

## Others

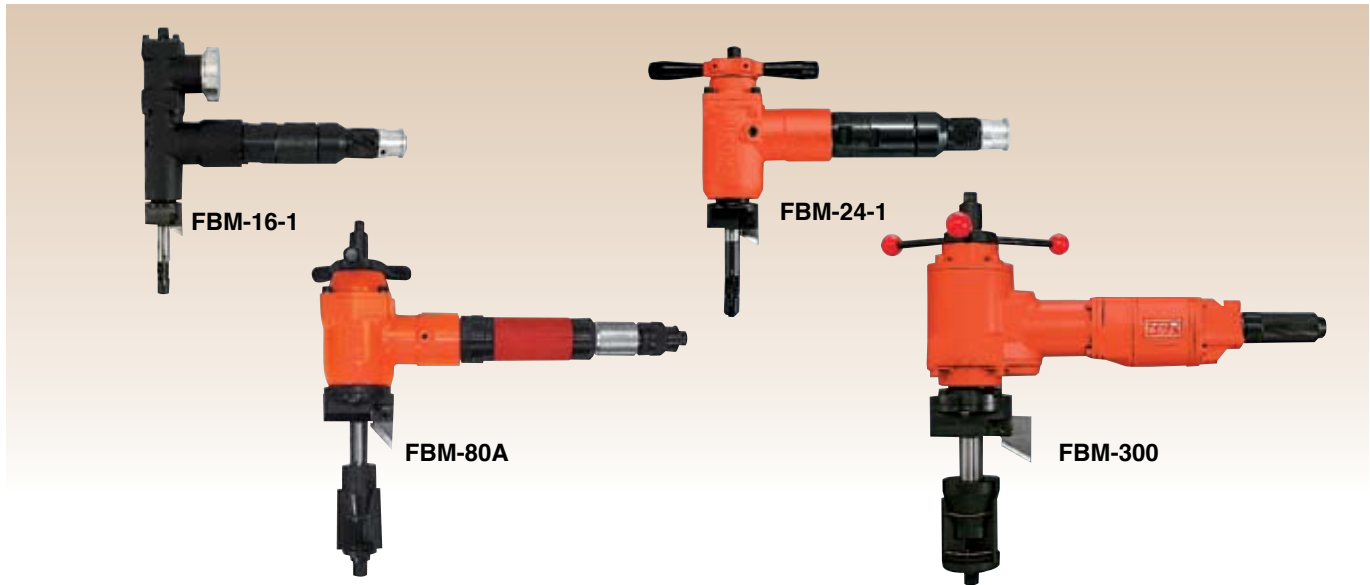
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# Pipe Beveling Machines

## PIPE BEVELLING MACHINES

Fuji Portable Pipe Beveling Machines feature a powerful motor, zero torque reaction, in-pipe chucking, and variable speed control to assure a precise and fast beveling operation. They are available with beveling capacities from 12mm through 240mm pipe inside diameter.

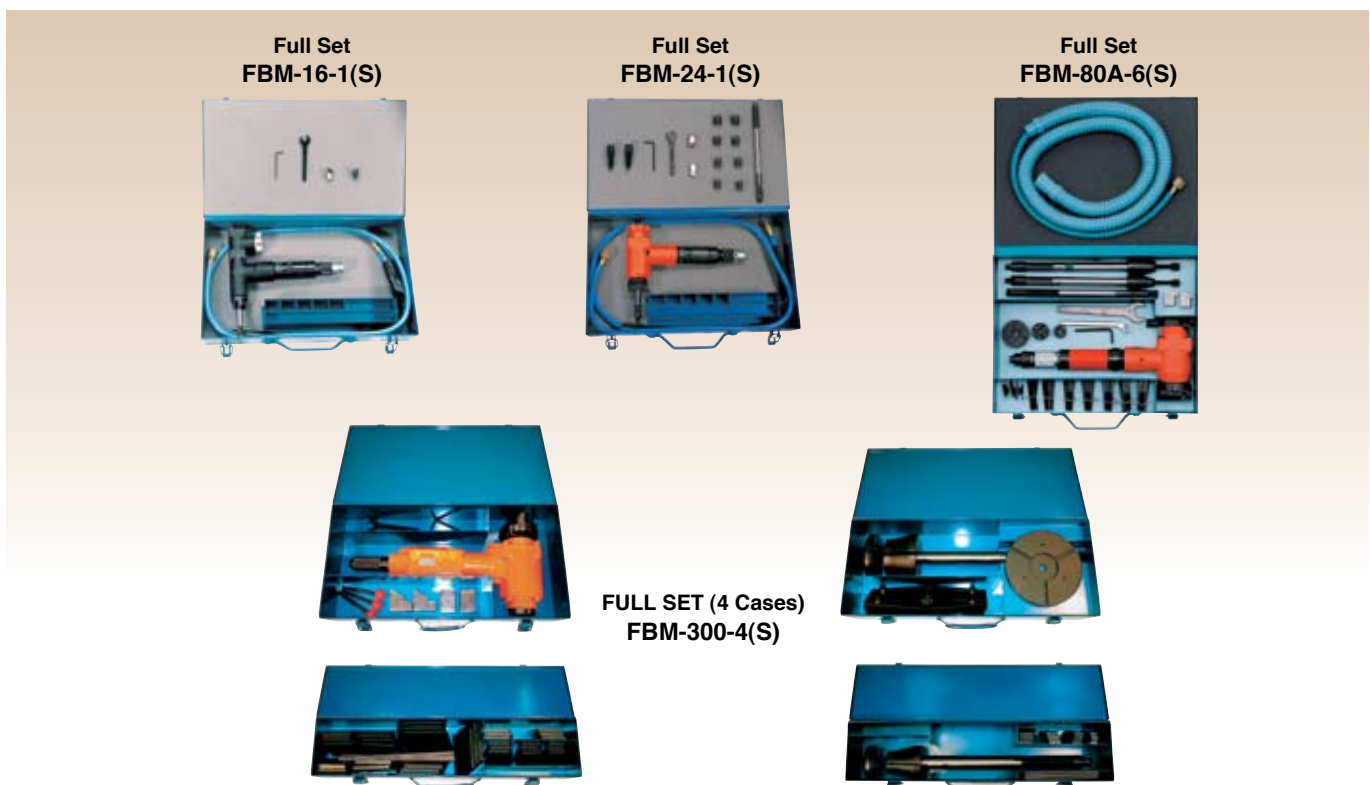


Model and Assortment	Capacity (Pipe inside Dia.)		Stall Torque			Rotational Frequency	Feed Length		Side to Center		Overall Length		Mass		Max. Air Consumption	
	mm	in	N · m	kgf · m	ft · lb		mm	in	mm	in	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min
<b>FBM-16-1(S)</b>	12~16	15/32~5/8	25.0	2.6	18.8	290	20	51/64	19	3/4	261	10 17/64	2.6	5.7	0.40	14.1
<b>FBM-24-1(S)</b>	14~24	35/64~15/16	49.0	5.0	36.1	180	30	1 3/16	27	1 1/16	278	10 15/16	2.9	6.4	0.40	14.1
<b>FBM-80A-2(S)</b>	30~40	1 3/16~1 9/16	113.0	11.5	83.2	100	30	1 3/16	39	1 35/64	403	15 7/8	6.5	14.3	0.60	21.2
<b>FBM-80A-3(S)</b>	40~80	1 9/16~3 1/8	113.0	11.5	83.2	100	30	1 3/16	39	1 35/64	403	15 7/8	6.7	14.7	0.60	21.2
<b>FBM-80A-4(S)</b>	30~80	1 3/16~3 1/8	FBM-80A-4 is supplied with the Chuck Assemblies attached to FBM-80A-2 and FBM-80A-3.													
<b>FBM-80A-5(S)</b>	20~29	2 5/32~1 5/32	113.0	11.5	83.2	100	30	1 3/16	39	1 35/64	403	15 7/8	6.0	13.2	0.60	21.2
<b>FBM-80A-6(S)</b>	20~80	2 5/32~3 1/8	FBM-80A-6 is supplied with a full range of Chuck Assemblies and Tool Holder Assemblies.													
<b>FBM-300-2(S)</b>	80~120	3 9/64~4 23/32	431.0	44.0	318.2	75	60	2 23/64	56	2 13/64	524	20 5/8	23.7	52.1	1.60	56.5
<b>FBM-300-3(S)</b>	120~240	4 23/32~9 29/64	431.0	44.0	318.2	75	60	2 23/64	135	5 5/16	603	23 47/64	26.8	60.0	1.60	56.5
<b>FBM-300-4(S)</b>	80~240	3 9/64~9 29/64	Supplied with a full set of Chuck Assemblies and Tool Holder Assemblies.													

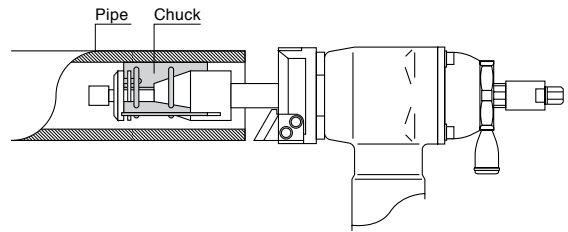
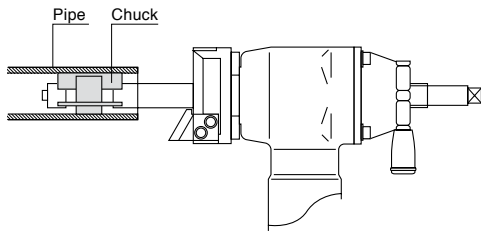
\*FBM-16, 24, 80A: 1/4" Air Inlet thread, 8.0mm(5/16") Air Hose. FBM-300: 1/2" Air Inlet thread, 12.7mm(1/2") Air Hose.

