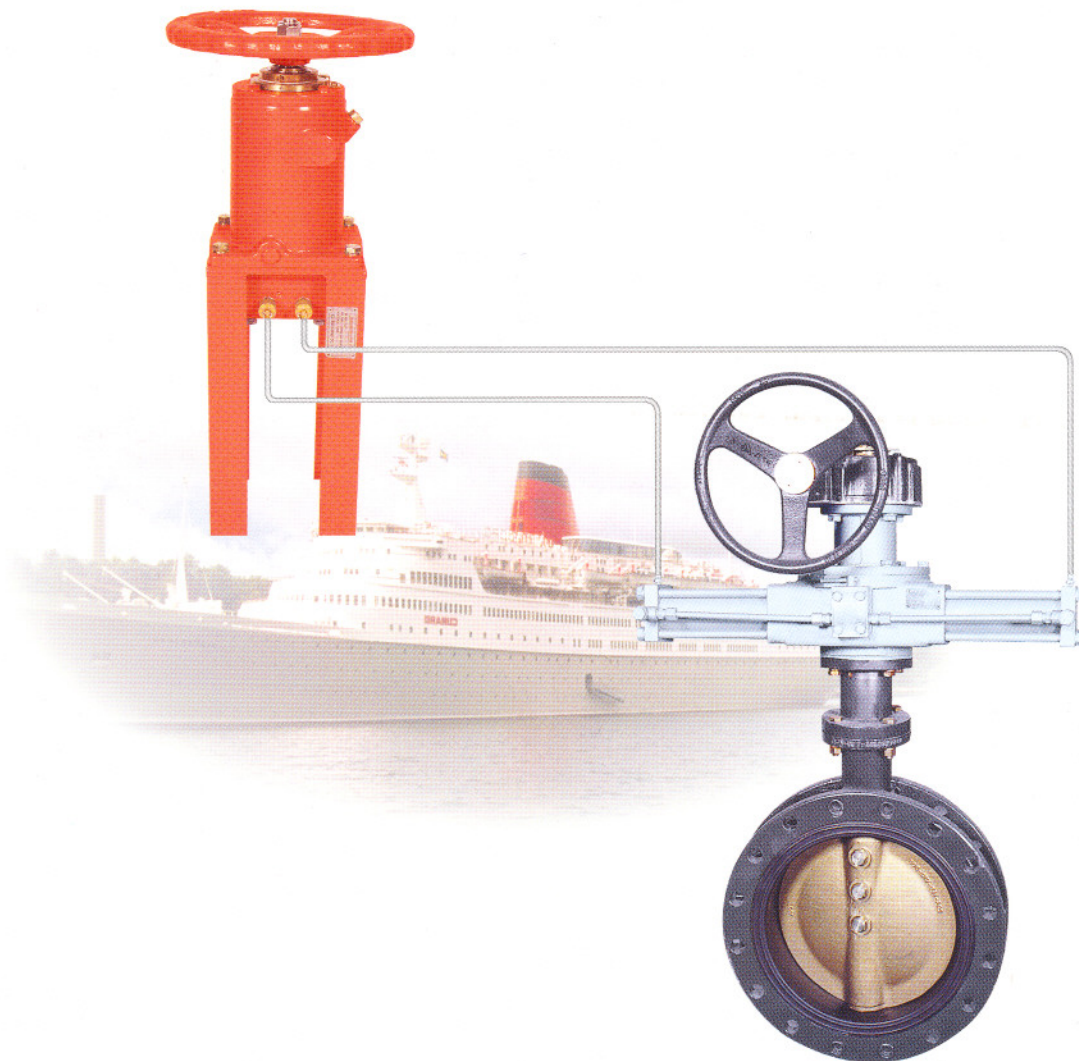
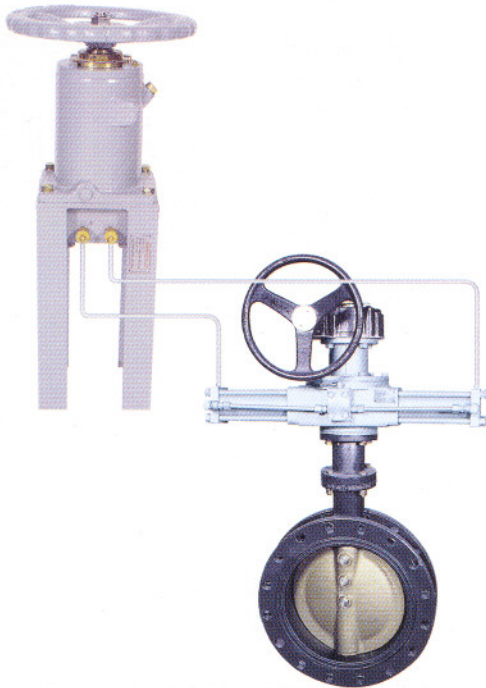


HYDECK

MANUAL HYDRAULIC REMOTE VALVE OPERATING SYSTEM



OUTLINE

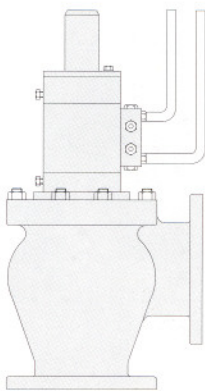


Hydeck is named for Manual Hydraulic Remote Valve Operating System. This system was developed to replace the reach rod system which is used to transmit the force needed to operate the valve in remote places mechanically. The Hydeck system is primarily composed of two parts, the transmitter which generates the power by pumping the hydraulic oil and the actuator which is fitted onto the valve body and receives the hydraulic oil from the transmitter to actuate the valve.

