

A detailed close-up view of the tool turret on a CNC auto lathe. The turret is a complex assembly of metal components, including various tool holders and a central spindle. Several tool holders are visible, some containing drill bits and others containing turning tools. The turret is mounted on a rotating mechanism, and the overall design is precision-engineered for high-speed machining.

# CNC AUTO LATHE WITH FIXING HEAD

走刀式CNC自動車床



**POLY GIM**



# 走刀式CNC自動車床

## 雙主軸，雙Y軸搭配360°旋轉之B軸

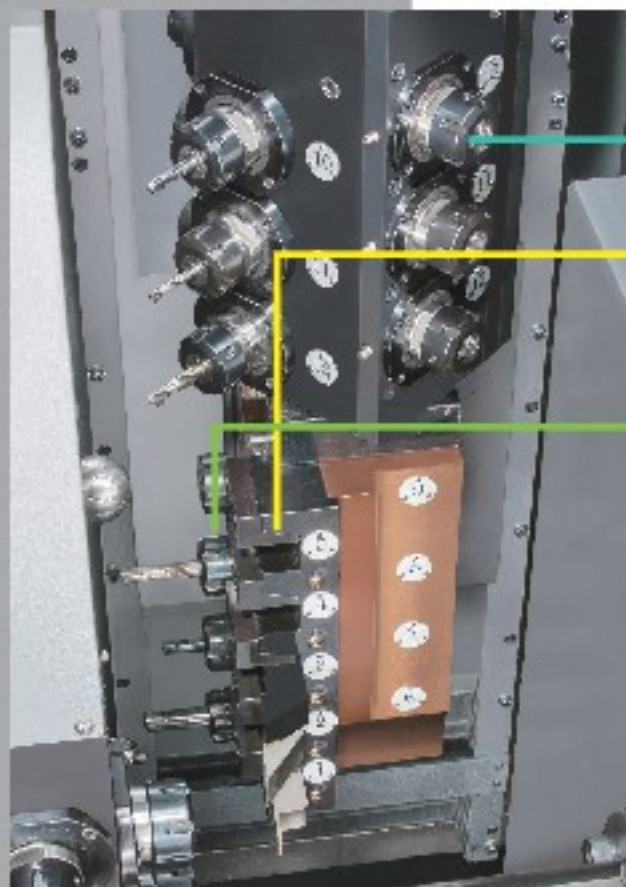
富格蘭SUPER CSL是一部多功能之車銑複合車削中心機

除了配合各種刀座，以滿足全方位的加工需求

更具有正、背主軸設計，讓任何複雜的工件都可以一次加工完成

### 主軸刀具系統

Tooling System for Main Spindle



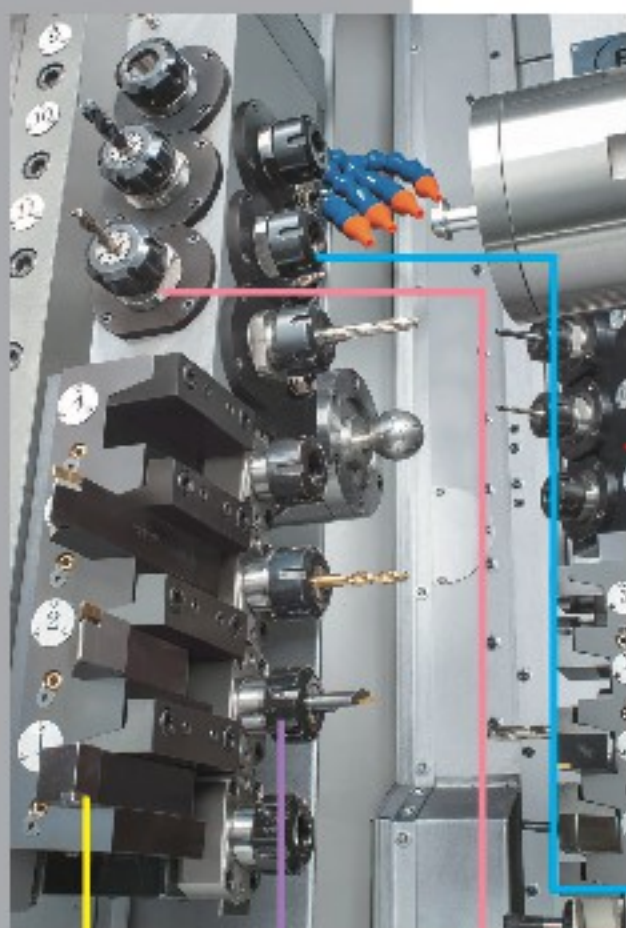
- ◀ B軸(360°旋轉) 動力刀具: 2支  
B-axis (360° rotation) Driven tools: 2 pcs
- ◀ 6支外徑刀具刀座(52/60型5支)  
6 pcs O D turning tool holder  
(type 52 / 60 5 pcs)
- ◀ 內徑刀: 4支 I D tools: 4 pcs

