

# CUTTING TOOLS & ADHESIVE SPECIALIST

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# WORDS FROM DIRECTORS



What a tremendous 25 years journey! Thank you for trusting us to be your Tools and Adhesive Specialist In Indonesia.

The successes we have achieved today are based on our company's core strengths in commitment and integrity, strong financial base and committed employees with competent technical skills. Throughout the years, we have consistently leverage on technology automation for clarity and visibility in all of our company's activities. Additionally, continuous workflow improvements have also been emphasized to cope with increased sales activities and future expansion plan.

At Somagede Indonesia, we value Commitment and upholds integrity to all our stakeholders. From the beginning, Somagede has always believed in "One Voice and One Company" to consistently come up with exceptional products and services through a committed and dedicated team.

We invite you to further review our products and services as we continue to innovate to become the household brand name for Industrial supplies and customer's preferred vendor. We look forward to partner with you and serve your business needs.

Perjalanan 25 tahun yang luar biasa! Terima kasih telah mempercayai kami untuk menjadi *Tools* dan *Adhesive Specialist* Anda di Indonesia.

Kesuksesan yang kami raih dalam perusahaan sekarang didasari oleh kekuatan dalam hal komitmen dan integritas, basis keuangan yang kuat dan karyawan dengan keterampilan teknis yang kompeten. Selama bertahun-tahun, kami telah memanfaatkan otomatisasi teknologi secara konsisten untuk memperoleh transparansi dalam seluruh kegiatan perusahaan. Selain itu, peningkatan berkesinambungan dalam alur kerja internal perusahaan pun telah ditekankan untuk mengatasi kegiatan penjualan yang meningkat dan rencana ekspansi di masa depan.

Di Somagede Indonesia, kami menghargai komitmen dan menjunjung tinggi integritas terhadap seluruh pemangku kepentingan. Sejak awal, Somagede selalu percaya dalam "One Voice and One Company" (Satu Suara dan Satu Perusahaan) agar tetap konsisten memberikan produk dan pelayanan yang luar biasa melalui tim kerja yang berkomitmen dan berdedikasi tinggi.

Kami mengundang anda untuk memberi ulasan lebih lanjut dalam produk dan pelayanan kami, saat kami terus berinovasi menjadi pemegang merk kebutuhan industri dan *vendor* pilihan pelanggan. Kami berharap untuk dapat bermitra dan melayani kebutuhan usaha anda.

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**Darmawan Boedi Soetrisno**  
*Chief Executive Officer*

The past 25 years had been a remarkable journey for both our company and talents at Somagede. Exceptional developments, operations and continuous improvements in the overall business process have been the major drives to this success journey. Proper management of resources, distribution of goods and services to the customers are incessantly conducted to deliver our best Solution, Guarantee and Innovation.

As quoted from George Elliot, "Great things are not done by impulse, but by a series of small things brought together." We believe in doing the little things great to continuously achieve our Sales target. Our culture right from the start to marshal limited resources to the most productive uses is to create maximum revenue and value for the company's stakeholders, evidently, the result in being the most trusted Cutting Tools and Adhesive specialist in Indonesia is well assured.

On behalf of PT Somagede Indonesia, I would like to thank our partners and customers. Let's aim for the better years and success ahead!

Kurun waktu selama 25 tahun ini telah menjadi perjalanan yang luar biasa baik bagi perusahaan kami maupun bagi sumber daya manusia yang ada di Somagede Indonesia. Pengembangan dan pengerjaan yang luar biasa, dan perbaikan

berkesinambungan pada keseluruhan proses usaha telah menjadi pendorong utama menuju kesuksesan. Kami berjanji kepada pelanggan kami untuk memberikan Solusi yang terbaik, Jaminan, dan Inovasi kualitas produk dan pelayanan kami melalui perencanaan yang luas, manajemen yang efisien, dan distribusi sumber-sumber yang ada.

Mengutip ucapan George Elliot, "Hal-hal besar tidak dilakukan secara mendadak, melainkan melalui serangkaian hal-hal kecil yang dibawa bersama-sama." Kami percaya untuk melakukan hal-hal kecil dengan baik, agar dapat mencapai tujuan kami secara optimal. Ini merupakan budaya etika kerja yang kami aplikasikan sejak awal dan terbukti bahwa sejak itu kami menjadi Cutting Tools dan Adhesive Specialist terpercaya di Indonesia.


Atas nama PT. Somagede Indonesia, saya ingin berterima kasih kepada para rekan dan pelanggan atas komitmen dan kepercayaan yang sangat besar yang diberikan kepada kami. Mari bersama-sama kita menuju tahun-tahun yang lebih baik dan sukses di masa mendatang!

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**Ng Kim Soon**  
*Chief Operation Officer*



