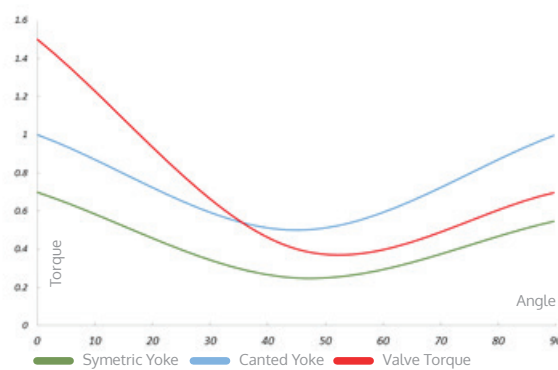


Scotch-Yoke Mechanism

This mechanism converts a linear movement into a quarter turn rotation. Based on the mechanical relations the output torque can be established versus the rotation angle showing in the below graph. As it can be understood from the graph the maximum torque values are obtained at the two ends of the stroke. The accordance of the output torque of this mechanism with the torque pattern required in most of the quarter turn valves makes this

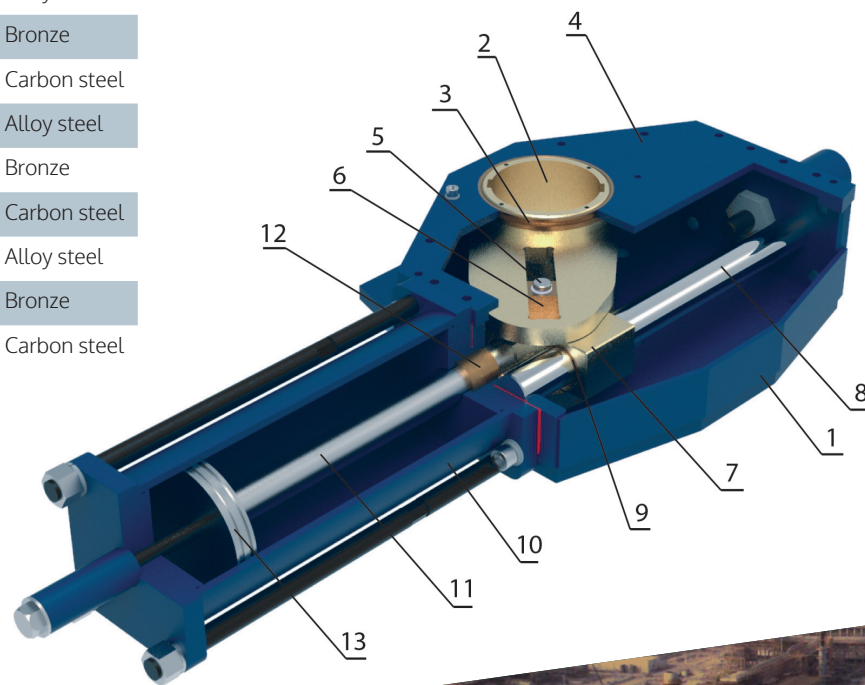
mechanism very suitable for ball, plug and butterfly valve. Driving forces are provided by pneumatic or hydraulic powers stored in cylinders. Considering the medium entering these cylinders different types of actuators can be manufactured.

Torque Comparison

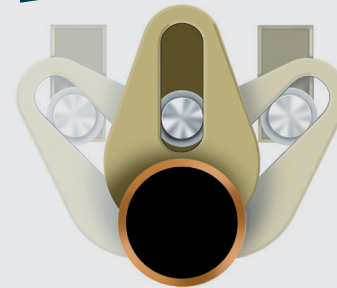


Materials specification

Item	Name	Material
1	Housing	Carbon steel
2	Yoke	Carbon steel
3	Bushing	Bronze
4	Cover	Carbon steel
5	Block pin	Alloy steel
6	Sliding Block	Bronze
7	Guide block	Carbon steel
8	Guide bar	Alloy steel
9	Bushing	Bronze
10	Cylinder tube	Carbon steel
11	Piston rod	Alloy steel
12	Bushing	Bronze
13	Piston	Carbon steel



Symmetric yoke



Canted Yoke

