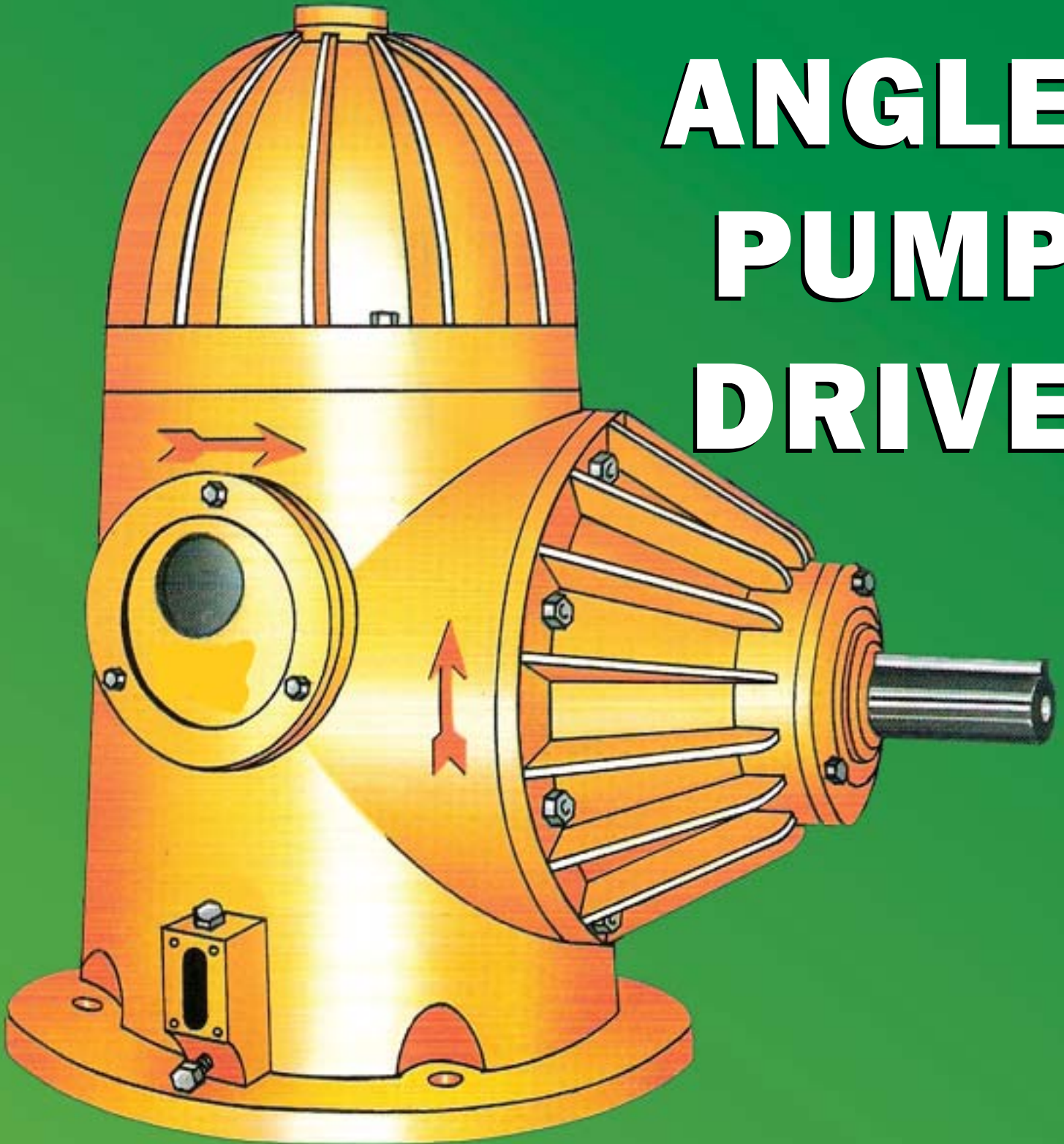




RIGHT ANGLE PUMP DRIVE



RIGHT ANGLE DRIVES FOR
IRRIGATION, INDUSTRIAL, MUNICIPAL
AND FIRE PROTECTION

“VG”RIGHT ANGLE GEAR DRIVES ARE MANUFACTURED WITH LATEST TECHNOLOGY CONFORMING TO INTERNATIONAL STANDARD & NEMA FRAME SIZE TO SUITE ANY VERTICAL SHAFT CENTRIFUGAL OR TURBINE TYPE DEEP WELL PUMPS FOR CONTINUOUS OPERATION.

