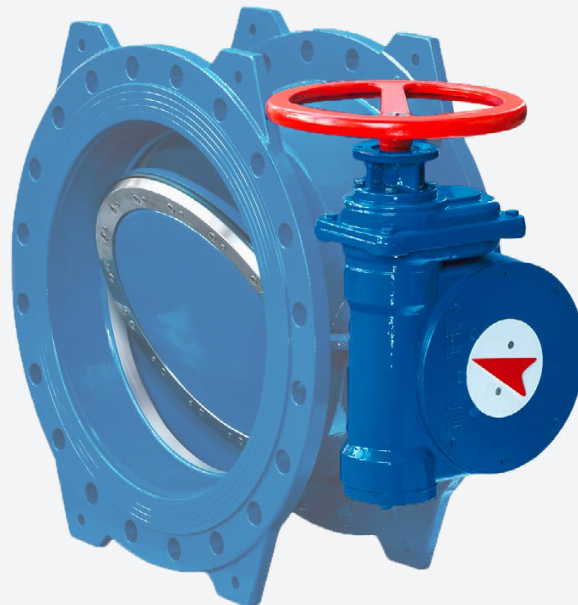


# ÖZKAN TK Gearbox

Technical Guide HW4.45

Özkan gearboxes are suited for use on butterfly valves, which offer a quarter turn required for opening and closing fully. Designed for input torques by operator of no more than 100Nm.



10.21 | W4.45 HAWLE ÖZKAN TK GEARBOX

## Applications

Butterfly Valves

## Product Attributes

Low input torque

Various sizes

Self-locking gear design

## Approvals/Standards

According to ISO 5211

*We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.*

The Özkan TK series gearbox have been designed and developed by Özkan for use on their butterfly valves. They are designed to suit manual operator input or to be used with an electric actuator where the bare shaft torque is too high.

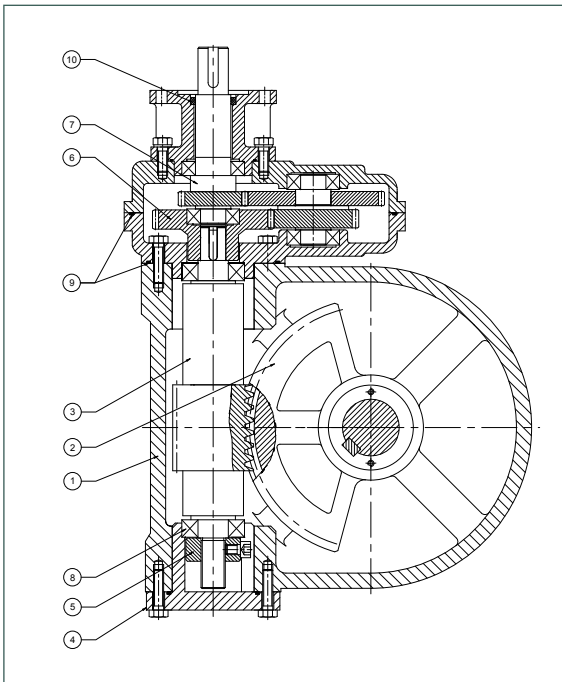
### Design Specifications

- Heavy duty robust design
- Factory set 90° swing angle. Setting of the end stop by travelling nut system
- Valve interface according to ISO 5211
- Self-locking worm gearing with minimal backlash
- Mechanical position indicator
- IP 67 enclosure protection (IP 68 optional) buried service
- Clockwise and anticlockwise closing on request
- Buried service option with submerged service rating

