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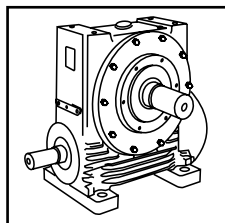
Roloid Gear Pump



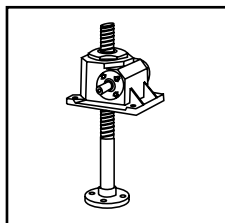
Gear Pump  
CRP-2.00GB1211

# PRODUCTS IN THE RANGE

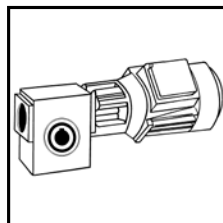
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are here to make a positive difference to the supply of drive solutions.



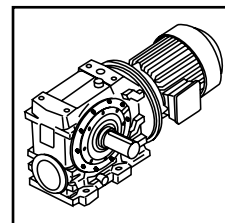
**Series A**  
Worm Gear units  
and geared motors  
in single & double  
reduction types



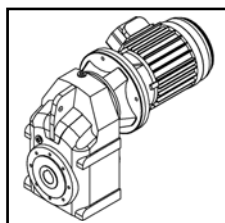
**Series BD**  
Screwjack worm  
gear unit



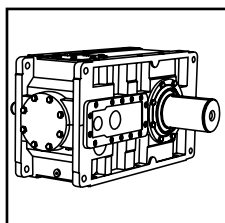
**Series BS**  
Worm gear unit



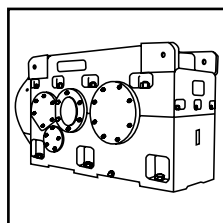
**Series C**  
Right angle drive  
helical worm geared  
motors & reducers



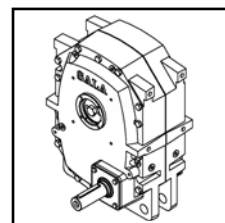
**Series F**  
Parallel angle helical  
bevel helical geared  
motors & reducers



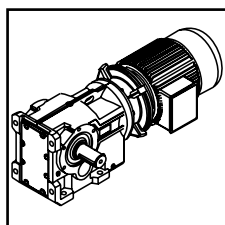
**Series G**  
Helical parallel shaft  
& bevel helical right  
angle drive gear  
units



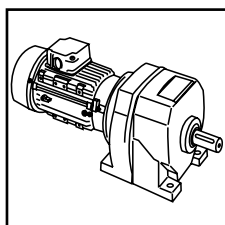
**Series H**  
Large helical parallel  
shaft & bevel helical  
right angle drive units



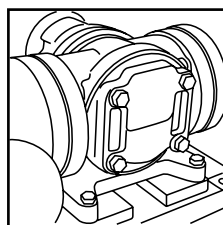
**Series J**  
Shaft mounted  
helical speed  
reducers



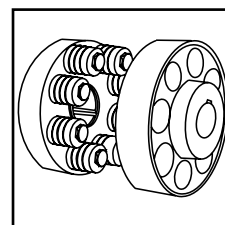
**Series K**  
Right angle helical  
bevel helical geared  
motors & reducers



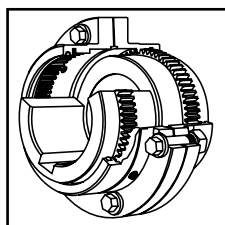
**Series M**  
In-line helical geared  
motors & reducers



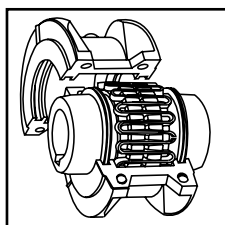
**Roloid Gear Pump**  
Lubrication and fluid  
transportation pump



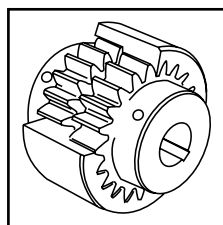
**Series X  
Cone Ring**  
Pin and bush  
elastomer coupling



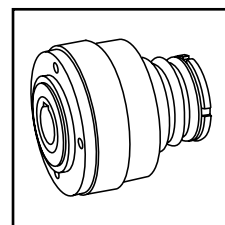
**Series X  
Gear**  
Torsionally rigid,  
high torque coupling



**Series X  
Grid**  
Double flexing steel  
grid coupling



**Series X  
Nylicon**  
Gear coupling with  
nylon sleeve



**Series X  
Torque Limiter**  
Overload protection  
device



We offer a wide range of repair services and many years experience of repairing demanding and highly critical transmissions in numerous industries.

We can create custom engineered transmission solutions of any size and configuration.

# ROLOID GEAR PUMP

## EXPLANATION & USE OF RATINGS & SERVICE FACTORS

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# ROLOID GEAR PUMP

## INTRODUCTION

The Roloid Gear Pump is robust, compact and versatile. It is easy to install, extremely reliable, and requires little maintenance during service.

The pump design and product range have matured over many years and in combination with Radicon excellence, represents an economic and reliable solution to lubrication and fluid transportation requirements.

Roloid Gear Pumps are suitable for pumping a wide variety of liquids which have some lubricating property.

Our application engineers will gladly assist in selecting a pump that will give trouble free operation.

### **Roloid Gear Pumps Can Be Used For Lubrication Of:**

- Engines
- Compressors
- Gearboxes
- Rolling Mills
- Machine Tools
- Process Plant
- Pumping Sets
- Turbines

### **Roloid Gear Pumps Can Be Used For Pumping The Following Liquids:**

- Fuel Oils
- Open Circuit Servo
- Quenching
- Cutting and Cooling Fluids
- Oil/Water Emulsions
- Viscous Vegetable and Animal Fats
- Bitumen
- Wax
- Paint
- Lacquers
- Viscose

### **Features**

- Double helical rotors for low noise and non pulsating flow.
- Accurate manufacture of rotors and housings for high efficiency, providing self priming and discharge pressures up to 20 bar.
- Robust journal roller bearings for long life and durability.
- Designed to rotate in either direction.
- Numerous attachments accessories and materials variants available for special orders. Motorised bracket base and flange mounted or pumps are available as standard.
- Housing motor or special baseplate or tank top designs are available.
- Special baseplate or tank top designs are available on request.

# ROLOID GEAR PUMP

## AVAILABLE PUMP VARIATIONS

### Base Mounted Unit

The Base Mounted Roloid Gear Pump is available as standard in 7 sizes (90 to 25) giving output flow rates between 3.9L/min to 1052L/min, A further 2 sizes (20 and 15) are available upon special request for achieving flow rates up to 2546L/min. All pumps come as standard with Ansi B16.5 Class 150 connection flanges and a base plate to give secure mounting to a flat surface.



### Motor Mounted Unit

The Motor Mounted Roloid Gear Pump is available as standard in 7 sizes (90 to 25) giving output flow rates between 3.9L/min to 1052L/min using IEC Motor frame sizes Between 90 and 250. A further 2 sizes (20 and 15) are available upon special request for achieving flow rates up to 2546L/min. All pumps come as standard with Ansi B16.5 Class 150 connection flanges. The Motor Mounted Unit comes as an enclosed unit and utilises the motor feet to mount the unit on a flat surface. A motor ready option is also available to allow the end user to fit a specific motor of their choice.

### Flange Mounted Unit

The Flange Mounted Roloid Gear Pump is available as standard in 7 sizes (90 to 25) giving output flow rates between 3.9L/min to 1052L/min, A further 2 sizes (20 and 15) are available upon special request for achieving flow rates up to 2546L/min. All pumps come as standard with Ansi B16.5 Class 150 connection flanges and is designed to be mounted directly to machinery using the IEC Sized input flange.



# ROLOID GEAR PUMP

## PRODUCT AND APPLICATION INFORMATION

### HST 'T' RANGE ROLOID PUMPS

#### **HST Unit**

The HST Roloid Gear Pumps are available in 3 out of the 7 sizes (50, 40 & 30). They are an enhanced version of the standard gear pump with their design specifically engineered and manufactured for the arduous requirements of lubrication systems used for refrigeration compressors. The HST models cover flow rates between 28L/min to 608L/min and are designed to be configured as either base mounted, motor mounted or flange mounted. HST units come with input and output flanges made to ANSI B16.5 class 150

#### **Design and Manufacturing Specifications**

##### **Sealing**

Mechanical seals and 'O' rings are used due to high inlet pressures and to resist the corrosive nature of the refrigerant gasses.

##### **Bearings**

Special bearing arrangement - incorporating taper roller bearings to accommodate high thrust loads encountered due to high inlet pressures. All bearings are steel caged.

##### **Copper-based Alloys**

To achieve compatibility with the refrigerant gasses entrained in the lubrication oil, no copper or copper-based alloys are used in the construction of the pump.

##### **Testing**

All 'HST' pumps are hydrostatically tested at up to double the operating pressures to ensure reliable, leak-free operation.

#### **Selection Guidelines - HST Roloid Pumps**

In all cases selection of HST pumps should be referred to our application engineers.

