



Seagoing steering systems

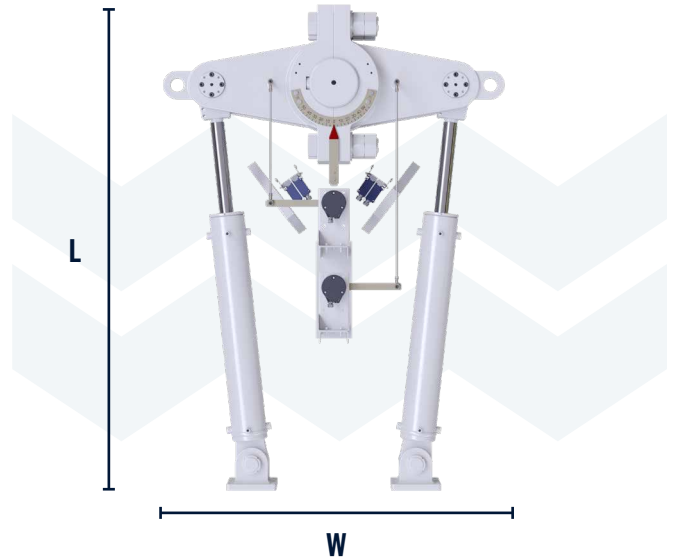
SETTING THE COURSE

DAMEN
MARINE COMPONENTS

Piston-type steering system

With its in-house cylinder design, the Piston-type steering system guarantees reliability and high quality. This steering solution offers multiple options in rudder angles, actuators and configurations, which makes the installation process efficient and space-saving.

The Piston-type steering system is available in standardised series with different configurations but can also be custom-built according to specific requirements. The rudder torque range is available up to 400 kNm with steering angles up to 65 degrees on each side. This steering solution offers multiple options in rudder stock connections e.g., split hub, friction rings, conical or hydraulic.



ESPECIALLY SUITED FOR SEAGOING VESSELS WITH A REQUIRED RUDDER TORQUE UP TO 400 KNM

KEY FEATURES

- › Steering angles up to 65° on each side
- › Compact and efficient design
- › Standardised series and custom-built option
- › Complies with all classification societies
- › All types of rudder stock connections available (split hub, keyed tapered, friction rings etc.)

Piston-type steering gear data sheet

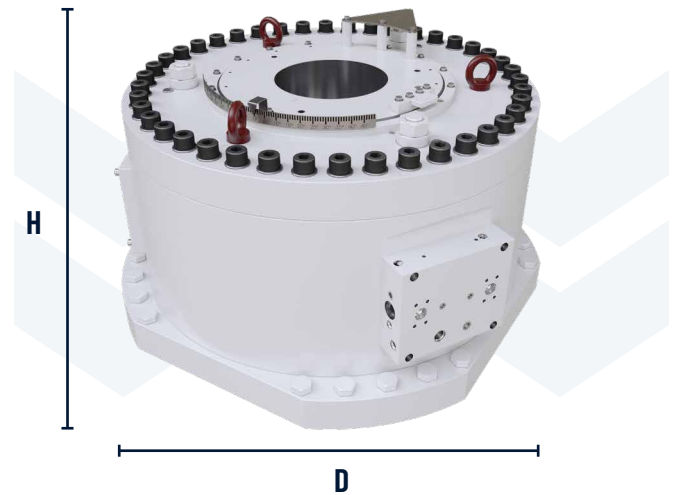
Type	Max. stock diameter (mm)	Max. rudder angle (deg.)	Torque (kNm)	Length (mm)	Width (mm)
BST050-45	160	2 x 45°	30 - 50	1335	900
BST074-45	190	2 x 45°	51 - 74	1360	900
BST110-45	220	2 x 45°	75 - 110	1735	1240
BST150-45	220	2 x 45°	111 - 150	1830	1250
BST195-45	240	2 x 45°	151 - 195	1940	1260
BST240-45	280	2 x 45°	196 - 240	2190	1490
BST325-45	280	2 x 45°	241 - 325	2195	1540
BST400-45	300	2 x 45°	326 - 425	2340	1540



Rotary Vane steering system

The Rotary Vane steering system is the definition of compact. It has a built-in rudder carrier, serving as an all-in-one steering solution. This steering system is available with two and three vane options.

The self-aligning sealing system of the Rotary Vane steering system assures a shock proof connection and high temperature resistance. This steering system is completely standardised and suitable for vessels with a rudder torque range up to 1600 kNm.



