L_{WA} 124 dB	L_{WA} 126 dB	L_{WA} 126 dB
SILENCE (S)	-	L_{WA} 112 dB	L_{WA} 119 dB	L_{WA} 120 dB	L_{WA} 119 dB
XTRA SILENCE (XS)	-	L_{WA} 110 dB	L_{WA} 117 dB	L_{WA} 117 dB	L_{WA} 116 dB

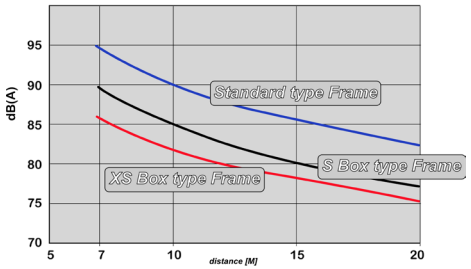


Half sphere measurement radius r = 10 m

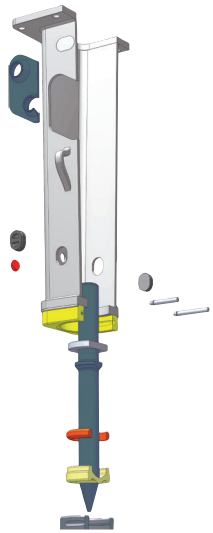
$$L_{wA,g} = L_{p'} - k_1 - k_2 + 10*\log(s/s_0) + K$$

Garantied Sound Power level
Measured Sound Pressure
Correction Excavator Noise
Correction Sound reflextion surroundings
Conversion of measure distance
Surcharge Measure assurance

Sound level FX45 [dB (A)] (SPL)



*FX45 noise level measurements at 15 meter distance
Standard type frame: 86.5 dB (A)
XS Box type frame : 78.4 dB (A)



- XS Housing
- Paented rod system

DEALER NETWORK

LOCAL SERVICE AND SUPPORT

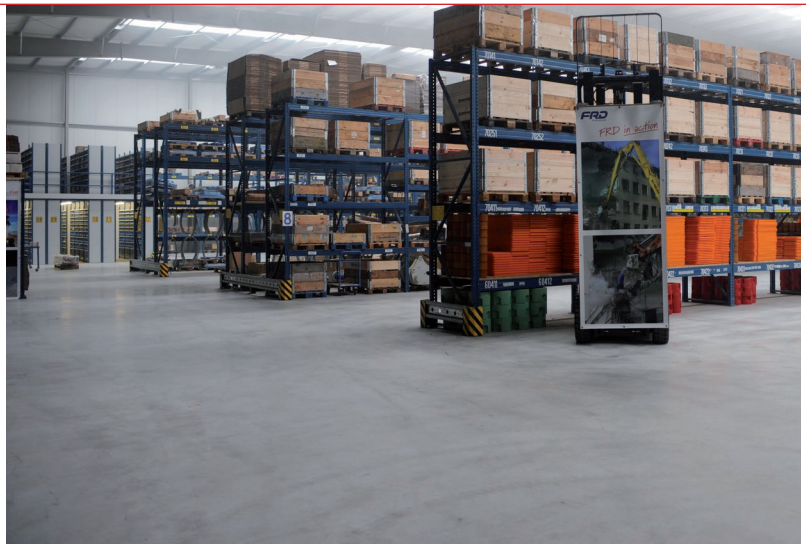
FRD seeks firstly to supply a product of undoubted integrity. Then back this up with a support network of dedicated Distributors to ensure whatever support, wherever and whenever needed. The FRD-Distributor combination has been made unbeatable.

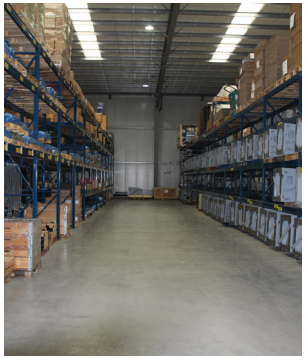
FRD Distributors have been selected for their professional competence, their market coverage, their dedication to quality and their willingness to work. They receive intense training on all machines and systems and every support that a committed manufacturer can give them. They actively exchange experience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

VALUE FOR MONEY

Buying FRD products is a smart investment. Top quality for a reasonable price, with long lifetime, with low maintenance and less break-down-time. In the long term this choice makes financially better results.

Next steps? FRD Europe and its Distributors 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.





Authorized distributor:

PROMAHI®

PROFESIONALES MARTILLOS HIDRAULICOS

PROMAHI Sur 2005, s.l.
Parque Empresarial Santa Cruz
C/La Ilíada, 31
29004 - Málaga - ESPAÑA

Tel. + 34 952 962 567
www.promahi.com
info@promahi.com

Furukawa Rock Drill Europe BV
Proostwetering 29, 3543 AB Utrecht, The Netherlands
Phone +31-(0)30-2412277, frd@frd.eu / www.frd.eu

WHERE **EXPERIENCE COUNTS**