



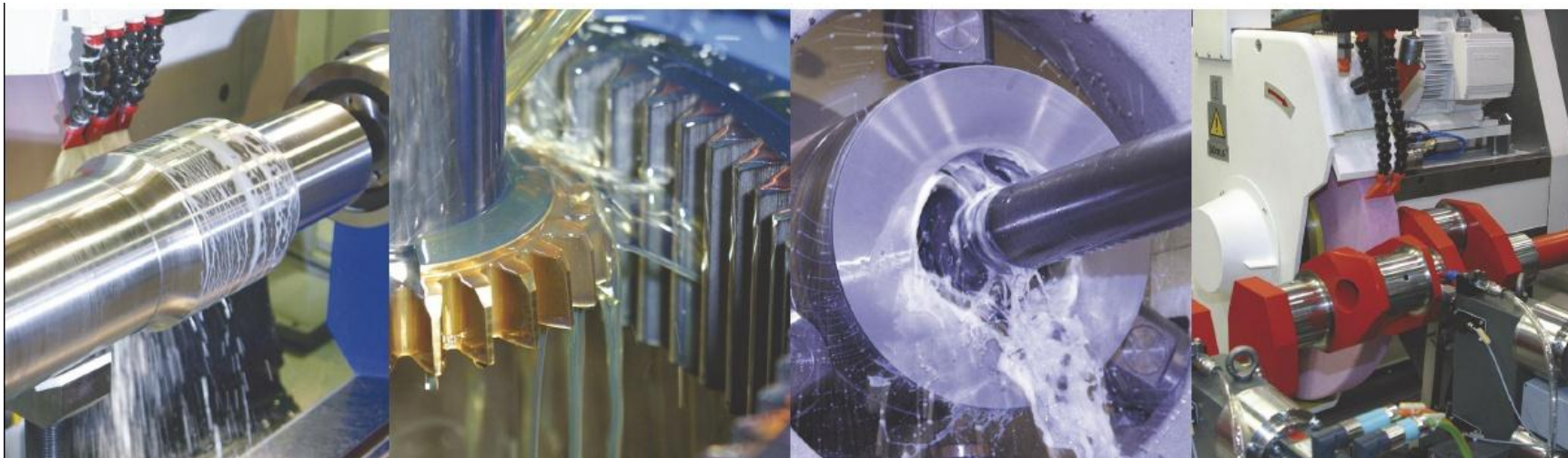
**SLOVÁCKÉ STROJÍRNY, A.S.
TOS ČELÁKOVICE**



CZECH REPUBLIC

TOS ČELÁKOVICE – more than 150 years of tradition

The product range of TOS Čelákovice covers high precise Grinding Machines, conventional and CNC Lathes and CNC Gear Cutting Machines. Machines are delivered also in technological sets adjusted according to requirements of the client. The latest product of the company is the very accurate TT75 multifunctional turning centre meeting the most demanding requirements of clients.



TOS ČELÁKOVICE





2011

Slovácké strojírný,a.s. Uherský Brod are the new owner of company TOS, a.s..
The company TOS became a part of the structure of Slovácké strojírný as an independent plant and
the official name is

Slovácké strojírný, a.s. – Plant 8 - TOS ČELÁKOVICE

Employees breakdown

	2012	2011	2010	2009	2008
Z8 – TOS	158	169	179	249	382

HISTORY

TOS HOSTIVAŘ, a.s. - Manufacturing of grinding machines

- **1856** Karel Jockel establishes the manufactory for manufacturing of working machines.
- **1913** Otakar Podhajský establishes workshop in Praha Hostivař for production of A/C equipments, office furniture and later plane grinders
1919 Jiří Kameníček purchases the workshop of Karl Jockel and moves it from Královské Vinohrady to Praha Hostivař. The company focuses to manufacturing of metal-cutting machines, centre lathes, drilling machines and later it produces centre and centre-less grinding machines.
- **1950** Companies Podhajský and Kameníček were joined and it subsequently originates in specialized manufacturer for production of grinding machines TOS Hostivař, n.p.
- **1974** TOS Hostivař, n.p. moves to new plant and it becomes the leading manufacturer of grinding machines for Eastern Europe.
- **1996** Basic structural changes were launched and company CETOS, a.s. is established and gained Lloyd certificate ISO 9001; it completely modernizes technology for manufacturing of CNC grinding machines

TOS ČELÁKOVICE, a.s. - Manufacturing of lathes

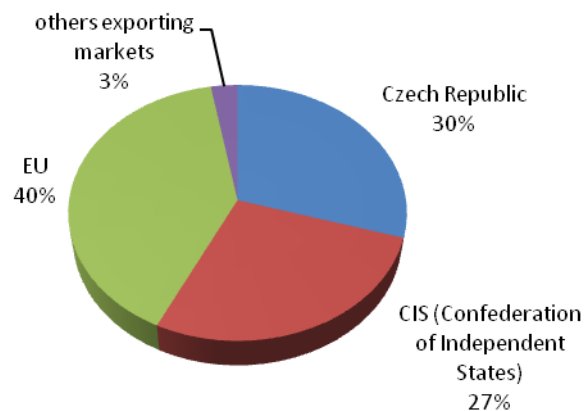
- **1910** Josef Volman produces in Čelákovice the metal-cutting machines, particularly turning machines and drilling machines.
- **1925** In the expanded plant the production of specialized turning machines launches, so far exclusively imported from abroad; both range of metal-cutting machines, and the company size has been expanded.
- **1950** Joining of plants in Čelákovice and Žebrák established TOS Čelákovice, n.p. as specialized manufacturer for production of centre lathes, drilling machines and gear cutting machines
- **1992** The established company TOS Čelákovice a.s. further produces actual range of metal-cutting machines with ISO certification 2004.
- **2004** Implementation into company CETOS, a.s. based in Praha Hostivař
- **2006** TOS, a.s. develops tradition of manufacturing of metal-cutting machines launched 152 year ago by Mr. Jockl, further Mr. Kameníček Podhajský and Volman and successfully developed by companies TOS Hostivař, CETOS and TOS Čelákovice. Implementation into company CTY GROUP, a.s.
After relocation we are established in modern plant in Čelákovice. The development and manufacturing of metal-cutting machines under trademark TOS continues and the machines are successfully supplied throughout the world.
- **2011** Slováké strojířny, a.s. Uherský Brod are the new owner of company TOS, a.s..



