

Handling Robot with top rated loading capacity

Forte SC700



700kg Payload

- Heaviest payload in the industry designed to be used to transfer large and heavy parts such as full underbody or body-in-white assemblies

Large Range Motion

- 4.8 meters vertical stroke, 7.0 meters horizontal stroke
- The extended vertical stroke allows for flexibility in the transfer line design and layout
- A perfect replacement option for the traditional dedicated transfer or elevator equipment

Powerful Wrist

- Large wrist torque for holding large tasks with fork hand from side

High Safety

- In-Line Link Mechanism between 3rd and 4th axes
- Increase arm stability during transfer or incline moves with heavy payloads

700 kg payload capacity for optimal handling of large and heavy loads

Forte SC700

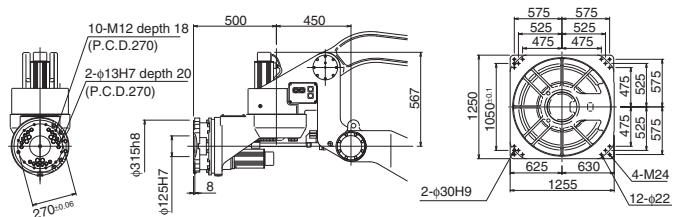
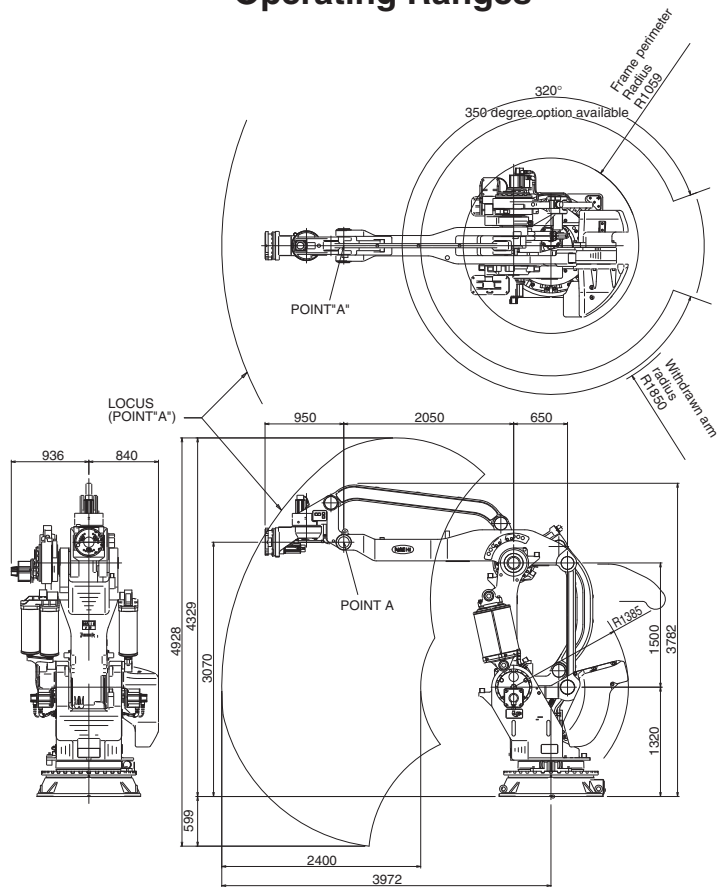
Basic Specification <SC700>

Item		Specification	
SC Series		SC700	
Structure		Articulated	
Number of Axes		6	
Drive		AC servo motor	
Max. Stroke	Arm	J1 Swivel	$\pm 2.79 \text{ rad } (\pm 160^\circ) * 1$
		J2 Back & Forth	$+1.48 - 0.79 \text{ rad } (+85 - 45^\circ)$
		J3 Up & Down	$+0.70 - 1.57 \text{ rad } (+40 - 90^\circ)$
	Wrist	J4 Bend	$+1.57 - 0.17 \text{ rad } (+90 - 10^\circ)$
		J5 Rotation 2	$\pm 2.18 \text{ rad } (\pm 125^\circ)$
		J6 Rotation 1	$\pm 0.17 \text{ rad } (\pm 10^\circ)$
Max. Velocity	Arm	J1 Swivel	0.79 rad/s (45°/s)
		J2 Back & Forth	0.52 rad/s (30°/s)
		J3 Up & Down	0.52 rad/s (30°/s)
	Wrist	J4 Bend	0.52 rad/s (30°/s)
		J5 Rotation 2	0.87 rad/s (50°/s)
		J6 Rotation 1	0.52 rad/s (30°/s)
Loading Weight		Wrist 700 kg	
Wrist Torque	J4 Bend	13800 N·m	
	J5 Rotation 2	3920 N·m	
	J6 Rotation 1	2940 N·m	
Wrist Moment of Inertia	J4 Rotation 2	3000 kg·m ²	
	J5 Bend	1800 kg·m ²	
	J6 Rotation 1	1000 kg·m ²	
Repeatability		$\pm 0.5 \text{ mm}$	
Ambient Temperature		0-45 °C	
Installation		Floor	
Robot Body Weight		7000 kg	

