

Company Profile

2022

R.L.Hill Engineering

Your one stop shop for ...

- PTA welded products
- High Temperature Fasteners
- Steam valve spares
- Mining parts & components
- General Machining
- Turning, Milling & drilling
- Fabrication
- Sheet metal products
- Solid Stellite components
- Exotic materials
- Reverse Engineering from a sample
- Refurbishment & Reclamation work



2021/2022 UPDATE

2021 has been another challenging year for everyone, with Covid lockdowns. Our business has used the opportunity to continue assessing our operations and we have re-assessed some of our workplace policies & procedures to streamline our operations so we can better service our customers.

Our website is currently being upgraded and will provide our customers with more comprehensive information regarding the products and services we provide, as well as the materials we source and stock. A couple of smaller items of machinery have been purchased to increase and improve our service capacity for our customers. We've also increased the range of material grades held in stock & our stock levels.

Our dedicated customer relations manager, Fred Heintz, has integrated into the business well during 2021, despite the challenges of Covid lockdowns, and has already developed some great working relationships. Fred will continue to be in regular contact with all customers via telephone and email to discuss upcoming requirements, to ensure you are happy with our products & services and to obtain feedback or suggestions for improvement. Covid has put site visits on hold temporarily, however once restrictions ease, they will recommence. We also look forward to welcoming back our Estimation & Procurement officer, Tiarne Clarke, in early 2022 to assist with customer sales enquiries. Tiarne went on maternity leave in September last year and is now the proud mother of a beautiful baby girl.

ABOUT US

* Quality * Material Integrity * Delivery * Customer Service & Satisfaction *

These are the qualities that R.L. Hill Engineering has been built on and have set us as the industry leader in Australia & New Zealand for the supply of high temperature fasteners & steam valve components. Now, entering our 40th year of operation, we continue to specialise in the urgent supply of parts for outages & breakdowns.

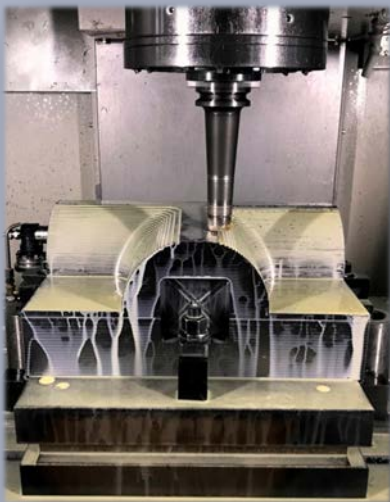
R.L. Hill Engineering can respond faster than any other supplier in Australia because:

- We hold extensive stocks, ON-SITE, of high temperature, heat and creep resistant materials, stainless and alloy steels in various forms.
- We can manufacture from drawings and work sketches or by reverse engineering (with full material analysis and certification) directly from supplied samples.
- We permanently archive CAD drawings and programs for every component manufactured or produced by our CNC facilities, for easy reference and faster repeat ordering.
- We manufacture and warehouse stocks of frequently ordered parts to shorten lead times even more.

R.L. Hill Engineering can get your plant running again in less time than other suppliers take just to source the right materials from overseas.

We supply components to all the major power generators and mining companies throughout Australia and New Zealand and we manufacture local and export product for some of the biggest names in power generation equipment:

- Siemens Ltd (Siemens AG Germany)
- Rolls Royce Industrial (John Thompson Australia)
- Toshiba International
- Alstom Australia
- Weir Engineering
- GE/Sulzer



QUALITY MANUFACTURING & SERVICE

INVENTORY TRACKING & MANUFACTURING SYSTEM

ITMS "Inventory tracking and manufacturing system" plays a major role in our business. It helps us be able to cater to our clients' needs at the most efficient level. ITMS helps us to process enquiries a lot faster and efficiently, and supply a high quality product.

From the initial enquiry from a client and the creation of a quote through the bill of materials, routing to our workcentres in the workshop and acceptance of a purchase order, job ticket creation, order confirmation to the client, production scheduling with QA steps built in, dispatch, tracking and delivery, and invoicing; Our ITMS system fully integrates all these steps and is tracked in real time throughout.

Due to the nature of our business and supplying goods for stock replacement as well as urgent outage & breakdown work, keeping orders on time is one of our highest priorities.