### API ROLOID PUMP ASSEMBLIES

#### **Background**

Special API Roloid pump assemblies are order pumps designed to meet the exacting standards of API 676 specification, the API version of the Roloid Pump is a special adaption of the HST range of pumps and shares the same extensive features and benefits.

##### **Housings**

All housings are manufactured from high quality steel.

##### **Flanges**

Flange interfaces conform to ANSI B16.5 class 150 standards.

##### **Configuration**

The pump assembly is baseplate mounted, with motor, coupling and guard. Membrane type couplings are used to facilitate replacement of the coupling without disturbing the pump or motor.

##### **Sealing**

Mechanical seals to API 614.

##### **Bearings**

All bearings selected to give in excess of 25,000 hours L10 life.

#### **Quality Control & Documentation**

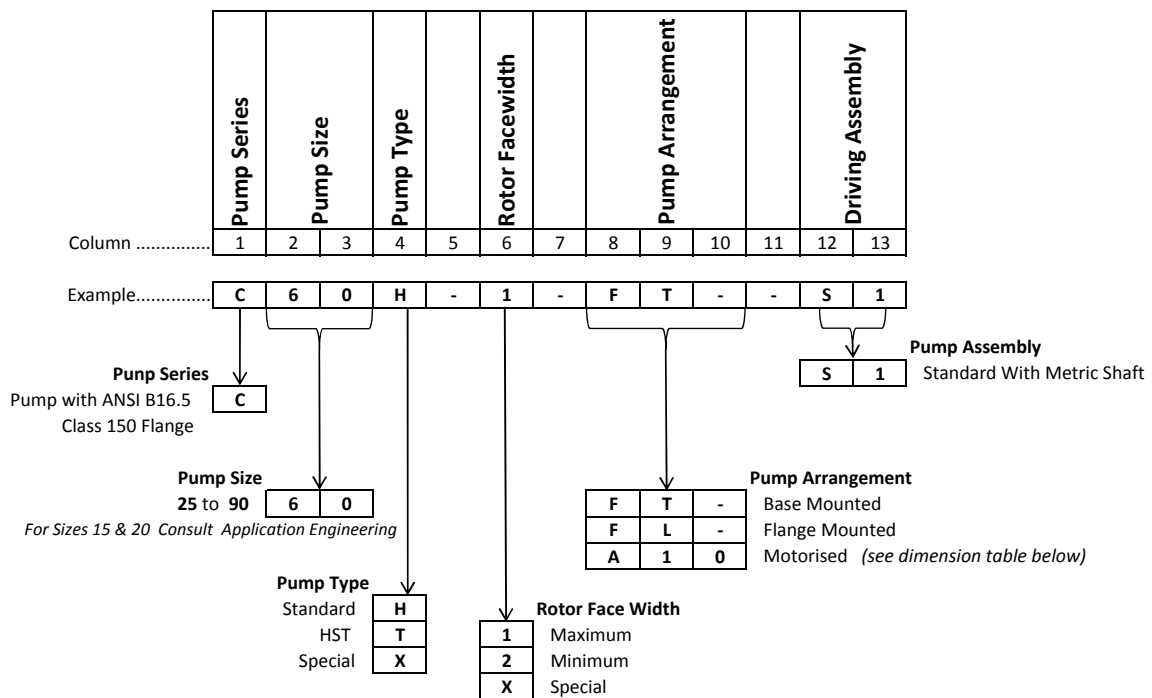
Our quality systems ensure we can meet the exacting requirements for quality control and documentation called for by API 676. Each order is manufactured to its own specific quality plan, which can be audited at any stage by the customer. Full mechanical and chemical test certification can be supplied where required.

#### **Selection Guidelines - API Roloid Pumps**

In all cases selection of API pumps should be referred to our application engineers.

# ROLOID GEAR PUMP

## ROLOID PUMP DESIGNATIONS



This designation series may be used only for standard pumps sizes 25 to 90  
 For non-standard and pump sizes 15 and 20 consult our Application Engineering  
 To ensure correct selection, please contact our Application Engineers  
 Please provide the following information:

1. Discharge (Flow) Rate
2. Pump Speed
3. Details of Operating Environment (Ambient Temp, Application, Location etc..)
4. Operating Pressure
5. Inlet Pressure or Suction Lift
6. Operating Temp max/min
7. Pumped Fluid Type and Viscosity
8. Input Drive arrangement (Electric Motor, Gear Driven etc...)
9. Special Mounting Instructions, (Flanges, Brackets, Other etc...)

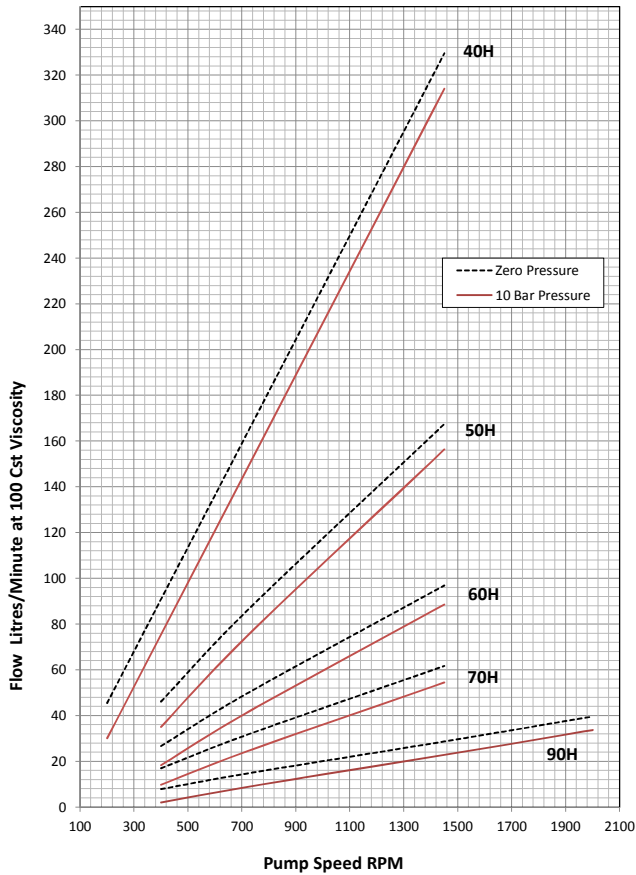
| Roloid Pump Size | Motor Frame size | No. of Poles |             | Motor Power (KW) |      |      |    | Column 8 |
|------------------|------------------|--------------|-------------|------------------|------|------|----|----------|
| 90               | 90               | 4            | Motor Ready | 1.1              | 1.5  |      |    | 10       |
|                  |                  | 6            |             | 0.75             | 1.1  |      |    | 11       |
|                  |                  | 8            |             | 0.37             | 0.55 |      |    | 12       |
|                  | 100              | 4            |             | 2.2              | 3    | 4    |    | 13       |
|                  |                  | 6            |             | 1.5              | 2.2  |      |    | 14       |
|                  |                  | 8            |             | 0.75             | 1.1  |      |    | 15       |
| 60               | 112              | 4            |             | 4                | 5.5  |      |    | 16       |
|                  |                  | 6            |             | 2.2              | 3    |      |    | 17       |
|                  |                  | 8            |             | 1.5              |      |      |    | 18       |
|                  | 132              | 4            |             | 5.5              | 7.5  | 9    | 11 | 19       |
|                  |                  | 6            |             | 3                | 4    | 5.5  |    | 20       |
|                  |                  | 8            |             | 2.2              | 3    |      |    | 21       |
| 40               | 160              | 4            |             | 11               | 15   | 18.5 |    | 22       |
|                  |                  | 6            |             | 7.5              | 11   | 15   |    | 23       |
|                  |                  | 8            |             | 4                | 7.5  |      |    | 24       |
|                  | 180              | 4            |             | 18.5             | 22   | 30   |    | 25       |
|                  |                  | 6            |             | 15               | 18.5 |      |    | 26       |
|                  |                  | 8            |             | 11               |      |      |    | 27       |
| 25               | 200              | 6            |             | 18.5             | 22   | 30   |    | 28       |
|                  |                  | 8            |             | 15               | 30   |      |    | 29       |
|                  |                  | 6            |             | 30               |      |      |    | 30       |
|                  | 225              | 8            |             | 18.5             | 22   |      |    | 31       |
|                  |                  | 6            |             | 37               |      |      |    | 32       |
|                  |                  | 8            |             | 30               |      |      |    | 33       |
|                  |                  |              | Column 8    | A                | B    | C    | D  | E        |