\*Optional Chuck Ass'y. for 240~300mm Pipe Beveling is also available on request.

\*Models marked -\*S are Self-return Roll handle types.



## CHUCKS PROVIDED FOR FBM-16, 24, 80A AND 300



### CHUCK TYPE



**FBM-16-1**  
**FBM-24-1**  
**FBM-80A**  
(20mm~29mm)

### CHUCK TYPE •



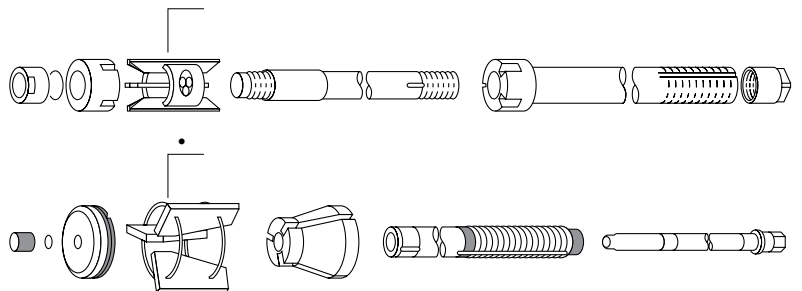
**FBM-80A (30mm~80mm)**  
**FBM-300 (240mm)**  
3pcs are necessary for each size

### FOR FBM-16-1, -1S

Parts No.	Pipe Size
	mm
S-138638-00	12~14
S-138638-01	14~16
S-138638-03	18~20

### FOR FBM-24-1, -1S

Parts No.	Pipe Size
	mm
S-120638-10	14~16
S-120638-11	16~18
S-120638-12	18~20
S-120638-13	20~22
S-120638-14	22~24



### FOR FBM-80A •

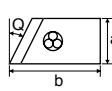
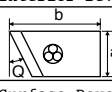
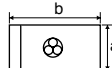
Models	Parts No. (S-121638)			Parts No. (S-126238)						
	-00 20~23	-01 23~26	-02 26~29	-00 30~35	-01 35~40	-02 40~48	-03 48~56	-04 56~64	-05 64~72	-06 72~80
-2(30~40mm)	•	•	•	•	•	•	•	•	•	•
-3(40~80mm)	•	•	•	•	•	•	•	•	•	•
-4(30~80mm)	•	•	•	•	•	•	•	•	•	•
-5(20~29mm)	•	•	•	•	•	•	•	•	•	•
-6(20~80mm)	•	•	•	•	•	•	•	•	•	•



### FOR FBM-300 •

Models	Parts No. (S-158638)															
	-00 80~90	-01 90~100	-02 100~110	-03 110~120	-04 120~130	-05 130~140	-06 140~150	-07 150~160	-08 160~170	-09 170~180	-10 180~190	-11 190~200	-12 200~210	-13 210~220	-14 220~230	-15 230~240
-2(80~120mm)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
-3(120~240mm)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## STANDARD BIT TOOLS

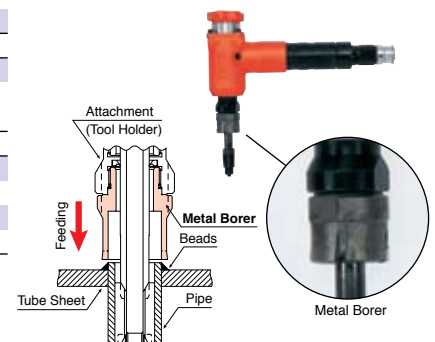
Bit Tool Shape	Parts No.	Angle	Dimensions (mm)			Models
		(Q)	a	b	Thickness	
<b>For Exterior Beveling</b>						
	BIT-016E01	30°	12	25	6	FBM-16
	BIT-024E01	30°	14	30	8	FBM-24
	BIT-042E02	37.5°	35	56	11.5	FBM-80A, 300
	BIT-042E03	45°	25	50	11.5	
	BIT-042E06	30°	25	40	11.5	FBM-300
	BIT-042E01	30°	35	50	11.5	
BIT-120E01	30°	60	60	11.5	FBM-80A, 300	
<b>For Interior Beveling</b>						
	BIT-024B06	30°	14	30	8	FBM-24
	BIT-042B01	30°	25	40	11.5	FBM-80A, 300
	BIT-042B02	45°	25	50	11.5	
<b>For Surface Beveling</b>						
	BIT-016F01	—	12	22	6	FBM-16
	BIT-024F01	—	14	25	8	FBM-24
	BIT-042F02	—	25	30	11.5	FBM-80A, 300
	BIT-120F01	—	60	40	11.5	FBM-300

\*Bit Tools provided: **FBM-16:** BIT-016E01. **FBM-24:** BIT-024E01, 024F01.  
**FBM-80A:** BIT-042E06, 042F02. **FBM-300:** BIT-120E01, 120F01.

\*Other sizes of Bit Tool are available. Specify dimensions when ordering.

## Metal Borer for Welding Beads Removing

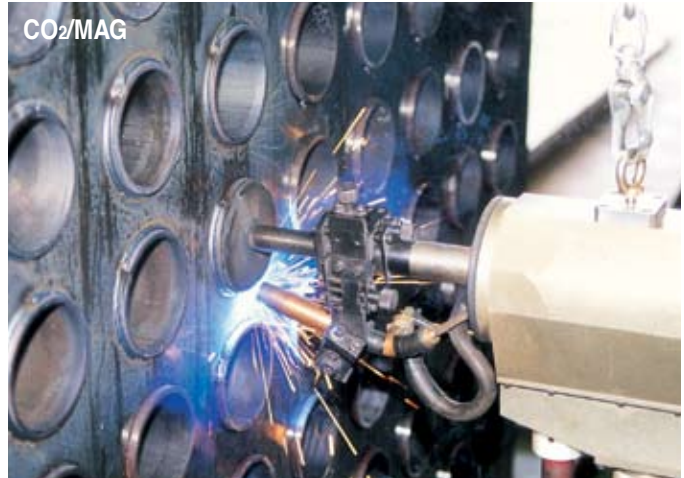
Equipping metal borer and attachment, FBM-24-1 and 80A can be used for removing welding beads around tubes before pulling tubes out from tube sheet on heat exchangers and boilers.



# Automatic Seal Welders

## AUTOMATIC SEAL WELDERS (TIG, CO<sub>2</sub>/MAG)

Fuji Automatic Seal Welders assure ideal orbital welding of tubes and tube sheets of heat exchangers in either a vertical or horizontal position. This light weight unit features precise control, easy operation and a wide range of welding capacities. Four models are available for use with different types of welding heads.



### Features

#### Microcomputer Control for easy Programming

The operator is able to easily input the welding condition data in real figures directly to the Microcomputer Control.

#### Welding Program Storage

Up to 20 welding programs can be stored within the microcomputer for each TIG and CO<sub>2</sub>/MAG welding. These programs can be recalled quickly and easily for the relevant application, saving time and improving productivity.

**FUJI WELDING SYSTEM** **FWS-1-1**

MONITOR SCREEN

CHANNEL : 01 DIVIDE : 01			
SEGMENT AUTO			
TUBE DIAMETER	006.0 mm	WIRE START TIME	1.2 Sec
WIRE DIAMETER	0.8 mm	WIRE STOP TIMING	0.5 Sec
LEG LENGTH	3.0 mm	PULSE START TIME	0.5 Sec
PULSE CURRENT	120 A	INITIAL CURRENT	050 A
BASE CURRENT	070 A	UP SLOPE	1.0 Sec
START POINT	000 DEGREES	FREQUENCY	04 Hz
TURNING START TIME	1.0 Sec	PULSE WIDTH	050 %
OVERLAP TIME	1.0 Sec		
CRATER MANGE TIME	1.0 Sec		
-----			
1: CHANNEL	3: ADJUSTMENT	5: DIVIDE	
2: SETUP	4: SYSTEM	6: INITIAL	

OPERATION

OFF  ON

© FUJI AIR TOOLS CO., LTD.

### Wide Welding Range

A wide range of orbital welding from small to large tube diameter can be performed without changing the welding head.

**TIG**

Standard

Min. 15.9mm~Max. 60mm

Option

Min. 6mm~Max. 150mm

**CO<sub>2</sub>/MAG**

Standard

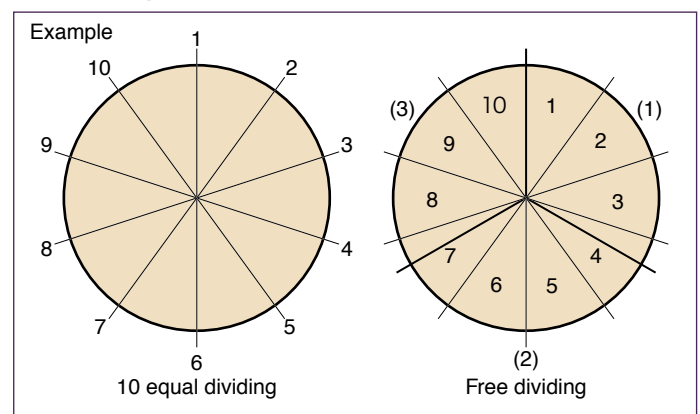
Min. 25mm~Max. 90mm

Option

Min. 15mm~Max. 150mm

### High Quality welding with Delicate Halfway Welding Condition Adjustment

The welding condition can be set at any division to allow the welding to start at any point within the 360 degree circumference.





