

REIKA delivers manufacturing line for hydraulic cylinders

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The UK based market leader in the field of vehicle-mounted hydraulic systems, including front-end, underbody and ejector cylinders, has ordered another Reika cutting line after twenty years



Cylinder Blanks

continuous production on the first line. The reliability and performance of the first line was the driving argument for the new capital investment after such a long time. Every hydraulic cylinder housing is produced from a tubular blank, which has to be cut from a long precision steel tube according to the required length.

As the English manufacturer is mainly producing telescopic cylinder units for truck and mining vehicles, the flexible variety of length is the challenge. As the ingoing drawn-over-mandrel tubes in the diameter range between 63 – 250 mm are quite expensive and the numbers per batch are not such high, the target was to minimize the scrap/rest end volume.



Endworkung with Boring

The individual project engineering with tube optimization software and various loading and discharging positions was developed together with the customer's team. Each ingoing tube is length measured before the cutting pattern is determined. The Siemens control includes a data table for the different production lengths and numbers. The weekly program can be downloaded



Exit Table after Cleaning

The line is equipped with quick set-up features, the length adjustment in the following stations, such as boring and cleaning after the parting operation, are adjusted fully automatically. The clamping tools are reduced to a minimum, therefore the set-up time is reduced to 10 minutes for the complete manufacturing cell.

The tube transport is executed by gripper systems and gantry design through the complete line. The boring system machines the cut tubes on both sides in a facing, chamfering and boring operation. The concentric clamping devices on each spindle side are working without tool change.



Inlet System with Multi Entry



Transfer from Parting to Boring

The boring heads are also covering the complete production range without any tool change. The facer heads are automatically radially adjusted by a draw bar and servomotor. The concentricity of the internal bore to the outer diameter for the final laser welding of the end caps was challenging because of the tight tolerances. But the customer was quite impressed by the stability and accuracy of the production cell.

and will be processed with minimum scrap. Anyhow, short rest ends, which cannot be avoided, will be either automatically transported back again to the bundle loader or will be separately discharged on a special "short length"-table. These lengths can be processed in a new production batch and will not be scrapped.

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