# OUR VISION



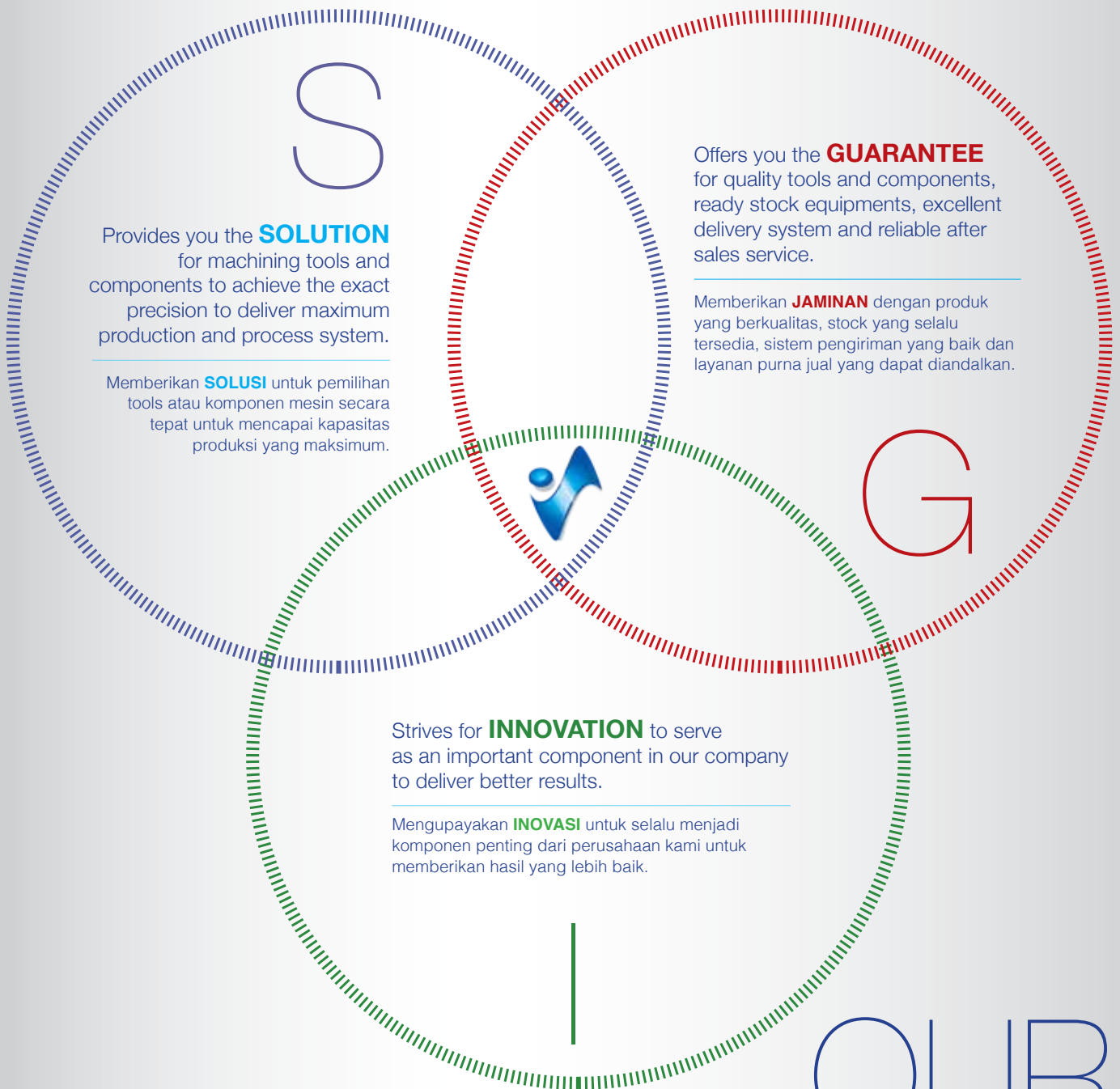
We are aiming to be recognized as the best, the most reliable, and the first-chosen company in the mind of our allied partners and our customers to supply industrial and machining products.

Sebagai perusahaan penyedia produk industri dan permesinan yang terbaik, terhandal dan menjadi pilihan utama bagi supplier dan customer.

## MISSION

We always put forward the customer satisfaction by giving Solution, Guarantee and Innovation.

Kami selalu mengutamakan kepuasan pelanggan dengan memberikan Solusi, Garansi dan Inovasi.



# OUR MISSION

# OUR VALUES



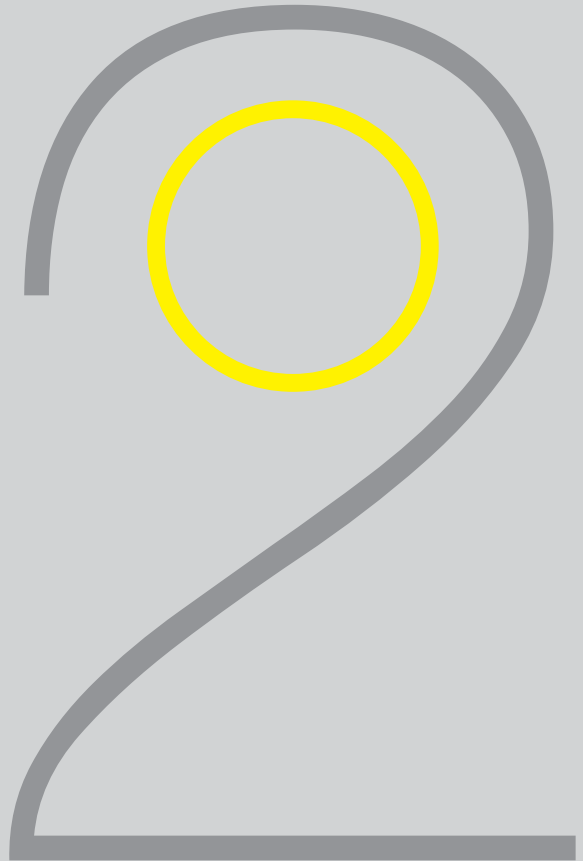
We value challenge  
and reward our people.

Kami memberikan tantangan dan  
penghargaan bagi setiap karyawan.



We strive for excellent  
and sustainable performance.

Kami berupaya untuk mencapai  
kinerja keuangan perusahaan  
yang baik dan berkelanjutan.





Solution.  
Guarantee.  
Innovation.

We always put forward the customer satisfaction by giving **SGI**.

Kami selalu mengutamakan kepuasan pelanggan dengan memberikan Solusi, Garansi dan Inovasi.



We build our future with strong and dynamic corporate culture.

Kami membangun masa depan perusahaan dengan budaya yang kuat dan dinamis.



