

Submersible GRP Series  
Grinder Pumps



HOMA began as a submersible motor manufacturer more than fifty years ago. We expanded into full pump production in the 1960s. Every product we design and manufacture has always exceeded the current standard of excellence. Held in highest regard throughout the industry, HOMA submersible pumps, grinders, mixers, aerators, disposal units, pump stations, and control panels have consistently set new benchmarks for reliability, reduced power consumption, extended service life, and lowest overall cost of ownership.

If consistently high performance and uninterrupted cost-effective operation are your top priorities, HOMA is – without question – the company for you. Our knowledgeable professionals will be with you every step of the way, whether you're a homeowner, a seasoned contractor, or an engineer representing a municipality.

New construction or retrofit, residential, commercial, or light industrial – every situation is unique and presents its own set of challenges. We'll work closely with you to address them all and guide you to the right solution, and will not stop at simply meeting the basic needs and staying within the budget. In addition, we will overcome existing property limitations and ensure full compliance to local regulations. HOMA's complete grinder pump



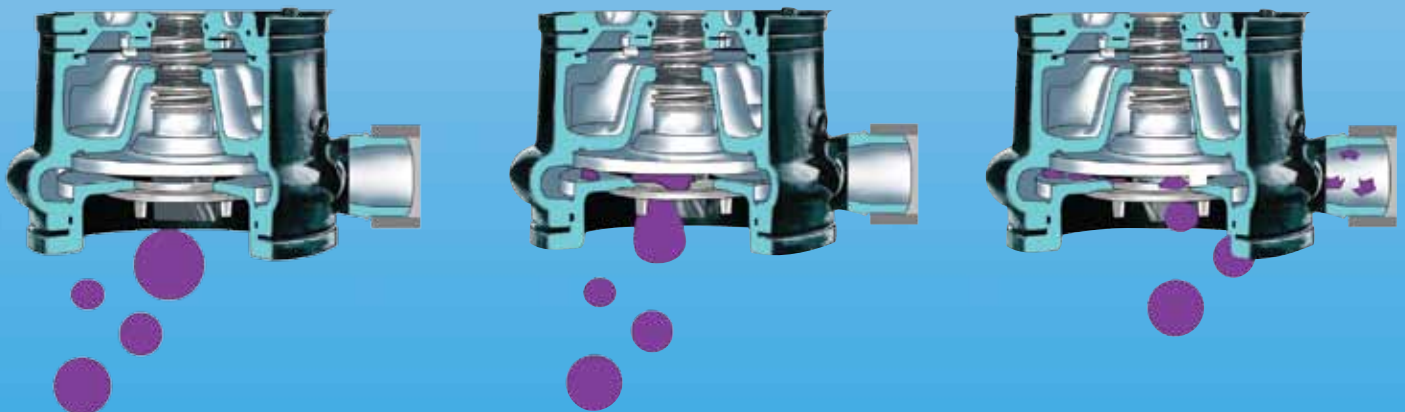
HOMA Pump, Ansonia Connecticut

You won't see it, but HOMA's fully submersible grinder pump impeller design, with its exclusive hardened stainless steel, dual-action cutter system, cuts up waste material far more efficiently than single acting cutter or shredder systems.

### **HOMA Grinder Pump Cutter System**

The goal of a grinder pump is to process solids, making them small enough to pass through the pump and discharge line without plugging.

While most grinder pumps effectively compress the solids as they pass through the pump, permitting compressed stringy solids to reside in the pump when the unit is turned off, the HOMA grinder takes a different approach. Solids are processed with a dual-action cutter operating outside of



# Wastewater Pumping

solutions are available either fully assembled or as sub-systems designed specifically for simple, "no surprises" assembly on site. Pre-assembled packages include the fully submersible grinder pump, basin and cover, level controls, internal

pipings, valves, and control panel. Typically, minimal site preparation is needed, since we build our systems to be up and running fast.

Once installed, HOMA systems are not just out of sight, but out of mind.