SUPPLY AGREEMENTS

This is a great opportunity we offer to customers that can benefit you in many ways. A supply agreement is a contract that is held for a set period of time (usually 12-24 months). We hold our prices firmly when in a supply agreement with us. A major benefit of this is that we can stock our shelves with a large quantity of the items under contract. Therefore this means great convenience for you because once the item is needed we can instantly package it up and courier it out to you, saving a lot of time in comparison to the product being manufactured from an order placement.

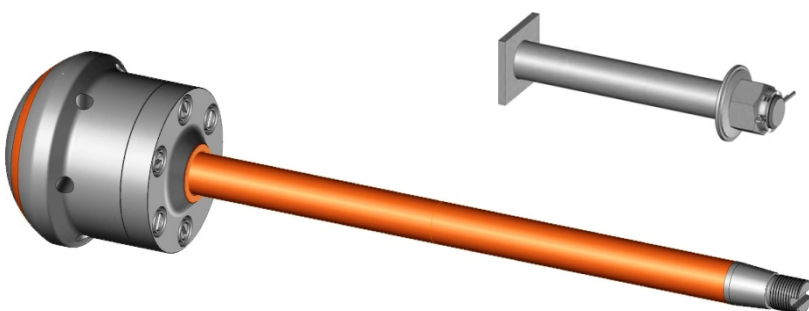
REVERSE ENGINEERING OPTIONS

At R L Hill engineering we are always looking to put our customers' needs at the highest level of priority.

We offer a free onsite visit from one of our team members to come out and assess a sample item of what you need manufactured. The team member will draw up the item onsite take this drawing back to our office and send a quote to you. This comes at great benefit for you with time saving and convenience.

STRIP & INSPECT REPORTING

Refurbishment of major components is often a great money saving option for power stations and mining companies, as it is a way of extending the useful life of the component for a fraction of the price of replacing it. Refurbishment is not always a viable option, but we offer the service of completing stripping components and performing NDT and various other tests and inspections and preparing condition reports for our customers with our honest recommendations on the best refurbishment/replacement options available to them.



MATERIALS

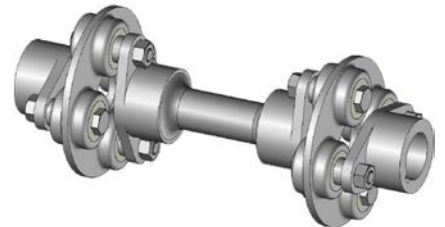
R.L. Hill Engineering is the only supplier in Australia holding ON-SITE stocks of the following heat and creep resistant materials used for turbine bolts, valve components and other high temperature applications.

Although we are not a steel merchant, we have over 400 tonnes of material in stock ranging from 16mm diameter through to 350mm diameter with some grades in square, flat, hexagon & sheet. Stocks are continually being replenished, with new grades of material being added all the time, and are held specifically to supplement our in house machining facilities.



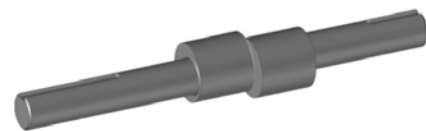
Turbine bolting materials

Comsteel 026	
Comsteel 029	
Durehete 900	
Durehete 950	
Durehete 1055	
Din 1.7709	21CrMoV5.7
Din 1.8070	21CrMoV5.11
Din 1.4935	X20CrMoWV12.1
Din 1.4923	X22CrMoV12.1
Din 1.4913	X19CrMoVNbN11-1
Din 1.4418	X4CrNiMo16-5-1
Din 1.4122	X35CrMo17
Din 2.4631	Nimonic 80A
Din 2.4662	Nimonic 901
Din 1.7380	10CrMo9-10
Din 1.3563	42CrMo4
Din 1.7335	13CrMo4-5
Din 1.7711	40CrMoV4.6
Din 1.7729	20CrMoVTiB4-10
Din 1.8550	34CrAlNi7-10
FV448	
ASTM A182 F12	
ASTM A182 F22	
ASTM A106	
ASTM A437-76 Grade B4B	
ASTM A193 B16	
Chrome Moly steels	
Waspaloy	
Alloy 800H	



Valve Spindle & seating materials

Din 1.4935	X20CrMoWV12.1
Din 1.4923	X22CrMoV12.1
Din 1.4913	X19CrMoVNbN11-1
Din 1.7335	13CrMo4-5
Din 2.4631	Nimonic 80A
Din 2.4662	Nimonic 901
FV448	
ASTM A182 F12	
ASTM A182 F22	
ASTM A437-76 Grade B4B	
P20	
EN41B	



