UNiT PLUS s.r.o.

PROFILE

About us

- Establishment: 1996
- Number of co-partners: 2
- Number of employees: 25
- Annual turnover: 1,1 – 1,5 mil. EUR

  (without production program Underfloor lathe machine)
- Company operates in sum: 2 327 m^2
- Share of export: 27 %

Basic Company Activities

- Development and production of special-purpose machines
- Research and development
- Production and sale own products
- Constructional working
- Production of non-standard cold formed parts
- Production of rotating metalcompressing stampings
- General engineering production

Certificates

- System for Auality Management according to ČSN EN ISO 9001: 2009

  Sphere of Activities: Development and production of special purpose machines and equipment

  Issued: TÜV CZ, 22.12.2011

- Qualified Supplier

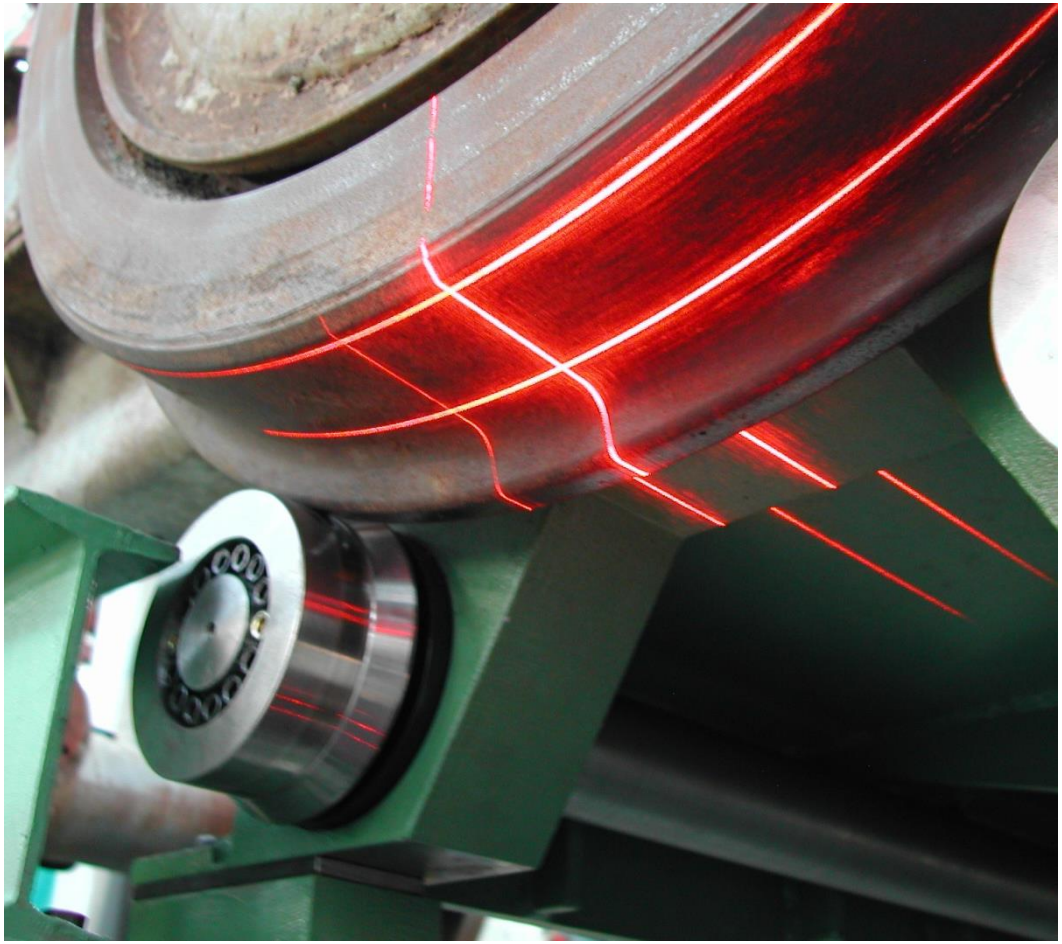
  Sphere of Activities: Machining and forming cooperation of consignement of nuclear and non-nuclear type

  Issued: ŠKODA JS a.s., 23.9.2013

Research and Development

- r. 2000 TECHNOS - Underfloor Lathe
  PUS 1435/80 CNC
- r. 2004 IMPULS - Machinery for tram wheel profiles measuring „MZTK“
- r. 2005 IMPULS - Underfloor Lathe PUS-CNC
- r. 2006 IMPULS - Tube bending machine XOT 80 CNC