When it comes to environmentally sound wastewater and sewage disposal solutions that will work reliably and last for years to come, HOMA is the company you can stake that future on.



HOMA Pumpenfabrik GmbH



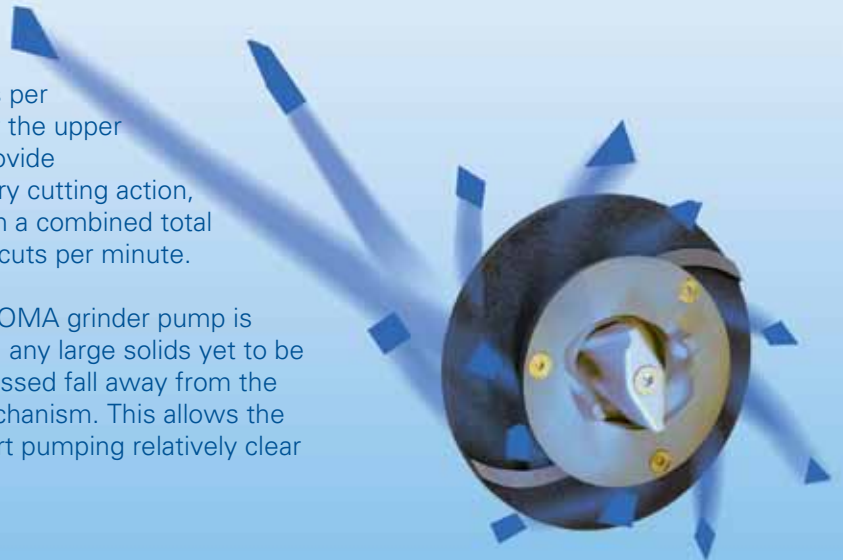
Test Facility, HOMA Pumpenfabrik GmbH

the pump, below the impeller. The unique hardened cutter system is manufactured in stainless steel alloyed with cobalt, vanadium, and molybdenum. Both stationary and rotational cutters are hardened to a minimum of 55 Rockwell C, guaranteeing a long and trouble free service life.

Each cutter assembly is fitted with two upper and two lower cutter blades. The motor operating at 3,450 RPM provides 6,900 cuts per minute for the lower cutters. An additional

6,900 cuts per minute for the upper cutters provide a secondary cutting action, resulting in a combined total of 13,800 cuts per minute.

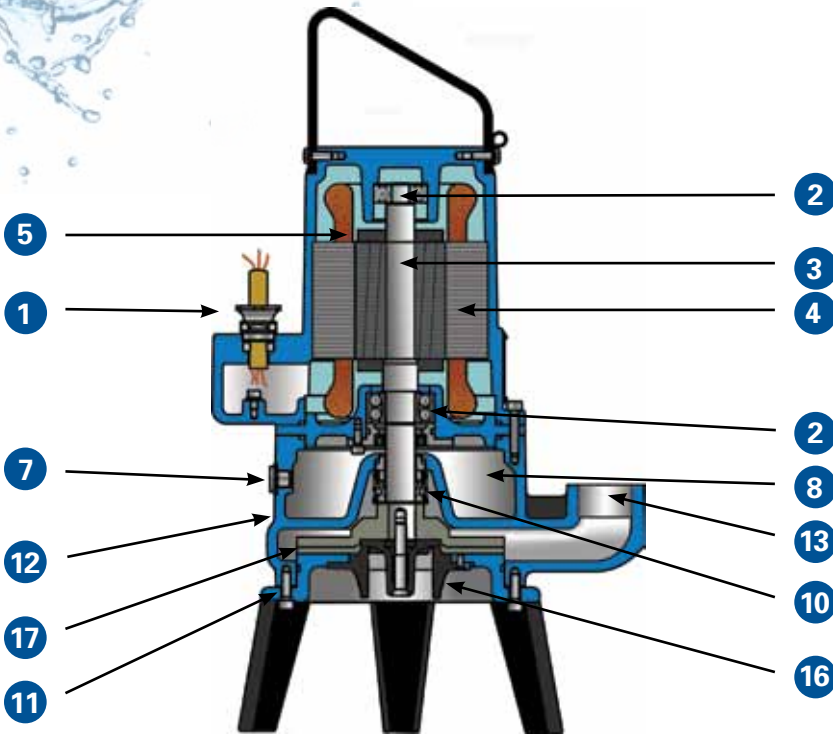
When a HOMA grinder pump is turned off, any large solids yet to be fully processed fall away from the cutter mechanism. This allows the unit to start pumping relatively clear fluids.