Revenues from own products (th. CZK)

Revenues from own products (th. CZK)					
	2012	2011	2010	2009	2008
Czech Republic	64 230	90 691	43 772	255 107	173 833
CIS (Confederation of Independent States)	59 560	47 230	77 102	81 182	84 567
EU	86 679	57 908	37 850	79 603	210 194
others exporting markets	6 055	15 405	0	0	0

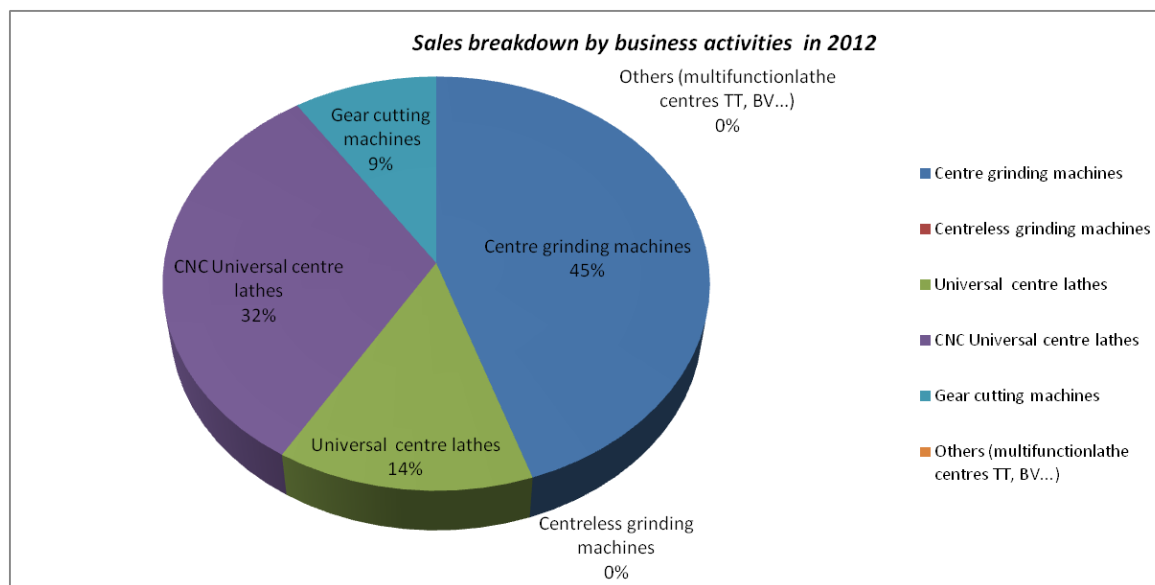
Importing and exporting markets - 2012





Sales breakdown by the main business activities (th. CZK)

	2012	2011	2010	2009	2008
Centre grinding machines	97 021	66 599	54 516	114 487	141 057
Centreless grinding machines	0	0	0	0	79 973
Universal centre lathes	30 019	26 885	16 776	24 703	23 533
CNC Universal centre lathes	69 255	72 064	41 712	112 101	168 115
Gear cutting machines	20 229	45 686	45 720	11 465	17 508
Others (multifunction lathe centres TT, BV...)	0	0	0	153 135	38 408
TOTAL	216 524	211 234	158 724	415 891	468 594



PRODUCTION HALL



PRODUCTION PROGRAM

GRINDING MACHINES:

BUA 25B NC Practic
BUA 25B CNC Profi
BUB 40, 50B NC Practic
BUB 40, 50B CNC Profi
BUB 50B CNC Multi
BUC 63, 85C NC Practic
BUC 63, 85C CNC Profi
C 250 CNC
C 500 CNC

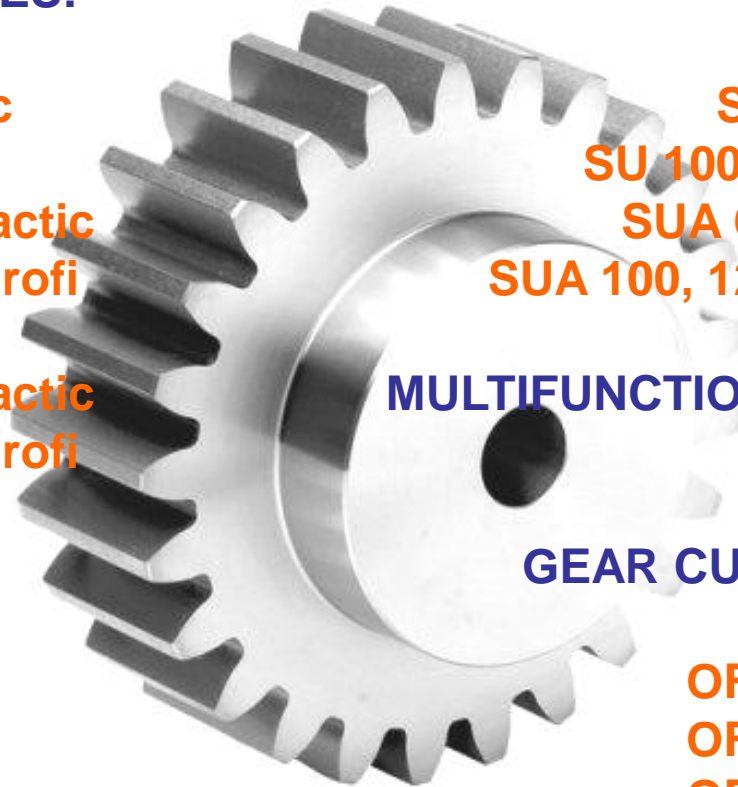
LATHES:

SU 63, 80 H
SU 100, 125, 150, 155 H
SUA 63, 80 Numeric
SUA 100, 125, 150, 170 Numeric