Machinery for Tram Wheel Profiles Measuring MZTK and Unterfloor Lathe PUS-CNC

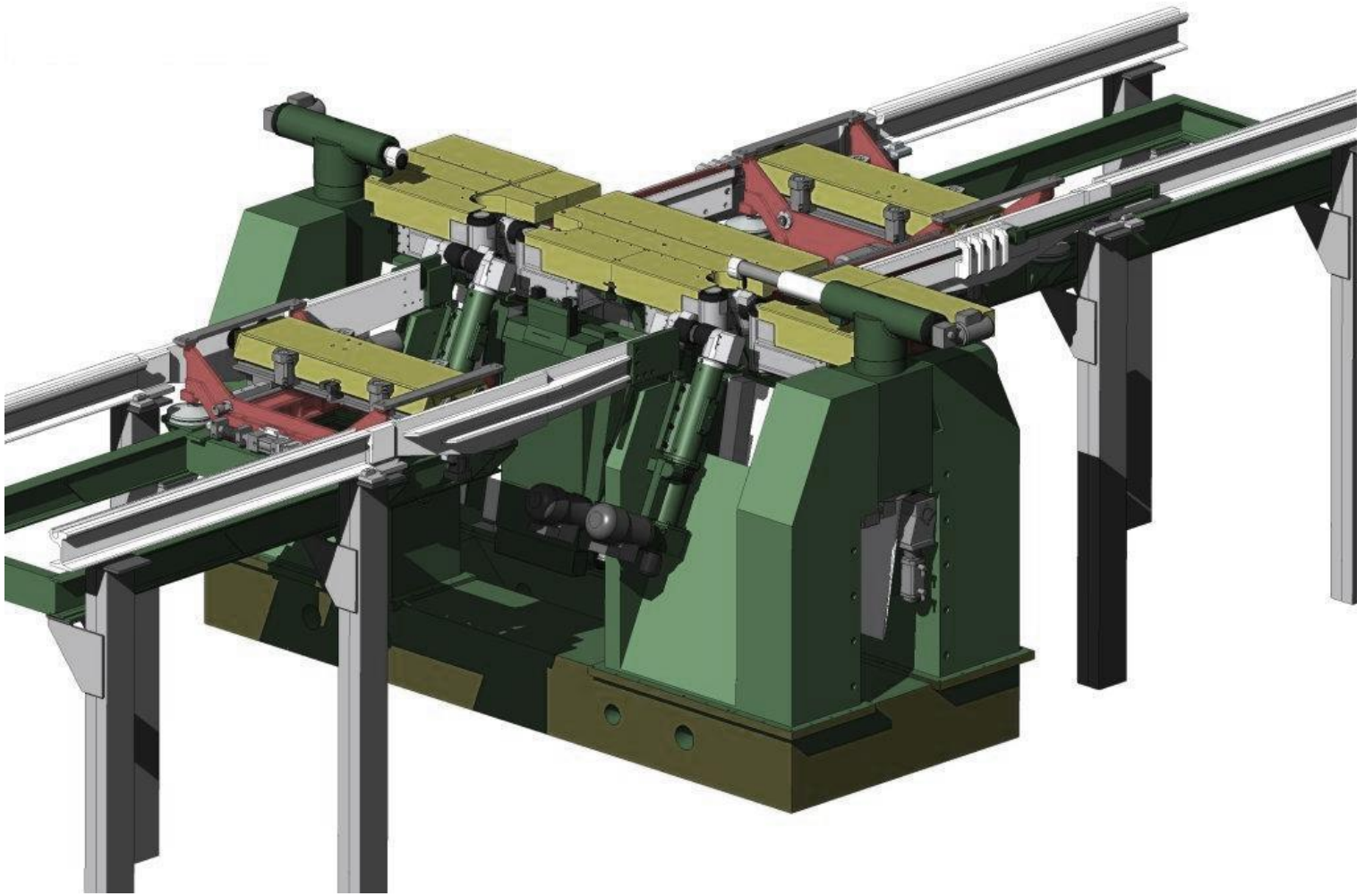




The Most Successful Products

- Underfloor lathe PUS 1435/80 CNC
- Tube bending machines XOTR
- Tube bending machine XOTS 35
- Tube bending machine XOTL 60
- Tube bending machine XOTL 80
- Tube bending machine XOT 80 CNC
- Multipliers of clamping moment NMK
- Epicyclic gears
- Hydraulic puller of tram wheels HSTK 30/150
- Edging machine LS 01
- Tube expanders PZ 400
- Tools for roller burnishing