# ROLOID GEAR PUMP

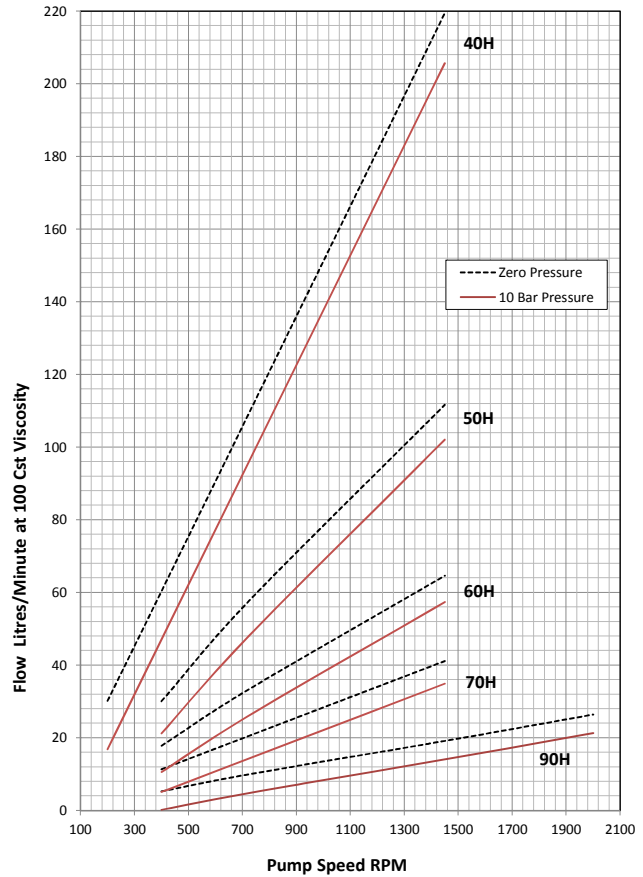
## ROLOID PUMP

### NOMINAL FLOW SELECTION GUIDE

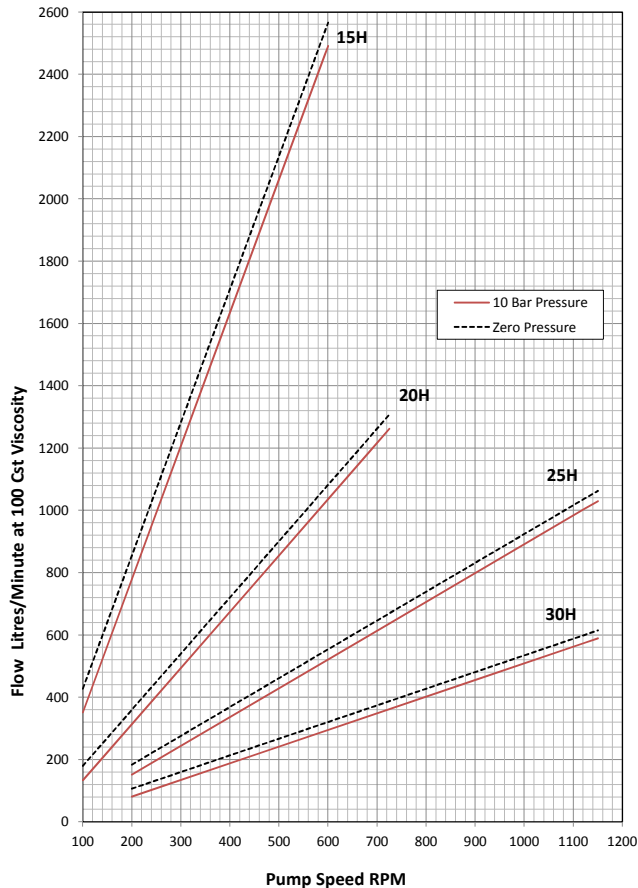
40H - 90H Maximum Facewidth Rotors



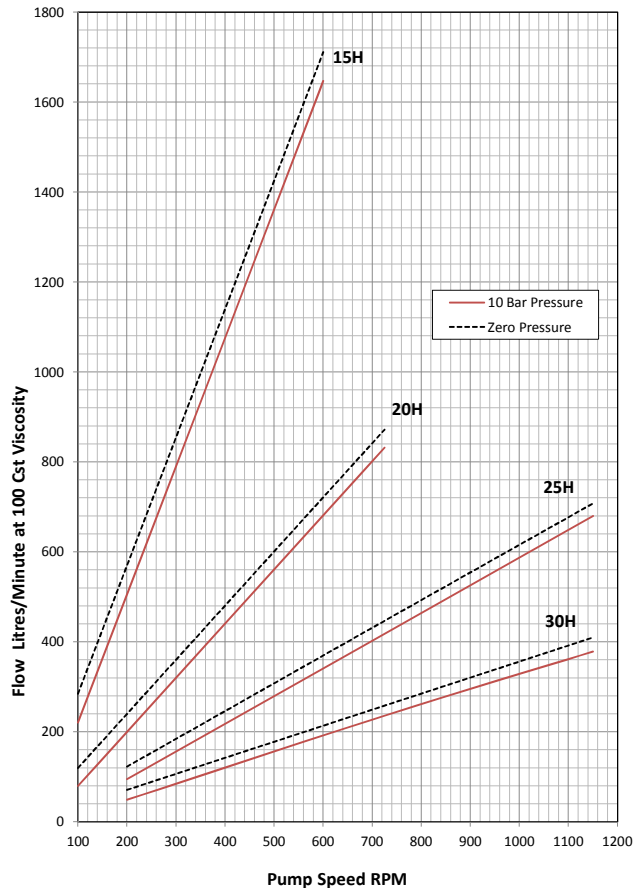
40H - 90H Minimum Facewidth Rotors



15H - 30H Maximum Facewidth Rotors



15H - 30H Minimum Facewidth Rotors

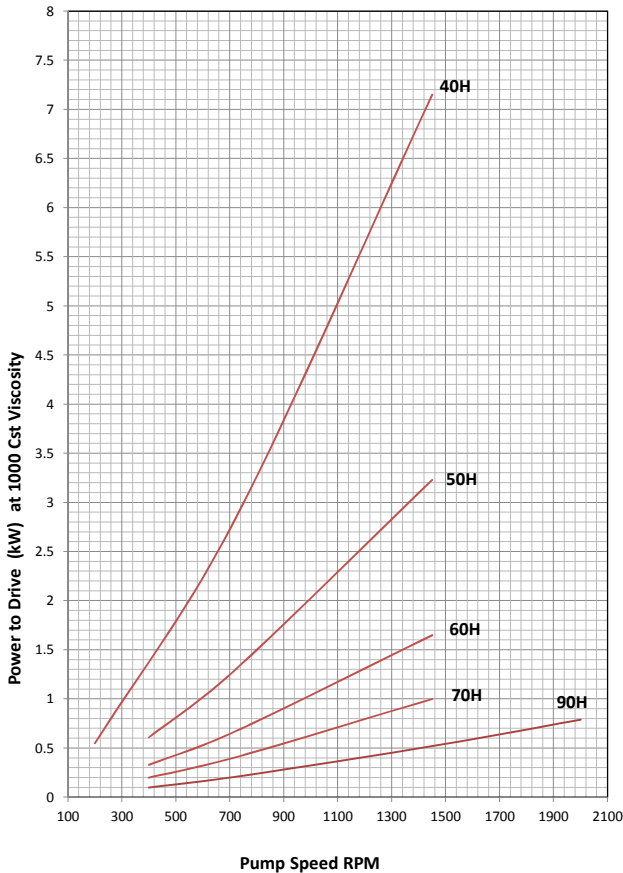




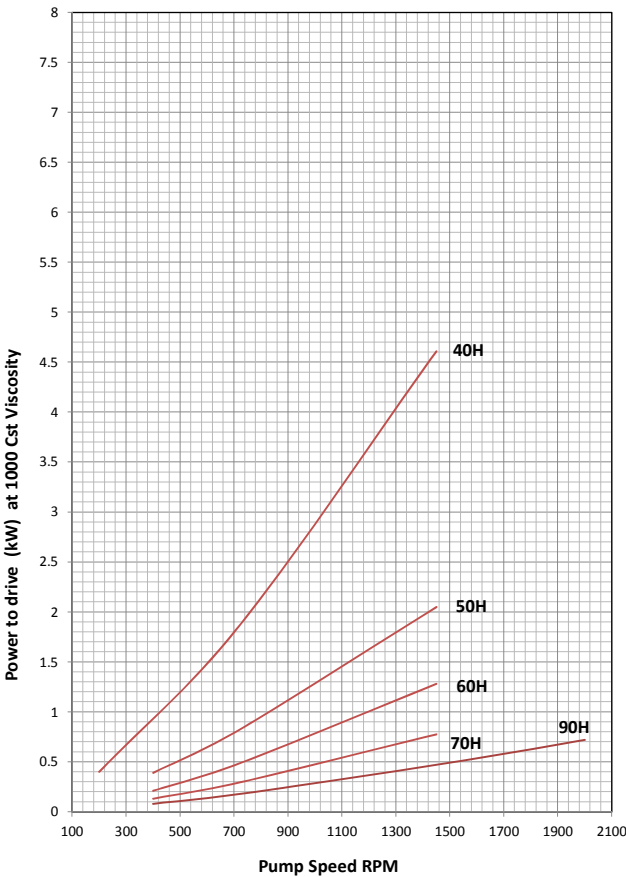
# ROLOID GEAR PUMP

## ROLOID PUMP POWER TO DRIVE AT 3 BAR

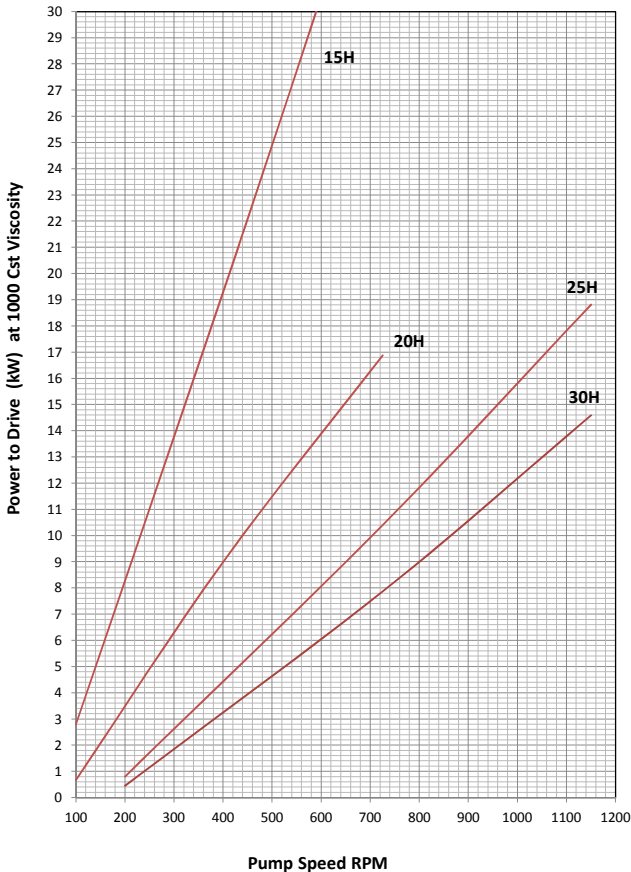
40H - 90H Maximum Facewidth Rotors



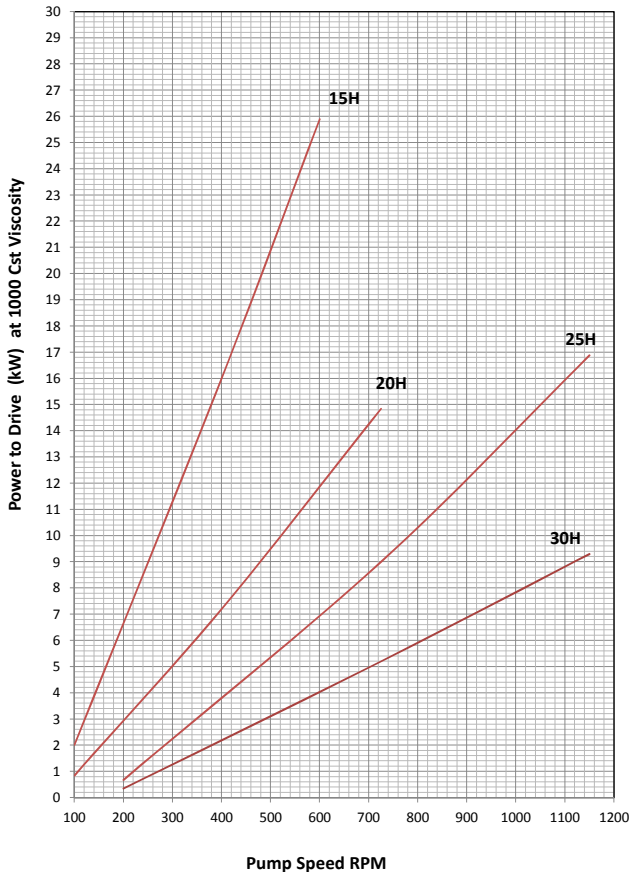
40H - 90H Minimum Facewidth Rotors



15H - 30H Maximum Facewidth Rotors



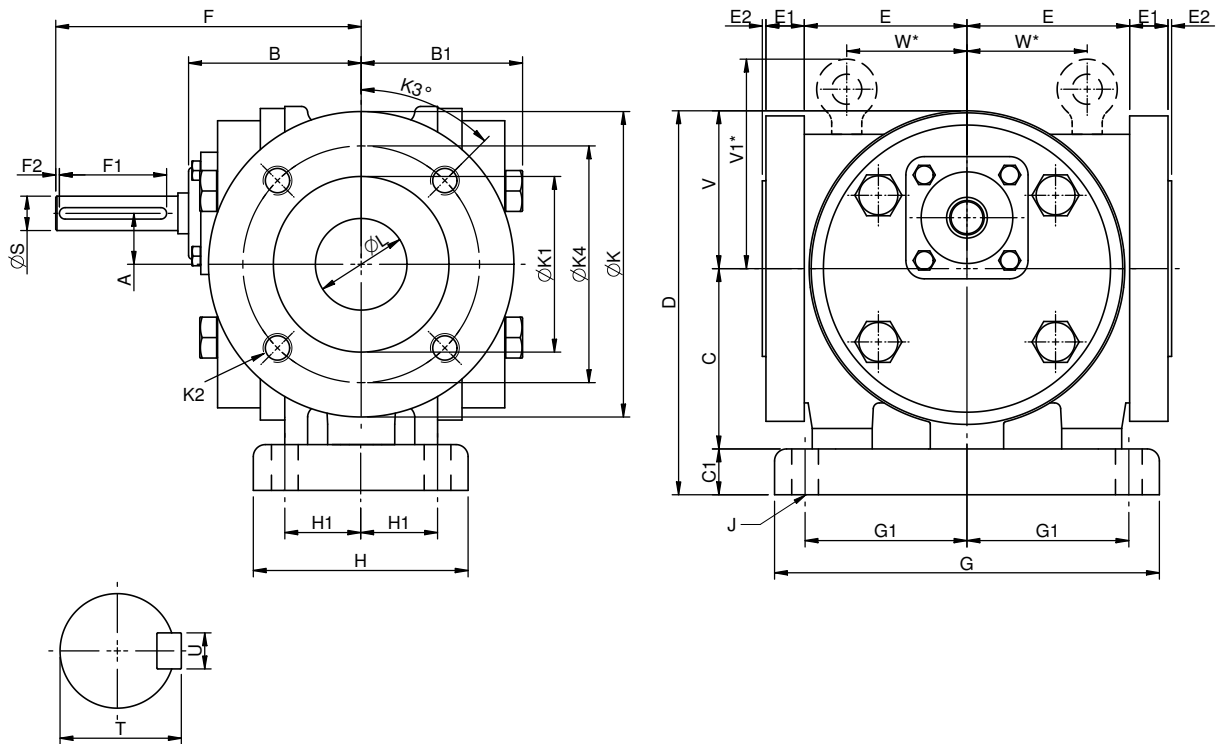
15H - 30H Maximum Facewidth Rotors



# ROLOID GEAR PUMP

## DIMENSIONS

### BASE MOUNTED STANDARD PUMP TYPE - H



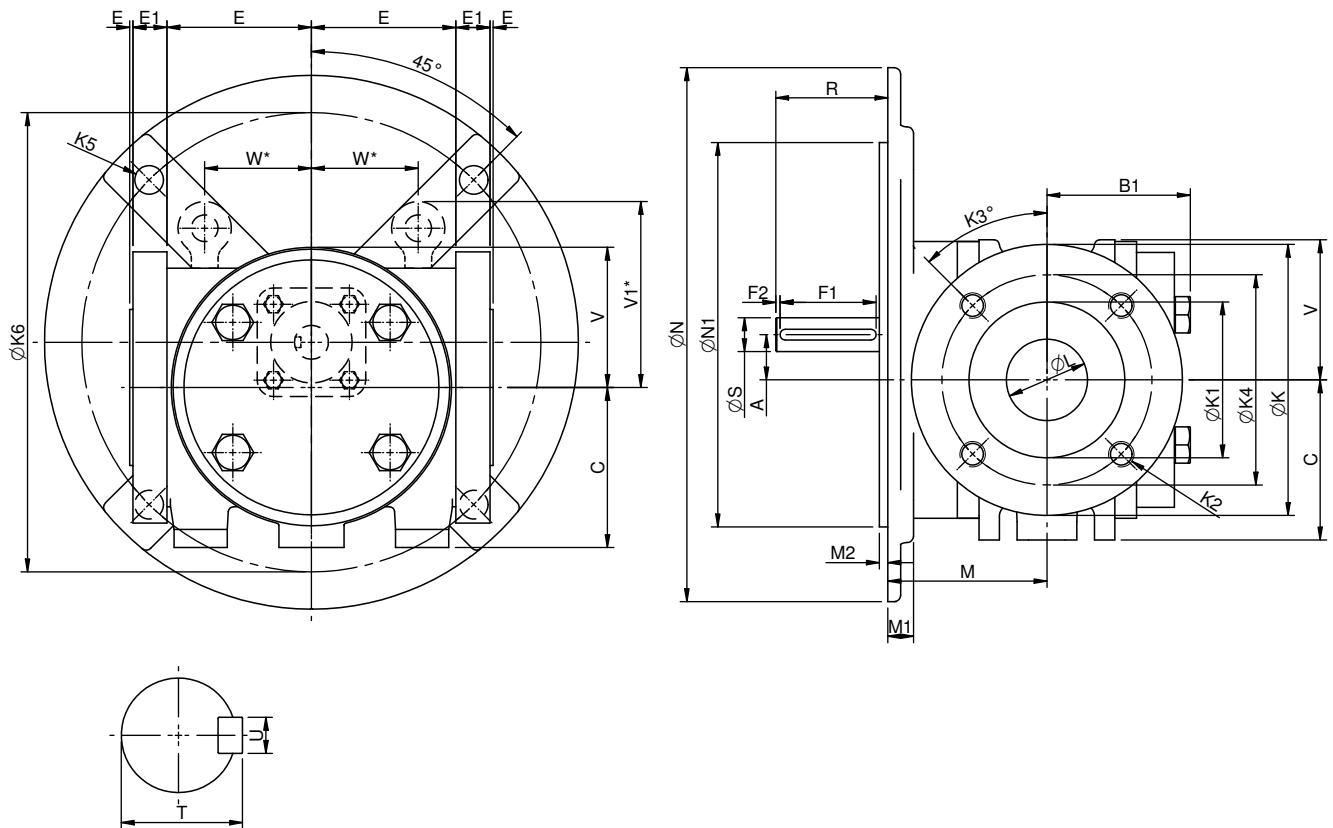
| Pump Size | Pump Details                          |      |       |     |       |      |       |       |      |     |       |       |       |       |      |          |       |       |         |       |       |       |       |
|-----------|---------------------------------------|------|-------|-----|-------|------|-------|-------|------|-----|-------|-------|-------|-------|------|----------|-------|-------|---------|-------|-------|-------|-------|
|           | Flange Size                           | A    | B     | B1  | C     | C1   | D     | E     | E1   | E2  | F     | G     | G1    | H     | H1   | J        | ØK    | ØK1   | K2      | K3°   | ØK4   | ØL    | V     |
