



FVC



PORTAL CENTER WITH TRAVELLING TABLE





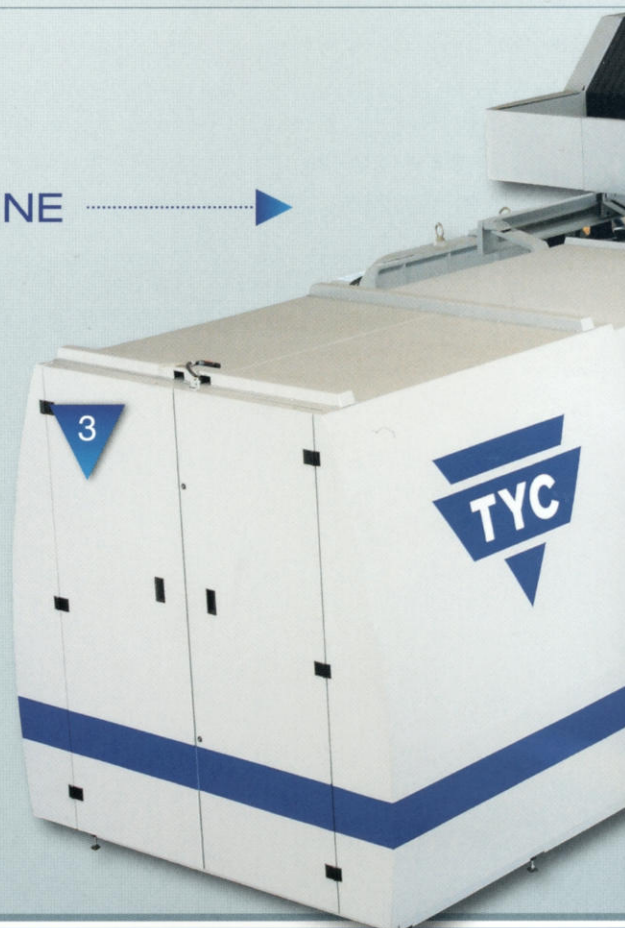
FVC BASIC PARAMETRES

BASIC PARAMETRES OF THE MACHINE

		FVC 120/2	FVC 120/3,2	FVC 120/4
Stroke of X-axis	mm	2 200	3 400	4 200
Stroke of Y-axis	mm	2 025	2 025	2 025
Stroke of Z-axis	mm	1 000	1 000	1 000
Length of table	mm	2 000	3 200	4 000
Width of table	mm	1 200	1 200	1 200
Load of table	kg	4 500	6 500	6 500
Distance between columns	mm	1 440	1 440	1 440
Feeds X,Y,Z	mm/min	20 000	20 000	20 000

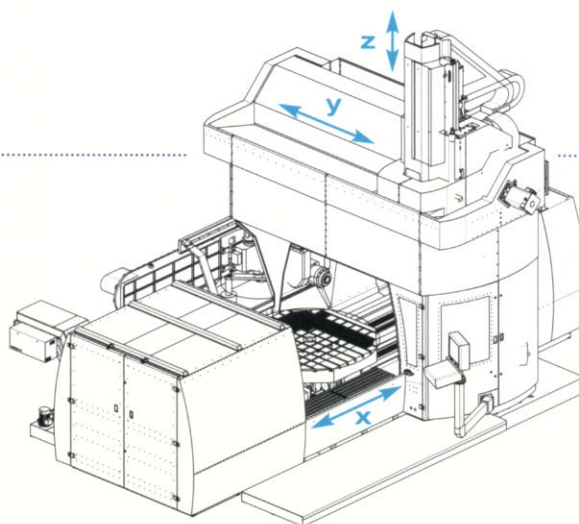
BASIC CONCEPTION OF THE MACHINE

- 1 RIGIDITY
- 2 ACCURACY
- 3 UNIVERSALITY





FVC



FVC 160/2

FVC 160/3,2

FVC 160/4

2 200	3 400	4 200
2 425	2 425	2 425
1 000	1 000	1 000
2 000	3 200	4 000
1 600	1 600	1 600
5 200	8 000	11 000
2 125	2 125	2 125
20 000	20 000	20 000



Portal type machining center FVC is designed as a very rigid machine, conception with travelling table and fixed frame.

Basic components of the machine are made of cast iron which ensures a high dynamic and thermal stability of the machine and precision machining.

Thanks to the modular design of the machine we can make a wide range of variations of FVC machine according to customer's requirements.



