

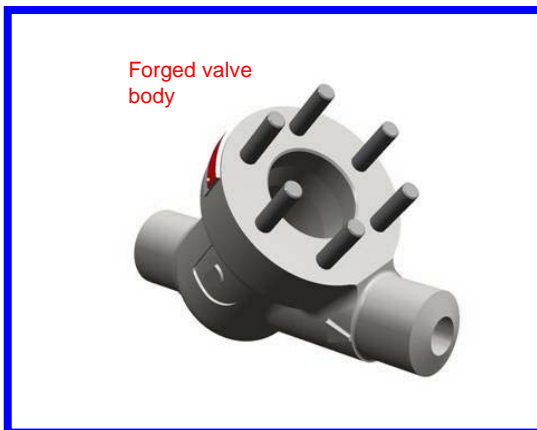
← CARTRIDGE VALVES →

SUBMARINE-AIRCRAFT CARRIER-ROCKET LAUNCH

Advantages

Reduce Construction & Life-cycle Costs

- ⊙ Body is integral part of platform for lifetime.
- ⊙ Cartridge can be replaced, in-line, within minutes,
- ⊙ Valve seat is part of *removable* cartridge
- ⊙ Twelve different cartridges (interchangeable) within each valve body size.
- ⊙ Reduction in spares/inventory...not necessary to inventory valve body's....



Eight Sizes

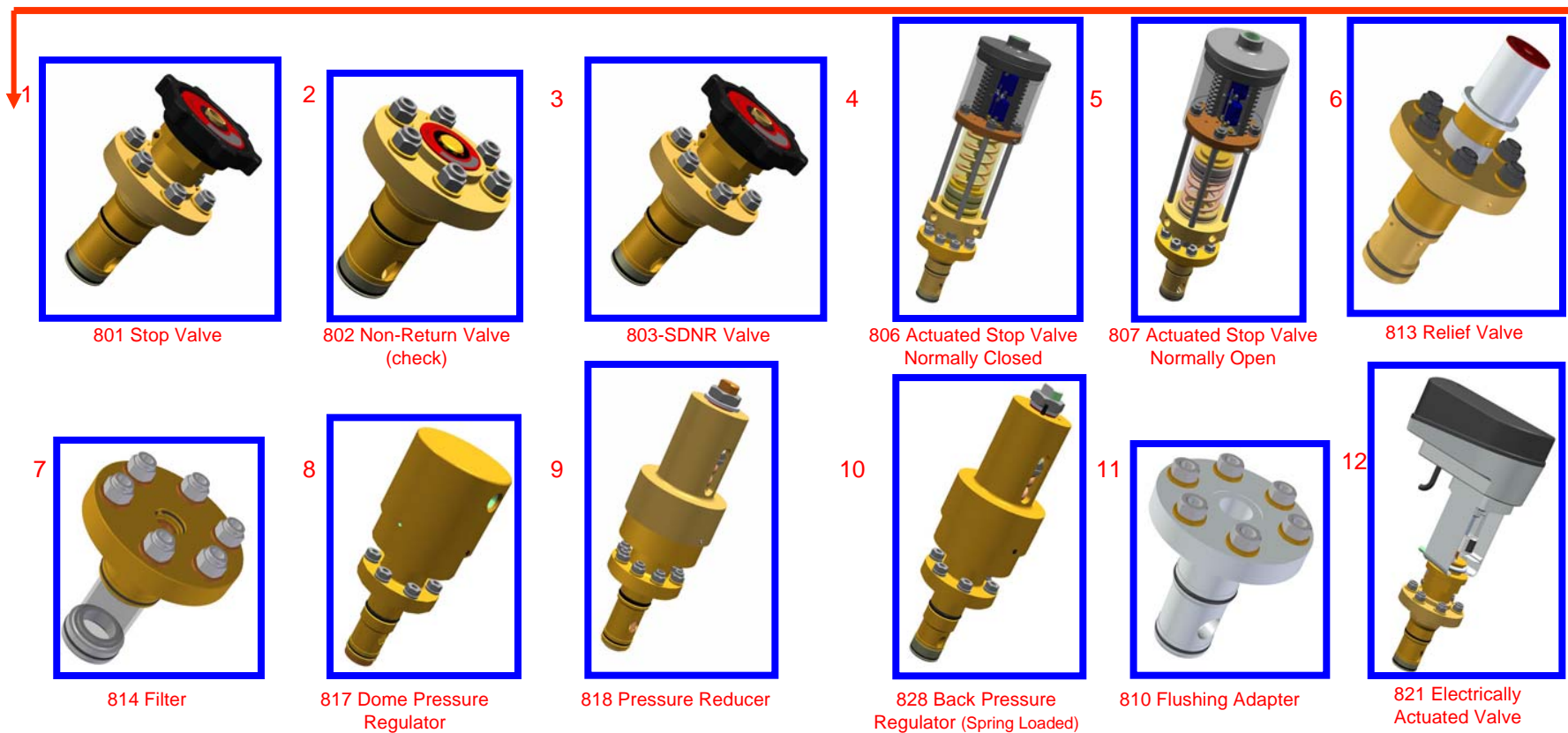
Valve Body Pipe Size

A2	NB15 – ½"
B3	NB20 – ¾"
C4	NB25 – 1"
D5	NB32 – 1 ¼"
E6	NB40 1 ½"
G7	NB50 – 2"
H8	NB65 – 2 ½"
J9	NB80 – 3"