MULTIFUNCTIONAL LATHE CENTER:
TT 75

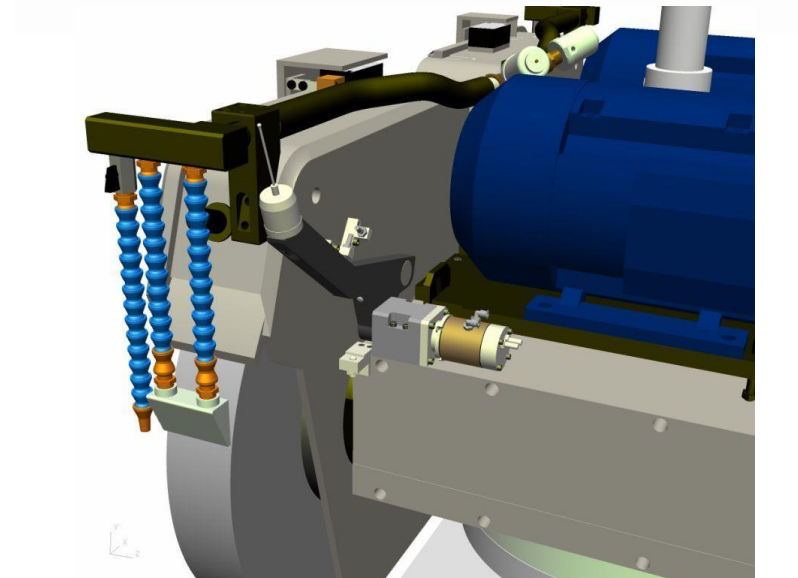
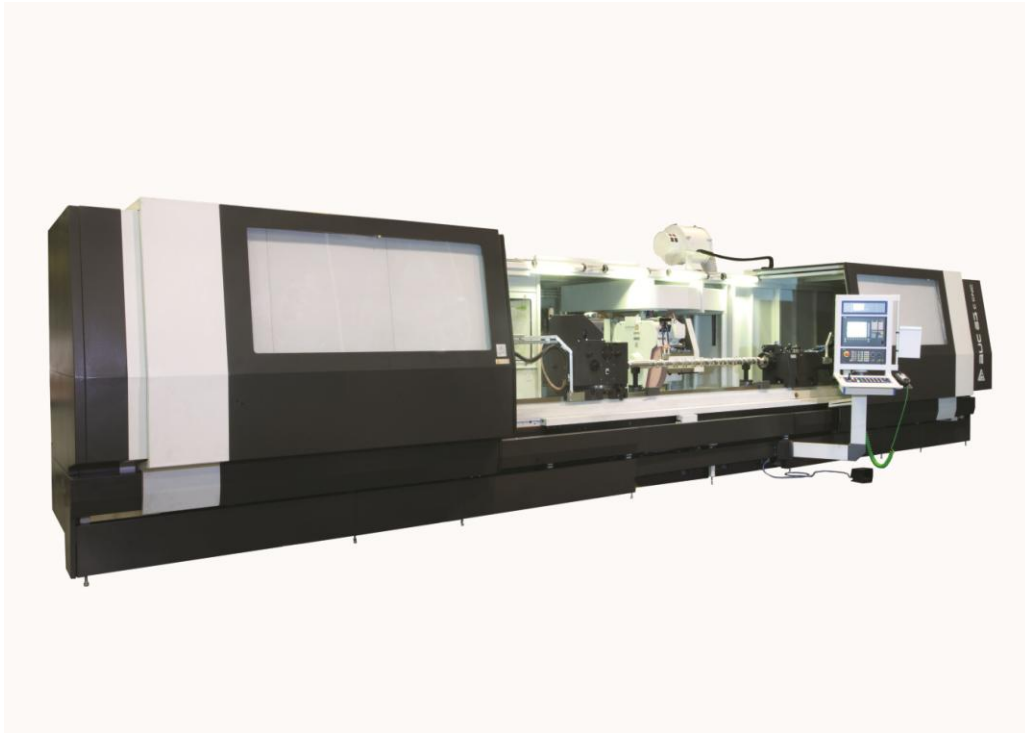
GEAR CUTTING MACHINES:

OFA 32 CNC 6
OFA 75 CNC 6
OFA 100 CNC 6
OHA 50 CNC 5



GRINDING MACHINES

**UNIVERSAL CYLINDRICAL
GRINDING MACHINES
BUA, BUB, BUC NC and CNC**



TECHNICAL PARAMETERS

BUA 25B		PRACTIC, PROFI	
Swing diameter	mm	250, 315 *)	
Distance between centres	mm	500, 750, 1 250	
Maximum weight of work piece	kg	250	
Live spindle grinding, including fixture	kg	50	
Between dead centres	kg	X	
Grinding wheel dimension	mm	400 x 40 x 127	
Max. peripheral speed of grinding wheel	m/s	50	
Work head spindle revolutions	1/min	20 - 800	
Wheel head swiveling range (manual)	°	+45 ÷ -15	
(Practic, Profi)			
Work head swiveling range (manual)	°	0 ÷ +90	
Table swiveling with a centre distance of (mm):			
500	°	+10°30' ÷ -6°	
750	°	+9 ÷ -5°	
1 250	°	+6°30' ÷ 3°30'	
Electrical network - standard		3 x 400 v, 50Hz, TN-C-S	
Wheel head motor power	kW	5,5 S6 - 60%	
Total peak power demand of machine	kVA	18	
Tolerance of work piece diameter	IT 4		
Weight of machine with standard accessories with centre distance of (mm)			
500	kg	3 650	
750	kg	3 950	
1 250	kg	4 250	

*other machine execution or special accessories

TECHNICAL PARAMETERS

BUB 40(50)B		PRACTIC, PROFI		MULTI
Swing diameter	mm	400, 500		500
Max. distance between centres	mm	1 000, 1 500, 2 000, 3 000		1 000, 1 500, 2 000, 3 000
Max. work piece weight between dead centers	kg	500		500
Live spindle grinding including fixture	kg	100(250)*		100
Between dead centres and supported by steady rests	kg	700		700
Grinding wheel dimensions- standard	mm	500 x 80 x 203		500 x 80 x 203
Max. peripheral speed of grinding wheel	m/s	50		50
Work piece revolutions	1/min	6-170, 30-900		6-170, 30-900
Wheel head swiveling range (manual) (Practic, Profi)	°	-15 ÷ +45		
Programming wheel head swiveling range (Multi)	°			-195 ÷ +30
Work head swiveling range (manual)	°	0 ÷ +90		0 ÷ +90
Table swiveling with a centre distance of (mm):				
1 000	°	+ 8°30' ÷ -4°30'		+ 8°30' ÷ -4°30'
1 500	°	+7 ÷ -4°		+7 ÷ -4°
2 000	°	+6°-3'		+6°-3'
3 000	°	+4°30' ÷ -2°		+4°30' ÷ -2°
Power supply - standard		3 x 400 v, 50Hz, TN-C-S		3 x 400 v, 50Hz, TN-C-S
Wheel head motor power	kW	11		11
Total peak power demand of machine	kVA	51		51
Tolerance of work piece diameter		IT 4		IT 4
Machine weights with standard equipment (mm)				
BUB		BUB 40B	BUB 50B	MULTI
1 000	kg	6 750	7 000	8 000
1 500	kg	7 250	7 500	8 500
2 000	kg	7 750	8 000	9 000
3 000	kg	8 650	8 900	10 400