25 YEARS  
SOMAGEDE  
INDONESIA

# OUR NETWORK

Somagede network is an extensive feat achieved through our branch offices and resellers to deliver the right products at just the right time, right when customers need them.

Jaringan Somagede adalah sebuah prestasi baik yang tercapai melalui kantor cabang dan reseller untuk memberikan produk yang tepat, di waktu yang tepat, saat pelanggan membutuhkannya.





# SUMITOMO HARDMETAL SOLUTION TOOLS

## Sumitomo Hardmetal as the Solution tools

provide a variety of specialized industry needs ranging from Automotive with tools for crank shafts, cam shafts, cylinder blocks and cylinder heads;

**Aerospace** with tools for aircraft and engine components; **Power Generators** with tools for the energy industry; **Construction Equipment** and **Steel & Industrial Machines**.

## Sumitomo Hardmetal sebagai peralatan solusi

menyediakan berbagai kebutuhan industri khusus mulai dari industri Otomotif dengan peralatan untuk poros engkol (*crankshafts*), noken as (*camshafts*), blok silinder (*cylinder blocks*) dan kepala silinder (*cylinder heads*); **Industri Penerbangan** dengan peralatan untuk komponen pesawat dan mesin; **Industri Pembangkit Energi** dengan peralatan untuk industri energi; **Industri Perlengkapan Konstruksi** dan **Industri Mesin & Baja**.

## AUTOMOTIVE



Tools for Finishing of Matting Surface



Tools for Valve Seat Chamfering



Cylinder block



Bore Boring



Crank Shafts



Tools for Crank Shaft Roughing



Cylinder Head



Crank Holes, Cam Hole Boring

## AEROSPACE



Drills & Endmills for Machining Heat-Resistant Alloys



Inserts, Full R Dogbone Tools for Turning Thermal Resistant Alloys



Drills & Endmills for Machining CFRP



Aircraft



Engines IHI



Tools for Titanium Machining Alloy

## POWER GENERATOR



Tools for Machining  
Shafts



Turbine Casing



Tools for Casing  
and Condensor



Turbine Blades



Tools for Machining  
Blades



Rotor Shaft

## CONSTRUCTION EQUIPMENT



Tools for Large  
Dump Truck Parts



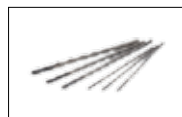
Tools for Hydraulics  
Control Valves



Tools for Industrial  
Engines



Tools for Tractors Link



Tools for Large  
Crank Shafts



Tools for Swivel Ring



Power Shovel

## STEEL & INDUSTRIAL MACHINES



Tools for  
Machining Rolls



Tools for Pipe  
Making



Drills for Steel  
Structures



Cutter for Set Pieces



Cutters for Industrial  
Machines



Tools for Railway Use



Tools for Steel  
Structure

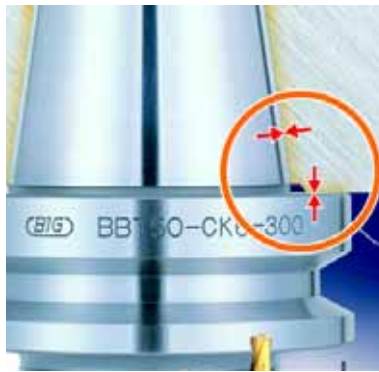


Axle and Wheels  
for Railway Use

# HIGHER RIGIDITY AND COST EFFICIENT



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## Simultaneous Taper & Flange Fit Big Plus Spindle System Dual Contact

Improves surface finish and dimensional accuracy,  
prevents fretting corrosion from heavy cutting,  
provide higher rigidity, precision and cost efficiency.

Meningkatkan hasil akhir permukaan dan keakuratan  
dimensi, mencegah terjadinya *fretting corrosion*  
yang ditimbulkan dari proses pemotongan berat,  
memberikan rigiditas tinggi, presisi dan efisiensi biaya.



# OUTSTANDING DRILLING PERFORMANCE.



Provides you with high precision gun solid drilling, rough and fine boring, reaming and threading to produce modular range of bore machining.

Komet KUB Pentron, the innovation that allows continuous solid drilling of up to 5xD in extreme machining condition.

Menyediakan solid drilling dengan presisi tinggi, *boring* kasar dan halus, *reaming*, dan *threading* untuk memproduksi berbagai modular dari *bore machining*.

Komet KUB Pentron adalah inovasi yang memungkinkan untuk melakukan *solid drilling* secara terus-menerus hingga 5xD dengan kondisi mesin yang ekstrim.





# PRECISE, RELIABLE AND LOW PRODUCTION COST.

High precision & reliable flat lapping and polishing machine for lower production costs.

Mesin pemoles dan *flat lapping* dengan presisi tinggi dan tepercaya untuk mencapai biaya produksi yang lebih rendah.



Cutting



Mounting



Grinding



Polishing



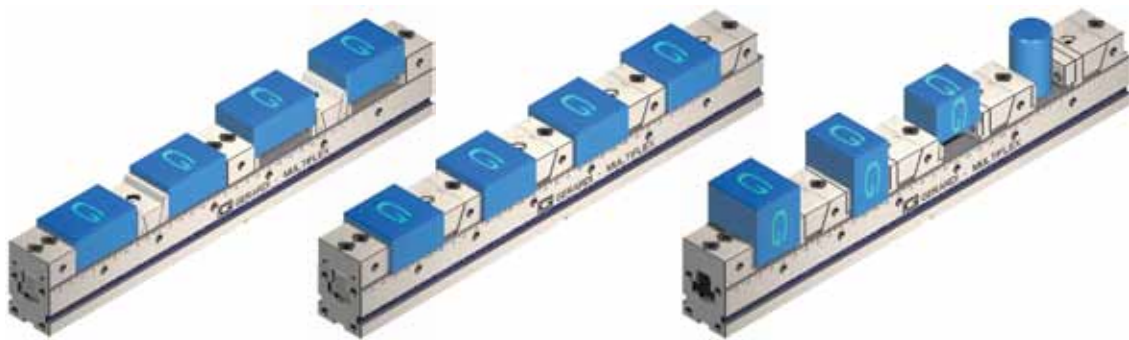
**Kemet**



# PRECISION MODULAR VISES

Hardened Ground Steel HRC 60 with an accuracy of 0.02 mm.  
High accuracy solid vise base with grounded sliding and coupling surface. Versatile, rigid, safe and modular.

