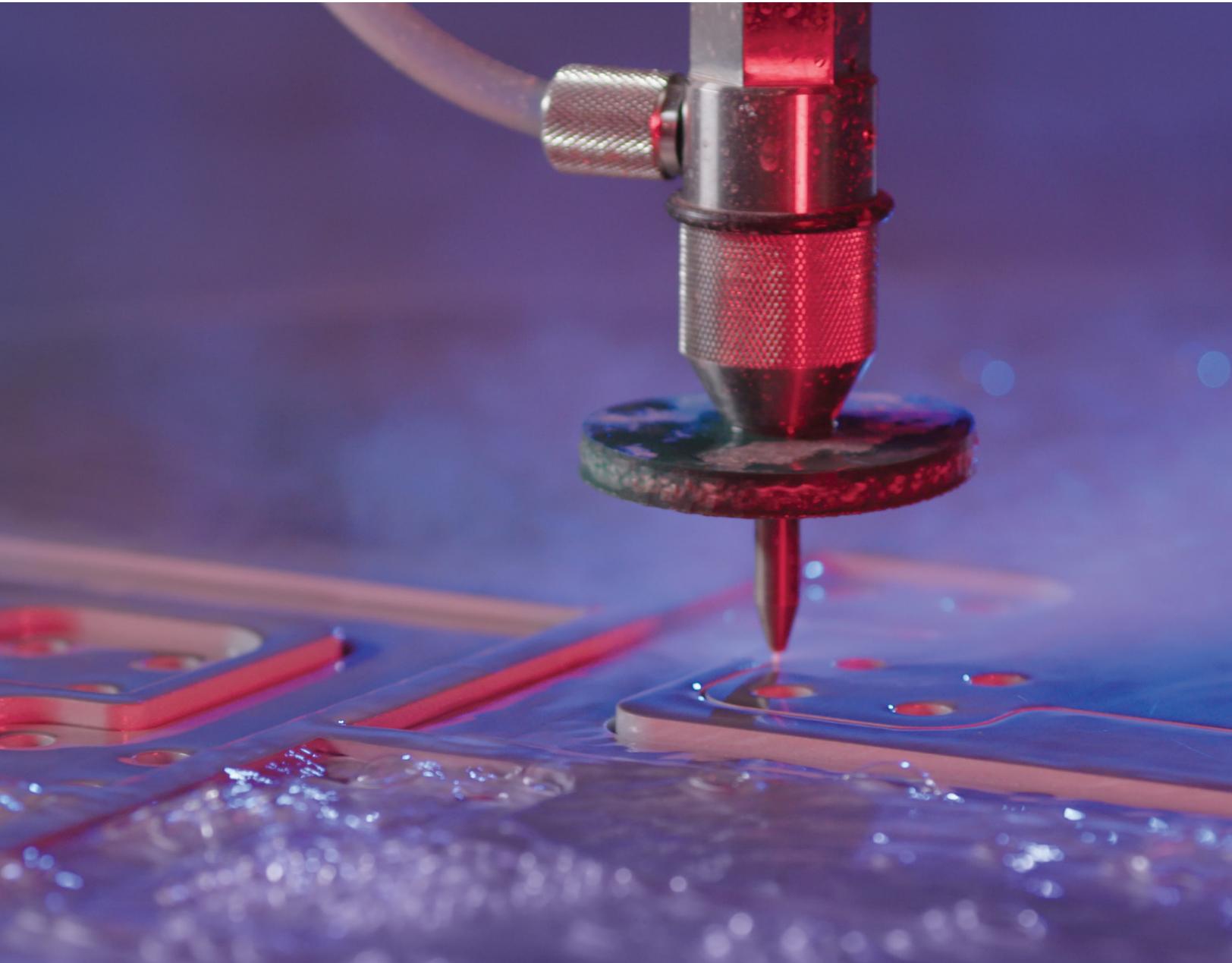


**Hypertherm**<sup>®</sup>

# HyPrecision™ Predictive Waterjet pumps

Improving productivity through prediction





# New HyPrecision™ Predictive pumps

Designed and built to keep you up and running

Our newest generation HyPrecision pumps are the first waterjet pumps to incorporate predictive maintenance capabilities that substantially reduce maintenance costs and disruption caused by non-planned service. Equipped with standard features such as our proven Advanced Intensifier Technology and a closed loop proportional pressure control, our new pumps offer you even more consistent cut quality while ensuring trouble-free operation and reliability.