*other machine execution or special accessories

TECHNICAL PARAMETERS

BUC 63(85)C PRACTIC, PROFI, MULTI		PRACTIC, PROFI		MULTI	
Swing diameter	mm	630, 850		630, 850	
Max. distance between centres	mm	2 000, 3 000, 4 000 5 000, 6 000		2 000, 3 000, 4 000 5 000, 6 000	
Max. work piece weight between dead centers	kg	3 000		3 000	
live spindle grinding including fixture	kg	300		300	
between dead centres and supported by steady rests	kg	4 000		4 000	
Grinding wheel dimensions- standard	mm	750 x 100 x 305		750 x 100 x 305	
Max. peripheral speed of grinding wheel	m/s	50		50	
Work piece revolutions	1/min	4 - 38, 24 - 230		4 - 38, 24 - 230	
Wheel head swiveling range (manual) (Practic, Profi)	°	+30 ÷ -10			
Programming wheel head swiveling range (Multi)	°			-225 ÷ +45	
Work head swiveling range (manual)	°	0 ÷ +90		0 ÷ +90	
Table swiveling with a centre distance of (mm):					
2 000	°	+ 6°30' ÷ -5°		+ 6°30' ÷ -5°	
3 000	°	± 5°		± 5°	
4 000	°	± 4°		± 4°	
5 000	°	± 3°		± 3°	
6 000	°	0°		0°	
Electrical network - standard		3 x 400 V, 50Hz, TN-C-S		3 x 400 V, 50Hz, TN-C-S	
Wheel head motor power	kW	19 S6 - 60%		19 S6 - 60%	
Total peak power demand of machine	kVA	65(85)*		65(85)*	
Tolerance of work piece diameter		IT 4		IT 4	
Machine weights with standard equipment (mm)					
BUC		BUC 63	BUC 85	BUC 63	BUC 85
2 000	kg	12 540	12 840	15 350	15 650
3 000	kg	14 250	14 530	17 600	17 900
4 000	kg	15 960	16 260	19 600	19 900
5 000	kg	17 670	17 930	21 950	22 250
6 000	kg	19 380	19 690	24 200	24 500

*other machine execution or special accessories

DETAIL – GRINDING OF THE AXLE

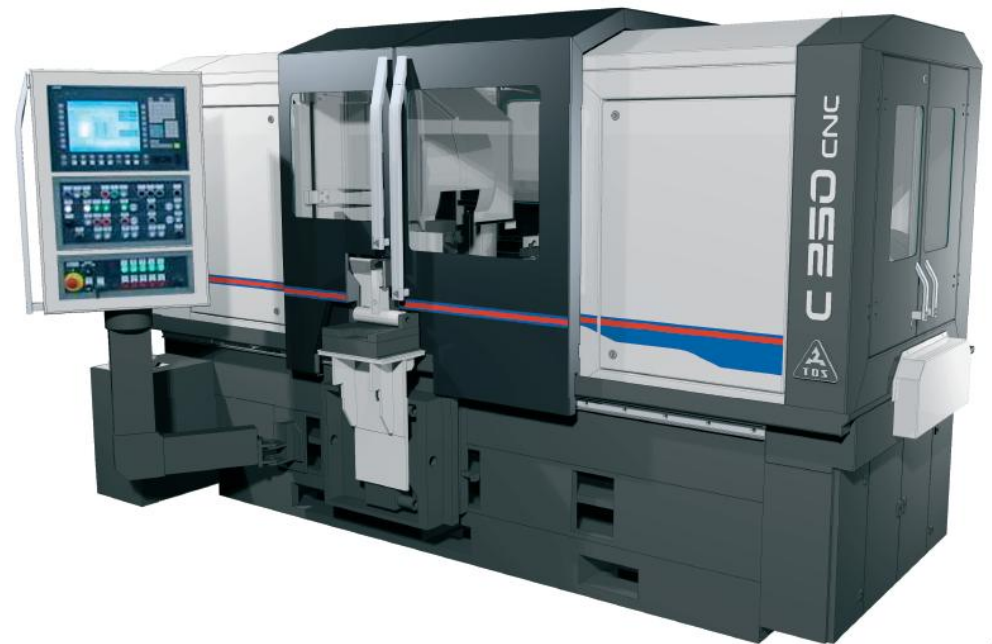
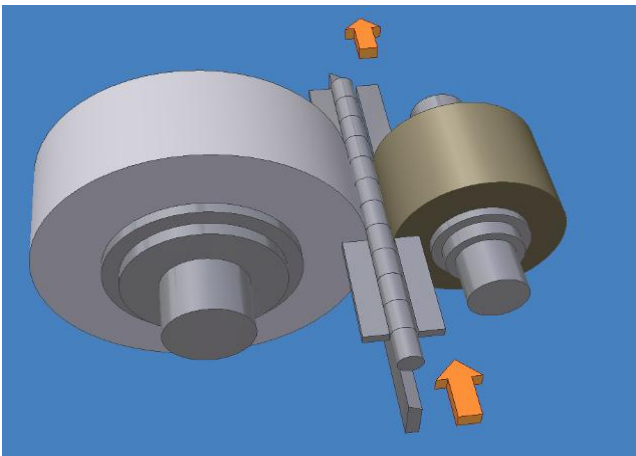
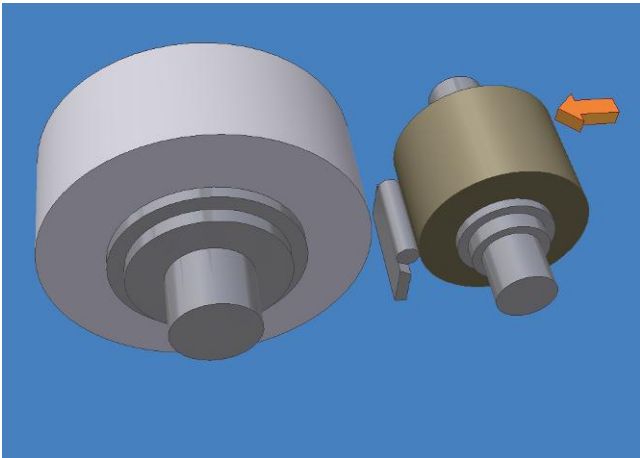