## Stable Head Turning Speed and Wire Feeding Speed

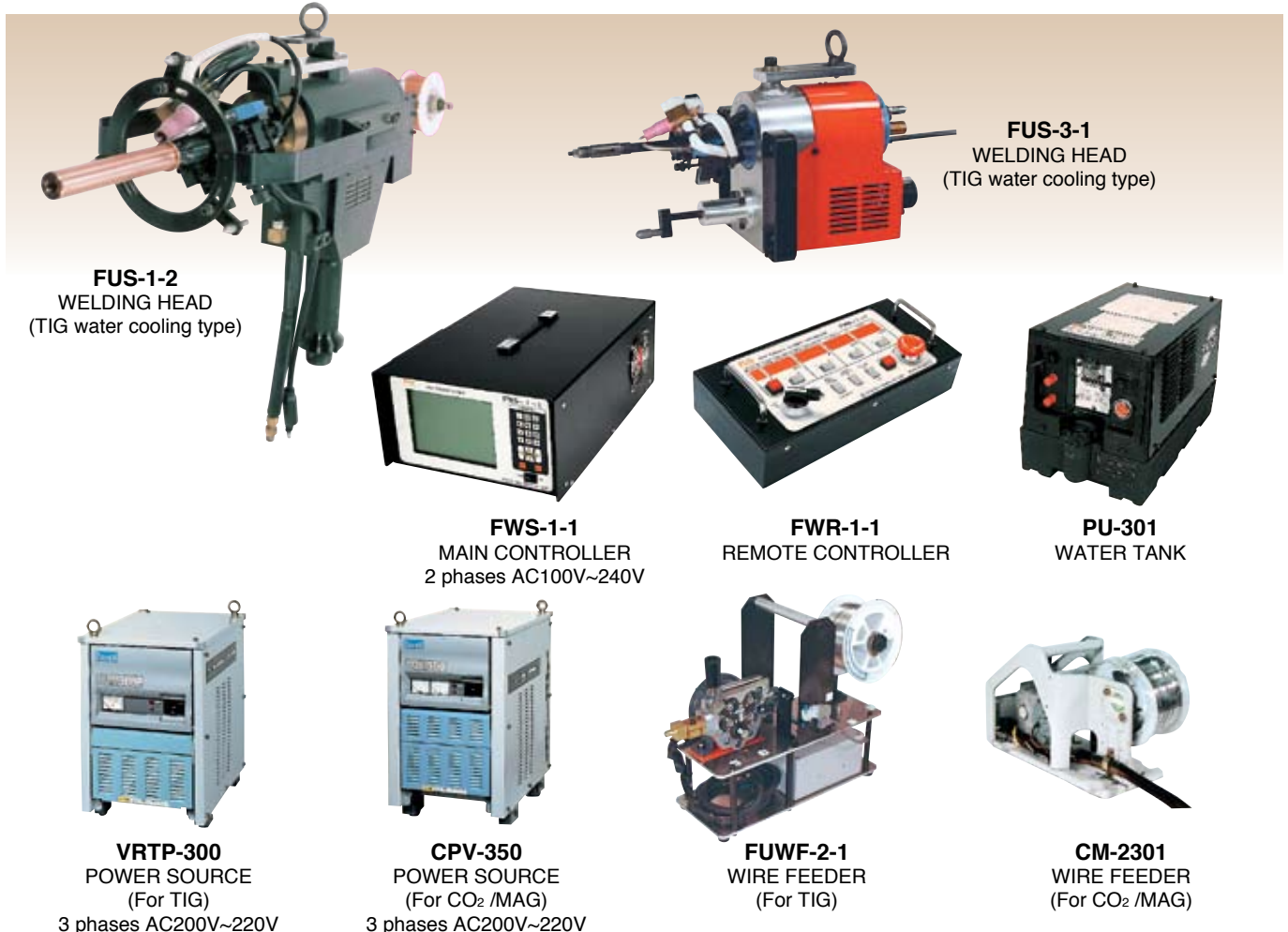
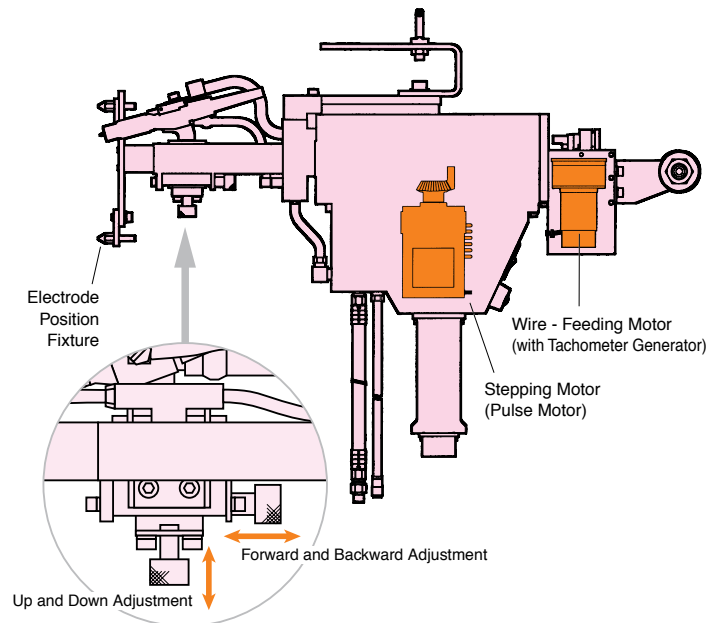
Fuji Welders (TIG and CO<sub>2</sub>/MAG) are equipped with a 'stepping' motor to precisely control the welding speed. A built-in Tachometer Generator on the TIG welder supervises and controls the wire feeding motor to maintain stable wire feeding speed.

## Electrode Position Fixture

Regardless of the protruded tube length, the Electrode target position is fixed with this device.

## Adjusting Knob

The position of the wire feeding nozzle can be easily adjusted forward and backward, and up and down by operating two Adjusting Knobs.

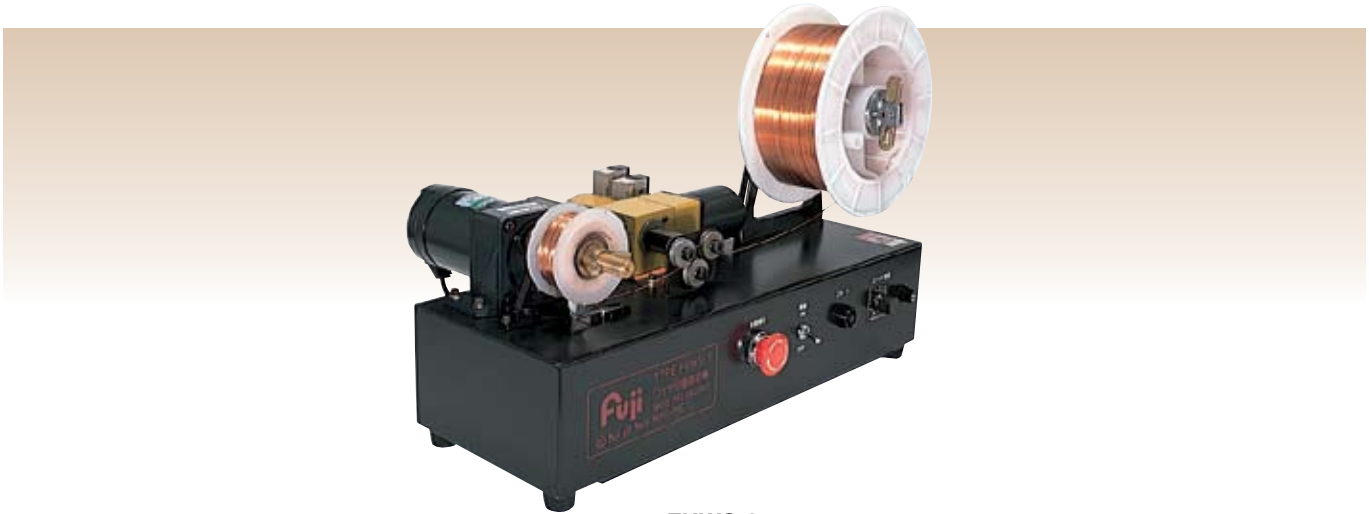


	Full Set	Welding Head	Applicable Tube Dia.	Water Tank	Main Controller	Remote Controller	Power Source	Wire Feeder
<b>TIG</b>	FUWS-1000-1T	FUS-1-1	15.9~60	-	FWS-1-1	FWR-1-1	VRTP-300	Equipped to Welding Head
	FUWS-1000-2T	FUS-1-2		PU-301	FWS-1-1S			FUWF-2-1
	FUWS-1000-3T	FUS-3-1	14~26	-	FWS-1-1	FWR-1-1		CM-2301
<b>CO<sub>2</sub>/MAG</b>	FUWS-1000-1M	FUS-2-1	25~90	-			CPV-350	

	Standard Accessories					Option	
<b>TIG</b>	Pressure Gauge	Control Cable	Power Cable	Electrode Position Fixture	Tungsten 1 pc.	Expanding-Type Center Rod	Foot Switch
<b>CO<sub>2</sub>/MAG</b>					-		

## WELDING WIRE REWINDER

Fuji FUWS-2-1 is an ideal welding wire rewriter which can rewind steel and stainless steel wires from Max. 20kg wire drum to 2kg, 1kg or 500g wire reel. Quick rewinding time (app.3min. for 500g reel) with automatic stop mechanism reduces time consuming work.