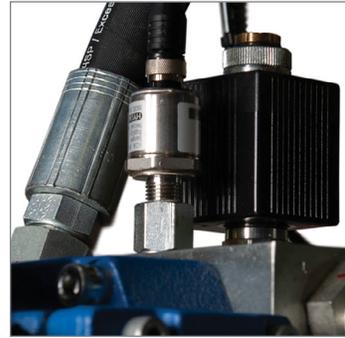
## Increased productivity and reduced maintenance costs

Patented Seal Maintenance Technology™ extends seal life by up to 40%. The system monitors weepage and lets you know when it's time to change intensifier seals – no more costly changing too soon or too late! This increases productivity, minimizes scrap, and saves time, aggravation, and money.



## Increased performance

Standard on all HyPrecision Predictive pumps, closed loop proportional pressure control adjusts for ambient pressure and temperature, oil viscosity and hydraulic system wear parts, to deliver consistent quality at optimum cutting speeds.



## Improved reliability and ease of service

With 10% fewer parts than earlier generations, new HyPrecision Predictive pumps include user-friendly features such as a color-coded junction box, electrical cable harnesses, quick-connect fittings, and an easy access bleed-down valve to make maintenance faster, easier, and less expensive.



## Improved safety

Standard for "S" series pumps, clear window cover lets the operator see the intensifier and attenuator. Optional interlocks help prevent unauthorized access, and can be programmed to automatically stop the pump when opened. In addition, the seal maintenance technology's drip tray helps keep the top deck – and the shop floor – clear of oil and water.



# Seal Maintenance Technology™ boosts productivity and improves shop safety

Say goodbye to messy puddles in the workspace and unplanned downtime due to seal failure. Hypertherm's patented Seal Maintenance Technology eliminates the guess work with today's intensifier seal repair. Only from Hypertherm – an unstoppable force in waterjet!

## Drip tray

Captures oil and water when intensifier starts to weep as part of normal operation

## Stack light

Turns from green to yellow when it's time to schedule service, then to red when seal maintenance is required