# Small Motor

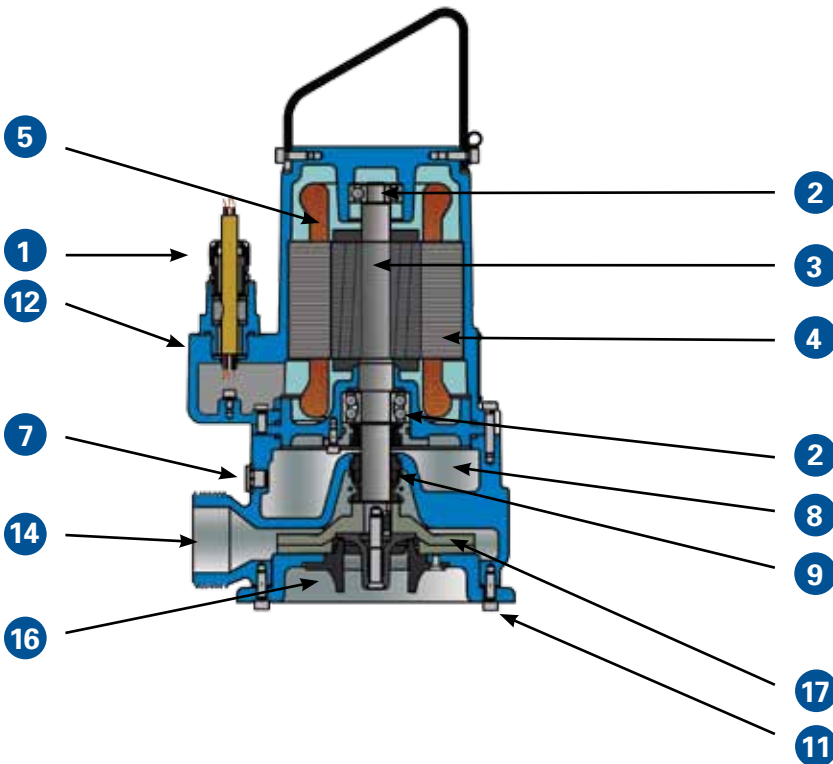
GRP 12 & 19

2 HP Range



- 1 Cable Entry Gland**  
Rugged bolt in design provides easy cable changes, positive watertight seal to 65' submergence, and protection against rough handling.
- 2 Motor Bearings**  
Premium grade, permanently lubricated with high temperature grease, and oversized for maximum B-10 rated life.
- 3 Shaft**  
One piece, dynamically balanced, 430F, stainless steel shaft with precision machined shoulders to positively support bearings and impeller. Short overhang, large diameter shaft ensures extremely low deflection and minimal vibration for superior seal and bearing life.
- 4 Stator**  
High-efficiency motor windings with Class F insulation and 1.15 service factor. Options include 1.20 Service Factor, Class H Insulation, IE3 Premium Efficiency, NEMA MG-1 Part 31 and Explosion-Proof motors for Class I, Division 1, Group C and D area classifications with FM or ATEX approvals.

GRP 10,16, & 21



- 5 Motor Winding Protection**  
Stator winding temperature continuously monitored by thermal switches embedded in each phase offer protection from high temperature upset conditions. Single-phase, non-explosion-proof motors 2 HP and less have automatically resetting internally wired thermal switches.
- 6 Motor Cooling**  
Jacket-cooled motor options are available for special applications. Consult the factory for more information.
- 7 Moisture Monitors**  
Oil chamber continuously monitored for water intrusion with standard seal probe.
- 8 Oil Chamber**  
Generously sized oil chamber provides positive lubrication and cooling of mechanical seals and lower bearings to assure long service life.