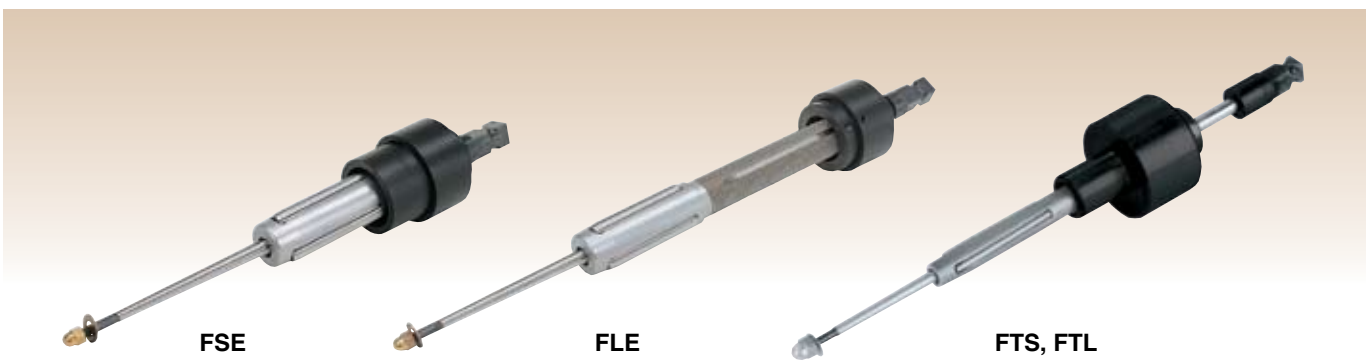
FUWS-2-1

Model	Dimensions			Mass		Power Source		Wire Drum Mounting Capacity	Windable Reel Size
	Width mm	Height mm	Depth mm	kg	lb	V	Hz	kg	
FUWS-2-1	2	630	379	22	44	AC100	50/60	20	ø120 (2kg)
	1								ø100 (1kg)
	0.5								ø80 (500g)

\*Reel size can be changed by replacing spacer.

## TUBE EXPANDERS

Tube Expanders are indispensable for tube expansion in production and repair of heat exchangers, coolers, etc. A wide range of Tube Expanders are prepared to meet various applications. The tube control device and other related auxiliary apparatus like tube pullers, tube cutters, facing tools and so forth are also available for effective, precise work.



Type	Tube I/D	Roller Length			Tube Sheet Thickness	Use
	mm	mm	mm	mm		
FSE	8.3~105.8	38	57	76	<76mm	Condensers, Heat Exchangers Superheat
FLE	8.3~105.8	38	57	76	>75mm	Condensers, Heat Exchangers
FTS	4.6~9.0	19	32	-	<32mm	Oil Coolers, Air Coolers, Preheaters, Radiators
FTL	6.9~9.0	19	32	-	<32mm	Oil Coolers, Air Coolers, Preheaters, Radiators

\*All above types have adjustable bearing collar to set expansion length.

\*Five-roller, flaring-roller types are available on your request.

## TIP DRESSERS

Fuji Tip Dresser FTD-18 series are designed to be compact, light weight and ideal for dressing tips in narrow space between opposing tips on electric spot welders. Patent applied FTD-18A clamp system provides excellent tip center alignment and accurate tip repairing. Various types of welding tips can be dressed by replacing cutter and cutter case.



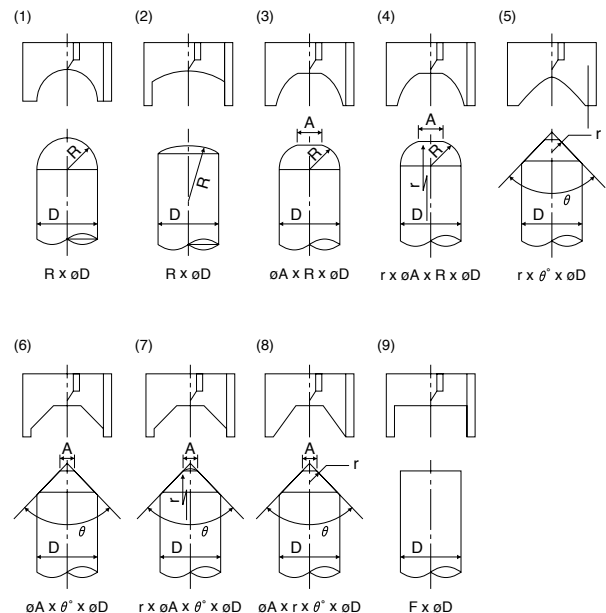
Model	Capacity Tip Size		Max. Clamp Height		Rotational Frequency	Overall Length		Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size	
	mm	in	mm	in	min <sup>-1</sup>	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min	in	mm	in
<b>FTD-18-1</b>	12~16	15/32~5/8	—	—	1,300	290	11 7/16	1.65	3.64	0.5	17.7	PT or NPT 1/4	9.5	3/8
<b>FTD-18A-1</b>	13~16	33/64~5/8	25	63/64	1,300	307	12 3/32	2.02	4.45	0.5	17.7	PT or NPT 1/4	9.5	3/8

### CLASSIFICATION TABLE FOR CUTTERS

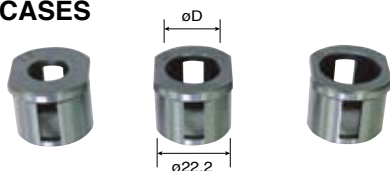
Type	Item No.	Tip shape (Nominal)	Max. diameter repaired(øD)	Standard
(1)	CUT-1001	6R	ø12	6R x ø12
	CUT-1002	6.5R	ø13	6.5R x ø13
	CUT-1003	8R	ø16	8R x ø16
(2)	CUT-2001	10R~150R	ø16	16R x ø16
(3)	—	øA x 6R	ø12	—
	—	øA x 6.5R	ø13	—
(4)	CUT-3001	øA x 8R	ø16	ø5 x 8R x ø16
	CUT-3002	øA x 8R	ø16	ø6 x 8R x ø16
(5)	—	5~6r x 60°	ø13	—
	—	3r or more x 90°	ø16	—
	—	7~ø9 x 50°	ø13	—
(6)	—	ø10 or more x 50°	ø16	—
	CUT-6001	5~ø7 x 60°	ø13	ø6 x 60° x ø13
	—	ø8 or more x 60°	ø16	—
	—	3~ø4 x 75°	ø13	—
(7)	CUT-6002	ø5 or more x 75°	ø16	ø6 x 75° x ø16
	CUT-6003	ø3 or more x 90°	ø16	ø4 x 90° x ø16
	CUT-6004	ø3 or more x 90°	ø16	ø6 x 90° x ø16
	—	ø3 or more x 120°	ø16	—
(8)	—	r x øA x θ°	øD	—
(9)	—	F	ø16	—

\*Beside item listed above table, minimum 10pcs. per item is required for ordering optional cutters. Specify the nominal dimensions when ordering.  
 \*Cutter is not provided as a standard accessory.

### SHAPES OF TIPS AND CUTTERS



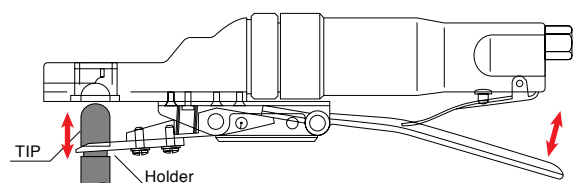
### CUTTER CASES



Item No.	øD
<b>S-167716-00</b>	16
<b>S-167716-01</b>	13
<b>S-167716-02</b>	12

\*Cutter dresses Welding Tip correctly as inside diameter (øD) of cutter case act as a guide. Specify cutter case diameter which matches tip size. ø16 cutter case is included as a standard accessory. Specify cutter case diameter ø12 or ø13 otherwise.

### <FTD-18A-1> PAT.P

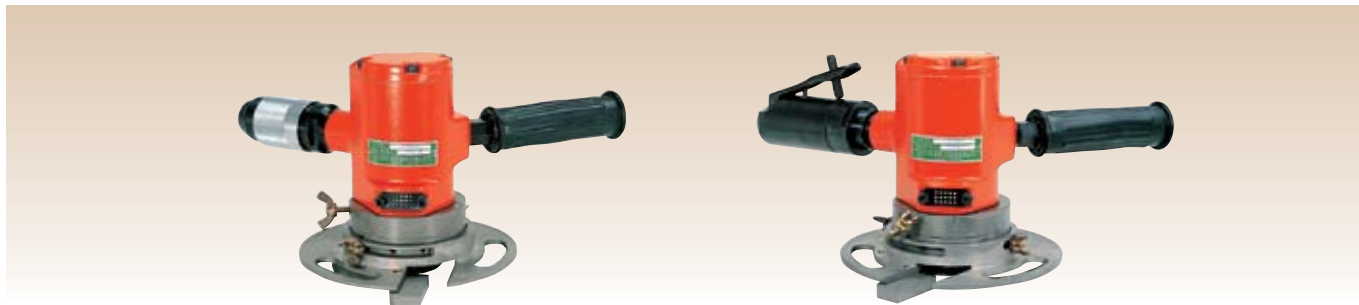


# Chamfering Machines

## CHAMFERING MACHINES

Fuji Chamfering Machines are compact and lightweight. They are ideal for chamfering edges of steel skeleton materials used in various industries such as bridge and steel frame construction, and ship building. Pneumatically driven with easily replaceable carbide tips (FX-027, FBM-1) and flap wheels (FX-018) provide uniform and precise chamfering.

