



FAIR FRIEND GROUP

FFG TECHNOLOGY DRIVES THE FUTURE

37 Brands and
50 Production Bases for
Machine Tools Worldwide



LEADWELL

SANCO

EQUIPTOR
EQUIPTOR HITECH CORP.

ECOCA



taisei

IKEGAI



TAKAMAZ - FEELER

WAIDA - FEELER

mectron - FEELER

TAKEUCHI

SEC
SAKAZAKI

FFG DMC

SK DSK MACHINERY



VDF BOEHRINGER

HESSAPP

WITZIG & FRANK



EX-CELL-O

Honsberg



RAMBAUDI



meccanodora

MORARA

TACCHELLA

Pfiffner

LAMB

Cross Hüller





Fair Friend Group (FFG) was established by Chairman Mr. Jimmy Chu with the founding principles of reliability, growth, continuous advancement, best in quality, and strive for excellence. FFG consists of three major divisions of businesses: Machine Tools Division, Industry Equipment Division and Green Energy Division. FFG has 95 companies, including 52 brands and 79 operating production bases. Among them, the machine division is the backbone of the group. It has 37 brand names and 50 production bases of machine tools, which are located in 10 major machine manufacturing countries in the world. In terms of supplying machine tools to various industries, FFG is ranked No. 1 in the automotive industry, No. 2 in the aerospace industry, No. 3 in the energy industry and No. 5 in the rail transport industry.

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- World No.3 Machine Tools Group.
 - World No.1 Machine Tools Group For Automotive Turnkey.
 - World No. 1 manufacturer of VMC.
 - 60,000 units of CNC machine tools installed around the globe - the No. 1 brand in Greater China.
 - Fair Friend College of Electromechanics attracts 2,300 students in Hangzhou and Zhengzhou every year.
 - FFG consists of 95 companies scattered around world, and there are 3 listed companies at stock exchange market among them, 1 in Hong Kong and 2 in Taiwan.
 - The only machine tools Group won the National Quality Award, the Taiwan Excellence Gold Award and Smart Machine Gold Award.
 - The best quality and service machine tool manufacturer from Taiwan, evaluated by the famous magazine, Asia Pacific Metal Working Equipment News.
 - The only machine tools group reported by Forbes, Business Week, the Wall Street Journal, National TV in Spain, and China central TV.
 - Won the prize of 2008 AI Outstanding Product Award and was in the TOP 100 excellence equipment suppliers, together with world-famous machine tool manufacturers such as DMG MORI, MAZAK, MAKINO, MAG and AgieCharmilles, and FFG was ranked No.1
 - 2012 TAIWAN authoritative commercial magazine "Common Wealth" TOP 1000 Manufacturers: Fair Friend Ent., Co., Ltd. and Good Friend Int'l Holdings Inc. ranking No.1 for Machinery industry and Machine Tools, respectively.

Global Plants of Fair Friend Group Machine Tools Division

 TAIWAN



Fair Friend
Nantun

Leadwell
Taichung

Sanco, Ecoca
Sanyi

Equiptop
Taichung

 JAPAN



IKEGAI
Namegata

SNK
Hiroshima

SNK
Shinodayama

NISSIN
Toyotomi

 USA

 KOREA

 ITALY

 SWITZERLAND



SMS
Saginaw

MAG
Sterling Height

MAG
Port Huron

FFG DMC, DSK
Changwonsi



Jobs,
Rambaudi
Sachman, Sigma



Meccanodora,
Morara,
Tacchella



IMAS
Via S. Alessandro



Pfiffner
Utzenstorf



Pfiffner
Thalwil

 INDIA



MAG Bangalore

 HUNGARY



MAG Kecskemet

 GERMANY

 CHINA



MAG
Eislingen

MAG
Rottenburg

Pfiffner
Zimmern

Hessapp
Taunusstein

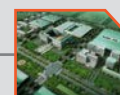
Modul
Chemnitz

VDF Boehringer
Chemnitz Uhing

Witzig & Frank
Offenburg



Hangzhou
Good Friend
Hsiao Shan



Fair Friend(HENAN)
Zhengzhou



Jiangdong
Technology Park



Hangzhou
Takamaz
Jiangdong



Hangzhou
Global Firend
Xiasha



Hangzhou
Ever Firend
Xiasha



Good Friend ,
ANEST IWATA
Jiangdong



Good Friend
Headquarters
Hangzhou



MAG
Changchun



Hangzhou
Good Friend
Xiasha



Hangzhou
Leadwell
Xiasha

FEELER Product

CNC Lathes (Linear)