D = diameter of rotor

H = Height of rotor

**ESPECIALLY SUITED FOR SEA-GOING VESSELS
WITH A RUDDER TORQUE RANGE UP TO 1600 KNM**

KEY FEATURES

- › Compact design
- › Steering angles on each side:
two vanes up to 65°, three vanes up to 45°
- › All-in-one steering solution
- › Cylindrical or conical connections
- › Complies with all classification societies

Rotary vane data sheet

Type	Max. stock diameter (mm)	Max. rudder angle (deg.)	Torque (kNm)	Max. radial load (kN)	Max. axial load (kN)	Distance D x H* (mm)	Weight of actuator (kg)
Design with clamping ring connection							
BRV40-2	180	2 x 65°	45	500	500	580 x 424	760
BRV63-2	200	2 x 65°	70	800	400	660 x 454	1000
BRV100-2	240	2 x 65°	110	900	400	760 x 474	1270
BRV160-2	280	2 x 65°	170	1100	430	860 x 496	1780
BRV250-2	320	2 x 65°	277	1100	800	985 x 564	2850
BRV400-3	380	2 x 45°	450	1700	900	1155 x 634	3960
Design with conical connection							
BRV400-2	360	2 x 65°	430	1500	500	1055 x 625	3370
BRV630-2	390	2 x 65°	680	2000	550	1230 x 694	4780
BRV630-3	390	2 x 45°	650	1600	650	1135 x 639	4020
BRV1000-3	495	2 x 45°	1015	2000	800	1300 x 744	6450
BRV1300-3	495	2 x 45°	1350	2000	800	1385 x 835	7200
BRV1400-2	500	2 x 65° (2 x 70°)	1450	2000	800	1530 x 915	9350
BRV1600-3	550	2 x 45°	1650	2750	1250	1500 x 880	8700

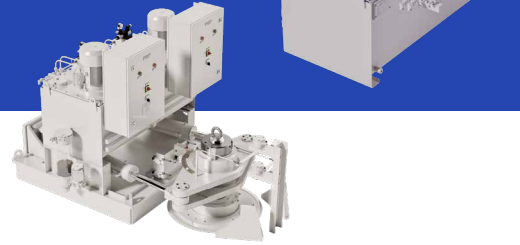
Hydraulic Power Units

Our steering systems cater for vessels of all types and sizes. DMC hydraulic power packs are engineered to the highest standards to ensure maximum reliability and efficiency and lowest total cost of ownership.

The steering systems are also available as plug-and-play solution, each of them being manufactured on a skid and tested under class surveyor supervision. DMC scope of supply includes the steering system, hydraulic power unit, starter cabinet and storage tank. The client must only connect the hydraulic and electrical supply.

KEY FEATURES

- High quality, low maintenance
- Integrated design, manufacture and supply service under one roof
- Complementary monitoring and control systems
- Global service and maintenance network



HPU data for Piston-type steering gear

Steering Gear	Capacity (L)	Length (mm)	Width (mm)	Height (mm)	Weight excl. oil (kg)	Weight incl. oil (kg)	Power Consumption (kW)
BST050-45	2 x 125	1060	670	1100	375	590	4.0
BST074-45	2 x 125	1060	670	1100	375	590	5.5
BST110-45	2 x 175	1400	670	1200	550	850	11
BST150-45	2 x 250	1460	670	1400	600	1035	11
BST195-45	2 x 250	1460	670	1400	655	1090	15
BST240-45	2 x 350	1650	670	1600	815	1424	18.5
BST325-45	2 x 350	1650	670	1600	850	1460	22
BST400-45	2 x 500	1650	1210	1600	1650	2500	30

HPU data for Rotary Vane steering gear

Steering Gear	Capacity (L)	Length (mm)	Width (mm)	Height (mm)	Weight excl. oil (kg)	Weight incl. oil (kg)	Power Consumption (kW)
BRV40-2	2 x 100	1090	490	850	240	412	3
BRV63-2	2 x 125	1060	670	1100	375	590	4
BRV100-2	2 x 160	1060	670	1150	390	660	7.5
BRV160-2	2 x 220	1400	670	1200	500	880	11
BRV250-2	2 x 350	1810	670	1400	665	1270	15
BRV400-2	2 x 500	1910	1210	1500	1500	2360	22 / 30
BRV630-2	2 x 650	1910	1210	1600	1600	2720	37
BRV1000-3	2 x 1100	2100	1590	1800	3300	5170	55
BRV1300-3	2 x 1100	2100	1590	1800	3300	5170	75
BRV1600-3	2 x 1250	2700	2500	2200	3580	5600	90

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