### PORTABLE MODELS



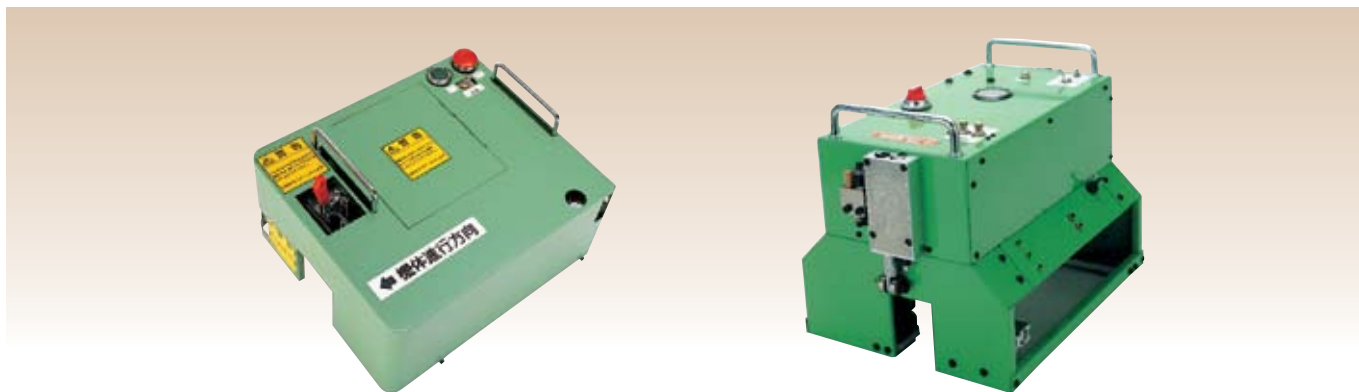
FBM-1-1, 2

FBM-1-1F, 2F

Model	Cutting Size	Torque	Max. Output	Rotational Frequency	Overall Length		Mass		Air Consumption (Free Speed)		Air Inlet Thread Size	Air Hose Size	
	mm	N · m	kW	min <sup>-1</sup>	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min	in	mm	in
Roll Handle Type													
FBM-1-1	R3,R2,R1	3.2	0.48	5,700	144	5 43/64	3.7	8.1	1.0	35.3	PT or NPT 3/8	9.5	3/8
FBM-1-2	C2,C1	3.2	0.48	5,700	144	5 43/64	3.7	8.1	1.0	35.3	PT or NPT 3/8	9.5	3/8
Locking Lever Handle Type													
FBM-1-1F	R3,R2,R1	3.2	0.48	5,700	144	5 43/64	3.8	8.4	1.0	35.3	PT or NPT 3/8	9.5	3/8
FBM-1-2F	C2,C1	3.2	0.48	5,700	144	5 43/64	3.8	8.4	1.0	35.3	PT or NPT 3/8	9.5	3/8

### SELF-PROPELLED MODELS

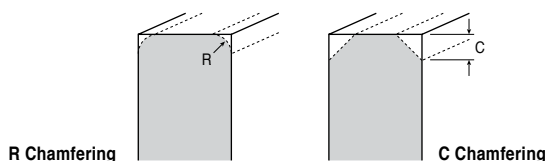
Fuji FX-027-1 and FX-018-2F are self-propelled chamfering machines used to chamfer both edges of steel skeleton structures simultaneously. Clamping is automatic and the clamping force can be easily adjusted. They are able to run both forwards and backwards and stop automatically at the end of the work piece.



FX-027-1

FX-018-2F

Model	Chamfering Thickness	Size W x H x D	Min. Chamfering Height	Propelling Speed	Chamfering Amount (Guidance)		Mass		Air Consumption (Free Speed)		Air Hose Size	
	mm	mm	mm	m/min	R	(C)	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min	mm	in
FX-027-1	9~50	388 x 223 x 335	100	0.8	1~3	(1~3)	22.0	48.4	1.4	49.4	19.0	3/4
FX-018-2F	6~30 or 20~45	430 x 306.5 x 291	80	2~4	—	1~2	19.5	42.9	1.2	42.4	12.7	1/2





To change chamfering size, bracket and adjusting spacer for the FX-027-1 and the guide roller for FBM-1 series it is necessary change together with the cutters.

## CUTTERS FOR FBM-1 SERIES, FX-027-1



### R Type

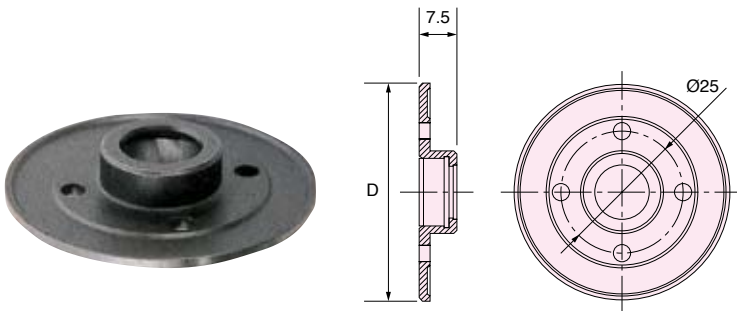
AC No.	Quantity Required	Size
X-027-11	3	R1
X-027-10	3	R2
X-025-003	3	R3



### C Type

AC No.	Quantity Required	Size
X-027-13	3	C1 or C2

## GUIDE ROLLER FOR FBM-1 SERIES

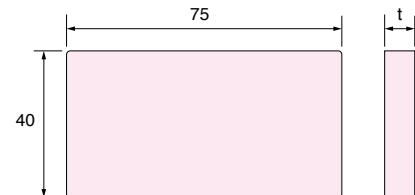


Parts No.	Quantity Required	Size	D(mm)
S-173698-02	1	R1, C1	44.6
S-173698-01	1	R2, C2	43.8
S-173698-00	1	R3	42.8

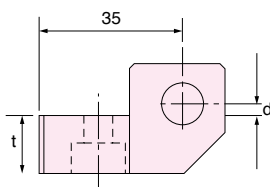
## ATTACHMENT FOR FX-027-1

Parts No.	Quantity Required	Name	Size	D(mm)	t(mm)
X-027X81-00	2	Bracket	R1, C1	2.8	14.2
X-027X83-00	1	Adjusting Spacer	R1, C1	-	8.2
X-027X80-00	2	Bracket	R2, C2	2.3	14.7
X-027X82-00	1	Adjusting Spacer	R2, C2	-	7.0
X-027X78-00	1	Bracket	R3	-	-
X-027X79-00	1	Adjusting Spacer	R3	-	6.0

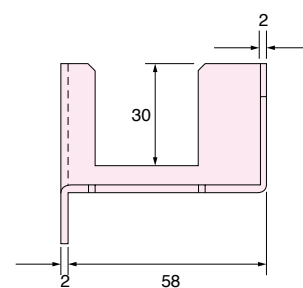
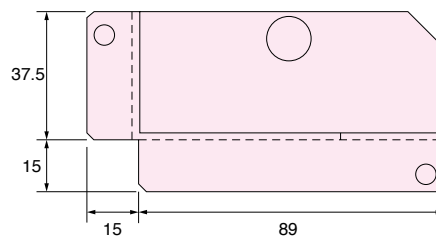
### ADJUSTING SPACER



### BRACKET R1, R2



### BRACKET R3



# Aluminum Milling Machines

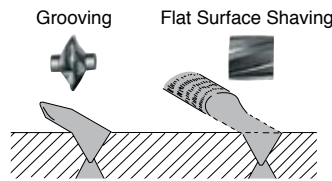
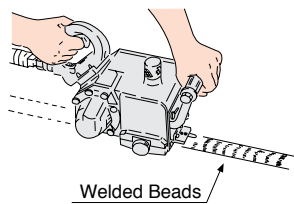
## ALUMINUM MILLING MACHINES

Aluminum Milling Machines are ideal portable tools to remove weld beads flush to the work surface and "V" grooving for aluminum welds with milling type rotary cutters. The high power motor supplied with speed control governor provides smooth milling. The tools feature easy depth adjustments, chip blowing, milling cutter cooling, slow start throttle, and center guide with guide roller for easy operation.