APPLICATION :

IT IS A POSITIVE POWER TRANSMISSION UNIT TO TRANSMIT POWER FROM HORIZONTAL SHAFT PRIME MOVERS LIKE ENGINE, HORIZONTAL ELECTRIC MOTOR OR TRACTOR TO VERTICAL SHAFT CENTRIFUGAL OR TURBINE PUMP OFFERING HIGHER EFFICIENCY, ECONOMY, SPACE SAVING AND WORKS CONTINUOUSLY WELL UNDER ANY CLIMATIC CONDITIONS.

“VG”RIGHT ANGLE GEAR DRIVES ARE USED IN A VARIETY OF APPLICATION LIKE IRRIGATION, MUNICIPAL & INDUSTRIAL WATER SUPPLY & SEWAGE DISPOSAL, FIRE PROTECTION, FLOOD PROTECTION, COOLING TOWERS, MARINE SERVICES & AQUA CULTURE FARMING.

FEATURES :

“VG”RIGHT ANGLE GEAR DRIVES ARE OF TWO TYPES, VHS i.e. VERTICAL HOLLOW SHAFT & VSS i.e. VERTICAL SOLID SHAFT. AMPLE CAPACITY PRESSURE LUBRICATED THRUST BEARING IS PROVIDED TO TAKE CARE OF THE DOWN THRUST OF THE PUMP. HIGH QUALITY ANTY - FRICTION BALL BEARINGS & SPIRAL BEVEL GEARS OF CASE HARDENED ALLOY STEEL ARE USED FOR QUITE & HIGH TORQUE CONTINUOUS DUTY OPERATION. POSITIVE OIL PUMP IS USED FOR CONTINUOUS PRESSURE LUBRICATION OF BEARINGS & GEARS. NON - REVERSE RATCHET ARRANGEMENT ARE PROVIDED TO PREVENT ROTATION OF PUMP ONLY IN ONE DIRECTION. EXTERNALLY MOUNTED OIL COOLER WITH TOP & BOTTOM COOLING WATER CONNECTIONS ARE PROVIDED TO REDUCE THE TEMPERATURE OF LUBRICANT FOR MODEL : KRGH : 40 AND UP. SMALL RATING MODELS ARE OF AIR COOLED DESIGN.

HP RATING : DRIVING RATIO : ROTATION FIGURE :

VARIOUS MODELS OF “VG”RIGHT ANGLE GEAR DRIVES ARE AVAILABLE TO MEET SPECIFIC REQUIREMENTS OF HP RATINGS, ROTATION FIGURE AND DRIVING RATIO DEPENDING UPON THE SPEED OF PRIME MOVERS AND SPEED OF VERTICAL PUMP SHAFT. REFER TABLE 'A' & 'B' TO SELECT CORRECT MODEL AND DRIVING RATIO AND REFER ROTATION DIAGRAM TO SELECT CORRECT ROTATION FIGURE.

TABLE : B

DRIVING RATIO

| VERTICAL SHAFT R.P.M. | HORIZONTAL SHAFT R.P.M. | | | | | |
|-----------------------|---|-------|-------|-------|-------|-------|
| | SPEED INCREASING RATIOS (DRIVER : DRIVEN) | | | | | |
| | 1 : 1 | 1 : 2 | 2 : 3 | 3 : 4 | 4 : 5 | 5 : 6 |
| 580 | 580 | 290 | 387 | 435 | 464 | 483 |
| 1000 | 1000 | 500 | 667 | 750 | 800 | 833 |
| 1440 | 1440 | 720 | 960 | 1080 | 1152 | 1200 |
| 1760 | 1760 | 880 | 1173 | 1320 | 1408 | 1467 |
| 2880 | 2880 | 1440 | 1920 | 2160 | 2304 | 2400 |

| VERTICAL SHAFT R.P.M. | HORIZONTAL SHAFT R.P.M. | | | | |
|-----------------------|---|-------|-------|-------|-------|
| | SPEED DECREASING RATIOS (DRIVER : DRIVEN) | | | | |
| | 2 : 1 | 3 : 2 | 4 : 3 | 5 : 4 | 6 : 5 |
| 580 | 1160 | 870 | 773 | 725 | 696 |
| 1000 | 2000 | 1500 | 1333 | 1250 | 1200 |
| 1440 | 2880 | 2160 | 1920 | 1800 | 1728 |
| 1760 | 3520 | 2640 | 2347 | 2200 | 2112 |

