FIELD BULLETIN 200

FORGED BLANK EXPANSION

IMPROVED PRODUCT DESIGN

Gates is pleased to announce the upgrade of our banjo fitting portfolio from steel bar manufacturing to forged blank design. This conversion combines our process improvements with the delivery of enhanced benefits to our customers. Banjo fittings are typically used in applications with limited space, as they can be connected in any orientation, allowing you to solve possible routing issues. Gates next generation banjo program will only further grow that capability.

BENEFITS OF BANJO FITTINGS MADE FROM FORGINGS

Forging is a metalworking process that manipulates, shapes, deforms and compresses metal to achieve the desired form, configuration, or appearance. From a design perspective, banjo fittings made from forgings have the following advantages:

- Forgings can be nearly any shape, reducing the need for brazing/soldering/welding, allowing for a broader range of configuration possibilities
- The new forged banjo design
  - has improved aesthetic characteristics resulting in a more overall uniform and slimmer design.
  - has been tested to show equal performance as previously (to the standard pressures of the respective standard and the requirements to ISO 8434-1)
- Closed die forging is the precision forging method for steel parts, achieving very close design tolerances, resulting in less machining operation afterward. Nevertheless, post-forging machining is still possible with no loss of quality because there are no voids or porosity in the finished article.

Next to the above design and quality features, the forging process provides optimum use of materials, resulting in little to no waste, thus limiting the environmental impact.

BANJO TUBE FITTING RANGE

The range consists of 4 standard designs, all offered in a wide range of sizes, and various terminations made available in extra-light, light and heavy series as per ISO 8434-1 / DIN 2353.

- SBD: a standard version offered in BSP and metric termination, with standard metal sealing
- SB: a choke-free design offered in BSP and metric terminations, with standard metal sealing
- SBE: a high-pressure design, offered in BSP and metric terminations, with DKA, KDE and EDE sealing, having an NBR seal as standard. Other sealing materials, such as FKM, are available on request.
- SGE: a high-pressure T-swiveling version offered in BSP and metric terminations, with DKA, KDE and EDE sealing, having an NBR seal as standard. Other sealing materials, such as FKM, are available on request.

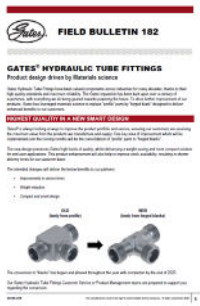
BANJO FITTINGS OVERVIEW				
				
	SBD	**SB**	**SBE**	**SGE**
Max. Pressure	up to 250 bar	up to 160 bar	up to 500 bar	up to 500 bar
Choke-free		YES		
Terminations	BSP / METRIC	BSP / METRIC	BSP / METRIC	BSP / METRIC
Bolt	SHD	SH	SHEO	SHEO
Sealing type	Turned seal edge/DKA	DKA	DKA/ EDE / KDE	DKA/ EDE / KDE
Sealing material			NBR / FKM	NBR / FKM

*DKA = metal sealing edge ring.
EDE/KDE = sealing ring with soft seal

From a dimensional perspective, the changeover from steel profile design to forged blank design has no impact on the critical installation dimensions, guaranteeing maximal product interchangeability. The banjo range conversion to forged blank designs is a rolling change that will happen gradually, with expected completion end of 2022.

ELBOW AND TEE FITTNG RANGE

Also, our range of DIN elbow and tee fittings has now fully moved to forgings. As explained in field bulletin 182, we have upgraded 115 elbows and tee pieces from a blank profile design to a forged blank design. The conversion impacted the below product groups: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GATES® HYDRAULIC TUBE FITTINGS

- 90° male stud elbows (B items)
- Male stud tee (C & D items)
- 90° equal elbows, equal tees, and reducers (F, G & GR items)
- 90° adjustable male stud elbows (VBDKO items)
- Adjustable equal tees (VCDKO items)
- Adjustable male stud tee-stud barrel (VDDKO items)

The new design preserves Gates high levels of quality whilst delivering a weight-saving and more compact solution for end-user applications. Unlike the conversion of the above banjo parts, the conversion of the elbow and tee parts did have some dimensional implications. Feel free to check out the Gates Cadenas® platform, which has been updated to reflect the latest product design dimensions.

More details on the impacted SKUs in our banjo, elbow, and tee fitting program can be found in the attached excel overview, highlighting the weight and dimensional changes where applicable. The corrosion protection of the converted Gates tube fittings remains unchanged, guaranteeing as a minimum 1200 hours of protection against red rust corrosion.

FOR MORE INFORMATION PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE