



Manufacturer of shut-off and control valves

TECHNICAL DATA SHEET

Quarter turn gearbox ELEPHANT HARC RQN_x-xZ-x



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1. GENERAL PRODUCT INFORMATION

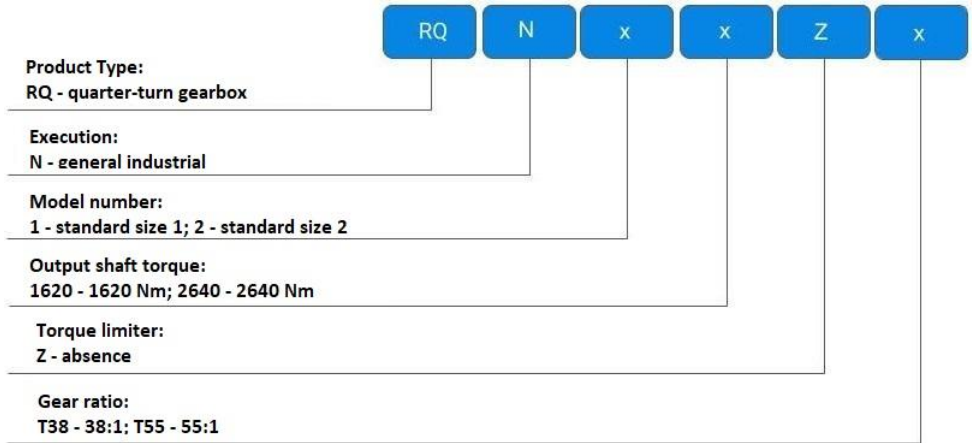
1.1. Product name: Quarter-turn gearbox ELEPHANT HARC RQN_x-xZ-x.

1.2. Manufacturer (supplier): "ELEPHANT". Carrer d'Aragó,264,3-1,08007 Barcelona, Spain.

1.3. Purpose: The DN.ru HARC gearbox allows manual setting of the required positioning of the shut-off valve by a quarter turn, acting as an alternative to pneumatic, electric or hydraulic quarter-turn actuators. Suitable for ball valves, butterfly valves, 90° butterfly valves and air damper controls.



1.4. Deciphering of the designation:



2. BASIC TECHNICAL DATA AND CHARACTERISTICS

Table 1

Operating temperature t, °C	30 to +120
Working environment	filtered compressed air or non-aggressive gases, oils
Degree of protection	IP67
Application	water supply, heating, ventilation, energy, air conditioning
Mounting	horizontal/vertical
Stroke adjustment	0 – 90°
Connection standard	ISO 5211
Housing material	aluminum



3. BASIC MATERIALS

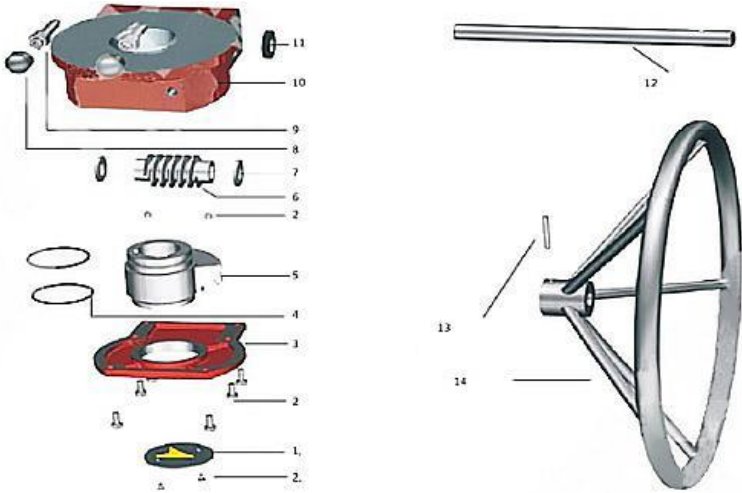


Table 2

Nº	Name	Material
1	Index	aluminum
2	Bolt	SUS304 steel
3	Cover	steel EN-GJS-450-10
4	Sealing ring	NBR70
5	Worm gearbox	EN-GJS-450-10 steel
6	Worm shaft	BS97 0 080M40 steel
7	Bearing	bearing steel
8	Bolt cover	rubber
9	Bolt with nut	A4 stainless steel
10	Housing	EN-GJS-450-10 steel
11	Sealing ring	NBR
12	Drive shaft	steel 45 / SUS304
13	Pin	steel 45
14	Handwheel	steel Q235