ROTATIONS :

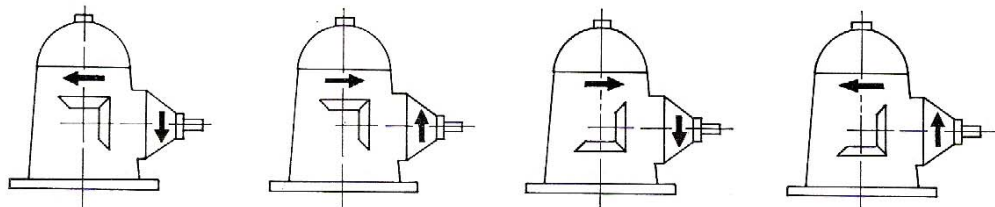


FIG - A

FIG - B

FIG - C

FIG - D

VERTICAL SHAFT :
HORIZONTAL SHAFT :

CW
CCW

CCW
CW

CCW
CCW

CW
CW

TABLE-A : HORSE POWER RATING, THRUST CAPACITY AND DRIVING RATIO

| MODEL | Vertical Shaft Speed (RPM) | H.P. | DOWNTHRUST CAPACITY | | Horizontal Shaft Rpm Ratio (Driver:Driven) 1:1 |
|--------|----------------------------|------|---------------------|-------|--|
| | | | Standard | Heavy | |
| VG-10 | 1440 | 8.5 | 742 | -- | 1440 |
| | 1760 | 10 | 700 | -- | 1760 |
| | 2880 | 13 | 630 | -- | 2880 |
| VG-20 | 1440 | 17 | 954 | -- | 1440 |
| | 1760 | 20 | 900 | -- | 1760 |
| | 2880 | 26 | 810 | -- | 2880 |
| VG-30 | 1440 | 26 | 1166 | -- | 1440 |
| | 1760 | 30 | 1100 | -- | 1760 |
| | 2880 | 39 | 990 | -- | 2880 |
| VG-40 | 1440 | 34 | 1908 | -- | 1440 |
| | 1760 | 40 | 1800 | -- | 1760 |
| | 2880 | 52 | 1620 | -- | 2880 |
| VG-60 | 1440 | 51 | 2385 | -- | 1000 |
| | 1760 | 60 | 2250 | -- | 1760 |
| | 2880 | 78 | 2050 | -- | 2880 |
| VG-80 | 1000 | 52 | 3240 | 4320 | 1000 |
| | 1440 | 68 | 2862 | 3816 | 1440 |
| | 1760 | 80 | 2700 | 3600 | 1760 |
| | 2900 | 100 | -- | -- | 2900 |
| | 3000 | 100 | -- | -- | 3000 |
| VG-90 | 1000 | 59 | 3816 | 4920 | 1000 |
| | 1440 | 77 | 3371 | 4346 | 1440 |
| | 1760 | 90 | 3180 | 4100 | 1760 |
| VG-110 | 1000 | 71 | 3816 | 4920 | 1000 |
| | 1440 | 93 | 3371 | 4346 | 1440 |
| | 1760 | 110 | 3180 | 4100 | 1760 |
| VG-125 | 1000 | 81 | 4032 | 5136 | 1000 |
| | 1440 | 106 | 3561 | 4537 | 1440 |
| | 1760 | 125 | 3360 | 4280 | 1760 |

