**Part 1 – General**

1. **General description**
2. Supply and install operable Hydraulic Single Swing System HS100. Provide all labor, materials, tools, equipment and services to operate Hydraulic Single Swing System in accordance with provisions of contract documents.
3. Provide each Hydraulic Single Swing System as a complete unit by one manufacturer, including frames, panels, brackets, guides, hardware, operators and installation accessories to suit opening(s).
4. Complete shop drawings are to be provided prior to fabrication indicating construction and installation details.
5. **Quality assurance**
6. Wind Loading: Design and reinforce Hydraulic Single Swing System HS100 to withstand a wind loading pressure to comply with state and federal code requirements.
7. Preparation of the opening shall conform to the criteria set forth by UBC. 2000 International Building Code & 1999 Standard Building Code (ASCE 7-98).
8. **Product delivery, storage and handling**
9. Proper storage of partitions before installation and continued protection during and after installation will be the responsibility of the General Contractor.
10. **Related work by others**
11. Preparation of opening including jambs and header will be by General Contractor. Any deviation of site conditions contrary to approved shop drawings must be called to the attention of the architect.
12. All header, blocking, support structures and jambs as required.
13. Paint or other finishing, all trim and other materials adjoining door.
14. Provide hydraulic fluid in quantity necessary for proper system operation.
15. Other Requirements:

-Cladding hardware to be provided by others.

-Interior (if required) and exterior panel covering shall be specified; furnished by others.

1. **Warranty**
2. Frame/Panels, Hydraulic cylinders and controls shall be guaranteed for one year (1) against defects in material and workmanship from date of shipment to the job site.
3. Optional factory -supplied, manufacturer’s standard, aluminum, inside -sash retainer assembly and 20mm (7/8”) IG or 6mm (1/4”) glass shall be guaranteed for one year against defects in material and workmanship from date of shipment to the job site.
4. Retainer assembly, glass or other cladding/covering by others is not included in this warranty.

**Part 2 – PRODUCTS**

1. **Materials**
2. Product to be Hydraulic Single Swing System HS100 as furnished by Corflex Inc.
3. Construct panel/frame sections with structural steel tube (of ASTM-A500 grade minimum) framing to comply with applied wind code.

Optional:

[ ]  304 stainless steel tube framing for highly corrosive environments.

1. Frames shall be constructed of structural steel tubing and other structural steel shapes, and designed to the same loading requirements for live, dead and wind loads as the surrounding construction with a maximum CTC from vertical and horizontal member of 1524mm (60’’).
2. Panel frame shall be designed so that no center ‘’cane bolt’’ is required in the floor.
3. Panel frame shall not exceed 127 mm (5") thickness. Bottom truss (if required) shall not exceed 305 mm (12”) thickness.
4. Panel frames shall be factory-welded at all joints and connections, with smooth welds not to exceed 6mm (1/4”) thickness.
5. Panel frame shall be primed with rust-resistant red oxide primer to provide corrosion resistance and be prepared for field finishing if required.
6. Factory-Supplied neoprene seals/weather stripping will be shipped loose for field-install to protect against damage during transport.
7. **Operation**:

The single swing shall be extended / retracted in the position using a constant /hold push button or key switch , operating hydraulic cylinders mounted to the door window frame.

Hydraulic Single Swing System HS100 shall be operated by Hydraulic cylinders that are mechanically fastened to the panel frame.

1. Cylinder will be designed to carry the required loads during operation, open position and close position. Internal stops will be installed as not allow over-extension of the cylinders, therefore not allowing the system to open or close beyond its limit.
2. System speed shall be no less than 5486mm (18') per minute.
3. System shall be locked closed by means of the hydraulic cylinders providing a minimum of 1000 lbs of closing force.
4. **Power Operator**

 All electrical controls meet National Electrical Code Section 513. Standard voltage is 220V single phase.

1. Hydraulic power unit, 220 v, single phase, "up-down" push button or key switch stations for separate mounting.
2. Power unit to power (2) hydraulic cylinders which open and close the door/window. Power unit to be pre-wired, factory-tested and provided with supply cabled for final hook-up (by others).
3. ‘’Open-Close’’ control units will be wired for constant-hold operation.
4. Single phase (220V) or three phase (220/460V) electrical source to hydraulic power unit to be supplied by others (manufacturer’s standard).
5. Each door operator shall have thermal overload protection for the motor.
6. **Other requirements**
7. Cladding hardware to be provided by others.
8. Interior (if required) and exterior panel covering shall be specified: Furnished by Hydraulic Single Swing System manufacturer is optional.
9. **Finishes**
10. Entire door frame and panels shall be cleaned and primed, painted with rust-resistant red oxide primer, prepared for field finish (by others).

Optional finish

[ ]  Manufacturer’s standard RAL powder coated

1. **Available Accessories/Options**
2. Photo eyes or lead-edge sensor that stops (or stops and reverses) the downward movement of the door/window.
3. Warning horn/ Strobe light assembly
4. Remote receiver with transmitter

[ ]  Additional transmitters available

1. 24v DC battery back-up system
2. 3-Phase option
3. External, weather-resistant, ‘’open-close’’ control wired for constant hold.
4. Custom-designed and fitted, aluminium, ‘’inside-sash’’ or ‘’front-set’’ retainer system and custom-sized glazing.

Front

**PART 3 – EXECUTION**

1. **Safety**
2. Hydraulic power unit to have a manual emergency let-down valve for closing the system in case of a power outage.
3. Photo eyes or lead-edge sensor optional.
4. **Installation.**
5. The installation of the Hydraulic Single Swing System HS100 shall be by a contractor familiar with this type of installation and be in strict accordance with the approved build drawings and manufacturer's standard printed specifications, instructions, and recommendations. All moving parts will be left in good operating condition.
6. Permanent or temporary electric wiring shall be brought to the power unit location before installation. After the 50/50 System is installed, the general contractor assumes the responsibility of any damage to the system or system components during construction until the building is turned over to the owner.
7. Fill reservoir with Hydraulic fluid (provided by others). Use ATF for cold weather applications or #32 hydraulic fluid for all other applications.
8. **Cleaning**
9. All surfaces shall be wiped clean and free of handprints, grease, and soil.
10. **Training**
11. Installer shall demonstrate proper operation and maintenance procedures to owner's representative.
12. Operating keys and owner’s manuals shall be provided to owner's representative.