**TABLE 1 Gear Operator**

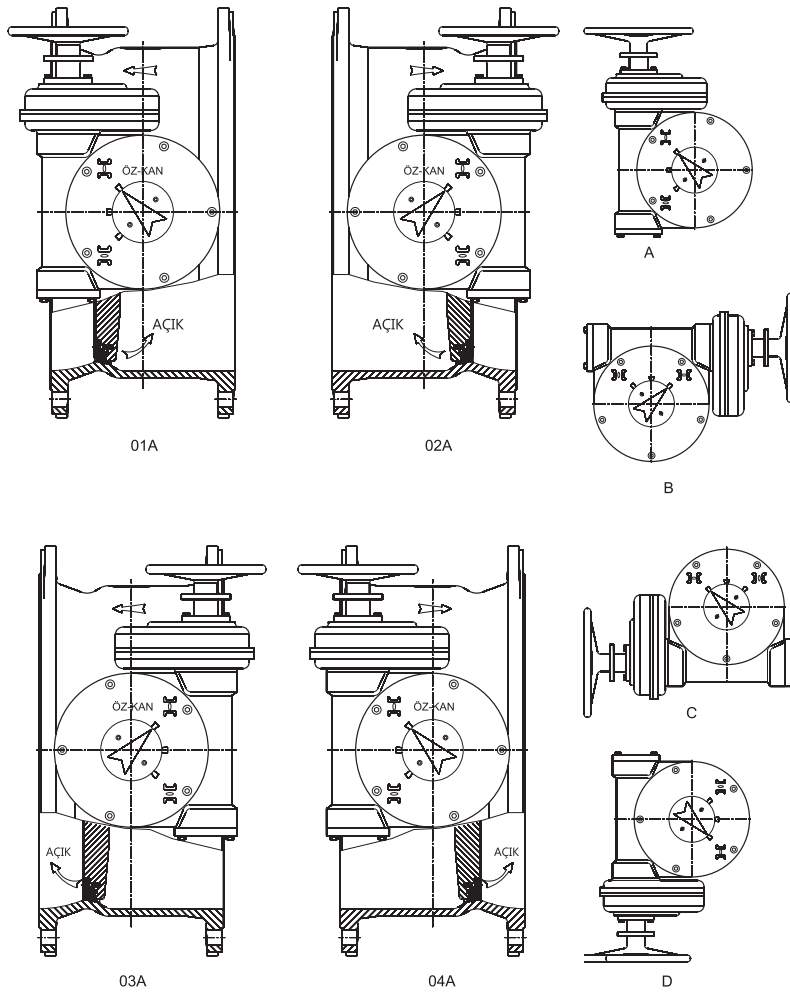
Part No.	Description	Material
1	Housing	Cast iron EN-GJL-250
2	Worm wheel	Ductile cast iron EN-GJS-500-7
3	Worm shaft	Steel C 40
4	Cover	Ductile cast iron EN-GJS-400-15
5	Travelling nut	Steel 42CrMo4
6	Spur gear	Ductile cast iron EN-GJS-600-3
7	Pinion	Steel C 40
8	Bearing	-
9	'O'-ring	NBR
10	Radial seal	NBR

\* Other material grades are available upon request.



**FIG. 1** Closed Position

## Gear Box Positions



**TABLE 2** Gear Box

Type		Ratio			Torque Conversion Ratio	Turns to Close	Valve Connectio ISO 5211	Weight (kg)
Worm Gearbox	Reduction Gearing	Worm Gearbox	Reduction Gearing	Total				
TK 1	-	45:1	-	45:1	9.9	11.25	F 10	14
TK 2	-	40:1	-	40:1	9.6	10	F 12	29
TK 3	-	50:1	-	50:1	12	12.50	F 14	36
TK 3	RD 4	50:1	2.90:1	145:1	31.5	36.25	F 14	53
TK 4	RD 4	60:1	2.90:1	174:1	45	43.50	F 16	81
TK 5	RD 5	60:1	6.94:1	416:1	119.5	104	F 25	133
TK 6	RD 6	65:1	11.84:1	770:1	220	192.50	F 30	191
TK 7	RD 7	60:1	24.17:1	1450:1	418	362.50	F 35	436
TK 8	RD 8	93:1	24.17:1	2248:1	648	562	F 40	720
TK 8	RD 85	93:1	67.68:1	6294:1	1806	1574	F 40	750
TK 10	RD 15	89:1	60.45:1	5380:1	1615	1345	F 48	1610

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