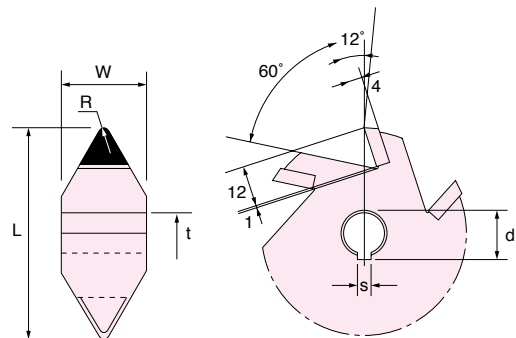
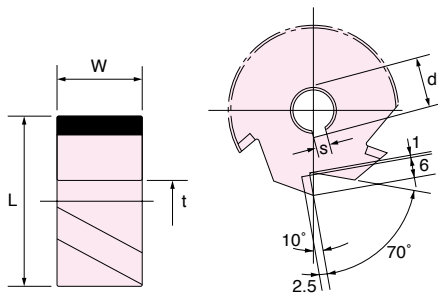
FRC-200-1

FRC-300-1



Model	Max. Grooving Depth	Max. Cutter Width	Cutter Shaft Dia.	Horse Power		Rotational Frequency	Overall Length		Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size	
	mm	mm	mm	kW	PS	min <sup>-1</sup>	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min	PT or NPT	mm	in
FRC-200-1	15.5	50	12	1.25	1.7	7,000	295	11 39/64	4.7	10.3	1.4	49.4	3/8	12.7	1/2
FRC-300-1	30.0	50	15	2.65	3.6	4,600	372	14 41/64	14.0	30.8	2.2	77.7	3/8	19.0	3/4

## CUTTERS FOR FRC-200, 300 SERIES



### Flat Surface Shaving Cutter

AC No.	Size(mm)					Models
	L	W	t	d	s	
CUT-0205	50	25	12 $\phi$	13.7	4	FRC-200-1
CUT-0204	60	51	15 $\phi$	17.3	5	FRC-300-1

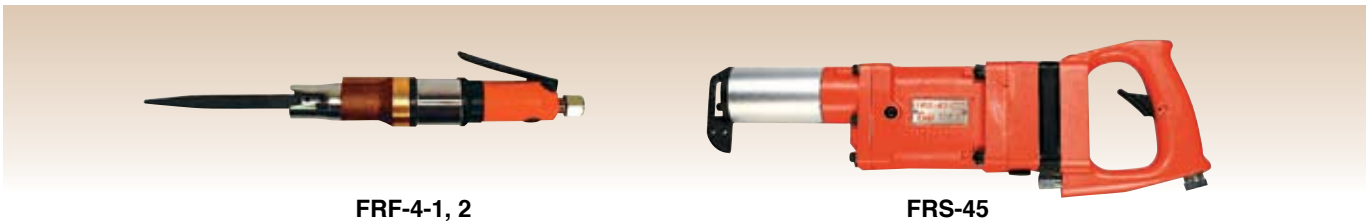
### Grooving Cutter

AC No.	Size(mm)						Models
	L	R	W	t	d	s	
CUT-0202	62	3	25	12 $\phi$	13.7	4	FRC-200-1
CUT-0208	100	4	42	15 $\phi$	17.3	5	FRC-300-1

## AIR FILES / AIR SAWS

Fuji FRF series compact Air File & Saws feature reduced vibration and are designed for deburring, filing and cutting of metal, wood, plastic, and fibreglass.

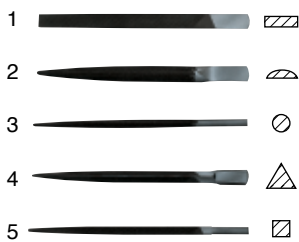
The FRS-45 Air Saw is equipped with a damper to minimize vibration and, a stroke regulator and blade cooling device. The cutting direction is adjustable to provide optimal operator comfort.



Model	Tool Name	Stroke Per Minute SPM	Stroke		Chuck Capacity		Overall Length		Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size	
			mm	in	mm	in	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min		PT or NPT	mm
FRF-4-1	File	1,600	12.0	15/32	4.0 x 13.0 x 20	5/32 x 1/2 x 25/32	229	9 1/32	0.8	1.7	0.28	9.9	1/4	6.3	1/4
FRF-4-1F	File	1,600	12.0	15/32	4.0 x 13.0 x 20	5/32 x 1/2 x 25/32	229	9 1/32	0.8	1.7	0.28	9.9	1/4	6.3	1/4
FRF-4-2	Saw	1,600	12.0	15/32	2.0 x 13.0 x 20	5/64 x 1/2 x 25/32	233	9 3/16	0.8	1.7	0.28	9.9	1/4	6.3	1/4
FRF-4-2F	Saw	1,600	12.0	15/32	2.0 x 13.0 x 20	5/64 x 1/2 x 25/32	233	9 3/16	0.8	1.7	0.28	9.9	1/4	6.3	1/4
FRS-45	Saw	1,200	45.0	1 25/32	2.5 x 17.7 x 31	3/32 x 45/64 x 1 7/32	419	16 1/2	2.9	6.3	0.40	14.1	1/4	9.5	3/8

\*Models marked 1F, 2F are locking lever handle types.

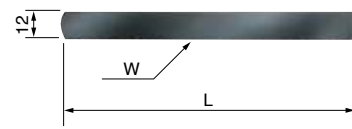
### FILE BLADES FOR FRF-4-1, 1F



Index No.	AC No.	Name	Overall Length
1	•FILE-4P	Pillar	150
2	FILE-4H	Half Round	
3	FILE-4R	Round	
4	FILE-4C	Triangle	
5	FILE-4S	Square	

\*\* =Accessories included in FRF-4-1, 1F

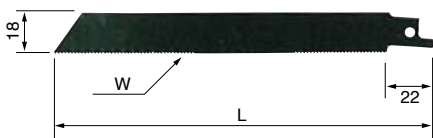
### SAW BLADE FOR FRF-4-2, 2F



AC No.	Size	
	L	W
•SAW-4	123	25

\*\* =Accessories included in FRF-4-2, 2F.  
W =The number of teeth per inch.

### SAW BLADES FOR FRS-45



AC No.	Size		Cutting Materials
	L	W	
SAW-2014	200	14	steel plate, pipe, copper, brass, plastic, slate
•SAW-2018	200	18	steel plate, pipe
•SAW-2024	200	24	steel plate, pipe
SAW-2514	250	14	steel plate, pipe, copper, brass, plastic, slate
SAW-2518	250	18	steel plate, pipe
SAW-3014	300	14	steel plate, pipe, copper, brass, plastic, slate
SAW-3018	300	18	steel plate, pipe

\*\* =Accessories included in FRS-45. W =The number of teeth per inch.

\*Using cutting fluid extends life of blade. A mixture of turpentine and kerosene with spindle oil, soapsuds, grease at the rate of 7 to 3 is recommended.

### Standard Accessories for FRS-45

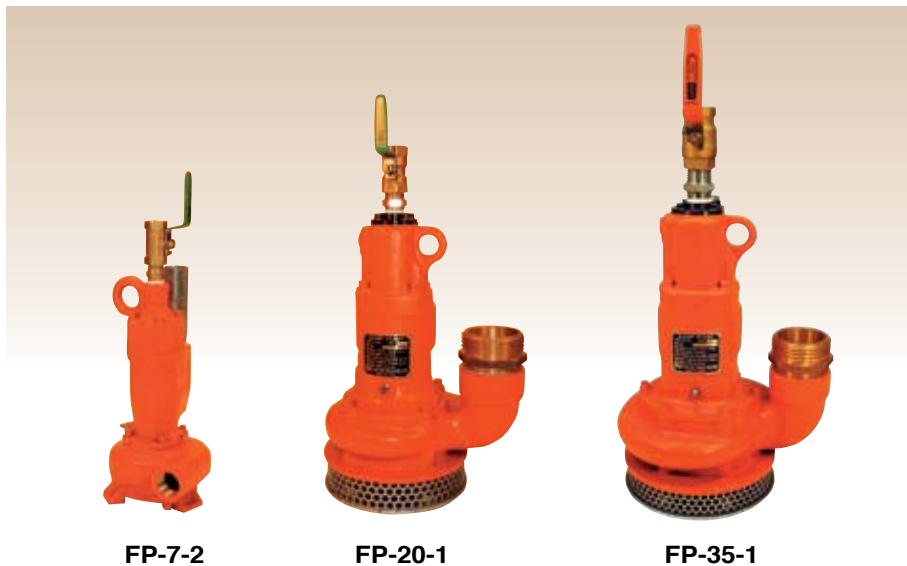


SAW-2018	Saw Blade	1
SAW-2024	Saw Blade	1
F-704	4mm Hex. Pin Wrench	1
F-706	6mm Hex. Pin Wrench	1
AO-30	Oil	1
CASE-T431	Steel Case	1

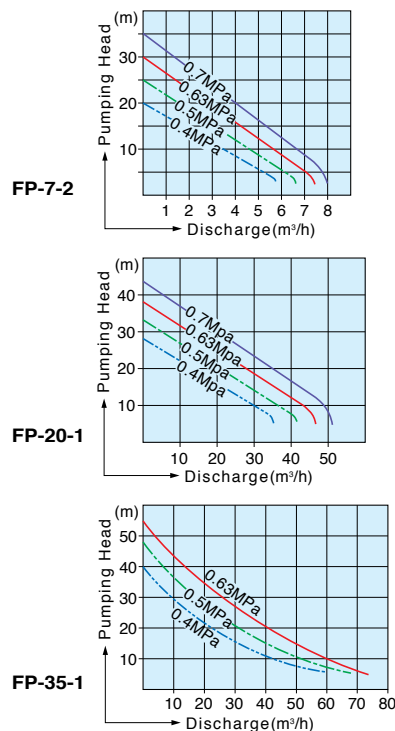
# Sump Pumps/Piston Pumps

## SUMP PUMPS

Fuji Sump Pumps are indispensable for discharging water, oil, sewage and sludge from sumps, trenches, manholes, bilges and tanks. They may be used in non-spark environments and their housings are rust-proof.