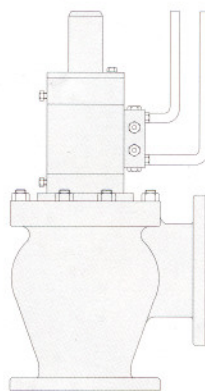
The transmitter and actuator are connected by a pair of small tubings which are used as a means to transfer the hydraulic oils between the two parts. Hydeck system is compatible with a various type of valves including butterfly valve, globe valve, angle valve, gate valve and other special valves.

By rotating the handwheel on the transmitter hydraulic oil is being pumped to the actuator through the connected tubings thus generating the hydraulic pressure needed to move the piston in the cylinder of the actuator assembly.

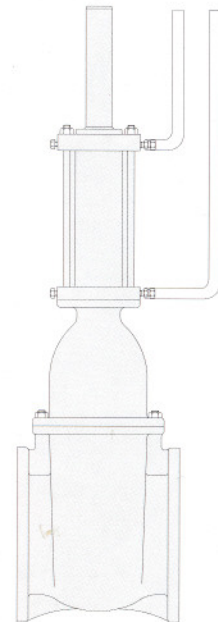
The force generated by the linear movement of the piston is then transferred to the stem of the valve by mechanical device and finally activates the valve disks.



GLOBE VALVE



ANGLE VALVE



GATE VALVE

In this way in a super oil tanker, for instance, a receiver valve located below the deck can be manually operated from above the deck by simply turning the handwheel on the transmitter.

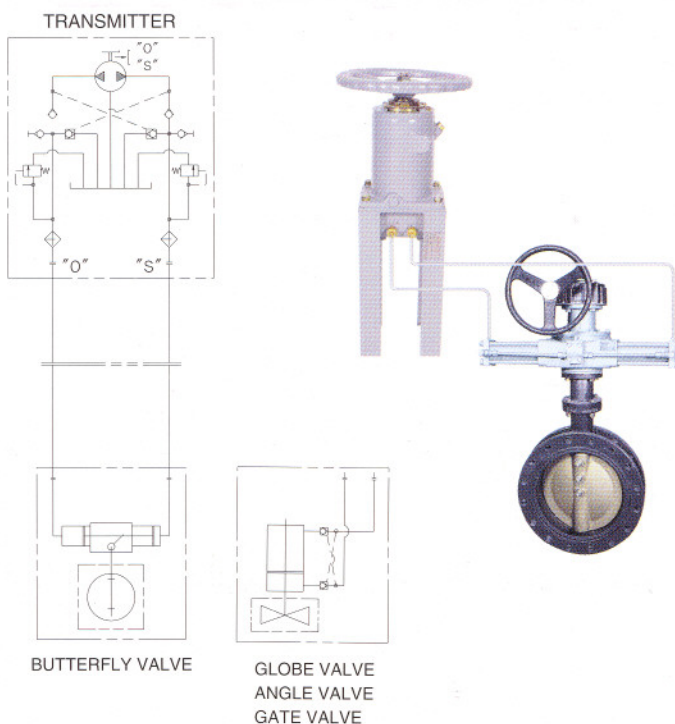
This system can also be applied to other areas such as petroleum and chemical plants, power plants, sewage systems, tank farms and etc..

Necessary accessories such as connector, self seal coupling, bypass valve, lock valve and emergency local manual handle are supplied. Bypass valve, lock valve and emergency local manual handle are available as options. In case of emergency, discharging the hydraulic pressure by opening bypass valve, the valve can be fully shut by turning the handwheel clockwise.

FEATURES

- Easy and cost-effective installation
- Easier operation with higher efficiency and reliability of the performance.
- The transmitter can be installed in any position.
- High reliability without the necessity of special maintenance.
- Emergency local manual handle can be mounted on the receiver valve.