Underfloor Lathe PUS 1435/80 CNC



Underfloor Lathe PUS 1435/80 CNC



Basic Effects Connected with the Usage of the Underfloor Lathe

- **Safety and protection against derailing**
- **Ekology in the transport**
  - **Remarkable reduction of the noisiness**
  - **Increasing the travel comfort**

- Saving of material of tyres and monoblocs
- Saving the rail tops
- Reduction of dynamic vibration of the vehicle and thus following destruction of its parts
- Saving of labour consumption while disassembling the chassis and tram wheels

Patents

- No. 288116 awarded 21.2.2001

  Equipment for Machining of Wheel Driving Profiles of Coupled Rail Vehicles

- No. 293000 awarded 20.11.2003

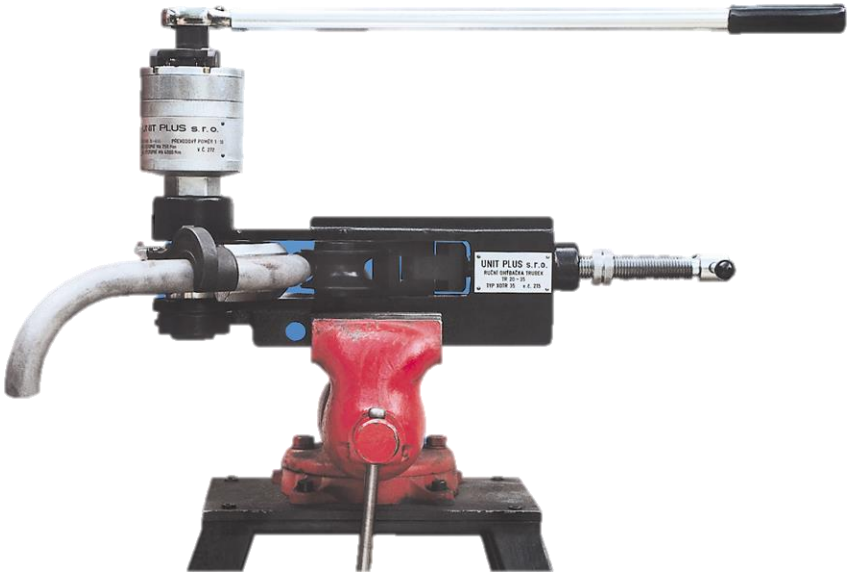
  Underfloor Lathe

- No. 296271 awarded 22.12.2005

  Machinery for Measuring and the Following Scoring of the Mutual Geometry of Particular Sheel Set

Manuall Tube Bending Machines

XOTR 35



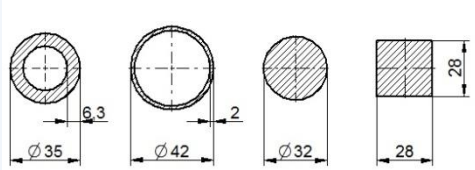
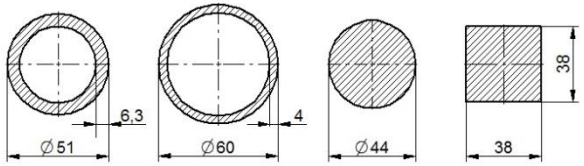


XOTR 60





Tube Bending Machines XOTR

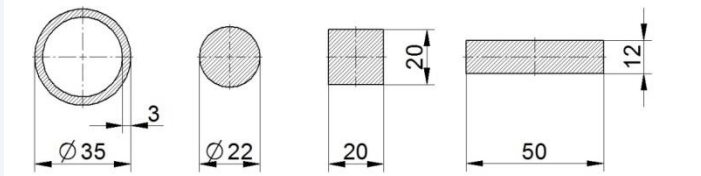
		Tube Bending Machine						Tube Bending Machine				
		XOTR 35						XOTR 60				
Range of bended tube Ø [mm]		20 ÷ 35						35 ÷ 60				
Bending segments for Ø of tubes	[mm]	20	25	28	30	32	35	35	38	44	51	
	["]	½	¾			1				1¼	1½	2
Radius of bending on the axe of tube [mm]		60	75	90		110		110		130	150	180
Max. cross-section of bended materials												
Cassette dimensions [mm]		740 × 260 × 185 550 × 340 × 200						860 × 310 × 215 360 × 260 × 220 - 2×				
Weight [kg]		30 40,5						56 25 - 2×				
Basic accessories:		Body, transmission, segments, level with pawl										