Specifications:

- ⊙ Housings (*forged*) in 70/30 CuNi & Stainless Steel
 - ⊙ Operating Pressures: 0 to 280 Bar
0 to 4000PSI
 - ⊙ End Connections: Butt or Socket Weld
- 0 to 400 Bar
0 to 6000PSI

⊙ Twelve Different Valve Cartridges (Interchangeable within each Valve Body)

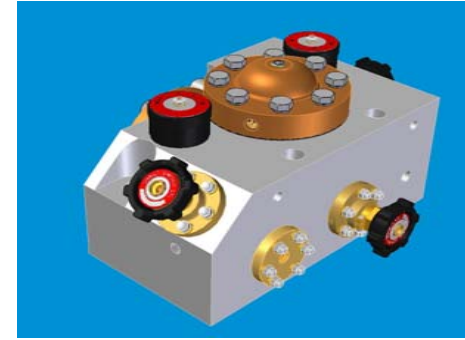
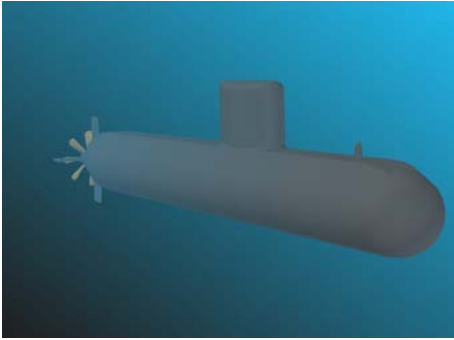


Revised: Oct. 2007

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CARTRIDGE VALVES

SUBMARINE-AIRCRAFT CARRIER-ROCKET LAUNCH



"Submarine Systems, Nuclear and Diesel Electric, where the full Range of Cartridge valves are fitted"

"APPLICATIONS"

AIR

AVBS = Aux Vent & Blow System
BIB = Built in Breathing System & Hood Inflation System
DDS = Diesel Air Start System
EBA = Emergency Air Breathing System
FAS = Firing Air Systems
HPA = High Pressure Air System
HPB = High Pressure Blow System
MLO = Main Lub Oil System
WHA = Weapons Handling System
DQA = Divers Quality Breathing Air System

CO2

CDR = Carbon Dioxide Removal System

HYDROGEN

LPE = Electrolyser System

METHANOL

GM = Gas Mgmt Plant System

NITROGEN

HPDHR System
N = Nitrogen System
PC = Primary Circuit
OPG = Valve OP & Gas System
WM = Water Mist System

WATER

E = Emergency Core Cooling System
FT = Feed Transfer System
H&C = Hot & Cold Domestic System
PCD = Primary Coolant Discharge System
PCM = Primary Coolant Make-up System
PCS = Primary Coolant Sampling System
PSW = Primary Shield Water System
RCFW = RCFW Cooling System
EBS = Emergency Blow System

OIL

EHP = External Hydraulic Power Plant
EHS = External Hydraulics Systems
HTS = Hydraulic Oil Fill & Transfer System
HDS = Hydroplane & Steering Control System
HHP = Hydroplane & Steering Gear
Hydraulic Power Plant
MHP = Main Hydraulic Power Plant
HS = Main Hydraulic System
SP = Secondary Propulsion System
WH = Weapons Handling System
HFI = Hydraulic Fire Isolation

SUBMARINES (Nuclear & Diesel Electric) - AIRCRAFT CARRIER - ROCKET LAUNCH
"APPLICATIONS"



II. Rocket Launch (3-Main Gases)

- Nitrogen
- Helium
- Air 400 bar (6000 psi)



. Submarines/Aircraft Carriers

- Air
- CO2
- Hydrogen
- Methanol
- Nitrogen
- Water (Fresh & Seawater)
- Oil
- Cryogenic (Oxygen)



Fittings – Submarines & Aircraft Carriers

All sizes and alloys – seamless and forged to mil-specifications –refer:

Submarines/Aircraft Carriers/Surface Ships

Cartridge Valves

H.P. Air Systems – 6000 psi

- Hydraulic Valves
- Nitrogen (N2) = 6000 psi
- Back pressure regulator for Air Flask (charged a 5500 psig)
- Installed Base – 45,000+

Plug Valves

- Sizes 1 ½” thru 8” (2-way & 3-way), installed base over 25,000, long-life: 15-years+

Seawater Mixing Valve

- Size 10”, with gear-operator and actuator, for condenser, flow rate of 3200gpm

REDUCING STATIONS - MANIFOLDS



Refer to:
www.dynamiccontrols.uk.com
Pages 1-6



Refer to:
www.dynamiccontrols.uk.com
Pages 1-6



Reducing Stations - Manifolds

- Reducing Manifold-High Pressure 6000 PSig, flow rate: 8000 scmf to 16,000 scfm
- Breathing Air reducing station, 6000 PSig, max flow 40 scfm
- Diving quality air for hyperbaric chamber 276 bar to 100 bar set-pressure, 22,000 litres/min. Single stage twin output.
- Single Stage reducing stations 200 bar to 30 bar (2900 PSig to 430 PSig).

Applications, Siren, Helicopter traversing arrangement, Gear box Control, air Emergency Generator start, Pneumatic Valves Dispensary, workshop tools, bottle filling.
120Nm²/Hr (Note: one reducing station per application).