*1: Rotational axis operation range is extendable
 $\pm 3.05 \text{ rad } (\pm 175^\circ)$ Option

1rad=57.3°
 1N=0.102kgf

Operating Ranges



NACHI-FUJIKOSHI CORP.

Head Office

Toyama Plant 1-1-1 Fujikoshi-Honmachi, Toyama 930-8511, Japan Phone:076-423-5111 Fax:076-493-5211
Tokyo Head Office Shiodome Sumitomo Bldg. 17F 1-9-2 Higashi-shinbashi, Minato-ku, Tokyo 105-0021, Japan
 Phone:03-5568-5111 Fax:03-5568-5206

URL: <http://www.nachi-fujikoshi.co.jp> E-mail: webmaster@nachi-fujikoshi.co.jp

NACHI ROBOTIC SYSTEMS INC. (NRS)

22285 Roethel Drive, Novi, Michigan, 48375, U.S.A.
 Phone:+1-248-305-6545 Fax:+1-248-305-6542
 URL: <http://www.nachirobotics.com>

INDIANA BRANCH

715 Pushville Road, Greenwood, Indiana, 46143, U.S.A.
 Phone:+1-317-535-5527 Fax:+1-317-535-3659

NACHI CANADA INC.

89 Courtland Ave., Unit No.2, Concord, Ontario, L4K 3T4, CANADA
 Phone:+1-905-660-0088 Fax:+1-905-660-1146
 URL: <http://www.nachicanada.com/>

NACHI MEXICANA, S.A. DE C.V.

Gral. Mariano Arista No.54, Local 5, Col. Argentina C.P. 11230,
 Mexico D.F. MEXICO
 Phone:+52-55-5386-1396 Fax:+52-55-5386-1336

NACHI EUROPE GmbH

Wiesenstrasse 148, 41460 Neuss (Heerd), GERMANY
 Phone:+49-(0)2131-26830 Fax:+49-(0)2131-268330/268340
 URL: <http://www.nachi.de/>

NACHI (U.K.) LTD

Unit 7, Junction Six Industrial Estate, Electric Avenue, Birmingham
 B6 7JJ, U.K.
 Phone:+44-(0)121-250-1880 Fax:+44-(0)121-250-1889
 URL: <http://www.nachi.co.uk/>

FUJIKOSHI-NACHI (MALAYSIA) SDN. BHD.

No.17, Jalan USJ 21/3, 47630 UEP Subang Jaya, Selangor Darul
 Ehsan, MALAYSIA
 Phone:+60-(0)3-80247900 Fax:+60-(0)3-80235884

NACHI-FUJIKOSHI CORP.

THAILAND REPRESENTATIVE OFFICE

Chai-ho Wongwattwat Bldg. 889 Srinakarim Road, Samutprakarn,
 THAILAND 10270
 Phone:+66-2-748-7322-4 Fax:+66-2-748-7325

NACHI-FUJIKOSHI CORP.

KOREA REPRESENTATIVE OFFICE

2F Dongsan Bldg. 276-4, Sungsu 2GA-3DONG Sungdong-Ku. Seoul
 133-123, KOREA
 Phone:+82-(0)2-469-2254 Fax:+82-(0)2-469-2264

Caution

In case that an end user uses this product for military purpose or production of weapon, this product may be liable for the subject of export restriction stipulated in the Foreign Exchange and Foreign Trade Control Law. Please go through careful investigation and necessary formalities for export.

The specifications are subject to changes without notice.

- The rates, specification, dimensions are subject to change without notice for the purpose of improvement.
- If the final user of this product is military related or used for the manufacture of weapons, etc., it may be subject to "Foreign Exchange and Foreign Trade Control Law" regulations. (However, it will be applicable for AR controllers).
 When exporting, ensure to undergo the necessary examinations and proper export procedures.

CATALOG NO. R7313E-2

2005.11.X-ABE-ABE