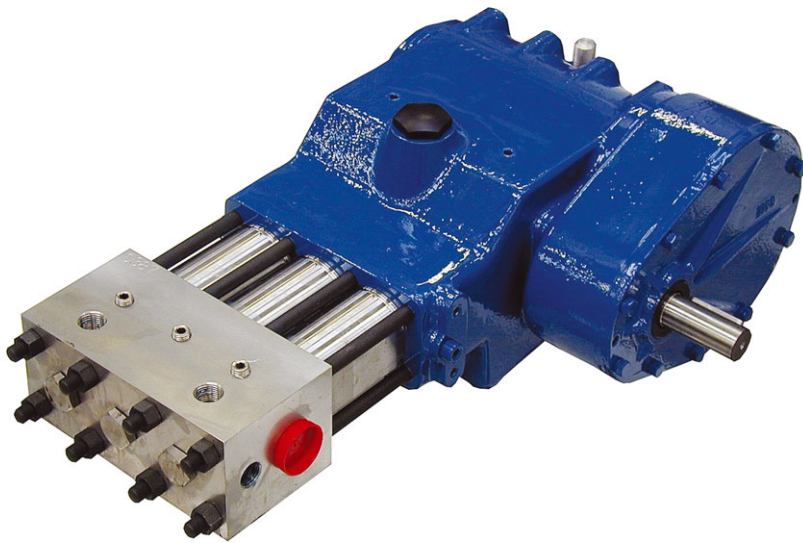


# HPS 400

## High Pressure Triplex Pump



Water Jetting Solutions



### Features

- 431 stainless steel pump head
- Solid ceramic plungers & self adjusting seals
- Interchangeable plunger kits
- Hardened, alloy steel crankshaft with heavy duty roller main bearings
- SG iron crankcase with splash lubrication
- Forged connecting rods with low friction, shell type big end bearings and lead bronze lined small end bushes
- Gear driven, eliminating the need for belt drive
- Safety relief valve
- Pressure gauge

### Build Options

- 316 stainless steel pump head for seawater applications
- Choice of gear ratio to suit diesel engine or electric motor drive
- SAE adaptor housings (SAE 3, 4 or 5) for flange mounting the pump to a diesel engine flywheel housing or electric motor
- Available without gearbox for low speed direct drive
- 40mm stroke crankshaft for reduced flow / power
- Unloader valves
- Bare shaft pump only or complete unit build

<b>Maximum Flowrate</b>	<b>103 lpm at 160 bar</b> (22.6 igpm / 27.2 usgpm at 2,320 psi)
<b>Maximum Pressure</b>	<b>500 bar at 33 lpm</b> (7,250 psi at 7.4 igpm / 8.9 usgpm)
<b>Maximum Power</b>	<b>30 kW</b> (40hp)

See overleaf for performance options

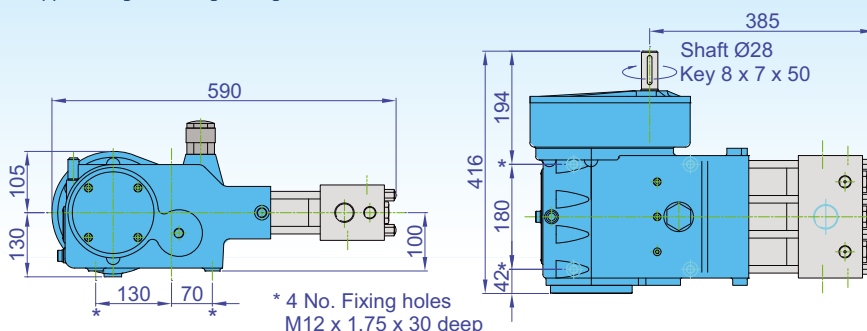
The versatile HPS400 model offers a wide range of flows and pressures and shares critical components with the higher rated HPS650 & HPS850 pumps.

The close coupled, gear driven power end has splash lubrication. SAE adaptor housings are available enabling the pump to be flange mounted to a diesel engine flywheel housing or electric motor ensuring extremely compact, perfectly aligned installations and enclosing all moving parts.

For maximum hydraulic efficiency, the in-line valve arrangement is designed to minimise the unswept volume and prevents the adverse effects of cyclic stress within the head block, while allowing all working components to be easily removed on site for service.