FTC Series



FTC-20

CNC Turning Center
FTC-10/20/20L/30

Max.turning dia : 240 / 350 / 450 mm

Power chuck size : 6" / 8" / 10"

Vertical CNC Lathes

FVT Series



FVT-1000

FVT-450 / 600(MC) / 800
FVT-1000(MC) / 1600(MC)

Max.Swing : 1,100 mm

Max.turning dia : 1,000mm

Rapid traverse X/Z : 20m / min

FTC Series



FTC-350 SLY

Slant Bed CNC Turning Center
FTC-300 / 350(MC) / 350L(MC) / 350XL(MC)
FTC-350S / 350LY / 350SLY / 450(MC)
FTC-640(MC) / 640L(MC) / 640XL
FTB-350 / 350L / 350XL

Max.turning dia : 300~640

chuck dia : 6" ~15"

Vertical Machining Center (Box Way)

NBP Series



NBP-1300A

NBP-1000 (A)
NBP-1100 (A) / 1300 (A)

NBP-1000(A) : 1,000 x 610 x 600 mm

NBP-1100(A) : 1,100 x 610 x 600 mm

NBP-1300(A) : 1,300 x 610 x 600 mm

CNC Lathes (Box Way)

HT Series



HT-30Y

HT-30Y / 30MC / 30SY
HT-40Y

Max.turning dia:356 mm

Y-axis travel:100 (±50) mm

Power chuck size:10", 10", 10", 12"

VB Series



VB-1650A

VB-1400A / 1650A
VB-1900A / 2200A

VB-1400A : 1,400 x 800 x 700 mm

VB-1650A : 1,650 x 800 x 700 mm

VB-1900A : 1,900 x 860 x 800 mm

VB-2200A : 2,200 x 960 x 800 mm

FT Series



FC-250

FT-200(MC) / 250(MC) , FT-250SY(MC)
FT-350(MC) / 350AL(MC)
FT-400 / 400MC , FT-400AL / 400ALMC

FT-200(MC) / 250(MC) , FT-250SY(MC)
FT-350(MC) / 350AL(MC)

Max.turning dia : 330 / 420 / 620 / 620

Power chuck size : 8" / 10" / 12" / 15"

FT-400 / 400MC / 400AL / 400ALMC

Max.turning dia : 510 / 440 / 510 / 440

Power chuck size : 12" / 12" / 15" / 15"

TC Series



TC-20 α

TC-20 α

TC-20 α Turret Type

510 x 400 x 300 mm

Spindle speed : 12,000 rpm

TC-20 α Arm Type

510 x 400 x 400 mm

Spindle speed : 12,000 rpm

Drilling & Tapping Center

Vertical Machining Center (Linear)

VFP Series



VFP-1000A

VFP-800(A)/1000(A)/1300(A)

VFP-800(A) : 820 x 520 x 505 mm

VFP-1000(A) : 1,020 x 520 x 505 mm

VFP-1300(A) : 1,300 x 610 x 560 mm

VMP Series



VMP-40A

VMP-23 (A) / 30 (A) / 32 (A) / 40 (A) VMP-23Aapc / 32Aapc VMP-45 (A) / 50 (A) / 65 (A)

