

The joint-stock company ZDAS newly offers ChN35VT creep-resisting and heat-resisting steel. We are one of few manufacturers of this scarce material in the world and we can guarantee short lead times.

Steel is supplied as ingots or open-die forged forgings according to customer's requirements.

## Description

**The ChN35VT steel** belongs to the group of austenitic creep-resisting and heat-resisting corrosion-proof Cr-Ni-W steels. Besides the creep and heat resistance feature conditioned by alloying of wolfram, the steel is stabilized by titanium to ensure a good intergranular-corrosion resistance. The required mechanical and structural properties of final products are reached by heat treatment which usually consists of solution annealing and precipitation hardening.

The list of equivalents of ChN35VT steel includes Czech steel 17335 and Chinese steel H23020.



## Usage

Due to its versatile good properties, ChN35VT steel has a high potential of application, especially in the nuclear industry. It is suitable for considerably mechanically stressed components operating at temperatures up to 700 °C such as bolts, nuts and flange connection washers of primary collectors, fittings and blades of steam and gas turbines. Less mechanically stressed components durable up to 750 °C are typically represented by blades of gas turbines.

## Guaranteed properties

ZDAS Forge shop manufactures and supplies forged bars from a minimum diameter of 50 mm. We can make products with even smaller dimensions, by cutting of forged semi-finished product with water jet.

Chemical composition [wt. %]									
Limitation	C	Mn	Si	P	S	Ni	Cr	Ti	W
min.	-	1,0	-	-	-	34,0	14,0	1,1	2,8
max.	0,12	2,0	0,6	0,025	0,015	38,0	17,0	1,7	3,6

Mechanical properties							
Limitation	Rp <sub>0,2</sub> [MPa]	Rm [MPa]	A [%]	Z [%]	KCU(RT) [J/cm <sup>2</sup> ]	Rp <sub>0,2</sub> (350 °C) [MPa]	HB [-]
min.	392	735	15	25	59	343	207