| C90H      | 1                                     | 14.1 | 62    | 55  | 65    | 14.3 | 127   | 50    | 14.3 | 1.5 | 101.6 | 127   | 54    | 70    | 25.4 | 4 x 9.5  | 108   | 50.8  | 4 x M12 | 45°   | 79.4  | 25.4  | 47.6  |
| C70H      | 1.25                                  | 18.1 | 64    | 60  | 70    | 16.5 | 147   | 62.5  | 16   | 1.5 | 114.3 | 152.4 | 64.7  | 88.9  | 33   | 4 x 11   | 117.5 | 63.5  | 4 x M12 | 45°   | 88.9  | 31.8  | 60.3  |
| C60H      | 1.5                                   | 21.2 | 72    | 68  | 75    | 19.1 | 160   | 67.6  | 16   | 1.5 | 127   | 160   | 67.5  | 89.3  | 31.6 | 4 x 11   | 127   | 73    | 4 x M12 | 45°   | 98.6  | 38.1  | 65.6  |
| C50H      | 2                                     | 25.4 | 86.5  | 82  | 90    | 20.3 | 184   | 76.2  | 19.1 | 1.5 | 139.7 | 177.8 | 73.7  | 104.1 | 36.8 | 4 x 12.7 | 152.4 | 92.0  | 4 x M16 | 45°   | 120.7 | 50.8  | 77.7  |
| C40H      | 2.5                                   | 31.8 | 99    | 93  | 100   | 22.9 | 212   | 92.5  | 21   | 1.5 | 165.1 | 218.4 | 94    | 127   | 48.3 | 4 x 14   | 177.8 | 104.7 | 4 x M16 | 45°   | 139.7 | 63.5  | 88.9  |
| C30H      | 3.5                                   | 42.3 | 120   | 125 | 120   | 29.2 | 264.2 | 118.1 | 30.3 | 1.5 | 203.2 | 271.8 | 118.1 | 170.2 | 67.3 | 4 x 17   | 215.9 | 139.7 | 8 x M16 | 22.5° | 177.8 | 88.9  | 115.6 |
| C25H      | 4                                     | 50.8 | 138.5 | 140 | 142.2 | 35.6 | 317.5 | 148.0 | 28   | 1.5 | 228.6 | 330.2 | 142.2 | 203.2 | 78.7 | 4 x 21   | 228.6 | 156.9 | 8 x M16 | 22.5° | 190.5 | 101.6 | 139.7 |