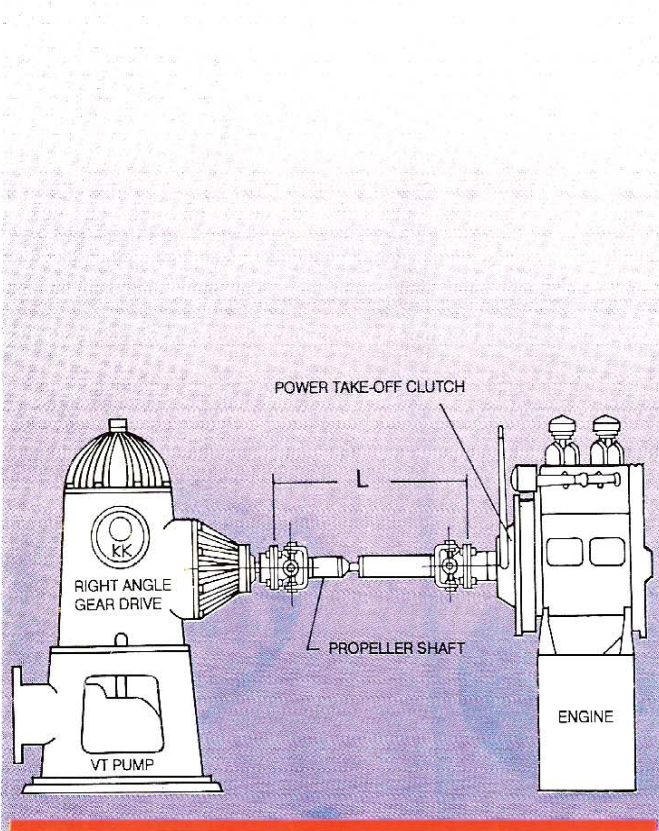
| MODEL | Vertical Shaft Speed (RPM) | H.P. | DOWNTHRUST CAPACITY | | Horizontal Shaft Rpm Ratio (Driver:Driven) 1:1 |
|--------|----------------------------|------|---------------------|-------|--|
| | | | Standard | Heavy | |
| VG-150 | 1000 | 98 | 4368 | 6552 | 1000 |
| | 1440 | 127 | 3858 | 5788 | 1440 |
| | 1760 | 150 | 3640 | 5460 | 1760 |
| | 2900 | 200 | -- | -- | 2900 |
| | 3000 | 200 | -- | -- | 3000 |
| VG-200 | 1000 | 130 | 4860 | 7032 | 1000 |
| | 1440 | 170 | 4293 | 6212 | 1440 |
| | 1760 | 200 | 4050 | 5860 | 1760 |
| | 2900 | 260 | -- | -- | 2900 |
| | 3000 | 260 | -- | -- | 3000 |
| VG-250 | 1000 | 162 | 5952 | 8112 | 1000 |
| | 1440 | 212 | 5258 | 7166 | 1440 |
| | 1760 | 250 | 4960 | 6760 | 1760 |
| | 2900 | 330 | -- | -- | 2900 |
| | 3000 | 330 | -- | -- | 3000 |
| VG-300 | 1000 | 195 | 5952 | 8112 | 1000 |
| | 1440 | 255 | 5258 | 7166 | 1440 |
| | 1760 | 300 | 4960 | 6760 | 1760 |
| VG-350 | 1000 | 227 | 7032 | 8652 | 1000 |
| | 1440 | 297 | 6212 | 7642 | 1440 |
| | 1760 | 350 | 5860 | 7210 | 1760 |
| VG-425 | 1000 | 276 | 8112 | 10812 | 1000 |
| | 1440 | 361 | 7166 | 9550 | 1440 |
| | 1760 | 425 | 6760 | 9010 | 1760 |
| VG-500 | 1000 | 325 | 8112 | 10812 | 1000 |
| | 1440 | 425 | 7166 | 9550 | 1440 |
| | 1760 | 500 | 6760 | 9010 | 1760 |
| VG-600 | 1000 | 390 | 8651 | 11352 | 1000 |
| | 1440 | 510 | 7642 | 10027 | 1440 |
| | 1760 | 600 | 7210 | 9460 | 1760 |

