

# DISTRIBUTOR CERTIFICATE

This is to certify that:

***PT JAYA LIENARDY***

Is an authorised, exclusive Distributor of Hughes Pumps Ltd products in the following region(s):

***INDONESIA***

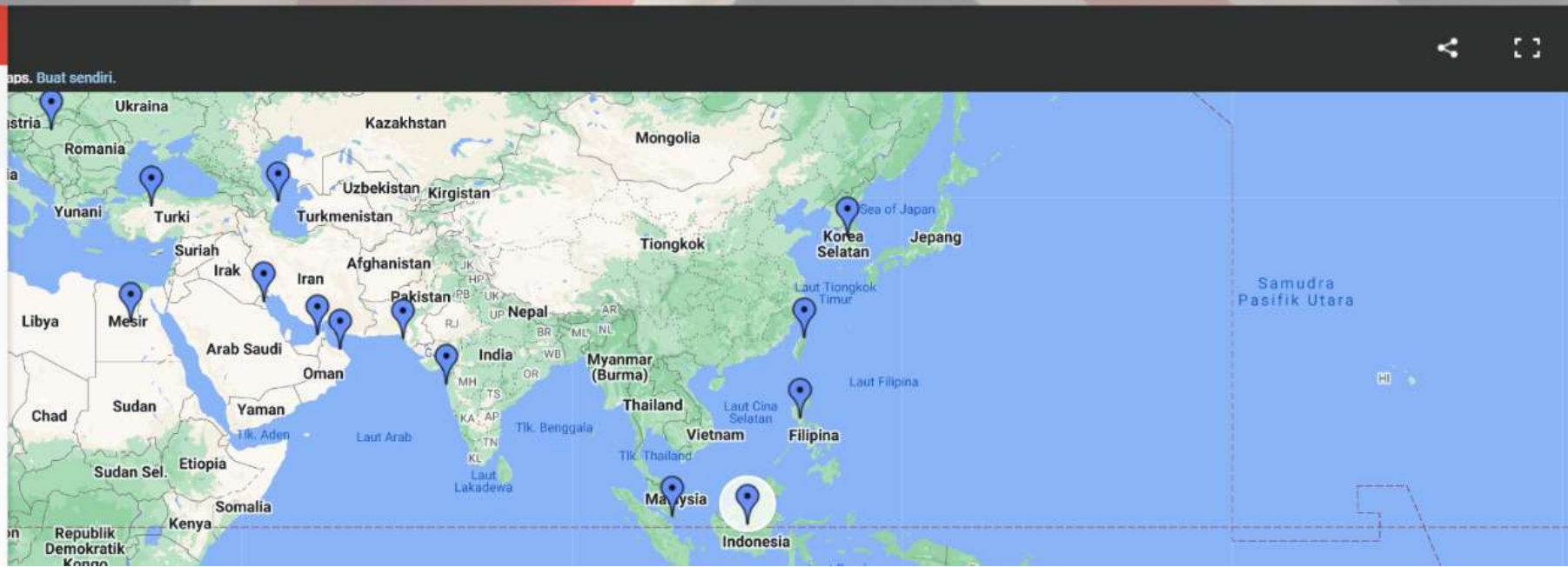
This certificate is valid for one (1) year from the date shown below.

For and on behalf of Hughes Pumps Ltd

Luke Bates  
Sales Manager  
Hughes Pumps Ltd  
01.11.23



name  
PT Jaya Lienardy





High & Ultra High Pressure Technology

Water Jetting



# Water Jetting Solutions



**Main Picture:** Stripping concrete from formwork at 2500 bar **Inset:** Surface preparation, shiprepair at 3000 bar

## Hughes Pumps

With extensive experience in the design & manufacture of High Pressure (HP) & Ultra High Pressure (UHP) plunger pumps and Water Jetting equipment since 1970, Hughes Pumps is justifiably proud of its product range and offers a flexible approach to the changing needs of a worldwide customer base.

Every pump & unit we manufacture is function tested and certificated for performance prior to despatch from our UK works.

Whether you need a bespoke Water Jet Cleaning or Cutting System, a standard Water Jetting Unit, a bareshaft pump or a nozzle, Hughes Pumps has the Water Jetting Solution.