VMP-23 (A) : 580 x 420 x 510 mm

VMP-23Aapc : 580 x 420 x 510 mm

VMP-30 (A) : 760 x 420 x 510 mm

VMP-32 (A) : 820 x 520 x 505 mm

VMP-32Aapc : 800 x 520 x 505 mm

VMP-40 (A) : 1,020 x 520 x 505 mm

VMP-45 (A) : 1,100 x 610 x 600 mm

VMP-50 (A) : 1,300 x 610 x 600 mm

VMP-65 (A) : 1,650 x 800 x 800 mm

VMX Series



VMX-1020

VMX-820 / 1020

VMX-820 : 820x520x560 mm

VMX-1020 : 1,020x520x560 mm

HV Series



HV-40A

HV-32A / 32Aapc / 40A / 50A

HV-32A : 800 x 520 x 505 mm

HV-32Aapc : 800 x 520 x 505 mm

HV-40A : 1,000 x 520 x 505 mm

HV-50 (A) : 1,300 x 610 x 600 mm

5-Axis Vertical Machining Center

U Series



U-250

U-250

Travel : 350 x 300 x 250 mm

Rotary axis rotation angle : 0° ~ 360°

Tilting axis rotation angle : +120° ~ -120°

Table surface to floor : 860±5 mm

U Series



U-600P

U-600P

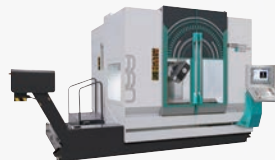
Travel : 460 x 620 x 400 mm

Rotary axis rotation angle : 0° ~ 360°

Tilting axis rotation angle : +110° ~ 90°

Table surface to floor : 750 ± 5 mm

U Series



UB-660

UB-660

Travel : 1,250 x 700 x 820(V) / 950(H) mm

Rotary axis rotation angle : 0° ~ 6°

Tilting axis rotation angle : +110° ~ -110°

Table surface to floor : 930 mm

U Series



U-800T

U-800T

Travel : 800 x 935 x 640 mm

Rotary axis rotation angle : 0° ~ 360°

Tilting axis rotation angle : +120° ~ -120°

Table surface to floor : 900±5 mm

U Series



U-1000

U-1000

Travel : 1,250 x 1,250 x 1,000 mm

Rotary axis rotation angle : 0° ~ 360°

Tilting axis rotation angle : +30° ~ -180°

Table surface to floor : 1,462±5 mm



Horizontal Machining Center

EH Series



EH-320APC

EH-320 / 320APC

EH-320 : 300 x 320 x 270 mm

EH-320APC : 300 x 320 x 270 mm

Double Column Machining Center

FDM Series



FDM-4228

FDM-3228 / 4228 / 5228 / 6228
FDM-7228 / 8228 / 4232 / 5232
FDM-6232 / 7232 / 8232 / 4235
FDM-5235 / 6235 / 7235 / 8235

X-axis travel : 3,200 ~ 8,200 mm

Y-axis travel : 2,700 ~ 4,000 mm

FMH Series



FMH-800

FMH-400 / 500 / 630 / 800 / 1000

FMH-400 : 610 x 560 x 560 mm

FMH-500 : 762 (730) x 710 x 710 mm

FMH-630 : 1,000 x 850 x 850 mm

FMH-800/1000 : 1,300 x 1,020 x 1,100 mm

SVW Series



SVW-2217

SVW-2217/3217/4217
SVW-2822/3222/4222
SVW-3223/4223
SVW-2825/3225/4225

X-axis travel : 2,200 ~ 4,200 mm

Y-axis travel : 1,600 ~ 2,100 mm

CNC Horizontal Boring & Milling Machine

SHM Series (Without W axis)



SHM-800

SHM-630L / SHM-800 / 800L

SHM-630L : 1,400 x 1,150 x 1,000 mm

SHM-800 : 1,500 x 1,600 x 1,200 mm

SHM-800L : 2,000 x 1,100 x 1,200 mm

SDM Series



SDM-4228

SDM-2216/2220/3216/3220
SDM-3225/3225B/3228/4216
SDM-4220/4225/4225B/4228
SDM-4232/5220/5225/5225B
SDM-5228/5232/5235/6232
SDM-6235/7232/7235

X-axis travel : 2,200 ~ 7,200 mm

Y-axis travel : 1,400 ~ 4,000 mm

CNC Bed Type Universal Milling Machine

SHB Series (W axis)



SHB-13030RM

SHB-11020RF
SHB-11025 / 11030 / 11040RS
SHB-11030 / 11040RM
SHB-13025 / 13030 / 13040RS
SHB-13030/13040RM
SHB-13030/13040RL

X-axis travel : 2,000 ~ 4,000 mm

Y-axis travel : 1,600 ~ 1,800 mm

SBM Series



SBM-2500V

SBM-2000H/2500H/3000H/3500H
SBM-2000V/2500V/3000V/3500V

SBM-2000H : 2,000 x 1,200 x 1,000 mm
SBM-2500H : 2,500 x 1,200 x 1,000 mm
SBM-3000H : 3,000 x 1,200 x 1,000 mm
SBM-3500H : 3,500 x 1,200 x 1,000 mm
SBM-2000V : 2,000 x 1,000 x 1,200 mm
SBM-2500V : 2,500 x 1,000 x 1,200 mm
SBM-3000V : 3,000 x 1,000 x 1,200 mm
SBM-3500V : 3,500 x 1,000 x 1,200 mm