FVC HEADSTOCKS

VERTICAL SPINDLES AND ELECTROSPINDLES

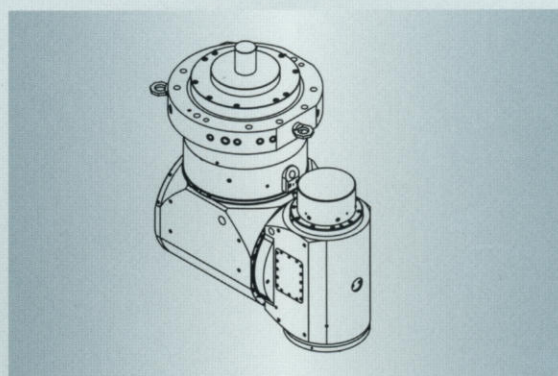
		VM-5/800	VM-8/160	VE-8/445	VE-15/300
Power	kW	27	27	93	63
Max. torque	Nm	800	160	445	300
Max. speed	rpm	5 000	8 000	8 000	15 000
Nominal speed	rpm	322	1 610	2 000	2 000
Tool taper		ISO 50	ISO 50	HSK-A 100	HSK-A(T) 100

CONTINUOUSLY DRIVED HEADS

		HFE-24/35	HFE-20/119	HFE-16/130
Power	kW	39	25	34
Max. torque	Nm	35	119	130
Max. speed	rpm	24 000	20 000	16 000
Nominal speed	rpm	12 000	2 000	2 500
Tool taper		HSK-A 63	HSK-A 63	HSK-A 63

INDEXED HEADS

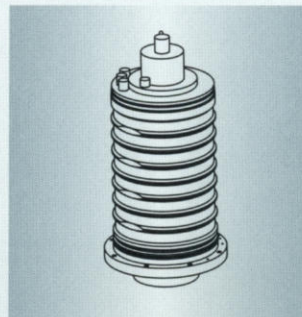
		HFM-5/800
Power	kW	30
Max. torque	Nm	800
Max. speed	rpm	5 000
Nominal speed	rpm	358
Tool taper		ISO 50
Positioning	°	1
Number of axes		2



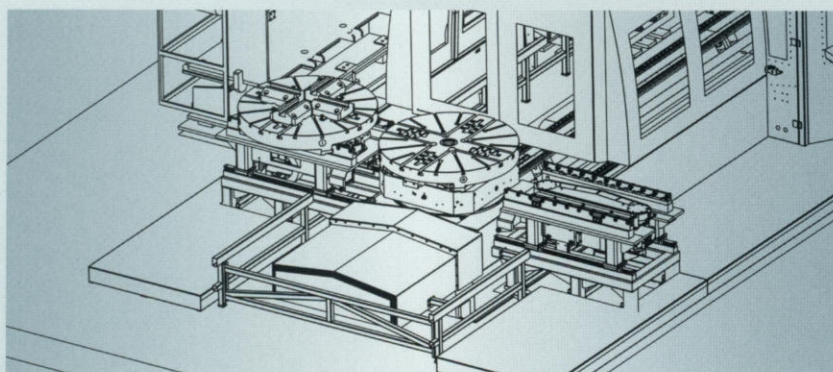
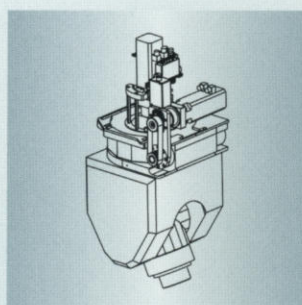
ROTARY TABLES

		D1000/4T	D1500/5T	D1600/10T	D1800/10T
Diameter of table	mm	1 000	1 500	1 600	1 800
Max. speed - positioning	rpm	5	5	5	5
Max. speed - turning	rpm	400	400	-	-
Max. load - positioning	t	4	5	10	10
Max. load - turning	t	3	3	-	-