This improved design is capable of high pressure to high volume with outstanding seal, plunger and valve life.

- General Dimensions - typical pump build
- Approx weight - 110 kg (with gearbox)



HPS400 with SAE engine adaptor

# HPS 400

## High Pressure Triplex Pump



Water Jetting Solutions

Plunger Diameter mm	Gear ratio Input Speed (rpm)			Pump Speed rpm	Power Required		Nominal Flowrate			Max Pressure	
	1500	1800	2100		kW	HP	lpm	igpm	usgpm	bar	psi
20	2.83			530	<b>21</b>	28	<b>22</b>	4.9	6.0	<b>500</b>	7,250
		2.83		636	<b>25</b>	34	<b>27</b>	5.9	7.1		
	2.28			658	<b>26</b>	35	<b>28</b>	6.1	7.4		
			2.83	742	<b>29</b>	39	<b>31</b>	6.9	8.3		
	1.92			781	<b>31</b>	41	<b>33</b>	7.3	8.8		
	2.28		789	<b>31</b>	42	<b>33</b>	7.4	8.9			
22	2.83			530	<b>20</b>	27	<b>27</b>	6.0	7.2	<b>400</b>	5,800
		2.83		636	<b>24</b>	33	<b>33</b>	7.2	8.7		
	2.28			658	<b>25</b>	34	<b>34</b>	7.4	9.0		
			2.83	742	<b>28</b>	38	<b>38</b>	8.4	10.1		
	1.92			781	<b>30</b>	40	<b>40</b>	8.8	10.6		
	2.28		789	<b>30</b>	40	<b>41</b>	8.9	10.7			
25	2.83			530	<b>20</b>	27	<b>35</b>	7.7	9.3	<b>310</b>	4,500
		2.83		636	<b>24</b>	33	<b>42</b>	9.3	11.2		
	2.28			658	<b>25</b>	34	<b>44</b>	9.6	11.6		
			2.83	742	<b>28</b>	38	<b>49</b>	10.8	13.0		
	1.92			781	<b>30</b>	40	<b>52</b>	11.4	13.7		
	2.28		789	<b>30</b>	40	<b>52</b>	11.5	13.9			
28	2.83			530	<b>20</b>	27	<b>44</b>	9.7	11.7	<b>250</b>	3,625
		2.83		636	<b>25</b>	33	<b>53</b>	11.6	14.0		
	2.28			658	<b>25</b>	34	<b>55</b>	12.0	14.5		
			2.83	742	<b>29</b>	38	<b>62</b>	13.6	16.3		
	1.92			781	<b>30</b>	40	<b>65</b>	14.3	17.2		
	2.28		789	<b>30</b>	40	<b>66</b>	14.4	17.4			
30	2.83			530	<b>21</b>	28	<b>51</b>	11.1	13.4	<b>220</b>	3,200
		2.83		636	<b>25</b>	33	<b>61</b>	13.4	16.1		
	2.28			658	<b>26</b>	34	<b>63</b>	13.8	16.6		
			2.83	742	<b>29</b>	39	<b>71</b>	15.6	18.8		
	1.92			781	<b>30</b>	41	<b>75</b>	16.4	19.8		
	2.28		789	<b>30</b>	41	<b>75</b>	16.6	20.0			
35	2.83			530	<b>20</b>	27	<b>69</b>	15.1	18.2	<b>160</b>	2,320
		2.83		636	<b>25</b>	33	<b>83</b>	18.2	21.9		
	2.28			658	<b>25</b>	34	<b>85</b>	18.8	22.6		
			2.83	742	<b>29</b>	38	<b>96</b>	21.2	25.5		
	1.92			781	<b>30</b>	40	<b>101</b>	22.3	26.9		
	2.28		789	<b>30</b>	41	<b>103</b>	22.6	27.2			

**Additional Notes.** 1. Flowrates indicated are swept volume & will be reduce by approximately 5% at full pressure

2. Other gear ratios are available for specific applications, including input speed up to 2700rpm. Consult Hughes Pumps Ltd 3. Pump stroke 45mm

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In line with the Company's policy of research and development, alterations in design, dimensions and appearance are incorporated from time to time in order to ensure that important developments are included at the earliest opportunity. The Company, therefore, reserves the right to alter design, dimensions etc without notice.