Baja dikeraskan 60 HRC dan digerinda dengan akurasi 0.02 mm.  
*Vise base solid* dengan akurasi tinggi dengan *sliding* dan permukaan kopling yang digerinda. Serbaguna, rigid, aman dan modular.



MultiFLEX Series - Most Versatile!

Versatile multiple clamping from 1 to 12 Workpieces of various sizes



Multitasking Series - 5 Axis Machines

- Self-centering or eccentric vises
- Manual / Hydraulic / Pneumatic control and clamping system



StandardFLEX Series - Most Recent!

Innovative combination system for a quick pull-down  
MANUAL jaw-plate change



# CONVENIENT, INEXPENSIVE AND NO ELECTRICAL POWER



AVC55 - Pail converter off industrial trashes and liquids (oil pans, sludge, drainage / metal chips).

Safe, efficient, durable, convenient and inexpensive. The AVC 55 requires no electric power, it comes with high delivery rate of 150L/min for low viscosity liquids with air compressed well inside the tank.

AVC 55 - Alat *converter* limbah industri (panci minyak, lumpur, saluran pembuangan air / *metal chips*).

Aman, efisien, tahan lama, mudah, dan tidak mahal. AVC 55 tidak membutuhkan tenaga listrik dengan tingkat penyampaian yang tinggi yaitu 150L/min untuk cairan dengan kekentalan rendah dengan udara yang dikompresi dengan baik di dalam tanki.

**AQUA**  
SYSTEM CO.,LTD.



# DIAMOND AND CBN GRINDING TOOLS



Diamond and CBN grinding tools enable high precision and high-grade processing tools used for automotive, IT and electric industries.

Diamond dan CBN grinding tools memungkinkan presisi dan standar pengolahan yang tinggi bagi alat-alat yang digunakan dalam industri otomotif, IT, dan listrik.

**A.L.M.T. Corp.**

# INDUSTRIAL TOOL SOLUTION FOR VARIOUS APPLICATION

The Snap-On complete set of hand, air and electric tools are designed for professional use in all facets of the transportation industries from automotive, heavy-duty equipment, marine, aviation and railroad.

Satu set lengkap Snap-On terdiri dari *hand tools*, *air tools*, dan *electric tools* yang dirancang untuk penggunaan profesional dalam semua aspek industri transportasi mulai dari otomotif, alat berat, kelautan, penerbangan, dan kereta api.





The Blue-Point complete set of hand and power tools are designed to avoid usage duplications and to provide you with the solution to streamline tasks accurately.

Satu set lengkap Blue-Point terdiri dari *hand & power tools* yang dirancang untuk merampingkan pekerjaan yang berulang ulang dan memberikan solusi untuk memudahkan tugas.



# MULTIPURPOSE ADHESIVES AND SEALANTS

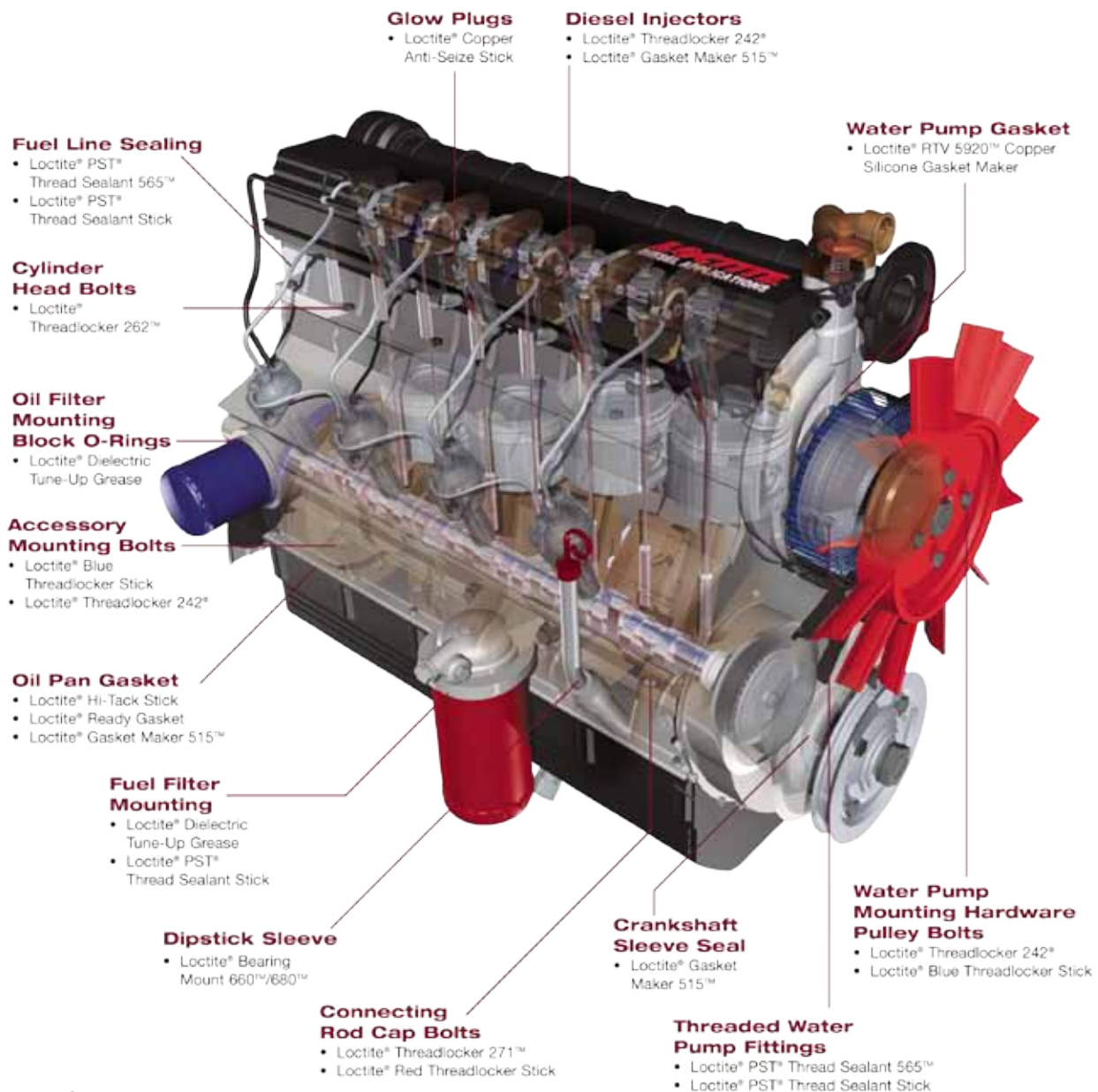
for Engineering Maintenance.