PIPING DIAGRAM AND SPECIFICATION



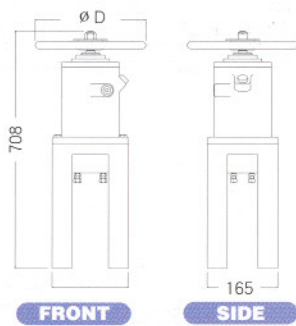
STANDARD SPECIFICATION (TRANSMITTER)

OPERATING FLUID	OIL
DISCHARGE CAPACITY	12 cc/rev, 24 cc/rev 48 cc/rev, 67 cc/rev
RELIEF PRESSURE	OPEN : 90 kg/cm ² (1280 psi) CLOSE : 80 kg/cm ² (1138 psi)
TEST PRESSURE	150 kg/cm ² (2134 psi)
TANK VOLUME	1.6 l

STANDARD SPECIFICATION (ACTUATOR)

OPERATING FLUID	OIL
CYLINDER MATERIAL	STEM 13C (ASTM A513)
TEST PRESSURE	135 kg/cm ² (1920 psi)
TEMPERATURE RANGE	-29~70°C (-20~128°F)
ACTUATOR TYPE	DOUBLE ACTING

TRANSMITTER DIMENSION

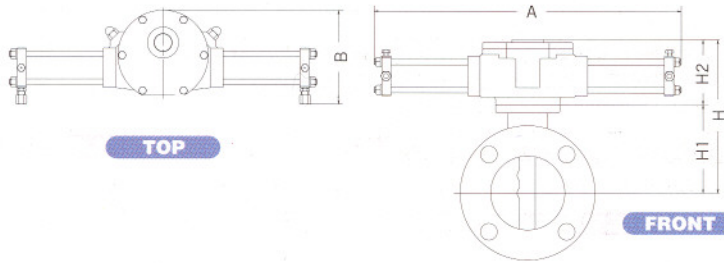


DIMENSION TABLE

SIZE	Ø D	DISCHARGE (cc/rev.)	WEIGHT kg (lb)
T12	280 (11.02)	12	34 (75)
T20	315 (12.40)	24	35 (77)
T24	400 (15.75)	48	46 (101)
T26	500 (19.69)	67	51 (112)

mm (inch)

ACTUATOR DIMENSION (FOR BUTTERFLY VALVE)



※ NOTES :

- 1 The dimension of H&H1 will be different according to the valve manufacturer.
- 2 Emergency hand wheel can be supplied upon request.
- 3 The dimension for other valves can be submitted upon request

mm (inch)

VALVE SIZE	A	B	H	H1	H2	WEIGHT (ACTUATOR) kg (lb)	OIL VOL (cc)
50 (2)	442 (17.40)	152 (6.00)	271 (10.67)	140 (5.51)	131 (5.16)	14 (31)	65
65 (2 1/2)	442 (17.40)	152 (6.00)	271 (10.67)	140 (5.51)	131 (5.16)	14 (31)	65
80 (3)	442 (17.40)	152 (6.00)	290 (11.42)	159 (6.25)	131 (5.16)	14 (31)	65
100 (4)	442 (17.40)	152 (6.00)	309 (12.16)	178 (7.00)	131 (5.16)	14 (31)	65
125 (5)	442 (17.40)	152 (6.00)	322 (12.68)	191 (7.52)	131 (5.16)	14 (31)	65
150 (6)	442 (23.46)	204 (8.00)	357 (14.06)	204 (8.00)	154 (6.06)	59 (27)	260
200 (8)	596 (23.46)	204 (8.00)	384 (15.12)	230 (9.06)	154 (6.06)	59 (27)	260
250 (10)	596 (23.46)	204 (8.00)	419 (16.49)	265 (10.43)	154 (6.06)	59 (27)	260
300 (12)	596 (23.46)	204 (8.00)	454 (17.87)	300 (11.81)	154 (6.06)	59 (27)	260
350 (14)	728 (28.66)	223 (8.78)	505 (19.88)	340 (13.38)	154 (6.06)	84 (38)	480
400 (16)	728 (28.66)	223 (8.78)	545 (21.46)	380 (14.96)	154 (6.06)	84 (38)	480
450 (18)	872 (34.33)	292 (11.50)	587 (23.11)	400 (15.75)	187 (7.36)	163 (74)	1045
500 (20)	872 (34.33)	292 (11.50)	627 (24.68)	440 (17.32)	187 (7.36)	163 (74)	1045
550 (22)	872 (34.33)	292 (11.50)	647 (25.47)	460 (18.11)	187 (7.36)	163 (74)	1045
600 (24)	872 (34.33)	292 (11.50)	682 (26.85)	495 (19.49)	187 (7.36)	163 (74)	1045
650 (26)	982 (38.66)	348 (13.70)	730 (28.74)	530 (20.87)	200 (7.87)	279 (127)	1700
700 (28)	982 (38.66)	348 (13.70)	765 (30.11)	565 (22.24)	200 (7.87)	279 (127)	1700
750 (30)	982 (38.66)	348 (13.70)	805 (31.69)	605 (23.82)	200 (7.87)	279 (127)	1700
800 (32)	982 (38.66)	348 (13.70)	845 (33.26)	645 (25.39)	200 (7.87)	279 (127)	1700
850 (34)	1176 (46.30)	395 (15.55)	916 (36.06)	675 (26.57)	241 (9.49)	363 (165)	3200
900 (36)	1176 (46.30)	395 (15.55)	920 (36.24)	679 (26.75)	241 (9.49)	363 (165)	3200