| 20H       | Consult Radicon Application Engineers |      |       |     |       |      |       |       |      |     |       |       |       |       |      |          |       |       |         |       |       |       |       |
| 15H       |                                       |      |       |     |       |      |       |       |      |     |       |       |       |       |      |          |       |       |         |       |       |       |       |

| Pump Size | Shaft Details                         |      |    |    |    | Eyebolt |      | Net | Gross |
|-----------|---------------------------------------|------|----|----|----|---------|------|-----|-------|
|           | ØS                                    | T    | U  | F1 | F2 | V1*     | W*   | KG  | KG    |
| C90H      | 11 (k6)                               | 12.5 | 4  | 20 | 2  | n/a     | n/a  | 6.4 | 11    |
| C70H      | 14 (k6)                               | 16   | 5  | 45 | 2  | n/a     | n/a  | 10  | 17    |
| C60H      | 16 (k6)                               | 19   | 5  | 45 | 2  | n/a     | n/a  | 14  | 21    |
| C50H      | 19 (k6)                               | 21.5 | 6  | 45 | 2  | n/a     | n/a  | 18  | 26    |
| C40H      | 22 (k6)                               | 25   | 6  | 55 | 2  | 85.1    | 62.5 | 32  | 40    |
| C30H      | 31 (k6)                               | 35   | 10 | 55 | 2  | 94      | 70   | 74  | 93    |
| C25H      | 35 (k6)                               | 38   | 10 | 60 | 2  | 102     | 96   | 111 | 150   |
| 20H       | Consult Radicon Application Engineers |      |    |    |    |         |      |     |       |
| 15H       |                                       |      |    |    |    |         |      |     |       |