## The Pump Range

**Our range of pumps operate at pressures from 70 to 3000 bar (1,000 to 43,500 psi) and flow rates to 806 lpm (177 igpm / 213 usgpm) with ratings from 30 to 375 kW (40 to 500 hp).**

The pumps are ruggedly constructed and produced in six frame sizes, each including a range of plunger sizes. This allows selection of the ideal pump for the job.

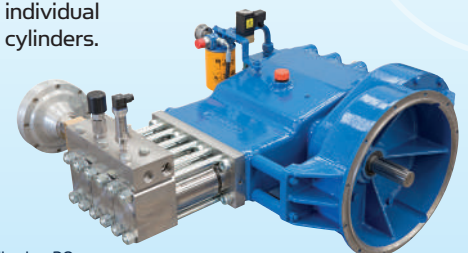
Close-coupled reduction gearbox drives are available, with a choice of gear ratio to suit most prime mover speeds. Also available are SAE engine adaptor housings allowing the pumps to be flange mounted to diesel engines, ensuring perfect alignment and making installation simple.

The power end of the pump features cast iron casings with splash or pressure

lubrication and oil cooling, according to the application.

Pump heads are manufactured from stainless steel as standard. The in-line valve arrangement prevents the adverse effects of cyclic stress within the head block, while allowing all working components to be easily removed on site for service. Solid ceramic plungers extend the life of the self adjusting plunger seals.

The Ultrabar range of UHP pumps include design features that allows seals and valves to be monitored without tools and maintenance on individual cylinders.



Ultrabar 30 pump, 30 lpm at 3000 bar



## Water Jetting Units

Skid, site or road trailer and truck mounted units are available with or without sound reduction enclosures, driven by a choice of diesel engines (non-emissions or Tier 4) or electric motors for use in safe or hazardous areas (ATEX compliant where required). All fabrications are grit blasted and high quality powder coated for a durable finish. For offshore applications fully certified crashframes or containers are available with paint finishes to customer specification.

Every unit manufactured by Hughes is robust, simple to operate and maintain, and designed for longevity. Diesel engines and electric motors are sourced from world leading manufacturers and comply with the latest international

standards. Simple control panels are used throughout the product range avoiding the need for PLC systems, ensuring reliability & easy trouble shooting.

High capacity water filters and stainless steel suction line fittings are used as standard and boost pumps fitted for higher pressure applications. Shutdown switches are fitted where necessary to monitor various pump and prime mover functions.



Robotic cleaning of skids at automotive plant - 900 bar.



Concrete cutting - 1000 bar



Heat exchanger cleaning - 800 bar



Ultrabar 30 DRT(4), 24lpm at 3000bar

## Accessories

To complement the pump sets, a comprehensive range of water jetting accessories is available to cover every application:

- Hand held jetting guns - land and underwater
- Foot control valves
- Unloader and diverter valves
- Surface cleaning jets - pencil, fan and rotating
- Pipe and tube cleaning jets - fixed and rotating
- Heat exchanger cleaning - manual and automatic
- Tank cleaning heads
- Floor, road and runway cleaning
- Water abrasive blasting
- High pressure hoses, flexible and rigid lances



## Typical Applications

- Heat exchanger tube cleaning
- Water & abrasive blasting
- Surface preparation (coatings & corrosion removal)
- Pipe cleaning & de-scaling
- Tank & vessel cleaning
- Hydrodemolition
- Sub-sea cleaning & cutting
- Pressure Testing
- Cold cutting
- Floor, road & runway cleaning
- Road re-texturing & white line removal

## Worldwide Support

Backed by a comprehensive spares stockholding, we have dedicated Service Engineers who travel nationally and internationally keeping our pumps running round the clock. We also work closely with our overseas agents who have been trained in the selection, operation and maintenance of our product range ensuring they can provide the vital after sales service demanded by today's fast moving industry.