# Large Motor

3 to 17 HP Range

GRP 24 – 50

## 9 Mechanical Seals

Two independent mechanical seals in tandem arrangement provided as standard with hard silicon carbide seal faces to provide superior abrasion and temperature resistance. Tungsten carbide seal faces and/or Viton elastomers are optional for special applications.

## 10 Mechanical Seal/Lip Seal

Combination of lower mechanical seal and upper lip seal provided on 2 HP and smaller motors. Lower mechanical seal is provided with hard silicon carbide seal faces to provide superior abrasion and temperature resistance.

## 11 Hardware

All exposed fasteners are 304 stainless steel for ease of disassembly after years of service. 316 stainless steel available upon request.

## 12 Housing

All major castings are ASTM A48 Class 40 cast iron, epoxy-coated against corrosion, and sealed with fully captured O-rings.

## 13 Volute

Centerline discharge pump housing provided with 1 1/4" NPT vertical discharge for flexible hard-piped installations or with auto-coupled lift-out system.

## 14 Volute

Centerline discharge pump housing provided with 2" M horizontal discharge available in threaded or flanged connections for various hard piped installations or with auto-coupled lift-out system.

## 15 Volute

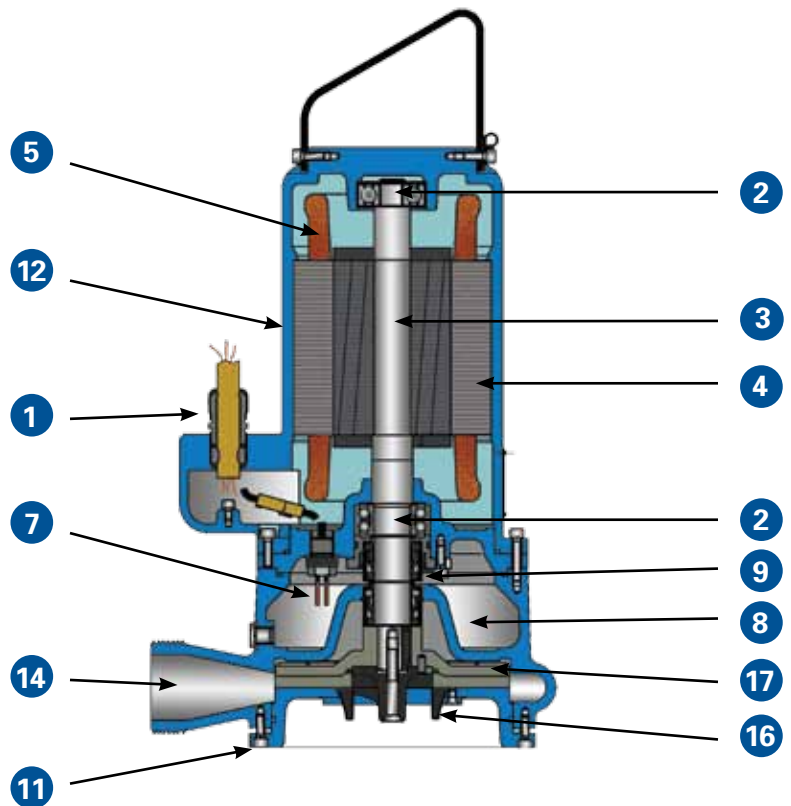
Centerline discharge pump housing provided with 2" ANSI B16.1/Class 125 dimensioned horizontal discharge flange for hard-piped installations or with auto-coupled lift-out system.

