



**NORDISK MARINE HYDRAULIK
DANMARK A/S**
Marinebuen 6 - DK-4700 Nestved
Tlf. 55771800 - Telex 40124 - Fax 55773177

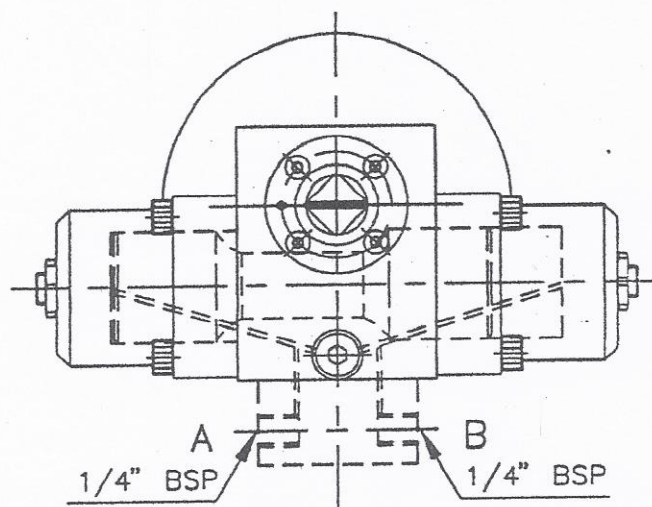
Actuator type
BHA

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DESIGN

- New design based on many years' experience of rack- and pinion type actuators.
- Compact high torque output.
- Fixed and locked mounting on valve.
- Independent end stop adjustment OPEN/CLOSED.
- Turning max. 100°.
- Floating pistons.
- Permanent built-in cross-over valve.
- Suitable for mounting everywhere.
- Optional mounting direction - vertical/horizontal or upside down.
- Approved by all the classification societies.

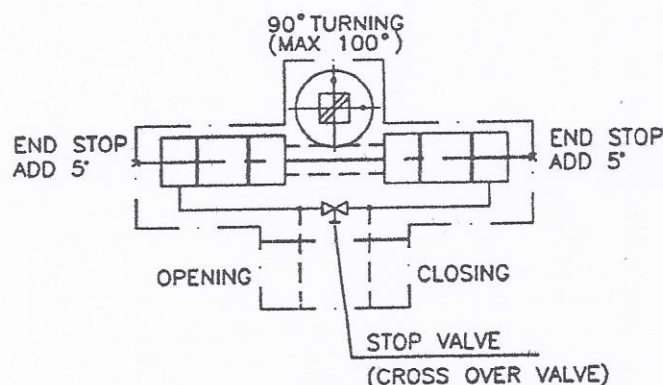


FUNCTION

Actuator type BHA is a double acting quarter turn actuator designed for all types of butterfly-, plug- and ball valves.

A special accessories programme allows a varied combination of operating modes.

Especially designed for heavy duty service including the possibility for submersion in different media.



TECHNICAL DATA

Working pressure	: 135 bar
Rotation	: 90° (+10°)
Test pressure	: 1,5 * max. working pressure
Oil viscosity	: Hydraulic oil ISO 15-46 (see spec.)
Temperature range	: -20°C/+80°C
Oil purity	: ISO 4406 16/13
Types of valves	: Butterfly-, plug-, ball-, and 3-way valves etc.
Mounting	: Directly on valve (locked)
Adjustment	: Opening/closing position ±5°
Mounting conditions	: Dry and wet places Wet places: open deck, flooded and submerged (with special surface treatment and tophat)
Indication	: Visual mechanical in top
Emergency operation	: Mechanical on top of actuator/Hand pump
Accessories	: Control blocks with remote indication/Mech. gear box emerg. operation/Hand pump unit etc.

SPECIAL DESIGN

: Available on request



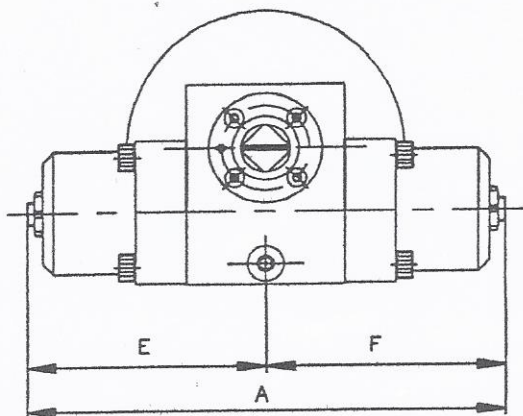
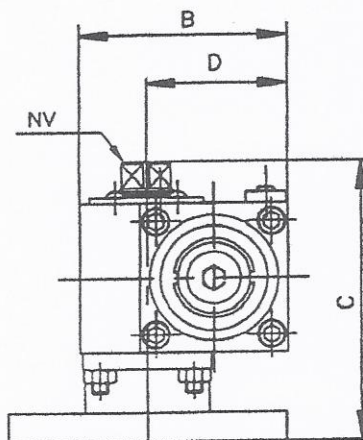
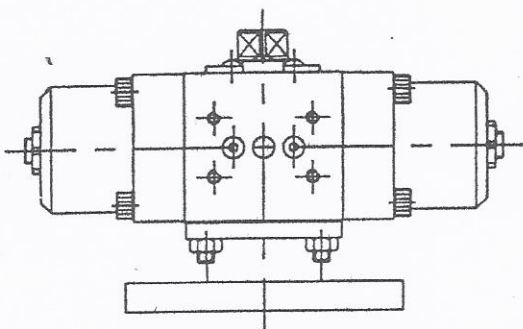
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MAIN DIMENSION



MATERIALS:

Seals	: NBR
Housing	: GGG 40
Cylinder	: GGG 40
Piston	: Hardened steel
Pinion	: Surface treatment high tensile steel
Rack	: High tensile steel
Intermediate flange	: GGG 40
Coupling	: Steel

The torque is calculated at
working pressure = 135bar

All dimensions are in millimetres

TORQUE more than 6500 NM on request

ACTUATOR	TORQUE	OIL VOLUME	A	B	C	D	E	F	H	NV	WEIGHT	ID-NUMBER
✓ BHA 0	100Nm	14 cm ³	192	71	108	48	96	96	11.5	12	3.3kg	018-2812
BHA 1	275Nm	37 cm ³	228	97	135	65	114	114	12.5	17	6.6kg	018-1942
BHA 2	760Nm	100 cm ³	328	123	165	87	164	164	14	27	14.6kg	018-1762
BHA 3	1600Nm	210 cm ³	402	150	196	102	201	201	18	34	31kg	018-1632
BHA 4	3250Nm	427 cm ³	504	190	248	133	252	252	18	44	56kg	018-1612
BHA 5	6500Nm	853 cm ³	608	220	310	160	304	304	21	54	105kg	018-3883

COATING:

Standard : RAL 6024 green	} Or on request
Submerged: 1*125my Tar epoxy	
On deck : 1*75my Galvosil (Zinc silicate)	

CLASSIFICATION:

Meet all requirements to:

DNV, LRS, ABS, USCG, BV
GL, USSR, NATO, US MIL. SPEC.
DANISH NAVY, NORWEGIAN NAVY