# ROLOID GEAR PUMP

## DIMENSIONS

### FLANGE MOUNTED STANDARD PUMP TYPE - H



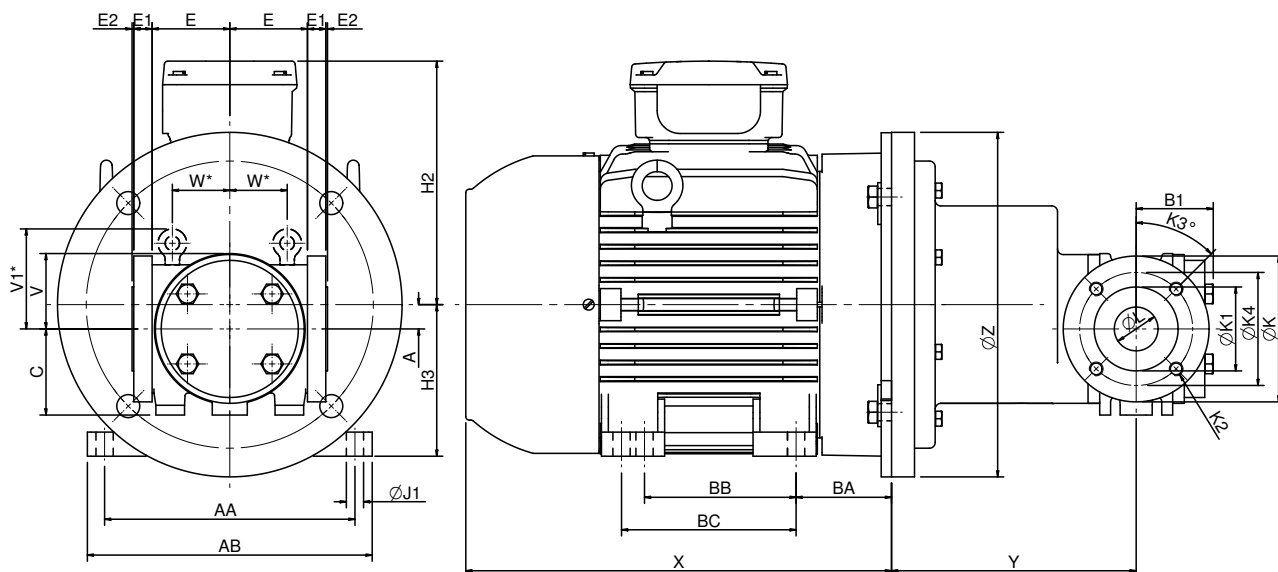
| Pump Size | Pump Details                          |      |     |       |       |       |      |     |       |       |       |         |       |       |       |       | Shaft Details |      |    |    |    |  |
|-----------|---------------------------------------|------|-----|-------|-------|-------|------|-----|-------|-------|-------|---------|-------|-------|-------|-------|---------------|------|----|----|----|--|
|           | Flange Size                           | A    | B1  | C     | D     | E     | E1   | E2  | F     | øK    | øK1   | K2      | K3°   | øK4   | øL    | V     | øS            | T    | U  | F1 | F2 |  |
| C90H      | 1                                     | 14.1 | 55  | 65    | 127   | 50    | 14.3 | 1.5 | 101.6 | 108   | 50.8  | 4 x M12 | 45°   | 79.4  | 25.4  | 47.6  | 11 (k6)       | 12.5 | 4  | 20 | 2  |  |
| C70H      | 1.25                                  | 18.1 | 60  | 70    | 147   | 62.5  | 16   | 1.5 | 114.3 | 117.5 | 63.5  | 4 x M12 | 45°   | 88.9  | 31.8  | 60.3  | 14 (k6)       | 16   | 5  | 45 | 2  |  |
| C60H      | 1.5                                   | 21.2 | 68  | 75    | 154   | 67.6  | 16   | 1.5 | 127   | 127   | 73    | 4 x M12 | 45°   | 98.6  | 38.1  | 65.6  | 16 (k6)       | 19   | 5  | 45 | 2  |  |
| C50H      | 2                                     | 25.4 | 82  | 90    | 184   | 76.2  | 19.1 | 1.5 | 139.7 | 152.4 | 92    | 4 x M16 | 45°   | 120.7 | 50.8  | 77.7  | 19 (k6)       | 21.5 | 6  | 45 | 2  |  |
| C40H      | 2.5                                   | 31.8 | 93  | 100   | 212   | 99.3  | 21   | 1.5 | 165.1 | 177.8 | 104.7 | 4 x M16 | 45°   | 139.7 | 63.5  | 88.9  | 22 (k6)       | 25   | 6  | 55 | 2  |  |
| C30H      | 3.5                                   | 42.3 | 121 | 120   | 264.2 | 118.1 | 30.3 | 1.5 | 203.2 | 215.9 | 139.7 | 8 x M16 | 22.5° | 177.8 | 88.9  | 115.6 | 31 (k6)       | 35   | 10 | 55 | 2  |  |
| C25H      | 4                                     | 50.8 | 140 | 142.2 | 318   | 148   | 28   | 1.5 | 228.6 | 228.6 | 156.9 | 8 x M16 | 22.5° | 190.5 | 101.6 | 139.7 | 35 (k6)       | 38   | 10 | 60 | 2  |  |
| 20H       | Consult Radicon Application Engineers |      |     |       |       |       |      |     |       |       |       |         |       |       |       |       |               |      |    |    |    |  |
| 15H       |                                       |      |     |       |       |       |      |     |       |       |       |         |       |       |       |       |               |      |    |    |    |  |

| Pump Size | Flange Details                        |    |     |     |     |          |     |      | Eyebolt |      | Net   | Gross |
|-----------|---------------------------------------|----|-----|-----|-----|----------|-----|------|---------|------|-------|-------|
|           | M                                     | M1 | M2  | øN  | øN1 | K5       | K6  | R    | V1*     | W*   | KG    | KG    |
| C90H      | 67                                    | 12 | 3.5 | 160 | 110 | 4 x 9    | 130 | 34.7 | n/a     | n/a  | 9     | 14    |
| C70H      | 76.7                                  | 12 | 3.5 | 200 | 130 | 4 x 11   | 165 | 37.6 | n/a     | n/a  | 11.5  | 18.5  |
| C60H      | 74.5                                  | 12 | 4   | 250 | 180 | 4 x 13.5 | 215 | 52.5 | n/a     | n/a  | 17.5  | 24.5  |
| C50H      | 91.2                                  | 16 | 4   | 250 | 180 | 4 x 13.5 | 215 | 48.5 | n/a     | n/a  | 20    | 28    |
| C40H      | 107.9                                 | 20 | 4   | 300 | 230 | 4 x 13.5 | 265 | 57.2 | 85.1    | 62.5 | 35.5  | 43.5  |
| C30H      | 129                                   | 20 | 5   | 400 | 300 | 4 x 17.5 | 350 | 74.2 | 94      | 70   | 79    | 98    |
| C25H      | 137.3                                 | 20 | 6   | 450 | 350 | 4 x 19   | 400 | 91.3 | 102     | 96   | 114.5 | 153.5 |
| 20H       | Consult Radicon Application Engineers |    |     |     |     |          |     |      |         |      |       |       |
| 15H       |                                       |    |     |     |     |          |     |      |         |      |       |       |

# ROLOID GEAR PUMP

## DIMENSIONS

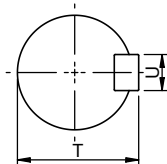
### MOTORISED STANDARD PUMP TYPE - H



| Pump Size | Pump Details                          |            |      |     |       |      |      |     |       |       |         |       |       |      | Eyebolt |      |
|-----------|---------------------------------------|------------|------|-----|-------|------|------|-----|-------|-------|---------|-------|-------|------|---------|------|
|           | Ansi Flange Size                      | Motor Size | A    | B1  | C     | E    | E1   | E2  | øK    | øK1   | K2      | K3°   | øK4   | V    | V1*     | W*   |
| C90H      | 1                                     | 90S        | 14.1 | 55  | 65    | 50   | 14   | 1.5 | 108   | 50.8  | 4 x M12 | 45°   | 79.4  | 47.6 | n/a     | n/a  |
|           |                                       | 90L        |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 100L       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C70H      | 1.25                                  | 100L       | 18.1 | 60  | 70    | 62.5 | 16   | 1.5 | 117.5 | 63.5  | 4 x M12 | 45°   | 88.9  | 60.3 | n/a     | n/a  |
|           |                                       | 112M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C60H      | 1.5                                   | 112M       | 21.2 | 68  | 75    | 67.6 | 16   | 1.5 | 127   | 73    | 4 x M12 | 45°   | 98.6  | 65.6 | n/a     | n/a  |
|           |                                       | 132S       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 132M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C50H      | 2                                     | 132S       | 25.4 | 82  | 90    | 76.2 | 19.1 | 1.5 | 152   | 92    | 4 x M16 | 45°   | 120.7 | 77.7 | n/a     | n/a  |
|           |                                       | 132M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 160M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C40H      | 2.5                                   | 160L       | 31.8 | 93  | 100   | 92.5 | 21   | 1.5 | 178   | 104.7 | 4 x M16 | 45°   | 140   | 88.9 | 85.1    | 62.5 |
|           |                                       | 160L       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 180M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C30H      | 3.5                                   | 180L       | 42.3 | 121 | 120   | 118  | 30.3 | 1.5 | 216   | 139.7 | 8 x M16 | 22.5° | 178   | 116  | 94      | 70   |
|           |                                       | 200L       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 225M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| C25H      | 4                                     | 200L       | 50.8 | 140 | 142.5 | 148  | 28.0 | 1.5 | 229   | 156.9 | 8 x M16 | 22.5° | 191   | 140  | 102     | 96   |
|           |                                       | 225M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
|           |                                       | 250M       |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| 20H       | Consult Radicon Application Engineers |            |      |     |       |      |      |     |       |       |         |       |       |      |         |      |
| 15H       |                                       |            |      |     |       |      |      |     |       |       |         |       |       |      |         |      |