Ultrabar 10, ATEX compliant Zone 2 unit, 8 lpm at 2100

## Water Jetting Pumps Overview



Comprehensive stock levels of accessories & spares



New Hughes Pumps factory constructed in 2004

| Pump Model  | Plunger dia mm | Nominal Power Rating |     | Nominal Flow Rate |       |       | Pressure |        |
|-------------|----------------|----------------------|-----|-------------------|-------|-------|----------|--------|
|             |                | kW                   | hp  | lpm               | igpm  | usgpm | bar      | psi    |
| HPS400      | 14             | 30                   | 40  | 16                | 3.6   | 4.4   | 1,000    | 14,500 |
|             | 35             |                      |     | 103               | 22.6  | 27.2  |          | 160    |
| HPS650      | 18             | 48                   | 65  | 27                | 6     | 7.2   | 1,000    | 14,500 |
|             | 35             |                      |     | 103               | 22.6  | 27.2  |          | 250    |
| HPS1000     | 20             | 75                   | 100 | 28                | 6.2   | 7.5   | 1,400    | 20,300 |
|             | 50             |                      |     | 177               | 38.9  | 46.8  |          | 220    |
| HPS2200     | 24             | 160                  | 220 | 53                | 11.7  | 14.1  | 1,400    | 20,300 |
|             | 55             |                      |     | 279               | 61.3  | 73.9  |          | 310    |
| HPS3000     | 30             | 225                  | 300 | 84                | 18.5  | 22.3  | 1,400    | 20,300 |
|             | 75             |                      |     | 484               | 106.4 | 128.2 |          | 250    |
| HPS5000     | 30             | 375                  | 500 | 141               | 31    | 37.3  | 1,400    | 20,300 |
|             | 75             |                      |     | 806               | 177.4 | 213.7 |          | 250    |
| Ultrabar 10 | 11             | 48                   | 65  | 10.3              | 2.3   | 2.8   | 2,600    | 38,000 |
| Ultrabar 15 | 14             | 75                   | 100 | 13.8              | 3     | 3.7   | 2,750    | 40,000 |
| Ultrabar 30 | 18             | 160                  | 220 | 30                | 6.6   | 8     | 3,000    | 43,500 |
|             | 22             |                      |     | 45                | 9.8   | 11.8  |          | 2,000  |

The chart above shows extreme pressure/flow combinations with smallest & largest plungers fitted. All pumps have a range of plunger sizes other than the Ultrabar 10 & 15.



DNV 2.7-1 containerised units

Represented by:



### Hughes Pumps Limited

Spring Gardens, Washington, West Sussex RH20 3BS UK

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# HPS2200 DS

## HP Water Jetting Unit



High & Ultra High Pressure Technology



### Features

- HPS2200 pump with pressure lubrication & oil cooling
- Stainless steel pumphead, solid ceramic or carbide plungers, integral gearbox & SAE engine adaptor
- Transducer for display of discharge pressure & automatic over-pressure shutdown
- Burst disc assembly
- Doosan 6 cylinder, mechanical engine suitable for use in non-regulated regions of the world (not Europe/North America)
- Simple auto-shutdown control panel
- Pump switches for low inlet pressure, low oil pressure & high oil temperature
- Stainless steel water tank, boost pump & dual filtration
- Manual pressure adjusting valve
- Fabrications are grit blasted & powder coated with a zinc rich primer & durable topcoat suitable for use in corrosive environments

| Doosan PU086T Engine<br>(140kW / 188hp)         | Doosan PU086TI Engine<br>(197kW / 265hp)        |
|---|---|
| <b>65lpm at 1000bar</b><br>(17gpm at 14,500psi) | <b>83lpm at 1000bar</b><br>(22gpm at 14,500psi) |
| <b>49lpm at 1400bar</b><br>(13gpm at 20,300psi) | <b>62lpm at 1400bar</b><br>(16gpm at 20,300psi) |

Refer to HPS 2200 Pump Data Sheet For Alternative Performances.

HPS2200 DS, diesel driven, skid mounted, High Pressure water jetting unit, suitable for a wide range of applications.

Suitable for single or twin gun / footvalve operation. Applications include surface cleaning, descaling, hydro-demolition, heat exchanger / pipe cleaning, vessel cleaning, subsea cleaning and more.

Simple mechanical engine suitable for use in non-regulated regions of the world, making this unit very easy to operate and maintain.