4. WEIGHT AND DIMENSIONAL PARAMETERS

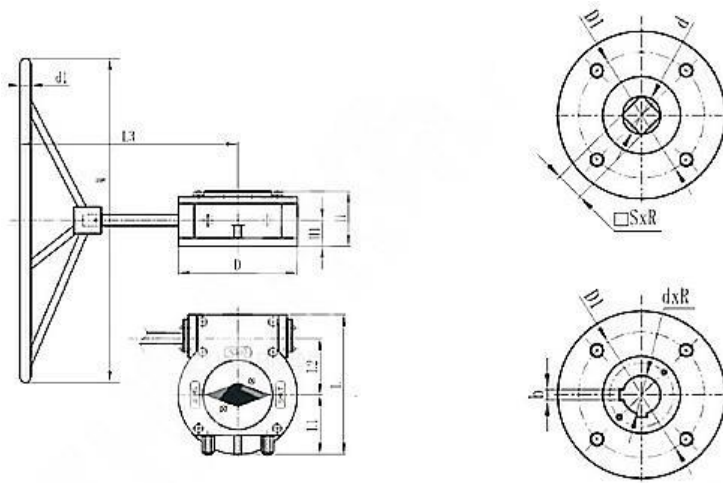


Table 3

Model	HARC RQN1-1620Z-T38	HARC RQN2-2640Z-T55
Gear ratio	38:1	55:1
Torque, Nm	1620	2640
d, mm	50	50
Weight, kg	19.9	26.4
D, mm	200	285
D1 (ISO5211)	140	140
Number and size of bolt holes	4-M16	4-M20
S, mm	36	42
L, mm	226	258
L1, mm	100	110
L2, mm	86	105
H, mm	93	102
H1, mm	42	48
d1, mm	20	20
L3, mm	381	402
W, mm	600	600



5. INSTALLATION AND CONNECTION

5.1. Installation, operation and maintenance of gearboxes are allowed to personnel who have studied the product design, safety rules, requirements of this TA and have skills of working with gearboxes.

5.2 When working with the reducer, pipelines and fittings must not be under pressure. During installation and maintenance, the electrical, pneumatic or hydraulic power supply to the actuators used with the gearbox must be cut off and precautions must be taken to prevent their unintentional activation.

5.3 Before mounting the gearbox to the pipeline valve, set the gearbox and the valve shut-off body in the “open” or “closed” position. Then mount the actuator on the square of the drive shaft and the connecting flange of the valve and fasten with bolts.

5.4 During installation it is forbidden to use wrenches with extended handles and other devices, except those provided for the product, as well as to strike the product.



6. OPERATION AND MAINTENANCE

6.1. The gearbox must be operated after the operating personnel has familiarized themselves with this TS and safety regulations.

6.2 Adjustment of the limit stops is carried out immediately after mounting the gearbox to the valve. The adjustment is always checked by manually setting the gearbox in the “closed” and “open” positions.

6.3 The suspension screw on gearboxes is only used for lifting and necessary operations with the gearbox itself. It is strictly forbidden to lift or carry the valve/gearbox assembly by any gearbox components.

6.4 During manual operation, turn the gearbox mechanism with the hand wheel in the direction in which the valve opens or closes.

6.5 If the gearbox is in the end position CLOSED, but the valve has not shut off the flow, this indicates incorrect adjustment of the gearbox, or a malfunction of the valve, or some other malfunction.

6.6 It is forbidden to apply excessive force on the gearbox shaft in an attempt to turn the gearbox additionally and thereby move the shut-off valve to the desired position.

6.7. To avoid accidents, the general safety requirements for installation and operation must be observed during installation and operation in accordance with the company's procedures.

7. STORAGE AND TRANSPORTATION

7.1. Products shall be stored in the manufacturer's packaging in accordance with the procedure established at the enterprise.

7.2. The transportation of products must be carried out in accordance with the procedure established at the enterprise.

8. UTILIZATION

8.1. The product is disposed of in accordance with the procedure established at the enterprise (remelting, burial, resale).



9. WARRANTY OBLIGATIONS

9.1. Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

9.2. The warranty applies to equipment installed and used in accordance with the installation instructions and product specifications described in this data sheet.

9.3. The manufacturer guarantees compliance of the product with safety requirements, provided that the consumer complies with the rules of transport, storage, installation and operation.

9.4. The warranty covers all defects caused by the fault of the manufacturer.

9.5. The warranty does not apply:

- parts and materials of the product subject to wear and tear;
- for cases of damage caused by:
 - modifications to the original design of the product;
 - violation of general installation recommendations;
 - faults caused by improper maintenance and storage; improper operation and use of the equipment.

10. WARRANTY TERMS

10.1. Claims to the quality of the goods may be made during the warranty period.

10.2. Defective products are repaired or exchanged for new ones free of charge during the warranty period. ELEPHANT decides whether to replace or repair the product. The replaced product or its parts resulting from the repair shall become the property of 'ELEPHANT'.

10.3. Costs related to dismantling, installation and transport of the defective product during the warranty period shall not be reimbursed to the Buyer.

10.4. If the claim is unfounded, the Buyer shall pay the costs of diagnostics and expertise of the product.

10.5. Products are accepted for warranty repair (as well as for return) fully assembled.



WARRANTY CARD № _____

№	Product Name	Packs

Name and address of the trading organisation _____

Date of sale _____ Seller's signature _____

Stamp or seal of the trading organisation _____ Acceptance stamp _____

I agree with the terms and conditions of the warranty:

Buyer _____ (signature)

Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

For warranty repairs, complaints and product quality claims, please contact ELEPHANT at: Carrer d'Aragó,264,3-1,08007 Barcelona, Spain E-mail address: sales@valveelephant.com.

When making a complaint about the quality of goods, the buyer shall present the following documents:

1. A free-form application, which shall specify:
 - name of the organisation or full name of the buyer, actual address, contact telephone numbers;
 - name and address of the organisation that carried out the installation;
 - basic parameters of the system in which the product was used;
 - a brief description of the defect.
2. Document confirming the purchase of the product (delivery note, receipt)..
3. Act of hydraulic test of the system in which the product was installed.
4. This completed warranty card.

A note on the return or exchange of goods _____

Date: « ___ » _____ 202__ r. Caption _____