High-end Product

Turning and Gear Manufacturing Technology

Horizontal Turning and Turn/mill Centers

VDF BOEHRINGER



VDF-450T

VDF T/TM Series

Turning length : 850 - 4500 mm

Turning diameter : 290 - 650 mm

Hobbing Machines

MODUL



H250

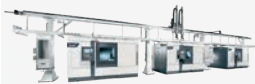
H80-H400 Series

Workpiece diameter : 80 ~ 400 mm

Module : 4 ~ 8

Crankshaft Machining

VDF BOEHRINGER



VDF-221

VDF 221/226CX

Full processing capability including turning, milling, oil hole drilling, turn-turn-broaching, roller burnishing and ends machining.

Hobbing Machines

MODUL



H600

H600-H2300 Series

Workpiece diameter : 600 ~ 2300 mm

Module : 12 ~ 28

Machining Centers and Manufacturing Systems

Dual Spindle Pick-up Vertical Turning Machines

HESSAPP



DVT-200

DVT Series

Turning diameter : 220 - 630 mm

Workpiece height with chuck : 318 - 600 mm

CNC Dual Spindle System Machines

NAG



SPECHT 450

SPECHT® DUO Series

X/Y/Z 510-800 / 600-730 / 700-900 (660-860)*

*A-axis configuration

Double Spindle Vertical Lathes

SMS



AC-300-2

ACCU-CELL

AC-300-2

Max. Swing : 406.4 mm

Max. Turning Diameter : 406.4 mm

Max. Turning Length : 355.6 mm

AC-450-2

Max. Swing : 609 mm

Max. Turning Diameter : 609 mm

Max. Turning Length : 482 mm

Manufacturing Systems and Transfer Concepts for Volume Production

NAG



MANUFACTURING SYSTEMS WITH PORTAL LOADING SYSTEM

Portal loading system production line

5-axis Machining Centers

5-axis Vertical Machining Centers



COMPACT

COMPACT-FLEXI

COMPACT : 1,150 x 570 x 800 mm

FLEXI : 1,250/1,600/2,100 x 800 x 950 mm

Moving Column Milling Centers



FRAZER

FRAZER

Box Version :
3,000/4,000/5,000 x 1,500 x 1,100 mm

Open Version :
6,000/7,000+Δ x 1,500/2,000 x 1,100 mm

Vertical Machining Centers and Large Part Machining Systems

Linear Motor Overhead / Gantry Type Milling Centers



LINX

LINX

2,000~10,200+Δ x 2,000~5,000 x
600~2,500 mm

Grinding Technology

High Speed Grinding Machines



MECCANODORA 1200-HS

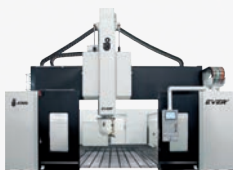
MECCANODORA 1200-HS

Min./max. diameter of workpieces : 12 ÷ 250 mm

Max. workpiece width : 5 ÷ 150 mm

Peripheral wheel speed : 45 ÷ 80 m/sec

Overhead Gantry Type Milling Centers



EVER

EVER — SPEEDER

EVER :
4,000~8,500+Δ x 3,000~5,000 x
1,250~1,750 mm

SPEEDER :
3,000~7,500+Δ x 2,000~5,000 x
1,200~3,000 mm

External Grinding Machines for Railway Axles



MT2500 HD

MT2500 HD

Maximum grindable diameter : 350 mm

Height of centres : 255 mm

Maximum grindable length between centres :
2,600 mm

CNC Bed Type Universal Grinder

Bridge-Type Milling Centers



SARA

SARA

3,200 x 2,400 x 900 mm

4,200 x 2,400 x 900 mm

External Grinding Machines



CROSSFLEX A1100

CROSSFLEX A1100

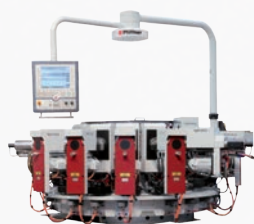
Center height : 180 - 230 mm

Between centers : 1,100 - 2,100 mm

Multispindle and Rotary Transfer Technology

Rotary Transfer Machines

CPfiffner



Hydromat Series

HC25-12
HC32-16
HC45-12、45-16

Up to 5 sided machining on 24 stations.