- General Dimensions - 2.6m Long x 1.6 Wide x 1.9m High (102" Long x 63" Wide x 75" High)
- Approx weight - 2,500kg (5,500 lb)



Site Trailer Option



Crashframe Option



Road Trailer Option

### Build Options

- Spark arresting exhaust silencer
- Chalwyn valve
- Pneumatic control valve c/w compressor
- The modular design allows any combination of chassis to be configured including Skids, Crashframes, Site Trailers (Trolleys), Road Trailers, with or without Enclosures
- Mounted in a 10' container (standard or DNV)
- Alternative engines (Tier 3, 4 & 5)
- Full range of accessories for all applications

**Hughes Pumps Limited**  
 Spring Gardens, Washington, West Sussex, RH20 3BS UK  
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**www.hughes-pumps.co.uk** **sales@hughes-pumps.co.uk**



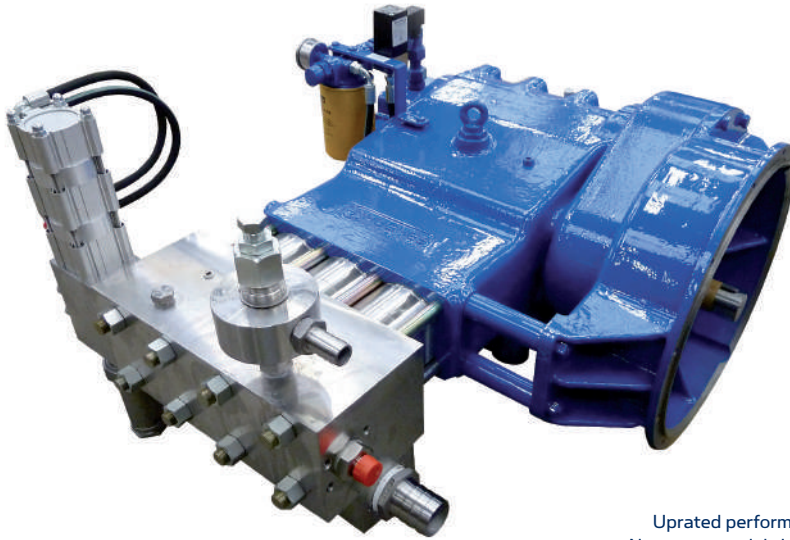
Certificate Number 4257

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.

Last Revised: 18.08.2022

# HPS2200

## High Pressure Triplex Pump



HPS2200 with SAE engine adaptor

Upgraded performance  
Now pressure lubricated

|                         |   |
|-------------------------|---|
| <b>Maximum Flowrate</b> | <b>279 lpm at 310 bar</b><br>(61.3 igpm / 73.9 usgpm at 4,495psi)   |
| <b>Maximum Pressure</b> | <b>1400 bar at 53 lpm</b><br>(20,300 psi at 11.7 igpm / 14.1 usgpm) |
| <b>Maximum Power</b>    | <b>160 kW</b><br>(220hp)  |

See overleaf for performance options

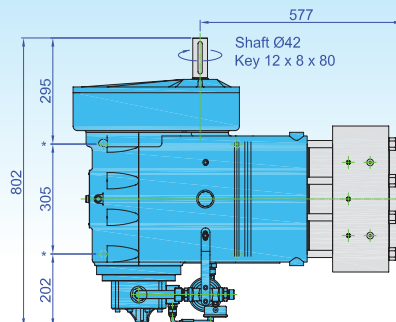
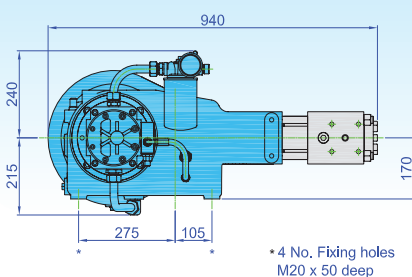
A robust design, the HPS2200 has a specification producing a heavy duty capability for dealing with the more difficult problems in industry.