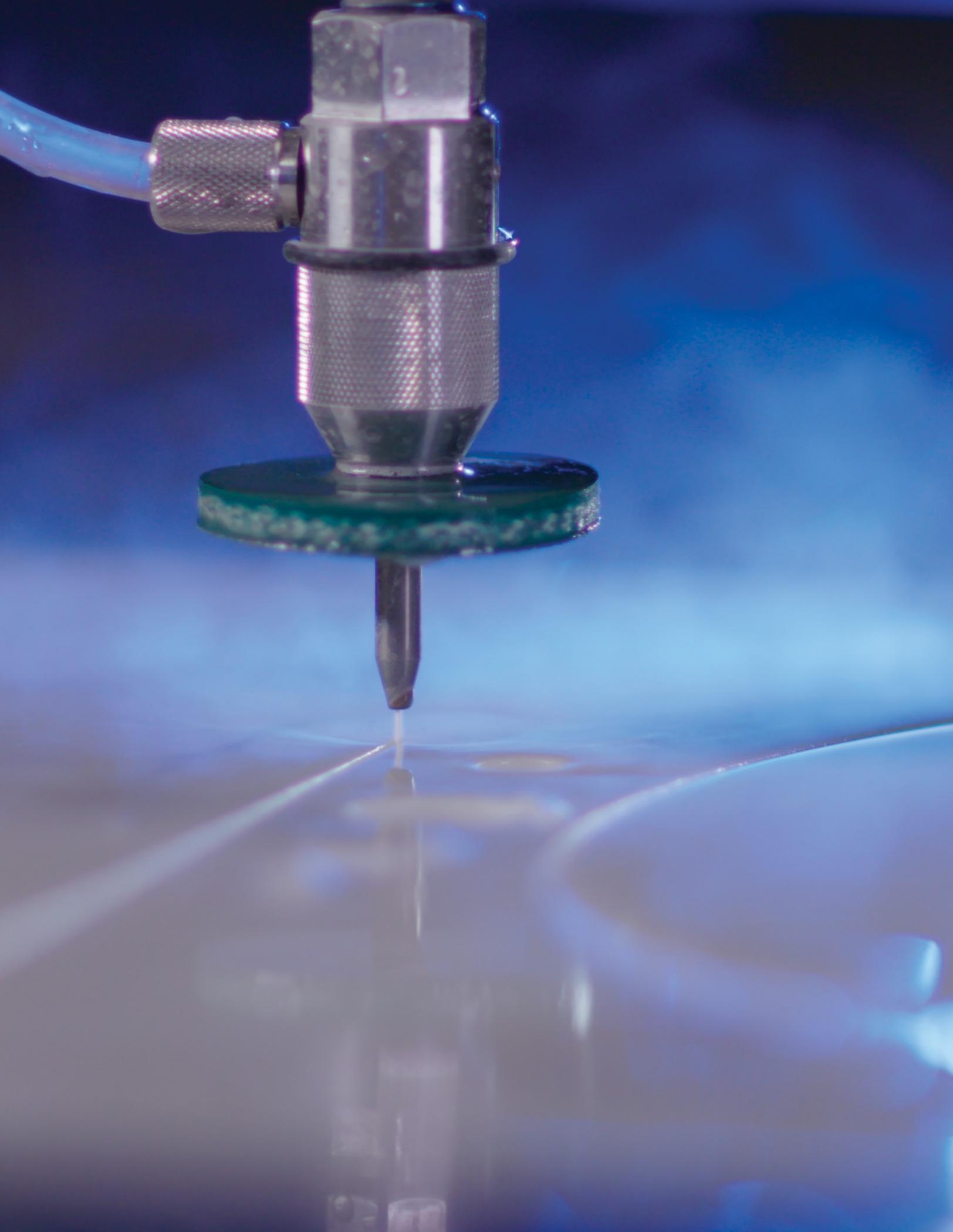


## Seal maintenance indicator

Continuously monitors intensifier weepage – blue lights blink when fluid passes by