DETAIL – INTERNAL GRINDING

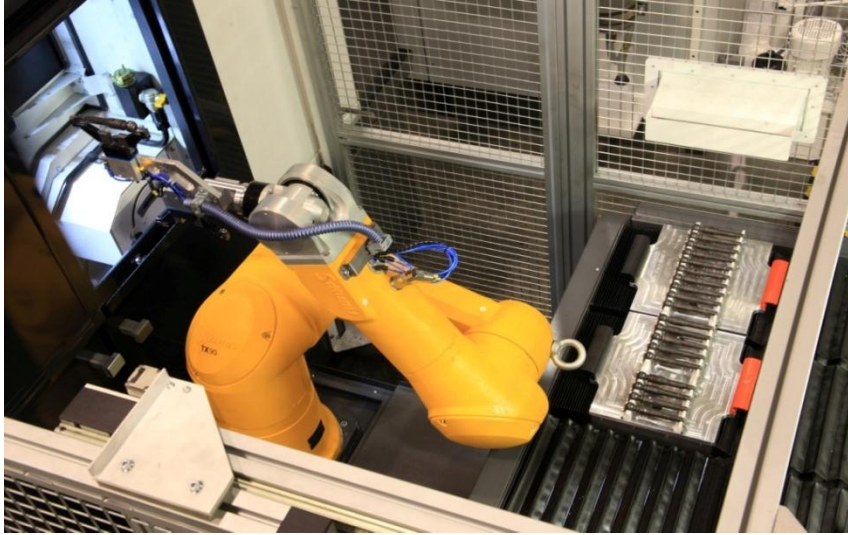


GRINDING MACHINES

CENTRELESS GRINDING MACHINES C 250 CNC, C 500 CNC



CENTRELESS GRINDING MACHINES



**NEW C 250 CNC
WITH ROBOT**



TECHNICAL PARAMETERS

C 250 CNC, C 500 CNC		C 250 CNC	C 500 CNC
Min. grinding diameter of work piece	mm	0,8	3
Max. grinding diameter of work piece for through – feed grinding	mm	100	220
Max. grinding diameter of the work piece for plunge – cut grinding	mm	100	200
Max. length of the work piece without special feeding for through grinding	mm	300	500
Max. length of the work piece with special feeding for through-feed grinding	mm	4 000	6 000
Max. length of the work piece with special feeding for plunge-cut grinding	mm	245	480
Grinding wheel dimension (standard)	mm	650 x 250 x 304,8	650 x 500 x 304,8
Regulation wheel dimension (standard)	mm	355 x 250 x 152,4	380 x 600 x 203,2
Max. circumference velocity of the grinding wheel	m/s	63	63
Stepless regulated of regulating wheel speed	1/min	5 - 914	5 - 800
Grinding wheel drive power	kW	22	55
Total peak power demand of machine	kVA	50	95
Total machine weight	kg	13 650	19 200

UNIVERSAL CENTRE LATHES

CONVENTIONAL

SU 63,80,100,125,150, 155 H



TECHNICAL PARAMETERS

SU		63H, 80H	100H, 125H, 150H, 155H
Operating range			
Swing over bed	mm	Ø 655, 840	Ø 1 050, 1 250, 1 500, 1 570
Swing over cross-slide	mm	Ø 390, 530	Ø 730, 940, 1 200, 1 260
Swing over prolonged slides with T slots	mm	Ø 320, 450	Ø 630, 840, 1 100, 1 160
Distance between centres	mm	1 250, 2 000, 2 750, 14 000	2 000, 3 000, 4 000 - 20 000
Max. work piece weight in centres/in fixed steady	kg	6 000/8 000	6 000/ 8 000(*10000/14000)
Spindle (ISO 702/III.) (American Standard,CAMLOCK)*		size 11	size 11(15*)
Bore Ø	mm	82(92,102*)	122(165,208,260*) 260mm only A2-15 !!
Speed range (rpm)	rpm	SU63H 7,1-900, SU80H 9-1 120 10-1250(22KW*)	SU100H1,8-560; SU125H2,24-450; SU150H 1,8-355
Main motor output	kW	18,5 (22*)	22 (30*)
Carriage			
Operating feed			
Longitudinal	rpm	0,049-48	0,08 – 56
Cross	rpm	0,0245-1,5	0,0245-1,5
Rapid traverse			
Longitudinal	mm/min	4 300	3 600
Cross	mm/min	2 150	1 200
Cut thread pitch			
Metric	mm	0,5 - 224	1 - 112
Whitworth	thread/1"	56 - 1/4	28 - 1/4
Module	modul	0,25 - 56	0,5 - 28
Diametral Pitch	D.P	112- 1,2	56 - 1
Circular Pitch	C.P	1/64 - 3"	1/16 - 3"
Tailstock			
Tailstock barrel	mm	Ø 130	Ø 150(Ø 220*)
Taper	mm	MK6	100 (1:20)/120*(1:20)
Tailstock barrel extension	mm	275, 335	200(350*)
Adapter		100 (MK6)	
Heavy duty tailstock *	kg	x	10000/12000/14000
Total power input	kVA	20	31 (40)
Weight	kg	5 200 – 10 300	7 200 – 22 000