Tube Bending Machine XOTS 35





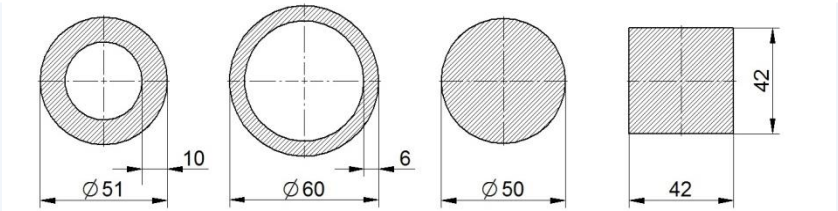
Tube Bending Machine XOTS 35

Range of bended tube Ø [mm]		**20 ÷ 35**						
Bending segments for Ø of tubes	[mm]	20	25	28	30	32	35	Atyp. 6÷35
	["]	½	¾			1		
Radius of bending on the axe of tube mm]		60	75	90		110		18÷110
Max. cross-section of bended materials								
Dimensions – length x width x height [mm]		860 x 2500 x 1060						
Max. length of a clamped tube [mm] (towards beginning of 1st bend)		1900						
Weight [kg]		140						
Input [kW]		1,8						
Supply voltage [V]		400						
Output speed [min^{-1}]		4,7						

Tube Bending Machine XOTL 60



Tube Bending Machine XOTL 60

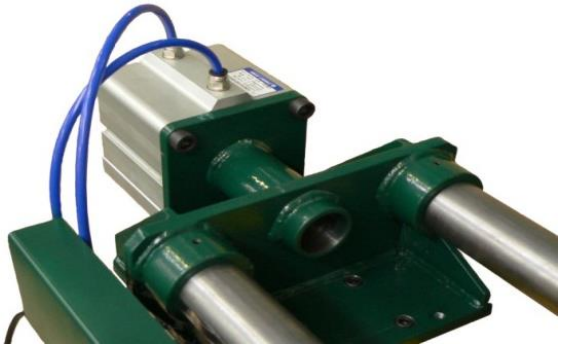
Range of bended tube Ø [mm]		**20 ÷ 60**									
Bending segments for Ø of tubes	[mm]	20	25	28	30	32	35	38	44	51	60	Atyp. 10÷60
	["]	½	¾			1			1¼	1½	2	
Radius of bending on the axe of tube [mm]		60	75	90		110			130	150	180	20÷330
Max. cross-section of bended materials											
Dimensions – length x width x height [mm]		1 550 × 530 × 1050									
Weight [kg]		260									
Input [kW]		2,6 / 3,1									
Supply voltage [V]		400									
Output speed [min^{-1}]		1,44 / 2,85									