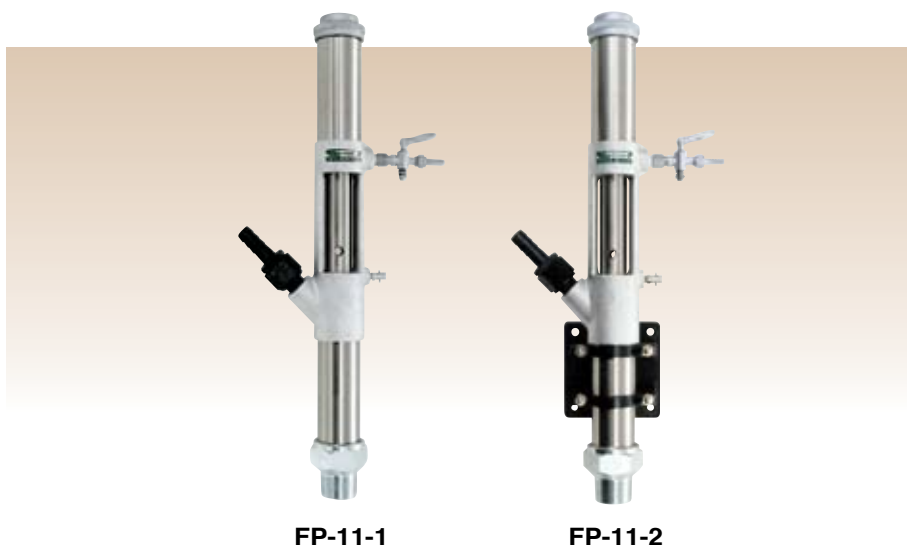
### Pumping Performance Curve



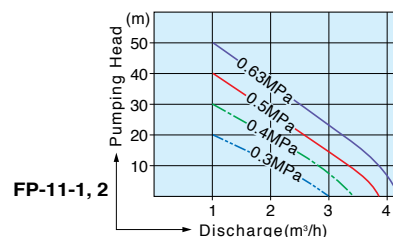
Model	Capacity				Water Output Thread Size	Air Outlet Thread Size	Height		Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size		
	Head		Discharge				mm	in	kg	lb	m³/min	ft³/min		PT or NPT	mm	in
	m	ft	m³/h	g/min												
FP-7-2	15	49	4.2	70	PT3/4	3/4	234	9 1/4	4.3	9.4	0.80	28.2	3/8	9.5	3/8	
FP-20-1	20	66	28.0	467	W82.5-5	1	374	14 3/4	22.0	48.4	3.40	120.1	3/4	19.0	3/4	
FP-35-1	28	92	28.0	467	W82.5-5	1 1/4	410	16 9/64	34.0	74.8	5.20	183.6	1	25.4	1	

## PISTON PUMPS

Fuji Piston Pumps FP-11 series are ideal pumps for pumping oil out from tanks and bilges in the vessels. Various flanges are optionally available for hose connection.



### Pumping Performance Curve



Model	Discharge Volume	Piston Diameter		Stroke		Stroke No.	Overall Length		Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size	
		mm	in	mm	in		mm	in	kg	lb	m³/min	ft³/min		PT or NPT	mm
FP-11-1	4.2	48	1 57/64	100	3 15/16	4	622	24 31/64	4.7	10.3	0.20	7.1	1/4	9.5	3/8
FP-11-2	4.2	48	1 57/64	100	3 15/16	4	622	24 31/64	7.8	17.2	0.20	7.1	1/4	9.5	3/8

\*Testing Oil ... ISO VG32Oil

## MARKING PEN

Fuji Marking Pen features a lower vibration level when compared to conventional marking pens enabling operators to use this tool for a full days work. This tool also requires no lubrication and meets requirements where oil free operation is specified.



**G-400**

Model	Diameter		Overall Length		Mass		Air Consumption (at Load)	
	mm	in	mm	in	kg	lb	m <sup>3</sup> /min	ft <sup>3</sup> /min
<b>G-400</b>	20	25/32	140	5 1/2	0.15	0.33	0.03	1.1

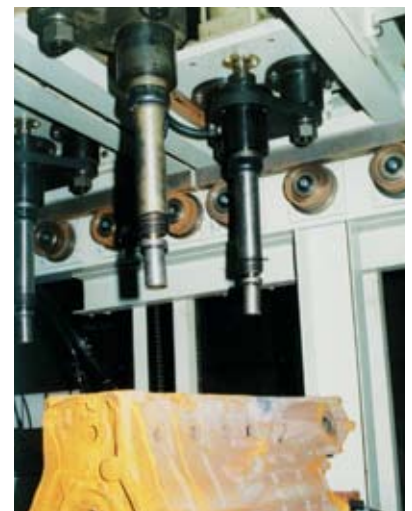
## DEBURRING TOOLS

Fuji FDH series are ideal air hammers for knockout machines which are designed for removing sand from engine cylinder block castings. The chisels can be positioned easily and the original chisel bush guarantees run-out free performance. A built in shock absorber not only reduces the risk of chisel breakage and lightens the impact load to the cylinder block, but it also delivers the chisel blow to the pre-set position without 'chatter'.



**FDH Series**

### Knockout Machine for removing sand from cylinder block

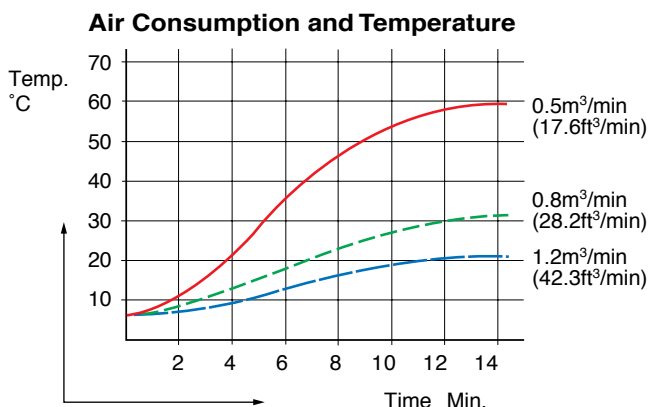
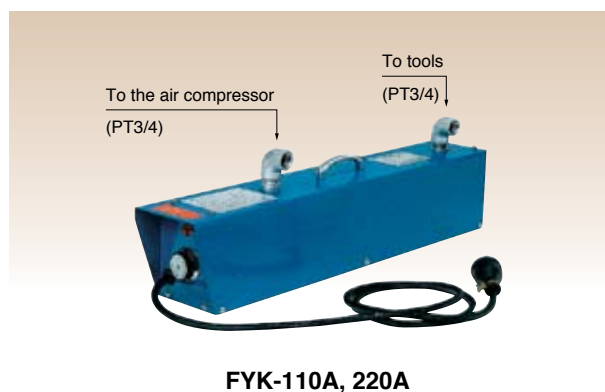




# Air Line Heaters/Air Cleaners

## AIR LINE HEATERS

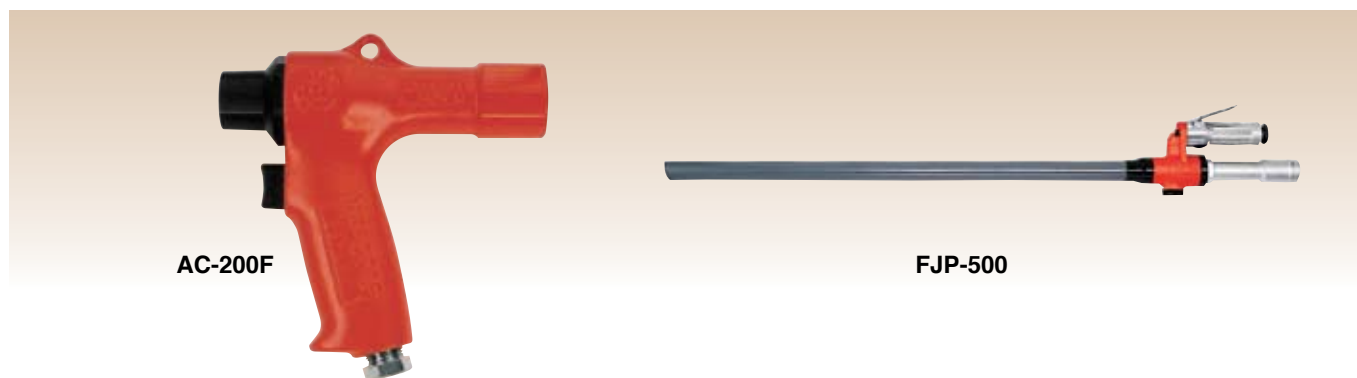
Fuji Air Line Heaters are portable, durable and simple to use. Their use prevents freezing and eliminates the cold feeling while the operator uses air tools for an extended period of time.



Model	Power Source		Power Consumption	Dimensions(Width x Height x Length)		Mass	
	V	Hz		mm	in	kg	lb
FYK-110A	2 phases AC100	50/60	1.0	125 x 150 x 750	5 x 6 x 29	13.0	28.6
	2 phases AC110		1.2				
FYK-220A	3 phases AC200		1.0				
	3 phases AC220		1.2				

## AIR CLEANERS

Fuji Air Cleaners remove dust, chips, sawdust, water and oil with their powerful vacuum action.