The close coupled, gear driven power end has splash lubrication and oil cooling. 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 - 430 kg (with gearbox)

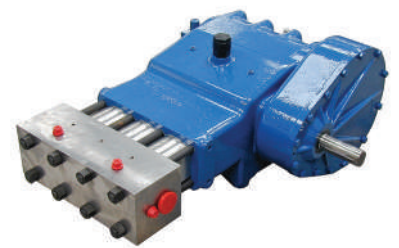


### Features

- 431 stainless steel pump head
- Solid ceramic plungers & self adjusting seals
- Interchangeable plunger kits
- Hardened, alloy steel crankshaft with heavy duty roller and steel backed white metal main bearings, supported between each connecting rod
- SG iron crankcase with pressure lubrication, oil filtration and oil cooling
- 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 1, 2 or 3) for flange mounting the pump to a diesel engine flywheel housing or electric motor
- Available without gearbox for low speed direct drive
- Bareshaft pump only or complete unit build
- ATEX compliant 



Standard foot mount pump



# HPS2200

## High Pressure Triplex Pump



| Plunger Diameter mm | Gear ratio Input Speed (rpm) |      |      |      | Pump Speed rpm | Power Required |     | Nominal Flowrate |      |       | Max Pressure |        |
|---------------------|------------------------------|------|------|------|----------------|----------------|-----|------------------|------|-------|--------------|--------|
|                     | 1500                         | 1800 | 2000 | 2200 |                | kW             | HP  | lpm              | igpm | usgpm | bar          | psi    |
| 24                  | 4.50                         |      |      |      | 333            | 94             | 126 | 36               | 8.0  | 9.6   | 1400         | 20,300 |
|                     |                              |      | 5.71 |      | 350            | 99             | 133 | 38               | 8.4  | 10.1  |              |        |
|                     |                              |      |      | 5.71 | 385            | 109            | 146 | 42               | 9.2  | 11.1  |              |        |
|                     |                              | 4.50 |      |      | 400            | 113            | 151 | 43               | 9.6  | 11.5  |              |        |
|                     | 3.70                         |      |      |      | 405            | 114            | 153 | 44               | 9.7  | 11.7  |              |        |
|                     |                              |      | 4.50 |      | 444            | 125            | 168 | 48               | 10.6 | 12.8  |              |        |
|                     |                              | 3.70 |      | 486  | 137            | 184            | 53  | 11.6             | 14.0 |       |              |        |
|                     |                              |      | 4.50 | 489  | 138            | 185            | 53  | 11.7             | 14.1 |       |              |        |
| 30                  | 4.50                         |      |      |      | 333            | 105            | 141 | 57               | 12.4 | 15.0  | 1000         | 14,500 |
|                     |                              |      | 5.71 |      | 350            | 110            | 148 | 59               | 13.1 | 15.8  |              |        |
|                     |                              |      |      | 5.71 | 385            | 121            | 163 | 65               | 14.4 | 17.3  |              |        |
|                     |                              | 4.50 |      |      | 400            | 126            | 169 | 68               | 14.9 | 18.0  |              |        |
|                     | 3.70                         |      |      |      | 405            | 128            | 171 | 69               | 15.1 | 18.2  |              |        |
|                     |                              |      | 4.50 |      | 444            | 140            | 188 | 75               | 16.6 | 20.0  |              |        |
|                     |                              | 3.70 |      | 486  | 153            | 206            | 83  | 18.2             | 21.9 |       |              |        |
|                     |                              |      | 4.50 | 489  | 154            | 207            | 83  | 18.3             | 22.0 |       |              |        |
| 35                  | 5.71                         |      |      |      | 263            | 106            | 142 | 61               | 13.3 | 16.1  | 940          | 13,630 |
|                     |                              | 5.71 |      |      | 315            | 127            | 170 | 73               | 16.0 | 19.3  |              |        |
|                     | 4.50                         |      |      |      | 333            | 134            | 180 | 77               | 16.9 | 20.4  |              |        |
|                     |                              |      | 5.71 |      | 350            | 141            | 189 | 81               | 17.8 | 21.4  |              |        |
|                     |                              |      |      | 5.71 | 385            | 155            | 208 | 89               | 19.6 | 23.6  |              |        |
|                     |                              | 4.50 |      |      | 400            | 161            | 216 | 92               | 20.3 | 24.5  |              |        |