### 機器特性

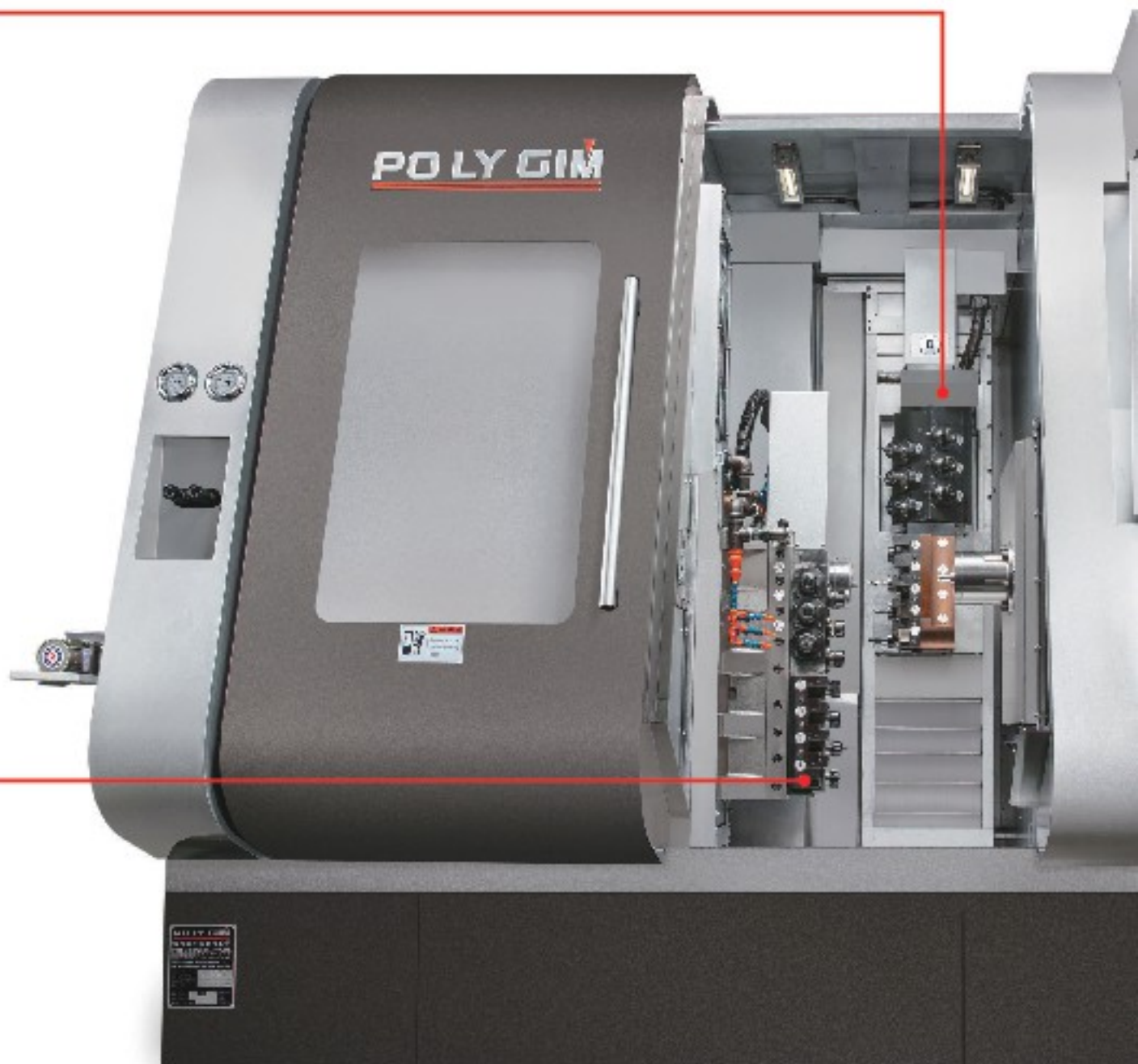
- 雙Y軸設計。
- B軸可作360°旋轉，適合任何角度之鑽孔、攻牙、銑削。
- B軸旋轉採用伺服馬達驅動，定位精度可達0.001。
- 主軸及背主軸轉速3,000rpm。
- 主軸及背主軸通孔徑65 mm。
- 主軸及背主軸都具有C軸功能，以執行輪廓加工。
- 所有移動軸皆採用耐重負荷滾柱型線性滑軌。
- 主軸頭為固定結構。
- 機器底座採用高級鑄鐵製成，經回火及應力消除處理，保證結構長期不變形。