Accessory Equipment for XOTL 60

Digital length admeasurement



Pneumatic loosening of the mandrel



Spec. accessory for bending flat and square bars



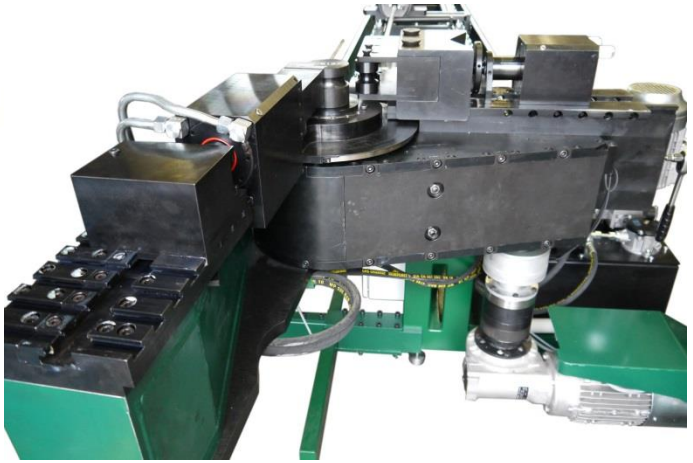


Hydraulic equipment

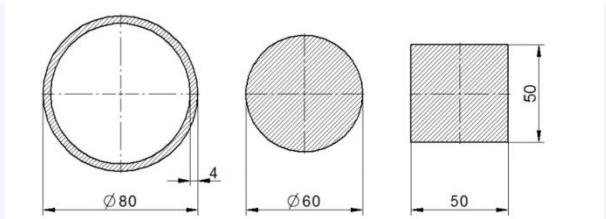


Tube Bending Machine XOTL 80





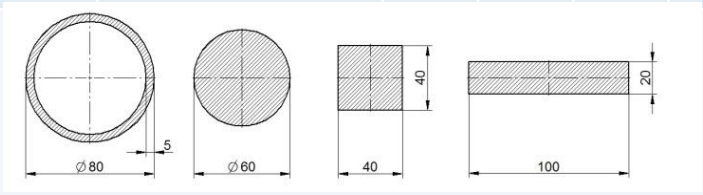
Tube Bending Machine XOTL 80

Range of bended tube Ø [mm]		**20 ÷ 80**										
Bending segments for Ø of tubes	[mm]	20	25	28	30	32	35	38	44	51	60	80	Atyp. 10÷80
	["]	½	¾				1		1¼	1½	2		
Radius of bending on the axe of tube [mm]		60	75	90			110		130	150	180	240	20÷260
Max. cross-section of bended materials												
Dimensions – length x width x height [mm]		1595 x 1144 x 1021										
Weight [kg]		636										
Input [kW]		2,6/ 3,1										
Supply voltage [V]		400										
Output speed [min^{-1}]		0,81/1,61										

Tube Bending Machine XOT 80 CNC



Tube Bending Machine XOT 80 CNC

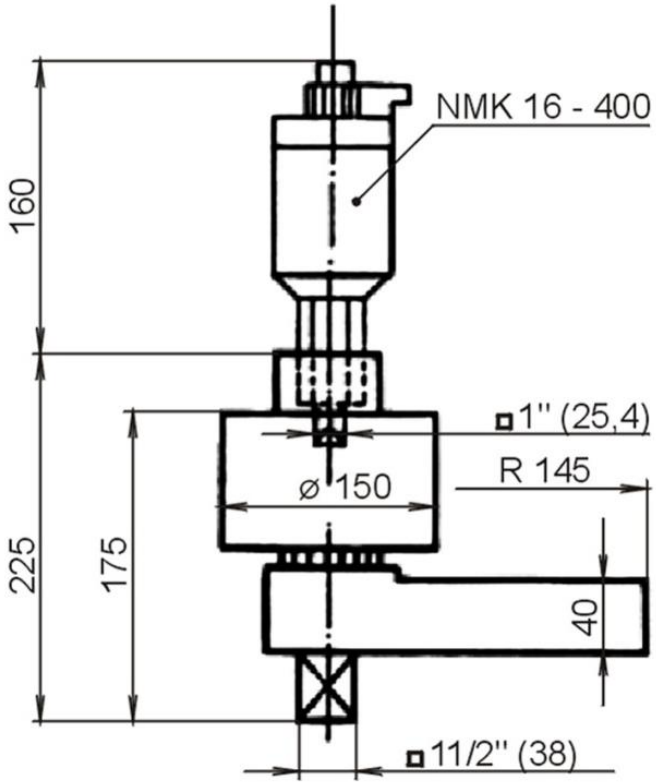
Range of bended tube Ø [mm]		**20 ÷ 80**										
Bending segments for Ø of tubes	[mm]	20	25	28	30	32	35	38	44	51	60	80	Atyp 20÷80
	["]	½	¾				1		1¼	1½	2		
Radius of bending on the axe of tube [mm]		60	75	90			110		130	150	180	240	60÷250
Max. cross-section of bended materials												
Max. length of a clamped tube (towards beginning of 1st bend) [mm]		3600										
Dimensions – length x width x height [mm]		4 780 × 1 490 × 1 330										
Weight [kg]		1 750										
Input [kW]		5										
Supply voltage [V]		400										
Max. Mk na vřetenu [Nm]		22 400										