FOR CONTINUOUS IMPROVEMENT, WE RESERVE THE RIGHT TO CHANGE THE DESIGN AND DIMENSION WITHOUT NOTICE

TYPICAL INSTALLATION ARRANGEMENT

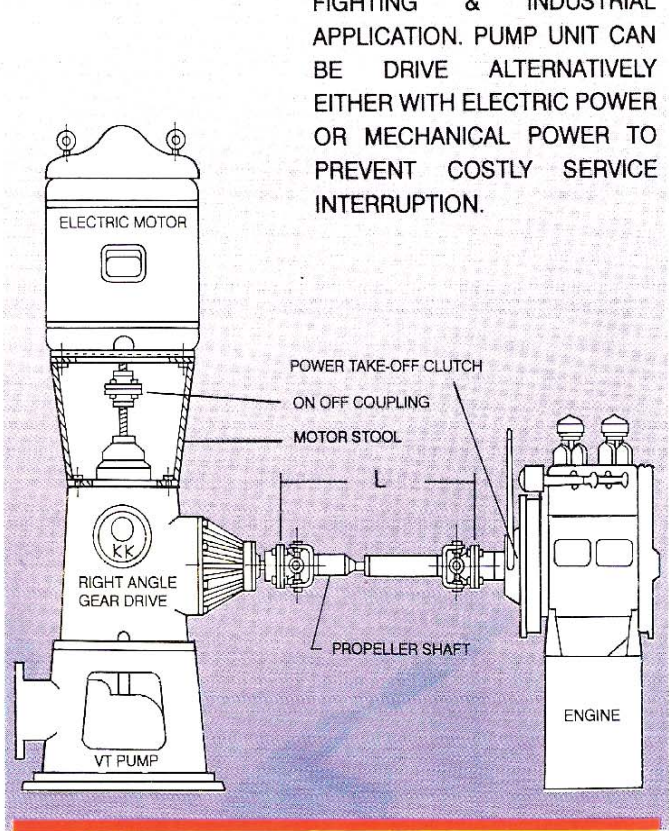
DIRECT DRIVE INSTALLATION :

“VG” VHS RIGHT ANGLE GEAR DRIVES ARE DIRECTLY MOUNTED ON ANY VERTICAL SHAFT PUMPS AND DRIVEN DIRECTLY BY DIFFERENT PRIME MOVERS LIKE ENGINE, HORIZONTAL ELECTRIC MOTOR, TRACTOR USING PROPELLER SHAFT OR FLEXIBLE COUPLING & FLAT OR “V” BELT DRIVE ARRANGEMENT.



COMBINATION DRIVE INSTALLATION :

FOR CONTINUOUS OPERATION OF PUMPING UNIT, WITH VERTICAL SHAFT ELECTRIC MOTOR OR WITH DIESEL ENGINE AS STANDBY PRIME MOVER, “VG” VHS RIGHT ANGLE GEAR DRIVES WITH COMBINATION DRIVE INSTALLATION, ARE WIDELY USED BY WATER WORKS, MUNICIPAL CORPORATION, FLOOD PROTECTION, FIRE FIGHTING & INDUSTRIAL APPLICATION. PUMP UNIT CAN BE DRIVE ALTERNATIVELY EITHER WITH ELECTRIC POWER OR MECHANICAL POWER TO PREVENT COSTLY SERVICE INTERRUPTION.



SOLID SHAFT GEAR DRIVE :

“VG”VSS RIGHT ANGLE GEAR DRIVES ARE MANUFACTURED WITH VERTICAL SOLID SHAFT EXTENDED AT BOTTOM AND CAN BE SUPPLIED WHEN SPECIFICALLY REQUESTED. THESE DRIVES ARE NORMALLY USED IN PROCESS INDUSTRIES TO DRIVE VERTICAL SHAFT PUMP AT DESIRED SPEED.

MODEL SELECTION :

PLEASE SUPPLY FOLLOWING INFORMATION WHILE ORDERING OR INQUIRING ABOUT “VG” RIGHT ANGLE GEAR DRIVE.

- MODEL NUMBER ● RATIO (INPUT TO OUTPUT SPEED) ● ROTATION FIGURE ● HORSE POWER REQUIREMENT
- THRUST REQUIREMENT ● PUMP HEAD SHAFT SIZE

(RATIO IS DEFINE AS THE HORIZONTAL SHAFT INPUT RPM TO VERTICAL SHAFT OUTPUT RPM)