### 背主軸刀具系統

Tooling System for Sub-spindle



- ◀ 端面動力刀具: 3支 Off-center driven tools: 3 pcs
- ◀ 側銑刀: 3支 Cross milling tools: 3 pcs
- ◀ 外徑刀: 4支 O D turning tools: 4 pcs
- ◀ 內徑刀: 4支 I D tools: 4 pcs



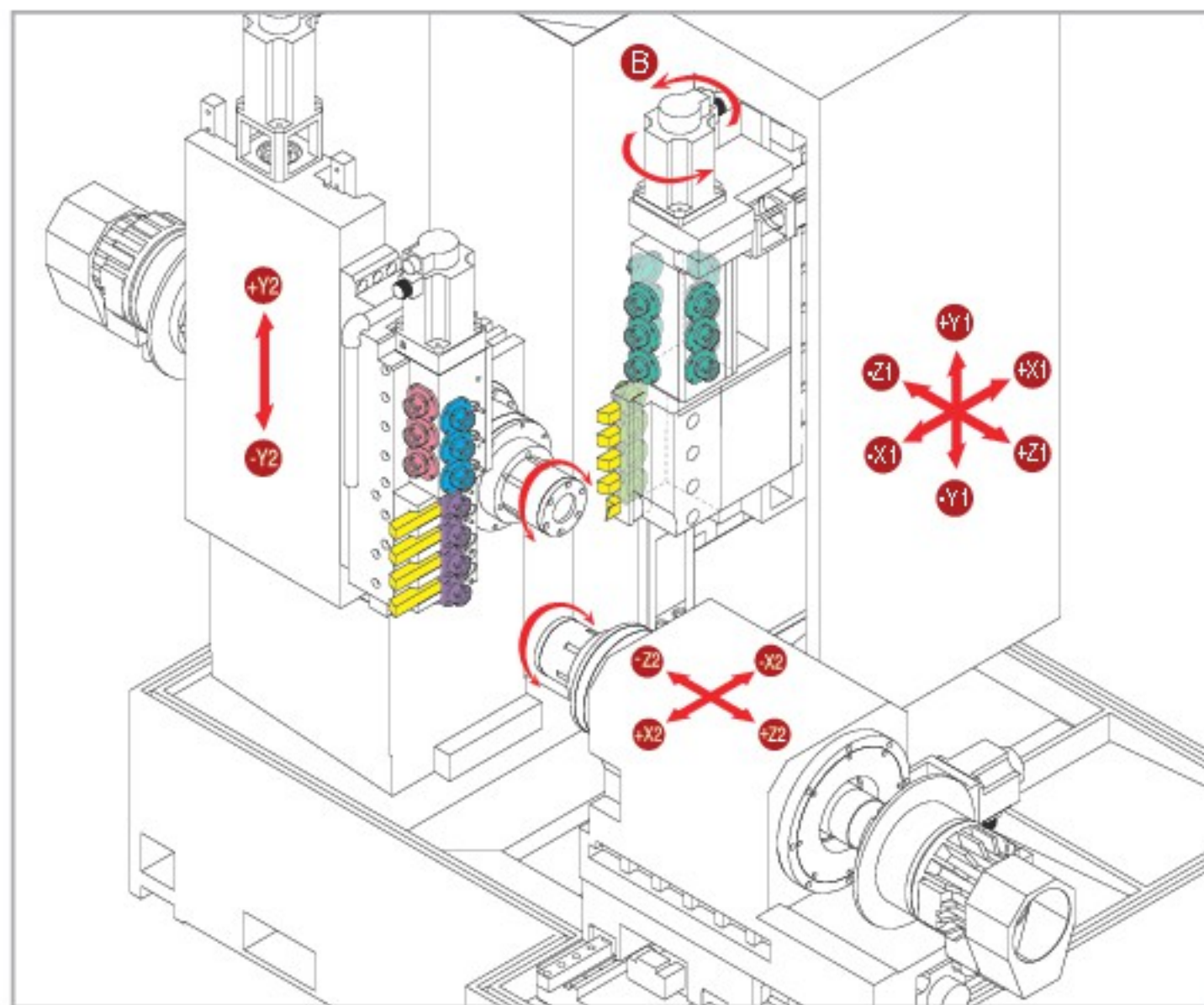
# CNC AUTO LATHE WITH FIXING HEAD

## Twin Spindle, Twin Y-axes and 360° Rotating B-axis




The SUPER CSL from Poly Gim is a multitasking turning center designed for Turning/milling operations. In addition to equip with various tool holders to meet versatile machining requirements, this machine is also designed with main and sub-spindle that allow any complicated part to be accomplished with only one setup.

### Machine Features





- Twin Y-axes design
- B-axis can be rotated 360° to perform any degree of drilling tapping and milling operations
- B-axis rotation is driven by a servo motor providing high indexing accuracy of 0.0001°
- Main and sub-spindle speed : 3 000 rpm
- Through hole diameter of main and sub-spindle: Ø65 mm
- Both main and sub-spindle have C-axes function for performing contour machining
- All moving axes are mounted with heavy duty roller type linear motion guides
- Fixed type spindle structure
- The machine base is manufactured from high quality cast iron tempered and stress relieved to eliminate structural deformation problems



#### 第一系統 SYSTEM 1

- |   |                    |   |
|---|--------------------|---|
|  | 6支外徑刀具刀座(52/60型5支) | 6 pcs O D turning tool holder (type 52 / 60 5pcs) |
|  | 4支正面內徑刀具刀座         | 4 pcs I D stationary tool hold                    |
|  | 12支斜角度鑽銑刀具刀座       | 12 pcs 360° B axis driven tool holder             |

#### 第二系統 SYSTEM 2

- |   |              |  |
|---|--------------|--|
|  | 4支外徑刀具刀座     | 4 pcs O D turning tool holder            |
|  | 4支正面內徑刀具刀座   | 4 pcs I D stationary tool holdr          |
|  | 3支側面鑽銑刀具刀座   | 3 pcs cross working driven tool holder   |
|  | 3支背面偏心鑽銑刀具刀座 | 3 pcs back off-center driven tool holder |