## Fluid capturing vessel

Captures intensifier weepage to help keep your floor clean



# Choosing the right HyPrecision™ Predictive pumps for your application

## System specifications



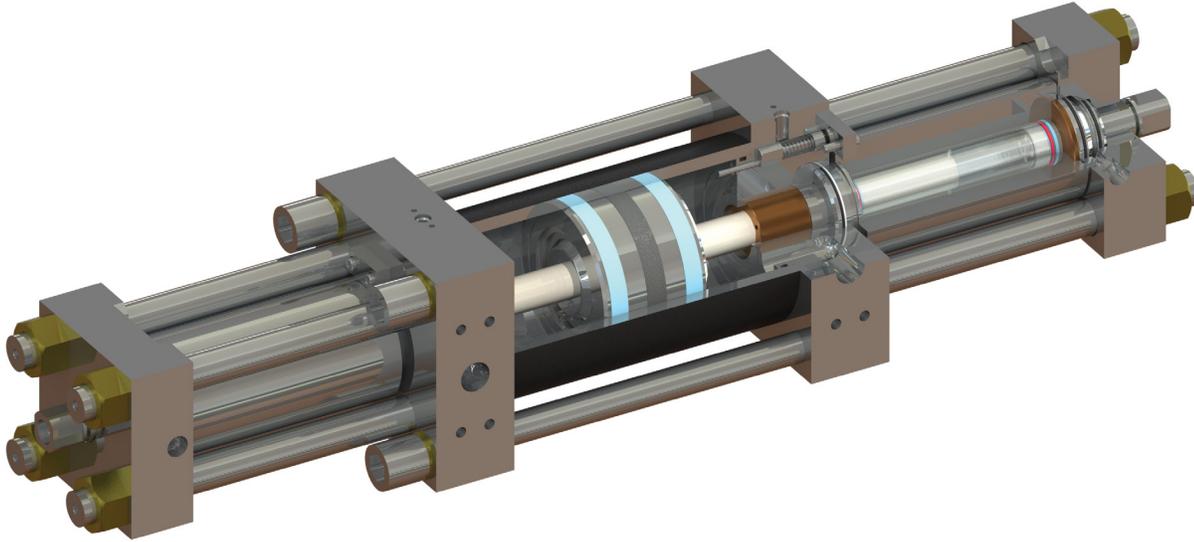
Pump model number		HyPrecision P-15			HyPrecision P-30			HyPrecision P-50					
Hz		50	60		50	60		50	60				
<b>GENERAL</b>	Maximum output: gpm (lpm)	0.30 (1.14)			0.60 (2.27)			1.0 (3.79)					
	Maximum orifice: inch (mm)	0.007 (0.18)			0.011 (0.28)			0.014 (0.35)					
	Output pressure	Adjustable to 60,000 psi (4100 bar)											
	Pressure control	Closed loop proportional pressure control – standard equipment											
	Bleed down valve	Air-actuated											
<b>PUMP POWER</b>	Motor power: HP (kW)	15 (11)			30 (22)			50 (37)					
	Voltage	400	208–230		460	400	208–230		460	400	208–230		460
	Full load amps	24.9	45.8–41.6		20.8	46.9	84.9–77		38.5	73.8	138.2–125.8		61.9
	Main breaker (amps)	25	50		25	50	200		50	80	150		80
	Motor starter (options if more than 1 listed)	Across-line			Soft Start	Across-line		Soft Start or Across-line	Soft Start	Wye Delta		Soft Start or Wye Delta	
<b>SPECIAL FEATURES</b>	Seal Maintenance Technology	Included as standard equipment											
	Closed loop proportional pressure control	Included as standard equipment											
<b>PHYSICAL</b>	Width	36" (914 mm)											
	Length	73" (1849 mm)											
	Height	54" (1361 mm)											
	Operating weight lbs. (kg)	2200 (1000)			2400 (1100)			2600 (1200)					
<b>ACCESSORIES</b>	Cover	Optional steel cover											
	Boost pump	Optional											
	External air over oil cooling	Optional											
	Electrical Interlock	Optional											
	Chiller for oil cooling	Optional											
* Pumps shown with optional steel cover													



Pump model number		HyPrecision P-50S			HyPrecision P-60S		HyPrecision P-75S	
Hz		50	60		50	60	50	60
<b>GENERAL</b>	Maximum output: gpm (lpm)	1.0 (3.79)			1.2 (4.54)		1.5 (5.68)	
	Maximum orifice: inch (mm)	0.014 (0.35)			0.016 (0.40)		0.017 (0.43)	
	Output pressure	Adjustable to 60,000 psi (4100 bar)						
	Pressure control	Closed loop proportional pressure control – standard equipment						
	Bleed down valve	Air-actuated						
<b>PUMP POWER</b>	Motor power: HP (kW)	50 (37)			60 (44.7)		75 (56)	
	Voltage	400	208–230	460	400	460	400	460
	Full load amps	73.8	138.2–125.8	62.9	90.7	74.4	110.3	89.6
	Main breaker (amps)	80	150	80	100	100	125	100
	Motor starter (options if more than 1 listed)	Soft Start						
<b>SPECIAL FEATURES</b>	Seal Maintenance Technology	Included as standard equipment						
	Closed loop proportional pressure control	Included as standard equipment						
<b>PHYSICAL</b>	Width	40" (1016 mm)						
	Length	79" (1996 mm)						
	Height	59" (1509 mm)						
	Operating weight lbs. (kg)	2800 (1300)			3200 (1450)		3300 (1500)	
<b>ACCESSORIES</b>	Cover	"S" series pumps include a cover with observation windows						
	Boost pump	Included						
	External air over oil cooling	Optional						
	Electrical Interlock	Optional						
	Chiller for oil cooling	Optional						

# The heart of every HyPrecision™ Predictive pump: Advanced Intensifier Technology providing the ultimate in waterjet reliability

By rethinking the way the intensifier pump works, we were able to make it work harder, last longer and require significantly less service time.