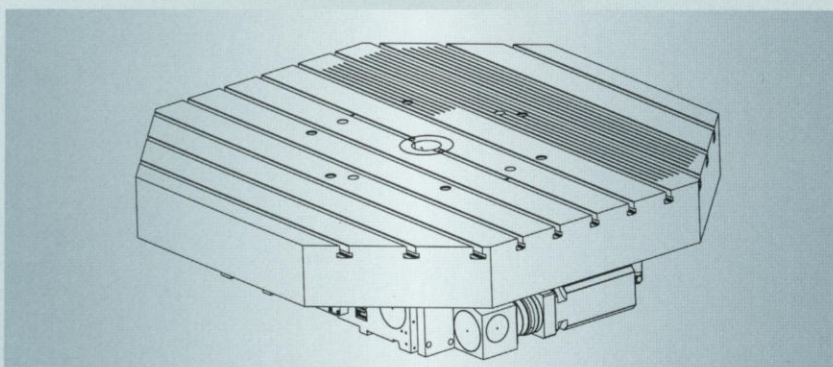
VE-12/210	VE-15/167	VE-16/130	VE-24/35
40	70	34	39
210	167	130	35
12 000	15 000	16 000	24 000
1 820	4 000	2 500	12 000
HSK-A 100	HSK-A 100	HSK-A 63	HSK-A 63



HFE-15/167	HFET-10/173	HFE-12/210
70	40	40
167	173	210
15 000	10 000	12 000
4 000	2 200	1 820
HSK-A 100	HSK-T 100	HSK-A 100



► FVC machine is also offered
in a version with automatic
change of tables - pallets



RTP - Table positioning
RTK - Table turning



FVC ACCESSORIES

► STANDARD ACCESSORIES

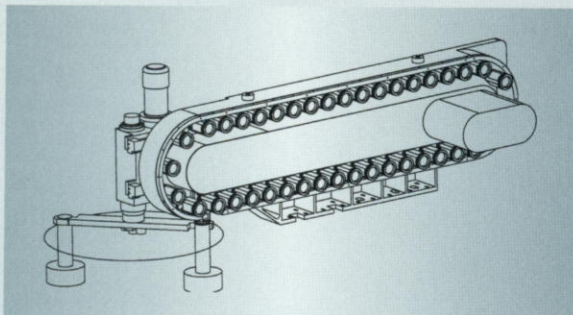
- hand wheel
- digital feeds of axes and spindle
- direct measuring at all axes
- balancing of Z-axis
- thermal stabilization of all main parts of the machine
- external tool cooling
- chip conveyor (longitudinal and transverse)

- complete cabine covering of working space
- electric equipment 400V/50Hz
- air-conditioned electrocabinet
- automatic lubrication
- anchoring material
- remote diagnostics - teleservice
- complete accompanying documentation in the required language

► OPTIONAL ACCESSORIES

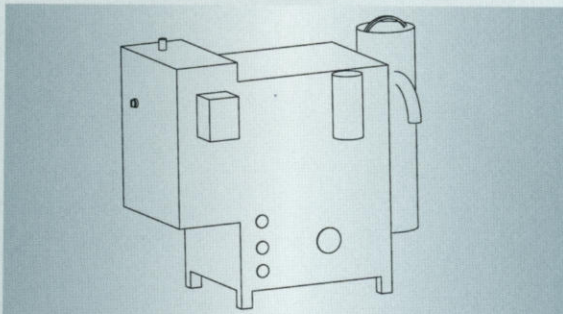
Automatic tool change

- including tool magazine
- optional capacity (30 - 120 tools)
- taper standard according to chosen spindle (ISO 50, HSK 100, HSK 63)



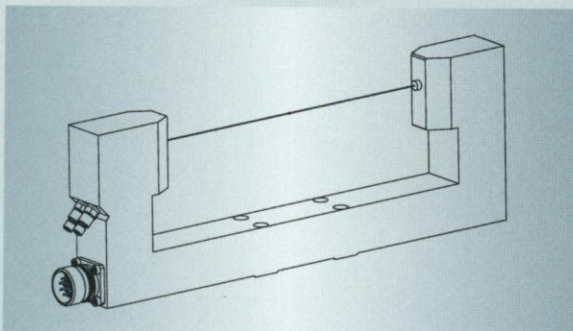
Internal tool cooling

- additional unit to the basic external tool cooling
- different types of cooling unit according to the type of filtration and pressure
- possible to instal aerosol suction equipment



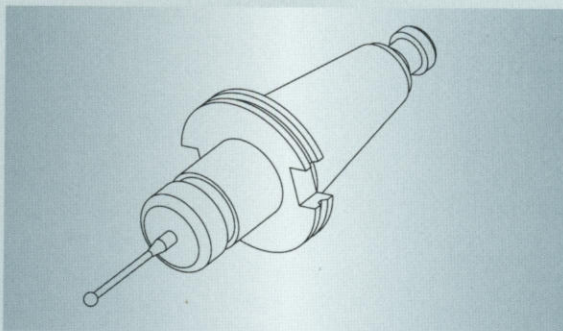
Tool probes

- touch or contactless probes (laser)
- signal transmission via cable or infrared beam
- Renishaw, Heidenhain, Blum Novotest, Etc.