## 機械規格 MACHINE SPECIFICATIONS :

項目	ITEMS	SUPER CSL 42		SUPER CSL 52		SUPER CSL 60	
		第一系統 SYSTEM 1	第二系統 SYSTEM 2	第一系統 SYSTEM 1	第二系統 SYSTEM 2	第一系統 SYSTEM 1	第二系統 SYSTEM 2
加工範圍 Working Range	最大加工外徑 Max Machining Dia	Ø42mm		Ø52mm		Ø60mm	
	最大加工長度 Max Machining Length	part diameter x 3		part diameter x 3		part diameter x 3	
	最大鑽孔直徑 Max Drilling Capacity	Ø30mm		Ø30mm		Ø30mm	
工具系統 Tooling System	外徑刀具數 O.D. Turning Tool	6		5		5	
	外徑刀具尺寸 O.D. Turning Tool Dimension	Ø20x20x100		Ø25X25X100		Ø25X25X100	
	內徑刀具數 I.D. Tool	4		4		4	
	內徑刀具尺寸 I.D. Tool Dimension	Ø25mm		Ø25mm		Ø25mm	
	圓銼刀具數 Cross Tool (power-driven tool)			3		3	
	圓銼刀具尺寸 Cross Tool Dimension			16mm (ER.25)		16mm (ER.25)	
	圓銼刀具轉速 Cross Tool Speed			200~6000rpm		200~6000rpm	
	端圓動力刀具數 Off-center driven Tool			3		3	
	端圓動力刀具尺寸 Off-center driven Tool Dimension			16mm (ER.25)		16mm (ER.25)	
	端圓動力刀具轉速 Off-center driven Tool Speed			200~6000rpm		200~6000rpm	
	360°旋轉動力刀具數 360° Automatic Rotary Driven Tool	12		12		12	
	360°旋轉動力刀具尺寸 360° Automatic Rotary Driven Tool Dimension	16mm (ER.25)		16mm (ER.25)		16mm (ER.25)	
360°旋轉動力刀具轉速 360° Automatic Rotary Driven Tool Speed	200~6000rpm		200~6000rpm		200~6000rpm		
主軸 Spindle	主軸內徑 Spindle Hole Dia	Ø46mm		Ø60mm		Ø65mm	
	主軸轉速 Spindle speed	100~6000rpm		100~6000rpm		100~3000rpm	
背主軸 Sub-spindle	背主軸內徑 Sub-spindle Hole Dia			Ø46mm		Ø60mm	
	背主軸轉速 Sub-spindle Speed			100~6000rpm		100~6000rpm	
	背主軸最大鑽孔直徑 Sub-spindle Max Drilling Dia			Ø30mm		Ø30mm	
	X1, Y1, Z1軸 X1, Y1, Z1 axes	20cm/min		20cm/min		20cm/min	
	X2, Y2, Z2軸 X2, Y2, Z2 axes			20cm/min		20cm/min	
馬達 Motors	主軸馬達 Main Spindle	7.5/11 kw		7.5/11 kw		7.5/11 kw	
	背主軸馬達 Sub-spindle			7.5/11 kw		7.5/11 kw	
	Y1, Y2軸馬達 Y1, Y2 Axes	2.2 kw		2.2 kw		2.2 kw	
	X1, X2, Z1, Z2軸馬達 X1, X2, Z1, Z2 Axes	1.5 kw		1.5 kw		1.5 kw	
	B軸馬達 B Axis			1 kw		1 kw	
	動力刀具馬達 Rotary Tools	4 kw x 2		4 kw x 2		4 kw x 2	
	切削馬達 Coolant Pump	1 HP		1 HP		1 HP	
	潤滑油馬達 Lubrication	25w		25w		25w	
機械尺寸 Machine Dimensions	主軸中心高 Center Height	1125 mm		1125 mm		1125 mm	
	重量 Weight	7300 kgs		7400 kgs		7500 kgs	