*other machine execution or special accessories

UNIVERSAL CENTRE LATHES

CNC

**SUA 63,80,100,125,150, 170
NUMERIC**



TECHNICAL PARAMETERS

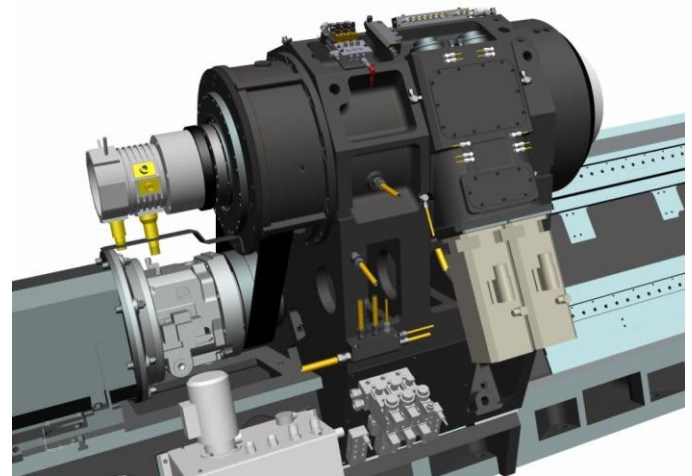
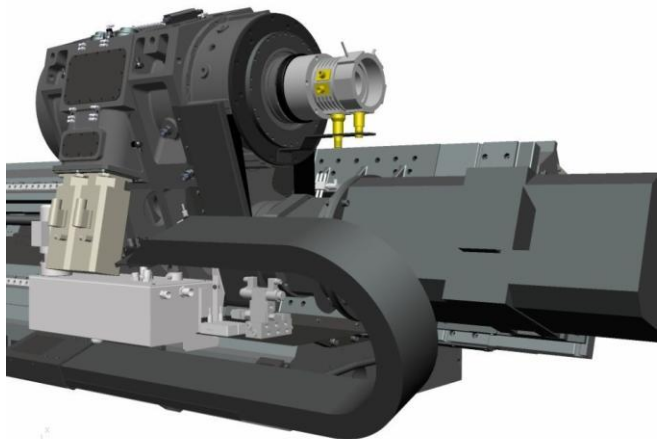
SUA		63, 80, 90 NUMERIC	100, 125, 150, 170 NUMERIC
Operating range			
Swing over bed	mm	Ø 655, 840, 900	Ø 1 050, 1 250, 1 500, 1 700
Swing over cross-slide	mm	Ø 380, 530, 600	Ø 720, 930, 1 190, 1 400
Swing over prolonged flat hardened cross slides	mm		Ø 550, 760, 1 020, 1 230
Swing over prolonged cross slides	mm	Ø 320, 450, 520	Ø 630, 840, 1 100, 1 310
Distance between centres	mm	2 000, 2 750 - 14 000	2 000, 3 000, 4 000 - 20 000
Max. work piece weight in centre/in fixed steady	kg	6 000/8 000	6 000/8 000 (* 10 000/14 000)
Spindle			
Bore	mm	102, 128	128(165,208,260*)
Speed range (rpm)	rpm	5-1 400; 5- 1 250	4 – 630 (800,1000 only size 11 *)
Main motor output	kW	30(37*)	37(51*)
Carriage			
Operating feed			
Longitudinal	rpm	1 - 1 000	1 - 1 000
Cross	rpm	1 - 1 000	1 - 1 000
Rapid traverse			
longitudinal	mm/min	5 000	5 000
cross	mm/min	5 000	5 000
Tailstock			
Tailstock barrel	mm	Ø 130, Ø 165	Ø 165 (* 220)
Taper in tailstock barrel		MK6	100 (1:20); (*120 (1:20))
Travel of tailstock barrel	mm	275, 335	350
Machine			
Total power input	kVA	57	67
Weight	kg	4 900 – 15 000	7 400 – 24 000

*other machine execution or special accessories

MULTIFUNCTIONAL TURNING CENTER



TT75



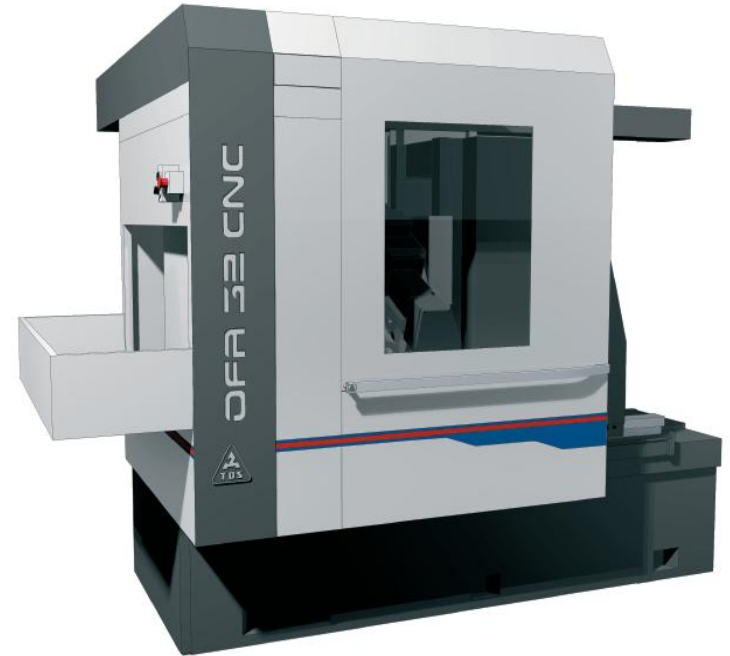
TECHNICAL PARAMETERS

TT 75

Swing over bed guide covers	mm	1 000
Maximum diameter of lathing above supports in whole range	mm	750
Length variants of the machine	mm	2 000, 3 000, 4 000, 5 000, 6 000
Max. longitudinal lift of upper support Z1	mm	2 350, 3 350, 4 352 5 350, 6 350
Maximum transverse lift of upper support X1	mm	782
Maximum lift of Y1 axis	°	+120/-90
Maximum rotation speed	rpm	1 900 (2 500)
Tool clamping		CAPTO C6, C8, HSK 80
Angle of fluent displacement of axis B	°	± 102,5
Max. weight of work piece	kg	3 000 (4 500)

GEAR CUTTING MACHINES

OHA 50 CNC 5



OFA 32 CNC 6

TECHNICAL PARAMETERS

OFA		OFA 32 CNC 6	OFA 75 CNC 6	OFA 100 CNC 6
Working capacity				
Max. module to be geared	mm	7	12 (14*)	14 (16*)
Max. dia to be geared	mm	320	750 (900*)	1 050(1120**)
Min. number of teeth to be geared		3	3	3
Max. helix angle of teeth	°	±45	±45	±45
Max/min distance hob axis :				
Table axis	mm	300/40	580/60	625/80
Surface of table	mm	505/205	850/220	850/220
Clamping table				
Diameter	mm	300	680	890
Bore	mm	80	150	180
Hob carriage				
Taper in spindle		MORSE 5	MORSE 5	MORSE 5
Max. carriage travel	mm	300	630	630
Hob tangential adjustment	mm	158	250	250
Max. dia of hob	mm	160	190	190
Max. length of hob	mm	220	300	300
Range of hob speeds	1x min ⁻¹	71 -700	25 -450	25 - 450
Main motor output	kW	12	28	28
Working feed axial	mm.min ⁻¹	1 - 1 000	0,01 - 340	0,01 - 340
radial	mm.min ⁻¹	0,5 - 1 000	0,01 - 170	0,01 - 170
tangential	mm.min ⁻¹	0,25 - 1 000	0,1 - 170	0,1 - 170
Rapid traverse axial	mm.min ⁻¹	2 000	2 500	2 500
radial	mm.min ⁻¹	3 000	3 000	3 000
tangential	mm.min ⁻¹	2 000	3 000	3 000
Machine				
Total input required	kVA	45	70	70
Dimensions: length	mm	4 213	4 050	4 500
width	mm	3 150	3 530	3 530
height	mm	2 800	3 100	3 100
Weight	kg	8 000	13 500	14 000