* Other materials are available upon request *

MATERIALS

Alloy steels

- 4140
- 4340
- B7
- A105
- A106
- EN25
- EN26
- EN41B



Other specialised cast materials

- Ni-hard
- Ni-resist
- Stellite 6[®]

Stellite 6[®] - Kennametal Stellite

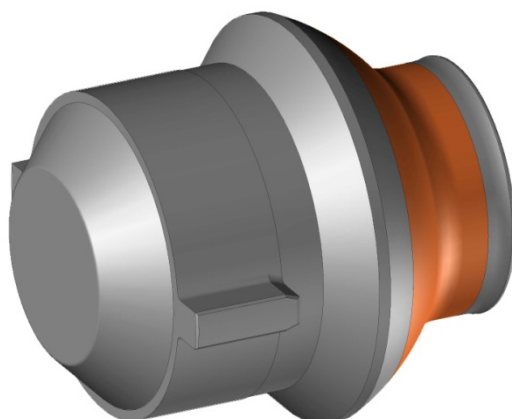
Stainless steel

RL Hill Engineering stocks a wide range of specialised stainless steels commonly used by power stations, including the following grades:

- | | |
|-------|-------------|
| 303 | 440C |
| 304 | 904L |
| 316 | 630PH |
| 310 | 17/4PH |
| 321 | 2RK65 |
| 253MA | Inconel 600 |
| 410 | Inconel 601 |
| 416 | Inconel 625 |
| 420 | SAF 2205 |
| 431 | Alloy 800H |

Other materials

We also manufacture in a wide range of mild steels, non-ferrous metals and synthetic materials and will source other materials on request.



SERVICES

At R.L. Hill Engineering we have all the machinery and processes required for manufacturing specialised components from our unique stocks of high temperature materials. We have heavily invested in a number of new CNC machines over the last couple of years, which has greatly increased our machining capabilities and in 2019 we installed an additional CNC mill with probing & measurement functions and with capabilities of up to 2 metres. During 2020 & 2021 we took the opportunity to assess our machining capabilities and installed a couple of smaller plant items including a larger capacity sandblaster and heavy duty press. We have also focussed on our Quality system in place have implemented new internal manufacturing policies and procedures to improve our workplace operations.

In-house facilities

- ④ 6 Axis CNC PTA - Plasma Transfer Arc – welding plant (for stelling and hard facing)
- ④ Two Controlled Temper Ovens (for pre and post heat treatment, stress relieving and post PTA applications)
We also use our ovens for age hardening fasteners made from Nimonic 80A
- ④ CNC lathes – 1 metre in diameter & 3 metres between centres
- ④ CNC machining centres – 2 metres x 1 metre c/w 4th axis
- ④ Various centre lathes and milling machines
- ④ Large capacity slotting and splining facilities
- ④ Large capacity drilling facilities
- ④ Gun and deep hole drilling facilities
- ④ Welding bays (stick, oxy, MIG, TIG and PTA)
- ④ Sandblasting
- ④ 45 ton pressing capacity
- ④ Two 5 tonne overhead gantry cranes servicing the entire workshop area
- ④ Topsolid CAD/CAM drafting system
- ④ NDT testing and full test certification
- ④ Hardness testing
- ④ Warehousing spares and inventory management

Positive Material Identification (PMI testing)

With the use of our mobile XRF spectro analyser, we are able to quickly and accurately identify most material types when assessing samples for reverse engineering, or when performing strip and inspect reports on components for our customers. This saves time & money rather than having to send the part off for external testing & inspection.

Other services

- ④ Zinc and chrome plating
- ④ Hardchrome plating
- ④ Rubber moulding
- ④ Stress relieving
- ④ Heat treatment
- ④ Case hardening
- ④ Nitride hardening
- ④ Metal spraying
- ④ Shaft straightening
- ④ Gear cutting
- ④ Metal spinning
- ④ Refurbish work
- ④ Reverse Engineering



PRODUCTS

In addition to the following specialised components, R.L. Hill Engineering handles all general engineering of machined parts. We can also manufacture, warehouse and manage stocks of frequently ordered parts for you, reducing your on-site inventory until it's needed.