Henkel Loctite, a high performance adhesive sealant and coating solutions for electronics, automotive, aerospace, biomedical and other industries.

Henkel Loctite is utilized to accelerate manufacturing processes, reduce costs and improve quality that comfortably meets the national and international standards.

Henkel Loctite, perekat dan solusi *coating* dengan performa tinggi untuk elektronik, otomotif, pesawat terbang, biomedikal dan industri lainnya.

Henkel Loctite digunakan untuk mempercepat proses produksi, menekan biaya dan memperbaiki kualitas yang sesuai dengan standar nasional dan internasional.





Prevent fretting and corrosion while securing bearings with **Loctite® 603 Retaining Compound**



Prevent rust and seizure of power end bolts with **Loctite® Marine Grade** or **Loctite® Heavy Duty Anti-Seize**

Prevent key wear with **Loctite® 243 Threadlocker** or repair key wear with **Loctite® 660 Retaining Compound**



Prevent set screws from working loose with **Loctite® 222** or **Loctite® 243 Threadlockers**

Secure and prevent leakage between oil seals and housing with **Loctite® 243** or **Loctite® 248 Threadlockers**



Lubricate and prevent damage to O-rings with **Loctite® White Lithium Grease**



Seal threaded fittings with **Loctite® 561 PST Sealant** or **Loctite® 577 Thread Sealants**



Make any size gasket with **Loctite® 518 Gasket Eliminator Range Sealant**



Prevent corrosion damage to external parts with **Loctite® Nordbak® Chemical Resistant Coating**



Rebuild and protect worn volutes with **Loctite® Nordbak® Wearing Compound** and/or **Loctite® Nordbak® Brushable Ceramics**



Restore, coat, and protect impeller vanes with **Loctite® Fixmaster Superior Metal**, **Loctite® Fixmaster® Wear Resistant Putty** and **Loctite® Nordbak® Brushable Ceramics**



Prevent corrosion and seizure of gland assembly nuts and seizure of the impeller to the shaft with **Loctite® Marine Grade** or **Loctite® Heavy Duty Anti-Seize**

Rebuild worn shafts with **Loctite® Fixmaster® Superior Metal**

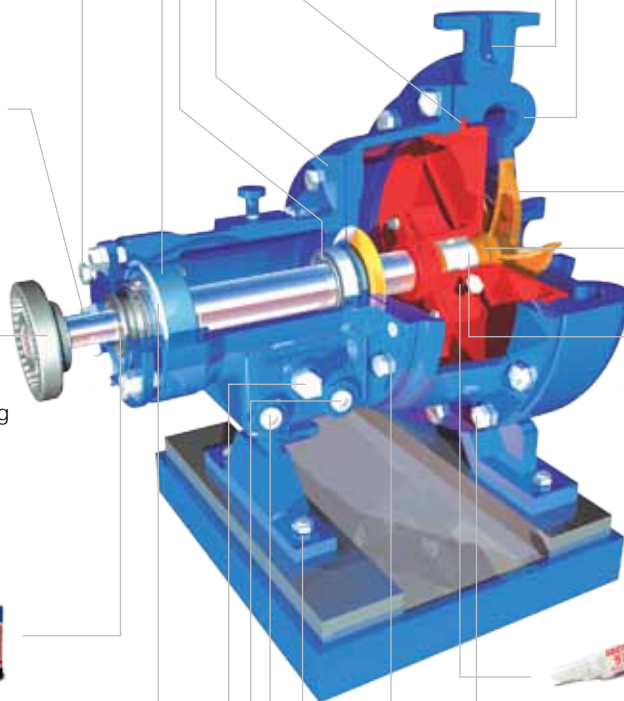
Seal and protect flushing connectors with **Loctite® 561 PST Pipe Sealant** or **577 Thread Sealant**



Prevent corrosion and secure casing bolts and adapter bolts with **Loctite® 243** or **Loctite® 248 Threadlocker**



Keep mounting bolts tight with **Loctite® 262** or **Loctite® 268 Threadlocker**



Henkel **LOCTITE**



# INDUSTRIAL TOOL AND ASSEMBLY SOLUTION



Desoutter, the global leader in electric & pneumatic assembly tools used mainly for assembling and manufacturing operations for aerospace, automotive, light & heavy vehicles, off road and general industries.