## 16 Cutter System

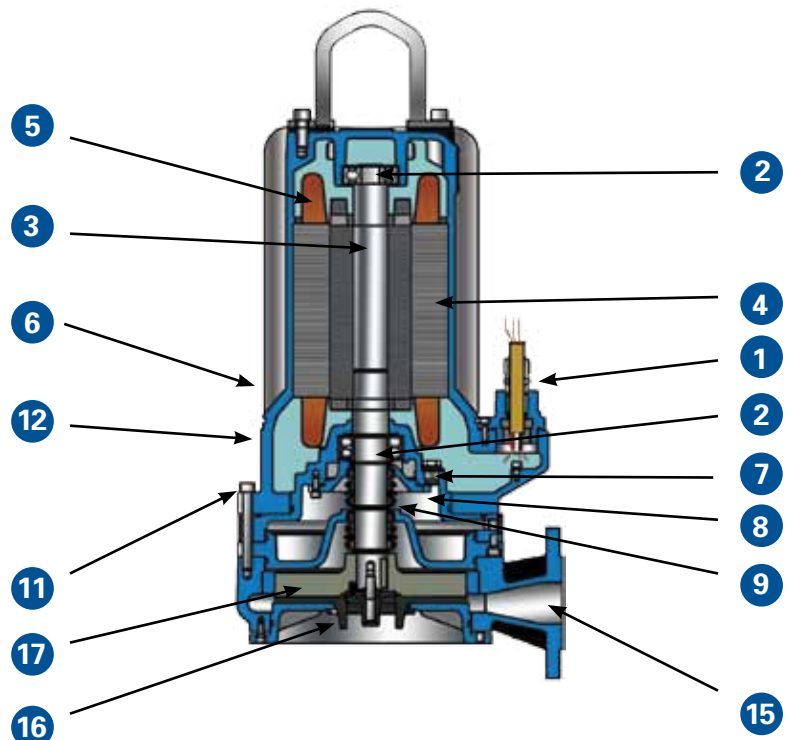
Stationary cutter ring and blade rotor manufactured in stainless steel alloyed with cobalt, vanadium, and molybdenum for a hardness of 55 Rockwell C, minimum.

## 17 Open Multi-Channel Impellers

High-efficiency multi-vane impeller assures smooth, reliable service.