Turbine spares

- High temperature fasteners
- High tensile fasteners
- Valve spindles and valve heads (inc Stellite® coated items)
- Turbine valve inconel lens joint rings
- Closure pieces for rotor blade fixtures
- Turbine gland housings
- Cast Stellite bushes
- Turbine radial seal strips
- Pump & turbine spares

Stellite 6® Kennametal Stellite



Mill and boiler spares

- Coal conveyor roller spares
- Mill ribbon conveyor spares
- Grinding roll spares
- PF mill drum spares
- Boiler oil gun spares
- Hard chromed connection pins
- Ash hopper gate seals
- Tube plates



Mining parts & components

- Crusher spares
- Wear plates & liners
- Mill liners
- Gears & gear segments
- Rollers
- Sleeves
- Shafts
- Bushes
- Bearing housings
- Pulleys



Other general spares

- Disposal pipe coupling joints
- Test weld pieces
- Half couplings
- Electrical contacts
- Worm and worm wheel sets
- Oil sample fittings



Oil Sample Fittings

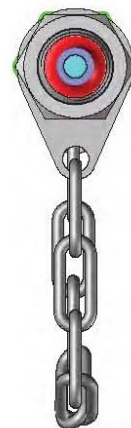
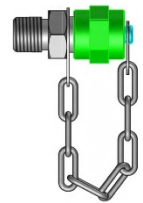
Oil sampling is becoming a very in demand process to effectively maintain machinery. When and how oil samples are collected are two very important processes.

Using an oil sample fitting gives the ability to analyse oil. Oil Analysis is the testing of a lubricants properties, suspended contaminants and wear debris. Oil sampling is a procedure for collecting a volume of fluid from lubricated or hydraulic machinery. Oil sampling becomes a lot more accurate and easy with our oil sample fittings.

Using oil sampling is a routine predictive maintenance to provide meaningful and accurate information on the machines condition. This can help eliminate costly repairs.

R L Hill Engineering's oil sample fittings are designed to assist you in getting the most accurate sample from the right place inside the machinery.

If you want more information on our oil sample fittings please contact one of our friendly team members for the request of our oil sample fitting catalogue and/or our oil sample fitting price list.



PTA (plasma transferred arc welding)

The inclusion of a Hettiger 6 axis Plasma Transfer Arc (PTA) machine & tempering furnaces allows R.L. Hill Engineering to manufacture & fully control all processes involved in the manufacture of high temperature steam valve stems, seats & related products. PTA is used to deposit the hardfacing material & unlike other surfacing processes, PTA creates a full metallurgical bond with the parent material. Pre & post heats are accurately controlled with our furnace facilities. Both furnaces are linked to our server and data is continually recorded while in use. We can supply full heat treatment record graphs showing temperature over time for all our furnace processes.

Because of our extensive stocks of parent materials & our PTA facility we can manufacture new valve components in very short lead times. This is a major advantage when the need to replace valve components is not found until you're in the thick of a shutdown.

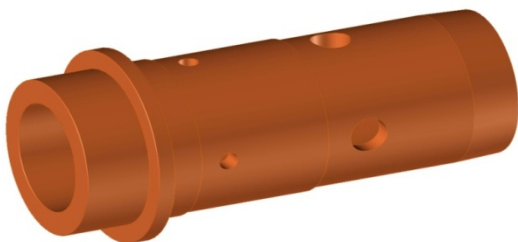
Kennametal Stellite 6[®]

Most high temperature valve seats are manufactured from Stellite 6[®]. Stellite 6[®] is also used to coat the wear areas of the valve stem. R.L. Hill Engineering specifically uses Kennametal Stellite 6[®] consumables with our PTA systems. Other grades of Stellite[®] powder are also stocked as well as tungsten carbides, inconels, martensitic & austenitic stainless steels.

Stellite 6[®] - Kennametal Stellite

Solid Stellite Bushes

To complement the manufacture of our high temperature steam valve spindles & seats we also supply fully machined solid Stellite bushes. Again these bushes can be produced in surprisingly rapid lead times. A lot of sites are seeing the benefits of our solid stellite bushes over conventional nitride hardened or even stellite coated bushes. There is no chance of a coating cracking and these bushes are much more economical to refurbish down the track, numerous times over.





COMPREHENSIVE CATALOGUES

High temperature fastener catalogue:

Over 170 pages containing comprehensive details of all types of fasteners: bolts, studs, nuts, pins, plugs, dowels, washers etc.

Component catalogue:

Over 240 pages containing details of various & many components that we have supplied divided into different sections: Turbines, Boilers, Conveyors etc.

Both catalogues are available upon request.

CONTACT US

For more information about our services or to request a quote contact:

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