Desoutter develops and delivers industrial tool solution for pneumatic screwdriver, advanced transducerized EB tools / nutrunner and torque measurement.

Desoutter E-Pulses Innovation produces low reaction torque electric tool with:

1. Tack time = 1 sec / bolt
2. Flexible and easy set up
3. Reduction of maintenance and quality costs

Desoutter merupakan alat rakitan listrik dan pneumatik terkemuka di dunia yang biasa digunakan untuk perakitan dalam industri pesawat terbang, otomotif, kendaraan ringan dan berat, off road dan industri pada umumnya.

Desoutter mengembangkan dan memberikan solusi untuk alat-alat industri seperti obeng pneumatik, advance transducerized EB tools lanjutan / nutrunner dan pengukuran torsi.

Inovasi Desoutter E-Pulses menghasilkan torsi elektrik tool bereaksi rendah dengan:

1. Tack time = 1 detik/baut
2. Fleksibel dan mudah dipasang
3. Penekanan biaya perbaikan dan kualitas





# TECHNICAL SUPPORT



We deliver solution and innovation with comprehensive technical supports ready to serve your needs.

Kami memberikan solusi dan inovasi dengan tenaga ahli yang komprehensif.

# READY STOCK



Ready stock is guaranteed to serve your needs to achieve higher efficiencies.

Jaminan ready stock untuk melayani kebutuhan Anda demi mencapai efisiensi yang lebih tinggi.



# RELIABLE DELIVERY



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## Speed and Just In Time Delivery

As part of SGI commitment for Reliable Delivery Guarantee, SGI warehouses are located in Jakarta and Cikarang to provide an optimal and strategic distribution network to achieve maximum delivery.

## Pengiriman yang Dapat Diandalkan

Sebagai bagian dari komitmen SGI dalam menerapkan Jaminan akan pengiriman yang dapat diandalkan, gudang SGI bertempat di Jakarta dan Cikarang untuk menyediakan jaringan distribusi yang optimal dan strategis untuk mencapai pengiriman yang maksimal.

# AFTER SALES SERVICE



Somagede After Sales Service Program provides reliable customer supports for maintenance or repairs during and after the warranty period.

Program Somagede After Sales Service memberikan bantuan pemeliharaan atau perbaikan yang andal kepada para pelanggan selama dan setelah masa garansi berakhir.

## Product Quality Guarantee

We guarantee genuine, workmanship and best quality products to meet the standard of customers' highest satisfaction.

Kami menjamin keaslian, pengerjaan, dan produk berkualitas tinggi untuk memenuhi standar kepuasan tertinggi para pelanggan.

**CERTIFICATE  
OF GENUINE  
PRODUCTS**

**PARTNERSHIP  
CERTIFICATE**

**ISO CERTIFICATION**





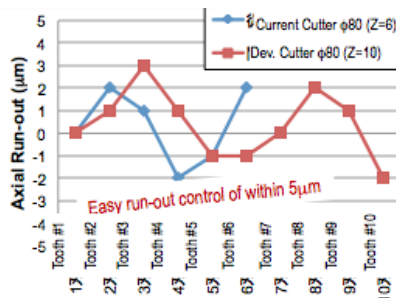
# HF CUTTER - FINE PITCHED PCD CUTTER FOR ALUMINIUM



The HF-PCD Cutter for aluminum is a special designed steeled-body cutter. It is utilized to achieve high-efficiency machining with easy fine adjustment, easy-to-use wedge-type insert clamp and anti-fly out mechanism.

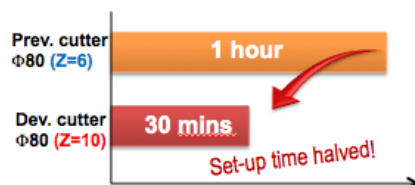
HF-PCD Cutter aluminium merupakan alat pemotong yang terbuat dari baja dengan desain khusus. Digunakan untuk mencapai tingkat efisiensi yang tinggi pada mesin dengan *adjustment* yang mudah dilakukan, *wedge-type insert clamp* yang mudah digunakan dan mekanisme *anti-fly out*.

## RUN OUT CONTROL

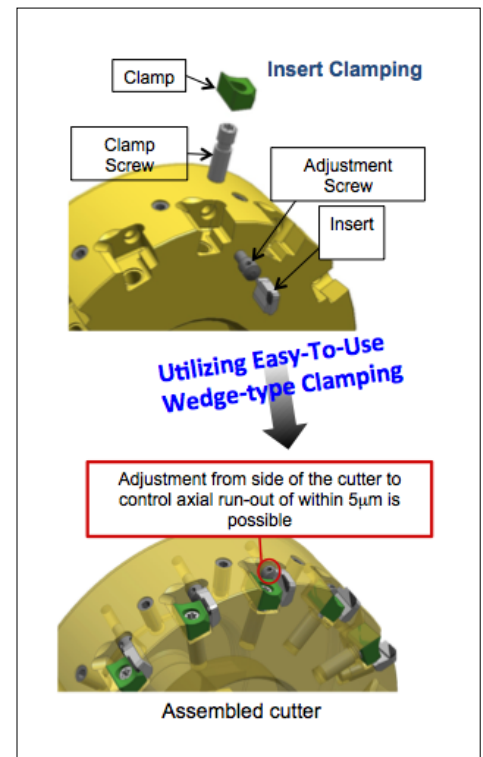


Possible to obtain run-out of within 5 µm

## RUN OUT ADJUSTMENT DURATION



Highly user-friendly design reduces set up time

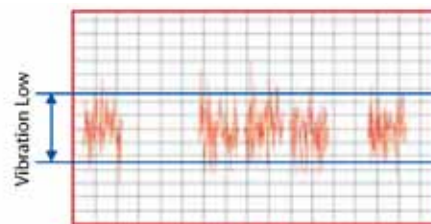


# GND SERIES SOLUTION

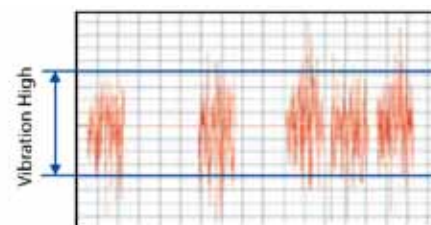


The GND Series has an excellent chip control with diverse series of chip breakers for grooving without step feeds and improving efficiency and tools' life. It suppresses chatter vibration with a single structure and special steel allowing for higher precision machining.