| Pump Size | Motor IEC B5 Flange                   |     |     |     |     |     |     |     |     |     |     | Net  | Gross |
|-----------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|
|           | AA                                    | AB  | BA  | BB  | BC  | ØJ1 | H2  | H3  | X   | Y   | ØZ  | KG   | KG    |
| C90H      | 140                                   | 180 | 56  | 100 | N/A | 10  | 159 | 90  | 265 | 158 | 200 | 23   | 28    |
|           | 140                                   | 180 | 56  | 125 | N/A | 10  | 159 | 90  | 290 | 158 | 200 | 23   | 28    |
|           | 160                                   | 205 | 63  | 140 | N/A | 12  | 177 | 100 | 357 | 173 | 250 | 37   | 42    |
| C70H      | 160                                   | 205 | 63  | 140 | N/A | 12  | 177 | 100 | 357 | 180 | 250 | 40.5 | 47.5  |
|           | 190                                   | 230 | 70  | 140 | N/A | 12  | 189 | 112 | 340 | 180 | 250 | 48.5 | 55.5  |
| C60H      | 190                                   | 230 | 70  | 140 | N/A | 12  | 189 | 112 | 340 | 193 | 250 | 51   | 58    |
|           | 216                                   | 270 | 89  | 140 | N/A | 12  | 214 | 132 | 380 | 213 | 300 | 81   | 88    |
|           | 216                                   | 270 | 89  | 270 | N/A | 12  | 214 | 132 | 420 | 213 | 300 | 81   | 88    |
| C50H      | 216                                   | 270 | 89  | 140 | N/A | 12  | 214 | 132 | 380 | 228 | 300 | 84   | 92    |
|           | 216                                   | 270 | 89  | 270 | N/A | 12  | 214 | 132 | 420 | 228 | 300 | 84   | 92    |
|           | 254                                   | 320 | 110 | 210 | N/A | 15  | 270 | 160 | 500 | 258 | 350 | 138  | 145.5 |
|           | 254                                   | 320 | 110 | 254 | N/A | 15  | 270 | 160 | 540 | 258 | 350 | 138  | 145.5 |
| C40H      | 254                                   | 320 | 110 | 210 | N/A | 15  | 270 | 160 | 500 | 283 | 350 | 140  | 148   |
|           | 254                                   | 320 | 110 | 254 | N/A | 15  | 270 | 160 | 540 | 283 | 350 | 140  | 148   |
|           | 279                                   | 355 | 121 | 241 | N/A | 15  | 285 | 180 | 590 | 283 | 350 | 224  | 232   |
|           | 279                                   | 355 | 121 | 279 | N/A | 15  | 285 | 180 | 630 | 283 | 350 | 224  | 232   |
| C30H      | 279                                   | 355 | 121 | 241 | N/A | 15  | 285 | 180 | 590 | 316 | 350 | 275  | 294   |
|           | 279                                   | 355 | 121 | 279 | N/A | 15  | 285 | 180 | 630 | 316 | 350 | 275  | 294   |
|           | 318                                   | 395 | 133 | 305 | N/A | 19  | 305 | 200 | 660 | 316 | 400 | 384  | 402.5 |
|           | 356                                   | 435 | 149 | 311 | N/A | 19  | 480 | 225 | 750 | 346 | 450 | 472  | 491   |
| C25H      | 318                                   | 395 | 133 | 305 | N/A | 19  | 305 | 200 | 660 | 342 | 400 | 410  | 449   |
|           | 356                                   | 435 | 149 | 311 | 349 | 19  | 480 | 225 | 750 | 372 | 450 | 486  | 525   |
|           | 406                                   | 504 | 168 | 311 | 349 | 24  | 490 | 250 | 825 | 372 | 550 | 594  | 633   |
| 20H       | Consult Radicon Application Engineers |     |     |     |     |     |     |     |     |     |     |      |       |
| 15H       |                                       |     |     |     |     |     |     |     |     |     |     |      |       |

## HST BASE MOUNTED STANDARD PUMP TYPE - T



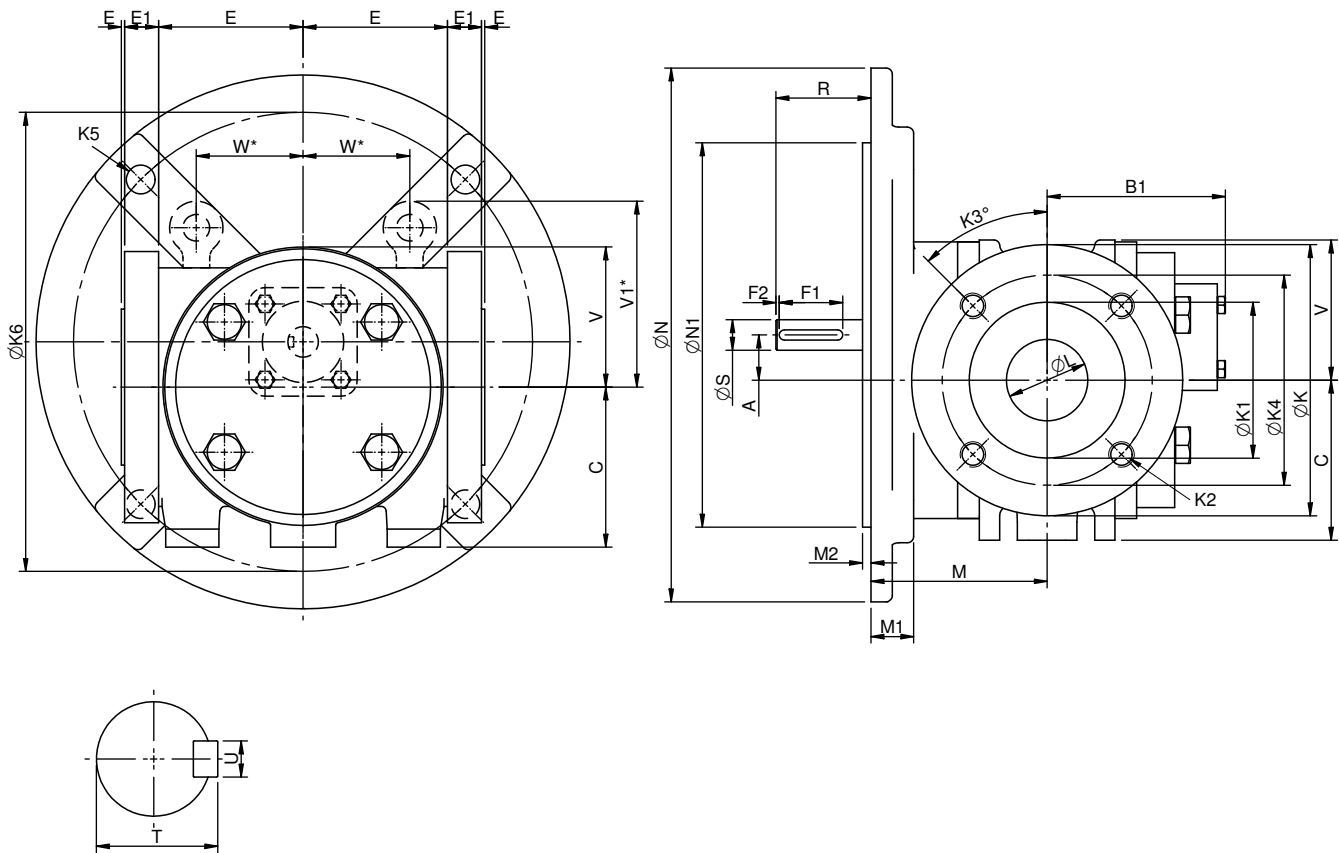
| Pump Size | Pump Details                  |      |     |     |     |      |       |       |      |     |       |       |       |       |      |          |       |       |         |       |       |      |       |
|-----------|-------------------------------|------|-----|-----|-----|------|-------|-------|------|-----|-------|-------|-------|-------|------|----------|-------|-------|---------|-------|-------|------|-------|
|           | Flange                        | A    | B   | B1  | C   | C1   | D     | E     | E1   | E2  | F     | G     | G1    | H     | H1   | J        | øK    | øK1   | K2      | K3°   | øK4   | øL   | V     |
| C50T      | 2                             | 25.4 | 98  | 90  | 90  | 20.3 | 184   | 76.2  | 19.1 | 1.5 | 139.7 | 177.8 | 73.7  | 104.1 | 36.8 | 4 x 12.7 | 152.4 | 92.0  | 4 x M16 | 45°   | 120.7 | 50.8 | 77.7  |
| C40T      | 2.5                           | 31.8 | 190 | 100 | 100 | 22.9 | 212   | 92.5  | 21   | 1.5 | 165.1 | 218.4 | 94    | 127   | 48.3 | 4 x 14   | 177.8 | 104.7 | 4 x M16 | 45°   | 139.7 | 63.5 | 88.9  |
| C30T      | 3.5                           | 42.3 | 150 | 130 | 120 | 29.2 | 264.2 | 118.1 | 30.3 | 1.5 | 203.2 | 271.8 | 118.1 | 170.2 | 67.3 | 4 x 17   | 215.9 | 139.7 | 8 x M16 | 22.5° | 177.8 | 88.9 | 115.6 |
| C2.5T     | Consult Application Engineers |      |     |     |     |      |       |       |      |     |       |       |       |       |      |          |       |       |         |       |       |      |       |

| Pump Size | Shaft Details                 |      |    |    |    | Eyebolt |      | Net | Gross |
|-----------|-------------------------------|------|----|----|----|---------|------|-----|-------|
|           | øS                            | T    | U  | F1 | F2 | V1*     | W*   | KG  | KG    |
| C50T      | 19 (k6)                       | 21.5 | 6  | 35 | 2  | n/a     | n/a  | 18  | 26    |
| C40T      | 22 (k6)                       | 25   | 6  | 45 | 2  | 85.1    | 62.5 | 32  | 40    |
| C30T      | 31 (k6)                       | 35   | 10 | 45 | 2  | 94      | 70   | 74  | 93    |
| C25T      | Consult Application Engineers |      |    |    |    |         |      |     |       |