	機械尺寸 Dimension	2900x2330x2270 mm		2900x2330x2270 mm		2900x2330x2270 mm	
	機械尺寸(有排屑機) Dimension (with chip conveyor)	3850x2330x2270 mm		3850x2330x2270 mm		3850x2330x2270 mm	
氣壓 Air	空氣壓力 Air Pressure	5kg/cm		5kg/cm		5kg/cm	
	空氣量 Air Supply	10L/min		10L/min		10L/min	

☆ 因長期研發，機械設計如有變更恕不另行通知。 ☆ We reserve the right to change the above design without prior notification.

## 標準附件 STANDARD ACCESSORIES :

- |            |                                       |                    |  |
|------------|---------------------------------------|--------------------|--|
| • 正主軸      | • Main spindle                        | • 系統1:             | • System 1   |
| • 背主軸      | • Sub-spindle                         | 6支外徑刀具刀座(52/60型5支) | 6 pcs O.D. turning tool holder (type 52 / 60 5pcs) |
| • 主/背軸C軸定位 | • C axis orientation for both spindle | 4支內徑刀具刀座           | 4 pcs I.D. Stationary Tool Holder                  |
| • 工作燈      | • Working Light                       | 12支360°旋轉動力刀具刀座    | 12 pcs 360° Automatic Rotary Driven Tool Holder    |
| • 冷卻系統     | • Coolant System                      | • 系統2:             | • System 2   |
| • 工件切斷檢測   | • Part off Detective Sensor           | 4支外徑刀具刀座(系統2)      | 4 pcs O.D. Turning Tool Holder                     |
| • 工件收集器    | • Part Catcher                        | 4支內徑刀具刀座(系統2)      | 4 pcs I.D. Stationary Tool Holder                  |
| • 主軸冷卻機    | • Spindle Coolant Device              | 3支側銑刀具刀座(系統2)      | 3 pcs Cross Working Driven Tool Holder             |
|            |                                       | 3支端面動力刀具刀座(系統2)    | 3 pcs Off-center Working Driven Tool Holder        |

## 特別附件 OPTION ACCESSORIES :

- |                      |                                 |
|----------------------|---------------------------------|
| • 鐵屑機+鐵屑桶            | • Chip Conveyor + Bucket        |
| • 冠通送料機 DH65L (1.5米) | • Fedek Bar Feeder DH65L (1.5M) |
| • 油溫冷卻機              | • Oil Coolant Device            |

# POLY GIM

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