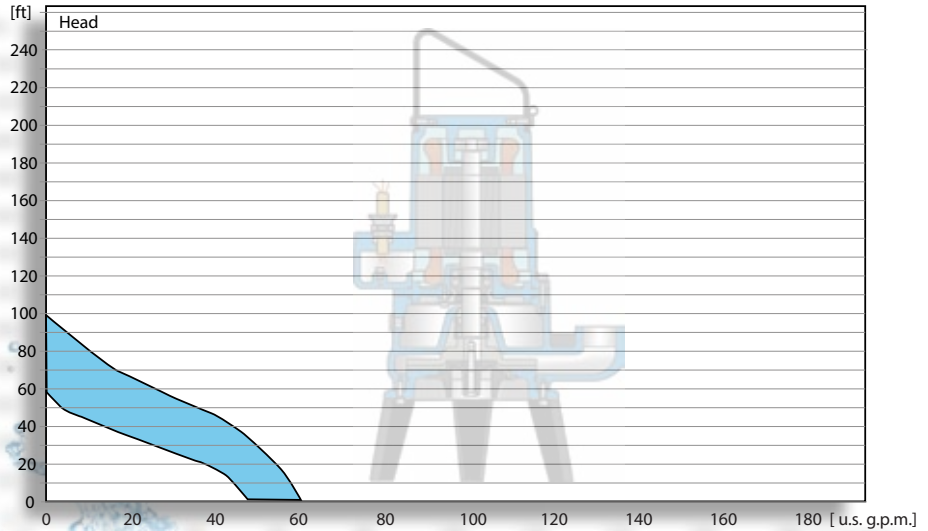
GRP 59, 79, & 118



# Hydraulic Ranges

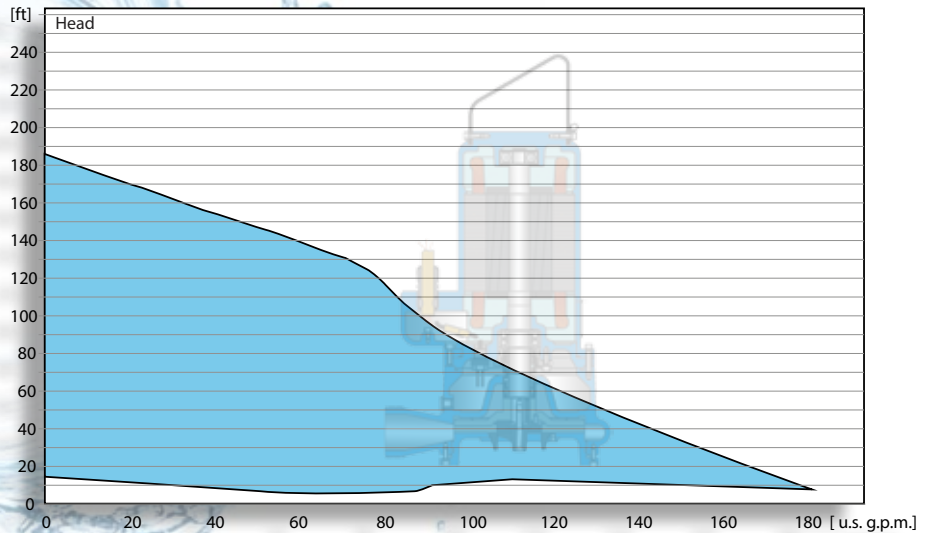
## GRP 12 & 19

2 HP 1¼" vertical discharge grinder designed for light commercial and residential applications. Includes integral mounting stand for easy installation or retrofit of most hard-piped installations or can be supplied with an auto-coupling lift-out system with or without an integral check valve. High-pressure performance guarantees trouble-free operation



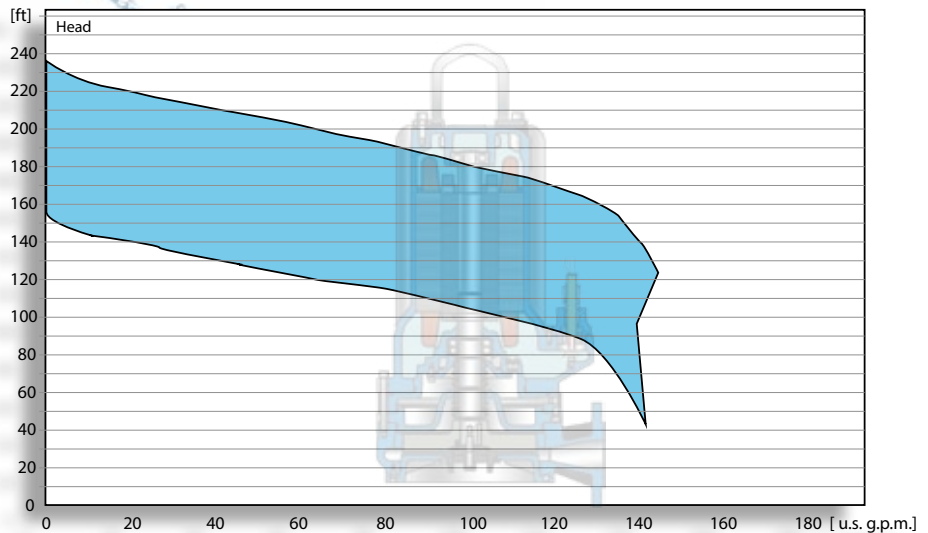
## GRP 10 – 50

2 HP – 7 HP 2" horizontal discharge grinder designed for heavy commercial and municipal applications. Single-phase and three-phase provides installation flexibility. Available with optional mounting stand for hard-piped installations or an auto-coupling lift-out system. Wide range of hydraulic coverage provides everything from high pressure/low flow to low pressure/high flow, for optimal pump selection and a long, trouble-free life.