## Easier servicing

Hydraulic rod seals and plunger bearings are readily accessible from outside the hydraulic end cap

## Longer lasting

Advanced piston design minimizes seal wear and improves component life

## Optimized shifting

Advanced electronics provide smooth, reliable shifting for optimum cut quality

## No thread galling

Thread-less cylinders eliminate the possibility of galling (seizing up) and becoming unusable

## Prolonged seal life

Large diameter ceramic plunger delivers more water per stroke with reduced friction, for longer seal life

## Screw-less check valve

Eliminates possible loose screw creating internal damage to intensifier

## Long life piston

Advanced piston design minimizes seal wear and improves component life

## Large diameter plunger

1" (2.5 cm) plunger produces more water per stroke with reduced friction

# A team to keep you up and running

Like you, we know that uptime is money. That's why we've put together an exceptional support team and all the information tools you need to stay ahead of unexpected problems and delays. It's all part of our commitment to service.

- Voicemail-free, expert waterjet support during business hours
- Global distribution ensures fast response and speedy parts delivery
- Hypertherm Waterjet Assistant mobile application for iOS and Android
- Online technical guides with step-by-step repair instructions
- Available on-site product training



Waterjet Assistant gives you instant access to detailed, step-by-step maintenance and repair procedures, including part numbers.

## Get the mobile app

Download the Hypertherm Waterjet Assistant mobile app from the App Store for iOS or from Google Play for Android using the links below.





United States Patent  
Patent No. 6,754,996 B2  
Date of Patent: May 15, 2005

**INVENTOR**  
HUBSCHHEIM, MICHAEL J.

**ASSIGNOR**  
HUBSCHHEIM, MICHAEL J.

**CLASSIFICATION**  
A61M 27/00

**ABSTRACT**  
A device for... (text is small and partially illegible)

**FIG. 1**  
A schematic diagram of a device, showing a horizontal tube with various internal components and a handle-like structure on the right side.

# 50 years of Shaping Possibility

With the right tools and a relentless focus on innovation, partnership, and community, we believe anything is possible.

Fifty years ago, in a small two car garage, Hypertherm® began our journey with simple, powerful ideas about business and an invention that shaped the future of industrial cutting. The same ideals that fueled our inception all those years ago are still what drive us today: A passion for challenging what is achievable with the products we create, the culture we foster, and the experience we deliver to our customers. As we look to the horizon and the next 50 years, we are proud that our people, partners, and innovations will shape the future with solutions that make anything possible for industries around the world.

At Hypertherm, we give shape to our customers' vision with the world's leading industrial cutting solutions. Every day we help individuals and companies around the world envision better, smarter and more efficient ways to produce the products that shape our world. So whether you're cutting precision parts in North America, constructing a pipeline in Norway, fabricating agricultural machinery in Brazil, cutting stone in Italy, gouging out welds in the mines of South Africa, or building a skyscraper in China, you can count on Hypertherm to help you not just cut parts but achieve your vision.

## 100% employee ownership matters

At Hypertherm, we are not just employees: we are all owners. Ownership is a powerful motivator that ensures our customers are our top priority. As owners, we make sure every product is built to the highest quality and that our service is second to none. And we build long-term relationships that deliver value for us, our partners and our customers.

## Worldwide presence and strength

Hypertherm is a key partner for your fabrication needs and has built a global organization focused on providing high-performance cutting solutions.

## Key elements of the Hypertherm formula include:

- Dedicated Associates focused on customer-centered product design and support
- Local sales and service
- Broad application experience and proven results
- Sustainable and ethical business practices benefit our customers and communities



**COMPLETE METALWORKING SOLUTIONS**

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To learn more, visit [www.hypertherm.com/waterjet](http://www.hypertherm.com/waterjet)



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Environmental stewardship is one of Hypertherm's core values, and it is critical to our success and our customers' success. We are striving to reduce the environmental impact of everything we do. For more information: [www.hypertherm.com/environment](http://www.hypertherm.com/environment).

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