|                     | 3.70                         |      |      | 405  | 163            | 219            | 94  | 20.6             | 24.8 |       |              |        |
| 40                  | 5.71                         |      |      |      | 263            | 106            | 142 | 79               | 17.4 | 21.0  | 720          | 10,440 |
|                     |                              | 5.71 |      |      | 315            | 127            | 170 | 95               | 20.9 | 25.2  |              |        |
|                     | 4.50                         |      |      |      | 333            | 134            | 180 | 101              | 22.1 | 26.6  |              |        |
|                     |                              |      | 5.71 |      | 350            | 141            | 189 | 106              | 23.2 | 28.0  |              |        |
|                     |                              |      |      | 5.71 | 385            | 155            | 208 | 116              | 25.6 | 30.8  |              |        |
|                     |                              | 4.50 |      |      | 400            | 161            | 216 | 121              | 26.5 | 32.0  |              |        |
|                     | 3.70                         |      |      | 405  | 163            | 219            | 122 | 26.9             | 32.4 |       |              |        |
| 45                  | 5.71                         |      |      |      | 263            | 104            | 140 | 100              | 22.1 | 26.6  | 560          | 8,120  |
|                     |                              | 5.71 |      |      | 315            | 125            | 168 | 120              | 26.5 | 31.9  |              |        |
|                     | 4.50                         |      |      |      | 333            | 132            | 177 | 127              | 28.0 | 33.7  |              |        |
|                     |                              |      | 5.71 |      | 350            | 139            | 186 | 134              | 29.4 | 35.4  |              |        |
|                     |                              |      |      | 5.71 | 385            | 153            | 205 | 147              | 32.4 | 39.0  |              |        |
|                     |                              | 4.50 |      |      | 400            | 159            | 213 | 153              | 33.6 | 40.5  |              |        |
|                     | 3.70                         |      |      | 405  | 161            | 216            | 155 | 34.0             | 41.0 |       |              |        |
| 50                  | 5.71                         |      |      |      | 263            | 106            | 142 | 124              | 27.2 | 32.8  | 460          | 6,670  |
|                     |                              | 5.71 |      |      | 315            | 127            | 170 | 149              | 32.7 | 39.4  |              |        |
|                     | 4.50                         |      |      |      | 333            | 134            | 180 | 157              | 34.6 | 41.6  |              |        |
|                     |                              |      | 5.71 |      | 350            | 141            | 189 | 165              | 36.3 | 43.7  |              |        |
|                     |                              |      |      | 5.71 | 385            | 155            | 208 | 182              | 39.9 | 48.1  |              |        |
|                     |                              | 4.50 |      |      | 400            | 161            | 216 | 189              | 41.5 | 50.0  |              |        |
|                     | 3.70                         |      |      | 405  | 163            | 219            | 191 | 42.0             | 50.6 |       |              |        |
| 55                  | 4.50                         |      |      |      | 333            | 134            | 180 | 190              | 41.8 | 50.4  | 380          | 5,510  |
|                     |                              |      | 5.71 |      | 350            | 141            | 189 | 200              | 43.9 | 52.9  |              |        |
|                     |                              |      |      | 5.71 | 385            | 155            | 208 | 220              | 48.3 | 58.2  |              |        |
|                     |                              | 4.50 |      |      | 400            | 161            | 216 | 228              | 50.2 | 60.4  |              |        |
|                     | 3.70                         |      |      |      | 405            | 163            | 219 | 231              | 50.8 | 61.3  |              |        |
|                     |                              |      | 4.50 |      | 444            | 146            | 196 | 253              | 55.7 | 67.2  |              |        |
|                     |                              | 3.70 |      | 486  | 160            | 214            | 277 | 61.0             | 73.5 |       |              |        |
|                     |                              |      | 4.50 | 489  | 160            | 215            | 279 | 61.3             | 73.9 |       |              |        |