## GRP 59, 79, & 118

7.5 HP – 17 HP 2" horizontal discharge designed for the most demanding commercial and municipal applications. Single-phase (to 10 HP) and three-phase provides installation flexibility. Available with optional mounting stand for hard-piped installations or an auto-coupling lift-out system. Hydraulic range covers the highest pressure pumping applications.



# Installations

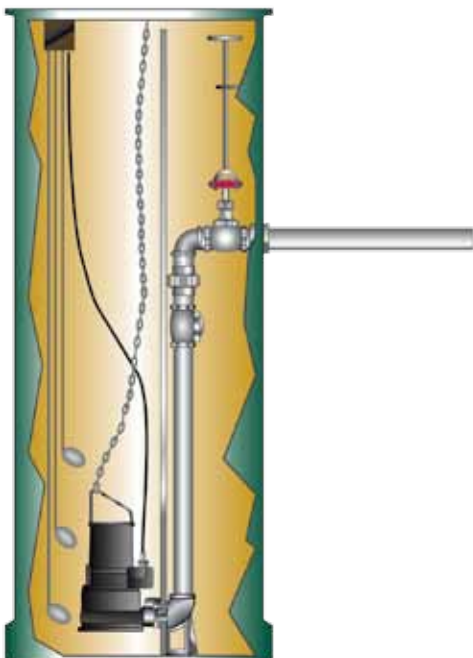
HOMA offers a variety of ring stand, auto-coupling systems, and competitor adapters to facilitate an easy and versatile installation. The ring stands are designed to position the pump at the proper clearance from the sump floor. Auto-couplings are available in cast iron or

316 stainless steel for corrosive applications and the 1 ¼" is available with integral check valve. Various adapters are also available to mount the HOMA grinders into existing stations utilizing competitor base elbows.

## Ring Stand Hard-Piped Installations



## Wet Pit with Auto-Coupling Installations



## Wet Pit with Auto-Coupling Installations

The HOMA auto-coupling system uses two guide rails with either a thread-on or bolt-on guide claw to evenly guide the pump down to the base elbow. The two guide rails are spaced apart to provide stable alignment during the installation and removal process.

The guide claws are designed to utilize an inexpensive, easily replaceable resilient rubber seal, which assures a leak-free installation. This is easily replaceable when the pump is pulled for service.

The guide claws rest on a sturdy base elbow that, when anchored into the wet well floor, provides a large surface for the guide claw to mount. This allows the pump to be firmly mounted to avoid tipping, blow-by, or errant vibrations.

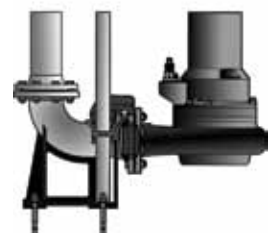
**Pump  
sliding down**



**Pivoting  
action**



**Axial,  
full-face  
compression**



# HOMA Family of Pumps



## CTP53M54

pump with 5 HP motor, 3" discharge, and 316SS construction installed on 316SS auto-coupling system.



## AMX644-300/29P/C

pump with 29 HP motor, 6" discharge, and 4" solids handling single-vane impeller mounted on a 6" x 8" auto-coupling to allow for future upgrade to 8" pump.

## AMX434-193/5.5T/C ASC

pump with 5.5 HP motor, 4" discharge, and cutter system mounted on a transportable ring stand system.



## AMX444-210/10TU

pump with 10 HP motor, 4" solids handling single-vane impeller, and cooling jacket, vertically mounted on dry sump stand with clean-out port.



## AK848-340/30GU

pump with 30 HP, 880 rpm, jacketed motor, 8" solids handling, multi vane impeller, and volute clean-out port vertically mounted.

## AKX1266-430/125HU

pump with 125 HP, 1,180 rpm, jacketed motor, 6" solids handling, multi-vane impeller, and volute clean-out port horizontally mounted.



**HOMA**<sup>TM</sup>  
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