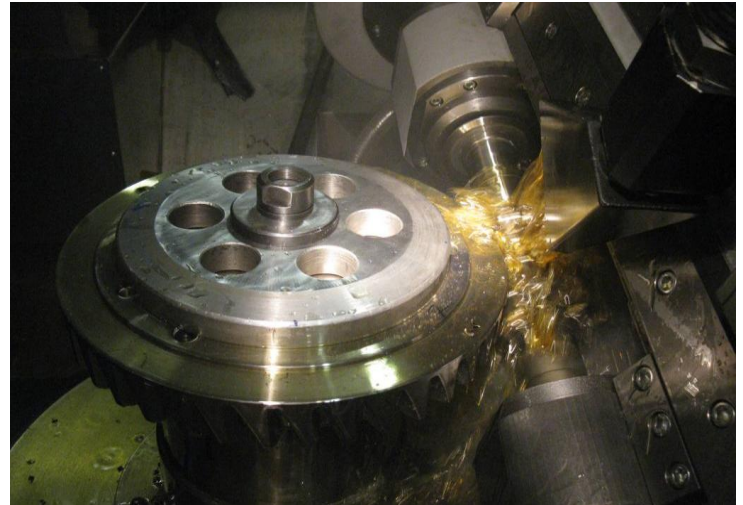
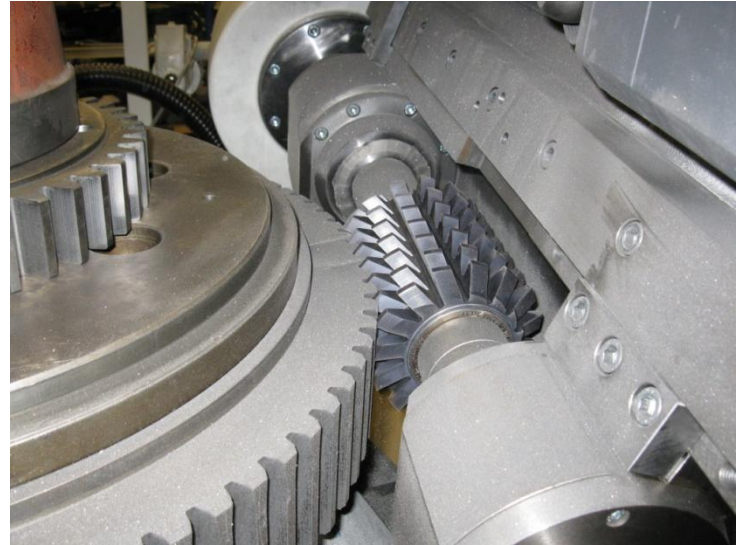
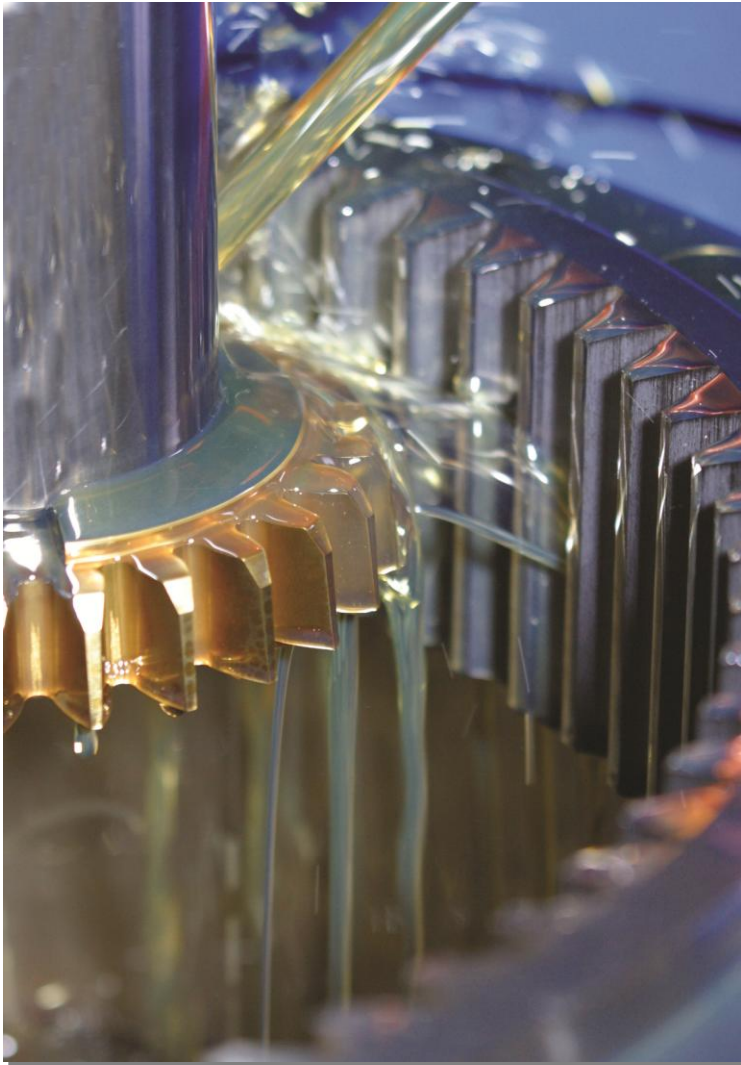
*other machine execution, for steel up to 600Mpa

**without support with supporting column

TECHNICAL PARAMETERS

OHA		OHA 50 CNC 5
Working capacity		
Max. module of gearing to be shaped	mm	8
Max. diameter of gearing to be shaped	mm	500
Max. out diameter of gear	mm	800
Max. width of gearing to be shaped	mm	125
Clamping table		
Diameter	mm	500
Bore	mm	205
Max. table load	kg	300
Ram slide		
Vertical travel	mm	280
Max. ram stroke	mm	135
Max. distance ram axis:		
To table axis	mm	355
To the right	mm	125
Max. helix angle of teeth with nominal dia cutter	°	±41
Range of double-strokes	mm.min ⁻¹	40 - 800
Circular feeds range	mm.min ⁻¹	0 - 1 900
Radial feeds range	mm.min ⁻¹	0 - 5 000
Rapid traverse	mm.min ⁻¹	5 000
Main motor output	kW	17
Machine		
Total input required	kVA	45
Dimensions :		
Length	mm	3 500
Width	mm	2 800
Height	mm	2 950
Weight	kg	7 200