Large Vertical/Horizontal Machining Center

5-axis High-Speed Horizontal Profiler

SNK



RB-300F

RB-150F/200F/250F/350F/400F

Travels (X×Y×Z×W/B,C)

RB-150F : 3,250×2,400×600×600mm / ±95,±360

RB-200F : 4,250×2,900×600×850mm / ±95,±360

RB-250F : 5,250×2,900×600×850mm / ±95,±360

RB-300F : 6,250×3,820×600×1,100mm / ±95,±360

RB-350F : 6,250×4,500×600×1,100mm / ±95,±360

RB-400F : 8,250×5,320×800×1,150mm / ±95,±360

Rotary Machining Centers

CPfiffner



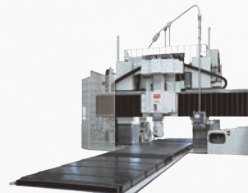
RT Series

RT 100-6
RT 100-12

Up to 6 sides machining on 12 stations

Double Column High-Speed Profile Milling Machine

SNK



DC-4ANM

DC-3ANNM/4ANM/5ANM

Travels (X×Y×Z×W)

DC-3ANM : 3,250×2,700×800×950mm

DC-4ANM : 4,250×3,200×800×950mm

DC-5ANM : 5,250×3,700×800×950mm

Flexible Rotary Transfer Machines

IMRS



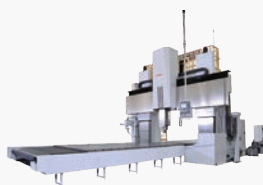
IMASFLEX 150

IMASFLEX 150

4 sides machining with up to 18 simultaneous operations

Double Column Multi Centers

SNK



NeoV-5M

NeoV-4M/5M/6M

Travels (X×Y×Z×W)

NeoV-4M : 4,250×3,200×800×950mm

NeoV-5M : 5,250×3,700×800×1,200mm

NeoV-6M : 6,250×4,200×800×1,200mm

Horizontal Rotary Transfer Machines

WITZIG & FRANK



LSA Series

LSA Series

3-5 sides machining on 6-10 stations

Double Column High-Speed 5-axis Machining Center

SNK



HPS-120A

HPS-120A/200A/120B/150B

Travels (X×Y×Z×W/A,C)

HPS-120A : 3,150/4,460 × 1,400 × 1,000 / ±90,±360

HPS-200A : 3,860.8 × 3,048 × 1,270 / ±100,Continuous Rotation

HPS-120B : 3,150 × 1,320 × 762 / ±90,±270

HPS-150B : 4,150 × 1,800 × 1,050 / ±90,±270

HPS-150B-PRO : 6,150 × 1,800 × 1,000 / ±100,Continuous Rotation

International Joint Venture Partners

- ANEST IWATA Co., Ltd - The largest Japanese Painting Equipment & Air Compressor manufacturer.
- TOYOTA TSUSHO Corp. - Toyota-owned trading company.
- TAKAMAZ MACHINERY Co., Ltd - Japanese professional CNC Lathe manufacturer, public listed company.
- NIPPON CABLE Co., Ltd - The largest parking equipment manufacturer in Japan.
- MECTRON Inc. - Japanese Machine Tools manufacturer.
- MARUBENI Corp. - The Top 5 trading company in Japan.
- WAIDA MFG.Co.,Ltd. - Japanese ultra-precision grinder manufacturer.
- CITIZEN MACHINERY MIYANO Corp. - CITIZEN group, precision lathe manufacturer.
- YAMASAN TEKKO - Japanese machining specialist over 40 years.
- SUMIZAWA TEKKO - Japanese machining specialist over 40 years.

Global Major Customer

Aerospace Industry

- MBDA
- NASA
- MESSIER BUGATTI
- EADS
- MOTOR SICH
- VOLVO AERO
- SNECMA
- TAI TUSAS AEROSPACE
- BRITISH NUCLEAR POWER

Automobile Industry

- TOYOTA
- HONDA
- GM
- FORD
- DAIMLER CHRYSLER
- DELPHI
- BMW
- VOLKSWAGEN
- MAN
- FERRARI
- PSA
- GEORGFISCHER

Mold Industry

- FORGESDE BOLOGNE
- ROSSIGNOL
- SALOMON
- SIEMENS
- CATERPILLAR
- CARRIER



TIMTOS 2019 - Exhibition Center Advertising



EMO 2019 - Airport Advertising



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ISO 9001
ISO 14001