GND Series memiliki *chip control* yang sangat baik dengan beragam rangkaian pemutus *chip* untuk membuat alur (*grooving*) tanpa *step feeds* dan meningkatkan efisiensi dan masa penggunaan alat. Menekan getaran *chatter* dengan struktur tunggal dan baja khusus yang memungkinkan agar mesin memiliki presisi yang lebih tinggi.



**GND**  
GND Type



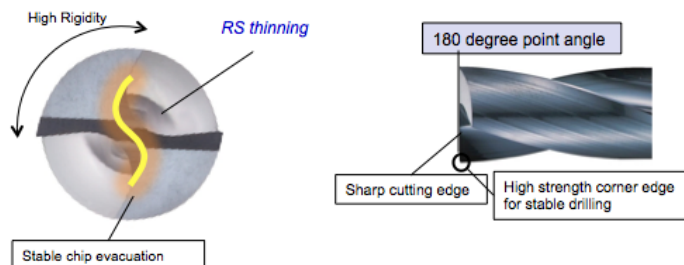
Conventional Tool (Unit Type)

# FLAT MULTI DRILL MDF SERIES



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## FEATURES

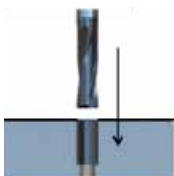


The flat multi drill is used mainly for counter boring and drilling on inclined and cylindrical surfaces and to make smaller burr at hole exit.

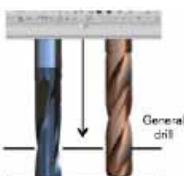
Flat Multi Drill digunakan terutama untuk *counter boring* dan *drilling* pada permukaan yang miring dan silinder, dan untuk merapikan tepi lubang hasil pengeboran.

## APPLICATION

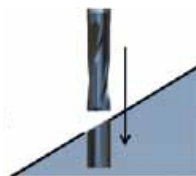
Counter boring



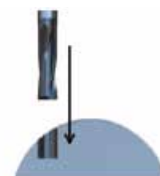
Drill for tapping



Drill for inclined face



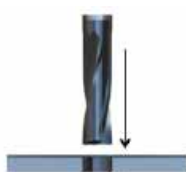
Drill for cylindrical face



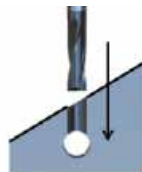
Intermittent Drilling



Smaller burr at hole exit



Smaller burr at cross hole



Burr

Recommended hole depth: 2xDc



# PUNCH INDUSTRY



Fully equipped with cutting-edge machinery to support customer's advanced requirements such as minimizing tolerances to submicron level.

Dilengkapi dengan mesin mutakhir untuk mendukung kebutuhan tingkat lanjut para pelanggan seperti meminimalkan toleransi level submikron.



Standard & special order parts for Plastic Molds



Standard & special order parts for Press Dies



Standard & special order parts for Cam Units



Standard & special order parts for Wear Plates



# TRANSFORMATION FROM MANUAL TO DIGITAL BORING

Manual

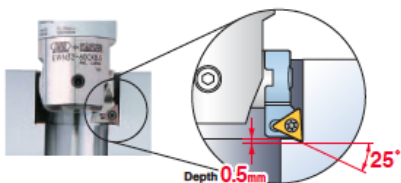
Easy to read digital display



## EWD Digital Boring Head

Innovative Digital Boring for high precision boring adjustment. Comes complete with power management battery, IP69K internal coating and external coating for protection against corrosion.

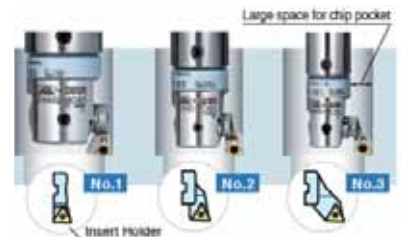
Innovative Digital Boring untuk *boring adjustment* dengan presisi tinggi. Dilengkapi dengan baterai yang bisa mengatur daya, IP69K *coating* dalam dan *coating* luar untuk perlindungan anti korosi.



Completes boring operation and undercut



Back boring is available to optimise opposing bore concentricity



Ideal chip evacuation by changing Insert Holder

# INNOVATION IN SMART COATING SOLUTION

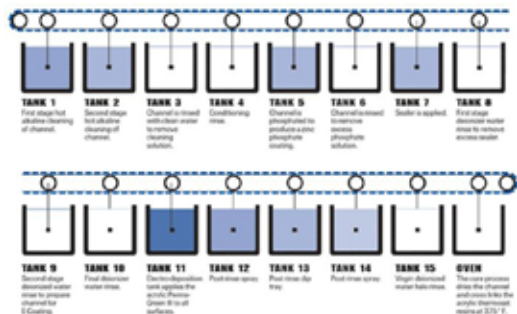
Environmentally friendly water based auto-deposition for uniform metal parts coating. The use of anodes or rectifiers in conventional industrial coatings are not required.

Aquence enhances corrosion prevention for vehicle frames or chassis components, the "Smart Coating Solution" for flexible supply chain with lower total cost of production.