Multipliers of the Clamping Moment

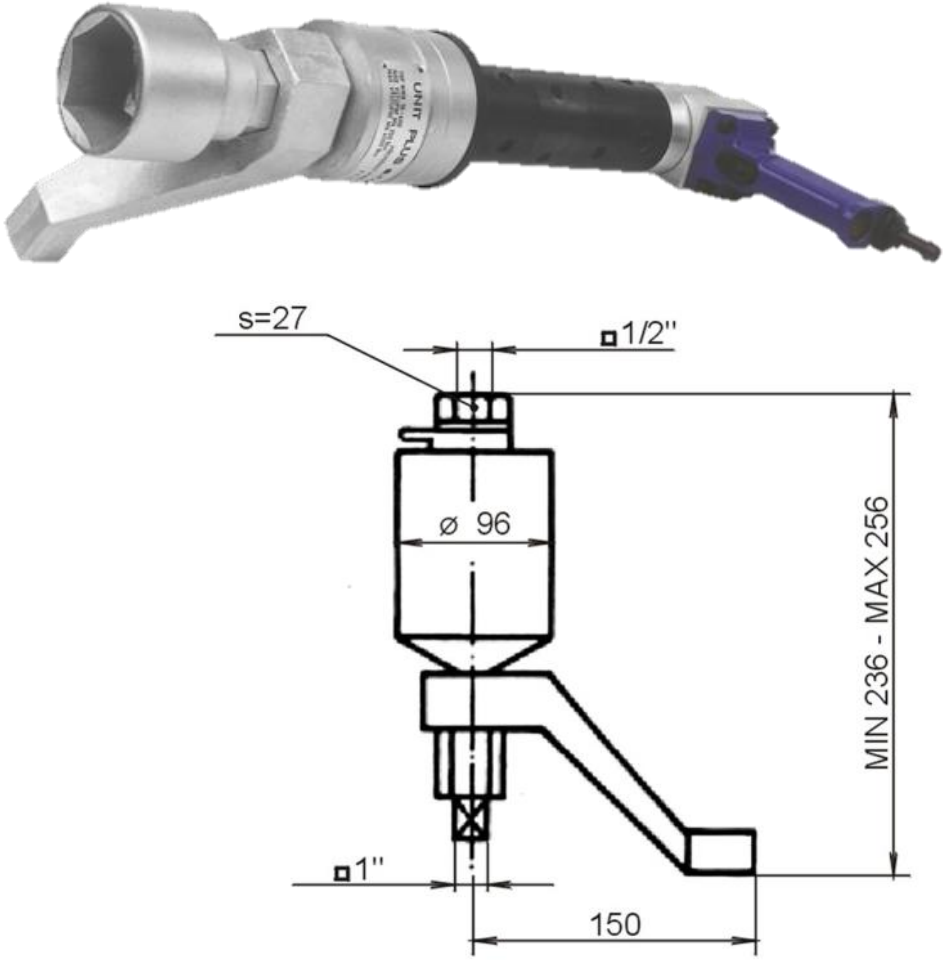


Multiplier of the Clamping Moment	NMK 16 – 400	NMK 78 – 1250
Max. input twisting moment [Nm]	250	160
Max. output twisting moment [Nm]	4000	12500
The real transmission	1:16	1:78
Use for screws	M30 – M52	M48 – M80
Socket heads [mm]	46, 50, 55, 60, 65, 70, 75, 80	75, 80, 85, 90, 95, 100, 105, 110, 115
Weight of gearbox with support [kg]	7.95	21.65
Packing – Dimensions/ Weight [mm/kg]	1 transport case 605 x 280 x 155/ 30	2 transport cases 700 x 260 x 190/ 34

Multipliers of the Clamping Moment



NMK 16 - 400



NMK 78 - 1250

Hydraulic puller of tram wheels HSTK 30/150

Technical parameters of hydraulic puller of tram wheels	
Maximal/minimal diameter of tram wheels:	700/600 mm
Max. pull off power:	300 kN
Max. hydraulic cylinder stroke:	150 mm
Adjustable height of the crossbeam:	400 – 460 mm
Dimensions: length x width x high	890 x 860 x 1120 mm
Weight:	120 kg



Special Purpose Machines

Equipment for grinding of welds on saw bands



Measuring box of control posts



Special Purpose Machines

Molding machine for forming of buffer beams



Molding machine for control posts



References

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- DP města Liberce, a.s.
- INEKON GROUP, a.s.
- DOOSAN ŠKODA POWER a.s.
- ŠKODA JS a.s.
- Plzeňský Prazdroj, a.s.
- ČEZ, a.s.
- ŠKODA TRANSPORTATION, s.r.o.
- Cembrit a.s.
- FAIVELEY TRANSPORT LEKOV a.s.
- FUJI KOYO CZECH s.r.o.
- JTEKT Automotive Czech Plzeň s.r.o.
- DP hl. města Moskvy (RU)
- Robert Schulz Metall GmbH (D)
- Graphit Kropfmühl AG (D)
- Waldrich Siegen Werkzeugmaschinen GmbH(D)
- ContiTech Schlauch GmbH (D)
- Michal Gschwendtner Import–Export–Beratungen (D)
- Systemair GmbH (D)
- Merris Engineering Ltd (IR)
- DSK Service (J Korea)
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