Model	Vacuum Degree		Overall Length		Outside Dia. of Discharge	Mass		Max. Air Consumption		Air Inlet Thread Size	Air Hose Size	
	mm Hg	in Hg	mm	in		kg	lb	m³/min	ft³/min		mm	in
AC-200F	130	5 1/8	145	5 45/64	34	0.5	1.1	0.60	21.2	1/4	9.5	3/8
FJP-500	200	7 7/8	1020	40 5/32	37.5	1.5	3.3	1.10	38.8	3/8	9.5	3/8

### Accessories Provided for AC-200F



Index No.	AC No.	Name
1	ACB-1F	Main Nozzle
2	ACB-2F	Fan Shape Nozzle
3	ACB-3F	Small-Size End Nozzle
4	ACB-4F	Flexible Hose
5	ACB-5F	Rubber Joint
6	ACB-6F	Dust Bag
7	ACB-7F	Hose Band

## AIR HOISTS (Link Chain Type)

Fuji Link Chain Type Air Hoists are featured with variable speed control, latest technology multi vane air motor design, effective and durable drum brake, upper and lower limit switch mechanism and high manoeuvrability. Two types of control, pull cord and pendant, are available. Models equipped with emergency stop button and overload protector, for safer operation, are available on request.



**FAH-25LC, 50LC**

**FAH-25LP, 50LP**

**FAH-100LC**

**FAH-100LP**

Model	Control	Air Pressure		Lifting Speed	Lifting Capacity		Lift		Mass		Max. Air Consumption	Inlet
		MPa	kg/cm <sup>2</sup>	m/min	kN	kgf	m	ft	kg	lb	m <sup>3</sup> /min	PT or NPT
<b>Single Chain Type</b>												
<b>FAH-25LC</b>	Pull Cord	0.6	6.0	17.0	2.5	250	3	9.8	21	46.2	1.6	1/2
<b>FAH-25LP</b>	Pendant	0.5	5.0	15.0							1.3	
<b>FAH-50LC</b>	Pull Cord	0.4	4.0	13.0	5.0	500	3	9.8	21	46.2	1.6	1/2
<b>FAH-50LP</b>	Pendant	0.5	5.0	10.0							1.3	
<b>FAH-50LP</b>	Pendant	0.4	4.0	7.0					23	50.6	1.0	
<b>Double Chain Type</b>												
<b>FAH-100LC</b>	Pull Cord	0.6	6.0	6.0	10.0	1,000	3	9.8	26	57.2	1.6	1/2
		0.5	5.0	5.0							1.3	
<b>FAH-100LP</b>	Pendant	0.4	4.0	3.5					28	61.6	1.0	

### OPTIONAL ACCESSORIES



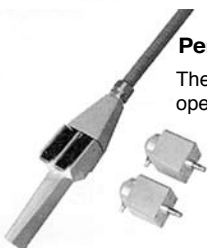
#### Chain Bucket

In addition to the standard Chain Bucket used for standard lifting, chain buckets with different capacities are available to provide an increased length of lifting if required.



#### Exhaust Air Cleaner

The Exhaust Air Cleaner is utilised to eliminate oil mist from the exhaust air. Please contact us if required.



#### Pendant Control KIT

The pull cord actuation can be changed to Pendant operation by fitting the Pendant Control Kit.

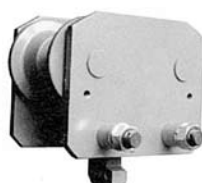


#### 4-Button Pendant Control

The 4-Button Pendant control is used with the Air Motor-driven Hoist.

#### Trolleys

Please select suitable trolley depending on application.



Plain Trolley



Geared Trolley

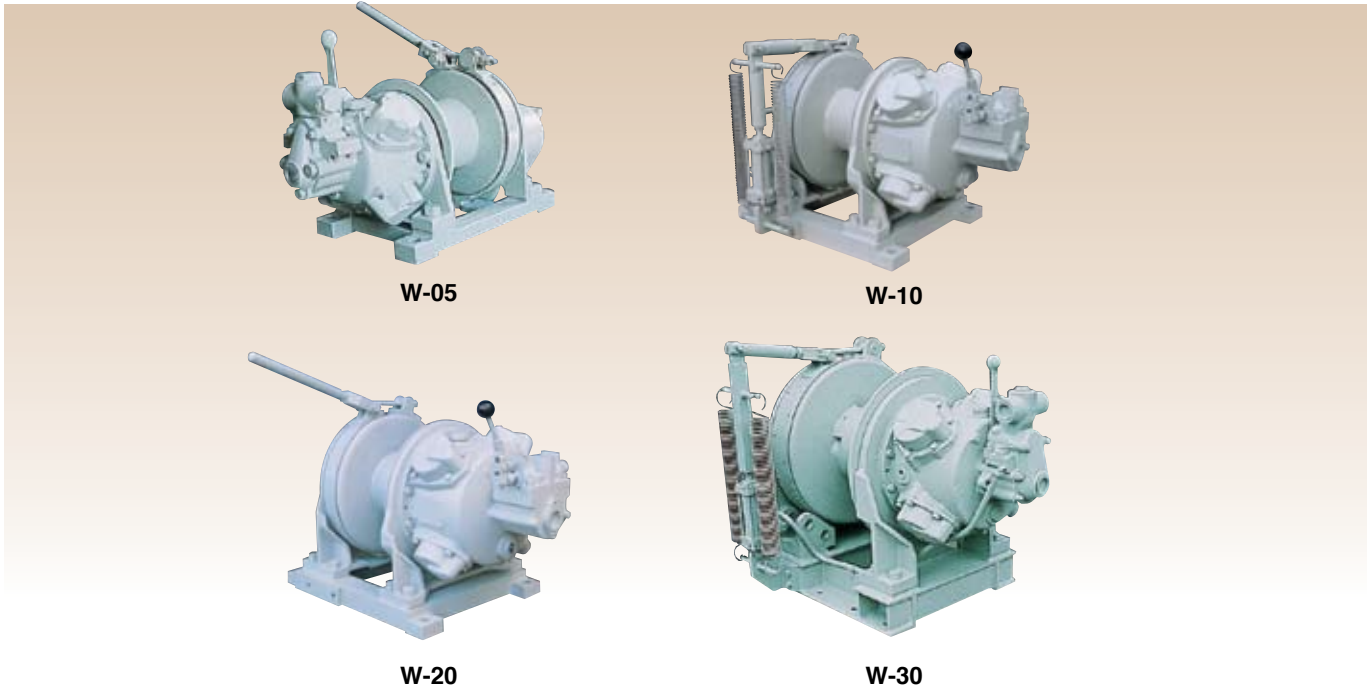


Air Motor-driven Trolley

# Air Winches

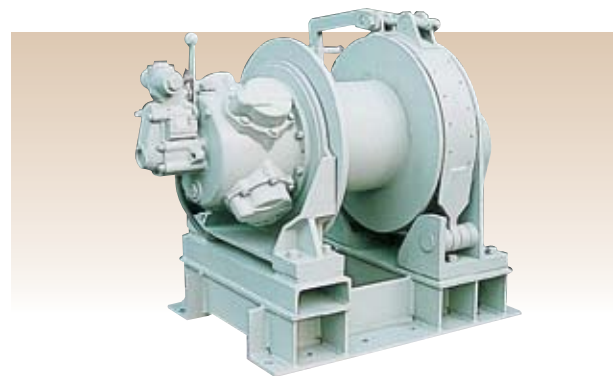
## AIR WINCHES

Fuji Air Winches are powerful, durable and offer long service life. They are ideal for heavy-duty applications in mining, construction, shipping and heavy machine industry. Remote control and automatic brakes are available as options.



Model	Motor Output kW	Rope Pull kN	Rope Speed m/min	Max. Air Consumption m <sup>3</sup> /min	Drum Capacity mm x m	Mass	
						Manual Brake kg	Automatic Brake kg
W-05-3-S	1.73	5	19	2.0	8 x 45	55	59
W-05-3-L	1.73	5	19	2.0	8 x 90	60	64
W-10-220-S	7.15	10	37	5.4	10 x 175 12.5 x 115	257	267
W-10-220-L	7.15	10	37	5.4	10 x 350 12.5 x 230	276	288
W-20-220-S	7.15	20	19	5.4	12.5 x 115	266	276
W-20-220-L	7.15	20	19	5.4	12.5 x 230	287	297
W-30-36-S	12.00	30	19	9.0	16 x 160	470	484
W-30-36-L	12.00	30	19	9.0	16 x 320	513	527
W-50-36-S	12.00	50	11	9.0	22.4 x 115	-	780
W-50-36-L	12.00	50	11	9.0	22.4 x 230	-	873

Model	Drum Size			Rope anchor hole Dia. mm
	Dia. mm	Root Dia. mm	Width mm	
W-05-3-S	120	216	114	10
W-05-3-L	120	216	228	10
W-10-220-S	180	410	178	16
W-10-220-L	180	410	356	16
W-20-220-S	180	410	178	16
W-20-220-L	180	410	356	16
W-30-36-S	240	530	240	20
W-30-36-L	240	530	480	20
W-50-36-S	330	600	300	28
W-50-36-L	330	600	600	28



**W-50**