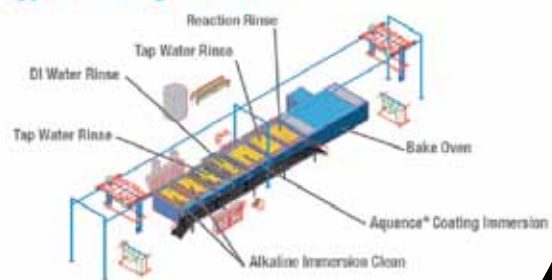
Pelapisan / coating berbasis air yang ramah lingkungan untuk material besi (FE), tanpa menggunakan anoda atau *rectifier* (alat pengubah tegangan).

Aquence berfungsi meningkatkan pencegahan korosi pada kerangka kendaraan / komponen besi lainnya dan merupakan "Solusi Coating Cerdas" yang dapat menekan biaya total produksi.

## 12 STAGE > 7 STAGE



Typical 7-Stage Hoist Line



Henkel

AQUENCE®



## Application Advantages

- Unlimited throwing (wetting) power with uniform coverage
- Coats fully assembled parts
- Inside & outside part protection
- No electrical contacts and special rack stripping required
- Lower energy and applied costs

## Keuntungan Penggunaan

- Dapat melapisi (wetting) secara merata
- Melapisi bagian yang sudah dirakit
- Perlindungan pada bagian dalam dan luar
- Tidak memerlukan aliran listrik dan rak yang khusus untuk stripping (pengupasan)
- Hemat energi dan biaya



# INNOVATIVE LUBRICATION TECHNOLOGY OF LHL SYSTEM

The next generation of innovative lubricant for crush and excessive abrasion prevention. LHL forms and maintains a strong oil film on rolling surfaces for an ideal lubrication effect resulting in precise timing for efficient lubricant volume distribution.

Generasi terbaru dari pelumas yang lebih inovatif untuk mencegah kerusakan dan abrasi yang berlebihan. LHL membentuk dan mempertahankan lapisan oli yang kuat pada permukaan yang bergerak untuk efek pelumasan yang ideal pada waktu yang tepat untuk mencapai efisiensi.



## Benefit of LHL System

### Advantages of Oil

Liquidity  
Excellent transport  
Property  
No Solidification



### Advantages of Grease

High Load - carrying capacity  
Wear resistance  
Water resistance  
Excellent oil film  
Maintenance property  
Adherent property

**COST SAVINGS** by reducing lubricant consumption, **AUTOMATION** through less lubricant refilling work, and **ENVIRONMENT CARE** from coolant degradation prevention for a cleaner working environment.

**HEMAT BIAYA** dengan mengurangi pemakaian pelumas / oli. **OTOMATISASI** yang mengurangi pengisian ulang pelumas dan **RAMAH LINGKUNGAN** dengan membuat coolant lebih bersih sehingga lingkungan kerja menjadi lebih baik.



# Comparison of annual lubricant consumption

The comparison between Oil and LHL usage on different Machining Centers.

Perbandingan antara penggunaan oli dan LHL pada Machining Centers yang berbeda.

machining centre		BT-30	BT-40	BT-50																										
Number of lubrication points	23	23	36																											
Lubricant	OIL#68 - LHL-X100	OIL#68 - LHL-X100	OIL#68 - LHL-X100																											
Cutting fluid	Soluble	Soluble	Soluble																											
Lubricant Consumption / Cycle	2.5 ml 1.45 ml	5.5 ml 2.5 ml	4.3 ml 8.8 ml																											
Comparison of Number of Annual Lubricant Consumption	<table><tr><th>Lubricant</th><th>Volume (gal)</th><th>Volume (l)</th></tr><tr><td>OIL</td><td>23.14</td><td>87.6</td></tr><tr><td>LHL</td><td>0.42</td><td>1.6</td></tr></table>	Lubricant	Volume (gal)	Volume (l)	OIL	23.14	87.6	LHL	0.42	1.6	<table><tr><th>Lubricant</th><th>Volume (gal)</th><th>Volume (l)</th></tr><tr><td>OIL</td><td>38.17</td><td>144.5</td></tr><tr><td>LHL</td><td>1.16</td><td>4.4</td></tr></table>	Lubricant	Volume (gal)	Volume (l)	OIL	38.17	144.5	LHL	1.16	4.4	<table><tr><th>Lubricant</th><th>Volume (gal)</th><th>Volume (l)</th></tr><tr><td>OIL</td><td>99.51</td><td>376.7</td></tr><tr><td>LHL</td><td>4.59</td><td>18.9</td></tr></table>	Lubricant	Volume (gal)	Volume (l)	OIL	99.51	376.7	LHL	4.59	18.9
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# MOBILE CONCEPT CAR



Henkel Loctite MCC, the first trusted training vehicle in South East Asia with a complete set of equipment and on the spot training for machine maintenances and production tools.

MCC also provide service training for Threadlocking, Retaining, Threadsealing, Gasketing, Bonding, Lubrication and Cleaning.



Henkel Loctite MCC merupakan kendaraan pelatihan pertama terpercaya di Asia Tenggara dalam serangkaian peralatan yang lengkap dan sarana pelatihan untuk pemeliharaan mesin dan alat untuk produksi.

MCC juga memberi layanan pelatihan untuk *Threadlocking* (penguncian baut/lem baut), *Retaining* (penguncian benda-benda silinder), *Threadsealing* (penyekatan kebocoran), *Gasketing* (penyekatan kebocoran pada sambungan pipa), *Bonding* (perekatan serba guna), *Lubrication* (pelumasan) dan *Cleaning* (pembersihan).



**Henkel** **LOCTITE**

# OUR PARTNERS