DETAIL – GEAR HOBBLING AND SHAPING



SALES DEPARTMENT

TERRITORIAL MANAGERS

Karel Jansa

Tel.č. : +420 283 006 229

Mobil: +420 733 789 769

E-mail: jansa.karel@sub-tos.cz

Martin Štěbra

Tel.č. +420 283 006 227

Mobil: +420 733 789 763

E-mail: stebra.martin@sub-tos.cz

Vladimír Vágner

Tel.č. +420 283 006 213

Mobil: +420 733 782 140

E-mail: vagner.vladimir@sub-tos.cz

Antonín Petera

Tel.č. +420 326 633 339

Mobil: +420 733 782 138

E-mail: petera.antonin@sub-tos.cz

Vilibald Wanča

Tel.č. +420 283 006 215

Mobil: +420 734 417 737

E-mail: wanca.vilibald@sub-tos.cz

Jelena Hášová

Tel.č. +420 283 006 202

Mobil: +420 733 782 132

E-mail: hasova.jelena@sub-tos.cz

Czech Republic

Slovak Republic

Poland, Hungaria, Bulgaria

Romania

Sweden, Norway, Spain, Portugal

Belgium, France, Luxembourg, South America

Egypt, Turkey, Southeast Asia, Korea, China

USA, Kanada, Lithuania, Latvia

Estonia, Ukraine, Belarus

Netherlands, United Kingdom, Ireland

Saudi Arabia, Morocco, India

Germany, Austria, Switzerland

Slovenia, Croatia

Finland, Denmark, Switzerland, Germany

Hungary, Romania, Australia

Thailand, Malaysia, Indonesia, India

New Zealand, Central America, Mexico

Russia, Kazakhstan and others CIS countries

SERVICE

Service centre of TOS ČELÁKOVICE provides following services to its customers:

- Commissioning of new machines
- Training of operators and advisory activities
- Warranty and after-sale repairs of machines of own production Delivery of spare parts for machines of own production



You can contact us:

Head of service department:

Pavel Tůma
Tel: +420 733 789 762
Email: tuma.pavel@sub-tos.cz

Service department:

Tel: +420 326 663 224, 230
E-mail: service-tos@sub-tos.cz

SLOVÁCKÉ STROJÍRNY, A.S.

Slovácké strojírny, a.s. are, with more than 60-year long tradition of advanced engineering manufacture, one of the most significant engineering companies in the Zlín region. The company created within itself conditions for a stable reduction of internal expenses, flexibility of manufacture, required product quality assurance and a substantial increase of labor productivity.

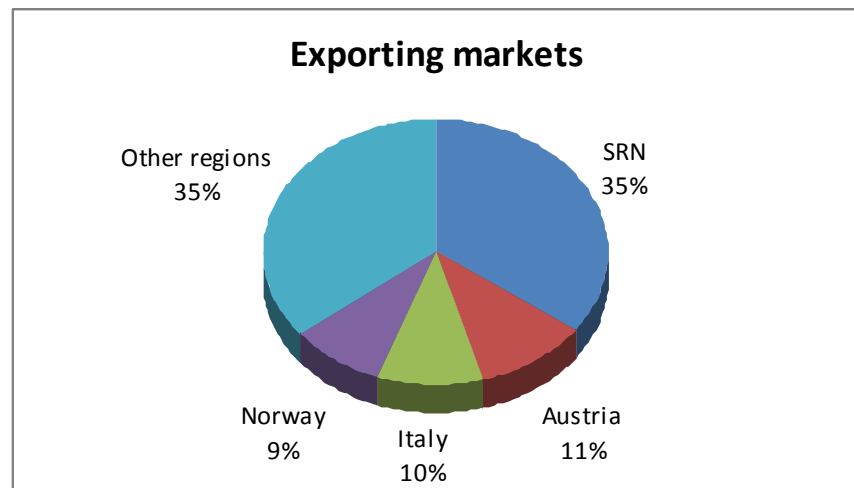




This fact made it already possible to apply our production on developed markets (mostly Federal Republic of Germany, Holland, Austria, Switzerland) and to restore export of aluminum industry cranes to markets of Egypt and Russia. Fulfillment of manufacturing capacities with secured return ability of invested financial resources provides an expectation of stability and a perspective of the corporation into the future.

In 2011 68,9% from revenues = export

from this:	35,00%	SRN
	10,60%	Austria
	10%	Italy
	9%	Norway
	35,50%	Other regions



The process of restructuralization of every sphere of the company activities was proved correct in June 1998 by gaining the **ISO 9001 certificate** and by it's renewal in next years. Since year 2009 the company is awarded by environmental certificate **ČSN EN ISO 14001:2005**



Company Slovákcké strojírný, a.s. has plants in 5 cities in Czech Republic (Uherský Brod, Čelákovice, Postřelmov, Most, Zábřeh na Moravě) . The head office is situated in city of Uherský Brod, Nivnická 1763.



Revenues from own products

(mil. CZK)	2011	2010	2009	2008
inland revenues	484	366	344	215
foreign revenues	1 092	915	1 165	1 525
GRAND TOTAL	1 576	1 280	1 508	1 740

Plants of Slovácké strojírny

Plant 1,2 Uherský Brod

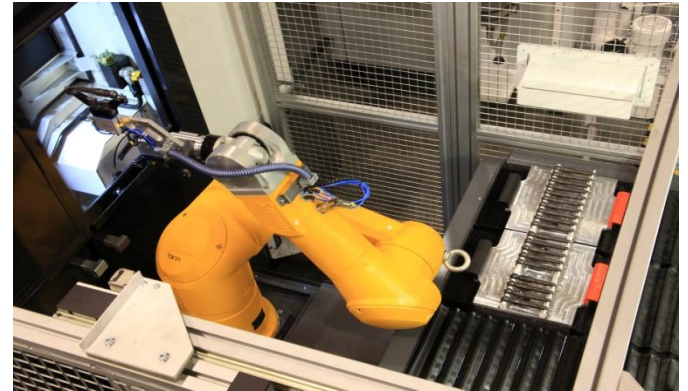
- Fire platforms, presses for rubber processing, special machinery and electric bridge cranes, it's accessories and steel constructions.





Plant 5 – MEP Postřelmov

Development and manufacturing of electrical



Plant 8 – TOS Čelákovice

Development and manufacturing of machine tools

Plant 7 - KSK Komořany

Machinery for mining industry



Plant 9 - Zábřeh na Moravě

Foundry



CONTACTS

ADDRESS:

Slovácké strojírnny,a.s.
Plant 8 – TOS Čelákovice
Stankovského 1892
250 88 ČELÁKOVICE
CZECH REPUBLIC

www.tosas.cz

CONTACTS:

Plant Director

Ing. Stanislav Janáč

E-mail: janac.stanislav@sub-tos.cz

Sales Director

Ing. Miroslav Berecký

Tel: +420 731 669 601

E-mail: berecky.miroslav@sub-tos.cz



GPS: 50°9'49.66"N; 14°44'29.05"E