Workpiece probes

- touch probes with radio signal transmission
- Renishaw, Heidenhain, Blum Novotest, Etc.



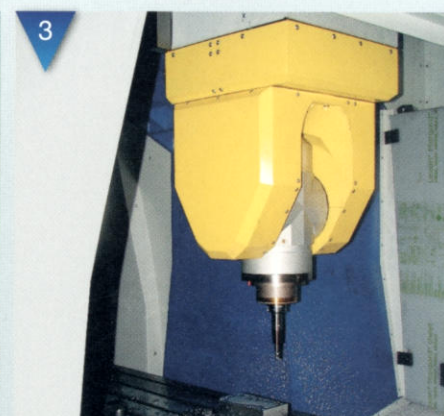
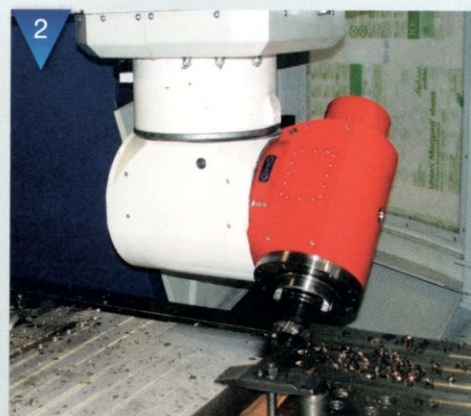
Control system

- Heidenhain iTNC 530, Sinumerik 840D, Fanuc

Other variants can be offered after consultation with the manufacturer.



FVC APPLICATION



1 Electrospindle

2 Indexed head

3 Continuously driven head

4 Machining of aluminium parts for aerospace

5 Machining of small parts

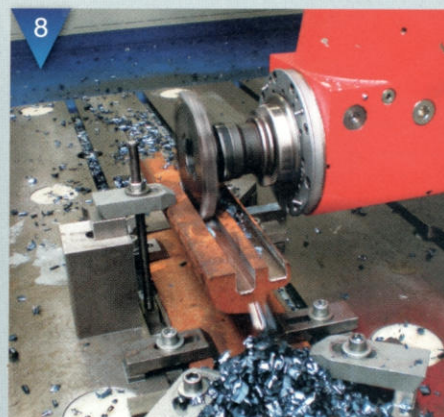
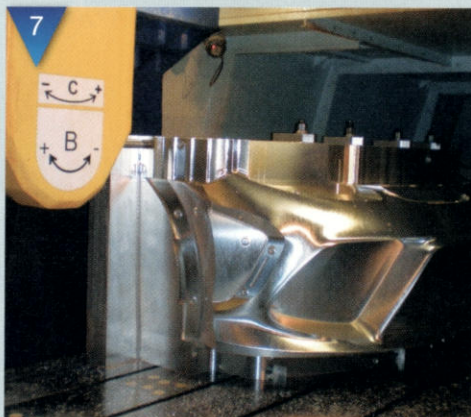
6 Milling of the general contour shapes - forms

7 Solid aluminum profile milling - a form for injection molding

8 Cutting of materials with difficult machinability

9 Drilling of tube plates and other parts for power industry

10 Machining of hardened surfaces





REFERENCES

www.tyc.cz

► Our costumers and users of the **FVC** machines



Cero | VODOCHODY

AMMANN



STROJÍRNY TŘINEC



KB BLOK
DOKONALÝ STAVEBNÍ SYSTÉM



ГОСУДАРСТВЕННОЕ ОБЪЕДИНЕНИЕ
УРАЛТРАНСМАШ



ГОЗ
ОБУХОВСКИЙ
ЗАВОД



KAZAN
HELICOPTERS
КАЗАНСКИЙ ВЕРТОЛЕТНЫЙ ЗАВОД



Armatura Mala
Panew Ozimek

► AWARDS

2007 - Exelent product
of the yead
Design Award

2009 - Inovation
of the year Award

2001 - IMT Brno
Gold Medal
FVP 120 CNC

2007 - IMT Brno
Gold Medal
FPPC 300/9 CNC

2011 - IMT Brno
Gold Medal
FVCT 180/2 CNC



► CONTACTS

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