

PHW POWER HANDWHEEL

The BIFFI PHW Power Hand Wheel series has been engineered and manufactured to provide easy and quick operation of pipeline valves equipped with a gear reducer instead of the operation of turning manually the gear reducer's hand-wheel.



FEATURES

- Anodized aluminium body and covers provides light weight together with compact overall dimensions.
- Simplicity of construction and ease of use are at the top of design and construction parameters.
- High torque and speed performance.
- All gearing running in the oil bath which allows global high and constant efficiency and low power consumption.
- Manual operation by hand-wheel with engagement lever an automatic disengagement in case of motor rotation. The handwheel does not rotate when motor is running.
- Local indication of valve position by a device mechanically connected to the valve stem or, upon request, local dial indicator or remote indication by electrical switches
- Weatherproof as standard (IP 68 according to IEC 529)
- Explosion proof protection available in case of requirements for electrical components (limit switches, position transmitters, solenoid valves, etc)
- Mechanical stops available on request
- Supply connections with quick connectors and protecting Plugs

GENERAL APPLICATION

Power Hand Wheel Unit is designed for the operation of linear and quarter turn valves on pipelines where power source (Electric, Pneumatic, Hydraulic) is not available.

TECHNICAL DATA

Ambient Temperature:
from -30°C to 80°C

Oil Flow rate into the range:
from 10 l/min to 60 l/min

Supply Medium: Mineral oil

Oil Max Flow rate(for 140 bar max oil pressure):
70 l/min

Oil Supply pressure into the range:
from 25 barg to 170 barg

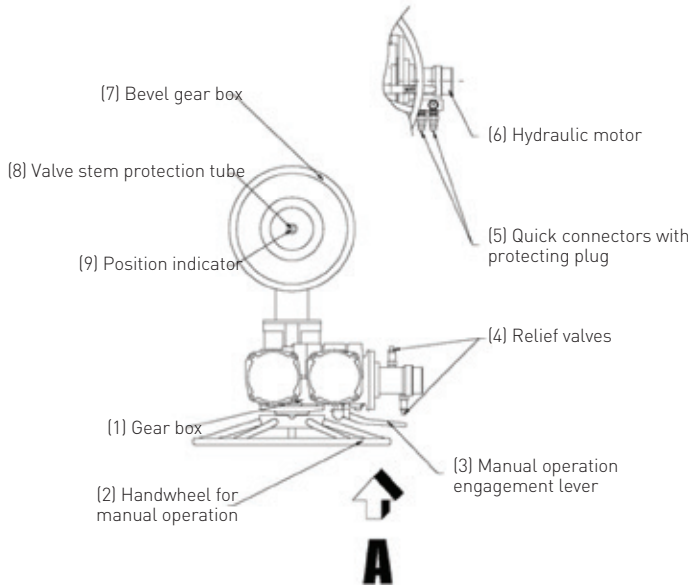
Output torques (without bevel gear):
up to 1200 Nm

Max. Supply pressure (for intermittent duty):
200 barg

Speed (without bevel gear):
up to 144 rpm (higher speeds on request)

POW POWER HANDWHEEL

MAIN PARTS



Power Hand Wheel with Gear Reducer

BIFFI P.H.W can be supplied complete with any type of gear reducer to be assembled to the valve (such as bevel gear reducer, worm gear reducer, spur gear reducer and scotch yoke mechanism) and can be equipped with several accessories (mechanical stop, local indicators, electrical switches..) according to customer requirements.

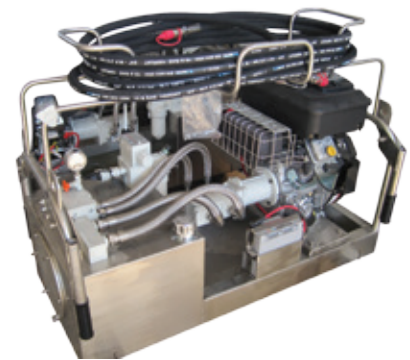
In the case of operation of linear valve, P.H.W. + gear reducer is equipped with a "thrust block" to assure the valve operation by applying the actuating torque to valve stem and by bearing the valve thrust.

ACCESSORIES

Hydraulic Power Portable Unit

The BIFFI H.P.P.U. ensures a hydraulic supply oil flow and pressure, for P.H.W. operation. Light weight and reduced dimensions allow easy transportation, the lifting operation is aided by the four lifting points for use with lifting machines or by the four handles for manual lifting. The H.P.P.U can be easily connected to P.H.W. through flexible hoses and relevant quick connectors. The H.P.P.U is designed and manufactured to deliver the required oil pressure and oil flow rate to actuate the valve with low motor power; the opening / closing of the valve is carried out by the manual lever of the open / close hydraulic selector.

As alternative to the standard version of H.P.P.U with a internal combustion engine H.P.P.U. with electrical motor is also available, which can be supplied by pickup batteries.



Biffi reserve the right to change product designs and specifications without notice.

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