**Additional Notes.** 1. Flowrates indicated are swept volume & will reduce by approximately 5% at full pressure  
 2. Other gear ratios are available for specific applications, consult Hughes Pumps Ltd 3. Pump stroke 80mm

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# A-BLAST WATERBLAST



## Waterblast applications

| #      |    |      |      |      |      |        |      |        |     |      |
|--------|----|------|------|------|------|--------|------|--------|-----|------|
|        | DN | inch | size | mm   | bar  | psi    | bar  | psi    | mm  |      |
| AB1-06 | 10 | 3/8  | 06   | 17.8 | 600  | 8700   | 1800 | 26,100 | 130 | 0.47 |
| AB4-06 | 10 | 3/8  | 06   | 20.8 | 1250 | 18,125 | 3125 | 45,310 | 210 | 0.90 |
| AB4-08 | 12 | 1/2  | 08   | 24.6 | 1100 | 16,000 | 2750 | 39,870 | 230 | 1.24 |
| AB4-12 | 20 | 3/4  | 12   | 29.0 | 1100 | 16,000 | 2750 | 39,870 | 250 | 1.85 |
| AB6-08 | 15 | 1/2  | 08   | 24.6 | 1450 | 21,000 | 3625 | 52,563 | 250 | 1.81 |
| AB6-12 | 20 | 3/4  | 19   | 32.1 | 1350 | 19,570 | 3375 | 48,938 | 280 | 2.64 |

## APPLICATIONS

Very high constant pressure hose for water and water emulsions scaling systems.

## FEATURES

- High abrasion resistant cover, suited to harsh applications
- High kink resistance and large through bore ID to improve flow rate and reduce pressure drop
- Available in lengths up to 60m
- Extremely flexible

## CONSTRUCTION

**Core tube:** Synthetic rubber.  
**Pressure reinforcement:** Two, Four or Six high tensile steel wire spirals.  
**Cover:** Synthetic rubber - (AB1-06 Pin Pricked).

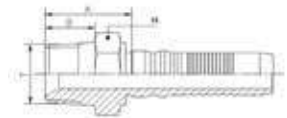
## TEMPERATURE RANGE

-40 °C / +80 °C (AB1-06 +120 °C Intermittent 150 °C).

## FITTINGS

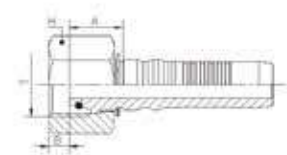
### NPTF Male 60° cone seat

|    |      |      |          | A    | B    | H    |
|----|------|------|----------|------|------|------|
| DN | size | inch |          | mm   | mm   | mm   |
| 10 | -06  | 3/8  | 3/8 - 18 | 37.5 | 14.0 | 22.0 |
| 12 | -08  | 1/2  | 1/2 - 14 | 44.5 | 19.0 | 22.0 |
| 20 | -12  | 3/4  | 3/4 - 14 | 45.5 | 19.0 | 30.0 |



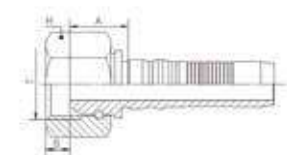
### Metric O-ring female 24° cone heavy duty

|    |      |      |           | A    | B   | H    |
|----|------|------|-----------|------|-----|------|
| DN | size | inch |           | mm   | mm  | mm   |
| 10 | -06  | 3/8  | M24 x 1.5 | 35.0 | 3.0 | 32.0 |
| 12 | -08  | 1/2  | M24 x 1.5 | 31.0 | 3.0 | 30.0 |
| 20 | -12  | 3/4  | M36 x 2   | 42.0 | 3.0 | 46.0 |



### BSP 60° female cone

|    |      |         |                | A    | B   | H    |
|----|------|---------|----------------|------|-----|------|
| DN | size | inch    |                | mm   | mm  | mm   |
| 10 | -06  | 3/8 BSP | 3/8 BSP Female | 31.5 | 6.0 | 27.0 |
| 12 | -08  | 1/2 BSP | 1/2 BSP Female | 30.0 | 6.5 | 27.0 |
| 19 | -12  | 3/4 BSP | 3/4 BSP Female | -    | -   | 36.0 |



**Please Note:** Variety of fittings in mild steel or AISI 316 stainless steel available, other fittings available on request. We reserve the right to make technical changes without notice.





A-blast

DN 12 - 1/2"

DN 12 - 1/2" - Max. Working

A-blast

A-blast

DN 12 - 1/2" - Max. Working Pres



Max. Working Pressure 1100 BAR - 16000 PSI ..  
DN 12 - 1/2" - Max. Working Pressure 1100 BAR - 16000 PSI ..  
Max. Working Pressure 1100 BAR - 16000 PSI ..

Max. Working Pressure 1100 BAR - 16000 PSI ..  
DN 12 - 1/2" - Max. Working Pressure 1100 BAR - 16000 PSI ..

A-blast

Max. Working Pressure 1100 BAR - 16000 PSI ..  
16000 PSI ..