# ROLOID GEAR PUMP

## DIMENSIONS

### HST FLANGE MOUNTED STANDARD PUMP TYPE - T



| Pump Size | Pump Deatils                  |      |     |     |       |       |      |     |       |       |       |         |       |       |      |       | Shaft Details |      |    |    |    |
|-----------|-------------------------------|------|-----|-----|-------|-------|------|-----|-------|-------|-------|---------|-------|-------|------|-------|---------------|------|----|----|----|
|           | Flange                        | A    | B1  | C   | D     | E     | E1   | E2  | F     | K     | øK1   | K2      | K3°   | K4    | øL   | V     | øS            | T    | U  | F1 | F2 |
| C50T      | 2                             | 25.4 | 90  | 90  | 184   | 76.2  | 19.1 | 1.5 | 139.7 | 152.4 | 92    | 4 x M16 | 45°   | 120.7 | 50.8 | 77.7  | 19 (k6)       | 21.5 | 6  | 35 | 2  |
| C40T      | 2.5                           | 31.8 | 100 | 100 | 212   | 92.5  | 21   | 1.5 | 165.1 | 177.8 | 104.7 | 4 x M16 | 45°   | 139.7 | 63.5 | 88.9  | 22 (k6)       | 25   | 6  | 47 | 2  |
| C30T      | 3.5                           | 42.3 | 130 | 120 | 264.2 | 118.1 | 30.3 | 1.5 | 203.2 | 215.9 | 139.7 | 8 x M16 | 22.5° | 177.8 | 88.9 | 115.6 | 31 (k6)       | 35   | 10 | 47 | 2  |
| C25T      | Consult Application Engineers |      |     |     |       |       |      |     |       |       |       |         |       |       |      |       |               |      |    |    |    |

| Pump Size | Flange Details                |    |    |     |     |          |     |      | Eyebolt |      | Net  | Gross |
|-----------|-------------------------------|----|----|-----|-----|----------|-----|------|---------|------|------|-------|
|           | M                             | M1 | M2 | ØN  | ØN1 | K5       | ØK6 | R    | V1*     | W*   | KG   | KG    |
| C50T      | 91.2                          | 16 | 4  | 250 | 180 | 4 x 13.5 | 215 | 48.5 | n/a     | n/a  | 20   | 28    |
| C40T      | 107.9                         | 20 | 4  | 300 | 230 | 4 x 13.5 | 265 | 57.2 | 85.1    | 62.5 | 35.5 | 43.5  |
| C30T      | 129                           | 20 | 5  | 400 | 300 | 4 x 17.5 | 350 | 74.2 | 94      | 70   | 79   | 98    |
| C25T      | Consult Application Engineers |    |    |     |     |          |     |      |         |      |      |       |

# ROLOID GEAR PUMP

## PRODUCT SAFETY

### IMPORTANT

#### Product Safety Information

General - The following information is important in ensuring safety. It must be brought to the attention of personnel involved in the selection of power transmission equipment, those responsible for the design of the machinery in which it is to be incorporated and those involved in its installation, use and maintenance.

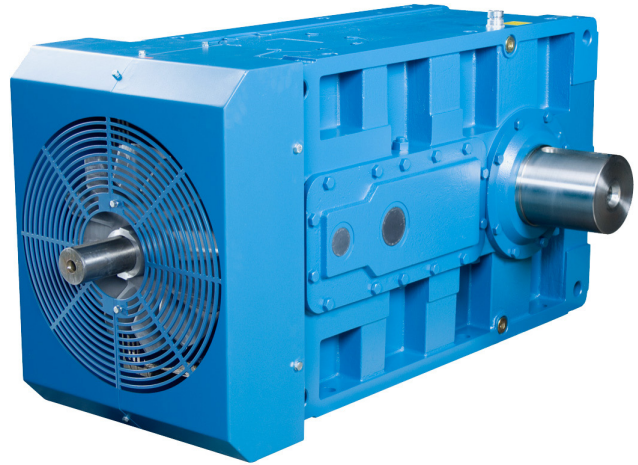
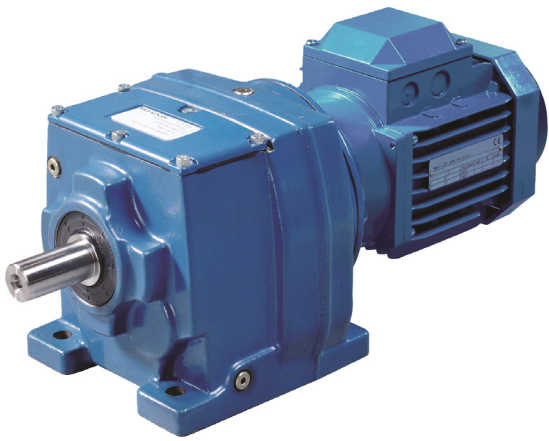
Our equipment will operate safely provided it is selected, installed, used and maintained properly. As with any power transmission equipment proper precautions must be taken as indicated in the following paragraphs, to ensure safety.

Potential Hazards - these are not necessarily listed in any order of severity as the degree of danger varies in individual circumstances. It is important therefore that the list is studied in its entirety:-

- 1) Fire/Explosion
  - (a) Oil mists and vapour are generated within gear units. It is therefore dangerous to use naked lights in the proximity of gearbox openings, due to the risk of fire or explosion.
  - (b) In the event of fire or serious overheating (over 300 °C), certain materials (rubber, plastics, etc.) may decompose and produce fumes. Care should be taken to avoid exposure to the fumes, and the remains of burned or overheated plastic/rubber materials should be handled with rubber gloves.
- 2) Guards - Rotating shafts and couplings must be guarded to eliminate the possibility of physical contact or entanglement of clothing. It should be of rigid construction and firmly secured.
- 3) Noise - High speed gearboxes and gearbox driven machinery may produce noise levels which are damaging to the hearing with prolonged exposure. Ear defenders should be provided for personnel in these circumstances. Reference should be made to the Department of Employment Code of Practice for reducing exposure of employed persons to noise.
- 4) Lifting - Where provided (on larger units) only the lifting points or eyebolts must be used for lifting operations (see maintenance manual or general arrangement drawing for lifting point positions). Failure to use the lifting points provided may result in personal injury and/or damage to the product or surrounding equipment. Keep clear of raised equipment.
- 5) Lubricants and Lubrication
  - (a) Prolonged contact with lubricants can be detrimental to the skin. The manufacturer's instruction must be followed when handling lubricants.
  - (b) The lubrication status of the equipment must be checked before commissioning. Read and carry out all instructions on the lubricant plate and in the installation and maintenance literature. Heed all warning tags. Failure to do so could result in mechanical damage and in extreme cases risk of injury to personnel.
- 6) Electrical Equipment - Observe hazard warnings on electrical equipment and isolate power before working on the gearbox or associated equipment, in order to prevent the machinery being started.
- 7) Installation, Maintenance and Storage
  - (a) In the event that equipment is to be held in storage, for a period exceeding 6 months, prior to installation or commissioning, we must be consulted regarding special preservation requirements. Unless otherwise agreed, equipment must be stored in a building protected from extremes of temperature and humidity to prevent deterioration.  
The rotating components (gears and shafts) must be turned a few revolutions once a month (to prevent bearings brinelling).
  - (b) External gearbox components may be supplied with preservative materials applied, in the form of a "waxed" tape overwrap or wax film preservative. Gloves should be worn when removing these materials. The former can be removed manually, the latter using white spirit as a solvent.  
Preservatives applied to the internal parts of the gear units do not require removal prior to operation.
  - (c) Installation must be performed in accordance with the manufacturer's instructions and be undertaken by suitably qualified personnel.
  - (d) Before working on a gearbox or associated equipment, ensure that the load has been removed from the system to eliminate the possibility of any movement of the machinery and isolate power supply. Where necessary, provide mechanical means to ensure the machinery cannot move or rotate. Ensure removal of such devices after work is complete.
  - (e) Ensure the proper maintenance of gearboxes in operation. Use only the correct tools and our approved spare parts for repair and maintenance. Consult the Maintenance Manual before dismantling or performing maintenance work.
- 8) Hot Surfaces and Lubricants
  - (a) During operation, gear units may become sufficiently hot to cause skin burns. Care must be taken to avoid accidental contact.
  - (b) After extended running the lubricant in gear units and lubrication systems may reach temperatures sufficient to cause burns. Allow equipment to cool before servicing or performing adjustments.
- 9) Selection and Design
  - (a) Where gear units provide a backstop facility, ensure that back-up systems are provided if failure of the backstop device would endanger personnel or result in damage.
  - (b) The driving and driven equipment must be correctly selected to ensure that the complete machinery installation will perform satisfactorily, avoiding system critical speeds, system torsional vibration, etc.
  - (c) The equipment must not be operated in an environment or at speeds, powers, torques or with external loads beyond those for which it was designed.
  - (d) As improvements in design are being made continually the contents of this catalogue are not to be regarded as binding in detail, and drawings and capacities are subject to alterations without notice.

The above guidance is based on the current state of knowledge and our best assessment of the potential hazards in the operation of the gear units.

Any further information or clarification required may be obtained by contacting our Application Engineers.



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